



REQUEST FOR PROPOSAL

Construction R24-T086KK

Date issued: July 2, 2024

TEJON REVITALIZATION

THE CITY OF COLORADO SPRINGS

Contact:

Kelli Kennedy, Contracts Specialist
107 N. Nevada, Suite 125
City of Colorado Springs, Colorado 80903
(719) 385-5287

kelli.kennedy@ColoradoSprings.gov



The City of Colorado Springs requests Fixed Unit Price(FUP) proposals, as detailed in this Request for Proposal (RFP), for Tejon Revitalization

This RFP is posted to Rocky Mountain E-Purchasing BidNet Direct and the City of Colorado Springs' Procurement Services Website. It is available for all vendors free of charge, following free registration, at the Rocky Mountain E-Purchasing BidNet Direct website.

SUBMITTALS FOR THIS PROJECT WILL ONLY BE ACCEPTED ON THE ROCKY MOUNTAIN E-PURCHASING BIDNET DIRECT PLATFORM.

Please login to the following website to register (Free Registration) to submit a bid for this project. All required documents will be uploaded to the website.

<https://www.bidnetdirect.com/>

BIDNET Support

800-835-4603

Estimated Project Magnitude: \$5,000,000.00 - \$7,500,000.00



SECTION INDEX

SECTION I PROPOSAL INFORMATION

SECTION II PROPOSAL CONTENT

SECTION III EVALUATION FACTORS

SECTION IV SPECIAL CONTRACT TERMS AND CONDITIONS/SPECIAL SOLICITATION PROVISIONS

SECTION V EXHIBITS

SECTION VI SCHEDULES



SECTION I – PROPOSAL INFORMATION

1.0 PROPOSAL INFORMATION

Section I provides general information to potential Offerors, such as proposal submission instructions and other similar administrative elements. This RFP is available on BidNet Direct under the Rocky Mountain E-Purchasing Group (www.BidNetDirect.com). All addenda or amendments shall be issued through BidNet Direct and may not be available through any other source.

1.1 RFP SCHEDULE OF EVENTS

The upcoming schedule of events is as follows:

<u>Event</u>	<u>Date</u>
Issue Request for Proposal	July 2, 2024
Pre-Proposal Conference	July 9, 2024 1:00 PM MST

We will hold a pre-proposal conference via Microsoft Teams. This meeting is not mandatory. However, all Offerors are encouraged to attend. Please use the link below to attend the meeting:

Microsoft Teams [Need help?](#)
[Join the meeting now](#)
Meeting ID: 294 597 954 454
Passcode: gSA9Jj

Dial in by phone
[+1 720-617-3426,,768020060#](tel:+17206173426768020060) United States, Denver
[Find a local number](#)
Phone conference ID: 768 020 060#

Cut Off Date for Questions July 16, 2024 2:00 PM MST

All questions shall be submitted electronically via the BidNet Direct Procurement Platform (www.bidnetdirect.com) to the following Contract Specialist. All questions must be received no later than **July 16, 2024 2:00 PM MST**

Requests for Information, support and questions shall be directed to:

Kelli Kennedy
Kelli.kennedy@coloradosprings.gov

DO NOT CONTACT ANY OTHER INDIVIDUAL AT THE CITY OF COLORADO SPRINGS REGARDING THIS SOLICITATION.
--

The only acceptable method of submitting questions is electronically via BidNet Direct. Faxes or physical mail delivery are not acceptable.



Proposal Due Date	July 31, 2024
Interviews (if applicable)	TBD
Award of Contract	September 2024
Notice to Proceed	September 2024

1.2 SUBMISSION OF PROPOSAL

Proposals are to be submitted electronically on BidNet Direct (www.bidnetdirect.com). Please review the submission requirements **well in advance** of submission date and time, and allow for ample time to upload each required document. It is recommended that Offerors begin the submission process at least one (1) day in advance of the proposal deadline.

Offerors are solely responsible to ensure all required proposal documents are uploaded and submitted correctly, and that a **confirmation number** is obtained upon successful submission. Customer support for BidNet Direct may be reached at (800) 835-4603.

*****NO LATE OFFERS WILL BE ACCEPTED*****

Date/Time: Proposals shall be received on or before 2:00 PM MST, Tuesday, July 31, 2024.

Identification of Proposal:

Proposals must be submitted to the BidNet Direct Procurement Platform (www.bidnetdirect.com). The solicitation number and Offeror name must be clearly marked within the proposal.

Proposal No.: R24-T086KK

Due Date and Time: July 31, 2024, 2:00 PM MST

Any offer that is submitted without being properly marked may be opened for identification prior to the deadline for receipt of proposals and then resealed.

1.3 NUMBER OF COPIES

Offerors shall submit **one (1)** softcopy to the BidNet Direct platform. Upon submission, all proposal documents shall become and remain the property of the City of Colorado Springs.

1.4 SPECIAL TERMS

Please note the following definitions of terms as used herein:

The term "City" means the City of Colorado Springs.

The term "Contractor" or "Consultant" means the Offeror whose offer is accepted and is awarded the contract to provide the products or services specified in the RFP.

The term "Offer" means the proposal.



The term “Offeror” means the person, firm, or corporation that submits a formal proposal or offer and that may or may not be successful in being awarded the contract.

The term “Project” refers to Tejon Revitalization Project.

The term “Request for Proposal” or “RFP” means this solicitation of a formal, negotiable proposal/offer. Any offer that is accepted will be the offer that is deemed by the City of Colorado Springs to be most advantageous in terms of the criteria designated in the RFP.

1.5 RFP OBJECTIVE

The objective of this RFP is to provide sufficient information to enable qualified Offerors to submit written proposals to the City of Colorado Springs. The RFP is not a contractual offer or commitment to purchase products or services. The Offeror may present options and variables to the scope while still meeting the minimum requirements of this solicitation. Innovative proposals/solutions are encouraged and considered in the selection and/or award.

All information included in proposals must be legible. Any and all corrections and or erasures must be initialed by Offeror. Each proposal shall be accompanied by a cover letter signed by an authorized representative of the Offeror. The contents of the proposal submitted by the successful Offeror may become part of any contract awarded as a result of this solicitation.

1.6 CONFIDENTIAL OR PROPRIETARY INFORMATION

If an Offeror believes that parts of an offer are confidential, then the Offeror must so specify. The Offeror must include in bold letters the term “CONFIDENTIAL” on that part of the offer which the Offeror believes to be confidential. The Offeror must submit in writing specific detailed reasons, including any relevant legal authority, stating why the Offeror believes the material to be confidential. Vague and general claims as to confidentiality will not be accepted. The City of Colorado Springs will be the sole judge as to whether a claim is acceptable. Decisions regarding the confidentiality of information will be made when requests are made to make the information public. All offers and parts of offers, which are not marked as confidential, will automatically be considered public information after the contract is awarded. The successful offer may be considered public information even though parts are marked confidential.

1.7 AMENDMENTS

Amendments to this RFP may be issued at any time prior to the time set for receipt of proposals. Offerors are required to acknowledge receipt of any amendments issued to this RFP by returning a signed copy of each amendment issued. Signed copies of each amendment must be received on or before the time set for receipt of offers.

The City of Colorado Springs will post all amendments on BidNet Direct under the Rocky Mountain E-Purchasing Group (www.BidNetDirect.com). It is the Offeror's responsibility to check the website for posted amendments or contact the Contracts Specialist listed in RFP §1.1 to confirm the number of amendments which have been issued.



1.8 WITHDRAWAL OR MODIFICATION OF OFFERS

Any Offeror may modify or withdraw an offer in writing at any time prior to the deadline for submission of an offer.

1.9 ACCEPTANCE

Any offer received and not withdrawn shall be considered an offer, which may be accepted by the City of Colorado Springs based on initial submission without discussions or negotiations.

By submitting an offer in response to this solicitation, the Offeror agrees that any offer it submits may be accepted by the City of Colorado Springs at any time within 90 calendar days from the date of submission deadline.

The City of Colorado Springs reserves the right (a) to reject any or all offers,(b) to waive informalities and minor irregularities in offers received, and/or (c) to accept any portion of an offer if deemed in the best interest of the City of Colorado Springs. Failure of the Offeror to provide in its offer any information requested in the RFP may result in rejection of the offer for non-responsiveness.

1.10 PROPOSAL PREPARATION COST

The cost of proposal preparation is not a reimbursable cost. Proposal preparation shall be at the Offeror's sole expense and is the Offeror's total and sole responsibility.

1.11 AWARD

The City of Colorado Springs intends to make an award using the evaluation criteria listed in this RFP to determine the best value, considering all factors and criteria in the proposals submitted. Best value means the expected outcome of an acquisition that, in the City's estimation, provides the greatest overall benefit in response to the requirements detailed in the RFP. The City of Colorado Springs reserves the right to reject any or all offers and to not make an award.

1.12 PERFORMANCE PERIOD

The performance period of any contract awarded as a result of this RFP is anticipated to be as follows:

Issue of Notice to Proceed, Estimated to be September 15, 2024, through May 15, 2025

1.13 DEBRIEFING

Offerors not selected may request a debriefing on the selection process as well as a discussion of the strengths and weaknesses of their proposal upon receipt of notification that their offer was not selected.

A debriefing may be scheduled by contacting the Contracts Specialist listed above. The Contracts Specialist must receive a written request for debriefing no later than ten (10) calendar days after issuance of a notification that the Offeror's offer was not selected.



1.14 SUBSTANTIVE PROPOSALS

By responding to this RFP, the Offeror certifies (a) that Offeror's proposal is genuine and is not made in the interest of, or on behalf of, an undisclosed person, firm, or corporation; (b) that Offeror has not directly or indirectly induced or solicited any other offerors to put in a false or sham proposal; (c) that Offeror has not solicited or induced any other person, firm, or corporation to refrain or abstain from proposing an offer or proposal; (d) that Offeror has not sought by collusion to obtain for themselves any advantage over any other offerors or over the City of Colorado Springs; and (e) that Offeror has not violated or caused any person to violate, and shall not violate or cause any person to violate, the City's Code of Ethics contained in Article 3, of Chapter 1 of the City Code and in the City's Procurement Rules and Regulations.

1.15 OFFEROR'S QUALIFICATIONS

Each Offeror must complete Exhibit 1 – Qualifications Documents.

No contract will be awarded to any Offeror who is in arrears to the City, upon any debt or contract, or who is in default, in any capacity, upon any obligation to the City or is deemed to be irresponsible or unreliable by the City based on past performance.

1.16 NON-COLORADO ENTITIES

If Offeror is a foreign entity, Offeror shall comply with C.R.S. section 7-90-801, "Authority to transact business or conduct activities required," and section 7-90-802, "Consequences of transacting business or conducting activities without authority."

Before or at the time that the contract is awarded to an entity organized or operating outside the State of Colorado, such entity shall obtain authorization to do business in the State of Colorado, designate a place of business herein, and appoint an agent for service of process.

Such entity must furnish the City of Colorado Springs with a certificate from the Secretary of the State of Colorado to the effect that a certificate of authority to do business in the State of Colorado has been issued by that office and is still valid. The entity shall also provide the City with a certified copy of the designation of place of business and appointment of agent for service of process from the Colorado Secretary of State, or a letter from the Colorado Secretary of State that such designation of place of business and agent for service of process has been made.

1.17 PROCUREMENT RULES AND REGULATIONS

All projects advertised by the City of Colorado Springs are solicited in accordance with the City's Procurement Rules and Regulations. The City's Procurement Rules and Regulations can be reviewed and/or downloaded from the City website www.coloradosprings.gov. The Contracts Specialist may also provide a softcopy of the Rules and Regulations upon request. Any discrepancies regarding conflicting statements, decisions, irregularities, clauses, or specifications will be rectified utilizing the City's Procurement Rules and Regulations, when applicable. It is the Offeror's responsibility to advise the Contracts Specialist listed in this RFP of any perceived discrepancies prior to the date and time the offer is due.



1.18 FAIR TREATMENT OF OFFERORS

The City Procurement Services Division shall be responsible for ensuring the procurement of products, commodities, and services are in a manner that affords all responsible businesses a fair and equal opportunity to compete. If an Offeror believes that a procurement is not conducted in a fair and equitable manner, the Offeror is encouraged to inform the City Procurement Services Manager as soon as possible.

1.19 ORDER OF PRECEDENCE

Any inconsistency in this solicitation shall be resolved by giving precedence in the following order:

- A. Sections I-IV of this Solicitation
- B. Special Construction Terms and Conditions
- C. General Construction Terms and Conditions
- D. Exhibits
- E. Plans
- F. Detailed Plans
- G. Standard Drawings
 - a. Calculated dimensions will govern over scaled dimensions.
- H. Special Specifications
- I. Standard Specifications

1.20 SALES TAX

The successful Offeror, if awarded a contract, shall apply to the Colorado Department of Revenue for a tax-exempt certificate for this project. The certificate does not apply to City of Colorado Springs Sales and Use Tax which shall be applicable and should be included in all proposals. The tax exempt project number and the exemption certificate only apply to County, PPRTA (Pikes Peak Rural Transportation Authority), and State taxes when purchasing construction and building materials **to be incorporated into this project**.

Furthermore, the exemption **does not** include or apply to the purchase or rental of equipment, supplies or materials that **do not become a part of the completed project or structure**. In these instances, the purchase or rental is subject to full taxation at the current taxation rate.

The Offeror and all subcontractors shall include in their Offer City of Colorado Springs Sales and Use Tax on the work covered by the offer, and all other applicable taxes.

Forms and instructions can be downloaded at <https://coloradosprings.gov/sales-tax>. Questions can be directed to the City Sales Tax Division at (719) 385-5903 or Construction_SalesTax@coloradosprings.gov.

Our Registration Numbers are as follows:

City of Colorado Springs

Federal I.D.: 84-6000573

Federal Excise: A-138557

State Sales Tax: 98-03479



1.21 BOND REQUIREMENTS

The Offeror is advised that the successful Offeror shall be required to furnish to the City of Colorado Springs and Colorado Department of Transportation, upon award, one copy of each: Performance Bond, Labor and Materials Payment Bond, and a Maintenance Bond in the amount of **110%** of the total contract within ten (10) calendar days after notification of award of a contract. The cost of all bonds shall be included in Offeror's offer.

Bonds shall:

- A. Be for the full amount of the contract price.
- B. Guarantee the Contractor's faithful performance of the work under the contract, and the prompt and full payment for all labor and materials involved therein.
- C. Guarantee protection to the City of Colorado Springs against liens of any kind.
- D. Be, when a surety bond is furnished, from a surety company operating lawfully in the State of Colorado and be accompanied with an acceptable "Power-of-Attorney" form attached to each bond copy.
- E. Be issued from a surety company that is acceptable to the City of Colorado Springs.
- F. Be submitted using the forms in the Exhibit section of this solicitation.

1.22 INTERPRETATION OF QUANTITIES IN PROPOSAL FORM

Except as otherwise provided in this RFP, the quantities appearing in the proposal form are estimates prepared for the comparison of proposals.

After award, payment to the Contractor will be made in accordance with the following procedures:

- A. Measurement required. When the Contract requires measurement of work performed or material furnished, payment will be made for actual quantities measured and accepted.
- B. Measurement Not Required. When the Contract does not require quantities of work performed or materials furnished to be measured, payment will be made for the quantities appearing in the Contract.

The estimated quantities of work to be performed and materials to be furnished may be increased, decreased or omitted.

1.23 INTERPRETATION OF PLANS AND SPECIFICATIONS

Any change to proposal forms, plans, or specifications prior to the opening of proposals will be issued by the City in the form of an Amendment. Certain individuals may be named in the RFP that have authority to provide information, clarification or interpretation to Offerors prior to opening of proposals. Information obtained from persons other than those named individuals is invalid and shall not be used for proposal purposes.

1.24 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK.

The Offeror is expected to examine the site of the proposed work, the proposal, plans, specifications, supplemental specifications, special provisions, and Contract forms, before submitting a proposal. The submission of a proposal will be considered conclusive evidence that



the Offeror has made this examination and is aware of the conditions to be encountered in performing the work according to the Contract.

Boring logs and other records of subsurface investigations, if they exist, are available for inspection by Offerors. These logs and records are made available so that all Offerors have access to identical subsurface information that is available to the City, and is not intended as a substitute for personal investigation, interpretation, and judgment of the Offerors.

The City does not warrant the adequacy of boring logs and other records of subsurface investigations, and such information is not considered to be a part of the Contract. When a log of test borings is included in the subsurface investigation record, the data shown in the individual log of each test boring apply only to that particular boring and are not intended to be conclusive as to the character of any material between or around test borings. If Offerors use this information in preparing a proposal, it is used at their own risk, and Offerors are responsible for all conclusions, deductions, and inferences drawn from such information.

Offerors may conduct subsurface investigations at the project site at Offeror's expense; the City will afford them this opportunity prior to public opening of proposals.

If an Offeror discovers an apparent error or omission in the proposal form, estimated quantities, plan, or specifications, the Offeror shall immediately notify the Contracting Specialist to enable the City to make any necessary revisions. The City may consider it to be detrimental to the City for an Offeror to submit an obviously unbalanced unit proposal price.

1.25 COMBINATION OR CONDITIONAL PROPOSALS

If an RFP is issued for projects in combination and separately, the Offeror may submit proposals either on the combination or on separate units of the combination. The City reserves the right to make awards on combination or separate proposals to the advantage of the City. Combination proposals will be considered, only when specified.

1.26 ANTI-COLLUSION AFFIDAVIT

The Offeror by signing their proposal submitted to the City is certifying that the Offeror has not participated in any collusion or taken any action in restraint of free competitive bidding. This statement may also be in the form of an affidavit provided by the City and signed by the Offeror. The original of the signed anti-collusion affidavit, if separately required and provided with the RFP, shall be submitted with the proposal. The proposal will be rejected if it does not contain the completed anti-collusion affidavit.

1.27 MATERIAL GUARANTY

The successful Offeror may be required to furnish a complete statement of the origin, composition, and manufacture of materials used in the construction of the work together with samples, which will be tested for conformance with Contract requirements.

1.28 CDOT PRE-QUALIFIED CONTRACTOR REQUIREMENT

Contractors responding to this solicitation **DO NOT** need to be on the CDOT Pre-Qualified Contractors List



1.29 DAVIS BACON WAGES

Davis Bacon wages **DO-NOT** apply to this solicitation

1.30 DBE GOAL

This is a federally-assisted construction project. As described in the CDOT DBE Standard Special Provision, the bidder shall make good faith efforts to meet the following contract DBE goal: **0%**
DBE PARTICIPATION

1.31 ON THE JOB TRAINING

This project shall meet the CDOT OJT Standard Special Provisions and the bidder shall meet the following OJT goal: **0 Hours**

1.32 CDOT Forms and Submittals shall be submitted as follows:

- A. ALL BIDDERS (If these forms are not submitted, the proposal is considered non-responsive and shall be rejected)
 - 1. CDOT Form 606-Anti-Collusion Affidavit
 - 2. CDOT Form 1413 Bidders List
 - 3. CDOT Form 1414 Anticipated DBE Participation

- B. AWARDED VENDOR
 - 1. CDOT Form 605 Contractors Performance Capability Statement
 - 2. CDOT Form 621 Assignment of Anti-Trust Claims
 - 3. CDOT Form 718 Underutilized DBE Good Faith Effort Document
 - 4. CDOT Form 1415 Commitment Confirmation
 - 5. CDOT Form 1416 Good Faith Effort Report



SECTION II – PROPOSAL CONTENT

2.0 PROPOSAL CONTENT

Section II provides instructions regarding the format and content required for proposals submitted in response to this solicitation.

2.1 PROPOSAL FORMAT

Offeror's written proposal should include concise, but complete, information, emphasizing why the Offeror is best or best qualified to provide the required services. The Offeror's written proposal should include the information in the format outlined below and must be limited to no more than twenty-five (25) pages. **A page shall be defined as 8-1/2" x 11"; single sided, with one inch margins, and a minimum font of Times New Roman 10.** The only exception to the 8-1/2" x 11" paper size is the proposed project schedule. It may be submitted on 11" x 17" paper. Each 11" x 17" page for the schedule shall be counted in the overall page limitations above. Each section of the proposal should be labeled to clearly follow the requirements sections identified in this section of the RFP. The following listed Exhibits must be filled out and returned with the proposal and are not counted against the page limit:

Exhibit 1	Qualifications Document (Solicitation Certification, Representations and Certifications, Qualifications Statement, Exceptions & Minimum Insurance Requirement)
Exhibit 5	CDOT Forms
Schedule A	Bid Tab

2.2 COVER LETTER

The cover letter shall be no more than three pages. The cover letter shall contain at least the following information.

- A. RFP Number and Project Name.
- B. Statement that the Offeror is qualified to perform the work.
- C. Certification Statement that the information and data submitted are true and complete to the best knowledge of the individual signing the letter.
- D. Name, telephone number, email address, and physical address of the individual to contact regarding the proposal.
- E. The signature of an authorized principal, partner, or officer of the Offeror.

2.3 PROPOSAL CERTIFICATION

The Offeror must fill out and submit Exhibit 1 Qualifications Document with its Proposal.

2.4 ORGANIZATIONAL BACKGROUND AND OVERVIEW

The Offeror must provide a brief history and overview of its company and its organizational structure, with special emphasis on how this project will fit within that structure. Also include principal place of business location(s), office locations, size of firm, and financial stability (annual



public reports or private financial statements shall be included in an appendix or under separate cover; private financial information will be kept confidential by the City).

2.5 PROPOSAL NARRATIVE/TECHNICAL AND MANAGEMENT APPROACH

In the proposal narrative/technical and management approach section, the Offeror should explain what the Offeror will do and how it will perform if awarded a contract.

2.5.1 TECHNICAL AREA

The Offeror must explain its overall solution, considering the scope of work or statement of work provided. The content must include, but not necessarily be limited to, the following information.

A. Understanding of and Compliance with Technical Requirements

In the Technical Area, the Offeror should address each work area in sufficient detail to demonstrate a clear and full understanding of the work necessary to complete the project. The proposal should not merely parrot the requirements of the RFP. Further, the Offeror should provide evidence of sufficient planning to ensure the work is completed on schedule and within budget. It is highly recommended that the Offeror provide sufficient content and detail to answer completely the following questions:

1. Does the proposal demonstrate a firm understanding of the requirements and goals of the Statement of Work, as well as industry standards and reasonable expectations for a company in the industry?
2. Does the proposal fully and completely address each requirement and goal of the Statement of Work?
3. Does the proposal provide solutions to indicate that requirements and goals will be met on schedule?
4. Does the technical solution seem realistic?
5. Does it generally appear that the Offeror knows and thoroughly understands the business and the RFP requirements?

B. Project Approach

In the Technical Area, the Offeror should clearly present proposed solutions and indicate that it has performed adequate planning to accomplish project tasks as defined in the Statement of Work. Innovations, efficiencies, and detailed specifics are all encouraged.

The Offeror must at least address the following areas:

1. Construction phasing and traffic control for the project. Explain the phases, traffic control for each phase, and the logic in the construction phasing.
2. Erosion and sediment control during all phases of construction as well as post construction efforts through permit closure.
3. Coordination with utilities. Discuss Offeror's understanding of the key utility relocations required for this project and how Offeror will coordinate and phase construction to both facilitate and accommodate those relocations and the



constraints that they impose.

4. Schedule Management. Discuss Offeror's approach to schedule management including updating and reporting progress of the work.
5. Quality Control. Discuss Offeror's quality control plan, processes and approach to ensure that the City receives a quality product.
6. Safety. Discuss Offeror's approach and commitment to safety for both construction workers and the public traveling through the construction site.
7. Potential issues that Offeror foresees with this project and how Offeror would make adjustments if encountered. Describe factors limiting construction phasing flexibility and potential remedies.

It is highly recommended that the Offeror provide sufficient content and detail to answer completely the following questions.

1. Does the proposal include a complete plan to accomplish each requirement, including subcontracting (if applicable)?
2. Does the proposal demonstrate that appropriate and qualified personnel and equipment will be provided to carry out the requirement?
3. Is the proper level of effort directed toward each requirement? Does the level of effort look unrealistically low or unreasonably high?

2.5.2 MANAGEMENT AREA

The Offeror must explain its method of managing the work to be performed. The content must include, but no necessarily be limited to, the following information.

A. Program Management Controls

In the Management Area, the Offeror should provide:

1. A plan of operation, to include management of personnel, workload, schedule, and budget
2. An organization chart which demonstrates clear and effective lines of authority, responsibility, and communication for management, supervisory, and technical personnel. The plan should address which job classification or personnel will be assigned to each task and how that determination is made. Basic human resource management concepts should be addressed, including hiring, firing, discipline, incentive plans, etc.
3. If the Offeror plans to subcontract more than 10% of the work, include information on how the Offeror plans to manage its subcontractors.
4. A detailed construction schedule for the project showing the key construction activities and how they will meet or improve the City's timeframe and maximize construction efficiency to provide the best value to the City and minimize impacts to the public. The schedule shall be based on the Offeror's understanding and approach to the work as addressed above. Schedules should address controls to ensure the project will remain on schedule and on budget. Schedules submitted for this project shall assume a start date of September 15, 2024.



It is highly recommended that the Offeror provide sufficient content and detail to answer completely the following questions.

1. Does the proposal address the issues above in sufficient detail to demonstrate a sophisticated and mature management control system?
2. Are program management controls consistent with the technical portion of the proposal, especially regarding schedule and level of effort?
3. Do the plan and controls indicate that the Offeror will obtain, keep, and efficiently utilize high-quality personnel?
4. Does the proposal explain how the Offeror will address corrective actions in case of delays (e.g. expediting materials, additional resources, etc.)?
5. Does the proposal explain how the Offeror will remain within schedule and budget?

B. Past Performance/Relevant Experience and Key Personnel

In the Management Area, the Offeror should provide at least three references or name contracts demonstrating that it successfully provided services/products that are the same or similar to those required in the RFP. The proposal should adequately explain how the projects were completed on schedule and within budget. It is highly recommended that the Offeror provide sufficient content and detail to answer completely the following questions.

1. Does the proposal include at least three references or past performance citations?
2. Are the references or past performance citations relevant to the requirements of the Statement of Work of the RFP?
3. Does the Offeror explain how they were successful on the projects provided as past performance?
4. Does the Offeror apply the past performance to the City requirement in such a way as to demonstrate added value due to experience?

C. Key Personnel

In the Management Area, resumes must be provided for all personnel considered key, as required by the RFP. Resumes do not count toward the page limit. It is highly recommended that the Offeror provide sufficient content and detail to answer completely the following questions. Explain how the key personnel were related to the projects cited as relevant past performance.

1. Does the Offeror provide complete resumes, including education, experience, background information, accomplishments, and other pertinent information?
2. Does the Offeror provide resumes for all key personnel, as required by the RFP?
3. Do the resumes demonstrate adequate professional, technical, and management levels to accomplish the work effectively and efficiently?

2.6 PRICE AREA

The price must be all-inclusive and include all unit costs for material, labor, other direct costs (e.g. travel), indirect costs (i.e. overhead and general and administrative costs), and profit/fee. Offers must include sufficient detail to allow insight into the fairness and reasonableness of the price.



In addition, although price may not be the most important factor, it is still very important to the City of Colorado Springs. The Offeror's pricing must be competitive as compared to the budget amount, market pricing in the industry, and the pricing of other Offerors. It is highly recommended that the Offeror provide sufficient content and detail to answer completely the following questions.

1. How does the price compare to the industry competition?
2. If low, is it unrealistically low?
3. If high, is there demonstrated added value for the additional cost?
4. Is the price itemized, so that it is clear how the cost was built? If so, do the costs look appropriate for the task?
5. Does the Offeror leave applicable costs out of the calculations? For instance, some will say travel is not included and will be an extra cost. This should be considered when comparing to other Offerors.
6. Are there additional costs not addressed that the City would incur if the Offeror were awarded the contract? If so, include those costs when comparing to the budget amount and the competition.

2.7 PROPOSAL PRESENTATION

Presentation is an important factor. Offerors should provide a highly professional product, which is complete, accurate, easily understood, and effectively presented.

2.8 EXCEPTIONS

All Offerors must complete Exhibit 1, Qualifications Document, and return it with their proposal. Some terms and conditions are not negotiable. Exceptions may be grounds for rendering the proposal unacceptable without further discussions.

2.9 INSURANCE REQUIREMENTS

All Offerors must complete Exhibit 1, Qualifications Document, and return with their proposal. Lack of responsiveness in this area may be grounds for rendering the proposal unacceptable without further discussions.



SECTION III – EVALUATION FACTORS

3.0 EVALUATION AND AWARD

Section III provides information regarding evaluation criteria and scoring. It also includes information regarding proposal selection and award of the resultant contract.

3.1 EVALUATION CRITERIA

3.1.1 TECHNICAL AREA – UNDERSTANDING OF AND COMPLIANCE WITH TECHNICAL REQUIREMENTS

See Section II - Item 2.5.1A

3.1.2 TECHNICAL AREA – PROJECT APPROACH

See Section II - Item 2.5.1B

3.1.3 MANAGEMENT AREA – PROGRAM MANAGEMENT CONTROLS

See Section II - Item 2.5.2A

3.1.4 MANAGEMENT AREA – PAST PERFORMANCE/RELEVANT EXPERIENCE/KEY PERSONNEL

See Section II – Item 2.5.2B

3.1.5 PRICE/COST AREA – PRICE/COST

See Section II – Item 2.6

3.1.6 PROPOSAL PRESENTATION AREA – PROPOSAL PRESENTATION

See Section II – Item 2.7

3.1.7 EXCEPTIONS AND INSURANCE

See Section II – Items 2.8 and 2.9

3.2 RANKING

A. The order of ranking or importance in the evaluation shall be as follows:

First: Management Area
Second: Technical Area
Third: Price/Cost Area
Fourth: Proposal Presentation Area

B. Possible scores for each criterion shall be as follows:

5 – Exceptional
4 – Very Good
3 – Satisfactory
2 – Marginal
1 – Unacceptable



C. Definitions for scoring are as follows:

Exceptional – The proposal meets all and exceeds many of the requirements of the RFP to the benefit of the City, and the information provided is of such a nature as to answer all questions without need for further inquiry. There are no corrective actions required, and no compromise of requirements is needed.

Very Good – The proposal meets all and exceeds some of the requirements of the RFP to the benefit of the City, and the information provided is of such a nature as to answer most questions without need for further inquiry. There are no corrective actions required, and no compromise of requirements is needed.

Satisfactory – The proposal meets the requirements of the RFP, and the information provided is of such a nature as to answer many questions without need for further inquiry. There are very few corrective actions required, and no substantive compromise of requirements is needed.

Marginal – The proposal does not meet some of the requirements of the RFP, and the information provided is of such a nature as to require some clarification. There are some corrective actions required, and some non-substantive compromise of requirements is needed.

Unacceptable – The proposal does not meet many of the requirements of the RFP, and the information provided is of such a nature as to require much clarification. There are many corrective actions required, and substantive compromise of requirements is needed.

D. Area Scoring

The score for each area will be determined by multiplying the sum of the criteria in each area by the area evaluation factor. The area evaluation factors are as follows:

Management Area: 35
Technical Area: 30
Price/Cost Area: 25
Proposal Presentation Area: 10

E. Final/Overall Scoring

The final proposal score will be determined by adding the area scoring. The sum of the area scores will be the final/overall score.

3.3 SELECTION COMMITTEE

A selection committee will review all proposals. Through this process, the City will determine which proposals are acceptable or unacceptable. The City will notify, in writing, the Offerors whose proposals are deemed to be unacceptable. Those Offerors offering proposals deemed to be acceptable by the City will be evaluated and scored by the selection committee. This scoring will determine which Offerors are considered to be in the competitive range and may be the basis for an award decision without further steps.



If the selection committee elects not to award based upon evaluation scoring, it may engage in a forced elimination process. To inform this process, it may require oral presentations or interviews with the Offerors considered to be in the competitive range. If oral presentations or interviews are conducted, they may also be scored, or they may simply be considered as information supporting the forced elimination process. The selection committee may request revisions to the proposal from each of the Offerors at the conclusion of the interviews. The intent of the forced elimination process is to reach consensus. The decision will be based on all relevant factors, and based upon perception of best value. The final decision may or may not exactly reflect scoring ranking.

The City also reserves the right to request best and final offers from all Offerors at any point in the proposal evaluation process.

3.4 AWARD OF CONTRACT

It is anticipated that there will be negotiations or discussions with Offerors. However, the City reserves the right to award without negotiations or discussions. The City also reserves the right to award a contract not necessarily or merely to the Offeror with the most advantageous price. The City intends to award to the Offeror that demonstrates the best value to the City and the most substantiated ability to fulfill the requirements contained in this Request for Proposal. A contract prepared by the City will be finalized and/or negotiated with the successful Offeror. In the event a contract cannot be negotiated with the top ranked Offeror, the City may enter into negotiations with the second highest ranked Offeror, or the City may decide to call for new proposals. Immediately after the notice of award, the successful Offeror will begin planning in conjunction with the City of Colorado Springs staff (to be designated by the City) to ensure fulfillment of all its obligations. The successful Offeror may be expected to attend regular meetings as required by the City to assist in the preparation for startup.



SECTION IV – SPECIAL CONTRACT TERMS AND CONDITIONS

4.0 SPECIAL CONTRACT TERMS AND CONDITIONS/SPECIAL SOLICITATION PROVISIONS

In addition to the special contract terms and conditions listed below, the City's sample contract, see Exhibit 2, contains contract terms and conditions.

ADA Standards: It is a requirement of the City and required by law that any new or renovated facility meet the scoping and technical requirements of the 2010 ADA Standards for newly designed and constructed or altered local government facilities, public accommodations, and facilities. The selected Design Professional shall design the project so it both conforms to the 2010 ADA Standards, as applicable and as amended, and is readily accessible to and usable by individuals with disabilities. The selected Contractor shall build the project so it both conforms to the 2010 ADA Standards, as applicable and as amended, and is readily accessible to and usable by individuals with disabilities. Facilities that are designed, constructed, and/or altered facilities that meet or exceed the IBC 2015/ANSI A117.1 2009, used by Pikes Peak Regional Building Department, will be accepted as meeting or exceeding the 2010 ADA Standards.

A. PPRTA-FUNDED PROJECTS SPECIAL PROVISIONS (REVISED AUGUST 17, 2016)

PPRTA Funding Special Provision: Joint Contracts – City of Colorado Springs (“the City”) and the Pikes Peak Rural Transportation Authority (“the PPRTA”).

This Contract is a joint contract between the Contractor/Consultant (hereinafter “Contractor”), the City, and the PPRTA. The parties therefore agree to the following:

- A. Conflicts: This PPRTA Special Provision shall supersede any contrary provision of this Contract.
- B. Parties: The Contractor acknowledges and understands that this Contract is funded in whole or in part by the PPRTA and administered by the City. Both the City and the PPRTA are parties to this Contract.
- C. Payments: The Contractor acknowledges and understands that all payments under this contract shall be made to the Contractor by the PPRTA. PPRTA funding obligations shall be paid by PPRTA warrants. In the event there is joint City/PPRTA funding, then payment to the Contractor shall consist of warrants from the City and warrants from the PPRTA. The Contractor agrees to accept all payments made or proffered by the PPRTA under this Contract.
- D. Bonds: All bonds under this Contract shall include the City and the PPRTA as Obligees.
- E. Insurance: All insurance policies provided by the Contractor or by any sub-contractor for any work pursuant to contracts with the Contractor pursuant to this Contract shall name both the City and the PPRTA as additional insureds and shall waive all rights of subrogation, in accordance with the terms of this Contract, against both the City and the PPRTA.



- F. Law: This Contract is subject to and shall be interpreted under the law of the State of Colorado, and the Charter, City Code, Ordinances, Rules and Regulations of the City of Colorado Springs, Colorado, a Home Rule City; the Resolutions and Rules and Regulations of the PPRTA. Court venue and jurisdiction shall exclusively be in the Colorado District Court for El Paso County, Colorado. The Parties agree that this Contract shall be deemed to have been made in, and the place of performance is deemed to be in, the City of Colorado Springs, El Paso County, State of Colorado. The Contractor shall ensure that the Contractor and the Contractor's employees, agents, officers and subcontractors are familiar with, and comply with, applicable Federal, State, and Local laws and regulations as now written or hereafter amended.
- G. Appropriation and Availability of Funds: In accordance with the Colorado Constitution, Article X, Section 20, and the City Charter, performance of the City's obligations under this Contract is expressly subject to appropriation of funds by the City Council for this Contract and the availability of those appropriated funds for expenditure. Further, in the event that funds are not appropriated in whole or in part sufficient for performance of the City's obligations under this Contract, or appropriated funds may not be expended due to Constitutional or City Charter spending limitations, then the City and the PPRTA may terminate this Contract without compensation to the Contractor. Performance of the PPRTA's obligations under this Contract is expressly subject to appropriation of funds by the PPRTA and the availability of those funds for the payment of obligations incurred under this Contract. Further, in the event that PPRTA funds are not appropriated in whole or in part sufficient for performance of the PPRTA's obligations under this Contract, or appropriated funds may not be expended due to legal limitations or non-availability, then the City and the PPRTA may terminate this Contract without compensation to the Contractor.
- H. Indemnification: Subject to the provisions of Section 13-50.5-102(8), C.R.S., to the extent applicable to this Contract, the Contractor agrees that the Contractor shall indemnify, defend and hold harmless the PPRTA, its officers, employees and agents, from and against any and all loss, damage, injuries, claims, cause or causes of action, or any liability whatsoever resulting from, or arising out of, or in connection with the Contractor's obligations or actions under this Contract. To the extent the terms of Section 13-50.5-102(8), C.R.S., are applicable to this Contract, the Contractor and the PPRTA hereby agree for the purposes of this Section that: (i) "the degree or percentage of negligence or fault attributable" to the Contractor as used in Section 13-50.5-102(8)(a), C.R.S., shall be conclusively determined by a trial court at the state or federal level and (ii) the term "adjudication" used in Section 13-50.5-102(8)(c), C.R.S., shall mean a trial court order at the state or a federal level.
- I. Governmental Immunity: Nothing in this Contract or in any actions taken by the PPRTA pursuant to this Contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections or other provisions of the Colorado Governmental Immunity Act, Sections 24-10-101, *et. Seq.*, C.R.S.



- J. Warranties: All warranties provided by the Contractor under or pursuant to this Contract to the City shall also apply to the PPRTA.
- K. Final Payment: Final payment under this Contract shall be made in accord with the terms of this Contract, except that final payment shall be made by the PPRTA, and the making and acceptance of final payment shall constitute a waiver of all claims by the Contractor against the City and the PPRTA.
- L. Termination or Default of Contract: In all Contract provisions giving the City the right to terminate, for convenience or otherwise, or giving the City rights in the event of default by the Contractor, the term City shall also apply to the PPRTA.
- M. Contract Changes: Any changes to the Contract, including but not limited to additions and/or deletions, which are not insignificant to the scope, design and requirements of the Contract shall be subject to prior approval of the PPRTA.

CLAUSES FOR CONTRACTS SUBJECT TO FEDERAL REQUIREMENTS

1. EQUAL EMPLOYMENT OPPORTUNITY

To view the City of Colorado Springs EEOP (Equal Employment Opportunity Plan) Utilization Report, the link is www.coloradosprings.gov/eeop.

During the performance of this Contract, the Contractor agrees as follows:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- C. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.



E. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

F. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

G. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

H. Subcontracts. Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.

I. Incorporation by reference. The equal opportunity clause may be incorporated by reference in all Government contracts and subcontracts, including Government bills of lading, transportation requests, contracts for deposit of Government funds, and contracts for issuing and paying U.S. savings bonds and notes, and such other contracts and subcontracts as the Deputy Assistant Secretary may designate.

J. Incorporation by operation of the order. By operation of the order, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the order and the regulations in this part to include such a clause whether or not it is physically incorporated in such contracts and whether or not the contract between the agency and the contractor is written.

K. Adaptation of language. Such necessary changes in language may be made in the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings. [43 FR 49240, Oct. 20, 1978, as amended at 62 FR 66971, Dec. 22, 1997]

2. EQUAL EMPLOYMENT OPPORTUNITY REPORTS AND OTHER REQUIRED INFORMATION

A. Requirements for prime contractors and subcontractors.



1. Each prime contractor and subcontractor shall file annually, on or before the September 30, complete and accurate reports on Standard Form 100 (EEO-1) promulgated jointly by the Office of Federal Contract Compliance Programs, the Equal Employment Opportunity Commission and Plans for Progress or such form as may hereafter be promulgated in its place if such prime contractor or subcontractor (i) is not exempt from the provisions of these regulations in accordance with § 60-1.5; (ii) has 50 or more employees; (iii) is a prime contractor or first tier subcontractor; and (iv) has a contract, subcontract or purchase order amounting to \$50,000 or more or serves as a depository of Government funds in any amount, or is a financial institution which is an issuing and paying agent for U.S. savings bonds and savings notes: *Provided*, That any subcontractor below the first tier which performs construction work at the site of construction shall be required to file such a report if it meets requirements of paragraphs (a)(1) (i), (ii), and (iv) of this section.

2. Each person required by § 60-1.7(a)(1) to submit reports shall file such a report with the contracting or administering agency within 30 days after the award to him of a contract or subcontract, unless such person has submitted such a report within 12 months preceding the date of the award. Subsequent reports shall be submitted annually in accordance with § 60-1.7(a)(1), or at such other intervals as the Deputy Assistant Secretary may require. The Deputy Assistant Secretary may extend the time for filing any report.

3. The Deputy Assistant Secretary or the applicant, on their own motions, may require a contractor to keep employment or other records and to furnish, in the form requested, within reasonable limits, such information as the Deputy Assistant Secretary or the applicant deems necessary for the administration of the order.

4. Failure to file timely, complete and accurate reports as required constitutes noncompliance with the prime contractor's or subcontractor's obligations under the equal opportunity clause and is ground for the imposition by the Deputy Assistant Secretary, an applicant, prime contractor or subcontractor, of any sanctions as authorized by the order and the regulations in this part.

B. *Requirements for bidders or prospective contractors—*

1. *Certification of compliance with Part 60-2: Affirmative Action Programs.* Each agency shall require each bidder or prospective prime contractor and proposed subcontractor, where appropriate, to state in the bid or in writing at the outset of negotiations for the contract: (i) Whether it has developed and has on file at each establishment affirmative action programs pursuant to Part 60-2 of this chapter; (ii) whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; (iii) whether it has filed with the Joint Reporting Committee, the Deputy Assistant Secretary or the Equal Employment Opportunity Commission all reports due under the applicable filing requirements.

2. *Additional information.* A bidder or prospective prime contractor or proposed subcontractor shall be required to submit such information as the Deputy Assistant Secretary requests prior to the award of the contract or subcontract. When a determination has been made to award the contract or subcontract to a specific contractor, such



contractor shall be required, prior to award, or after the award, or both, to furnish such other information as the applicant or the Deputy Assistant Secretary requests.

C. *Use of reports.* Reports filed pursuant to this section shall be used only in connection with the administration of the order, the Civil Rights Act of 1964, or in furtherance of the purposes of the order and said Act.[43 FR 49240, Oct. 20, 1978, as amended at 62 FR 66971, Dec. 22, 1997]

3. CONSTRUCTION WAGE RATE REQUIREMENTS (DAVIS BACON) (From FAR 52.222-6)

The term “Contracting Officer” herein shall refer to the City of Colorado Springs Contracting Specialist assigned to this contract.

A. Definition.-“Site of the work”-

1. Means-

a. *The primary site of the work.* The physical place or places where the construction called for in the contract will remain when work on it is completed.

b. *The secondary site of the work, if any.* Any other site where a significant portion of the building or work is constructed, provided that such site is-

1. Located in the United States; and
2. Established specifically for the performance of the contract or project;

2. Except as provided in paragraph (3) of this definition, includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided-

a. They are dedicated exclusively, or nearly so, to performance of the contract or project; and

b. They are adjacent or virtually adjacent to the “primary site of the work” as defined in paragraph (a)(1)(i), or the “secondary site of the work” as defined in paragraph (a)(1)(ii) of this definition;

3. Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular Federal contract or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the Project site, are not included in the “site of the work.” Such permanent, previously established facilities are not a part of the “site of the work” even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of a contract.

B. All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached



hereto and made a part hereof, or as may be incorporated for a secondary site of the work, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Any wage determination incorporated for a secondary site of the work shall be effective from the first day on which work under the contract was performed at that site and shall be incorporated without any adjustment in contract price or estimated cost. Laborers employed by the construction Contractor or construction subcontractor that are transporting portions of the building or work between the secondary site of the work and the primary site of the work shall be paid in accordance with the wage determination applicable to the primary site of the work.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Construction Wage Rate Requirements statute on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (e) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.

Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

The wage determination (including any additional classifications and wage rates conformed under paragraph (c) of this clause) and the Construction Wage Rate Requirements (Davis-Bacon Act) poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the primary site of the work and the secondary site of the work, if any, in a prominent and accessible place where it can be easily seen by the workers.

C. The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

1. The work to be performed by the classification requested is not performed by a classification in the wage determination.
2. The classification is utilized in the area by the construction industry.
3. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the:



Wage and Hour Division
Employment Standards Administration
U.S. Department of Labor
Washington, DC 20210

The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

The wage rate (including fringe benefits, where appropriate) determined pursuant to paragraphs (c)(2) and (c)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

D. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

E. If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Construction Wage Rate Requirements statute have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. CONTRACT WORK HOURS AND SAFETY STANDARDS (from FAR 52.222-4)

The term "Contracting Officer" herein shall refer to the City of Colorado Springs Contracting Specialist assigned to this contract.

The term "Government" herein shall refer to the City of Colorado Springs and any interested federal or state entity.

A. *Overtime requirements.* No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.



B. *Violation; liability for unpaid wages; liquidated damages.* The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards statute (found at 40 U.S.C. chapter 37).

C. *Withholding for unpaid wages and liquidated damages.* The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards statute

D. Payrolls and basic records.

1. The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Construction Wage Rate Requirements statute.

2. The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

E. *Subcontracts.* The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts that may require or involve the employment of laborers and mechanics and require subcontractors to include these provisions in any such lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

5. CLEAN AIR ACT

By signing this Contract, the Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). Further, the Contractor agrees to include this clause in all subcontracts in excess of \$150,000.



6. DEBARMENT AND SUSPENSION

By signing this Contract, the Contractor certifies to the best of its knowledge and belief that it and its principals:

- A. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- B. Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, falsification or destruction of records, making false statements, or receiving stolen property;
- C. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- D. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

7. BYRD ANTI-LOBBYING AMENDMENT

By signing this Contract, the Contractor certifies that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Further, the Contractor certifies that it has not engaged in lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. The Contractor must require the same certification from all subcontractors with subcontracts valued in excess of \$100,000 under this Contract.

8. SMALL BUSINESS REQUIREMENTS

The Contractor must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

Affirmative steps must include:

- A. Placing qualified small and minority businesses and women's business enterprises on subcontract solicitation lists.
- B. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources for subcontracting.



C. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises.

D. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.

E. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

9. PROCUREMENT OF RECOVERED MATERIALS

The Contractor must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired by the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

10. ANTI-KICKBACK PROCEDURES

A. Definitions.

1. "Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

2. "Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

3. "Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

4. "Prime Contractor" as used in this clause, means a person who has entered into a prime contract with the United States.

5. "Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

6. "Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.



7. "Subcontractor," as used in this clause,

a. Means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and

b. Includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

8. "Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

B. The 41 U.S.C. chapter 87, Kickbacks, prohibits any person from --

1. Providing or attempting to provide or offering to provide any kickback;

2. Soliciting, accepting, or attempting to accept any kickback; or

3. Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

C. The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Attorney General.

The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

The Contracting Officer may

1. offset the amount of the kickback against any monies owed by the United States under the prime contract and/or

2. direct that the Prime Contractor withhold from sums owed a subcontractor under the prime contract the amount of the kickback. The Contracting Officer may order that monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

The Contractor agrees to incorporate the substance of this clause, including subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed \$150,000.



11. ENERGY EFFICIENCY IN ENERGY CONSUMING PRODUCTS

A. Definition. As used in this clause--

1. "Energy-efficient product"—

a. Means a product that—

i. Meets Department of Energy and Environmental Protection Agency criteria for use of the Energy Star trademark label; or

ii. Is in the upper 25 percent of efficiency for all similar products as designated by the Department of Energy's Federal Energy Management Program.

2. The term "product" does not include any energy-consuming product or system designed or procured for combat or combat-related missions (42 U.S.C. 8259b).

B. The Contractor shall ensure that energy-consuming products are energy efficient products (i.e., ENERGY STAR® products or FEMP-designated products) at the time of contract award, for products that are—

1. Delivered.

2. Acquired by the Contractor for use in performing services at a Federally controlled facility.

3. Furnished by the Contractor for use by the Government.

4. Specified in the design of a building or work, or incorporated during its construction, renovation, or maintenance.

C. The requirements of paragraph (b) apply to the Contractor (including any subcontractor) unless:

1. The energy-consuming product is not listed in the ENERGY STAR® Program or FEMP; or

2. Otherwise approved in writing by the Contracting Officer.

D. Information about these products is available for—

1. ENERGY STAR® at <http://www.energystar.gov/products>; and

2. FEMP at http://www1.eere.energy.gov/femp/procurement/eep_requirements.html.

12. BUY AMERICAN—CONSTRUCTION MATERIALS

A. Definitions. As used in this clause—



1. “Commercially available off-the-shelf (COTS) item”—
 - a. Means any item of supply (including construction material) that is—
 - i. A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);
 - ii. Sold in substantial quantities in the commercial marketplace; and
 - iii. Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and
 - b. Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

2. “Component” means an article, material, or supply incorporated directly into a construction material.

3. “Construction material” means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

4. “Cost of components” means—
 - a. For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
 - b. For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

5. “Domestic construction material” means—
 - a. An unmanufactured construction material mined or produced in the United States;
 - b. A construction material manufactured in the United States, if—
 - i. The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.



b. The construction material is a COTS item.

6. “Foreign construction material” means a construction material other than a domestic construction material.

7. “United States” means the 50 States, the District of Columbia, and outlying areas.

a. Domestic preference.

i. This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item. (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

ii. This requirement does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows:

b. The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that—

i. The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

ii. The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

iii. The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

8. Request for determination of inapplicability of the Buy American statute.

a. Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including—

i. A description of the foreign and domestic construction materials

ii. Unit of measure

iii. Quantity

iv. Price

v. Time of delivery or availability



- vi. Location of the construction project
- vii. Name and address of the proposed supplier
- viii. A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

b. A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS PRICE COMPARISON

Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
Item 1:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
Item 2:			
Foreign construction material	_____	_____	_____
Domestic construction material			

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]



[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]

13. INFRASTRUCTURE INVESTMENT AND JOBS ACT, BUILD AMERICA, BUY AMERICA

THIS SECTION ONLY APPLIES TO PROJECTS THAT HAVE A TOTAL COST OF \$250,000 OR MORE AND THAT INCLUDE THE USE OF IRON OR STEEL.

Recipients of an award of Federal financial assistance from a program for infrastructure are hereby notified that none of the funds provided under this Agreement may be used for a project for infrastructure unless:

A. All iron and steel used in the PROJECT are produced in the United States--this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

B. All manufactured products used in the PROJECT are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

C. All construction materials (excludes cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives) are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States.

D. The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

E. Definitions:

“Construction materials” includes an article, material, or supply—other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives 46—that is or consists primarily of:



1. Non-ferrous metals
2. Plastic and polymer-based products (including polyvinyl/chloride, composite building materials, and polymers used in fiber optic cables)
3. Glass (including optic glass)
4. Lumber; or drywall



SECTION V – EXHIBITS

5.0 EXHIBITS

Exhibit 1	Qualifications Document
Exhibit 2	Sample Contract
Exhibit 3	Evaluation Scoresheet
Exhibit 4	Sample Bonds
Exhibit 5	CDOT Forms



EXHIBIT 1 QUALIFICATIONS DOCUMENT

Follows this Page



SOLICITATION QUALIFICATIONS DOCUMENTS

Please complete all sections of this document including the Solicitation Certification, Representations and Certifications, Qualification Statement, Exceptions, Minimum Insurance Requirements, and Signature Page.

Please submit all completed documents with your bid/ proposal and sign the Minimum Insurance Requirements and Signature Page.

Solicitation:

Solicitation Number:

Firm Name:

Date:

Address:

Federal Tax ID #:

Tax Classification:

Sole Proprietorship

Partnership

C Corporation

S Corporation

LLC

Nonprofit

DUNS Number:

OFFEROR REPRESENTATIVE

Offeror has appointed the following as the offeror's representative and contact for all questions or clarifications in regard to this offeror.

Name:

Telephone:

E-mail:



SOLICITATION CERTIFICATION

PLACE OF BUSINESS

Company's Principal Place of Business

Does Offeror Have an established office or facility in Colorado Springs? YES NO

If Yes, Indicate address below if different from principal place of business.

Year Facility Was Established

Percent of Work to be performed from principal place of business.

Percent of Work to be performed from Colorado Springs Facility

INSURANCE

Indicate your ability to provide a certificate of insurance evidencing the required coverage types and limits specified in Minimum Insurance Requirements Exhibit. (The certificate of insurance must reflect the City of Colorado Springs as an Additional Insured, as applicable.)

Initial Here

Indicate your Ability to Comply with the following requirements:

The City and Pikes Peak Rural Transportation Authority (PPRTA) shall be added as an Additional Insured to all liability policies

YES

NO



Your property and liability insurance company is licensed to do business in Colorado

YES

NO

Your property and liability insurance company has an AM best rating of not less than B+ and/or VII

YES

NO

Worker's Compensation Insurance is carried for all employees and covers work done in Colorado.

YES

NO

Provide the name of your property and liability insurance company here:

FINANCIAL STATEMENTS

Current Financial Statements are not required for this solicitation.

Current Financial Statements are required for this solicitation. Please include financial statements as a separate document with your proposal.

Initial Here

COMPLETED PROPOSAL

Provide the completed and signed proposal. (Proposals must be identified as specified in this RFP document). All required Exhibits are attached.

Initial Here



REPRESENTATIONS AND CERTIFICATIONS

1. INSURANCE REQUIREMENTS

Offeror shall comply with all insurance requirements and will submit the Insurance Certificates prior to performance start date. If limits are different from the stated amounts, Offeror shall explain variance. Certain endorsements and “additionally insured” statements may require further clarification and specific statements on a project specific basis and should have been described in the Offeror’s proposal.

Initial Here #1

2. ETHICS VIOLATIONS

- a) The Offeror shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in this clause in its own operations and direct business relationships.
- b) Offeror certifies the Offeror has not violated or caused any person to violate, and shall not violate or cause any person to violate, the City’s Code of Ethics contained in Article 3, of Chapter 1 of the City Code and in the City’s Procurement Rules and Regulations
- c) When the Offeror has reasonable grounds to believe that a violation described in this clause may have occurred, the Offeror shall promptly report the possible violation to the City Contracts Specialist in writing.
- d) The Offeror must disclose with the signing of this proposal, the name of any officer, director, or agent who is also an employee of the City and any City employee who owns, directly or indirectly, an interest of ten percent (10%) or more in the Offeror’s firm or any of its branches.
- e) In addition, the Offeror must report any conflict or apparent conflict, current or discovered during the performance of the Contract, to the City Contracts Specialist.
- f) The Offeror shall not engage in providing gifts, meals or other amenities to City employees. The right of the Offeror to proceed may be terminated by written notice issued by City Contracts Specialist if Offeror offered or gave a gratuity to an officer, official, or employee of the City and intended by the gratuity to obtain a contract or favorable treatment under a contract.
- g) The Offeror shall cooperate fully with the City or any agency investigating a possible violation on behalf of the City. If any violation is determined, the Offeror will properly compensate the City.
- h) The Offeror agrees to incorporate the substance of this clause (after substituting “Contractor” for “Offeror”) in all subcontracts under this offer.

Initial Here #2



3. COOPERATION WITH OTHER CONTRACTORS

Other City activities/contracts may be in progress or start during the performance of this contract. The Offeror shall coordinate the work harmoniously with the other contractors or City personnel, if applicable.

Initial Here #3

4. INTERNET USE

Should the Offeror require access to City Internet resources in the performance of this requirement, a "Contractor's Internet Use Agreement" form must be separately signed by each individual having access to the City Network. The completed Contractor's Internet Use Agreement will be maintained with this agreement. Inappropriate use of the City Network will be grounds for immediate termination of any awarded contact.

Initial Here #4

5. LITIGATION

If awarded a contract, Offeror shall notify the City within five (5) calendar days after being served with a summons, complaint, or other pleading in any matter which has been filed in any federal or state court or administrative agency. The Offeror shall deliver copies of such document(s) to the City's Procurement Services Manager. The term "litigation" includes an assignment for the benefit of creditors, and filings of bankruptcy, reorganization and/or foreclosure.

Initial Here #5

6. CONTRACTOR'S REGISTRATION INFORMATION

Offeror's firm verifies and states that they are (check all that apply):

Large Business (i.e. do not qualify as a small business or non-profit)

Nonprofit

Small Business

Minority Owned Business/Small Disadvantaged Business

Woman Owned Business



Veteran Owned Business

Service-Disabled Veteran Owned Business

HUBZone Business

Note: The City accepts self-certification for these categories in accordance with Small Business Administration (SBA) standards. The SBA size standards are found on the SBA website <https://www.sba.gov/content/am-i-small-business-concern>.

Initial Here #6

7. CONTRACTOR PERSONNEL

- a) The Offeror shall appoint one of its key personnel as the “Authorized Representative” who shall have the power and authority to interface with the City and represent the Offeror in all administrative matters concerning this proposal and any awarded contract, including without limitation such administrative matters as correction of problems modifications, and reduction of costs.
- b) The Authorized Representative shall be the person identified in the Offeror’s proposal, unless the Offeror provides written notice to the City naming another person to serve as its Authorized Representative. Communications received by the City Contracts Specialist from the Authorized Representative shall be deemed to have been received from the Offeror.

Name:

Telephone:

E-mail:

Initial Here #7

8. OFFEROR’S CERTIFICATION

The undersigned hereby affirms that:

- a) He/She is a duly authorized agent of the Offeror;
- b) He/She has read and agrees to the City’s standard terms and conditions attached.
- c) The offer is presented in full compliance with the collusive prohibitions of the City of Colorado Springs. The Offeror certifies that no employee of its firm has discussed, or



compared the offer with any other offeror or City employee and has not colluded with any other offeror or City employee.

- d) The Offeror certifies that it has checked all of its figures, and understands that the City will not be responsible for any errors or omissions on the part of the Offeror in preparing its proposal.
- e) By submitting an offer the Offeror certifies that it has complied and will comply with all requirements of local, state, and federal laws, and that no legal requirements have been or will be violated in making or accepting this solicitation.

I hereby certify that I am submitting the proposal based on my company's capabilities to provide quality products and/or services on time.

Initial Here #8

9. OFFEROR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS:

- 1. The Offeror certifies to the best of its knowledge and belief, that (i) the Offeror and/or any of its Principals

Are Are Not

Presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency.

Have Have Not

Within a three year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, local) contract or subcontract; violation of Federal or state antitrust statutes relation to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement, tax evasion, or receiving stolen property; and

Are Are Not

presently indicated for, or otherwise criminally or civilly charged by a governmental entity with commission of any of the offenses enumerated in any paragraphs above.

- 2. The Offeror shall provide immediate written notice to the City Contracts Specialist if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reasons of changed circumstances.
- 3. The certification in paragraph 1. above, is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the City, the



City Contracts Specialist may terminate the contract resulting from this solicitation for default. Termination for default may result in additional charges being levied for the costs incurred by the City to initiate activities to replace the awarded Contractor.

Initial Here #9

10. ACCEPTANCE OF CITY CONTRACTS SPECIALIST'S SOLE AUTHORITY FOR CHANGES

Unless otherwise specified in the Contract, the Offeror hereby agrees that any changes to the scope of work, subsequent to the original contract signing, shall be generated in writing and an approval signature shall be obtained from the City Contracts Specialist prior to additional work performance.

Initial Here #10

11. CITY CONTRACTOR SAFETY PROGRAM

The Offeror hereby agrees to adhere to a worker safety program for contractor employees on a City job site or location. By initialing below, the Offeror has reviewed the information and will abide by the City Policy which is available for review:

<https://coloradosprings.gov/finance/page/procurement-regulations-and-documents>

Initial Here #11

12. ACCEPTANCE OF CITY ENVIRONMENTALLY PREFERRED PURCHASING (EPP) POLICY

The City of Colorado Springs is committed to buying more environmentally preferable goods and services, as long as they meet performance needs, are available within a reasonable time and at a reasonable cost. The Offeror hereby acknowledges review of this policy by initialing below.

<https://coloradosprings.gov/finance/page/procurement-regulations-and-documents>

Initial Here #12



13. FRAUD, WASTE, AND ABUSE

Everyone has a duty to report any suspected unlawful act impacting the City of Colorado Springs operations and its enterprises. Anyone who becomes aware of the existence or apparent existence of fraud, waste, and abuse in City of Colorado Springs is encouraged to report such matters to the City Auditor's Office in writing or on the telephone hotline 385-2387 (ADTR). Written correspondence can be mailed to:

City Auditor

P.O. Box 2241

Colorado Springs CO 80901

Or via email FraudHotline@ColoradoSprings.gov. Any of these mechanisms allow for anonymous reporting. For more information, please go to the website <https://coloradosprings.gov/cityfraud>.

Initial Here #13



QUALIFICATION STATEMENT

This statement will provide information which will enable the City to evaluate the qualifications of your firm and staff with regard to the requirements of this solicitation. Please complete this form in its entirety. If a request in the Qualification Statement is contained in the proposal, indicate the section in the proposal where that information can be found.

1. TYPE OF LICENSE(S) HELD

2. TYPE OF SERVICE TO BE PROVIDED FOR THIS SOLICITATION

3. NUMBER OF YEARS IN BUSINESS

4. FIRM HISTORY & STAFF QUALIFICATIONS

In your proposal provide a brief history of your firm, staff size, and experience. Submit a resume for the project manager and each key personnel assigned to this project.

5. WHAT OTHER NAME(S) HAS YOUR COMPANY OPERATED UNDER

My Firm has not operated under any other names

6. HAVE YOU OR YOUR FIRM EVER FAILED TO COMPLETE ANY WORK AWARDED TO YOU?

Yes No

If Yes, Please Explain



7. HAS ANY OFFICER OF PARTNER OF YOUR ORGANIZATION EVER BEEN AN OFFICER OR PARTNER OF ANOTHER ORGANIZATION THAT FIALED TO COMPLETE A CONTRACT WITHIN THE LAST FIVE (5) YEARS?

Yes No

If Yes, Please Explain

8. HAS YOUR FIRM OR ANY PARTNERS OR OFFICERS EVER BEEN INVOLVED IN ANY BANKRUPTCY ACTION?

Yes No

If Yes, Please Explain

9. ARE YOU PRESENTLY INVOLVED IN ANY LITIGATION WITH ANY GOVERNMENT AGENCY?

Yes No

If Yes, Please Explain Type, Kind, Plaintiff, Defendant, etc. and state the current status:

10. BANK REFERENCE

Bank Name:

Address:

Contact:

Phone #:

E-mail:



11. SIMILAR PROJECTS

List Three similar projects (local or state-wide) from the last five (5) years. Include the location of the project, size of project (contract amount), contract name and information. NOTE: Detailed information on these projects may also be requested in the solicitation package

Indicate here if this information is provided within your proposal and identify where in the proposal it is located.

1. Company:

Location of Project:

Contract Amount:

Contract Period of Performance:

Company Representative:

Representative's Title:

Representative's Address:

Representative's Phone #:

Representative's E-mail:

Brief Description of service/goods provided and how your firm was successful carrying out the scope of work of the contract.

2. Company:

Location of Project:

Contract Amount:

Contract Period of Performance:

Company Representative:



Representative's Title:

Representative's Address:

Representative's Phone #:

Representative's E-mail:

Brief Description of service/goods provided and how your firm was successful carrying out the scope of work of the contract.

3. Company:

Location of Project:

Contract Amount:

Contract Period of Performance:

Company Representative:

Representative's Title:

Representative's Address:

Representative's Phone #:

Representative's E-mail:

Brief Description of service/goods provided and how your firm was successful carrying out the scope of work of the contract.



12. SIMILAR PROJECTS CURRENTLY UNDER CONTRACT

list three projects currently under contract and in progress (local or state-wide) from the last five (5) years. Include the location of the project, size of project (contract amount), contract name and information. NOTE: Detailed information on these projects may also be requested in the solicitation package

Indicate here if this information is provided within your proposal and identify where in the proposal it is located.

1. Company:

Location of Project:

Contract Amount:

Contract Period of Performance:

Company Representative:

Representative's Title:

Representative's Address:

Representative's Phone #:

Representative's E-mail:

Brief Description of service/goods provided.

2. Company:

Location of Project:

Contract Amount:

Contract Period of Performance:

Company Representative:



Representative's Title:

Representative's Address:

Representative's Phone #:

Representative's E-mail:

Brief Description of service/goods provided.

3. Company:

Location of Project:

Contract Amount:

Contract Period of Performance:

Company Representative:

Representative's Title:

Representative's Address:

Representative's Phone #:

Representative's E-mail:

Brief Description of service/goods provided.



13. ADDITIONAL QUALIFICATION REQUIREMENTS

There are no additional qualification requirements for this solicitation.

There are additional qualification requirements as follows:



EXCEPTIONS

Please Indicate below if there are any exceptions taken to any of the terms, conditions, or specifications of these proposal documents or contract.

If there are exceptions taken to any of the terms, conditions, or specifications of the proposal document or contract, they must be clearly stated on an additional document attached to this exhibit and returned with your proposal.

NOTE: All potential Offerors are hereby advised that exceptions taken may be considered during the evaluation phase which may affect the final scoring of proposals. Offerors stipulating that the City must use their contract or agreement may be determined non-responsive and their Proposal determined unacceptable.

Please indicate below:

My Firm has no exceptions.

My Firm does have exceptions. (Attach Exceptions to this exhibit)



MINIMUM INSURANCE REQUIREMENTS

The following listed minimum insurance requirements shall be carried by all contractors and consultants unless otherwise specified in the City's solicitation package, Special Provisions or Standard Specifications.

- Commercial General Liability for limits not less than \$1,000,000 combined single limit with \$2,000,000 aggregate for bodily injury and property damage for each occurrence. Coverage shall include blanket contractual, broad form property damage, products and completed operations.
- Workers' Compensation and Employers Liability as required by statute. Employers Liability coverage is to be carried for a minimum limit of \$1,000,000.
- Automobile Liability covering any auto (including owned, hired, and non-owned autos) with a minimum of \$1,000,000 each accident combined single limit.
- Builders Risk or Installation Floater Insurance: Contractor shall purchase and maintain property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property.
- Professional Liability Insurance covering any damages caused by an error, omission or any negligent acts with limits of not less than \$2,000,000 per occurrence and in the aggregate.
 - In the event that any professional liability insurance required by this Contract is written on a claims-made basis, Consultant warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning at the time work under this Contract is completed
 - Policy shall contain a waiver of subrogation against the CITY.
- Pollution Legal Liability Insurance shall apply to sudden and gradual pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, natural gas, waste materials, or other irritants, contaminants, or pollutants (including asbestos). If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning from the time that work under this contract is completed. Policy limits shall be no less than \$1,000,000 per loss with \$2,000,000 aggregate coverage.



Except for workers' compensation and employer's liability insurance and Professional Liability, the City of Colorado Springs and Pikes Peak Rural Transportation Authority (PPRTA) and CDOT must be named as an additional insured. Certificates of Insurance must be submitted before commencing the work and provide 30 days' notice prior to any cancellation, non-renewal, or material changes to policies required under the contract.

Name of Company

Signature

Date



SIGNATURE PAGE

By signing below, the Offeror certifies that no person or firm other than the Offeror or as otherwise indicated has any interest whatsoever in this offer or any Contract that may be entered into as a result of this offer and that in all respects the offer is legal and firm, submitted in good faith without collusion or fraud.

The undersigned additionally declares that it has carefully examined the Bid/Proposal information and the complete Solicitation prior to submitting a Bid / Proposal. The Offeror's signature will be considered the Offeror's acknowledgement of understanding and ability to comply with all items in the solicitation.

The undersigned acknowledges and understands the terms, conditions, Specifications and all Requirements contained and/or referenced and are legally authorized by the Offeror to make the above statements or representations.

Signature

Name (Printed)

Company Name

Title

Date



**EXHIBIT 2 SAMPLE CONTRACT
CONSTRUCTION CONTRACT**

Contract Number:	T-	Project Name/Title	Tejon Revitalization
Vendor/Contractor			
Contact Name:		Telephone:	
Email Address:			
Address:			
Federal Tax ID #		Please check one:	<input type="checkbox"/> Corporation <input type="checkbox"/> Individual <input type="checkbox"/> Partnership
City Contracting Specialist	Kelli Kennedy 719-385-5287	City Dept Rep	
NOT TO EXCEED Contract Amount:		City Account #	
Contract Type:	Fixed Unit Price	Period of Performance:	NTP – May 15, 2025

1. INTRODUCTION

THIS Fixed Unit Price CONTRACT ("Contract") is made and entered into this XXX day of August 2024 by and between the City of Colorado Springs, a Colorado municipal corporation and home rule city, in the County of El Paso, State of Colorado, (the "City"), and _____ (the "Contractor").

THE CITY AND THE CONTRACTOR HEREBY AGREE AS FOLLOWS:

The City has heretofore prepared the necessary Contract Documents for the following Activity: Tejon Revitalization.

The Contractor did on the 30 day of July 2024 submit to the City the Contractor's written offer and proposal to do the work therein described under the terms and conditions therein set forth and furnish all materials, supplies, labor, services, transportation, tools, equipment, and parts for said work in strict conformity with the accompanying Contract Documents, which are attached hereto and incorporated herein by this reference, including the following:

1. Schedule A Price Sheet
2. Schedule B General Construction Terms and Conditions
3. Schedule C Special Contract Terms and Conditions
4. Schedule D Scope of Work
5. Schedule E Special Construction Provisions
6. Schedule F Technical Specifications
7. Schedule G Measurement and Payment
8. Schedule H Grading & Erosion Control Plan



- 9. Schedule I Stormwater Management Plan
- 10. Schedule J Geo Tech Reports
- 11. Schedule K Notification of Utilities
- 12. Schedule L Plan Set
- 13. Schedule M Vendor Proposal
- 14. Schedule N Minimum Insurance Requirements

2. COMPENSATION/CONSIDERATION

THIS FIXED UNIT PRICE CONTRACT is established at the Not to Exceed amount of \$xxxxxxx.

Subject to the terms and conditions of the Contract Documents, Contractor agrees to furnish all materials and to perform all work as set forth in its proposal and as required by the Contract Documents.

All pricing is in accordance with the fixed unit prices found in Schedule A, as proposed by the Contractor. Payment made for actual quantities as set forth in Schedule B, General Construction Terms and Conditions. At no time shall the total obligation of the City exceed the not to exceed amount of this Contract.

3. TERM OF CONTRACT

Contractor will start work promptly after the Notice to Proceed and continue to work diligently until completed. The Contractor shall complete all work on an as ordered basis throughout the Contract period which is **the Date of Notice to Proceed through May 15, 2025** ("Period of Performance") as per the specifications and drawings. The Contractor shall provide a two-year guarantee on all work performed under this Contract after the job has been completed and accepted.

4. INSURANCE

The Contractor shall provide and maintain acceptable Insurance Policy(s) consistent with the Minimum Insurance Requirements attached as Schedule N, which includes Property, Liability, and as otherwise listed in Schedule N. The City of Colorado Springs shall be reflected as an additional insured on the Property and Liability policy(s).

Further, Contractor understands and agrees that Contractor shall have no right of coverage under any existing or future City comprehensive, self, or personal injury policies. Contractor shall provide insurance coverage for and on behalf of Contract that will sufficiently protect Contractor, or Contractor's agents, employees, servants or other personnel, in connection with the services which are to be provided by Contractor pursuant to this Contract, including protection from claims for bodily injury, death, property damage, and lost income. Contractor shall provide worker's compensation insurance coverage for Contractor and all Contractor personnel. Contractor shall file applicable insurance certificates with the City and shall also provide additional insurance as indicated in this Contract. ***A CURRENT CERTIFICATE OF INSURANCE IS REQUIRED PRIOR TO COMMENCEMENT OF SERVICES LISTING THE CITY, CDOT and PIKES PEAK RURAL TRANSPORTATION AUTHORITY AS ADDITIONALLY INSURED.***

5. RESPONSIBILITY OF THE CONTRACTOR



- A. The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all Scope of Work services furnished by the Contractor under this Contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in services provided under this Contract to the satisfaction of the City.
- B. The City's review, approval of, acceptance of, or payment for the services required under this Contract shall not be construed to operate as a waiver of any rights under this Contract or of any cause of action arising out of the performance of this Contract, and the Contractor shall be and remain liable to the City for any and all damages to the City caused by the Contractor's negligent performance of any of the services furnished under this Contract.
- C. The rights and remedies of the City provided for under this Contract are in addition to any other rights and remedies provided by law.
- D. If the Contractor is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

6. WORK OVERSIGHT

- A. The extent and character of the work to be done by the Contractor shall be subject to the general approval of the City's delegated Project Manager.
- B. If any of the work or services being performed does not conform with Contract requirements, the City may require the Contractor to perform the work or services again in conformity with Contract requirements, at no increase in Contract amount. When defects in work or services cannot be corrected by re-performance, the City may (1) require the Contractor to take necessary action to ensure that future performance conforms to Contract requirements and (2) reduce the Contract price to reflect the reduced value of the work or services performed.
- C. If the Contractor fails to promptly perform the defective work or services again or to take the necessary action to ensure future performance is in conformity with Contract requirements, the City may (1) by Contract or otherwise, perform the services and charge to the Contractor any cost incurred by the City that is directly related to the performance of such work or service or (2) terminate the Contract for breach of contract.

7. SUBCONTRACTORS, ASSOCIATES, AND OTHER CONTRACTORS

- A. Any subcontractor, outside associates, or other contractors used by the Contractor in connection with Contractor's work under this Contract shall be limited to individuals or firms that are specifically identified by the Contractor in the Contractor's proposal and agreed to by the City. The Contractor shall obtain the City's Project Manager's written consent before making any substitution of these subcontractors, associates, or other contractors.
- B. The Contractor shall include a flow down clause in all of its subcontracts, agreements with outside associates, and agreements with other contractors. The flow down clause shall cause all of the terms and conditions of this Contract, including all of the applicable parts of the Contract Documents, to be incorporated into all subcontracts, agreements with outside associates, and agreements with other contractors. The flow down clause shall provide clearly that there is no privity of contract between the City and the Contractor's subcontractors,



outside associates, and other contractors.

8. KEY PERSONNEL

The key personnel listed in the proposal and/or below will be the individuals used in the performance of the work. If any of the listed key personnel leave employment or are otherwise not utilized in the performance of the work, approval to substitute must be obtained by the Contractor from the City's Project Manager. Any substitute shall have the same or a higher standard of qualifications that the key personnel possessed at the time of Contract award.

9. START AND CONTINUANCE OF WORK

It is further agreed that the Contractor will start work promptly and continue to work diligently until this Contract is completed.

10. APPROPRIATION OF FUNDS

This Contract is expressly made subject to the limitations of the Colorado Constitution and Section 7-60 of the Charter of the City of Colorado Springs. Nothing herein shall constitute, nor be deemed to constitute, the creation of a debt or multi-year fiscal obligation or an obligation of future appropriations by the City Council of Colorado Springs, contrary to Article X, § 20, Colo. Const., or any other constitutional, statutory, or charter debt limitation. Notwithstanding any other provision of this Contract, with respect to any financial obligation of the City which may arise under this Agreement in any fiscal year after the year of execution, in the event the budget or other means of appropriation for any such year fails to provide funds in sufficient amounts to discharge such obligation, such failure (i) shall act to terminate this Contract at such time as the then-existing and available appropriations are depleted, and (ii) neither such failure nor termination shall constitute a default or breach of this Contract, including any sub-agreement, attachment, schedule, or exhibit thereto, by the City. As used herein, the term "appropriation" shall mean and include the due adoption of an appropriation ordinance and budget and the approval of a Budget Detail Report (Resource Allocations) which contains an allocation of sufficient funds for the performance of fiscal obligations arising under this Contract.

11. CHANGES

The Contractor and the City agree and acknowledge as a part of this Contract that no change order or other form or order or directive may be issued by the City which requires additional compensable work to be performed, which work causes the aggregate amount payable under the Contract to exceed the amount appropriated for this Contract as listed above, unless the Contractor has been given a written assurance by the City that lawful appropriations to cover the costs of the additional work have been made or unless such work is covered under a remedy-granting provision of this Contract. The Contractor and the City further agree and acknowledge as a part of this Contract that no change order or other form or order or directive which requires additional compensable work to be performed under this Contract shall be issued by the City unless funds are available to pay such additional costs, and, regardless of any remedy-granting provision included within this Contract, the Contractor shall not be entitled to any additional compensation for any change which increases or decreases the Contract completion date, or for any additional compensable work performed under this Contract, and expressly waives any rights to additional compensation, whether by law or equity, unless, prior to commencing the additional



work, the Contractor is given a written change order describing the change in Contract completion date or the additional compensable work to be performed, and setting forth the amount of compensation to be paid, and such change order is signed by the authorized City representative, as defined below. The amount of compensation to be paid, if any, shall be deemed to cover any and all additional, direct, indirect or other cost or expense or profit of the Contractor whatsoever. It is the Contractor's sole responsibility to know, determine, and ascertain the authority of the City representative signing any change order under this Contract.

No change, amendment, or modification to this Contract shall be valid unless duly approved and issued in writing by the City of Colorado Springs Procurement Services Division. The City shall not be liable for any costs incurred by the Contractor resulting from work performed for changes not issued in writing by the City of Colorado Springs Procurement Services Division.

The following personnel are authorized to sign changes, amendments, or modifications to this Contract.

The Department Manager: up to \$149,999.99

The City of Colorado Springs Deputy Chief of Staff: \$150,000.00 to \$499,999.99

The City of Colorado Springs Chief of Staff: \$500,000.00 to \$1,999,999.99

The Mayor of Colorado Springs: Unlimited

12. ECONOMIC PRICE ADJUSTMENT

- A. The Contractor shall notify the City of Colorado Springs Procurement Services Division if, at any time during contract performance, the rate of pay for labor or the unit prices for material shown in Schedule A experiences a significant increase. A change in price shall be considered significant when the unit price of an item increases by 10% from the execution date of this Contract. The Contractor shall furnish notice of this increase within 60 days after the increase, or within any additional period that the City Procurement Services Division may approve in writing, but not later than the date of final payment under this Contract. The notice shall include the Contractor's proposal for an adjustment in the Contract unit prices to be negotiated under paragraph (b) of this clause, and shall include, in the form required by the City Procurement Services Division, supporting data explaining the cause, effective date, and amount of the increase and the amount of the Contractor's adjustment proposal.
- B. Promptly after the City Procurement Services Division receives the notice and data under paragraph (a) of this clause, the City Procurement Services Division and the Contractor shall negotiate a price adjustment in the contract unit prices and its effective date. However, the City Procurement Services Division may postpone the negotiations until an accumulation of increases in the labor rates (including fringe benefits) and unit prices of material shown in Schedule A results in an adjustment allowable under paragraph (c)(3) of this clause. The City Procurement Services Division shall modify this contract (1) to include the price adjustment and its effective date and (2) to revise the labor rates (including fringe benefits) or unit prices of material as shown in Schedule A to reflect the increases resulting from the adjustment. The Contractor shall continue performance at current rates pending agreement on, or determination of, any adjustment and its effective date.
- C. Any price adjustment under this clause is subject to the following limitations:



1. Any adjustment shall be limited to the effect on unit prices of the increases in the rates of pay for labor (including fringe benefits) or unit prices for material shown in Schedule A. There shall be no adjustment for:
 - (i) Supplies or services for which the production cost is not affected by such changes;
 - (ii) Changes in rates or unit prices other than those shown in Schedule A; or
 - (iii) Changes in the quantities of labor or material used from those shown in Schedule A for each item.
2. No upward adjustment shall apply to supplies or services that are required to be delivered or performed before the effective date of the adjustment, unless the Contractor's failure to deliver or perform according to the delivery schedule results from causes beyond the Contractor's control and without its fault or negligence, within the meaning of the Default clause.
3. There shall be no adjustment for any change in rates of pay for labor (including fringe benefits) or unit prices for material which would not result in a net change of at least 3 percent of the then-current total contract price. This limitation shall not apply, however, if, after final delivery of all line items, either party requests an adjustment under paragraph (b) of this clause.
4. The aggregate of the increases in any contract unit price made under this clause shall not exceed 10 percent of the original unit price.

13. ASSIGNMENT

No assignment or transfer by the Contractor of this Contract or any part thereof or of the funds to be received thereunder by the Contractor will be recognized unless such assignment has had the prior written approval of the City and the surety has been given due notice of such assignment. Such written approval by the City shall not relieve the Contractor of the obligations under the terms of this Contract. In addition to the usual recitals in assignment contracts, the following language must be included in the assignment:

It is agreed that the funds to be paid to the assignee under this assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

14. CHOICE OF LAW

This Contract is subject to and shall be interpreted under the law of the State of Colorado, and the Charter, City Code, Ordinances, Rules and Regulations of the City of Colorado Springs, Colorado, a Colorado home rule city. Court venue and jurisdiction shall be exclusively in the Colorado District Court for El Paso County, Colorado. The Parties agree that the place of performance for this Contract is deemed to be in the City of Colorado Springs, El Paso County, State of Colorado. The Contractor shall ensure that the Contractor and the Contractor's employees, agents, officers and subcontractors are familiar with, and comply with, applicable Federal, State, and Local laws and regulations as now written or hereafter amended.

15. WORKERS' COMPENSATION INSURANCE

Contractor shall take out and maintain during the Period of Performance, Colorado Worker's Compensation Insurance for the Contractor and all employees of the Contractor. If any service is



sublet by the Contractor, the Contractor shall require the subcontractor to provide the same coverage for the subcontractor and subcontractor's employees. Workers' Compensation Insurance shall include occupational disease provisions covering any obligations of the Contractor in accord with the provisions of the Workers' Compensation Act of Colorado.

16. INDEMNIFICATION

Contractor agrees that the Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents, from and against any and all loss, damage, injuries, claims, cause or causes of action, or any liability whatsoever resulting from, or arising out of, or in connection with the Contractor's obligations or actions under this Contract caused by any willful or negligent error, omission or act or a failure to observe any applicable standard of care by the Contractor or any person employed by it or anyone for whose acts the Contractor is legally liable. In consideration of the award of this Contract, to the extent damages are covered by insurance, the Contractor agrees to waive all rights of subrogation against the City, its subsidiary, parent, associated and/or affiliated entities, successors, or assigns, its elected officials, trustees, employees, agents, and volunteers for losses arising from the work performed by the Contractor for the City. The indemnification obligation shall survive the expiration or termination of this Contract.

17. INDEPENDENT CONTRACTOR

In the performance of the Contractor's obligations under this Contract, it is understood, acknowledged and agreed between the parties that the Contractor is at all times acting and performing as an independent contractor, and the City shall neither have nor exercise any control or direction over the manner and means by which the Contractor performs the Contractor's obligations under this Contract, except as otherwise stated within the Contract terms. The City shall not provide any direction to the Contractor on the work necessary to complete the project. Contractor understands that it is an independent contractor responsible for knowing how to perform all work or tasks necessary to complete project. The Contractor understands and agrees that the Contractor and the Contractor's employees, agents, servants, or other personnel are not City employees. The Contractor shall be solely responsible for payment of salaries, wages, payroll taxes, unemployment benefits or any other form of compensation or benefit to the Contractor or any of the Contractor's employees, agents, servants or other personnel performing services or work under this Contract, whether it is of a direct or indirect nature. Further in that regard, it is expressly understood and agreed that for such purposes neither the Contractor nor the Contractor's employees, agents, servants or other personnel shall be entitled to any City payroll, insurance, unemployment, worker's compensation, retirement or any other benefits whatsoever.

18. APPLICABLE LAW AND LICENSES

In the conduct of the services or work contemplated in this Contract, the Contractor shall ensure that the Contractor and all subcontractors comply with all applicable state, federal and City and local law, rules and regulations, technical standards or specifications. The Contractor shall qualify for and obtain any required licenses prior to commencement of work.

19. PRIOR AGREEMENTS



This is a completely integrated Contract and contains the entire agreement between the parties. Any prior written or oral agreements or representations regarding this Contract shall be of no effect and shall not be binding on the City. This Contract may only be amended in writing, and executed by duly authorized representatives of the parties hereto.

20. INTELLECTUAL PROPERTY

The Parties hereby agree, and acknowledge, that all products, items writings, designs, models, examples, or other work product of the Contractor produced pursuant to this Contract are works made for hire, and that the City owns, has, and possesses any and all ownership rights and interests to any work products of the Contractor made under this Contract, including any and all copyright, trademark, or patent rights, and that compensation to the Contractor for Agreement and acknowledgment of this intellectual property right section of this Contract is included in any compensation or price whatsoever paid to the Contractor under this Contract. It is the intent of the parties that the City shall have full ownership and control of the Contractor's work products produced pursuant to this Contract, and the Contractor specifically waives and assigns to the City all rights which Contractor may have under the 1990 Visual Artists Rights Act, federal, and state law, as now written or later amended or provided. In the event any products, items writings, designs, models, examples, or other work product produced pursuant to this Contract is deemed by a court of competent jurisdiction not to be a work for hire under federal copyright laws, this intellectual property rights provision shall act as an irrevocable assignment to the City by the Contractor of any and all copyrights, trademark rights, or patent rights in the Contractor's products, items writings, designs, models, examples, or other work product produced pursuant to this Contract, including all rights in perpetuity. Under this irrevocable assignment, the Contractor hereby assigns to the City the sole and exclusive right, title, and interest in and to the Contractor's products, items writings, designs, models, examples, or other work product produced pursuant to this Contract, without further consideration, and agrees to assist the City in registering and from time to time enforcing all copyrights and other rights and protections relating to the Contractor's products, items writings, designs, models, examples, or other work product in any and all countries. It is the Contractor's specific intent to assign all right, title, and interest whatsoever in any and all copyright rights in the Contractor's products, items writings, designs, models, examples, or other work product produced pursuant to this Contract, in any media and for any purpose, including all rights of renewal and extension, to the City. To that end, the Contractor agrees to execute and deliver all necessary documents requested by the City in connection therewith and appoints the City as Contractor's agent and attorney-in-fact to act for and in Contractor's behalf and stead to execute, register, and file any such applications, and to do all other lawfully permitted acts to further the registration, prosecution, issuance, renewals, and extensions of copyrights or other protections with the same legal force and effect as if executed by the Contractor; further, the parties expressly agree that the provisions of this intellectual property rights section shall be binding upon the parties and their heirs, legal representatives, successors, and assigns.

21. WAIVERS

No waiver of default by the City of any of the terms, covenants, and conditions hereof to be performed, kept, and observed by the Contractor shall be construed, or shall operate, as a waiver of any subsequent default of any of the terms, covenants, or conditions herein contained to be performed, kept, and observed by the Contractor.



22. THIRD PARTIES

It is expressly understood and agreed that enforcement of the terms and conditions of this Contract, and all rights of action relating to such enforcement, shall be strictly reserved to the Parties hereto, and nothing contained in this Contract shall give or allow any such claim or right of action by any other or third person or entity on such Contract. It is the express intention of the Parties hereto that any person or entity, other than the Parties to this Contract, receiving services or benefits under this Contract shall be deemed to be incidental beneficiaries only.

23. TERMINATION

A. Termination for Convenience.

By signing this Contract, Contractor represents that it is a sophisticated business and enters into the Contract voluntarily, has calculated all business risks associated with this Contract, and understands and assumes all risks of being terminated for convenience, whether such risks are known or not known. Contractor agrees that the City may terminate this Contract at any time for convenience of the City, upon written notice to the Contractor. Contractor expressly agrees to and assumes the risk that the City shall not be liable for any costs or fees of whatsoever kind and nature if termination for convenience occurs before Contractor begins any work or portion of the work. Contractor further expressly agrees and assumes the risks that the City shall not be liable for any unperformed work, anticipated profits, overhead, mobilizations costs, set-up, demobilization costs, relocation costs of employees, layoffs or severance costs, administrative costs, productivity costs, losses on disposal of equipment or materials, cost associated with the termination of subcontractors, costs associated with purchase orders or purchases, or any other costs or fees of any kind and nature, if Contractor has started or performed portions of the Contract prior to receiving notice from the City. The City shall be liable only for the portions of work Contractor actually satisfactorily completed up to the point of the issuance of the Notice of Termination for convenience. Upon receipt of this notice the Contractor shall immediately: discontinue all services affected (unless the notice directs otherwise), and deliver to the City all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this Contract, whether completed or in process.

B. Termination for Cause: The occurrence of any one or more of the following events ("Event of Default") will justify termination for cause:

1. Contractor's failure to perform the work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule as adjusted from time to time.
2. Contractor's disregard of the laws or regulations of any public body having jurisdiction.
3. Contractor's disregard of the authority of Project Manager.
4. Contractor's violation in any material provision of the Contract Documents.
5. Contractor's failure to make prompt payments to its subcontractors, and suppliers of any tier, or laborers or any person working on the work by, through, or under the Contractor or any of them, any all of their employees, officers, servants, members, and agents.
6. Contractor files a petition commencing a voluntary case under the U.S. Bankruptcy Code, or for liquidation, reorganization, or an arrangement pursuant to any other U.S. or state bankruptcy Laws, or shall be adjudicated a debtor or be declared bankrupt or insolvent under the U.S. Bankruptcy Code, or any other federal or state laws relating to bankruptcy,



insolvency, winding-up, or adjustment of debts, or makes a general assignment for the benefit of creditors, or admits in writing its inability to pay its debts generally as they become due, or if a petition commencing an involuntary case under the U.S. Bankruptcy Code or an answer proposing the adjudication of Contractor as a debtor or bankrupt or proposing its liquidation or reorganization pursuant to the Bankruptcy Code or any other U.S. federal or state bankruptcy laws is filed in any court and Contractor consents to or acquiesces in the filing of that pleading or the petition or answer is not discharged or denied within sixty (60) Calendar Days after it is filed.

7. A custodian, receiver, trustee or liquidator of Contractor, all or substantially all of the assets or business of Contractor, or of Contractor's interest in the Work or the Contract, is appointed in any proceeding brought against Contractor and not discharged within sixty (60) Calendar Days after that appointment, or if Contractor shall consent to or acquiesces in that appointment.
8. Contractor fails to commence correction of defective work or fails to correct defective work within a reasonable period of time after written notice.

If one or more of the events identified in Paragraphs 1-8 above occur, City may give Contractor written notice of the event and direct the event be cured. Any such Notice to Cure will provide Contractor a minimum of ten (10) calendar days to prepare and submit to the Project Manager a plan to correct the Event of Default. If such plan to correct the Event of Default is not submitted to the Project Manager within ten (10) days after the date of the written notice or such plan is unacceptable to the City, the City may, give Contractor (and the Surety, if any) written notice that Contractor's services are being terminated for cause. Upon delivery of the termination notice, City may terminate the services of Contractor in whole or in part, exclude Contractor from the site, and take possession of the work and of all Contractor's tools, appliances, construction equipment, and machinery at the project site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion), incorporate in the work all materials and equipment stored at the site or for which City has paid Contractor but which are stored elsewhere, and finish the work as City may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until Certificate of Completion of the work. In the event City terminates this Contract for Cause and the cost of completing the work exceeds the unpaid balance of the Contract price, Contractor shall pay City for any costs of completion which exceed the Contract price when combined with all amounts previously paid to Contractor. When exercising any rights or remedies under this paragraph City shall not be required to obtain the lowest price for the work performed. Should the cost of such completion, including all proper charges, be less than the original Contract price, the amount so saved shall accrue to the City. Neither the City nor any officer, agent or employee of the City shall be in any way liable or accountable to the Contractor or the Surety for the method by which the completion of the said work, or any portion thereof, may be accomplished or for the price paid.

Where Contractor's services have been so terminated by City, the termination will not affect any rights or remedies of City against Contractor or Surety then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by City will not release Contractor from liability.

- C. Termination Notice. Upon receipt of a termination notice, whether for convenience or cause, the Contractor shall immediately: discontinue all services affected (unless the notice directs otherwise), and deliver to the City all data, drawings, specifications, reports, estimates,



summaries, and other information and materials accumulated in performing this Contract, whether completed or in process.

- D. Removal of Equipment. Except as provided above, in the case of termination of this Contract before completion from any cause whatever, the Contractor, if notified to do so by the City, shall promptly remove any part or all of Contractor's equipment and supplies from the property of the City, failing which the City shall have the right to remove such equipment and supplies at the expense of the Contractor.

24. BOOKS OF ACCOUNT AND AUDITING

The Contractor shall make available to the City if requested, true and complete records, which support billing statements, reports, performance indices, and all other related documentation. The City's authorized representatives shall have access during reasonable hours to all records, which are deemed appropriate to auditing billing statements, reports, performance indices, and all other related documentation. The Contractor agrees that it will keep and preserve for at least seven years all documents related to the Contract which are routinely prepared, collected or compiled by the Contractor during the performance of this Contract.

The City's Auditor and the Auditor's authorized representatives shall have the right at any time to audit all of the related documentation. The Contractor shall make all documentation available for examination at the Auditor's request at either the Auditor's or Contractor's offices, and without expense to the City.

25. COMPLIANCE WITH IMMIGRATION REFORM AND CONTROL ACT OF 1986

Contractor certifies that Contractor has complied with the United States Immigration Reform and Control Act of 1986. All persons employed by Contractor for performance of this Contract have completed and signed Form I-9 verifying their identities and authorization for employment.

26. LABOR

The Contractor shall employ only competent and skilled workmen and foremen in the conduct of work on this Contract. The Contractor shall at all times enforce strict discipline and good order among Contractor's employees. The Project Manager shall have the authority to order the removal from the work of any person, including Contractor's or any subcontractor's employees, who refuses or neglects to observe any of the provisions of these Plans or Specifications, or who is incompetent, abusive, threatening, or disorderly in conduct and any such person shall not again be employed on the Project.

In accord with the Keep Jobs in Colorado Act, codified at sections 8-17-101, et seq., C.R.S., Colorado labor shall be employed to perform the work to the extent of not less than eighty percent (80%) of each type or class of labor in the several classifications of skilled and common labor employed on this Project et seq.; provided however, that this paragraph shall not apply if the Project receives federal funding.

In no event shall the City be responsible for overtime pay.

27. GRATUITIES



- A. This Contract may be terminated if the Mayor, the Mayor's designee, and/or the Procurement Services Manager determine, in their sole discretion, that the Contractor or any officer, employee, agent, or other representative whatsoever, of the Contractor offered or gave a gift or hospitality to a City officer, employee, agent or Contractor for the purpose of influencing any decision to grant a City contract or to obtain favorable treatment under any City contract.
- B. The terms "hospitality" and "gift" include, but are not limited to, any payment, subscription, advance, forbearance, acceptance, rendering or deposit of money, services, or anything of value given or offered, including but not limited to food, lodging, transportation, recreation or entertainment, token or award.
- C. Contract termination under this provision shall constitute a breach of contract by the Contractor, and the Contractor shall be liable to the City for all costs of reletting the contract or completion of the project. Further, if the Contractor is terminated under this provision, or violates this provision but is not terminated, the Contractor shall be subject to debarment under the City's Procurement Regulations. The rights and remedies of the City provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

28. NON-DISCRIMINATION

- A. In accord with section 24-34-402, C.R.S., Title VII of the Civil Rights Act of 1964, Americans with Disabilities Act of 1990 as amended, all applicable federal and state laws, the Contractor will not discriminate against any employee or applicant for employment because of disability, race, creed, color, sex, sexual orientation, gender identity, gender expression, religion, age, national origin, or ancestry.
- B. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- C. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to disability, race, creed, color, sex, sexual orientation, gender identity, gender expression, religion, age, national origin, or ancestry.

29. ORDER OF PRECEDENCE

Any inconsistency in this Contract shall be resolved by giving precedence in the following order:

- A. This Contract document with its terms and conditions
- B. Specific Construction Terms and Conditions
- C. General Construction Terms and Conditions
- D. The Statement of Work
- E. Specific Specifications
- F. General Specifications
- G. Other Appendices, Attachments, Exhibits, or Schedules

30. HEADINGS



The section headings contained in this Contract are for reference purposes only and shall not affect the meaning or interpretation of this Contract.

31. DISPUTES

- A. All administrative and contractual disputes arising from or related to this Contract other than those arising under Unanticipated Circumstances provisions (in section 107.27 of Schedule B General Construction Terms and Conditions) shall be addressed in the following manner:
1. If either Party disputes or disagrees with a Contract term or the other Party's interpretation of a Contract term or has any other administrative or contractual dispute not addressed in the Unanticipated Circumstances provisions, such Party shall promptly give the other Party written notice of said dispute.
 2. The Parties shall hold a meeting as soon as reasonably possible, but in no event later than thirty (30) calendar days from the initial written notice of the dispute, attended by persons with decision-making authority regarding the dispute, to attempt in good faith to negotiate a resolution of the dispute; provided, however, that no such meeting shall be deemed to vitiate or reduce the obligations and liabilities of the Parties or be deemed a waiver by a Party of any remedies to which such Party would otherwise be entitled unless otherwise agreed to by the Parties in writing.
 3. If, within thirty (30) calendar days after such meeting, the Parties have not succeeded in negotiating a resolution of the dispute, they agree to submit the dispute to non-binding mediation and to bear equally the costs of the mediation.
 4. The Parties will jointly appoint a mutually acceptable mediator. If they fail to do so within twenty (20) calendar days from the conclusion of the negotiation period, they shall each select a mediator. The two mediators will then appoint a third mediator who shall conduct mediation for the Parties as the sole mediator.
 5. The Parties agree to participate in good faith in the mediation and negotiations for a period of thirty (30) calendar days. The substantive and procedural law of the State of Colorado shall apply to the proceedings. If the Parties are not successful in resolving the dispute through mediation, then the Parties shall be free to pursue any other remedy afforded by the laws of the State of Colorado.
 6. Until final resolution of any dispute hereunder, the Contractor shall diligently proceed with the performance of this Contract as directed by the City. For purposes of this Contract, termination for convenience shall not be deemed a dispute. The City of Colorado Springs and the Contractor agree to notify each other in a timely manner of any claim, dispute, or cause of action arising from or related to this Contract, and to negotiate in good faith to resolve any such claim, dispute, or cause of action. To the extent that such negotiations fail, the City of Colorado Springs and the Contractor agree that any lawsuit or cause of action that arises from or is related to this Contract shall be filed with and litigated only by the Colorado District Court for El Paso County, CO.

32. DELIVERY

The City may cancel this Contract or any portion thereof if delivery is not made when and as specified, time being of the essence in this Contract. Contractor shall pay the City for any loss or damage sustained by the City because of failure to perform in accordance with this Contract.

33. PAYMENTS



All invoices shall be sent to the Project Manager identified in this Contract.

The City will pay the Contractor, upon submission of proper invoices, the prices stipulated in the Contract for services rendered and accepted, less any deductions provided in this Contract within 45 days (Net 45). The City will not pay late fees or interest. Any discount payment terms offered on the invoice may be taken by the City.

All payments for Construction will be made in accordance with the Payment provisions found in Schedule B-General Construction Terms and Conditions.

Each invoice must contain at least the following information:

Contract number, issued purchase order number, invoice number, invoice date, timeframe covered by invoice, type and amount of labor and materials used for that time period, dollar amount in unit price, extended price, and total value of invoice.

34. INSPECTION OF SERVICES

The Contractor is responsible for performing or having performed all inspections and tests necessary to substantiate that the services furnished under this Contract conform to Contract requirements, including any applicable technical requirements for specified manufacturers' parts. This clause takes precedence over any City inspection and testing required in the Contract's specifications, except for specialized inspections or tests specified to be performed solely by the City.

- A. Definition of "services", as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.
- B. The Contractor shall provide and maintain an inspection system acceptable to the City covering the services under this Contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the City during Contract performance and for as long afterwards as the Contract requires.
- C. The City has the right to inspect and test all services called for by the Contract, to the extent practicable at all times and places during the term of the Contract. The City will perform inspections and tests in a manner that will not unduly delay the work.
- D. If the City performs inspections or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in Contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties.

35. SECURITY

The City maintains security requirements regarding access to City buildings and other City workplaces and worksites on City property. All Contractor personnel accessing City buildings, workplaces, or worksites, may be required to produce a valid, Government issued picture identification. Contractor personnel lacking such identification may not be allowed access to such



sites. No costs incurred by the Contractor due to City security requirements shall be allowable or payable under this Contract.

36. TIME IS OF THE ESSENCE

In as much as the Contract concerns a needed or required service, the terms, conditions, and provisions of the Contract relating to the time of performance and completion of work are of the essence of this Contract. The Contractor shall begin work on the day specified and shall prosecute the work diligently so as to assure completion of the work within the number of calendar days or date specified, or the date to which the time for completion may have been extended.

37. EMPLOYMENT OF LABOR

The Contractor shall comply with, and defend and hold the City harmless from any violation of all laws and lawful rules and regulations, both of the State of Colorado and of the United States, relating to Workmen's Compensation, unemployment compensation, Social Security, payment for overtime, and all other expenses and conditions of employment under this Contract.

38. SALES TAX

The Contractor must have a tax-exemption certificate from the Colorado Department of Revenue for this project. The certificate does not apply to City of Colorado Springs Sales and Use Tax which shall be applicable. The tax exempt project number and the exemption certificate only applies to County, PPRTA (Pikes Peak Rural Transportation Authority), and State taxes when purchasing construction and building materials **to be incorporated into this project**.

Furthermore, the exemption **does not** include or apply to the purchase or rental of equipment, supplies or materials that **do not become a part of the completed project or structure**. Such purchases and rentals are subject to full applicable taxation.

All contracts with subcontractors must include the City of Colorado Springs Sales and Use Tax on the work covered by the Contract, and other taxes as applicable.

Note: For all equipment, materials and supplies incorporated into the work purchased from vendors or suppliers not licensed to collect City Sales Tax (i.e. out of state suppliers, etc.), City Use Tax is due and payable to the City. The Contractor shall execute and deliver and shall cause the Contractor's subcontractors to execute and deliver to the City Sales Tax Office, the appropriate ST forms as designated by the City Sales Tax Office. These forms shall list all said equipment, materials and supplies and the corresponding use tax due, along with payment for said taxes. Any outstanding taxes due may be withheld from the final payment due the Contractor and may result in suspension of Contractor from bidding on City projects.

Forms and instructions can be downloaded at <https://coloradosprings.gov/sales-tax>. Questions can be directed to the City Sales Tax Division at (719) 385-5903.

Our Registration Numbers are as follows:
City of Colorado Springs
Federal I.D.: 84-6000573
Federal Excise: A-138557



State Sales Tax: 98-03479

The Contractor's payment or exemption of State of Colorado, El Paso County and City Sales and Use Taxes shall be as specified herein.

39. SEVERABILITY

If any terms, conditions, or provisions of this Contract shall be held unconstitutional, illegal, or void, such finding shall not affect any other terms, conditions, or provisions of this Contract.

40. LIABILITY OF CITY EMPLOYEES

All authorized representatives of the City are acting solely as agents and representatives of the City when carrying out and exercising the power or authority granted to them under the Contract. There shall not be any liability on them either personally or as employees of the City.

41. USE OF CITY NAME OR LOGO

Except as otherwise provided in this Contract, the Contractor shall not refer to this Contract or the City of Colorado Springs in any advertising or promotions in such a manner as to state or imply that the product or service provided is endorsed or preferred by the City of Colorado Springs, its employees, or its Departments, or is considered by these entities to be superior to other products or services. Any use of the name or logo of the City of Colorado Springs in advertising or promotions must be approved in writing by the City of Colorado Springs Contracts Specialist assigned to the Contract prior to such use.

42. TRAVEL

If travel expenses are included as a line item in this Contract, all travel expenses incurred and billable by the Contractor are subject to City approval. Air travel shall be limited to the round trip "economy coach" fare. Travel from the Colorado Springs Airport is encouraged. Unless there are extenuating circumstances, the Contractor should take advantage of lower airfares by purchasing tickets more than 14 days in advance of travel. In-state travel by air must be more economical than travel by private vehicle. Use of a private vehicle may be reimbursed per mile at the current rate published by the IRS annually. Short-term parking, long-term parking or cab fare associated with airport departure and arrival may be allowable expenses. Valet parking will not be allowed unless it is the least expensive or only option. Car rental rates may be reimbursed for car rentals no greater than the intermediate or standard classification. The City will not reimburse any other travel methods or expenses. The City will pay for lodging, meals, and miscellaneous expenses on a per diem basis only, in accordance with the current per diem rates published by the IRS annually. The City will not pay for Contractor expenses exceeding the per diem rates. Receipts for all reimbursable expenses must be provided with the Contractor's invoice.

43. ELECTRONIC SIGNATURE

This Agreement and all other documents contemplated hereunder may be executed using electronic signature with delivery via facsimile transmission, by scanning and transmission of electronic files in Portable Document Format (PDF) or other readily available file format, or by copy transmitted via email, or by other electronic means and in one or more counterparts, each



of which shall be (i) an original, and all of which taken together shall constitute one and the same agreement, (ii) a valid and binding agreement and fully admissible under state and federal rules of evidence, and (iii) enforceable in accordance with its terms

44. APPENDICES

The following Appendices are made a part of this Agreement:

1. Schedule A Price Sheet
2. Schedule B General Construction Terms and Conditions
3. Schedule C Special Contract Terms and Conditions
4. Schedule D Scope of Work
5. Schedule E Special Construction Provisions
6. Schedule F Technical Specifications
7. Schedule G Measurement and Payment
8. Schedule H Grading & Erosion Control Plan
9. Schedule I Stormwater Management Plan
10. Schedule J Geo Tech Reports
11. Schedule K Notification of Utilities
12. Schedule L Plan Set
13. Schedule M Vendor Proposal
14. Schedule N Minimum Insurance Requirements



CONTRACT SIGNATURE PAGE

IN WITNESS WHEREOF, the parties have caused these presents to be executed on the day and the year first above written.

This Contract is executed in one (1) original copy.

THE CITY OF COLORADO SPRINGS, COLORADO:

SECOND PARTY:
Corporate Name
Signature Date
Title

THE PIKES PEAK RURAL TRANSPORTATION AUTHORITY:
DATE



EXHIBIT 3 – EVALUATION SCORESHEET

PROPOSAL EVALUATION SCORE SHEET

RFP EVALUATION CRITERIA DESCRIPTION	SCORE
<p>1. TECHNICAL AREA</p> <p>The Offeror must explain its overall solution, considering the scope of work or statement of work provided. The content must include, but not necessarily be limited to, the following information.</p>	
<p>A. Understanding of and compliance with technical requirements</p>	
<p>In the Technical Area, the Offeror should address each work area in sufficient detail to demonstrate a clear and full understanding of the work. The proposal should not merely parrot the requirements of the RFP. Further, the Offeror should provide evidence of sufficient planning to ensure the work is completed on schedule and within budget.</p> <p>Consider the following questions.</p> <ol style="list-style-type: none"> 1. Does the proposal demonstrate a firm understanding of the requirements and goals of the Statement of Work, as well as industry standards and reasonable expectations for a company in the industry? 2. Does the proposal fully and completely address each requirement and goal of the Statement of Work? 3. Does the proposal provide solutions to indicate that requirements and goals will be met on schedule? 4. Does the technical solution seem realistic? 5. Does it generally appear that the Offeror knows and thoroughly understands the business and requirement? 	<p>5 – Exceptional 4 – Very Good 3 – Satisfactory 2 – Marginal 1 – Unacceptable</p> <p>Rating: ____</p>
<p>B. Project Approach</p>	
<p>In the Technical Area, the Offeror should clearly present proposed solutions and indicate that it has performed adequate planning to accomplish tasks as defined in the Statement of Work. Innovations, efficiencies, and detailed specifics are all encouraged.</p> <p>The Offeror must at least address the following areas:</p> <ol style="list-style-type: none"> 1. Construction phasing and traffic control for the project. Explain the phases, traffic control for each phase, and the logic in the construction phasing. 2. Erosion and sediment control during all phases of construction as well as post construction efforts through permit closure. 3. Coordination with utilities. Discuss your understanding of the key 	<p>5 – Exceptional 4 – Very Good 3 – Satisfactory 2 – Marginal 1 – Unacceptable</p> <p>Rating: ____</p>



<p>utility relocations required for this project and how you will coordinate and phase your construction to both facilitate and accommodate those relocations and the constraints that they impose.</p> <ol style="list-style-type: none"> 4. Schedule Management. Discuss your approach to schedule management including updating and reporting progress of the work. 5. Quality Control. Discuss your quality control plan, processes and approach to ensure that the City receives a quality product. 6. Safety. Discuss the contractor's approach and commitment to safety for both construction workers and the public traveling through the construction site. 7. Potential issues that your firm foresees with this project and how you would make adjustments if encountered. Describe factors limiting construction phasing flexibility and potential remedies. <p>Consider the following questions.</p> <ol style="list-style-type: none"> 1. Does the proposal include a complete plan to accomplish each requirement, including subcontracting (if applicable)? 2. Does the proposal demonstrate that appropriate and qualified personnel and equipment will be provided to carry out the requirement? 3. Is the proper level of effort directed toward each requirement? Does the level of effort look unrealistically low or unreasonably high? 	
<p>Sum of Ratings in Technical Area (Add numbers in Section 1.A. and 1.B):</p>	
<p>Evaluation Factor:</p>	30
<p>Technical Area Evaluation Score (Multiply the sum of ratings in Technical Area by the evaluation factor):</p>	
<p>2. MANAGEMENT AREA</p>	
<p>The Offeror must explain its method of managing the work to be performed. The content must include, but no necessarily be limited to, the following information.</p>	
<p>A. Program Management Controls</p>	
<p>In the Management Area, the Offeror should provide a plan of operation, to include management of personnel, workload, schedule, and budget. It should also include an organization chart which demonstrates clear and effective lines of authority, responsibility, and communication for management, supervisory, and technical personnel. The plan should address which job classification or personnel will be assigned to each task and how that determination is made. Basic human resource management concepts should be addressed, including hiring, firing, discipline, incentive plans, etc. If the Offeror plans to subcontract more than 10% of the work, include information on how the Offeror plans to manage its subcontractors.</p>	<p>5 – Exceptional 4 – Very Good 3 – Satisfactory 2 – Marginal 1 – Unacceptable</p>
	<p>Rating: _____</p>



<p>The Offeror shall provide a detailed construction schedule for the project showing the key construction activities and how they will meet or better the County's timeframe and maximize construction efficiency to provide the best value to the City and minimize impacts to the public. The schedule shall be based on the Offeror's understanding and approach to the work as addressed above. Schedules submitted for this proposal shall assume a start date of September 15, 2024.</p> <p>Consider the following questions.</p> <ol style="list-style-type: none"> 1. Does the proposal address the issues above in sufficient detail to demonstrate a sophisticated and mature management control system? 2. Are program management controls consistent with the technical portion of the proposal, especially regarding schedule and level of effort? 3. Does the plan and controls indicate that the Offeror will obtain, keep, and efficiently utilize high quality personnel? 4. Does the offer address corrective actions? 5. Does the proposal explain how the Offeror will remain within schedule and budget? 	
<p>B. Past Performance/Relevant Experience and Key Personnel</p>	
<p>In the Management Area, the Offeror should provide at least three references or contracts demonstrating that it successfully provided services/products same or similar to those required in the RFP. The proposal should adequately explain how the projects were completed on schedule and within budget.</p> <p>Consider the following questions.</p> <ol style="list-style-type: none"> 1. Does the proposal include at least three references or past performance citations? 2. Are the references or past performance citations relevant to the requirements of the Statement of Work of the RFP? 3. Does the Offeror explain how they were successful on the projects provided as past performance? 4. Does the Offeror apply the past performance to the City requirement in such a way as to demonstrate added value due to experience? <p>In the Management Area, resumes must be provided for all personnel considered key, as required by the RFP. It is highly recommended that the Offeror provide sufficient content and detail to answer completely the following questions. Resumes do not count toward the page limitation. Explain how the key personnel were related to the projects cited as relevant past performance.</p> <p>Consider the following questions.</p> <ol style="list-style-type: none"> 1. Does the Offeror provide complete resumes, including education, experience, background information, accomplishments, and other 	<p>5 – Exceptional 4 – Very Good 3 – Satisfactory 2 – Marginal 1 – Unacceptable</p> <p>Rating: _____</p>



<p>pertinent information?</p> <ol style="list-style-type: none"> 2. Does the Offeror provide resumes for all key personnel, as required by the RFP? 3. Do the resumes demonstrate adequate professional, technical, and management levels to accomplish the work effectively and efficiently? 	
<p>Sum of Ratings in Management Area (Add numbers in Sections 2.A. and 2. B.)</p>	
<p>Evaluation Factor:</p>	35
<p>Management Area Evaluation Score (Multiply the sum of ratings in Management Area by the evaluation factor):</p>	
3. PRICE/COST AREA	
<p>The price must be fully loaded/all-inclusive and include unit cost for material, labor, other direct costs (e.g. travel), indirect costs (i.e. overhead and general and administrative costs), and profit/fee. Offers must include sufficient detail to allow insight into the fairness and reasonableness of the price.</p> <p>In addition, although price may not be the most important factor, it is still very important to the City of Colorado Springs. The Offeror's pricing must be competitive as compared to the budget amount, market pricing in the industry, and the pricing of the other Offerors.</p> <p>Consider the following questions:</p> <ol style="list-style-type: none"> 1. How does the price compare to the industry competition? 2. If low, is it unrealistically low? 3. If high, is there demonstrated added value for the additional cost? 4. Can you see how the price was built? If so, do the costs look appropriate for the task? 5. Does the Offeror leave applicable costs out of the calculations? For instance, some will say travel is not included and will be an extra cost. This should be considered when comparing to other Offerors. 6. Are there additional costs not addressed that the City would incur if the Offeror were awarded the contract? If so, include those costs when comparing to the budget amount and the competition. 	<p>5 – Exceptional 4 – Very Good 3 – Satisfactory 2 – Marginal 1 – Unacceptable</p> <p>Rating: ____</p>
<p>Total Price/Cost Area (Insert number from Section 3 evaluation above):</p>	
<p>Evaluation Factor:</p>	25
<p>Price/Cost Area Evaluation Score (Multiply the Total Price/Cost Area by the evaluation factor):</p>	
4. PROPOSAL PRESENTATION	



<p>Presentation is an important factor. Offerors should provide a highly professional product, which is complete, accurate, easily understood, and effectively presented.</p>	<p>5 – Exceptional 4 – Very Good 3 – Satisfactory 2 – Marginal 1 – Unacceptable</p> <p>Rating: ____</p>
<p>Total Proposal Presentation Area (Insert number from Section 4 evaluation above):</p>	
<p>Evaluation Factor:</p>	<p>10</p>
<p>Proposal Presentation Area Evaluation Score (Multiply the Total Proposal Presentation Area score by the evaluation factor):</p>	
<p>EXCEPTIONS PROPOSED</p>	
<p>What (if any) exceptions (redlines to our terms and conditions) were proposed? Are they acceptable?</p> <p>COMMENTS</p>	<p>Pass/Fail</p>
<p>TOTAL SCORE – Add Evaluation Scores from Sections 1-4 and location bonus (if applicable). The sum is the total score.</p>	<p>Total Score:</p>



EXHIBIT 4 – SAMPLE BONDS

Sample Bonds follow this page.



CITY OF COLORADO SPRINGS AND PPRTA AND CDOT PERFORMANCE BOND

1. KNOW BY ALL MEN BY THESE PRESENTS, THAT

(Name)

(Address)
As Principal, hereinafter called "Principal," and

(SURETY Name)

(SURETY Address)
A corporation organized and existing under the laws of the State of _____

And AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called "Surety," are held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO and the PIKES PEAK RURAL TRANSPORTATION AUTHORITY and the CDOT as Obligees, hereinafter called "Obligees," in the sum of WRITTEN DOLLAR AMOUNT (\$x, xxx, xxx. xx Dollars) lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors, and assigns, jointly and severally, firmly by these presents:

- 2. WHEREAS, the Principal and the Obligee have entered into a contract dated the XX day of XX, 2024 for the following project: Tejon Revitalization Contract # T00XXXX, which contract is by reference made a part hereof, and referred to as "Contract."
- 3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT if the Principal shall promptly and faithfully perform all terms, conditions, and other obligations of the Contract, and any modifications or extensions thereof granted by the Obligee, then this obligation shall be null and void: otherwise, this obligation shall remain in full force and effect.
- 4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration or modification of the terms, conditions, or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Obligee or the Principal to the other shall in any way release or affect the liability or obligation of this Bond, and the Surety hereby waives notice of any such extension of time, change, addition, modification, alteration or forbearance.



Page Two (2) of Performance Bond

Signed and Sealed on the dates set forth below:

FOR: _____
(Witness) _____ (PRINCIPAL's Name)

BY: _____

ITS: _____

(Seal) _____ This ____ Day of _____, 2024

FOR: _____

(Witness) _____ FOR: (SURETY'S Name)

BY: _____

ITS: _____

(Seal) _____ This ____ Day of _____, 2024

Bond #: _____ This Bond (is) (is not) an SBA Guaranteed Bond.



CITY OF COLORADO SPRINGS AND PPRTA AND CDOT LABOR & MATERIAL PAYMENT BOND

1. KNOW BY ALL MEN BY THESE PRESENTS, THAT

(Name)

(Address)
As Principal, hereinafter called "Principal," and

(SURETY Name)

(SURETY Address)
A corporation organized and existing under the laws of the State of _____

And AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called "Surety," are held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO and the PIKES PEAK RURAL TRANSPORTATION AUTHORITY and the CDOT as Obligees, hereinafter called "Obligees," in the sum of WRITTEN DOLLAR AMOUNT (\$x, xxx, xxx. xx Dollars) lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors, and assigns, jointly and severally, firmly by these presents:

2. WHEREAS, the Principal and the Obligee have entered into a contract dated the XX day of XX, 2024 for the following project: Tejon Revitalization Contract # T00XXXX, which contract is by reference made a part hereof, and referred to as "Contract."

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the Principal shall promptly make payments of all amounts lawfully due to all persons supplying or furnishing the Principal or the Principals subcontractors with labor, materials, rental machinery, tools, or equipment used or performed in the prosecution of the work provided for in the Contract; and if the Principal shall indemnify and save harmless the Obligee to the extent of any payments in connection with the carrying out of the Contract which the Obligee may be required to pay under the law, all in accord with Colorado State Law, Section 38-26-105 C.R.S., then this obligation shall be null and void; otherwise this obligation shall remain in full force and effect.

AND FURTHER, should the Principal or the Principal's subcontractors fail to duly pay for any labor, materials, team hire, sustenance, provisions, provender, or other supplies used or consumed by the Principal or the Principal's subcontractors in the performance of the work contracted to be done, or fails to pay any person who supplies rental machinery, tools or



equipment, all amounts due as the result of the use of such machinery, tools, or equipment, in the prosecution of the work under the Contract, the Surety shall pay the same in an amount not exceeding the sum specified in this Bond together with interest at the rate of eight percent per annum, in accordance with Colorado State Law, Section 38-26-106 C.R.S.

In accordance with Colorado State Law, Section 38-26-105 C.R.S., actions against the Principal and Surety under this Bond shall be brought within six months after the final completion of the Contract as defined by the ordinances, rules, and regulations of the City of Colorado Springs, Colorado, a home rule City, and not afterwards.

4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration or modification of the terms, conditions, or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Obligee or the Principal to the other shall in any way release or affect the liability or obligation of this Bond, and the Surety hereby waives notice of any such extension of time, change, addition, modification, alteration or forbearance.



Page Two (2) of Labor and Material Payment Bond

Signed and Sealed on the dates set forth below:

FOR: _____

(Witness) (PRINCIPAL's Name)

BY: _____

ITS: _____

(Seal) This ____ Day of _____, 2024

FOR: _____

(Witness) FOR: (SURETY'S Name)

BY: _____

ITS: _____

(Seal) This ____ Day of _____, 2024

Bond #: _____ This Bond (is) (is not) an SBA Guaranteed Bond.



CITY OF COLORADO SPRINGS AND PPRTA AND CDOT MAINTENANCE BOND

1. KNOW BY ALL MEN BY THESE PRESENTS, THAT

(Name)

(Address)

As Principal, hereinafter called "Principal," and

(SURETY Name)

(SURETY Address)

A corporation organized and existing under the laws of the State of _____

And AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called "Surety," are held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO and the PIKES PEAK RURAL TRANSPORTATION AUTHORITY and the CDOT as Obligees, hereinafter called "Obligees," in the sum of WRITTEN DOLLAR AMOUNT (\$x, xxx,xxx. xx Dollars) lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors, and assigns, jointly and severally, firmly by these presents:

- 2. WHEREAS, the Principal and the Obligee have entered into a contract dated the XX day of XX, 2024 for the following project: Tejon Revitalization Contract # T00XXXX, which contract is by reference made a part hereof, and referred to as "Contract."
- 3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the Principal shall promptly, properly, and without cost to Obligee perform all maintenance and other guarantee obligations under the terms of the Contract, including any modifications or extensions thereof granted by the Obligee, for a period of TWO (2) year(s) from the date of final payment upon the Contract by the Obligee, and in the case of each correction or repair, during a period of ONE (1) year after the date of said correction or repair or for the remaining period of years set forth herein, whichever is longer, then this obligation shall be null and void; otherwise this obligation shall remain in full force and effect.
- 4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration or modification of the terms, conditions, or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Obligee or the Principal to the other shall in any way release or affect the liability or obligation of this Bond, and the Surety hereby waives notice of any such extension of time, change, addition, modification, alteration or forbearance.



Page Two (2) of Maintenance Bond

Signed and Sealed on the dates set forth below:

FOR: _____
(Witness) _____ (PRINCIPAL's Name)

BY: _____

ITS: _____

(Seal) _____ This ____ Day of _____, 2024

FOR: _____

(Witness) _____ FOR: (SURETY'S Name)

BY: _____

ITS: _____

(Seal) _____ This ____ Day of _____, 2024

Bond #: _____ This Bond (is) (is not) an SBA Guaranteed Bond.



**ORIGINAL COPY
POWER OF ATTORNEY ON ALL BONDS**



EXHIBIT 5 – CDOT FORMS

CDOT forms follow this page.

**COLORADO DEPARTMENT OF TRANSPORTATION
ANTI-COLLUSION AFFIDAVIT**

PROJECT NO.

LOCATION

I hereby attest that I am the person responsible within my firm for the final decision as to the price(s) and amount of this bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on behalf of my firm.

I further attest that:

1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement for the purpose or with the effect of restricting competition with any other firm or person who is a bidder or potential prime bidder.
- 2A. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential prime bidder on this project, and will not be so disclosed prior to bid opening.
- 2B. Neither the prices nor the amount of the bid of any other firm or person who is a bidder or potential prime bidder on this project have been disclosed to me or my firm.
- 3A. No attempt has been made to solicit, cause or induce any firm or person who is a bidder or potential prime bidder to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.
- 3B. No agreement has been promised or solicited for any other firm or person who is a bidder or potential prime bidder on this project to submit an intentionally high, noncompetitive or other form of complementary bid on this project.
4. The bid of my firm is made in good faith and not pursuant to any consultation, communication, agreement or discussion with, or inducement or solicitation by or from any firm or person to submit any intentionally high, noncompetitive or other form of complementary bid.
5. My firm has not offered or entered into a subcontract or agreement regarding the purchase or sale of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit any intentionally high, noncompetitive or other form of complementary bid or agreeing or promising to do so on this project.
6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting any intentionally high, noncompetitive or other form of complementary bid, or agreeing or promising to do so, on this project.
7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, or other conduct inconsistent with any of the statements and representations made in this affidavit.
8. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as a fraudulent concealment from the Colorado Department of Transportation, of the true facts relating to submission of bids for this contract.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Contractor's firm or company name	By	Date
	Title	
2nd contractor's firm or company name. (If joint venture.)	By	Date
	Title	

Sworn to before me this _____ day of, _____ 20____

Notary Public	
My commission expires	
NOTE: This document must be signed in ink.	



SCHEDULES

Schedule A	Price Sheet
Schedule B	General Construction Terms and Conditions
Schedule C	Reserved
Schedule D	Scope of Work
Schedule E	Special Construction Provisions
Schedule F	Technical Specifications
Schedule G	Measurement and Payment
Schedule H	Grading & Erosion Control Plan
Schedule I	Stormwater Management Plan
Schedule J	Geo Tech Reports
Schedule K	Notification of Utilities
Schedule L	Plan Set



SCHEDULE A – PRICE SHEET

A separate Excel Sheet will be uploaded to fill out and return.



SCHEDULE B – GENERAL CONSTRUCTION TERMS AND CONDITIONS

SECTION 100 DEFINITIONS AND TERMS

Titles used in these specifications having a masculine gender, such as “workmen” and the pronouns “he” or “his”, are for the sake of brevity and are intended to refer to persons of any gender.

The titles or headings of the sections and subsections herein are intended for convenience of reference and shall not have any bearing on their interpretation.

When the Contract indicates that something “shall” be done, the action is required and is not discretionary.

Calendar Day Each and every day shown on the calendar, beginning and ending at midnight.

Change Order A written order issued to the Contractor by the City covering contingencies, extra work, increases or decreases in Contract quantities, and additions or alterations to the plans or specifications, within the scope of the Contract, and establishing the basis of payment and time adjustments for the work affected by the changes. The Change Order is the only method authorized for changing the Contract.

City The City of Colorado Springs, Colorado.

Contract Documents Contract Documents include the Request for Proposal, Instructions to Offerors, Proposal, Amendments, the signed Contract, surety bonds, insurance documents, all terms, conditions, and provisions, and the Specifications, including all modifications thereof incorporated in any of the documents before execution of the agreement.

Contract The executed written agreement between the City and the Contractor setting forth the obligations of the parties for the performance of the work and the basis of payment. The Contract includes the Contract Documents, Notice to Proceed, and executed Change Orders, all of which constitute one instrument.

Contractor The person, persons, firm, or corporation to whom a Contract is awarded by the City and who is subject to the terms of said Contract. Contractor shall include the agents, employees, workmen, subcontractors and any assignees of said Contract.

Engineer An engineer of the City of Colorado Springs.



Notice	<p>Any written notice served pursuant to the terms of the Contract. Notice shall be deemed to have been duly served if delivered in person or by registered mail to:</p> <p>The Project Manager assigned to the Contract, City of Colorado Springs, City Engineering, 30 South Nevada Ave., Room 403, Colorado Springs, CO 80903.</p> <p>Notice to the Contractor will be to the Authorized Representative of the Contractor at the site of the Project in person; or by registered mail to the Contractor's principal place of business as indicated in the Contractor's proposal certifications; or as to the Surety on the performance bond by registered mail to the Surety at the home office of such surety.</p>
Plans	<p>The drawings, or reproductions, provided by the City that show the location, character, dimensions, and details of the work to be done.</p>
Project Manager	<p>An individual representing the City responsible for managing and oversight of the Contract. .</p>
Project	<p>The entire improvement outlined in the Scope of Services which is to be constructed in whole or in part pursuant to the Contract.</p>
Subcontractor	<p>A person, firm, or corporation, other than the Contractor, supplying labor or materials, or both, or equipment furnished at the site of the project under an Agreement with the Contractor.</p>
Surety	<p>The person, firm, or corporation that has executed as surety the Contractor's Proposal, Performance, Payment and Maintenance Bonds.</p>
Work	<p>Work performed under the Contract.</p>
Working Days	<p>Days of the week, not including weekends and City holidays, unless otherwise stated.</p>

SECTION 101 CONTRACT DOCUMENT INTERPRETATION

101.00 INTENT OF CONTRACT DOCUMENTS

The sections of the Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intent of the Contract Documents is to include the cost of all labor and materials, water, fuel, tools, plants, equipment, light, transportation, and all other expenses as may be necessary for the proper execution of the work. If the Contract Documents should be contradictory in any part, the order of precedence shall be as described in the Contract.



Any work shown on the Plans and not covered in the specifications, or included in the Specifications and not shown on the Plans, shall be executed by the Contractor as though shown both on the Plans and included in the Specifications.

If the Contractor, in the course of the work, finds any discrepancy between the Plans and the physical layout, or any errors or omissions in Plans or layout, he shall immediately so inform the Project Manager and the Project Manager will promptly verify them. Any work done after such discovery without written consent of the Project Manager authorizing the same shall be done at the Contractor's risk and sole expense.

Any incidental and/or appurtenant items not specifically called for in the Plans and Specifications, but which are necessary to complete the work in accordance with the requirements of good practice, as determined by the Project Manager, shall be included as a part of the Contractor's proposal price and furnished at no additional cost to the City.

In interpreting the Contract Documents, words describing materials or work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract documents, shall be construed in accordance with such well known meaning recognized by architects, engineers, and the trade.

101.01 SPECIAL PROVISIONS, SPECIAL SPECIFICATIONS

Special Provisions or Special Specifications may be written to expand upon, modify or cancel these general provisions or the standard specifications.

101.02 STANDARD MANUFACTURER

Wherever the terms "standard", "recognized" or "reputable" manufacturers are used, they shall be construed as meaning manufacturers who have been engaged in the business of fabricating materials, equipment, or supplies of the nature called for by the Specifications for a reasonable period of time prior to the date set for submission of proposals, and who can demonstrate to the satisfaction of the City that said manufacturer has successfully installed equipment, materials, or supplies of the type proposed to be furnished in at least three instances and that the performance of such materials, equipment, or supplies for a period of over twelve months prior to the date fixed for submission of proposals shall, prima facie, be deemed to have been engaged in such business for a reasonable length of time.

101.03 "OR EQUAL" CLAUSE

Whenever in any section of the Contract documents, any article, material, or equipment is defined by describing a proprietary product, or by using the name of manufacturer or vendor, the term "or equal" if not inserted, shall not be construed in such a manner as to exclude manufacturers' products of comparable quality, design, and efficiency, subject to review and approval by the Project Manager. The Project Manager may require that proposed equals be submitted for review and approval.

SECTION 102 COMPLIANCE WITH LAWS



102.00 PUBLIC IMPROVEMENT ASSESSMENT

If the cost of the improvement to be constructed under the Contract is to be assessed upon the owners of land benefited by such improvement, upon complaint of any such landowner that the improvement is not being constructed in accordance with the Contract, the City Council may consider the complaint and make such order in the premises as shall be just to ensure compliance with the Contract.

102.01 ALL LEGAL PROVISIONS INCLUDED

It is the intention and agreement of the parties to this Contract that all legal provisions of law required to be inserted, shall be and are inserted. However, if by mistake or otherwise, some such provision is not inserted, or is not inserted in proper form, then upon application of either party, the Contract shall be amended so as to strictly comply with the law and without prejudice to the rights of either party.

102.02 LICENSES AND PERMITS

It shall be the responsibility of the Contractor to obtain, at its expense, all necessary licenses and permits to do the Project, in accordance with applicable Federal, State and local laws, regulations and ordinances. Typical permits and fees include, but are not limited to, Excavation/Boring Permits, Concrete Construction Permits, Fugitive Dust Permits, Regional Building Permits, Pavement Degradation fees, as well as Traffic Control and Barricade Plans to be approved by the City Traffic Division for all work within public rights-of-way and easements i.e. (curb and gutter, sidewalks, pedestrian ramps and cross pans).

SECTION 103 AWARD AND EXECUTION OF CONTRACT

103.00 CONTRACT EXECUTED

A single original Contract to include the Contractor's Performance, Labor and Material Payment and Maintenance Bonds may be executed and maintained in the official Contract file located in the City Contracts office. The original copy of the Contract maintained in the City Procurement Services file shall take precedence for purposes of interpretation or determining what the Contract says. After all required signatures are obtained; photocopy counterparts (copies) will be made and distributed to the following, as applicable:

- (a) Contractor
- (b) Project Manager
- (c) City Finance Department
- (d) Inspector

Each Bond shall have an original Power of Attorney attached. The Contractor shall provide compensation insurance and public liability and property damage insurance as outlined in the Contract. The costs of executing the bonds, Contract, and insurance, including all notaries' fees and expense, are to be paid by the Contractor to whom the Contract is awarded. Bonds shall be furnished on forms prepared by the City. Copies of the City's Bond Forms are included in the Exhibits Section of the Request for Proposal, if applicable.



103.01 VERBAL AGREEMENTS

No verbal agreements or conversations with any agent or employee of the City either before or after execution of the Contract shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

103.02 CONTRACT SECURITY

The Contractor shall furnish good and sufficient Performance, Labor and Material Payment and Maintenance Bonds on the form attached hereto in an amount not less than the full amount of the Contract price as security for the faithful performance of the Contract, for the payment of all persons performing labor and furnishing material in connection with the work, and for all guarantees of materials and workmanship required in the Contract. If at any time during the continuance of the Contract a surety on the Contractor's bond or bonds becomes irresponsible, as determined in the City's sole and absolute discretion, the City shall have the right to require additional and sufficient sureties which the Contractor shall furnish within ten (10) days after written notice to do so. Any additional surety bonds shall cover the entire original Contract amount and any increases thereto.

103.03 INDEPENDENT CONTRACTOR

In the performance of the Contractor's obligations under this Contract, it is understood, acknowledged and agreed between the parties that the Contractor is at all times acting and performing as an Independent Contractor, and the City shall neither have nor exercise any control or direction over the manner and means by which the Contractor performs the Contractor's obligations under this Contract, except as otherwise stated within the Contract terms. The City shall not provide any direction to the Contractor on the work necessary to complete the Project. Contractor understands that it is an independent contractor responsible for knowing how to perform all work or tasks necessary to complete Project. The Contractor understands and agrees that the Contractor and the Contractor's employees, agents, servants, or other personnel are not City employees. The Contractor shall be solely responsible for payment of salaries, wages, payroll taxes, unemployment benefits or any other form of compensation or benefit to the Contractor or any of the Contractor's employees, agents, servants or other personnel performing services or work under this Contract, whether it be of a direct or indirect nature. Further in that regard, it is expressly understood and agreed that for such purposes neither the Contractor nor the Contractor's employees, agents, servants or other personnel shall be entitled to any City payroll, insurance, unemployment, worker's compensation, retirement or any other benefits whatsoever.

SECTION 104 THE CONTRACT: FOLLOWING EXECUTION

104.00 MATERIALS

Unless otherwise stipulated in the Contract, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light power, transportation, and other facilities necessary for the execution and completion of the work. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.



104.01 SCHEDULE

In the event of contradictions or inconsistencies, this clause shall take precedence over any language relevant to scheduling included anywhere else in this Contract.

The Contractor shall be responsible for planning, scheduling, and reporting the progress of the work to ensure timely completion of the work as called for in the Contract Documents. The Contractor shall prepare a detailed Project schedule (“Project Schedule”) that shall be used for coordination, for evaluation of progress, and for the evaluation of changes to the Contract. The Project Schedule shall include all activities, including those of subcontractors, Contractor’s engineers and surveyors, and suppliers. Seasonal and weather constraints, utility coordination, railroad restrictions, right of way restrictions, traffic constraints, environmental constraints, other project interfaces, expected job learning curves and other constraints shall be considered when preparing the Project Schedule, including any phasing or sequencing of the work specified in the Contract Documents. Days scheduled as no work days shall be indicated. The Project Schedule shall consist of a Methods Statement as defined in subsection (a) below and a progress schedule consisting of (1) a Critical Path Method (“CPM”) schedule as defined in subsection (b) below, or (2) a Bar Chart schedule as defined in subsection (c) below. A CPM Schedule shall be required if the Contract exceeds \$250,000 or if the construction period exceeds 150 Calendar Days, unless the Contract Documents stipulate otherwise. The CPM Schedule shall utilize Primavera’s Suretrak Project Manager software (or other software designated by the Project Manager), or be capable of being read and manipulated by Suretrak Project Manager software (or other software designated by the Project Manager). The Project Schedule shall show all work completed within the Contract Period of Performance. The City reserves the right to approve or disapprove any proposed schedule. If disapproved, the Contractor must make requested changes and resubmit the schedule for approval within five working days of the disapproval by the City.

After award, the Contractor shall submit two copies of all required schedule information as described below. Schedules, schedule updates, diagrams and reports using CPM shall also be submitted electronically in the appropriate software format. All schedules, diagrams, and reports shall include a title, project number, date of preparation, and the name of the Contractor.

The Bar Chart or CPM 90-day schedule shall be submitted at least 14 Calendar Days prior to the start of the work. The Project Manager’s review will not exceed five working days. Work shall not begin until the Project Schedule is accepted in writing, unless otherwise approved by the Project Manager.

- (a) **Methods Statement.** A Methods Statement shall be prepared for the prominent features listed in the Contract Documents, and for any feature not listed in the Contract Documents that the Contractor considers a controlling factor for timely completion. The Methods Statement shall be a detailed narrative describing each feature and all work necessary to complete the feature. The Methods Statement shall be submitted with the Contractor’s schedule. The following format is required:
1. **Feature:** Name of the feature;
 2. **Responsibility:** Contractor, subcontractor, supplier, utility, etc. responsible for the feature;
 3. **Procedures:** Procedures to be used to complete the work. The procedure to be used shall include general information regarding methods such as forming,



excavation, pouring, heating and curing, backfill and embankment, trenching, protecting the work, etc. When separate or different procedures are to be employed by the Contractor due to seasonal or Project phasing requirements, such differing procedures shall be described in the procedure statement;

4. Production Rates: The planned quantity of work per day for each feature;
5. Labor Force: The labor force planned to do the work;
6. Equipment: The number, types, and capacities of equipment planned to do the work;
7. Work Times: The planned time for the work to include:
 - (a) number of work days per week
 - (b) number of shifts per day
 - (c) number of hours per shift

At the Project Manager's request, the Contractor shall update the Methods Statement, or any part thereof, and submit it with the Job Progress Narrative Report or Schedule Update, whichever is earlier.

- (b) Critical Path Method. CPM is a scheduling method which shows the interdependencies between work activities. The critical path is that path through the schedule which, if delayed, will cause a delay to project completion.

The progress schedule shall include as a minimum the prominent features of this Project as listed in the Contract Documents. The progress schedule shall include all activities for all work on the Project, including subcontracted work, delivery dates for critical material, submittal and review periods, milestone requirements and no work periods. Where the Project has specific phases, each phase shall be described separately for each applicable prominent feature.

Construction activity duration shall not exceed 15 Calendar Days unless approved by the Project Manager. Series of activities that have aggregate durations of five Calendar Days or less may be grouped in a single activity. For example, "form, reinforce, and pour pier" could be defined as a single activity rather than three. Single activities or a series of grouped activities of at least one Calendar Day duration may also need to be included in the Project Schedule as determined by the Project Manager (e.g. same activities but noted separately by location).

Time Scaled Logic Diagram: This diagram shall show the logical progression of all activities required to complete the work defined in the Contract Documents. Activity information shall include activity ID, description, duration, early start and finish dates, late start and finish dates, total float, and responsibility.

1. 90-Day Schedule. The 90-Day Schedule shall provide all necessary detail for procurement, construction and submittal activities required during the first 90 days of the Period of Performance. This submittal shall include a Time Scaled Logic Diagram.
2. Project Schedule, as described above.
The Project Schedule shall cover the entire Period of Performance.
3. Schedule Updates. The Contractor shall update the 90-Day Schedule or the Project Schedule to reflect actual construction progress of all work activities on



the project. Updates shall show the previous 30 days progress and a 60-day projection for all work started, completed, or in progress during this three month window.

The Project Schedule shall be updated as of the cutoff date for the monthly progress pay estimate and submitted to the Project Manager before the payment of the progress pay estimate is approved.

Each of the diagrams, charts, and reports shall comply with the requirements for the Project Schedule above, except that they shall also include the actual completion dates and percentages of completion for the appropriate activities.

(c) Bar Chart. The Bar Chart shall be time scaled and shall show the following:

1. The prominent features, as listed in the Contract Documents.
2. Any feature not listed in the Contract Documents that the Contractor considers a controlling factor for timely completion.
3. The number of days required to complete each feature and its relationship in time to other features.
4. Sufficient space for each feature to permit two additional plots parallel to the original time span plot.
5. The anticipated delivery dates for equipment or materials in any feature that could affect timely completion of the project.
6. Critical completion dates for any activity within any feature that could affect timely completion of the project.
7. Connecting lines between features that show the intended progression of activities.

The Project Schedule shall cover the time from the Day of Notice to Proceed to the predicted completion date. The Project Schedule shall be updated as of the cutoff date for the monthly progress pay estimate and submitted to the Project Manager before the payment of the progress pay estimate is approved. The Contractor shall provide a copy of the original bar chart showing, for each feature, the days actually worked and the anticipated days required to complete.

(d) Project Coordination. The Contractor shall coordinate and schedule its work to include anticipated utility work. Various City and private utility entities may be working to install and/or inspect their utilities within the Project area. Reasonable delays should be expected for utility lowering, relocations and placement. These delays shall not be reason for granting any monetary change or performance time alteration to the Contract. As a minimum, the Contractor's Project Schedule shall reflect coordination with the following:

1. City of Colorado Springs City Engineering Division
2. City of Colorado Springs Traffic Engineering Division
3. Colorado Springs Utilities (water, wastewater, gas, electric)
4. City of Colorado Springs Parks, Recreation and Cultural Services Department
5. Private Utility and Telecommunication Companies

(e) Contractor Early Finish or Voluntary Acceleration. Early finish or voluntary acceleration of the schedule by the Contractor is acceptable provided:



1. At the time the Contractor submits the Project Schedule indicating an early finish or voluntary acceleration, the City is notified in writing of actions on the City's part necessary to accommodate the change(s).
2. The City agrees to such change(s) in writing.
3. The City is compensated by the Contractor for any inconvenience or expense associated with the change(s).
4. There is no increase to Contract cost.

A Job Progress Narrative Report shall be submitted bi-weekly as a minimum and with all Project Schedule updates. It shall detail the description of job progress, problem areas, current and anticipated delaying factors and their anticipated effects, impacts to job milestones or Project completion, any corrective action proposed or taken, and any minor revisions to the Project Schedule. If the Job Progress Narrative Report indicates problem areas and impacts to job milestones or Project completion, a revised Project Schedule shall also be submitted as specified below.

Revision of the Project Schedule may be required, as determined by the Project Manager, for: a major revision in the schedule logic or methods of construction; the addition, deletion, or revision of activities required by Contract modification; delays in milestones or the completion of the Project; or for prosecution of work that revises the phasing or staging which is represented on the plans or on the progress schedule. If in the opinion of the Project Manager, the Contractor falls behind the approved Project Schedule, the Contractor shall take steps necessary to improve Project progress, including those steps that may be required by the Project Manager, without additional costs to the City. In those circumstances where the Contractor is behind schedule, the City may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction planned and to submit such changes and revisions to the Project Schedule to the Project Manager for approval that will demonstrate how the approved rate of required progress will be regained. Failure of the Contractor to comply with the requirements of the Project Manager under this subsection shall be grounds for a determination by the City that the Contractor is not prosecuting the work with sufficient diligence to ensure timely completion of the Contract as required.

If it is determined that a revision to the Project Schedule is required, it shall be provided to the Project Manager for review within 15 Calendar Days of Contractor receiving written notification of the requirement from the Project Manager. The Project Manager's review of the revised schedule will not exceed 5 working days. Revisions required as a result of the Project Manager's review shall be submitted within 5 working days. When accepted by the Project Manager in writing, the revised schedule shall become the Project Schedule.

The Contractor shall participate in the Project Manager's review and evaluation of the submittals. Meetings will be held to review progress and planning when requested by the Project Manager or Contractor. The Project Manager may request additional project scheduling information and documentation as deemed necessary, including reports and other information that may be reasonably generated using CPM software if required by the Contract.

The Contractor shall prosecute the work according to the Project Schedule. The Contractor shall be responsible for assuring that its subcontractors, suppliers, and engineers/surveyors, at any tier, also prosecute the work according to the Project Schedule. The City shall be entitled to rely on the Project Schedule for planning and coordination.



Acceptance of the Contractor's Project Schedule by the Project Manager is not to be construed as relieving the Contractor of obligation to complete the Contract work within the Contract time allowed for the portion of the work or the entire Contract, or granting, rejecting or in any other way acting on the Contractor's request for extension of Contract time, or claims for additional compensation.

All costs relating to preparation, submittal, and acceptance of the Project Schedule, reports and revisions, and all requirements of this subsection will not be paid for separately, but shall be included in the work.

Failure of the Contractor to comply with the requirements of this subsection may be grounds for a determination by the Project Manager that no further progress payments are to be made until the Contractor is in full compliance.

104.02 SCHEDULE OF VALUES

Promptly following the execution of the Contract Documents for all Firm Fixed Price, lump sum Contracts, the Contractor shall prepare and transmit to the Project Manager two copies of an itemized Project cost breakdown showing the unit quantities of each major construction item and the corresponding unit prices. Such unit prices shall contain all costs including profit and overhead of each item complete in place. The total cost of all the items shall equal the Contract price for the Project. This breakdown, once approved by the Project Manager, will be used primarily in determining payment due the Contractor as provided herein. If, in the opinion of the Project Manager, any unit price submitted by the Contractor is unbalanced, a detailed breakdown of the items contained in the unit will be required.

For Contracts executed on a fixed unit price basis, payment shall be made based on the actual number of units installed or performed that are complete, however, payment shall not exceed the total Contract amount unless previously approved by Change Order.

104.03 SURVEYS

Unless otherwise specified in the Contract Documents, the City will furnish all site surveys, easements, pipeline licenses, etc., necessary to authorize construction of any permanent works required in the Contract, where such work is to be done on property other than the City's.

The Project limits of construction shall be within the public right-of-way and/or City easements. The Contractor shall not trespass on premises outside of the limits of construction for this Project, unless permission to do so is granted by the property owner in writing. Copies of any such grant shall be furnished to the City prior to the performance of any work outside the limits of construction.

104.04 SUBCONTRACTS

The Contractor will be permitted to subcontract a portion of the Contract; however, the Contractor shall perform work amounting to 30 percent or more of the original total cost of proposal items. Any items designated in the Contract as "specialty items" may be performed by subcontractor. The cost of "specialty items" so performed by subcontractor may be deducted from the original



total cost of proposal items before computing the amount of work required to be performed by the Contractor.

The calculation of the percentage of subcontracted work shall be based on the Contract unit prices rather than subcontract unit prices. Proportional value for a subcontracted partial Contract item will be verified by the Project Manager. For the purpose of calculating the value of subcontracted work, the cost of procuring materials and manufactured products can be included in either the Contract or subcontract. However, when a firm both sells material to a Contractor and performs the work of incorporating the materials into the Project, these two phases shall be considered in combination and as constituting a single subcontract.

The Contractor shall as soon as practical after signing the Contract notify the Project Manager in writing, giving the names and qualifications, of all subcontractors proposed to do work on the Project within fifteen (15) business days of notice of award. The City shall have the right to reject subcontractors who are debarred or suspended from doing business with the federal government, State government, or the City of Colorado Springs. The Contractor shall notify the Project Manager of each subcontract he awards, giving:

- (a) Name, address, and telephone number of the subcontractor
- (b) Branch of work covered
- (c) Total price of subcontract
- (d) Date of subcontract

It shall be the responsibility of the Contractor to file with the Project Manager copies of applicable permits and licenses required to do the subcontracted work. Subcontracts or transfer of Contract obligations shall not release the Contractor of liability under the Contract and bonds.

104.05 OTHER CONTRACTS

The City may undertake or award other Contracts for additional work at or near the site of the work under this Contract. The Contractor shall fully cooperate with the other Contractors and with City employees and shall carefully adapt their scheduling and performance of the work to accommodate the additional work, heeding any direction that may be directed by the Project Manager. The Contractor shall not commit or permit any act, which will interfere with the performance of work by any other contractor.

SECTION 105 CONSTRUCTION SITE

105.00 LANDS TO BE USED FOR WORK

The Contractor shall confine the work activities to the area shown in the construction drawings. The Project Manager will furnish the Contractor with copies of all executed right of way (ROW) and easement documents for the Project. The established work zone shall be marked and secured with orange safety fence. Any additional work area required within adjoining private properties must be acquired by the Contractor by written permission from the property owner. The Contractor shall restore any damage or disruption to other properties utilized in the performance of this Project to an equal or better than pre-construction condition at no cost to the City. The Contractor shall indemnify and hold the City harmless from any claims or losses from damage or disruption of private property.



Contractor shall provide, at its expense and without liability to the City, any additional land and access thereto that may be required for temporary construction facilities or for storage of materials. All such costs will be considered incidental to the work and will not result in additional cost to the City. Contractor personnel shall not unnecessarily enter upon private property without the express written consent of the landowner. The Contractor shall provide the Project Manager with a copy of the written permission. The Contractor shall indemnify and hold the City harmless from any claims or losses related to Contractor trespassing.

105.01 STORAGE OF MATERIALS

The Contractor shall confine its equipment, apparatus, the storage of materials and operations of Contractor's workmen to limits indicated by law, ordinances, permits, or directions of the City and shall not encumber the Project site with materials or equipment not necessary for the Project.

105.02 LOADING OF STRUCTURES

The Contractor shall not load or permit any part of a structure to be loaded with a weight that will endanger the structure's safety. The Contractor shall enforce the Project Manager's instructions regarding signs, advertisements, fires, and smoke.

105.03 SANITARY PROVISIONS

The Contractor shall provide and maintain on the construction site at all times suitable sanitary facilities for use of those employed on this Contract without committing any public nuisance. All toilet facilities shall be subject to the approval of the El Paso County Public Health Department. All portable toilet facilities for this Project shall be kept on City or State right-of-way as directed by the Project Manager.

105.04 ACCIDENT PREVENTION

The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall submit to the City an acceptable, comprehensive Safety Plan for review prior to commencement of the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

- a) All persons on or about the Site or who may be affected by the Work;
- b) All Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
- c) Other property at the site or adjacent thereto, including buildings, real property, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of the Work.

Notwithstanding the foregoing, the City reserves the right to direct the Contractor to stop work and correct an unsafe condition at any time that any person present at the job site identifies any unsafe condition or action. For this purpose only, any person at the job site is authorized to act on behalf of the City, but such intermittent delay shall not be grounds for an increase in the Contract price or schedule.



Precaution shall be exercised at all times for the protection of persons, including employees, and property. The safety provisions of all Federal, State and Municipal laws and any other codes relating to the public safety, shall be strictly observed, and the Contractor shall, at all times, whether or not so specifically directed by the Project Manager, take the necessary precautions to ensure the protection of the public.

Piling, sheeting and shoring shall be utilized where required to prevent any excessive widening or sloughing of a trench which may be detrimental to human safety, traffic flow, a pipe being placed, trees, or to any existing structure.

Excavated materials shall be placed a safe distance from the sides of the trench. Heavy equipment shall not be used or placed near the sides of a trench unless the trench is adequately braced.

The Contractor shall not load or permit any part of a structure to be loaded with a weight that will endanger the structure's safety.

The Contractor shall designate a qualified and experienced safety representative at the Work site(s) whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety plans and programs.

105.05 PROTECTION OF THE PUBLIC WORKS AND PROPERTY

The Contractor shall provide and maintain all necessary watchmen, barricades, lights, and warning signs and take all necessary precautions for the protection of the public. The Contractor shall continuously maintain adequate protection of all work from damage, and shall take all reasonable precautions to protect the City's property from injury or loss arising in connection with the Contract. The Contractor shall make good any damage, injury, or loss to their work and to the property of the City resulting from lack of reasonable protective precautions except such as may be due to errors in the Contract Documents, or caused by agents or employees of the City. The Contractor shall check all cautionary signs at least once a day during this Contract.

The Contractor shall continuously maintain adequate protection of all their work from damage and shall protect the City's and adjacent property from injury arising in connection with this Contract.

The Contractor will be responsible for any and all damage to property, public or private, that may be caused by its operations in the performance of this Contract, and the Contractor shall defend any suit that may be brought against itself or the City on account of damage inflicted by its operations, and shall pay any judgments awarded to cover such damage and shall indemnify the City for any losses arising out of such damage or related claims.

The Contractor shall be responsible for the restoration of all existing surface or subsurface improvements damaged as a result of construction at no additional cost to the City.

105.06 PUBLIC ROADS



The Contractor in executing the work on this Project shall not unnecessarily impede or interfere with traffic on public highways or streets. Detours, including surfacing, guard rails, temporary bridges and culverts, as may be shown on the drawings, or ordered by the Project Manager to accommodate the general public, residents adjacent to the improvements, and the United States mail shall be provided and maintained by the Contractor in a good workmanlike manner. Any call out of City Barricade Crews shall be charged to and paid for by the Contractor.

All work done within the public right-of-way and/or easements requires a Traffic Control Plan approved by the City Traffic Engineering Division.

The Contractor shall provide and maintain in place all barricades, warning signs, lights and other safety devices required to protect the work, divert traffic, and warn pedestrians of open excavation, unfilled trenches, and other areas or conditions which might be hazardous or dangerous. Detour routings must first be submitted to the City Traffic Engineer for review and approval and shall be signed for the entire route of the detour as required to return the traffic to their street or origination. Detours shall be maintained throughout the period of construction in such a manner as to provide the least amount of disruption to normal traffic flow.

All signing and barricading shall conform to the latest editions of the following:

- (a) Manual of Uniform Traffic Control Devices for Street and Highways (MUTCD)
- (b) City of Colorado Springs Traffic Signage and Markings Manual
- (c) City of Colorado Springs Construction Traffic Control Manual

The City Traffic Engineer may require flag persons or off-duty police officers for traffic direction.

105.07 PROTECTION OF EXISTING CURBS, GUTTERS AND DRIVEWAYS

The Contractor shall exercise care in protecting existing curbs, gutters and driveways. Curbs, gutters and driveways damaged by the Contractor's operations shall be removed and replaced by the Contractor at Contractor's expense.

105.08 PROTECTING AND REMOVING PLANTINGS

The Contractor shall protect all existing trees, shrubs and other plantings from above ground and root structure damage during the construction activities. Plantings which are considered to be slightly damaged shall be properly pruned and sealed according to accepted nursery practices. Contractor shall be liable for the costs of any unnecessary damage to plants or trees as determined by the Project Manager. Where plantings are in conflict with new work, as determined by the City Forester (plantings in the public right-of-way) or by the inspector or owner (plantings on private property), the Contractor shall at his expense remove the planting. The Contractor shall coordinate with the City Forester prior to working in the vicinity of plantings in the public right of way.

In all cases, the proper planting season shall be observed to assure proper establishment and growth of the plantings.



Tree branches shall be trimmed back to the trunk, all around, to a minimum height of 8' above the adjacent walkway. Work shall be done only by a licensed Tree Service as provided in City Code Chapter 2, Article 3, Part 3.

105.09 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall make every effort to minimize the inconvenience to property owners and to the traveling and pedestrian public, and shall conduct the Work to minimize obstruction to traffic and inconvenience to property owners affected by the Work.

The Contractor shall notify and coordinate the closing and construction of the driveways, curb, gutter and sidewalks with the Project Manager and the adjoining property owners in advance of Work in writing. The Contractor shall provide 72 hours written notice in advance of any construction that may affect access, parking and/or existing structures, including fences adjacent to that property.

Suitable access and parking will be maintained at all times. Access may be limited to half the existing driveway width for limited periods during concrete driveway and street construction. An additional verbal notice shall be provided to each business or property owner 30 minutes prior to the actual access drive closure.

Relocating of fences and structures shall be coordinated with property owners and shall include miscellaneous items including, but not limited to, utility services, street signs and mailboxes, sod replacement, sprinkler system modifications, control boxes, railroad tie walls, etc. If no such items are specifically included in the Contract, these items will be considered incidental to the work and are to be included in the unit prices. The Contractor shall coordinate the salvaging of any materials suitable for re-use with the City Inspector and, if on private property, with the respective property owners.

Any restrictions on street parking or traffic movement shall be coordinated with the City Traffic Engineer.

105.10 FAILURE TO MAINTAIN SAFE SITE

If the City becomes aware of failure to comply with applicable safety regulations, the Project Manager may inform the Contractor who shall take immediate steps to remedy the noncompliance. The Project Manager shall give written notification to the Contractor directing it to correct the unsafe acts or conditions. If the Contractor fails to comply with such a notification, the Project Manager may issue a Stop Work order in accordance with this Contract, and work shall only be resumed after adequate corrective actions have been taken to correct the safety deficiencies the Contractor has been notified of. Stoppage of work because of noncompliance with prescribed accident precaution measures shall not be considered a changed condition or changes in work, nor reason for extension of completion time.

In case of injury to persons or property by reason of failure to erect and to maintain necessary barricades, safeguards, and signals, or by reason of any act or omission of the Contractor, or Contractor's subcontractors, agents, or employees, during the performance of this Contract, the City may withhold payments due the Contractor so long as shall be reasonably necessary to



indemnify the City on account of any such injuries, but the City's payment or failure to pay any sum shall not be considered a waiver of its right to indemnity under the this Contract.

105.11 EROSION AND DRAINAGE CONTROL

Contractor shall provide for the drainage of stormwater and such water as may be applied or discharged on the site in performance of the work per the latest revision of the City of Colorado Springs Drainage Criteria Manual, Volume II. Drainage facilities shall be adequate to prevent damage to the work, the site, and adjacent property.

The Contractor shall prevent the pollution of drains and watercourses by sanitary waste, sediment, debris or other substances resulting from this work. Contractor shall be required to clean up and isolate such materials on a continuing basis to prevent risk of washing into such drainage ways.

Should the affected areas of the Project exceed one acre, a Stormwater Discharge Permit shall be required. Affected area includes excavations, material stockpiles and areas where equipment and vehicles disturb the ground. An exact definition of the affected area should be obtained from the Colorado Department of Public Health and Environment (CDPHE).

105.12 POLLUTION

The Contractor shall at all times ensure compliance with applicable Federal, State, and Municipal air, water, and noise pollution laws and ordinances. The Contractor shall at all times have the proper sprinkling equipment available and shall apply water in the amount determined by each site condition or as directed by the Project Manager. The Contractor shall obtain all necessary permits at Contractor's expense, which may include, but not be limited to, El Paso County or a State Air Emission permit, State of Colorado Construction Activity permit, State of Colorado Dewatering permit and Section 404 Corp of Engineers permit, unless otherwise specified in the RFP.

105.13 TEMPORARY CONSTRUCTION

All temporary facilities, including the Contractor's field office which it may maintain at the site, and additional offices erected by subcontractors, shall be neatly constructed and arranged on the site in an orderly manner. The Contractor shall prepare and submit to the Project Manager, for approval prior to starting work, a construction plan layout, showing arrangement of storage areas, temporary buildings, equipment, and work areas. The Contractor shall provide suitable weather-tight storage sheds of capacity required to contain all materials which might be damaged by storage in the open. The Contractor shall at all times keep copies of all Contract Documents readily accessible at its office at the site.

105.14 TEMPORARY WATER SUPPLY

The Contractor shall provide, at Contractor's own expense, temporary water connections and water supply necessary for the prosecution of the work and permit all contractors on the work to use this supply at a reasonable prorated charge, or by sub-metering. The Contractor shall pay for all water consumed in the work, and shall arrange with Colorado Springs Utilities for temporary connections and payment of service charges. Upon completion of the Contract work, all temporary



waterlines shall be removed. The City will devise a method and plan to monitor and enforce the proper use of temporary water. The City will inspect for compliance.

105.15 TEMPORARY ELECTRICITY

The Contractor shall arrange with the Colorado Springs Utilities for temporary electricity necessary for the prosecution of the work. The Contractor shall pay for all electric current consumed, and shall permit all contractors on the work to use this supply at a reasonable prorated charge, or by sub-metering.

105.16 TEMPORARY HEAT

The Contractor shall provide adequate, temporary heat required during construction. Until the building or work area is enclosed, heavy tarpaulin shall be used to enclose any space requiring heating or protection from weather during construction operations. After the heating plant is in operating condition and the building is enclosed, heat may be provided from the permanent heating plant if such is approved by the Project Manager. In such case, the Contractor shall arrange to operate the plant, connect permanent or temporary radiation or unit heaters, and so maintain the plant during operation that it will be turned over to the City undamaged at the completion of the work. The Contractor shall provide all fuel required. In no case shall salamander heating be used in finished or plastered surfaces; instead, gas-steam radiators, unit heaters, or other suitable and approved means shall be used if the permanent heating plant is not available. This applies only to structures. It does not apply to road improvements or other outdoor improvements.

105.17 TEMPORARY ENCLOSURES

The Contractor shall provide and maintain temporary enclosures for the work as may be required to permit continuation of interior work during inclement weather, if wall and roof construction has progressed sufficiently to make interior work possible. This applies only to structures. It does not apply to road improvements or other outdoor improvements.

105.18 CLEAN-UP

The Contractor shall at all times keep the work area including storage and staging areas, free from accumulations of waste materials. The Contractor is also responsible for any costs associated with cleanup of debris from the work site or storage areas that may inadvertently be scattered outside the area by weather or vandalism. Upon completion of the work, the Contractor shall leave the work area in a clean neat and orderly condition satisfactory to the Project Manager.

SECTION 106 ROYALTIES, PATENT INFRINGEMENTS, SPECIAL LICENSES AND PERMITS

106.00 ROYALTIES AND PATENTS

The Contractor shall pay all applicable royalties and license fees. The Contractor shall defend all suits or claims for infringement of any patent rights and save the City harmless from loss on account thereof except that the City may be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, unless



the City has notified the Contractor prior to the signing of the Contract that the particular process, design, or product is patented or is believed to be patented.

SECTION 107 WORK PROVISIONS AND RULES

107.00 COMMENCEMENT AND COMPLETION OF WORK

- (a) Preconstruction Conference. After issuance of Notice to Proceed, or as otherwise established by the City, a preconstruction conference (“Preconstruction Conference”) shall be held for review of the construction schedule, Contractor’s written list of subcontractors and suppliers, written list of all required permits, project contracts, utility support plan, water control plan, Traffic Control Supervisor name and telephone number, gradations, test results, certifications, review procedures for handling shop drawings and other submittals, processing applications for payment, and other pertinent items.
- (b) At the Preconstruction Conference, the Contractor shall furnish the Project Manager a written list of all permits required for the proper completion of the Contract. The list shall clearly identify the type of permit or permits that must be obtained before work on any particular phase or phases of work can be started.
- (c) The Contractor shall commence work within ten (10) Calendar Days of the date specified on the Notice to Proceed and complete the Contract within the number of Calendar Days or by the date specified in the proposal form. Unless otherwise noted in the Contract, the number of days are Calendar Days.
- (d) The dates fixed for commencement and completion of the work may be extended by the Project Manager. All requests for extension of time by the Contractor shall be made in writing to the Project Manager and shall set forth the reasons for such requests. The Project Manager may fix the period of extension, if any. In addition, the Project Manager may grant a period of extension upon an execution of a Change Order. Any Project Manager’s decision on extensions of time shall be binding upon the parties hereto. Requests for extension of time received twenty (20) or more days after the occurrence of the delay will not be honored. No requests for extension of time shall be honored if submitted after the completion date.
- (e) If satisfactory execution and completion of the Contract shall require work or materials in greater amounts or quantities other than those set forth in the Contract, then the Contract time may be adjusted at the time of the execution of the Change Order. No allowance will be made for delays or suspension of the prosecution of the work due to the fault of the Contractor.

107.01 FAILURE TO COMPLETE WORK ON TIME, LIQUIDATED DAMAGES

If the Contractor fails to fully perform and complete the work in conformity to the provisions and conditions of the Contract within the specified time limit set forth in the Contract, including any extensions granted hereto, the Contractor may be subject to a stop work order, as provided in this Contract. In addition, the Contractor shall pay to the City for each Calendar Day of delay until such time the Contract is complete, liquidated damages at the applicable daily rate below. The amounts shown are considered to be liquidated damages to reimburse the City for the additional cost of construction engineering and Contract administration services and in no case are considered a penalty.



Original Contract Amount	Amount of Liquidated Damages Per Day
Less than \$50,000	\$300.00
\$50,000 to \$100,000	\$500.00
\$100,000 to \$500,000	\$700.00
\$500,000 to \$1,000,000	\$900.00
Over \$1,000,000	\$1500.00

107.02 WORK IN BAD WEATHER

No construction work shall be done during stormy, freezing, or inclement weather, except such as can be done satisfactorily, and in a manner to secure first class construction throughout, and then only subject to permission of the Project Manager.

The granting of a time extension for inclement weather does not imply or guarantee that additional compensation for incidental and appurtenant work caused by such weather will be approved or authorized by the Project Manager. Weather delays that can be reasonably anticipated shall not result in increased cost to the City. The Project Manager will be the sole judge as to the reasonableness of delays for inclement weather.

107.03 EXCUSABLE DELAYS

The Contractor's right to proceed will not be terminated, and the Contractor will not be charged with damages, for delays in completing the work that arise from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include:

- (a) Acts of God or of the public enemy,
- (b) Acts of the government in either its sovereign or Contractual capacity,
- (c) Acts of another contractor in the performance of a contract with the government,
- (d) Fires,
- (e) Floods,
- (f) Epidemics,
- (g) Quarantine restrictions,
- (h) Strikes of employees other than Contractor's employees,
- (i) Freight Embargos,
- (j) Unusually severe weather, or
- (k) Delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers.

107.04 COMPENSATION FOR COMPENSABLE DELAYS

If the Project Manager determines that a delay is compensable in accordance with the Contract, monetary compensation will be determined in accordance with this subsection.

- (a) These categories represent the only costs that are recoverable by the Contractor. All other costs or categories of costs are not recoverable:



1. Actual, reasonable wages and benefits, including FICA, paid for additional non-salaried labor;
 2. Reasonable and actual costs for additional bond, insurance and tax;
 3. Increased, reasonable, and actual costs for materials;
 4. Reasonable equipment costs calculated in accordance with the current edition of the Rental Rate Blue Book of Rental Rates for Construction Equipment for Contractor-owned equipment and based on invoice costs for rented equipment;
 5. Reasonable and actual costs of extended job site overhead;
 6. Reasonable subcontractor's claims (the same level of detail as specified herein is required for all subcontractors' claims)
 7. An additional 10 percent will be added to the total of items (1), (2), (3), (4), (5), and (6) as compensation for items for which no specific allowance is provided, including profit, overhead, and general and administrative expenses.
- (b) In adjustment for costs as allowed above, the City will have no liability for the following items of damages or expense:
1. Profit in excess of that provided in (a) above;
 2. Loss of profit;
 3. Additional cost of labor inefficiencies in excess of that provided in (a) above;
 4. Home office or other overhead or general and administrative expenses in excess of that provided in (a) above;
 5. Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities, and insolvency;
 6. Indirect costs or expenses of any nature in excess of that provided in (a) above;
 7. Attorney's fees, claim preparation fees, and expert fees.

All costs claimed must be documented and accompanied by a written certification from the Contractor.

107.05 EMERGENCY WORK

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor is, without special instructions or authorization from the Project Manager, hereby permitted to act at Contractor's discretion to prevent such threatening loss or injury. Contractor shall also act, without appeal, if so authorized or instructed by the Project Manager. Any reasonable compensation claimed by the Contractor on account of emergency work shall be determined by mutual agreement or in accordance with the Changes provision of this Contract.

107.06 VALUE ENGINEERING CHANGE PROPOSALS BY THE CONTRACTOR

The Contractor is encouraged to develop and offer proposals for improved construction techniques, alternative materials and other innovations. Proposals must provide a project comparable to the City's original design either at lower cost, with improved quality, or both. If a Value Engineering Change Proposal (VECP) Proposals shall be submitted only after contract award. If a VECP is rejected, the work shall be completed in accordance with the Contract at the Contract price. The Contractor shall have no claim against the City for compensable or noncompensable delay to the Contract based on the failure to respond to a VECP.

The Contractor may submit either a full VECP or a preliminary Conceptual VECP, followed by a full proposal. The City Engineer will provide timely review of all VECPs and advise the Contractor



whether the VECP is complete or incomplete. When the VECP is complete, the Project Manager will advise the Contractor of either the approval of the VECP or the reasons for rejection of the VECP.

Cost savings generated to the Contract as a result of VECPs offered by the Contractor and accepted by the Project Manager shall be shared equally between the Contractor and the City.

If the Project Manager determines that the time for response indicated in the submittal under item (c)5 below is insufficient for review, the Contractor will be promptly notified. Based on the additional time needed by the Project Manager for review and the effect on the Contractor's schedule caused by the added time, the Project Manager will evaluate the need for a non-compensable time adjustment to the Contract.

(a) VECPs that will be considered are those that would produce savings to the City or provide improved Project quality without impairing essential functions and characteristics of the Project. Essential functions include but are not limited to: service life, economy of operation, ease of maintenance, desired appearance, safety, and impacts to the traveling public or to the environment during and after construction.

(b) *Submittal of Conceptual Proposal.* For VECPs that require a significant amount of design or other development resources, the Contractor may submit an abbreviated conceptual proposal for preliminary evaluation. The Project Manager will evaluate the information provided and advise the Contractor if any conditions or parameters of the conceptual proposal are found to be grounds for rejection. Preliminary review of a conceptual proposal reduces the Contractor's risk of subsequent rejection but does not commit the City to approval of the full VECP. The following information shall be submitted for each conceptual proposal.

1. A statement that the proposal is submitted as a conceptual VECP.
2. A general description of the difference between the existing Contract and the proposed change, and the advantages and disadvantages of each, including effects on cost, service life, economy of operation, ease of maintenance, desired appearance, safety, and impacts to the traveling public or to the environment during and after construction.
3. A set of conceptual plans and a description of proposed changes to the Contract specifications.
4. An estimate of the anticipated cost savings or increase.
5. A statement specifying:
 - a. when a response to the conceptual proposal from the City is required to avoid delays to the existing contract prosecution,
 - b. the amount of time necessary to develop the full Proposal,
 - c. the date by which a Change Order must be executed to obtain maximum benefit from the VECP, and
 - d. the VECP's impact on time for completing the Contract.

(c) *Submittal of Full Value Engineering Change Proposal.* The following materials and information shall be submitted with each VECP.

1. A statement that the proposal is submitted as a VECP.
2. A description of the difference between the existing Contract and the proposed change, and the advantages and disadvantages of each, including effects on service



- life, economy of operation, ease of maintenance, desired appearance, safety, and impacts to the traveling public or to the environment during and after construction.
3. A complete set of plans and specifications showing the proposed revisions relative to the original Contract. This portion of the submittal shall include design notes and construction details. The proposed plans and specifications shall be signed and sealed by the Contractor's engineer.
 4. A complete analysis indicating the final estimated costs and quantities to be replaced by the VECP compared to the new costs and quantities generated by the VECP. All costs and proposed unit prices shall be documented by the Contractor.
 5. A statement specifying the date by which a Change Order must be executed to obtain the maximum cost reduction during the remainder of the Contract.
 6. A statement detailing the effect the VECP will have on the time for completing the Contract.
 7. A description of any previous use or testing of the proposed changes and the conditions and results. If the VECP was previously submitted on another City project, the VECP shall indicate the date, Contract number, and the action taken by the City.
 8. An estimate of any effects the VECP will have on other costs to the City.
 9. A statement of life cycle costs, when appropriate. Life cycle costs will not be considered as part of cost savings but shall be calculated for additional support of the VECP. A discount rate of four percent shall be used for life cycle calculations.
 10. A statement specifying when a response from the City is required to avoid delays to the prosecution of the Contract.

(d) *Evaluation.* VECPs will be evaluated in accordance with the following:

1. The Project Manager will determine if a VECP qualifies for consideration and evaluation. The Project Manager may reject any VECP that requires excessive time or costs for review, evaluation, or investigations. The Project Manager may reject proposals that are not consistent with the City's design policies and criteria for the Project.
2. VECPs, whether or not approved by the City, apply only to this Contract and become the property of the City. VECPs shall contain no restrictions imposed by the Contractor on their use or disclosure. The City has the right to use, duplicate and disclose in whole or in part any data necessary for the utilization of the Proposal. The City retains the right to utilize any accepted VECP or part thereof on other projects without obligation to the Contractor. This provision is subject to rights provided by law with respect to patented materials or processes.
3. If the City is able to demonstrate that it is already considering certain revisions to the Contract, prior to receipt of the VECP, or has approved certain changes in the Contract for general use that are subsequently proposed in a VECP, the Project Manager will reject the VECP and may proceed to implement these changes without obligation to the Contractor.
4. The Contractor shall have no claim against the City for additional costs or delays resulting from the rejection or untimely acceptance of a VECP. These costs include but are not limited to: development costs, loss of anticipated profits, increased material or labor costs, or untimely response.
5. VECP will be rejected if equivalent options are already provided in the Contract.
6. VECP that only reduce or eliminate Contract pay items will be rejected.
7. The savings generated by the VECP must be sufficient to warrant a review and processing, as determined by the Project Manager.



8. A VECP changing the type or thickness of the pavement structure or changing the design of a bridge will be rejected.
 9. Additional information needed to evaluate VECPs shall be provided in a timely manner. Untimely submittal of additional information will result in rejection of the VECP. Where design changes are proposed, the additional information shall include results of field investigations and surveys, design and computations, and changed plan sheets required to develop the design changes.
- (e) *Payment.* If the VECP is accepted, the changes and payment will be authorized by a Change Order. Reimbursement will be made as follows:
1. The changes will be incorporated into the Contract by changes in quantities of unit items, new agreed unit price items, or both, as appropriate, under the Contract.
 2. The Price of the contract will be revised to reflect the changes in the VECP. The City will pay the Contractor 50 percent of the savings to the City upon completion of the Project. The savings to the City shall be the difference between the cost of the revised work and the cost of the related construction required by the original Contract computed at Contract prices.
 3. Costs incurred by the Contractor for development, design, and implementation of the VECPs will not be reimbursed.
 4. When work performed under an approved VECP is modified to fit field or other conditions, the maximum amount paid for the work will be limited to that which would have been paid if the work had been performed under the original Contract provisions. The rejection or limitation of reimbursement shall not constitute the basis of any claim against the City for delay or for other costs except as allowed under the original Contract.

107.07 AUTHORITY OF THE PROJECT MANAGER

The Project Manager will decide all questions regarding the quality and acceptability of materials furnished, work performed, and the rate of progress of the work, all interpretation of the plans and specifications, and the acceptable fulfillment of the Contract. The Project Manager will perform technical inspection of the work and shall have authority to reject all work and materials which do not conform to the Contract.

The Project Manager has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract or for the convenience of the City. The Project Manager may order the Contractor, by giving ten (10) days written notice, to suspend, delay, or interrupt all or any portion of the work required by the Contract for a period of up to (10) ten Calendar Days at no additional cost to the City. The Project Manager may immediately stop the work when it is determined that the public's safety and welfare is in jeopardy.

The Project Manager will, within a reasonable time after their presentation to the Project Manager, make decisions in writing on all claims submitted to the City by the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents. The Project Manager's decisions shall be final.



107.08 DUTIES OF THE INSPECTOR

Inspectors employed by the City are authorized to inspect all work done and materials furnished. Any such inspection may extend to all or any part of the work and to the preparation, fabrication or manufacture of the materials to be used. An inspector is not authorized to alter or waive the provisions of the Contract. An inspector is not authorized to issue instructions contrary to the provisions of the Contract or to act as foreman for the Contractor.

107.09 CONSTRUCTION OBSERVATION AND INSPECTION

The Project Manager shall at all times have access to the work, and the Contractor shall provide proper equipment, materials and labor as required for such access and inspection.

All equipment, material, and articles incorporated into the work covered by this Contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this Contract. The Project Manager shall have the right to reject materials and workmanship, which are defective, or require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises and replaced without charge to the City. If the Contractor does not correct such rejected work and remove rejected materials within a reasonable time fixed by written notice, the City may remove them and charge the expense to the Contractor.

Should it be considered necessary or advisable by the Project Manager at any time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request promptly furnish necessary facilities, labor and materials. If such work is found to be defective in any material respect due to fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual, reasonable cost of labor and material necessarily involved in the examination and replacement, plus ten (10) percent, will be allowed the Contractor.

All materials to be incorporated in the work, all labor performed, all tools, appliances, and methods used shall be subject to the inspection and approval or rejection of the Project Manager.

If the Project Manager points out to the Contractor, Contractor's foreman, or agent any neglect or disregard of the Contract provisions, such neglect or disregard shall be remedied and further defective work be discontinued immediately.

The Contractor shall execute the work only in the presence of the Project Manager or authorized representative, unless provision has been made for the work to proceed without complete engineering supervision or inspection. The presence of the Project Manager or authorized representative shall in no way relieve the Contractor of any responsibility under this Contract.

The observation of the work by the Project Manager is intended to aid the Contractor in applying labor, materials, and workmanship in compliance with the Contract provisions. Such observation, however, shall not relieve the Contractor from any of Contractor's Contract obligations.



107.10 CONTRACTOR COOPERATION

All work under this Contract shall be performed in a skillful and professional manner. The Project Manager shall have the authority to order the Contractor to remove from the work site any employee the Project Manager deems incompetent, careless, or otherwise objectionable to the general public or the City by notify the Contractor of such order in writing.

- (a) Workmen, Methods and Equipment: Permission from the Project Manager to use any particular methods, equipment or appliances shall not be so construed as to relieve the Contractor from furnishing other equipment or appliances or adopting other methods when those in use prove unsatisfactory to the Project Manager, or as to bind the Project Manager to accept work which does not comply with the Contract.

107.11 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the work is accepted by the Project Manager as evidenced by the issuance of the Certificate of Completion, the Contractor shall have the charge and care thereof and shall take every necessary precaution against injury or damage to any part thereof by action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance and shall bear the expense thereof.

The Contractor shall be responsible for the preservation of all public and private property, trees, fences, monuments, and other property, along and adjacent to the improvements and shall use suitable precautions necessary to prevent damage to pipes, conduits, and other underground structures. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in the execution of the work, or in consequence of the non-execution thereof on the part of the Contractor, such property will be restored by the Contractor and at Contractor's expense to a condition similar, or equal to that existing before such damage or injury to the satisfaction of the City's Project Manager.

It shall be the responsibility of the Contractor, when moving or operating equipment, to make all arrangements for temporary crossings of telephone, transmission, pipe lines, railroad tracks, and irrigation ditches. This work shall not be paid for as a separate item but shall be considered as incidental to the project.

107.12 PROTECTION OF UTILITIES

The Contractor's attention is directed to the fact that utilities may encroach on the construction of this Project, and also to the importance of protecting all public/private utilities encountered on this project. These may include telecommunications, cablevision, traffic signal lines, power lines, water lines, sewer lines, gas lines, railroad tracks, and other overhead and underground utilities.

The City does not warrant any survey work or location of utilities or other underground apparatuses whether performed by the City, its agent, or an independent contractor. Contractor understands and agrees any survey or location work performed by the City, its agent, or other independent contractor is provided for guidance purposes only, so as to show the approximate location of underground utilities or apparatuses. Contractor understands the existence or exact



location of underground utilities or apparatuses may not be known to the City or the design engineer of record. Contractor, therefore, agrees that it shall verify the existence and location of any underground utilities or apparatus along the route of work. Verification shall be done by potholing or using other methods which will detect the exact depth, dimensions, and location of any underground utilities or apparatus.

Contractor shall be liable for any damages, loss, or claims of whatsoever kind caused by its failure to pothole or use other methods of identifying the exact depth, dimensions, and location of any underground utilities or apparatus. Contractor agrees that any claim of any kind whatsoever, damages, loss, lawsuit, demand, or request for equitable adjustment ("Claims"), shall be waived and the City shall be forever released and discharged from such Claims if Contractor fails to comply with its obligations under this section. Contractor agrees that if it fails to maintain all records or other evidence establishing that it potholed or otherwise determined the exact location, depth, and dimensions of all underground utilities and apparatuses, then it shall not be permitted to make any Claim arising from or related to the location of underground utilities or apparatus.

The size and location of all existing utilities as known to the Project Manager have been noted on the plans for the information and guidance of the Contractor. The Contractor shall be responsible for the location and protection of all utilities located within his working area regardless of whether or not their existence or location is shown or noted on the drawings.

It is the Contractor's responsibility to complete required work and to schedule inspections during normal working hours. The Contractor is responsible for contacting each affected utility for their inspectors' working hours. The Contractor is responsible to request an inspection two (2) working days in advance of the inspection. In the case of an overtime inspection, the request must be in writing. All overtime costs for inspection by Colorado Springs Utilities, or other utilities personnel, shall be the Contractor's expense. The City will not entertain any requests for time extensions for delays caused by the Contractor's failure to properly notify the affected utility of a required inspection or the Contractor's failure to complete the required work by the time of the scheduled inspection.

Any information concerning underground utilities shown on the drawings is intended to be merely an aid to the Contractor. The accuracy of information with respect to underground utilities is not guaranteed. The Contractor shall make their own investigation, including exploratory excavations, to determine the locations and type of existing mains or service laterals or appurtenances when their presence can be inferred from the presence of other visible facilities, such as building, manholes, inlets, meters and junction boxes, on or adjacent to the site of the work. If the Contractor discovers utility facilities not identified in the plans or specifications or in a position different from that shown in the plans and specifications, the Contractor shall immediately notify, verbally and in writing, the Project Manager and Owner of the utility facility.

Before any excavation is begun in the vicinity of water lines, railroad tracks, or structures, sewer lines, telecommunication conduits or cablevision line, each utility company, including Colorado Springs Utilities (if applicable), department, or company concerned must be notified in advance of such excavation, and such excavation shall not be made until an authorized representative of the utility concerned is at the site.

All utilities encountered must be kept in operation by the Contractor and must be protected and/or repaired at the Contractor's own expense, unless otherwise specified in the Contract documents.



The Contractor shall be held liable for all damages to any and all public utilities encountered on the project, which damages are due to the Contractor's operations. Such damages shall include all physical damages to utilities and also all damages due to interruption of service of such utilities, when such damages and interruptions are caused by the Contractor's operations.

Where alterations or moving of utilities is not required to permit construction of the project, the Contractor shall take such measures as the Project Manager may direct to properly protect these utilities throughout his construction operations and shall cooperate at all times with the proper authorities and/or owners in maintaining service of railroads, conduits, pole lines, transmission lines, pipe lines, sewers, etc., affected by this project.

The costs of damages due to the Contractor's operation shall not be allowable under this Contract and shall result in no additional cost to the City. The cost of protecting utilities where alteration or relocation is not required to permit construction of the project shall be considered as included in the original Contract price for the project and shall result in no additional cost to the City.

Should any pipe line, water lines, or gas mains, electrical conduits, sewer pipes, overhead wiring, telecommunication lines, power lines, or any other such utilities, not specifically mentioned and provided for elsewhere as a part of this Contract, have to be moved, repaired, reconditioned, or revised due to the construction, or moved temporarily to permit construction of the project the party or parties owning and operating such utilities shall perform the actual work of moving, repairing, reconditioning, or revising such utilities. Any such work would be added via change order, and the cost of this work will be borne by Colorado Springs Utilities, the utility company's involved, or other means arranged by the City.

(a) Existing Utilities

1. Existing Gas Lines: As of April 1, 1983, Federal law requires anyone who uncovers a gas line to report it to the gas company and allow it to be inspected by the gas company personnel before it is backfilled. Colorado Springs Utilities or other provider is to be notified prior to any excavation around gas lines. A Colorado Springs Utilities. or other applicable provider. inspector is to be notified and present on site prior to construction activities around gas lines.
2. Existing Sewer Mains and Services: All relocation, replacement protection shown on the plans or determined necessary by the inspector shall be performed according to the latest Colorado Springs Utilities Wastewater Standard Specifications. Minimum 48 hours' notice must be given to Colorado Springs Utilities prior to any related work.
3. The Contractor shall adjust sanitary sewer manhole rims to an elevation acceptable to Colorado Springs Utilities. The Contractor shall contact Colorado Springs Utilities twenty-four (24) hours prior to manhole rim adjustments.
4. Existing Water Mains and Services: All relocation, replacement or protection shown on the plans or determined necessary by the inspector shall be performed according to the latest Colorado Springs Utilities Water Standard Specifications and the Water Service Standard Specifications. Minimum 48-hour notice must be given to Colorado Springs Utilities prior to any related work. Colorado Springs Utilities reserves the right to schedule any operations at their discretion and to provide for any requirements determined necessary to perform the work. The Contractor shall coordinate with the Colorado Springs Utilities and receive their approval prior to performance of the work.

(b) Utility Support Systems:



1. If required by the Contract documents, or requested by the Project Manager, the Contractor shall submit shop drawings for the method of temporary support for all existing utilities during construction. The temporary support details for existing utilities shall be submitted for review and approval prior to performance of the work. Shop drawings must bear the seal of a Professional Project Manager registered in the State of Colorado, unless so waived by the City.
 2. Regardless of City approved shop drawings, the Contractor shall be responsible for the satisfactory support of the utility system and any damages that may occur to the utility involved.
- (c) Electric Utility Installation:
1. Any electric facilities unless otherwise noted are to be relocated or modified by Colorado Springs Utilities. The Contractor shall coordinate the work with Colorado Springs Utilities and Colorado Springs Utilities Contractor.
 2. Light Pole Installation or Relocation:
 - i. The Contractor is responsible for coordinating with Colorado Springs Utilities, removing existing light pole foundations, constructing new light pole foundations, installing new conduits, and installing lighting junction boxes. The Contractor is responsible for coordinating with Colorado Springs Utilities for the de-energizing and removal of existing light poles.
 - ii. Colorado Springs Utilities will remove the existing light standards, reset the light standards upon completion of the new foundations, conduit and junction boxes, pulling wire, and beginning operations of the lighting within the project limits. The Contractor is responsible for scheduling and coordination with Colorado Springs Utilities crews for reinstallation and re-energizing completed light poles.
- (d) Gas Utilities: The Contractor is responsible for coordinating with Colorado Springs Utilities for the relocation of existing Gas lines. Colorado Springs Utilities will relocate the existing gas lines as necessary to install project improvements within the project limits. The Contractor is responsible for scheduling and coordination with Colorado Springs Utilities crews.
- (e) Telecommunication Agencies: Any telephone facilities unless otherwise noted are to be relocated or modified by the respective private utility company. The Contractor shall coordinate the work with the respective private utility company.
- (f) Cablevision: The television utilities are to be relocated by the cable provider. The Contractor shall coordinate the work with any affected cable provider.

107.13 FEDERAL FUNDS

If this Contract is a federally assisted construction contract all applicable federal requirements, terms and conditions, provisions and forms shall apply. Additionally, during the performance of this Contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous



places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause

2. The Contractor will, in all solicitations or advancements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
3. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
4. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Contract or understanding a notice advising the labor union or workers representative of the Contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
5. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
6. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Secretary of Labor, State of Colorado Civil Rights Commission and any other governmental agency entity which may be assisting with the funding under this Contract for purposes of investigation to ascertain compliance with such rules, regulations and orders.
7. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any such rules, regulations, or orders, this Contract may be cancelled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further government Contracts or Federally assisted construction Contracts in accordance with the procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or otherwise provided by law.
8. The Contractor shall include the provisions of Paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the city, state, or any federal governmental entity may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the city, the state, or the United States to enter into such litigations to protect the interests of such governmental entity.



107.14 SUPERINTENDENCE

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Project Manager and with other contractors or Colorado Springs Utilities employees in every way possible. The Contractor shall have at all times, on the work, as Contractor's agent, a competent superintendent capable of reading and thoroughly understanding the Plans and Specifications, and who shall have the necessary authority to receive and promptly execute the instructions and orders from the Project Manager or the Project Manager's authorized representative. Such superintendent shall be furnished irrespective of the amount of work sublet. The Contractor shall supply the Project Manager with a list of phone numbers at which the Contractor and its superintendent and foreman can be reached at any time. The assigned superintendent must adhere to the cooperation requirements specified in this Contract and is subject to removal if so ordered in writing by the Project Manager.

107.15 PREPARATION

All vegetation, stumps, and debris and other objectionable objects shall be removed from the area staked out by the Project Manager, and where necessary from the area immediately adjacent thereto. Such debris shall be hauled from the site of the construction and wasted as directed by the Project Manager.

107.16 STAKING WORK

The Project Manager may provide reference points (horizontal and vertical control) only, unless otherwise noted in the proposal and project specifications. The Contractor shall engage the services of a licensed surveyor or surveying firm (hereinafter referred to as the Surveyor) to be approved by the Project Manager. The Surveyor shall perform all detailed construction layout and staking including the staking of all storm sewer, street improvements, and utility relocations in accordance with the plans and specifications. The Contractor shall be responsible for the correctness and accuracy of the detailed layout of finished structures.

Any instrument man or survey assistant employed on the work by the Contractor or his subcontractors, who are judged by the Project Manager to be incompetent, shall be removed from the work and replaced by a competent individual.

107.17 DEVIATION ALLOWED

Finished surfaces in all cases shall conform to lines, grades, cross sections and dimensions shown on the approved drawings or described in the Specifications. Deviations from the approved drawings and working drawings as may be required by the expediciencies of construction, in all cases, must be determined by the Project Manager and authorized in writing. If the Project Manager deems it inexpedient to correct work injured or done in an unauthorized manner, an equitable deduction from the Contract price of the work done shall be made by the Project Manager subject to approval of the City Procurement Services Manager.

107.18 RIGHT-OF-WAY

The City's right-of-way will in general be adequate for construction purposes. Nothing marked on the drawings shall be interpreted as giving the Contractor exclusive occupancy of the territory



provided by the City. The City and its employees for any purpose, and other contractors of the City, for any purpose required by their respective contracts, may enter upon or occupy any portion of the land furnished by the City. When the territory of one contract is a necessary or convenient means of access for the execution of another contract, such privileges of access or any other reasonable privilege shall be granted by the Contractor to the extent, amount, in the manner and at times necessary. No such joint occupancy or use of the territory shall be made as the basis of any claim for delay or damages.

107.19 SHOP DRAWINGS AND SUBMITTALS

The Contractor shall submit to the Project Manager all shop drawings and submittals required for the work, including those pertaining to structural and reinforcing steel within fifteen (15) Calendar Days from the date of the Notice of Award. The Contractor shall make any corrections in the drawings required by the Project Manager and resubmit the same without delay.

Three final copies of all shop drawings (if applicable), submittals (if applicable) and schedules shall be submitted to the Project Manager, who after checking will retain two copies and return one copy to the Contractor. The Project Manager's approval of shop drawings of equipment and material shall extend only to determining the conformity of such equipment and materials with the general features of the design drawings prepared by the Project Manager. It shall be the responsibility of the Contractor to determine the correctness of all dimensions and minor details of such equipment and materials so that when incorporated in the work, correct operations will result.

107.20 RECORD DRAWINGS

The Contractor shall maintain an up-to-date set of Contract drawings and Contract records, legibly marked; depicting all constructed improvements at the site or as otherwise specified and shall submit a complete set labeled "Project Record" to the Project Manager upon completion of the Project.

- 1) Drawings:
 - a) Depths of various elements of foundation in relation to finish floor datum.
 - b) Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements and Project survey control.
 - c) Location of internal utilities and appurtenances concealed in the construction, referenced to permanent surface improvements and project survey control.
 - d) Field changes of dimensions and detail.
 - e) Changes made by Change Order.
 - f) Details not on original Contract drawings.
- 2) Specifications and Addenda:
 - a) Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - b) Changes made by Change Order.

107.21 MATERIALS

Unless otherwise stipulated in the Specifications, all workmanship, equipment, materials, and articles incorporated in the work covered by this Contract are to be new and of the best grade of



their respective kinds for the purpose. The Contractor shall furnish to the Project Manager for the Project Manager's approval, the name of the manufacturer of machinery, mechanical and other equipment, which he contemplates installing, together with their performance capacities and other pertinent information including but not limited to instruction manuals pertaining to the use and operation of such machinery, mechanical and other equipment.

When required by the Specifications, or when called for by the Project Manager, the Contractor shall furnish for approval full information concerning the materials or articles which he contemplates incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection.

107.22 MATERIAL INSPECTION AT PLANT

If the Project Manager inspects the materials at the source, the following conditions shall be met:

- (a) The Project Manager shall have the cooperation and assistance of the Contractor and the materials producer.
- (b) The Project Manager shall have full entry to all parts of the plant necessary for the manufacture or production of the materials being furnished.
- (c) Adequate safety measures shall be provided and maintained.

The City reserves the right to retest all materials which have been previously tested or inspected. The retesting may be prior to or after incorporation of the materials into the work. Those materials inspected and tested after delivery on the Project or after incorporation into the work that do not meet the requirements of the Contract will be rejected and replaced at no additional cost to the City.

107.23 HANDLING MATERIALS

All materials shall be handled so their quality and fitness for the work is preserved. Aggregates shall be transported to the work in vehicles constructed to prevent loss or segregation of materials.

107.24 CITY FURNISHED MATERIALS

Material furnished by the City will be made available to the Contractor at the points specified in the Contract.

The cost of handling and placing materials after they are made available to the Contractor shall be considered as included in the Contract price for the item, and shall result in no additional cost to the City.

The Contractor will be held responsible for all material received until it is incorporated into the work and accepted.

Demurrage charges resulting from the Contractor's failure to accept the material at the designated time and point of delivery will be deducted from monies due the Contractor.



107.25 BUY AMERICA REQUIREMENTS

All manufacturing processes, including the application of a coating, for all steel and iron products permanently incorporated in the work shall have occurred in the United States of America. All manufacturing processes are defined as “processes required to change the raw ore or scrap metal into the finished, in-place steel or iron product”. This requirement will not prevent a minimal use of foreign steel or iron provided the total project delivered cost of all such steel and iron which includes the cost of delivering the steel and iron to the Project, does not exceed one-tenth of one percent of the total Contract cost or \$2,500, whichever is greater.

With every steel or iron product that requires pre-inspection, pretesting, certified test results, or certificate of compliance, the Contractor shall provide a certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product that every process, including the application of a coating, performed on the steel or iron product either has or has not been carried out in the United States of America. These certifications shall create a chain of custody trail that includes every supplier, distributor, fabricator, and manufacturer that handles the steel or iron product. The lack of these certifications will be justification for rejection of the steel or iron product. Upon completion of the Project, the Contractor shall certify in writing of compliance with this requirement and provide evidence of the Project delivered cost of all foreign steel or iron permanently incorporated into the Project.

107.26 TESTING OF MATERIALS

Tests and Inspections. The City will employ and pay for the services of an approved testing laboratory to perform specified services for the field testing of:

- (a) Soil Compaction Control
- (b) Cast-in-Place Concrete
- (c) Asphalt Concrete Pavement

The Contractor shall perform, or arrange for the performance, and pay all costs in connection therewith, all other tests and inspections required by the Contract documents. The Contractor shall pay for all testing laboratory services in connection with tests verifying conformance of proposed materials and installation with project requirements including, but not limited to, mix designs, riprap, gradation tests for embedment, fill and backfill materials. The City shall pay for testing laboratory services in connection with tests on materials after incorporation into the project, unless retesting of materials is necessary because of the failure of the materials to meet the Project requirements. The Contractor shall obtain the City's written acceptance of the testing laboratory before having services performed.

- 1) Requirements for Independent Testing Consultants.
 - a) Consultants shall comply with "Recommended Requirements for Independent Laboratory Qualifications", latest edition, published by the American Council of Independent Laboratories, and basic requirements of ASTM E-329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction", latest edition.
 - b) The Contractor shall submit to the City for prior approval, the name and address of the proposed testing laboratory with description of personnel, facilities, equipment and other qualification data, including certificate of calibration of applicable testing equipment made



by an accredited calibrated agency no more than twelve (12) months prior to submittal date.

2) Test Reports

- a) Testing agency shall be instructed to submit directly to the City three (3) copies of all reports of tests or inspections made, showing compliance, irregularities or deficiencies, identifying Project, date of test, location in Project, applicable specification section, applicable standard(s) for compliance, observations relating to compliance, name and signature of inspector.

3) Contractor Responsibilities

- a) Furnish access to the work, materials, equipment and labor required to accommodate inspections and tests when testing laboratory is retained by the City. In the event retesting of materials or recompaction is necessary because of the failure of the materials or compaction to meet the Project requirements, the cost of said retesting shall be borne by the Contractor. Cost of said retest will be deducted from the final payment amount due the Contractor, or invoiced directly to the Contractor at the City's discretion.

4) Reliance on Technical Data

Without warranty or representation as to the accuracy or completeness of any information or data, Contractor may rely upon the general accuracy of the "technical data" contained in the reports, specifications and drawings. The "technical data" is identified in the work technical specifications, drawings and reports that are signed and sealed by a registered Professional Engineer, Architect or Landscape Architect in the State of Colorado. Except for the reliance on the general accuracy of the "technical data," Contractor may not rely upon or make any claim against the City with respect to:

- a) the accuracy or completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- b) other data, interpretations, opinions, and information contained in the reports or shown or indicated in such drawings; or
- c) any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

107.27 UNANTICIPATED CIRCUMSTANCES

Contractor understands that this is a firm fixed price contract and so long as there are no changes in the scope of work or unanticipated circumstances as provided in subsection A-C below, Contractor must deliver the project for the agreed price. The parties agree that not every circumstance can be anticipated or known at the time this Contract was executed. Compensation for unanticipated circumstances, limited to subsections A –C, shall, at the City's sole discretion, be provided by the following method(s): (1) Unit prices previously approved; (2) allowing additional compensation on a time and materials method, not to exceed an agreed-to amount; (3) an agreed lump sum; and/or (4) the actual cost of:

- a) labor (including foreman and additional supervision, if necessary);
- b) materials necessary for incorporation into the Project;
- c) rental cost of construction plant and equipment used for work;
- d) Power and fuel required for operation of power equipment necessary to perform work;
- e) Contractor shall provide to the City physical evidence of all costs, including, but limited to, payroll, invoices, vouchers, estimates, bills, accounting records, or other relevant records. Contractor agrees that its failure to provide evidence of a claimed cost shall be a waiver of



such cost(s) and the City shall be released and forever discharged from any claim of any kind whatsoever, loss, damages, request for equitable adjustment, or demand related thereto. Contractor further agrees that, at the City's discretion, a fixed fee, not to exceed 10% of the costs of work shall be added to such costs as compensation for the cost of management, insurance, benefits, bond, profit, and any other expenses.

To the extent unanticipated circumstances arise, Contractor shall follow the procedures and processes set forth herein and, if applicable, the Dispute Resolution provisions of this Contract. Contractor agrees that its failure to follow the processes set forth herein and the Dispute Resolution process shall forever waive, release, and discharge the City from any claim of any kind whatsoever, damages, losses, lawsuits, or demands known or unknown. Additionally, the terms "detail" or "particularity" mean specificity, providing the exact basis and reason therefor with citations to the Contract or Contract Documents. Vague or ambiguous references such as "other matters" or "other costs" shall not be permitted and are not subject to any compensation method whatsoever.

Differing Site Conditions or Changed Conditions: A differing site condition or changed condition means subsurface, latent, or unknown physical site conditions that are materially different than that which is indicated in the contract and which is not ordinarily encountered and generally recognized in the work provided for in the Contract.

Contractor understands the City must be permitted the opportunity to timely investigate all differing site/changed condition matters; document conditions as they existed on the site at the time; take measurements, photographs, witness statements and the like; negotiate a compromise resolution with the Contractor and/or subcontractors; and avoid the cost, expense and delay of formal litigation.

Upon discovering a differing site condition, the Contractor shall not disturb the conditions and immediately contact the Project Manager. Within five days of discovering the condition, the Contractor shall provide written notice to the Project Manager of the condition. The written notice shall describe the condition with particularity; provide the precise material difference of the condition from the Contract, design plans, and/or other Contract Documents; describe, in detail, how the condition is not a condition that would be ordinarily encountered and generally recognized in the work provided for in the Contract; and provide a detailed explanation, including all accounting and other evidence supporting, Contractor's losses, costs, delays, and changes in time required for performing the work. Contractor agrees that any claim, loss, damage, delay, or change in time that is not supported by evidence shall be disallowed. Contractor waives and forever releases and discharges the City from any claim of whatsoever kind, loss, damages, demand, and/or request for equitable adjustment whether known or unknown by disturbing the condition before notifying the Project Manager and by failing to provide timely detailed written notice as required herein. Any issue which is not provided for, in detail, in the written notice shall also be waived and the City shall be forever released and discharged from any claim whatsoever, loss, damage, or request for equitable adjustment, or demand arising therefrom.

After Contractor fully complies with the provisions in this section and after receiving the written notice, the Project Manager shall promptly investigate the condition and determine whether such condition materially differs from that indicated in the Contract Documents and whether it is a condition that would not ordinarily be encountered and generally recognized in the work provided for in the Contract. If the Project Manager determines the condition is a "differing site condition,"



then a Change Order shall be issued describing the differing site condition and compensation method agreed to by the parties. By signing the Change Order, Contractor agrees the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in the Change Order. The parties shall also sign a document which describes in detail each condition and each claim, loss, damage, delay, or change in time related to that particular condition which was agreed to and fully resolved as well as any condition and each claim loss, damage, delay, or change in time related to that particular condition which is disputed.

If the Contractor disputes, disagrees with, or otherwise considers unfair any decision or ruling by the City, then Contractor shall, within 10 Calendar Days, provide the City with written notice of the dispute as set forth in the dispute section of this Contract and shall follow the dispute resolution process provided therein.

Defective or Deficient Construction Plans or Documents: A defective or deficient construction plan or document means a material error, mistake, oversight, or omission in the design plans or documents providing the specifications depicting the general and detail features of the work to be performed.

Upon discovering a defect or deficiency, the Contractor shall immediately contact the Project Manager. Within five days of initially advising the Project Manager of the defect or deficiency, the Contractor shall provide written notice to the Project Manager. The written notice shall describe the defect or deficiency with particularity explaining why it is a material defect or deficiency; provide precise detail explaining why the defect or deficiency is not something Contractor should know how to do or why the defect or deficiency is not a condition that would be ordinarily encountered and generally recognized in the work provided for in the Contract; and provide a detailed explanation, including all accounting and other evidence supporting, Contractor's losses, costs, delays, and changes in time required for performing the work. Contractor agrees that any claim, loss, damage, delay, or change in time that is not supported by evidence shall be disallowed. Contractor agrees that it shall waive and forever release and discharge the City from any claim of whatsoever kind, loss, damages, demand, and/or request for equitable adjustment whether known or unknown by failing to immediately notifying the Project Manager and by failing to provide timely detailed written notice as required herein. Any issue which is not provided for in the written notice shall also be waived and the City shall be forever released and discharged from any claim whatsoever, loss, damage, or request for equitable adjustment, or demand arising therefrom.

After Contractor fully complies with the provisions in this section and after receiving the written notice, the Project Manager shall promptly investigate the condition and determine whether such matter is a "defective or deficient design plan or document" as defined herein. If the Project Manager determines the matter is a "defective or deficient design plan or document," then a Change Order shall be issued describing the defective or deficient design plan or document, the correction and compensation method agreed to by the parties. By signing the Change Order, Contractor agrees the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in the change order. The parties shall also sign Form A of this Contract which describes in detail each condition and each claim, loss, damage, delay, or change in time related to that particular condition which was agreed to and fully resolved as well as any condition and each claim loss, damage, delay, or change in time related to that particular condition which is disputed.



If Contractor disputes, disagrees with, or otherwise considers unfair any decision or ruling by the City, then Contractor shall, within 10 Calendar Days, provide the City with written notice of the dispute as set forth in the Dispute Resolution section of this Contract and shall follow the dispute resolution process provided therein.

Changes in Work and Additional/Extra Work (fixed price contract): When additional information through excavation, testing, site investigation, differing site conditions, or otherwise is obtained the City shall have the right to alter, change the location, re-design, change the work, add to the work, accelerate work, or reduce work, change the method or manner of performance, change services, and/or change materials described in the Contract (collectively "Changed Work").

If the City changes work, then a Change Order shall be issued by the Project Manager. Contractor shall not be required to perform any Changed Work without a Change Order issued by the Project Manager. Such Changed Work shall be performed under the terms set forth in the original Contract and compensated as agreed in this section of the Contract.

If Contractor disputes any Changed Work or compensation method for such Changed Work requested by the City or set forth in a Change Order, Contractor shall, without delay, perform such work. Within 10 Calendar Days of receiving the Change Order, Contractor shall provide the City with written notice of the dispute as set forth in the Dispute Resolution section of this Contract and shall follow the dispute resolution process provided therein. Contractor further agrees that any issue not provided for, in detail, in the written notice shall also be waived and the City shall be forever released and discharged from any claim whatsoever, loss, damage, or request for equitable adjustment, or demand arising therefrom. Any matter resolved through the Dispute Resolution process shall be set forth in Form A of this Contract which describes in detail each Changed Work, including the compensation method, which was agreed to and fully resolved. By signing Form A, Contractor agrees that the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in Form A.

If Contractor does not dispute any Changed Work or the compensation method for such work, then Contractor shall sign the Change Order and agrees that the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in the Change Order.

Contractor agrees that the Project Manager shall have the authority to make minor changes in the work which do not involve additional costs and are not inconsistent with the purpose and scope of the work.

If the City finds it necessary or advisable, the City may omit, increase, or decrease any items as it may deem necessary or desirable without changing the unit prices in the proposal, provided such increase or decrease does not exceed 15% of the total monetary value of the original Contract. If material or labor involved in such change is not included in the unit prices of the Contract, but forms an inseparable part of the work to be done under this Contract, and the delay involved in asking for the bids or proposals and the letting of a new contract therefore might result in damage, injury, or impairment of the plant, work system, or other property belonging to the City, the City may in its discretion declare an emergency and require Contractor to proceed with such alterations and additions. The Contract shall not be required to perform such work or furnish extra materials without a Change Order issued by the Project Manager.



107.28 DISPUTE RESOLUTION

Mindful of the high cost of litigation, not only in dollars, but also in time and energy, the parties intend to and do hereby establish the following out-of-court alternate dispute resolution procedure to be followed in the event any dispute, claim of any kind, loss, damage, demand, request for equitable adjustment, or controversy should arise out of, or relating to this Contract or relating to any Change Order or other changes or addendums to this Contract. During the dispute resolution procedure provided in this section, Contract shall continue to perform the work as provided for in this Contract as modified by any Change Order or Contract amendment. Nothing in this section precludes the parties from pursuing any other remedy afforded by the laws of the State of Colorado once the remedies afforded under this Contract have been complied with and exhausted.

- C. Disputes Arising from Unanticipated Circumstances: If Contractor disputes, disagrees with, or considers any decision, order, ruling, demand, request, directive, Change Order, or Contract amendment, related to the Unanticipated Circumstances provision of this Contract, and issued by the City, whether verbally or in writing, then Contractor shall:
1. Within 10 days of the City issuing any written or verbal decision, order, ruling, demand, request, directive, Change Order, or Contract amendment, Contractor shall provide written notice to the Project Manager identifying, with specific detail, each disputed matter. Any Unanticipated Circumstance dispute or matter of any kind or nature whatsoever, which Contractor does not identify in detail shall be waived and the City is released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from any matter not explicitly set forth in the written notice and described in detail;
 2. Contractor shall provide to the City all evidence of any claim of whatsoever kind, loss, damages, delay cost, or other costs, including, but not limited to payroll reports, daily logs, invoices, accounting file, receipts, email, or other relevant record or document. Any item claimed by Contractor shall be supported by verifiable evidence described herein. If Contractor requires additional time to obtain or compile such evidence, then the Contractor shall have an additional 30 days, but must identify the exact document(s) or other evidence needed, where it is maintained, and explain why it is not available. The City shall not be responsible for any delay or other damage arising from Contractor's request for additional time to obtain documents. Any item unsupported by verifiable evidence shall be waived and Contractor agrees to release and fully discharge the City from any claim of whatsoever kind, loss, damage, request for equitable adjustment, or demand related to such unsupported item.
 3. Upon receipt of Contractor's written notice, the Project Manager will investigate the disputed matter(s) and issue a written decision, ruling, order, and/or directive to Contractor. If Contractor does not dispute the Project Manager's decision, ruling, order, or directive, or a compromise has been reached, then Contractor shall sign Form A. If Contractor disputes or disagrees with the Project Manager's Ruling, then within 20 days of receiving the Project Manager's decision, ruling, order, and/or directive, Contractor must file with the City a written request for review to the City Engineer or City's Manager of the Procurement Services Division. The written request for review shall (a) state in detail the exact issue raised to the Project Manager and the issue(s) related to those matters raised to be reviewed by the City Engineer or Procurement Services Manager; (b) provide an analysis, detailing the basis, reason therefor and the how and why Contractor disagrees



with the Project Manager's decision, ruling, order, or directive; and (c) attach all evidence supporting Contractor's dispute. If Contractor fails to provide a timely written request for review to the City Engineer or Procurement Services Manager, then Contractor agrees that it waives, releases, and forever discharges the City from any claim of whatsoever kind, loss, damage, request for equitable adjustment, or demand arising from or related to the Project Manager's decision, ruling, order, or directive.

4. The City Engineer's or Procurement Services Manager's decision shall be final and conclusive for the City of Colorado Springs. If Contractor disputes, disagrees with, or considers such decision unfair, then Contractor shall be free to pursue any other remedy afforded by the laws of the State of Colorado. If Contractor does not dispute the City Engineer's or Procurement Services Manager's decision, ruling, order, or directive or a compromise is reached, then Contractor shall sign Form A.
5. Contractor shall pay the City reasonable attorney's fees and costs associated with its failure to comply with any part of this alternate dispute process.

D. All Other Claims: If a dispute, disagreement, or controversy of any kind, other than those covered in the Unanticipated Circumstances section of this Contract, arises from or is related to the Contract, shall be resolved under the Disputes section in the Contract.

107.29 REMOVAL AND SUSPENSION FOR DEFECTIVE WORK

All work or material which has been rejected shall be remedied or removed and replaced in an acceptable manner. Additional compensation will not be allowed for such removal and replacement. Any work done beyond the lines and grades shown on the drawings, except as herein provided, will be considered as unauthorized and will not be measured or paid for. Work so done may be ordered removed at the Contractor's expense. Should the Contractor fail to comply promptly with any order of the Project Manager made under the provisions of this paragraph, the Project Manager shall have the authority to cause said work to be removed and to deduct the cost from any money due, or to become due, from the Contractor. At any time during the course of construction of this project if the provisions of the Plans, Specifications, or Contract provisions are being violated by the Contractor or his employees, the Project Manager shall have the right and authority to order all construction to cease or material to be removed, until arrangements satisfactory to the Project Manager are made by the Contractor for resumption of the work in compliance with the provisions of the Contract.

The Contractor shall promptly remove from the premises all materials and work rejected by the Project Manager as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute Contractor's own work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

All removal and replacement work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected work and materials within ten (10) days' time thereafter, the City may, upon ten (10) days written notice, sell such materials at auction or at private sale and retain the proceeds without compensation to the Contractor.



107.30 CLEANING UP AND FINAL INSPECTION

The Contractor shall at the completion of the work, remove all rubbish from and about the work and all tools, equipment, scaffolding, and surplus materials and shall leave the work clean and ready for use. If not completed by Contractor, the City may remove the rubbish and surplus materials and charge the cost to the Contractor.

All sewers, conduits, pipes, and appurtenances and all tanks, pump wells, chambers, buildings, and other structures shall be kept clean during construction and as the work or any part thereof approaches completion, the Contractor shall systematically and thoroughly clean and make any needed repairs to them. Contractor shall furnish at Contractor's own expense, suitable tools and labor for removing all water and cleaning out all dirt, mortar, and foreign substances. Any undue leakage of water into the structures such as to make the work, in the opinion of the Project Manager, fall short of first class work, shall be promptly corrected by the Contractor at Contractor's own expense.

Cleaning and repairs shall be arranged, so far as practicable, to be completed upon finishing the construction work. Notice to begin the final cleaning, and repairing, if such is needed, will be given by the Project Manager, who at the same time will make his final inspection of the work. The Project Manager will not approve the final estimate of any portion of the work until after the final inspection is made and the work is found to be satisfactory.

107.31 CUTTING AND PATCHING

The Contractor shall do all cutting, fitting, or patching of work that may be required to make its several parts fit together or to receive the work of other contractors shown upon, or reasonably implied by the Plans and Specifications for the completed Project.

Cold or wet weather conditions that do not permit a permanent asphalt pavement replacement will require a minimum 2" bituminous pavement patch prior to opening the area to traffic as a temporary measure until the permanent asphalt pavement replacement can be installed. This item shall be incidental to any work requiring such removal of asphalt and will be considered to be included in the unit price of the related item of work.

Any cost caused by defective or ill-timed work shall be borne by the Contractor.

The Contractor shall not endanger any work by cutting, digging, or otherwise and shall not cut or alter the work of any other Contractor without the consent of the Project Manager.

107.32 FINAL TESTS

After completion of the work, the Contractor shall make any and all tests required by the Specifications or by municipal, state, or federal regulations, and where so provided in said regulations shall furnish the City with certificates of inspection by the applicable regulatory bodies. The Contractor shall also make all tests required by the National Board of Fire Underwriters for the purpose of determining insurance rates or other protection of the City or the public.



107.33 CORRECTION OF WORK AFTER FINAL PAYMENT

Neither the final payment nor any provision in the Contract Documents shall relieve the Contractor of the responsibility for negligence or faulty materials or workmanship within the extent and periods provided by law and by this Contract.

107.34 NO WAIVER OF LEGAL RIGHTS

Upon written notice that the Contractor considers all work complete, the Project Manager will make a pre-final inspection with the Contractor and will notify the Contractor in writing of incomplete or defective work revealed by the inspection. The Contractor shall promptly remedy such deficiencies.

After the Contractor has remedied all deficiencies to the satisfaction of the Project Manager and delivered all construction records including record drawings, maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection and other documents (all as required by the Contract Documents), the Contractor will be promptly issued a Certificate of Completion by the Project Manager stating that the work is acceptable.

Upon completion of the Contract, the City will make final inspection and notify the Contractor of acceptance. Final acceptance shall not preclude the City from correcting any measurement, estimate, or certificate made before or after completion of the Contract, nor from recovering from the Contractor or Surety, or both, overpayments sustained because the Contractor failed to fulfill the obligations under the Contract.

The Contractor shall be liable to the City for latent defects, fraud, or such mistakes as may amount to fraud, or as regards the City's rights under any warranty or guarantee.

For all non-federally funded projects, the following additional requirements shall apply:

- (a) All work shall be constructed in compliance with standard construction codes, and all materials and workmanship must be guaranteed for a period of two years from the date of final acceptance. If any defect in the work in violation of the foregoing warranty arises, Contractor shall, upon receipt of written notice of such defect, promptly furnish, at no cost to the City, design and engineering, labor, equipment, and materials necessary to correct such defect and cause the Work to comply fully with the foregoing warranty and Contract Documents. This obligation shall survive both final completion of and final payment for the Work. The City shall not be invoiced for any of costs of warranty work, and Contractor shall not be entitled to submit any claim for an increased fee arising therefrom. The Contractor guarantee period (two-year warranty period) will not begin until the Contract is 100 percent complete, as determined by the Project Manager. Acceptance of the 100 percent complete work shall be requested in writing by the Contractor. Any item requiring repair and/or replacement prior to expiration of the two-year warranty period shall be guaranteed for a period of one-year after the date of said correction or repair or for the remainder of the two-year warranty period, whichever is longer.
- (b) In placing orders for equipment, the Contractor shall purchase such equipment only under a written guarantee from the respective manufacturers that the equipment supplied will function satisfactorily as an integral part of the completed Project in accordance with the Plans and



Specifications. Furthermore, the Contractor shall require that the manufacturer agree in writing at the time an order of equipment is placed that manufacturer will be responsible for the proper functioning of the equipment in cooperation with the Contractor, and that whenever necessary during the installation period or tuning up period following construction period, the manufacturer will supply without additional cost to the City, such superintendence and mechanical labor and any adjustments and additional parts and labor needed to make the equipment function satisfactorily, even if the same was not shown on approved shop drawings.

107.35 ACCEPTANCE

- (a) *Partial Acceptance.* If, during the performance of the project, the Contractor satisfactorily completes a unit or portion of the Project, such as a structure, an interchange, or a section of road or pavement that can be used advantageously for traffic, the Project Manager may make final inspection of that unit. If the Project Manager finds that the unit has been satisfactorily completed in compliance with the Contract, the Contractor may be relieved of further responsibility for that unit except as otherwise provided in these general provisions. Partial acceptance shall not void or alter any of the terms of the Contract.
- (b) *Final Acceptance.* Upon notice from the Contractor of presumptive completion of the entire Project, the Project Manager will make an inspection. If the work provided for by the Contract has been satisfactorily completed, that inspection shall constitute the final inspection and the Project Manager will notify the Contractor in writing of final acceptance indicating the date on which the Project was inspected and accepted.

If the inspection discloses any unsatisfactory work, the Project Manager will give the Contractor a written list of the work needing correction. Upon correction of the work, another inspection will be made. If the work has been satisfactorily completed, the Project Manager will notify the Contractor in writing of the date of final inspection and acceptance. Final acceptance under this subsection does not waive any legal rights contained in the No Waiver of Legal Rights section of this Contract.

SECTION 108 PAYMENTS AND ACCEPTANCE OF WORK

108.00 PAYMENTS AND RETAINAGE

Payments will be made, and required retainage withheld if applicable, in accordance with this section as the work progresses at the end of each month or as soon thereafter as practicable in compliance with C.R.S. Title 24, Article 91, on statements made and approved by the Project Manager. In preparing statements, only completed work will be taken into consideration. No payment will be made for materials in storage and/or delivered to the site, unless otherwise approved by the City.

Payment for work performed by the Contractor under the Contract Documents will be made at the approved unit price or lump sum price for each of the several items as listed in the proposal and measured as hereinafter specified. Such payment shall compensate the Contractor for all costs in connection with furnishing all labor, equipment and material required and performing the operations necessary to complete the item in accordance with the Contract Documents. All incidental work essential to the completion of the Project in a workmanlike manner, and including



cleanup and disposal of waste or surplus material, shall be accomplished by the Contractor without additional cost to the City. The cleanup and disposal of waste or surplus material shall be performed during construction or as soon after as is reasonably possible in order to better maintain the aesthetics and safety of the construction area. Payment will be made for the actual quantities constructed or installed, unless otherwise noted in these Contract Documents. However, any changes to plan quantity must be approved through proper Change Order procedures, said quantities being measured as specified in the Contract Documents.

- (1) If the Contract exceeds one hundred fifty thousand dollars (\$150,000.00), and is for the construction, alteration, or repair of any highway, public work, or public improvement, structure, and the Contractor has provided Performance and Payment Bonds: the City shall authorize partial progress payments of the amount due under this Contract monthly, or as soon thereafter as practicable, to the Contractor, if the Contractor is satisfactorily performing the Contract. If the City finds that satisfactory progress is being achieved during any period for which progress is to be made, the City may authorize payment to be made in full without withholding retainage. However, if satisfactory progress has not been made, the City may retain a maximum of ten percent (10%) of the amount of the requested payment until satisfactory progress is achieved. When the work is substantially complete, the City may retain from the remaining unpaid balance that amount the City Procurement Services Manager, at the advice of the Project Manager, considers adequate for protection of the City, suppliers, subcontractors, laborers, vendors, etc., provided that such retainage shall not exceed five percent (5%) of the amount due, and shall release to the Contractor all the remaining funds associated with completed and acceptable work.

If satisfactory progress has not been made the withheld percentage of the Contract price of any such work, improvement, or construction shall be retained on an invoice-to-invoice basis and shall not be cumulative. In other words, if the Contractor is not performing satisfactorily the City will hold ten percent (10%) of what is actually due to the Contractor. For example, if the Contractor is behind schedule and has successfully completed fifty percent (50%) of the work, the City will only pay forty percent (40%) of the invoice, withholding ten percent (10%) of what is due until the Contractor gets back on schedule.

- (2) Whenever a Contractor receives payment pursuant to this section, the Contractor shall make payments to each of the subcontractors of any amount actually received which were included in the Contractor's request for payment to the City for such subcontracts. The Contractor shall make such payments within seven (7) Calendar Days of receipt of payments from the City in the same manner as the City is required to pay the Contractor under this section if the subcontractor is satisfactorily performing under the Contract with the Contractor. The subcontractor shall pay all suppliers, sub-subcontractors, laborers, and any other persons who provide goods, materials, labor, or equipment to the subcontractor any amounts actually received which were included in the subcontractor's request for payment to the Contractor for such persons, in the same manner set forth in this subsection (2) regarding payments by the Contractor to the subcontractor. If the subcontractor fails to make such payments in the required manner, the subcontractor shall pay those suppliers, sub-subcontractors, and laborers interest in the same manner set forth in this subsection (2) regarding payments by the Contractor to the subcontractor.

