

CITY OF DE PERE

PROJECT 18-01

SEWER AND WATER RELAY AND STREET RESURFACING

**BID DATE:
MARCH 1, 2018
@ 1:00 PM**

Bid documents, including plans and specifications, are available for download at www.QuestCDN.com. The QuestCDN website can also be accessed through the City website at www.de-pere.org. On the homepage, click on the City Departments tab at the top, then click on Public Works, then Engineering, then Construction Projects, then 2018 Construction Projects. Download cost is \$10 for each contract. Bidding documents may be viewed on the QuestCDN website or at the Municipal Service Center.

Bid Tabs must be verified by staff prior to posting and will be available for viewing on the website within 7 days following the bid opening. Award information will be pending until approved by the Common Council.

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FEBRUARY 8 - FEBRUARY 15, 2018

CITY OF DE PERE

ADVERTISEMENT TO BID

PROJECT 18-01

SEWER AND WATER RELAY AND STREET RESURFACING

Sealed proposals will be received by the Board of Public Works of the City of De Pere at the Municipal Service Center, 925 South Sixth Street, De Pere, Wisconsin 54115, until 1:00 PM. Thursday, March 1, 2018, at which time they will be publicly opened and read aloud.

Project 18-01 for which proposals are being sought includes the following approximate quantities:

- 2,200 LF New and Relay Storm Sewer (8-inch to 18-inch) and Associated Appurtenances
- 1,900 LF New and Relay Sanitary Sewer (8-inch to 15-inch) and Associated Appurtenances
- 8,525 LF Relay Water Main (8-inch to 16-inch) and Associated Appurtenances
- 300 LF Directional Drill or Open Cut Water Main (8-inch) and Associated Appurtenances
- New Storm Lateral Installation (6-inch), New and Relay Sanitary Sewer Laterals (4-inch and 6-inch) and New and Relay Water Services (1-inch and 2-inch)
- 1,700 CY Unclassified Excavation
- 1,900 LF New Concrete Curb and Gutter
- 7,000 Tons Asphaltic Concrete Pavement Placement
- 39,000 SY Asphaltic Concrete Pavement Milling
- Concrete Curb and Gutter, Sidewalk, Driveway and Concrete Pavement Replacement
- Restoration

Complete digital project bidding documents are available for viewing and or downloading at www.QuestCDN.com or may be examined at the office of the Director of Public Works. Digital plan documents may be downloaded for \$10 by inputting Quest Project #5549755 on Quest's Project Search page. The QuestCDN website can also be accessed through the City website at www.de-pere.org. On the homepage, click on the City Departments tab at the top, then click on Public Works, then Engineering, then Construction Projects, then 2018 Construction Projects.

Each proposal shall be accompanied by a certified check or bid bond in an amount equal to five percent (5%) of the bid, payable to the City of De Pere, as a guarantee that if the bid is accepted, the bidder will execute a contract and furnish a contract bond as set forth in the General Conditions of the City of De Pere. In case the bidder fails to file such contract and bond, the amount of the check or bid bond shall be forfeited to the City of De Pere as liquidated damages.

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

The letting of the contract is subject to the provisions of the following Wisconsin Statutes:

Section 62.15 regarding Public Works.

Section 66.0901(3) regarding Prequalification of Contractor.

Each bidder shall pre-qualify by submitting proof of responsibility on forms furnished by the Director of Public Works. Such forms shall be filed with the Director of Public Works no later than 4:00 P.M., Monday, February 26, 2018. Prospective bidders who have previously submitted such forms subsequent to January 1, 2018 will not be required to separately submit such form for this project.

The City of De Pere reserves the right to reject any or all bids, to waive any informalities in bidding and to accept any proposal which the Common Council deems most favorable to the interest of the City of De Pere.

Dated this 8th day of February, 2018.

Board of Public Works
City of De Pere
Eric Rakers, P.E.
City Engineer

Project 18-01

SECTION 00 21 13
INSTRUCTIONS TO BIDDERS

ARTICLE 1 – DEFINED TERMS

- 1.1 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

None

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.1 Complete sets of the Bidding documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained as stated in the Advertisement for bids.
- 2.2 Complete sets of Bidding Documents shall be used in preparing Bids; Owner does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 Owner, in providing the Bidding Documents on the terms stated in the Advertisement for Bids, does so only for the purpose of obtaining Bids for the Work and does not confer a license or grant for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.1 In accordance with Section 66.0901(3), each bidder shall pre-qualify by submitting proof of responsibility on forms furnished by the Director of Public Works. Such forms shall be filed with the Director of Public Works as stated in the advertisement for Bids. Prospective bidders who have previously submitted such forms after January 1st of this year will not be required to separately submit such form for this project.

ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA AND SITE

- 4.1 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in the General Conditions.
- 4.2 Underground Facilities
- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.3 Subsurface and Physical Conditions

- A. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Contractor may not rely upon or make any claim against Owner, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor’s purposes, including but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 2. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. Any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.4 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.5 Reference is made to Section 01 10 00: Summary of Work, for work that will be completed and for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of Contract Documents (other portions thereof related to price) for such other work.

4.6 It is the responsibility of each Bidder before submitted a Bid to:

- A. Examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;
- B. Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. Obtain and carefully study (or accept consequences of not doing so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of

construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;

- E. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
 - F. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - G. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawing identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
 - H. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies, that bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
 - I. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.7 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and, procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 – SITE AND OTHER AREAS

- 5.1 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

ARTICLE 6 – INTERPRETATIONS AND ADDENDA

- 6.1 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.2 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner and Engineer.

ARTICLE 7 – BID SECURITY

- 7.1 A Bid shall be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check or bank money order or Bid bond (on the form attached) issued by a surety meeting the requirements of the General Conditions. Submittal of a Bid Bond on a form other than the Bid Bond form included in the Bidding Documents may be cause for rejection of Bid.
- 7.2 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner per the General Conditions.
- 7.3 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 8 – CONTRACT TIMES

- 8.1 The number of days within which, or the dates by which, Milestones are to be achieved and the Work is to be substantially completed and ready for final payment are set forth in the Bid Form and Summary of Work.

ARTICLE 9 – LIQUIDATED DAMAGES

- 9.1 Provisions for liquidated damages are set forth in the General Conditions.

ARTICLE 10 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 10.1 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Bid Form and Summary of Work.

ARTICLE 11 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.1 The Bidder shall submit with the Bid to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 11.2 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposed to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner subject to revocation of such acceptance after the Effective Date of the Agreement.
- 11.3 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

ARTICLE 12 – PREPARATION OF BID

- 12.1 The Bid form is included with the Bidding documents.
- 12.2 All blanks on the Bid Form shall be completed by printing in ink or by typewrite and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each alternative, and unit price item listed therein, or the words “No Bid,” “ No Change,” or “Not Applicable” entered.
- 12.3 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate office accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The

corporate address and state of incorporations shall be shown below the seal.

- 12.4 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.
- 12.5 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown below the signature.
- 12.6 A Bid by an individual shall show the Bidder's name and official address.
- 12.7 A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown below the signature.
- 12.8 All names shall be typed or printed in ink below the signatures.
- 12.9 The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 12.10 The address and telephone number for communications regarding the Bid shall be shown.
- 12.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 13 – BASIS OF BID; COMPARISON OF BIDS

13.1 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.
- B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accord with the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

ARTICLE 14 – SUBMITTAL OF BID

- 14.1 A Bid shall be submitted no later than date and time prescribed and at place indicated in Advertisement for Bids and shall be enclosed in a plainly marked package with the Project title (and, if applicable, designated portion of the Project for which the Bid is submitted), name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on outside with the notation “BID ENCLOSED.” A mailed Bid shall be addressed to City of De Pere, Municipal Service Center, 925 S. Sixth Street, De Pere, WI 54115. Electronically transmitted Bids will not be accepted.
- 14.2 See Bid Form for a list of documents typically required to be submitted with the Bid.

ARTICLE 15 – MODIFICATION AND WITHDRAWAL OF BID

- 15.1 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 15.2 If within 24 hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 16 – OPENING BIDS

- 16.1 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 17 – BIDS REMAIN SUBJECT TO ACCEPTANCE

- 17.1 All bids will remain subject to acceptance for the period of time stated in the General Conditions, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.1 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that

Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

- 18.2 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 18.3 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 18.4 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Supplier, and other individuals or entities proposed for those portions of the Work for which the identify of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 18.5 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.
- 18.6 Bidder agrees to waive any claim it has or may have against the Owner and the respective employees arising out of or in connection with the administration, evaluation or recommendation of any Bid.
- 18.7 If the Contract is to be awarded, Owner will award the Contract to the lowest responsible responsive Bidder whose Bid is in the best interests of the Project.

ARTICLE 19 – CONTRACT SECURITY AND INSURANCE

- 19.1 The General Conditions set forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds and a certificate of insurance.

ARTICLE 20 – SIGNING OF AGREEMENT

- 20.1 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of Drawings with appropriate identification.

END OF SECTION

SECTION 00 41 13

CITY OF DE PERE

BID FORM

PROJECT 18-01

This bid, submitted by the undersigned Bidder to the City of De Pere, in accordance with the Advertisement or Invitation to Bid, which will be received until 1:00 PM. Thursday, March 1, 2018 is to furnish and deliver all materials, and to perform and do all work on the project designated, by Friday, September 28, 2018.

Bidder has examined and carefully prepared the bid from the plans and specifications and has checked the same in detail before submitting said proposal or bid; and that said bidder or bidder's agents, officer or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal or bid.

Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.

Addendum Date

BASIS OF BID:

Bidder will complete the Work in accordance with the Contract documents for the following prices (s):

As stated in the attached Unit Price Bid Schedule.

Unit Prices have been computed in accordance with the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

TOTAL BID PRICE: \$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ATTACHMENTS TO THIS BID

The following documents are submitted with and made a condition of this Bid:

- A. Required Bid Security
- B. Unit Price Bid Schedule (Section 00 41 43)
- C. Proposed Products Form (Section 00 43 33)
- B. Tabulation of Subcontractors (Section 00 43 36)

BID SUBMITTAL

This Bid is submitted by _____ of _____,

The Bidder, being duly sworn, does dispose that they are an authorized representative of

Bidder, if Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature – attach evidence of authority to sign)

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City of De Pere

Name (typed or printed): _____

Title: _____
(CORPORATE SEAL)

Attest _____

Date of Qualification to do business in Wisconsin is ____/____/____.

Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of second joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venture must sign. Manner of signing for each individual, partnership, and corporation that is a party to joint venture should be in manner indicated above.)

Bidder's Business Address _____

Phone No. _____ Fax No. _____

E-mail _____

SUBMITTED on _____, 20__.

State Contractor License No. _____ (if applicable).

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

SECTION 00 41 43

CITY OF DE PERE
PROJECT 18-01
BID SCHEDULE – UNIT PRICE

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
SANITARY SEWER					
SS-01	Provide 15" PVC Sanitary Sewer (Natural Backfill)	LF	470	\$_____	\$_____
SS-02	Remove and Relay 15" PVC Sanitary Sewer (Natural Backfill)	LF	330	\$_____	\$_____
SS-03	Provide 8" PVC Sanitary Sewer (Granular Backfill)	LF	360	\$_____	\$_____
SS-04	Provide 8" PVC Sanitary Sewer (Granular Backfill) (Bridge Port Circle)	LF	750	\$_____	\$_____
SS-05	Remove and Relay 6" or 4" PVC Sanitary Lateral	LF	3,960	\$_____	\$_____
SS-06	Provide 8" PVC Sanitary Sewer Lateral	LF	20	\$_____	\$_____
SS-07	Provide 6" PVC Sanitary Sewer Lateral	LF	10	\$_____	\$_____
SS-08	Provide 4" PVC Sanitary Sewer Lateral	LF	30	\$_____	\$_____
SS-09	Provide 4" PVC Sanitary Sewer Lateral (Bridge Port Circle)	LF	430	\$_____	\$_____
SS-10	Provide 15"x6" or 15"x4" Sanitary Wye	EA	1	\$_____	\$_____
SS-11	Provide 8"x6" or 8"x4" Sanitary Wye	EA	13	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
SANITARY SEWER (CONTINUED)					
SS-12	Provide 8"x4" Sanitary Wye (Bridge Port Circle)	EA	14	\$_____	\$_____
SS-13	Provide 6" or 4" Saddle to Existing Sanitary Sewer	EA	100	\$_____	\$_____
SS-14	Provide 4' Diameter Sanitary Sewer Manhole (Huron, Erie, Fulton, Franklin Backyard)	VF	7	\$_____	\$_____
SS-15	Provide 4' Diameter Sanitary Sewer Manhole (Bridge Port Circle)	VF	65	\$_____	\$_____
SS-16	Remove and Replace 4' Diameter Sanitary Sewer Manhole	VF	55	\$_____	\$_____
SS-17	Provide Sanitary Sewer Risers	LF	40	\$_____	\$_____
SS-18	Provide Sanitary Sewer Risers (Bridge Port Circle)	LF	50	\$_____	\$_____
SS-19	Core Drill Sanitary Sewer Manhole	EA	1	\$_____	\$_____
SS-20	Connect to Existing Sanitary Sewer Pipe	EA	8	\$_____	\$_____
SS-21	Connect to Existing Sanitary Sewer Pipe (Bridge Port Circle)	EA	1	\$_____	\$_____
SS-22	Connect to Existing Sanitary Sewer Manhole	EA	1	\$_____	\$_____
SS-23	Abandon/Remove Existing Sanitary Sewer Appurtenances	LS	1	\$_____	\$_____
SS-24	Bulkhead Stub in Manhole	EA	1	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
SANITARY SEWER (CONTINUED)					
SS-25	Sanitary Sewer Dig Down and Repair Offset Joint	EA	2	\$_____	\$_____
SS-26	Retrofit Sanitary Sewer Inside Drop	EA	1	\$_____	\$_____
STORM SEWER					
ST-01	Provide 15" PVC or RCP (Class III) Storm Sewer (Granular Backfill) (Bridge Port Circle)	LF	15	\$_____	\$_____
ST-02	Remove and Relay 15" PVC or RCP (Class III) Storm Sewer (Granular Backfill)	LF	65	\$_____	\$_____
ST-03	Provide 12" PVC or RCP (Class III) Storm Sewer (Granular Backfill)	LF	1,280	\$_____	\$_____
ST-04	Provide 12" PVC or RCP (Class III) Storm Sewer (Granular Backfill) (Bridge Port Circle)	LF	410	\$_____	\$_____
ST-05	Provide 12" PVC or RCP (Class III) Storm Sewer (Natural Backfill) (Bridgeport Circle)	LF	30	\$_____	\$_____
ST-06	Remove and Relay 12" PVC or RCP (Class III) Storm Sewer (Granular Backfill)	LF	130	\$_____	\$_____
ST-07	Provide 8" PVC Storm Sewer (Bridge Port Circle) (Granular Backfill)	LF	310	\$_____	\$_____
ST-08	Provide 6" PVC Storm Sewer Lateral	LF	1,050	\$_____	\$_____
ST-09	Provide 6" PVC Storm Sewer Lateral (Bridge Port Circle)	LF	500	\$_____	\$_____
ST-10	Provide 12"x6" Storm Branch or Inserta Tee	EA	30	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STORM SEWER (CONTINUED)					
ST-11	Provide 12"x6" Storm Branch or Inserta Tee (Bridge Port Circle)	EA	4	\$ _____	\$ _____
ST-12	Provide 8"x6" Storm Branch or Inserta Tee (Bridge Port Circle)	EA	3	\$ _____	\$ _____
ST-13	Provide 4' Diameter Storm Manhole	VF	30	\$ _____	\$ _____
ST-14	Provide 4' Diameter Storm Manhole (Bridge Port Circle)	VF	30	\$ _____	\$ _____
ST-15	Provide 4' Diameter Storm Manhole (Construct Over Existing – Doghouse) (Bridge Port Circle)	EA	1	\$ _____	\$ _____
ST-16	Remove and Replace 4' Diameter Storm Manhole	VF	10	\$ _____	\$ _____
ST-17	Provide Type B Inlet	EA	4	\$ _____	\$ _____
ST-18	Provide Type B Inlet (Bridge Port Circle)	EA	6	\$ _____	\$ _____
ST-19	Remove and Replace Type B Inlet	EA	4	\$ _____	\$ _____
ST-20	Remove Storm Sewer Manhole	EA	1	\$ _____	\$ _____
ST-21	Reconnect to Existing Structure and/or Existing Pipe	EA	6	\$ _____	\$ _____
ST-22	Reconnect to Existing Structure and/or Existing Pipe (Bridge Port Circle)	EA	2	\$ _____	\$ _____
ST-23	Core Drill Manhole (Bridge Port Circle)	EA	1	\$ _____	\$ _____
ST-24	Abandon/Remove Existing Storm Sewer and Appurtenances	LS	1	\$ _____	\$ _____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
WATER MAIN					
W-01	Provide 16" PVC Water Main (Granular Backfill)	LF	1,950	\$_____	\$_____
W-02	Provide 12" PVC Water Main (Granular Backfill)	LF	50	\$_____	\$_____
W-03	Provide 10" PVC Water Main (Granular Backfill)	LF	50	\$_____	\$_____
W-04	Provide 8" PVC Water Main (Granular Backfill)	LF	5,300	\$_____	\$_____
W-05	Provide 8" PVC Water Main (Granular Backfill) (Bridge Port Circle)	LF	60	\$_____	\$_____
W-06	Provide 8" PVC Water Main (Natural Backfill)	LF	360	\$_____	\$_____
W-07	Provide 8" PVC Water Main (Natural Backfill) (Bridge Port Circle)	LF	800	\$_____	\$_____
W-08	Provide 8" PVC Water Main Open Cut or Directional Drill (Twilight Drive)	LF	320	\$_____	\$_____
W-09	Provide 2" HDPE Water Service	LF	100	\$_____	\$_____
W-10	Provide 2" Corporation and Curb Stop	EA	8	\$_____	\$_____
W-11	Provide 1" HDPE Water Service	LF	5,200	\$_____	\$_____
W-12	Provide 1" HDPE Water Service (Bridge Port Circle)	LF	510	\$_____	\$_____
W-13	Provide 1" Corporation and Curb Stop	EA	160	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
WATER MAIN (CONTINUED)					
W-14	Provide 1" Corporation and Curb Stop (Bridge Port Circle)	EA	14	\$_____	\$_____
W-15	Provide 2" Corporation with Plug/Saddle with 2" HDPE	EA	11	\$_____	\$_____
W-16	Provide 2" Corporation with Plug/Saddle with 2" HDPE (Bridge Port Circle)	EA	2	\$_____	\$_____
W-17	Provide 16" Butterfly Valve	EA	7	\$_____	\$_____
W-18	Provide 12" Gate Valve	EA	3	\$_____	\$_____
W-19	Provide 10" Gate Valve	EA	3	\$_____	\$_____
W-20	Provide 8" Gate Valve	EA	16	\$_____	\$_____
W-21	Provide 8" Gate Valve (Bridge Port Circle)	EA	1	\$_____	\$_____
W-22	Provide 6" Gate Valve	EA	11	\$_____	\$_____
W-23	Provide Connection to Existing Water Main	EA	23	\$_____	\$_____
W-24	Provide Connection to Existing Water Main (Bridge Port Circle)	EA	2	\$_____	\$_____
W-25	Provide Connection to Existing Water Main (10"x8") Tapping Tee and Valve	EA	1	\$_____	\$_____
W-26	Provide Hydrant (7.0' Bury)	EA	4	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
WATER MAIN (CONTINUED)					
W-27	Provide Hydrant (6.5' Bury)	EA	12	\$_____	\$_____
W-28	Provide Hydrant (6.5' Bury) (Bridge Port Circle)	EA	1	\$_____	\$_____
W-29	Provide 6" PVC Water Main or Hydrant Leads	LF	270	\$_____	\$_____
W-30	Provide 6" PVC Hydrant Leads (Bridge Port Circle)	LF	5	\$_____	\$_____
W-31	Provide Water Main Offset	EA	4	\$_____	\$_____
W-32	Abandon/Remove Water Main and Appurtenances	LS	1	\$_____	\$_____
W-33	Reuse Saddle and Corporation as Air Release Point	EA	1	\$_____	\$_____
STREET AND DRAINAGE					
SD-01	Unclassified Excavation (Fairview Avenue)	CY	50	\$_____	\$_____
SD-02	Unclassified Excavation (Bridge Port Circle)	CY	1,715	\$_____	\$_____
SD-03	Provide Unclassified Excavation at Slip Formed Curb and Gutter (Fairview Avenue)	CY	95	\$_____	\$_____
SD-04	Mill Asphaltic Concrete Pavement	SY	39,020	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE (CONTINUED)					
SD-05	Provide 1 1/4" Crushed Aggregate Base Course	TON	90	\$_____	\$_____
SD-06	Provide 1 1/4" Crushed Aggregate Base Course for Slip Form Curb and Gutter (Fairview Avenue)	TON	190	\$_____	\$_____
SD-07	Provide 1 1/4" Crushed Aggregate Base Course (Bridge Port Circle)	TON	2,750	\$_____	\$_____
SD-08	Provide Asphaltic Concrete Pavement Type 4 LT 58-28 S, Upper Layer	TON	5,050	\$_____	\$_____
SD-09	Provide Asphaltic Concrete Pavement Type 3 LT 58-28 S, Lower Layer	TON	1,700	\$_____	\$_____
SD-10	Provide Asphaltic Concrete Pavement Type 3 LT 58-28 S, Lower Layer (Bridge Port Circle)	TON	360	\$_____	\$_____
SD-11	Provide Small Asphalt Patch Type 4 LT 58-28 S, Upper Layer	SY	25	\$_____	\$_____
SD-12	Remove and Replace 24" Concrete Curb and Gutter	LF	3,250	\$_____	\$_____
SD-13	Remove and Replace 24" Concrete Curb and Gutter (Slip Form)	LF	2,000	\$_____	\$_____
SD-14	Provide 24" Concrete Curb and Gutter (Slip Form) (Bridge Port Circle)	LF	2,000	\$_____	\$_____
SD-15	Remove and Replace 4" Concrete Sidewalk	SY	1,150	\$_____	\$_____
SD-16	Remove and Replace 6" Concrete Sidewalk, Ramp, or Driveway	SY	700	\$_____	\$_____
SD-17	Provide 4" Concrete Surface Drain Flume	SY	5	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE (CONTINUED)					
SD-18	Provide #4 Reinforcement Bars for Curb and Sidewalk	LF	10,800	\$_____	\$_____
SD-19	Provide #4 Reinforcement Bars for Curb and Sidewalk (Bridge Port Circle)	LF	560	\$_____	\$_____
SD-20	Drilled Tie Bars (Existing Sidewalk, and Curb and Gutter)	EA	1,450	\$_____	\$_____
SD-21	Drilled Tie Bars (Existing Sidewalk, and Curb and Gutter) (Bridge Port Circle)	EA	10	\$_____	\$_____
SD-22	Provide Detectable Warning Field (Natural)	EA	3	\$_____	\$_____
SD-23	Salvage and Reset Brick Pavers	SF	50	\$_____	\$_____
SD-24	Landscaping – Topsoil, Seed, Fertilizer and Mulch-No. 40 Seed Mix	SY	3,400	\$_____	\$_____
SD-25	Landscaping – Topsoil, Seed, Fertilizer and Mulch-No. 40 Seed Mix (Bridge Port Circle)	SY	7,000	\$_____	\$_____
SPECIAL CONSTRUCTION					
SC-01	Clearing and Grubbing (Fox River Trail Sewer Relay)	LS	1	\$_____	\$_____
SC-02	Clearing and Grubbing (Bridge Port Circle)	LS	1	\$_____	\$_____
SC-03	Pipe Foundation Stabilization	CY	100	\$_____	\$_____

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
SPECIAL CONSTRUCTION (CONTINUED)					
SC-04	Aggregate Slurry Backfill	CY	20	\$_____	\$_____
SC-05	Provide Silt Fence	LF	1,150	\$_____	\$_____
SC-06	Provide Silt Fence (Bridge Port Circle)	LF	1,200	\$_____	\$_____
SC-07	Inlet Protection Type B	EA	45	\$_____	\$_____
SC-08	Inlet Protection Type B (Bridge Port Circle)	EA	6	\$_____	\$_____
SC-09	Tracking Pad	EA	3	\$_____	\$_____
SC-10	Adjust Inlet	EA	30	\$_____	\$_____
SC-11	Adjust Inlet Plus 1-Foot	EA	1	\$_____	\$_____
SC-12	Adjust Manhole	EA	20	\$_____	\$_____
SC-13	Manhole Reconstruct	VF	25	\$_____	\$_____
SC-14	Poured in Place Bench	EA	1	\$_____	\$_____
SC-15	Provide Light Rip Rap with Geotextile Fabric, Type HR	SY	4	\$_____	\$_____
SC-16	Polystyrene Insulation Board	LF	20	\$_____	\$_____
SC-17	Traffic Control (Detour Route Chicago Street)	LS	1	\$_____	\$_____
TOTAL					\$_____

SECTION 00 43 13

CITY OF DE PERE

BID BOND

KNOW ALL MEN BY THESE PRESENTS: That _____,

as Principal, hereinafter called Principal, and _____,

as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Oblige, hereinafter called City, in the amount of

_____ dollars (\$_____) for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presence.

WHEREAS, Principal has made a proposal to the City for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work of Project 18-01 in accordance with drawings and specifications prepared by the Director of Public Works of said City, which proposal is by reference made a part hereof, and is hereinafter referred to as the BID.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall be awarded the contract for said project and Principal shall enter into a contract in accordance with the BID, then this obligation shall be null and void; otherwise it shall remain in full force and effect, provided that:

1. The liability of Surety shall in no event exceed the penalty of this bond.
2. Any suits at law or proceedings, in equity brought or to be brought against Surety to recover any claim hereunder shall be executed within six (6) months from the date of this instrument.

Signed and sealed this _____ day of _____, 20____.

In the presence of:

WITNESS

PRINCIPAL (SEAL)

WITNESS

SURETY (SEAL)

SECTION 00 43 33

PROPOSED PRODUCTS FORM

The following is a list of material, type or model numbers and manufactures used in the preparation of this proposal and to be used on this project:

<u>ITEM</u>	<u>MATERIAL</u>	<u>SUPPLIER</u>
Water main (PVC)	<hr/>	<hr/>
Water main (PVC) – Directional Drill	<hr/>	<hr/>
Valves	<hr/>	<hr/>
Hydrants	<hr/>	<hr/>
Manholes	<hr/>	<hr/>
Inlets / Catch Basins	<hr/>	<hr/>
Storm Sewer (PVC/RCP)	<hr/>	<hr/>
Sanitary Sewer (PVC)	<hr/>	<hr/>

SECTION 00 43 36

TABULATION OF SUBCONTRACTORS

The following information is submitted which gives the name, business address, and portion of work for each subcontractor that will be used in the work if the bidder is awarded the contract, and no subcontractor doing work in excess of one-half of one percent of the total amount of the bid and who is not listed will be used without the written approval of the Engineer. Additional numbered pages outlining this portion of the proposal may be attached to this page.

NAME

BUSINESS ADDRESS

PORTION OF WORK

SECTION 00 51 00

NOTICE OF AWARD

(Contractor)
(Contractor Name)
(Address)
(Address)

Project Description: **18-01 SEWER AND WATER RELAY ANND STREET RESURFACING**

The City has considered the proposal submitted by you dated **March 1, 2018** for the above-described project in response to its Advertisement for Bids dated **February 8, 2018** and **February 15, 2018**.

You are hereby notified that the Common Council of the City of De Pere has accepted your bid of **(Contract Amount \$_____.00)**.

You are required to execute the Contract and furnish the required Performance Bond, Payment Bond and Certificates of Insurance within ten (10) calendar days from the date of this notice to you.

If you fail to execute said Agreement and to furnish said bonds within ten (10) days from the date of this notice, said City will be entitled to consider all your rights arising out of the City's acceptance of your bid as abandoned and as a forfeiture of your Bid Bond. The City will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the City.

Dated this __th day of _____ 2018.

DEPARTMENT OF PUBLIC WORKS

BY: Eric P. Rakers, P.E.
City Engineer

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by:

_____, this the _____ day of _____, 20____

By:_____

Title:_____

SECTION 00 52 13

CONTRACT

This Contract, made and entered into this day _____ (date to be affixed by City), by and between (Contractor Name), hereinafter called Contractor, and the City of De Pere, a municipal corporation of the State of Wisconsin, hereinafter called City.

WITNESSETH: That, in consideration of the covenants and agreements herein contained, to be performed by the parties hereto, and of the payments hereinafter agreed to be made, it is mutually agreed as follows:

ARTICLE I - SCOPE OF WORK

The Contractor shall furnish all materials and all equipment and labor necessary, and perform all work shown on the drawings and described in the specifications for the project entitled Project Number and Name, all in accordance with the requirements and provisions of the following documents, which are hereby made a part of this Contract:

- (a) Advertisement for Bids, dated (1st Advertising Date) and (2nd Advertising Date).
- (b) Drawings designated for Project Number and Name dated (1st Advertising Date).
- (c) City of De Pere 2018 Construction Specifications.
- (d) Special Provisions dated (1st Advertising Date)
- (e) Proposal submitted by (Contractor Name) dated Bid Date.
- (f) Addenda No. dated

ARTICLE II - TIME OF COMPLETION

- (a) The work to be performed under the Contract shall be commenced within (number spelled out) (__) calendar days after receipt of written notice to proceed. The work shall be completed within (Number spelled out) (__) calendar days) or (specific calendar dates) after receipt of Notice to Proceed.
- (b) Time is of the essence with respect to the date of completion herein above stated. Failure to complete the work within the number of calendar days stated in this Article, or interim dates included in the work sequence in Section 01 10 00, Summary of Work, including any extensions granted thereto, shall entitle the City to deduct from the monies due the Contractor an amount equal to Update based on 00 70 00 - General Conditions (Page 22)(\$) per day for each calendar day of delay in the completion of the work. Such amount shall be considered and treated not as a penalty but as liquidated damages, which the City will sustain, by failure of the Contractor to complete the work within the time stated.

ARTICLE III - PAYMENT

- (a) The Contract Sum. The City shall pay to the Contractor for the performance of the Contract the amounts determined for the total number of each of the following units of work completed at the unit price stated thereafter. The number of units contained in this schedule is approximate only,

and the final payment shall be made for the actual number of units that are incorporated in or made necessary by the work covered by the Contract.

(b) Progress Payments. The City shall make payments on account of the Contract as follows:

1. On not later than the third Friday day of every month the Contractor shall present to the City an invoice covering an estimate of the amount and proportionate value of the work done as verified by the City under each item of work that has been completed from the start of the job up to and including the third Friday of the preceding month, and the value of the work so completed determined in accordance with the schedule of unit prices for such items, together with such supporting evidence as may be required. This invoice shall also include an allowance for the cost of such materials and equipment required in the permanent work as have been delivered to the site but not as yet incorporated in the work.
2. On not later than the second week of the following month, the City shall, after deducting previous payments made, pay to the Contractor 95% of the amount of the approved invoice, retaining 5% of the estimate of work done until 50% of the work has been completed. At 50% completion of the work, the previous retainage shall not yet be paid, but further partial payments shall be made in full to the contractor without additional retainage being taken unless the engineer certifies that the work is not proceeding satisfactorily. If the work is not proceeding satisfactorily, additional amounts may be retained. After substantial completion, an amount retained may be paid to the contractor, keeping retained only such amount as is needed for the remaining work.
3. The Contractor shall notify the City in writing when all work under this Contract has been completed. Upon receipt of such notice the City shall, within a reasonable time, make the final inspection and issue a final certificate stating that the work provided for in this Contract has been completed and is accepted under the terms and conditions thereof, and that the entire balance due the Contractor as noted in said final certificate is due and payable. Before issuance of the final certificate the Contractor shall submit evidence satisfactory to the City that payrolls, material bills, and other indebtedness connected with the work under this Contract have been paid.

The City shall make final payment as soon after issuance of the final certificate as practicable.

ARTICLE IV – CONTRACT DOCUMENTS

(a) Contents

1. The Contract documents consist of the following:
 - a. This Contract (pages 00 52 13-1 to 0052-13-2, inclusive).
 - b. Payment bond (pages 00 61 13-1 to 00 61 13-2, inclusive).
 - c. Performance bond (page 00 61 16-1).
 - d. General Conditions (pages 00 70 00-1 to 00 70 00-27, inclusive).
 - e. Specifications as listed in the table of contents of the Project Manual.
 - f. Drawings consisting of ___ sheets with each sheet bearing the following general title: ___[or] the Drawings listed on attached sheet index.
 - g. Addenda (numbers ___ to ___ inclusive), dated _____.
 - h. Exhibits to this Agreement (enumerated as follows):
 - 1) Contractor's Bid (pages 00 41 13-1 to 00 41 13-3, inclusive).
 - 2) Bid Schedule – Unit Prices (Pages 00 41 43-1).
 - 3) Proposed Products Form (Page 00 43 33-1)
 - 4) Tabulation of Subcontractors (page 00 43 36-1).
 - 5) Documentation submitted by Contractor prior to Notice of Award (00 51 00-1)

City of De Pere

- IN WITNESS WHEREOF, the parties hereto have executed this Contract, the day and year first written above.

Approved as to Form By: _____ (City Attorney)

Sufficient funds are available to provide for the payment of this obligation.

BY: _____
(CLERK-TREASURER)

SECTION 00 55 00

NOTICE TO PROCEED

Date: _____

(CONTRACTOR NAME)
(ADDRESS)
(ADDRESS)

PROJECT: (PROJECT NUMBER AND NAME)

You are hereby notified to commence work in accordance with the CONTRACT dated _____, within ten (10) days of this Notice. All work under this contract shall be completed within _____ (NUMBER IN WORDS) (___#) consecutive days from the start of construction or _____ (DATE) whichever comes first.

Department of Public Works

By: Eric P. Rakers, P.E.
Title: City Engineer

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by

_____, this _____ day of _____, 20____.
Company Name

Signature

BY: _____
Printed Name

TITLE: _____

SECTION 00 61 13

CITY OF DE PERE

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That (CONTRACTOR NAME), as Principal,
hereinafter called Contractor, and _____

_____, as Surety, hereinafter called Surety, are held and firmly bound
unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called
the owner, for the use and benefit of claimants as herein below defined in the amount _____
(CONTRACT AMT. SPELLED OUT) (\$_____) for the payment whereof
Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns,
jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ (date to be affixed by
City) entered into a contract with City for Project (PROJECT NUMBER), in accordance with drawings
and specifications prepared by the Director of Public Works of said City, which contract is by reference
made a part hereof, and is hereinafter referred to as the CONTRACT.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall
promptly make payments to all claimants as hereinafter defined, for all labor and material used or
reasonably required for use in the performance of the CONTRACT, then this obligation shall be null and
void; otherwise it shall remain in full force and effect, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with Contractor or with a sub-
contractor of Contractor for labor, material, or both, used or reasonably required for use in
the performance of the contract, labor and material being construed to include that part of
water, gas, power, lights, heat, oil, gasoline, telephone service, or rental of equipment
directly applicable to the contract.
2. The above named Contractor and Surety hereby jointly and severally agree with the City
that every claimant as herein defined, who has not been paid in full before the expiration
of a period of ninety (90) days after the date on which the last of such claimant's work or
labor was done or performed, or materials were furnished by such claimant may sue on
this bond for the use of such claimant in the name of the City, prosecute the suit to final
judgment for such sum or sums as may be justly due claimant, and have execution thereon,
provided, however, that the City shall not be liable for the payment of any costs or
expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - a. Unless claimant shall have given written notice to any two of the following: The
Contractor, the City, or the Surety above named, within ninety (90) days after
such claimant did or performed the last of the work or labor, or furnished the last
of the materials for which said claim is made, stating with substantial accuracy the
amount claimed and the name of the party to whom the materials were furnished,

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Contractor, City, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of Wisconsin, save that such service need not be made by a public officer.

- b. After the expiration of one (1) year following the date on which Contractor ceased work on said CONTRACT.
 - c. Other than in a state court of competent jurisdiction in and for the County or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens, which may be filed or recorded against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

SIGNED AND SEALED THIS _____ DAY OF _____, 20__.

In Presence of:

_____ (WITNESS)	_____ (CONTRACTOR)
_____ (WITNESS)	_____ (SURETY)

SECTION 00 61 16

CITY OF DE PERE

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That **(CONTRACTOR'S NAME)**, as Principal, hereinafter called Contractor, and _____, as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called City, in the amount of **(AMOUNT WRITTEN OUT)** (\$_____) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assign, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ (date to be affixed by City), entered into a contract with the City for Project 18-01, in accordance with drawings and specifications prepared by the Director of Public Works of said City, which contract is by reference made a part hereof, and is hereinafter referred to as the CONTRACT.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Contractor shall promptly and faithfully perform said CONTRACT, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever Contractor shall be, and declared by the City to be in default under the CONTRACT, the City having performed City's obligations there under, the Surety may promptly remedy the default, or shall promptly

1. Complete the CONTRACT in accordance with its terms and conditions or
2. Obtain a bid or bids for submission to City for completing the CONTRACT in accordance with its terms and conditions, and upon determination by the City and Surety of the lowest responsible bidder, arrange for a contract between such bidder and City make available as work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable by City to Contractor under the CONTRACT and any amendments thereto, less the amount properly paid by City to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the CONTRACT falls due. No right of action shall accrue on this bond to or for the use of any person or corporation other than the owner named herein or the heirs, executors, administrators or successors of City.

SIGNED AND SEALED THIS _____ DAY OF _____, 20__.

In the Presence of:

(WITNESS)

(CONTRACTOR)

(SEAL)

(WITNESS)

(SURETY)

(SEAL)

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

Project #
Project Name:

City of De Pere

Contractor's Application for Payment No.

Application Period:	Application Date:
Owner: City of De Pere	Contractor:
	Contractor's Project No.:

APPLICATION FOR PAYMENT

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
Total	\$0.00	\$0.00
NET CHANGE BY CHANGE ORDERS:		\$0.00

1. ORIGINAL CONTRACT PRICE:.....	
2. Net change by Change Orders and Written Amendments (+ or -):.....	\$0.00
3. CURRENT CONTRACT PRICE (Line 1 plus Line 2):.....	\$0.00
4. Total completed and stored to date Column H on Progress Estimate:...	\$0.00
5. Retainage (per Agreement):	
a. Work Completed - Column H (95% up to 50% of Contract or 2.5% of 100% of Contract)	\$0.00
6. AMOUNT ELIGIBLE TO DATE (Line 4 minus 5):.....	\$0.00
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application):.....	\$0.00
8. AMOUNT DUE THIS APPLICATION (Line 6 minus Line 7):.....	\$0.00

CONTRACTOR'S CERTIFICATION

The undersigned Contractor certifies that:(1) all previous progress payments received from Owner on account of Work done under Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by the Application for Payment is in accordance with the Contract Documents and is not defective.

By:	Date:

Payment of:

\$

(Line 8 or other - attach explanation of other amount)

is recommended by:

(Contractor)

(Date)

Payment of:

\$

(Line 8 or other - attach explanation of other amount)

is recommended by:

(Owner)

(Date)

Date

00 62 76-1

Application for Payment

SECTION 00 65 16

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project:	
Owner:	Owner's Contract No.:
Contractor:	

This [tentative] [definitive] Certificate of Substantial Completion applies to:

☐ All Work under the Contract Documents: ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Contractor and Engineer, and found to be substantially complete. The Date of Substantial completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

☐ Amended Responsibilities ☐ Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Executed by Engineer

Date

Accepted by Contractor

Date

SECTION 01 10 00
SUMMARY OF WORK

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. References
 - 2. Work Covered by the Contract Documents
 - 3. Work Sequence
 - 4. Use of Premises
 - 5. Warranty
 - 6. Work by Others
 - 7. Project Utility Sources
 - 8. Miscellaneous Provisions

1.2 REFERENCES

- A. General Specifications The work under this contract shall be in accordance with the City of De Pere, 2018 Construction Specifications and these Special Provisions and plans, and the latest edition of the Wisconsin Department of Transportation Standards Specifications for Highway and Structure Construction, where referenced in the City Specifications.
- B. Definitions. Any reference to the “state” or the “department” in said standard Specifications shall mean the “City of De Pere” for the purposes of this contract.
- C. Industry Standards
 - 1. Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
 - 2. Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
 - 3. If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement.
 - 4. The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements.
 - 5. Each section of the specifications generally includes a list of reference standards normally referred to in that respective section. The purpose of this list is to furnish the Contractor with a list of standards normally used for outlining the quality control desired on the project. The lists are not intended to be complete or all inclusive, but only a general reference of standards that are regularly referred to.

6. Each entity engaged in construction on the Project shall be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents. Where copies of standards are needed to perform a required construction activity, obtain copies directly from the publication source and make them available on request.

1.3 WORK COVERED BY THE CONTRACT DOCUMENTS

A. Project Identification

1. Project Location

- a. Basel Street from Geneva Street to Highview Street
 - b. Bridge Port Circle from Bridge Port Lane to Bridge Port Lane
 - c. Bruss Street from S. Erie Street to Mt. Olivet Drive
 - d. S. Erie Street from Merrill Avenue to George Street
 - e. Fairview Avenue from Fort Howard Avenue to Termini
 - f. Fribourg Street from Geneva Street to Highview Street
 - g. Helena Street from Suburban Drive to St. Joseph's Street
 - h. Highview Street from Jordan Road to Loan Oak Road
 - i. Mt. Olivet Drive from Jordan Road to Mayfair Street
 - j. Rebman Street from Jordan Road to Mt. Olivet Drive
 - k. St. Joseph's Street from Lourdes Street to Termini
 - l. Zurich Street from Geneva Street to Highview Street
 - m. Alley bounded by Franklin Street, Fulton Street, N. Erie Street, and N. Huron Street
 - n. Sewer Relay within easement at Parcels: ED-1128-E-2, ED-1128-E-3-1, ED-1128-E-3-2, ED-1128-E-5, and ED-1128-E-8
 - o. Water main installation for Pelican Landing Development at Parcel ED-1128-E-8
2. Work will be performed under the following prime contract:
- a. Project 18-01, Sewer and Water Relay and Street Resurfacing

B. The Work includes:

1. Water main and associated appurtenances relay
2. Storm sewer and associated appurtenances relay and new, spot storm sewer, inlet lead and inlet repair and replacement
3. Sanitary sewer and associated appurtenances new and relay and lateral repair
4. Manhole adjustment and repair
5. Spot concrete curb and gutter repair and replacement and new curb and gutter
6. Driveway and sidewalk removal and replacement
7. Mill asphaltic concrete pavement
8. Unclassified excavation
9. Asphaltic concrete paving
10. Terrace restoration
11. Erosion control
12. Traffic control

1.4 WORK SEQUENCE

- A. Conduct construction activities to maintain access to businesses and residences throughout construction.
- B. Topsoil, seed, and mulch shall be completed prior to asphaltic concrete pavement placement.
- C. All work under this project shall be completed by Friday, September 28, 2018.
- D. Anticipated start of construction is Monday, March 19, 2018.
- E. All work at Parcel ED-1128-E-8 for the Pelican Landing development shall be completed by April 27, 2018. The sewers and fill to proposed grade will be installed after the water main's installation by the developer immediately after the water main is installed.
- F. All work for the Fox River Trail sanitary sewer relay shall not commence until June 4, 2018 at the earliest to accommodate coordination with Brown County and the Cellcom Green Bay Marathon.
- G. The intersection of Charles Street and S. Erie Street is to be completed as part of Project 18-02. All paving, concrete replacement and landscaping at this intersection is to be completed by the Contractor under Project 18-02. Coordinate project paving and restoration with the Contractor for Project 18-02.
- H. Sewer lining is to be completed at Twilight Drive from Lois Street to the Termini as part of Project 18-03. Sanitary wyes and laterals may be completed prior or after the installation of the liner. Paving on Twilight Drive shall be completed after sewer lining is completed on Project 18-03. Coordinate project paving with the lining contractor.
- I. The City shall televise all existing sanitary sewers after the completion of lateral connections. Any defects to the sanitary sewer and appurtenances shall be repaired prior to asphalt paving.
- J. Construction at on Bridge Port Circle shall be completed by July 27, 2018.
- K. Construction on S. Erie. Street shall commence on June 11, 2018 and shall be completed by August 24, 2018.
- L. All water main tracer wire is to be tested prior to paving.
- M. The calendar days listed below are the allowed time for each location from the beginning of construction of a street to substantial completion of that area. Substantial completion is defined as having the street paved with surface course of asphaltic concrete pavement.

Project 18-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

Location	Calendar Days
Basel Street Fribourg Street Highview Street Zurich Street	54
Bruss Street Mt. Olivet Drive Rebman Street	89
Fairview Avenue	27
Helena Street St. Joseph's Street	48
S. Erie Street	69
Twilight Drive	35
Alley Sanitary Sewer Relay Alley bounded by Franklin St., Fulton St., N. Erie St., and N. Huron St.	2
Bridge Port Circle	36
Fox River Trail Sanitary Relay	9
Water main at Parcel ED-1128-E-8 for Pelican Landing Development	11

Please note that the allowed contract calendar days shown in the table above (380 calendar days) exceed the total project duration between the proposed start date of March 19, 2018 and the completion date of September 28, 2018 (193 calendar days). It is expected that the contractor work on multiple streets concurrently to ensure the satisfactory completion of the project within the project duration. Failure to meet the interim contract dates listed above warrants the enforcement of liquidated damages outlined in the City of De Pere Standard Specifications.

1.5 USE OF PREMISES

- A. Contractor shall have full use of the premises for construction operations, including use of the Project Site, as allowed by law, ordinances, permits, easement agreements and the Contract documents.
- B. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of the Project.
- C. The Project Site is limited to property boundaries, rights-of-way, easements, and other areas designated in the Contract Documents.
- D. Provide protection and safekeeping of material and products stored on or off the premises.
- E. Move any stored material or products which interfere with operations of Owner or other Contractors.

1.6 WARRANTY

- A. The Contractor warrants and guarantees to the City that all work shall be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects will be given to the Contractor. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this proposal.
- B. If within one (1) year after the date of contract work completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents or by a special provision of the Contract Documents, any work is found to be defective, the Contractor shall comply in accordance with the City's written instructions. These written instructions will include either correcting such defective work or, if it has been rejected by the City, removing it from the site and replacing it with non-defective work. If the Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk or loss or damage, the City may have the defective work corrected or the rejected work removed and replaced. All direct and indirect costs of correction or removal and replacement of defective work, including compensation for additional professional services, shall be paid by the Contractor.

1.7 WORK BY OTHERS

- A. The City of De Pere Park Department will trim all trees or remove trees and grind stumps for trees to be removed. Questions regarding trees or landscaping that is bid as part of this contract can be directed to the Engineer.
- B. Owner has awarded a separate contract for performance of certain construction operations which will be conducted at the Project site simultaneously with work under this Contract. This contract includes the following:
 - 1. Project 18-02 – Charles Street Reconstruction
 - a. S. Erie Street at Charles Street
 - 2. Project 18-03 – Pipe Lining CIPP
 - a. Twilight Drive west of Lois Street
- C. Wisconsin Public Service plans to relay the gas main along S. Erie Street in conjunction with this project.
- D. Cooperate fully with separate contractors and/or Owner so work by others may be carried out smoothly, without interfering with or delaying work under this Contract.

1.8 PROJECT UTILITY SOURCES

- A. Green Bay Metropolitan Sewer District (NEW Water), Lisa Sarau, (lsarau@newwater.us) (920-438-1039)

- B. AT&T, Joe Kassab, (jk572k@att.com) (920-735-3206)
- C. Wisconsin Public Service,
 - 1. Gas & Electric – Bob Laskowski (rtlaskowski@wisconsinpublicservice.com)
Office - (920-617-2775)
Cell – (920-676-2717)
- D. Time Warner Cable, Vince Albin, (vince.albin@twcable.com) (920-378-0444)
- E. Nsight, Rick Vincent, rick.vincent@nsight.com (920-617-7316)

1.9 MISCELLANEOUS PROVISIONS

- A. Notification to Residents – The Contractor shall individually notify all residents and businesses 2-weeks prior to the start of operations, giving an estimated time that vehicle movement will be limited or prohibited. Property owners shall be notified 24-hours prior to closing a drive.
- B. Maintain access to properties during construction, excluding times when utility work is occurring in front of the drive or when the curb and gutter and/or driveway is replaced.
- C. Maintain mail service throughout construction
- D. Provide a traffic control plan for the following locations:
 - a. The water main connection at the intersection of Jordan Road, Highview Street & Rebman Street
 - b. The water main connection at the intersection of Jordan Road and Mt. Olivet Drive.
 - c. The water main connection on N. Broadway Street at Parcel ED-1128-E-8 for Pelican Landing Development.
- E. All manhole structures, inlet structures and valve boxes shall be final adjusted after milling in conjunction with curb and gutter placement.
- F. The relayed water main on S. Erie Street shall be loaded from the Chicago Street intersection working to the north or south. The corresponding water main segments will test against newly installed valves or plugs.
- G. Concrete curb and gutter construction that is in conflict with existing trees and/or tree roots shall be removed in such a manner as to not disturb the tree and/or tree roots. Concrete curb and gutter shall be replaced by hand forming and placement. Paid for as remove and replace 24-inch concrete curb and gutter.

H. Ingress and egress to the site of work for delivery of materials, hauling of excavation, daily construction activities and all vehicular traffic shall be as follows:

Location	Route
Basel Street Fribourg Street Highview Street Zurich Street	Jordan Road or Lone Oak Road via Merrill Street or O'Keefe Road
Bruss Street Mt. Olivet Drive Rebman Street	Jordan Road via Merrill Street or O'Keefe Road (Both off of Broadway Street)
Fairview Avenue	Fort Howard Avenue via Parkview Road
Helena Street St. Joseph's Street	Lourdes Avenue & Suburban Drive via Grant Street or Scheuring Road
S. Erie Street	George Street or Merrill Street via Broadway Street
Twilight Drive	Apollo Way via Grant Street
Alley Sanitary Sewer Relay Alley bounded by Franklin Street, Fulton Street, N. Erie Street, and N. Huron Street	N. Erie Street via George Street
Bridge Port Circle	Bridge Port Lane via Lawrence Drive from Southbridge Road*
Fox River Trail Sanitary Relay Water main at Parcel ED-1128-E-8 for Pelican Landing Development	N. Broadway Street

Note: *Lawrence Drive from Fortune Avenue to the south is not considered a truck route. Please access Lawrence Drive from Southbridge Road to access this site.

PART 2 – PRODUCTS

PART 3 – EXECUTION

END OF SECTION

SECTION 01 22 01

MEASUREMENT AND PAYMENT SANITARY SEWER

PART 1 – GENERAL

1.1 SUMMARY

- | A. Section includes: | Bid Item No. |
|--|-----------------------------------|
| 1. Sanitary Sewer Mains (Natural Backfill) | SS-01, SS-02 |
| 2. Sanitary Sewer Mains (Granular Backfill) | SS-03, SS-04 |
| 3. Sanitary Sewer Laterals | SS-05, SS-06, SS-07, SS-08, SS-09 |
| 4. Sanitary Sewer Service Branches | SS-10, SS-11, SS-12, SS-13 |
| 5. Sanitary Sewer Manholes | SS-14, SS-15, SS-16 |
| 6. Sanitary Sewer Riser | SS-17, SS-18 |
| 7. Core Drilling to Existing Sanitary Manhole | SS-19 |
| 8. Connect to Existing Sanitary Sewer Pipe | SS-20, SS-21 |
| 9. Connect to Existing Sanitary Sewer Manhole | SS-22 |
| 10. Abandon/Remove Existing Sanitary Sewer Appurtenances | SS-23 |
| 11. Bulkhead Stub in Manhole | SS-24 |
| 12. Sanitary Sewer Dig Down and Repair Offset Joint | SS-25 |
| 13. Retrofit Sanitary Sewer Inside Drop | SS-26 |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
 2. The method of measurement for payment.
 3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for sanitary sewer systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
 2. Sawcutting asphalt and/or concrete.

3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
4. Dewatering.
5. Bypass pumping.
6. Excavation.
7. Open Trench installation method (unless bid item specifies other method).
8. Pipe Bedding.
9. Backfilling and compacting native obtained from the excavation.
10. Supplying, hauling, backfilling and compacting granular material.
11. Loading, hauling and disposing of surplus excavated material.
12. Landscaping – turf establishment surface restoration and trees and bushes damaged during construction.
13. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
14. Site access requirements including temporary aggregate material as required for local traffic access.
15. Bulkhead and abandoned existing sanitary sewer with flowable fill as shown on Drawings.
16. If crossing or undermining of existing public or private utility, then include:
 - a. Maintaining the utility in service.
 - b. Replacing of existing utilities, if damaged.
 - c. Providing support and bedding material.
17. Dust control.
18. Remove and replace existing mailboxes and traffic signs.
19. Restroom facilities
20. Easement and right-of-way requirements.
21. Construction staking and other survey work not provide by the Engineer.
22. Regulatory requirements.
23. Preconstruction videotaping and video equipment.
24. Quality assurance and quality control testing and inspections.
25. Shop drawings and other submittals.

1.3 SANITARY SEWER MAINS (NATURAL BACKFILL)

- A. The unit price for Sanitary Sewer Main (Natural Backfill) work includes:
1. General Work Items of Article 1.2.
 2. Sanitary sewer pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.

3. Excavation, breakdown and removal of abandoned piping inside the trench area, including plugging of existing connections.
 4. Excavation, breakdown and removal of abandoned pipeline structures inside the trench area, including plugging of existing connections
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer from centerline of the manhole to centerline of manhole with no deductions for manholes, sewer services branches and other fittings.
- C. The unit of measurement for payment is linear feet.

1.4 SANITARY SEWER MAINS (GRANULAR BACKFILL)

- A. The unit price for Sanitary Sewer Main (Granular Backfill) work includes:
1. General Work Items of Article 1.2.
 2. Sanitary sewer pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Excavation, breakdown and removal of abandoned piping inside the trench area, including plugging of existing connections.
 4. Excavation, breakdown and removal of abandoned pipeline structures inside the trench area, including plugging of existing connections.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer from centerline of the manhole to centerline of manhole with no deductions for manholes, sewer services branches and other fittings.
- C. The unit of measurement for payment is linear feet.

1.5 SANITARY SEWER LATERALS

- A. The unit price for Sanitary Sewer Laterals work includes:
1. General Work Items of Article 1.2.
 2. Sanitary sewer lateral pipe and fittings of the material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Watertight plug in the end of the sewer service lateral or connection including transition coupling to the existing building sewer lateral.
 4. Tracer wire.
 5. Install an 8' – 4" X 4" board at the end of the lateral.

- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer service lateral pipe (excluding risers) from centerline of the service branch to the end of the pipe at the right of way, easement or existing sewer service lateral with no deductions for fittings.
- C. The unit of measurement for payment is linear feet.

1.6 SANITARY SEWER SERVICE BRANCHES

- A. The unit price for Sanitary Sewer Service Branches work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Sanitary sewer service branches of same material strength or better than sanitary sewer main pipe.
 - 3. Installation along with the sanitary sewer main pipe installation.
 - 4. Plug (where required).
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.7 SANITARY SEWER MANHOLES

- A. The unit price for Sanitary Sewer Manholes work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Precast reinforced concrete components.
 - 3. Joint flexible gasket material.
 - 4. Resilient flexible connector between the manhole structure and the sewer pipe.
 - 5. Adjusting rings and bituminous plastic cement sealant at chimney.
 - 6. Manhole steps.
 - 7. Manhole frame and cover (Neenah Foundry R-1500 Manhole Cover with Non-Rocking Lid or equal). Sanitary Sewer manhole covers shall have gaskets and concealed pick holes.
 - 8. Bedding material.
 - 9. Sewer pipe stub with connections and watertight plug (where required).
- B. Measurement for payment will be the distance from the invert of the lowest sewer to the top of the frame and cover as set.
- C. The unit of measurement for payment is vertical feet.

1.8 SANITARY SEWER RISERS

- A. The unit price for Sanitary Sewer Risers work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Sanitary sewer riser pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 - 3. Risers to be installed at the sewer main.
 - 4. Tracer wire.
- B. Measurement for payment will be the actual length of pipe along the centerline of the installed sewer service riser pipe from centerline of fitting to centerline of fitting having a vertical rise of 45 degrees or greater with no deductions for fittings.
- C. The unit of measurement for payment is linear feet.

1.9 CORE DRILLING TO EXISTING SANITARY MANHOLE

- A. The unit price for Core Drilling to Existing Sanitary Manhole work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Core drilling into existing sanitary sewer manhole (where required).
 - 3. Install A-Lok boot.
 - 4. Reform flow line in existing sanitary manhole.
- B. Measurement for payment will be the actual number complete.
- C. The unit of measurement for payment is each.

1.10 CONNECT TO EXISTING SANITARY SEWER PIPE

- A. The unit price for Connecting to Existing Sanitary Sewer work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Sanitary Sewer Pipe same material strength or better than sewer main. Provide Fernco and connection water tight seal.
 - 3. Backfilling and compaction
- B. Measurement for payment will be the actual number complete.
- C. The unit of measurement for payment is each.

1.11 CONNECT TO EXISTING SANITARY SEWER MANHOLE

- A. The unit price for Connecting to Existing Sanitary Sewer work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Install A-Lok boot.
 - 3. Reform flow line in existing sanitary manhole.
 - 4. Backfilling and compaction
- B. Measurement for payment will be the actual number complete.
- C. The unit of measurement for payment is each.

1.12 ABANDON/REMOVAL SANITARY MANHOLES AND APPURTENANCES

- A. The unit price for Abandon/Removal Sanitary Manholes and Appurtenances work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Excavating.
 - 3. Install bulkheads and abandon sewer.
 - 4. Breaking the bottom or removing of the existing manhole.
 - 5. Provide and placing flowable fill.
 - 6. Backfilling and compacting.
- B. Measurement for payment will not be made.
- C. The unit of measurement for payment is lump sum.

1.13 BULKHEAD STUB IN MANHOLE

- A. The unit price for Bulkhead Stub in Manhole work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Bypassing pumping (if required).
 - 3. High pressure cleaning of interior stub.
 - 4. Stopping infiltration by patching or grouting.
 - 5. Removing existing plug or scarifying surface for bonding new plug (if required).
 - 6. Disposal of existing plug(if required).
 - 7. Forming bench at bulkhead pipe.
 - 8. Cleaning of any debris left from pouring the plug area.
- B. Measurement for payment will be the actual number of bulkheads installed.

C. The unit of measurement for payment is each.

1.14 DIG DOWN AND REPAIR STORM SEWER OFFSET JOINT

A. The unit price for Dig Down and Repair Storm Sewer Offset Joint work includes:

1. General Work Items of Article 1.2
2. Excavating
3. Exposing sanitary sewer line for repairs to offset joint
4. Sawing existing sanitary sewer
5. Remove and replace pipe (if applicable)
6. Connection to existing sanitary sewer (if applicable)
7. Repairing offset joint.

