

**CONTRACT DOCUMENTS
&
TECHNICAL SPECIFICATIONS**



CONTRACT NUMBER CH 2025-13

**CITY OF HASTINGS
PARKVIEW CEMETERY PAVING PHASE 5
AND MT SINAI CEMETERY**

**Proposals Will Be Opened Promptly At
1:30 PM, Wednesday, March 26, 2025**

Bid Submitted By: _____



TABLE OF CONTENTS

Advertisement for Bids	1-2
Mailing Instructions	3
Questions	4
Instruction to Bidders	5
Exceptions	6
Proposal	7-9
Agreement	10-11
Performance Bond	12-13
Tax Exempt Forms 13 & 17	14-16
Section 1 General Conditions	17-42
Section 2 Special Provisions	43-50
Section 3 Technical Specifications	51-56
Drawings and Plans	57

ADVERTISEMENT FOR BIDS

The City of Hastings, Nebraska, will receive bids for the paving portion of the **City of Hastings Parkview Cemetery Paving Phase 5 and Mt Sinai Cemetery CH 2025-13** until 1:30 p.m. at the City of Hastings, 1228 N Denver Ave., Hastings, Nebraska, on Wednesday, March 26, 2025 at which time and place all bids will be publicly opened and read aloud. **Brief description of project: Work includes removing and disposing of the existing asphalt surfacing and construction of approximately 6,100 SY of 6-inch inverted crown P.C.C. pavement with a fly ash stabilized subgrade including other associated work to complete the project in Hastings, Nebraska.** If you plan on bidding and are not already on our approved bidders list for this project, you are REQUIRED to fill out the [Plan Holders Submittal Form](#) that is located on the City website: <https://www.cityofhastings.org/bids/>.

The Contract Documents, including plans and specifications, are on file at the Office of the City Clerk of Hastings, 220 N Hastings Avenue, Hastings, Nebraska 68901. Copies of the plans and specifications in electronic (PDF) format may be obtained by visiting the City of Hastings Website: www.cityofhastings.org/bids. A paper copy is available for \$75.00, plus sales tax (\$5.25), plus shipping.

Each bid shall be accompanied by a certified check, drawn on a solvent bank in the State of Nebraska, or a bid bond in an amount of not less than five percent (5%) of the total bid of all contract construction costs, made payable to the City Treasurer of the City of Hastings, Nebraska, as security that the bidder to whom the contract may be awarded will enter into a contract to build all the improvements in accordance with this notice and give bond in the sum hereinafter provided for the construction of improvements.

No bid shall be withdrawn after opening of bids without the consent of the City of Hastings, Nebraska, for a period of sixty (60) days after scheduled time of closing bids.

Time is of the essence in this contract. In evaluating bid(s) received, the City will consider the timelines of completion of prior construction contracts, existing workload of bidders and available manpower that bidder commits to the project.

The successful bidder will be required to furnish a Performance Bond in the sum of the full amount of the Contract within ten (10) days of the date of award. No additional time will be allowed the Contractor for providing the Performance Bond.

DATED AT HASTINGS, NEBRASKA, this 4th day of March 2025.

CITY OF HASTINGS, NEBRASKA

Tyler Ficken, City Clerk

Publish:

March 6, 2025

March 13, 2025

Furnish 2 proofs of publication

IMPORTANT MAILING (OR HAND DELIVERY) INSTRUCTIONS

Please address your return envelope as shown in the example below. All bids must be sealed in a properly marked envelope.

To hand deliver, please drop off between the hours of 8am – noon and 1-5pm Monday through Friday.

<p>Your Return Address</p> <p style="text-align: right;">City of Hastings Attn: Renae Griess 1228 N. Denver Avenue Hastings, NE 68901</p> <p><u>This Information MUST BE typed or written in the lower left hand corner of return envelope OR SIMPLY CUT OUT AND TAPE ON YOUR RETURN ENVELOPE</u></p> <p>✂ ✂ ✂ ✂</p> <table border="1"><tr><td><p>BID DOCUMENTS ENCLOSED ATTN: Renae Griess Contract No: CH 2025-13 City of Hastings Parkview Cemetery Paving Phase 5 & Mt Sinai Cemetery Bid Opens: Wednesday, March 26, 2025 @ 1:30 PM</p></td></tr></table>	<p>BID DOCUMENTS ENCLOSED ATTN: Renae Griess Contract No: CH 2025-13 City of Hastings Parkview Cemetery Paving Phase 5 & Mt Sinai Cemetery Bid Opens: Wednesday, March 26, 2025 @ 1:30 PM</p>
<p>BID DOCUMENTS ENCLOSED ATTN: Renae Griess Contract No: CH 2025-13 City of Hastings Parkview Cemetery Paving Phase 5 & Mt Sinai Cemetery Bid Opens: Wednesday, March 26, 2025 @ 1:30 PM</p>	

If returning Fed-X or similar carrier, please enclose the bid in an “inner” envelope which is sealed. Please make sure BOTH envelopes are properly marked on the OUTSIDE OF THE ENVELOPE as shown in the example above.

One bid per envelope. Bid submittal via email is not allowed. Bids must be checked in to the City prior to the 1:30 pm deadline.

IF YOU HAVE QUESTIONS OR NEED HELP ON THESE SPECIFICATIONS

PLEASE CONTACT ANY OF THE FOLLOWING:

TECHNICAL QUESTIONS

Brent Brooks - Engineering Assistant
1228 N Denver Ave
Hastings, NE 68901
Ph# 402-462-2333
Email: bidquestions@cityofhastings.org

Steve Riehle- Lead Engineer of Public Works
1228 N Denver Ave
Hastings, NE 68901
Ph# 402-462-3676
Email: bidquestions@cityofhastings.org

Lee Vrooman – Director of Engineering
1228 N Denver Ave
Hastings, NE 68901
Ph# 402-462-3657
Email: bidquestions@cityofhastings.org

GENERAL QUESTIONS OR REQUESTS

Rena Griess
Engineering Admin Assistant
Ph# 402-462-3665
Email: bidquestions@cityofhastings.org

INSTRUCTIONS FOR BIDDERS

- 1) Contractors must fill in each individual unit quantity blank and totals of each respective unit.
- 2) Please check to verify that your bid bond accompanies your bid.
- 3) In the event of inconsistencies between contract documents, Contractor shall utilize the most restrictive of the alternatives for the purpose of bidding. Contractor shall identify these items for clarification subsequent to award.
- 4) The Contract, if awarded, will be awarded to the Contractor with the lowest responsible bids for the project.
- 5) **Desired final completion of the project is October 31, 2025.**

Project Timeline Constraints:

- **With Memorial Day on Monday, May 26, 2025, no work can start on the project till Monday, June 2, 2026. The contractor should start the project and finish in a reasonable time without moving onto other projects unless coordinated with the city.**
- 6) There are no Liquidated Damages on this project.
 - 7) This contract shall be awarded only to responsible contractors who possess the potential ability to perform successfully under the terms and conditions of the contract. Consideration shall be given to such matters as contract integrity, record of past performance, financial and technical resources or accessibility to other necessary resources.

EXCEPTIONS

All proposal information, including any unit price fill in sheets or other required information, shall be submitted on the proposal forms hereto attached. Copies of addenda, if any, shall be signed and attached. City of Hastings does NOT accept faxed or emailed bid returns.

Bidders shall inform themselves of all relevant matters, and, if awarded the contract, shall not be allowed any extra compensation by reason of any matter or thing concerning which such Bidder might not have fully informed himself, prior to the bidding.

The Bidder bidding on the Specifications herein, who has exceptions to those called for in the Specifications, must so state in the space provided below and/or attach a letter explaining in detail the exceptions taken to those required in the Specifications. This letter of explanation shall become a part of the bid and shall be attached hereto. Failure by the Bidder to outline his exceptions will require the successful Bidder to comply with these Specifications.

EXCEPTIONS TO SPECIFICATIONS

The City will not assume obligations resulting from losses or damages until acceptance of the equipment.

If any person contemplating submitting a bid for this contract is in doubt as to the true meaning of any part of the Specifications or other proposed contract documents, he may submit to Purchaser a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addendum duly issued or delivered to each person receiving a set of such documents. The Purchaser will not be responsible for any other explanation or interpretation of the proposed documents.

All addendums must be signed and attached to bid documents.

**PROPOSAL FOR
CONTRCT NUMBER CH 2025-13**

CITY OF HASTINGS PARKVIEW CEMETERY PAVING PHASE 5 & MT SINAI

TO: City of Hastings
1228 N. Denver Ave
Hastings, NE 68901

Bid Opening: March 26th, 2025 (Wednesday)
SEALED BIDS MUST BE RECEIVED BY 1:30 P.M.
AND WILL BE OPENED PROMPTLY AT THAT TIME

We, the undersigned, being familiar with all parts of these documents, being Notice to Bidders, Bid Proposal Price Sheets, Contract Document Forms, Plans and Specifications, Affidavit, Material List, and all other parts of this document, do herein submit our proposal to furnish, install, and perform all tasks required to complete said project area(s) for the total costs. **THIS PROJECT IS SALES TAX EXEMPT**

Base Bid						
City of Hastings Cemetery Paving Phase 5 & Mt Sinai (Site A & B)						
Project No. CH 2025-13						
Item #	Description	Estimated Quantity	Unit	Unit Price	Amount	
1	Mobilization & Traffic Control	1	LS	\$	\$	
2A	Remove Pavement (Parkview)	4662	SY	\$	\$	
2B	Remove Pavement (Mt Sinai)	768	SY	\$	\$	
3	Remove Concrete Header	46	LF	\$	\$	
4A	Saw Cut (Parkview)	52	LF	\$	\$	
4B	Saw Cut (Mt Sinai)	16	LF	\$	\$	
5	Linear Erosion Protection	260	LF	\$	\$	
6A	Subgrade Preparation (Parkview)	6354	SY	\$	\$	
6B	Subgrade Preparation (Mt Sinai)	938	SY	\$	\$	
7	Fly Ash, Class C	255	TON	\$	\$	
8A	Build 6" P.C.C. Pavement 47B-3500 (Parkview)	5361	SY	\$	\$	
8B	Build 6" P.C.C. Pavement 47B-3500 (Mt Sinai)	817	SY	\$	\$	

CH 2025-13 City of Hastings Parkview Cemetery Paving Phase 5 and Mt Sinai
Date: 2/2025 City of Hastings, Hastings, NE

THIS BID DOCUMENT MUST BE SUBMITTED WITH BID

**PROPOSAL FOR
CONTRACT NUMBER CH 2025-13**

CITY OF HASTINGS PARKVIEW CEMETERY PAVING PHASE 5 & MT SINAI

9	Crushed Concrete	135	TON	\$	\$	\$
10	Asphalt Millings	135	TON	\$	\$	\$
11	Pulverize, Mix and Re-compact 8"	2000	SY	\$	\$	\$
12	Build 3" PVC Schedule 40 Pipe	100	LF	\$	\$	\$
13	Remove Pillar & Footing	3	EA	\$	\$	\$

Total: \$

Written Total:

Note: unit prices shall prevail in the case of potential mathematical discrepancies.

The undersigned bidder agrees to furnish the required performance bond and to enter a contract within ten (10) days after acceptance of the Proposal and further agrees to complete all work covered by the foregoing Proposal in accordance with specified requirements.

Project Completion Date and Timeline Constraints:

- **All work at Parkview and Mount Sinai must cease between May 1st and June 12th for Memorial Day preparations.**
- **Desired completion dates for both Parkview and Mount Sinai: October 31, 2025**

Exceptions: No Yes (If yes, list on ***“Instructions to Bidders”*** page)

Any modification of bid proposal will be considered non-conformance of the bid. All exceptions to the proposal shall be noted as an exception to the bid.

City of Hastings may at its own discretion delete any project area and / or component prior to award of contract. City of Hastings has the right to award each bid section individually. If awarded individually, Contractors to coordinate as required.

In submitting this proposal, it is further understood that the City of Hastings reserves the right to reject any or all proposals and may waive any informalities and may accept the proposal which best suits its needs. It is further understood that this proposal may not be withdrawn for a period of sixty days (60) days after bids are opened.

**PROPOSAL FOR
CONTRCT NUMBER CH 2025-13**

CITY OF HASTINGS PARKVIEW CEMETERY PAVING PHASE 5 & MT SINAI

All bid documents, including proposals, bid bonds, subcontractor designation, etc., must be submitted with original signatures. No copies will be accepted.

OFFICIAL NAME & ADDRESS

Firm Name	Signature
Address	Typed or Printed Name
City, State, Zip	Title
Phone No.	Date
Fax No.	Email Address

**ALL BIDS MUST BE CHECKED IN THE CITY OF HASTINGS PRIOR TO 1:30 PM
DEADLINE**

AGREEMENT

THIS AGREEMENT, made and entered into this ___ day of _____, 2025, by and between the City of Hastings, Party of the First Part, hereinafter called the "Purchaser" or "City", and _____ of (town) _____ in the State of _____, Party of the Second Part, hereinafter called the "Contractor".

WITNESSETH: THAT,

WHEREAS: The Purchaser has caused the necessary contract documents to be prepared for defining material, equipment, and/or labor to be supplied to the City of Hastings, and delivered complete as specified in the accompanying contract documents.

WHEREAS: The Purchaser has advertised for bids from Contractors, has received said bids, analyzed same and duly awarded a contract to the "Contractor", "Party of the Second Part", for material, equipment, and/or labor as hereinafter set forth and as stated more in detail in the Proposal and related contract documents to wit; Notice to Bidders, Instructions to Bidders, Specifications; all of which documents are attached hereto and made a part of this Contract.

NOW, THEREFORE: It is hereby agreed that for the sum of _____.
(\$ _____)

to be paid by the Purchaser, within Thirty (30) days after the acceptance of material, equipment, and/or labor by the Purchaser, to the Contractor, the Contractor agrees to furnish all materials, equipment, and/or labor as required by the accompanying specifications, and the aforesaid contract documents, for **CH 2025-13, City of Hastings Parkview Cemetery Paving Phase 5 and Mt Sinai.**

All materials, equipment, and/or labor shall be in accordance with the accompanying contract documents and specifications which are as much a part of this Agreement as if repeated verbatim herein.

It is further agreed that the Contractor will start work promptly, furnish the necessary drawings promptly and complete the work in the number of days set forth in the Proposal.

IN WITNESS WHEREOF: The Parties of the First and Second Parts have hereto set their hands and seals on the day and year above written.

CITY OF HASTINGS
Party of the First Part

By: _____

Date: _____

ATTEST:

City Clerk

CONTRACTOR
Party of the Second Part

SEAL

By: _____

Title: _____

Date: _____

APPROVED TO FORM:

City Attorney

Note: If executed by one other than President, Partner or the individual Owner, a Power-of-Attorney authorizing execution should accompany this Contract.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, _____,
as principal, and _____,
a corporation organized and existing under the laws of the State of _____,
and duly authorized to transact business in the State of Nebraska, as surety are held and firmly
bound unto the CITY OF HASTINGS, NEBRASKA, a municipal corporation organized and
existing under the laws of the State of Nebraska, hereinafter referred to as CITY, in the penal sum
of _____ Dollars (\$ _____),
lawful money of the United States, for the payment of which will and truly be made, we the said
principal and the said surety do hereby bind ourselves, our heirs, executors, administrators and
assigns, jointly and severally, by these presents as follows:

The condition of this obligation is such that, whereas the principal, by an instrument in writing
attached hereto and bearing the date of _____, 20____, has agreed with the
CITY to do all work necessary and to furnish all labor, materials, supplies, tools and equipment to

as specified thereby and in the specifications, proposals and contract forming the Contract
Documents attached thereto and made a part hereof:

NOW THEREFORE, if the principal shall well and truly in good, sufficient and in a
workmanlike manner, and to the satisfaction of the CITY perform and complete the work required,
and shall defend, indemnify and save harmless the CITY against all damages, claims, demands,
expenses and charges of every kind (including claims of patent infringement) arising from any act,
omission or neglect of said principal, his agents, servants or employees, with relation to said work,
and shall pay all costs, charges, rentals and expenses for labor, materials, supplies and equipment
and deliver the said improvement to the CITY completed and ready for operation and free from all
encumbrances or claims for labor, materials or otherwise, and shall pay all other expenses lawfully
chargeable to the CITY, and this bond shall also be for the use and benefit of all persons who may
perform any work or labor or furnish any material in the execution of said Contract and may be

sued on thereby in the name of any such party claiming the benefit hereof, then this obligation shall be void, otherwise the same shall remain in full force and effect. This obligation shall be in full force and effect for the full guarantee period provided in the specifications contained herein.

PROVIDED FURTHER, that said surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any change, extension of time, alteration or addition to terms of the Contract, to the work or to the specifications.

PROVIDED FURTHER, that if the principal of his, their or its subcontractor or subcontractors fail to duly pay for any labor, materials team, hire sustenance, provisions, provender or any other supplies or materials used or consumed by such contractor of his, their or its subcontractors in performance of the work contracted to be done, the surety will pay the same in any amount not exceeding the sum specified in the bond together with interest as provided by law.

IT WITNESS WHEREOF, said principal and surety have hereunto set their hands and seals at _____ this ____ day of _____, 20____,

This Bond is executed in triplicate counterparts.

	_____	Principal
(SEAL)	_____	Street Address
_____	_____	City, State, Zip
Witness	_____	Name of Person Executing
	_____	Surety
ATTEST:	_____	By: _____
_____	_____	Title: _____

Instructions

Who May Issue a Resale Certificate. Purchasers are to give the seller a properly completed Form 13, Section A, when making purchases of property or taxable services that will subsequently be resold in the purchaser's normal course of business. The property or services must be resold in the same form or condition as when purchased, or as an ingredient or component part of other property that will be resold.

Who May Issue an Exempt Sale Certificate. Form 13, Section B, may be completed and issued by governmental units or organizations that are exempt from paying Nebraska sales and use taxes. See this list in the [Nebraska Sales Tax Exemptions Chart](#). Most nonprofit organizations are **not** exempt from paying sales and use tax. Enter the appropriate number from "Exemption Categories" (listed below) that properly reflects the basis for your exemption.

For additional information about proper issuance and use of this certificate, please review [Reg-1-013, Sale for Resale – Resale Certificate](#), and [Reg-1-014, Exempt Sale Certificate](#).

Contractors. Contractors complete Form 13, Section C, part 1 or part 2 based on the option elected on the [Contractor Registration Database](#).

To make tax-exempt purchases of building materials and fixtures, Option 1 or Option 3 contractors must complete Form 13, Section C, Part 1. To make tax-exempt purchases of building materials and fixtures pursuant to a construction project for an exempt governmental unit or an exempt nonprofit organization, Option 2 contractors must complete Form 13, Section C, Part 2. The contractor must also attach a copy of a properly completed [Purchasing Agent Appointment and Delegation of Authority for Sales and Use Tax, Form 17](#), to the Form 13, and both documents must be given to the supplier when purchasing building materials. See the [contractor information guides](#) and [Reg-1-017, Contractors](#), for additional information. Also, see the Important Note under "Exemption Categories" number 3.

When and Where to Issue. The Form 13 must be given to the seller at the time of the purchase to document why sales tax does not apply to the purchase. The Form 13 must be kept with the seller's records for audit purposes.

Sales Tax Number. A purchaser who is engaged in business as a wholesaler or manufacturer is not required to provide an ID number when completing Section A. Out-of-state purchasers may provide their home state sales tax number. Section B does not require a Nebraska ID number when exemption category 1, 2, or 5 is indicated.

Fully Completed Resale or Exempt Sale Certificate. A fully completed resale or exempt sale certificate is proof for the retailer that the sale was for resale or is exempt. For a resale certificate to be fully completed, it must include: (1) identification of the purchaser and seller, type of business engaged in by the purchaser; (2) sales tax permit number; (3) signature of an authorized person; and (4) the date of issuance.

For an exempt sale certificate to be fully completed, it must include: (1) identification of purchaser and seller; (2) a statement that the certificate is for a single purchase or is a blanket certificate covering future sales; (3) a statement of the basis for exemption, including the type of activity engaged in by the purchaser; (4) signature of an authorized person; and (5) the date of issuance.

Penalties. Any purchaser who gives a Form 13 to a seller for any purchase which is other than for resale, lease, or rental in the **normal** course of the purchaser's business, or is not otherwise exempted from sales and use tax under the Nebraska Revenue Act, is subject to a penalty of \$100 or ten times the tax, whichever is greater, for each instance of presentation and misuse. In addition, any purchaser, or their agent, who fraudulently signs a Form 13 may be found guilty of a Class IV misdemeanor.

Exemption Categories

(Insert appropriate number from the list below in Section B)

1. Governmental units, identified in [Reg-1-072, United States Government and Federal Corporations](#); and [Reg-1-093, Governmental Units](#). Governmental units are not assigned exemption numbers.

Sales to the U.S. government, its agencies, instrumentalities, and corporations wholly owned by the U.S. government are exempt from sales tax. However, sales to institutions chartered or created under federal authority, but which are not directly operated and controlled by the U.S. government for the benefit of the public, generally are taxable.

Purchases by governmental units that are **not** exempt from Nebraska sales and use taxes include, but are not limited to: governmental units of other states; sanitary and improvement districts; rural water districts; railroad transportation safety districts; and county historical societies.

2. Purchases when the intended use renders it exempt. See [Nebraska Sales Tax Exemption Chart](#).
3. Purchases made by organizations that have been issued a [Nebraska Exempt Organization Certificate of Exemption](#) (Certificate of Exemption). [Reg-1-090, Nonprofit Organizations](#); [Reg-1-091, Religious Organizations](#); and [Reg-1-092, Educational Institutions](#), identify these organizations. These organizations are issued a Certificate of Exemption with a state ID number which must be entered in Section B of Form 13.

Important Note: Nonprofit educational institutions must be accredited regionally or nationally and have their primary campus in Nebraska to be exempt from sales and use tax. Also nonprofit organizations providing any of the types of health care or services that qualify to be exempt must be licensed or certified by the Nebraska Department of Health and Human Services (DHHS) to be exempt from sales and use taxes. There is no sales and use tax exemption prior to these entities being accredited, licensed, or certified. They CANNOT issue either a [Resale or Exempt Sale Certificate, Form 13](#), or a [Purchasing Agent Appointment, Form 17](#), to any retailer or contractor relating to purchases of building materials for construction or repair projects performed prior to being accredited, licensed, or certified. After an entity becomes accredited, licensed, or certified upon completion of the construction project, it may submit a [Form 4](#).

Nonprofit **health care organizations** that hold a Certificate of Exemption are exempt for purchases for use at their facility, or portion of the facility, covered by the license issued under the Nebraska Health Care Facility Licensure Act. Only specific types of health care facilities and activities are exempt. Purchases of items for use at facilities that are not covered under the license, or for any other activities that are not specifically exempt, are taxable. The exemption is not for the entire organization that offers different levels of health care or other activities, but is limited to the specific type of health care that is exempt. Purchases for non-exempt types of health care are taxable.

4. Purchases of motor vehicles, trailers, semitrailers watercraft, and aircraft used predominately as common or contract carrier vehicles; accessories that physically become part of the common or contract carrier vehicle; and repair and replacement parts for these vehicles. The exemption ID number must be entered in Section B of the Form 13. An individual or business that has been issued a common or contract carrier certificate of exemption may only use it to purchase those items described above prior to the expiration date on the certificate. The certificate of exemption expires every 5 years. (See [Nebraska Common or Contract Carrier Information Guide](#)).
5. Purchases of manufacturing machinery and equipment made by a person engaged in the business of manufacturing, including repair and replacement parts or accessories, for use in manufacturing. (See [Reg-1-107, Manufacturing Machinery and Equipment Exemption](#)).
6. Occasional sales of used business or farm machinery or equipment productively used by the seller as a depreciable capital asset for more than one year in his or her business. The seller must have previously paid tax on the item being sold. The seller must complete, sign, and give the Exempt Sale Certificate to the purchaser. (See [Reg-1-022, Occasional Sales](#)). The Form 13 must be kept with the purchaser's records for audit purposes.

Purchasing Agent Appointment and Delegation of Authority for Sales and Use Tax

Section A – Purchasing Agent Appointment

Name and Address of Contractor			Name and Address of Exempt Governmental Unit or Exempt Organization		
Name			Name		
Street or Other Mailing Address			Street or Other Mailing Address		
City	State	Zip Code	City	State	Zip Code
Name and Location of Project			Appointment Information		
Name			Effective Date (See instructions)		
Street Address			Expiration Date		
City	State	Zip Code	Nebraska Exemption Number (Exempt Organizations Only)		

Provide the contract name, number, and a description of the project.

The undersigned governmental unit or exempt organization appoints the above-named contractor and the contractor's delegated subcontractors as its agent to purchase and pay for building materials that will be annexed to real estate by them into the tax exempt construction project identified above.

**sign
here** ▶

Authorized Signature of Exempt Governmental Unit or Exempt Organization

Title

Date

Section B — Delegation of Contractor's Authority A contractor can delegate its authority to its subcontractor.

Name and Address of Subcontractor			Delegation Information for the Project Identified in Section A		
Name			Effective Date		
Street or Other Mailing Address			Expiration Date		
City	State	Zip Code	Portion of Project		

The undersigned contractor hereby delegates authority to the above-named subcontractor to act as the purchasing agent of the named governmental unit or exempt nonprofit organization.

**sign
here** ▶

Signature of Contractor or Authorized Representative

Title

Date

Name and Address of Subcontractor			Delegation Information for the Project Identified in Section A		
Name			Effective Date		
Street or Other Mailing Address			Expiration Date		
City	State	Zip Code	Portion of Project		

The undersigned contractor hereby delegates authority to the above-named subcontractor to act as the purchasing agent of the named governmental unit or exempt nonprofit organization.

**sign
here** ▶

Signature of Subcontractor or Authorized Representative

Title

Date

Name and Address of Subcontractor			Delegation Information for the Project Identified in Section A		
Name			Effective Date		
Street or Other Mailing Address			Expiration Date		
City	State	Zip Code	Portion of Project		

The undersigned contractor hereby delegates authority to the above-named subcontractor to act as the purchasing agent of the named governmental unit or exempt nonprofit organization.

**sign
here** ▶

Signature of Subcontractor or Authorized Representative

Title

Date

SECTION 1 GENERAL CONDITIONS

SECTION 1-1 - DEFINITIONS OF WORDS AND TERMS

Wherever in these specifications or in other contract documents the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

1.101 Advertisement. The advertisement for work or materials on which bids are to be received.

1.102 Award. The decision of the City to accept the proposal of the lowest responsible bidder for the work, subject to the execution and approval of a satisfactory contract thereof and bond to secure the performance thereof, and to such other conditions as may be specified or otherwise required by law.

1.103 Bid Bond. Insures the owner that the successful bidder will undertake the contract under the terms of the proposal and provide bond(s) as specified in the bidding documents.

1.104 Bidder. Any individual, firm, or corporation formally submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

1.105 Calendar Day. Every day shown on the calendar, including weekends and holidays.

1.106 Change Order. A written order to the Contractor, signed by the Engineer, ordering a change in the work from that originally shown in the plans and specifications.

1.107 City. The word "City" as used in these specifications refers to City of Hastings, Nebraska, Utilities Department.

1.108 Contract. The written agreement executed between the City and the Contractor, covering the performance of the work and the furnishing of labor and materials, by which the Contractor is bound to perform the work and furnish the labor and materials, and by which the City is obligated to compensate him therefore at the mutually established and accepted rate or price.

The contract shall include the "Notice to Bidders", these specifications, the Contractor's Bond, the general and detailed plans, the Proposal, Special Provisions, and Supplemental Agreements.

1.109 Contract Item. An item of work specifically described and for which a price, either unit or lump sum, is provided. It includes the performance of all work and the furnishing of all labor, equipment, and materials described in the text of a specification item included in the contract or described in any subdivision of the text of the supplemental specification or special provision of the contract.

1.110 Contract Period. The period from the date specified in the contract for the commencement of work to the date specified for its completion, both dates inclusive.

1.111 Contractor. The party of the second part to the contract; the individual, firm, or corporation undertaking the execution of the work under the terms of the contract and acting directly or through his, their, or its agents or authorized employees.

1.112 Easement (Right-of-Way). A right acquired by public authority to use or control property for a designated purpose.

1.113 Engineer. The Director of Engineering, acting either directly or through an assistant or other representative duly authorized by the Director of Engineering, such assistant or representative acting within the scope of the particular duties assigned him, or of the authority given him.

1.114 Extra Work. Work performed by the Contractor in order to complete the contract in an acceptable manner but for which there is no basis of payment provided in the contract.

1.115 Inspector. An authorized representative of the Engineer assigned to make detailed inspection of any or all portions of the work performed and materials furnished by the Contractor.

1.116 Laboratory. The testing laboratory of the City or any other testing laboratory which may be designated by the Engineer.

1.117 Maintenance Bond. Insures the owner of a completed construction project for a specified time against defects and faults in materials, workmanship, and design.

1.118 Notice to Bidders. The provisions, requirements, and instructions pertaining to the work to be awarded, manner and time of submitting proposals, quantities of the major items or work required, as prepared for the information of bidders.

1.119 Performance Bond. The approved form of security, executed by the Contractor and his surety or sureties, guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the project.

1.120 Plans. The official plans, profiles, working drawings, and supplemental drawings, or exact reproductions thereof, approved by the Engineer, which show the location, character, dimensions and details of the work to be done, and which are to be considered as a part of the contract supplementary to these specifications.

1.121 Project. The specific section of the street together with all appurtenances and construction to be performed thereon under the contract.

1.122 Proposal. The offer of the bidder, submitted on the prescribed proposal form, to perform the work and to furnish the labor and materials at the prices quoted by the bidder.

1.123 Proposal Form. The approved form on which the City requires formal bids be prepared and submitted.

1.124 Proposal Guaranty. The security furnished by the bidder with his proposal for a project, as a guaranty that he will enter into a contract for the work if his proposal is accepted.

1.125 Right-of-Way. The land area which is reserved or secured by the City for constructing the work or for obtaining material therefor.

1.126 Special Provisions. Special directions, provisions or requirements peculiar to the project under consideration and not otherwise thoroughly or satisfactorily detailed or set forth in the specifications. See Section II Special Provisions.

1.127 Specifications. The general term comprising all the directions, provisions, and requirements contained herein, together with such as may be added or adopted as supplemental specifications or special provisions, all of which are necessary for the proper performance of the contract.

1.128 Subcontractor. Any individual, firm, or corporation to whom the Contractor, with the written consent of the City, sublets any part of the contract.

1.129 Superintendent. The representative of the Contractor, present on the work at all times during progress, authorized to receive and fulfill instructions from the Engineer and capable of superintending the work efficiently.

1.130 Surety. The corporate body bound with and for the Contractor for the acceptable performance of the contract and the completion of the work, and for payment of all just claims arising therefrom.

1.131 Work. Work shall be understood to mean the furnishing of all labor, materials, equipment, paying all applicable city, state, and federal taxes, and other incidentals necessary or convenient to the successful completion of the project by the Contractor and the carrying out of all the duties and obligations imposed by the contract **if applicable.**

1.132 Working Day. Any day, except Saturdays, Sundays, and Hastings Utilities holidays: New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving, Friday after Thanksgiving, ½ Day Christmas Eve, and Christmas Day. Working days for a project area shall be counted consecutively from project starting date.

1.133 Completion of the Work and Formal Acceptance by the City. Whenever the term "completion of the work and formal acceptance by the City" is used, it refers to and means the formal acceptance of the work by the Engineer and the City at the time the Contractor has all work under the contract completed and in place. Release of the final pay estimate shall constitute formal acceptance by the City.

1.134 Final Acceptance of the Work. Whenever the term "final acceptance of the work" is used, it refers to and means the time when the Engineer and City finally accept the work after the expiration of the time for which the Contractor guarantees to keep the work in repair.

1.135 Abbreviations.

A.A.S.H.O.	American Association of State Highway Officials
A.S.M.E.	American Society of Mechanical Engineers
A.S.T.M.	American Society for Testing Materials
A.R.E.A.	American Railway Engineering Association
A.W.S.	American Welding Society

D.O.T. Department of Transportation, Office of Pipeline Safety
O.S.H.A. Occupational Safety and Health Administration
A.W.W.A. American Water Works Association

SECTION 1-2 - PROPOSAL REQUIREMENTS AND CONDITIONS

1.201 Contents of Proposal Forms. Bidders will be furnished with proposal forms which will state the location and description of the contemplated work and will show the estimate of the various quantities and kinds of work to be performed or materials to be furnished, with a schedule of items for which unit bid prices are asked, and the time in which the work must be completed, and the date, time, and place of opening bids. All special provisions and required provisions will be grouped together and bound with or included through reference in the proposal form.

1.202 Interpretation of Quantities in Proposal Forms. The quantities listed in the proposal forms are to be considered as approximate, unless otherwise provided by special provision. It is understood that the quantities of work to be done and materials to be furnished may each be increased, diminished or omitted, as hereinafter provided, without in any way invalidating the unit bid prices, except as provided in Article 1.403.

1.203 Examination of Plans, Specifications, Special Provisions, and Site of Work. The bidder is required to examine carefully the site, and the proposal, plans, specifications, special provisions, and contract form, for the work contemplated, and it will be assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of these specifications, the special provisions, and contract. It is mutually agreed that the submission of a proposal shall be considered prima facie evidence that the bidder has made such examination.

1.204 Preparation of Proposal. Bidders shall submit their proposals on blank forms furnished by the Engineer, with the full name and address and the place of business or residence of the bidder. If the bidder is co-partnership, then the signature shall be by a member of the firm, with the names and addresses of each member; and if a corporation, then by an officer of the corporation in the corporate name and with the corporate name and with the corporate seal attached thereto.

All blank spaces in the form shall be fully filled; numbers shall be stated in legible figures and writing when required; the signature shall be longhand; and the complete form shall be without interlineation, alteration or erasure.

No oral, telegraphic, telephonic, faxes, or electronically mailed proposals or modifications will be considered.

When certain alternative prices, for both increasing and decreasing the cost, are required, as called for in the proposal sheet, it must be understood that all materials and workmanship required shall be the best of their respective kinds; and in all cases, shall correspond with similar work herein specified and, if accepted, the work shall be done under the general terms of the specifications.

1.205 Statement of Bidder's Financial Conditions. Any bidder may be required by the City to submit data to satisfy the City that such bidder is prepared to fulfill the contract if it is awarded to him.

1.206 Certified Check, Cashier's Check or Bid Bond. Each bidder must submit with his proposal a certified check, cashier's check or bid bond in the amount of not less than five percent (5%) of the amount bid, drawn to the order to the City of Hastings, Nebraska, guaranteeing the execution of the contract and bond required, within ten (10) days of the notification of award. Any certified check must be issued by a U.S. Commercial Bank.

1.207 Filing of Proposal. The proposal and the supporting proposal guaranty for each project shall be filed in separate but attached envelopes, so marked as to indicate their contents. All proposals shall be filed with the City at the place designated in the notice to bidders, prior to the time advertised for the opening of bids.

1.208 Withdrawal of Proposal. A bidder will be permitted to withdraw his proposal unopened after it has been submitted, if his request for withdrawal is made in writing and delivered personally by the bidder or his authorized representative prior to the time specified for opening bids.

1.209 Public Opening of Proposals. Proposals will be publicly opened and read at the time and place stipulated in the notice to bidders.

1.210 Material Guaranty. The bidder may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work, together with samples, which samples may be subjected to the tests provided for in these specifications to determine their quality and fitness for the work.

SECTION 1-3 - AWARD OF CONTRACT

1.301 Consideration of Proposals. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the quantities shown in the bid schedule by the unit bid prices. The results of such comparisons will be immediately available to the public.

The right is reserved to reject any and all proposals and to waive technical errors as may be deemed best for the interest of the City.

1.302 Award of Contract. In the award of contract, consideration will be given not only to the prices bid but also the mechanical and other equipment available to the bidder, the financial responsibility of the bidder, and his ability and experience in the performance of like or similar contracts.

The award of alternatives proposed will be selected not only of the price but of the quality of the products provided, availability of replacement parts, repair, connection to future or existing systems, longevity, durability, function, and all other engineering and operational consideration.

Award of contracts will be made as promptly as practical after bids have been opened and read. The City reserves the right to delay the award for such time as is needed for the consideration of the bids, and for the receipt of concurrence in recommended contract awards from other governmental agencies whose concurrence may be required.

1.303 Cancellation of Award. The City reserves the right to cancel the award of any contract at any time before the execution of the said contract by all parties without any liability against the City.

1.304 Return of Proposal Guaranty. Proposal guaranties will be returned to the unsuccessful bidders by mail promptly after the signing of the contract has been made. Return to the successful bidder will be made after the signing of the contract and filing of the contract bond.

1.305 Performance Bond (When Required). The Contractor shall furnish a performance bond with a company having the approval of the City in an amount of one hundred percent (100%) of the contract price guaranteeing complete and faithful performance of the contract, payment of all bills of whatever nature which could become a lien against the property.

In the event that Contractor chooses to submit a bond other than the bond from contained in this package, such submission is done at the risk of the bidder. All such substituted bond forms shall contain indemnification both for performance and warranty as set out more fully in these documents.

1.306 Maintenance Bond (When Required). The Contractor shall furnish a maintenance bond with a company having the approval of the City in an amount of one hundred percent (100%) of the contract price guaranteeing complete and faithful performance of the contract, payment of all bills of whatever nature which could become a lien against the property, and guaranteeing replacement of defective materials and workmanship for a period of three (3) years after completion of the contract.

In the event that Contractor chooses to submit a bond other than the bond from contained in this package, such submission is done at the risk of the bidder. All such substituted bond forms shall contain indemnification both for performance and warranty as set out more fully in these documents.

1.307 Failure to Execute Contract. Failure to execute a contract and file an acceptable performance bond, as provided herein, within ten (10) days from date of award shall be just cause for the annulment of the award and the forfeiture of the certified check, bid bond, or cashier's check to the City, not as a penalty but in liquidation of damages sustained.

SECTION 1-4 - SCOPE OF WORK

1.401 Intent of Plans and Specifications. The intent of the plans and specifications is to provide for the construction and completion of every detail of the work described therein. It shall be understood by the Contractor that he will furnish all labor, materials if applicable, tools, transportation, and supplies required for all or any part of the work to make each item complete in accordance with the spirit of the contract. It is understood that the apparent silence of the specifications as to any detail, or the apparent omission of a detailed description concerning any point, shall be regarded as meaning that only the best general practice is to prevail, and that only materials and workmanship of the best quality are to be used.

For the purpose of design and the preparation of the Engineer's estimate, the City may perform a reasonable amount of exploratory work to gain information relative to surface and subsurface conditions relating to types of soil, moisture content and types and extent of rock strata.

This information, when shown on the plan, represents to the best of the City's knowledge, conditions as of the date the survey was made. The appearance of this information on the plan will not constitute a guarantee that conditions other than those indicated will not be encountered at the time of construction.

The bidder may utilize this information as he sees fit. Any bidder interested in the work is authorized to make whatever additional investigation he considers advisable.

In making such additional investigation, the bidder is directed to the Engineer for information relating to available right-of-way. If there are, at that time, any parcels of land over which the City does not have jurisdiction, right of entry must be secured by the prospective bidder from those authorized to grant such permission.

1.402 Special Work. Any conditions not covered by these standard specifications are stated in the special provisions.

1.403 Increased or Decreased Quantities of Work. The Engineer reserves the right to alter the quantities of contract items for which there are bid prices. Such increases or decreases in quantities shall be made as he considers necessary or desirable without waiving or invalidating any of the provisions of the contract; provided, that all such alterations shall be ordered in writing and that a supplemental agreement shall be executed with the Contractor for the item or items involved, when such alterations involve an increase or decrease of more than twenty percent (20%) of the total cost of the work of any group of the contract calculated from the original proposal quantities and the contract unit prices. The Contractor shall not start on any alteration requiring a supplemental agreement until the agreement setting forth an equitable adjustment of compensation, satisfactory to both parties, shall have been executed by the Engineer and the Contractor.

1.404 Changes in Work - Change Order. The City reserves the right to order the performance of work of a class not contemplated in the proposal but which may be considered necessary to complete satisfactorily the work included in the contract. All change orders must be approved in writing prior to start of work.

- a. If applicable unit prices are not contained in the Agreement or if the total net change increases or decreases the total Contract Price more than twenty (20) percent, the City shall, before ordering the Contractor to proceed with desired changes, request an itemized proposal from him covering the work involved in the change after which the procedures shall be as follows:
 1. If the proposal is acceptable, the City will prepare the change order in accordance therewith for acceptance by the Contractor.
 2. If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the City may order the Contractor to proceed with the work on a cost-plus-limited basis. A cost-plus-limited basis is defined as the net cost of the Contractor's labor,

materials, and insurance plus fifteen (15) percent of said net cost to cover overhead and profit, the total cost not to exceed a specified limit.

- b. Each change order shall include in its final form:
 - 1. A detailed description of the change in the work.
 - 2. The Contractor's proposal (if any) or a conformed copy thereof.
 - 3. A definite statement as to the resulting change in the Contract Price and any impacts on project schedule.
 - 4. The statement that all work involved in the change shall be performed in accordance with Contract requirements except as modified by the change order.

1.405 Removal and Disposal of Structures and Obstructions. The Contractor for bridge and culvert work shall remove any existing structure or part of structure that in any way interferes with the new construction. If specific payment for such work has not been provided in the contract, it will be paid for as extra work.

The Contractor shall remove any materials or structures found on the right-of-way which are not to remain in place or which have not been designated for use in the new construction. The removal and disposal of pipe culverts will not be paid for directly, but shall be considered as incidental work, and the cost of such removal and disposal shall be considered to be included in the contract price for other items. Pipe culverts shall be removed by methods that will cause a minimum of damage to the pipe culverts. The removal and disposal of bridges or other masonry or monolithic concrete construction will be paid for. If the contract does not contain an item for such work, it will be paid for as extra work. Whenever City of Hastings Utilities Department requires abandonment of old utility mains or services, the Contractor shall plug or cap all open ends.

1.406 Rights In and Use of Materials Found on the Right-of-Way. Unless stated to the contrary in the contract documents, all materials, such as stone, gravel, sand, timber, and structures or parts of structures, found on the right-of-way of the street or on land acquired for the work, are the property of the City or the City of the fee title to the land, and shall not be used or destroyed by the Contractor without special permission from the Engineer. When the Contractor is permitted to use materials found on the right-of-way, any excavations that he makes below the grade elevation shall be backfilled with other suitable materials so that the finished street will conform to the grade shown on the plans. No extra compensation will be allowed for such backfilling.

When rock excavation is encountered, any portion of rock excavation which would otherwise be deposited in waste areas and not be incorporated in the embankments may be processed and used, royalty free, by the Contractor in any other portion of the construction in which material of that quality would be acceptable. No deduction will be made from excavation quantities for rock so used.

1.407 Right-of-Way. Right-of-Way for the work will be provided without cost to the Contractor. Right-of-way will be made available to the Contractor on or before the date

specified for the commencement of the work, unless a later date for the right-of-way to be made available to the Contractor is designated in the contract documents.

1.408 Railroad Crossings. Whenever the work involves construction with which railroad companies are concerned, the performance of the work is contingent upon arrangements with the railroad companies for the proposed construction. No claims will be allowed for loss or damage caused by failure to complete such arrangements. The Contractor is responsible to pay for any railroad required Contractor's fees.

SECTION 1-5 - CONTROL OF WORK

1.501 Authority of Engineer. The Engineer will decide any questions that arise with reference to the intent of the contract documents and compliance therewith. He will resolve all questions relating to materials, work, progress, disputes and mutual rights between contractors, fulfillment of contract and compensation, in accordance with the provisions of these specifications.

1.502 Plans and Working Drawings. The approved plans will be supplemented by such working drawings as are necessary to adequately control the work. It is mutually agreed that all authorized alterations affecting the requirements and information given in the approved plans shall be in writing.

Working drawings for any structure shall consist of such detailed plans as may be required of the Contractor for the execution of the work. These are not included in the plans furnished by the Engineer. They shall include shop details, erection plans, masonry, and form work. The Engineer's prior approval of the shop details must be obtained before any fabrication work involving these plans is performed. Erection plans, masonry layout diagrams, and plans for cribs, cofferdams, false work, centering and framework, as well as any other working drawings not previously mentioned, may be required of the Contractor and shall be subject to the Engineer's approval.

1.503 Alteration of Plans or of Character of Work. The Engineer shall have the right to make alterations in plans or character of work as may be considered necessary or desirable during the progress of the work to complete satisfactorily the proposed construction. Such alterations shall not be considered as a waiver of any conditions of the contract or invalidate any of the provisions thereof.

1.504 Coordination of Plans, Specifications, Special Provisions and Supplemental Specifications. These specifications, the supplemental specifications, the plans, special provisions, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complimentary and to describe and provide for a complete work.

1.505 Cooperation of Contractor. The Contractor will be supplied with a minimum of two sets of approved plans and contract assemblies, including special provisions, one set of which the contractor shall keep available on the work at all times.

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the Engineer and other contractors in every way possible.

The Contractor shall at all times have on the work, as his agent, a competent superintendent capable of reading and thoroughly understanding the plans and specifications, knowledgeable in the pertinent industry codes and standards, thoroughly experienced in the type of work being performed, who shall receive instructions from the Engineer or his authorized representatives.

The superintendent shall have full authority to execute the orders or directions of the Engineer without delay, and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such superintendent shall be furnished irrespective of the amount of work sublet.

Before starting any work under this Contract, the Contractor shall file with the City a letter signed by an officer of the company (or City, or partner, as the case may be), giving the name, address, and telephone number of the superintendent who is to represent the Contractor in all matters with prosecution of the work and who is to officially receive on behalf of the Contractor, notices or directions issued by the City or its Engineer, and act upon them as required. If, during the life of the Contract, a change in superintendents is made by the Contractor, a new letter shall be filed simultaneously with the change.

1.506 Surveys. Lines and elevations shall be established by the Engineer before the work commences. City of Hastings shall perform all staking on this project. The Contractor shall make efforts to preserve all survey stakes.

All property pins, section corners, right of way monuments, permanent bench marks (brass caps), and all other survey monuments disturbed or removed by the Contractor shall be replaced by a licensed Surveyor at the expense of the Contractor. The Contractor shall take all necessary precaution to maintain in good condition all survey monuments.

The Contractor will insure the Engineer or his representative is present to verify the location of all utilities (highways, railroads, drainage, etc.) uncovered, crossed, or otherwise exposed during the completion of the project. The Contractor shall keep the Engineer or his representative abreast of activities so adequate response by the Engineer or his representative can be made without unduly delaying the construction process. A 24 hour notice may be enforced if sufficient time is not allowed by the Engineer or his representative to conduct all necessary field surveys.

See specification 2.013 for additional information.

1.507 Authority and Duties of Inspector. The City may appoint inspectors to represent the Engineer in the inspection of all materials used in and all work done under the contract. Such inspection may extend to any part of the work and to the preparation of manufacture of the materials to be used. The Inspector will not be permitted to modify in any way the provisions of the contract documents, nor to delay the work by failing to inspect materials and work with reasonable promptness. An inspector is placed on the work to keep the Engineer informed as to its progress and the manner in which it is being done; also, to call the Contractor's attention to any infringements of the contract documents. The Inspector will not act as foreman or perform other duties for the Contractor, not improperly interfere with the management of the work. He will not be authorized to approve or accept any portion of the work. In case of dispute between the Contractor and Inspector as to quality of materials or the manner of performing the work, the Inspector shall have authority to reject materials or suspend the work until the question at issue can be decided by the Engineer. Written notice of the suspension of work will be given to the Engineer and the Contractor.

Upon the failure of Contractor or its Subcontractors to comply with any of the requirements of this Contract (but not limited to quality or safety), the City shall have the authority to stop any portion of the work affected by such failure until such failure is remedied. If the City issues a Stop Work Order, the City shall not be liable for any costs or expenses claimed by Contractor arising out of such issuance. The construction schedule shall not be delayed or extended as a result of the City's issuance of a Stop Work Order.

1.508 Inspection of Work.

- a. The Contractor shall notify the City sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the City, the Contractor shall uncover for inspection and recover such facilities, all at his own expense.
- b. The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether the work is being performed in conformance with the contract documents. At any time before acceptance of the work, upon request of the Engineer, the Contractor shall remove or uncover such portions of the finished work as the Engineer may direct. After examination has been made, the Contractor shall restore such portions of the work to the standard required by the contract documents.
- c. Should it be considered necessary or advisable by the City any time before final acceptance of the entire work to make an examination of work already completed by uncovering the same, the Contractor shall on request promptly furnish all necessary facilities, labor and material. If such work is found to be defective in any important respect, due to fault of the Contractor or his Subcontractors, the Contractor shall defray all expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessarily involved in the examination and replacement, plus fifteen (15) percent of such costs to cover superintendent's, general expenses and profit, shall be allowed the Contractor and he shall in addition, if completion of the work of the entire Contract has been delayed thereby, be granted a suitable extension of time on account of the additional work involved.

1.509 Removal of Defective Work. Any defective work shall be removed and replaced at the Contractor's expense. Should the Contractor fail or refuse to remove defective work when so ordered by the Engineer, the Engineer shall have authority to order the Contractor to suspend further operations, and may withhold payment on estimates until such defective work has been removed and replaced in accordance with the plans and specifications. Continued failure or refusal on the part of the Contractor to correct defective work promptly shall be sufficient cause for the City to declare the contract in default, and to proceed to have the work completed in accordance with Article 1.808.

1.510 Final Inspection. Upon written notification by the Contractor or his authorized representative that the work is completed, the Engineer shall make a final inspection within 10 days of the completion of all work included in the contract. If the work is found not to be in accordance with the contract documents, the Engineer shall provide the Contractor with a "Punch List" of the particular defects to be remedied.

Once the Engineer and Contractor determines the work is completed a written Notice by the Engineer shall be given to the Contractor within 10 days of the completion of all work items.

1.511 Review By City. The City, its authorized representatives and agents shall at all time have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, material invoices, and other relevant data and records pertaining to this Contract, provided, however, that all instructions and approval with respect to the work will be given to the Contractor only by the City through its authorized representatives or agents.

1.512 Quality Control. The contractor shall make every effort to provide control of the workmanship of the project. This shall include but not be limited to the following construction practices.

1. Concrete surfaces of sidewalks, paving, slab on grade and other related concrete work shall be smooth and constructed to the elevations as shown on the plans or as directed by the Engineer. An acceptable construction tolerance shall be agreed upon before work is to begin. The Contractor shall notify the Engineer 72 hours before any work is to begin which will involve concrete finishing.
2. Lines and grades of all pipes, conduits, casing, grading, etc. shall be constructed according to the plans or as directed by the Engineer. An acceptable construction tolerance shall be agreed upon before any pipeline, conduit installation, casing installation, or grading begins.

SECTION 1-6 - CONTROL OF MATERIALS.

1.601 Source of Supply and Quality Requirements. The materials used on the work shall meet all quality requirements of the contract. In order to expedite the inspection and testing of materials, the Contractor shall notify the Engineer of his proposed sources of materials prior to delivery. At the option of the Engineer, approval of the source or approval of materials at the source prior to delivery may be required. If it is found after trial that sources of supply for previously approved materials do not produce specified products or when conditions are such that the use of unfit materials cannot be prevented except by extraordinary inspection methods, the Contractor shall furnish materials from other sources. Before delivery is started and at any time during the process of preparation and use, the materials shall be subject to the approval of the Engineer. All materials supplied shall be new and undamaged.

1.602 Storage of Materials. The Contractor shall be responsible for the care and storage of materials delivered on the work or purchased for use thereon. Any material that has been delivered on the work and has become damaged before actual incorporation in the work may be rejected by the Engineer even though it may previously have been accepted. Stored materials shall be so located as to facilitate thorough inspection.

1.603 Unacceptable Materials. All materials not conforming to the requirements of the specifications at the time they are to be used shall be considered as unacceptable and all such materials will be rejected and shall be removed immediately from the site of the work unless otherwise instructed by the Engineer. No rejected material, the defects of which have been corrected, shall be used until approval has been given.

1.604 Guarantee. The Contractor shall guarantee the design, equipment, materials, and workmanship furnished under this Contract to be as specified and to be free from defects during the

guarantee period. In addition, the equipment and materials furnished by the Contractor shall be guaranteed to be free from defects in design.

Except as otherwise prescribed by the terms of any special guarantees required by the contract documents, the guarantee period shall begin on the date of formal acceptance by the City and shall end 12 months later.

Upon notification, the Contractor shall promptly make all adjustments, repairs, or replacements which, in the opinion of the Engineer or City, arose out of defects and became necessary during the guarantee period.

The cost of all materials, parts, labor, transportation, supervision, special tools, and supplies required for replacement or repair of parts and for correction of defects shall be paid by the Contractor or by the surety.

This guarantee shall be extended to cover all repairs and replacements furnished under the guarantee, including repair for ditch settlement, and the period of the guarantee for each such repair or replacement shall be 12 months after installation or the end of the project guarantee period, whichever is later, except as otherwise prescribed by the terms of any special guarantees required by the contract documents.

If within 10 days after the City has notified the Contractor of a defect, failure, or abnormality in the work, the Contractor has not started to make the necessary repairs or adjustments, the City is hereby authorized to make the repairs or adjustments or to order the work to be done by a third party, the cost of the work to be paid by the Contractor.

In the event of an emergency where, in the judgment of the City, delay would cause serious loss or damage, repairs or adjustments may be made by the City, or a third party chosen by the City, without advance notice to the Contractor and the cost of the work shall be paid by the Contractor or by the surety.

The acceptance of the installation, or any part of it, shall not act to waive this liability on the part of the Contractor.

1.605 "Or Equal" Clause. Whenever, in any section of the contract documents, plans or specifications, any article, materials, or equipment is defined by describing a proprietary product or by using the name of a manufacturer or vendor, the term "or approval equal", if not inserted, shall be implied. The specified article, material, or equipment mentioned shall be understood as indicating the type, function, minimum standard or design, efficiency and quality desired, and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design and efficiency. The Engineer shall determine the acceptability of articles, materials or equipment proposed as equals.

1.606 Shop Drawings. The Contractor shall submit for review and approval all shop drawings as indicated in these specifications before the beginning of construction. Failure to submit shop drawings shall suspend payment of any materials delivered or installed. This includes delivery of materials in storage. These requirements will be strictly enforced.

SECTION 1-7 - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

1.701 Laws to be Observed. The Contractor shall keep himself fully informed of, and at all times, shall observe and comply with all federal and state laws, all local bylaws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall protect and indemnify the City and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees. It shall be the responsibility of the Contractor to provide all safeguards, safety devices and protective equipment and to take any other needed actions as are reasonably necessary to protect the life and health of employees on the project.

1.702 Work Eligibility Status. Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

1.703 Fair Labor Standards. The Contractor agrees to comply with all current applicable State, Federal, and City fair labor standards in the execution of the contract. Pursuant to the Title VI Non-Discrimination Program of the City of Hastings Contractor agrees to comply with the provisions set forth by CITY's Title VI Non-discrimination Program, if applicable. A copy of said provisions are as follows:

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- (1) **Compliance with Regulations:** The contractor shall comply with the Regulation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, and the Federal Highway Administration (hereinafter "FHWA") Title 23, Code of Federal Regulations, Part 200 as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- (2) **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin, sex, age, and disability/handicap in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR, section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- (3) **Solicitations for Subcontractors, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin, sex, age, and disability/handicap.