At the time a subcontractor submits a request for payment to the Contractor, the subcontractor shall also submit to the Contractor a list of the subcontractor's suppliers, sub-subcontractors



and laborers. The Contractor shall be relieved of the requirements of this subsection (2) regarding payment in seven (7) days and interest payment until the subcontractor submits such list. If the Contractor fails to make timely payments to the subcontractor as required by this section, the Contractor shall pay the subcontractor interest as specified by Contract or at the rate of fifteen percent (15%) per annum, whichever is higher, on the amount of the payment which was not made in a timely manner. The interest shall accrue for the period from the required payment date to the date on which payment is made. Nothing in this subsection (2) shall be construed to affect the retention provisions of any Contract.

- (3) If the Contractor is not progressing in accordance with the Project Schedule or not performing quality work in accordance with the specifications, the City Procurement Services Manager, at the advice of the Project Manager may withholding retainage up to and including ten percent (10%) of the total contract amount.

108.01 PAYMENTS WITHHELD PRIOR TO FINAL ACCEPTANCE OF WORK

The City may withhold or nullify the whole or part of any certificate of payment to such extent as may be necessary to protect it from loss caused by:

- (a) Defective work not remedied.
- (b) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor.
- (c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- (d) Damage to another contractor.

When the above grounds are removed, payment will be made for amounts withheld because of them.

108.02 ACCEPTANCE OF FINAL PAYMENT

If the work is finally accepted by Project Manager under the terms and conditions of the Contract the entire balance found by the Project Manager to be due the Contractor, including the retained percentage, less any retention based on; (1) the Project Manager's estimate of the fair value of the claims against the Contractor; and (2) the cost of completing the incomplete or unsatisfactory items of work with specified amounts for each incomplete or defective item of work; and (3) retentions required by law, shall be due and payable to the Contractor. The date of completion is the date as specified in the Certificate of Completion issued by the Project Manager.

Upon completion of the work under the Contract and before the Contractor will receive or be paid for the Project Manager's final statement, the City Procurement Services Division shall post a notice in the Colorado Springs Gazette that the City has accepted such work as completed according to the Plans and Specifications and rules set forth in the Contract; that the Contractor is entitled to final settlement; that after the date specified in the Notice, the City will pay the full balance due under the Contract; and that persons having claims for labor or material furnished the Contractor must present their claim to the City Procurement Services Division prior to the date specified for such payment. Nothing herein shall be construed as relieving the Contractor and the Sureties on the Contractor's bonds from any claim or claims for work or labor done or materials or supplies furnished in the execution of the Contract.



The making and acceptance of the final payment shall constitute a waiver of all claims by the Contractor against the City.

If, after the work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Project Manager so certifies, the City may, upon Certificate of Completion by the Project Manager, and without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, and acceptance of the payment shall constitute a waiver of all claims by the Contractor but acceptance of the work shall not constitute a waiver of City claims against the Contractor.

Advertising for Final Payment and processing of the Final Pay Request shall not take place until after the Contractor has submitted Sales and Use Tax Forms to the City and said forms have been reviewed and approved by the City Sales Tax Office.



SCHEDULE C – RESERVED

Schedule C is reserved for use in the executed contract.



SCHEDULE D – SCOPE OF WORK

Background Information

The Tejon Street Revitalization Project plans to improve public safety and help to meet current and future demands for public space along multiple blocks of the most active and complex urban street in our historic core, Tejon Street. The City received a Revitalizing Main Streets: Safety Infrastructure Grant in October 22, 2021, for two blocks of Tejon Street, Colorado Ave. to Kiowa St.

This project will expand sidewalks by moving the east and west curb lines inward approximately 5 feet; maintain multimodal lane for alternative modes of transportation; revise the transit stops; change car parking from diagonal to parallel; and revise drainage, lighting and other related improvements.

The project is divided into three components.

Base Bid - The base bid is comprised of preconstruction activities and construction from Colorado Ave. to Pikes Peak Ave.

Preconstruction Activities:

The contractor will be issued a limited notice to proceed to address the pre-construction activities.

The team relies on the expertise of the contractor to deliver a better product in less time and at a cost competitive price. The contractor is required to provide the following expertise during the Preconstruction Activities.

- The skills and knowledge to estimate the quantities of materials, labor, and equipment needed to construct the project.
- The skills and knowledge to determine the tasks (work breakdown structure) needed to complete the project and estimate the costs, duration, and sequence of these tasks.
- An understanding of the availability, cost, and capacities of materials, labor, and equipment.
- The skills and knowledge to identify potential risks (including cost and schedule risks) and methods to mitigate them during the design process.
- The skills and knowledge to determine constructability of various designs and to develop construction phasing and maintenance of traffic schemes for various designs and construction approaches.
- The skills, knowledge and experience necessary to coordinate the project work with anticipated utilities conflicts and relocations.

The preconstruction activities will consist of:

- Review and provide comments on the documents received:
 - Ninety percent construction plan set
 - Ninety percent construction specifications
- Provide at least two recommendations for construction phasing to consider:



- Schedule impact from total number of phases
- Cost impact from total number of phases
- Impacted businesses during construction
- Attend four meetings with the City's project team and design consultants:
 - Design review and comments
 - Phasing Meeting
 - Constructability Review to provide review comments to the City's project team
 - Perform a risk assessment in terms of cost, quality and schedule
 - Provide value engineering to reduce risk, cost and schedule
 -

The overall purpose of this scope of work is to receive feedback on the current design to clarify items which would cause delays if identified later.

A full notice to proceed will be issued once the preconstruction activities are complete.

Construction Activities -

Colorado Ave. to Pikes Peak Ave.

- Relocation of curblines
- Accessible compliant concrete flat work
- Installation of Silva Cells
- Transit Stop
- Multimodal Lanes
- Street Light Relocations
- Landscaping
- Asphalt Paving
- Striping

Alternate A - Construction activities from Pikes Peak Ave to Kiowa Street

- Relocation of curblines
- Accessible compliant concrete flat work
- Installation of Silva Cells
- Transit Stop
- Multimodal Lanes
- Street Light Relocations
- Landscaping
- Asphalt Paving
- Striping

Alternate B - Intersection of Pikes Peak Ave. and Tejon Street Intersection Improvement

- Accessible compliant concrete flat work
- Landscaping
- Asphalt Paving
- Striping
- Traffic Signal
- Granite Pavers



The City is open to exploring construction alternatives and means and methods of construction to minimize construction costs and schedule impacts to maximize the improvements with available funds.

The contractor is encouraged to discuss innovative approaches to constructing these priorities to meet schedule constraints, including but not limited to early procurement of long lead items, innovative phasing options, methods of handling traffic, construction materials, or other ideas that will meet the intent of the project and provide an equal or better value to the City.

Any cost savings or efficiencies gained with phasing or construction techniques should be addressed.

The bid tab for this project is based on the 90-percent plans. Any modifications to quantities or modification agreed to during the preconstruction activities will be incorporated with the notice to proceed.



SCHEDULE E – SPECIAL CONSTRUCTION PROVISIONS

Will be added after this page.

Schedule E-Special Provisions

SPECIAL PROVISIONS
TEJON STREET REVITALIZATION
COLORADO SPRINGS, COLORADO

The City of Colorado Springs Standard Specifications Manual and Engineering Standards and References controls construction of this project. The following Special Provisions supplement or modify the Standard Specifications and take precedence over the Standard Specifications.

This section contains any Special Provisions or revisions to the General Provisions that are applicable on the subject project. In the event that the terminology of the Special Provisions conflicts with the terminology in the “City of Colorado Springs Engineering Division Standard Specifications”, latest revision, the Special Provisions listed herein will take precedence.

SCHEDULE E - SPECIAL PROVISIONS – SECTION VIII

This section contains any Special Provisions or revisions to the General Provisions that are applicable on the subject project. In the event that the terminology of the Special Provisions conflicts with the terminology in the “City of Colorado Springs Engineering Division Standard Specifications”, latest revision, the Special Provisions listed herein will take precedence.

1.0 INDEX OF PROJECT SPECIAL PROVISIONS

	<u>Page No.</u>
1.1 NOTICE TO BIDDERS.....	3
1.2 COMMENCEMENT AND COMPLETION OF WORK.....	4
1.3 DESCRIPTION OF WORK.....	4
1.4 PRE-CONSTRUCTION CONFERENCE.....	5
1.5 POTENTIAL PERMITS AND SUBMITTALS.....	5
1.6 DRAINAGE AND EROSION CONTROL.....	6
1.7 REVISION TO ORDER OF PRECEDENCE.....	7
1.8 PROJECT INFORMATION SIGNS.....	7
1.9 CONSTRUCTION WORK HOURS.....	7
1.10 WORK SITE RESTRICTIONS.....	7
1.11 CONSTRUCTION TRAFFIC RESTRICTIONS AND PHASING.....	8
1.12 PEDESTRIAN TRAFFIC CONTROL.....	9
1.13 COORDINATION WITH PROPERTY OWNERS.....	10
1.14 BUSINESS AND RESIDENTIAL ACCESS.....	10
1.15 COORDINATION WITH ADJACENT PROJECTS.....	10
1.16 COORDINATION WITH MOUNTAIN METRO.....	10
1.17 TEMPORARY LIGHTING.....	10
1.18 CONCRETE MIX CONSIDERATIONS AND CURING COMPOUND ..	11
1.19 TEMPORARY ASPHALT PATCHES.....	11
1.20 TEMPORARY TRENCH RETENTION STRUCTURES.....	11
1.21 STAKING WORK.....	11
1.22 DEWATERING.....	11
1.23 ENVIRONMENTAL GENERAL NOTES.....	12
1.24 MIGRATORY BIRD TREATY ACT.....	12
1.25 ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT.....	13
1.26 CDPS PERMIT.....	13
1.27 SOIL CONDITIONS.....	13
1.28 UNEXPECTED OBSTRUCTIONS.....	13
1.29 PROTECTING AND REMOVING PLANTINGS.....	14
1.30 NOXIOUS WEED CONTROL.....	14
1.31 UTILITIES.....	15
1.32 PROTECTION OF UTILITIES.....	17

1.33	COORDINATION OF UTILITIES	17
1.34	SHOP DRAWINGS AND SUBMITTALS	17
1.35	TESTING OF MATERIALS	21
1.36	WORKPLACE VIOLENCE	21
1.37	DETERMINATION AND EXTENSION OF CONTRACT TIME	21
1.38	LIQUIDATED DAMAGES	23
1.39	SUBLETTING OF CONTRACT	23

1.1 NOTICE TO BIDDERS

Project Name: Tejon Street Revitalization

City of Colorado Springs Public Works: Tyra Sandy, PE
Tyra.Sandy@coloradosprings.gov

Office Phone and Address: 30 South Nevada Ave.
Colorado Springs, CO 80901
719-385-5918

The above referenced individual(s) is the only representative with authority to provide any information, clarification, or interpretation regarding the plans, specifications, and any other Contract Documents or requirements. Contact with any other employee of the City of Colorado Springs Public Works, or any other individuals regarding this project, is not authorized. Any information obtained from other than the authorized City of Colorado Springs Public Works, representatives shall be considered invalid in the preparation of a proposal for this project.

Project Description and Notes: This project is located downtown Colorado Springs along the Tejon Street corridor between Colorado Avenue (south) and Kiowa Street (north). The limits of construction span from the northern curb returns at Colorado Avenue through the southern curb returns at Kiowa Street within the public right-of-way. This is a multi-modal roadway project designed to improve pedestrian, bicyclist, and public transit access to downtown Colorado Springs.

Construction improvements and work items include concrete sidewalk reconstruction, curb and gutter replacement, traffic signal replacement, stormwater drainage infrastructure, ADA ramps, planters, new trees and improved aesthetics, asphalt paving (partial and full depth), signage and striping, utility work, site furnishings and new railings for businesses.

This project consists of a Base Bid, Bid Alternate A, and Bid Alternate B. The contract will be awarded as Base Bid plus Bid Alternate A or Base Bid plus Bid Alternate B or Base Bid plus both bid alternates. Please review the Bid Schedule to identify Bid Alternative options in detail.

A general description of the Bid Alternates is listed below. All bidders shall reference the Construction Plans Sheets for the Overall Site Plan and Bid Schedule for additional detail and clarity

Base Bid – includes full reconstruction of the curb and gutter and sidewalk from the northern curb returns of Colorado Avenue to the southern curb returns at Pikes Peak Ave. Pavement includes minimal amounts of full depth reconstruction and milling and overlaying of the remaining pavement mat. No work in the Pikes Peak Ave. intersection is included. Improvements north of Pikes Peak Avenue include removal of existing pavement marking, asphalt slurry seal and restriping only.

Bid Alternate A – includes full reconstruction of the curb and gutter and sidewalk from the northern curb returns of Pikes Peak Ave. to the southern curb returns at Kiowa Street. Pavement includes minimal amounts of full depth reconstruction and milling and overlaying of the remaining pavement mat. No work in the Pikes Peak Ave. intersection is included.

Bid Alternate B – includes full reconstruction of the Pikes Peak Ave intersection including sidewalks, full depth pavement replacement and enhances streetscape.

1.2 COMMENCEMENT AND COMPLETION OF WORK

The Contractor shall complete all work within the allotted Calendar Days per the "Notice to Proceed" as provided by the City of Colorado Springs Public Works Department.

The Contractor shall prepare a phasing plan and work zone traffic control plan as outlined in Section 1.11.

Salient features to be shown on the Contractor's Progress Schedule are:

1. Notice to Proceed, project set-up, mobilization, including traffic control, submittals, permits, Pre-Con's, other meetings, etc.
2. Potholing
3. Erosion Control (Initial and Interim)
4. Construction Surveying
5. Removals (asphalt and materials)
6. Milling Schedule
7. Storm Sewer and Structural Cells
8. Aggregate Base Course
9. Asphalt Paving
10. Signing and Striping
11. Concrete Paving (sidewalks/pedestrian zones)
12. Street Lights
13. Landscaping and Irrigation
14. Tree Planting
15. Erosion Control (Final)
16. Clean-up, punch-list, demobilization
17. Anticipated Substantial Completion date
18. Anticipated Final Completion date

Work Hours and Restrictions - Nights and Weekends

Working hours shall be from 7:00AM-7:00PM MT. Monday through Friday.

No work shall be conducted at night or on Saturday or Sunday without prior written approval of the City of Colorado Springs.

Contractor Schedule

The Contractor's progress schedule shall be a Critical Path Schedule or Bar Chart.

Substantial Completion

Substantial completion will be granted for facilities open to the Public upon approval by the Project Manager and City of Colorado Springs.

Special Events and Holidays

The Contractor shall coordinate with the City of Colorado Springs and the Event Sponsor/Host. Times and dates shall be coordinated and added to the project schedule.

Colorado Switchbacks

9/7-9/8 Revel

9/13-9/15 Fiestas Patrias

9/27-9/28 Colorado Springs Marathon

10/6 High Country Toy Run

11/2 Veterans Day Parade

12/7 Parade Of Lights

Misc. Holidays

St. Patrick's Day Parade (March 2025)

1.3 DESCRIPTION OF WORK

The Contractor shall perform all operations necessary for the construction of the work as described in the plans and specifications, including restoration of all areas disturbed by the construction activities to a condition equal to or better than pre-construction condition. The Contractor shall obtain all permits and furnish all transportation, materials, tools, equipment, labor and supplies necessary to complete in a workmanlike manner the improvements as shown and specified in these documents.

The Contractor shall be responsible for verification and acceptance of the existing site conditions prior to proposing on the project. The Contractor shall notify the engineer 48 hours prior to the commencement of construction activities if site conditions differ.

All work required to construct all items in this contract shall be performed in a safe, careful, and orderly manner with due consideration given to protection of adjoining property, the public, and workmen. Any damage to streets, utilities, public or private property, property monumentation, artwork or the bench marks and construction staking due to the negligence of the Contractor, shall be repaired and restored to its original condition by the Contractor at his expense to the satisfaction of the City. It will be the Contractor’s responsibility to ensure that areas not in conflict with new work are not disturbed or damaged during the construction process.

1.4 PRE-CONSTRUCTION CONFERENCE

Within 10 calendar days after issuance of the Notice to Proceed, or as otherwise established by the City, a preconstruction conference shall be held for review of the construction schedule, Contractors list of Subcontractors and suppliers, project contracts, designated Erosion Control Supervisor, Traffic Control Plan with Supervisor name and telephone number and certifications, procedures for handling shop drawings, processing Applications for Payment, and other pertinent items. The Contractor (and Subcontractor) should address any construction problems which may be foreseen in the execution of the project work at the preconstruction conference.

At the Preconstruction Conference, the Contractor shall furnish the City a written list of all permits required for the proper completion of the Contract. The list shall clearly identify the type of permit or permits that must be obtained before work on any particular phase or phases of work can be started.

1.5 POTENTIAL PERMITS AND SUBMITTALS

The table below is a list of potential permits or submittals required for the project. The contractor shall be responsible to verify this list and add any additional permits needed to construct the project. Copies of any permits that have already been obtained by the City of Colorado Springs are available for review by all proposers. Contractors are responsible for compliance with all permits obtained by others for this project.

<u>PERMIT</u>	<u>PERMITTING AGENCY</u>	<u>RESPONSIBILITY TO OBTAIN PERMIT</u>
Air Quality Permit	Colorado Department of Public Health and Environment	Contractor
CDPS Permit (1)	Colorado Department of Public Health and Environment	Contractor
Excavation Permit	City of Colorado Springs	Contractor
Concrete Permit	City of Colorado Springs	Contractor
City Forester’s Permit	City of Colorado Springs	Contractor
Traffic Control Permit	City of Colorado Springs	Contractor
Corps of Engineers 404 Permit	Corps of Engineers	City of Colorado Springs

Colorado Springs MS4 Permit	Colorado Department of Public Health and Environment	City of Colorado Springs
Depredation Permit	US Fish and Wildlife	Contractor
Fugitive Particulate Emissions Control Plan	Colorado Department of Public Health and Environment	Contractor
GESQWP	Colorado Department of Public Health and Environment and City of Colorado Springs	Contractor

1. If project activities result in one acre or more of earth disturbance a CDPS permit will be required. The contractor shall not commence permit-related work until the permit is received. Work performed must be consistent with that detailed in the storm water management plan.

If disturbance is less than one acre, a CDPS stormwater permit will not be required. However the Contractor shall comply with all the requirements in sections 101, 107, and 208 of the 2017 Standard Specifications for Road and Bridge Construction, and the Revision of Sections 107 and 208 - Water Quality Control Under One Acre of Disturbance issued July 3, 2017.

The contractor shall be responsible to investigate and assess the requirements for all necessary environmental/drainage/construction permits. The Contractor shall furnish in the proposal a written list of all permits required for the proper completion of the Contract. The list shall clearly identify the type of permit or permits that must be obtained before work on any particular phase or phases of work can be started. The contractor shall comply with all conditions of the permits during the course of the construction. The Contractor and its Subcontractors with each apply for their own City of Colorado Springs permits. Subcontractors shall list the Contractor that they are working for on the City Permit. Permit fees for the City of Colorado Springs permits are waived for this project. The Contractor shall pay the fees for

1.6 DRAINAGE AND EROSION CONTROL

The Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the site in performance of the work. Drainage facilities shall be adequate to prevent damage to the Work, the site, and adjacent property.

The Contractor shall prevent the pollution of drains and watercourses by sanitary waste, sediment, debris, or other substances resulting from this Work through the use of construction BMPs or other approved methods. Contractor shall clean up and isolate such materials on a continuing basis to prevent risk of washing into drainage ways. Contractor is also responsible for routine maintenance of all construction BMPs.

Contractor shall obtain a copy of and follow the stipulations of the City of Colorado Springs MS4 permit and all other state and local permits. Contractor shall be responsible for obtaining all state and local storm water discharge permits required for the Work.

Within 20 days of Notice to Proceed, the Contractor shall submit a Phased Grading, Erosion and Stormwater Quality Control Plan to the Engineer for review and acceptance. The plan shall include, as a minimum, the following items:

1. Site Description and Map.
2. A description of the construction activities.
3. The Contractor's proposed construction sequence and phasing.
4. Construction erosion control plans for each phase of construction. The information in the plans can be used, when appropriate, but is not intended to provide all of the details needed for each phase of construction.
5. A list of Best Management Practices (BMPs) that the Contractor proposes to use on the project.

6. Details for all proposed BMP(s) - Photocopies of BMPs from the City of Colorado Springs Drainage Criteria Volume 2 or Urban Drainage & Flood Control District (UD&FCD) Criteria Manual Volume 3 should be included in the plan. Details of any other BMP(s) proposed need to be submitted to the City for approval prior to their use on the project.
7. Materials handling and spill prevention plan.
8. Water control and dewatering plan.
9. Details of inspection and maintenance procedures.
10. Identity of the SWMP Administrator for the Contractor.
11. Copy of the required permits obtained from the Colorado Department of Public Health and Environment (CDPHE).

The Phased Grading, Erosion and Stormwater Quality Control Plan must be accepted by the Engineer prior to any work. The Phased Grading, Erosion and Stormwater Quality Control Plan shall be signed and sealed by a professional engineer licensed in the State of Colorado. The Contractor shall also sign the plan indicating they will comply with all of the requirements of the plan. Contractor shall be responsible for maintaining an up to date plan during all phases of the project construction.

1.7 REVISION TO THE ORDER OF PRECEDENCE

In Section 102.03 of the General Provisions delete items (e) through (g) and replace with the following:

- (e) Detailed Plans
- (f) Section 10 Material & Construction Requirements, Measurement, and Payment
- (g) Section 9 Technical Specifications
- (h) City Standard Specifications
- (i) Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction
- (j) City Standard Drawings
- (k) Colorado Department of Transportation (CDOT) M&S Standard Drawings

1.8 PROJECT INFORMATION SIGNS

The Contractor shall be responsible for installing and maintaining all project signs throughout the duration of the Contract. The City will furnish four project signs for placement in conspicuous locations on Tejon Street, Pikes Peak Avenue, Kiowa Street, and Colorado Avenue. The Contractor shall be responsible for moving project signs as necessary to complete the work and for installing completion signs after completion of the project. The Contractor shall maintain the signs throughout the project and for a period after completion. All work and materials related to these project signs will not be paid for separately, but will be considered incidental to the work.

1.9 CONSTRUCTION WORK HOURS

The Contractor shall conduct normal activities between the hours of 7:00 a.m. and 7:00 p.m Mountain Time. Work outside that time shall be considered night work and shall not be conducted without prior written approval from the City of Colorado Springs and Engineer. Any modification to standard working hours shall be coordinated with the City of Colorado Springs and Engineer.

1.10 WORK SITE RESTRICTIONS

The Contractor shall confine the work activities to the area shown in the construction drawings. A suggested Work Zone Phasing Plan is provided in the Construction Plans for general guidance. The Contractor shall confirm this plan and modifications to the suggested plan with the City of Colorado Springs and Engineer before construction begins. The established work zone shall be marked and secured by the Contractor with an appropriate fence or barrier. The fence type shall be approved by the Engineer based on discussions with individual property owners/tenants. Temporary fences shall be considered incidental to the work and shall not be paid separately. The work zone shall be secured every

night prior to the Contractor leaving the jobsite. On weekends, the Contractor shall ensure the work zone is secure on Saturday mornings in addition to each night during the week.

Any additional work area required within private property must be acquired by the Contractor by written permission from the property owner. The Contractor shall restore any damage or disruption to other properties utilized in the performance of this project to an equal or better than pre-construction condition at no cost to the City. The Contractor shall hold the City harmless from any claims to damage or disruption of private property.

Contractor personnel shall not trespass upon private property without written consent of the landowner. The Contractor shall provide the Engineer with a copy of the written permission. The City will be held harmless of Contractor negligence in matters of trespassing. The Contractor shall minimize construction traffic along residential streets and alley's where practical.

Heavy machinery shall be staged per the Construction Phasing Plan and may not sit above an existing basement that extends out underneath sidewalks. The Contractor shall confirm this boundary with the Engineer and City of Colorado Springs for allowable areas the heavy machinery may enter and work.

1.11 CONSTRUCTION TRAFFIC RESTRICTIONS AND PHASING

Construction traffic control shall conform to Section 800 of the City of Colorado Springs Standard Specifications as revised herein and the City of Colorado Springs Supplement to the Manual on Uniform Traffic Control devices. Access to the front door of every business within the work zone must be maintained at all times via a direct accessible route.

This project includes a Base Bid, Bid Alternate A, and Bid Alternate B. Depending on the final contract award, phasing and construction traffic control may vary. The Contractor shall provide any modification to the suggested Work Zone Phasing Plan as needed before construction begins.

- Construction Phasing
 - Construction may not take place on both sides of the same block at the same time.
 - Both sides of the same block may not have active construction without prior approval of the City of Colorado Springs and Engineer.
 - See the suggested Work Zone Phasing Plan for pedestrian access and routing through the site.
 - Pikes Peak Ave. Intersection Improvements (Bid Alternate B)
 - Pikes Peak Avenue may be constructed ½ at a time or in smaller increments.
 - A southbound thru lane must be maintained at all times.
 - An east/west pedestrian crossing must be maintained at all times. concurrently with adjacent Tejon Street Improvements (Base Bid and Bid Alternate A)
 - Install temporary fencing, barricades, and pavement marking/notation as needed.
 - Existing basements from adjacent businesses on Tejon Street extend outward beneath the existing sidewalks. Note approximate existing basement locations in the Construction Plans. The Contractor shall maintain and protect existing basements and repair any damage to basements immediately. No heavy machinery shall operate above an existing basement or within 10' of the face of all existing buildings. If a heavy machine is required above an existing basement delineation, the Contractor shall coordinate access with the City of Colorado Springs and Engineer. Existing basement outlines are approximate.
- Traffic Restrictions
 - The Contractor shall maintain one southbound thru lane of traffic at all times for 24 hours per day
 - Alley access to Tejon Street may be closed as needed
 - A southbound right turn lane at Colorado Avenue shall be maintained at all times.
 - A southbound thru/left turn lane at Colorado Avenue shall be maintained at all times.

- Business access (see section 1.14 Business and Residential Access and Section 1.13 Coordination with Property Owners)
- All existing parking stalls within the work zone shall be removed. Public parking will not be allowed within the work zone. Contractor parking within the work zone is allowed.
- Pikes Peak Avenue Improvements:
 - A southbound thru lane shall be maintained at all times except during full depth pavement reconstruction of the intersection, any utility/conduit work on the signal, or misc. handwork on the proposed ADA cross-walks.
 - Pedestrian access shall be maintained per Section 1.12 Pedestrian Traffic Control
- Closures of thru lanes
 - Northbound thru traffic does not need to be maintained throughout the duration of the project.
- Waterline lowering construction
 - During waterline installation, both thru lanes will be temporarily closed between Colorado Avenue and Pikes Peak Avenue
 - See Waterline Construction Plans for specific phasing and shut-downs information per Colorado Springs Utilities – Water Line Extension and Service Standards (LESS)

Lane Width

Through lanes shall be at least eleven feet wide, measured from center of stripe to center of stripe and/or edge of traffic control device. Turn lanes shall be at least ten feet wide, measured from center of stripe to center of stripe and/or edge of traffic control device. Concrete barrier is required for any excavation within 12 feet of a travel lane with a drop of 12 inches or more. When a temporary concrete barrier is used adjacent to travel lanes, an additional 2' width of shy distance shall be provided between the center of stripe and edge of barrier.

Speed Limit

The design speed for temporary traffic routes shall be greater than or equal to the posted speed.

Signalization

Temporary signalization at the intersection of Pikes Peak Avenue and Tejon Street is not required. Once the existing traffic signal is removed, stop signs shall be installed at the north and east legs to make this intersection an all-way stop controlled intersection.

For the times between daytime work and nighttime or weekend work, the Contractor shall maintain the minimum number of lanes identified in the suggested Work Zone Phasing Plan (one southbound lane along Tejon Street). East-West traffic at Pikes Peak Avenue intersection may be restricted. The City and/or the Engineer will continuously field check the traffic control operations. The City or Engineer have the authority to immediately stop work if traffic control is not functioning properly or if the approved plan is not adhered to in order to maintain safe operations of traffic in the project area.

1.12 PEDESTRIAN TRAFFIC CONTROL

Section 805.07 of the City Standard Specifications is deleted and replaced with the following:

Throughout construction, the Contractor shall always provide and maintain a pedestrian walkway on both the west and east sides of Tejon Street. When the existing concrete sidewalk and pedestrian walkway is removed, the Contractor may utilize the area between the southbound thru lane and the work zone, on the existing pavement as an alternative as noted on the suggested Work Zone Phasing plan.

Pedestrian walkways shall be a minimum of four feet wide, safely delineated, maintained and kept clear of all debris and obstructions, and meet the requirements of ADA. Surface treatment for pedestrian walkways shall be approved by the Engineer prior to implementation.

The Contractor shall provide, install, and maintain pedestrian wayfinding signs as necessary to minimize jaywalking and confusion. It may be necessary to locate these signs far outside the project limits to be effective. The Contractor shall prepare and submit for approval a plan that shows proposed pedestrian routes and pedestrian signage for all phases of construction.

Access to every business along Tejon Street must be maintained at all times during construction. Work hours may need to be adjusted to accommodate business access. An ADA accessible route and direct access shall be maintained to the front door of each business during business hours. Temporary ramps or walkways may be required and is considered incidental to the work and will not be paid for separately.

1.13 COORDINATION WITH PROPERTY OWNERS

The City will be leading and coordinating all Public Involvement ("PI") efforts during construction. The Contractor shall be responsible for notifying the City PI representative at least 48 hours in advance of any construction that may affect access, parking, outdoor seating and/or existing structures, including fences, adjacent to that property.

- Awnings (existing businesses)
 - If an existing awning must be removed, the Contractor shall coordinate with the adjacent property owner, City of Colorado Springs, and Engineer as needed. The existing awning should be removed, stored and reset following completion of sidewalk construction.
 - If the existing awning is secured via concrete footing, the existing awning should be protected in place during construction.

1.14 BUSINESS AND RESIDENTIAL ACCESS

Section 805.08 of the City Standard Specifications is modified and updated with the following:

The Contractor shall maintain safe and clear access to all businesses and residences throughout the project corridor. Any access restriction or modification to or from adjacent property shall be submitted to the City of Colorado Springs and Engineer and approved prior to implementation. All business impacts shall be coordinated with the City of Colorado Springs PI representative.

For Partial and Temporary Access Closure: The Contractor shall coordinate with the City of Colorado Springs PI representative for all business impacts including closures and partial closures. The Contractor shall provide a minimum seven days written notice to each business or residence prior to any work on partial or temporary closure of access drives and business frontages.

Access must always accommodate emergency services vehicles and personnel.

Delivery truck access shall be restricted and not allowed within Tejon Street. Contractor shall restrict and direct delivery trucks to utilize side streets and alleys. Contractor shall coordinate with the City PI representative to facilitate public communication. This coordination is incidental.

1.15 COORDINATION WITH ADJACENT PROJECTS

The contractor shall coordinate with all concurrent projects in the vicinity of this project, including but not limited to projects managed by the City of Colorado Springs, Colorado Springs Utilities, and local utility providers. Coordination shall include traffic control to minimize conflict and confusion between overlapping temporary traffic control zones. This coordination is incidental.

1.16 COORDINATION WITH MOUNTAIN METRO (PUBLIC BUS TRANSPORTATION)

The Contractor shall coordinate bus service operation with Mountain Metro through the City PI representative throughout the duration of the project. Two bus stops are being reconstructed along Tejon Street and shall meet the requirements of the City of Colorado Springs standard details and Mountain Metro standards.

1.17 TEMPORARY LIGHTING

The Contractor shall coordinate temporary lighting plans with the City of Colorado Springs and Engineer before construction begins. Temporary lighting will be required as the existing lights are being reset and relocated. The existing light poles shall be salvaged and stored at the expense of the Contractor. See the Lighting specification for additional information on lighting requirements.

Temporary lighting may be wood poles with overhead spanwire power distribution or other. Glare shall be minimized by the use of cobra-head full-cutoff fixtures. Temporary lighting shall be maintained and operated during all nighttime hours. Areas requiring temporary lighting may include intersections, pedestrian crossings, points of transition in direction, bumps, and flagger stations. The Engineer has the authority to direct placement, removal, and/or modification of temporary lighting by the Contractor to ensure safety of the travelling public at all times. The Contractor shall coordinate with Colorado Springs Utilities for power feeds.

Temporary lighting is considered incidental to the work and will not be paid for separately.

1.18 CONCRETE MIX CONSIDERATIONS AND CURING COMPOUND

All concrete flatwork shall include integral concrete curing compound. Upon completion of all concrete flatwork throughout the project limits a secondary surface application shall be applied. Cost for this work is incidental to all concrete flatwork pay items.

1.19 TEMPORARY ASPHALT PATCHES

A temporary 2-foot wide asphalt patch (6-inches thick) shall be installed adjacent to the proposed edge of gutter, tying into the existing edge of asphalt pavement. Reference the Typical Section sheets in the Construction Plans for the removals, interim, and final asphalt condition adjacent to the curb and gutter.

Cold or wet weather conditions that do not permit a permanent asphalt pavement replacement will require a minimum 2" asphalt patch prior to opening the area to traffic as a temporary measure until the permanent asphalt pavement replacement can be installed. This item shall be incidental to proposed curb and gutter and will be included in the unit price of the related item of work. Millings will not be accepted.

1.20 TEMPORARY TRENCH RETENTION STRUCTURES

The Contractor shall determine the need to provide temporary excavation support (piling, sheeting, trench boxes, and/or shoring) to meet OSHA requirements as part of the bid and shall include all costs for such work in the appropriate bid item(s). Any other shoring necessary to complete the work, in accordance with OSHA requirements, will not be measured and paid for separately, but shall be included in the cost of the work.

Design calculations, plans, and shop drawings for piling, sheeting and/or shoring shall be submitted in accordance with Special Provision 1.34 Shop Drawings and Submittals.

1.21 STAKING WORK

In General Provision Subsection 109.20 Staking Work, first paragraph shall include: Staking requirements shall include all underground construction including storm drain and utilities (including utility work performed by others, and by the Contractor), and sign locations.

Contractor is wholly responsible for the correct horizontal and vertical location of all project items. Items not constructed in the proper location will be removed and replaced in the correct location without additional cost to the project or time to the schedule.

Staking work payment shall be incidental to construction surveying and staking.

1.22 DEWATERING

The work consists of the removal of surface water and ground water as necessary to perform the construction required by the contract in accordance with the specifications.

It shall include:

(1) constructing, installing, building, and maintaining all necessary temporary water containment facilities, channels, and diversions; (2) furnishing, installing, and operating all necessary pumps, piping, and other facilities and equipment; and (3) removing all such temporary works and equipment after their intended function is no longer required.

Dewatering the Construction Site

Utility trenches, excavations and all other parts of the construction site shall be dewatered and kept free of standing water and muddy conditions as necessary for the proper execution of the work. The Contractor shall furnish, install, operate, and maintain all drains, sumps, pumps, casings, well points, and all other equipment required to properly dewater the site as specified. Dewatering systems that cause a loss of soil fines from foundation areas will not be permitted.

The Contractor shall furnish the Engineer, in writing, a proposed plan for dewatering before commencing with any construction activity for which dewatering may be required. Acceptance of this plan or the waiving of the plan requirement will not relieve the Contractor of the responsibilities for completing the specified work.

Items of work for dewatering are to be considered incidental and will not be paid for separately.

1.23 ENVIRONMENTAL GENERAL NOTES

Best Management Practices (BMPS) will be implemented during all phases of construction to reduce impacts from sedimentation and erosion. It will be the responsibility of the Contractor to maintain existing BMPS per Criteria of Colorado Springs Stormwater Enterprise (SWENT).

There will be no equipment staging, storage of materials, use of chemicals, or equipment refueling within 50 feet of wetlands or other water features. All stockpiled project materials shall be located away from sensitive areas and confined so that no materials or their runoff enter waters of the US/State, including wetlands, and streams.

Environmental walkthrough. Once construction has been completed, the City of Colorado Springs and the Contractor will conduct a walkthrough of the project site. The purpose is to identify any areas where BMPS need to be removed or maintained and identification of responsible party until CDPS permit is closed.

1.24 MIGRATORY BIRD TREATY ACT

Tree Trimming/Removal - Tree trimming and/or removal activities shall be completed before birds begin to nest or after the young have fledged. In Colorado, most nesting and rearing activities occur between April 1 and August 31. However, since some birds nest as early as February, a nesting bird survey shall be conducted by a biologist before any tree trimming or removal activities begin.

Clearing/Grubbing Activities - Clearing and grubbing of vegetation that may disturb ground nesting birds shall be completed before birds begin to nest or after the young have fledged. If work activities are planned between April 1 and August 31, vegetation shall be removed and/or trimmed to a height of six (6) inches or less prior to April 1. Once vegetation has been removed and/or trimmed, appropriate measures, i.e. repeated mowing/trimming, shall be implemented to assure vegetation does not grow more than six (6) inches. Failure to maintain vegetation height of six (6) inches or less may postpone project construction.

Birds of Prey - For birds of prey that could potentially nest near the project site, refer to the Colorado Division of Wildlife's "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors" guidelines available at Colorado Division of Wildlife district offices.

The nesting bird survey will be conducted by the Engineer's Representative. The schedule implications, and activities required to follow the Migratory Bird Treaty Act herein shall be considered incidental to the work and not paid for separately.

1.25 ENVIRONMENTAL, HEALTH, AND SAFETY MANAGEMENT

The Contractor shall follow Section 250 of the CDOT Specifications – Environmental Health and Safety Management, and the Revision of CDOT Section 250 herein. Compliance with requirements of CDOT Specification 250 subsection 250.03 is not paid for separately, but included in the cost of work. Payment for proper handling of unexpected materials encountered which require environmental monitoring, testing, or remediation will be paid for by force account.

In the event that suspected polycyclic aromatic hydrocarbon (PAHs) are encountered, including with buried utilities, the Contractor shall follow CDOT Specification 250.07 and the project Materials and Management Plan.

If groundwater is encountered during excavation activities, water generated should be analyzed before discharging in accordance with a Colorado Department of Public Health and Environment - Water Quality Control Division Dewatering Permit. If regulated constituents in the water exceed the Colorado Surface Water Standards, Colorado Groundwater Quality Standards, and/or permit limits, the water must be either treated before being discharged to Waters of the State, or disposed properly off-Site.

1.26 CDPS PERMIT

If project activities result in one acre or more of earth disturbance a CDPS permit will be required. The contractor shall not commence permit-related work until the permit is received. Work performed must be consistent with that detailed in the storm water management plan.

If disturbance is less than one acre, a CDPS stormwater permit will not be required. However, the Contractor shall comply with all the requirements on sections 101, 107, and 208 of the 2011 Standard Specifications for Road and Bridge Construction, Revision of Sections 107 and 208 water quality control under one acre of disturbance issued February 3, 2011.

1.27 SOIL CONDITIONS

The Contractor assumes all risks connected with the surface and subsurface conditions actually encountered by him in performing the work; even though such actual conditions may result in the Contractor performing more or less work than he originally estimated. The Contractor shall perform whatever exploratory excavations and tests he deems necessary to determine the site conditions.

The Contractor shall utilize all suitable excavated material as approved by the Engineer for raising grades and backfilling the new construction as applicable. Additional imported material shall be a well graded non-expansive inorganic soil or as herein after specified. A geotechnical investigation report is included with the project bid documents for reference.

1.28 UNEXPECTED OBSTRUCTIONS

It is expected that the contractor will encounter buried debris while constructing underground facilities for this project. Buried debris could include, but is not limited to; concrete structures, metal objects, abandoned utilities and conduit, trolley ties and/or rails. When the Contract does not include pay items for the removal of objects, the removal of that object shall include the sawing, removal, and disposal will not be paid for separately but shall be included in the work for unclassified excavation or full depth pavement removal.

1.29 PROTECTING AND REMOVING PLANTINGS

The Contractor shall protect all existing trees, shrubs and other plantings which are designed to remain from above ground and root structure damage during the construction activities as identified in the plans. Within 21 days of Notice to Proceed, the Contractor shall schedule a coordination meeting with the Engineer and the City Forester to determine which trees and shrubs shall be transplanted, protected, or relocated. Plantings which are considered to be slightly damaged shall be properly pruned and sealed according to accepted nursery practices. Unnecessary damage to plants or trees will subject the Contractor to cash penalties as determined by the Engineer and City of Colorado Springs. Where plantings are in conflict with new work, as determined by the City Forester (plantings in the public right-of-way) or by the inspector or owner (plantings on private property), the Contractor shall remove the planting.

In all cases, the proper planting season shall be observed to assure proper establishment and growth of the plantings.

Tree branches shall be trimmed back to the trunk, all around, to a minimum height of 8' above the adjacent walkway. Work shall be done only by a licensed Tree Service.

1.30 NOXIOUS WEED CONTROL

Equipment Cleaning and Inspection

The Contractor shall ensure that all equipment moved onto the Project is free of soil, seeds, vegetative matter, or other debris that could contain or hold noxious weed seed. The Engineer will inspect all equipment prior to it being placed into service and may reject equipment that does not meet this specification.

Herbicide Applications

Any areas infested with knapweed, thistle or other noxious weeds shall be spot sprayed with a combination of 2,4-D low volatile ester, oil soluble amine or water soluble amine formulations and dicamba in a tank mix. A blue spray pattern indicator shall be added to the tank mix of 2,4-D and dicamba in accordance to the manufacturer label.

Recommended rates are:

Dicamba – 1.2 liter per hectare

2,4-D – 2.3 liter per hectare

Herbicide shall be applied as a spot spray as directed by the Engineer and according to the most recent manufacturer label. Herbicide shall not be applied when raining or when rain is imminent in the area; around desirable plants when temperatures are expected to be above 29 degrees Celsius; when wind may cause spray to drift onto desirable plants; when areas are directly adjacent to water or desirable plants.

Locations to receive herbicide treatment shall be designated by City of Colorado Springs Operations and Maintenance Division. The Contractor shall meet with the City Representative a minimum of 2 weeks prior to herbicide operations to develop a weed management plan to determine the locations and treatment of noxious weeds.

Herbicide shall be applied to all areas infested with noxious weeds prior to stockpiling topsoil. Topsoil should not be scraped for a minimum of three days after application. Herbicide shall not be applied within 2 months of seeding. Knapweed and thistle shall be sprayed while in the rosette stage in the fall or early spring. Dicamba and 2,4-D shall be applied in locations directed by the Engineer.

All noxious weed control shall be considered incidental to the project and no payment will be made for the work.

1.31 UTILITIES

The size and location of all existing utilities as known to the Engineer have been noted on the plans for the information and guidance of the Contractor. The Contractor shall be responsible for the location and protection of all utilities located within his working area regardless of whether or not their existence or location is shown or noted on the drawings.

All overtime costs for inspection by City Utilities shall be at the Contractor's expense and will be billed directly from Colorado Springs Utilities to the Contractor.

It is the Contractor's responsibility to complete required work and to schedule inspections during normal working hours. The Contractor is responsible for contacting each affected utility for their inspectors' working hours. The Contractor is responsible to request an inspection two (2) working days in advance of the inspection. In the case of an overtime inspection, the request must be in writing. The City will not entertain any requests for time extensions for delays caused by the Contractor's failure to properly notify the affected utility of a required inspection or the Contractor's failure to complete the required work by the time of the scheduled inspection.

The accuracy of information furnished in the contract documents with respect to underground utilities is not guaranteed. The Contractor shall make his own investigations, including exploratory excavations, to determine the locations and type of existing mains and service laterals or appurtenances.

The Contractor shall notify all utility companies who may have installations in the area where the work is to be performed and solicit their aid in locating horizontally and vertically utilities prior to any excavation. All utilities encountered must be kept in operation by the Contractor and must be protected and/or repaired at the Contractor's expense.

Colorado Springs Utilities (CSU)

Utility Problems or Questions: 719-448-4800

Utility Notification Center of Colorado (UNCC): 1-800-922-1987 or 811

Miscellaneous Utility Services

Utility Notification Center of Colorado (UNCC): 800-922-1987 or 811

Engineering Division for Inquiries: 719-385-5918

At least forty-eight (48) hours prior to commencing excavation, the Contractor shall call UNCC at 1-800-922-1987 between the hours of 7:30 A.M. and 4:30 P.M., Monday through Friday, for information concerning the location of buried utilities in the area of construction.

Below is a Pre-Excavation Checklist which the Contractor shall follow prior to commencing construction on the project.

Pre-Excavation Check List

	Utility Notification Center of Colorado (UNCC) called at least two (2) business days prior to construction at: 1-800-922-1987
	Utilities marked and located on the ground
	Employees briefed and knowledgeable on marking and color codes*
	Employees trained on excavation and safety procedure for Natural Gas Line
	When excavation approaches gas lines, employees expose lines by careful probing and hand digging

Standard Utility Marking Color Code

Natural Gas (Yellow)
Electric (Red)
Water (Blue)
Wastewater (Green)
Communications (Orange)

The Contractor shall be responsible for coordination and cost of all utility relocations indicated on the plans and not specified to be done by others. Utility locations shown on the plans are approximate.

The contractor shall coordinate work with various Utility companies and other construction taking place within project limits. Notify applicable Utility companies and other Contractors prior to commencing work, if damage occurs, or if conflicts or emergencies arise during work. No schedule extensions will be granted to the Contractor due to utility coordination issues. It is the responsibility of the Contractor to coordinate with utilities in advance to prevent impacts to the project schedule. The following utility companies are believed to have facilities within or near the project limits:

<u>UTILITY</u>	<u>CONTACT</u>	<u>PHONE</u>	<u>EMAIL</u>
CSU Gas	Mary Hoaglund	(719) 668-4083	mhoaglund@csu.org
CSU Electric	Mary Hoaglund	(719) 668-4083	mhoaglund@csu.org
CSU Water	Rockie Wiley	(719) 668-4675	rwiley@csu.org
CSU Wastewater	Rockie Wiley	(719) 668-4675	rwiley@csu.org
CSU Electrical Transmission	Rob Estes	(719) 668-5904	restes@csu.org
CSU Telecom	Wayne Rust	(719) 668-3996	wrust@csu.org
CSU Fiber	Chance Daives		
CSU Traffic	Gina Davis	(719) 385-5951	regina.davis@coloradosprings.gov
Lumen-Century Link	Christian Boyland	(303) 949-2187	Christian.boyland@lumen.com
Comcast-Xfinity	Doug Marx	(720) 726-0872	Doug_Marx@comcast.com
UPN (Fiber)	Raymond Schwab		Raymond.Schwab@upnfiber.com

The work described in the plans and specifications will require full coordination between the Contractor and Utility Companies while performing their respective operations, so the utility work can be completed with minimum delays to all parties concerned.

The Contractor shall be responsible for all water, non-potable water, and wastewater connection and tap fees as required by the project. These fees are not to be paid for separately but will be incidental to the work, except as otherwise specified.

The Contractor shall coordinate with residences and businesses affected by any sanitary sewer, electric, gas, or water service shut-downs at least 48 hours prior to shut down.

The Contractor shall be responsible for coordinating the adjustment of all utilities on this project. The Contractor shall keep each utility company advised of any work being done to their facilities, so that each utility company can coordinate their inspections for final acceptance with the Engineer.

For utility work that is to be performed by a utility company, the Contractor shall provide notice to the utility company that the site is ready for the utility work. The written notice, with a copy to the Engineer, shall be given a minimum of three weeks prior to the requested start of the utility work.

The Contractor shall provide, at the preconstruction conference, a detailed description of the proposed utility coordination program for the project. The program will describe the steps that will be taken to avoid delays in the event that unknown or differing conditions are encountered during construction. The program shall address both public and private utilities. The program shall be submitted to both the affected utilities and the Engineer immediately following the Notice to Proceed for review and approval. Furthermore, any claims made for delay of critical path schedule, shall be submitted immediately to the Engineer.

1.32 PROTECTION OF UTILITIES

In General Provision Subsection 108.10 Protection of Utilities, delete the first sentence in paragraph B and replace with the following:

Before any excavation is begun in the vicinity of existing utilities or structures, each utility company, department, or company concerned shall be notified in advance of such excavation, and such excavation shall not be made until an authorized representative of the utility concerned is at the site.

1.33 COORDINATION OF UTILITIES

Coordination of utilities shall be deemed high priority work on the project. All utility work will be coordinated with the City, the Engineer, Colorado Springs Utilities, and private utility companies at a minimum.

The contractor shall have a working knowledge and understanding of all of the utilities on the project and the required relocations. The Contractor should be aware of all utilities that need to be protected in place and know how the protection will take place. The Contractor shall have in his possession, know, and understand Colorado Springs Utilities specifications and requirements. The Contractor representative shall be on the project site at all times during construction of or around utilities. Responsibilities include being the single point of contact at all times with subcontractors, the City, the Engineer, Colorado Springs Utilities, and private utilities for construction related issues. The Contractor shall maintain a contact list of all utility company personnel along with after-hours contact information. Additional responsibilities include involvement and direction of shop drawings and other activities requiring approval, utility related pay estimates, verification of quality of installed product, and general communication regarding utilities. The Contractor will be responsible for scheduling and holding weekly utility coordination meetings with the Engineer, Springs Utilities representatives, and all applicable subcontractors. Weekly meetings shall continue until such time as the Engineer deems it acceptable to discontinue the meetings.

The Contractor is responsible for all decisions and direction of utility construction including subcontractors. Decisions or directions made in the field without approval by the Engineer, including those by other City agencies such as Colorado Springs Utilities, are the sole responsibility of the Contractor. No allowance will be given for field changes made without approval by the Engineer. The City, not Colorado Springs Utilities, will have final approval of all utility related decisions made during construction requiring a change order.

All utility coordination activities are incidental.

1.34 SHOP DRAWINGS AND SUBMITTALS

The selected contractor will participate in utilizing Centric Project for project management and collaboration effort with City and consultant staff. The City will provide user access to the selected contractor during the construction contract award process. The City of Colorado Springs will require the use of this web-based project management tool in order to streamline project management, facilitate the appropriate distribution of information, and manage the communication needs of the project between participating City, contractor and consultant staff.

At a minimum this system will be used by the selected contractor, consultant and City staff to post, review, track, and approve items such as:

- Schedules
- Requests for Information (RFI's),
- Submittals
- Shop drawings
- Change orders

- Materials testing data
- Project pay estimates
- Project photos
- Meeting agenda and minutes

All documents submitted by the contractor shall be submitted in electronic format.

In General Provision Subsection 109.23 Shop Drawings and Submittals, delete the first sentence in the first paragraph and replace with the following:

The Contractor shall submit to the Engineer all shop drawings, working drawings, and submittals in a timely manner, considering the 14-day review period for shop drawings. Colorado Springs Utilities review of submittals requires a minimum of 21 days. At no time shall shop drawings be submitted less than 30 days prior to anticipated construction of that element. The Contractor shall submit to the Engineer all project schedules within 21 calendar days of Notice of Award for review. The Contractor shall include Engineer review time in the work schedule. Failure of the Contractor to deliver submittals in sufficient time for the Engineer's review shall not constitute a delay on the part of the City. Submittals which may require a review beyond the first submittal shall not constitute a delay on the part of the City. Shop drawings and submittals shall be at a minimum of those items listed in Table 109-1 and 109-2 and any other additional submittals which may be required by the Engineer. The submittals shown in the tables are not all inclusive. Other submittals may be required.

In General Provision Subsection 109.23 Shop Drawings and Submittals, delete the first sentence of the second paragraph and replace with the following:

One electronic (scanned) copy of all shop drawings, and schedules shall be submitted to the Engineer, who after checking will return an electronic (scanned) copy of the submittal to the Contractor. These submittals and responses shall be done in the City's Centric Project system. Colorado Springs Utilities may require additional copies for components that may be reviewed by CSU. Contractor shall not begin work until shop drawings and schedules are approved by the Engineer.

General Provision Subsection 109.23 Shop Drawings and Submittals shall include the following: Shop Drawings, Working Drawings, Other submittals, and Construction Drawings.

a) Shop drawings, Working Drawings, and Other Submittals - General. All work shall be performed in accordance with the plans, reviewed shop drawings, working drawings, or other submittals. Specific requirements for the required shop drawings, working drawings, and other submittals for this project are contained in the specifications.

The Contractor shall be responsible for the accuracy of all dimensions and quantities shown on the shop drawings, working drawings, and other submittals. The Contractor shall correlate all information in the Contract, in the submittals, and in all revisions at the project site to insure that there are no conflicts and that the work can be constructed as shown. The Contractor shall be responsible for all information that pertains to the fabrication processes and methods of construction

Shop drawings, working drawings, and other submittals shall be delivered to the Engineer. The Contractor shall notify the Engineer, in writing, at the time of submittal of shop drawings, working drawings, and other submittals, of any information submitted that deviates from the requirements of the plans and specifications. In addition, specific notation of the deviations or changes from the plans and specifications shall be placed on the shop drawing, working drawing, or other submittal.

The first sheet or page of each set of shop drawings, working drawings, and other submittals shall be reviewed by the Contractor for conformance with the other work on the project, and stamped with a stamp indicating his review of the submittal. Submittals shall be made in complete packages which will allow the Engineer to properly review them for general compliance with the Contract and to effectively evaluate the proposed methods of construction. The allowed time for review shall not begin until such submittals are complete.

The format of the shop drawings, working drawings, and other submittals shall be as follows:

1. All manually drafted shop drawings and working drawings shall be either 34 inches long by 22 inches wide overall, or 17 inches long by 11 inches wide overall. There shall be a 2-inch margin on the left side of the sheet and a ½ inch margin on the other three sides. A blank space, 4 inches long by 3 inches wide, shall be left available near the lower right-hand corner of shop drawings, for the Engineer’s review stamp.
2. A title block shall be located in the lower right-hand corner of each sheet, and shall show the project number, structure name, contents of the sheet, designer/engineer, sheet number, and revision number.
3. Design notes, calculations, lists, reports, descriptions, catalog cuts, and other on-drawing submittals shall be submitted on 8½ inch by 11 inch sheets.
4. The shop drawings, working drawings, other submittals and all revisions shall be signed and sealed for the Contractor, by a professional engineer registered in the state of Colorado when required by the specifications. Submittals without the required signature and seal will not be accepted and will be returned to the Contractor without action.

Table 109-1 summarizes the minimum required submittals and is included at the end of this subsection. Table 109-1 lists submittals in one location for information. The table clarifies the type of submittal and whether the Contractor’s Engineer must sign and seal the submittal. Table 109-1 may not be all inclusive. The Contractor shall provide all submittals required by the Contract, including those not listed in the table.

Table 109-2 summarizes the minimum required submittals for utilities and is included at the end of this subsection. Table 109-2 lists submittals in one location for information. The table clarifies the type of submittal and whether the Contractor’s Engineer must sign and seal the submittal. Table 109-2 may not be all inclusive. The Contractor shall provide all submittals required by the Contract, including those not listed in the table.

b) Shop Drawings. The Contractor shall provide shop drawings to adequately control the work. The Contractor shall submit shop drawings to the Engineer for formal review. The Engineer will review the shop drawings to evaluate that general conformance with the design concept and that general compliance with the information given in the plans and specifications has been achieved. The review does not extend to accuracy of dimensions, means, methods, techniques, sequences, schemes, procedures of construction, or to safety precautions. The review by the Engineer is not a complete check. Review of the shop drawings does not relieve the Contractor of the responsibility for the correctness of the shop drawings. All work done prior to the Engineer’s review of shop drawings shall be at the Contractor’s sole risk.

The Engineer may request additional details and require the Contractor to make changes in the shop drawings which are necessary to conform to the provisions and intent of the plans and specifications without additional cost to the project.

After review, the Engineer will return three sets of shop drawings, for use by the Contractor and the Fabricator or Supplier. Returned shop drawings will be stamped with the Engineer’s review stamp to indicate one of the following:

No Exceptions taken	Shop drawings have been reviewed and do not require resubmittal.
Make Corrections Noted	Shop drawings have been reviewed and the Contractor shall incorporate the comments noted in the shop drawings into the work. The shop drawings do not require resubmittal.

Revise and Resubmit	Shop drawings require correction or redrawing and shall be resubmitted for review. Corrections shall be made and the shop drawings shall be resubmitted by the Contractor in the same manner as the first submittal. Specific notation shall be made on the shop drawing to indicate the revisions.
Rejected	Submittal may or may not have been reviewed, but does not meet the minimum requirements for a review. Rejected submittals shall be repackaged and resubmitted after the submittal meets minimum requirements for review.
Submit Specified Item	Shop drawings have been reviewed and are not approved without the submittal of the specified item. Engineer is not responsible for project delays when additional items are required for approval.

The time required for the Engineer’s review of each submittal will not exceed 14 days after a complete submittal of shop drawings is received by the Engineer, except reviews performed by Colorado Springs Utilities which will not exceed 21 days. It is the intent of these specifications that no more than one submittal of shop drawings shall be required for any one particular item. If additional submittals are required by actions of the Contractor, resulting delays shall be the responsibility of the Contractor. If additional submittals are required by the Engineer’s actions or if shop drawing review is delayed by the Engineer, and if the resulting delay is material to the project schedule critical path, the Contractor may request an extension of time equal to the number of days exceeding the 14 or 21 day review per submittal for review performed by the Engineer.

All revisions made to the shop drawings after the Engineer’s initial review process require re-submittal and will be required to follow time frames as set forth for the initial submittal.

c) Working Drawings. The Contractor shall supplement the plans with working drawings to detail the construction or to provide the Engineer with information on the proposed methods of construction. Unless otherwise specified, the Contractor shall submit six sets of working drawings to the Engineer for information only, who after acknowledging receipt of the working drawings, will retain three copies and return three copies to the Contractor. These drawings will not be formally reviewed by the Engineer. The Contractor shall submit working drawings to the Engineer 21 days before the start of work

d) Other Submittals. Other submittals shall be prepared and submitted by the Contractor as defined for working drawings. Unless otherwise specified, two copies shall be submitted to the engineer for information only. The plans or specifications will indicate which submittals require formal review by the Engineer. One record set of all design work performed by the Contractor’s Engineer shall be submitted to the Project Engineer.

e) Construction Drawings. The Contractor shall keep one set of plans, reviewed shop drawings, working drawings, and other submittals available on the project site at all times. This set shall be defined as the construction drawings.” The Contractor shall note on these construction drawings all changes and deviations from the work shown on the plans, shop drawings, working drawings, and other submittals. The construction drawings shall be kept current as the work progresses and notations shall be made within seven days of the change or deviation. Requests for Information (RFIs) and the answer/response shall be attached to the construction drawings. At the completion of the project, the first sheet or page of each set of construction drawings shall be stamped “As Constructed” and signed by the Contractor.

Upon completion of the work and prior to final payment, the construction drawings shall be submitted to the Engineer.

f) Furnishing the shop drawings, working drawings, construction drawings, and other submittals will not be measured and paid for separately, but shall be included in the work.

g) Failure of the Contractor to comply with the requirements for shop drawings, working drawings, other submittals, and construction drawings may be considered unsatisfactory contract progress. Monthly progress payments may be withheld until the requirements are met.

h) Except as specifically noted, all time required for review of shop drawings, working drawings, and other submittals shall be included in the work and shall not be the basis for any claim for a time extension or monetary adjustment except as provided for herein.

1.35 TESTING OF MATERIALS

The term "Quality Control" or "QC" refers to the tests that are conducted by and on behalf of the Contractor. QC staff is hired and paid by the Contractor. The term "Quality Assurance" or "QA" refers to the tests that are conducted by and on behalf of the owner, or City. QA staff is hired and paid by the City. The results of QA tests shall be used to determine whether the Contractor is in compliance with the plans and specifications. On this project, QA tests will be conducted in accordance with the 2024 CDOT Field Materials Manual, including the QA frequency schedule. The Contractor shall not direct nor rely upon QA staff for tests outside the scope of QA testing for QC purposes.

All materials used shall meet all quality requirements of the Contract. The Contractor shall comply with the requirements of the special notice to contractors contained in the 2024 CDOT Field Materials Manual, including notifying the Engineer of the proposed sources of materials at least two weeks prior to delivery.

1.36 WORKPLACE VIOLENCE

If a representative or employee of the Contractor, or a subcontractor, commits an act of workplace violence on the project, he shall be sanctioned as provided by the Contractor's employment policies and, where appropriate, shall be reported to law enforcement authorities. At the request of either the Contractor or the Engineer, the Engineer and the Contractor shall meet to discuss appropriate actions to be taken against the representative or employee. Appropriate action may include removing the representative or employee from the project. If removal is warranted and the Contractor fails to remove the representative or employee, the Engineer may suspend the work by written notice until compliance is achieved.

1.37 DETERMINATION AND EXTENSION OF CONTRACT TIME

The contract time is stated in the Invitation for Bid. The contract time will be used to determine the Contract Completion Date.

a) Time Count Contract. When the contract time is on a working day or calendar day basis, the Engineer will furnish the Contractor a weekly statement showing the number of days assessed for the preceding week and the number of days remaining for completion of the Contract. If the Contractor is in disagreement with the current weekly statement, the Contractor shall submit a request for review of the current weekly statement. Such request shall be made within 30 calendar days of the receipt of the statement and shall detail the reasons the statement is believed to be incorrect.

When final acceptance has been made by the Engineer as prescribed in General Provision Subsection 110.06, the daily time charges will cease on working day and calendar day projects.

1. Working Day Contract. When the work is on a working day basis, one whole day of contract time will be assessed for each working day on which the work can be effectively prosecuted during six hours or more of the day. One-half day will be assessed for each working day on which the work can be effectively prosecuted for at least two hours but less than six hours of the day. Contract time will not be

assessed when the work can be effectively prosecuted for less than two hours. Saturdays, Sundays, and holidays will not be assessed a working days when the Contractor utilizes such days for prosecuting the work.

2. Calendar Day Contract. When the work is on a calendar day basis, one calendar day of contract time will be assessed for each calendar day from the date that Contract time starts including Saturdays, Sundays, and holidays. Less than full time charges may be made on those days when conditions, which are beyond the control of and unknown to the Contractor, make it impossible to prosecute the work on items controlling the completion of the work with full, normal efficiency. Less than full time charges may be allowed for inclement weather only when the Engineer directs the Contractor not to work for the safety of the traveling public. When less than full time charges are to be assessed, the following procedures will be followed: One whole day of contract time will be assessed for each calendar day on which the work is prosecuted during six hours or more of the Contractor's daily working schedule; one-half day will be assessed for each calendar day on which the work is prosecuted for at least two hours but less than six hours of the day; contract time will not be assessed when the work is prosecuted for less than two hours.

b) Completion Date Contract. When the Contract specifies a completion date, all work under the Contract shall be completed on or before that date. No extension of the completion date will be allowed for inclement weather, foreseeable causes, or conditions under the control of the Contractor. If all work under the Contract is not completed on or before the specified completion date, contract time will be assessed for each additional calendar day in accordance with Special Provision Subsection 8.30 (a) 2.

c) Delay. Delay is defined as any event, action or factor that extends the time for the performance of the work.

1. Excusable Delay: A delay that was beyond the Contractor's control and not caused by the Contractor's fault or negligence, and for which a contract time extension may be granted.

(i) Compensable Delay: An excusable delay caused by the City for which the Contractor may be entitled to additional monetary compensation. Monetary compensation for such delays will be made in accordance with General Provision Subsection 109.04.

(ii) Noncompensable Delay: An excusable delay for which the Contractor may be entitled to an extension of contract time but no additional monetary compensation. Contract time allowed for the performance of the work may be extended for delays caused by acts of God, acts of the public enemy, fires, floods, area wide strikes, freight embargoes, unusually severe weather, or delays not caused by the Contractor's fault or negligence.

2. Nonexcusable Delay: A delay that was reasonably foreseeable or within the control of the Contractor for which no monetary compensation or contract time extension will be granted.

Delays in delivery of materials or fabrication scheduling resulting from late ordering, financial considerations, or other causes that could have been foreseen or prevented will be considered nonexcusable delays. However, delays caused by fuel shortage or delay in delivery of materials to the Contractor due to some unusual market condition caused by industry-wide strike, national disaster, area-wide shortage, or other reasons beyond the control of the Contractor which prevent procurement of materials or fuel within the allowable contract time limits will be considered excusable delays.

d) Extension of Contract Time. The Contractor's claim that insufficient contract time was specified is not a valid reason for an extension of contract time.

If the Contractor finds it impossible for reasons beyond the Contractor's control to complete the work within the contract time, as specified or extended, a written request for extension of contract time shall be submitted to the Engineer in two parts. The first part shall be a written notice submitted within seven days of the occurrence of a delay to the prosecution of the work. The notice shall contain a description of the

activity which is delayed and information with appropriate documentation concerning the nature and cause of the delay.

The second part shall be a formal request by the Contractor for an extension of contract time which shall be submitted within 30 days of the initial notice. This part of the request shall be accompanied by evidence supporting the request. Such evidence shall demonstrate the following:

1. The cause for the delay is allowable for consideration of a contract time extension under the terms of the Contract.
2. The cause for the delay is allowable for consideration of monetary compensation under the terms of the Contract (to be submitted only if the Contractor is seeking monetary compensation for the delay).
3. The delay has or will make it impossible for the Contractor to complete the work by the specified completion dates without taking steps to accelerate the work.
4. A schedule revision as defined in General Provision Subsection 105.02 shall accompany the request. The Schedule as revised shall clearly indicate that the activity or activities delayed were critical or have become critical due to the delay. For the purpose of these specifications, an activity shall be considered critical if all previously available float time has been used, and this delay will directly delay the Contract Completion Date. Float time is the length of time that an activity can be delayed without affecting the Contract Completion Date.

The Engineer's determination as to the extension of contract time to be allowed will be based on the current Schedule in effect at the time of the alleged delay, the supporting evidence submitted by the Contractor and any other relevant information available to the Engineer. The impact of the delay shall be reflected in the Schedule by adding activities or extending the duration of the affected activities, and, if appropriate, adjusting the Contract Completion Date. Delays in activities which, according to the current Schedule, do not affect the final Contract Completion Date will not be the basis for a change in the Contract Completion Date. If the Engineer grants an extension of the contract time, the Contract Completion Date as extended shall be in effect as though it were the contract time originally specified in the Contract.

1.38 LIQUIDATED DAMAGES

Section 108.02 Failure to Complete Work on Time, Liquidated Damages of the City of Colorado Springs Specifications Manual will be deleted and replaced with Section 108.09 Failure to Complete Work on Time of CDOT Standard Specifications for Road and Bridge Construction 2024.

1.39 SUBLETTING OF CONTRACT

The Contractor shall not sublet, sell, transfer, assign, or dispose of the Contract or Contracts, or any portion thereof without written permission of the Engineer. Prior to beginning any work by subcontractor, the Contractor shall request permission from the Engineer by submitting a completed Sublet Permit Application, CDOT Form No. 205. The subcontract work shall not begin until the Contractor has received the Engineer's written permission. The Contractor shall make all project related written subcontracts available to the Engineer for viewing, upon request and at a location convenient to the Engineer. The Contractor will be permitted to sublet a portion of the Contract, however, the Contractor's organization shall perform work amounting to 30 percent or more of the original total cost of bid items. Any items designated in the contract as "specialty items" may be performed by subcontract. The cost of "specialty items" so performed by subcontract may be deducted from the original total cost of bid items before computing the amount of work required to be performed by the Contractor's own organization.

The calculation of the percentage of subcontracted work shall be based on the prime contract unit prices rather than subcontract unit prices. Proportional value for a subcontracted partial contract item will be verified by the Engineer. For the purpose of calculating the value of subcontracted work, the cost of procuring materials and manufactured products can be included in either the prime contract or subcontract. However, when a firm both sells material to a prime contractor and performs the work of incorporating the materials into the project, these two phases shall be considered in combination and as constituting a single subcontract.

Subcontracts, or transfer of Contract shall not release the Contractor of liability under the Contract and bonds.



SCHEDULE F – TECHNICAL SPECIFICATIONS

Technical Specifications will be added after this page.

Schedule F-Technical Specifications

**TECHNICAL SPECIFICATIONS
TEJON STREET REVITALIZATION
FOR ADVERTISEMENT****SECTION X - TECHNICAL SPECIFICATIONS**

This section contains the Standard Specifications and Revisions of Standard Specifications. Measurement and Payment for all bid items shall be in accordance with Section IX - Measurement and Payment, and shall take precedence over the measurement and payment sections of the Standard Specifications or Revisions of Standard Specifications.

STANDARD SPECIFICATIONS

The following are the Standard Specifications which apply to this project. In the event there are conflicting Standard Specifications, the order of precedence will be based upon the order in which the Standard Specifications are listed. Section IX - Measurement and Payment describes which specific Standard Specification sections apply to each bid item.

All Contractors are required to have on the job site and utilize the current updated copy of the Standard Specifications applicable to the work.

1. City of Colorado Springs Standard Specifications.
 - A. The "City of Colorado Springs Engineering Division Standard Specifications", revised January 2008, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project. The current specifications may be referenced at <https://coloradosprings.gov/public-works/page/standard-specifications-manual>
 - B. The "Pikes Peak Region Asphalt Paving Specifications", revised March 28, 2022, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project. Copies are available on the City of Colorado Springs Website.
 - C. The "City of Colorado Springs Traffic Engineering Signage and Pavement Markings Guidelines", May 21, 2018 Edition, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project.
 - D. The "City of Colorado Springs Drainage Criteria Manual, Volume II", May 2014, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project.
 - E. The "City of Colorado Springs Traffic Control for Street Construction, Utility Work, and Maintenance Operations Supplement to the Manual on Uniform Traffic Control Devices", 10/21/2009, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project.
 - F. The City of Colorado Springs Traffic Signal Installation and Parts Specifications for Contractors except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project.

- G. The City of Colorado Springs Parks and Recreation Specifications except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project.
- H. The Mountain Metro Transit Specifications and Standard Drawings, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project.

Copies are available on the City of Colorado Springs Website for all items listed above under section 1.

2. Colorado Springs Utilities Standard Specifications

- A. The Standard Specifications for water line construction and protection shall be the “Colorado Springs Utilities Water Line Extension and Service Standards”, revised May 5, 2021, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety. Copies are available on the Colorado Springs Utilities’ Development Services Website.
- B. The Standard Specifications for wastewater line construction and protection shall be the “Colorado Springs Utilities Wastewater Line Extension and Service Standards”, revised May 5, 2021, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety.
- C. The Standard Specifications for lighting installation, electrical distribution and electrical transmission line construction and protection shall be the “Colorado Springs Utilities Electric Line Extension and Service Standards”, revised January 1, 2022, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety.

Copies are available on the Colorado Springs Utilities’ Development Services Website.

3. Stormwater Enterprise, City of Colorado Springs

- A. The City of Colorado Springs Stormwater Enterprise standards and specifications shall apply to this project. All details, notes, and processes shall be applied and followed by the Contractor. <https://coloradosprings.gov/stormwater-enterprise>.

4. Colorado Department of Transportation Standard Specifications for Road and Bridge Construction 2023.

- A. CDOT’s Standard Specifications for Road and Bridge Construction 2023 and all published standard special provisions, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project.
- B. The CDOT M&S Standard Plans and Details, latest version, except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety, shall apply to this project. CDOT provides regular updates to the CDOT Standard Plans list noted above. The versions of each plan as specified on the Standard Plans List in the project plans shall apply to this project. CDOT Standard Plans are available from the following website:
 - a. <https://www.codot.gov/business/designsupport/standard-plans>

REVISIONS TO CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS

The following Revisions supplement or modify the City of Colorado Springs Engineering Division Standard Specifications. Measurement and Payment for all bid items shall be in accordance with Section IX, Measurement and Payment, and shall take precedence over the measurement and payment sections of the Standard Specifications.

Revision of Section 200 – Street Section
 Revision of Section 220 – Removal of Structures & Obstructions
 Revision of Section 430 – Pavement (Decorative Concrete & Pavers)
 Revision of Section 800 – Work Zone Traffic Control
 Revision of Section 800 – Construction Surveying
 Revision of Section 900 - Planting
 Revision of Section 902 – Site Furnishings
 Revision of Section 902 – Structural Soil Cell Suspended Pavement System

**REVISION OF SECTION 200
STREET SECTION**

Section 200 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised as follows:

Subsection 202 is hereby revised as follows:

Excavation shall have the following additional requirements:

Material removed during the excavation process that is not acceptable as embankment fill shall be legally disposed of by the Contractor. It shall not be wasted on private property without written permission of the property owner. Rocks, broken concrete, or other solid materials more than six inches in greatest dimension shall not be placed in any of the embankment areas. Materials not meeting this requirement shall become the property of the Contractor to be removed from the site and legally disposed of. All excess material that is not needed in the embankment fills on the project shall be hauled away from the project.

Subsection 203 is hereby revised as follows:

Embankment shall have the following additional requirements:

Embankment construction shall include preparation of the areas upon which embankments are to be placed, construction of dikes and berms, placing and compacting of approved material within roadway areas including holes, pits, and other depressions within the roadway area. Only approved materials shall be used in the construction of embankments and fills.

Free running water shall be drained from the material before the material is placed on the roadway.

Frozen materials shall not be used in construction of embankments.

During the construction of the roadway, the roadbed shall be maintained so that it is well drained at all times.

**REVISION OF SECTION 220
REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Section 220.01 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised as follows:

Section 220.01 Description, first paragraph shall be revised to include the addition of the following removal items: inlets, concrete median cover material, concrete pavement beneath the existing asphalt, gravel, riprap, concrete curb ramp, sidewalk, curb and gutter, sign panel, trees, and pavement markings.

Section 220.02 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised as follows:

Removal of Ground Sign shall include removal and proper disposal of the entire foundation/footing down to at least a point 2 feet below proposed finished grade as approved by the Engineer.

REVISION OF SECTION 430

PAVEMENT (DECORATIVE CONCRETE & PAVERS)

Section 430 of the Standard Specifications for these bid items are hereby revised and modified as follows:

Materials in this section shall be revised to include the following:

1. Decorative Scored concrete
2. Decorative Colored concrete
3. Decorative Colored and Stamped concrete
4. Granite Pavers

This item shall consist of Portland cement concrete drainage pan constructed in accordance with these specifications at the specified locations in accordance with the dimensions, lines, and grades as shown on the plans.

This work shall also include:

Concrete: Plain and reinforced concrete shall meet the requirements of section 432.05 of the Colorado Springs Standard Specifications and section 412 of the CDOT Road and Bridge Specifications. Soil Reconditioning, Aggregate Base Course, Concrete, Reinforcing Steel, Jointing material shall not be measured and paid for separately but shall be included in the work for Concrete Pavement.

Placing Concrete: The Contractor is required to submit a detailed breakdown of paving equipment, vibratory devices, finishing tools, and provisions for protection from or avoidance of damage from weather impacts. This information shall be submitted for approval by the Engineer prior to commencing any construction activities.

Finishing: The Contractor shall insure that new concrete items built under this contract drain properly and, as such, there are no areas of standing water on new concrete items.

The Contractor shall protect all new concrete items built under this Contract against defacement, or other injury, from any cause. If said damage cannot be adequately repaired to the satisfaction of the Engineer, the Contractor shall remove and replace the unacceptable items at Contractor's expense.

Finishes within the section include:

1. The Contractor shall add a picture frame finish onto the areas called out on the plans and details. This includes a 6" smooth border around a 4ft x 4ft concrete section with a brush textured finish in the center.
2. The Contractor shall add decorative scoring to a brush finished concrete sidewalk per details on the plans.
3. The Contractor shall add a brush finish of colored concrete per details on the plans.
4. The Contractor shall add an Ashlar pattern stamp to decorative colored concrete areas as called out on the plans.

5. The contractor shall add Granite Pavers of various colors and a Diamond 100 and Thermal non-slip texture in areas called out and specified on the plans.

Color: The Color of concrete for all specified areas to be integral color mixed thoroughly prior to pouring. Integral color samples are to be poured in a minimum 4' x 4' area to be approval prior to any final installation or application.

Colors to be included on the project and included within this section are:

1. Solomon / Brickform – Dark Redwood (489)
2. Solomon / Brickform – Raven (PC-0908)

Concrete Stamp Mat: The contractor shall use a rigid polyurethane stamp mat. Use flexible urethane mats only when rigid mats will not accommodate designed grade changes. See Landscape Plans for location of decorative concrete and scoring pattern layout.

Concrete mat pattern to match existing stamp texture in the City of Colorado Springs (at the exit of Adaman Alley):

1. Ashlar Pattern Seamless Stone Texture. No Stone edge or outer pattern edge shall be visible after stamped in concrete. Concrete to be sawcut in pattern layout shown on plans.

The Contractor is to provide a stamped colored sample of no smaller than 4 ft x 4 ft for approval prior to any installation.

Granite Pavers: The contractor is to furnish Granite Pavers for areas specified on the plans set within a Bituminous Base. The Details of the Granite pavers are to be:

1. Color: Lake Placid, Texture: Thermal, Thickness: 2-4" (See plans for locations and thickness)
2. Color: Rainbow, Texture: Diamond 100, Thickness: 4" (See plans for locations)

Testing Details:

1. Bulk Density - 166 pcf min. in accordance with ASTM C97
2. Absorption – 0.05% in accordance with ASTM C97
3. Compressive Strength – 15,415 Psi min. in accordance with ASTM C170
4. Modulus of Rupture – 2,500 min. in accordance with ASTM C99

Extras: Joint Fillers, Bed Course Material, and Expansion Joint Material shall be in accordance with Section 430 and Section 500 of the City of Colorado Springs Standard Specifications, Pikes Peak Regional Pavement Specifications, and CDOT Standard Specifications Section 600.

Submittals: Submittals shall include a 4' X 4' sample of each type of concrete specified indicating color, finish and all jointing. The samples shall be poured on site and be representative of requirements stated herein. All approved samples shall be retained on site until project completion and act as the project standard.

Quality Assurance: A Minimum 15 years experience with cast grate manufacturing experience and 2 years of grate installation experience.

1. Measurement:
 - A. Concrete Pavement construction specifications shall be in accordance with Section 430 and Section 500 of the City of Colorado Springs Standard Specifications, Pikes Peak Regional Pavement Specifications, and CDOT Standard Specifications Section 600.

Excavation to proposed subgrade elevation will not be paid separately but shall be included in the work.

- B. It is the Contractor’s responsibility to provide Quality Control testing for concrete strength, air entrainment, unit weight, and temperature and provide test results in a testing frequency, method, and report as per Pre-construction submittal approved by the Project Manager. Quality Control testing, reports, and submittals will not be paid separately but shall be included in the work.

2. Payment:

- A. Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, base course, preparation, placing, forming, curing, and finishing these materials and for all labor, equipment, tools, and incidentals necessary to complete the work. Payment under Concrete Pavement shall be full compensation for all materials and labor required to complete the various pavement sections, including expansion joints, decorative scoring and control joints.
- B. Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
COS Bid Item No. 430-00801 Concrete Pavement (Shaded Grey)(6-Inch)	Square Yard (SY)
COS Bid Item No. 430-00802 Concrete Pavement (Colored)(6-Inch)	Square Yard (SY)
COS Bid Item No. 430-00803 Granite Paver (4-Inch)	Square Foot (SF)
COS Bid Item No. 500-00500 Concrete Curb Ramp (Colored)(6-Inch)	Square Yard (SY)

- C. Payment shall be full compensation for labor and materials including, but not limited to, reconditioning, grading, curing compound, control and expansion joint, truncated domes, and sealant as required to complete these Pay Items.
- D. Excavation to proposed subgrade elevation will not be paid separately but shall be included in the work.
- E. Slope Paving shall not be paid for separately but shall be incidental in the installation of Concrete Sidewalk (6-Inch).

**REVISION OF SECTION 800
WORK ZONE TRAFFIC CONTROL**

Section 800 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised as follows:

Section 805.01 shall be supplemented with the following:

Contractor shall provide a detailed Traffic Control Plan in conformance with the “Manual on Uniform Traffic Control Devices” and Section 805.03 of this specification prior to any work.

The Contractor shall coordinate with the Engineer to determine site-specific staging and/or phasing requirements. The Contractor shall schedule the work in such a manner as to comply with the staging and/or phasing requirements contained in the contract documents.

Section 805.03 A. shall be supplemented with the following:

The Traffic Controls for Street Construction, Utility Work, and Maintenance Operations, Manual on Uniform Traffic Control Devices Supplement for City of Colorado Springs, 2005 contains requirements for permits and approvals required from the City of Colorado Springs and CDOT.

The Traffic Control Plan Submittal and Review process will be as follows:

1. Contractor submittal of the Traffic Control Plan to the City of Colorado Springs Traffic Engineering Division.
2. City of Colorado Springs Traffic Engineering Division review. If required, the Contractor shall revise and resubmit the Traffic Control Plan submittal to address the Traffic Engineering Division review comments at no additional cost.
3. City of Colorado Springs Traffic Engineering Division approval of the Contractor submitted Traffic Control Plan. The approved plan shall be returned to the Contractor.

The City of Colorado Springs will periodically field check the Traffic Control. If the City feels that the traffic control is not adequate, they will require a review and approval of the Contractor's Traffic Control Plans. If a new Submittal Review and approval is required, all time delays and expenses incurred by the contractor related to the additional requirements shall be the responsibility of the contractor.

REVISION OF SECTION 800

825 CONSTRUCTION SURVEYING

DESCRIPTION This work consists of the construction surveying, calculating, and staking necessary for the construction of all elements of the project. The work shall be done under the supervision of a Professional Land Surveyor (PLS) who is experienced and competent in road and bridge construction surveying and licensed in the State of Colorado.

Locating, preserving, referencing, installing and restoring land monuments such as Primary Control monuments from which the right of way or any land boundary will be calculated, described or monumented, Public Land Survey System (PLSS) monuments, General Land Office (GLO) monuments, Bureau of Land Management (BLM) monuments, Mineral Survey (MS) monuments, Right-of-way (ROW) monuments, property boundary monuments, easement monuments, Block Corner Reference monuments (5x5's and 5 off's) and other monuments that are required by law or regulation to be established by a PLS, and the determination of any land boundary, shall be done in, under the supervision of a Professional Land Surveyor (PLS) who is experienced and competent in Right of Way and boundary surveying and licensed in the State of Colorado.

The intent of the above description is:

1. Locate and document all monuments within the construction project limits and provide the information to the City prior to commencement of construction activities.
2. Identify monuments which will be impacted by construction activities, reference these monuments for replacement after construction completion.
3. Provide construction survey for the construction of the project including horizontal and vertical control.
4. Verify after the completion of construction, monuments identified prior to construction either remained or were replaced.
5. Document final conditions, submit required documentation to the State for reset monuments, and submit data to City staff.

The PLS shall be available to review work, resolve problems, and make decisions in a timely manner.

MATERIALS AND EQUIPMENT The Contractor shall furnish all personnel, survey equipment, safety equipment, materials, and traffic control necessary to perform the required construction surveying and staking. All surveying equipment shall be in good working condition.

If any survey equipment is found to be functioning outside the manufacturer's specified tolerance, certification from an approved repair facility showing that the instruments have been repaired, properly adjusted, or both if necessary, shall be included in the survey records and submitted to the Engineer before being used.

CONSTRUCTION REQUIREMENTS

Construction Survey meeting shall be held prior to performing surveying work under this section. The Engineer, City Surveyor, City Project Manager, Construction Project Manager, Contractor's Superintendent, Contractor's Surveyor (PLS) shall attend. A surveying work schedule shall be submitted to the Construction Project Manager for review prior to the presurvey conference.

Contractor Surveying. The Contractor shall perform all construction surveying and staking necessary for construction of the project and documentation for monuments.

Accuracy and Tolerances.

Horizontal and vertical accuracy tolerances for Secondary Control surveys and monuments, and for each construction item being staked shall be as specified in the Contract.

If a discrepancy should occur, the higher degree of accuracy or the more restrictive tolerance shall apply. Horizontal accuracy tolerances for Primary Control surveys and monuments. Vertical accuracy tolerances for Primary Control surveys and monuments. Horizontal accuracy tolerances for Secondary Control surveys and monuments. Vertical accuracy tolerances for Secondary control surveys, monuments, and/or Secondary benchmarks. Engineered surveying accuracy and tolerances shall be the same as the staking accuracy and tolerances.

Responsibility and Inspection. Supervision and coordination of construction surveying and staking is the Contractor's responsibility. The Engineer may inspect the Contractor's surveying; however, such inspection will not relieve the Contractor of any responsibility for accuracy or completeness of work. The Contractor shall check the work to verify the accuracy and include documentation of this check in the Survey Records. All Contractor surveying inaccuracies, errors, or omissions shall be corrected at the Contractor's expense. Inspection of the Contractor's corrections shall not entitle the Contractor to additional payment or contract time extension.

Reset Monuments and Stakes. Primary and Secondary Control monuments, benchmarks, and other significant stakes that are damaged, destroyed, or made inaccessible by the progress of construction shall be replaced, transferred, or re-established at the Contractor's expense. A supplemental or amended Project Control Diagram shall be submitted to the City for any replaced, transferred, or re-established Primary Control monuments.

Locating, preserving, referencing, installing and restoring land monuments such as Primary Control monuments from which the right of way or any land boundary will be calculated, described or monumented, PLSS monuments, GLO monuments, BLM monuments, MS monuments, ROW monuments, property boundary monuments, easement monuments, Block Corner Reference monuments (5x5's and 5 off's) and other monuments that are required by law or regulation to be established by a PLS, under the supervision of a PLS who is experienced and competent in Right of Way and boundary surveying and licensed in the State of Colorado.

Changes. All changes in lines and grades required by field conditions and all discrepancies in grades, alignment, location, or dimensions detected by the Contractor shall be immediately submitted to the Engineer in writing. No changes in given data or plans will be allowed unless approved by the Engineer in writing. All changes shall be documented in the survey records.

Measurements. The Engineer will perform all interim and final measurements deemed necessary by the City, to determine contract pay quantities. The Contractor shall establish and maintain Primary and Secondary Control points and stationing as required for these measurements.

Survey Records. Survey records shall be completed as the work is done. Field survey notes for construction surveying and checking by the Contractor. The Contractor shall make all survey records generated available to the Engineer for inspection or reproduction at all times. The Contractor shall submit all survey records to the Engineer before final project acceptance. All survey records are considered property of the Department. The responsible PLS identified shall electronically seal all survey records. The electronic format shall contain stakeout data and the raw data from the actual placement of stakes. The records shall be electronically sealed by the PLS in responsible charge. Initial staking for major structures (overhead signs, concrete box culverts, bridges, and all other structures assigned a structure number) shall be done.

METHOD OF MEASUREMENT Construction surveying will not be measured but will be paid for on a lump sum basis.

Payment for construction surveying will be the contract lump sum bid and will be full compensation for all surveying work necessary to complete the project as shown on the plans, identification of monumentation within the project limits, determining the monumentation conflicts with the construction to include all resetting of stakes, marks, monuments Secondary and Primary Control points, and preparing supplemental or amended Project Control Diagrams.

Construction surveying required by plan force account or by additional work beyond the scope of the original Contract will be paid for at a negotiated. That rate shall also apply to reductions in construction surveying as impacted by reductions or deletions to the original contract work.

Survey work not performed to the contract requirements shall be subject to price reduction or rejection. Partial payment for construction surveying, as determined by the Engineer, will be made as the work progresses.

The Contractor shall submit a schedule of estimated contractor construction surveying time as required on the Survey Tabulation Sheet before the first partial payment is made. Copies of the Survey Records for all completed survey work shall be submitted to the Engineer prior to payment of the monthly estimate.

Before final payment is made, the Contractor's responsible P.L.S. shall complete and seal all survey records and the Project Control Diagram (supplemental or amended). Submit the survey records and the supplement or amended Project Control Diagram to the Engineer and the Region Survey Coordinator for review. Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Construction Surveying	Lump Sum

Traffic control for construction surveying the responsibility of the contractor. All costs associated with surveying will not be measured and paid for separately but shall be included in the work.

826 SURVEY MONUMENTATION

DESCRIPTION This work consists of locating, preserving, referencing, installing and restoring land monuments, such as Primary Control monuments from which the right of way or any land boundary will be calculated, described or monumented, Public Land Survey System (PLSS) monuments, General Land Office (GLO) monuments, Bureau of Land Management (BLM) monuments, Mineral Survey (MS) monuments, Right-of-way (ROW) monuments, property boundary monuments, easement monuments, Block Corner Reference monuments (5x5's and 5 off's) and other monuments that are required by law or regulation to be established and recorded by a Professional Land Surveyor (PLS), along with installing or adjusting monument boxes as listed on the Survey Tabulation Sheet or as shown on the plans.

Monuments included in this section shall be established in accordance with the applicable and most recent editions of the Department of Interior's Manual of Surveying Instructions (BLM Manual), Colorado Revised Statutes (CRS), Colorado State Board of Licensure for Professional Engineers and Land Surveyors (State

Board) Rules and Policies, under the supervision of a City approved PLS experienced and competent in Right of Way and boundary surveying and licensed in the State of Colorado.

The PLS shall be available to review work, resolve problems, and make decisions in a timely manner.

MATERIALS AND EQUIPMENT The Contractor shall furnish all personnel, survey equipment, safety equipment, materials, and traffic control necessary to perform the required monumentation and related surveying.

The various types of monuments and monument boxes shall be constructed according to the details shown on CDOT Standard Plan M-629-1.

The Contractor shall furnish all labor, survey tools, equipment, and incidental materials such as but not limited to concrete, grout, asphalt caulk, glue, epoxy, nails, stakes, lath, and replacement monuments.

All surveying equipment, including Electronic Distance Meters (EDM), total stations, theodolites, levels, rods, tapes, tripods, tribrachs, and Global Positioning System (GPS) receivers and equipment, shall be in good working condition.

If any survey equipment is found to be functioning outside the manufacturer's specified tolerance, certification from an approved repair facility showing that the instruments have been repaired, properly adjusted, or both if needed shall be included in the survey records and submitted to the Engineer before being used.

The Contractor will provide Traffic Control as needed to complete the survey.

CONSTRUCTION REQUIREMENTS

Construction Survey meeting shall be held prior to performing any surveying work under this section. The Engineer, City Surveyor, City Project Manager, Construction Project Manager Contractor's Superintendent, Contractor's Surveyor (PLS) shall attend. A surveying work schedule shall be submitted to the Construction Project Manager for review prior to the presurvey conference.

The Contractor shall check all established Primary horizontal and vertical control and verify and document in the survey records their horizontal and vertical accuracy tolerance.

Survey records shall be completed as the work is done. Field survey notes for monumentation, surveying and checking by the Contractor shall be recorded. The Contractor shall make all survey records generated available to the Construction Project Manager for inspection or reproduction at all times.

The Contractor shall submit all survey records to the City Surveyor before Final Acceptance. All survey records are considered property of the City. The responsible PLS identified shall electronically seal all survey records. Copies of any new Monument Records filed by the PLS with the State Board of Registration, shall be submitted prior to filing.

Locating Monuments. This work consists of field locating all survey monumentation that is in place because of a Government (Federal, State, County or Municipal) survey or resurvey as shown on original PLSS, GLO, BLM, or MS plats, notes, or other survey monumentation documented in the public record.

A diligent search of construction zones and project limits shall be performed by the PLS, to locate any survey monumentation of the public record. An electronic magnetic field sensor or locator shall be used in this search. The responsible PLS shall document the search, and time spent searching, in the survey records. The survey records shall include the procedures used to make the diligent search, a description of each monument searched for, and the actions taken to reference and preserve the location of the monument

Preserving and Referencing Monuments. This work consists of field surveying, establishing, installing, and making measurements to reference monuments that will facilitate the installation of a replacement monument in the event the construction activity disturbs a monument of the public record.

Referencing of monuments for possible replacement requires the use of correct replacement methods so the stated precision of the monument in question is not degraded. When a construction activity is planned which will disturb an existing PLSS, GLO, B.L.M., or MS monument, the monument shall be referenced and the survey records and the monument shall be upgraded by the PLS and a new Monument Record filed with the State Board, when the following conditions are met:

1. No boundary survey was done for the project.
2. A Monument Record has been filed with the State Board and there are no Monument Records that indicate conflicting locations.
3. The existing monument does not meet the physical standards set by the State Board.

A new monument record shall be filed with the State Board in accordance with Title 38 CRS and State Board Rules and Polices, a disclaimer should be written on the new Monument Record stating, "the new monument was set in the same location as described by the previous monument record". 629.06 629-3 When conflicting evidence of the location of an existing PLSS, GLO, BLM, or MS monument is encountered and construction activity is planned which will alter the evidence, the monument shall be referenced, and the survey records shall include the information required.

A minimum of two permanent reference monuments shall be to reference the location of all existing found monuments. Reference monuments must meet the required physical standards of the actual monument for the type of monument being referenced. These references shall be set when the following conditions are met:

1. No boundary survey was done for the project.
2. No monument record or conflicting monument records are filed with the State Board.

The reference monuments shall be set and stamped in accordance with Title 38 CRS and State Board Rules and Polices, a new monument record should be marked "Other" for "Type of Monument" and a full explanation given on the monument record as to why the presumed monument was not upgraded, the monument record shall be filed with the State Board in accordance with Title 38 CRS.

Copies of all new Monument Records filed by the PLS with the State Board shall be submitted to the City Surveyor prior to filing.

The equipment used in referencing or replacing the monument shall be able to produce the stated accuracies as specified by the owner of the monument. For example, the Colorado High Accuracy Reference Network (HARN) and CDOT HARN Densification (HARND) monuments shall be referenced or replaced using Dual Frequency survey grade GPS equipment in accordance with the procedures set forth under the most recent Policy of the National Ocean Service Regarding the Incorporation of Geodetic Data of Other Organizations into the National Geodetic Survey Data Base, standards of accuracy are given in the Standards and Specifications for Geodetic Control Networks and Geometric Geodetic Accuracy Standards and Specifications for using GPS Relative Positioning Techniques (as amended).

National Geodetic Survey (NGS), U.S. Coast and Geodetic (USCG), and U.S. Geological Survey (USGS) benchmarks shall be referenced by setting a minimum of 3 temporary benchmarks in accordance with the procedures set forth under the most recent edition of the NGS Benchmark Reset Procedures. The temporary benchmarks shall be set outside the construction area so a permanent monument can be reset upon completion of the construction.

Prior to referencing, moving, or replacing the monument the NGS State Geodetic Advisor and the City Surveyor is to be notified, Survey records for referencing, moving, or replacing a federal or local government agency monument shall include documentation of the work. The survey records shall be submitted to the Engineer, for review by the City Surveyor, before payment is made and shall include the following:

1. Description of the original monument and two sets of close-up photographs.
2. Two sets of labeled color photographs showing a close up of the replaced monument, and a view of the monument looking toward the horizon in each of the cardinal directions.
3. A complete description of the reference monuments and replacement monument with a “to-reach” description.
4. A signed and sealed statement by the responsible PLS that states the replacement monument’s positional tolerance has not been degraded. The documentation shall conform to the owner of the monument’s specifications that control the work.

Before Survey Monumentation payment is made, the Contractor’s surveyor shall submit legible electronically sealed copies of the survey records. Before final Survey Monumentation payment and prior to depositing with the county, in accordance with Title 38 CRS, Property – Real and Personal, State Board Rules and Policies, MOU, the Contractor shall complete and electronically seal all survey records, the ROW Plans, and the Project Control Diagram (new, supplemental or amended) and submit copies the Engineer.

Installing Monuments. This survey work consists of installing Primary Control monuments, benchmarks, ROW monuments, property boundary monuments, easement monuments, PLSS, GLO, BLM, or MS monuments, and other monuments included on the plans. The work shall include determining the location of the monuments, installing the monuments, and verifying the positional accuracy of the monument is correct.

A Primary Control survey, when not furnished, shall be meeting the horizontal and vertical accuracy tolerances -A Project Control Diagram shall be submitted to the Engineer and the City Surveyor for all new Primary Control monuments and surveys.

Vertical accuracy tolerances for Primary Control monuments and surveys shall be as specified.

Unless stated otherwise in the contract, if construction activity disturbs a Primary Control monument (or benchmark) a new Primary Control monument (or benchmark) shall be installed by the Contractor. Primary Control monuments shall be set so they are intervisible from at least two adjacent Primary Control monuments and shall not exceed 0.2 mile between adjacent intervisible Primary Control monuments. Primary Control monuments set by the Contractor shall not conflict with construction activities. The Primary Control survey shall consist of a closed loop network and have adequate redundancy, precision, and accuracy to prove that all the monuments included in the network are within the horizontal and vertical accuracy tolerance.

Survey records shall include documentation of Primary Control monuments and. A supplemental or amended Project Control Diagram shall be submitted to the Engineer and the City Surveyor for all replaced, transferred or re-established Primary Control monuments

ROW monuments, property boundary monuments, and easement monuments shall be installed.

Secondary Control monuments may be required, meeting the horizontal accuracy tolerance. The procedures used to set ROW monuments shall include an independent check of the installation. Survey records shall include documentation of the survey performed to establish the monuments. The independent check shall be documented in the survey records and the field measured differences calculated or reduced to show the work is within the specified horizontal accuracy tolerance. PLSS, GLO, BLM, or MS monuments, The independent check shall be documented in the survey records and the field measured differences calculated or reduced to show the work is within the specified horizontal accuracy tolerance. The installation of ROW, property boundary, easement, PLSS, GLO, BLM, or MS monuments installed at a different location than the data shown on the Monumentation sheet of the ROW plans shall be submitted to the Engineer and the City Surveyor along with the monument’s description and horizontal data in order that the new monument can be revised on the Land Survey Control Diagram and ROW plan sheets. Copies of all new Monument Records filed by the PLS with the State Board for the installation of new PLSS, GLO, BLM, or MS monuments shall be submitted to the Engineer prior to filing.

Monument Box. This survey work shall consist of installing or adjusting monument boxes included on the plans. When it is necessary to set a monument within a monument box in accordance with Title 38 CRS and State Board Rules and Policies. If the monument meets the physical standard as stated by the State Board and is situated within the finished roadway, a monument box shall be installed. When an existing monument box, due to construction, will no longer meet the physical standard set by the State Board, the box shall be replaced or adjusted to meet those standards.

MEASUREMENT: Survey Monuments, Monument Boxes, and Adjust Monument Boxes will be measured by the actual number of the various types installed and accepted by the Engineer. Measurement for locating survey monuments will be by the hour as approved by the Engineer.

Scope of Block Corner Reference Monumentation. To reference and replace the block corner reference monuments commonly known as 5x5's or 5 offs within the City of Colorado Springs in advance of proposed removal and replacement of sidewalks and pedestrian ramps.

The locations of Block Corner Reference monuments can be aided using the City Springs View Website or contacting City survey staff.

Method of Survey: Conventional Survey practices (Total Station and Steel Tape) shall be used in lieu of GPS. A minimum of three (3) substantial ties are to be set for each block corner reference to be rehabilitated. Set tie locations shall not be in the vicinity or similar materials of property corners to avoid confusing the tie with the property corner. Ties shall be removed after monument rehabilitation. Required tolerance of set monuments shall be +/- 0.02 of a foot of original monument location.

Surveyor is responsible for coordination with contractor and City of Colorado Springs staff on scheduling and preservation of reference ties during and after construction. Block corner reference monuments shall be set within 30 days of concrete placement. A Referenced Monument Restoration Record shall be recorded at the El Paso County Clerk and Recorder (Record form available from City of Colorado Springs Survey Staff).

Monuments (supplied by contracted surveyor) to be set are countersunk flush with concrete surface using a Berntsen 1.17" copper concrete markers (BP2) imprinted with the PLS number of the Surveyor in responsible charge and "5x5" or "5 OFF" as required. The referenced location to be punched on survey cap in field.

PAYMENT. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule. No payments will be made before the proposed work schedule is submitted. Legible signed and sealed copies of survey records shall be submitted on a monthly basis to the Engineer for completed work before payment is made for that pay item.

Before final payment is made, the following three items shall be completed, bear the seal and signature of the responsible PLS and have copies submitted to the Construction Project Manager for review prior to being deposited with the county in accordance with Title 38 CRS, Property – Real and Personal, State Board Rules and Policies and MOU:

1. All survey records.
2. The ROW Plans.
3. The Project Control Diagram (new, supplemental or amended).

The Presurvey Conference – Construction Surveys, equipment calibrations, and survey records will not be paid for separately but shall be included in the work. Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
108-00016 Construction Surveying and Staking	Lump Sum (LS)

Traffic control for monumentation and related surveying will be under traffic control.

REVISION OF SECTION 900 PLANTING

Section 900 is hereby deleted and revised to read:

900.01 This work consists of furnishing and planting shrubs and other plant material, hereinafter referred to as "plants" and as shown on the plans or as directed.

MATERIALS

900.02 General. Plants shall be of the species or variety designated on the plans, in healthy condition with normal well-developed branch and root systems and shall conform to the requirements of the current American Standard for Nursery Stock. The Contractor shall obtain certificates of inspection of plant materials that are required by Federal, State, or local laws, and submit the certificates to the Engineer. All plants shall be free from plant diseases and insect pests. All shipments of plants shall comply with all nursery inspection and plant quarantine regulations of the State of origin and destination, and the Federal regulations governing Interstate movement of nursery stock.

The minimum acceptable sizes of all plants, with branches in normal position, shall conform to the measurements specified in the Contract.

Plants hardy in hardiness zones 3, 4, 5, and 6 only will be accepted. Hardiness zones are defined in U.S. Department of Agriculture publications.

All container-grown plants shall be those plants that have been growing in a nursery for at least one growing season, or plants that have established themselves in accordance with definitions set forth in the Colorado Nursery Act, Title 35, Article 26, CRS.

Shrubs shall have been root-pruned during their growing period in the nursery in accordance with standard nursery practice.

If plants of acceptable quality and specified variety or size are not available locally, the Contractor may:

1. Substitute acceptable plants that are larger than specified at no change in contract price.
2. On written approval, substitute smaller plants than those specified in the Contract at the adjusted price stated in the written approval.
3. On written approval, substitute plants of a different genus, species, or variety at the adjusted price stated in the written approval.

Before any substitution of plants will be considered, the Contractor shall furnish to the Landscape Architect written statements from three sources verifying that the plants designated on the plans are not available.

At the landscape pre-construction conference, the Contractor shall name the nursery stock supplier for all items. The Contractor shall tag all nursery stock for inspection by the Landscape Architect. The Landscape Architect will reject any nursery stock not meeting the Contract at any of the three following times and locations:

1. At the named supplier's location. The Engineer will notify the Contractor when nursery stock will be inspected at the supplier's location.
2. On the project site at the time of delivery, prior to planting.
3. At the time of installation. Final acceptance of all plant material will be made at the time of installation on the project site.

Deciduous plants, broadleaf evergreens, and conifers shall be balled and burlapped, or in containers used in standard nursery practice. Balling and burlapping shall conform to the recommended specifications in the American Standard for Nursery Stock. The ball of the plant shall be natural, not made, and the plant shall be handled by the ball at all times. No balled and burlapped plant shall be accepted if the ball is broken or the trunk is loose in the ball.

Each species shall be identified by means of grower's label affixed to the plant. The grower's label shall include the data necessary to indicate conformance to specifications.

Fertilizer for planting shall be used as specified on the Plans.

CONSTRUCTION REQUIREMENTS

900.03 General. All plants shall be protected from drying out or other injury. Broken and damaged roots shall be pruned before planting.

1. *Planting Seasons.* Plants shall be planted in accordance with the Plans. Areas to be planted shall be brought to the lines and grades designated or approved. The location of plants shown in the Plans is approximate to the degree that unsuitable planting locations shall be avoided. Locations and layouts shall be approved before preparatory work for planting is started. All layout staking for planting shall be done by the Contractor and shall be approved by the Landscape Architect before planting holes are prepared. The Contractor shall place all plant material according to the approved planting plans, or as directed.
2. *Excavation.* Planting pits shall be circular in outline with vertical or sloped sides. Pits for trees and shrubs shall be at least two times greater in diameter than the earth ball.
3. *Planting.* Planting shall be done in accordance with good horticultural practices. Plants of upright growth shall be set plumb and plants of prostrate type shall be set normal to the ground surface. Plants with dry, broken, or crumbling roots will not be accepted for planting. Planting pits shall be dug 2 inches shallower than the height of the rootball for shrubs. Tree rootballs shall be set in the center of the planting pit on undisturbed soil. Shrubs shall be planted in the center of the pit. Plastic, metal, fabric, or peat containers shall be removed. Shallow scores $\frac{1}{4}$ to $\frac{1}{2}$ inch deep shall be made along the edges of the rootball for containerized plants.
4. *Backfilling.* When soil conditioner is specified, composted plant material shall be added and thoroughly mixed into the backfill material at the rate 0.1 cubic foot per shrub. Backfill shall be thoroughly worked and watered-in to eliminate air pockets. Watering shall be done immediately after the plant is placed. Backfilling of the planting pit shall be resumed after this water is absorbed. Roots and crown shall be covered with soil at this time. After the soil has settled, plants must be in the proper position and at the proper depth. Saucers shall be prepared around each plant to the dimensions shown on the planting details. When saucers are required, they shall be covered with a 4-inch thick layer of fresh moist wood mulch conforming to the plans. After completion of all planting and before acceptance of the work, the Contractor shall water plants installed under this Contract, as needed to maintain a moist root zone optimum for plant growth. Plants damaged by the Contractor's operations shall be replaced at the Contractor's expense. Surplus soil remaining after backfilling is completed shall be removed from the site and disposed of per local regulations.
5. *Pruning.* All deciduous shrubs shall be pruned in accordance with standard horticultural practice, preserving the natural character of the plant. Guidelines for pruning are indicated in the planting details. Pruning cuts shall be made with sharp clean tools. All clippings shall become the property of the Contractor and be removed from the site.
6. All plant tags shall be removed from plants and all packing or other material used by the Contractor shall be removed from the site.
7. *Irrigation.* Plantings that are to be irrigated shall be planted so that the irrigation system is operating and supplying the designated amount of water as planting is occurring. Plants shall be watered within 15 minutes of planting.

900.04 Landscape Establishment. From the time of installation, during construction, and throughout the Landscape Establishment period the Contractor shall maintain all plant material and seeded areas in a healthy and vigorous growing condition and ensure the

successful establishment of vegetation. This includes performing establishment, replacement work, and landscape maintenance work as described below. The beginning of the Landscape Establishment period depends upon receipt of the written Notice of Substantial Landscape Completion from the Landscape Architect. Substantial Landscape Completion occurs when all plant materials in the Contract have been planted and all work under this section has been performed, except for pay item 940-0000, Landscape Maintenance. If the Notice of Substantial Landscape Completion is issued during the spring planting season, the Landscape Establishment period begins immediately and lasts for a period of 12 months. If the Notice of Substantial Landscape Completion is issued at any other time, the Landscape Establishment period begins at the start of the next spring planting season and lasts for a period of 12 months. The Contract Growth trees will have a 7-year landscape warranty and maintenance per the Contract.

1. **Establishment and Replacement.** After all planting on the project is complete, a plant inspection shall be held including the Contractor and Landscape Architect to determine acceptability of plant material. During the inspection, an inventory of rejected material will be made, and corrective and necessary cleanup measures will be determined. Dead, dying, or rejected material shall be removed each month during the Landscape Establishment period as directed. Plant replacement shall be performed during the spring planting seasons at the beginning and end of the Landscape Establishment Period. Plant replacement stock shall be planted in accordance with the Plans and is subject to all requirements specified for the original material. Plant replacement shall be at the Contractor's expense.
2. **Landscape Maintenance.** During the Landscape Establishment period the Contractor shall perform landscape maintenance as described herein. The Contractor shall maintain all landscaped areas in the condition they were in when first installed and accepted.

Prior to the Notice of Substantial Landscape Completion, the Contractor shall submit a detailed maintenance plan which includes a schedule showing the number of hours or days personnel will be present, the type of work to be performed, supervision, equipment and supplies to be used, emergency program and responsible person to contact for emergency work, and inspection schedule. The detailed maintenance plan is subject to review and approval by the Landscape Architect. The Landscape Architect will not issue the Notice of Substantial Completion until the Landscape Architect has received and approved the maintenance plan.

The proposed types, brand names, material safety data sheets, and rates of application of herbicides, pesticides, and fertilizers to be used shall be submitted for approval with the detailed maintenance plan. Herbicides, pesticides, and fertilizers shall meet all local, state, and federal regulations and shall be applied by a licensed applicator. The contractor is to refrain from any applications of Herbicides, pesticides, and fertilizers on Trees unless written authorization by the Landscape Architect and/or City Forestry department is issued.

The Contractor shall perform start-up, watering, programming, operation, and fall winterization of the irrigation system. The Contractor shall do a spring start-up of the irrigation system prior to Final Acceptance and perform all irrigation system warranty work as specified in Section 930.

The Contractor shall keep a project diary documenting all landscape and irrigation maintenance activities including work locations and time spent. The Contractor shall provide copies of the diary to the Engineer upon request. During the landscape establishment period, the Contractor shall water, cultivate, and prune the plants and repair, replace, or readjust guy material, stakes, and posts as required or directed by the Engineer. The Contractor shall reshape plant saucers, repair washouts and gullies, replace lost wood mulch, keep all planting sites free from weeds and do other work necessary

to maintain the plants in a healthy and vigorous growing condition. This includes seasonal spraying or deep root watering with approved insecticides or fungicides as required.

A. **Watering in Irrigated Areas.** Shrubs planted at all locations on the project shall be watered once per month at the rate of 10 gallons per shrub for the months November through April until the Landscape Establishment period ends.

The contract performance bond shall guarantee replacement work during the plant establishment period.

If all other work is completed on a project, no contract time will be charged during the plant establishment period.

METHOD OF MEASUREMENT

900.05 The quantity of planting to be measured will be the number of each (EA) plants, of the types and sizes designated in the Plans that are actually planted and accepted. Landscape Maintenance will not be measured but will be paid for on a lump sum (LS) basis.

BASIS OF PAYMENT

900.06 The accepted quantities of planting will be paid for at the contract unit price for each of the various items listed below that appear in the bid schedule. Payment for the total cost of the item will be made at the completion of planting. Cost of the performance bond shall be included in the cost of the plant items. Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
902-00004 Perennials	Each (EA)
902-00005 Planter Soil Mix	Cubic Yard (CY)
902-00006 Shrub (5 Gallon Container)	Each (EA)
902-00007 Ornamental Grasses (1 Gallon Container)	Each (EA)

Water required for all items of work will not be measured and paid for separately but shall be included in the work.

Payment shall be full compensation for all work necessary to complete the item. For each month that landscape maintenance is performed and accepted during the Landscape Maintenance period as specified in subsection 900.04, payment for Landscape maintenance will be made in installments as follows:

1. 10 percent of the lump sum amount will be paid for each of the eight growing season months, March through October.
2. 5 percent of the lump sum amount will be paid for each of the winter months, November through February.

Landscape Establishment, except for landscape maintenance, will not be paid for separately, but shall be included in the work.

Excavation for shrubs shall not be paid for separately and shall be incidental with each Shrub (5 Gallon Container) pay item.

Excavation for trees shall not be paid for separately and shall be incidental with each Contract Grower Deciduous Tree 8-Inch Caliper pay item.

**REVISION OF SECTION 902
SITE FURNISHINGS**

This work consists of furnishing, and installing fixtures: benches, trash receptacles, bike racks and bollards.

MATERIALS

Conform to the following Manufacturers specifications:

1. DuMor Bench 141 Armrest
2. DuMor Trash Receptacle 287-32-SO
3. Iron Age Designs 34" Needle Bollard, Surface Mount

CONSTRUCTION REQUIREMENTS

General: See plans for details and locations. Place and mount fixtures as shown on plans. All materials that will receive powder coating shall first be galvanized if offered by product manufacturer.

1. **Bench.** Furnish and install benches where indicated on plans in conformance with the following City of Colorado Springs Furnishing Standard requirements:
 - A. Configuration: Backed bench.
 - B. Seats & Supports:
 - i. Bench with Back - Seat slats shall run length wise from side to side of bench. Finished End sections to be 0.5"x2" solid steel bar, welded and ground. Integral welded end and center armrests are to be furnished.
 - C. Size:
 - i. Bench with Back - 6' length; 31 11/16" height; 21 5/16" width.
 - D. Color: Green Powder Coat matching City of Colorado Springs Standard Juniper Green
 - E. Coating: All steel members to be coated with durable baked-on polyester powder finish.
 - F. Mounting: Surface mount per manufacturer's specifications using recommended anchor.
 - G. Contractor to provide selected bench product information for final approval.
2. **Trash Receptacle.** The Contractor is to remove all existing smart Trash Receptacles within the working limits. These benches are to be safely stored off-site being protected from damage, and then re-installed according to previous installation and the manufacturers specifications at the locations per the Plans.
 - A. Configuration: Existing Trash Receptacles.
 - B. Supports:
 - i. Existing Trash Receptacles
 - C. Size:
 - i. Existing Trash Receptacles
 - D. Color: Existing Trash Receptacles
 - E. Coating: Existing Trash Receptacle
 - F. Mounting: Surface mount per manufacturer's specifications using recommended anchor and previous installed method.
3. **Bollard / Bike Rack.** Furnish and install bollards where indicated on plans in conformance with the following City of Colorado Springs Furnishing Standard requirements:
 - A. Configuration: Open Needle Bollard
 - B. Supports:
 - i. Stainless Steel Plate for surface mount utilizing counter sunk socket cap screws.
 - C. Size:
 - i. Bollard – 34" height.
 - D. Color: Cast Aluminum
 - E. Coating: Powder Coat finish.
 - F. Mounting: Surface mount per manufacturer's specifications using recommended anchor.

Contractor to provide selected bollard product information for final approval.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The quantity for these Site Furnishings to be paid for will be determined by measurement per each installed per the plan detail and call-out in place (EA).

Payment under this bid item will be made at the applicable contract unit price for Bid Item and shall include full compensation for furnishing all labors, materials, preparation, placing, storing, tools and equipment, and incidentals necessary to complete the work.

<u>Pay Item</u>	<u>Pay Unit</u>
902-00000 Bench (6-Foot)(Arm Rest)	Each (EA)
902-00001 Bike Rack	Each (EA)
902-00002 Single Unit Trash Can	Each (EA)
920-00000 Bollard	Each (EA)

**REVISION OF SECTION 902
STRUCTURAL SOIL CELL SUSPENDED PAVEMENT SYSTEM**

DESCRIPTION

This work consists of furnishing and installing a Soil Cell Suspended Pavement System for planting and paving, including Cell assemblies and related accessories (or approved equal).

MATERIALS

Structural Soil Cell Suspended
Pavement System:

ADMINISTRATIVE REQUIREMENTS:

1. Preinstallation Conference: Prior to installation of the Soil Cell system and associated Work, meet at Project site with the Contractor, Manufacturer system installer and their field supervisor, manufacturer's technical representative, the Landscape Architect at the Owner's discretion, and other entities concerned with the Soil Cell system performance.
 - A. Provide at least 72 hours advance notice to participants prior to convening preinstallation conference.
 - B. Introduce and provide a roster of individuals in attendance with contact information.
 - C. The preinstallation conference agenda will include, but is not limited to the review of:
 - i. Required submittals both completed and yet to be completed.
 - ii. The sequence of installation and the construction schedule.
 - iii. Coordination with other trades.
 - iv. Details, materials and methods of installation.
 - a.) Review requirements for substrate conditions, special details, if any, installation procedures.
 - b.) Installation layout, procedures, means and methods.
 - v. Mock-up requirements.

SUBMITTALS:

1. Action Submittals: Submit these to the Landscape Architect for review and acceptance not less than 45 days prior to start of installation of materials and

products specified in this Section.

- A. Product Data: For each type of product, submit manufacturer's product literature with technical data sufficient to demonstrate that the product meets these specifications.
- B. Test and Evaluation Reports:
 - i. Submit results of compaction testing required by the Specifications for approval.
 - ii. Include analysis of bulk materials including soils and aggregates, by a recognized laboratory that demonstrates that the materials meet the Specification requirements.
- C. Samples:
 - i. One full size sample of an assembled Cell grid.
 - ii. One 6-inch (150-mm) square piece of geogrid.
 - iii. One 6-inch (150-mm) square piece of geotextile.
- D. Manufacturer's Report: Submit Soil Cell system manufacturer's letter of review and approval of the Project, including Drawings and Specifications, Addenda, Clarifications and Modifications, and for compliance with product installation requirements.
- E. Qualification Statements:
 - i. Manufacturer:
 - a.) Submit list of completed projects demonstrating durability and longevity of in-place systems.
 - i. Include project name, location, and date of completion.
 - b.) Submit list of third party approval for stormwater management projects.
 - ii. Installer:
 - a.) Submit documentation of the qualifications of the Structural Cell system installer and their field supervisor, sufficient to demonstrate that both have experience installing Soil cell systems.
 - b.) Submit list of completed projects of similar scope and scale demonstrating capabilities and experience.

WARRANTY:

1. The Contractor shall warrant the Structural Soil Cell system to be free of faults and defects in accordance with the General Conditions, except that the warranty shall be extended by manufacturer's written warranty against defects in materials and workmanship as follows:
 - A. Written specifications for the warranted product, when installed and used as specifically provided in the product's installation guidelines for a period of 20 years from the date of purchase.

COMPONENTS AND SIZES:

1. System Components (OR APPROVED EQUAL):
2. Components: One base, six 3x posts (a combination of six 1x posts and six 2x posts), and one deck.
 - A. Total Depth: 2.5 FT (30 inches) Deep
3. Bases and Posts: Homopolymer polypropylene.
4. Decks: Fiberglass reinforced, chemically-coupled, impact modified polypropylene.
 - A. Manufacturer's Related Cell Installation Accessories:
5. Strongbacks as necessary: An accessory designed to stabilize the Cell posts temporarily, during soil placement, and removed for reuse prior to placing decks.
6. Anchoring Pins (If Needed): Threaded pins and crossbar for securing assembled Cells to subbase for certain manufacturers.
7. Root Barrier: Recyclable, black, injection molded panels manufactured with a minimum 50 percent post-consumer recycled polypropylene plastic with UV inhibitors, and integrated zipper joining system which allows instant assembly by sliding one panel into another; for redirecting tree

roots down and away from hardscapes. This is to be placed along the back of street curb to prevent roots from undermining the roadway.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

213.4 The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item

902-00003 Structural Cells

Pay Unit

Cubic Yard (CY)

ADDITION OF SECTION 930 LANDSCAPE IRRIGATION

PART 1: GENERAL

1.1 SCOPE

Furnish all labor, materials, supplies, equipment, tools and transportation, and perform all operations in connection with and reasonably incidental to the complete installation of the irrigation system, and guarantee/warranty as shown on the drawings, the installation details, and as specified herein. Items of work specifically included are:

1. Procurement of all applicable licenses, permits, and fees including payment of all development, plant investment, or any other fees and permits associated with the purchase and installation of the tap.
2. Coordination of Utility Location. ("Call Before You Dig")
3. Verification of existing static pressure and flow rate.
4. Installation, connection of all sensors, and programming of irrigation controller.
5. Installation and connection to irrigation central control system.
6. Provision and connection of electrical power supply to the irrigation control system.
7. Maintenance period.
8. Sleeving for irrigation pipe and wire.

1.2 WORK NOT INCLUDED

Items of work specifically excluded or covered under other sections are:

1. Excavation, installation and backfill of tap into municipal water line.
2. Excavation, installation and backfill of water meter and vault.

1.3 SUBMITTALS

1. Submit samples under provisions of Contract Documents.
2. Deliver four (4) copies of all required submittals to the Owners' Representative within 15 days from the date of Notice to Proceed.
3. Materials List: Include pipe, fittings, mainline components, water emission components, control system components. Quantities of materials need not be included.
4. Manufacturers' Data: Submit manufacturers' catalog cuts, specifications, and operating instructions for equipment shown on the materials list.
5. Shop Drawings: Submit shop drawings called for in the installation details. Show products required for proper installation, their relative locations, and critical dimensions. Note modifications to the installation detail.
6. Project Record Drawings: Submit project record (as-built) drawings to Owner prior to commencement of maintenance period (refer to specification section 3.12

for specific requirements).

1.4 RULES AND REGULATIONS

1. Work and materials shall be in accordance with the latest edition of the *National Electric Code*, the *Uniform Plumbing Code* as published by the *Western Plumbing Officials Association*, and applicable laws and regulations of the governing authorities.
2. When the contract documents call for materials or construction of a better quality or larger size than required by the above-mentioned rules and regulations, provide the quality and size required by the contract documents.
3. If quantities are provided either in these specifications or on the drawings, these quantities are provided **for reference only**. It is the Contractor's responsibility to determine the actual quantities of all material, equipment, and supplies required by the project and to complete an independent estimate of quantities and wastage.

1.5 TESTING

1. Notify the Owners' Representative three (3) days in advance of testing.
2. Pipelines jointed with rubber gaskets or threaded connections may be subjected to a pressure test at any time after partial completion of backfill. Pipelines jointed with solvent-welded PVC joints shall be allowed to cure at least 24 hours before testing. Pipelines installed with thrust blocks shall have the concrete cured for a minimum of seven (7) days before testing.
3. Subsections of mainline pipe may be tested independently, subject to the review of the Owners' Representative.
4. Furnish clean, clear water, pumps, labor, fittings, and equipment necessary to conduct tests or retests.
5. Hydrostatic Pressure Test:
 - A. Subject mainline pipe to a hydrostatic pressure equal to the anticipated operating pressure of 150 PSI for two hours. Test with mainline components installed. A 2 PSI pressure variation is allowed.
 - i. The use of an air compressor to provide pressure is not allowed.
 - B. Fill lateral pipe with water, purge all air out of the system. Subject lateral pipe to a hydrostatic pressure of 75 PSI. Test with risers for sprinklers capped.
 - i. The use of an air compressor to provide pressure is not allowed.
 - C. Backfill to prevent pipe from moving under pressure. Expose couplings and fittings.
 - D. Leakage will be detected by visual inspection. Replace defective pipe, fitting, joint, valve, or appurtenance. Repeat the test until the pipe passes test.
 - i. Cement or caulking to seal leaks is prohibited.
 - E. The Owners' Representative reserves the option to furnish the gauges and metering devices for the tests.
6. Volumetric Leakage Test:
 - A. Cap risers of mainline components for volumetric pressure tests. Backfill to prevent pipe from moving under pressure. Expose couplings and fitting.
 - B. Fill mainline pipe with water and purge air from the pipeline before test.
 - C. Subject mainline pipe to a hydrostatic pressure of 150 PSI for two hours. Maintain constant pressure.
 - i. The use of an air compressor to provide pressure is not allowed.
 - D. The amount of additional water added to maintain constant pressure during the test shall not exceed the following amounts:
 - i. The formula for calculating allowed leakage is:

Test Pressure (PSI)	Allowable Leakage per 1000 feet of pipe* length - Gallons Per Hour										
	Nominal Pipe Diameter - Inches										
	3	4	6	8	10	12	14	16	18	20	24
100	0.20	0.27	0.41	0.54	0.68	0.81	0.95	1.08	1.22	1.35	1.62
125	0.23	0.30	0.45	0.60	0.76	0.91	1.06	1.21	1.36	1.51	1.81
150	0.25	0.33	0.50	0.66	0.83	0.99	1.16	1.32	1.49	1.66	1.99
175	0.27	0.36	0.54	0.72	0.89	1.07	1.25	1.43	1.61	1.79	2.15
200	0.29	0.38	0.57	0.76	0.96	1.15	1.34	1.53	1.72	1.91	2.29
	* If the pipeline under test contains sections of various diameters, the allowable leakage will be the sum of the computed leakage for each size.										

$L = (S \cdot D \cdot \sqrt{P}) / 148,000$

L = Allowable leakage in Gallons Per Hour

S = Length of pipe in Feet

D = Nominal pipe diameter in Inches

P = Average test pressure, PSI

- E. If the pipeline under test contains sections of various diameters, the allowable leakage will be the sum of the computed leakage for each pipe size and associated length.
 - F. Measure the volume of water using a calibrated container with a resolution of a single ounce of water.
 - G. Replace defective pipe, fitting, joint, valve, or appurtenance. Repeat the test until the pipe passes test.
 - i. Cement or caulking to seal leaks is prohibited.
 - H. The Owners' Representative reserves the option to furnish the gauges and metering devices for the tests.
7. Operational Test:
- A. Prior to the Operational Test the Contractor shall connect and configure all system sensors.
 - i. The Contractor shall have the flow sensor operational and learn the flow for all zones to be tested. The flow shall be stored in the controllers memory.
 - ii. The Contractor shall have the master valve connected and operational.
 - iii. The Contractor shall have all rain, wind, temperature, weather or other sensors specified on the plan connected and operational.
 - B. Activate each remote control valve in sequence from controller. The Owners' Representative will visually observe operation, water application patterns, and leakage.
 - C. Replace defective remote control valve, solenoid, wiring, or appurtenance to correct operational deficiencies.
 - D. Replace, adjust, or move water emission devices to correct operation or coverage deficiencies.
 - E. Replace defective pipe, fitting, joint, valve, sprinkler, or appurtenance to correct leakage problems.
 - i. Cement or caulking to seal leaks is prohibited.
 - F. Repeat test(s) until each lateral passes all tests.

- G. The Owners' Representative will measure and record static and dynamic pressure at the point of connection and in the system mainline at various quick coupler connections.
- H. The Owner's Representative will measure and record dynamic pressure at various sprinkler heads and water emission devices.

1.6 CONSTRUCTION REVIEW

The purpose of on-site reviews by the Owners' Representative is to periodically observe the work in progress and the Contractor's interpretation of the construction documents and to address questions with regards to the installation.

1. Scheduled reviews such as those for irrigation system layout or testing should be scheduled with the Owners' Representative as required by these specifications.
2. Impromptu reviews may occur at any time during the project.
3. Final review will occur at the completion of the irrigation system installation and Record (As-Built) Drawing submittal.

1.7 GUARANTEE/WARRANTY AND REPLACEMENT

The purpose of this guarantee/warranty is to insure that the Owner receives irrigation materials of prime quality, installed and maintained in a thorough and careful manner.

1. For a period of one year from commencement of the formal maintenance period, guarantee/warranty irrigation materials, equipment, and workmanship against defects. Fill and repair depressions. Restore landscape or structural features damaged by the settlement of irrigation trenches or excavations. Repair damage to the premises caused by a defective item. Make repairs within seven days of notification from the Owners' Representative.
2. Contract documents govern replacements identically as with new work. Make replacements at no additional cost to the contract price.
3. Guarantee/warranty applies to originally installed materials and equipment and replacements made during the guarantee/warranty period.

PART 2: MATERIALS

2.1 QUALITY

Use materials which are new and without flaws or defects of any type, and which are the best of their class and kind.

2.2 SUBSTITUTIONS

Pipe sizes referenced in the construction documents are minimum sizes, and may be increased at the option of the Contractor.

2.3 SLEEVING

1. Install separate sleeve beneath paved areas to route each run of irrigation pipe or wiring bundle.
2. Sleeving material beneath pedestrian pavements shall be PVC Class 200 pipe with solvent welded joints.
3. Sleeving beneath drives and streets shall be PVC Class 200 pipe with solvent welded joints.
4. Sleeving diameter: As indicated on the drawings and installation details or equal to twice that of the pipe or wiring bundle passing through Pipe and Fittings

2.4 PIPE AND FITTINGS:

1. Mainline Pipe and Fittings
 - A. Use rigid, unplasticized polyvinyl chloride (PVC) 1120, 1220 National Sanitation Foundation (NSF) approved pipe, extruded from material meeting the requirements of Cell Classification 12454-A or 12454-B, ASTM Standard D1784, with an integral belled end.
 - B. Use Class 200, SDR-21, rated at 200 PSI, conforming to the dimensions and tolerances established by ASTM Standard D2241. Use PVC pipe rated at higher pressures than Class 200 in the case of small nominal diameters which are not manufactured in Class 200.
 - i. Use solvent weld pipe for mainline pipe with a nominal diameter less than 3-inches or where a pipe connection occurs in a sleeve. Use Schedule 40, Type 1, PVC solvent weld fittings conforming to ASTM Standards D2466 and D1784. Use primer approved by the pipe manufacturer. Solvent cement to conform to ASTM Standard D2564.
 - C. Use Schedule 40 conforming to the dimensions and tolerances established by ASTM Standard D1785.
2. Lateral Pipe and Fittings:
 - A. Use rigid, unplasticized polyvinyl chloride (PVC) 1120, 1220 National Sanitation Foundation (NSF) approved pipe, extruded from material meeting the requirements of Cell Classification 12454-A or 12454-B, ASTM Standard D1784, with an integral belled end suitable for solvent welding.
 - B. Use Class 200, SDR-21, rated at 200 PSI, conforming to the dimensions and tolerances established by ASTM Standard D2241. Use PVC pipe rated at higher pressures than Class 200 in the case of small nominal diameters which are not manufactured in Class 200.
 - C. Use primer approved by the pipe manufacturer. Solvent cement to conform to ASTM Standard D2564, of a type approved by the pipe manufacturer.
 - D. For drip irrigation laterals downstream of zone control valves, use UV radiation resistant polyethylene pipe manufactured from Prime Union Carbide G-resin 7510 Natural 7 manufactured by Union Carbide or a Union Carbide Licensee with a minimum of 2% carbon black, and minimum nominal pipe ID dimension of 0.810" for 3/4 inch pipe.

Use PVC/compression line fittings compatible with the drip lateral pipe. Use tubing stakes to hold above-ground pipe in place.

3. Specialized Pipe and Fittings:
 - A. Copper pipe: Use Type "K" rigid conforming to ASTM Standard B88.
 - B. Use wrought copper or cast bronze fittings, soldered or threaded per the installation details. Use a 95% tin and 5% antimony solder.
 - C. Use a dielectric union wherever a copper-based metal (copper, brass, bronze) is joined to an iron-based metal (iron, galvanized steel, stainless steel).
 - D. Assemblies calling for pre-fabricated double swing joints shall utilize LASCO Unitized swing joints or approved equal. Swing joints shall be rated at 315 psi, and use O-ring and street elbow construction.
 - E. Assemblies calling for threaded pipe connections shall utilize PVC Schedule 80 nipples and PVC Schedule 40 or 80 threaded fittings.
 - F. Joint sealant:

- i. Use only Teflon-type tape pipe joint sealant on plastic threads. Use nonhardening, nontoxic pipe joint sealant formulated for use on water-carrying pipes on metal threaded connections.
4. Marking Tape:
 - A. Mainline Pipe - Christy underground I.D. tape TA-DT-3-P-NPW. {DESIGNER NOTE: Non Potable detectable marking tape is called out; see pg 16 in Christy catalog for spec designations}.

2.5 MAINLINE COMPONENTS

1. Main System Shutoff Valve: As per local practice and in compliance with local code.
2. Winterization Assembly: As per local practice and in compliance with local code.
3. Backflow Prevention Assembly: As presented in the installation details.
4. Master Valve Assembly: As presented in the installation details.
5. Isolation Gate Valve Assembly: As presented in the installation details. Install a separate valve box over a 3-inch depth of 3/4-inch gravel for each assembly.
6. Quick Coupling Valve Assembly: Double swing joint arrangement as presented in the installation details.

2.6 SPRINKLER IRRIGATION COMPONENTS

1. Remote Control Valve (RCV) Assembly for Sprinkler Laterals:
 - A. As presented in the installation details. Use wire connectors and waterproofing sealant to join control wires to solenoid valves. Use standard identifications tags with hot-stamped black letters on a yellow background. Install a separate valve box over a 3-inch depth of washed pea gravel for each assembly. Use 8 ounce minimum weight non-woven geotextile fabric underneath pea gravel and box assembly to prevent dirt and debris intrusion. Adjust valve flow control per manufacturer's recommendations prior to use.
 - i. Install Baseline BL-5201 decoder on each valve for communication on 2-wire control system.
 - a) Baseline BL-5202 & BL-5204 may be utilized where the manufacturer permits.
2. Sprinkler Assembly: As presented in the drawings and installation details.

2.7 DRIP IRRIGATION COMPONENTS

1. Remote Control Valve (RCV) Assembly for Drip Laterals:
 - A. As presented in the installation details. Use wire connectors and waterproofing sealant to join control wires to solenoid valves. Use standard identifications tags with hot-stamped black letters on a yellow background. Install a separate valve box over a 3-inch depth of washed pea gravel for each assembly. Use 8 ounce minimum weight non-woven geotextile fabric underneath pea gravel and box assembly to prevent dirt and debris intrusion. Adjust valve flow control per manufacturer's recommendations prior to use.
 - i. Install Baseline BL-5201 decoder on each valve for communication on 2-wire control system.
 - a) Baseline BL-5202 & BL-5204 may be utilized where the manufacturer permits.
 - B. Inline Drip Emitter Tubing:
 - i. Provide a low volume dripper line with integral and evenly spaced pressure compensating drippers at specified intervals in a discharge rate of 0.6 in gallons per hour (GPH). Inline Emitter Drip Tubing shall consist of nominal sized one-half inch low-

density linear polyethylene tubing. The Inline Emitter Drip Tubing shall have internal pressure compensating, continuous self-cleaning, integral drippers at a specified spacing of 12" on center, or blank tubing without drippers where specified in details.

- a) Inside diameter: 0.57 inches
 - b) Outside diameter: 0.67 inches
 - c) Color: Brown
 - ii. Use spiral barb fittings supplied by the same manufacturer as the hose.
 - iii. All tubing shown outside of the bed area shall be class 200 PVC pipe.
2. Flush Cap Assembly:
 - A. As presented in the installation details. Locate at the end of each drip irrigation lateral pipe. Install a separate valve box over a 3-inch depth of pea gravel for each assembly. Use 8 ounce minimum weight non-woven geotextile fabric underneath pea gravel and box assembly to prevent dirt and debris intrusion.
 3. Drip Operation Indicator
 - A. As presented in the installation details. Install at the most remote dead ends of UV radiation resistant polyethylene tubing. Install in area easily accessible for maintenance and visibility. Minimum of 8-inch indicator pop up height.

2.8 CONTROL SYSTEM COMPONENTS

1. Irrigation Controller Unit:
 - A. As presented in the drawings and installation details.
 - i. Primary surge protection arrestors:

Model BL-LA01, manufactured by Baseline Irrigation Solutions.
 - ii. Lightning protection: 4" x 96" x 0.0625" copper-clad grounding plate.
 - B. Wire markers: Pre-numbered or labeled with indelible non-fading ink, made of permanent, non-fading material.
 - C. Valve output surge protection arrestors: As recommended by controller manufacturer.
2. Instrumentation:
 - A. As presented in the drawings and installation details.
 - B. Soil Moisture Sensor: BL-5315B biSensor as manufactured by Baseline, Inc.
 - C. Flow Sensor: PFS Series as manufactured by Baseline, Inc.
3. Control Wire:
 - A. Use American Wire Gauge (AWG) No.12/14 solid copper conforming to ASTM B-3 or ASTM B-8. Type UF or PE cable, UL approved for direct underground burial from the controller unit to each remote control valve. Use American Wire Gauge (AWG) No.12 wire for common wire.
 - i. Type PE Cable:
 - a) Minimum temperature rating of 60°C and 600 volts.
 - b) Minimum insulation thickness of 0.060".
 - c) Sunlight resistant, testing at 300 hours of carbon-arc or xenon-arc exposure.
 - d) Cold Bend Test: Insulation shall not show any cracks when sample is bent around a 3X mandrel after being subjected to minus 25° C for four (4) hours.
 - e) Insulation shall not absorb more than 25mg mass of water per square inch.
 - ii. Type UF/TWO Cable:
 - a) Minimum temperature rating of 60° C and 600 volts.
 - b) Minimum insulation thickness of 0.060" for wires 14AWG to 10AWG, minimum insulation thickness of 0.080" for wires 8AWG to 2AWG.
 - c) Cold Bend Test: Insulation shall not show any cracks when

sample is bent around a 3X mandrel after being subjected to minus 25° C for four (4) hours.

- iii. Two-Wire Cable:
 - a) Minimum temperature rating of 60° C and 600 volts.
 - b) Insulation shall be polyethylene.
 - Inner Conductor minimum insulation thickness shall be 0.045" thick.
 - Outer Jacket minimum insulation thickness shall be 0.035" thick.
 - c) Inner Conductors shall be twisted with a four inch (4") lay.
 - d) Includes integral pull cord for stripping.
- B. Use Hunter IDEWIRE1 (#14 AWG wires) for power to decoders. Install per Hunter specifications.
- C. Wire Color:
 - i. Common Wire – WHITE; Remote Control Valve Wire – RED; Spare Wire – BLACK (Common Wire – WHITE; Remote Control Valve Wire to Turf – GREEN; Remote Control Valve Wire to Native – YELLOW)
- D. Splices: Use wire connector with waterproof sealant. Wire connector to be of plastic construction consisting of two (2) pieces, one piece which snap locks into the other. A copper crimp sleeve to be provided with connector. Utilize DBR6-300 splices.
- E. Encase wiring not located near PVC irrigation pipe in PVC Schedule 40 electrical conduit.
 - i. Warning tape: Inert plastic film highly resistant to alkalis, acids, or other destructive chemical components likely to be encountered in soils. Three inches wide, colored yellow, and imprinted with "CAUTION: BURIED ELECTRIC LINE BELOW."

2.9 CONTROL SYSTEM COMPONENTS

1. Instrumentation:
 - A. As presented in the drawings and installation details.
 - B. Provide, install and test a soil moisture monitoring to override irrigation in the event of high soil moisture levels and temperature sensor to prevent irrigation when temperatures drop below a user preset threshold.
 - C. Soil Moisture Sensor: BL-5315B as manufactured by Baseline, Inc.
 - D. Splices: Use 3M Series 3500 Scotch-Lok connector pack 3M 82A connector pack
 - E. Encase wiring not located near PVC irrigation pipe in PVC Schedule 40 electrical conduit.

Warning tape: Inert plastic film highly resistant to alkalis, acids, or other destructive chemical components likely to be encountered in soils. Three inches wide, colored yellow, and imprinted with "CAUTION: BURIED ELECTRIC LINE BELOW."

2. Control Wire:
 - A. Use American Wire Gauge (AWG) No. 14 solid copper, Type UF or PE cable, UL approved for direct underground burial from the satellite control unit to each remote control valve.
 - B. Splices: Use wire connector with waterproof sealant. Wire connector to be of plastic construction consisting of two (2) pieces, one piece which snap locks into the other. A copper crimp sleeve to be provided with connector.
 - C. Encase wiring not located near PVC irrigation pipe in PVC Schedule 40 electrical conduit.
 - D. Warning tape: Inert plastic film highly resistant to alkalis, acids, or other destructive chemical components likely to be encountered in soils.

Three inches wide, colored yellow, and imprinted with "CAUTION:
BURIED ELECTRIC LINE BELOW."

2.10 OTHER COMPONENTS

1. Tools and Spare Parts: Provide operating keys, servicing tools, test equipment, other items, and spare parts indicated in the General Notes of the drawings .

PART 3: EXECUTION

3.1 INSPECTIONS AND REVIEWS

1. Site Inspections:
 - A. Verify site conditions and note irregularities affecting work of this section. Report irregularities to the Owners' Representative prior to beginning work.
 - B. Beginning work of this section implies acceptance of existing conditions.
 - C. Contractor will be held responsible for coordination between landscape and irrigation system installation.
 - D. Landscape material locations shown on the Landscape Plan shall take precedence over the irrigation system equipment locations. If irrigation equipment is installed in conflict with the landscape material locations shown on the Landscape Plan, the Contractor will be required to relocate the irrigation equipment, as necessary, at Contractor's expense.
2. Utility Locates ("Call Before You Dig"):
 - A. Arrange for and coordinate with local authorities the location of all underground utilities.
 - B. Repair any underground utilities damaged during construction. Make repairs at no additional cost to the contract price.
3. Irrigation System Layout Review: Irrigation system layout review will occur after the staking has been completed. Notify the Owners' Representative two days in advance of review. Modifications will be identified by the Owners' Representative at this review.

3.2 LAYOUT OF WORK

1. Stake out the irrigation system. Items staked include: sprinklers, pipe, control valves, manual drains, controller, and isolation valves.
2. Install all mainline pipe and mainline components inside of project property lines.

3.3 EXCAVATION, TRENCHING, AND BACKFILLING

1. Excavate to permit the pipes to be laid at the intended elevations and to permit work space for installing connections and fittings.
2. Minimum cover (distance from top of pipe or control wire to finish grade):
 - A. 24-inch over mainline pipe and over electrical conduit.
 - B. 26-inch over control wire.
 - C. 26-inch over signal wire.
 - D. 18-inch over lateral pipe to sprinklers and bubblers and over manifold pipe to drip system zone control valves.
 - E. 8-inch over drip lateral pipe in turf or paved areas downstream of drip system zone control valves.
 - F. 3-inch minimum mulch cover over drip lateral pipe in planting beds downstream of drip system zone control valves. PVC UV radiation resistant lateral pipe shall be installed directly on the soil surface under landscape fabric.
3. Backfill only after lines have been reviewed and tested.

4. Excavated material is generally satisfactory for backfill. Backfill shall be free from rubbish, vegetable matter, frozen materials, and stones larger than 2-inches in maximum dimension. Remove material not suitable for backfill. Backfill placed next to pipe shall be free of sharp objects which may damage the pipe. Stones larger than 1-inch maximum dimension are not permitted in first (deepest) 6-inches of backfill.
5. Backfill unsleeved pipe and sleeves in either of the following manners:
 - A. Backfill and puddle the lower half of the trench. Allow to dry 24 hours. Backfill the remainder of the trench in 6-inch layers. Compact to density of surrounding soil.
 - B. Backfill the trench by depositing the backfill material equally on both sides of the pipe in 6-inch layers and compacting to the density of surrounding soil.
6. Backfill unsleeved pipe by depositing the backfill material equally on both sides of the pipe in 6-inch layers and compacting each layer to 90% Standard Proctor Density, ASTM D698-78. Conduct one compaction test for every 300 feet of trench. Costs for such testing and any necessary retesting shall be borne by the Contractor. Use of water for compaction, "puddling", will not be permitted.
7. Enclose pipe and wiring beneath roadways, walks, curbs, etc. in sleeves. Minimum compaction of backfill for sleeves shall be 95% Standard Proctor Density, ASTM D698-78. Conduct one compaction test for each sleeved crossing less than 50 feet long. Conduct two compaction tests for each sleeved crossing greater than 50 feet long. Costs for such testing and any necessary retesting shall be borne by the Contractor. Use of water for compaction around sleeves, "puddling", will not be permitted.
8. Dress backfilled areas to original grade. Incorporate excess backfill into existing site grades. Dispose of excess backfill off site.
9. Where utilities conflict with irrigation trenching and pipe work, contact the Owners' Representative for trench depth adjustments.

3.4 SLEEVING AND BORING

1. Install sleeving at a depth which permits the encased pipe or wiring to remain at the specified burial depth.
2. Extend sleeve ends six inches beyond the edge of the paved surface. Cover pipe ends and mark with stakes. Mark concrete with a chiseled "v" at sleeve end locations.
3. Bore for sleeves under obstructions which cannot be removed. Employ equipment and methods designed for horizontal boring.

3.5 ASSEMBLING PIPE AND FITTINGS

1. General:
 - A. Keep pipe free from dirt and pipe scale. Cut pipe ends square and debur. Clean pipe ends.
 - B. Keep ends of assembled pipe capped. Remove caps only when necessary to continue assembly.
2. Mainline Pipe and Fittings:
 - A. Use only strap-type friction wrenches for threaded plastic pipe.
 - B. PVC Rubber-Gasketed Pipe:
 - i. Use pipe lubricant. Join pipe in the manner recommended by manufacturer and in accordance with accepted industry practices.
 - ii. Epoxy-coated steel fittings shall not be struck with a metallic tool. Cushion blows with a wood block or similar shock absorber.
 - C. PVC Solvent Weld Pipe:
 - i. Use primer and solvent cement. Join pipe in a manner recommended by the manufacturer and in accordance with accepted industry practices.
 - ii. Cure for 30 minutes before handling and 24 hours before allowing water in pipe.
 - iii. Snake pipe from side to side within the trench.
 - D. Fittings: The use of cross type fittings is not permitted.

3. Lateral Pipe and Fittings:
 - A. Use only strap-type friction wrenches for threaded plastic pipe.
 - B. PVC Solvent Weld Pipe:
 - i. Use primer and solvent cement. Join pipe in the manner recommended by the manufacturer and in accordance with accepted industry practices.
 - ii. Cure for 30 minutes before handling and 24 hours before allowing water in the pipe.
 - iii. Snake pipe from side to side within the trench.
 - C. Fittings: The use of cross type fittings is not permitted.
4. Specialized Pipe and Fittings:
 - A. Copper Pipe:
 - i. Buff surfaces to be joined to a bright finish. Coat with solder flux.
 - ii. Solder so that a continuous bead shows around the joint circumference.
 - B. Pre-fabricated double swing joints: Install per manufacturer's recommendations.
 - C. PVC Threaded Connections:
 - i. Use only factory-formed threads. Field-cut threads are not permitted.
 - ii. Use only Teflon-type tape.
 - iii. When connection is plastic-to-metal, the plastic component shall have male threads and the metal component shall have female threads.
 - D. Make metal-to-metal, threaded connections with Teflon-type tape or pipe joint compound applied to the male threads only.

3.6 INSTALLATION OF MAINLINE COMPONENTS

1. Main System Shut Off Valve: Install where indicated on the drawings.
2. Winterization Assembly: Install where indicated on the drawings.
3. Backflow Prevention Assembly: Install where indicated on the drawings. Install assembly so that its elevation, orientation, access, and drainage conform to the manufacturer's recommendations and applicable health codes.
4. Master Valve Assembly: Install where indicated on the drawings.
5. Isolation Gate Valve Assembly:
 - A. Install where indicated on the drawings.
 - B. Locate at least 12-inches from and align with adjacent walls or edges of paved areas.
6. Quick Coupling Valve Assembly: Install where indicated on the drawings.
7. Combination Pressure Regulator/Wye-Strainer Assembly:
 - A. Install where indicated on the drawings.
 - B. Locate at least 12-inches from and align with adjacent walls or edges of paved areas.
 - C. Adjust to provide an output pressure of _____ with a range of _+.

3.7 INSTALLATION OF SPRINKLER IRRIGATION COMPONENTS

1. Remote Control Valve (RCV) Assembly for Sprinkler Laterals:
 - A. Flush mainline before installation of RCV assembly.
 - B. Install where indicated on the drawings. Wire connectors and waterproof sealant shall be used to connect control wires to remote control valve wires. Install connectors and sealant per the manufacturer's recommendations.
 - C. Install only one RCV to a valve box. Locate valve box at least 12-inches from and align with nearby walls or edges of paved areas. Group RCV assemblies together where practical. Arrange grouped valve boxes in rectangular patterns. Allow at least 12-inches between valve boxes.
 - D. Adjust RCV to regulate the downstream operating pressure.
 - E. Attach ID tag with controller station number to control wiring.
2. Sprinkler Assembly:
 - A. Flush lateral pipe before installing sprinkler assembly.
 - B. Install per the installation details at locations shown on the drawings.

- C. Locate rotary sprinklers 12-inches from adjacent walls, fences, or edges of paved areas.
- D. Locate spray sprinklers 3-inches from adjacent walls, fences, or edges of paved areas.
- E. Set sprinklers perpendicular to the finish grade.
- F. Supply appropriate nozzle or adjust arc of coverage of each sprinkler for best performance.
- G. Adjust the radius of throw of each sprinkler for best performance.

3.8 INSTALLATION OF DRIP IRRIGATION COMPONENTS

1. Remote Control Valve (RCV) Assembly for Drip Laterals:
 - A. Flush mainline pipe before installing RCV assembly.
 - B. Locate as shown on the drawings. Wire connectors and waterproof sealant shall be used to connect control wires to remote control valve wires. Connectors and sealant shall be installed as per the manufacturer's recommendations.
 - C. Install only one RCV to valve box. Locate at least 12-inches from and align with nearby walls or edges of paved areas. Group RCV assemblies together where practical.
 - D. Arrange grouped valve boxes in rectangular patterns. Set RCV assembly discharge pressure to 30 PSI.
2. Inline Drip Emitter Tubing:
 - A. Locate as shown on the drawings and installation details.
 - i. Flush lateral pipe before installing emitter tubing.
 - ii. Techline® CV shall be nominally sized to 17mm (½") low-density linear polyethylene tubing with recycled content qualifying for maximum LEED credits. Techline® CV shall be constructed with pressure compensation, continuously self-cleaning, integral emitters with an internal check valve. The exterior of the tubing shall be brown in color and conform to an outside diameter (O.D.) of 0.66 inches and an inside diameter (I.D.) of 0.56 inches.
 - iii. The dripline shall be utilized at 12" spacing between emitters unless otherwise specified.
 - iv. Individual pressure compensating emitters shall be welded to the inside wall of the tubing as an integral part of the manufacturing process. These emitters shall be constructed of a two (2) piece plastic emitter housing containing a continuously self-flushing molded silicone diaphragm.
 - a.) The emitter shall have a built-in check valve that will hold back a 4.6' column of water. The emitter shall be installed into the tubing so that the inlet to the emitter is toward the center of the tubing cross section.
 - b.) Each emitter shall have the ability to independently regulate discharge rates, with an inlet pressure range of 14.5 - 58 pounds per square inch (psi), at a constant flow and with a manufacturer's coefficient of variability (Cv) of 0.03 or less.
 - c.) The emitters shall be capable of continuously cleaning themselves while in operation.
 - d.) The emitter discharge rate shall be 0.6 gallons per hour (GPH) utilizing a combination of turbulent flow and reduced pressure compensation by molded silicone diaphragm.
 - e.) The emitter shall also have a built-in physical root barrier whereby the water shall exit the emitter from one location and shall exit the tubing from a second location. This physical barrier shall create an air gap inside the exit bath of the emitter.
 - v. For subsurface installation, Techline® CV pipe depth shall be 4"

- to 6".
- vi. Maximum system pressure shall be 50 psi for maximum fitting integrity. Filtration shall be 120 mesh or finer.
 - a.) Recommended operating pressure shall be between 14.5 - 50 psi.
 - b.) Bending radius shall not be smaller than 7" or tubing kinking may result.
 - c.) For below-surface or under mulch installations, 6" metal wire staples (TLS6) shall be installed 3' - 5' on center, (depending on soil type) and two staples shall be installed over every change-of-direction fitting.
 - 3. Flush Cap Assembly: Install at the end of each drip irrigation lateral pipe as shown on the installation details.

3.9 INSTALLATION OF CONTROL SYSTEM COMPONENTS

1. Irrigation Controller Unit:
 - A. The location of the controller unit as depicted on the drawings is approximate; the Owners' Representative will determine the exact site location upon commencement of contract during sprinkler layout review.
 - B. Lightning protection: Ground rods are to have a minimum diameter of 5/8" and a minimum length of 10 feet. These are to be driven into the ground in a vertical position or an oblique angle not to exceed 45 degrees at a location 10 feet from the electronic equipment, the ground plate, or the wires and cables connected to said equipment, as shown in the irrigation details. The rod is to be stamped with the UL logo. A 6 AWG solid bare copper wire (about 12 feet long) shall be connected to the ground rod by the installer using a Cadweld GR1161G "One-Shot" welding kit [Paige Electric part number 1820037.] This wire shall be connected to the electronic equipment ground lug as shown in the detail above.
 - C. Lightning Protection: A 25-foot continuous length (no splices allowed unless using exothermic welding process) of 6 AWG solid bare copper wire is to be attached to the plate by the manufacturer using an approved welding process. Install grounding plate to meet minimum requirements of Article 250-52 (d) of the 199 National Electric Code. Plate must be made of a copper alloy. Wire is to be connected to the electric equipment ground lug as shown in the detail of page 1. The ground plate is to be installed to a minimum depth of 30", or below the frost line if it is lower than 30", at a location 8 feet from the electronic equipment and underground wires and cables.

Two (2) 50-pound bags of PowerSet material must be spread so that it surrounds the copper plate evenly along its length within a 6" wide trench. Salts, fertilizers, bentonite clay, cement, coke, carbon, and other chemicals are not to be used to improve soil conductivity because these materials are corrosive and will cause the copper electrodes to erode and become less effective with time.
 - D. Lightning protection: Provide on all remote control valve wiring as recommended by the manufacturer. Provide other components such as ground rod, grounding wire, etc., to manufacturer's recommendations.
 - E. Install primary surge protection arrestors on incoming power lines.
 - F. Install one valve output surge protection arrestor on each control wire and one for the common wire.
 - G. Attach wire markers to the ends of control wires inside the controller unit housing. Label wires with the identification number (see drawings) of the remote control valve

- to which the control wire is connected.
- H. Install a 120-volt, 15 amp switched and grounded 3-prong receptacle with GFIC inside the controller unit housing.
- I. Connect control wires to the corresponding controller terminal.
- 2. Instrumentation:
 - A. Install sensors per the installation details and manufacturer's recommendations. Install at locations shown on the drawings.
 - B. Install electrical connections between irrigation controller and sensors per manufacturer's recommendations.
- 3. Control Wire:
 - A. Bundle control wires where two or more are in the same trench. Bundle with pipe wrapping tape spaced at 10-foot intervals.
 - B. Provide a 24-inch excess length of wire in an 8-inch diameter loop at each 90 degree change of direction, at both ends of sleeves, and at 100-foot intervals along continuous runs of wiring. Make wiring loop by turning control wire 5 turns around 1-inch pipe. Coil 24-inch length of wire within each remote control valve box.
 - C. Install common ground wire and one control wire for each remote control valve. Multiple valves on a single control wire are not permitted.
 - D. If a control wire must be spliced, make splice with wire connectors and waterproof sealant, installed per the manufacturer's instructions. Locate splice in a valve box which contains an irrigation valve assembly, or in a separate 6-inch round valve box.

Use same procedure for connection to valves as for in-line splices.
 - E. Unless noted on plans, install wire parallel with and under PVC mainline pipe. If wire is installed adjacent to section of metal pipe, separate wire from pipe minimum of 6-inches and install wire in PVC conduit.
 - F. Encase wire not installed with PVC mainline pipe in electrical conduit.

3.10 INSTALLATION OF OTHER COMPONENTS

1. Tools and Spare Parts:
 - A. Prior to the Pre-Maintenance Review, supply to the Owner operating keys, servicing tools, test equipment, and any other items indicated on the drawings.
 - B. Prior to Final Review, supply to the Owner the spare parts indicated in the General Notes on the drawings.
2. Other Materials: Install other materials or equipment shown on the drawings or installation details to be part of the irrigation system, even though such items may not have been referenced in these specifications.

3.11 PROJECT RECORD (AS-BUILT) DRAWINGS

1. Submit Record Drawings under provisions of Section 01700 - Contractor Closeout, Record Documents.
 - A. Maintain on-site and separate from documents used for construction, one complete set of contract documents as Project Documents. Keep documents current. Do not permanently cover work until as-built information is recorded.
2. Record pipe and wiring network alterations. Record work which is installed differently than shown on the construction drawings. Record accurate reference dimensions, measured from at least two permanent reference points, of each irrigation system valve, each backflow prevention device, each controller or control unit, each sleeve end, each stub-out for future pipe or wiring connections, and other irrigation components enclosed within a valve box.
3. Prior to Final Review, purchase from the Owners' Representative a reproducible mylar copy of the drawings. Using technical drafting pen, duplicate information contained on the project drawings maintained on site. Label each sheet "Record Drawing". Completion of the Record Drawings will be a prerequisite for the Final Review.

3.12 MAINTENANCE

1. Upon completion of Final Review, maintain irrigation system for a duration of 30 calendar days. Make periodic examinations and adjustments to irrigation system components so as to achieve the most desirable application of water.
2. Following completion of the Contractor's maintenance period, the Owner will be responsible for maintaining the system in working order during the remainder of the guarantee/warranty period, for performing necessary minor maintenance, for trimming around sprinklers, for protecting against vandalism, and for preventing damage during the landscape maintenance operation.

3.13 CLEAN-UP

1. Upon completion of work, remove from the site all machinery, tools, excess materials, and rubbish.

METHOD OF MEASUREMENT

The quantity of Irrigation to be paid for shall be lump sum (LS). Irrigation shall be in accordance with Section 623 of the CDOT Standard Specifications for Road and Bridge Construction 2022 – Irrigation System.

BASIS OF PAYMENT

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work.

Pay Item

930-00000 Irrigation System

Pay Unit

Lump Sum (LS)



SCHEDULE G – MEASUREMENT AND PAYMENT

Will be added after this page.

**MEASUREMENT AND PAYMENT
 TEJON STREET REVITALIZATION
 COLORADO SPRINGS, COLORADO**

SECTION IX – MEASUREMENT AND PAYMENT

The City of Colorado Springs Standard Specifications Manual controls construction of this project. The Measurement and Payment for all bid items shall be in accordance with this section and shall take precedence over the measurement and payment sections of the Standard Specifications or Revisions of Standard Specifications.

MEASUREMENT OF PAY QUANTITIES

- A. The Contractor shall make all measurements and determine all quantities and amounts of work done under the Contract subject to approval by the Engineer. At the time measurements are made for quantity determinations, the Engineer, or his authorized assistant, shall be present to verify such measurements. From quantity figures so ascertained, it will be the Contractor’s responsibility to prepare a monthly periodical estimate of the work accomplished to date. This estimate shall be submitted to the Engineer each month for his review and check no later than the date established at the pre-construction conference. The form of such monthly estimates is to be subject to the approval of the Engineer.
- B. No measurement will be made for:
 - 1. Work performed or materials placed outside of lines indicated in the plans or established by the Engineer.
 - 2. Materials wasted, used, or disposed of in a manner not called for under the contract.
 - 3. Materials on hand after completion of construction.
 - 4. Rejected materials (including material rejected after it has been placed, if the rejection is due to the Contractor’s failure to comply with the provisions of the contract).
 - 5. Hauling and disposing of rejected materials.
 - 6. Any other work or material when payment is contrary to any provision of the contract.
 - 7. All incidental costs necessary for proper performance of the work.

ESTIMATED QUANTITIES

The estimated quantities shown in the bid form are estimates only, being given only as the basis for comparison of the bids, and the City does not warrant, expressly or by implication, that the actual amount of work will correspond therewith. The right to increase or decrease the amount of any class or portion of the work or to make changes in the work required as may be deemed necessary is reserved by the City as provided elsewhere in these specifications. The basis of payment will be the actual unit bid items of work performed and measured in accordance with the contract unless noted otherwise in the plans or specifications. All prospective bidders should note that certain bid items may be included in the Bid Form to establish a unit price should the use of those items become necessary during construction. Allowance will not be made for loss of anticipated profits of additional compensation should the use of these items be deemed unnecessary.

ROUNDING

PAY UNIT	ROUNDING CRITERIA
ACRE (AC)	.X
CUBIC YARD (CONCRETE) (CY)	.X
CUBIC YARD (CY)	X.
DAY	X.
EACH (EA)	X.
GALLON	X.
HOUR (HR)	X.

LINEAR FOOT (LF)	X.
LUMP SUM (LS)	.X%
POUND (LB)	X.
SQUARE FOOT (SF)	X.
SQUARE YARD (SY)	X.
TON (TON)	.XX
LEGEND:	
X. – ROUND TO THE NEAREST WHOLE UNIT.	
.X – ROUND TO THE NEAREST TENTH OF A UNIT.	
.XX – ROUND TO THE NEAREST HUNDRETH OF A UNIT.	

If the excess digit directly to the right of the place to be rounded to is 4 or less, round down, otherwise round up. A representative of the Engineer (an inspector) may carry additional digits for individual measurements, but for interim payment these measurements shall be summed and then rounded. If the item is not measured and is equal to plan quantity, all interim measurements shall be rounded to the nearest whole unit. Items measured by the each may be paid by tenths for work that is partially complete as determined by the Engineer. Quantities shown in the plans and contract quantities have been rounded to the nearest whole unit.

PAYMENT FOR LUMP SUM ITEMS

Partial payments for lump sum items shall be made in accordance with the partial payment schedule established by these specifications for individual lump sum items. If no schedule is established, partial payments will be based on progress estimates prepared by the Engineer of the value of work performed or materials placed in accordance with Section 109 of the 2011 CDOT Standard Specifications for Road and Bridge Construction.

PAYMENT FOR MATERIAL ON HAND

Partial payments may be made on monthly estimates for materials not yet incorporated in the work ("stockpiled material" or "material on hand") if the materials:

- Meet the requirements of the Contract based upon inspections or testing by the Engineer.
- Are delivered to or stockpiled in the vicinity of the project or other storage site(s) specifically approved by the Engineer.
- Are properly stored, protected, and insured as to loss, damage, and title.

Material delivered to an off-site storage facility will be considered for partial payment only if:

- The storage site has been approved by the Engineer.
- The off-site storage of materials is required for more than thirty calendar days.
- The material is tagged, labeled, or otherwise identified as belonging to the project.
- The cost of transportation to and from the storage site is included in the unit cost of the item.

The cost of material on hand will be determined by written evidence supplied by the Contractor in sufficient detail as will permit the Engineer to determine the Contractor's actual cost of the materials. The Contractor shall furnish the Engineer with an invoice prior to the progress payment. Partial payments will not exceed 85% of the contract unit price for the item or 100% of the certified invoice cost for stockpiled material, whichever is less.

MEASUREMENT OF EROSION CONTROL ITEMS

The following shall apply to the measurement of all erosion control items, including item numbers that begin with 901 and 906; and any item used for the purpose of stormwater management under the supervision of the Contractor's Erosion Control Supervisor (ECS). Replacement of erosion control items in whole due to

age (natural degradation) or wear associated with proper use will be measured for payment. The following shall not be measured:

- Replacement due to improper installation or improper application
- Replacement due to damage caused by the Contractor including damage caused by construction traffic, subcontractors, and poor planning
- Replacement due to damage from foreseeable causes including proximity to public traffic
- Installation that is unnecessary for stormwater management

GENERAL PAYMENT

Payment will be made only for items listed in the bid form, items added through Change Order, or work authorized for payment through Force Account. All other work and material required for completion of the project shall be considered incidental.

Payment for all items shall be made at the unit price designated in the Contract for the item and shall include full compensation for: all labor, equipment, tools, and materials necessary to complete the work. The "Basis of Payment" sections included with these specifications for each Contract item contain a non-comprehensive list of work and materials that are included with payment for each item and shall take precedence over any conflicting bases of payment in referenced standard specifications in case of conflict.

ABBREVIATIONS AND DEFINITIONS

For the purpose of these Measurement and Payment Specifications, the following abbreviations and definitions apply:

"CDOT Standard Specifications" shall refer to the Standard Specifications for Road and Bridge Construction published by the Colorado Department of Transportation, year 2023 and 2024 including revisions related to the CDOT Standard Special Provisions referenced in the Technical Specifications.

"City Standard Specifications" shall refer to the General Provisions, Standard Specifications, and Standard Drawings issued by the Engineering Division of the City of Colorado Springs.

"Horizontal plane" refers to the two-dimensional plane defined by northing and easting but not elevation. Items that are measured along the horizontal plane are measured without regard to grade or changes in elevation. The horizontal plane is equivalent to plan view. Measurements along the horizontal plane may require surveying equipment to accurately verify. The cost of surveying by the Contractor to verify or dispute measured quantities shall be included in the work.

Example: An item is measured by the linear foot along the horizontal plane. A stick of the item was manufactured as 8.00 feet long. If the stick is placed exactly level it will be measured as 8.00 LF. If the same stick is placed at a 25% slope, it will be measured as $8.0 \cdot \cos [\text{atan}(0.25)] = 7.76$ LF, not considering rounding. As the slope of the stick increases, the length measured along the horizontal plane for payment decreases.

"Vertical plane" refers to the two-dimensional plane defined by elevation (plumb) and a line perpendicular to elevation and parallel to a horizontal alignment defined by the plans. Items that are measured along the vertical plane are measured without regard to non-vertical contributions to surface area such as a wall face that is sloped or deviations from the horizontal alignment such as decorative steps in the face of a wall at columns. The vertical plane is equivalent to profile view.

DESCRIPTION AND PAYMENT

Payment will be made only for those items listed in the bid schedule and bid form. All other items required for the work shall be considered incidental to the construction.

The Bid Items listed below include the Base Bid, Bid Alternate A, and Bid Alternate B design packages. See the Bid Schedule for specific allocation of the Bid Items listed in this Measurement and Payment section.

BID ITEM DESCRIPTIONS

Bid Item No. 100-00000: MOBILIZATION

(LS)

a. Material and Construction Requirements:

Mobilization shall be in accordance with Section 100 of the City of Colorado Springs Standard Specifications and Section 626 of the CDOT Standard Specifications and the Revision to CDOT Section 626.

b. Method of Measurement:

Mobilization shall be paid for by lump sum measurement and as accepted by the Engineer as complying with the plans and specifications.

Payment will be according to the following schedule:

When 10% of the original contract amount is earned, 50% of the amount bid for mobilization, or 5% of the original contract amount, whichever is less, will be paid.

When 50% of the original contract amount is earned, 100% of the amount bid for mobilization, or 10 percent of the original contract amount, whichever is less, will be paid.

Upon completion of all work on the project, payment on any amount bid for mobilization in excess of 10 percent of the original contract amount will be paid.

The total sum of all payments shall not exceed the original contract amount bid for the item, regardless of the fact that the Contractor may have, for any reason, shut down the work on the project or moved equipment away from the project and then back again.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to mobilize, prepare the project staging area, including stabilized construction access, temporary gravel access path and parking area, removal of facilities and gravel, cleaning up of site, establishment of sanitary facilities, installation of project construction signs, permitting, and all other costs incurred or labor and operations which must be performed prior to beginning the other items under the contract and effort to complete the work, provide adequate storage and security of on-site equipment and transportation of equipment in between each location.

Bid Item No. 108-00016: CONSTRUCTION SURVEYING AND STAKING

(LS)

a. Material and Construction Requirements:

Construction Staking shall be in accordance with Section 108 of the City of Colorado Springs Standard Specifications and/or Section 625 of CDOT Standard Specifications 2023. Reference Revision of Section 825 Construction Surveying for additional information on Construction Surveying.

b. Method of Measurement:

The quantity of Construction Staking to be paid for shall be lump sum.

c. Basis of Payment:

Payment for construction surveying will be the contract lump sum bid and will be full compensation for all surveying work necessary to complete the project as shown on the plans, to include all resetting of stakes, marks, monuments Secondary and Primary Control points, and preparing supplemental or amended Project Control Diagrams.

Before final payment is made, the following two items shall be completed, bear the seal and signature of the responsible PLS or PE, and have copies submitted to the Engineer for review:

- (1) All survey records
- (2) Supplemental or amended Project Control Diagram

Bid Item No. 202-00000: UNCLASSIFIED EXCAVATION (CY)

a. Material and Construction Requirements:

Unclassified Excavation shall meet the material and construction requirements of Section 200 of the City Standard Specifications and the Revision of COS Section 200.

b. Method of Measurement:

Unclassified Excavation to be paid for shall not be measured separately, but shall be the measured, in its final position after compaction, volume, in cubic yard based on the limits of disturbances lines shown on the construction drawings, and accepted by the Engineer as complying with the plans and specifications. If as-constructed quantities exceed estimated quantities by greater than 10%, Unclassified Excavation will be measured by the cubic yard, in its final position after compaction, as measured from an as-built survey and earthwork calculations prepared by the Contractor. The as-built survey and earthwork calculations shall show both pre-construction and post-construction topography. The calculations shall be stamped and signed by a registered Professional Engineer or Surveyor. The revised quantities shall be approved by the Engineer prior to payment. Topsoil removal, sediment removal and disposal, stockpile, and placement will not be measured and paid separately, but shall be considered incidental to the work.

Excavation required for construction of the Structural Cells (902-00003) shall be paid for under Unclassified Excavation. Refer to line item 902-00003 in Measurement and Payment for additional information on installation of the Structural Cells.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for unclassified excavation shall include trucking, sediment removal and disposal, handling, stockpiling, segregation, placing, compacting and any necessary water application, scarifying, proof rolling, or any other necessary operations to complete the work and establish finished grade per Section 202.

Bid Item No. 203-01597: POTHOLING (HOUR)

a. Material and Construction Requirements:

Potholing shall be in accordance with Section 200 of the City of Colorado Springs Standard Specifications and with the latest Public Works Department Policy Clarification – Keyhole Excavation Backfill Requirements documents.

b. Method of Measurement:

The quantity of Potholing to be paid for shall be determined by the number of hours for potholing to be completed and accepted by the Engineer as complying with the plans and specifications. Potholing shall be measured by the total number of hours that excavation equipment is used in the active pursuit and measurement of existing utilities. Time spent on related activities will not be measured for payment including transit to/from/around the site, removal and repair of pavement, temporary shoring, equipment maintenance, disposal of excavated material.

c. Basis of Payment:

Payment shall include full compensation for equipment rental, fuel, personnel, temporary traffic control, coordination with utility companies, utility locates, water, pavement repair, shoring, and appropriate material disposal.

Bid Item No. 205-00006: SUBGRADE SOIL PREPARATION (6-INCH) (SY)

a. Material and Construction Requirements:

Subgrade Soil Preparation (6-Inch) shall be in accordance with Section 205 of the City of Colorado Springs Standard Specifications.

b. Method of Measurement:

Subgrade Soil Preparation (6-Inch) to be paid for shall not be measured separately, but shall be the measured, in its final position after preparation (up to 6-inch depth), compaction, moisture conditioning, in square yard based on the limits shown on the construction drawings, and accepted by the Engineer. Scarification shall extend 6-inches below the existing gravel road base in preparation for asphalt/concrete paving operations.

b. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Subgrade Soil Preparation shall include trucking, handling, placing, compacting and any necessary water application, scarifying, proof rolling, or any other necessary operations to complete the work.

Bid Item No. 220-00001: REMOVAL OF PARKING METER (EA)

a. Material and Construction Requirements:

Removal of Parking Meter shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions, and with City of Colorado Springs Parking System Enterprise. The Contractor shall coordinate storage/salvage of the parking meters with the City of Colorado Springs Parking System Enterprise upon removal and with the City on-site representative before disposal or removal.

b. Method of Measurement:

Removal of Parking Meter to be paid for shall be determined by measurement of the number of Parking Meters actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00003: REMOVAL OF BENCH (EA)

a. Material and Construction Requirements:

Removal of Bench shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. The Contractor shall return the benches to the City of Colorado Springs Downtown Partnership or Business Improvement District (confirm with the on-site City representative) after removal.

b. Method of Measurement:

Removal of Bench to be paid for shall be determined by measurement of the number of benches actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work. Removal of Bench shall be coordinated with the City's Inspector on site as needed. Benches may be returned to the City as requested. The Contractor shall confirm this with the City and its representatives.

Bid Item No. 220-00004: REMOVAL OF LANDSCAPE PLANTER (EA)

a. Material and Construction Requirements:

Removal of Planter shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. Irrigation, concrete curb walls, and miscellaneous landscape features not identified in the contract shall be incidental to this line item within the limits of the planter bed area. Excess soil removed from the planter shall be salvaged and considered incidental to this line item and approved by the City of Colorado Springs before re-use in any earthwork operation.

b. Method of Measurement:

Removal of Planter to be paid for shall be determined by measurement of the number of planters actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00005: REMOVAL OF TREE (LESS THAN 6" DIA.)**(EA)**

a. Material and Construction Requirements:

Removal of Tree (Less Than 6" Dia.) shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions.

b. Method of Measurement:

Removal of Tree (Less Than 6" Dia.) to be paid for shall be determined by measurement of the number of trees actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00006: REMOVAL OF STORM INLET**(EA)**

a. Material and Construction Requirements:

Removal of Storm Inlet shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions and Stormwater Enterprise standard construction specifications.

b. Method of Measurement:

Removal of Storm Inlet to be paid for shall be determined by measurement of the number of storm inlets actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00007: REMOVAL OF BIKE RACK**(EA)**

a. Material and Construction Requirements:

Removal of Bike Rack shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions.

b. Method of Measurement:

Removal of Bike Rack to be paid for shall be determined by measurement of the number of bike racks actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00008: REMOVAL OF LANDSCAPING GRATE (EA)

a. Material and Construction Requirements:

Removal of Landscaping Grate shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. The landscaping grates shall be returned to the City of Colorado Springs Forestry Department (Dennis Will) after removal.

b. Method of Measurement:

Removal of Landscaping Grate to be paid for shall be determined by measurement of the number of landscaping grates actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00009: REMOVAL OF TRASH RECEPTACLE (EA)

a. Material and Construction Requirement:

Removal of Trash Receptacle shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. Disposal of the trash receptacles shall be coordinated with the City of Colorado Springs on-site representative.

b. Method of Measurement:

Removal of Trash Receptacle to be paid for will be determined by measurement of the number of trash receptacles removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for removal and all other items of work involved in construction of the relocation of the trash receptacles shall be considered incidental to the work.

Bid Item No. 220-00175: REMOVAL OF CONCRETE PAVEMENT (SY)

a. Material and Construction Requirements:

Removal of Concrete Pavement shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. The Geotechnical Report is included in the Bid Package for reference of existing

pavement conditions and thicknesses across the site. Note the Geotechnical Boring Log locations and the existing pavement composition. There is an existing layer of concrete beneath existing asphalt material in the roadway corridor.

b. Method of Measurement:

Removal of Concrete Pavement to be paid for shall be determined by measurement of the number of square yards of concrete material actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, sawing, drilling, and demolition of existing concrete pavements to the full depth of the pavement.

Bid Item No. 220-00200: REMOVAL OF SIDEWALK (SY)

a. Material and Construction Requirements:

Removal of Sidewalk shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions.

b. Method of Measurement:

Removal of Sidewalk to be paid for shall be determined by measurement of the number of square yards of sidewalk material actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, sawing, drilling, and demolition of existing sidewalk pavements.

Bid Item No. 220-00202: REMOVAL OF CURB AND GUTTER (LF)

a. Material and Construction Requirements:

Removal of Curb and Gutter shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions.

b. Method of Measurement:

Removal of Curb and Gutter to be paid for shall be determined by measurement of the number of linear feet of curb and gutter (flowline measurement) material actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, sawing, drilling, and demolition of existing curb and gutter.

Bid Item No. 220-00220: REMOVAL OF ASPHALT MAT (FULL DEPTH) (SY)

a. Material and Construction Requirements:

Removal of Asphalt Mat (Full Depth) shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. The Geotechnical Report is included in the Bid Package for reference. Pavement thicknesses and depth vary by location and concrete removal beneath asphalt shall be paid for by the Removal of Concrete line item 220-00175.

b. Method of Measurement:

Removal of Asphalt Mat (Full Depth) to be paid for shall be determined by measurement of the number of square yards of asphalt material actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, sawing, milling, drilling, and demolition of existing asphalt pavement. The Contractor shall reference the Geotechnical Report Boring Data and findings for additional information on existing asphalt pavements to be removed. Varying materials beneath the existing asphalt layer shall be considered incidental to the work.

Bid Item No. 220-00230: REMOVAL OF ASPHALT MAT (MILLING) (SY)

a. Material and Construction Requirements:

Removal of Asphalt Mat (Milling) shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. Contractor means and methods for removal of temporary asphalt shall be considered incidental to this work (planning of asphalt).

b. Method of Measurement:

Removal of Asphalt Mat to be paid for shall be determined by measurement of the number of square yards of asphalt material actually milled and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, sawing, milling, drilling, and demolition of existing asphalt pavements.

Bid Item No. 220-00250: REMOVAL OF PAVEMENT MARKING (SF)

a. Material and Construction Requirements:

Removal of Pavement Marking shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions.

b. Method of Measurement:

Removal of Pavement Marking to be paid for shall be determined by measurement of the number of square feet of pavement stripe/markings actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, and removal of existing pavement marking on asphalt or concrete pavements.

Bid Item No. 220-00479: RESET RADIO COMMUNICATION ANTENNA (EA)

a. Material and Construction Requirements:

Reset Radio Communication Antenna shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications and the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600 (2023 or 2024 as released). Upon removal of traffic signal equipment, the Contractor shall return the materials back to the City of Colorado Springs Traffic Department and coordinate with the City on-site representative.

b. Method of Measurement:

The quantity Reset Radio Communication Antenna to be paid for will be determined by measurement of the number of Radio Communication Antenna units actually removed, reinstalled, and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including excavation, backfill, placement, and raising or lowering to meet finished grade.

Bid Item No. 220-00480: RESET CSPD PTZ CAMERAS AND COMMUNICATION SYSTEM (EA)

a. Material and Construction Requirements:

Reset CSPD PTZ Cameras and Communication System shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications and the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600 (2023 or 2024 as released). Upon removal of traffic signal equipment, the Contractor shall return the materials back to the City of Colorado Springs Traffic Department and coordinate with the City on-site representative.

b. Method of Measurement:

The quantity Reset CSPD PTZ Cameras and Communication System to be paid for will be determined by measurement of the number of units actually removed, reinstalled, and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including excavation, backfill, placement, and raising or lowering to meet finished grade.

Bid Item No. 220-00810: REMOVAL OF SIGN POST AND PANEL (EA)

a. Material and Construction Requirements:

Removal of Sign Post and Panel shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. Materials removed shall be returned to the City of Colorado Springs Traffic and Public Works Departments. The Contractor shall coordinate with the on-site City representative.

b. Method of Measurement:

Removal of Sign Post and Panel to be paid for shall be determined by measurement of the number of Sign Posts and Panels actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00820: REMOVAL OF BOLLARD (FLEXIBLE) (EA)

a. Material and Construction Requirements:

Removal of Bollard (Flexible) shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. Upon removal of the traffic bollards, the Contractor shall coordinate with the City on-site representative for disposal or salvage.

b. Method of Measurement:

Removal of Bollard (Flexible) to be paid for shall be determined by measurement of the number of bollards actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-00828: REMOVAL OF TRAFFIC SIGNAL EQUIPMENT (LS)

a. Material and Construction Requirements:

Removal of Traffic Signal Equipment shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions, and Section 202 the CDOT Standard Specifications for Road and Bridge Construction. Upon removal of traffic signal equipment, the Contractor shall return the

materials back to the City of Colorado Springs Traffic Department and coordinate with the City on-site representative.

b. Method of Measurement:

Removal of Traffic Signal Equipment to be paid for shall not be measured, but be paid for by the lump sum. Removal of Traffic Signal Equipment pertains to the existing signal equipment which exists above ground surface level including but not limited to mast arms, signal poles, signal faces, street name signs, attached traffic signs, detection devices, luminaires, pedestrian poles, push buttons, controllers, controller cabinets, controller bases, pull boxes, and caisson removal (removal of the top portion of the caisson to a minimum depth of 12" below grade) pedestrian indication, etc. Removal of Traffic Signal Equipment shall be accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for hauling, excavation, removing, and subsequent backfill and as designated by the Engineer, this item shall also include the hauling of removed Traffic Signal Equipment from the site.

Bid Item No. 220-01001: REMOVAL OF RAILING

(LF)

a. Material and Construction Requirements:

Removal of Railing shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, with the Revision to Section 220 – Removal of Structures and Obstructions. Property owners shall be notified at the time of railing removal for salvage or disposal. The Contractor is responsible for coordinating all property owner communications.

b. Method of Measurement:

Removal of Railing to be paid for shall be determined by measurement of the number of linear feet of railing material actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, sawing, drilling, and removal of existing railing.

Bid Item No. 220-04000: REMOVAL OF STORM DRAIN (18-24 INCH)

(LF)

a. Material and Construction Requirements:

Removal of Storm Drain shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, and with the Revision to Section 220 – Removal of Structures and Obstructions. The Contractor shall be responsible for protection of all existing and operating utilities adjacent to storm drain removal per City of Colorado Springs Utilities Department and the Stormwater Enterprise.

b. Method of Measurement:

Removal of Storm Drain (18-24 Inch) to be paid for shall be determined by measurement of the number of linear feet of buried pipe actually removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-05000: ABANDON STORM DRAIN (10-18 INCH) (LF)

a. Material and Construction Requirements:

Abandon Storm Drain shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, and with the Revision to Section 220 – Removal of Structures and Obstructions. The Contractor shall be responsible for protection of all existing and operating utilities adjacent to storm drain abandonment per CSU Utilities and the Stormwater Enterprise.

b. Method of Measurement:

Abandon Storm Drain (10-18 Inch) to be paid for shall be determined by measurement of the number of linear feet of buried pipe actually abandoned and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 220-10000: REMOVAL OF WATERLINE (18-INCH) (LF)

a. Material and Construction Requirements:

Removal of Waterline (18-Inch) shall be in accordance with the City of Colorado Springs Standard Specifications and Colorado Springs Utilities (CSU) Water Line Extension and Service Standards (WATER LESS) requirements and specifications.

b. Method of Measurement:

Removal of Waterline (18-Inch) to be paid for will be determined by measurement of the length of waterline removed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, materials, offsite disposal, and all other items necessary to complete the work.

Bid Item No. 240-00050: ADJUST FIRE HYDRANT ASSEMBLY (COMPLETE IN PLACE) (EA)

a. Material and Construction Requirements:

Adjust Fire Hydrant Assembly shall be in accordance with Section 240 of the City of Colorado Springs Standard Specifications and with the Revision to Section 240 – Reset Structures and Colorado Springs Utilities (CSU) Water Line Extension and Service Standards (WATER LESS) requirements and specifications. Adjustment of existing fire hydrants shall be coordinated with the City of Colorado Springs Fire Department prior to construction.

b. Method of Measurement:

Adjust Fire Hydrant Assembly (Complete in Place) to be paid for will be determined by measurement of the number of fire hydrants reset and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for resetting fire hydrants includes excavation, lowering, moving, removing masonry or concrete, adding brickwork, resetting frames or rings and all other items of work involved in construction of the adjustment of a fire hydrant assembly.

Bid Item No. 240-00860: RESET LIGHT POLE (EA)

a. Material and Construction Requirements:

Reset Light Pole shall be in accordance with the City of Colorado Springs Standard Specifications and Colorado Springs Utilities requirements and specifications. Storage of the light poles shall be coordinated by the Contractor and confirmed by the City of Colorado Springs on-site representative. The City Traffic Department shall be contacted. Before re-install, the light poles shall be inspected and approved by the City of Colorado Springs and the Engineer. Reference the Technical Specifications for additional information on Light Pole installation and salvage. Removal of the existing foundation shall be considered incidental to Reset Light Pole.

b. Method of Measurement:

Reset Light Pole to be paid for will be determined by measurement of the number of light poles removed, sandblasted, repainted and reset and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for removal, sandblasting, repainting, concrete foundation and all reinforcement and all other items of work involved in construction of the relocation of the light pole.

Bid Item No. 240-04010: ADJUST STRUCTURE TO GRADE (EA)

a. Material and Construction Requirements:

Adjust Structure to Grade shall be in accordance with Section 240 of the City of Colorado Springs Standard Specifications and with the Revision to Section 240 – Reset Structures and Colorado Springs Utilities (CSU) requirements and specifications. Any structures discovered in the field not called out in the plans shall be coordinated with the Engineer and City of Colorado Springs before the Contractor may proceed with reset. Type of structure may vary.

b. Method of Measurement:

Adjust Structure to Grade to be paid for will be determined by measurement of the number of structures reset to grade and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for resetting structures includes excavation, lowering, moving, removing masonry or concrete, adding brickwork, resetting frames or rings and all other items of work involved in construction of the adjustment of a structure.

Bid Item No. 240-04011: ADJUST SANITARY SEWER MANHOLE (EA)

a. Material and Construction Requirements:

Adjust Sanitary Sewer Manhole shall be in accordance with Section 240 of the City of Colorado Springs Standard Specifications and with the Revision to Section 240 – Reset Structures and Colorado Springs Utilities (CSU) Wastewater Line Extension and Service Standards (WASTEWATER LESS) requirements and specifications.

b. Method of Measurement:

Adjust Sanitary Sewer Manhole to be paid for will be determined by measurement of the number of sanitary manholes reset and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for resetting manholes includes excavation, lowering, moving, removing masonry or concrete, adding brickwork, resetting frames or rings and all other items of work involved in construction of the adjustment of a manhole.

Bid Item No. 240-04050: ADJUST WATER VALVE BOX AND CURB STOP (EA)

a. Material and Construction Requirements:

Adjust Water Valve Box and Curb Stop shall be in accordance with Section 240 of the City of Colorado Springs Standard Specifications and with the Revision to Section 240 – Reset Structures and Colorado Springs Utilities (CSU) Water Line Extension and Service Standards (WATER LESS) requirements and specifications. The curb stop (as applicable) shall be paid for separately from reset water service. Curb stop reset shall be coordinated with adjacent property owners by the Contractor per CSU WATER LESS.

b. Method of Measurement:

Adjust Water Valve Box and Curb Stop to be paid for will be determined by measurement of the number of water valve boxes reset and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for resetting water valve boxes and curb stop includes excavation, lowering, moving, removing masonry or concrete, adding brickwork, resetting frames or rings and all other items of work involved in construction of the adjustment of a water valve box.

Bid Item No. 240-30000: RESET ARTWORK (EA)

a. Material and Construction Requirements

Reset Artwork shall be in accordance with Section 240 of the City of Colorado Springs Standard Specifications and with the Revision to Section 240 – Reset Structures. Storage of the statues/artwork shall be coordinated by the Contractor and confirmed by the City of Colorado Springs on-site representative. The statues shall be inspected and approved by the City of Colorado Springs and the Engineer when re-installed.

b. Method of Measurement:

Reset Artwork to be paid for will be determined by measurement of the number of artwork removed and reset and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for removal, concrete foundations, and all reinforcement and all other items of work involved in construction of the relocation of the statues shall be considered incidental to the work.

Bid Item No. 240-40000: RESET WATER SERVICE (EA)

a. Material and Construction Requirements:

Reset Water Service shall be in accordance with Section 240 of the City of Colorado Springs Standard Specifications and with the Revision to Section 240 – Reset Structures and Colorado Springs Utilities (CSU) Water Line Extension and Service Standards (WATER LESS) requirements and specifications. The Contractor shall coordinate all impacts to the water service with adjacent business owners per the Special Provisions in this contract.

b. Method of Measurement:

Reset Water Service to be paid for will be determined by measurement of the number of water services reset and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for resetting water service includes excavation, lowering, moving, removing masonry or concrete, resetting frames or rings and all other items of work involved in construction of the resetting of a water service.

Bid Item No. 240-30000: PROTECT TREE IN PLACE (EA)

a. Material and Construction Requirements:

Protect Tree In Place shall be in accordance with the City of Colorado Springs Standard Specifications. Protection of the existing trees at the intersection of Pikes Peak Ave. and Tejon Street shall be coordinated by the Contractor and confirmed by the City of Colorado Springs. Before commencement of adjacent construction activities, condition of the trees shall be inspected and approved by the City of Colorado Springs and the Engineer.

b. Method of Measurement:

Protect Tree In Place to be paid for will be determined by measurement of the number of trees protected and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for removal, concrete foundations, and all reinforcement and all other items of work involved in construction of the protection of the trees shall be considered incidental to the work.

Bid Item No. 304-06005: AGGREGATE BASE COURSE (CLASS 6) (CY)

a. Material and Construction Requirements:

Aggregate Base Course (Class 6) shall be in accordance with Section 300 of the City of Colorado Springs Standard Specifications and the Revision of COS Section 300.

b. Method of Measurement:

The quantity of Aggregate Base Course (Class 6) to be paid for will be determined by measurement of Cubic Yards of Aggregate Base Course (Class 6) installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all shipping, labor, equipment, tools, and materials necessary to complete the work.

Bid Item No. 400-60000: ASPHALT CONCRETE PAVEMENT (SX GRADING) (75) (PG 64-22) (TON)

a. Material and Construction Requirements:

Asphalt Concrete Pavement (SX Grading) (75) (PG 64-22) construction specifications shall be in accordance with Section 400 of the City of Colorado Springs Standard Specifications and Pikes Peak Regional Pavement Specifications.

b. Method of Measurement:

The quantity of Asphalt Concrete Pavement (SX Grading)(75)(PG 64-22) to be paid for will be determined by measurement of the number of tons of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, application of the tack coat, mixing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 400-70000: ASPHALT CONCRETE PAVEMENT (PATCHING)

a. Material and Construction Requirements:

Asphalt Concrete Pavement (Patching) construction specifications shall be in accordance with Section 400 of the City of Colorado Springs Standard Specifications and Pikes Peak Regional Pavement Specifications.

b. Method of Measurement:

The quantity of Asphalt Concrete Pavement (to be paid for will be determined by measurement of the number of tons of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, application of the tack coat, mixing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 410-00000: SLURRY SEAL COAT (SY)

a. Material and Construction Requirements:

Slurry Seal Coat construction specifications shall be in accordance with Section 400 of the City of Colorado Springs Standard Specifications, Pikes Peak Regional Pavement Specifications, and CDOT Standard Specifications Section 400.

b. Method of Measurement:

The quantity of Slurry Seal Coat to be paid for will be determined by measurement of the number of square yards of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 430-00800: CONCRETE PAVEMENT (9-INCH) (SY)

a. Material and Construction Requirements:

Concrete Pavement (9-Inch) construction specifications shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and Revision of Section 430 in the Technical Construction Specifications of this bid package.

b. Method of Measurement:

The quantity of Concrete Pavement to be paid for will be determined by measurement of the number of square yards of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 430-00801: CONCRETE PAVEMENT (SHADED GREY)(6-INCH) (SY)**a. Material and Construction Requirements:**

Concrete Pavement (Shaded Grey) (6-Inch) construction specifications shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and Revision of Section 430 in the Technical Construction Specifications of this bid package.

b. Method of Measurement:

The quantity of Concrete Pavement (Shaded Grey) (6-Inch) to be paid for will be determined by measurement of the number of square yards of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 430-00802: CONCRETE PAVEMENT (COLORED)(6-INCH) (SY)**a. Material and Construction Requirements:**

Concrete Pavement (Colored) (6-Inch) construction specifications shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and Revision of Section 430 in the Technical Construction Specifications of this bid package.

b. Method of Measurement:

The quantity of Concrete Pavement (Colored) (6-Inch) to be paid for will be determined by measurement of the number of square yards of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 430-00803: GRANITE PAVER (4-INCH) (SF)

a. Material and Construction Requirements:

Granite Paver (4-Inch) construction specifications shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and Revision of Section 430 in the Technical Construction Specifications of this bid package.

b. Method of Measurement:

The quantity of Granite Paver (4-Inch) to be paid for will be determined by measurement of the number of square feet of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 500-00500: CONCRETE CURB RAMP (COLORED)(6-INCH) (SY)

a. Material and Construction Requirements:

Concrete Curb Ramp (6-Inch)(Colored) construction specifications shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and Revision of Section 430 in the Technical Construction Specifications of this bid package.

b. Method of Measurement:

The quantity of Concrete Curb Ramp (6-Inch)(Colored) to be paid for will be determined by measurement of the number of square yards of material actually installed and accepted by the Engineer as complying with the plans and specifications.

b. Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 500-00501: CONCRETE CURB RAMP (6-INCH) (SY)

a. Material and Construction Requirements:

Concrete Curb Ramp (6-Inch) construction specifications shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and Revision of Section 430 in the Technical Construction Specifications of this bid package.

b. Method of Measurement:

The quantity of Concrete Curb Ramp (6-Inch) to be paid for will be determined by measurement of the number of square yards of material actually installed and accepted by the Engineer as complying with the plans and specifications.

b. Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 500-51000: CURB AND GUTTER TYPE 2 (LF)

a. Material and Construction Requirements:

Curb and Gutter Type 2 shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and the City of Colorado Springs Standard Construction Details 6A-6C for concrete curb and gutter.

b. Method of Measurement:

The quantity of Curb and Gutter Type 2 to be paid for will be determined by measurement of the number of linear feet of curb and gutter along the flowline actually installed and accepted by the Engineer as complying with the plans and specifications.

Transitions between types of curb and gutter shall be measured for payment for both types of curb and gutter. Each type shall be measured to the midway point of the transition.

Curb that is poured as part of a drainage structure, such as an inlet or curb opening, shall not be measured for payment and shall be included in the cost of the drainage structure.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including materials, curing/finishing, mixing/placing, excavation, off-site disposal of excess material, compaction, expansion joint material, and all other items of work involved in installation of this pay item.

Bid Item No. 500-52000: CURB AND GUTTER TYPE 2 (MODIFIED) (LF)

a. Material and Construction Requirements:

Curb and Gutter Type 2 (Modified) shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and the City of Colorado Springs Standard Construction Details 6A-6C for concrete curb and gutter. The modified curb and gutter is located adjacent to the bus stop frontage and heights will vary pending field conditions. The Contractor shall coordinate with the Engineer and City for acceptable tolerances and heights of the modified curb and gutter to ensure acceptable adjacent cross slopes on the asphalt surface.

b. Method of Measurement:

The quantity of Curb and Gutter Type 2 (Modified) to be paid for will be determined by measurement of the number of linear feet of curb and gutter along the flowline actually installed and accepted by the Engineer as complying with the plans and specifications.

Transitions between types of curb and gutter shall be measured for payment for both types of curb and gutter. Each type shall be measured to the midway point of the transition.

Curb that is poured as part of a drainage structure, such as an inlet or curb opening, shall not be measured for payment and shall be included in the cost of the drainage structure.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including materials, curing/finishing, mixing/placing, excavation, off-site disposal of excess material, compaction, and all other items of work involved in installation of this pay item.

Bid Item No. 500-51002: 12X8 INCH CURB WALL (LANDSCAPE) (LF)

a. Material and Construction Requirements:

12X8 Inch Curb Wall (Landscape) shall be in accordance with Section 500/600 of the City of Colorado Springs Standard Specifications.

This work consists of furnishing and constructing a curb retaining wall system at the locations and to the lines and grades shown on the plans. This work includes the structural concrete, reinforcing steel, excavation, and backfill or disposal of all material required for the construction of the curb wall.

Unless otherwise specified on the plans, curb wall backfill material shall conform to the requirements for Structure Backfill (Class 1). Concrete for the curb wall shall be Concrete (Class D). Reinforcing Steel for the curb wall shall be steel welded wire fabric and reinforcement rods sizes according to the plans and details.

Color: The Color of the concrete for this Curb Wall is to be integral color mixed thoroughly prior to pouring. Integral color samples are to be poured in a minimum 4' x 4' area to be approval prior to any final installation or application.

Colors to be included on the project and included within this section are:

Solomon / Brickform – LLAMA (PC-9001)

b. Method of Measurement:

The quantity of 12X8 Inch Curb Wall (Landscape) to be paid for will be determined by measurement of the number of linear feet of curb wall actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including materials, curing/finishing, mixing/placing, excavation, off-site disposal of excess material, compaction, reinforcement, and all other items of work involved in installation of this pay item.

Bid Item No. 500-51003: 12X12 INCH CURB WALL (LANDSCAPE) (LF)

a. Material and Construction Requirements:

12X12 Inch Curb Wall (Landscape) shall be in accordance with Section 500/600 of the City of Colorado Springs Standard Specifications.

This work consists of furnishing and constructing a curb retaining wall system at the locations and to the lines and grades shown on the plans. This work includes the structural concrete, reinforcing steel, excavation, and backfill or disposal of all material required for the construction of the curb wall.

Unless otherwise specified on the plans, curb wall backfill material shall conform to the requirements for Structure Backfill (Class 1). Concrete for the curb wall shall be Concrete (Class D). Reinforcing Steel for the curb wall shall be steel welded wire fabric and reinforcement rods sizes according to the plans and details.

Color: The Color of the concrete for this Curb Wall is to be integral color mixed thoroughly prior to pouring. Integral color samples are to be poured in a minimum 4' x 4' area to be approval prior to any final installation or application.

Colors to be included on the project and included within this section are:

Solomon / Brickform – LLAMA (PC-9001)

b. Method of Measurement:

The quantity of Landscape Curb Wall to be paid for will be determined by measurement of the linear feet of face of wall that is actually installed and accepted by the Engineer as complying with the plans and specifications.

Curb walls will be measured by the linear foot in place.

c. Basis of Payment:

Payment will be full compensation for all work and materials required to construct the curb wall. Structure excavation, structure backfill, structural concrete, reinforcing steel and any miscellaneous items required to construct the curb wall will not be measured and paid for separately but shall be included in the work.

Bid Item No. 500-59100: CHASE DRAIN WITH GRATE (2-FEET WIDE) (LF)

a. Material and Construction Requirements:

Chase Drain with Grate (2-Foot Wide) shall be in accordance with Section 500/600 of the City of Colorado Springs Standard Specifications. The steel grate shall be considered incidental to the work.

b. Method of Measurement:

The quantity of Chase Drain with Grate (2-Foot Wide) to be paid for will be determined by measurement of the number of linear feet of chase drain actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including materials, curing/finishing, mixing/placing, excavation, off-site disposal of excess material, compaction, and all other items of work involved in installation of this pay item.

Bid Item No. 500-99999: PRECAST CONCRETE CURB (CIP) (LF)

a. Material and Construction Requirements:

Precast Concrete Curb (CIP) shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and the City and County of Denver Bikeway Design Manual Volume 2 standard details and specifications.

b. Method of Measurement:

The quantity of Precast Concrete Curb (CIP) to be paid for will be determined by measurement of the number of linear feet of curb actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including materials, bolting operations, curing/finishing, storage and off-site disposal of excess material, compaction, expansion joint material, and all other items of work involved in installation of this pay item.

Bid Item No. 525-00000: BUS STOP CONCRETE PAD (8-INCH) (SY)

a. Material and Construction Requirements:

Bus Stop Concrete Pad (8-Inch) construction specifications shall be in accordance with Section 500 of the City of Colorado Springs Standard Specifications and with the *Bus Stop* Standard Details and General Notes from the City of Colorado Springs Public Works.

b. Method of Measurement:

The quantity of Bus Stop Concrete Pad (8-Inch) to be paid for will be determined by measurement of the number of square yards of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 630-01180: 18-INCH REINFORCED CONCRETE PIPE (LF)

a. Material and Construction Requirements:

18 Inch RCP shall be in accordance with Section 630 of the City of Colorado Springs Standard Specifications and the Colorado Springs Stormwater Enterprise Criteria.

b. Method of Measurement:

The quantity of 18-Inch Reinforced Concrete Pipe (RCP) to be paid for will be determined by measurement of the number of linear feet of 18 Inch RCP actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including gaskets, sealants, couplings, coatings and linings, bedding materials, excavation, trench backfill to finished surface or pavement subgrade, off-site disposal of excess material, coring of existing storm lines, tools, compaction, and all other items of work involved in installation of 18 Inch RCP.

Bid Item No. 636-01180: 18-INCH REINFORCED CONCRETE COLLAR (EA)

a. Material and Construction Requirements:

18-Inch Reinforced Concrete Collar shall be in accordance with City of Colorado Springs Standard Specifications Section 630 and the City of Colorado Springs Stormwater Enterprise Criteria.

b. Method of Measurement:

18-Inch Reinforced Concrete Collar to be paid for will be determined by measurement of the number of concrete collars installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for 18-Inch Reinforced Concrete Collar includes excavation, concrete work items, and all other items of work involved in the construction of the 18-Inch Reinforced Concrete Collar.

Bid Item No. 636-12050: INLET TYPE R (MODIFIED)(L=15)(W=3) (EA)

a. Material and Construction Requirements:

Inlet Type R shall be in accordance with City of Colorado Springs Standard Specifications Section 600, CDOT Standard Drawings M-604-12, Stormwater Enterprise, and City of Colorado Springs Standard Drawings/Details.

b. Method of Measurement:

Inlet Type R (Modified)(L=15)(W=3) to be paid for will be determined by measurement of the number of Type R Inlets installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Inlet Type R (Modified)(L=15)(W=3) includes excavation, concrete work items, and all other items of work involved in the construction of the stormwater inlet.

Bid Item No. 636-16010: DENVER TYPE 16 INLET (DOUBLE) (EA)

a. Material and Construction Requirements:

Denver Type 16 Inlet (Double) shall be in accordance with City of Colorado Springs Standard Specifications Section 600, Stormwater Enterprise, and City and County of Denver Stormwater Drainage Criteria/Standard Details.

b. Method of Measurement:

Denver Type 16 Inlet (Double) to be paid for will be determined by measurement of the number of Type 16 Inlets installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Denver Type 16 Inlet (Double) includes excavation, concrete work items, and all other items of work involved in the construction of the stormwater inlet.

Bid Item No. 636-32100: MANHOLE TYPE II H 10 (EA)

a. Material and Construction Requirements:

Storm Sewer Manholes shall be in accordance with City of Colorado Springs Standard Specifications Section 636 and City of Colorado Springs Standard Construction Detail Type 2 Manholes.

b. Method of Measurement:

Manhole Type II H 10 to be paid for will be determined by measurement of the number of manholes installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Manhole Type 2 H 10 includes excavation, concrete work items, and all other items of work involved in the construction of the structure.

Bid Item No. 636-50000: HYDRODYNAMIC SEPARATOR (EA)

a. Material and Construction Requirements:

Hydrodynamic Separators shall be installed in accordance with Standard Specifications, City of Colorado Springs Standard Specifications Section 636, manufacturer requirements, and Colorado Springs Stormwater Enterprise Criteria.

b. Method of Measurement:

Hydrodynamic Separator to be paid for will be determined by measurement of the number of Hydrodynamic Separators installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Hydrodynamic Separator includes excavation, concrete work items, and all other items of work involved in the construction of the structure.

Bid Item No. 710-18000: 18-INCH WATERLINE (DUCTILE IRON PIPE)**(LF)**

a. Material and Construction Requirements:

18-Inch Waterline (Ductile Iron Pipe) shall be installed in accordance with the Colorado Springs Utilities (WATER LESS) standard construction specifications and standard details. The installation of this waterline includes the inclusion of a copper wire tracer to be included with all piping in accordance with Colorado Springs Utilities (CSU) Water Line Extension and Service Standards (WATER LESS) requirements and specifications.

b. Method of Measurement:

The quantity of 18-Inch Waterline (Ductile Iron Pipe) to be paid for will be determined by measurement of the number of linear feet of pipe actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including gaskets, sealants, couplings, coatings and linings, bedding materials, excavation, trench backfill to finished surface or pavement subgrade, off-site disposal of excess material, coring of existing water lines, tools, compaction, and all other items of work involved in installation of 18-Inch Waterline. The payment of this item includes the inclusion of a copper wire tracer to be included with all piping in accordance with Colorado Springs Utilities (CSU) Water Line Extension and Service Standards (WATER LESS) requirements and specifications.

Bid Item No. 721-18000: CONNECT TO EX. WATERLINE (18-INCH)**(EA)**

a. Material and Construction Requirements:

Connect to Existing Waterline shall be in accordance with Colorado Springs Utilities construction specifications (WATER LESS) and Section 240 of the City of Colorado Springs Standard Specifications and with the Revision to Section 240 – Reset Structures. The Contractor shall be responsible for coordination with adjacent property owners and stakeholders during water construction operations under direction of the CSU Water Utility Group.

b. Method of Measurement:

Connect to Existing Waterline (18-Inch) to be paid for will be determined by measurement of the number of waterline connections established and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for resetting waterline connections includes excavation, lowering, moving, removing masonry or concrete, resetting frames or rings and all other items of work involved in construction of the connection of a proposed waterline to an existing waterline.

Bid Item No. 731-18000: 18-INCH BUTTERFLY VALVE**(EA)**

a. Material and Construction Requirements:

18-Inch Butterfly Valve shall be in accordance with Colorado Springs Utilities (CSU) Water Line Extension and Service Standards (WATER LESS) requirements, details, and specifications.

b. Method of Measurement:

18-Inch Butterfly Valve to be paid for will be determined by measurement of the number of valves installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for 18-Inch Butterfly Valve includes excavation, adding brickwork, thrust blocks, valve box assembly and all other items of work involved in the construction of the 18-Inch Butterfly Valve.

Bid Item No. 813-00200: 2 INCH ELECTRICAL CONDUIT (LIGHTING) (LF)

a. Material and Construction Requirements:

2 Inch Electrical Conduit (Lighting) shall be in accordance with the Material and Construction Requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications Section 6, CSU Electric Standards, and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of 2 Inch Electrical Conduit (Lighting) to be paid for will be determined by measurement of the number of linear feet of 2 Inch Electrical Conduit (Lighting) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including cutting, excavation, backfill, compacting, trenching, pull tape, and placement.

Bid Item No. 813-00201: 2 INCH ELECTRICAL CONDUIT (TRAFFIC)(TRENCHED) (LF)

a. Material and Construction Requirements:

2 Inch Electrical Conduit shall be in accordance with the Material and Construction Requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications Section 6 and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of 2 Inch Electrical Conduit to be paid for will be determined by measurement of the number of linear feet of 2 Inch Electrical Conduit actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including cutting, excavation, backfill, compacting, trenching, pull tape, and placement.

Bid Item No. 813-00206: 2 INCH ELECTRICAL CONDUIT (TRAFFIC)(BORED) (LF)

a. Material and Construction Requirements:

2 Inch Electrical Conduit (Bored) shall be in accordance with the Material and Construction Requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications Section 6 and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of 2 Inch Electrical Conduit (Bored) to be paid for will be determined by measurement of the number of linear feet of 2 Inch Electrical Conduit (Bored) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including cutting, excavation, backfill, compacting, trenching, pull tape, and placement.

Bid Item No. 813-00301: 3 INCH ELECTRICAL CONDUIT (TRAFFIC)(TRENCHED) (LF)

a. Material and Construction Requirements:

3 Inch Electrical Conduit shall be in accordance with the Material and Construction Requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications Section 6 and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of 3 Inch Electrical Conduit to be paid for will be determined by measurement of the number of linear feet of 3 Inch Electrical Conduit actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including cutting, excavation, backfill, compacting, trenching, pull tape, and placement.

Bid Item No. 813-00306: 3 INCH ELECTRICAL CONDUIT (TRAFFIC)(BORED) (LF)

a. Material and Construction Requirements:

3 Inch Electrical Conduit (Bored) shall be in accordance with the Material and Construction Requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications Section 6 and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of 3 Inch Electrical Conduit (Bored) to be paid for will be determined by measurement of the number of linear feet of 3 Inch Electrical Conduit (Bored) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including cutting, excavation, backfill, compacting, trenching, pull tape, and placement.

Bid Item No. 813-07035: PULL BOX (17"X30"X18")(INSTALL ONLY) (EA)

a. Material and Construction Requirements:

Pull Box (17"X30"X18")(Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications.

b. Method of Measurement:

The quantity Pull Box (17"X30"X18")(Install Only) to be paid for will be determined by measurement of the number of Pull Box (17"X30"X18")(Install Only) units actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including excavation, backfill, placement, and raising or lowering to meet finished grade.

Bid Item No. 813-07040: PULL BOX (24"X36"X18")(INSTALL ONLY) (EA)

a. Material and Construction Requirements:

Pull Box (24"X36"X18")(Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications.

b. Method of Measurement:

The quantity Pull Box (24"X36"X18")(Install Only) to be paid for will be determined by measurement of the number of Pull Box (24"X36"X18")(Install Only) units actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including excavation, backfill, placement, and raising or lowering to meet finished grade.

Bid Item No. 813-11000: WIRING (TRAFFIC) (LS)

a. Material and Construction Requirements:

Wiring (Traffic) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications.

b. Method of Measurement:

The quantity of Wiring shall be lump sum and not measured.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for: all materials including wire, connecting wire to signal equipment, running wire through conduit, and all other materials and work necessary to make a traffic signal and all appurtenances (Detection cameras, push buttons, luminaires, signal faces, etc.) electrically complete and operational. Wiring between the electric meter and the cabinet shall be paid separately under item Power Feed.

Bid Item No. 813-11001: WIRING (LIGHTING)

(LS)

a. Material and Construction Requirements:

Wiring (Lighting) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CSU Electric Standard Specifications and Construction Details.

b. Method of Measurement:

The quantity of Wiring shall be lump sum and not measured.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for: all materials including wire, connecting wire to signal equipment, running wire through conduit, and all other materials and work necessary to make a light pole electrically complete and operational. The wiring shall tie into an existing transformer (location to be confirmed by CSU Electric).

Bid Item No. 814-00000: SIGN PANEL

(SF)

a. Material and Construction Requirements:

Sign Panel (Class I) shall be in accordance with the Material and Construction Requirements of the City of Colorado Springs Traffic Engineering Signage & Pavement Markings Guidelines and CDOT Standard Specifications for Road and Bridge Construction Section 600. Sign Panel Materials shall conform to the CDOT Standard Specifications for Road and Bridge Construction Section 713.

b. Method of Measurement:

The quantity of Sign Panel (Class I) to be paid for will be determined by measurement of the number of square feet of Sign Panel actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work.

Bid Item No. 814-00040: SIGN PANEL (SPECIAL)

(EA)

a. Material and Construction Requirements:

Sign Panel (Special) shall be in accordance with the CDOT Standard Specifications for Road and Bridge Construction Section 600. Sign Panel Materials shall conform to the CDOT Standard Specifications for Road and Bridge Construction Section 713.

b. Method of Measurement:

Sign Panel (Special) shall serve to specify the mast arm mounted Street Name Sign. The quantity of Sign Panel (Special) to be paid for will be determined by measurement of the number of street name Sign Panels actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work.

Bid Item No. 814-03018: DRILLED CAISSON (18 INCH)

(LF)

a. Material and Construction Requirements:

Drilled Caisson (18 Inch) shall be in accordance with the Material and Construction Requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications Section 6 and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Drilled Caisson (18 Inch) to be paid for will be determined by measurement of the number of linear feet Drilled Caisson (18 Inch) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including excavation, backfill, compacting, trenching, and placement.

Bid Item No. 814-03042: DRILLED CAISSON (42 INCH)

(LF)

a. Material and Construction Requirements:

Drilled Caisson (42 Inch) shall be in accordance with the Material and Construction Requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications Section 6 and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Drilled Caisson (42 Inch) to be paid for will be determined by measurement of the number of linear feet Drilled Caisson (42 Inch) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work including excavation, backfill, compacting, trenching, and placement.

Bid Item No. 814-20240: STEEL SIGN SUPPORT (2-INCH ROUND)(POST & SOCKET) (EA)

a. Material and Construction Requirements:

Steel Sign Support (2-Inch Round)(Post & Socket) shall be in accordance with the CDOT Standard Specifications for Road and Bridge Construction Section 600 and Section 713 (Materials).

b. Method of Measurement:

Steel Sign Support (2-Inch Round)(Post & Socket) to be paid for will be determined by measurement of the number of steel sign supports actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work.

Bid Item No. 814-70336: TRAFFIC SIGNAL FACE (12-12-12)(INSTALL ONLY) (EA)

a. Material and Construction Requirements:

Traffic Signal Faces (12-12-12)(Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Traffic Signal Face (12-12-12)(Install Only) to be paid for will be determined by measurement of the number of Traffic Signal Faces actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all work, and miscellaneous materials needed to erect, attach, and make functional a single traffic signal face including the traffic signal face itself.

Bid Item No. 814-72887: VEHICLE DETECTION SYSTEM (CAMERA)(INSTALL ONLY) (EA)

a. Material and Construction Requirements:

Vehicle Detection System (Camera) (Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Vehicle Detection System (Camera) (Install Only) to be paid for will be determined by measurement of the number of Radar Detectors actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all work, and miscellaneous materials needed to erect, attach, mount, and make functional a single Vehicle Detection Detector.

Bid Item No. 814-72890: ELECTRIC SERVICE PEDESTAL (TRAFFIC) (INSTALL ONLY) (EA)

a. Material and Construction Requirements:

Electric Service Pedestals (Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications.

b. Method of Measurement:

The quantity Electric Service Pedestals (Traffic) (Install Only) to be paid for will be determined by measurement of the number of Electric Service Pedestals actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation to complete the work including materials, tools, excavation, backfill, placement, and all other items of work involved in installation of Meter Power Pedestals.

Bid Item No. 814-72893: POWER FEED WIRE (GREATER THAN 4AWG) (LF)

a. Material and Construction Requirements:

Power Feed Wire shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Power Feed Wire to be paid for will be determined by measurement of linear feet of Power Source Wire actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for: feed wire, cutting, pulling through conduit, connecting, coordination with CSU, and all other work required to supply electricity to a signal controller.

Bid Item No. 814-75215: PEDESTRIAN SIGNAL FACE (16 LED COUNTDOWN)(INSTALL ONLY) (EA)

a. Material and Construction Requirements:

Pedestrian Signal Faces (16 LED Countdown) (Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Pedestrian Signal Faces (16 LED Countdown) (Install Only) to be paid for will be determined by measurement of the number of Pedestrian Signal Faces actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all work, and miscellaneous materials needed to erect, attach, and make functional a single pedestrian signal face including the pedestrian signal face itself.

Bid Item No. 814-75847: TRAFFIC SIGNAL CONTROLLER CABINET & CONTROLLER (INSTALL)(EA)

a. Material and Construction Requirements:

Traffic Signal Controller Cabinet & Controller (Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Traffic Signal Controller Cabinet & Controller (Install Only) to be paid for will be determined by measurement of the number of Traffic Signal Controller Cabinets and Controller actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all work, and miscellaneous materials needed to excavate, place, make a functional traffic signal controller cabinet.

Bid Item No. 814-80009: TRAFFIC SIGNAL LUMINAIRE (INSTALL ONLY) (EA)

a. Material and Construction Requirements:

Traffic Signal Luminaires (Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity Traffic Signal Luminaire (Install Only) to be paid for will be determined by measurement of the number of Luminaire Arms & Heads actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to erect, attach and make functional a single traffic signal luminaire.

Bid Item No. 814-81234: TRAFFIC SIGNAL-LIGHT POLE (2-25&60 FOOT MAST ARM)(INSTALL)(EA)

a. Material and Construction Requirements:

Traffic Signal-Light Pole (2-25&60 Foot Mast Arm) (Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Traffic Signal-Light Pole (2-25&60 Foot Mast Arm) (Install Only) to be paid for will be determined by measurement of the number of Traffic Signal-Light Pole (2-25&60 Foot Mast Arm) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all work, and miscellaneous materials needed to excavate, place, erect, attach, mount, and make functional a single Traffic Signal-Light Pole (2-25&60 Foot Mast Arm).

Bid Item No. 814-84453: TRAFFIC SIGNAL PEDESTAL POLE ALUMINUM (12 FOOT)(INSTALL)(EA)

a. Material and Construction Requirements:

Traffic Signal Pedestal Pole Aluminum (12 foot) (Install Only) shall be in accordance with the construction requirements of the Colorado Springs City Traffic Signal Installation & Parts Specifications and CDOT Standard Specifications for Road and Bridge Construction Section 600.

b. Method of Measurement:

The quantity of Traffic Signal Pedestal Pole Aluminum (12 foot) (Install Only) to be paid for will be determined by measurement of the number of 12 foot aluminum Traffic Signal Pedestal Poles actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all work, and miscellaneous materials needed to excavate, place, erect, attach, mount, and make functional a single Traffic Signal Pedestal Pole Aluminum (12 foot).

Bid Item No. 827-32000: EPOXY PAVEMENT MARKING (GAL)

a. Material and Construction Requirements:

Epoxy Pavement Marking shall be in accordance with Section 800 of the City of Colorado Springs Standard Specifications.

b. Method of Measurement:

The quantity of Epoxy Pavement Marking to be paid for will be determined by measurement of the number of gallons of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of

these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 827-32001: THERMOPLASTIC PAVEMENT MARKING (SF)

a. Material and Construction Requirements:

Pavement marking construction specifications shall be in accordance with Section 800 of the City of Colorado Springs Standard Specifications. For Green bike lane marking, the Contractor shall reference the Bikeway Design Manual from the City and County of Denver per the plans and specifications for payment, layout, and installation. This material shall be thermoplastic.

b. Method of Measurement:

The quantity of Thermoplastic Pavement Marking to be paid for will be determined by measurement of the number of square feet of material actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, curing, finishing, placing, and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

Bid Item No. 830-10000: CONSTRUCTION TRAFFIC CONTROL (LS)

a. Material and Construction Requirements:

Traffic Control shall be in accordance with Section 800 of the City of Colorado Springs Standard Specifications, and with the Revision to Section 800 – Work Zone Traffic Control.

b. Method of Measurement:

The quantity of Traffic Control to be paid for shall be lump sum.

c. Method of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Traffic Control shall be made at the unit price to include detour pavement placement and removal, advanced signs, VMS, construction area signs, contractor preparation, submittal, revision, and execution of traffic control plans and all other items of work involved in work zone traffic control.

Bid Item No. 901-00001: ROCK SOCK (LF)

a. Material and Construction Requirements:

Rock Socks shall be in accordance with the City of Colorado Springs Drainage Criteria Manual and the Colorado Springs Stormwater Enterprise Stormwater Construction Manual.

b. Method of Measurement:

Rock Sock to be paid for shall be determined by measurement of the number of linear feet of Rock Socks actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and removal of erosion control measures at the direction of the Engineer.

Bid Item No. 901-00002: EROSION LOG

(LF)

a. Material and Construction Requirements:

Erosion Logs shall be in accordance with the City of Colorado Springs Drainage Criteria Manual and the Colorado Springs Stormwater Enterprise Stormwater Construction Manual.

b. Method of Measurement:

Erosion Log to be paid for shall be determined by measurement of the number of linear feet of Erosion Log actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and removal of erosion control measures at the direction of the Engineer.

Bid Item No. 901-00003: CONCRETE WASHOUT STRUCTURE

(EA)

a. Material and Construction Requirements:

Concrete Washout Structure shall be in accordance with the City of Colorado Springs Drainage Criteria Manual and the Colorado Springs Stormwater Enterprise Stormwater Construction Manual.

b. Method of Measurement:

Concrete Washout Structure to be paid for shall be determined by measurement of the number of individual concrete washout structures actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and removal of erosion control measures at the direction of the Engineer.

Bid Item No. 901-00004: STORM DRAIN INLET PROTECTION

(EA)

a. Material and Construction Requirements:

Storm Drain Inlet Protection shall be in accordance with the City of Colorado Springs Drainage Criteria Manual and the Colorado Springs Stormwater Enterprise Stormwater Construction Manual.

b. Method of Measurement:

Storm Drain Inlet Protection to be paid for shall be determined by measurement of the number of individual storm drain inlet protections actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and removal of erosion control measures at the direction of the Engineer.

Bid Item No. 901-00005: SWEEPING (SEDIMENT REMOVAL) (HOUR)

a. Material and Construction Requirements:

Street Sweeping shall be in accordance with the Colorado Springs Stormwater Enterprise Stormwater Construction Manual.

b. Method of Measurement:

The quantity of Sweeping (Sediment Removal) to be paid for shall be determined by the number of hours for street sweeping to be completed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit bid price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work.

Bid Item No. 901-00006: VEHICLE TRACKING PAD (EA)

a. Material and Construction Requirements:

Vehicle Tracking Pad shall be in accordance with the City of Colorado Springs Drainage Criteria Manual and the Colorado Springs Stormwater Enterprise Stormwater Construction Manual.

b. Method of Measurement:

Vehicle Tracking Pad to be paid for shall be determined by measurement of the number of individual vehicle tracking pads actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and removal of erosion control measures at the direction of the Engineer.

Bid Item No. 902-00000: BENCH (6-FOOT)(ARM REST) (INSTALL ONLY) (EA)

a. Material and Construction Requirement:

Bench (6-Foot)(Arm Rest)(Install Only) shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 902 Site Furnishings in the Technical Construction Specifications in this Bid Package.

b. Method of Measurement:

The quantity Bench (6-Foot)(Arm Rest)(Install Only) to be paid for will be determined by measurement of the number of Benches actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to erect and attach a single bench.

Bid Item No. 902-00001: BIKE RACK

(EA)

a. Material and Construction Requirements:

Bike Rack installation shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 902 Site Furnishings in the Technical Construction Specifications in this Bid Package.

b. Method of Measurement:

The quantity of Bike Rack to be paid for will be determined by measurement of the number of Bike Racks actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to erect and attach a single bike rack.

Bid Item No. 902-00002: SINGLE UNIT TRASH CAN

(EA)

a. Material and Construction Requirements:

Single Unit Trash Cans shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 902 Site Furnishings in the Technical Construction Specifications in this Bid Package.

b. Method of Measurement:

The quantity of Single Unit Trash can to be paid for will be determined by measurement of the number of trash cans actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to erect and attach a single trash can.

Bid Item No. 902-00003: STRUCTURAL CELLS**(CF)**

a. Material and Construction Requirements:

Structural Cells shall be installed per Revision of Section 902 Structural Soil Cell Suspended Pavement System in the Technical Construction Specifications. Earthwork required for the installation of the Structural Cells shall be paid for under Unclassified Excavation 202-00000.

b. Method of Measurement:

The quantity of Structural Cells to be paid for will be determined by measurement of the volume of Structural Cells (cubic feet) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, bedding, root barriers, filter fabric, equipment, tools, fill soil, and materials necessary to furnish and install Structural Cell fields.