B. Measurement for payment will be the actual number complete.

C. The unit of measurement for payment is each

1.15 RETROFIT SANITARY SEWER INSIDE DROP

A. The unit price for Sanitary Sewer Manhole Inside Drop work includes:

1. General Work Items of Article 1.2.
2. Connection to existing sanitary sewer lateral including transition coupling.
3. 2-inch stainless steel strap.
4. ½-inch by 4-inch stainless steel lag screws.
5. 4-inch by 12-inch concrete or masonry saddle block.
6. Mortar blocking behind 90 degree bend.
7. Polyvinyl Chloride (PVC) pipe and appurtenances to extend flowline of drop to manhole trough.

B. Measurement for payment will be the actual number complete.

C. The unit of measurement for payment is each.

END OF SECTION

SECTION 01 22 02

MEASUREMENT AND PAYMENT STORM SEWER

PART 1 – GENERAL

1.1 SUMMARY

- | A. Section includes: | Bid Item No. |
|--|---|
| 1. Storm Sewer Mains (Granular Backfill) | ST-01, ST-02, ST-03,
ST-04, ST-06, ST-07 |
| 2. Storm Sewer Mains (Natural Backfill) | ST-05 |
| 3. Storm Sewer Laterals | ST-08, ST-09 |
| 4. Storm Sewer Service Branches | ST-10, ST-11, ST-12 |
| 5. Storm Sewer Manholes | ST-13, ST-14, ST-16 |
| 6. Storm Sewer Manhole Over Existing Storm | ST-15 |
| 7. Catch Basin/Inlets | ST-17, ST-18, ST-19 |
| 8. Remove Storm Sewer Manhole | ST-20 |
| 9. Reconnect to Existing Structure or Pipe | ST-21, ST-22 |
| 10. Core Drill Manhole | ST-23 |
| 11. Abandon/Remove Storm Sewer and Appurtenances | ST-24 |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
 2. The method of measurement for payment.
 3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for storm sewer systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
 2. Sawcutting asphalt and/or concrete.

3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
4. Dewatering.
5. Excavation.
6. Open Trench installation method (unless bid item specifies other method).
7. Pipe Bedding.
8. Backfilling and compacting native obtained from the excavation.
9. Supplying, hauling, backfilling and compacting granular material.
10. Loading, hauling and disposing of surplus excavated material.
11. Landscaping – turf establishment surface restoration and trees and bushes damaged during construction.
12. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
13. Site access requirements including temporary aggregate material as required for local traffic access.
14. Bulkhead and abandoned existing storm sewer with flowable fill as shown on Drawings.
15. If crossing or undermining of existing public or private utility, then include:
 - a. Maintaining the utility in service.
 - b. Replacing of existing utilities, if damaged.
 - c. Providing support and bedding material.
16. Dust control.
17. Remove and replace existing mailboxes and traffic signs.
18. Restroom facilities
19. Easement and right-of-way requirements.
20. Construction staking and other survey work not provide by the Engineer.
21. Regulatory requirements.
22. Preconstruction videotaping and video equipment.
23. Quality assurance and quality control testing and inspections.
24. Shop drawings and other submittals.

1.3 STORM SEWER MAINS (GRANULAR BACKFILL)

- A. The unit price for Storm Sewer Main (Granular Backfill) work includes:
 1. General Work Items of Article 1.2.
 2. Storm sewer pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.

3. Excavation, breakdown and removal of abandoned piping inside the trench area, including plugging of existing connections.
 4. Excavation, breakdown and removal of abandoned pipeline structures inside the trench area, including plugging of existing connections.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer from centerline of the manhole to centerline of manhole with no deductions for manholes, sewer services branches and other fittings.
- C. The unit of measurement for payment is linear feet.

1.4 STORM SEWER MAINS (NATURAL BACKFILL)

- A. The unit price for Storm Sewer Main (Natural Backfill) work includes:
1. General Work Items of Article 1.2.
 2. Storm sewer pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Excavation, breakdown and removal of abandoned piping inside the trench area, including plugging of existing connections.
 4. Excavation, breakdown and removal of abandoned pipeline structures inside the trench area, including plugging of existing connections
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer from centerline of the manhole to centerline of manhole with no deductions for manholes, sewer services branches and other fittings.
- C. The unit of measurement for payment is linear feet.

1.5 STORM SEWER LATERALS

- A. The unit price for Storm Sewer Laterals work includes:
1. General Work Items of Article 1.2.
 2. Storm sewer lateral pipe and fittings of the material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Watertight plug in the end of the sewer service lateral or connection including transition coupling to the existing building sewer lateral.
 4. Tracer wire.
 5. Installed an 8' – 4" X 4" board at the end of the lateral.
 6. Daylighting lateral pipe (where required) and installing slotted cap.

- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer service lateral pipe from centerline of the service branch to the end of the pipe at the right of way, easement or existing sewer service lateral with no deductions for fittings.
- C. The unit of measurement for payment is linear feet.

1.6 STORM SEWER SERVICE BRANCHES

- A. The unit price for Storm Sewer Service Branches work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Storm sewer service branches of same material strength or better than storm sewer main pipe (where required).
 - 3. Core drilling into concrete storm sewer main (where required).
 - 4. Installation along with the storm sewer main pipe installation.
 - 5. Plug (where required).
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.7 STORM SEWER MANHOLES

- A. The unit price for Storm Sewer Manholes work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Precast reinforced concrete components.
 - 3. Joint flexible gasket material or mortar.
 - 4. Grout seal between the manhole and structure and the sewer pipe.
 - 5. Adjusting rings and bituminous plastic cement sealant at chimney.
 - 6. Manhole steps.
 - 7. Manhole frame and cover.
 - 8. Bedding material.
 - 9. Sewer pipe stub with connections and watertight plug (where required).
- B. Measurement for payment will be the distance from the invert of the lowest sewer to the top of the frame and cover as set.
- C. The unit of measurement for payment is vertical feet.

1.8 STORM SEWER MANHOLE OVER EXISTING STORM SEWER

- A. The unit price for Storm Manhole work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Precast reinforced concrete components.
 - 3. Cast in place concrete and components.
 - 4. Pour base and set manhole over storm sewer and remove top of storm sewer,
OR
 - 5. Precast Base and connect to existing storm sewer.
 - 6. Poured concrete bench.
 - 7. Joint flexible gasket material or mortar.
 - 8. Grout seal between the manhole structure and the sewer pipe.
 - 9. Adjusting rings and bituminous plastic cement sealant at chimney.
 - 10. Manhole frame and Cover.
 - 11. Manhole steps.
 - 12. Bedding material.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.9 CATCH BASIN/INLETS

- A. The unit price for Catch Basin/Inlets work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Precast reinforced concrete components.
 - 3. Joint flexible gasket material or mortar.
 - 4. Grout seal between the catch basin/inlet structure and the sewer pipe.
 - 5. Adjusting rings grouted in place.
 - 6. Casting frame and grate.
 - 7. Bedding material.
 - 8. Supply and install 6 to 10 feet of 4 inch flexible perforated plastic pipe with geotextile wrap subgrade drain.
 - 9. Sand fill and Class "B" concrete floor and flow line.
 - 10. Temporary cover over catch basin/inlet to prevent eroded materials from entering.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.10 REMOVE STORM SEWER MANHOLE

- A. The unit price for Remove Storm Sewer Manhole work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Excavating existing storm sewer manhole.
 - 3. Removal of the existing manhole.
 - 4. Filling excavated hole.
 - 5. Compacting
- B. Measurement for payment will be the actual number of Storm Sewer manholes removed.
- C. The unit of measurement for payment is each.

1.11 RECONNECT TO EXISTING STORM PIPE OR MANHOLE

- A. The unit price for temporary storm connection manhole includes:
 - 1. General Work Items of Article 1.2.
 - 2. Sawing existing storm sewer
 - 3. Connection to existing storm pipe or manhole.
- B. Measurement of payment will be the actual number completed.
- C. The unit of measurement for payment is each.

1.12 CORE DRILLING TO EXISTING STORM MANHOLE

- A. The unit price for Core Drilling to Existing Storm Manhole work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Core drilling into existing storm sewer manhole (where required).
 - 3. Install A-Lok boot or mortar.
 - 4. Reform flow line in existing storm manhole.
- B. Measurement for payment will be the actual number complete.
- C. The unit of measurement for payment is each.

1.13 ABANDON/REMOVAL STORM SEWER AND APPURTENANCES

- A. The unit price for Abandon/Removal Storm Sewer and Appurtenances work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Excavating.
 - 3. Install bulkheads and abandon sewer.
 - 4. Provide and placing flowable fill.

- 5. Backfilling and compacting.
- B. Measurement for payment will not be made.
- C. The unit of measurement for payment is lump sum.

END OF SECTION

SECTION 01 22 03

MEASUREMENT AND PAYMENT WATER SYSTEM

PART 1 – GENERAL

1.1 SUMMARY

- | A. Section includes: | Bid Item No. |
|---|------------------------------------|
| 1. Water Mains (Granular Backfill) | W-01, W-02, W-03, W-04, W-05 |
| 2. Water Mains (Natural Backfill) | W-06, W-07 |
| 3. Water Mains Open Cut or Directional Drill | W-08 |
| 4. Water Services | W-09, W-11, W-12 |
| 5. Water Corporation and Curb Stops | W-10, W-13, W-14 |
| 6. 2-Inch Corporation with Plug or Saddle and HDPE Pipe | W-15, W-16 |
| 7. Valves | W-17, W-18, W-19, W-20, W-21, W-22 |
| 8. Connection to Existing Water Mains | W-23, W-24, W-25 |
| 9. Fire Hydrants | W-26, W-27, W-28 |
| 10. 6-Inch Water Main or Hydrant Leads | W-29, W-30 |
| 11. Water Main Offset | W-31 |
| 12. Abandon/Remove Water Main and Appurtenances | W-32 |
| 13. Reuse Saddle, Corporation and Curb Stops as Air Release Point | W-33 |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
 2. The method of measurement for payment.
 3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for water systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
 2. Sawcutting asphalt and/or concrete.

3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
4. Dewatering.
5. Excavation.
6. Open Trench installation method (unless bid item specifies other method).
7. Pipe Bedding.
8. Backfilling and compacting native obtained from the excavation.
9. Supplying, hauling, backfilling and compacting granular material.
10. Loading, hauling and disposing of surplus excavated material.
11. Landscaping – turf establishment surface restoration and trees and bushes damaged during construction.
12. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
13. Site access requirements including temporary aggregate material as required for local traffic access.
14. Bulkhead and abandoned existing water main with flowable fill as shown on Drawings.
15. If crossing or undermining of existing public or private utility, then include:
 - a. Maintaining the utility in service.
 - b. Replacing of existing utilities, if damaged.
 - c. Providing support and bedding material.
16. Dust control.
17. Remove and replace existing mailboxes and traffic signs.
18. Restroom facilities
19. Easement and right-of-way requirements.
20. Construction staking and other survey work not provide by the Engineer.
21. Regulatory requirements.
22. Preconstruction videotaping and video equipment.
23. Quality assurance and quality control testing and inspections.
24. Shop drawings and other submittals.

1.3 WATER MAINS (GRANULAR BACKFILL)

- A. The unit price for Water Main (Granular Backfill) work includes:
 1. General Work Items of Article 1.2.
 2. Water pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Ductile or cast iron fittings.

4. Tracer wire.
5. Polyethylene encasement of ductile iron or cast iron pipe and fittings.
6. Blocking and joint restraints.
7. Disinfection of pipelines.

B. Measurement of payment will be the actual horizontal length along the centerline of the installed water main with no deductions for fittings and valves.

C. The unit of measurement for payment is linear feet.

1.4 WATER MAINS (NATURAL BACKFILL)

A. The unit price for Water Main (Natural Backfill) work includes:

1. General Work Items of Article 1.2.
2. Water pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
3. Ductile or cast iron fittings.
4. Tracer wire.
5. Polyethylene encasement of ductile iron or cast iron pipe and fittings.
6. Blocking and joint restraint.
7. Disinfection of pipelines.

B. Measurement of payment will be the actual horizontal length along the centerline of the installed water main with no deductions for fittings and valves.

C. The unit of measurement for payment is linear feet.

1.5 WATER MAINS OPEN CUT OR DIRECTIONAL DRILL

A. The unit price for Water Main Open Cut or Directional Drill work includes:

1. General Work Items of Article 1.2.
2. Field verify location and elevation of existing utilities before and during directional drilling.
3. Water pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method or PVC pipe and materials (fusible PVC or PVC and Certa Lock Restraint).
4. Open trench or boring pit and receiving pit.
5. Installation of the PVC pipe by open trench or directional drilling.
6. Backfilling and compacting the open trench or boring and receiving pits.

7. Loading, hauling and disposing of surplus excavated material.
8. Ductile or cast iron fittings.
9. Tracer wire.
10. Polyethylene encasement of ductile iron or cast iron pipe and fittings.
11. Blocking and joint restraints.
12. Disinfection of pipelines.

B. Measurement of payment will be the actual horizontal length along the centerline of the installed water main with no deductions for fittings and valves.

C. The unit of measurement for payment is linear feet.

1.6 WATER SERVICES

A. The unit price for Water Services work includes:

1. General Work Items of Article 1.2.
2. Pipe and fittings of material stated in the Unit Price Bid Schedule.
3. Tracer wire.
4. Disinfection of pipelines.
5. Installed an 8' - 4"x4" board at the end of the lateral.

B. Measurement of payment will be the actual horizontal length along the centerline of the installed water service with no deductions for fittings and curb stops.

C. The unit of measurement for payment is linear feet.

1.7 CORPORATION AND CURB STOPS

A. The unit price for Corporation and Curb Stops work includes:

1. General Work Items of Article 1.2.
2. Supply curb stops and curb boxes.
3. Connection to existing water service (where required).
4. Installation of curb stops and curb boxes.
5. Tracer wire.

B. Measurement for payment will be the actual number installed.

C. The unit of measurement for payment is each.

1.8 2-INCH CORPORATION WITH PLUG AND HDPE PIPE

- A. The unit price for 2-Inch Corporation with Plug and HDPE Pipe work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Provide and install 2-inch corporation with plug (where required) with 2-inch HDPE pipe.
 - 3. Provide and install 2-inch corporation with saddle (where required) with 2-inch HDPE pipe.
 - 4. Remove 2-inch corporation with plug/saddle and repair water main
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.9 VALVES

- A. The unit price for Valves work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Valve.
 - 3. Valve box.
 - 4. Polyethylene encasement.
 - 5. Stem.
 - 6. Bedding material.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.10 CONNECTIONS TO EXISTING WATER MAINS

- A. The unit price for Connection to Existing Water Mains work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Locating existing water main.
 - 3. Connection to the end of existing pipe.
 - a. Remove existing plug.
 - b. Direct connection to end of existing pipe.
 - c. Transition fittings, if required.
- B. Measurement for payment will be the actual number installed.

C. The unit of measurement for payment is each.

1.11 FIRE HYDRANTS

A. The unit price for Fire Hydrants work includes:

1. General Work Items of Article 1.2.
2. Fire hydrant complete of the specified bury depth.
3. Blocking and joint restraints.
4. Hydrant wrenches.
5. Hydrant markers.
6. Polyethylene encasement.
7. Drainage pit.
8. Disinfection of hydrant.
9. Tracer wire.
10. Tracer wire access box.

B. Measurement for payment will be the actual number installed.

C. The unit of measurement for payment is each.

1.12 6-INCH WATER MAIN OR HYDRANTS LEADS

A. The unit price for Hydrants Leads work includes:

1. General Work Items of Article 1.2.
2. Water pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
3. Ductile or cast iron fittings.
4. Tracer wire.
5. Polyethylene encasement of ductile iron or cast iron pipe and fittings.
6. Blocking and joint restraints.
7. Tracer wire
8. Disinfection of pipeline.

B. Measurement for payment will be the actual horizontal length along the centerline of the installed from the centerline of the water main to the centerline of the hydrant with no deductions for fittings and valves.

C. The unit of measurement for payment is linear feet.

1.13 WATER MAIN OFFSET

- A. The unit price for Water Main Offset work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Ductile iron fittings and PVC pipe.
 - 3. Tracer wire.
 - 4. Polyethylene encasement of ductile iron pipe and fittings.
 - 5. Blocking and joint restraints.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each and includes the pipe and fittings from vertical bend to vertical bend at the offset location.

1.14 ABANDON / REMOVE WATER MAIN AND APPURTENANCES

- A. The unit price for Abandon/Remove Water Main and Appurtenances work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Bulkhead and abandon existing water main with flowable fill for the entire project.
 - 3. Removal and disposal of appurtenances as shown on the Drawings.
 - 4. Salvage hydrants to Owner.
- B. Measurement for payment will not be made.
- C. The unit of measurement for payment is lump sum.

1.15 REUSE SADDLE, CORPORATION AND CURB STOP AS AIR RELEASE POINT

- A. The unit price for Water Main (Bore and Jack) work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Provide and install 1-inch corporation with saddle (where required) with 1-inch HDPE pipe prior to filling new water main.
 - 3. Provide and install 1-inch curb stop at street grade to release air.
 - 4. Remove curb stop and reuse with saddle and corporation with new 1-inch HDPE pipe.
 - 5. Connect new 1-inch HDPE pipe to existing saddle and corporation.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

END OF SECTION

SECTION 01 22 04

MEASUREMENT AND PAYMENT STREET AND DRAINAGE CONSTRUCTION

PART 1 – GENERAL

1.1 SUMMARY

- | A. Section includes: | Bid Item No. |
|---|---------------------|
| 1. Unclassified Excavation | SD-01, SD-02, SD-03 |
| 2. Mill Asphaltic Concrete Pavement | SD-04 |
| 3. Crushed Aggregate Base and Surface Course | SD-05, SD-06, SD-07 |
| 4. Asphaltic Concrete Pavement | SD-08, SD-09, SD-10 |
| 5. Asphalt Patch | SD-11 |
| 6. Portland Cement Concrete Curb and Gutter | SD-12, SD-13, SD-14 |
| 7. Portland Cement Concrete Driveway, Sidewalk
and Surface Drain Flume | SD-15, SD-16, SD-17 |
| 8. Deformed Reinforcement Bars | SD-18, SD-19 |
| 9. Drilling Tie Bars | SD-20, SD-21 |
| 10. Detectable Warning Field Natural | SD-22 |
| 11. Salvage and Reset Brick Pavers | SD-23 |
| 12. Landscaping – Topsoil, Seed, Fertilize, and Mulch | SD-24, SD-25 |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
 2. The method of measurement for payment.
 3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for street and drainage systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
 2. Sawcutting asphalt and/or concrete.

3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
4. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site.
5. Site access requirements including temporary aggregate material as required for local traffic access.
6. Dust control.
7. Remove and replace existing mailboxes and traffic signs.
8. Restroom facilities.
9. Construction staking and other survey work not provide by the Owner.
10. Regulatory requirements.
11. Quality assurance and quality control testing and inspections.
12. Final casting and valve box adjustment.
13. Shop drawings and other submittals.

1.3 UNCLASSIFIED EXCAVATION

A. The unit price for Topsoil and Unclassified Excavation work includes:

1. General Work Items of Article 1.2.
2. Removal of topsoil to depth available.
3. Hauling and stockpiling topsoil.
4. Excavation to subgrades shown on the Drawings.
5. Hauling of unclassified material.
6. Placing unclassified material in fill areas to subgrades shown on the Drawings and the subgrade required for placement of topsoil.
7. Compaction of subgrade and fill areas.
8. Test rolling subgrade.
9. Excavation of undercut areas for placing topsoil.
10. Respreading topsoil to final grades shown on the Drawings.
11. Disposal of surplus topsoil, unclassified material and unsuitable material.
12. Preparation of disposal site and transportation of material over an Engineer approved haul route from the site including all loading and dumping of material
13. Finish grading.

B. Measurement of payment will not be made unless there is a change in project scope. The estimated quantity represents the computed volume by comparing the triangulated surfaces and will be the basis for payment.

- C. The unit of measurement for payment is cubic yards.

1.4 MILL ASPHALTIC CONCRETE PAVEMENT

- A. The unit price for Milling Asphaltic Concrete Pavement work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Milling to length, width and depth as shown on Drawings or specified elsewhere.
 - 3. Hauling and disposing of millings.
 - 4. Cleaning of area milled.
- B. Measurement for payment will be the average horizontal length and width of roadway.
- C. The unit of measurement for payment is square yards.

1.5 CRUSHED AGGREGATE BASE AND SURFACE COURSE

- A. The unit price for Crushed Aggregate Base and Surface Course work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Aggregate material.
 - 3. Preparation of foundation.
 - 4. Placing and compacting to thickness and width shown on the Drawings or specified elsewhere.
 - 5. Maintenance until surface pavement is constructed.
 - 6. Preparation of crushed aggregate base for paving.
 - 7. Adjustment of manholes and valve boxes to proposed finish road grade.
- B. Measurement of payment will be the actual amount of material required and incorporated in the work verified by submitting to the Engineer delivery tickets provide with each load showing the weight measured on a certified scale, type of material, the date delivered and the project name. Aggregates in excess of seven (7) percent total moisture determined based on the dry mass of the aggregates will have moisture content in excess of seven (7) percent deducted from the measured weight.
- C. The unit of measurement for payment is tons.

1.6 ASPHALTIC CONCRETE PAVEMENT

- A. The unit price for Asphaltic Concrete Pavement work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Asphaltic concrete mixture, tack coat and other required materials
 - 3. Surface preparation.

4. Provide tack coat on base material.
 5. Saw cutting and/or mill adjacent and abutting pavement surfaces.
 6. Asphaltic concrete placement and compaction to thickness and width shown on the drawings or specified elsewhere.
 7. Tack coat between asphaltic concrete courses and abutting pavements.
- B. Measurement for payment will be the actual amount of material required and incorporated in the work verified by submitting to the Engineer delivery tickets provided with each load showing the weight measured on a certified scale, type of material, the date delivered and the project name.
- C. The Unit Price shall be adjusted for deficiencies for less than minimum density represented by the average lot density of five nuclear density tests of 750 tons of asphaltic concrete placed as shown in the following table:

Density Deficiency-Percent of Unit Price for Payment	
%Lot Density Below Specified Minimum	WisDOT Mixes
From 0.5-1.0 inclusive	98%
From 1.1-1.5 inclusive	95%
From 1.6-2.0 inclusive	91%
From 2.1-2.5 inclusive	85%
From 2.6-3.0 inclusive	70%
More than 3.0	0%

- D. The unit of measurement for payment is tons.

1.7 ASPHALT PATCH

- A. The unit price for Asphalt Patch work includes:
1. General Work Items of Article 1.2.
 2. Sawcutting.
 3. Removal of asphalt.
 4. Asphaltic concrete mixture, tack coat and other required materials.
 5. Surface preparation.
 6. Grading subgrade (where required).
 7. Asphaltic concrete placement and compaction to thickness.
 8. Tack coat between asphaltic concrete courses and abutting pavements.
- B. Measurement for payment will be the area of roadway patched.
1. The large asphalt patch bid item applies to patches greater than 25 square yards.

2. The small asphalt patch applies to paths less than 25 square yards.

C. The unit of measurement for payment is square yards.

1.8 PORTLAND CEMENT CONCRETE CURB AND GUTTER

A. The unit price for Portland Cement Concrete Curb and Gutter work includes:

1. General Work Items of Article 1.2.
2. Providing Portland cement concrete mixture of size shown in the drawings or specified elsewhere.
3. Providing expansion joints.
4. Providing curing.
5. Existing curb and gutter removal.
6. Subgrade preparation.
7. Provide crushed aggregate base.
8. Fine grading of subgrade.
9. Providing contraction joints.
10. Driveway entrances and handicap ramp entrances.
11. Adjustment of catch basin/inlets.
12. Finishing.
13. Protection.
14. Restoration behind the curb.

B. Measurement for payment will be along the flow line of the gutter and through inlets/catch basins.

C. The unit of measurement for payment is linear feet.

1.9 PORTLAND CEMENT CONCRETE DRIVEWAY, SIDEWALK AND SURFACE DRAIN

A. The unit price for Portland Cement Concrete Sidewalk and Driveway work includes:

1. General Work Items of Article 1.2.
2. Providing Portland cement concrete mixture of thickness shown in the drawings or specified elsewhere.
3. Providing reinforcement.
4. Providing expansion joint.
5. Providing curing.
6. Existing pavement removal.
7. Subgrade preparation.

8. Providing contraction joints.
9. Handicap ramps.
10. Sidewalk steps.
11. Saw cutting adjacent surfaces.
12. Finishing.
13. Protection.
14. Restoration.

- B. Measurement for payment will be the average horizontal length and width of the concrete placed.
- C. The unit of measurement for payment is square yards.

1.10 DEFORMED REINFORCEMENT BARS

- A. The unit price for Deformed Reinforcement Bars work includes:
1. General Work Items of Article 1.2.
 2. Supply and install 2 number 4 deformed reinforcement bars over all trenches that fall under any portion of the concrete curb and gutter, sidewalk, and driveway being constructed.
- B. Measurement for payment will be the horizontal length of each bar installed.
1. This item applies to concrete curb and gutter, sidewalk, and driveway.
 2. This item does not apply to concrete pavement and patches.
- C. The unit of measurement for payment is linear feet.

1.11 DRILLING TIE BARS BARS

- A. The unit price for Drilling Tie Bars and Dowel Bars work includes:
1. General Work Items of Article 1.2.
 2. Providing and installing tie bars and dowel bars, including coating.
 3. For drilling holes in concrete not placed under the contract.
 4. For epoxying or driving.
- B. Measurement for payment will be the actual number of bars installed.
1. This item applies to concrete curb and gutter, sidewalk, and driveway.
 2. This item does not apply to concrete pavement and patches.
- C. The unit of measurement for payment is each.

1.12 DETECTABLE WARNING FIELD NATURAL

- A. The unit price for Detectable Warning Field Natural work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Providing and installing Detectable Warning Field per ADA requirements.
 - 3. Each detectable warning field shall be 2 feet by 4 feet.
- B. Measurement for payment will be the actual number of detectable warning field installed.
- C. The unit of measurement for payment is each.

1.13 SALVAGE AND RESET BRICK PAVERS

- A. The unit price for Salvage and Reset Brick Pavers work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Removal and salvage of brick pavers.
 - 3. Storage of brick pavers.
 - 4. Sand setting course at the depth shown on the plans.
 - 5. Preparation of foundation to match existing slopes or slopes shown on the drawings.
 - 6. Placing and working the brick in the sand base.
 - 7. Filling joints between bricks with sand.
- B. Measurement of payment will be the average length and width of brick pavers salvage and reset.
- C. The unit of measurement for payment is square feet.

1.14 LANDSCAPING- TOPSOIL, SEED, FERTILIZE AND MULCH

- A. The unit price for Landscaping- Topsoil, Seed, Fertilize, and Mulch work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Provide 4" topsoil or salvaged topsoil.
 - 3. Provide seed.
 - 4. Provide fertilizer.
 - 5. Provide mulch.
 - 6. Provide maintenance.
- B. Measurement for payment will be the width and length not greater than the road right of way, not greater than the easement and not greater than 15 feet beyond the top of either side of ditches outside the right of way.
- C. The unit of measurement for payment is square yard.

END OF SECTION

SECTION 01 22 05

MEASUREMENT AND PAYMENT SPECIAL CONSTRUCTION

PART 1 – GENERAL

1.1 SUMMARY

- | | |
|---|---------------------|
| A. Section includes: | Bid Item No. |
| 1. Clearing and Grubbing | SC-01, SC-02 |
| 2. Pipe Foundation Stabilization | SC-03 |
| 3. Aggregate Slurry Backfill | SC-04 |
| 4. Silt Fence Erosion Control | SC-05, SC-06 |
| 5. Inlet Protection Erosion Control | SC-07, SC-08 |
| 6. Tracking Pad | SC-09 |
| 7. Adjusting Existing Structure Frame and Casting | SC-10, SC-11, SC-12 |
| 8. Manhole Reconstruct | SC-13 |
| 9. Poured in Place Bench | SC-14 |
| 10. Rip Rap Erosion Control | SC-15 |
| 11. Polystyrene Insulation Board | SC-16 |
| 12. Traffic Control | SC-17 |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
 2. The method of measurement for payment.
 3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for special construction.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
 2. Loading, hauling and disposing of surplus material.
 3. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
 4. Dust control.

5. Restroom facilities.
6. Construction staking and other survey work not provide by the Engineer.
7. Regulatory requirements.
8. Quality assurance and quality control testing and inspections.
9. Shop drawings and other submittals.

1.3 CLEARING AND GRUBBING

- A. The unit price for Clearing and Grubbing work includes:
 1. General Work Items of Article 1.2.
 2. Cutting and disposing of trees, brush, windfalls, logs and other vegetation.
 3. Removing and disposing of roots, stumps, stubs, logs and other timber.
 4. Stripping and stockpiling topsoil.
- B. Measurement of payment will not be made.
- C. The unit of measurement for payment is lump sum.

1.4 PIPE FOUNDATION STABILIZATION

- A. The unit price for Pipe Foundation Stabilization work includes:
 1. General Work Items of Article 1.2.
 2. Excavation below the limits of the pipe bedding with the bottom of the excavation wider than the top with 1:1 side slopes.
 3. Dewatering.
 4. Soil Class A-7 or A-8 aggregate material.
 5. Loading, hauling and disposing of surplus excavated material.
- B. Measurement of payment will be the volume calculated based on:
 1. The actual depth from 4" below the bottom of pipe to the bottom of the aggregate material placed.
 2. The bottom width is the actual width not to exceed the pipe outside diameter plus 24" plus 1:1 side slopes.
 3. The top width is the pipe outside diameter plus 24".
- C. The unit of measurement for payment is cubic yards.

1.5 AGGREGATE SLURRY BACKFILL

- A. The unit price for Slurry Backfill work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Provide Aggregate Slurry Backfill mix per Section 31 23 33.
 - 3. Install per details.
 - 4. All items of work to protect existing underground utilities.
- B. Measurement for payment will be the actual area installed per the detail.
 - 1. Slurry backfill used beyond the limits of the detail will not be paid unless approved by the Engineer.
- C. The unit of measurement for payment is cubic yards.

1.6 SILT FENCE EROSION CONTROL

- A. The unit price for Silt Fence Erosion Control work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Provide fabric and post.
 - 3. Excavate to anchor fabric and compact soil or provide soil class C-3 to anchor the fabric.
 - 4. Inspection and maintenance of the installed silt fence.
 - 5. Removal of the silt fence.
 - 6. Finish grading.
 - 7. Topsoil, seeding, fertilizing, and mulching area in the vicinity of the removed silt fence which does not have established turf.
- B. Measurement of payment will be the actual horizontal length installed.
- C. The unit of measurement for payment is linear feet.

1.7 INLET PROTECTION EROSION CONTROL

- A. The unit price for Inlet Protection Erosion Control work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Provide geotextile and wood materials for type shown on the Drawings.
 - 3. Placing inlet protection system.
 - 4. Inspection and maintenance of the installed inlet protection.
 - 5. Removal of the inlet protection.

- 6. Cleaning debris buildup around inlet.
- B. Measurement for payment will be actual number of inlet protection erosion control installed.
- C. The unit of measurement for payment is each.

1.8 TRACKING PAD

- A. The unit price for Tracking Pad work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Install to the dimensions as shown on the drawing or specified elsewhere.
 - 3. Providing filter fabric.
 - 4. Providing crushed aggregate base course (3 inch clear stone).
 - 5. Daily maintenance of aggregate.
 - 6. Removal of aggregate and restore with topsoil, seed, fertilizer, and mulch.
- B. Measurement for payment will be the actual number of tracking pads installed.
- C. Unit of measurement for payment is each.

1.9 ADJUST EXISTING STRUCTURE FRAME CASTING

- A. The unit price for Adjusting Existing Structure Frame Casting work includes:
 - 1. General Work Items of Article 1.2.
 - 2. City of De Pere will provide structure castings. Contractor will pick up castings at 925 South Sixth Street.
 - 3. Removal of the casting and existing adjusting rings from the structure as required.
 - 4. Providing concrete adjusting rings and a 2 inch rubber riser ring from the WisDOT approved product list.
 - 5. Bituminous plastic cement sealing the exterior of the adjusting rings and casting.
 - 6. The ring will be secured to the precast section with a 3 ½" wide Kent Seal or equal.
 - 7. Above the concrete ring attach ¼ inch thru 3 inch thick ring using two 5/16 inch bead above and below the ring of sealant type as recommended by the rubber manufacturer.
 - 8. Initial and final adjustment.
 - 9. Backfilling and compacting.
- B. Measurement for payment will be the actual number of structure frame casting adjusted.
- C. The unit of measurement for payment is each.

1.10 MANHOLE RECONSTRUCT

- A. The unit price for Manhole Reconstruct work includes:
 - 1. General Work Items of Article 1.2.
 - 2. City of De Pere will provide structure castings. Contractor will pick up castings at 925 South Sixth Street.
 - 3. Removal of the casting, existing adjusting rings and sections of structure.
 - 4. Providing precast cone section for manholes.
 - 5. Providing concrete adjusting rings and a 2 inch rubber riser ring from the WisDOT approved product list.
 - 6. Bituminous plastic cement sealing the exterior of the adjusting rings and casting.
 - 7. The ring will be secured to the precast section with a 3 ½" wide Kent Seal or equal.
 - 8. Above the concrete ring attach ¼ inch thru 3 inch thick ring using two 5/16 inch bead above and below the ring of sealant type as recommended by the rubber manufacturer.
 - 9. Initial and final adjustment.
 - 10. Backfilling and compacting.
- B. Measurement for payment will be the actual number of structure reconstructed.
- C. The unit of measurement for payment is each.

1.11 POURED IN PLACE BENCH

- A. The unit price for Poured in Place Bench work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Bypassing pumping.
 - 3. High pressure cleaning of interior.
 - 4. Patching voids and cracks.
 - 5. Stopping infiltration by patching or grouting.
 - 6. Removing existing bench (if required).
 - 7. Disposal of existing bench (if required).
 - 8. Forming bench and applying material to form bench.
 - 9. Cleaning of any debris left from pouring in the bench in the work area.
- B. Measurement for payment will be the actual number of poured in place bench installed.
- C. The unit of measurement for payment is each.

1.12 RIP RAP EROSION CONTROL

- A. The unit price for Rip Rap Erosion Control work includes:

1. General Work Items of Article 1.2.
2. Provide rip rap material and geotextile fabric.
3. Excavate and place rip rap material.

B. Measurement for payment will be the actual area installed.

C. The unit of measurement for payment is square yards.

1.13 POLYSTYRENE INSULATION BOARDS

A. The unit price for Polystyrene Insulation Boards work includes:

1. General Work Items of Article 1.2.
2. Supply and install a 2 inch thick insulation per the Standard Specifications along the top of the water main and/or service and 6 inch above the water main and/or service with pipe bedding in between the polystyrene board and pipe.

B. Measurement of payment will be the horizontal length installed.

C. The unit of measurement for payment is linear feet.

1.14 TRAFFIC CONTROL

A. The unit price for Traffic Control work includes:

1. General Work Items of Article 1.2.
2. Providing, installing, maintain, and removing the Traffic Control signing and barricades as shown on the plans and per the MUTCD.
3. Traffic Detour, including covering signs when not in use.
4. Flaggers per the MUTCD.
5. Temporary traffic control signals (activated) per the MUTCD.
6. Sidewalk closure.

B. Measurement for payment will not be made.

C. The unit of measurement for payment is for each intersection lump sum.

END OF SECTION

SECTION 01 29 00
PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes:
 - 1. Administrative and procedural requirements necessary to prepare and process Applications for Payment

1.2 SCHEDULE OF VALUES

- A. Unit Price work will be the Schedule of Values used as the basis for reviewing Applications for Payment.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as recommended by the Engineer and approved by Owner.
- B. The date for each progress payment should be the 3rd Tuesday of each month. The period covered by each Application for Payment starts on the day following the end of the preceding period and ends the 4th Friday of the Month.
- C. Use forms provided by Engineer for Applications for Payment. Sample copy of the Application for Payment and Continuation Sheet is included in Section 00 62 76.
- D. Application Preparation Procedures
 - 1. When requested by the Contractor, the Engineer will determine the actual quantities and classifications of Unit Price Work performed.
 - a. Preliminary determinations will be reviewed with the Contractor before completing Application for Payment.
 - b. Engineer will complete the Application for Payment based on Engineer's decision on actual quantities and classifications.
 - c. Engineer will submit three original copies of Application for Payment to Contractor for certification of all three original copies.
 - d. Contractor shall submit signed Application for payment to Owner for approval within time frame agreed to at the Preconstruction Conference.
 - 2. If payment is requested for materials and equipment not incorporated in the Work, then the following shall be submitted with the Application for Payment:
 - a. Evidence that materials and equipment are suitably stored at the site or at another location agreed to in writing.
 - b. A bill of sale, invoice, or other documentation warranting that the materials and equipment are free and clear of all liens.

- c. Evidence that the materials and equipment are covered by property insurance.
- 3. Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of Contractor.
- E. With each Application for Payment, submit waivers of liens from subcontractors and suppliers for the construction period covered by the previous application.
 - 1. Submit partial waivers on each item for amount requested before deduction for retainage on each item.
 - 2. When an application shows completion for an item, submit final or full waivers.
 - 3. Owner reserves the right to designate which entities involved in the Work shall submit waivers.
 - 4. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application.
 - 5. Submit waivers of lien on forms executed in a manner acceptable to Owner.
- F. The following administrative actions and submittals shall precede or coincide with submittal of first Application for Payment:
 - 1. List of subcontractors.
 - 2. Schedule of Values (For Lump Sum Work).
 - 3. Contractor's construction schedule.
- G. Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. Consent of Surety to Final Payment.
 - 5. Final lien waivers as evidence that claims have been settled.
 - 6. Final liquidated damages settlement statement.

PART 2 – PRODUCTS

PART 3 – EXECUTION

END OF SECTION

SECTION 01 32 33
CONSTRUCTION PHOTOGRAPHS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Photographs for utility construction sites.

1.2 SUBMITTALS

- A. Submit electronic files of each photographic view within seven (7) days of taking photographs.

1.3 QUALITY ASSURANCE

- A. Photographs are to be submitted to the Engineer for approval prior to the start of construction.

PART 2 – PRODUCTS

PART 3 – EXECUTION

3.1 UTILITY AND STREET CONSTRUCTION SITES

- A. Prior to start of construction provide sufficient photographs to adequately show the existing facilities and conditions within and adjacent to the construction Site to serve as a guide for final restoration including:
 - 1. Roads including shoulders and/or curb and gutter.
 - 2. Sidewalks, parking areas, and driveways.
 - 3. Utility structures.
 - 4. Landscaping including signs, plantings, walls, fences, trees, shrubbery, etc.
 - 5. Mail boxes.
 - 6. Drainage facilities including culverts, inlets, ditches.
 - 7. Building structures.
- B. During construction provide sufficient photographs (a minimum of one per 100 feet of installed utility) to adequately show construction means, methods, and Site conditions including:
 - 1. Crossings of other utilities.
 - 2. Exposure of existing structures.
 - 3. Soil conditions.

END OF SECTION

SECTION 01 33 00
SUBMITTALS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for submittals:
 - 1. Progress Schedule
 - 2. Schedule of Shop Drawings and Sample Submittals
 - 3. Shop Drawings
- B. Failure to meet Submittal requirements to the satisfaction of the Engineer will constitute unsatisfactory performance of the work in accordance with the Contract Documents, therefore, the Engineer may recommend to the Owner that all or a portion of payments requested during the corresponding pay period be withheld until these requirements are met.

1.2 SUBMITTAL PROCEDURES

- A. Coordination

Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - 3. To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for re-submittals.
 - a. Allow two weeks for initial submittal.
 - b. Allow two weeks for reprocessing each submittal.
 - c. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the work to permit processing.
- B. Submittal Preparation

Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

 - 1. Assign a reference number to each submittal and re-submittal.
 - 2. Provide a space approximately 4 by 5 inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
 - 3. Include the following information on the label for processing and recording action taken.

- a. Project name.
 - b. Date.
 - c. Name and address of the Engineer.
 - d. Name and address of the Contractor.
 - e. Name and address of the subcontractor.
 - f. Name and address of the supplier.
 - g. Name of the manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
4. Each submittal shall be stamped by the Contractor indicating that submittal was reviewed for conformance with the Contract Documents. The Engineer will not accept unstamped submittals.

C. Submittal Transmittal

Package each submittal appropriately for transmittal and handling. Transmit each submittal to the Engineer. The Engineer will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for Engineer action. On a form, or separate sheet, record deviations from Contract Document requirements, including variations, limitations, and justifications. Include Contractor's certification that information complies with Contract Document requirements.

1.3 CONTRACTOR'S PROGRESS SCHEDULE

- A. Prepare and submit to the Engineer within 10 days after the Effective Date of the Agreement, four copies of a preliminary progress schedule of the work activities form Notice to Proceed until Substantial Completion.
1. Provide sufficient detail of the work activities comprising the schedule to assure adequate planning and execution of the work, such that in the judgment of the Engineer, it provides an appropriate basis for monitoring and evaluation of the progress of the work. A work activity is defined as an activity which requires substantial time and resources (manpower, equipment, and/or material) to complete and must be performed before the contract is considered complete.
 2. The schedule shall indicate the sequence of work activities. Identify each activity with a description, start date, completion date and duration. Include, but do not limit to the following items, as appropriate to this contract:
 - a. Shop drawing review by the Engineer.
 - b. Excavation and grading.
 - c. Asphalt and concrete placement sequence.
 - d. Restoration.
 - e. Construction of various segments of utilities.
 - f. Subcontractor's items of work.
 - g. Allowance for inclement weather.
 - h. Contract interfaces, date of Substantial Completion.

- i. Interfacing and sequencing with existing facilities and utilities.
 - j. Sequencing of major construction activities.
 - k. Milestones and completion dates.
- B. Distribution
Following response to the initial submittal, print and distribute copies of the revised construction schedule to the Engineer, Subcontractors, and other parties required to comply with scheduled dates. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Schedule Updating
Revise the schedule after each meeting, event, or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.
- D. Punch List
Prepare and submit to the Engineer within 10 days after substantial completion a detailed progress schedule for outstanding work and punch list items.

1.4 SCHEDULE OF SHOP DRAWINGS AND SAMPLE SUBMITTALS

- A. Submit four (4) hard copies or electronic copies of preliminary submittal schedule in accordance with the General Conditions of the Contract and as follows:
 - 1. Coordinate submittal schedule with the subcontractors, Schedule of Values, and of products as well as the Contractor's Progress Schedule.
 - 2. Prepare the schedule in chronological order. Provide the following information:
 - a. Scheduled date for the first submittal.
 - b. Related Section number.
 - c. Submittal category (Shop Drawings, Product Data, or Samples).
 - d. Name of the subcontractor.
 - e. Description of the part of the work covered.
 - f. Scheduled date for the Engineer's final release or approval.
- B. Distribution
Following response to the preliminary submittal schedule, print and distribute copies of the revised submittal schedule to the Engineer, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the field office.
 - 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Schedule Updating
Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.5 SHOP DRAWINGS

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
- B. Collect product data into a single submittal for each element of construction of system. Product data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
 - 1. Mark each copy to show actual product to be provided. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
- C. Do not use shop drawings without an appropriate final stamp indicating action taken.
- D. Submittals
Submit four (4) copies of each required submittal. The Engineer will retain two copies, and return the others to the Contractor marked with action taken and corrections or modifications required.
- E. Distribution
Furnish copies of reviewed submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms. Maintain one copy at the project site for reference.
 - 1. Do not proceed with installation until a copy of the Shop drawing is in the Installer's possession.
 - 2. Do not permit use of unmarked copies of the Shop Drawing in connection with construction.

1.6 ENGINEER'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the Engineer will review each submittal, mark to indicate action taken, and return promptly. The Engineer will stamp each submittal with a uniform action stamp. The Engineer will mark the stamp appropriately to indicate the action taken, as follows:

1. “No Exceptions Taken”: The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
2. “Make Corrections Noted”: The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
3. “Amend and Resubmit”: Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked “Amend and Resubmit” at the Project Site or elsewhere where work is in progress.
4. “Rejected – See Remarks”: Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked “Rejected and Resubmit” at the Project Site or elsewhere where work is in progress.

B. Unsolicited Submittals

The Engineer/Architect will return unsolicited submittals to the sender without action.

PART 2 – PRODUCTS

PART 3 – EXECUTION

END OF SECTION

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Underground Utilities
 - 2. Property Monuments
 - 3. Traffic Control
 - 4. Permits for Project

1.2 UNDERGROUND UTILITIES

- A. Under the provisions of Wisconsin Statutes, Section 182.0175, all contractors, subcontractors, and any firm or individual intending to do work on this contract shall contact all utility firms in the affected area of construction a minimum of three (3) working days prior to beginning construction so that affected utilities will be located and marked.

1.3 PROPERTY MONUMENTS

- A. Protect iron pipe monuments from movement.
- B. The cost of replacement of any monuments moved or destroyed during construction shall be the Contractor's responsibility.
- C. Perpetuation of destroyed or moved monuments shall be performed in accordance with state statutes by a registered land surveyor.

1.4 TRAFFIC CONTROL

- A. Provide traffic control facilities including barricades, signs, lights, warning devices, pavement markings, flaggers, etc.
- B. Construct and use traffic control facilities in accordance with the U.S. D. O. T. Federal Highway Administration's Manual on Uniform Traffic Control Devices for Streets and Highways.
- C. Maintain traffic control devices as required to properly safeguard the public travel through final completion, including during periods of suspension of work.

1.5 PERMITS FOR PROJECT

- A. The following permits are being obtained by the Owner:
 - 1. WDNR – Water Main Extension
 - 2. WDNR – Storm Water Notice of Intent - Fox River Trail Sanitary Sewer Relay

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City of De Pere

3. WDNR – Storm Water Notice of Intent - Bridge Port Circle
4. WDNR – Sanitary Sewer Extension
5. Brown County – Fox River Trail

- B. Any costs associated with violations pertaining to the NOI permit will be the responsibility of the Contractor.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION (Not used)

END OF SECTION

SECTION 01 71 23

FIELD ENGINEERING

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Engineering Surveys Provided by the Engineer
 - 2. Engineering Surveys Provided by the Contractor

1.2 SUBMITTALS

- A. None

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 PREPARATION

- A. Investigate and verify the existence and location of site improvements, utilities, and other existing facilities.
- B. Before construction, verify the location of invert elevations at points of connection of sanitary sewer, storm sewer, water piping and underground electrical services.
- C. Furnish information to the Engineer and the appropriate utility regarding conflicts that are necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction.
- D. Provide the Engineer two working days advance notification when ready for engineering surveys for construction to be provided by the Engineer.

3.2 ENGINEERING SURVEYS TO BE PROVIDED BY THE ENGINEER

- A. General
 - 1. Establish benchmarks for construction as shown on the drawings.
 - 2. Establish control points as shown on the drawings.
- B. Gravity Sewer Systems and Water Distribution Systems.
 - 1. Provide construction reference stakes set for pipe construction location at critical changes in horizontal and vertical alignment.
 - 2. Provide construction stakes for location of pipe at connections.

C. New Road Construction

1. Provide construction slope intercept stakes for horizontal and vertical alignment on each side of the road base on each cross section in the cross section sheets for requests received at least 72 hours before the related work begins.
2. Provide construction reference stakes for subgrade at a minimum of 50 foot intervals and maximum of 100 foot intervals on tangents. Provide construction reference stakes for subgrade at 25 foot intervals within vertical and horizontal curves. Provide a reference line stake at each location.
3. Provide construction reference stakes for top of crushed aggregate at a minimum of 50 foot intervals and maximum of 100 foot intervals on tangents. Provide construction reference stakes for top of crushed aggregate at 25 foot intervals within vertical and horizontal curves. Provide a reference or centerline stake.

3.3 ENGINEERING SURVEYS TO BE PROVIDED BY THE CONTRACTOR

A. General

1. Locate, preserve and protect established construction reference stakes, benchmarks and control points.
2. Locate, preserve and protect property corners and section corner monuments. If moved or destroyed due to Contractor negligence, then replace in accordance with state requirements; some of which are referenced in the "Regulatory Requirements".
3. Provide additional construction staking as necessary to complete construction based on the construction reference stakes provided by the Engineer and the Drawings.
4. Before beginning with necessary construction staking, verify the information shown on the Drawings, in relation to the established construction reference stakes, bench marks, control points and property corners. Notify the Engineer of any discrepancies.
5. Remove construction reference stakes when directed by the Engineer.

B. Gravity Sewer Systems and Water Distribution Systems.

1. Provide any intermediate construction reference points as required to verify installation at the line and grade established and locate appurtenant structures.
2. Check the line and grade with construction reference stakes at each pipe length.

C. New Road Construction

1. Provide additional construction reference stakes necessary to establish location and grade in accordance with the plans.

END OF SECTION

SECTION 33 00 02.1
FUSIBLE POLYVINYL CHLORIDE (PVC) PIPE

1.1 SUMMARY

- A. Section Includes:
 - 1. PVC pipe for water main
- B. The products described are not installed under this Section.
- C. This specification section is a supplemental to the City of De Pere 2018 Standard Specifications and Section 33 00 02 Polyvinyl Pipe (PVC) Pipe and Fittings.
- D. This material specification covers the requirements of fusible polyvinylchloride pipe, including Fusible C-900 and Fusible C-905.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. D1784 Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride)(CPVC) Compounds
 - 2. D1785 Specifications for Poly (Vinyl Chloride) (PVC) Plastic Pipe Schedules 40, 80, and 120
 - 3. D2152 Test Method for Degree of Fusion of Extruded Poly(Vinyl Chloride)(PVC) Pipe and Molded Fittings by Acetone Immersion.
 - 4. D2241 Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)
- B. American Water Works Association (AWWA)
 - 1. C900 Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch for water
 - 2. C905 Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14-inch through 36-inch
 - 3. M23 Manual of Supply Practices PVC Pipe-Design and Installation, Second Edition
- C. National Sanitation Foundation (NSF)
 - 1. NSF-14 Plastic Piping System Components and Related Materials
 - 2. NSF-61 Drinking Water Components-Health Effects
- D. PPI
 - 1. TR-2 PVC Range Composition Listing Qualified Ingredients

1.3 SUBMITTALS

- A. Submit the following:
 - 1. Certification of production date of all materials.
 - 2. Manufacturer's certification that the materials delivered were manufactured, sampled, tested, and inspected in accordance with these specifications and appropriate referenced standards.
 - 3. Product data sheet.
 - 4. Manufacturer's recommendations for assembly.

1.4 QUALITY ASSURANCE

- A. Make pipe available to the Engineer's Representative for inspection.
- B. Pipe shall be considered defective and will be rejected when:
 - 1. Pitted or cratered.
 - 2. Flaking.
 - 3. Straightness varies more than 1/2 inch in 10 feet.
 - 4. Any defect which prevents assembly according to manufacturer's recommendations.
 - 5. Not utilized within six months of date of production.
 - 6. Pipe is not properly marked.
- C. Material brands and/or pipe classes shall not be mixed.
- D. Pipe Marking – pipe and fittings shall be marked as follows:
 - 1. Manufacturer's name, trademark or logo.
 - 2. Nominal size.
 - 3. PVC cell classification.
 - 4. Pipe stiffness designation, dimension ratio, or schedule size and pressure class.
 - 5. ASTM or AWWA specification designation.
 - 6. National Sanitation Foundation approval (pipe for potable water).
 - 7. Production date.
- E. MANUFACTURER REQUIREMENTS
 - 1. All piping shall be made from PVC compound conforming to cell classification 12454 per ASTM D1784.
- F. FUSION TECHNICIAN REQUIREMENTS
 - 1. Fusion Technician shall be qualified by the pipe supplier to install fusible polyvinylchloride pipe. Qualification shall be current as of the actual date of the fusion performance on the project.

G. SPECIFIED PIPE SUPPLIERS

1. Fusible polyvinylchloride pipe shall be used as manufactured under the trade names Fusible C-900, or Fusible C-905 for Underground Solutions, Inc. or Engineer approved equal.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inspect the pipe shipment to identify shifted loads, broken packaging or rough treatment, which could be an indication of damage.
- B. Unload the pipe in a manner which will not put stress on the pipe or strike anything causing damage.
- C. Place and store the pipe package units on level ground stacked no more than 8 feet high. Do not store close to heat sources.
- D. Store gaskets away from excessive exposure to heat, direct sunlight, ozone, oil or grease.
- E. Store Solvent cement in tightly sealed containers away from excessive heat.
- F. Handle pipe in a manner to prevent impact blows, abrasion damage, gouging or cutting.
- G. When handling pipe in cold weather, provide additional care to prevent damage due to impact. Impact strength is reduced in cold weather.

PART 2 – PRODUCTS

2.1 WATER MAIN

- A. Fusible polyvinylchloride pipe for potable water shall conform to AWWA C900, ASSA C905, or ASTM D2241, as applicable. Testing shall be in accordance with the referenced AWWA standards for all pipe types. Pipe shall be marked verifying suitability for potable water service per NSF-61
- B. Fusible polyvinylchloride pipe shall be extruded with plain ends. The ends shall be square to the pipe and free of any bevel or chamfer. There shall be no bell or gasket of any kind incorporated into the pipe.
- C. The pipe shall be manufactured in a standard 40 foot nominal length or custom lengths, unless otherwise approved by the Engineer.
- D. Pipe shall be blue in color for potable water use.

2.2 FUSION JOINTS

- A. Unless otherwise specified, fusible polyvinylchloride pipe lengths shall be assembled in the field with butt-fused joints.

2.3 FUSIBLE POLYVINYLCHLORIDE SWEEPS OR BENDS

- A. Sweeps or bends shall conform to the same sizing convention, diameter, dimensional tolerances and pressure class of the pipe being joined by the sweep or bend.
- B. Sweeps or bends shall be manufactured from the same fusible polyvinyl chloride pipe being used for the installation, and shall have at least two feet of straight section on either end of the sweep or bend to allow for fusion of the sweep to the pipe installation.
- C. Angles shall not be greater than 22.5 degrees, and shall be used in nominal diameters ranging from 4-inch through 16-inch.

PART 3 – EXECUTION

3.1 FUSION PROCESS

- A. Pipe shall be handled in a safe and non-destructive manner before, during, and after the fusion process and in accordance with this specification and the pipe supplier's guidelines.
- B. Pipe shall be fused by a qualified fusion technician.
- C. Pipe supplier's procedures shall be followed at all times during fusion procedures.
- D. Each fusion shall be recorded and logged by an approved electronic monitoring device (data logger) connected to the fusion machine, which utilizes a current version of the pipe suppliers recommended and compatible software.
- E. Only appropriately sized and outfitted fusion machines that have been approved by the pipe supplier shall be used for the fusion process.

3.3 GENERAL INSTALLATION

- A. Installation guidelines from the pipe supplier shall be followed for all installations.
- B. The Pipe shall be installed in a manner so as not to exceed the recommended bending radius guidelines.
- C. Where pipe is installed by pulling in tension, the recommended maximum safe pulling force, established by the pipe supplier, shall not be exceeded.

END OF SECTION

SECTION 33 11 00.1 SP

WATER DISTRIBUTION SYSTEMS – SPECIAL

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Modification to the City of De Pere 2018 Standard Specifications to update thrust restraints to include minimum length requiring restraints for 16" diameter pipe.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

3.1 THRUST RESTRAINTS

- A. Provide thrust restraint with mechanical restraints and concrete thrust blocks which physically prevent joint separation. Thrust blocks are to be constructed to transfer the thrust load from the pipe to the undisturbed soil of the trench wall.**
1. When using mechanical restraints, restrain the fitting joints within the following minimum pipe length on each side of the fitting unless manufacturer's submitted calculations and recommendations indicate otherwise:

Restrained/Tied Pipe Length Chart Minimum Length Requiring Restraints	
Fitting Type	16 inch
11.25° Bend	10
22.5° Bend	10
30° Bend	10
45° Bend	10
60° Bend	20
90° Bend	40
Restrained/Tied Pipe Length Chart Minimum Length Requiring Restraints	
Tee (Side Tied)	40
Stubs or Dead Ends	50
Cross with Plugged End	40
Valve at End of Line	40
*Use of 90° Bends requires Engineer Approval	

END OF SECTION

PROJECT 18-01
SEWER AND WATER RELAY AND STREET RESURFACING
EXHIBITS
TABLE OF CONTENTS

Exhibit 1	Repair List	1 Sheet
Exhibit 2	Worksheets	9 Sheets
	1. Basel Street Resurfacing	
	2. S. Erie Street Sanitary Sewer Dig down Spot Repair	
	3. Lewis Street Sanitary Sewer Dig down Spot Repair	
	4. Fribourg Street Resurfacing	
	5. Helena Street Resurfacing	
	6. Highview Street Resurfacing (page 1)	
	7. Highview Street Resurfacing (page 2)	
	8. Sanitary Sewer Manhole Installation	
	9. Zurich Street Resurfacing	

2018 OVERLAY MANHOLE AND INLET REPAIR LIST

EAST SIDE

HIGHVIEW ST.

SAN. MH	J7-M0KKFK	ADJUST, NEW CASTING
SAN. MH	J7-ORIJ35	ADJUST, NEW CASTING
INLET	J7-MC4KFB	ADJUST
INLET	J7-OXQJ5O	ADJUST
INLET	J7-QMZIBT	ADJUST
INLET	J7-QI6I33	RECONSTRUCT, REMOVE RINGS AND COME UP WITH NEW RINGS (2.4')

ZURICH ST.

SAN. MH	J7-JNZJEZ	ADJUST, NEW CASTING
STORM MH	J7-JF0JE8	RECONSTRUCT, FLAT TOP WITH OPENING FOR 2'X3' INLET CASTING
INLET	J7-J7VITP	ADJUST
INLET	J7-JGVIPD	ADJUST
INLET	J7-IARGOZ	ADJUST

BASEL ST.

SAN. MH	J7-M00IWE	ADJUST, NEW CASTING
STORM MH	J7-M53IWF	ADJUST
INLET	J7-LERI0B	ADJUST
INLET	J7-LNQHW1	ADJUST
INLET	J7-K7NFJW	ADJUST, NEW CASTING

FRIBOURG ST.