- (4) **Information and Reports:** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the (*Recipient*) or the FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the (*Recipient*), or the FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.
- (5) **Sanctions for Noncompliance:** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the (*Recipient*) shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
- (a.) withholding of payments to the contractor under the contract until the contractor complies, and/or
 - (b.) cancellation, termination or suspension of the contract, in whole or in part.
- (6) **Incorporation of Provisions:** The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The contractor shall take such action with respect to any subcontract or procurement as the (*Recipient*) or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the (*Recipient*) to enter into such litigation to protect the interests of the (*Recipient*), and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

1.704 Permits. The Contractor shall procure and pay for all permits, licenses and bonds necessary for the execution of his work and/or required for municipal, state and federal regulations and laws.

1.705 Restoration of Surfaces Opened by Permit. Upon the presentation of a duly authorized and satisfactory permit from the City, which provides that all necessary repair work will be paid for by the party to whom such permit is issued, the Engineer may authorize the Contractor to allow parties bearing such permits to make openings in the street. The Contractor shall make in an acceptable manner all necessary repairs due to such openings, and such necessary work ordered by the Engineer shall be paid for as provided in these specifications.

1.706 Safety, Health and Sanitation. In the performance of his contract, the Contractor shall comply with all applicable federal, state and local laws governing safety, health and sanitation.

- a. The Contractor shall exercise proper precaution at all time for the protection of persons and property and shall be responsible for all damages to persons or property either on or off the site, which occur as a result of his prosecution of the work. The safety provisions of applicable laws and building and construction codes and OSHA shall be observed, and the Contractor shall take or cause to be taken such additional safety and health measures as the

City may determine to be reasonably necessary. Machinery, equipment and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction," published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws. The Contractor shall comply with the latest edition of Part VI of the Manual on Uniform Traffic Control Devices. The Contractor shall install plastic fence on open holes when directed by the Inspector. The Contractor shall wear hard hats and safety glasses at all times on the construction site.

- b. The Contractor shall maintain an accurate record all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. The Contractor shall promptly furnish the City with reports concerning these matters.
- c. The Contractor shall indemnify and hold harmless the City and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense 1) is attributed to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and 2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

In any and all claims against the City or the Engineer or any of their agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph "c" shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Workmen's Compensation acts, disability benefit acts or employee benefit acts.

The obligation of the Contractor under this paragraph "c" shall not extend to the liability of the Engineer, his agents or employees arising out of 1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or 2) the giving of or failure to give directions or instructions by the Engineer, his agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

The Contractor shall immediately correct any unsafe conditions identified by the City. In the event the Contractor fails to immediately correct such unsafe conditions, the City may either have the unsafe conditions corrected by others at the Contractor's expense, or direct that the work be stopped in the area of the unsafe condition; however, this right to stop/suspend the work shall not give rise to any duty on the part of the City to exercise this right.

The Contractor waives the right to bring claim for damages against the City or Engineer for the correction of unsafe conditions or work stoppages in connection with the Contractor's Safety, Health, and Accident Prevention Program or such program of another contractor. If such a claim

against the City or Engineer is brought by a third party, the Contractor shall indemnify and defend the City or Engineer against such claim. The Contractor shall submit to City of Hastings a current copy of the company safety manual before starting work.

1.707 Claims for Labor and Materials. The Contractor shall indemnify and save harmless the City from all claims for labor and materials furnished under this contract. When requested by the City, the Contractor shall submit satisfactory evidence that all persons, items, or corporation who have done work or furnished materials under this contract, for which the City may have become liable under the laws of the State, have been fully paid or satisfactorily secured. In case such evidence is not furnished or is not satisfactory, an amount will be retained from money due the Contractor which, in addition to any other sums that may be retained, will be sufficient, in the opinion of the City, to meet all claims of the persons, firms, and corporations as aforesaid. Such sum shall be retained until the liabilities as aforesaid are fully discharged or satisfactorily secured.

1.708 Contractor's Insurance Coverage. The Contractor shall not commence work under this Contract until Contractor has obtained all the insurance required under this article. Furthermore, the Contractor shall not allow any sub-contractor to commence work under this Contract until the sub-contractor has obtained the same insurance as is required of the Contractor. The sub-contractor alone shall be responsible for the sufficiency of its own insurance program.

1.708.1 Certificates of Insurance. Certificates of Insurance acceptable to the City shall be filed with the City prior to commencement of the work. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled, or materially altered, until at least 30 days prior written notice has been given to the City. All insurance carried shall conform to the relevant provisions of the respective Project Documents and be with insurance companies which are rated "A, X" or better by Best's Insurance Guide, or other insurance companies of recognized responsibility satisfactory to the City.

1.708.2 Additional Insureds. Insurance coverages furnished under this Contract, with the exception of Workers' Compensation and Employer's Liability, shall include the City of Hastings and their partners, directors, officers, agents, and employees as Additional Insureds on a primary and noncontributory basis, and shall include Products and completed operations with respect to the activities of the Contractor and shall be maintained for the full duration of the project including for a period after completion to include the statute of repose.

Notwithstanding any other provision of these policies, the insurance afforded shall apply separately to each insured, with respect to any claim, suit, or judgment made or brought by or for any other insured, as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount or amounts for which the insurer would have been liable had only one insured been named.

The City shall not by reason of their inclusion under these policies incur liability to the insurance carrier for payment of premium for these policies.

1.708.3 Waiver of Subrogation. The Contractor and their sub-contractor shall require their insurance carriers, with respect to all insurance policies, to waive all rights of subrogation against the City their partners, directors, officers, agents, and employees.

1.708.4 Workers' Compensation and Employer's Liability Insurance. The Contractor shall procure, and shall maintain during the life of this Contract, Workers' Compensation Insurance as required by workers' compensation laws of the State of Nebraska and also of the state in which the sub-contractor is domiciled.

The Contractor shall also be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a workers' compensation law. The Employer's Liability Insurance shall contain the following limits of liability:

Bodily Injury by Accident	\$500,000 each accident
Bodily Injury by Disease	\$500,000 each employee
Bodily Injury by Disease	\$500,000 policy limit

1.708.5 General Liability Insurance. This insurance shall be written per project on an "occurrence" policy form, including coverage for premises/operations, products/completed operations, broad form property damage, blanket contractual liability, independent contractor's and personal injury, with no exclusions for explosion, sudden and accidental pollution or an absolute or total pollution exclusion, collapse and underground perils. The commercial general liability policy shall also include a severability of interest clause and a cross liability clause in the event more than one entity is "named insured" under the liability policy. If applicable, this policy shall also be endorsed to include railroad protective with limits no less than replacement cost of the value of any real property covered under any rail agreement entered into by the City. If work is being done near a railroad track, the 50' railroad right of way exclusion must be deleted.

Limits of Insurance shall be as follows:

Each Occurrence Limit	\$1,000,000
Products/Completed Operations	\$2,000,000
General Aggregate Limit	\$2,000,000

1.708.6 Contractor's Pollution Liability – (Not Applicable).

1.708.7 Riggers Liability – (Not Applicable).

1.708.8 Automobile Liability Insurance. This insurance shall be written under a Business Auto Policy and shall protect the Contractor and Additional Insureds against claims arising from injuries to members of the public or damage to property of others arising from the use of automobiles whether such automobiles are owned, non-owned, or hired. Automobile insurance shall include Motor Carrier Endorsement Act MCS 90 and transportation pollution coverage if applicable. If work is being done near a railroad track, the 50' railroad right of way exclusion must be deleted.

Limit of Liability	\$1,000,000 each accident
--------------------	---------------------------

1.708.9 Umbrella Liability Policy. This insurance shall protect the Contractor and the Additional Insureds against all claims in excess of the limits provided under the employer's liability, automobile liability, and general liability policies. The liability limits of the umbrella liability policy shall be not less than \$5,000,000 per occurrence. This policy shall be an

"occurrence" type policy. However, City reserves the right to require higher limits with respect to each project.

1.708.10 Professional Liability – (Not Applicable)

1.708.11 Transportation Insurance – (Not Applicable).

1.708.12 Proof of Carriage of Insurance. Satisfactory certificates of insurance shall be filed with the City prior to starting any construction work on this contract. The certificates shall state that thirty (30) days written notice shall be given to the City before any policy covered thereby is changed or canceled.

1.708.13 Property Insurance (Builder’s Risk) – (Not Applicable).

1.709 Indemnification. To the fullest extent permitted by laws and regulations, the Contractor shall defend, indemnify, and hold harmless the City, their officers, directors, partners, consultants, agents, and employees from and against all claims, damages, losses, and expenses, direct, indirect, or consequential (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work by the Contractor, any sub-contractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder or arises by or is imposed by law and regulations regardless of the negligence of any such party.

In any and all claims against the City, or of any of their officers, directors, partners, consultants, agents, or employees by any employee of the Contractor, any sub-contractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, this indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any such sub-contractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts, or other employee benefit acts, nor shall this indemnification obligation be limited in any way by any limitation on the amount or type of insurance coverage provided by the City, the Contractor, or any of their sub-contractors.

1.710 Contractor's Responsibility for Utility Property and Services. At points where the Contractor's operations are adjacent to properties of railway, telephone and power companies, or are adjacent to other property, to which damage might result, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall cooperate with the City on any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, and that duplication of rearrangement work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event of interruption to water or utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority. He shall cooperate with the said authority in the restoration of service as promptly as possible.

In no case shall interruption to water service be allowed to exist outside of working hours. Fire hydrants shall be kept accessible to the Fire Department at all times and no materials shall be kept or stockpiled within fifteen (15) feet of any fire hydrant.

The Contractor must cooperate with the utility companies and schedule his work in such a manner as to protect the existing utility facilities until the facilities are abandoned or replacement facilities are completed. In instances where partial grading is necessary before a utility can install its facilities, the Contractor shall consult with the utility and plan the work so that reasonable time can be allowed the utility for completing its work.

Contractor shall exercise particular care at all times to avoid damage to any of City of Hastings Utilities Department's system or other facilities and equipment located at or near the scene of any part of the work, especially such facilities as may be in operation. Any costs for potholing prior to boring are considered subsidiary to the bid.

Contractor specifically acknowledges that it shall be responsible and liable to City of Hastings for all injury or damage to any such existing and operating facilities, including loss of gas or product and all repairs necessitated by any act or omission, resulting in such damages, on the part of the Contractor, his agents or employees, or any subcontractor or subcontractor's agents of employees.

Contractor shall also exercise particular care at all times to avoid damage to underground structures and lines, and specifically recognizes that it shall be held responsible for any injury or damage to unmarked or unidentified underground structures or pipelines, done by Contractor's personnel, or any subcontractor's personnel in connection with performance of the work hereunder.

Please note before beginning any excavation, the Contractor shall be responsible for contacting Diggers Hotline at 1-800-331-5666 or call 811.

1.711 No Waiver of Legal Rights. The City shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the work or materials do not, in fact, conform to the contract. The City shall not be precluded or estopped, notwithstanding any such measurement, estimate or certificate and payment in accordance therewith, from recovering from the Contractor or his sureties, or both, such damage as it may sustain by reason of his failure to comply with the terms of the contract. Neither the acceptance by the City, nor any representative of the City, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the City, shall operate as a waiver of any portion of the contract or of any power herein reserved, or of any right to damages. A waiver of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

1.712 Warranty of Title. No material, supplies or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease-purchase or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed, or placed thereon, by him to the City free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon any improvement or appurtenance thereon.

Nothing contained in this paragraph, however, shall defect or impair the right of persons furnishing materials or labor under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

1.713 Jurisdiction. Any action in court against the Contractor or sureties on his bond, because of damages to property or individual by said Contractor, or his workmen, or because of the violation of any provision of the specifications, or on account of the failure of the Contractor to fully comply with this provision, shall be brought in the District Court of the State of Nebraska in and for Adams County.

1.714 Care of Work.

- a. The Contractor shall be responsible for all damages to person or property that occur as a result of his fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the City.
- b. The Contractor shall provide sufficient competent watchmen, both day and night, including Saturdays, Sundays, and holidays, from the time the work is commenced until final completion and acceptance.
- c. In an emergency affecting the safety of life, limb or property, including adjoining property, the Contractor, without special instructions or authorization from the City, is authorized to act at his discretion to prevent such threatened loss or injury and he shall so act. He shall likewise act if instructed to do so by the City. Any compensation claimed by the Contractor on account of such emergency work will be determined by the City as provided in Section 1.404 hereof.
- d. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operations.
- e. The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the

vicinity of the site, which may be in any way affected by the excavations or connected with the demolition and/or site clearance of the work embraced in this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property City, public & private utility companies, or other party before the commencement of any work. The Contractor shall indemnify and save harmless the City from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and from all damages for which the City may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

SECTION 1-8 - EXECUTION AND PROGRESS

1.801 Subletting or Assigning or Contract. The Contractor will not be permitted to sublet, assign, sell, transfer or otherwise dispose of the contract or any portion thereof, or his right, title, or interest therein; or to either legally or equitably assign any of the money payable under his contract, or his claim thereto, without the written consent of his surety and the Engineer. The Contractor will not be relieved of any responsibility through any of the above actions.

- a. The Contractor shall be as fully responsible to the City for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
- b. Nothing contained in the Contract shall create any contractual relation between any subcontractors and the City.

1.802 Execution of Work. The proposal for each project will show the project period. The progress of the work shall be at a rate sufficient to complete the project within the project period. If it appears that the rate of progress is such that the project will not be completed within the project period, or if the work is not being executed in a satisfactory and workmanlike manner, the City may order the Contractor to take such steps as it considers necessary to complete the project within the period of time specified, or execute the work in a satisfactory manner.

1.803 Limitation of Operations. The Contractor shall conduct the work at all times in such a manner and in such sequence as will insure the least interference with traffic. He shall have due regard to the location of detours and to the provisions for handling traffic. He shall not open up work to the prejudice of work already started, and the Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional section. The Contractor shall so conduct his operations and maintain the work in such condition that adequate drainage shall be in effect at all times.

1.804 Methods and Equipment. The methods, equipment and appliances used shall produce a satisfactory quality of work, and shall be adequate to maintain the schedule of progress specified. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent property, or other streets will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the contract, the Contractor is free to use any methods or equipment that he demonstrates, to the satisfaction of the Engineer, will accomplish the contract work in conformity with the requirements of the contract.

1.805 Temporary Suspension of Work. Work shall be suspended wholly or in part when, in the opinion of the Engineer, weather or other conditions are unfavorable to its satisfactory prosecution. Work shall also be suspended at the direction of the Engineer pending settlement or disputes arising out of failure of the Contractor to comply with the provisions of the contract. Written notice of suspension of work shall be given by the Engineer. When the conditions causing suspension no longer exist, such written notice shall be given to the Contractor by the Engineer. Promptly after such written notice, the Contractor shall resume prosecution of the work as provided in Article 1.802.

1.806 Liquidated Damages – (Not Applicable).

1.807 Extension of Project Period or Contract Completion Date. An extension of the project period or contract completion date may be granted only in writing by the City for any of the following reasons:

1. Additional work resulting from a modification of the plans for the project.
2. Delays caused by the City.
3. Other reasons beyond the control of the Contractor, which in the City's judgment would justify such extension.

No extension of project period or contract completion date will be allowed for variations between contract quantities and actual quantities which cannot be predetermined and which amount to less than twenty percent (20%) of the contract quantities unless approved by the Engineer.

1.808 Abrogation. If the Contractor abandons the work under this contract, sublets it or assigns it without the consent of the city, or if he fails to give his personal attention to it, or if it is the Engineer's opinion that he has unnecessarily or unreasonably delays or neglected the work or any part of it, written notice to that effect is to be given to the Contractor by the Engineer. After such notice, no materials or equipment shall be removed from the work. If, within five (5) days thereafter, the Contractor does not take steps which, in the judgment of the Engineer, will insure the satisfactory completion of the work, then the City may declare this contract null and void and the security forfeited and may notify the Contractor in written to discontinue the work or any part of it; thereupon ceases the Contractor's right or possession of the ground and of all materials and equipment thereon. The City then, at its option, may enter upon and take possession of the work with all material, supplies, and equipment remaining thereon and by contract or otherwise, as the City may determine, may complete the work or the part of it designated, and charge the expense thereof to the Contractor using any materials or equipment found on the site. The expense so charged, together with all damages incurred, will be deducted from any funds due to become due under this contract, and should the unexpended balance of these funds be insufficient, the excess shall be at the cost of the Contractor and the sureties on the Contractor's bond. Neither completion of a part of the work nor the extension for any reason of the time of the completion of the work is to be considered a waiver of this right to abrogate the contract for abandonment, delay or unsatisfactory work.

1.809 Termination of Contractor's Responsibility. The contract shall be considered completed when the work has been accepted in writing by the City. Such acceptance shall release the Contractor from all further obligation with respect thereto, except as to conditions and requirements set forth in his bond.

1.810 Assignment or Novation. The Contractor shall not assign or transfer, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this Contract without the written consent of the City, provided, however, that assignments to banks, trust companies, or other financial institutions may be made without the consent of the City. No assignment or novation of this Contract shall be valid unless the assignment or novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered, and materials, tools, and equipment supplied for the performance of the work under this Contract in favor of all persons, firms or corporations rendering such labor or services or supplying such materials, tools, or equipment.

1.811 Disputes.

- a. All disputes arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of Contract shall within ten (10) days of commencement of the dispute be presented by the Contractor to the City for decision. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified in this paragraph shall be deemed to have been waived, except if the claim is of a continuing character and notice of the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the City of notice thereof.
- b. The Contractor shall submit in detail his claim and his proof thereof. Each decision by the governing body of the City will be in writing and will be mailed to the Contractor by registered or certified mail, return receipt requested, directed to his last known address.
- c. If the Contractor does not agree with any decision of the City, he shall in no case allow the dispute to delay the work but shall notify the City promptly that he is proceeding with the work under protest and he may then accept the matter in question from the final release.

SECTION 1-9 - MEASUREMENT AND PAYMENT

1.901 Payments. The City, at its discretion, may include in such monthly estimates payments for materials that will eventually be incorporated in the project, provided that such materials are suitably stored on the site of the project at the time of preparing estimates for payment. Such payment is to be based upon the estimated value thereof as ascertained by the Engineer. Such material when so paid for by the City shall not be removed from the project without consent of the City and, in case of default on the part of the Contractor, the City may use or cause to be used by others these materials in construction of the project.

The City will retain five percent (5%) of the total contract amount for all work completed including change orders.

Payment of the retainage will be made within forty-five (45) days after project is substantially complete, provided the Contractor submits a Letter of Credit for 125% of the uncompleted work. Substantial completion will include water mains passing biological testing and placed into service. Sewer mains shall pass pressure testing and be televised with receipt of the inspection report.

The bid proposal price sheets include any and all work for each project. Any requirement shown in the drawings, but not listed separately in the proposal price sheets, are considered subsidiary to the work. This includes but is not limited to abandonments of existing utilities and any potholing required for utility locates prior to boring.

1.902 Payments Withheld. The City may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect itself from loss on account of:

1. Defective work not remedied.
2. Claims filed or reasonable evidence indicating probable filing of claims.
3. Failure of the Contractor to make payments properly to subcontractors for material or labor.
4. A reasonable doubt that the contract can be completed for the balance then unpaid.
5. Damage to another Contractor.
6. Damage to public or private property.

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

1.903 Acceptance, Final Payment, and Release of Liability. If final inspection reveals that all details of the work have been completed to his satisfaction, the Engineer shall tentatively accept the work, in writing, relieving the Contractor of further responsibility for the care and maintenance of the completed work and, provided that all equipment and materials have been removed from the right-of-way, shall also relieve the Contractor of further public liability. As soon as possible after tentative acceptance of the work, the Engineer shall measure the completed work and compute the quantities of work for which payment is to be made. Before final settlement is made, the City shall be satisfied with the completed work. When the Engineer is satisfied that all items of the work have been found to be consistent with the terms of the contract and specifications, a final estimate, including the retained percentage due the Contractor, shall be released for payment. Release of the final estimate shall constitute formal acceptance of the work. Acceptance by the Contractor of the final payment shall constitute release of the City and each of its officers and agents from any additional claim or liability hereunder for any act or negligence of the City or of any other person.

All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

1.904 Payment for Extra Work. The Contractor will receive and accept payment for work performed under this contract as follows:

- a. Work Performed as Stipulated in the Contract. For all items of work performed which are covered by definite unit prices or lump sum amounts specified in the contract, the Contractor shall receive and accept compensation at the rate specified in the contract.
- b. Extra Work. Extra work ordered by the Engineer, of a quality or class not covered by the contract, will be paid for at an agreed price. For extra work ordered by the Engineer and performed on an agreed price basis, the Engineer and the Contractor shall enter into a written agreement before such work is undertaken. This agreement shall describe the extra work that is to be done and shall specify the agreed price or prices therefore.

SECTION 2 SPECIAL PROVISIONS

SECTION 2-0 - GENERAL

2.001 General Provisions. The general conditions are general in scope and may refer to conditions not encountered on the work covered by this contract. Any provisions of the General Provisions which pertains to a nonexistent condition and is not applicable to the work to be performed hereunder, or which conflicts with any provision of the Special Provisions shall have no meaning to the contract and shall be disregarded.

2.002 Purchasing Agent Appointment and Exempt Sales Certificate. The Contractor performing the work under this contract will be issued a “Purchasing Agent Appointment” and “Exempt Sales Certificate” signed by the authorized representative of the Owner. It is to be used by the Contractor when purchasing tangible personal property to be actually incorporated into the contract work.

2.003 Maintenance of Traffic. The Contractor shall conduct their work so as to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct or close roads, driveways and walks, whether public or private, the Contractor shall, at their own expense, provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Such maintenance of travel will not be required when the Contractor has obtained permission from the owner or tenant or private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designed area.

2.004 Provisions for Traffic Control and/or Barricading. The Contractor shall provide barricades and maintain a means of traffic control applicable to work site conditions. The means of traffic control and barricade(s) type(s) shall be approved by City of Hastings inspector and by appropriate agency on which work is occurring, being either or combination of city, county, or state right-of-way.

The Contractor shall provide all barricades, cones, signs, warning lights, flaggers, etc. as required. Contractor shall provide daily maintenance on all traffic control devices during the course of construction. A person will be designated by Contractor that is in their employment to be responsible for daily maintenance and shall be available 24 hours a day, seven days a week and will have a telephone number given to the City of Hastings.

2.005 Street Closing. In the event it is deemed necessary for the Contractor to close any streets during the execution of work, the Contractor shall notify the owner of such street closing 48 hours in advance, prior to any street closing due to open cut street crossing, and shall notify all vital departments to include police, fire, ambulance, sheriff, street, and engineering Departments.

SECTION 2 – SPECIAL PROVISIONS

2.006 Dust Control. The Contractor shall be required to keep dusty conditions, caused by construction, from being a source of complaint by adjacent property owners by applying water to haul routes or by other methods approved by the Engineer.

2.007 Removal of Trees, Hedges, Shrubs, and/or Fences. The Contractor shall plan ahead to notify property owner(s) of any obstacles in the way of proposed construction that will have to be removed prior to construction by property owners if they desire to save such.

Clearing and removal of trees will be shown on plans and completed by the Parks Department. The Contractor shall not remove any trees in the project area without prior approval of City of Hastings.

The Contractor will be required to reimburse for any damage to trees that are not authorized by City of Hastings.

2.008 Shutdown, Valve Operation. Shutdowns of City Utilities will be made only by City of Hastings Utilities Department personnel. In the event of an emergency, the Contractor shall take direct action to make a shutdown, but must notify City of Hastings Utilities Department immediately and remain on worksite to demonstrate what has taken place to City of Hastings Utilities Department personnel.

All shutdowns, unless emergency, will be scheduled in advance and shall be the responsibility of the Contractor to notify residences and/or businesses effected and give estimated time of return of service.

2.009 Water. The Owner will provide access to the Contractor of any and all water necessary to construct the proposed project. The water will be furnished from the fire hydrant nearest the project. It will be the responsibility of the Contractor to contact Hastings Utilities before use of any fire hydrant. Hastings Utilities will, upon deposit from the Contractor, furnish and install a meter, check valve and shut-off for the Contractor's use. The Contractor shall furnish all other necessary hose adaptors, hose and other equipment for the distribution and transportation of the water and shall be responsible for the deposit and water usage fees.

2.010 Maintenance of Surface Drainage and Storm Sewers. During the course of construction, the Contractor shall conduct operations in a manner that will not pond or divert surface drainage onto private property and shall maintain the existing surface drainage patterns until such time that the storm sewer system is operable. In addition, the Contractor shall provide temporary works construction, which must be approved by the Engineer, and shall remain in place until such time that the storm sewer system is operable. The work required for maintenance of surface drainage and storm sewers will not be paid for directly, but shall be considered subsidiary to the bid items of the contract.

2.011 Testing. All materials will be inspected, tested and accepted by the Engineer before incorporated in the work. Any work in which untested or unaccepted materials are used without approval or written permission of the Engineer, shall be performed at the Contractor's risk and may be considered as unacceptable and unauthorized and will not be paid for. Unless otherwise

SECTION 2 – SPECIAL PROVISIONS

designated, tests in accordance with the most recent cited standard method of AASHTO or ASTM, whichever are current on the date of advertisement, will be at the expense of the Contractor. All testing (concrete and subgrade) will be taken by the Engineer or a qualified representative of the Owner. The cost of concrete tests (compressive cylinder breaks) will be the responsibility of the Owner. All materials being used are subject to inspection, test or rejection at any time prior to incorporation into the work. Copies of such tests will be furnished to the Contractor at their request.

2.012 Concrete Mix Type. Cement and aggregates not on the latest edition of the Nebraska Department of Transportation’s “Approved Product List” shall not be used without permission from the City Engineer. All Portland Cement Concrete (PCC) shall be NDOT approved using **Type IPF, 1S or 1T Portland Cement** and shall conform to the requirements of ASTM C595. The constituents of PCC and their mixing, handling, and proportioning shall conform to ASTM C94. **Concrete not meeting the 28 day required strength shall be removed and replaced at no extra cost to the City. The Engineer may evaluate the concrete’s expected use and may allow it to remain in place at 50% pay.**

- (a) Concrete mix for PCC pavement, driveways and structural concrete shall be State of Nebraska 47B 3500 as specified in Section 1002 of the 2017 State of Nebraska specifications.
- (b) Concrete mix for sidewalks shall be State of Nebraska Type BX or 47B as specified in Section 1002 of the 2017 State of Nebraska Specifications.
- (c) Recent and certified mill tests of P.C.C. shall be furnished to the City Engineer. Different brands of cement, or the same brand from different mills, shall not be mixed during storage. Neither shall they be used alternately in any one concrete placement without permission from the City Engineer. Contractors supplying concrete shall notify the City Engineer when changing to different cement.
- (d) Cement shall be protected from damage due to moisture. Cement so damaged will be rejected. Cement shall not be in storage at the concrete plant longer than ninety (90) days without retesting for quality testing by an approved testing facility.
- (e) Contractor shall submit a Concrete Mix Design identifying the location of the ready mix or central mix plant, cement manufacturer, type of inter-ground and blended cement, type of admixtures, aggregate gradation, aggregate pit and quarry location.
- (f) Contractor shall submit concrete batch tickets showing batch weights, aggregate moisture (shall be tested daily and moisture probes are allowed), admixtures used, water, and mix design calculations. A copy of the batch ticket shall be provided upon delivery of concrete.
- (g) Aggregate and concrete quality are subject to approval of the Department. Aggregate shall be free of coatings that will inhibit bond and free from injurious quantities of loam, alkali, organic matter, thin or laminated pieces, paper, wood, chert, or other deleterious substances as determined by the Engineer. The use of aggregate obtained from any reclaiming or recycling

SECTION 2 – SPECIAL PROVISIONS

process shall not be allowed without permission from the City Engineer. Aggregate from different sources shall not be mixed or stored in the same pile, nor used alternately in the same project or mixed without permission from the City Engineer.

- (h) Alkali Silica Reaction Requirements and Testing: The mortar bars for the ASTM C1567 shall not exceed 0.10% expansion at 28 days.
- (i) An engineer approved water-reducing admixture shall be used in all concrete mixes at the dosage rate recommended by the manufacturer. The water-cement ratio of all concrete shall not exceed the limit for the various classes of concrete as shown in Table 1002.02.
- (j) All concrete shall have a minimum compressive strength of 3,500 psi at 28 days unless otherwise noted in the plans and specifications. The 7-day compressive strength should be 70% of the 28-day compressive strength.

SECTION 2 – SPECIAL PROVISIONS

ENGLISH

Table 1002.02

Class of Concrete (1)	Base Cement Type	Total Cementitious Materials Min. lb/cy	Total Aggregate	
			Min. lb/cy	Max. lb/cy
47B**	IP/IT*	564	2850	3150
47B***		564	2850	3150
47BD		658	2500	3000
47B-HE		752	2500	3000
BX ₍₄₎		564	2850	3150
47B-OL****		564	2850	3200
PR1	I/II	752	2500	2950
PR3	III	799	2500	2950
SF ₍₅₎	I/II	589	2850	3200

Table 1002.02 (Continued)

Class of Concrete (1)	Air Content % Min.- Max. (2)	Ledge Rock (%)	Water/Cement Ratio Max. (3)	Required Strength Min. psi
47B**	6.5 - 9.0	-	0.45	3500
47B***	6.0 - 8.5	-	0.45	3500
47BD	6.0 - 8.5	30+3	0.42	4000
47B-HE	6.0 - 8.5	30±3	0.40	3500
BX ₍₄₎	6.0 - 8.5	-	0.45	3500
47B-OL****	5.0-7.0	30±3	0.36	4000
PR1	6.0 - 8.5	30±3	0.36	3500
PR3	6.0 - 8.5	30±3	0.45	3500
SF ₍₅₎	6.0 - 8.5	50±3	0.36	4000

2.013 Landfill Fees. The Contractor will be responsible for securing their own disposal site or paying any associated fees for disposal at the Landfill.

2.014 Working Hours. Normal working hours will be considered to be from 8:00 a.m. to 5:00 p.m., Monday through Friday (holidays excepted: New Year’s Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran’s Day, Thanksgiving, Friday after Thanksgiving, ½ day Christmas Eve, and Christmas Day). Any Contractor desiring other working hours must take exception to specifications for consideration by City of Hastings. Any exception

SECTION 2 – SPECIAL PROVISIONS

must be approved or negotiated to mutual acceptance by Contractor and City of Hastings, final acceptance will be granted in writing.

2.015 Removal and Replacement of Property Stakes. If it is necessary to remove any property corners or markers during construction operations, the Contractor shall notify the Engineer so that the Engineer can establish reference ties. Any markers removed without notice to the Engineer shall be replaced at the Contractor's expense in accordance with the proper land surveying techniques.

2.016 Removal of Existing Materials. Contractor shall remove all called for materials with care as not to ruin or damage material for further use. Any material required to be removed for reuse and has been damaged by careless and negligent action on part of Contractor, shall constitute cause for replacement or payment by Contractor. Inspection of said material for reuse shall be made at sole discretion of City of Hastings inspector. Any gas services which are removed by Contractor shall be foamed shut by Contractor.

2.017 Existing Sprinkler Systems. Contractor shall be responsible for the repair of existing lawn sprinkler components disturbed by the construction activities. The property owner shall be responsible to show, if possible, the location of the underground line and size as well as sprinkler head location. Temporary plugging of line may be incurred by Contractor to keep certain areas operational of sprinkler system. Where sprinklers systems are listed as bid items, they shall be replaced in like kind, including all connectors. All sprinkler lines that will be disturbed during construction, shall be cut and protected as needed.

2.018 Appearance of Construction Area and Storage Site. Contractor will be required to keep the construction area in a neat and orderly fashion that would be considered reasonable in regard to work being completed.

Where sidewalks, driveways, etc., exist, Contractor shall keep them free from debris and will be swept off at the end of the construction day. Storage site will be kept in a neat and orderly manner.

No dirt will be allowed to be piled in the street overnight. Dirt piles on the terrace (or alternate locations) must meet all storm water management requirements.

Where Contractor will have a storage site for materials, equipment, etc., on property owned by City, it shall be kept in a neat and orderly manner, free from debris, accumulation of unused materials, etc. Any area used for storage, etc., shall be properly served from the public by temporary fencing if not within a fenced area.

Debris from job site must be removed same day as taken from street, yard, etc. Piling up of these materials, (i.e., concrete, brush, trees, tree limbs) will not be allowed on site.

2.019 Construction Progress Meetings. Construction progress meetings will be held at a predetermined time each week, time to be chosen at the preconstruction conference. City of Hastings will have in attendance Director of Engineering and Project Engineer and Inspector. Contractor shall have Project Superintendent and job foreman present.

SECTION 2 – SPECIAL PROVISIONS

2.020 Final Cleaning Up. Upon completion of the work and before acceptance and final payment, the Contractor shall clean the street, borrow pits and all ground occupied by him in connection with the work of all rubbish, excess materials, false work, temporary structures, and equipment; all parts of the work shall be left in a neat and presentable condition.

2.021 Preconstruction Conference. A preconstruction conference will be held at City of Hastings offices with the contractor owner, superintendent, and job foreman prior to construction and all other city, county, state, and other necessary agencies will be notified of this meeting also.

Contractor shall submit to City a detailed construction progress schedule with major milestones prior to preconstruction meeting.

A preconstruction conference shall be arranged between the Director of Engineering and the Contractor prior to beginning construction. At this meeting the following items shall be addressed.

- a. Work by others. Coordination of work to be performed by subcontractors and other contractors performing work related to this project.
- b. Availability of land. The site and use of adjacent land shall be reviewed.
- c. Project Engineer. The project engineer will be assigned by the Director of Engineering. The Contractor shall designate a construction foreman that will be responsible for communication with the project engineer.
- d. Change orders. Procedures for implementing change orders shall be reviewed.
- e. Tests and inspection. As described within these documents the Contractor shall perform all necessary tests and inspections. Any documented results shall be submitted to the project engineer. At all times the project engineer shall be allowed to inspect the work being performed.
- f. Safety and protection. The Contractor shall be responsible for all safety and necessary protection of all persons in attendance of the project site. The project engineer and other observers shall adhere to all safety precautions deemed necessary by the Contractor.
- g. Final inspection and payment. Final inspection shall be performed by the Director of Engineering and their representatives. When all aspects of this project, as described within these documents have been met, the Contractor may submit for final payment.
- h. Site security. The contractor shall erect a construction barrier around the project site. The barrier shall consist of a temporary fence with appropriate warning signs.
- i. Shop drawings, submittals. The required list of submittals shall be reviewed.
 - Concrete mix design
 - State Approved Notice of Intent (NOI)
 - Fly Ash Class C for soil stabilization

SECTION 2 – SPECIAL PROVISIONS

j. Pipe Cleaning Video: Not Applicable.

2.022 Customer Relations. Contractor shall exert all reasonable efforts to maintain good will for the benefit of City of Hastings with the landowners tenants, and lessees along the right-of-way and with the general public. The Contractor will not be allowed to start construction until he has adequate manpower and material to allow the job to progress smoothly and be complete in a reasonable amount of time. City of Hastings will have the authority to remove workers from the job site who exhibit horseplay and foul language to the public.

2.023 Operations of the Contractor. The Contractor shall confine operations exclusively to easements and public right-of-way. If the Contractor desires to operate equipment or store materials on private property that does not have a utility easement, he must obtain permission from the property owner. Prior to release of the payment retention by City of Hastings, the Contractor must restore the private property to original condition. If the landowner is not satisfied with the restoration, City of Hastings will continue to hold the appropriate retention.

The quantities for seeding and sodding in the proposal include only easements and right-of-way. Any seeding and sodding required to restore areas where the Contractor has operated on private property without easements will be the responsibility of the Contractor.

SECTION 3-0 CONTRACTOR FAMILIARITY WITH SITE

3.001 General. The bidder must visit the site prior to submitting a bid. The Bidder shall inform themselves of all conditions and factors which would affect the execution of the work. No claims for financial compensation or time extension, based on the lack of such prior information (or its effect on the cost of the work) will be permitted by the Owner. Please contact Steve Riehle at 402-462-3676, if you would like to set up a pre-bid walk-through with the City.

The Owner is recommending that the Bidder provide plenty of time for the bid packages to arrive. There have been multiple bids recently that were not delivered on time due to the shipping companies' delays. Please ensure the bids are mailed with adequate time. They will be promptly opened at 1:30pm on the bid opening day, and late bids cannot be considered.

SECTION 3 TECHNICAL SPECIFICATIONS

SECTION A—CLEARING AND GRUBBING

1. **Description.** The work of clearing and grubbing shall be as described in Section 202 of the 2017 State Specifications.
2. **Construction Methods** used for clearing and grubbing shall be in conformance with Section 202.02.
3. **Method of Measurement and Payment.**
 - (a) Clearing and grubbing of trees shall be measured and paid for as described in Section 202.01.
 - (b) General clearing and grubbing shall not be measured and paid for directly but shall be paid as a lump sum in accordance with Section 202.01.

SECTION B—EARTHWORK

1. **Description.** The work of performing Roadway Excavation and Embankment shall consist of that described in Section 205 of the 2017 State Specifications.
2. **Construction Methods** used shall conform to applicable portions of Sections 205.02 and 204.03. The compaction of embankments and fill shall be Class III Type C.
3. **Method of Measurement and Payment.** Unless specified in the plans or bidding documents, roadway excavation, embankment, watering, borrow or haul will not be paid for directly but shall be considered subsidiary to the bid items of the contract.

SECTION C—FOUNDATION COURSE – NOT USED

SECTION D—ASPHALTIC CONCRETE – NOT USED

SECTION E—PERFORMANCE GRADED BINDER – NOT USED

SECTION F—PORTLAND CEMENT CONCRETE PAVEMENT, CURB WALL, INTEGRAL CURB, CURB AND GUTTER AND SIDEWALK, STRUCTURAL CONCRETE, REINFORCING STEEL

1. **Description.** This work shall consist of that described in Division 600 Concrete Paving; Section 704 Concrete Construction including Retaining Walls and Steps; Section 606 Concrete Curb and Gutter; Section 607 Concrete Sidewalks; and Division 700 Bridges, Culverts, Related Construction of the 2017 State Specifications.
2. **Materials.** All materials used in the performance of the items of work shall comply with Division 600 and Division 1000 for Concrete Paving (47B).
3. **Construction Methods.**
 - (a) Concrete Paving shall be mixed, placed and finished as provided in Sections 603.03.
 - (b) Concrete Retaining Walls and Steps shall be mixed, formed, placed and finished in accordance with Section 704.
 - (c) Concrete Curb and Gutter shall be mixed, placed and finished in accordance with Sections 606.01 through 606.03. Construction of curb as noted in the plans shall be considered subsidiary to concrete pavement.
 - (d) Concrete Sidewalks and Drives shall be mixed and finished in accordance with Sections 607.01 through 607.03 and Sections 609.01 through 609.03.
 - (e) Structural Concrete for box culverts, bridges and dams shall be mixed and furnished in accordance with Section 704.
 - (f) Reinforcing Steel. Steel bars for concrete reinforcement shall conform to Section 707 of the 2017 State Standard Specifications for Highway Construction and shall be deformed, of Grade 40 or Grade 60 billet or Grade 40 or Grade 60 axle steel as shown in the plans, specifications or Special Provisions.
4. **Method of Measurement and Payment.**
 - (a) Portland Cement Pavement shall be measured in place and paid for by the square yard at the contract bid price for “P.C.C. Pavement” at the thickness shown in the proposal and on the plans. Such payment shall be considered full compensation for furnishing all materials including, but not limited to, reinforcing steel, dowel bars, joint sealer, special joints, hauling, placing, sawing, finishing and curing said concrete paving and performing all incidental work necessary to complete the item of work.
 - (b) Integral Curb shall be subsidiary to the unit contract bid price for P.C.C. concrete pavement.

- (c) Concrete Curb Wall shall be measured and paid for by the cubic yard in place at the contract bid price for “Concrete Curb Wall” through and including transitions from Concrete Curb Wall to Standard Integral Curb. Said payment will be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (d) Concrete Curb and Gutter shall be measured and paid for by the linear foot for “Concrete Curb and Gutter”. Said payment shall be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (e) Portland Cement Concrete Sidewalks shall be measured and paid for by the square foot at the contract bid price for “5 Inch P.C.C. Sidewalks”. Said payment shall be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (f) Portland Cement Concrete Drives shall be measured and paid for by the square yard at the contract bid price for “6 Inch P.C.C. Drives”. Said payment will be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (g) Structural Concrete shall be measured and paid for per cubic yard at the contract bid price. Said payment will be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (h) Payment of steel reinforcement shall be made at the contract bid price per “pound”. Such payment shall be considered full compensation for furnishing all materials and labor necessary to complete the item of work.

SECTION G—PAVEMENT, CURB AND GUTTER, SIDEWALK AND DRIVE REMOVAL

1. **Description.** This work shall consist of removing and disposing of Asphaltic Concrete Paving, Concrete Paving, Concrete Curb and Gutter and Concrete Sidewalks and Drives.
2. **Construction Methods.** Limits of paving removals for Asphaltic and Portland Cement Concrete Paving including Curb and Gutter, Sidewalks and Drives, when indicated in the plans or directed by the Engineer, shall be sawed to a depth sufficient to result in a straight and undamaged edge on the remaining pavement.

Where pipelines are to be installed by open cut in streets on which asphalt or concrete pavement exists, the pavement shall be neatly cut out in a straight line along both edges of the trench. Cutting will be done with a concrete saw or other suitable means acceptable to the Engineer. The paving so cut will be removed, loaded and hauled to a dump approved by the Engineer. Limits of paving removed will be designated by the Engineer.

3. Method of Measurement and Payment.

- (a) Removal of all types of roadway paving shall be unclassified and shall be measured and paid for on a square yard basis at the contract bid price for “Pavement Removal”. Such payment shall be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (b) Removal of pavement for drives will be measured and paid for on a square yard basis at the contract bid price for “Driveway Pavement Removal”. Such payment shall be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (c) Removal of concrete curb and gutter shall be measured and paid for on a linear foot basis at the contract bid price for “Curb and Gutter Removal”. Such payment shall be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (d) Removal of concrete sidewalk shall be measured and paid for on a square foot basis at the contract bid price for “Sidewalk Removal”. Such payment shall be considered full compensation for furnishing all materials and labor necessary to complete the item of work.
- (e) Saw cutting pavement will not be paid for directly but shall be considered subsidiary to the bid items of the contract, unless otherwise so specified in the bidding documents.

SECTION H—REMOVAL OF EXISTING STRUCTURES

- 1. **Description.** This work shall consist of that described in Section 203 of the 2017 State Specifications.
- 2. **Construction Methods** used shall be in conformance with Section 203.02.
- 3. **Method of Measurement and Payment.**
 - (a) Removing existing concrete box culverts, dams, retaining walls, storm sewer inlets and catch basins, etc. shall be measured and paid for on a per each basis for each item removed at the contract bid price as specified in the Proposal, which payment shall be considered full compensation for providing all labor and materials necessary to complete the work.
 - (b) Removal of existing storm sewer shall be measured and paid for on a linear foot basis for the type and size indicated in the proposal and on the plans.

SECTION I—CULVERT PIPE – NOT USED

SECTION J—CATCH BASINS, MANHOLES, INLETS AND JUNCTION BOXES – NOT USED

SECTION K— SANITARY SEWER – NOT USED

SECTION L— WATER MAINS – NOT USED

SECTION M—TOPSOIL, SEEDING, MULCHING, FERTILIZING WATERING & EROSION CONTROL

The contractor shall incorporate good housekeeping best management practices for stormwater pollution prevention as provided in Chapter 8 of the City of Hastings Drainage Criteria Manual (HDCM). **The contractor shall prepare and submit an NOI (Notice Of Intent) to the Nebraska Department of Energy & Environment (NDEE) along with the City prepared Erosion & Sediment Control Plan & SWPPP so the NDEE can issue a Construction StormWater (CSW) Permit for the project.** No additional compensation or time will be allowed for this work. The HDCM is available by request and is on the City website at: <https://www.cityofhastings.org/services/document-central.html>.

SECTION N – POLYUREA PAVEMENT MARKING, GROOVED (D-11-0308) – NOT USED

SECTION O – FLY ASH (CLASS C) SOIL STABILIZATION

Use of fly ash to improve or stabilize soil is to be performed exclusively at the discretion of the Engineer. The use of fly ash and its placement will be paid on a “per ton” basis for the fly ash and per square yard for Subgrade Stabilization. If no fly ash is needed, the subgrade will be prepared with the work paid for as Subgrade Compaction.

Fly Ash is available from the city or can be provided by the contractor. Scale tickets will document the quantity to be paid. Contractor provided fly ash shall include a recent (within six (6) months of Bid Award) Class C certification, stating the source of the fly ash, and the analytical test results for ASTM D-5239, and ASTM C-618 requirements.

The Subgrade shall be established within ½’ consistent with the plans. Fly ash shall be distributed at approximately 80 pounds per square yard. Distribution of fly ash shall be uniform across the stabilized area. Appropriate mechanical means shall be utilized to ensure that thorough blending is performed to incorporate the fly ash in the top eight (8) inches of subgrade.

Compaction to specified values must be subsequently performed within one (1) hour after distribution of the fly ash. An agent of the City must be present to certify proof rolling of the stabilized area prior to acceptance.

Steven P. Riehle

PROFESSIONAL CIVIL ENGINEER
★
STEVEN P.
RIEHLE
E-6350
★
STATE OF NEBRASKA

2025-02-27

CITY OF HASTINGS

PARKVIEW CEMETERY PAVING PHASE 5

City Project: CH00042 City Contract: CH 2025-13

INDEX OF SHEETS

SITE A

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	SUMMARY OF QUANTITIES & NOTES
SHEET NO. 3	TYPICAL CROSS SECTIONS & DETAILS
SHEET NO. 4	REMOVAL PLANS & EROSION CONTROL
SHEET NO. 5	SITE PLAN DESIGN
SHEET NO. 6-17	PLAN AND PROFILE SHEETS
SHEET NO. 18-25	CROSS SECTION SHEETS

SITE B

SHEET NO. 26	REMOVAL PLAN MT. SINAI
SHEET NO. 27 - 29	PLAN & PROFILE SHEETS MT. SINAI
SHEET NO. 30	CROSS SECTION SHEET MT. SINAI

NDOT STANDARD PLANS

301-R12	PAVEMENT DETAILS
920-R7	TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE



ONE CALL

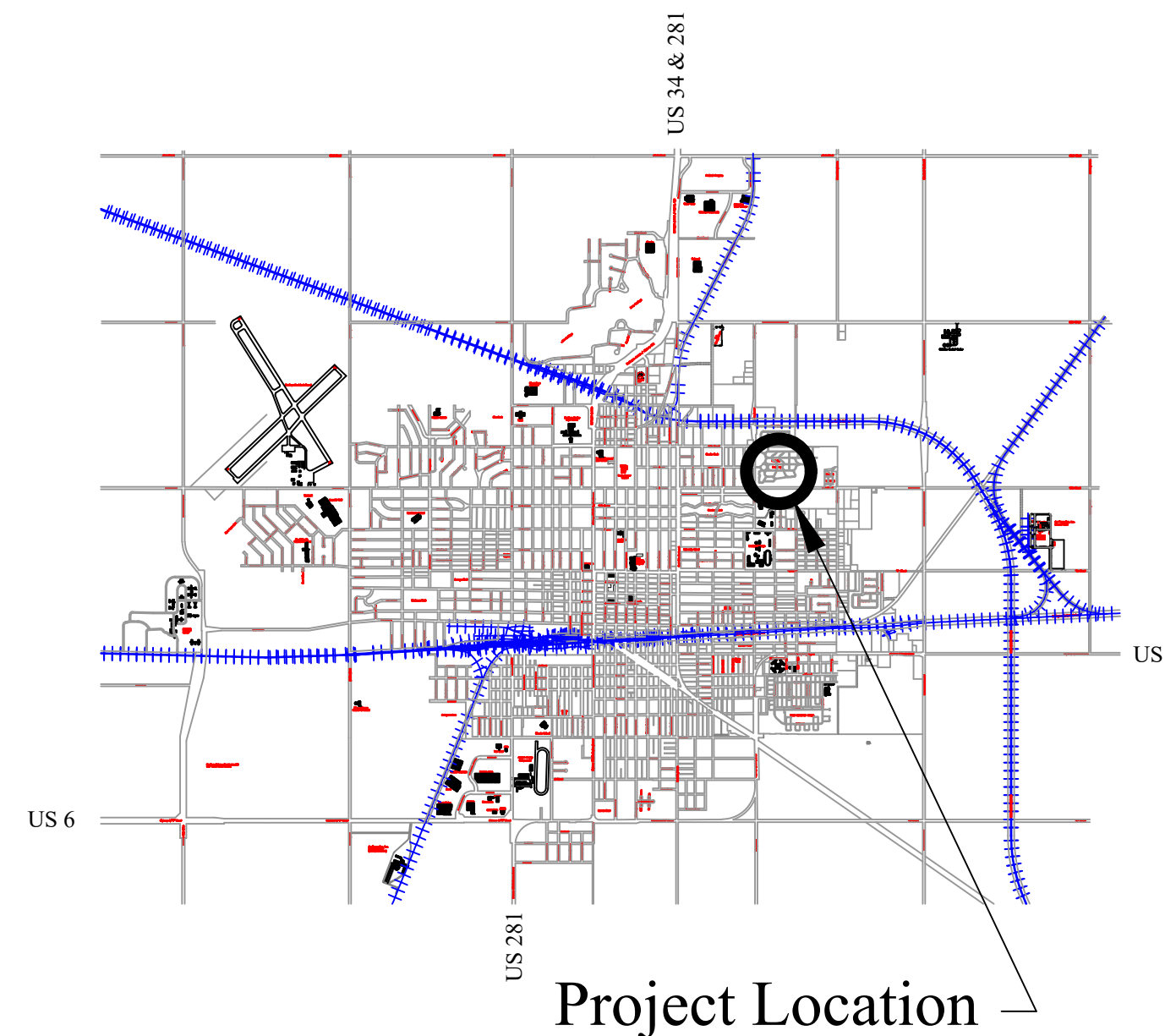
Contractor shall verify location (including depth or height) of all utilities before construction within the project area. Diggers Hotline = 1-800-331-5666



APPROVED FOR CONSTRUCTION:

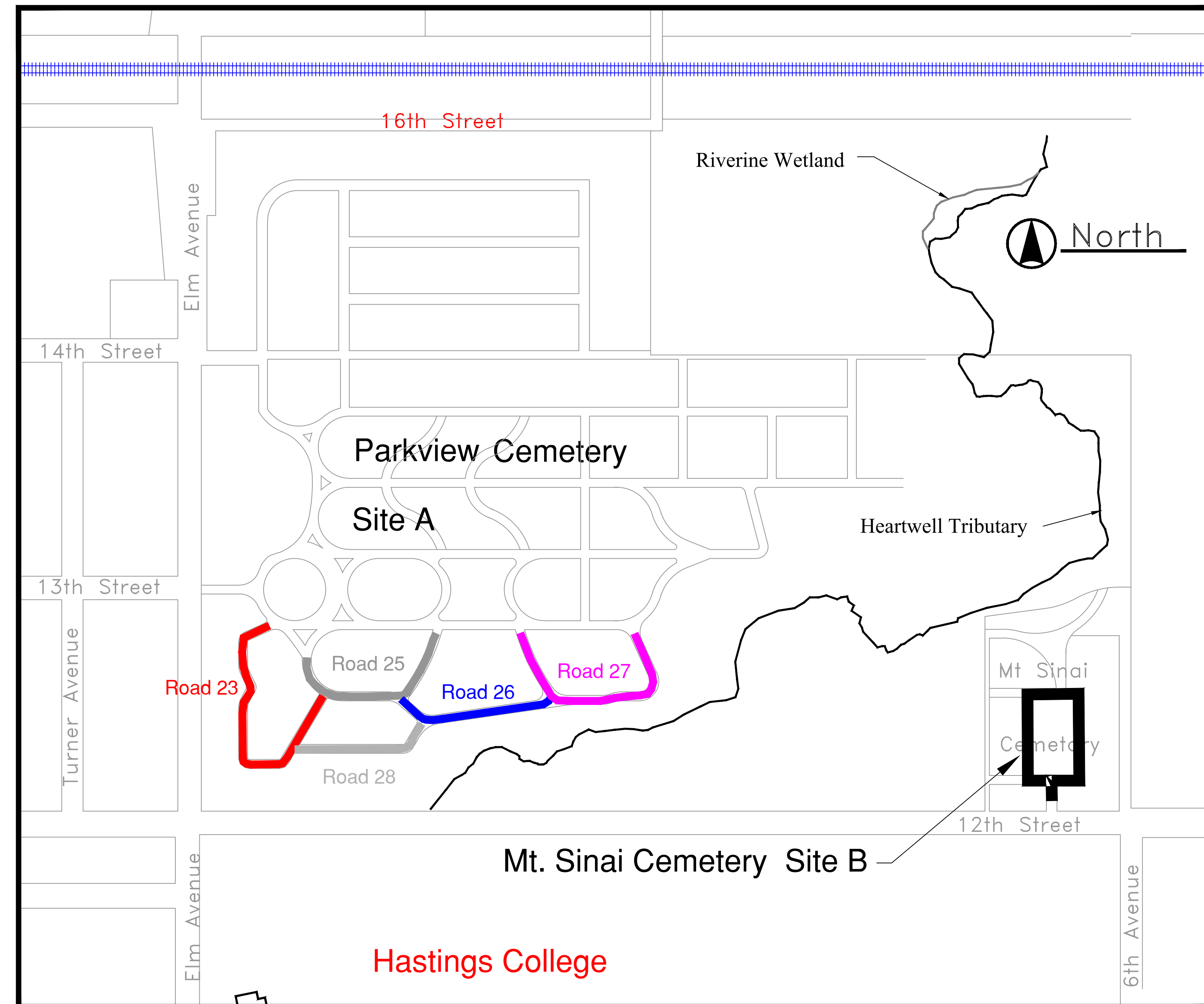
DIRECTOR OF ENGINEERING

DATE



LEGEND

Spot Elevation	Railroad Tracks
Utility Pole	Sign
Control Point - Nail Set	Light
Deciduous Tree	Contour Line
Coniferous Tree	Flowline
Manhole	Property Line
Fire Hydrant	Fence
Water Valve	
Gas Valve	



Revision	By	Date	Chk	App	Bench Mark Information
					Elev. _____ Remarks To Be Set Prior to Construction



Dir. of Engineering: L. Vrooman
Checked By: S. Riehle
Drawn By: Brooks

FOR BID

Parkview Cemetery Paving Phase 5
Title Sheet

Drawing No. CH 2025-13	Date: 2/2025	Sheet No. 1 of 30
---------------------------	-----------------	----------------------

Summary of Quantities

Parkview Cemetery Paving Phase 5

EMBANKMENT & SUBGRADE (SITE A & B)

The embankment and subgrade shall be adjusted to conform to the lines and grades on the plans in accordance with Section 205 and 302 of the NDOT 2017 Standard State Specifications for Highway Construction and its supplements. The upper eight (8) inches of the subgrade shall be scarified, mixed and recompacted to the following compaction requirements:

Percent Density	Moisture Minimum	Requirements Maximum
95 Min.	Opt. -3%	Opt. +3%

Areas not meeting specified moisture density test requirements shall be removed and recompacted at the Contractor's expense.

All water necessary for subgrade construction shall be subsidiary to the unit bid price per square yard of pavement. Contact Hastings Utilities to make arrangement for water & to set up an account for billing.

During construction of prior Phases, the existing subgrade would not hold up to construction without Fly Ash being added. All subgrade under concrete shall have Class C Fly Ash uniformly incorporated at approximately 80 LBS/SY at a depth of 8" from the designed subgrade elevations. See Section O of the Technical Specifications. Dump trucks hauling Fly Ash shall be tarped during transport.