Bid Item No. 902-00004: PERENNIALS**(EA)**

a. Material and Construction Requirements

Perennials shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 900 Planting in the Technical Construction Specifications in this Bid Package.

b. Method of Measurement:

The quantity of Perennials to be paid for will be determined by measurement of the number of Perennials actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to furnish and plant a single Perennial.

Bid Item No. 902-00005: PLANTER SOIL MIX**(CY)**

a. Material and Construction Requirements:

Planter Soil Mix shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 900 Planting in the Technical Construction Specifications in this Bid Package..

b. Method of Measurement:

The quantity of Planter Soil Mix to be paid for will be determined by measurement of the volume of Planter Soil Mix (Cubic Yard) actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, excavation, equipment, tools necessary to furnish and install Planter Soil Mix.

Bid Item No. 902-00006: SHRUBS (5 GALLON CONTAINER) (EA)

a. Material and Construction Requirements:

Shrubs shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 900 Planting in the Technical Construction Specifications in this Bid Package.

b. Method of Measurement:

The quantity of Shrubs (5 Gallon Container) to be paid for will be determined by measurement of the number of Shrubs actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to furnish and plant a single Shrub.

Bid Item No. 902-00007: ORNAMENTAL GRASSES (1 GALLON CONTAINER) (EA)

a. Material and Construction Requirements:

Grasses shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 900 Planting in the Technical Construction Specifications in this Bid Package.

b. Method of Measurement:

The quantity of Ornamental Grasses (1 Gallon Container) to be paid for will be determined by measurement of the number of Grasses actually installed and accepted by the Engineer as complying with the plans and specifications.

a. Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to furnish and plant a single Ornamental Grass.

Bid Item No. 902-00008: KIOSK (PARKING) (EA)

a. Material and Construction Requirements:

The type and manufacturer of the Kiosk shall be Approved by the City of Colorado Springs Parking Enterprise. The foundation, embedment, and installation shall be considered incidental to this line item. Reference the Construction Plans for the exact location of the Kiosks.

b. Method of Measurement:

The quantity Kiosk (Parking) to be paid for will be determined by measurement of the number of Kiosks actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to furnish and install a single Kiosk.

Bid Item No. 902-00009: DECORATIVE STEEL RAILING (LF)

a. Material and Construction Requirements:

Decorative Steel Railing shall be in accordance with the Colorado Springs Landscape Code and Policy Manual.

b. Method of Measurement:

The quantity Decorative Steel Railing to be paid for will be determined by measurement of the number of linear feet of Decorative Steel Railing actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to furnish and install steel railing.

Bid Item No. 920-00000: BOLLARD (EA)

a. Material and Construction Requirements:

Bollards shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Revision of Section 902 Site Furnishings in the Technical Construction Specifications.

b. Method of Measurement:

The quantity of Bollard to be paid for will be determined by measurement of the number of Bollards actually installed and accepted by the Engineer as complying with the plans and specifications.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to erect and attach a single bollard.

Bid Item No. 930-00000: IRRIGATION (LS)

a. Materials and Construction Requirements:

Irrigation shall be in accordance with the Colorado Springs Landscape Code and Policy Manual and Addition of Section 930 Landscape Irrigation in this bid package.

b. Method of Measurement:

The quantity of Irrigation to be paid for will be determined by measurement of the Irrigation System to actually be installed and accepted by the Engineer as complying with the plans and specifications and shall be paid for as a Lump Sum bid item.

c. Basis of Payment:

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, parts, excavation, equipment, and tools necessary to furnish and install the Irrigation system.

Bid Item No. 990-70010: F/A MINOR CONTRACT REVISIONS**(FA)****a. Material and Construction Requirements:**

For work items required by the project and not identified as incidental to the work, a minor contract revision (MCR) may be initiated by and at the sole discretion of the Engineer. The intent of the F/A Minor Contract Revisions is to provide a mechanism for payment for minor work required to complete the project not identified elsewhere in the contract documents. If not deemed minor by the Engineer, the contractor may be required to prepare a formal change order through the City process identified in the contract documents. Contractor may not submit minor contract revisions without prior approval of the Engineer. The minor contract revision shall be completed and signed by the contractor and Engineer prior to the start of the added or changed work. The Engineer is responsible for approving all change orders.

b. Method of Measurement:

F/A Minor Contract Revisions (MCR) is a force account line item.

c. Basis of Payment:

Payment for M/A Minor Contract Revisions shall be in accordance with Section 109 of the CDOT Standard Specifications and Payment will be made for minor contract revisions at the agreed upon price for the work completed and shall include full compensation for all labor, equipment, tools, materials, and warranty necessary to complete the work.



SCHEDULE H – GRADING & EROSION PLAN

Will be added after this page.

Schedule H-Grading & Erosion Plan

COLORADO SPRINGS EROSION CONTROL GENERAL NOTES:

- NO CLEARING, GRADING, EXCAVATION, OR OTHER LAND DISTURBING ACTIVITIES SHALL BE ALLOWED (EXCEPT FOR WORK DIRECTLY RELATED TO THE INSTALLATION OF INITIAL CONTROL MEASURES) UNTIL A CITY GEC PERMIT HAS BEEN ISSUED.
- ALL LAND DISTURBING ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH AND THE APPROVED GEC PLAN AND CSWMP.
- INITIAL CONTROL MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES TAKING PLACE. AN INITIAL SITE INSPECTION WILL NOT BE SCHEDULED UNTIL A CITY GEC PERMIT HAS BEEN "CONDITIONALLY APPROVED." CALL CITY STORMWATER INSPECTIONS, 385-5980, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE AN INITIAL INSPECTION AND OBTAIN FULL PERMIT APPROVAL.
- INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT" (33 USC 1344), INCLUDING REGULATIONS PROMULGATED AND CERTIFICATIONS OR PERMITS ISSUED, IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE CITY'S MS4 PERMIT, STORMWATER CONSTRUCTION MANUAL. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND WATER QUALITY CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL OR STATE AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS.
- ALL CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION MEASURES ARE IMPLEMENTED. TEMPORARY CONSTRUCTION CONTROL MEASURES MUST BE REMOVED PRIOR TO PERMIT CLOSEOUT.
- CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS OR ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONSTRUCTION CONTROL MEASURES MAY BE REQUIRED BY THE GEC INSPECTOR IF DEEMED NECESSARY BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES (E.G. ESTIMATED TIME OF EXPOSURE SEASON OF THE YEAR, ETC.).
- ALL WASTES COMPOSED OF BUILDING MATERIALS MUST BE REMOVED FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- THE PERMITTEE SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH THE ORIGINAL MANUFACTURER'S LABELS. MATERIALS SHALL NOT BE STORED IN A LOCATION WHERE THEY MAY BE CARRIED BY STORMWATER RUNOFF IN THE STORM SEWER SYSTEM AT ANY TIME.
- SPILL PREVENTION AND CONTAINMENT MEASURES SHALL BE USED AT ALL STORAGE, EQUIPMENT FUELING, AND EQUIPMENT SERVICING AREAS SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIALS FROM ENTERING THE MS4, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITY. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE SECONDARY CONTAINMENT OR EQUIVALENT ADEQUATE PROTECTION. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, OR CONTAINED UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE FOLLOWED, ALONG WITH PROPER DISPOSAL METHODS.
- SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED AS SOON AS POSSIBLE AFTER DISCOVERY.
- NO CHEMICALS ARE TO BE ADDED TO THE DISCHARGE UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED BY THE STATE. IN GRANTING THE USE OF SUCH CHEMICAL, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER FINAL GRADING OR FINAL LAND DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS SHALL BE ROUGHENED, MULCHED, TACKIFIED, OR STABILIZED WITH TARPS WITHIN FOURTEEN (14) DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN SIXTY (60) DAYS SHALL ALSO BE SEEDED, UNLESS AN ALTERNATIVE STABILIZATION MEASURE IS ACCEPTED AT THE INSPECTOR'S DISCRETION. ALL TEMPORARY CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE FINAL STABILIZATION IS ACHIEVED.
- THE GEC PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE STORMWATER ENTERPRISE SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN TWELVE (12) MONTHS OF THE ACCEPTANCE OF THE PLAN, THE CONSTRUCTION SITE IS IDLE FOR TWELVE (12) CONSECUTIVE MONTHS, A CHANGE IN PROPERTY OWNERSHIP OCCURS, THE PLANNED DEVELOPMENT CHANGES, OR ANY OTHER MAJOR MODIFICATIONS ARE PROPOSED AS DEFINED IN THE STORMWATER CONSTRUCTION MANUAL.
- IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT WRITTEN APPROVAL FROM THE UTILITY OWNER. CITY ACCEPTANCE OF THE GEC PLAN AND CSWMP DOES NOT SATISFY THIS REQUIREMENT. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS SHALL BE AT THE APPLICANT'S EXPENSE.
- APPLICANT REPRESENTS AND WARRANTS THAT THEY HAVE THE LEGAL AUTHORITY TO GRADE AND/OR CONSTRUCT IMPROVEMENTS ON ADJACENT PROPERTY. THE CITY HAS NOT REVIEWED THE DEVELOPER'S AUTHORITY TO MODIFY ADJACENT PROPERTY. AN APPROVED GEC PERMIT DOES NOT PROVIDE APPROVAL FOR THE APPLICANT TO PERFORM WORK ON ADJACENT PROPERTY.
- ALL UTILITY INSTALLATIONS WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE COVERED UNDER THIS PLAN. LOCATION OF UTILITIES WITHIN THE LIMITS OF DISTURBANCE MAY BE MODIFIED AFTER PLAN APPROVAL AS A FIELD CHANGE. UTILITY INSTALLATION RELATED TO THE PRIVATE DEVELOPMENT THAT EXTEND BEYOND THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE CONSIDERED TO BE PART OF THE LARGER DEVELOPMENT, AND THEREFORE REQUIRE A PLAN MODIFICATION OR SEPARATE PLAN FOR THE ADDITIONAL DISTURBANCE AREA.

STANDARD GRADING EROSION AND STORMWATER QUALITY CONTROL PLAN NOTES:

THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.

- STANDARD DETAILS INCORPORATED BY REFERENCE WITHIN THIS DRAWING SHALL CONSIST OF THE STANDARD DETAILS INDICATED AND ALL SUBSEQUENT DETAILS WITH MAY BE REFERENCED THEREIN.
- CONTRACTOR SHALL LOCATE ON SWMP PLANS SIZE AND LOCATION OF ALL STOCKPILES.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE IMPROVEMENTS SHOWN BY THESE PLANS.
- CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ELIMINATE TRACK-OUT FROM THE AREAS WITHIN THE LIMITS OF DISTURBANCE. NO STOCKPILING, TEMPORARY STORAGE OF STAGING OF EITHER NEW, SALVAGED OR WASTE MATERIAL SHALL BE ALLOWED BEYOND THE LIMITS BUT WITHIN LIMITS OF DISTURBANCE MAY BE USED FOR CONTRACTOR PARKING. ANY DISTURBANCE BEYOND THE LIMITS OF DISTURBANCE IS STRICTLY PROHIBITED.

NOTES:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE ESTABLISHED CRITERIA FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS. SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS, OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED DRAINAGE PLANS AND SPECIFICATIONS.

PLAN REVIEW BY CITY OF COLORADO SPRINGS IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH DESIGN CRITERIA. THE CITY OF COLORADO SPRINGS IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE CITY OF COLORADO SPRINGS THROUGH THE APPROVAL OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

TEJON STREET IMPROVEMENTS

CITY OF COLORADO SPRINGS EL PASO COUNTY, COLORADO GRADING AND EROSION CONTROL PLANS

JULY 17, 2023



VICINITY MAP
SCALE: 1"=1000'

DESIGN TEAM CONTACTS:

OWNER:
CITY OF COLORADO SPRINGS
30 SOUTH NEVADA AVENUE
SUITE 401
COLORADO SPRINGS, CO 80901
PHONE: 719.385.5546
CONTACT: TYRA SANDY

DEVELOPER:
CITY OF COLORADO SPRINGS
30 SOUTH NEVADA AVENUE
SUITE 401
COLORADO SPRINGS, CO 80901
PHONE: 719.385.5546
CONTACT: TYRA SANDY

ENGINEER:
KIMLEY-HORN & ASSOCIATES
2 NORTH NEVADA AVENUE
SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 720.897.6306
CONTACT: ERIC GUNDERSON, P.E.

LANDSCAPE ARCHITECT:
KIMLEY-HORN & ASSOCIATES
2 NORTH NEVADA AVENUE
SUITE 900
COLORADO SPRINGS, CO 80901
PHONE: 720.636.8306
CONTACT: JEREMY POWELL, P.E.

SURVEYOR:
FARNSWORTH GROUP
5775 MARK DABLING BOULEVARD
SUITE 190
COLORADO SPRINGS, CO 80919
PHONE: 719.590.9194
CONTACT: LORELEI WARD, PLS

AGENCY CONTACTS:

**CITY OF COLORADO SPRINGS
ENGINEERING:**
30 SOUTH NEVADA AVENUE
SUITE 401
COLORADO SPRINGS, CO 80901
PHONE: 719.385.5546
CONTACT: TYRA SANDY

COLORADO SPRINGS UTILITIES:
1521 HANCOCK EXPRESSWAY
MAIL CODE 1812
COLORADO SPRINGS, CO 80903
PHONE: 719.668.8769

ENGINEER'S OPINION OF PROBABLE COST:

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Inlet Protection	6	EA	\$37.00	\$222.00
2	Silt Fence	118	LF	\$2.50	\$295.00
3	Construction Fence	536	LF	\$2.00	\$1,072.00
4	Stabilized Staging Area	50	SY	\$2.00	\$100.00
5	Vehicle Tracking Control	1	EA	\$3,300.00	\$3,300.00
6	Concrete Washout	1	EA	\$3,000.00	\$3,000.00
7	Rock Socks	80	LF	\$12.00	\$960.00
8	Soil Stockpile	1	EA	\$800.00	\$800.00
9	Portable Toilet Protection	1	EA	\$75.00	\$75.00
10	Street Sweeping	1	ALLOW	\$350.00	\$350.00
				Subtotal	\$10,174.00
				Installation and Maintenance (40%)	\$4,069.60
				Project Total	\$14,243.60

Sheet List Table	
Sheet Number	Sheet Title
C4.0	GEC COVER SHEET
C4.1	INITIAL GEC (S)
C4.2	INITIAL GEC (N)
C4.3	FINAL GEC (S)
C4.4	FINAL GEC (N)
C4.5	DETAILED GRADING (S)
C4.6	DETAILED GRADING (N)
C4.7	DETAILS & NOTES
C4.8	DETAILS
C4.9	DETAILS

BENCHMARK:

CS 100, PID: DL2014, A STAINLESS STEEL ROD IN SLEEVE WITH CDOT LOGO, STAMPED CS 100, 2007 WITH A NAVD 88 ELEVATION OF 5968.54 FT, A SECOND ORDER CLASS II BENCHMARK.

LAND AREA:

94,625 SF OR 2.17 ACRES MORE OR LESS

BASIS OF BEARING:

BEARINGS ARE BASED ON A GRID BEARING OF N89°28'31"E, 1025.12 FT FROM CONTROL POINT 1 TO CONTROL POINT 2.

FLOOD PLAIN NOTE:

FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP (FIRM), MAP NUMBER 08041C07296 EFFECTIVE DATE DECEMBER 7, 2018 INDICATES THIS PARCEL OF LAND IS LOCATED IN ZONE X (DOES NOT FALL WITHIN THE THE 100 YEAR OR THE 500 YEAR FLOODPLAIN).

SOIL TYPE:

100% +/- TYPE "A" SOILS ARE FOUND ON SITE.

SCHEDULE:

ANTICIPATED START DATE: SPRING 2024
ANTICIPATED END/FINAL STABILIZATION DATE: FALL 2024

RECEIVING WATER:

THIS SITE IS TRIBUTARY TO SHOOKS RUN.

GEO HAZARDS:

THERE ARE NO GEO HAZARDS ON SITE.

BATCH PLANTS:

THERE ARE NO ASPHALT OR CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS ON SITE.

PRESERVATION EASEMENTS:

THERE ARE NO PRESERVATION EASEMENTS ON SITE.

CITY PROJECT MANAGERS STATEMENT

I HEREBY VERIFY THAT THE DRAINAGE, GRADING, AND EROSION CONTROL FOR THE TEJON STREET REVITALIZATION SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THIS GRADING AND EROSION CONTROL PLAN. I FURTHER UNDERSTAND THAT FIELD CHANGES MUST BE REVIEWED BY THE SWENT REVIEW ENGINEER TO ENSURE CONFORMANCE WITH THE ORIGINAL DESIGN INTENT. I AM EMPLOYED BY AND PERFORM ENGINEERING SERVICES SOLELY FOR THE CITY OF COLORADO SPRINGS, AND THEREFORE AM EXEMPT FROM COLORADO REVISED STATUTE TITLE 12, ARTICLE 25, PART 1 ACCORDING TO 12-25-103(1), C.R.S.

TYRA SANDY _____ DATE _____

DEVELOPER'S/OWNER'S STATEMENT

"THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN INCLUDING CONSTRUCTION CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS ACCORDING TO THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY."

OWNER SIGNATURE: _____ DATE: _____

NAME OF OWNER: _____ PHONE: _____

TITLE: _____ EMAIL: _____

ENGINEER'S STATEMENT

"THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE, OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY."

ERIC GUNDERSON, PE - KIMLEY-HORN AND ASSOCIATES, INC. _____ DATE _____

PHONE: _____

CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL REVIEW

"THIS GRADING AND EROSION CONTROL PLAN IS FILED IN ACCORDANCE WITH CITY CODE. THIS PLAN IS REVIEWED IN ACCORDANCE WITH THE STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS."

FOR THE SWENT MANAGER _____ DATE _____

NOTES: _____

Print Date: March 29, 2024

Drawing File Name:

Horiz. Scale: _____ Vert. Scale: _____

Date: _____ Comments: _____ Init. _____

(R-X)

(R-X)

(R-X)

(R-X)

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVENUE, SUITE 900
COLORADO SPRINGS, COLORADO 80903
(719) 453-0180



COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVENUE
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR
CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
GEC COVER SHEET

067607114

Designer: EJJ

Detailer: WJR

Sheet Subset: _____ Subset Sheet: _____ of _____

Sheet Number 82

ENGINEER NOTICE TO CONTRACTOR NOTES

- NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
- CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING: SAFETY OF ALL PERSONS AND PROPERTY, AND THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL SLOPES, STREETS, UTILITIES, AND STORM SEWERS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT 719-284-7272. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (SAND BAGS, HAY BALES, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY, OR ASSOCIATION IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
- EXCEPT AS NOTED HEREON ALL UTILITY SERVICES WITHIN THIS DEVELOPMENT ARE UNDERGROUND INSTALLATIONS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK NEAR THEIR FACILITIES, AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. FOR UTILITY MARK-OUT SERVICE, CALL 811.
- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
- LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.
- CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
- WHERE TRENCHES ARE WITHIN 10 FEET OF FUTURE BUILDING SITES, SOILS REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH CERTIFY THAT TRENCH BACKFILL WAS COMPACTED AS DIRECTED BY THE SOILS ENGINEER IN ACCORDANCE WITH THE ON-SITE EARTHWORK SPECIFICATIONS.
- ANY WORK DONE WITHOUT INSPECTION OR MATERIALS TESTING IS SUBJECT TO REMOVAL OR CORRECTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE FIELD ENGINEER.
- PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL JOIN CONDITIONS FOR GRADING, DRAINAGE AND UNDERGROUND FACILITIES, INCLUDING LOCATION AND ELEVATION OF EXISTING UNDERGROUND FACILITIES AT CROSSINGS WITH PROPOSED UNDERGROUND FACILITIES. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED.
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH THE PLANS, THE SOILS AND/OR GEOLOGY REPORTS, AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK.
- SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS OR IN THE FIELD, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT KIMLEY-HORN AND ASSOCIATES BEFORE PROCEEDING WITH THE WORK IN QUESTION.
- APPROVAL OF THESE PLANS BY THE CITY DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.
- THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CITY OF COLORADO SPRINGS DOES NOT AUTHORIZE THE SUBDIVIDER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR COUNTY LAWS, ORDINANCES, REGULATIONS, OR POLICIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A LAND SURVEYOR SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE MONUMENTS. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF COLORADO SPRINGS FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.
- AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT BY THE CITY OF COLORADO SPRINGS.
- THE AREA WHICH IS DEFINED AS A NON GRADING AREA AND WHICH IS NOT TO BE DISTURBED SHALL BE STAKED PRIOR TO START OF THE WORK. THE PERMIT APPLICANT AND ALL OF THEIR REPRESENTATIVES OR CONTRACTORS SHALL COMPLY WITH THE REQUIREMENTS FOR PROTECTION OF THIS AREA AS REQUIRED BY ANY APPLICABLE AGENCY. ISSUANCE OF THE CITY'S GRADING PERMIT SHALL NOT RELIEVE THE APPLICANT OR ANY OF THEIR REPRESENTATIVES OR CONTRACTORS FROM COMPLYING WITH ANY STATE OR FEDERAL REQUIREMENTS BY AGENCIES INCLUDING BUT NOT LIMITED TO COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT OR COLORADO DIVISION OF WILDLIFE. COMPLIANCE MAY INCLUDE OBTAINING PERMITS, OTHER AUTHORIZATIONS, OR COMPLIANCE WITH MANDATES BY ANY APPLICABLE STATE OR FEDERAL AGENCY.
- EXISTING TOPOGRAPHY WAS BASED FROM THE ALTA SURVEY BY ENGINEERING SERVICE CO. DATED 08/02/2019
- NOTES AND DETAILS DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
- IF AT ANY TIME DURING THE GRADING OPERATION, ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, GRADING IN THAT ARE WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED.
- STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON THE PLANS.
- ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.
- DIMENSIONS TO PIPELINES ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
- CONSTRUCTION STAKING FOR IMPROVEMENTS SHOWN IN THESE PLANS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR.
- ALL DIMENSIONS ARE IN FEET OR DECIMALS THEREOF.
- CONTRACTOR TO BE AWARE OF ALL OVERHEAD LINES AT ALL TIMES, SO AS NOT TO DISTURB THEM.
- WATER SHALL BE PROVIDED ONSITE AND USED TO CONTROL DUST DURING DEMOLITION AND CONSTRUCTION OPERATIONS.
- STORM DRAINAGE SYSTEMS SHOWN ON THESE PLANS HAVE BEEN DESIGNED FOR THE FINAL SITE CONDITION AT COMPLETION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE OF THE SITE, DURING INTERIM CONDITIONS OF CONSTRUCTION.
- RETAINING WALLS LOCATED CLOSER TO THE PROPERTY LINE THAN THE HEIGHT OF THE WALL SHALL BE BACKFILLED NOT LATER THAN 10 DAYS AFTER CONSTRUCTION OF THE WALL AND NECESSARY STRUCTURAL SUPPORTING MEMBERS UNLESS RECOMMENDED OTHERWISE BY RESPONSIBLE ENGINEER.

STANDARD GEC PLAN NOTES

- NO CLEARING, GRADING, EXCAVATION, OR OTHER LAND DISTURBING ACTIVITIES SHALL BE ALLOWED (EXCEPT FOR WORK DIRECTLY RELATED TO THE INSTALLATION OF INITIAL CONTROL MEASURES) UNTIL A CITY GEC PERMIT HAS BEEN ISSUED.
- ALL LAND DISTURBING ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH AND THE APPROVED GEC PLAN AND CSWMP.
- INITIAL CONTROL MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES TAKING PLACE. AN INITIAL SITE INSPECTION WILL NOT BE SCHEDULED UNTIL A CITY GEC PERMIT HAS BEEN "CONDITIONALLY APPROVED."CALL CITY STORMWATER INSPECTIONS, 385-5980, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE AN INITIAL INSPECTION AND OBTAIN FULL PERMIT APPROVAL.
- INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT"(TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT"(33 USC 1344), INCLUDING REGULATIONS PROMULGATED AND CERTIFICATIONS OR PERMITS ISSUED, IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE CITY'S MS4 PERMIT, STORMWATER CONSTRUCTION MANUAL. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND WATER QUALITY CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL OR STATE AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS.
- ALL CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION MEASURES ARE IMPLEMENTED. TEMPORARY CONSTRUCTION CONTROL MEASURES MUST BE REMOVED PRIOR TO PERMIT CLOSEOUT.
- CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS OR ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONSTRUCTION CONTROL MEASURES MAY BE REQUIRED BY THE GEC INSPECTOR IF DEEMED NECESSARY BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES (E.G., ESTIMATED TIME OF EXPOSURE, SEASON OF THE YEAR, ETC.).
- ALL WASTES COMPOSED OF BUILDING MATERIALS MUST BE REMOVED FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- THE PERMITTEE SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS. MATERIALS SHALL NOT BE STORED IN A LOCATION WHERE THEY MAY BE CARRIED BY STORMWATER RUNOFF INTO THE STORM SEWER SYSTEM AT ANY TIME.
- SPILL PREVENTION AND CONTAINMENT MEASURES SHALL BE USED AT ALL STORAGE, EQUIPMENT FUELING, AND EQUIPMENT SERVICING AREAS SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING THE MS4, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITY. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE SECONDARY CONTAINMENT OR EQUIVALENT ADEQUATE PROTECTION. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, OR CONTAINED UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE FOLLOWED, ALONG WITH PROPER DISPOSAL METHODS.
- SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED AS SOON AS POSSIBLE AFTER DISCOVERY.
- NO CHEMICALS ARE TO BE ADDED TO THE DISCHARGE UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED BY THE STATE. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER FINAL GRADING OR FINAL LAND DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS SHALL BE ROUGHENED, MULCHED, TACKIFIED, OR STABILIZED WITH TARPS WITHIN FOURTEEN (14) DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN SIXTY (60) DAYS SHALL ALSO BE SEEDED, UNLESS AN ALTERNATIVE STABILIZATION MEASURE IS ACCEPTED AT THE INSPECTOR'S DISCRETION. ALL TEMPORARY CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED.
- THE GEC PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE STORMWATER ENTERPRISE SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN TWELVE (12) MONTHS OF THE CITY'S ACCEPTANCE OF THE PLAN, THE CONSTRUCTION SITE IS IDLE FOR TWELVE (12) CONSECUTIVE MONTHS, A CHANGE IN PROPERTY OWNERSHIP OCCURS, THE PLANNED DEVELOPMENT CHANGES, OR ANY OTHER MAJOR MODIFICATIONS ARE PROPOSED AS DEFINED IN THE STORMWATER CONSTRUCTION MANUAL.
- IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT WRITTEN APPROVAL FROM THE UTILITY OWNER. CITY ACCEPTANCE OF THE GEC PLAN AND CSWMP DOES NOT SATISFY THIS REQUIREMENT. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS SHALL BE AT THE APPLICANT'S EXPENSE.
- APPLICANT REPRESENTS AND WARRANTS THAT THEY HAVE THE LEGAL AUTHORITY TO GRADE AND/OR CONSTRUCT IMPROVEMENTS ON ADJACENT PROPERTY. THE CITY HAS NOT REVIEWED THE DEVELOPER'S AUTHORITY TO MODIFY ADJACENT PROPERTY. AN APPROVED GEC PERMIT DOES NOT PROVIDE APPROVAL FOR THE APPLICANT TO PERFORM WORK ON ADJACENT PROPERTY.
- "ALL UTILITY INSTALLATIONS WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE COVERED UNDER THIS PLAN. LOCATIONS OF UTILITIES WITHIN THE LIMITS OF DISTURBANCE MAY BE MODIFIED AFTER PLAN APPROVAL AS A FIELD CHANGE. UTILITY INSTALLATIONS RELATED TO THE PRIVATE DEVELOPMENT THAT EXTEND BEYOND THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE CONSIDERED TO BE PART OF THE LARGER DEVELOPMENT, AND THEREFORE REQUIRE A PLAN MODIFICATION OR SEPARATE PLAN FOR THE ADDITIONAL DISTURBANCE AREA."

I:_cos_civil\067607114_tejon_street_improvements\CADD\plansheets\GEC\GEC_DT.dwg Brethmer, Noah 3/29/2024 7:41 AM THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC. R24-T088KC

Print Date: March 29, 2024

Drawing File Name:

Horiz. Scale: Vert. Scale:



KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVENUE, SUITE 900
COLORADO SPRINGS, COLORADO 80903
(719) 453-0180

Date:	Comments:	Init.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

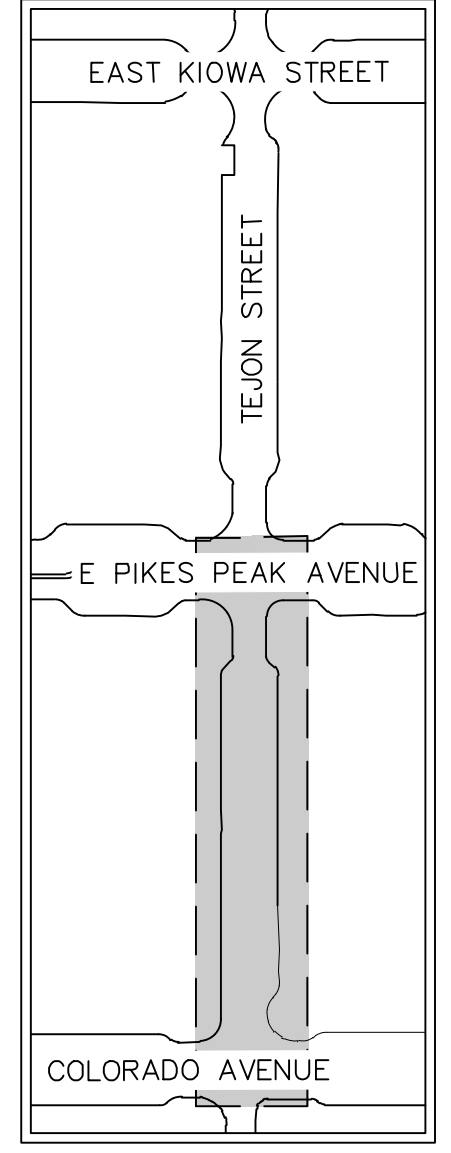
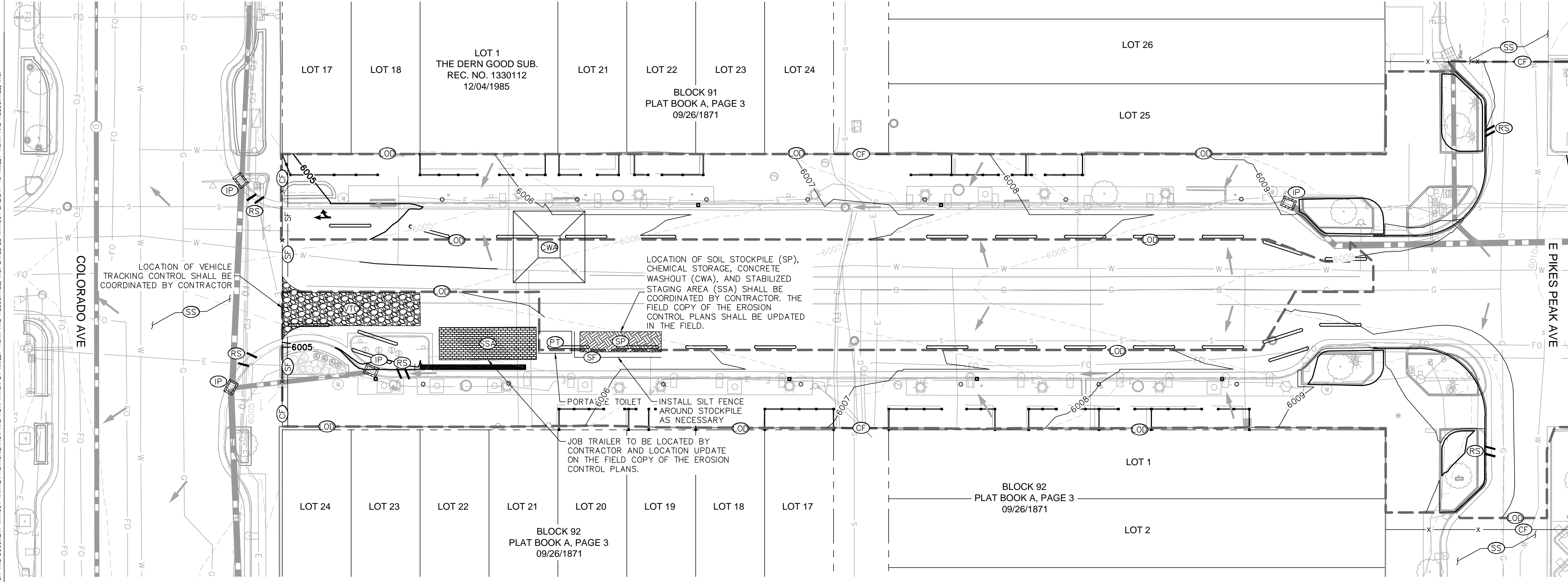
PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley Horn
Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS	
NOTES	
Designer:	EJG
Detailer:	WJR
Sheet Subset:	Subset Sheet: of

067607114
Sheet Number 83

I:\cgs_civil\067607114_tejon_street_improvements\CADD\plansheets\GEC\GEC_EC.dwg Brehmer, Noah 3/29/2024 7:42 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



SCALE: 1"=200'

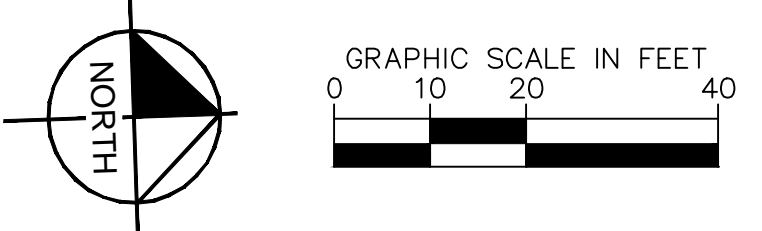


LEGEND	
---	PROPERTY LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
6550	PROPOSED MAJOR CONTOUR
6551	PROPOSED MINOR CONTOUR
---	LIMITS OF CONSTRUCTION/DISTURBANCE
X	CONSTRUCTION FENCE
SF	SILT FENCE
S	EASEMENT
W	EXISTING SANITARY SEWER
W	EXISTING WATER LINE
S	EXISTING STORM SEWER PIPE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
E	EXISTING ELECTRIC LINE
---	CUT/FILL DEMARCATION LINES
RS	ROCK SOCKS
SSA	STABILIZED STAGING AREA
CWA	CONCRETE WASHOUT
VTC	VEHICLE TRACKING CONTROL
SP	SOIL STOCKPILE
IP	INLET PROTECTION
→	EXISTING FLOW DIRECTION ARROW
→	PROPOSED FLOW DIRECTION ARROW
SS	STREET SWEEPING AND VACUUMING PER UDFCD DETAIL SM-7
DC	DUST CONTROL PER UDFCD DETAIL EC-14
---	FINAL STABILIZATION. (REFERENCE FINAL LANDSCAPING PLANS)

- NOTES**
- THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
 - ADJACENT STREETS AND SIDEWALK SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES. CONTRACTOR SHALL PERFORM STREET SWEEPING AT ALL TIMES DURING ACTIVE TRACKING AND AT A MINIMUM ON A DAILY BASIS AT THE END OF EACH CONSTRUCTION DAY.
 - TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
 - PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
 - CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION. CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITH OWNER REQUIREMENTS.
 - ALL WORK IN THE TEJON STREET ROW REQUIRES A ROW PERMIT FROM COLORADO SPRINGS. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY ROW PERMITS.
 - CONTRACTOR SHALL REFER TO THE APPROVED GEOTECHNICAL REPORT FOR OVEREXCAVATION REQUIREMENTS AND ADDITIONAL INFORMATION.
 - SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF ONSITE GRADING AND CONSTRUCTION ACTIVITIES.
 - DEMOLITION, REMOVAL AND SOIL TREATMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATIONS AS NOTED IN THE APPROVED PROJECT GEOTECHNICAL REPORT.
 - CONTRACTOR TO NOTE PROXIMITY OF EXISTING IMPROVEMENTS ADJACENT TO THE SITE AND PROVIDE NECESSARY MEASURES TO PROTECT ALL FACILITIES AND STRUCTURES IN PLACE.
 - CONTRACTOR SHALL MAINTAIN STABILIZED STAGING AREA (SSA), VEHICLE TRACKING CONTROL (VTC), AND CONCRETE WASHOUT AREA (CWA) AT THE CONSTRUCTION ENTRANCE AT ALL TIMES. CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN IN THE FIELD TO INDICATE THE LOCATION OF THE SSA, VTC, AND CWA BMPs AS EXCAVATION SEQUENCING DICTATES.
 - CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.
 - CONTRACTOR SHALL OBTAIN R.O.W. PERMITS FOR ANY R.O.W. CLOSURES.
 - CUT/FILL LINES ARE APPROXIMATES AND ARE SHOWN FOR REFERENCE ONLY.
 - SEE FINAL LANDSCAPING PLAN IN THE DEVELOPMENT PLAN FOR FINAL STABILIZATION MEASURES.

LIMITS OF CONSTRUCTION

ONSITE IMPROVEMENTS	= ±1.70 ACRES
OFFSITE IMPROVEMENTS	= ±0.00 ACRES
TOTAL	= ±1.70 ACRES
TOTAL AREA OF LAND DISTURBANCE	= ±1.70 ACRES



Print Date: March 29, 2024

Drawing File Name:

Horiz. Scale: Vert. Scale:

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVENUE, SUITE 900
COLORADO SPRINGS, COLORADO 80903
(719) 453-0180

Sheet Revisions		
Date:	Comments:	Init.
(R-X)		
(R-X)		
(R-X)		
(R-X)		

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

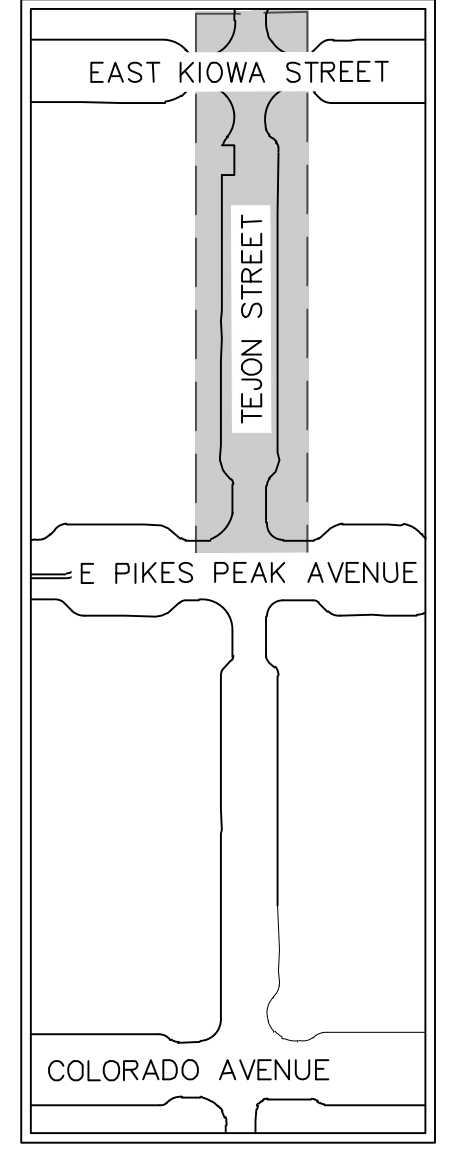
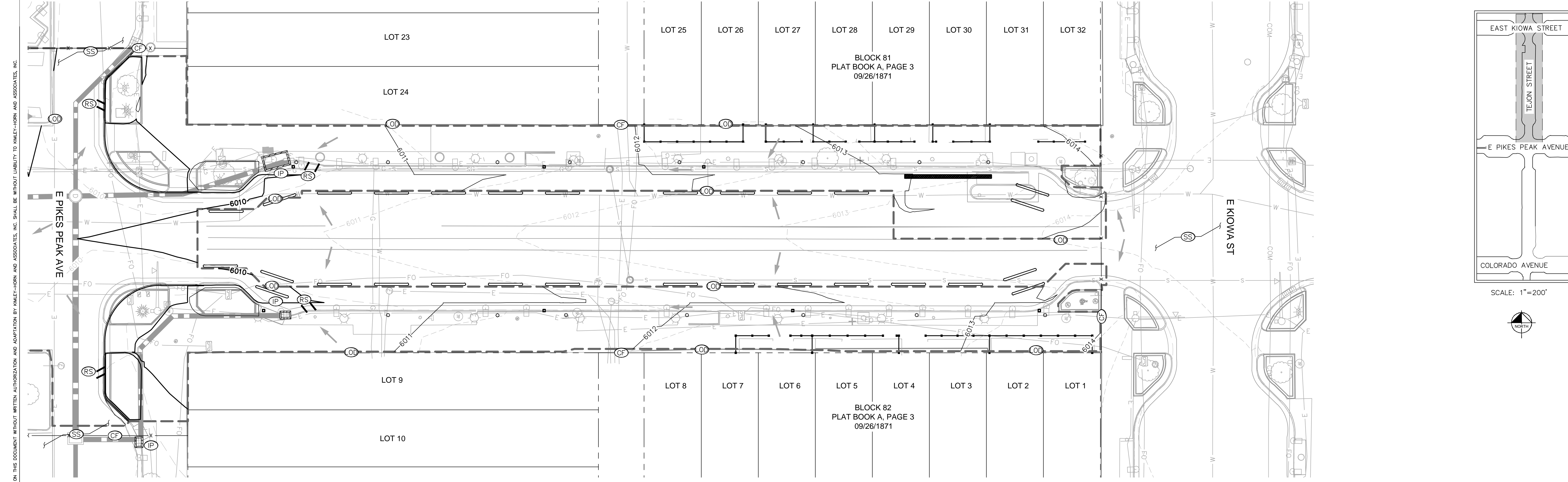
PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS INITIAL GEC (S)	
Designer:	EJG
Detailer:	WJR
Sheet Subset:	Subset Sheet: of

Project No./Code	067607114
Sheet Number	84



SCALE: 1"=200'



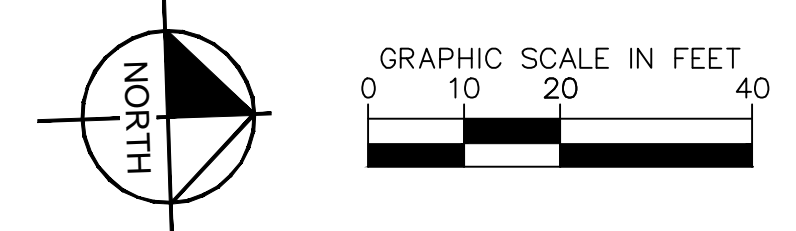
LEGEND

---	PROPERTY LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
6550	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	LIMITS OF CONSTRUCTION/DISTURBANCE
X	CONSTRUCTION FENCE
SF	SILT FENCE
---	EASEMENT
S	EXISTING SANITARY SEWER
W	EXISTING WATER LINE
S	EXISTING STORM SEWER PIPE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
OH	EXISTING ELECTRIC LINE
---	CUT/FILL DEMARCATION LINES
RS	ROCK SOCKS
SSA	STABILIZED STAGING AREA
CWA	CONCRETE WASHOUT
VTC	VEHICLE TRACKING CONTROL
SP	SOIL STOCKPILE
IP	INLET PROTECTION
→	EXISTING FLOW DIRECTION ARROW
→	PROPOSED FLOW DIRECTION ARROW
SS	STREET SWEEPING AND VACUUMING PER UDFCD DETAIL SM-7
DC	DUST CONTROL PER UDFCD DETAIL EC-14
---	FINAL STABILIZATION. (REFERENCE FINAL LANDSCAPING PLANS)

- NOTES**
- THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
 - ADJACENT STREETS AND SIDEWALK SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES. CONTRACTOR SHALL PERFORM STREET SWEEPING AT ALL TIMES DURING ACTIVE TRACKING AND AT A MINIMUM ON A DAILY BASIS AT THE END OF EACH CONSTRUCTION DAY.
 - TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
 - PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
 - CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION. CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITHIN OWNER REQUIREMENTS.
 - ALL WORK IN THE TEJON STREET ROW REQUIRES A ROW PERMIT FROM COLORADO SPRINGS. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY ROW PERMITS.
 - CONTRACTOR SHALL REFER TO THE APPROVED GEOTECHNICAL REPORT FOR OVEREXCAVATION REQUIREMENTS AND ADDITIONAL INFORMATION.
 - SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF ONSITE GRADING AND CONSTRUCTION ACTIVITIES.
 - DEMOLITION, REMOVAL AND SOIL TREATMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATIONS AS NOTED IN THE APPROVED PROJECT GEOTECHNICAL REPORT.
 - CONTRACTOR TO NOTE PROXIMITY OF EXISTING IMPROVEMENTS ADJACENT TO THE SITE AND PROVIDE NECESSARY MEASURES TO PROTECT ALL FACILITIES AND STRUCTURES IN PLACE.
 - CONTRACTOR SHALL MAINTAIN STABILIZED STAGING AREA (SSA), VEHICLE TRACKING CONTROL (VTC), AND CONCRETE WASHOUT AREA (CWA) AT THE CONSTRUCTION ENTRANCE AT ALL TIMES. CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN IN THE FIELD TO INDICATE THE LOCATION OF THE SSA, VTC, AND CWA BMPs AS EXCAVATION SEQUENCING DICTATES.
 - CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.
 - CONTRACTOR SHALL OBTAIN R.O.W. PERMITS FOR ANY R.O.W. CLOSURES.
 - CUT/FILL LINES ARE APPROXIMATES AND ARE SHOWN FOR REFERENCE ONLY.
 - SEE FINAL LANDSCAPING PLAN IN THE DEVELOPMENT PLAN FOR FINAL STABILIZATION MEASURES.

LIMITS OF CONSTRUCTION

ONSITE IMPROVEMENTS	= ±1.70 ACRES
OFFSITE IMPROVEMENTS	= ±0.00 ACRES
TOTAL	= ±1.70 ACRES
TOTAL AREA OF LAND DISTURBANCE	= ±1.70 ACRES



I:\cgs_civil\067607114_tejon_street_improvements\CADD\plansheets\GEC\GEC_EC.dwg Brehmer, Noah 3/29/2024 7:42 AM THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AND IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

Print Date: March 29, 2024

Drawing File Name:

Horiz. Scale: Vert. Scale:

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVENUE, SUITE 900
COLORADO SPRINGS, COLORADO 80903
(719) 453-0180

Sheet Revisions

Date:	Comments:	Init.

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
INITIAL GEC (N)

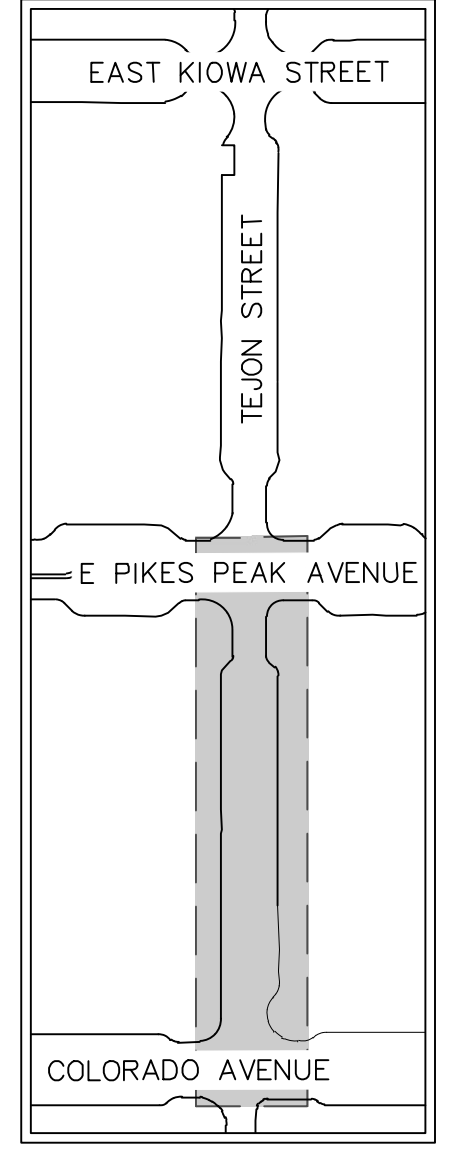
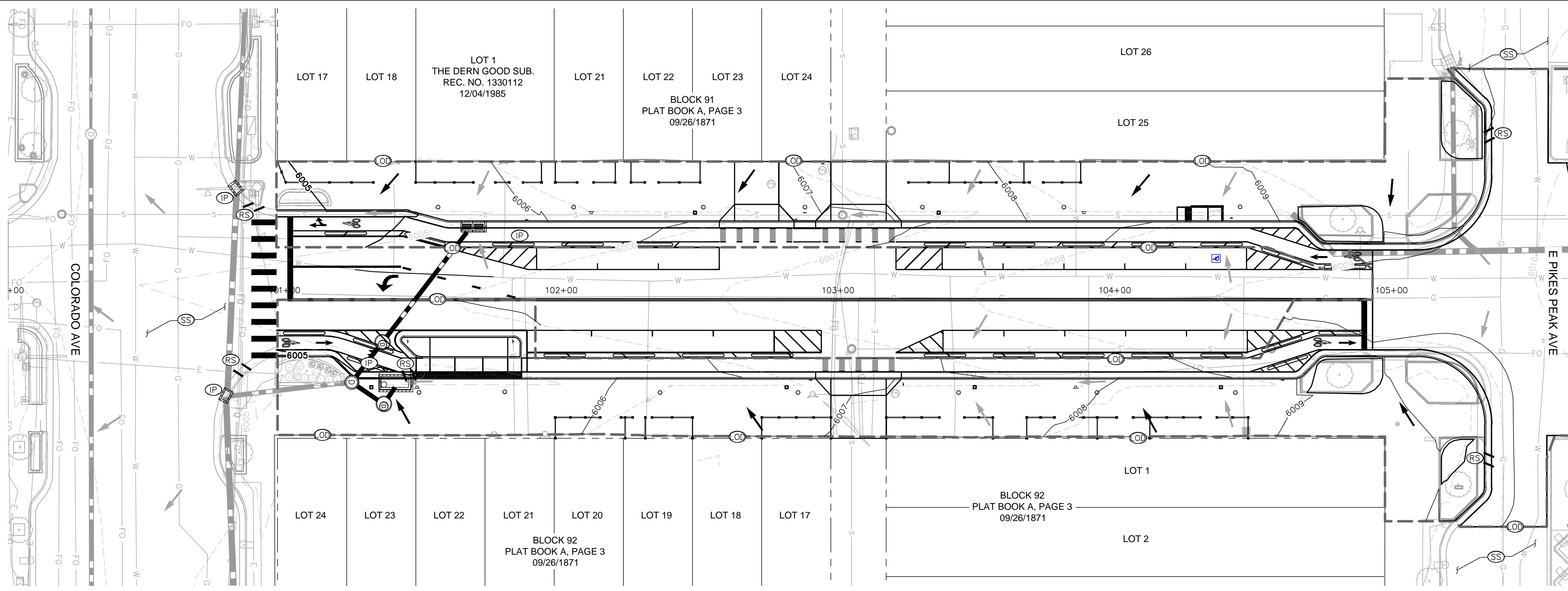
Designer:	EJG
Detailer:	WJR
Sheet Subset:	Subset Sheet: of

Project No./Code

067607114

Sheet Number 85

I:\cgs_civil\067607114_tejon_street_improvements\CADD\plansheets\GEC\GEC_EC.dwg Brehmer, Noah 3/29/2024 7:42 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



SCALE: 1"=200'

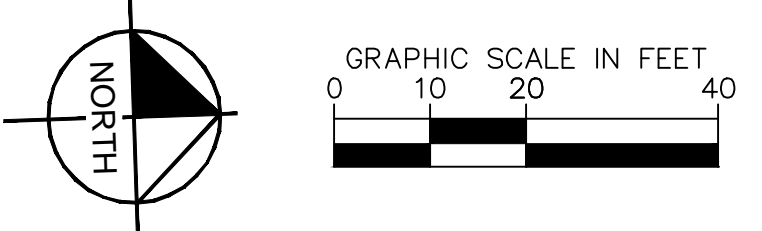


LEGEND	
---	PROPERTY LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
6550	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	LIMITS OF CONSTRUCTION/DISTURBANCE
X	CONSTRUCTION FENCE
SF	SILT FENCE
S	EASEMENT
W	EXISTING SANITARY SEWER
W	EXISTING WATER LINE
W	EXISTING STORM SEWER PIPE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
OH	EXISTING ELECTRIC LINE
---	CUT/FILL DEMARCATION LINES
RS	ROCK SOCKS
SSA	STABILIZED STAGING AREA
CWA	CONCRETE WASHOUT
VTC	VEHICLE TRACKING CONTROL
SP	SOIL STOCKPILE
IP	INLET PROTECTION
→	EXISTING FLOW DIRECTION ARROW
→	PROPOSED FLOW DIRECTION ARROW
SS	STREET SWEEPING AND VACUUMING PER UDFCD DETAIL SM-7
DC	DUST CONTROL PER UDFCD DETAIL EC-14
---	FINAL STABILIZATION. (REFERENCE FINAL LANDSCAPING PLANS)

- NOTES**
- THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
 - ADJACENT STREETS AND SIDEWALK SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES. CONTRACTOR SHALL PERFORM STREET SWEEPING AT ALL TIMES DURING ACTIVE TRACKING AND AT A MINIMUM ON A DAILY BASIS AT THE END OF EACH CONSTRUCTION DAY.
 - TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
 - PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
 - CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION.
 - CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITH OWNER REQUIREMENTS.
 - ALL WORK IN THE TEJON STREET ROW REQUIRES A ROW PERMIT FROM COLORADO SPRINGS. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY ROW PERMITS.
 - CONTRACTOR SHALL REFER TO THE APPROVED GEOTECHNICAL REPORT FOR OVEREXCAVATION REQUIREMENTS AND ADDITIONAL INFORMATION.
 - SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF ONSITE GRADING AND CONSTRUCTION ACTIVITIES.
 - DEMOLITION, REMOVAL AND SOIL TREATMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATIONS AS NOTED IN THE APPROVED PROJECT GEOTECHNICAL REPORT.
 - CONTRACTOR TO NOTE PROXIMITY OF EXISTING IMPROVEMENTS ADJACENT TO THE SITE AND PROVIDE NECESSARY MEASURES TO PROTECT ALL FACILITIES AND STRUCTURES IN PLACE.
 - CONTRACTOR SHALL MAINTAIN STABILIZED STAGING AREA (SSA), VEHICLE TRACKING CONTROL (VTC), AND CONCRETE WASHOUT AREA (CWA) AT THE CONSTRUCTION ENTRANCE AT ALL TIMES. CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN IN THE FIELD TO INDICATE THE LOCATION OF THE SSA, VTC, AND CWA BMPs AS EXCAVATION SEQUENCING DICTATES.
 - CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.
 - CONTRACTOR SHALL OBTAIN R.O.W. PERMITS FOR ANY R.O.W. CLOSURES.
 - CUT/FILL LINES ARE APPROXIMATES AND ARE SHOWN FOR REFERENCE ONLY.
 - SEE FINAL LANDSCAPING PLAN IN THE DEVELOPMENT PLAN FOR FINAL STABILIZATION MEASURES.

LIMITS OF CONSTRUCTION

ONSITE IMPROVEMENTS	= ±1.70 ACRES
OFFSITE IMPROVEMENTS	= ±0.00 ACRES
TOTAL	= ±1.70 ACRES
TOTAL AREA OF LAND DISTURBANCE	= ±1.70 ACRES



Print Date: March 29, 2024

Drawing File Name:

Horiz. Scale: Vert. Scale:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVENUE, SUITE 900
 COLORADO SPRINGS, COLORADO 80903
 (719) 453-0180

Sheet Revisions		
Date:	Comments:	Init.
(R-X)		
(R-X)		
(R-X)		
(R-X)		

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

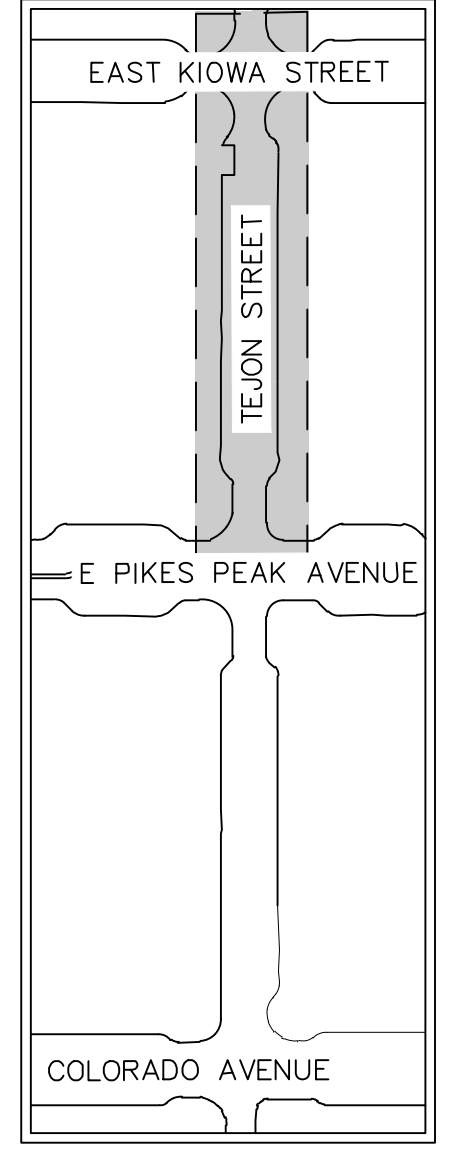
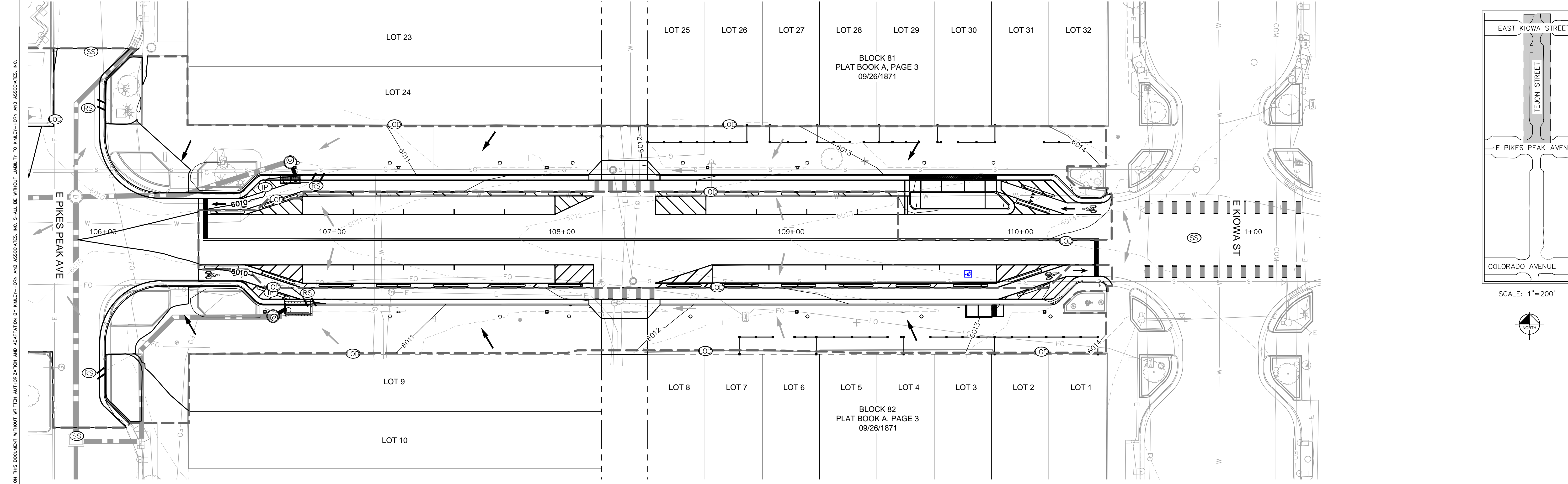
PRELIMINARY

FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS FINAL GEC (S)	
Designer:	EJG
Detailer:	WJR
Sheet Subset:	Subset Sheet: of

Project No./Code	067607114
Sheet Number	86



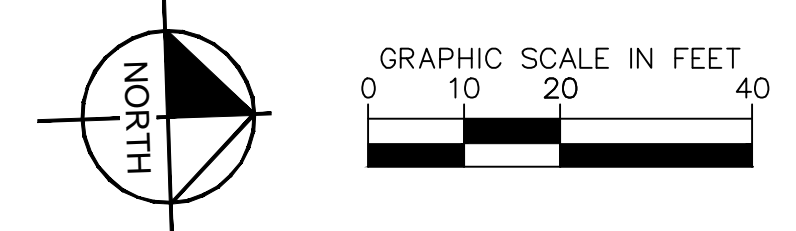
LEGEND

---	PROPERTY LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	LIMITS OF CONSTRUCTION/DISTURBANCE
X	CONSTRUCTION FENCE
SF	SILT FENCE
S	EASEMENT
W	EXISTING SANITARY SEWER
W	EXISTING WATER LINE
S	EXISTING STORM SEWER PIPE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
OH	EXISTING ELECTRIC LINE
---	CUT/FILL DEMARCATION LINES
RS	ROCK SOCKS
SSA	STABILIZED STAGING AREA
CWA	CONCRETE WASHOUT
VTC	VEHICLE TRACKING CONTROL
SP	SOIL STOCKPILE
IP	INLET PROTECTION
→	EXISTING FLOW DIRECTION ARROW
→	PROPOSED FLOW DIRECTION ARROW
SS	STREET SWEEPING AND VACUUMING PER UDFCD DETAIL SM-7
DC	DUST CONTROL PER UDFCD DETAIL EC-14
---	FINAL STABILIZATION (REFERENCE FINAL LANDSCAPING PLANS)

- NOTES**
- THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
 - ADJACENT STREETS AND SIDEWALK SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES. CONTRACTOR SHALL PERFORM STREET SWEEPING AT ALL TIMES DURING ACTIVE TRACKING AND AT A MINIMUM ON A DAILY BASIS AT THE END OF EACH CONSTRUCTION DAY.
 - TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
 - PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
 - CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION.
 - CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITHIN OWNER REQUIREMENTS.
 - ALL WORK IN THE TEJON STREET ROW REQUIRES A ROW PERMIT FROM COLORADO SPRINGS. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY ROW PERMITS.
 - CONTRACTOR SHALL REFER TO THE APPROVED GEOTECHNICAL REPORT FOR OVEREXCAVATION REQUIREMENTS AND ADDITIONAL INFORMATION.
 - SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF ONSITE GRADING AND CONSTRUCTION ACTIVITIES.
 - DEMOLITION, REMOVAL AND SOIL TREATMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATIONS AS NOTED IN THE APPROVED PROJECT GEOTECHNICAL REPORT.
 - CONTRACTOR TO NOTE PROXIMITY OF EXISTING IMPROVEMENTS ADJACENT TO THE SITE AND PROVIDE NECESSARY MEASURES TO PROTECT ALL FACILITIES AND STRUCTURES IN PLACE.
 - CONTRACTOR SHALL MAINTAIN STABILIZED STAGING AREA (SSA), VEHICLE TRACKING CONTROL (VTC), AND CONCRETE WASHOUT AREA (CWA) AT THE CONSTRUCTION ENTRANCE AT ALL TIMES. CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN IN THE FIELD TO INDICATE THE LOCATION OF THE SSA, VTC, AND CWA BMPs AS EXCAVATION SEQUENCING DICTATES.
 - CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.
 - CONTRACTOR SHALL OBTAIN R.O.W. PERMITS FOR ANY R.O.W. CLOSURES.
 - CUT/FILL LINES ARE APPROXIMATES AND ARE SHOWN FOR REFERENCE ONLY.
 - SEE FINAL LANDSCAPING PLAN IN THE DEVELOPMENT PLAN FOR FINAL STABILIZATION MEASURES.

LIMITS OF CONSTRUCTION

ONSITE IMPROVEMENTS	= ±1.70 ACRES
OFFSITE IMPROVEMENTS	= ±0.00 ACRES
TOTAL	= ±1.70 ACRES
TOTAL AREA OF LAND DISTURBANCE	= ±1.70 ACRES



Print Date: March 29, 2024
 Drawing File Name:
 Horiz. Scale: Vert. Scale:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVENUE, SUITE 900
 COLORADO SPRINGS, COLORADO 80903
 (719) 453-0180

Sheet Revisions

Date:	Comments:	Init.

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley-Horn
 Kimley-Horn and Associates, Inc.

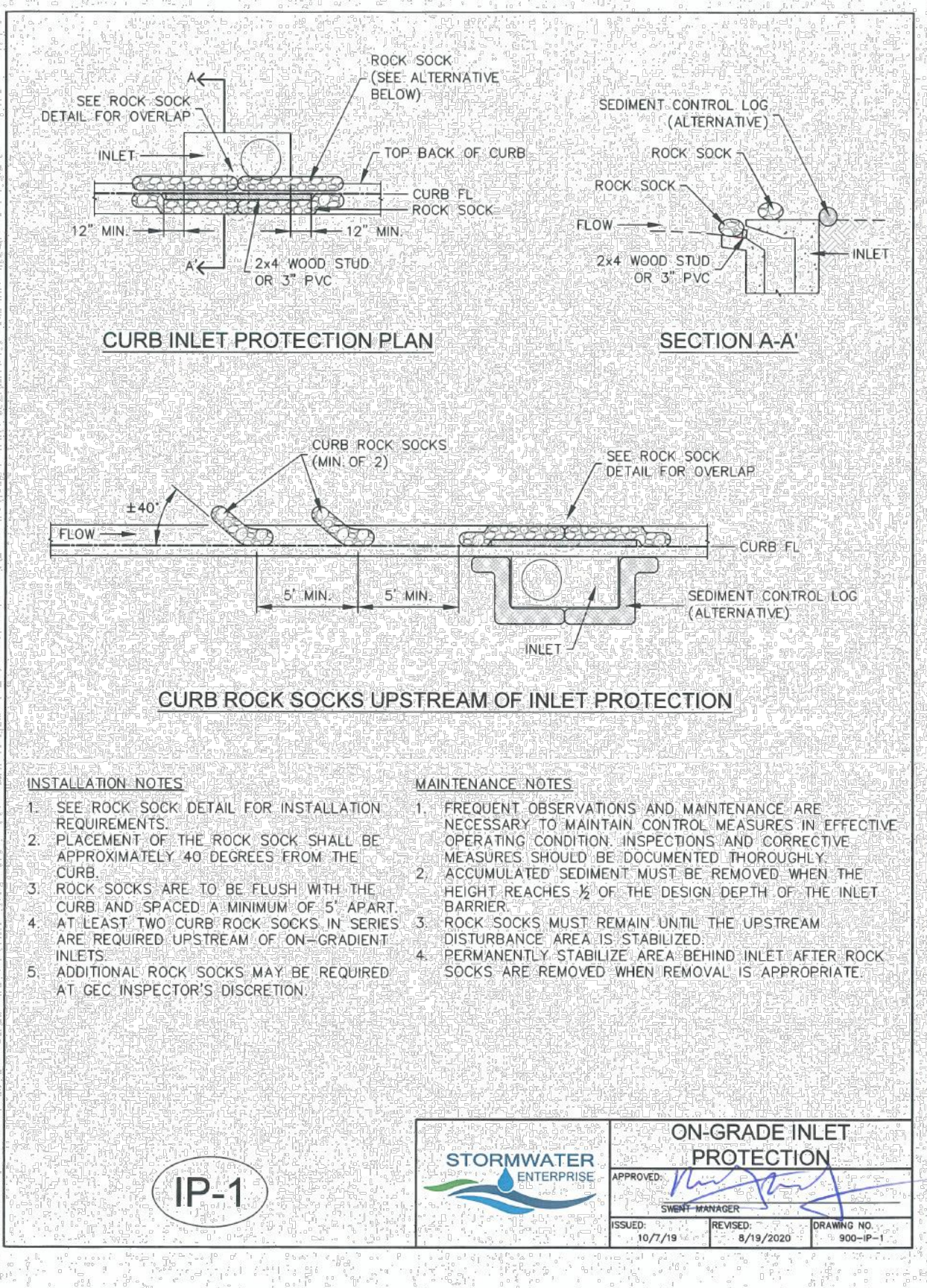
**TEJON STREET IMPROVEMENTS
 FINAL GEC (N)**

Designer:	EJG
Detailer:	WJR
Sheet Subset:	Subset Sheet: of

Project No./Code
 067607114

Sheet Number **87**

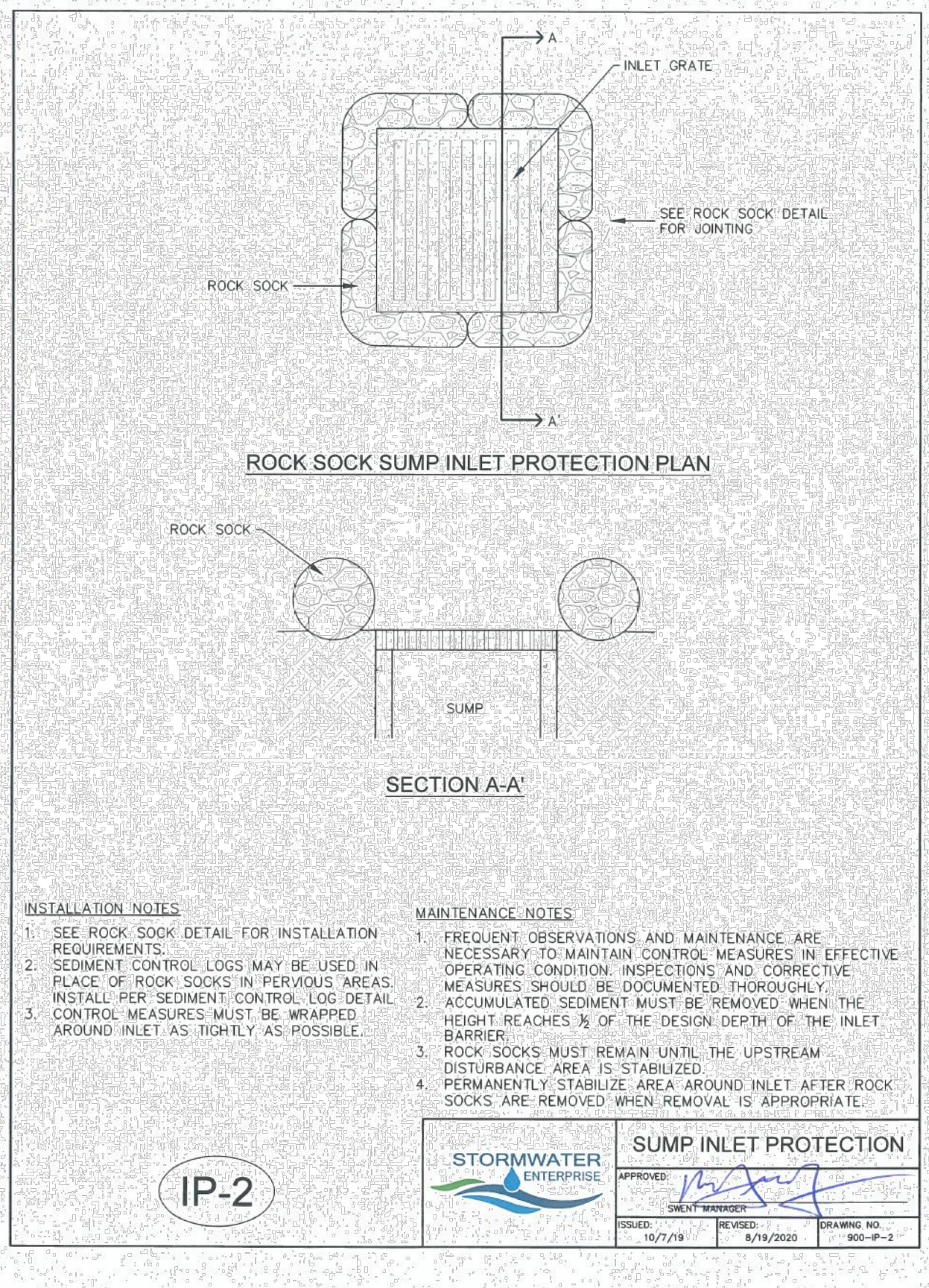
I:\cgs_civil\067607114_tepn_street_improvements\CADD\plansheets\GFC\GFC_DT.dwg Brehmer, Noah 3/29/2024 7:42 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSES AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



IP-1

ON-GRADE INLET PROTECTION

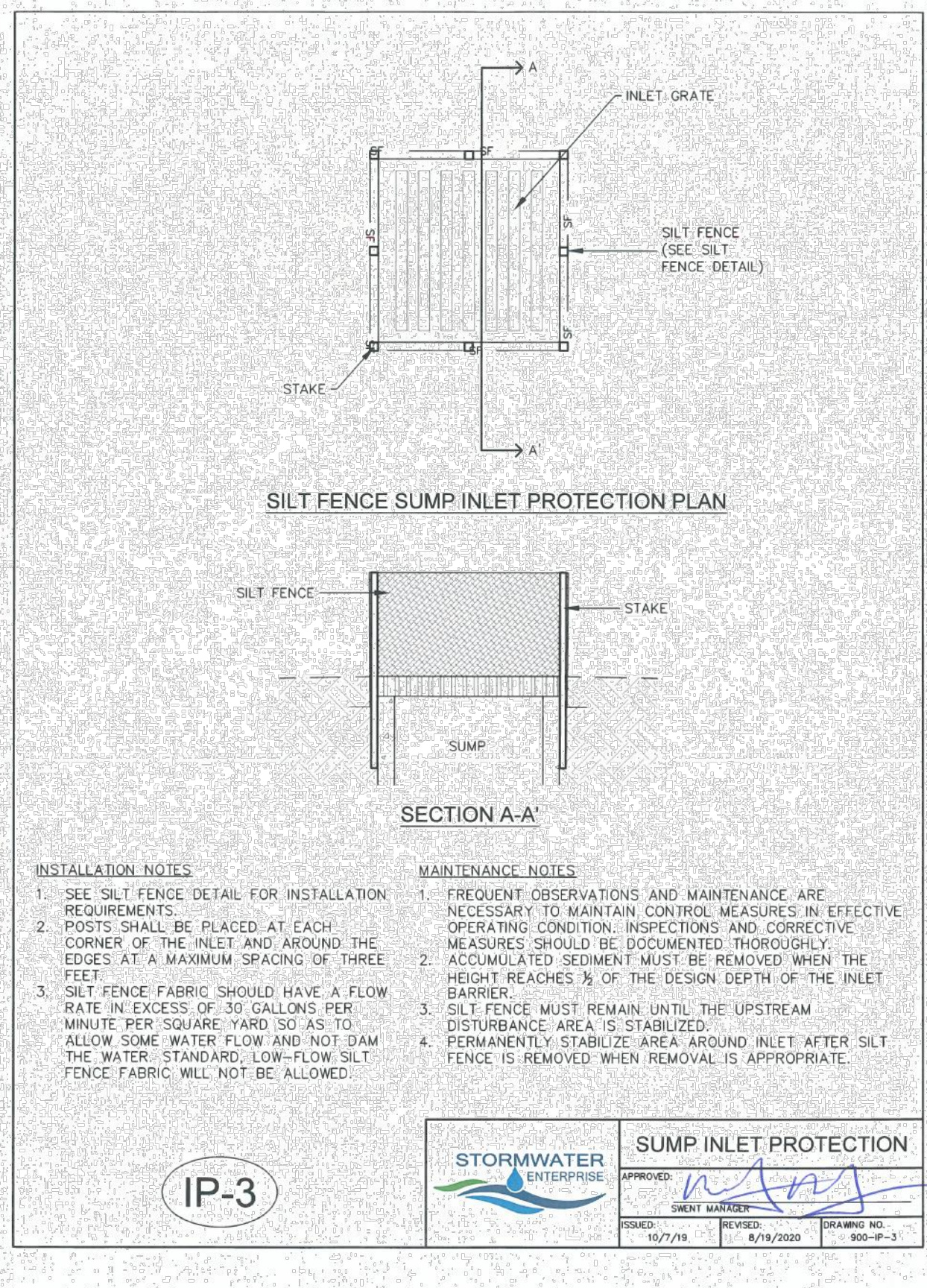
APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 10/7/19 REVISED: 6/19/2020 DRAWING NO: 900-IP-1



IP-2

SUMP INLET PROTECTION

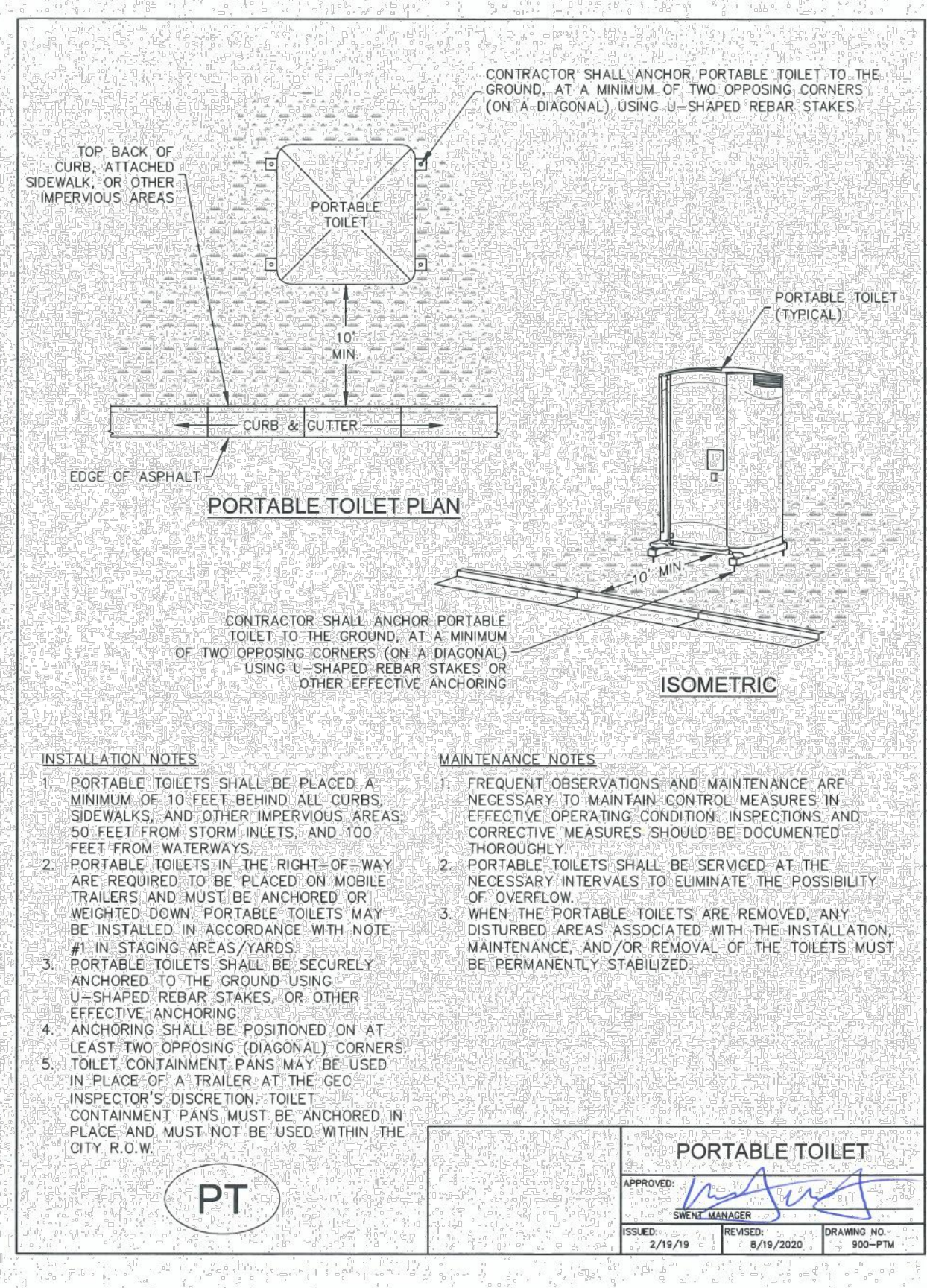
APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 10/7/19 REVISED: 6/19/2020 DRAWING NO: 900-IP-2



IP-3

SUMP INLET PROTECTION

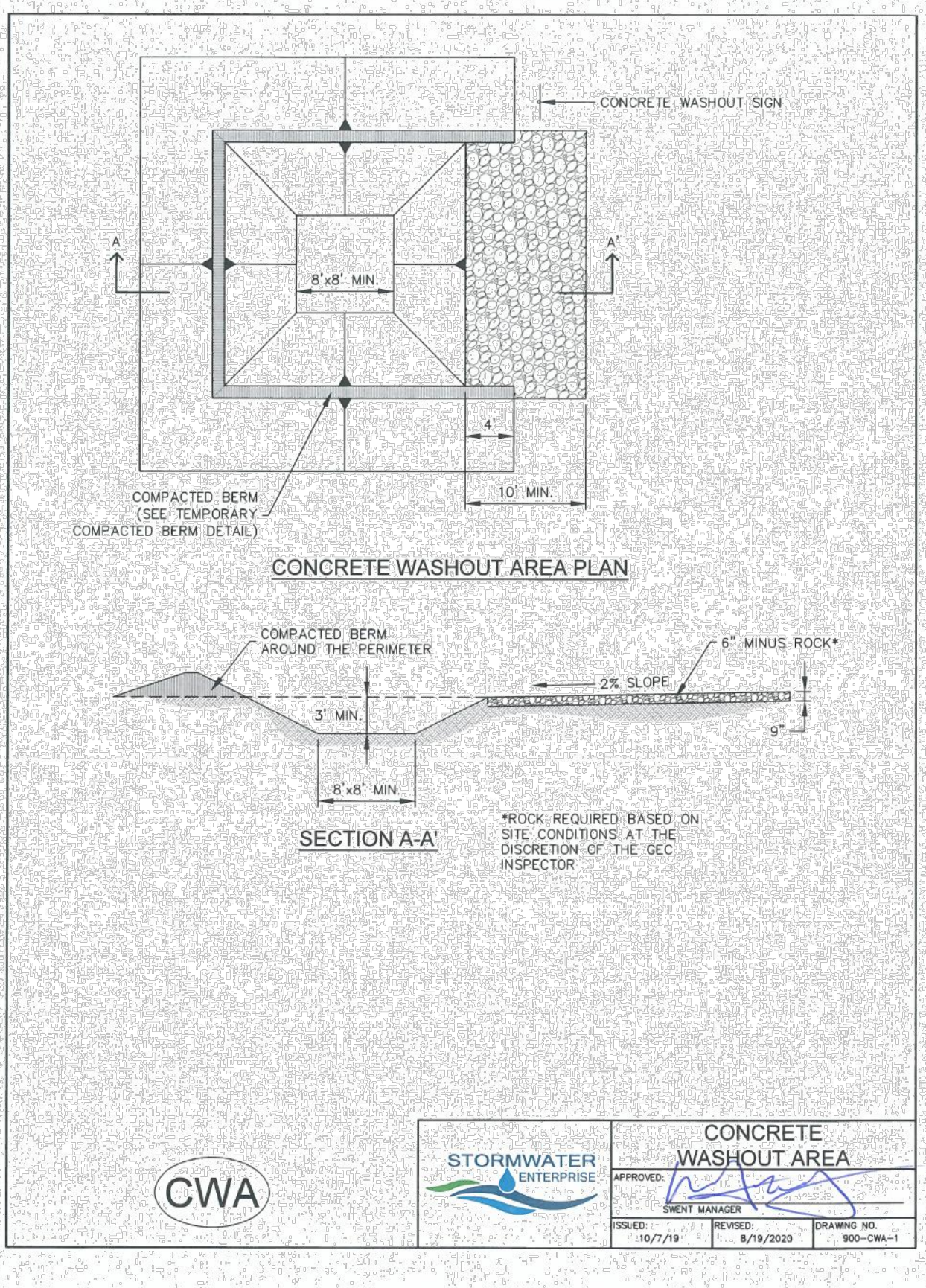
APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 10/7/19 REVISED: 6/19/2020 DRAWING NO: 900-IP-3



PT

PORTABLE TOILET

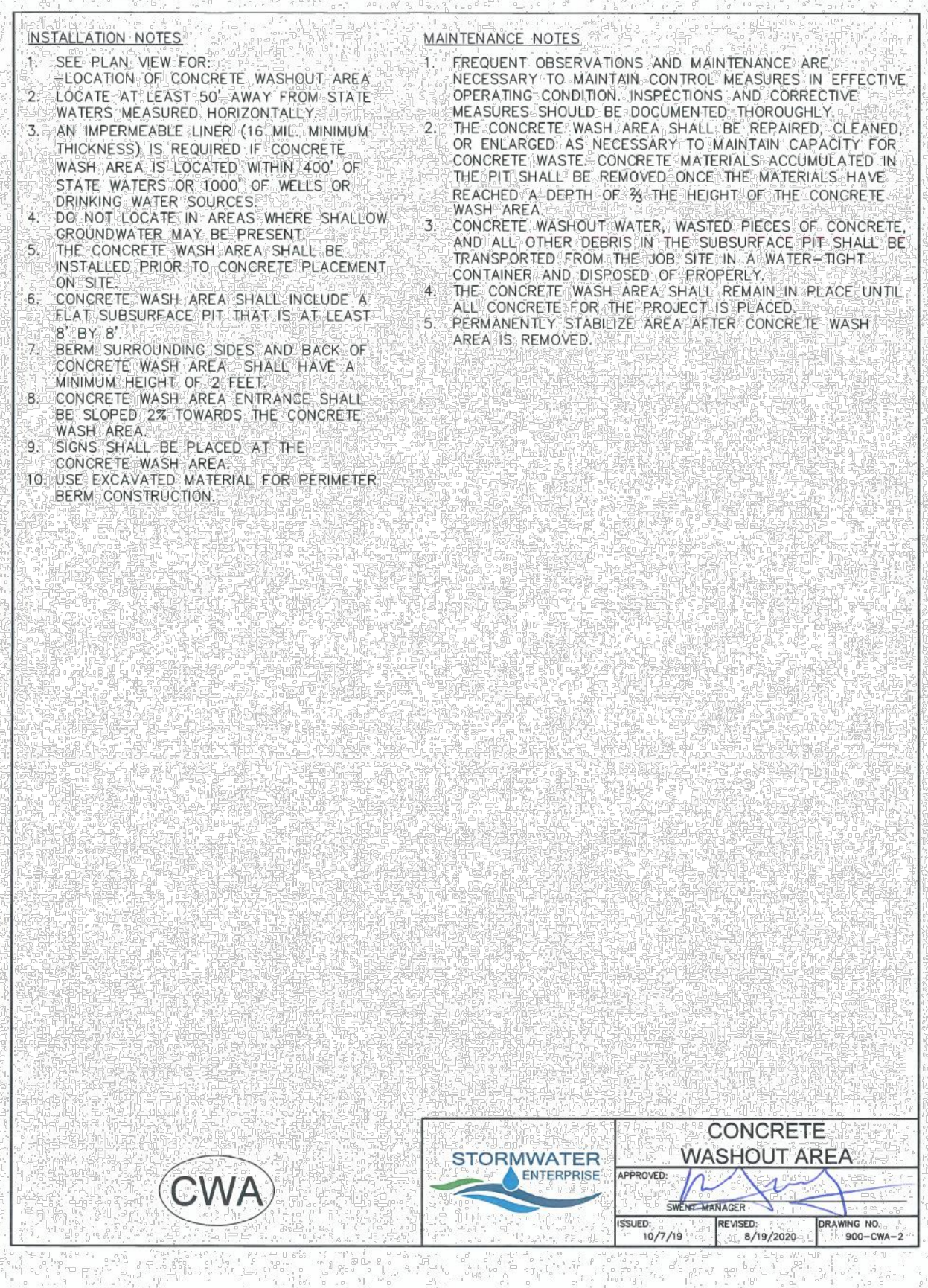
APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 2/19/19 REVISED: 6/19/2020 DRAWING NO: 900-PTW



CWA

CONCRETE WASHOUT AREA

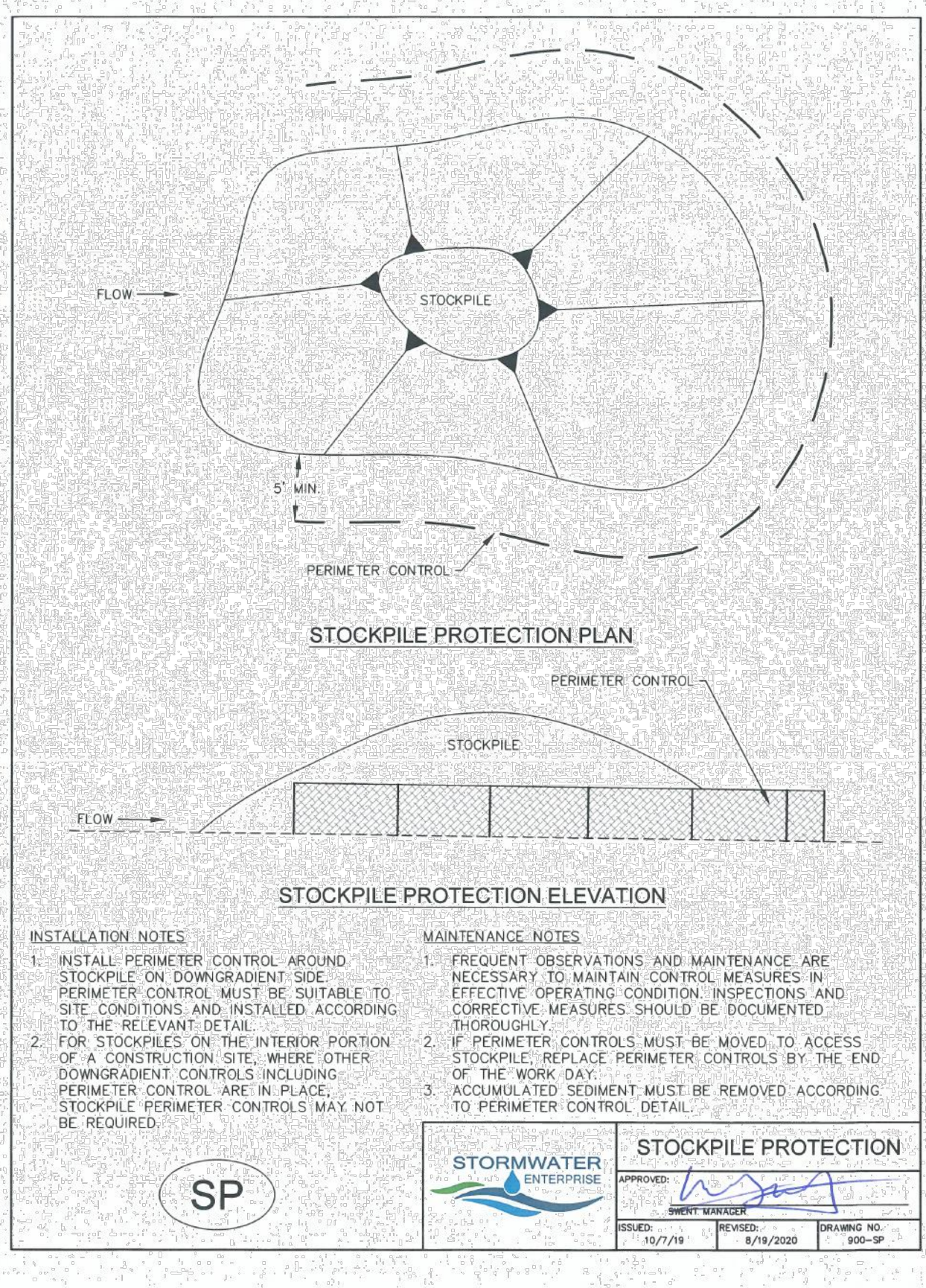
APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 10/7/19 REVISED: 6/19/2020 DRAWING NO: 900-CW-1



CWA

CONCRETE WASHOUT AREA

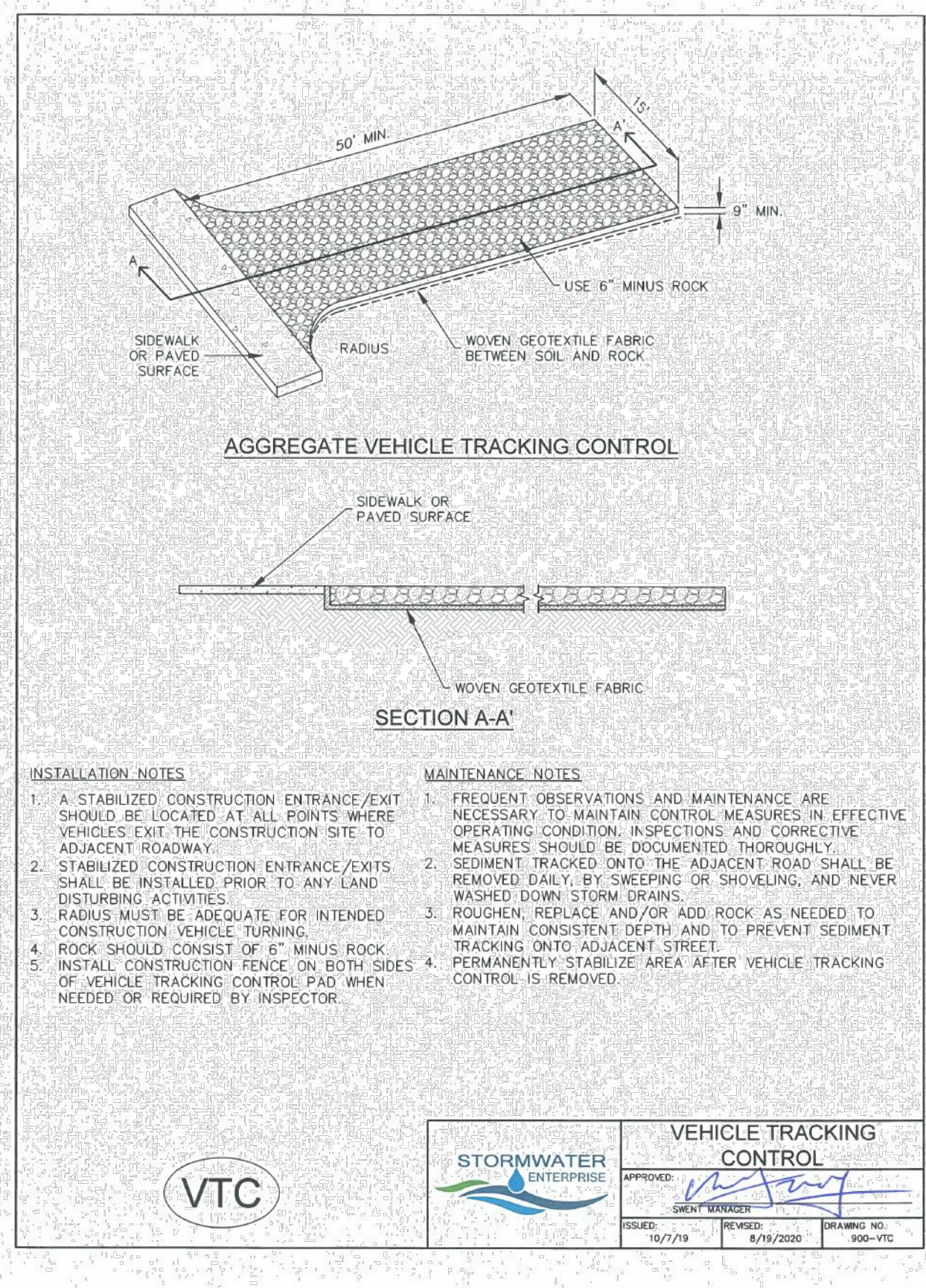
APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 10/7/19 REVISED: 6/19/2020 DRAWING NO: 900-CW-2



SP

STOCKPILE PROTECTION

APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 10/7/19 REVISED: 6/19/2020 DRAWING NO: 900-SP



VTC

VEHICLE TRACKING CONTROL

APPROVED: [Signature]
 SHEET NUMBER: [Blank]
 ISSUED: 10/7/19 REVISED: 6/19/2020 DRAWING NO: 900-VTC

Print Date: March 29, 2024

Drawing File Name:

Horiz. Scale: Vert. Scale:

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVENUE, SUITE 900
 COLORADO SPRINGS, COLORADO 80903
 (719) 453-0180

Date:	Comments:	Init.

COLORADO SPRINGS

OLYMPIC CITY USA

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley»Horn

Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
 DETAILS

067607114

Designer: EJJ
 Detailer: WJR

Sheet Subset: Subset Sheet: of

Sheet Number 88

I:\cos_civil\067607114_tejon_street_improvements\CADD\plansheets\GEC\GEC_DT.dwg Brehmer, Noah 3/29/2024 7:42 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSES AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF, AND IMPROPER RELIANCE ON, THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

SM-3 Construction Fence (CF)

Mesh Size	No. 4
100	100
20-55	90-100
0-15	20-55
0-5	0-15

INSTALLATION NOTES:

- CRUSHED ROCK SHALL BE BETWEEN MAX. 1 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET AND MIN. 3/4" CRUSHED ROCK.
- WIRE MESH SHALL HAVE OPENINGS SMALLER THAN THE SMALLEST SIZE ROCK.
- WIRE MESH SHALL BE SECURED USING "HOC RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

MAINTENANCE NOTES:

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED BEYOND REPAIR.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES 1/2 OF THE HEIGHT OF THE ROCK SOCK.
- ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL DISTURBED AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER ROCK SOCKS HAVE BEEN REMOVED.

ROCK SOCK OVERLAP: OVERLAP ROCK SOCKS TO AVOID GAPS.

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 8/16/2020 DRAWING NO: 900-91

SM-3 Construction Fence (CF)

INSTALLATION NOTES:

- SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5' AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
- COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
- SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
- FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
- THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
- INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

MAINTENANCE NOTES:

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN HEIGHT OF THE SILT FENCE.
- SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 8/16/2020 DRAWING NO: 900-92

SM-3 Construction Fence (CF)

CONSTRUCTION FENCE INSTALLATION NOTES:

- SEE PLAN VIEW FOR LOCATION OF CONSTRUCTION FENCE.
- CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.
- STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.
- CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

CONSTRUCTION FENCE MAINTENANCE NOTES:

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
- WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDING AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 8/16/2020 DRAWING NO: 900-93

SM-3 Construction Fence (CF)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

SM-7 Street Sweeping and Vacuuming (SS)

Description: Street sweeping and vacuuming remove sediment that has been tracked onto roadways to reduce sediment transport into storm drain systems or a surface waterway.

Appropriate Uses: Use this practice at construction sites where vehicles may track sediment offsite onto paved roadways.

Design and Installation: Street sweeping or vacuuming should be conducted when there is noticeable sediment accumulation on roadways adjacent to the construction site. Typically, this will be concentrated at the entrance/exit to the construction site. Well-maintained stabilized construction entrances, vehicle tracking controls and tire wash facilities can help reduce the necessary frequency of street sweeping and vacuuming.

Maintenance and Removal:

- Inspect paved roads around the perimeter of the construction site on a daily basis and more frequently, as needed. Remove accumulated sediment, as needed.
- Following street sweeping, check inlet protection that may have been displaced during street sweeping.
- Inspect area to be swept for materials that may be hazardous prior to beginning sweeping operations.

Photograph SS-1: A street sweeper removes sediment and potential pollutants along the curb line at a construction site. Photo courtesy of Tom Clere.

Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	Yes

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 8/16/2020 DRAWING NO: 900-94

SM-6 Stabilized Staging Area (SSA)

SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES:

- SEE PLAN VIEW FOR LOCATION OF STAGING AREA(S).
- CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
- STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
- STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
- THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 8" (MINUS) ROCK.
- ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES:

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 8/16/2020 DRAWING NO: 900-95

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES:

- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
- THE STABILIZED STAGING AREA SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDING AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 8/16/2020 DRAWING NO: 900-96

EC-14 Wind Erosion/Dust Control (DC)

Description: Wind erosion and dust control BMPs help to keep soil particles from entering the air as a result of land disturbing construction activities. These BMPs include a variety of practices generally focused on either graded disturbed areas or construction roadways. For graded areas, practices such as seeding and mulching, use of soil binders, site watering, or other practices that provide prompt surface cover should be used. For construction roadways, road watering and stabilized surfaces should be considered.

Appropriate Uses: Dust control measures should be used on any site where dust poses a problem to air quality. Dust control is important to control for the health of construction workers and surrounding waterbodies.

Design and Installation: The following construction BMPs can be used for dust control:

- An irrigation/sprinkler system can be used to wet the top layer of disturbed soil to help keep dry soil particles from becoming airborne.
- Seeding and mulching can be used to stabilize disturbed surfaces and reduce dust emissions.
- Protecting existing vegetation can help to slow wind velocities across the ground surface, thereby limiting the likelihood of soil particles to become airborne.
- Spray-on soil binders form a bond between soil particles keeping them grounded. Chemical treatments may require additional permitting requirements. Potential impacts to surrounding waterways and habitat must be considered prior to use.
- Placing rock on construction roadways and entrances will help keep dust to a minimum across the construction site.
- Wind fences can be installed on site to reduce wind speeds. Install fences perpendicular to the prevailing wind direction for maximum effectiveness.

Maintenance and Removal: When using an irrigation/sprinkler control system to aid in dust control, be careful not to overwater. Overwatering will cause construction vehicles to track mud off-site.

Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	Moderate

APPROVED: [Signature]

DESIGNED: 10/7/19 REVISION: 8/16/2020 DRAWING NO: 900-97

Print Date: March 29, 2024

Drawing File Name:

Horiz. Scale: Vert. Scale:

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVENUE, SUITE 900
COLORADO SPRINGS, COLORADO 80903
(719) 453-0180

Date: _____

Comments: _____

Init. _____

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
DETAILS

067607114

Designer: EJJ
Detailer: WJR

Sheet Subset: _____ of _____

Sheet Number 89

067607114

Sheet Number 89



SCHEDULE I – STORMWATER MANAGEMENT PLAN

Will be added after this page.



Tejon Street Revitalization Tejon Street Colorado Springs, CO

CITY STORMWATER MANAGEMENT PLAN (CSWMP) REPORT

Prepared For:

**City of Colorado Springs
30 South Nevada Avenue
Colorado Springs, Colorado 80903**

Prepared by:

**Kimley-Horn and Associates, Inc.
2 North Nevada Avenue, Suite 900
Colorado Springs, Colorado 80903
Eric Gunderson**

GEC Administrator / Qualified Stormwater Manager:

TBD

MARCH 2024

Prepared By:



TABLE OF CONTENTS

CONTACT INFORMATION.....	4
PERMITTEE.....	4
QUALIFIED STORMWATER MANAGER / GEC ADMINISTRATOR.....	4
PREPARING ENGINEER.....	4
CERTIFICATION / SIGNATURE BLOCKS.....	5
ENGINEER'S STATEMENT.....	5
CONTRACTOR'S STATEMENT.....	5
DEVELOPER/OWNER'S STATEMENT.....	6
CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL REVIEW.....	6
INTRODUCTION.....	7
INTRODUCTION AND PURPOSE.....	7
PERMIT COVERAGE AND APPLICATIONS.....	7
GENERAL LOCATION.....	7
PROJECT LOCATION.....	7
VICINITY MAP.....	8
SITE DESCRIPTION.....	9
GENERAL PROJECT DESCRIPTION.....	9
VEGETATION.....	9
DRAINAGE CHARACTERISTICS.....	9
NON-STORMWATER DISCHARGE COMPONENTS.....	16
ULTIMATE DISCHARGE.....	9
SITE SOILS.....	9
DEWATERING.....	9
AREAS AND VOLUMES.....	10
TIMING AND PHASING SCHEDULE.....	10
STORMWATER MANAGEMENT PLAN SITE MAP.....	12
SITE MAP MINIMUM REQUIREMENTS.....	12
STORMWATER MANAGEMENT CONTROLS.....	12

QUALIFIED STORMWATER MANAGER.....	12
SITE SPECIFIC POLLUTION SOURCES	13
IDENTIFICATION OF POLLUTANT SOURCES	13
CONTROL MEASURES FOR STORMWATER POLLUTION PREVENTION	14
OTHER POTENTIAL POLLUTION CONSIDERATIONS.....	17
MATERIALS HANDLING AND SPILL PREVENTION.....	17
VEHICLE TRACKING AND DUST CONTROL.....	18
DEDICATED CONCRETE OR ASPHALT BATCH PLANTS.....	18
WASTE MANAGEMENT AND DISPOSAL.....	18
STABILIZATION AND STORMWATER MANAGEMENT	19
TEMPORARY STABILIZATION AND SHORT-TERM STORMWATER MANAGEMENT.....	19
FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT.....	19
INSPECTION AND MAINTENANCE.....	19
INSPECTION SCHEDULE REQUIREMENTS	19
SELF-INSPECTION SCHEDULE REQUIREMENTS	20
INSPECTION PROCEDURES.....	20
CONTROL MEASURE MAINTENANCE / REPLACEMENT AND FAILED CONTROL MEASURES	22
DISPOSITION OF TEMPORARY MEASURES.....	23
PLAN MODIFICATIONS	23
REFERENCES	24
APPENDIX.....	25
APPENDIX A – STORMWATER MANAGEMENT PLANS / SITE MAPS	
APPENDIX B – CDPHE STORMWATER PERMIT	
APPENDIX C – FEMA FIRM MAP	
APPENDIX D – SOILS INFORMATION	
APPENDIX E – IDENTIFICATION OF POLLUTANT SOURCES	
APPENDIX F – LAND DISTURBANCE / CONTROL MEASURE / STABILIZATION LOG	
APPENDIX G – CDPHE ENVIRONMENTAL SPILL REPORTING / CONTROL MEASURE	
APPENDIX H – STORM EVENT LOG	
APPENDIX I – INSPECTION AND SAMPLING REPORTS	
APPENDIX J – SWMP AMENDMENT LOG	
APPENDIX K – SOIL BORING / TEST (GEOTECH REPORT)	
APPENDIX L – GEC ADMINISTRATOR CERTIFICATION	
APPENDIX M – FINAL LANDSCAPING PLAN	

CONTACT INFORMATION

PERMITTEE

Name:

Phone Number:

Address:

Email Address:

QUALIFIED STORMWATER MANAGER / GEC ADMINISTRATOR

Name:

Phone Number:

Address:

Email Address:

PREPARING ENGINEER

Name: Eric Gunderson | Kimley Horn & Associates, LLC

Phone Number: 719-453-0182

Address: 2 North Nevada Avenue, Suite 900, Colorado Springs, CO 80903

Email Address: eric.gunderson@kimley-horn.com

CERTIFICATION / SIGNATURE BLOCKS

ENGINEER'S STATEMENT

The CSWMP was prepared under my direction and supervision and is correct to the best of my knowledge and belief. If such work is performed in accordance with the CSWMP, the work will not become a hazard to life and limb, endanger property, or adversely affect the safety, use, or stability of a public way, drainage channel, or other property.

Printed Name: _____ Date: 3/29/2024

Phone Number: _____

Seal

CONTRACTOR'S STATEMENT

I will comply with the requirements of the Grading and Erosion Control Plan/CSWMP including Construction Control Measure inspection requirements and final stabilization requirements. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (CDPS) permitting for stormwater discharges associated with construction activity.

Name of Contractor: _____

Authorized Signature: _____ Date: _____

Title: _____

Phone Number: _____

Address: _____

Email Address: _____

DEVELOPER/OWNER'S STATEMENT

The owner will comply with the requirements of the CSWMP including Construction Control Measure inspection requirements and final stabilization requirements according to the City of Colorado Springs Stormwater Construction Manual. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (CDPS) permitting for stormwater discharges associated with construction activity.

Developer/Owner Signature: _____ Date: _____

Name of Developer/Owner: _____ Phone: _____

Title: _____ Email: _____

CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL REVIEW

This CSWMP is filed in accordance with City Code. This plan is reviewed in accordance with the Stormwater Construction Manual; latest revisions.

_____ Date: _____

For the SWENT Manager

Notes: _____

INTRODUCTION

INTRODUCTION AND PURPOSE

The purpose of this City Stormwater Management Plan (CSWMP) Report is to provide a guide for the Developer and Contractor to use for the design of sediment and erosion control measures and facilities, to support the issuance of a Colorado Discharge Permit System General Permit (General Permit) through CDPHE for the section of Tejon Street located to the north of the intersection with Colorado Avenue and to the south of the intersection with East Kiowa Street. (herein the “Project”), City of Colorado Springs, Colorado. This Report, in conjunction with the Construction Drawings provided in **Appendix A**, examines measures taken onsite to improve stormwater quality leaving the site, and addresses important erosion control measures implemented prior to and during construction.

The primary goal of pollution prevention efforts during Project construction is to control sediment and pollutants that originate on the site and prevent them from flowing to surface waters. A successful pollution prevention program also relies upon careful inspection and adjustments during the construction process to enhance its effectiveness. It is the intent of this plan to implement stormwater control measures, also referred to as best management practices (BMP) for enhancing the quality of stormwater discharges associated with the construction activity. Control measures designs are based on the criteria set forth by the General Permit and the Mile High Flood Control District, Volume 3.

This plan must be implemented before construction begins on the site. It primarily addresses the impact of storm rainfall and runoff on areas of the ground surface disturbed during the construction process. In addition, there are recommendations for controlling other sources of pollution that could accompany the major construction activities. Applicability of this plan shall be terminated when disturbed areas are stabilized, temporary erosion controls are removed, construction activities covered herein have ceased and the permit has been inactivated.

PERMIT COVERAGE AND APPLICATIONS

The Grading, Erosion & Sediment Control for this Project shall be approved by the City of Colorado Springs prior to issuance of construction related permits.

Based upon a Site Disturbance Area of one (1) acre or more, this site requires the issuance of a Colorado Discharge Permit System (CDPS) - Stormwater Discharge Associated with Construction Activities Permit (General Permit) through the Colorado Department of Public Health and Environment (CDPHE). A copy of the CDPS General Permit Application is included in **Appendix B** of this report.

GENERAL LOCATION

PROJECT LOCATION

The proposed street redevelopment project for Tejon Street is located in a portion of the W ½ of the NW ¼ of Section 18, Township 14 South, Range 66 West of the Sixth Principal Meridian, City of Colorado Springs, County of El Paso, State of Colorado (see Vicinity Map). More specifically, the site is located along Tejon St from the intersection with E Kiowa St to the intersection with Colorado Ave in Colorado Springs, CO (“Site”).

The Site is currently a developed street. The proposed improvements involve the demolition of the existing roadway and sidewalk and the construction of a wider sidewalk and a new roadway with a bus stop, spaces for parallel parking, a bike lane, and new drainage structures. Parcels adjacent to the Site include:

North – East Kiowa Street

- The site ends at the intersection of East Kiowa Street and Tejon Street

South – Colorado Avenue

- The site ends at the intersection of Colorado Avenue and Tejon Street

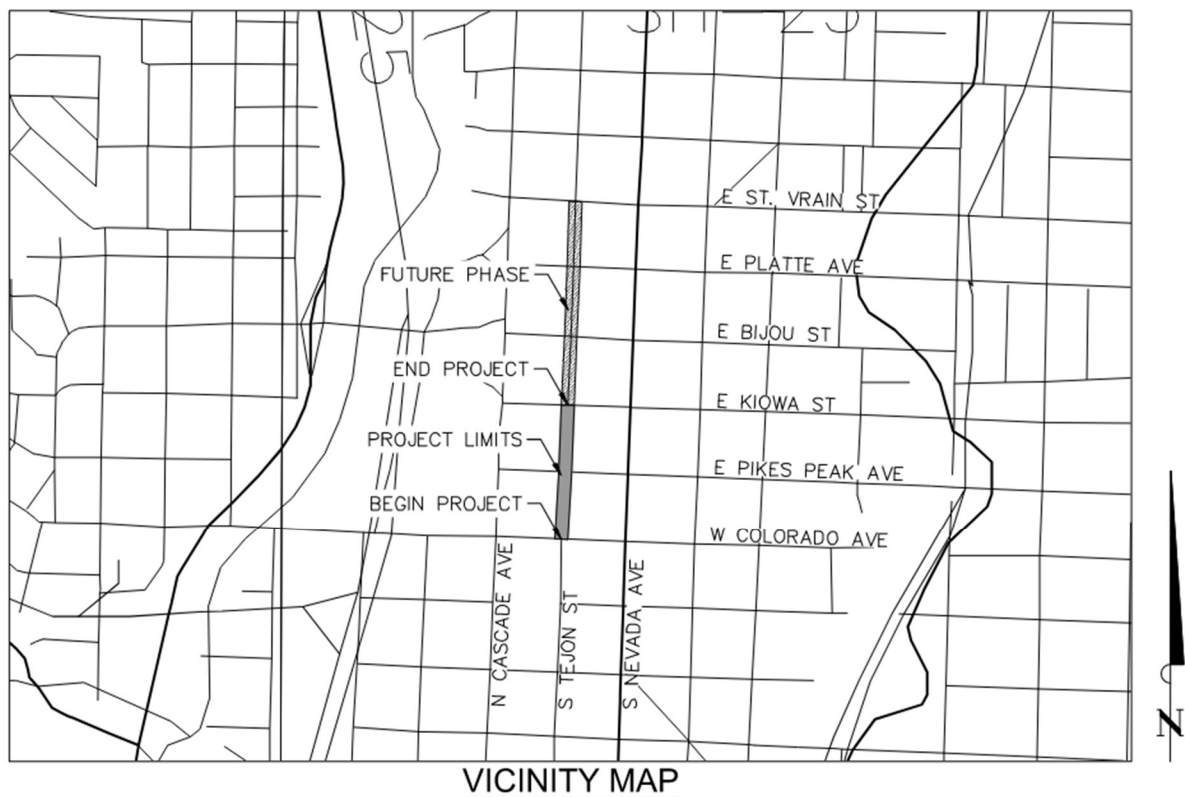
East – Existing Commercial Buildings

- Famous Steakhouse, Rocky Mountain Motorcycle Museum, Jack Quinn’s Irish Pub, and other commercial buildings are located to the east of Tejon St. and the Site.

West – Existing Commercial Buildings

- Einstein Bros. Bagels, the U.S. Bank, Fujiyama, and other commercial buildings are located to the west of Tejon St. and the Site.

VICINITY MAP



SITE DESCRIPTION

GENERAL PROJECT DESCRIPTION

The limits of construction are ±1.70 acres. The Site is as a Street Zone and the plots surrounding it are Form Based Zoned as Urban Core (FBZ-CEN). No rezoning is anticipated for the street or surrounding parcels. The Project will consist of the construction of a wider sidewalk, curb and gutter, bus stop, bike lane, parallel parking spots, and narrower roadway.

VEGETATION

The existing site is currently a developed city road and sidewalk that contains multiple large trees which has been confirmed by visual verification and through site images. Existing vegetation is only present in landscaped areas and makes up approximately 4% of the site.

DRAINAGE CHARACTERISTICS

Drainage patterns follow the existing topography, flowing across pavement and concrete to the existing curb and gutter to be conveyed to existing public inlets at the intersections of Pikes Peak Ave and Colorado Ave. No offsite flows impact this Site, as existing public inlets upstream of the Project collect offsite flows. It is assumed the existing upstream public inlets have no bypass flow onto the Project. Water quality treatment and detention is not currently provided within the Project limits of disturbance/study area of the Tejon Street corridor. Any proposed drainage conditions will follow existing drainage patterns.

The Flood Insurance Rate Maps (FIRM) 08041C0729G effective date December 7, 2018, by FEMA, indicates that the Site is located in Zone X (outside of the 500-year flood plain).

The FIRM is provided in **Appendix C**.

There are no stream crossings located within the construction site boundary or limits of disturbance.

ULTIMATE DISCHARGE

The developed runoff from the Project will generally be collected by means of public storm sewer inlets located in the along the sidewalk curbs. The runoff collected from each basin will be conveyed to proposed public hydrodynamic separators for Water Quality treatment prior to connecting to existing public stormwater infrastructure within Tejon Street. Runoff from the Site ultimately discharges into Monument Creek.

SITE SOILS

A review of the Natural Resource Conservation Service (NRCS) Web Soil Survey determined that the Site is entirely made up of Chaseville gravelly sandy loam, an NRCS Soil Type of A. The soils information is found in **Appendix D** of the report.

DEWATERING

Groundwater dewatering is not anticipated per the Geotechnical Report by Granite Engineering Group. Per the Geotech report, "All borings were dry during drilling and at the completion of drilling. Groundwater observations are representative of conditions at the time of our field exploration, and therefore may not be

indicative of groundwater levels at other times of the year or at other locations across the site. Groundwater conditions may fluctuate with seasonal precipitation, site grading and improvements, and local irrigation practices.” Fluctuations in the water level may occur with time, particularly during wetter seasons and after precipitation events, however, given the site and subsurface conditions and anticipated excavation depths, we do not anticipate groundwater to be a construction consideration for this project.

If groundwater is encountered during construction, the operator shall file for appropriate dewatering permits (Permit No. COG070000) with the CDPHE. The state dewatering permit application and associated information can be found at <https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits>. The permit application will need to be filled out 30 days prior to the anticipated discharge. Refer to the UDFCDs detail and fact sheet for additional dewatering operations information.

AREAS AND VOLUMES

The total anticipated project disturbance area is approximately 1.70 acres. The estimated earthwork quantities are as follows:

Cut: ±346 cubic yards

Fill: ±277 cubic yards

Net: ±69 cubic yards CUT

TIMING AND PHASING SCHEDULE

The operator shall utilize the following general construction practices which are required throughout the project at locations shown on the Erosion and Sediment Control Plan or as dictated by construction activities.

- Materials handling and spill prevention
- Waste management and disposal
- Hazardous material storage and containment area
- Vehicle maintenance fueling and storage
- Solid waste containment facility
- Sanitary waste facility
- Street Sweeping (SS) – performed by the Operator

These practices shall remain active and operational throughout the duration of construction and be identified on the Erosion and Sediment Control Plan. Due to any phasing required for the Project, it is understood that these control measures may be relocated as needed to facilitate construction operations. The Operator shall locate and identify the original and current location of these control measures on the Erosion and Sediment Control Plan, throughout the construction of the Project. An updated copy of the Erosion and Sediment Control Plan shall be kept onsite throughout construction of the Project.

General construction sequencing and activities associated with this project are described below. They are presented in the order (or sequence) they are expected to begin, but each activity will not necessarily be completed before the next begins.

The anticipated construction start date is Summer 2024 and the anticipated completion date is Fall of 2024.

INITIAL/INTERIM PHASE

The initial phase shall consist of applying for and receiving the CDPS General Permit as well as construction/installation of temporary control measures to minimize potential for erosion and sediment transfer while mobilizing and preparing the site for construction activities. The operator shall minimize site disturbance by minimizing the extent of grading and clearing to effectively reduce sediment yield. The operator shall complete the anticipated initial phase sequencing as follows:

1. Prepare and submit the State of Colorado, Colorado Department of Public Health and Environment (CDPHE) Colorado Discharge Permit System (CDPS) General Permit. A copy of the permit shall be provided to the owner upon receipt from the CDPHE.
2. Install perimeter controls (CF) and ensure that the limits of construction (LOC) are defined as necessary or known by all parties which will be responsible for construction on the Site. Install silt fence (SF) as shown on the GEC plans.
3. Install sump inlet protection (IP), on-grade inlet protection and rock socks (RS) for existing stormwater conveyance facilities as indicated on the GEC plans or as necessitated by field conditions.
4. Install and denote on the plan any of the following areas: trailer, parking, lay down, portable toilet (PT), wheel wash, concrete washout, fuel and material storage containers, solid waste containers, etc.
5. Install stabilized vehicle tracking control pad (VTC) as indicated on the GEC plans.
6. Stockpile fill material (SP) at location indicated on the GEC plan and per requirements previously stated.
7. Construct required stabilized staging area (SSA).
8. Upon completion of the initial control measure installation the Operator shall schedule and hold a meeting with the Contractor and Inspector that shall take place prior to the Pre-Construction Meeting.
9. The Operator shall schedule a Pre-Construction Meeting with the City and Owner to confirm control measures installed are adequate prior to proceeding with additional land disturbing activities.
10. Conduct demolition of existing surface parking lot and cut off utilities as noted and required for demolition and construction preparation.
11. Complete demolition of existing site improvements and clearing and grubbing of the Site as necessary to proceed with initial grading operations. Stockpile materials in accordance with the stockpile management (SP) CCM.
12. Begin clearing and grubbing of the site.
13. Install *Concrete Washout Area (CWA)* prior to construction of concrete improvements.

FINAL PHASE

The final phase shall consist of construction of site improvements, construction of permanent control measures, and final stabilization of the Site. The operator shall complete the anticipated final phase sequencing as follows:

1. Confirm existing control measures from the initial phase which are to be maintained throughout
2. *Temporarily Seed (TS)*, throughout construction, denuded areas that will be inactive for 14 days or more.
3. Complete installation of utilities and curb and gutters.
4. Permanently stabilize areas to be vegetated as they are brought to final grade.
5. Prepare site for paving.

6. Pave site, including gravel roadways, concrete sidewalk, and paved parking lot.
7. Complete grading and installation of final stabilization over all areas in accordance with the approved landscape plans for the Project.
8. Remove remaining control measures once permanent stabilization has been achieved and accepted by the City Inspector. Repair and stabilize areas disturbed through control measure removal.
9. Notify the owner of intent to file the Notice of Inactivation with CDPHE and receive Owner acceptance to proceed with Stormwater Management Close-out.
10. Proceed with filing the Notice of Inactivation with CDPHE.
11. Provide the Owner with a copy of all stormwater documentation (permits, inspection reports, logs, etc.) upon completion of Project Stormwater Notice of Inactivation.

STORMWATER MANAGEMENT PLAN SITE MAP

SITE MAP MINIMUM REQUIREMENTS

The Site Map for this project is included within **Appendix A** of this report and meets the following minimum requirements:

- Construction Site Boundaries
- Flow Arrows Depicting Stormwater Flow Directions
- Location of existing and proposed stormwater infrastructure
- Identification of Ground Surface Disturbance
- Location of Dedicated Asphalt or Concrete Batch Plants (As Applicable)
- Location of Structural Control Measures
- Location of Non-Structural Control Measures
- Location of Springs, Streams, Wetlands or other Surface Waters (As Applicable)
- Location of All Stream Crossings Located Within the Construction Site Boundary (As Applicable)

STORMWATER MANAGEMENT CONTROLS

QUALIFIED STORMWATER MANAGER

The Qualified Stormwater Manager is the Operator selected for the project. The Qualified Stormwater Manager is an individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess the effectiveness of stormwater controls implemented to meet the requirements of the General Permit. The Qualified Stormwater Manager is responsible for developing, implementing, maintaining and revising the Grading and Erosion Control Plan. The activities and responsibilities of the Qualified Stormwater Manager shall address all aspects of the facility's Grading and Erosion Control Plan. The terms Qualified Stormwater Manager and GEC Administrator imply the same individuals and these terms may be used interchangeably.

Company: _____

Contact: _____

Address: _____

Phone: _____

Email: _____

SITE SPECIFIC POLLUTION SOURCES

Further identification of site-specific pollutants that fall within the categories outlined in the next section may be field noted using the corresponding log included in **Appendix E** of this report. The logs are intended to record site specific pollutants, the date of arrival on the site, the date removed from the site, and the methods of treatment.

IDENTIFICATION OF POTENTIAL SOURCES OF POLLUTION

Evaluation of general sediment and non-sediment pollution sources associated with site construction activities, as outlined within the General Permit, consist of the following:

- **Disturbed and Stored Soils** – Earth disturbing activities (grading, excavation, etc.) will be necessary for this project; therefore, the potential exists for disturbed site soils to contribute sediment to stormwater discharges.
- **Vehicle Tracking of Sediment** – Construction traffic will be entering and exiting the Site; therefore, the potential exists for vehicle tracking to contribute sediment to stormwater discharges.
- **Management of Contaminated Soils** – Contaminated soils are not anticipated on this Site. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures.
- **Loading and Unloading Operations** – Loading and unloading operations will be taking place at the Site; therefore, the potential exists for these operations to introduce sediment and non-sediment pollutants to stormwater discharges.
- **Outdoor Storage of Materials** – Limited outdoor storage of materials is anticipated with construction of this site; however, outdoor storage of chemicals, fertilizers, etc. is not anticipated.
- **Vehicle and Equipment Maintenance and Fueling** – Routine maintenance and fueling of vehicles and equipment is anticipated with this Site; therefore, the potential exists for pollutants associated with these activities to contribute pollutants to stormwater discharges.
- **Significant Dust or Particulate Generating Processes** – Earth disturbing activities (grading, excavation, etc.) will be necessary for this project; therefore, the potential exists for windblown site soils to contribute sediment to stormwater discharges.
- **Routine Maintenance Activities** – Routine maintenance involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc., other than those identified within Vehicle and Equipment Maintenance and Fueling are not anticipated with this project. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures.
- **Onsite Waste Management Practices** – Waste management consisting of solid waste piles, liquid wastes, dumpsters, etc. are anticipated onsite; therefore, the potential exists for these operations to introduce sediment and non-sediment pollutants to stormwater discharges.
- **Concrete Truck / Equipment Washing** – Concrete truck and equipment washing are not anticipated with this project. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures.
- **Dedicated Asphalt and Concrete Batch Plants** – Dedicated asphalt and/or concrete batch plants are not anticipated with this project. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures and document as necessary.
- **Non-Industrial Waste Sources** – Non-Industrial waste sources limited to portable sanitary facilities are anticipated with this project.
- **Additional Pollutant Sources** – Additional areas or procedures where potential spills could occur are not anticipated with this project.

Logs for the identification of pollutant sources are included in **Appendix E** for reference and use.

Based on the following, the potential to contribute pollutants to stormwater discharges is not significant for most of the pollutants identified above:

- Relatively Low Frequency of the Activities
- The Ability to Schedule Activities During Dry Weather
- Existing Site Topography
- The Ability to Implement Primary and Secondary Containment for Product Storage
- The Ability to Locate Activities Away from Drainage Ways

Potential pollutant sources noted below shall be mitigated by use of Best Management Practices (BMPs) as noted in the following sections:

- Disturbed and Stored Soils
- Vehicle Tracking and Sediment
- Loading and Unloading Operations
- Outdoor Storage
- Vehicle Equipment and Maintenance Fueling
- Significant Dust or Particulate Generating Processes
- Non-Industrial Waste Sources

CONTROL MEASURES FOR STORMWATER POLLUTION PREVENTION

There are three general types of control measures that will be utilized for the Project: Erosion Control, Sediment Control, and Site/Material Management control measures. Erosion Control measures are used to limit the amount and extent of erosion. Sediment Control measures are designed to capture eroded sediments prior to their conveyance offsite. Site/Material Management control measures are related to construction access and staging. Several control measures described below may be categorized into more than one of the types described above. Also, these control measures may be categorized into one or more of the following construction phases which pertain to the phase of development in which they may be implemented. Initial Stage control measures shall be installed on existing grades at the outset of construction. Final Stage control measures shall be installed on proposed grades and drainage features after initial site grading. Construction of the identified improvements will take place under two phases of construction anticipated as identified within the construction sequencing included within this report.

Refer to the Erosion and Sediment Control Plans for the location and implementation of erosion control measures for the phases of the Project. The following is a brief description of temporary sediment and erosion control measures to be utilized on this Site and the application those control measures are treating.

EROSION CONTROL

Protection of steep slopes is not anticipated on this project. Steep slopes are defined as slopes greater than 3:1 that are higher than 5-feet vertically. Temporary slopes during construction that are greater than 3:1 need to be addressed along with any permanent slopes which are greater than 3:1. The Permittee may need to implement the use of diversion ditches to reroute the storm runoff, terrace the grades to break up the flow of incidental runoff down slopes, compost mulch to protect the exposed soil or other control measure as approved by the inspector. Slopes steeper than 3:1 shall be protected with an erosion control blanket. No un-protected final grades shall be allowed greater than 2:1.

Permanent soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within fourteen (14) calendar days after final grading or the final earth disturbances has been completed. When it is not possible to permanently stabilize a disturbed area after an earth disturbance has been completed or where significant earth disturbance activity ceases, temporary soil erosion control measures shall be implemented within fourteen (14) calendar days. All temporary soil erosion control measures shall be maintained until permanent soil erosion measures are implemented.

All disturbed areas shall be stabilized as soon as possible. Seeding and Mulching (SM), to provide protection against rain and wind erosion, shall be performed temporarily, as needed, during the pre-construction, initial, and interim phases and maintained until final stabilization is completed. Site Stabilization will be achieved through use of temporary seeding and mulching (TS) and ultimately permanent landscaping (PS). All disturbed areas which are either final graded or will remain inactive for a period of more than 30 days shall be required to be stabilized within 14 days of the completion of the grading activities.

SEDIMENT CONTROL

Silt Fence (SF) is located downstream of disturbed areas and provides a sediment barrier for runoff. SF is installed to help reduce the amount of sediment in surface runoff that will be exiting/entering the Site. SF will be installed along portions of the limits of construction line located throughout the Site as denoted on the Site Map. The SF will be installed during the initial phases of construction activities and maintained throughout construction.

Inlet Protection (IP) will be installed at each storm sewer inlet to minimize the sediment and debris entering the storm drainage system. IP will be present offsite during all phases of construction and will be placed on-site immediately following inlet installation.

SITE/MATERIAL MANAGEMENT

One construction entrance with Vehicle Tracking Control (VTC) shall be installed the entrance of each major roadway section in an effort to reduce off-site sediment tracking. The VTC shall be installed during the initial phase of construction activities.

A Concrete Washout Area (CWA) will be installed near the VTC to help isolate concrete truck washout operations upon departure. A CWA is installed when a site anticipates the generation of concrete wash water. CWAs provide an area for the proper collection and disposal of all liquid concrete waste. The CWA will be installed during the initial phase of construction activities. Three basic approaches are available to the Contractor and include an above-grade storage area, excavation of a pit in the ground, and a prefabricated haul-away concrete washout container. All concrete washout areas shall, as a minimum adhere to the following guidelines:

- Maintain a minimum distance of 400 feet from a stream or water body.
- Maintain a minimum distance of 1,000 feet from any wells or drinking water source.
- Shall not be located in a natural draw or drainage swale.
- Shall not be located in areas of highly permeable soils, i.e., gravels and sands.
- The chosen location shall be sited so that if a failure or overtopping occurs, the flow would be directed to a flat or depressed grassy area away from any water sources.
- The use of solvents, cleaners, or hazardous materials when cleaning or removing concrete is strictly prohibited.
- Backflushing shall not be permitted on site.
- Adequate and proper disposal of contents is required once the CWA has reached ½ capacity and at the end of concrete construction activities.

A stabilized staging area (SSA) is proposed. This will be designated by the Contractor as an area for construction staging and material storage. The SSA provides a controlled area for staging of construction materials and equipment, placement of any job trailers, and contractor parking, etc.

Street Sweeping (SS) is necessary for any site that may track-out onto adjacent sites or roadways. Paved and impervious surfaces which are adjacent to construction sites must be swept on a weekly basis or as needed during the week when sediment and other materials are tracked or discharged onto them. Either sweeping by hand or use of street sweepers is acceptable. Street sweepers using water while sweeping is preferred in order to minimize dust. Scraped or swept material shall not be deposited in the storm sewer. Materials collected by the inlet protection shall be removed and shall not be deposited in the storm sewer. Street sweeping is the responsibility of the Operator and will not be performed by the City to meet the requirements of this Plan.

A documented use agreement is required between the applicable construction site owner or operator and the owner or operator of any Control Measures located outside of the construction site boundaries that are used by the applicable construction site for compliance with the GEC Plan, but not under the direct control of the applicable construction site owner or operator. The applicable construction site owner or operator is responsible for ensuring that all Control Measures located outside of the construction site boundaries, that are being used by the applicable construction site, are properly maintained and in compliance with all terms and conditions of Part I.B.3. However, the need of a use agreement is not anticipated for this project because all control measures are located onsite or in the public right-of-way.

NON-STORMWATER DISCHARGE COMPONENTS

Only specifically authorized non-stormwater discharges are allowed to enter the storm sewer and all authorized non-stormwater discharges shall be eliminated or reduced to the extent practical.

Appropriate control measures shall be used to minimize the discharge of pollutants. Such control measures will be strictly followed to ensure any impacts from non-stormwater discharges are reduced or eliminated. Appropriate control measures are:

- Emergency Fire Fighting Activities
- Uncontaminated ground water or spring water
If possible, direct uncontaminated ground water or spring water to stabilized points of discharge. If discharged to a disturbed area, assure measures to control erosive velocities and sediment control measures are implemented. Velocity control measures include riprap aprons and other conveyance measures. Sediment control measures might include stone check dams, sediment traps, and basins.
If uncontaminated ground water is discharged off-site, a Construction Dewatering Permit will be required. This Permit will not apply if dewatering is not performed or if water is not discharged off-site.

OTHER POTENTIAL POLLUTION CONSIDERATIONS

MATERIALS HANDLING AND SPILL PREVENTION

Any hazardous or potentially hazardous material that is brought onto the construction site shall be handled properly to reduce the potential for stormwater pollution. In an effort to minimize the potential for a spill of petroleum product or hazardous materials to come in contact with stormwater, the following steps shall be implemented:

- Material Safety Data Sheets (MSDS) information shall be kept on site for any and all applicable materials.
- All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, additives for soil stabilization, concrete, curing compounds and additives, etc.) shall be stored in a secure location, under cover and in appropriate, tightly sealed containers when not in use.
- The minimum practical quantity of all such materials shall be kept on the job site and scheduled for delivery as close to time of use as practical.
- A spill control and containment kit shall be provided on the construction site and location(s) shown on Site Maps.
- All of the product in a container shall be used before the container is disposed of. All such containers shall be triple rinsed, with water prior to disposal. The rinse water used in these containers shall be disposed of in a manner in compliance with State and Federal regulations and shall not be allowed to mix with stormwater discharges.
- All products shall be stored in and used from the original container with the original product label and used in strict compliance with the instructions on the product label.
- The disposal of excess or used products shall be in strict compliance with instructions on the product label.

Fueling for construction is anticipated to be conducted with a fuel truck that will not be kept permanently on-site. If utilized, temporary onsite fuel tanks for construction vehicles shall meet all state and federal regulations. Tanks shall have approved spill containment with the capacity required by the applicable regulations. From NFPA 30: All tanks shall be provided with secondary containment (i.e. containment external to and separate from primary containment). Secondary containment shall be constructed of materials of sufficient thickness, density and composition so as not to be structurally weakened as a result of contact with the fuel stored and capable of containing discharged fuel for a period of time equal to or longer than the maximum anticipated time sufficient to allow recovery of discharged fuel.

The tanks shall be in sound condition free of rust or other damage which might compromise containment. Fuel storage areas shall meet all Environmental Protection Agency (EPA), OSHA and other regulatory requirements for signage, fire extinguisher, etc. Hoses, valves, fittings, caps, filler nozzles and associated hardware shall be maintained in proper working condition at all times. The location of fuel tanks shall be shown on the Site Maps and shall be located to minimize exposure to weather and surface water drainage features.

The Operator shall develop and implement a Materials Handling and Spill Prevention Plan (MHSP) in accordance with the EPA and State of Colorado requirements. In the event of an accidental spill, immediate action shall be undertaken by the Operator to contain and remove the spilled material. All hazardous materials, including contaminated soil, shall be disposed of by the Operator in the manner specified by

federal, state and local regulations and by the manufacturer of such products. As soon as possible, the spill shall be reported to the appropriate agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering waters of the United States shall be properly reported. The Operator shall prepare a written record of any spill and associated clean-up activities of petroleum products or hazardous materials in excess of 1 gallon or reportable quantities, whichever is less. A copy of the Spill Report Form is included in **Appendix G** of this report.

Accidental spills shall be handled expeditiously as outlined in CDPHE guidance. Any spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the state or local agency regulations, shall be immediately reported to the Colorado Department of Public Health and Environment spill reporting lines.

- CDPHE Environmental Release and Incident Reporting Line (877) 518-5608.
- National Response Center - (800) 424-8802

VEHICLE TRACKING AND DUST CONTROL

Vehicle Tracking Control measures (structural and non-structural) shall be implemented in order to control potential sediment discharges from vehicle tracking. Practices shall be implemented for all areas of potential vehicle tracking which include but are not limited to reduced site access and utilization of designated haul routes.

Areas of soil that are denuded of vegetation and have little protection from particles being picked up and carried by wind should be protected with a temporary cover or kept under control with water or other soil adhering products to limit wind transported particles exiting the site perimeter.

DEDICATED CONCRETE OR ASPHALT BATCH PLANTS

Dedicated concrete or asphalt batch plants are not anticipated with this project. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures and document as necessary.

WASTE MANAGEMENT AND DISPOSAL

An effective first step towards preventing pollution in stormwater from work sites involves using a common-sense approach to improve the facility's basic housekeeping methods. Poor housekeeping practices result in increased waste and potential for stormwater contamination.

No solid materials are allowed to be discharged from the site with stormwater. All solid waste, including disposable materials incidental to the construction activities, must be collected and placed in containers. Secure covers for the containers shall be provided if required by state and local requirements. The location of solid waste receptacles shall be identified on the SWMP by the Operator.

Concrete waste is anticipated with this project; and therefore, a dedicated concrete washout is required. The Qualified Stormwater Manager shall take appropriate containment and treatment measures and document as necessary

GROUNDWATER AND STORMWATER DEWATERING

Except as noted below, all discharges covered by this permit shall be composed entirely of stormwater associated with construction activity.

- Emergency Fire Fighting Activities
- Uncontaminated Spring Water

Groundwater dewatering is not anticipated. If groundwater is encountered during construction, the operator shall file for appropriate dewatering permits (Permit No. COG070000) with the CDPHE.

STABILIZATION AND STORMWATER MANAGEMENT

TEMPORARY STABILIZATION AND SHORT-TERM STORMWATER MANAGEMENT

The City considers the completion of over-lot grading operations, by definition, to be substantially complete; therefore, all areas that will be dormant for more than 30 days after the completion of the over-lot grading will require temporary seeding within 14 days of establishment. This does not preclude the 7-day requirement for areas fully completed in the future. At a minimum, in ensuring that this requirement is followed, adequate phasing/scheduling will be required.

FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

In the natural condition, the site soil is stabilized by means of native vegetation. The final stabilization technique to be used at this project for stabilizing soils shall be to provide a protective cover of landscaping vegetation, pavement and granular stabilization material. Seeding should be conducted after final grade is achieved and soils are prepared to take advantage of soil moisture and seed germination. The Qualified Stormwater Manager should evaluate the short and long-term forecasts prior to applying permanent seed.

Final site stabilization is achieved when vegetative cover provides permanent stabilization with a density greater than 70 percent of the pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed over the entire area to be stabilized by vegetative cover. Noxious weeds are not included in the 70% of vegetation cover. This area is exclusive of areas that are covered with rock (crushed granite, gravel, etc.) or landscape mulch, paved or have a building or other permanent structure on them. See **Appendix M** for final landscaping plans.

INSPECTION AND MAINTENANCE

Inspections shall be the responsibility of the Qualified Stormwater Manager throughout the construction process.

INSPECTION SCHEDULE REQUIREMENTS

Inspection and maintenance of erosion control measures shall comply with the criteria set forth by the General Permit (COR400000), or the following, whichever is more stringent.

The Permittee or Contractor shall make routine checks of all erosion control measures to determine if repairs or sediment removal is necessary. Written inspection records a minimum of once biweekly and

within 24 hours after every significant precipitation event or after every significant precipitation event that causes surface erosion. All necessary maintenance and repair shall be completed immediately. If more frequent inspections are required to ensure that control measures are properly maintained and operated, the inspection schedule shall be modified to meet this need.

When snow cover exists over the entire site for an extended period, inspections are not always feasible. This condition should be documented, including date of snowfall and date of melting conditions to bring awareness of and preparation for areas where melting conditions may pose a risk of surface erosion.

A copy of the SWMP shall be maintained at the site at all times. Any degradation of the control measures described in the SWMP or excessive accumulation of sediments shall be remedied immediately upon discovery. The Contractor shall record all storm events on the Storm Event Log included in **Appendix H**.

SELF-INSPECTION SCHEDULE REQUIREMENTS

The GEC Administrator may choose to perform self-inspections either every 14 days after a storm event or every 7 calendar days and forego post-storm event inspections. The self-inspection schedule must be identified in the GEC Administrator's most recent self-inspection. A more frequent inspection schedule than the minimum described may be necessary to ensure that Control Measures continue to operate as needed to comply with the GEC Plan. The GEC Administrator shall submit documentation of the self-inspections by uploading the document to the City's Electronic Permitting Management System. All Self-Inspection requirements are in the Stormwater Control Manual (SCM) Chapter 6, Section 2.2. Completed self-inspection forms must be submitted electronically within 5 business days of the self-inspection. The self-inspections must always also be available either physically or electronically at the construction site throughout the duration of the project. GEC Inspectors will review self-inspections during City compliance inspections.

The use of a third-party inspection program does not remove this requirement. Additionally, the use of a third-party inspection program does not relieve the Permittee of the requirement to comply with all compliance inspections.

INSPECTION PROCEDURES

The inspection shall include observations of:

- The Construction Site Perimeter and Discharge Points;
- All Disturbed Areas;
- Vehicles and Equipment;
- Areas Used for Material / Waste Storage That are Exposed to Precipitation;
- Other Areas Determined to Have a Significant Potential for Stormwater Pollution;
- Erosion and Sediment Control Measures Identified in the SWMP; and
- Any Other Structural Control Measures That May Require Maintenance.

The inspection must determine if there is evidence of, or the potential for, pollutants entering the drainage system. Control measures should be reviewed to determine if they still meet the design intent and operational criteria in the SWMP and if they continue to adequately control pollutants at the site. Any control measures not operating in accordance with the SWMP must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants and the SWMP must be updated and inspections must be documented.

Examples of specific items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. Ultimately, it is the responsibility of the Contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more controls than are shown on the plans. Assessing the need for additional controls and implementing them or adjusting existing controls will be an ongoing requirement until the site achieves final stabilization.

1. Vehicle Tracking Control - Locations where vehicles enter and exit the site shall be inspected for evidence of offsite sediment tracking. Exits shall be maintained as necessary to prevent the release of sediment from vehicles leaving the site. Any sediment deposited on the adjacent roadway shall be removed as necessary throughout the day or at the end of every day and disposed of in an appropriate manner. Sediment shall not be washed into storm sewer systems.
2. Erosion Control Devices - Rolled erosion control products (nets, blankets, turf reinforcement mats) and marginally vegetated areas (areas not meeting required vegetative densities for final stabilization) must be inspected frequently. Riling, rutting and other signs of erosion indicate the erosion control device is not functioning properly and additional erosion control devices are warranted.
3. Sediment Control Devices - Sediment barriers (silt fence, sediment control logs, etc.), traps and basins must be inspected, and they must be cleaned out at such time as their original capacity has been reduced by 50 percent. All material excavated from behind sediment barriers or in traps and basins shall be incorporated into onsite soils or spread out on an upland portion of the site and stabilized. To minimize the potential for sediment releases from the Project, site perimeter control devices shall be inspected with consideration given to changing up-gradient conditions.
4. Material Storage Areas - Material storage areas should be located to minimize exposure to weather. Inspections shall evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system or discharging from the site. If necessary, the materials must be covered, or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas. All state and local regulations pertaining to material storage areas shall be adhered to.
5. Vegetation - Seed/Sod shall be free of weedy species and appropriate for site soils and regional climate. Seeding, sodding, tacking, and mulching shall be completed, in accordance with the requirements outlined within the Project Manual and locations identified within the plans, immediately after topsoil is applied and final grade is reached. Grassed areas shall be inspected to confirm that a healthy stand of grass is maintained. Rip-rap, mulch, gravel, decomposed granite or other equivalent permanent stabilization measures may be employed in lieu of vegetation based on site-specific conditions and Owner approval.
6. Discharge Points - All discharge points must be inspected to determine whether erosion and sediment control measures are effective in preventing discharge of sediment from the site or impacts to receiving waters.

Based on the inspection results, all necessary maintenance and repair shall be completed immediately and in no cases longer than seventy-two (72) hours after identification. The inspection reports must be completed after each inspection. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWMP at the time of inspection and specifically identify all incidents of non-compliance.

The Qualified Stormwater Manager shall ensure that, at a minimum, the following is recorded for each inspection and kept onsite for reference:

- a. The inspector's name (must be a Qualified Stormwater Manager),
- b. The date and type of the inspection (regular inspection vs. post-storm inspection),

- c. Weather conditions at the time of the inspection,
- d. Phase of construction at the time of the inspection,
- e. Estimated acreage of disturbance at the time of inspection,
- f. The minimum frequency of inspections chosen,
- g. Location(s) of discharges of sediment or other pollutants from the site,
- h. Location(s) of control measures needing maintenance,
- i. Location(s) and identification of inadequate control measures
- j. Location(s) and identification of additional control measures are needed that were not in place at the time of inspection, and
- k. Any corrective actions taken.

If repairs are needed to any control measures, they shall be completed immediately. After adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the report shall contain a statement stating the following:

“I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit.”

This statement must be signed by a Qualified Stormwater Manager. If it is infeasible to install or repair of control measure immediately after discovering the deficiency, the following information must be documented and kept on record:

1. Describe why it is infeasible to initiate the installation or repair immediately; and
2. Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

The use and maintenance of log books, photographs, field notebooks, drawings or maps should also be included in the SWMP records when appropriate. Copies of the Inspection and Sampling Report Forms have been included in **Appendix I** for reference and use.

CONTROL MEASURE MAINTENANCE / REPLACEMENT AND FAILED CONTROL MEASURES

Site inspection procedures noted above must address maintenance of control measures that are found to no longer function as needed and designed, as well as preventive measures to proactively ensure continued operation.

The Qualified Stormwater Manager shall implement a preventative maintenance program to ensure that control measure breakdowns and failures are handled proactively. Site inspections should uncover any conditions which could result in the discharge of pollutants to storm sewers and surface waters and shall be rectified. For example, sediment shall be removed from silt fences on a regular basis to prevent failure of the control measure. Sediment shall be removed to an appropriate location so that it will not become an additional pollutant source.

The inspection process must also include replacement of control measures when needed or the addition of new control measures in order to adequately manage the pollutant sources at the site.

Any control measure deficiencies, replacement or additional control measures that may be required shall be documented on the Stormwater Management Site Map and on the appropriate Inspection Form. If amendments to the SWMP are required, these amendments shall be documented on the SWMP Amendment Log included in **Appendix J** for reference and use.

DISPOSITION OF TEMPORARY MEASURES

Most temporary erosion and sediment control measures must be removed within 30 days after final site stabilization is achieved. Trapped sediment and disturbed soil areas resulting from the disposal of temporary measures must be returned to final plan grades and permanently stabilized to prevent further soil erosion.

PLAN MODIFICATIONS

Plan revisions made prior to or following a change(s) onsite, including revisions to sections addressing site conditions and control measures, a notation must be included in the plan that identifies:

- Date of site change,
- The control measure removed or modified,
- The location(s) of those control measures, and
- Any changes to the control measure.

REFERENCES

Colorado Discharge Permit System (CDPS) – Stormwater Discharge Associated with Construction Activities Application - Prepared by Water Quality Control Division, Colorado Department of Public Health and Environment; Revised April 2019.

Colorado Discharge Permit System (CDPS) General Permit – Stormwater Discharges Associated with Construction Activity - Prepared by Water Quality Control Division, Colorado Department of Public Health and Environment; signed and issued on May 31, 2007 and administratively continued effective July 1, 2012.

NRCS Web Soil Survey - Website: <http://websoilsurvey.nrcs.usda.gov>, accessed May 24, 2023.

Stormwater Discharges Associated with Construction Activity – Stormwater Management Plan Preparation Guidance - Prepared by Water Quality Control Division, Colorado Department of Public Health and Environment; Revised April 2011.

Threatened, Endangered, Candidate and Proposed Species by County - Prepared by US Department of the Interior, Fish and Wildlife Services, Ecological Services, Colorado Field Offices; printed March 2019.

Mile High Flood District Storm Drainage Criteria Manual, Volume 3 – Mile High Flood Control District, Denver, CO.; November 2015.

APPENDIX A – STORMWATER MANAGEMENT PLANS / SITE MAPS

**REFERENCE APPROVED GEC PLANS FOR
SPECIFICATIONS AND DETAILS.**

APPENDIX B – CDPHE STORMWATER PERMIT



STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Division

CDPS GENERAL PERMIT
STORMWATER DISCHARGES ASSOCIATED WITH
CONSTRUCTION ACTIVITY
AUTHORIZATION TO DISCHARGE UNDER THE
COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), this permit authorizes the discharge of stormwater associated with construction activities (and specific allowable non-stormwater discharges in accordance with Part I.A.1. of the permit) certified under this permit, from those locations specified throughout the State of Colorado to specified waters of the State.

Such discharges shall be in accordance with the conditions of this permit. This permit specifically authorizes the facility listed on the certification to discharge in accordance with permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit becomes effective on April 1, 2019, and shall expire at midnight March 31, 2024.

Issued and signed this 1st day of November 2018.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Ellen Howard Kutzer, Permits Section Manager
Water Quality Control Division

Permit History

Originally signed and issued October 31, 2018; effective April 1, 2019.

Table of Contents

Part I	1
A. COVERAGE UNDER THIS PERMIT	1
1. Authorized Discharges	1
2. Limitations on Coverage	1
3. Permit Certification and Submittal Procedures	2
B. EFFLUENT LIMITATIONS	6
1. Requirements for Control Measures Used to Meet Effluent Limitations	6
2. Discharges to an Impaired Waterbody	9
3. General Requirements	10
C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS	11
1. SWMP General Requirements	11
2. SWMP Content	11
3. SWMP Review and Revisions	13
4. SWMP Availability	14
D. SITE INSPECTIONS	14
1. Person Responsible for Conducting Inspections	14
2. Inspection Frequency	14
3. Inspection Frequency for Discharges to Outstanding Waters	15
4. Reduced Inspection Frequency	15
5. Inspection Scope	16
E. DEFINITIONS	17
F. MONITORING	20
G. Oil and Gas Construction	21
Part II: Standard Permit Conditions	22
A. DUTY TO COMPLY	22
B. DUTY TO REAPPLY	22
C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	22
D. DUTY TO MITIGATE	22
E. PROPER OPERATION AND MAINTENANCE	22
F. PERMIT ACTIONS	22
G. PROPERTY RIGHTS	22
H. DUTY TO PROVIDE INFORMATION	23
I. INSPECTION AND ENTRY	23
J. MONITORING AND RECORDS	23
K. SIGNATORY REQUIREMENTS	24

- 1. Authorization to Sign:..... 24
- 2. Electronic Signatures 25
- 3. Change in Authorization to Sign 25
- L. REPORTING REQUIREMENTS 25
 - 1. Planned Changes..... 25
 - 2. Anticipated Non-Compliance 25
 - 3. Transfer of Ownership or Control 25
 - 4. Monitoring reports..... 26
 - 5. Compliance Schedules 26
 - 6. Twenty-four hour reporting..... 26
 - 7. Other non-compliance 27
 - 8. Other information 27
- M. BYPASS 27
 - 1. Bypass not exceeding limitations 27
 - 2. Notice of bypass 27
 - 3. Prohibition of Bypass..... 27
- N. UPSET..... 28
 - 1. Effect of an upset 28
 - 2. Conditions necessary for demonstration of an Upset 28
 - 3. Burden of Proof 28
- O. RETENTION OF RECORDS..... 28
 - 1. Post-Expiration or Termination Retention 28
 - 2. On-site Retention..... 29
- P. REOPENER CLAUSE..... 29
 - 1. Procedures for modification or revocation 29
 - 2. Water quality protection 29
- Q. SEVERABILITY..... 29
- R. NOTIFICATION REQUIREMENTS 29
 - 1. Notification to Parties 29
- S. RESPONSIBILITIES 30
 - 1. Reduction, Loss, or Failure of Treatment Facility 30
- T. Oil and Hazardous Substance Liability..... 30
- U. Emergency Powers..... 30
- V. Confidentiality 30
- W. Fees..... 30

X. Duration of Permit..... 30

Y. Section 307 Toxics..... 30

Part I

Note: At the first mention of terminology that has a specific connotation for the purposes of this permit, the terminology is electronically linked to the definitions section of the permit in Part I.E.

A. COVERAGE UNDER THIS PERMIT**1. Authorized Discharges**

This general permit authorizes [permittee\(s\)](#) to discharge the following to state waters: stormwater associated with [construction activity](#) and specified non-stormwater associated with construction activity. The following types of stormwater and non-stormwater discharges are authorized under this permit:

a. Allowable Stormwater Discharges

- i. Stormwater discharges associated with construction activity.
- ii. Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within ¼ mile of a construction site (i.e. borrow or fill areas)
- iii. Stormwater discharges associated with [dedicated asphalt, concrete batch plants and masonry mixing stations](#) (Coverage under this permit is not required if alternative coverage has been obtained.)

b. Allowable Non-Stormwater Discharges

The following non-stormwater discharges are allowable under this permit if the discharges are identified in the stormwater management plan in accordance with Part I.C. and if they have appropriate [control measures](#) in accordance with Part I.B.1.

- i. Discharges from uncontaminated springs that do not originate from an area of land disturbance.
- ii. Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach [receiving waters](#) as defined by this permit.
- iii. Discharges of landscape irrigation return flow.

c. Emergency Fire Fighting

Discharges resulting from emergency firefighting activities are authorized by this permit.

2. Limitations on Coverage

Discharges not authorized by this permit include, but are not limited to, the discharges and activities listed below. Permittees may seek individual or alternate general permit coverage for the discharges, as appropriate and available.

a. Discharges of Non-Stormwater

Discharges of non-stormwater, except the authorized non-stormwater discharges listed in Part I.A.1.b., are not eligible for coverage under this permit.

- b. Discharges Currently Covered by another Individual or General Permit
 - c. Discharges Currently Covered by a Water Quality Control Division (division) Low Risk Guidance Document
3. Permit Certification and Submittal Procedures
- a. Duty to apply
The following activities shall apply for coverage under this permit:
 - i. Construction sites that will disturb one acre or more; or
 - ii. Construction sites that are part of a [common plan of development or sale](#); or
 - iii. Stormwater discharges that are designated by the division as needing a stormwater permit because the discharge:
 - (a) Contributes to a violation of a water quality standard; or
 - (b) is a significant contributor of pollutants to state waters.
 - b. Application Requirements
To obtain authorization to discharge under this permit, applicants applying for coverage following the effective date of the renewal permit shall meet the following requirements:
 - i. Owners and operators submitting an application for permit coverage will be co-permittees subject to the same benefits, duties, and obligations under this permit.
 - ii. Signature requirements: Both the [owner](#) and [operator](#) (permittee) of the construction site, as defined in Part I.E., must agree to the terms and conditions of the permit and submit a completed application that includes the signature of both the owner and the operator. In cases where the duties of the owner and operator are managed by the owner, both application signatures may be completed by the owner. Both the owner and operator are responsible for ensuring compliance with all terms and conditions of the permit, including implementation of the stormwater management plan.
 - iii. Applicants must use the paper form provided by the division or the electronic form provided on the division's web-based application platform when applying for coverage under this permit.
 - iv. The applicant(s) must develop a stormwater management plan (SWMP) in accordance with the requirements of Part I.C. The applicant(s) must also certify that the SWMP is complete, or will be complete, prior to commencement of any construction activity.

- v. The applicant(s) must submit a complete, accurate, and signed permit application electronically, by mail or hand delivery to the division at least 10 days prior to the commencement of construction activity except that construction activities that are in response to a **public emergency related site** shall apply for coverage no later than 14 days after the commencement of construction activities. The provisions of this part in no way remove a violation of the Colorado Water Quality Control Act if a point source discharge occurs prior to the issuance of a CDPS permit.
- vi. The application must be signed in accordance with the requirements of Part IA. Applications submitted by mail or hand delivered should be directed to:

Colorado Department of Public Health and Environment
 Water Quality Control Division
 Permits Section, WQCD-PS-B2
 4300 Cherry Creek Drive South
 Denver, CO 80246

- vii. The applicant(s) must receive written notification that the division granted permit coverage prior to conducting construction activities except for construction activities that are in response to a public emergency related site

c. Division Review of Permit Application

Within 10 days of receipt of the application, and following review of the application, the division may:

- i. Issue a certification of coverage;
- ii. request additional information necessary to evaluate the discharge;
- iii. delay the authorization to discharge pending further review;
- iv. notify the applicant that additional terms and conditions are necessary; or
- v. deny the authorization to discharge under this general permit.

d. Alternative Permit Coverage

i. Division Required Alternate Permit Coverage:

The Division may require an applicant or permittee to apply for an individual permit or an alternative general permit if it determines the discharge does not fall under the scope of this general permit. In this case, the Division will notify the applicant or permittee that an individual permit application is required.

ii. Permittee Request for alternate permit coverage:

A permittee authorized to discharge stormwater under this permit may request to be excluded from coverage under this general permit by applying for an individual permit. In this case, the permittee must submit an individual application, with reasons supporting the request, to the Division at least 180 days prior to any discharge. When an individual permit is issued, the permittee's authorization to discharge under this permit is terminated on the effective date of the individual permit.

e. Submittal Signature Requirements

Documents required for submittal to the division in accordance with this permit, including applications for permit coverage and other documents as requested by the division, must include signatures by both the owner and the operator, except for instances where the duties of the owner and operator are managed by the owner.

Signatures on all documents submitted to the division as required by this permit must meet the Standard Signatory Requirements in Part II.K. of this permit in accordance with 40 C.F.R. 122.41(k).

i. Signature Certification

Any person(s) signing documents required for submittal to the Division must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

f. Compliance Document Signature Requirements

Documents which are required for compliance with the permit, but for which submittal to the division is not required unless specifically requested by the division, must be signed by the individual(s) designated as the Qualified Stormwater Manager, as defined in Part I.E.

i. Any person(s) signing inspection documents required for compliance with the permit must make the following statement:

"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

g. Field Wide Permit Coverage for Oil and Gas Construction

At the discretion of the division, a single permit certification may be issued to a single oil and gas permittee to cover construction activity related discharges from an oil and gas field at multiple locations that are not necessarily contiguous.

h. Permit Coverage without Application

Qualifying Local Program: When a small construction site is within the jurisdiction of a qualifying local program, the owner and operator of the construction activity are authorized to discharge stormwater associated with small construction activity under this general permit without the submittal of an application to the division. Sites covered by a qualifying local program are exempt from the following sections of this general permit:

Part I.A.3.a.; Part I.A.3.b.; Part I.A.3.c.; Part I.A.3.d.; Part I.A.3.g.; Part I.A.3.i.; Part I.A.3.j.; Part I.A.3.k.

Sites covered by a qualifying local program are subject to the following requirements:

- i. **Local Agency Authority:** This permit does not pre-empt or supersede the authority of local agencies to prohibit, restrict, or control discharges of stormwater to storm drain systems or other water courses within their jurisdiction.
 - ii. **Permit Coverage Termination:** When a site under a Qualifying Local Program is finally stabilized, coverage under this permit is automatically terminated.
 - iii. **Compliance with Qualifying Local Program:** Qualifying Local Program requirements that are equivalent to the requirements of this permit are incorporated by reference. Permittees authorized to discharge under this permit, must comply with the equivalent requirements of the Qualifying Local Program that has jurisdiction over the site as a condition of this permit.
 - iv. **Compliance with Remaining Permit Conditions.** Requirements of this permit that are in addition to or more stringent than the requirements of the Qualifying Local Program apply in addition to the requirements of the Qualifying Local Program.
 - v. **Written Authorization of Coverage:** The division or local municipality may require any permittee within the jurisdiction of a Qualifying Local Program covered under this permit to apply for, and obtain written authorization of coverage under this permit. The permittee must be notified in writing that an application for written authorization of coverage is required.
- i. **Permittee Initiated Permit Actions**
Permittee initiated permit actions, including but not limited to modifications, contact changes, transfers, reassignments, and terminations, shall be conducted following division guidance and using appropriate division-provided forms.
 - j. **Sale of Residence to Homeowner**
Residential construction sites only: The permittee may remove residential lots from permit coverage once the lot meets the following criteria:
 - i. the residential lot has been sold to the homeowner(s) for private residential use;
 - ii. a certificate of occupancy, or equivalent, is maintained on-site and is available during division inspections;
 - iii. the lot is less than one acre of disturbance;
 - iv. all construction activity conducted on the lot by the permittee is complete;
 - v. the permittee is not responsible for final stabilization of the lot; and
 - vi. the SWMP was modified to indicate the lot is no longer part of the construction activity.

If the residential lot meets the criteria listed above then activities occurring on the lot are no longer considered to be construction activities with a duty to apply and maintain permit coverage. Therefore, the permittee is not required to meet the final stabilization requirements and may terminate permit coverage for the lot.

k. Permit Expiration and Continuation of Permit Coverage

Authorization to discharge under this general permit shall expire at midnight on March 31, 2024. While Regulation 61.4 requires a permittee to submit an application for continuing permit coverage 180 days before the permit expires, the division is requiring that permittees desiring continued coverage under this general permit must reapply at least 90 days in advance of this permit expiration. The Division will determine if the permittee may continue to discharge stormwater under the terms of the general permit. An individual permit may be required for any facility not reauthorized to discharge under the reissued general permit.

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued and remain in force and effect. For permittees that have applied for continued permit coverage, discharges authorized under this permit prior to the expiration date will automatically remain covered by this permit until the earliest of:

- i. An authorization to discharge under a reissued permit, or a replacement of this permit, following the timely and appropriate submittal of a complete application requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or
- ii. The issuance and effect of a termination issued by the Division; or
- iii. The issuance or denial of an individual permit for the facility's discharges; or
- iv. A formal permit decision by the Division not to reissue this general permit, at which time the Division will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or
- v. The Division has informed the permittee that discharges previously authorized under this permit are no longer covered under this permit.

B. EFFLUENT LIMITATIONS

1. Requirements for Control Measures Used to Meet Effluent Limitations

The permittee must implement control measures to **minimize** the discharge of pollutants from all potential pollutant sources at the site. Control measures must be installed prior to commencement of activities that may contribute pollutants to stormwater discharges. Control measures must be selected, designed, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. Control measures implemented at the site must be designed to prevent pollution or degradation of state waters.

a. Stormwater Pollution Prevention

The permittee must implement structural and/or nonstructural control measures that effectively minimize erosion, sediment transport, and the release of other pollutants related to construction activity.

i. Control Measures for Erosion and Sediment Control

Control measures for erosion and sediment control may include, but are not limited to, wattles/sediment control logs, silt fences, earthen dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, sediment basins, temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, maintaining existing vegetation, protection of trees, and preservation of mature vegetation. Specific non-structural control measures must meet the requirements listed below.

Specific control measures must meet the requirements listed below.

- (a) Vehicle tracking controls shall either be implemented to minimize vehicle tracking of sediment from disturbed areas, or the areas where vehicle tracking occurs shall meet subsection Part I.B.1.a.i(b);
- (b) Stormwater runoff from all disturbed areas and soil storage areas for which permanent or temporary stabilization is not implemented, must flow to at least one control measure to minimize sediment in the discharge. This may be accomplished through filtering, settling, or straining. The control measure must be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices. The control measure(s) must contain or filter flows in order to prevent the bypass of flows without treatment and must be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (i.e., sheet or concentrated flow);
- (c) Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless **infeasible**.
- (d) Maintain pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet of receiving waters as defined by this permit, unless **infeasible**.
- (e) Soil compaction must be minimized for areas where infiltration control measures will occur or where **final stabilization** will be achieved through vegetative cover.
- (f) Unless **infeasible**, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.
- (g) Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.

ii. Practices for Other Common Pollutants

- (a) Bulk storage, 55 gallons or greater, for petroleum products and other liquid chemicals must have secondary containment, or equivalent protection, in order to contain **spills** and to prevent spilled material from entering state waters.
- (b) Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground as authorized under this permit and washout waste from concrete trucks and masonry operations contained on site. The permittee must ensure the washing activities do not contribute pollutants to stormwater runoff, or receiving waters in accordance Part I.A.1.b.ii. Discharges that may reach groundwater must flow through soil

that has buffering capacity prior to reaching groundwater, as necessary to meet the effluent limits in this permit, including Part I.B.3.a. The concrete washout location shall not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. This permit authorizes discharges to the ground of concrete washout waste.

iii. Stabilization Requirements

The following requirements must be implemented for each site.

- (a) Temporary stabilization must be implemented for earth disturbing activities on any portion of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days. Temporary stabilization methods may include, but are not limited to, tarps, soil tackifier, and hydroseed. The permittee may exceed the 14-day schedule when either the function of the specific area of the site requires it to remain disturbed, or, physical characteristics of the terrain and climate prevent stabilization. The SWMP must document the constraints necessitating the alternative schedule, provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map.
- (b) Final stabilization must be implemented for all construction sites. Final stabilization is reached when all ground surface disturbing activities at the construction site are complete; and, for all areas of ground surface disturbing activities, either a uniform vegetative cover with an individual plant density of at least 70 percent of pre-disturbance levels is established, or equivalent permanent alternative stabilization methods are implemented. The division may approve alternative final stabilization criteria for specific operations.
- (c) Final stabilization must be designed and installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover or alternative stabilization methods include, but are not limited to, the following as appropriate:
 - (1) Seed mix selection and application methods;
 - (2) Soil preparation and amendments;
 - (3) Soil stabilization methods (e.g., crimped straw, hydro mulch or rolled erosion control products);
 - (4) Appropriate sediment control measures as needed until final stabilization is achieved;
 - (5) Permanent pavement, hardscape, xeriscape, stabilized driving surfaces;
 - (6) Other alternative stabilization practices as applicable;

(d) The permittee(s) must ensure all temporary control measures are removed from the construction site once final stabilization is achieved, except when the control measure specifications allow the control measure to be left in place (i.e., bio-degradable control measures).

b. Maintenance

The permittee must ensure that all control measures remain in effective operating condition and are protected from activities that would reduce their effectiveness. Control measures must be maintained in accordance with good engineering, hydrologic and pollution control practices. Observations leading to the required maintenance of control measures can be made during a site inspection, or during general observations of site conditions. The necessary repairs or modifications to a [control measure requiring routine maintenance](#), as defined in Part I.E., must be conducted to maintain an effective operating condition. This section is not subject to the requirements in Part I.B.1.c. below.

c. Corrective Actions

The permittee must assess the adequacy of control measures at the site, and the need for changes to those control measures, to ensure continued effective performance. When an [inadequate control measure](#), as defined in Part I.E., is identified (i.e., new or replacement control measures become necessary), the following corrective action requirements apply. The permittee is in noncompliance with the permit until the inadequate control measure is replaced or corrected and returned to effective operating condition in compliance with Part I.B.1. and the general requirements in Part I.B.3. If the inadequate control measure results in noncompliance that meets the conditions of Part II.L., the permittee must also meet the requirements of that section.

i. The permittee must take all necessary steps to minimize or prevent the discharge of pollutants, until a control measure is implemented and made operational and/or an inadequate control measure is replaced or corrected and returned to effective operating condition. If it is infeasible to install or repair of control measure immediately after discovering the deficiency, the following must be documented and kept on record in accordance with the recordkeeping requirements in Part II.

(a) Describe why it is infeasible to initiate the installation or repair immediately; and

(b) Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

ii. If applicable, the permittee must remove and properly dispose of any unauthorized release or discharge (e.g., discharge of non-stormwater, spill, or leak not authorized by this permit.) The permittee must also clean up any contaminated surfaces to minimize discharges of the material in subsequent storm events.

2. Discharges to an Impaired Waterbody

a. Total Maximum Daily Load (TMDL)

If the permittee's discharge flows to or could reasonably be expected to flow to any water body for which a TMDL has been approved, and stormwater discharges

associated with construction activity were assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the division may:

- i. ensure the WLA is implemented properly through alternative local requirements, such as by a municipal stormwater permit; or
- ii. notify the permittee of the WLA and amend the permittee's certification to add specific effluent limits and other requirements, as appropriate. The permittee may be required to do the following:
 - (a) under the permittee's SWMP, implement specific control measures based on requirements of the WLA, and evaluate whether the requirements are met through implementation of existing stormwater control measures or if additional control measures are necessary. Document the calculations or other evidence demonstrating that the requirements are expected to be met; and
 - (b) if the evaluation shows that additional or modified control measures are necessary, describe the type and schedule for the control measure additions or modifications.
- iii. Discharge monitoring may also be required. The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The division reserves the right to require individual or alternate general permit coverage.

3. General Requirements

- a. Discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality.
- b. The division may require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that the SWMP is not adequately minimizing pollutants in stormwater or in order to measure the effectiveness of the control measures in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.
- c. The permittee must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies including applicable requirements in Municipal Stormwater Management Programs developed to comply with CDPS permits. The permittee must comply with local stormwater management requirements, policies and guidelines including those for erosion and sediment control.
- d. All construction site wastes must be properly managed to prevent potential pollution of state waters. This permit does not authorize on-site waste disposal.
- e. This permit does not relieve the permittee of the reporting requirements in 40 CFR 110, 40 CFR 117 or 40 CFR 302. Any discharge of hazardous material must be handled in accordance with the division's Noncompliance Notification Requirements (see Part II.L. of the permit).

C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS**1. SWMP General Requirements**

- a. A SWMP shall be developed for each construction site covered by this permit. The SWMP must be prepared in accordance with good engineering, hydrologic and pollution control practices.
 - i. For public emergency related sites a SWMP shall be created no later than 14 days after the commencement of construction activities.
- b. The permittee must implement the provisions of the SWMP as written and updated, from commencement of construction activity until final stabilization is complete. The division may review the SWMP.
- c. A copy of the SWMP must be retained onsite or be onsite when construction activities are occurring at the site unless the permittee specifies another location and obtains approval from the division.

2. SWMP Content

- a. The SWMP, at a minimum, must include the following elements.
 - i. Qualified Stormwater Manager. The SWMP must list individual(s) by title and name who are designated as the site's qualified stormwater manager(s) responsible for implementing the SWMP in its entirety. This role may be filled by more than one individual.
 - ii. Spill Prevention and Response Plan. The SWMP must have a spill prevention and response plan. The plan may incorporate by reference any part of a Spill Prevention Control and Countermeasure (SPCC) plan under section 311 of the Clean Water Act (CWA) or a Spill Prevention Plan required by a separate CDPS permit. The relevant sections of any referenced plans must be available as part of the SWMP consistent with Part I.C.4.
 - iii. Materials Handling. The SWMP must describe and locate all control measures implemented at the site to minimize impacts from handling **significant materials** that could contribute pollutants to runoff. These handling procedures can include control measures for pollutants and activities such as, exposed storage of building materials, paints and solvents, landscape materials, fertilizers or chemicals, sanitary waste material, trash and equipment maintenance or fueling procedures.
 - iv. Potential Sources of Pollution. The SWMP must list all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site. This shall include, but is not limited to, the following pollutant sources:
 - (a) disturbed and stored soils;
 - (b) vehicle tracking of sediments;
 - (c) management of contaminated soils;
 - (d) loading and unloading operations;

- (e) outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.);
 - (f) vehicle and equipment maintenance and fueling;
 - (g) significant dust or particulate generating processes (e.g., saw cutting material, including dust);
 - (h) routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.;
 - (i) on-site waste management practices (waste piles, liquid wastes, dumpsters);
 - (j) concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment;
 - (k) dedicated asphalt, concrete batch plants and masonry mixing stations;
 - (l) non-industrial waste sources such as worker trash and portable toilets.
- v. Implementation of Control Measures. The SWMP must include design specifications that contain information on the implementation of the control measure in accordance with good engineering hydrologic and pollution control practices; including as applicable drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements.

The SWMP must include a documented use agreement between the permittee and the owner or operator of any control measures located outside of the permitted area, that are utilized by the permittee's construction site for compliance with this permit, but not under the direct control of the permittee. The permittee is responsible for ensuring that all control measures located outside of their permitted area, that are being utilized by the permittee's construction site, are properly maintained and in compliance with all terms and conditions of the permit. The SWMP must include all information required of and relevant to any such control measures located outside the permitted area, including location, installation specifications, design specifications and maintenance requirements.

- vi. Site Description. The SWMP must include a site description which includes, at a minimum, the following:
- (a) the nature of the construction activity at the site;
 - (b) the proposed schedule for the sequence for major construction activities and the planned implementation of control measures for each phase. (e.g.: clearing, grading, utilities, vertical, etc.);
 - (c) estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, or any other construction activities;
 - (d) a summary of any existing data used in the development of the construction site plans or SWMP that describe the soil or existing potential for soil erosion;

- (e) a description of the percent of existing vegetative ground cover relative to the entire site and the method for determining the percentage;
 - (f) a description of any allowable non-stormwater discharges at the site, including those being discharged under a division low risk discharge guidance policy;
 - (g) a description of areas receiving discharge from the site. Including a description of the immediate source receiving the discharge. If the stormwater discharge is to a municipal separate storm sewer system, the name of the entity owning that system, the location of the storm sewer discharge, and the ultimate receiving water(s); and
 - (h) a description of all stream crossings located within the construction site boundary.
- vii. Site Map. The SWMP must include a site map which includes, at a minimum, the following:
- (a) construction site boundaries;
 - (b) flow arrows that depict stormwater flow directions on-site and runoff direction;
 - (c) all areas of ground disturbance including areas of borrow and fill;
 - (d) areas used for storage of soil;
 - (e) locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;
 - (f) locations of dedicated asphalt, concrete batch plants and masonry mixing stations;
 - (g) locations of all structural control measures;
 - (h) locations of all non-structural control measures;
 - (i) locations of springs, streams, wetlands and other state waters, including areas that require pre-existing vegetation be maintained within 50 feet of a receiving water, where determined feasible in accordance with Part I.B.1.a.i.(d).; and
 - (j) locations of all stream crossings located within the construction site boundary.
- viii. Final Stabilization and Long Term Stormwater Management. The SWMP must describe the practices used to achieve final stabilization of all disturbed areas at the site and any planned practices to control pollutants in stormwater discharges that will occur after construction operations are completed. Including but not limited to, detention/retention ponds, rain gardens, stormwater vaults, etc.
- ix. Inspection Reports. The SWMP must include documented inspection reports in accordance with Part ID.

3. SWMP Review and Revisions

Permittees must keep a record of SWMP changes made that includes the date and identification of the changes. The SWMP must be amended when the following occurs:

- a. a change in design, construction, operation, or maintenance of the site requiring implementation of new or revised control measures;
- b. the SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;
- c. control measures identified in the SWMP are no longer necessary and are removed; and
- d. corrective actions are taken onsite that result in a change to the SWMP.

For SWMP revisions made prior to or following a change(s) onsite, including revisions to sections addressing site conditions and control measures, a notation must be included in the SWMP that identifies the date of the site change, the control measure removed, or modified, the location(s) of those control measures, and any changes to the control measure(s). The permittee must ensure the site changes are reflected in the SWMP. The permittee is noncompliant with the permit until the SWMP revisions have been made.

4. SWMP Availability

A copy of the SWMP must be provided upon request to the division, EPA, and any local agency with authority for approving sediment and erosion plans, grading plans or stormwater management plans within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, the submission must include a signed certification in accordance with Part I.A.3.e., certifying that the SWMP is complete and compliant with all terms and conditions of the permit.

All SWMPs required under this permit are considered reports that must be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the CDPS regulations. The permittee must make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

D. SITE INSPECTIONS

Site inspections must be conducted in accordance with the following requirements. The required inspection schedules are a minimum frequency and do not affect the permittee's responsibility to implement control measures in effective operating condition as prescribed in the SWMP. Proper maintenance of control measures may require more frequent inspections. Site inspections shall start within 7 calendar days of the commencement of construction activities on site.

1. Person Responsible for Conducting Inspections

The person(s) inspecting the site may be on the permittee's staff or a third party hired to conduct stormwater inspections under the direction of the permittee(s). The permittee is responsible for ensuring that the inspector is a qualified stormwater manager.

2. Inspection Frequency

Permittees must conduct site inspections in accordance with one of the following minimum frequencies, unless the site meets the requirements of Part ID.3

- a. At least one inspection every 7 calendar days. Or
- b. At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.
- c. When site conditions make the schedule required in this section impractical, the permittee may petition the Division to grant an alternate inspection schedule. The alternative inspection schedule may not be implemented prior to written approval by the division and incorporation into the SWMP.

3. Inspection Frequency for Discharges to Outstanding Waters

Permittees must conduct site inspections at least once every 7 calendar days for sites that discharge to a water body designated as an Outstanding Water by the Water Quality Control Commission.

4. Reduced Inspection Frequency

The permittee may perform site inspections at the following reduced frequencies when one of the following conditions exists:

a. Post-Storm Inspections at Temporarily Idle Sites

For permittees choosing to combine 14-day inspections and post-storm-event-inspections, if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, but no later than 72 hours following the storm event. The delay of any post-storm event inspection must be documented in the inspection record. Routine inspections must still be conducted at least every 14 calendar days.

b. Inspections at Completed Sites/Areas

When the site, or portions of a site are awaiting establishment of a vegetative ground cover and final stabilization, the permittee must conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

- i. all construction activities resulting in ground disturbance are complete;
- ii. all activities required for final stabilization, in accordance with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and
- iii. the SWMP has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

c. Winter Conditions Inspections Exclusion

Inspections are not required for sites that meet all of the following conditions: construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This inspection exception is applicable only during the period where melting conditions do not exist, and applies to the routine 7-day, 14-day and monthly inspections, as well as the post-storm-event inspections. When this inspection exclusion is implemented, the following information must be documented in accordance with the requirements in Part II:

- i. dates when snow cover existed;
- ii. date when construction activities ceased; and
- iii. date melting conditions began.

5. Inspection Scope

a. Areas to be Inspected

When conducting a site inspection the following areas, if applicable, must be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters:

- i. construction site perimeter;
- ii. all disturbed areas;
- iii. designated haul routes;
- iv. material and waste storage areas exposed to precipitation;
- v. locations where stormwater has the potential to discharge offsite; and
- vi. locations where vehicles exit the site.

b. Inspection Requirements

- i. Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.
- ii. Determine if there are new potential sources of pollutants.
- iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.
- iv. Identify all areas of non-compliance with the permit requirements and, if necessary, implement corrective action in accordance with Part IB.1.c.

c. Inspection Reports

The permittee must keep a record of all inspections conducted for each permitted site. Inspection reports must identify any incidents of noncompliance with the terms and conditions of this permit. Inspection records must be retained in accordance with Part II.O. and signed in accordance with Part I.A.3.f. At a minimum, the inspection report must include:

- i. the inspection date;

- ii. name(s) and title(s) of personnel conducting the inspection;
- iii. weather conditions at the time of inspection;
- iv. phase of construction at the time of inspection;
- v. estimated acreage of disturbance at the time of inspection
- vi. location(s) of discharges of sediment or other pollutants from the site;
- vii. location(s) of control measures needing maintenance;
- viii. location(s) and identification of inadequate control measures;
- ix. location(s) and identification of additional control measures are needed that were not in place at the time of inspection;
- x. description of the minimum inspection frequency (either in accordance with Part I.D.2., I.D.3. or I.D.4.) utilized when conducting each inspection.
- xi. deviations from the minimum inspection schedule as required in Part I.D.2.;
- xii. after adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the report shall contain a statement as required in Part I.A.3.f.

E. DEFINITIONS

For the purposes of this permit:

- (1) Bypass - the intentional diversion of waste streams from any portion of a treatment facility in accordance with 40 CFR 122.41(m)(1)(i) and Regulation 61.2(12).
- (2) Common Plan of Development or Sale - A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. The Division has determined that "contiguous" means construction activities located in close proximity to each other (within ¼ mile). Construction activities are considered to be "related" if they share the same development plan, builder or contractor, equipment, storage areas, etc. "Common plan of development or sale" includes construction activities that are associated with the construction of field wide oil and gas permits for facilities that are related.
- (3) Construction Activity - Ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of routine maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is exposed as part of the repaving operation are considered construction activities. Construction activity is from initial ground breaking to final stabilization regardless of ownership of the construction activities.
- (4) Control Measure - Any best management practice or other method used to prevent or reduce the discharge of pollutants to state waters. Control measures include, but are not limited to, best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.

- (5) Control Measure Requiring Routine Maintenance - Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent a breach of the control measure. See also inadequate control measure.
- (6) Dedicated Asphalt, Concrete Batch Plants and Masonry Mixing Stations - are batch plants or mixing stations located on, or within ¼ mile of, a construction site and that provide materials only to that specific construction site.
- (7) Final Stabilization - The condition reached when all ground surface disturbing activities at the site have been completed, and for all areas of ground surface disturbing activities where a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.
- (8) Good Engineering, Hydrologic and Pollution Control Practices: are methods, procedures, and practices that:
- Are based on basic scientific fact(s).
 - Reflect best industry practices and standards.
 - Are appropriate for the conditions and pollutant sources.
 - Provide appropriate solutions to meet the associated permit requirements, including practice based effluent limits.
- (9) Inadequate Control Measure - Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. See also Control Measure Requiring Routine Maintenance.
- (10) Infeasible - Not technologically possible, or not economically practicable and achievable in light of best industry practices.
- (11) Minimize - reduce or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.
- (12) Municipality - A city, town, county, district, association, or other public body created by, or under, State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under section 208 of CWA (1987).
- (13) Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
- owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to state waters;
 - designed or used for collecting or conveying stormwater;
 - are not a combined sewer; and
 - are not part of a Publicly Owned Treatment Works (POTW). See 5 CCR 1002-61.2(62).
- (14) Municipal Stormwater Management Program - A stormwater program operated by a municipality, typically to meet the requirements of the municipalities MS4 discharge certification.

- (15) Operator - The party that has operational control over day-to-day activities at a project site which are necessary to ensure compliance with the permit. This party is authorized to direct individuals at a site to carry out activities required by the permit. (e.g. the general contractor)
- (16) Owner - The party that has overall control of the activities and that has funded the implementation of the construction plans and specifications. This is the party with ownership of, a long term lease of, or easements on the property on which the construction activity is occurring (e.g., the developer).
- (17) Permittee(s) - The owner and operator named in the discharge certification issued under this permit for the construction site specified in the certification.
- (18) Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include irrigation return flow. See 5 CCR 102-61.2(75).
- (19) Pollutant - Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. See 5 CCR 1002-61.2(76).
- (20) Presentation of credentials - a government issued form of identification, if in person; or (ii) providing name, position and purpose of inspection if request to enter is made via telephone, email or other form of electronic communication. A Permittee's non-response to a request to enter upon presentation of credentials constitutes a denial to such request, and may result in violation of the Permit.
- (21) Process Water - Any water which, during manufacturing or processing, comes into contact with or results from the production of any raw material, intermediate product, finished product, by product or waste product.
- (22) Public Emergency Related Site - a project initiated in response to an unanticipated emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.
- (23) Qualified Stormwater Manager - An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater controls implemented to meet the requirements of this permit.
- (24) Qualifying Local Program - A municipal program for stormwater discharges associated with small construction activity that was formally approved by the division as a qualifying local program.
- (25) Receiving Water - Any classified or unclassified surface water segment (including tributaries) in the State of Colorado into which stormwater associated with construction activities discharges. This definition includes all water courses, even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.
- (26) Severe Property Damage - substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

- (27) Significant Materials - Include, but not limited to, raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report under section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.
- (28) Small Construction Activity - The discharge of stormwater from construction activities that result in land disturbance of equal to, or greater than, one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan ultimately disturbs equal to, or greater than, one acre and less than five acres.
- (29) Spill - An unintentional release of solid or liquid material which may pollute state waters.
- (30) State Waters - means any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.
- (31) Steep Slopes: where a local government, or industry technical manual (e.g., stormwater BMP manual) has defined what is to be considered a "steep slope", this permit's definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 3:1 or greater.
- (32) Stormwater - Precipitation runoff, snow melt runoff, and surface runoff and drainage. See 5 CCR 1002-61.2(103).
- (33) Total Maximum Daily Loads (TMDLs) -The sum of the individual wasteload allocations (WLA) for point sources and load allocations (LA) for nonpoint sources and natural background. For the purposes of this permit, a TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes WLAs, LAs, and must include a margin of safety (MOS), and account for seasonal variations. See section 303(d) of the CWA and 40 C.F.R. 130.2 and 130.7.
- (34) Upset - an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation in accordance with 40 CFR 122.41(n) and Regulation 61.2(114).

F. MONITORING

The division may require sampling and testing, on a case-by-case basis. If the division requires sampling and testing, the division will send a notification to the permittee. Reporting procedures for any monitoring data collected will be included in the notification.

If monitoring is required, the following applies:

1. the thirty (30) day average must be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period; and
2. a grab sample, for monitoring requirements, is a single "dip and take" sample.

G. Oil and Gas Construction

Stormwater discharges associated with construction activities directly related to oil and gas exploration, production, processing, and treatment operations or transmission facilities are regulated under the Colorado Discharge Permit System Regulations (5 CCR 1002-61), and require coverage under this permit in accordance with that regulation. However, references in this permit to specific authority under the CWA do not apply to stormwater discharges associated with these oil and gas related construction activities, to the extent that the references are limited by the federal Energy Policy Act of 2005.

Part II: Standard Permit Conditions**A. DUTY TO COMPLY**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for:

- a. enforcement action;
- b. permit termination, revocation and reissuance, or modification; or
- c. denial of a permit renewal application.

B. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain authorization as required by Part I.A.3.k. of the permit.

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. DUTY TO MITIGATE

A permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. PROPER OPERATION AND MAINTENANCE

A permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit. This requirement can be met by meeting the requirements for Part I.B., I.C., and I.D. above. See also 40 C.F.R. § 122.41(e).

F. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause. The permittee request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Any request for modification, revocation, reissuance, or termination under this permit must comply with all terms and conditions of Regulation 61.8(8).

G. PROPERTY RIGHTS

In accordance with 40 CFR 122.41(g) and 5 CCR 1002-61, 61.8(9):

1. The issuance of a permit does not convey any property or water rights in either real or personal property, or stream flows or any exclusive privilege.

2. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.
3. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.

H. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the division, within a reasonable time, any information which the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit in accordance with 40 CFR 122.41(h) and/or Regulation 61.8(3)(q).

I. INSPECTION AND ENTRY

The permittee shall allow the division and the authorized representative, upon the presentation of credentials as required by law, to allow for inspections to be conducted in accordance with 40 CFR 122.41(i), Regulation 61.8(3), and Regulation 61.8(4):

1. to enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;
2. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit;
3. at reasonable times, inspect any monitoring equipment or monitoring method required in the permit; and
4. to enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect or investigate, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include: sampling of any discharges, stormwater or process water, taking of photographs, interviewing site staff on alleged violations and other matters related to the permit, and assessing any and all facilities or areas within the site that may affect discharges, the permit, or an alleged violation.

The permittee shall provide access to the division or other authorized representatives upon presentation of proper credentials. A permittee's non-response to a request to enter upon presentation of credentials constitutes a denial of such request, and may result in a violation of the permit.

J. MONITORING AND RECORDS

1. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

2. The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of the division at any time.
3. Records of monitoring information must include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
4. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

K. SIGNATORY REQUIREMENTS

1. Authorization to Sign:

All documents required to be submitted to the division by the permit must be signed in accordance with the following criteria:

- a. For a corporation: By a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
 - ii. the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- b. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
- c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes
 - i. (i) the chief executive officer of the agency, or

- ii. (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency. (e.g., Regional Administrator of EPA)

2. Electronic Signatures

For persons signing applications for coverage under this permit electronically, in addition to meeting other applicable requirements stated above, such signatures must meet the same signature, authentication, and identity-proofing standards set forth at 40 CFR § 3.2000(b) for electronic reports (including robust second-factor authentication). Compliance with this requirement can be achieved by submitting the application using the Colorado Environmental Online Service (CEOS) system.

3. Change in Authorization to Sign

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the division, prior to the re-authorization, or together with any reports, information, or applications to be signed by an authorized representative.

L. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give advance notice to the division, in writing, of any planned physical alterations or additions to the permitted facility in accordance with 40 CFR 122.41(l) and Regulation 61.8(5)(a). Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.41(a)(1).

2. Anticipated Non-Compliance

The permittee shall give advance notice to the division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements. The timing of notification requirements differs based on the type of non-compliance as described in subparagraphs 5, 6, 7, and 8 below.

3. Transfer of Ownership or Control

The permittee shall notify the division, in writing, ten (10) calendar days in advance of a proposed transfer of the permit. This permit is not transferable to any person except after notice is given to the division.

- a. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination.
- b. The new owner or operator must submit an application. See also signature requirements in Part II.K, above.
- c. A permit may be automatically transferred to a new permittee if:
 - i. The current permittee notifies the Division in writing 30 calendar days in advance of the proposed transfer date; and
 - ii. The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and
 - iii. The division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.
 - iv. Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15, have been met.

4. Monitoring reports

Monitoring results must be reported at the intervals specified in this permit per the requirements of 40 CFR 122.41(l)(4).

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

6. Twenty-four hour reporting

In addition to the reports required elsewhere in this permit, the permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances:

- a. Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;
- b. Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;
- c. Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;

- d. Daily maximum violations for any of the pollutants limited by Part I of this permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.
- e. The division may waive the written report required under subparagraph 6 of this section if the oral report has been received within 24 hours.

7. Other non-compliance

A permittee must report all instances of noncompliance at the time monitoring reports are due. If no monitoring reports are required, these reports are due at least annually in accordance with Regulation 61.8(4)(p). The annual report must contain all instances of non-compliance required under either subparagraph 5 or subparagraph 6 of this subsection.

8. Other information

Where a permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Permitting Authority, it has a duty to promptly submit such facts or information.

M. BYPASS

1. Bypass not exceeding limitations

The permittees may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 of this permit. See 40 CFR 122.41(m)(2).

2. Notice of bypass

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, the permittee must submit prior notice, if possible at least ten days before the date of the bypass. See 40 CFR §122.41(m)(3)(i) and/or Regulation 61.9(5)(c).
- b. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass in accordance with Part II.L.6. See 40 CFR §122.41(m)(3)(ii) .

3. Prohibition of Bypass

Bypasses are prohibited and the division may take enforcement action against the permittee for bypass, unless:

- i. the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

- ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- iii. proper notices were submitted to the division.

N. UPSET

1. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of Part II.N.2. of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review in accordance with Regulation 61.8(3)(j).

2. Conditions necessary for demonstration of an Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that

- a. an upset occurred and the permittee can identify the specific cause(s) of the upset;
- b. the permitted facility was at the time being properly operated and maintained; and
- c. the permittee submitted proper notice of the upset as required in Part II.L.6. (24-hour notice); and
- d. the permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

3. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. RETENTION OF RECORDS

1. Post-Expiration or Termination Retention

Copies of documentation required by this permit, including records of all data used to complete the application for permit coverage to be covered by this permit, must be

retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

2. On-site Retention

The permittee must retain an electronic version or hardcopy of the SWMP at the construction site from the date of the initiation of construction activities to the date of expiration or inactivation of permit coverage; unless another location, specified by the permittee, is approved by the division.

P. REOPENER CLAUSE

1. Procedures for modification or revocation

Permit modification or revocation of this permit or coverage under this permit will be conducted according to Regulation 61.8(8).

2. Water quality protection

If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, the permittee may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.

Q. SEVERABILITY

The provisions of this permit are severable. If any provisions or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

R. NOTIFICATION REQUIREMENTS

1. Notification to Parties

All notification requirements, excluding information submitted using the CEOS portal, shall be directed as follows:

- a. Oral Notifications, during normal business hours shall be to:
 - Clean Water Compliance Section
 - Water Quality Control Division
 - Telephone: (303) 692-3500
- b. Written notification shall be to:
 - Clean Water Compliance Section
 - Water Quality Control Division
 - Colorado Department of Public Health and Environment
 - WQCD-WQP-B2
 - 4300 Cherry Creek Drive South
 - Denver, CO 80246-1530

S. RESPONSIBILITIES**1. Reduction, Loss, or Failure of Treatment Facility**

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

T. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the CWA.

U. Emergency Powers

Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

V. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Water Quality Control Commission or the division, but shall be kept confidential. Any person seeking to invoke the protection of of this section shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

W. Fees

The permittee is required to submit payment of an annual fee as set forth in the 2016 amendments to the Water Quality Control Act. Section 25-8-502 (1.1) (b), and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.15 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S.1973 as amended.

X. Duration of Permit

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least ninety (90) calendar days before this permit expires. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications. If the permittee anticipates there will be no discharge after the expiration date of this permit, the division should be promptly notified so that it can terminate the permit in accordance with Part I.A.3.i.

Y. Section 307 Toxics

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the division

shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition

APPENDIX C – FEMA FIRM MAP



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily certify as areas subject to flooding, particularly for local drainage systems or other uses. The community maps responsibility should be distributed for possible, updated or additional flood hazard information.

To obtain more detailed information in areas where Flood Elevations (FEs) and/or Floodway Data have been determined, users are encouraged to view the Flood Profiles and Floodway Data and/or Floodway Data Tables (FDDTs) available on the Flood Insurance Study (FIS) report that accompanies this FIS. Users are advised to ensure that FFEs shown on the FIS are consistent with the most recent information. These FFEs are provided for flood insurance rating purposes only and should not be used as the sole basis of flood elevation information. Additional flood elevation data developed in the FIS report should be used in conjunction with the FIS for purposes of coastal area and/or floodway management.

Coastal High Water Flood Elevations shown on this map apply only to the portion of the North Branch of the Rio Grande shown in the Flood Insurance Study report for this jurisdiction. Elevations shown in the vicinity of Channel Elevations have been used for local applications and should be recognized as such when they are a higher than the elevations shown on this FIS.

Revisions of the Floodway Data are provided at some sections and interpreted between cross sections. The floodway data was prepared in close consultation with the community and other personnel. Floodway Data are provided in the Flood Insurance Study report for information on flood control structures for the jurisdiction.

Coastal areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to section 2.0 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for the jurisdiction.

The projection used in the preparation of this map is the National Transverse Mercator (NTM) zone 10. This horizontal datum is NAD83. Vertical datums are based on the National Geodetic Survey (NGS) datum of 1985 and the North American Vertical Datum of 1988. The vertical datum is the National Geodetic Survey (NGS) datum of 1985. The vertical datum is the National Geodetic Survey (NGS) datum of 1985. The vertical datum is the National Geodetic Survey (NGS) datum of 1985.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988 (NAVD83). These flood elevations shall be compared to structures and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Survey (NGS) datum of 1985 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Center
14800 N. Fwy
Fairbanks, Alaska 99709
1-800-485-4046
www.ngs.noaa.gov

To obtain current elevation, description and/or location information for benchmarks used on this map, please contact the Information Services Branch of the National Geodetic Survey at (202) 775-3251 or visit us online at www.ngs.noaa.gov.

Base Map information is based on the FIS and was provided in digital format by El Paso County, Colorado Springs Utilities, City of Fortran, Bureau of Land Management, National Geodetic Survey, and the National Geodetic Survey. These data are current as of 2008.

This map reflects more detailed and up-to-date stream channel configurations and boundary delineations than those shown on the previous FIS for this jurisdiction. The boundaries and locations that were transferred from the previous FIS map have been updated to reflect the most current stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report for this jurisdiction may differ from those shown on the previous FIS map. The profile boundaries depicted on this map represent the hydraulic modeling boundaries that result from the flood profiles and Floodway Data Tables applicable to the FIS map. As a result, the profile boundaries may differ significantly from the stream channel representation and may appear to be discontinuous.

Separate links shown on this map are based on the best data available at the time of publication. Because changes due to encroachments or encroachments may have occurred after the map was published, map users should contact appropriate authority officials to verify current flood boundary locations.

Users refer to the separate panel map index for an overview map of the study area showing the layout of map panels, community map, regulatory authority, and a listing of Communities at Risk in the National Flood Insurance Program areas for which community as well as a listing of the panels on which each community is located.

Coastal FEMA Map Service Center (MSC) uses the FEMA map information exchange (FIE) 1507-206-2027 for information on available products associated with the FIS. Available products may include preliminary flood maps, Change a Flood Insurance Study Report, and/or digital products of this map. The MSC may be reached by Fax at 1-800-598-9832 and by website at <http://www.fema.gov>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP (1-877-362-6272) or visit the FEMA website at <http://www.fema.gov>.

El Paso County Vertical Datum Offset Table

Heading Down Vertical Datum Offset
REFER TO SECTION 2.0 OF THIS FLOOD INSURANCE STUDY REPORT FOR INFORMATION ON FLOOD CONTROL STRUCTURES FOR THIS JURISDICTION.

Flood Location Map

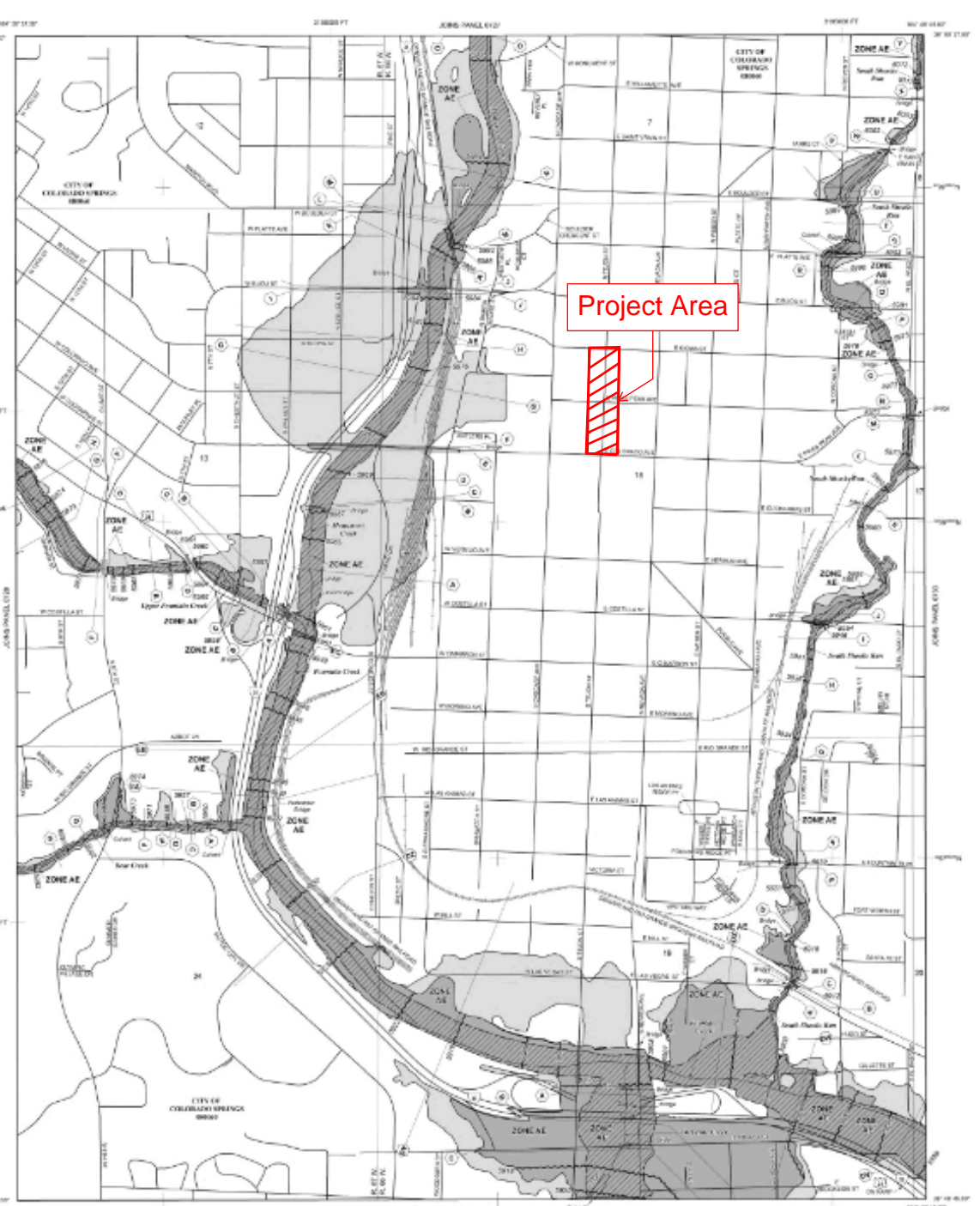


The Digital Flood Insurance Rate Map (DFIRM) was produced through a Cooperative Technical Order (CTO) agreement between the State of Colorado Water Conservation Board (CWB) and the National Geodetic Survey (NGS).

National Flood Hazard Information and resources are available from both organizations and the Colorado Water Conservation Board.



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 14 SOUTH, RANGE 65 WEST, AND TOWNSHIP 14 SOUTH, RANGE 67 WEST.



Project Area

LEGEND

- VEGETATION** (Symbol: Dotted pattern)
- WATER** (Symbol: Blue)
- ROADS** (Symbol: Solid black line)
- RAILROADS** (Symbol: Dashed black line)
- POWER LINES** (Symbol: Dashed black line)
- WATERWAYS** (Symbol: Solid black line)
- WATERWAY AREAS** (Symbol: Dotted pattern)
- OTHER FLOOD HAZARD AREAS** (Symbol: Dotted pattern)
- OTHER AREAS** (Symbol: Solid grey)
- BOUNDARIES** (Symbol: Solid black line)
- PROPERTY LINES** (Symbol: Dashed black line)
- ROADS** (Symbol: Solid black line)
- RAILROADS** (Symbol: Dashed black line)
- POWER LINES** (Symbol: Dashed black line)
- WATERWAYS** (Symbol: Solid black line)
- WATERWAY AREAS** (Symbol: Dotted pattern)
- OTHER FLOOD HAZARD AREAS** (Symbol: Dotted pattern)
- OTHER AREAS** (Symbol: Solid grey)
- BOUNDARIES** (Symbol: Solid black line)
- PROPERTY LINES** (Symbol: Dashed black line)



MAP SCALE 1" = 100'

DATE OF MAP: 08/14/2018

EFFECTIVE DATE OF COASTAL FLOOD PROTECTION: 08/14/2018

IF YOU HAVE QUESTIONS ABOUT THIS MAP OR QUESTIONS CONCERNING THE NATIONAL FLOOD INSURANCE PROGRAM IN GENERAL, PLEASE CALL 1-877-FEMA-MAP (1-877-362-6272) OR VISIT THE FEMA WEBSITE AT <http://www.fema.gov>.

To determine if flood insurance is available in this community, please visit www.fema.gov or call 1-800-485-4046.

NFIP

PANEL 0729G

FIRM
FLOOD INSURANCE RATE MAP
EL PASO COUNTY,
COLORADO
AND INCORPORATED AREAS

PANEL 729 OF 1300
(SEE MAP INDEX FOR OVERVIEW PANEL LAYOUT)

COORDINATE: NAD83 UTM 12Q
ELECTRONIC: 8770 0000 000 0

MAP NUMBER
066410729G

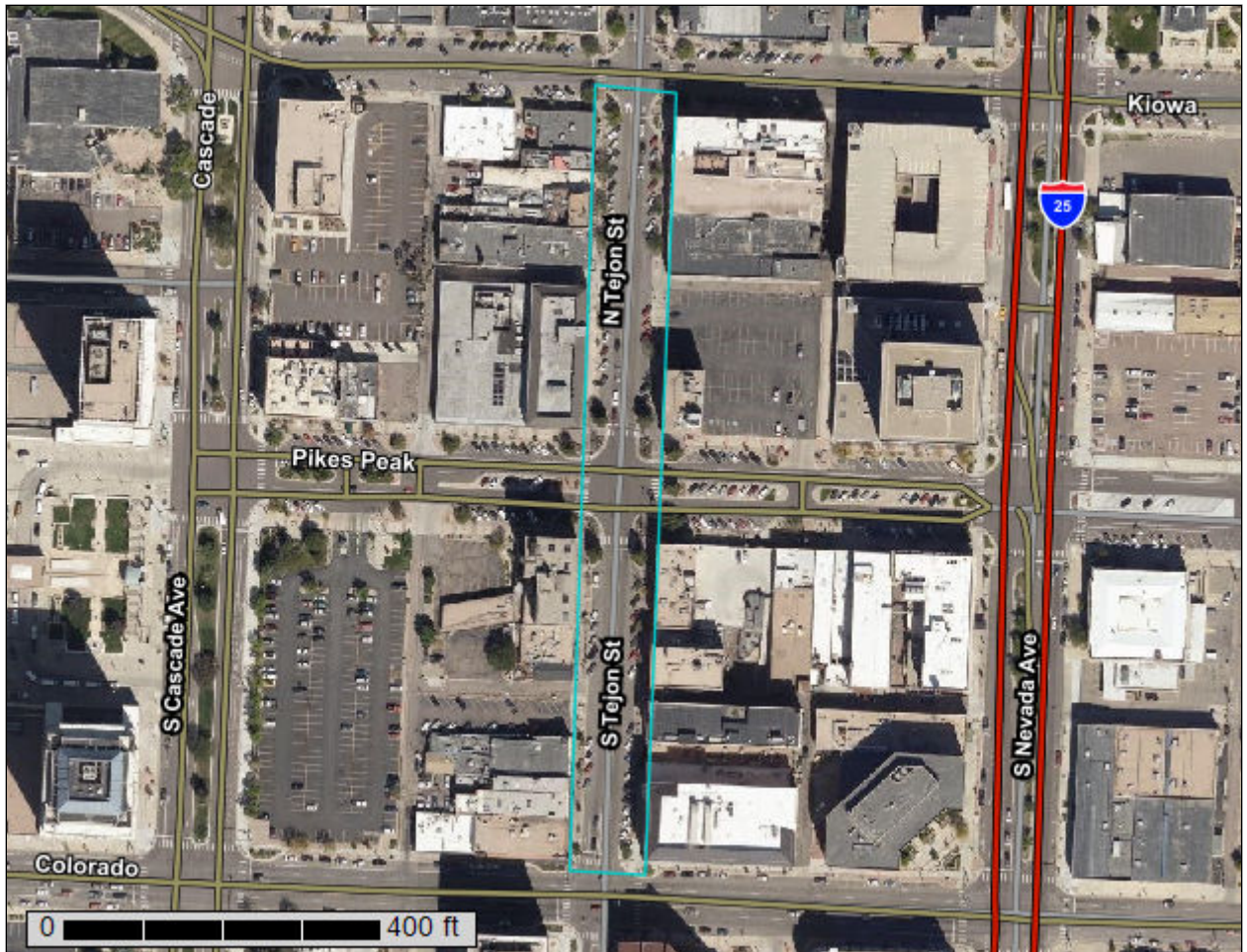
MAP REVISED
DECEMBER 7, 2018

Federal Emergency Management Agency

APPENDIX D – SOILS INFORMATION

Custom Soil Resource Report for El Paso County Area, Colorado

Tejon Street Soil Survey



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
El Paso County Area, Colorado.....	13
16—Chaseville gravelly sandy loam, 1 to 8 percent slopes.....	13
References	15

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

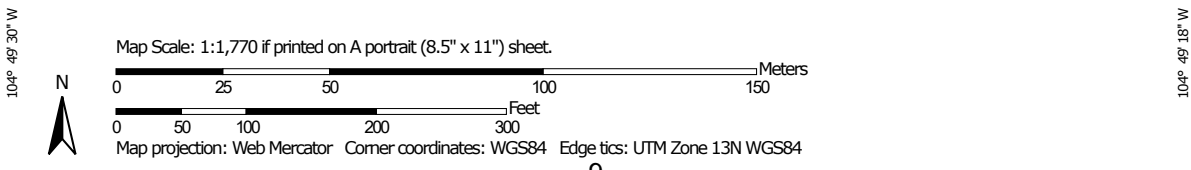
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map


The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
 Survey Area Data: Version 20, Sep 2, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 19, 2018—Sep 23, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
16	Chaseville gravelly sandy loam, 1 to 8 percent slopes	2.2	100.0%
Totals for Area of Interest		2.2	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Paso County Area, Colorado

16—Chaseville gravelly sandy loam, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 3671
Elevation: 6,100 to 7,000 feet
Mean annual precipitation: 16 to 18 inches
Mean annual air temperature: 46 to 48 degrees F
Frost-free period: 125 to 145 days
Farmland classification: Not prime farmland

Map Unit Composition

Chaseville and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chaseville

Setting

Landform: Hills, alluvial fans, terraces
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from arkose

Typical profile

A1 - 0 to 6 inches: gravelly sandy loam
A2 - 6 to 19 inches: very gravelly sandy loam
C1 - 19 to 40 inches: extremely gravelly loamy coarse sand
C2 - 40 to 60 inches: very gravelly loamy sand

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R049XY214CO - Gravelly Foothill
Hydric soil rating: No

Minor Components

Other soils

Percent of map unit: 1 percent
Hydric soil rating: No

Custom Soil Resource Report

Pleasant

Percent of map unit: 1 percent

Landform: Depressions

Hydric soil rating: Yes

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX E – IDENTIFICATION OF POLLUTANT SOURCES



Outdoor Storage of Materials Log

Identification of Pollutant	Date Onsite	Date Removed	Containment Method

Vehicle Equipment Maintenance and Fueling Log

Identification of Pollutant	Date Onsite	Date Removed	Containment Method

Routine Maintenance Log

Identification of Pollutant	Date Onsite	Date Removed	Containment Method

Onsite Waste Management Log

Identification of Pollutant	Date Onsite	Date Removed	Containment Method

Non-Industrial Waste Sources Log

Identification of Pollutant	Date Onsite	Date Removed	Containment Method

Additional Pollutant Sources Log

Identification of Pollutant	Date Onsite	Date Removed	Containment Method

APPENDIX F – LAND DISTURBANCE / CONTROL MEASURE /
STABILIZATION LOG

Land Disturbance / Control Measure / Stabilization Log

Date Initiated	Description of Activity	Date Ceased	Identification of BMP / Stabilization Method	Date Implemented	Date Removed

APPENDIX G – CDPHE ENVIRONMENTAL SPILL REPORTING /
CONTROL MEASURE



involving a radioactive or infectious material, or there is a release of a marine pollutant.

Spills and incidents that have or may result in a spill along a highway must be reported to the nearest law enforcement agency immediately. The Colorado State Patrol and CDPHE must also be notified as soon as possible. In the event of a spill of hazardous waste at a transfer facility, the transporter must notify CDPHE within 24 hours if the spill exceeds 55 gallons or if there is a fire or explosion.

The National Response Center should be notified as soon as possible after discovery of a release of a hazardous liquid or carbon dioxide from a pipeline system if a person is killed or injured, there is a fire or explosion, there is property damage of \$50,000 or more, or any nearby water body is contaminated.

The National Response Center and the Colorado Public Utilities Commission Gas Pipeline Safety Section must be notified as soon as possible, but not more than two hours after discovery of a release of gas from a natural gas pipeline or liquefied natural gas facility if a person is killed or injured, there is an emergency shutdown of the facility, or there is property damage of \$50,000 or more. The Colorado Public Utilities Commission should also be notified if there is a gas leak from a pipeline, liquefied natural gas system, master meter system or a propane system that results in the evacuation of 50 or more people from an occupied building or the closure of a roadway.

Oil and Gas Exploration

All Class I major events on federal lands, including releases of hazardous substances in excess of the CERCLA reportable quantity and spills of more than 100 barrels of fluid and/or 500 MCF of gas released, must be reported to the Bureau of Land Management (BLM) immediately. Spills of oil, gas, salt water, toxic liquids and waste materials must also be reported to the BLM and the surface management agency.

Spills of exploration and production (E&P) waste on state or private lands in excess of 20 barrels, and spills of any size that impact or threaten to impact waters of the state, an occupied structure, or public byway must be reported to the Colorado Oil and Gas Conservation Commission as soon as practicable, but not more than 24 hours after discovery. Spills of any

size that impact or threaten to impact waters of the state must be reported to CDPHE immediately. Spills that impact or threaten to impact a surface water intake must be reported to the emergency contact for that facility immediately after discovery. Spills of more than five (5) barrels of E&P waste must be reported in writing to the Oil and Gas Conservation Commission within 10 days of discovery.

REPORTING NUMBERS

National Response Center (24-hour)
1-800-424-8802

CDPHE Colorado Environmental Release and Incident Reporting Line (24-hour)
1-877-518-5608

Radiation Incident Reporting Line (24-hour)
303-877-9757

Colorado State Patrol (24-hour)
303-239-4501

Division of Oil and Public Safety
(business hours)
303-318-8547

Oil and Gas Conservation Commission
(business hours)
303-894-2100

Colorado Public Utilities Commission Gas Pipeline Safety Section (business hours)
303-894-2851

Local Emergency Planning Committees
(to obtain list, business hours)
720-852-6603



**Colorado Department
of Public Health
and Environment**

Environmental Spill Reporting

Colorado Department of Public
Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80246-1530

<http://www.cdphe.state.co.us>

January 2009

When a release of a hazardous material or other substance occurs to the environment, there are a number of reporting and notification requirements that must be followed by the company or individual responsible for the release. Most spills are covered by more than one reporting requirement, and **all** requirements must be met. In addition to verbal notification, written reports are generally required. This brochure briefly explains the major requirements. A more detailed description is provided in the "Reporting Environmental Releases in Colorado" Guidance Document, available on the web.

Releases that must be reported to the Colorado Department of Public Health and Environment (CDPHE) may be reported to the Colorado Environmental Release and Incident Reporting Line.

ENVIRONMENTAL SPILL REPORTING

CERCLA, EPCRA and RCRA

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Emergency Planning and Community Right-to-Know Act (EPCRA) require that a release of a reportable quantity or more of a hazardous substance to the environment be reported immediately to the appropriate authorities when the release is discovered.

Under CERCLA, reportable quantities were established for hazardous substances listed or designated under other environmental statutes. These include:

- all hazardous air pollutants (HAPs) listed under Section 112(b) of the Clean Air Act.
- all toxic pollutants designated under Section 307(a) or Section 311(b)(2)(A) of the Clean Water Act.
- all Resource Conservation and Recovery Act (RCRA) characteristic and listed hazardous wastes.
- any element, compound, or substance designated under Section 102 of CERCLA.

EPCRA established a list of extremely hazardous substances (EHS) that could cause serious irreversible health effects from accidental releases. Many substances appear on both the CERCLA and EPCRA lists. EPCRA extremely hazardous substances that are also CERCLA hazardous substances have the same reportable quantity (RQ) as under CERCLA. EPCRA extremely hazardous substances that are not listed under CERCLA have a reportable quantity that is equal to their threshold planning quantity (TPQ). A list of CERCLA reportable quantities is included in 40 CFR Section 302.4. A list of EPCRA threshold planning quantities is included in 40 CFR Part 355 Appendices A & B.

CERCLA-reportable releases must be reported immediately to the National Response Center (NRC), while EPCRA-reportable releases must be reported immediately to the National Response Center, the State Emergency Response Commission (SERC) and the affected Local Emergency Planning Committee (LEPC). If the release is an EPCRA extremely

hazardous substance, but not a CERCLA hazardous substance, and there is absolutely no potential to affect off-site persons, then only the State Emergency Planning Commission (represented by CDPHE for reporting purposes) and the Local Emergency Planning Committee need to be notified.

In the case of a release of hazardous waste stored in tanks, RCRA-permitted facilities and large quantity generators must also notify CDPHE within 24 hours of any release to the environment that is greater than one (1) pound.

Radiation Control

Each licensee or registrant must report to the Radiation Incident Reporting Line in the event of lost, stolen or missing licensed or registered radioactive materials or radiation machines, releases of radioactive materials, contamination events, and fires or explosions involving radioactive materials. Releases of radionuclides are reportable under CERCLA.

Clean Water Act

The Clean Water Act requires the person in charge of a facility or vessel to immediately report to the National Response Center all discharges of oil or designated hazardous substances to water. Oil means oil of any kind or form. Designated hazardous substances are included in the CERCLA list.

The Clean Water Act also requires that facilities with a National Pollutant Discharge Elimination System (NPDES) permit report to the National Response Center within 24 hours of becoming aware of any unanticipated bypasses or upsets that cause an exceedance of the effluent limits in their permit and any violations of their maximum daily discharge limits for pollutants listed in their permit.

A release of any chemical, oil, petroleum product, sewage, etc., which may enter waters of the state of Colorado (which include surface water, ground water and dry gullies and storm sewers leading to surface water) must be reported immediately to CDPHE. Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant. For additional regarding releases to water, please see "Guidance for Reporting Spills under the Colorado

Water Quality Control Act and Colorado Discharge Permits" at <http://www.cdphe.state.co.us/op/wqcc/Resources/Guidance/spillguidance.pdf>.

Clean Air Act

Hazardous air pollutants (HAPs) are designated as hazardous substances under CERCLA. If a facility has an air permit but the permit does not allow for or does not specify the release of a substance, or if the facility does not have an air permit, then all releases in excess of the CERCLA / EPCRA reportable quantity for that substance must be reported to the National Response Center and CDPHE. If the facility releases more of a substance than is allowed under its air permit, the facility must also report the release. Discharges of a substance that are within the allowable limits specified in the facility's permit do not need to be reported.

Regulated Storage Tanks

Owners and operators of regulated storage tank systems must report a release or suspected release of regulated substances to the Division of Oil and Public Safety at the Colorado Department of Labor and Employment within 24 hours. Under this program, the reportable quantity for petroleum releases is 25 gallons or more, or any amount that causes a sheen on nearby surface water. Spills of less than 25 gallons of petroleum must be immediately contained and cleaned up. If cleanup cannot be accomplished within 24 hours, the Division of Oil and Public Safety must be notified immediately.

Spills of hazardous substances from tanks in excess of the CERCLA or EPCRA reportable quantity must be reported immediately to the National Response Center, CDPHE and the local fire authority, and to the Division of Oil and Public Safety within 24 hours.

Transportation and Pipelines

The person in physical possession of a hazardous material must notify the National Response Center as soon as practical, but not to exceed 12 hours after the incident, if as a direct result of the hazardous material, a person is killed or injured, there is an evacuation of the general public lasting more than an hour, a major transportation artery is shut down for an hour or more, the flight pattern of an aircraft is altered, there is fire, spillage or suspected contamination

APPENDIX H – STORM EVENT LOG

APPENDIX I – INSPECTION AND SAMPLING REPORTS



CONSTRUCTION STORMWATER SITE INSPECTION REPORT

Facility Name		Permittee					
Date of Inspection		Weather Conditions					
Permit Certification #		Disturbed Acreage					
Phase of Construction		Inspector Title					
Inspector Name							
Is the above inspector a qualified stormwater manager? (permittee is responsible for ensuring that the inspector is a qualified stormwater manager)			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
YES	NO						
<input type="checkbox"/>	<input type="checkbox"/>						

INSPECTION FREQUENCY					
Check the box that describes the minimum inspection frequency utilized when conducting each inspection					
At least one inspection every 7 calendar days	<input type="checkbox"/>				
At least one inspection every 14 calendar days, with post-storm event inspections conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosions	<input type="checkbox"/>				
<ul style="list-style-type: none"> • This is this a post-storm event inspection. Event Date: _____ 	<input type="checkbox"/>				
Reduced inspection frequency - Include site conditions that warrant reduced inspection frequency	<input type="checkbox"/>				
<ul style="list-style-type: none"> • Post-storm inspections at temporarily idle sites 	<input type="checkbox"/>				
<ul style="list-style-type: none"> • Inspections at completed sites/area 	<input type="checkbox"/>				
<ul style="list-style-type: none"> • Winter conditions exclusion 	<input type="checkbox"/>				
Have there been any deviations from the minimum inspection schedule? If yes, describe below.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
YES	NO				
<input type="checkbox"/>	<input type="checkbox"/>				

INSPECTION REQUIREMENTS*
i. Visually verify all implemented control measures are in effective operational condition and are working as designed in the specifications
ii. Determine if there are new potential sources of pollutants
iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges
iv. Identify all areas of non-compliance with the permit requirements, and if necessary, implement corrective action
*Use the attached Control Measures Requiring Routine Maintenance and Inadequate Control Measures Requiring Corrective Action forms to document results of this assessment that trigger either maintenance or corrective actions

AREAS TO BE INSPECTED			
Is there evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters at the following locations?			
	NO	YES	If "YES" describe discharge or potential for discharge below. Document related maintenance, inadequate control measures and corrective actions Inadequate Control Measures Requiring Corrective Action form
Construction site perimeter	<input type="checkbox"/>	<input type="checkbox"/>	
All disturbed areas	<input type="checkbox"/>	<input type="checkbox"/>	
Designated haul routes	<input type="checkbox"/>	<input type="checkbox"/>	
Material and waste storage areas exposed to precipitation	<input type="checkbox"/>	<input type="checkbox"/>	
Locations where stormwater has the potential to discharge offsite	<input type="checkbox"/>	<input type="checkbox"/>	
Locations where vehicles exit the site	<input type="checkbox"/>	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	

CONTROL MEASURES REQUIRING ROUTINE MAINTENANCE

Definition: Any control measure that is still operating in accordance with its design and the requirements of the permit, but requires maintenance to prevent a breach of the control measure. These items are not subject to the corrective action requirements as specified in Part I.B.1.c of the permit.