INLET	J7-NK6GYM	ADJUST
INLET	J7-NT3GU5	ADJUST
SAN. MH	J7-NJ7GLH	ADJUST, NEW CASTING
INLET	J7-MCXEHZ	ADJUST

Basel St

2" Mill and 2" Overlay

NOTE: 4" Milling Depth at Curb Planes Out
1" to 2" at 7' to 8' Wide
Located in The Field By The Engineer

Legend

-  BASEL
-  Sanitary Manhole
-  Storm Manhole
-  Storm Catch Basin

1 inch = 100 feet



Engineering Division
925 S. 6TH ST.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Street
Resurfacing

Project:
18-01

December 2017
By: KAD

SANITARY SEWER DIG DOWN SPOT REPAIR



MH Rim: 613.536
Depth: 6.08

6 inch Clay

8 inch Clay

MH Rim: 612.232
Depth: 6.75

MH Rim: 612.817
Depth: 6.6

MH Rim: 612.887
Depth: 6.39

12 inch Clay

LEWIS ST

DIG DOWN 24'
FROM MH

MH Rim: 614.353
Depth: 5.29

8 inch Clay

ERIE ST



1 inch = 50 feet



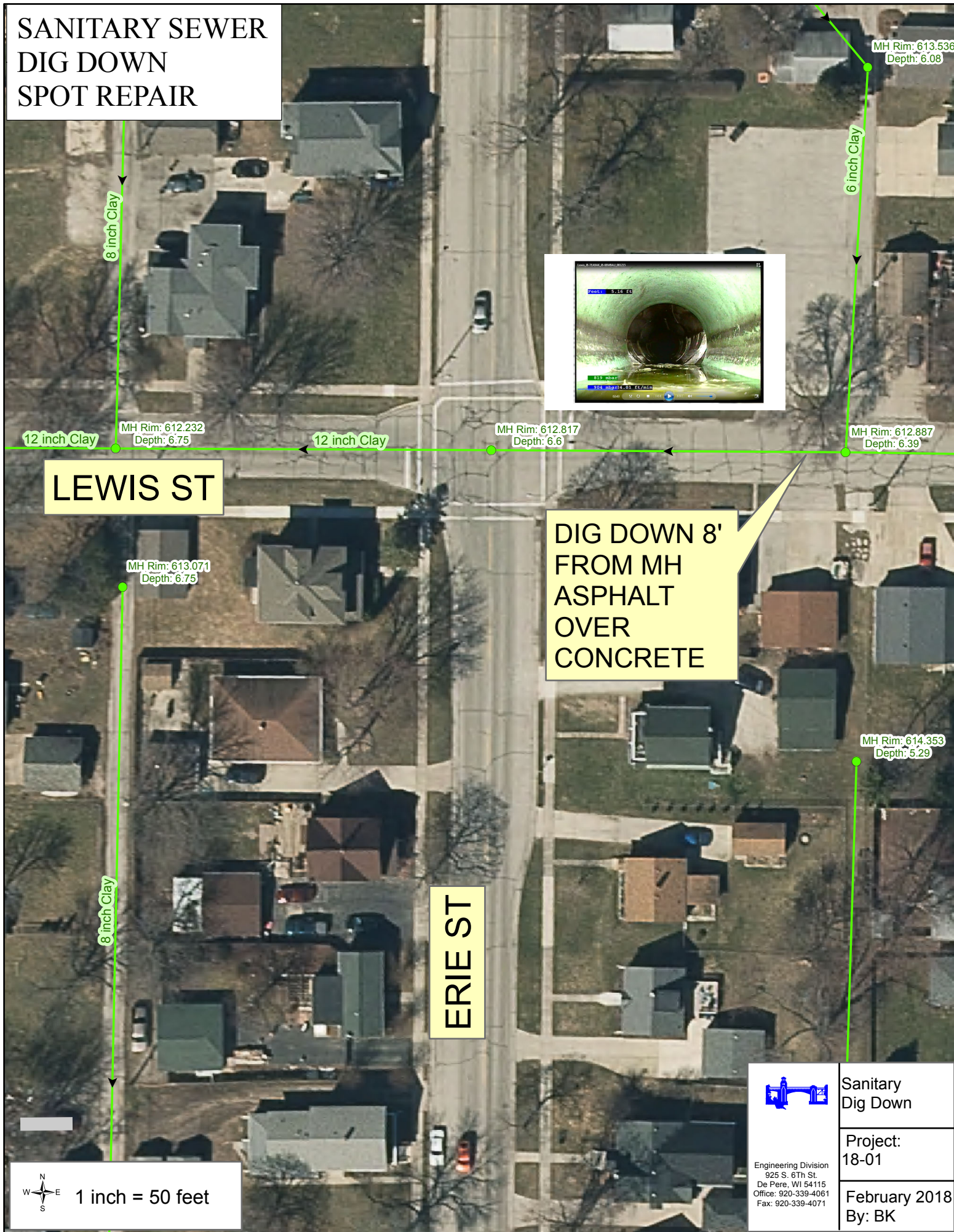
Sanitary
Dig Down

Project:
18-01

Engineering Division
925 S. 6th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

February 2018
By: BK

SANITARY SEWER DIG DOWN SPOT REPAIR



Sanitary
Dig Down

Project:
18-01

February 2018
By: BK

Engineering Division
925 S. 6th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Fribourg St

2" Mill and 2" Overlay

NOTE: 4" Milling Depth at Curb Planes Out
1" to 2" at 7' to 8' Wide
Located in The Field By The Engineer

Legend

-  Fribourg
-  Sanitary Manhole
-  Storm Manhole
-  Storm Catch Basin

1 inch = 100 feet

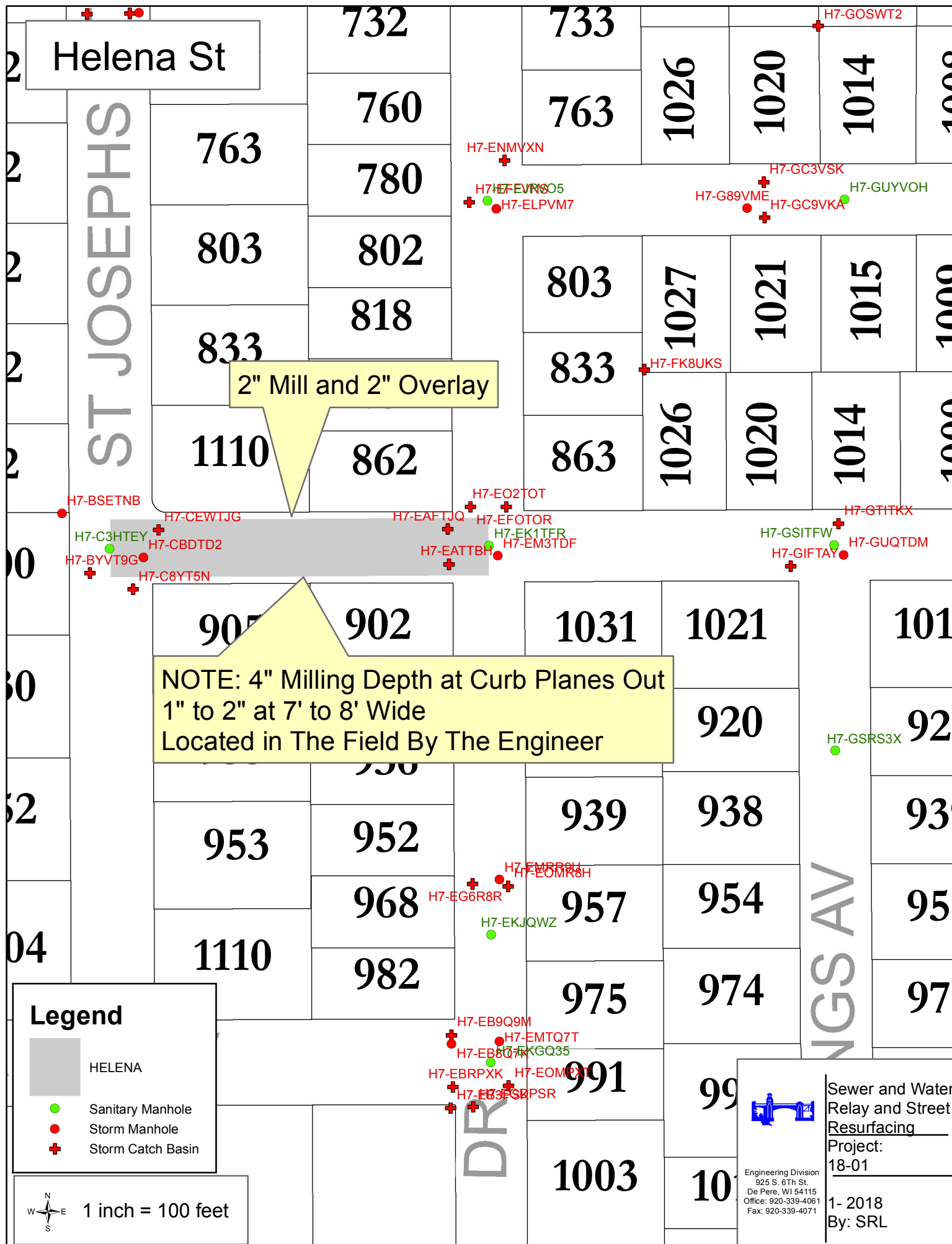


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Street
Resurfacing

Project:
18-01

December 2017
By: KAD



Highview St

J7-I50NQQ

J7-KQFO36
J7-KR0NYB
J7-L4ZNUT
J7-KVVNRS

J7-K0EMTN

2" Mill and 2" Overlay

J7-J2TKWG
J7-JDDKQ9
J7-JISKS8
J7-JF9KKR

J7-M0KKFK J7-MC4KFB

NOTE: 4" Milling Depth at Curb Planes Out
1" to 2" at 7' to 8' Wide
Located in The Field By The Engineer

J7-J7VITP
J7-JGVIPD

J7-M00IWE J7-M53IWF

J7-LER10B
J7-LNQHWW

J7-L3BH0K

Legend

- Highview
- Sanitary Manhole
- Storm Manhole
- Storm Catch Basin

1 inch = 100 feet



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Street
Resurfacing

Project:
18-01

December 2017
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Highview St

J7-OCNMA3 J7-OCNMA3

J7-PEDLV7

J7-Q1KLG8

J7-RR3KJQ

J7-M0KKFK J7-MC4KFB

2" Mill and 2" Overlay

J7-ORI35 J7-QXQJ50

J7-M00IWE J7-M53IWF

NOTE: 4" Milling Depth at Curb Planes Out
1" to 2" at 7' to 8' Wide
Located in The Field By The Engineer

J7-QMZIBT J7-QZ4IF6

J7-QI6I33 J7-R33I0L

J7-QY9I0P
J7-QNCHQZ

J7-QV8HCB

J7-QFAGNP

J7-NEEH1W
J7-NK6GYM
J7-MT3GU5

J7-NJ7GLH

J7-PZ8FC

J7-PLHFK4
J7-PQ4UC

Legend

- Highview
- Sanitary Manhole
- Storm Manhole
- Storm Catch Basin

1 inch = 100 feet



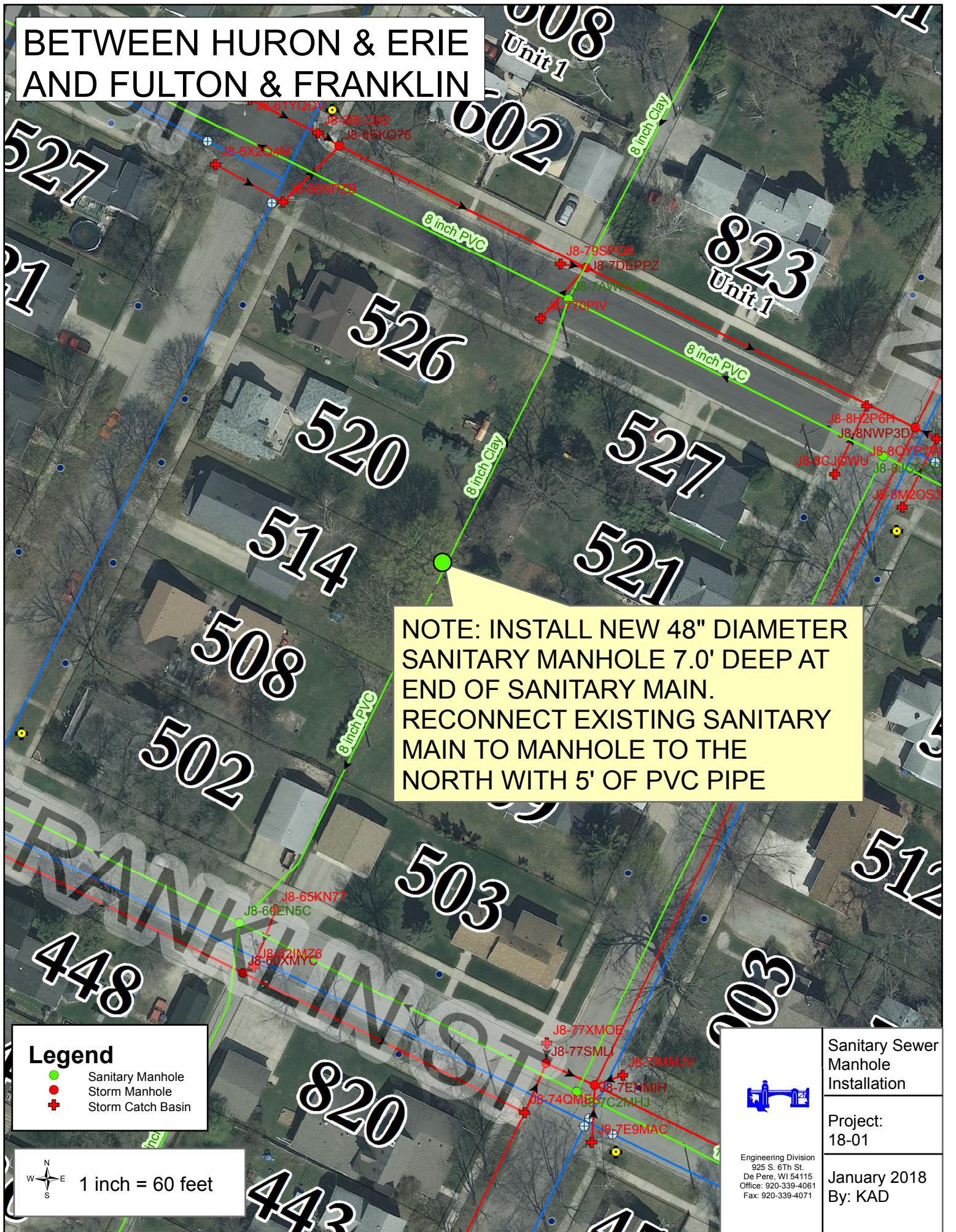
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Street
Resurfacing

Project:
18-01

December 2017
By: KAD

BETWEEN HURON & ERIE AND FULTON & FRANKLIN



Legend

- Sanitary Manhole
- Storm Manhole
- + Storm Catch Basin

N
W E
S
1 inch = 60 feet



Sanitary Sewer
Manhole
Installation

Project:
18-01

January 2018
By: KAD

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De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Zurich St

2" Mill and 2" Overlay

NOTE: 4" Milling Depth at Curb Planes Out
1" to 2" at 7' to 8' Wide
Located in The Field By The Engineer

Legend

- Zurich
- Sanitary Manhole
- Storm Manhole
- Storm Catch Basin

1 inch = 100 feet



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Street
Resurfacing

Project:
18-01

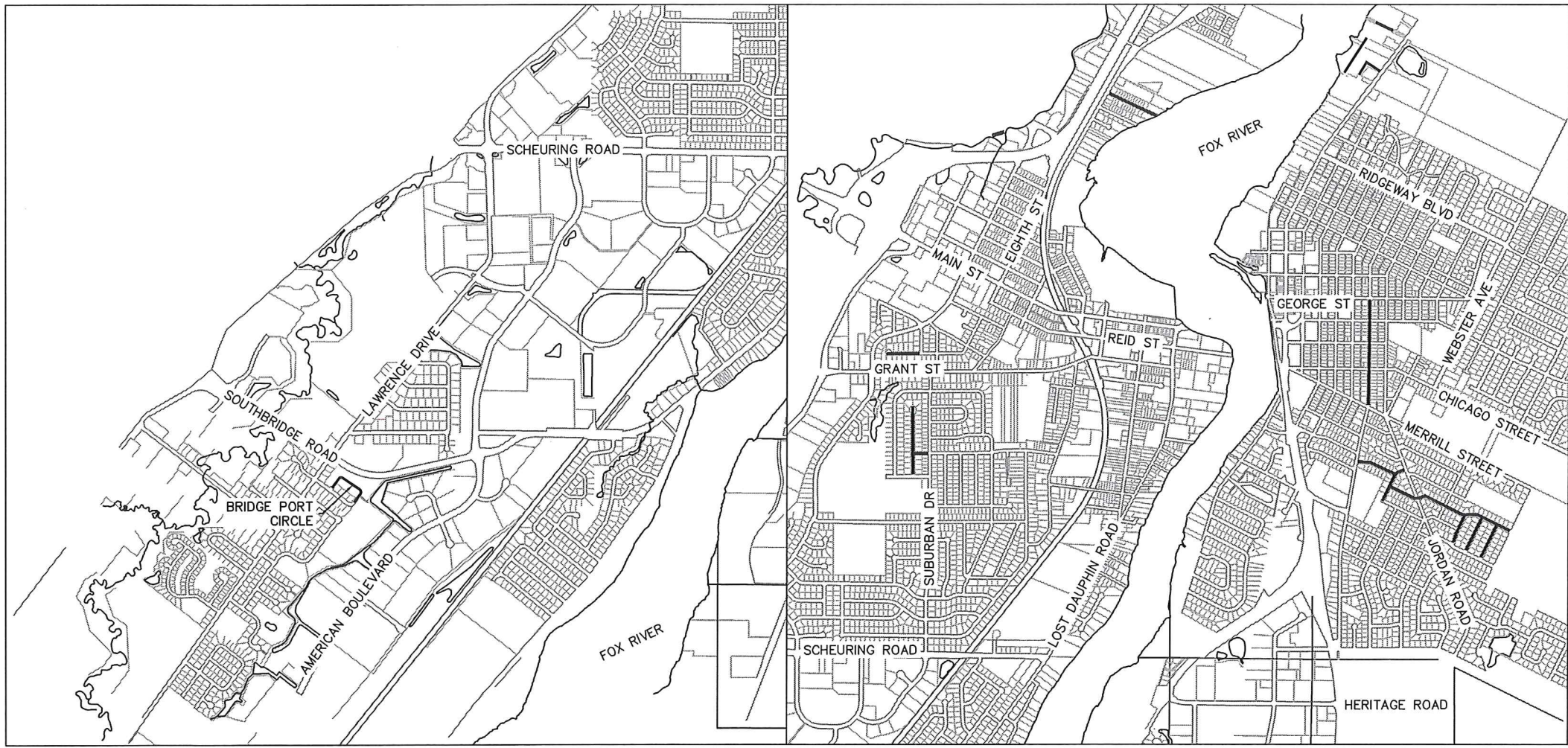
December 2017
By: KAD

PROJECT# 18-01
SEWER AND WATER RELAY AND STREET RESURFACING

CITY OF DE PERE



ENGINEER DIVISION
925 S. SIXTH ST
DE PERE, WI, 54115



SITE LOCATION MAP
N.T.S.

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STANDARD ABBREVIATION & SYMBOLS
3-4	TYPICAL SECTIONS
5-6	BRUSS STREET PLAN AND PROFILE
7-8	MT. OLIVET DRIVE PLAN AND PROFILE
9	REBMAN STREET PLAN AND PROFILE
10-11	HIGHVIEW STREET PLAN AND PROFILE
12-14	ST JOSEPHS STREET PLAN AND PROFILE
15-16	TWILIGHT DRIVE PLAN AND PROFILE
17-20	FAIRVIEW AVENUE PLAN AND PROFILE
21-24	ERIE STREET PLAN AND PROFILE
25-27	FOX RIVER TRAIL PLAN AND PROFILE
28-29	PELICAN LANDING PLAN AND PROFILE
30-36	BRIDGE PORT CIRCLE PLAN AND PROFILE
37-48	BRIDGE PORT CIRCLE CROSS SECTIONS
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59	BRIDGE PORT CIRCLE GRADING PLAN
60-61	EROSION CONTROL PLANS
62-63	TRAFFIC CONTROL PLANS
64	PROJECT DETAILS
65-69	CONSTRUCTION DETAILS

CITY OF DE PERE
BOARD OF PUBLIC WORKS

2/13/18 *E. P. Rakers*
DATE CITY ENGINEER
2/13/18 *James M. Plo*
DATE CITY ADMINISTRATOR
2/13/18 *Michael J. Walsh*
DATE MAYOR

STAMPS:



LIST OF STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	N	NORTH
AGGR	AGGREGATE	NB	NORTHBOUND
AH	AHEAD	NC	NORMAL CROWN
ASPH	ASPHALT	NE	NORTHEAST
B/B	BACK TO BACK	NO	NUMBER
BARR	BARRICADE	NTS	NOT TO SCALE
BC	BACK OF CURB	NW	NORTHWEST
BK	BACK	O	OIL
BL	BASELINE	O&C	OIL AND CHIP
BLDG	BUILDING	OBLIT	OBLITERATE
BM	BENCHMARK	OD	OUTSIDE DIAMETER
BSMT	BASEMENT	PC	POINT OF CURVATURE
C	CUT	PCC	POINT OF COMPOUND CURVE
C&G	CURB AND GUTTER	PCC	PORTLAND CEMENT CONCRETE
C/C	CENTER TO CENTER	PED	PEDESTAL
CABC	CRUSHED AGGREGATE BASE COURSE	PLE	PERMANENT LIMITED EASEMENT
CB	CATCH BASIN	PVMT	PAVEMENT
CE	CONSTRUCTION ENTRANCE	PE	PRIVATE ENTRANCE
CI	CAST IRON PIPE	PI	POINT OF INTERSECTION
CL	CENTERLINE	PJF	PRE-FORMED JOINT FILLER
CMP	CORRUGATED METAL PIPE	PL	PROPERTY LINE
CNTY	COUNTY	POC	POINT OF CURVE
CO	CLEANOUT	POT	POINT ON TANGENT
CONC	CONCRETE	PP	POWER POLE
CONSTR	CONSTRUCTION	PRC	POINT OF REVERSE CURVATURE
CONSTR JT	CONSTRUCTION JOINT	PROJ	PROJECT
CP	CONTROL POINT	PROP	PROPOSED
CTH	COUNTY TRUNK HIGHWAY	PSI	POUND PER SQUARE INCH
CTRL JT	CONTROL JOINT	PT	POINT OF TANGENCY
CTV	CABLE TV	PVC	POLYVINYL CHLORIDE
CY	CUBIC YARD	R	RANGE OR RADIUS
D	DEPTH	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	REBAR	REINFORCEMENT BAR
DI	DUCTILE IRON PIPE	REL	RELOCATE
DISCH	DISCHARGE	REM	REMAINING
DW	DRIVEWAY	REQD	REQUIRED
E	EAST (SEE ELEC BELOW)	RL	REFERENCE LINE
EA	EACH	ROW	RIGHT OF WAY
EB	EASTBOUND	RP	REFERENCE POINT
EBS	EXCAVATION BELOW SUBGRADE	RR	RAILROAD
ECS	EXTERNAL CHIMNEY SEAL	RT	RIGHT
EL	ELEVATION	RW	RETAINING WALL
ELEC	ELECTRIC (E WHEN USED IN LINE STYLE)	S	SOUTH
EMB	EMBANKMENT	SALV	SALVAGE
ENTR	ENTRANCE	SAN	SANITARY
EP	EDGE OF PAVEMENT	SB	SOUTHBOUND
EW	ENDWALL	SDWK	SIDEWALK
EXC	EXCAVATION	SE	SOUTHEAST
EXIST	EXISTING	SF	SQUARE FEET
F	FILL	SHLDR	SHOULDER
F/F	FACE TO FACE	SY	SQUARE YARD
FDN	FOUNDATION	SS	STORM SEWER
FE	FIELD ENTRANCE	SSD	STOPPING SIGHT DISTANCE
FERT	FERTILIZER	STA	STATION
FIN GR	FINISHED GRADE	STD	STANDARD
FL	FLOWLINE	STH	STATE HIGHWAY TRUNK
FO	FIBER OPTIC	STM	STORM
FT	FOOT	STP	SEWAGE TREATMENT PLANT
FTG	FOOTING	STRUCT	STRUCTURE OR STRUCTURAL
G	GAS	SW	SOUTHWEST
GV	GAS VALVE	TAN	TANGENT
GW	GUY WIRE	T	TOWN (T WHEN USED FOR TELEPHONE LINE)
HDPE	HIGH-DENSITY POLYETHYLENE	TEL	TELEPHONE
HR	HANDICAP RAMP	TEMP	TEMPORARY
HSE	HOUSE	TLE	TEMPORARY LIMITED EASEMENT
HT	HEIGHT	TOC	TOP OF CURB
HYD	HYDRANT	TOW	TOP OF WATER
I	INTERSECTION ANGLE	TRANS	TRANSITION
ICS	INTERNAL CHIMNEY SEAL	TYP	TYPICAL
ID	INSIDE DIAMETER	UG	UNDERGROUND
IN	INCH	USH	US HIGHWAY
INL	INLET	VC	VERTICAL CURVE
INTERS	INTERSECTION	VERT	VERTICAL
INV	INVERT	VOL	VOLUME
IP	IRON PIPE OR PIN	VPC	VERTICAL POINT OF CURVATURE
JCT	JUNCTION	VPI	VERTICAL POINT OF INTERSECTION
L	LENGTH (OF CURVE)	VPRC	VERTICAL POINT OF REVERSE CURVE
LC	LONG CHORD OF CURVE	VPT	VERTICAL POINT OF TANGENCY
LP	LIGHTPOLE	W	WEST
LS	LIFT STATION OR LUMP SUM	WB	WESTBOUND
LT	LEFT	WM	WATERMAIN
MAINT	MAINTENANCE	WSO	WATER SHUTOFF VALVE
MATL	MATERIAL	WTP	WATER TREATMENT PLANT
MB	MAILBOX	WV	WATER VALVE
MH	MANHOLE	WWTP	WASTE WATER TREATMENT PLANT
MP	MARKER POST	YD	YARD

MAPPING & TOPOGRAPHY SYMBOLOLOGY

DESCRIPTION	SYMBOL	
	EXISTING	PROPOSED
BENCHMARK		
BUSH		
CATCH BASIN		
CABLE TV BOX		
ELECTRICAL BOX		
FIELD INLET		
GAS VALVE		
HEDGE		
HYDRANT		
IRON PIPE		
LIGHTPOLE		
MAILBOX		
MANHOLE ELECTRIC		
MANHOLE SANITARY		
MANHOLE STORM		
MONITORING WELL		
POWER POLE		
SIGN BASE		
SIGN		
STUMP		
TELEPHONE MANHOLE		
TELEPHONE PEDESTAL		
TREE		
WELL		
WATER SERVICE VALVE		
WATER VALVE		

PATCH SYMBOLS

ASPHALT PATCH	
CONCRETE PATCH	

GENERAL CONSTRUCTION NOTES:

- ALL ELEVATIONS ARE REFERENCED TO NAVD 88.
- THE WORK UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE CITY OF DE PERE, LATEST CONSTRUCTION SPECIFICATIONS AND THESE SPECIAL PROVISIONS AND PLANS, AND THE LATEST ADDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION SPECIFICATIONS, LATEST EDITION, WHERE REFERENCED IN THE CITY SPECIFICATIONS.
- ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION AND SHALL CONFIRM TO THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION SITE EROSION CONTROL AND TECHNICAL STANDARDS.
- EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES. WHETHER SHOWN OR NOT, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITIES OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR 72 HOURS PRIOR TO EXCAVATION.

MAPPING & TOPOGRAPHY SYMBOLOLOGY

DESCRIPTION	SYMBOL	
	PLAN	
EXISTING SANITARY SEWER LINE		
PROPOSED SANITARY SEWER LINE		
EXISTING STORM SEWER LINE		
PROPOSED STORM SEWER LINE		
EXISTING WATER MAIN LINE		
PROPOSED WATER MAIN LINE		
EXISTING ELECTRICAL LINE		
EXISTING GAS MAIN LINE		
EXISTING TELEPHONE LINE		
EXISTING CABLE TV LINE		
EXISTING SANITARY LATERAL		
EXISTING WATER SERVICE		
RIGHT OF WAY		
PROPERTY LINE		

PROFILE

EXISTING SANITARY SEWER LINE	
PROPOSED SANITARY SEWER LINE	
EXISTING STORM SEWER LINE	
PROPOSED STORM SEWER LINE	
EXISTING WATER MAIN LINE	
PROPOSED WATER MAIN LINE	

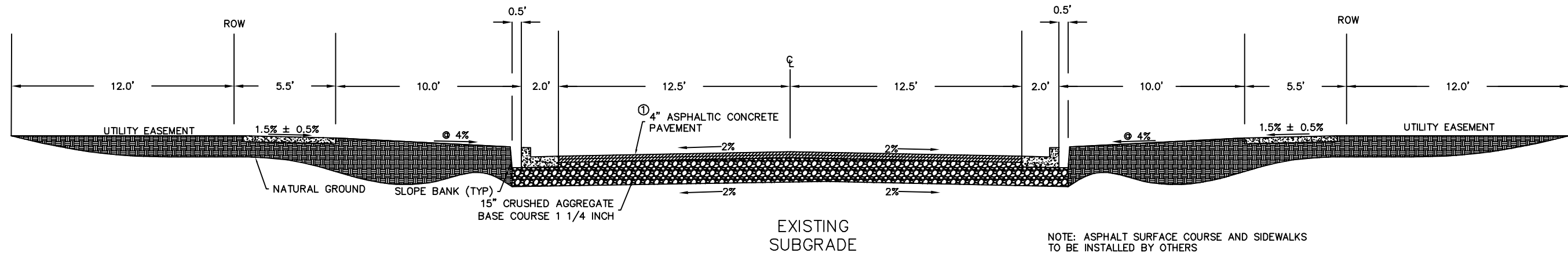


CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4060 FAX 920-339-4071

STANDARD ABBREVIATIONS
AND SYMBOLS

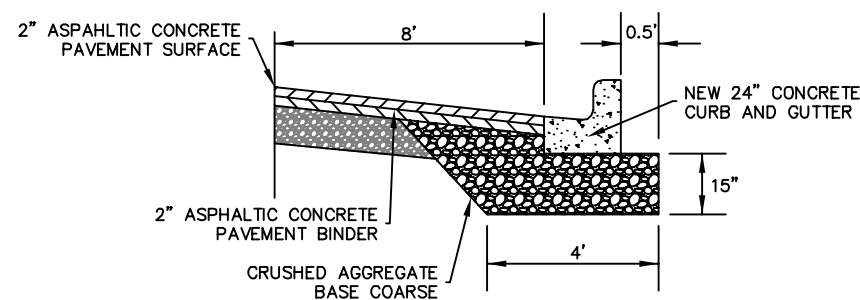
NAME: SEWER AND WATER RELAY AND STREET RESURFACING	BY KAD	DATE 01-2018	REVISIONS / ISSUES				PAGE NO. 2
			NO.	DATE	BY	REMARKS	
PROJECT # 18-01			SURVEYED				
			DRAWN				
			DESIGNED				
			CHECKED				



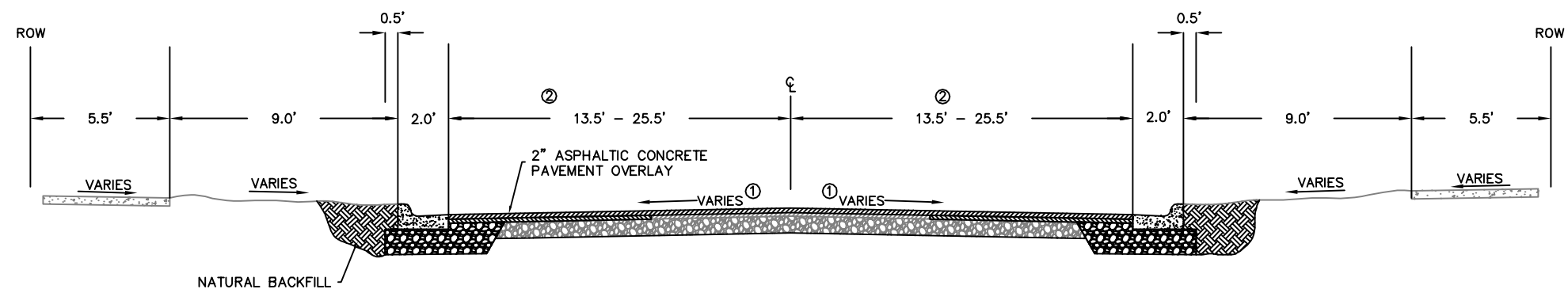
BRIDGE PORT CIRCLE
TYPICAL STREET SECTION

NOTE: ASPHALT SURFACE COURSE AND SIDEWALKS
TO BE INSTALLED BY OTHERS

① 4" ASPHALTIC CONCRETE PAVEMENT CONSISTS OF:
2.25" BINDER COURSE : 3 LT 58-28 S
1.75" SURFACE COURSE : 4 LT 58-28 S



SLIP FORM 24" CONCRETE
CURB AND GUTTER DETAIL
N.T.S.
(FAIRVIEW AVENUE)



FAIRVIEW AVENUE
TYPICAL STREET SECTION
(STA 70+94 TO STA 80+12)

NOTES:

① CROSS SLOPE VARIES THROUGH
PROJECT AS FOLLOWS:

LEFT SIDE
STATION 70+94 TO 70+97 - 3.26% TO 2.00%
STATION 70+97 TO 74+00 - 2.00%
STATION 74+00 TO 74+10 - 2.00% TO 1.85%
STATION 74+10 TO 74+38 - 1.85% TO 1.50%
STATION 74+38 TO 74+53 - 1.50%
STATION 74+53 TO 74+91 - 1.50% TO 1.35%
STATION 74+91 TO 75+00 - 1.35% TO 1.25%
STATION 75+00 TO 75+01 - 1.25% TO 1.20%
STATION 75+01 TO 75+25 - 1.20%
STATION 75+25 TO 75+41 - 1.20% TO 1.30%
STATION 75+41 TO 75+44 - 1.30%
STATION 75+44 TO 75+50 - 1.30% TO 1.40%
STATION 75+50 TO 75+57 - 1.40% TO 1.50%
STATION 75+57 TO 75+63 - 1.50% TO 1.60%
STATION 75+63 TO 75+81 - 1.60% TO 1.70%
STATION 75+81 TO 76+00 - 1.70% TO 2.00%
STATION 76+00 TO 76+37 - 2.00% TO 2.50%
STATION 76+37 TO 76+38 - 2.50%
STATION 76+38 TO 76+49 - 2.50% TO 2.65%

LEFT SIDE
STATION 76+49 TO 76+50 - 2.65%
STATION 76+50 TO 76+54 - 2.65% TO 2.74%
STATION 76+54 TO 76+65 - 2.74%
STATION 76+65 TO 77+00 - 2.74% TO 3.04%
STATION 77+00 TO 77+04 - 3.04%
STATION 77+04 TO 77+14 - 3.04% TO 2.44%
STATION 77+14 TO 77+48 - 2.44% TO +2.67%
STATION 77+48 TO 77+50 - +2.67% TO +2.81%
STATION 77+50 TO 77+65 - +2.81% TO +2.96%
STATION 77+65 TO 78+00 - +2.96% TO 0.22%
STATION 78+00 TO 78+01 - 0.22% TO 1.26%
STATION 78+01 TO 78+19 - 1.26% TO 2.00%
STATION 78+19 TO 78+50 - 2.00% TO 4.22%
STATION 78+50 TO 78+57 - 4.22% TO 2.89%
STATION 78+57 TO 78+73 - 2.89% TO 1.19%
STATION 78+73 TO 79+00 - 1.19% TO 1.33%
STATION 79+00 TO 79+15 - 1.33% TO 2.00%
STATION 79+15 TO 80+12 - 2.00%

RIGHT SIDE
STATION 70+94 TO 70+97 - 2.96% TO 1.70%
STATION 70+97 TO 71+03 - 1.70%
STATION 71+03 TO 71+08 - 1.70% TO 2.00%
STATION 71+08 TO 74+10 - 2.00%
STATION 74+10 TO 74+38 - 2.00% TO 2.05%
STATION 74+38 TO 74+50 - 2.05% TO 2.20%
STATION 74+50 TO 74+53 - 2.20% TO 2.25%
STATION 74+53 TO 74+91 - 2.25% TO 2.70%
STATION 74+91 TO 75+01 - 2.70%
STATION 75+01 TO 75+25 - 2.70% TO 2.80%
STATION 75+25 TO 75+41 - 2.80% TO 2.60%
STATION 75+41 TO 75+44 - 2.60% TO 2.55%
STATION 75+44 TO 75+50 - 2.55% TO 2.50%
STATION 75+50 TO 75+57 - 2.50% TO 2.40%
STATION 75+57 TO 75+63 - 2.40%
STATION 75+63 TO 75+81 - 2.40% TO 2.10%
STATION 75+81 TO 76+00 - 2.10% TO 2.00%
STATION 76+00 TO 76+37 - 2.00% TO 1.50%
STATION 76+37 TO 76+38 - 1.50% TO 1.45%
STATION 76+38 TO 76+49 - 1.45% TO 1.35%
STATION 76+49 TO 76+50 - 1.35% TO 1.30%
STATION 76+50 TO 76+54 - 1.30% TO 1.26%
STATION 76+54 TO 76+65 - 1.26% TO 1.19%
STATION 76+65 TO 77+00 - 1.19% TO 1.11%

RIGHT SIDE
STATION 77+00 TO 77+04 - 1.11% TO 1.26%
STATION 77+04 TO 77+14 - 1.26% TO 1.48%
STATION 77+14 TO 77+48 - 1.48% TO 2.44%
STATION 77+48 TO 77+50 - 2.44%
STATION 77+50 TO 77+65 - 2.44% TO 2.67%
STATION 77+65 TO 78+00 - 2.67% TO 1.93%
STATION 78+00 TO 78+01 - 1.93% TO 2.74%
STATION 78+01 TO 78+19 - 2.74% TO 1.41%
STATION 78+19 TO 78+50 - 1.41% TO 4.59%
STATION 78+50 TO 78+57 - 4.59% TO 3.70%
STATION 78+57 TO 78+73 - 3.70% TO 2.00%
STATION 78+73 TO 79+00 - 2.00% TO 1.63%
STATION 79+00 TO 79+15 - 1.63% TO 2.00%
STATION 79+15 TO 79+31 - 2.00%
STATION 79+31 TO 79+50 - 2.00% TO 2.06%
STATION 79+50 TO 80+12 - 2.06% TO 3.86%

② WIDTH CHANGES AS FOLLOWS:

LEFT SIDE LANE
STATION 70+94 TO 79+40 - 13.5'
STATION 79+40 TO 79+61 - 13.5' TO 17.0'
STATION 79+61 TO 79+88 - 17.0' TO 25.5'
STATION 79+88 TO 80+12 - 25.5' TO 0'

RIGHT SIDE LANE
STATION 70+94 TO 79+40 - 13.5'
STATION 79+40 TO 79+61 - 13.5' TO 17.0'
STATION 79+61 TO 79+88 - 17.0' TO 25.5'
STATION 79+88 TO 80+12 - 25.5' TO 0'



CITY OF DE PERE

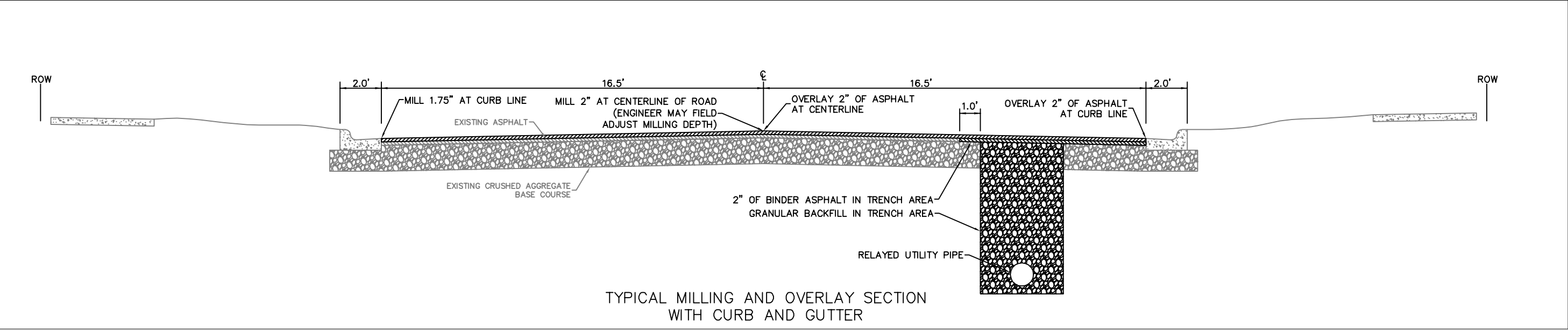
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CITY OF DE PERE
TYPICAL SECTIONS

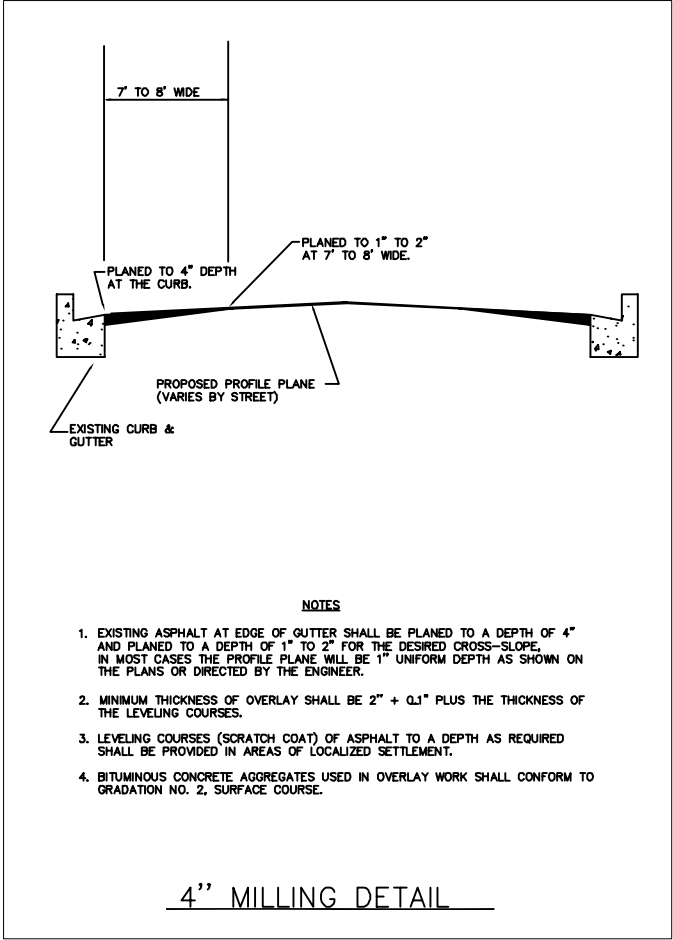
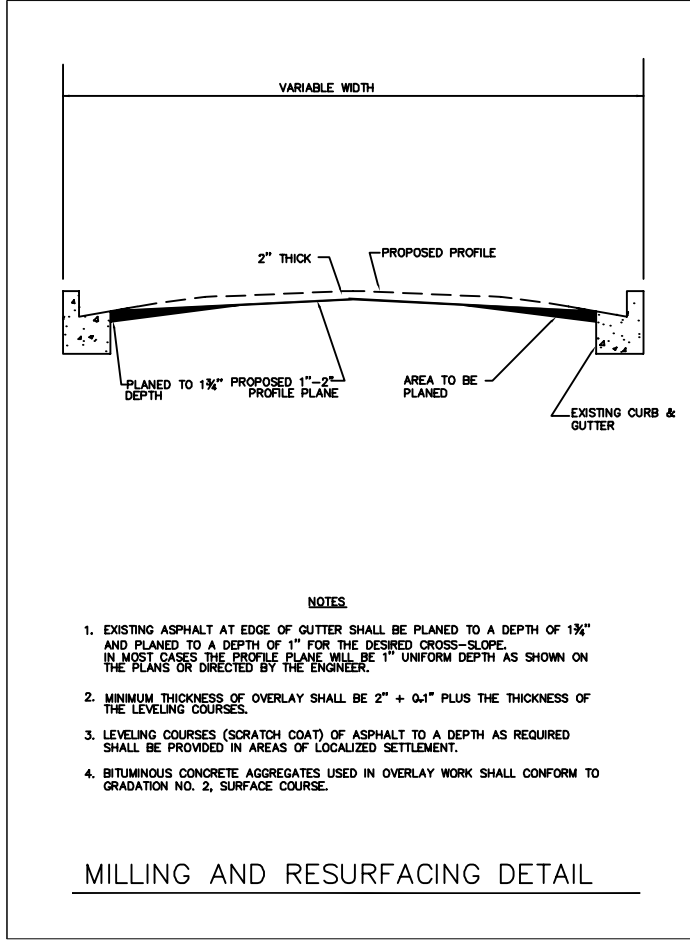
NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 18-01

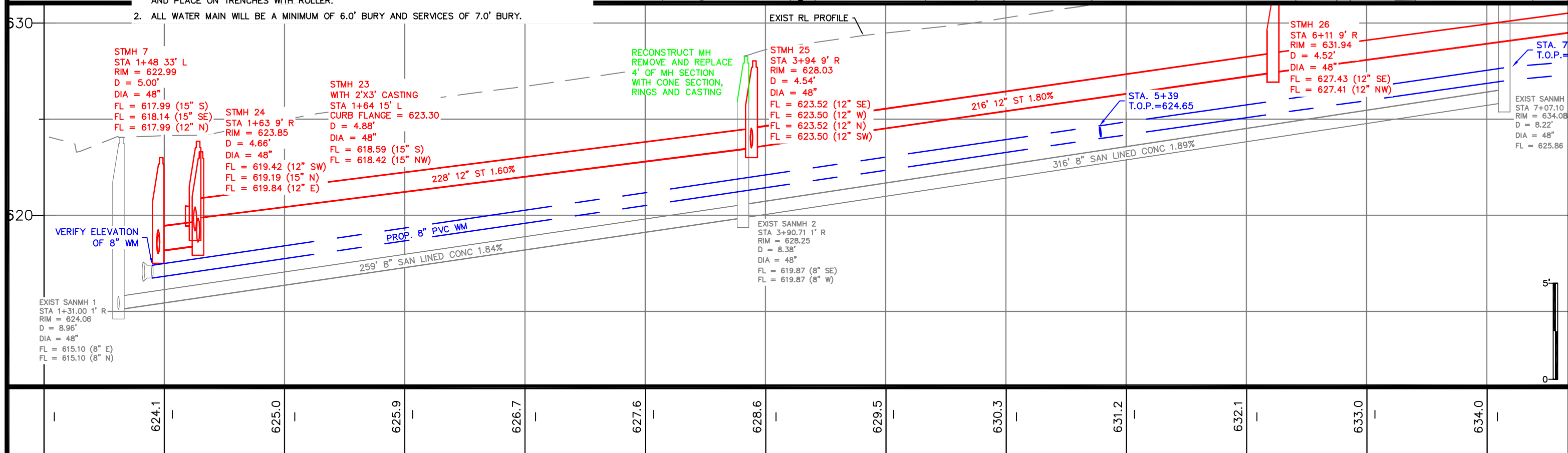
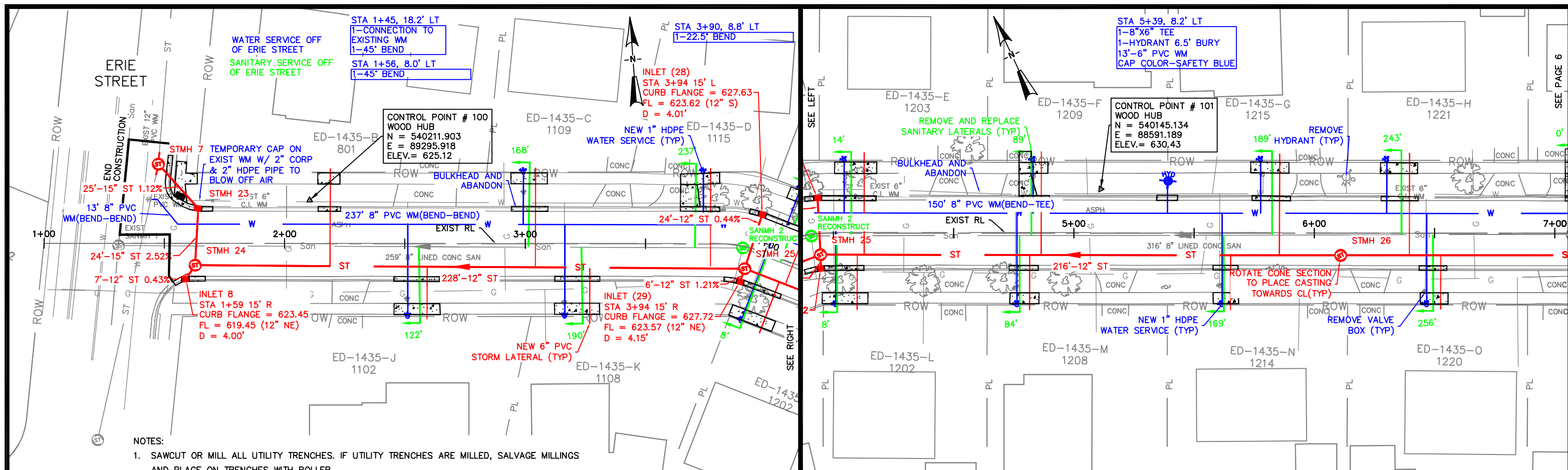
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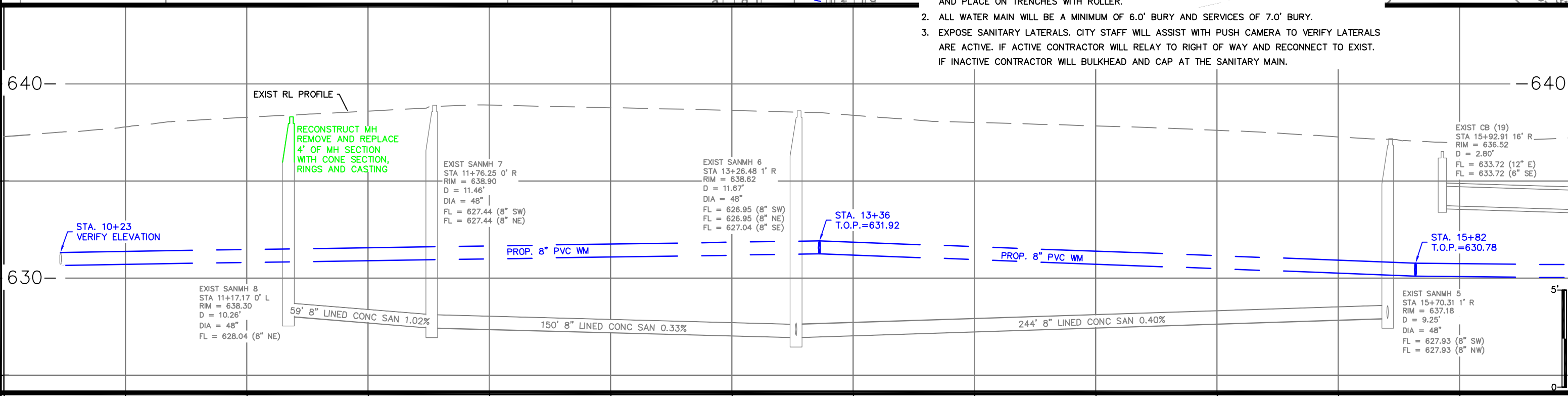
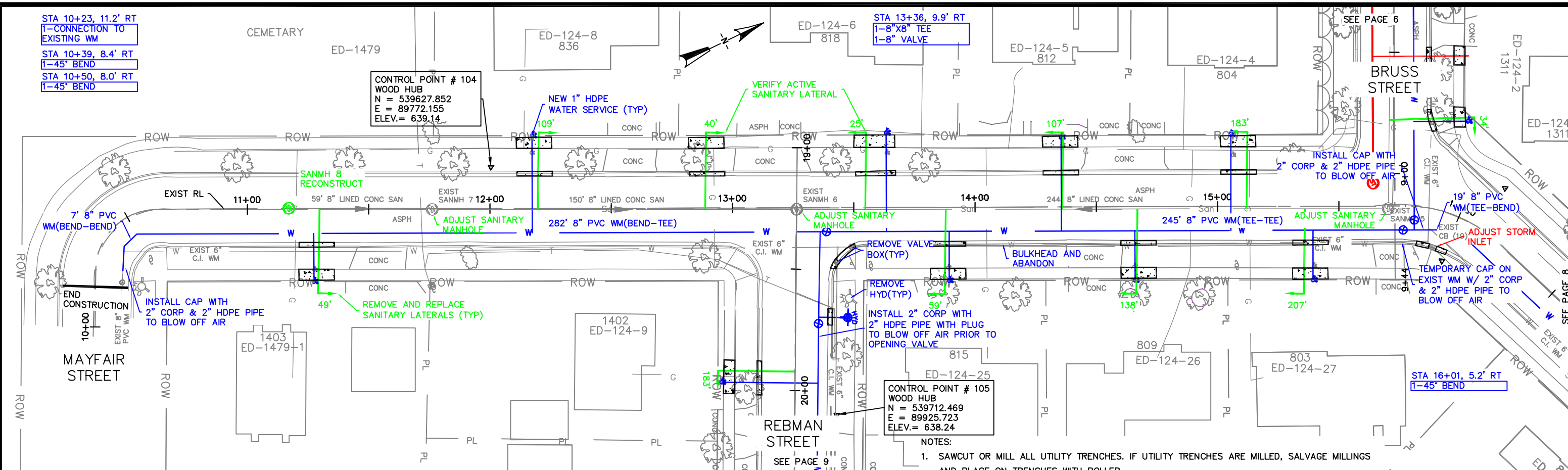
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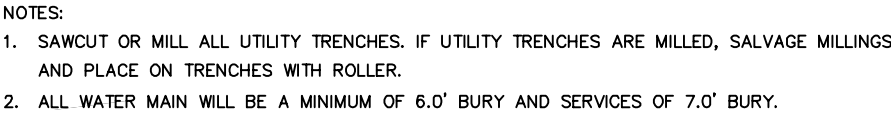
TYPICAL MILLING AND OVERLAY SECTION
WITH CURB AND GUTTER







10+00	11+00	12+00	13+00	14+00	15+00	16+00
CITY OF DE PERE				MT OLIVET DRIVE		NAME: SEWER AND WATER RELAY AND STREET RESURFACING
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115				MAYFAIR ST TO 600' N/O MAYFAIR ST		PROJECT # 18-01
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				DRAWN	KAD	11-2017
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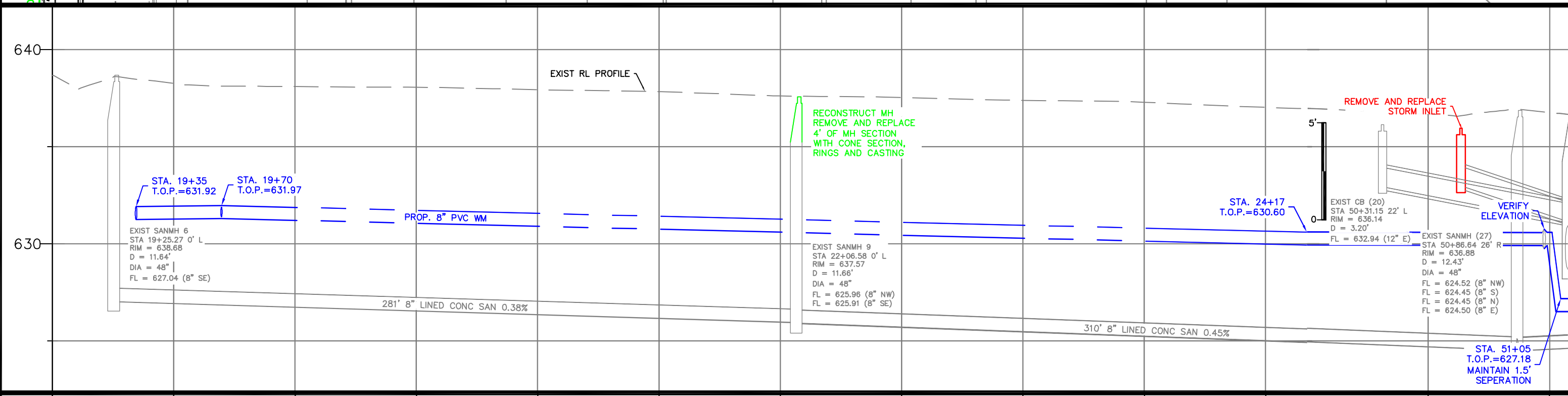
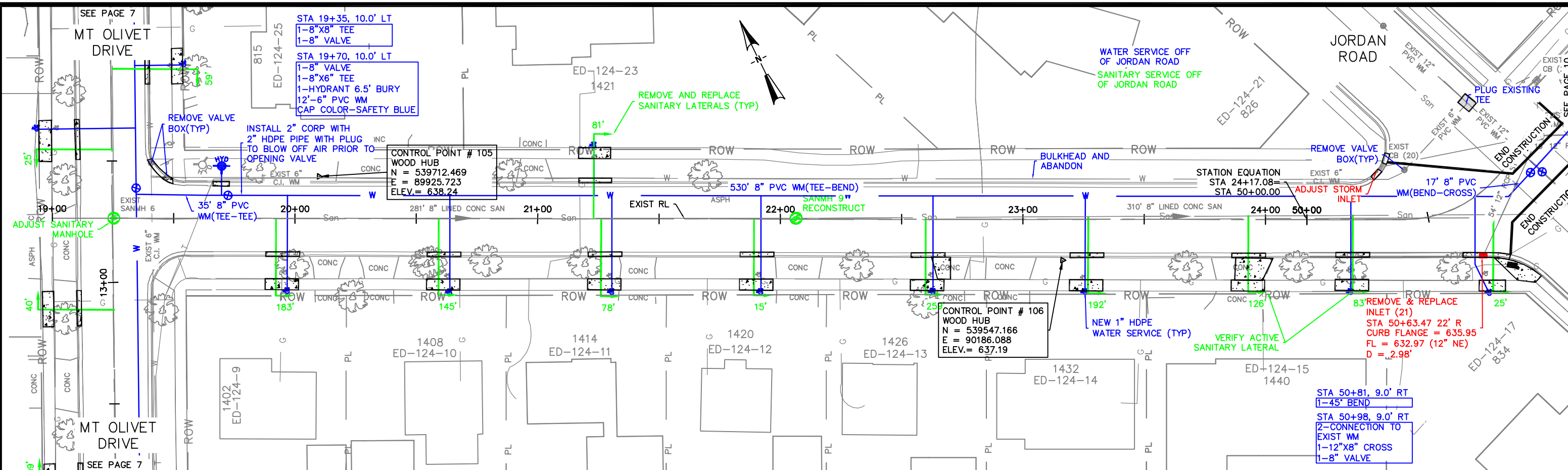
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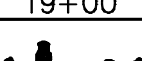
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OFFICE 920-339-4061 FAX 920-339-4071