Contractor shall trim subgrade to within 0.5" of finished subgrade elevation prior to incorporating fly ash in order to maintain a surplus of clean soil for backfilling operations.

All Excess Excavation shall be property of the City of Hastings and shall be disposed of on-site at the direction of the Engineer.

* SITE B: Current plans **DO NOT** call for installation of Fly Ash in subgrade. If conditions warrant, Fly Ash and Subgrade Stabilization shall overrun existing line items at the same Unit Bid Price as Site A.

TREE REMOVAL

Trees that are within 3' of the proposed roadway shall be removed by City Parks Dept. prior to the project beginning.

Not all trees will be removed. Contractor will be expected to work around them unless deemed a problem by Engineer, Parks Dept., and contractor jointly.

GRAVE MARKERS

Contractor shall exercise great care while working near and around headstones.

Contractor shall use all means necessary to keep all headstones clean and free of dirt, fly ash, curing compound, etc. while constructing the project.

PVC IRRIGATION LINES

During construction of Phase 1, various irrigation lines were found crossing roads and were very shallow. There are no records showing location of these lines. If existing irrigation lines are found during construction and are too shallow, Cemetery Staff shall cap existing lines and Contractor shall remove old line and install 3" PVC sleeve prior to paving. Removal of said lines shall be subsidiary to unit bid price of Build 3" PVC Pipe line item.

ASPHALT MILLINGS

Prior to completion of Phase 5 operations, if existing asphalt roads in and out of the construction zones need repairs, Contractor shall Pulverize existing asphalt and mix with underlying base to a depth of 8" and re-compact to stabilize the existing roadway. Contractor shall then install asphalt millings or crushed concrete to a depth of 2" and compact on top of newly stabilized roadway. This work shall be at the discretion of the Engineer and paid by the Square Yard under line item Pulverize, Mix and Re-compact 8". Estimated quantity for this work is 2,000 SY and 135 Tons of 2" Asphalt Millings/crushed concrete.

CONCRETE PAVEMENT

All **Concrete** used on this project shall be **47B-3500** per specifications using NDOT approved portland cement types 1P, 1s, or 1T.

Tree root removal from subgrade shall be **subsidiary** to the unit bid price of Build 6" PCC Pavement 47B-3500.

All subgrade under concrete shall be compacted to 95% of standard Proctor Density at +3% from optimum moisture.

Typical **transverse joints** shall be spaced at **10 ft.** centers. Adjust Transverse joints at intersections. Length divided by width can be no more than 1.5.

Transition Areas will transition from a **crowned section to an inverted crown section** as shown on the plans. 6" Concrete Pavement shall be used in all transition areas.

Backfilling, sawing control joints, keyway, tie bars, dowel pins, and rubberized joint sealant shall be considered subsidiary to the unit price per square yard of pavement and shall be built according to NDOT 2017 Standard Specifications for Highway Construction.

TRAFFIC CONTROL

The Contractor is responsible for furnishing and maintaining all necessary traffic control devices including signs, cones, barrels, etc.

No semi tractor trailers shall be used on cemetery roads without approval of the Engineer.

SUMMARY OF EARTHWORK: SITE A

Calculated from cross section sheets.
A 1.3 compaction factor has been applied to all embankment quantities.

Road 23: = 330.0 CY Cut
- 27.5 CY Fill
- 173.7 CY Exist. Asphalt Roadway
128.8 CY Excess

Road 25: = 234.0 CY Cut
- 4.0 CY Fill
- 111.5 CY Exist. Asphalt Roadway
118.5 CY Excess

Road 26: = 233.0 CY Cut
- 13.5 CY Fill
- 97.2 CY Exist. Asphalt Roadway
122.3 CY Excess

Road 27: = 302.0 CY Cut
- 31.4 CY Fill
- 150.1 CY Exist. Asphalt Roadway
120.5 CY Excess

Road 28: = 207.1 CY Cut
- 9.8 CY Fill
- 64.3 CY Exist. Asphalt Roadway
133.0 CY Excess

TOTAL: = 1306.10 CY Cut
86.20 CY Fill
596.80 CY Existing Asphalt on Roads (approx.)

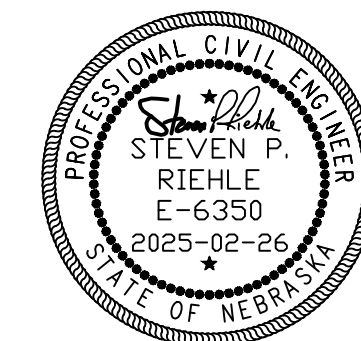
TOTAL: = 623.10 CY Excess Excavation

SUMMARY OF EARTHWORK: SITE B

Calculated from cross section sheets.

Mt. Sinai: = 232.0 CY Cut
- 52.0 CY Exist. Asphalt Roadway
180.0 CY Excess

Total: = 180.0 CY Excess Excavation



SITE A

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITIES	UNIT
1	Mobilization & Traffic Control	1.00	L.S.
2A	Remove Pavement (Parkview)	4662.00	S.Y.
3	Remove Concrete Header	46.00	L.F.
4A	Saw Cut (Parkview)	52.00	L.F.
5	Linear Erosion Protection	260.00	L.F.
6A	Subgrade Stabilization (Parkview)	6354.00	S.Y.
7	Fly Ash, Class C	255.00	Tons
8A	Build 6" P.C.C. Pavement 47B-3500 (Parkview)	5361.00	S.Y.
9	Crushed Concrete	135.00	Tons
10	Asphalt Millings	135.00	Tons
11	Pulverize, Mix, and Re-compact 8"	2000.00	S.Y.
12	Build 3" PVC Schedule 40 Pipe	100.00	L.F.

SITE B

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITIES	UNIT
2B	Remove Pavement (Mt Sinai)	768.00	S.Y.
4B	Saw Cut (Mt Sinai)	16.00	L.F.
6B	Subgrade Preparation (Mt Sinai)	938.00	S.Y.
8B	Build 6" P.C.C. Pavement 47B-3500 (Mt Sinai)	817.00	S.Y.
13	Remove Pillar and Footings	3.00	Each

TOTAL SITE A & B

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITIES	UNIT
1	Mobilization & Traffic Control	1.00	L.S.
2A	Remove Pavement (Parkview)	4662.00	S.Y.
2B	Remove Pavement (Mt Sinai)	768.00	S.Y.
3	Remove Concrete Header	46.00	L.F.
4A	Saw Cut (Parkview)	52.00	L.F.
4B	Saw Cut (Mt Sinai)	16.00	L.F.
5	Low Porosity Silt Fence	260.00	L.F.
6A	Subgrade Stabilization (Parkview)	6354.00	S.Y.
6B	Subgrade Preparation (Mt Sinai)	938.00	S.Y.
7	Fly Ash, Class C	255.00	Tons
8A	Build 6" P.C.C. Pavement 47B-3500 (Parkview)	5361.00	S.Y.
8B	Build 6" P.C.C. Pavement 47B-3500 (Mt Sinai)	817.00	S.Y.
9	Crushed Concrete	135.00	Tons
10	Asphalt Millings	135.00	Tons
11	Pulverize, Mix, and Re-compact 8"	2000.00	S.Y.
12	Build 3" PVC Schedule 40 Pipe	100.00	L.F.
13	Remove Pillar and Footings	3.00	Each



Revision	By	Date	Chd	App	Bench Mark Information
					Elev. Remarks
					To Be Set Prior to Construction



Dir. of Engineering: L. Vrooman
Checked By: S. Riehle
Drawn By: Brooks

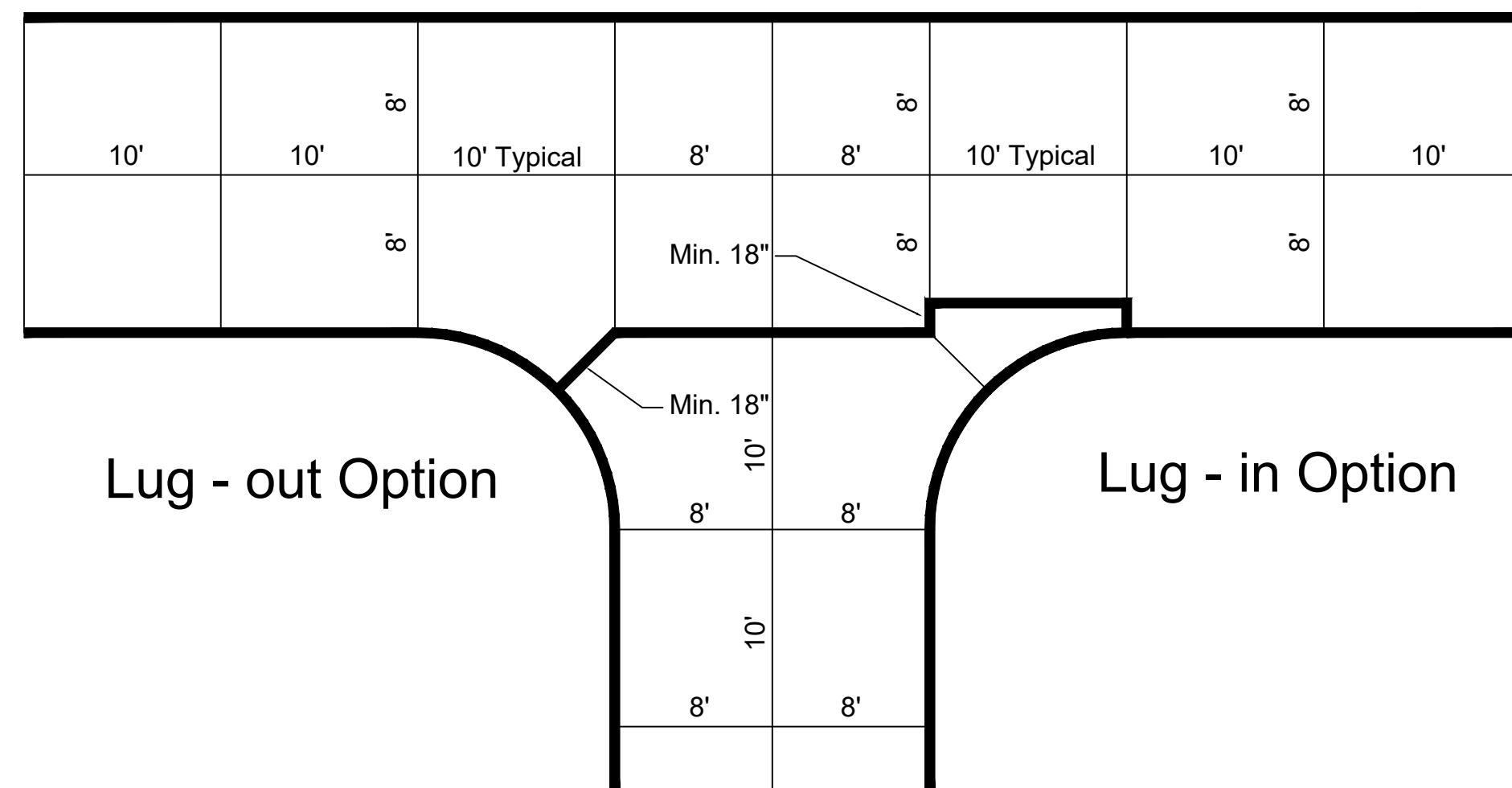
FOR BID

Parkview Cemetery Paving Phase 5
Summary of Quantities/Details

Drawing No. CH 2025-13 Date: 02-2025 Sheet No. 2 of 30

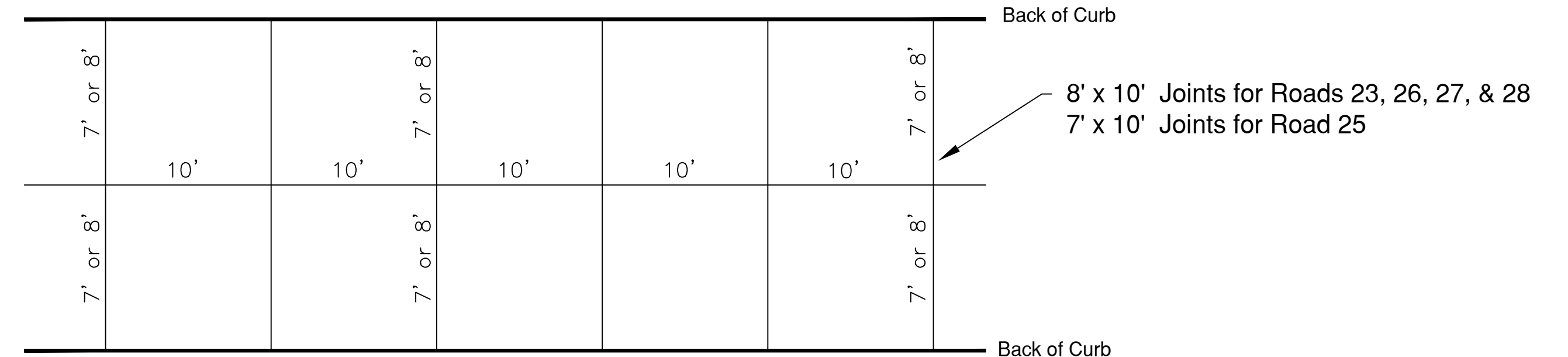
Typical Sections & Joint Details

Parkview Cemetery Paving Phase 5



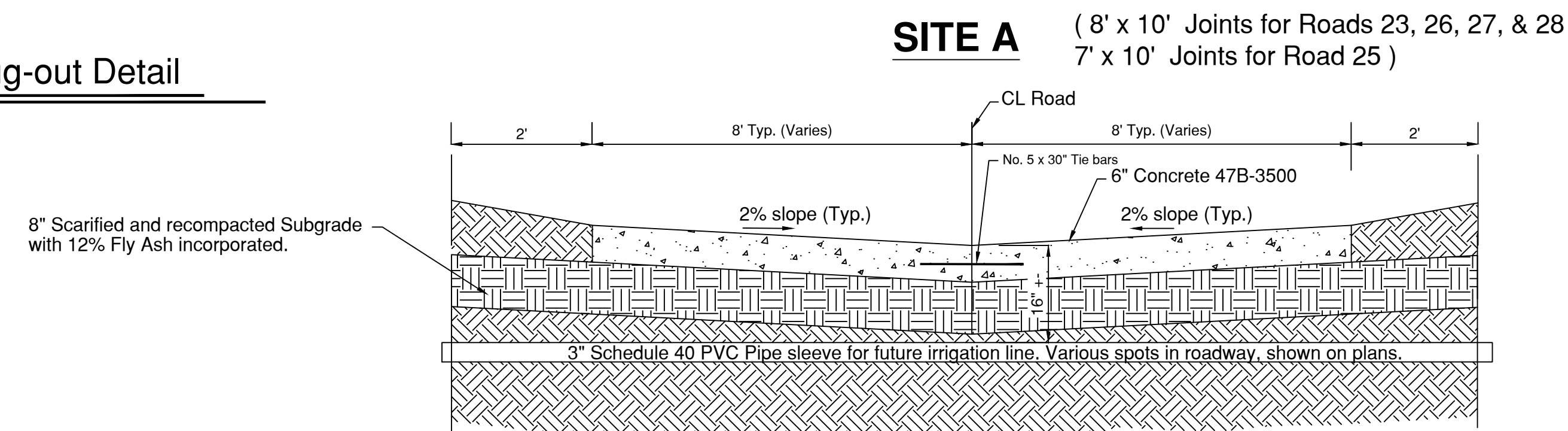
Typical Lug-in / Lug-out Detail

Scale: None



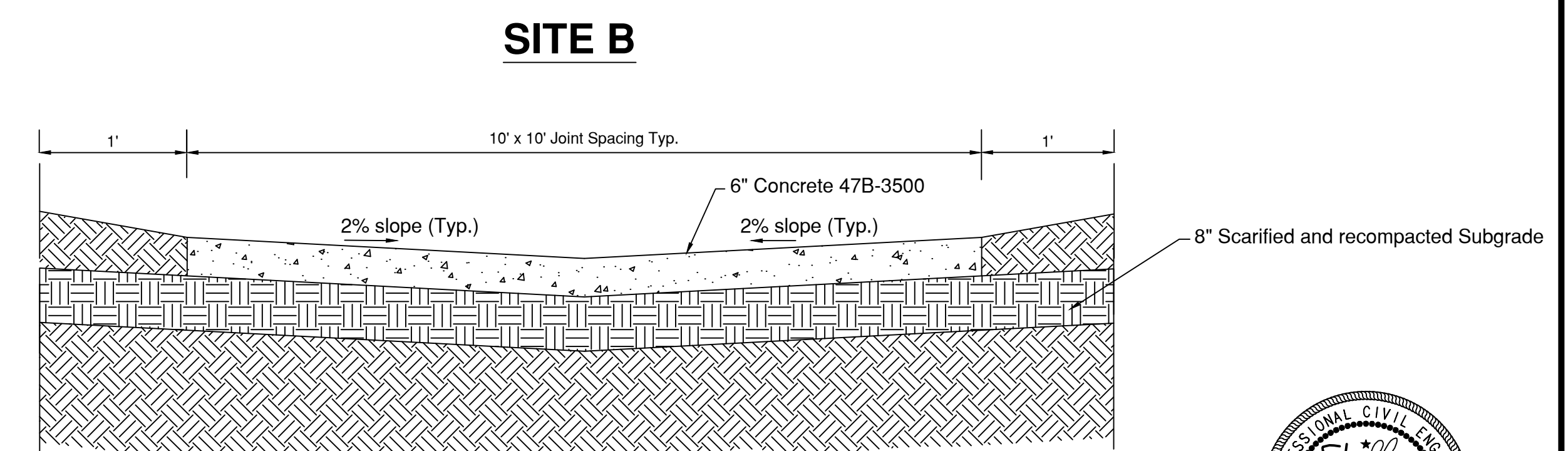
Typical Joint Spacing Detail

Scale: None



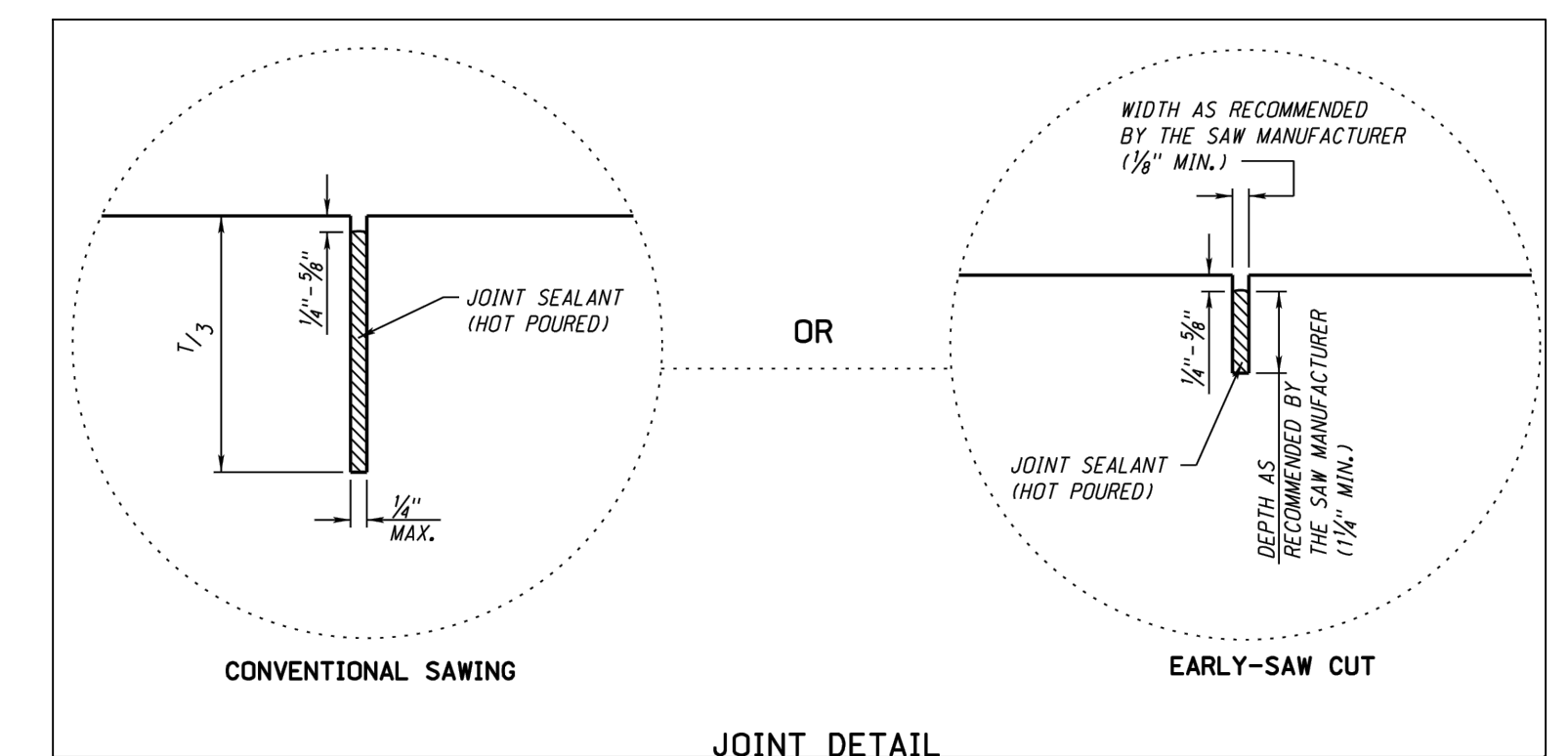
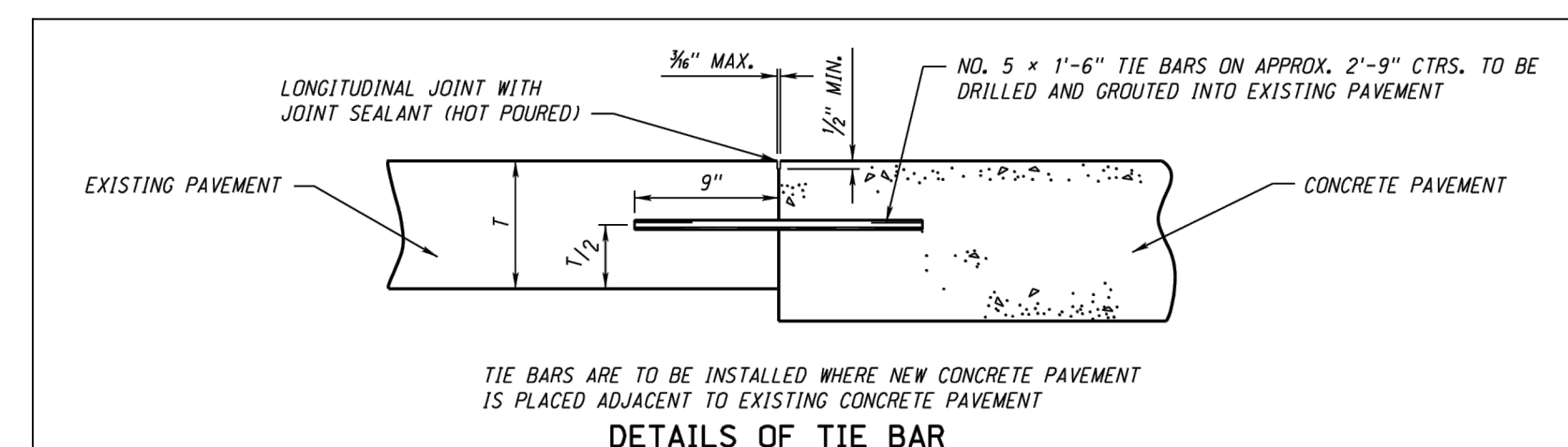
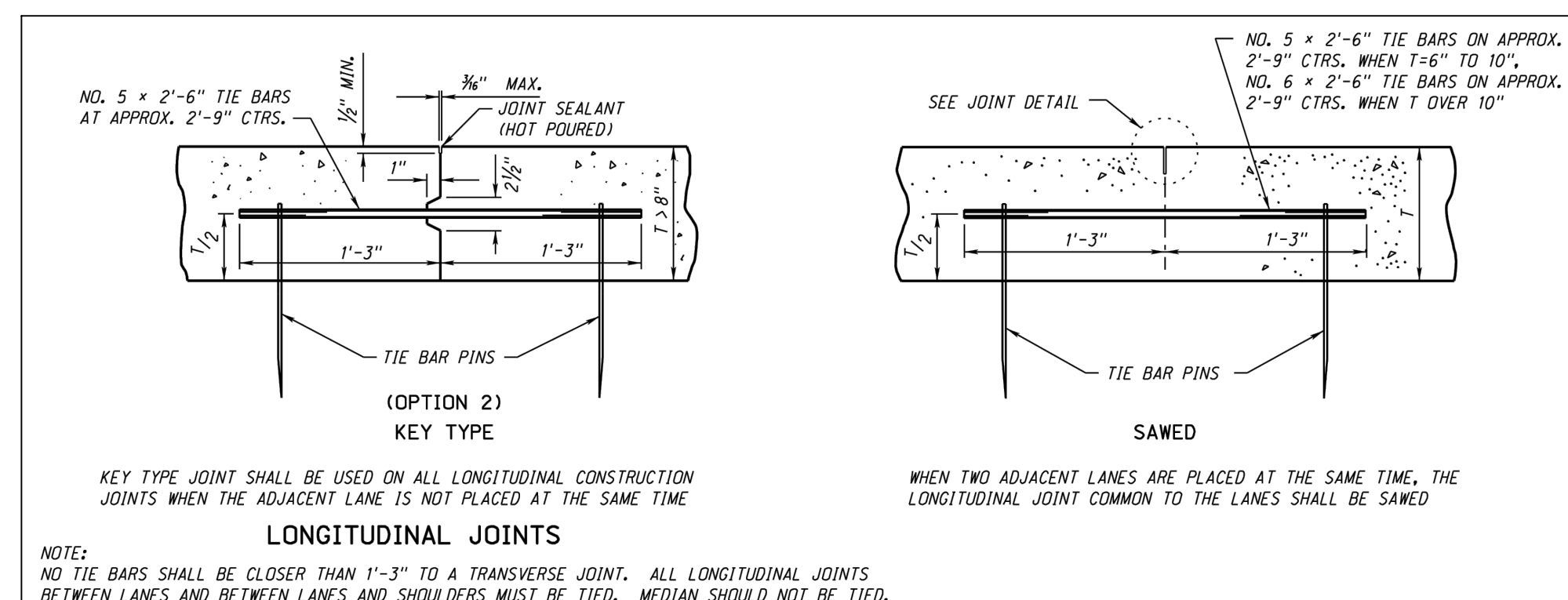
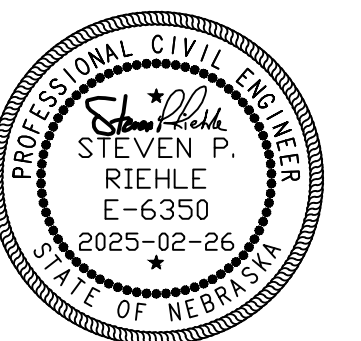
6" Inverted Concrete Section (Typ.)

Scale: None



6" Inverted Concrete Section (Typ.)

Scale: None



Revision	By	Date	Ckd	App	Bench Mark Information
					Elev. _____
					Remarks _____
					To Be Set Prior to Construction

Dr. of Engineering	Checked By	Drawn By
		Brooks

FOR BID

Parkview Cemetery Paving Phase 5
Typical Section & Joint Details

Drawing No. CH 2025-13	Date: 02-2025	Sheet No. 3 of 30
------------------------	---------------	-------------------

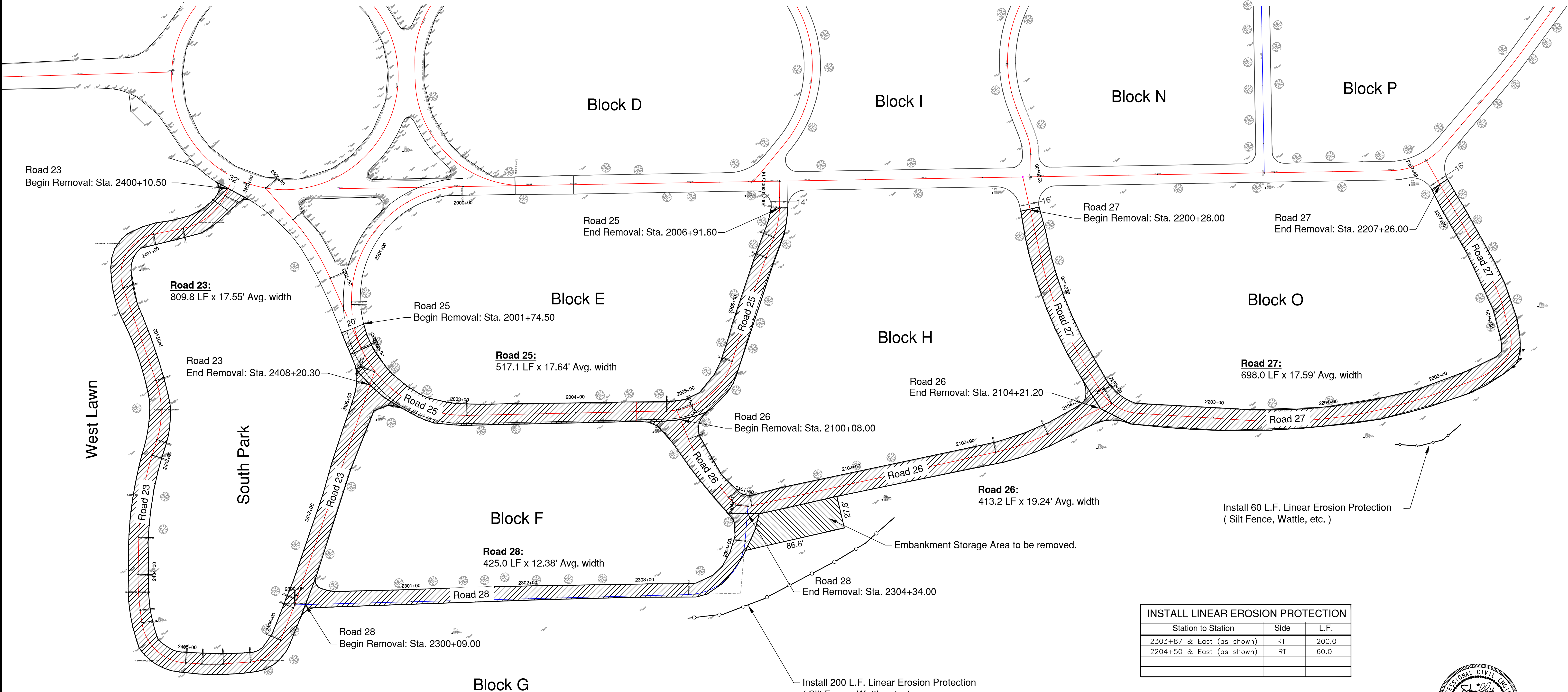
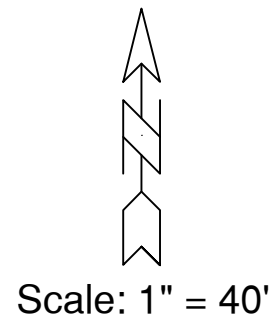


Removals and Erosion & Sediment Control Plan

SAW CUT		
Station to Station	Side	L.F.
2400+10.5	LT & RT	32.0
2001+74.5	LT & RT	20.0

REMOVE CONCRETE HEADER		
Station	Side	L.F.
2006+91.6	LT & RT	14.0
2200+28.0	LT & RT	16.0
2207+26.0	LT & RT	16.0

REMOVE PAVEMENT			
Station to Station	Side	Sq. Yards	
Road 23 2400+10.5 to 2408+20.3	LT & RT	1579.0	
Road 25 2001+74.5 to 2006+91.6	LT & RT	1014.0	
Road 26 2100+08.0 to 2104+21.2	LT & RT	882.0	
Road 27 2200+28.0 to 2207+26.0	LT & RT	1365.0	
Road 28 2300+09.0 to 2304+34.0	LT & RT	585.0	
Embankment Storage Area	LT & RT	237.0	



INSTALL LINEAR EROSION PROTECTION		
Station to Station	Side	L.F.
2303+87 & East (as shown)	RT	200.0
2204+50 & East (as shown)	RT	60.0



Revision	By	Date	Ckd	App	Bench Mark Information
					Elev. Remarks
					To Be Set Prior to Construction

--	--	--	--	--



Dir. of Engineering: L. Vrooman
 Checked By: S. Riehle
 Drawn By: Brooks

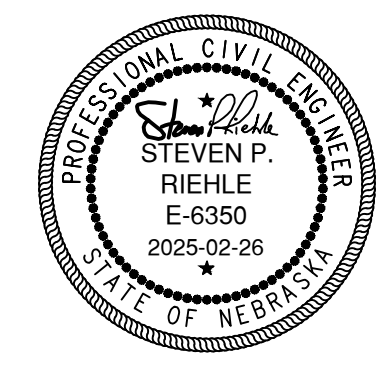
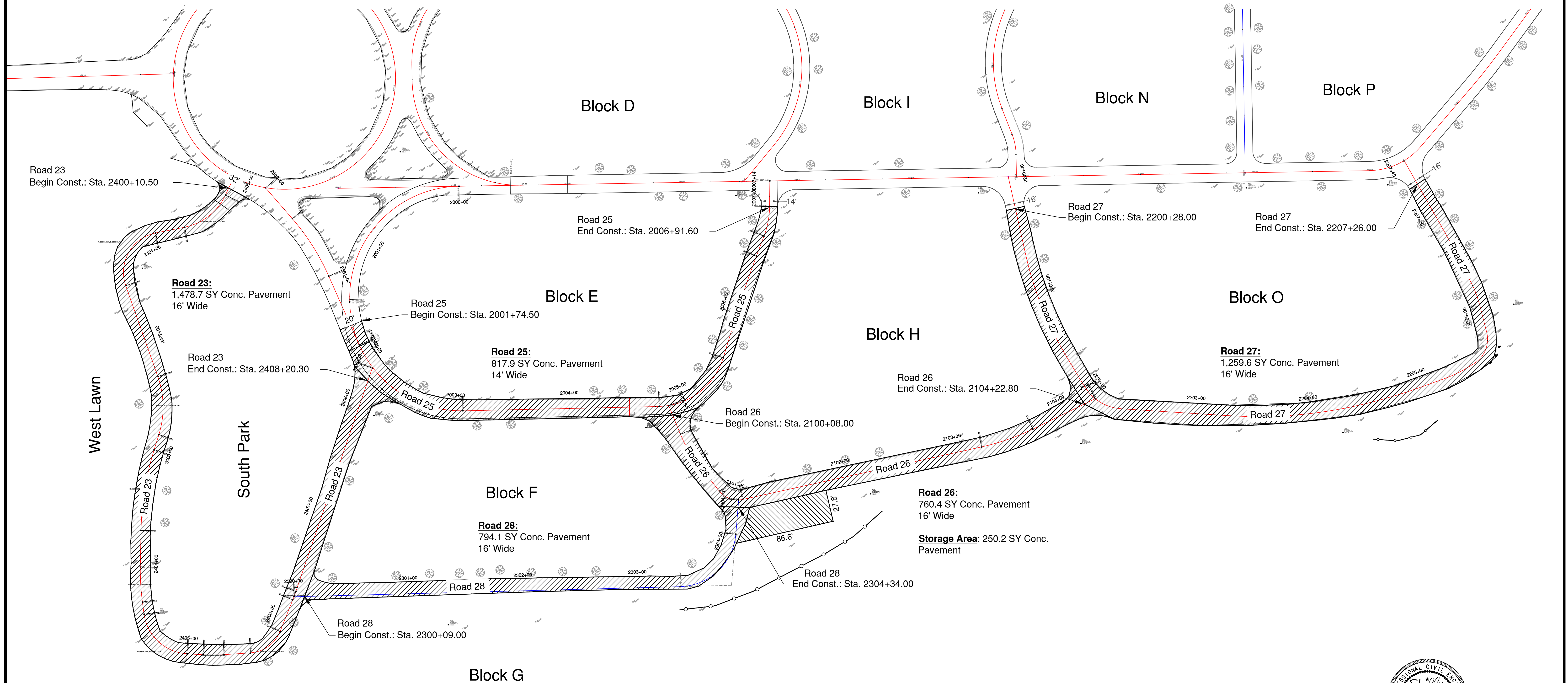
FOR BID

Parkview Cemetery Paving Phase 5
 Removal Plan & Erosion Control
 Drawing No. CH 2025-13 Date: 02/2025 Sheet No. 4 of 30



Construction / Site Plan

Scale: 1" = 40'



Revision	By	Date	Ckd	App	Bench Mark Information
					Elev. Remarks
					To Be Set Prior to Construction

--	--



Dir. of Engineering: L. Vrooman
 Checked By: S. Riehle
 Drawn By: Brooks

FOR BID

Parkview Cemetery Paving Phase 5
 Construction / Site Plan

Drawing No. CH 2025-13	Date: 02/2025	Sheet No. 5 of 30
------------------------	---------------	-------------------



Road 23 (16' Wide)

PI STA = 2402+60.76
 NORTHING = 282924.3177
 EASTING = 2092094.1343
 $\Delta = 036.9404$
 RADIUS = 80.00
 CHORD LENGTH = 50.69
 CURVE LENGTH = 51.58

EASTING = 2092071.1812
 $\Delta = 016.4111$
 RADIUS = 250.00
 CHORD LENGTH = 71.36
 CURVE LENGTH = 71.61

BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2400+10.5 to 2400+26.2	LT & RT	34.1
2400+26.2 to 2402+50	LT & RT	397.9

CLASS C FLY ASH		
Station to Station	Side	Tons
2400+10.5 to 2400+26.2	LT & RT	1.8
2400+26.2 to 2402+50	LT & RT	20.5

SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2400+10.5 to 2400+26.2	LT & RT	45.2
2400+26.2 to 2402+50	LT & RT	519.6

BUILD 3" PVC SCH.40 PIPE SLEEVE FOR IRRIGATION		
Station to Station	Side	Lin. Ft.
2400+75	LT & RT	20.0

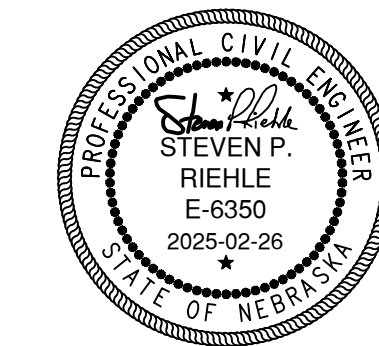
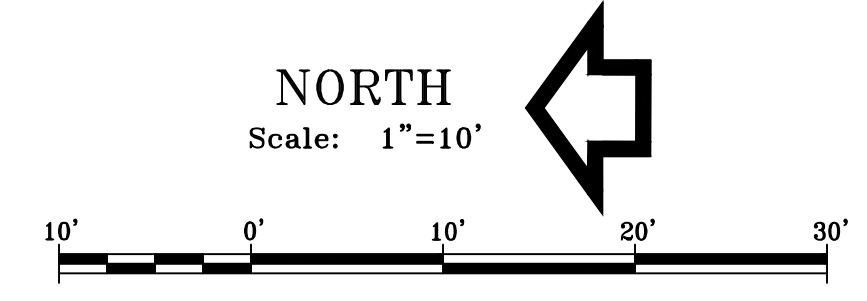
Not part of this Project

Match Exist. Begin Pavement
 Sta: 2400+10.5

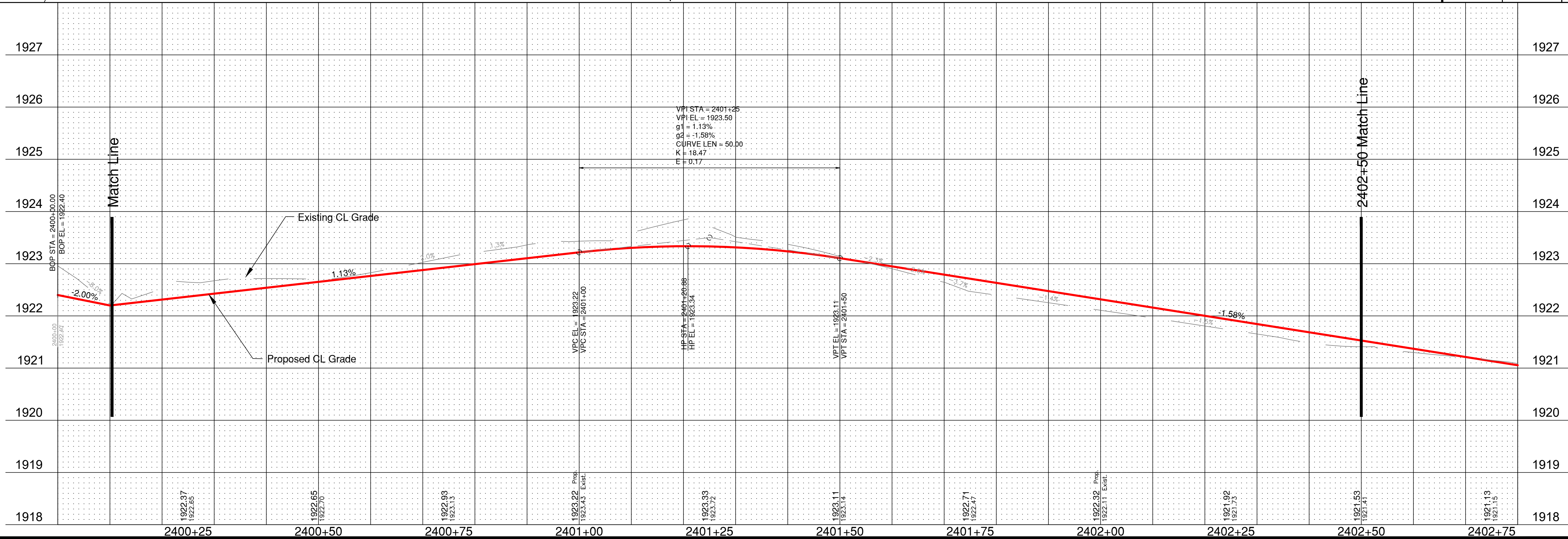
PI STA = 2400+42.63
 NORTHING = 282984.7057
 EASTING = 2092133.5337
 $\Delta = 053.7934$
 RADIUS = 50.00
 CHORD LENGTH = 45.24
 CURVE LENGTH = 46.94

Possible Location of Existing underground irrigation line.
 New 3" PVC Schedule 40 pipe to be installed prior to paving operation.

PI STA = 2401+30.43
 NORTHING = 282966.8427
 EASTING = 2092043.7165
 $\Delta = 098.2328$
 RADIUS = 35.00
 CHORD LENGTH = 52.92
 CURVE LENGTH = 60.01



CITY OF HASTINGS, ENGINEERING DEPT.		
Project	PARKVIEW CEMETERY PAVING PHASE 5	
Proj. No.	CH 2025-13	
Description	Plan and Profile Construction Sheet	
Design By	B.B.	Date
Drawn By	B.B.	Approved By
Contractor	SPR	Sheet No.
		6 of 30



Road 23 (16' Wide)

NORTHING = 2092094.1343
EASTING = 2092094.1343
Δ = 036.9404
RADIUS = 80.00
CHORD LENGTH = 50.69
CURVE LENGTH = 51.58

BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2402+50 to 2405+50	LT & RT	533.4

CLASS C FLY ASH		
Station to Station	Side	Tons
2402+50 to 2405+50	LT & RT	26.4

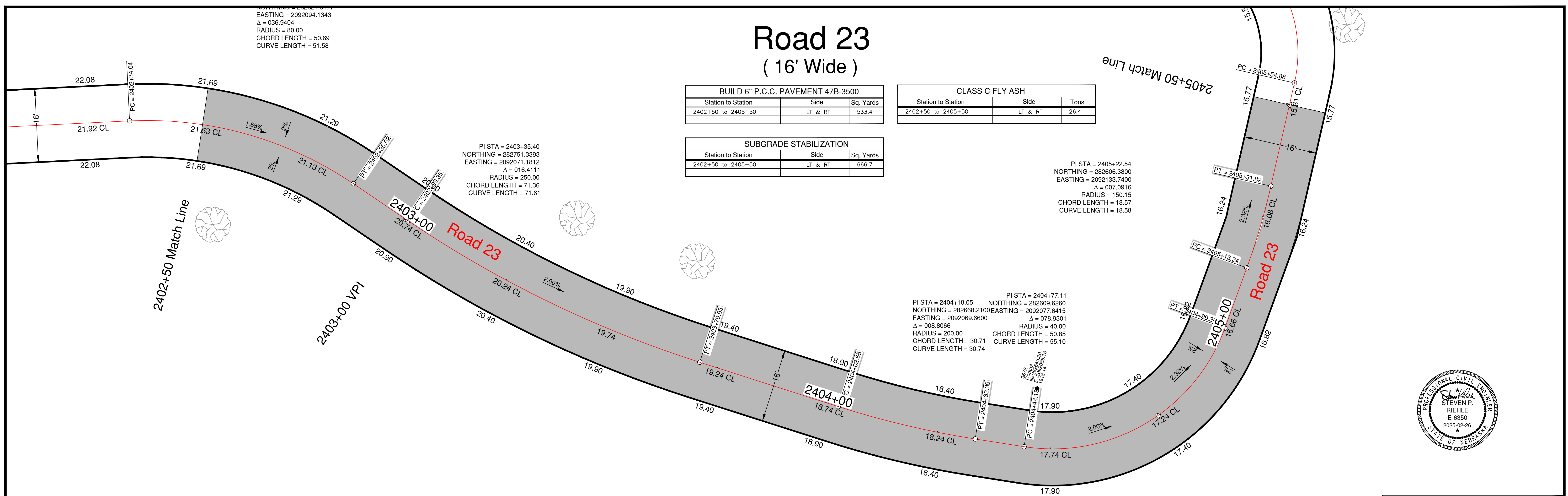
SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2402+50 to 2405+50	LT & RT	666.7

PI STA = 2403+35.40
NORTHING = 282751.3393
EASTING = 2092071.1812
Δ = 016.4111
RADIUS = 250.00
CHORD LENGTH = 71.36
CURVE LENGTH = 71.61

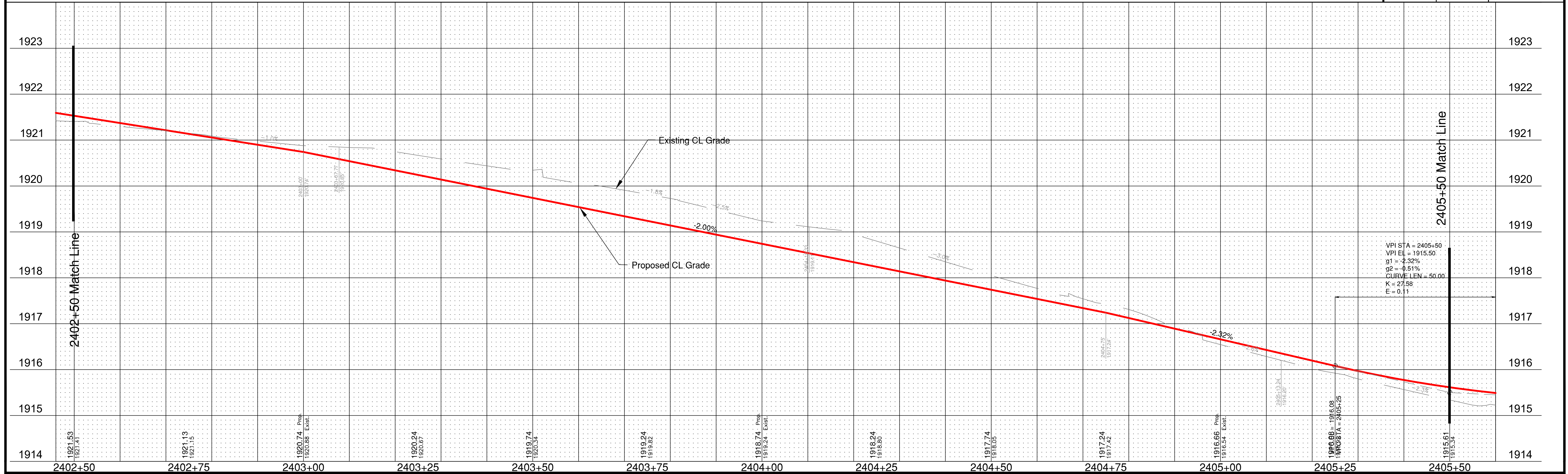
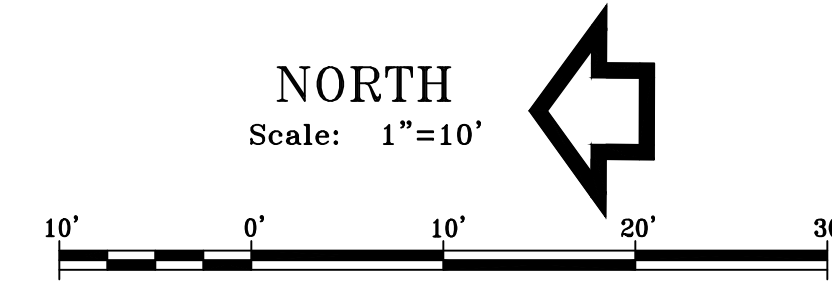
PI STA = 2405+22.54
NORTHING = 282606.3800
EASTING = 2092133.7400
Δ = 007.0916
RADIUS = 150.15
CHORD LENGTH = 18.57
CURVE LENGTH = 18.58

PI STA = 2404+18.05
NORTHING = 282668.2100
EASTING = 2092077.6415
Δ = 008.8066
RADIUS = 200.00
CHORD LENGTH = 30.71
CURVE LENGTH = 30.74

PI STA = 2404+77.11
NORTHING = 282609.6260
EASTING = 2092077.6415
Δ = 078.9301
RADIUS = 40.00
CHORD LENGTH = 50.85
CURVE LENGTH = 55.10



CITY OF HASTINGS, ENGINEERING DEPT.			
Project	PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No.	CH 2025-13		
Description	Plan and Profile Construction Sheet		
Design By	B.B.	Date	12/2024
Drawn By	B.B.	Approved By	SPR
			Sheet No. 7 of 30



Road 23 (16' Wide)

BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2405+50 to 2407+92	LT & RT	430.2
2407+92 to 2408+31.9	LT & RT	83.1

CLASS C FLY ASH		
Station to Station	Side	Tons
2405+50 to 2407+92	LT & RT	21.3
2407+92 to 2408+31.9	LT & RT	4.0

SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2405+50 to 2407+92	LT & RT	537.8
2407+92 to 2408+31.9	LT & RT	101.0

BUILD 3" PVC SCH.40 PIPE SLEEVE FOR IRRIGATION		
Station to Station	Side	Lin. Ft.
2407+50	LT & RT	20.0

RADIUS = 150.15
CHORD LENGTH = 18.57
CURVE LENGTH = 18.58

PI STA = 2406+22.19
NORTHING = 282658.4680
EASTING = 2092204.4128
Δ = 002.9890
RADIUS = 150.15
CHORD LENGTH = 7.83
CURVE LENGTH = 7.83

PI STA = 2405+73.76
NORTHING = 282609.7379
EASTING = 2092184.8657
Δ = 064.3546
RADIUS = 30.00
CHORD LENGTH = 31.95
CURVE LENGTH = 33.70

Possible Location of Existing underground irrigation line.
New 3" PVC Schedule 40 pipe to be installed prior to paving operation.

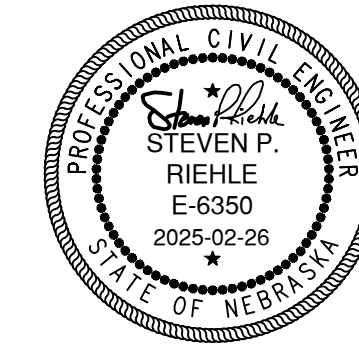
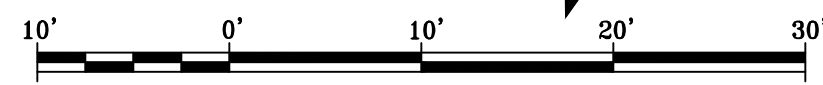
Sta. 2406+00 Begin
slope transition
Right Side.

Sta. 2406+50 End
slope transition
Right Side.