Are there control measures requiring maintenance?	NO	YES	If "YES" document below
	<input type="checkbox"/>	<input type="checkbox"/>	

Date Observed	Location	Control Measure	Maintenance Required	Date Completed

INADEQUATE CONTROL MEASURES REQUIRING CORRECTIVE ACTION

Definition: Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. This includes control measures that have not been implemented for pollutant sources. If it is infeasible to install or repair the control measure immediately after discovering the deficiency the reason must be documented and a schedule included to return the control measure to effective operating condition as possible.

Are there inadequate control measures requiring corrective action?	NO	YES	If "YES" document below
	<input type="checkbox"/>	<input type="checkbox"/>	

Are there additional control measures needed that were not in place at the time of inspection?	NO	YES	If "YES" document below
	<input type="checkbox"/>	<input type="checkbox"/>	

Date Discovered	Location	Description of Inadequate Control Measure	Description of Corrective Action	Was deficiency corrected when discovered? YES/NO if "NO" provide reason and schedule to correct	Date Corrected

REPORTING REQUIREMENTS

The permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances. The division may waive the written report required if the oral report has been received within 24 hours.

All Noncompliance Requiring 24-Hour Notification per Part II.L.6 of the Permit		
a. Endangerment to Health or the Environment Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident (See Part II.L.6.a of the Permit) <i>This category would primarily result from the discharge of pollutants in violation of the permit</i>		
b. Numeric Effluent Limit Violations <ul style="list-style-type: none"> o Circumstances leading to any unanticipated bypass which exceeds any effluent limitations (See Part II.L.6.b of the Permit) o Circumstances leading to any upset which causes an exceedance of any effluent limitation (See Part II.L.6.c of the Permit) o Daily maximum violations (See Part II.L.6.d of the Permit) <i>Numeric effluent limits are very uncommon in certifications under the COR400000 general permit. This category of noncompliance only applies if numeric effluent limits are included in a permit certification.</i>		

Has there been an incident of noncompliance requiring 24-hour notification?	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	If "YES" document below

Date and Time of Incident	Location	Description of Noncompliance	Description of Corrective Action	Date and Time of 24 Hour Oral Notification	Date of 5 Day Written Notification *

*Attach copy of 5 day written notification to report. Indicate if written notification was waived, including the name of the division personnel who granted waiver.

After adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the individual(s) designated as the Qualified Stormwater Manager, shall sign and certify the below statement:

"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

Name of Qualified Stormwater Manager

Title of Qualified Stormwater Manager

Signature of Qualified Stormwater Manager

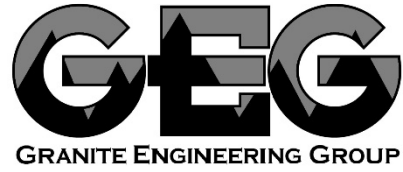
Date

Notes/Comments

APPENDIX J – SWMP AMENDMENT LOG

APPENDIX K – SOIL BORINGS / TEST (GEOTECH REPORT)





**Geotechnical Engineering Report
Tejon Street Revitalization
Colorado Springs, Colorado
GEG Project No. 222-159**

September 8, 2023

**Copyright 2023 Granite Engineering Group, Inc.
All Rights Reserved**

**ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THIS DOCUMENT
AND ONLY FOR THE SPECIFIC PROJECT THAT THIS REPORT WAS PREPARED FOR.**



A Report Prepared for:

Mr. Eric Gunderson, PE
Kimley-Horn
2 North Nevada Avenue, 9th Floor
Colorado Springs, Colorado 80903

**GEOTECHNICAL ENGINEERING REPORT
TEJON STREET REVITALIZATION
COLORADO SPRINGS, COLORADO
GEG PROJECT NO. 222-159**

September 8, 2023

Prepared by:

FINAL

Hai Ming Lim, PE
Project Manager

FINAL

Xuhui Chang
Senior Engineer

GRANITE ENGINEERING GROUP, INC.
1110 Elkton Drive, Suite B
Colorado Springs, CO 80917
Phone: 719-716-9009



Table Of Contents

1.	INTRODUCTION	1
1.1	GENERAL	1
1.2	PROJECT INFORMATION	1
1.3	PURPOSE AND SCOPE.....	1
2.	SUBSURFACE EXPLORATION	2
2.1	FIELD EXPLORATION	2
2.2	LABORATORY TESTING.....	3
3.	SITE AND SUBSURFACE CONDITIONS.....	4
3.1	SITE CONDITIONS.....	4
3.2	GEOLOGIC SETTING	4
3.3	SUBSURFACE CONDITIONS	5
3.4	GROUNDWATER.....	5
4.	CONSTRUCTION RECOMMENDATIONS	6
4.1	GEOTECHNICAL FEASIBILITY	6
4.2	SUBGRADE PREPARATION AND EARTHWORK.....	6
	4.2.1 <i>Site Preparation</i>	6
	4.2.2 <i>Fill Materials and Subgrade Preparation</i>	7
	4.2.3 <i>Excavation and Trench Grading</i>	7
	4.2.4 <i>Structural Fill Requirements</i>	8
4.3	DRAINAGE CONSIDERATIONS.....	9
4.4	CONSTRUCTION IN WET OR COLD WEATHER	9
4.5	CORROSIVITY TEST RESULTS.....	10
5.	PAVEMENT THICKNESS RECOMMENDATIONS	11
5.1	SUBGRADE STRENGTH.....	11
5.2	TRAFFIC LOADING	11
5.3	PAVEMENT THICKNESS DESIGN.....	11
5.4	PAVEMENT MATERIALS	13
	5.4.1 <i>Base Course</i>	13
	5.4.2 <i>Hot Mix Asphalt</i>	14
	5.4.3 <i>Portland Cement Concrete</i>	14
6.	LIMITATIONS	14



List Of Figures

FIGURE 1. GEOLOGIC MAP 4

List Of Tables

TABLE 3-1 EXISTING PAVEMENT THICKNESS 5

TABLE 4-1 IMPORTED STRUCTURAL FILL CRITERIA 9

TABLE 4-2. ANALYTICAL TEST RESULTS 10

TABLE 4-3. RESISTIVITY AND CORROSIVITY CATEGORIES 10

TABLE 6-1. PAVEMENT DESIGN PARAMETERS 12

TABLE 6-2. PAVEMENT DESIGN STRENGTH COEFFICIENTS 12

TABLE 6-3. RECOMMENDED MINIMUM PAVEMENT SECTIONS 12

TABLE 6-4. RECOMMENDED MILL AND OVERLAY PAVEMENT SECTION 13

TABLE 6-5. ESTIMATED DESIGN LIGE OF MILL AND OVERLAY PAVEMENT SECTION 13

List Of Appendices

FIGURE A-1: SITE LOCATION PLAN A

FIGURE A-2: BORING LOCATION PLAN A

KEY TO BORING LOGS B

BORING LOGS B

DCP RESULTS B

PAVEMENT CORE PHOTOS B-1 THROUGH B-3 B

LABORATORY TEST RESULTS C

PAVEMENT DESIGN OUTPUT D

1. INTRODUCTION

1.1 General

Granite Engineering Group, Inc. (GEG) has completed the subsurface exploration and geotechnical engineering evaluation for the proposed Tejon Street Revitalization project in Colorado Springs, Colorado. The general location of the project site is presented on Figure A-1, Site Location Plan in Appendix A.

This report includes our recommendations related to the geotechnical aspects of the project design and construction. Conclusions and recommendations presented in this report are based on the subsurface information encountered at the locations of our explorations, preliminary project information provided by Kimley-Horn and the provision and requirements outlined in the Limitations section of this report.

1.2 Project Information

Based on the information provided, we understand that the project includes Phase I of Tejon Street revitalization, which starts from Colorado Avenue to East Kiowa Street. The phase I revitalization includes various improvements, such as conversion of parking lots to parallel parking, removal of center left-turn lane and streetscape design. The existing pavement except for the existing parking area is planned to be rehabilitated by milling and overlaying. The existing parking area is planned to be reconstructed full depth to match the final grade.

If the project information is to vary significantly from the above descriptions, GEG should be notified immediately in order to re-evaluate our recommendations, if required. Once the final design such as grading plan is established, GEG should be allowed to review the engineering recommendations.

1.3 Purpose and Scope

The purpose of our study was to evaluate the subsurface conditions at the locations along Tejon Street and provide pavement thickness recommendations for reconstruction and rehabilitation.

This report has been prepared in general accordance with our approved proposal for geotechnical engineering services, dated December 7, 2022. Our scope of services consisted of the following:

- Review available mapped geology at the site.
- Apply for and acquire permit with City of Colorado Springs.

- Coordinate and arrange for traffic control in accordance with City of Colorado Springs Traffic Controls manual.
- Arrange for the underground utility locate within the vicinity of the proposed boring locations.
- Perform a total of five (5) geotechnical borings. The boring locations are shown on Figure A-2, Boring Location Plan in Appendix A. The existing pavement was cored with a 4-inch diameter coring machine, and the subgrade soils were tested with a Dynamic Cone Penetrometer (DCP). Subgrade soils were then collected using SPT samplers.
- Backfill the borings with City approved flowable fill and patch the surface with asphalt materials in accordance with City of Colorado Springs standards.
- Perform laboratory testing on soil samples obtained during the subsurface exploration to evaluate the engineering characteristics.
- Prepare a report that presents the results of encountered site and subsurface conditions, laboratory testing, our geotechnical engineering analyses, pavement thickness design for reconstruction and rehabilitation, and earthwork recommendations.

The conclusions and recommendations presented herein are based on our site explorations and the subsurface conditions encountered at our boring locations during the time of our exploration. Our findings, conclusions, and recommendations should not be extrapolated to other areas of the site or used for other projects without our prior review. Additionally, they should not be used if the site has been altered or if more than three (3) years have elapsed since the date of our final report without our prior review to determine if they remain valid.

2. SUBSURFACE EXPLORATION

2.1 Field Exploration

Our field exploration program consisted of advancing a total of five (5) borings at the approximate locations shown on Figure A-2, Boring Location Plan in Appendix A.

The boring locations were established in the field by GEG personnel by using a hand-held GPS unit with accuracy of approximately 10 feet. The boring locations should be considered accurate only to the degree implied by the methods used to define them.

The borings were advanced with a truck-mounted CME-45B drill rig equipped with 4-inch diameter, solid-stem, continuous-flight augers. Boring B-2 was advanced to approximately 10.5 feet below the existing ground surface (bgs) and the remaining borings were drilled to approximately 5.5 feet bgs.

The existing pavement was cored with a 4-inch diameter coring machine, and the subgrade soils were tested using a DCP to approximately 3 to 4 feet below the bottom of the pavement. After the DCP testing is completed, sampling was performed at about 2.5-foot intervals to the terminated depths. Samples were collected by driving a standard penetration test (SPT) split barrel sampler into the strata with a 140-pound hammer falling 30-inches.

The SPT is a 1.375-inch I.D. standard split barrel sampler performed in accordance with ASTM D1586. The blows required to drive the SPT sampler the final 12-inches are known as the SPT N-value. The SPT N-value represents the consistency or relative density of the strata.

The DCP apparatus consists of a 5/8" diameter steel rod with a 60 degrees conical tip. The rod is topped with an anvil that is connected to a second rod. The rod is used as a guide to allow an 8kg hammer to be repeatedly raised and dropped from a height of 575 mm. The connection between the two rods consists of an anvil to allow for quick connections between the rods and for efficient energy transfer from the falling weight to the penetrating rod. The penetration of the rod is measured after each drop. The penetration value can be correlated to the common engineering parameters.

The boring logs and key to the boring logs and DCP results are presented in Appendix B.

2.2 Laboratory Testing

Representative soil samples were selected for laboratory testing that was completed in accordance with industry standards and consistent with local practice. Laboratory soil testing included the following:

- Description and identification of soils (visual-manual procedure);
- Natural moisture;
- Gradation analysis;
- Atterberg limits;
- Analytical testing including water soluble sulfate and chloride, resistivity and pH.

Results of the laboratory tests are shown on the boring logs and are also presented in the Laboratory Summary in Appendix C.

3. SITE AND SUBSURFACE CONDITIONS

3.1 Site Conditions

The project is located on Tejon Street between Colorado Avenue and East Kiowa Street in Colorado Springs, Colorado. The existing Tejon Street is paved with hot mix asphalt (HMA), which is underlain by Portland cement concrete (PCC). The existing street has three lanes, one lane for each direction with a turning lane in the middle. Parking spaces exist on both sides of the street. The areas surrounding the project site generally consist of commercial buildings and parking lots.

3.2 Geologic Setting

Review of the “Geologic map of the Colorado Springs Quadrangle, El Paso County, Colorado, 2000” indicates that the project site is within Terrace alluvium three (Qt3). Terrace alluvium three consists of poorly sorted, clast-supported, locally bouldery, pebble and cobble gravel in a sandy or silty matrix. The geologic units mapped at the project site are presented in Figure 1. The WebSoil Survey provided by Natural Resources Conservation Service (NRCS) indicates that the surficial soil at the project site is the Chaseville gravelly sandy loam, which consists of gravelly to very gravelly sandy loam, and very gravelly to extremely gravelly loamy sand.

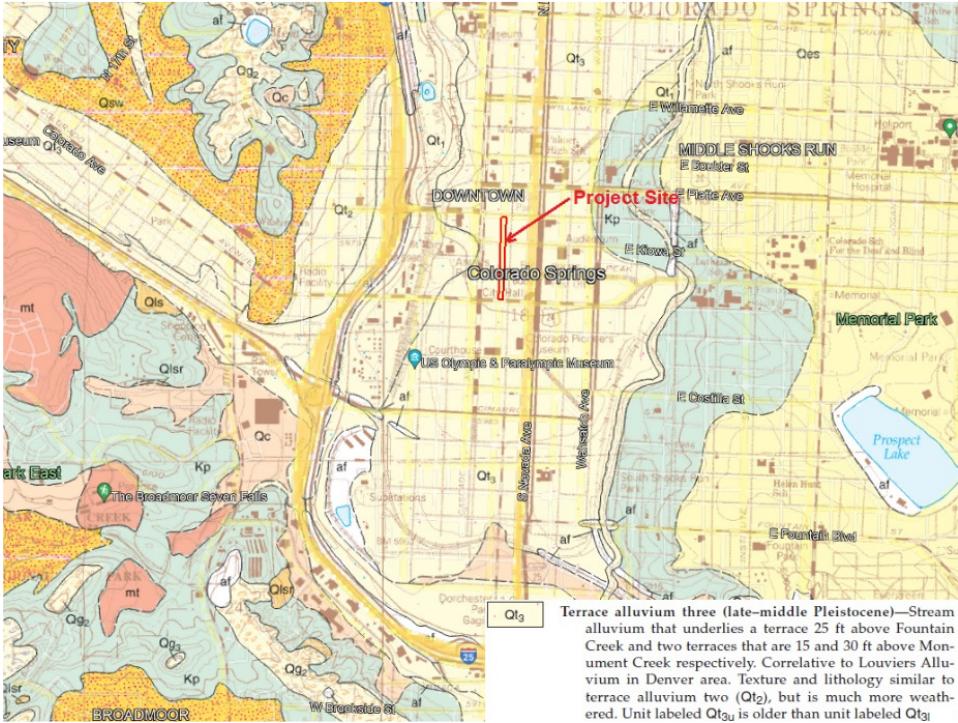


Figure 1. Geologic Map

3.3 Subsurface Conditions

The subsurface conditions encountered in the borings are generally consistent with the mapped geology. The existing pavement section at the boring locations generally consists of asphalt concrete underlain by Portland cement concrete over aggregate base course. Photos of pavement cores are included in Figures B-1 through B-3 in Appendix B of the report. The thickness of each layer of the existing pavement at each boring location is summarized in Table 3-1 below.

Table 3-1 Existing Pavement Thickness

Boring No.	Thickness of Existing Pavement Layers from Top to Bottom		
	Asphalt Concrete	Portland Cement Concrete	Aggregate Base
B-1	7.25"	4.25"	10"
B-2	5.75"	6"	NA
B-3	5.5"	4"	12"
B-4	4.5"	3.25"	12"
B-5	4.25"	5.5"	12"

Beneath the existing pavement, the borings encountered sand with varying amounts of silt to the terminated depths of about 5.5 to 10.5 feet bgs. The sand soils were brown, reddish brown and tan in color and very loose to dense, generally loose to medium dense, in relative density.

The boring logs in Appendix B present detailed results of our subsurface exploration.

3.4 Groundwater

All borings were dry during drilling and at the completion of drilling. Groundwater observations are representative of conditions at the time of our field exploration, and therefore may not be indicative of groundwater levels at other times of the year or at other locations across the site. Groundwater conditions may fluctuate with seasonal precipitation, site grading and improvements, and local irrigation practices.

4. CONSTRUCTION RECOMMENDATIONS

4.1 Geotechnical Feasibility

Subsurface conditions encountered at the site during the field exploration did not find conditions that would preclude the construction of the project as planned provided the conclusions and recommendations presented in the following sections are incorporated into the project design.

The recommendations submitted herein are based, in part, upon data obtained from our subsurface exploration. The nature and extent of subsurface variations that may exist at the proposed project site will not become evident until construction. If variations appear evident, then the recommendations presented in this report should be evaluated. In the event that any changes in the nature, design, or location of the proposed project are planned, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and our recommendations modified in writing.

4.2 Subgrade Preparation and Earthwork

Based on our understanding of the proposed construction, the existing parking areas on both sides of Tejon Street will be removed and re-constructed full depth. Excavation into the aggregate base and native subgrade soils encountered during our subsurface exploration may be achieved with standard heavy-duty earth working equipment. All excavations and embankment grading should be performed in accordance with Section 200 of the City of Colorado Springs, City Engineering Division, Standard Specifications, 2005 (COS Standards), or Section 203 of the Colorado Department of Transportation 2022 Standard Specifications for Road and Bridge Construction (CDOT 2022), where it is not covered by the COS Standards.

4.2.1 Site Preparation

Site preparation should begin by breaking and removing the existing pavement from the proposed reconstruction areas. Clearing and Grubbing operations and removal of existing structure should be performed in accordance with Section 220 of the COS Standards. All exposed subgrade surfaces should be free of mounds and depressions, which may prevent uniform compaction. The site should be initially graded to create an appropriate surface to receive fill. Based upon the subsurface conditions encountered, subgrade soils exposed during construction are anticipated to be relatively stable. However, the stability of the subgrade may be affected by drainage and precipitation. If unstable conditions are encountered or develop during construction, stability may

be improved by scarifying and drying the subgrade soils or with other ground improvement techniques.

4.2.2 Fill Materials and Subgrade Preparation

All embankment fill, if any, should conform to Section 203 of COS Standards and should be approved by the City and the geotechnical engineer. The exposed subgrade materials prior to receiving fill shall be scarified to a minimum depth of 6 inches and the scarified materials shall be appropriately processed and compacted to meet the requirements in the COS Standards.

All compaction should be performed in horizontal lifts that are 8-inches or less in loose thickness, using equipment and procedures that will produce a uniform fill with the required moisture contents and densities throughout the lift. The required percent of relative compaction and moisture content for the embankment materials are presented in Section 205 of the COS Standards.

Backfill materials should be tested for severity of sulfate exposure prior to placement. We recommend that the subgrade preparation process including soil excavation, the placement and compaction of materials, proof rolling and visual inspection of subgrade soils be observed and evaluated by the geotechnical engineer of record or the engineer's representative.

4.2.3 Excavation and Trench Grading

All site excavation and embankment grading should conform to Section 200 of the COS Standards.

Cut slopes should be protected from surface water runoff to prevent erosion and slope failure. Landscape sprinklers if present should be frequently checked for leaks and maintained in good working order. Surface drainage should be provided around all permanent cuts and fills to direct surface runoff away from the slope faces. Concentrated runoff should be prevented in areas susceptible to erosion or slope instability.

Excavations into the on-site soils will encounter a variety of conditions. All excavations must comply with the applicable local, State, and Federal safety regulations, and particularly with the excavation standards of the Occupational Safety and Health Administration (OSHA). Construction site safety, including excavation safety, is the sole responsibility of the Contractor as part of its overall responsibility for the means, methods, and sequencing of construction operations. GEG recommendations for excavation support is provided for the Client's sole use in

planning the project, in no way do they relieve the Contractor of its responsibility to construct, support, and maintain safe slopes. Under no circumstances should the following recommendations be interpreted to mean that GEG is assuming responsibility for either construction site safety or the Contractor's activities.

We believe the overburden soil encountered at this site will classify as a Type C material, using OSHA criteria. OSHA requires that unsupported cuts be no steeper than 1½:1 for Type C for unbraced excavations up to 20 feet in height. In general, we believe that these slope ratios will be temporarily stable under unsaturated conditions. Flattened slopes may be required if excavations encounter groundwater or the slopes will be exposed for an extended period of time. Please note that the Contractor's OSHA-qualified "competent person" must make the actual determination of soil type and allowable sloping in the field.

The soils encountered by the proposed excavations may vary significantly across the site. The preliminary classifications presented above are based solely on the materials encountered in widely spaced exploratory test borings. The contractor should verify that similar conditions exist throughout the proposed area of excavation.

As a safety measure, it is recommended that all vehicles and soil piles be kept to a lateral distance equal to at least the depth of the excavation from the crest of the slope. The exposed slope face should be protected against the elements and monitored by the contractor on at least a daily basis.

4.2.4 Structural Fill Requirements

Based on our laboratory test results, the on-site sand is suitable as structural fill. Additional imported structural fill, if required, should consist of non-expansive granular material meeting the following criteria:

Table 4-1 Imported Structural Fill Criteria

Gradation Requirements	
Standard Sieve Size	Percent Passing
2 inch	100
No. 200	10 - 30
Plasticity Requirements (Atterberg Limits)	
Liquid Limit	30 or less
Plasticity Index	6 or less

We recommend that a qualified representative of GEG visit the site during excavation and during placement of the structural fill to verify the soils exposed in the excavations are consistent with those encountered during our subsurface exploration and that proper foundation subgrade preparation and placement is performed.

All fill placed on this site should be compacted according to Section 205 of the COS Standards. Fill to be placed at this site during leveling/grading operations should be placed under controlled conditions. A sample of any imported fill material, if required, should be submitted to GEG for approval and testing at least 3 days prior to stockpiling at the site.

4.3 Drainage Considerations

During construction, grade the site such that surface water can drain readily away from the pavement areas. Promptly pump out or otherwise remove water that accumulates in the excavations or on subgrade surfaces and allow these areas to dry before resuming construction. The use of berms, ditches, and similar means may be used to prevent stormwater from entering the work area and to convey water off site efficiently.

4.4 Construction in Wet or Cold Weather

Grading fill, structural fill or other fill should not be placed on frosted or frozen ground, nor should frozen material be placed as fill. Frozen ground should be allowed to thaw or be completely removed prior to placement of fill. A good practice is to cover the compacted fill with a “blanket” of loose fill to help prevent the compacted fill from freezing.

Concrete and asphalt structures should not be constructed on frozen soil. Frozen soil should be completely removed from beneath the concrete elements, or thawed, scarified and re-compacted. The amount of time passing between excavation or subgrade preparation and placing concrete

should be minimized during freezing conditions to prevent the prepared soils from freezing. Blankets, soil cover, or heating as required may be utilized to prevent the subgrade from freezing.

4.5 Corrosivity Test Results

Analytical testing was completed on a representative sample of soils encountered in the borings. The test results are presented in Appendix C and are summarized in Table 4-2.

Table 4-2. Analytical Test Results

Sample	Materials	Water Soluble Sulfates, %	Water Soluble Chlorides, %	pH	Resistivity, ohm-cm
B-2 @ 1'	Sand	0.0627	0.0019	9.4	641

Concrete in contact with soils can be subject to sulfate attack. The concentration of water-soluble sulfates on the selected soil sample represents a Class 0 degree of sulfate attack on concrete exposed to the existing sand soils. The degree of attack is based on a range of Class 0 (negligible) to Class 3 (very severe) as described in the American Concrete Institute (ACI) Standard 201.2R, "Guide to Durable Concrete".

Results of soluble sulfate testing indicate that ASTM Type I or II Portland cement can be specified for all project concrete on and below grade.

The pH and electrical resistivity were tested for the selected sample. Test results measured a pH value of 9.4, and resistivity measurements had a value of 641 ohm-centimeters for the selected soil sample. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from metal into the soil. As resistivity decreases, the corrosivity of the soil increases. The following table provides a correlation between soil resistivity and corrosivity towards ferrous metal.

Table 4-3. Resistivity and Corrosivity Categories

Resistivity in Ohm-centimeters	Corrosivity Category
0 to 1,000	Severely Corrosive
1,000 to 2,000	Corrosive
2,000 to 10,000	Moderately Corrosive
Greater than 10,000	Mildly Corrosive

Based on the resistivity test results, the existing soils are anticipated to be severely corrosive to unprotected iron or steel pipe.

A qualified corrosion engineer should review the laboratory data and boring logs to determine the appropriate level of corrosion protection for materials in contact with these soils.

5. PAVEMENT THICKNESS RECOMMENDATIONS

The pavement thickness design was performed in accordance with City Pavement Design Criteria Manual (PDCM).

5.1 Subgrade Strength

Based on the results of our field exploration and laboratory testing the pavement subgrade soils are anticipated to consist of sand and silty sand (AASHTO Classification of A-1-a, A-1-b, A-2-4). Design subgrade strength was based on the material types and DCP correlations. A CBR value of 10 is selected for the design. Since this CBR value was derived from DCP tests, we have utilized the correlations published by National Cooperative Highway Research Program (NCHRP) 1-37A, 2004, where the $M_r = 2555 \times (\text{CBR})^{0.64}$. A M_r value of 11,150 psi and a modulus of subgrade reaction value of 200 pci were used for compacted native sand for the pavement thickness design.

5.2 Traffic Loading

Traffic information was not available at the time of writing this report. In accordance with City of Colorado Springs GIS map, Tejon Street is classified as a "Minor Arterial". An average daily traffic (ADT) of 7,781 for the south direction was recorded at the intersection of Tejon Street and Colorado Avenue in 2006 based on the traffic counts map and ESAL of 805,783 and 1,056,480 was estimated for flexible and rigid pavement, respectively. For the purposes of our pavement design, the city street default ESAL values of 2,500,000 for flexible pavements and 3,250,000 for rigid pavements were used.

5.3 Pavement Thickness Design

Full depth pavement reconstruction design was performed using the WinPAS Version 12 and mill and overlay design was performed using our design spreadsheet. Both designs were performed in accordance with the 1993 AASHTO Pavement Design Guide and City of Colorado Springs Pavement Design Criteria Manual. Tables 6-1 and 6-2 present a summary of the design input parameters.

Table 6-1. Pavement Design Parameters

Parameter	Value
Design Period (year)	20
18-kip ESAL over design period	2,500,000 for flexible 3,250,000 for rigid
Reliability (%)	95
Overall Standard Deviation	0.44 for flexible 0.34 for rigid
Initial Serviceability Index	4.5
Terminal Serviceability Index	2.0

Table 6-2. Pavement Design Strength Coefficients

Parameter	Value
New Hot Mix Asphalt (HMA) Layer Coefficient	0.44
Drainage Coefficient	1.0
Aggregate Base Course (ABC) ¹ Layer Coefficient	0.12
Subgrade Soil Resilient Modulus (psi)	11,150
Concrete Elastic Modulus, E _c (psi)	3,500,000
Concrete Modulus of Rupture, S _c (psi)	650
Modulus of Subgrade Reaction (pci)	200

¹ ABC meeting COS Engineering Standard Specifications Manual

Based on the above design parameters, the recommended reconstruction sections for both rigid and flexible pavements are presented in Table 6-3.

Table 6-3. Recommended Minimum Pavement Sections

Pavement Reconstruction	PCC Pavement Section	HMA Pavement Section
Tejon Street – the existing parking area	-9.0 inches PCC -Subgrade ¹	-4.5 inches HMA -12.0 inches ABC -Subgrade ¹

PCC= Portland cement concrete HMA= Hot mixed asphalt

¹ Subgrade should be prepared in accordance with Section 4 of the report.

The recommended mill and overlay section is presented in Table 6-4.

Table 6-4. Recommended Mill and Overlay Pavement Section

Mill and Overlay Pavement	Mill Depth	Overlay Thickness
Tejon Street – Drive Lanes	2.0 inches	6.5 inches

It is our understanding that the grade of the pavement surface may need to remain the same. We have estimated the design life of the pavement based on the various thickness of mill and overlay and presented in Table 6-5. Since the thickness of the pavement varied, we have separated the sections into south of the intersection comprised of Borings B-2 , B-3 and B-5 and north of the intersection comprised of Borings B-1 and B-4.

Table 6-5. Estimated Design Life of Mill and Overlay Pavement Section

Mill and Overlay Pavement	Mill and Overlay Thickness	Estimated Design Life North of Intersection (Borings B-1 & B-4)	Estimated Design Life South of Intersection (Borings B-2, B-3 & B-5)
Tejon Street – Drive Lanes	2.0 inches	2 to 3 years	10 years
	3.0 inches	3.5 years	10 years
	4.25 inches ¹	N/A	12 years
	4.5 inches ¹	3.5 to 4 years	N/A

¹ Completely remove the existing HMA pavement in this section
 N/A=Not applicable due to depth of HMA encountered in the borings.

It should be noted that the actual thickness of the existing HMA and PCC may vary from those encountered in the borings. The contractor should plan to completely remove the existing HMA if the complete removal approach as presented in Table 6-5 is selected.

5.4 Pavement Materials

5.4.1 Base Course

We recommend CDOT Coarse Aggregate Type Class 5 or 6 to be used for the aggregate base materials. The material should be placed in a uniform layer without segregation of size and compacted in loose lifts not to exceed 8-inches.

5.4.2 Hot Mix Asphalt

Hot mix asphalt materials, placement procedures, and testing should follow The Pike Peak Region Asphalt Specification. We recommend PG 64-22 HMA binder with Grading S or SX aggregate, and gyration of 75.

5.4.3 Portland Cement Concrete

The Portland Cement Concrete (PCC) shall conform to the requirements for Portland Cement Concrete Pavement, have a minimum 28-day flexural strength of at least 650 pounds per square inch (psi), and have a required minimum 28-day compressive strength of 4,000 psi.

6. LIMITATIONS

The findings and recommendations presented in this report are based upon data obtained from borings, field observations, laboratory testing, our understanding of proposed construction, and other sources of information referenced in this report. It is possible that subsurface conditions may vary between or beyond the locations explored. If subsurface conditions are encountered during construction that differ from those described herein, we should be notified immediately in order that a review may be made, and any supplemental recommendations provided. If the scope of the proposed construction, including the proposed loads or structural locations, changes from that described in this report, the conclusions and recommendations contained in this report are not considered valid unless the changes are reviewed, and the conclusions of this report are modified or approved in writing, by GEG.

This report was prepared in in a manner consistent with that level of care and skill ordinarily exercised by other members of GEG's profession practicing in the same locality, under similar conditions and at the date the services are provided. GEG makes no other representation, guarantee, or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

The scope of services for this subsurface exploration and geotechnical report did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or groundwater at this site.

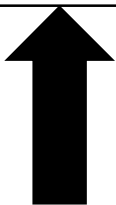
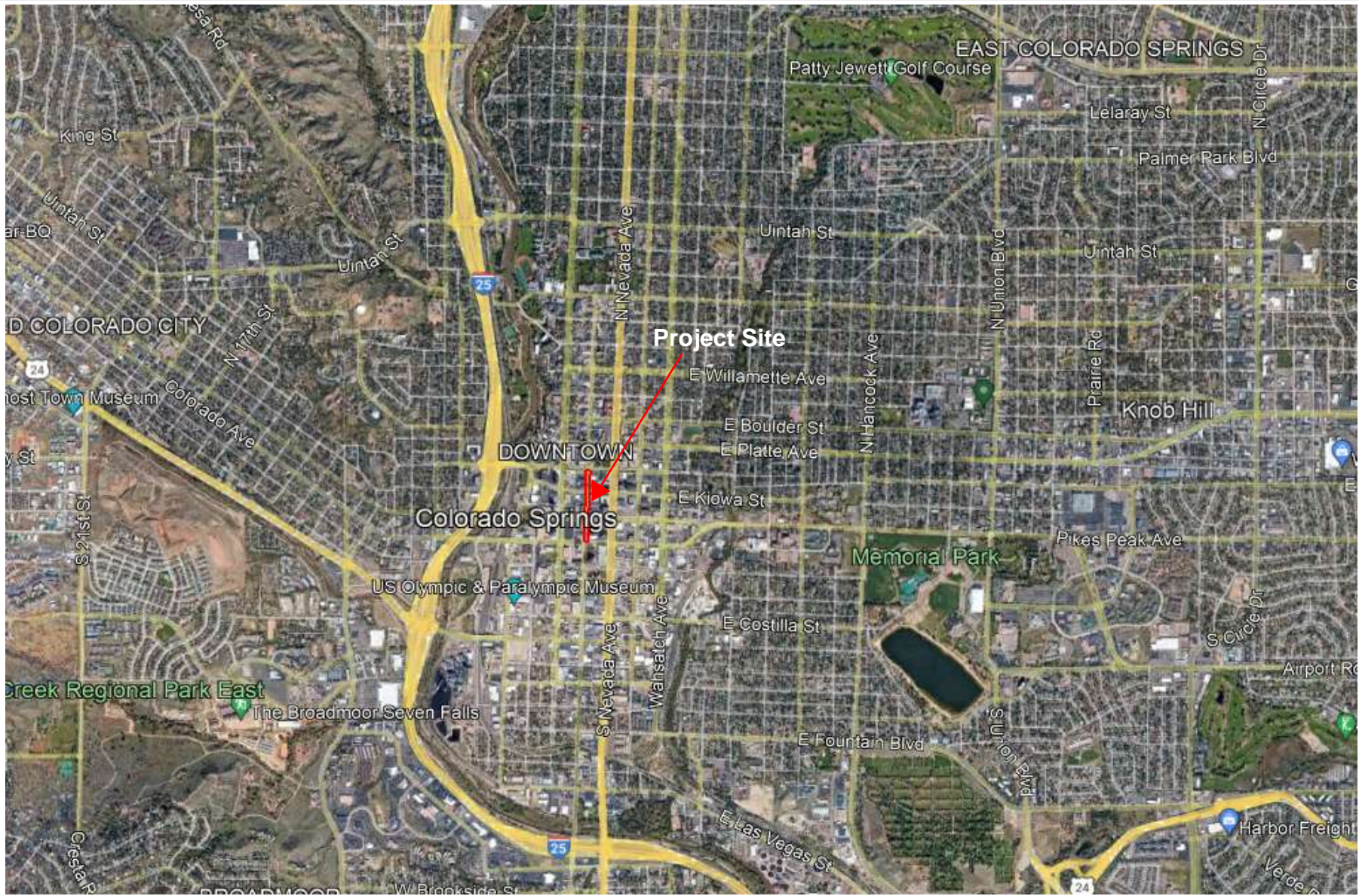
The recommendations provided in this report are based on the assumption that an adequate program of tests and observations will be conducted by GEG during the construction phase in order to evaluate compliance with our recommendations. The scope of our services did not

include any environmental assessment or exploration for the presence of hazardous or toxic materials in the soil, surface water, groundwater, or air, on, below or around this site.

This report may be used only by the Client and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than three (3) years from the date of the report.

Appendix A

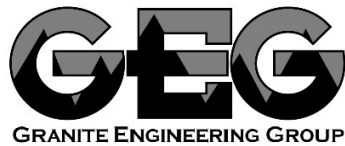
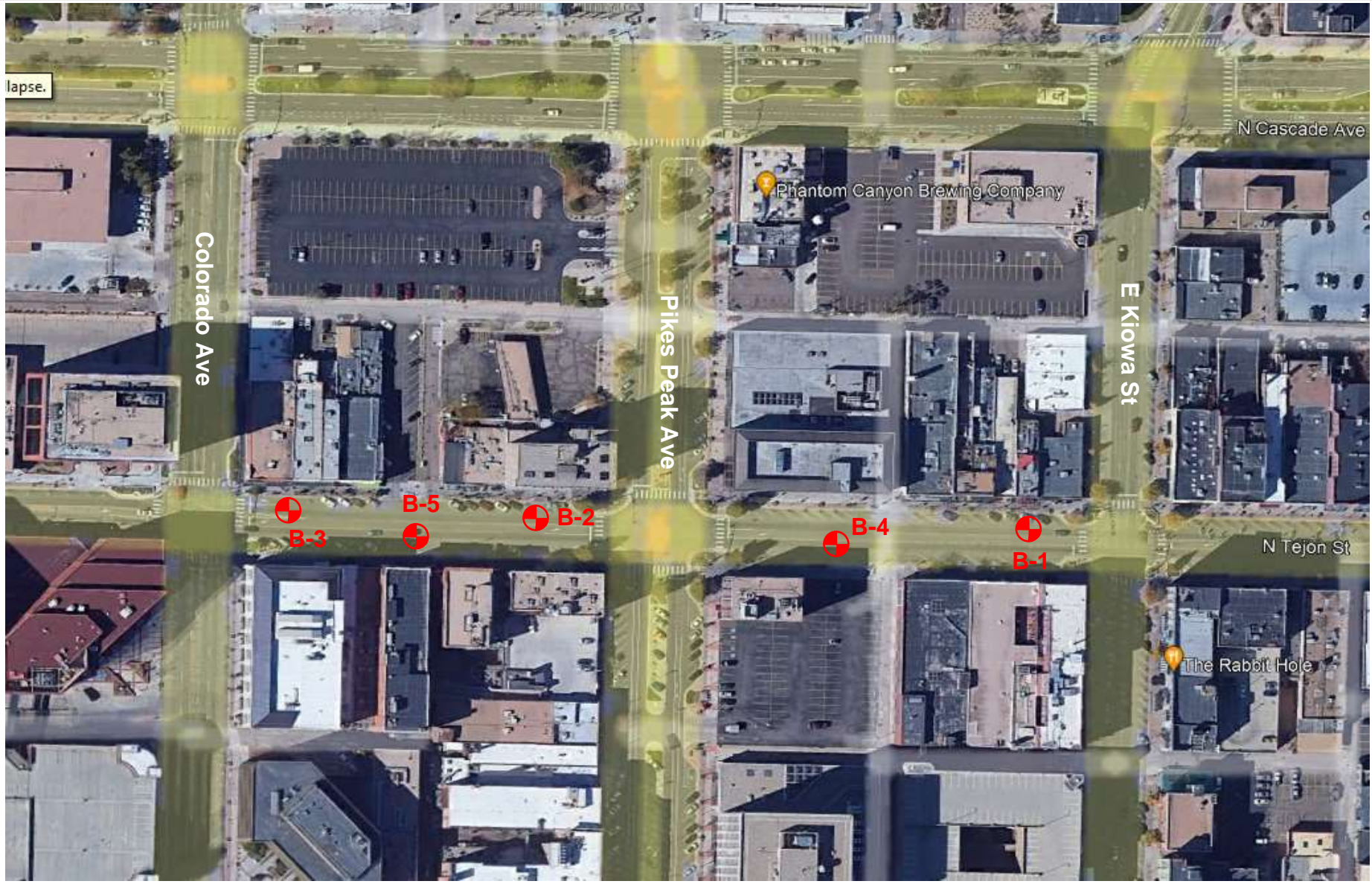
FIGURE A-1: SITE LOCATION PLAN
FIGURE A-2: BORING LOCATION PLAN



PROJECT NO. 222-159
 DRAWN: 5/12/2023
 DRAWN BY: XC
 CHECKED BY: HML
 FILE NAME:
 222-159

SITE LOCATION PLAN
Tejon Street Revitalization
Colorado Springs, Colorado

FIGURE
A-1



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	
	222-159

BORING LOCATION PLAN

**Tejon Street Revitalization
Colorado Springs, Colorado**

FIGURE

A-2

Appendix B

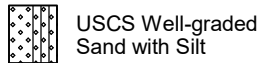
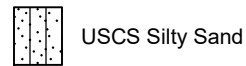
KEY TO BORING LOGS
BORING LOGS
DCP RESULTS
PAVEMENT CORE PHOTOS B-1 THROUGH B-3

Legend for Symbols Used on Borehole Logs

Sample Types



Lithology Symbols (see Boring Logs for complete descriptions)



Lab Test Standards

Moisture Content	ASTM D2216
Dry Density	ASTM D7263
Sand/Fines Content	ASTM D421, ASTM C136, ASTM D1140
Atterberg Limits	ASTM D4318
AASHTO Class.	AASHTO M145, ASTM D3282
USCS Class.	ASTM D2487
(Fines = % Passing #200 Sieve)	
Sand = % Passing #4 Sieve, but not passing #200 Sieve)	

Other Lab Test Abbreviations

pH	Soil pH (AASHTO T289-91)
S	Water-Soluble Sulfate Content (AASHTO T290-91, ASTM D4327)
Chl	Water-Soluble Chloride Content (AASHTO T291-91, ASTM D4327)
S/C	Swell/Consolidation (ASTM D4546)
UCCS	Unconfined Compressive Strength (ASTM D2166)
R-Value	Resistance R-Value (ASTM D2844)
DS (C)	Direct Shear cohesion (ASTM D3080)
DS (phi)	Direct Shear friction angle (ASTM D3080)
Re	Electrical Resistivity (AASHTO T288-91)
PtL	Point Load Strength Index (ASTM D5731)

Notes

- "Penetration Resistance" on the Boring Logs refers to the uncorrected N value for SPT samples only, as per ASTM D1586. For samples obtained with a Modified California (MC) sampler, drive depth is 12 inches, and "Penetration Resistance" refers to the sum of all blows. Where blow counts were > 50 for the 3rd increment (SPT) or 2nd increment (MC), "Penetration Resistance" combines the last and 2nd-to-last blows and lengths; for other increments with > 50 blows, the blows for the last increment are reported.
- The Modified California sampler used to obtain samples is a 2.5-inch OD, 2.0-inch ID (1.95-inch ID with liners), split-barrel sampler with internal liners, as per ASTM D3550. Sampler is driven with a 140-pound hammer, dropped 30 inches per blow.
- "ER" for the hammer is the Reported Calibrated Energy Transfer Ratio for that specific hammer, as provided by the drilling company.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-1

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83505 Long: -104.82352

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Groundwater Levels: Not Observed

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.6 ft. 7.25" ASPHALT.									
						0.6 - 1.0 ft. 4.25" CONCRETE.									
			3-7-8	15		1.0 - 1.8 ft. 10" AGGREGATE BASE.	8.7	16	62	22.3	NV	NP	A-1-b (0) SM		
						1.8 - 5.5 ft. SILTY SAND, SM, red-brown - tan, medium dense.									
	5		7-12-17	29											

Bottom of Hole at 5.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-2

Boring Began: 5/3/2023

Total Depth: 10.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83352 Long: -104.8236

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Groundwater Levels: Not Observed

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.5 ft. 5.75" ASPHALT.									
						0.5 - 1.0 ft. 6" CONCRETE.									
		X	11-9-7	16		1.0 - 10.5 ft. WELL GRADED SAND with SILT, SW-SM, red-brown - tan, loose to dense.	5.2		25	64	11.1	NV	NP	A-1-b (0) SW-SM	pH=9.4 S=0.0627% Chi=0.0019% Re=641ohm-cm
	5	X	3-3-3	6											
		X	3-9-17	26			5.3		20	73	6.6	NV	NP	A-1-b (0) SW-SM	
	10	X	13-22-18	40											

Bottom of Hole at 10.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-3

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83276 Long: -104.82365

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Groundwater Levels: Not Observed

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.5 ft. 5.5" ASPHALT.									
						0.5 - 0.8 ft. 4" CONCRETE.									
						0.8 - 1.8 ft. 12" AGGREGATE BASE.									
		X	2-3-6	9		1.8 - 5.5 ft. SILTY SAND, SM, brown - tan, loose to medium dense.	10.6		5	71	23.5	NV	NP	A-2-4 (0) SM	
		X	8-7-9	16											

Bottom of Hole at 5.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-4

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83444 Long: -104.82346

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Groundwater Levels: Not Observed

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.4 ft. 4.5" ASPHALT.									
						0.4 - 0.7 ft. 3.25" CONCRETE.									
						0.7 - 1.7 ft. 12" AGGREGATE BASE.									
			3-4-3	7		1.7 - 5.5 ft. WELL GRADED SAND with SILT, SW-SM, brown - tan, loose to medium dense.									
	5		13-9-16	25			2.3		21	72	7.0	NV	NP	A-1-a (0) SW-SM	

Bottom of Hole at 5.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-5

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83315 Long: -104.82353

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Groundwater Levels: Not Observed

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.4 ft. 4.25" ASPHALT.									
						0.4 - 0.8 ft. 5.5" CONCRETE.									
						0.8 - 1.8 ft. 12" AGGREGATE BASE.									
		X	6-2-1	3		1.8 - 5.5 ft. SILTY SAND, SM, brown - tan, very loose to medium dense.	14.0		6	73	21.0	20	3	A-2-4 (0) SM	
		X	3-9-18	27											

Bottom of Hole at 5.5 ft.

DCP TEST DATA

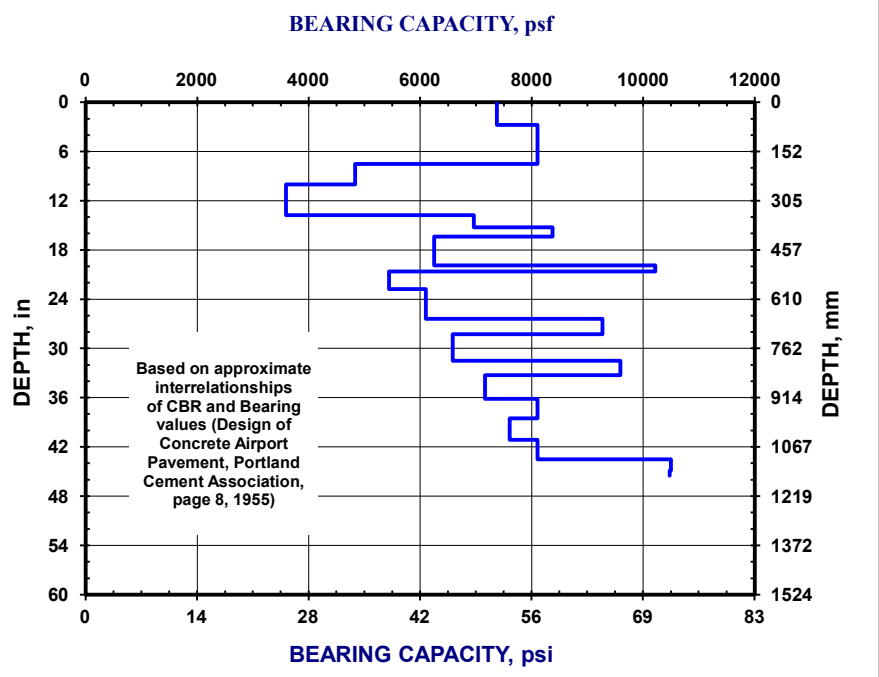
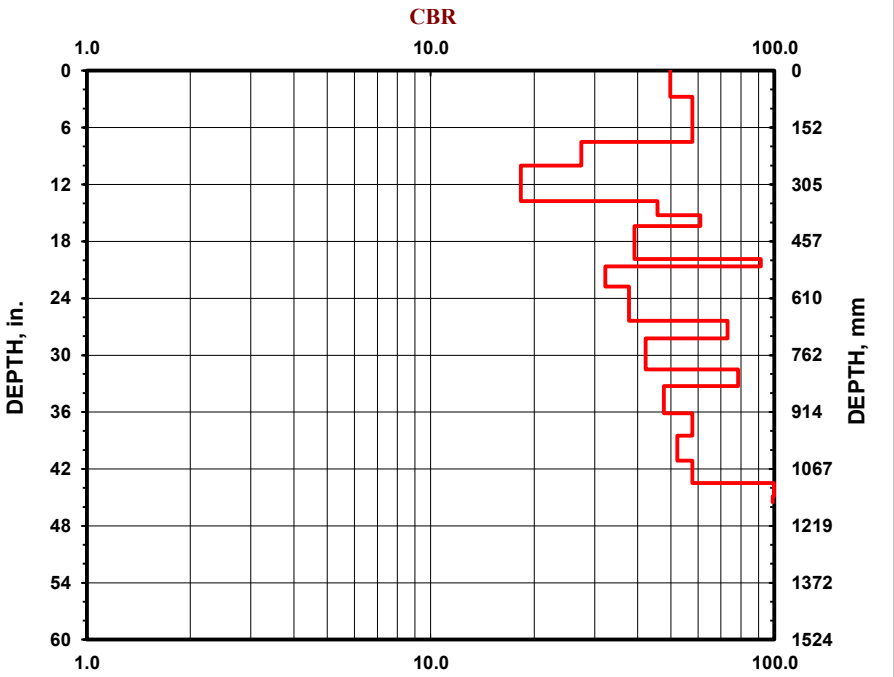
Project: Tejon Street Revitalization
Location: B-1

Date: 3-May-23
Soil Type(s): SM

- Hammer**
- 10.1 lbs.
 - 17.6 lbs.
 - Both hammers used

- Soil Type**
- CH
 - CL
 - All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
0	0	1
10	69.85	1
20	190.5	1
5	254	1
5	349.25	1
5	387.35	1
5	415.925	1
10	504.825	1
5	523.875	1
5	577.85	1
10	669.925	1
10	717.55	1
10	800.1	1
10	844.55	1
10	917.575	1
10	977.9	1
10	1044.575	1
10	1104.9	1
10	1139.825	1
10	1155.7	1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1



DCP TEST DATA

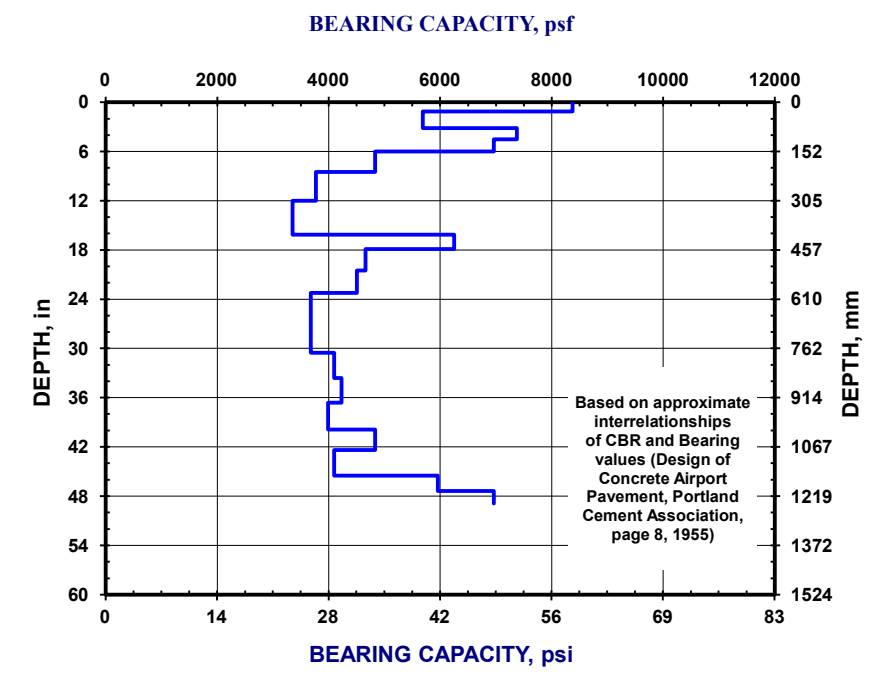
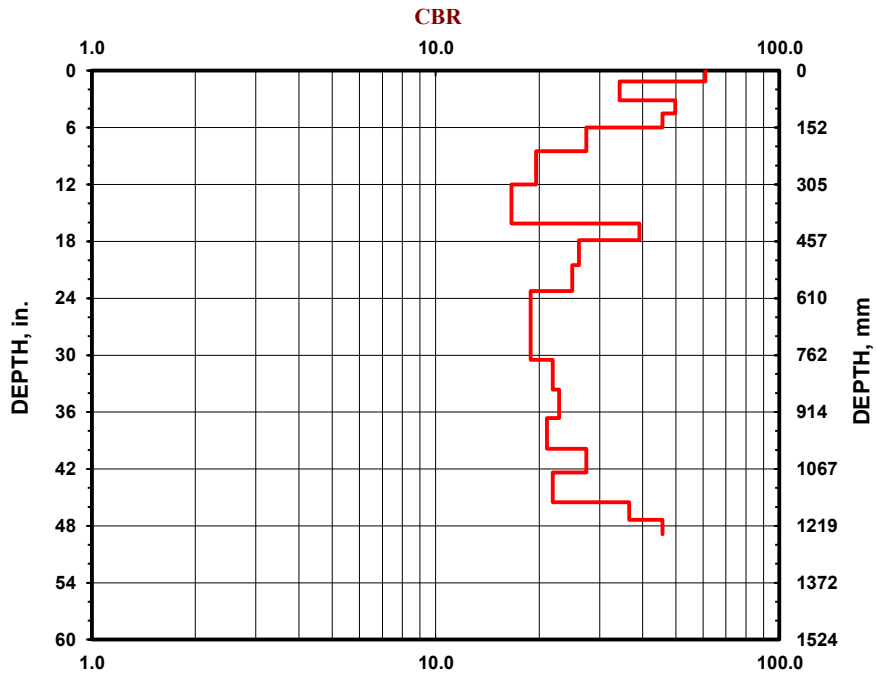
Project: Tejon Street Revitalization
Location: B-3

Date: 3-May-23
Soil Type(s): SM

Hammer
 10.1 lbs.
 17.6 lbs.
 Both hammers used

Soil Type
 CH
 CL
 All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
0	0	1
5	28.575	1
5	79.375	1
5	114.3	1
5	152.4	1
5	215.9	1
5	304.8	1
5	409.575	1
5	454.025	1
5	520.7	1
5	590.55	1
5	682.625	1
5	774.7	1
5	854.075	1
5	930.275	1
5	1012.825	1
5	1076.325	1
5	1155.7	1
5	1203.325	1
5	1241.425	1



DCP TEST DATA

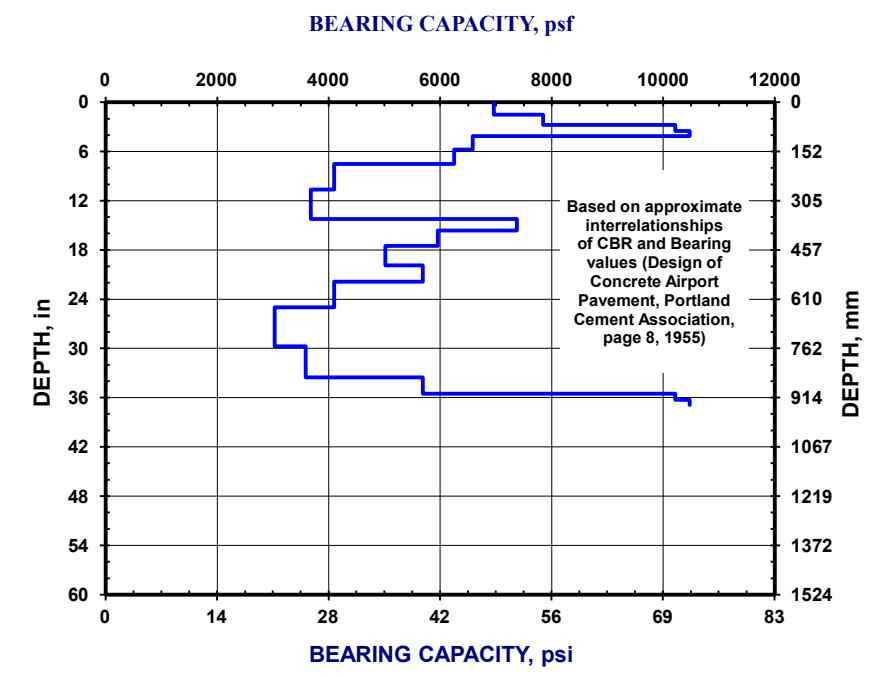
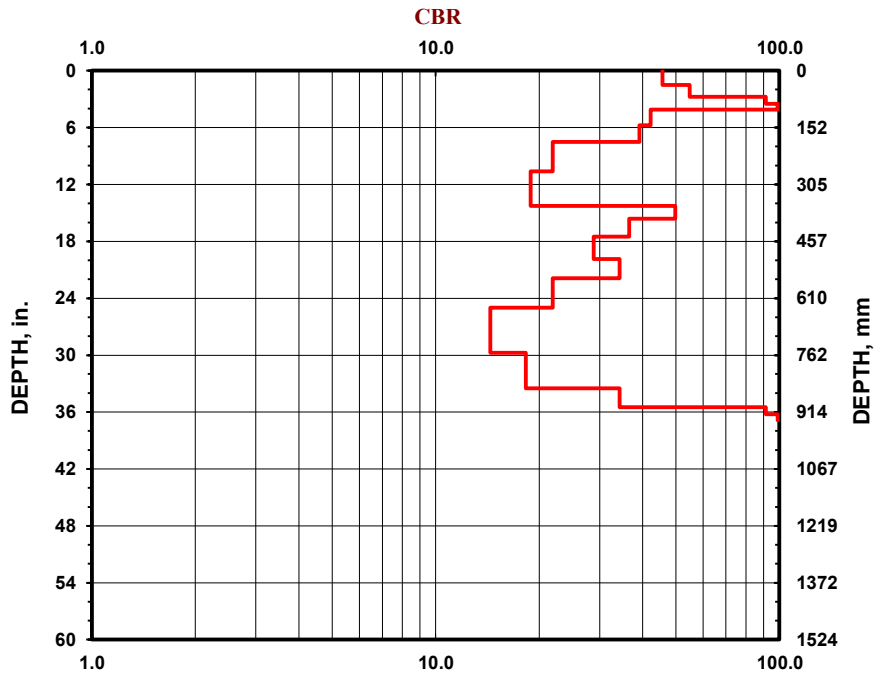
Project: Tejon Street Revitalization
Location: B-4

Date: 3-May-23
Soil Type(s): SW-SM

Hammer
 10.1 lbs.
 17.6 lbs.
 Both hammers used

Soil Type
 CH
 CL
 All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
0	0	1
5	38.1	1
5	69.85	1
5	88.9	1
5	104.775	1
5	146.05	1
5	190.5	1
5	269.875	1
5	361.95	1
5	396.875	1
5	444.5	1
5	504.825	1
5	555.625	1
5	635	1
5	755.65	1
5	850.9	1
5	901.7	1
5	920.75	1
5	927.1	1
5	936.625	1



DCP TEST DATA

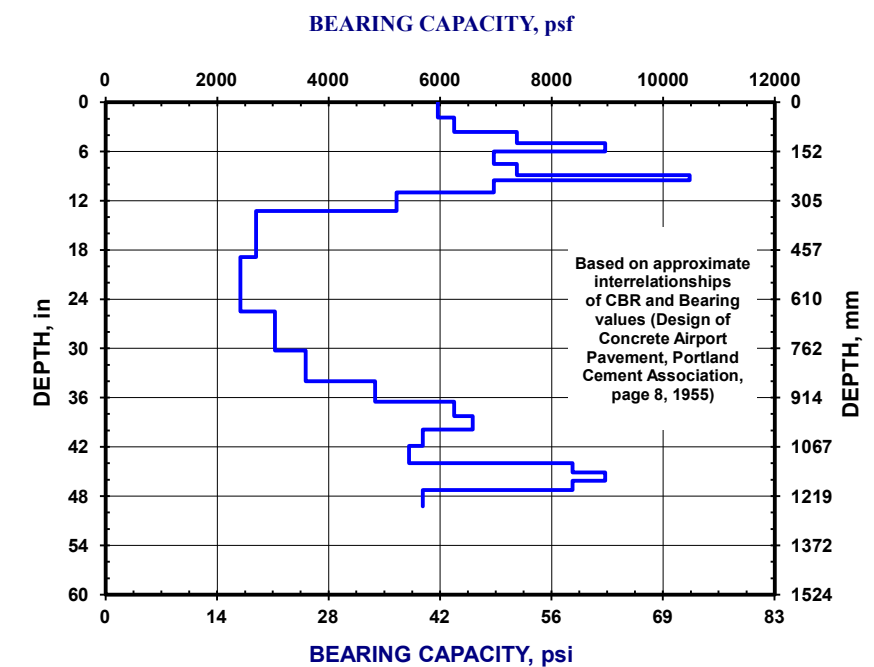
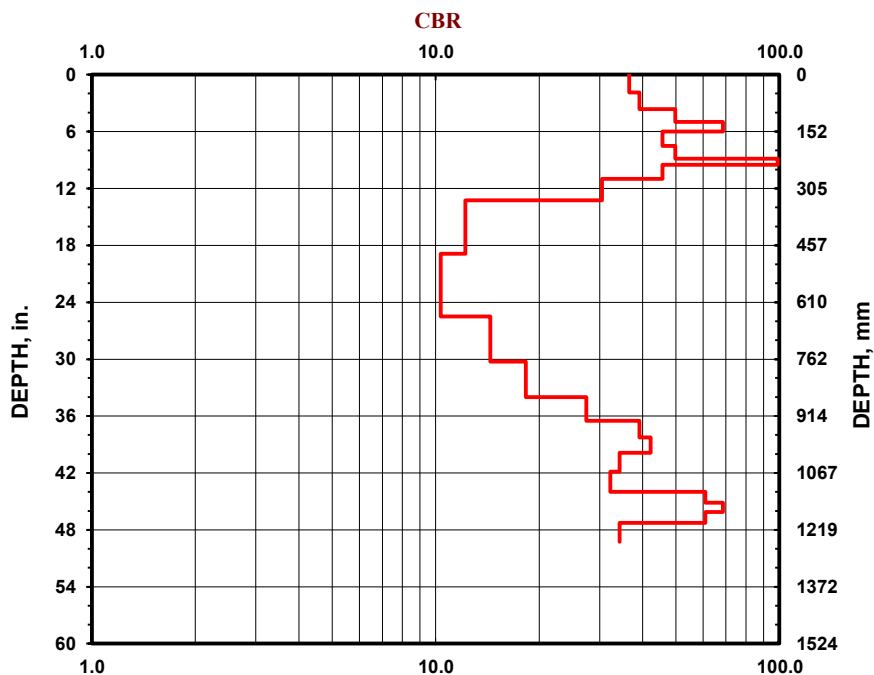
Project: Tejon Street Revitalization
Location: B-5

Date: 3-May-23
Soil Type(s): SM

- Hammer**
- 10.1 lbs.
 - 17.6 lbs.
 - Both hammers used

- Soil Type**
- CH
 - CL
 - All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
0	0	1
5	47.625	1
5	92.075	1
5	127	1
5	152.4	1
5	190.5	1
5	225.425	1
5	241.3	1
5	279.4	1
5	336.55	1
5	479.425	1
5	647.7	1
5	768.35	1
5	863.6	1
5	927.1	1
5	971.55	1
5	1012.825	1
5	1063.625	1
5	1117.6	1
5	1146.175	1
5	1171.575	1
5	1200.15	1
5	1250.95	1





B-1 Pavement Core



B-2 Pavement



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	222-159

CORE PHOTOS

**Tejon Street Revitalization
Colorado Springs, Colorado**

FIGURE

B-1



B-3 Pavement Core



B-4 Pavement Core



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	222-159

CORE PHOTOS

**Tejon Street Revitalization
Colorado Springs, Colorado**

FIGURE

B-2



B-5 Pavement Core



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	222-159

CORE PHOTOS
Tejon Street Revitalization Colorado Springs, Colorado

FIGURE
B-3

Appendix C

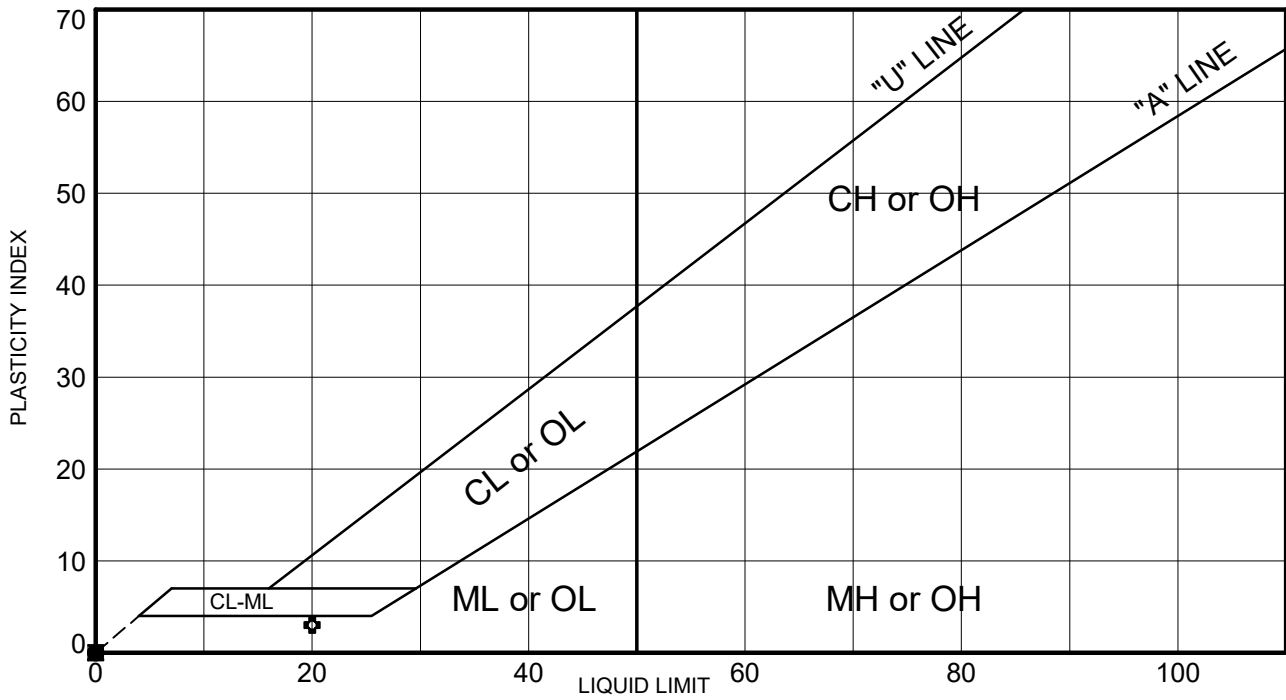
LABORATORY TEST RESULTS

Summary of Laboratory Test Results




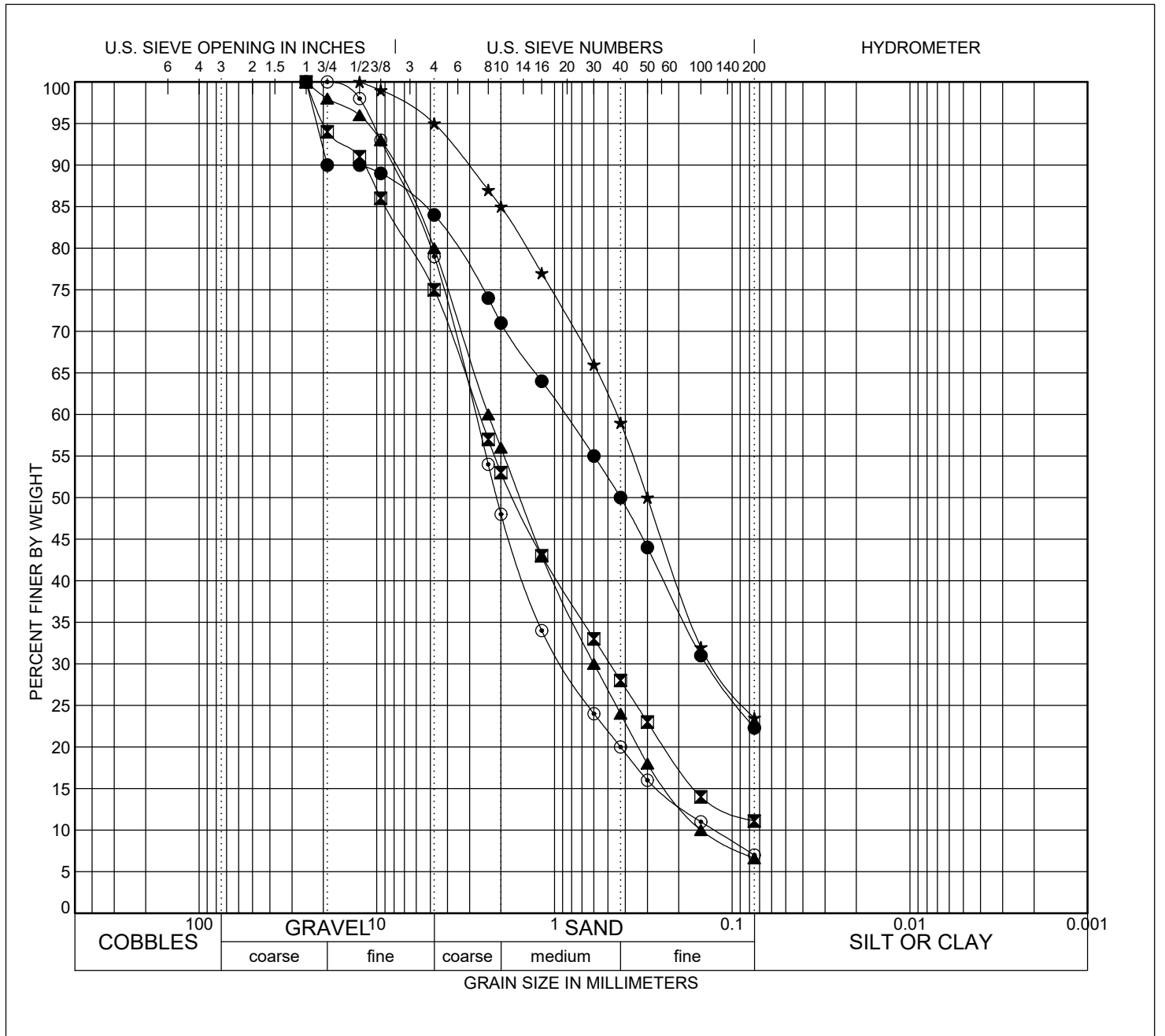
Project No: 222-159 Project Name: Tejon Street Revitalization, Colorado Springs, CO

Sample Location			Natural Moisture Content (%)	Natural Dry Density (pcf)	Gradation			Atterberg			pH	Water Soluble Sulfate (%)	% Swell (+) / Consolidation (-)	Unconf. Comp. Strength (psf)	R-Value	Classification	
Boring No.	Depth (ft)	Sample Type			Gravel > #4 (%)	Sand (%)	Fines < #200 (%)	LL	PL	PI						AASHTO	USCS
B-1	1.0~2.5	SPT	8.7		16.0	61.7	22.3	NP	NP	NP						A-1-b(0)	SM
B-2	1.0~2.5	SPT	5.2		25.0	63.9	11.1	NP	NP	NP	9.4	0.063		--		A-1-b(0)	SW-SM
B-2	7.0~8.5	SPT	5.3		20.0	73.4	6.6	NP	NP	NP						A-1-b(0)	SW-SM
B-3	1.0~2.5	SPT	10.6		5.0	71.5	23.5	NP	NP	NP						A-2-4(0)	SM
B-4	4.0~5.5	SPT	2.3		21.0	72.0	7.0	NP	NP	NP						A-1-a(0)	SW-SM
B-5	1.0~2.5	SPT	14.0		6.0	73.0	21.0	20	17	3						A-2-4(0)	SM




BOREHOLE	DEPTH	LL	PL	PI	Passing #200	USCS Sample Description	AASHTO Class.
● B-1	1.0	NP	NP	NP	22	SILTY SAND with GRAVEL(SM)	A-1-b(0)
☒ B-2	1.0	NP	NP	NP	11	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	A-1-b(0)
▲ B-2	7.0	NP	NP	NP	7	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	A-1-b(0)
★ B-3	1.0	NP	NP	NP	24	SILTY SAND(SM)	A-2-4(0)
⊙ B-4	4.0	NP	NP	NP	7	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	A-1-a(0)
⊕ B-5	1.0	20	17	3	21	SILTY SAND(SM)	A-2-4(0)

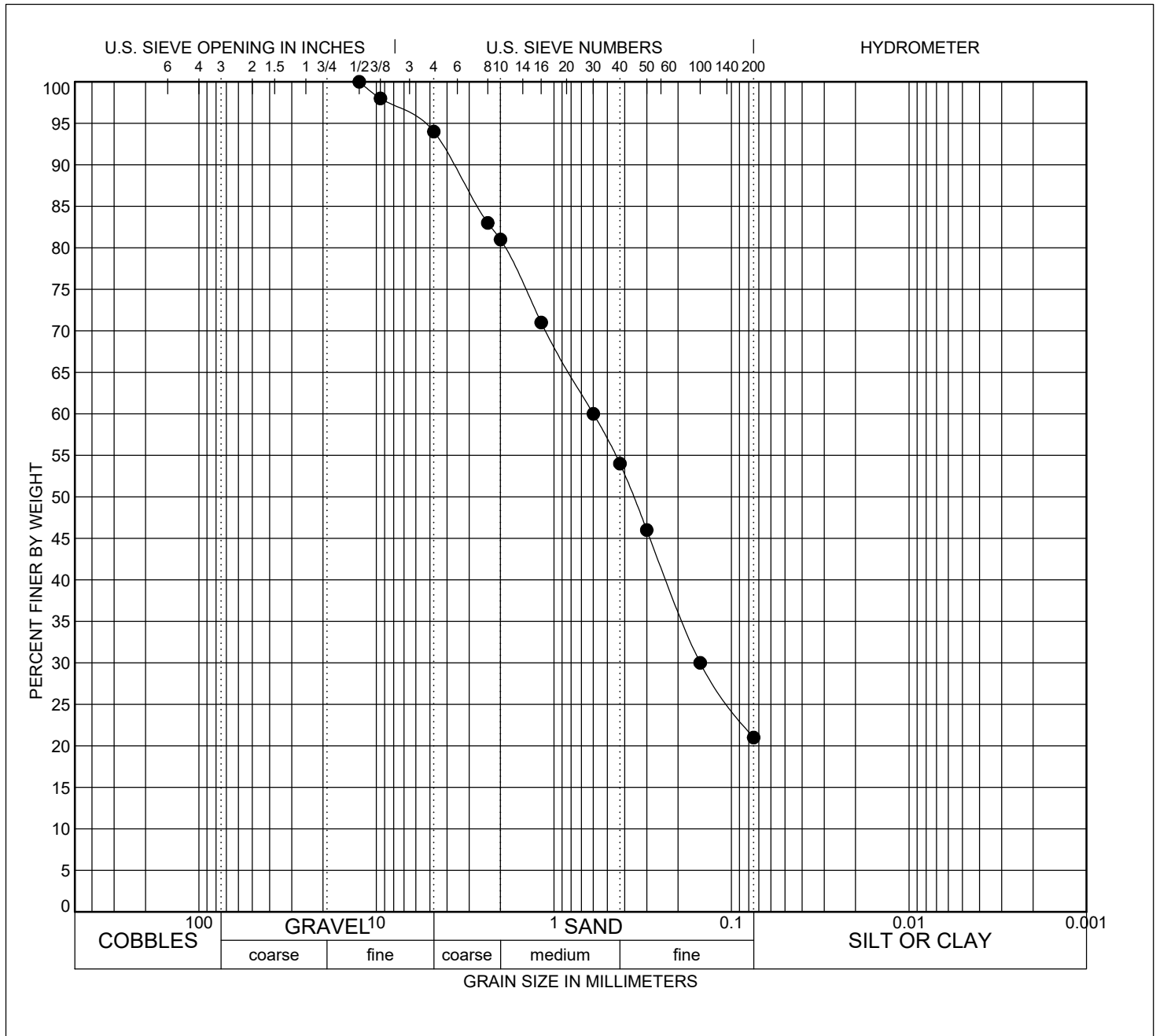
		<h2>ATTERBERG LIMITS</h2>	<h2>FIGURE</h2> <h1>C - 1</h1>
Project No. 222-159	Date: 5/12/2023	Tejon Street Revitalization Colorado Springs, CO	
Drawn By: Lab	Checked By: PM		




BOREHOLE	DEPTH	AASHTO Classification	USCS Classification	LL	PL	PI	%Gravel	%Sand	%Fines	
									%Silt	%Clay
● B-1	1.0	A-1-b(0)	SM	NP	NP	NP	16.0	61.7	22.3	
☒ B-2	1.0	A-1-b(0)	SW-SM	NP	NP	NP	25.0	63.9	11.1	
▲ B-2	7.0	A-1-b(0)	SW-SM	NP	NP	NP	20.0	73.4	6.6	
★ B-3	1.0	A-2-4(0)	SM	NP	NP	NP	5.0	71.5	23.5	
◎ B-4	4.0	A-1-a(0)	SW-SM	NP	NP	NP	21.0	72.0	7.0	

			<h2>SIEVE ANALYSIS</h2>	<h2>FIGURE</h2>
Project No. 222-159	Date: 5/12/2023	Tejon Street Revitalization Colorado Springs, CO		
Drawn By: Lab				
Checked By: PM				
R24-T086KK	412			

C-2



BOREHOLE	DEPTH	AASHTO Classification	USCS Classification	LL	PL	PI	%Gravel	%Sand	%Fines	
									%Silt	%Clay
● B-5	1.0	A-2-4(0)	SM	20	17	3	6.0	73.0	21.0	

			<h2>SIEVE ANALYSIS</h2>		<h1>FIGURE</h1> <h2>C- 3</h2>
Project No.	222-159	Date:	5/12/2023		
Drawn By:	Lab	Tejon Street Revitalization Colorado Springs, CO			
Checked By:	PM				

WELD LABORATORIES, INC.

1527 First Avenue • Greeley, Colorado 80631
Phone: (970) 353-8118 • Fax: (970) 353-1671
www.weldlabs.com

June 9, 2023

Granite Engineering Group
Attn: Ming Lim
3927 Van Teylingen Dr.
Colorado Springs, CO 80917

Project No.: 222-159
Sample ID: B-2 1' Tejon St
Laboratory No.: E23151-5

	Results ^{1,3}	10-Point System ²
pH (SI) AASHTO T 289-91 (ASTM G51 available for some soil)	9.4	3
Conductivity (mmhos/cm) Resistivity (ohm-m) USDA Handbook 60, temperature corrected conductivity probe	1.560 6.41	8
Minimum Lab Resistivity (ohm-cm) Minimum Lab Resistivity (ohm-m) via Miller Box, Tinker & Razor SR-2 (AASHTO T 288-12) ⁴	INSUFFICIENT SAMPLE	0
Redox (mV vs. Ag/AgCl) ASTM G200 (ASTM D1498 if soil is low in moisture)	203	0
Free Sulfide (mg/kg DMB) EPA 9030B+9034, prescreened with lead acetate paper	ND	0
Chloride (mg/kg DMB) AASHTO T 291-94	19	0
Sulfate (mg/kg DMB) AASHTO T 290-95	627	3
Sulfate-S (mg/kg DMB)	209.0	

1. NA = Not Analyzed; ND = Not Detected. DMB = Dry Matter Basis. Measurements taken at 25°C.


2. 10-point Corrosion system based on: Appendix A of ANSI/AWWA C105/A21.5 Standard "Polyethylene Encasement for Ductile Iron Pipe Systems." The CI- points adapted from the DIPRA design decision model.

Sulfate is penalized at half the rate of chloride: A. A. Sagüés et. al. (<https://rosap.nrl.bts.gov/view/dot/17493>)

3. pH, Conductivity, and Redox are generally read on a 1:1 soil:water mixture if the soil is dry.

4. ASTM G57 4-Electrode Method used unless 2-electrode method is requested.


Project Manager


Date

Appendix D

PAVEMENT DESIGN OUTPUT

WinPAS

Pavement Thickness Design According to
1993 AASHTO Guide for Design of Pavements Structures
 American Concrete Pavement Association

Flexible Design Inputs

Project Name: Tejon Street Revitalizatoin
 Route: Tejon Street between Colorado Ave and E Kiowa St
 Location: Colorado Springs, CO
 Owner/Agency:
 Design Engineer:

Flexible Pavement Design/Evaluation

Structural Number	3.42	Subgrade Resilient Modulus	11,150.00 psi
Total Flexible ESALs	2,500,000	Initial Serviceability	4.50
Reliability	95.00 percent	Terminal Serviceability	2.00
Overall Standard Deviation	0.44		

Layer Pavement Design/Evaluation

Layer Material	Layer Coefficient	Drainage Coefficient	Layer Thickness	Layer SN
Asphalt Cement Concrete	0.44	1.00	4.50	1.98
Graded Stone Base	0.12	1.00	12.00	1.44
			Σ SN	3.42

WinPAS

Pavement Thickness Design According to
1993 AASHTO Guide for Design of Pavements Structures
American Concrete Pavement Association

Rigid Design Inputs

Project Name: Tejon Street Revitalizatoin
Route: Tejon Street between Colorado Ave and E Kiowa St
Location: Colorado Springs, CO
Owner/Agency:
Design Engineer:

Rigid Pavement Design/Evaluation

Concrete Thickness	8.80 inches	Load Transfer Coefficient	3.60
Total Rigid ESALs	3,250,000	Modulus of Subgrade Reaction	200 psi/in.
Reliability	95.00 percent	Drainage Coefficient	1.00
Overall Standard Deviation	0.34	Initial Serviceability	4.50
Flexural Strength	650 psi	Terminal Serviceability	2.00
Modulus of Elasticity	3,500,000 psi		

Modulus of Subgrade Reaction (k-value) Determination

Resilient Modulus of the Subgrade	0.0
Unadjusted Modulus of Subgrade Reaction	1
Depth to Rigid Foundation	0.00
Loss of Support Value (0,1,2,3)	0.0

Modulus of Subgrade Reaction	200 psi/in.
------------------------------	-------------



1110 Elkton Drive, Suite B
 Colorado Springs, CO 80917

Overlay Design - existing AC on PCC (Composite)

Condition Survey Method, AASHTO Page III-125 to III-135

Existing Pavement Section

$D_{ac} =$ **5.0** in
 $D_{pcc} =$ **4.5** in
 Milling Depth **2.0** in

Condition Coefficients **

F_{ac} **0.95**
 F_{jc} **0.95**
 F_{dur} **0.95**
 J Factor **3.6**
 C_d **1**

Estimated
 D_{eff}
5.49

** Estimate factors with tables at right and below

Terminal Serviceability **2**
 Traffic, ESALs (design) ** **3,250,000**

Subgrade k **200** pci

$D_f =$ **9.04**
 Reliability = **95%**
 Standard Deviation = **0.34**
 Servicability Loss = **2.5**
 Concrete Compressive Strength = **4500** psi
 Modulus of Elasticity of Concrete = **3,824** ksi
 Modulus of Rupture of Concrete = **627** psi

Solve for D_f

AC Overlay Thickness = $A*(D_f - D_{eff}) =$ **6.41** inches

ref: Page III-135 AASHTO

APPENDIX L – GEC ADMINISTRATOR CERTIFICATION

THE GEC ADMINISTRATOR CERTIFICATE WILL BE ADDED TO THE APPENDIX IN THIS LOCATION ONCE THE GEC ADMINISTRATOR HAS COMPLETED THEIR CERTIFICATION CLASS WHICH SHALL OCCUR WITHIN 6 MONTHS OF THE START OF EARTH DISTURBING ACTIVITY AT THE SITE.

APPENDIX M – FINAL LANDSCAPING PLAN

**REFERENCE APPROVED LANDSCAPE PLANS FOR SPECIFICATIONS AND
DETAILS.**

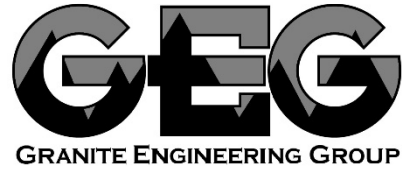




SCHEDULE J- GEO TECH REPORTS

Will be added after this page.

Schedule K-Geo Tech Report



**Geotechnical Engineering Report
Tejon Street Revitalization
Colorado Springs, Colorado
GEG Project No. 222-159**

September 8, 2023

**Copyright 2023 Granite Engineering Group, Inc.
All Rights Reserved**

**ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THIS DOCUMENT
AND ONLY FOR THE SPECIFIC PROJECT THAT THIS REPORT WAS PREPARED FOR.**



A Report Prepared for:

Mr. Eric Gunderson, PE
Kimley-Horn
2 North Nevada Avenue, 9th Floor
Colorado Springs, Colorado 80903

**GEOTECHNICAL ENGINEERING REPORT
TEJON STREET REVITALIZATION
COLORADO SPRINGS, COLORADO
GEG PROJECT NO. 222-159**

September 8, 2023

Prepared by:

FINAL

Hai Ming Lim, PE
Project Manager

FINAL

Xuhui Chang
Senior Engineer

GRANITE ENGINEERING GROUP, INC.
1110 Elkton Drive, Suite B
Colorado Springs, CO 80917
Phone: 719-716-9009



Table Of Contents

1.	INTRODUCTION	1
1.1	GENERAL	1
1.2	PROJECT INFORMATION	1
1.3	PURPOSE AND SCOPE.....	1
2.	SUBSURFACE EXPLORATION	2
2.1	FIELD EXPLORATION	2
2.2	LABORATORY TESTING.....	3
3.	SITE AND SUBSURFACE CONDITIONS.....	4
3.1	SITE CONDITIONS.....	4
3.2	GEOLOGIC SETTING	4
3.3	SUBSURFACE CONDITIONS	5
3.4	GROUNDWATER.....	5
4.	CONSTRUCTION RECOMMENDATIONS	6
4.1	GEOTECHNICAL FEASIBILITY	6
4.2	SUBGRADE PREPARATION AND EARTHWORK.....	6
	4.2.1 <i>Site Preparation</i>	6
	4.2.2 <i>Fill Materials and Subgrade Preparation</i>	7
	4.2.3 <i>Excavation and Trench Grading</i>	7
	4.2.4 <i>Structural Fill Requirements</i>	8
4.3	DRAINAGE CONSIDERATIONS.....	9
4.4	CONSTRUCTION IN WET OR COLD WEATHER	9
4.5	CORROSIVITY TEST RESULTS.....	10
5.	PAVEMENT THICKNESS RECOMMENDATIONS	11
5.1	SUBGRADE STRENGTH.....	11
5.2	TRAFFIC LOADING	11
5.3	PAVEMENT THICKNESS DESIGN.....	11
5.4	PAVEMENT MATERIALS	13
	5.4.1 <i>Base Course</i>	13
	5.4.2 <i>Hot Mix Asphalt</i>	14
	5.4.3 <i>Portland Cement Concrete</i>	14
6.	LIMITATIONS	14



List Of Figures

FIGURE 1. GEOLOGIC MAP 4

List Of Tables

TABLE 3-1 EXISTING PAVEMENT THICKNESS 5

TABLE 4-1 IMPORTED STRUCTURAL FILL CRITERIA 9

TABLE 4-2. ANALYTICAL TEST RESULTS 10

TABLE 4-3. RESISTIVITY AND CORROSIVITY CATEGORIES 10

TABLE 6-1. PAVEMENT DESIGN PARAMETERS 12

TABLE 6-2. PAVEMENT DESIGN STRENGTH COEFFICIENTS 12

TABLE 6-3. RECOMMENDED MINIMUM PAVEMENT SECTIONS 12

TABLE 6-4. RECOMMENDED MILL AND OVERLAY PAVEMENT SECTION 13

TABLE 6-5. ESTIMATED DESIGN LIGE OF MILL AND OVERLAY PAVEMENT SECTION 13

List Of Appendices

FIGURE A-1: SITE LOCATION PLAN A

FIGURE A-2: BORING LOCATION PLAN A

KEY TO BORING LOGS B

BORING LOGS B

DCP RESULTS B

PAVEMENT CORE PHOTOS B-1 THROUGH B-3 B

LABORATORY TEST RESULTS C

PAVEMENT DESIGN OUTPUT D

1. INTRODUCTION

1.1 General

Granite Engineering Group, Inc. (GEG) has completed the subsurface exploration and geotechnical engineering evaluation for the proposed Tejon Street Revitalization project in Colorado Springs, Colorado. The general location of the project site is presented on Figure A-1, Site Location Plan in Appendix A.

This report includes our recommendations related to the geotechnical aspects of the project design and construction. Conclusions and recommendations presented in this report are based on the subsurface information encountered at the locations of our explorations, preliminary project information provided by Kimley-Horn and the provision and requirements outlined in the Limitations section of this report.

1.2 Project Information

Based on the information provided, we understand that the project includes Phase I of Tejon Street revitalization, which starts from Colorado Avenue to East Kiowa Street. The phase I revitalization includes various improvements, such as conversion of parking lots to parallel parking, removal of center left-turn lane and streetscape design. The existing pavement except for the existing parking area is planned to be rehabilitated by milling and overlaying. The existing parking area is planned to be reconstructed full depth to match the final grade.

If the project information is to vary significantly from the above descriptions, GEG should be notified immediately in order to re-evaluate our recommendations, if required. Once the final design such as grading plan is established, GEG should be allowed to review the engineering recommendations.

1.3 Purpose and Scope

The purpose of our study was to evaluate the subsurface conditions at the locations along Tejon Street and provide pavement thickness recommendations for reconstruction and rehabilitation.

This report has been prepared in general accordance with our approved proposal for geotechnical engineering services, dated December 7, 2022. Our scope of services consisted of the following:

- Review available mapped geology at the site.
- Apply for and acquire permit with City of Colorado Springs.

- Coordinate and arrange for traffic control in accordance with City of Colorado Springs Traffic Controls manual.
- Arrange for the underground utility locate within the vicinity of the proposed boring locations.
- Perform a total of five (5) geotechnical borings. The boring locations are shown on Figure A-2, Boring Location Plan in Appendix A. The existing pavement was cored with a 4-inch diameter coring machine, and the subgrade soils were tested with a Dynamic Cone Penetrometer (DCP). Subgrade soils were then collected using SPT samplers.
- Backfill the borings with City approved flowable fill and patch the surface with asphalt materials in accordance with City of Colorado Springs standards.
- Perform laboratory testing on soil samples obtained during the subsurface exploration to evaluate the engineering characteristics.
- Prepare a report that presents the results of encountered site and subsurface conditions, laboratory testing, our geotechnical engineering analyses, pavement thickness design for reconstruction and rehabilitation, and earthwork recommendations.

The conclusions and recommendations presented herein are based on our site explorations and the subsurface conditions encountered at our boring locations during the time of our exploration. Our findings, conclusions, and recommendations should not be extrapolated to other areas of the site or used for other projects without our prior review. Additionally, they should not be used if the site has been altered or if more than three (3) years have elapsed since the date of our final report without our prior review to determine if they remain valid.

2. SUBSURFACE EXPLORATION

2.1 Field Exploration

Our field exploration program consisted of advancing a total of five (5) borings at the approximate locations shown on Figure A-2, Boring Location Plan in Appendix A.

The boring locations were established in the field by GEG personnel by using a hand-held GPS unit with accuracy of approximately 10 feet. The boring locations should be considered accurate only to the degree implied by the methods used to define them.

The borings were advanced with a truck-mounted CME-45B drill rig equipped with 4-inch diameter, solid-stem, continuous-flight augers. Boring B-2 was advanced to approximately 10.5 feet below the existing ground surface (bgs) and the remaining borings were drilled to approximately 5.5 feet bgs.

The existing pavement was cored with a 4-inch diameter coring machine, and the subgrade soils were tested using a DCP to approximately 3 to 4 feet below the bottom of the pavement. After the DCP testing is completed, sampling was performed at about 2.5-foot intervals to the terminated depths. Samples were collected by driving a standard penetration test (SPT) split barrel sampler into the strata with a 140-pound hammer falling 30-inches.

The SPT is a 1.375-inch I.D. standard split barrel sampler performed in accordance with ASTM D1586. The blows required to drive the SPT sampler the final 12-inches are known as the SPT N-value. The SPT N-value represents the consistency or relative density of the strata.

The DCP apparatus consists of a 5/8" diameter steel rod with a 60 degrees conical tip. The rod is topped with an anvil that is connected to a second rod. The rod is used as a guide to allow an 8kg hammer to be repeatedly raised and dropped from a height of 575 mm. The connection between the two rods consists of an anvil to allow for quick connections between the rods and for efficient energy transfer from the falling weight to the penetrating rod. The penetration of the rod is measured after each drop. The penetration value can be correlated to the common engineering parameters.

The boring logs and key to the boring logs and DCP results are presented in Appendix B.

2.2 Laboratory Testing

Representative soil samples were selected for laboratory testing that was completed in accordance with industry standards and consistent with local practice. Laboratory soil testing included the following:

- Description and identification of soils (visual-manual procedure);
- Natural moisture;
- Gradation analysis;
- Atterberg limits;
- Analytical testing including water soluble sulfate and chloride, resistivity and pH.

Results of the laboratory tests are shown on the boring logs and are also presented in the Laboratory Summary in Appendix C.

3. SITE AND SUBSURFACE CONDITIONS

3.1 Site Conditions

The project is located on Tejon Street between Colorado Avenue and East Kiowa Street in Colorado Springs, Colorado. The existing Tejon Street is paved with hot mix asphalt (HMA), which is underlain by Portland cement concrete (PCC). The existing street has three lanes, one lane for each direction with a turning lane in the middle. Parking spaces exist on both sides of the street. The areas surrounding the project site generally consist of commercial buildings and parking lots.

3.2 Geologic Setting

Review of the “Geologic map of the Colorado Springs Quadrangle, El Paso County, Colorado, 2000” indicates that the project site is within Terrace alluvium three (Qt3). Terrace alluvium three consists of poorly sorted, clast-supported, locally bouldery, pebble and cobble gravel in a sandy or silty matrix. The geologic units mapped at the project site are presented in Figure 1. The WebSoil Survey provided by Natural Resources Conservation Service (NRCS) indicates that the surficial soil at the project site is the Chaseville gravelly sandy loam, which consists of gravelly to very gravelly sandy loam, and very gravelly to extremely gravelly loamy sand.

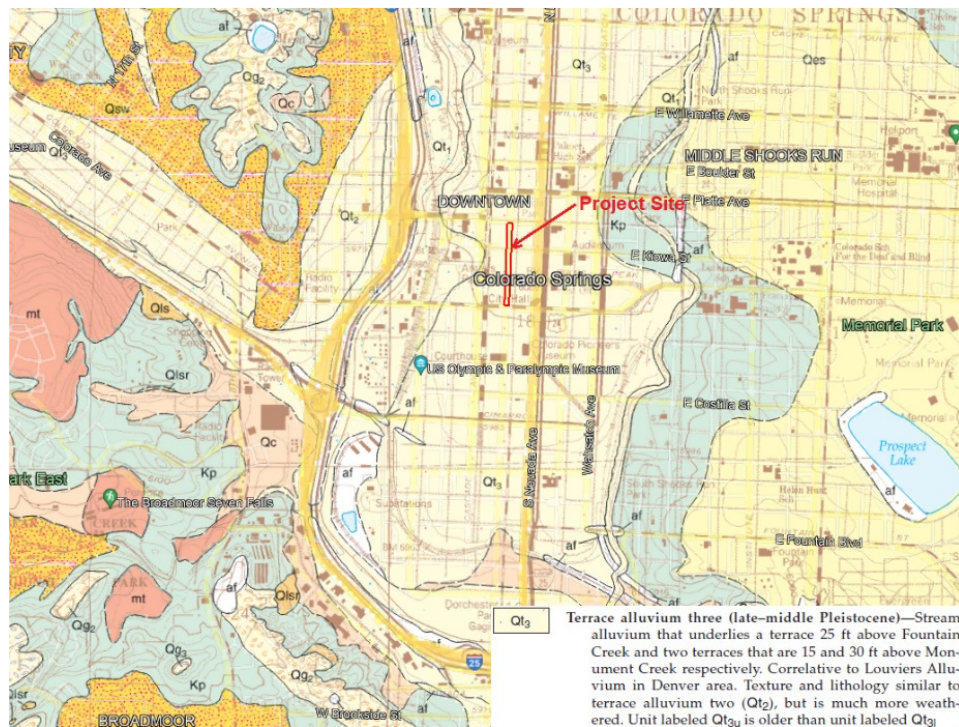


Figure 1. Geologic Map

3.3 Subsurface Conditions

The subsurface conditions encountered in the borings are generally consistent with the mapped geology. The existing pavement section at the boring locations generally consists of asphalt concrete underlain by Portland cement concrete over aggregate base course. Photos of pavement cores are included in Figures B-1 through B-3 in Appendix B of the report. The thickness of each layer of the existing pavement at each boring location is summarized in Table 3-1 below.

Table 3-1 Existing Pavement Thickness

Boring No.	Thickness of Existing Pavement Layers from Top to Bottom		
	Asphalt Concrete	Portland Cement Concrete	Aggregate Base
B-1	7.25"	4.25"	10"
B-2	5.75"	6"	NA
B-3	5.5"	4"	12"
B-4	4.5"	3.25"	12"
B-5	4.25"	5.5"	12"

Beneath the existing pavement, the borings encountered sand with varying amounts of silt to the terminated depths of about 5.5 to 10.5 feet bgs. The sand soils were brown, reddish brown and tan in color and very loose to dense, generally loose to medium dense, in relative density.

The boring logs in Appendix B present detailed results of our subsurface exploration.

3.4 Groundwater

All borings were dry during drilling and at the completion of drilling. Groundwater observations are representative of conditions at the time of our field exploration, and therefore may not be indicative of groundwater levels at other times of the year or at other locations across the site. Groundwater conditions may fluctuate with seasonal precipitation, site grading and improvements, and local irrigation practices.

4. CONSTRUCTION RECOMMENDATIONS

4.1 Geotechnical Feasibility

Subsurface conditions encountered at the site during the field exploration did not find conditions that would preclude the construction of the project as planned provided the conclusions and recommendations presented in the following sections are incorporated into the project design.

The recommendations submitted herein are based, in part, upon data obtained from our subsurface exploration. The nature and extent of subsurface variations that may exist at the proposed project site will not become evident until construction. If variations appear evident, then the recommendations presented in this report should be evaluated. In the event that any changes in the nature, design, or location of the proposed project are planned, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and our recommendations modified in writing.

4.2 Subgrade Preparation and Earthwork

Based on our understanding of the proposed construction, the existing parking areas on both sides of Tejon Street will be removed and re-constructed full depth. Excavation into the aggregate base and native subgrade soils encountered during our subsurface exploration may be achieved with standard heavy-duty earth working equipment. All excavations and embankment grading should be performed in accordance with Section 200 of the City of Colorado Springs, City Engineering Division, Standard Specifications, 2005 (COS Standards), or Section 203 of the Colorado Department of Transportation 2022 Standard Specifications for Road and Bridge Construction (CDOT 2022), where it is not covered by the COS Standards.

4.2.1 Site Preparation

Site preparation should begin by breaking and removing the existing pavement from the proposed reconstruction areas. Clearing and Grubbing operations and removal of existing structure should be performed in accordance with Section 220 of the COS Standards. All exposed subgrade surfaces should be free of mounds and depressions, which may prevent uniform compaction. The site should be initially graded to create an appropriate surface to receive fill. Based upon the subsurface conditions encountered, subgrade soils exposed during construction are anticipated to be relatively stable. However, the stability of the subgrade may be affected by drainage and precipitation. If unstable conditions are encountered or develop during construction, stability may

be improved by scarifying and drying the subgrade soils or with other ground improvement techniques.

4.2.2 Fill Materials and Subgrade Preparation

All embankment fill, if any, should conform to Section 203 of COS Standards and should be approved by the City and the geotechnical engineer. The exposed subgrade materials prior to receiving fill shall be scarified to a minimum depth of 6 inches and the scarified materials shall be appropriately processed and compacted to meet the requirements in the COS Standards.

All compaction should be performed in horizontal lifts that are 8-inches or less in loose thickness, using equipment and procedures that will produce a uniform fill with the required moisture contents and densities throughout the lift. The required percent of relative compaction and moisture content for the embankment materials are presented in Section 205 of the COS Standards.

Backfill materials should be tested for severity of sulfate exposure prior to placement. We recommend that the subgrade preparation process including soil excavation, the placement and compaction of materials, proof rolling and visual inspection of subgrade soils be observed and evaluated by the geotechnical engineer of record or the engineer's representative.

4.2.3 Excavation and Trench Grading

All site excavation and embankment grading should conform to Section 200 of the COS Standards.

Cut slopes should be protected from surface water runoff to prevent erosion and slope failure. Landscape sprinklers if present should be frequently checked for leaks and maintained in good working order. Surface drainage should be provided around all permanent cuts and fills to direct surface runoff away from the slope faces. Concentrated runoff should be prevented in areas susceptible to erosion or slope instability.

Excavations into the on-site soils will encounter a variety of conditions. All excavations must comply with the applicable local, State, and Federal safety regulations, and particularly with the excavation standards of the Occupational Safety and Health Administration (OSHA). Construction site safety, including excavation safety, is the sole responsibility of the Contractor as part of its overall responsibility for the means, methods, and sequencing of construction operations. GEG recommendations for excavation support is provided for the Client's sole use in

planning the project, in no way do they relieve the Contractor of its responsibility to construct, support, and maintain safe slopes. Under no circumstances should the following recommendations be interpreted to mean that GEG is assuming responsibility for either construction site safety or the Contractor's activities.

We believe the overburden soil encountered at this site will classify as a Type C material, using OSHA criteria. OSHA requires that unsupported cuts be no steeper than 1½:1 for Type C for unbraced excavations up to 20 feet in height. In general, we believe that these slope ratios will be temporarily stable under unsaturated conditions. Flattened slopes may be required if excavations encounter groundwater or the slopes will be exposed for an extended period of time. Please note that the Contractor's OSHA-qualified "competent person" must make the actual determination of soil type and allowable sloping in the field.

The soils encountered by the proposed excavations may vary significantly across the site. The preliminary classifications presented above are based solely on the materials encountered in widely spaced exploratory test borings. The contractor should verify that similar conditions exist throughout the proposed area of excavation.

As a safety measure, it is recommended that all vehicles and soil piles be kept to a lateral distance equal to at least the depth of the excavation from the crest of the slope. The exposed slope face should be protected against the elements and monitored by the contractor on at least a daily basis.

4.2.4 Structural Fill Requirements

Based on our laboratory test results, the on-site sand is suitable as structural fill. Additional imported structural fill, if required, should consist of non-expansive granular material meeting the following criteria:

Table 4-1 Imported Structural Fill Criteria

Gradation Requirements	
Standard Sieve Size	Percent Passing
2 inch	100
No. 200	10 - 30
Plasticity Requirements (Atterberg Limits)	
Liquid Limit	30 or less
Plasticity Index	6 or less

We recommend that a qualified representative of GEG visit the site during excavation and during placement of the structural fill to verify the soils exposed in the excavations are consistent with those encountered during our subsurface exploration and that proper foundation subgrade preparation and placement is performed.

All fill placed on this site should be compacted according to Section 205 of the COS Standards. Fill to be placed at this site during leveling/grading operations should be placed under controlled conditions. A sample of any imported fill material, if required, should be submitted to GEG for approval and testing at least 3 days prior to stockpiling at the site.

4.3 Drainage Considerations

During construction, grade the site such that surface water can drain readily away from the pavement areas. Promptly pump out or otherwise remove water that accumulates in the excavations or on subgrade surfaces and allow these areas to dry before resuming construction. The use of berms, ditches, and similar means may be used to prevent stormwater from entering the work area and to convey water off site efficiently.

4.4 Construction in Wet or Cold Weather

Grading fill, structural fill or other fill should not be placed on frosted or frozen ground, nor should frozen material be placed as fill. Frozen ground should be allowed to thaw or be completely removed prior to placement of fill. A good practice is to cover the compacted fill with a “blanket” of loose fill to help prevent the compacted fill from freezing.

Concrete and asphalt structures should not be constructed on frozen soil. Frozen soil should be completely removed from beneath the concrete elements, or thawed, scarified and re-compacted. The amount of time passing between excavation or subgrade preparation and placing concrete

should be minimized during freezing conditions to prevent the prepared soils from freezing. Blankets, soil cover, or heating as required may be utilized to prevent the subgrade from freezing.

4.5 Corrosivity Test Results

Analytical testing was completed on a representative sample of soils encountered in the borings. The test results are presented in Appendix C and are summarized in Table 4-2.

Table 4-2. Analytical Test Results

Sample	Materials	Water Soluble Sulfates, %	Water Soluble Chlorides, %	pH	Resistivity, ohm-cm
B-2 @ 1'	Sand	0.0627	0.0019	9.4	641

Concrete in contact with soils can be subject to sulfate attack. The concentration of water-soluble sulfates on the selected soil sample represents a Class 0 degree of sulfate attack on concrete exposed to the existing sand soils. The degree of attack is based on a range of Class 0 (negligible) to Class 3 (very severe) as described in the American Concrete Institute (ACI) Standard 201.2R, "Guide to Durable Concrete".

Results of soluble sulfate testing indicate that ASTM Type I or II Portland cement can be specified for all project concrete on and below grade.

The pH and electrical resistivity were tested for the selected sample. Test results measured a pH value of 9.4, and resistivity measurements had a value of 641 ohm-centimeters for the selected soil sample. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from metal into the soil. As resistivity decreases, the corrosivity of the soil increases. The following table provides a correlation between soil resistivity and corrosivity towards ferrous metal.

Table 4-3. Resistivity and Corrosivity Categories

Resistivity in Ohm-centimeters	Corrosivity Category
0 to 1,000	Severely Corrosive
1,000 to 2,000	Corrosive
2,000 to 10,000	Moderately Corrosive
Greater than 10,000	Mildly Corrosive

Based on the resistivity test results, the existing soils are anticipated to be severely corrosive to unprotected iron or steel pipe.

A qualified corrosion engineer should review the laboratory data and boring logs to determine the appropriate level of corrosion protection for materials in contact with these soils.

5. PAVEMENT THICKNESS RECOMMENDATIONS

The pavement thickness design was performed in accordance with City Pavement Design Criteria Manual (PDCM).

5.1 Subgrade Strength

Based on the results of our field exploration and laboratory testing the pavement subgrade soils are anticipated to consist of sand and silty sand (AASHTO Classification of A-1-a, A-1-b, A-2-4). Design subgrade strength was based on the material types and DCP correlations. A CBR value of 10 is selected for the design. Since this CBR value was derived from DCP tests, we have utilized the correlations published by National Cooperative Highway Research Program (NCHRP) 1-37A, 2004, where the $M_r = 2555 \times (\text{CBR})^{0.64}$. A M_r value of 11,150 psi and a modulus of subgrade reaction value of 200 pci were used for compacted native sand for the pavement thickness design.

5.2 Traffic Loading

Traffic information was not available at the time of writing this report. In accordance with City of Colorado Springs GIS map, Tejon Street is classified as a "Minor Arterial". An average daily traffic (ADT) of 7,781 for the south direction was recorded at the intersection of Tejon Street and Colorado Avenue in 2006 based on the traffic counts map and ESAL of 805,783 and 1,056,480 was estimated for flexible and rigid pavement, respectively. For the purposes of our pavement design, the city street default ESAL values of 2,500,000 for flexible pavements and 3,250,000 for rigid pavements were used.

5.3 Pavement Thickness Design

Full depth pavement reconstruction design was performed using the WinPAS Version 12 and mill and overlay design was performed using our design spreadsheet. Both designs were performed in accordance with the 1993 AASHTO Pavement Design Guide and City of Colorado Springs Pavement Design Criteria Manual. Tables 6-1 and 6-2 present a summary of the design input parameters.

Table 6-1. Pavement Design Parameters

Parameter	Value
Design Period (year)	20
18-kip ESAL over design period	2,500,000 for flexible 3,250,000 for rigid
Reliability (%)	95
Overall Standard Deviation	0.44 for flexible 0.34 for rigid
Initial Serviceability Index	4.5
Terminal Serviceability Index	2.0

Table 6-2. Pavement Design Strength Coefficients

Parameter	Value
New Hot Mix Asphalt (HMA) Layer Coefficient	0.44
Drainage Coefficient	1.0
Aggregate Base Course (ABC) ¹ Layer Coefficient	0.12
Subgrade Soil Resilient Modulus (psi)	11,150
Concrete Elastic Modulus, E _c (psi)	3,500,000
Concrete Modulus of Rupture, S _c (psi)	650
Modulus of Subgrade Reaction (pci)	200

¹ ABC meeting COS Engineering Standard Specifications Manual

Based on the above design parameters, the recommended reconstruction sections for both rigid and flexible pavements are presented in Table 6-3.

Table 6-3. Recommended Minimum Pavement Sections

Pavement Reconstruction	PCC Pavement Section	HMA Pavement Section
Tejon Street – the existing parking area	-9.0 inches PCC -Subgrade ¹	-4.5 inches HMA -12.0 inches ABC -Subgrade ¹

PCC= Portland cement concrete HMA= Hot mixed asphalt
¹ Subgrade should be prepared in accordance with Section 4 of the report.

The recommended mill and overlay section is presented in Table 6-4.

Table 6-4. Recommended Mill and Overlay Pavement Section

Mill and Overlay Pavement	Mill Depth	Overlay Thickness
Tejon Street – Drive Lanes	2.0 inches	6.5 inches

It is our understanding that the grade of the pavement surface may need to remain the same. We have estimated the design life of the pavement based on the various thickness of mill and overlay and presented in Table 6-5. Since the thickness of the pavement varied, we have separated the sections into south of the intersection comprised of Borings B-2 , B-3 and B-5 and north of the intersection comprised of Borings B-1 and B-4.

Table 6-5. Estimated Design Life of Mill and Overlay Pavement Section

Mill and Overlay Pavement	Mill and Overlay Thickness	Estimated Design Life North of Intersection (Borings B-1 & B-4)	Estimated Design Life South of Intersection (Borings B-2, B-3 & B-5)
Tejon Street – Drive Lanes	2.0 inches	2 to 3 years	10 years
	3.0 inches	3.5 years	10 years
	4.25 inches ¹	N/A	12 years
	4.5 inches ¹	3.5 to 4 years	N/A

¹ Completely remove the existing HMA pavement in this section
 N/A=Not applicable due to depth of HMA encountered in the borings.

It should be noted that the actual thickness of the existing HMA and PCC may vary from those encountered in the borings. The contractor should plan to completely remove the existing HMA if the complete removal approach as presented in Table 6-5 is selected.

5.4 Pavement Materials

5.4.1 Base Course

We recommend CDOT Coarse Aggregate Type Class 5 or 6 to be used for the aggregate base materials. The material should be placed in a uniform layer without segregation of size and compacted in loose lifts not to exceed 8-inches.

5.4.2 Hot Mix Asphalt

Hot mix asphalt materials, placement procedures, and testing should follow The Pike Peak Region Asphalt Specification. We recommend PG 64-22 HMA binder with Grading S or SX aggregate, and gyration of 75.

5.4.3 Portland Cement Concrete

The Portland Cement Concrete (PCC) shall conform to the requirements for Portland Cement Concrete Pavement, have a minimum 28-day flexural strength of at least 650 pounds per square inch (psi), and have a required minimum 28-day compressive strength of 4,000 psi.

6. LIMITATIONS

The findings and recommendations presented in this report are based upon data obtained from borings, field observations, laboratory testing, our understanding of proposed construction, and other sources of information referenced in this report. It is possible that subsurface conditions may vary between or beyond the locations explored. If subsurface conditions are encountered during construction that differ from those described herein, we should be notified immediately in order that a review may be made, and any supplemental recommendations provided. If the scope of the proposed construction, including the proposed loads or structural locations, changes from that described in this report, the conclusions and recommendations contained in this report are not considered valid unless the changes are reviewed, and the conclusions of this report are modified or approved in writing, by GEG.

This report was prepared in in a manner consistent with that level of care and skill ordinarily exercised by other members of GEG's profession practicing in the same locality, under similar conditions and at the date the services are provided. GEG makes no other representation, guarantee, or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

The scope of services for this subsurface exploration and geotechnical report did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or groundwater at this site.

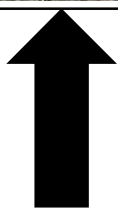
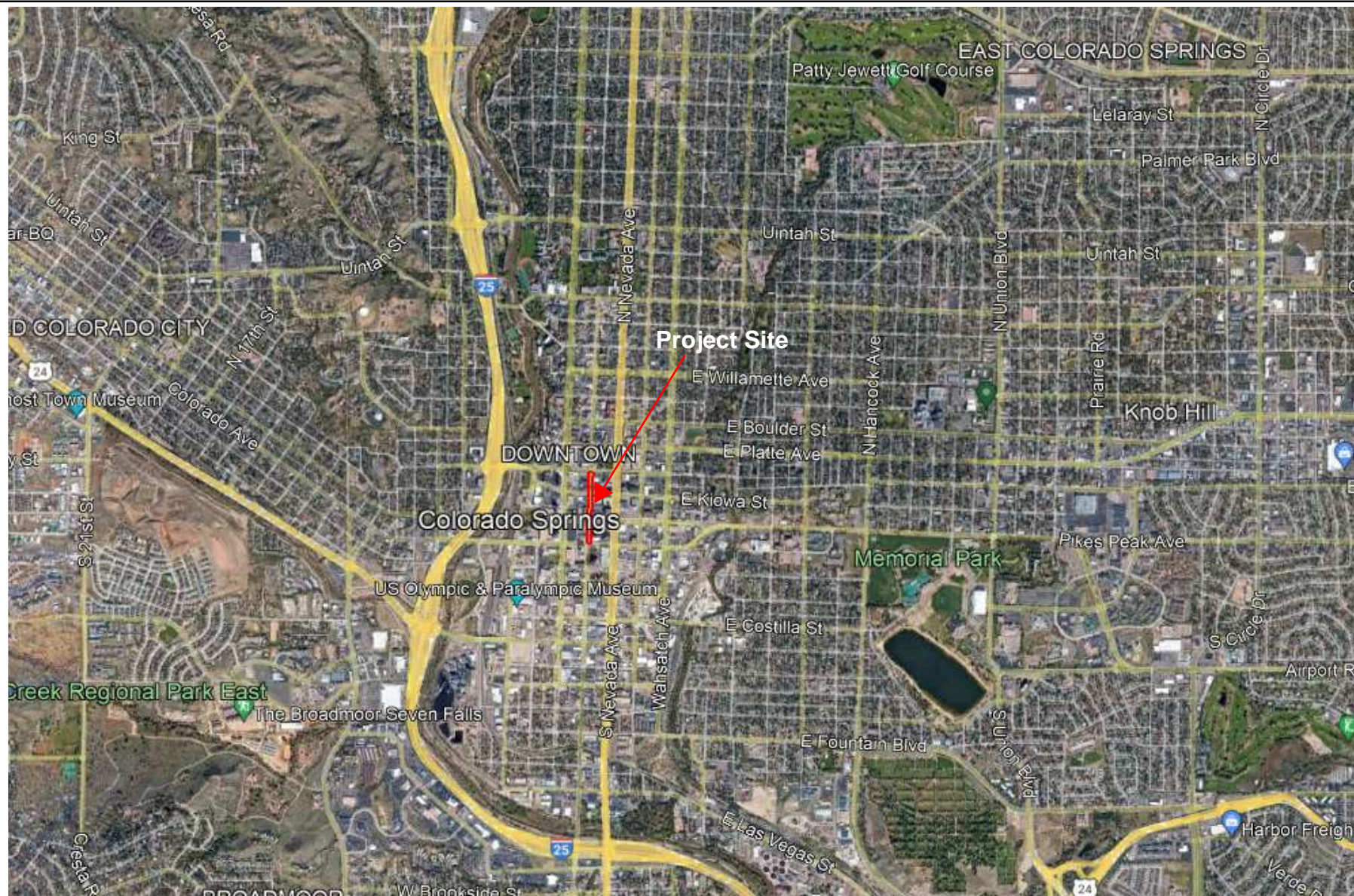
The recommendations provided in this report are based on the assumption that an adequate program of tests and observations will be conducted by GEG during the construction phase in order to evaluate compliance with our recommendations. The scope of our services did not

include any environmental assessment or exploration for the presence of hazardous or toxic materials in the soil, surface water, groundwater, or air, on, below or around this site.

This report may be used only by the Client and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than three (3) years from the date of the report.

Appendix A

FIGURE A-1: SITE LOCATION PLAN
FIGURE A-2: BORING LOCATION PLAN



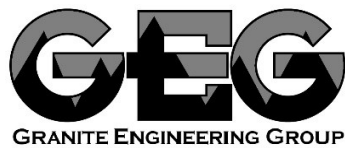
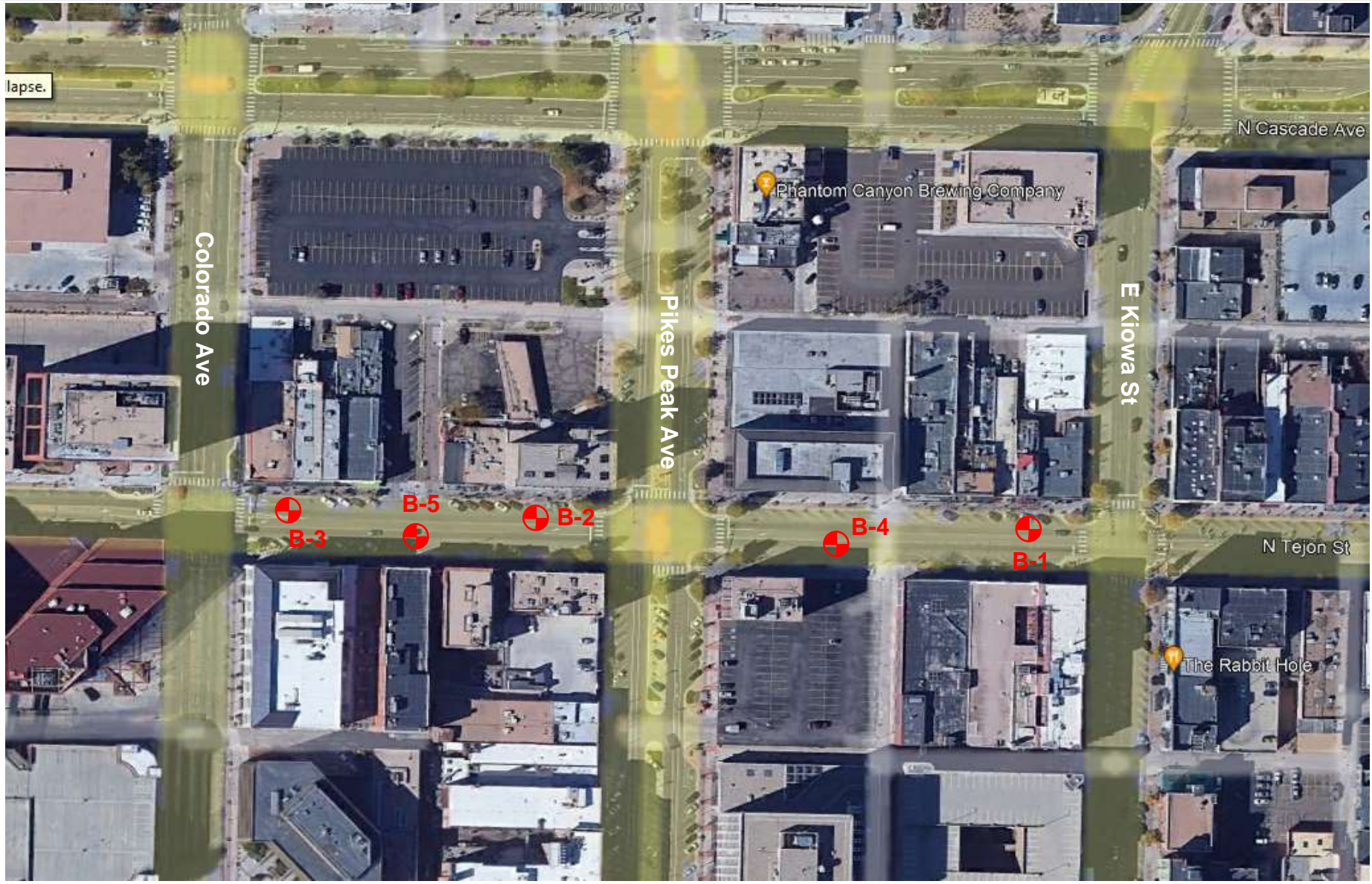
PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	
	222-159

SITE LOCATION PLAN

**Tejon Street Revitalization
Colorado Springs, Colorado**

FIGURE

A-1



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	
	222-159

BORING LOCATION PLAN

**Tejon Street Revitalization
Colorado Springs, Colorado**

FIGURE

A-2

Appendix B

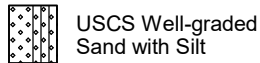
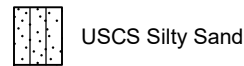
KEY TO BORING LOGS
BORING LOGS
DCP RESULTS
PAVEMENT CORE PHOTOS B-1 THROUGH B-3

Legend for Symbols Used on Borehole Logs

Sample Types



Lithology Symbols (see Boring Logs for complete descriptions)



Lab Test Standards

Moisture Content	ASTM D2216
Dry Density	ASTM D7263
Sand/Fines Content	ASTM D421, ASTM C136, ASTM D1140
Atterberg Limits	ASTM D4318
AASHTO Class.	AASHTO M145, ASTM D3282
USCS Class.	ASTM D2487
(Fines = % Passing #200 Sieve)	
Sand = % Passing #4 Sieve, but not passing #200 Sieve)	

Other Lab Test Abbreviations

pH	Soil pH (AASHTO T289-91)
S	Water-Soluble Sulfate Content (AASHTO T290-91, ASTM D4327)
Chl	Water-Soluble Chloride Content (AASHTO T291-91, ASTM D4327)
S/C	Swell/Consolidation (ASTM D4546)
UCCS	Unconfined Compressive Strength (ASTM D2166)
R-Value	Resistance R-Value (ASTM D2844)
DS (C)	Direct Shear cohesion (ASTM D3080)
DS (phi)	Direct Shear friction angle (ASTM D3080)
Re	Electrical Resistivity (AASHTO T288-91)
PtL	Point Load Strength Index (ASTM D5731)

Notes

- "Penetration Resistance" on the Boring Logs refers to the uncorrected N value for SPT samples only, as per ASTM D1586. For samples obtained with a Modified California (MC) sampler, drive depth is 12 inches, and "Penetration Resistance" refers to the sum of all blows. Where blow counts were > 50 for the 3rd increment (SPT) or 2nd increment (MC), "Penetration Resistance" combines the last and 2nd-to-last blows and lengths; for other increments with > 50 blows, the blows for the last increment are reported.
- The Modified California sampler used to obtain samples is a 2.5-inch OD, 2.0-inch ID (1.95-inch ID with liners), split-barrel sampler with internal liners, as per ASTM D3550. Sampler is driven with a 140-pound hammer, dropped 30 inches per blow.
- "ER" for the hammer is the Reported Calibrated Energy Transfer Ratio for that specific hammer, as provided by the drilling company.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-1

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83505 Long: -104.82352

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Groundwater Levels: Not Observed

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.6 ft. 7.25" ASPHALT.									
						0.6 - 1.0 ft. 4.25" CONCRETE.									
			3-7-8	15		1.0 - 1.8 ft. 10" AGGREGATE BASE.	8.7	16	62	22.3	NV	NP	A-1-b (0) SM		
						1.8 - 5.5 ft. SILTY SAND, SM, red-brown - tan, medium dense.									
	5		7-12-17	29											

Bottom of Hole at 5.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-2

Boring Began: 5/3/2023

Total Depth: 10.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83352 Long: -104.8236

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Groundwater Levels: Not Observed

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.5 ft. 5.75" ASPHALT.									
						0.5 - 1.0 ft. 6" CONCRETE.									
		X	11-9-7	16		1.0 - 10.5 ft. WELL GRADED SAND with SILT, SW-SM, red-brown - tan, loose to dense.	5.2		25	64	11.1	NV	NP	A-1-b (0) SW-SM	pH=9.4 S=0.0627% Chi=0.0019% Re=641ohm-cm
	5	X	3-3-3	6											
		X	3-9-17	26			5.3		20	73	6.6	NV	NP	A-1-b (0) SW-SM	
	10	X	13-22-18	40											

Bottom of Hole at 10.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-3

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83276 Long: -104.82365

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Groundwater Levels: Not Observed

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.5 ft. 5.5" ASPHALT.									
						0.5 - 0.8 ft. 4" CONCRETE.									
						0.8 - 1.8 ft. 12" AGGREGATE BASE.									
		X	2-3-6	9		1.8 - 5.5 ft. SILTY SAND, SM, brown - tan, loose to medium dense.	10.6		5	71	23.5	NV	NP	A-2-4 (0) SM	
		X	8-7-9	16											

Bottom of Hole at 5.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-4

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83444 Long: -104.82346

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Groundwater Levels: Not Observed

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.4 ft. 4.5" ASPHALT.									
						0.4 - 0.7 ft. 3.25" CONCRETE.									
						0.7 - 1.7 ft. 12" AGGREGATE BASE.									
		X	3-4-3	7		1.7 - 5.5 ft. WELL GRADED SAND with SILT, SW-SM, brown - tan, loose to medium dense.									
	5	X	13-9-16	25			2.3		21	72	7.0	NV	NP	A-1-a (0) SW-SM	

Bottom of Hole at 5.5 ft.



Project Name:

Tejon Street Revitalization
Colorado Springs, CO

Project Number: 222-159

Boring No.: B-5

Boring Began: 5/3/2023

Total Depth: 5.5 ft

Weather Notes: Sunny

Boring Completed: 5/3/2023

Ground Elevation:

Inclination from Horiz.: Vertical

Drilling Method(s): Solid-Stem Auger (4" OD)

Coordinates: Lat: 38.83315 Long: -104.82353

Driller: Odell

Location:

Night Work:

Drill Rig: CME 45B

Groundwater Levels: Not Observed

Hammer Type: Automatic (hydraulic), ER: 80%

Logged By: J. Shekoski

Final By: HML

Symbol	Depth	Date
-	-	-
-	-	-

Elevation (feet)	Depth (feet)	Sample Type/ Advancement Method	Soil Samples		Lithology	Material Description	Moisture Content (%)	Dry Density (pcf)	Gravel Content (%)	Sand Content (%)	Fines Content (%)	Atterberg Limits		AASHTO & USCS Classifications	Field Notes and Other Lab Tests
			Blows per 6 in	Penetration Resistance								Liquid Limit	Plasticity Index		
						0.0 - 0.4 ft. 4.25" ASPHALT.									
						0.4 - 0.8 ft. 5.5" CONCRETE.									
						0.8 - 1.8 ft. 12" AGGREGATE BASE.									
		X	6-2-1	3		1.8 - 5.5 ft. SILTY SAND, SM, brown - tan, very loose to medium dense.	14.0		6	73	21.0	20	3	A-2-4 (0) SM	
		X	3-9-18	27											

Bottom of Hole at 5.5 ft.

DCP TEST DATA

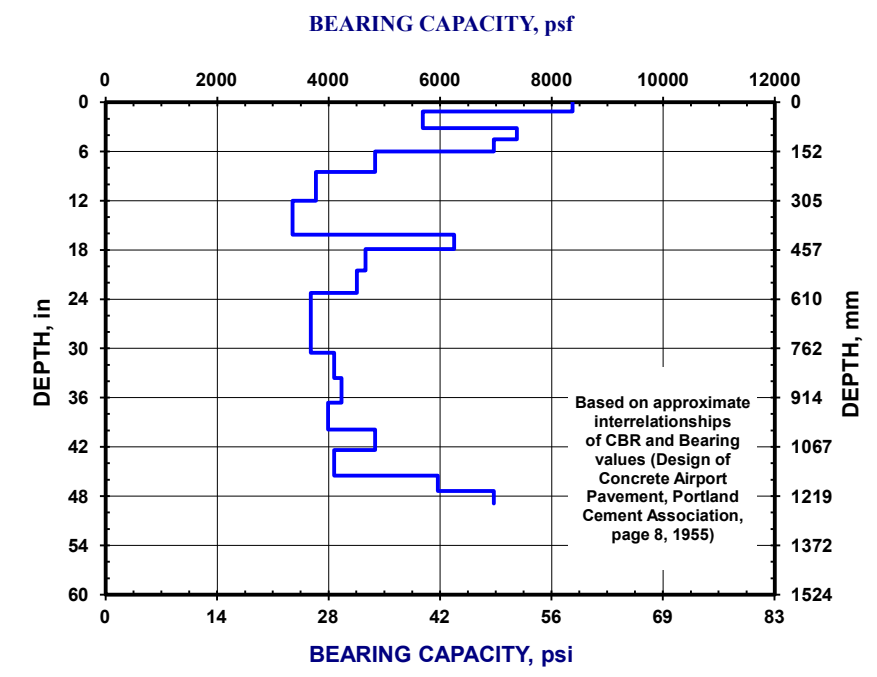
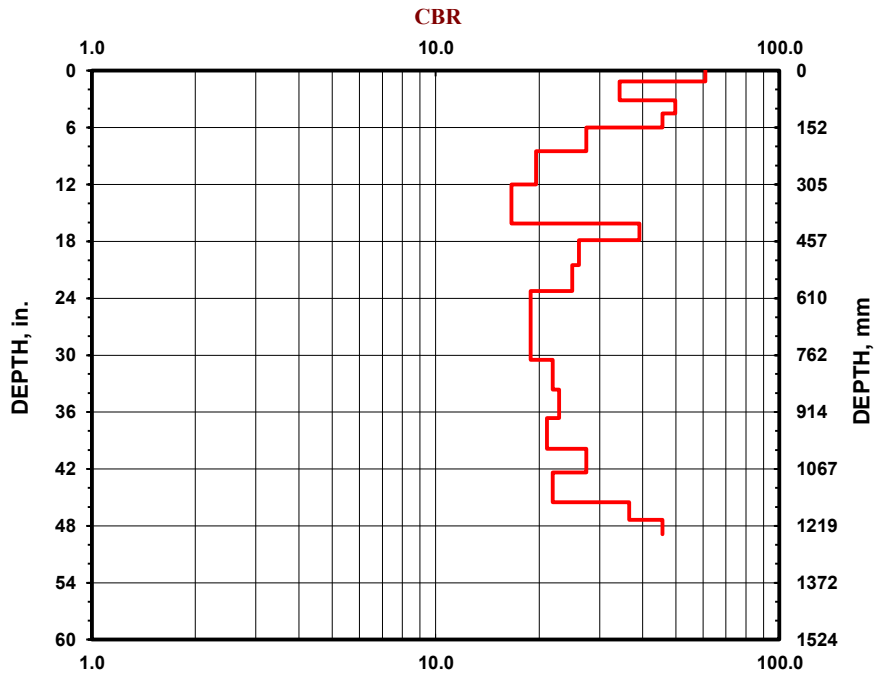
Project: Tejon Street Revitalization
Location: B-3

Date: 3-May-23
Soil Type(s): SM

Hammer
 10.1 lbs.
 17.6 lbs.
 Both hammers used

Soil Type
 CH
 CL
 All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
0	0	1
5	28.575	1
5	79.375	1
5	114.3	1
5	152.4	1
5	215.9	1
5	304.8	1
5	409.575	1
5	454.025	1
5	520.7	1
5	590.55	1
5	682.625	1
5	774.7	1
5	854.075	1
5	930.275	1
5	1012.825	1
5	1076.325	1
5	1155.7	1
5	1203.325	1
5	1241.425	1



DCP TEST DATA

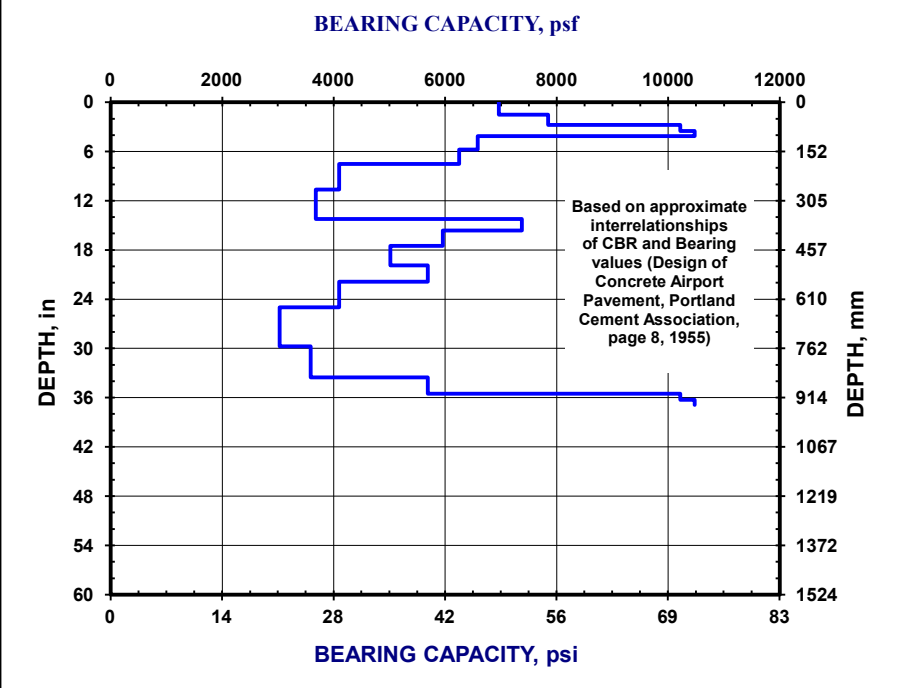
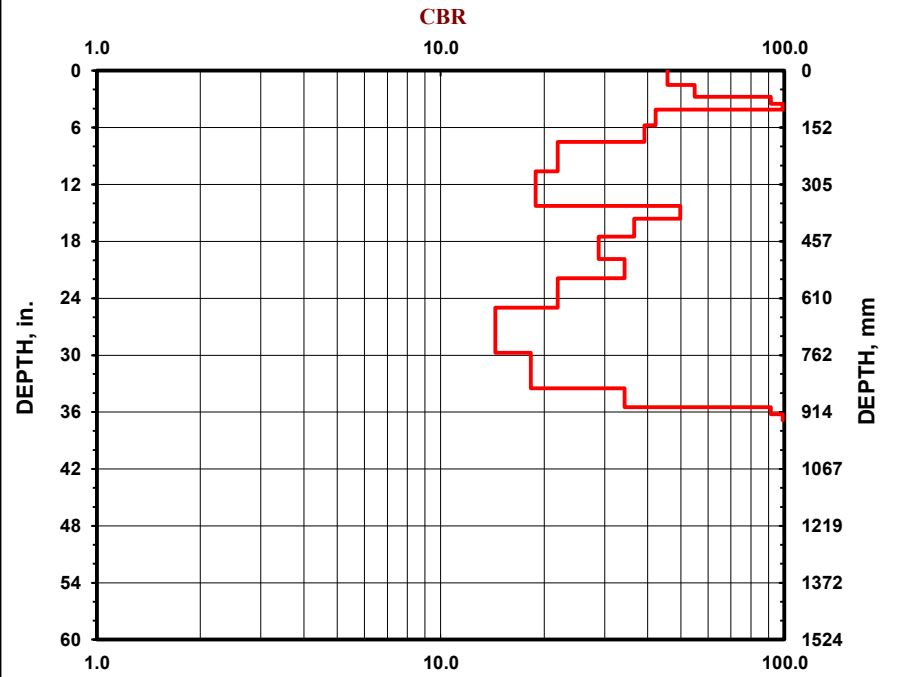
Project: Tejon Street Revitalization
Location: B-4

Date: 3-May-23
Soil Type(s): SW-SM

Hammer
 10.1 lbs.
 17.6 lbs.
 Both hammers used

Soil Type
 CH
 CL
 All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
0	0	1
5	38.1	1
5	69.85	1
5	88.9	1
5	104.775	1
5	146.05	1
5	190.5	1
5	269.875	1
5	361.95	1
5	396.875	1
5	444.5	1
5	504.825	1
5	555.625	1
5	635	1
5	755.65	1
5	850.9	1
5	901.7	1
5	920.75	1
5	927.1	1
5	936.625	1





B-1 Pavement Core



B-2 Pavement



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	222-159

CORE PHOTOS

**Tejon Street Revitalization
Colorado Springs, Colorado**

FIGURE

B-1



B-3 Pavement Core



B-4 Pavement Core



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	222-159

CORE PHOTOS

**Tejon Street Revitalization
Colorado Springs, Colorado**

FIGURE

B-2



B-5 Pavement Core



PROJECT NO.	222-159
DRAWN:	5/12/2023
DRAWN BY:	XC
CHECKED BY:	HML
FILE NAME:	222-159

CORE PHOTOS
Tejon Street Revitalization Colorado Springs, Colorado

FIGURE
B-3

Appendix C

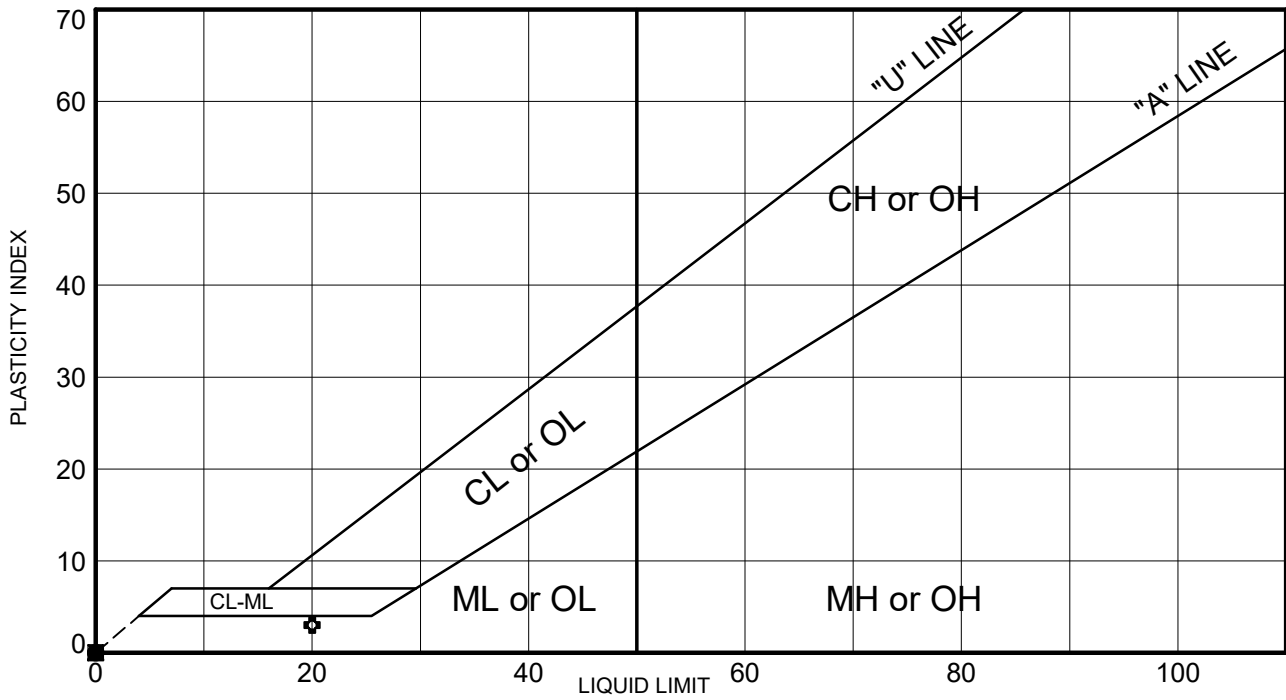
LABORATORY TEST RESULTS

Summary of Laboratory Test Results



Project No: 222-159 Project Name: Tejon Street Revitalization, Colorado Springs, CO

Sample Location			Natural Moisture Content (%)	Natural Dry Density (pcf)	Gradation			Atterberg			pH	Water Soluble Sulfate (%)	% Swell (+) / Consolidation (-)	Unconf. Comp. Strength (psf)	R-Value	Classification	
Boring No.	Depth (ft)	Sample Type			Gravel > #4 (%)	Sand (%)	Fines < #200 (%)	LL	PL	PI						AASHTO	USCS
B-1	1.0~2.5	SPT	8.7		16.0	61.7	22.3	NP	NP	NP						A-1-b(0)	SM
B-2	1.0~2.5	SPT	5.2		25.0	63.9	11.1	NP	NP	NP	9.4	0.063		--		A-1-b(0)	SW-SM
B-2	7.0~8.5	SPT	5.3		20.0	73.4	6.6	NP	NP	NP						A-1-b(0)	SW-SM
B-3	1.0~2.5	SPT	10.6		5.0	71.5	23.5	NP	NP	NP						A-2-4(0)	SM
B-4	4.0~5.5	SPT	2.3		21.0	72.0	7.0	NP	NP	NP						A-1-a(0)	SW-SM
B-5	1.0~2.5	SPT	14.0		6.0	73.0	21.0	20	17	3						A-2-4(0)	SM



BOREHOLE	DEPTH	LL	PL	PI	Passing #200	USCS Sample Description	AASHTO Class.
● B-1	1.0	NP	NP	NP	22	SILTY SAND with GRAVEL(SM)	A-1-b(0)
☒ B-2	1.0	NP	NP	NP	11	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	A-1-b(0)
▲ B-2	7.0	NP	NP	NP	7	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	A-1-b(0)
★ B-3	1.0	NP	NP	NP	24	SILTY SAND(SM)	A-2-4(0)
◎ B-4	4.0	NP	NP	NP	7	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	A-1-a(0)
⊕ B-5	1.0	20	17	3	21	SILTY SAND(SM)	A-2-4(0)



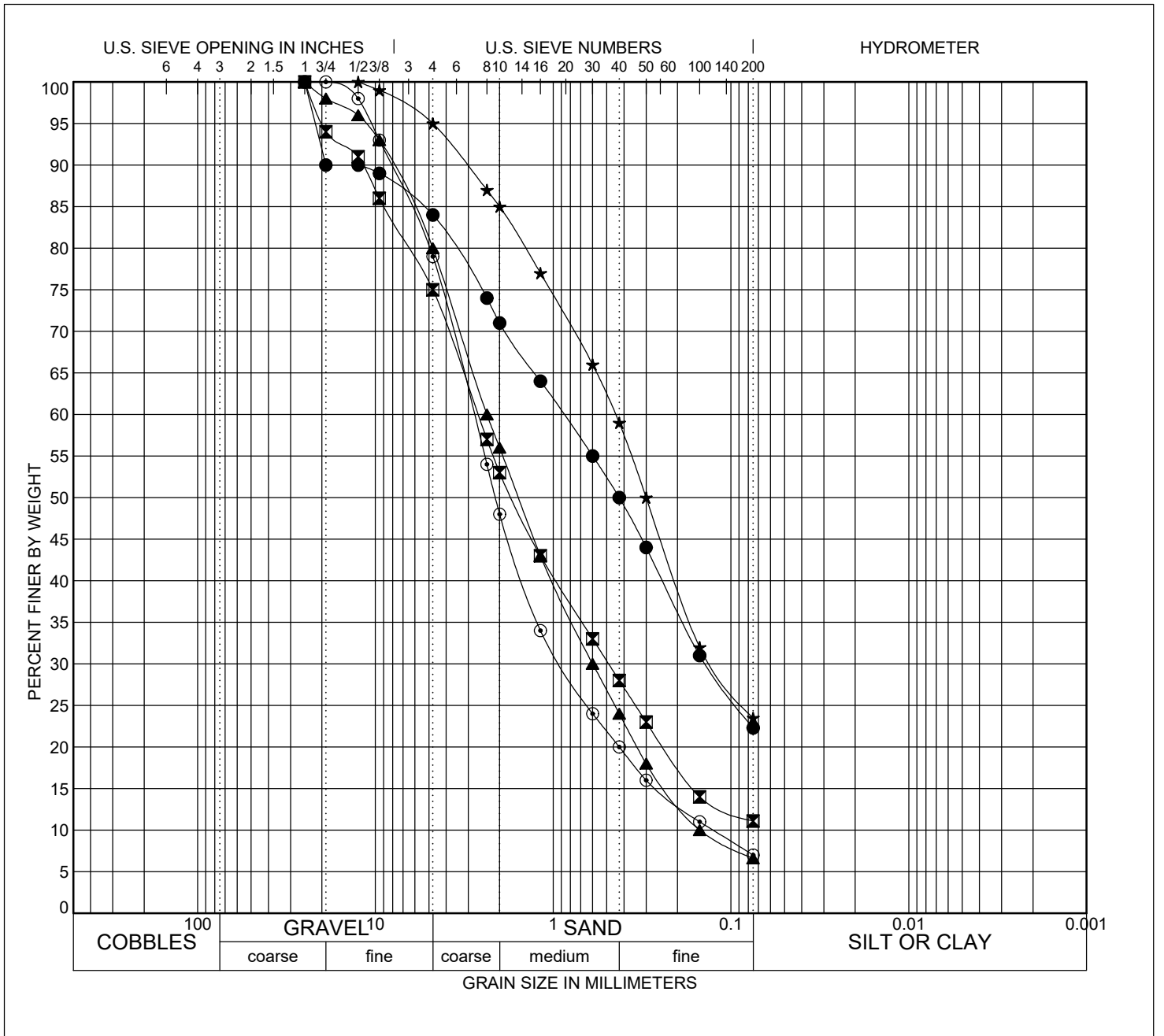
ATTERBERG LIMITS

FIGURE


Project No. 222-159 Date: 5/12/2023
 Drawn By: Lab
 Checked By: PM

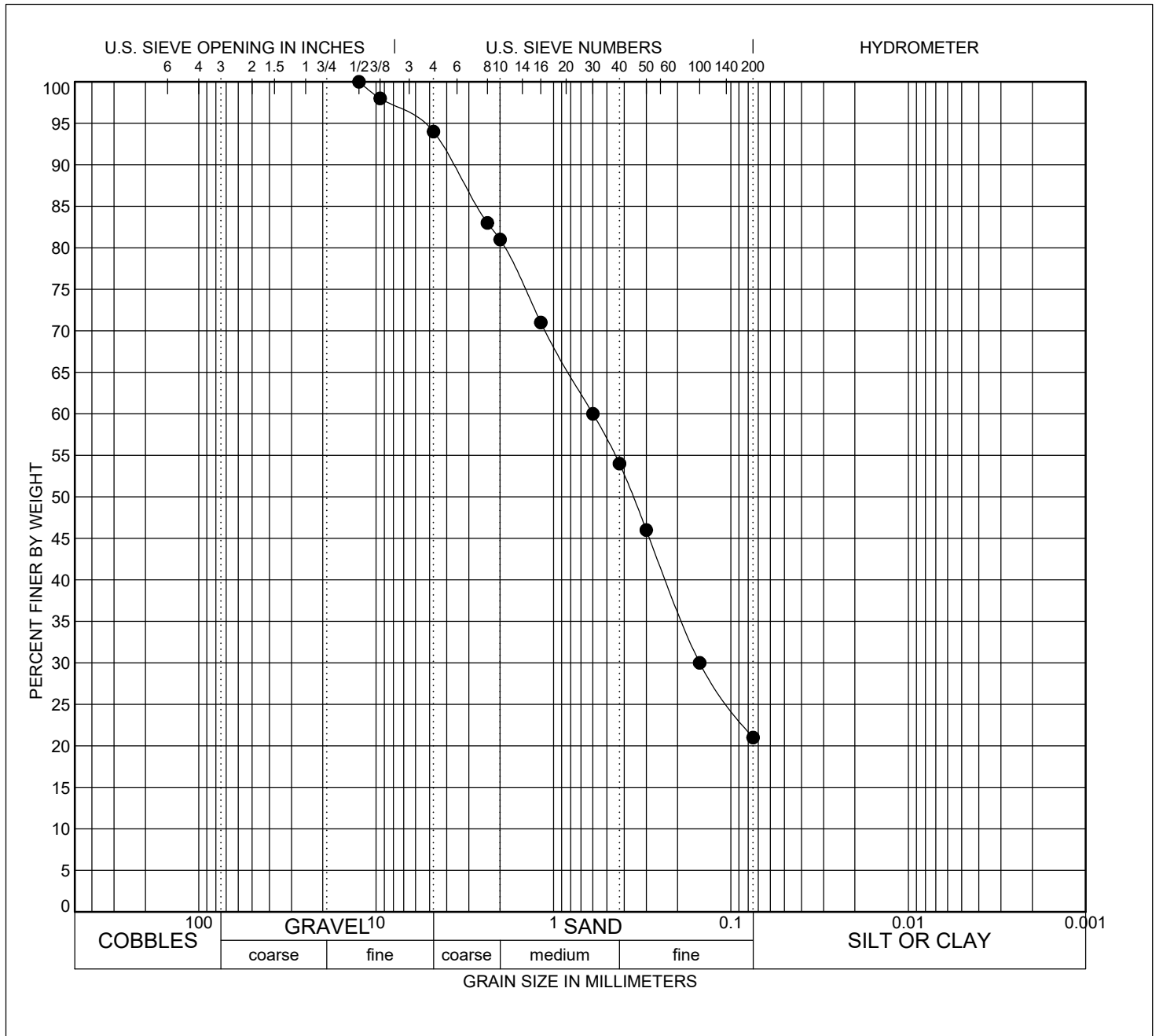
Tejon Street Revitalization
 Colorado Springs, CO

C - 1




BOREHOLE	DEPTH	AASHTO Classification	USCS Classification	LL	PL	PI	%Gravel	%Sand	%Fines	
									%Silt	%Clay
● B-1	1.0	A-1-b(0)	SM	NP	NP	NP	16.0	61.7	22.3	
☒ B-2	1.0	A-1-b(0)	SW-SM	NP	NP	NP	25.0	63.9	11.1	
▲ B-2	7.0	A-1-b(0)	SW-SM	NP	NP	NP	20.0	73.4	6.6	
★ B-3	1.0	A-2-4(0)	SM	NP	NP	NP	5.0	71.5	23.5	
◎ B-4	4.0	A-1-a(0)	SW-SM	NP	NP	NP	21.0	72.0	7.0	

			<h2>SIEVE ANALYSIS</h2>	<h2>FIGURE</h2>
Project No. 222-159	Date: 5/12/2023	Tejon Street Revitalization Colorado Springs, CO		
Drawn By: Lab				
Checked By: PM				
R24-T086KK	<h1>C- 2</h1>			



BOREHOLE	DEPTH	AASHTO Classification	USCS Classification	LL	PL	PI	%Gravel	%Sand	%Fines	
									%Silt	%Clay
● B-5	1.0	A-2-4(0)	SM	20	17	3	6.0	73.0	21.0	

			<h2>SIEVE ANALYSIS</h2>		<h2>FIGURE</h2> <h3>C- 3</h3>
Project No.	222-159	Date:	5/12/2023		
Drawn By:	Lab	Tejon Street Revitalization			
Checked By:	PM	Colorado Springs, CO			

WELD LABORATORIES, INC.

1527 First Avenue • Greeley, Colorado 80631
Phone: (970) 353-8118 • Fax: (970) 353-1671
www.weldlabs.com

June 9, 2023

Granite Engineering Group
Attn: Ming Lim
3927 Van Teylingen Dr.
Colorado Springs, CO 80917

Project No.: 222-159
Sample ID: B-2 1' Tejon St
Laboratory No.: E23151-5

	Results ^{1,3}	10-Point System ²
pH (SI)	9.4	3
AASHTO T 289-91 (ASTM G51 available for some soil)		
Conductivity (mmhos/cm)	1.560	8
Resistivity (ohm-m)	6.41	
USDA Handbook 60, temperature corrected conductivity probe		
Minimum Lab Resistivity (ohm-cm)	INSUFFICIENT	0
Minimum Lab Resistivity (ohm-m)	SAMPLE	
via Miller Box, Tinker & Razor SR-2 (AASHTO T 288-12) ⁴		
Redox (mV vs. Ag/AgCl)	203	0
ASTM G200 (ASTM D1498 if soil is low in moisture)		
Free Sulfide (mg/kg DMB)	ND	0
EPA 9030B+9034, prescreened with lead acetate paper		
Chloride (mg/kg DMB)	19	0
AASHTO T 291-94		
Sulfate (mg/kg DMB)	627	3
AASHTO T 290-95		
Sulfate-S (mg/kg DMB)	209.0	

1. NA = Not Analyzed; ND = Not Detected. DMB = Dry Matter Basis. Measurements taken at 25°C.

2. 10-point Corrosion system based on: Appendix A of ANSI/AWWA C105/A21.5 Standard "Polyethylene Encasement for Ductile Iron Pipe Systems." The CI- points adapted from the DIPRA design decision model.

Sulfate is penalized at half the rate of chloride: A. A. Sagüés et. al. (<https://rosap.nrl.bts.gov/view/dot/17493>)

3. pH, Conductivity, and Redox are generally read on a 1:1 soil:water mixture if the soil is dry.

4. ASTM G57 4-Electrode Method used unless 2-electrode method is requested.


Project Manager


Date

Appendix D

PAVEMENT DESIGN OUTPUT

WinPAS

Pavement Thickness Design According to
1993 AASHTO Guide for Design of Pavements Structures
 American Concrete Pavement Association

Flexible Design Inputs

Project Name: Tejon Street Revitalizatoin
 Route: Tejon Street between Colorado Ave and E Kiowa St
 Location: Colorado Springs, CO
 Owner/Agency:
 Design Engineer:

Flexible Pavement Design/Evaluation

Structural Number	3.42	Subgrade Resilient Modulus	11,150.00 psi
Total Flexible ESALs	2,500,000	Initial Serviceability	4.50
Reliability	95.00 percent	Terminal Serviceability	2.00
Overall Standard Deviation	0.44		

Layer Pavement Design/Evaluation

Layer Material	Layer Coefficient	Drainage Coefficient	Layer Thickness	Layer SN
Asphalt Cement Concrete	0.44	1.00	4.50	1.98
Graded Stone Base	0.12	1.00	12.00	1.44
			Σ SN	3.42

WinPAS

Pavement Thickness Design According to
1993 AASHTO Guide for Design of Pavements Structures
American Concrete Pavement Association

Rigid Design Inputs

Project Name: Tejon Street Revitalizatoin
Route: Tejon Street between Colorado Ave and E Kiowa St
Location: Colorado Springs, CO
Owner/Agency:
Design Engineer:

Rigid Pavement Design/Evaluation

Concrete Thickness	8.80 inches	Load Transfer Coefficient	3.60
Total Rigid ESALs	3,250,000	Modulus of Subgrade Reaction	200 psi/in.
Reliability	95.00 percent	Drainage Coefficient	1.00
Overall Standard Deviation	0.34	Initial Serviceability	4.50
Flexural Strength	650 psi	Terminal Serviceability	2.00
Modulus of Elasticity	3,500,000 psi		

Modulus of Subgrade Reaction (k-value) Determination

Resilient Modulus of the Subgrade	0.0
Unadjusted Modulus of Subgrade Reaction	1
Depth to Rigid Foundation	0.00
Loss of Support Value (0,1,2,3)	0.0

Modulus of Subgrade Reaction	200 psi/in.
------------------------------	-------------



1110 Elkton Drive, Suite B
 Colorado Springs, CO 80917

Overlay Design - existing AC on PCC (Composite)

Condition Survey Method, AASHTO Page III-125 to III-135

Existing Pavement Section

$D_{ac} =$ **5.0** in
 $D_{pcc} =$ **4.5** in
 Milling Depth **2.0** in

Condition Coefficients **

F_{ac} **0.95**
 F_{jc} **0.95**
 F_{dur} **0.95**
 J Factor **3.6**
 C_d **1**

Estimated
 D_{eff}
5.49

** Estimate factors with tables at right and below

Terminal Serviceability **2**
 Traffic, ESALs (design) ** **3,250,000**

Subgrade k **200** pci

$D_f =$ **9.04**
 Reliability = **95%**
 Standard Deviation = **0.34**
 Servicability Loss = **2.5**
 Concrete Compressive Strength = **4500** psi
 Modulus of Elasticity of Concrete = **3,824** ksi
 Modulus of Rupture of Concrete = **627** psi

Solve for D_f

AC Overlay Thickness = $A*(D_f - D_{eff}) =$ **6.41** inches

ref: Page III-135 AASHTO



SCHEDULE K – NOTIFICATION OF UTILITES

General Information

It is the responsibility of the Contractor to notify all applicable utilities (including, but not limited to Colorado Springs Utilities) for utility locations at least two business days or twenty-four hours prior to commencing any work. Should any street be closed off for any amount of time, the Contractor must notify the Traffic Department. See the City of Colorado Springs Standard Specifications General Provisions for more information regarding utilities.

The City of Colorado Springs Standard Specifications and General Provisions indicated on the IFB for this project are included by reference. The above document may be reviewed or purchased at the City Administration Building, Engineering Division, at 30 South Nevada, Suite 403, Colorado Springs, Colorado, between the hours of 8:00 A.M. and 5:00 P.M., Monday through Friday, except holidays.

Telephone References

- | | |
|---|----------------|
| 1. Utility Notification Center of Colorado | 1-800-922-1987 |
| 2. Colorado Springs Utilities Electric | (719) 448-4811 |
| 3. Colorado Springs Utilities Water, Wastewater | (719) 448-4200 |
| 4. Traffic Department | (719) 385-5908 |
| 5. Colorado Springs Utilities Gas Emergencies | (719) 520-0100 |
| 6. Cable Television | (719) 633-6616 |
| 7. Telephone | 1-800-954-0211 |

Standard Utility Color Code

- | | |
|----------------|--------|
| 1. Natural Gas | Yellow |
| 2. Electric | Red |
| 3. Water | Blue |
| 4. Wastewater | Green |

Contractor Responsibilities

1. Contact Colorado Springs Utilities, and/or other applicable utilities company or provider, at least twenty-four hours prior to starting the project so that our service inspector can make contact on the job site.
2. All replacement taps will have to be coordinated and notification must be given to Colorado Springs Utilities twenty-four hours prior to scheduling.
3. Any water interruption to properties involved must be notified at least twenty-four hours prior to shut down and coordinated with a service inspector.
4. If in the event a property or business is involved that cannot be without water the Contractor will be responsible for keeping them in water while the shutdown is in effect.
5. If for any reason when water is restored after the shutdown that a property has no water and Colorado Springs Utilities is contacted to determine the problem, the Contractor will be responsible for digging, regardless of the time of day to restore service. Contractor must



provide Colorado Springs Utilities with a name and telephone number of an after-hours contact in case of emergency.

6. All services which would be replaced will have to meet our water specifications and be approved by the Water service inspector.
7. All materials pertaining to lowering or replacing water service lines, regardless of size, will be the responsibility of the Contractor unless otherwise specified in Engineering Specifications and Plans.
8. If for any reason it would not be feasible to shut down and notify affected properties, it would be the responsibility of the Contractor to provide temporary water for the houses or businesses involved.

Pre –excavation Checklist

Indicate all gas and other utility lines a set of construction plans.

Notify City of Colorado Springs Underground Utility Line Locators at least two business days in advance at the division numbers listed above.

Utilities locations should be marked on the ground by City Locators.

All employees should be briefed on the marking and the standard utility color codes.

Employees should be trained on excavation and safety procedures for natural gas lines.

When excavation approaches gas lines, employees should expose lines by careful hand digging and probing.

Contact the City Forester for any tree protection requirements that may be included on contract specifications



SCHEDULE L – PLAN SET

Will be added after this page.

Schedule L-Plan Set



CITY OF COLORADO SPRINGS PUBLIC WORKS / CITY ENGINEERING CAPITAL IMPROVEMENT GROUP 30 S. NEVADA AVENUE, SUITE 401 COLORADO SPRINGS, CO 80903

PROJECT CONTACTS:

ENGINEER & LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATES, INC.
2 NEVADA NORTH AVE., SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 720.897.6306
CONTACT: ERIC GUNDERSON, P.E.

SUE SURVEYOR
FARNSWORTH GROUP
5775 MARK DABLING BOULEVARD
SUITE 190
COLORADO SPRINGS, CO 80919
PHONE: 719.590.9194
CONTACT: LORELEI WARD, PLS

AGENCY CONTACTS

CITY OF COLORADO SPRINGS ENGINEERING
30 SOUTH NEVADA AVENUE, SUITE 401
COLORADO SPRINGS, CO 80901
PHONE: 719.385.5546
CONTACT: TYRA SANDY
EMAIL: TYRA.SANDY@COLORADOSPRINGS.GOV

COLORADO SPRINGS UTILITIES
1521 HANCOCK EXPRESSWAY, MAIL CODE 1812
COLORADO SPRINGS, CO 80903
PHONE: 719.668.8769

CONTACT (GAS): TIM BENEDICT AND GINNY HALVORSON
EMAIL: TBENEDICT@CSU.ORG AND GHALVORSON@CSU.ORG
PHONE: 719.668.5567

CONTACT (ELECTRIC): MARY HOGLAND
EMAIL: MHOGLAND@CSU.ORG

COLORADO SPRINGS FIRE DEPARTMENT
375 PRINTERS PARKWAY
COLORADO SPRINGS, CO 80910
PHONE: 719.385.2233
EMAIL: JACOB.WATSON@COLORADOSPRINGS.GOV
CONTACT: JACOB WATSON

CENTURY LINK
EMAIL: JORDAN.ADAMS@CENTURYLINK.COM
CONTACT: JORDAN ADAMS

COMCAST CONSTRUCTION
EMAIL: TOD_BELL@COMCAST.COM
CONTACT: TOD BELL

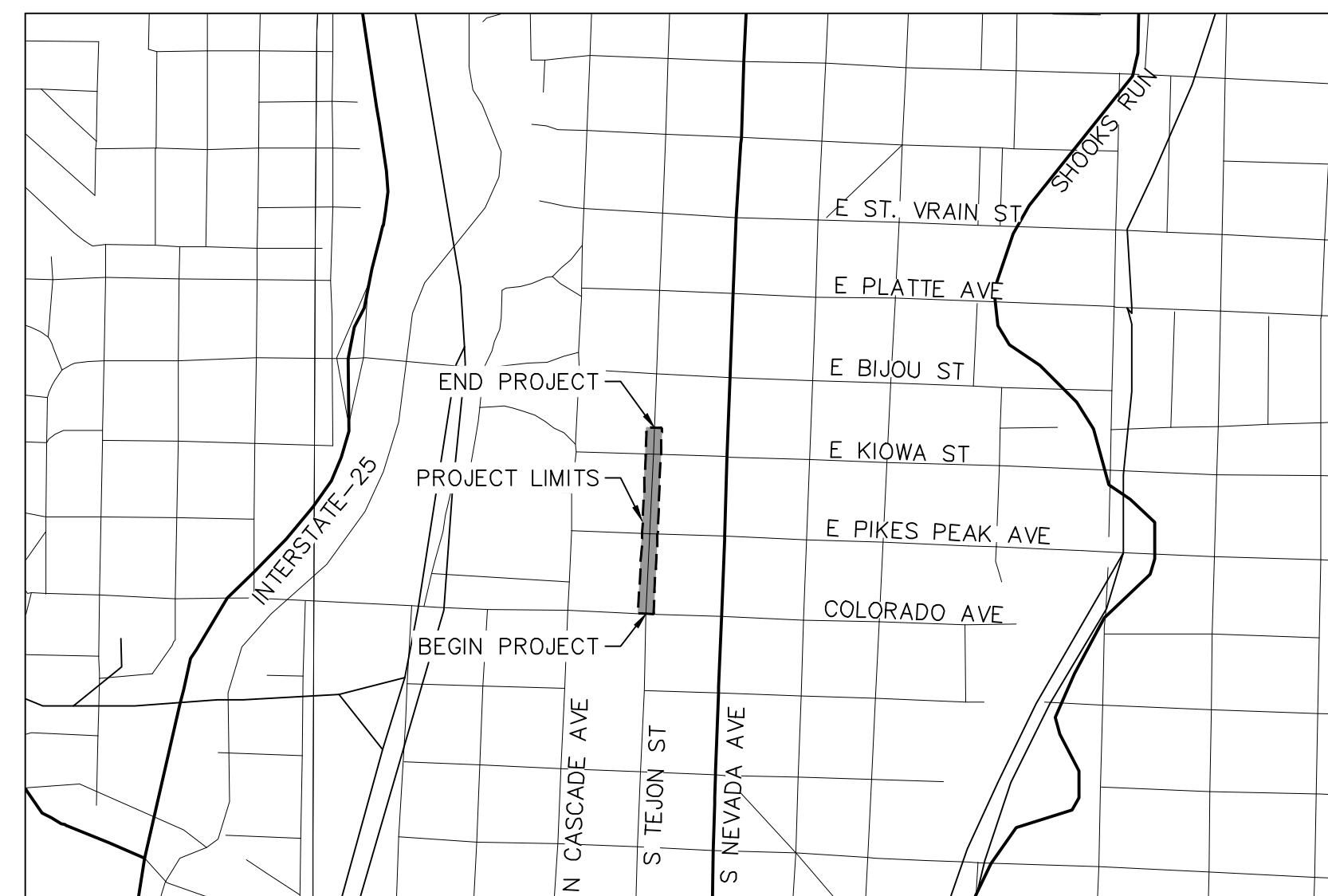
LUMEN
EMAIL: RMCLEOD@TERRATECHLLC.NET
CONTACT: ROBERT MCLEOD
PHONE: 303.949.2187

ENGINEER CERTIFICATION
PREPARED UNDER MY DIRECT SUPERVISION

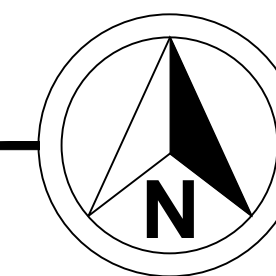
ERIC J. GUNDERSON, COLORADO P.E. #49487 DATE _____
FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.
THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN
ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY
HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL
REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180
DAYS AFTER THE REVIEW DATE.

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	LEGEND
3	STANDARD NOTES
4	BID ALTERNATE PLAN
5-6	SUMMARY OF APPROXIMATE QUANTITIES
7-9	GEOMETRIC LAYOUT
10-13	REMOVAL AND RESET
14	TYPICAL SECTIONS
15-18	PAVING PLAN
19-24	PLAN AND PROFILE
25-33	GRADING PLAN
34-47	CROSS SECTIONS
48-49	UTILITY PLAN
50-51	STORM PLAN AND PROFILE
52-56	HDS DETAILS
57-60	SIGNING AND STRIPING
61-62	TRAFFIC SIGNAL
63-67	CONSTRUCTION DETAILS AND PHASING
68-70	LANDSCAPE PLAN
71-77	HARDSCAPE PLAN
78-81	IRRIGATION PLAN

FOR ADVERTISEMENT PLANS FOR PROPOSED TEJON STREET REVITALIZATION CITY OF COLORADO SPRINGS EL PASO COUNTY, COLORADO FOR ADVERTISEMENT



VICINITY MAP
SCALE: 1" = 1000'



REVIEWED BY:

CITY ENGINEERING

BY: _____ DATE: _____

CITY TRAFFIC ENGINEERING

BY: _____ DATE: _____

CITY OPERATIONS AND MAINTENANCE DIVISION

BY: _____ DATE: _____

CENTURY LINK COMMUNICATIONS

BY: _____ DATE: _____

COMCAST CABLE

BY: _____ DATE: _____

5/24/2024

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-NOTES.dwg - Kramer, Michael - 5/22/2024 10:48 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. GAS LINE	
EX. ELECTRIC LINE	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. STORM LINE & MH	
EX. HYDRANT, VALVE	
EXISTING ROW	
EX. VEGETATION	
EX. LOT LINE	
EX. FENCE	
MAILBOX	
SITE BENCHMARK	
FOUND CONTROL POINT	
SANITARY MANHOLE	
STORM MANHOLE	
STORM INLET	
LIGHT POLE	
ELECTRIC TRANSFORMER	
ELECTRIC BOX	
GUY WIRE	
UTILITY POLE	
FIBER OPTIC PEDESTAL	
TELEPHONE VAULT	
TELEPHONE PEDESTAL	
TELEPHONE MARKER	
GAS METER	
GAS TEST STATION	

ABBREVIATIONS

AL	ALIGNMENT	MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
AC	ASPHALT CONCRETE	NTS	NOT TO SCALE
APPROX	APPROXIMATE OR APPROXIMATELY	PC	POINT OF CURVATURE
BP OR BOP	BEGINNING OF PROJECT	PCC	POINT OF COMPOUND CURVATURE
BOC	BACK OF CURB	PCR	POINT OF REVERSE CURVATURE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	PGL	PROFILE GRADE LINE
CL	CENTERLINE	PI	POINT OF INTERSECTION
CLR	CLEARANCE	P/L	PROPERTY LINE
CONC	CONCRETE	POB	POINT OF BEGINNING
DWG	DRAWING	POE	POINT OF ENDING
DR	DRIVE	P/S	PAVED SHOULDER
EA	EACH	PROP.	PROPOSED
EP OR EOP	END OF PROJECT	PT	POINT OF TANGENCY
ECR	END CURB RADIUS	PVC	POINT OF VERTICAL CURVE OR POLYVINYL CHLORIDE
ELEV OR EL	ELEVATION	PVI	POINT OF VERTICAL INTERSECTION
ESMT	EASEMENT	PVMT	PAVEMENT
EW	EACH WAY	PVT	POINT OF VERTICAL TANGENT
EX	EXISTING	RAD	RADIUS, OR CENTER OF RADIUS
FES	FLARED END SECTION	RCP	REINFORCED CONCRETE PIPE
FL	FLOWLINE	R/W	RIGHT-OF-WAY
FT	FOOT/FEET	RT	RIGHT
HMA	HOT MIX ASPHALT	ST	STREET
HCL	HORIZONTAL CONTROL LINE	STA	STATION
K	VERTICAL CURVE RATIO	STD	CITY OF COLORADO SPRINGS STANDARD SPECIFICATION
LT	LEFT	SW OR S/W	SIDEWALK
ME	MATCH EXISTING	TBC	TOP BACK OF CURB
MAX	MAXIMUM	TYP	TYPICAL
MIN	MINIMUM	WQ	WATER QUALITY

MISC. ABBREVIATIONS

@	AT
∅	PHASE, DIAMETER
&	AND
'	FEET, MINUTES
"	INCHES, SECONDS
.	DEGREE
#	NUMBER
CL	CENTERLINE

GENERAL NOTES:

- THIS IS A STANDARD DRAWING SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH DRAWING FOR USAGE.
- THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
- LISTING OF ABBREVIATIONS DOES NOT IMPLY THAT ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
- ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF A WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION; "INC" MAY MEAN INCLUDED OR INCLUDING AND "REINF" MAY MEAN EITHER REINFORCE OR REINFORCING.

PRINT DATE: May 22, 2024 DRAWING FILE NAME: HORIZ. SCALE: VERT. SCALE:	SHEET REVISIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">DATE:</th> <th style="width: 60%;">COMMENTS:</th> <th style="width: 25%;">INITIAL:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">(R-X)</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">(R-X)</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">(R-X)</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">(R-X)</td> <td></td> <td></td> </tr> </tbody> </table>	DATE:	COMMENTS:	INITIAL:	(R-X)			(R-X)			(R-X)			(R-X)			 COLORADO SPRINGS PUBLIC WORKS 30 SOUTH NEVADA AVE. COLORADO SPRINGS, COLORADO 80901 PHONE: (719) 385-5918	<div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;"> PRELIMINARY FOR REVIEW ONLY NOT FOR CONSTRUCTION Kimley-Horn and Associates, Inc. </div>	TEJON STREET REVITALIZATION LEGEND <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">CHECKED BY:</td> <td style="width: 20%;">EJG</td> <td style="width: 50%;"></td> </tr> <tr> <td>DESIGNED BY:</td> <td>MJK</td> <td></td> </tr> <tr> <td>SHEET SUBSET:</td> <td></td> <td>SUBSET SHEET:</td> </tr> </table>	CHECKED BY:	EJG		DESIGNED BY:	MJK		SHEET SUBSET:		SUBSET SHEET:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">PROJECT NO./CODE</td> <td style="text-align: center;">067607114</td> </tr> <tr> <td style="text-align: center;">SHEET NUMBER</td> <td style="text-align: center;">2</td> </tr> </table>	PROJECT NO./CODE	067607114	SHEET NUMBER	2
DATE:	COMMENTS:	INITIAL:																															
(R-X)																																	
(R-X)																																	
(R-X)																																	
(R-X)																																	
CHECKED BY:	EJG																																
DESIGNED BY:	MJK																																
SHEET SUBSET:		SUBSET SHEET:																															
PROJECT NO./CODE	067607114																																
SHEET NUMBER	2																																



GENERAL NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS AND CDOT GENERAL PROVISIONS, SPECIAL PROVISIONS, STANDARD SPECIFICATIONS, REVISIONS TO STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS.
- THE APPROVAL OF THESE PLANS OR ISSUANCE OF A PERMIT BY THE CITY OF COLORADO SPRINGS DOES NOT AUTHORIZE THE OWNER OR CONTRACTOR TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES.
- APPROVAL OF THESE PLANS BY THE CITY DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL ALL PERMITS HAVE BEEN ISSUED.
- CONTRACTOR SHALL PREPARE A DETAILED TRAFFIC CONTROL PLAN, SUBMIT TO CITY ENGINEERING FOR APPROVAL, AND OBTAIN APPROPRIATE PERMITS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
- THE CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE STANDARDS AND SPECIFICATIONS ON SITE FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL HAVE A COPY OF THE LATEST APPROVED PLANS ON SITE.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF COLORADO SPRINGS AND THE ENGINEER.
- THE ENGINEER SHALL BE NOTIFIED WITHIN 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYING AND CONSTRUCTION STAKING FOR THE PROJECT. ALL GRADING AND SURFACING SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS.
- THE PHYSICAL FEATURES WITHIN THE LIMITS OF THE PROJECT HAVE BEEN SHOWN BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FEATURES SHOWN. THE CONTRACTOR SHALL REVIEW AND VERIFY EXISTING PHYSICAL FEATURES AND ELEVATIONS AND INFORM THE ENGINEER OF THE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 1-800-922-1987 THREE BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION OR GRADING. FOR A LIST OF SPECIFIC CONTACTS SEE COVER SHEET. ALL COSTS ASSOCIATED WITH THE LOCATION AND VERIFICATION OF EXISTING UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CONSTRUCTION STORM WATER MANAGEMENT PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT AND THE CITY OF COLORADO SPRINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A PROPER SWMP AND ECQCP IN ACCORDANCE WITH CITY AND STATE STANDARDS.
- NO FIELD CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER.
- ALL CONSTRUCTION IS TO INCLUDE COMPACTION AND FINISH GRADING IN THE UNIT PRICE OF RELATED WORK ITEM. SEE COS STANDARD SPECIFICATIONS SECTION 205 FOR SUBGRADE COMPACTION REQUIREMENTS..
- ALL WORK SHALL BE DONE TO THE LINES, GRADES, SECTIONS, AND ELEVATIONS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.
- DIMENSIONS AND RADII ARE SHOWN TO THE FLOWLINE UNLESS OTHERWISE NOTED.
- ANY DISCREPANCY WITHIN THESE PLANS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND WORK SHALL STOP UNTIL THE DISCREPANCY IS DISCUSSED AND DECISIONS/AGREEMENTS HAVE BEEN MADE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO THE START OF WORK. THIS WORK IS TO BE CONSIDERED AN INCIDENTAL ITEM AND THE COST OF THIS ITEM IS TO BE INCLUDED IN OTHER PAY ITEMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING OF BOTH HORIZONTAL AND VERTICAL LAYOUT ON THIS PROJECT. COORDINATES ARE REFERENCED ON THE GEOMETRIC LAYOUT PLAN SHEET. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER FOR INTERPRETATION AND INFORMATION IN STAKING OF THE PROJECT FOR CONSTRUCTION.
- PRIOR TO PROJECT COMPLETION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PROPERTY DISTURBED OR REMOVED BY CONSTRUCTION OPERATIONS. THIS WORK SHALL BE PERFORMED BY A LAND SURVEYOR LICENSED IN THE STATE OF COLORADO. PROPERTY CORNERS WHICH FALL WITHIN NEW CONCRETE FLATWORK SHALL BE DURABLE AND SET FLUSH. THIS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- SUBMITTALS SHALL BE MADE TO THE ENGINEER FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT.
- PAY ITEMS LISTED IN THE BID SCHEDULE ARE THE ONLY PAY ITEMS FOR THE PROJECT. REFER TO PROJECT SPECIFICATIONS FOR PAY ITEM DESCRIPTIONS AND MEASUREMENT. ANY OTHER ITEMS NECESSARY FOR A COMPLETE PROJECT, BUT NOT SHOWN IN THE BID SCHEDULE SHALL BE CONSIDERED AN INCIDENTAL ITEM AND ITS' COST TO BE INCLUDED IN OTHER ITEMS.
- THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO BIDDING PROJECT. ALL UTILITY LOCATIONS SHOWN ARE APPROXIMATE, EXCEPT AS NOTED.
- THE CONTRACTOR SHALL CLOSELY MONITOR ACCESS FOR HEAVY CONSTRUCTION EQUIPMENT THROUGH THE PROJECT.
- THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY TRAFFIC CONTROL DEVICES NECESSARY THROUGHOUT THE DURATION OF CONSTRUCTION.
- THE CONTRACTOR SHALL LIMIT ALL WORK AND STORAGE AREAS TO THE PUBLIC RIGHT-OF-WAYS. USE OF ANY PRIVATE AREAS FOR THIS PROJECT BY THE CONTRACTOR MUST BE APPROVED IN WRITING BY THE PROPERTY OWNER WITH A COPY OF THIS

- APPROVAL PROVIDED TO THE CITY OF COLORADO SPRINGS AND THE ENGINEER. PRIOR TO USAGE.
- THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND WITHIN ROW AS SHOWN ON THE PLANS AND CROSS SECTIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT HIS/HER OWN EXPENSE.
 - THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL ON PRIVATE PROPERTY UNLESS WRITTEN APPROVAL BY PROPERTY OWNER IS OBTAINED AND PROVIDED.
 - ALL WRITTEN SCALES ON PLANS ARE AT FULL SIZE PLAN SHEET SIZE (22"x34").

ENVIRONMENTAL NOTES:

- THE CONTRACTOR AND/OR HIS AUTHORIZED AGENTS SHALL REMOVE ALL SEDIMENTS, MUD, AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE FLOWLINES AND PUBLIC RIGHTS OF WAY AS A RESULT OF THIS CONSTRUCTION PROJECT. SAID REMOVAL SHALL BE CONDUCTED IN A TIMELY MANNER. SEDIMENT REMOVAL IS CONSIDERED INCIDENTAL TO THE OTHER EROSION CONTROL BID ITEMS.
- THE CONTRACTOR MUST KEEP ALL POLLUTANTS, INCLUDING TRENCH BACKFILL MATERIAL, FROM WASHING INTO THE STORM SEWER SYSTEM OR ADJACENT DRAINAGE UNITS.
- WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. THE COST OF WATER SHALL BE INCIDENTAL TO OTHER BID ITEMS.
- A HAZARDOUS MATERIALS MANAGEMENT (MMP) IS REQUIRED TO ADDRESS WORKER SAFETY AND EXCAVATION, REMOVAL, AND CLEANUP IF CONTAMINATION IS ENCOUNTERED. IF SOIL AND/OR GROUNDWATER CONTAMINATION IS ENCOUNTERED, WORK WILL STOP IMMEDIATELY, AND THE PROCEDURES OUTLINED IN THE CONTRACTOR'S MMP AND CDOT SPECIFICATION 250 SHALL BE FOLLOWED.
- SHOULD CULTURAL DEPOSITS BE FOUND DURING CONSTRUCTION, WORK SHALL CEASE IN THE AREA AND CDOT'S SENIOR ARCHAEOLOGIST SHOULD BE CONTACTED.

PAVING NOTES:

- WHERE PROPOSED PAVEMENT IS TO ABUT EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE REMOVED TO A NEAT VERTICAL LINE BY FULL DEPTH SAW CUT LOCATED 6 INCHES TO 2 FEET FROM THE EXISTING EDGE OF PAVEMENT. THE CONTRACTOR WILL BE REQUIRED TO PAINT THE EDGE OF CUT PAVEMENT WITH DILUTED EMULSIFIED ASPHALT (SLOW SETTING) PRIOR TO PAVING OPERATIONS. VERTICAL EDGES SHALL NOT REMAIN OVERNIGHT. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF ONE PART EMULSIFIED ASPHALT AND ONE PART WATER.
- ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACE.
- BEFORE PLACEMENT OF THE TACK COAT, THE CONTRACTOR SHALL CLEAN THE PRESENT ROADWAY. CLEANING WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT.
- A TACK COAT OF EMULSIFIED ASPHALT (SLOW SETTING) IS TO BE APPLIED BETWEEN PAVEMENT COURSES. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER. TACK COAT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT.
- THE FOLLOWING SHALL BE FURNISHED WITH EACH BITUMINOUS PAVER. THIS DEVICE SHALL BE USED ON ALL PASSES AND LIFTS OF BITUMINOUS PAVEMENT PLACED
 - A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH.
 - SHORT SKI OR SHOE.
 - CONTROL LINE AND STAKES, SUFFICIENT FOR EACH PHASE OF THE PROJECT.

SIGNAGE AND STRIPING NOTES:

- ALL TRAFFIC SIGNS, PAVEMENT MARKINGS, AND TRAFFIC SIGNALS SHALL CONFORM TO THE MOST RECENT ADOPTED EDITION OF THE FOLLOWING MANUALS AND THEIR SUPPLEMENTAL AMENDMENTS:
 - MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
 - CITY OF COLORADO SPRINGS SIGNS AND MARKING GUIDELINES
 - CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS
 - CITY OF COLORADO SPRINGS PUBLIC WORKS DESIGN MANUAL
- ALL SIGNAGE AND STRIPING OR INSTALLATION AND/OR REMOVAL IS SUBJECT TO THE APPROVAL OF THE CITY TRAFFIC ENGINEER . THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING SIGNS, PAVEMENT MARKINGS DURING THE PROJECT WITHOUT SIGNED AUTHORIZATION OF THE CITY ENGINEERING INSPECTOR ASSIGNED TO THE PROJECT.
- SIGN POSTS SHALL BE INSTALLED WITH A MINIMUM 1 3/4" X1 3/4" X 10' SQUARE PERFORATED STEEL SQUARE TUBING WITH A 2" X2" X3' SLEEVE OR A 2" X 2" X 10' SQUARE PERFORATED STEEL TUBING PER CITY OF COLORADO SPRINGS STANDARD. STREET NAME SIGNS MEASURING 9"OR TALLER SHALL BE MOUNTED ON A 2" X 2"X 10' SQUARE PERFORATED STEEL TUBING WITH SLEEVE PER CITY OF COLORADO SPRINGS STANDARD.
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM OF HIGH INTENSITY GRADE SHEETING
- ANY DEVIATION FROM THE SIGNAGE AND STRIPING PLANS SHALL BE APPROVED BY THE ENGINEER OF WORK AND THE CITY TRAFFIC ENGINEER PRIOR TO ANY CHANGES BEING MADE IN THE FIELD.
- ALL PROPOSED AND EXISTING SIGNS SPECIFICALLY INDICATED TO BE RESET SHOWN ON THE SIGNAGE AND STRIPING PLAN SHALL HAVE NEW BREAK AWAY SIGN POSTS PROVIDED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR SIGNS INDICATED TO REMAIN.
- ALL LIMIT LINES/STOP LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM OF 90 MIL THICKNESS THERMOPLASTIC OR PERFORM PLASTIC TAPE.
- ALL LONGITUDINAL LINES SHALL BE A MINIMUM OF 15 MIL THICKNESS EPOXY.
- CONTRACTOR SHALL NOTIFY CITY TRAFFIC ENGINEER AT (719)-322-2036 A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO AND UPON COMPLETION OF SIGNAGE AND PAVEMENT MARKINGS INSTALLED.

UTILITY NOTES:

- EXISTING UTILITY LINES ARE SHOWN ON THE PLAN SHEETS AND ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION AND PROTECTION OF ALL UTILITIES IN PLACE.
- THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL UTILITIES AND STRUCTURES AFFECTED BY THE WORK AND ANY DAMAGE SHALL BE REPAIRED AND RESTORED TO THE SATISFACTION OF THE CITY OF COLORADO SPRINGS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS AS NECESSARY. THE CITY ENGINEERING INSPECTIONS AND UTILITY DEPARTMENTS SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK WHERE THESE DEPARTMENTS MAY BE AFFECTED.
- THE CONTRACTOR SHALL NOTIFY COLORADO SPRINGS UTILITIES AT LEAST 48 HOURS IN ADVANCE OF RESETTING ANY SANITARY STRUCTURES.
- THE CONTRACTOR SHALL NOTIFY COLORADO SPRINGS UTILITIES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION NEAR ANY GAS FACILITIES. COLORADO SPRINGS UTILITES WILL RELOCATE THE GAS SERVICES REQUIRED ON AN AS NEEDED BASIS.
- EXCAVATION AT GAS LINES: TEMPORARY COVER DURING CONSTRUCTION SHALL BE AT LEAST 18 INCHES OVER THE GAS CONDUIT. FINISH GRADE MUST BE AT LEAST 2 FEET AND NO MORE THAN 6 FEET OVER THE GAS CONDUIT.
- ALL WORK DONE ON OR AROUND COLORADO SPRINGS UTILITIES MUST BE INSPECTED BY A WATER DEPARTMENT INSPECTOR. THE CONTRACTOR IS REQUIRED TO NOTIFY COLORADO SPRINGS WATER UTILITIES (719-377-0309) TWO WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.
- IN SOME OF THE PROPOSED AREAS OF CONSTRUCTION EXISTING UNDERGROUND TELEPHONE AND CABLE TELEVISION FACILITIES MAY BE LOCATED IN CLOSE PROXIMITY TO THE WORK. THE CONTRACTOR MAY, IF NECESSARY TEMPORARILY DISPLACE THE CABLES DURING CONSTRUCTION AND REINSTALL THEM IN ACCORDANCE WITH THE APPROPRIATE TELEPHONE OR CABLE TELEVISION COMPANY'S GUIDELINES. COORDINATION WITH BOTH THE TELEPHONE AND THE CABLE TELEVISION COMPANY IS REQUIRED TO BE DONE BY THE CONTRACTOR. LUMEN-CENTURY LINK (303-949-2187)
- THE CONTRACTOR SHALL AT THEIR EXPENSE, SUPPORT AND PROTECT ALL WATER MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION EXCEPT THOSE DESIGNATED TO BE TEMPORARILY SHUT DOWN. TEMPORARY WATER SERVICE DISRUPTION SHALL BE DONE TO MINIMIZE THE EFFECTS ON COLORADO SPRINGS UTILITIES CUSTOMERS. SHOULD A WATER MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATIONS, IT WILL BE REPAIRED IMMEDIATELY BY EITHER THE CONTRACTOR OR THE WATER RESOURCES DEPARTMENT AT THE FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR. COLORADO SPRINGS WATER UTILITIES (719-377-0309)
- EXISTING AND PROPOSED JUNCTION BOX LIDS, WATER VALVE BOXES, SANITARY SEWER, OR STORM SEWER MANHOLE LIDS SHALL BE RAISED TO MATCH PROPOSED GRADE AS INDICATED ON THE PLANS.
- CONTRACTOR-CAUSED DAMAGE TO UTILITY AND/OR SERVICE LINES, SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE REPAIRED OR REPLACED AT NO COST TO THE CITY OF COLORADO SPRINGS AND SHALL BE ACCOMPLISHED BY THE CONTRACTOR. SUBCONTRACTOR OR AS APPROVED BY THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK IN THE PROJECT AREA. LIKEWISE, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS/HER WORK AND THAT OF THE INVOLVED UTILITIES IN THE PROJECT AREA.
- THE CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS AND INCLUDE THIS TIME IN THEIR SCHEDULE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DRIVEWAY WORK WITH THE RESPECTIVE PROPERTY OWNERS AND TENANTS, IF PROPERTY IS RENTED. EXISTING ASPHALT AND GRAVEL DRIVEWAYS SHALL BE REPLACED PER CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS.
- THE PHYSICAL FEATURES REQUIRING REMOVAL OR OBLITERATION WITHIN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND ASPHALT BE DISPOSED OF OFF-SITE. THE EXCEPTION IS TRAFFIC CONTROL DEVICES, WHICH SHALL BE SALVAGED AND DELIVERED TO THE CITY SHOP FOR CITY MAINTENANCE.
- ANY SURPLUS EXCAVATION TO INCLUDE BUT NOT LIMITED TO THE REMOVAL OF LANDSCAPING SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND DISPOSAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AT NO ADDITIONAL COST.
- THE CLEANING OF CONCRETE TRUCK DELIVERY CHUTES IS PROHIBITED AT THE JOB SITE UNLESS IN AN APPROVED WASHOUT. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER IS PROHIBITED.

CONSTRUCTION NOTES:

SUBSURFACE UTILITY ENGINEERING (SUE)

- SUE INVESTIGATION WAS PERFORMED BY FARNSWORTH GROUP, INC. AND SUBMITTED TO THE ENGINEER ON MARCH 04, 2024.
- ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION. THE ENGINEER/SUE MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER/SUE FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. PUBLIC UTILITY LOCATE REQUEST WAS MADE UNDER TICKET NO. <XXXXX-XXXX> DATED <MONTH> XX, 202X AND TICKET NO. <XXXXX-XXXX> DATED <MONTH> XX, 202X. THIS SITE WAS LOCATED BY STANDARD RF METHODS.
- ALL SURVEYED MANHOLES, INVERTS AND CULVERTS WITH ELEVATIONS DEPICTED ARE ASCE 38-02 "QUALITY LEVEL A" UNLESS NOTED OTHERWISE.
- SITE BENCHMARK: CS 100, PID: DL2014, A STAINLESS STEEL ROD IN SLEEVE WITH CDOT LOGO, STAMPED CS 100, 2007. ELEVATION = 5968.54' (NAVD 88).
- FIELD WORK FOR THIS SURVEY WAS COMPLETED IN MAY OF 2023.
- ALL SERVICES ARE MODELED USING RTK GPS SURVEYED LOCATIONS FROM SITE MARKINGS AS LOCATED BY FARNSWORTH GROUP, INC.
- THIS PLAN HAS BEEN PREPARED FOR DESIGN ONLY. ALL SERVICES MUST BE LOCATED/POTHOLED BY THE CONTRACTOR PRIOR TO EXCAVATION OR CONSTRUCTION.
- ALL LEVELS NOTED, REFER TO EXISTING GROUND LEVEL WHERE SURVEY WAS TAKEN. DEPTH INDICATORS NOTED DOWN TO SERVICE, REPRESENT APPROXIMATE, DEPTH TO TOP OF SERVICE, AS MARKED UP ON SITE.
- BOUNDARIES HAVE BEEN SHOWN IN AN APPROXIMATE WAY ONLY, INFORMATION OBTAINED FROM OVERLAYS AND/OR IMAGES MAY BE USED AS A GUIDE ONLY.
- SURVEY IS RELATIVE TO (NAD83) MODIFIED COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (0502), COMBINED SCALE FACTOR OF 1.000342832. SCALING IS BASED ON SITE BENCHMARK.
- QUALITY LEVEL DEFINITIONS AS PER ASCE 38-02
- THE CONTRACTOR MAY REQUEST A COPY OF THE SUE REPORT PROVIDED BY FARNSWORTH GROUP AT ANY TIME DURING CONSTRUCTION.
- QL-D INVOLVES UTILITY RECORDS RESEARCH AND INTERVIEWS WITH KNOWLEDGEABLE UTILITY PERSONNEL.
- QL-C INVOLVES SURFACE SURVEY AND IDENTIFYING AND RECORDING ABOVEGROUND FEATURES OF SUBSURFACE UTILITIES, SUCH AS MANHOLES, VALVES, AND HYDRANTS.
- QL-B INVOLVES APPLICATION OF SURFACE GEOPHYSICAL METHODS, SUCH AS EM-BASED LOCATING INSTRUMENTS, GPR, RADAR TOPOGRAPHY, METAL DETECTORS, AND OPTICAL INSTRUMENTS, TO GATHER AND RECORD APPROXIMATE HORIZONTAL (AND, IN SOME CASES, VERTICAL) POSITIONAL DATA.
- QL-A INVOLVES PHYSICAL EXPOSURE VIA SOFT-DIGGING (VACUUM EXCAVATION OR HAND-DIGGING) AND PROVIDES PRECISE HORIZONTAL AND VERTICAL POSITIONAL DATA.

REFER TO THE SURVEY FOR THE FOLLOWING INFORMATION:

BASIS OF ELEVATION: PROJECT ELEVATIONS ARE BASED ON BENCH MARK CS 100, PID: DL2014, A STAINLESS STEEL ROD IN SLEEVE WITH CDOT LOGO, STAMPED CS 100, 2007 WITH A NAVD 88 ELEVATION OF 5968.54 FT, A SECOND ORDER CLASS II BENCHMARK. ELEVATIONS WERE ESTABLISHED USING CS 100 AS A BASE AND GEOID 18 WAS USED TO ESTABLISH ELEVATIONS.

BASIS OF BEARINGS: BEARINGS USED IN THE CALCULATIONS OF COORDINATES ARE BASED ON A GRID BEARING OF N89°28'31"E, 1025.12 FT FROM CONTROL POINT 1 TO CONTROL POINT 2. BOTH MONUMENTS ARE MARKED APPROPRIATELY WITH POINT NUMBER.

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs\CD-NOTES.dwg - Krumer, Michael - 5/22/2024 10:48 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:



KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:
(R-X)		
(R-X)		
(R-X)		
(R-X)		



COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

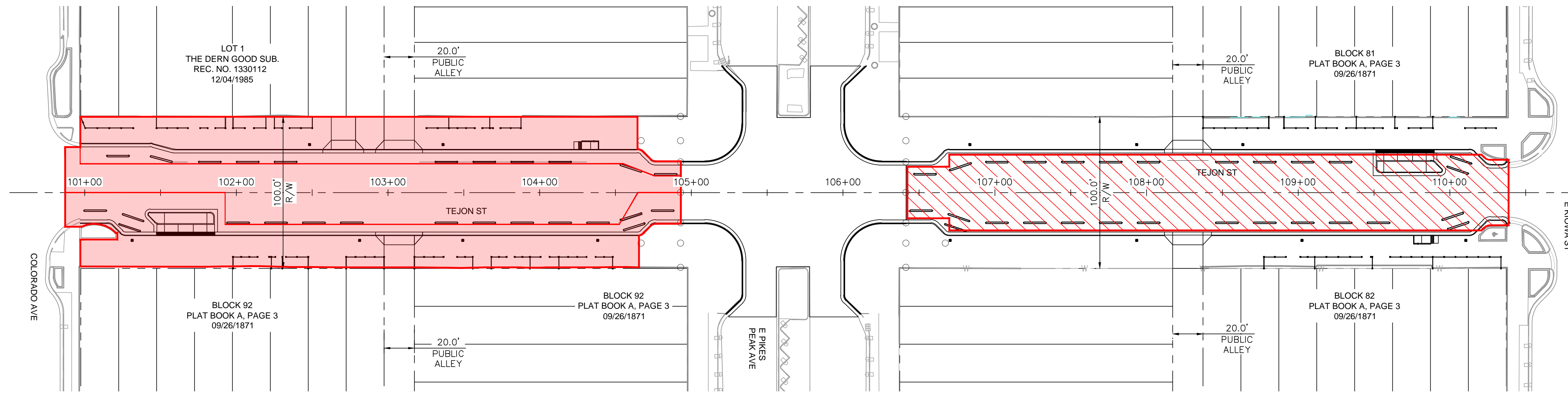


Kimley-Horn and Associates, Inc.

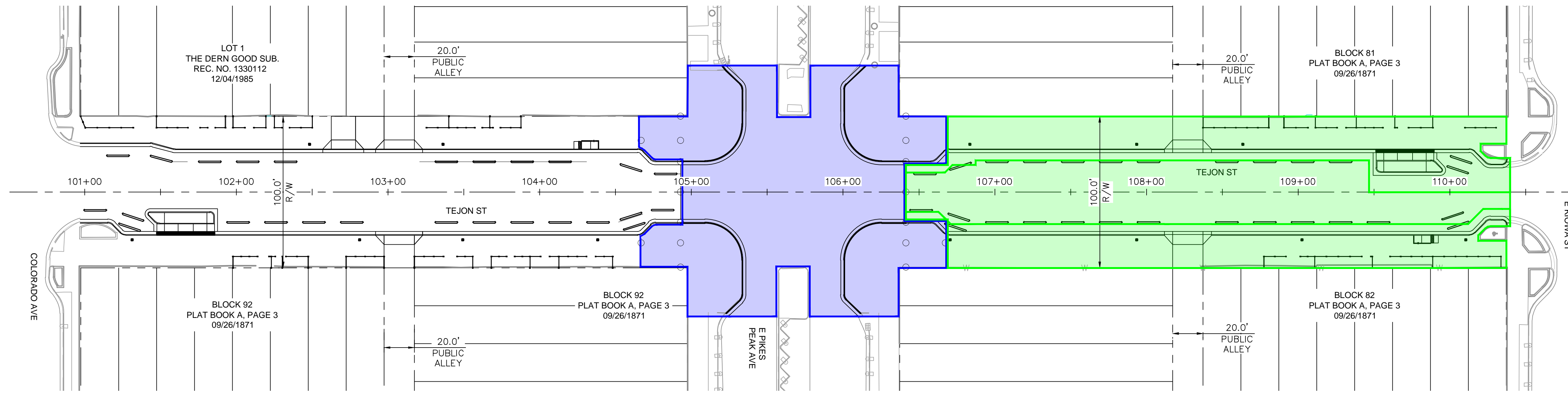
TEJON STREET REVITALIZATION STANDARD NOTES	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 3

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-BID-ALT.dwg Krumer, Michael 5/22/2024 10:48 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



BASE BID (RED)



**BID ALTERNATE A (GREEN)
BID ALTERNATE B (BLUE)**

LEGEND:

- BASE BID LIMITS
- BID ALT. A LIMITS
- BID ALT. B LIMITS
- SLURRY SEAL AND PAVEMENT MARKING (BASE BID ONLY)
- BASE BID PAVEMENT RECON. AND MILL LIMITS
- BID ALT. A PAVEMENT RECON. AND MILL LIMITS
- BID ALT. B PAVEMENT RECON. AND MILL LIMITS

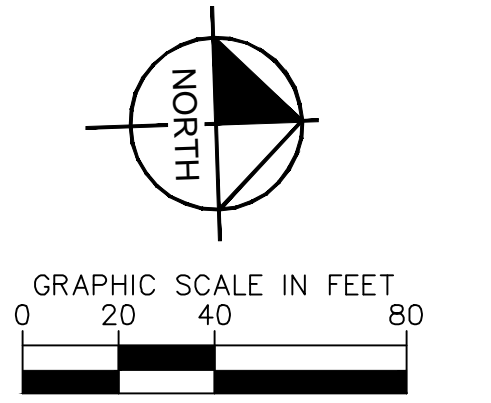
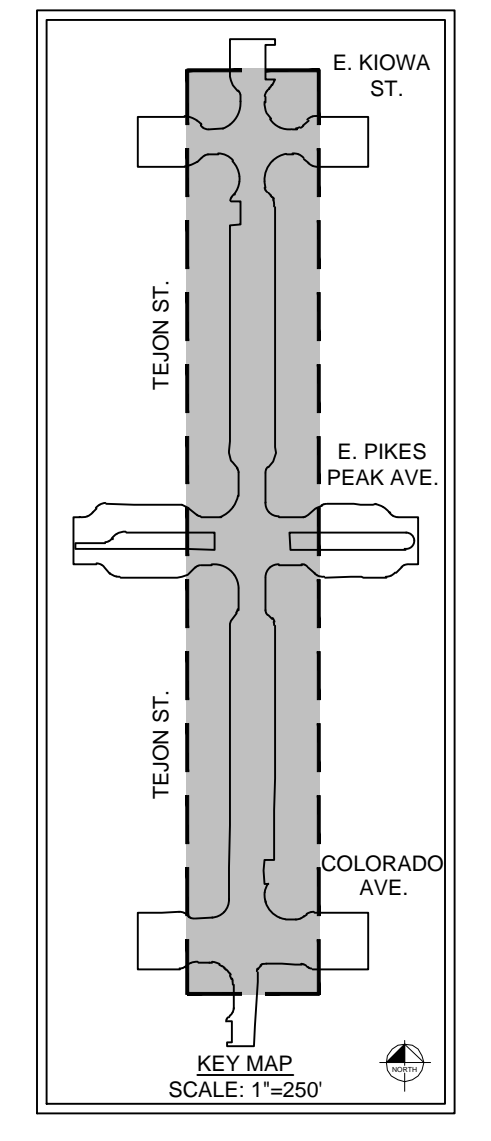
NOTES:

THE PROJECT WILL BE AWARDED BASED ON THE FOLLOWING THREE BID OPTIONS. REFERENCE THE HARDSCAPE PLANS SHEETS 71 TO 72 FOR PAVEMENT TYPE AND LOCATION.

BASE BID: THE BASE BID PACKAGE INCLUDES RECONSTRUCTION OF THE SOUTHERN BLOCK AND MILL AND OVERLAY IN NON-RECONSTRUCTION AREAS BETWEEN COLORADO AVE. AND E. PIKES PEAK AVE. THE BASE BID ALSO INCLUDES PAVEMENT MARKING AND SLURRY SEAL OF THE NORTHERN BLOCK BETWEEN E. PIKES PEAK AVE. AND E. KIOWA STREET. NO WORK TO THE EXISTING SIDEWALK ON THE NORTHERN BLOCK IS INCLUDED IN THE BASE BID. THE CURB AND GUTTER ARE TO REMAIN IN PLACE.

BID ALTERNATE A: BID ALTERNATE A INCLUDES RECONSTRUCTION OF THE NORTHERN BLOCK AND MILL AND OVERLAY IN NON-RECONSTRUCTION AREAS BETWEEN E. PIKES PEAK AVE. AND E. KIOWA STREET.

BID ALTERNATE B: BID ALTERNATE B INCLUDES RECONSTRUCTION OF E. PIKES PEAK AVE. INTERSECTION INCLUDING TRAFFIC SIGNAL IMPROVEMENTS.



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS
OLYMPIC CITY USA

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

Kimley»Horn
Kimley-Horn and Associates, Inc.

**TEJON STREET REVITALIZATION
BID ALTERNATE PLAN**

CHECKED BY: EJG

DESIGNED BY: MJK

SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE

067607114

SHEET NUMBER 4

PK: \\COS\Civil\067607114_Tejon_Street_Improvements\CADD\Plansheets\CDs\CD-NOTES.dwg Kramer, Michael 5/22/2024 1:44 PM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

SUMMARY OF APPROXIMATE QUANTITIES - TEJON ST. REVITALIZATION - BASE BID

CONTRACT ITEM NO.	CONTRACT ITEM	QUANTITY	UNIT	PROJECT TOTALS	
				PLAN	AS CONSTRUCTED
100-00000	MOBILIZATION	1	LS		
108-00016	CONSTRUCTION SURVEYING AND STAKING	1	LS		
202-00000	UNCLASSIFIED EXCAVATION	1500	CY		
203-01597	POTHOLING	50	HOUR		
205-00006	SUBGRADE SOIL PREPARATION (6-INCH)	2490	SY		
220-00001	REMOVAL OF PARKING METER	25	EA		
220-00003	REMOVAL OF BENCH	3	EA		
220-00004	REMOVAL OF LANDSCAPE PLANTER	4	EA		
220-00005	REMOVAL OF TREE (LESS THAN 6" DIA.)	7	EA		
220-00007	REMOVAL OF STORM INLET	2	EA		
220-00008	REMOVAL OF BIKE RACK	5	EA		
220-00009	REMOVAL OF LANDSCAPING GRATE	7	EA		
220-00010	REMOVAL OF TRASH RECEPTACLE	6	EA		
220-00175	REMOVAL OF CONCRETE PAVEMENT	575	SY		
220-00200	REMOVAL OF SIDEWALK	1550	SY		
220-00202	REMOVAL OF CURB AND GUTTER	850	LF		
220-00220	REMOVAL OF ASPHALT MAT (FULL DEPTH)	510	SY		
220-00230	REMOVAL OF ASPHALT MAT (MILLING)	1435	SY		
220-00250	REMOVAL OF PAVEMENT MARKING	2200	SF		
220-00810	REMOVAL OF SIGN POST AND PANEL	5	EA		
220-00820	REMOVAL OF BOLLARD (FLEXIBLE)	5	EA		
220-01001	REMOVAL OF RAILING	250	LF		
220-04000	REMOVAL OF STORM DRAIN (18-24 INCH)	8	LF		
220-05000	ABANDON STORM DRAIN (10-18 INCH)	70	LF		
220-10000	REMOVAL OF WATERLINE (18-INCH)	50	LF		
240-00050	ADJUST FIRE HYDRANT ASSEMBLY (COMPLETE IN PLACE)	2	EA		
240-00860	RESET LIGHT POLE	14	EA		
240-04010	ADJUST STRUCTURE TO GRADE	10	EA		
240-04011	ADJUST SANITARY SEWER MANHOLE	3	EA		
240-04050	ADJUST WATER VALVE BOX ABND CURB STOP	25	EA		
240-40000	RESET WATER SERVICE	1	EA		
304-06005	AGGREGATE BASE COURSE (CLASS 6)	322	CY		
400-60000	ASPHALT CONCRETE PAVEMENT (SX GRADING)(75)(PG 64-22)	400	TON		
400-70000	ASPHALT CONCRETE PAVEMENT (PATCHING)	70	TON		
410-00000	SLURRY SEAL COAT	2450	SY		
430-00800	CONCRETE PAVEMENT (9-INCH)	50	SY		
430-00801	CONCRETE PAVEMENT (SHADED GREY)(6-INCH)	1360	SY		
430-00802	CONCRETE PAVEMENT (COLORED)(6-INCH)	250	SY		
500-00501	CONCRETE CURB RAMP (6-INCH)	12	SY		
500-51000	CURB AND GUTTER TYPE 2	800	LF		
500-52000	CURB AND GUTTER TYPE 2 (MODIFIED)	60	LF		
500-51002	12X8-INCH CURB WALL (LANDSCAPE)	1264	LF		
500-59100	CHASE DRAIN WITH STEEL PLATE COVER (2-FEET WIDE)	40	LF		
500-99999	PRECAST CONCRETE CURB (CIP)	520	LF		
525-00000	BUS STOP CONCRETE PAD (8-INCH)	65	SY		
630-01180	18-INCH REINFORCED CONCRETE PIPE	96	LF		
636-01180	18-INCH REINFORCED CONCRETE COLLAR	1	EA		
636-12050	INLET TYPE R (MODIFIED)(L=10)(W=3)	1	EA		
636-16010	DENVER TYPE 16 INLET (DOUBLE)	1	EA		
636-32100	MANHOLE TYPE II H 10	1	EA		
636-50000	HYDRODYNAMIC SEPARATOR	2	EA		
710-18000	18-INCH WATERLINE (DUCTILE IRON PIPE)	50	LF		
721-18000	CONNECT TO EX. WATERLINE (18-INCH)	2	EA		
731-18000	18-INCH BUTTERFLY VALVE	2	EA		
813-00200	2 INCH ELECTRICAL CONDUIT (LIGHTING)	900	LF		
813-11001	WIRING (LIGHTING)	1	LS		
814-00000	SIGN PANEL	161	SF		
814-20240	STEEL SIGN SUPPORT (2-INCH ROUND)(POST & SOCKET)	31	EA		
827-32000	EPOXY PAVEMENT MARKING	23	GAL		
827-32001	THERMOPLASTIC PAVEMENT MARKING	1100	SF		
830-10000	CONSTRUCTION TRAFFIC CONTROL	1	LS		

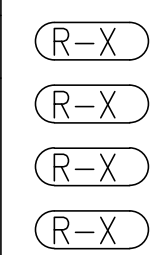
901-00001	ROCK SOCKS	100	LF		
901-00002	EROSION LOG	500	LF		
901-00003	CONCRETE WASHOUT STRUCTURE	1	EA		
901-00004	STORM DRAIN INLET PROTECTION	5	EA		
901-00005	SWEEPING (SEDIMENT REMOVAL)	40	HOUR		
901-00006	VEHICLE TRACKING PAD	1	EA		
902-00000	BENCH (6-FOOT)(ARM REST)	16	EA		
902-00001	BIKE RACK	6	EA		
902-00002	SINGLE UNIT TRASH CAN	2	EA		
902-00003	STRUCTURAL CELLS	20000	CF		
902-00004	PERENNIALS	16	EA		
902-00005	PLANTER SOIL MIX	35	CY		
902-00006	SHRUBS (5 GALLON CONTAINER)	88	EA		
902-00007	ORNAMENTAL GRASSES (1 GALLON CONTAINER)	116	EA		
902-00008	KIOSK (PARKING)	4	EA		
902-00009	DECORATIVE STEEL RAILING	250	LF		
930-00000	IRRIGATION	1	LS		
990-70010	F/A MINOR CONTRACT REVISIONS	1	FA		

SEE NEXT SHEET FOR BID ALTERNATE A AND BID ALTERNATE B SUMMARY OF APPROXIMATE QUANTITY TABLES (6).

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:



SHEET REVISIONS

DATE:	COMMENTS:	INITIAL:



PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

 Kimley-Horn and Associates, Inc.