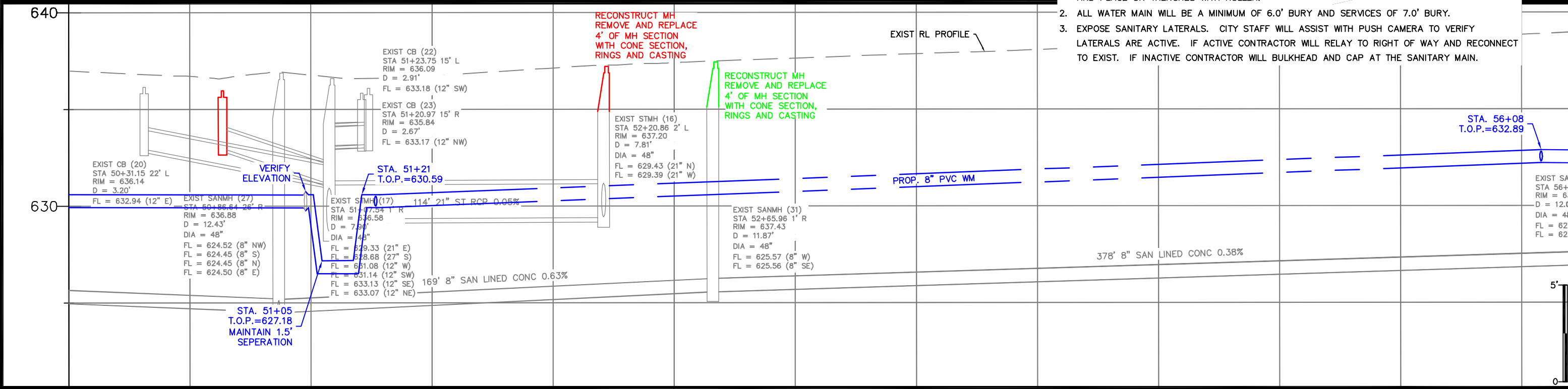
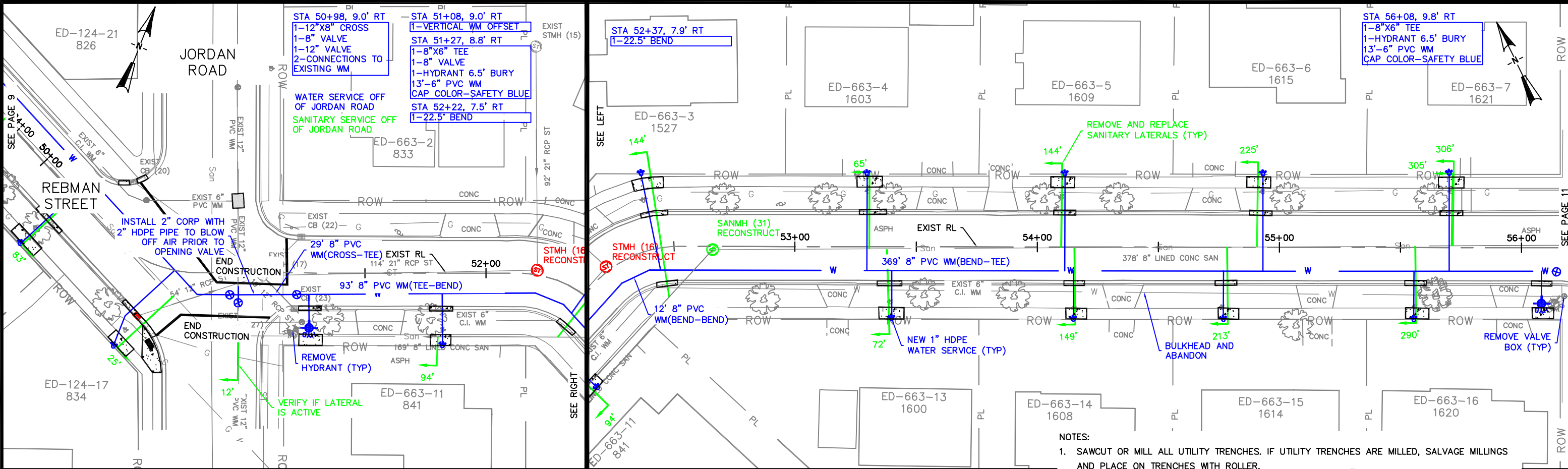
MT OLIVET DRIVE
600' N/O MAYFAIR TO JORDAN ROAD

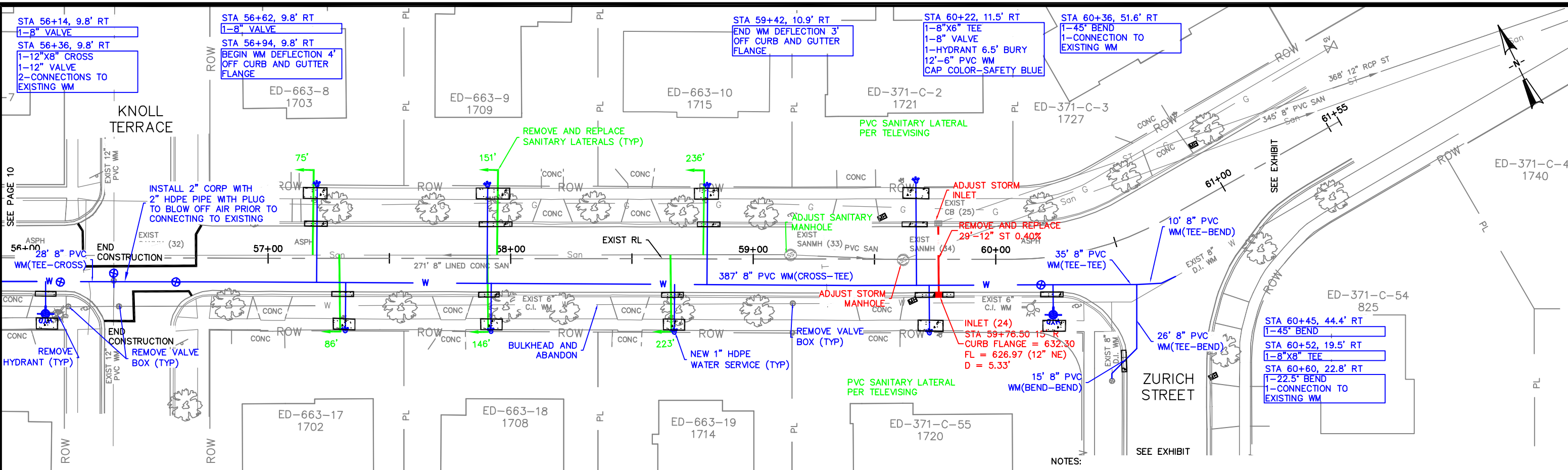
NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 18-01

	BY	DATE	REVISIONS / ISSUES			
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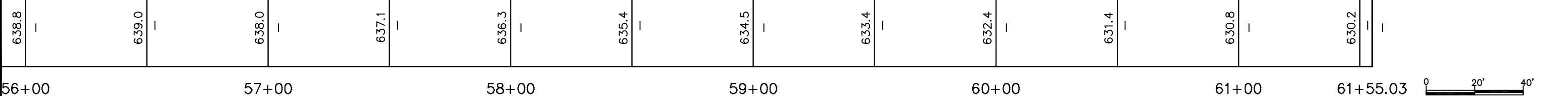
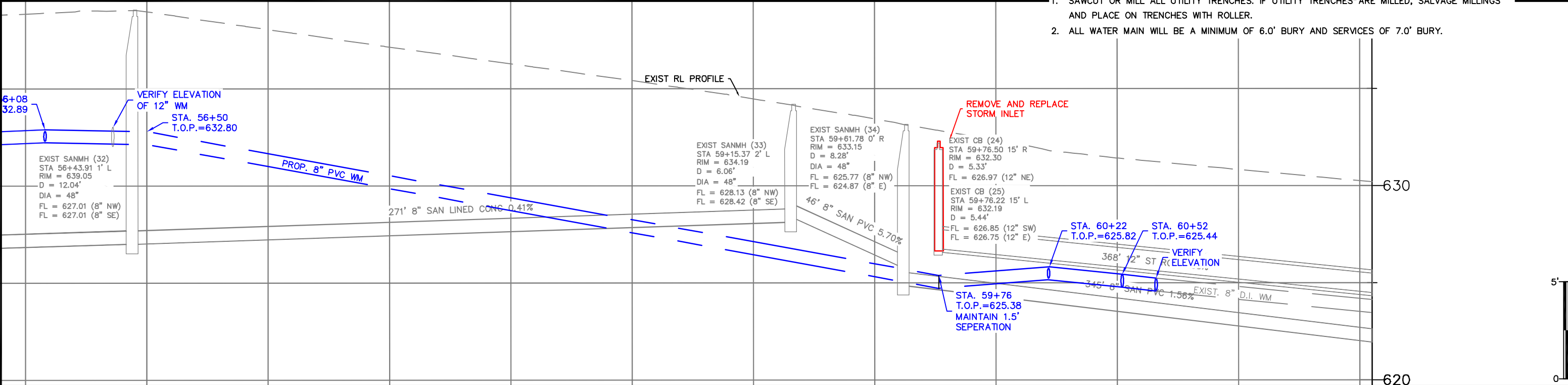


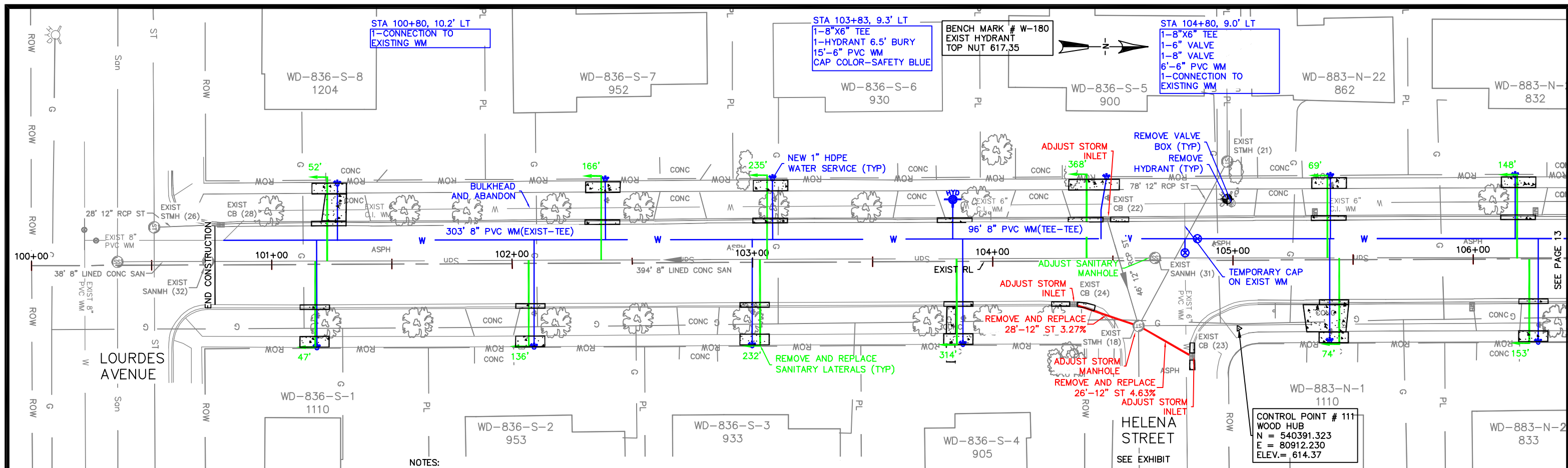
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<div></div> <div>CITY OF DE PERE ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115 OFFICE 920-339-4061 FAX 920-339-4071</div>				REBMAN STREET <u>MOUNT OLIVET DR TO JORDAN RD</u>				NAME: SEWER AND WATER RELAY AND STREET RESURFACING PROJECT # 18-01		<div><div>SURVEYED</div><div>DRAWN</div><div>DESIGNED</div><div>CHECKED</div></div> <div><div>KAD</div><div>KAD</div><div>KAD</div><div>CKK</div></div> <div><div>11-2017</div><div>11-2017</div><div>11-2017</div><div>11-2017</div></div>		<div>REVISIONS / ISSUES</div> <table><thead><tr><th>NO.</th><th>DATE</th><th>BY</th><th>REMARKS</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>				NO.	DATE	BY	REMARKS													PAGE NO. 9	
NO.	DATE	BY	REMARKS																														





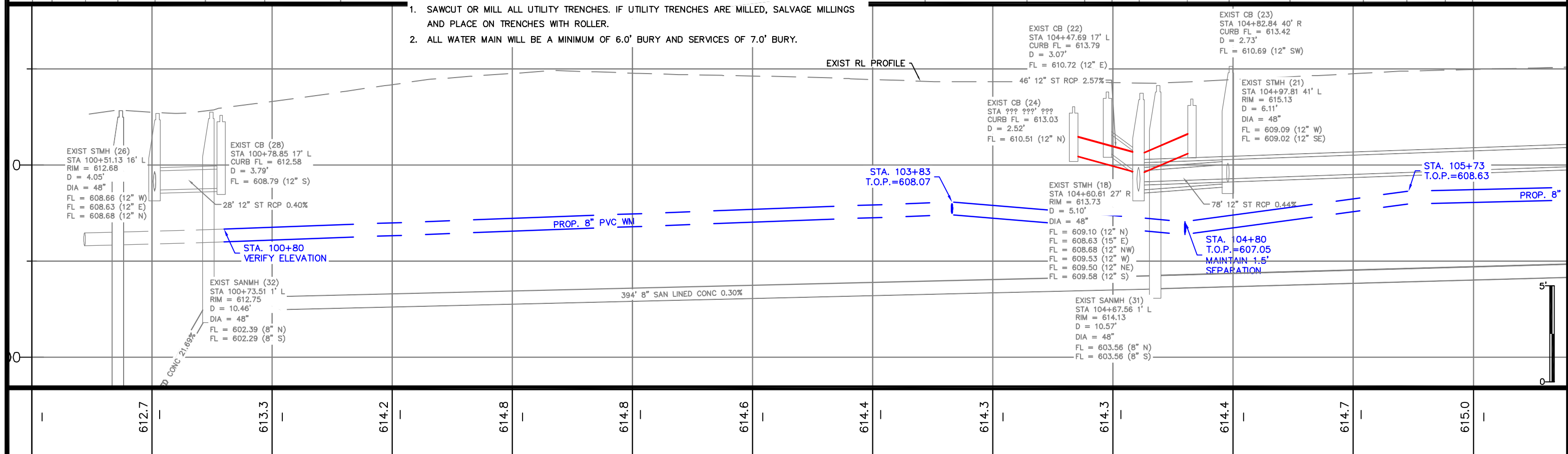
- NOTES:
1. SAWCUT OR MILL ALL UTILITY TRENCHES. IF UTILITY TRENCHES ARE MILLED, SALVAGE MILLINGS AND PLACE ON TRENCHES WITH ROLLER.
 2. ALL WATER MAIN WILL BE A MINIMUM OF 6.0' BURY AND SERVICES OF 7.0' BURY.





NOTES:

1. SAWCUT OR MILL ALL UTILITY TRENCHES. IF UTILITY TRENCHES ARE MILLED, SALVAGE MILLINGS AND PLACE ON TRENCHES WITH ROLLER.
2. ALL WATER MAIN WILL BE A MINIMUM OF 6.0' BURY AND SERVICES OF 7.0' BURY.



00+00 101+00 102+00 103+00 104+00 105+00 106+00



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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ST JOSEPHS STREET

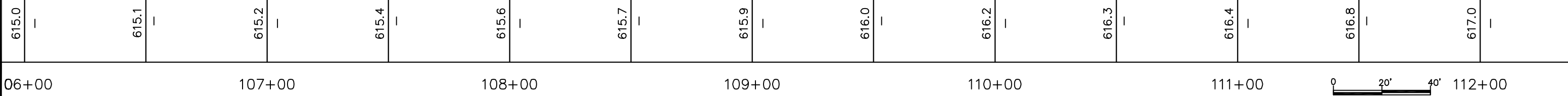
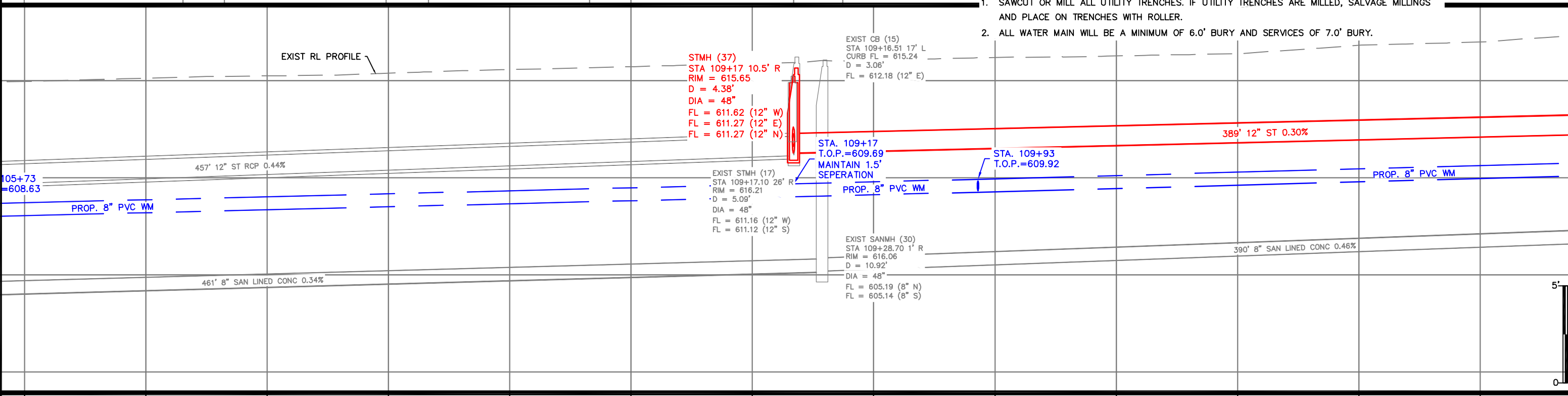
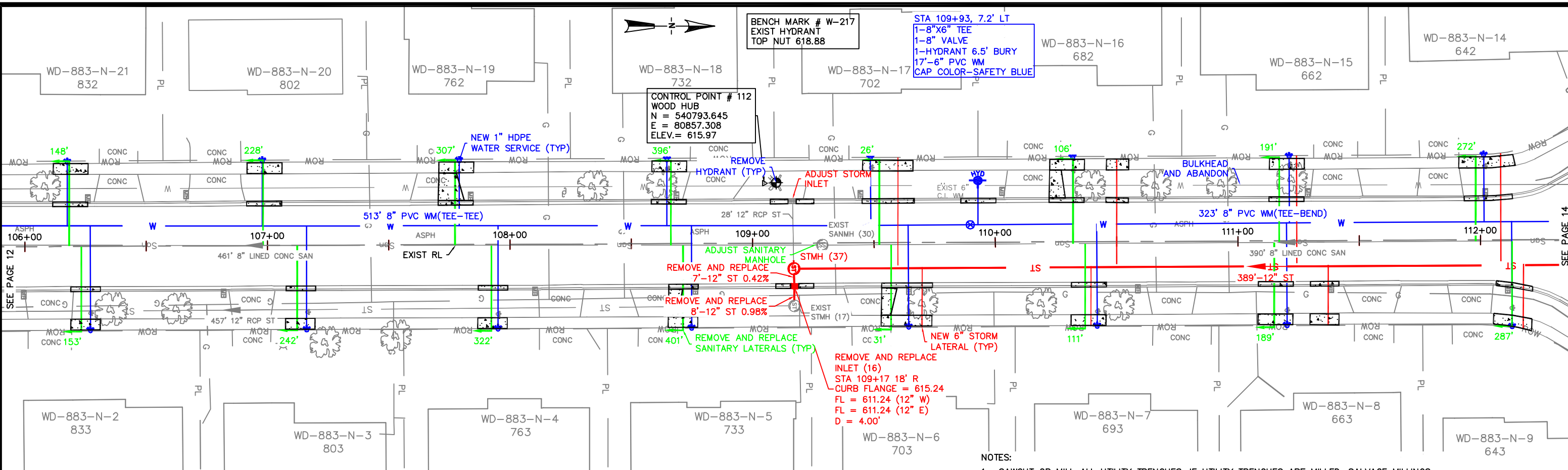
LOURDES AVENUE TO 150' N/O HELENA STREET

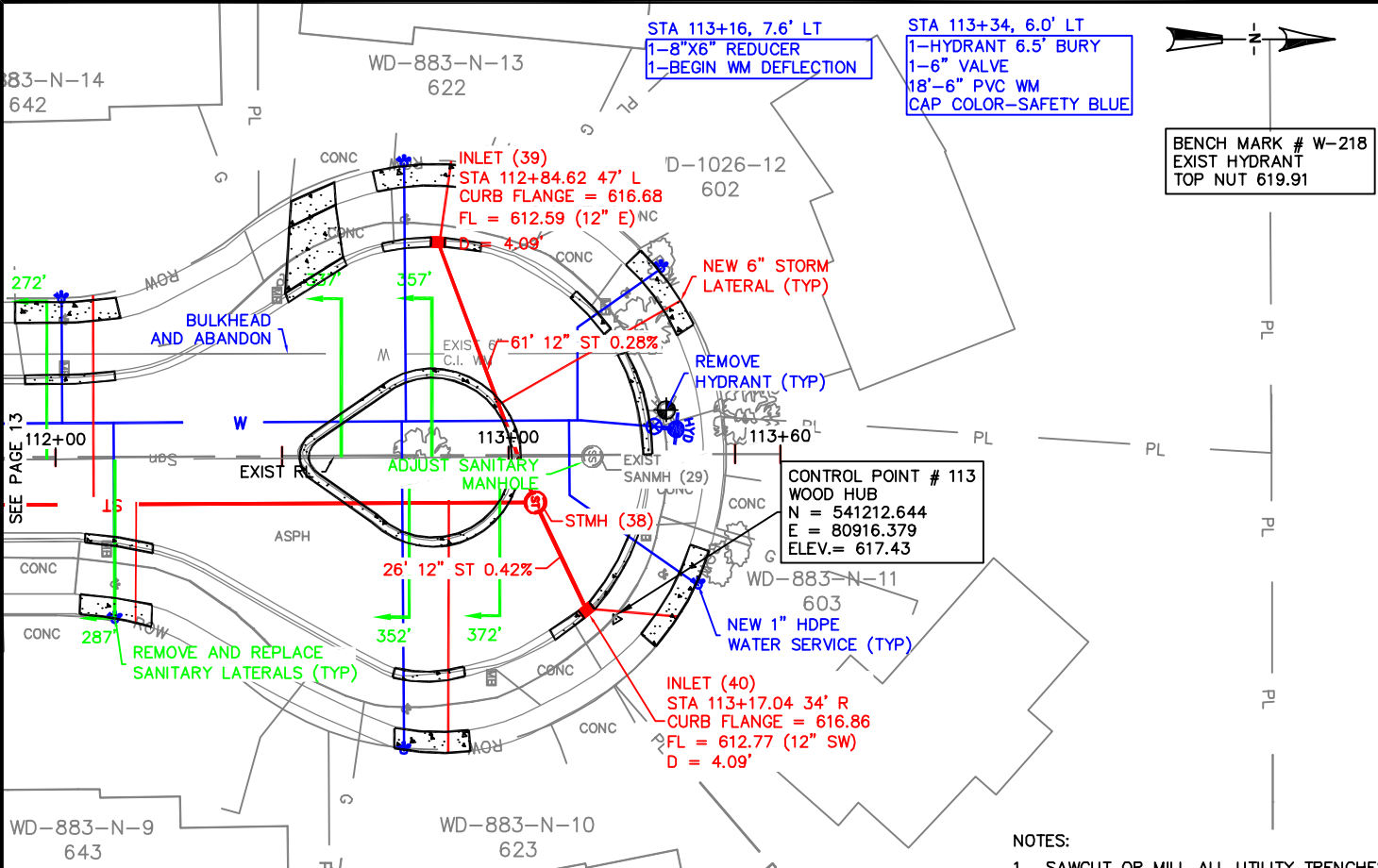
NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
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18-01

	BY	DATE
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DRAWN	KAD	12-2017
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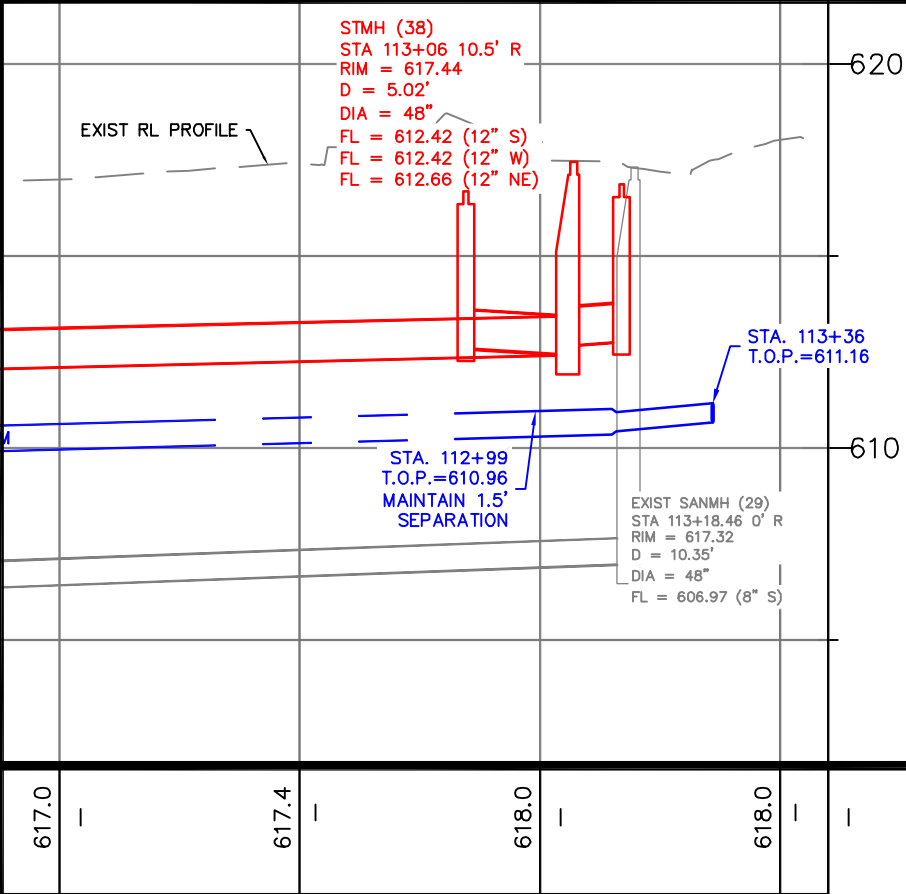
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NO.	DATE	BY	REMARKS

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- NOTES:
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 2. ALL WATER MAIN WILL BE A MINIMUM OF 6.0' BURY AND SERVICES OF 7.0' BURY.



112+00 113+00 113+60



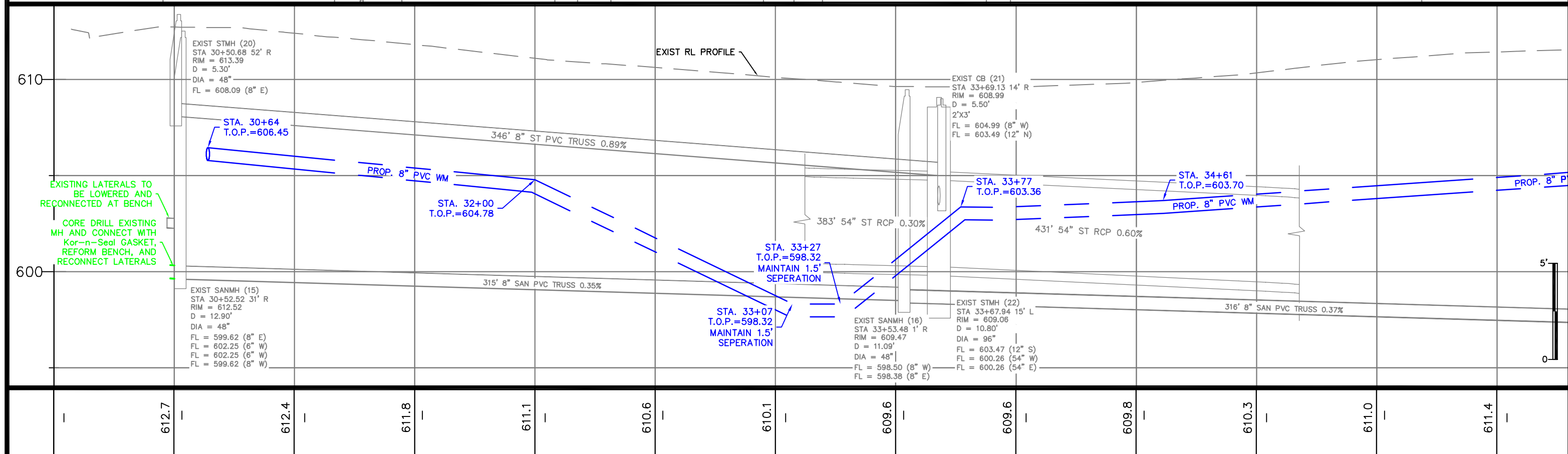
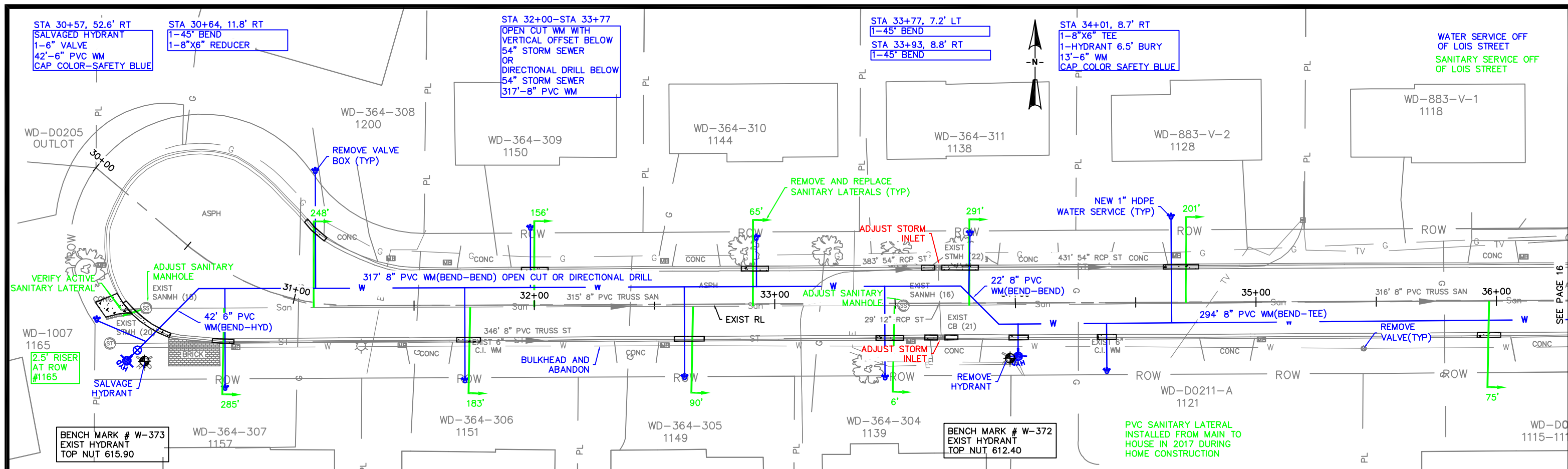
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ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

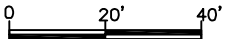
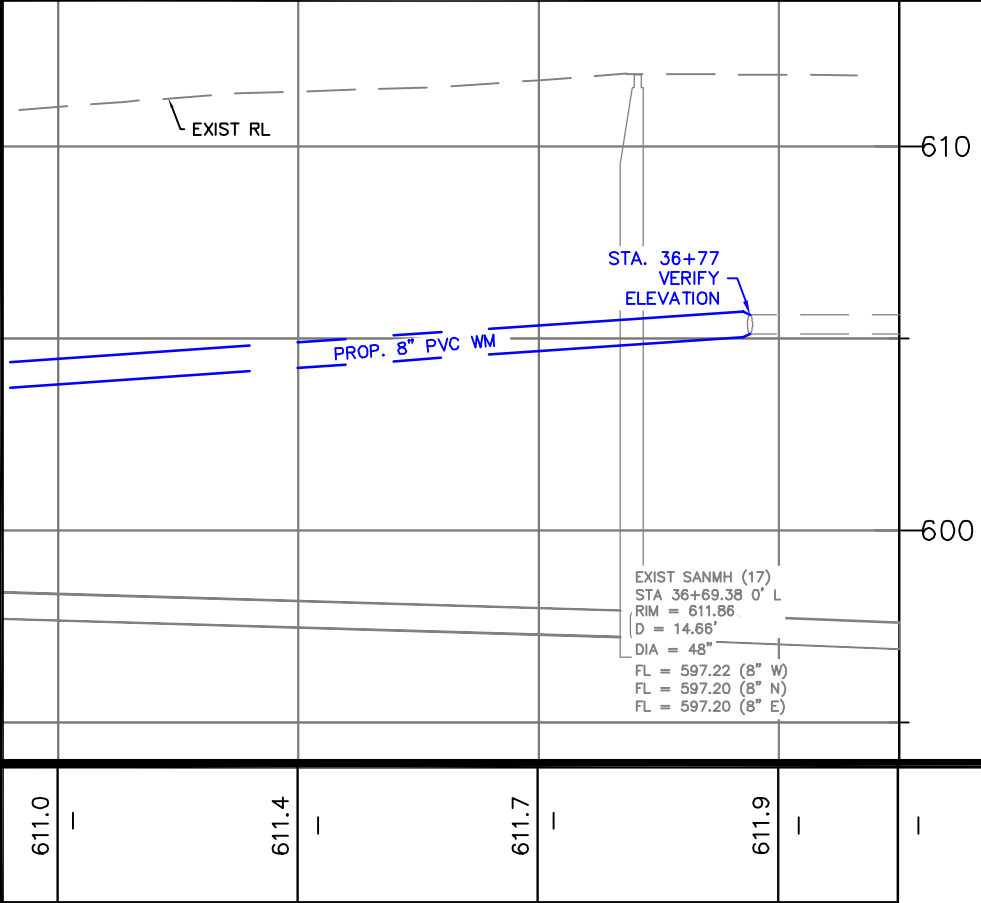
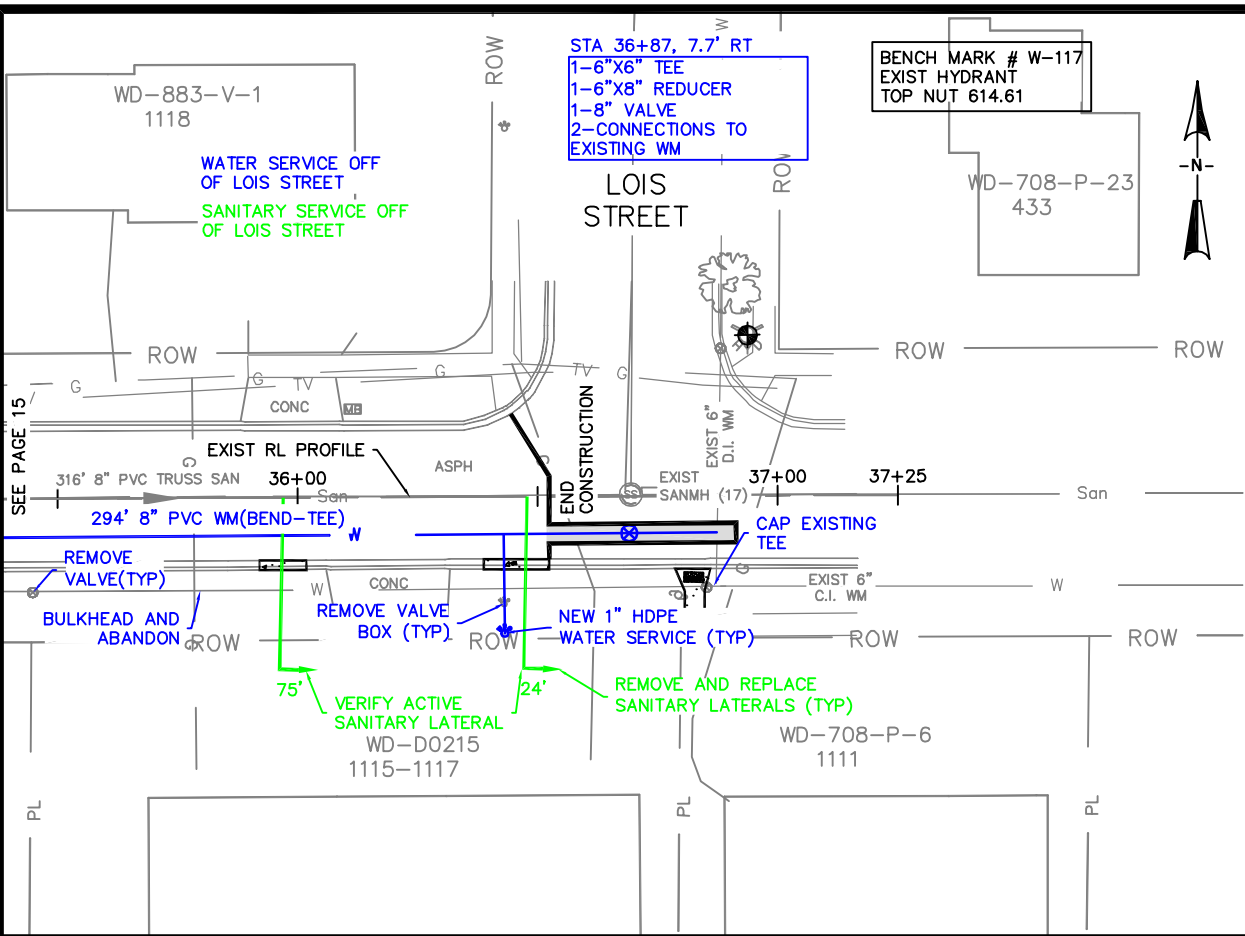
ST JOSEPHS STREET
750' N/O HELENA STREET TO
CUL DE SAC

NAME:
SEWER AND WATER RELAY
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CITY OF DE PERE

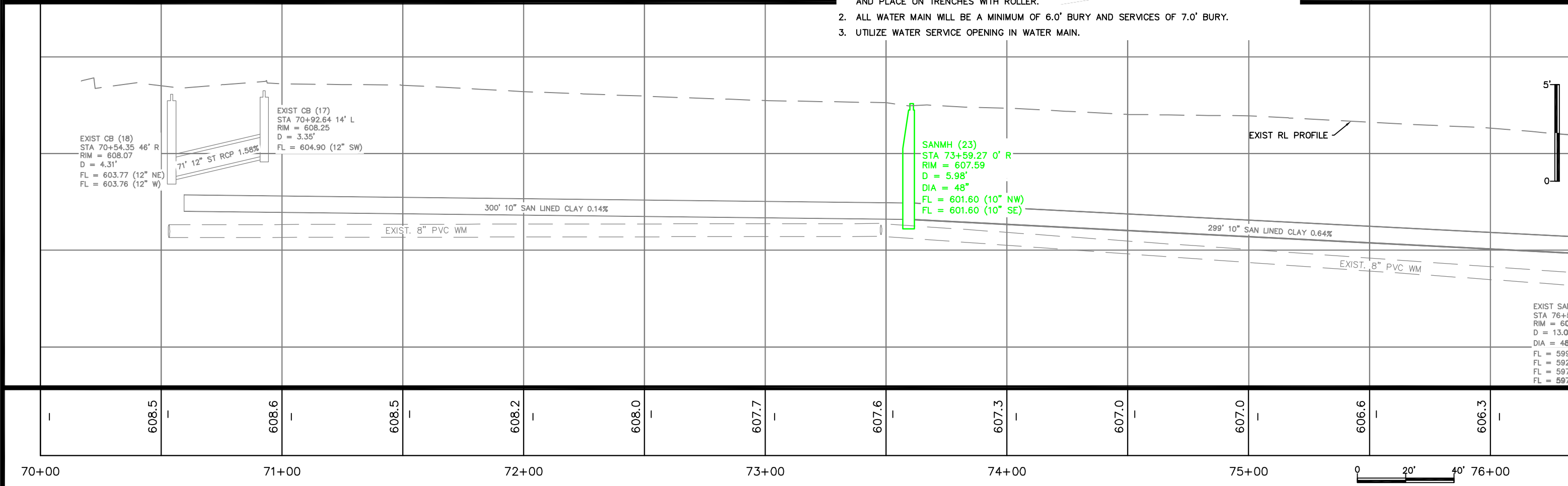
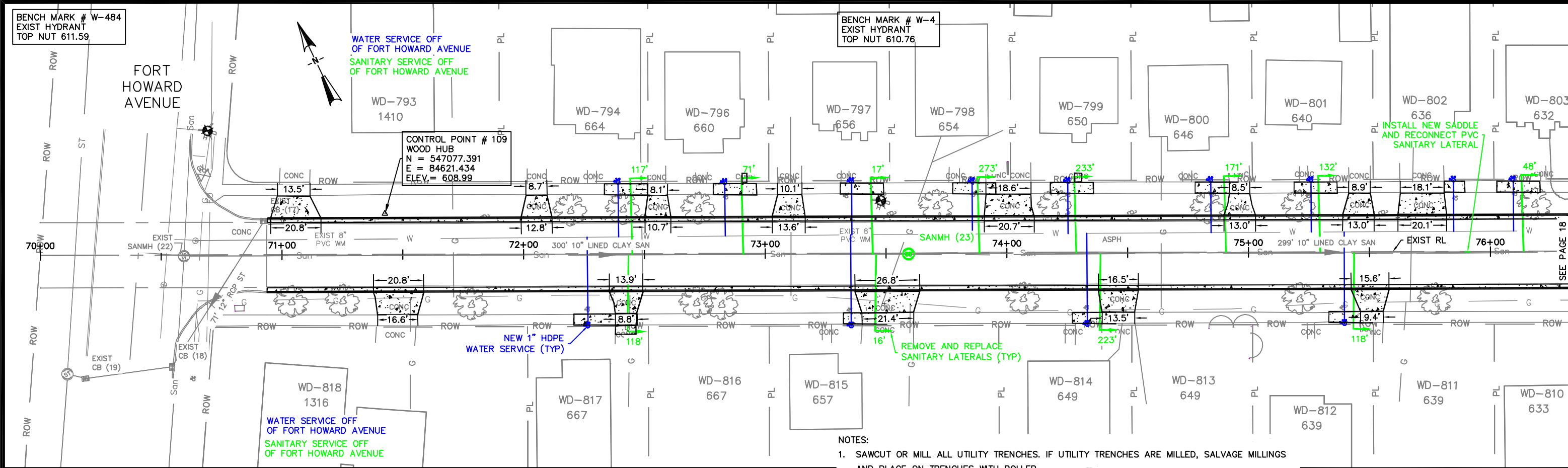
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OFFICE 920-339-4061 FAX 920-339-4071

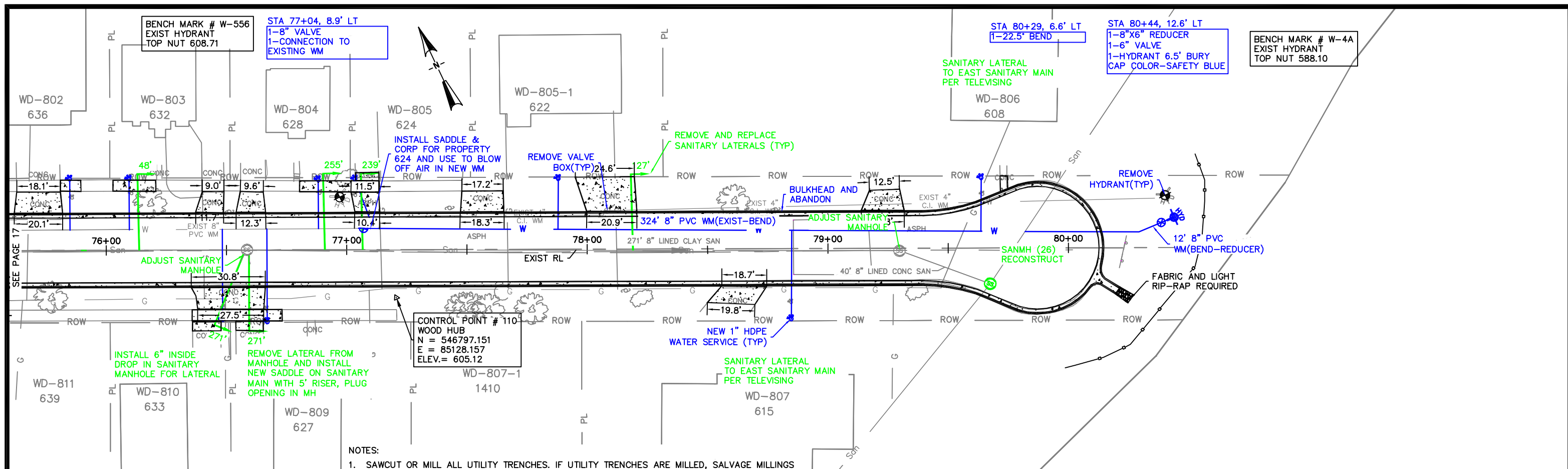
TWILIGHT DRIVE
70' W/O LOIS STREET TO LOIS STREET

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
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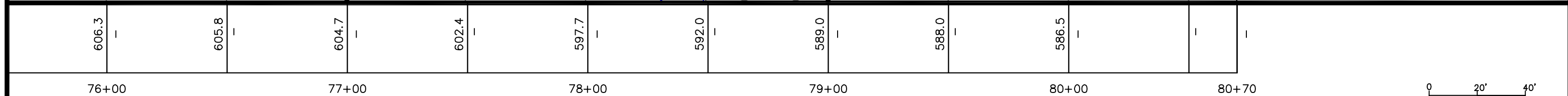
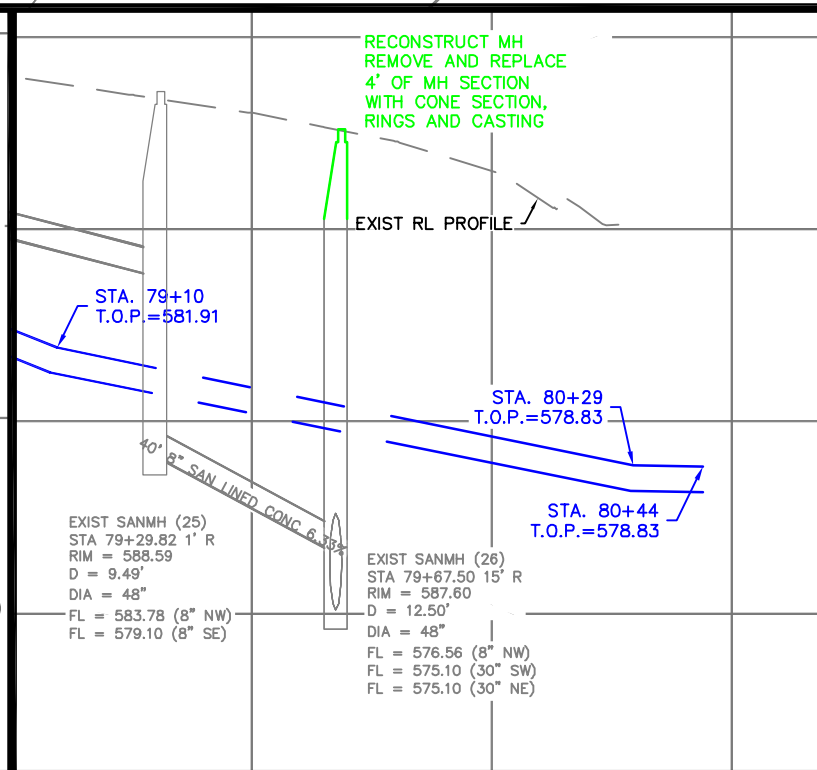
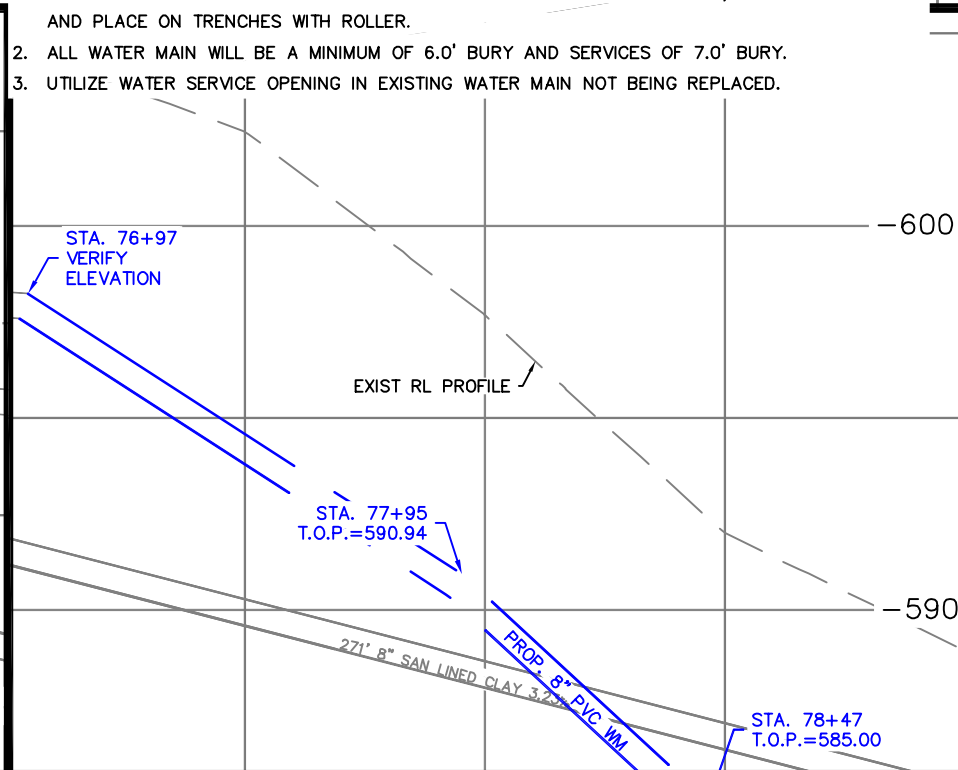
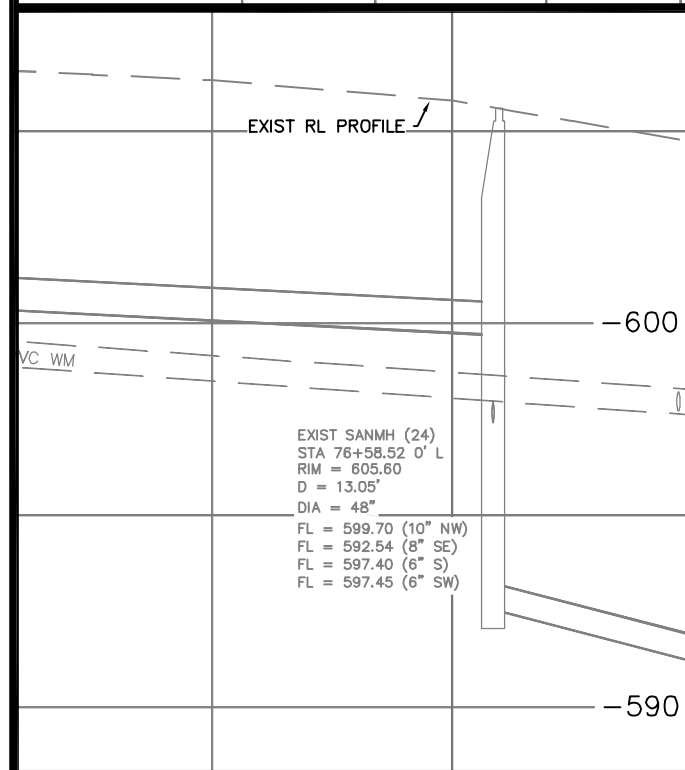
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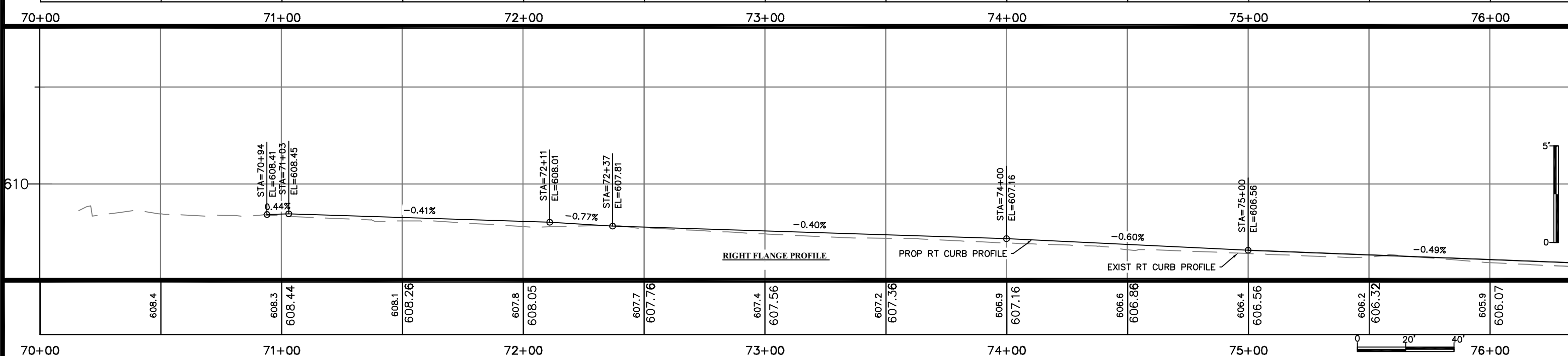
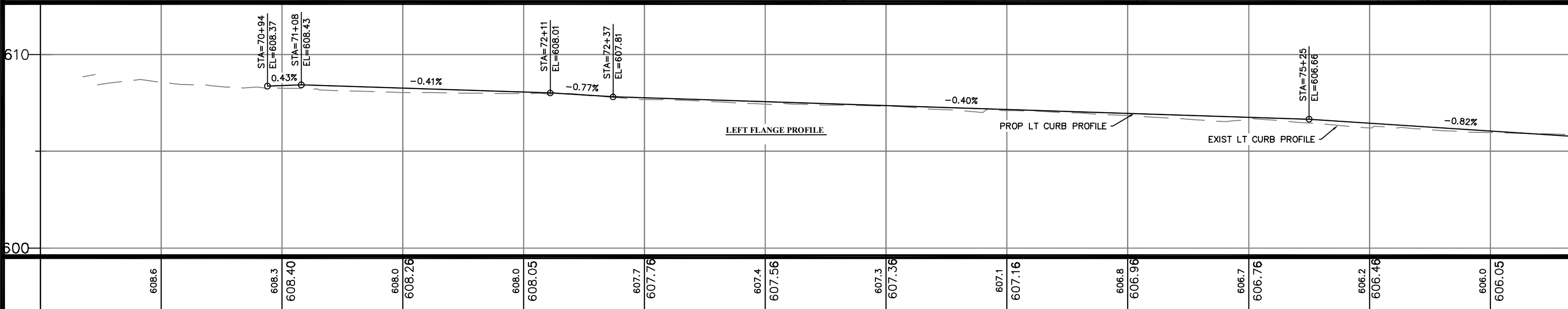
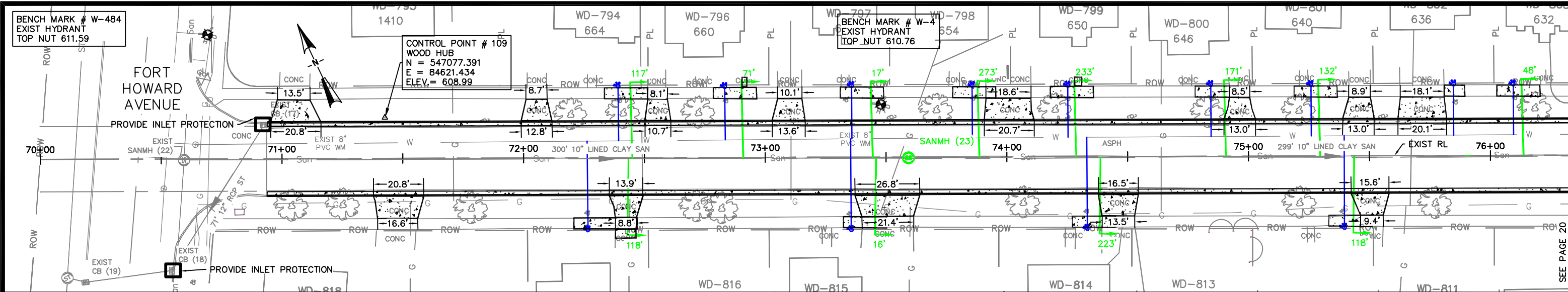
NO.	DATE	BY	REMARKS





- NOTES:
1. SAWCUT OR MILL ALL UTILITY TRENCHES. IF UTILITY TRENCHES ARE MILLED, SALVAGE MILLINGS AND PLACE ON TRENCHES WITH ROLLER.
 2. ALL WATER MAIN WILL BE A MINIMUM OF 6.0' BURY AND SERVICES OF 7.0' BURY.
 3. UTILIZE WATER SERVICE OPENING IN EXISTING WATER MAIN NOT BEING REPLACED.





CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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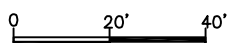
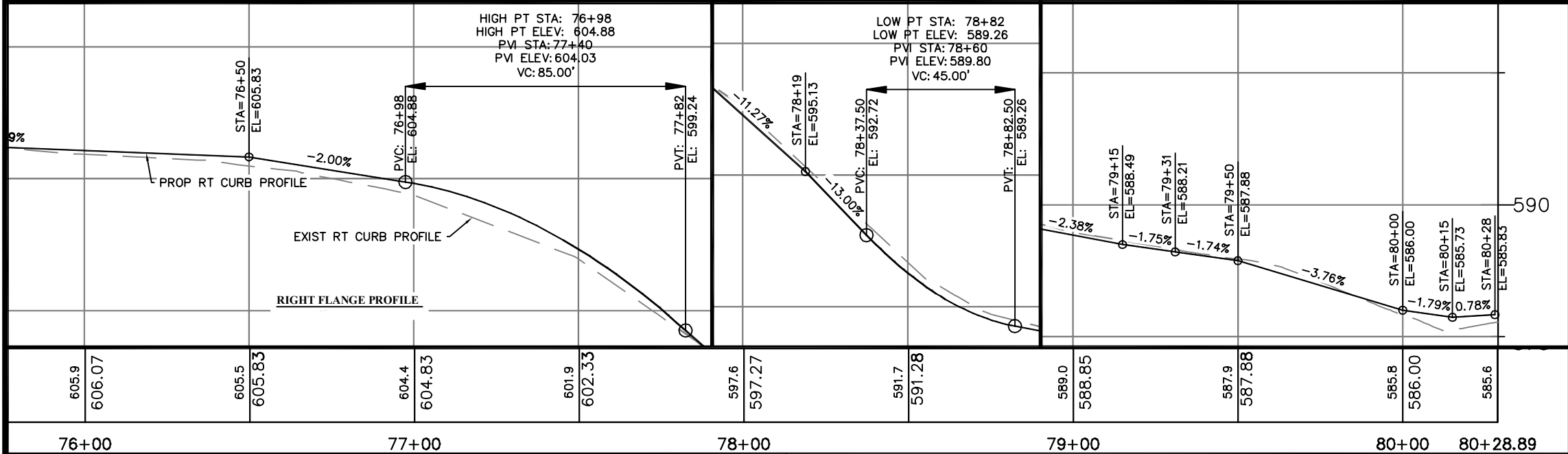
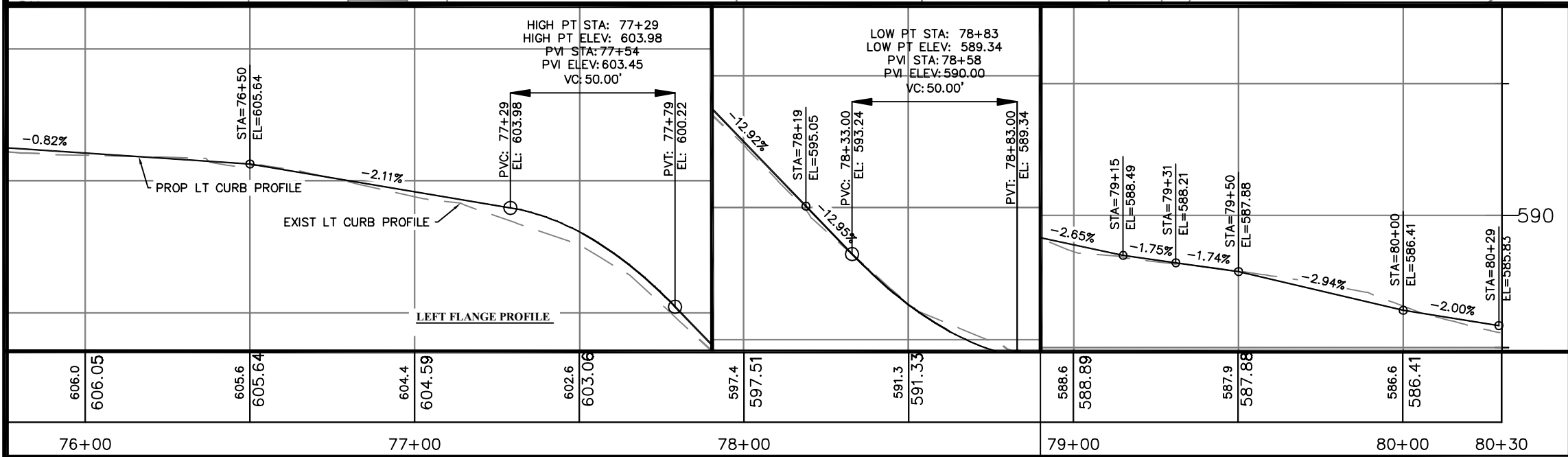
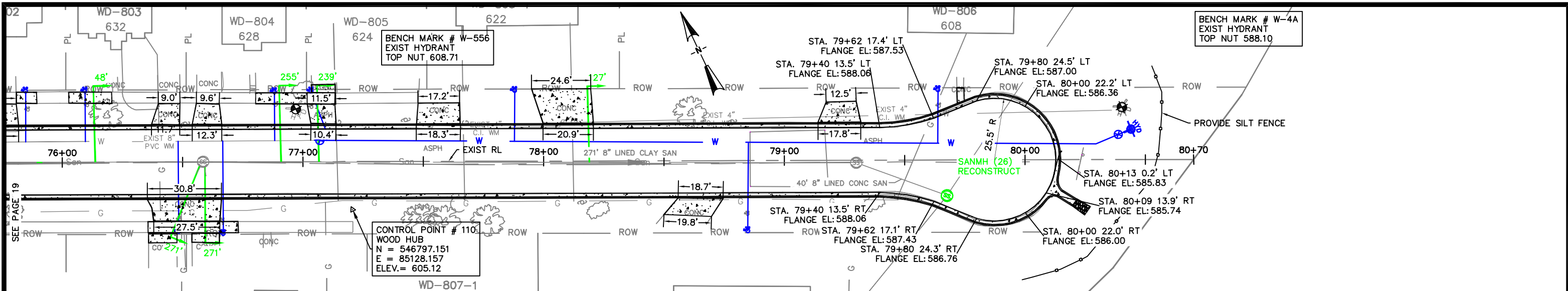
FAIRVIEW AVENUE
FORT HOWARD DR TO 550' E/O FORT HOWARD DR
STREET AND EROSION CONTROL

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
18-01

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19



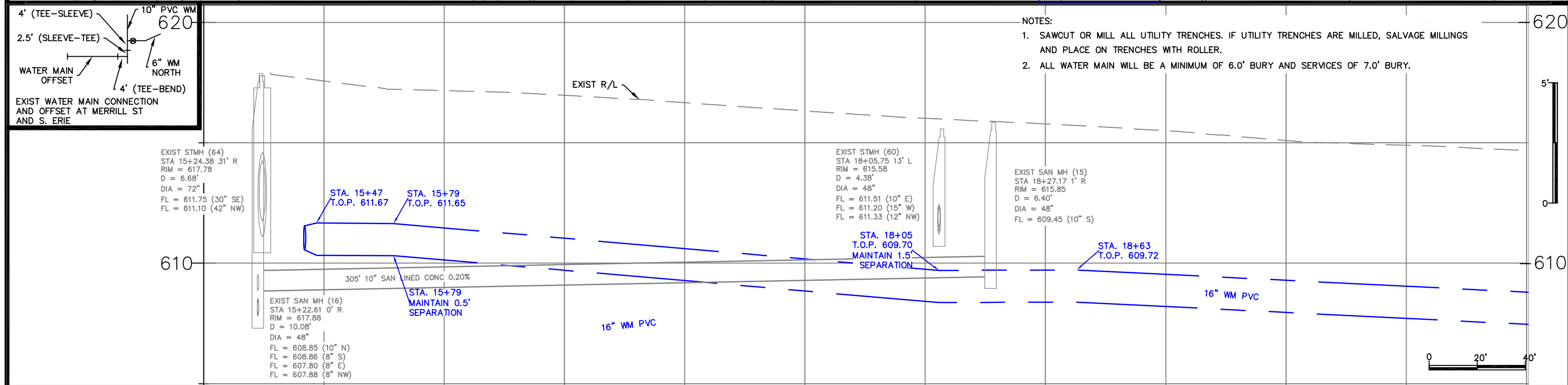
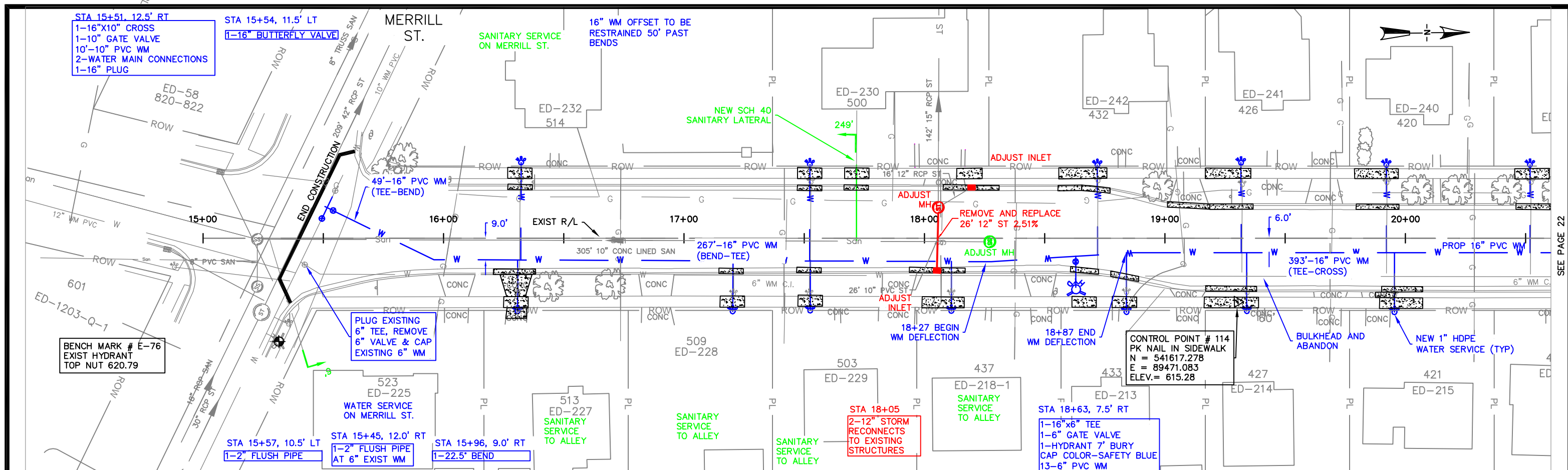
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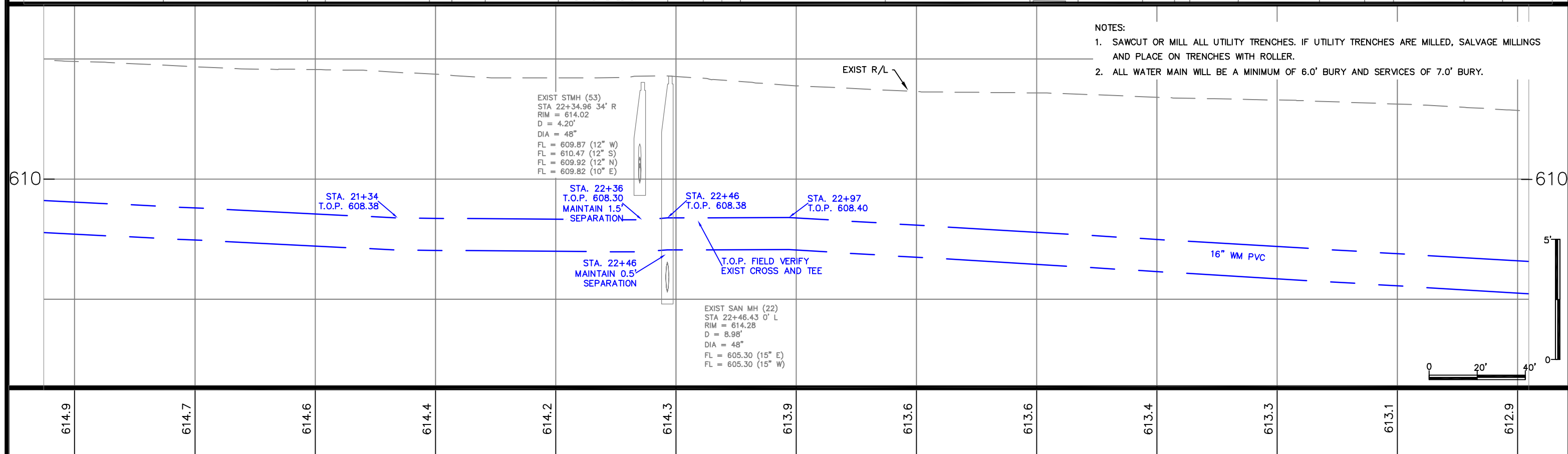
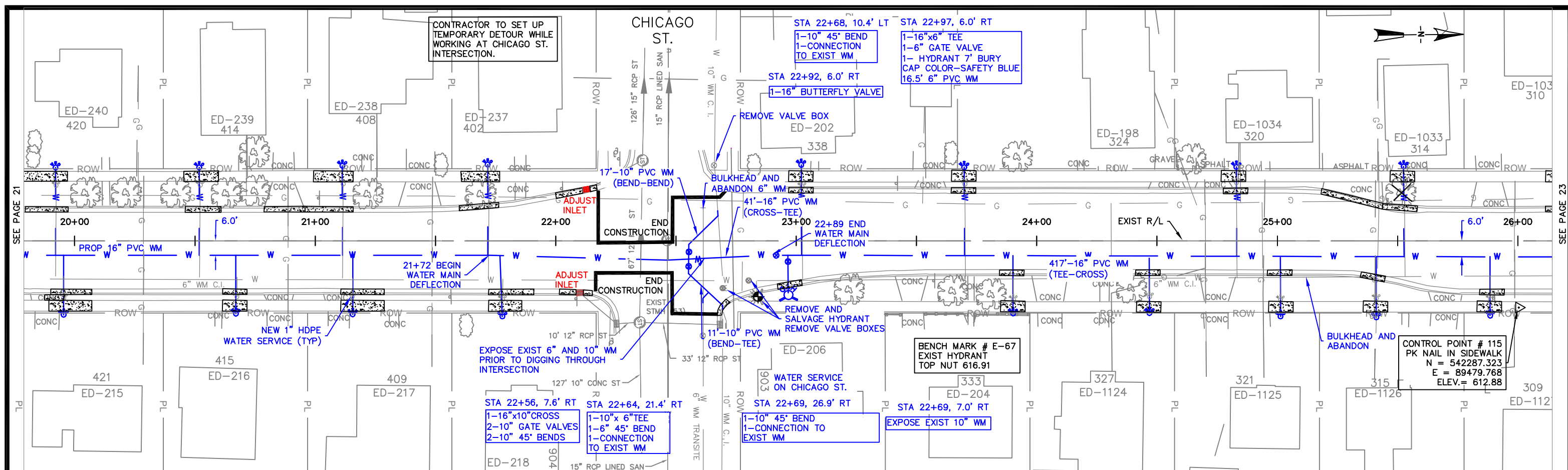
FAIRVIEW AVENUE
FORT HOWARD DR TO 550' E/O FORT HOWARD DR
STREET AND EROSION CONTROL

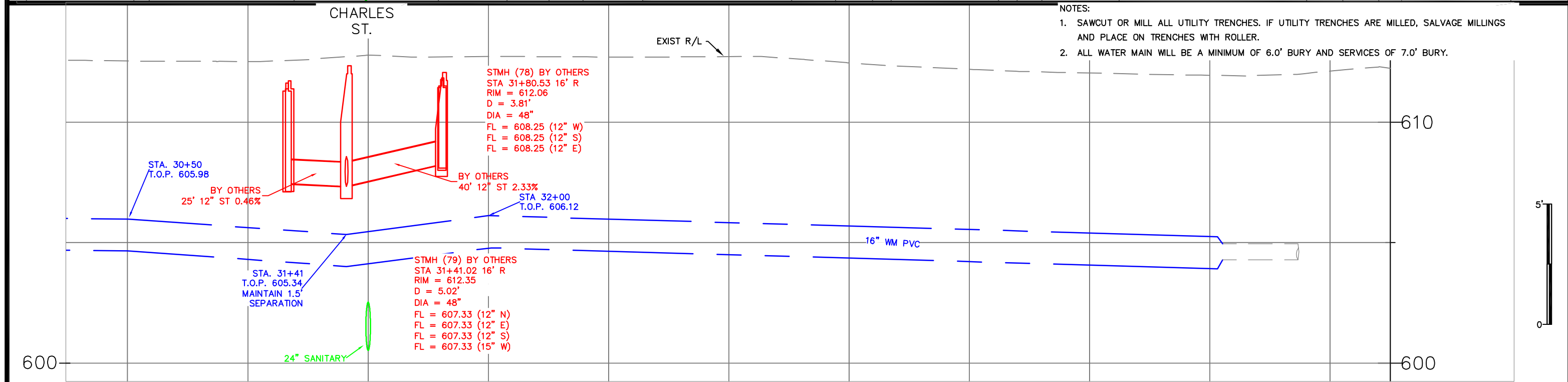
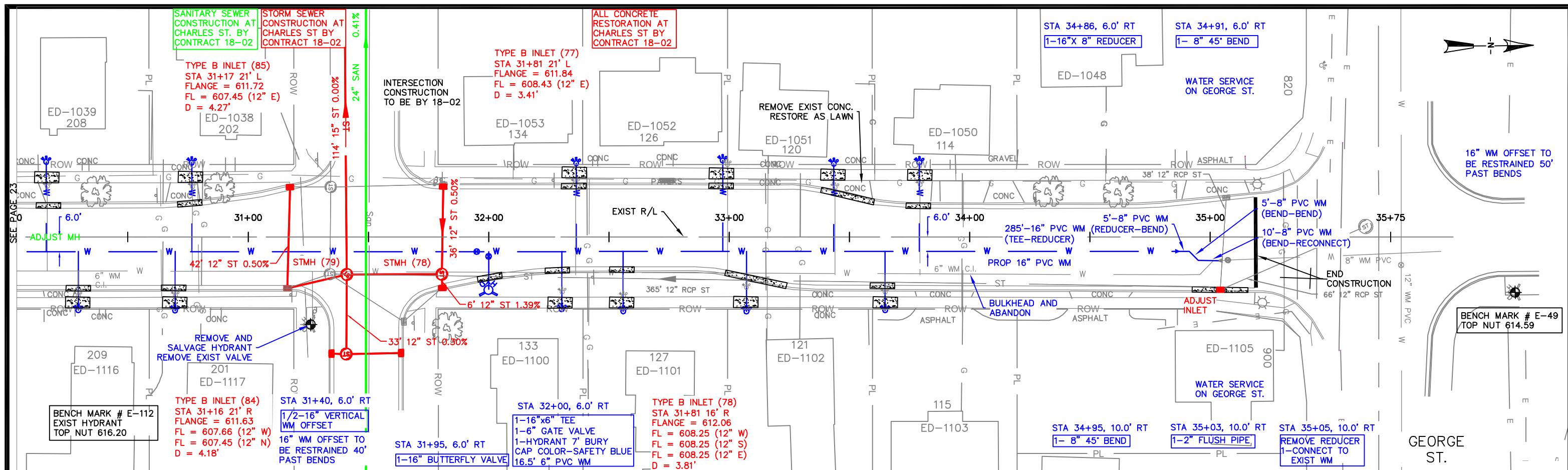
NAME:
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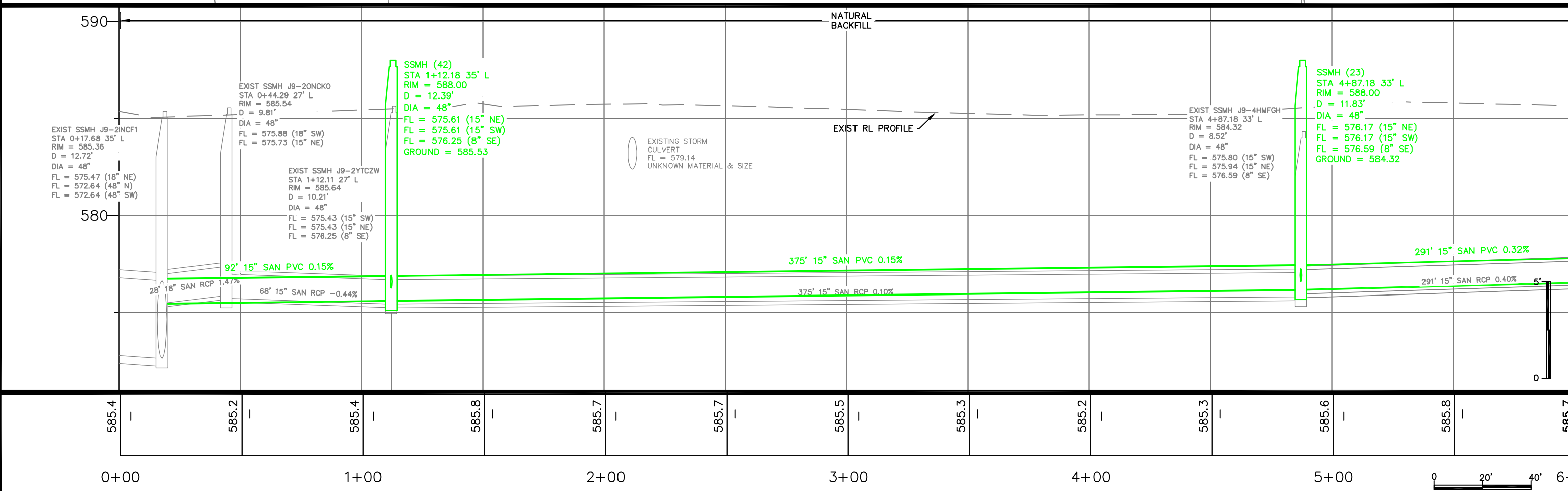
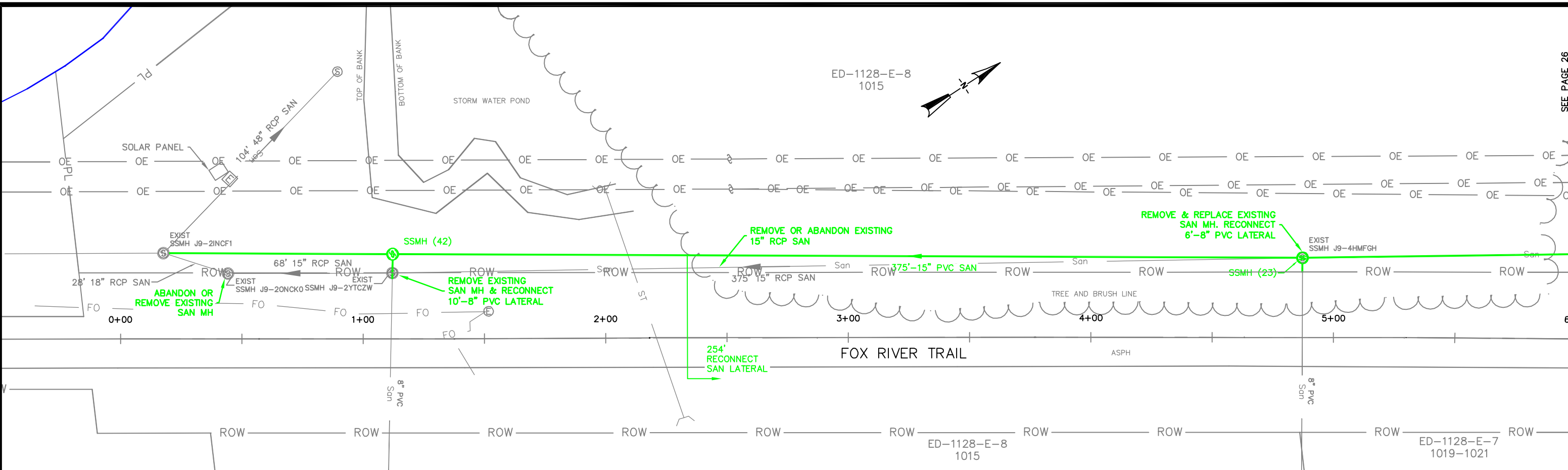
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KAD	12-2017
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CKK	12-2017

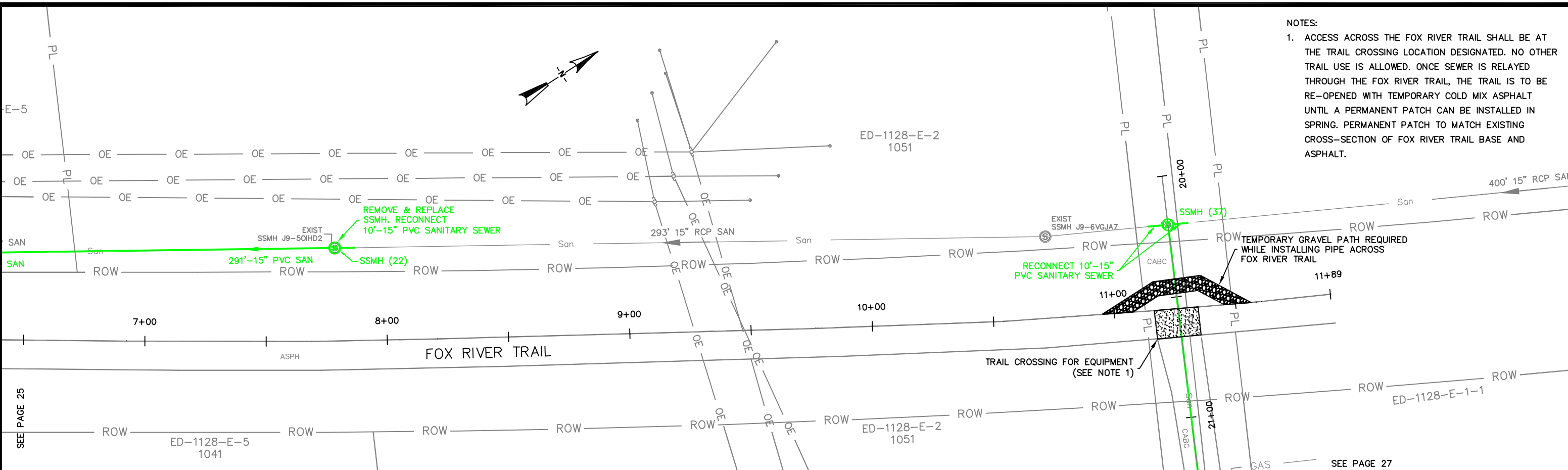
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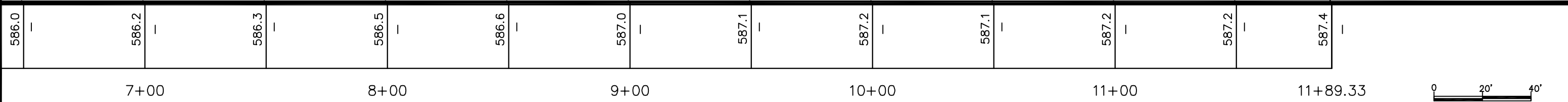
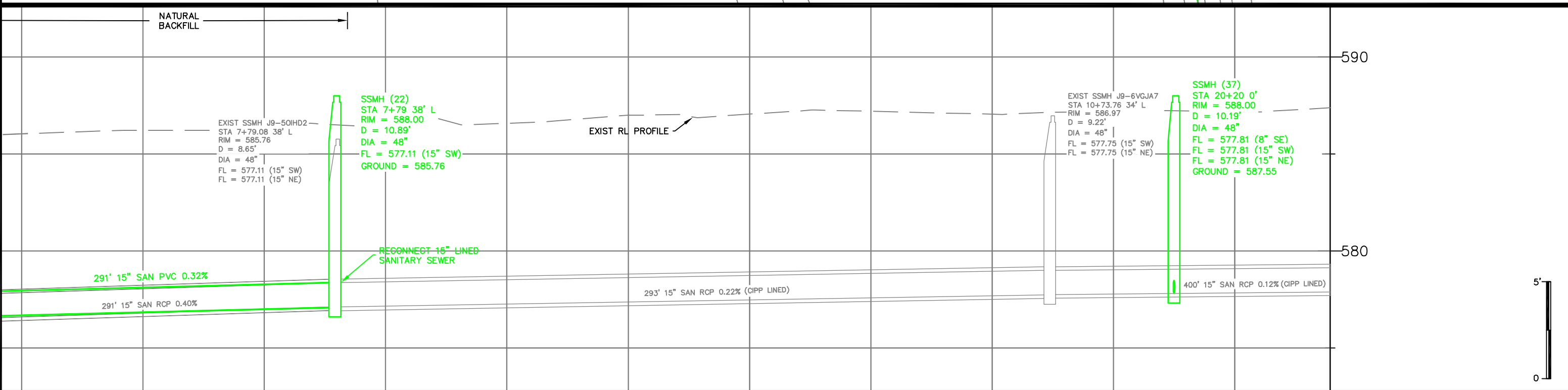








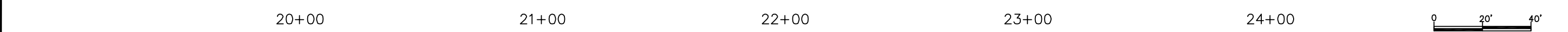
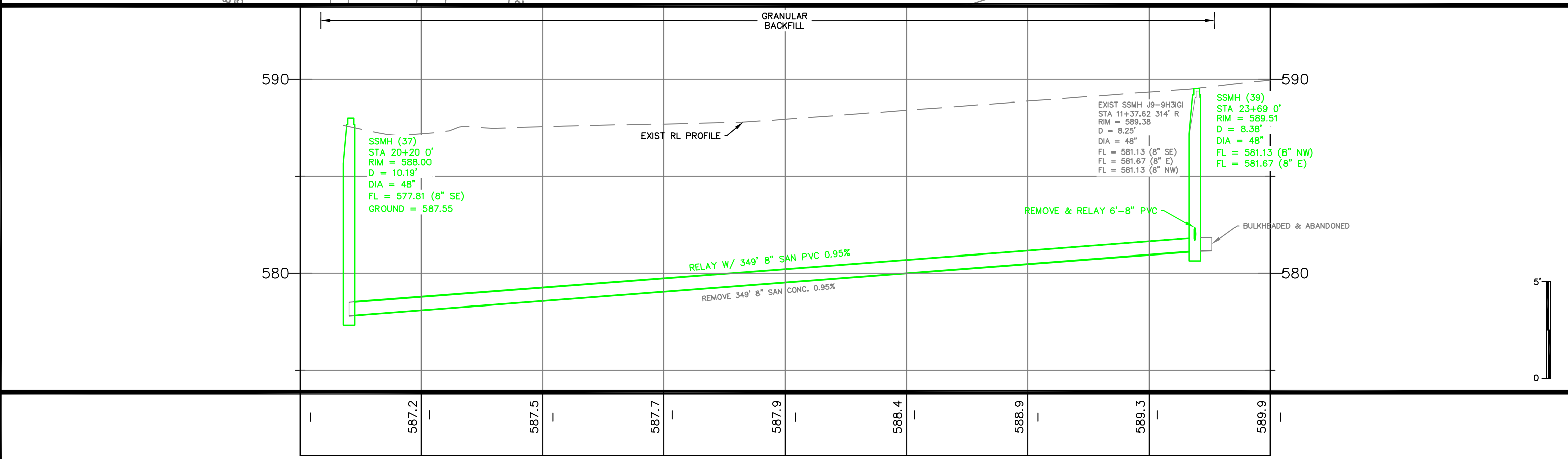
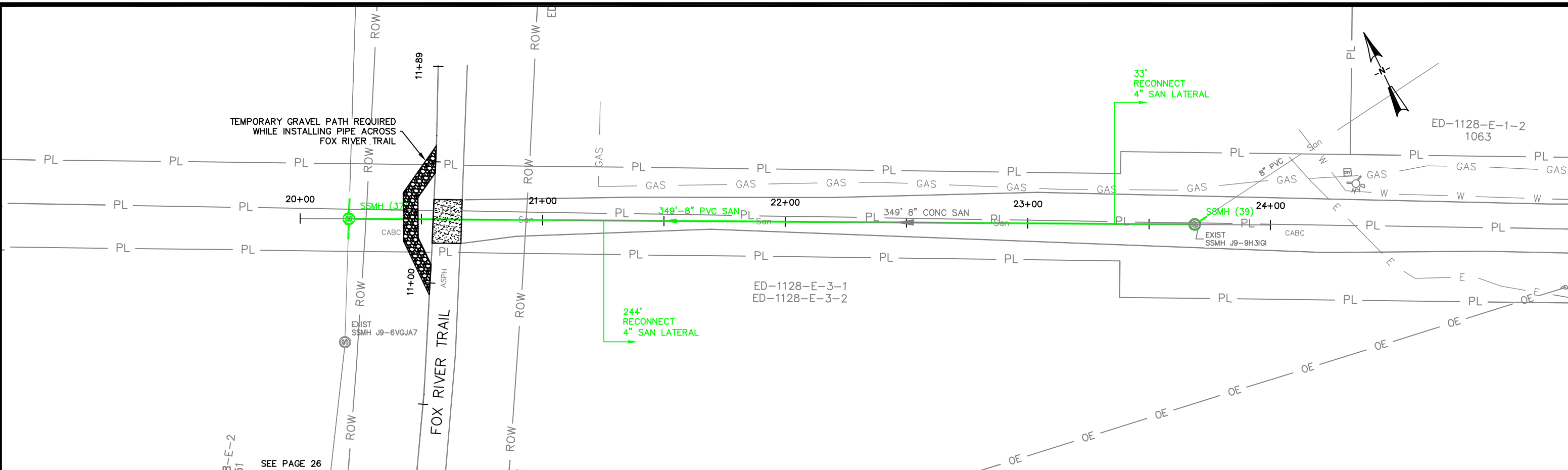
NOTES:
1. ACCESS ACROSS THE FOX RIVER TRAIL SHALL BE AT THE TRAIL CROSSING LOCATION DESIGNATED. NO OTHER TRAIL USE IS ALLOWED. ONCE SEWER IS RELAYED THROUGH THE FOX RIVER TRAIL, THE TRAIL IS TO BE RE-OPENED WITH TEMPORARY COLD MIX ASPHALT UNTIL A PERMANENT PATCH CAN BE INSTALLED IN SPRING. PERMANENT PATCH TO MATCH EXISTING CROSS-SECTION OF FOX RIVER TRAIL BASE AND ASPHALT.

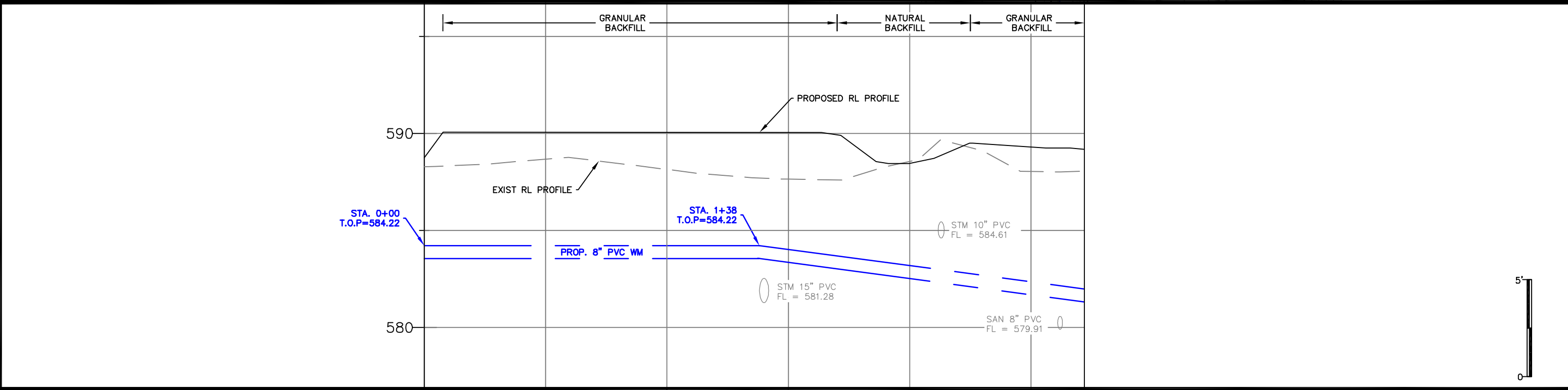
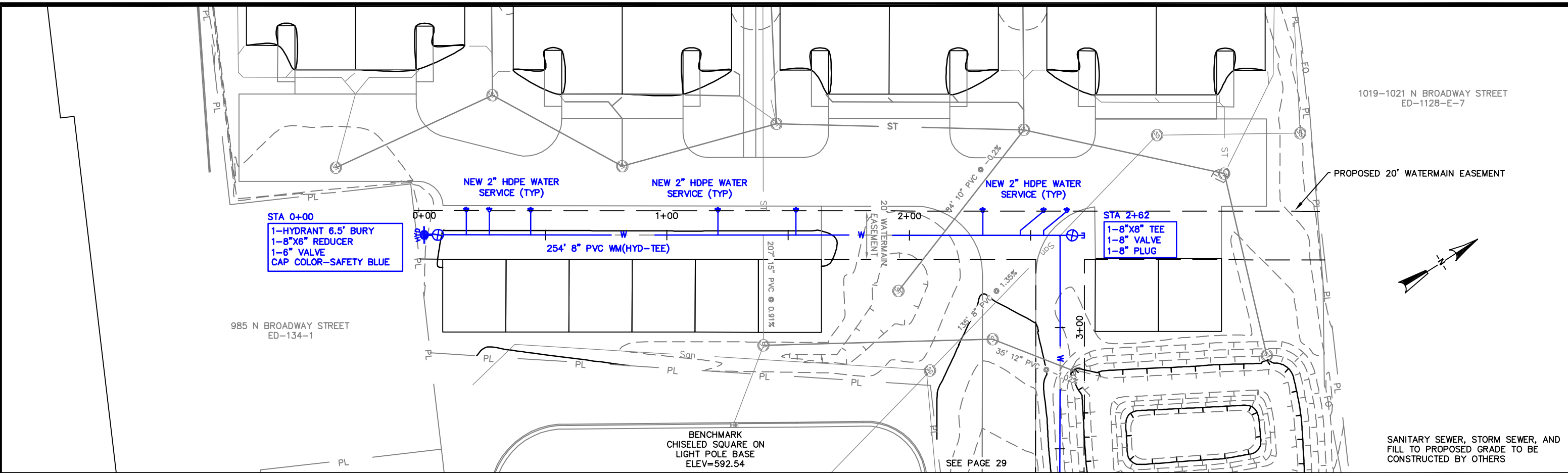


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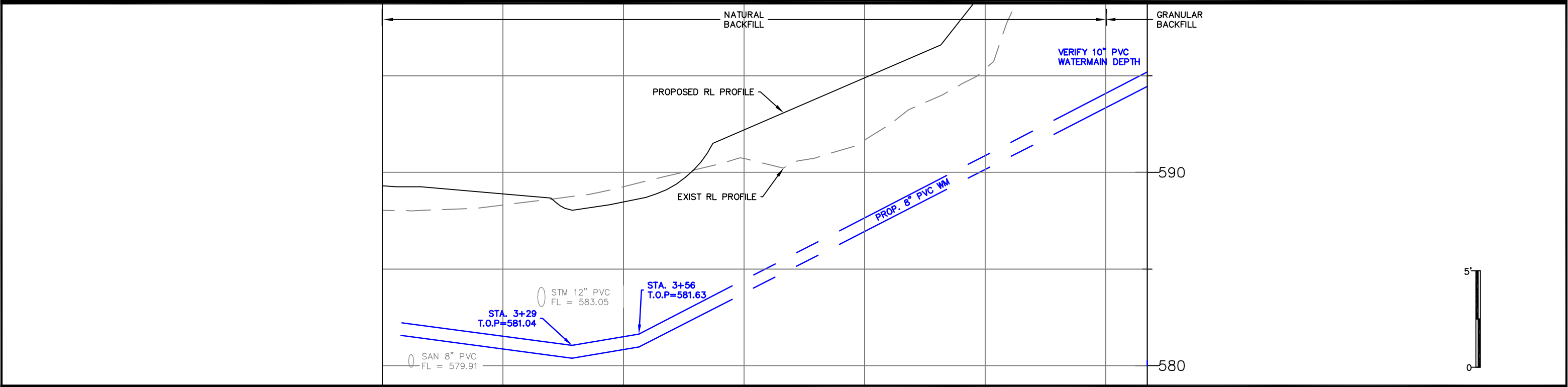
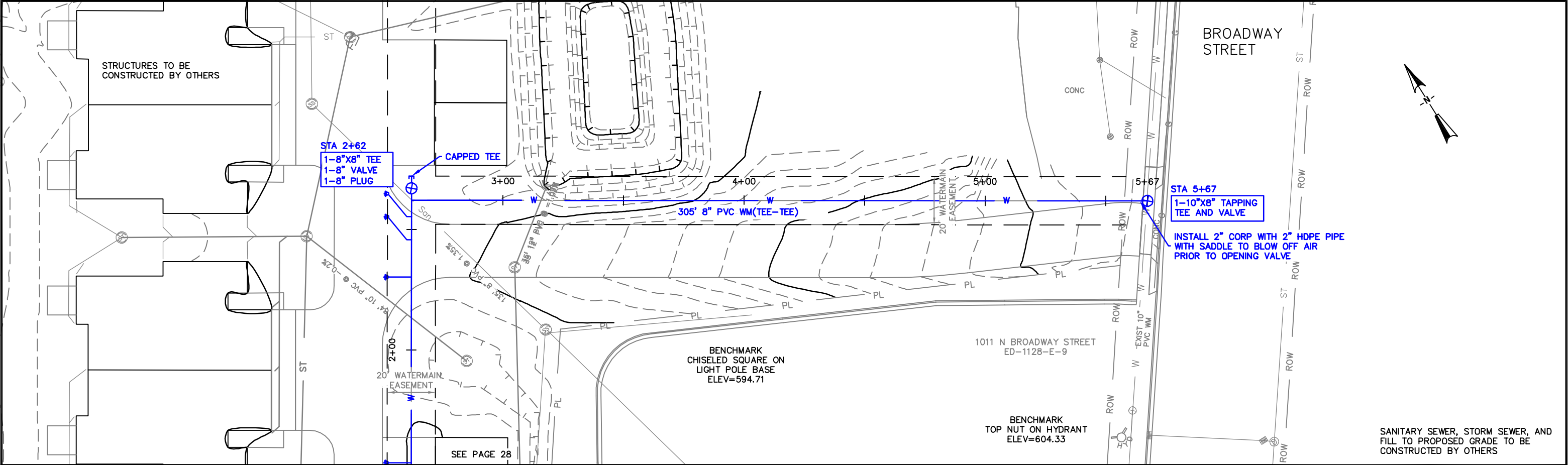
FOX RIVER TRAIL
6+00 TO 11+89

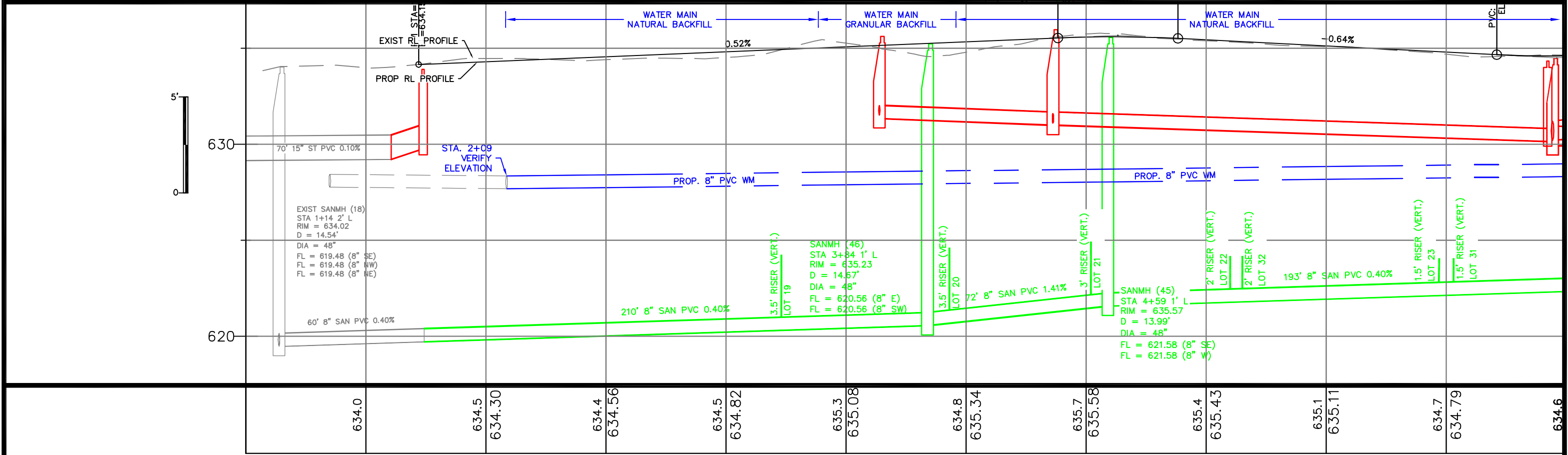
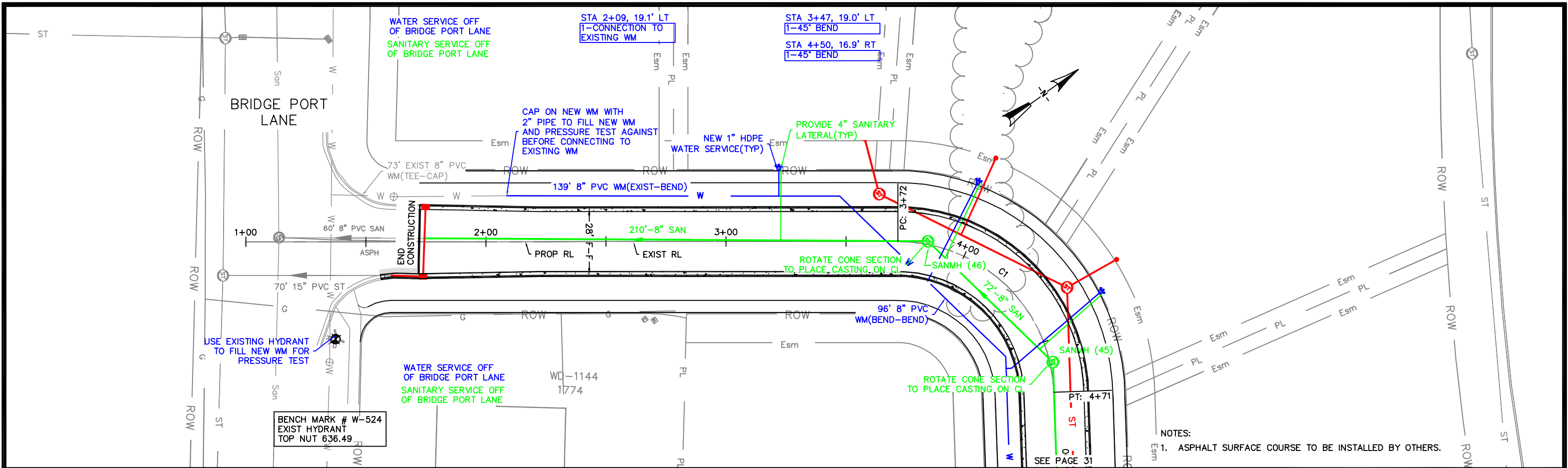
NAME: SEWER AND WATER RELAY AND STREET RESURFACING PROJECT # 18-01	REVISIONS / ISSUES				PAGE NO. 26
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	DESIGNED	MAL	DATE	REMARKS	
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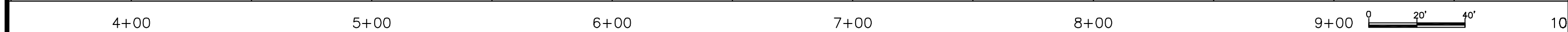
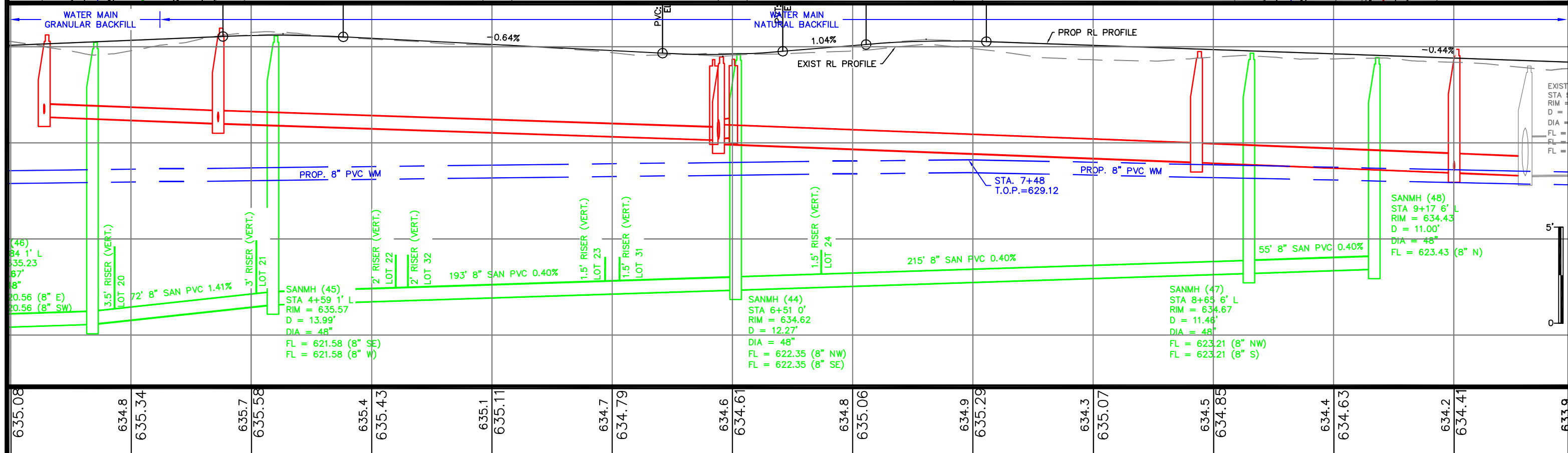
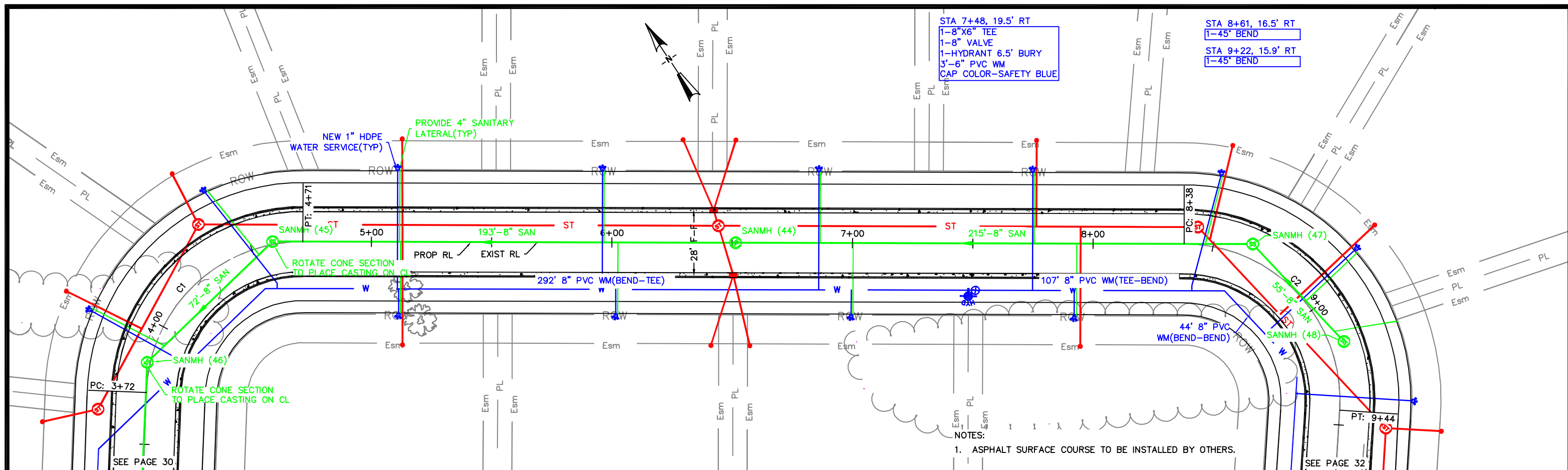




588.3	588.28	588.7	588.67	588.1	588.15	587.6	587.64	588.6	588.56	588.0	588.04
0+00				1+00				2+00			







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BRIDGE PORT CIRCLE

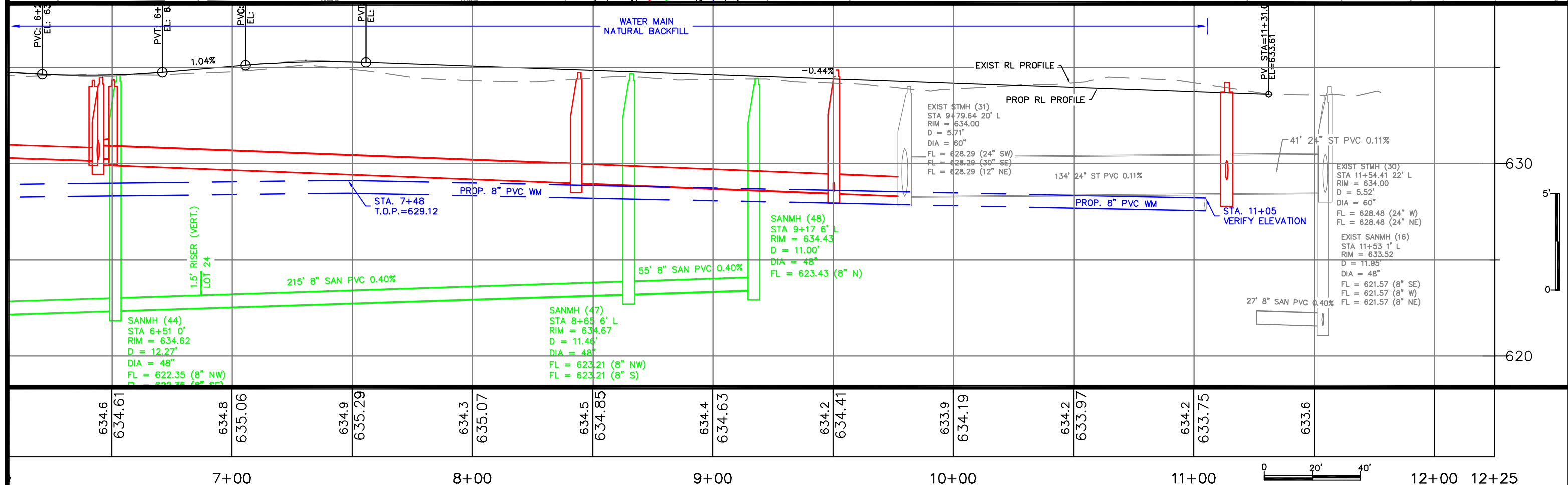
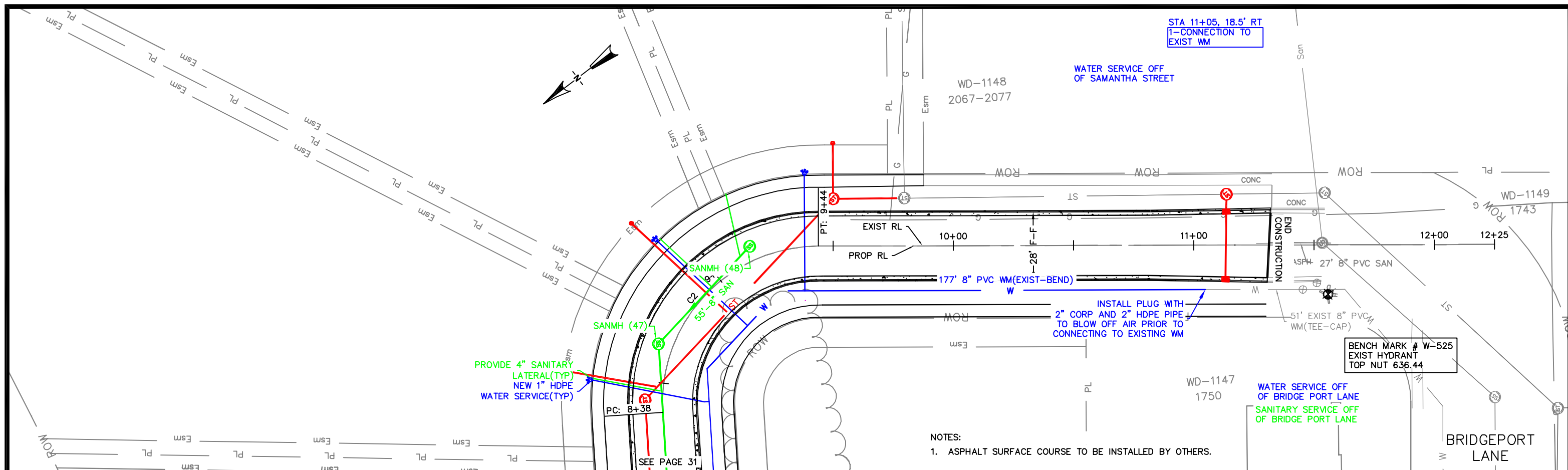
400' N/O BRIDGE PORT LN TO
300' N/O BRIDGE PORT LN
SANITARY SEWER AND WATER MAIN

NAME:
SEWER AND WATER RELAY
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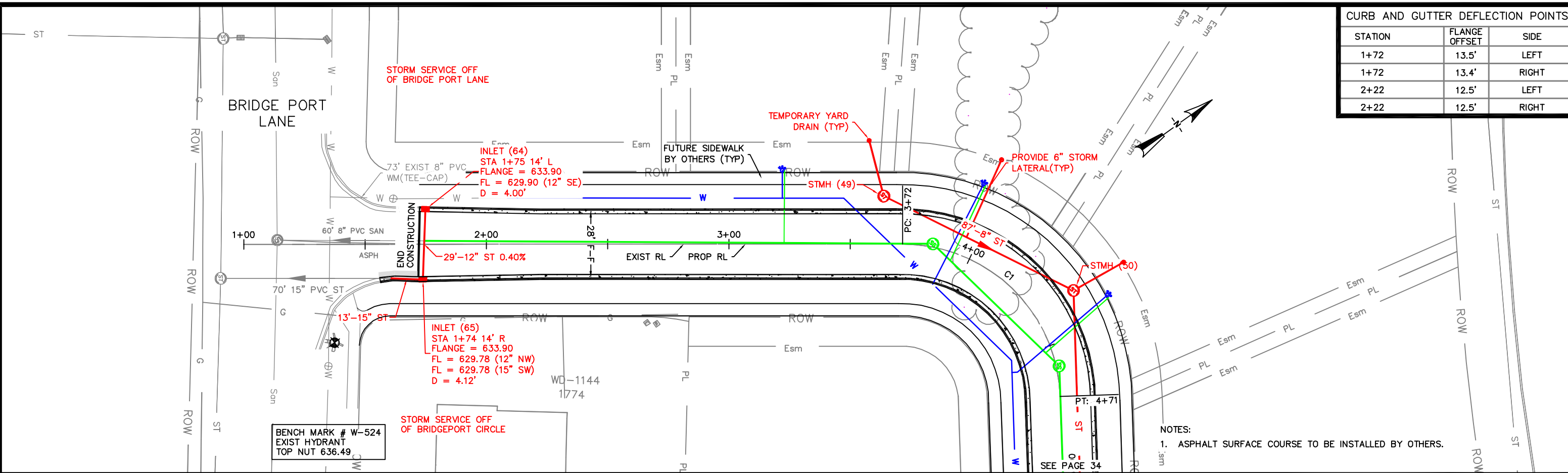
BRIDGE PORT CIRCLE
300' N/O BRIDGE PORT LN TO BRIDGE PORT LN
SANITARY SEWER AND WATER MAIN

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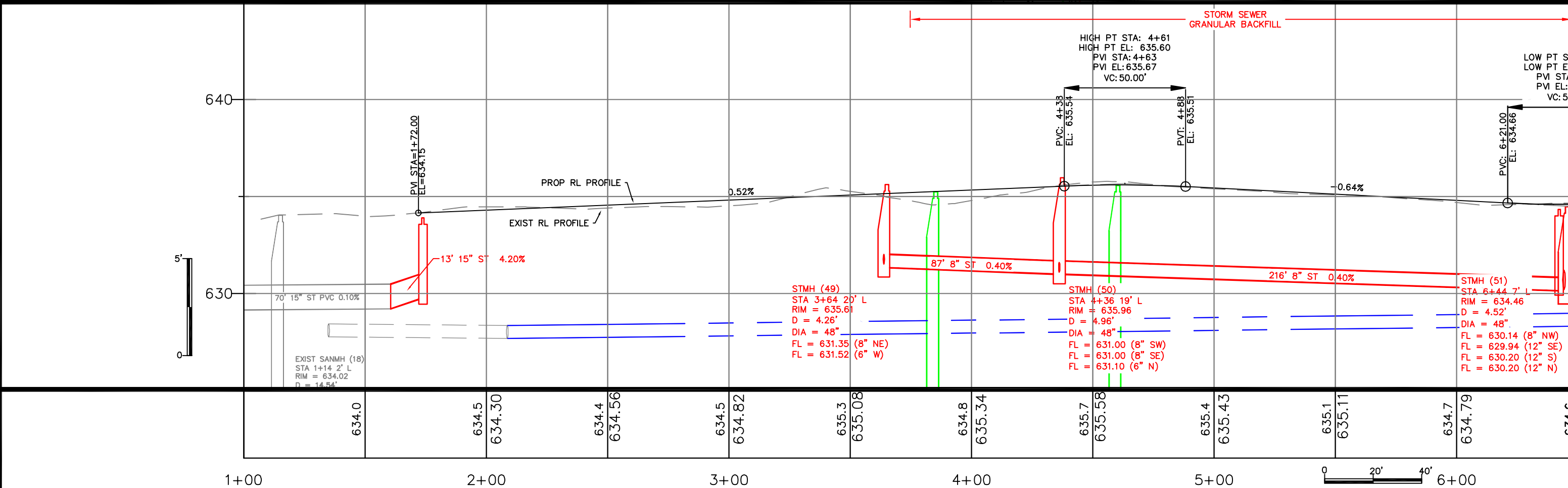
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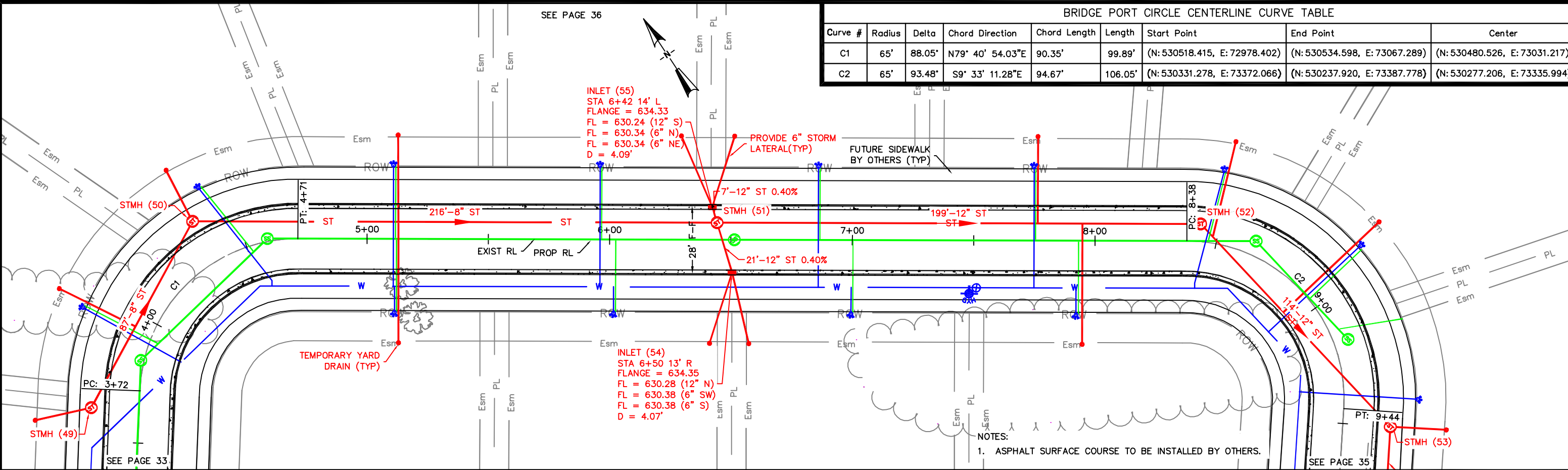
PAGE NO.
32



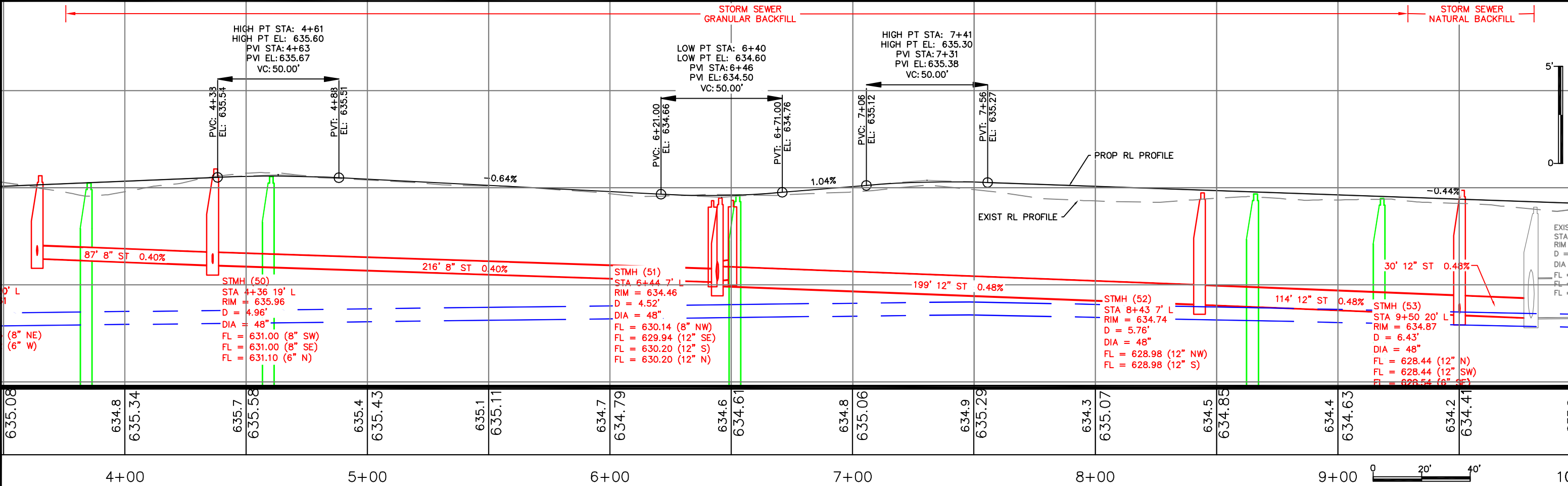
CURB AND GUTTER DEFLECTION POINTS		
STATION	FLANGE OFFSET	SIDE
1+72	13.5'	LEFT
1+72	13.4'	RIGHT
2+22	12.5'	LEFT
2+22	12.5'	RIGHT

NOTES:
1. ASPHALT SURFACE COURSE TO BE INSTALLED BY OTHERS.