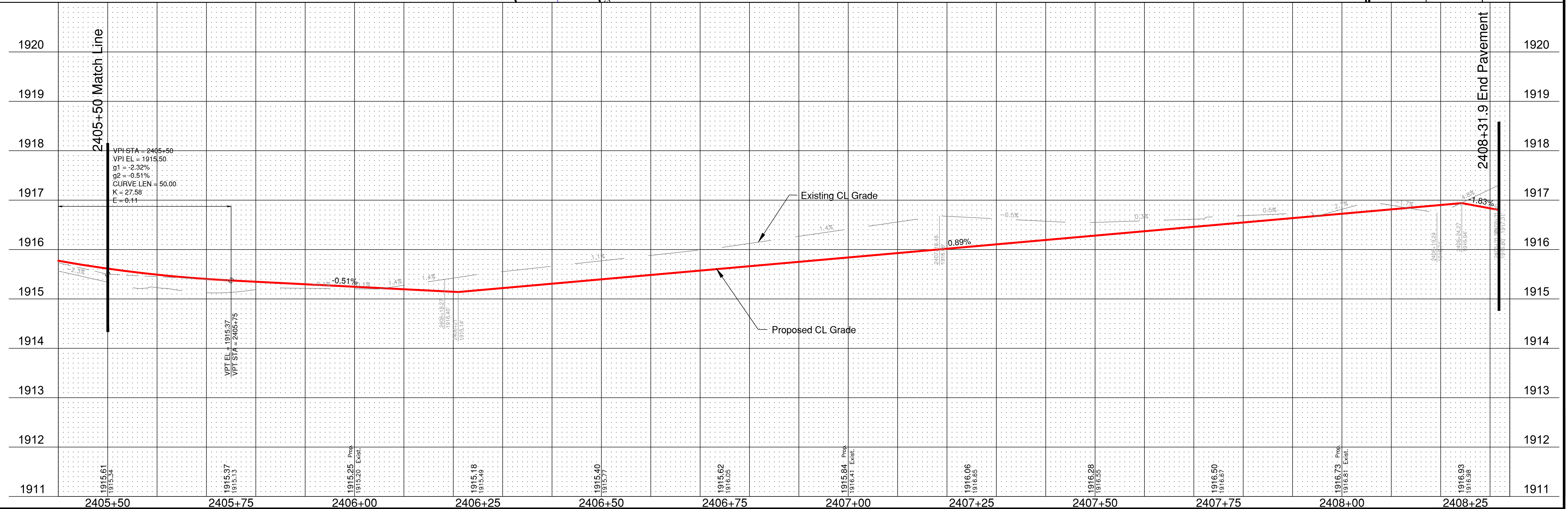
Sta. 2407+92 EOR

Sta. 2408+31.9
End Pavement

NORTH
Scale: 1"=10'



CITY OF HASTINGS, ENGINEERING DEPT.			
Project	PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No.	CH 2025-13		
Description	Plan and Profile Construction Sheet		
Design By	B.B.	Date	12/2024
Drawn By	B.B.	Approved By	SPR
		Sheet No.	8 of 30



Road 25 (14' Wide)

BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2001+94.5 to 2005+00.00	LT & RT	475.3
2001+74.5 to 2001+94.5	LT & RT	44.5

CLASS C FLY ASH		
Station to Station	Side	Tons
2001+92.5 to 2005+00.0	LT & RT	24.3

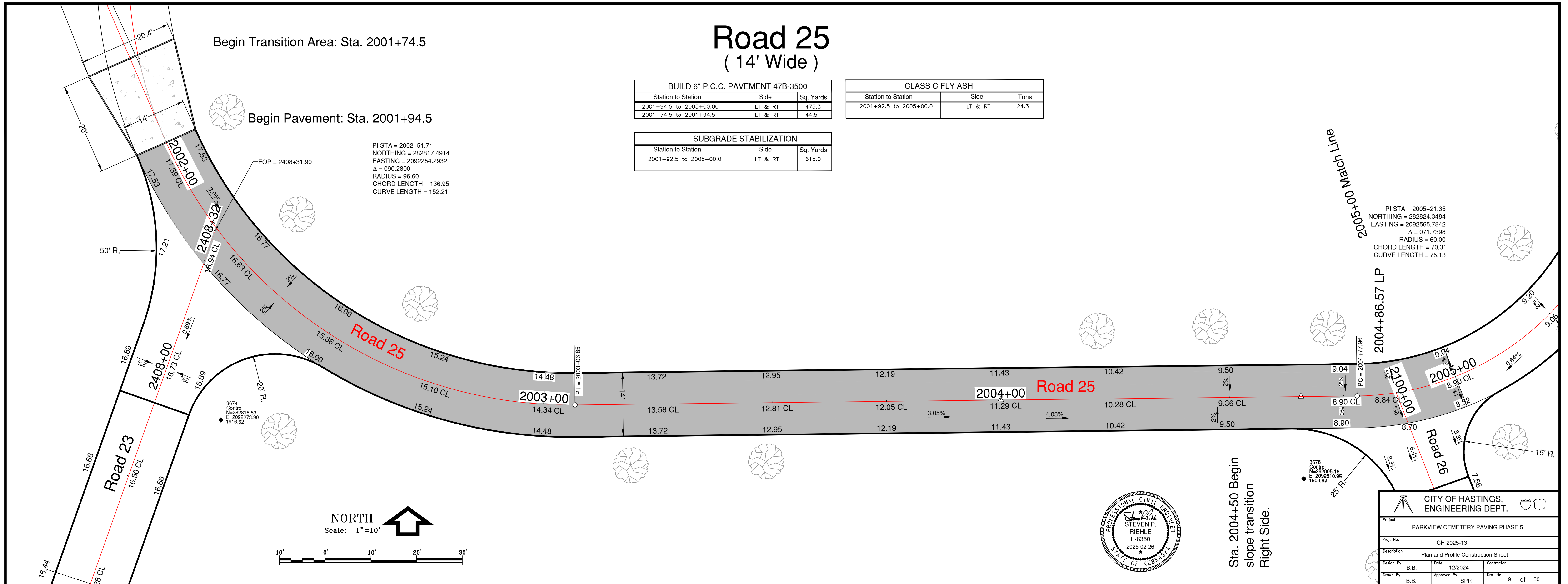
SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2001+92.5 to 2005+00.0	LT & RT	615.0

Begin Transition Area: Sta. 2001+74.5

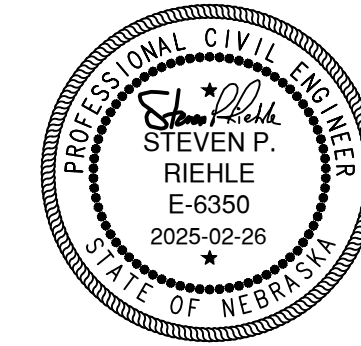
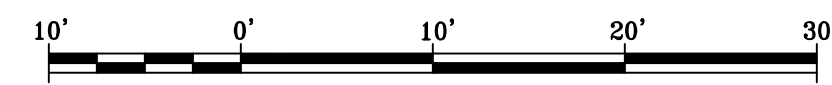
Begin Pavement: Sta. 2001+94.5

PI STA = 2002+51.71
NORTHING = 282817.4914
EASTING = 2092254.2932
Δ = 090.2800
RADIUS = 96.60
CHORD LENGTH = 136.95
CURVE LENGTH = 152.21

PI STA = 2005+21.35
NORTHING = 282824.3484
EASTING = 2092565.7842
Δ = 071.7398
RADIUS = 60.00
CHORD LENGTH = 70.31
CURVE LENGTH = 75.13



NORTH
Scale: 1"=10'



Sta. 2004+50 Begin slope transition Right Side.

CITY OF HASTINGS, ENGINEERING DEPT.

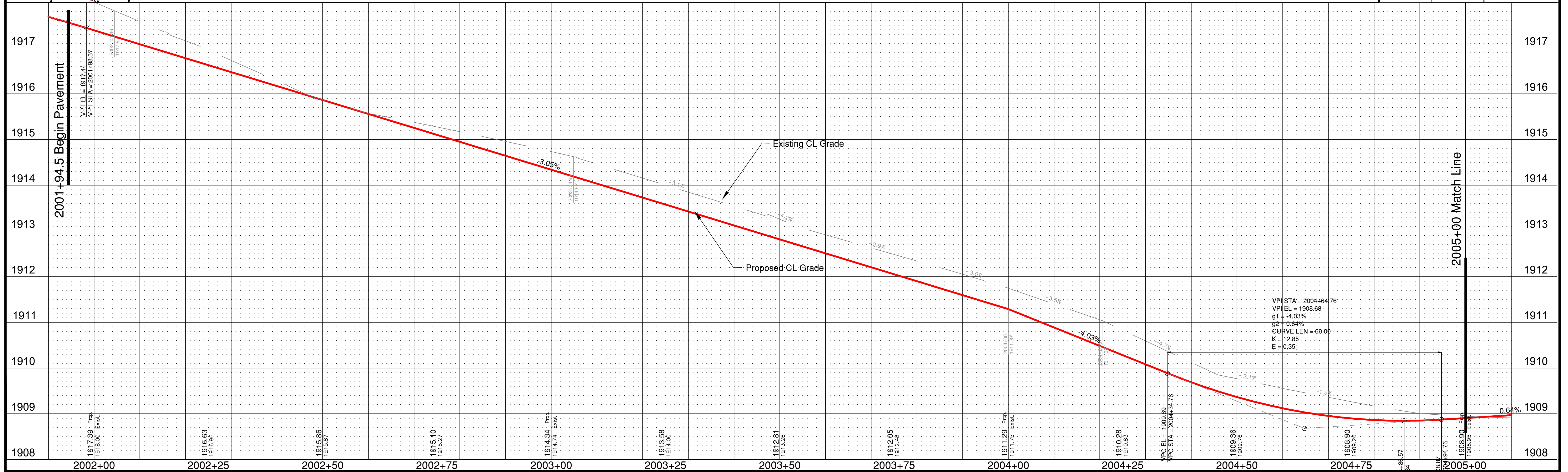
Project: PARKVIEW CEMETERY PAVING PHASE 5

Proj. No.: CH 2025-13

Description: Plan and Profile Construction Sheet

Design By: B.B. Date: 12/2024 Contractor: _____

Drawn By: B.B. Approved By: SPP Dm. No.: 9 of 30



Road 26 (16' Wide)

Build Return
Sta. 2100+22.5 EOR

Sta. 2100+07 Begin Pavement

PI STA = 2100+40.93
NORTHING = 282786.2800
EASTING = 2092546.3600
Δ = 015.9262
RADIUS = 100.00
CHORD LENGTH = 27.71
CURVE LENGTH = 27.80

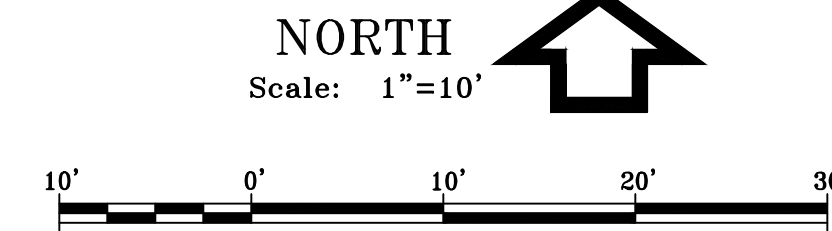
BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2100+22.5 to 2103+00	LT & RT	493.4
2100+08 to 2100+22.5	LT & RT	38.9
Storage Area	RT	250.2

CLASS C FLY ASH		
Station to Station	Side	Tons
2100+22.5 to 2103+00	LT & RT	24.4
2100+08 to 2100+22.5	LT & RT	2.0

SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2100+22.5 to 2103+00	LT & RT	616.7
2100+08 to 2100+22.5	LT & RT	50.0

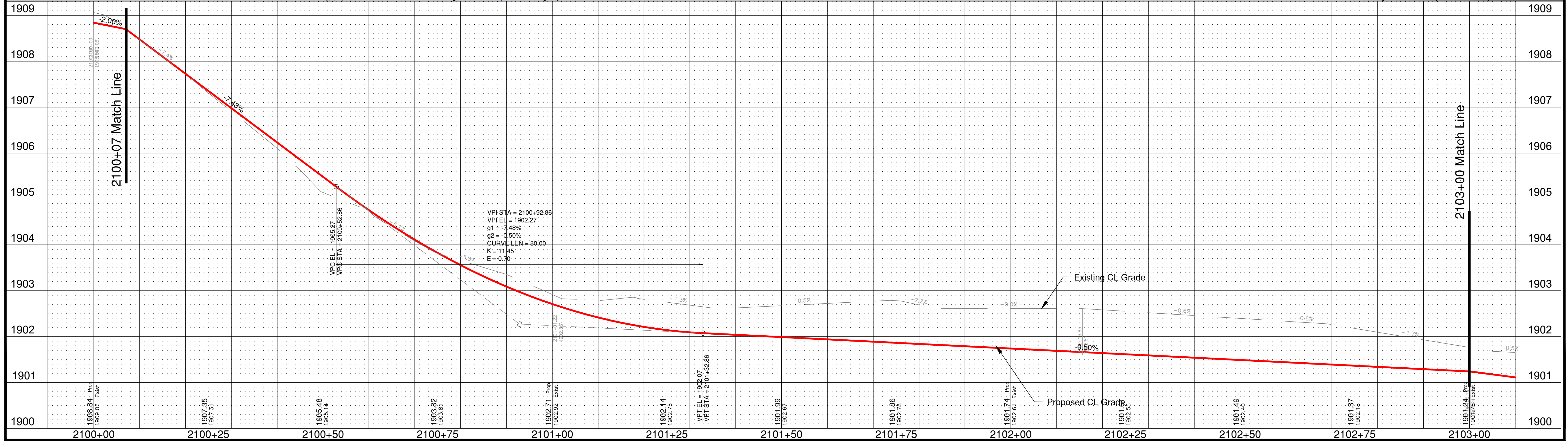
PI STA = 2101+00.08
NORTHING = 282739.5752
EASTING = 2092582.9443
Δ = 064.3207
RADIUS = 20.00
CHORD LENGTH = 21.29
CURVE LENGTH = 22.45

PI STA = 2303+81.86
NORTHING = 282667.4540
EASTING = 2092585.7253
Δ = 083.6912
RADIUS = 50.00
CHORD LENGTH = 66.71
CURVE LENGTH = 73.03

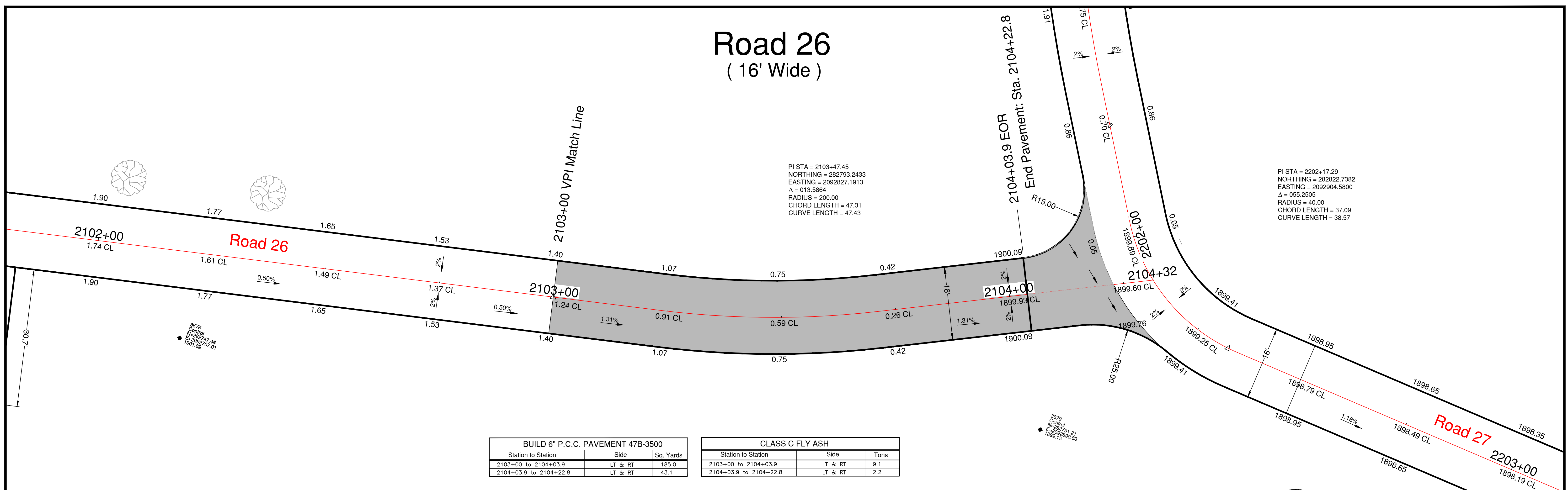


CITY OF HASTINGS, ENGINEERING DEPT.

Project: PARKVIEW CEMETERY PAVING PHASE 5
 Proj. No.: CH 2025-13
 Description: Plan and Profile Construction Sheet
 Design By: B.B. Date: 12/2024 Contractor:
 Drawn By: B.B. Approved by: SPR Cmt. No.: 11 of 30



Road 26 (16' Wide)

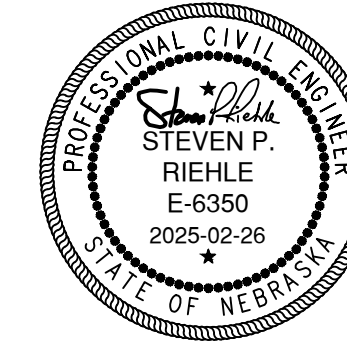
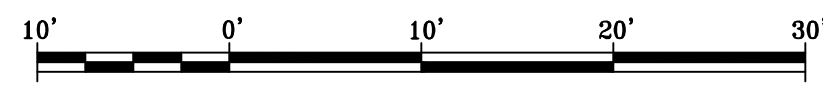


BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2103+00 to 2104+03.9	LT & RT	185.0
2104+03.9 to 2104+22.8	LT & RT	43.1

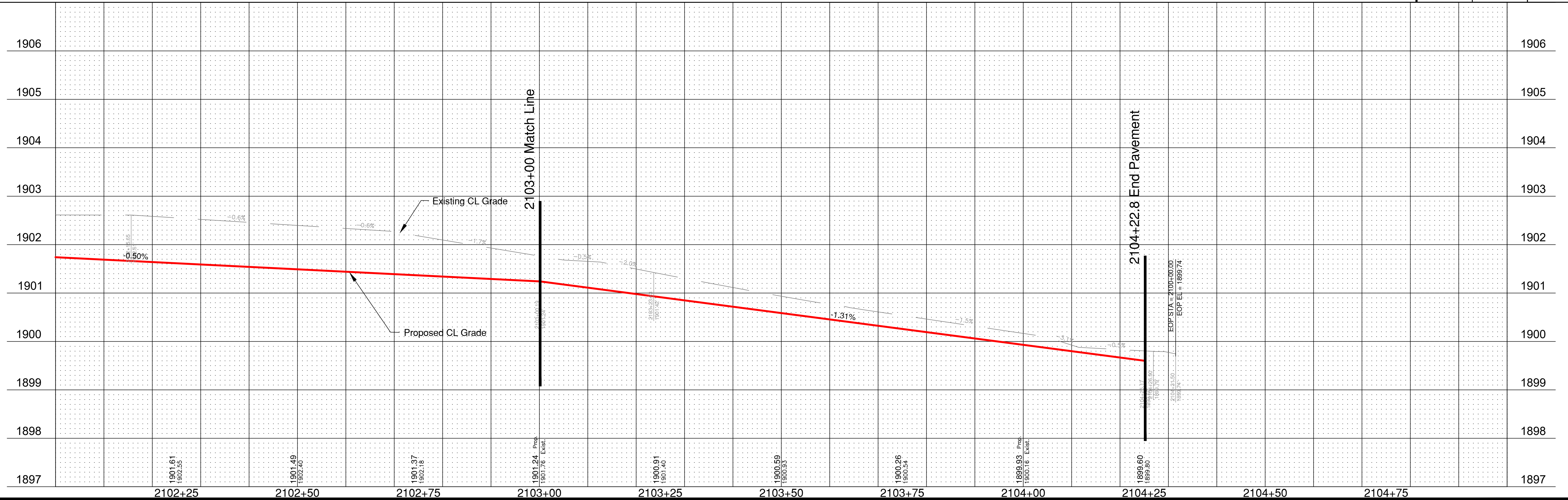
CLASS C FLY ASH		
Station to Station	Side	Tons
2103+00 to 2104+03.9	LT & RT	9.1
2104+03.9 to 2104+22.8	LT & RT	2.2

SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2103+00 to 2104+03.9	LT & RT	230.9
2104+03.9 to 2104+22.8	LT & RT	54.2

NORTH
Scale: 1"=10'



CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5			
Proj. No.: CH 2025-13			
Description: Plan and Profile Construction Sheet			
Design By: B.B.	Date: 12/2024	Contractor:	
Drawn By: B.B.	Approved By: SPR	Sht. No.: 12 of 30	



Road 27 (16' Wide)

BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2200+28.2 to 2202+50	LT & RT	394.3

CLASS C FLY ASH		
Station to Station	Side	Tons
2200+28.2 to 2202+50	LT & RT	19.5

SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2200+28.2 to 2202+50	LT & RT	492.9

BUILD 3"PVC SCH.40 PIPE SLEEVE FOR IRRIGATION		
Station to Station	Side	Lin. Ft.
2201+25 ??	LT & RT	20.0

PI STA = 2202+17.29
 NORTHING = 282822.7382
 EASTING = 2092904.5800
 Δ = 055.2505
 RADIUS = 40.00
 CHORD LENGTH = 37.09
 CURVE LENGTH = 38.57

PI STA = 2201+18.10
 NORTHING = 282908.4184
 EASTING = 2092852.9282
 Δ = 018.4984
 RADIUS = 300.00
 CHORD LENGTH = 96.44
 CURVE LENGTH = 96.86

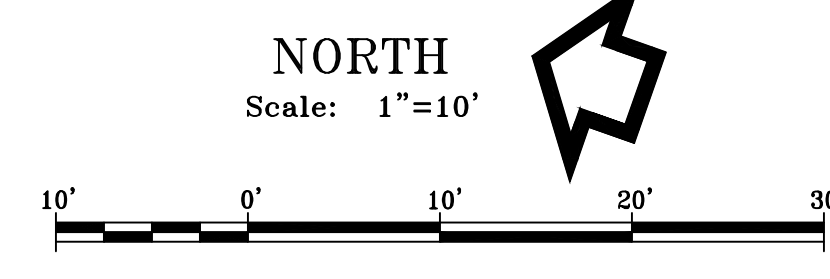
Possible Location of Existing underground irrigation line.
 New 3" PVC Schedule 40 pipe to be installed prior to paving operation.

1906+00
 1500+00
 2200+00
 Not part of this Project

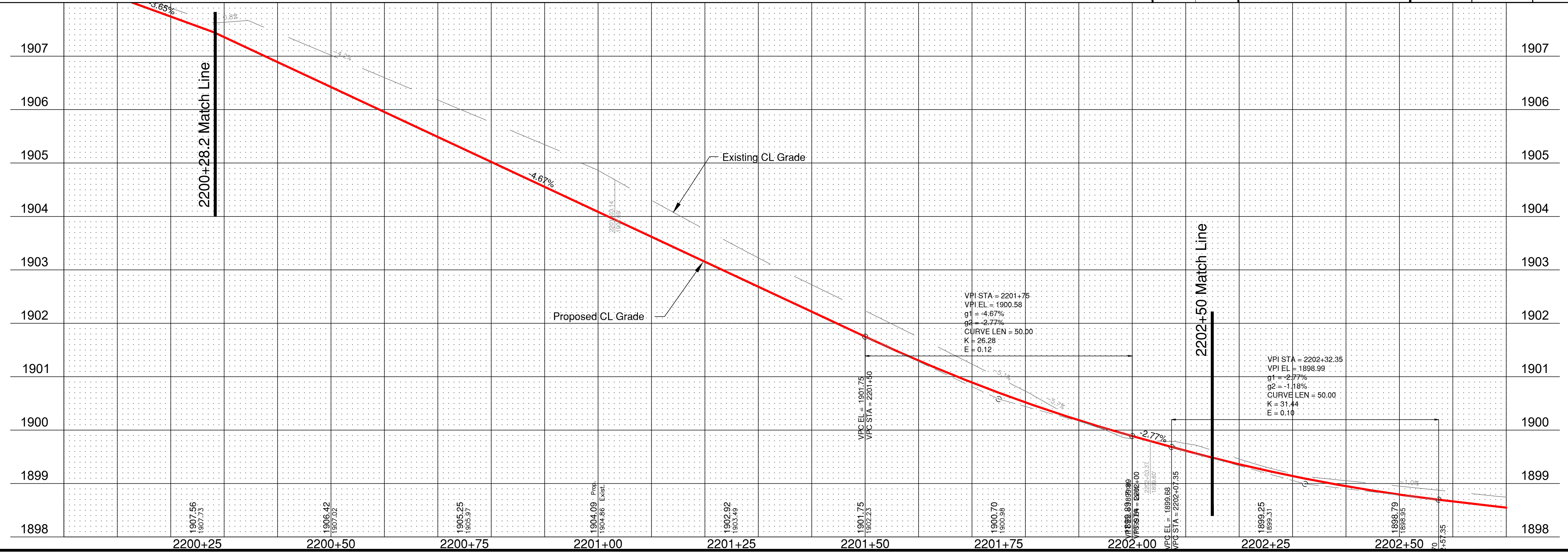
Sta. 2200+28.2 Begin Pavement

2202+50 Match Line

2202+32.35 VPI



CITY OF HASTINGS, ENGINEERING DEPT.			
Project	PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No.	CH 2025-13		
Description	Plan and Profile Construction Sheet		
Design By	B.B.	Date	12/2024
Drawn By	B.B.	Approved By	SPP
		Sheet No.	13 of 30



Road 27 (16' Wide)

PI STA = 2202+17.29
NORTHING = 282822.7382
EASTING = 2092904.5800
Δ = 055.2505
RADIUS = 40.00
CHORD LENGTH = 37.09
CURVE LENGTH = 38.57

BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2202+50 to 2205+25	LT & RT	488.9
2204+75 Flume	LT & RT	19.8

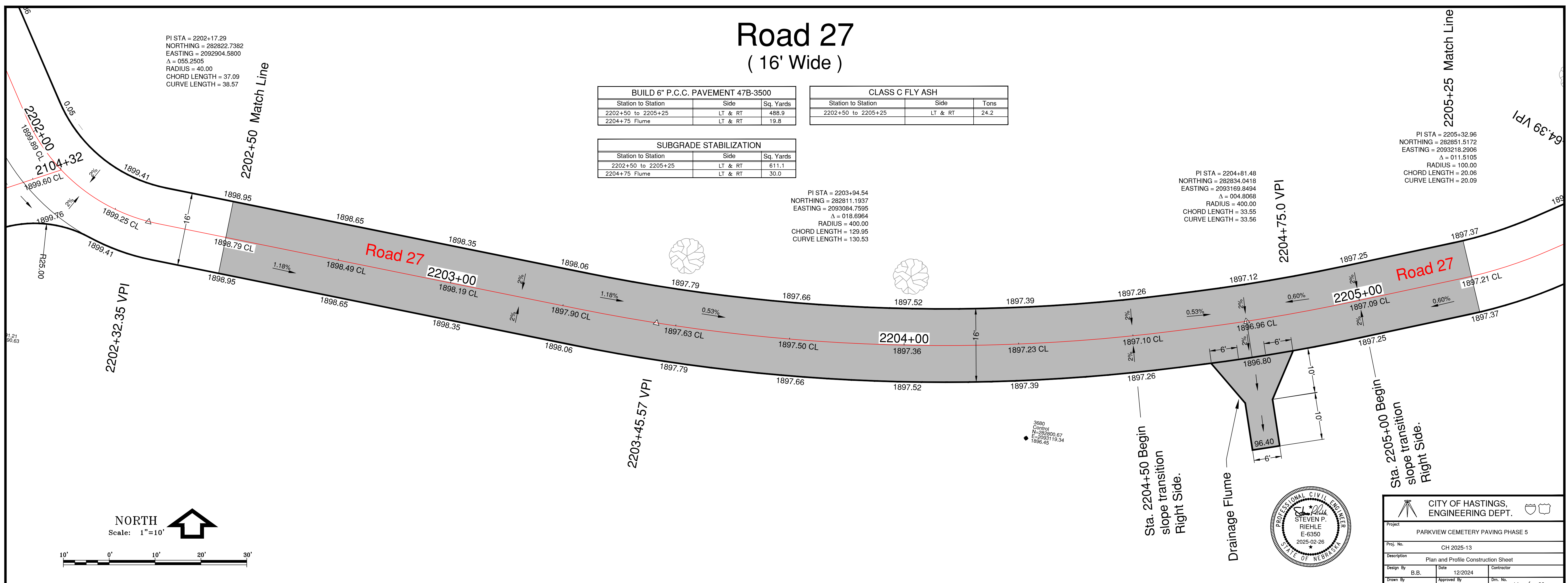
CLASS C FLY ASH		
Station to Station	Side	Tons
2202+50 to 2205+25	LT & RT	24.2

SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2202+50 to 2205+25	LT & RT	611.1
2204+75 Flume	LT & RT	30.0

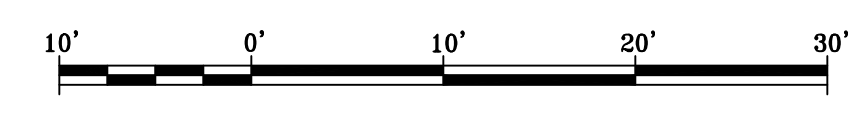
PI STA = 2203+94.54
NORTHING = 282811.1937
EASTING = 2093084.7595
Δ = 018.6984
RADIUS = 400.00
CHORD LENGTH = 129.95
CURVE LENGTH = 130.53

PI STA = 2204+81.48
NORTHING = 282834.0418
EASTING = 2093169.8494
Δ = 004.8068
RADIUS = 400.00
CHORD LENGTH = 33.55
CURVE LENGTH = 33.56

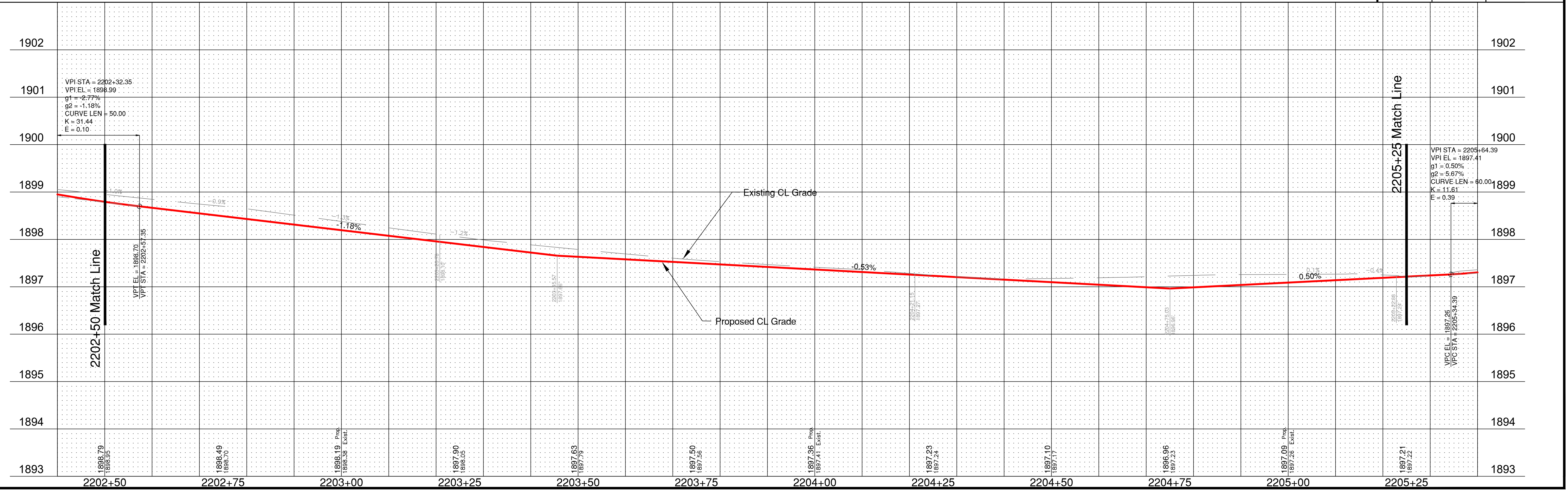
PI STA = 2205+32.96
NORTHING = 282851.5172
EASTING = 2093218.2906
Δ = 011.5105
RADIUS = 100.00
CHORD LENGTH = 20.06
CURVE LENGTH = 20.09



NORTH
Scale: 1"=10'



CITY OF HASTINGS, ENGINEERING DEPT.			
Project	PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No.	CH 2025-13		
Description	Plan and Profile Construction Sheet		
Design By	B.B.	Date	12/2024
Drawn By	B.B.	Approved By	SPR
			Sheet No. 14 of 30



Road 27 (16' Wide)

BUILD 6" P.C.C. PAVEMENT 47B-3500			CLASS C FLY ASH		
Station to Station	Side	Sq. Yards	Station to Station	Side	Tons
2205+25 to 2207+25.6	LT & RT	356.6	2205+25 to 2207+25.6	LT & RT	16.1

SUBGRADE STABILIZATION			BUILD 3" PVC SCH.40 PIPE SLEEVE FOR IRRIGATION		
Station to Station	Side	Sq. Yards	Station to Station	Side	Lin. Ft.
2205+25 to 2207+25.6	LT & RT	401.2	2206+50	LT & RT	20.0

2205+25 Match Line

PI STA = 2205+32.96
NORTHING = 282851.5172
EASTING = 2093218.2906
Δ = 011.5105
RADIUS = 100.00
CHORD LENGTH = 20.06
CURVE LENGTH = 20.09

2205+64.39 VPI

Possible Location of Existing underground irrigation line.
New 3" PVC Schedule 40 pipe to be installed prior to paving operation.

Sta. 2207+25.6 End Pavement

Not part of this Project

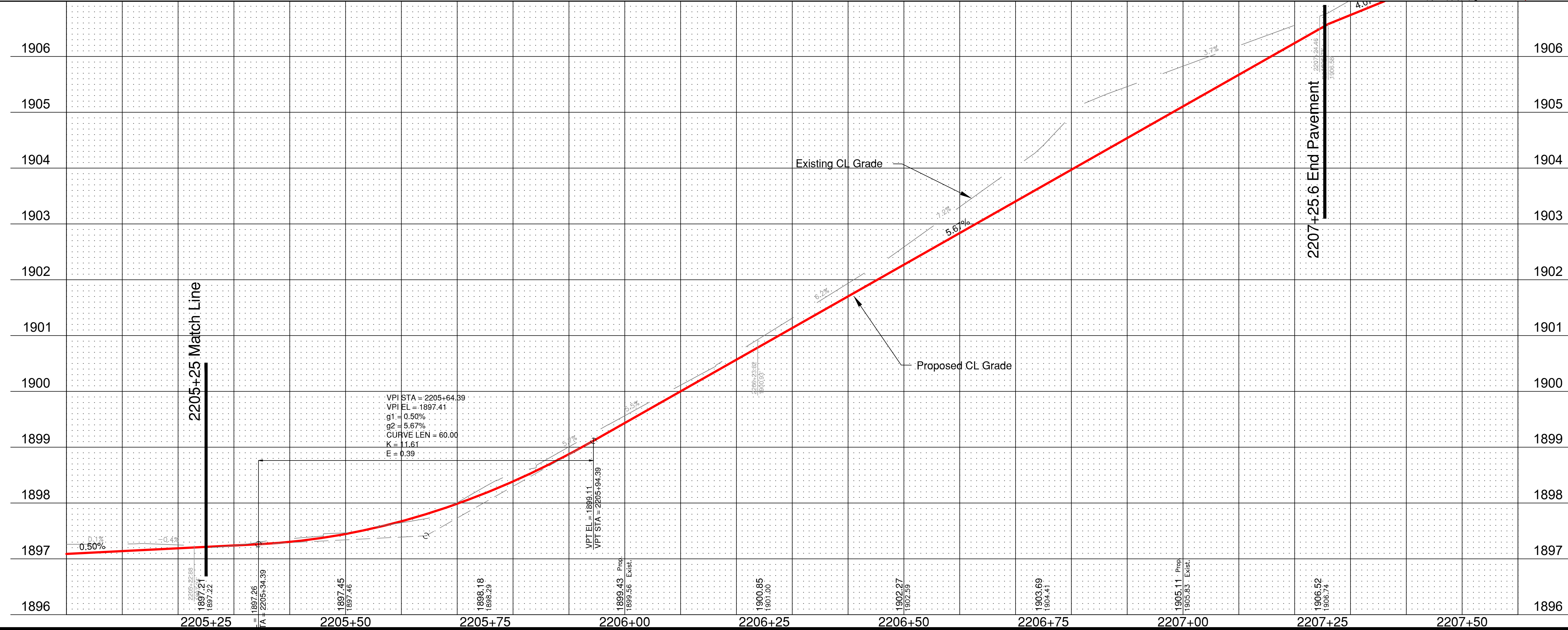
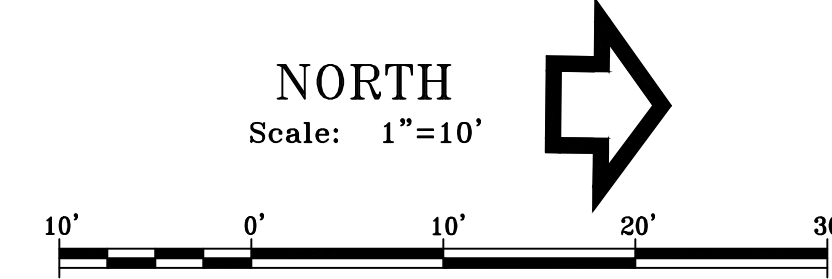
PI STA = 2205+69.04
NORTHING = 282870.3273
EASTING = 2093249.1700
Δ = 073.1283
RADIUS = 25.00
CHORD LENGTH = 29.79
CURVE LENGTH = 31.91

PI STA = 2206+17.57
NORTHING = 282922.3227
EASTING = 2093235.7463
Δ = 013.0018
RADIUS = 100.00
CHORD LENGTH = 22.64
CURVE LENGTH = 22.69

PI STA = 2206+72.81
NORTHING = 282971.4188
EASTING = 2093210.2127
Δ = 002.1072
RADIUS = 200.00
CHORD LENGTH = 7.36
CURVE LENGTH = 7.36

PI STA = 1909+26.97
NORTHING = 283029.5395
EASTING = 2093169.5150
Δ = 048.4755
RADIUS = 50.00
CHORD LENGTH = 49.26
CURVE LENGTH = 50.76

CITY OF HASTINGS, ENGINEERING DEPT.		
Project: PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No: CH 2025-13		
Description: Plan and Profile Construction Sheet		
Design By: B.B.	Date: 12/2024	Contractor:
Drawn By: B.B.	Approved By: SPR	Em. No: 15 of 30



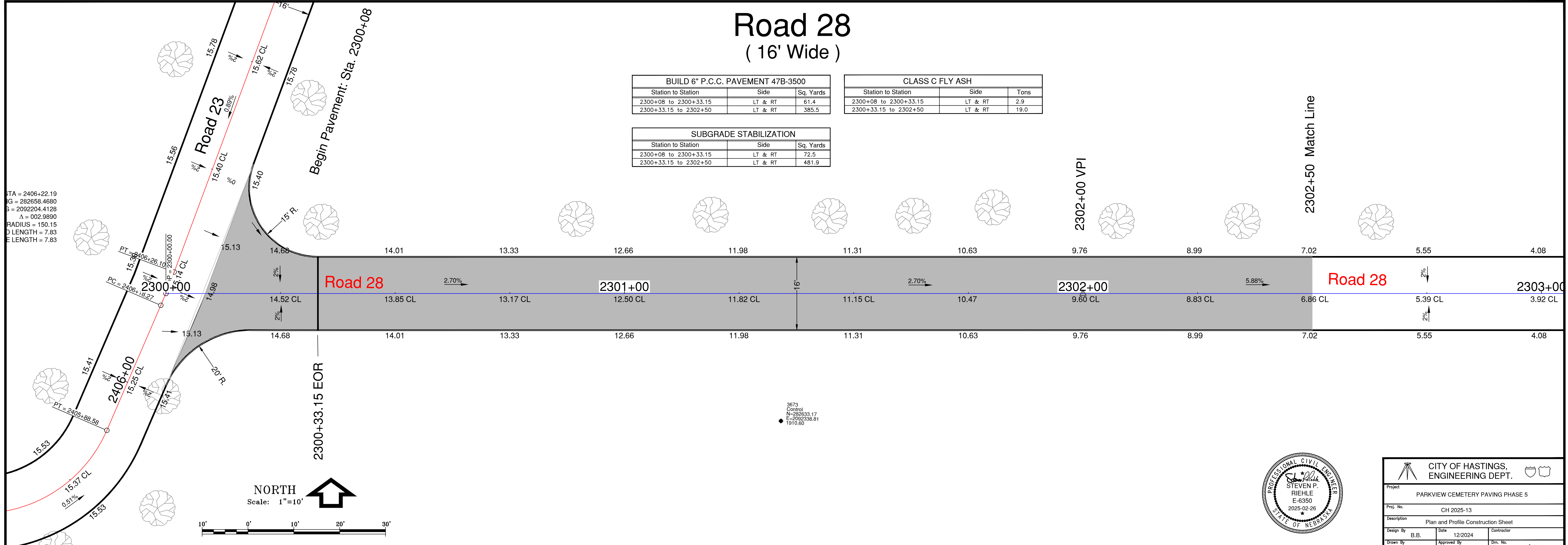
Road 28 (16' Wide)

BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2300+08 to 2300+33.15	LT & RT	61.4
2300+33.15 to 2302+50	LT & RT	385.5

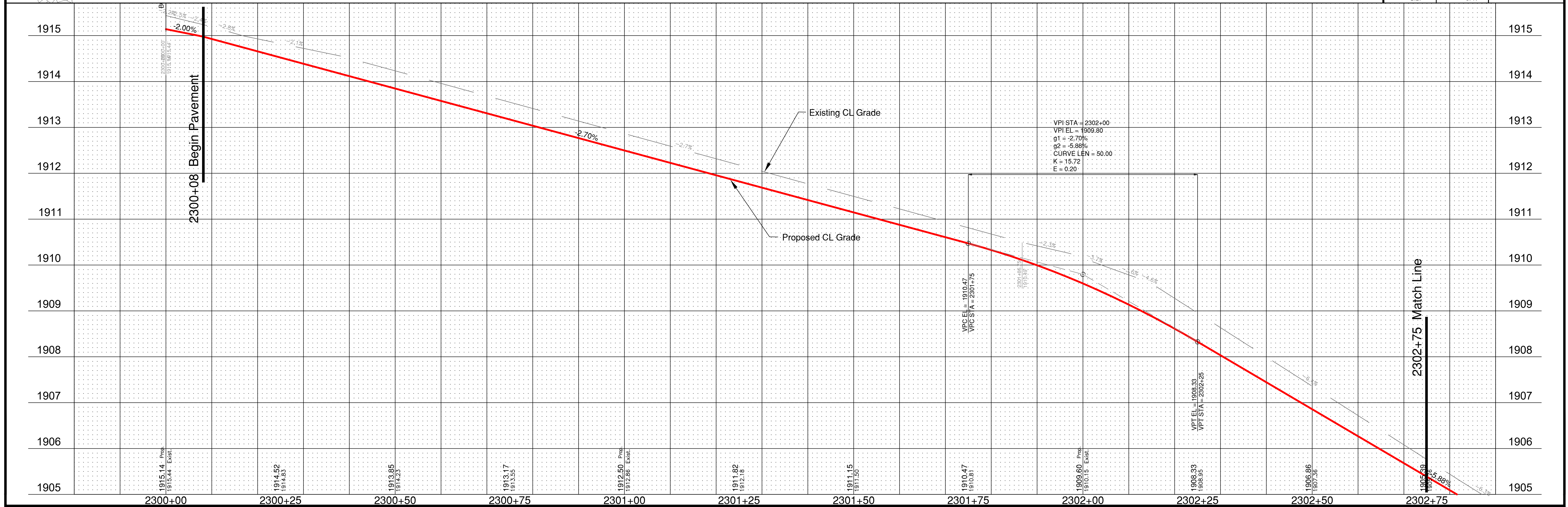
CLASS C FLY ASH		
Station to Station	Side	Tons
2300+08 to 2300+33.15	LT & RT	2.9
2300+33.15 to 2302+50	LT & RT	19.0

SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2300+08 to 2300+33.15	LT & RT	72.5
2300+33.15 to 2302+50	LT & RT	481.9

TA = 2406+22.19
 G = 282658.4680
 S = 2092204.4128
 Δ = 002.9890
 RADIUS = 150.15
 D LENGTH = 7.83
 E LENGTH = 7.83



CITY OF HASTINGS, ENGINEERING DEPT.		
Project	PARKVIEW CEMETERY PAVING PHASE 5	
Proj. No.	CH 2025-13	
Description	Plan and Profile Construction Sheet	
Design By	B.B.	Date
Drawn By	B.B.	Approved By
		SPR
		Em. No.
		16 of 30



Road 28 (16' Wide)

End Pavement: Sta. 2304+32

N=292747.48
E=2092707.01
1901.88

Sta. 2302+75 Match Line

PI STA = 2303+81.86
NORTHING = 282667.4540
EASTING = 2092585.7253
Δ = 083.6912
RADIUS = 50.00
CHORD LENGTH = 66.71
CURVE LENGTH = 73.03

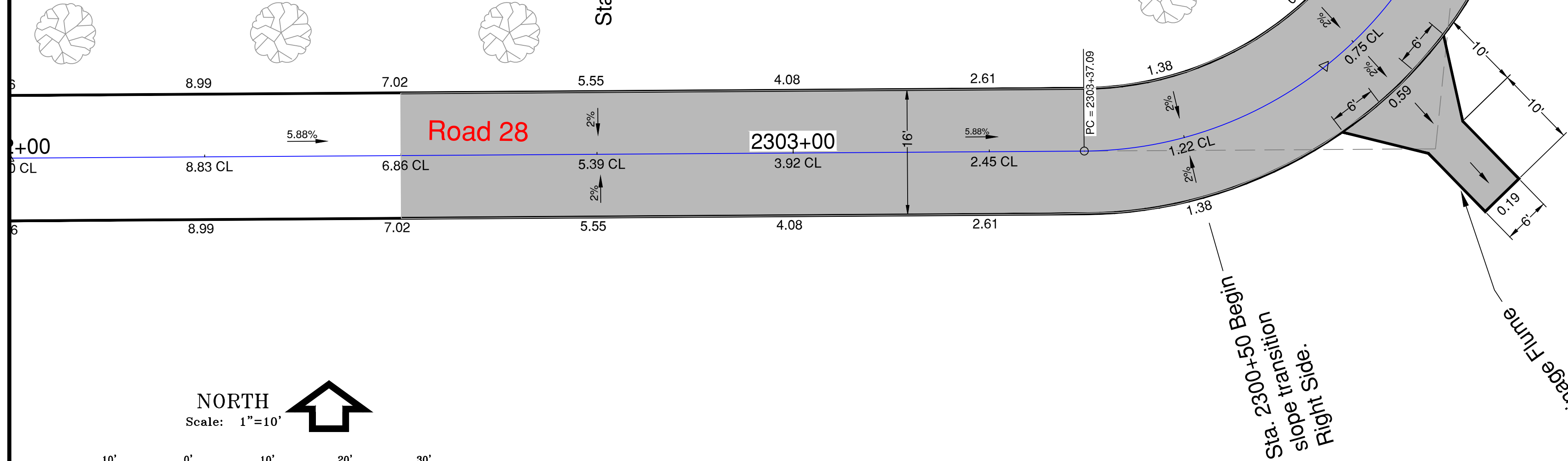
2100+92.86 VPI
20° R.
Sta. 2304+19 EOR

Sta. 2304+00 End
slope transition
Right Side.

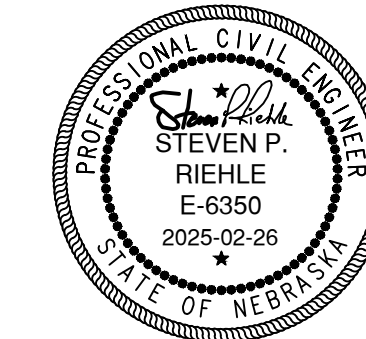
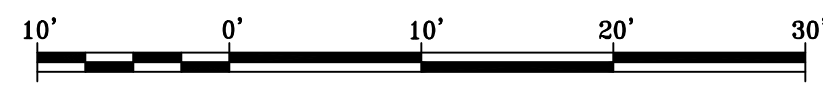
BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
2302+50 to 2304+19	LT & RT	300.5
2304+19 to 2304+32	LT & RT	26.9
Flume 2303+75	LT & RT	19.8

CLASS C FLY ASH		
Station to Station	Side	Tons
2302+50 to 2304+19	LT & RT	14.9
2304+19 to 2304+32	LT & RT	1.5

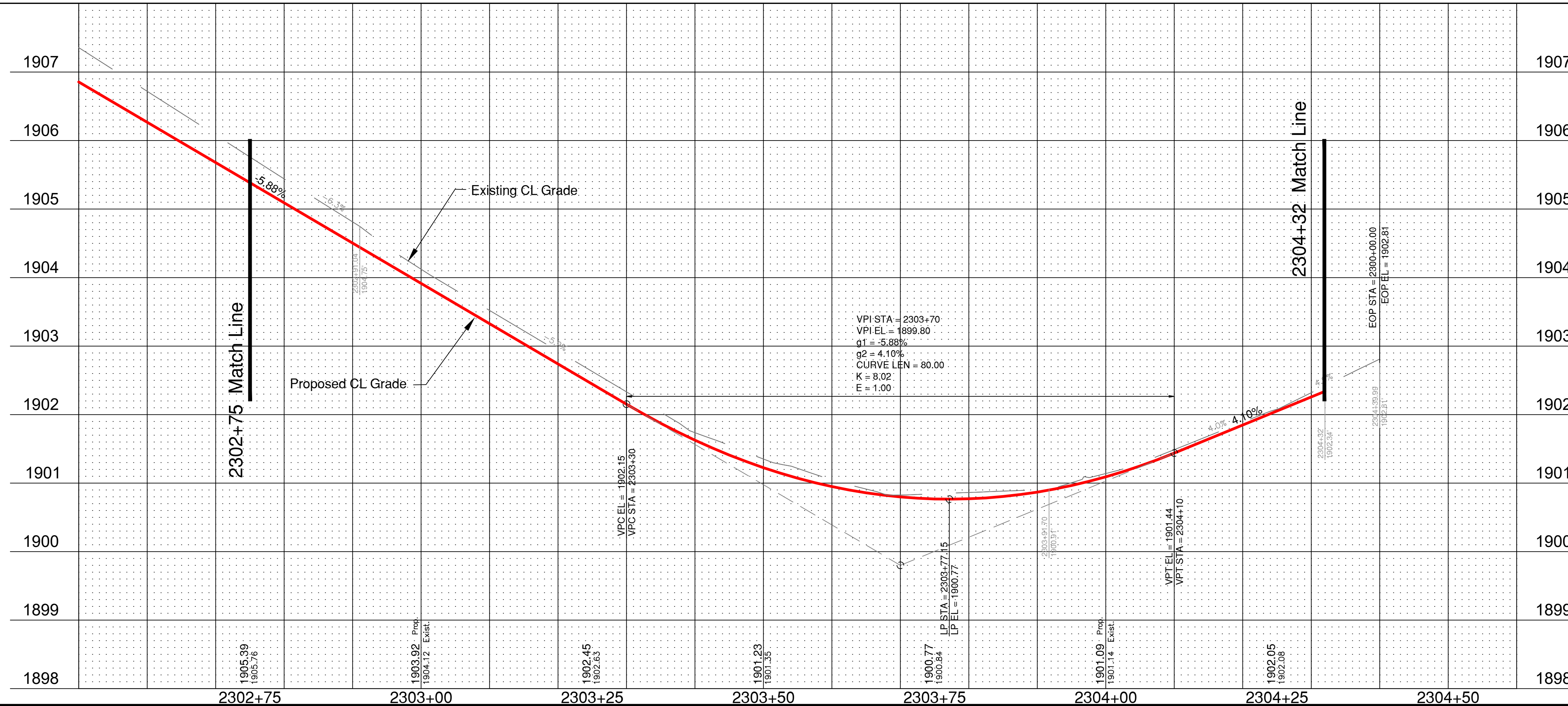
SUBGRADE STABILIZATION		
Station to Station	Side	Sq. Yards
2302+50 to 2304+19	LT & RT	375.0
2304+19 to 2304+32	LT & RT	38.0
Flume 2303+75	LT & RT	30.0

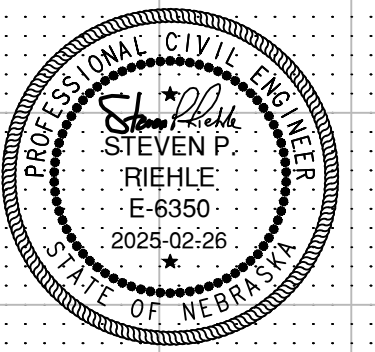
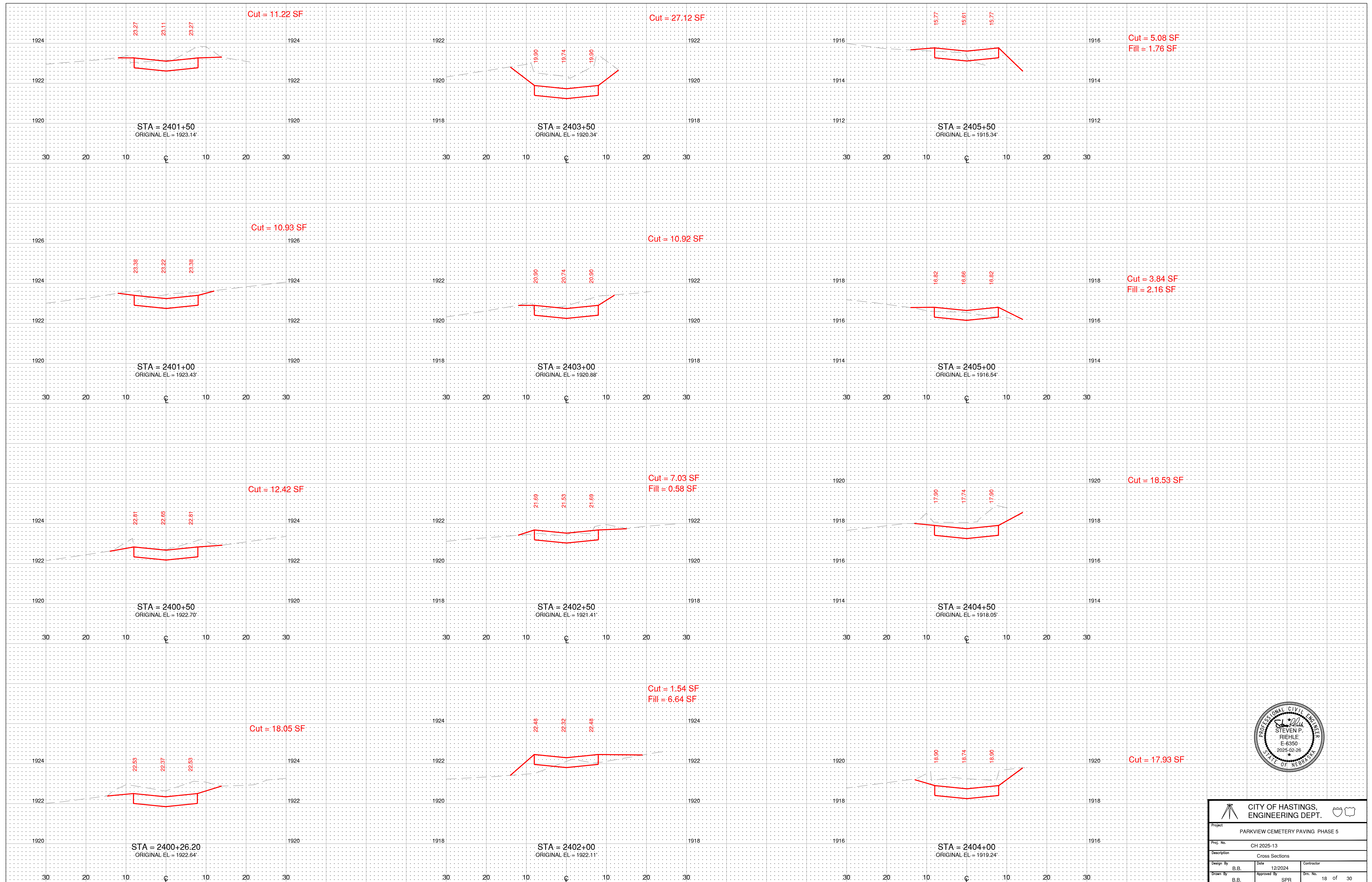


NORTH
Scale: 1"=10'