**TEJON STREET REVITALIZATION
SUMMARY OF APPROX. QUANTITIES - 1**

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE

067607114


SHEET NUMBER 5

P:\C:\OS_Civil\067607114_Tejon_Street_Improvements\CADD\Plansheets\CDs\CD-NOTES.dwg Krcamer Michael 5/22/2024 1:45 PM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

SUMMARY OF APPROXIMATE QUANTITIES - TEJON ST. REVITALIZATION - BID ALT. A					
CONTRACT ITEM NO.	CONTRACT ITEM	QUANTITY	UNIT	PROJECT TOTALS	
				PLAN	AS CONSTRUCTED
100-00000	MOBILIZATION	1	LS		
108-00016	CONSTRUCTION SURVEYING AND STAKING	1	LS		
202-00000	UNCLASSIFIED EXCAVATION	1600	CY		
203-01597	POTHOLING	50	hour		
205-00006	SUBGRADE SOIL PREPARATION (6-INCH)	2490	SY		
220-00001	REMOVAL OF PARKING METER	25	EA		
220-00004	REMOVAL OF LANDSCAPE PLANTER	3	EA		
220-00005	REMOVAL OF TREE (LESS THAN 6" DIA.)	7	EA		
220-00007	REMOVAL OF STORM INLET	2	EA		
220-00008	REMOVAL OF BIKE RACK	5	EA		
220-00009	REMOVAL OF LANDSCAPING GRATE	7	EA		
220-00010	REMOVAL OF TRASH RECEPTACLE	6	EA		
220-00175	REMOVAL OF CONCRETE PAVEMENT	615	SY		
220-00200	REMOVAL OF SIDEWALK	1550	SY		
220-00202	REMOVAL OF CURB AND GUTTER	860	LF		
220-00220	REMOVAL OF ASPHALT MAT (FULL DEPTH)	540	SY		
220-00230	REMOVAL OF ASPHALT MAT (MILLING)	1560	SY		
220-00810	REMOVAL OF SIGN POST AND PANEL	5	EA		
220-01001	REMOVAL OF RAILING	170	LF		
220-04000	REMOVAL OF STORM DRAIN (18-24 INCH)	16	LF		
240-00050	ADJUST FIRE HYDRANT ASSEMBLY (COMPLETE IN PLACE)	3	EA		
240-00860	RESET LIGHT POLE	16	EA		
240-04010	ADJUST STRUCTURE TO GRADE	10	EA		
240-04011	ADJUST SANITARY SEWER MANHOLE	2	EA		
240-04050	ADJUST WATER VALVE BOX AND CURB STOP	7	EA		
304-06005	AGGREGATE BASE COURSE (CLASS 6)	337	CY		
400-60000	ASPHALT CONCRETE PAVEMENT (SX GRADING)(75)(PG 64-22)	400	TON		
400-70000	ASPHALT CONCRETE PAVEMENT (PATCHING)	65	TON		
430-00800	CONCRETE PAVEMENT (9-INCH)	55	SY		
430-00801	CONCRETE PAVEMENT (SHADED GREY)(6-INCH)	1350	SY		
430-00802	CONCRETE PAVEMENT (COLORED)(6-INCH)	301	SY		
500-00501	CONCRETE CURB RAMP (6-INCH)	12	SY		
500-51000	CURB AND GUTTER TYPE 2	800	LF		
500-52000	CURB AND GUTTER TYPE 2 (MODIFIED)	60	LF		
500-51002	12X8-INCH CURB WALL (LANDSCAPE)	1320	LF		
500-59100	CHASE DRAIN WITH STEEL PLATE COVER (2- FEET WIDE)	40	LF		
500-99999	PRECAST CONCRETE CURB (CIP)	560	LF		
525-00000	BUS STOP CONCRETE PAD (8-INCH)	65	SY		
630-01180	18-INCH REINFORCED CONCRETE PIPE	16	LF		
636-01180	18-INCH REINFORCED CONCRETE COLLAR	2	EA		
636-12050	INLET TYPE R (MODIFIED)(L=10)(W=3)	1	EA		
636-16010	DENVER TYPE 16 INLET (DOUBLE)	1	EA		
636-50000	HYDRODYNAMIC SEPARATOR	2	EA		
813-00200	2 INCH ELECTRICAL CONDUIT (LIGHTING)	900	LF		
813-11001	WIRING (LIGHTING)	1	LS		
814-00000	SIGN PANEL	40	SF		
827-32000	EPOXY PAVEMENT MARKING	23	GAL		
827-32001	THERMOPLASTIC PAVEMENT MARKING	1000	SF		
830-10000	CONSTRUCTION TRAFFIC CONTROL	1	LS		
901-00001	ROCK SOCKS	100	LF		
901-00002	EROSION LOG	500	LF		
901-00003	CONCRETE WASHOUT STRUCTURE	1	EA		
901-00004	STORM DRAIN INLET PROTECTION	5	EA		
901-00005	SWEEPING (SEDIMENT REMOVAL)	40	hour		
901-00006	VEHICLE TRACKING PAD	1	EA		
902-00000	BENCH (6-FOOT)(ARM REST)	16	EA		
902-00001	BIKE RACK	7	EA		
902-00002	SINGLE UNIT TRASH CAN	2	EA		
902-00003	STRUCTURAL CELLS	20000	CF		
902-00004	PERENNIALS	24	EA		
902-00005	PLANTER SOIL MIX	35	CY		
902-00006	SHRUBS (5 GALLON CONTAINER)	92	EA		
902-00007	ORNAMENTAL GRASSES (1 GALLON CONTAINER)	130	EA		
902-00008	KIOSK (PARKING)	4	EA		
902-00009	DECORATIVE STEEL RAILING	170	LF		
930-00000	IRRIGATION	1	LS		
990-70010	F/A MINOR CONTRACT REVISIONS	1	FA		

SUMMARY OF APPROXIMATE QUANTITIES - TEJON ST. REVITALIZATION - BID ALT. B					
CONTRACT ITEM NO.	CONTRACT ITEM	QUANTITY	UNIT	PROJECT TOTALS	
				PLAN	AS CONSTRUCTED
100-00000	MOBILIZATION	1	LS		
108-00016	CONSTRUCTION SURVEYING AND STAKING	1	LS		
202-00000	UNCLASSIFIED EXCAVATION	200	CY		
203-01597	POTHOLING	25	hour		
205-00006	SUBGRADE SOIL PREPARATION (6-INCH)	2605	SY		
220-00004	REMOVAL OF LANDSCAPE PLANTER	4	EA		
220-00005	REMOVAL OF TREE (LESS THAN 6" DIA.)	1	EA		
220-00010	REMOVAL OF TRASH RECEPTACLE	1	EA		
220-00175	REMOVAL OF CONCRETE PAVEMENT	448	SY		
220-00200	REMOVAL OF SIDEWALK	526	SY		
220-00202	REMOVAL OF CURB AND GUTTER	400	LF		
220-00220	REMOVAL OF ASPHALT MAT (FULL DEPTH)	448	SY		
220-00479	RESET RADIO COMMUNICATION ANTENNA	1	EA		
220-00480	RESET CSPD PTZ CAMERAS AND COMMUNICATION SYSTEM	2	EA		
220-00810	REMOVAL OF SIGN POST AND PANEL	5	EA		
220-00828	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1	LS		
220-01001	REMOVAL OF RAILING	100	LF		
240-04010	ADJUST STRUCTURE TO GRADE	7	EA		
240-04050	ADJUST WATER VALVE BOX AND CURB STOP	2	EA		
240-30000	RESET ARTWORK	2	EA		
240-50000	PROTECT TREE IN PLACE	8	EA		
304-06005	AGGREGATE BASE COURSE (CLASS 6)	290	CY		
400-60000	ASPHALT CONCRETE PAVEMENT (SX GRADING)(75)(PG 64-22)	35	TON		
410-00000	SLURRY SEAL COAT	630	SY		
430-00801	CONCRETE PAVEMENT (SHADED GREY)(6-INCH)	200	SY		
430-00802	CONCRETE PAVEMENT (COLORED)(6-INCH)	270	SY		
430-00803	GRANITE PAVER (4-INCH)	1640	SF		
500-00500	CONCRETE CURB RAMP (COLORED)(6-INCH)	420	SY		
500-00501	CONCRETE CURB RAMP (6-INCH)	145	SY		
500-51000	CURB AND GUTTER TYPE 2	150	LF		
500-51003	12X12-INCH CURB WALL (LANDSCAPE)	611	LF		
813-00201	2 INCH ELECTRICAL CONDUIT (TRAFFIC)(TRENCHED)	182	LF		
813-00206	2 INCH ELECTRICAL CONDUIT (TRAFFIC)(BORED)	409	LF		
813-00301	3 INCH ELECTRICAL CONDUIT (TRAFFIC)(TRENCHED)	96	LF		
813-00306	3 INCH ELECTRICAL CONDUIT (TRAFFIC)(BORED)	346	LF		
813-07035	PULL BOX (17"X30"X18")(INSTALL ONLY)	4	EA		
813-07040	PULL BOX (24"X36"X18")(INSTALL ONLY)	1	EA		
813-11000	WIRING (TRAFFIC)	1	LS		
814-00000	SIGN PANEL	56	SF		
814-00040	SIGN PANEL (SPECIAL)	4	EA		
814-03018	DRILLED CAISSON (18 INCH)	36	LF		
814-03042	DRILLED CAISSON (42 INCH)	42	LF		
814-70336	TRAFFIC SIGNAL FACE (12-12-12)(INSTALL ONLY)	10	EA		
814-72887	VEHICLE DETECTION SYSTEM (CAMERA)(INSTALL ONLY)	2	EA		
814-72890	ELECTRIC SERVICE PEDESTAL (TRAFFIC) (INSTALL ONLY)	1	EA		
814-72893	POWER FEED WIRE	6	LF		
814-75215	PEDESTRIAN SIGNAL FACE (16 LED COUNTDOWN)(INSTALL ONLY)	8	EA		
814-75847	TRAFFIC SIGNAL CONTROLLER CABINET & CONTROLLER (INSTALL ONLY)	1	EA		
814-80009	TRAFFIC SIGNAL LUMINAIRE (INSTALL ONLY)	2	EA		
814-81234	TRAFFIC SIGNAL-LIGHT POLE STEEL (2-25&60 FOOT MAST ARM)(INSTALL ONLY)	2	EA		
814-84453	TRAFFIC SIGNAL PEDESTAL POLE ALUMINUM (12 FOOT)(INSTALL ONLY)	6	EA		
830-10000	CONSTRUCTION TRAFFIC CONTROL	1	LS		
901-00001	ROCK SOCKS	100	LF		
901-00002	EROSION LOG	500	LF		
901-00003	CONCRETE WASHOUT STRUCTURE	1	EA		
901-00004	STORM DRAIN INLET PROTECTION	5	EA		
901-00005	SWEEPING (SEDIMENT REMOVAL)	40	hour		
901-00006	VEHICLE TRACKING PAD	1	EA		
902-00005	PLANTER SOIL MIX	100	CY		
902-00006	SHRUBS (5 GALLON CONTAINER)	327	EA		
902-00007	ORNAMENTAL GRASSES (1 GALLON CONTAINER)	40	EA		
902-00009	DECORATIVE STEEL RAILING	100	LF		
920-00000	BOLLARD	12	EA		
930-00000	IRRIGATION	1	LS		
990-70010	F/A MINOR CONTRACT REVISIONS	1	FA		

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:



KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	



COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

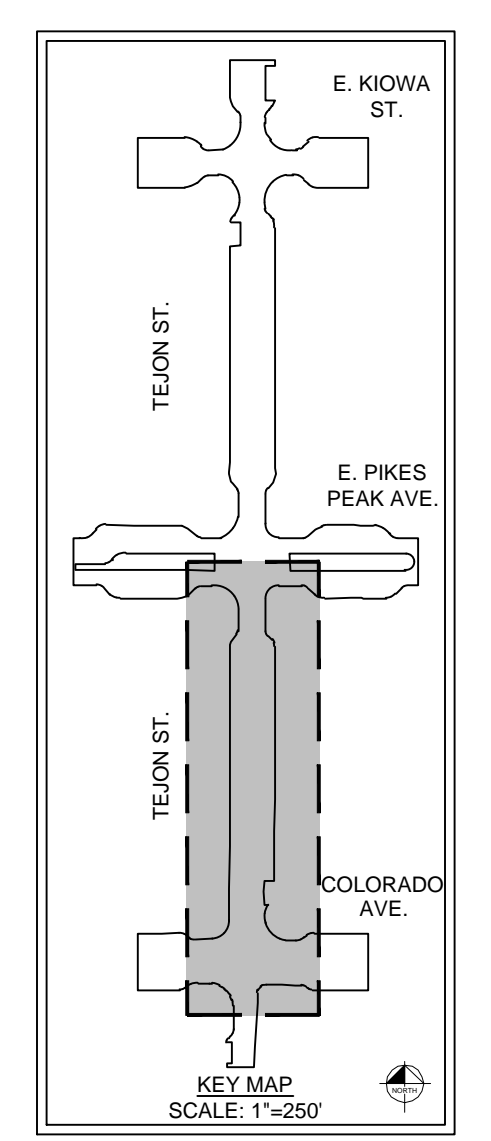
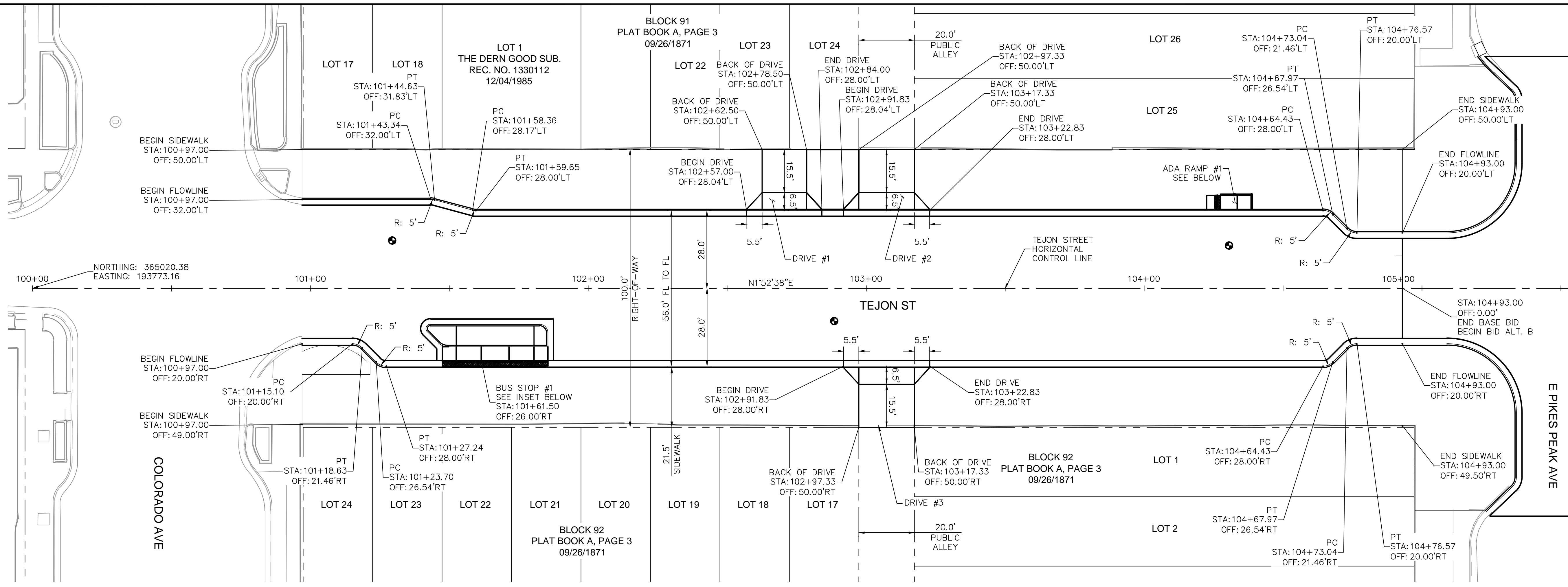
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 SUMMARY OF APPROX. QUANTITIES - 2

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE	067607114
SHEET NUMBER	6

P:\cvs_civil\067607114_tejon_street_improvements\CADD\plan\sheet\CD-GE0-LAYOUT.dwg Kramer, Michael 5/22/2024 10:49 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

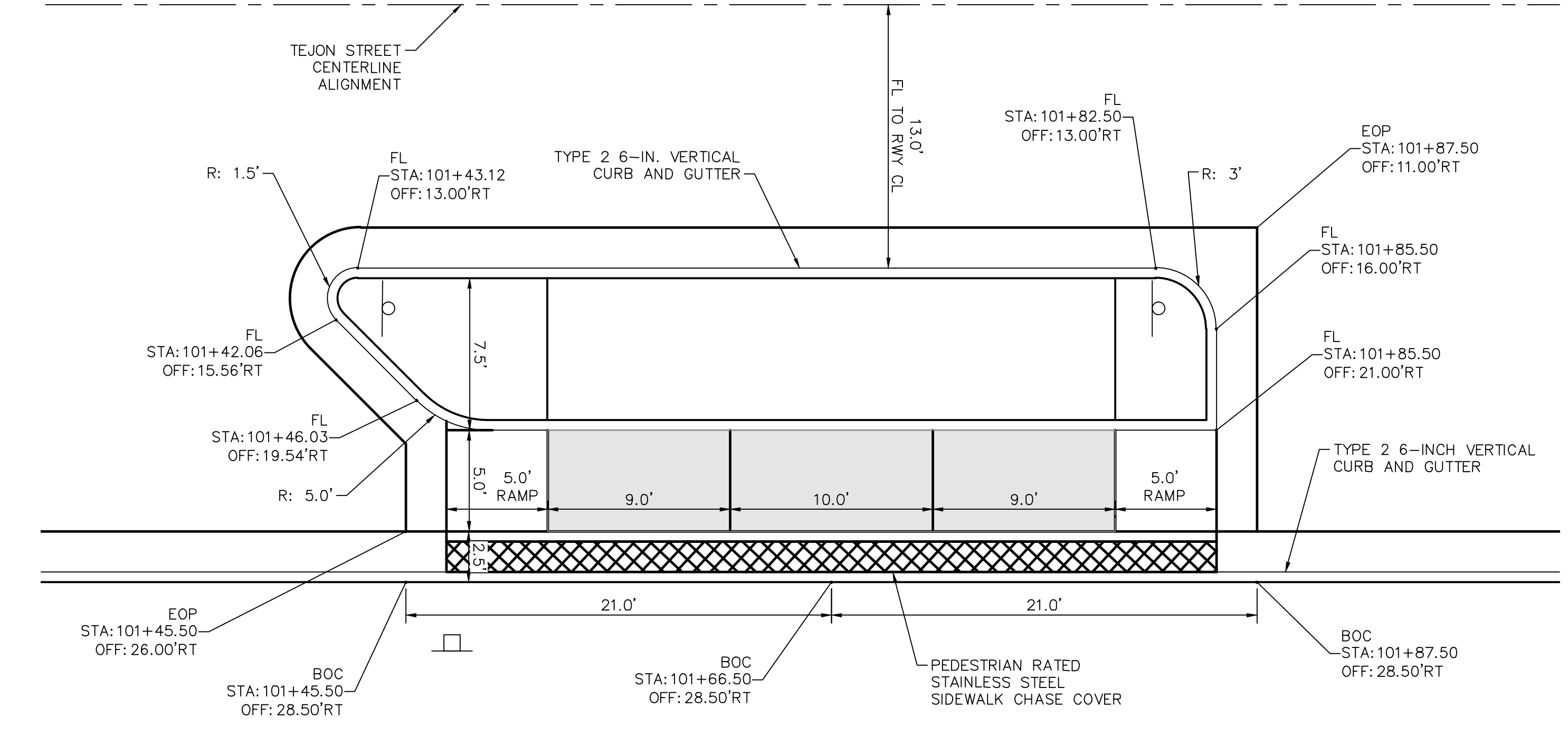


MATCHLINE SEE SHEET 9

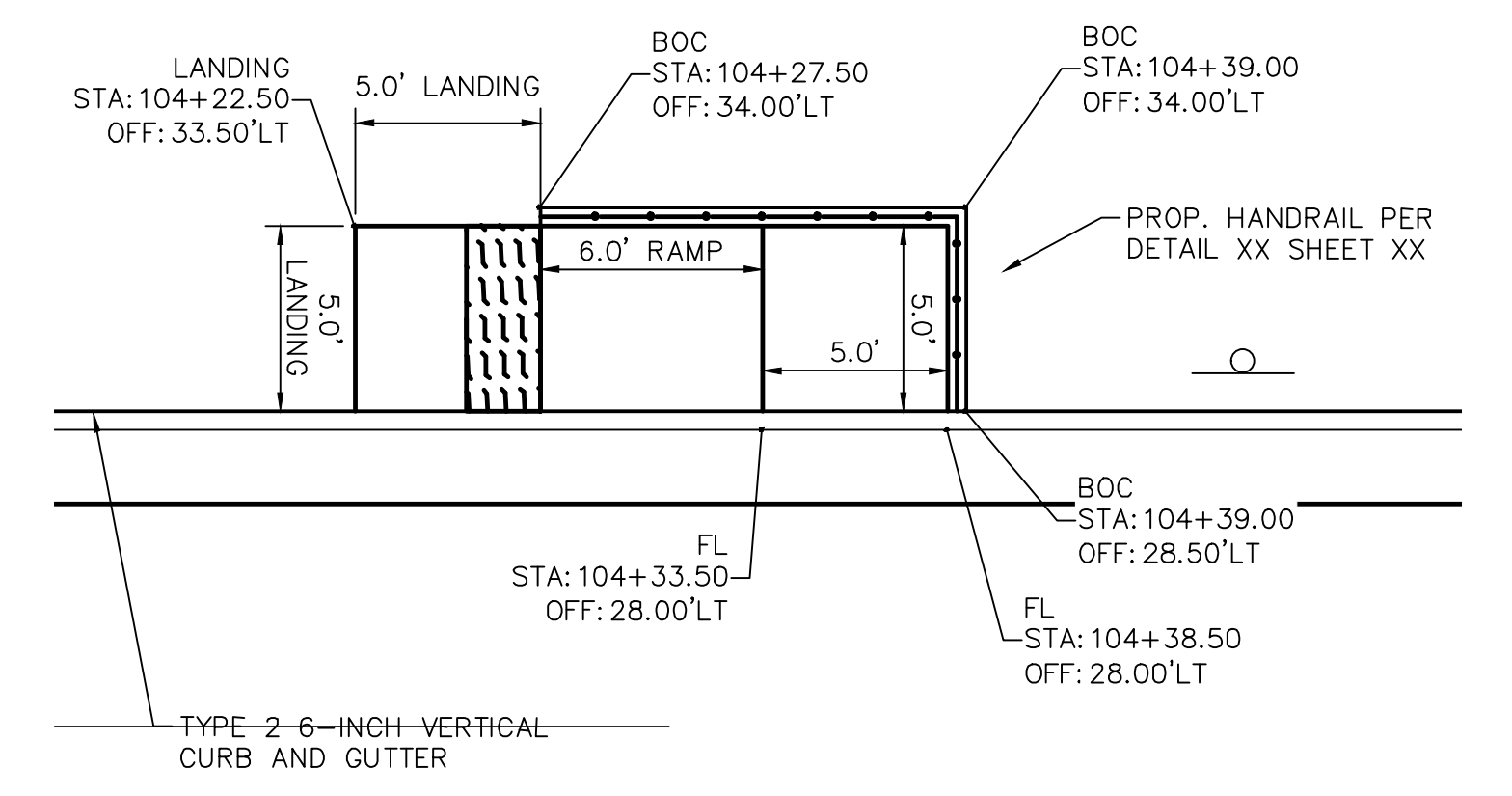
E PIKES PEAK AVE

- NOTES:**
- STATION AND OFFSET HORIZONTAL DATA REFERENCES THE TEJON STREET HORIZONTAL CONTROL LINE (CENTERLINE ALIGNMENT).
 - STATION AND OFFSET LABELS ARE TO FLOWLINE OF CURB AND GUTTER UNLESS OTHERWISE NOTED

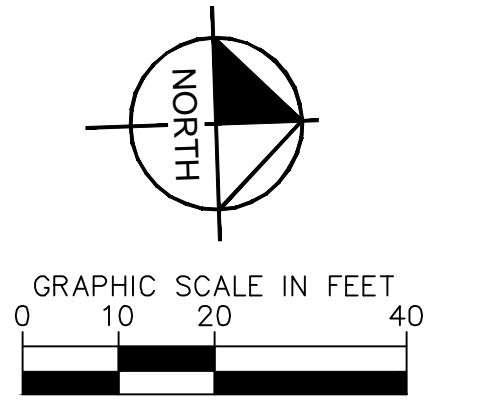
LEGEND:
 APPROXIMATE GEOTECHNICAL BORE HOLE LOCATIONS



BUS STOP #1 DETAIL
SCALE 1" = 5'



ADA RAMP #1 DETAIL
SCALE 1" = 5'



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	
(R-X)			
(R-X)			
(R-X)			
(R-X)			

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley-Horn
 Kimley-Horn and Associates, Inc.

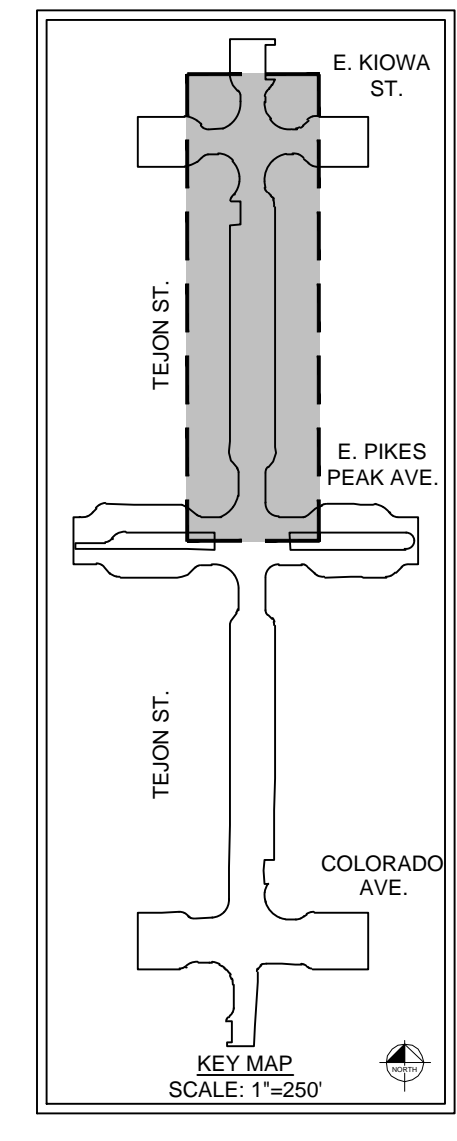
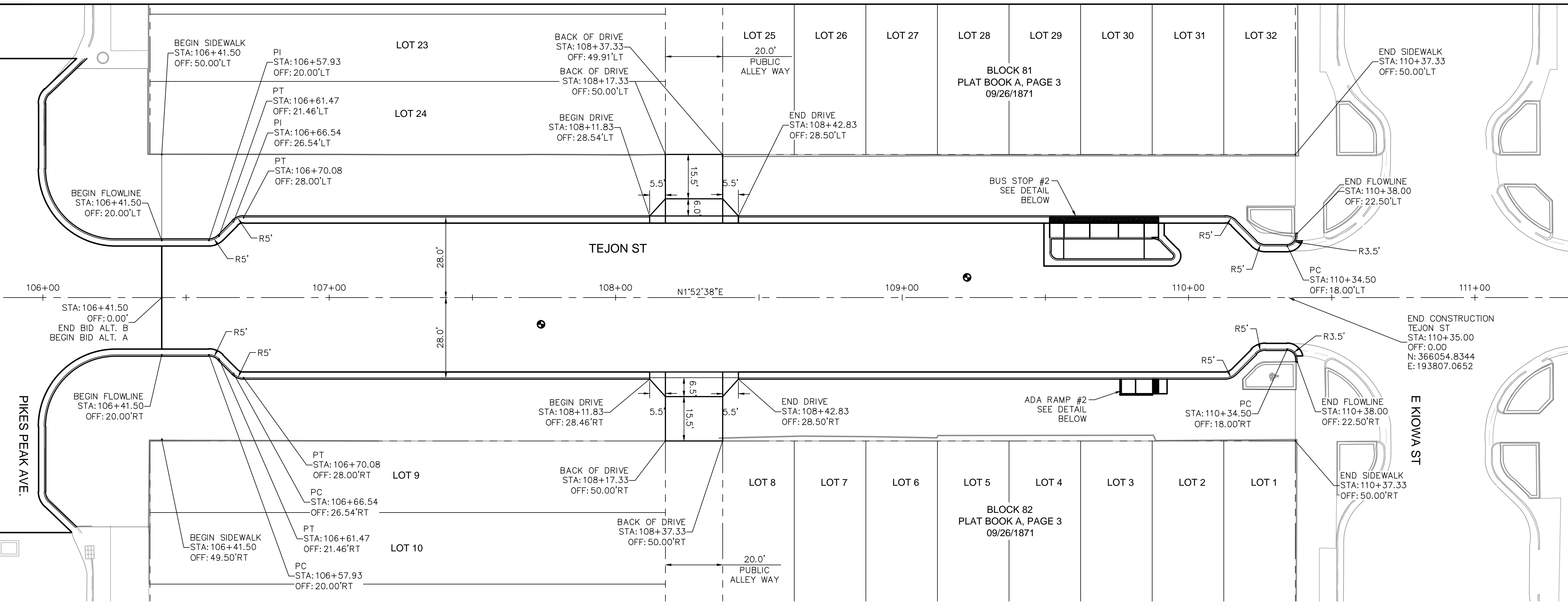
TEJON STREET REVITALIZATION
 GEOMETRIC LAYOUT 1

CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114

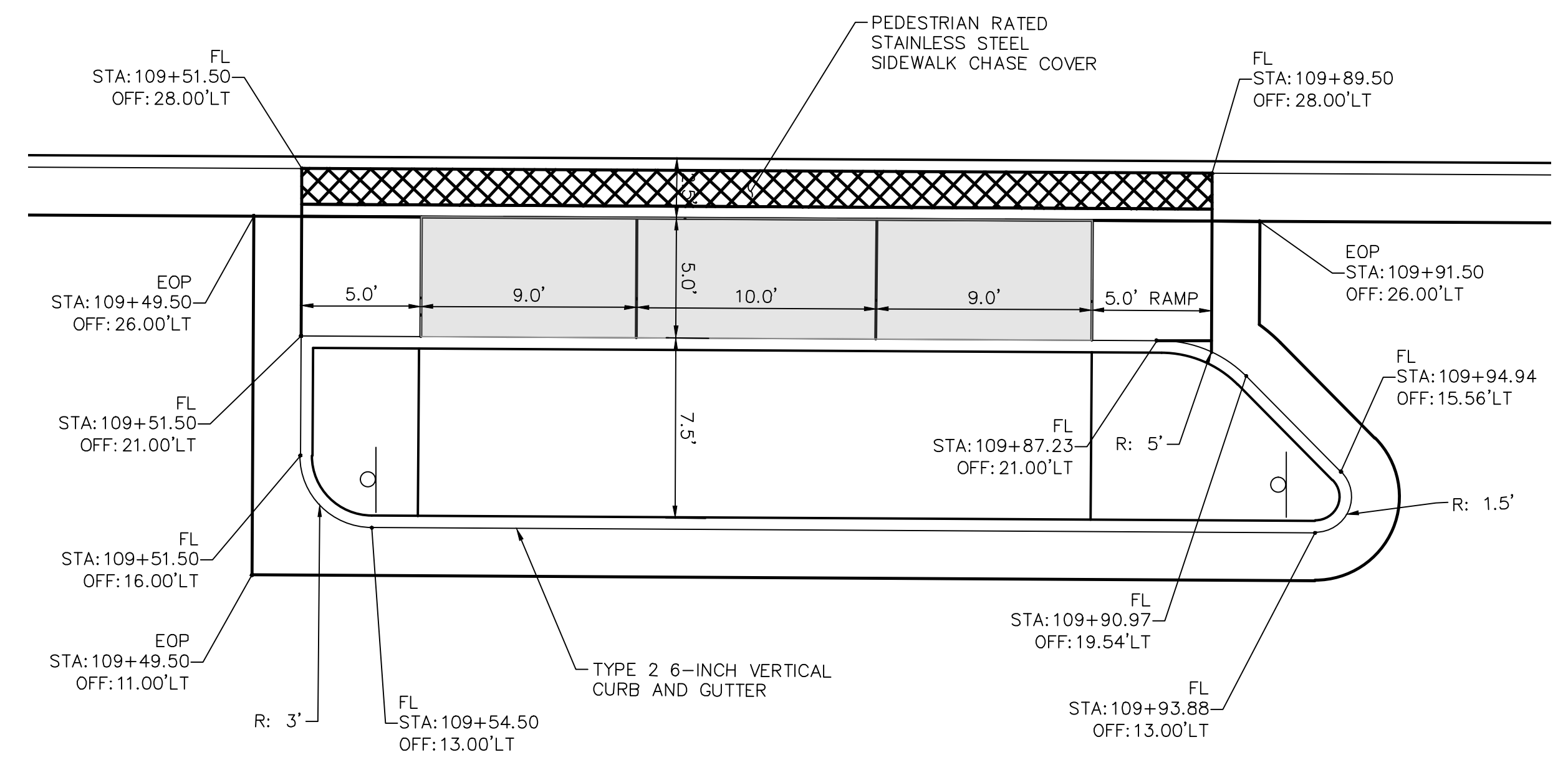
SHEET NUMBER 7

P:\cs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs_CD-GE0-LAYOUT.dwg Kramer, Michael 5/22/2024 10:49 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

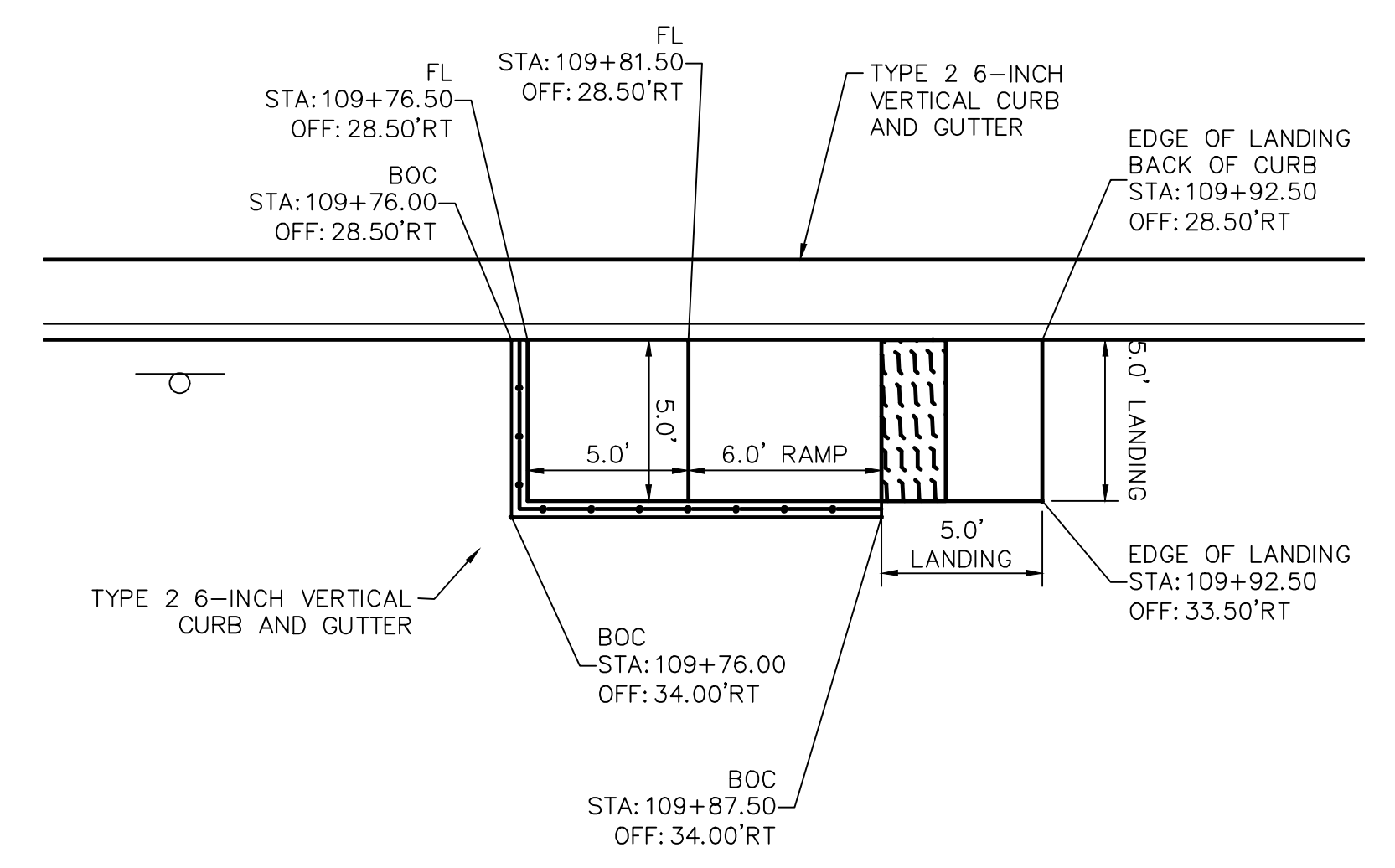


- NOTES:**
- STATION AND OFFSET HORIZONTAL DATA REFERENCES THE TEJON STREET HORIZONTAL CONTROL LINE (CENTERLINE ALIGNMENT).
 - STATION AND OFFSET LABELS ARE TO FLOWLINE OF CURB AND GUTTER UNLESS OTHERWISE NOTED

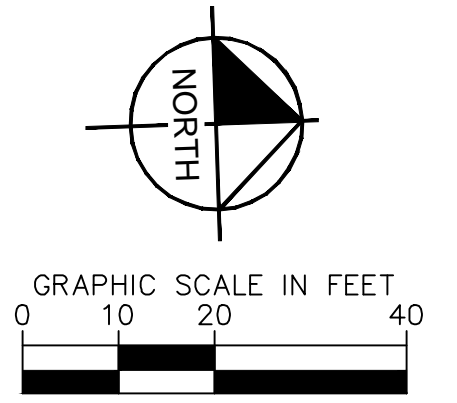
LEGEND:
 APPROXIMATE GEOTECHNICAL BORE HOLE LOCATIONS



BUS STOP #2 DETAIL
 SCALE 1" = 5'



ADA RAMP #2 DETAIL
 SCALE 1" = 5'



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

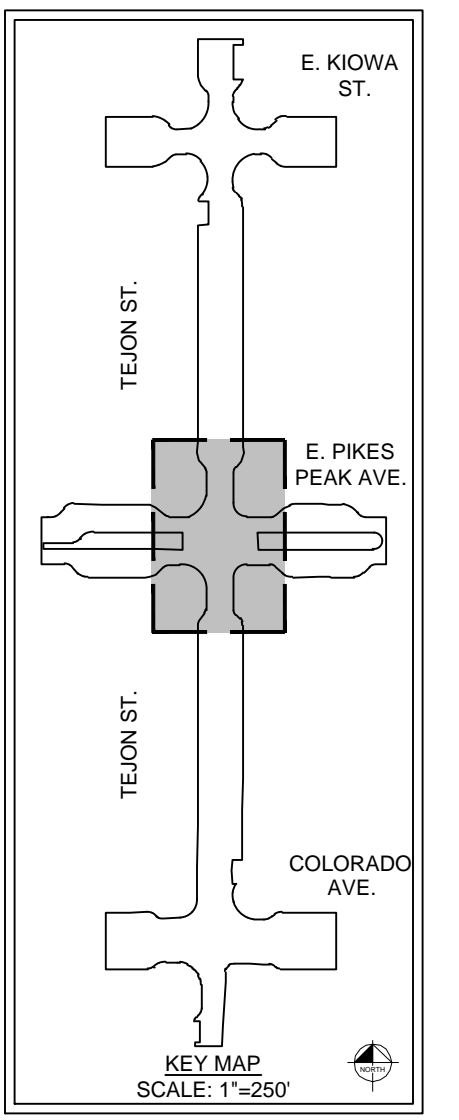
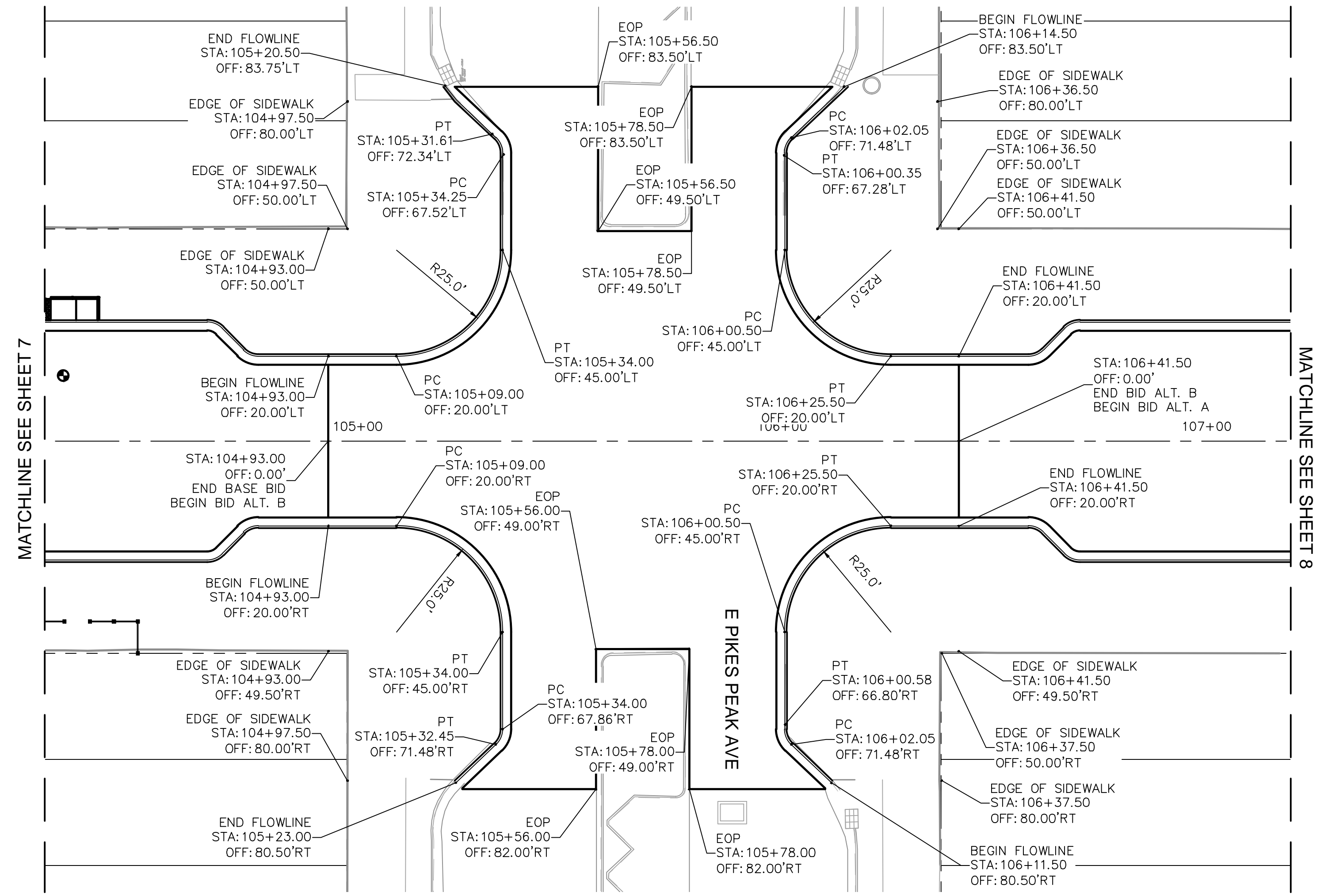
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

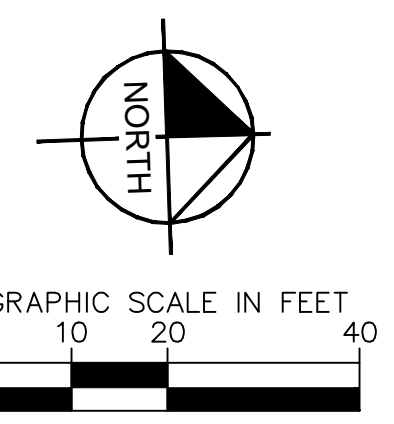
TEJON STREET REVITALIZATION GEOMETRIC LAYOUT 2	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER
8

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\GEO-LAYOUT.dwg - Kramer, Michael 5/22/2024 10:49 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF, AND IMPROPER RELIANCE ON, THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



- NOTES:**
- STATION AND OFFSET HORIZONTAL DATA REFERENCES THE TEJON STREET HORIZONTAL CONTROL LINE (CENTERLINE ALIGNMENT).
 - STATION AND OFFSET LABELS ARE TO FLOWLINE OF CURB AND GUTTER UNLESS OTHERWISE NOTED
- LEGEND:**
 APPROXIMATE GEOTECHNICAL BORE HOLE LOCATIONS



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

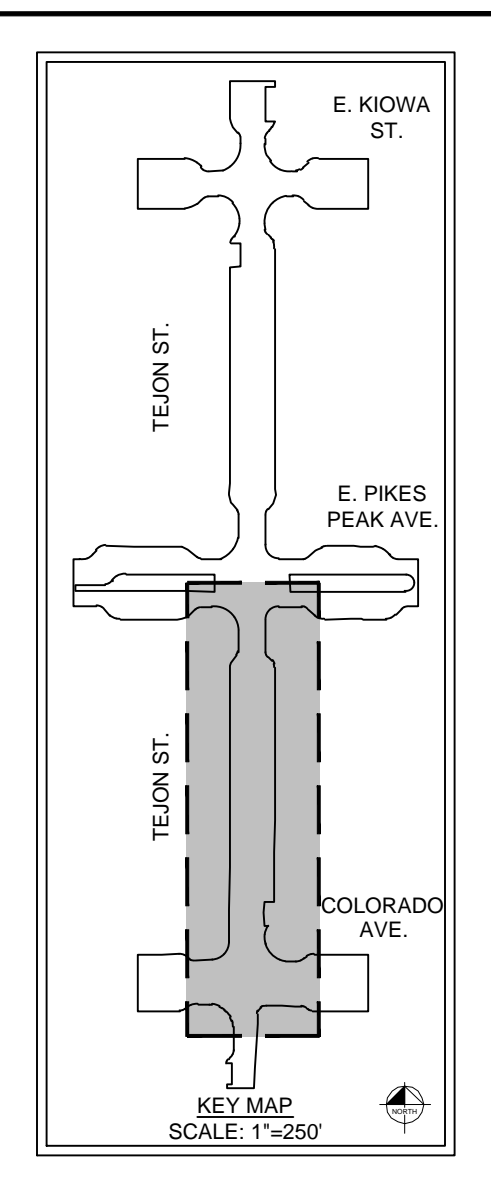
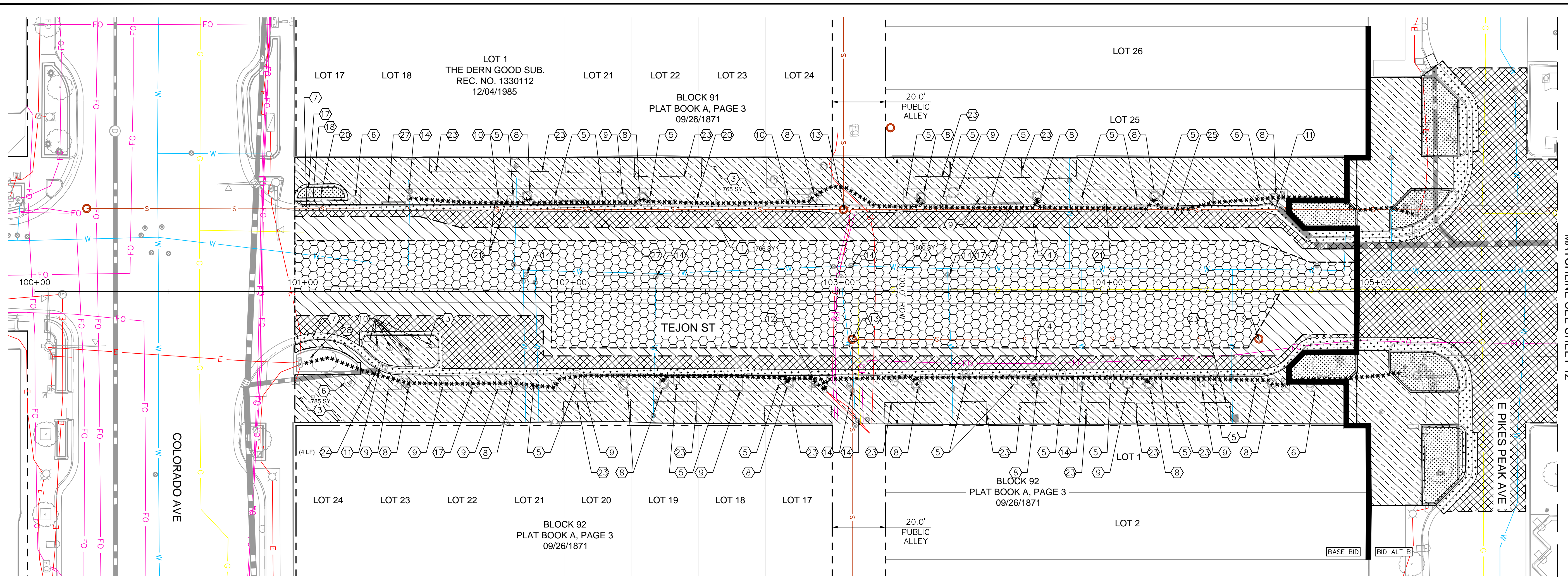
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION GEOMETRIC LAYOUT 3	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER
9

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs\CD-DEMO.dwg, Krcmcr, Michael, 5/22/2024, 10:50 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



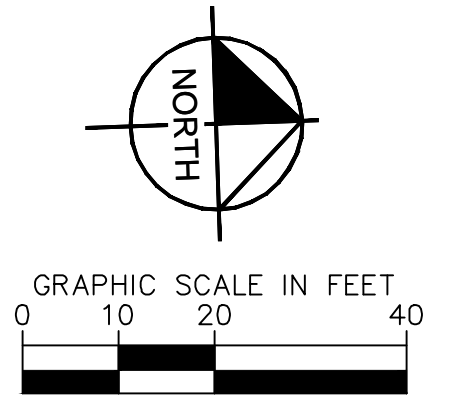
MATCHLINE SEE SHEET 12

LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. GAS LINE	
EX. ELECTRIC LINE	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. STORM LINE & MH	
EX. HYDRANT, VALVE	
EX. ROW	
EX. VEGETATION	
EX. FENCE	
ALTERNATE BID BOUNDARY LINE	
EX. ELECTRICAL TO BE REMOVED	
REMOVAL OF ASPHALT MAT (2" MILLING)	
REMOVAL OF ASPHALT MAT (VARIABLE DEPTH MILLING)	
REMOVAL OF ASPHALT MAT (FULL DEPTH)	
REMOVAL OF SIDEWALK	
REMOVAL OF CURB AND GUTTER	
REMOVAL OF PLANTERS	

CONSTRUCTION NOTES

1) REMOVAL OF ASPHALT MAT (FULL DEPTH)	20) REMOVAL OF TREE
2) REMOVAL OF ASPHALT MAT (PARTIAL DEPTH) (2-INCH)	21) REMOVAL OF BIKE RACK
3) REMOVAL OF SIDEWALK	22) REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
4) SAWCUT PAVEMENT (FULL DEPTH)	23) REMOVAL OF FENCE OR RAILING
5) REMOVAL OF PARKING METER	24) REMOVAL OF STORM DRAIN
6) RESET TRASH RECEPTACLE	25) REMOVAL OF FENCE
7) REMOVAL OF CURB AND GUTTER	26) REMOVAL OF ELECTRICAL CONDUIT
8) RESET LIGHT POLE	27) REMOVAL OF BENCH
9) REMOVAL OF PLANTER	28) PROTECT PLANTER IN PLACE
10) REMOVAL OF SIGN POST AND PANEL	29) REMOVAL OF SIGNAL, SIGNAL MAST, AND SIGNAL POLE
11) REMOVAL OF STORM INLET	30) REMOVAL OF ARTWORK
12) RESET FIRE HYDRANT ASSEMBLY (COMPLETE IN PLACE)	31) PROTECT ARTWORK IN PLACE
13) ADJUST SANITARY SEWER MANHOLE	32) PROTECT TREE IN PLACE
14) ADJUST WATER VALVE BOX	33) REMOVAL OF PAVEMENT MARKING
15) ADJUST VALVE BOX	34) EXISTING MAILBOXES TO BE REMOVED AND REPLACED
16) REMOVAL OF LANDSCAPE GRATE	35) REMOVAL OF SIDEWALK
17) REMOVAL OF LANDSCAPED PLANTER	36) REMOVAL OF STRIPING
18) REMOVAL OF CURB WALL	
19) REMOVAL OF PAVEMENT MARKING	



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

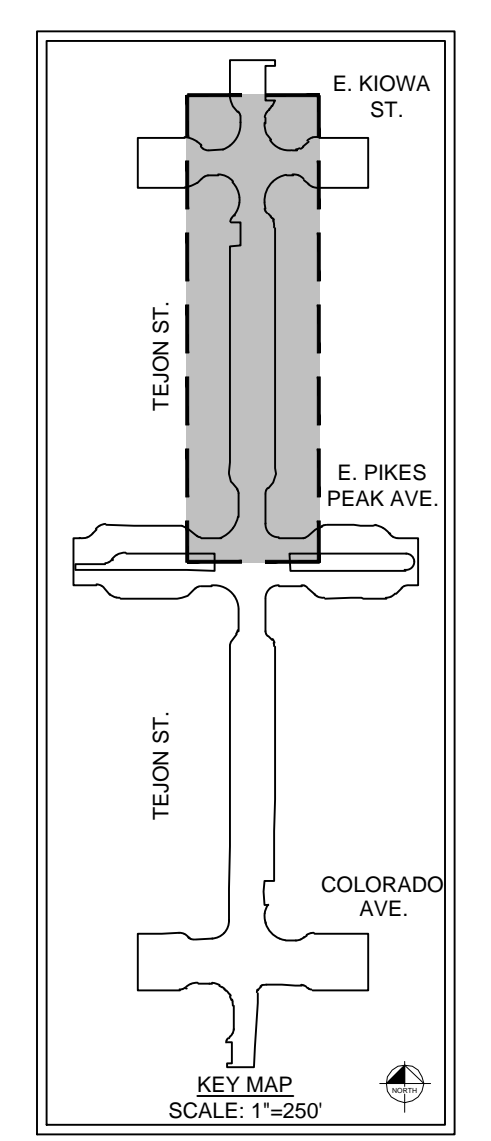
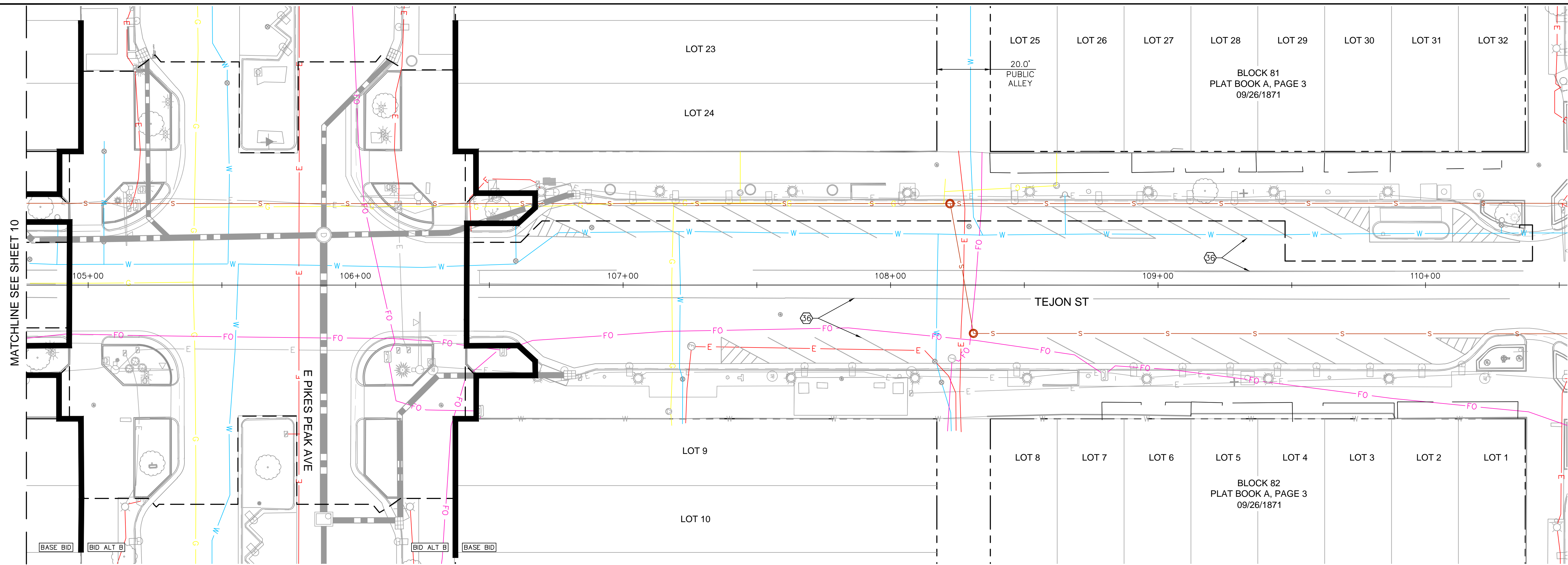
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION REMOVAL AND RESET PLAN – BASE BID	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 10

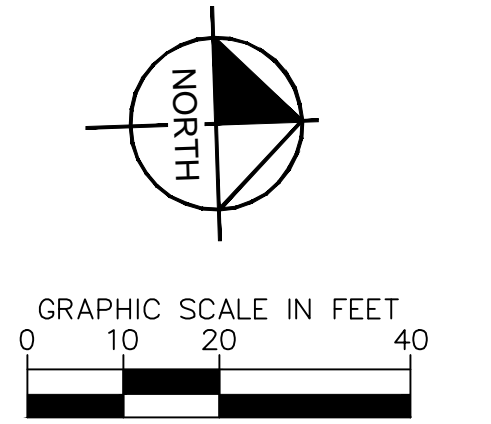
P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs\CD-DEMO.dwg, K:\csmr, Michael, 5/22/2024, 10:50 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. GAS LINE	
EX. ELECTRIC LINE	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. STORM LINE & MH	
EX. HYDRANT, VALVE	
EX. ROW	
EX. VEGETATION	
EX. FENCE	
ALTERNATE BID BOUNDARY LINE	
EX. ELECTRICAL TO BE REMOVED	
REMOVAL OF ASPHALT MAT (2" MILLING)	
REMOVAL OF ASPHALT MAT (VARIABLE DEPTH MILLING)	
REMOVAL OF ASPHALT MAT (FULL DEPTH)	
REMOVAL OF SIDEWALK	
REMOVAL OF CURB AND GUTTER	
REMOVAL OF PLANTERS	

- CONSTRUCTION NOTES**
- 1) REMOVAL OF ASPHALT MAT (FULL DEPTH)
 - 2) REMOVAL OF ASPHALT MAT (PARTIAL DEPTH) (2-INCH)
 - 3) REMOVAL OF SIDEWALK
 - 4) SAWCUT PAVEMENT (FULL DEPTH)
 - 5) REMOVAL OF PARKING METER
 - 6) RESET TRASH RECEPTACLE
 - 7) REMOVAL OF CURB AND GUTTER
 - 8) RESET LIGHT POLE
 - 9) REMOVAL OF PLANTER
 - 10) REMOVAL OF SIGN POST AND PANEL
 - 11) REMOVAL OF STORM INLET
 - 12) RESET FIRE HYDRANT ASSEMBLY (COMPLETE IN PLACE)
 - 13) ADJUST SANITARY SEWER MANHOLE
 - 14) ADJUST WATER VALVE BOX
 - 15) ADJUST VALVE BOX
 - 16) REMOVAL OF LANDSCAPE GRATE
 - 17) REMOVAL OF LANDSCAPED PLANTER
 - 18) REMOVAL OF CURB WALL
 - 19) REMOVAL OF PAVEMENT MARKING
 - 20) REMOVAL OF TREE
 - 21) REMOVAL OF BIKE RACK
 - 22) REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
 - 23) REMOVAL OF FENCE OR RAILING
 - 24) REMOVAL OF STORM DRAIN
 - 25) REMOVAL OF FENCE
 - 26) REMOVAL OF ELECTRICAL CONDUIT
 - 27) REMOVAL OF BENCH
 - 28) PROTECT PLANTER IN PLACE
 - 29) REMOVAL OF SIGNAL, SIGNAL MAST, AND SIGNAL POLE
 - 30) REMOVAL OF ARTWORK
 - 31) PROTECT ARTWORK IN PLACE
 - 32) PROTECT TREE IN PLACE
 - 33) REMOVAL OF PAVEMENT MARKING
 - 34) EXISTING MAILBOXES TO BE REMOVED AND REPLACED
 - 35) REMOVAL OF SIDEWALK
 - 36) REMOVAL OF STRIPING



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

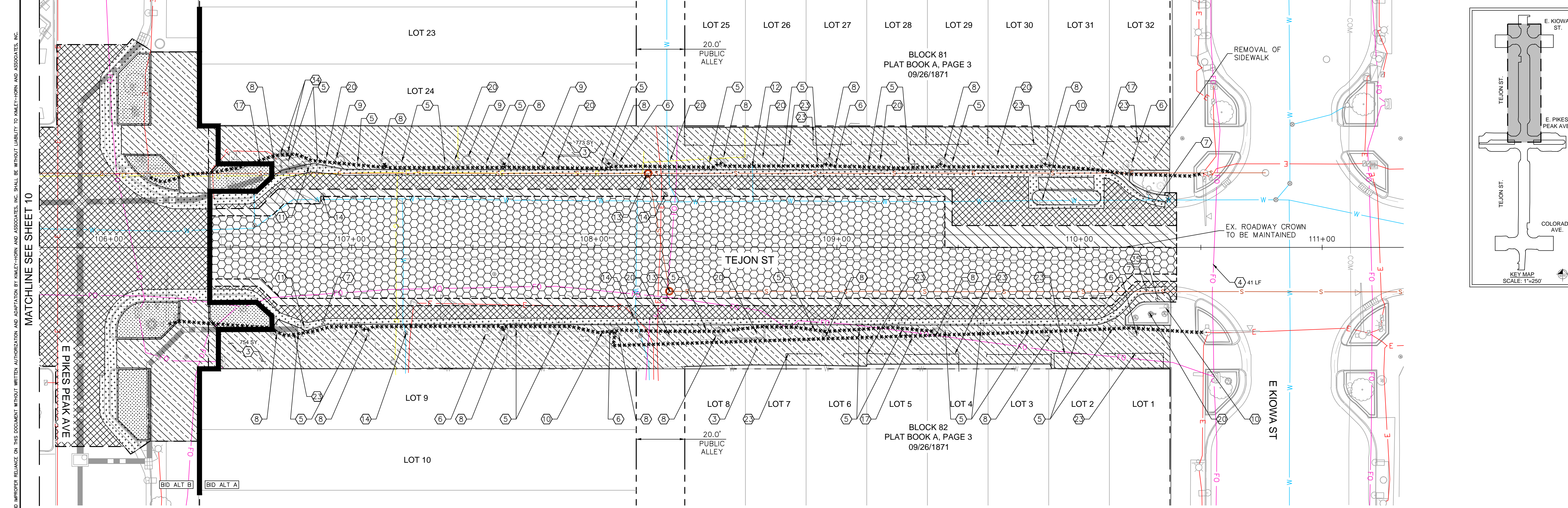
COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION REMOVAL AND RESET PLAN – BASE BID	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 11



MATCHLINE SEE SHEET 10

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs\CD-DEMO.dwg, K:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs\CD-DEMO.dwg, 5/22/2024, 10:50 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. GAS LINE	
EX. ELECTRIC LINE	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. STORM LINE & MH	
EX. HYDRANT, VALVE	
EX. ROW	
EX. VEGETATION	
EX. FENCE	
ALTERNATE BID BOUNDARY LINE	
EX. ELECTRICAL TO BE REMOVED	
REMOVAL OF ASPHALT MAT (2" MILLING)	
REMOVAL OF ASPHALT MAT (VARIABLE DEPTH MILLING)	
REMOVAL OF ASPHALT MAT (FULL DEPTH)	
REMOVAL OF SIDEWALK	
REMOVAL OF CURB AND GUTTER	
REMOVAL OF PLANTERS	

CONSTRUCTION NOTES

1) REMOVAL OF ASPHALT MAT (FULL DEPTH)	20) REMOVAL OF TREE
2) REMOVAL OF ASPHALT MAT (PARTIAL DEPTH) (2-INCH)	21) REMOVAL OF BIKE RACK
3) REMOVAL OF SIDEWALK	22) REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
4) SAWCUT PAVEMENT (FULL DEPTH)	23) REMOVAL OF FENCE OR RAILING
5) REMOVAL OF PARKING METER	24) REMOVAL OF STORM DRAIN
6) RESET TRASH RECEPTACLE	25) REMOVAL OF FENCE
7) REMOVAL OF CURB AND GUTTER	26) REMOVAL OF ELECTRICAL CONDUIT
8) RESET LIGHT POLE	27) REMOVAL OF BENCH
9) REMOVAL OF PLANTER	28) PROTECT PLANTER IN PLACE
10) REMOVAL OF SIGN POST AND PANEL	29) REMOVAL OF SIGNAL, SIGNAL MAST, AND SIGNAL POLE
11) REMOVAL OF STORM INLET	30) REMOVAL OF ARTWORK
12) RESET FIRE HYDRANT ASSEMBLY (COMPLETE IN PLACE)	31) PROTECT ARTWORK IN PLACE
13) ADJUST SANITARY SEWER MANHOLE	32) PROTECT TREE IN PLACE
14) ADJUST WATER VALVE BOX	33) REMOVAL OF PAVEMENT MARKING
15) ADJUST VALVE BOX	34) EXISTING MAILBOXES TO BE REMOVED AND REPLACED
16) REMOVAL OF LANDSCAPE GRATE	35) REMOVAL OF SIDEWALK
17) REMOVAL OF LANDSCAPED PLANTER	36) REMOVAL OF STRIPING
18) REMOVAL OF CURB WALL	
19) REMOVAL OF PAVEMENT MARKING	

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 REMOVAL AND RESET PLAN – BID ALT A

CHECKED BY: EJC

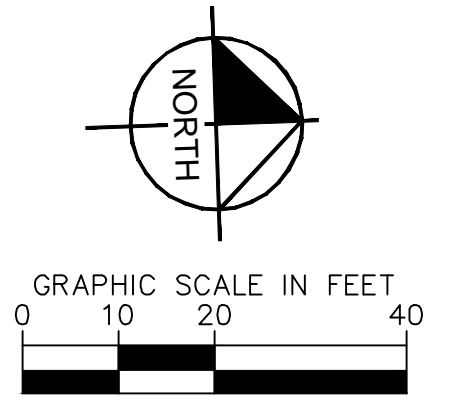
DESIGNED BY: MJK

SHEET SUBSET: SUBSET SHEET:

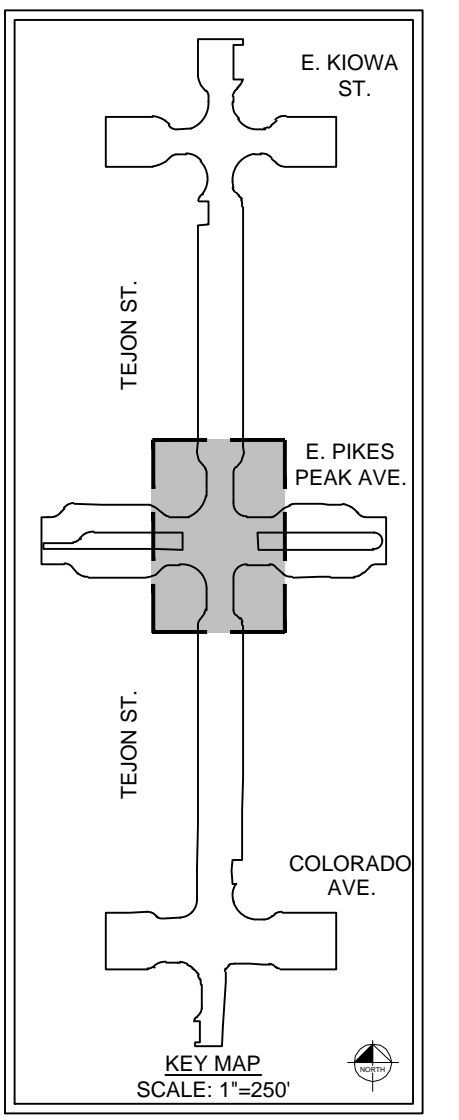
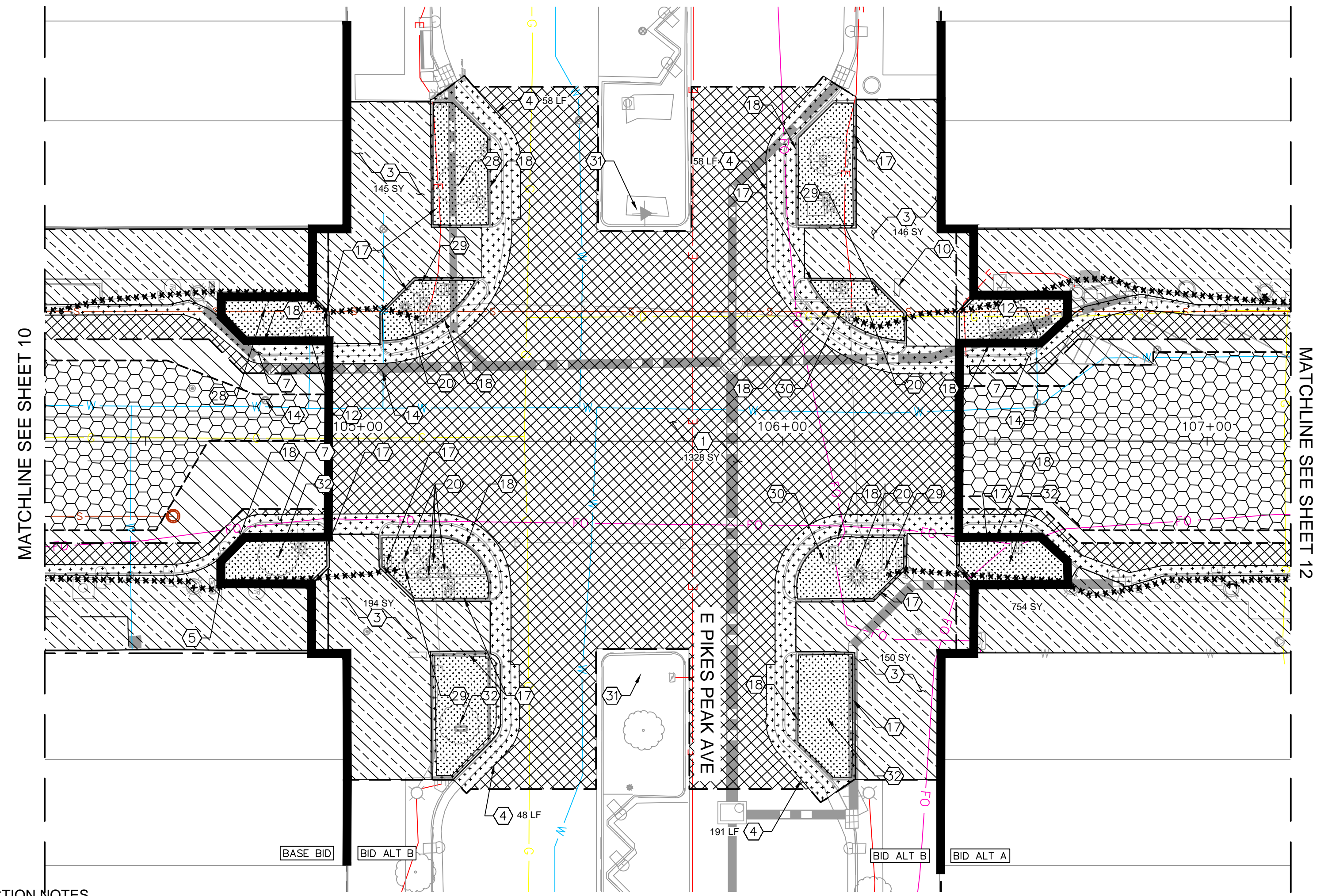
PROJECT NO./CODE

067607114

SHEET NUMBER 12



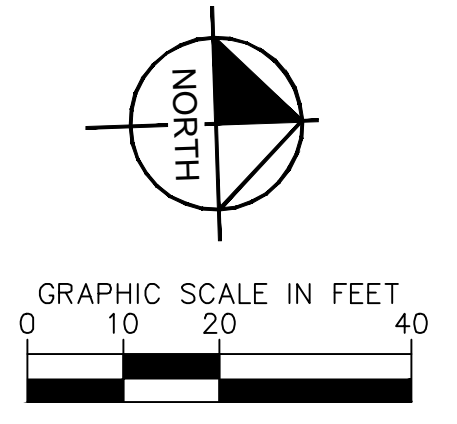
P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs\CD-DEMO.dwg, K:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs\CD-DEMO.dwg, 5/22/2024, 10:50 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. GAS LINE	
EX. ELECTRIC LINE	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. STORM LINE & MH	
EX. HYDRANT, VALVE	
EX. ROW	
EX. VEGETATION	
EX. FENCE	
ALTERNATE BID BOUNDARY LINE	
EX. ELECTRICAL TO BE REMOVED	
REMOVAL OF ASPHALT MAT (2" MILLING)	
REMOVAL OF ASPHALT MAT (VARIABLE DEPTH MILLING)	
REMOVAL OF ASPHALT MAT (FULL DEPTH)	
REMOVAL OF SIDEWALK	
REMOVAL OF CURB AND GUTTER	
REMOVAL OF PLANTERS	

- CONSTRUCTION NOTES**
- | | |
|---|---|
| ① REMOVAL OF ASPHALT MAT (FULL DEPTH) | ⑳ REMOVAL OF TREE |
| ② REMOVAL OF ASPHALT MAT (PARTIAL DEPTH) (2-INCH) | ㉑ REMOVAL OF BIKE RACK |
| ③ REMOVAL OF SIDEWALK | ㉒ REMOVAL OF TRAFFIC SIGNAL EQUIPMENT |
| ④ SAWCUT PAVEMENT (FULL DEPTH) | ㉓ REMOVAL OF FENCE OR RAILING |
| ⑤ REMOVAL OF PARKING METER | ㉔ REMOVAL OF STORM DRAIN |
| ⑥ RESET TRASH RECEPTACLE | ㉕ REMOVAL OF FENCE |
| ⑦ REMOVAL OF CURB AND GUTTER | ㉖ REMOVAL OF ELECTRICAL CONDUIT |
| ⑧ RESET LIGHT POLE | ㉗ REMOVAL OF BENCH |
| ⑨ REMOVAL OF PLANTER | ㉘ PROTECT PLANTER IN PLACE |
| ⑩ REMOVAL OF SIGN POST AND PANEL | ㉙ REMOVAL OF SIGNAL, SIGNAL MAST, AND SIGNAL POLE |
| ⑪ REMOVAL OF STORM INLET | ㉚ REMOVAL OF ARTWORK |
| ⑫ RESET FIRE HYDRANT ASSEMBLY (COMPLETE IN PLACE) | ㉛ PROTECT ARTWORK IN PLACE |
| ⑬ ADJUST SANITARY SEWER MANHOLE | ㉜ PROTECT TREE IN PLACE |
| ⑭ ADJUST WATER VALVE BOX | ㉝ REMOVAL OF PAVEMENT MARKING |
| ⑮ ADJUST VALVE BOX | ㉞ EXISTING MAILBOXES TO BE REMOVED AND REPLACED |
| ⑯ REMOVAL OF LANDSCAPE GRATE | ㉟ REMOVAL OF SIDEWALK |
| ⑰ REMOVAL OF LANDSCAPED PLANTER | ㊱ REMOVAL OF STRIPING |
| ⑱ REMOVAL OF CURB WALL | |
| ⑲ REMOVAL OF PAVEMENT MARKING | |



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

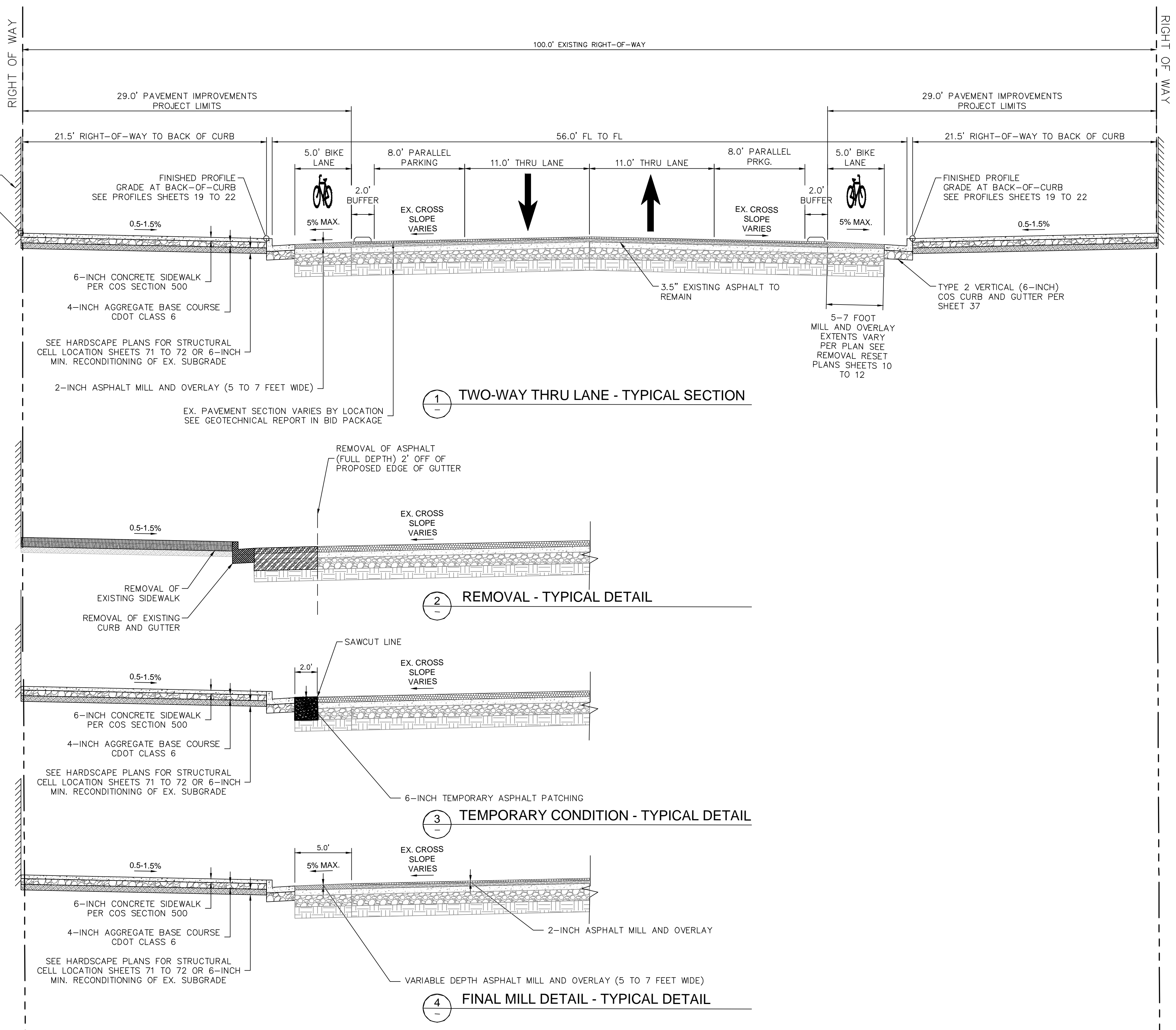
FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION REMOVAL AND RESET PLAN – BID ALT B	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 13

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs_CD-SECT.dwg - Krammer, Michael 5/22/2024 10:50 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



1 TWO-WAY THRU LANE - TYPICAL SECTION

2 REMOVAL - TYPICAL DETAIL

3 TEMPORARY CONDITION - TYPICAL DETAIL

4 FINAL MILL DETAIL - TYPICAL DETAIL

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:



KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	
(R-X)			
(R-X)			
(R-X)			
(R-X)			



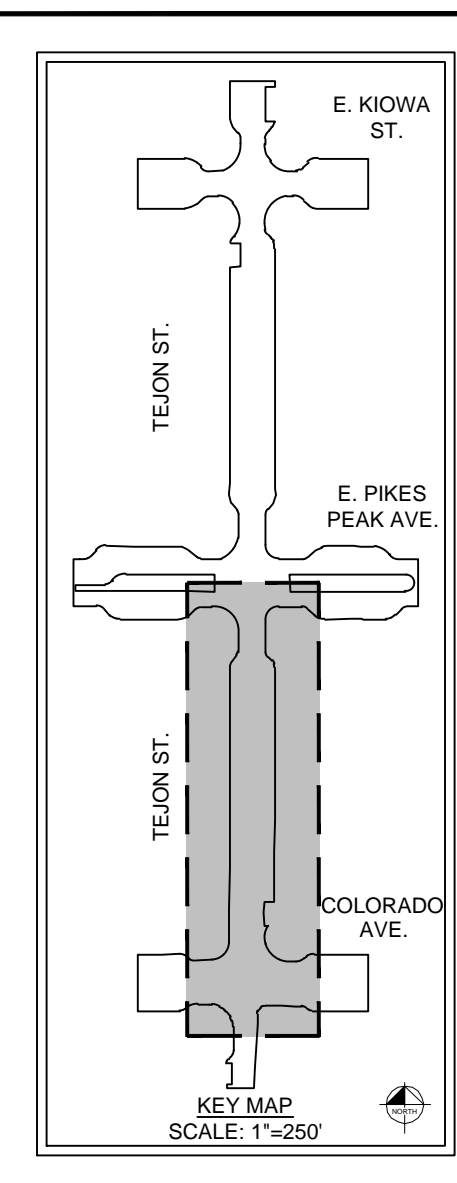
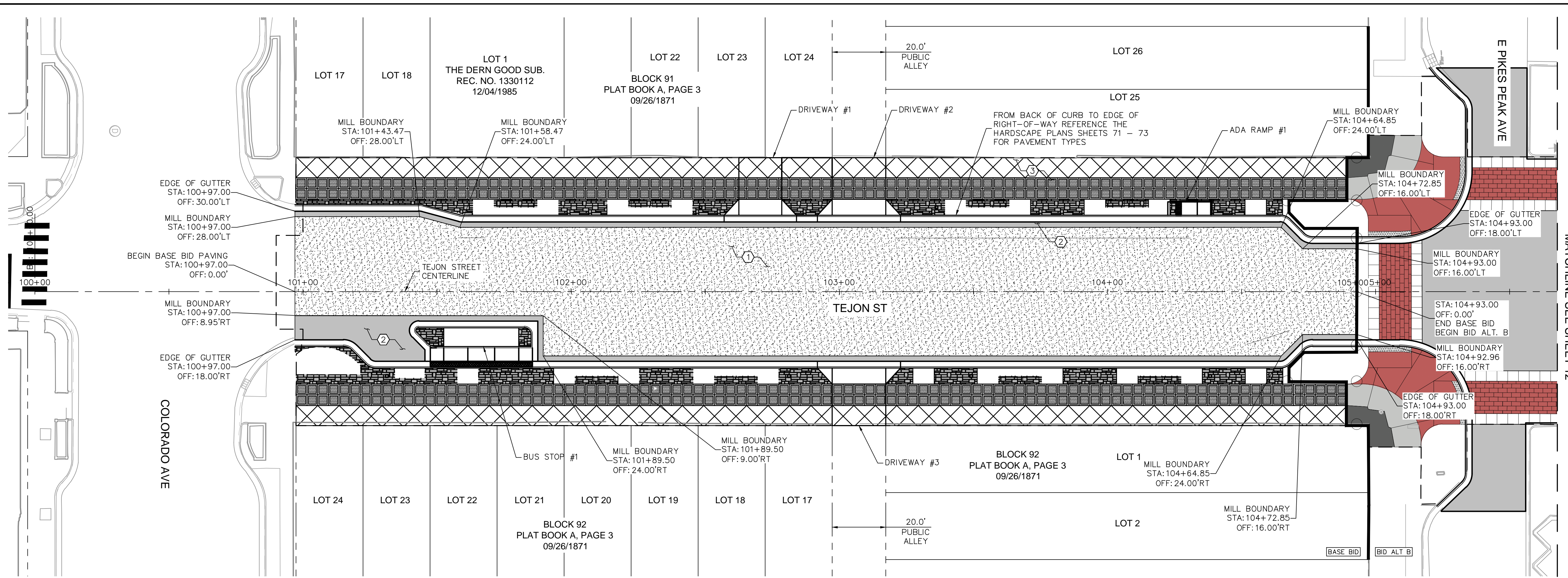
COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley-Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION TYPICAL SECTIONS			
CHECKED BY:	EJG		
DESIGNED BY:	MJK		
SHEET SUBSET:		SUBSET SHEET:	

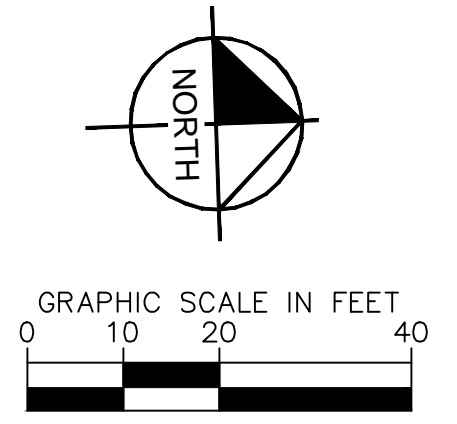
PROJECT NO./CODE
067607114
SHEET NUMBER 14

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs_CD_PAVING.dwg - Kramer, Michael 5/22/2024 10:51 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF
 AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



- LEGEND:**
- 2-INCH MILL AND OVERLAY LIMITS
 - FULL DEPTH ASPHALT PAVEMENT (4.5-INCH HMA ON 12-INCH ABC)
 - SLURRY SEAL
 - EX. SANITARY MANHOLE
 - EX. STORM MANHOLE
 - EX. HYDRANT / VALVE
 - EX. ROW
 - EX. VEGETATION
 - EX. FENCE
 - ALTERNATE BID BOUNDARY LINE

- CONSTRUCTION NOTES**
- ① PARTIAL DEPTH ASPHALT PAVEMENT (2-INCH)
 - ② FULL DEPTH ASPHALT PAVEMENT (4.5-INCH)
 - ③ SEE HARDSCAPE PLANS SHEETS 71 TO 73 FOR PAVEMENT TYPES BACK OF CURB TO EDGE OF RIGHT-OF-WAY (SIDEWALK)
- NOTES**
1. SEE HARDSCAPE PLAN SHEETS 71 TO 73 FOR CONCRETE PAVEMENT AND SIDEWALK DETAILS
 2. SEE SHEET 18 FOR THE PAVEMENT SEAL COAT PLAN OF THE NORTHERN BLOCK (BASE BID). THE PAVEMENT SEAL COAT PLAN SHALL ONLY PROCEED IF BID ALTERNATE A IS NOT AWARDED IN THE CONTRACT.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:
(R-X)		
(R-X)		
(R-X)		
(R-X)		

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

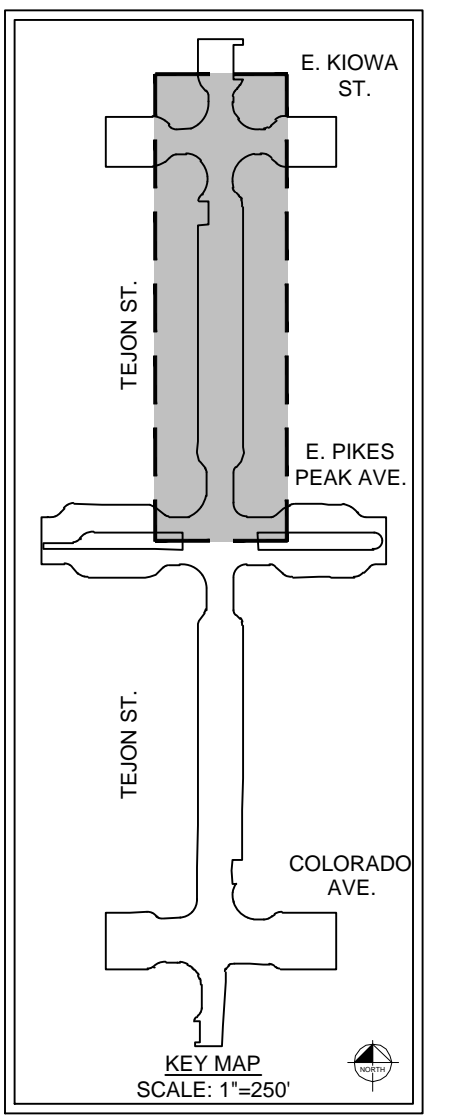
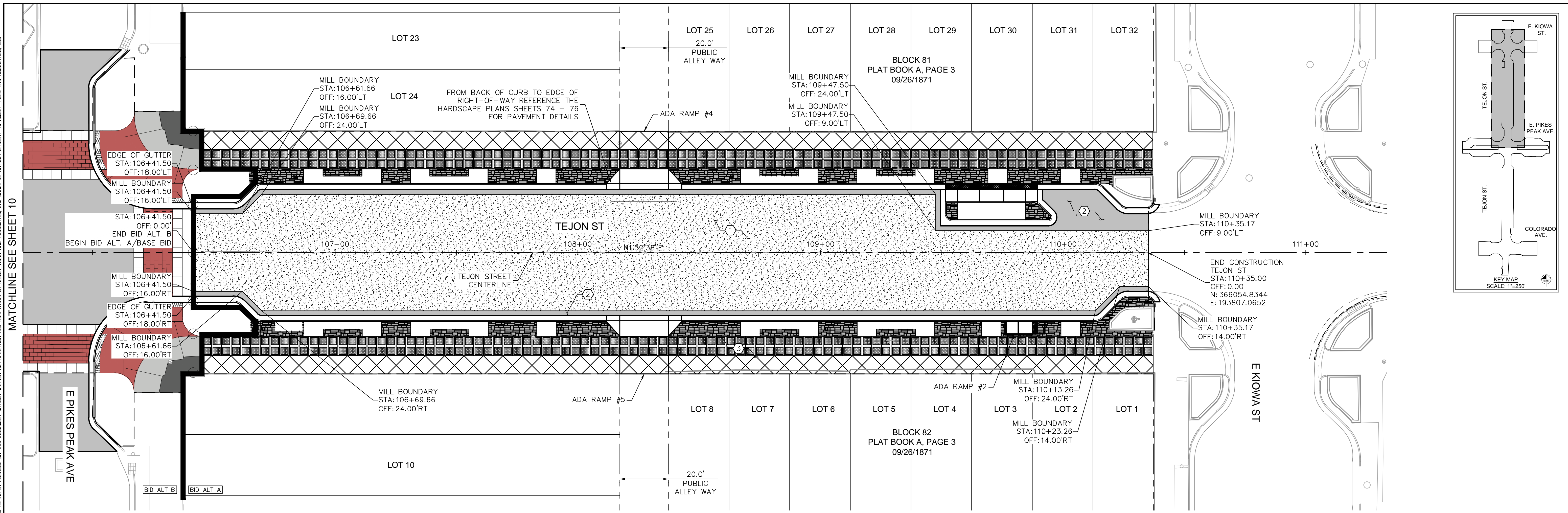
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION PAVING PLAN - BASE BID

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE	067607114
SHEET NUMBER	15

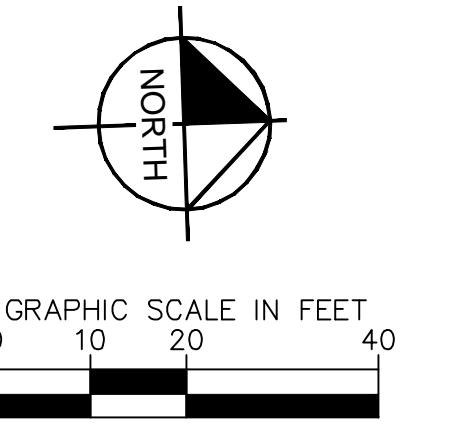
5/22/2024 10:51 AM
 C:\projects\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD_PAVING.dwg - Kramer, Michael
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF
 AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



LEGEND:

2-INCH MILL AND OVERLAY LIMITS	
FULL DEPTH ASPHALT PAVEMENT (4.5-INCH HMA ON 12-INCH ABC)	
SLURRY SEAL	
EX. SANITARY MANHOLE	
EX. STORM MANHOLE	
EX. HYDRANT / VALVE	
EX. ROW	
EX. VEGETATION	
EX. FENCE	
ALTERNATE BID BOUNDARY LINE	

- CONSTRUCTION NOTES**
- ① PARTIAL DEPTH ASPHALT PAVEMENT (2-INCH)
 - ② FULL DEPTH ASPHALT PAVEMENT (4.5-INCH)
 - ③ SEE HARDSCAPE PLANS SHEETS 71 TO 73 FOR PAVEMENT TYPES BACK OF CURB TO EDGE OF RIGHT-OF-WAY (SIDEWALK)
- NOTES**
1. SEE HARDSCAPE PLAN SHEETS 71 TO 73 FOR CONCRETE PAVEMENT AND SIDEWALK DETAILS
 2. SEE SHEET 18 FOR THE PAVEMENT SEAL COAT PLAN OF THE NORTHERN BLOCK (BASE BID). THE PAVEMENT SEAL COAT PLAN SHALL ONLY PROCEED IF BID ALTERNATE A IS NOT AWARDED IN THE CONTRACT.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

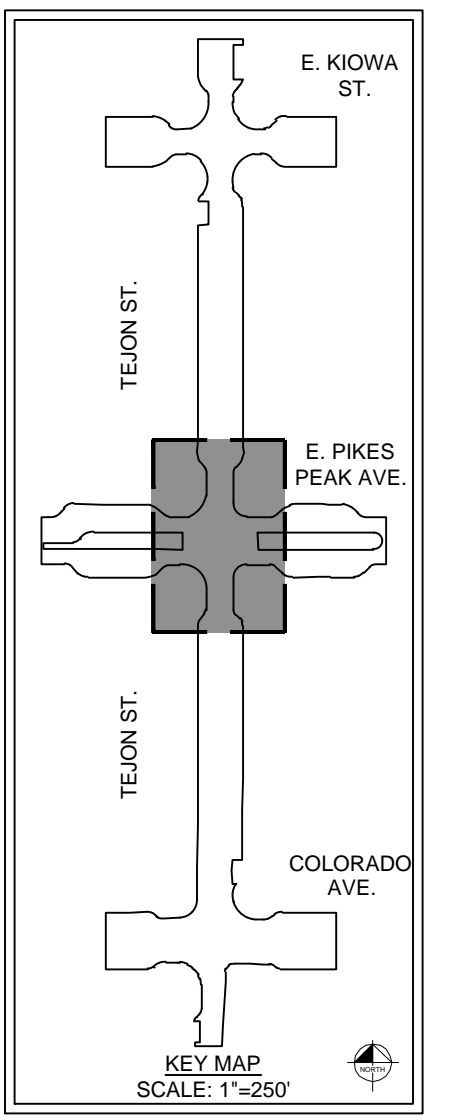
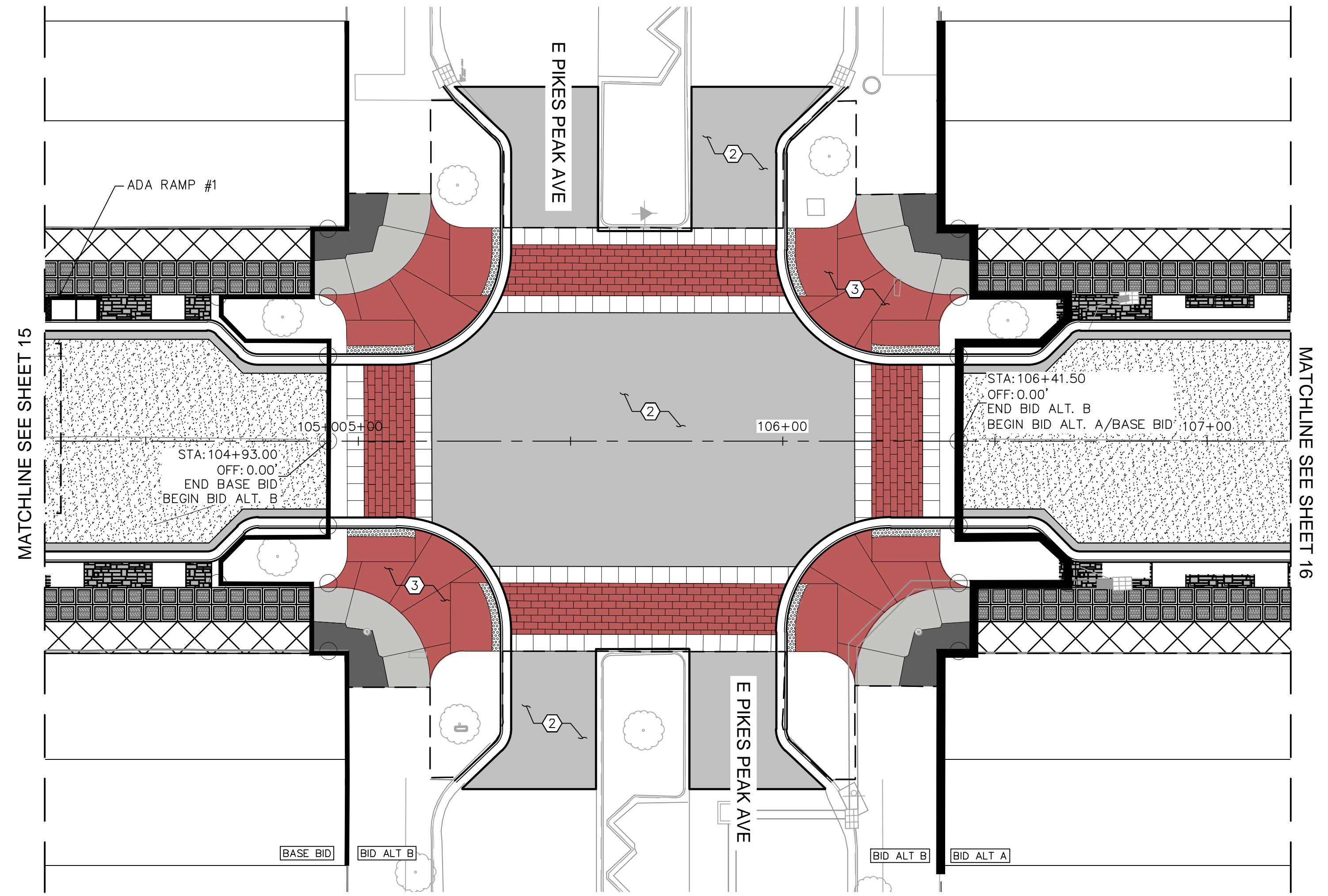
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION PAVING PLAN - BID ALT A	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 16

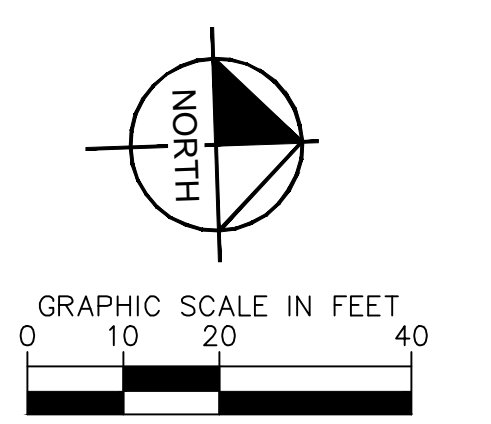
P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan\sheet\CDs\CD_PAVING.dwg - Kramer, Michael 5/22/2024 10:51 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



LEGEND:

- 2-INCH MILL AND OVERLAY LIMITS
- FULL DEPTH ASPHALT PAVEMENT (4.5-INCH HMA ON 12-INCH ABC)
- SLURRY SEAL
- EX. SANITARY MANHOLE
- EX. STORM MANHOLE
- EX. HYDRANT / VALVE
- EX. ROW
- EX. VEGETATION
- EX. FENCE
- ALTERNATE BID BOUNDARY LINE

- CONSTRUCTION NOTES**
- ① PARTIAL DEPTH ASPHALT PAVEMENT (2-INCH)
 - ② FULL DEPTH ASPHALT PAVEMENT (4.5-INCH)
 - ③ SEE HARDSCAPE PLANS SHEETS 71 TO 73 FOR PAVEMENT TYPES BACK OF CURB TO EDGE OF RIGHT-OF-WAY (SIDEWALK)
- NOTES**
1. SEE HARDSCAPE PLAN SHEETS 71 TO 73 FOR CONCRETE PAVEMENT AND SIDEWALK DETAILS
 2. SEE SHEET 18 FOR THE PAVEMENT SEAL COAT PLAN OF THE NORTHERN BLOCK (BASE BID). THE PAVEMENT SEAL COAT PLAN SHALL ONLY PROCEED IF BID ALTERNATE A IS NOT AWARDED IN THE CONTRACT.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	
(R-X)			
(R-X)			
(R-X)			
(R-X)			

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

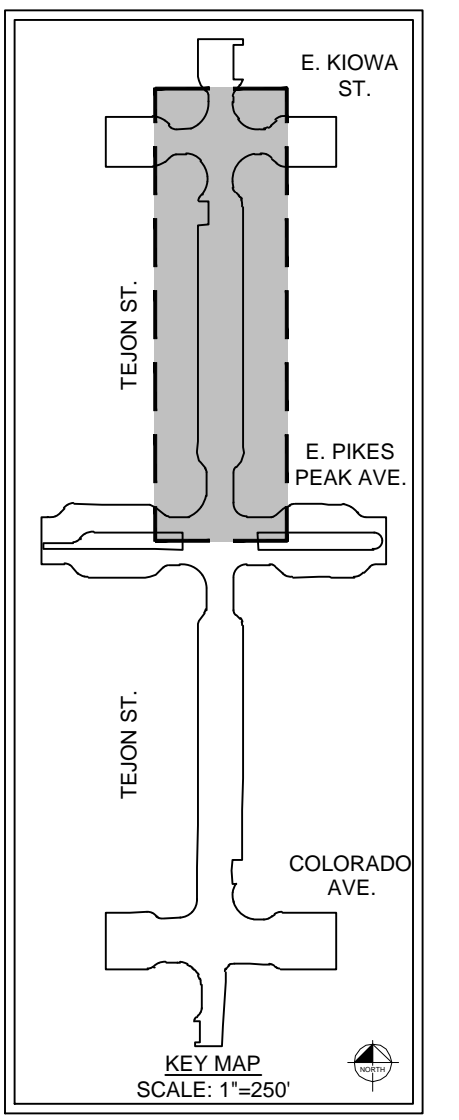
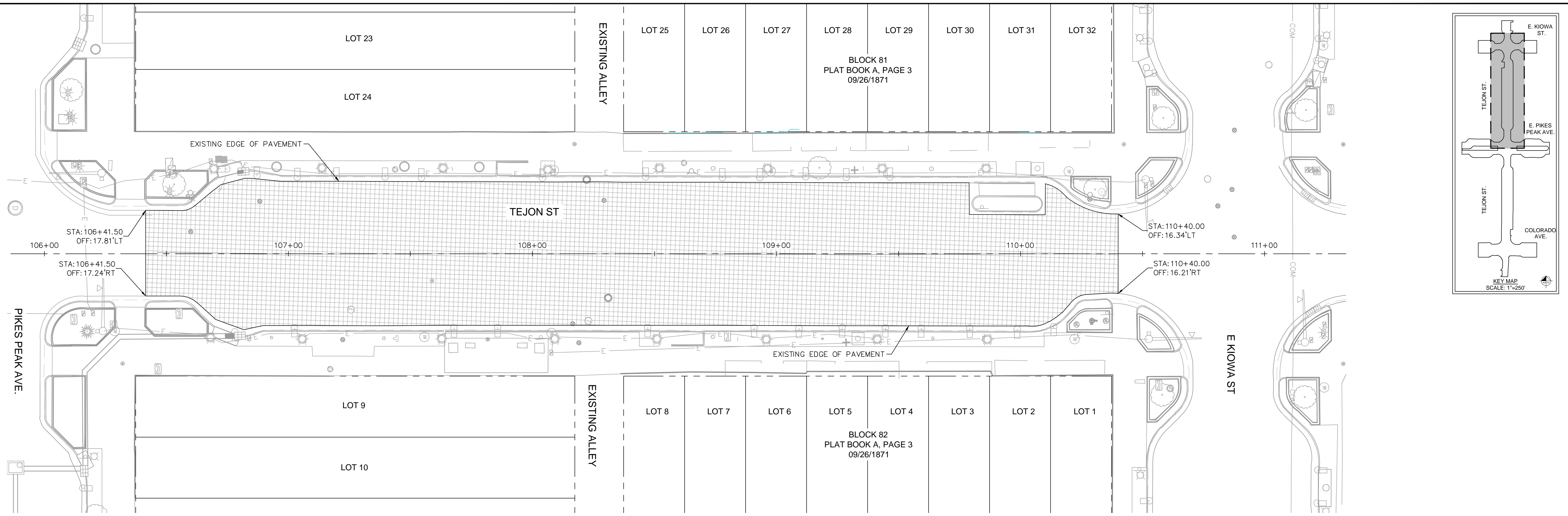
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION PAVING PLAN – BID ALT B	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 17

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs_CD-PV-SEAL.dwg Krappner, Michael 5/22/2024 10:52 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF, AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



LEGEND:

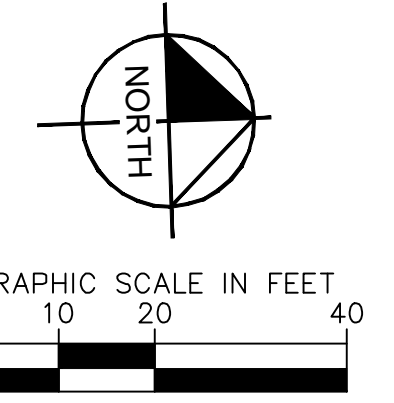
- 2-INCH MILL AND OVERLAY LIMITS
- FULL DEPTH ASPHALT PAVEMENT (4.5-INCH HMA ON 12-INCH ABC)
- SLURRY SEAL
- EX. SANITARY MANHOLE
- EX. STORM MANHOLE
- EX. HYDRANT / VALVE
- EX. ROW
- EX. VEGETATION
- EX. FENCE
- ALTERNATE BID BOUNDARY LINE

CONSTRUCTION NOTES

- ① PARTIAL DEPTH ASPHALT PAVEMENT (2-INCH)
- ② FULL DEPTH ASPHALT PAVEMENT (4.5-INCH)
- ③ SEE HARDSCAPE PLANS SHEETS 71 TO 73 FOR PAVEMENT TYPES BACK OF CURB TO EDGE OF RIGHT-OF-WAY (SIDEWALK)

NOTES

- 1. SEE HARDSCAPE PLAN SHEETS 71 TO 73 FOR CONCRETE PAVEMENT AND SIDEWALK DETAILS
- 2. SEE SHEET 18 FOR THE PAVEMENT SEAL COAT PLAN OF THE NORTHERN BLOCK (BASE BID). THE PAVEMENT SEAL COAT PLAN SHALL ONLY PROCEED IF BID ALTERNATE A IS NOT AWARDED IN THE CONTRACT.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

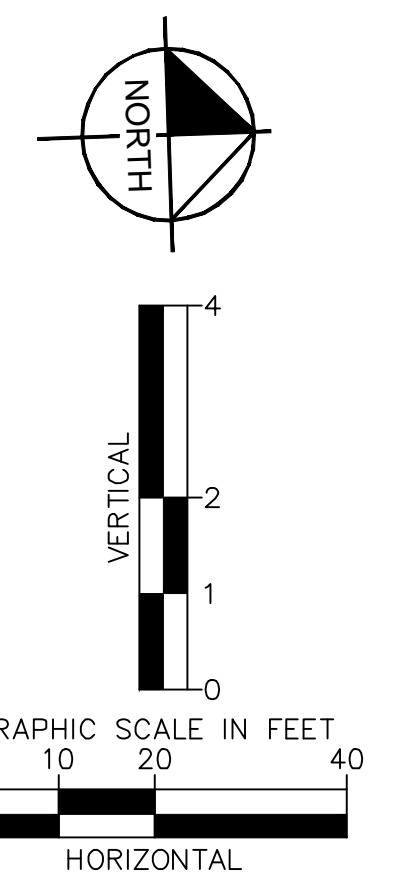
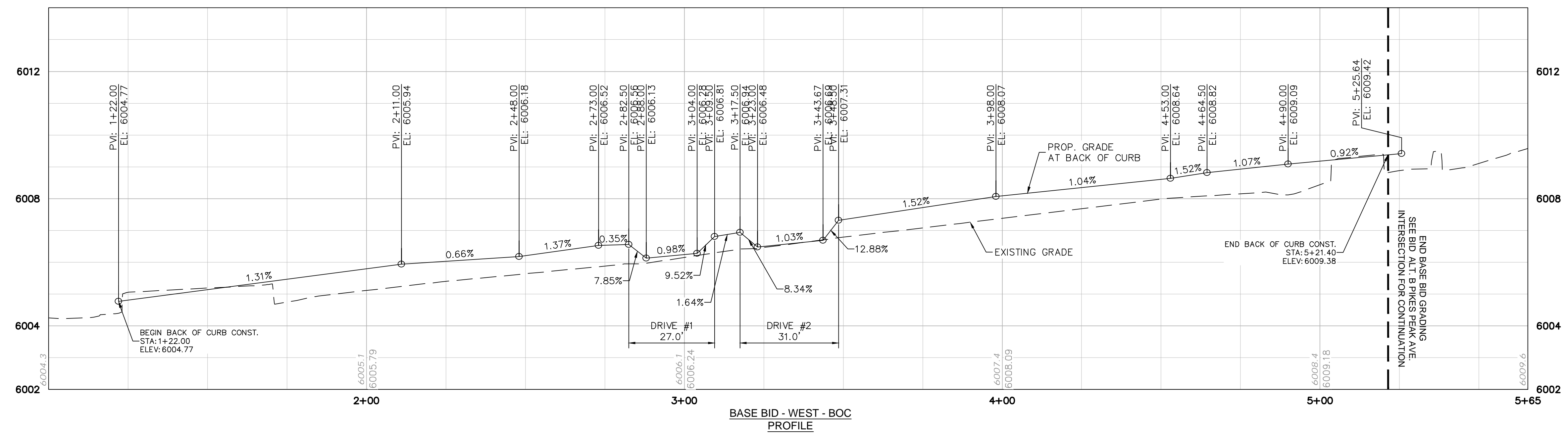
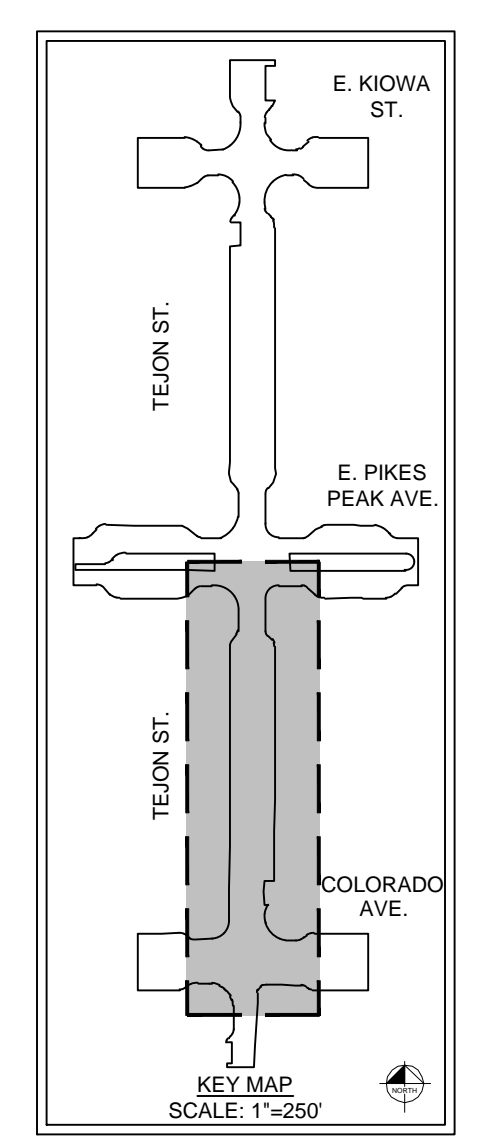
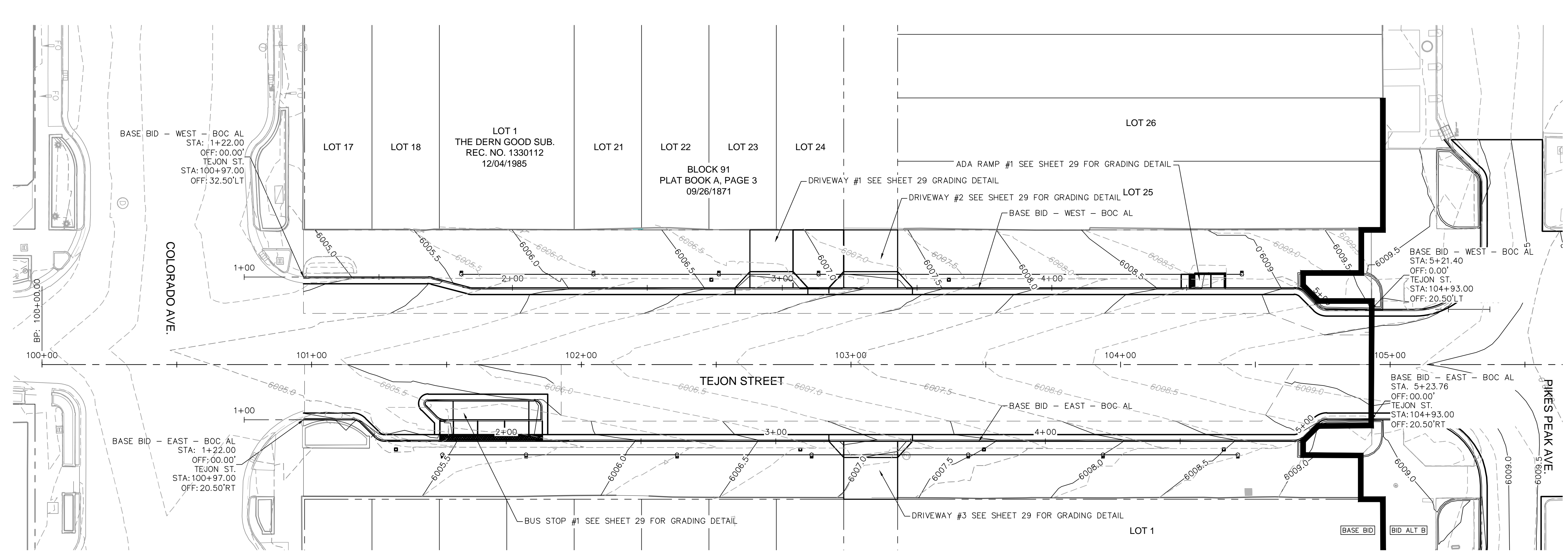
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION PAVING PLAN – BASE BID			
CHECKED BY:	EJG		
DESIGNED BY:	MJK		
SHEET SUBSET:		SUBSET SHEET:	

PROJECT NO./CODE
067607114
SHEET NUMBER 18

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-ROADWAY-PLAN AND PROFILE.dwg - Kratzer, Michael 5/22/2024 10:52 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

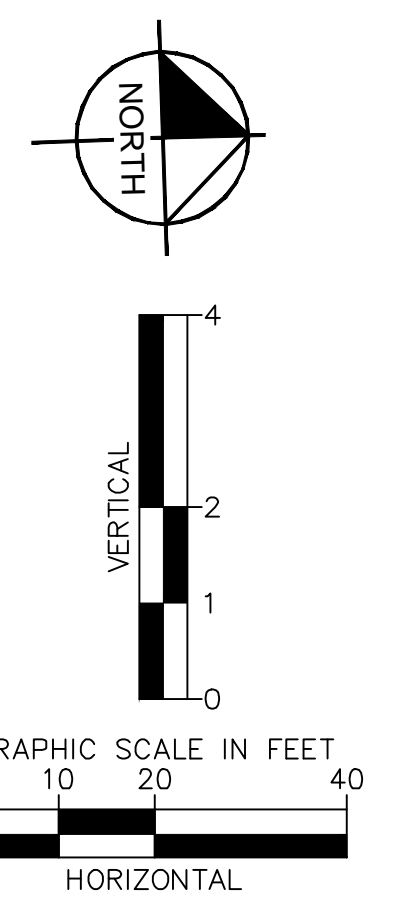
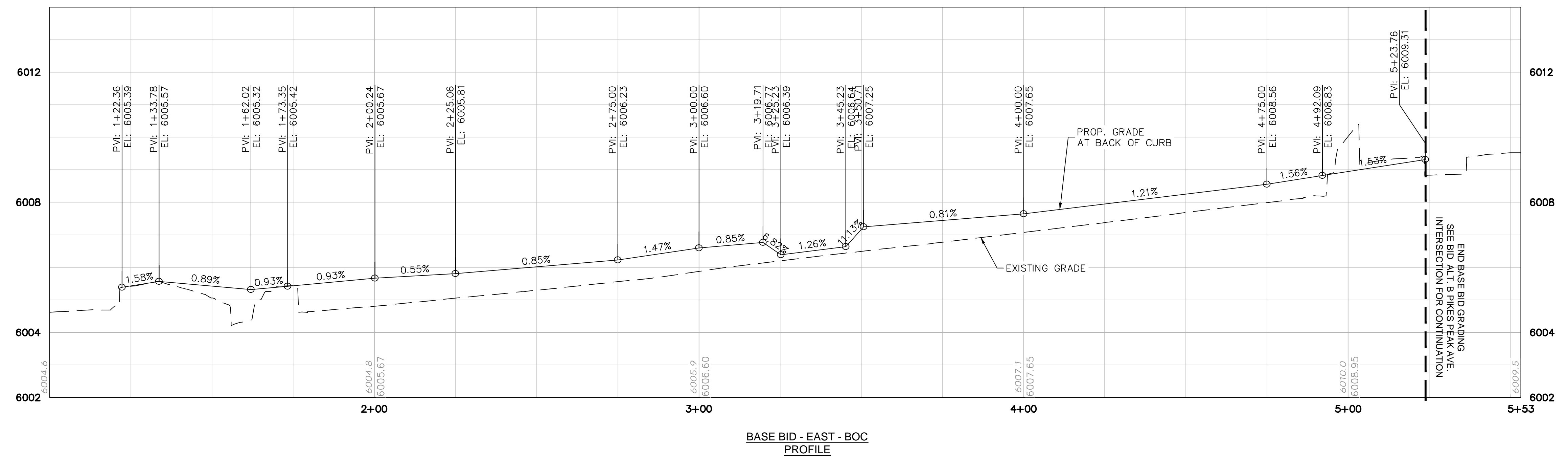
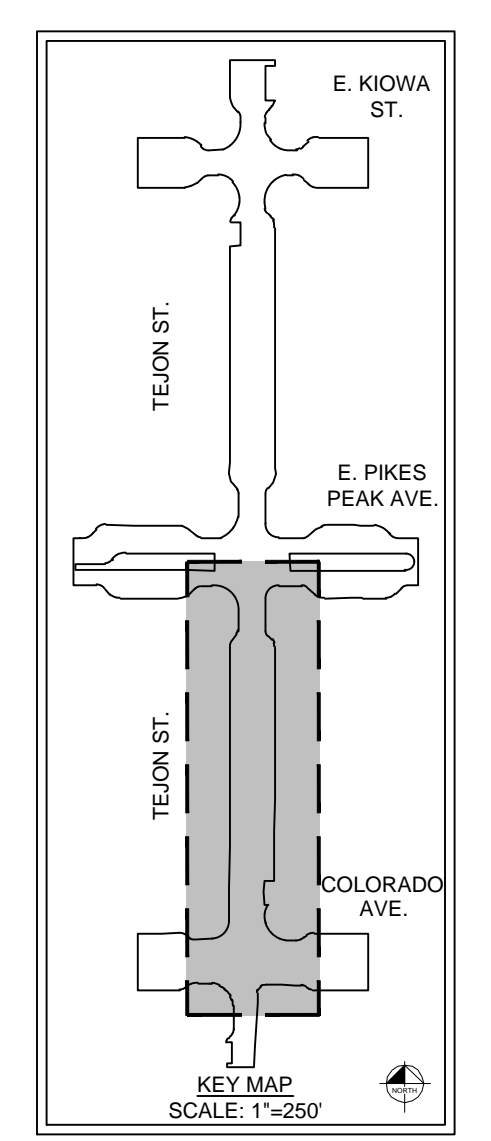
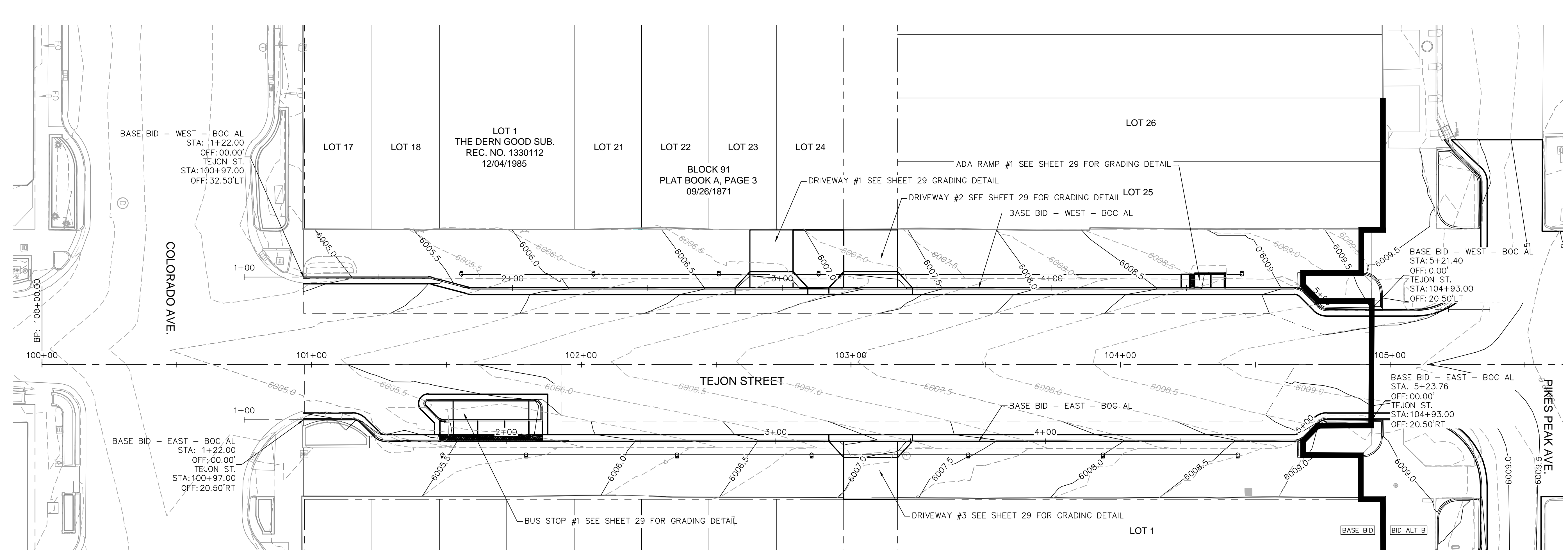
COLORADO SPRINGS
 OLYMPIC CITY USA
 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 ROADWAY PLAN AND PROFILE BASE BID WEST
 CHECKED BY: EJC
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 19

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-ROADWAY-PLAN AND PROFILE.dwg - Kratmer, Michael 5/22/2024 10:52 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

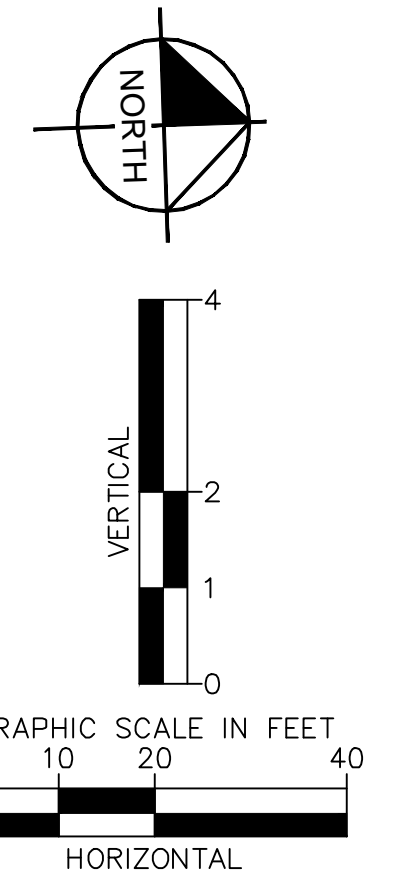
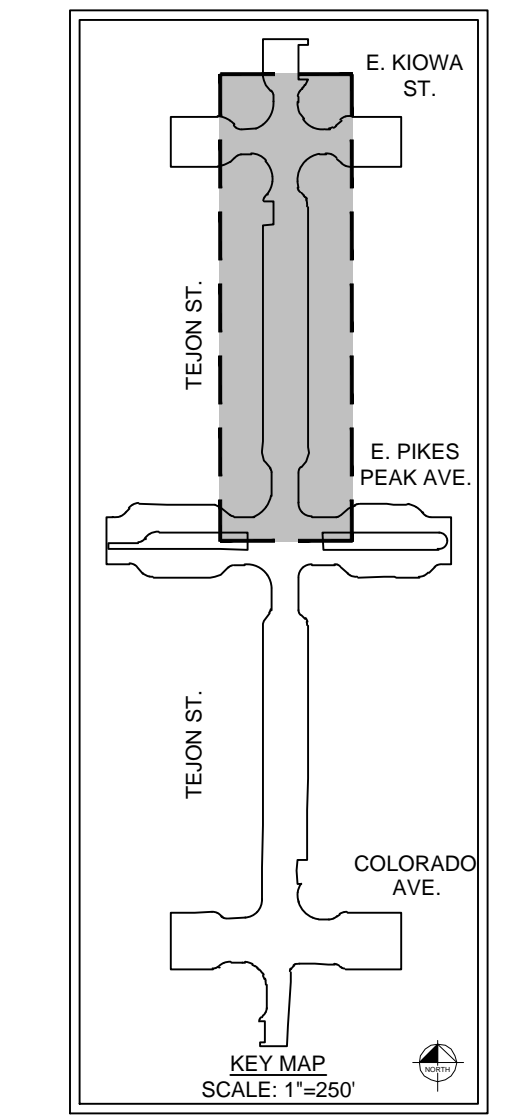
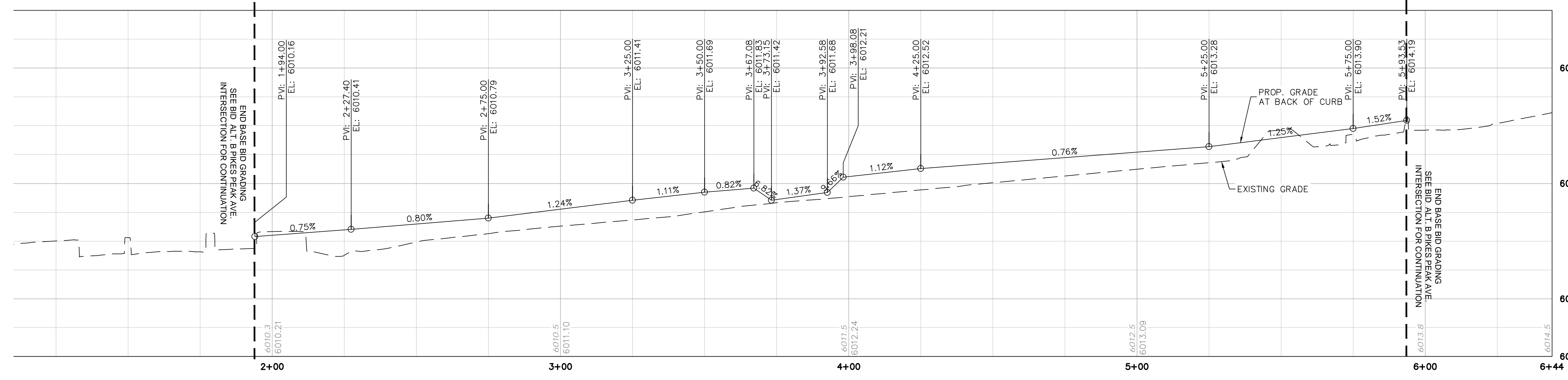
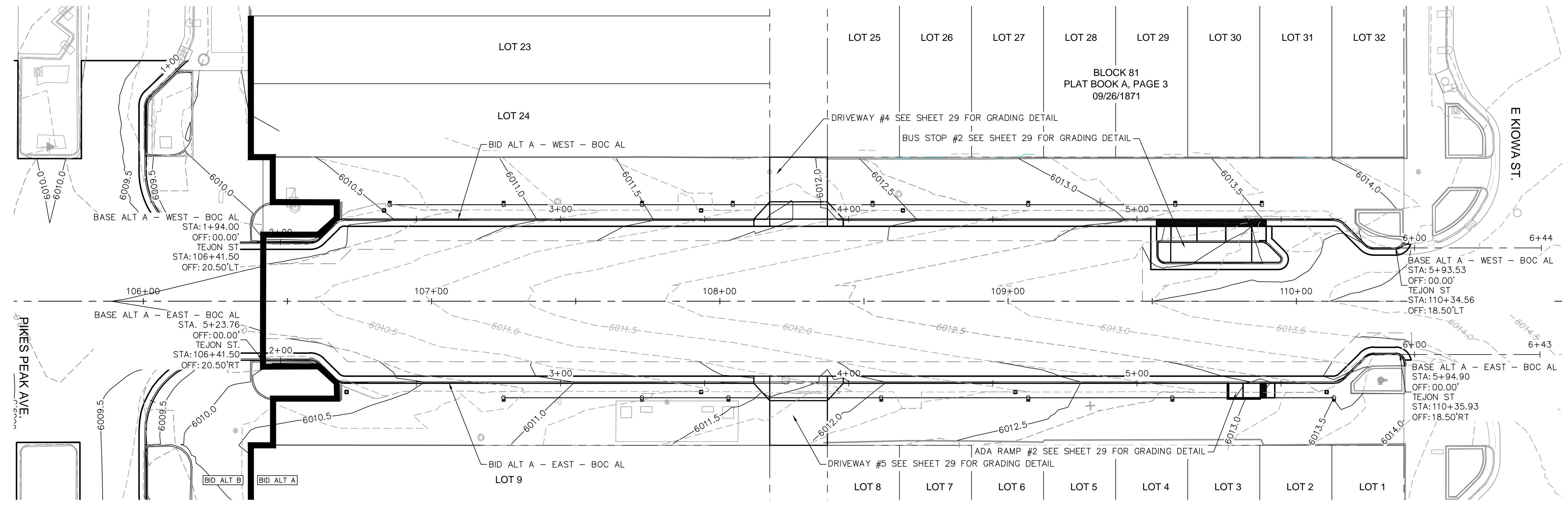
COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION ROADWAY PLAN AND PROFILE BASE BID EAST	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 20

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-ROADWAY-PLAN AND PROFILE.dwg, Krammer, Michael, 5/22/2024 10:52 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

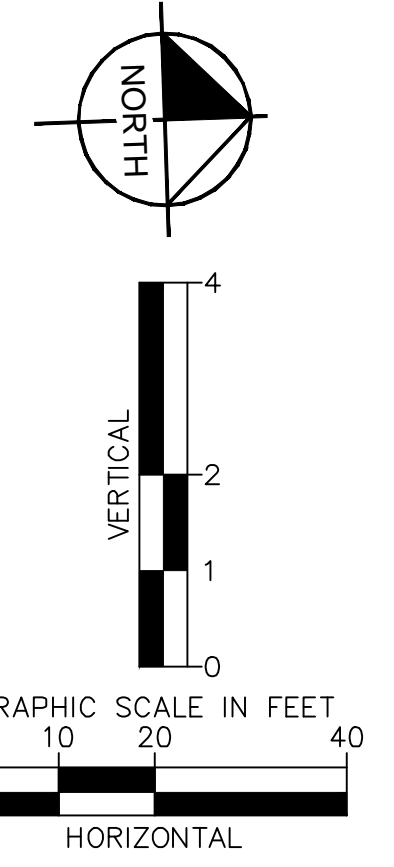
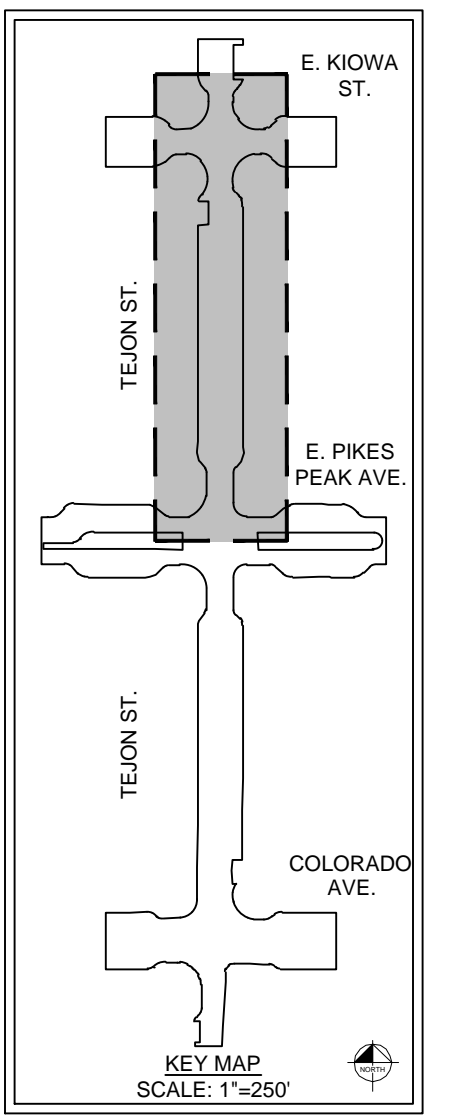
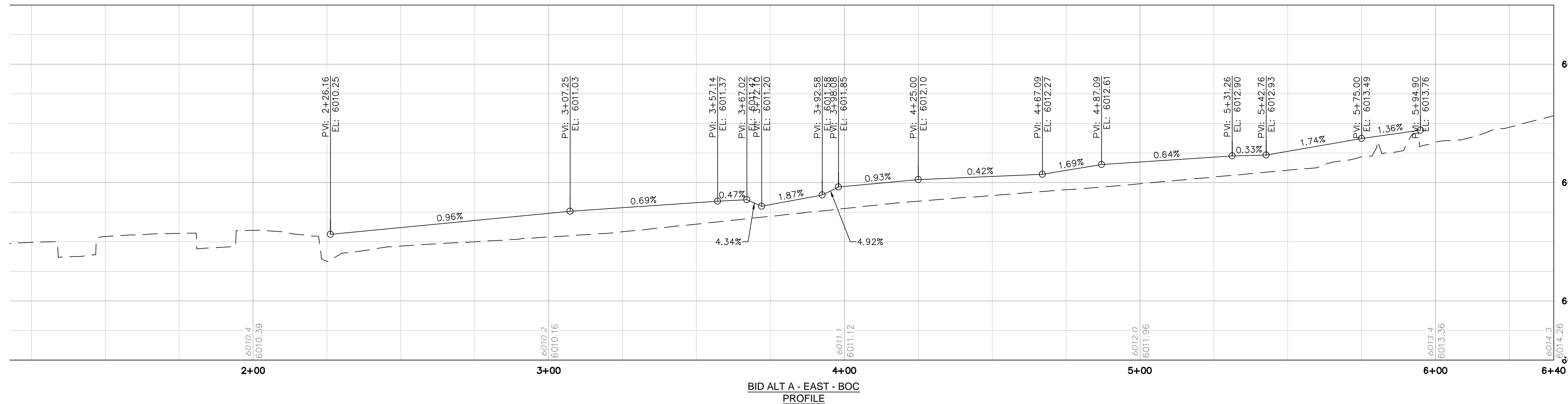
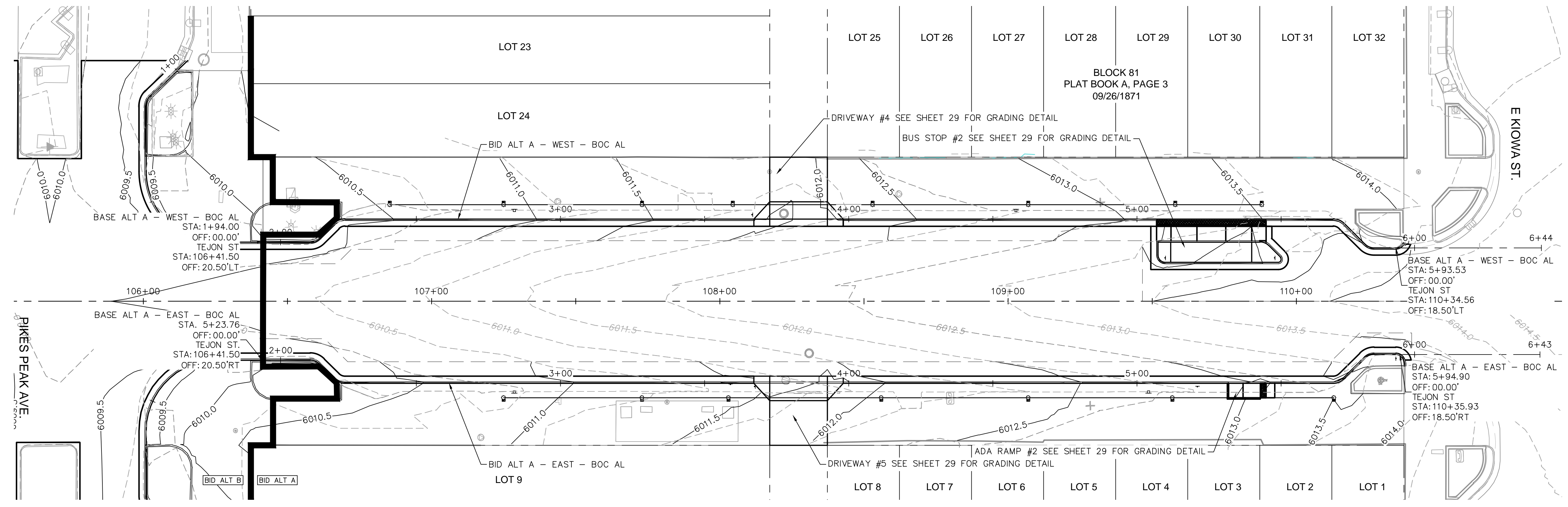
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 ROADWAY PLAN AND PROFILE BID ALT A WEST

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE	067607114
SHEET NUMBER	21

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-ROADWAY-PLAN AND PROFILE.dwg, Krattner, Michael, 5/22/2024 10:52 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE:
 VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS
 OLYMPIC CITY USA
 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

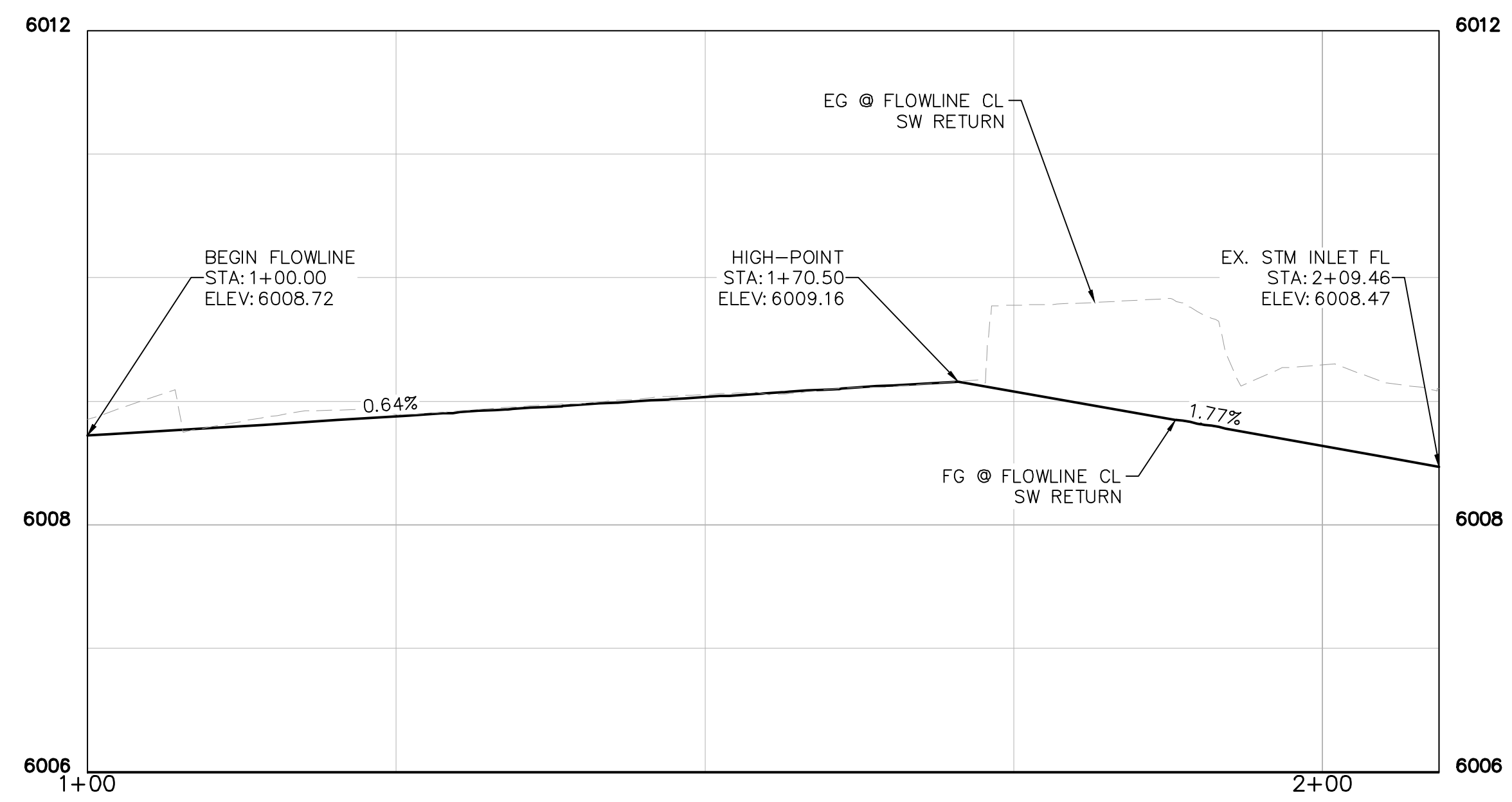
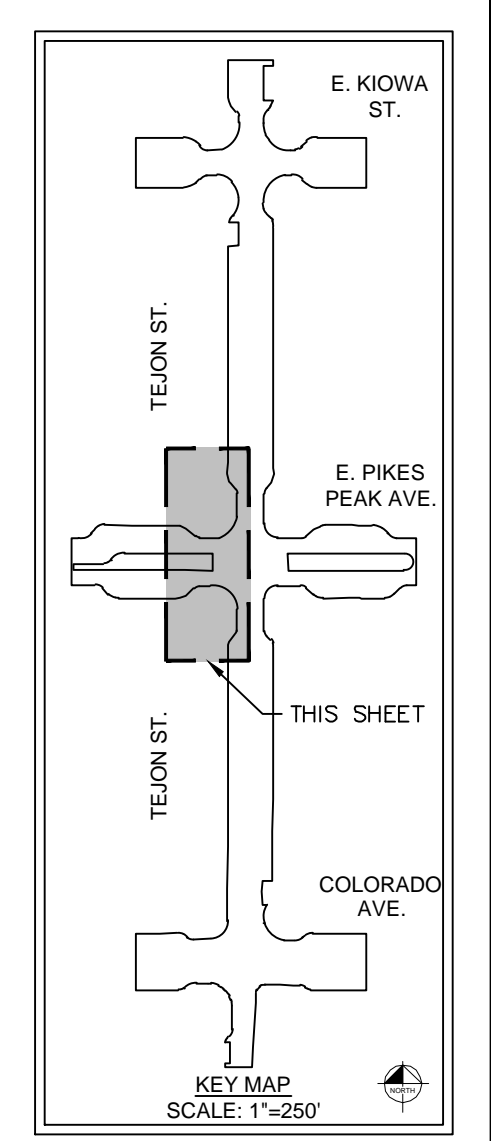
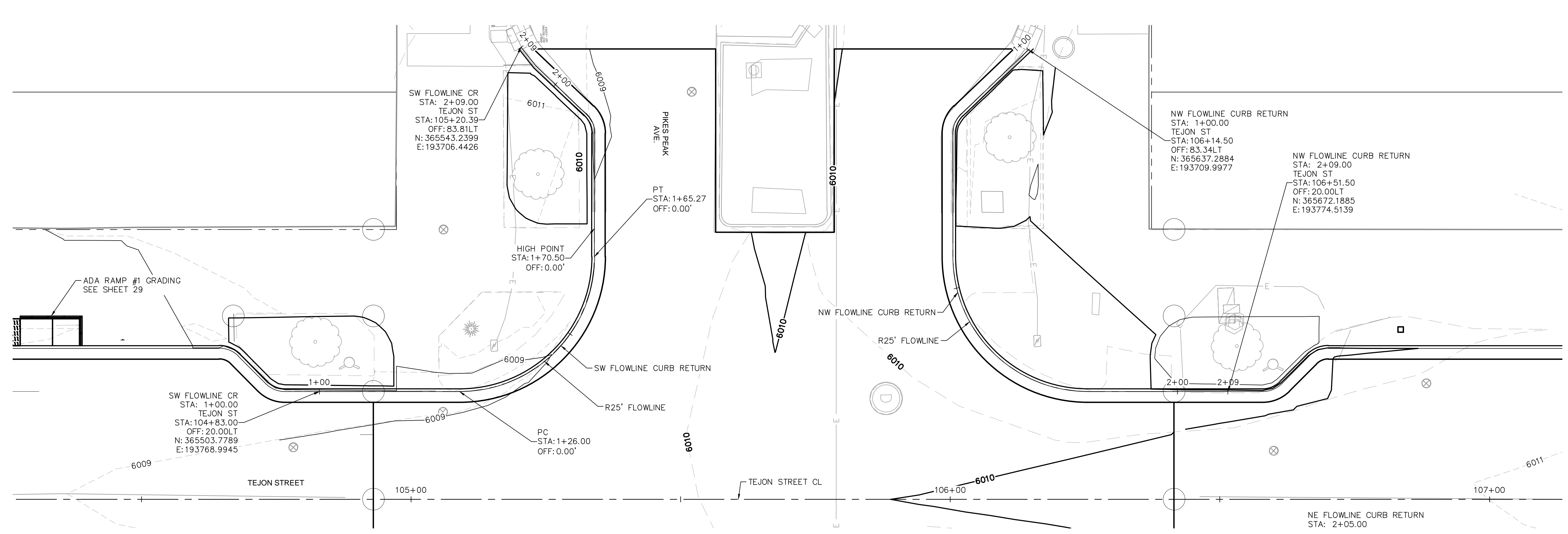
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 ROADWAY PLAN AND PROFILE BID ALT A EAST

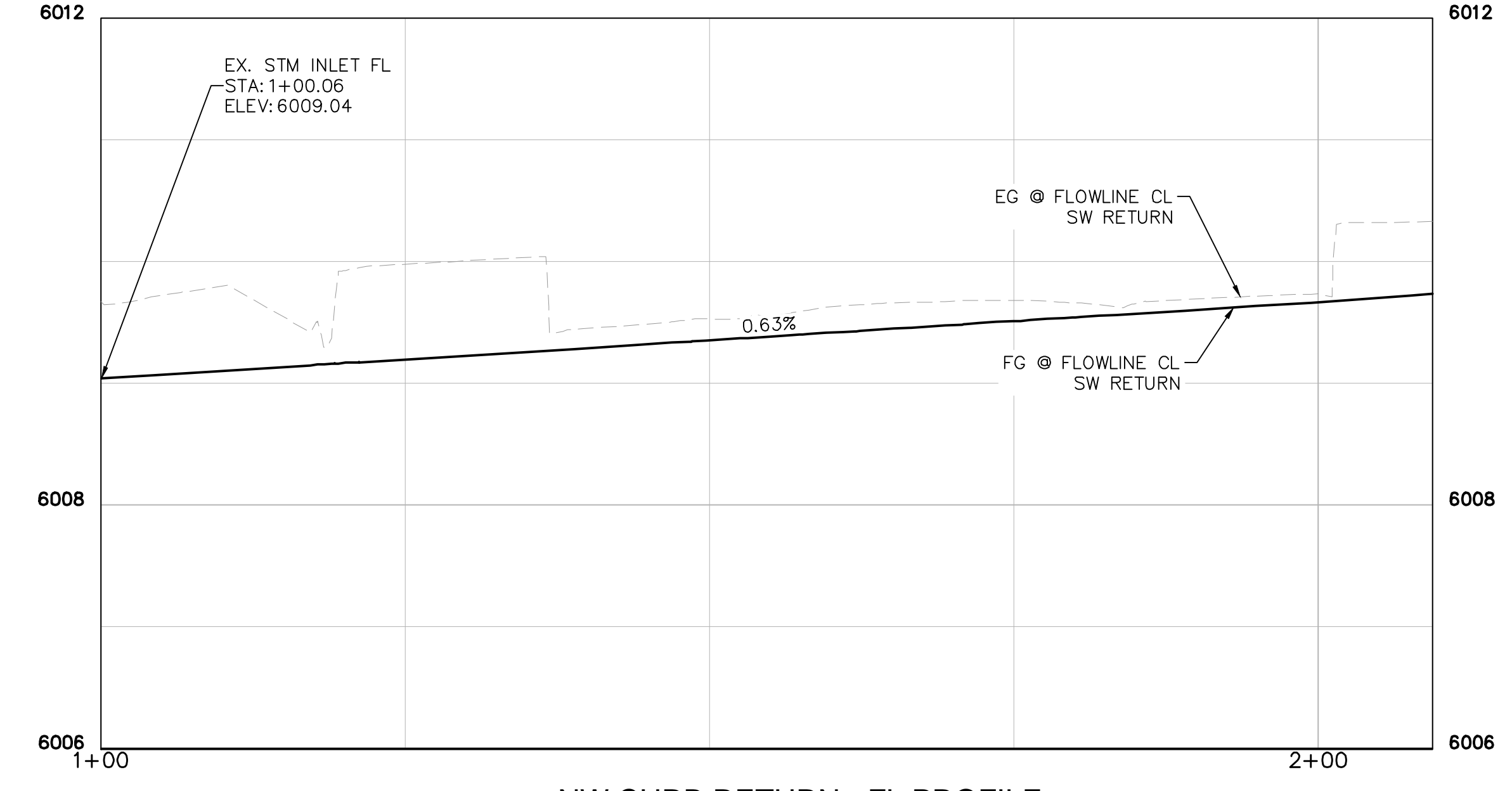
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE	067607114
SHEET NUMBER	22

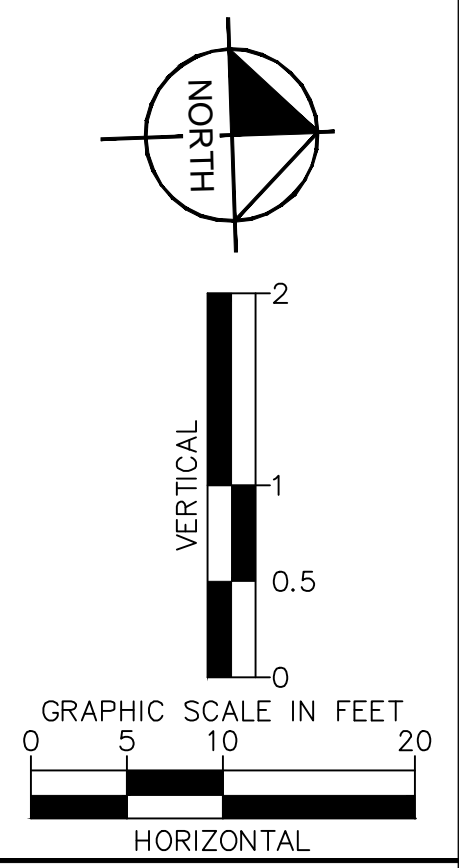
P:\cvs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs_CD_CURB_RETURNS.dwg Kramer, Michael 5/22/2024 10:52 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



SW CURB RETURN - FL PROFILE
PIKES PEAK INTERSECTION



NW CURB RETURN - FL PROFILE
PIKES PEAK INTERSECTION



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

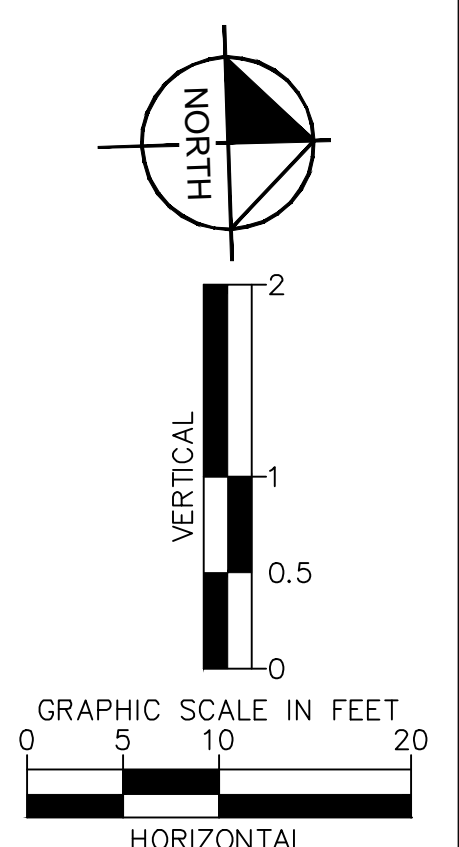
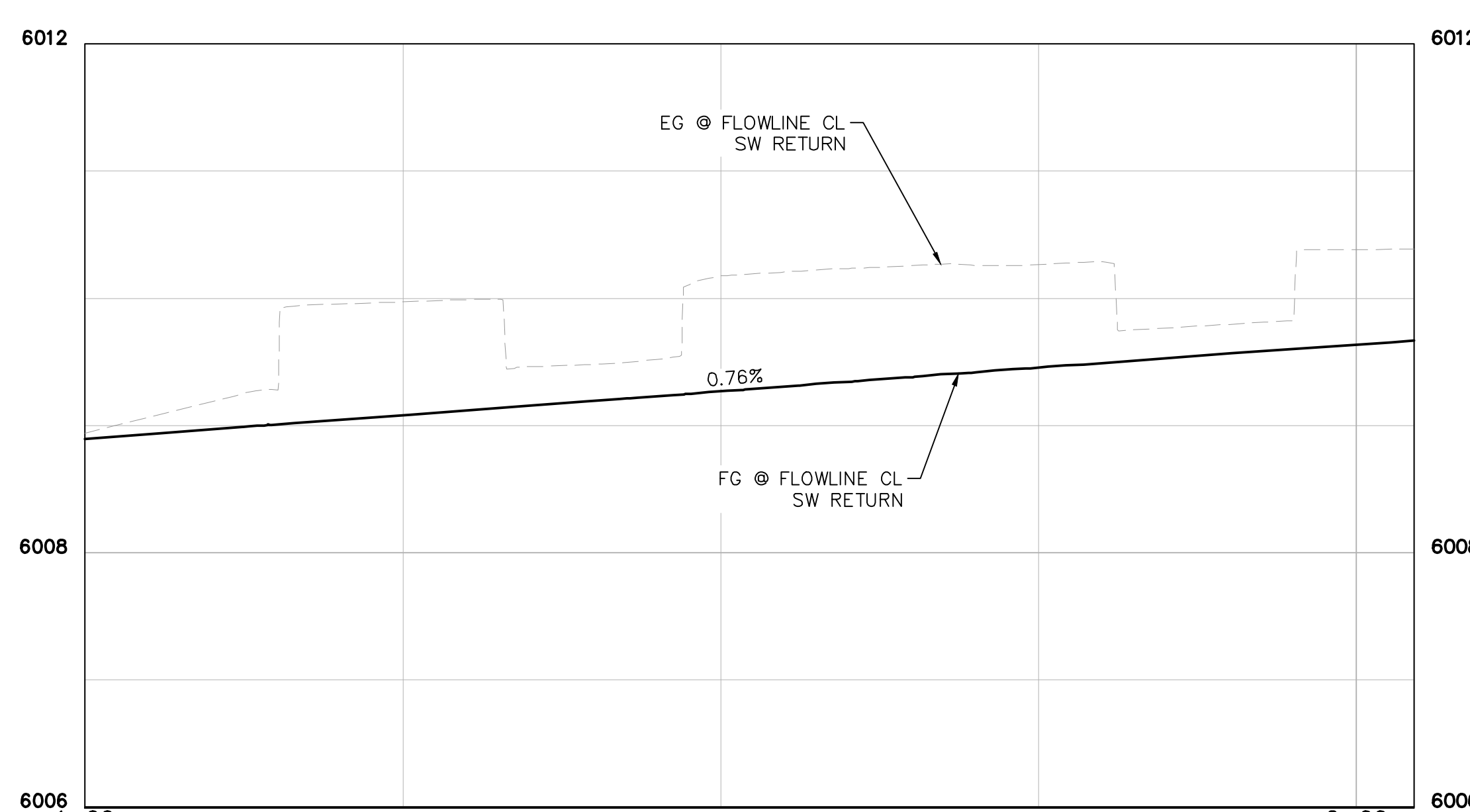
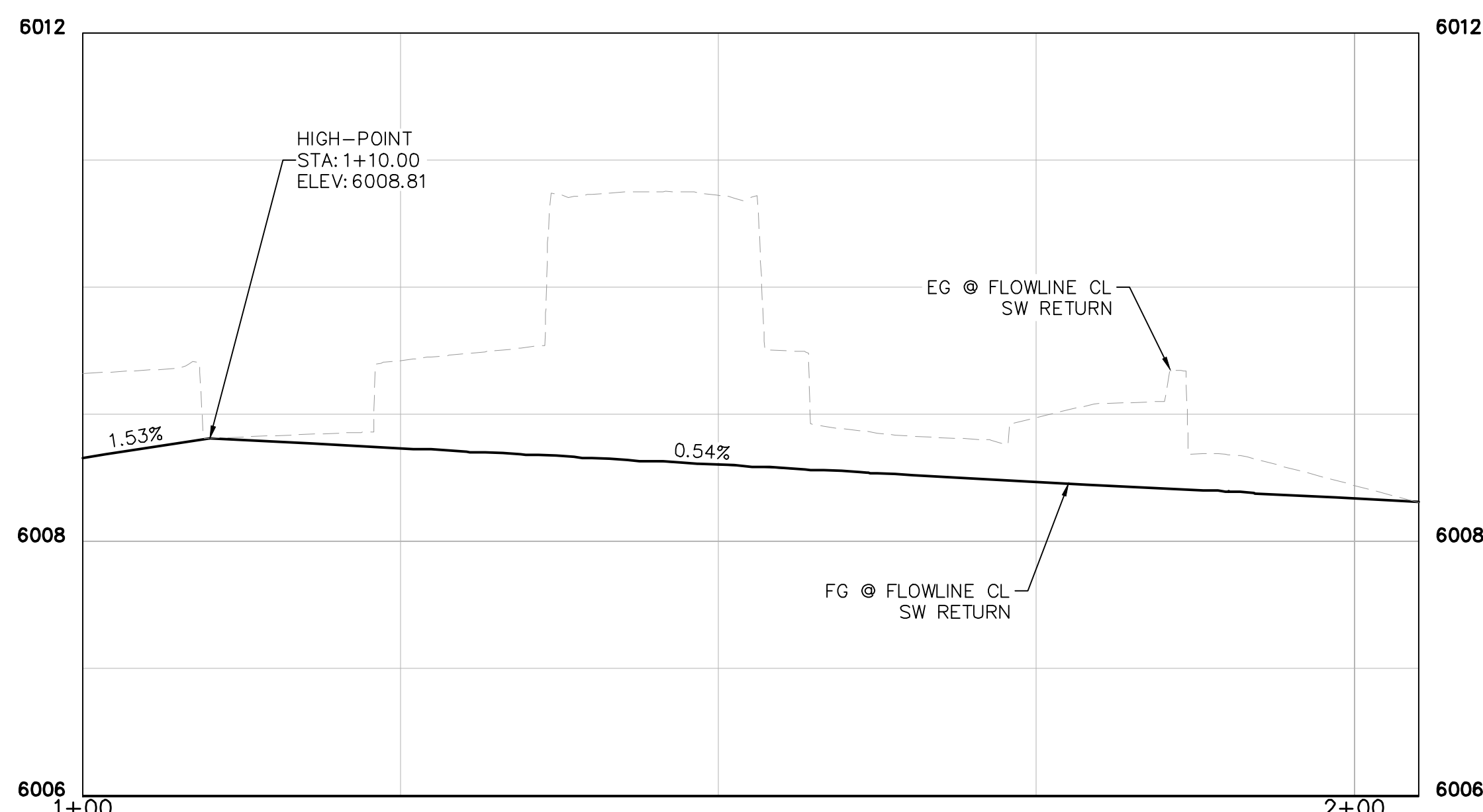
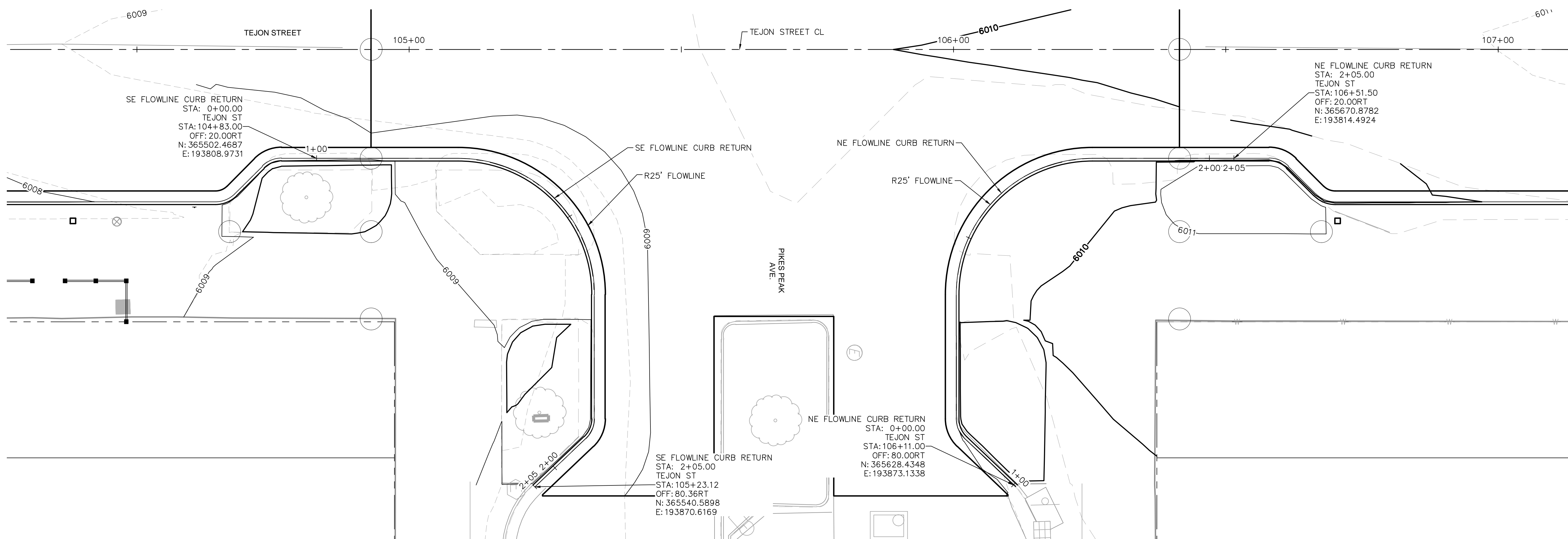
COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CURB RETURN PLAN AND PROFILE BID
 ALT B - WEST
 CHECKED BY: EJG
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
 SHEET NUMBER 23

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs_CD_CURB_RETURNS.dwg Kramer, Michael 5/22/2024 10:52 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

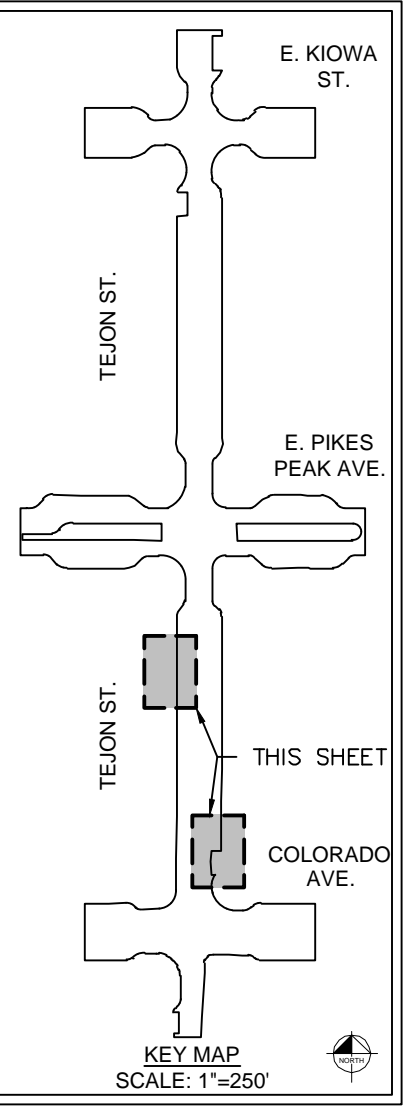
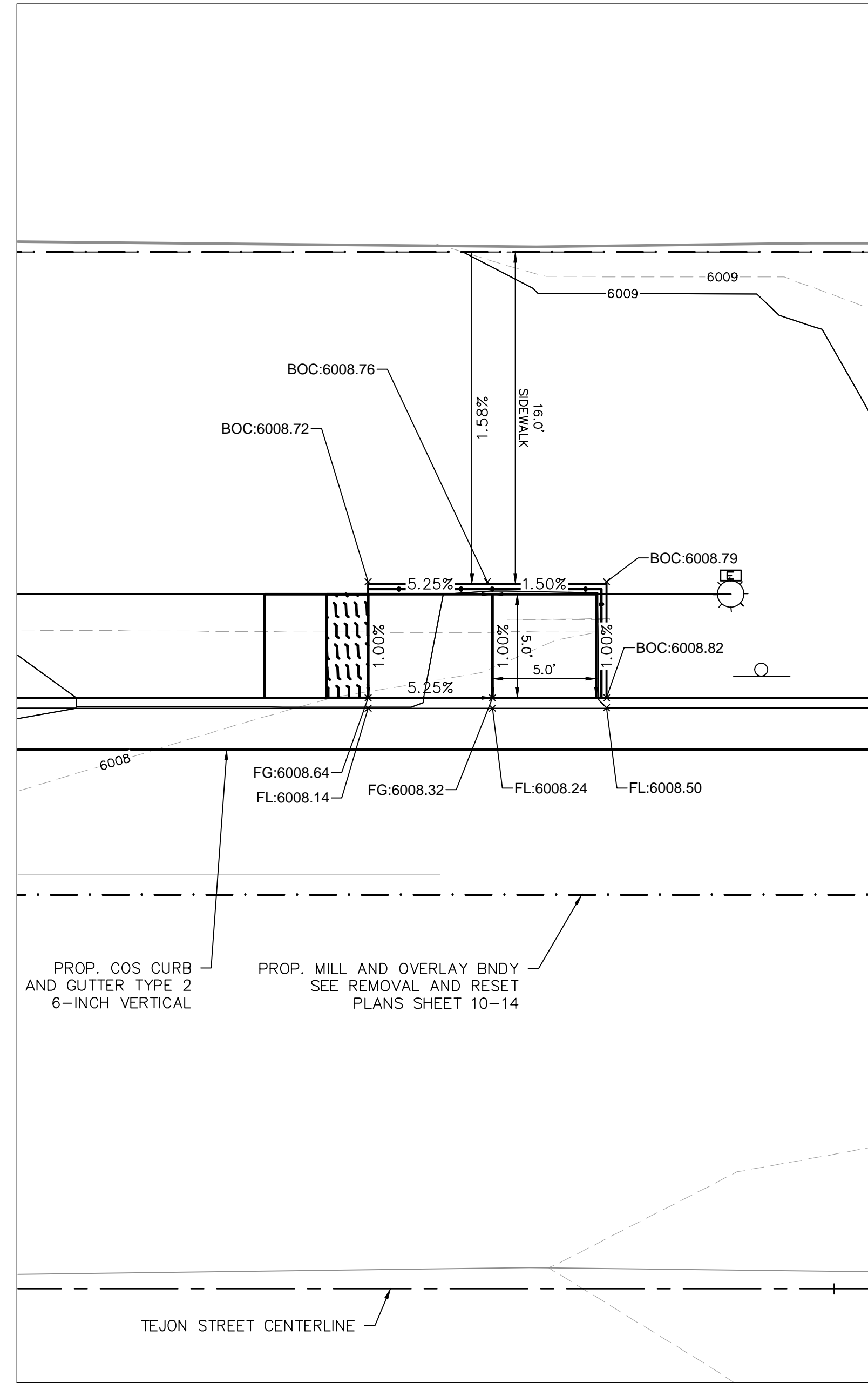
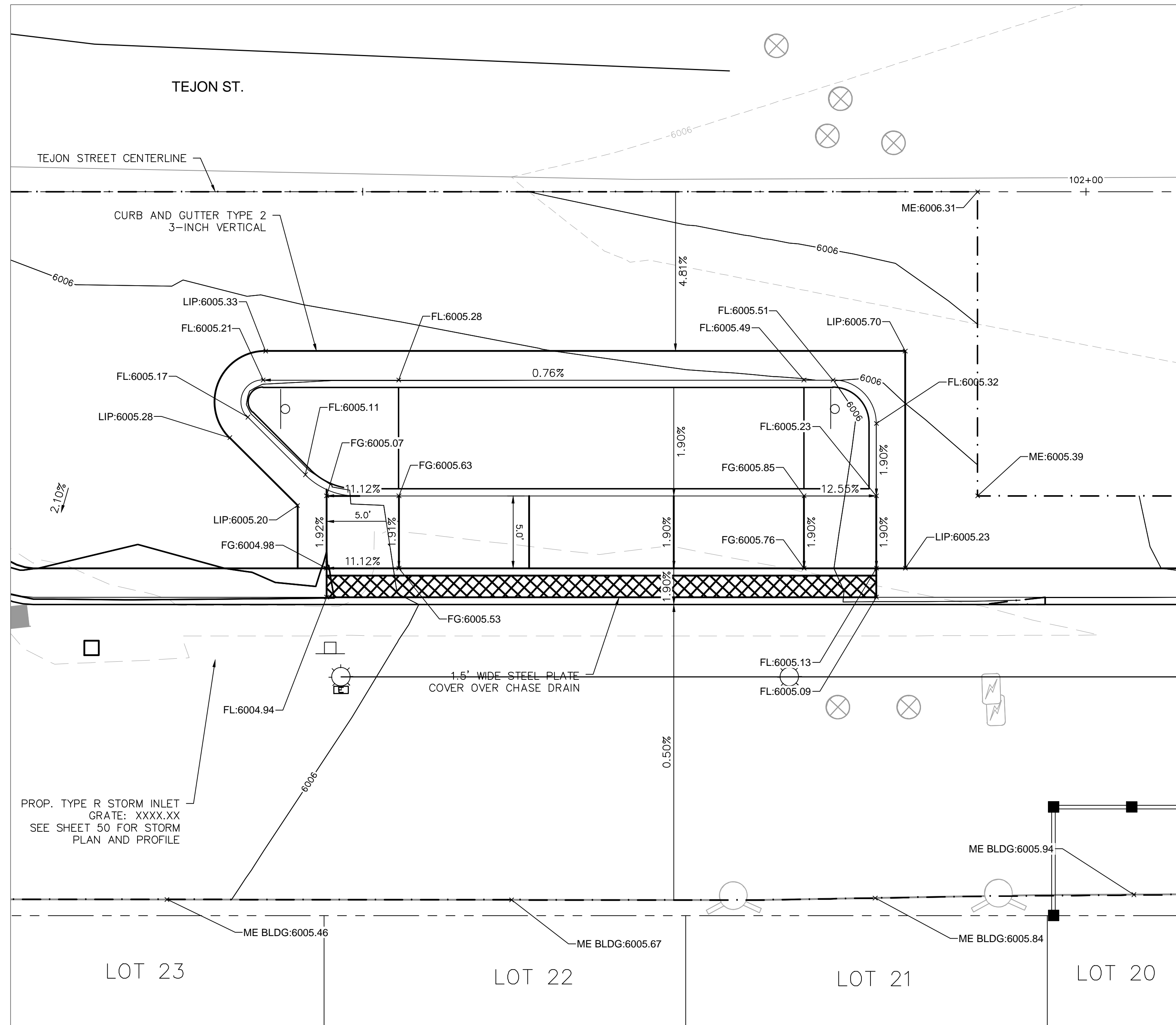

 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

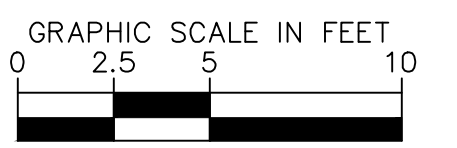
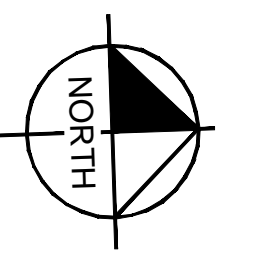
TEJON STREET REVITALIZATION CURB RETURN PLAN AND PROFILE BID ALT B - EAST	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
 067607114
 SHEET NUMBER 24

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-INSETS-DETAILS.dwg Krpomer, Michael 5/22/2024 10:53 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



- LEGEND:**
- PROPOSED STORM CULVERT
 - SPOT ELEVATION FINISHED GRADE
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EXISTING MAJOR/MINOR CONTOUR
 - LIMITS OF GRADING
 - EX. SANITARY MANHOLE COVER
 - EX. STORM CULVERT
 - EX. HYDRANT, VALVE
 - PROPOSED EDGE OF ASPHALT
 - EX. VEGETATION
 - EX. LOT LINE (APPROXIMATE)



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

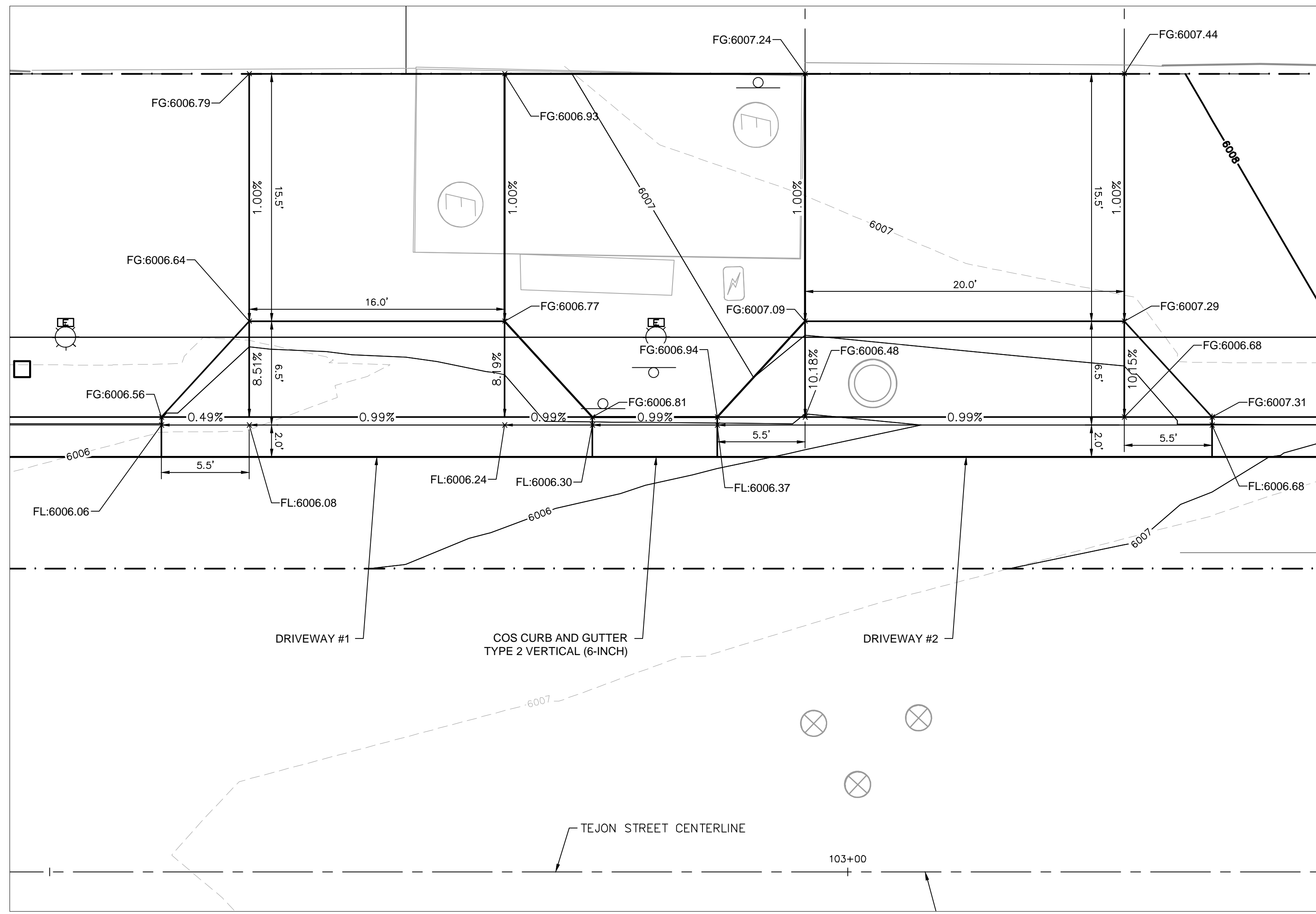
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION GRADING DETAIL 1 – BASE BID	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

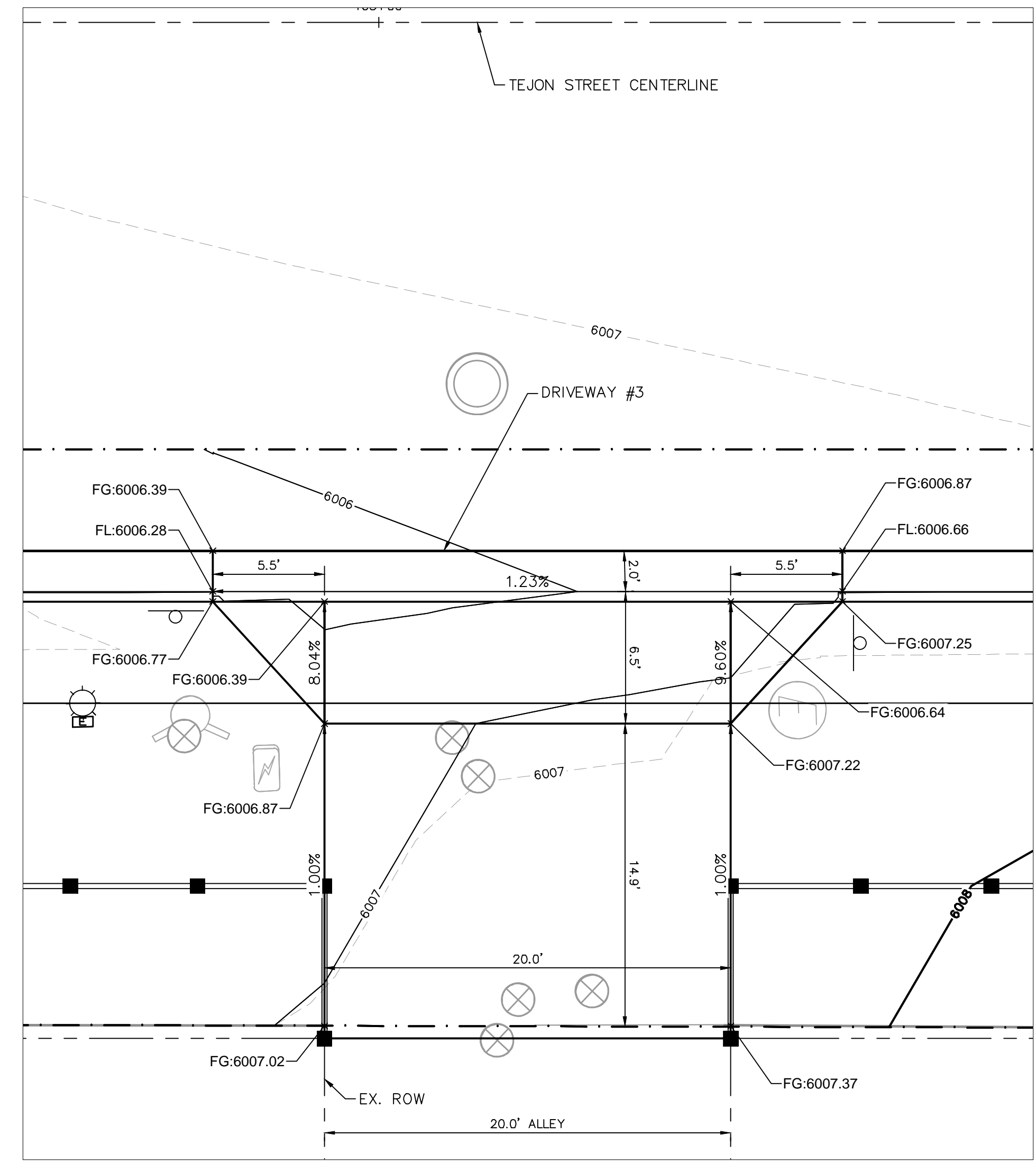
PROJECT NO./CODE
067607114
SHEET NUMBER 25

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs_CD-INSETS-DETAILS.dwg - Krumer, Michael 5/22/2024 10:53 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



DRIVEWAY #1 AND DRIVEWAY #2

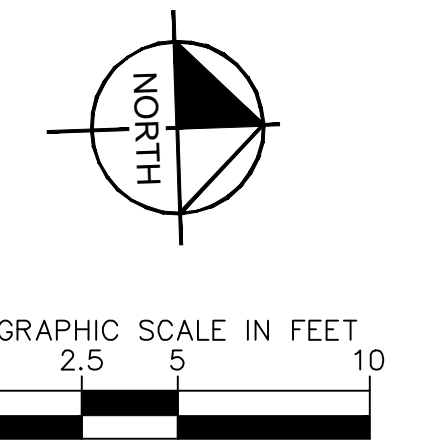
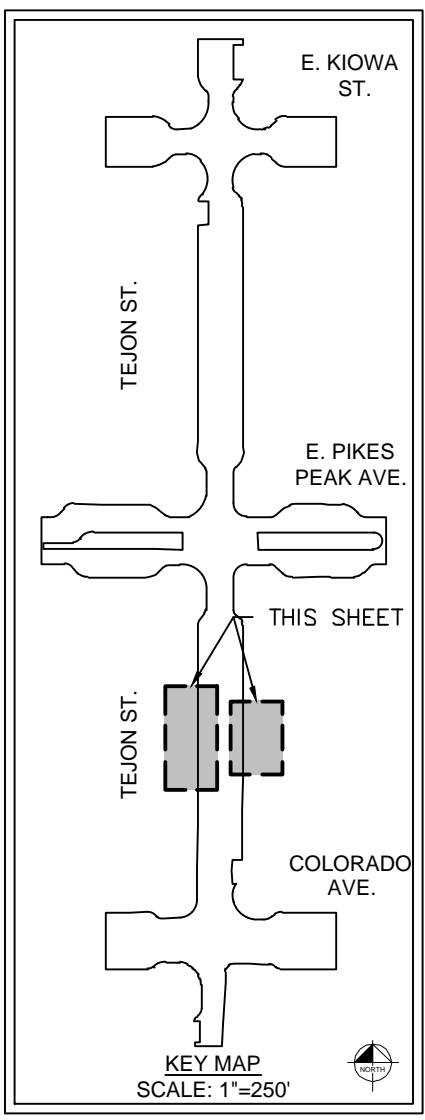
SCALE: 1"=5'



DRIVEWAY #3

SCALE: 1"=5'

- LEGEND:**
- PROPOSED STORM CULVERT
 - SPOT ELEVATION FINISHED GRADE
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EXISTING MAJOR/MINOR CONTOUR
 - LIMITS OF GRADING
 - EX. SANITARY MANHOLE COVER
 - EX. STORM CULVERT
 - EX. HYDRANT, VALVE
 - PROPOSED EDGE OF ASPHALT
 - EX. VEGETATION
 - EX. LOT LINE (APPROXIMATE)



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

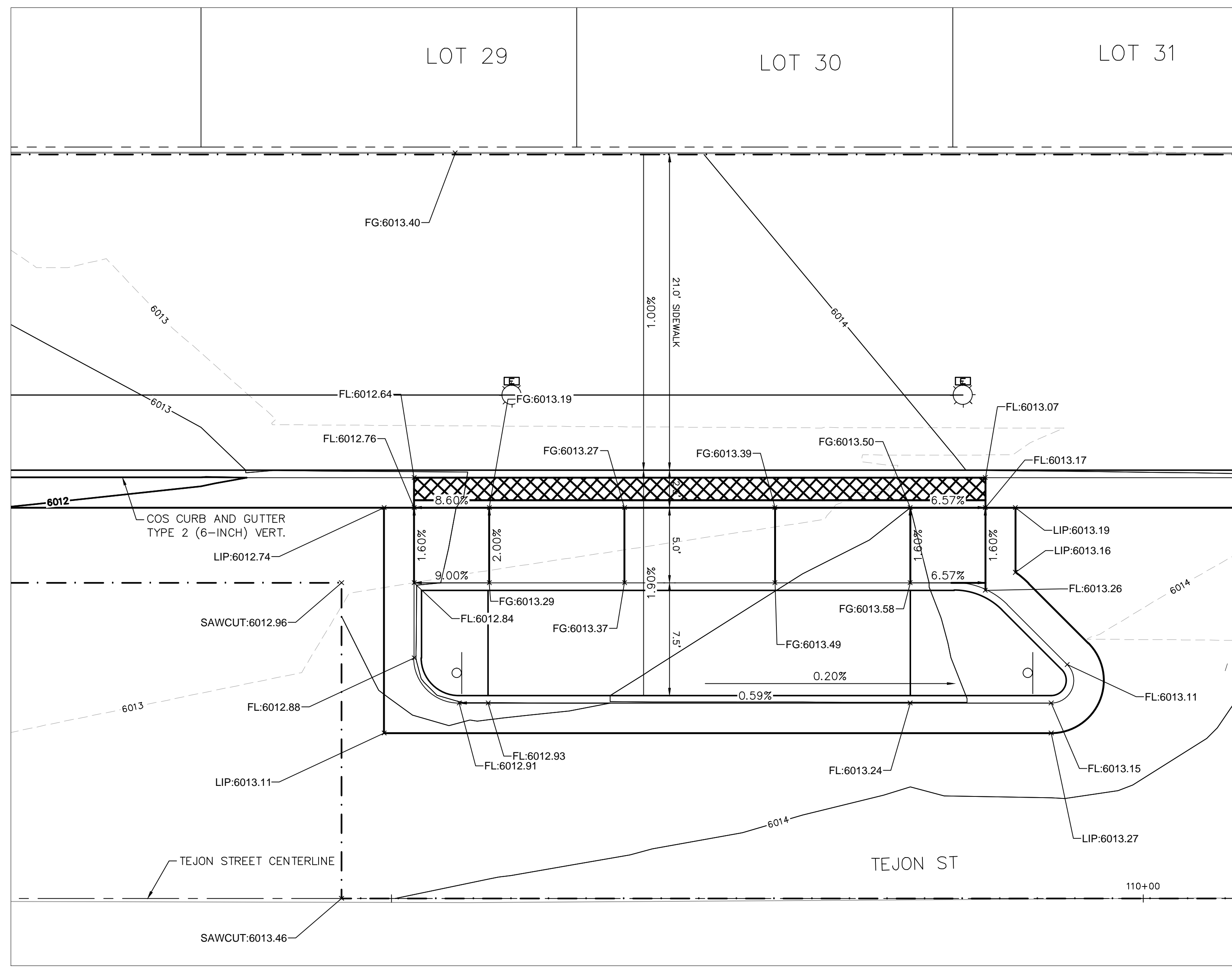
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 GRADING DETAIL 2 – BASE BID

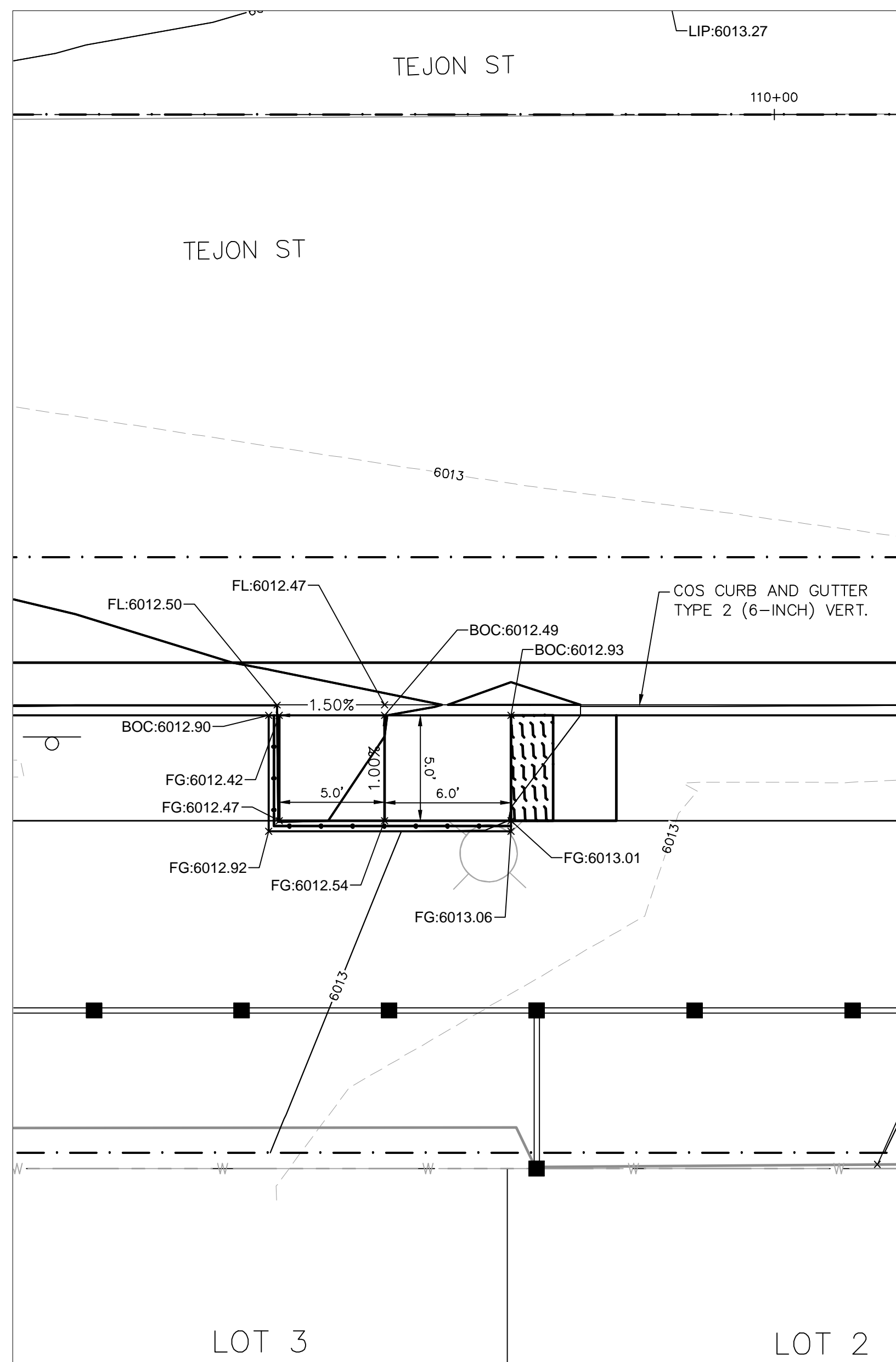
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 26

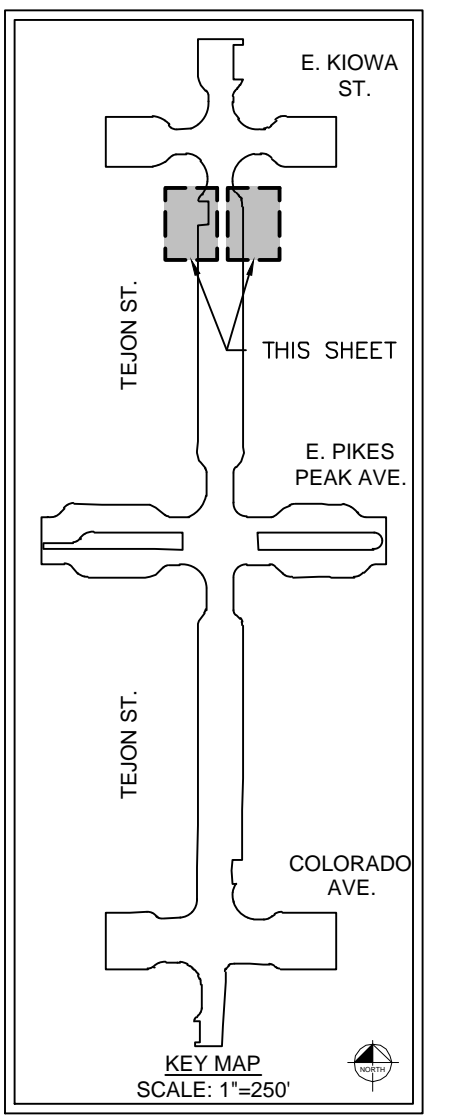
P:\csc_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-GD-INSETS-DETAILS.dwg - Krumer, Michael 5/22/2024 10:53 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



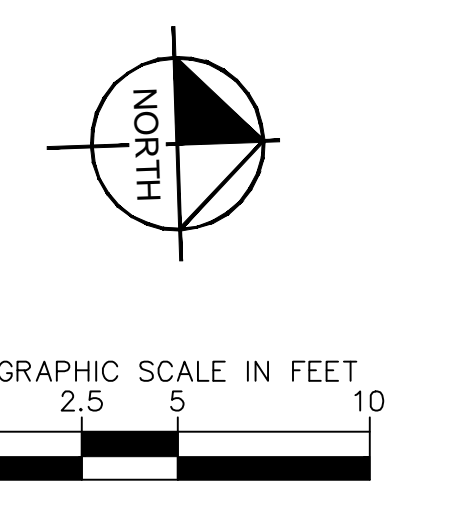
BUS STOP #2
SCALE: 1"=5'



ADA RAMP #2
SCALE: 1"=5'



- LEGEND:**
- PROPOSED STORM CULVERT
 - SPOT ELEVATION FINISHED GRADE
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EXISTING MAJOR/MINOR CONTOUR
 - LIMITS OF GRADING
 - EX. SANITARY MANHOLE COVER
 - EX. STORM CULVERT
 - EX. HYDRANT, VALVE
 - PROPOSED EDGE OF ASPHALT
 - EX. VEGETATION
 - EX. LOT LINE (APPROXIMATE)



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

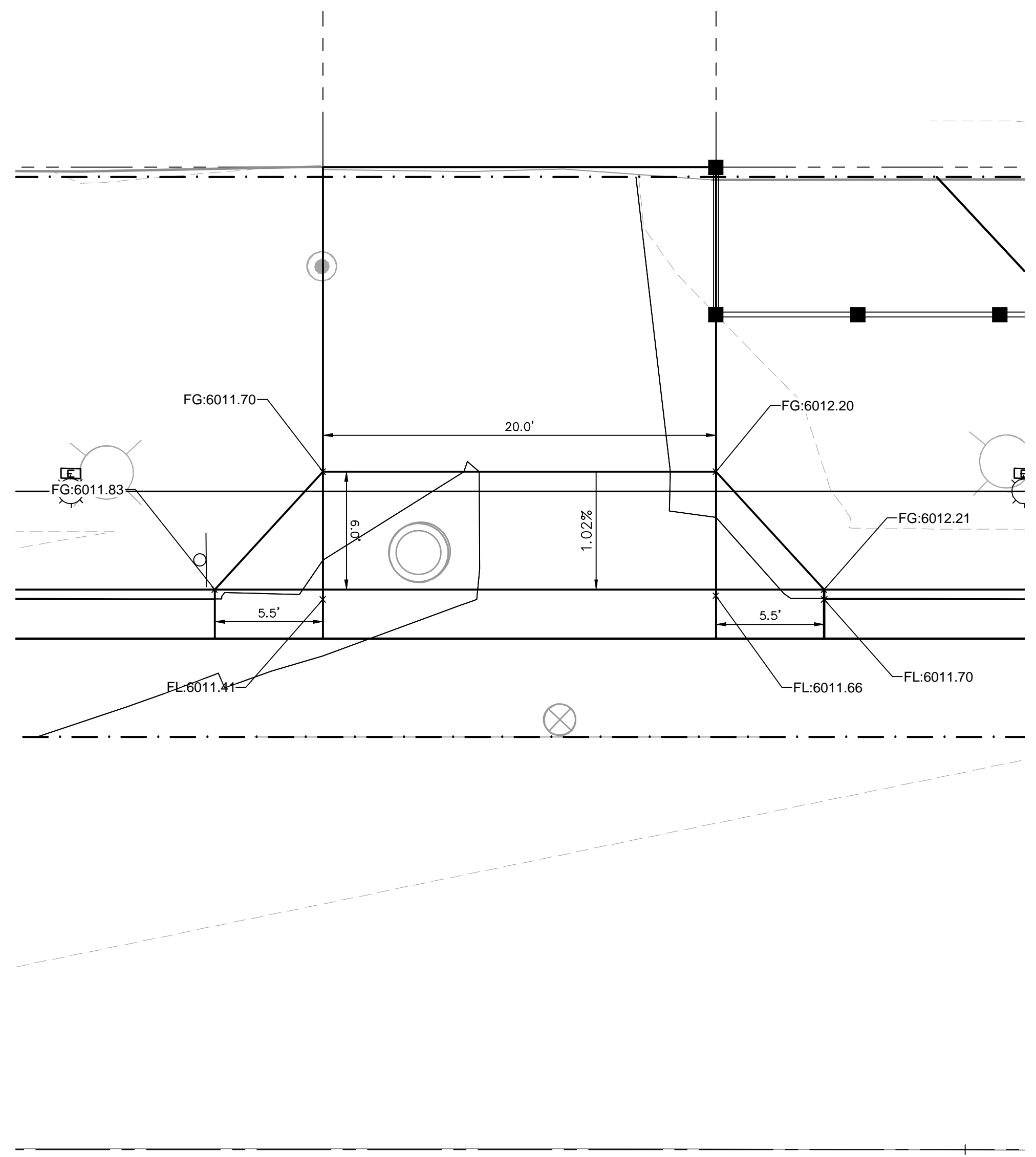
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

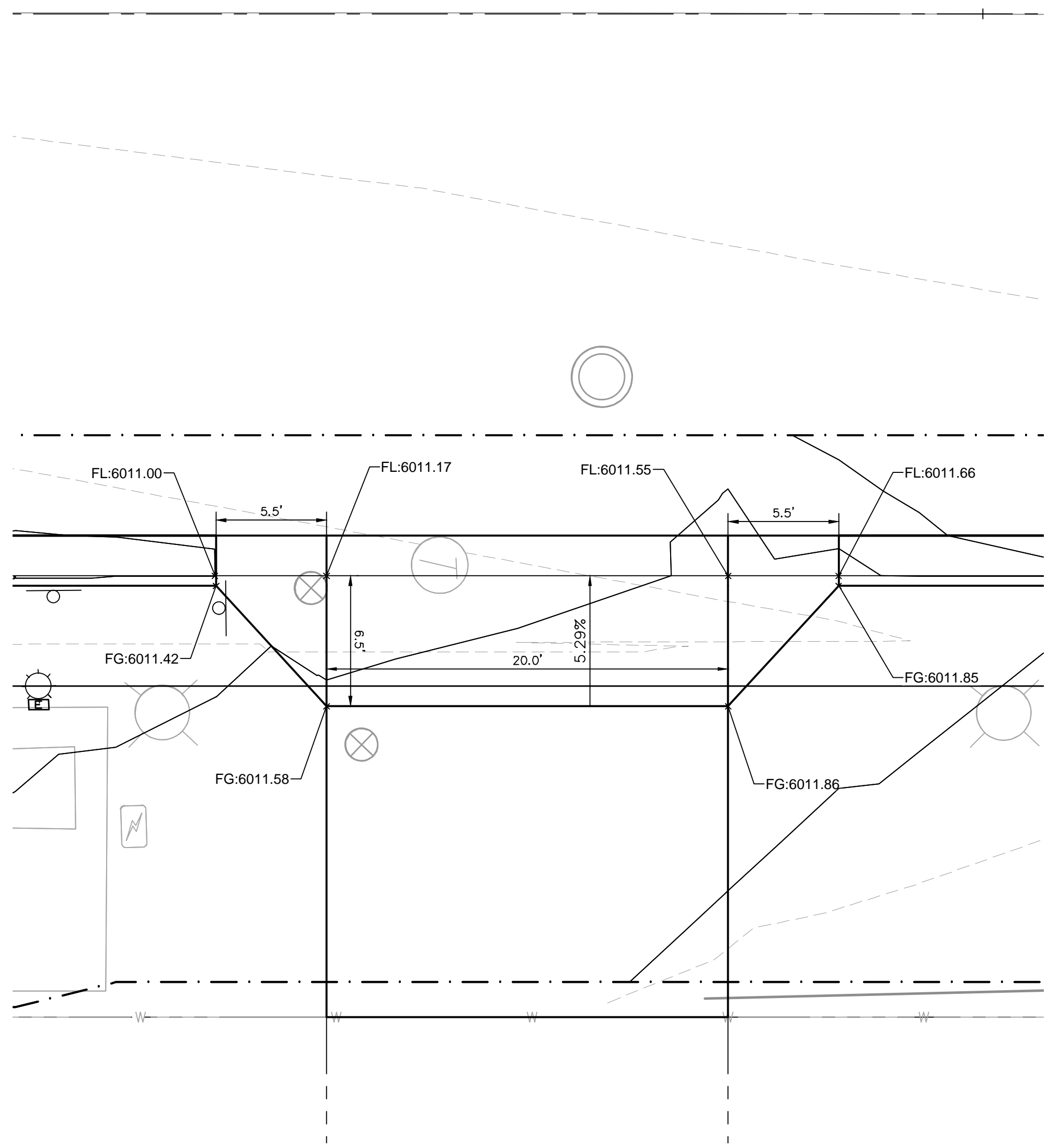
TEJON STREET REVITALIZATION GRADING DETAIL 3 – BID ALT A	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 27

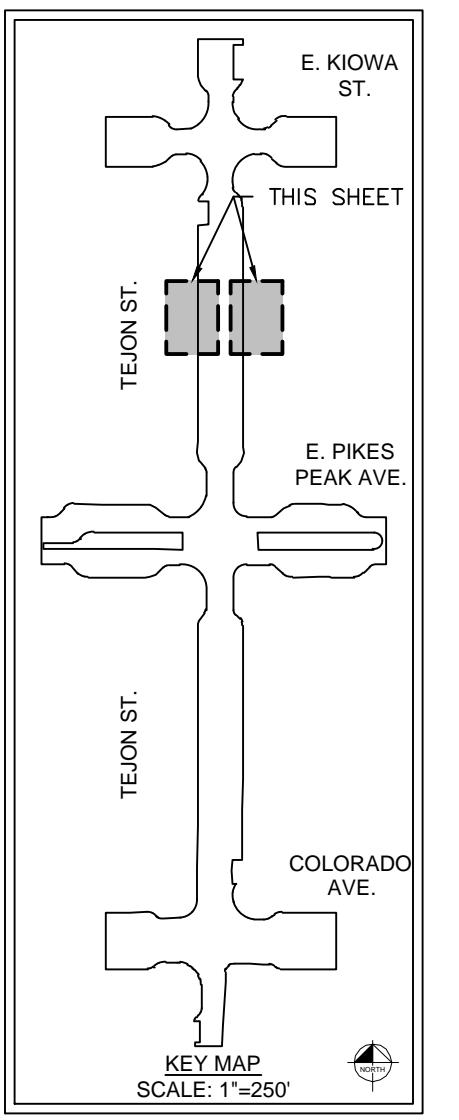
P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-INSETS-DETAILS.dwg - Krumer, Michael 5/22/2024 10:53 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



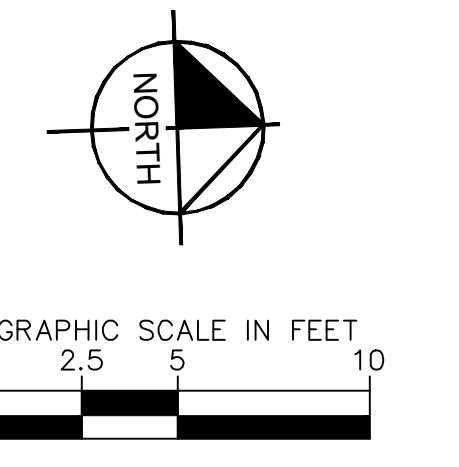
DRIVEWAY #4
SCALE: 1"=5'



DRIVEWAY #5
SCALE: 1"=5'



- LEGEND:**
- PROPOSED STORM CULVERT
 - SPOT ELEVATION FINISHED GRADE
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EXISTING MAJOR/MINOR CONTOUR
 - LIMITS OF GRADING
 - EX. SANITARY MANHOLE COVER
 - EX. STORM CULVRET
 - EX. HYDRANT, VALVE
 - PROPOSED EDGE OF ASPHALT
 - EX. VEGETATION
 - EX. LOT LINE (APPROXIMATE)



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR
CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
GRADING DETAIL 4 – BID ALT A

CHECKED BY: EJK

DESIGNED BY: MJK

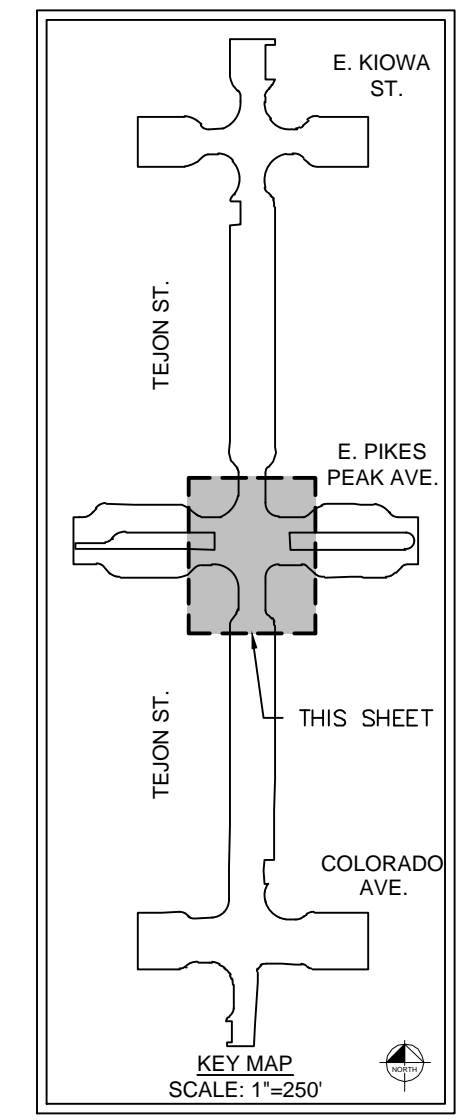
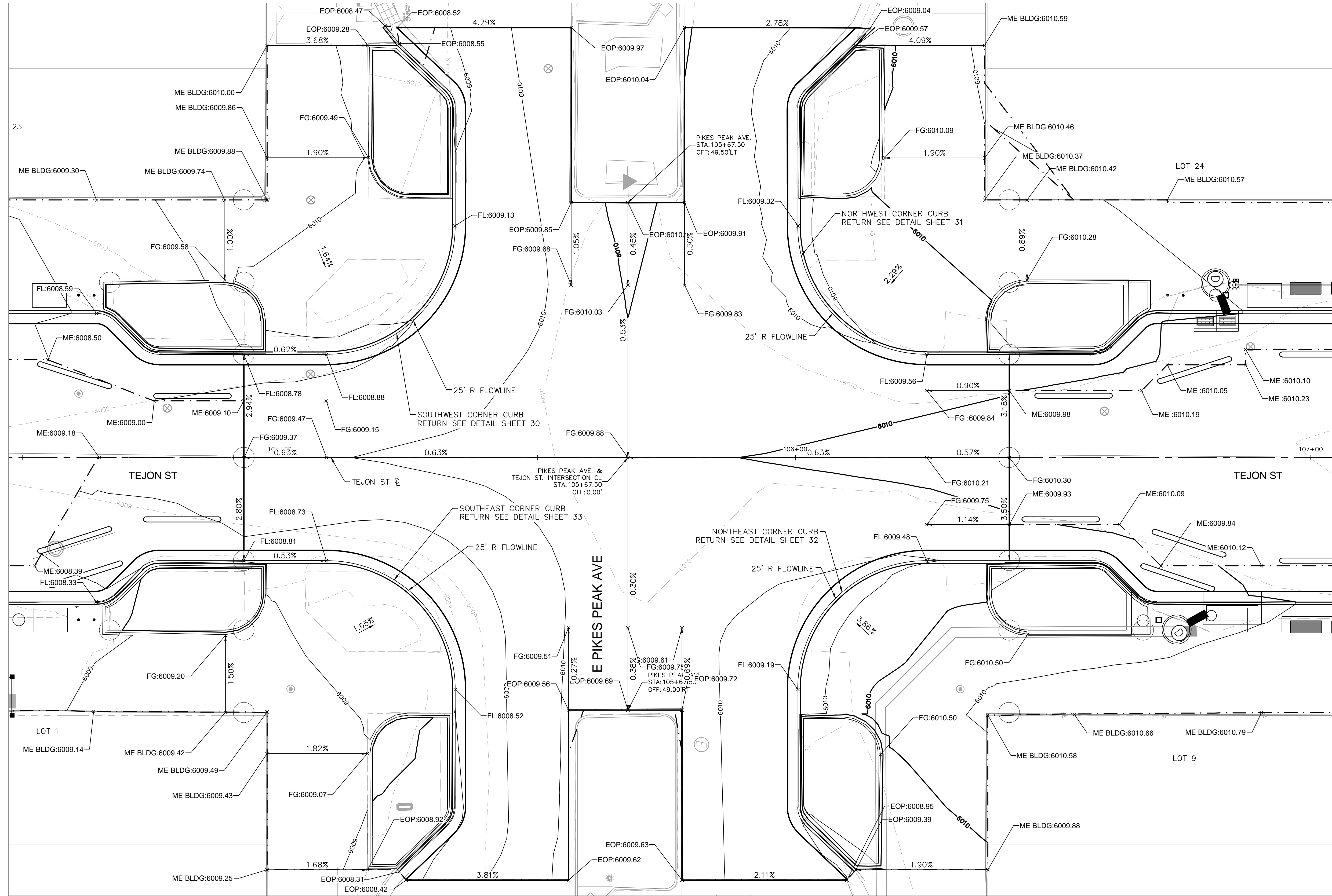
SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE

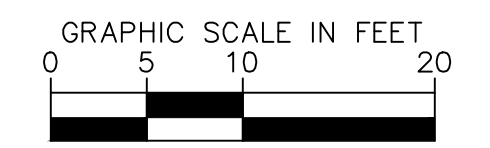
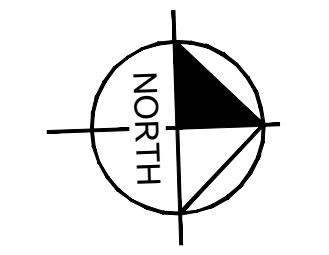
067607114

SHEET NUMBER 28

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-INSETS-PP_OVR.dwg - Kramer, Michael 5/22/2024 10:54 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



- LEGEND:**
- PROPOSED STORM CULVERT
 - SPOT ELEVATION FINISHED GRADE
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EXISTING MAJOR/MINOR CONTOUR
 - MILL AND OVERLAY TRANSITION
 - EX. SANITARY MANHOLE COVER
 - EX. STORM CULVERT
 - EX. HYDRANT, VALVE
 - PROPOSED EDGE OF ASPHALT
 - EX. VEGETATION
 - EX. LOT LINE (APPROXIMATE)



GRADING DETAIL - PIKES PEAK INTERSECTION

SCALE: 1"=10'

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

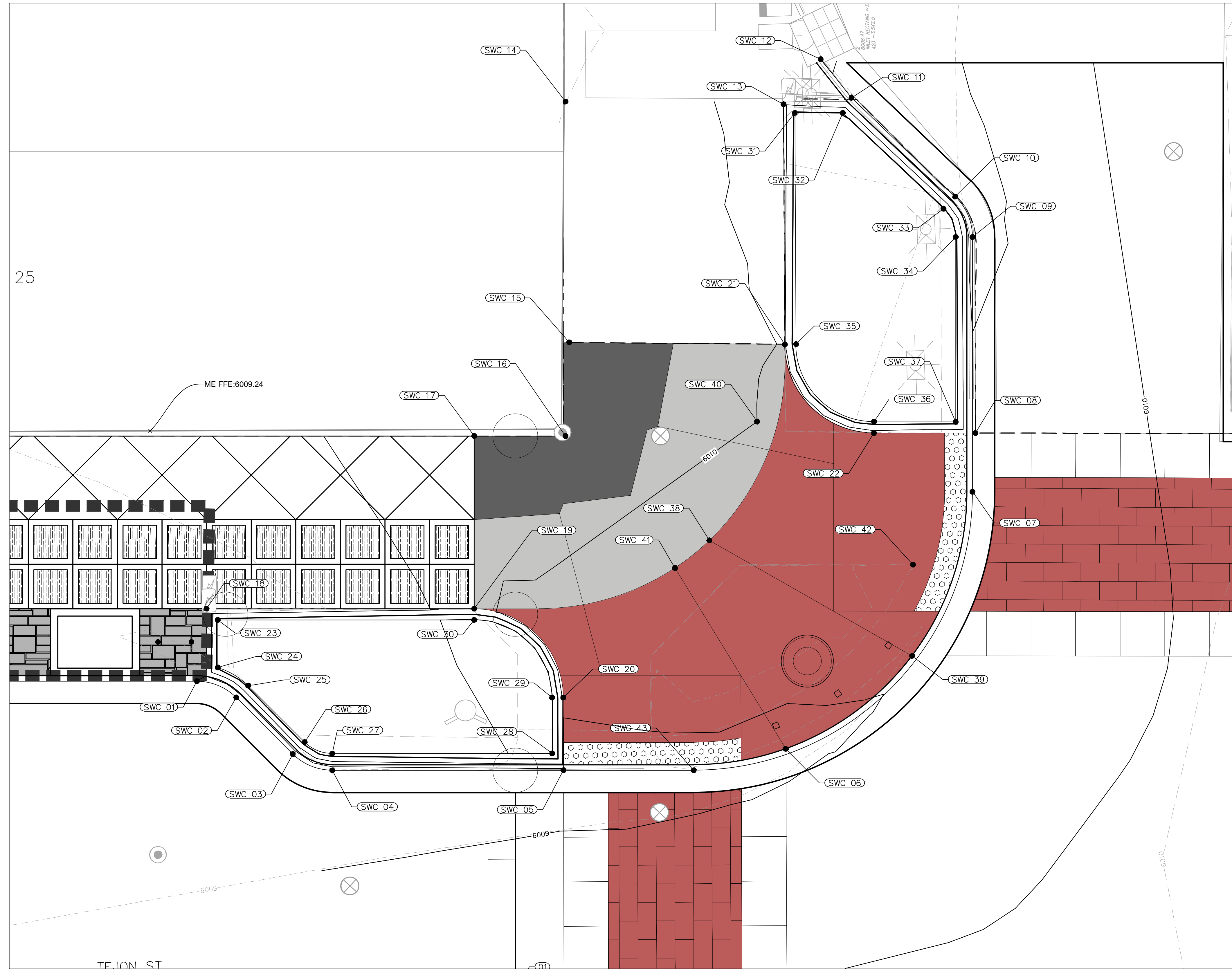
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 GRADING PLAN - BID ALT. B
 PIKES PEAK INTERSECTION

CHECKED BY: EJG
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

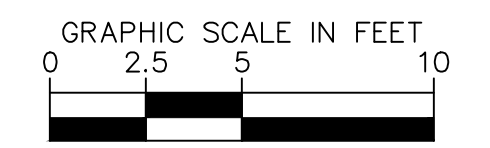
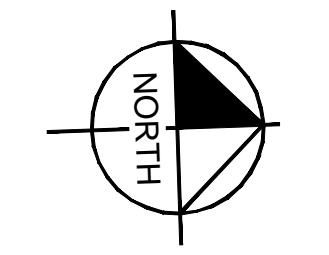
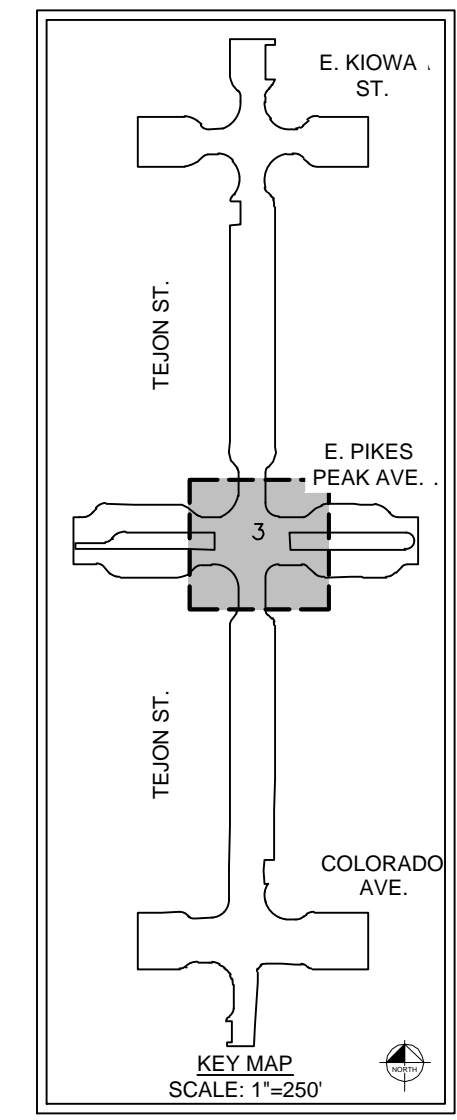
PROJECT NO./CODE	067607114
SHEET NUMBER	29

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-GD-INSETS.dwg - Krone, Michael - 5/22/2024 10:54 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE AS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



GRADING INSET SWC
SCALE: 1"=5'

CURB RAMP DETAIL (SWC)					
POINT NO.	STATION	ALIGNMENT	OFFSET	ELEVATION	DESCRIPTION
SWC 01	104+64.43	TEJON ST	-28.00	6008.59'	FL
SWC 02	104+67.97	TEJON ST	-26.54	6008.61'	FL
SWC 03	104+73.04	TEJON ST	-21.46	6008.66'	FL
SWC 04	104+76.57	TEJON ST	-20.00	6008.68'	FL
SWC 05	104+97.31	TEJON ST	-20.01	6008.83'	FL
SWC 06	105+17.24	TEJON ST	-21.93	6008.94'	FL
SWC 07	105+34.00	TEJON ST	-45.00	6009.13'	FL
SWC 08	105+34.26	TEJON ST	-50.26	6009.17'	FL
SWC 09	105+34.00	TEJON ST	-67.86	6008.85'	FL
SWC 10	105+32.45	TEJON ST	-71.48	6008.78'	FL
SWC 11	105+23.14	TEJON ST	-80.34	6008.55'	FL
SWC 12	105+20.39	TEJON ST	-83.81	6008.47'	FL
SWC 13	105+17.06	TEJON ST	-79.76	6009.28'	SWLK
SWC 14	104+97.50	TEJON ST	-80.00	6010.00'	SWLK, ME
SWC 15	104+97.83	TEJON ST	-58.41	6009.85'	SWLK, ME
SWC 16	104+97.50	TEJON ST	-50.00	6009.88'	SWLK, ME
SWC 17	104+89.30	TEJON ST	-50.00	6009.74'	SWLK, ME
SWC 18	104+65.30	TEJON ST	-34.50	6009.14'	SWLK
SWC 19	104+89.30	TEJON ST	-34.50	6009.58'	SWLK
SWC 20	104+97.30	TEJON ST	-26.52	6009.07'	SWLK
SWC 21	105+17.17	TEJON ST	-58.22	6009.49'	SWLK
SWC 22	105+25.16	TEJON ST	-50.27	6009.29'	SWLK
SWC 23	104+66.30	TEJON ST	-33.50	6010.14'	TBW
SWC 24	104+66.30	TEJON ST	-29.23	6010.10'	TBW
SWC 25	104+69.03	TEJON ST	-27.60	6010.14'	TBW
SWC 26	104+74.10	TEJON ST	-22.53	6010.24'	TBW
SWC 27	104+76.57	TEJON ST	-21.50	6010.28'	TBW
SWC 28	104+96.31	TEJON ST	-21.51	6010.55'	TBW
SWC 29	104+96.30	TEJON ST	-26.52	6010.55'	TBW
SWC 30	104+89.30	TEJON ST	-33.50	6010.55'	TBW
SWC 31	105+18.06	TEJON ST	-79.00	6010.08'	TBW
SWC 32	105+22.37	TEJON ST	-79.00	6010.00'	TBW
SWC 33	105+31.41	TEJON ST	-70.39	6010.06'	TBW
SWC 34	105+32.50	TEJON ST	-67.86	6010.09'	TBW
SWC 35	105+18.17	TEJON ST	-58.24	6010.29'	TBW
SWC 36	105+25.16	TEJON ST	-51.27	6010.22'	TBW
SWC 37	105+32.50	TEJON ST	-51.26	6010.18'	TBW
SWC 38	105+10.41	TEJON ST	-40.63	6009.27'	SWLK
SWC 39	105+28.58	TEJON ST	-30.27	6009.03'	SWLK
SWC 40	105+14.68	TEJON ST	-51.30	6009.50'	SWLK
SWC 41	105+07.31	TEJON ST	-38.15	6009.25'	SWLK
SWC 42	105+28.66	TEJON ST	-38.45	6009.13'	SWLK
SWC 43	105+09.00	TEJON ST	-20.00	6008.88'	SWLK



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

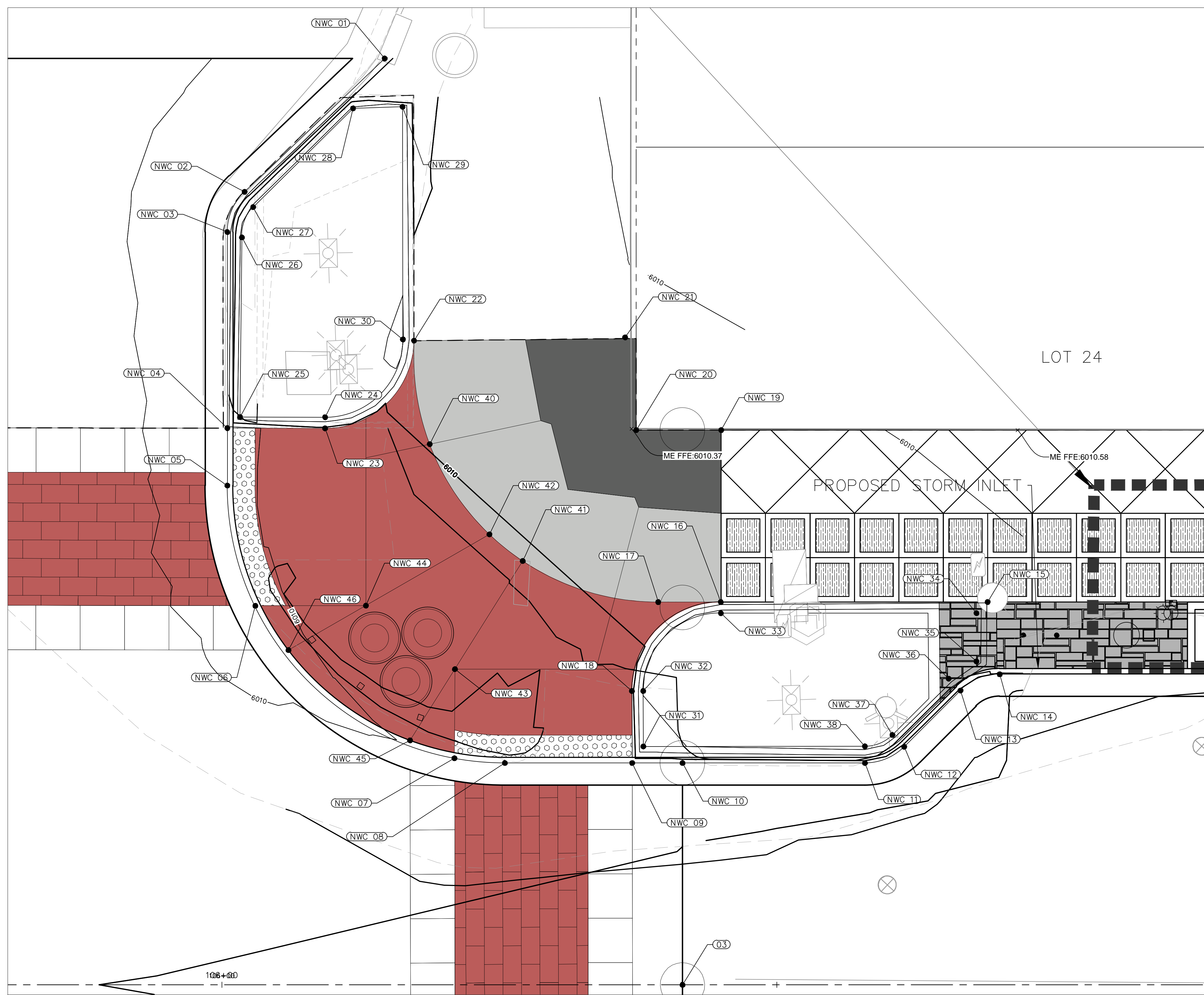
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 GRADING PLAN - PIKES PEAK SWC

CHECKED BY: EJC
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

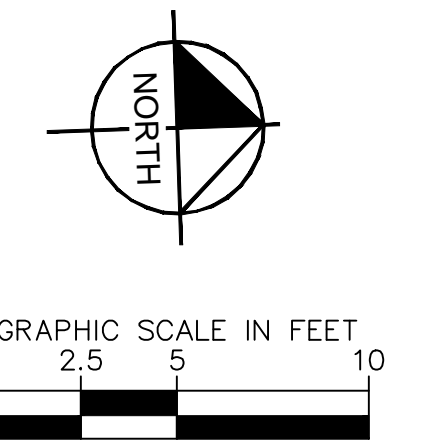
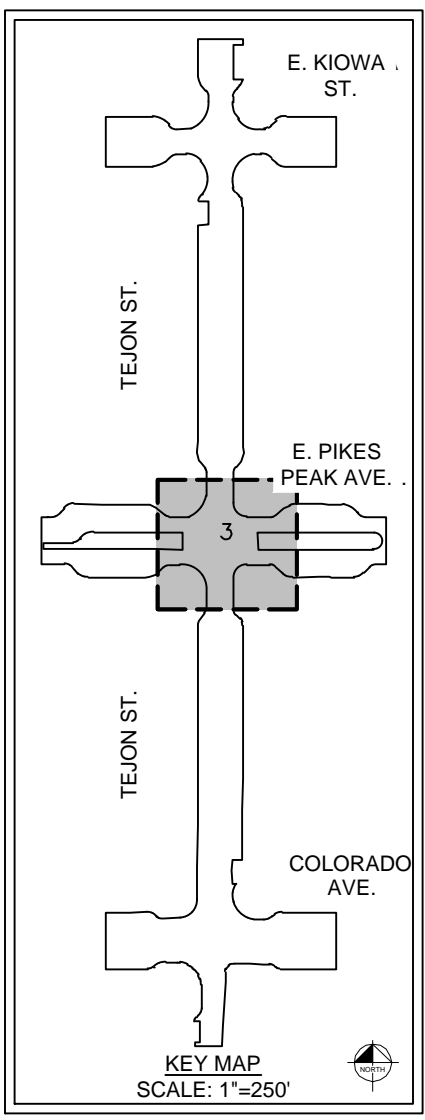
PROJECT NO./CODE
 067607114
 SHEET NUMBER 30

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-INSETS.dwg_Krumer_Michael_5/22/2024 10:54 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



GRADING INSET NWC
SCALE: 1"=5'