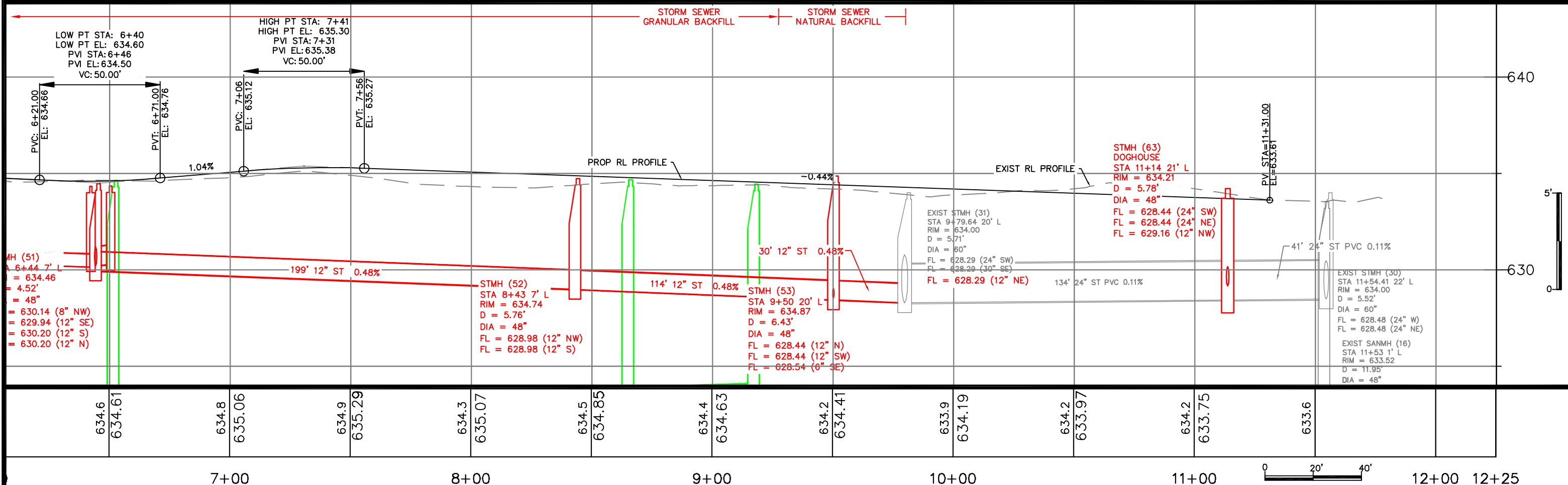
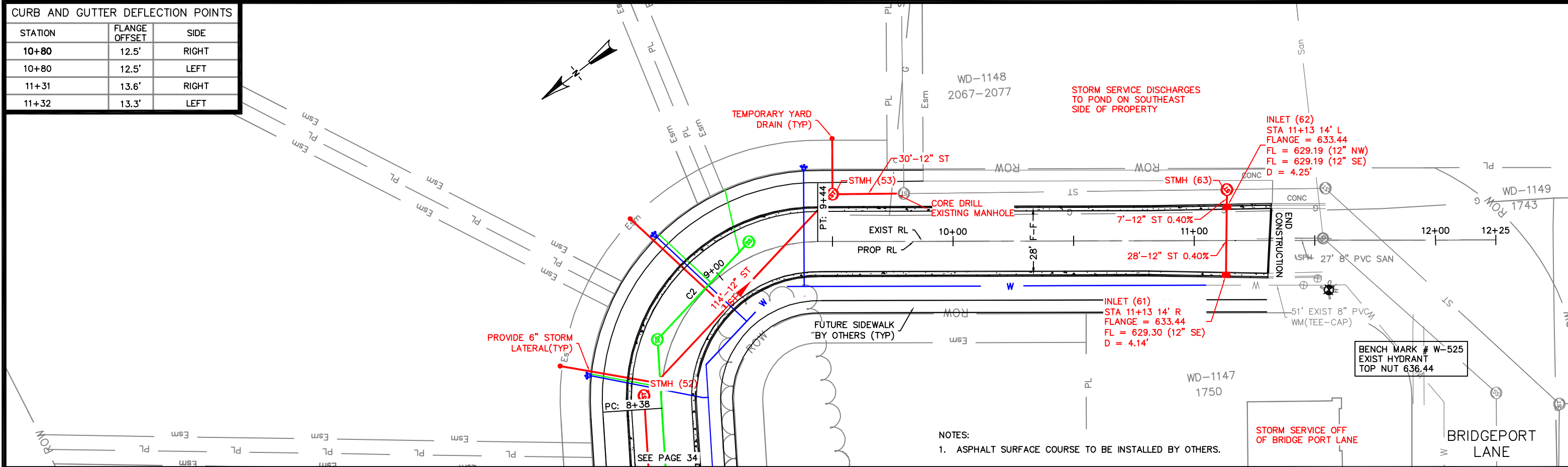


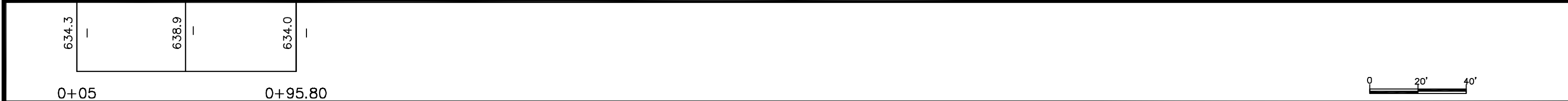
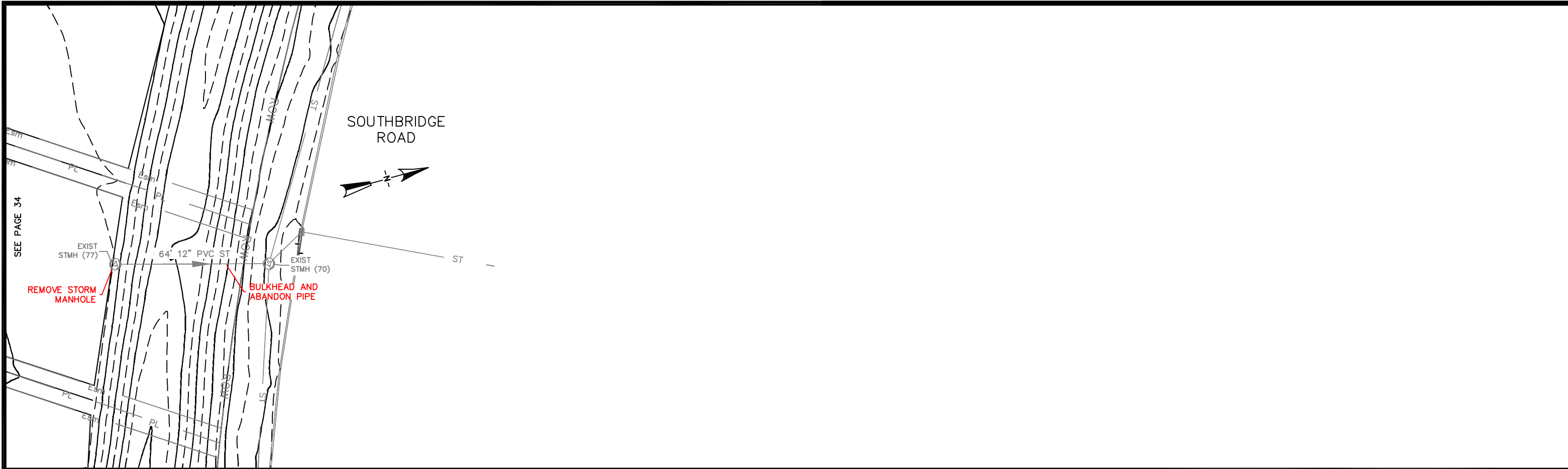


BRIDGE PORT CIRCLE CENTERLINE CURVE TABLE								
Curve #	Radius	Delta	Chord Direction	Chord Length	Length	Start Point	End Point	Center
C1	65'	88.05'	N79° 40' 54.03"E	90.35'	99.89'	(N: 530518.415, E: 72978.402)	(N: 530534.598, E: 73067.289)	(N: 530480.526, E: 73031.217)
C2	65'	93.48'	S9° 33' 11.28"E	94.67'	106.05'	(N: 530331.278, E: 73372.066)	(N: 530237.920, E: 73387.778)	(N: 530277.206, E: 73335.994)



CURB AND GUTTER DEFLECTION POINTS		
STATION	FLANGE OFFSET	SIDE
10+80	12.5'	RIGHT
10+80	12.5'	LEFT
11+31	13.6'	RIGHT
11+32	13.3'	LEFT







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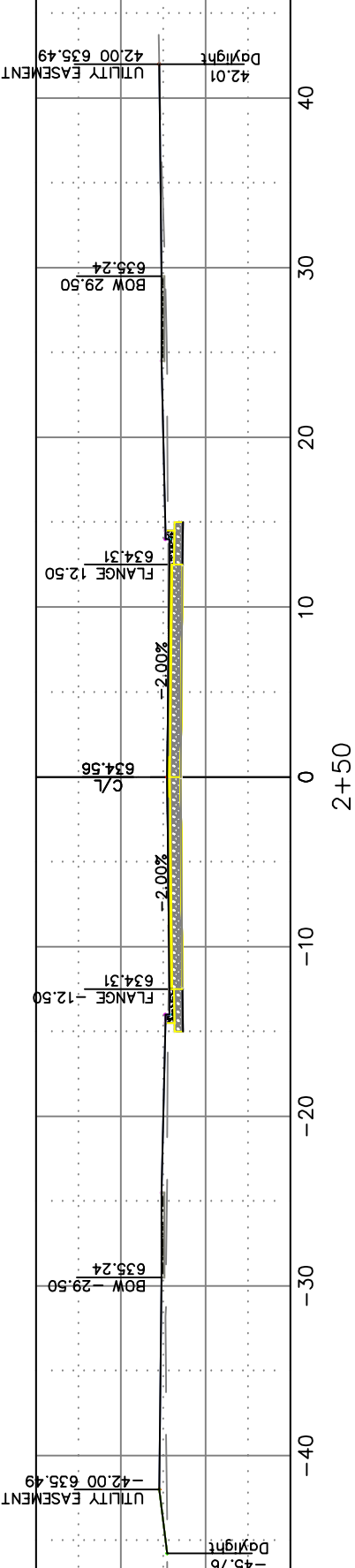
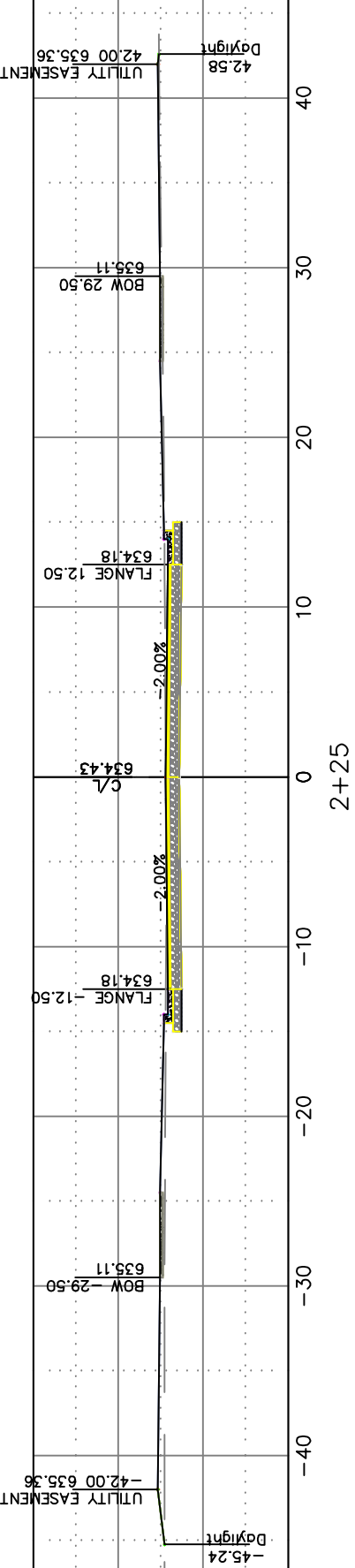
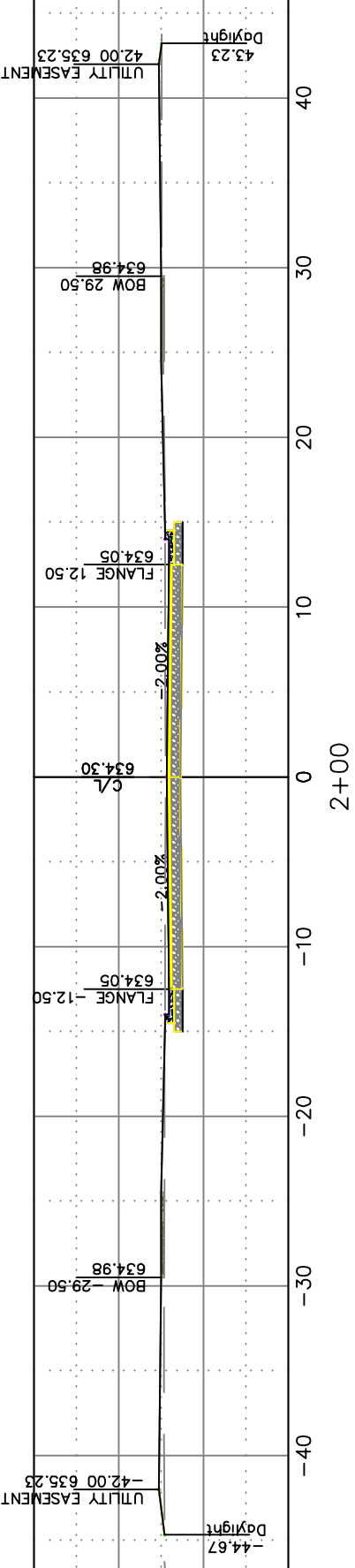
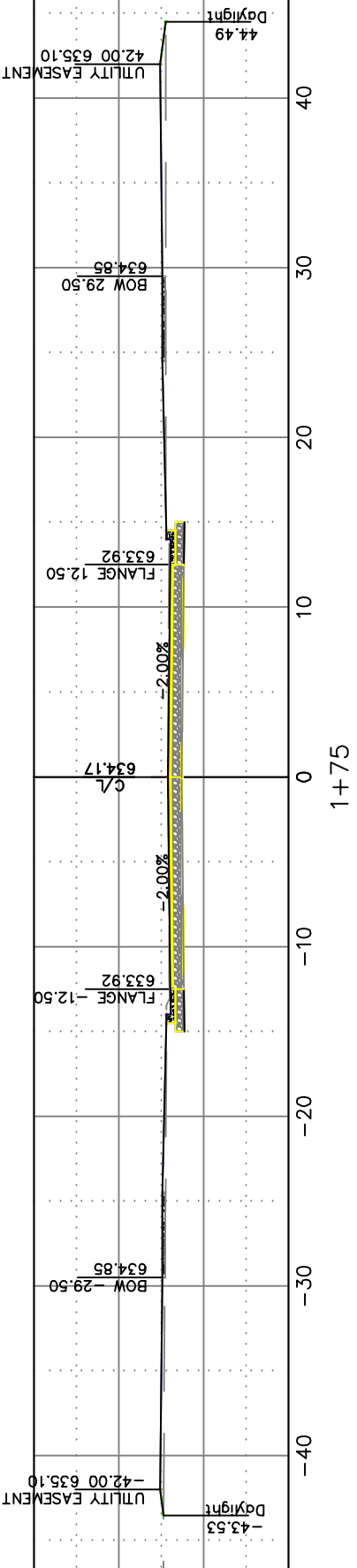
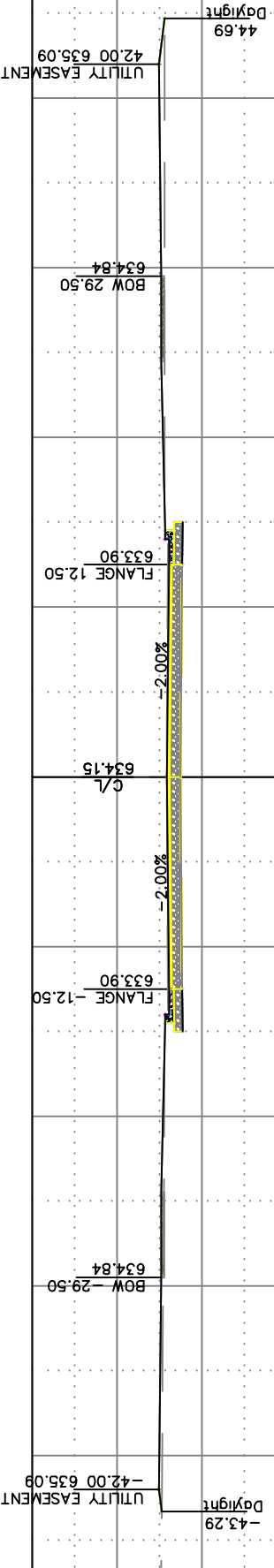
BRIDGEPORT CIRCLE
CROSS SECTIONS

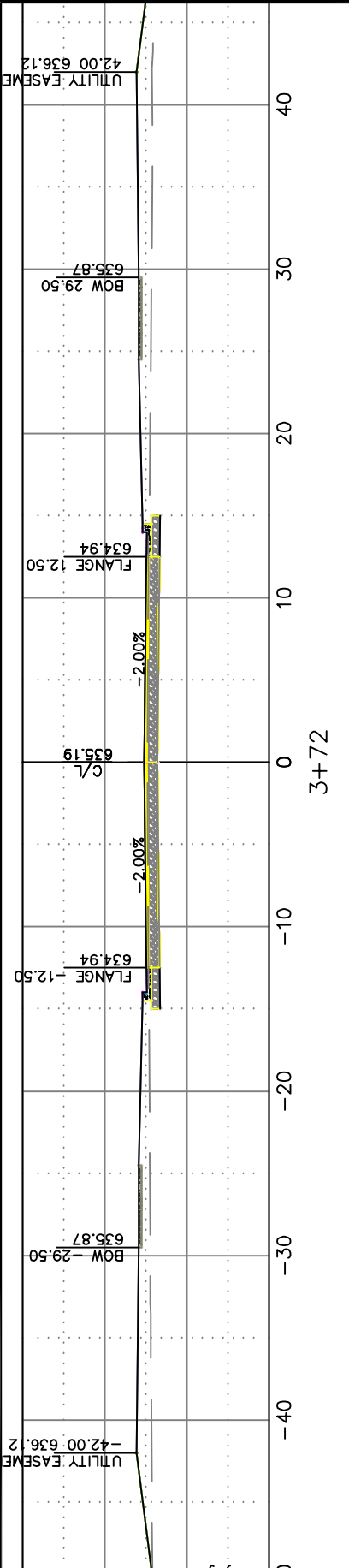
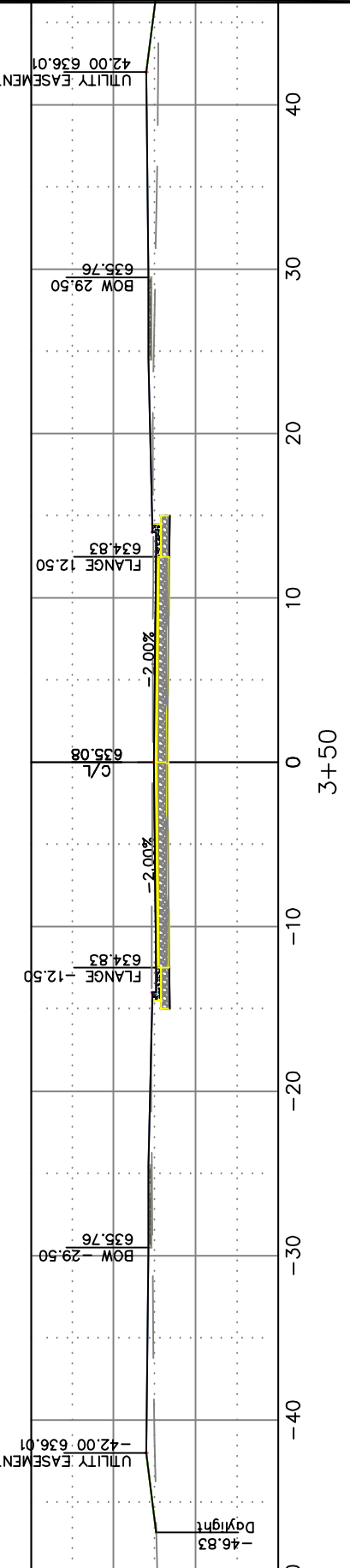
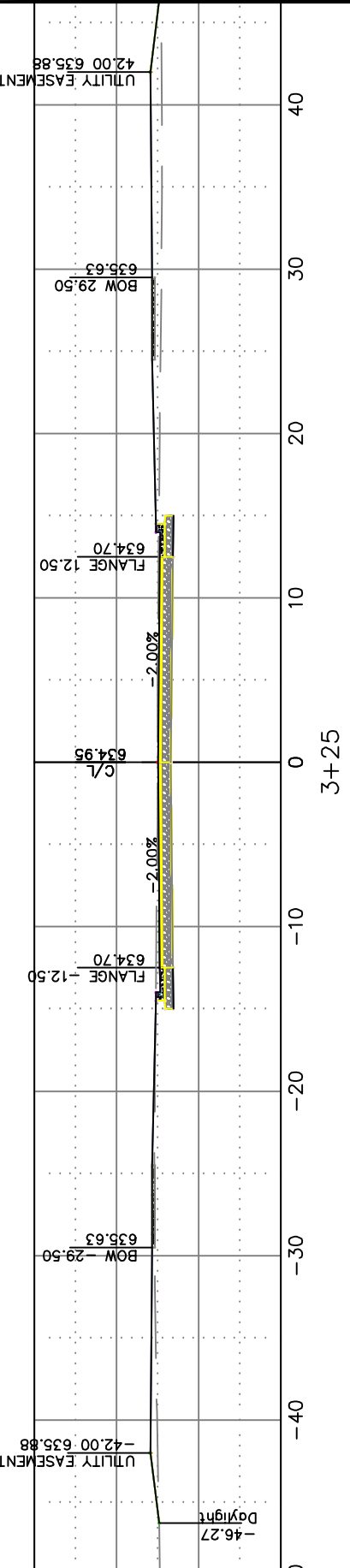
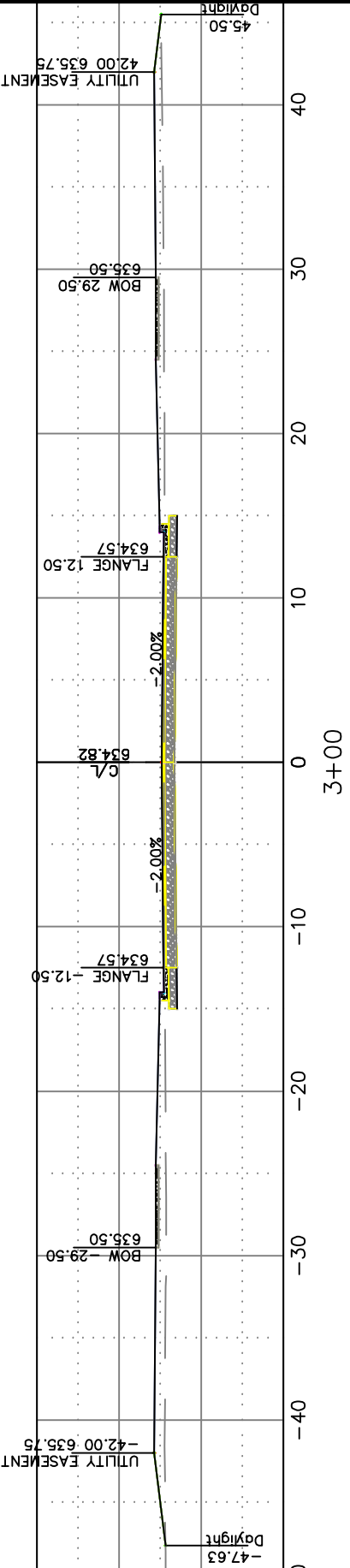
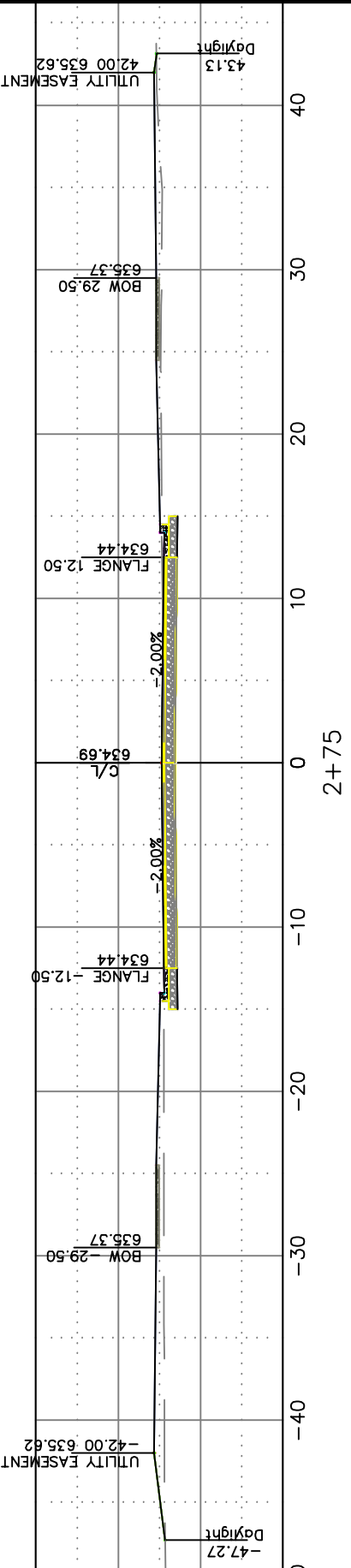
NAME:
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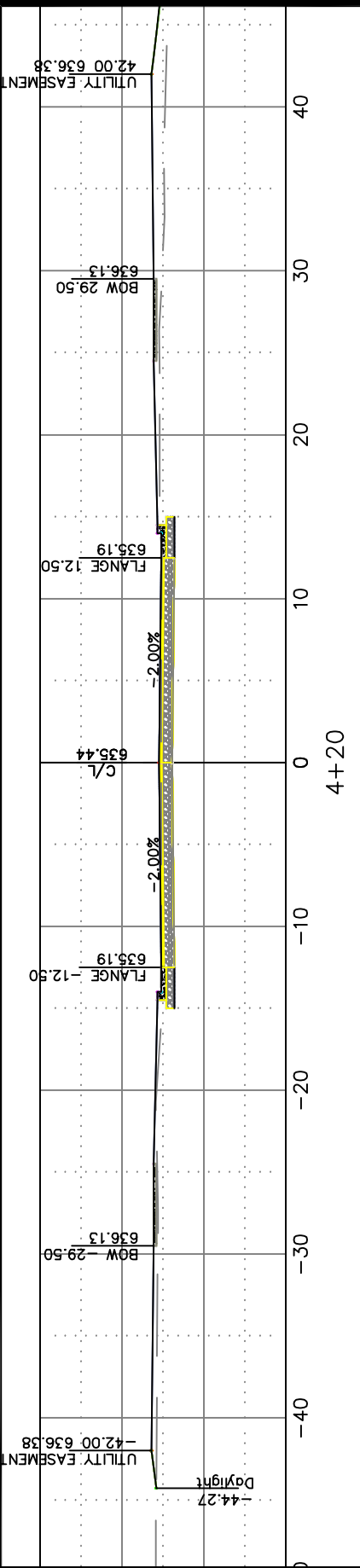
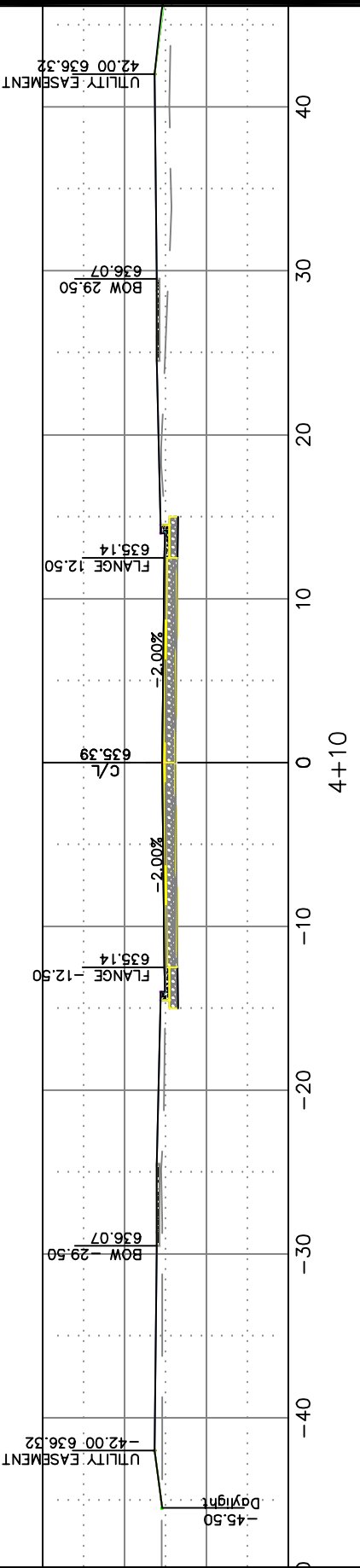
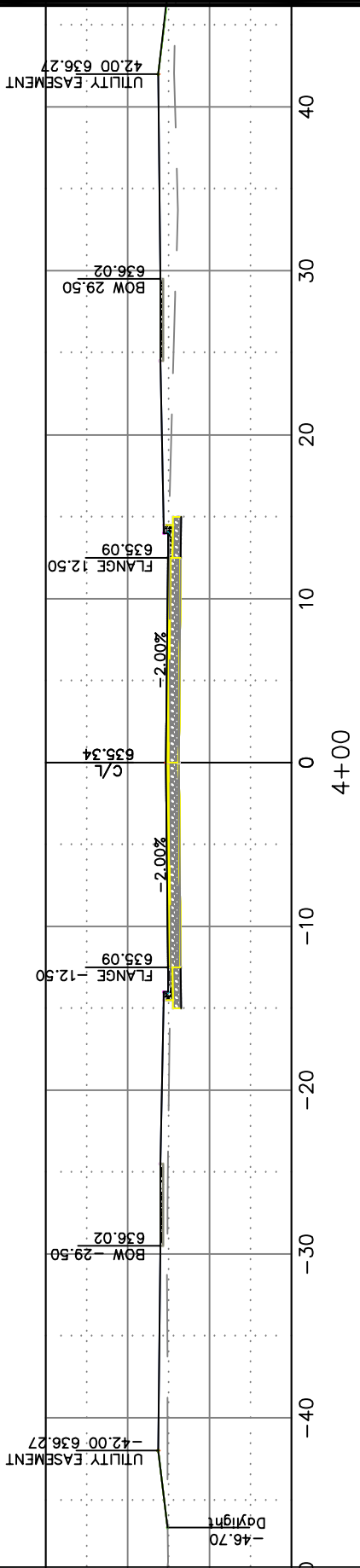
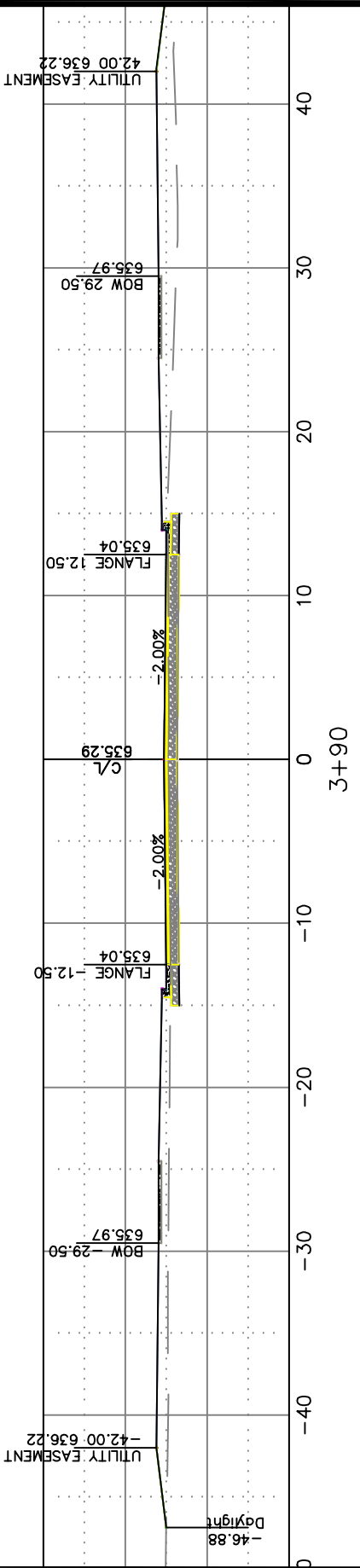
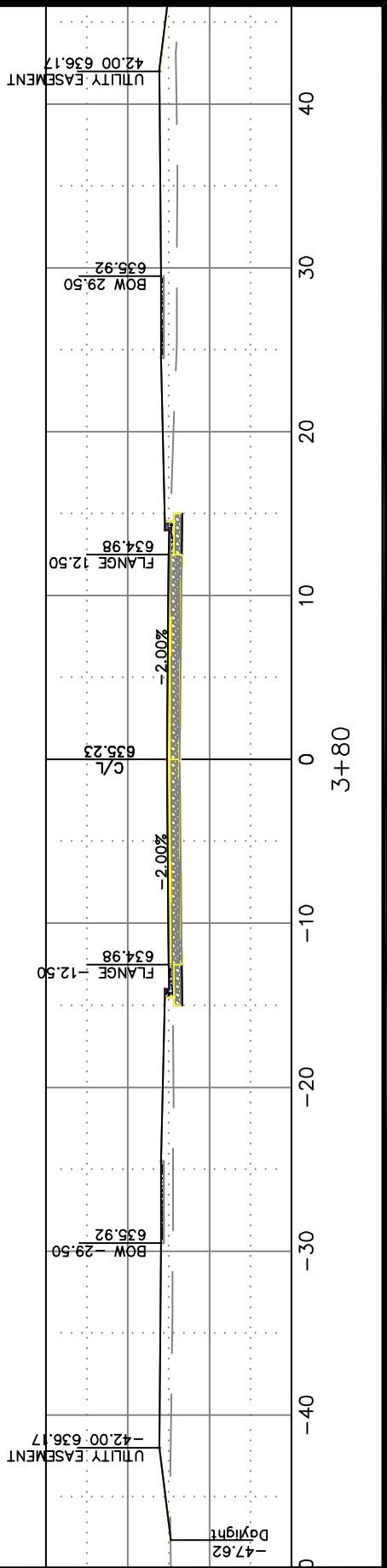
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CHECKED	CKK		02-2018			

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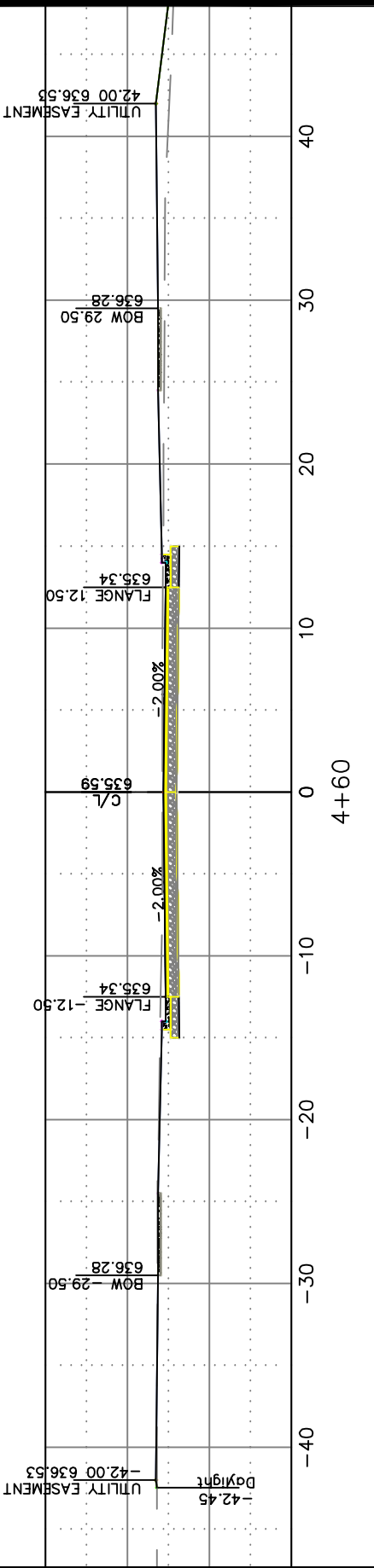
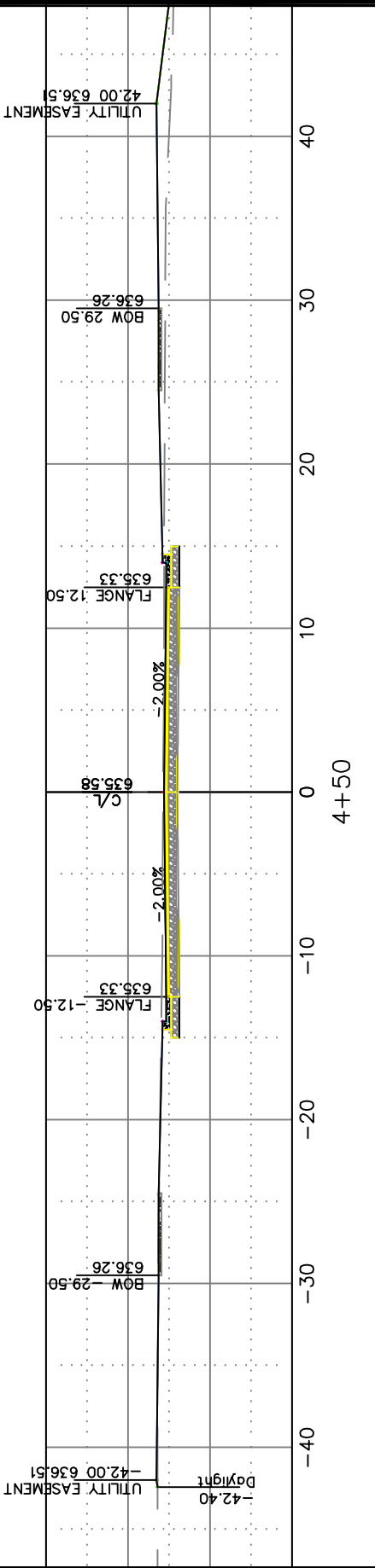
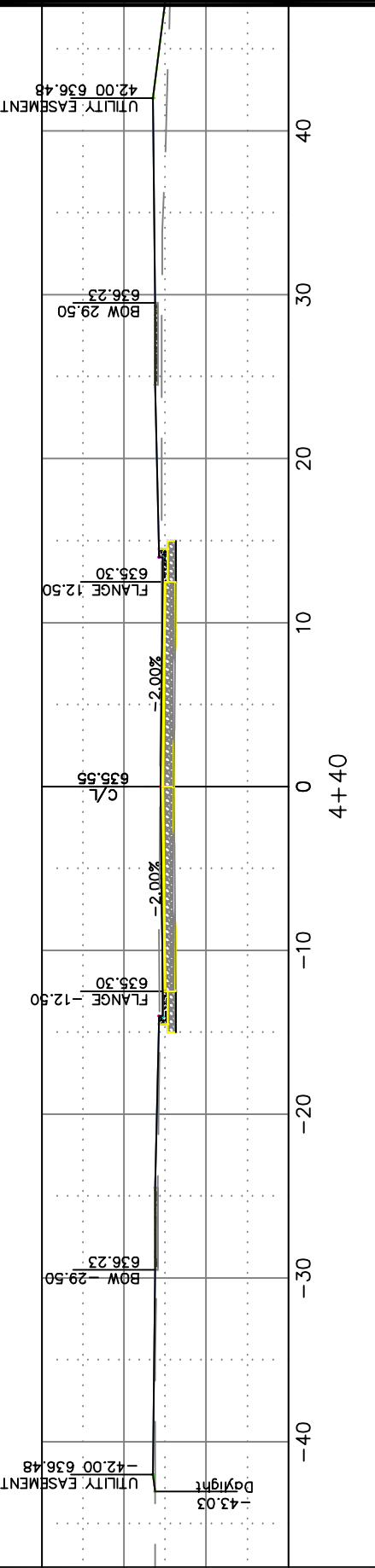
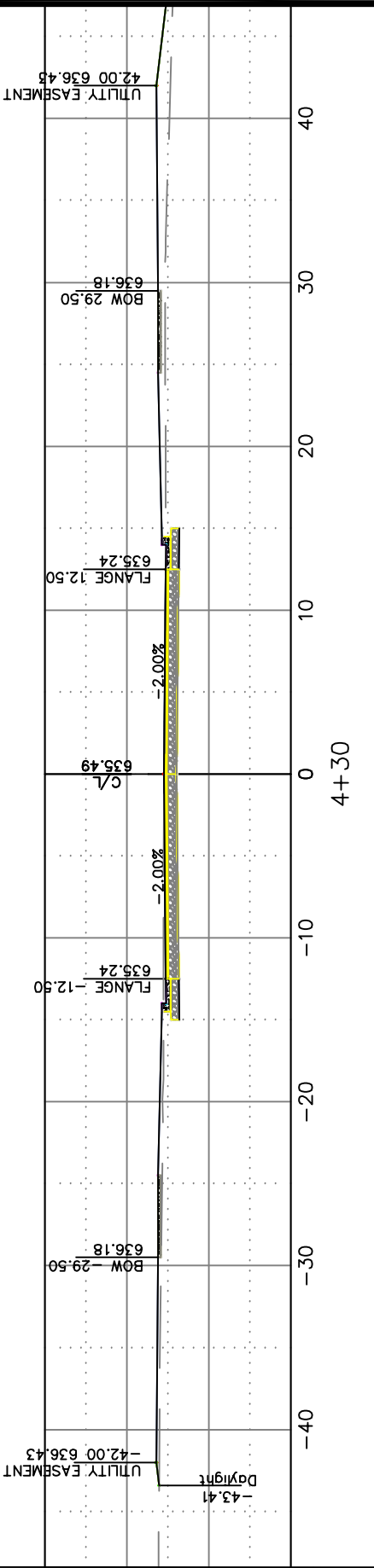
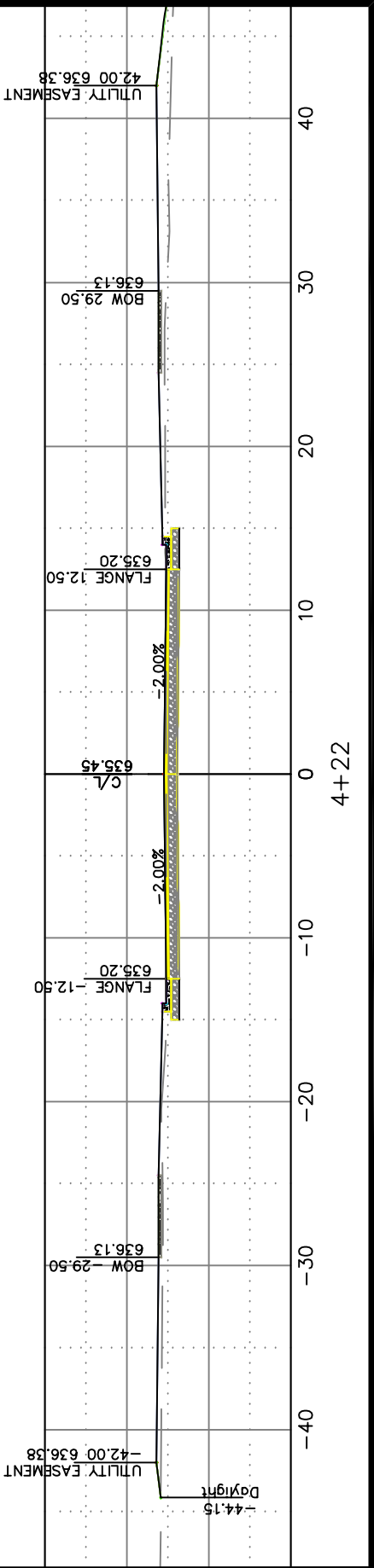