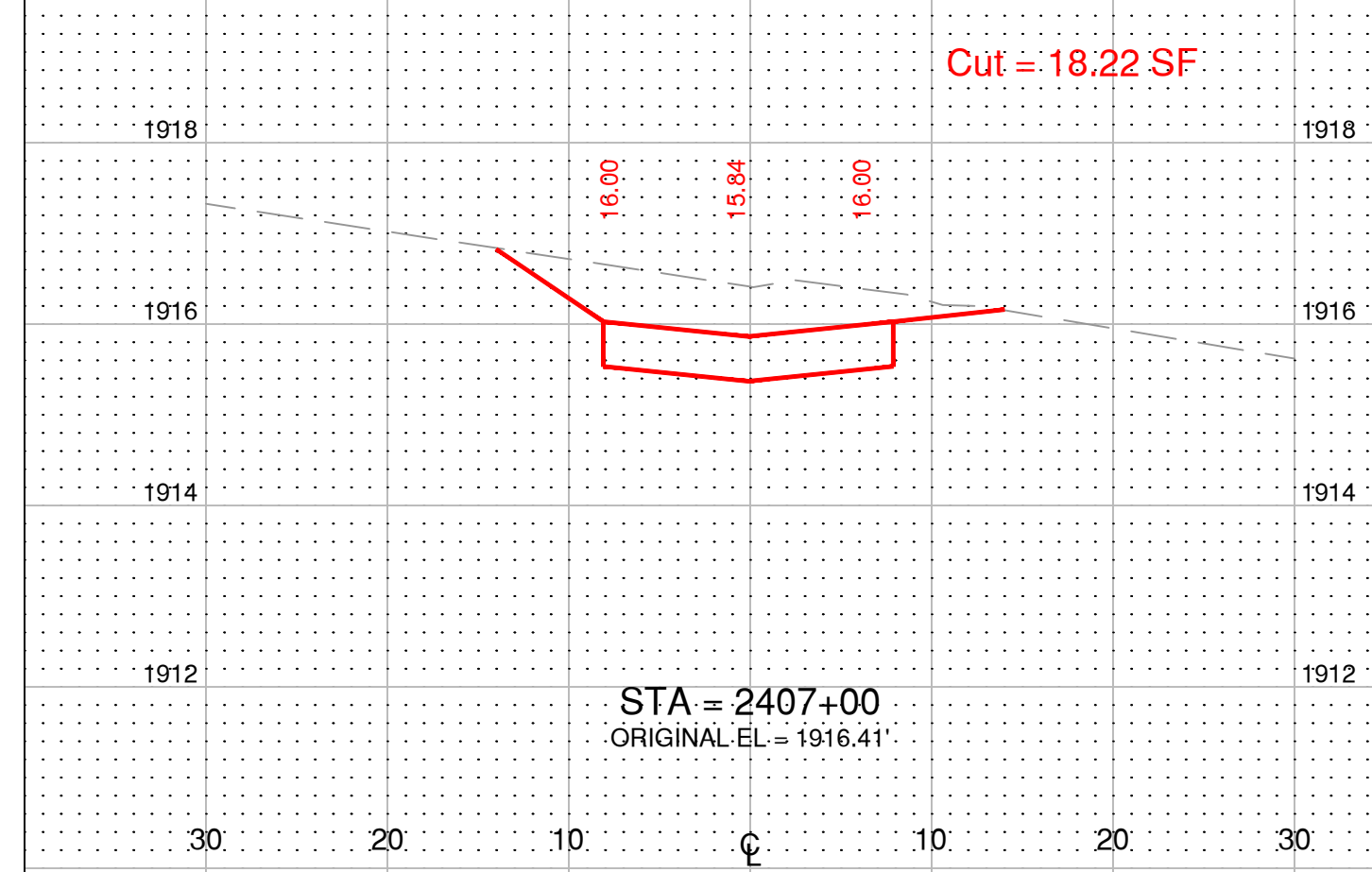
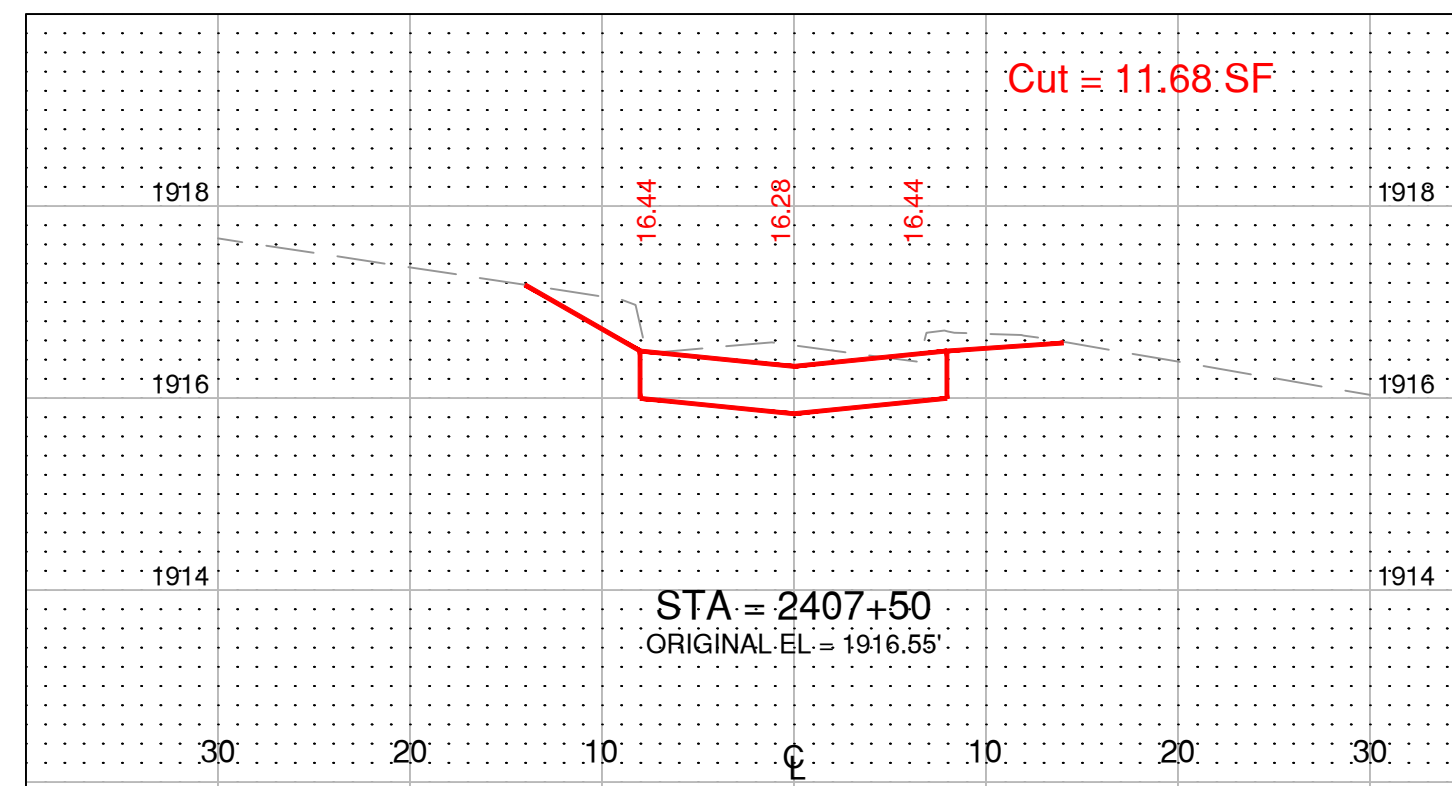


CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5			
Proj. No.: CH 2025-13			
Description: Plan and Profile Construction Sheet			
Design By: B.B.	Date: 12/2024	Contractor:	
Drawn By: B.B.	Approved By: SPR	Sht. No.: 17 of 30	

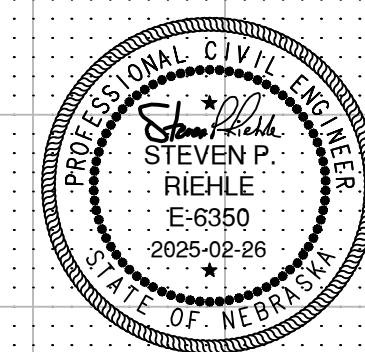
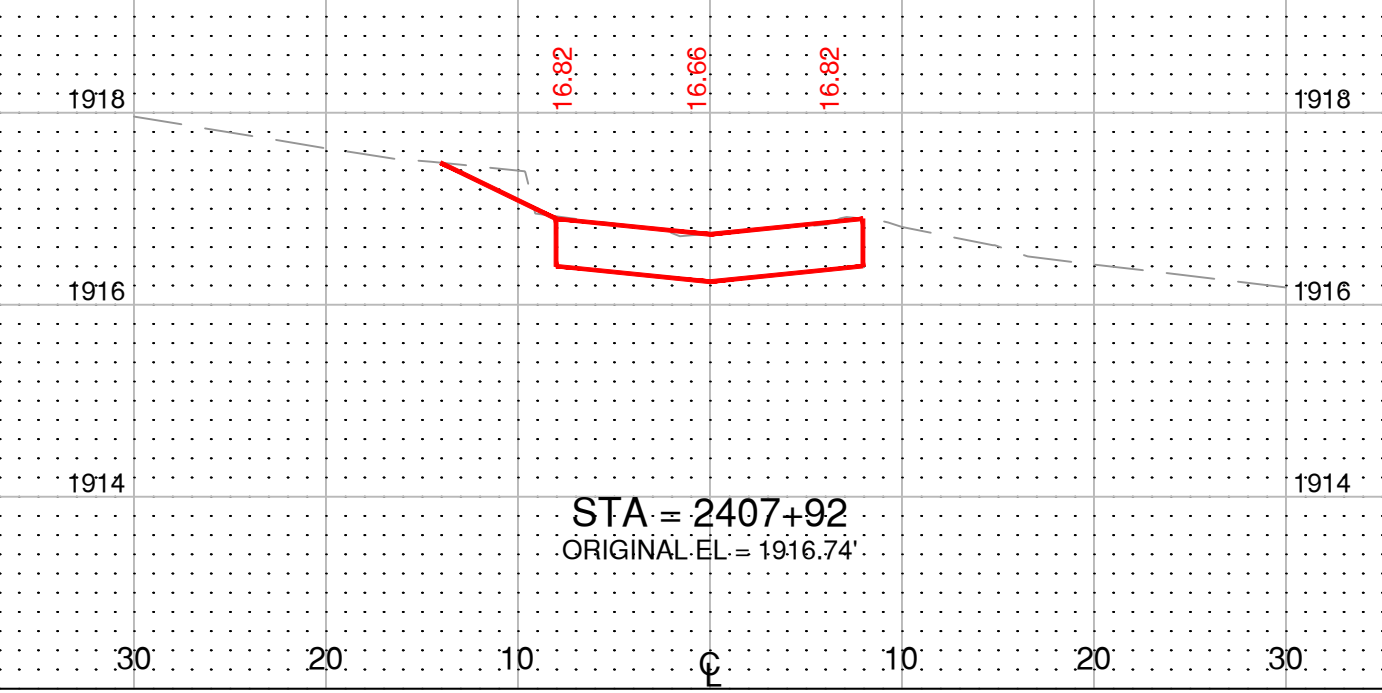
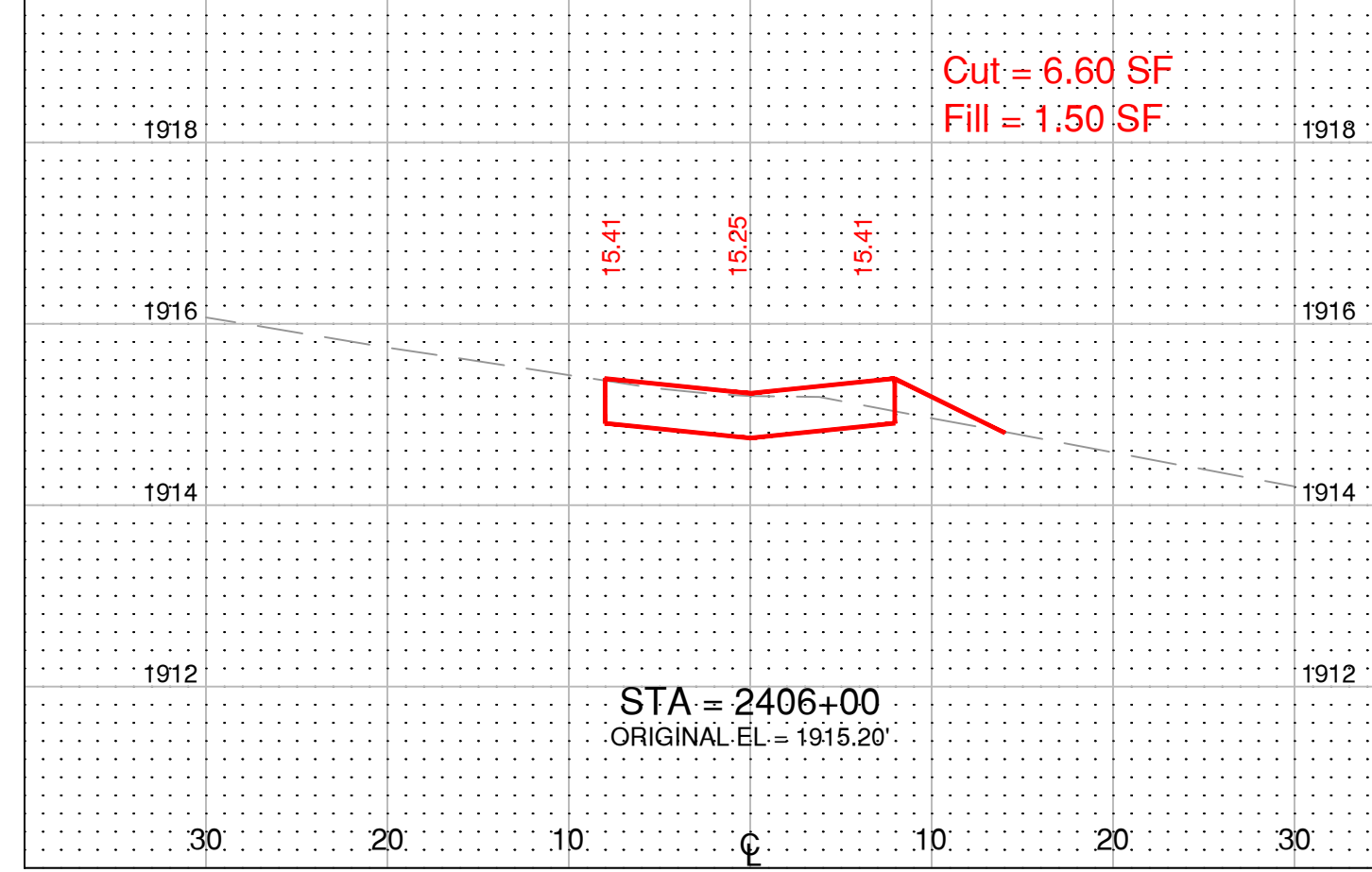
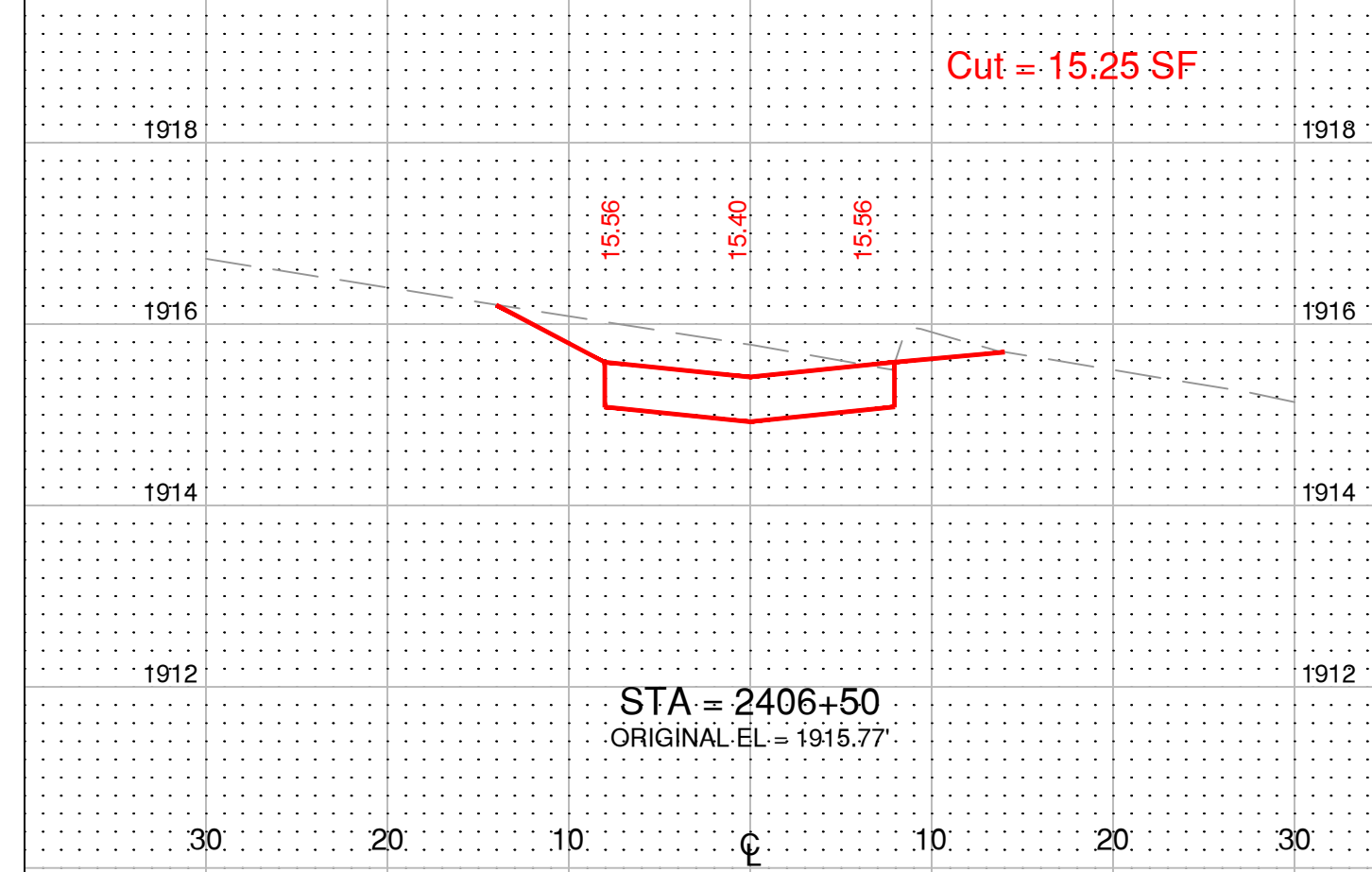




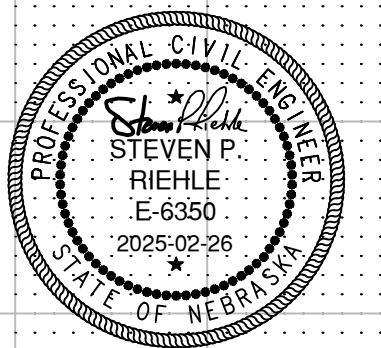
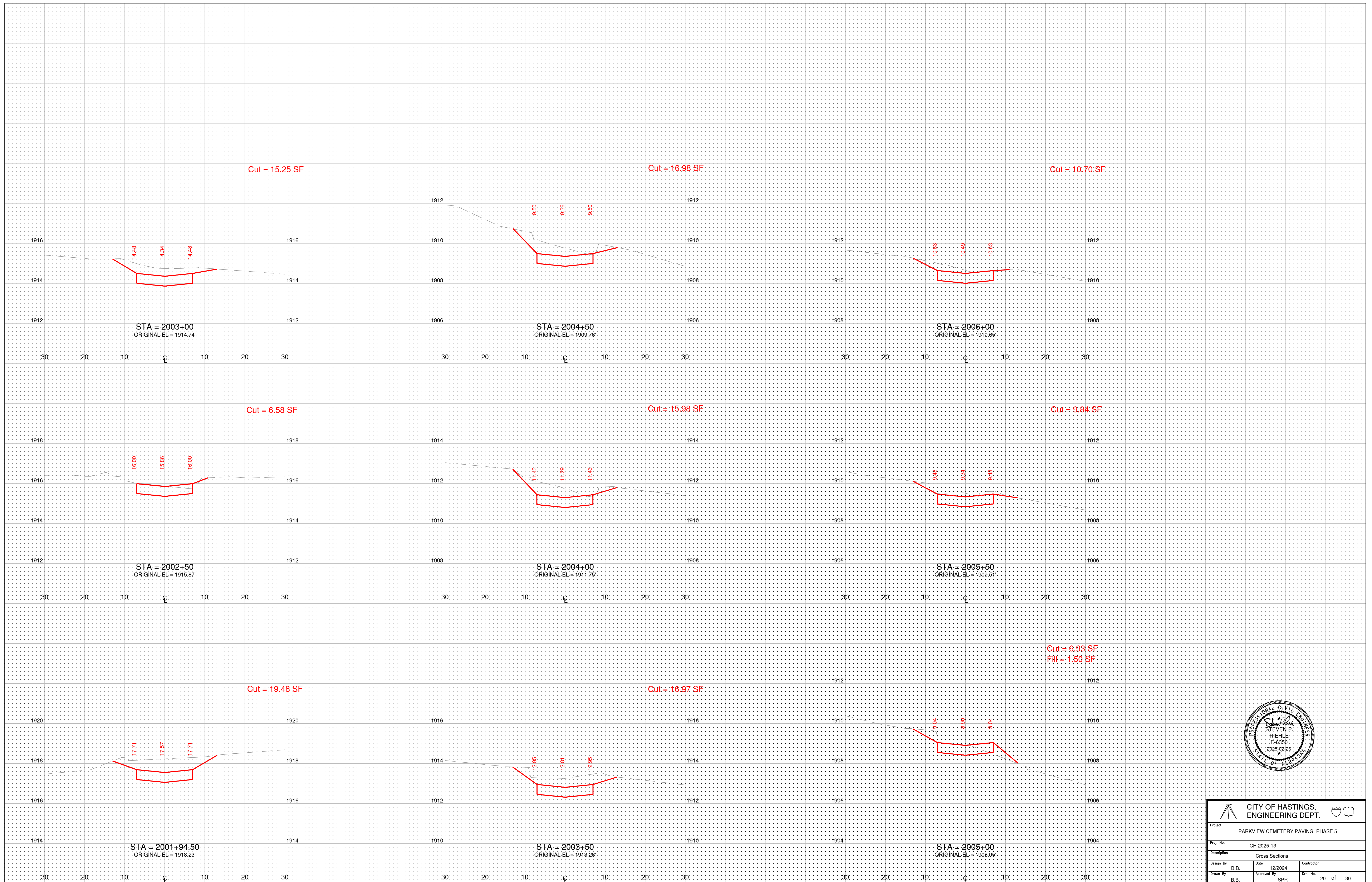
CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5			
Proj. No.:	CH 2025-13		
Description:	Cross Sections		
Design By:	B.B.	Date:	12/2024
Drawn By:	B.B.	Approved By:	SPR
Contractor:		Drn. No.:	18 of 30



Road 23: = 330.0 CY Cut
 - 27.5 CY Fill
 - 173.7 CY Exist. Asphalt Roadway (809.8' x 17.55' x 0.33' / 27 = 173.7 CY)
 128.8 CY Excess

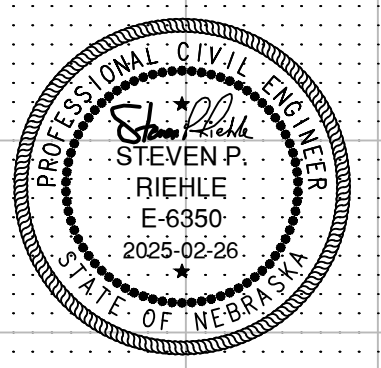
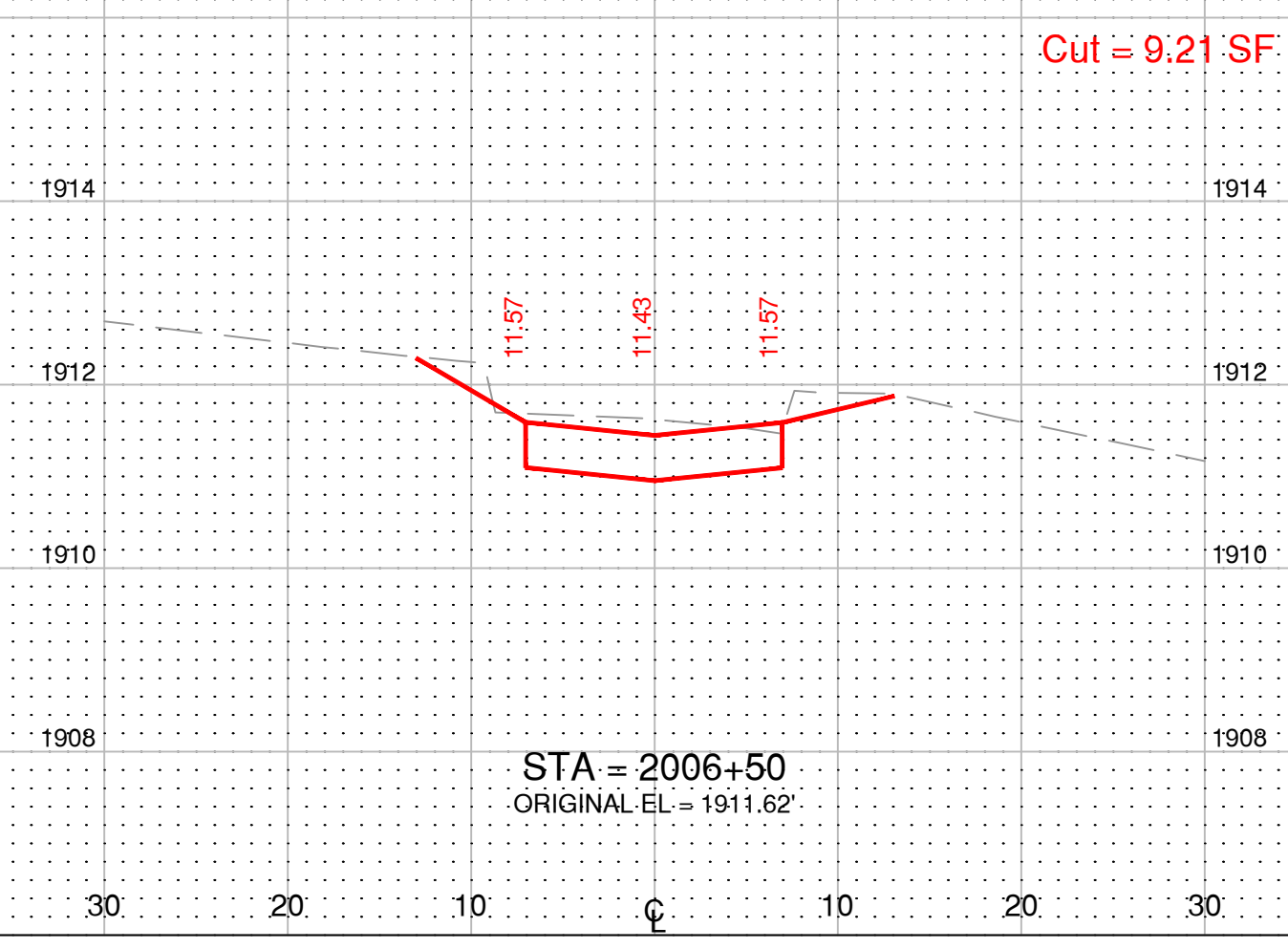
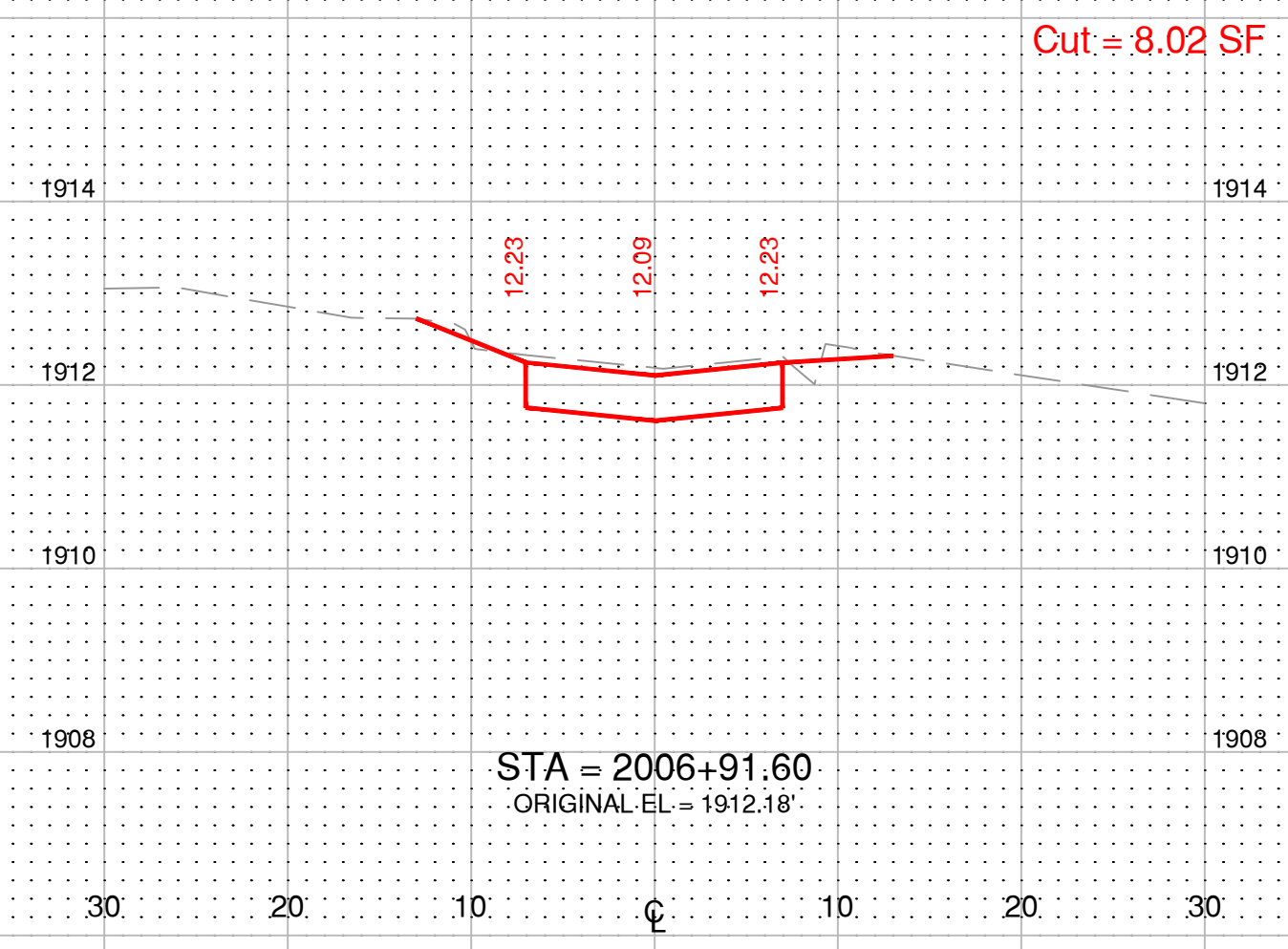


CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5			
Proj. No.: CH 2025-13			
Description: Cross Sections			
Design By: B.B.	Date: 12/2024	Contractor:	
Drawn By: B.B.	Approved By: SPR	Dwn. No.: 19 of 30	



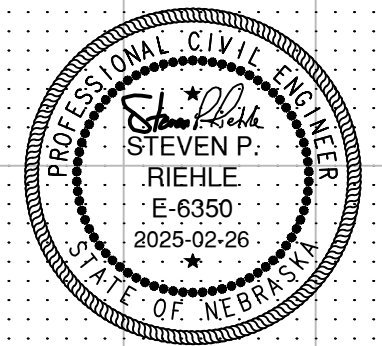
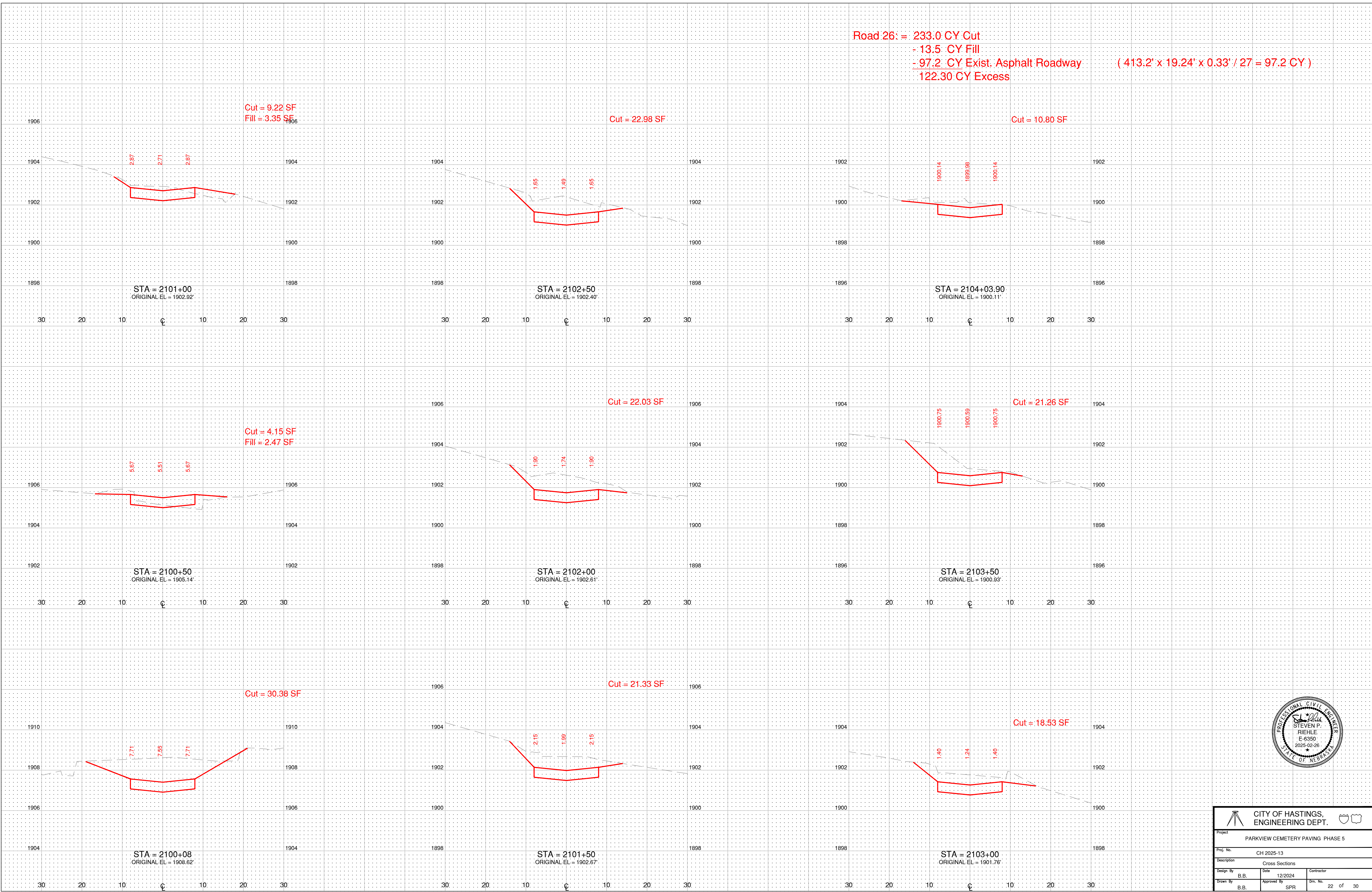
CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5			
Proj. No.: CH 2025-13		Description: Cross Sections	
Design By: B.B.	Date: 12/2024	Contractor:	
Drawn By: B.B.	Approved By: SPR	Drn. No.: 20 of 30	

Road 25: = 234.0 CY Cut
 - 4.0 CY Fill
 - 111.5 CY Exist. Asphalt Roadway (517.1' x 17.64' x 0.33' / 27 = 111.5 CY)
 118.50 CY Excess

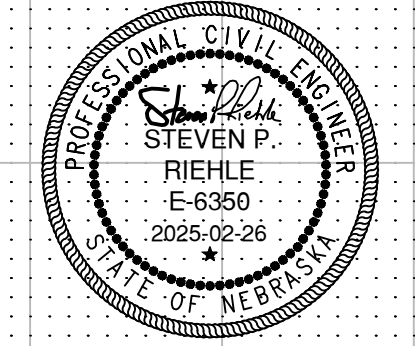
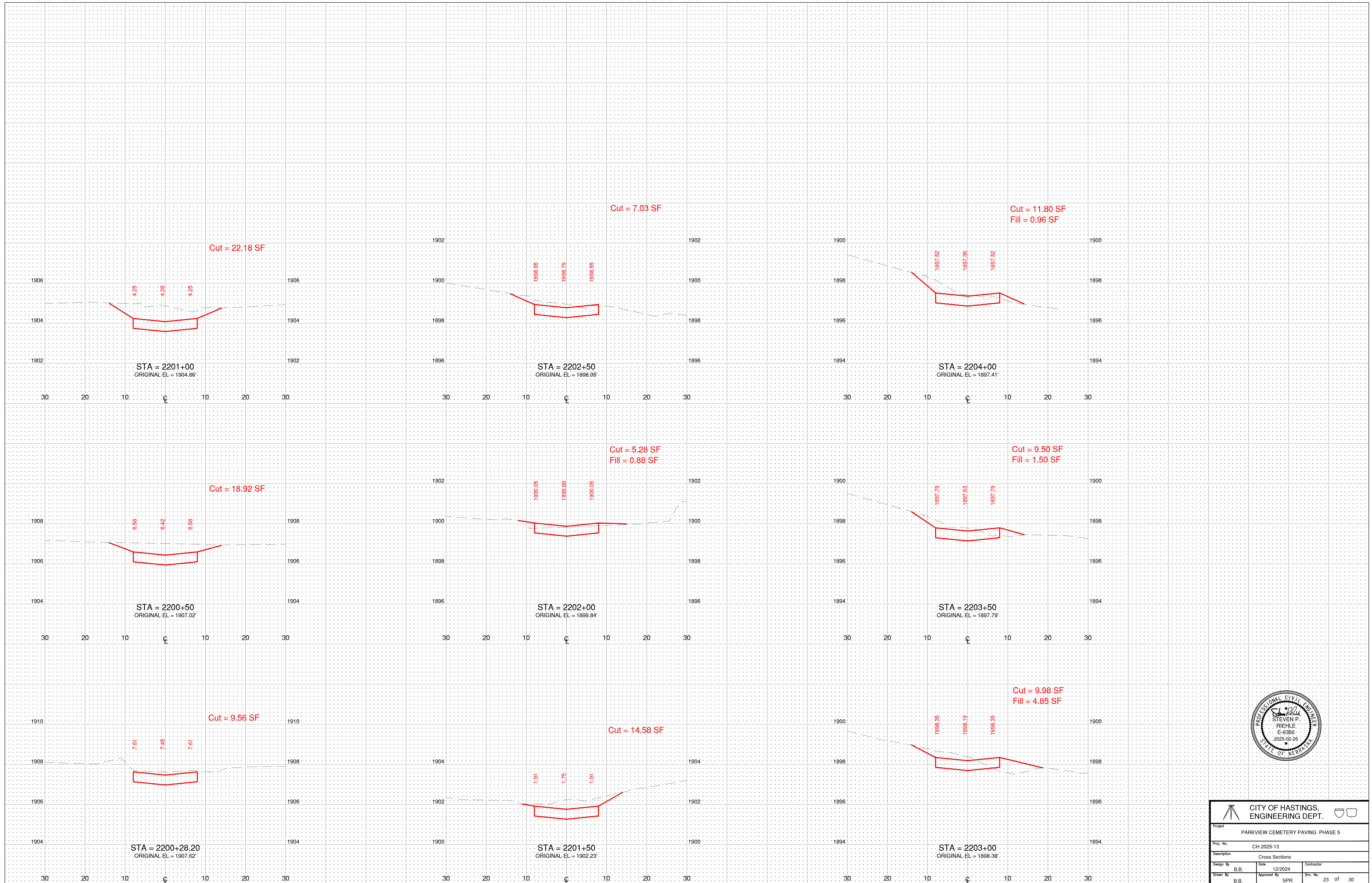


CITY OF HASTINGS, ENGINEERING DEPT.		
Project: PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No.: CH 2025-13		
Description: Cross Sections		
Design By: B.B.	Date: 12/2024	Contractor:
Drawn By: B.B.	Approved By: SPR	Dim. No.: 21 of 30

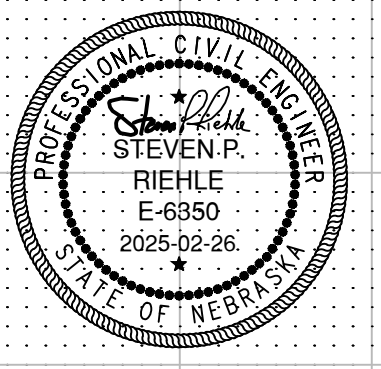
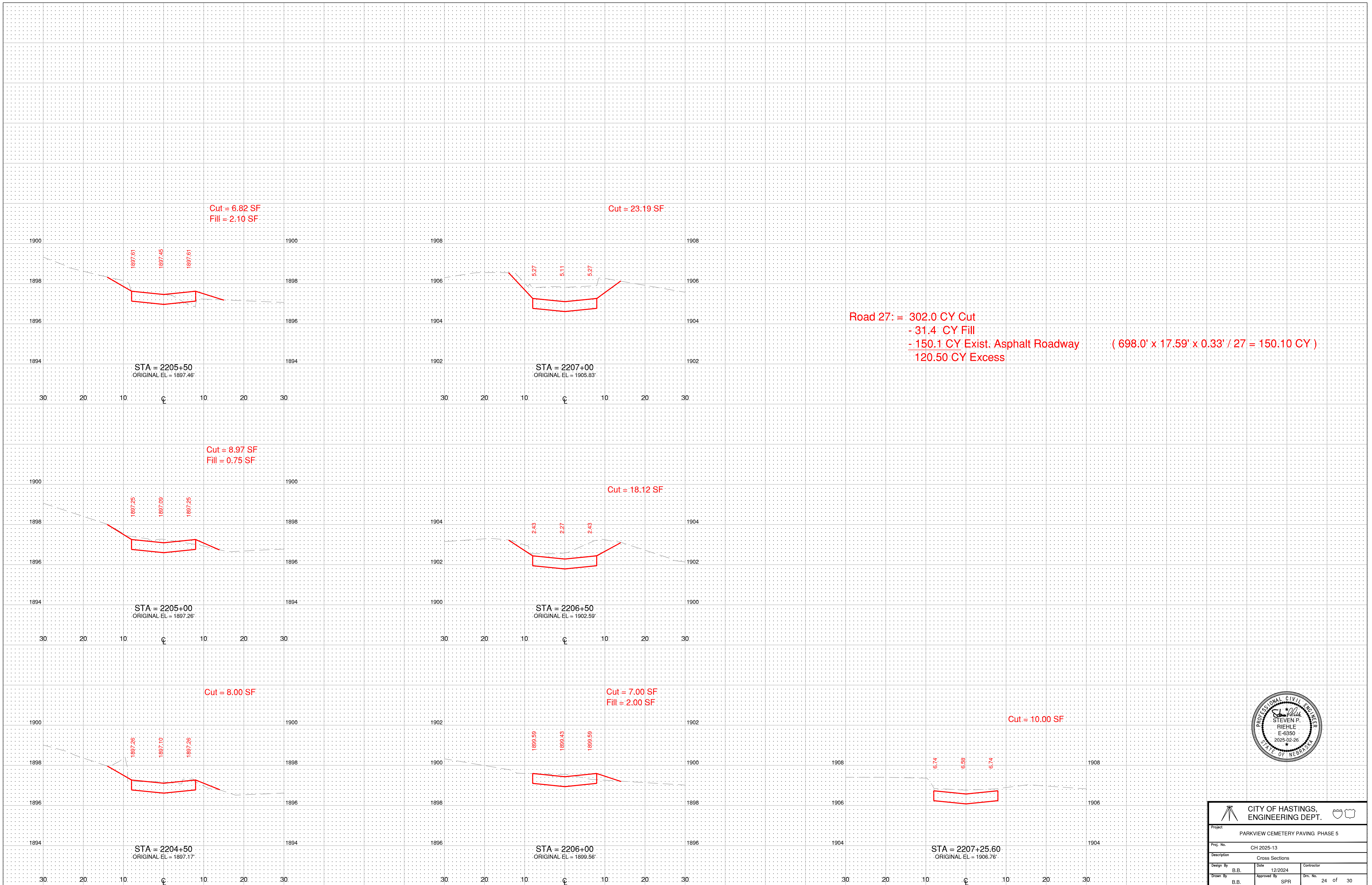
Road 26: = 233.0 CY Cut
 - 13.5 CY Fill
 - 97.2 CY Exist. Asphalt Roadway (413.2' x 19.24' x 0.33' / 27 = 97.2 CY)
 122.30 CY Excess



CITY OF HASTINGS, ENGINEERING DEPT.		
Project: PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No.:	CH 2025-13	
Description:	Cross Sections	
Design By:	Date:	Contractor:
B.B.	12/2024	
Drawn By:	Approved By:	Dim. No.:
B.B.	SPR	22 of 30



CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5			
Proj. No.: CH 2025-13			
Description: Cross Sections		Contractor:	
Design By: B.B.	Date: 12/2024	Drawn By: B.B.	
Approved By: SPR	Im. No.:	23 of 30	



CITY OF HASTINGS, ENGINEERING DEPT.		
Project: PARKVIEW CEMETERY PAVING PHASE 5		
Proj. No.: CH 2025-13		
Description: Cross Sections		
Design By: B.B.	Date: 12/2024	Contractor:
Drawn By: B.B.	Approved By: SPR	Dim. No.: 24 of 30

Road 28: = 207.1 CY Cut
 - 9.8 CY Fill
 - 64.3 CY Exist. Asphalt Roadway (425.0' x 12.38' x 0.33' / 27 = 64.3 CY.)
 133.0 CY Excess

Cut = 15.94 SF
 Fill = 0.93 SF

Cut = 11.04 SF

Cut = 21.96 SF

Cut = 15.89 SF
 Fill = 0.78 SF

Cut = 16.83 SF

Cut = 8.00 SF

Cut = 12.64 SF
 Fill = 0.78 SF

Cut = 15.88 SF

Cut = 8.36 SF
 Fill = 1.50 SF

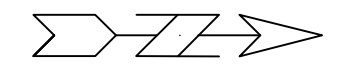


CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5			
Proj. No.: CH 2025-13			
Description: Cross Sections		Contractor:	
Design By: B.B.	Date: 12/2024	Contractor:	
Drawn By: B.B.	Approved By: SPR	Sheet No.: 25 of 30	

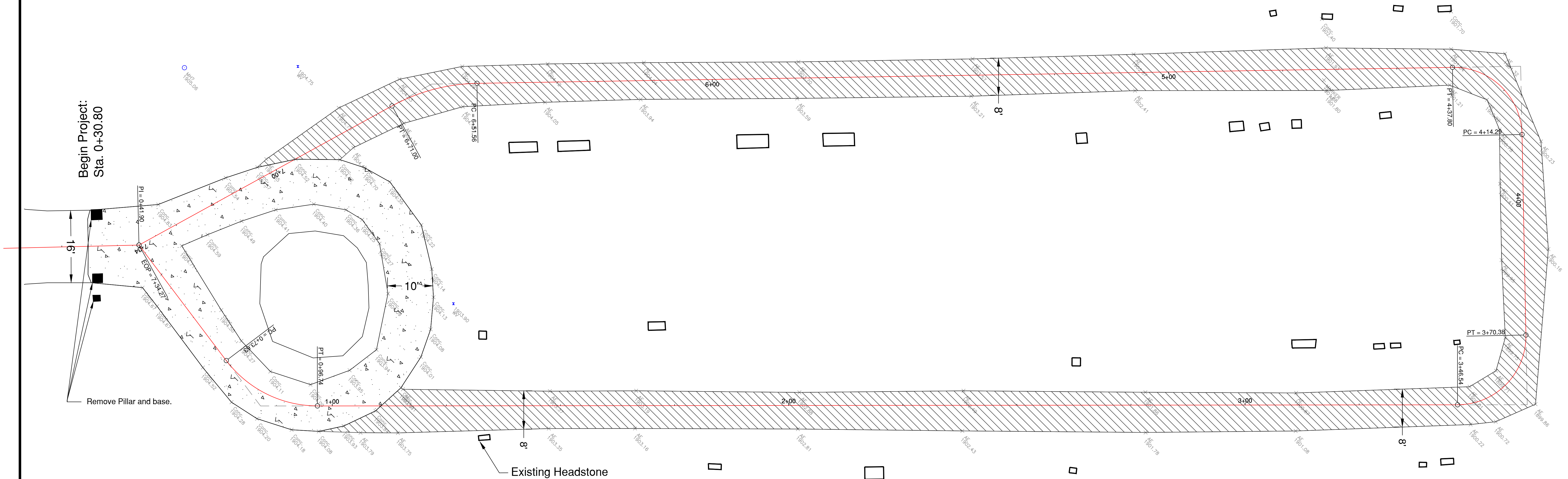
Mt. Sinai Cemetery

(Avg. width = 8' wide Asphalt)

(Avg. width = 10' wide Concrete)



Scale: 1" = 10'



- Asphalt
- Concrete

SAW CUT		
Station to Station	Side	L.F.
0+30.80	LT & RT	16.0

REMOVE PAVEMENT		
Station to Station	Side	Sq. Yards
Concrete	LT & RT	209.2
Asphalt 1+10.7 to 6+95.4	LT & RT	558.5

REMOVE PILLAR AND FOOTINGS		
Station to Station	Side	Each
0+30.80	LT	1.0
0+30.80	RT	2.0

NOTE: Metal sign mounted to top of existing pillars shall be removed by others, prior to construction.
Remove Pavement quantity shall include all asphalt and concrete removal.