CURB RAMP DETAIL (NWC)					
POINT NO.	STATION	ALIGNMENT	OFFSET	ELEVATION	DESCRIPTION
NWC 01	106+14.67	TEJON ST	-83.50	???'	FL
NWC 02	106+02.05	TEJON ST	-71.48	6009.15'	FL
NWC 03	106+00.50	TEJON ST	-67.86	6009.17'	FL
NWC 04	106+00.50	TEJON ST	-50.18	6009.28'	FL
NWC 05	106+00.50	TEJON ST	-45.00	6009.32'	FL
NWC 06	106+03.02	TEJON ST	-34.17	6009.39'	FL
NWC 07	106+20.96	TEJON ST	-20.42	6009.54'	FL
NWC 08	106+25.50	TEJON ST	-20.00	6009.56'	FL
NWC 09	106+36.96	TEJON ST	-20.00	6009.64'	FL
NWC 10	106+41.50	TEJON ST	-20.00	6009.66'	FL
NWC 11	106+57.93	TEJON ST	-20.00	6009.78'	FL
NWC 12	106+61.47	TEJON ST	-21.46	6009.81'	FL
NWC 13	106+66.54	TEJON ST	-26.54	6009.87'	FL
NWC 14	106+70.08	TEJON ST	-28.00	6009.89'	FL
NWC 15	106+68.98	TEJON ST	-34.50	6010.42'	SWLK
NWC 16	106+44.95	TEJON ST	-34.50	6010.28'	SWLK
NWC 17	106+39.31	TEJON ST	-34.50	6010.12'	SWLK
NWC 18	106+36.95	TEJON ST	-26.48	6009.86'	SWLK
NWC 19	106+44.98	TEJON ST	-50.00	6010.42'	SWLK, ME
NWC 20	106+37.33	TEJON ST	-50.00	6010.37'	SWLK, ME
NWC 21	106+36.33	TEJON ST	-58.36	6010.45'	SWLK, ME
NWC 22	106+17.31	TEJON ST	-58.06	6010.09'	SWLK
NWC 23	106+09.30	TEJON ST	-50.17	6009.92'	SWLK
NWC 24	106+09.30	TEJON ST	-51.16	6010.91'	TBW
NWC 25	106+01.64	TEJON ST	-51.17	6010.79'	TBW
NWC 26	106+01.81	TEJON ST	-67.38	6010.67'	TBW
NWC 27	106+02.82	TEJON ST	-70.11	6010.65'	TBW
NWC 28	106+11.82	TEJON ST	-79.00	6010.64'	TBW
NWC 29	106+16.28	TEJON ST	-79.15	6010.88'	TBW
NWC 30	106+16.31	TEJON ST	-58.17	6011.03'	TBW
NWC 31	106+37.97	TEJON ST	-21.49	6010.93'	TBW
NWC 32	106+37.95	TEJON ST	-26.48	6011.01'	TBW
NWC 33	106+44.95	TEJON ST	-33.50	6011.28'	TBW
NWC 34	106+67.98	TEJON ST	-33.50	6011.42'	TBW
NWC 35	106+67.98	TEJON ST	-29.15	6011.39'	TBW
NWC 36	106+65.48	TEJON ST	-27.60	6011.37'	TBW
NWC 37	106+60.41	TEJON ST	-22.53	6011.31'	TBW
NWC 38	106+57.93	TEJON ST	-21.50	6011.29'	TBW
NWC 39	106+35.39	TEJON ST	-34.85	6010.04'	SWLK
NWC 40	106+18.73	TEJON ST	-48.74	6010.01'	SWLK
NWC 41	106+27.11	TEJON ST	-38.20	6009.95'	SWLK
NWC 42	106+24.11	TEJON ST	-40.60	6009.94'	SWLK
NWC 43	106+20.99	TEJON ST	-28.46	6009.69'	SWLK
NWC 44	106+12.97	TEJON ST	-34.19	6009.67'	SWLK
NWC 45	106+16.96	TEJON ST	-22.04	6009.52'	SWLK
NWC 46	106+05.99	TEJON ST	-30.17	6009.43'	SWLK



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

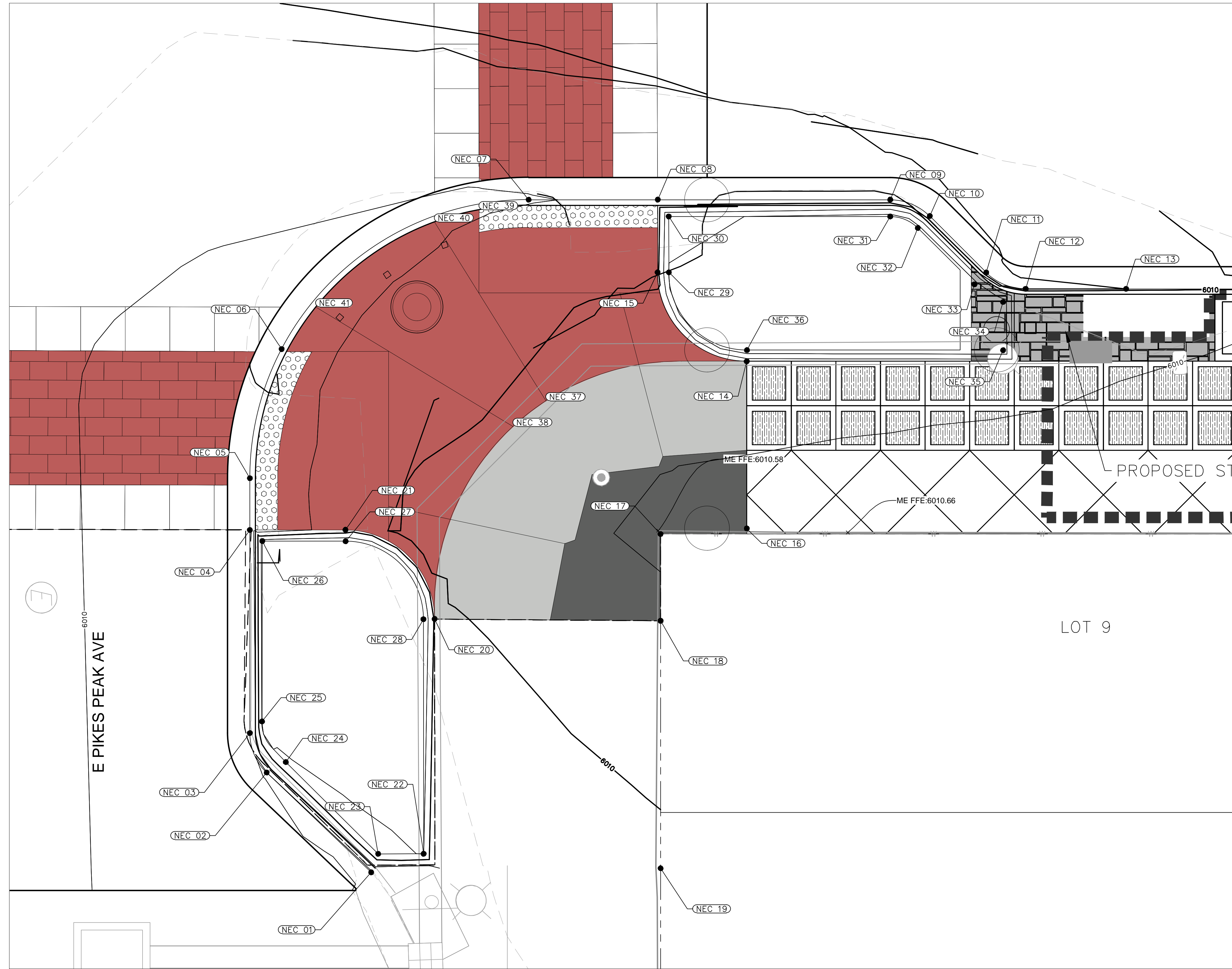
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 GRADING PLAN – PIKES PEAK NWC

CHECKED BY: EJC
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

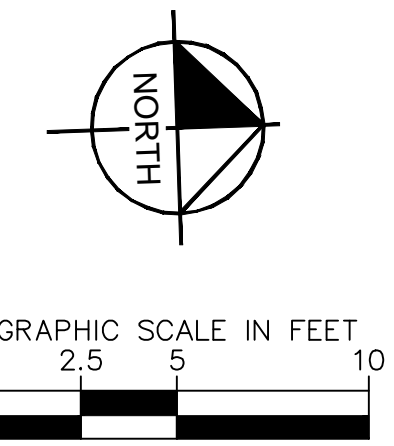
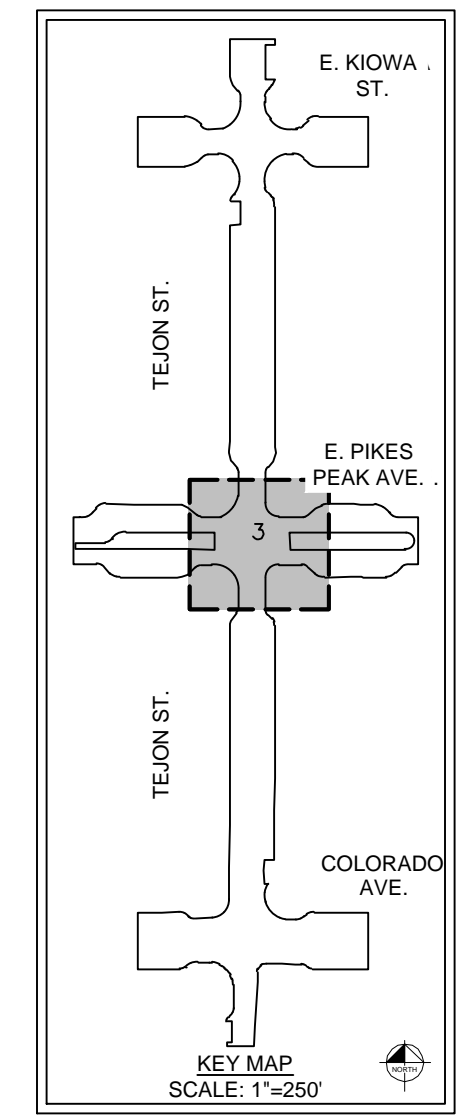
PROJECT NO./CODE
 067607114
 SHEET NUMBER 31

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-INSETS.dwg - Krumer, Michael - 5/22/2024 10:54 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



GRADING INSET NEC
 SCALE: 1"=5'

CURB RAMP DETAIL (NEC)					
POINT NO.	STATION	ALIGNMENT	OFFSET	ELEVATION	DESCRIPTION
NEC 01	106+11.38	TEJON ST	80.36	6008.89'	FL
NEC 02	106+02.00	TEJON ST	71.40	6009.00'	FL
NEC 03	106+00.50	TEJON ST	67.86	6009.02'	FL
NEC 04	106+00.50	TEJON ST	49.63	6009.15'	FL
NEC 05	106+00.50	TEJON ST	45.00	6009.19'	FL
NEC 06	106+03.35	TEJON ST	33.41	6009.28'	FL
NEC 07	106+25.50	TEJON ST	20.00	6009.48'	FL
NEC 08	106+37.07	TEJON ST	20.00	6009.57'	FL
NEC 09	106+57.93	TEJON ST	20.00	6009.71'	FL
NEC 10	106+61.47	TEJON ST	21.46	6009.73'	FL
NEC 11	106+66.54	TEJON ST	26.54	6009.78'	FL
NEC 12	106+70.08	TEJON ST	28.00	6009.81'	FL
NEC 13	106+79.08	TEJON ST	28.00	6009.86'	FL
NEC 14	106+45.06	TEJON ST	34.50	6010.34'	SWLK
NEC 15	106+37.06	TEJON ST	26.52	6009.92'	SWLK
NEC 16	106+45.06	TEJON ST	49.50	6010.63'	SWLK, ME
NEC 17	106+37.33	TEJON ST	50.00	6010.58'	SWLK, ME
NEC 18	106+37.33	TEJON ST	57.78	6010.40'	SWLK, ME
NEC 19	106+37.33	TEJON ST	80.00	6009.88'	SWLK, ME
NEC 20	106+17.06	TEJON ST	57.62	6009.93'	SWLK
NEC 21	106+09.06	TEJON ST	49.63	6009.69'	SWLK
NEC 22	106+16.08	TEJON ST	78.70	6010.51'	TBW
NEC 23	106+12.00	TEJON ST	78.71	6010.44'	TBW
NEC 24	106+03.72	TEJON ST	70.48	6010.49'	TBW
NEC 25	106+01.58	TEJON ST	66.82	6010.52'	TBW
NEC 26	106+01.61	TEJON ST	50.63	6010.66'	TBW
NEC 27	106+09.08	TEJON ST	50.65	6010.85'	TBW
NEC 28	106+16.06	TEJON ST	57.64	6010.93'	TBW
NEC 29	106+38.07	TEJON ST	26.52	6011.02'	TBW
NEC 30	106+38.06	TEJON ST	21.50	6010.89'	TBW
NEC 31	106+57.93	TEJON ST	21.50	6011.21'	TBW
NEC 32	106+60.41	TEJON ST	22.53	6011.23'	TBW
NEC 33	106+65.48	TEJON ST	27.60	6011.29'	TBW
NEC 34	106+68.06	TEJON ST	29.18	6011.31'	TBW
NEC 35	106+68.05	TEJON ST	33.50	6011.40'	TBW
NEC 36	106+45.07	TEJON ST	33.50	6011.35'	TBW
NEC 37	106+27.06	TEJON ST	38.06	6010.13'	SWLK
NEC 38	106+24.10	TEJON ST	40.37	6010.10'	SWLK
NEC 39	106+21.05	TEJON ST	20.91	6009.47'	SWLK
NEC 40	106+17.05	TEJON ST	22.00	6009.43'	SWLK
NEC 41	106+06.41	TEJON ST	29.64	6009.33'	SWLK



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

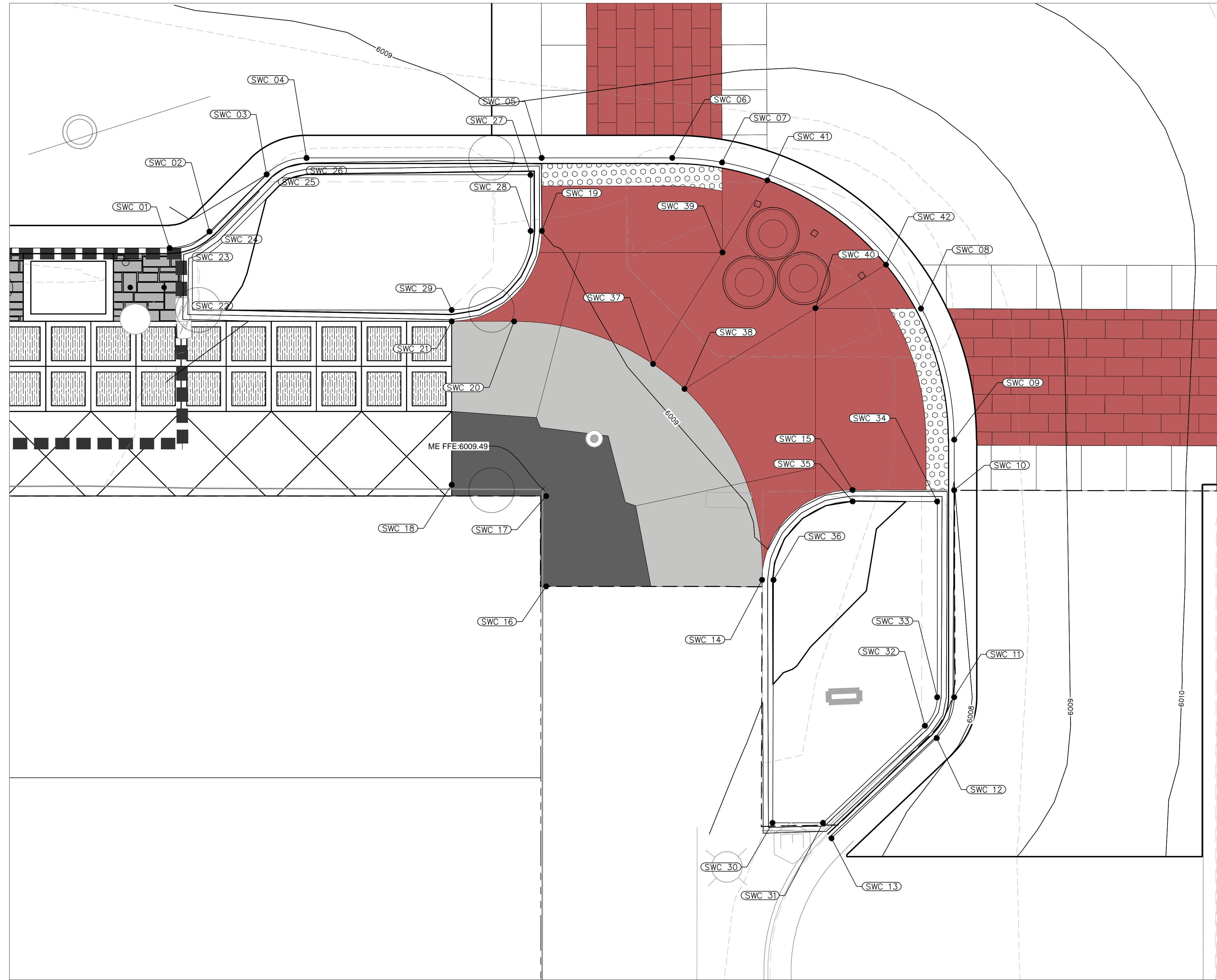
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 GRADING PLAN – PIKES PEAK NEC

CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

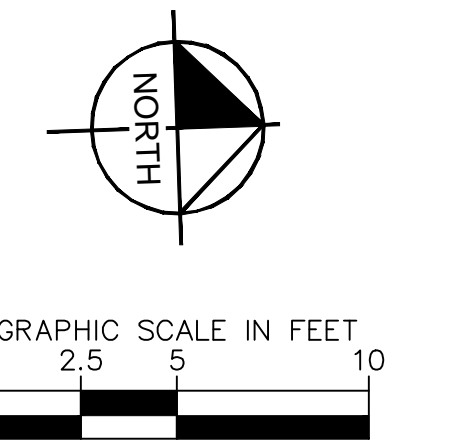
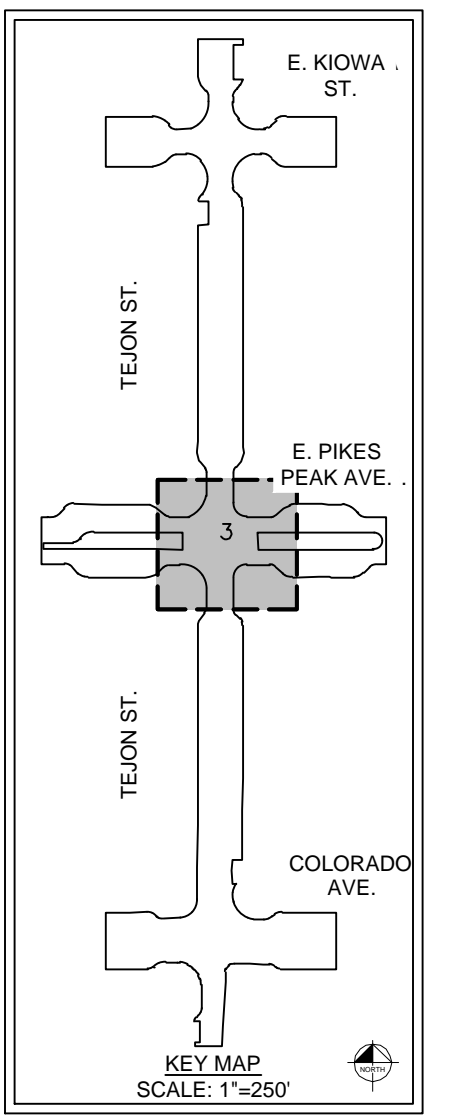
PROJECT NO./CODE
 067607114
SHEET NUMBER 32

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-INSETS.dwg_Krumer_Michael_5/22/2024 10:54 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



GRADING INSET SEC
SCALE: 1"=5'

CURB RAMP DETAIL (SEC)					
POINT NO.	STATION	ALIGNMENT	OFFSET	ELEVATION	DESCRIPTION
SWC 01	104+64.43	TEJON ST	28.00	6008.34'	FL
SWC 02	104+67.97	TEJON ST	26.54	6008.39'	FL
SWC 03	104+73.04	TEJON ST	21.46	6008.50'	FL
SWC 04	104+76.57	TEJON ST	20.00	6008.56'	FL
SWC 05	104+97.42	TEJON ST	20.00	6008.79'	FL
SWC 06	105+09.00	TEJON ST	20.00	6008.73'	FL
SWC 07	105+13.42	TEJON ST	20.40	6008.70'	FL
SWC 08	105+31.06	TEJON ST	33.37	6008.58'	FL
SWC 09	105+34.00	TEJON ST	45.00	6008.52'	FL
SWC 10	105+34.00	TEJON ST	49.48	6008.50'	FL
SWC 11	105+34.00	TEJON ST	67.86	6008.40'	FL
SWC 12	105+32.45	TEJON ST	71.48	6008.38'	FL
SWC 13	105+23.12	TEJON ST	80.36	6008.31'	FL
SWC 14	105+16.98	TEJON ST	57.43	6009.07'	SWLK, ME
SWC 15	105+24.99	TEJON ST	49.46	6008.74'	SWLK, ME
SWC 16	104+97.82	TEJON ST	58.01	6009.42'	SWLK, ME
SWC 17	104+97.83	TEJON ST	50.00	6009.48'	SWLK, ME
SWC 18	104+89.45	TEJON ST	49.00	6009.41'	SWLK
SWC 19	104+97.44	TEJON ST	26.48	6009.04'	SWLK
SWC 20	104+94.98	TEJON ST	34.50	6009.15'	SWLK
SWC 21	104+89.45	TEJON ST	34.50	6009.20'	SWLK
SWC 22	104+66.45	TEJON ST	33.50	6009.93'	TBW
SWC 23	104+66.45	TEJON ST	29.18	6009.87'	TBW
SWC 24	104+69.03	TEJON ST	27.60	6009.92'	TBW
SWC 25	104+74.10	TEJON ST	22.53	6010.02'	TBW
SWC 26	104+76.57	TEJON ST	21.50	6010.06'	TBW
SWC 27	104+96.43	TEJON ST	21.50	6010.36'	TBW
SWC 28	104+96.45	TEJON ST	26.48	6010.39'	TBW
SWC 29	104+89.45	TEJON ST	33.50	6010.44'	TBW
SWC 30	105+17.90	TEJON ST	79.00	6009.90'	TBW
SWC 31	105+22.37	TEJON ST	79.00	6009.82'	TBW
SWC 32	105+31.41	TEJON ST	70.39	6009.89'	TBW
SWC 33	105+32.50	TEJON ST	67.86	6009.90'	TBW
SWC 34	105+32.50	TEJON ST	50.49	6009.99'	TBW
SWC 35	105+24.99	TEJON ST	50.47	6010.02'	TBW
SWC 36	105+17.98	TEJON ST	57.45	6010.07'	TBW
SWC 37	105+07.30	TEJON ST	38.27	6008.96'	SWLK
SWC 38	105+10.08	TEJON ST	40.50	6008.94'	SWLK
SWC 39	105+13.45	TEJON ST	28.38	6008.79'	SWLK
SWC 40	105+21.70	TEJON ST	33.33	6008.72'	SWLK
SWC 41	105+17.43	TEJON ST	22.00	6008.69'	SWLK
SWC 42	105+27.95	TEJON ST	29.48	6008.62'	SWLK



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:
(R-X)		
(R-X)		
(R-X)		
(R-X)		

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

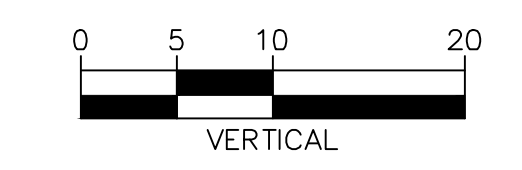
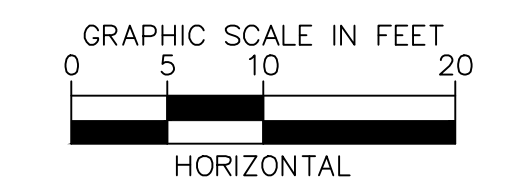
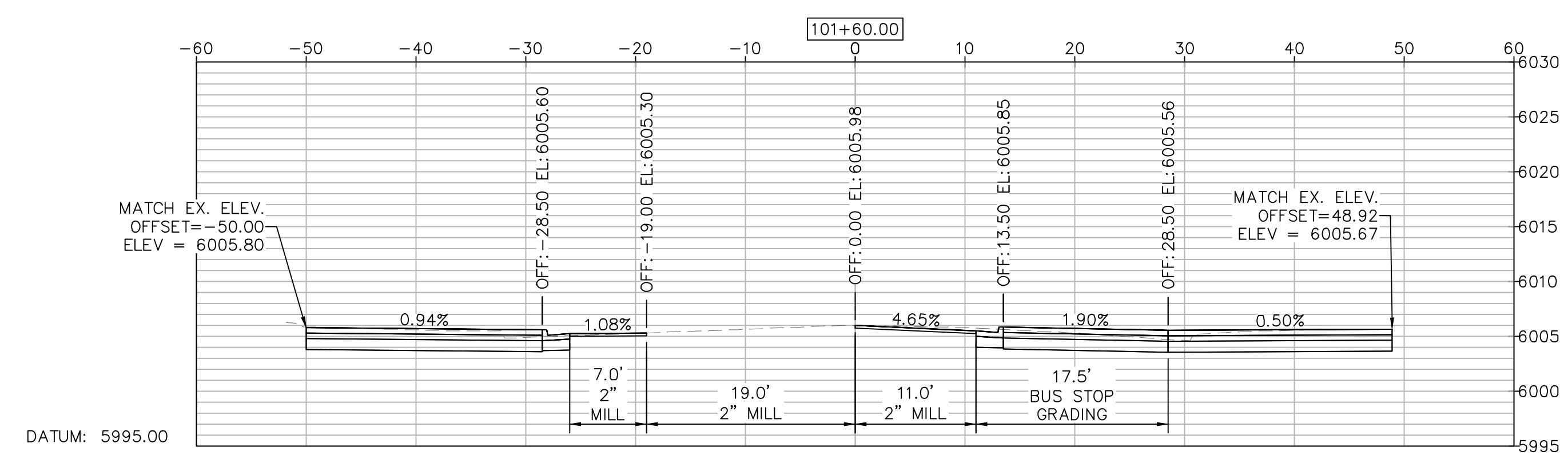
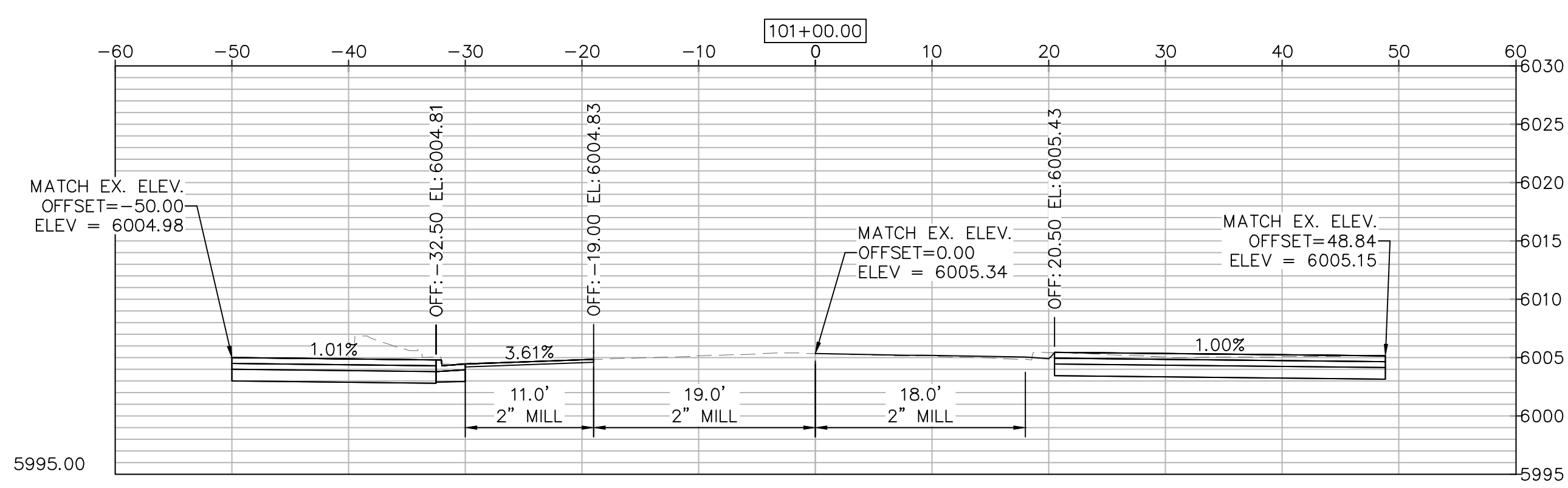
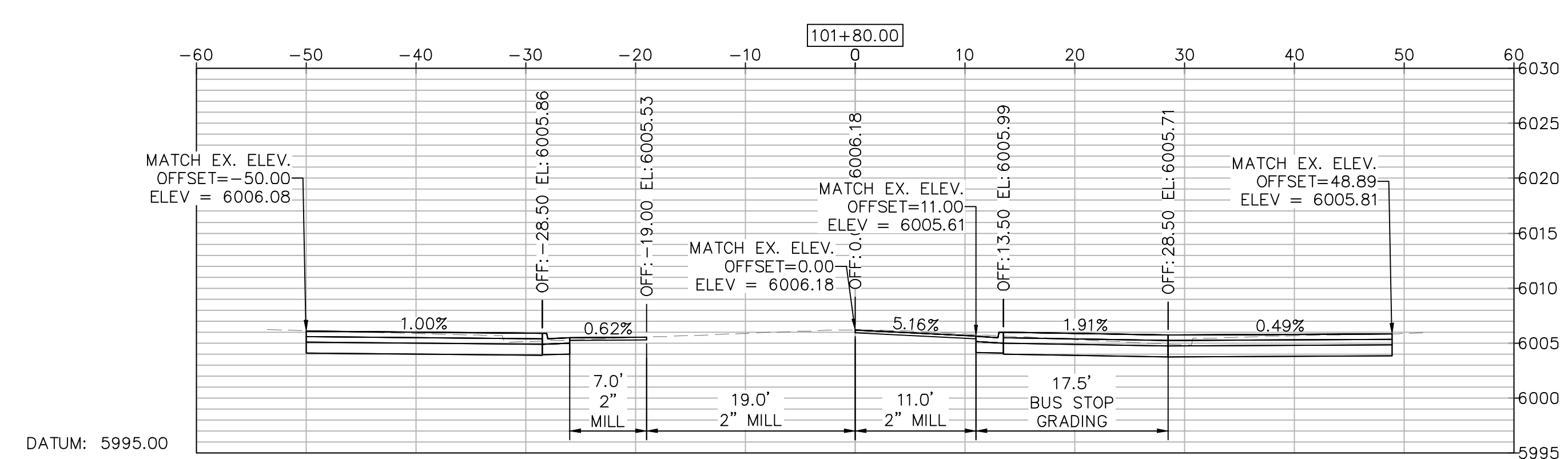
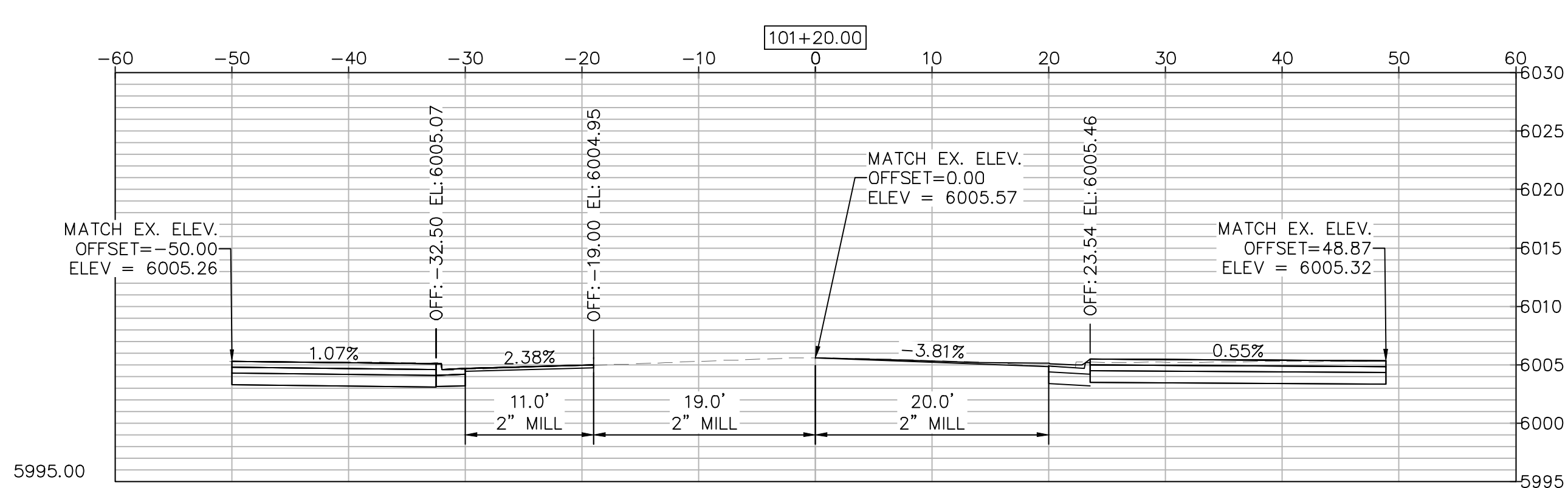
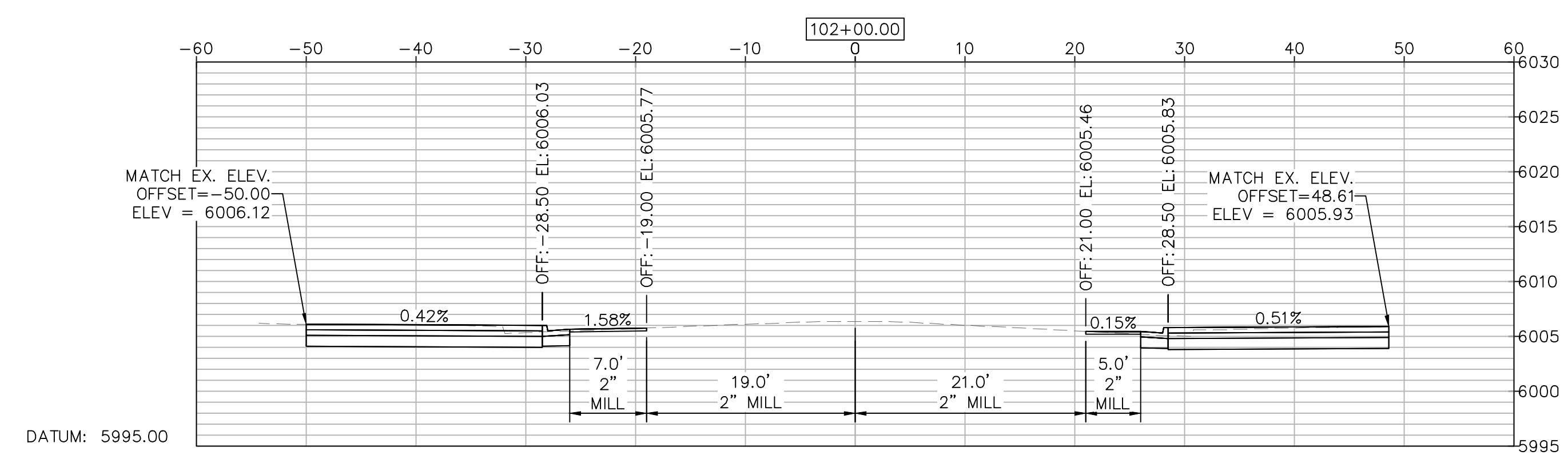
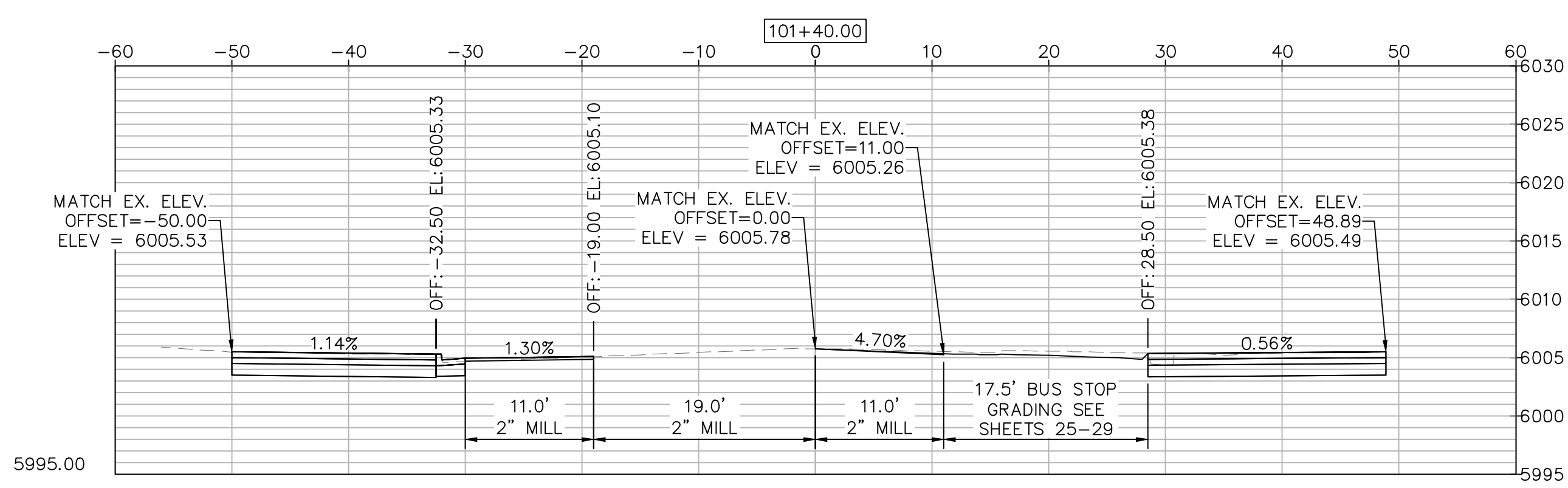
TEJON STREET REVITALIZATION
 GRADING PLAN - PIKES PEAK SEC

CHECKED BY: EJC
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114

SHEET NUMBER 33

P:_cos_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-1.dwg Kramer, Michael 5/22/2024 10:55 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

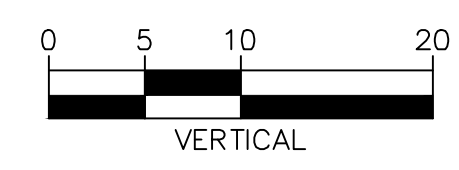
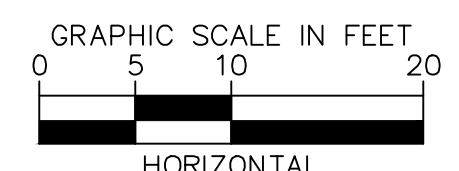
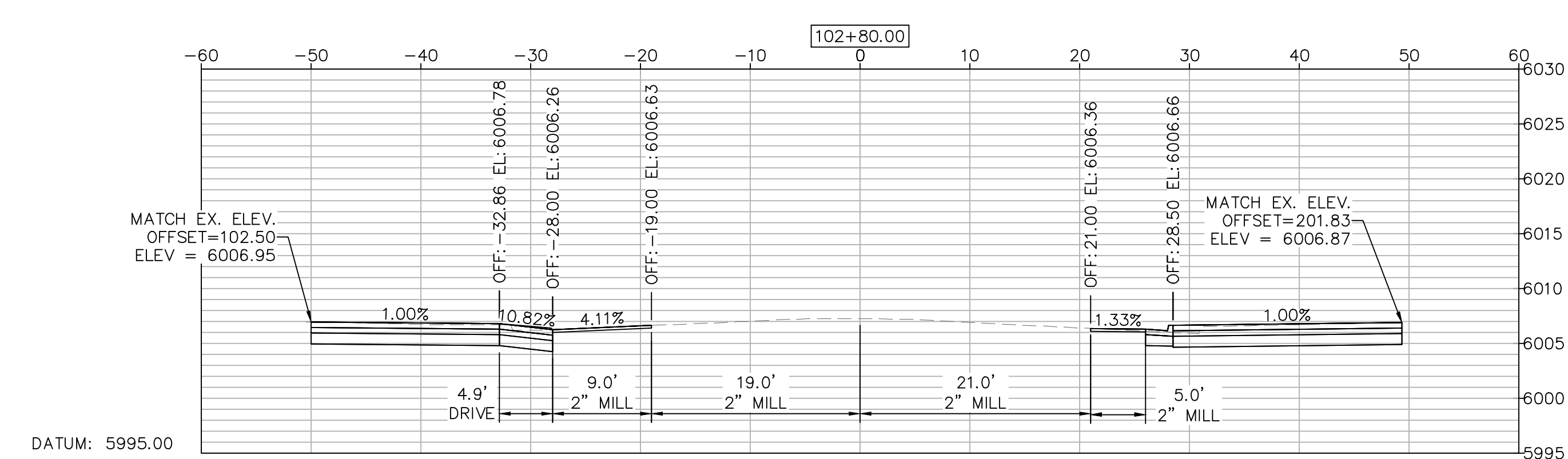
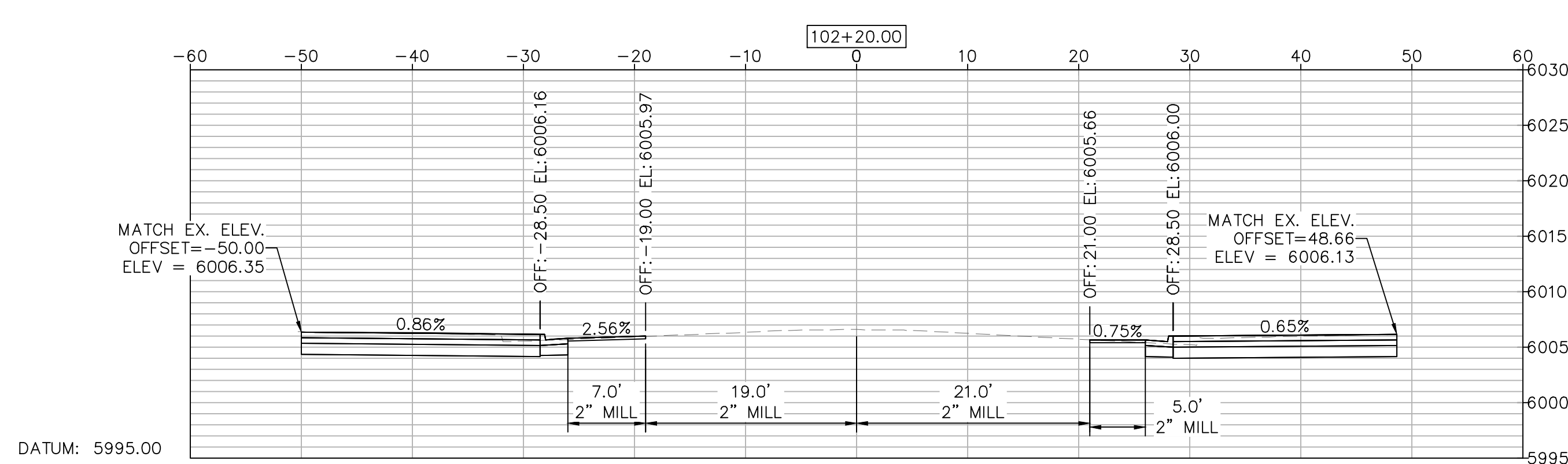
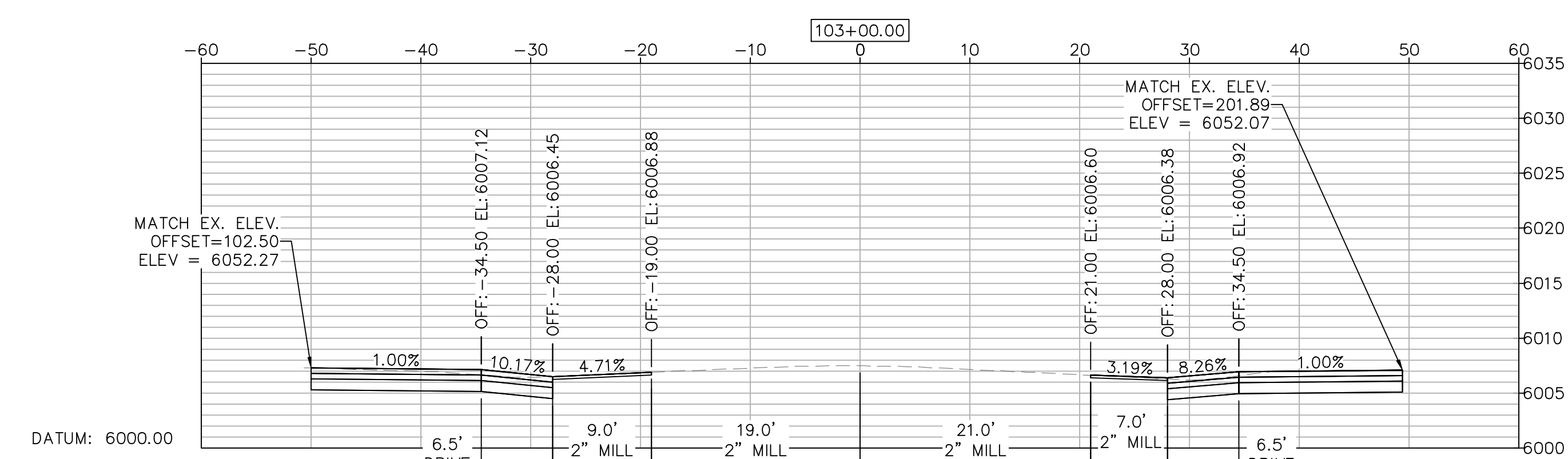
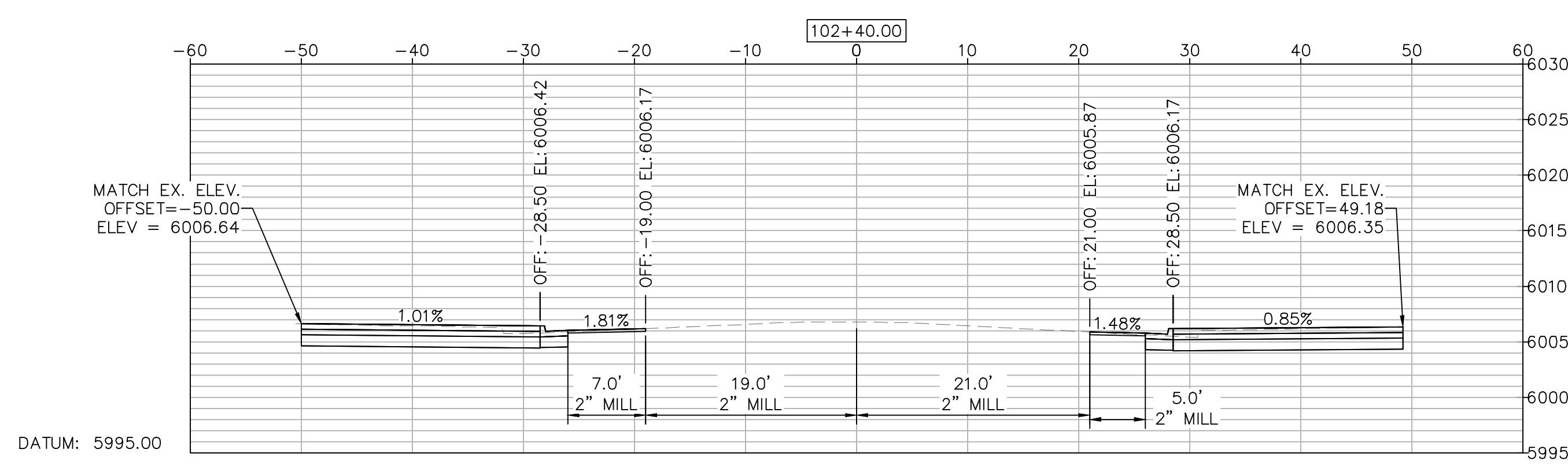
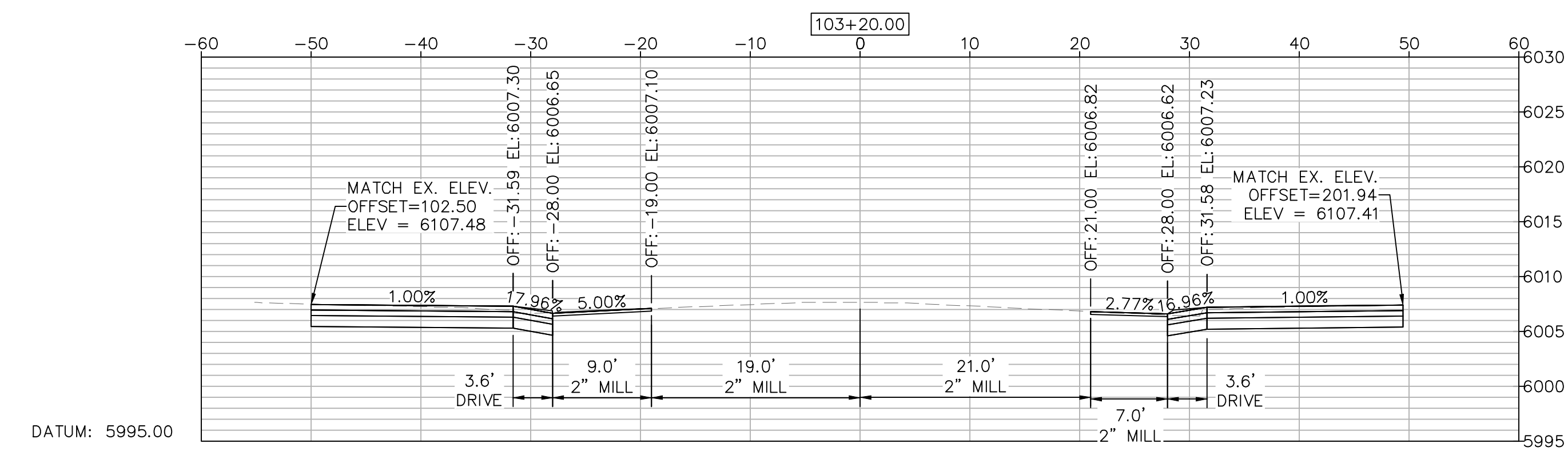
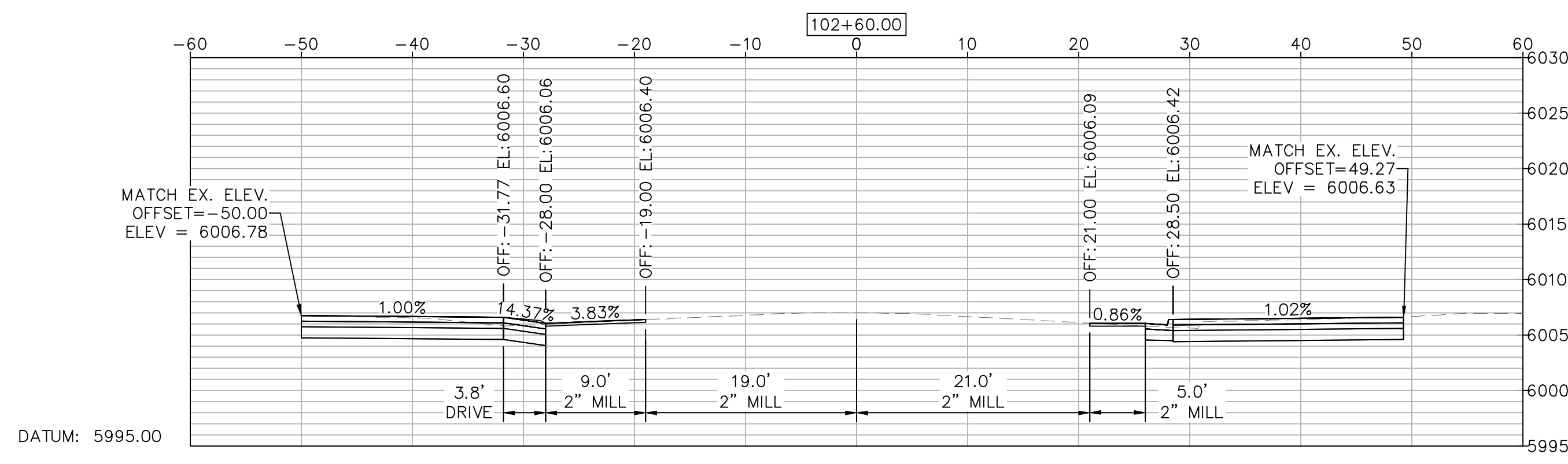
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 1
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 34

P:\cvs_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-1.dwg Kramer, Michael 5/22/2024 10:55 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:



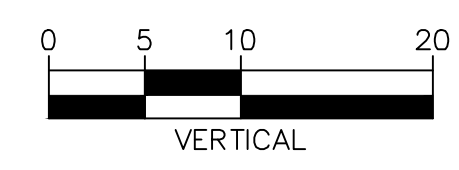
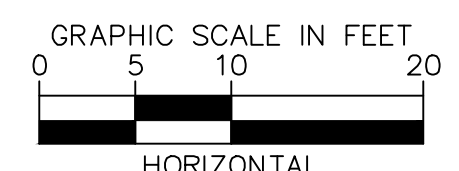
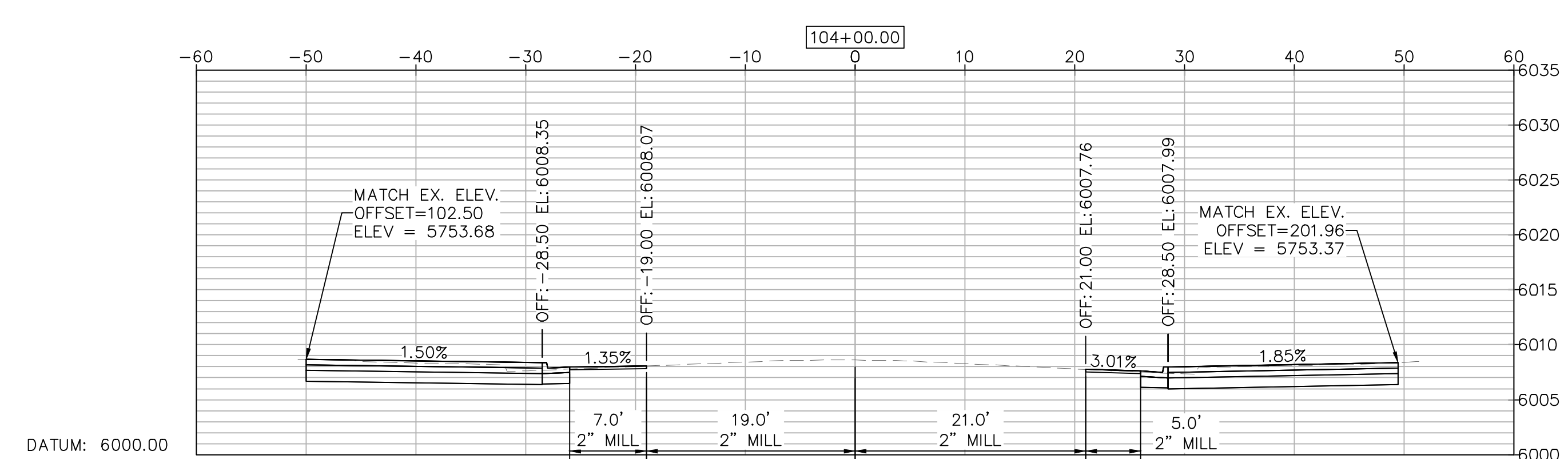
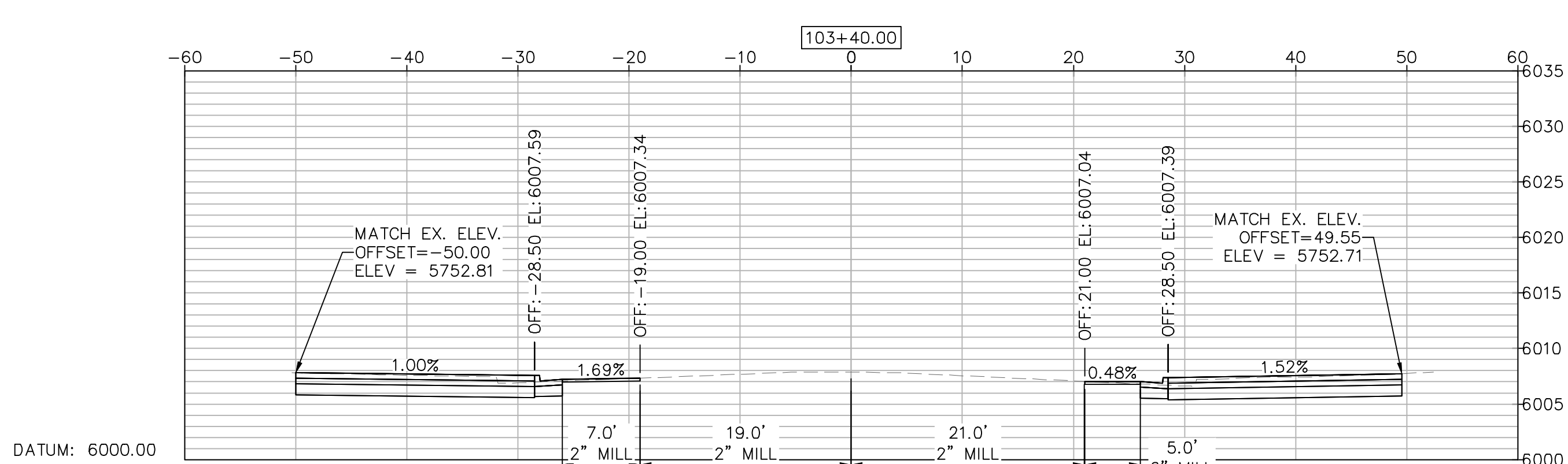
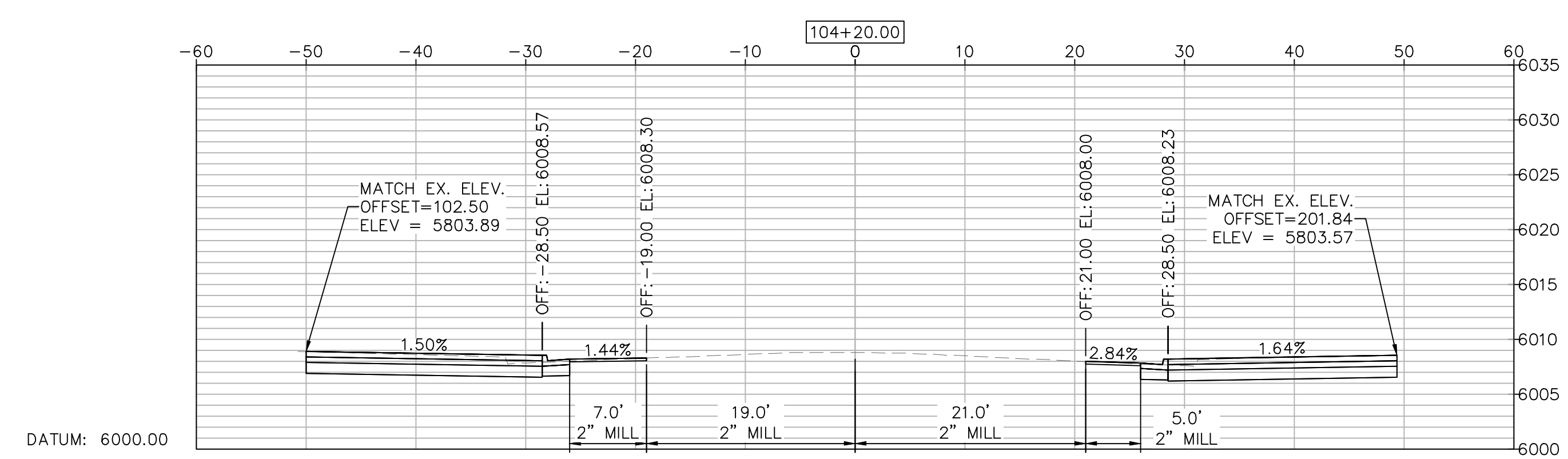
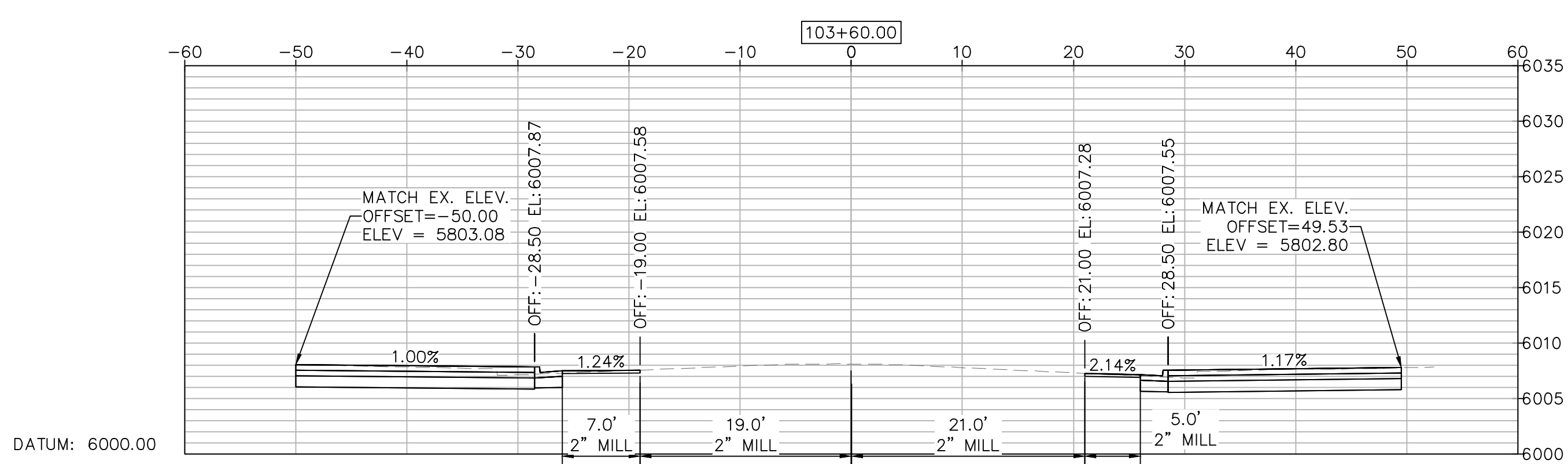
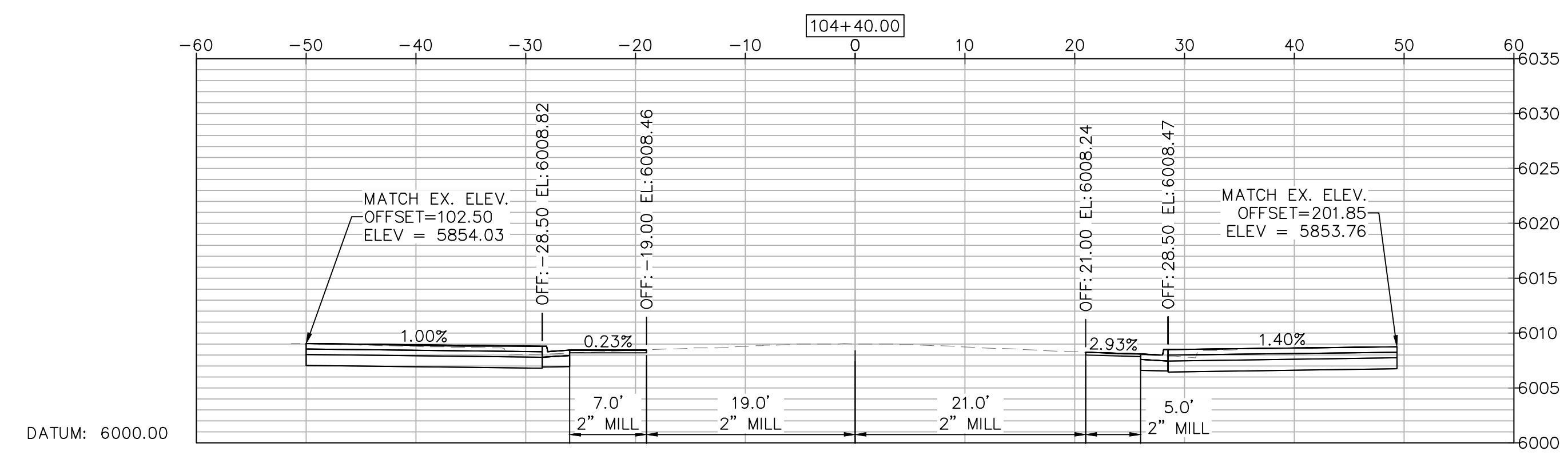
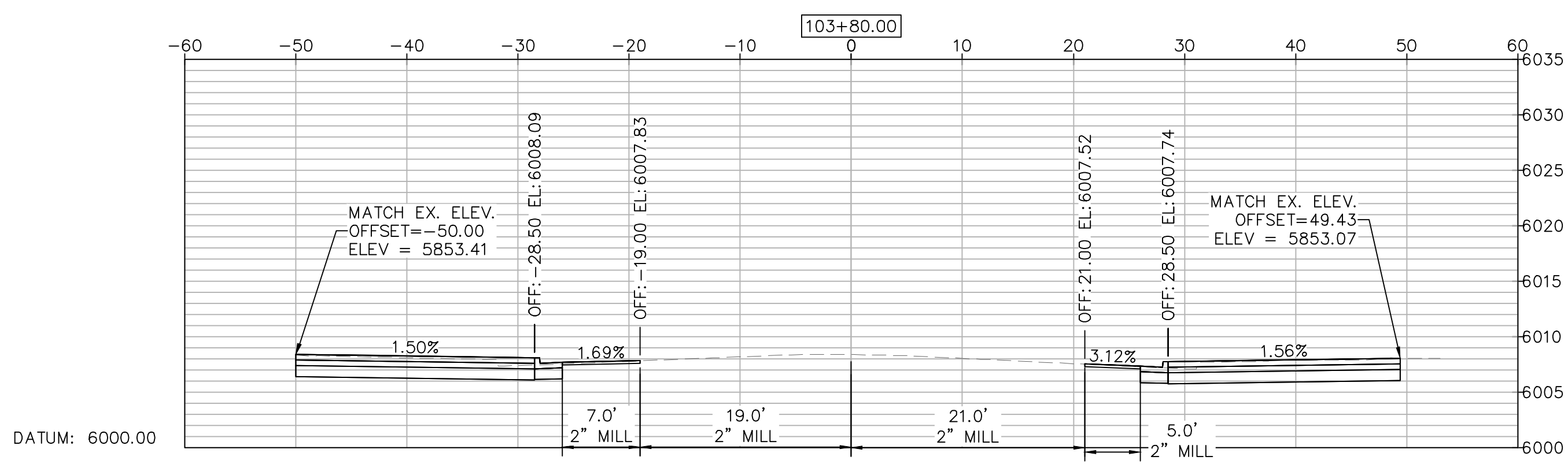
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 2
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 35

P:\cvs_civil\06760714_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-1.dwg Kramer, Michael 5/22/2024 10:55 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:



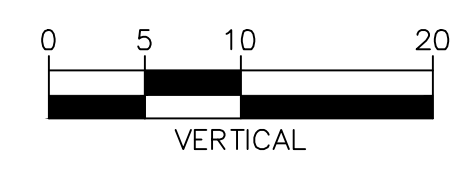
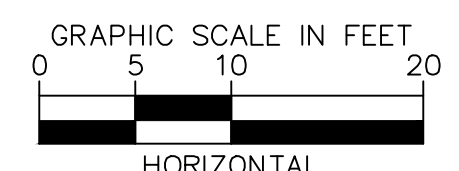
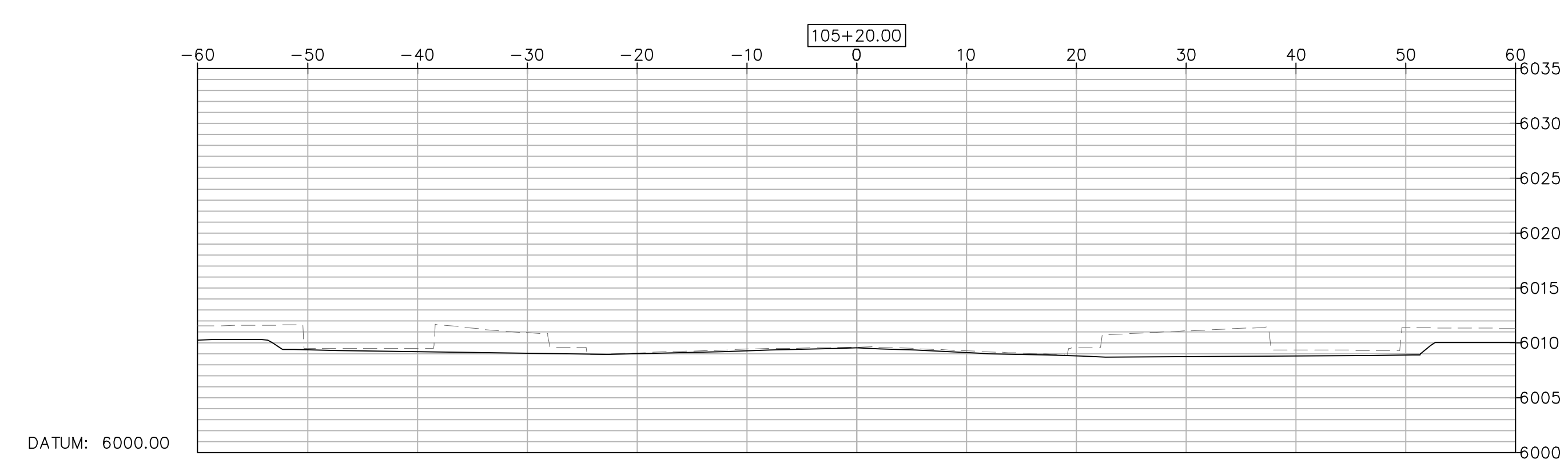
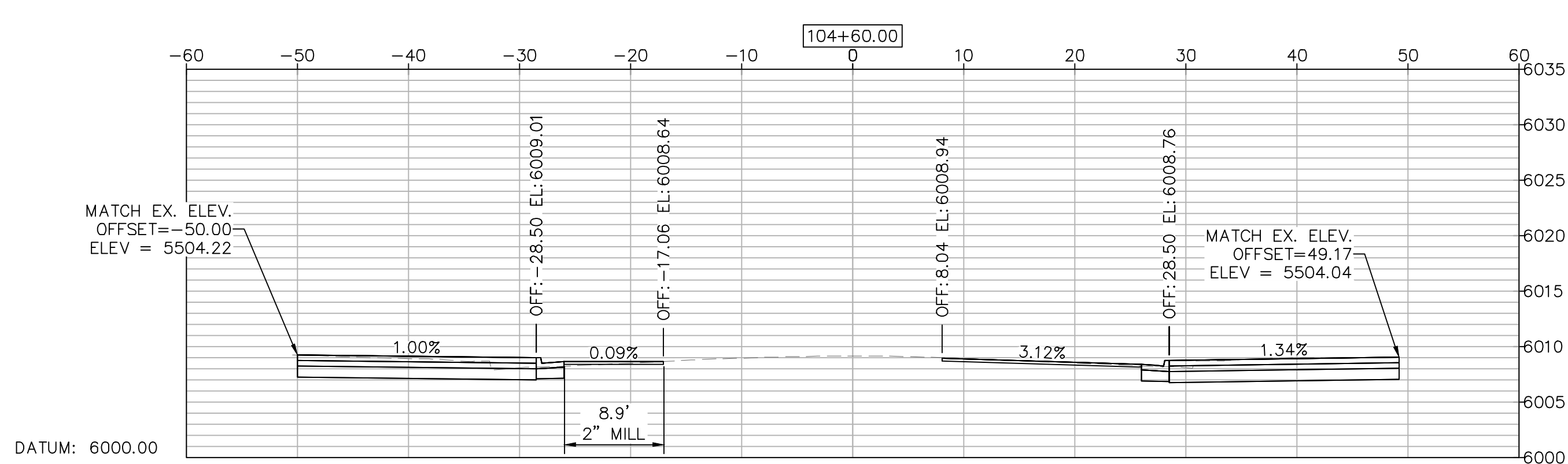
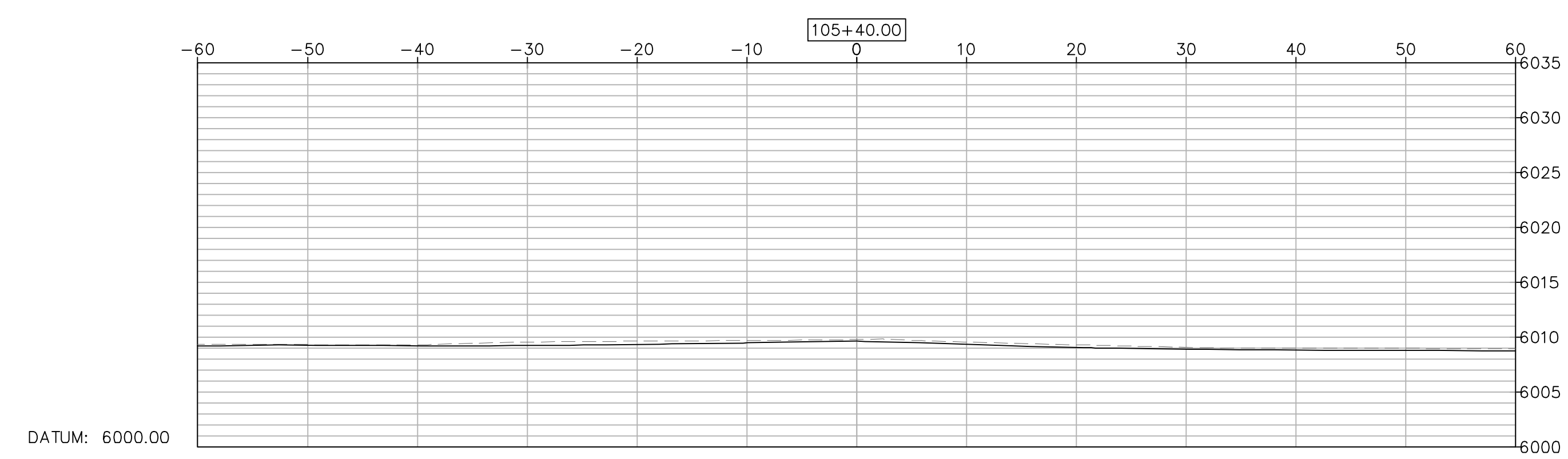
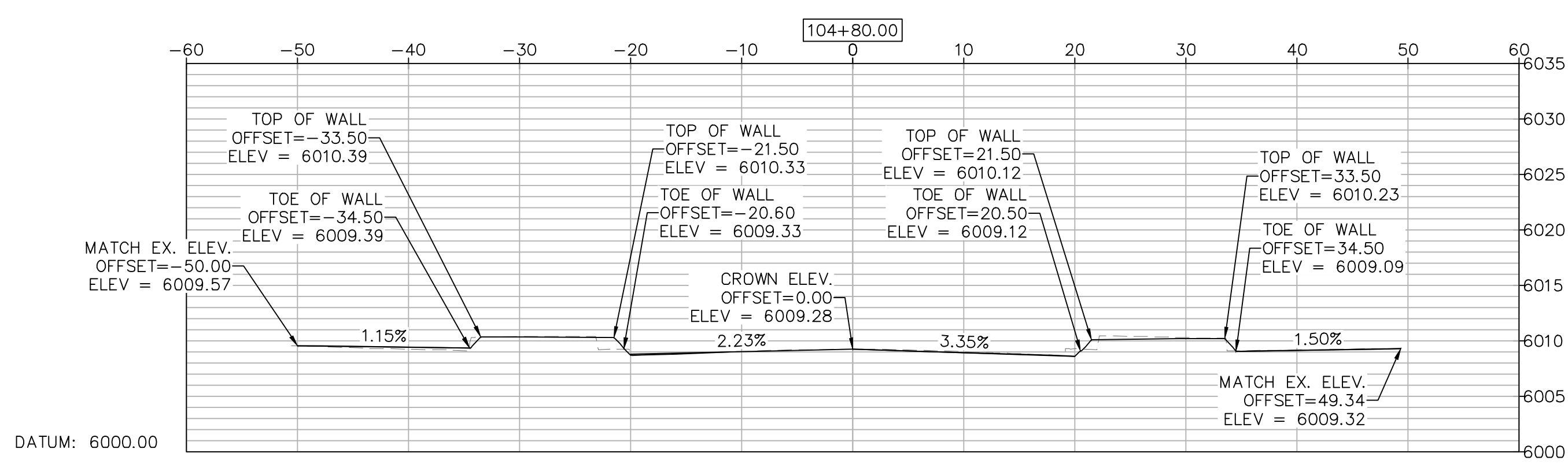
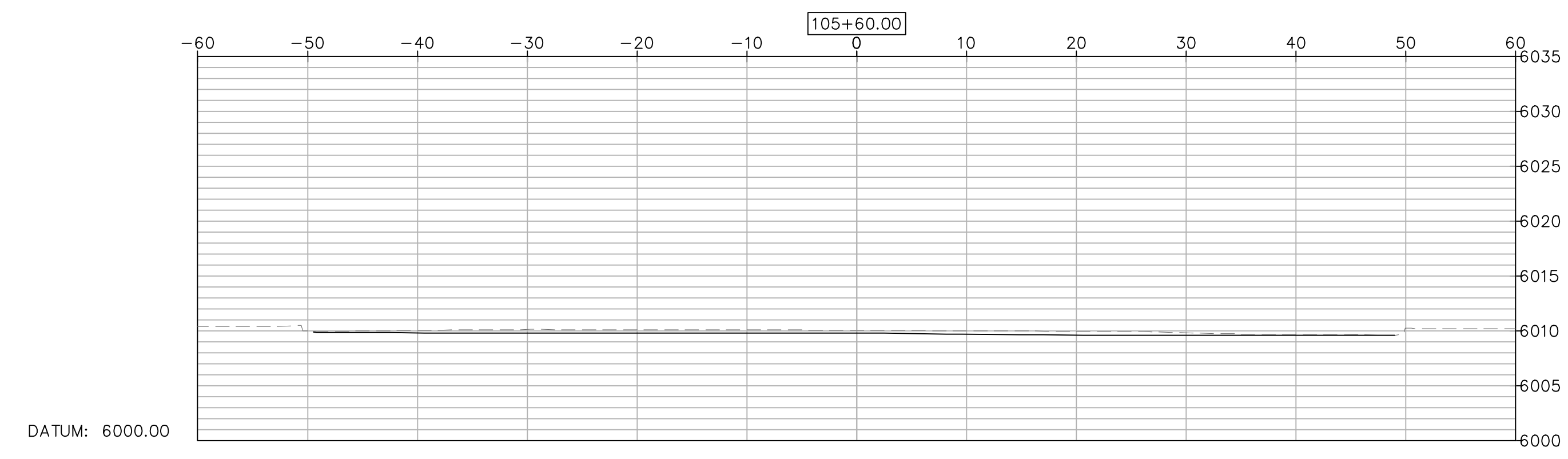
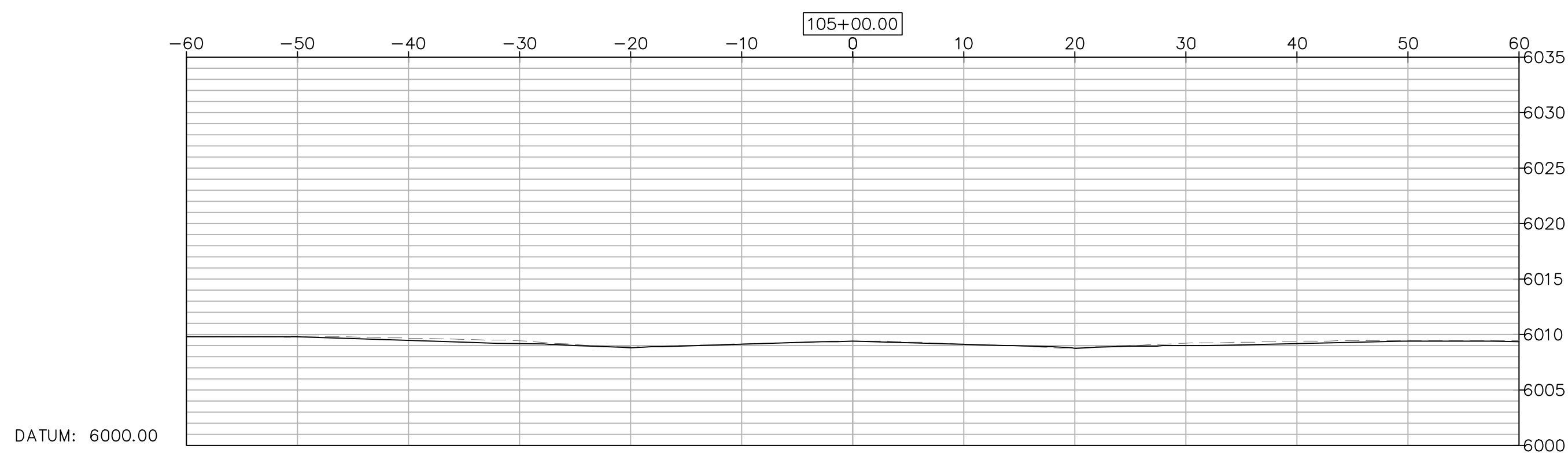
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 3
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
 SHEET NUMBER 36

P:_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-1.dwg Kramer, Michael 5/22/2024 10:55 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:


 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

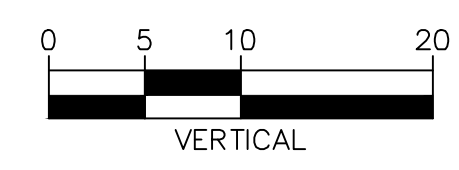
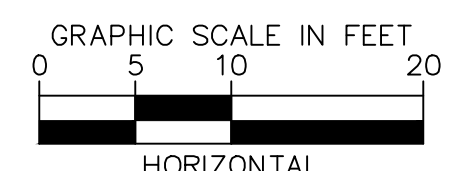
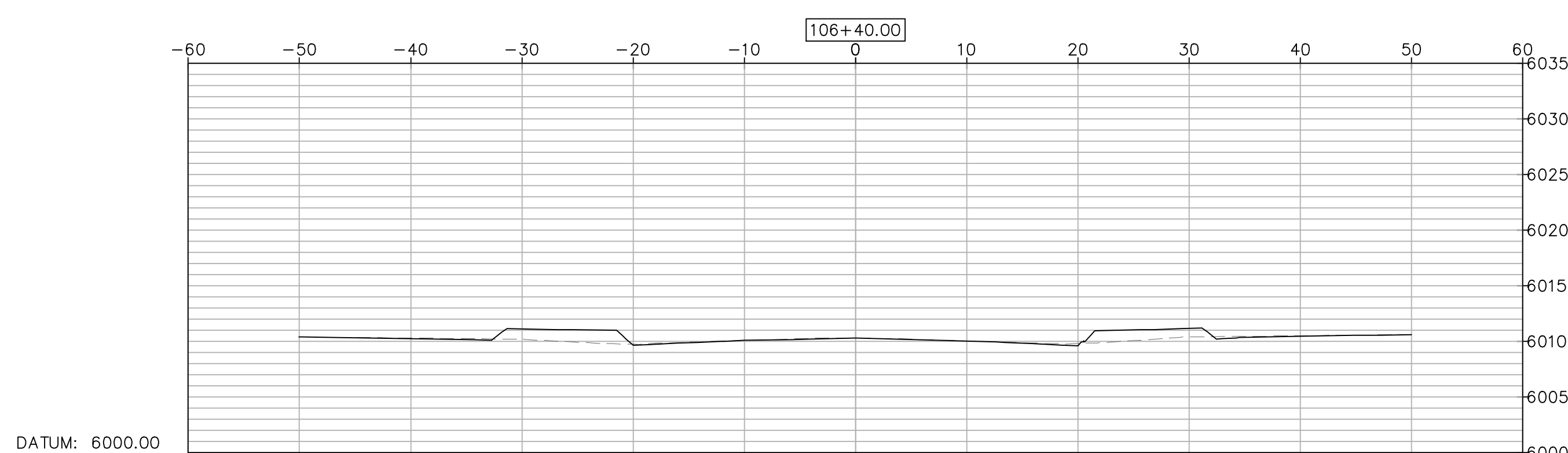
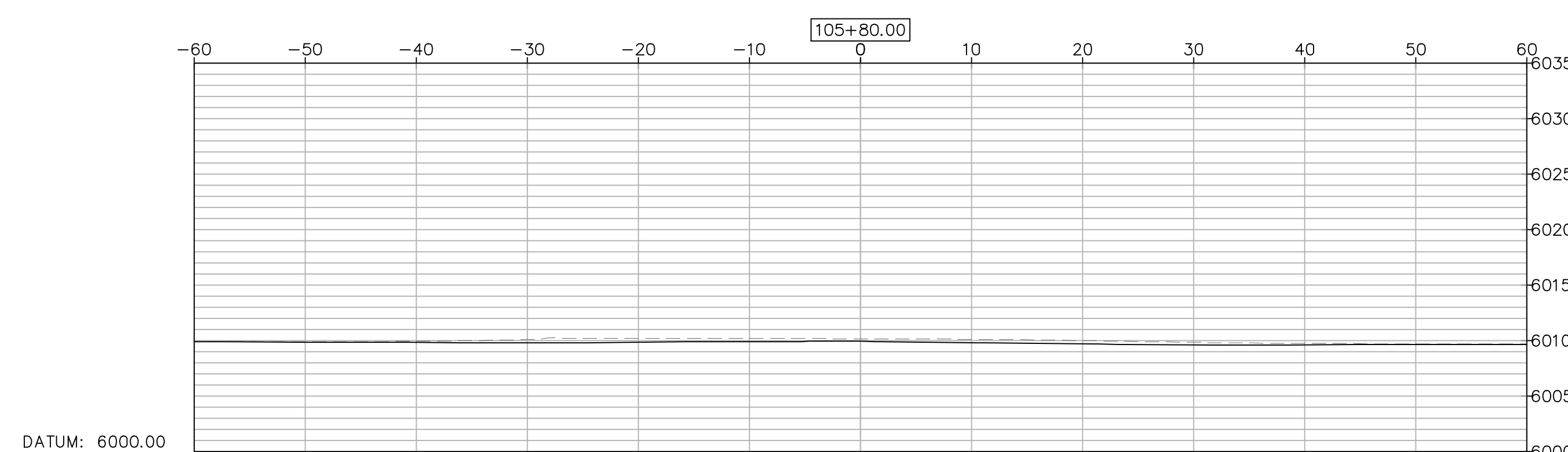
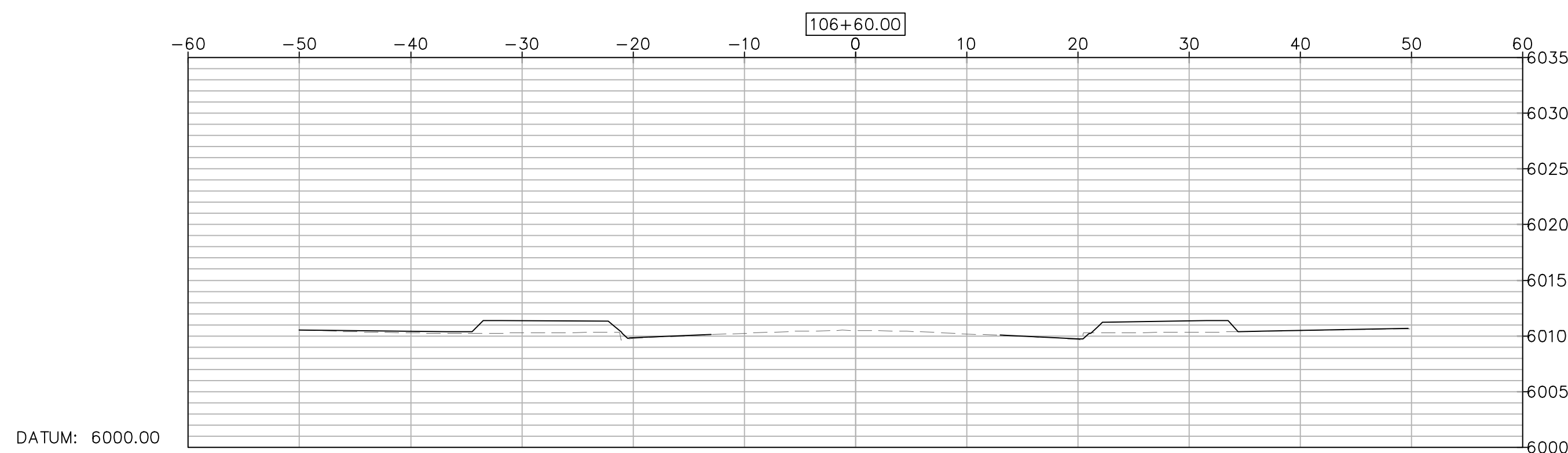
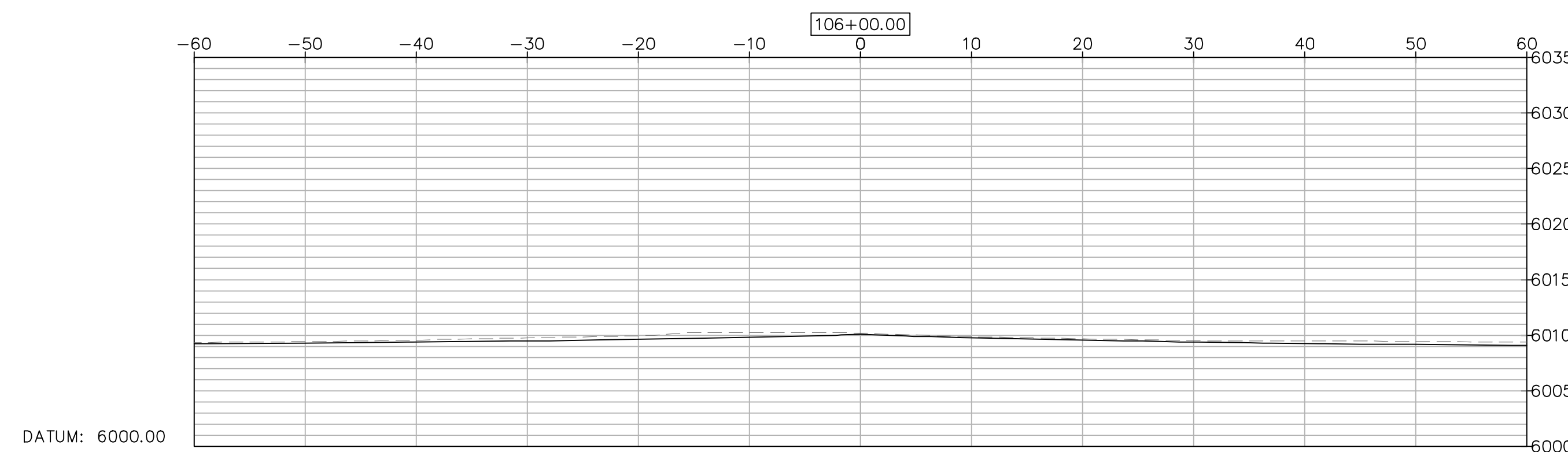
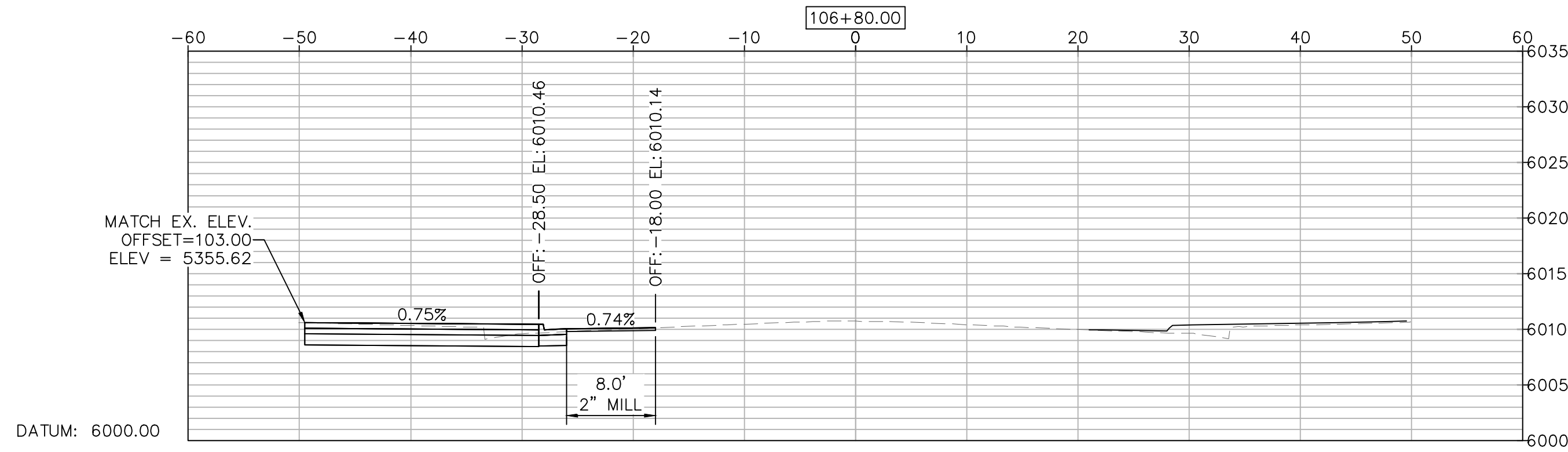
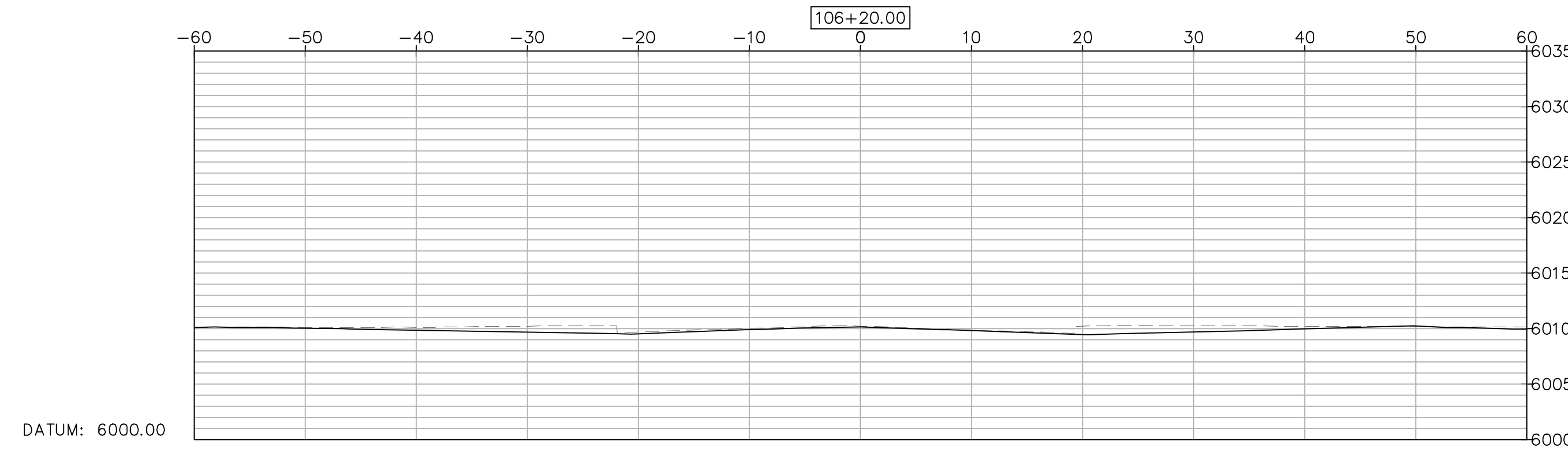
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.


TEJON STREET REVITALIZATION
 CROSS SECTION 4

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE	067607114
SHEET NUMBER	37

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-1.dwg Kramer, Michael 5/22/2024 10:55 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:



COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

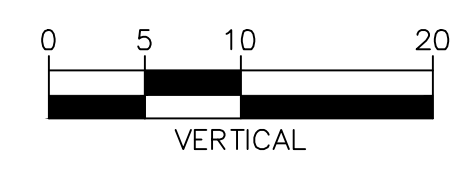
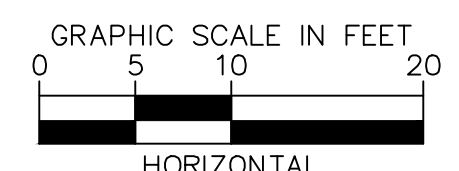
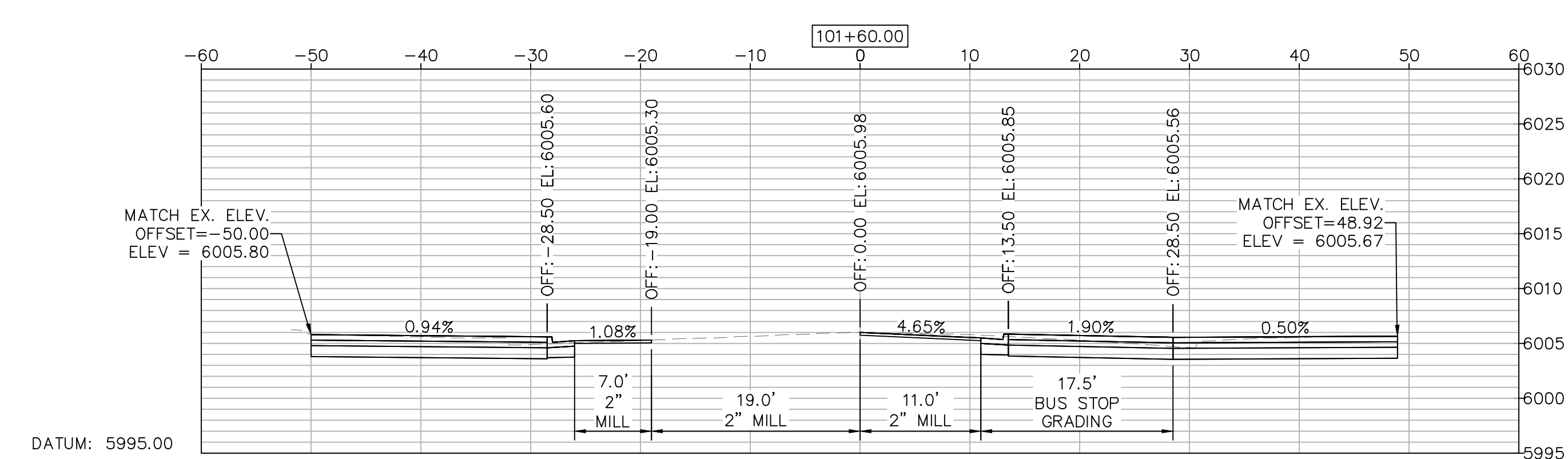
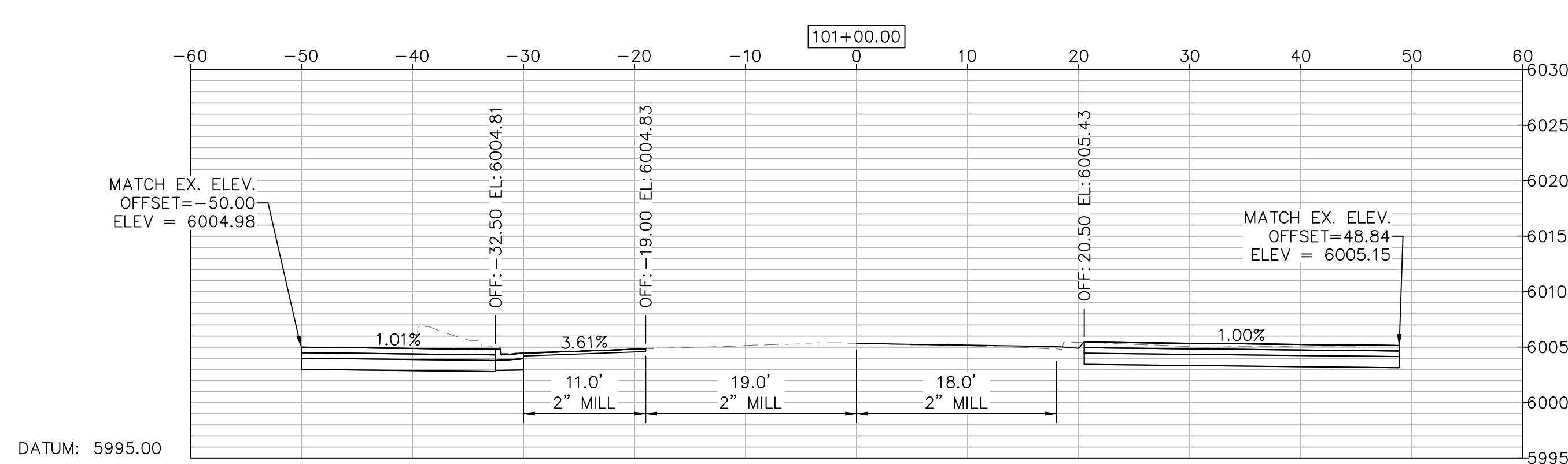
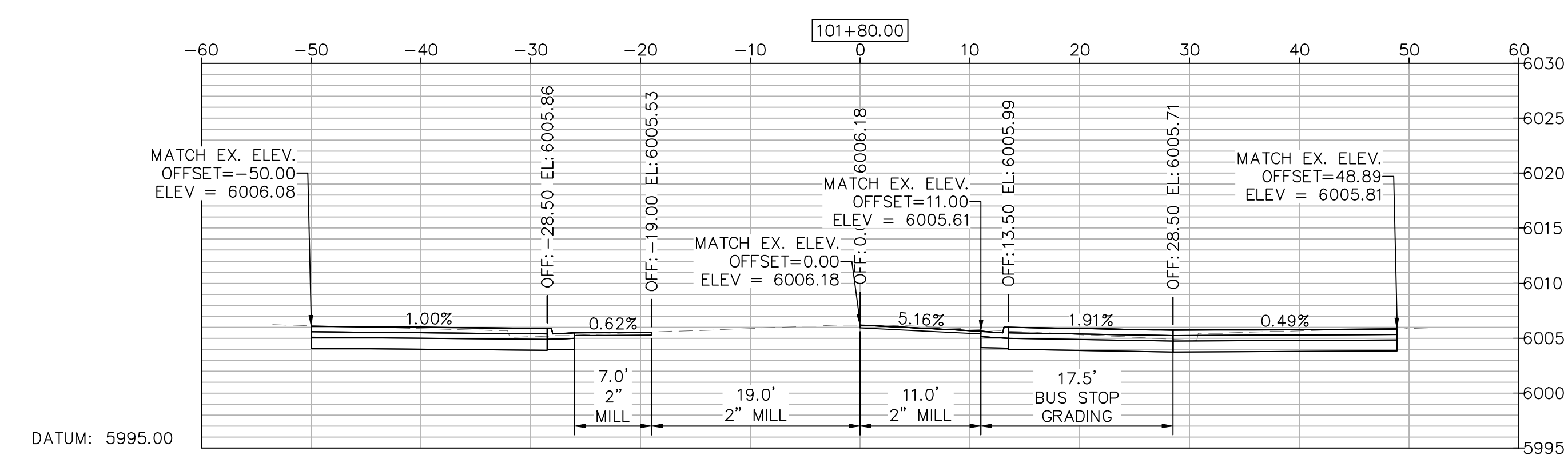
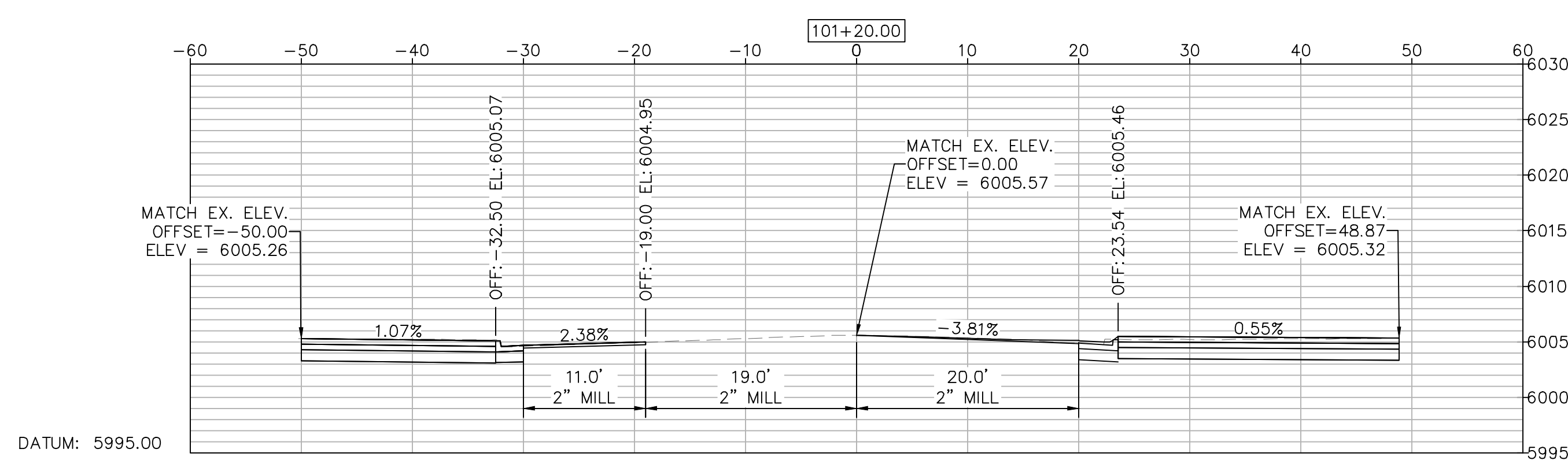
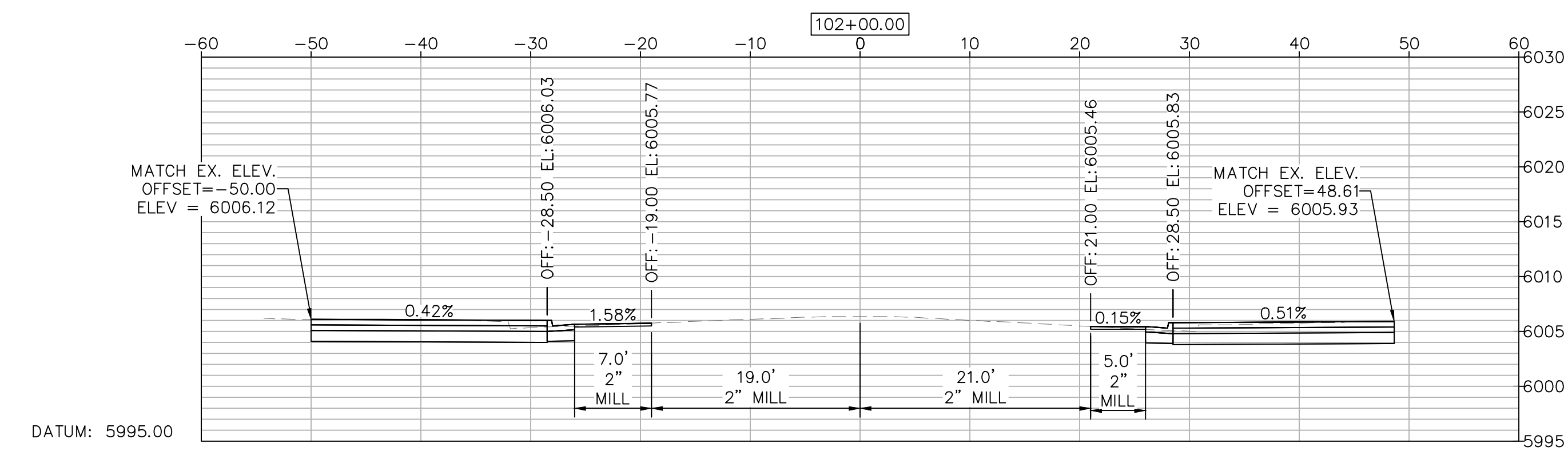
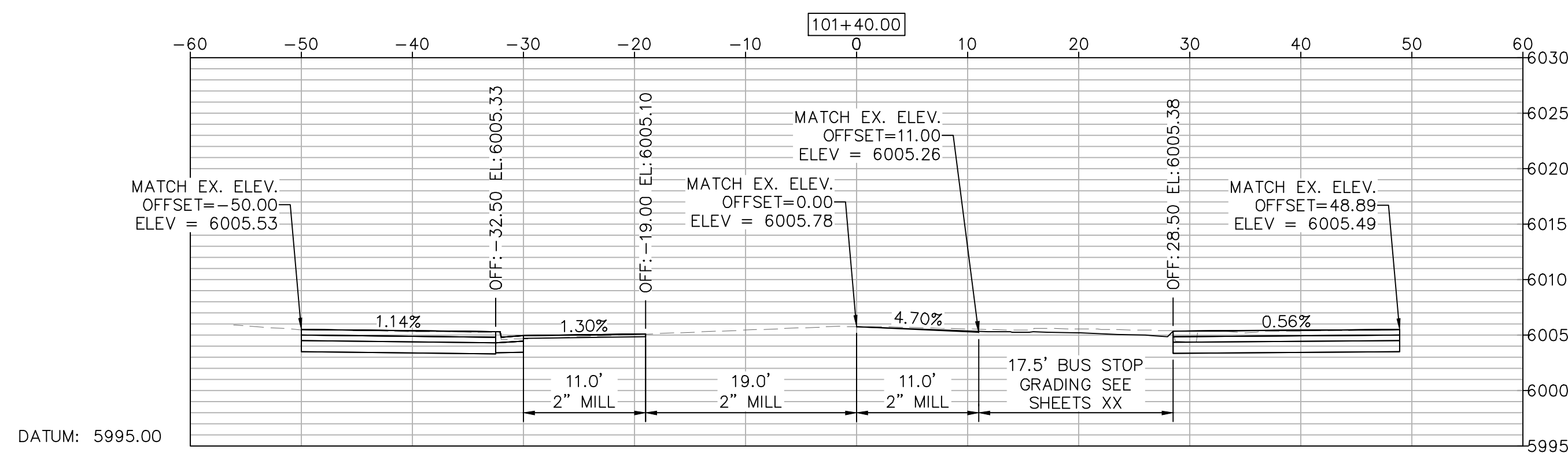
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION CROSS SECTION 5	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 38

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-2.dwg - Kramer, Michael 5/22/2024 10:55 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:



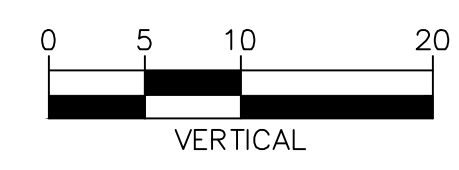
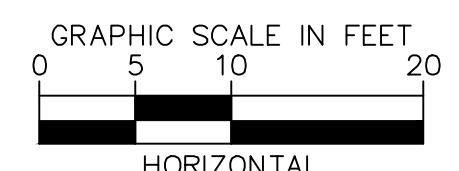
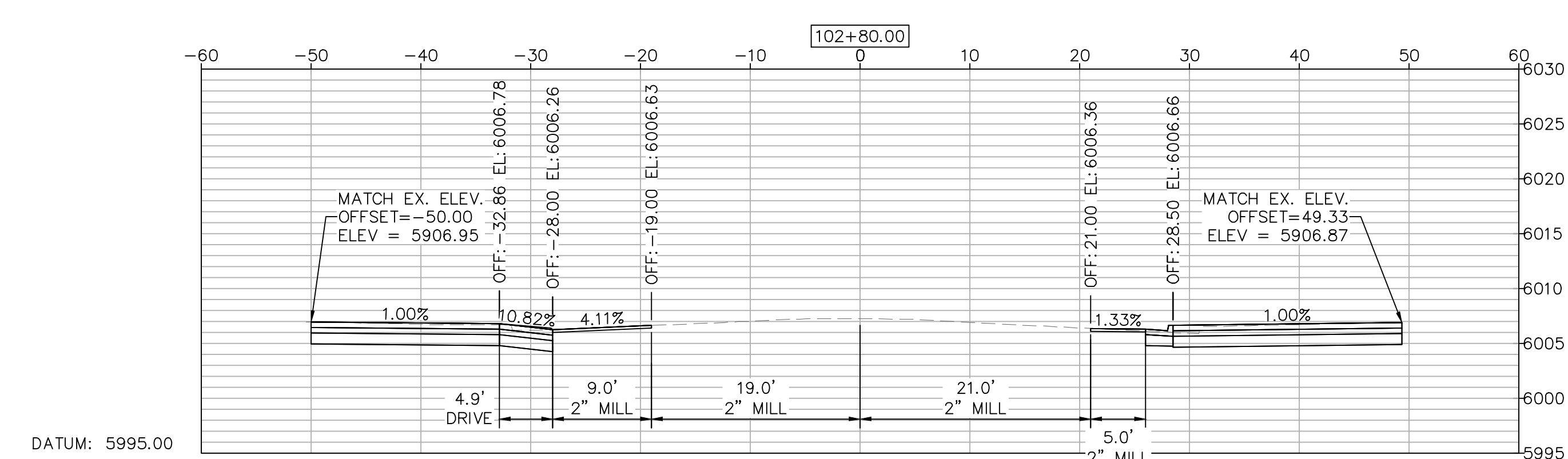
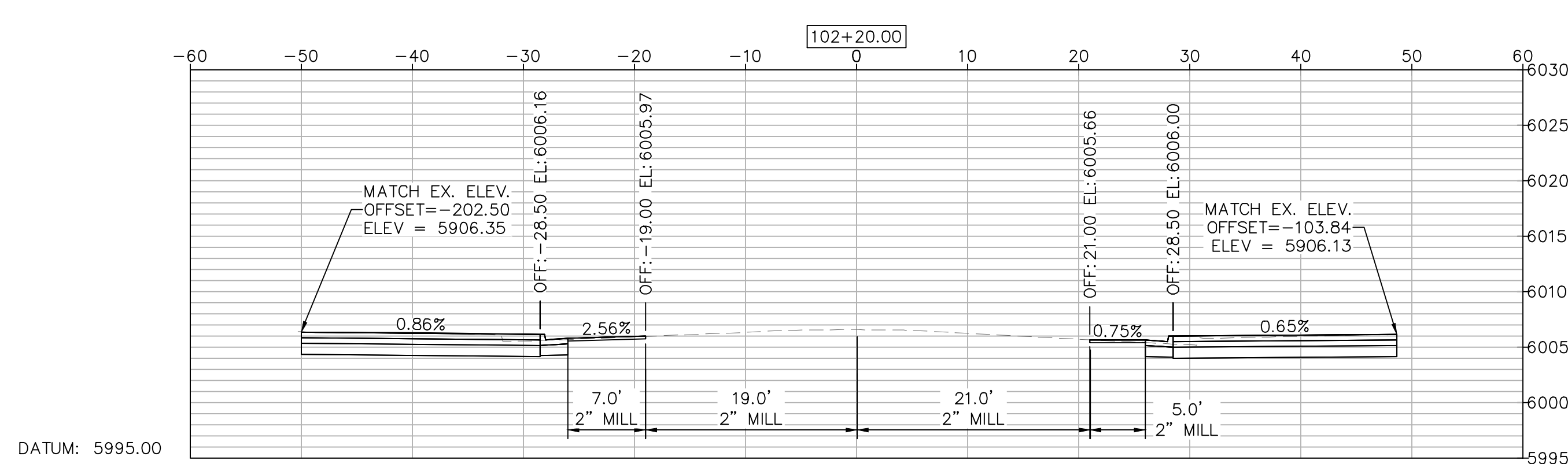
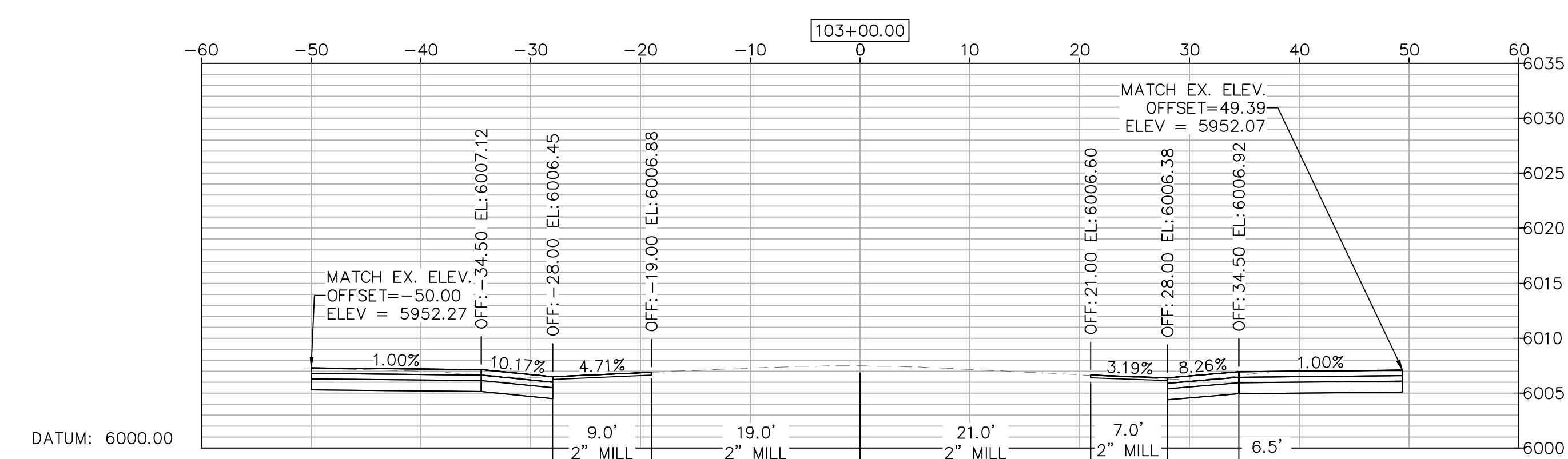
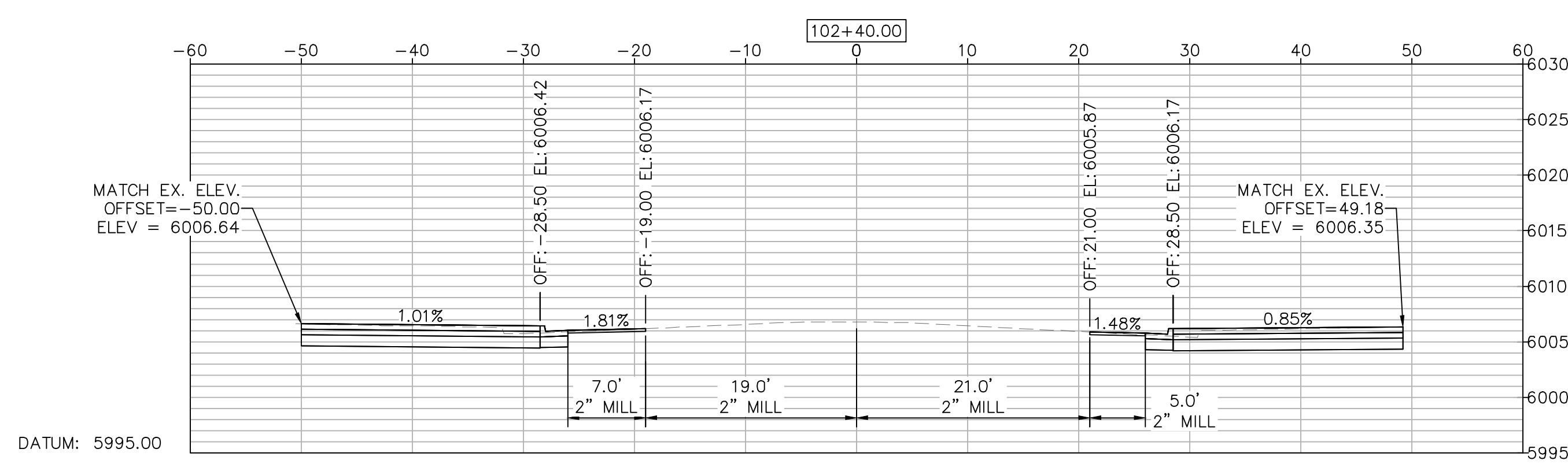
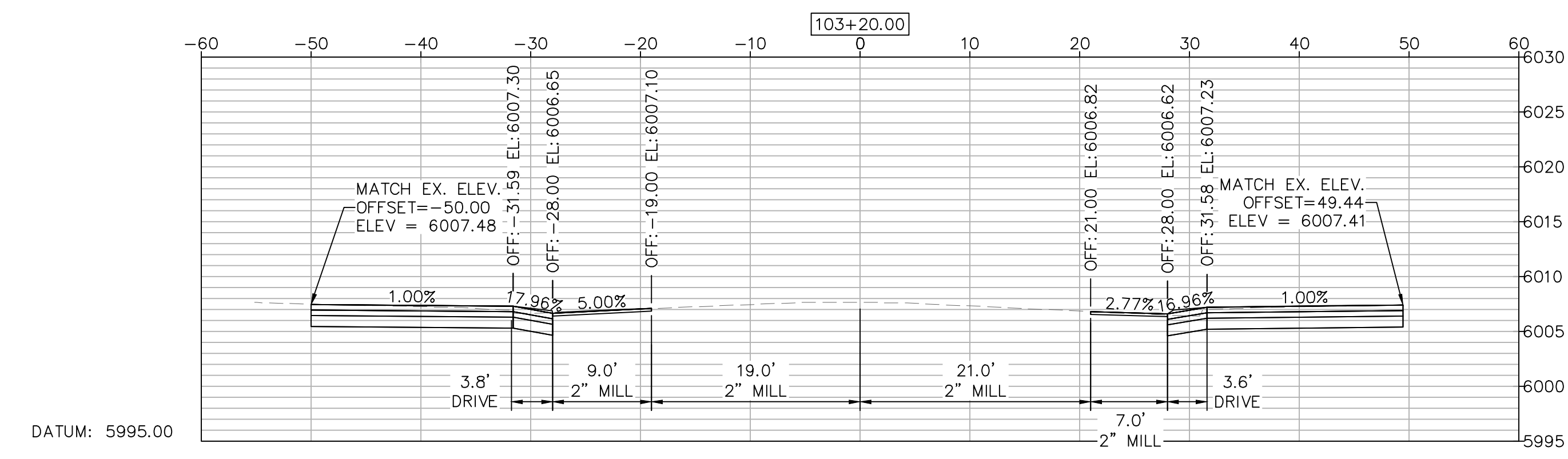
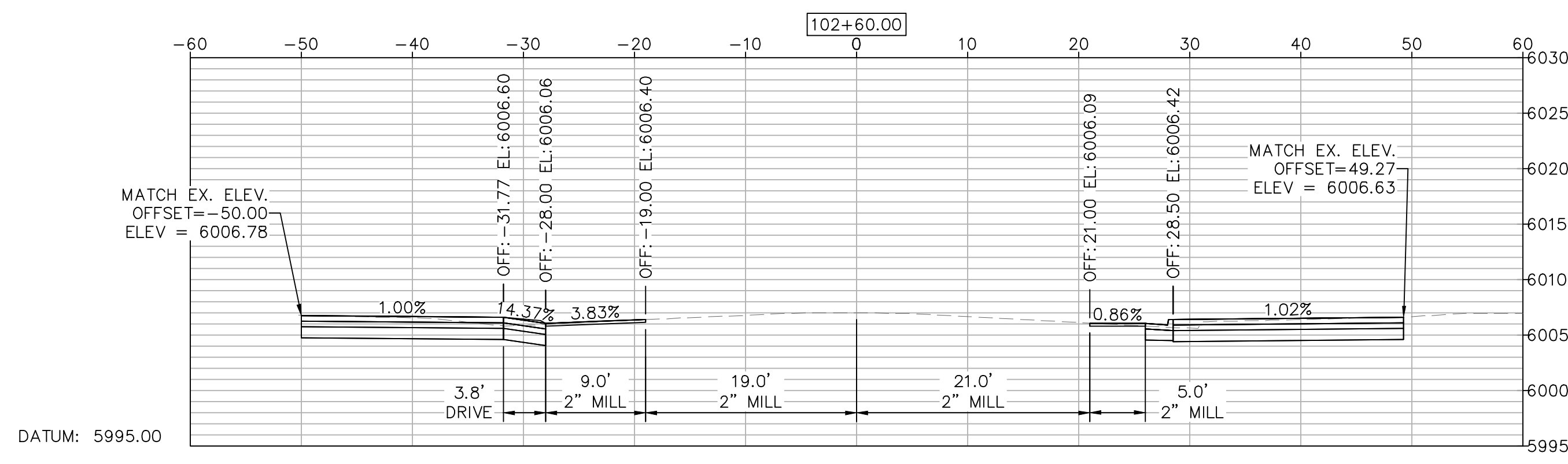
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 6
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 39

P:\cvs_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-2.dwg Kramer, Michael 5/22/2024 10:55 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:



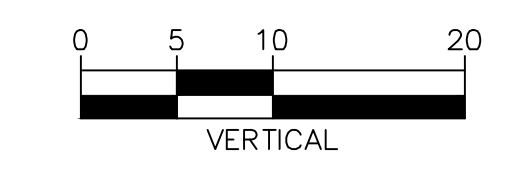
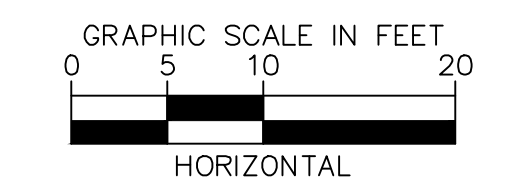
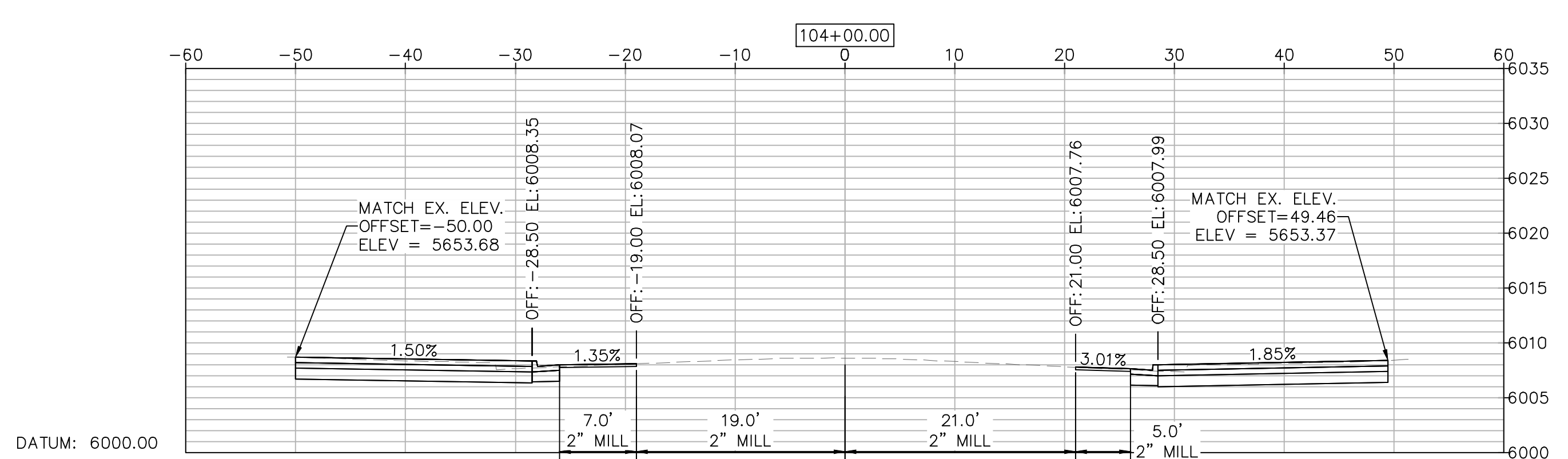
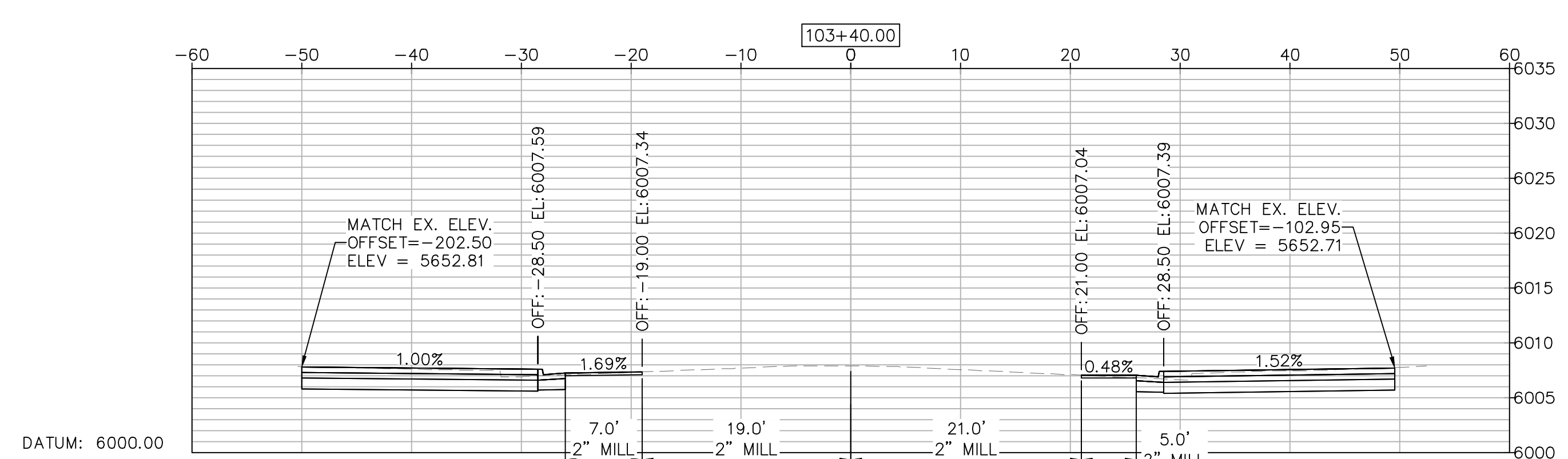
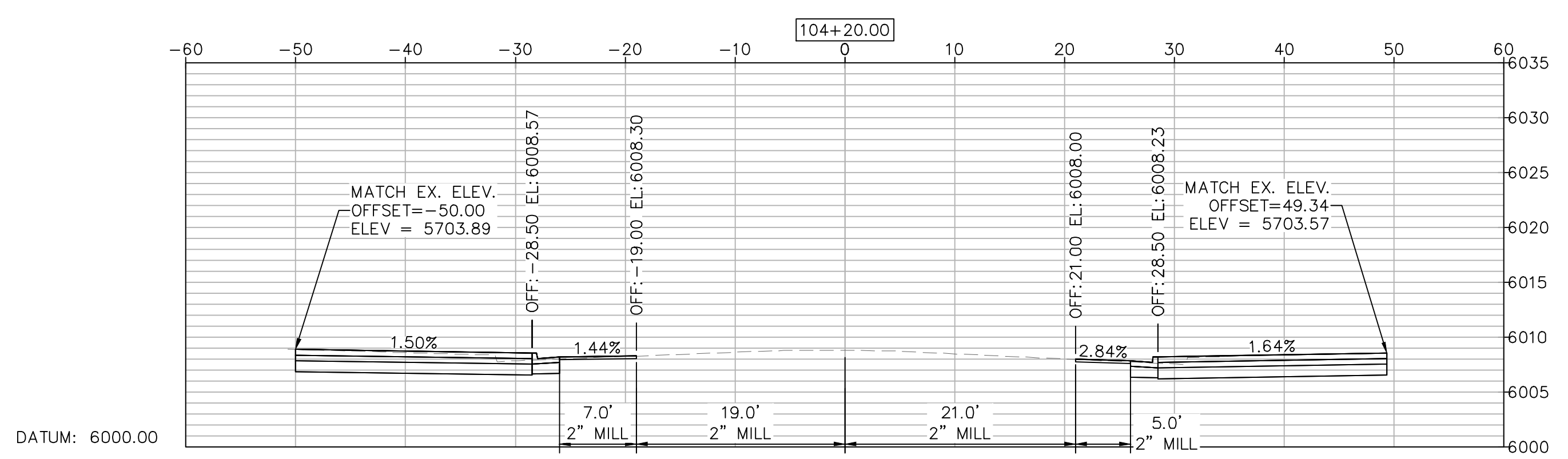
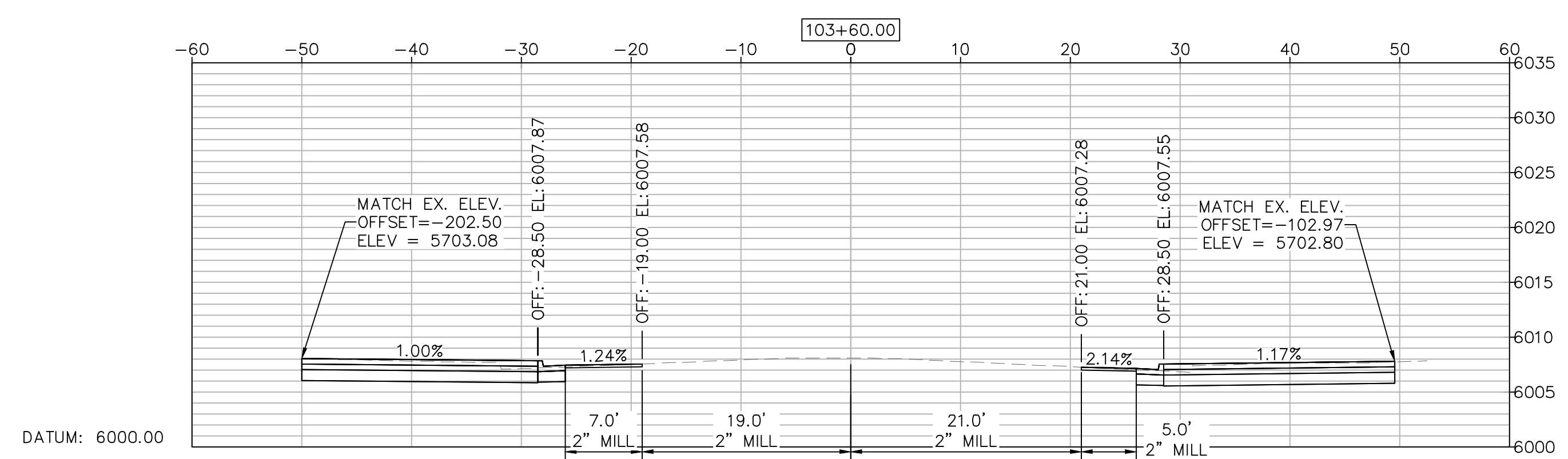
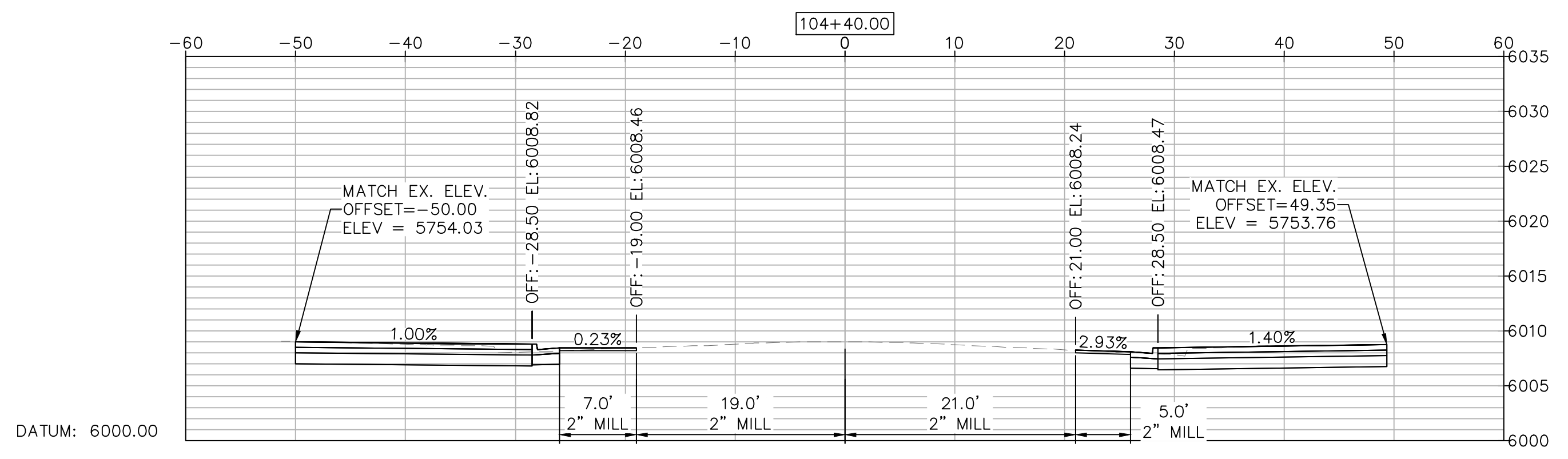
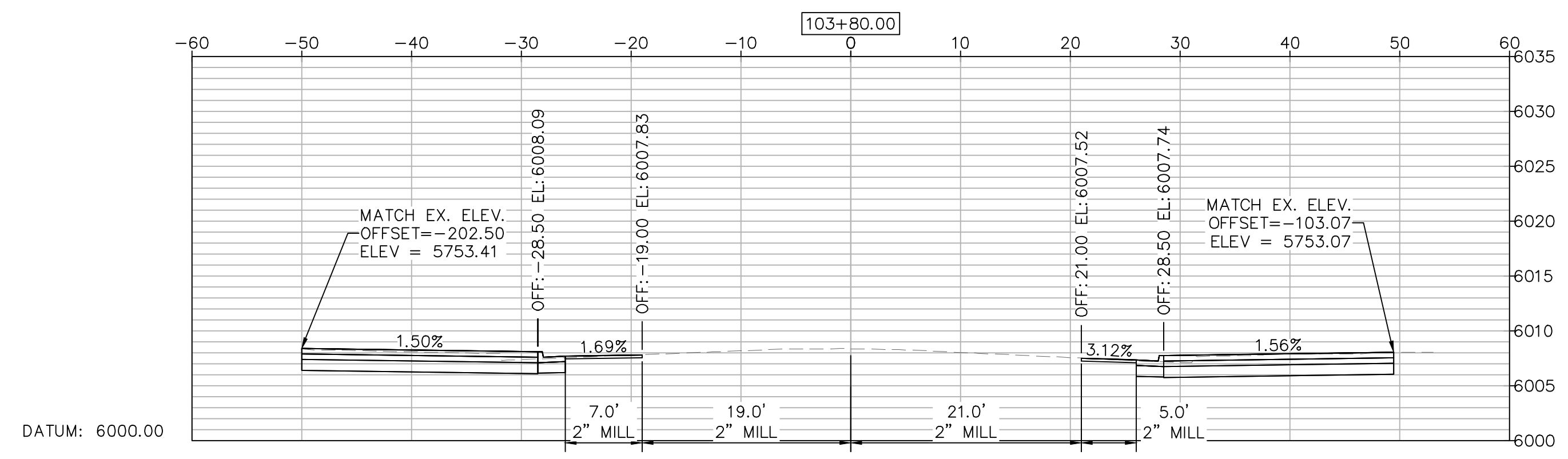
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 7
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 40

P:\cvs_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-2.dwg Kramer, Michael 5/22/2024 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

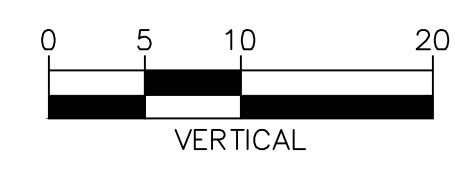
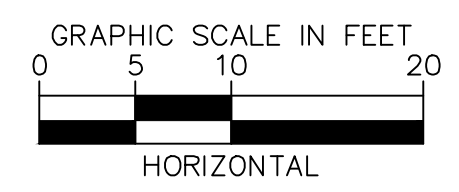
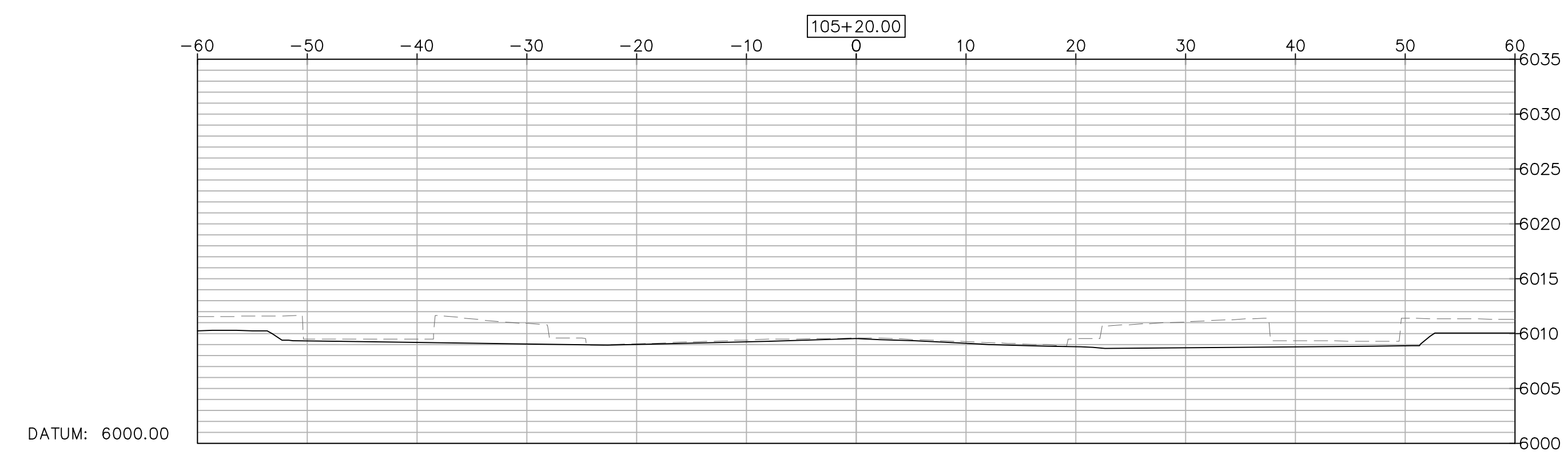
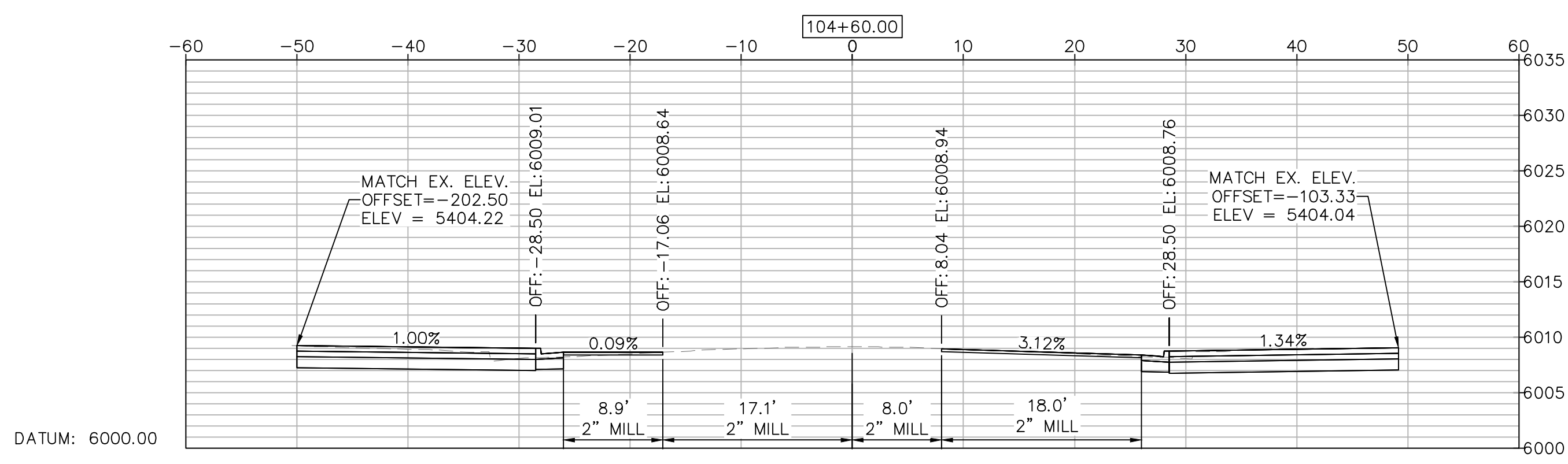
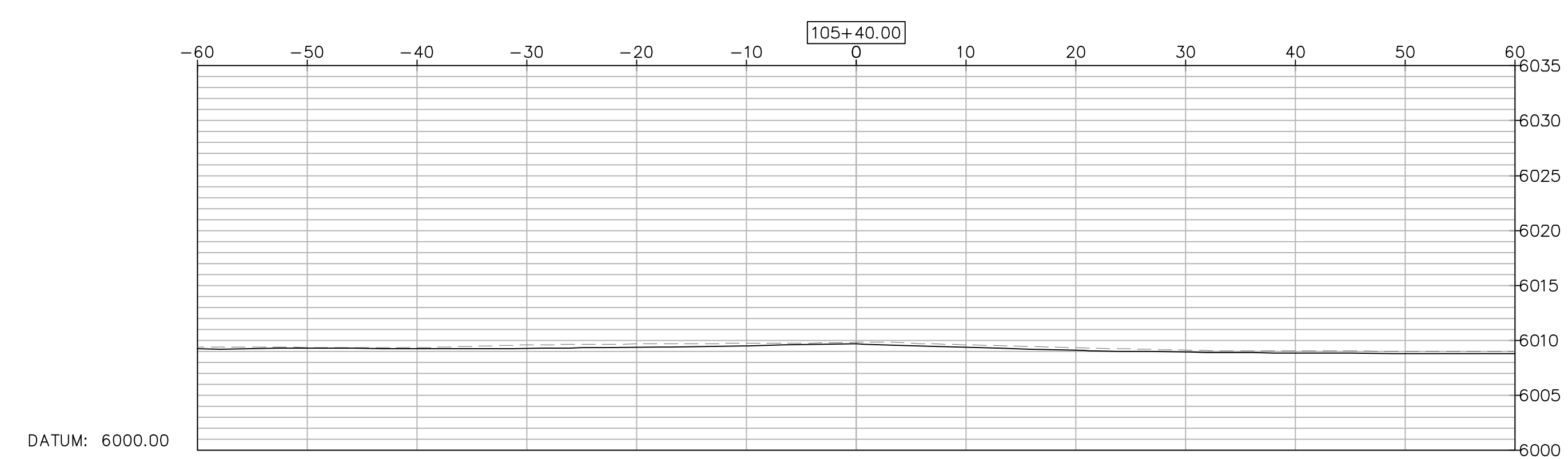
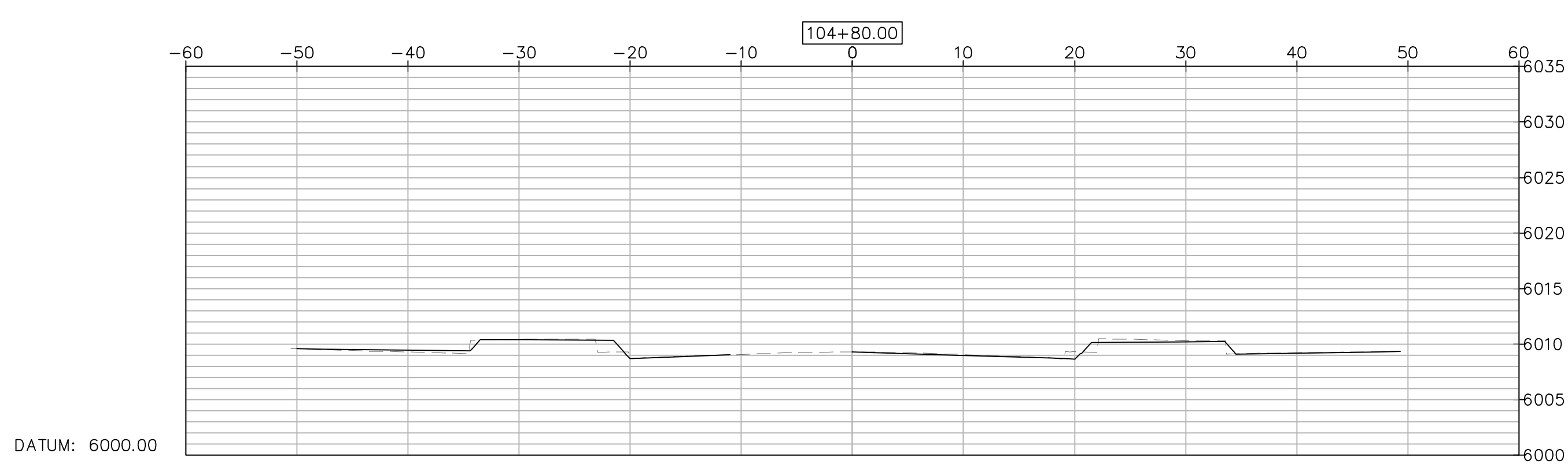
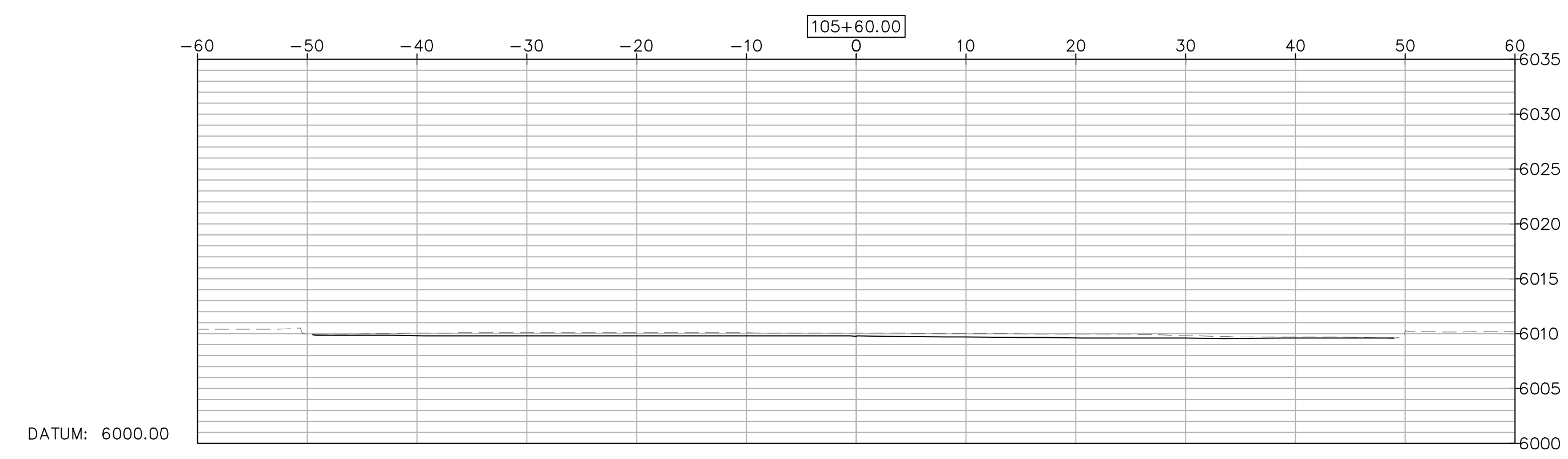
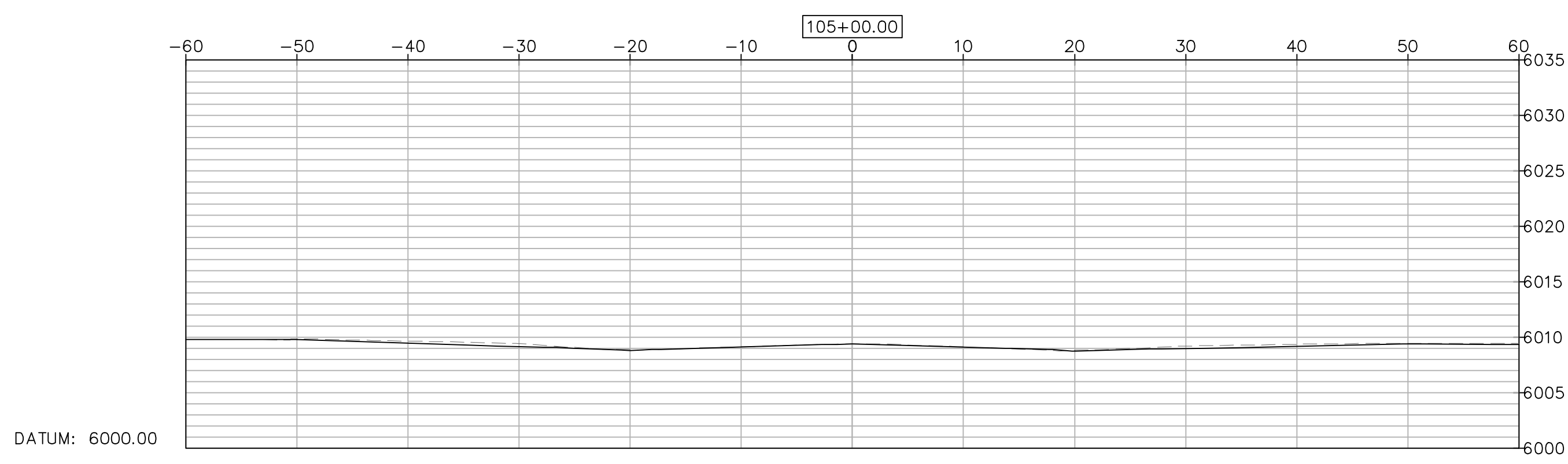
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 8

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 41

P:_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-X-SECTION-2.dwg Kramer, Michael 5/22/2024 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

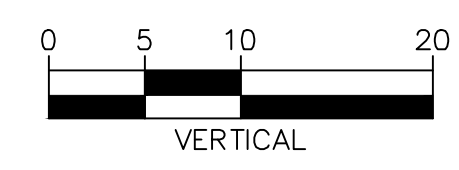
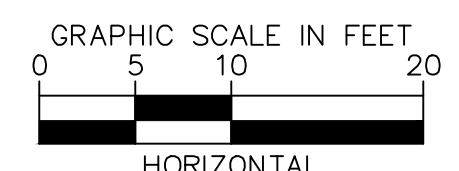
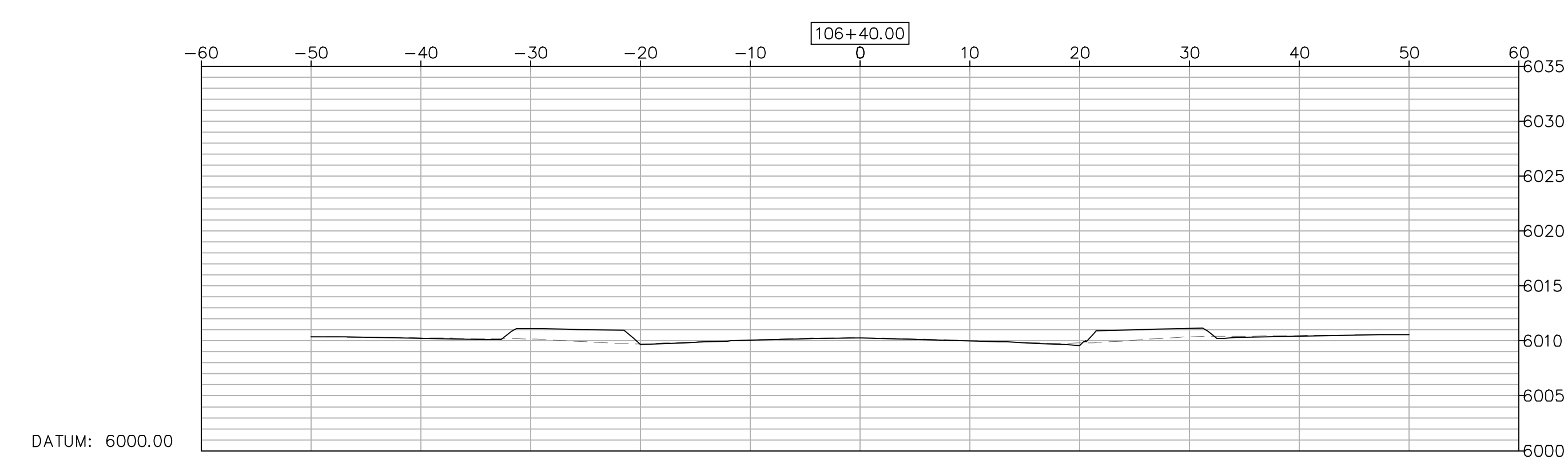
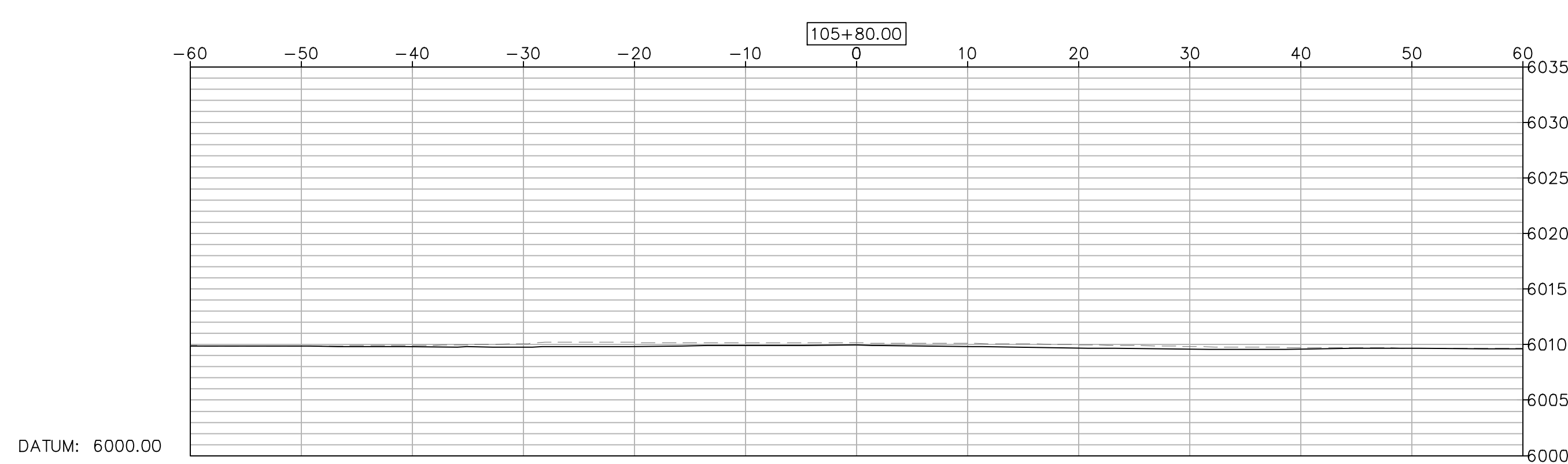
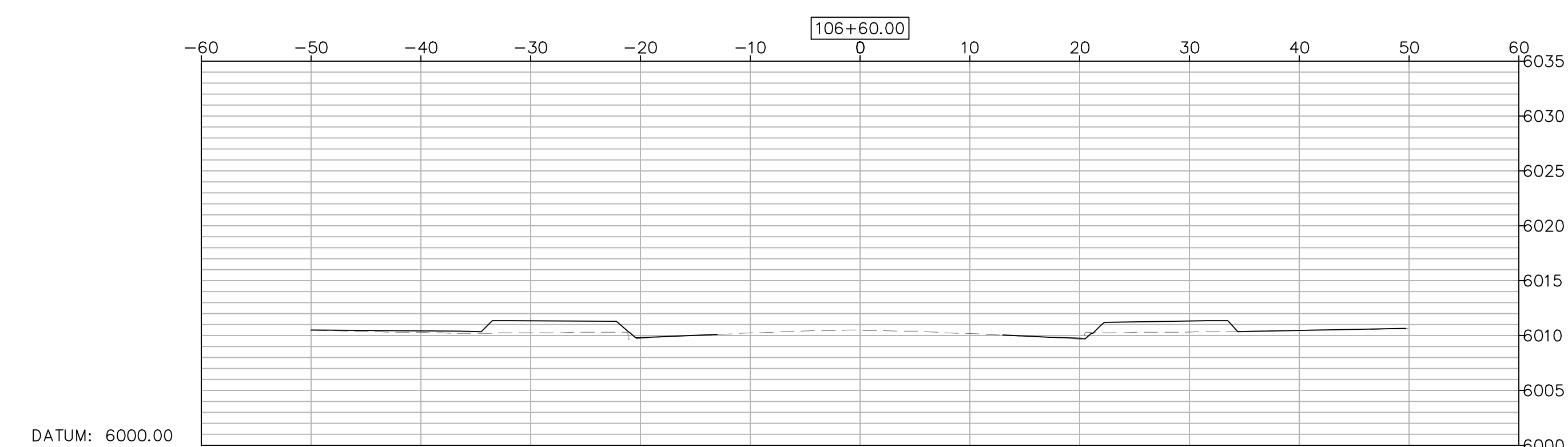
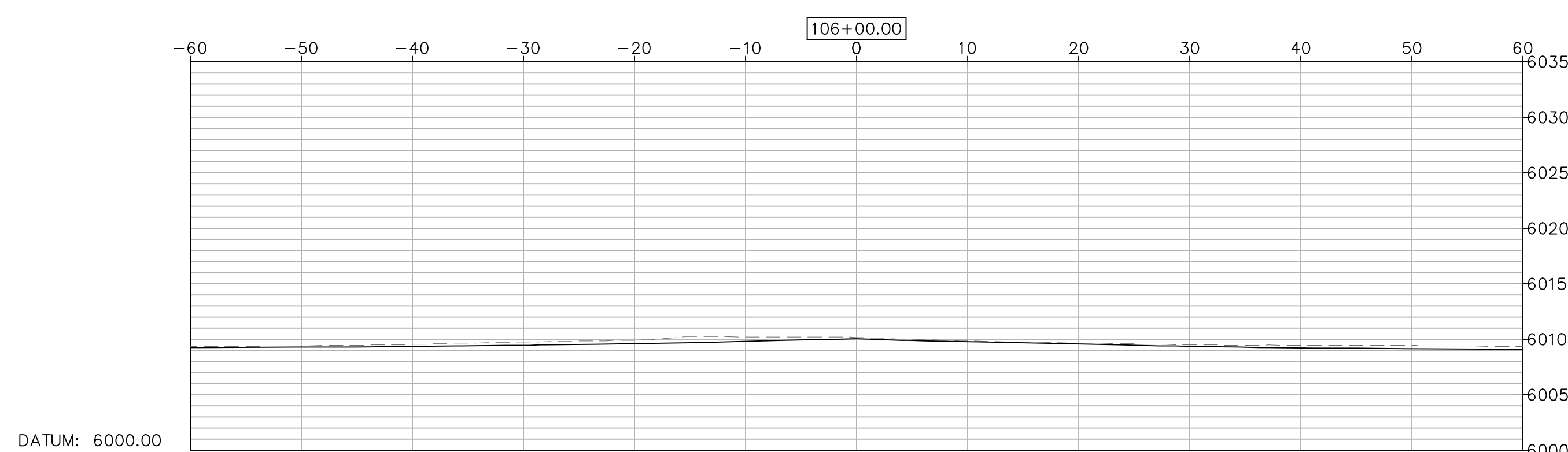
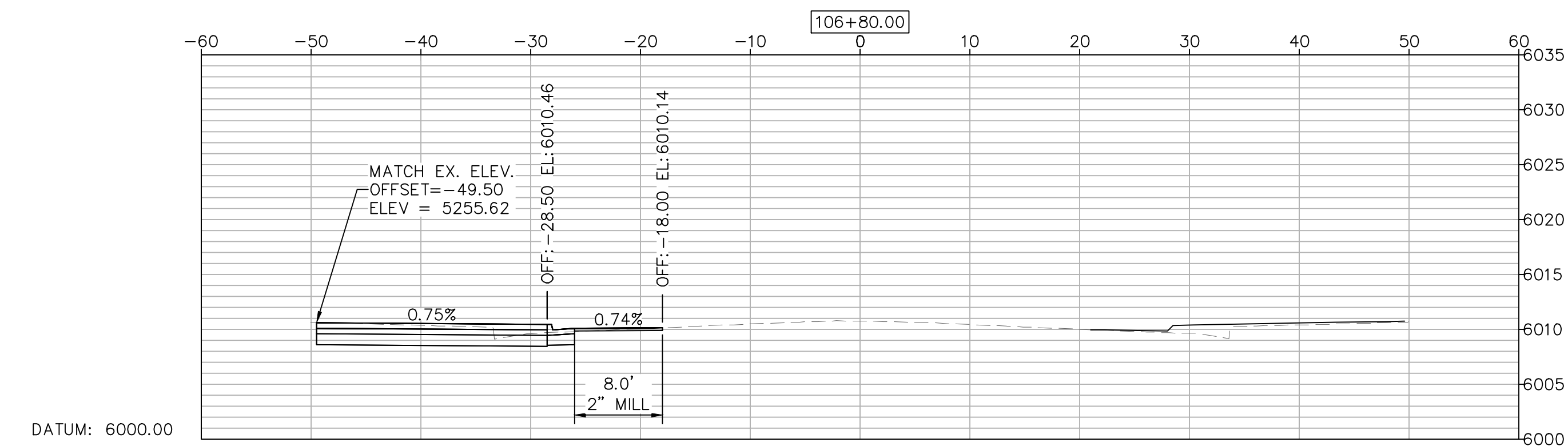
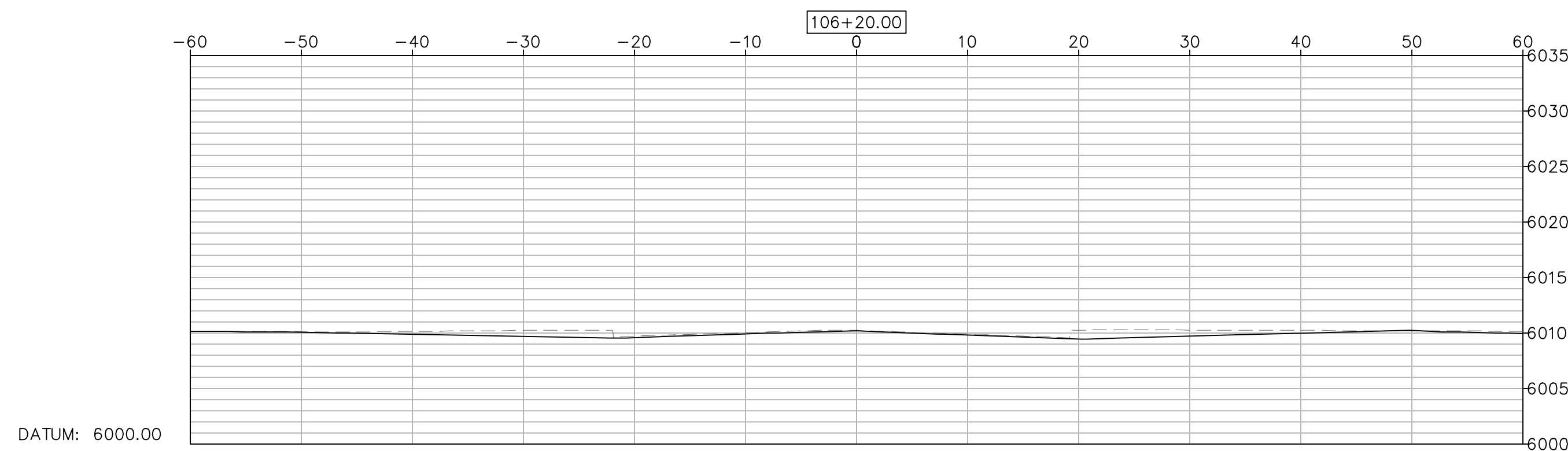
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 9

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 42

P:_civil_067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-2.dwg Kramer, Michael 5/22/2024 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF, AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:


 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

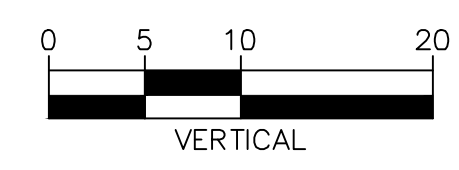
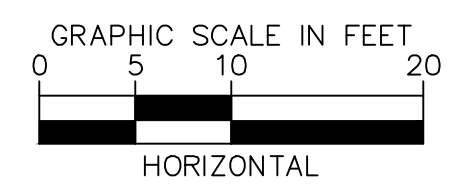
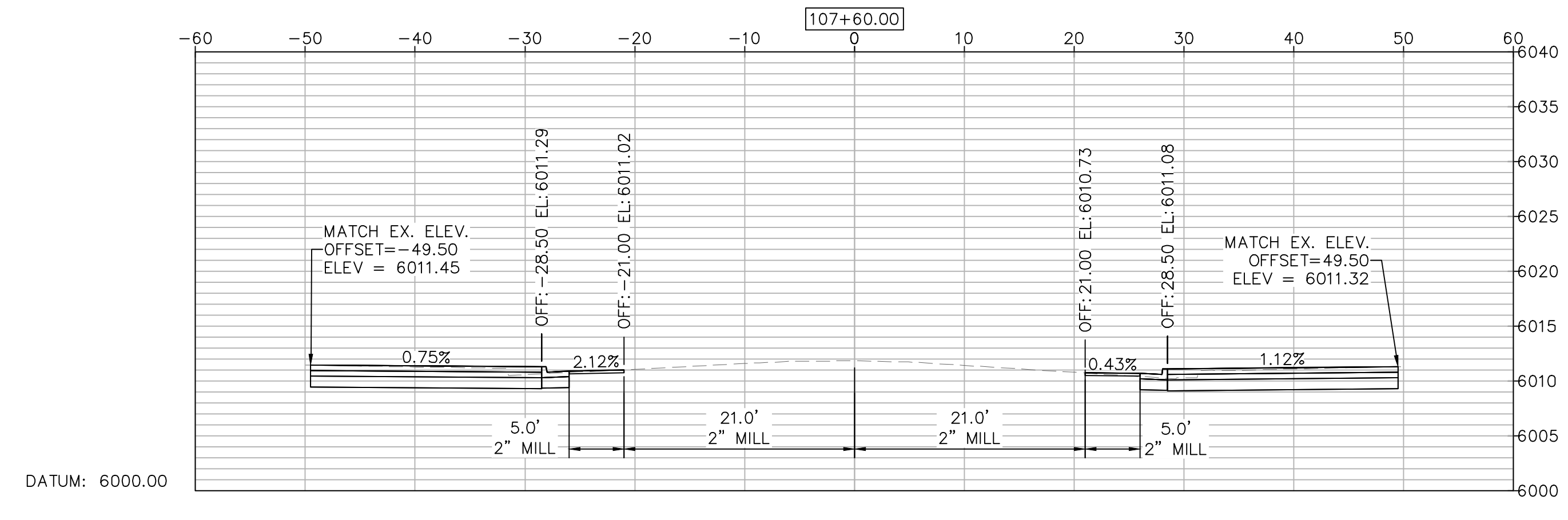
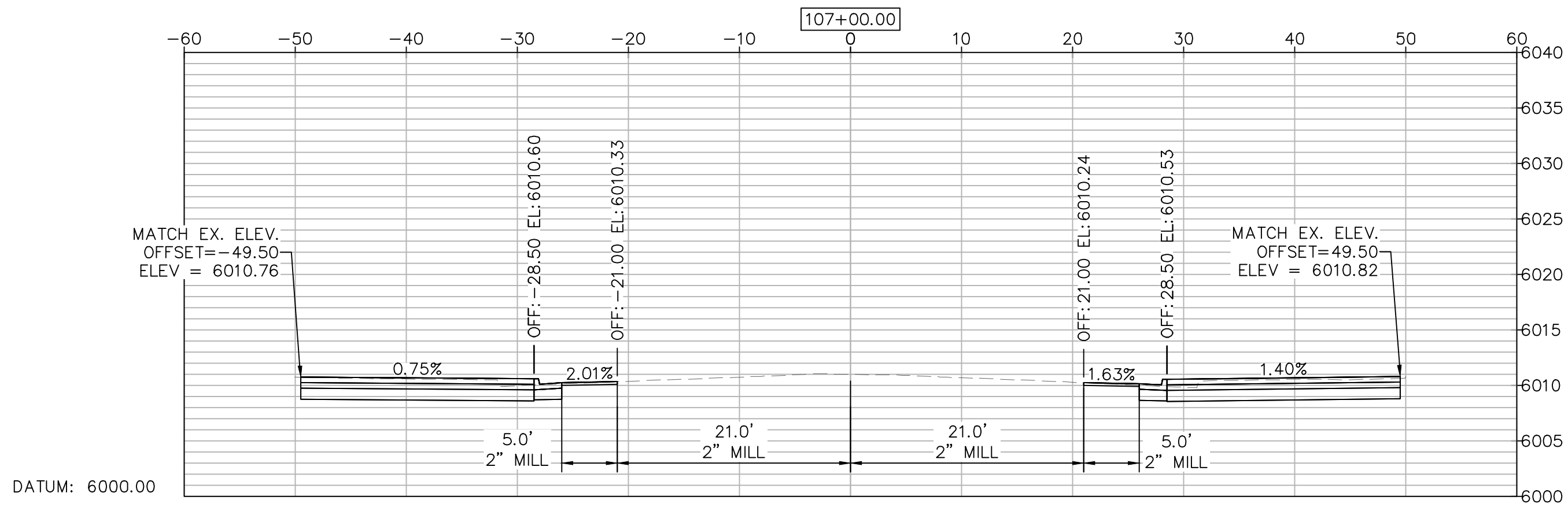
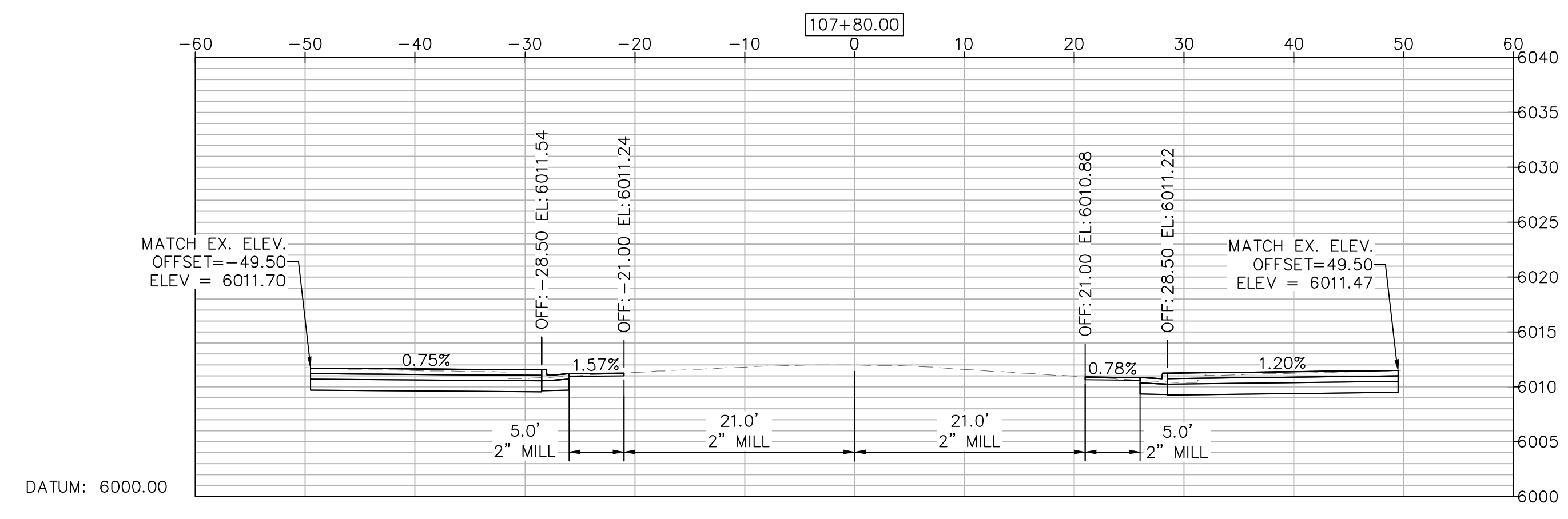
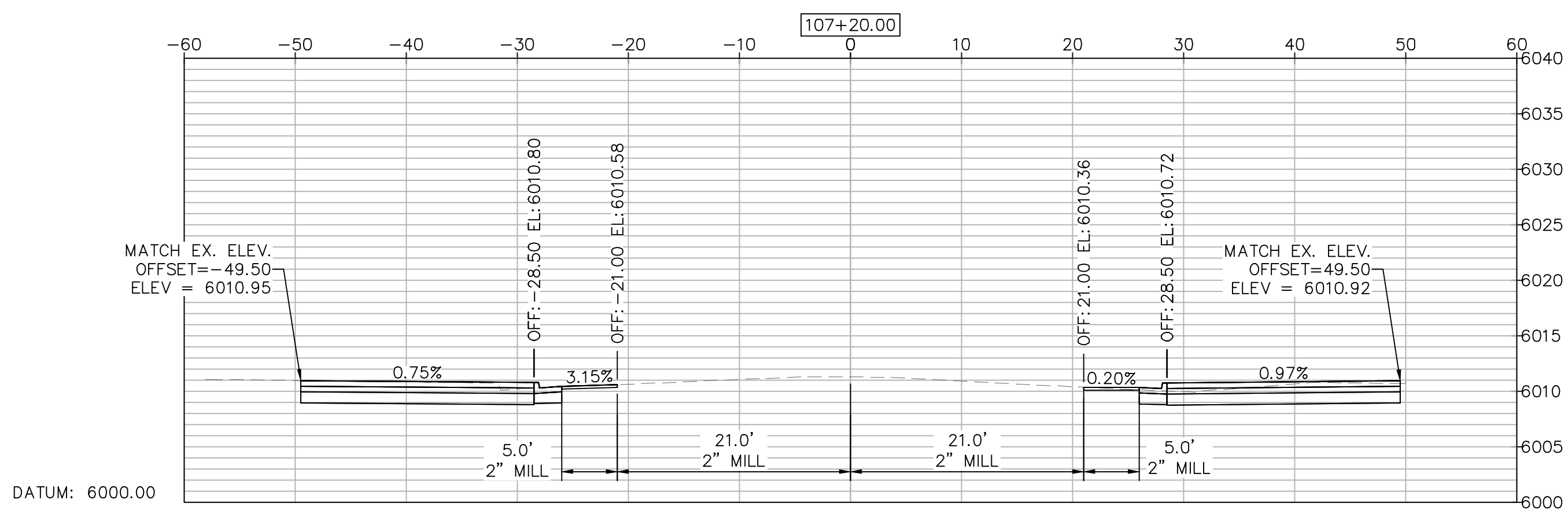
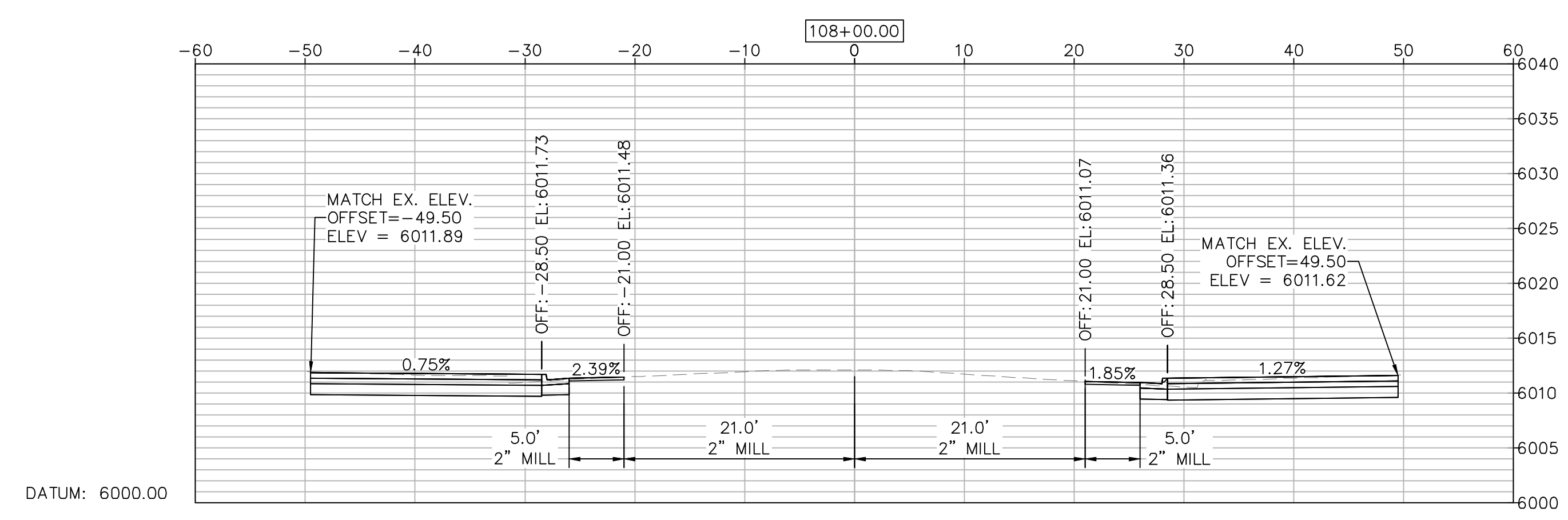
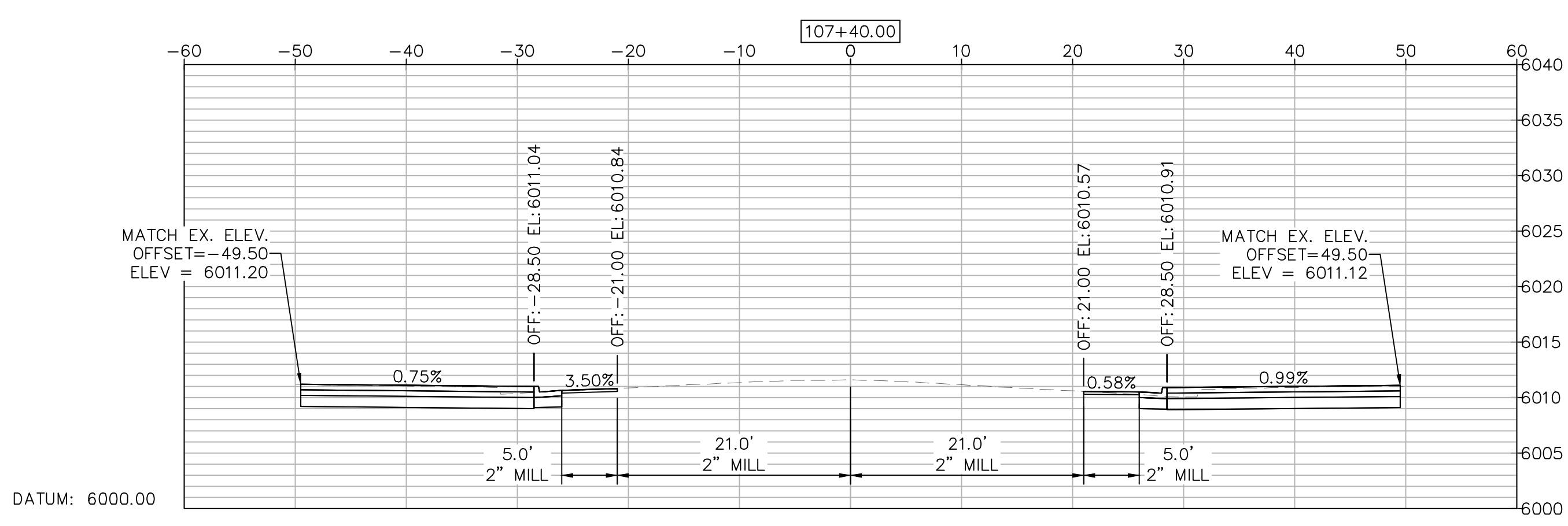
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 10
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 43

P:\cvs_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-2.dwg Kramer, Michael 5/22/2024 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

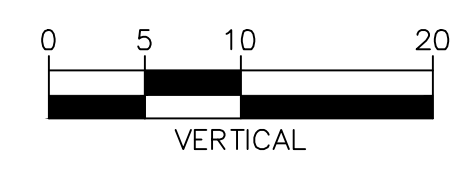
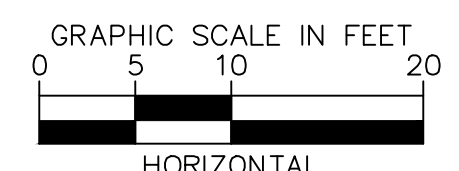
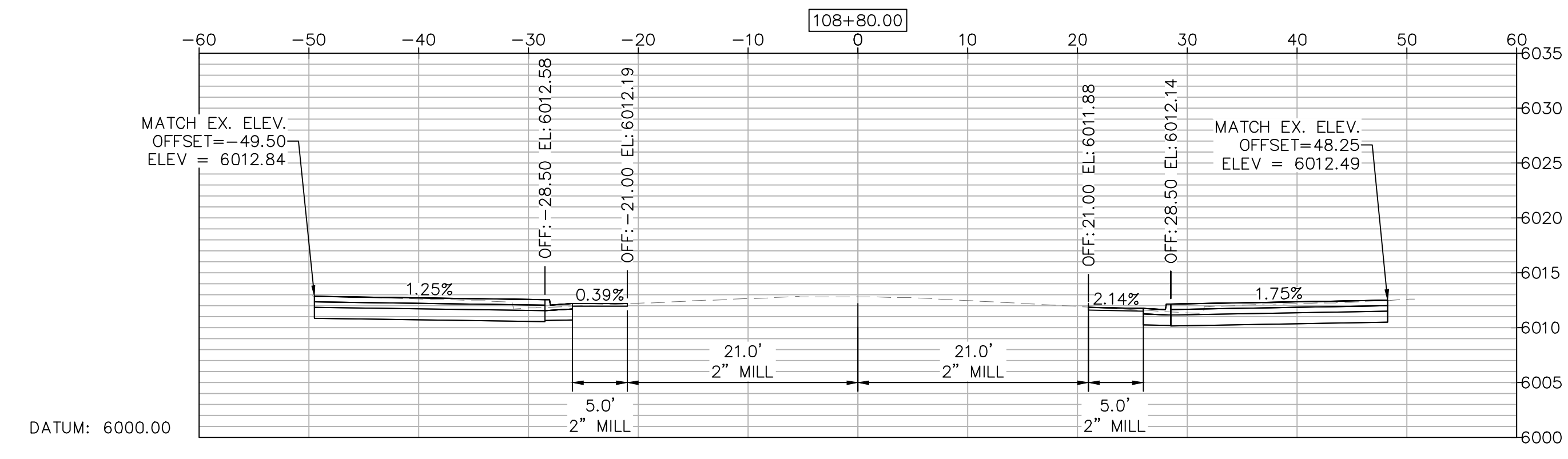
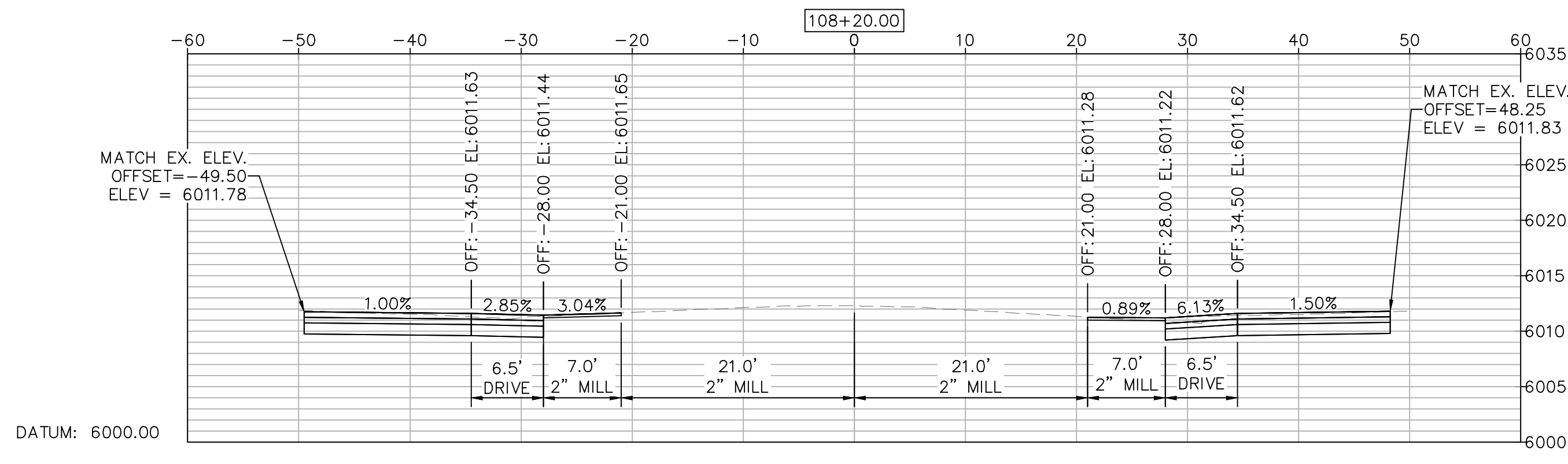
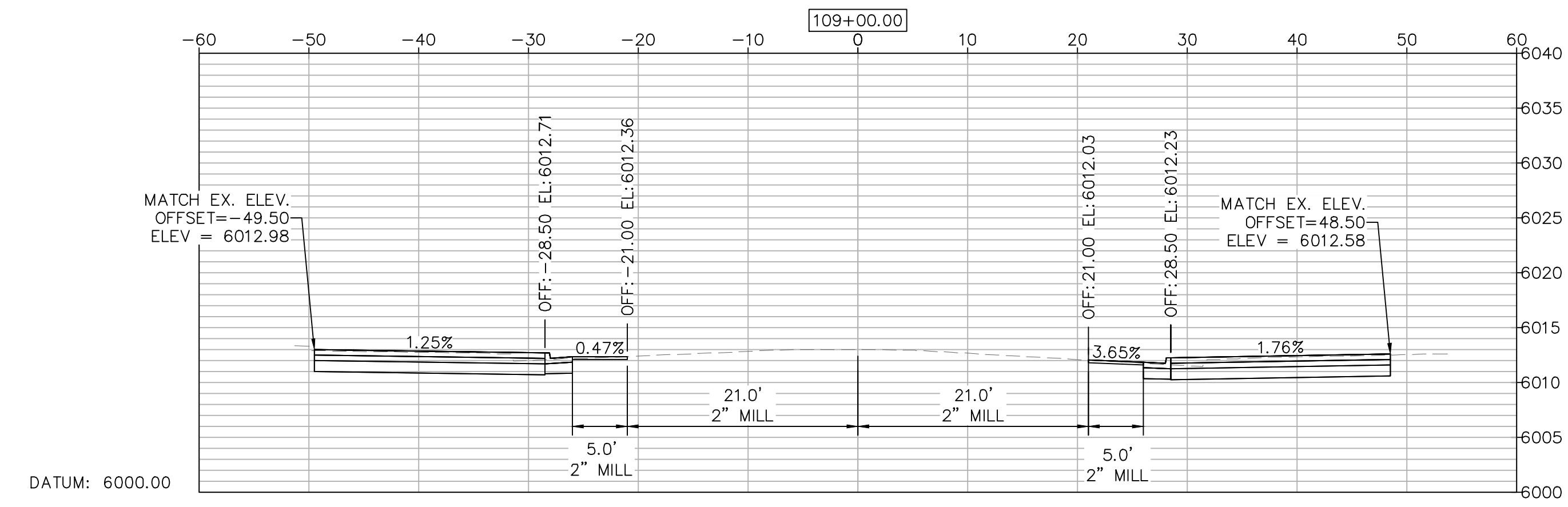
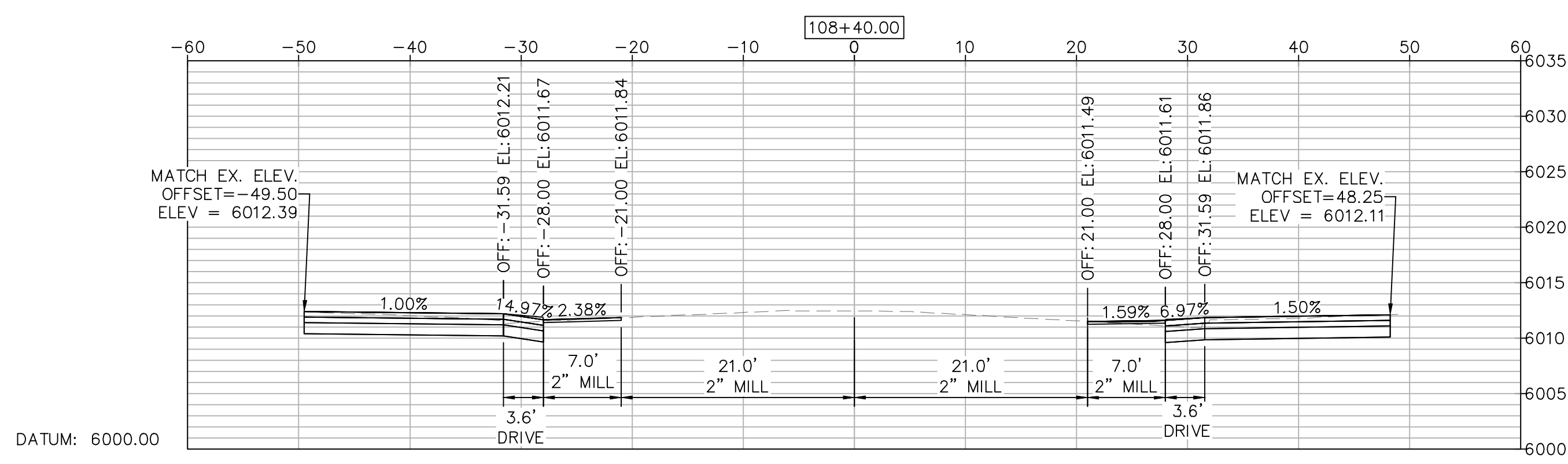
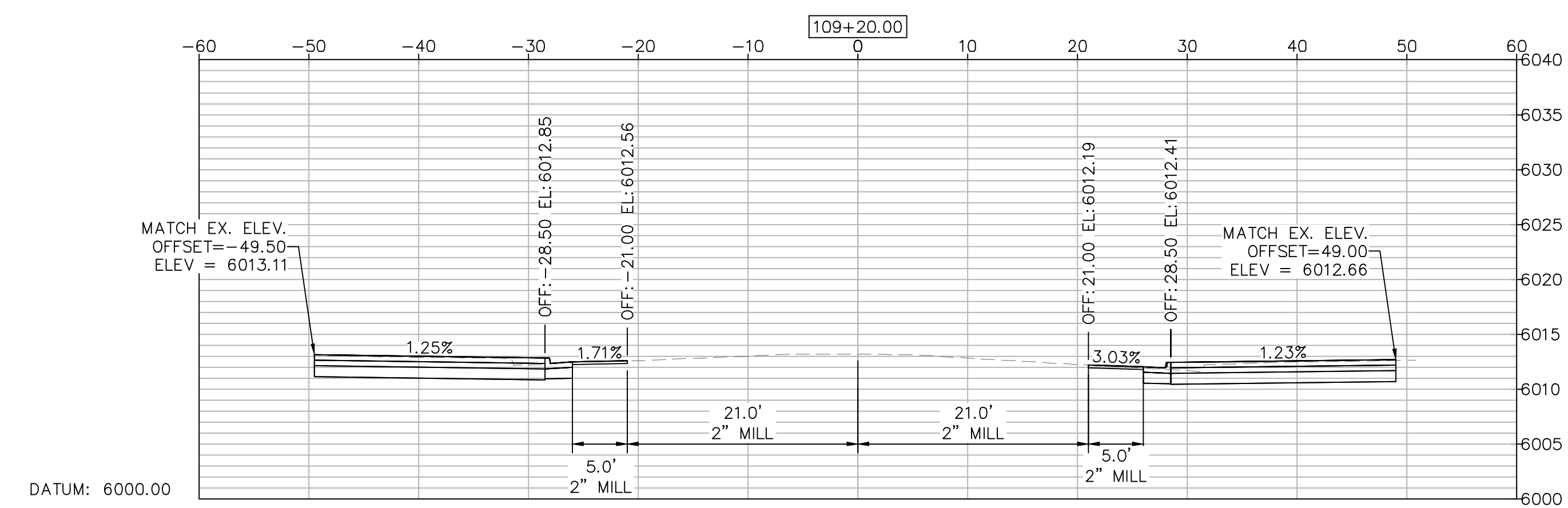
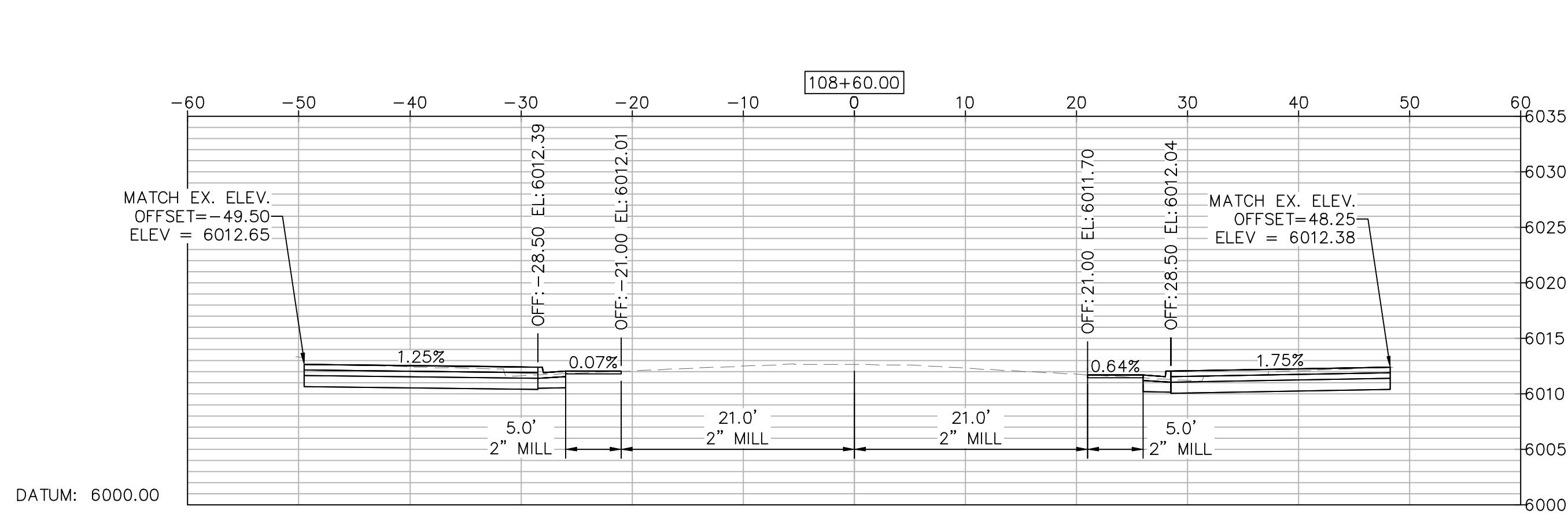
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 11
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 44

P:\cvs_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-2.dwg Kramer, Michael 5/22/2024 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:



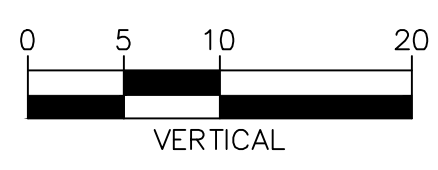
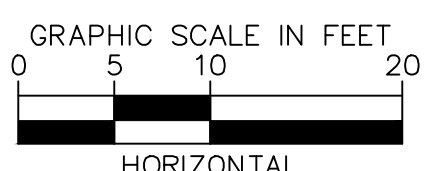
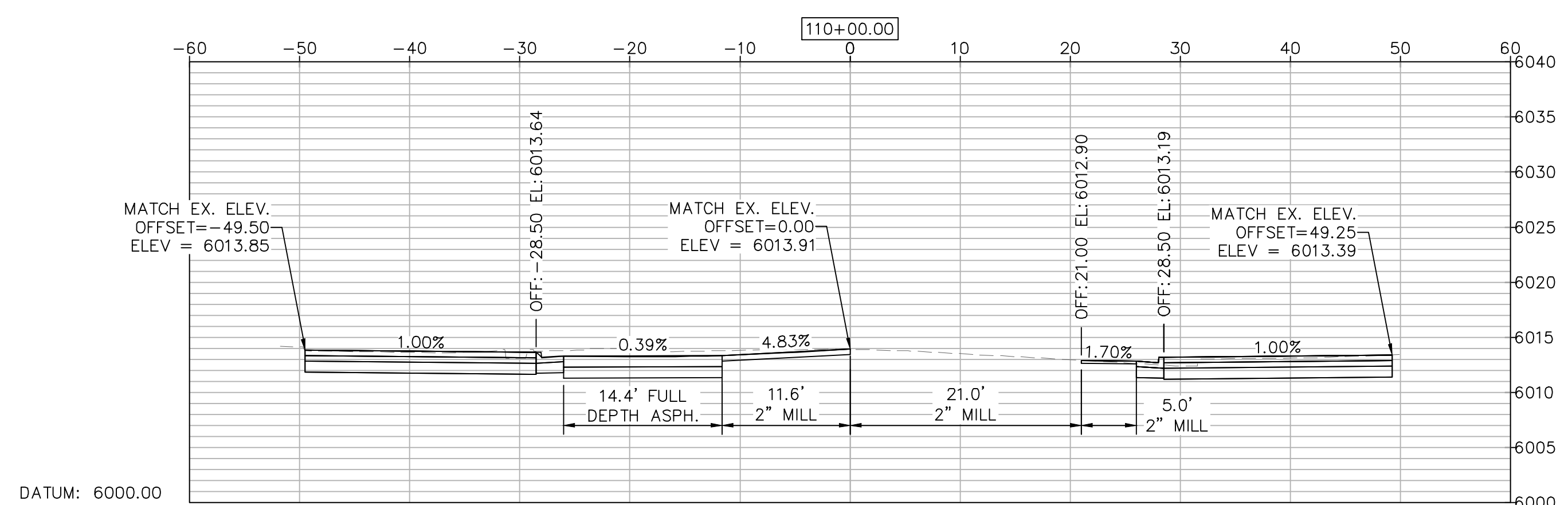
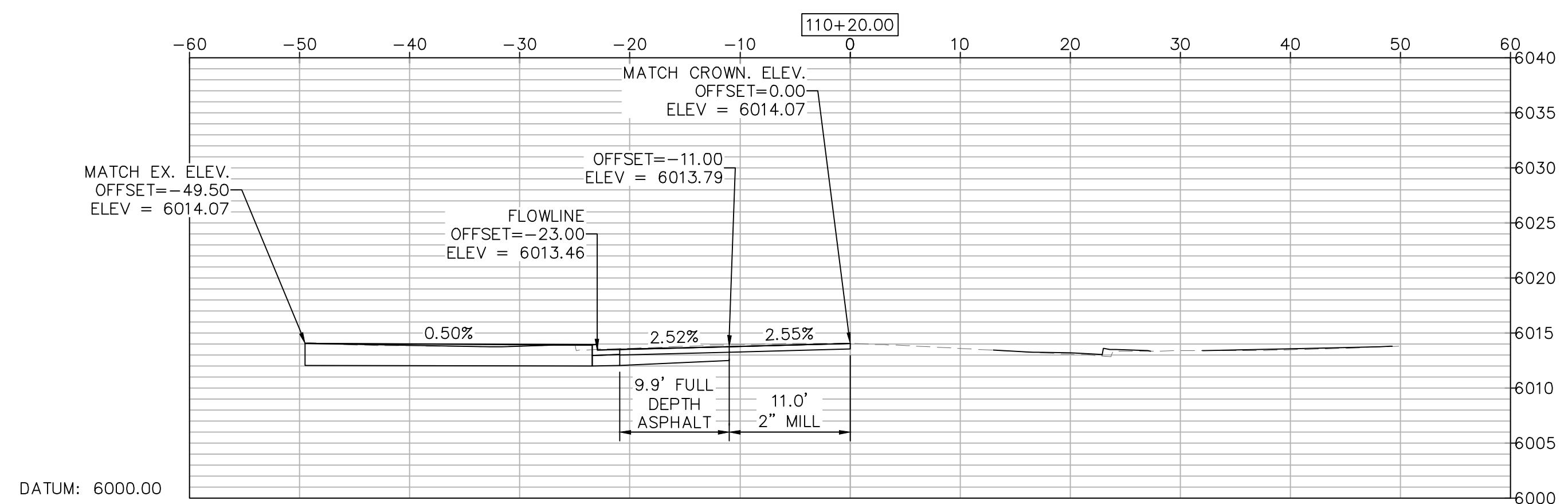
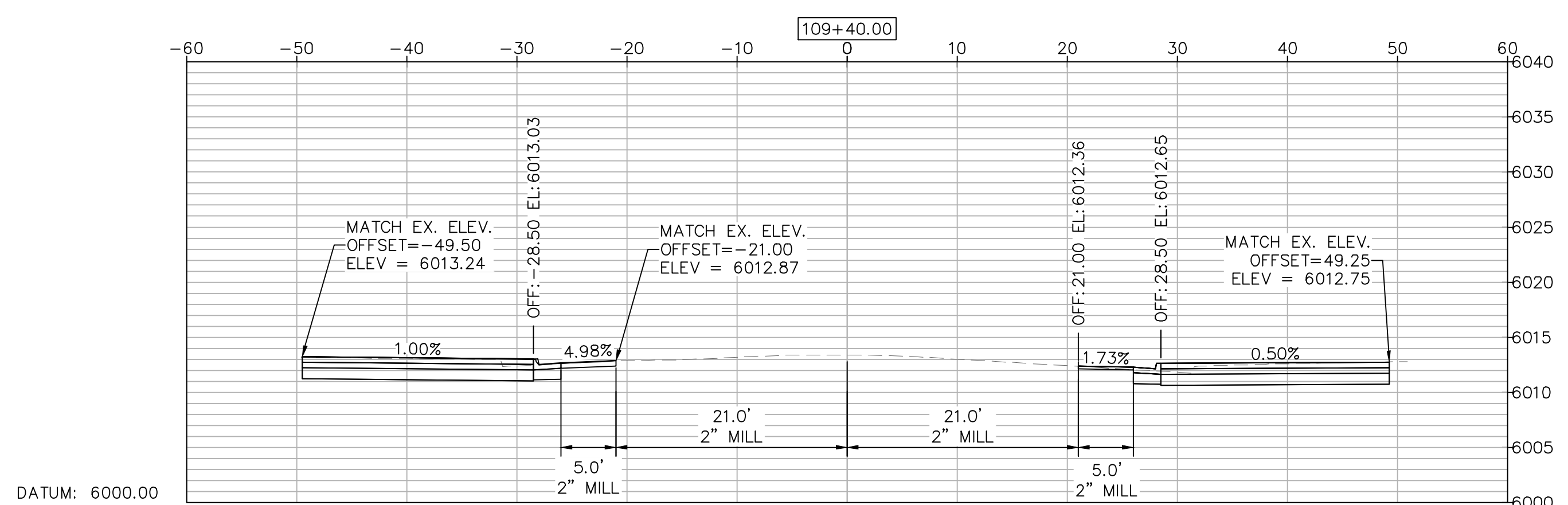
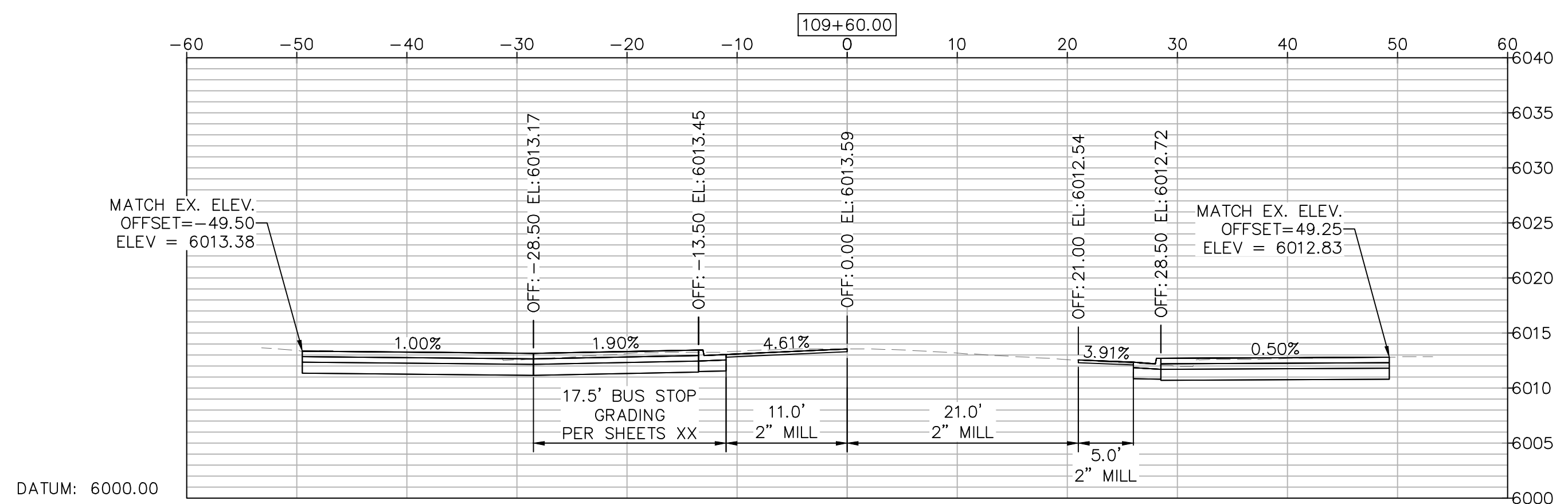
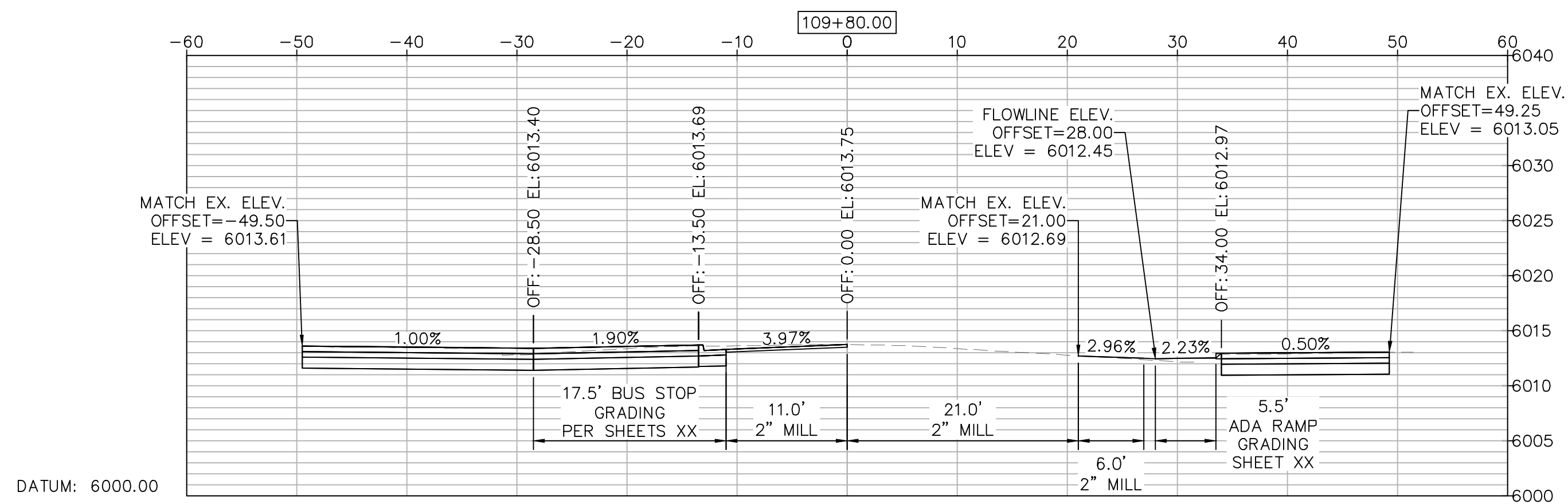
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 CROSS SECTION 12
 CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 45

P:_civil\067607114_tejon_street_improvements\CADD\plansheets\CD-X-SECTION-2.dwg Kramer, Michael 5/22/2024 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:



KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

- (R-X)
- (R-X)
- (R-X)
- (R-X)

SHEET REVISIONS

DATE:	COMMENTS:	INITIAL:



COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION
Kimley-Horn

Kimley-Horn and Associates, Inc.