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01-2018	KAD				
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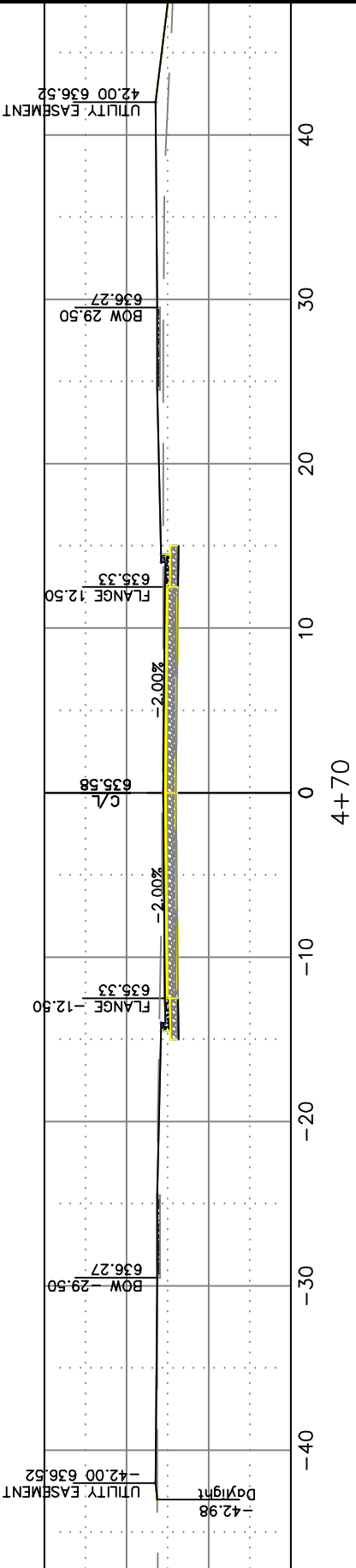
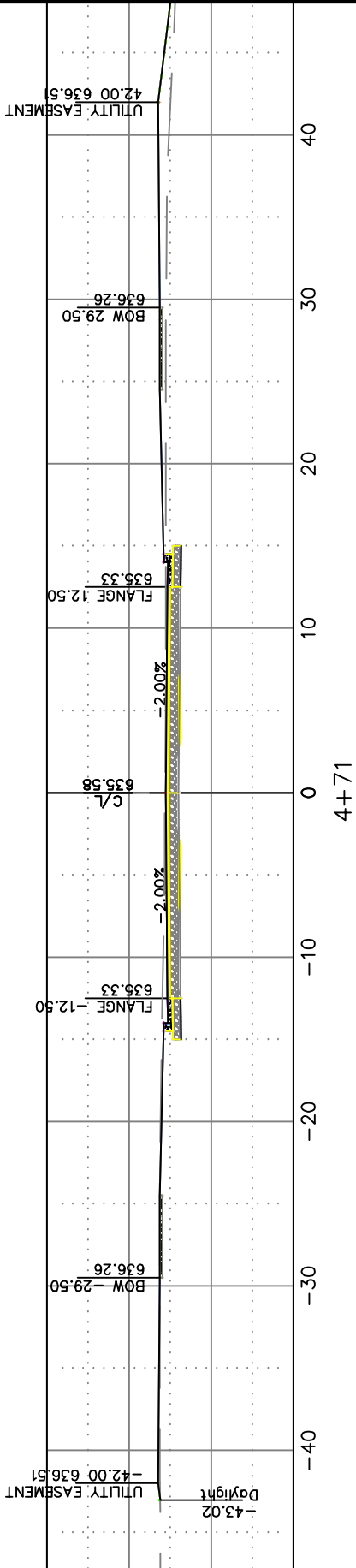
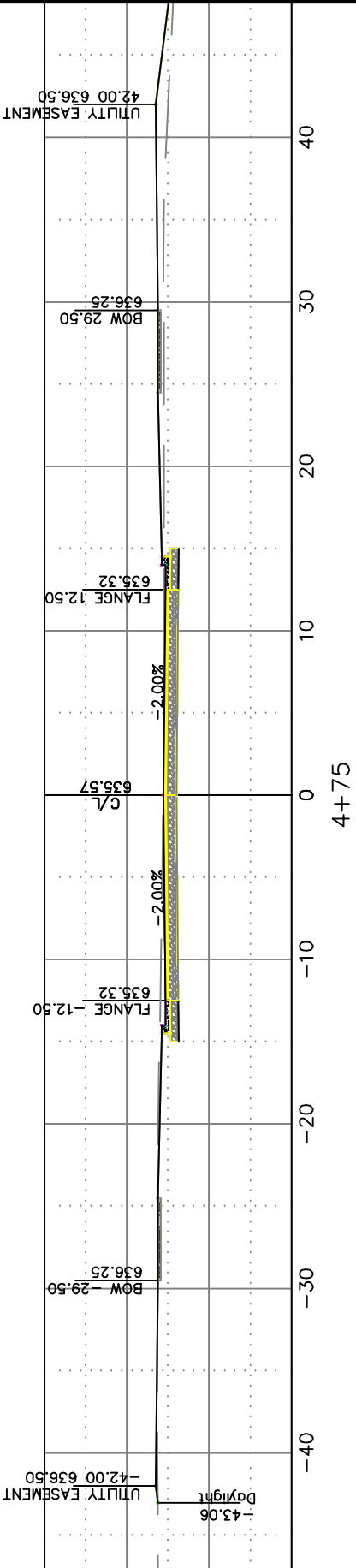
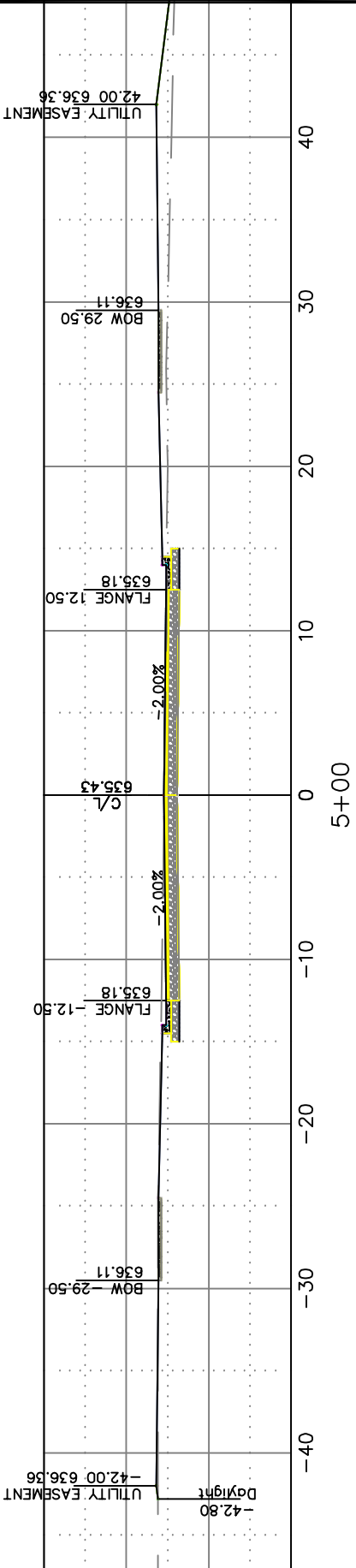
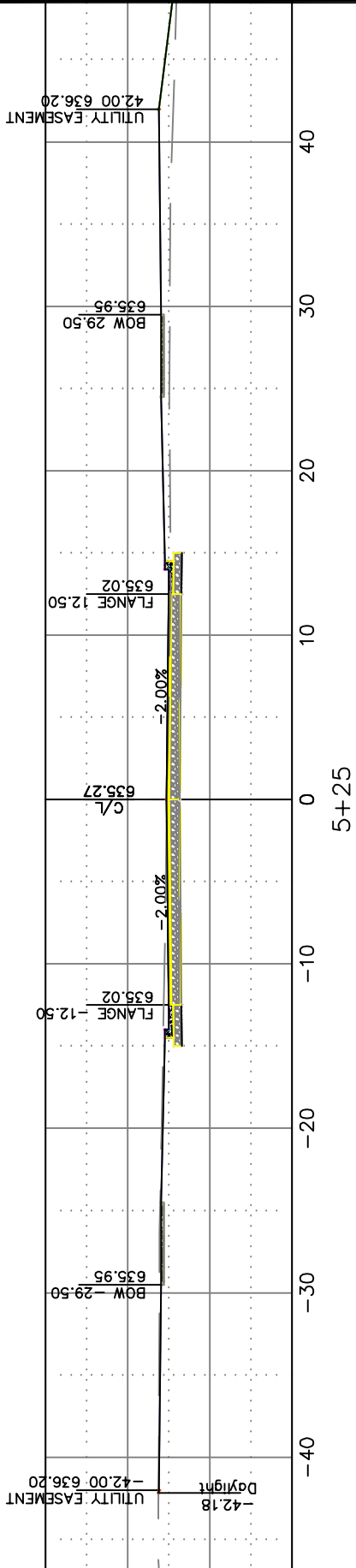
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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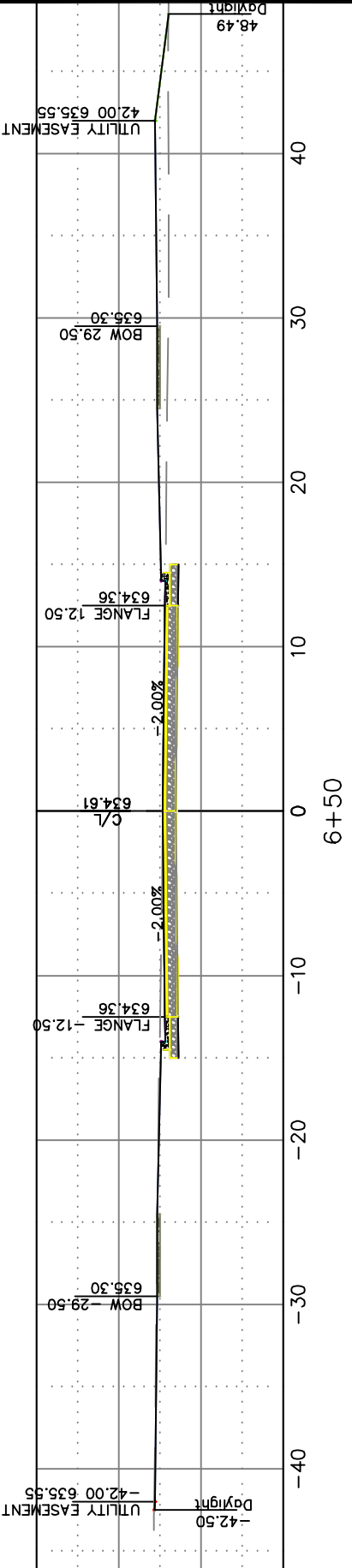
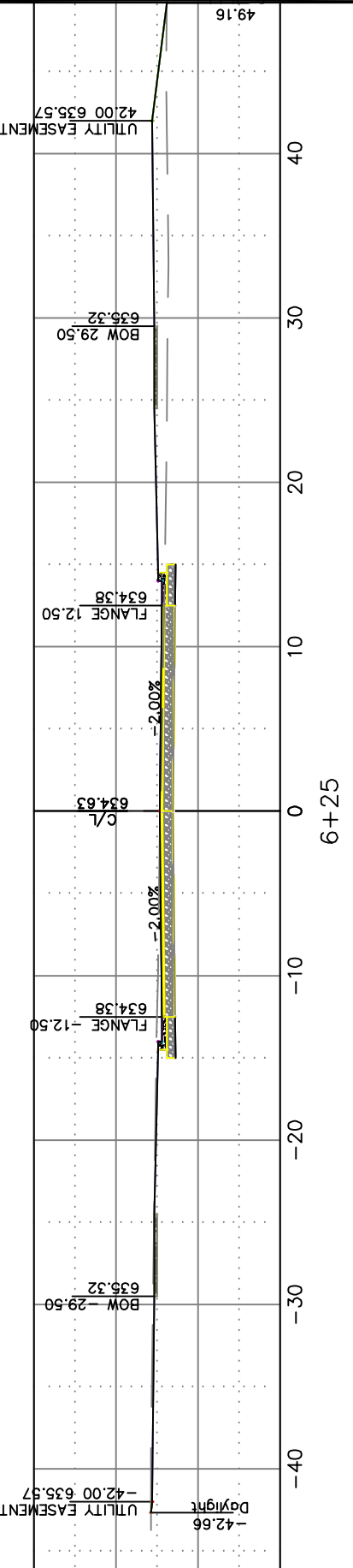
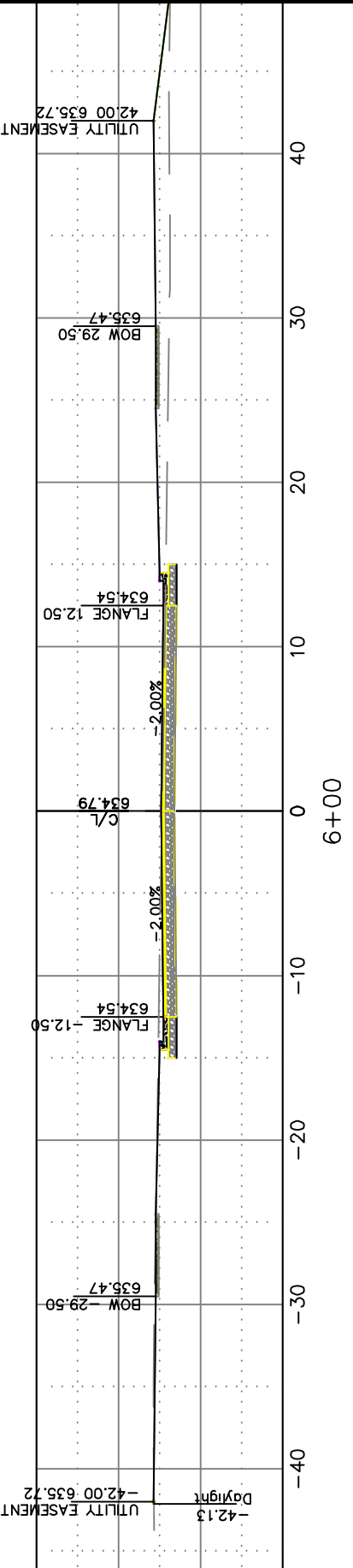
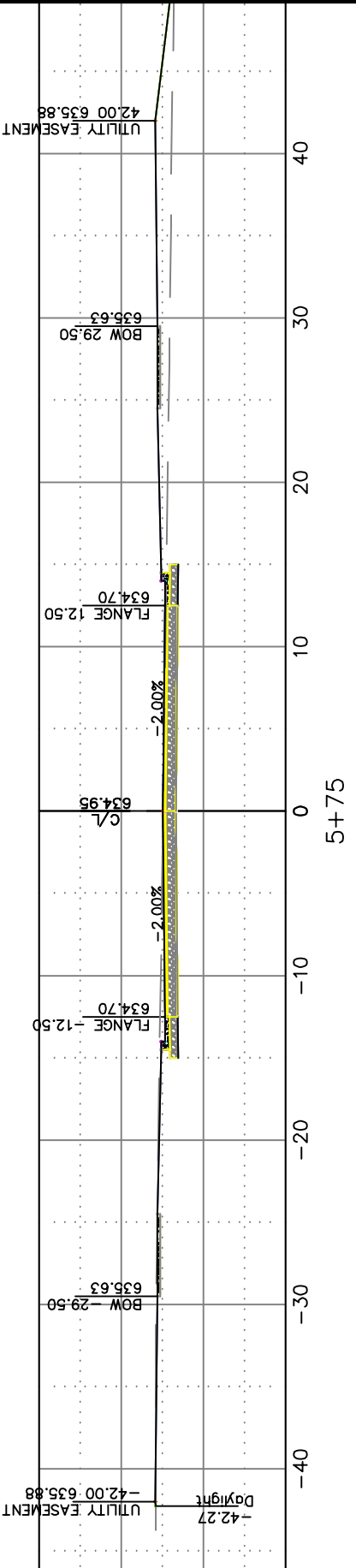
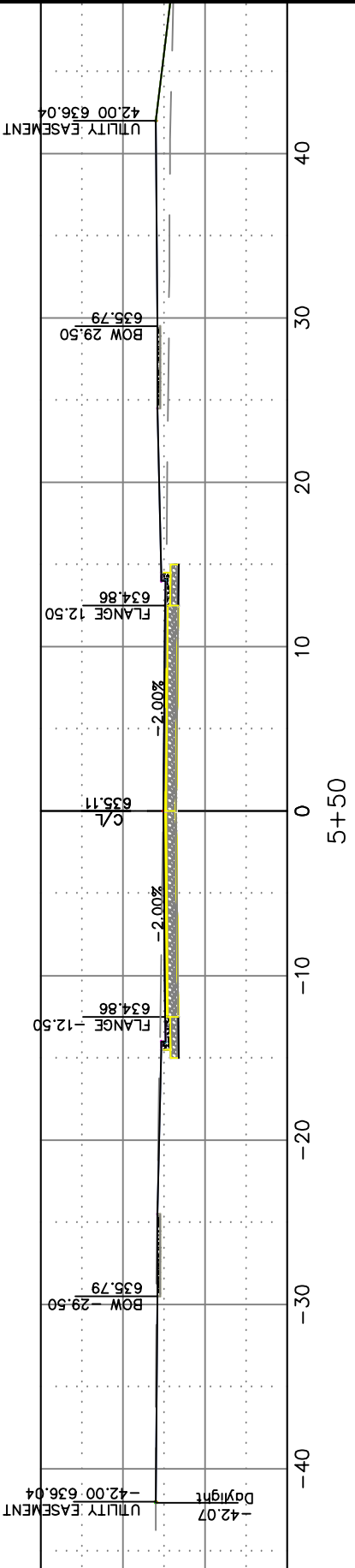
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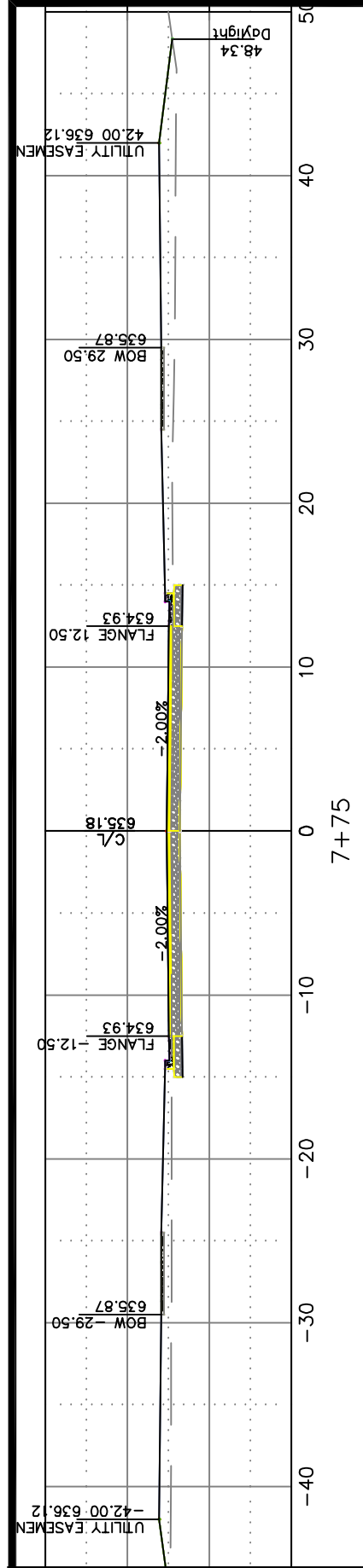
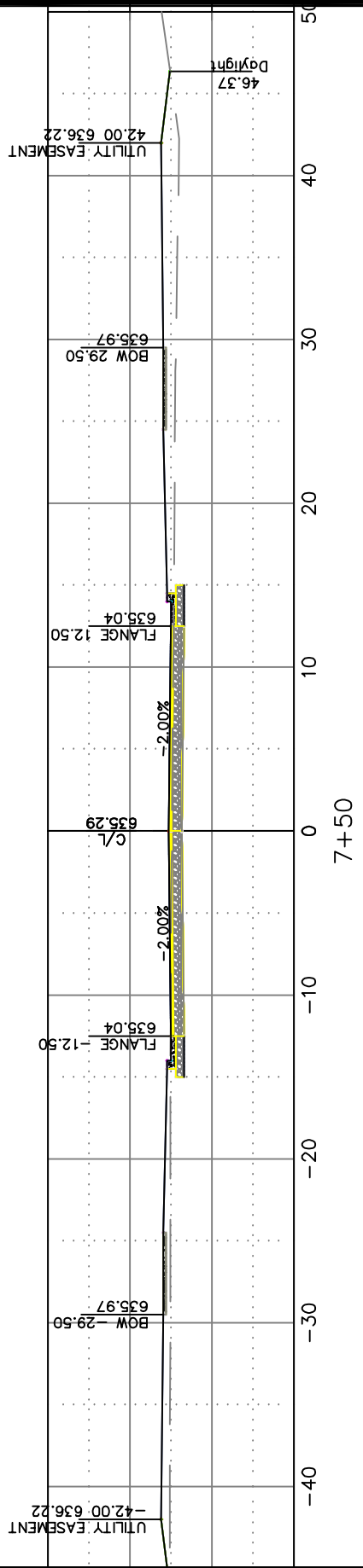
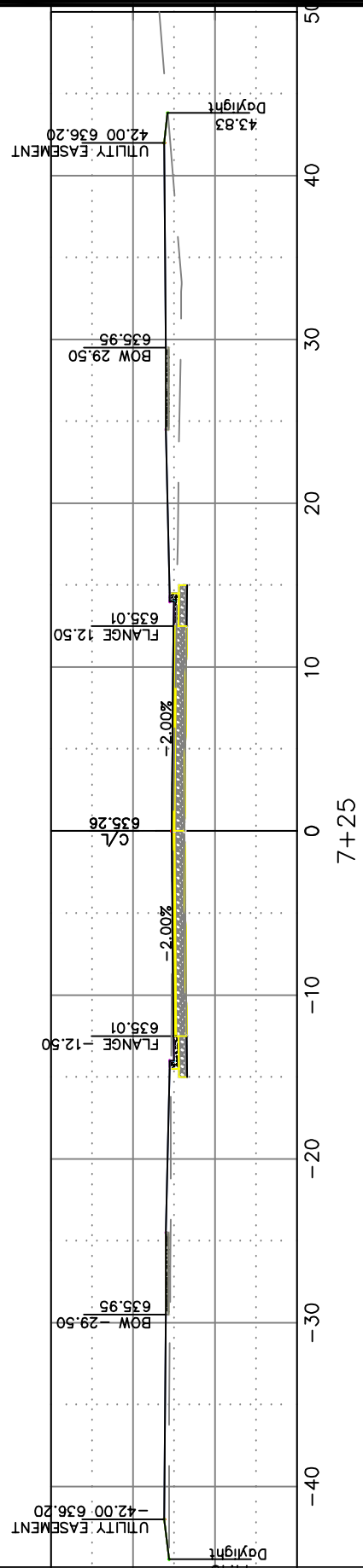
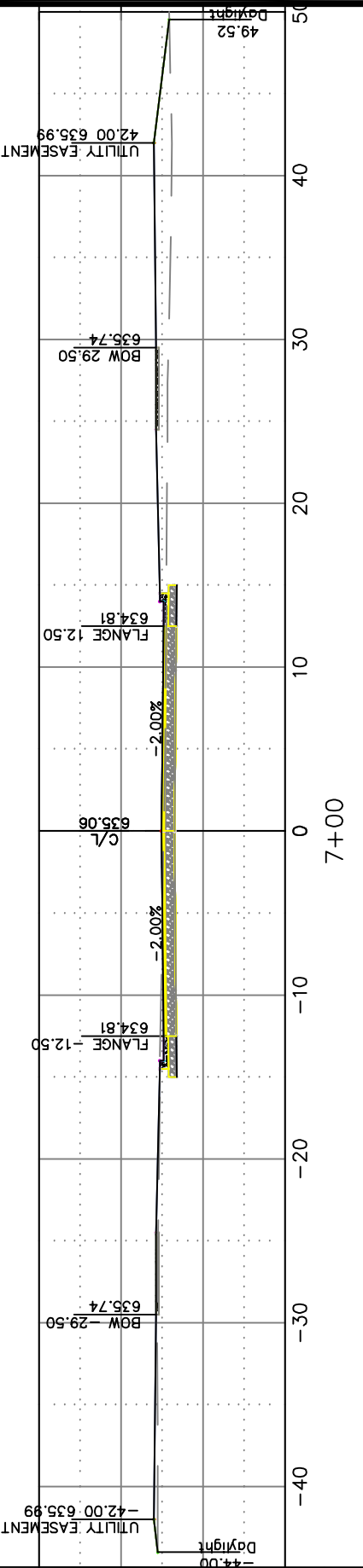
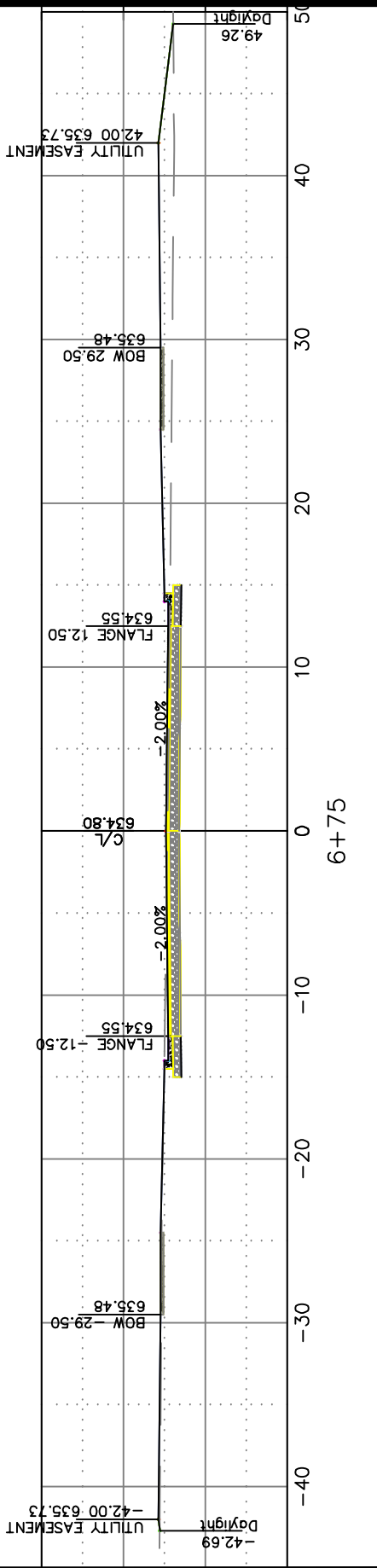
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01-2018	KAD
02-2018	CKK

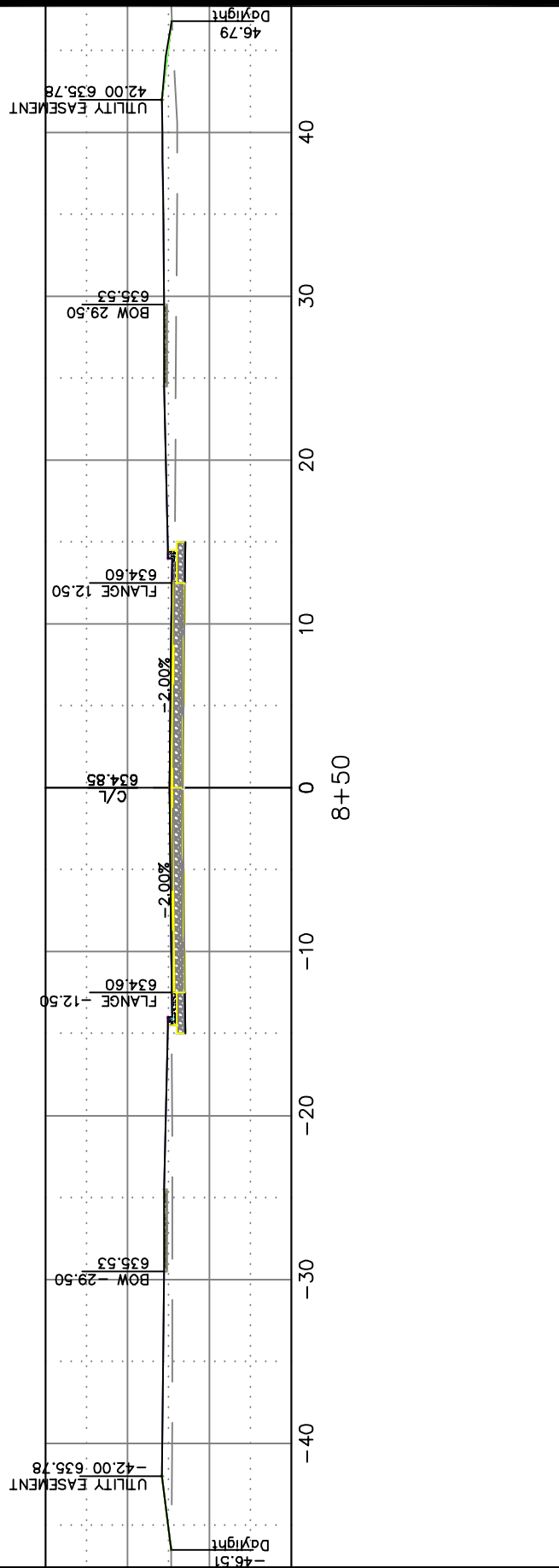
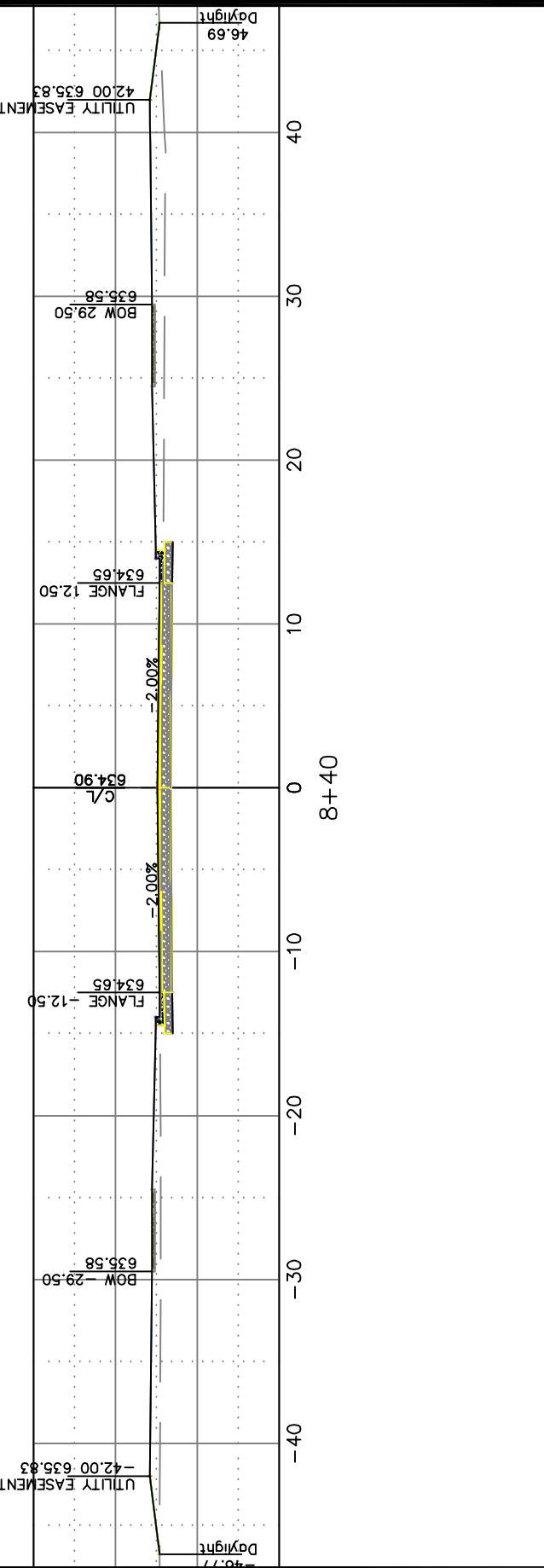
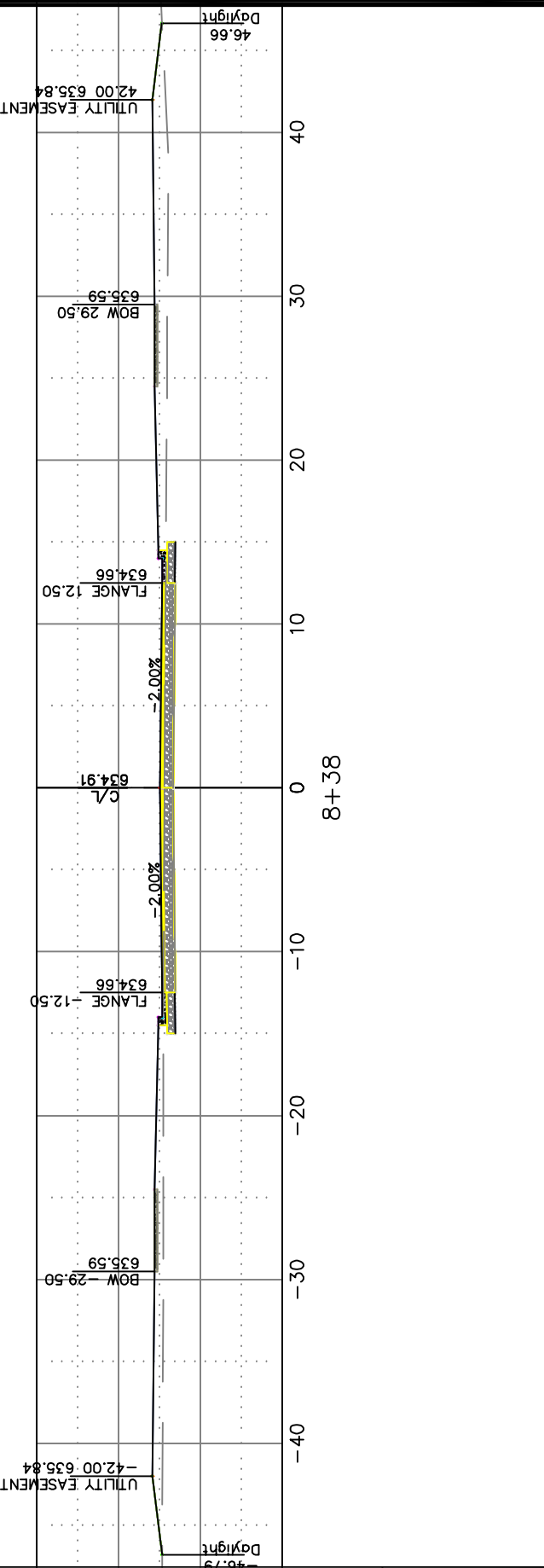
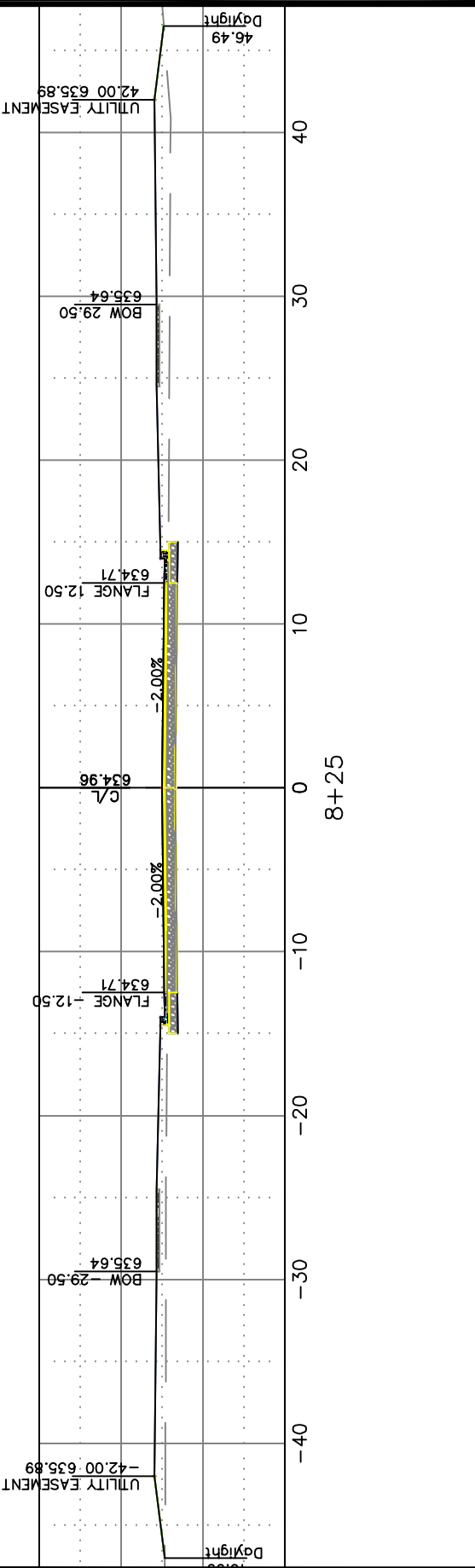
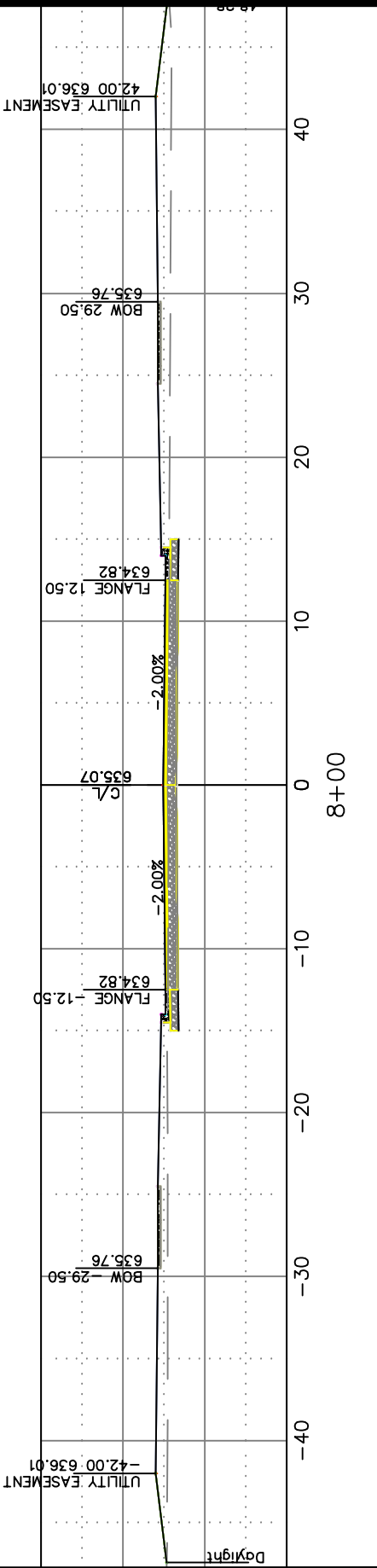
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	DESIGNED	KAD 01-2018
	CHECKED	CKK 02-2018

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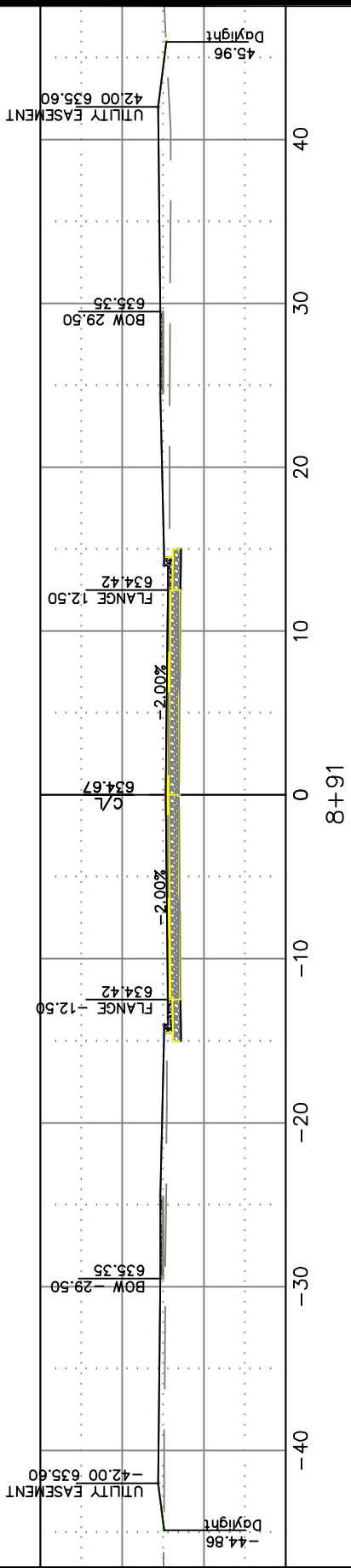
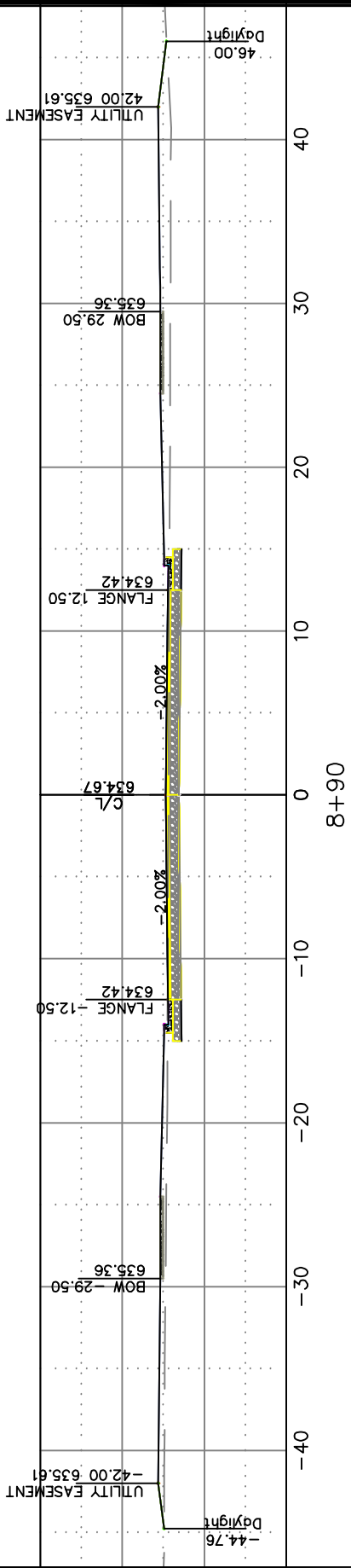
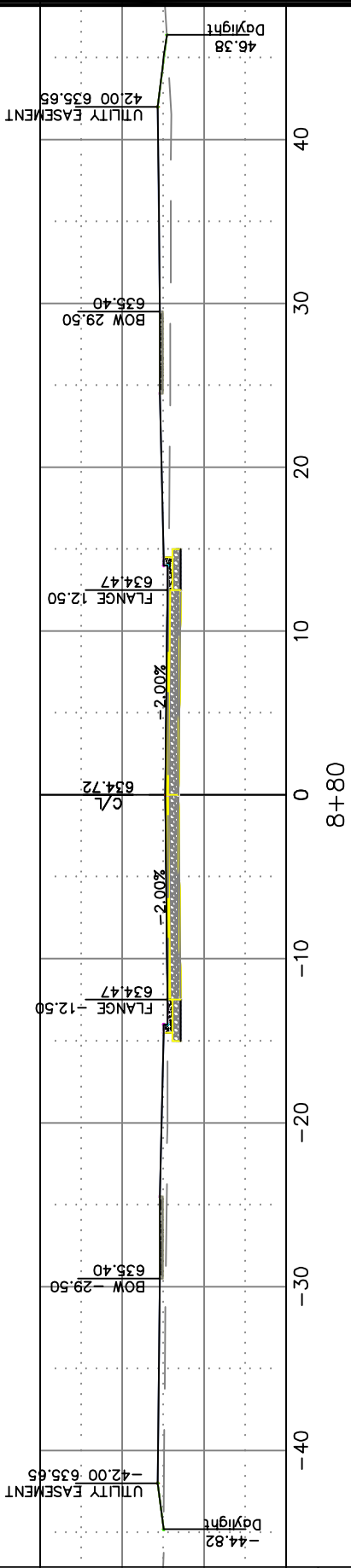
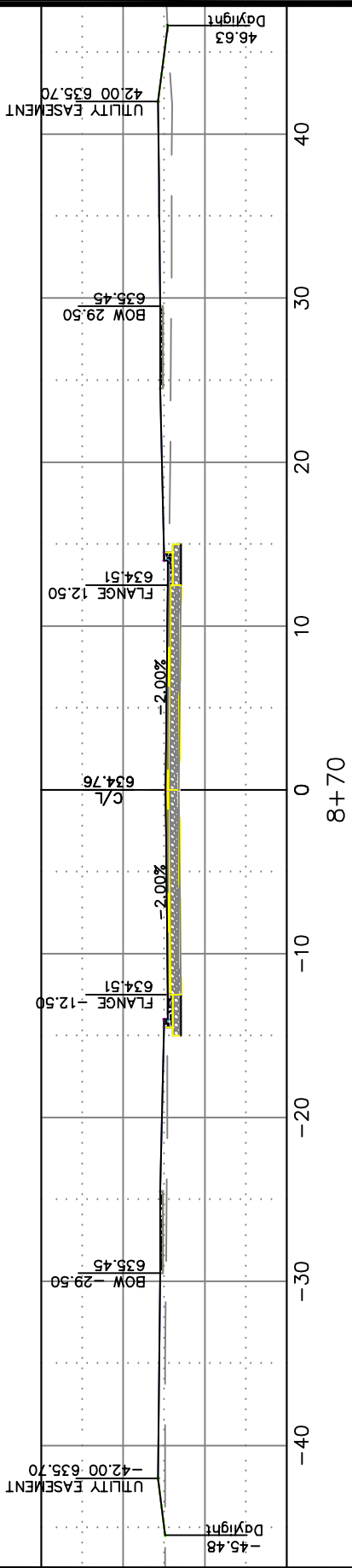
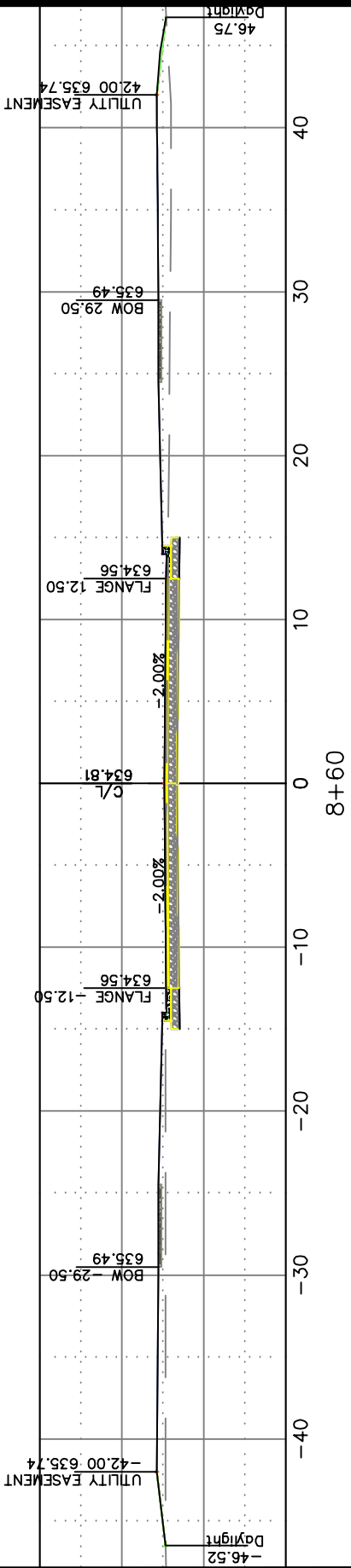
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BRIDGEPORT CIRCLE
CROSS SECTIONS