Revision	By	Date	Ckd	App	Bench Mark Information
					Elev. Remarks
					To Be Set Prior to Construction



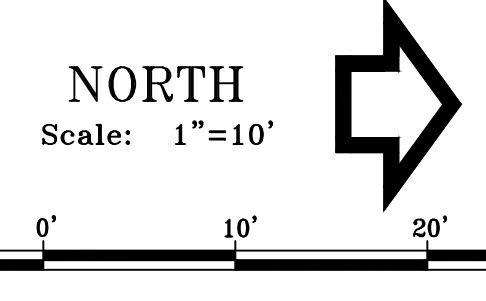
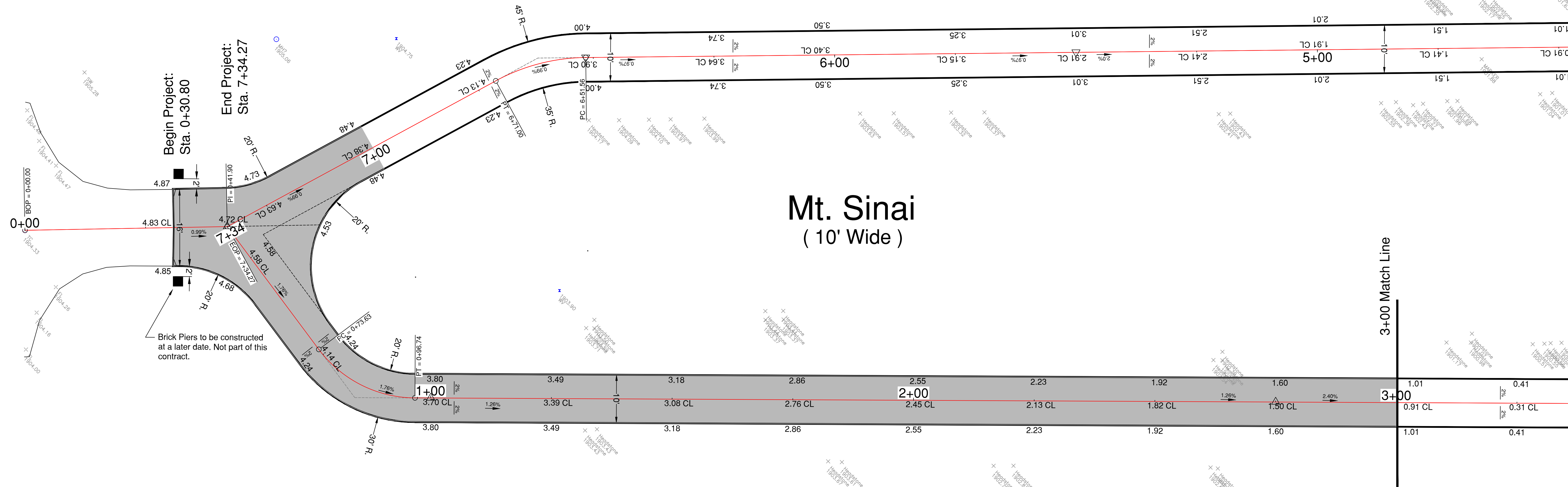
Dir. of Engineering: L. Vrooman
Checked By: S. Riehle
Drawn By: Brooks

FOR BID

Parkview Cemetery Paving Mt. Sinai
Removal Plan

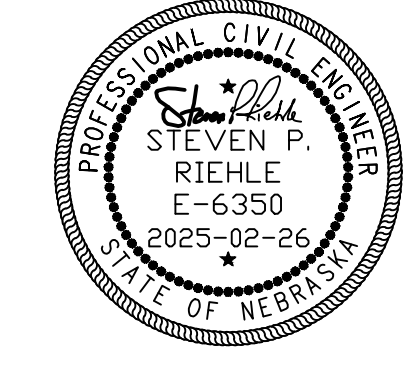
Drawing No. CH 2025-13	Date: 12/2022	Sheet No. 26 of 30
---------------------------	------------------	-----------------------

Mt. Sinai (10' Wide)

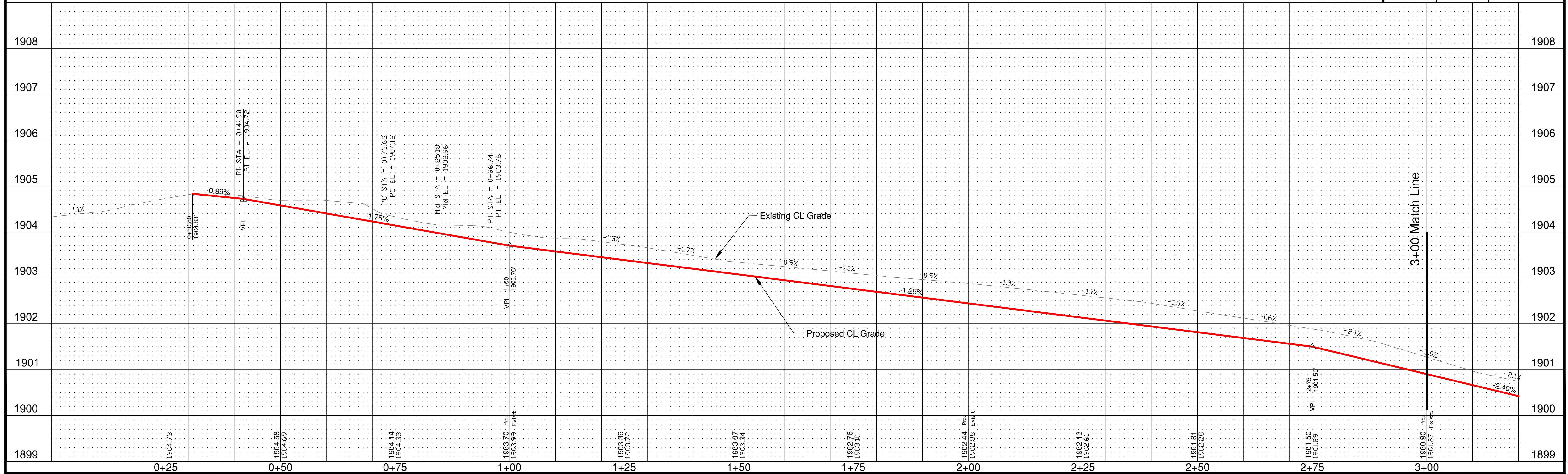


BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
0+30.8 to 0+73.63/7+00	LT & RT	103.2
0+73.63 to 3+00	LT & RT	251.5

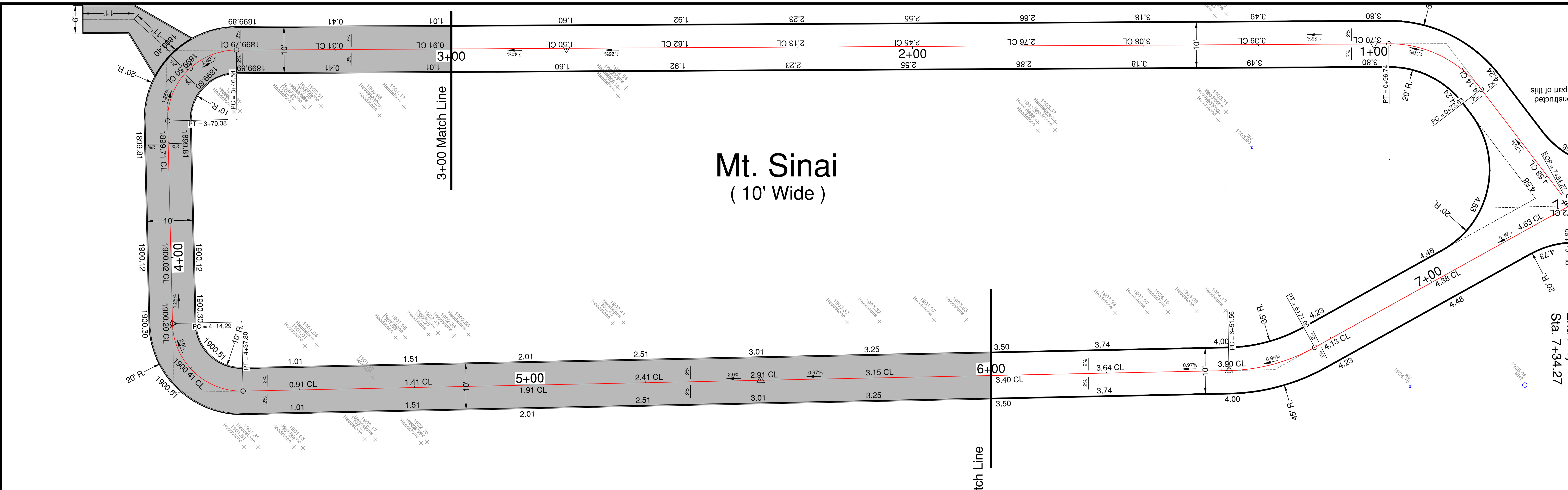
SUBGRADE PREP		
Station to Station	Side	Sq. Yards
0+30.8 to 0+73.63/7+00	LT & RT	404.0



CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5 MT. SINAI			
Proj. No. CH 2025-13		Description: Plan and Profile Construction Sheet	
Design By: B.B.	Date: 1/2023	Contractor:	
Drawn By: B.B.	Approved By: SPR	Sht. No. 27 of 30	

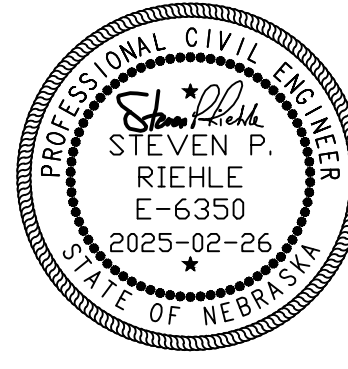


Mt. Sinai (10' Wide)

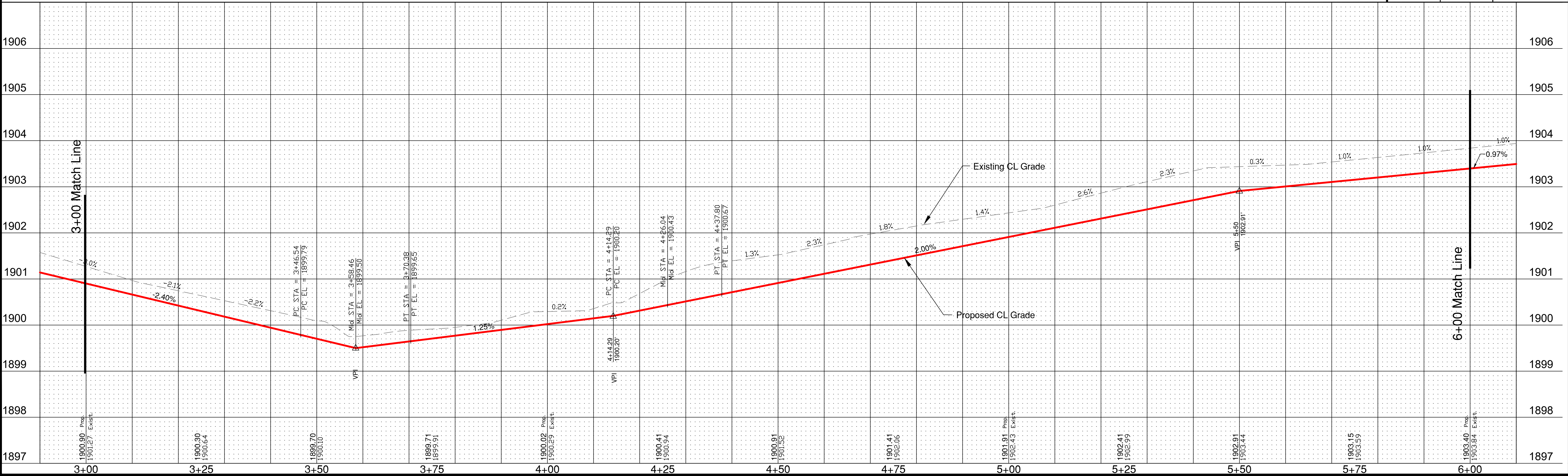
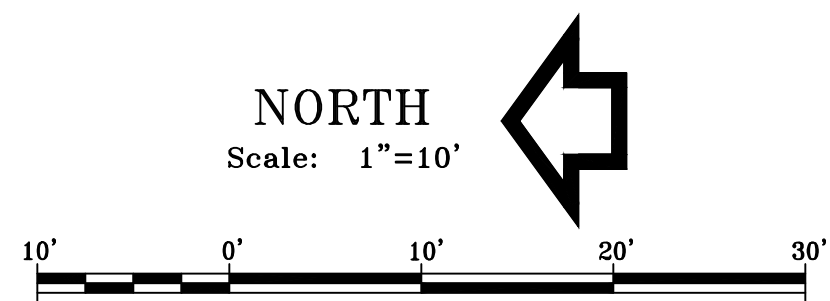


SUBGRADE PREP		
Station to Station	Side	Sq. Yards
3+00 TO 6+00	LT & RT	400.0

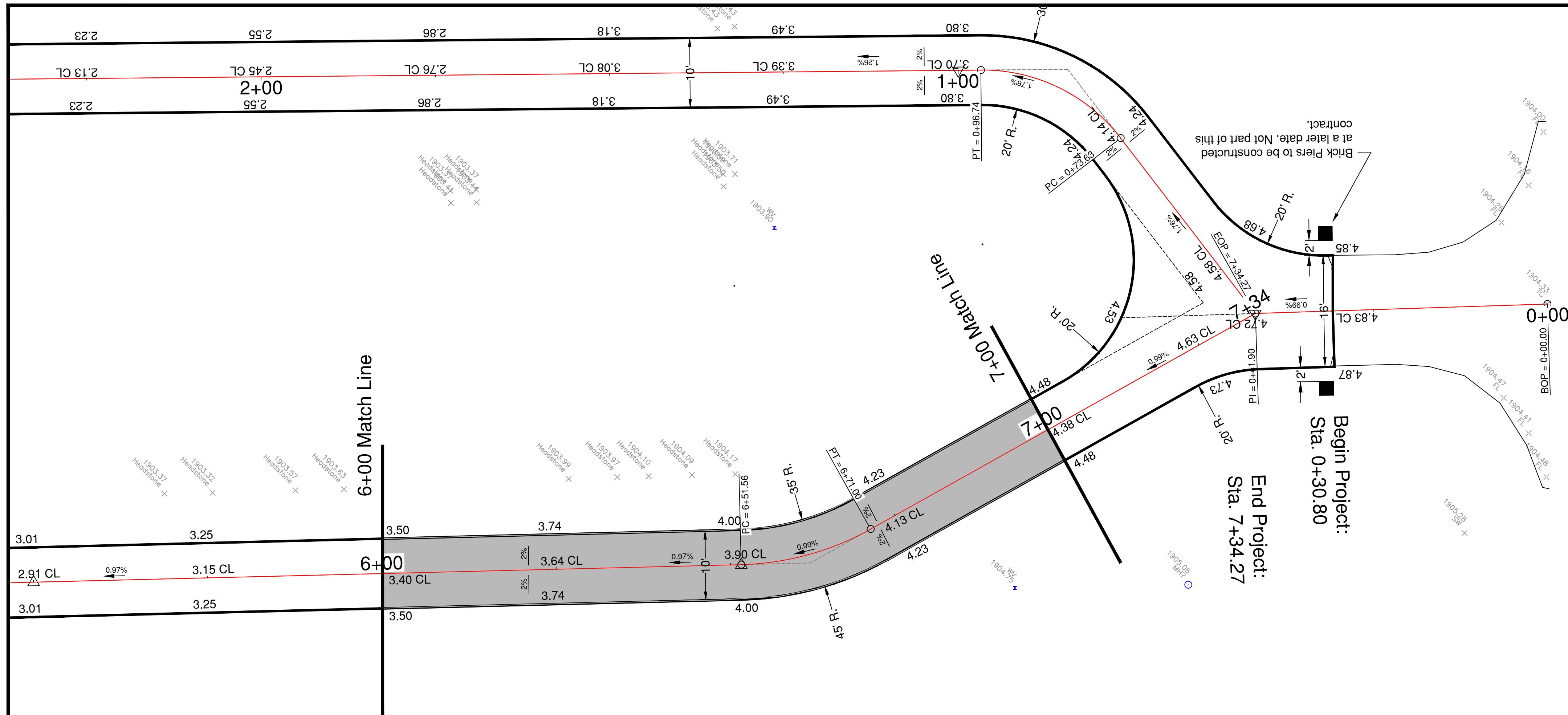
BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
3+00 TO 6+00	LT & RT	333.3
3+58.46 Flume	LT & RT	17.8



CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5 MT. SINAI			
Proj. No.: CH 2025-13			
Description: Plan and Profile Construction Sheet			
Design By: B.B.	Date: 1/2023	Contractor:	
Drawn By: B.B.	Approved By: SPR	Sht. No. 28 of 30	



Mt. Sinai (10' Wide)



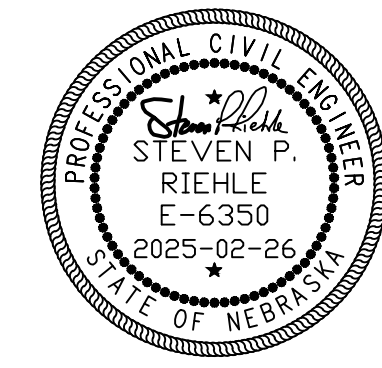
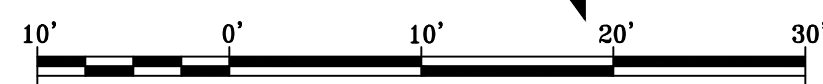
BUILD 6" P.C.C. PAVEMENT 47B-3500		
Station to Station	Side	Sq. Yards
6+00 to 7+00	LT & RT	111.1

SUBGRADE PREP		
Station to Station	Side	Sq. Yards
6+00 TO 7+00	LT & RT	134.0

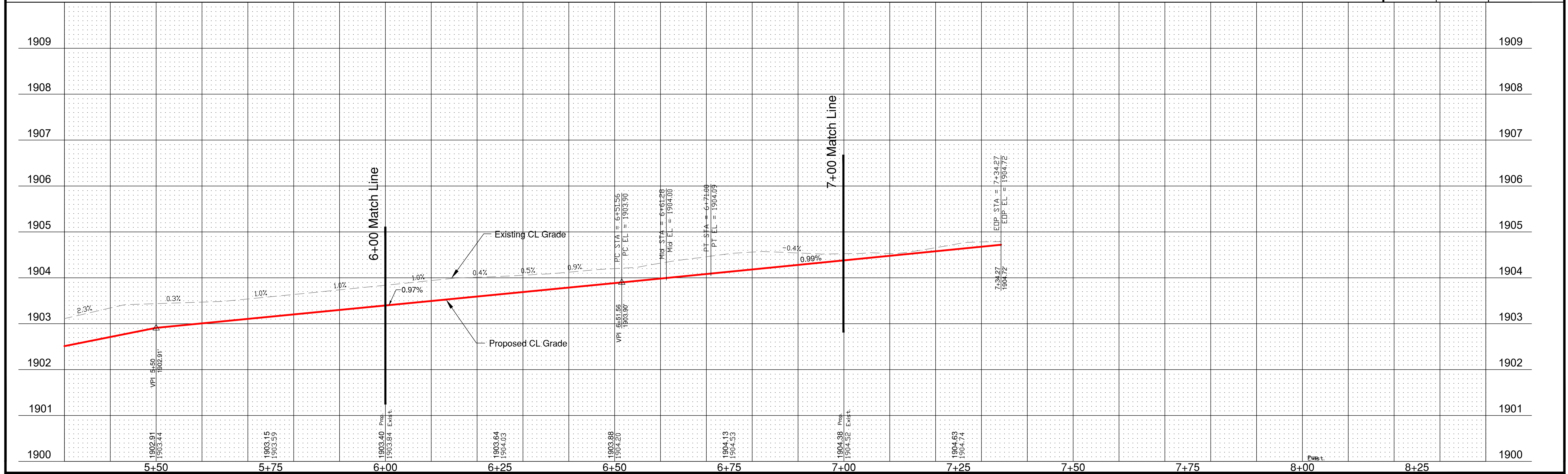
Begin Project:
Sta. 0+30.80

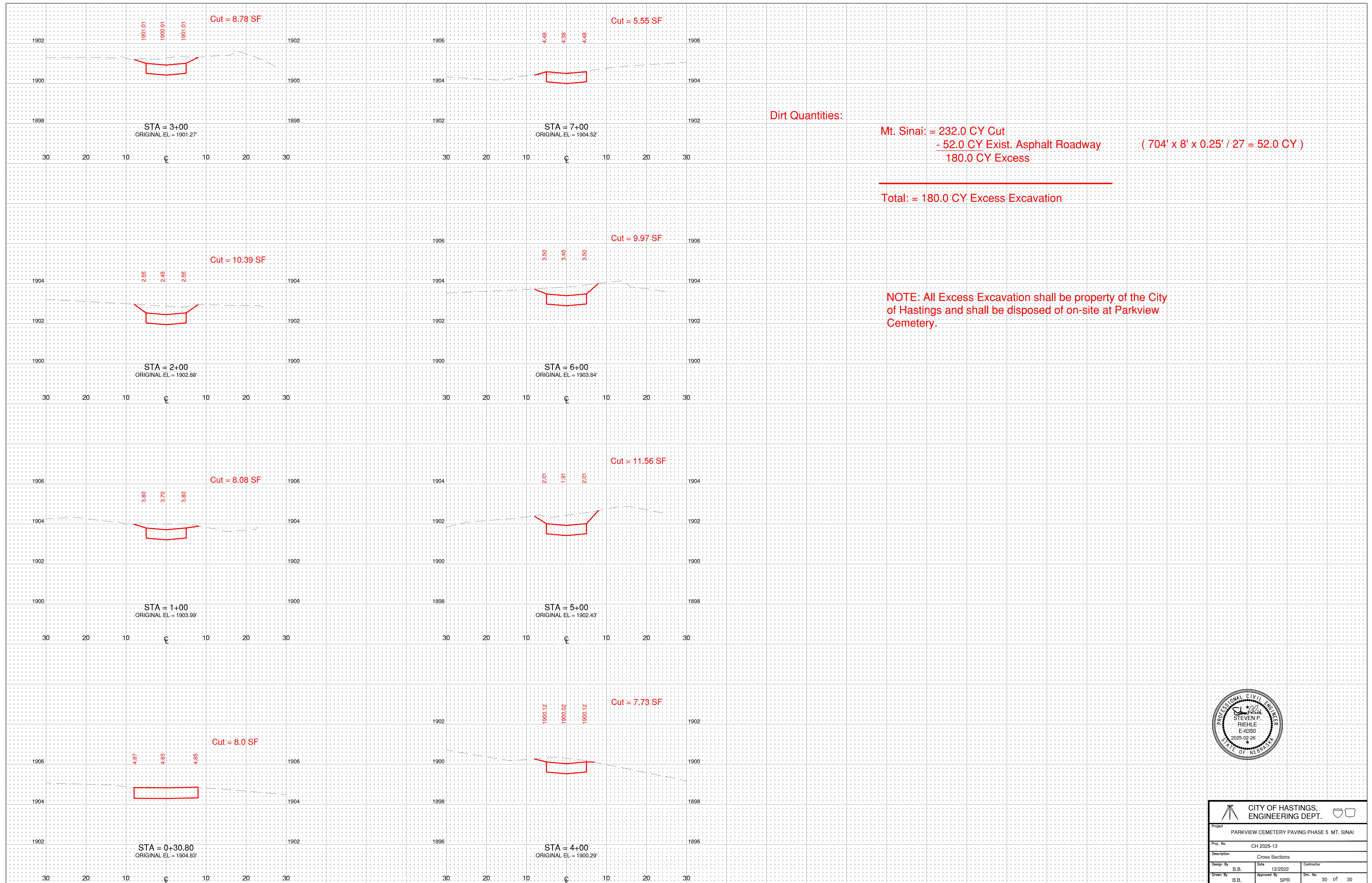
End Project:
Sta. 7+34.27

NORTH
Scale: 1"=10'



CITY OF HASTINGS, ENGINEERING DEPT.			
Project: PARKVIEW CEMETERY PAVING PHASE 5 MT. SINAI			
Proj. No.: CH 2025-13			
Description: Plan and Profile Construction Sheet			
Design By: B.B.	Date: 1/2023	Contractor:	
Drawn By: B.B.	Approved By: SPR	Sht. No. 29 of 30	





Dirt Quantities:

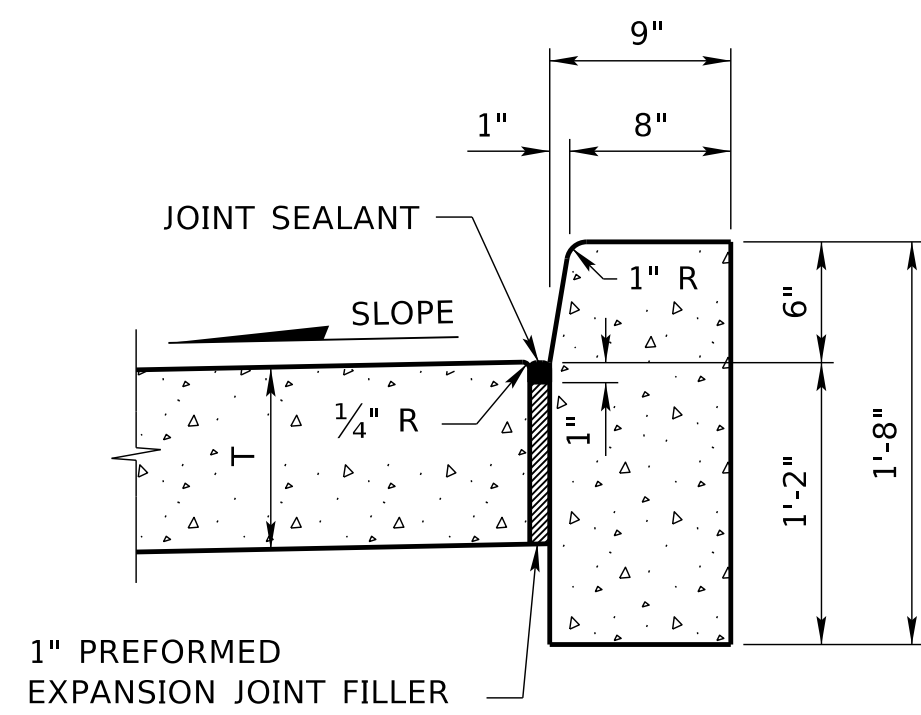
Mt. Sinai: = 232.0 CY Cut
 - 52.0 CY Exist. Asphalt Roadway
 180.0 CY Excess
 (704' x 8' x 0.25' / 27 = 52.0 CY)

Total: = 180.0 CY Excess Excavation

NOTE: All Excess Excavation shall be property of the City of Hastings and shall be disposed of on-site at Parkview Cemetery.

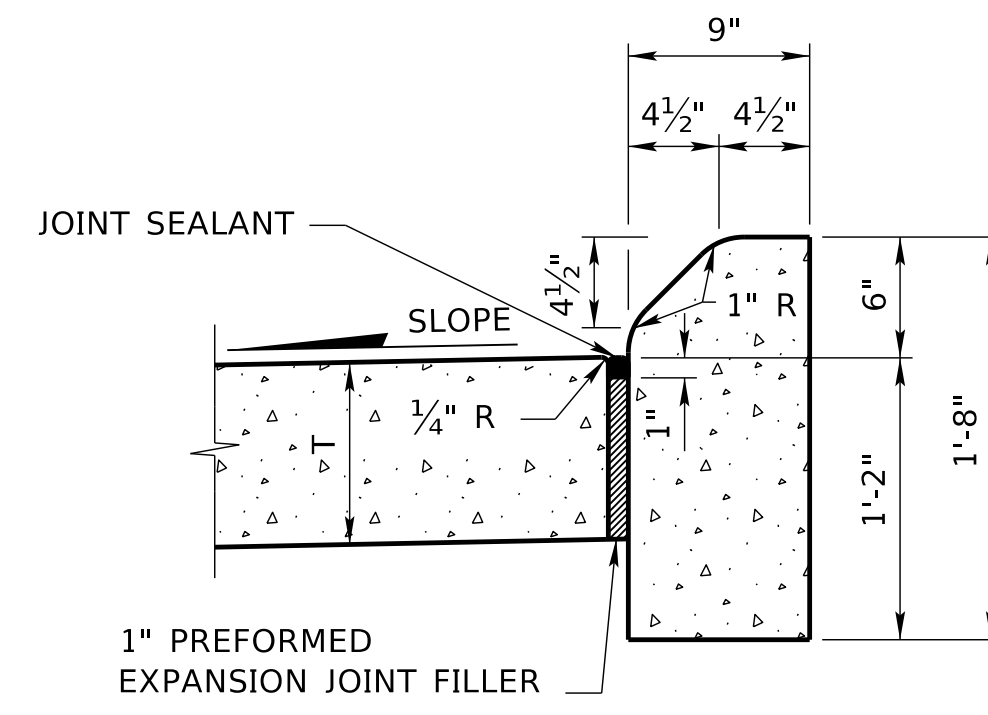


CITY OF HASTINGS, ENGINEERING DEPT.		
Project: PARKVIEW CEMETERY PAVING PHASE 5 MT. SINAI		
Proj. No. CH 2025-13		
Description	Cross Sections	
Design By B.B.	Date 12/2022	Contractor
Drawn By B.B.	Approved By SPR	Sheet No. 30 of 30



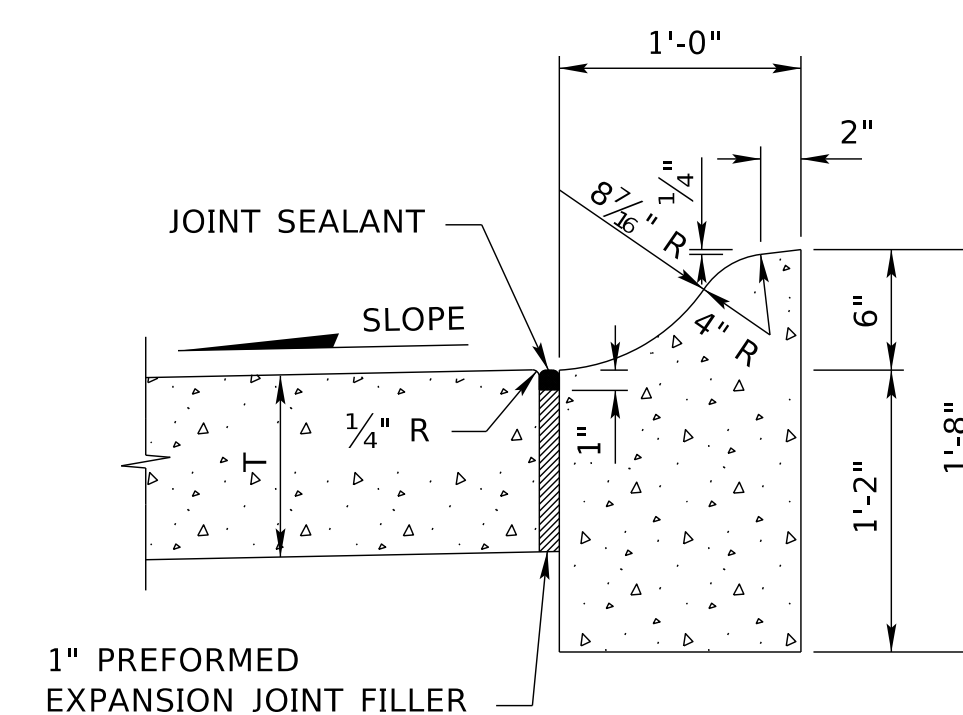
CONCRETE BARRIER CURB *

QUANTITIES
 CONCRETE 4.55 CU. YDS./STA.
 AREA 1.228 SQ. FT.



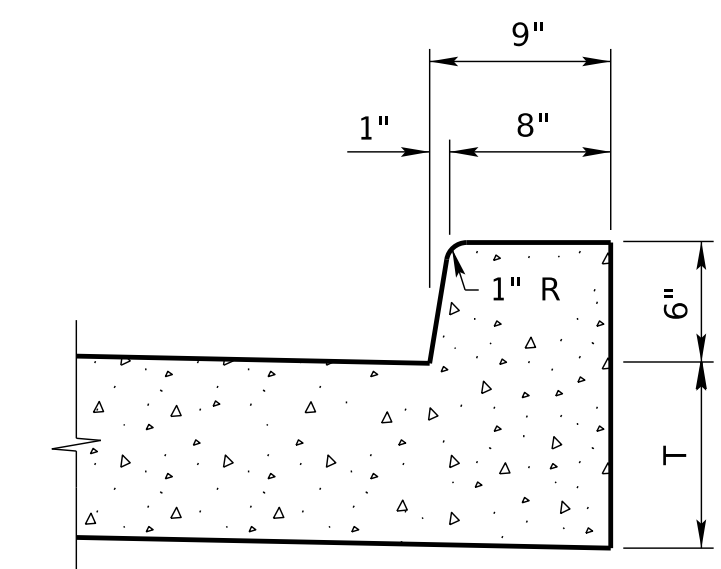
CONCRETE MEDIAN CURB *

QUANTITIES
 CONCRETE 4.42 CU. YDS./STA.
 AREA 1.192 SQ. FT.



CONCRETE CURB, *
 TYPE I

QUANTITIES
 CONCRETE 5.22 CU. YDS./STA.
 AREA 1.408 SQ. FT.

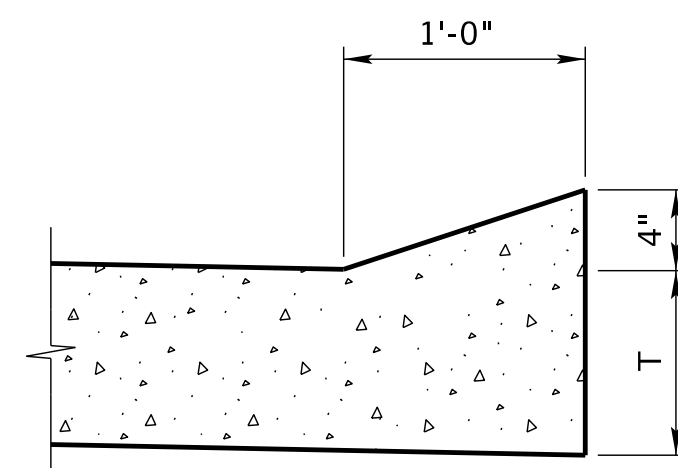


NOTE: MAY BE USED WHEN T IS LESS THAN 1 FOOT.

INTEGRAL CONCRETE BARRIER CURB

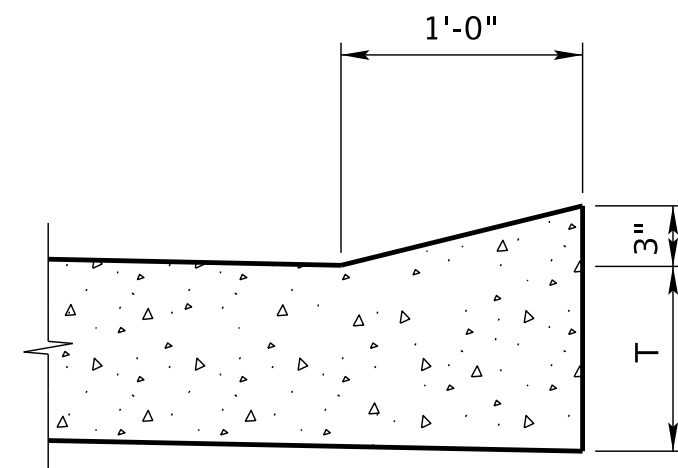
QUANTITIES
 CONCRETE 1.33 CU. YDS./STA.
 AREA 0.359 SQ. FT.

NOTE: * ONE INCH PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET THRU CONCRETE BARRIER CURB, CONCRETE MEDIAN CURB, AND CONCRETE CURB, TYPE I.



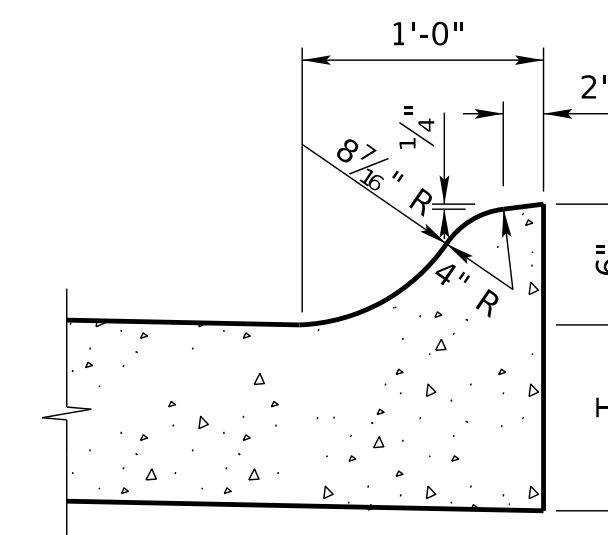
INTEGRAL CONCRETE SLOPING CURB

QUANTITIES
 CONCRETE 0.62 CU. YDS./STA.
 AREA 0.167 SQ. FT.



INTEGRAL CONCRETE SLOPING CURB

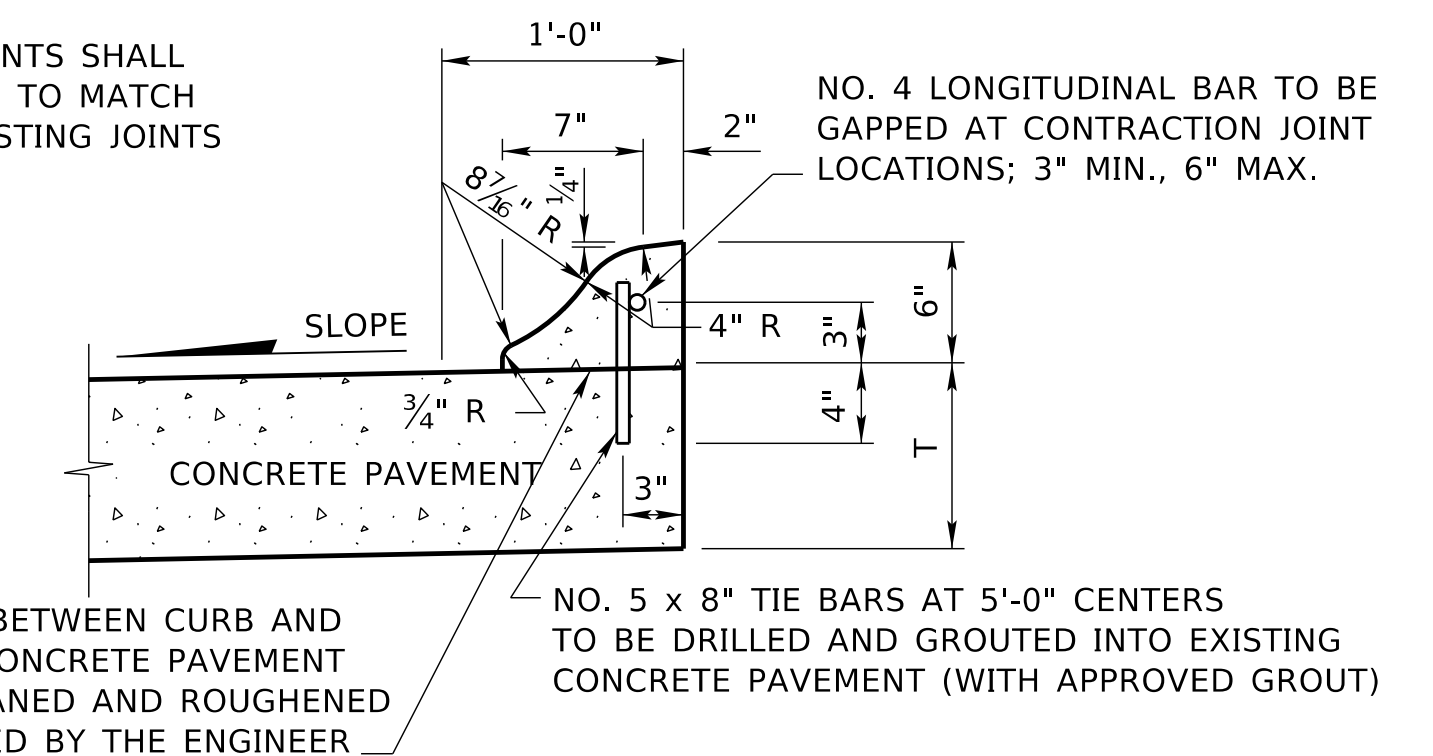
QUANTITIES
 CONCRETE 0.46 CU. YDS./STA.
 AREA 0.123 SQ. FT.



INTEGRAL CONCRETE CURB

QUANTITIES
 CONCRETE 0.89 CU. YDS./STA.
 AREA 0.239 SQ. FT.

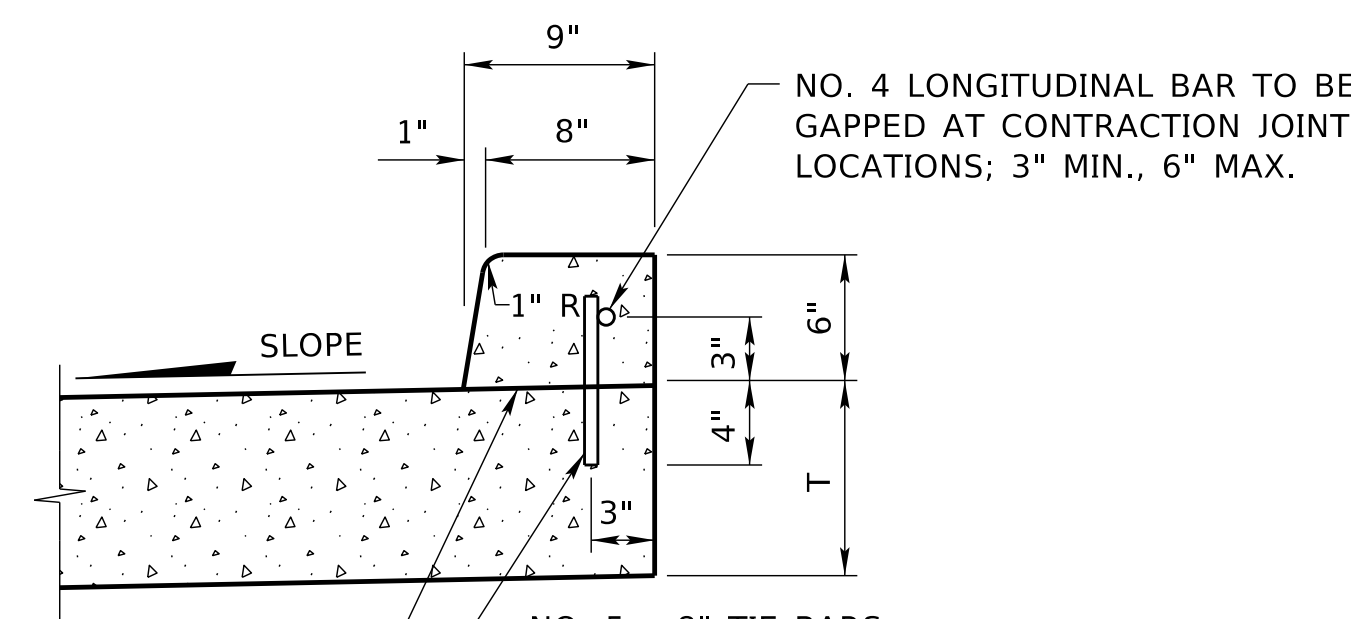
CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH LOCATION OF EXISTING JOINTS



CONCRETE CURB, TYPE II

QUANTITIES
 CONCRETE 0.87 CU. YDS./STA.
 AREA 0.234 SQ. FT.

NOTE: T = PAVEMENT THICKNESS

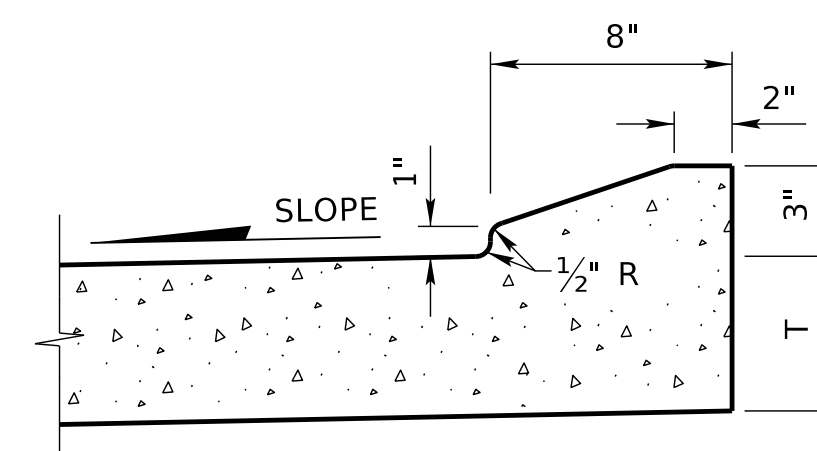


THE AREA BETWEEN CURB AND EXISTING CONCRETE PAVEMENT TO BE CLEANED AND ROUGHENED AS DIRECTED BY THE ENGINEER

NOTE: USE WHEN T IS 1'-0" OR GREATER

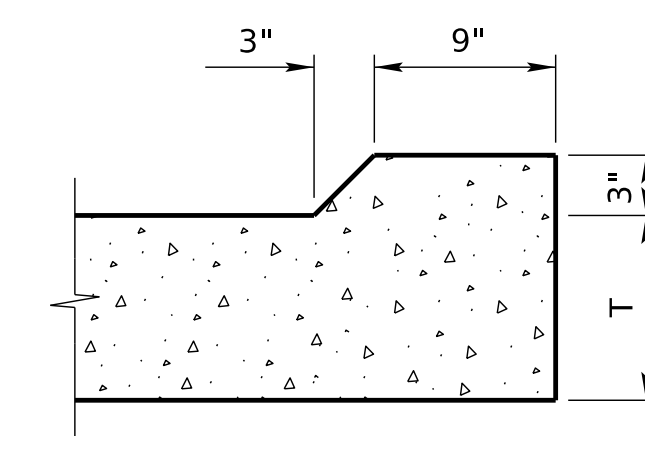
CONCRETE BARRIER CURB ALTERNATE

QUANTITIES
 CONCRETE 1.33 CU. YDS./STA.
 AREA 0.359 SQ. FT.



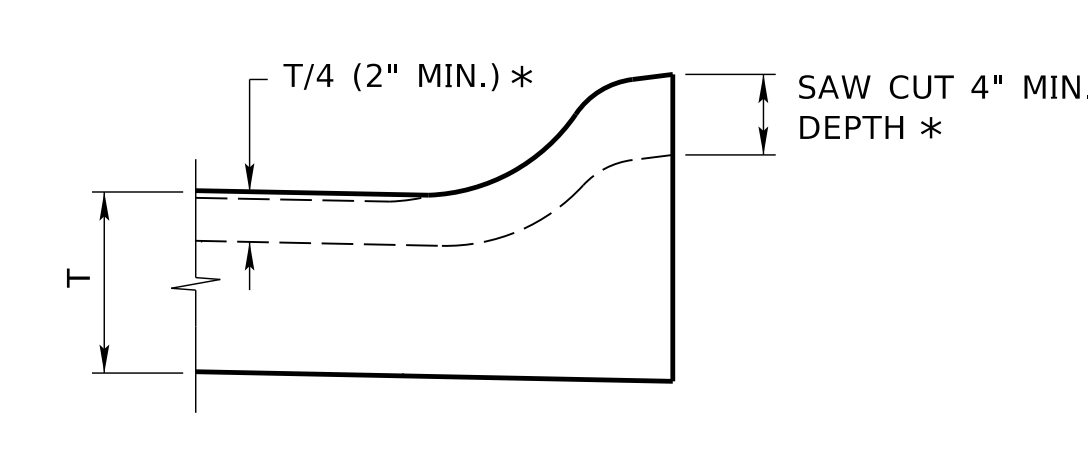
INTEGRAL CONCRETE TRUCK APRON CURB

QUANTITIES
 CONCRETE 0.47 CU. YDS./STA.
 AREA 0.127 SQ. FT.



EROSION CONTROL CURB

QUANTITIES
 CONCRETE 0.81 CU. YDS./STA.
 AREA 0.219 SQ. FT.



CONTRACTION JOINT THRU CURB

* FOR NON-INTEGRAL CURB THE CONTRACTION JOINTS MAY BE MADE WITH A DOUBLE EDGER WHILE THE CONCRETE IS STILL PLASTIC.

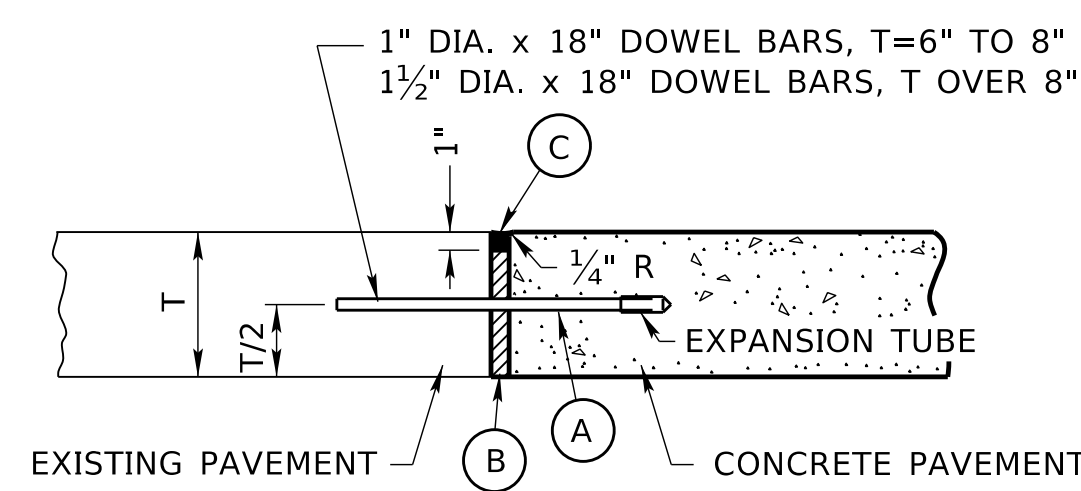
R12	JAN 18	NDOR BORDER TO NDOT BORDER
R11	JUL 15	ADDED TRUCK APRON CURB
R10	FEB 09	MULTIPLE REVISIONS
REV. NO.	DATE	DESCRIPTION OF REVISION

NEBRASKA DEPARTMENT OF TRANSPORTATION
 STANDARD PLAN NO. 301-R12
 PAVEMENT DETAILS

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

DATE
 ORIGINAL:
 JANUARY 31, 1974
 DATE

1
 3



- (A) GREASE DOWEL BAR ON EXPANSION TUB SIDE
- (B) 1" PREFORMED EXPANSION JOINT FILLER
- (C) JOINT SEALANT

NOTES:

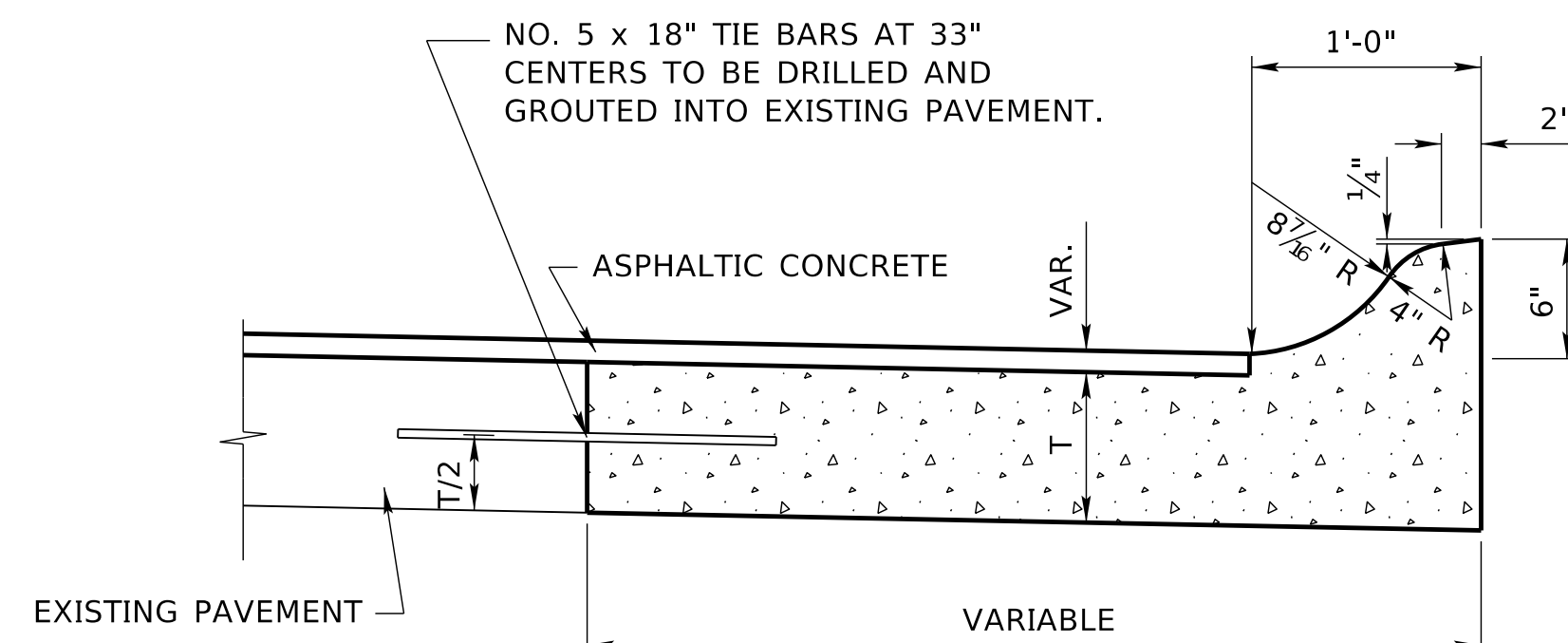
DOWEL BARS SHALL BE DRILLED TO A DEPTH OF 8" INTO EXISTING PAVEMENT AND GROUTED.

DOWEL BARS SHALL BE PLACED AT 1 FOOT CENTERS. THE OUTSIDE DOWEL BAR SHALL BE PLACED 6" FROM THE EDGE OF THE PAVEMENT.

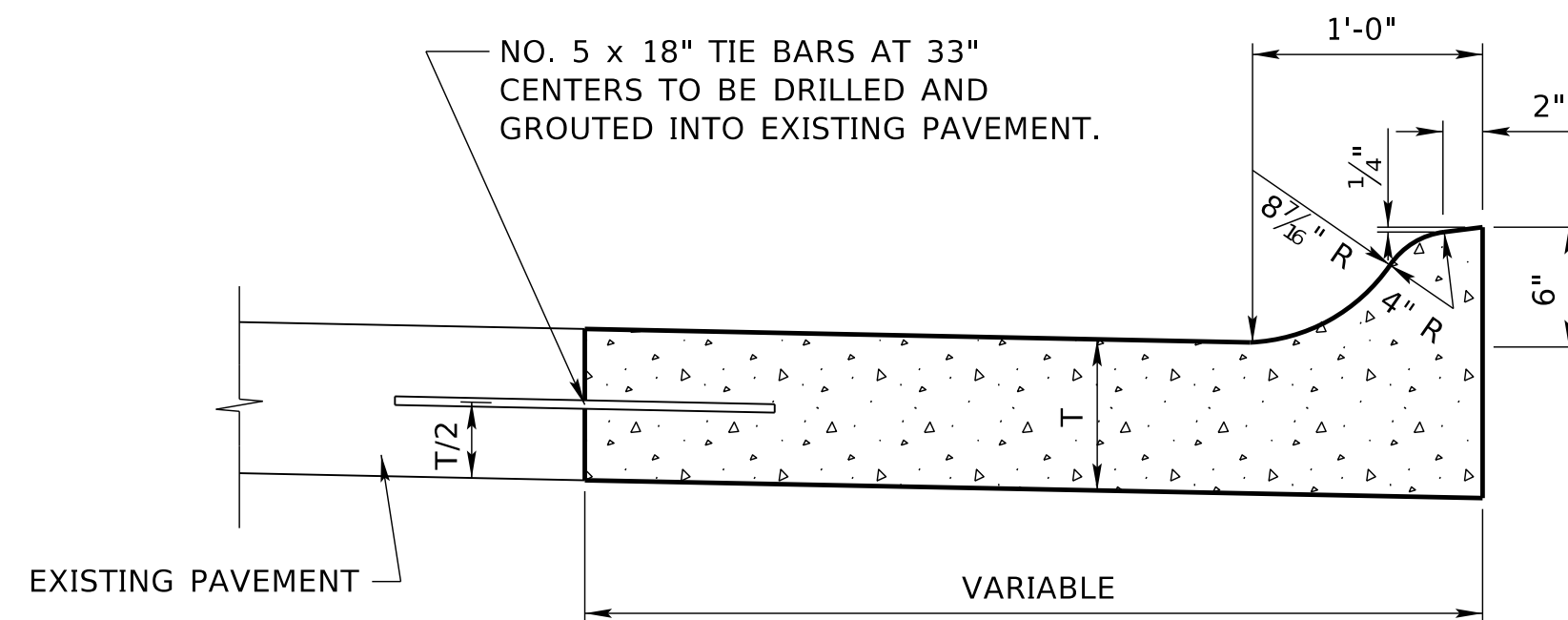
THIS JOINT SHALL BE CONSTRUCTED TRANSVERSE TO THE ROADWAY WHERE THE NEW CONCRETE ABUTS THE EXISTING CONCRETE.

DOWEL BARS SHALL BE PLACED PARALLEL TO THE ROADWAY C AND TO THE ROAD BED.

EXPANSION JOINT (SUBSIDIARY)

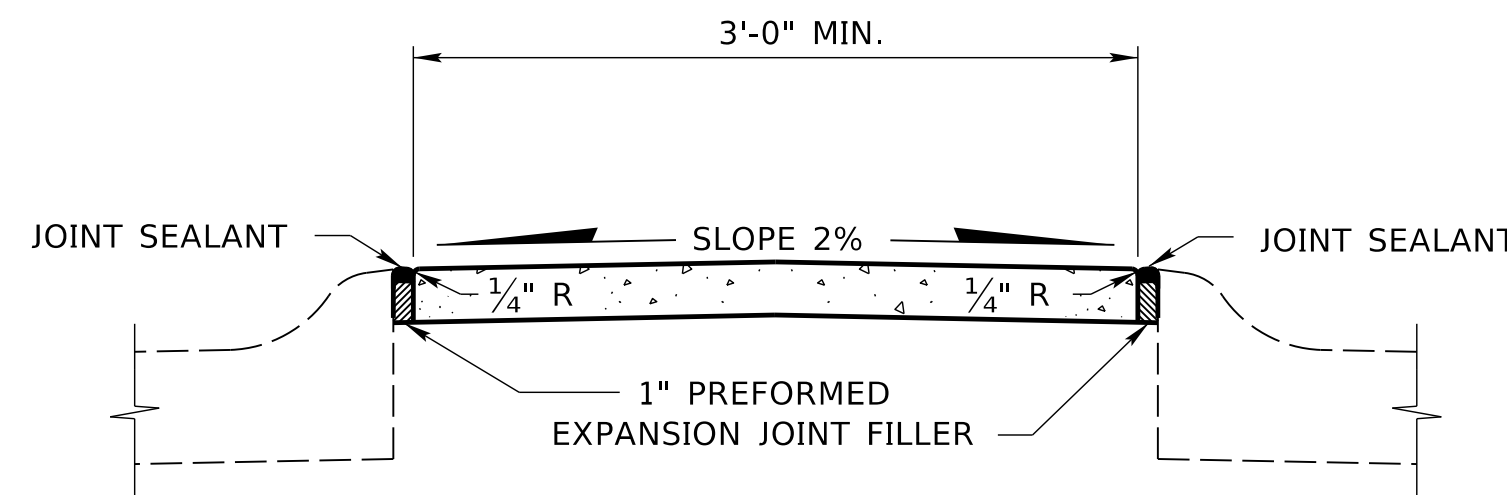


CONCRETE BASE COURSE W/INTEGRAL CURB



THE FOLLOWING NOTE IS TYPICAL FOR CONCRETE BASE COURSE WITH INTEGRAL CURB AND CONCRETE PAVEMENT WIDENING: CONTRACTION AND EXPANSION JOINTS SHALL BE CONSTRUCTED TO MATCH LOCATIONS OF EXISTING JOINTS.

CONCRETE PAVEMENT WIDENING



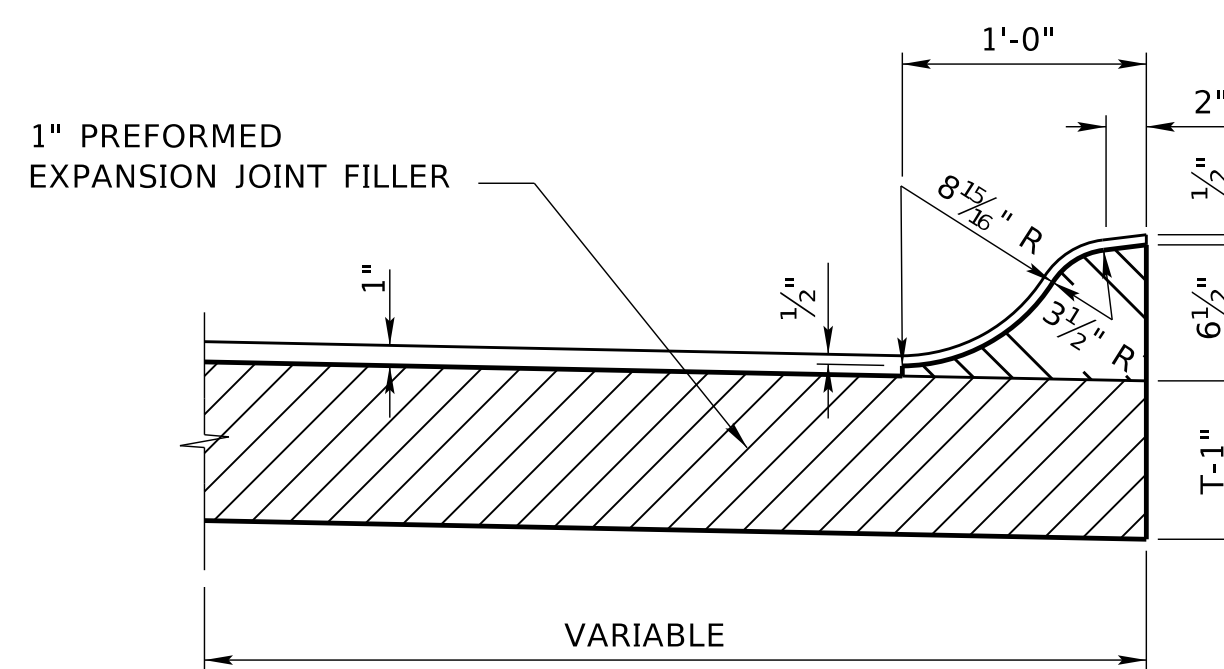
CONCRETE MEDIAN SURFACING

ONE INCH PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED ACROSS THE FULL WIDTH OF THE MEDIAN SURFACING AT INTERVALS OF NOT MORE THAN 49 FEET.