**TEJON STREET REVITALIZATION
 CROSS SECTION 13**

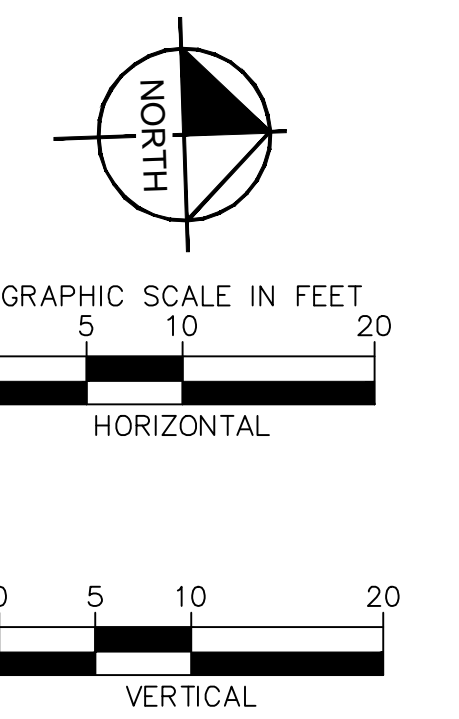
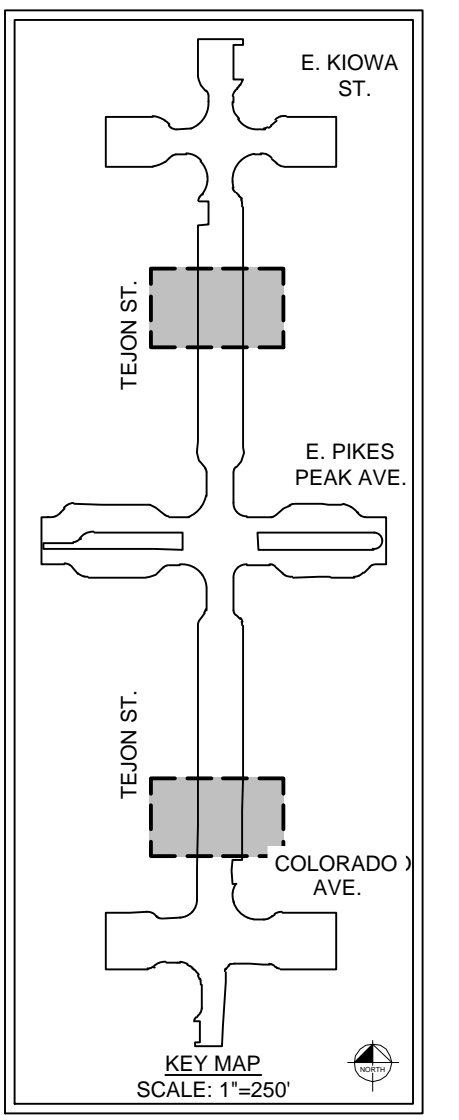
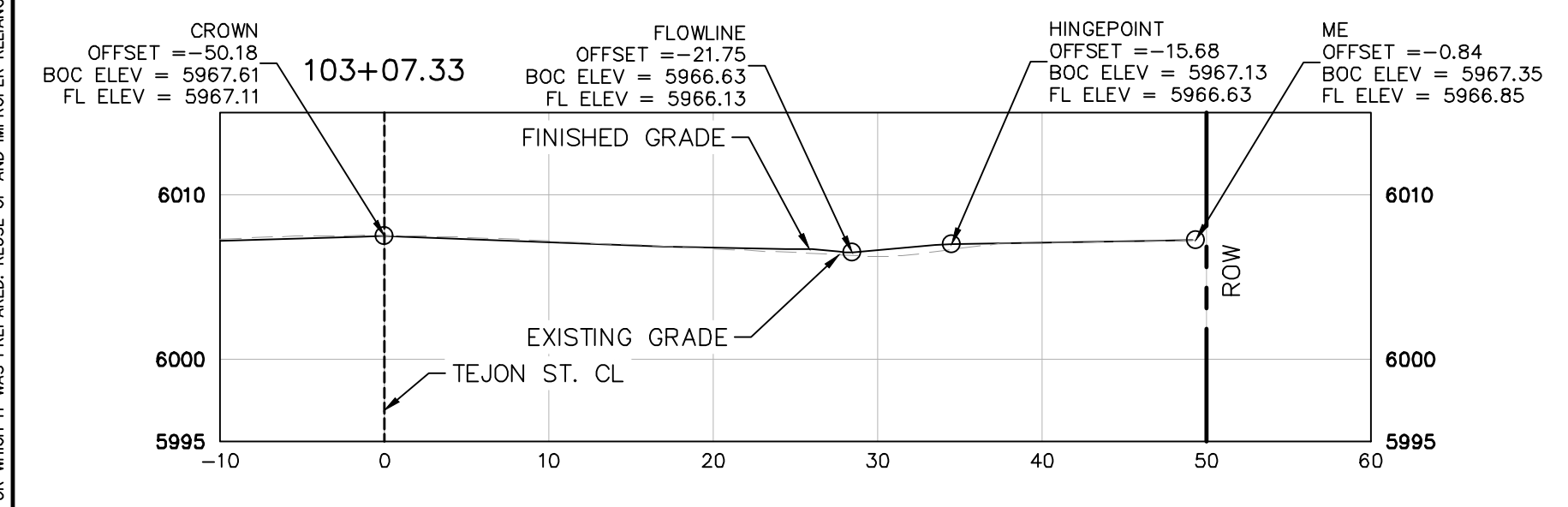
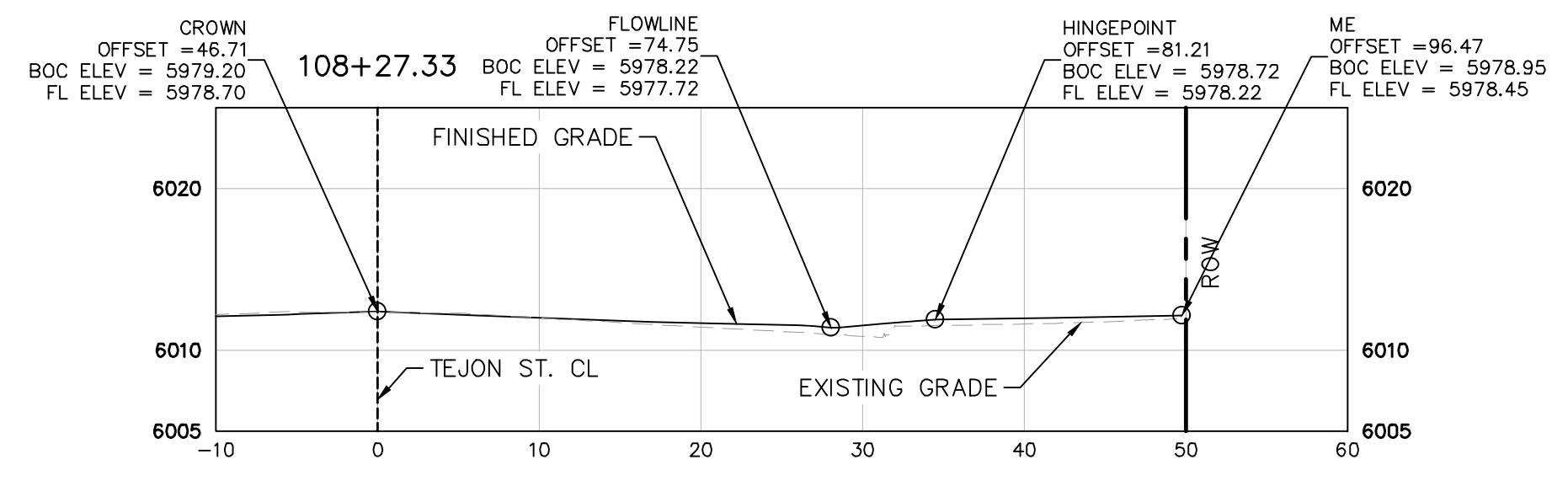
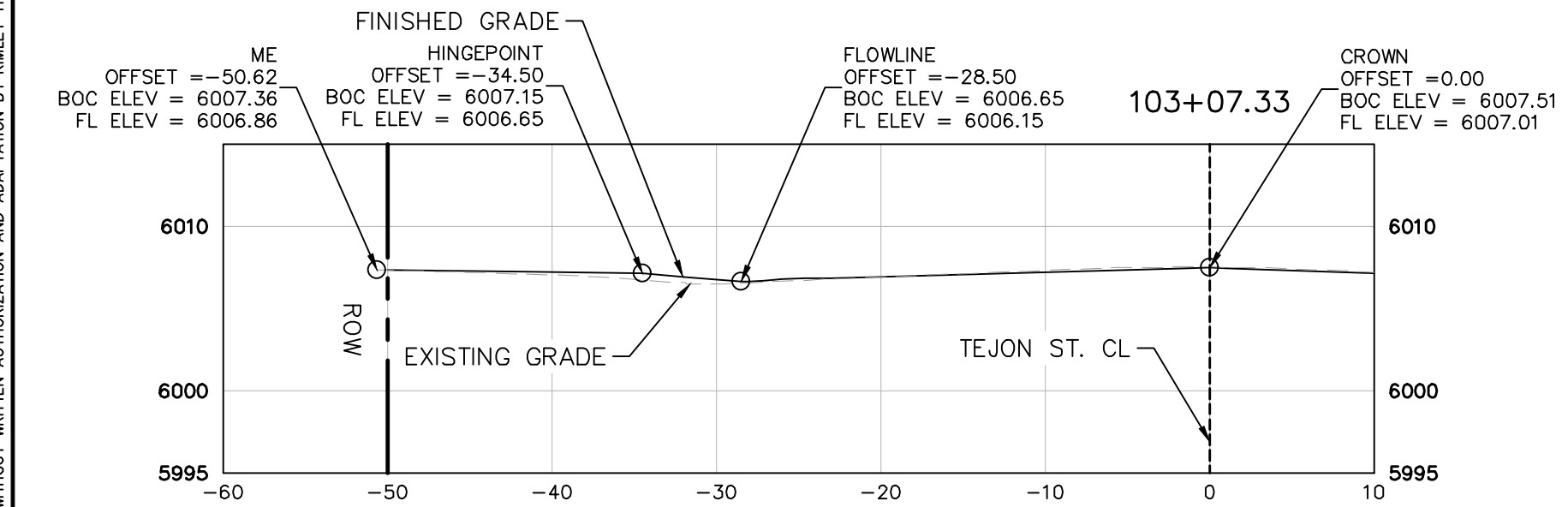
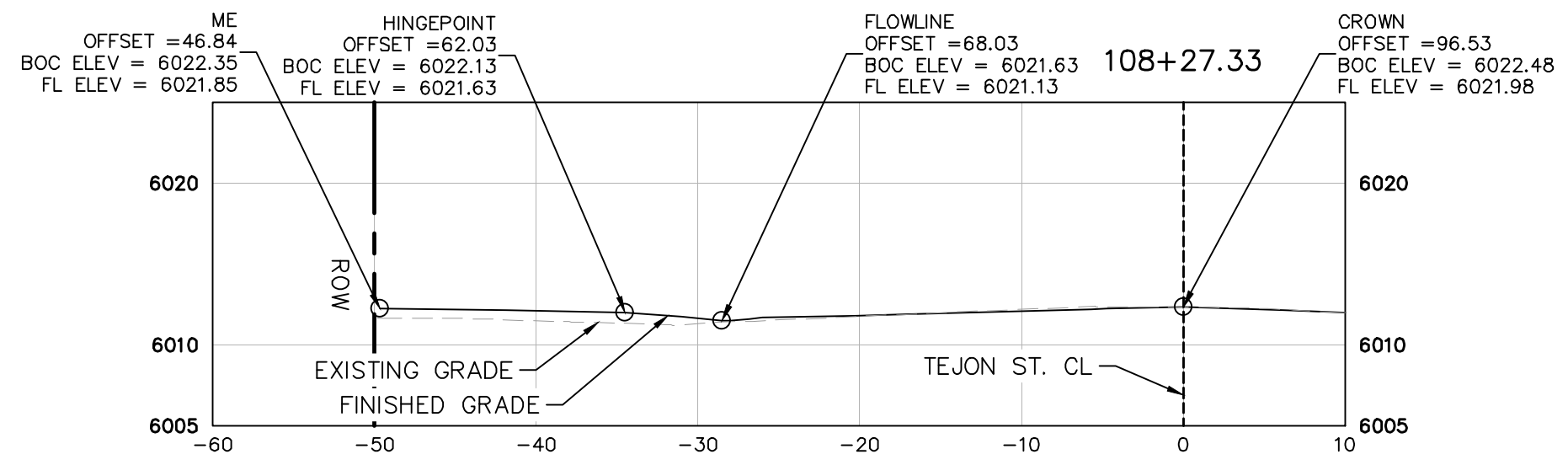
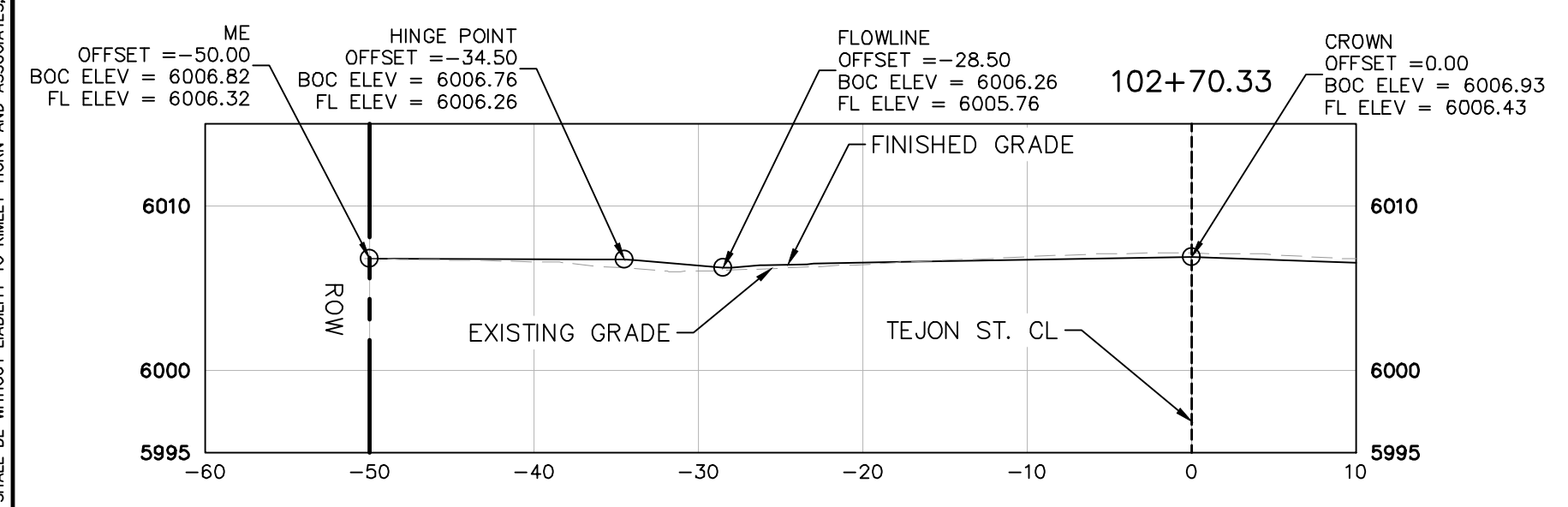
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE

067607114

SHEET NUMBER 46

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-GD-XSECTIONS.dwg, Kramer, Michael, 5/22/2024, 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROVED RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

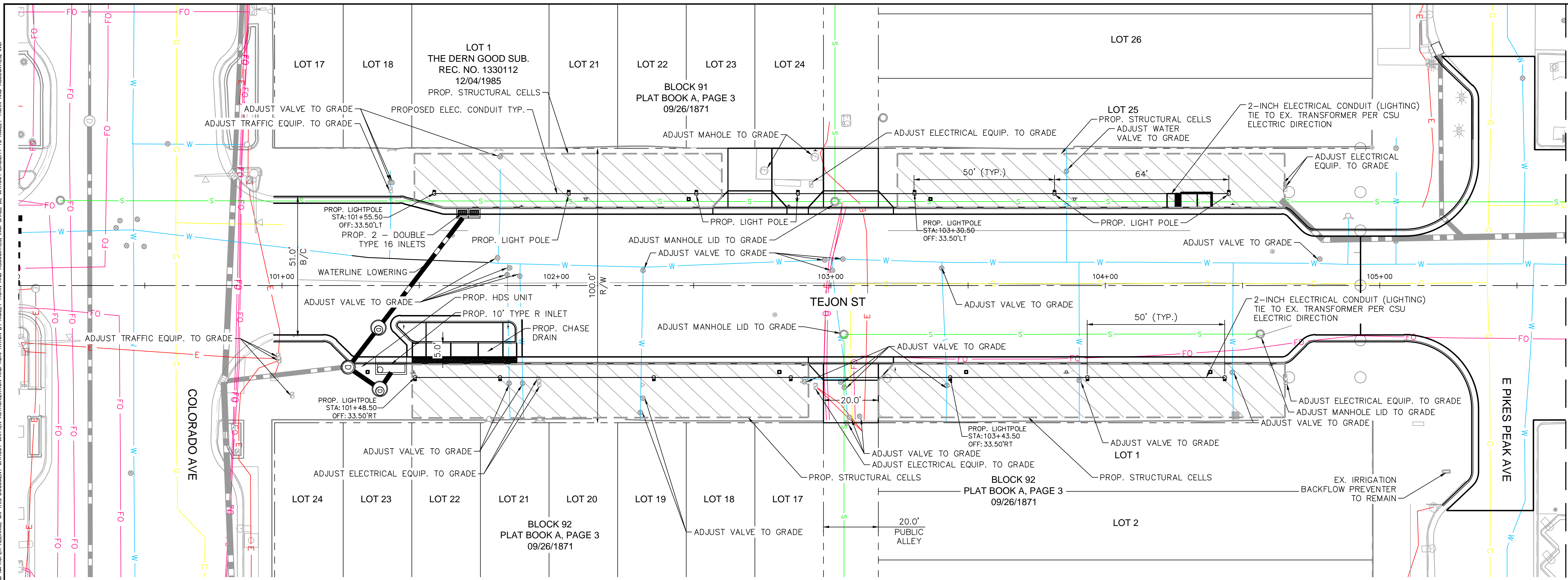
COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

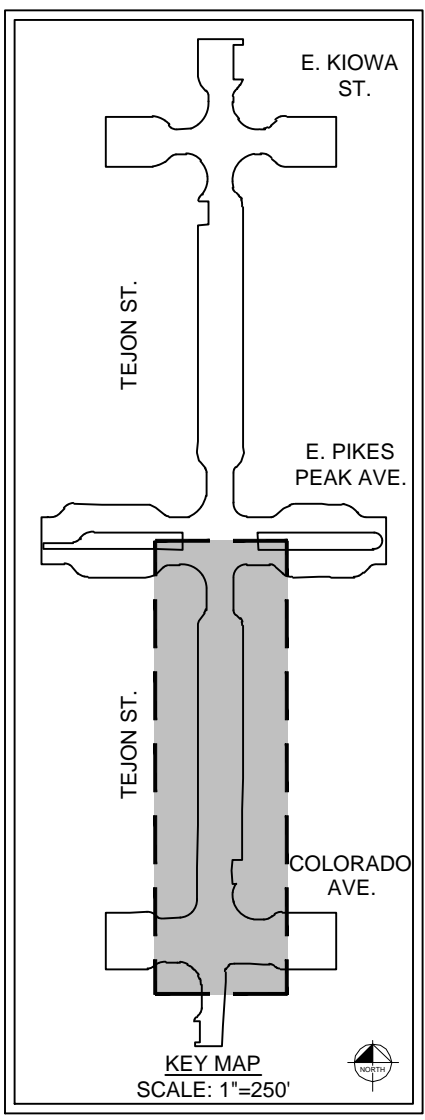
TEJON STREET REVITALIZATION DRIVEWAY SECTIONS	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 47

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-UT.dwg - Kramer, Michael - 5/22/2024 10:56 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

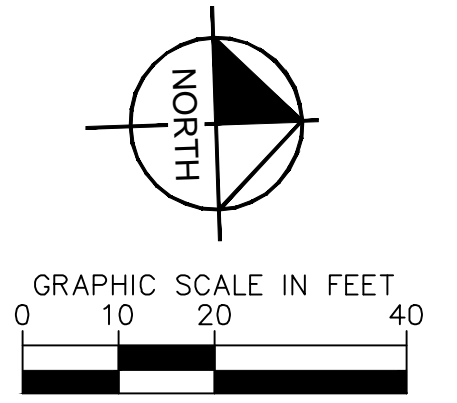


MATCHLINE SEE SHEET 49



LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. STORM	
REMOVE EX. STORM	
EX. GAS LINE	
EX. OVER-HEAD ELECTRIC LINE	
EX. TELEPHONE LINE	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. HYDRANT, VALVE	
EX. ROW	
EX. ELECTRICAL EQUIPMENT	
PROPOSED STREET LIGHT	
EX. TREE	
PROP. TREE	
PROP. STRUCTURAL CELL	
PROPOSED STREET LAMP AND JUNCTION BOX	



PRINT DATE: May 22, 2024
DRAWING FILE NAME:
HORIZ. SCALE: VERT. SCALE:
<small>KIMLEY-HORN AND ASSOCIATES, INC. 2 NORTH NEVADA AVE, SUITE 900 COLORADO SPRINGS, CO 80903 PHONE: 719-453-0180 © 2024</small>

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

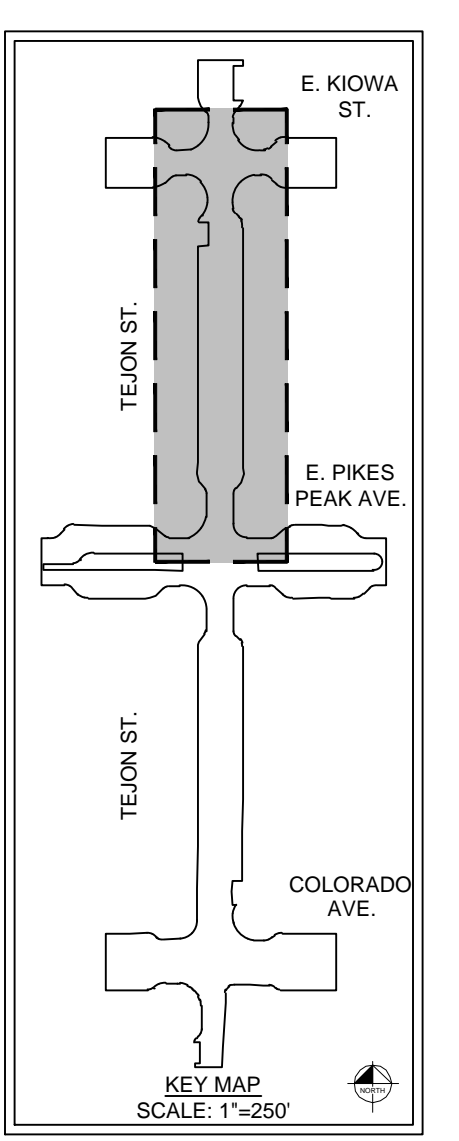
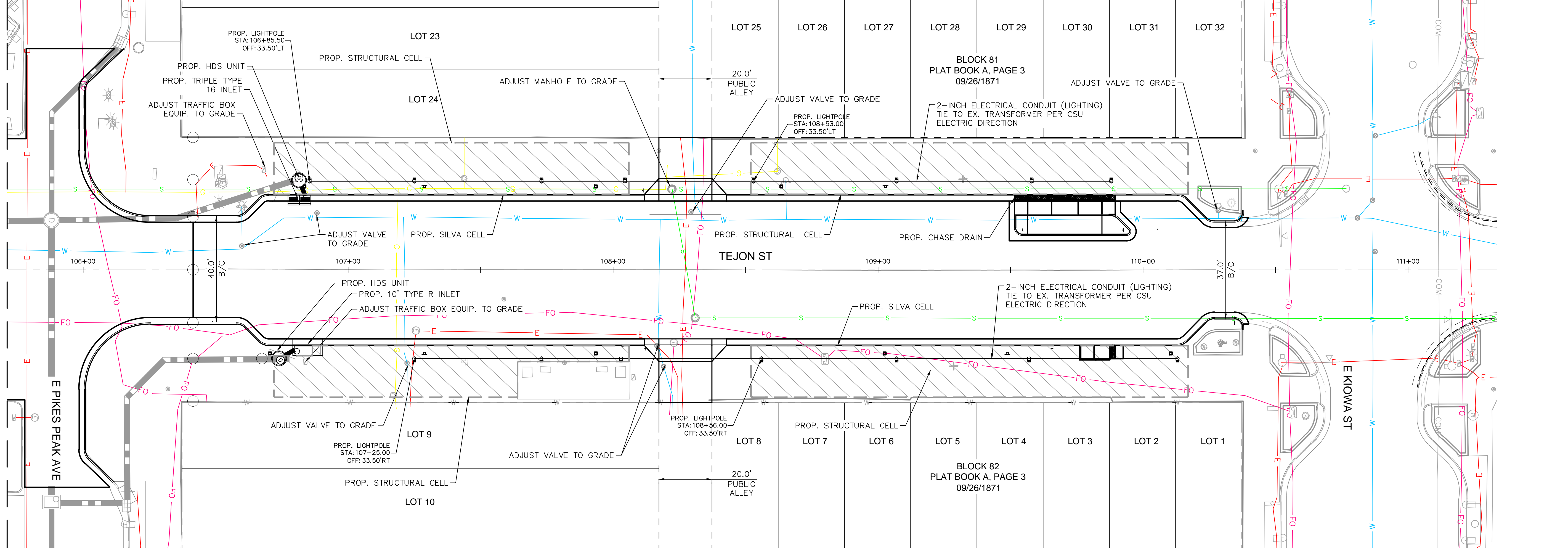
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION UTILITY PLAN	
CHECKED BY: EJK	
DESIGNED BY: MJK	
SHEET SUBSET: SUBSET SHEET:	

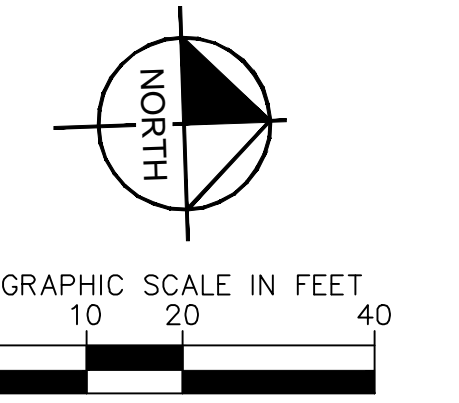
PROJECT NO./CODE	067607114
SHEET NUMBER	48

5/22/2024 10:56 AM
 Krammer, Michael
 CD=UT.dwg
 TEJON ST
 IMPROVEMENTS
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. STORM	
REMOVE EX. STORM	
EX. GAS LINE	
EX. OVER-HEAD ELECTRIC LINE	
EX. TELEPHONE LINE	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. HYDRANT, VALVE	
EX. ROW	
EX. ELECTRICAL EQUIPMENT	
PROPOSED STREET LIGHT	
EX. TREE	
PROP. TREE	
PROP. STRUCTURAL CELL	
PROPOSED STREET LAND AND JUNCTION BOX	



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

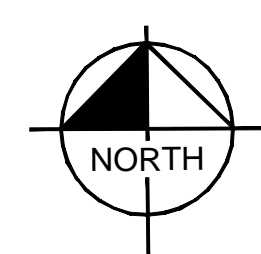
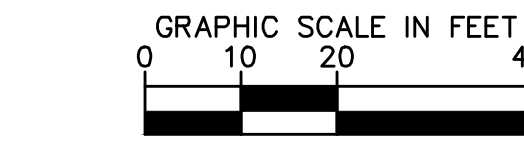
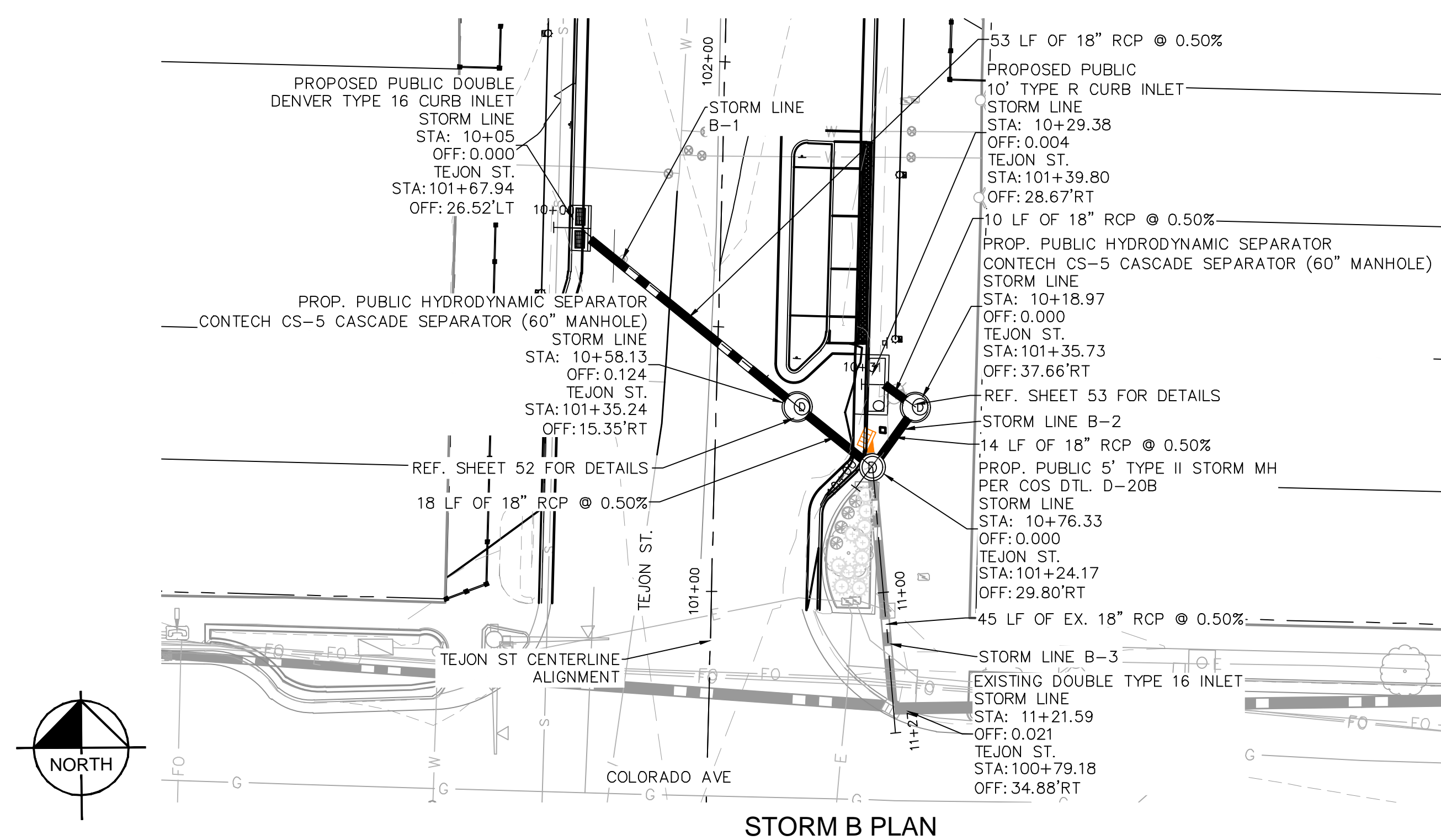
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

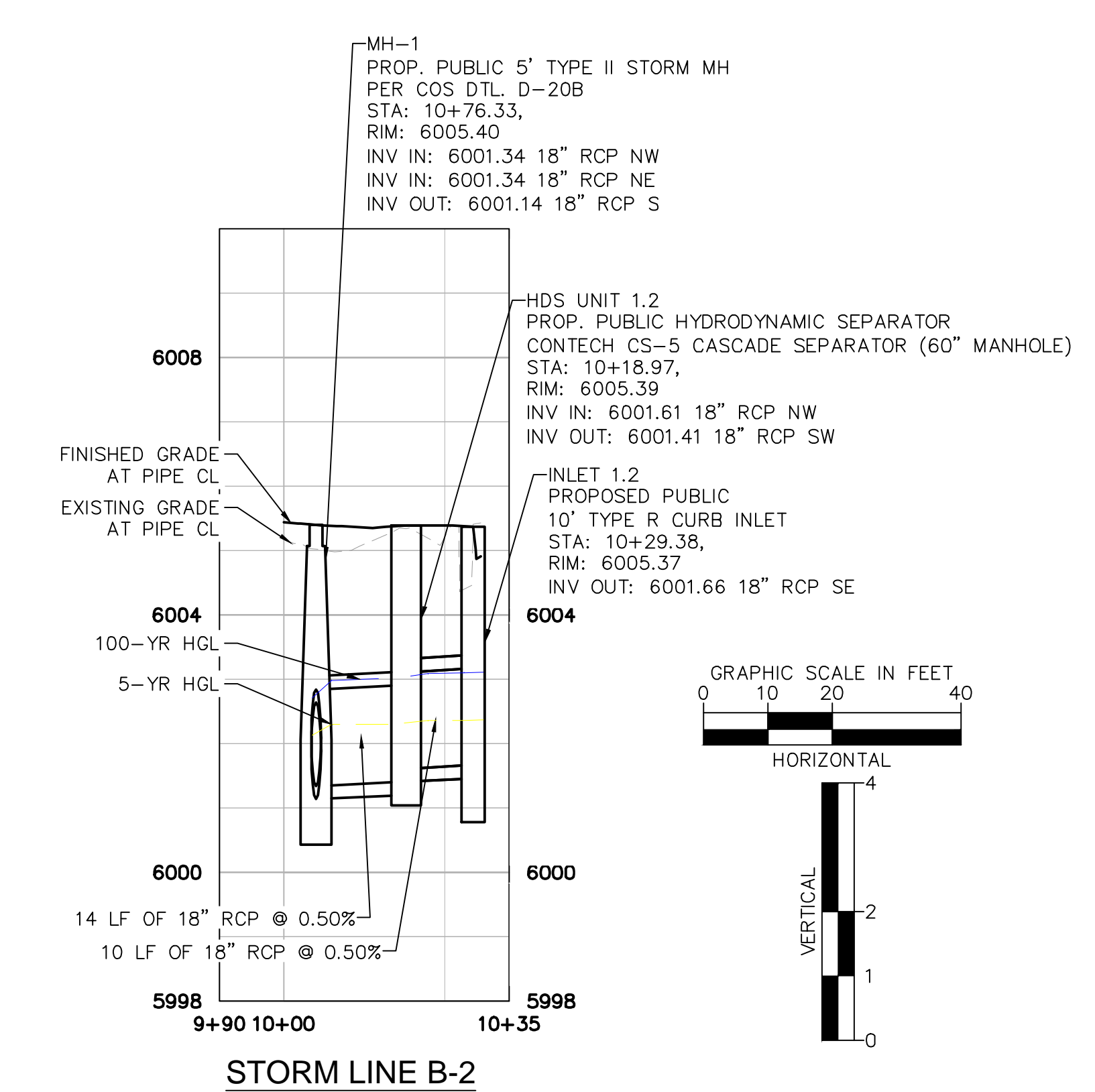
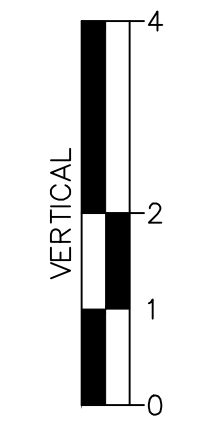
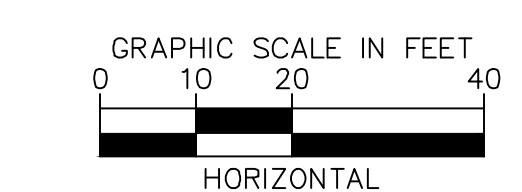
TEJON STREET REVITALIZATION UTILITY PLAN	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 49

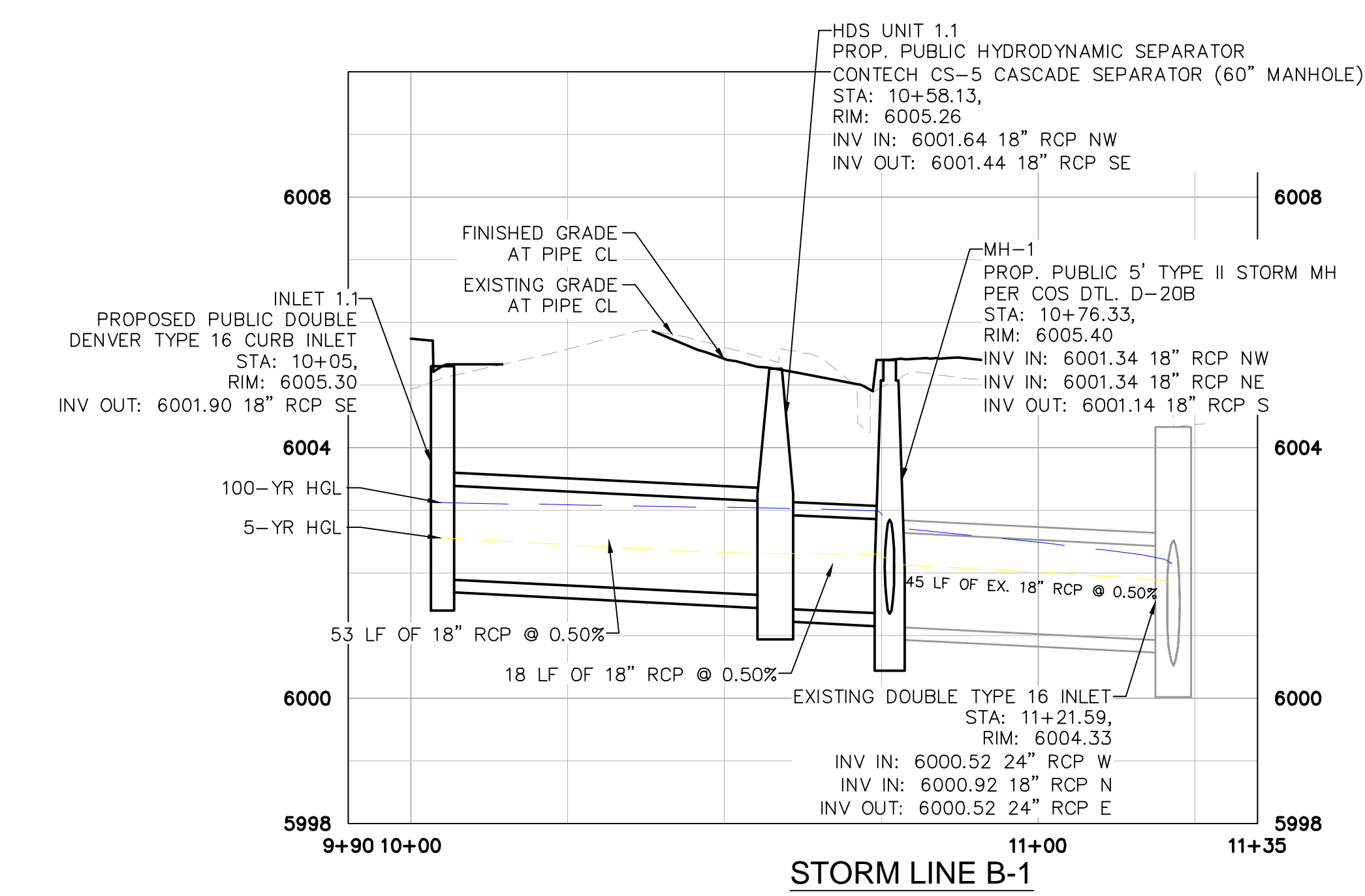
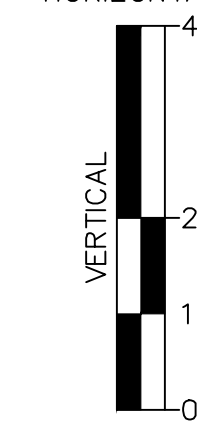
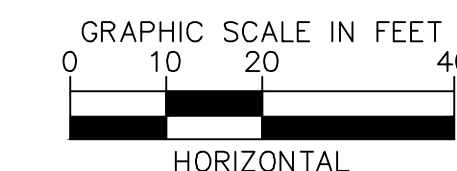
5/22/2024 10:57 AM
 C:\projects\067607114_tejon_street_improvements\CADD\plansheets\CD-STORM_P&P.dwg Kramar, Michael
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE AS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



STORM B PLAN



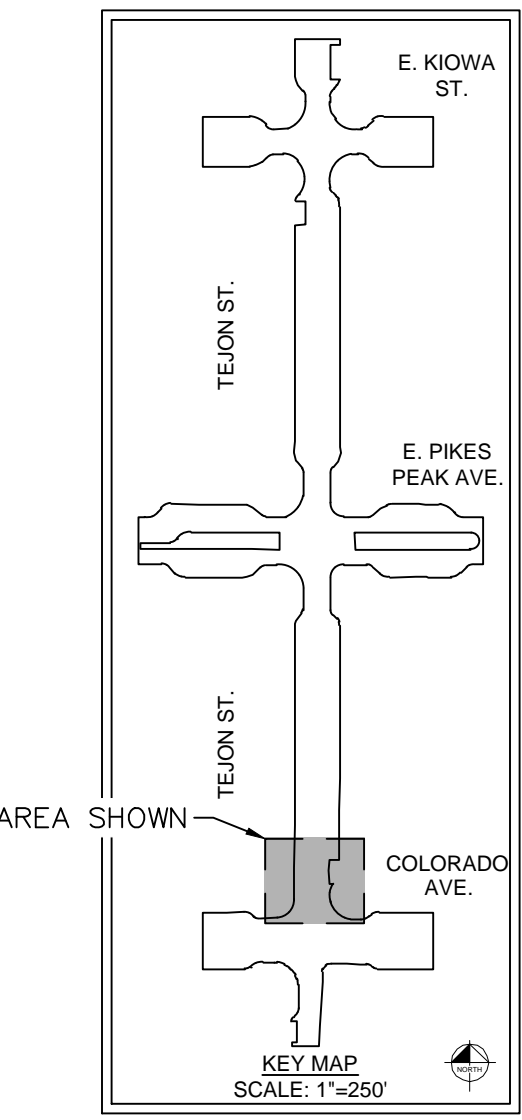
STORM LINE B-2



STORM LINE B-1

LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. STORM SEWER (TO REMAIN)	
REMOVE EX. STORM INFRASTRUCTURE	
EX. GAS LINE	
EX. UNDERGROUND ELECTRIC	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. HYDRANT, VALVE	
EX. ROW	
EX. ELECTRICAL EQUIPMENT	
PROPOSED STREET LIGHT	
PROPOSED PARKING METER	
PROPOSED MAIL BOX	
PROPOSED TRASH CAN	



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

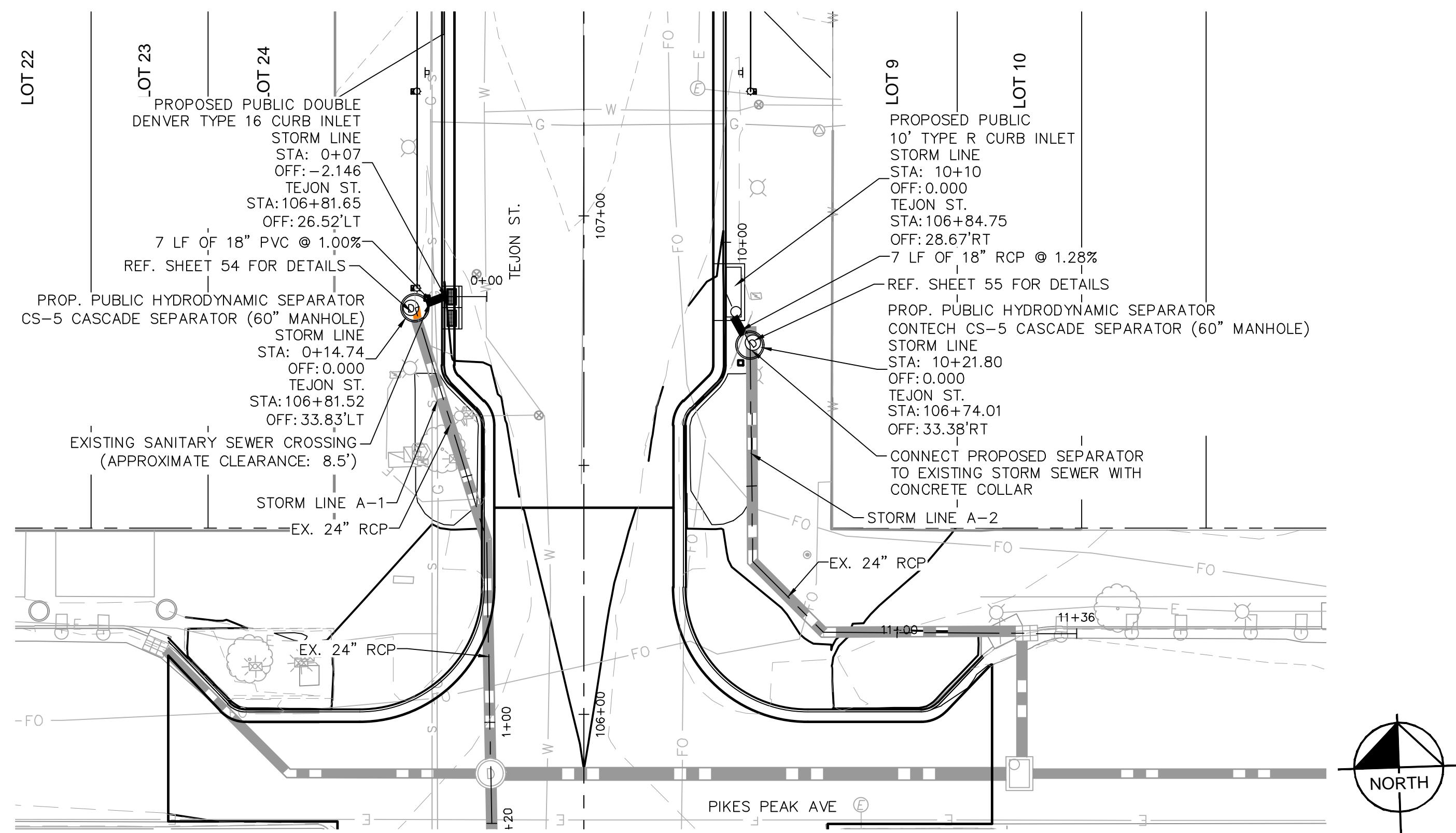
FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

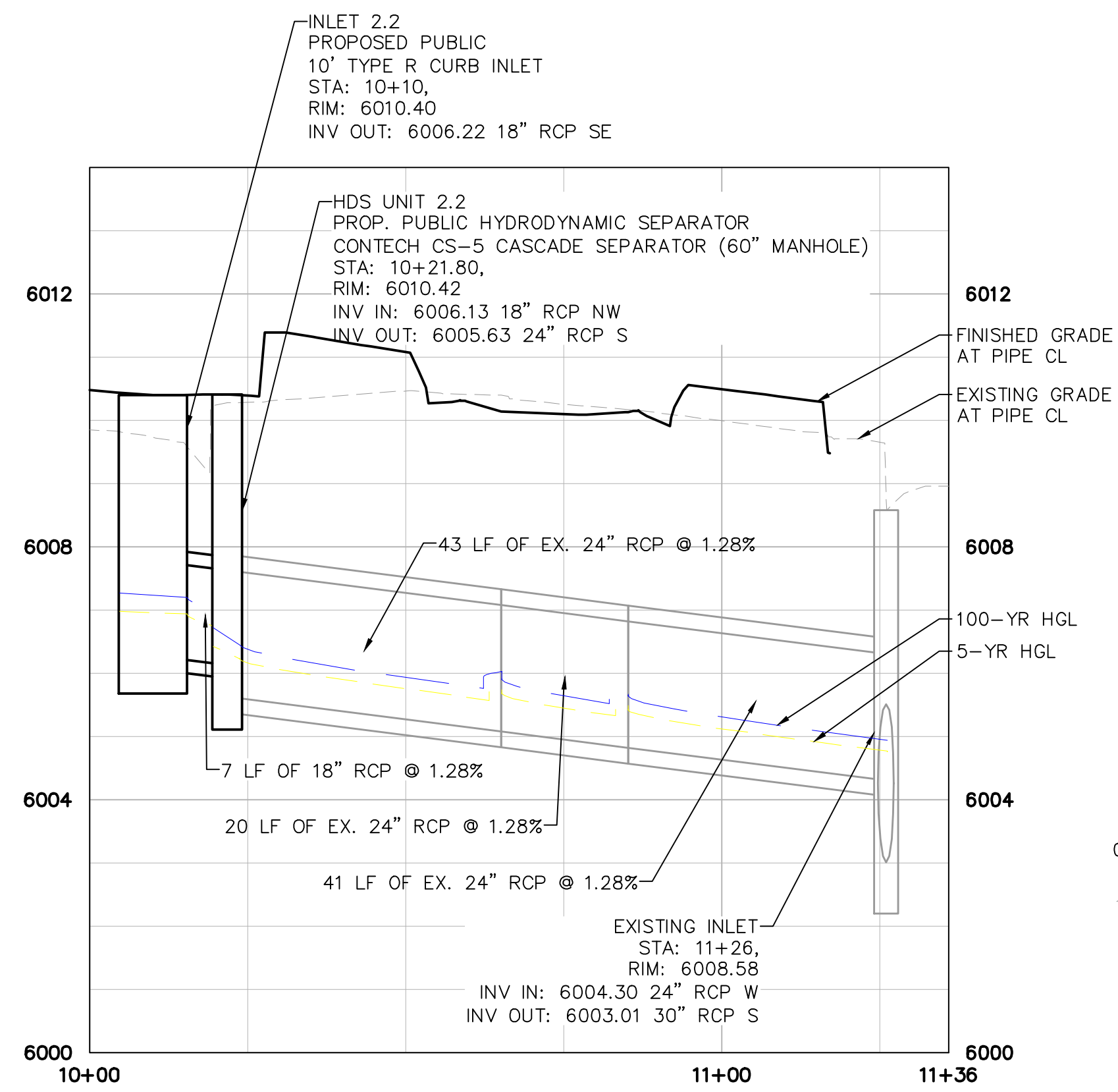
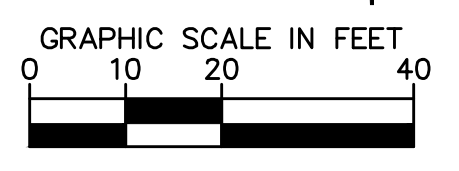
TEJON STREET REVITALIZATION STORM PLAN & PROFILE	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 50

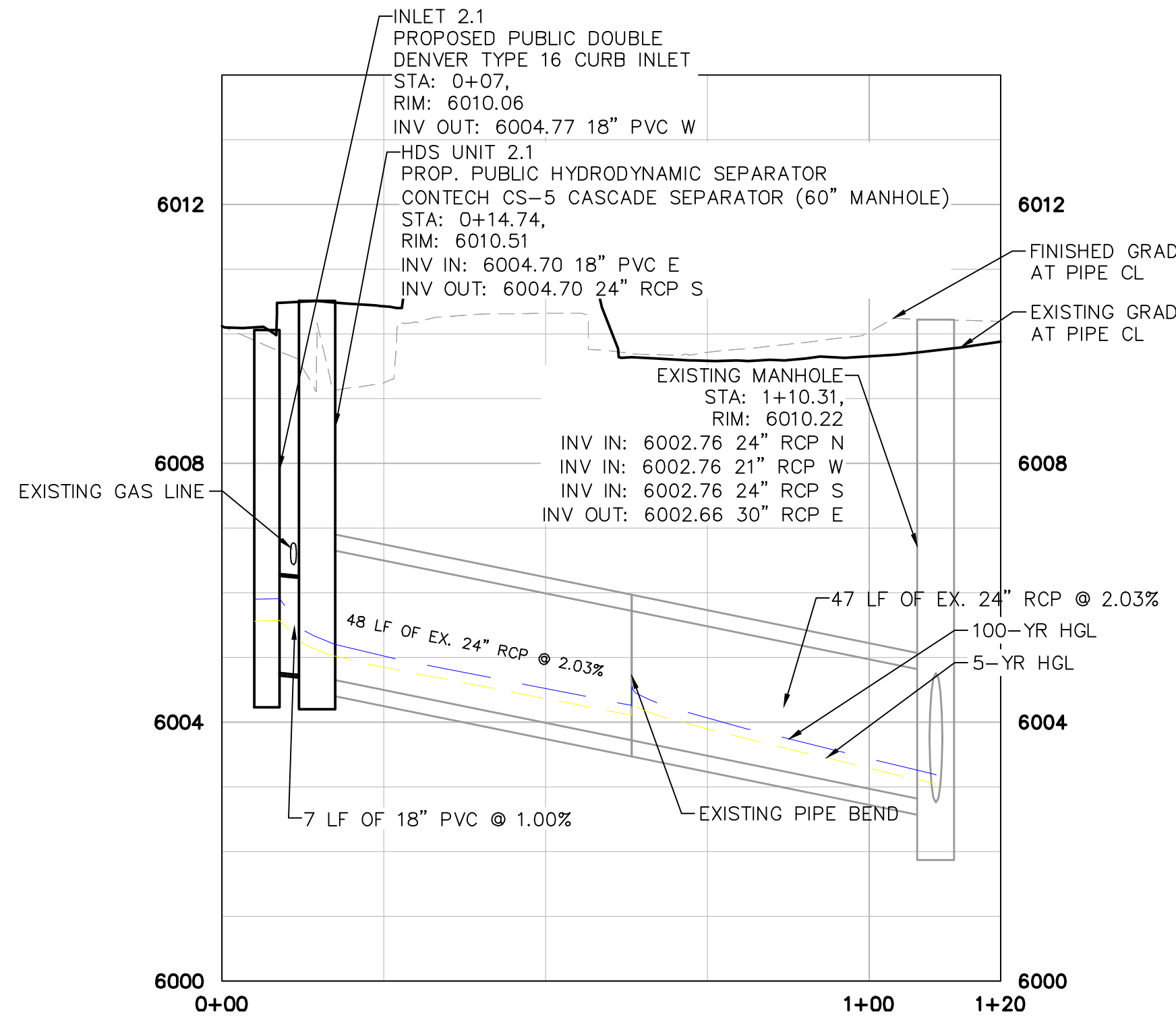
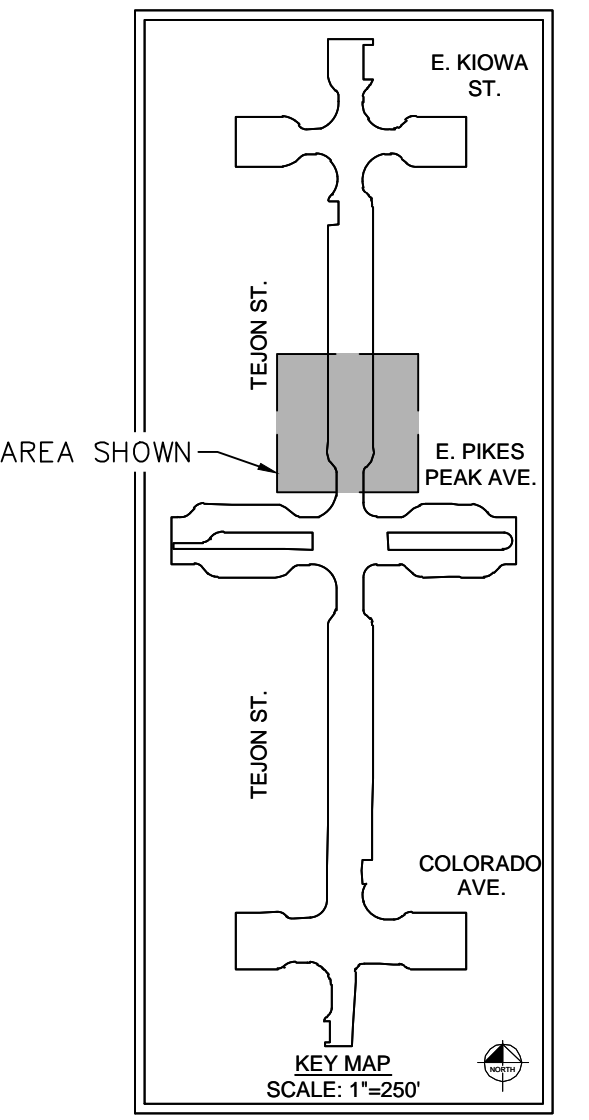
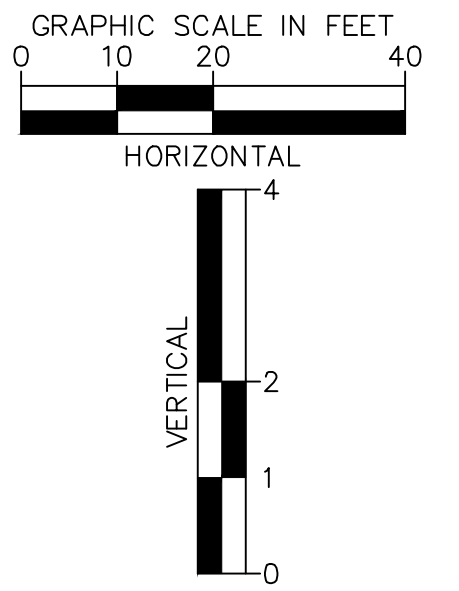
5/22/2024 10:57 AM
 C:\projects\06760714_tejon_street_improvements\CADD\plansheets\CDs\CD-STORM_P&P.dwg Kramar, Michael
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE AS DEFINED IN THE PROFESSIONAL ENGINEERING AND ARCHITECTURE ACT AND IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



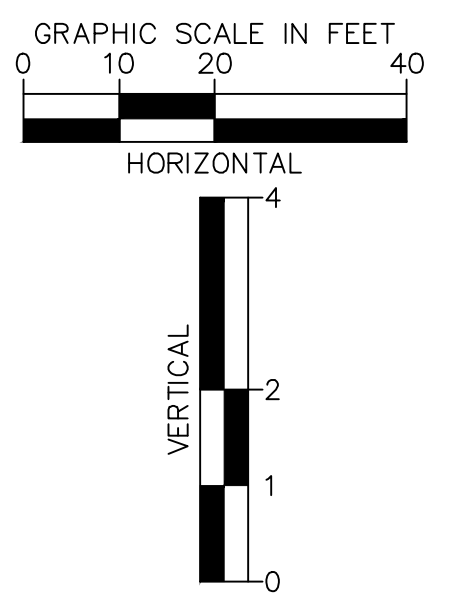
STORM A PLAN



STORM LINE A-2



STORM LINE A-1



LEGEND:

EX. SANITARY SEWER & MANHOLE	
EX. STORM SEWER (TO REMAIN)	
REMOVE EX. STORM INFRASTRUCTURE	
EX. GAS LINE	
EX. UNDERGROUND ELECTRIC	
EX. FIBER OPTIC LINE	
EX. WATER LINE	
EX. HYDRANT, VALVE	
EX. ROW	
EX. ELECTRICAL EQUIPMENT	
PROPOSED STREET LIGHT	
PROPOSED PARKING METER	
PROPOSED MAIL BOX	
PROPOSED TRASH CAN	

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

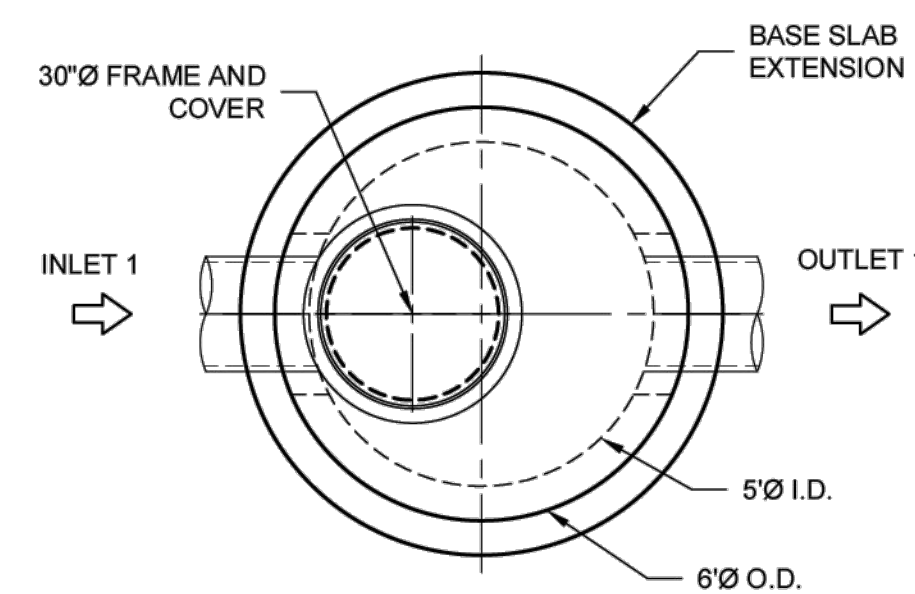
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

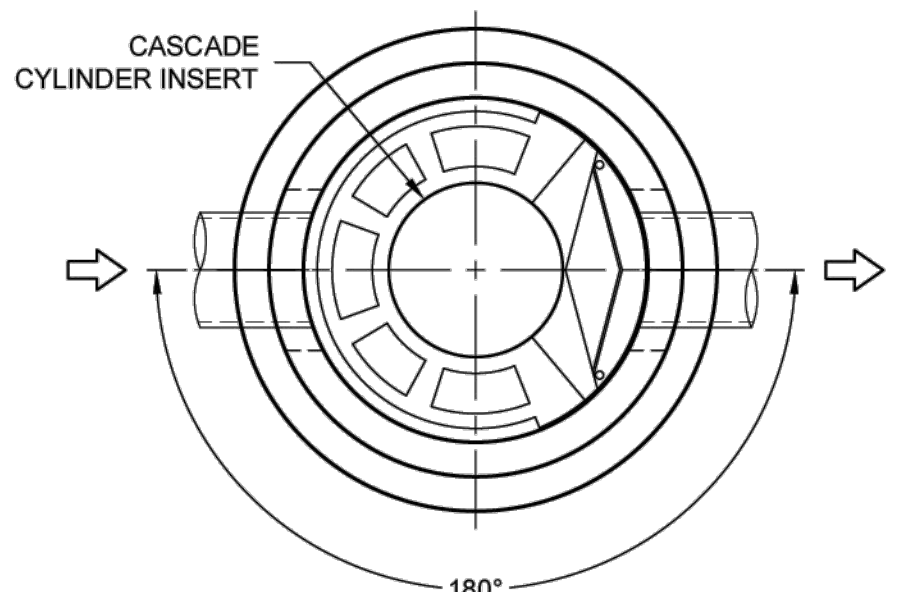
TEJON STREET REVITALIZATION STORM PLAN & PROFILE	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 51

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CD-STORM_P&P.dwg kramc Michael 5/22/2024 10:57 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PLAN VIEW
INTERNALS NOT SHOWN



PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	CS-5 CYLINDER INSERT, STD.	CONTECH
4	CS-5 ALUMINUM INSTALLATION BRACKETS	CONTECH
1	CS-5 HARDWARE KIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	30"Ø X 4" FRAME AND COVER, EJ #41600483, OR EQUIV.	CONTRACTOR

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE: www.ContechES.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0'-2'; AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

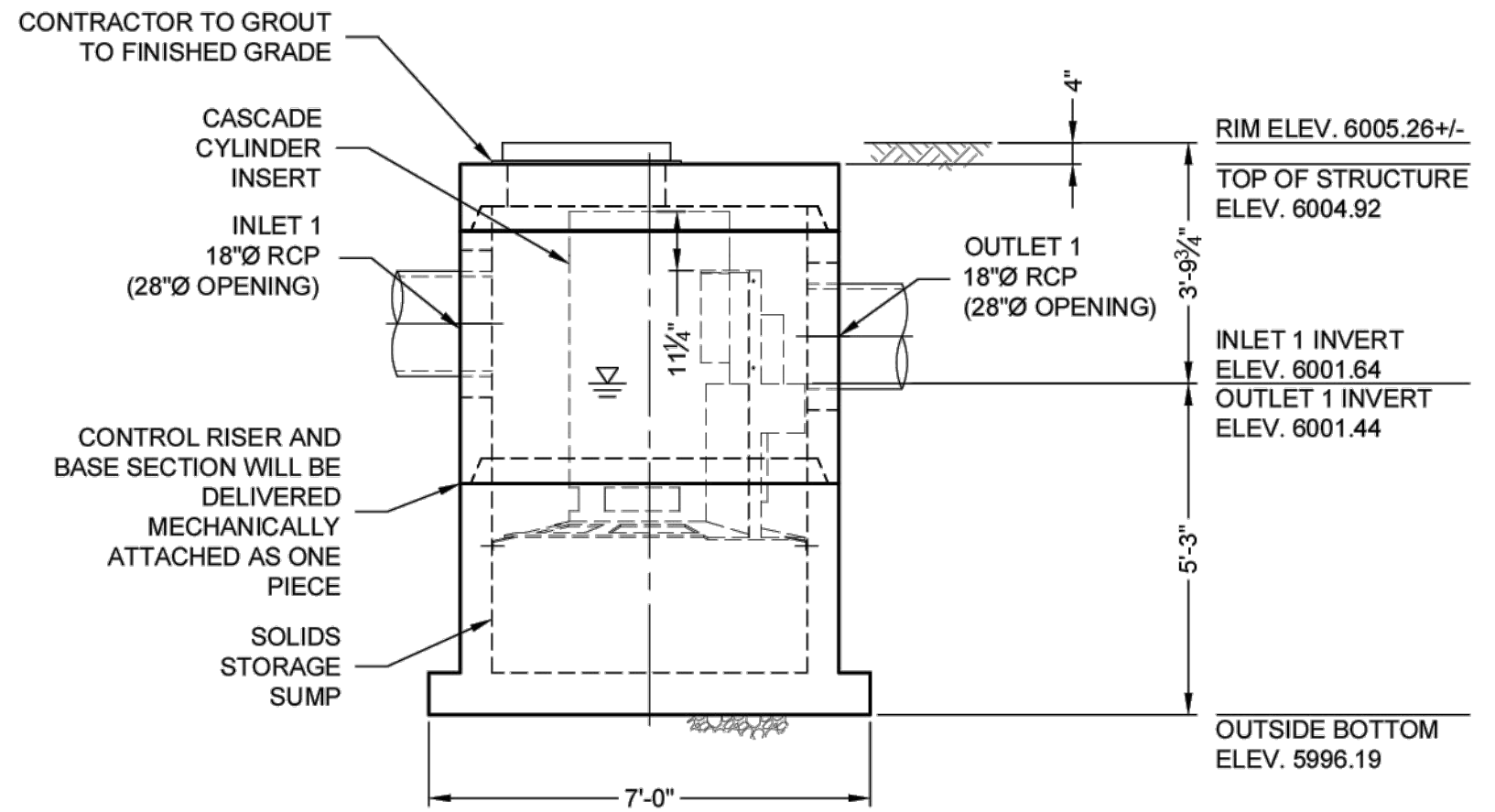
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 13000 LBS.
OF 2 PIECES

MAXIMUM FOOTPRINT = 7.00'Ø

CONTECH
PROPOSAL
DRAWING

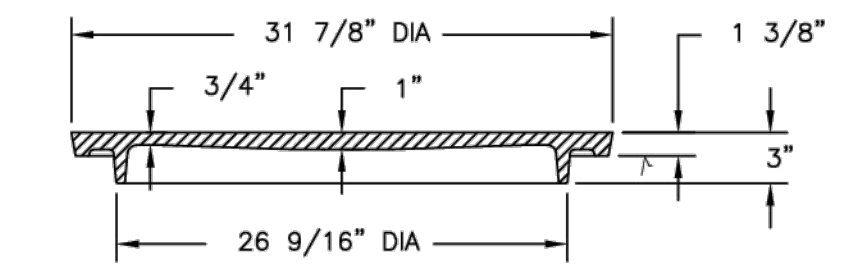
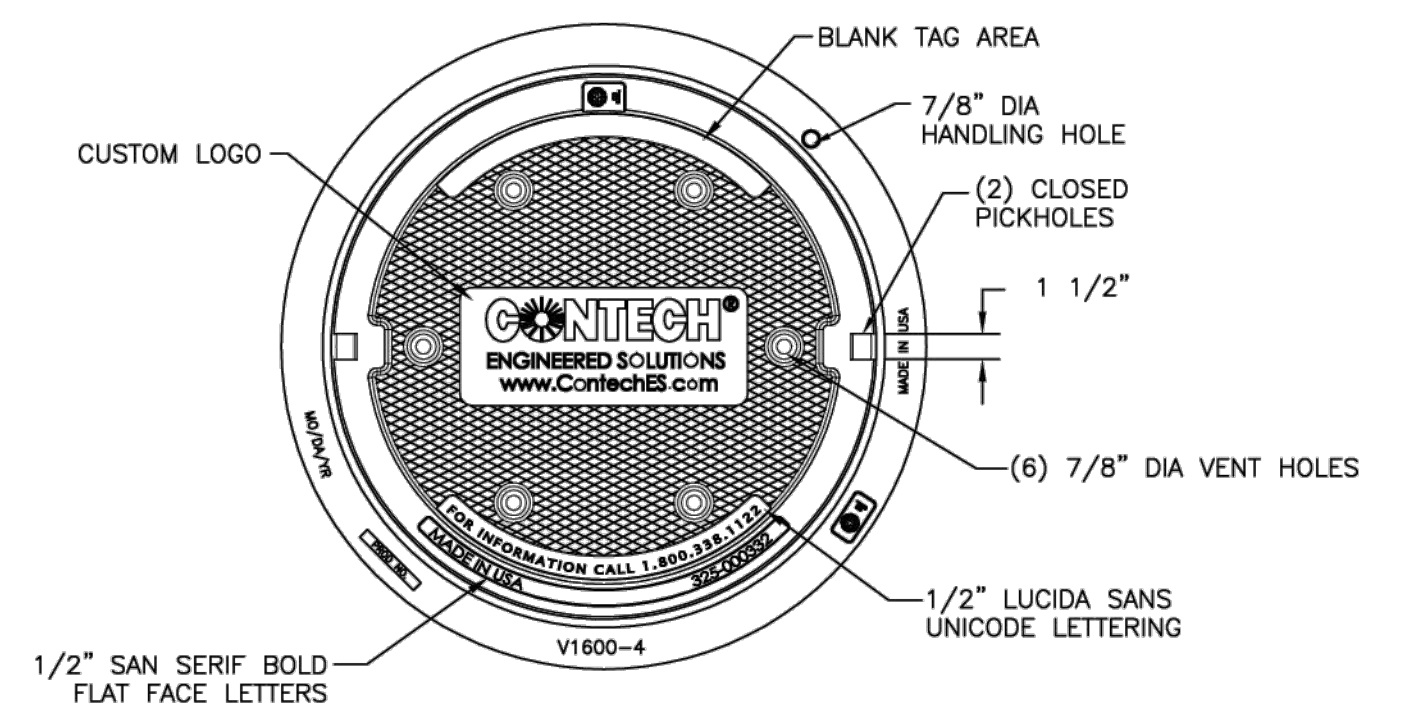
RNK-HNCO
LAYOUT 1A



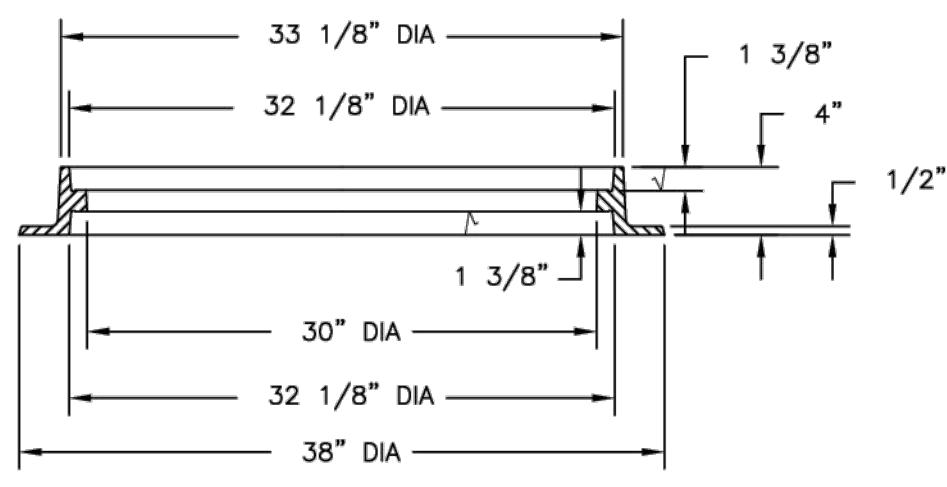
ELEVATION VIEW

HDS UNIT 1.1 DETAILS

1810B4 V1600-4 Assembly



COVER SECTION



FRAME SECTION

HDS UNIT 1.1 ASSEMBLY DETAILS

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	

COLORADO SPRINGS
OLYMPIC CITY USA

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

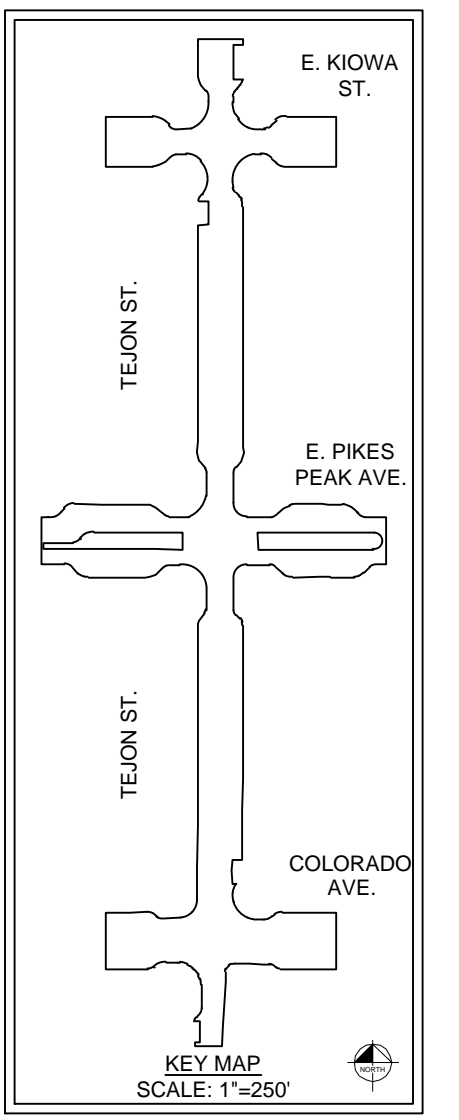
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
HDS DETAILS

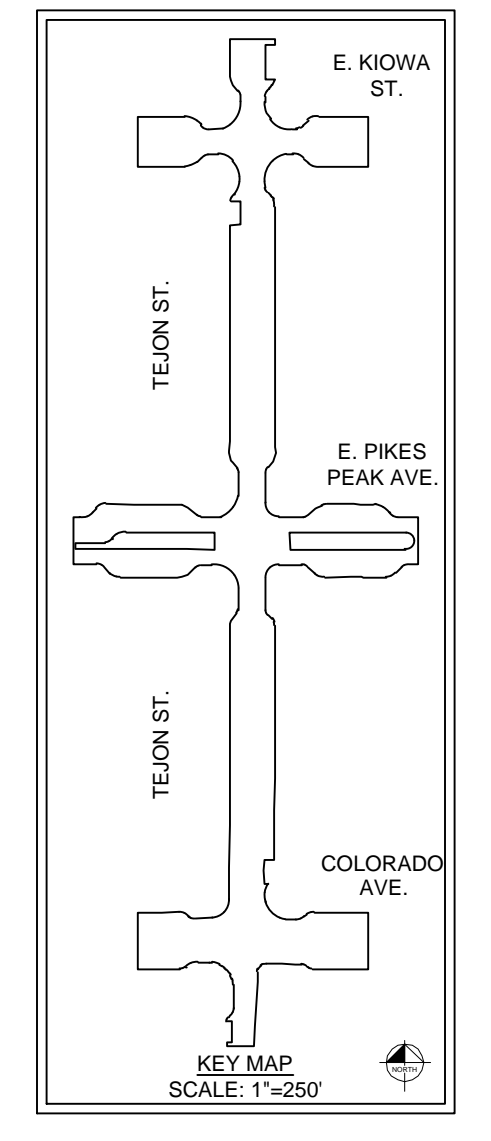
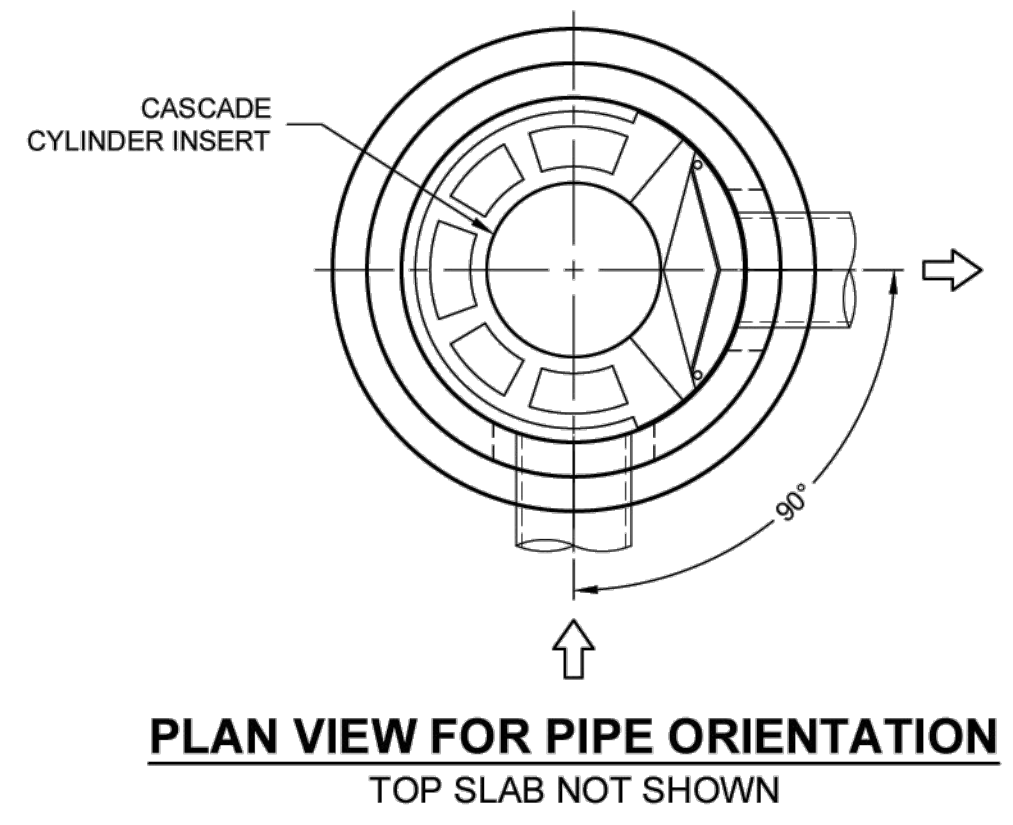
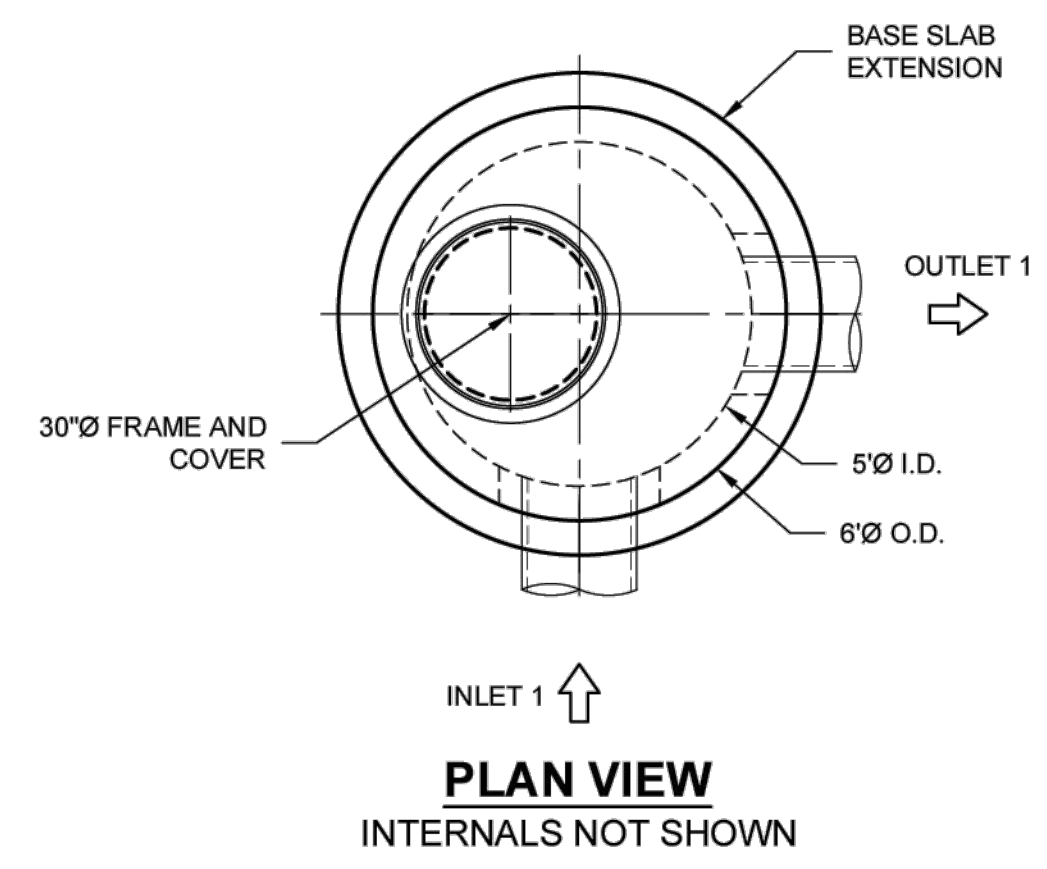
CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
067607114

SHEET NUMBER 52



P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CDs_CD-STORM_P&P.dwg krcmbr Michael 5/22/2024 10:57 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	CS-5 CYLINDER INSERT, STD.	CONTECH
4	CS-5 ALUMINUM INSTALLATION BRACKETS	CONTECH
1	CS-5 HARDWARE KIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	30"Ø X 4" FRAME AND COVER, EJ #41600483, OR EQUIV.	CONTRACTOR

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE: www.ContechES.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0'-2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 13000 LBS.
OF 2 PIECES

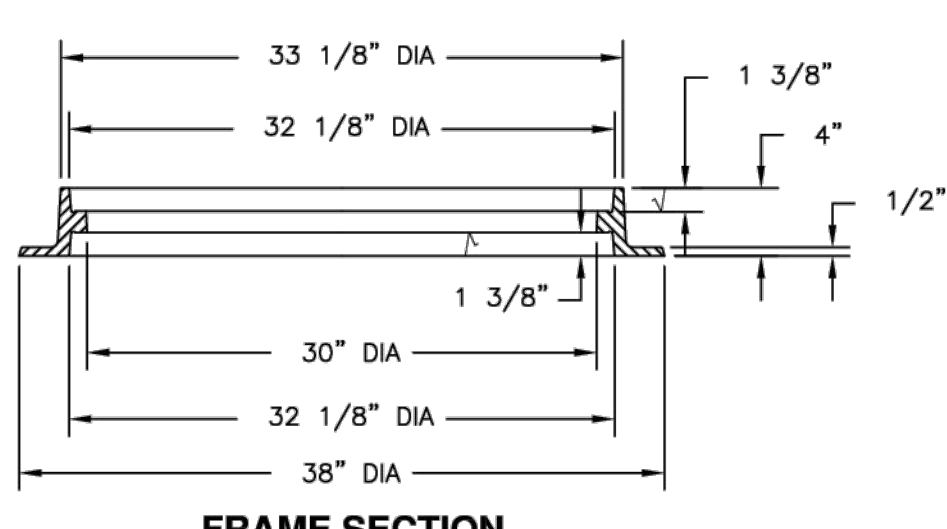
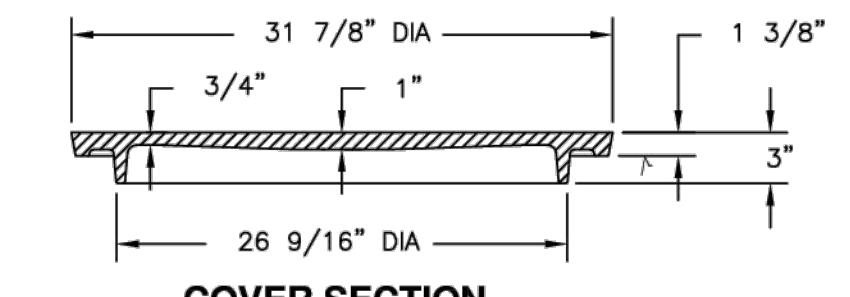
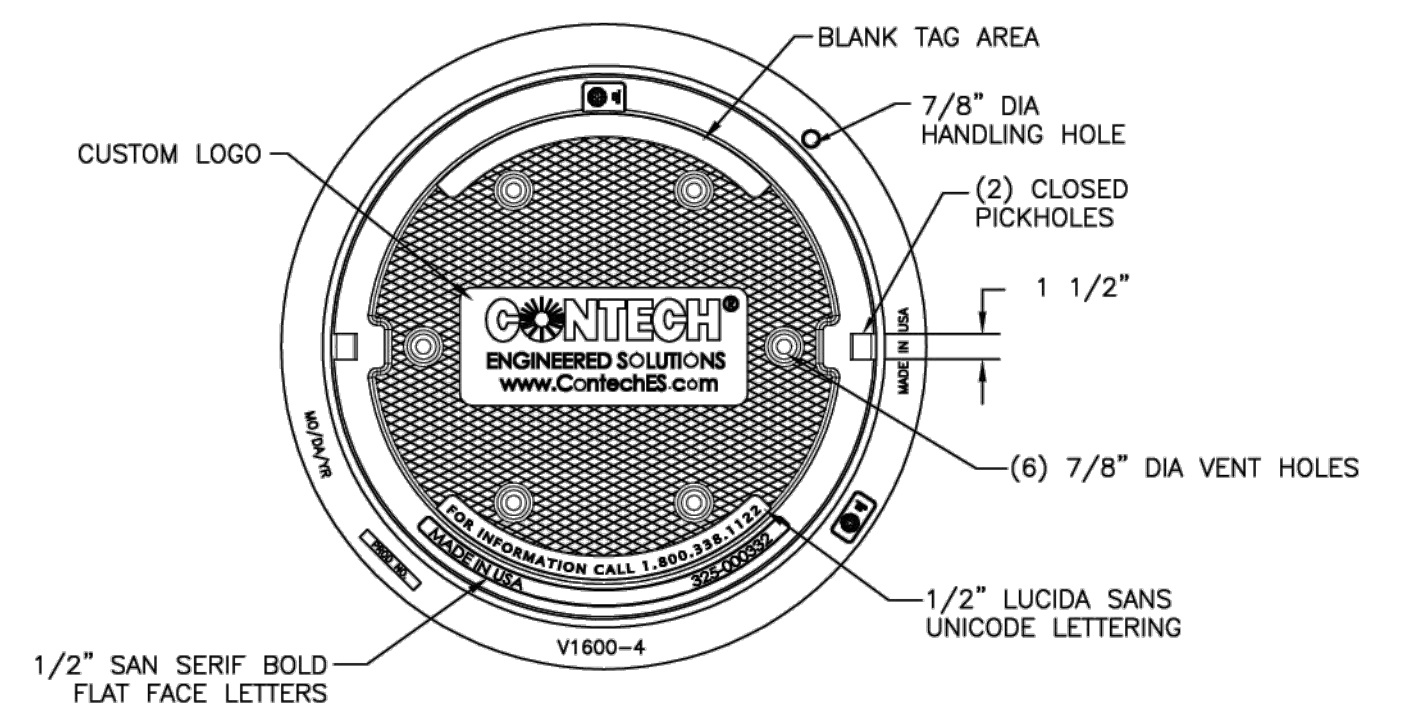
MAXIMUM FOOTPRINT = 7.00'Ø

CONTECH
PROPOSAL
DRAWING

RNK-HNCO
LAYOUT 1A

HDS UNIT 1.2 DETAILS

1810B4 V1600-4 Assembly



HDS UNIT 1.2 ASSEMBLY DETAILS

PRINT DATE: May 22, 2024
DRAWING FILE NAME:
HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2024

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	
			(R-X)
			(R-X)
			(R-X)
			(R-X)

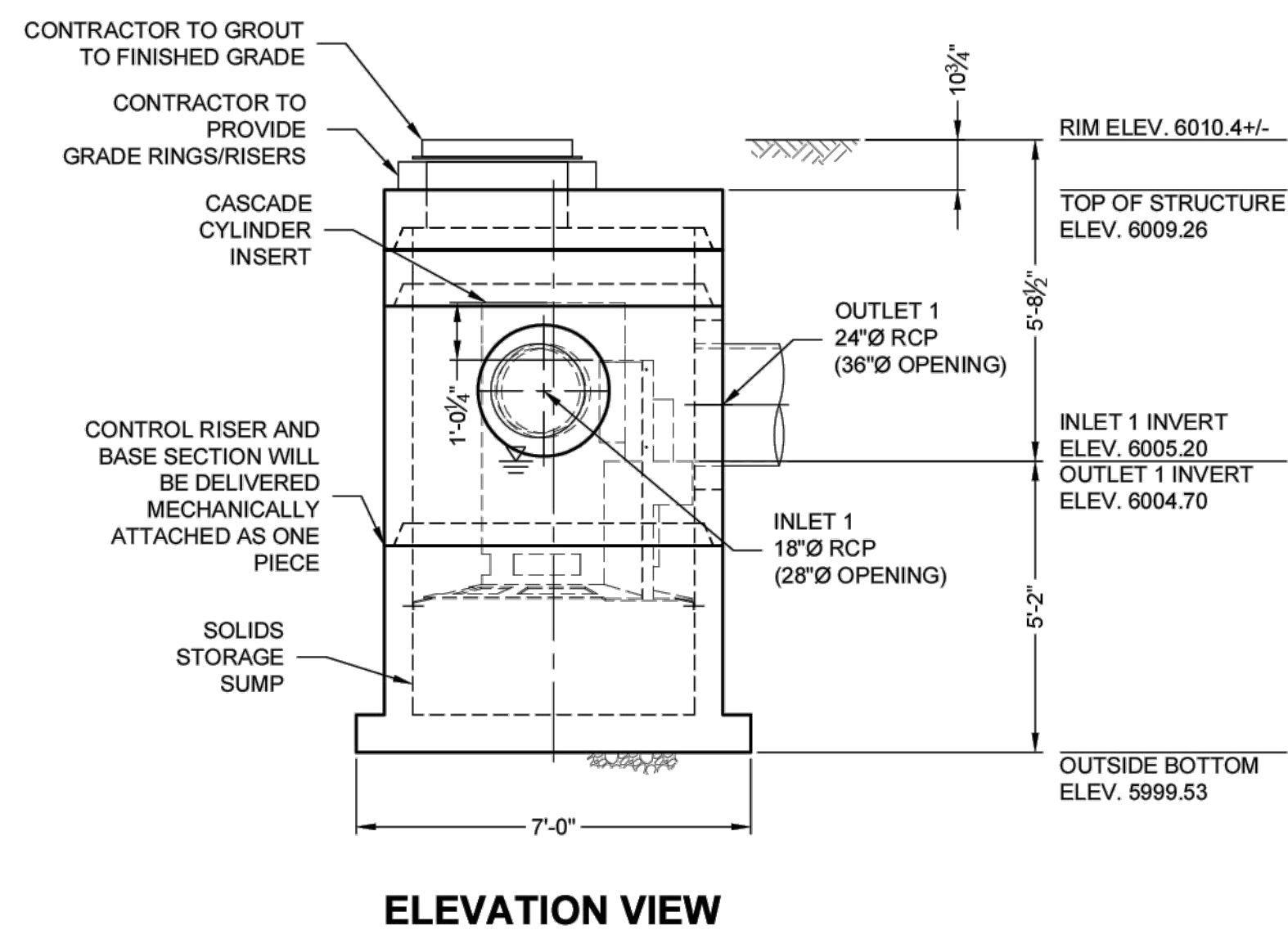
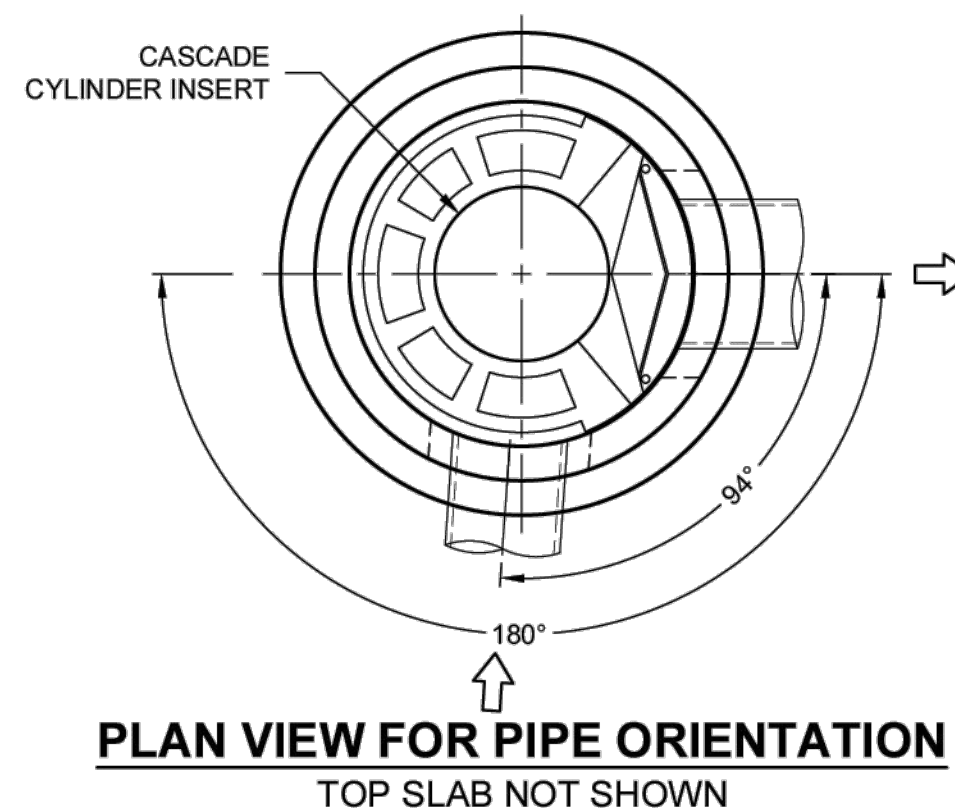
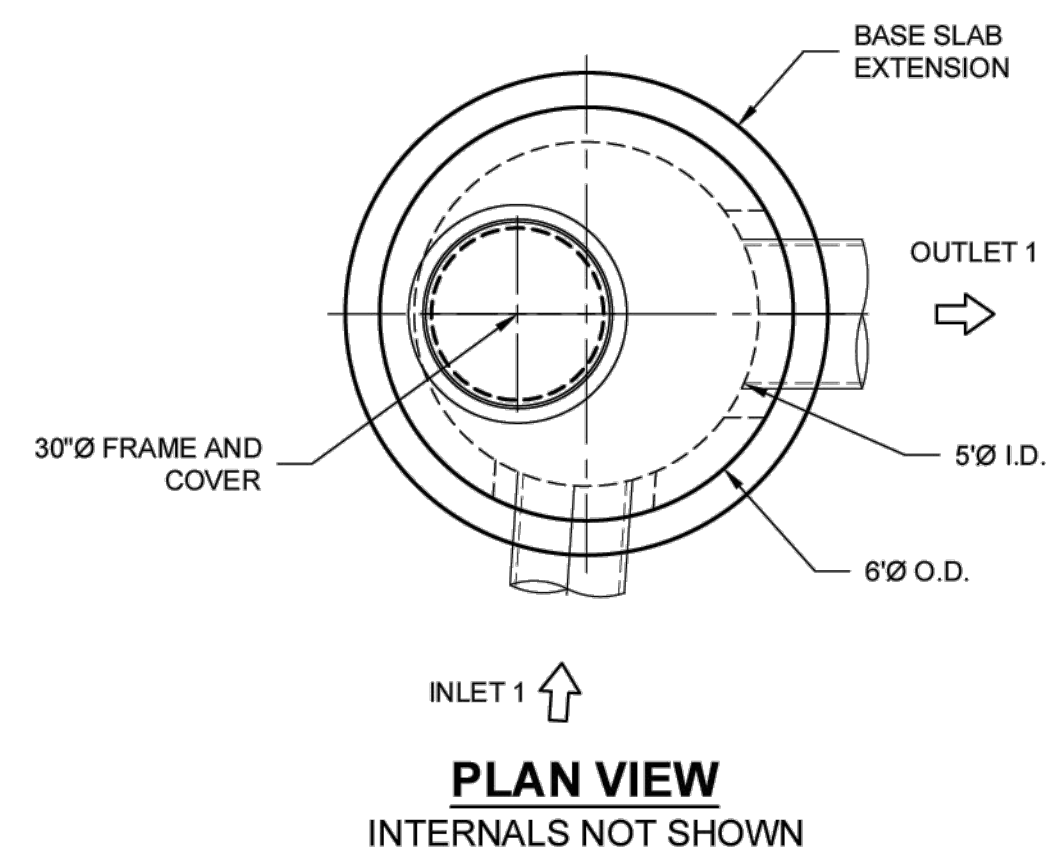
COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley-Horn
Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION HDS DETAILS	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 53

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plan_sheets\CD-STORM_P&P.dwg krcmbr Michael 5/22/2024 10:57 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	CS-5 CYLINDER INSERT, STD.	CONTECH
4	CS-5 ALUMINUM INSTALLATION BRACKETS	CONTECH
1	CS-5 HARDWARE KIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	30"Ø X 4" FRAME AND COVER, EJ #41600483, OR EQUIV.	CONTRACTOR

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE: www.ContechES.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0'-2", AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
 APPROXIMATE HEAVIEST PICK = 14500 LBS.
 OF 2 PICES

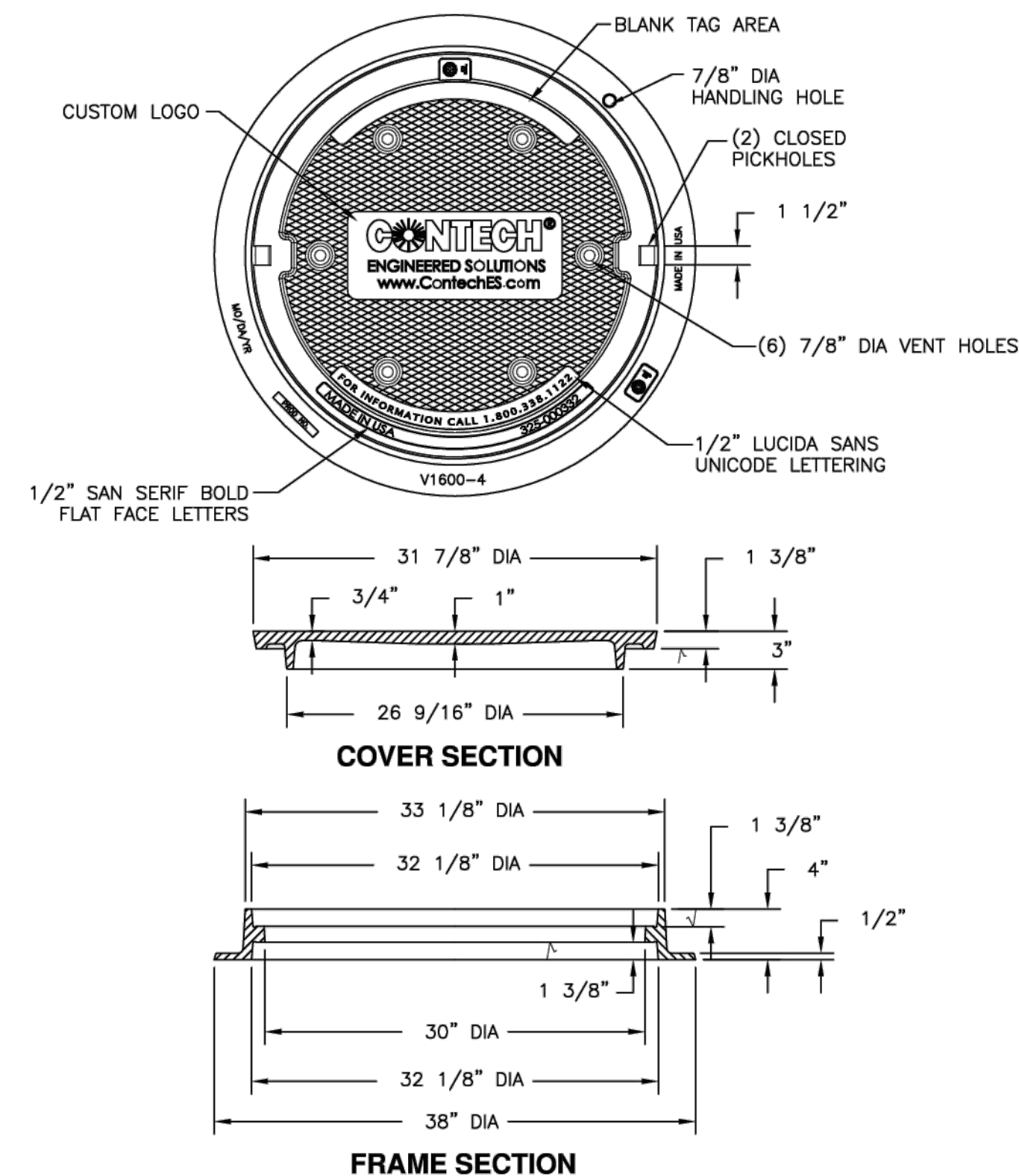
MAXIMUM FOOTPRINT = 7.00'Ø

CONTECH
PROPOSAL
 DRAWING

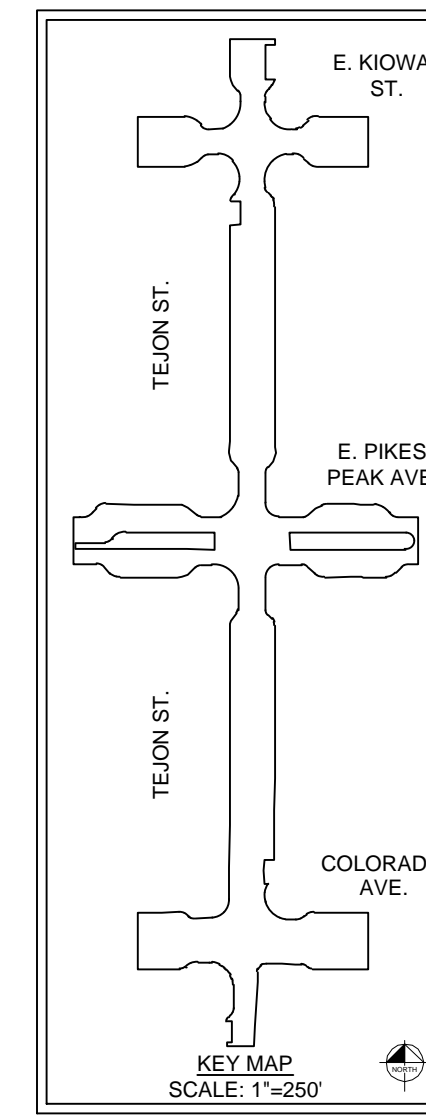
RNK-HNCO
 LAYOUT 1A

HDS UNIT 2.1 DETAILS

1810B4 V1600-4 Assembly



HDS UNIT 2.1 ASSEMBLY DETAILS



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:



KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

(R-X)
 (R-X)
 (R-X)
 (R-X)

SHEET REVISIONS

DATE:	COMMENTS:	INITIAL:



COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley-Horn
 Kimley-Horn and Associates, Inc.

**TEJON STREET REVITALIZATION
 HDS DETAILS**

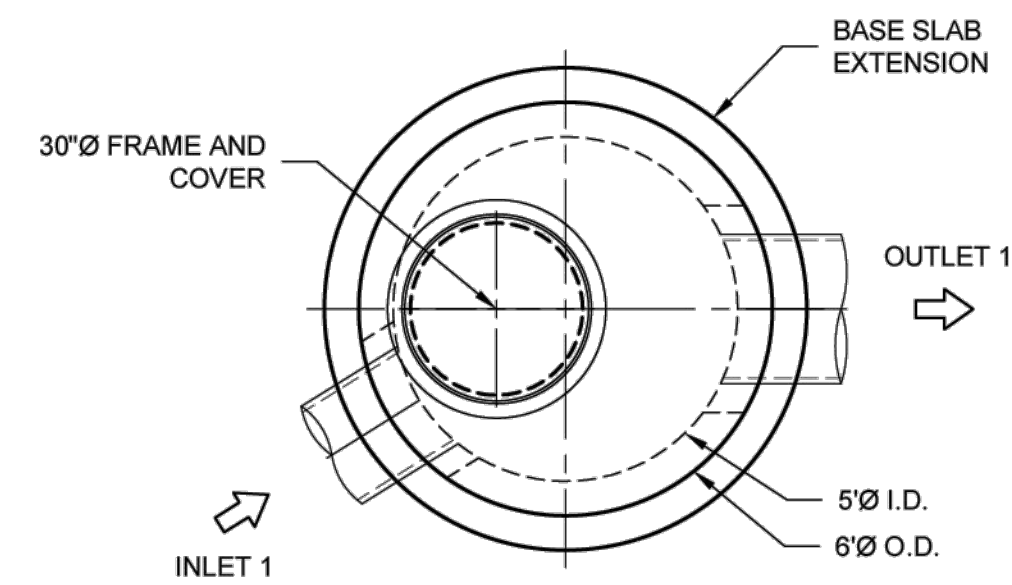
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE

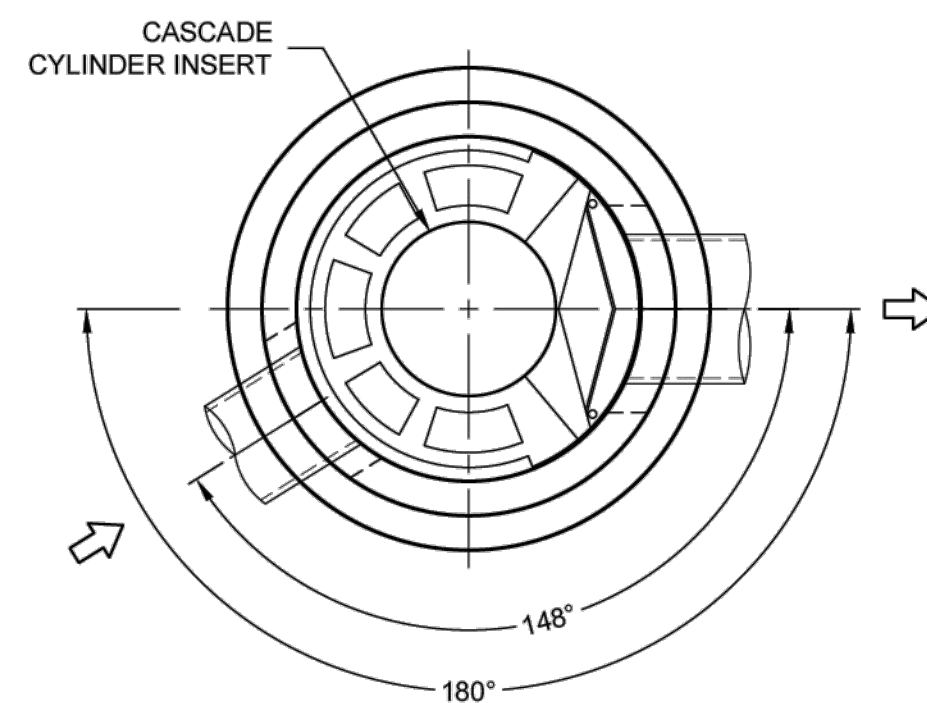
067607114

SHEET NUMBER 54

P:\067607114_tejon_street_improvements\CADD\plan_sheets\CD-STORM_P&P.dwg krcmbr Michael 5/22/2024 10:57 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PLAN VIEW
INTERNALS NOT SHOWN



PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	CS-5 CYLINDER INSERT, STD.	CONTECH
4	CS-5 ALUMINUM INSTALLATION BRACKETS	CONTECH
1	CS-5 HARDWARE KIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	30"Ø X 4" FRAME AND COVER, EJ #41600483, OR EQUIV.	CONTRACTOR

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE: www.ContechES.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0'-2", AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

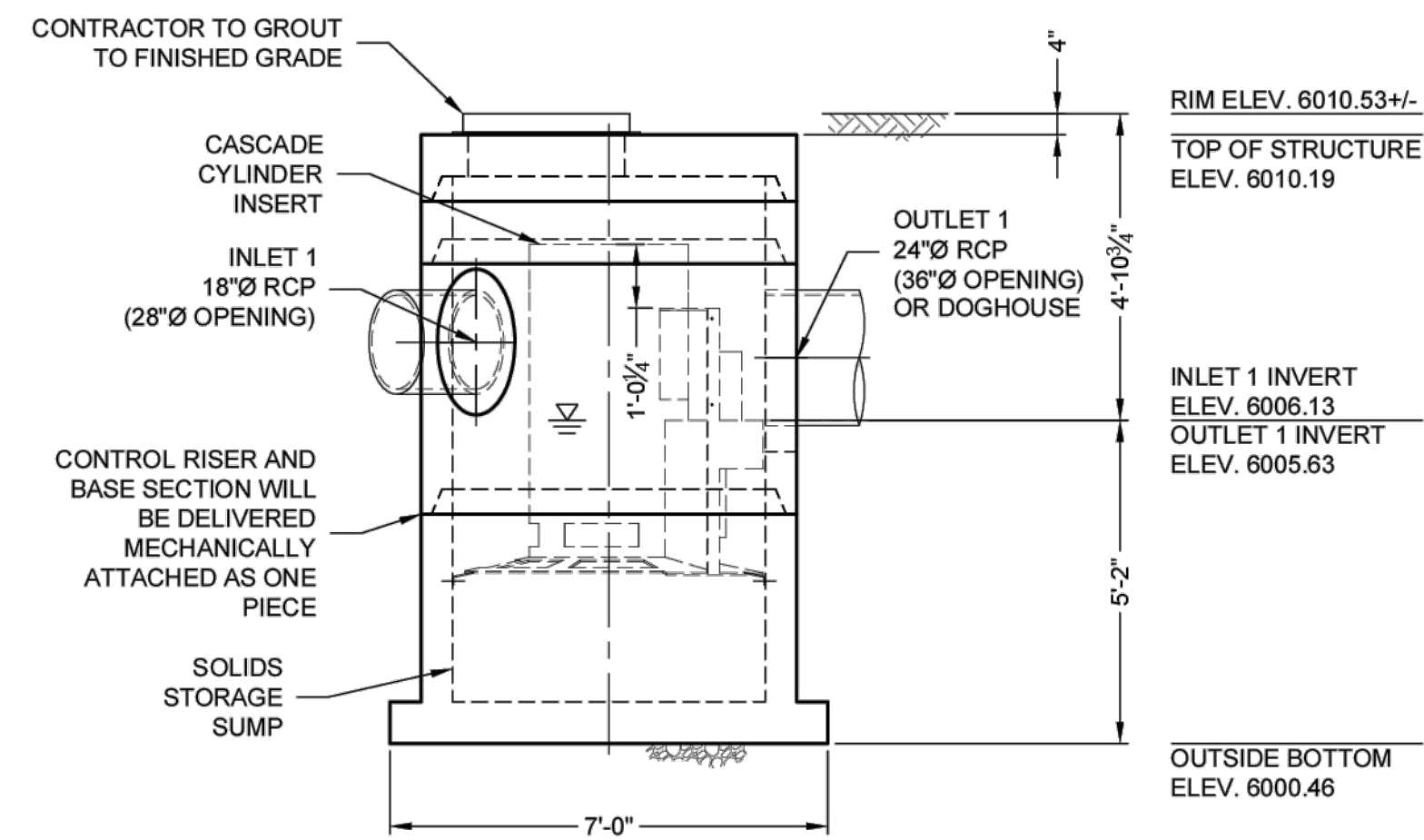
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 14500 LBS.
OF 2 PIECES

MAXIMUM FOOTPRINT = 7.00'Ø

CONTECH
PROPOSAL
DRAWING

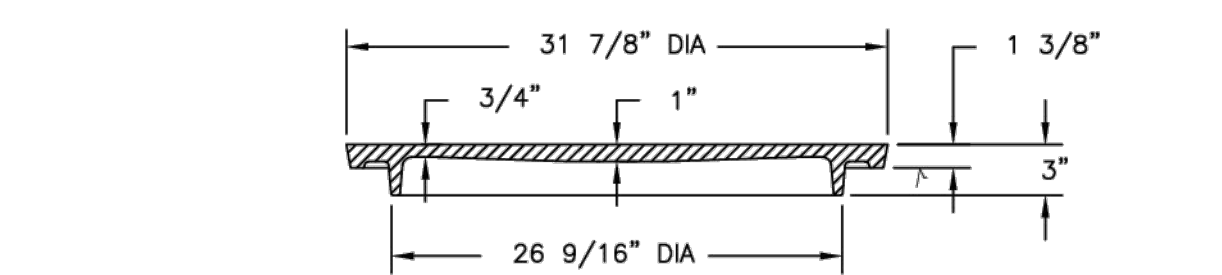
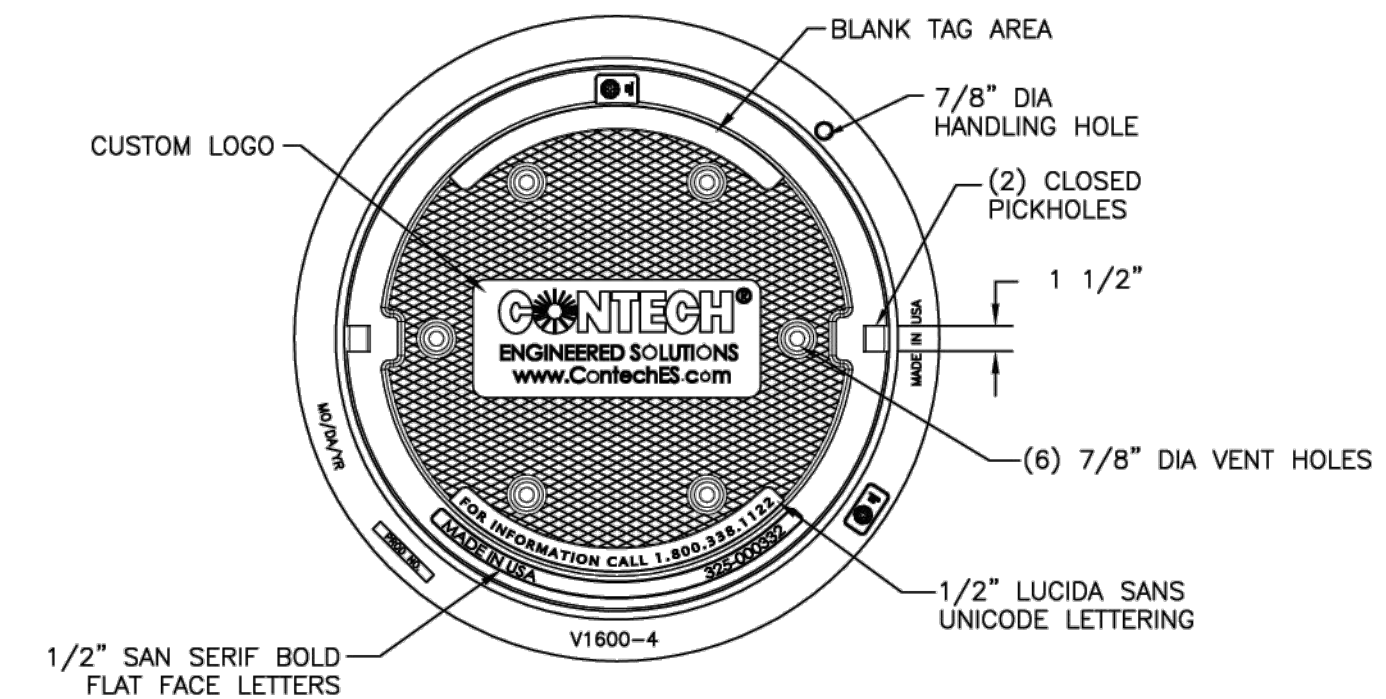
RNK-HNCO
LAYOUT 1A



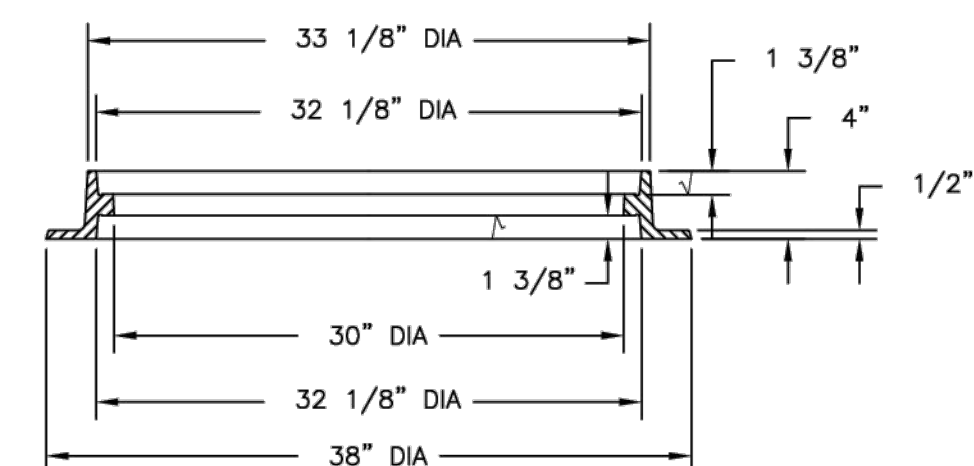
ELEVATION VIEW

HDS UNIT 2.2 DETAILS

1810B4 V1600-4 Assembly

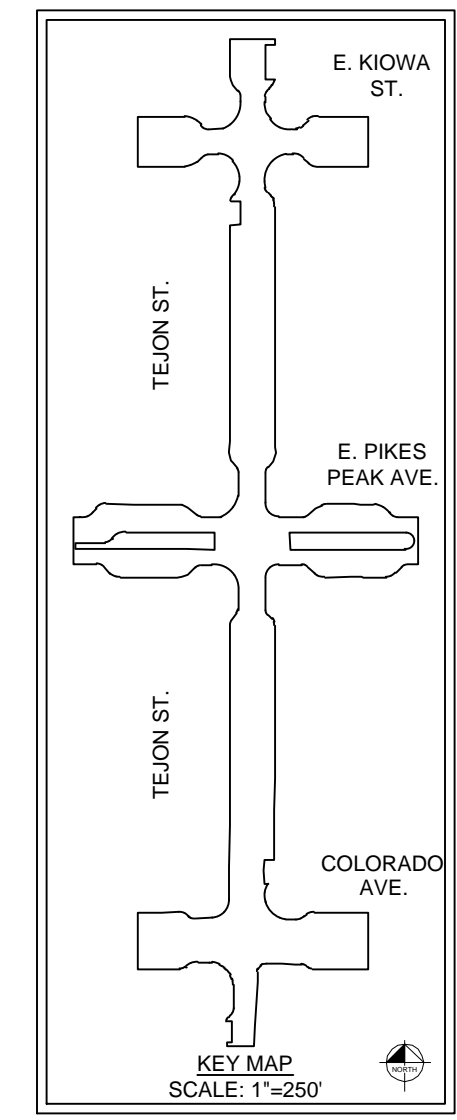


COVER SECTION



FRAME SECTION

HDS UNIT 2.2 ASSEMBLY DETAILS



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:



KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2024

(R-X)
(R-X)
(R-X)
(R-X)

SHEET REVISIONS

DATE:	COMMENTS:	INITIAL:



COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley-Horn
Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
HDS DETAILS

CHECKED BY: EJK
DESIGNED BY: MJK
SHEET SUBSET:

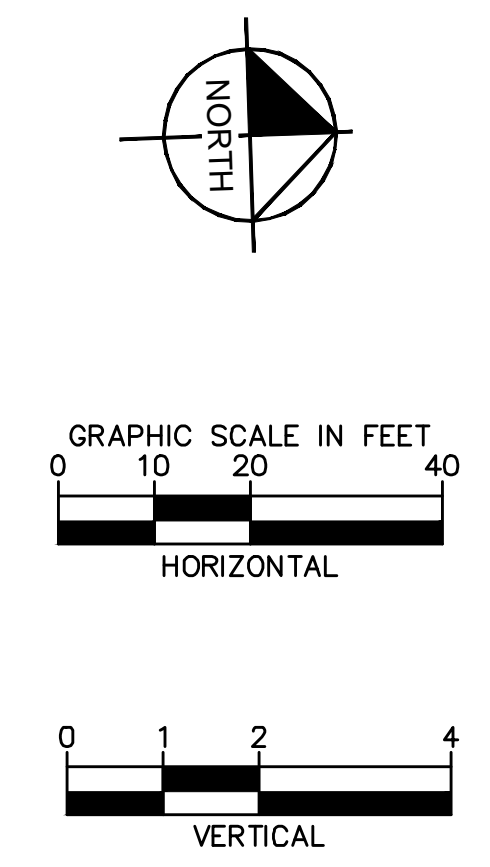
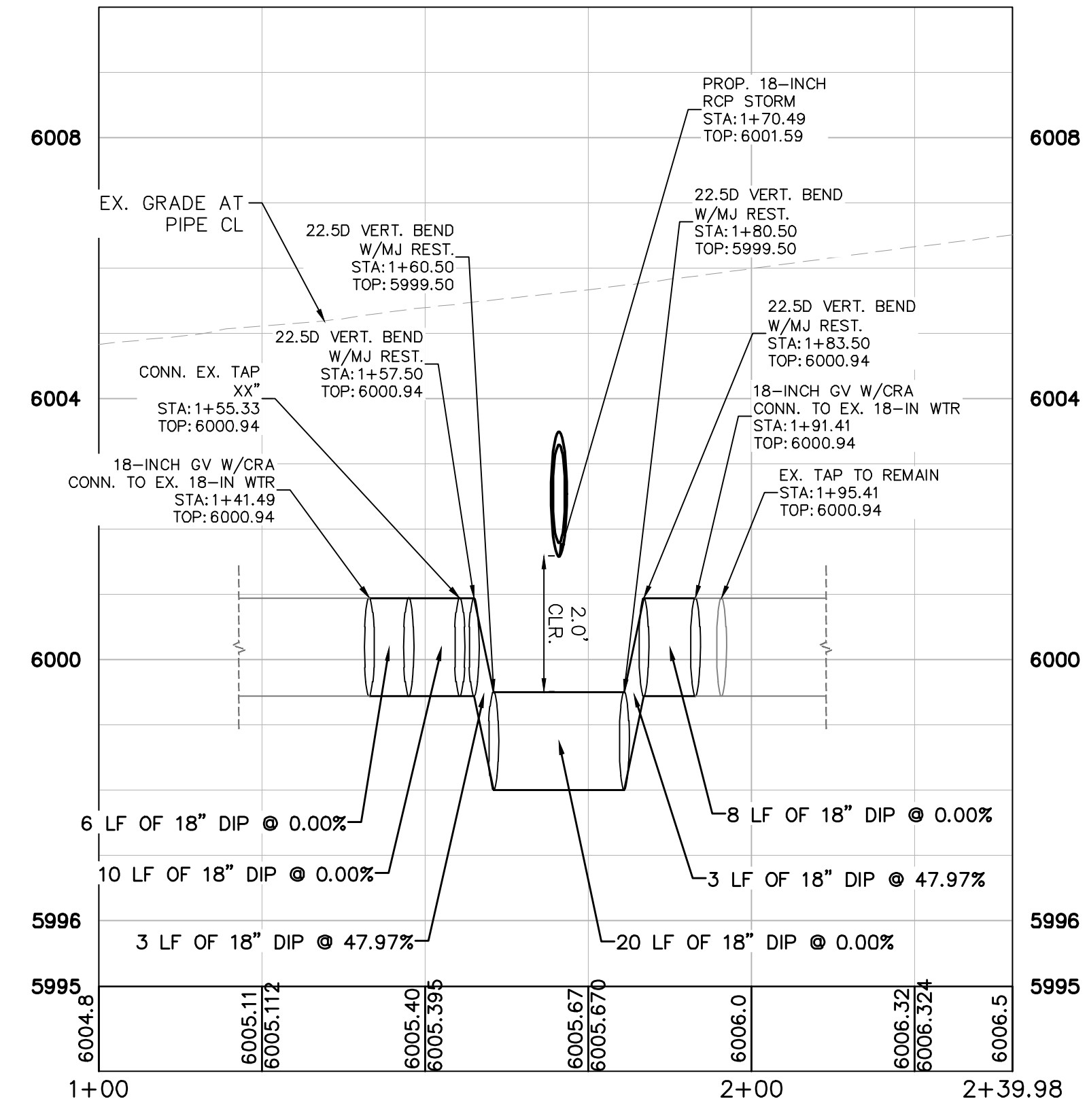
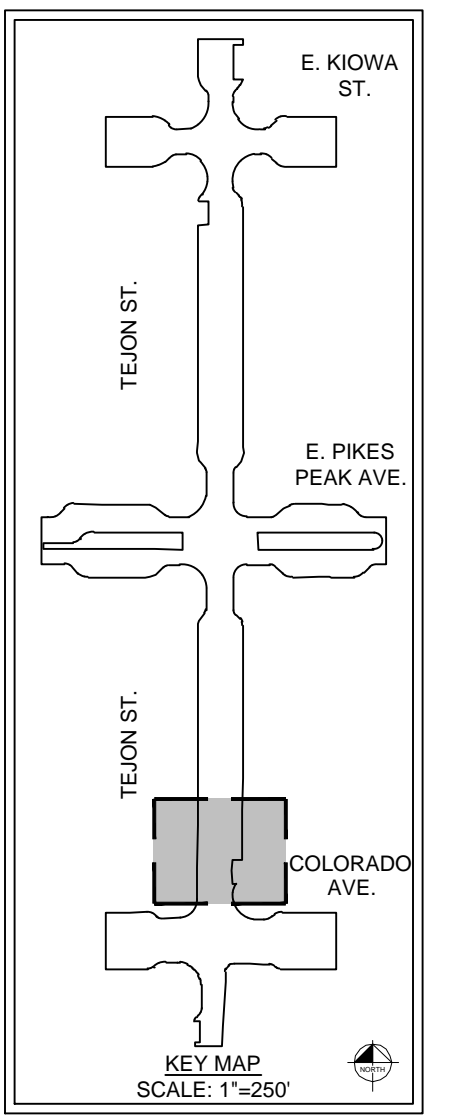
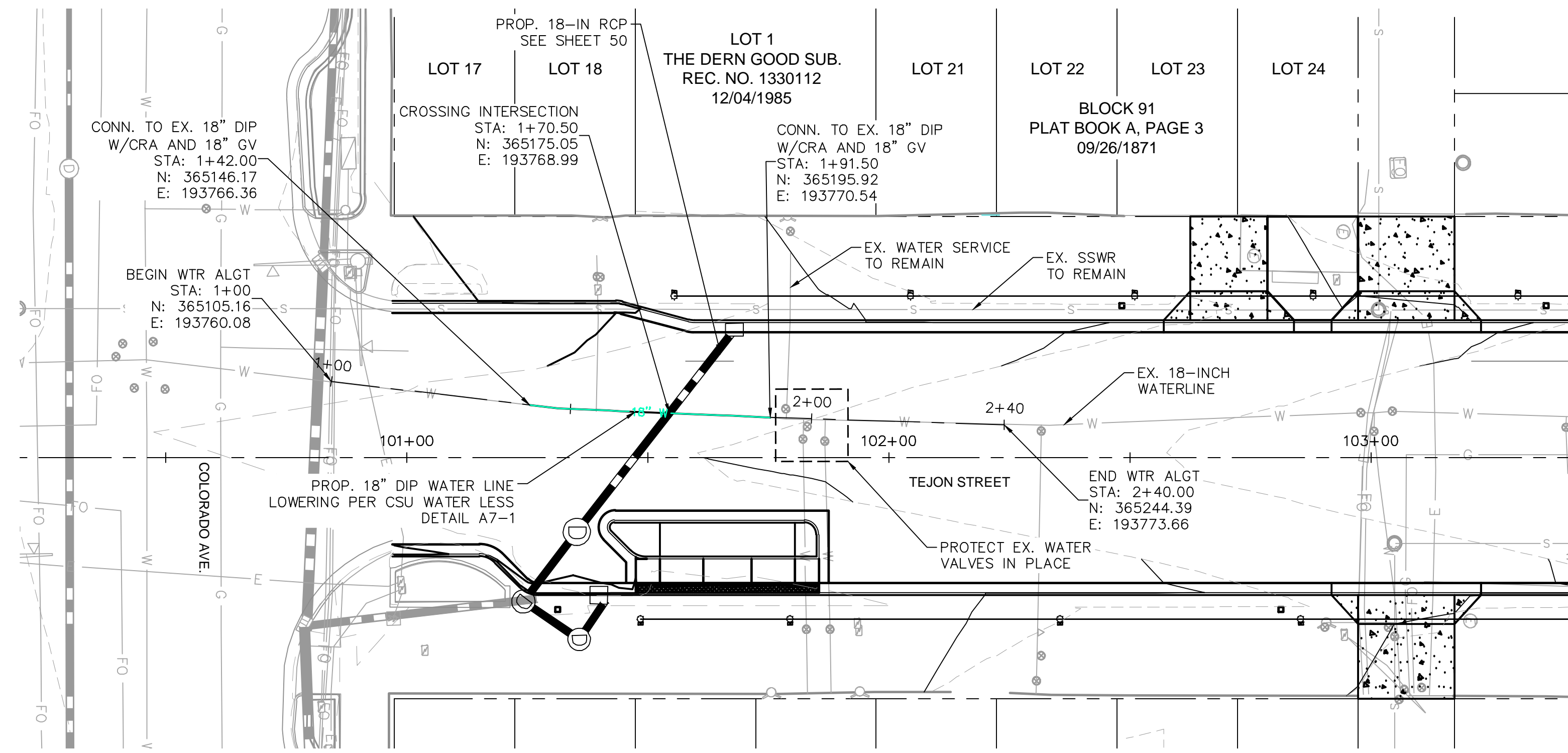
SUBSET SHEET:

PROJECT NO./CODE

067607114

SHEET NUMBER 55

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-WATER-PP.dwg_Kramer, Michael 5/22/2024 10:57 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

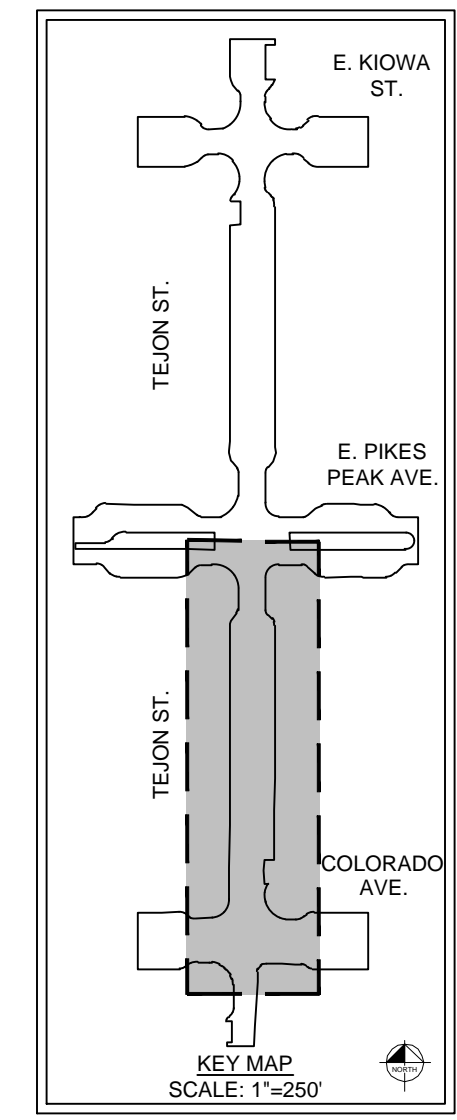
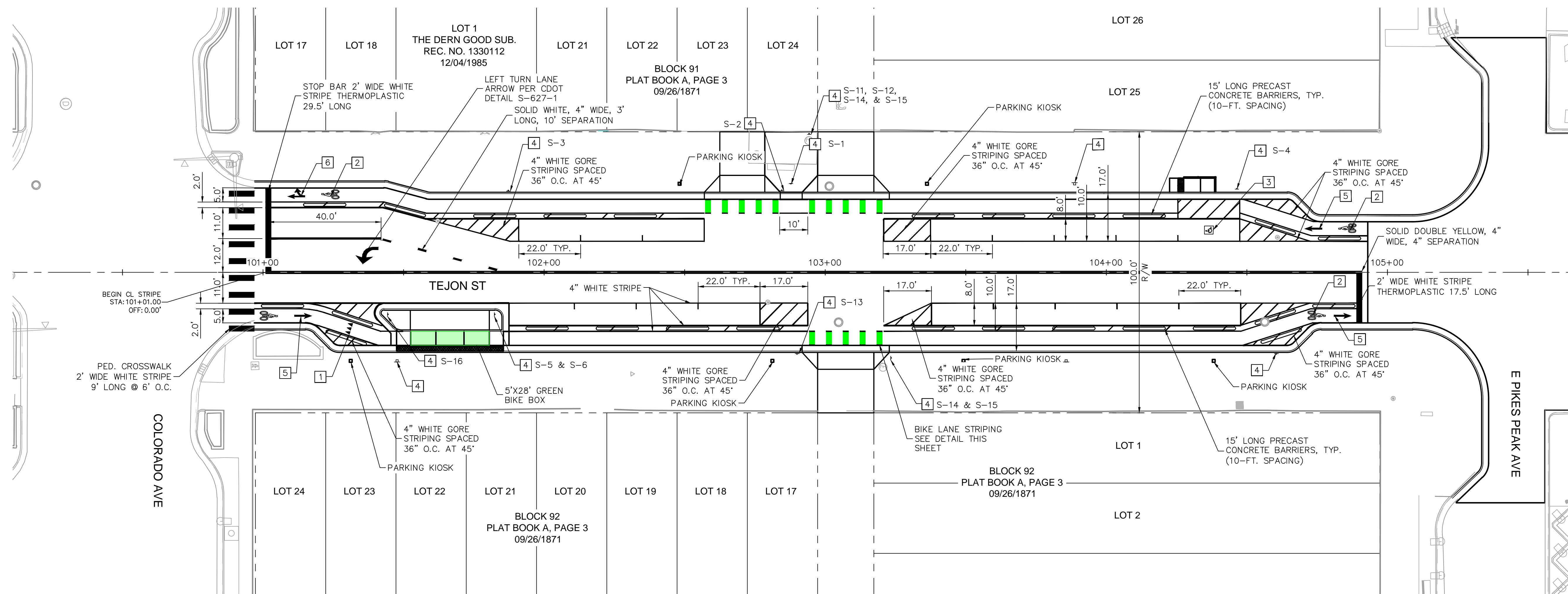
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION WATERLINE LOWERING	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
067607114
SHEET NUMBER 56

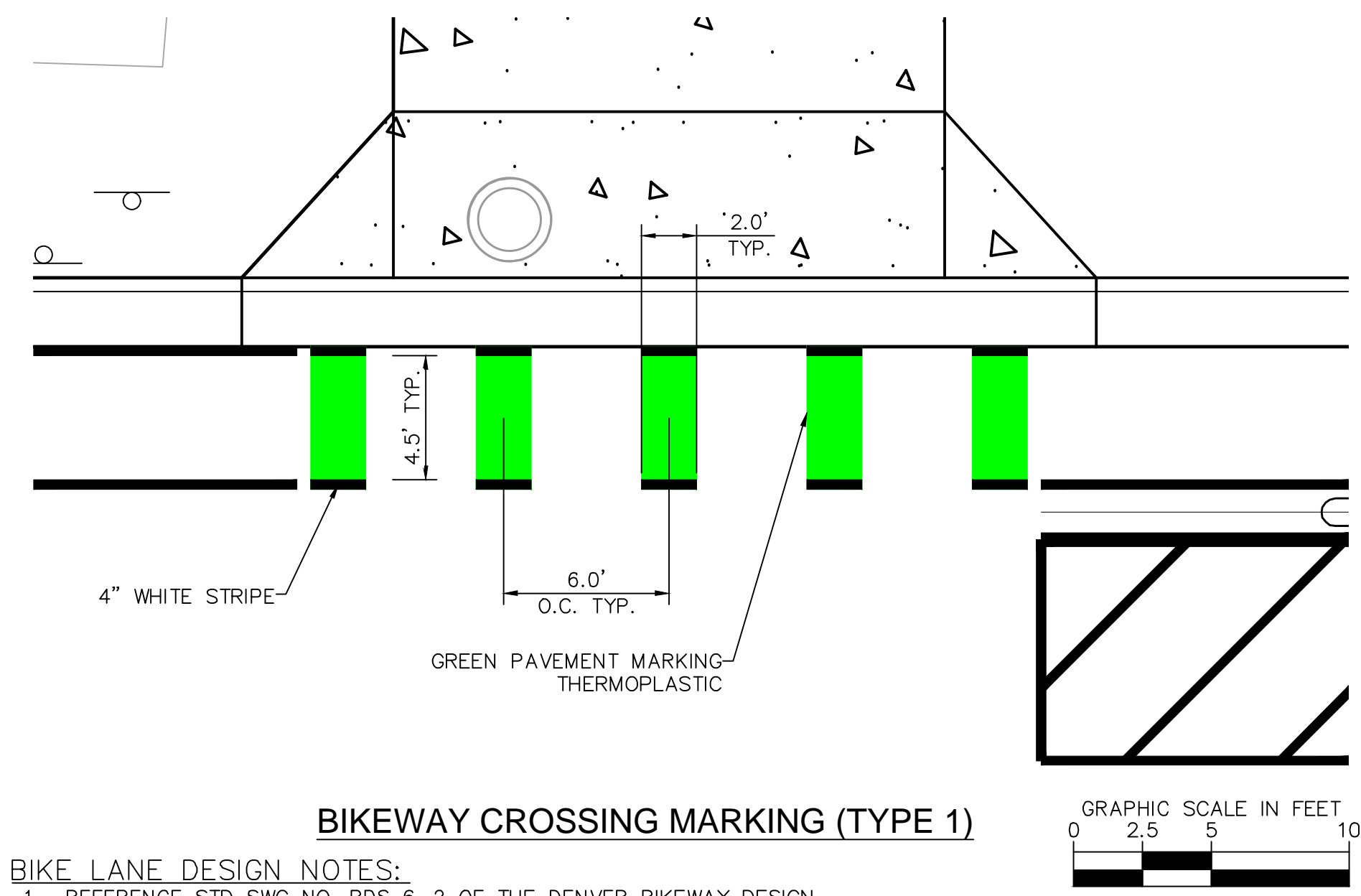
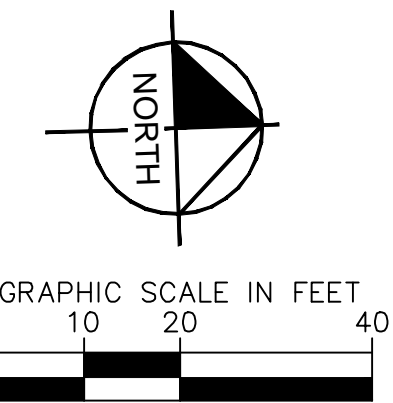
P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\SNS.dwg Kramer, Michael 5/22/2024 10:58 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



MATCHLINE SEE SHEET 59

E PIKES PEAK AVE

COLORADO AVE



- SIGNAGE NOTES:**
- 1 YIELD TEETH (THERMOPLASTIC 1' X 1.5')
 - 2 BIKER SYMBOL (THERMOPLASTIC, PER BIKEWAY DESIGN MANUAL DETAIL BDS-2-1)
 - 3 HANDICAP PARKING SYMBOL (THERMOPLASTIC, 3.125' X 3.125')
 - 4 NEW SIGN AND POST
 - 5 STRAIGHT BIKER ARROW (THERMOPLASTIC, PER BIKEWAY DESIGN MANUAL DETAIL BDS-2-1)
 - 6 STRAIGHT AND RIGHT BIKER ARROW (THERMOPLASTIC 6' X 4')

- GENERAL NOTES:**
1. ALL PAVEMENT MARKINGS SHALL BE INSTALLED PER CITY OF COLORADO SPRINGS TRAFFIC ENGINEERING SIGNAGE AND PAVEMENT MARKINGS GUIDELINES AND STANDARD PAVEMENT MARKING CDOT S-627-1. CITY OF COLORADO SPRINGS CRITERIA SHALL TAKE PRECEDENCE.
 2. ALL LANE LINES ARE PROPOSED TO BE EPOXY. ALL CROSSWALKS, STOP BARS, AND SYMBOLS ARE PROPOSED TO BE THERMOPLASTIC.
 3. ALL LOCATIONS OF PAVEMENT MARKING REMOVALS AND INSTALLATIONS SHALL BE VERIFIED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 SIGNAGE AND STRIPING PLAN – BASE BID

CHECKED BY: EJK

DESIGNED BY: MJK

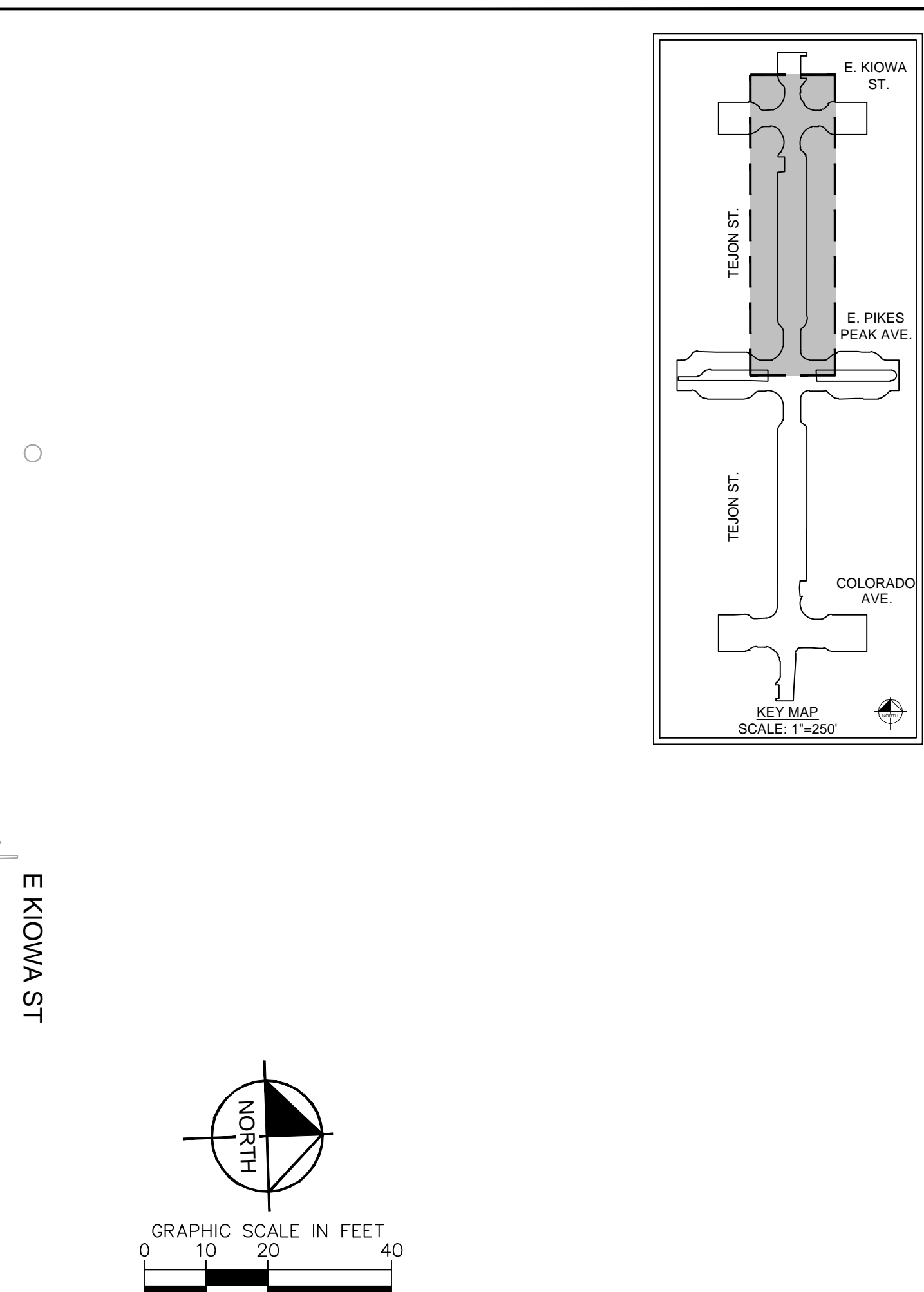
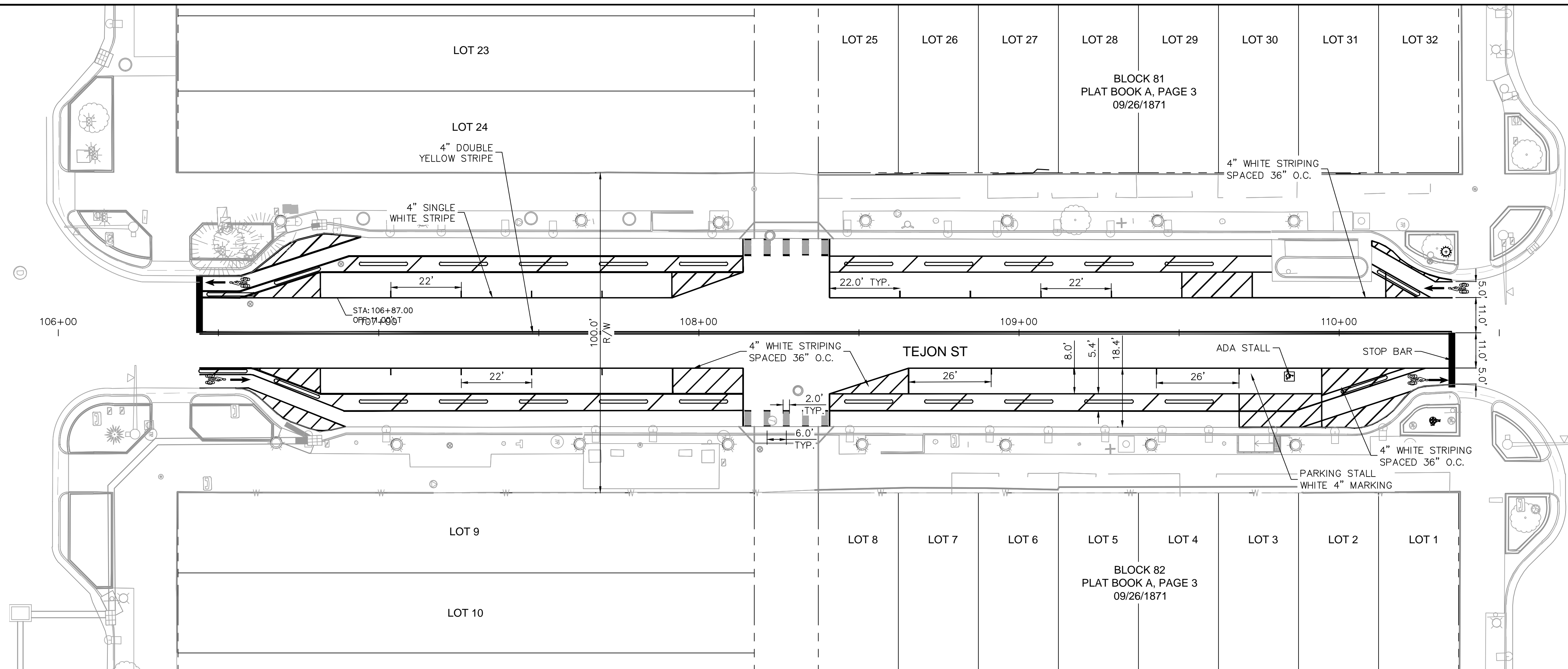
SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE

067607114

SHEET NUMBER 57

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\SNS-3.dwg - Kimley, Michael - 5/22/2024 10:58 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE AS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF
 THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



SIGNAGE NOTES:

- 1 YIELD TEETH (THERMOPLASTIC 1' X 1.5')
- 2 BIKER SYMBOL (THERMOPLASTIC, 6' X 3.5')
- 3 HANDICAP PARKING SYMBOL (THERMOPLASTIC, 3.125' X 3.125')
- 4 NEW SIGN AND POST
- 5 STRAIGHT BIKER ARROW (THERMOPLASTIC, 6' X 2')
- 6 STRAIGHT AND RIGHT BIKER ARROW (THERMOPLASTIC 6' X 4')

GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE INSTALLED PER CDOT S-627-1.
2. ALL LANE LINES ARE PROPOSED TO BE EPOXY. ALL CROSSWALKS, STOP BARS, AND SYMBOLS ARE PROPOSED TO BE THERMOPLASTIC.
3. ALL LOCATIONS OF PAVEMENT MARKING REMOVALS AND INSTALLATIONS SHALL BE VERIFIED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 SIGNAGE AND STRIPING PLAN – BASE BID

CHECKED BY: EJJ

DESIGNED BY: MJK

SHEET SUBSET: SUBSET SHEET:

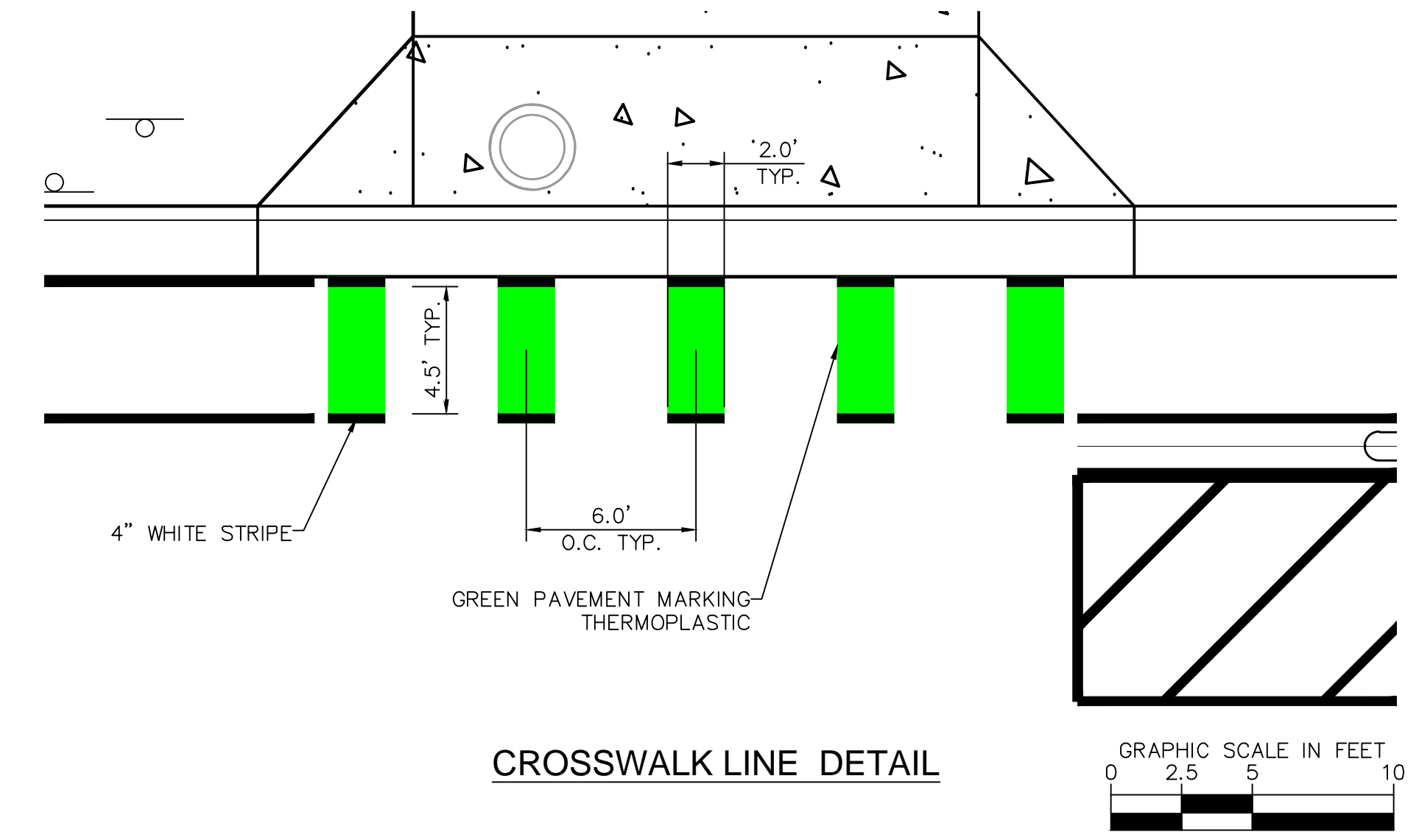
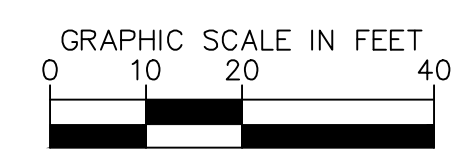
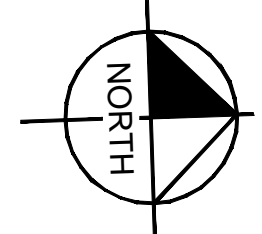
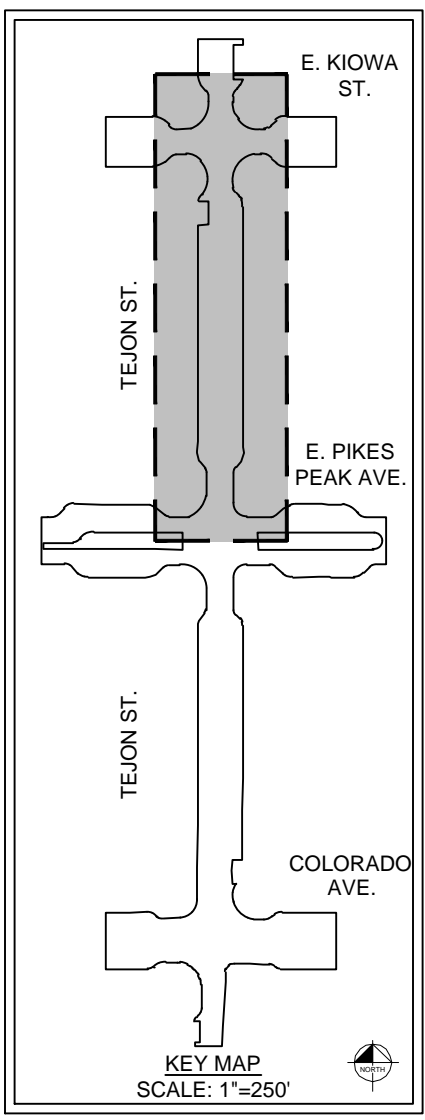
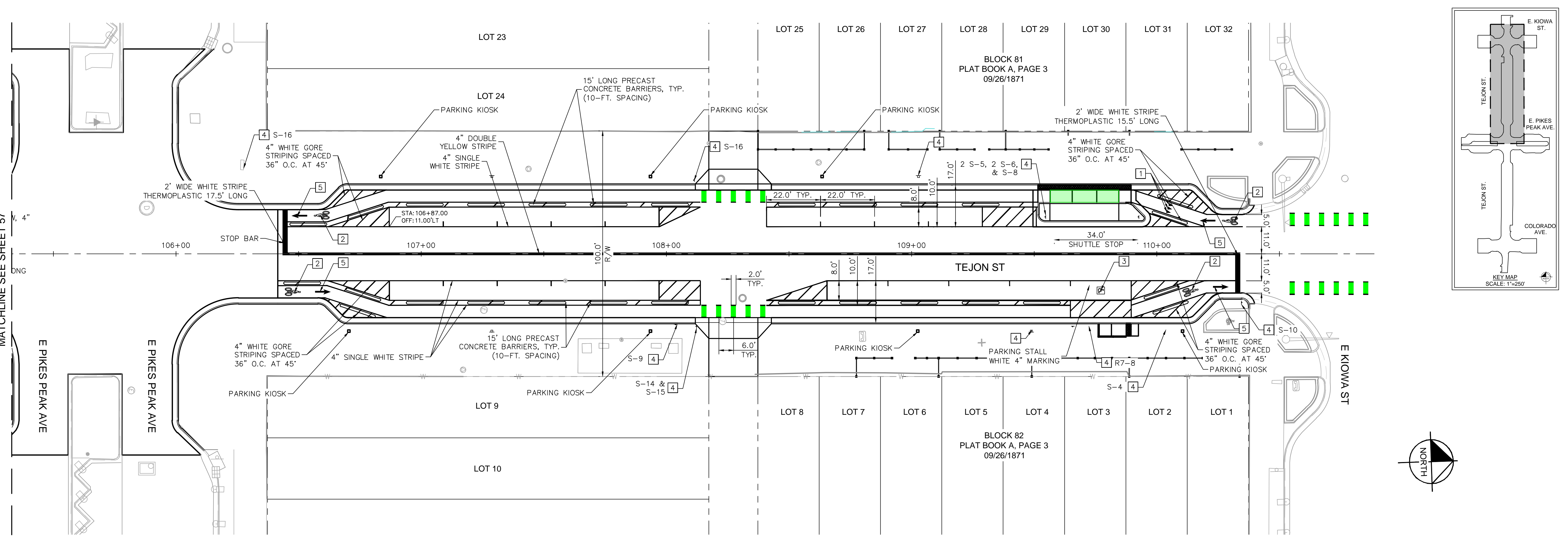
PROJECT NO./CODE

067607114

SHEET NUMBER 58

P:\cvs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-SNS.dwg Kramer, Michael 5/22/2024 10:58 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

MATCHLINE SEE SHEET 57



- SIGNAGE NOTES:**
- 1 YIELD TEETH (THERMOPLASTIC 1' X 1.5')
 - 2 BIKER SYMBOL (THERMOPLASTIC, PER BIKEWAY DESIGN MANUAL DETAIL BDS-2-1)
 - 3 HANDICAP PARKING SYMBOL (THERMOPLASTIC, 3.125' X 3.125')
 - 4 NEW SIGN AND POST
 - 5 STRAIGHT BIKER ARROW (THERMOPLASTIC, PER BIKEWAY DESIGN MANUAL DETAIL BDS-2-1)
 - 6 STRAIGHT AND RIGHT BIKER ARROW (THERMOPLASTIC 6' X 4')

- GENERAL NOTES:**
1. ALL PAVEMENT MARKINGS SHALL BE INSTALLED PER CITY OF COLORADO SPRINGS TRAFFIC ENGINEERING SIGNAGE AND PAVEMENT MARKINGS GUIDELINES AND STANDARD PAVEMENT MARKING CDOT S-627-1. CITY OF COLORADO SPRINGS CRITERIA SHALL TAKE PRECEDENCE.
 2. ALL LANE LINES ARE PROPOSED TO BE EPOXY. ALL CROSSWALKS, STOP BARS, AND SYMBOLS ARE PROPOSED TO BE THERMOPLASTIC.
 3. ALL LOCATIONS OF PAVEMENT MARKING REMOVALS AND INSTALLATIONS SHALL BE VERIFIED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley-Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 SIGNING AND STRIPING PLAN – BID ALT A

CHECKED BY: EJK
 DESIGNED BY: MJK
 SHEET SUBSET: SUBSET SHEET:

PROJECT NO./CODE
 067607114

SHEET NUMBER 59

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-SNS.dwg Kramer, Michael 5/22/2024 10:58 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



S-1
EXISTING SIGN TO BE SALVAGED AND REPLACED



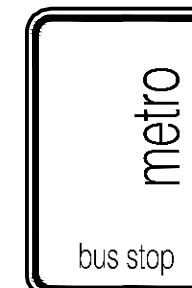
S-2
EXISTING SIGN TO BE SALVAGED AND REPLACED



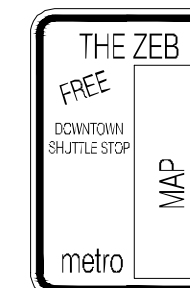
S-3
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-4
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-5
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-6
EXISTING SIGN TO BE SALVAGED AND REPLACED



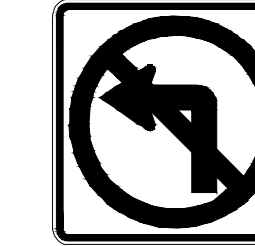
S-7
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-8
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-9
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-10
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-11
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-12
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-13
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-14
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-15
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-16
EXISTING SIGN TO BE SALVAGED AND REPLACED



S-17
EXISTING SIGN TO BE SALVAGED AND REPLACED

GENERAL NOTES:

- ALL PAVEMENT MARKINGS SHALL BE INSTALLED PER CITY OF COLORADO SPRINGS TRAFFIC ENGINEERING SIGNAGE AND PAVEMENT MARKINGS GUIDELINES AND STANDARD PAVEMENT MARKING CDOT S-627-1. CITY OF COLORADO SPRINGS CRITERIA SHALL TAKE PRECEDENCE.
- ALL LANE LINES ARE PROPOSED TO BE EPOXY. ALL CROSSWALKS, STOP BARS, AND SYMBOLS ARE PROPOSED TO BE THERMOPLASTIC.
- ALL LOCATIONS OF PAVEMENT MARKING REMOVALS AND INSTALLATIONS SHALL BE VERIFIED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION SIGNING DETAILS	
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

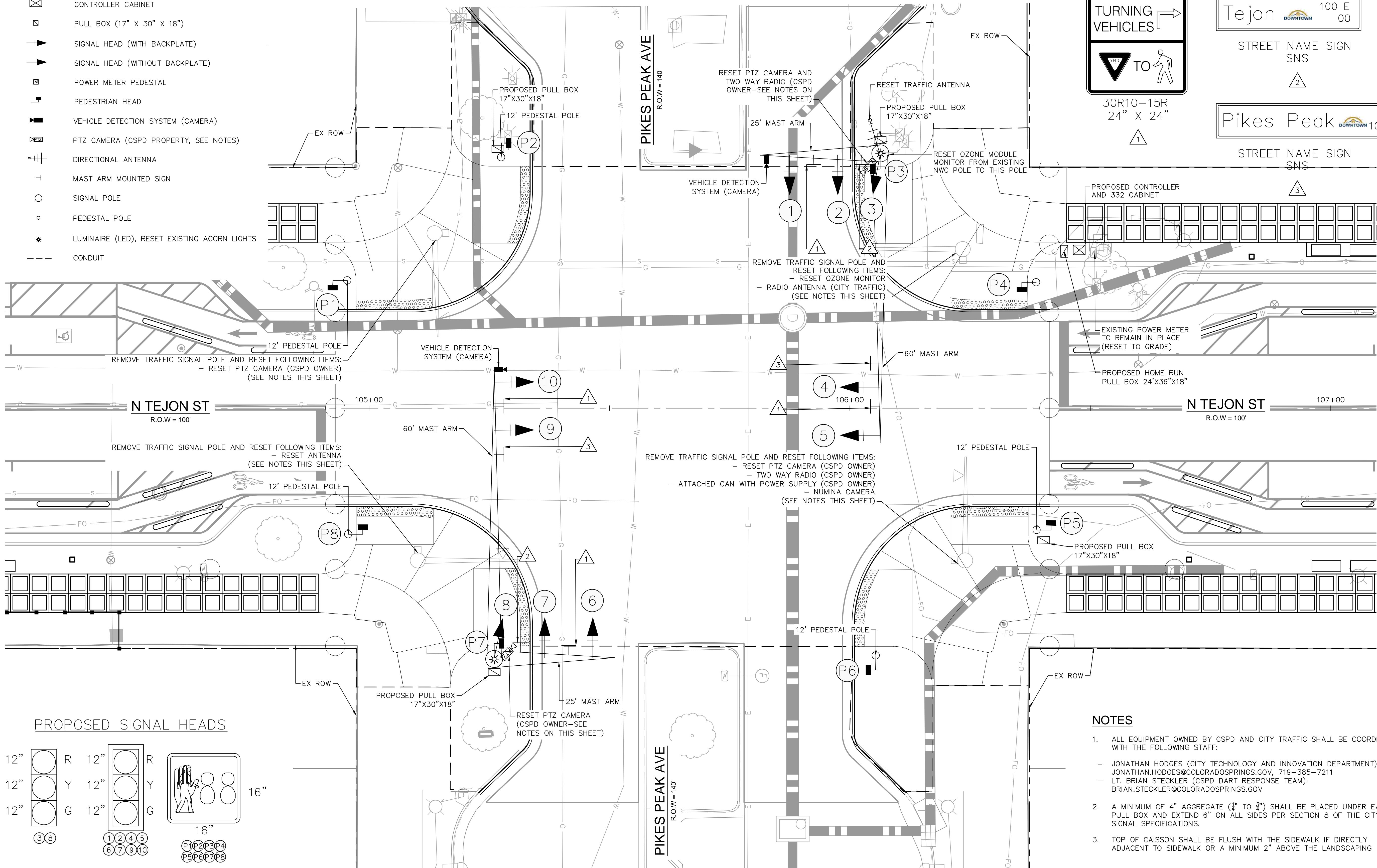
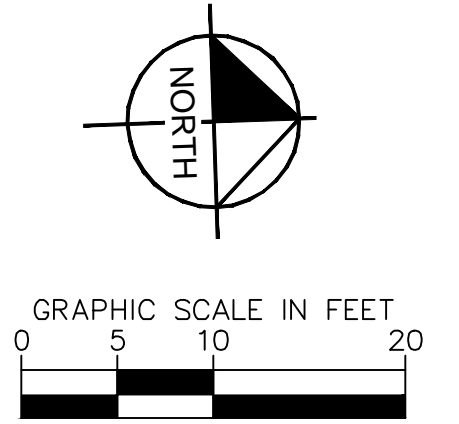
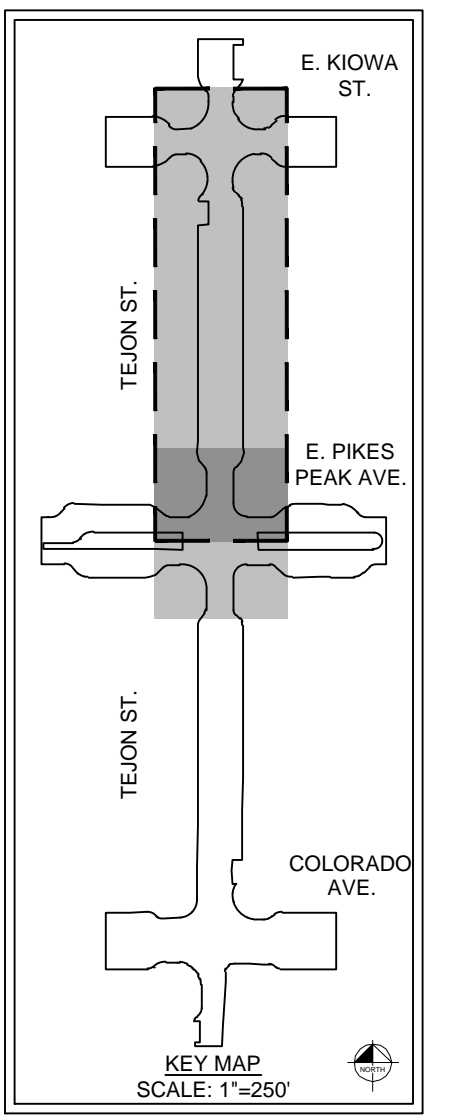
PROJECT NO./CODE
067607114
SHEET NUMBER 60

TRAFFIC SIGNAL LEGEND

- CONTROLLER CABINET
- PULL BOX (17" X 30" X 18")
- SIGNAL HEAD (WITH BACKPLATE)
- SIGNAL HEAD (WITHOUT BACKPLATE)
- POWER METER PEDESTAL
- PEDESTRIAN HEAD
- VEHICLE DETECTION SYSTEM (CAMERA)
- PTZ CAMERA (CSPD PROPERTY, SEE NOTES)
- DIRECTIONAL ANTENNA
- MAST ARM MOUNTED SIGN
- SIGNAL POLE
- PEDESTAL POLE
- LUMINAIRE (LED), RESET EXISTING ACORN LIGHTS
- CONDUIT

PROPOSED OVERHEAD SIGN LEGEND

- TURNING VEHICLES
30R10-15R
24" X 24"
- Tejon 100 E 00
STREET NAME SIGN SNS
- Pikes Peak 00 E 100
STREET NAME SIGN SNS

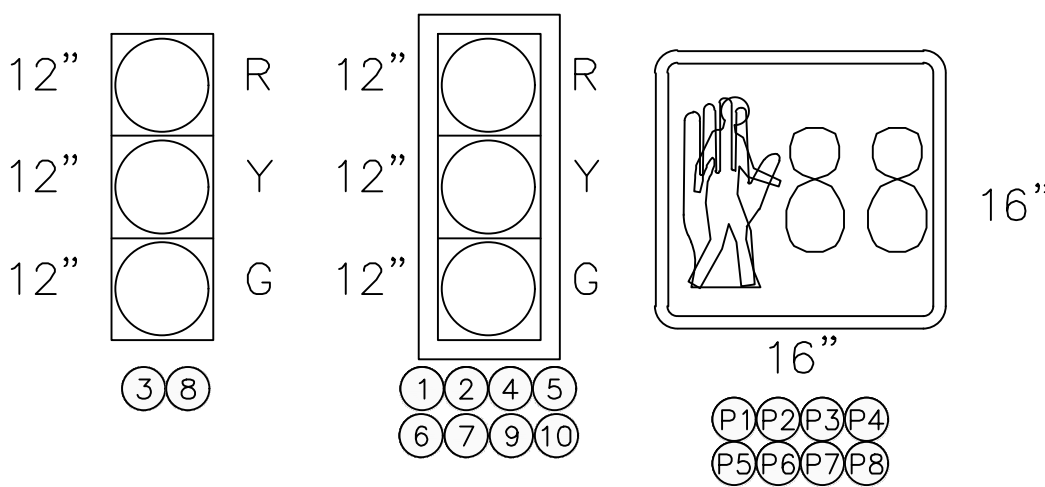


REMOVE TRAFFIC SIGNAL POLE AND RESET FOLLOWING ITEMS:
 - RESET PTZ CAMERA (CSPD OWNER)
 - TWO WAY RADIO (CSPD OWNER)
 - ATTACHED CAN WITH POWER SUPPLY (CSPD OWNER)
 - NUMINA CAMERA (SEE NOTES THIS SHEET)

REMOVE TRAFFIC SIGNAL POLE AND RESET FOLLOWING ITEMS:
 - RESET PTZ CAMERA (CSPD OWNER)
 (SEE NOTES THIS SHEET)

REMOVE TRAFFIC SIGNAL POLE AND RESET FOLLOWING ITEMS:
 - RESET ANTENNA
 (SEE NOTES THIS SHEET)

PROPOSED SIGNAL HEADS



NOTES

- ALL EQUIPMENT OWNED BY CSPD AND CITY TRAFFIC SHALL BE COORDINATED WITH THE FOLLOWING STAFF:
 - JONATHAN HODGES (CITY TECHNOLOGY AND INNOVATION DEPARTMENT): JONATHAN.HODGES@COLORADOSPRINGS.GOV, 719-385-7211
 - LT. BRIAN STECKLER (CSPD DART RESPONSE TEAM): BRIAN.STECKLER@COLORADOSPRINGS.GOV
- A MINIMUM OF 4" AGGREGATE (1/2" TO 3/4") SHALL BE PLACED UNDER EACH PULL BOX AND EXTEND 6" ON ALL SIDES PER SECTION 8 OF THE CITY SIGNAL SPECIFICATIONS.
- TOP OF CAISSON SHALL BE FLUSH WITH THE SIDEWALK IF DIRECTLY ADJACENT TO SIDEWALK OR A MINIMUM 2" ABOVE THE LANDSCAPING

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS
 OLYMPIC CITY USA
 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 TRAFFIC SIGNAL(BID ALT A) PLAN

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

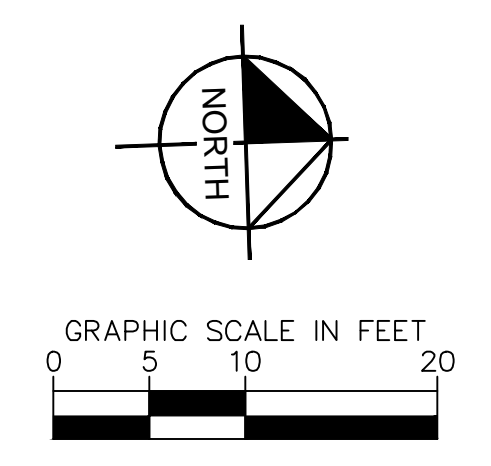
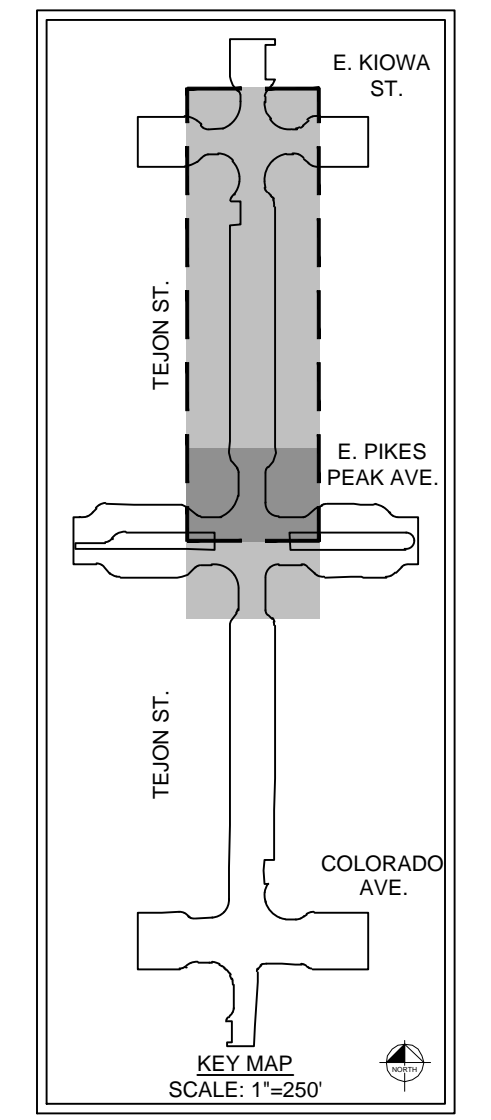
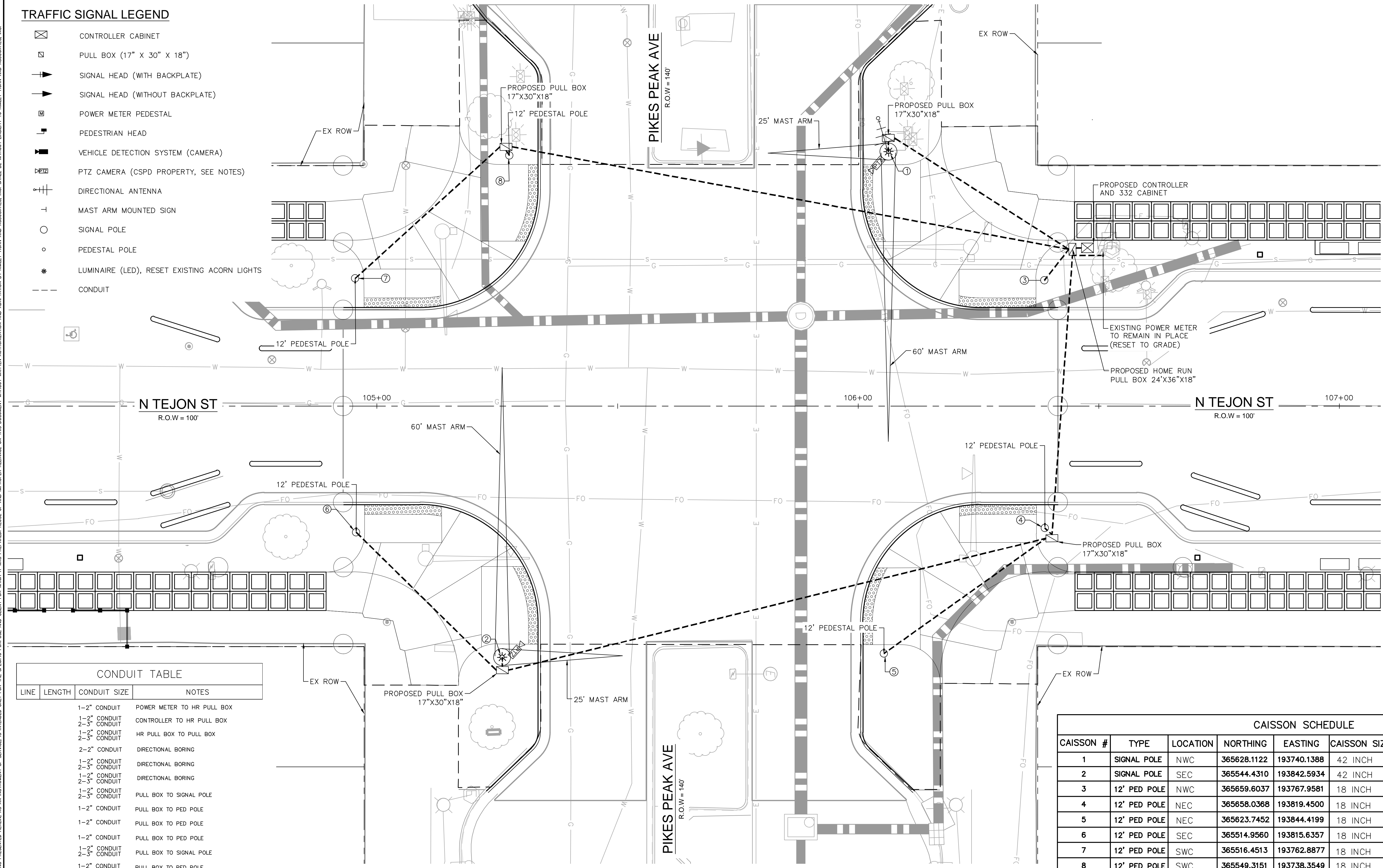
PROJECT NO./CODE
 067607114
SHEET NUMBER 61

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-TRAFFIC SIGNAL.dwg Krcmcr, Michael 5/22/2024 10:58 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSES AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-TRAFFIC_SIGNAL.dwg Krcmcr, Michael 5/22/2024 10:58 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSES AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

TRAFFIC SIGNAL LEGEND

- ☒ CONTROLLER CABINET
- ☐ PULL BOX (17" X 30" X 18")
- ▶ SIGNAL HEAD (WITH BACKPLATE)
- ▶ SIGNAL HEAD (WITHOUT BACKPLATE)
- ☐ POWER METER PEDESTAL
- ▶ PEDESTRIAN HEAD
- ▶ VEHICLE DETECTION SYSTEM (CAMERA)
- ▶ PTZ CAMERA (CSPD PROPERTY, SEE NOTES)
- ⊕ DIRECTIONAL ANTENNA
- ├ MAST ARM MOUNTED SIGN
- SIGNAL POLE
- PEDESTAL POLE
- * LUMINAIRE (LED), RESET EXISTING ACORN LIGHTS
- - - CONDUIT



LINE	LENGTH	CONDUIT SIZE	NOTES
1-2"		CONDUIT	POWER METER TO HR PULL BOX
1-2"		CONDUIT	CONTROLLER TO HR PULL BOX
2-3"		CONDUIT	HR PULL BOX TO PULL BOX
1-2"		CONDUIT	DIRECTIONAL BORING
1-2"		CONDUIT	DIRECTIONAL BORING
1-2"		CONDUIT	DIRECTIONAL BORING
1-2"		CONDUIT	PULL BOX TO SIGNAL POLE
1-2"		CONDUIT	PULL BOX TO PED POLE
1-2"		CONDUIT	PULL BOX TO PED POLE
1-2"		CONDUIT	PULL BOX TO PED POLE
1-2"		CONDUIT	PULL BOX TO SIGNAL POLE
1-2"		CONDUIT	PULL BOX TO PED POLE
1-2"		CONDUIT	PULL BOX TO PED POLE
1-2"		CONDUIT	PULL BOX TO PED POLE

CAISSON SCHEDULE							
CAISSON #	TYPE	LOCATION	NORTHING	EASTING	CAISSON SIZE	CAISSON DEPTH	MAST ARM LENGTH
1	SIGNAL POLE	NWC	365628.1122	193740.1388	42 INCH	21 FEET	25' & 60'
2	SIGNAL POLE	SEC	365544.4310	193842.5934	42 INCH	21 FEET	25' & 60'
3	12' PED POLE	NWC	365659.6037	193767.9581	18 INCH	6 FEET	N/A
4	12' PED POLE	NEC	365658.0368	193819.4500	18 INCH	6 FEET	N/A
5	12' PED POLE	NEC	365623.7452	193844.4199	18 INCH	6 FEET	N/A
6	12' PED POLE	SEC	365514.9560	193815.6357	18 INCH	6 FEET	N/A
7	12' PED POLE	SWC	365516.4513	193762.8877	18 INCH	6 FEET	N/A
8	12' PED POLE	SWC	365549.3151	193738.3549	18 INCH	6 FEET	N/A

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 TRAFFIC SIGNAL CONDUIT PLAN (BID ALT A) PLAN

CHECKED BY: EJC
 DESIGNED BY: MJK

SHEET SUBSET: SUBSET SHEET:

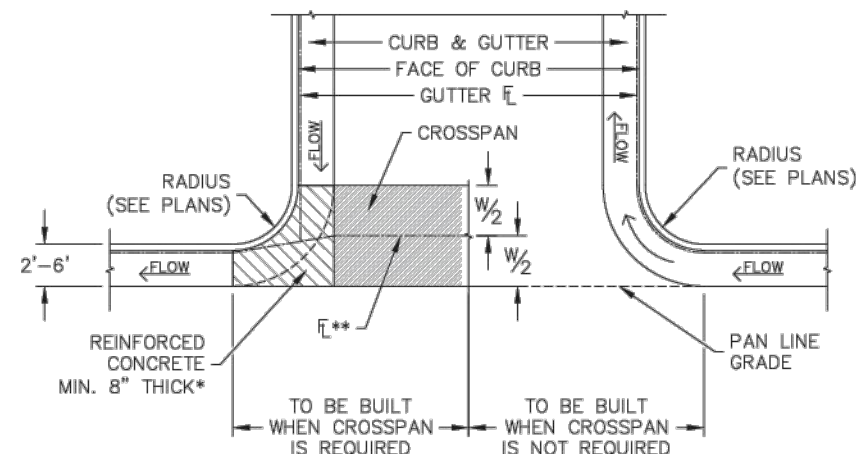
PROJECT NO./CODE

067607114

SHEET NUMBER 62

P:\CS\civil\06760714_tejon_street_improvements\CADD\plansheets\CDs\CD-CONSTRUCTION DETAILS.dwg Krcmer, Michael 5/22/2024 10:59 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PORTION OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

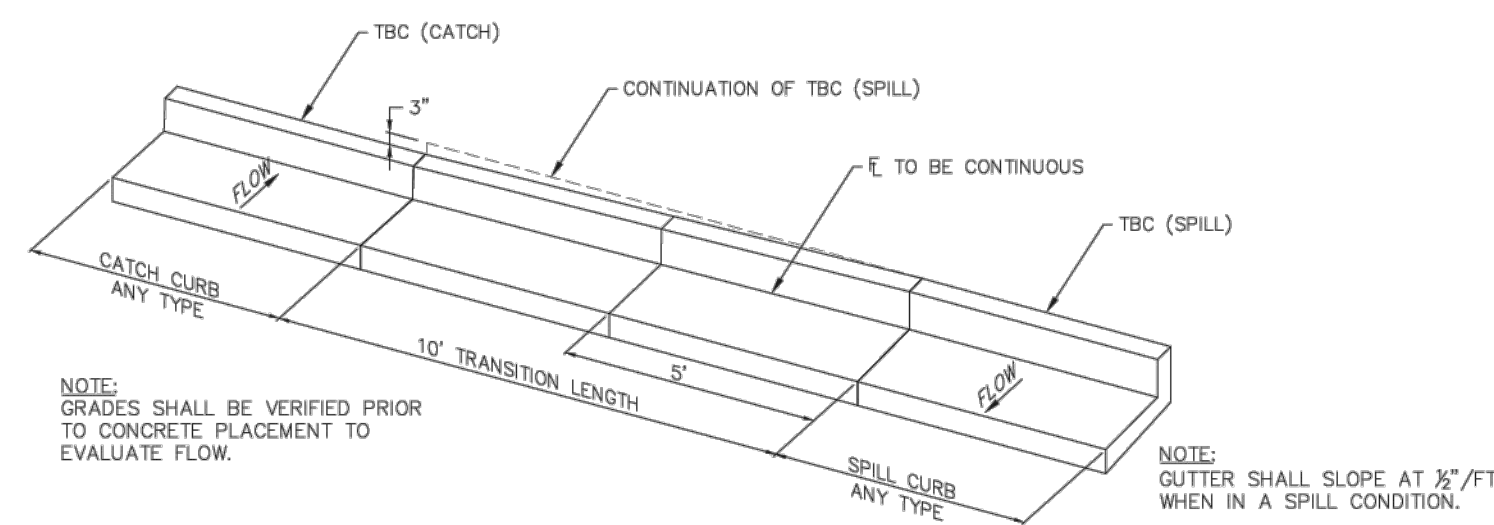
- GENERAL NOTES:**
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT CITY OF COLORADO SPRINGS ENGINEERING DIVISION (THE CITY) STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS. FOR CITY PERMITS CONTRACTORS SHALL USE THE ACEELA ON-LINE PERMIT SYSTEM. ONCE CITY PERMITS ARE APPROVED AND PAID, THEN APPROPRIATE SCHEDULING AND NOTIFICATIONS SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.
 - PRIOR TO OPENING TO TRAFFIC, CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,200 PSI AS DEMONSTRATED BY FIELD CURE CYLINDERS, AND USE A CITY APPROVED CONCRETE MIX.
 - 1-INCH DEEP TOOL JOINTS SHALL BE INSTALLED AT 10-FOOT SPACING.
 - A BROOM FINISH, WITH SWEEPS IN THE DIRECTION OF FLOW SHALL BE APPLIED TO ALL GUTTER PANS.
 - THE CONTRACTOR SHALL STAMP THEIR COMPANY NAME AND CONSTRUCTION DATE A MINIMUM EVERY 100-FEET OR FRACTION THEREOF ON FRONT FACE OF CURB.
 - NEW ASPHALT SHALL NOT BE PLACED AGAINST FRESHLY POURED CONCRETE. CONCRETE SHALL BE 5-DAYS OLD OR HAVE A COMPRESSIVE STRENGTH OF 3,200 PSI AS DEMONSTRATED BY FIELD CURE CYLINDERS.
 - ALL CURB TRANSITIONS (ONE TYPE TO ANOTHER) WILL BE 10-FOOT UNLESS OTHERWISE NOTED.
 - CONTACT THE CITY FORESTRY DIVISION, PRIOR TO STARTING WORK, IF IT IS NECESSARY TO DISTURB TREES OR ROOTS.
 - WHITE CURE SHALL BE PLACED WITH 100% COVERAGE, AND MEET THE SPECIFICATION OF SECTION 500.
 - GUTTER IN/OUT SLOPES AT CURB CUTS FOR CURB RAMPS SHALL BE LESS THAN 5% AND BE A.D.A. COMPLIANT (SEE CURB RAMP DETAILS).
 - CURB ENDINGS SHALL BE PLACED WHERE CURB AND GUTTER DEAD-ENDS.
 - CURB CUTS FOR DRIVEWAYS ARE SHOWN ON THE DRIVEWAY DETAILS.



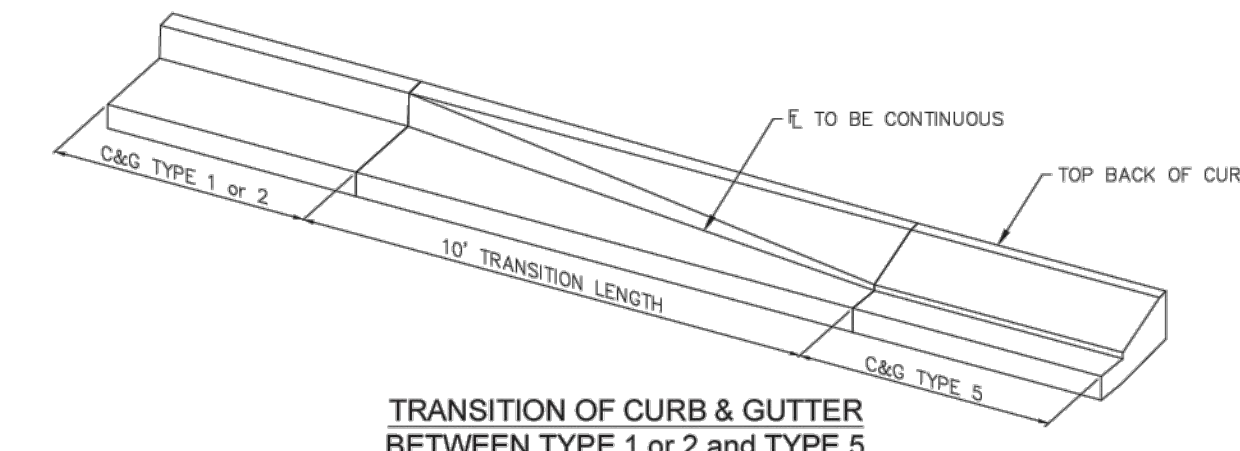
*THIS AREA SHALL BE POURED MONOLITHICALLY WITH CURB AND GUTTER AND PAID FOR AS REINFORCED CONCRETE 8".
 **FLOW LINE IN CROSSSPAN ESTABLISHED BY W/2.

CONSTRUCTION OF CONCRETE GUTTERS AT INTERSECTION

CURB & GUTTER GENERAL NOTES & DETAILS	
APPROVED:	<i>Jayle Stewardant</i> CITY ENGINEER
ISSUED:	1/19/20
REVISION:	DRAWING NO. 6A

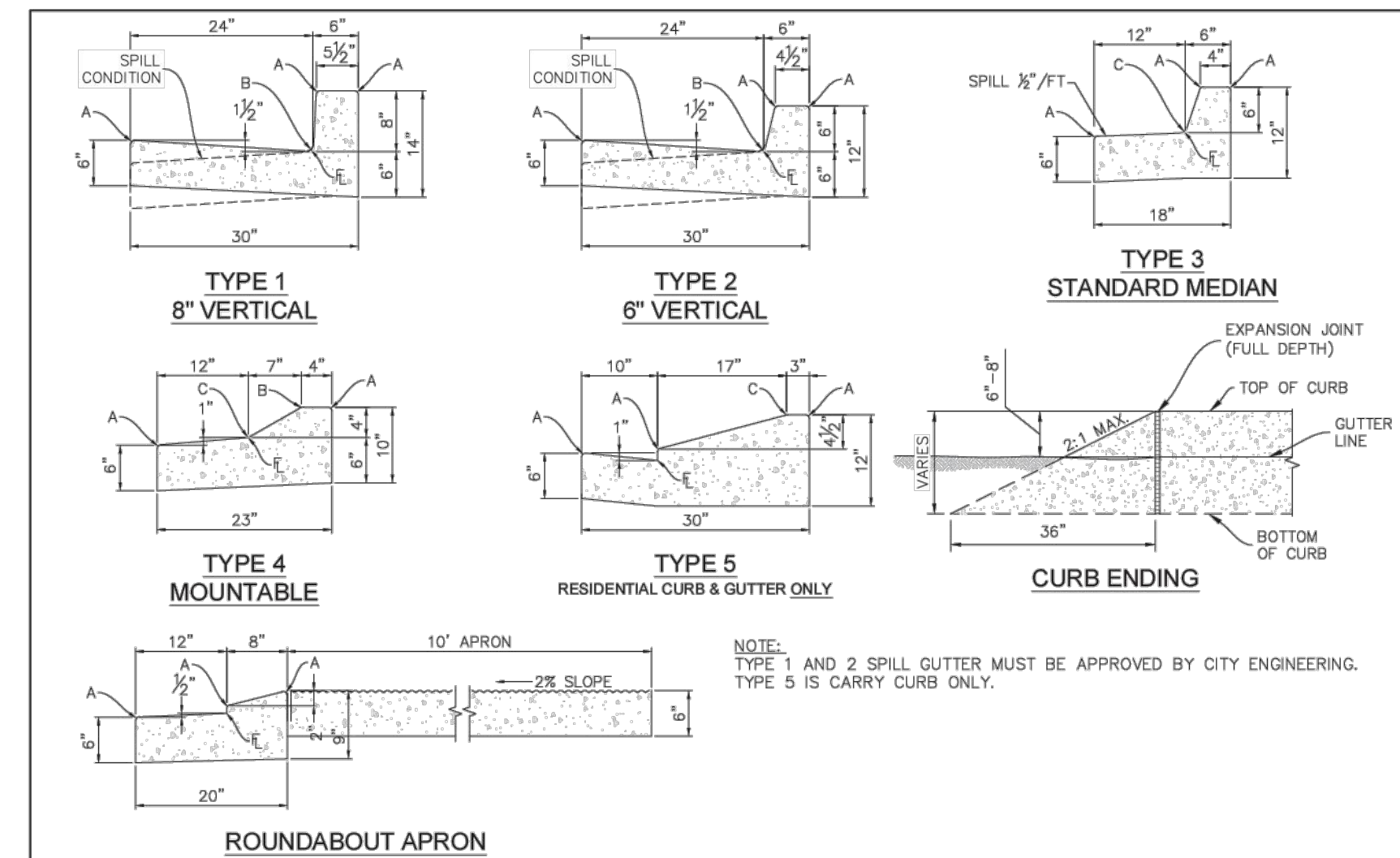


TRANSITION OF CURB & GUTTER BETWEEN CATCH and SPILL



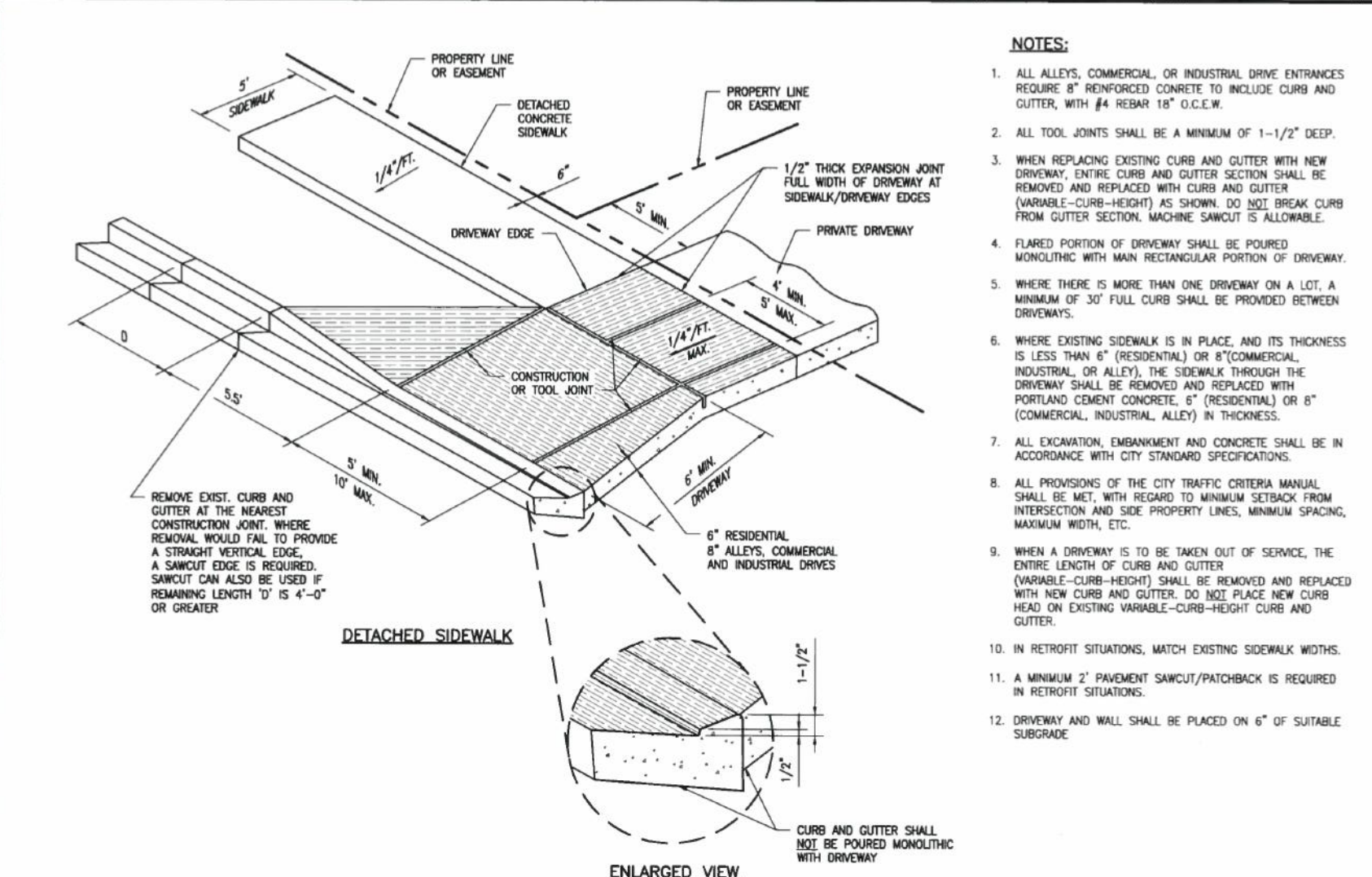
TRANSITION OF CURB & GUTTER BETWEEN TYPE 1 or 2 and TYPE 5

CURB & GUTTER TRANSITIONS	
APPROVED:	<i>Jayle Stewardant</i> CITY ENGINEER
ISSUED:	1/19/20
REVISION:	DRAWING NO. 6C



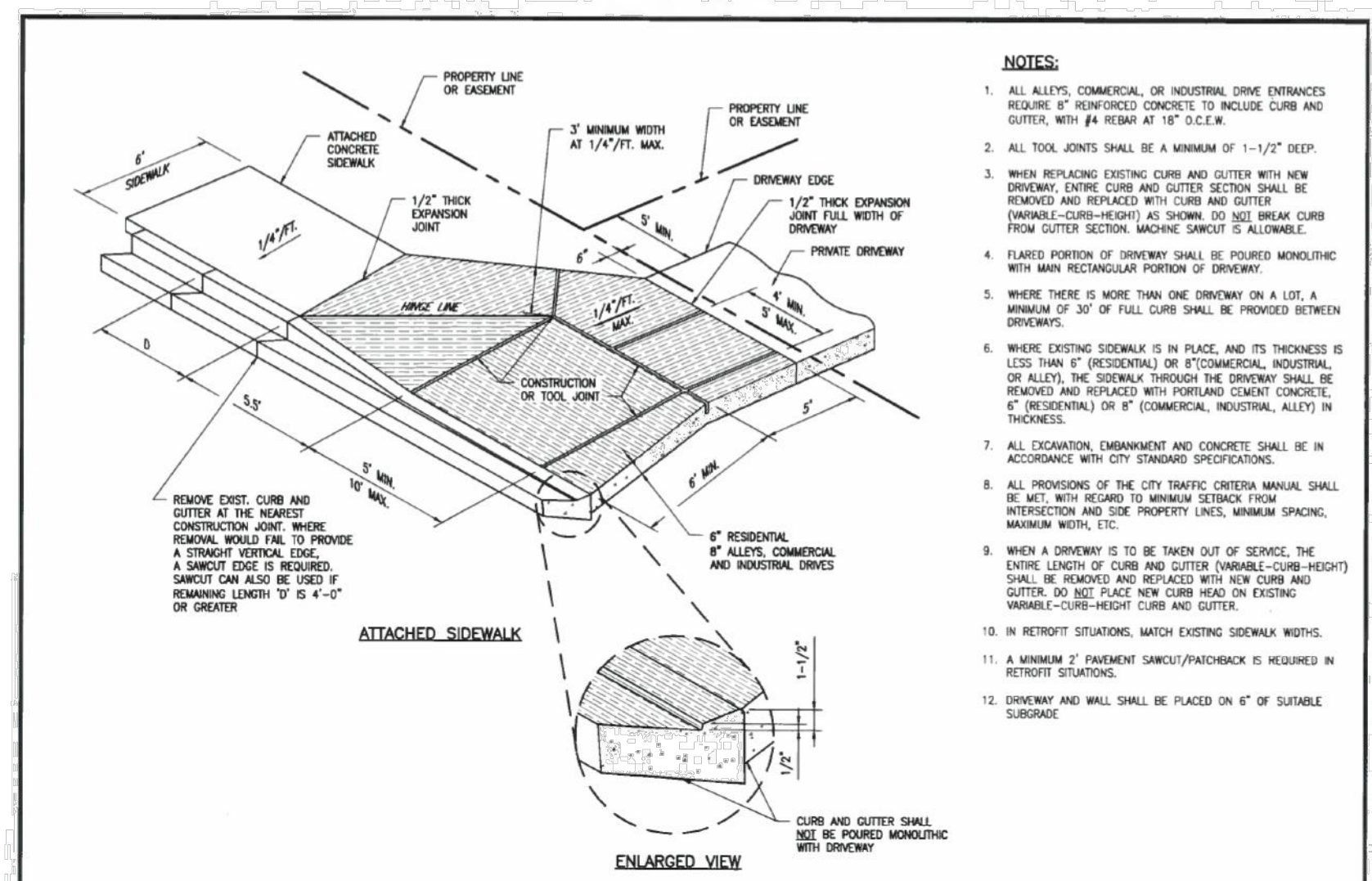
RADI LEGEND	
A	1/4" - 1/2"
B	1 1/2"
C	1 1/2" - 2"

CURB & GUTTER DETAILS	
APPROVED:	<i>Jayle Stewardant</i> CITY ENGINEER
ISSUED:	1/19/20
REVISION:	DRAWING NO. 6D



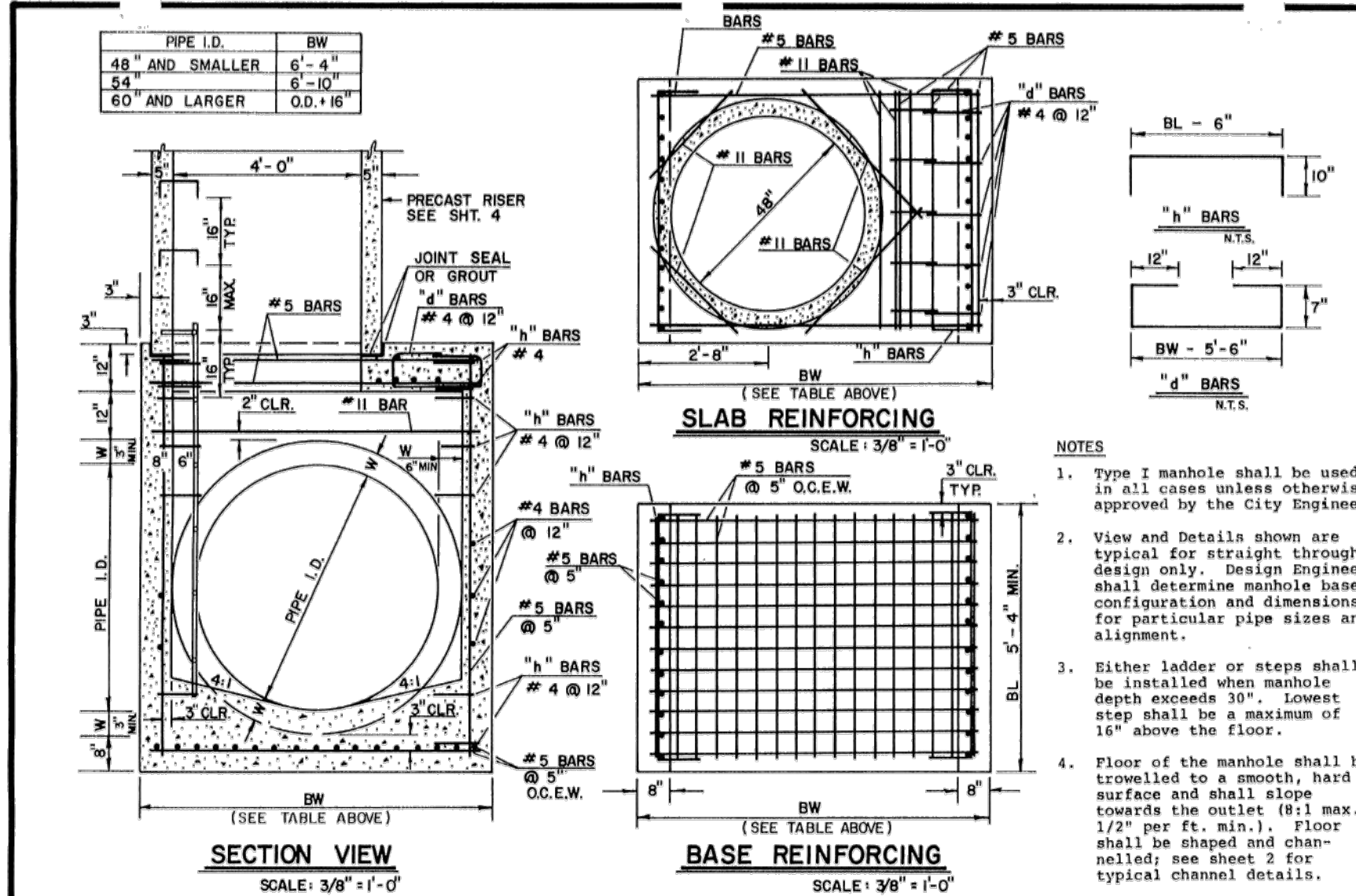
- NOTES:**
- ALL ALLEYS, COMMERCIAL, OR INDUSTRIAL DRIVE ENTRANCES REQUIRE 8" REINFORCED CONCRETE TO INCLUDE CURB AND GUTTER, WITH #4 REBAR 18" O.C.E.W.
 - ALL TOOL JOINTS SHALL BE A MINIMUM OF 1'-1/2" DEEP.
 - WHEN REPLACING EXISTING CURB AND GUTTER WITH NEW DRIVEWAY, ENTIRE CURB AND GUTTER SECTION SHALL BE REMOVED AND REPLACED WITH CURB AND GUTTER (VARIABLE-CURB-HEIGHT) AS SHOWN. DO NOT BREAK CURB FROM GUTTER SECTION. MACHINE SAWCUT IS ALLOWABLE.
 - FLARED PORTION OF DRIVEWAY SHALL BE POURED MONOLITHIC WITH MAIN RECTANGULAR PORTION OF DRIVEWAY.
 - WHERE THERE IS MORE THAN ONE DRIVEWAY ON A LOT, A MINIMUM OF 30' FULL CURB SHALL BE PROVIDED BETWEEN DRIVEWAYS.
 - WHERE EXISTING SIDEWALK IS IN PLACE, AND ITS THICKNESS IS LESS THAN 6" (RESIDENTIAL) OR 8" (COMMERCIAL, INDUSTRIAL, OR ALLEY), THE SIDEWALK THROUGH THE DRIVEWAY SHALL BE REMOVED AND REPLACED WITH PORTLAND CEMENT CONCRETE 4" (RESIDENTIAL) OR 8" (COMMERCIAL, INDUSTRIAL, ALLEY) IN THICKNESS.
 - ALL EXCAVATION, EMBANKMENT AND CONCRETE SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.
 - ALL PROVISIONS OF THE CITY TRAFFIC CRITERIA MANUAL SHALL BE MET WITH REGARD TO MINIMUM SETBACK FROM INTERSECTION AND SIDE PROPERTY LINES, MINIMUM SPACING, MAXIMUM WIDTH, ETC.
 - WHEN A DRIVEWAY IS TO BE TAKEN OUT OF SERVICE, THE ENTIRE LENGTH OF CURB AND GUTTER (VARIABLE-CURB-HEIGHT) SHALL BE REMOVED AND REPLACED WITH NEW CURB AND GUTTER. DO NOT PLACE NEW CURB HEAD ON EXISTING VARIABLE-CURB-HEIGHT CURB AND GUTTER.
 - IN RETROFIT SITUATIONS, MATCH EXISTING SIDEWALK WIDTHS.
 - IN RETROFIT SITUATIONS, MATCH EXISTING SIDEWALK WIDTHS.
 - A MINIMUM 2" FLOORING SAWCUT/PATCHBACK IS REQUIRED IN RETROFIT SITUATIONS.
 - DRIVEWAY AND WALL SHALL BE PLACED ON 6" OF SUITABLE SUBGRADE.

STANDARD DRIVEWAY WITH DETACHED WALK DETAIL	
ISSUED:	10/2017
REVISION:	-
APPROVED BY:	<i>Jayle Stewardant</i> CITY ENGINEER
DRAWING NO.:	D-16B



- NOTES:**
- ALL ALLEYS, COMMERCIAL, OR INDUSTRIAL DRIVE ENTRANCES REQUIRE 8" REINFORCED CONCRETE TO INCLUDE CURB AND GUTTER, WITH #4 REBAR AT 18" O.C.E.W.
 - ALL TOOL JOINTS SHALL BE A MINIMUM OF 1'-1/2" DEEP.
 - WHEN REPLACING EXISTING CURB AND GUTTER WITH NEW DRIVEWAY, ENTIRE CURB AND GUTTER SECTION SHALL BE REMOVED AND REPLACED WITH CURB AND GUTTER (VARIABLE-CURB-HEIGHT) AS SHOWN. DO NOT BREAK CURB FROM GUTTER SECTION. MACHINE SAWCUT IS ALLOWABLE.
 - FLARED PORTION OF DRIVEWAY SHALL BE POURED MONOLITHIC WITH MAIN RECTANGULAR PORTION OF DRIVEWAY.
 - WHERE THERE IS MORE THAN ONE DRIVEWAY ON A LOT, A MINIMUM OF 30' FULL CURB SHALL BE PROVIDED BETWEEN DRIVEWAYS.
 - WHERE EXISTING SIDEWALK IS IN PLACE, AND ITS THICKNESS IS LESS THAN 6" (RESIDENTIAL) OR 8" (COMMERCIAL, INDUSTRIAL, OR ALLEY), THE SIDEWALK THROUGH THE DRIVEWAY SHALL BE REMOVED AND REPLACED WITH PORTLAND CEMENT CONCRETE 4" (RESIDENTIAL) OR 8" (COMMERCIAL, INDUSTRIAL, ALLEY) IN THICKNESS.
 - ALL EXCAVATION, EMBANKMENT AND CONCRETE SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.
 - ALL PROVISIONS OF THE CITY TRAFFIC CRITERIA MANUAL SHALL BE MET WITH REGARD TO MINIMUM SETBACK FROM INTERSECTION AND SIDE PROPERTY LINES, MINIMUM SPACING, MAXIMUM WIDTH, ETC.
 - WHEN A DRIVEWAY IS TO BE TAKEN OUT OF SERVICE, THE ENTIRE LENGTH OF CURB AND GUTTER (VARIABLE-CURB-HEIGHT) SHALL BE REMOVED AND REPLACED WITH NEW CURB AND GUTTER. DO NOT PLACE NEW CURB HEAD ON EXISTING VARIABLE-CURB-HEIGHT CURB AND GUTTER.
 - IN RETROFIT SITUATIONS, MATCH EXISTING SIDEWALK WIDTHS.
 - IN RETROFIT SITUATIONS, MATCH EXISTING SIDEWALK WIDTHS.
 - A MINIMUM 2" FLOORING SAWCUT/PATCHBACK IS REQUIRED IN RETROFIT SITUATIONS.
 - DRIVEWAY AND WALL SHALL BE PLACED ON 6" OF SUITABLE SUBGRADE.

STANDARD DRIVEWAY WITH ATTACHED WALK DETAIL	
ISSUED:	10/2017
REVISION:	-
APPROVED BY:	<i>Jayle Stewardant</i> CITY ENGINEER
DRAWING NO.:	D-16A



- NOTES:**
- Type I manhole shall be used in all cases unless otherwise approved by the City Engineer.
 - View and details shown are typical for straight through design only. Design Engineer shall determine manhole base configuration and dimensions for particular pipe sizes and alignment.
 - Either ladder or steps shall be installed when manhole depth exceeds 30". Lowest step shall be a maximum of 16" above the floor.
 - Floor of the manhole shall be trowelled to a smooth, hard surface and shall slope towards the outlet (if max. 1/2" per ft. min.). Floor shall be shaped and channelled; see sheet 2 for typical channel details.

CITY OF COLORADO SPRINGS STORM SEWER MANHOLE-TYPE I	
APPROVED BY:	<i>Kyle R. Humes</i> CITY ENGINEER
SCALE:	AS SHOWN
DATE:	JAN. 89
DRAWN:	PL.B
SHEET:	D-20A 1 OF 4

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION CONSTRUCTION DETAILS

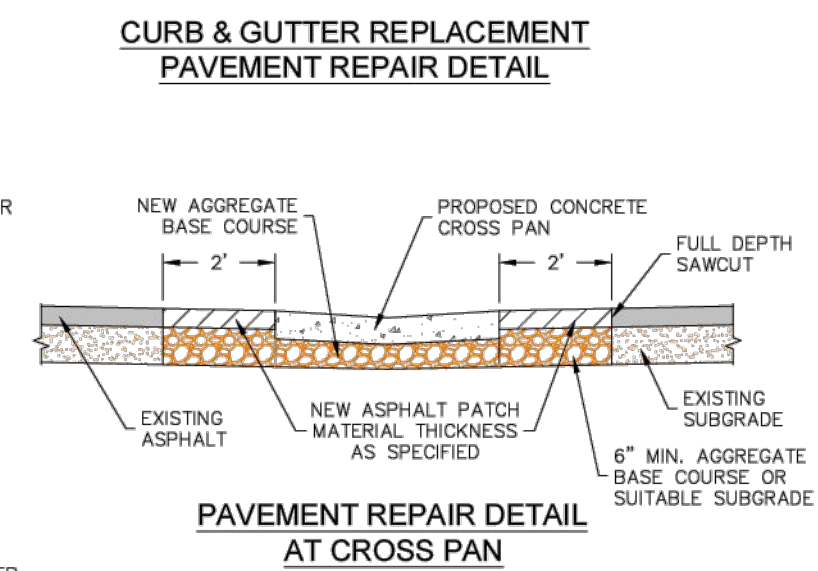
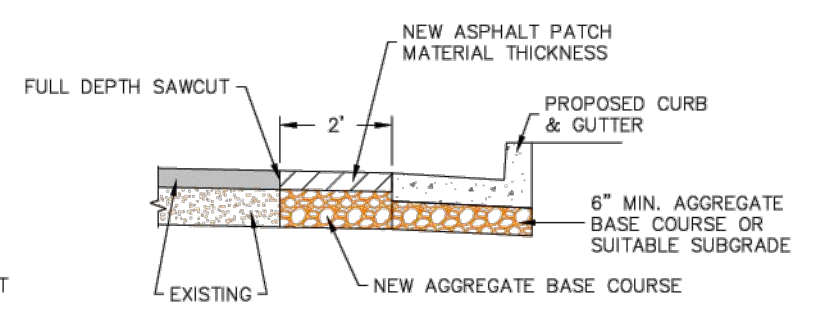
CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE	067607114
SHEET NUMBER	63

P:\cscs_civil\067607114_tepn_street_improvements\CADD\plan_sheets\CDS_CD-CONSTRUCTION_DETAILS.dwg Krcmer, Michael 5/22/2024, 10:59 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCRETS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

General Notes:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT CITY OF COLORADO SPRINGS ENGINEERING DIVISION (THE CITY) STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS. FOR CITY PERMITS CONTRACTORS SHALL USE THE ACELA ON-LINE PERMIT SYSTEM. ONCE CITY PERMITS ARE APPROVED AND PAID, THEN APPROPRIATE SCHEDULING AND NOTIFICATIONS SHALL BE IN ACELA.
- PRIOR TO CUTTING INTO A ROADWAY, A MEETING IS REQUIRED WITH CITY ENGINEERING.
- HOT MIX ASPHALT (ASPHALT PAVING MATERIAL) SHALL MEET THE REQUIREMENTS OF THE Pikes Peak ASPHALT SPECIFICATION AND BE AN APPROVED CITY MIX.
- EXISTING PAVEMENT MAY BE INITIALLY ROUGH CUT, A SQUARE, VERTICAL CUT SHALL BE MADE IN THE EXISTING ASPHALT PAVEMENT PRIOR TO PAVEMENT PLACEMENT.
- NEW ASPHALT SHALL NOT BE PLACED AGAINST FRESHLY POURED CONCRETE. CONCRETE SHALL BE 5-DAYS OLD OR HAVE REACHED A COMPRESSIVE STRENGTH OF 3,200 PSI AS DEMONSTRATED BY FIELD CURE CYLINDERS.
- A TACK COAT SHALL BE APPLIED TO ALL VERTICAL EDGES INCLUDING CONCRETE EDGES. THE TACK COAT SHALL HAVE 100% COVERAGE AND BE APPLIED BETWEEN LIFTS.
- NEW ASPHALT PATCH SHALL BE PLACED ON COMPACTED AGGREGATE BASE COURSE PER CITY STANDARDS OR CTS.
- THE NEW PAVEMENT SECTION SHALL MATCH EXISTING PAVEMENT REPORT, FOR ROADWAYS WHERE THE SUBGRADE IS CHEMICALLY TREATED (CTS), CTS OR FLOW-FILL SHALL BE EQUIVALENT TO THE REQUIREMENT IN THE PAVEMENT DESIGN REPORT. A MINIMUM PAVEMENT SECTION OF:
 - RESIDENTIAL/COLLECTOR...6-INCHES OF CLASS 6 AGGREGATE BASE COURSE WITH 6-INCHES OF ASPHALT PAVING MATERIAL;
 - ARTERIAL...12-INCHES OF CLASS 6 AGGREGATE BASE COURSE WITH 6-INCHES OF ASPHALT PAVING MATERIAL.
- ALTERNATE REPAIR SECTIONS MAY BE APPROVED PROVIDED THEY ARE COMPLETED BY THE PAVEMENT DESIGN GEOTECHNICAL ENGINEER AND APPROVED BY CITY ENGINEERING.
- IF A PLATE TAMPER IS USED FOR COMPACTION OF ASPHALT, THE MAXIMUM LOOSE LIFT THICKNESS SHALL BE 2-INCHES.
- ANY DISTURBED PAVEMENT MARKINGS SHALL BE RESTORED TO CITY STANDARDS.
- THESE DETAILS ARE FOR PAVEMENT CUTS LESS THAN 200-SF. CUTS GREATER THAN 200-SF SHALL BE IN CONFORMANCE WITH AN ENGINEERED DESIGN.
- CLSM (FLOW-FILL) IS REQUIRED AS BACKFILL FOR TRENCHES LESS THAN 1-FOOT IN WIDTH AND ALL CORES. CLSM SHALL NOT EXTEND INTO PAVEMENT SECTION.
- WHERE CONCRETE PAVEMENT EXISTS BELOW THE ASPHALT, NEW CONCRETE SHALL BE PLACED TO MATCH THE EXISTING CONCRETE THICKNESS.
- NEW HOT-MIX ASPHALT (ASPHALT PAVING MATERIAL) SHALL BE FLUSH TO EXISTING ASPHALT AND CONCRETE EDGES AND SHALL NOT HAVE HUMPS OR VALLEYS.



ASPHALT PAVEMENT REPAIR ADJACENT TO NEW CONCRETE GENERAL NOTES & DETAILS

APPROVED: *Jayla Stewardant*
CITY ENGINEER

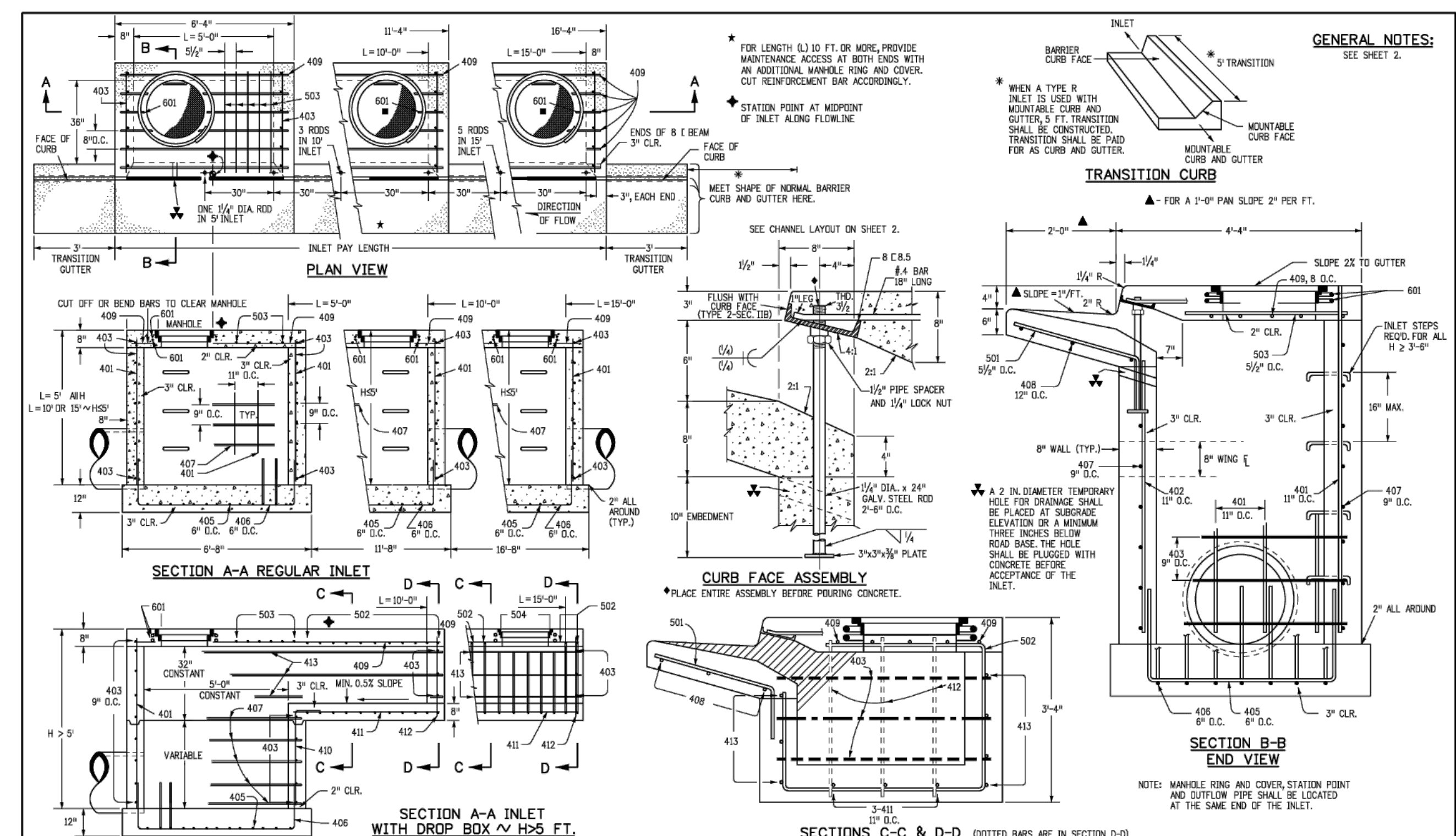
DATE: 1/18/20 DRAWING NO. 3A

NOTE: EXACT RESTORATION LIMITS/LOCATIONS SHALL BE APPROVED BY A CITY REPRESENTATIVE PRIOR TO REPAIRS.