LONGITUDINAL JOINTS ONE INCH DEEP SHALL BE MADE IN ALL MEDIANS WHEN SURFACING WIDTH IS 16 FEET OR GREATER.

TRANSVERSE JOINTS ONE INCH DEEP SHALL BE MADE IN ALL MEDIANS AT INTERVALS OF NOT MORE THAN 8 FEET.

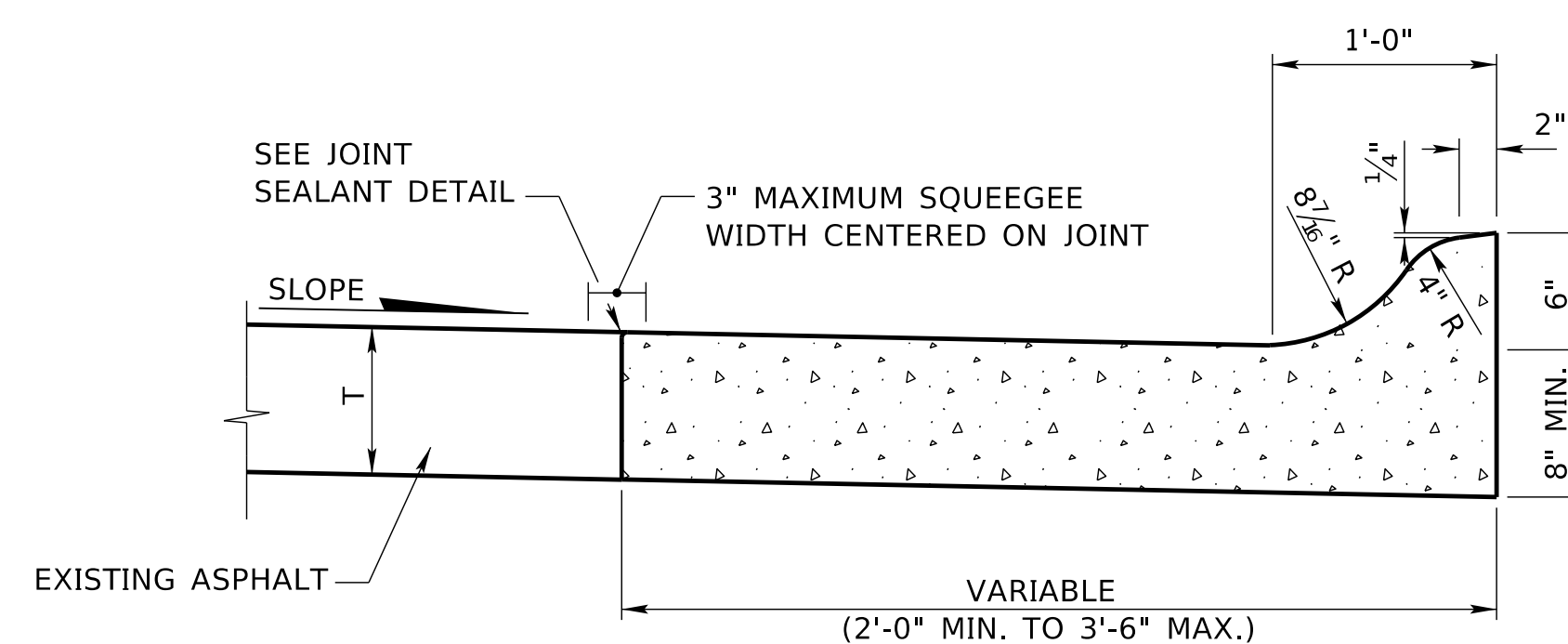
TRANSVERSE AND LONGITUDINAL JOINTS SHALL NOT BE FILLED.



ONE INCH PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED AT INTERSECTION RETURNS AND WHERE SHOWN ON THE PLANS. TRANSVERSE JOINTS SHALL BE PLACED EVERY 8 FEET OR WHERE SHOWN ON THE PLANS.

NOTE: RECESS THE EXPANSION JOINT FILLER 1/2" FROM THE TOP SURFACE OF THE CURB UNDER CONSTRUCTION

DETAIL FOR CUTTING & PLACEMENT OF EXPANSION JOINT FILLER

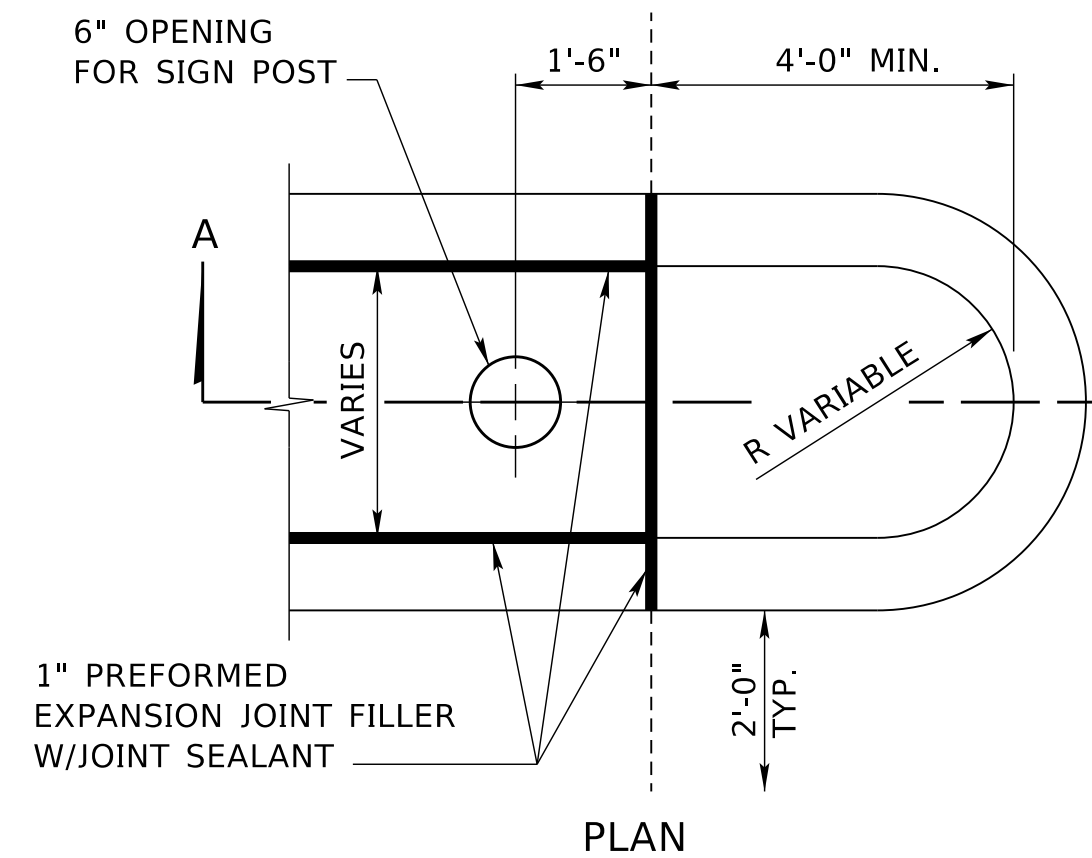


COMBINATION CONCRETE CURB & GUTTER

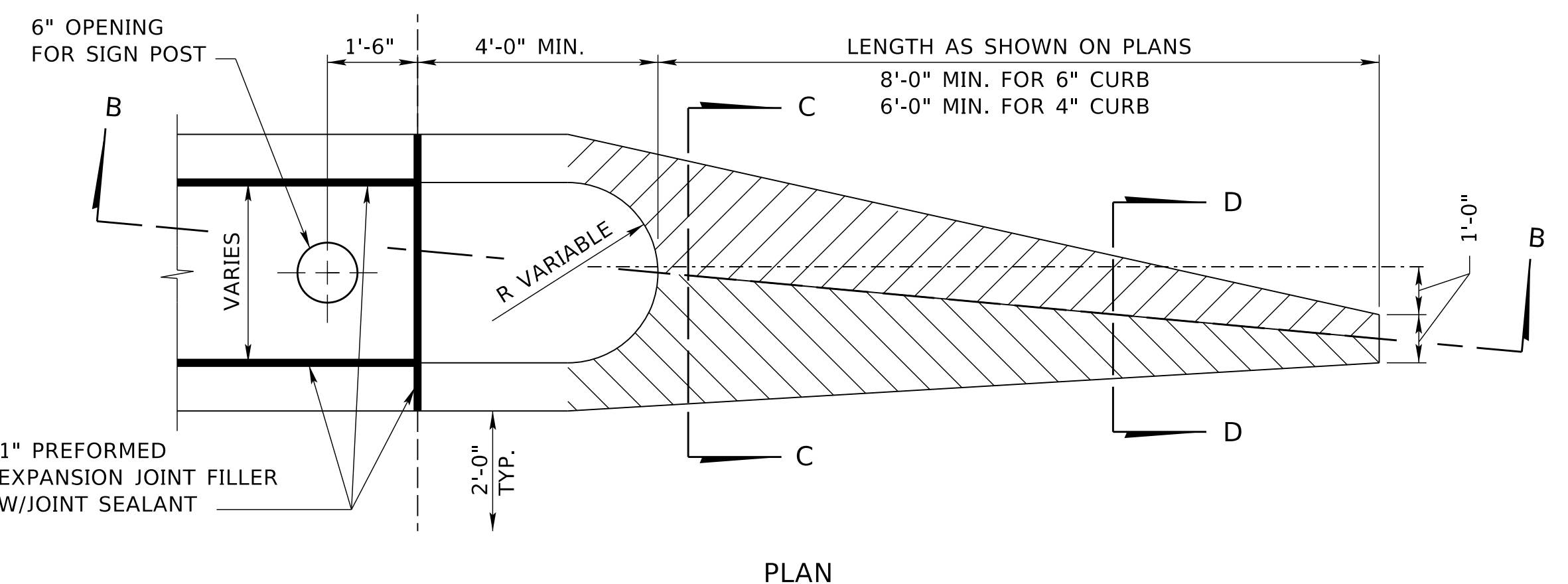
NOTE:

TRANSVERSE JOINTS SHALL BE PLACED EVERY 8 FEET AND JOINTS SHALL BE PLACED AT EACH HEADER, 2-NO. 5 x 18" TIE BARS ARE TO BE USED.

PLACE 1" PREFORMED EXPANSION JOINT FILLER AND SEAL AT THE RETURN OF RADIUS AT INTERSECTIONS.

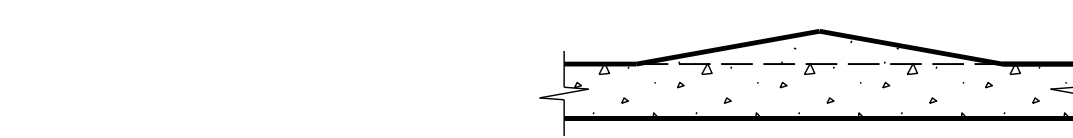
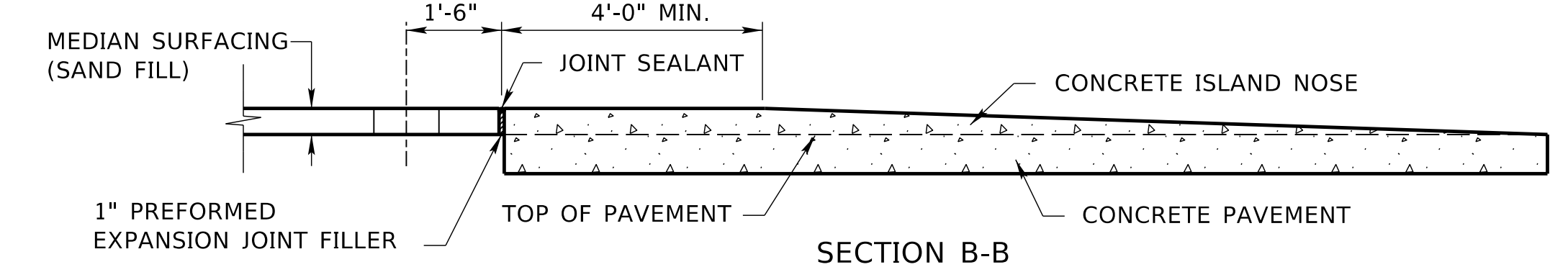


END OF MEDIAN ISLAND

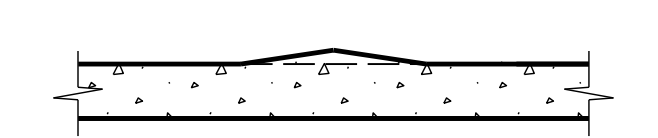


CONCRETE ISLAND NOSE

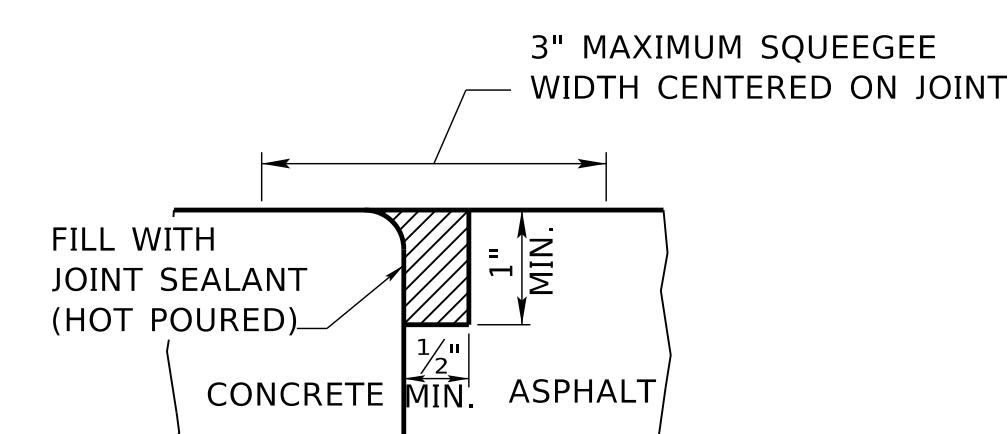
NOTE: EXISTING CONCRETE PAVEMENT IS TO BE REMOVED TO BUILD CONCRETE ISLAND NOSE.



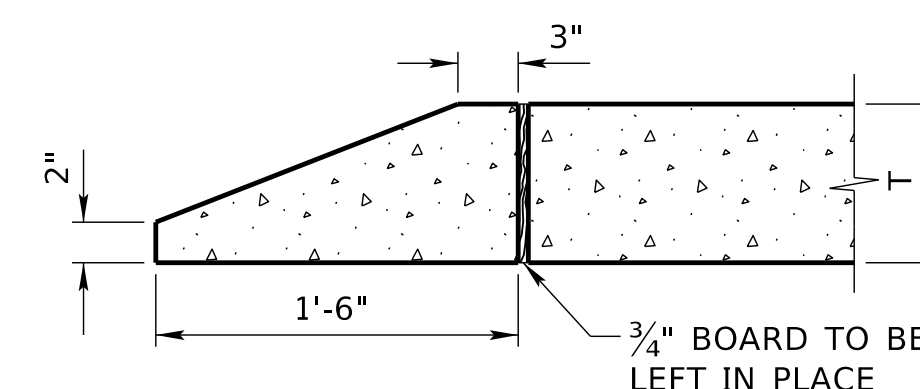
SECTION C-C



SECTION D-D



JOINT SEALANT DETAIL



CONCRETE HEADER

NOTE: T = PAVEMENT THICKNESS

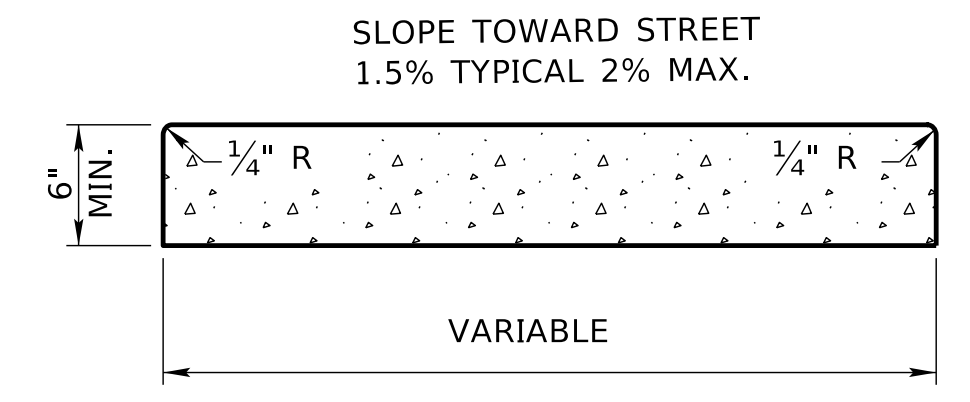
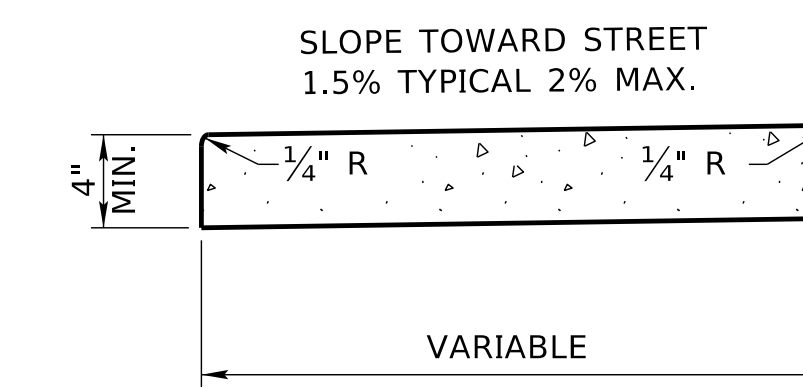
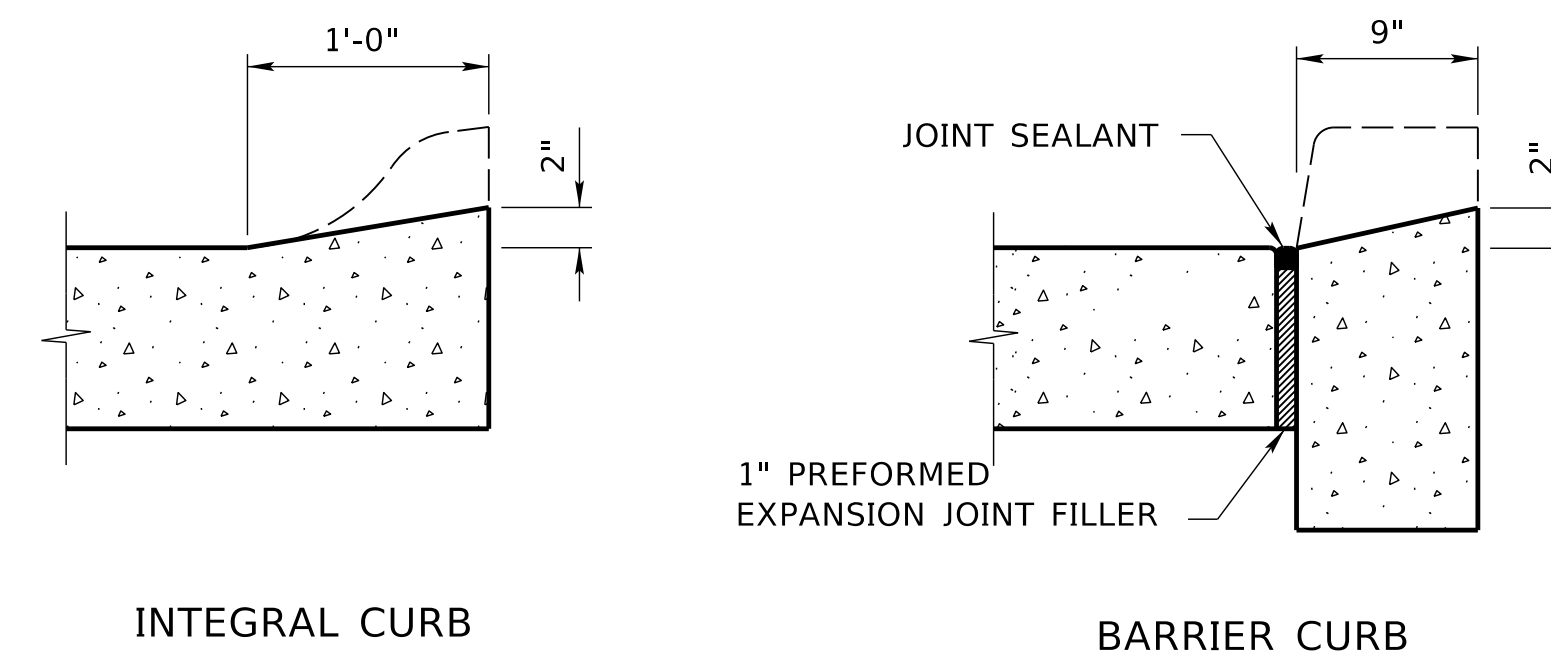
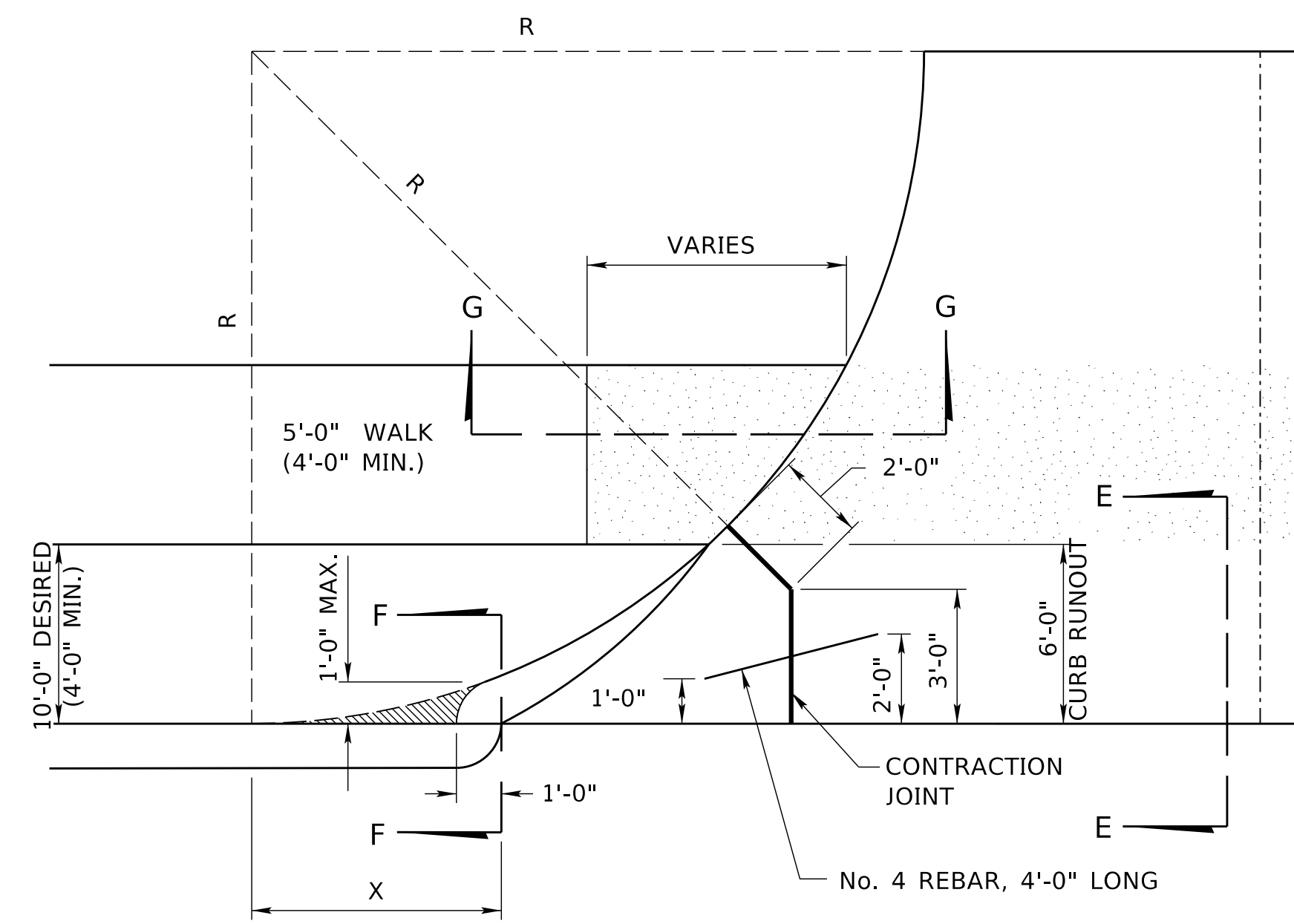
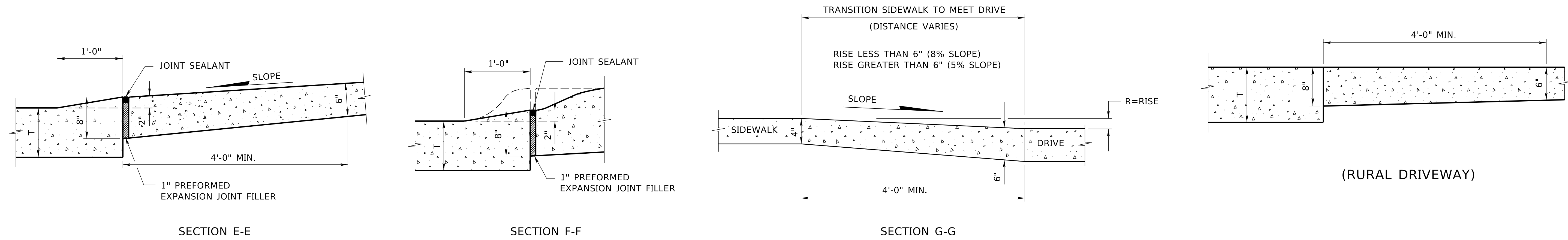
R12	JAN 18	NDOR BORDER TO NDOT BORDER
R11	JUL 15	ADDED TRUCK APRON CURB
R10	FEB 09	MULTIPLE REVISIONS
REV. NO.	DATE	DESCRIPTION OF REVISION

NEBRASKA DEPARTMENT OF TRANSPORTATION
STANDARD PLAN NO. 301-R12
PAVEMENT DETAILS

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

DATE
ORIGINAL:
JANUARY 31, 1974
DATE

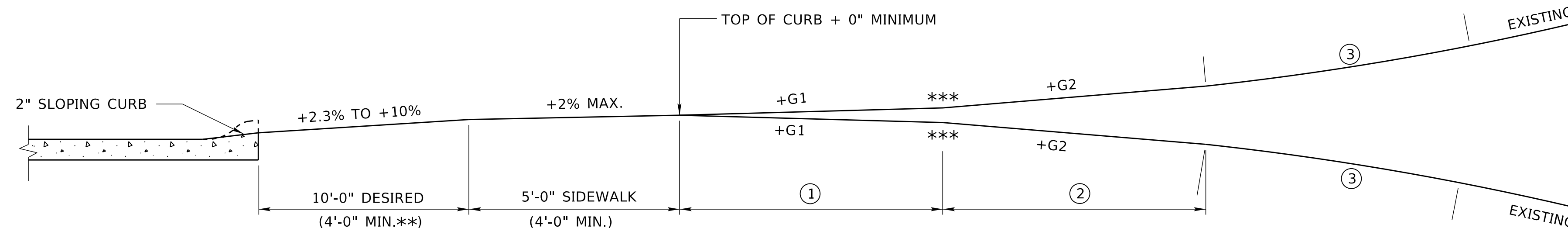
2
3



NOTE:
1 INCH PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED IN ALL SIDEWALKS OR CROSSWALKS AT INTERVALS OF NOT MORE THAN 50 FOOT, AND AT ALL POINTS WHERE SIDEWALKS OR CROSSWALKS ARE ADJACENT TO CURB. IF SIDEWALK OR CROSSWALK TO BE CONSTRUCTED IS LESS THAN 50 FOOT IN LENGTH, ONE SUCH EXPANSION JOINT SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

R	X
10'-0"	4.6'
15'-0"	5.6'
20'-0"	6.0'
25'-0"	7.0'
30'-0"	8.0'
35'-0"	8.6'
40'-0"	9.0'

R = RADIUS
X = $\sqrt{(2R-1)}$
(X & R IN FEET)



PROFILE URBAN DRIVEWAY WITH SIDEWALK (MAXIMUM PERCENT OF GRADE)

- ① 10'-0" MINIMUM IS REQUIRED WHEN THE EXISTING GRADE IS GREATER THAN $\pm 8\%$
- ② 10'-0" MINIMUM IS REQUIRED WHEN THE EXISTING GRADE IS GREATER THAN $\pm 15\%$
- ③ 10'-0" MINIMUM ROUNDING IS REQUIRED WHEN THE EXISTING GRADE IS GREATER THAN $\pm 22\%$

** 0 FEET IS ALLOWED IN URBAN BUSINESS DISTRICTS WITH SIDEWALKS OF 6 FEET MINIMUM WIDTH.
*** 10 FEET MINIMUM ROUNDING DESIRABLE FOR THE FOLLOWING GRADE CHANGES.

NOTE: T = PAVEMENT THICKNESS

REV. NO.	DATE	DESCRIPTION OF REVISION
R12	JAN 18	NDOR BORDER TO NDOT BORDER
R11	JUL 15	ADDED TRUCK APRON CURB
R10	FEB 09	MULTIPLE REVISIONS

NEBRASKA DEPARTMENT OF TRANSPORTATION
STANDARD PLAN NO. 301-R12
PAVEMENT DETAILS

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

DATE
ORIGINAL:
JANUARY 31, 1974
DATE

3
3

CHANNELIZATION DEVICES

THE FUNCTION OF CHANNELIZATION DEVICES IS TO WARN ROAD USERS OF CONDITIONS CREATED BY WORK ACTIVITIES IN OR NEAR THE TRAVELED WAY, TO PROTECT WORKERS IN THE TEMPORARY TRAFFIC CONTROL ZONE, AND TO GUIDE DRIVERS AND PEDESTRIANS SAFELY. CHANNELIZING DEVICES INCLUDE BUT ARE NOT LIMITED TO CONES, TUBULAR POSTS, VERTICAL PANELS, DRUMS, BARRICADES, TRAFFIC LANE DIVIDERS, TEMPORARY RAISED ISLANDS, AND BARRIERS.

DEVICES USED FOR CHANNELIZATION SHOULD PROVIDE FOR SMOOTH AND GRADUAL TRAFFIC MOVEMENT FROM ONE LANE TO ANOTHER, ONTO A BYPASS OR DETOUR, OR TO REDUCE THE WIDTH OF THE TRAVELED WAY. THEY MAY ALSO BE USED TO SEPARATE TRAFFIC FROM THE WORK SPACE, PAVEMENT DROP-OFFS, PEDESTRIAN PATHS, OR OPPOSING DIRECTIONS OF TRAFFIC.

CHANNELIZING DEVICES SHALL MEET THE CRASHWORTHY PERFORMANCE CRITERIA CONTAINED IN THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). THEY SHOULD BE CONSTRUCTED AND BALLASTED TO PERFORM IN A PREDICTABLE MANNER WHEN INADVERTENTLY STRUCK BY A VEHICLE. IF STRUCK, THE DEVICE SHOULD YIELD OR BREAK AWAY, FRAGMENTS OR OTHER DEBRIS FROM THE DEVICE SHOULD NOT PENETRATE THE PASSENGER COMPARTMENT OF THE VEHICLE OR BE A POTENTIAL HAZARD TO WORKERS OR PEDESTRIANS IN THE IMMEDIATE AREA.

SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO THE SPEED WHEN USED FOR THE TAPER CHANNELIZATION, AND A DISTANCE IN FEET OF TWICE THE SPEED WHEN USED FOR TANGENT CHANNELIZATION.

SPACING OF CHANNELIZATION DEVICES		
SPEED (MPH)	SPACING OF DEVICES (FEET)	
	TAPER	TANGENT
25	25	50
35	35	70
45	45	90
55	55	110
60	60	120
65	65	130
75	75	150

WARNING LIGHTS MAY BE ADDED TO CHANNELIZING DEVICES IN AREAS WITH FREQUENT FOG, SNOW, OR SEVERE ROADWAY CURVATURE, OR WHERE VISUAL DISTRACTIONS ARE PRESENT, EXCEPT FOR THE SEQUENTIAL FLASHING WARNING LIGHTS, WARNING LIGHTS PLACED ON CHANNELIZING DEVICES USED IN A SERIES TO CHANNELIZE ROAD USERS SHALL BE STEADY-BURN.

THE RETROREFLECTIVE MATERIAL USED ON CHANNELIZING DEVICES SHALL HAVE A SMOOTH, SEALED OUTER SURFACE, MEETING THE REQUIREMENTS OF THE ASTM SPECIFICATION D4956, FOR TYPE IV SHEETING OR TYPE V REBOUNDABLE SHEETING (OR GREATER).

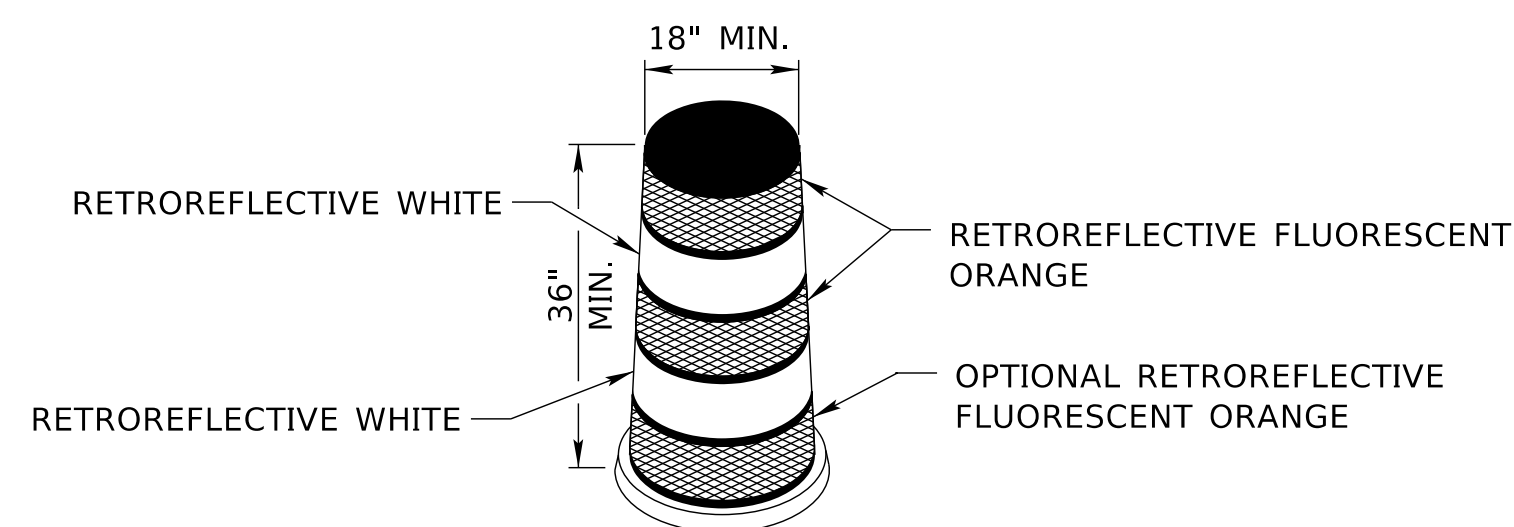
COEFFICIENT OF RETROREFLECTION (CD/LUX/M ²)				
WHITE	ORANGE	RED	YELLOW	
250	100	45	170	

THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) "QUALITY GUIDELINES FOR WORK ZONE TRAFFIC CONTROL DEVICES" SHALL BE USED AS A VISUAL GUIDE FOR DETERMINING IF A TRAFFIC CONTROL DEVICE/OR SIGN IS ACCEPTABLE, MARGINAL OR UNACCEPTABLE.

THE NAME AND TELEPHONE NUMBER OF THE AGENCY, CONTRACTOR, OR SUPPLIER MAY BE SHOWN ON THE CHANNELIZING DEVICE BACK OR SUPPORT, BUT NOT ON THE DEVICE FACE. THE LETTERS AND NUMBERS SHALL BE A NON-REFLECTIVE COLOR AND NOT OVER 15 SQUARE INCHES IN TOTAL AREA.

PARTICULAR ATTENTION SHOULD BE GIVEN TO MAINTAINING THE CHANNELIZING DEVICES TO KEEP THEM CLEAN, VISIBLE, AND PROPERLY POSITIONED. DEVICES SHALL BE REPLACED THAT ARE DAMAGED AND/OR HAVE LOST A SIGNIFICANT AMOUNT OF THEIR RETROREFLECTIVITY AND EFFECTIVENESS.

REFLECTORIZED PLASTIC DRUMS



DESIGN

REFLECTORIZED PLASTIC DRUMS USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE CONSTRUCTED OF LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIALS AND BE A MINIMUM OF 36 INCHES IN HEIGHT AND HAVE A MINIMUM WIDTH OF AT LEAST A 18 INCHES, REGARDLESS OF ORIENTATION. THE PREDOMINANT COLOR OF THE DRUM SHALL BE ORANGE. METAL DRUMS SHALL NOT BE USED. THE MARKINGS ON DRUMS SHALL BE HORIZONTAL, SHALL BE CIRCUMFERENTIAL, AND SHALL DISPLAY FOUR 6 INCH WIDE BANDS OF RETROREFLECTIVE SHEETING, ALTERNATING FLUORESCENT ORANGE-WHITE-FLUORESCENT ORANGE-WHITE. DRUMS SHALL HAVE CLOSED TOPS THAT WILL NOT ALLOW COLLECTION OF CONSTRUCTION OR OTHER DEBRIS.

APPLICATION

DRUMS ARE MOST COMMONLY USED TO CHANNELIZE OR DELINEATE TRAFFIC FLOW BUT MAY ALSO BE USED INDIVIDUALLY OR IN GROUPS TO MARK SPECIFIC LOCATIONS. DRUMS ARE HIGHLY VISIBLE AND HAVE GOOD TARGET VALUE; THEY GIVE THE APPEARANCE OF BEING FORMIDABLE OBSTACLES AND, THEREFORE, COMMAND THE RESPECT OF ROAD USERS.

BALLAST SHALL NOT BE PLACED ON TOP OF THE DRUM. DRUMS SHOULD NOT BE WEIGHTED WITH SAND, WATER, OR ANY MATERIAL.

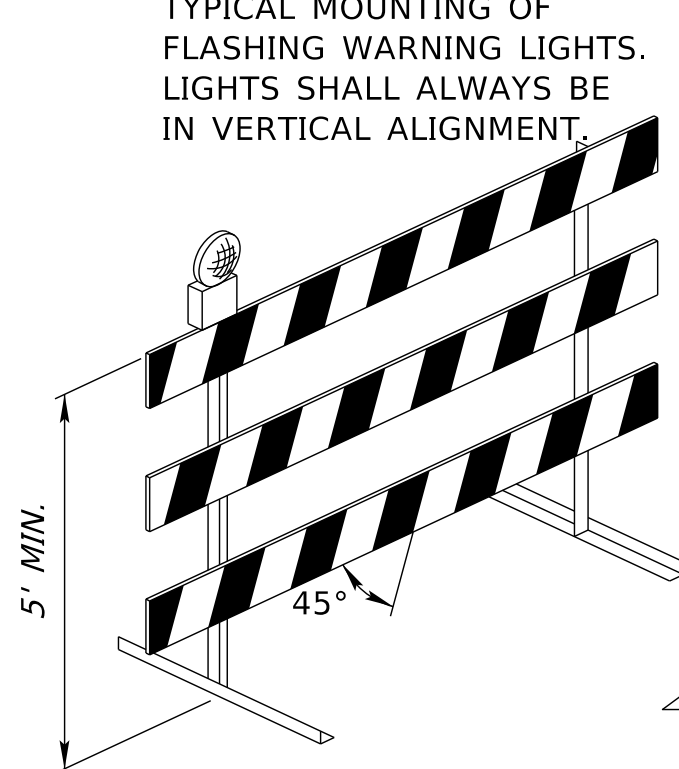
BARRICADES

BARRICADE TYPE	TYPE II	TYPE III
WIDTH OF RAIL *	8 INCHES MIN. - 12 INCHES MAX.	8 INCHES MIN. - 12 INCHES MAX.
LENGTH OF RAIL	36 INCHES	8 FEET **
WIDTH OF STRIPES	6 INCHES	6 INCHES
HEIGHT	36 INCHES	5 FEET
REFLECTIVE SHEETING	TYPE IV	TYPE IV
NUMBER OF REFLECTORIZED RAIL FACES	4 (TWO EACH DIRECTION)	6 (THREE EACH DIRECTION)

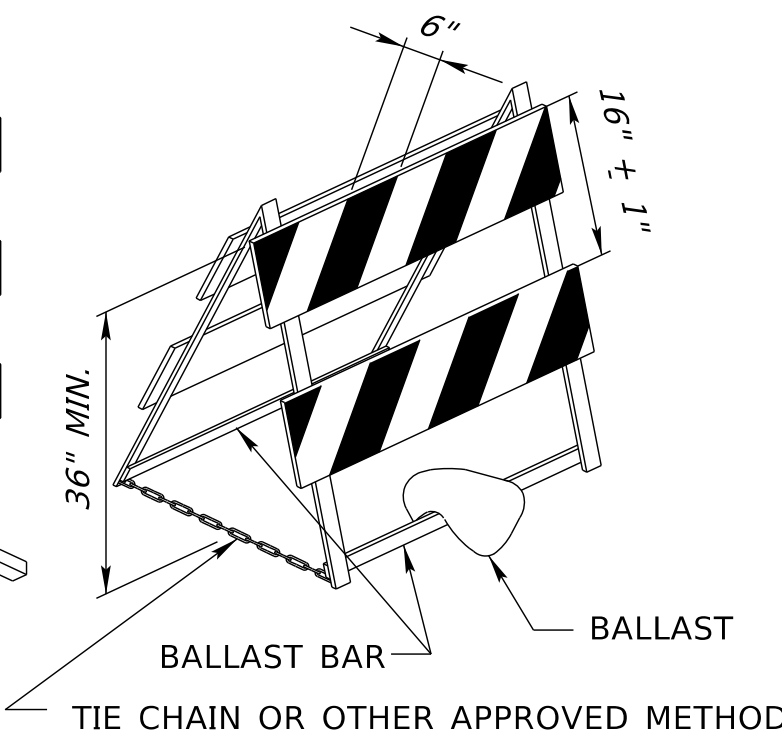
* NOMINAL DIMENSIONS ARE PERMISSIBLE WHEN CONSTRUCTED FROM LUMBER.
 ** WHEN LATERAL SPACE IS LIMITED, SOME TYPE III BARRICADES WITH A 4 FOOT LENGTH OF RAIL, MAY BE ALLOWED WHEN APPROVED BY THE ENGINEER.

TYPE III BARRICADE

TYPICAL MOUNTING OF FLASHING WARNING LIGHTS. LIGHTS SHALL ALWAYS BE IN VERTICAL ALIGNMENT.



TYPE II BARRICADE



BALLAST SHALL NOT BE PLACED OVER ANY REFLECTIVE DEVICE

DESIGN

A BARRICADE IS A PORTABLE OR FIXED DEVICE HAVING TWO OR THREE RAILS WITH APPROPRIATE MARKINGS. IT IS USED TO CONTROL ROAD USERS BY CLOSING, RESTRICTING, OR DELINEATING ALL OR A PORTION OF THE RIGHT-OF-WAY.

BARRICADES SHALL BE ONE OF TWO TYPES; TYPE II OR TYPE III.

STRIPES ON BARRICADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION ROAD USERS ARE TO PASS. THE STRIPES SHALL BE 6 INCHES WIDE. THE MINIMUM RAIL LENGTH FOR A TYPE II BARRICADE IS 36 INCHES.

WHERE BARRICADES EXTEND ENTIRELY ACROSS A ROADWAY, THE STRIPES SHOULD SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH ROAD USERS MUST TURN. WHERE BOTH RIGHT AND LEFT TURNS ARE PROVIDED, THE STRIPES MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE OR BARRICADES. WHERE NO TURNS ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES.

BARRICADE RAILS SHOULD BE SUPPORTED IN A MANNER THAT WILL ALLOW THEM TO BE SEEN BY THE ROAD USER, AND IN A MANNER THAT PROVIDES A STABLE SUPPORT THAT IS NOT EASILY BLOWN OVER OR DISPLACED.

ON HIGH-SPEED ROADWAYS OR IN OTHER SITUATIONS WHERE BARRICADES MAY BE SUSCEPTIBLE TO OVERTURNING IN THE WIND, SANDBAGS SHOULD BE USED FOR BALLASTING. SANDBAGS MAY BE PLACED ON LOWER PARTS OF THE FRAME OR STAYS TO PROVIDE THE REQUIRED BALLAST BUT SHALL NOT BE PLACED ON TOP OF ANY STRIPED RAIL. BARRICADES SHALL NOT BE BALLASTED BY HEAVY OBJECTS SUCH AS ROCKS OR CHUNKS OF CONCRETE.

THE BARRICADE OWNERS NAME, NOT TO EXCEED 15 SQUARE INCHES SHALL BE SHOWN ON THE BARRICADE BACK OR SUPPORT BUT NOT ON ITS FACE.

** WHEN LATERAL SPACE IS LIMITED, SOME TYPE III BARRICADES WITH A 4 FOOT LENGTH OF RAIL, MAY BE ALLOWED WHEN APPROVED BY THE ENGINEER.

APPLICATION

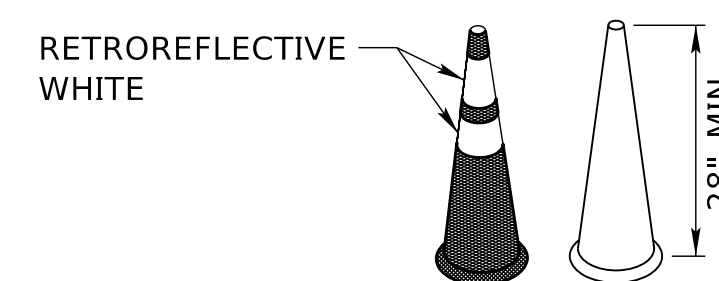
TYPE II BARRICADES ARE INTENDED FOR USE IN SITUATIONS WHERE TRAFFIC IS MAINTAINED THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE. THEY MAY BE USED INDIVIDUALLY OR IN GROUPS TO MARK A SPECIFIC CONDITION, OR THEY MAY BE USED IN A SERIES FOR CHANNELIZING TRAFFIC. ON THE INTERSTATE, FREEWAY AND EXPRESSWAY SYSTEM, TYPE II BARRICADES SHALL NOT BE USED FOR CHANNELIZATION.

TYPE III BARRICADES USED AT A ROAD CLOSURE MAY EXTEND COMPLETELY ACROSS A ROADWAY FROM CURB TO CURB. WHERE PROVISION IS MADE FOR ACCESS OF AUTHORIZED EQUIPMENT AND VEHICLES, THE RESPONSIBILITY FOR THE TYPE III BARRICADES SHOULD BE ASSIGNED TO A PERSON WHO SHALL PROVIDE PROPER CLOSURE AT THE END OF EACH WORK DAY.

WHEN A HIGHWAY IS LEGALLY CLOSED BUT ACCESS MUST STILL BE ALLOWED FOR LOCAL TRAFFIC, THE TYPE III BARRICADES MAY NOT BE EXTENDED COMPLETELY ACROSS A ROADWAY. A SIGN WITH THE APPROPRIATE LEGEND CONCERNING PERMISSIBLE USE BY LOCAL TRAFFIC SHALL BE MOUNTED.

NORMALLY PERMANENT SIGNS MOUNTED ON BARRICADES SHALL BE ERECTED ABOVE THE BARRICADE. THE SIGNS "ROAD CLOSED", OR "ROAD WORK AHEAD", FOR EXAMPLE CAN EFFECTIVELY BE MOUNTED ABOVE THE BARRICADE THAT CLOSSES THE ROADWAY. TYPE III BARRICADES SHALL BE SUPPLEMENTED WITH A LIGHTING DEVICE UNLESS SPECIFICALLY OMITTED BY THE ENGINEER. DETOUR ARROW AND LARGE WARNING ARROW SIGNS SHOULD BE PLACED ON THE FACE OF BARRICADE.

CONES



DESIGN

CONES SHALL BE PREDOMINANTLY ORANGE, FLOURESCENT RED-ORANGE, OR FLOURESCENT YELLOW/ORANGE, NOT LESS THAN 28 INCHES IN HEIGHT, AND SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES ON IMPACT. CONES WHEN ALLOWED ON THE INTERSTATE, FREEWAY OR EXPRESSWAY SYSTEM SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.

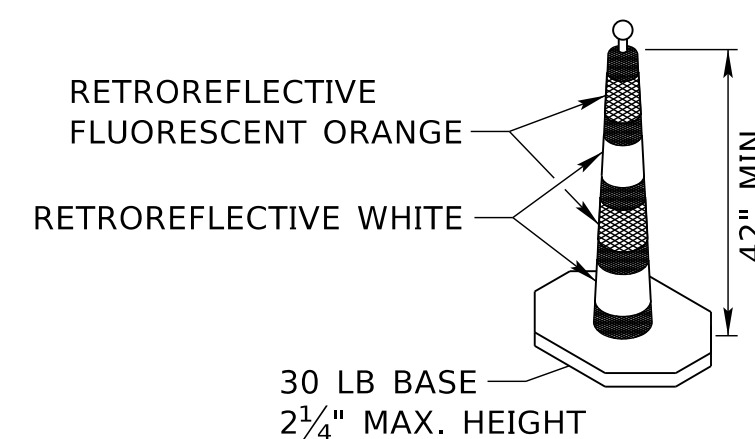
FOR NIGHTTIME USE, CONES SHALL BE RETROREFLECTIVE OR EQUIPPED WITH LIGHTING DEVICES FOR MAXIMUM VISIBILITY. RETROREFLECTION OF 28 INCH OR 36 INCH CONES SHALL BE PROVIDED BY A WHITE BAND 6 INCHES WIDE, NO MORE THAN 4 INCHES FROM THE TOP OF THE CONE, AND AN ADDITIONAL 4 INCH WIDE WHITE BAND A MINIMUM OF 2 INCHES BELOW THE 6 INCH BAND.

APPLICATION

TRAFFIC CONES ARE USED TO CHANNELIZE TRAFFIC, DIVIDE OPPOSING TRAFFIC LANES, DIVIDE TRAFFIC LANES WHEN TWO OR MORE LANES ARE KEPT OPEN IN THE SAME DIRECTION, AND DELINEATE SHORT-DURATION MAINTENANCE AND UTILITY WORK. CONES SHALL NOT BE USED FOR LANE CLOSURE TAPERS OR SHIFTS, CONES SMALLER THAN 42 INCHES SHALL NOT BE USED AT NIGHT ON RURAL HIGHWAYS, UNLESS SHOWN ON THE PLANS OR AS APPROVED OR DIRECTED BY THE ENGINEER.

STEPS SHOULD BE TAKEN TO ENSURE THAT CONES WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. CONES CAN BE DOUBLED UP TO INCREASE THEIR WEIGHT. SOME CONES ARE CONSTRUCTED WITH BASES THAT CAN BE FILLED WITH BALLAST. OTHERS HAVE SPECIAL WEIGHTED BASES, OR WEIGHTS SUCH AS SANDBAG RINGS THAT CAN BE DROPPED OVER THE CONES AND ONTO THE BASE TO PROVIDE ADDED STABILITY. BALLAST, HOWEVER, SHOULD NOT PRESENT A HAZARD IF THE CONES ARE INADVERTENTLY STRUCK.

42 INCH CONES



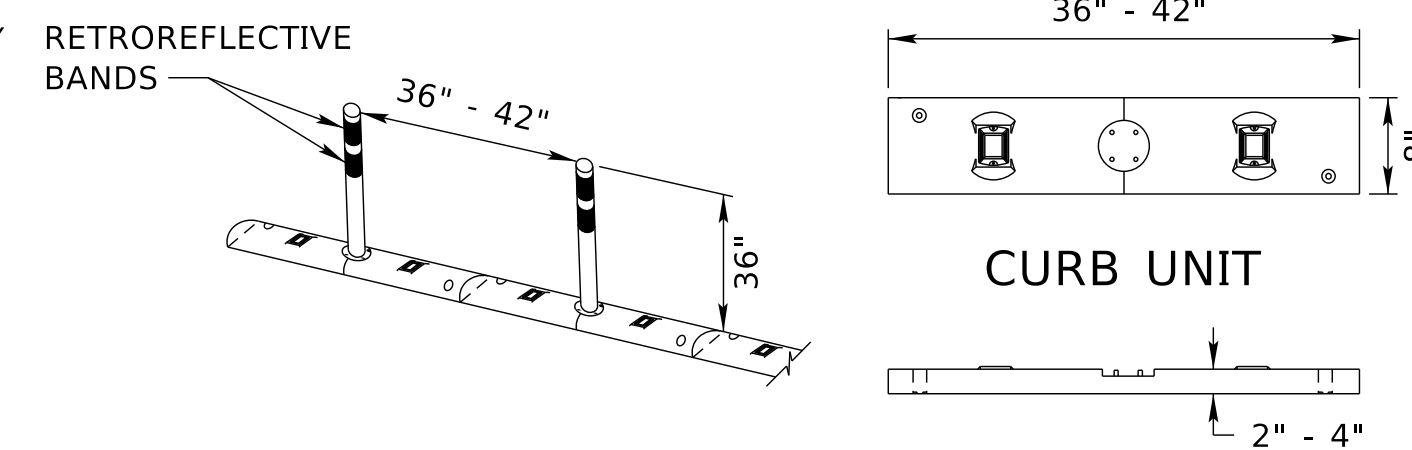
DESIGN

42 INCH CONES SHALL INCLUDE A 30 POUND RUBBER BASE AND DISPLAY FOUR 6 INCH WIDE BANDS OF RETROREFLECTIVE SHEETING, ALTERNATING FLUORESCENT ORANGE-WHITE-FLUORESCENT ORANGE-WHITE.

APPLICATION

WHEN APPROVED BY THE ENGINEER OR SHOWN IN THE PLANS, 42 INCH REFLECTIVE CONES MAY BE USED IN LIEU OF TYPE II BARRICADES OR REFLECTORIZED DRUMS. 42 INCH CONES SHALL NOT BE USED FOR LANE-CLOSURE TAPERS OR SHIFTS. IF A RECTANGULAR BASE IS USED, THE LONG SIDE OF THE BASE SHOULD BE ORIENTED PARALLEL TO THE DIRECTION OF TRAFFIC.

TUBULAR POST AND CURB SYSTEM



DESIGN

TUBULAR POSTS USED IN THE SYSTEM SHALL BE 36 INCHES HIGH AND A MINIMUM OF 2 INCHES WIDE WHEN FACING TRAFFIC. THE TUBULAR POST AND CURB SYSTEM SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING IMPACTING VEHICLES. THE COLOR SHALL BE AS SHOWN IN THE PLANS.

THE TUBULAR POSTS SHALL BE RETROREFLECTIVE. RETROREFLECTION OF TUBULAR POSTS SHALL BE PROVIDED BY TWO 3-INCH WIDE RETROREFLECTIVE BANDS PLACED A MAXIMUM OF 2 INCHES FROM THE TOP WITH A MAXIMUM OF 6 INCHES BETWEEN THE BANDS. EACH CURB SECTION SHALL CONTAIN ONE RETROREFLECTIVE MARKER FACING EACH DIRECTION OF TRAFFIC. THE COLOR OF THE RETROREFLECTIVE BANDS AND MARKERS SHALL MATCH THE POST/CURB COLOR.

THE CURB SECTIONS SHALL BE CONFIGURED TO ALLOW FOR DRAINAGE FROM THE PAVEMENT SURFACE.

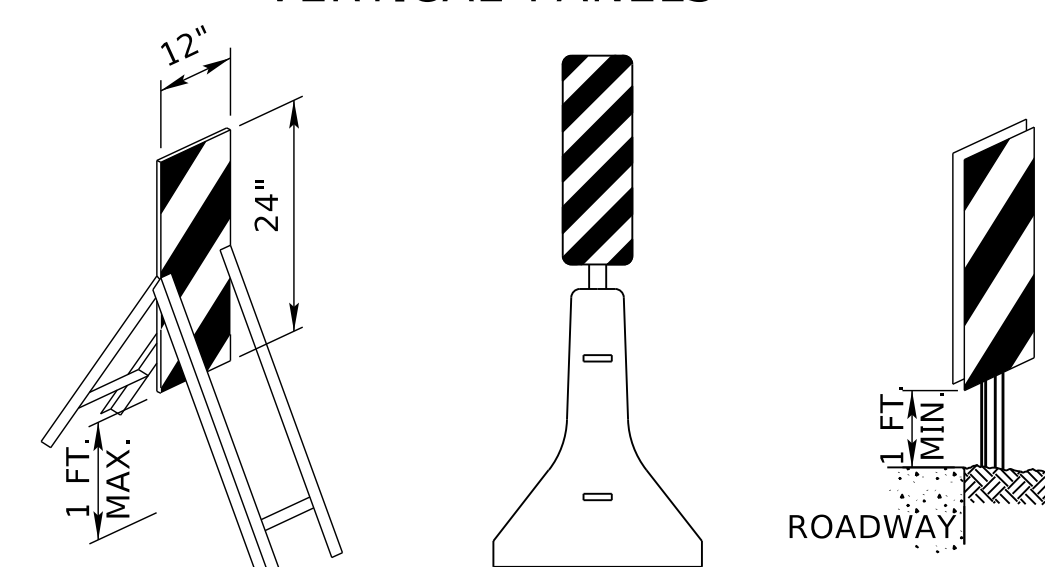
APPLICATION

TUBULAR POST AND CURB SYSTEMS MAY BE USED TO DIVIDE OPPOSING LANES OF TRAFFIC OR TO DIVIDE TRAFFIC LANES WHEN TWO OR MORE LANES ARE KEPT OPEN IN THE SAME DIRECTION.

FASTENING THE CURBS TO THE PAVEMENT WITH ANCHOR BOLTS OR OTHER SUITABLE METHODS AS DIRECTED BY THE MANUFACTURER IS REQUIRED TO MINIMIZE THE CHANCE OF BEING MOVED BY TRAFFIC.

TUBULAR POST AND CURB SYSTEMS SHALL BE INSTALLED IN THE LOCATIONS SHOWN IN THE PLANS OR DIRECTED BY THE ENGINEER.

VERTICAL PANELS



DESIGN

RETROREFLECTIVE MATERIAL ON VERTICAL PANELS SHALL BE 12 INCHES WIDE AND AT LEAST 24 INCHES HIGH. THEY SHALL HAVE ALTERNATING ORANGE AND WHITE STRIPES, WHERE THE HEIGHT OF THE RETROREFLECTIVE MATERIAL ON THE VERTICAL PANEL IS MORE THAN 36 INCHES, A PANEL STRIPE WIDTH OF 6 INCHES SHALL BE USED. WHERE THE HEIGHT OF THE RETROREFLECTIVE MATERIAL ON THE VERTICAL PANEL IS 36 INCHES OR LESS, A PANEL STRIPE WIDTH OF 4 INCHES SHALL BE USED. IF USED FOR TWO-WAY TRAFFIC, BACK-TO-BACK PANELS SHALL BE USED.

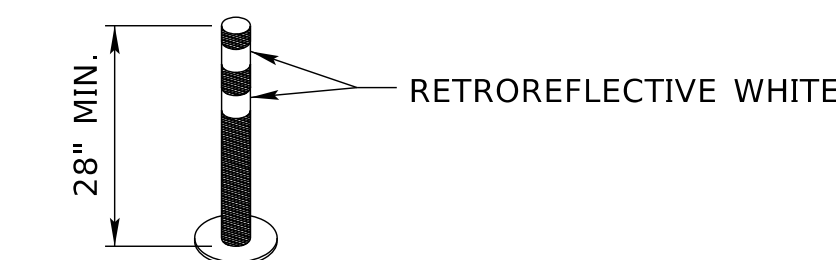
MARKINGS FOR VERTICAL PANELS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTORIZED STRIPES SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.

POST MOUNTED VERTICAL PANELS SHALL BE MOUNTED WITH THE BOTTOM A MINIMUM OF 1 FOOT ABOVE THE ROADWAY. VERTICAL PANELS ON A TEMPORARY STAND SHALL BE MOUNTED WITH THE BOTTOM A MAXIMUM OF 1 FOOT ABOVE THE ROADWAY.

APPLICATION

WHERE SPACE IS LIMITED VERTICAL PANELS MAY BE USED TO CHANNEL TRAFFIC, DIVIDE OPPOSING LANES OF TRAFFIC, DIVIDE TRAFFIC LANES OR REPLACE BARRICADES. WHEN APPROVED BY THE ENGINEER, VERTICAL PANELS MAY BE POST-MOUNTED ALONG THE SIDE OF THE ROADWAY.

TUBULAR POSTS



DESIGN

TUBULAR POSTS SHALL BE PREDOMINANTLY ORANGE, NOT LESS THAN 28 INCHES HIGH, BE A MINIMUM OF 2 INCHES WIDE WHEN FACING TRAFFIC, AND MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING IMPACTING VEHICLES.

TUBULAR POSTS SHALL BE RETROREFLECTIVE. RETROREFLECTION OF TUBULAR POSTS SHALL BE PROVIDED BY TWO 3 INCHES WIDE WHITE BANDS PLACED A MAXIMUM OF 2 INCHES FROM THE TOP, WITH A MAXIMUM OF 6 INCHES BETWEEN THE BANDS. THE BASE SHALL NOT BE WIDER THAN 12 INCHES OR HIGHER THAN 2 INCHES.

APPLICATION

TUBULAR POSTS HAVE LESS VISIBLE AREA THAN OTHER DEVICES AND SHOULD BE USED ONLY WHERE SPACE RESTRICTIONS DO NOT ALLOW FOR THE USE OF OTHER MORE VISIBLE DEVICES. THEY MAY BE USED EFFECTIVELY TO DIVIDE OPPOSING LANES OF TRAFFIC OR TO DIVIDE TRAFFIC LANES WHEN TWO OR MORE LANES ARE KEPT OPEN IN THE SAME DIRECTION.

STEPS SHOULD BE TAKEN TO ASSURE THAT TUBULAR POSTS WILL NOT BE BLOWN OVER OR DISPLACED BY TRAFFIC BY EITHER AFFIXING THEM TO THE PAVEMENT WITH ANCHOR BOLTS OR ADHESIVE, IF A NONCYLINDRICAL DEVICE IS USED, IT SHALL BE ATTACHED TO THE PAVEMENT TO ENSURE THAT THE WIDTH FACING TRAFFIC MEETS THE MINIMUM REQUIREMENTS.

TUBULAR POSTS SHOULD NOT BE USED FOR PEDESTRIAN CHANNELIZATION OR A PEDESTRIAN BARRIERS IN TEMPORARY TRAFFIC CONTROL ZONES ON OR ALONG SIDEWALKS.

REV. NO.	DATE	DESCRIPTION OF REVISION
R7	JAN 18	NDOR BORDER TO NDOT BORDER
R6	JUN 14	2009 MUTCD UPDATE
R5	OCT 98	REVISE CHANNELIZATION DEVICES, TAPER

NEBRASKA DEPARTMENT OF TRANSPORTATION
 STANDARD PLAN NO. 920-R7
**TRAFFIC CONTROL,
 CONSTRUCTION AND
 MAINTENANCE**

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:

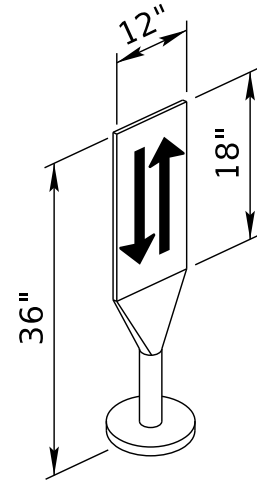
DATE: _____

ORIGINAL: OCTOBER 1998

DATE: _____

1
3

OPPOSING TRAFFIC LANE DIVIDERS



DESIGN

OPPOSING TRAFFIC LANE DIVIDERS SHALL BE A TWO SIDED UPRIGHT RETROREFLECTORIZED ORANGE PANEL, WITH A WIDTH OF 12 INCHES AND A HEIGHT OF 18 INCHES. THE TOP OF THE PANEL SHALL BE 36 INCHES ABOVE THE PAVEMENT. THE SYMBOL ON EACH SIDE SHALL BE TWO OPPOSING BLACK ARROWS. THE LANE DIVIDER SHALL BE MADE OF LIGHTWEIGHT MATERIAL THAT WILL YIELD UPON IMPACT BY A VEHICLE. THE LANE DIVIDER BASE SHALL NOT BE WIDER THAN 12 INCHES OR HIGHER THAN 4 INCHES. THE BASE SHALL BE ATTACHED TO THE EXISTING SURFACE BY EPOXY OR OTHER SUITABLE ADHESIVE, TO ENSURE THAT THE PANEL REMAINS FACING TRAFFIC.

APPLICATION

OPPOSING TRAFFIC LANE DIVIDERS ARE DELINEATION DEVICES USED AS CENTER LANE DIVIDERS TO SEPARATE OPPOSING TRAFFIC ON A TWO-LANE, TWO-WAY OPERATION.

LIGHTING DEVICES

FUNCTION

CONSTRUCTION AND MAINTENANCE ACTIVITIES OFTEN CREATE CONDITIONS ON OR NEAR THE TRAVELED WAY THAT ARE PARTICULARLY HAZARDOUS AT NIGHT. IT IS OFTEN DESIRABLE AND NECESSARY TO SUPPLEMENT THE REFLECTORIZED SIGNS, BARRIERS, AND CHANNELIZING DEVICES WITH LIGHTING DEVICES. STROBE TYPE LIGHTS ARE NOT PERMITTED.

BARRICADE WARNING LIGHTS DESIGN (BATTERY OPERATED)

TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS ARE MOST COMMONLY MOUNTED ON BARRICADES, OR WITH SIGNS AND ARE INTENDED TO WARN THE DRIVER THAT THEY ARE PROCEEDING IN A HAZARDOUS AREA. THESE LIGHTS SHALL NOT BE USED FOR DELINEATION, AS A SERIES OF FLASHING LIGHTS IN A ROW WOULD TEND TO OBSCURE THE DESIRED PATH.

TYPE "A" HIGH INTENSITY FLASHING WARNING LIGHTS ARE NORMALLY MOUNTED ON THE TYPE III BARRICADE THAT ACCOMPANIES THE ADVANCE WARNING SIGNS.

TYPE "C" STEADY BURN LIGHTS AS USED HEREIN, SHALL MEAN A SERIES OF LOW WATTAGE YELLOW ELECTRIC LIGHTS. WHERE LIGHTS ARE NEEDED TO DELINEATE OR MARK THE TRAVELED WAY THROUGH AND AROUND OBSTRUCTIONS IN A CONSTRUCTION MAINTENANCE AREA, THE DELINEATION SHALL BE ACCOMPLISHED BY USE OF STEADY BURNING LIGHTS. WHEN USED TO SUPPLEMENT CHANNELIZATION, THE MAXIMUM SPACING FOR WARNING LIGHTS SHOULD BE IDENTICAL TO THE CHANNELIZING DEVICE SPACING REQUIREMENTS. WHEN USED TO DELINEATE A CURVE, TYPE "C" WARNING LIGHTS SHOULD ONLY BE USED ON DEVICES ON THE OUTSIDE OF THE CURVE, AND NOT ON THE INSIDE OF THE CURVE.

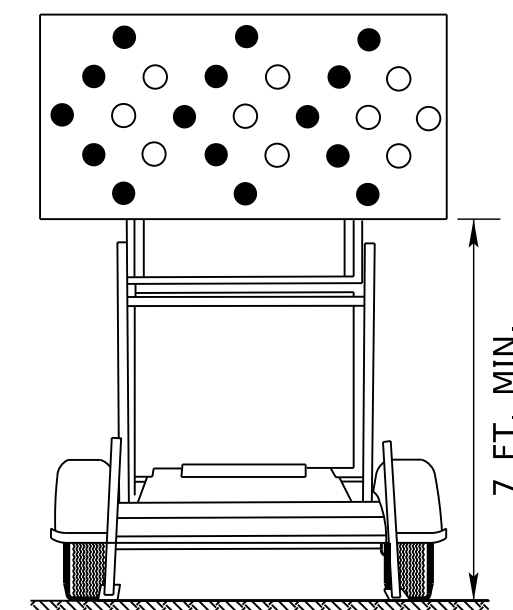
FLASHING ARROW PANEL (DISPLAY)

AN ARROW PANEL IS A SIGN WITH A MATRIX OF ELEMENTS, CAPABLE OF EITHER FLASHING OR SEQUENTIAL DISPLAYS. THIS SIGN SHALL PROVIDE ADDITIONAL WARNING AND DIRECTIONAL INFORMATION TO ASSIST IN MERGING AND CONTROLLING ROAD USERS THROUGH OR AROUND A TEMPORARY TRAFFIC CONTROL ZONE. AN ARROW PANEL SHOULD BE USED IN COMBINATION WITH APPROPRIATE SIGNS, CHANNELIZING DEVICES OR OTHER TRAFFIC CONTROL DEVICES.

DESIGN

ARROW PANELS SHALL MEET THE SIZE AND SPECIFICATIONS OF THE MUTCD FOR TYPE "C" ARROW DISPLAYS.

FLASHING ARROW PANEL SHALL BE RECTANGULAR, OF SOLID APPEARANCE AND FINISHED IN NON-REFLECTIVE BLACK. THE PANEL SHALL BE MOUNTED ON A VEHICLE, TRAILER OR OTHER SUITABLE SUPPORT. MINIMUM MOUNTING HEIGHT MEASURED VERTICALLY FROM THE BOTTOM OF THE PANEL TO THE ROADWAY BELOW IT OR TO THE ELEVATION OF THE NEAR EDGE OF THE ROADWAY. SHALL BE 7 FEET EXCEPT ON VEHICLE-MOUNTED PANELS, WHICH SHOULD BE AS HIGH AS PRACTICAL.



THE ARROW PANEL SHALL HAVE A MINIMUM SIZE OF 96 INCHES WIDE AND 48 INCHES HIGH. THE MINIMUM LEGIBILITY DISTANCE SHALL BE 1 MILE. THE PANEL SHALL CONTAIN 25 LAMP ELEMENTS. ARROW PANEL ELEMENTS SHALL BE CAPABLE OF A MINIMUM 50 PERCENT DIMMING, AUTOMATICALLY WHEN AMBIENT LIGHT FALLS BELOW 50 LUX.

THE MINIMUM ELEMENT "ON TIME" SHALL BE 50 PERCENT FOR THE FLASHING MODE AND EQUAL INTERVALS OF 25 PERCENT FOR EACH SEQUENTIAL CHEVRON PHASE. THE FLASHING RATE SHALL BE NO FEWER THAN 25 NOR MORE THAN 40 FLASHES PER MINUTE.

APPLICATION

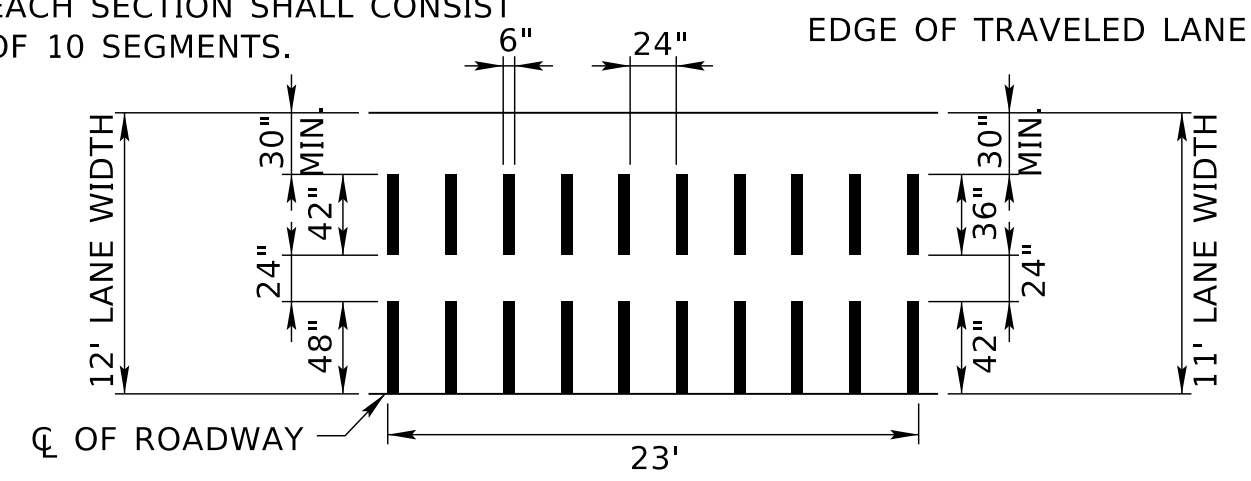
A FLASHING ARROW OR SEQUENTIAL CHEVRON MODE SHALL ONLY BE USED FOR STATIONARY OR MOVING LANE CLOSURES.

FOR SHOULDER WORK BLOCKING THE SHOULDER, FOR ROADSIDE WORK NEAR THE SHOULDER, OR FOR TEMPORARILY CLOSING ONE LANE ON A TWO-LANE, TWO-WAY ROADWAY, AN ARROW PANEL SHALL BE USED ONLY IN THE CAUTION MODE.

AN ARROW DISPLAY MODE SHALL NOT BE USED ON A TWO-LANE TWO-WAY ROADWAY FOR TEMPORARY ONE-LANE OPERATION OR LANE SHIFTS. AN ARROW DISPLAY SHALL NOT BE USED TO LATERALLY SHIFT TRAFFIC.

TEMPORARY RUMBLE STRIPS

EACH SECTION SHALL CONSIST OF 10 SEGMENTS.



DESIGN

TEMPORARY RUMBLE STRIPS MAY BE MADE OF ASPHALT PAVING MATERIAL, EPOXY AND AGGREGATE OR OTHER SUITABLE MATERIAL WHICH WILL MAINTAIN A DESIRABLE RUMBLE EFFECT. THE TEMPORARY RUMBLE STRIP SHOULD HAVE AN INSTALLED HEIGHT OF 3/8". PREFORMED RUMBLE STRIPS MAY BE USED PROVIDED THEY HAVE A MINIMUM 1/2" HEIGHT.

TRAFFIC SIGNALS

TRAFFIC SIGNALS MAY BE ALLOWED AT CERTAIN EQUIPMENT CROSSINGS WHERE THE VOLUME OF FILL MATERIAL AND THE NUMBER OF EQUIPMENT CROSSINGS PER HOUR IS HIGH. TRAFFIC SIGNALS MAY BE ALLOWED AT CERTAIN BRIDGE CONSTRUCTION SITES WHERE A COMBINATION OF ONE-WAY TRAFFIC AND HIGH TRAFFIC VOLUMES WOULD BE BEST SERVED WITH THIS TYPE OF TRAFFIC CONTROL.

ALL TRAFFIC SIGNAL REQUESTS AND METHOD OF INSTALLATION ON THE STATE HIGHWAY SYSTEM SHALL BE IN COMPLIANCE WITH THE MUTCD AND MUST BE APPROVED BY THE STATE TRAFFIC ENGINEER.

IF, AFTER THE SIGNAL ASSEMBLIES ARE ERECTED AND THE ROAD IS OPEN TO PUBLIC TRAVEL, THE SIGNAL SYSTEM IS NOT PUT IMMEDIATELY INTO OPERATION, THE SIGNAL FACES SHALL BE COVERED WITH BURLAP OR OTHER OPAQUE MATERIAL SUBJECT TO THE APPROVAL OF THE ENGINEER, INOPERATIVE SIGNALS ON ROADS OPEN TO THE PUBLIC SHALL ALWAYS BE COVERED. TILTING THE SIGNALS UPWARD IS NOT AN ACCEPTABLE ALTERNATIVE TO COVERING THE HEADS.

FLOODLIGHTS

WHEN NIGHTTIME WORK IS REQUIRED, FLOODLIGHTS SHALL BE USED TO ILLUMINATE FLAGGER STATIONS. FLOODLIGHTS SHOULD BE USED TO ILLUMINATE EQUIPMENT CROSSINGS, AND OTHER AREAS WHERE EXISTING LIGHT IS NOT ADEQUATE FOR THE WORK TO BE PERFORMED SAFELY.

IN NO CASE SHALL FLOODLIGHTING BE PERMITTED TO CREATE A DISABLING GLARE FOR DRIVERS. THE ADEQUACY OF THE FLOODLIGHT PLACEMENT AND ELIMINATION OF POTENTIAL GLARE SHOULD BE CHECKED BY DRIVING THROUGH THE PROJECT.

PAVEMENT MARKING

IT IS INTENDED TO THE EXTENT POSSIBLE, THAT MOTORISTS BE PROVIDED MARKINGS WITHIN A WORK AREA COMPARABLE TO THE MARKINGS NORMALLY MAINTAINED ALONG ADJACENT ROADWAYS, PARTICULARLY AT EITHER END OF THE WORK AREA.

ALL MARKINGS AND DEVICES USED TO DELINEATE VEHICLE AND PEDESTRIAN PATHS SHALL BE CAREFULLY REVIEWED DURING DAYTIME AND NIGHTTIME PERIODS TO AVOID INADVERTENTLY LEADING DRIVERS OR PEDESTRIANS FROM THE INTENDED PATH.

PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED UNLESS OTHERWISE APPROVED BY THE ENGINEER.

TAPERS

TAPERS ARE CREATED USING A SERIES OF CHANNELIZING DEVICES OR PAVEMENT MARKINGS TO MOVE TRAFFIC OUT OF OR INTO ITS NORMAL PATH.

MERGING TAPER

A MERGING TAPER REQUIRES THE LONGEST DISTANCE BECAUSE DRIVERS ARE REQUIRED TO MERGE INTO COMMON ROAD SPACE. THE TAPER SHOULD BE LONG ENOUGH TO ENABLE MERGING DRIVERS TO HAVE ADEQUATE ADVANCE WARNING AND SUFFICIENT LENGTH TO ADJUST THEIR SPEEDS AND MERGE INTO A SINGLE LANE BEFORE THE DOWNSTREAM END OF THE TRANSITION.

SHIFTING TAPER

A SHIFTING TAPER IS USED WHEN MERGING IS NOT REQUIRED, BUT A LATERAL SHIFT IS NEEDED. APPROXIMATELY ONE-HALF "L" HAS BEEN FOUND TO BE ADEQUATE, WHERE MORE SPACE IS AVAILABLE, IT MAY BE BENEFICIAL TO USE LONGER TAPERS. GUIDANCE FOR CHANGES IN ALIGNMENT MAY ALSO BE ACCOMPLISHED BY USING HORIZONTAL CURVES DESIGNED FOR NORMAL HIGHWAY SPEEDS.

SHOULDER TAPERS

A SHOULDER TAPER MAY BE BENEFICIAL ON HIGH-SPEED ROADWAYS WHERE SHOULDERS ARE PART OF THE ACTIVITY AREA AND ARE CLOSED, OR WHEN IMPROVED SHOULDERS MIGHT BE MISTAKEN AS A DRIVING LANE IN THESE INSTANCES, THE SAME TYPE, BUT ABBREVIATED, CLOSURE PROCEDURES USED ON A NORMAL PORTION OF THE ROADWAY CAN BE USED. IF USED, SHOULDER TAPERS APPROACHING THE ACTIVITY AREA SHOULD HAVE A LENGTH OF ABOUT ONE-THIRD "L".

DOWNSTREAM TAPERS

THE DOWNSTREAM TAPER MAY BE USEFUL IN TERMINATION AREAS TO PROVIDE A VISUAL CUE TO THE DRIVER THAT ACCESS IS AVAILABLE TO THE ORIGINAL LANE OR PATH THAT WAS CLOSED. WHEN USED, IT SHOULD HAVE A MINIMUM LENGTH OF ABOUT 100 FEET PER LANE, WITH DEVICES SPACED ABOUT 20 FEET APART.

ONE LANE, TWO WAY TAPER

THE ONE-LANE, TWO-WAY TAPER IS USED IN ADVANCE OF AN ACTIVITY AREA THAT OCCUPIES PART OF A TWO-WAY ROADWAY IN SUCH A WAY THAT A PORTION OF THE ROAD IS USED ALTERNATELY BY TRAFFIC IN EACH DIRECTION. A SHORT TAPER HAVING A MINIMUM LENGTH OF 50 FEET AND A MAXIMUM LENGTH OF 100 FEET WITH CHANNELIZING DEVICES AT APPROXIMATELY 20 FOOT SPACINGS SHOULD BE USED TO GUIDE TRAFFIC INTO THE ONE-LANE-SECTION AND A DOWNSTREAM TAPER WITH A LENGTH OF APPROXIMATELY 100 FEET SHOULD BE USED TO GUIDE TRAFFIC BACK INTO THEIR ORIGINAL LANE.

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES	
TYPE OF TAPER	TAPER LENGTH (FEET)
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/3 L MINIMUM
TWO-WAY TAPER	100 FEET MAXIMUM

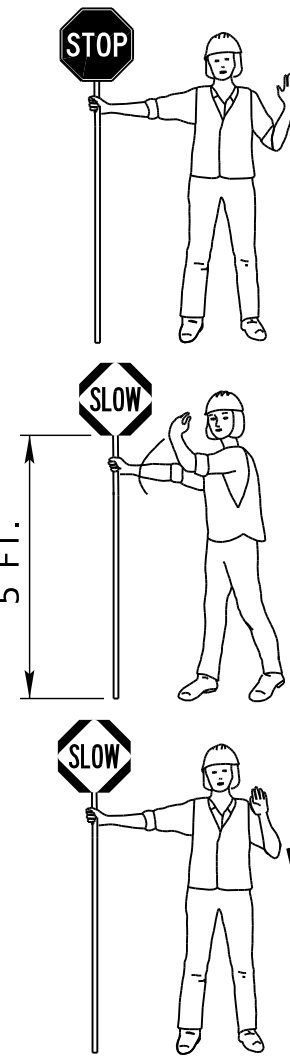
FORMULAS FOR L	
SPEED	FORMULA
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR GREATER	$L = WS$

L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED LIMIT PRIOR TO WORK IN MPH

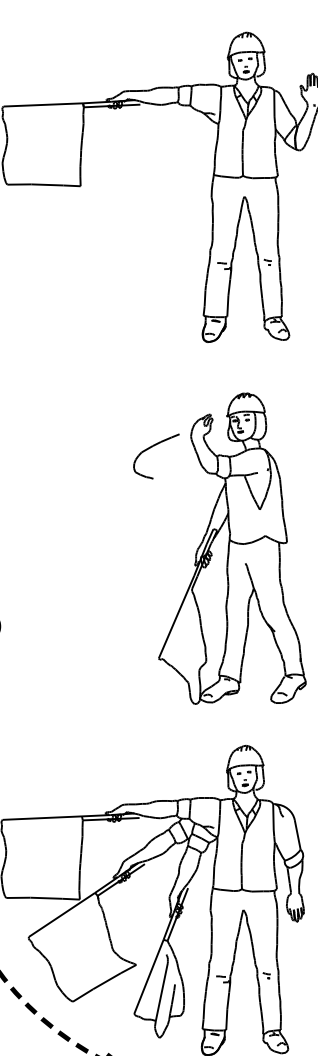
TAPER LENGTH L (FEET)			
SPEED (MPH)	LANE WIDTH		
	10 FT.	11 FT.	12 FT.
25	105	115	125
30	150	165	180
35	205	225	245
40	270	295	320
45	450	495	540
50	500	550	600
55	550	605	660
60	600	660	720
65	650	715	780
75	750	825	900

FLAGGERS

REQUIRED METHOD



EMERGENCY USE ONLY



FLAGGER PADDLE

THE STOP/SLOW PADDLE SHALL HAVE AN OCTAGONAL SHAPE ON A RIGID HANDLE. STOP/SLOW PADDLES SHALL BE AT LEAST 18 INCHES WIDE WITH LETTERS AT LEAST 6 INCHES HIGH. IF THE STOP/SLOW PADDLE IS PLACED ON A RIGID STAFF, THE MINIMUM LENGTH OF THE STAFF, MEASURED FROM THE BOTTOM OF THE SIGN TO THE END OF THIS STAFF THAT RESTS ON THE GROUND, SHOULD BE 5 FEET. THE STOP/SLOW PADDLE SHOULD BE THE PRIMARY AND PREFERRED HAND-SIGNALING DEVICE BECAUSE THE STOP/SLOW PADDLE GIVES ROAD USERS MORE POSITIVE GUIDANCE THAN RED FLAGS. USE OF FLAGS SHOULD BE LIMITED TO EMERGENCY SITUATIONS.

FLAGGERS

A FLAGGER MUST BE DRESSED FOR SAFETY. IN ADDITION TO THE REQUIREMENTS OF THE "WORKER VISIBILITY" SECTION LISTED BELOW, FLAGGERS SHALL WEAR:

1. AN ORANGE OR YELLOW/GREEN CAP OR HARD HAT.
2. A SHIRT WITH SLEEVES, PANTS AND SHOES (TANK TOPS, SHORTS OR SANDALS SHALL NOT BE WORN).

FLAGGERS SHALL BE INSTRUCTED IN THE PROPER LOCATION, DUTIES AND PROCEDURES FOR FLAGGING AS OUTLINED IN THE CURRENT MUTCD AND THE DEPARTMENT OF ROADS FLAGGER'S HANDBOOK. AS REQUIRED BY THE DEPARTMENT OF ROADS, THE FLAGGER SHALL BE CERTIFIED, AND HAVE IN THEIR POSSESSION, A VALID FLAGGER CERTIFICATION CARD.

WORKER VISIBILITY

ALL WORKERS WITHIN THE RIGHT-OF-WAY WHO ARE EXPOSED EITHER TO TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR TO CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA SHALL WEAR HIGH-VISIBILITY SAFETY APPAREL. HIGH-VISIBILITY SAFETY APPAREL IS DEFINED TO MEAN PERSONAL PROTECTIVE SAFETY CLOTHING THAT:

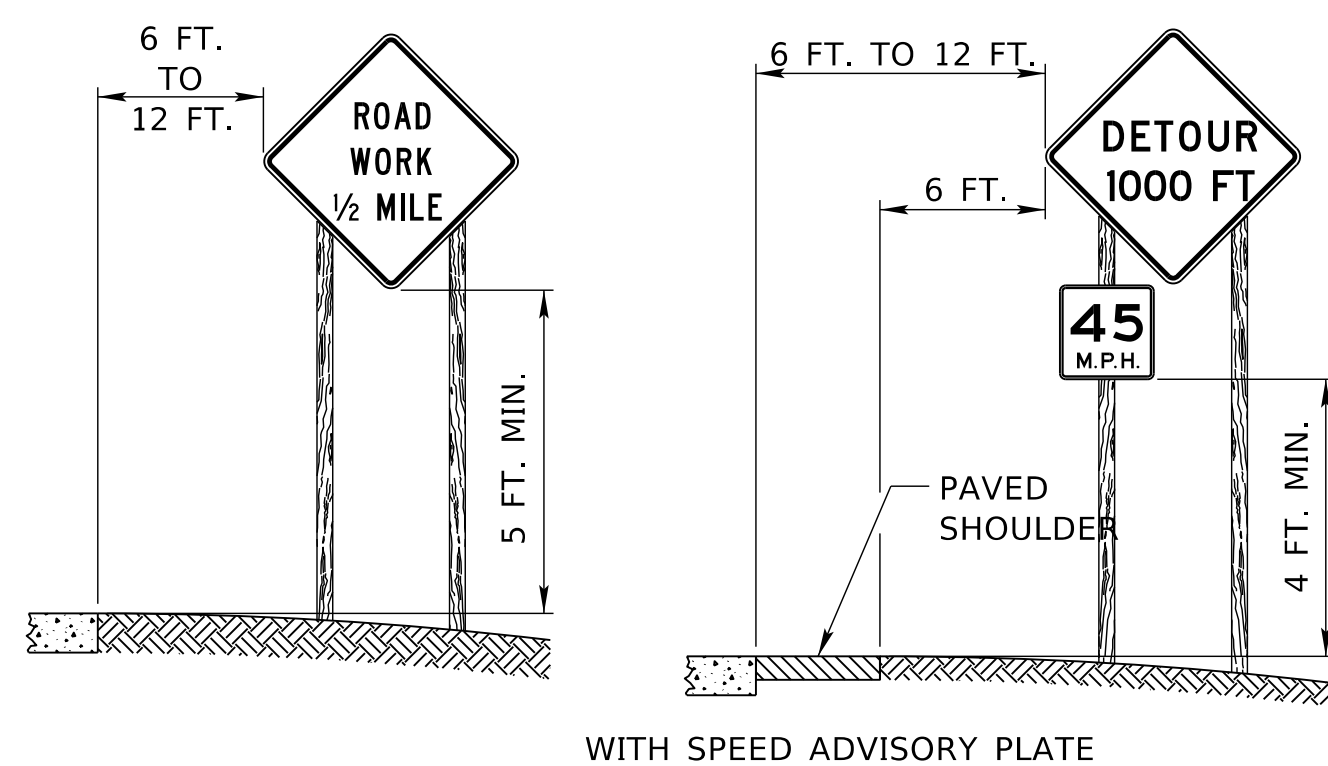
1. IS INTENDED TO PROVIDE CONSPICUITY DURING BOTH DAYTIME AND NIGHTTIME USAGE, AND
2. MEETS THE PERFORMANCE CLASS 2 OR CLASS 3 REQUIREMENTS OF THE ANSI/ISEA 107-2004 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARDS FOR HIGH-VISIBILITY SAFETY APPAREL AND HEADWEAR"

THE FOLLOWING SELECTIONS SHALL BE PROVIDED ON THE ARROW PANEL	
OPERATING MODE	PANEL DISPLAY
FLASHING ARROW	RIGHT SHOWN; LEFT OPPOSITE
SEQUENTIAL ARROW	RIGHT SHOWN; LEFT OPPOSITE
SEQUENTIAL CHEVRON	RIGHT SHOWN; LEFT OPPOSITE
FLASHING DOUBLE ARROW	
FLASHING OR ALTERNATING CAUTION	OR OR

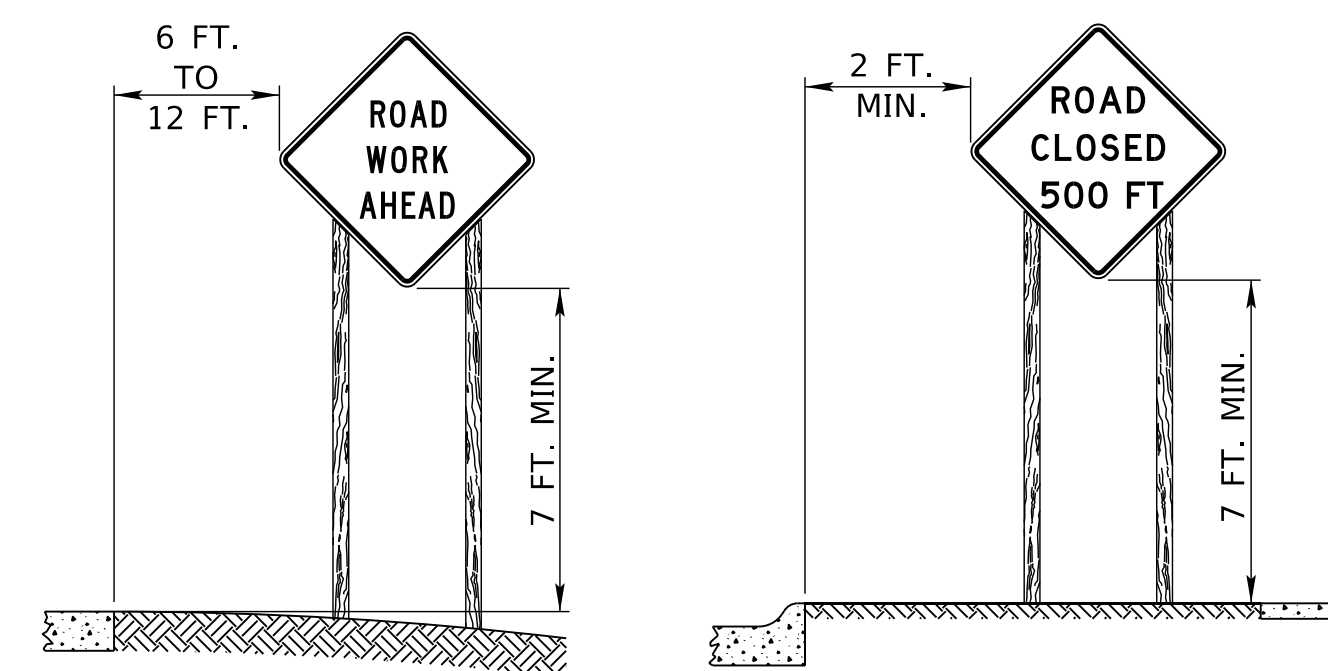
R7	JAN 18	NDOR BORDER TO NDOT BORDER
R6	JUN 14	2009 MUTCD UPDATE
R5	OCT 98	REVISE CHANNELIZATION DEVICES, TAPER
REV. NO.	DATE	DESCRIPTION OF REVISION
NEBRASKA DEPARTMENT OF TRANSPORTATION STANDARD PLAN NO. 920-R7 TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE		
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:		
		DATE
		ORIGINAL: OCTOBER 1998 DATE

ROADSIDE SIGNS

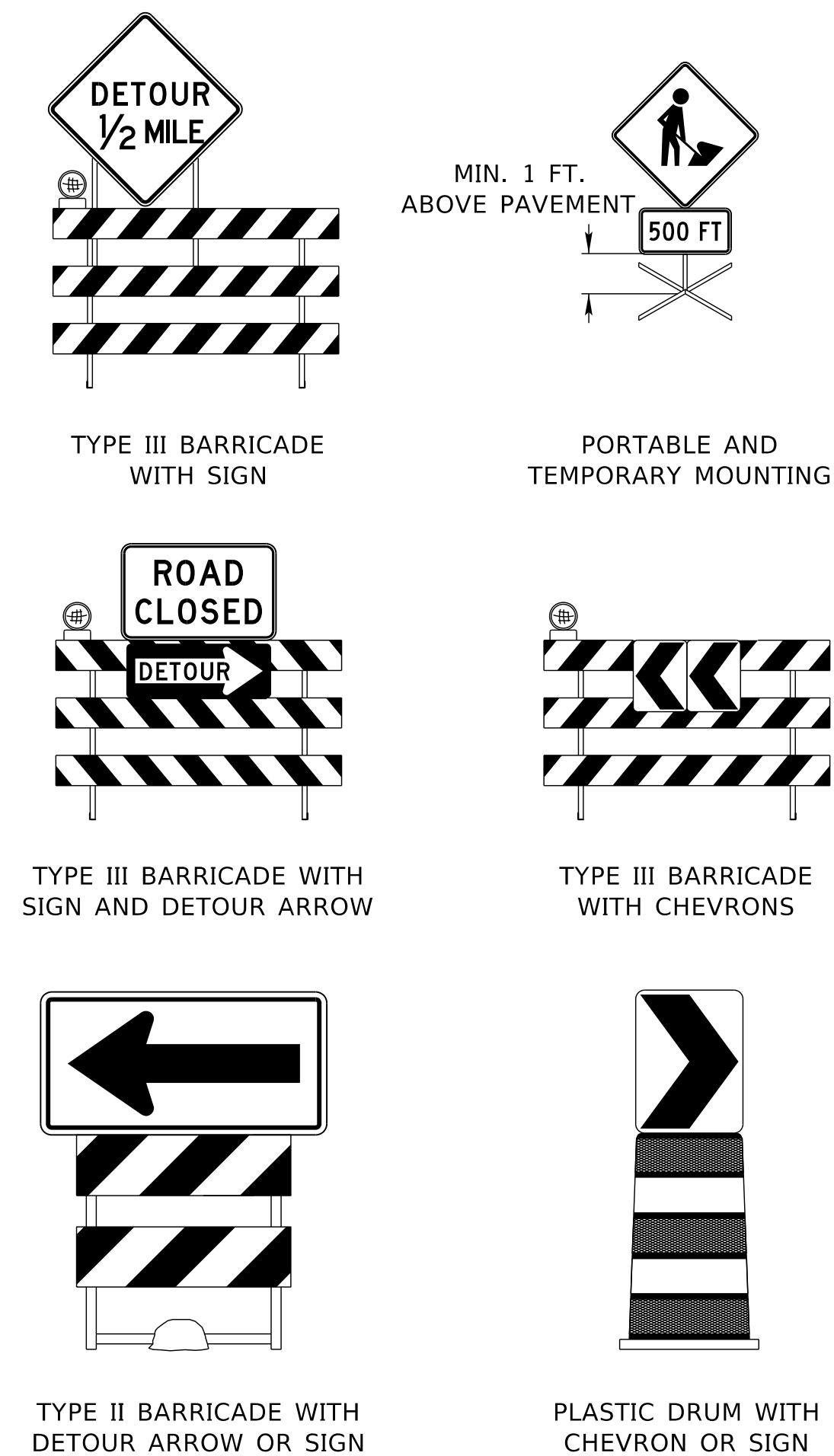
HEIGHT AND LATERAL LOCATION OF SIGNS
RURAL AREA



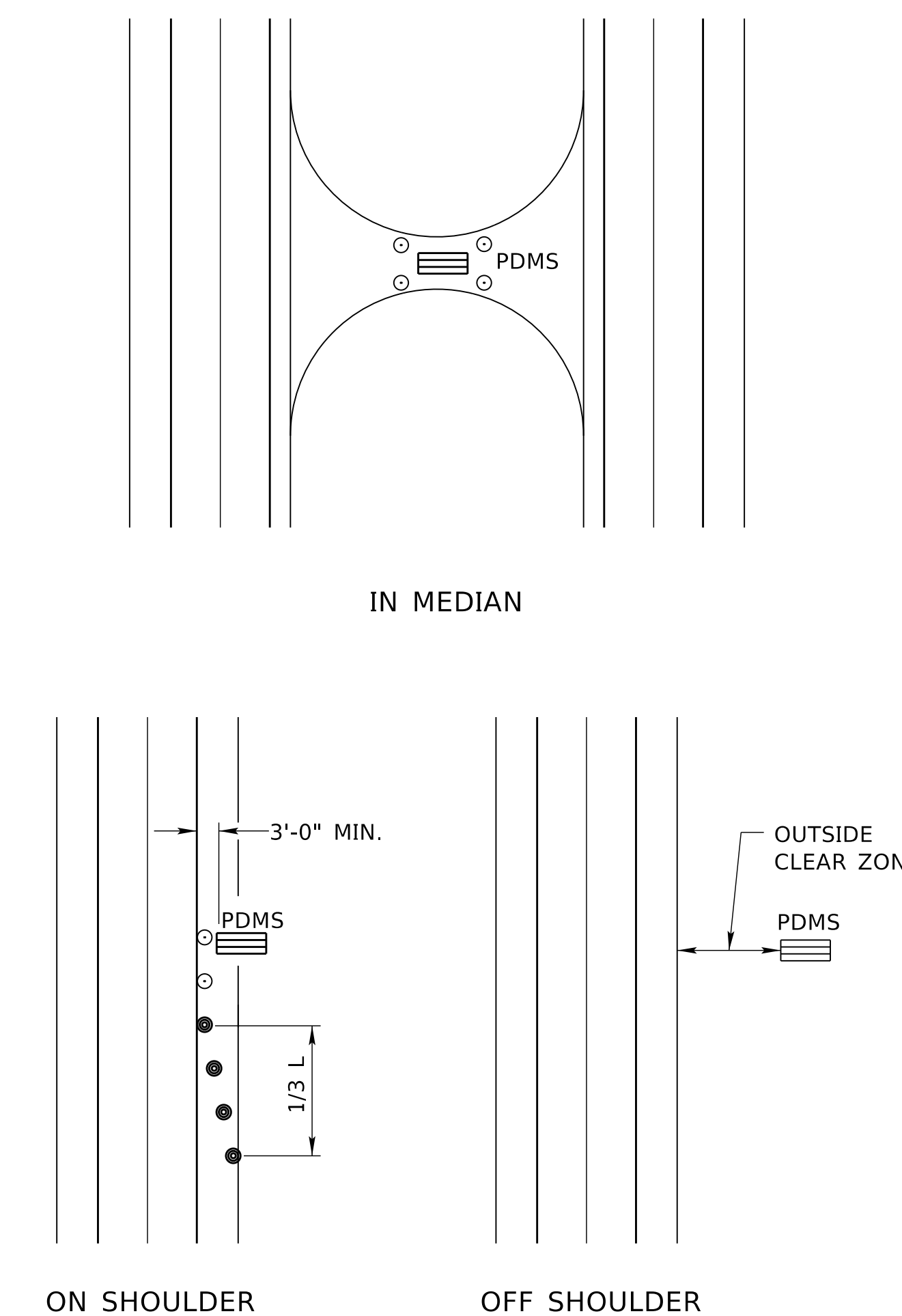
URBAN AREA



TYPICAL SIGN MOUNTINGS
OTHER THAN POST MOUNTED



PORTABLE DYNAMIC MESSAGE SIGN DELINEATION



NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE APPLICABLE STANDARDS AND SPECIFICATIONS PRESCRIBED IN PART 6 OF THE LATEST ADOPTED EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD)" AND THE STATE OF NEBRASKA SUPPLEMENT TO THE MUTCD. ALL TRAFFIC CONTROL DEVICES SHALL BE CRASHWORTHY AND QUALIFY AS SUCH ACCORDING TO THE TESTING AND ACCEPTANCE GUIDELINES OF THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. TRAFFIC CONTROL PLANS AND DEVICES SHOULD FOLLOW THE PRINCIPLES SET FORTH, BUT MAY DEVIATE FROM THE TYPICAL DRAWINGS TO ALLOW FOR CONDITIONS AND REQUIREMENTS OF THE PROJECT.
3. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE VIEW OF OTHER TRAFFIC CONTROL DEVICES.
4. THE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE USE, AND APPROVE THE LOCATION OF ANY OF THE DEVICES SHOWN IN THESE PLANS.

WORK ZONE SPEED LIMIT NOTES

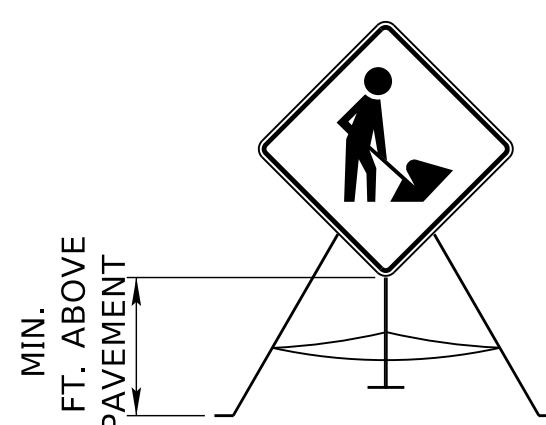
- A. WORK ZONE SPEED LIMITS SHALL NOT BE INSTALLED WITHOUT A SPEED ZONE AUTHORIZATION COMPLETED BY THE DEPARTMENT.
- B. REDUCED SPEED LIMITS SHOULD BE USED ONLY IN THE SPECIFIC PORTION OF THE WORK ZONE WHERE CONDITIONS OR RESTRICTIVE FEATURES ARE PRESENT. HOWEVER, FREQUENT CHANGES IN THE SPEED LIMIT SHOULD BE AVOIDED. THE REDUCTION OF SPEED SHOULD BE DESIGNED SO VEHICLES CAN SAFELY TRAVEL THROUGH THE WORK ZONE WITH A SPEED LIMIT REDUCTION OF NO MORE THAN 10 MPH UNLESS OTHERWISE NOTED IN THE PLANS.
- C. WORK ZONE SPEED LIMITS SHOWN ARE TYPICAL APPLICATIONS ONLY AND ARE NOT TO BE ASSUMED AS THE SPEED LIMITS REQUIRED FOR THE WORK.
- D. EXISTING SPEED LIMIT SIGNS SHALL BE REMOVED OR COVERED WHEN A REDUCED WORK ZONE SPEED LIMIT IS IN EFFECT IN THE SAME AREA.
- E. WORK ZONE SPEED LIMIT SIGNS SHALL BE INSTALLED EVERY MILE THROUGH THE WORK AREA WHEN SPEED ZONE IS REDUCED.
- F. A SPEED LIMIT SIGN ENDING THE REDUCED SPEED ZONE SHALL BE INSTALLED AT THE END OF EACH ZONE.
- G. DOUBLE FINES AND REDUCED SPEED ZONE SIGNING ARE NOT REQUIRED FOR SHORT-DURATION WORK LESS THAN 12 HOURS.

TYPICAL FIRST SIGN AT
CONSTRUCTION SITE



WITH TYPE "A" FLASHING WARNING LIGHT MOUNTED ABOVE TYPE III BARRICADE

PORTABLE AND
TEMPORARY MOUNTING



TEMPORARY SIGN SUPPORTS

ALL "TEMPORARY SIGN" SUPPORTS (BASES) SHALL BE NCHRP 350 OR MASH (TL-3) APPROVED.

"TEMPORARY SIGNS" ARE ALL TEMPORARILY MOUNTED WORK ZONE SIGNS THAT ARE NOT POST MOUNTED IN THE GROUND AT THE TYPICAL 5 FOOT MOUNTING HEIGHT. TEMPORARY SIGNS ARE CONSIDERED NCHRP 350 OR MASH CATEGORY 2 DEVICES AND ARE MOUNTED ON TEMPORARY SIGN STANDS. TEMPORARY SIGNS SHALL BE MOUNTED A MINIMUM OF 1 FOOT ABOVE THE GROUND, UNLESS OTHERWISE REQUIRED TO BE MOUNTED AT A HIGHER HEIGHT.

TEMPORARY SIGNS AND THEIR SUPPORTS SHALL NOT BE IN PLACE LONGER THAN 3 DAYS. ANY SIGN THAT IS TO BE IN PLACE LONGER THAN 3 DAYS SHALL BE POST MOUNTED OR MOUNTED TO A DRUM, BARRICADE, OR BARRIER, AS REQUIRED BY THE PLANS OR SPECIFICATIONS.

PORTABLE DYNAMIC MESSAGE SIGNS (PDMS)

THE PLACEMENT OF PDMS SHOULD BE IN THE FOLLOWING ORDER:

WHENEVER POSSIBLE, PDMS SHOULD BE PLACED OFF OF ANY USABLE PORTION OF THE ROADWAY ON THE RIGHT SIDE OF THE ROADWAY. WHEN PLACED OUTSIDE THE CLEAR ZONE OR BEHIND GUARDRAIL OR CONCRETE PROTECTION BARRIERS, DELINEATION IS NOT REQUIRED.

WHERE FIELD CONDITIONS DO NOT ALLOW FOR THIS PLACEMENT, THE SIGNS MAY BE LOCATED ON THE OUTSIDE SHOULDER OF THE ROADWAY OR WITHIN THE MEDIAN.

- A. A MINIMUM CLEARANCE OF 3 FEET MEASURED HORIZONTALLY FROM THE EDGE OF THE SIGN TO THE EDGE OF THE TRAVELED WAY IS RECOMMENDED.
- B. THE PDMS SHOULD HAVE A MINIMUM MOUNTED HEIGHT OF 7 FEET ON FREEWAYS, EXPRESSWAYS AND IN URBAN AREAS.
- C. ALL OTHER RURAL APPLICATIONS SHOULD HAVE A MINIMUM HEIGHT OF 5 FEET.

THESE HEIGHTS ARE MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE PAVEMENT.

REFLECTORIZED PLASTIC DRUMS SHOULD BE USED TO DELINEATE EACH SIGN USING A 1/3 L TAPER. THESE DRUMS SHOULD BE POSITIONED ON THE UPSTREAM END OF THE SIGN TO FORM A TAPER LEADING UP TO THE TRAFFIC SIDE OF THE SIGN. FOR A SIGN LOCATED IN THE MEDIAN, THE SIGN SHOULD BE DELINEATED WITH A 42 INCH CONE ON ALL FOUR CORNERS.

WHEN DEPLOYED, THE SIGN SHALL BE SIGHTED AND ALIGNED WITH APPROACHING TRAFFIC TO ENSURE VISIBILITY OF THE MESSAGE. IF MULTIPLE SIGNS ARE USED, THE SIGNS SHOULD BE LOCATED ON THE SAME SIDE OF THE ROAD AND SEPARATED ACCORDING TO PROPER SIGN SPACING.

WHEN PRACTICAL, PDMS SHOULD NOT BE USED TO REPLACE STATIC SIGNS FOR LONG TERM USAGE (OVER 10 DAYS).

WHEN PDMS ARE TO BE DEPLOYED FOR LONG PERIODS, SUCH AS INCIDENT MANAGEMENT ROLES, CONCRETE PADS WITH APPROPRIATE TIE DOWNS SHOULD BE CONSTRUCTED FOR THEIR PLACEMENT.

PDMS NOT ACTIVELY BEING USED IN A CONSTRUCTION OR INCIDENT MANAGEMENT ROLE SHOULD BE REMOVED.

REFER TO NDOR "DMS GUIDELINES" FOR PROPER PDMS MESSAGE INFORMATION.

TAPER FORMULA

$L = S \times W$ FOR SPEEDS OF 45 MPH OR MORE.

$L = \frac{W^2}{60}$ FOR SPEEDS OF 40 MPH OR LESS.

WHERE:

L = MINIMUM LENGTH OF TAPER.

S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK.

W = WIDTH OF OFFSET (LANE WIDTH).

LEGEND

- TYPE III BARRICADE
- REFLECTORIZED PLASTIC DRUM
- REFLECTORIZED PLASTIC DRUM OR 42" CONE
- PORTABLE DYNAMIC MESSAGE SIGN

R7	JAN 18	NDOR BORDER TO NDOT BORDER
R6	JUN 14	2009 MUTCD UPDATE
R5	OCT 98	REVISE CHANNELIZATION DEVICES, TAPER
REV. NO.	DATE	DESCRIPTION OF REVISION
NEBRASKA DEPARTMENT OF TRANSPORTATION STANDARD PLAN NO. 920-R7 TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE		
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:		
DATE		
ORIGINAL: OCTOBER 1998		

COMPUTER: BG0419M187

DATE: 25-JUN-2004 10:15

FILE: 9200 0 R7.dgn