ASPHALT PAVEMENT REPAIR ADJACENT TO NEW CONCRETE RESTORATION LIMITS

APPROVED: *Jayla Stewardant*
CITY ENGINEER

DATE: 1/18/20 DRAWING NO. 3B



Computer File Information

Creation Date: 07/31/19
Designer: JBK
Last Modification Date: 07/31/19
Detailer: LTA
CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date	Comments

Colorado Department of Transportation
2829 West Howard Place
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868

Project Development Branch JBK

CURB INLET TYPE R

STANDARD PLAN NO. M-604-12
Standard Sheet No. 1 of 2

Issued by the Project Development Branch July 31, 2019 Project Sheet Number:

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

MARK	BAR #	D.C. SPACING	TYPE	ALL INLETS			INLETS: H ≤ 5 FT.			INLETS: H > 5 FT.		
				NO. REQ'D	LENGTH	NO. REQ'D	LENGTH	NO. REQ'D	LENGTH	NO. REQ'D	LENGTH	NO. REQ'D
401	4	11"	II	15	7	21	18	11	7	7	7	
402	4	9"	II	7	7	4	4	7	7	7	7	
403	4	9"	II	7	7	4	4	7	7	7	7	
405	4	6"	VI	11	6"-10"	21	6"-10"	11	6"-10"	11	6"-10"	
406	4	6"	VIII	7	6"-10"	7	6"-10"	7	6"-10"	7	6"-10"	
407	4	9"	II	7	6"-10"	7	6"-10"	7	6"-10"	7	6"-10"	
408	4	12"	II	3	6"-10"	3	6"-10"	3	6"-10"	3	6"-10"	
409	4	9"	II	6	6"-10"	6	6"-10"	6	6"-10"	6	6"-10"	
410	4	11"	VII	3	6"-10"	3	6"-10"	3	6"-10"	3	6"-10"	
411	4	11"	II	3	6"-10"	3	6"-10"	3	6"-10"	3	6"-10"	
412	4	11"	II	3	6"-10"	3	6"-10"	3	6"-10"	3	6"-10"	
413	4	9"	II	3	6"-10"	3	6"-10"	3	6"-10"	3	6"-10"	
501	5	5 1/2"	IV	11	3'-4"	22	3'-4"	33	3'-4"	33	3'-4"	
502	5	5 1/2"	III	11	3'-4"	22	3'-4"	33	3'-4"	33	3'-4"	
503	5	5 1/2"	II	5	3'-6"	16	3'-6"	27	3'-6"	6	3'-6"	
504	5	5 1/2"	IX	1	3'-6"	1	3'-6"	1	3'-6"	1	3'-6"	
601	6	2 1/2"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	
602	6	2 1/2"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	
603	6	2 1/2"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	
604	6	2 1/2"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"

H"	LENGTH	REGULAR		DROP BOX		L = 5 FT.		L = 10 FT.		L = 15 FT.	
		REGULAR	DROP BOX	CONC. (CY)	STEEL (LBS.)	CONC. (CY)	STEEL (LBS.)	CONC. (CY)	STEEL (LBS.)	CONC. (CY)	STEEL (LBS.)
3'-0"	2'-8"	10	7	3.2	285	5.3	497	7.4	708		
3'-6"	3'-2"	10	7	3.4	305	5.7	528	7.9	747		
4'-0"	3'-6"	12	9	3.7	326	6.0	559	8.4	786		
4'-6"	4'-2"	12	9	3.9	354	6.4	571	8.8	823		
5'-0"	4'-8"	14	11	4.1	354	6.7	602	9.3	844		
5'-6"	5'-2"	16	13	4.4	375	6.9	607	7.4	850		
6'-0"	5'-8"	18	15	4.6	382	6.2	616	7.5	860		
6'-6"	6'-2"	18	15	4.8	402	6.4	637	7.8	880		
7'-0"	6'-8"	20	17	5.0	423	6.6	654	8.0	897		
7'-6"	7'-2"	20	17	5.3	430	6.9	664	8.3	907		
8'-0"	7'-8"	22	19	5.5	451	7.1	684	8.5	927		
8'-6"	8'-2"	24	21	5.7	471	7.3	702	8.7	944		
9'-0"	8'-8"	24	21	6.0	479	7.8	711	9.0	954		
9'-6"	9'-2"	26	23	6.2	499	7.8	732	9.2	974		
10'-0"	9'-8"	28	25	6.4	520	8.0	749	9.4	992		
10'-6"	10'-2"	28	25	6.7	527	8.3	759	9.7	1001		
11'-0"	10'-8"	30	27	6.9	547	8.5	779	9.9	1022		

Computer File Information

Creation Date: 07/31/19
Designer: JBK
Last Modification Date: 07/31/19
Detailer: LTA
CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date	Comments

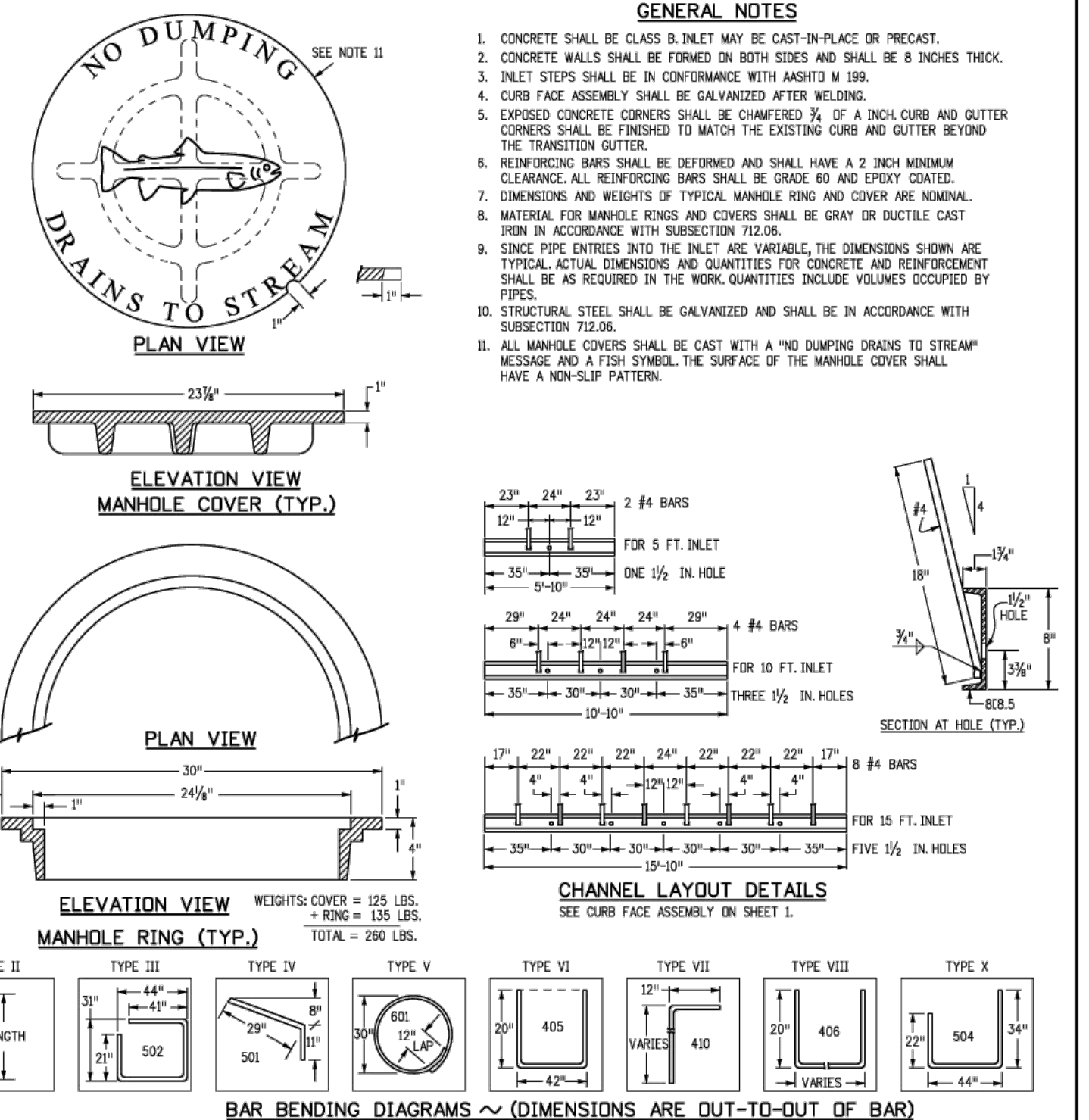
Colorado Department of Transportation
2829 West Howard Place
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868

Project Development Branch JBK

CURB INLET TYPE R

STANDARD PLAN NO. M-604-12
Standard Sheet No. 2 of 2

Issued by the Project Development Branch July 31, 2019 Project Sheet Number:



PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

Kimley Horn

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2024

SHEET REVISIONS

DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS
OLYMPIC CITY USA

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

Kimley Horn

Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION CONSTRUCTION DETAILS

PROJECT NO./CODE: 067607114

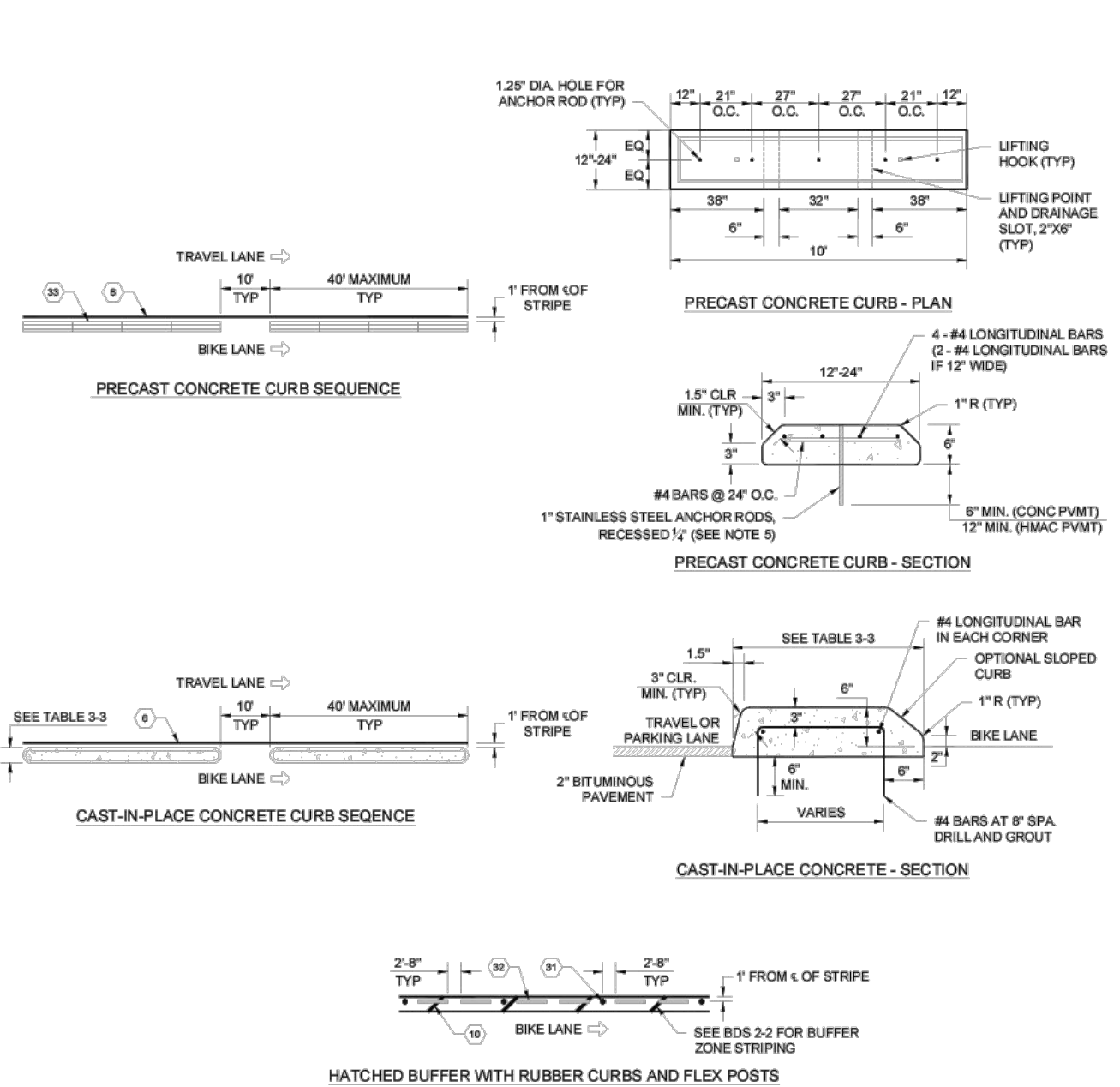
CHECKED BY: EJK
DESIGNED BY: MJK

SHEET SUBSET: SUBSET SHEET:

SHEET NUMBER: 64

P:\06760714_06760714_topon_street_improvements\CADD\plansheets\CDs\CD-CONSTRUCTION DETAILS.dwg Krcmcr Michael 5/22/2024 10:59 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

DENVER BIKEWAY DESIGN MANUAL VOLUME 2 | 3. PROTECTED BIKE LANES

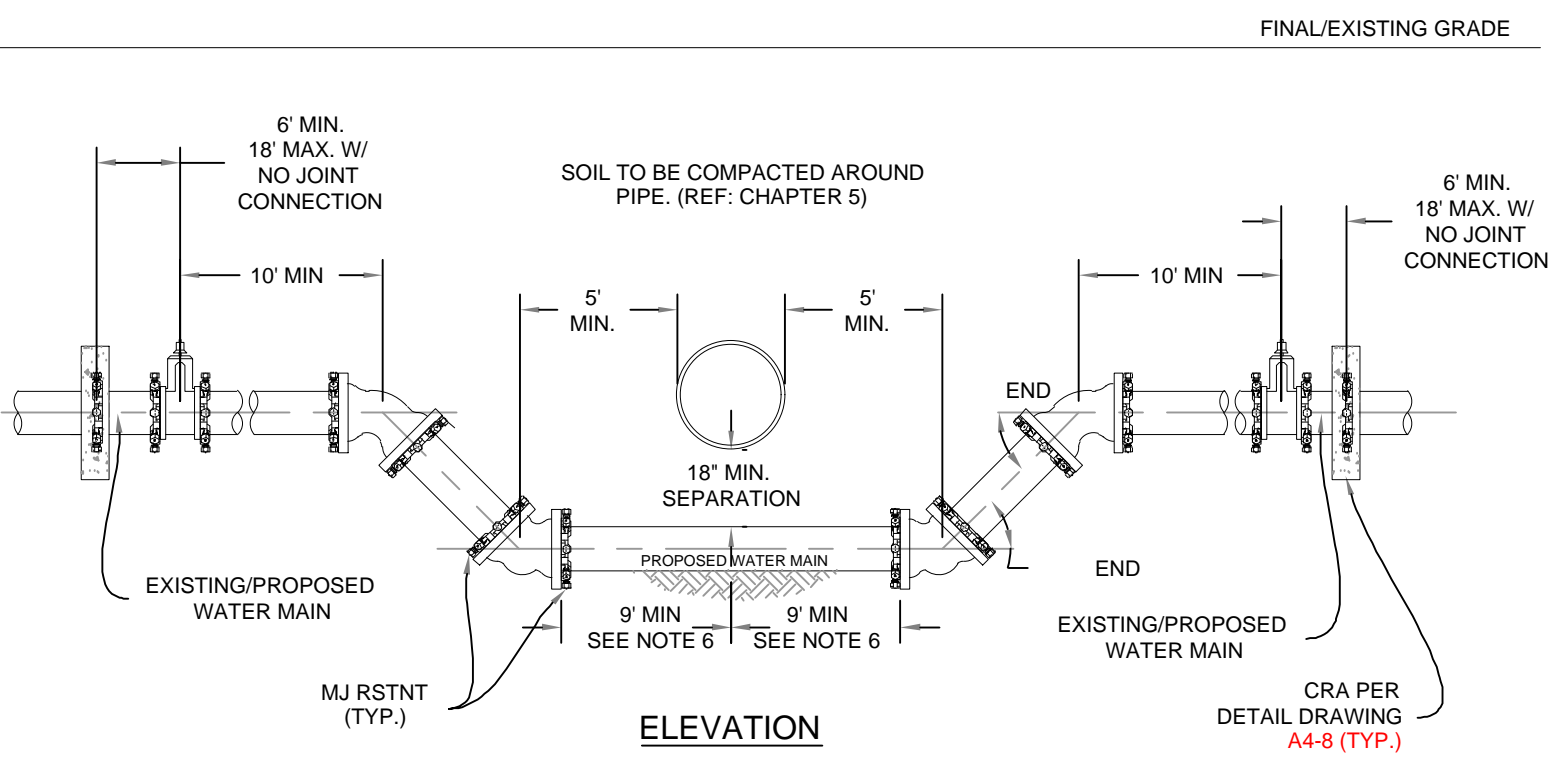
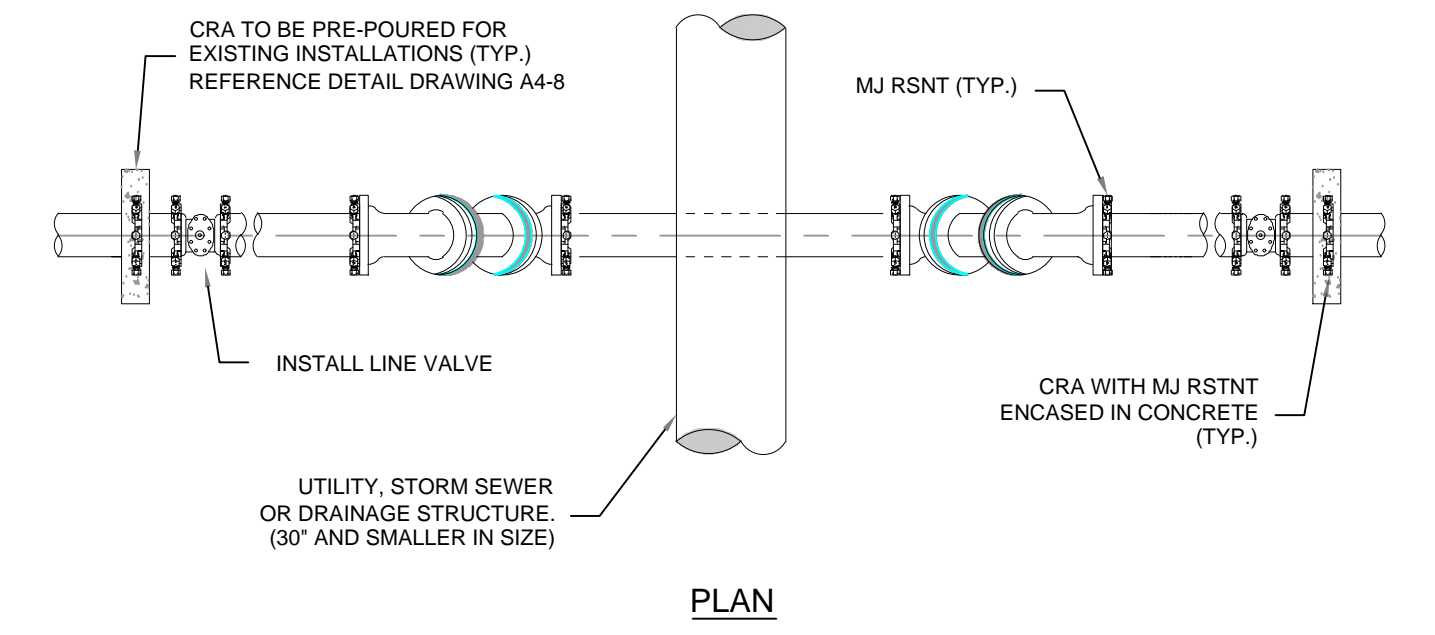


- LEGEND:**
- (A) 4" SOLID WHITE RIGHT EDGE LINE OR TURN LANE LINE
 - (B) 6" SOLID WHITE 45° DIAGONAL CROSSHATCH AT 10' SPACING
 - (C) 3" WHITE FLEXIBLE DELINEATOR POST
 - (D) 6" LONG, 4" HIGH ENGINEERED RUBBER CURB WITH WHITE STRIPES
 - (E) 10' LONG, 4" TO 6" HIGH PRECAST CONCRETE CURB
- NOTES:**
- DESIGN PLANS SHOULD BE CONSULTED FOR VARIATIONS
 - BIKEWAY LANES AS NARROW AS 4' IN WIDTH (EXCLUDING GUTTER PAN) ARE ALLOWABLE IN CONSTRAINED ENVIRONMENTS FOR 150' WITHOUT DESIGN VARIANCE APPROVAL.
 - GEOMETRY SHOWN FOR CONCRETE PROTECTION ZONE APPLIES TO CURB AND FLEX POST PROTECTION ZONES
 - SEE STD DWG NO. BDS 2-0 FOR GENERAL NOTES
 - DRILL AND EPOXY SMOOTH 1" STAINLESS STEEL ANCHOR RODS FOR CONCRETE PAVEMENT. ANCHORS SHALL BE A MINIMUM OF 3" CLEAR FROM ALL JOINTS.

VERSION 2 DATE: 8/10/20	CITY & COUNTY OF DENVER STREET LEVEL PROTECTED BIKE LANE BUFFER DETAILS		STD DWG NO. BDS 3-1
----------------------------	---	--	------------------------

PRECAST CONCRETE BARRIER NOTES FOR BIKEWAYS:

- PRE-CAST CONCRETE BARRIERS
- SPACING = 10.0' (TYP.)
- LENGTH OF BARRIER = 15.0'
- WIDTH OF BARRIER = 1.0'

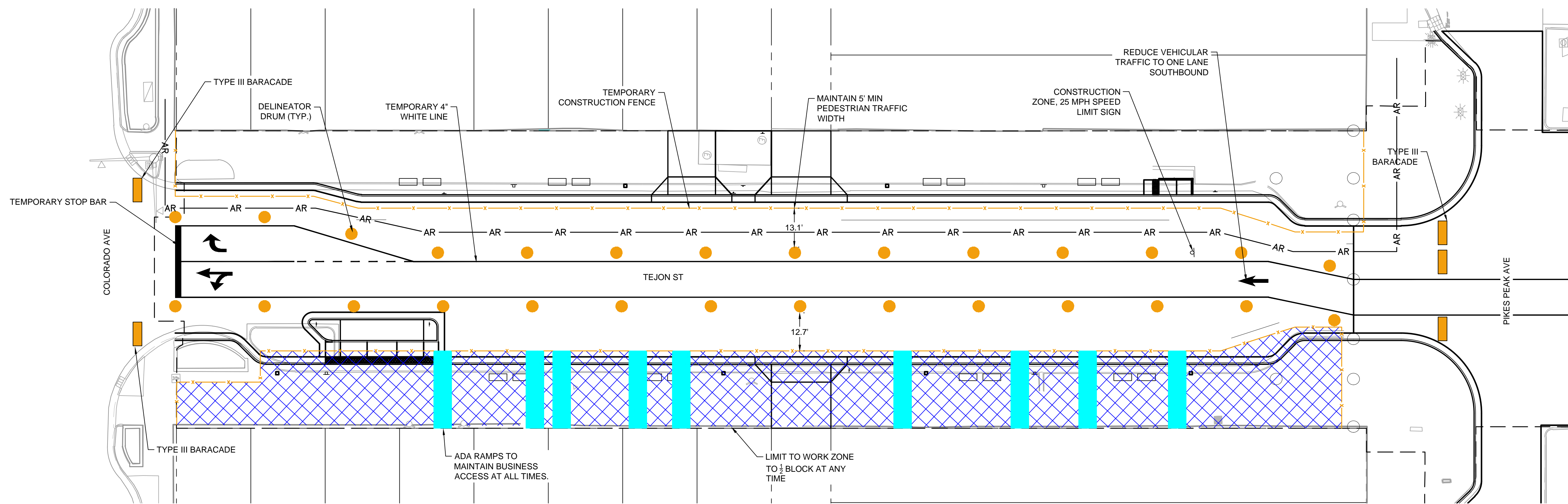


- NOTES:**
- ALL DUCTILE IRON FITTINGS AND PIPE SHALL BE CATHODICALLY PROTECTED PER SECTION 2.6.I.
 - ALL FITTINGS SHALL HAVE MJ RESTRAINTS IN ACCORDANCE WITH CHAPTER 5.
 - EXAMPLE CAN VARY DUE TO SITE CONDITIONS AND COLORADO SPRINGS UTILITIES INSPECTOR'S DIRECTION.
 - RESTRAINED JOINTS ARE REQUIRED WITHIN LOWERING.
 - NO TAPS OR TEES ARE ALLOWED WITHIN THE LOWERING.
 - WHERE WATER MAIN CROSSES UNDER STORM SEWER, WASTEWATER OR NON-POTABLE WATER INFRASTRUCTURE, A MINIMUM OF 9 FEET REQUIRED BETWEEN THE CENTERLINE OF THE CROSSING AND THE FIRST JOINT. THIS MEETS THE REQUIREMENTS FOR SECONDARY CONTAINMENT AS DESCRIBED IN SECTION 2.6-H.2.

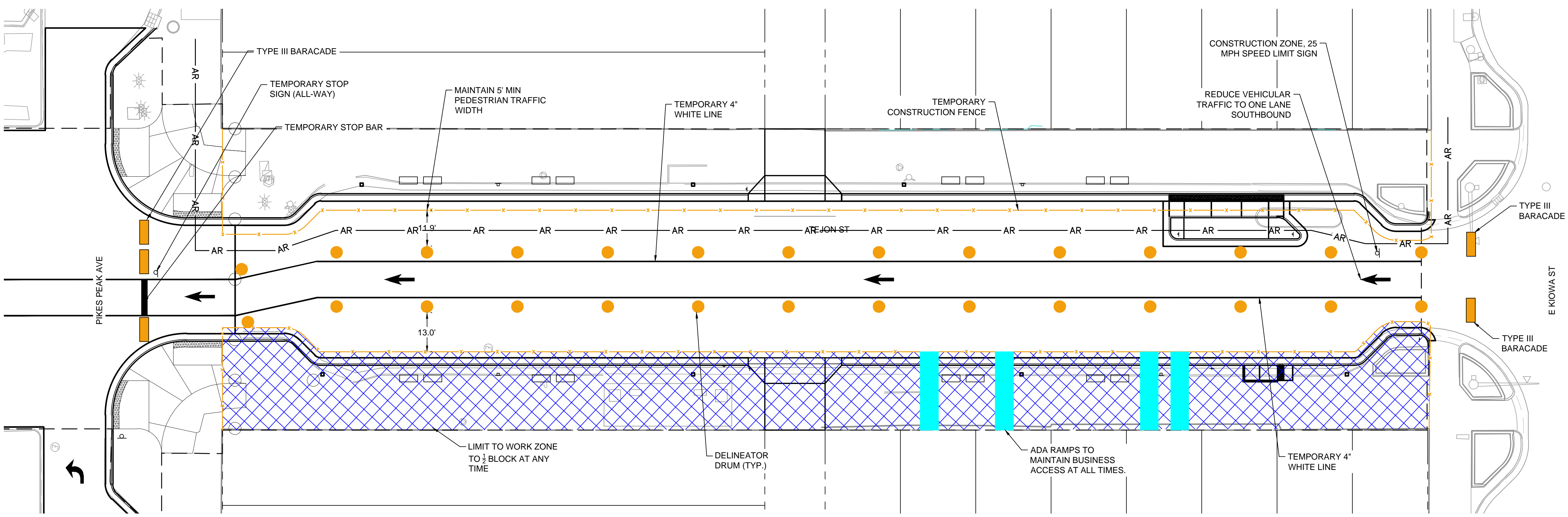
	LOWERUNG DETAIL UTILITY CROSSING 30" & SMALLER	A7-1 DATED 06/2015
--	---	-----------------------

PRINT DATE: May 22, 2024	SHEET REVISIONS			COLORADO SPRINGS PUBLIC WORKS 30 SOUTH NEVADA AVE. COLORADO SPRINGS, COLORADO 80901 PHONE: (719) 385-5918	PRELIMINARY FOR REVIEW ONLY NOT FOR CONSTRUCTION Kimley-Horn and Associates, Inc.	TEJON STREET REVITALIZATION		PROJECT NO./CODE
DRAWING FILE NAME:	DATE:	COMMENTS:	INITIAL:			CD-CONSTRUCTION DETAILS - CONSTRUCTION DETAILS	3	067607114
HORIZ. SCALE:	VERT. SCALE:	(R-X)	(R-X)			(R-X)	(R-X)	
		KIMLEY-HORN AND ASSOCIATES, INC. 2 NORTH NEVADA AVE, SUITE 900 COLORADO SPRINGS, CO 80903 PHONE: 719-453-0180 © 2024				CHECKED BY:	EJG	
						DESIGNED BY:	MJK	
						SHEET SUBSET:		SUBSET SHEET:

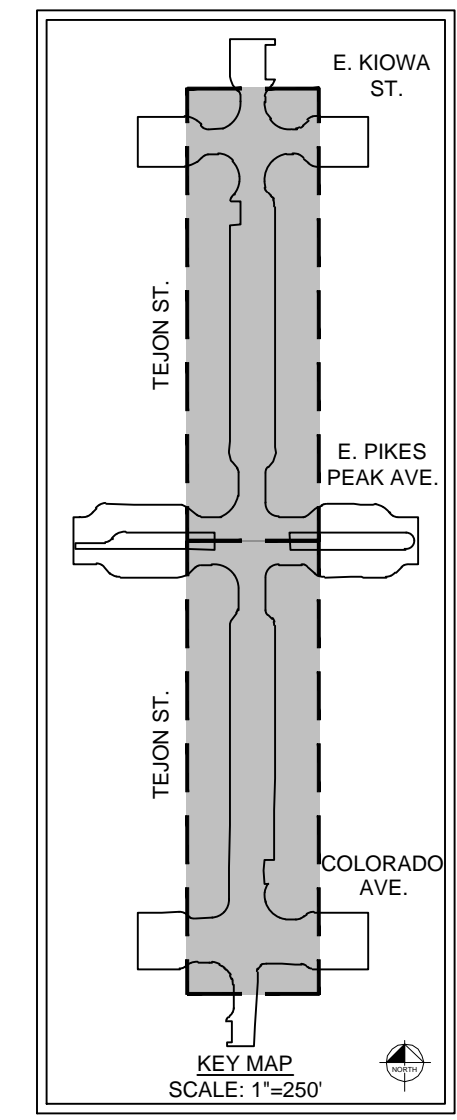
P:\cs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-TRAFFIC_CONTROL.dwg Kromer, Michael 5/22/2024 10:59 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF, AND IMPROPER RELIANCE ON, THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



BLOCK 1 - COLORADO AVE TO PIKES PEAK AVE



BLOCK 2 - PIKES PEAK AVE TO E KIOWA ST

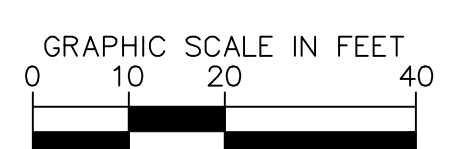
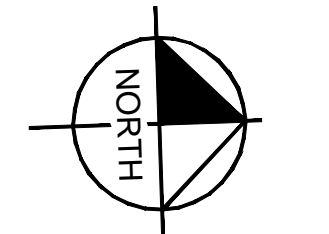


NOTES:

1. CONTRACTOR TO MAINTAIN AN ACCESSIBLE EASTWEST PEDESTRIAN ROUTE AT ALL TIMES DURING CONSTRUCTION.
2. SIGNAL AT PIKES PEAK AVE IS TO BE RECONSTRUCTED, MAINTAIN AN ALL STOP CONDITION.
3. ACCESSIBLE ACCESS TO BUSINESSES DURING BUSINESS HOURS IS REQUIRED.

LEGEND:

- WORK ZONE AREA
- TEMPORARY ADA BUSINESS ACCESS
- TEMPORARY CHAINLINK CONSTRUCTION FENCE
- ACCESSIBLE PEDESTRIAN ROUTE
- DELINEATOR DRUMS
- TYPE III BARRICADES



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

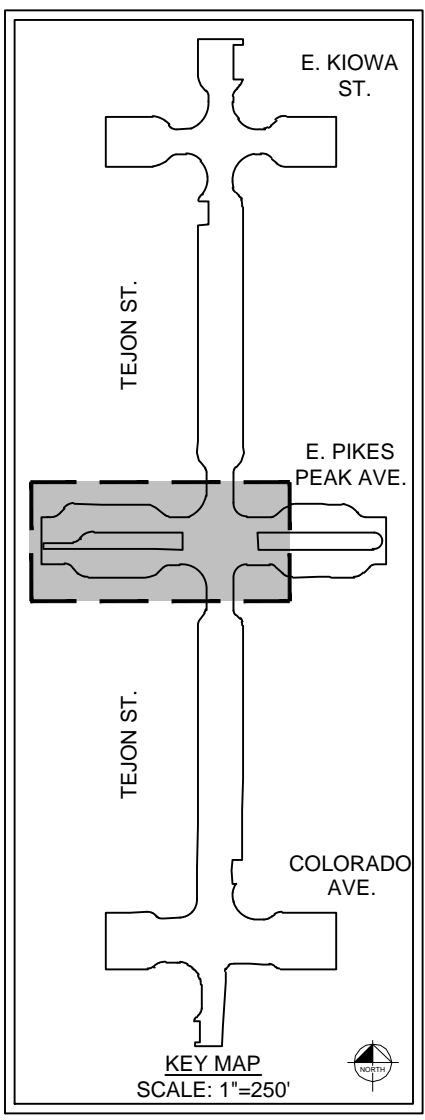
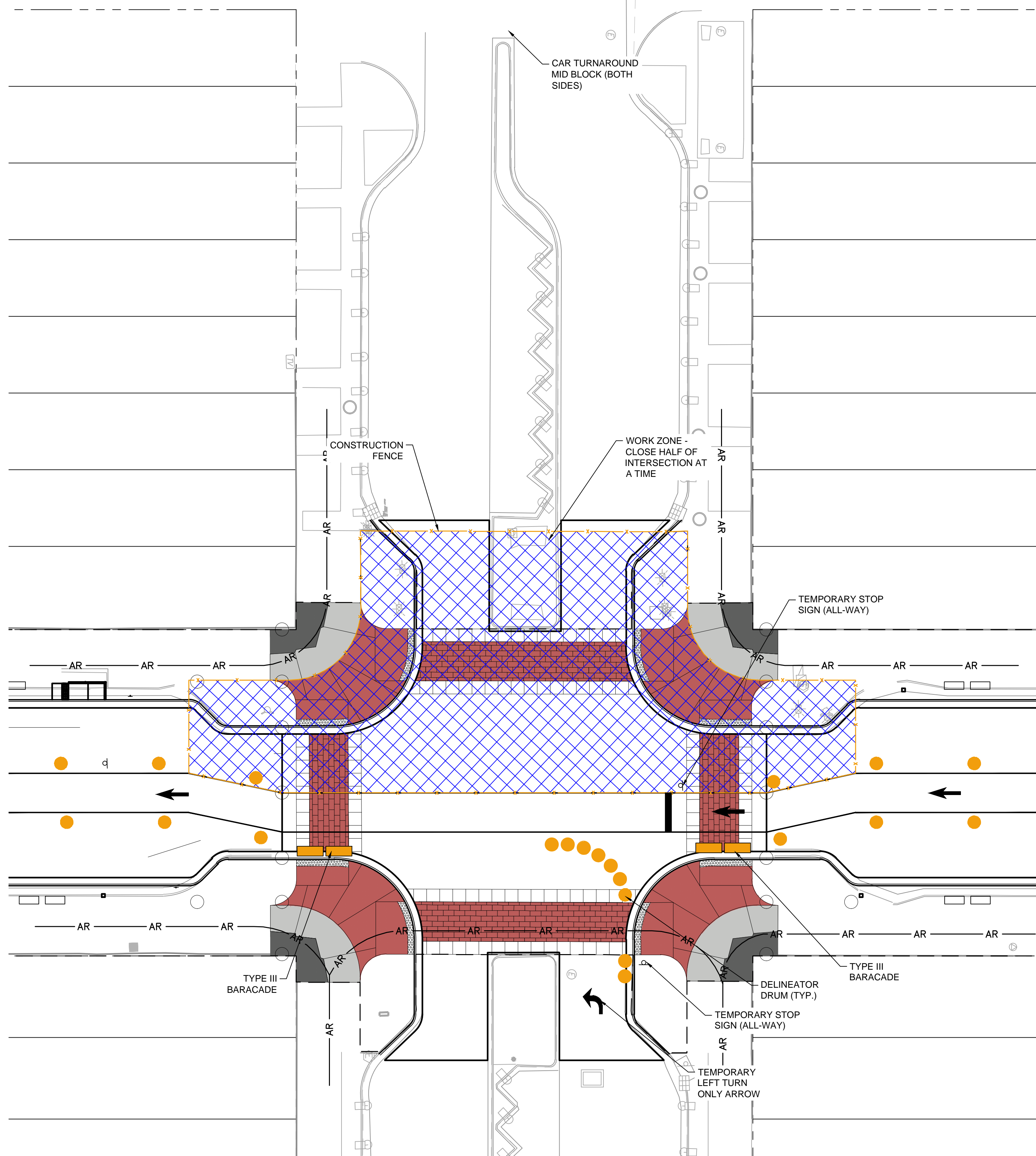
 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION
 WORK ZONE PHASING PLAN 1

CHECKED BY:	EJG
DESIGNED BY:	MJK
SHEET SUBSET:	SUBSET SHEET:

PROJECT NO./CODE
 067607114
SHEET NUMBER 66

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-TRAFFIC_CONTROL.dwg Kratmer, Michael 5/22/2024 10:59 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF, AND IMPROPER RELIANCE ON, THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



NOTES:

1. CONTRACTOR TO MAINTAIN AN ACCESSIBLE EAST/WEST PEDESTRIAN ROUTE AT ALL TIMES DURING CONSTRUCTION.
2. SIGNAL AT PIKES PEAK AVE IS TO BE RECONSTRUCTED, MAINTAIN AN ALL STOP CONDITION.
3. ACCESSIBLE ACCESS TO BUSINESSES DURING BUSINESS HOURS IS REQUIRED.

LEGEND:

- WORK ZONE AREA
- TEMPORARY ADA BUSINESS ACCESS
- TEMPORARY CHAINLINK CONSTRUCTION FENCE
- ACCESSIBLE PEDESTRIAN ROUTE
- DELINEATOR DRUMS
- TYPE III BARRICADES

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2024

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	
(R-X)			
(R-X)			
(R-X)			
(R-X)			

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

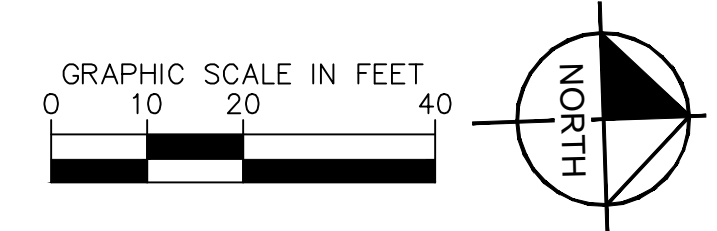
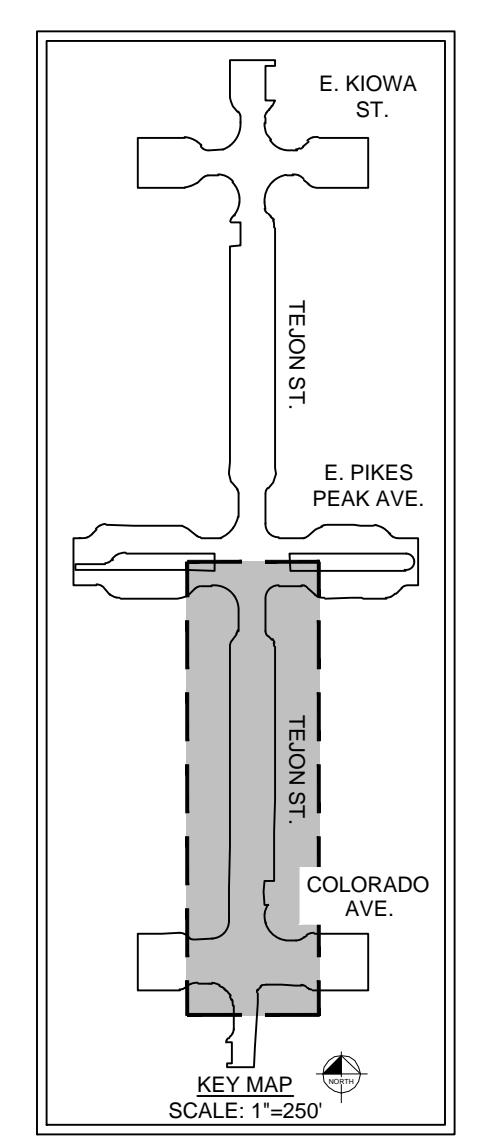
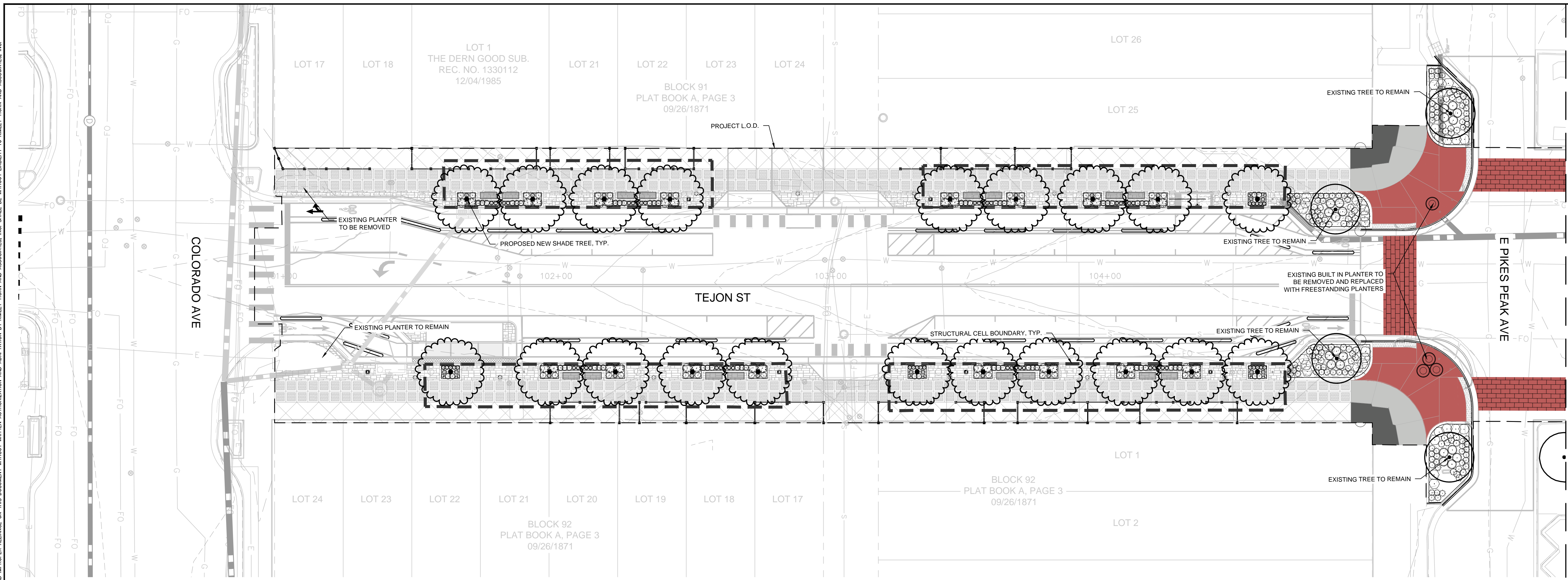
PRELIMINARY

FOR REVIEW ONLY
NOT FOR
CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET REVITALIZATION WORK ZONE PHASING PLAN 2		PROJECT NO./CODE
		067607114
CHECKED BY:	EJG	SHEET NUMBER 67
DESIGNED BY:	MJK	
SHEET SUBSET:	SUBSET SHEET:	

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-LSCP.dwg - Kramer, Michael 5/22/2024 11:00 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF ANY PART OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



MATCHLINE SEE SHEET 69

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT. SIZE	SIZE/CAL.	WIDTH	HEIGHT	CODE REQUIREMENTS
DECIDUOUS TREES								
	CO	22	CELTIS OCCIDENTALIS / WESTERN HACKBERRY	72" BOX		40'-50'	50'-60'	PARK/ROW/MEDIAN/STREAM
	FA	9	EXISTING LINDEN / EXISTING LINDEN	B & B	EXISTING			N/A
	QB	20	QUERCUS BICOLOR / SWAMP WHITE OAK	72" BOX		50'-60'	50'-60'	PARK/ROW/MEDIAN/STREAM
DECIDUOUS SHRUBS								
	EN	125	ERICAMERIA NAUSEOSA 'BABY BLUE' / BABY BLUE / DWARF RABBITBRUSH	5 GAL	SEE PLAN	2'-3'	1'-3'	N/A
	RN	200	ROSA X 'NEARLY WILD' / NEARLY WILD FLORIBUNDA ROSE	5 GAL	SEE PLAN	2'-3'	2'-3'	N/A
EVERGREEN SHRUBS								
	AP	66	ARCTOSTAPHYLOS X COLORADOENSIS 'PANCHITO' / PANCHITO MANZANITA	3 GAL	SEE PLAN	3'-5'	15'-24"	N/A
	EE	64	EPHEDRA EQUISETINA / BLUESTEM JOINT FIR	5 GAL	SEE PLAN	3'-8'	4'-6'	SCREENWALL/TRASH
	YG	52	YUCCA GLAUCA / SOAPWEED	5 GAL	SEE PLAN	1'-3'	1'-3'	N/A
GRASSES								
	MR	116	MUHLENBERGIA REVERCHONII UNDAUNTED / UNDAUNTED RU Y MUHLY	5 GAL	SEE PLAN	18"-24"	15'-30"	N/A
	PS	130	PANICUM VIRGATUM 'SHENANDOAH' / SHENANDOAH SWITCH GRASS	5 GAL	SEE PLAN	1'-2'	3'-5'	SCREEN
	SN	40	SORGHASTRUM NUTANS / INDIAN GRASS	5 GAL	SEE PLAN	3'-4'	3'-5'	N/A
PERENNIALS								
	AF	40	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	4" POT	SEE PLAN	18"-24"	6'-15"	N/A

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:
(R-X)		
(R-X)		
(R-X)		
(R-X)		

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

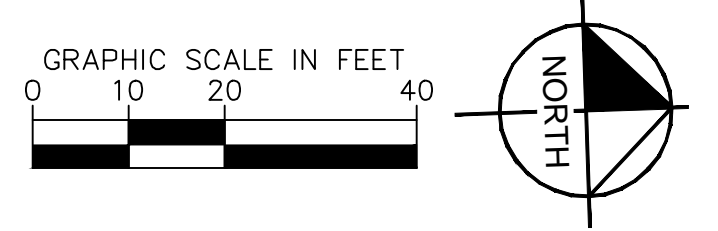
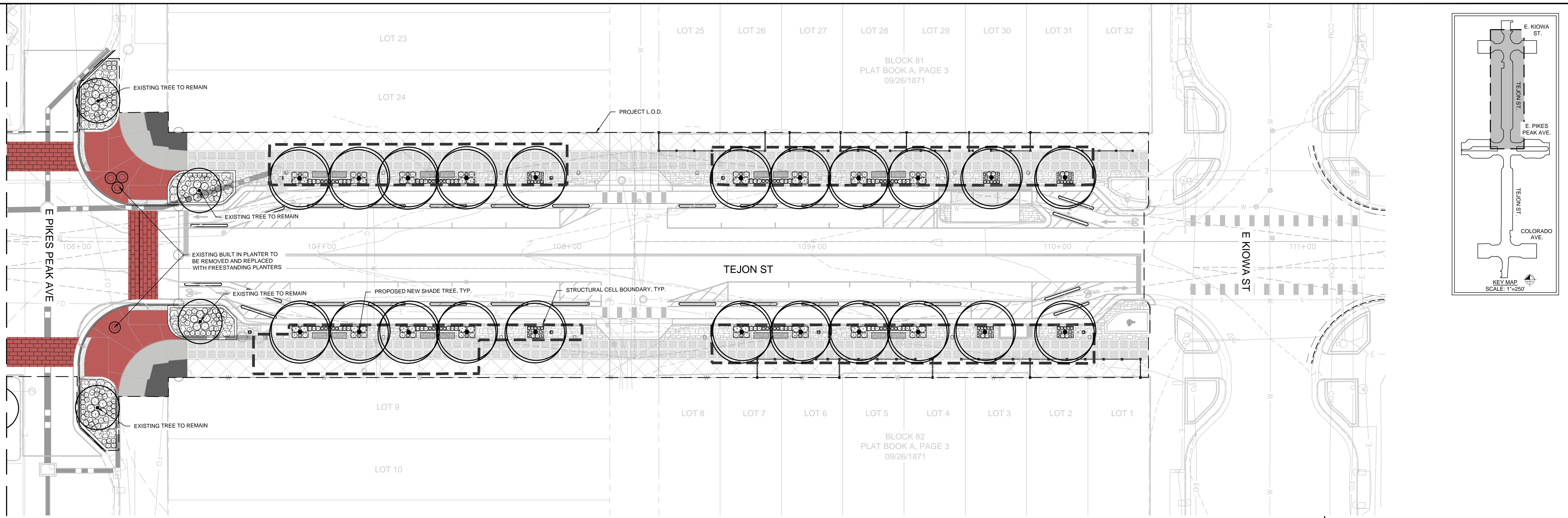
 Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
 LANDSCAPE PLAN (BASE BID)

CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	LANDSCAPE
SUBSET SHEET:	

PROJECT NO./CODE	067607114
SHEET NUMBER	68

5/22/2024 11:00 AM
 PH: \\cos-civil\067607114-tejon-street-improvements\CADD\plansheets\CD-LSCP.dwg - Kramer, Michael
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT. SIZE	SIZE/CAL	WIDTH	HEIGHT	CODE REQUIREMENTS
DECIDUOUS TREES								
	CO	22	CELTIS OCCIDENTALIS / WESTERN HACKBERRY	72" BOX		40'-60'	50'-60'	PARK/ROW/MEDIAN/STREAM
	FA	9	EXISTING LINDEN / EXISTING LINDEN	B & B	EXISTING			N/A
	QB	20	QUERCUS BICOLOR / SWAMP WHITE OAK	72" BOX		50'-60'	50'-60'	PARK/ROW/MEDIAN/STREAM
DECIDUOUS SHRUBS								
	EN	125	ERICAMERIA NAUSEOSA 'BABY BLUE' / BABY BLUE / DWARF RABBITBRUSH	5 GAL	SEE PLAN	2'-3'	1'-3'	N/A
	RN	200	ROSA X 'NEARLY WILD' / NEARLY WILD FLORIBUNDA ROSE	5 GAL	SEE PLAN	2'-3'	2'-3'	N/A
EVERGREEN SHRUBS								
	AP	66	ARCTOSTAPHYLOS X COLORADOENSIS 'PANCHITO' / PANCHITO MANZANITA	3 GAL	SEE PLAN	3'-5'	15'-24'	N/A
	EE	64	EPHEDRA EQUISETINA / BLUESTEM JOINT FIR	5 GAL	SEE PLAN	3'-8'	4'-6'	SCREEN/WALL/TRASH
	YG	52	YUCCA GLAUCA / SOAPWEED	5 GAL	SEE PLAN	1'-3'	1'-3'	N/A
GRASSES								
	MR	116	MUHLENBERGIA REVERCHONII UNDAUNTED / UNDAUNTED RU Y MUHLY	5 GAL	SEE PLAN	18'-24'	15'-30'	N/A
	PS	130	PANICUM VIRGATUM 'SHENANDOAH' / SHENANDOAH SWITCH GRASS	5 GAL	SEE PLAN	1'-2'	3'-5'	SCREEN
	SN	40	SORGHASTRUM NUTANS / INDIAN GRASS	5 GAL	SEE PLAN	3'-4'	3'-5'	N/A
PERENNIALS								
	AF	40	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	4" POT	SEE PLAN	18'-24'	6'-15'	N/A

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS LANDSCAPE PLAN (BID ALT A)	
CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	LANDSCAPE
SUBSET SHEET:	

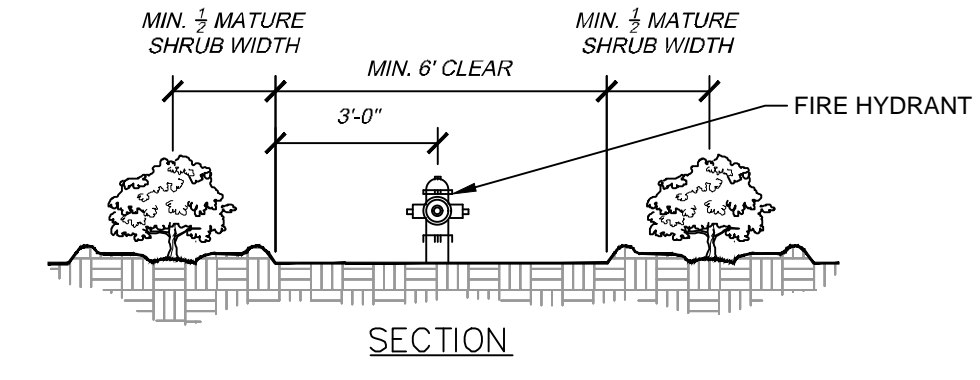
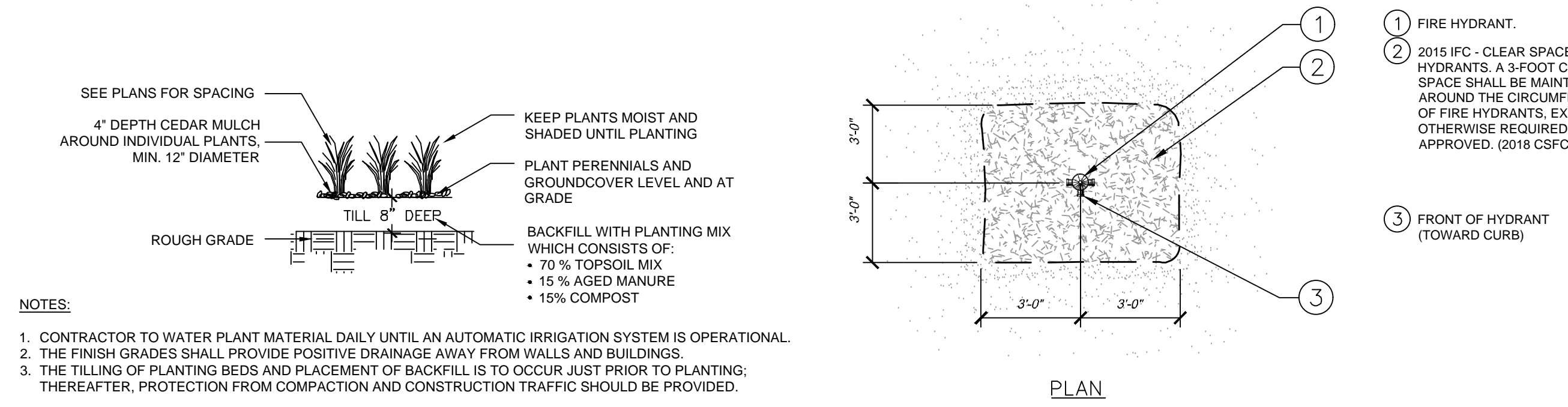
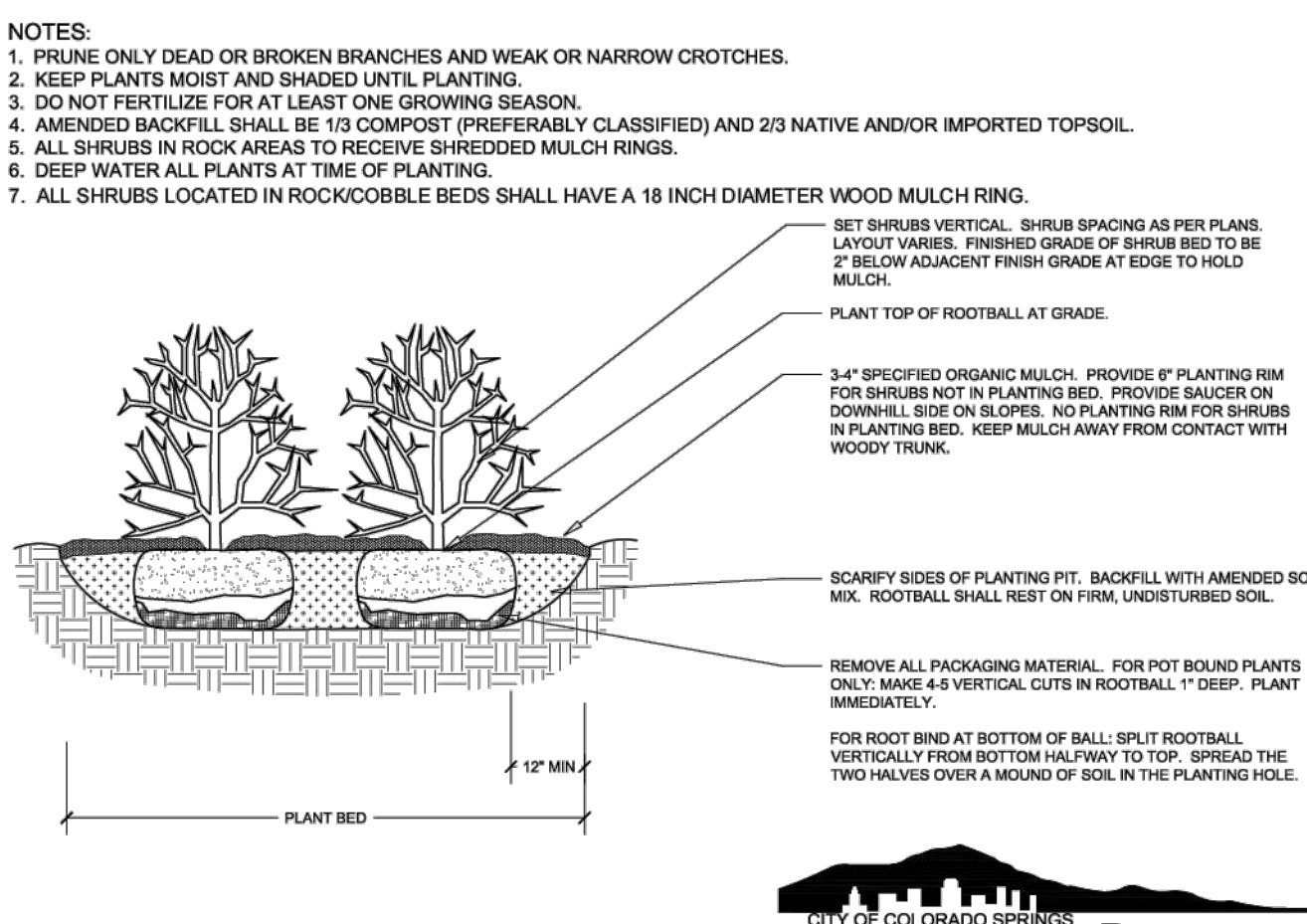
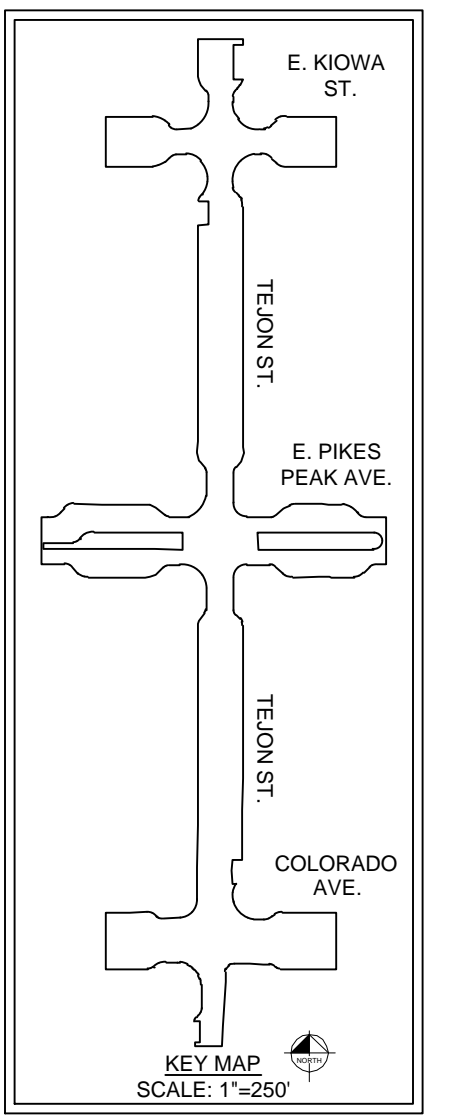
PROJECT NO./CODE
067607114
SHEET NUMBER 69

GENERAL LANDSCAPE SPECIFICATIONS

- A. SCOPE OF WORK**
1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
 2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER.
- B. PROTECTION OF EXISTING STRUCTURES**
1. ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED AND DESIGNATED TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BEST MANAGEMENT PRACTICES (BMP) DEVICES ACCORDING TO ALL REGULATORY AGENCY'S STANDARDS THROUGH THE DURATION OF ALL CONSTRUCTION ACTIVITIES.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MAINTENANCE OF TRAFFIC (MOT) THAT MAY BE REQUIRED FOR THE PROJECT.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO EXCAVATION. THE OWNER AND DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ANY DATA. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR: REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA; LOCATING ALL UNDERGROUND FACILITIES DURING CONSTRUCTION; THE SAFETY AND PROTECTION THEREOF; REPAIRING ANY DAMAGE THERE TO RESULTING FROM THE WORK. THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- C. PROTECTION OF EXISTING PLANT MATERIALS**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC.. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED ON SITE. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPE AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF FOUR HUNDRED DOLLARS (\$400) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.
 2. SEE TREE MITIGATION PLAN AND NOTES, IF APPLICABLE.
- D. MATERIALS**
1. GENERAL
- MATERIAL SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON SITE OR AS DETERMINED BY THE OWNER. UPON APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.
- | MATERIAL | SAMPLE SIZE |
|-------------|--|
| MULCH | ONE (1) CUBIC FOOT |
| TOPSOIL MIX | ONE (1) CUBIC FOOT |
| PLANTS | ONE (1) OF EACH VARIETY (OR TAGGED IN NURSERY) |
2. PLANT MATERIALS
 - a. FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT SCHEDULE SHOWN ON DRAWINGS AND COMPLYING WITH ANSI Z60.1 AND THE COLORADO NURSERY ACT. AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
 - b. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE PROJECT LANDSCAPE ARCHITECT. ANY R.O.W. TREES MUST BE APPROVED BY OFFICE OF THE CITY FORESTER.
 - c. PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 AND COLORADO NURSERY ACT FOR TYPES AND FORMS OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO PROJECT LANDSCAPE ARCHITECT WITH A PROPORTIONAL INCREASE IN SIZE OF ROOTS OR BALLS.
 - d. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER. FOR QUALITY, SIZE, AND VARIETY, SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.
 - e. TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES; TIGHT VERTICAL BRANCHES WHICH BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT-OFF LIMBS MORE THAN 1/2 INCH (19 MM) IN DIAMETER; OR WITH STEM GIRDLING ROOTS WILL BE REJECTED.
 - f. FURNISH TREES AND SHRUBS WITH ROOTS BALLS MEASURED FROM TOP OF ROOT BALL, WHICH SHALL BEGIN AT ROOT FLARE ACCORDING TO ANSI Z60.1 AND COLORADO NURSERY ACT. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.
 - g. LABEL AT LEAST ONE PLANT OF EACH VARIETY, SIZE, AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF COMMON NAME AND FULL SCIENTIFIC NAME, INCLUDING GENUS AND SPECIES. INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR CULTIVAR, IF APPLICABLE FOR THE PLANT AS SHOWN ON DRAWINGS.
 - h. IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF PLANTS IS SHOWN ON DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER THE LABELS TO ASSURE SYMMETRY IN PLANTING.
 3. SOIL MIXTURE
 - a. CONTRACTOR SHALL PROVIDE PLANTING MEDIUM PER THE PLANTING BACKFILL MIX SPECIFICATION SHOWN AS DETAIL 4 ON THIS SHEET.
 - a. SUBMIT SOIL SAMPLE AND PH TESTING RESULTS FOR APPROVAL.
 4. WATER
 - a. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC., IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.
- * WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

- G. FERTILIZER**
1. CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY DERIVED.
 - * FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
- H. MULCH**
1. MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF THREE (3) INCHES CLEAR MULCH FROM EACH PLANT'S CROWN (BASE) OR AS SHOWN IN PLANTING DETAILS. MULCH SHALL BE DOUBLE SHREDED HARDWOOD MULCH. DYED MULCH IS NOT ACCEPTABLE. SUBMIT SAMPLES TO PROJECT LANDSCAPE ARCHITECT FOR APPROVAL. MULCH SHALL BE PROVIDED OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE RING (6" MINIMUM) PLANTED UNDER THIS CONTRACT, AS WELL AS FOR ANY EXISTING LANDSCAPE AREAS AS SHOWN ON PLANS.
- I. DIGGING AND HANDLING**
1. ALL TREES SPECIFIED ARE TO BE FIELD SELECTED BY THE LANDSCAPE ARCHITECT AT THE TEMPORARY STAGING AREA PRIOR TO PLANTING.
 2. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO THE SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILTRUP" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
 3. B&B AND FIELD GROWN (FG) PLANTS SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS SHALL NOT BE HANDLED BY STEMS.
- J. CONTAINER GROWN STOCK**
1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
 2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.
 3. ROOT BOUND PLANTS ARE NOT ACCEPTABLE AND WILL BE REJECTED.
- K. MATERIALS LIST**
1. QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR DIMENSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE PLANS SHALL GOVERN. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.
- L. FINE GRADING**
1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF PLANTING AREAS THAT HAVE BEEN DISTURBED DURING CONSTRUCTION.
 2. THE CONTRACTOR SHALL FINE GRADE THE PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH.
 3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES, IF APPLICABLE.
- M. PLANTING PROCEDURES**
1. THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER DAILY. ALL MORTAR, CEMENT, BUILDING MATERIALS, AND TOXIC MATERIAL SHALL BE COMPLETELY REMOVED FROM PLANTING AREAS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS IN PLANTING AREAS WHICH WILL ADVERSELY AFFECT THE PLANT GROWTH, THE CONTRACTOR SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.
 2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL COLORADO (811) TO LOCATE UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
 3. CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL PLANTING AREAS TO A MINIMUM DEPTH OF 36" OR TO NATIVE SOIL. CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE POOR DRAINAGE CONDITION PLANTING DETAIL.
 4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS SPECIFIED HEREIN. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.
 5. COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON SITE SHALL NOT REMAIN UNPLANTED OR APPROPRIATELY HEALED IN FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE SHALL BE EXERCISED.
 6. WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
 7. ALL PLANTING OPENINGS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH ANSI Z60.1-2014 AMERICAN STANDARD FOR NURSERY STOCK.
 8. TEST ALL TREE OPENINGS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, CONTACT THE LANDSCAPE ARCHITECT PRIOR TO PROCEEDING WITH PLANTING.
 9. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN.
 10. EXCAVATION OF TREE OPENINGS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS. FOOTERS AND PREPARED SUB-BASES.
 11. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.
 12. SOIL MIXTURE SHALL BE PER PLANTING BACKFILL MIX SPECIFICATION SHOWN AS DETAIL 4 ON THIS SHEET.

13. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. SOIL MIXTURE SHALL BE BACKFILLED, THOROUGHLY TAMPED, AND SETTLED BY WATER (AFTER TAMPING).
 14. AMEND PINE AND OAK PLANT OPENINGS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT OPENINGS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INCULCATION.
 15. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE.
 16. ALL BURLAP, ROPE, WIRES, BOXES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.
 17. TREES SHALL BE PRUNED, IN ACCORDANCE WITH ANSI A-300, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY CERTIFIED ARBORIST.
 18. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. MATERIALS INSTALLED SHALL MEET MINIMUM SPECIMEN REQUIREMENTS OR QUANTITIES SHOWN ON PLANS, WHICHEVER IS GREATER. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6". REMOVE AND DISPOSE ALL DEBRIS. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
 19. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DESIRE TO SAVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE PROJECT LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.
 20. ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S RECOMMENDATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY)
- N. CLEANUP**
1. UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM CONTRACTOR'S WORK. ALL PAVED AREAS SHALL BE CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- O. PLANT MATERIAL MAINTENANCE**
1. ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, PRUNING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
- P. FINAL INSPECTION AND ACCEPTANCE OF WORK**
1. FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.
- Q. WARRANTY**
1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED (INCLUDING SOD) BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
 2. ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
 3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE AND IRRIGATION MAINTENANCE, THE CONTRACTOR SHOULD VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITINGS OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH.
- R. RAISED PLANTER NOTE**
1. THE SOIL OF ANY PROPOSED OR EXISTING PLANTER SHOWN ON THE PLAN SHALL BE REMOVED TO A DEPTH OF THIRTY INCHES (30") AND REPLACED WITH THE SPECIFIED GROWING MEDIUM AS SHOWN ON DETAIL 4 OF THIS SHEET.
- S. MAINTENANCE**
1. MAINTENANCE OF ALL LANDSCAPE IMPROVEMENTS SHOWN ON THIS PLAN SHALL BE THE RESPONSIBILITY OF THE CITY OF COLORADO SPRINGS, AND/OR THEIR ASSIGNS.



1 SHRUB PLANTING
NTS
196-687-000-11

2 GRASS AND PERENNIAL PLANTING
NTS
196-687-000-06

3 COS. SPECIFIC - SHRUB PLANTING AT FIRE HYDRANT
70 SECTION / PLAN
NTS

4 PLANTING BACKFILL MIX SPECIFICATION
70
NTS

PRINT DATE: May 22, 2024
DRAWING FILE NAME:
HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

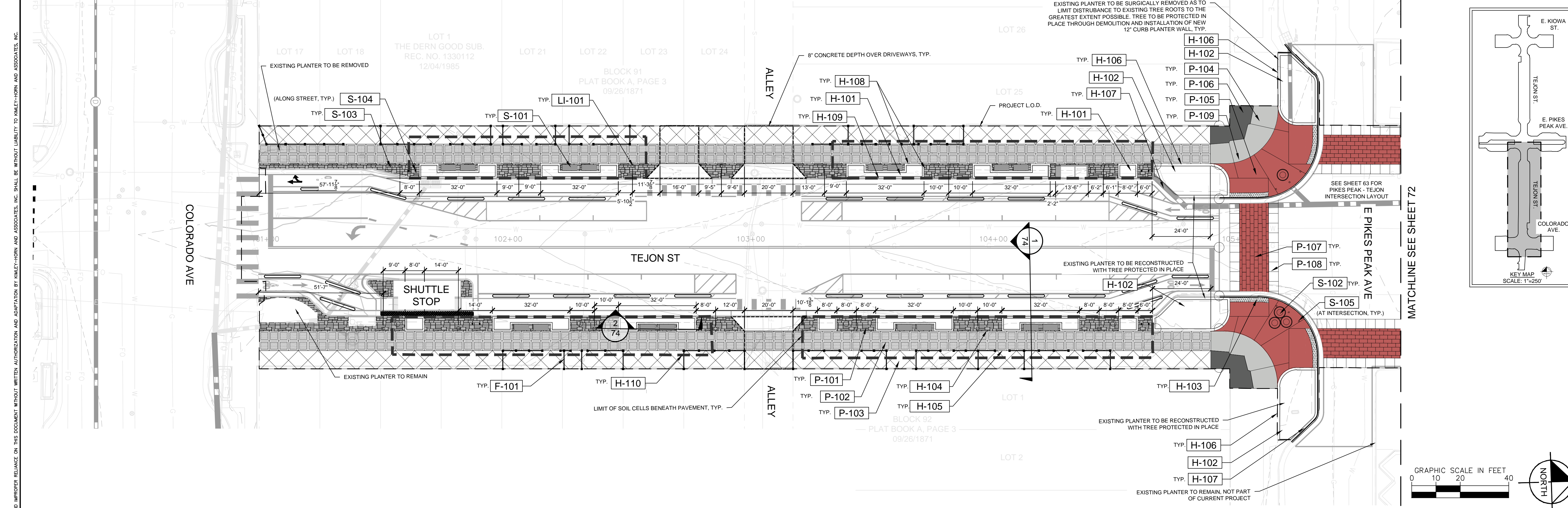
TEJON STREET IMPROVEMENTS
LANDSCAPE DETAILS

CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	LANDSCAPE
SUBSET SHEET:	

PROJECT NO./CODE
067607114

SHEET NUMBER 70

P:\067607114_067607114_tejon_street_improvements\CADD\plan_sheets\CDS\CD-LSCP.dwg - Kratmer, Michael 5/22/2024 11:00 AM
 THIS DOCUMENT IS THE PROPERTY OF KIMLEY-HORN AND ASSOCIATES, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF THIS DOCUMENT FOR ANY OTHER PROJECT OR CLIENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



REFERENCE NOTES SCHEDULE

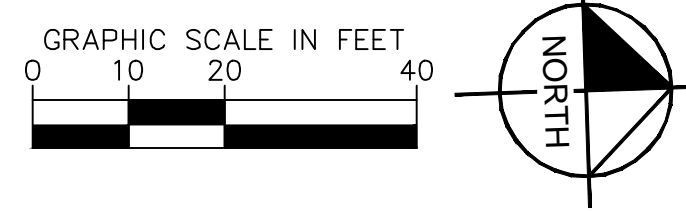
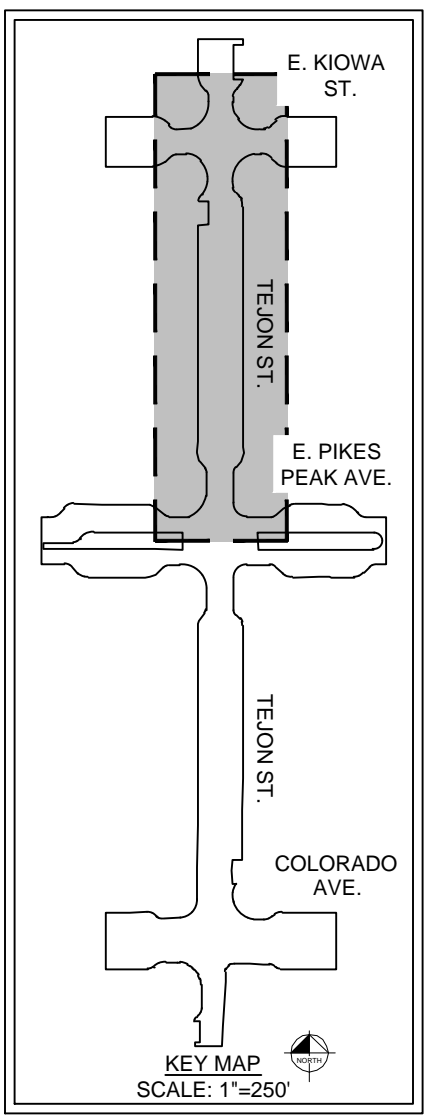
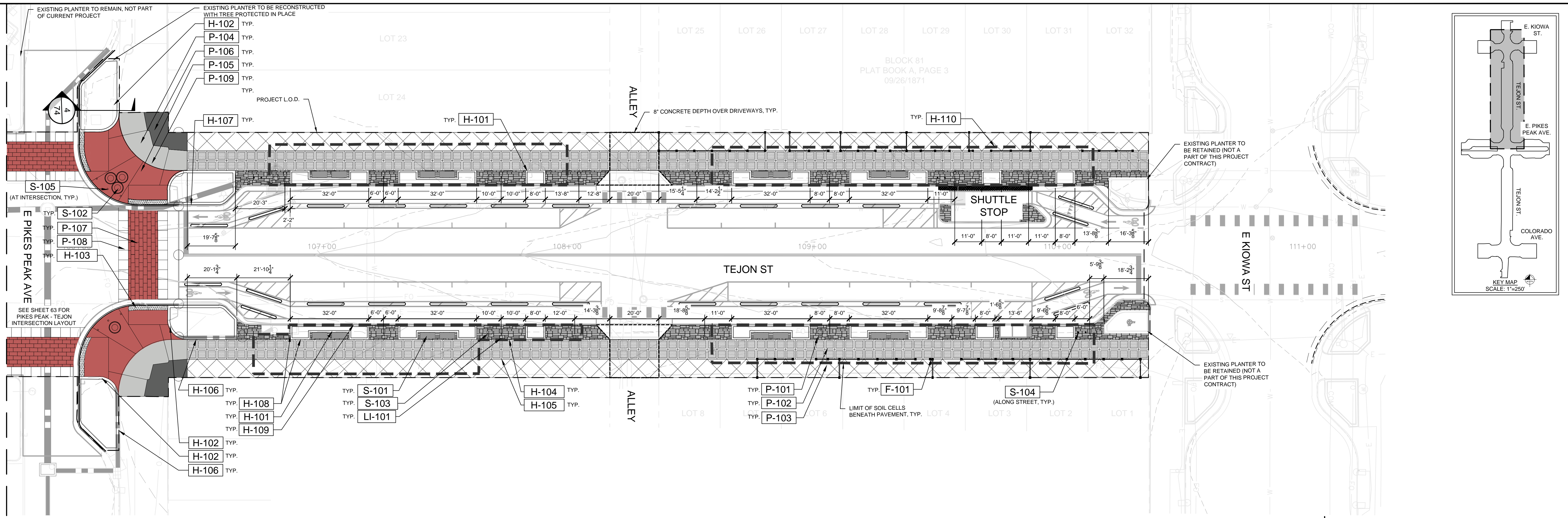
SYMBOL	FENCE DESCRIPTION	QTY	DETAIL
F-101	FLEX ZONE FENCE	824 LF	1/77
SYMBOL	HARDSCAPE DESCRIPTION	QTY	DETAIL
H-101	8' X 8' RAISED CURB PLANTER	1,592 LF	
H-102	12"x12" RAISED CURB PLANTER	751 LF	
H-103	IRON DETECTABLE WARNING PAVERS	6/77	
H-104	'SIDEWALK ZONE' TO 'AMENITY ZONE' CONNECTION	4/75	
H-105	'SIDEWALK ZONE' TO 'FLEX ZONE' CONNECTION	4/75	
H-106	12" RAISED CURB TO SIDEWALK CONNECTION	3/76	
H-107	12" RAISED CURB TO STREET CONNECTION	4/76	
H-108	8" RAISED CURB TO SOIL CELL CONNECTION	1/76	
H-109	8" RAISED CURB TO STREET CONNECTION	2/76	
H-110	SOIL CELLS BENEATH HARDSCAPE	3/74	
SYMBOL	LIGHTING DESCRIPTION	QTY	DETAIL
LI-101	STREET LAMP	4/77	

SYMBOL	PAVING DESCRIPTION	QTY	DETAIL	TYPE	COMPANY	DEPTH	COLOR	PATTERN	FINISH	SIZE
P-101	'AMENITY ZONE' CONCRETE	4,989 SF	3/75	CONCRETE	SOLOMON / BRICKFORM	6" (8" AT DRIVEWAYS)	DARK REDWOOD (489)	SEE DETAIL	SLATE	
P-102	'SIDEWALK ZONE' CONCRETE	12,544 SF	1/75	CONCRETE		6" (8" AT DRIVEWAYS)	STANDARD GREY	PICTURE FRAME	SEE DETAIL	
P-103	'FLEX ZONE' CONCRETE	11,760 SF	2/75	CONCRETE		6" (8" AT DRIVEWAYS)	STANDARD GREY	SEE DETAIL	SEE DETAIL	
P-104	TYPE 1 STANDARD CONCRETE	956 SF		CONCRETE		6" (8" AT DRIVEWAYS)	STANDARD GREY	SEE PLAN	BROOM	
P-105	TYPE 2 COLORED CONCRETE	2,071 SF		CONCRETE	SOLOMON / BRICKFORM	6" (8" AT DRIVEWAYS)	DARK REDWOOD (489)	SEE PLAN	BROOM	
P-106	TYPE 3 COLORED CONCRETE	671 SF		CONCRETE	SOLOMON / BRICKFORM	6" (8" AT DRIVEWAYS)	RAVEN (PC-0908)	SEE PLAN	BROOM	
P-107	GRANITE CROSSWALK PAVING	2,475 SF	6/75	PAVER	COLDSRING	4"	RAINBOW	RUNNING BOND	DIAMOND 100	12" X 24"
P-108	GRANITE BORDER COURSE	1,640 SF	6/75	PAVER	COLDSRING	4"	LAKE PLACID BLUE	STACKED BOND	THERMAL	12" X 12"
P-109	GRANITE DECORATIVE BAND	322 SF	7/75	PAVER	COLDSRING	2"	LAKE PLACID BLUE	STACKED BOND	THERMAL	12" X 12"
SYMBOL	SITE FURNISHINGS DESCRIPTION	QTY	DETAIL	COMPANY	NAME / MODEL #	COLOR	FINISH	SIZE		
S-101	BENCH WITH CENTER ARMREST	3/77		DUMOR INC.	BENCH 19-3AR	JUNIPER GREEN	POWDER COATED	6' LENGTH		
S-102	FREESTANDING PLANTER			PROVIDED BY OWNER						
S-103	TRASH RECEPTACLE	5/77		VICTOR STANLEY	SGE-36SA-P	GREEN	POWDER COAT			
S-104	NEEDLE BOLLARD - SURFACE MOUNTED	2/77		IRON AGE DESIGNS	NEEBOASURF	TRAFFIC GREEN (GN16)	POWDER COAT			
S-105	NEEDLE BOLLARD - EMBEDDED	2/77		IRON AGE DESIGNS	NEEBOASURF	TEXTURED BLACK - BK59	POWDER COAT			

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-HSCP.dwg K:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-HSCP.dwg 5/22/2024 11:00 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

PRINT DATE: May 22, 2024 DRAWING FILE NAME: HORIZ. SCALE: VERT. SCALE:	SHEET REVISIONS DATE: COMMENTS: INITIAL:	 COLORADO SPRINGS OLYMPIC CITY USA COLORADO SPRINGS PUBLIC WORKS 30 SOUTH NEVADA AVE. COLORADO SPRINGS, COLORADO 80901 PHONE: (719) 385-5918	PRELIMINARY FOR REVIEW ONLY NOT FOR CONSTRUCTION Kimley-Horn and Associates, Inc.	TEJON STREET IMPROVEMENTS HARDSCAPE PLAN (BASE BID)	PROJECT NO./CODE 067607114 SHEET NUMBER 71
	(R-X) (R-X) (R-X) (R-X)	CHECKED BY: JCP DESIGNED BY: AJV	SHEET SUBSET: HARDSCAPE SUBSET SHEET:		

5/22/2024 11:00 AM
 K:\projects\067607114_tejon_street_improvements\CADD\plan_sheets\CDs_CD-HSCP.dwg K:\csmr Michael
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



REFERENCE NOTES SCHEDULE

SYMBOL	FENCE DESCRIPTION	QTY	DETAIL
F-101	FLEX ZONE FENCE	824 LF	1/77

SYMBOL	HARDSCAPE DESCRIPTION	QTY	DETAIL	COMPANY	DEPTH	COLOR	FINISH
H-101	8" X 8" RAISED CURB PLANTER	1,592 LF		SOLOMON / BRICKFORM	SEE DETAILS	LLAMA (PC-9001)	SANDSCAPE
H-102	12"X12" RAISED CURB PLANTER	751 LF		SOLOMON / BRICKFORM	SEE DETAILS	LLAMA (PC-9001)	SANDSCAPE
H-103	IRON DETECTABLE WARNING PAVERS	6/77		DURALAST		COATED BLACK	
H-104	'SIDEWALK ZONE' TO 'AMENITY ZONE' CONNECTION	4/75					
H-105	'SIDEWALK ZONE' TO 'FLEX ZONE' CONNECTION	4/75					
H-106	12" RAISED CURB TO SIDEWALK CONNECTION	3/76					
H-107	12" RAISED CURB TO STREET CONNECTION	4/76					
H-108	8" RAISED CURB TO SOIL CELL CONNECTION	1/76					
H-109	8" RAISED CURB TO STREET CONNECTION	2/76					
H-110	SOIL CELLS BENEATH HARDSCAPE	3/74					

SYMBOL	LIGHTING DESCRIPTION	QTY	DETAIL
LI-101	STREET LAMP	4/77	

SYMBOL	PAVING DESCRIPTION	QTY	DETAIL	TYPE	COMPANY	DEPTH	COLOR	PATTERN	FINISH	SIZE
P-101	'AMENITY ZONE' CONCRETE	4,989 SF	3/75	CONCRETE	SOLOMON / BRICKFORM	6" (8" AT DRIVEWAYS)	DARK REDWOOD (489)	SEE DETAIL	SLATE	
P-102	'SIDEWALK ZONE' CONCRETE	12,544 SF	1/75	CONCRETE		6" (8" AT DRIVEWAYS)	STANDARD GREY	PICTURE FRAME	SEE DETAIL	
P-103	'FLEX ZONE' CONCRETE	11,760 SF	2/75	CONCRETE		6" (8" AT DRIVEWAYS)	STANDARD GREY	SEE DETAIL	SEE DETAIL	
P-104	TYPE 1 STANDARD CONCRETE	956 SF		CONCRETE		6" (8" AT DRIVEWAYS)	STANDARD GREY	SEE PLAN	BROOM	
P-105	TYPE 2 COLORED CONCRETE	2,071 SF		CONCRETE	SOLOMON / BRICKFORM	6" (8" AT DRIVEWAYS)	DARK REDWOOD (489)	SEE PLAN	BROOM	
P-106	TYPE 3 COLORED CONCRETE	671 SF		CONCRETE	SOLOMON / BRICKFORM	6" (8" AT DRIVEWAYS)	RAVEN (PC-0908)	SEE PLAN	BROOM	
P-107	GRANITE CROSSWALK PAVING	2,475 SF	6/75	PAVER	COLDSRING	4"	RAINBOW	RUNNING BOND	DIAMOND 100	12" X 24"
P-108	GRANITE BORDER COURSE	1,640 SF	6/75	PAVER	COLDSRING	4"	LAKE PLACID BLUE	STACKED BOND	THERMAL	12" X 12"
P-109	GRANITE DECORATIVE BAND	322 SF	7/75	PAVER	COLDSRING	2"	LAKE PLACID BLUE	STACKED BOND	THERMAL	12" X 12"

SYMBOL	SITE FURNISHINGS DESCRIPTION	QTY	DETAIL	COMPANY	NAME / MODEL #	COLOR	FINISH	SIZE
S-101	BENCH WITH CENTER ARMREST	3/77		DUMOR INC.	BENCH 19-3AR	JUNIPER GREEN	POWDER COATED	6' LENGTH
S-102	FREESTANDING PLANTER			PROVIDED BY OWNER				
S-103	TRASH RECEPTACLE	5/77		VICTOR STANLEY	SGE-36SA-P	GREEN	POWDER COAT	
S-104	NEEDLE BOLLARD - SURFACE MOUNTED	2/77		IRON AGE DESIGNS	NEEBOASURF	TRAFFIC GREEN (GN16)	POWDER COAT	
S-105	NEEDLE BOLLARD - EMBEDDED	2/77		IRON AGE DESIGNS	NEEBOASURF	TEXTURED BLACK - BK59	POWDER COAT	

PRINT DATE: May 22, 2024

DRAWING FILE NAME:

HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY

FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
 HARDSCAPE PLAN (BID ALT A)

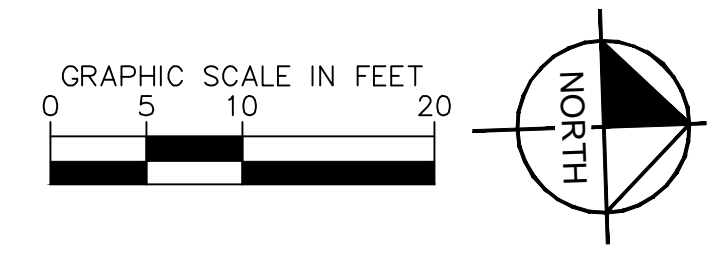
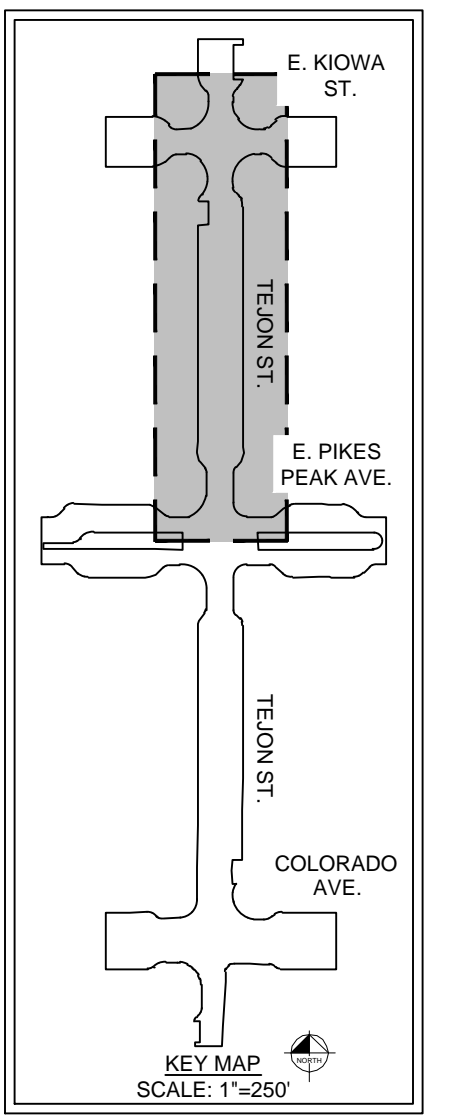
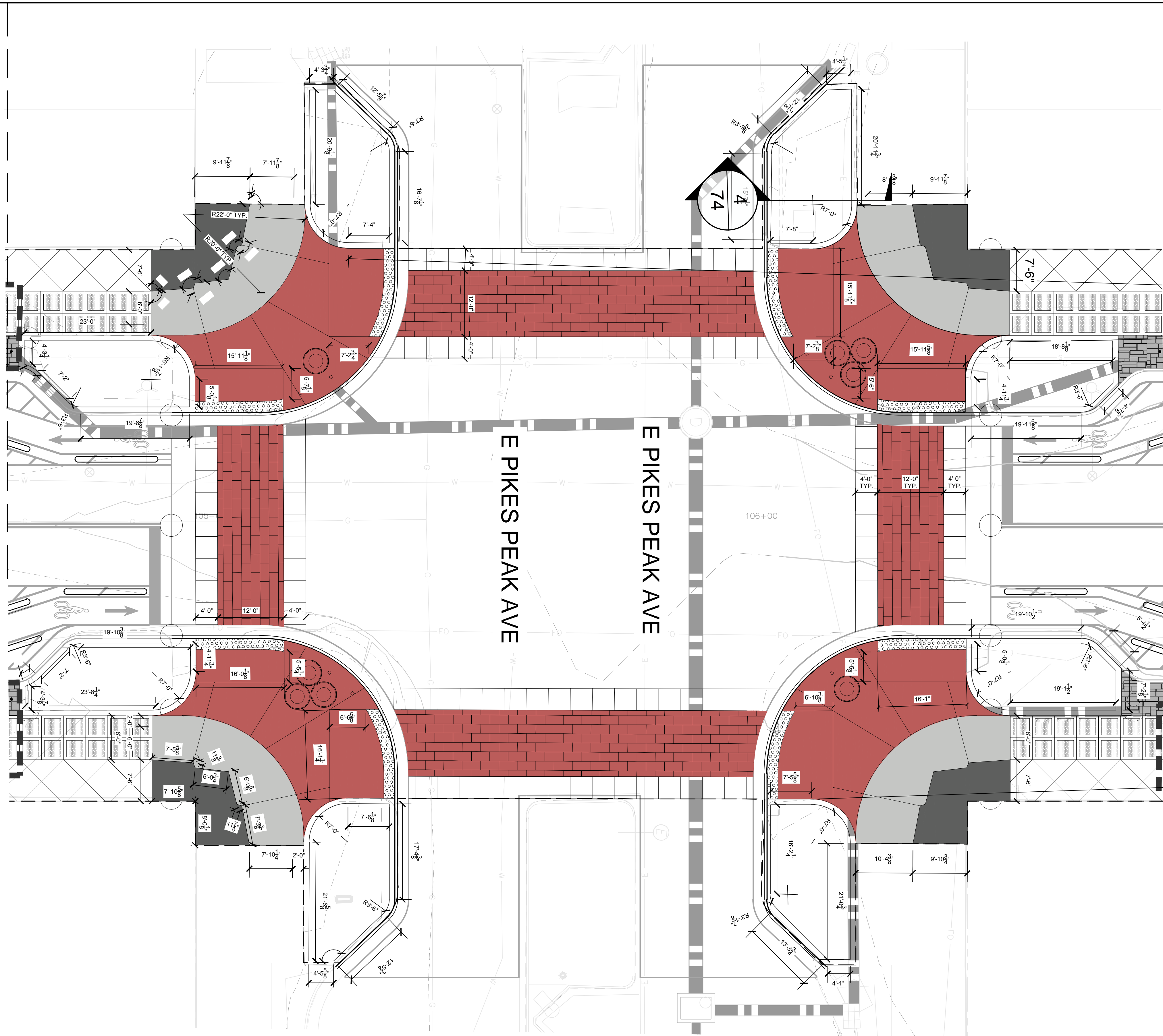
CHECKED BY: JCP
 DESIGNED BY: AJV

SHEET SUBSET: HARDSCAPE SUBSET SHEET:

PROJECT NO./CODE
 067607114

SHEET NUMBER 72

P:_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\HSCP.dwg, Krcmcr, Michael, 5/22/2024 11:01 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:


 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

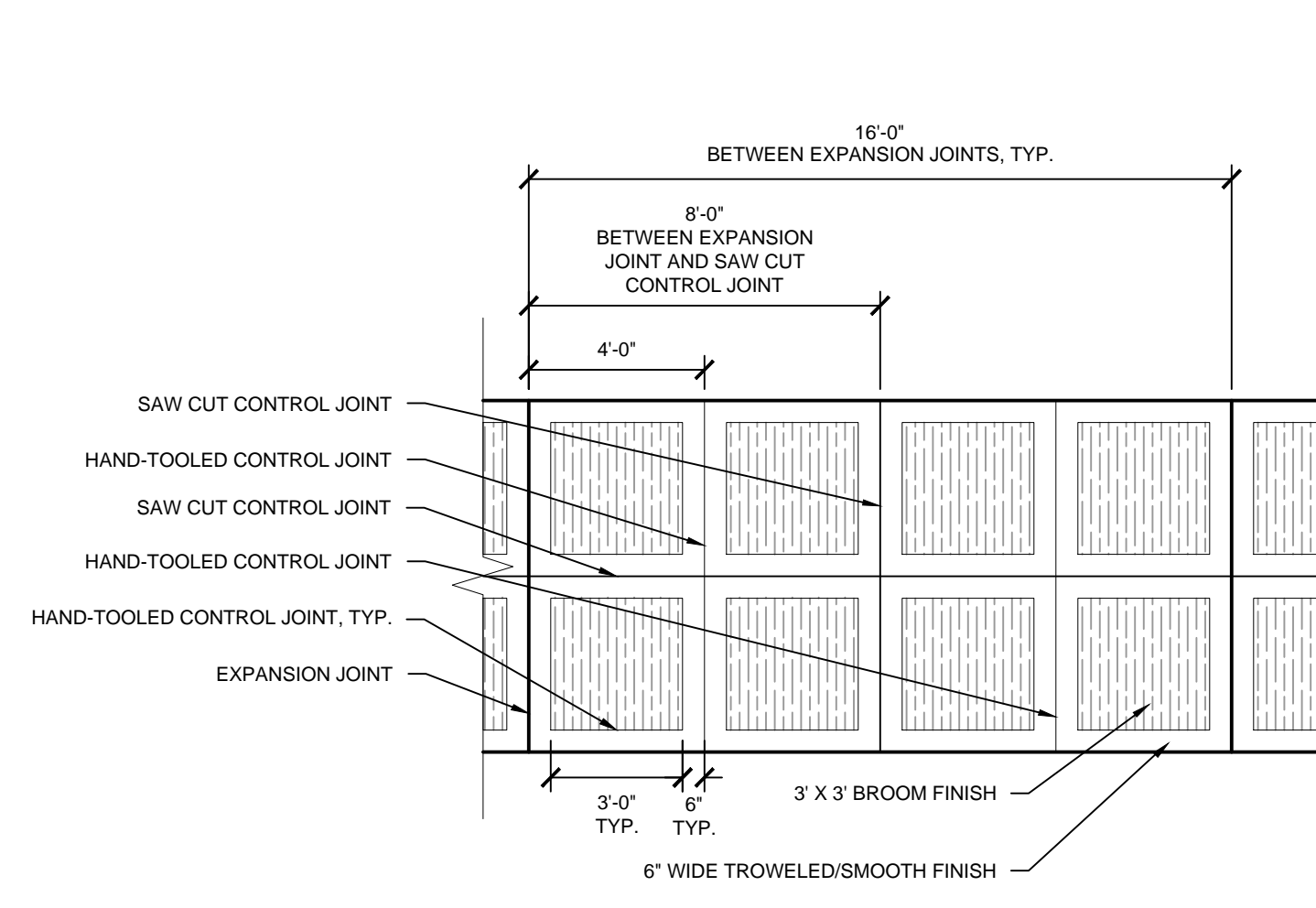
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

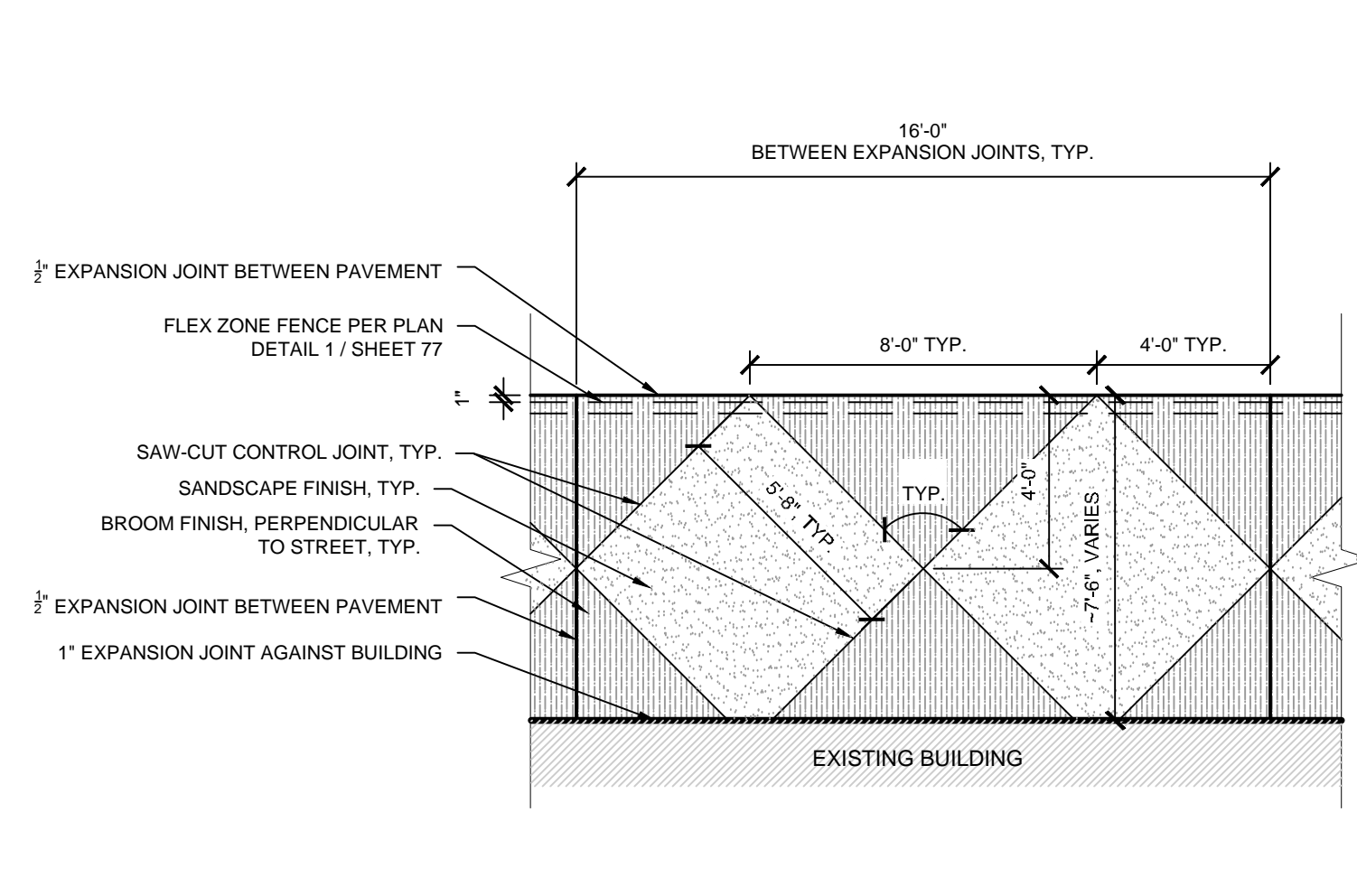
TEJON STREET IMPROVEMENTS INTERSECTION LAYOUT (BID ALT B)	
CHECKED BY: JCP	DESIGNED BY: AJV
SHEET SUBSET: HARDSCAPE SUBSET SHEET:	

PROJECT NO./CODE
067607114
SHEET NUMBER 73

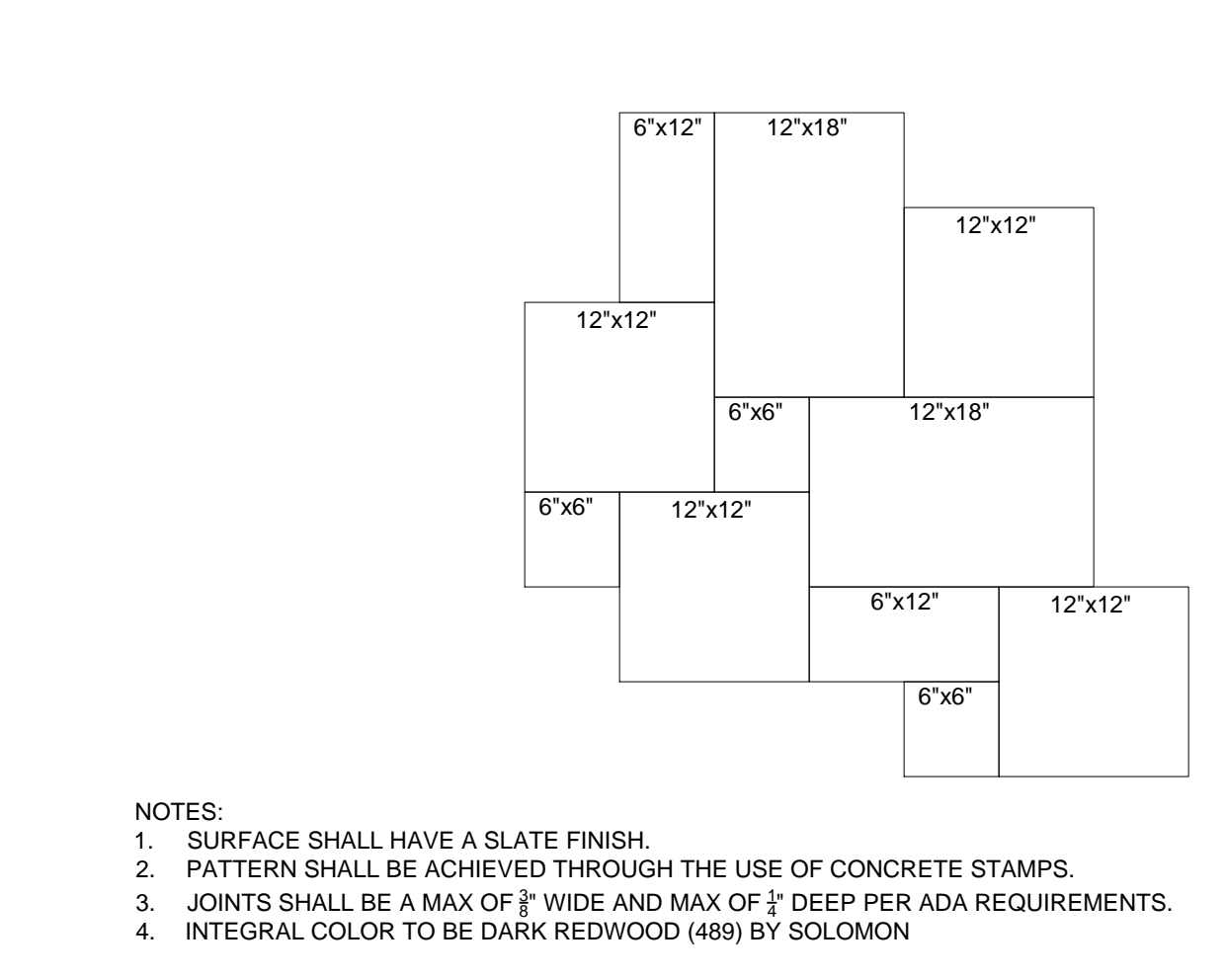
P:\06760714_06760714_topon_street_improvements\CADD\plansheets\CDs\CD-HSCP-DTLS.dwg - Kramer, Michael 5/22/2024 11:01 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE. IT IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



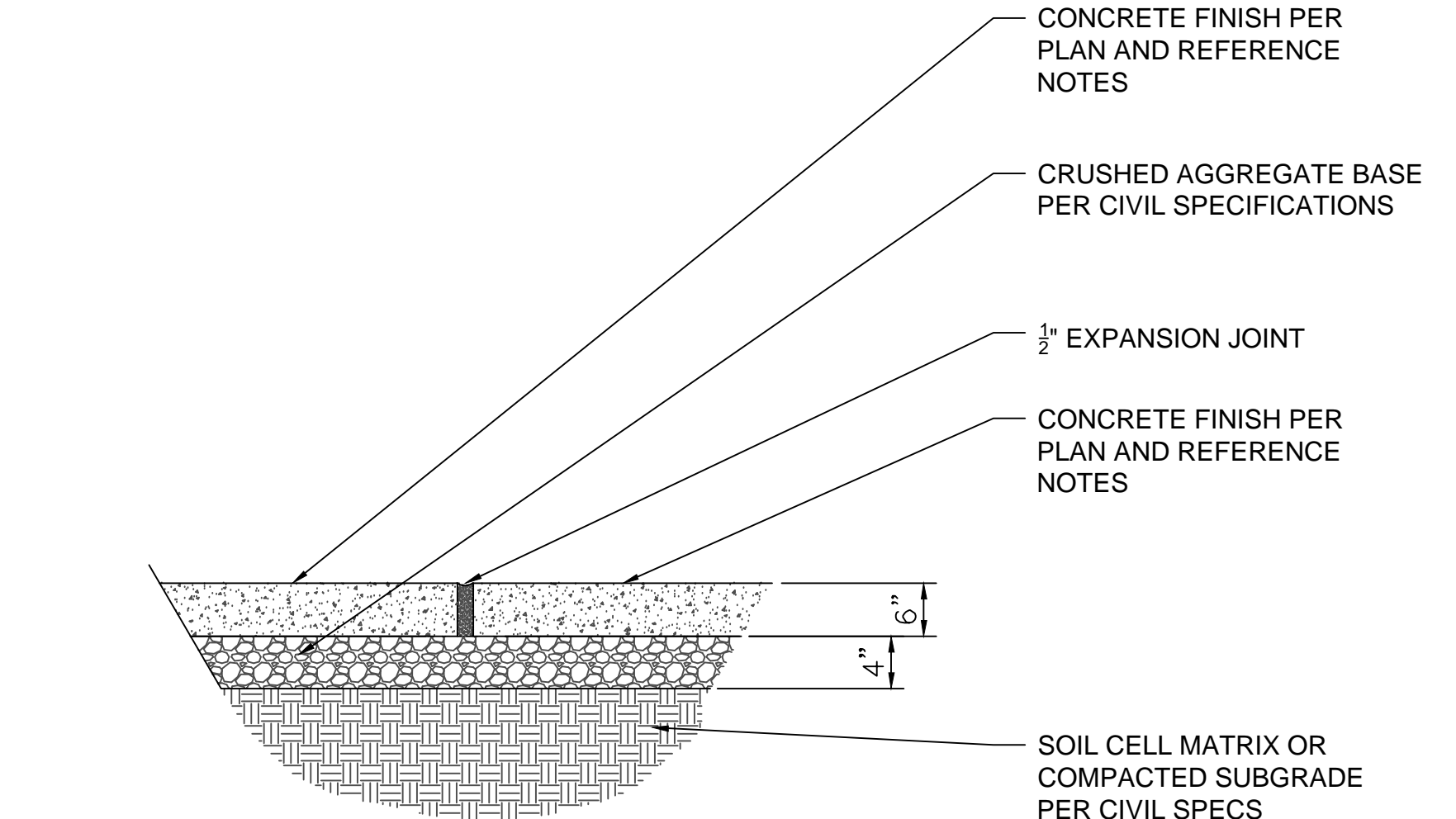
1 'SIDEWALK ZONE' SCORING AND FINISH
NTS



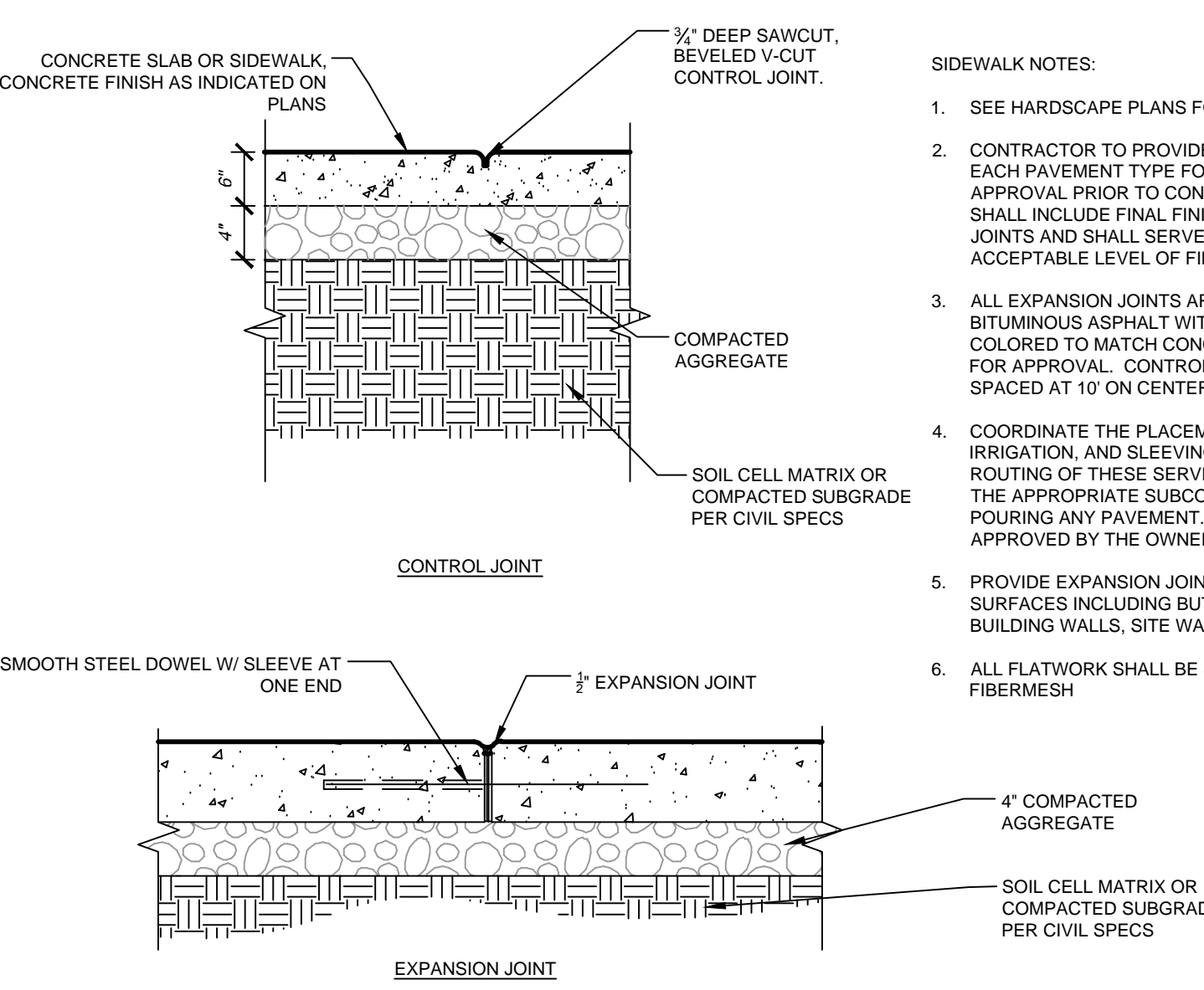
2 'FLEX ZONE' SCORING AND FINISH
NTS



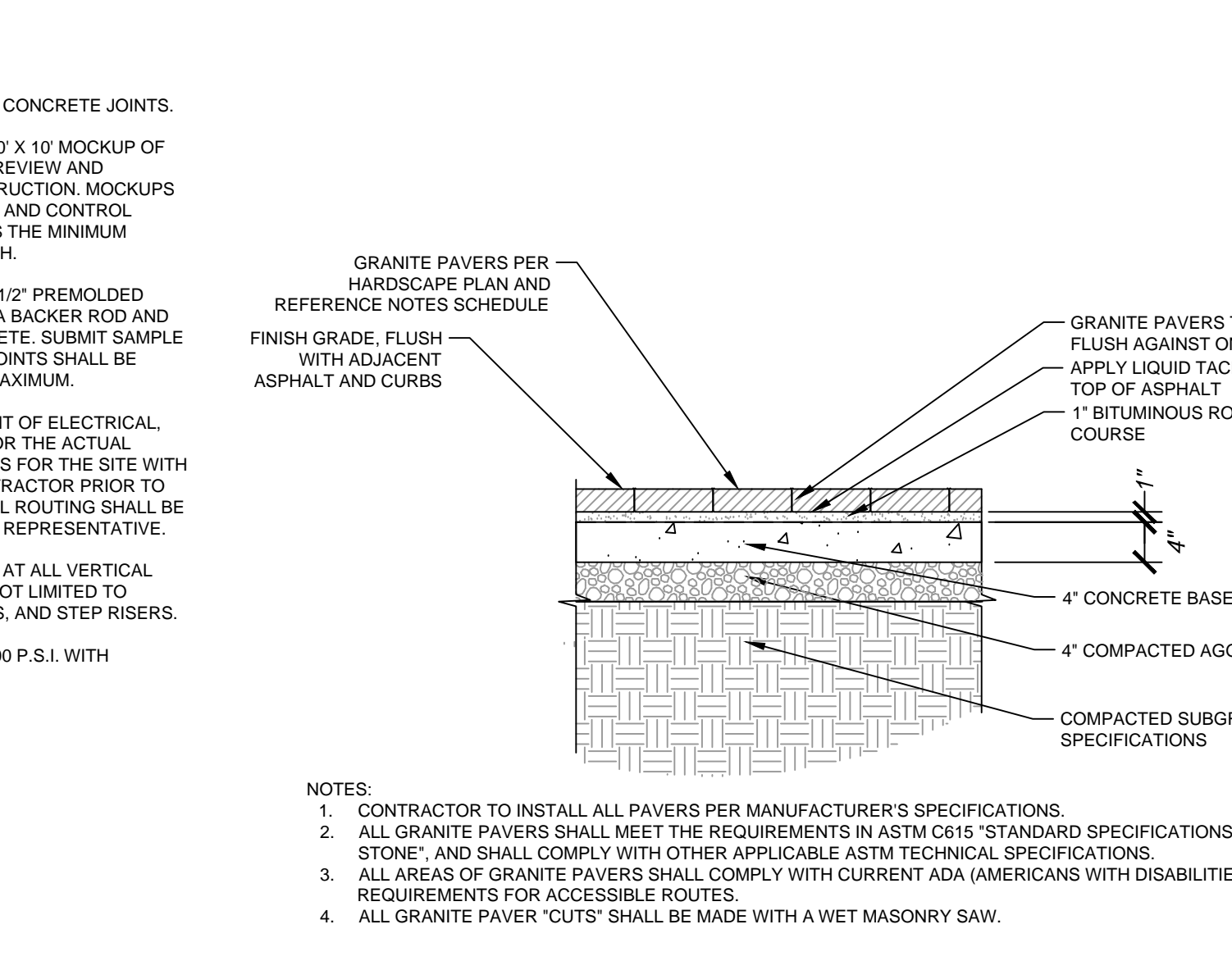
3 'AMENITY ZONE' CONCRETE PATTERN
NTS



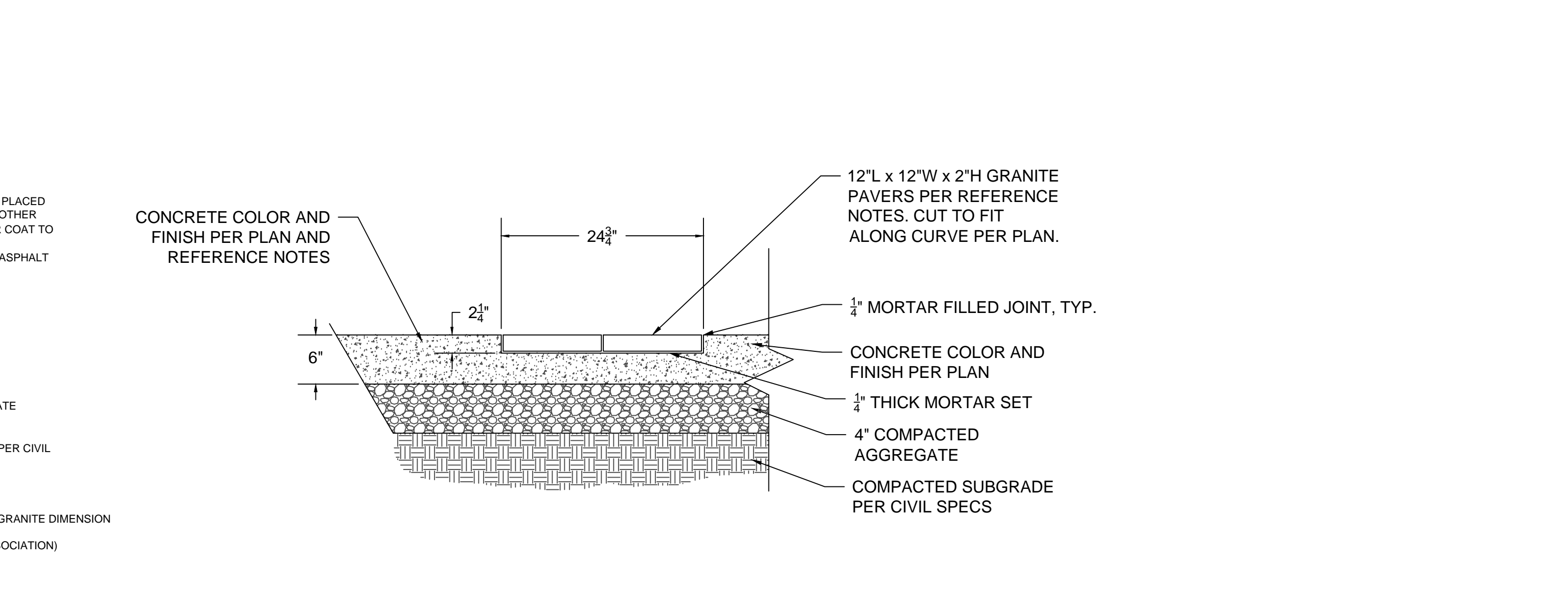
4 CONCRETE TO CONCRETE CONNECTION
NTS



5 CONCRETE JOINTS
NTS



6 GRANITE CROSSWALK PAVING
NTS



7 GRANITE DECORATIVE BAND
NTS

- SIDEWALK NOTES:**
- SEE HARDSCAPE PLANS FOR CONCRETE JOINTS.
 - CONTRACTOR TO PROVIDE 10' X 10' MOCKUP OF EACH PAVEMENT TYPE FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. MOCKUPS SHALL INCLUDE FINAL FINISH AND CONTROL JOINTS AND SHALL SERVE AS THE MINIMUM ACCEPTABLE LEVEL OF FINISH.
 - ALL EXPANSION JOINTS ARE 1/2" PREMOLDED BITUMINOUS ASPHALT WITH A BACKER ROD AND COLORED TO MATCH CONCRETE. SUBMIT SAMPLE FOR APPROVAL. CONTROL JOINTS SHALL BE SPACED AT 10' ON CENTER MAXIMUM.
 - COORDINATE THE PLACEMENT OF ELECTRICAL, IRRIGATION, AND SLEEVING OR THE ACTUAL ROUTING OF THESE SERVICES FOR THE SITE WITH THE APPROPRIATE SUBCONTRACTOR PRIOR TO POURING ANY PAVEMENT. ALL ROUTING SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
 - PROVIDE EXPANSION JOINTS AT ALL VERTICAL SURFACES INCLUDING BUT NOT LIMITED TO BUILDING WALLS, SITE WALLS, AND STEP RISERS.
 - ALL FLATWORK SHALL BE 4000 P.S.I. WITH FIBERMESH.

- NOTES:**
- CONTRACTOR TO INSTALL ALL PAVERS PER MANUFACTURER'S SPECIFICATIONS.
 - ALL GRANITE PAVERS SHALL MEET THE REQUIREMENTS IN ASTM C615 'STANDARD SPECIFICATIONS FOR GRANITE DIMENSION STONE' AND SHALL COMPLY WITH OTHER APPLICABLE ASTM TECHNICAL SPECIFICATIONS.
 - ALL AREAS OF GRANITE PAVERS SHALL COMPLY WITH CURRENT ADA (AMERICANS WITH DISABILITIES ASSOCIATION) REQUIREMENTS FOR ACCESSIBLE ROUTES.
 - ALL GRANITE PAVER 'CUTS' SHALL BE MADE WITH A WET MASONRY SAW.

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

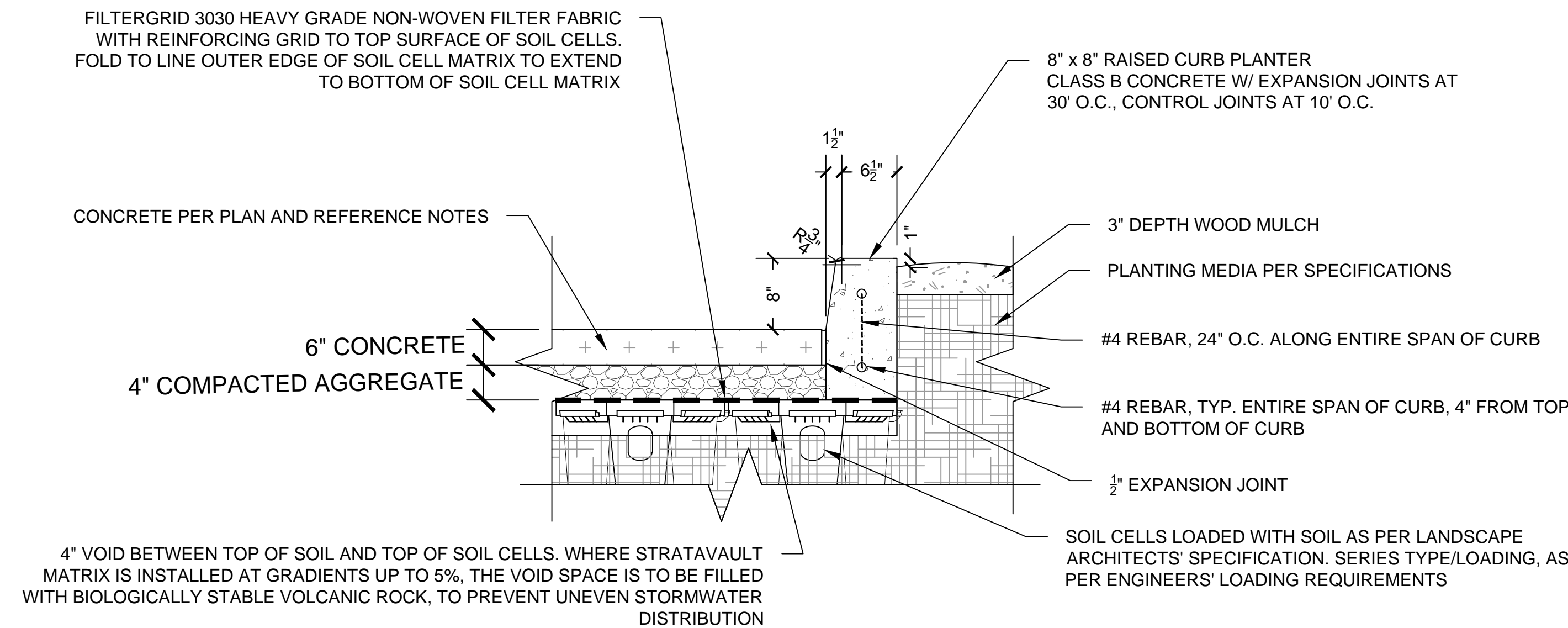
TEJON STREET IMPROVEMENTS
 HARDSCAPE DETAILS

CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	HARDSCAPE
SUBSET SHEET:	

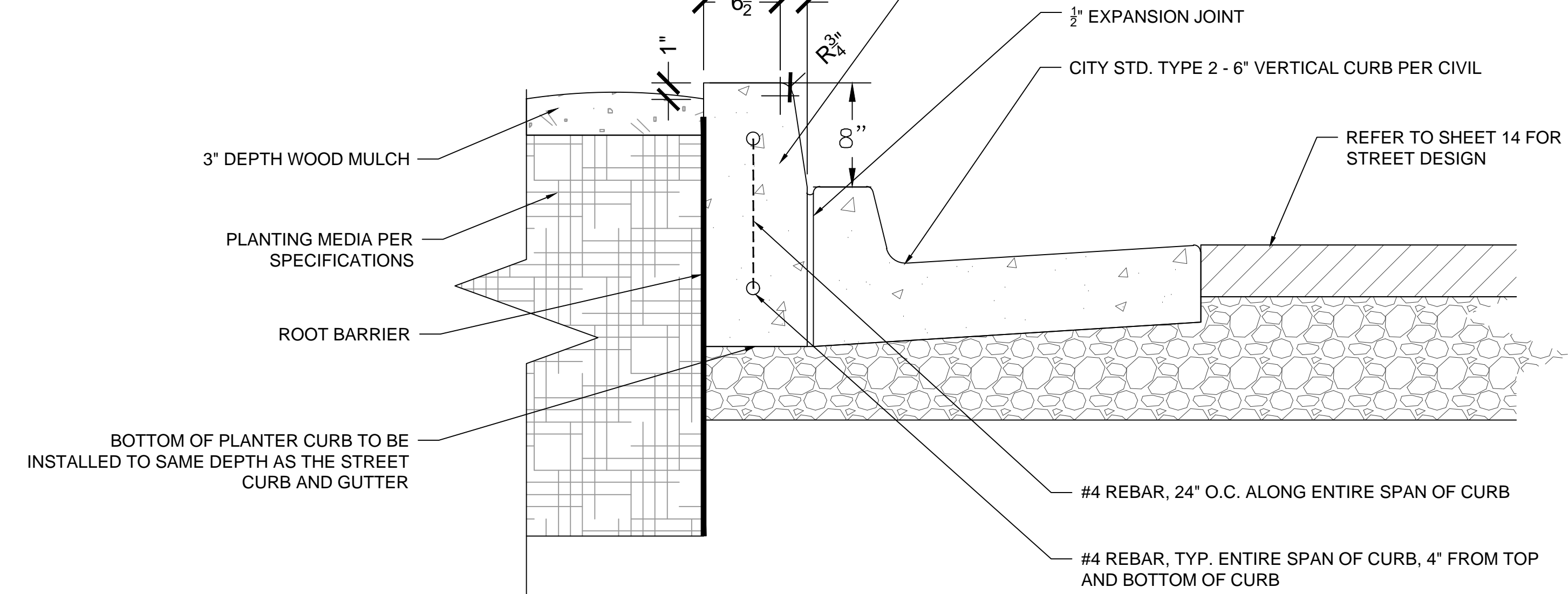
PROJECT NO./CODE
 067607114

SHEET NUMBER 75

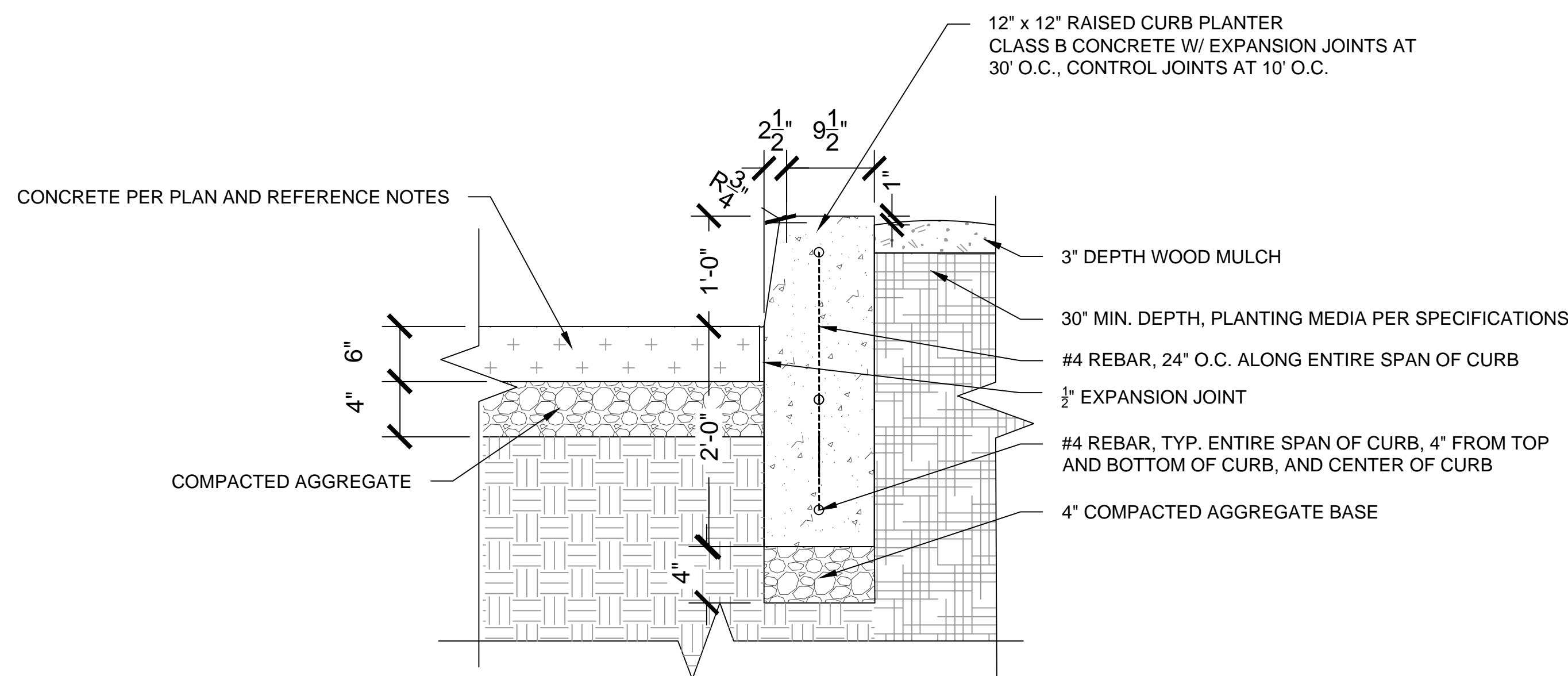
P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-HSCP-DTLS.dwg - Kramer, Michael 5/22/2024 11:01 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



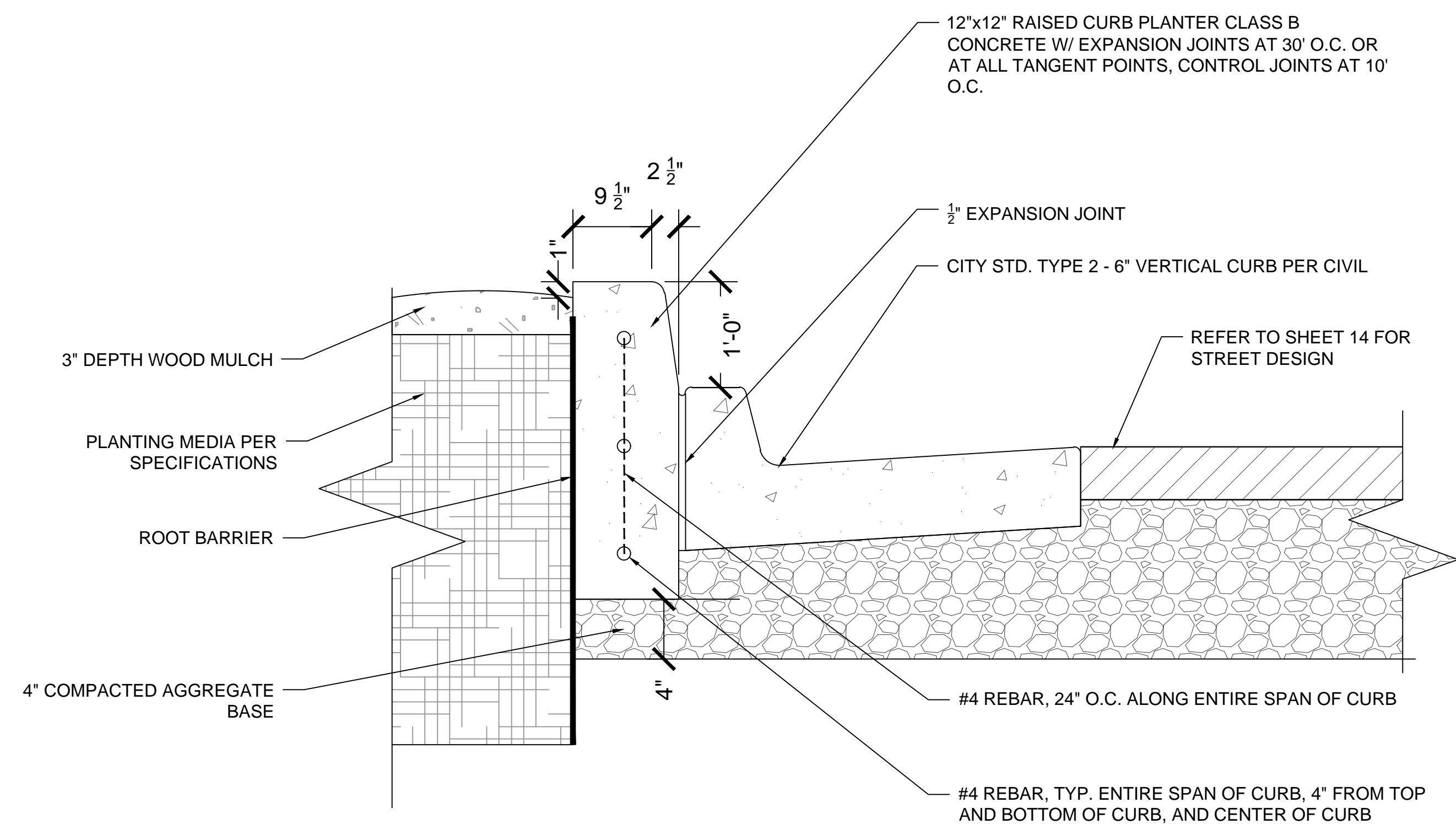
1 8" RAISED CURB TO SOIL CELL CONNECTION
NTS



2 8" RAISED CURB TO STREET CONNECTION
NTS



3 12" RAISED CURB TO SIDEWALK CONNECTION
NTS



4 12" RAISED CURB TO STREET CONNECTION
NTS

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS
OLYMPIC CITY USA

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

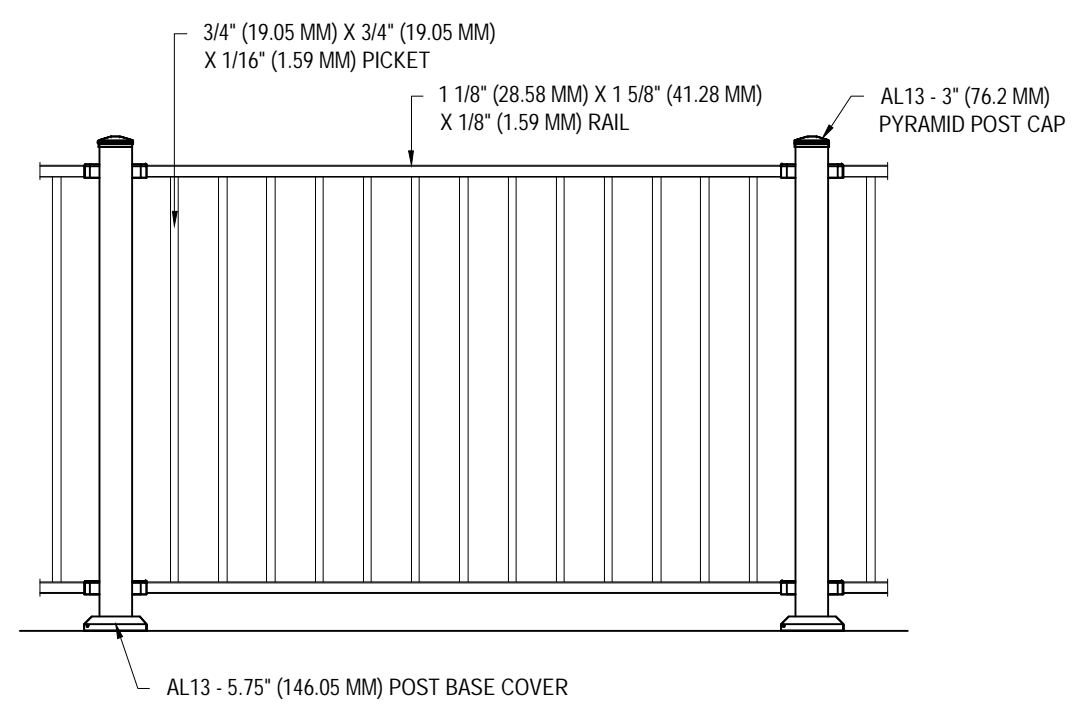
PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
HARDSCAPE DETAILS

CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	HARDSCAPE
SUBSET SHEET:	

PROJECT NO./CODE	067607114
SHEET NUMBER	76

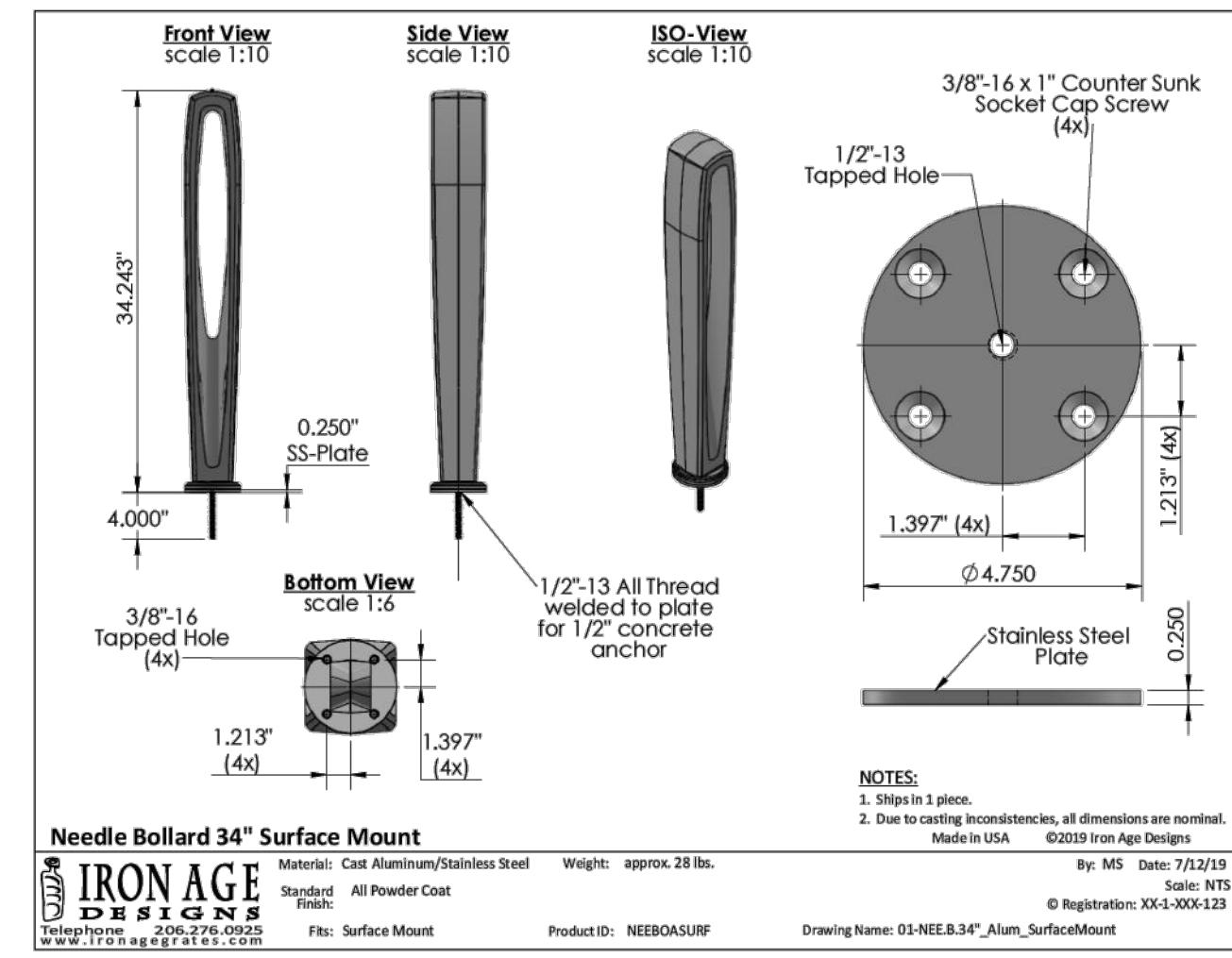
P:\COS_civil\067607114_tejon_street_improvements\CADD\plan\sheet\CD\HSCP-DTLS.dwg - Kramer, Michael 5/22/2024 11:01 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE AS DEFINED IN THE STANDARD AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



- NOTES:
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 - MANUFACTURER INFO: FORTRESS BUILDING PRODUCTS - FORTRESSBP.COM - 866-323-4766
 - COLOR OF ALL RAILING MATERIALS TO BE BLACK

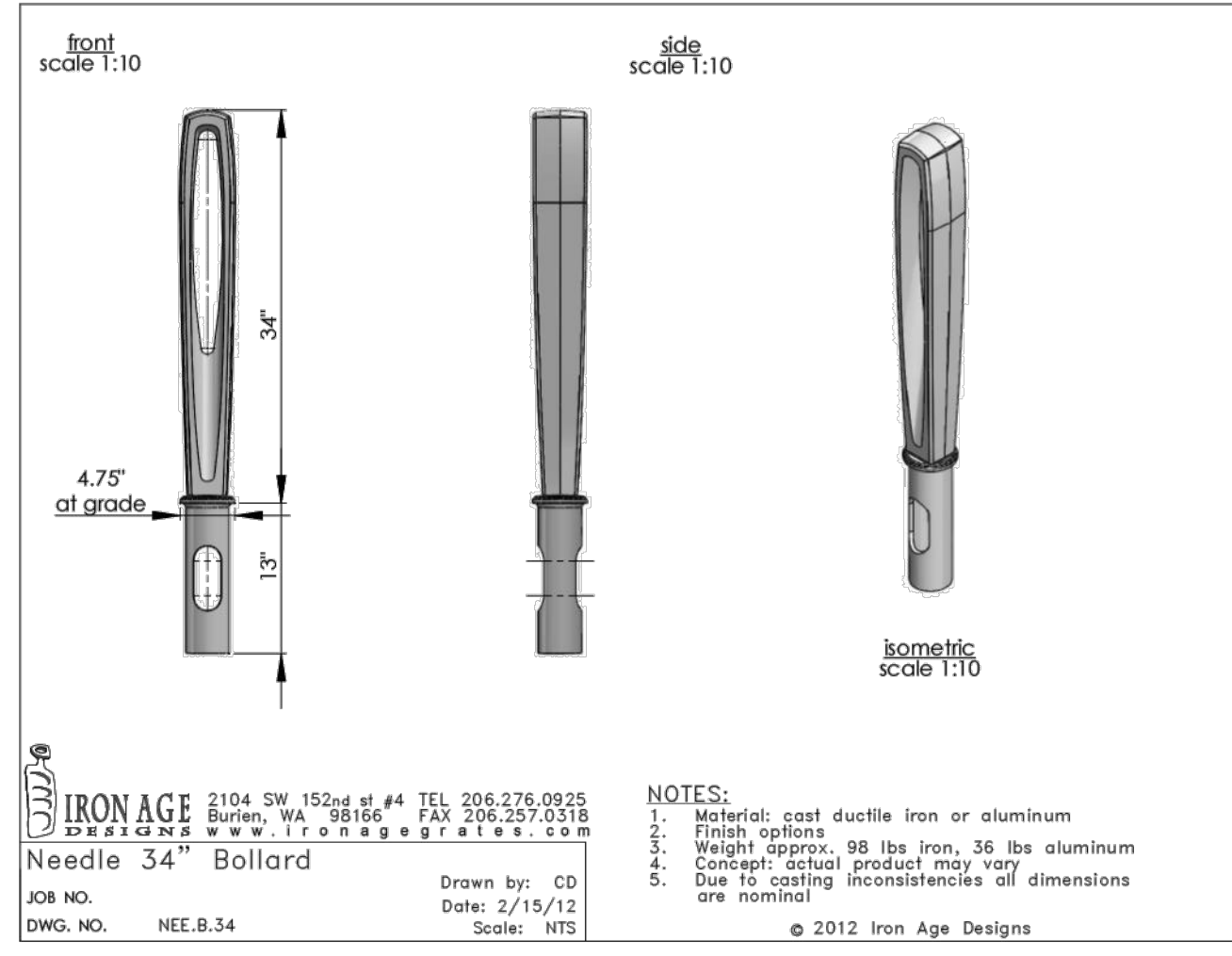
AL13 PLUS RAILING BY FORTRESS

1 FLEX ZONE FENCE
NTS



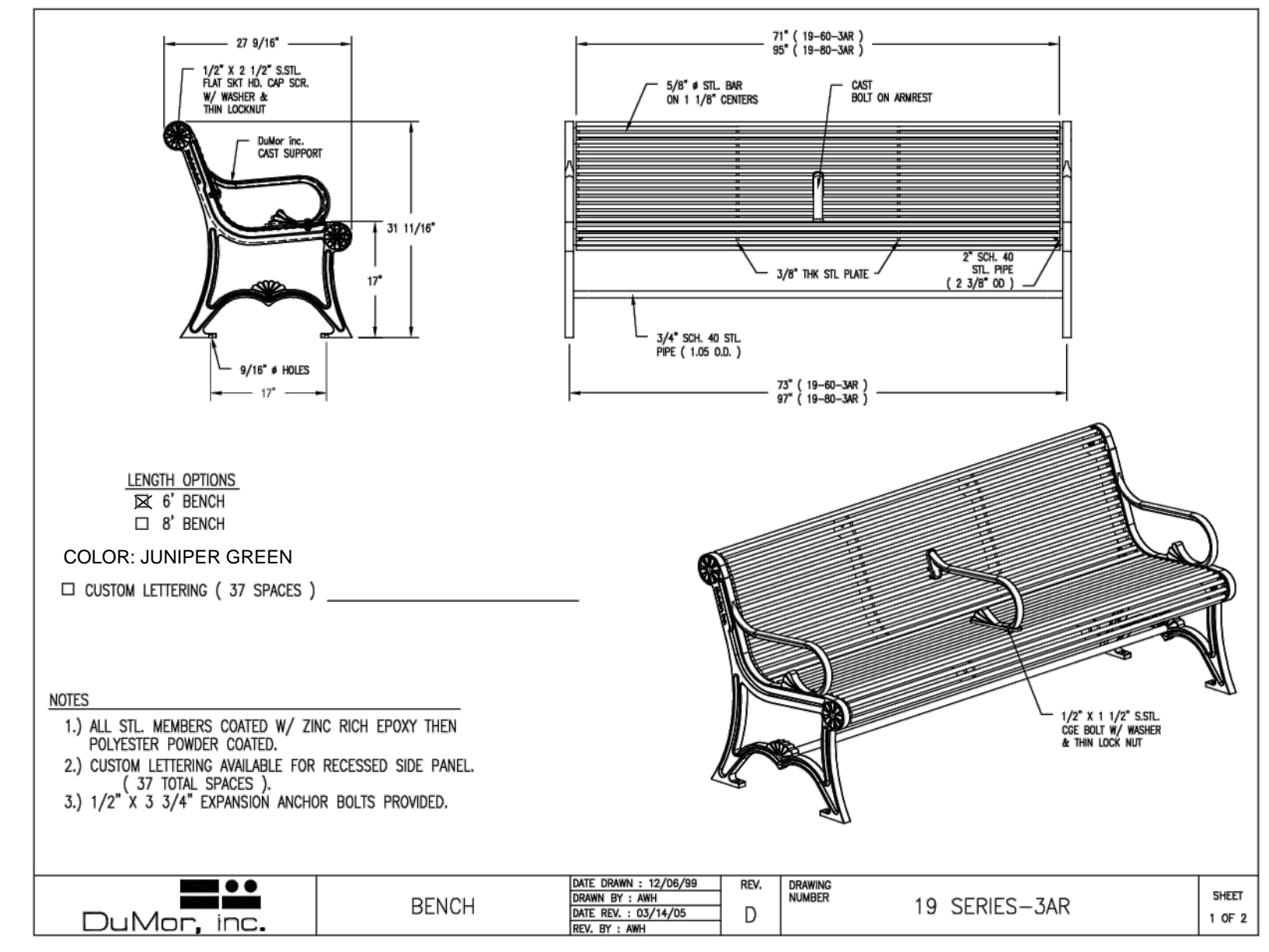
'NEEDLE' BOLLARD BY IRON AGE DESIGNS
SURFACE MOUNTED
TO BE USED AS BIKE RACKS ALONG STREET
COLOR - TRAFFIC GREEN (GN16)

2 BOLLARDS
NTS



'NEEDLE' BOLLARD BY IRON AGE DESIGNS
EMBEDDED
TO BE USED AT INTERSECTION PER PLAN
COLOR - TEXTURED BLACK (BK59)

3 6' BENCH
NTS



6' SURFACE MOUNTED BENCH BY DUMOR, INC.

NOTE: CITY MAY OPT TO REMOVE EXISTING LIGHT POLES, SAND BLAST, REPAINT CITY STANDARD GREEN, AND RE-INSTALL IN LIEU OF PURCHASING NEW EQUIPMENT FROM COLORADO SPRINGS UTILITIES.

4 STREET LAMP
NTS



EXISTING RECEPTACLE ON TEJON STREET
NOTE: EIGHT (8) EXISTING TRASH RECEPTACLES ARE TO BE REMOVED, STORED IN A PROTECTED LOCATION TO PREVENT DAMAGE, SANDED, RE-PAINTED AS NEEDED, AND RE-INSTALLED AT THE NEW LOCATIONS SHOWN ON THE PLANS.

5 TRASH RECEPTACLE
NTS

ADDITIONAL RECEPTACLES TO BE PROVIDED TO MATCH THE QUANTITIES SHOWN ON THE PLAN

IRON DETECTABLE WARNING PAVERS

PRINT DATE: May 22, 2024
DRAWING FILE NAME:
HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2023

SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	

COLORADO SPRINGS
OLYMPIC CITY USA

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

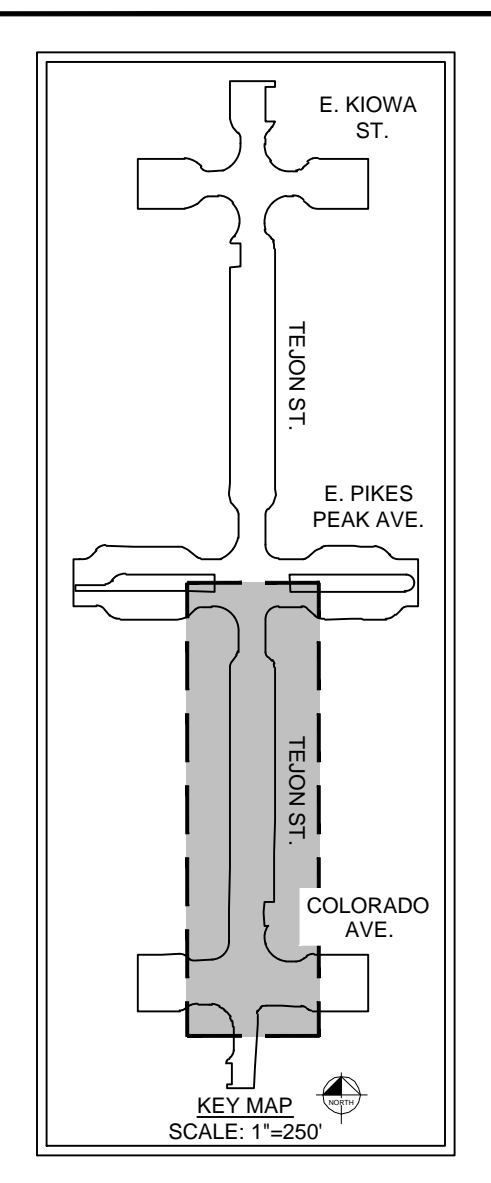
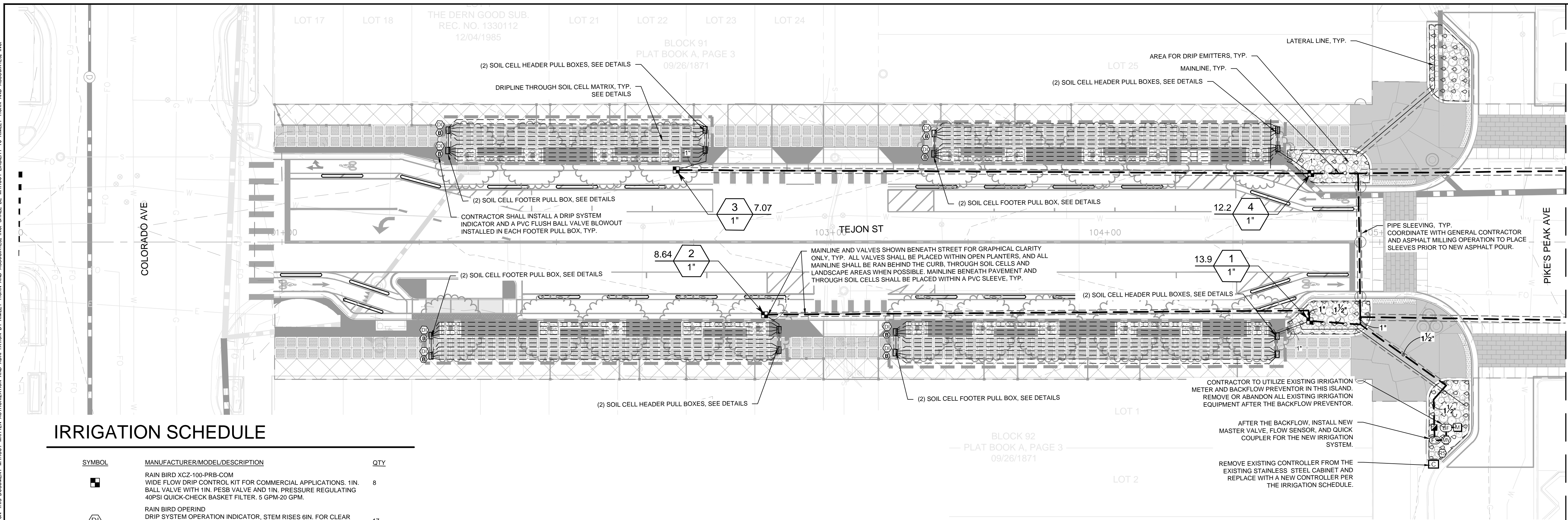
PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS HARDSCAPE DETAILS	
CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	HARDSCAPE
SUBSET SHEET:	

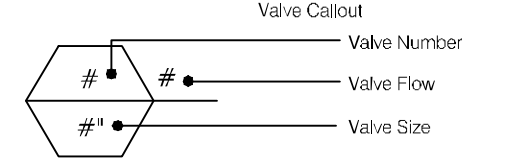
PROJECT NO./CODE
067607114
SHEET NUMBER 77

P:\CS_civil\06760714_tejon_street_improvements\CADD\plansheets\CDs_CD-IRR.dwg Krcmcr, Michael 5/22/2024 11:02 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD XCZ-100-PRB-COM WIDE FLOW DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1IN. BALL VALVE WITH 1IN. PESB VALVE AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 5 GPM-20 GPM.	8
	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6IN. FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI. INCLUDES 16IN. OF 1/4IN. DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED.	17
	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD XB-PC SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATES OF 0.5 GPH=BLUE, 1.0 GPH=BLACK, AND 2.0 GPH=RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET. Emitter Notes: 05PC emitters (1 assigned to each 4" POT plant) 05PC emitters (2 assigned to each 3 GAL plant) 10PC emitters (2 assigned to each 5 GAL plant)	2,583 S.F. 132 602
	RAIN BIRD XFS-CV-06-18 XFS-CV SUB-SURFACE AND ON-SURFACE LANDSCAPE DRIPLINE WITH A HEAVY-DUTY 4.3 PSI CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. GREAT FOR ELEVATION CHANGE. SPECIFY XF INSERT FITTINGS.	10,677 L.F.
	RAIN BIRD 44-LRC 1IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.	1
	RAIN BIRD PEB 1" 1IN., 1-1/2IN., 2IN. PLASTIC INDUSTRIAL MASTER VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	1
	PVC FLUSH BALL VALVE BLOWOUT TO BE INSTALLED WITHIN FOOTER PULL BOXES FOR SOIL CELL IRRIGATION AREAS.	17
	EXISTING 1" BACKFLOW PREVENTOR 1" LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER.	1
	RAIN BIRD ESPLXME2P 12 STATION, TRADITIONALLY WIRED COMMERCIAL CONTROLLER W/ FACTORY INSTALLED PRO SMART MODULE. INDOOR/OUTDOOR, PLASTIC WALL MOUNT ENCLOSURE.	1
	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR.	1
	RAIN BIRD UFS-100 1IN. ULTRASONIC FLOW SENSORS, WITH GLASS FILLED NYLON BODY. OPERATING RANGE .3 GPM-50 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE.	1
	WATER METER 1" EXISTING IRRIGATION METER	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.	567.6 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40	1,348 L.F.
	PIPE SLEEVE: PVC SCHEDULE 40	1,460 L.F.



VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	13.88	91.3	48.6	67.1	0.71 in/h
2	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	8.64	293.3	41.2	62.5	0.74 in/h
3	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	7.07	376.3	39.4	59.8	0.72 in/h
4	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	12.24	145.1	45.9	67.0	0.73 in/h
5	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	11.87	296.7	45.5	72.4	0.6 in/h
6	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	10.17	504.0	43.2	73.6	0.73 in/h
7	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	10	451.0	42.8	71.3	0.76 in/h
8	RAIN BIRD XCZ-100-PRB-COM	1"	DRIPLINE	12.09	246.0	45.7	70.8	0.76 in/h
	Common Wire				1,348			

CRITICAL ANALYSIS

Generated: 2024-03-27 14:26

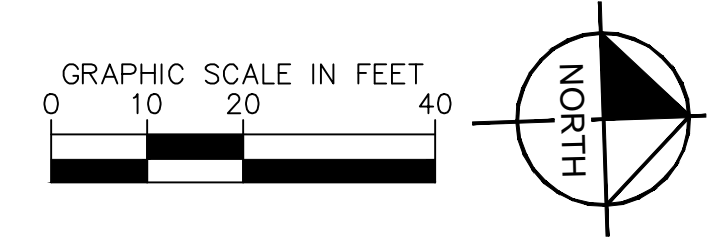
P.O.C. NUMBER: 01
Water Source Information: Existing Irrigation Meter

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available: 37.5 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 80 PSI
Elevation Change: 5.00 ft
Service Line Size: 1 1/2"
Length of Service Line: 20 ft
Pressure Available: 77 PSI

DESIGN ANALYSIS
Maximum Station Flow: 13.88 GPM
Flow Available at POC: 37.5 GPM
Residual Flow Available: 23.62 GPM

Design Pressure: 30 PSI
Friction Loss: 0.78 PSI
Fittings Loss: 0.08 PSI
Elevation Loss: 0 PSI
Loss through Valve: 12.3 PSI
Pressure Req. at Critical Station: 43.2 PSI
Loss for Fittings: 1.17 PSI
Loss for Main Line: 11.7 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 15.0 PSI
Loss for Master Valve: 1.82 PSI
Loss for Water Meter: 0.72 PSI
Critical Station Pressure at POC: 73.6 PSI
Pressure Available: 77 PSI
Residual Pressure Available: 3.38 PSI



MATCHLINE SEE SHEET 79

PRINT DATE: May 22, 2024
DRAWING FILE NAME:
HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVE, SUITE 900
COLORADO SPRINGS, CO 80903
PHONE: 719-453-0180
© 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
30 SOUTH NEVADA AVE.
COLORADO SPRINGS, COLORADO 80901
PHONE: (719) 385-5918

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley-Horn
Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
IRRIGATION PLAN (BASE BID)

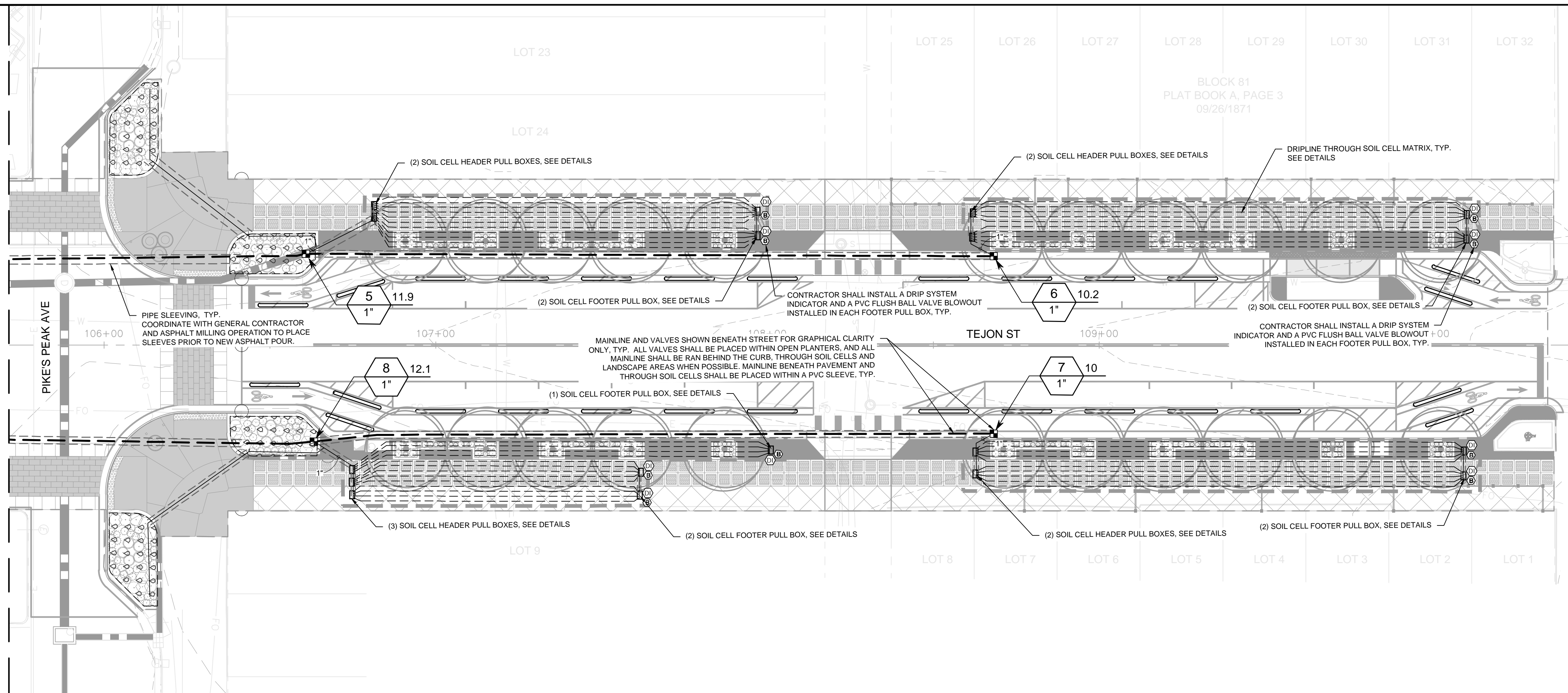
CHECKED BY: JCP
DESIGNED BY: AJV

SHEET SUBSET: IRRIGATION SUBSET SHEET:

PROJECT NO./CODE
067607114

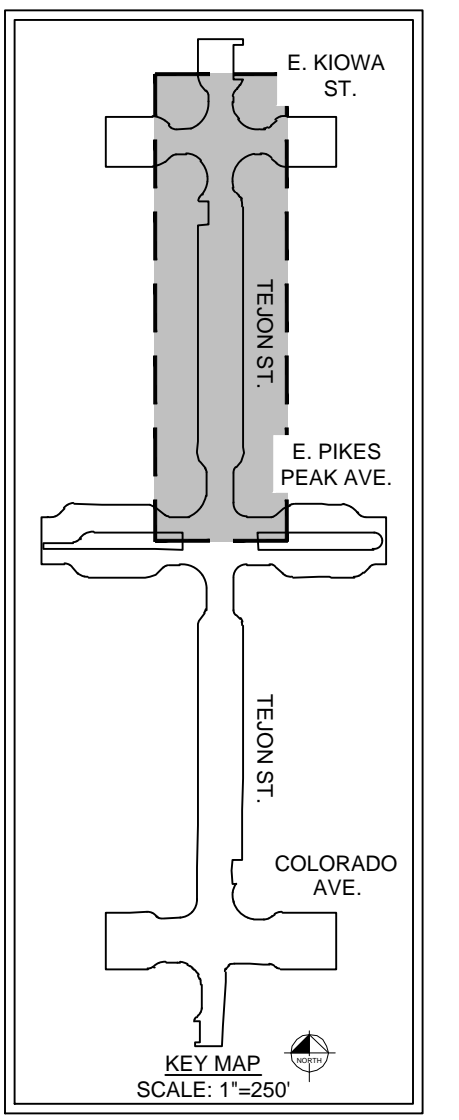
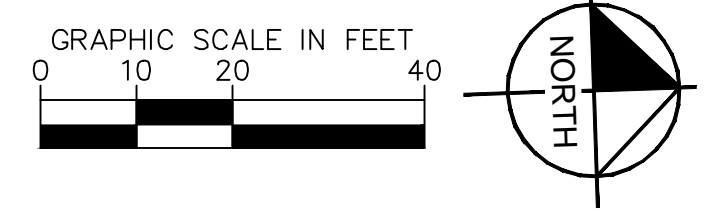
SHEET NUMBER 78

P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-IRR.dwg Krcmcr, Michael 5/22/2024 11:02 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
■	RAIN BIRD XCZ-100-PRB-COM WIDE FLOW DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1IN. BALL VALVE WITH 1IN. PESS VALVE AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 5 GPM-20 GPM.	8
⬡	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR. STEM RISES 6IN. FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI. INCLUDES 16IN. OF 1/4IN. DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED.	17
⬡	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD XB-PC SINGLE OUTLET. PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATES OF 0.5 GPH-BLUE, 1.0 GPH-BLACK, AND 2.0 GPH-RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET. Emitter Notes: 05PC emitters (1 assigned to each 4" POT plant) 05PC emitters (2 assigned to each 3 GAL plant) 10PC emitters (2 assigned to each 5 GAL plant)	2,583 S.F.
---	RAIN BIRD XFS-CV-06-18 XFS-CV SUB-SURFACE AND ON-SURFACE LANDSCAPE DRIFLINE WITH A HEAVY-DUTY 4.3 PSI CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. GREAT FOR ELEVATION CHANGE. SPECIFY XF INSERT FITTINGS.	10,677 L.F.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
■	RAIN BIRD 44-LRC 1IN. BRASS QUICK-COUPLING VALVE. WITH CORROSION-RESISTANT STAINLESS STEEL SPRING. LOCKING THERMOPLASTIC RUBBER COVER. AND 2-PIECE BODY.	1
⊕	RAIN BIRD PEB 1" 1IN., 1-1/2IN., 2IN. PLASTIC INDUSTRIAL MASTER VALVES. LOW FLOW OPERATING CAPABILITY. GLOBE CONFIGURATION.	1
⊕	PVC FLUSH BALL VALVE BLOWOUT TO BE INSTALLED WITHIN FOOTER PULL BOXES FOR SOIL CELL IRRIGATION AREAS.	17
⊕	EXISTING 1" BACKFLOW PREVENTOR 1" LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER.	1
⊕	RAIN BIRD ESPLXME2P 12 STATION, TRADITIONALLY-WIRED COMMERCIAL CONTROLLER W/ FACTORY INSTALLED PRO SMART MODULE. INDOOR/OUTDOOR. PLASTIC WALL-MOUNT ENCLOSURE.	1
⊕	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR.	1
⊕	RAIN BIRD UFS-100 1IN. ULTRASONIC FLOW SENSORS. WITH GLASS FILLED NYLON BODY. OPERATING RANGE .3 GPM-50 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE.	1
⊕	WATER METER 1" EXISTING IRRIGATION METER	1
---	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.	567.6 L.F.
---	IRRIGATION MAINLINE: PVC SCHEDULE 40	1,348 L.F.
---	PIPE SLEEVE: PVC SCHEDULE 40	1,460 L.F.



PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
 CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
 IRRIGATION PLAN (BID ALT A)

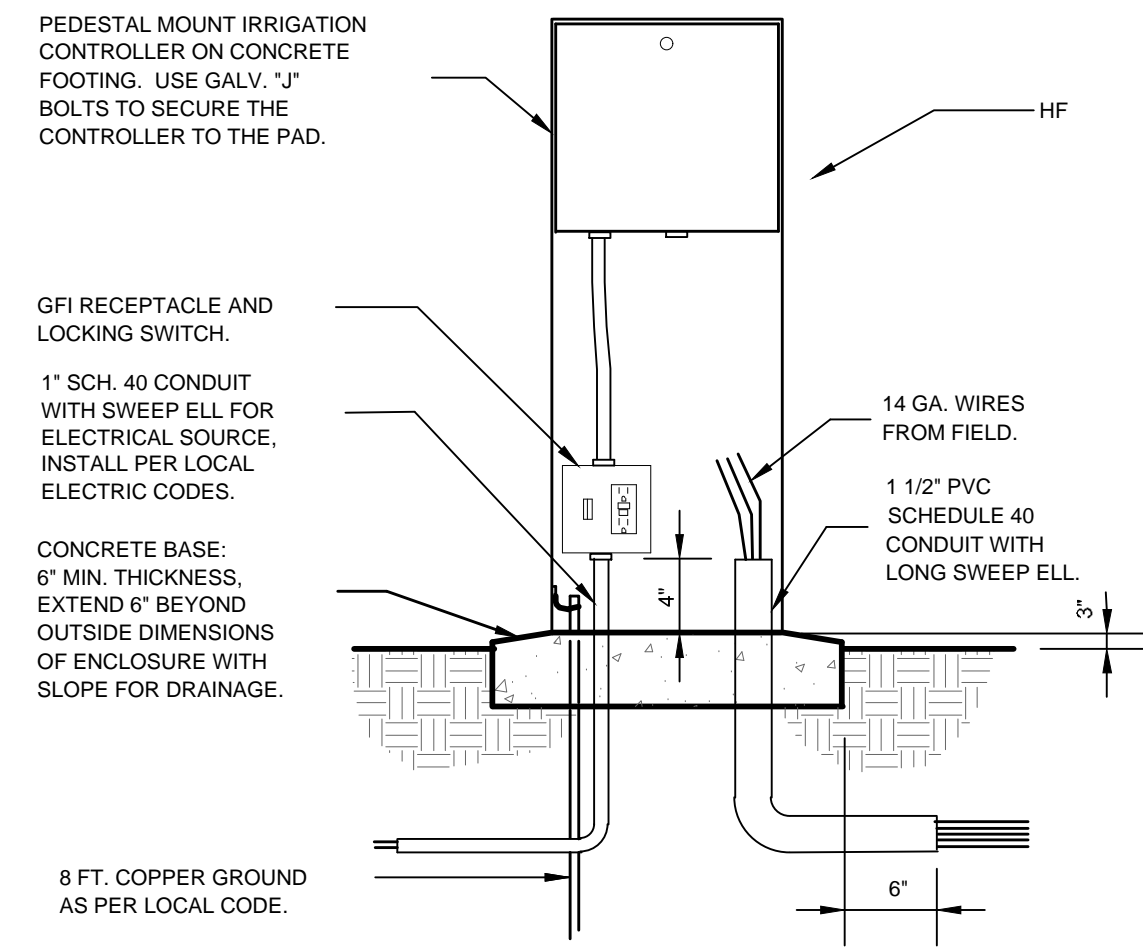
CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	IRRIGATION
SUBSET SHEET:	

PROJECT NO./CODE	067607114
SHEET NUMBER	79

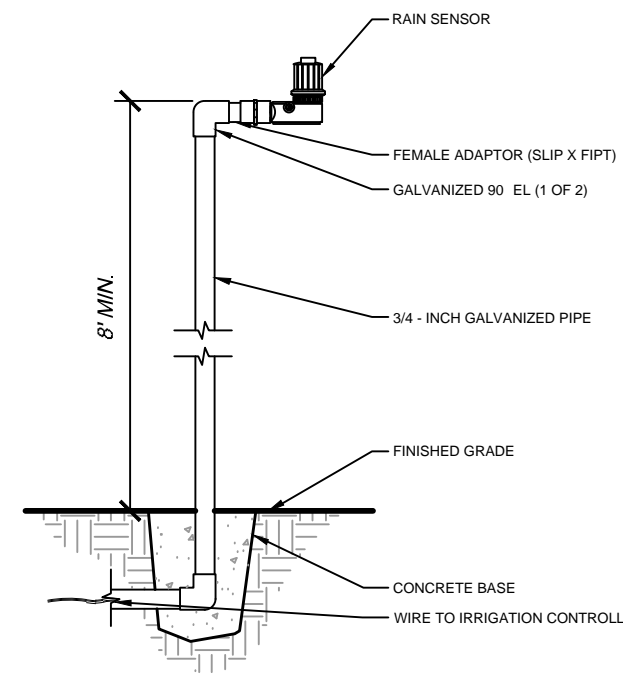
5/22/2024 11:02 AM
 K:\projects\06760714_topon_street_improvements\CADD\plansheets\CDs\CD-IRR.dwg K:\projects\06760714_topon_street_improvements\CADD\plansheets\CDs\CD-IRR.dwg
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

GENERAL IRRIGATION SPECIFICATIONS AND NOTES

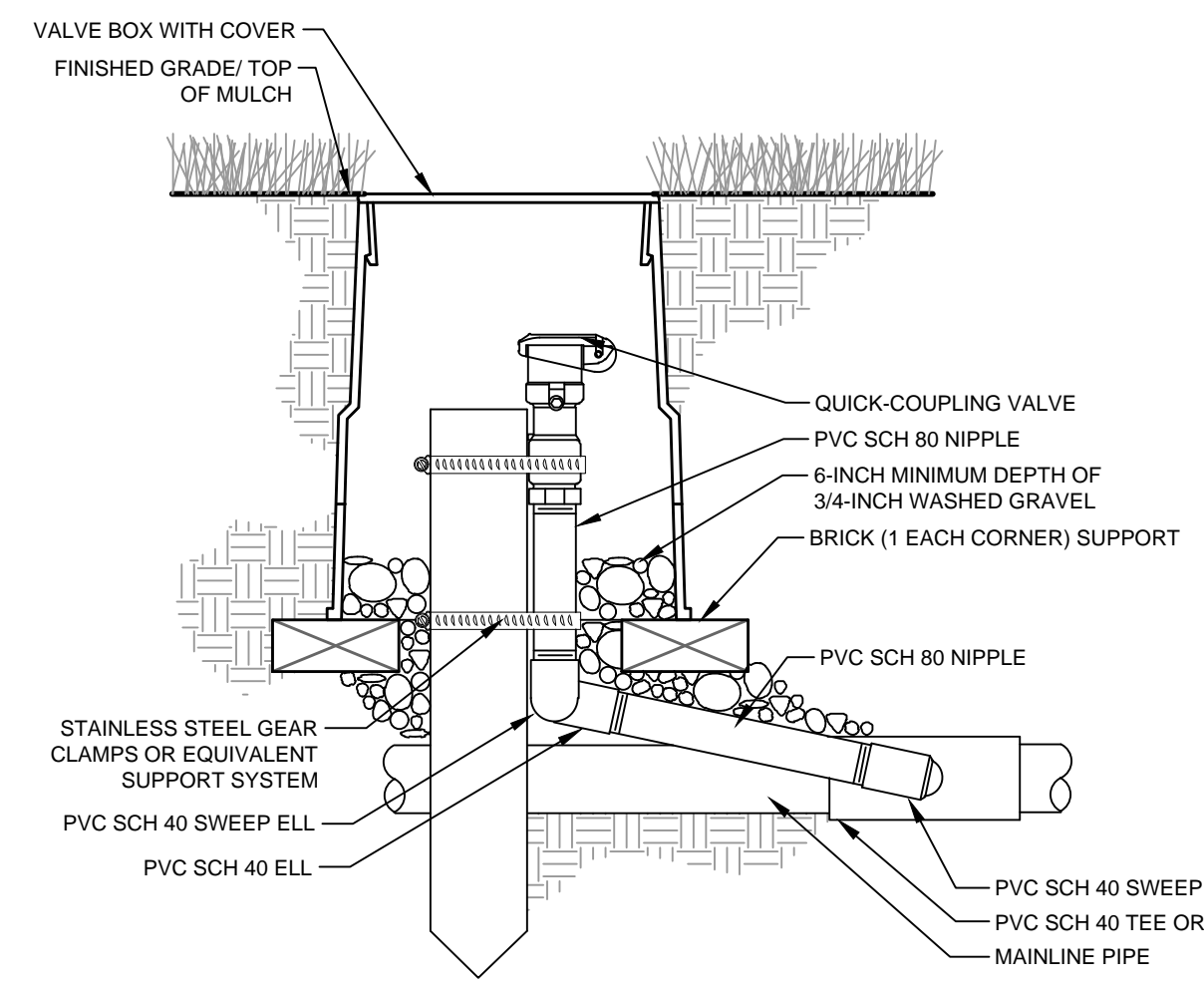
- THE SYSTEM SHALL BE DESIGNED TO PROVIDE 100% COVERAGE. ANY CHANGES MADE IN THE LAYOUT DUE TO FIELD CONDITIONS SHALL BE IN ACCORDANCE WITH THESE STANDARDS. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING OR CONTINUING WORK. THIS PLAN IS SCHEMATIC AND DUE TO THE NATURE OF CONSTRUCTION SLIGHT FIELD MODIFICATIONS MAY BE NECESSARY TO IMPLEMENT PLAN.
- THE CONTRACTOR SHALL MAKE NO SUBSTITUTIONS, DELETIONS, OR ADDITIONS TO THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL CONSTRUCTION SHALL CONFORM TO TOWN, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS.
- VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS. CONTRACTOR SHALL FIELD VERIFY.
- CONTRACTOR TO VERIFY ACTUAL AVAILABLE WATER PRESSURE BEFORE BEGINNING INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE WATER PRESSURE EXCEEDS 5 PSI HIGHER OR LOWER THAN AVAILABLE WATER PRESSURE. REFER TO CRITICAL ANALYSIS FOR ASSUMED STATIC PRESSURE.
- CONTRACTOR TO FIELD VERIFY ALL POINT OF CONNECTION SOURCE INFORMATION INCLUDING PSI AND GPM PRIOR TO CONSTRUCTION.
- IRRIGATION DESIGN IS SCHEMATIC ONLY. FULL AND COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL COORDINATE WITH THE PLANTING PLAN FOR PLANTER BED AND TREE LOCATIONS TO ENSURE ALL PLANT MATERIAL IS COVERED BY 100% HEAD-TO-HEAD IRRIGATION.
- CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT.
- IRRIGATION CONTRACTOR TO COORDINATE POWER SUPPLY TO ELECTRIC CONTROLLERS WITH ELECTRICAL CONTRACTOR.
- IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE JURISDICTION.
- LOCATE ALL IRRIGATION LINES WITHIN LANDSCAPED AREAS WHENEVER POSSIBLE. ALL LINES UNDER PAVEMENT MUST BE SLEEVED. ALL VALVES SHALL BE LOCATED WITHIN LANDSCAPED AREAS, AS SPECIFIED.
- IRRIGATION SYSTEMS CONNECTED TO POTABLE WATER SUPPLY, SHALL HAVE A BACKFLOW PREVENTER INSTALLED.
- SUPPLY LINE AND METER TO BE PROVIDED BY GENERAL CONTRACTOR. BACKFLOW PREVENTER TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR'S POINT OF CONNECTION TO BEGIN AFTER THE IRRIGATION WATER METER.
- INSTALL ALL BACKFLOW PREVENTION DEVICES AND ALL PIPING BETWEEN THE POINT OF CONNECTION AND THE BACKFLOW PREVENTER AS PER LOCAL CODES. FINAL LOCATION SHALL BE DETERMINED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- CONTRACTOR TO COORDINATE LOCATION OF ALL METERS AND BACKFLOW ASSEMBLIES WITH PROJECT OWNER.
- THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR SLEEVING AND DIRECTIONAL BORES.
- EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
- ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF THE SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS. ALL SLEEVES ON PLAN FOR WALL PENETRATIONS AND UNDER SIDEWALKS SHALL BE SIZED TWO PIPE SIZES GREATER THAN THE PIPE IT CARRIES. ALL IRRIGATION SLEEVING TO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES. SEE SLEEVING DETAIL.
- ALL PRESSURIZED MAINLINES AND LATERALS UNDER PAVEMENT SHALL BE WITHIN SLEEVES AS NOTED. WHERE ELECTRIC OR HYDRAULIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
- SLEEVES UNDER EXISTING PAVEMENT MUST BE DIRECTIONAL BORE. OPEN CUT IS NOT AN OPTION.
- NUMBER THE TOP OF ALL VALVE BOX LIDS WITH MINIMUM 1" HEIGHT BLACK LETTERS TO CORRESPOND TO AUTOMATIC AND GATE VALVE DESIGNATIONS. ALL HOSE BIBB VALVE BOXES SHALL BE LABELED IN A SIMILAR MANNER WITH THE DESIGNATION "HB". LETTER OUTSIDE OF TIME CLOCK CABINETS TO CORRESPOND WITH IRRIGATION CLOCK PROGRAM DESIGNATION.
- THE IRRIGATION CONTRACTOR SHALL INSTALL A COLOR CODED METAL DETECTABLE MARKING TAPE WHICH CLEARLY NOTES: "CAUTION: IRRIGATION LINE BURIED BELOW." THE TAPE SHALL BE INSTALLED THE FULL LENGTH OF THE IRRIGATION MAINLINE.
- ALL VALVES, SPLICES WITHIN CONTROL LINES, AND QUICK COUPLERS SHALL BE LOCATED WITHIN VALVE BOXES.
- ALL UNSIZED PIPE SHALL BE 3/4" UNLESS OTHERWISE NOTED ON PLAN. SEE LATERAL PIPE SIZING REQUIREMENTS.
- LOCATE ALL VALVES IN PLANTING BEDS WITH A MINIMUM OF 3'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. PIPE SIZES ON EITHER SIDE OF SECTION VALVES CONNECTING MAINLINE TO SECTION LATERAL SHALL BE ONE (1) PIPE SIZE LARGER THAN VALVE SIZE. WHERE MAINLINES RUN PARALLEL TO PAVEMENT OR CURBING, THE MAINLINE SHALL BE OFFSET 2'-0" FROM THE EDGE OF PAVEMENT OR CURB.
- IRRIGATION ZONES SHALL BE SEPARATED FOR HIGH AND LOW WATER USE REQUIREMENTS AND OPERATED ON DIFFERENT WATERING CYCLES. BUBBLERS, DRIPLINE, AND SPRAY HEADS SHALL BE SEPARATED ON DIFFERENT VALVES. AT NO TIME SHALL MULTIPLE IRRIGATION HEAD TYPES BE LOCATED ON THE SAME VALVE.
- ALL DRIP ZONES SHALL BE INSTALLED WITH A FLUSH VALVE AND DRIP INDICATOR.
- IRRIGATION CONTRACTOR TO COORDINATE WITH OWNER FOR FINAL CONTROLLER AND RAIN SENSOR LOCATIONS. THE CONTROLLER SHALL BE PLACED IN A LOCKING CABINET APPROPRIATE FOR ITS LOCATION. (INDOOR VS. OUTDOOR USE)
- IRRIGATION CONTRACTOR SHALL REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE.
- LOCATE THE AUTOMATIC RAIN / FREEZE SENSOR SHUTOFF DEVICE IN AN AREA THAT IS UNOBSTRUCTED BY TREES, ROOF OVERHANGS, OR ANY OTHER OVERHEAD OBJECT. THE SENSOR SHALL NOT BE PLACED WITHIN THE SPRAY ZONE OF ANY SPRINKLER HEAD, INCLUDING OFF-SITE IRRIGATION. CONTRACTOR SHALL LOCATE SENSOR WITHIN CLOSE PROXIMITY TO THE IRRIGATION CONTROLLER.
- CONTRACTOR SHALL PERFORM HYDRO-TESTING OF MAIN LINES.
HYDRO-TESTING TO BE PERFORMED AS LISTED:
THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FORTY-EIGHT (48) HOURS IN ADVANCE OF TESTING. PRIOR TO BACKFILLING, CONTRACTOR SHALL FILL PIPING WITH WATER. IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE, TAKING CARE TO PURGE THE AIR FROM IT. A SMALL, HIGH PRESSURE PUMP OR OTHER MEANS OF MAINTAINING A CONTINUOUS WATER SUPPLY SHALL BE CONNECTED TO THE PIPING AND SET SO AS TO MAINTAIN 125 PSI FOR TWO (2) HOURS WITHOUT INTERRUPTION. CONTRACTOR SHALL MAKE ANY NECESSARY CORRECTIONS AND RETEST THE SYSTEM UNTIL THE OWNER'S REPRESENTATIVE IS SATISFIED THAT THE SYSTEM IS REASONABLY SOUND.
- ALL WIRING FOR CONNECTION OF THE VALVES TO THE CONTROLLER SHALL FOLLOW MANUFACTURERS' SPECIFICATIONS.
- ALL CONTROL WIRE SHALL BE INSTALLED IN A 1 1/2" ELECTRICAL CONDUIT.
- CONTRACTOR TO MINIMIZE IRRIGATION OVERTHROW TO IMPERVIOUS AND NATURAL AREAS THROUGH FIELD ADJUSTMENTS TO INDIVIDUAL HEADS.
- ALL UNIMPROVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR.
- ALL PLANT MATERIAL IN TREE HOLDING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST UNTIL PLANTED.



1 IRRIGATION CONTROLLER - PEDESTAL MOUNT
SECTION 80 NTS

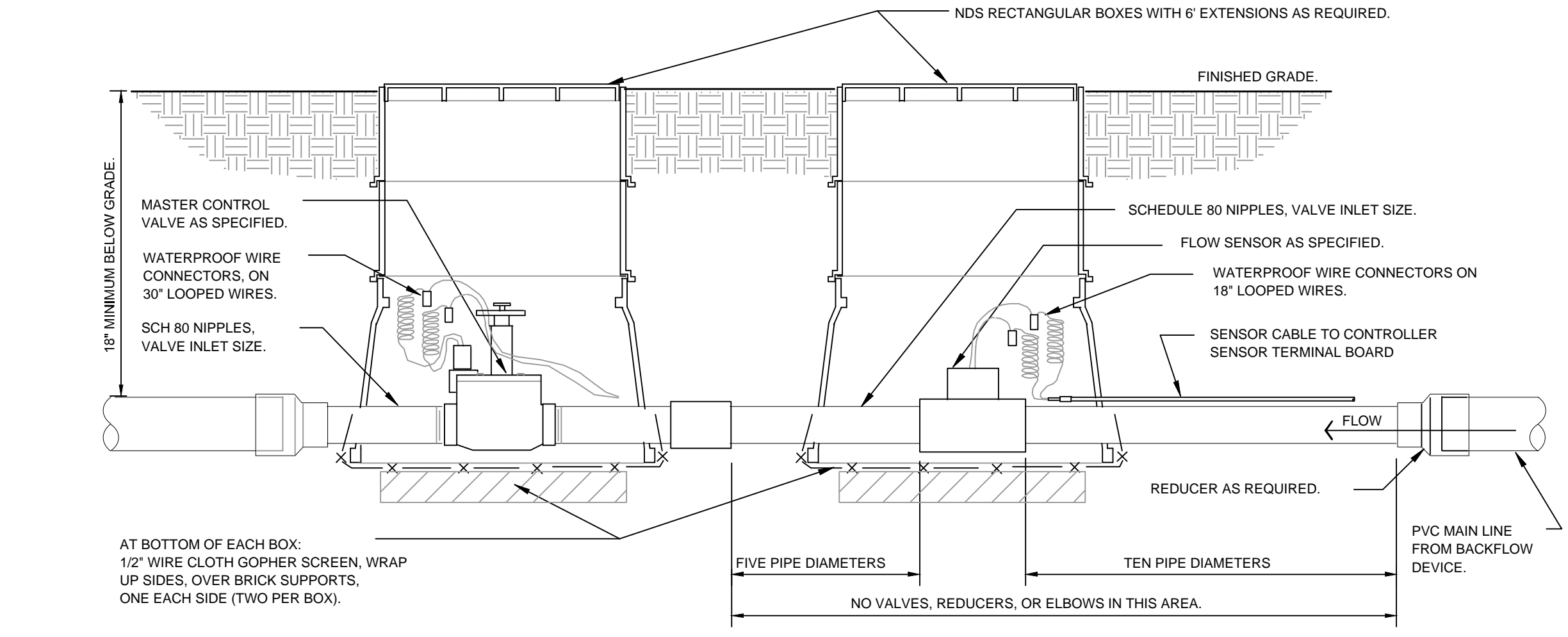


2 RAIN SENSOR - POLE MOUNT
SECTION 80 NTS

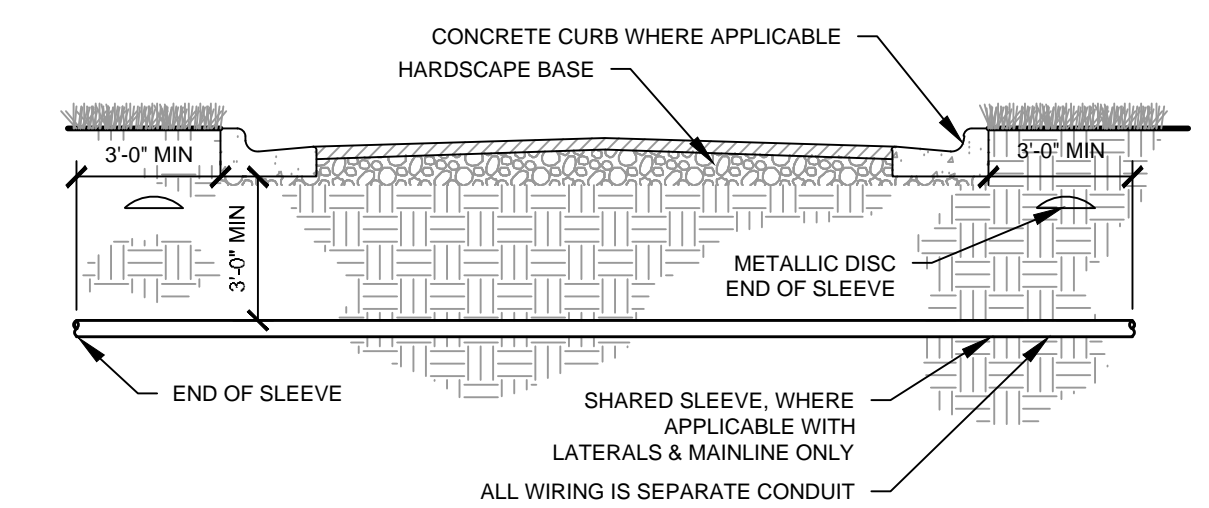


3 TYPICAL QUICK COUPLER
SECTION 80 NTS

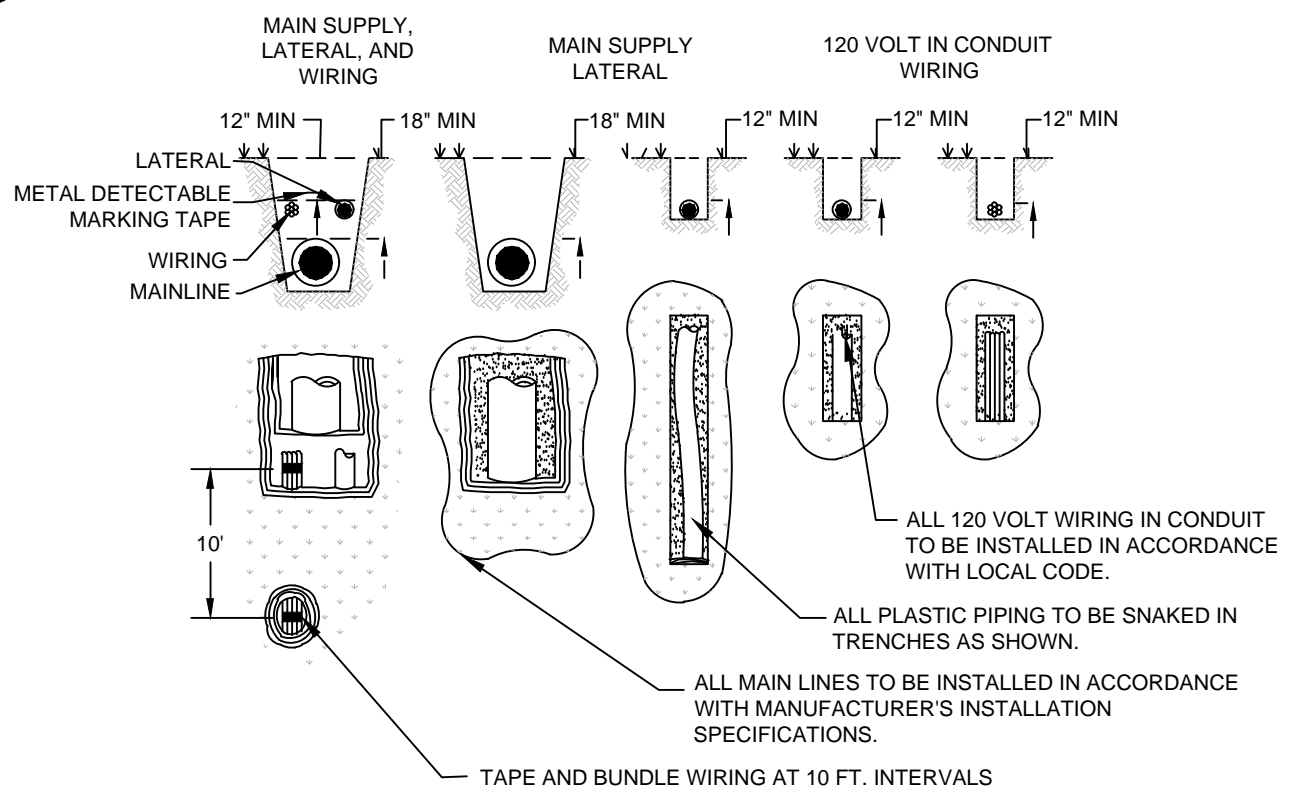
NOTE:
FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.



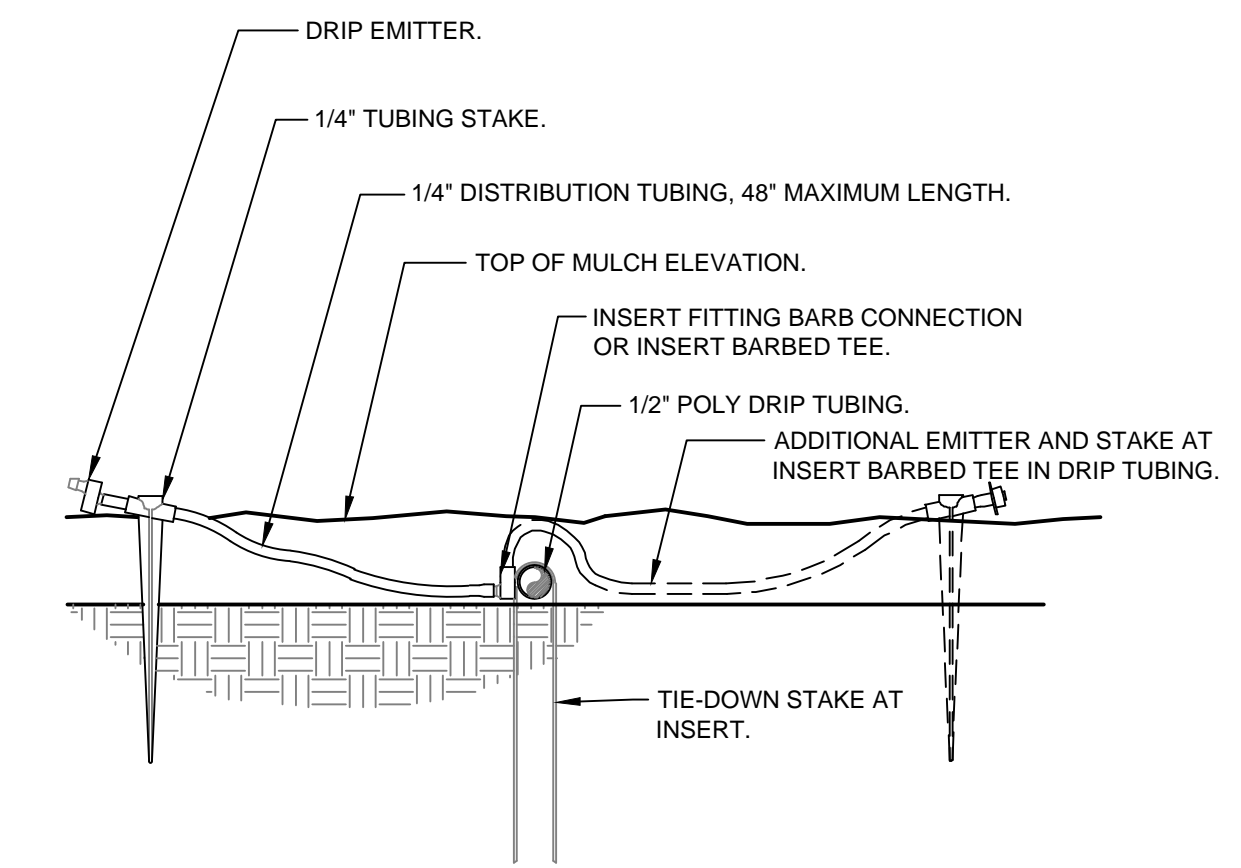
4 MASTER CONTROL VALVE / FLOW SENSOR ASSEMBLY
SECTION 80 NTS



5 TYPICAL SLEEVING
SECTION 80 NTS



6 TYPICAL TRENCHING
SECTION 80 NTS



7 DRIP EMITTER AT 1/4\"/>

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:
Kimley»Horn
 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

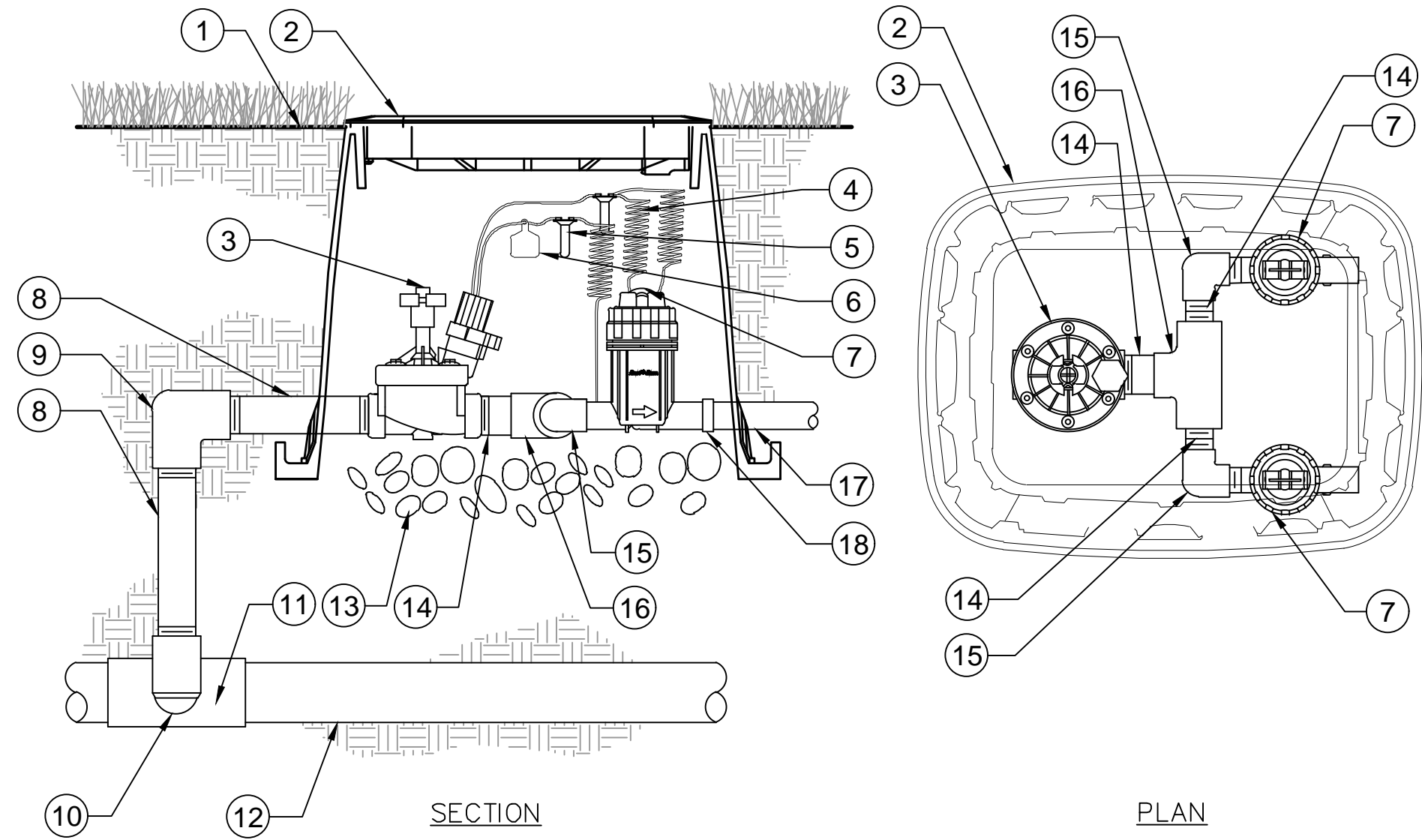
SHEET REVISIONS			
DATE:	COMMENTS:	INITIAL:	

COLORADO SPRINGS
OLYMPIC CITY USA
 COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION
Kimley»Horn
 Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS IRRIGATION NOTES		PROJECT NO./CODE
		067607114
CHECKED BY:	JCP	SHEET SUBSET: IRRIGATION SUBSET SHEET:
DESIGNED BY:	AJV	
		SHEET NUMBER 80

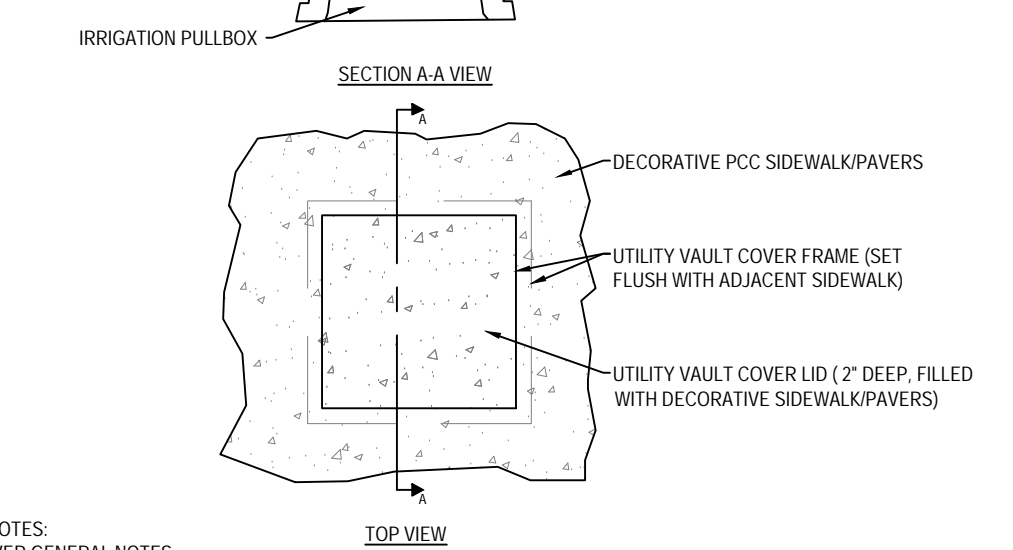
P:\cscs_civil\067607114_tejon_street_improvements\CADD\plansheets\CDs\CD-IRR.dwg Krcmer, Michael 5/22/2024 11:02 AM
 THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH LOCKING COVER
- 3 REMOTE CONTROL VALVE
- 4 30-INCH LINEAR LENGTH OF WIRE, COILED
- 5 WATERPROOF CONNECTION
- 6 ID TAG
- 7 PRESSURE REGULATING QUICK CHECK BASKET FILTER
- 8 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 9 PVC SCH 40 ELL
- 10 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 11 PVC SCH 40 TEE OR ELL
- 12 MAINLINE PIPE
- 13 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 14 PVC SCH 80 NIPPLE, CLOSE
- 15 PVC SCH 40 ELL
- 16 PVC SCH 40 TEE
- 17 LATERAL PIPE
- 18 PVC SCH 40 FEMALE ADAPTOR

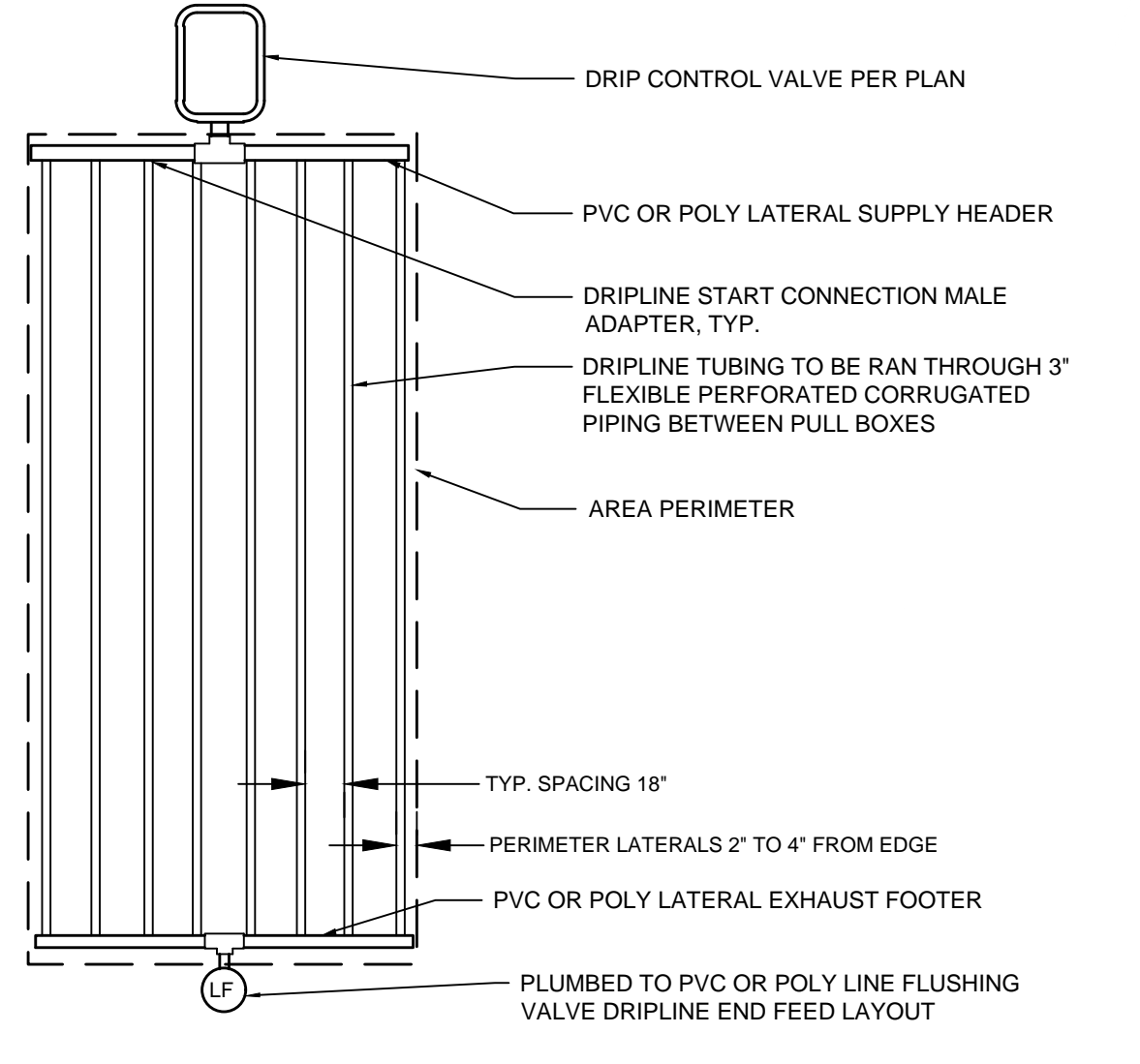
1 DRIP ZONE VALVE KIT
SECTION / PLAN NTS

WUNDERCOVERS®
 3432 DENMARK AVE, SUITE 214
 EAGEN, MN 55123
 PHONE: (775) 400-2883
 www.wundercovers.com

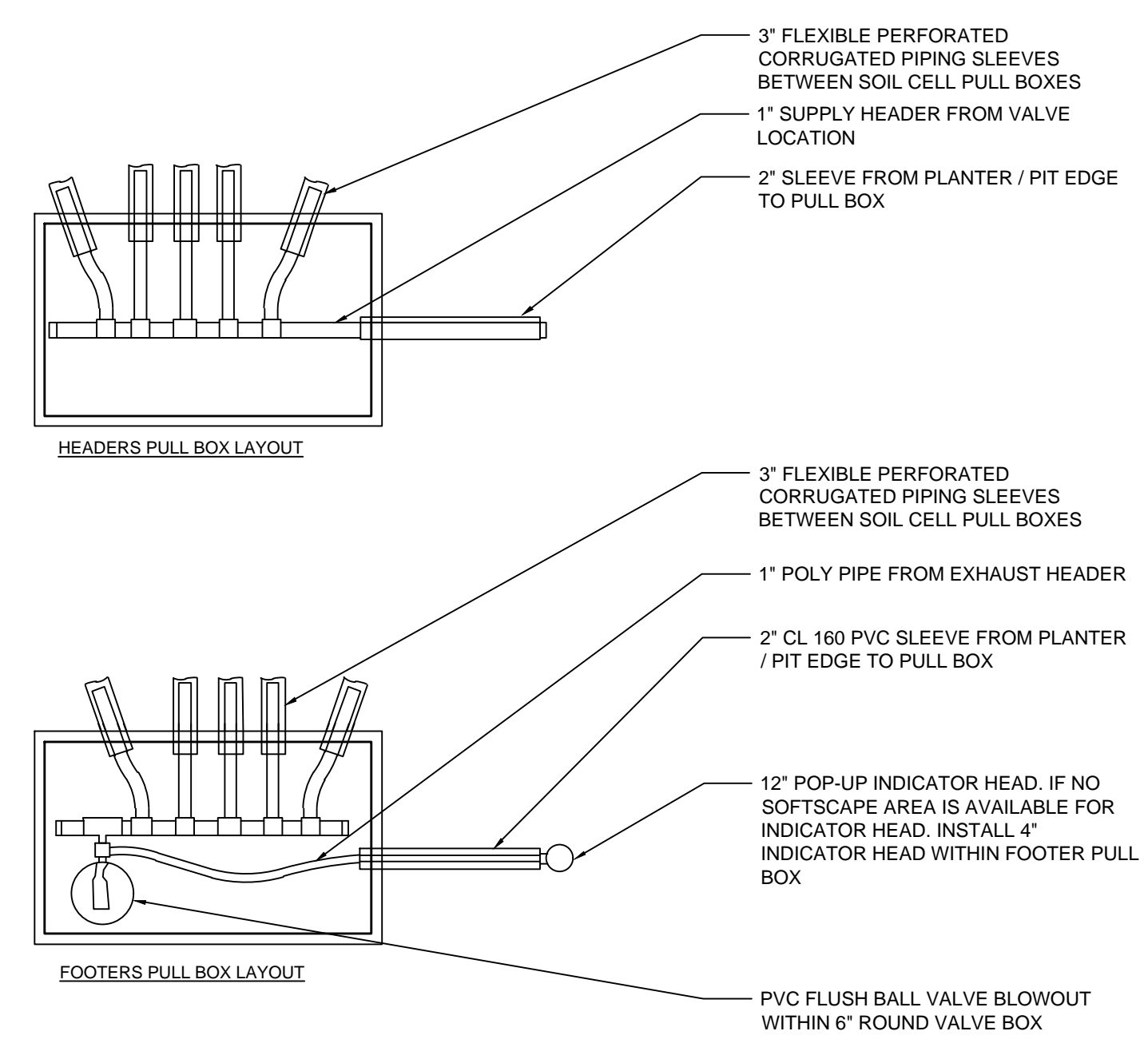


- MANUFACTURER NOTES:**
- UTILITY VAULT COVER GENERAL NOTES:**
- NO SECTION OF COVER SHALL EXCEED 125 POUNDS.
 - PROVISIONS FOR REMOVAL SHALL BE PROVIDED. CONTRACTOR SHALL PROVIDE SIX STANDARD LIFTING KEYS TO THE CITY.
 - UTILITY COVER SHALL IDENTIFY THE CONTENTS OF THE UTILITY VAULT.
- UTILITY VAULT COVER INSTALLATION NOTES:**
- INSTALL STANDARD BOX & COVER 2" BELOW FINAL GRADE.
 - SET THE FRAME TO BE FLUSH WITH ADJACENT SIDEWALK PAVERS. ORIENT TO BEST SUIT THE PATTERN OF THE PAVING. FRAME MUST BE FULLY SUPPORTED INCLUDING INTERNAL FLANGES & GUSSETS.
 - PLASTER ALL GAPS. LEAVE SUFFICIENT DEPTH FOR PAVING TO FIT OVER EXTERNAL FLANGES. ONCE THE PLASTER IS FIRM, THE PAVING CAN BE LAID & CUT NEATLY TO THE EDGE OF THE FRAME.
 - INSERT LID. SCREED SAND. LAY & CUT PAVERS AS NORMAL (IF PAVERS USED).
 - INSERT LID. POUR LID WITH DECORATIVE CONCRETE. SCORE CONCRETE TO MATCH ADJACENT SIDEWALK (IF CONCRETE USED). SEE LAYOUT PLANS FOR COLOR INFORMATION.
 - FILL JOINTS WITH DRY SAND. COMPACT CAREFULLY IN THE USUAL MANNER (IF PAVERS USED).
 - UTILITY VAULT COVERS & PULL BOXES SHALL BE FIELD ADJUSTED TO BE COMPLETELY IN CONCRETE OR ACCENT PAVING AREAS. FIELD ADJUSTMENT MAY REQUIRE MODIFICATION OF CONDUIT/CONDUCTOR RUNS.
- NOTES:**
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 - DO NOT SCALE DRAWING.
 - THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
 - ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
 - CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER CD-IRR

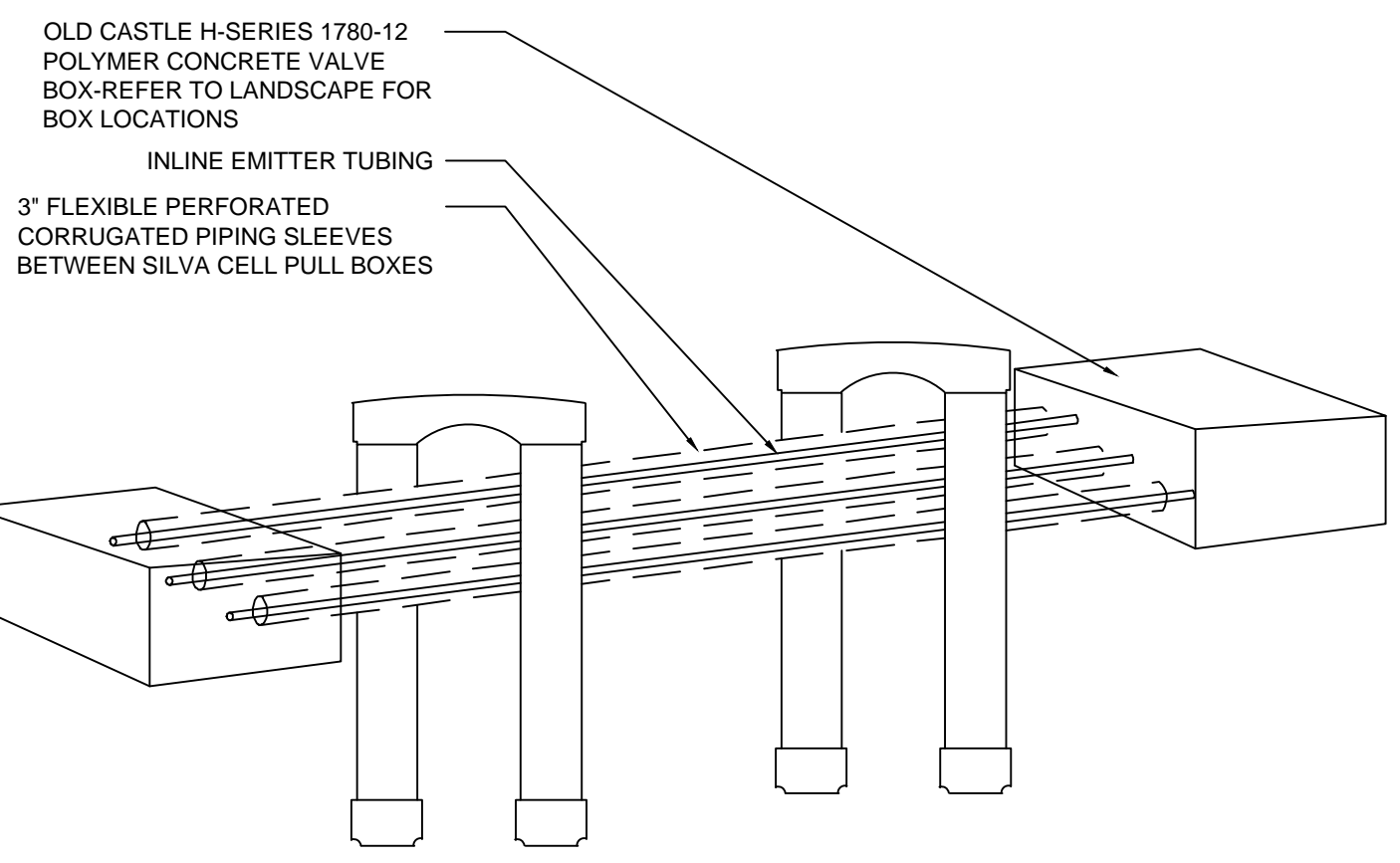
2 WUNDER-COVER® VARIETIES
SOIL CELL IRRIGATION PULL BOX NTS



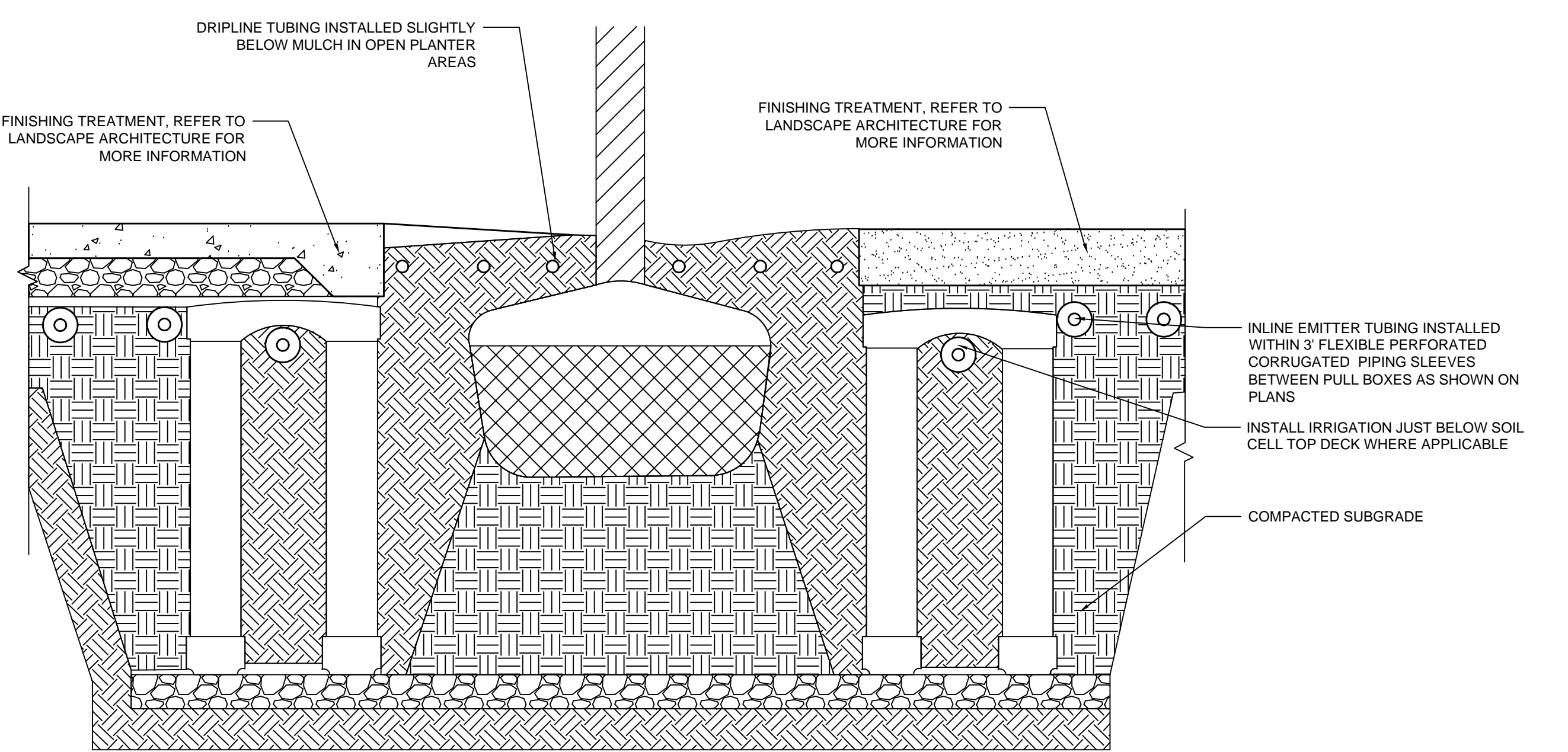
3 SOIL CELL SUBSURFACE DRIP - END FEED LAYOUT
PLAN NTS



COORDINATE WITH GENERAL CONTRACTOR TO INSTALL IRRIGATION WITHIN SOIL CELL AREAS PRIOR TO TOP DECK INSTALLATION. COORDINATE PULL BOX LOCATIONS PRIOR TO TOP DECK INSTALLATION. COORDINATE PULL BOX LOCATIONS PRIOR TO INSTALLATION OF SIDEWALKS AND ALIGN WITH ANY APPLICABLE SCORING PLANS FOR LAYOUT OF SLEEVED TUBING AND QUANTITY OF LINES. ALL INLINE EMITTER TUBING UNDER HARDSCAPE TO BE INSTALLED WITHIN FLEXIBLE PERFORATED CORRUGATED PIPING SLEEVES.



4 SOIL CELL PULL BOXES
PLAN NTS



6 SOIL CELL IRRIGATION PIPING
PLAN NTS

PRINT DATE: May 22, 2024
 DRAWING FILE NAME:
 HORIZ. SCALE: VERT. SCALE:

KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVE, SUITE 900
 COLORADO SPRINGS, CO 80903
 PHONE: 719-453-0180
 © 2023

SHEET REVISIONS		
DATE:	COMMENTS:	INITIAL:

COLORADO SPRINGS PUBLIC WORKS
 30 SOUTH NEVADA AVE.
 COLORADO SPRINGS, COLORADO 80901
 PHONE: (719) 385-5918

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR CONSTRUCTION

 Kimley-Horn and Associates, Inc.

TEJON STREET IMPROVEMENTS
 IRRIGATION DETAILS

CHECKED BY:	JCP
DESIGNED BY:	AJV
SHEET SUBSET:	IRRIGATION
SUBSET SHEET:	

PROJECT NO./CODE	067607114
SHEET NUMBER	81