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PROJECT #
18-01

BY	DATE
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DRAWN	KAD 01-2018
DESIGNED	KAD 01-2018
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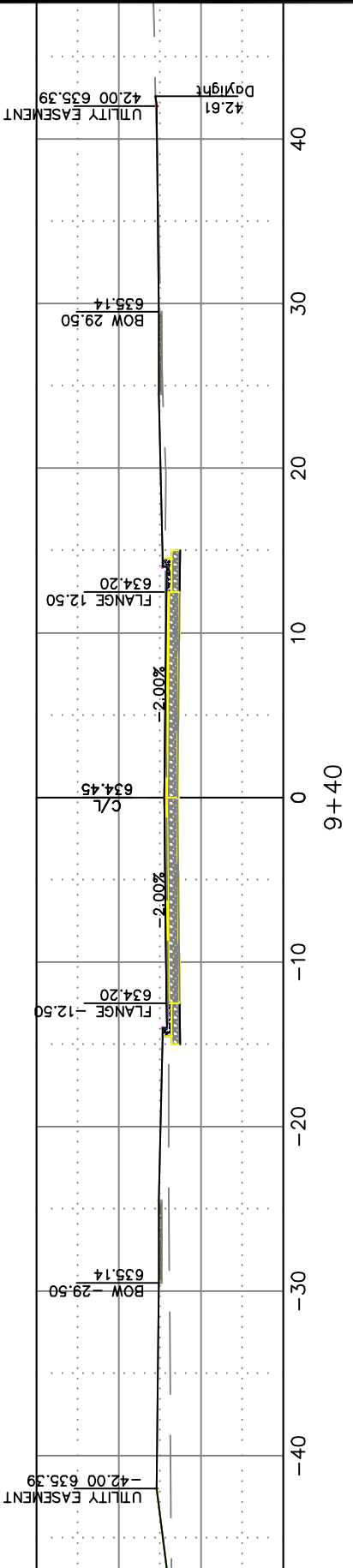
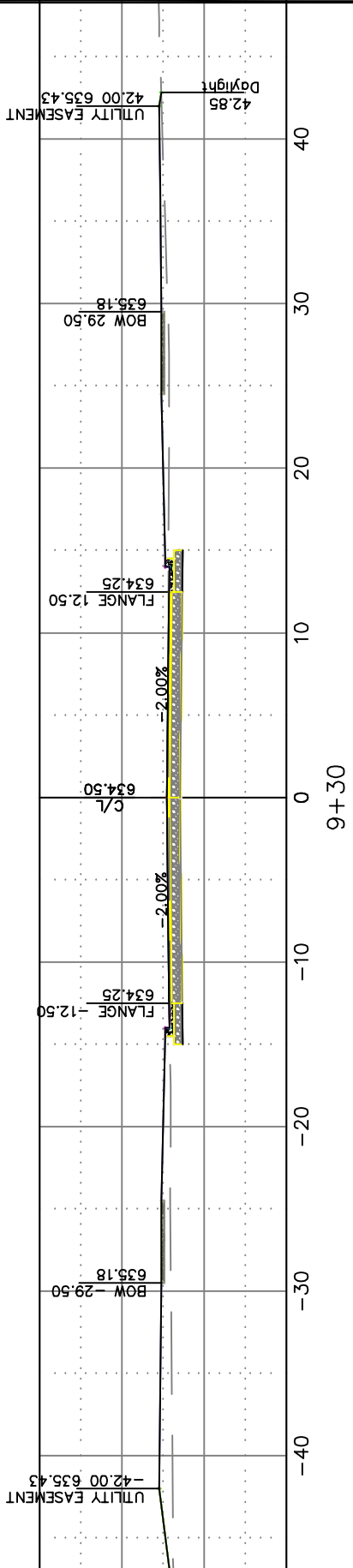
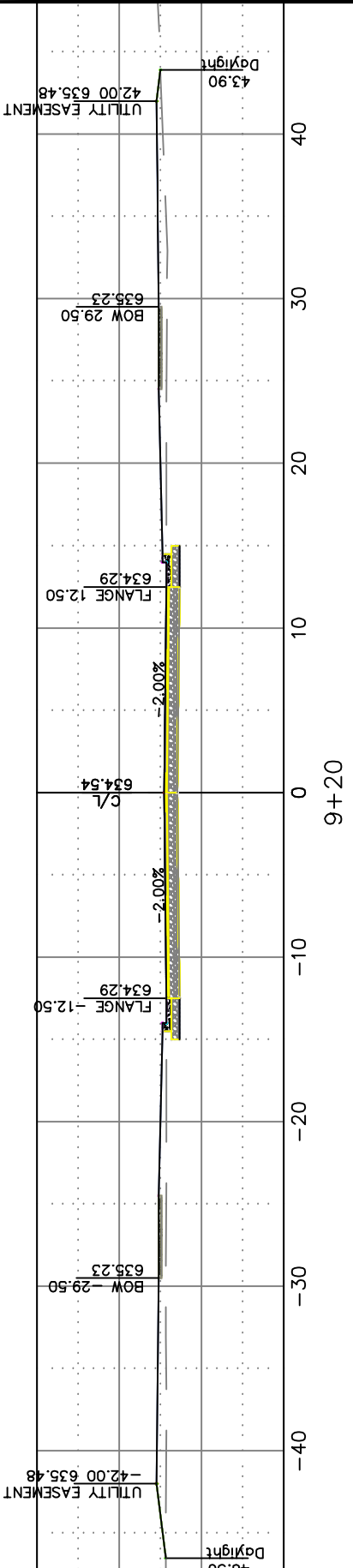
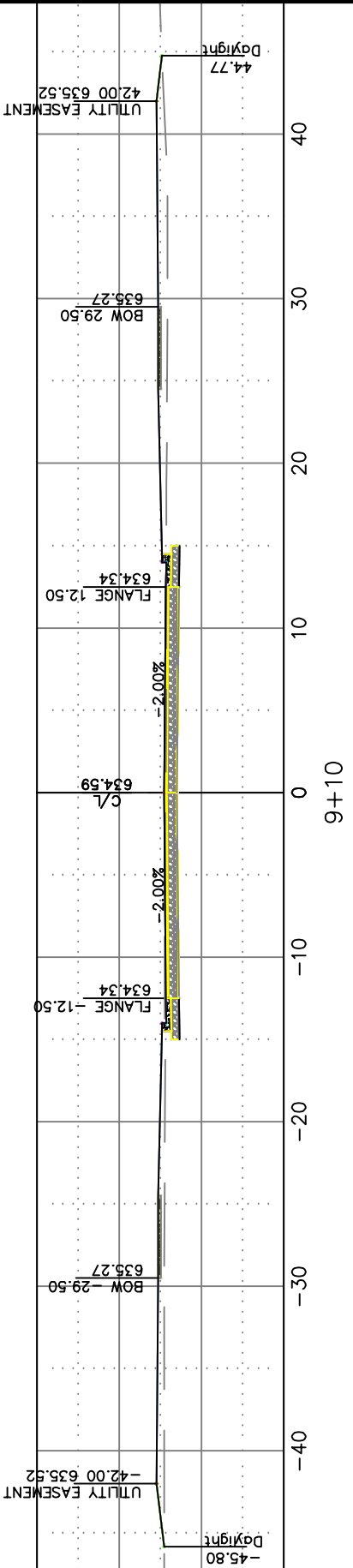
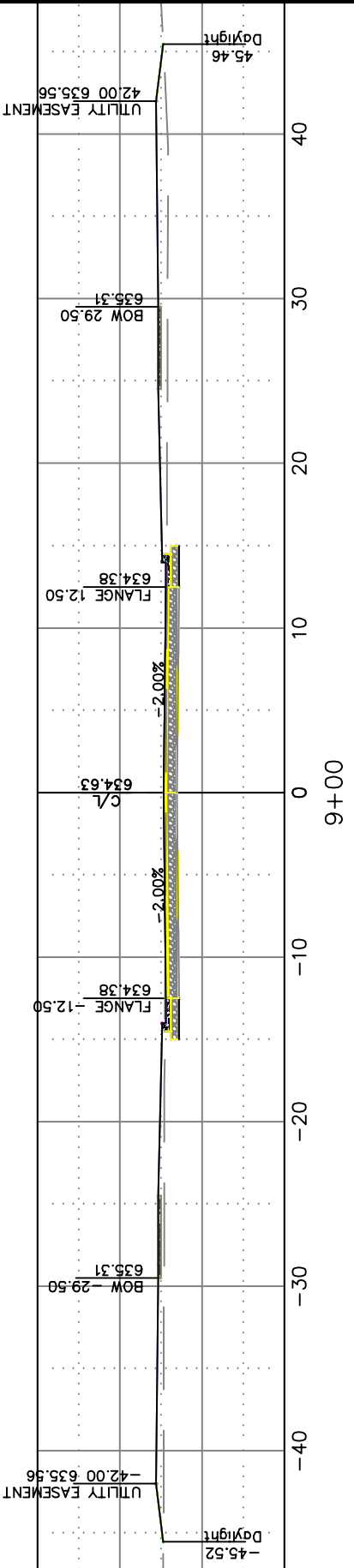
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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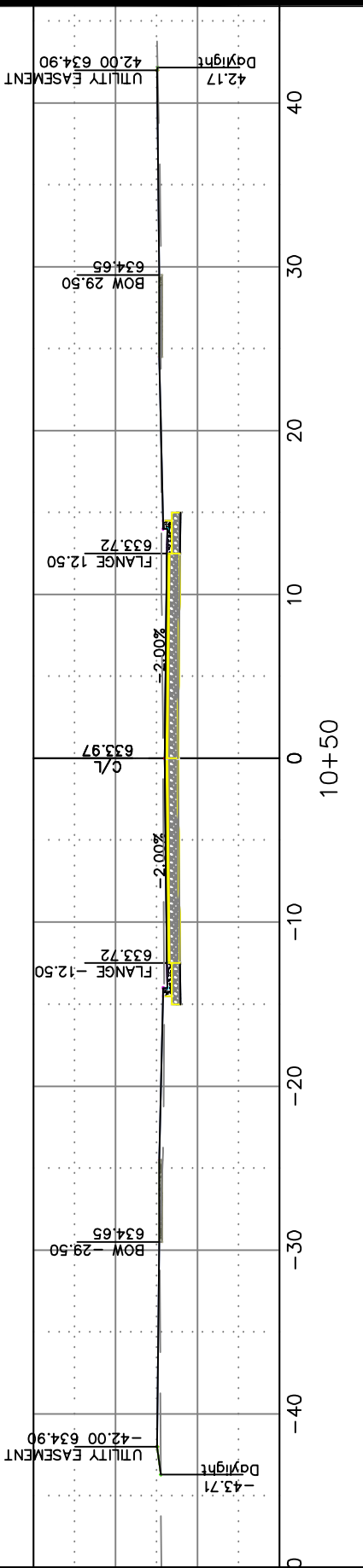
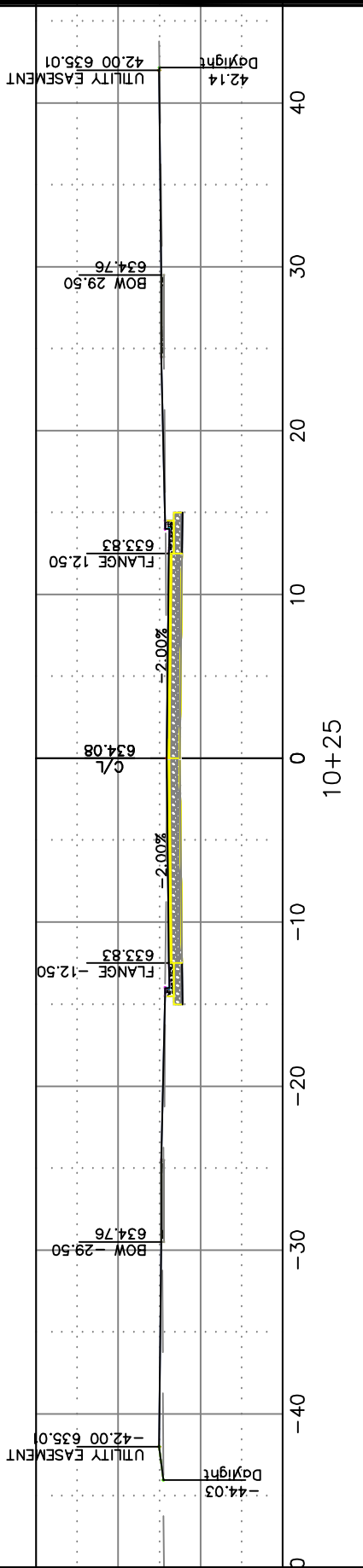
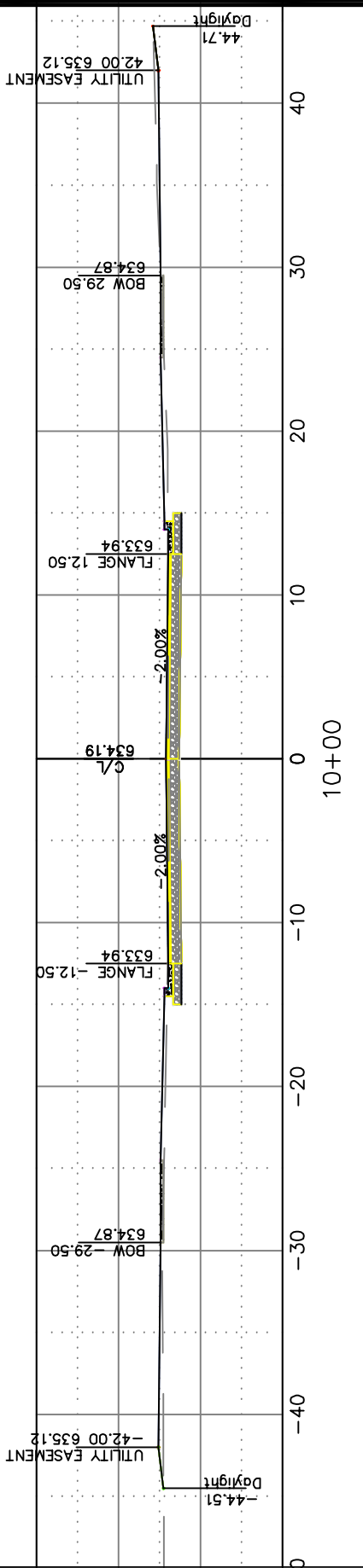
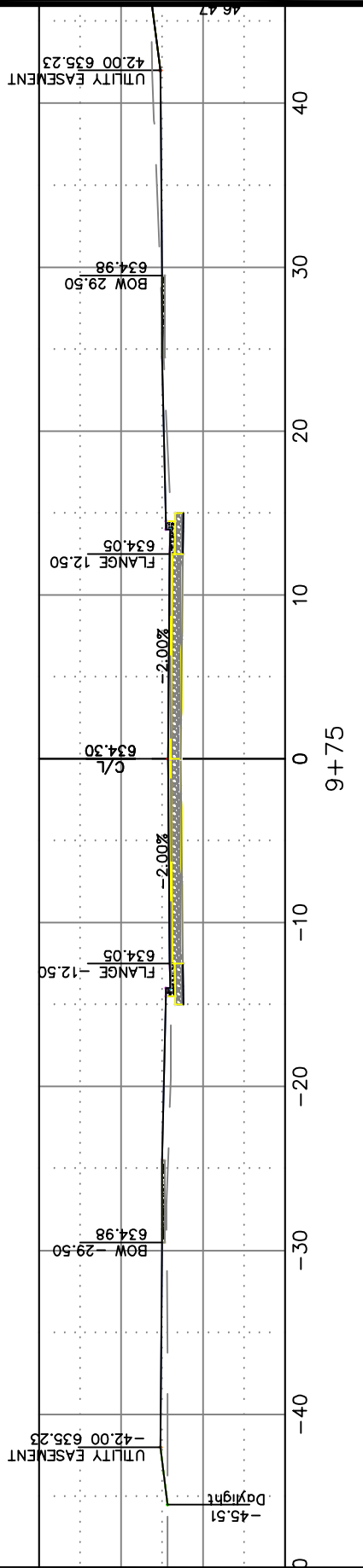
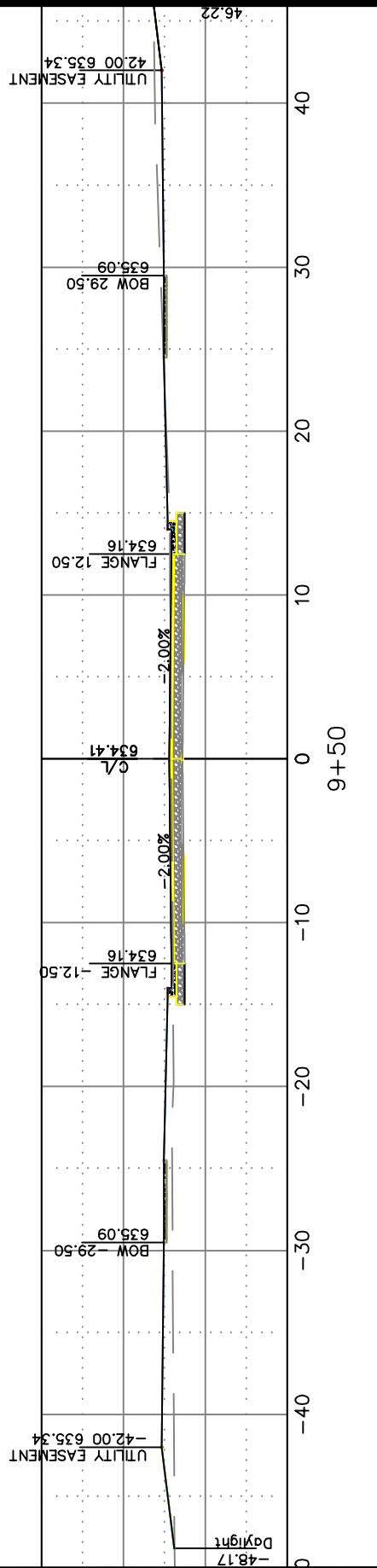
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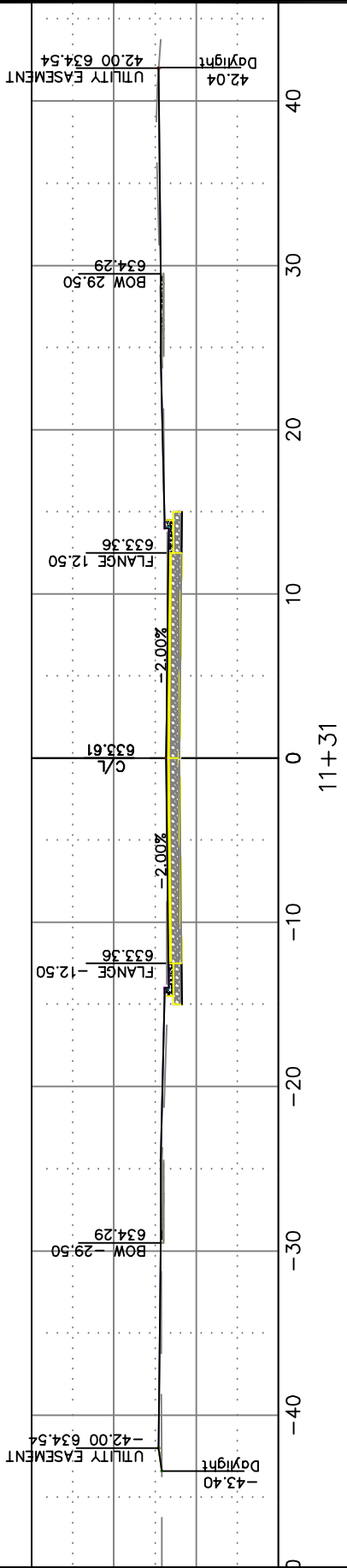
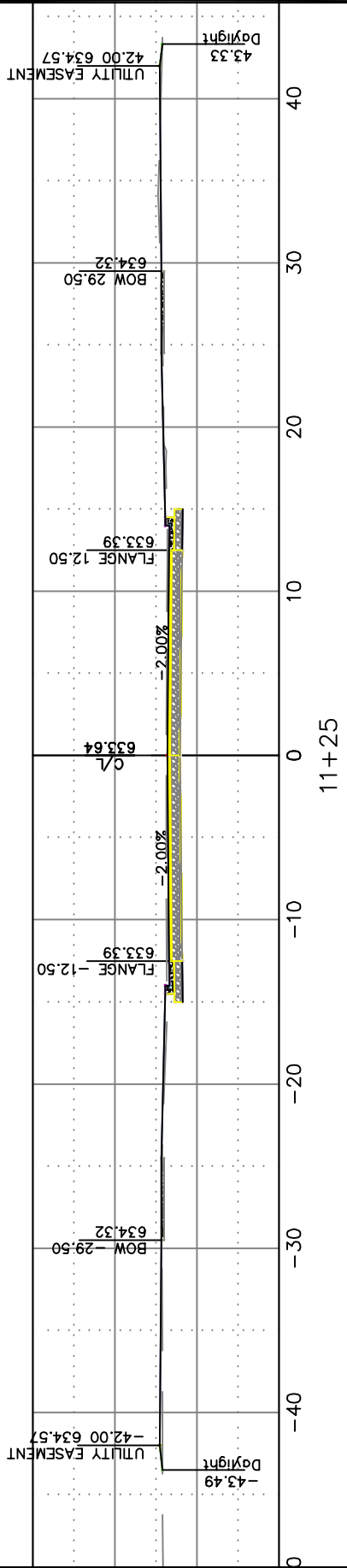
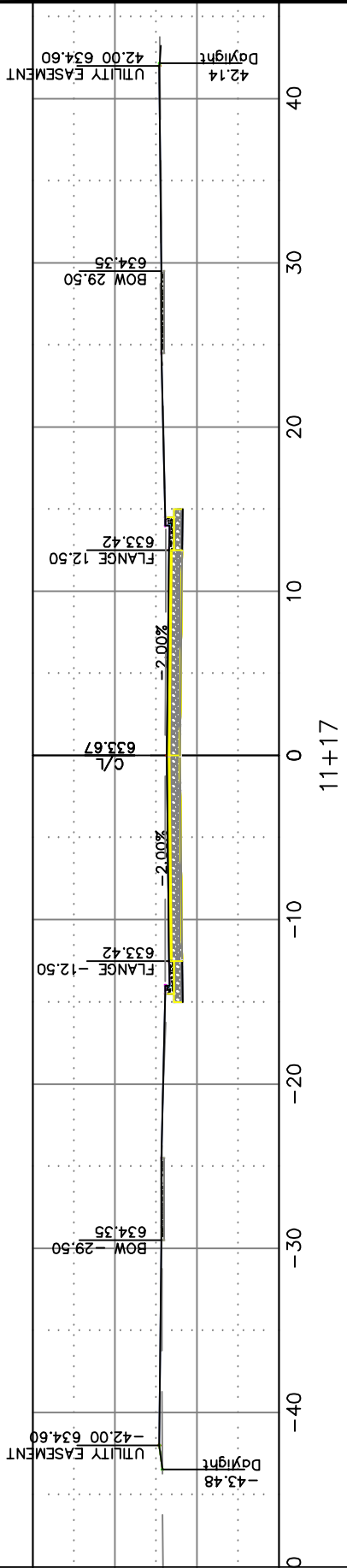
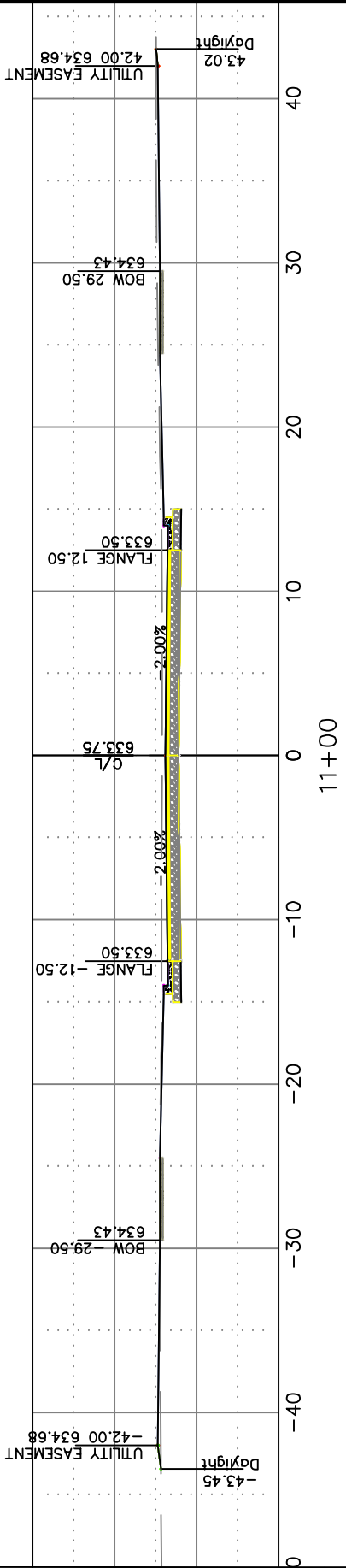
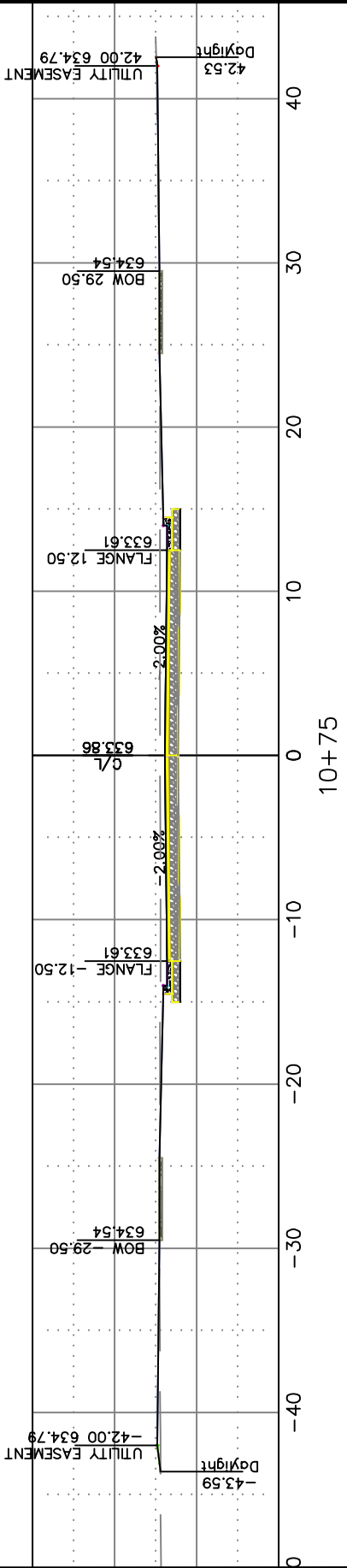
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PROJECT # 18-01	KAD	01-2018
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01-2018	KAD				
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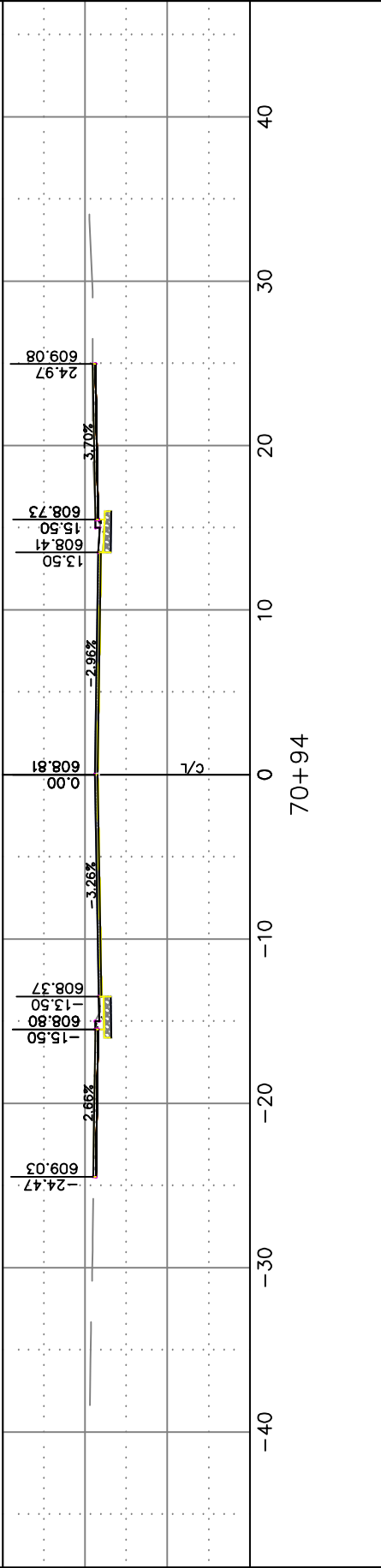
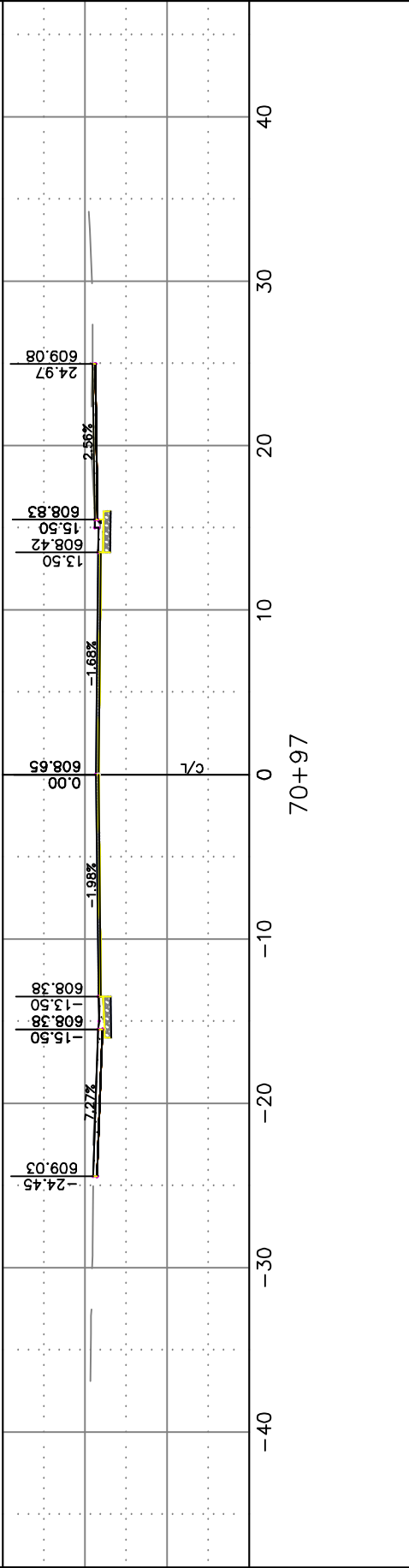
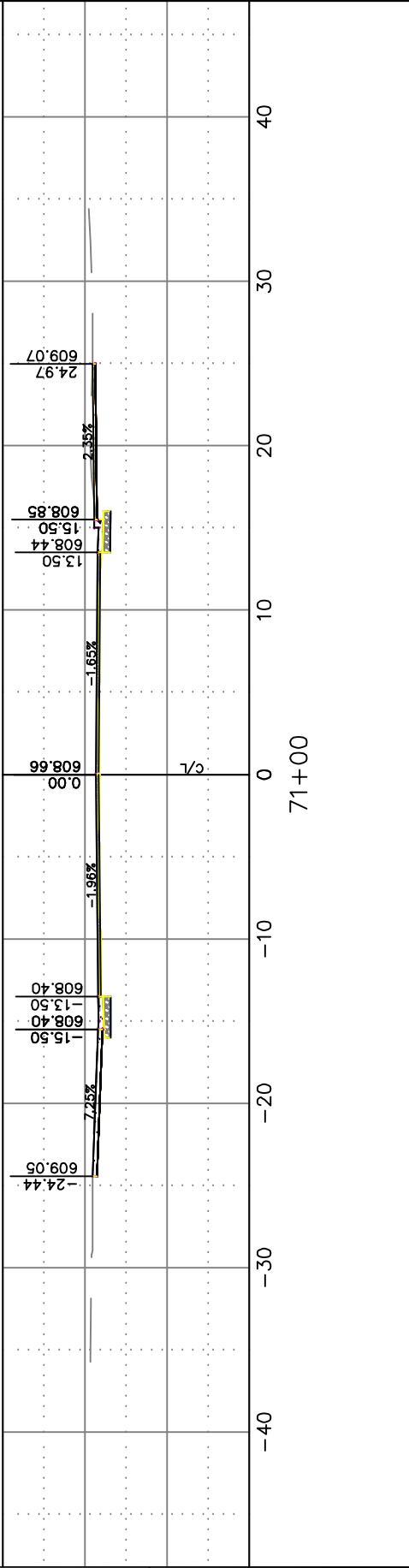
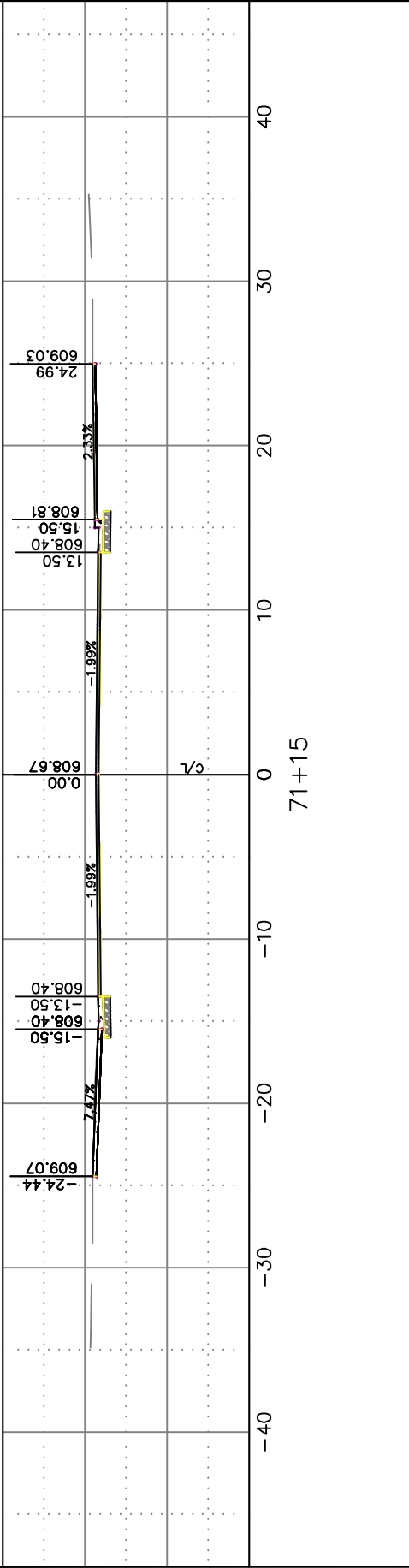
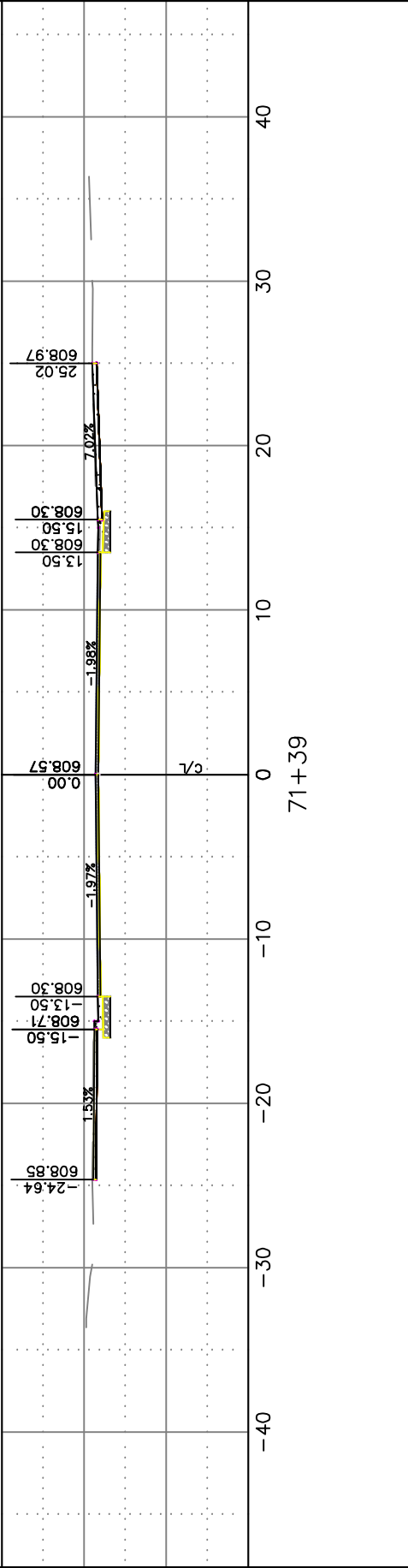
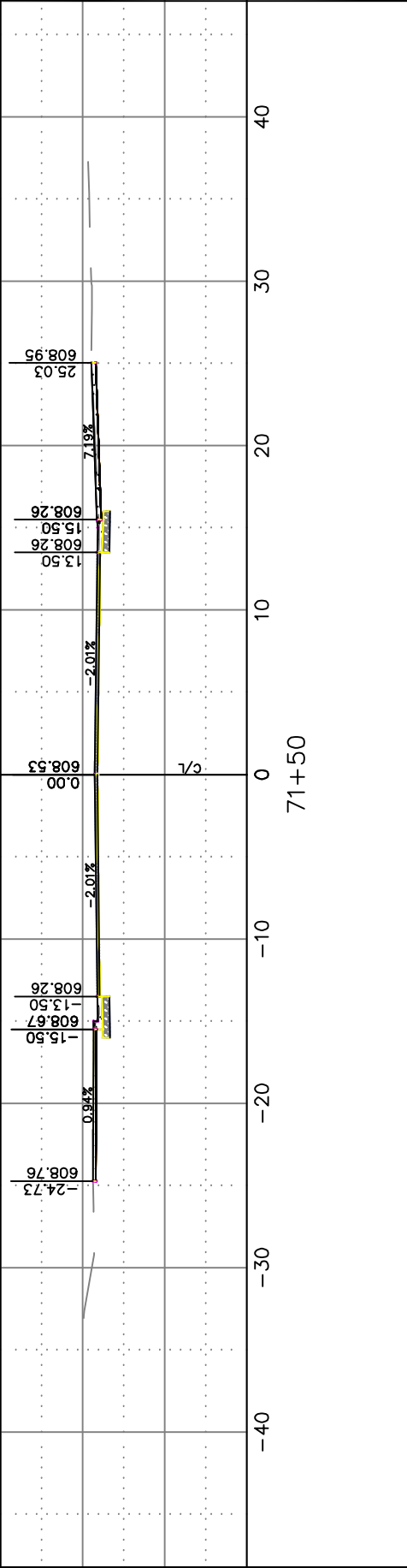


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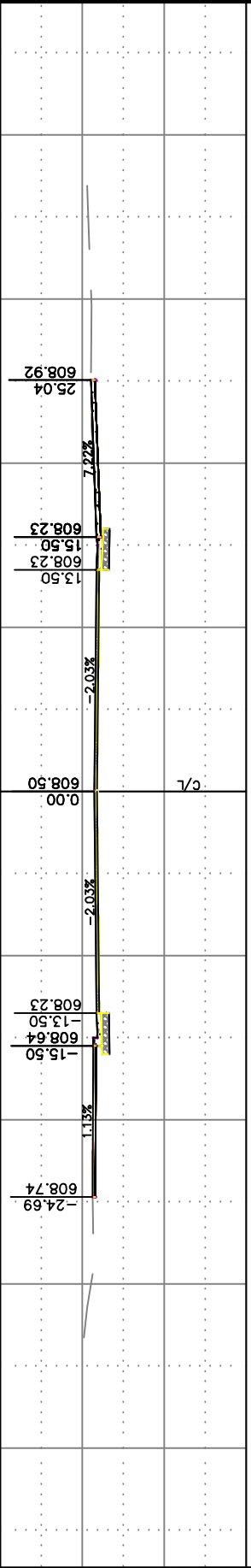
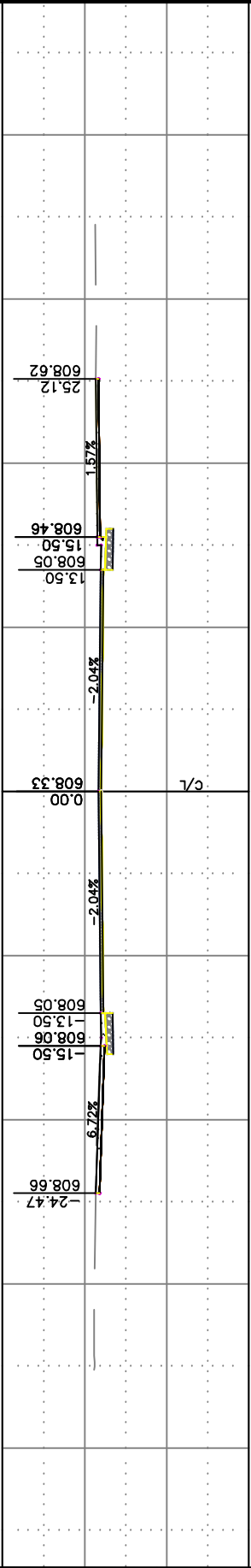
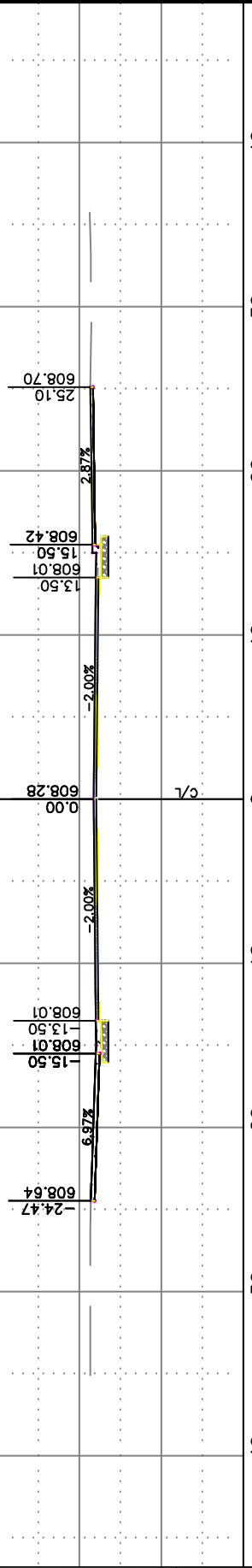
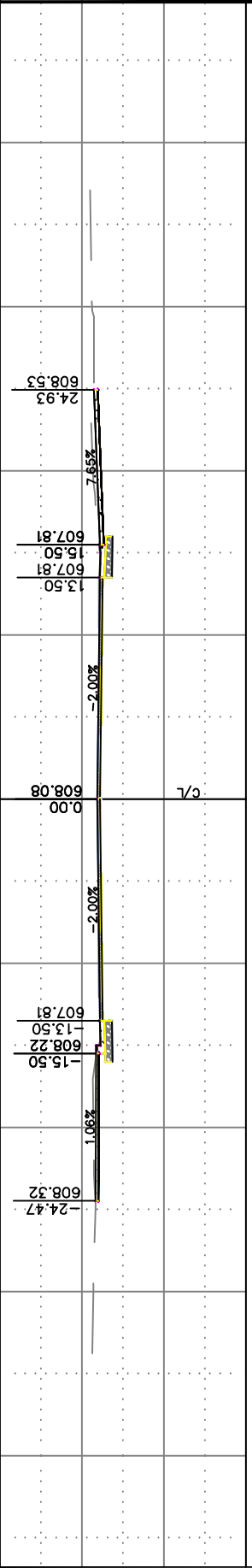
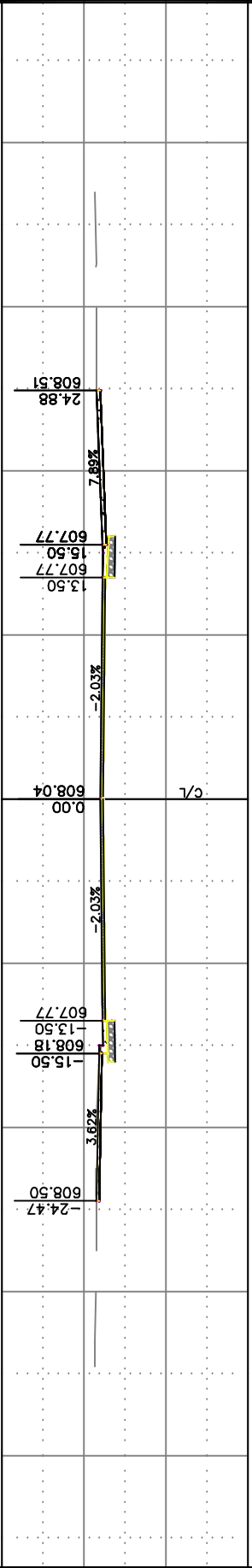
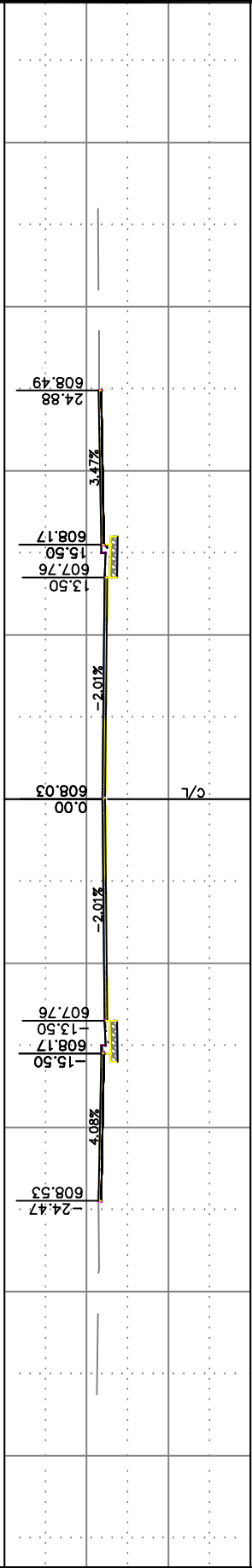


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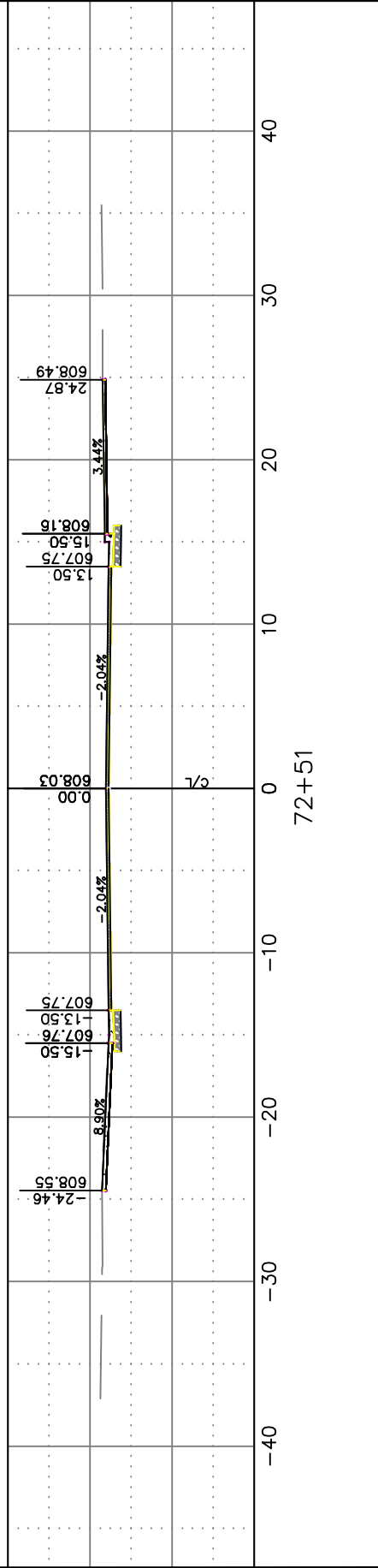
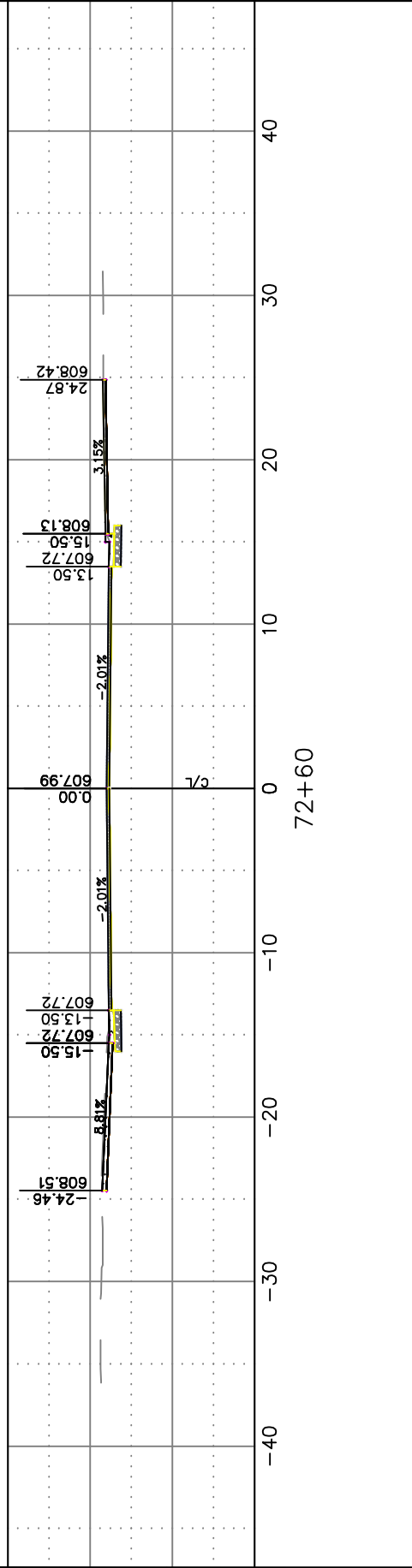
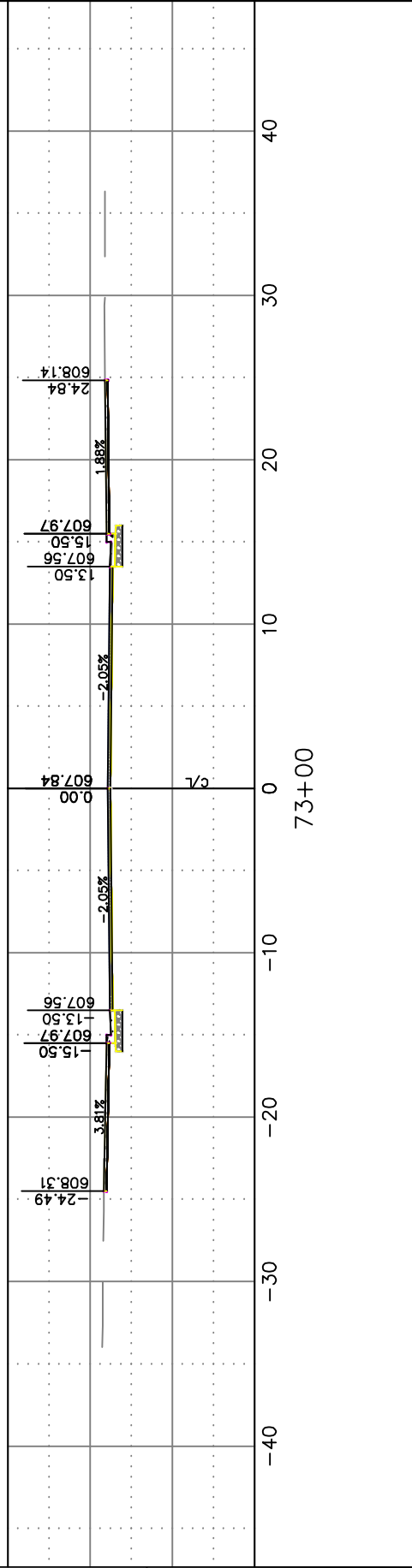
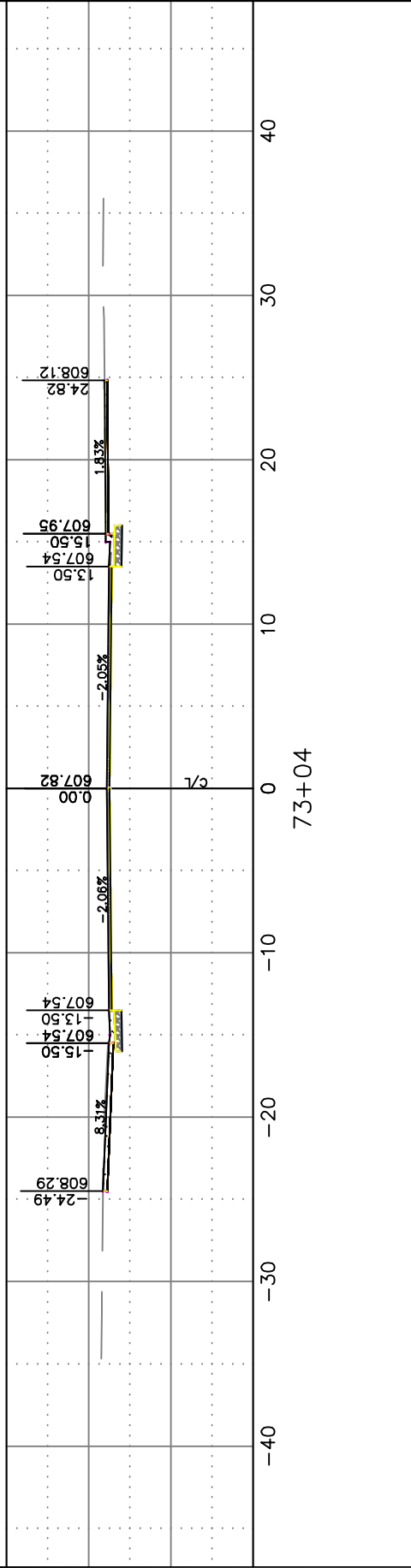
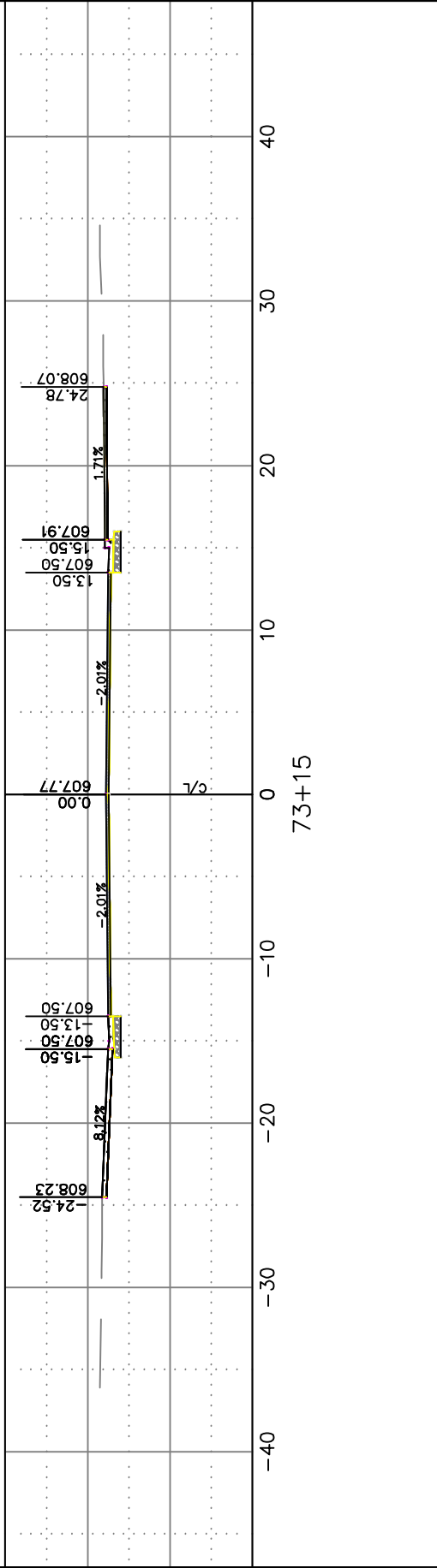
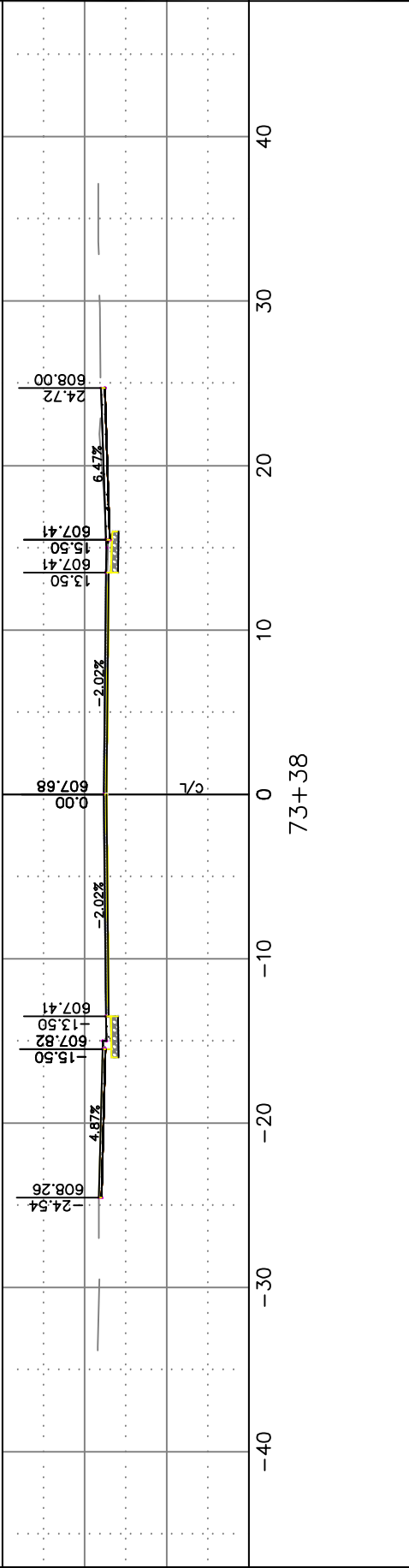
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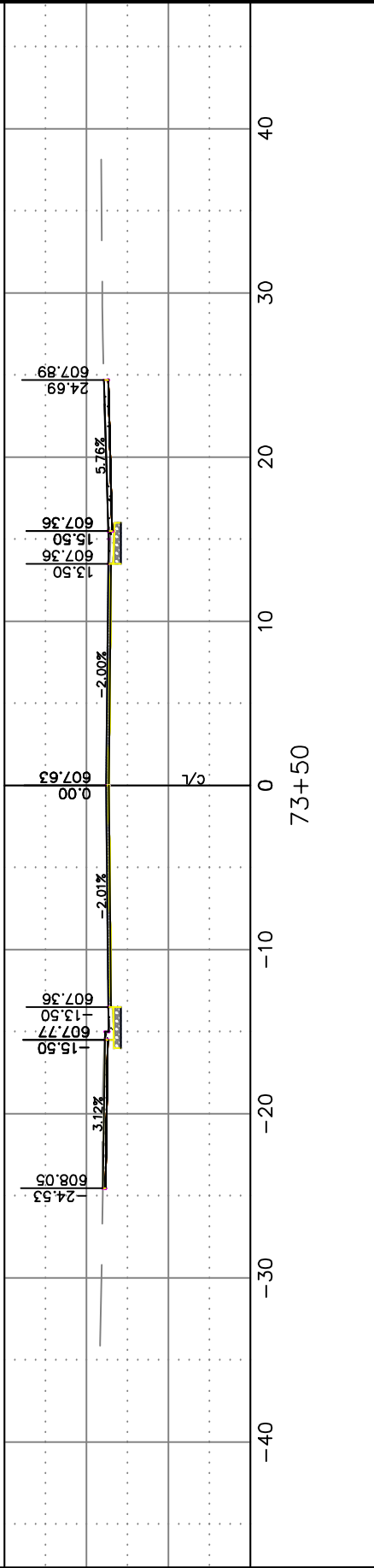
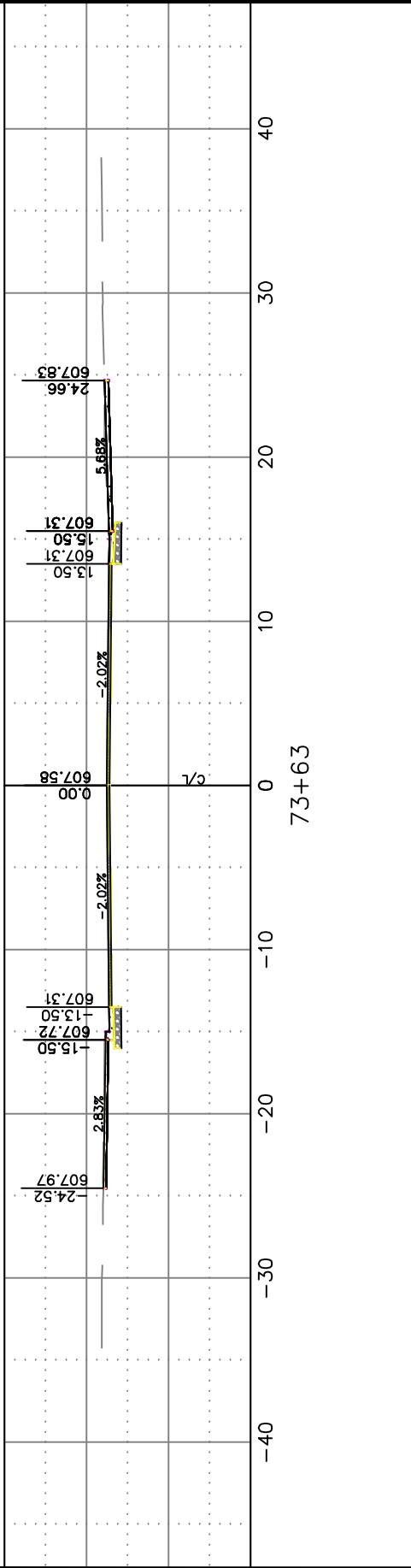
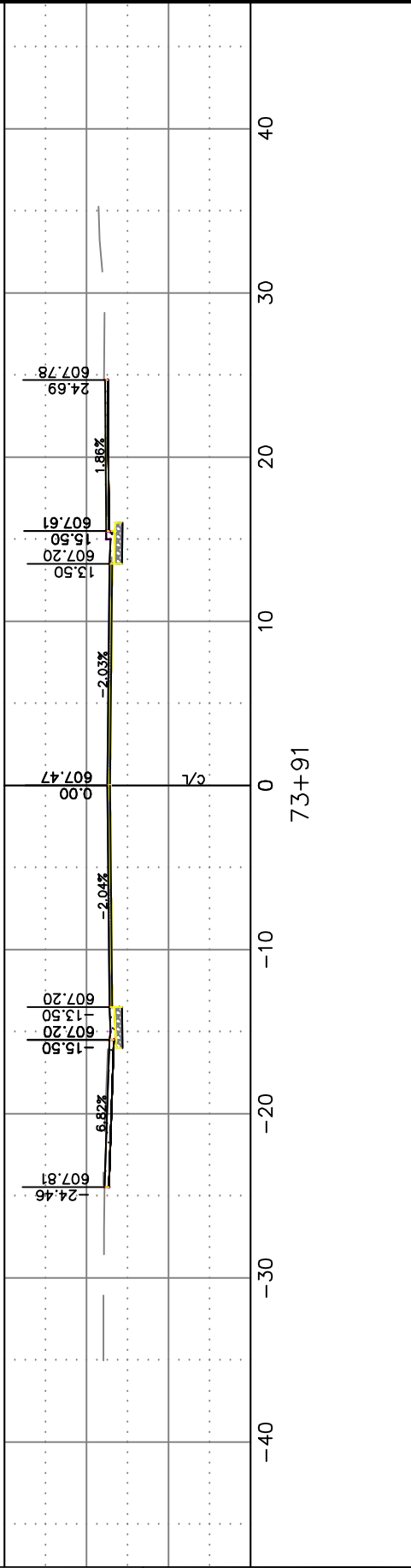
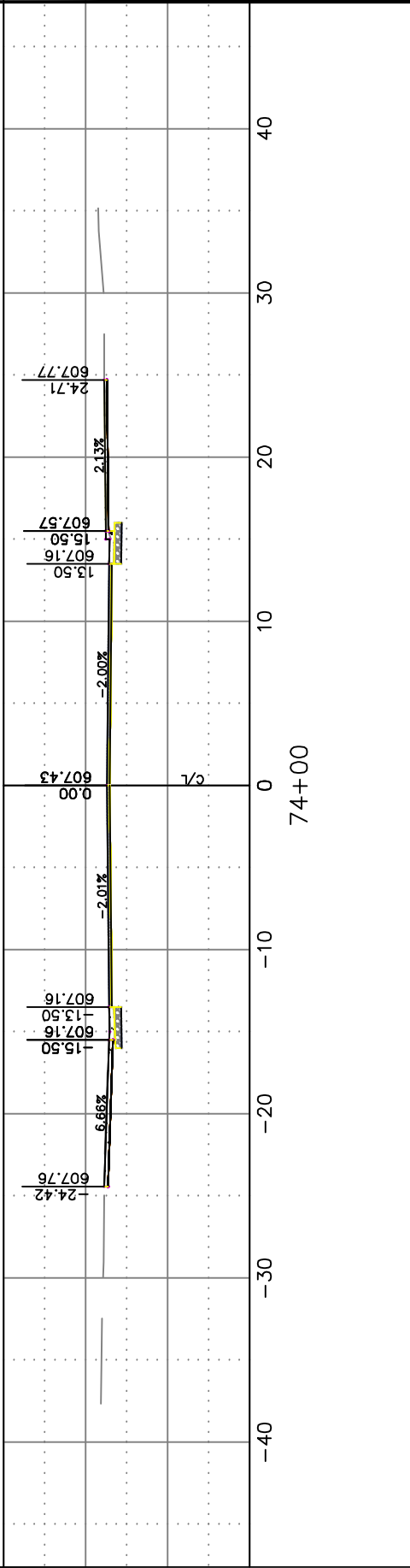
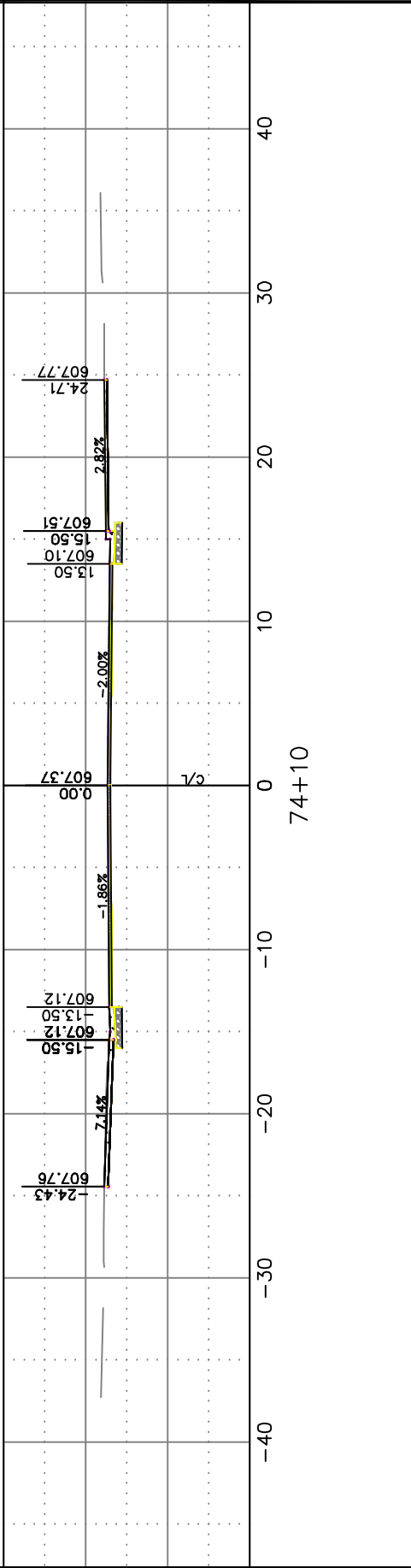
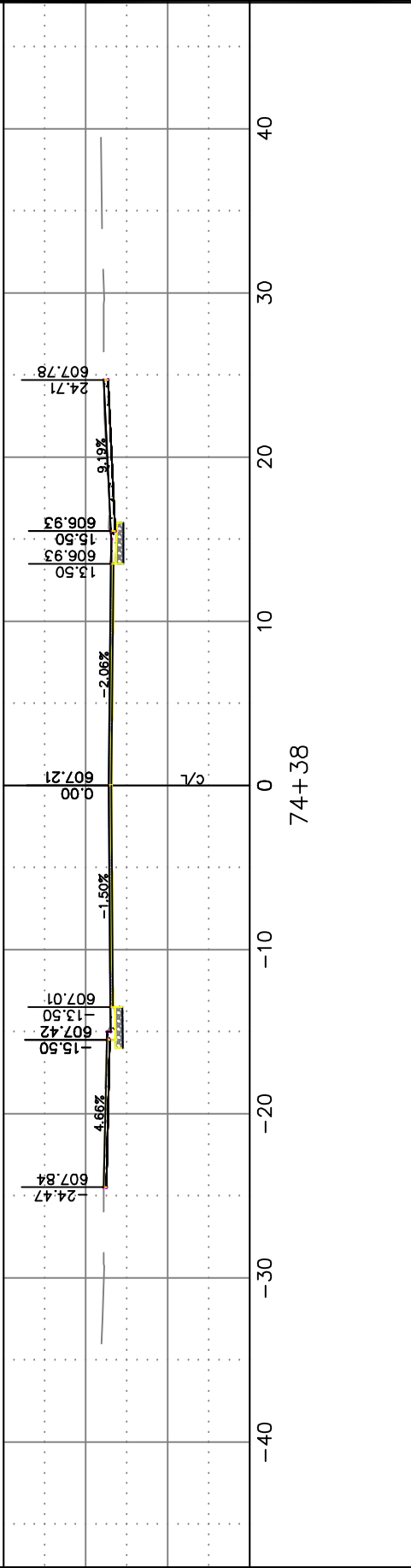
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OFFICE 920-339-4061 FAX 920-339-4071

FAIRVIEW AVENUE
CROSS SECTIONS

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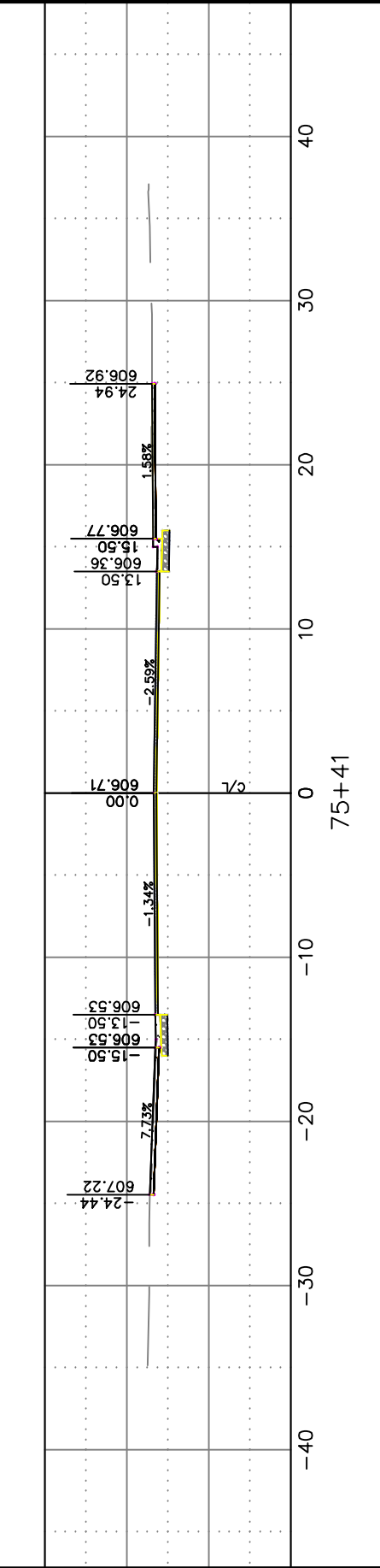
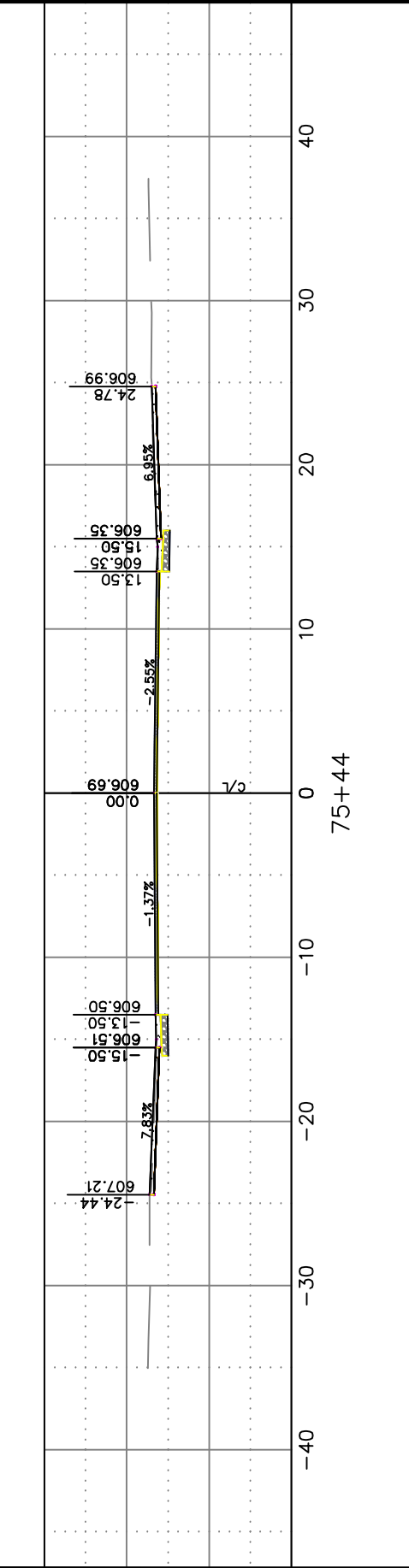
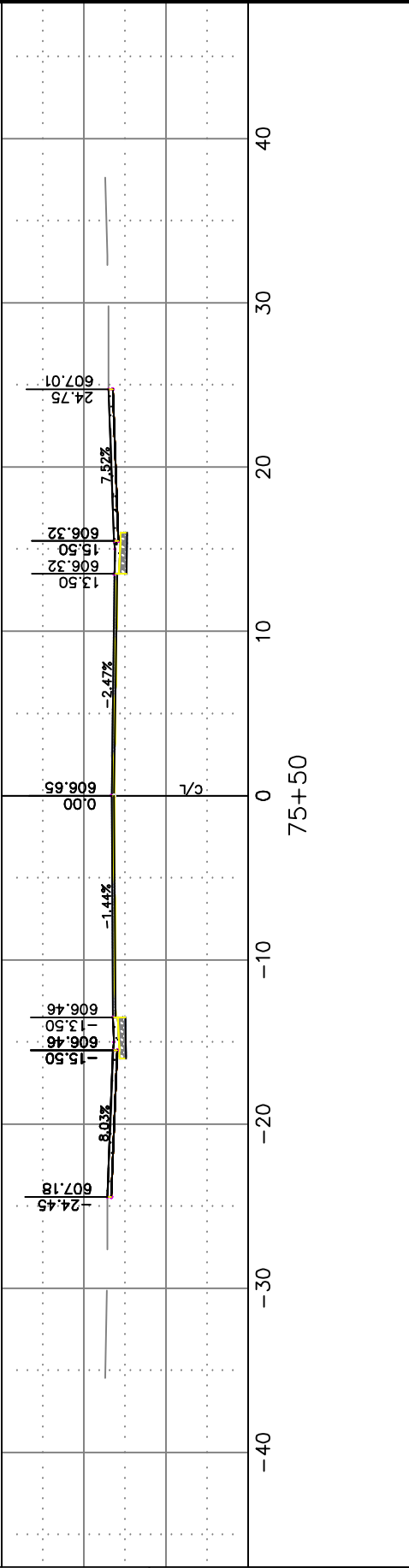
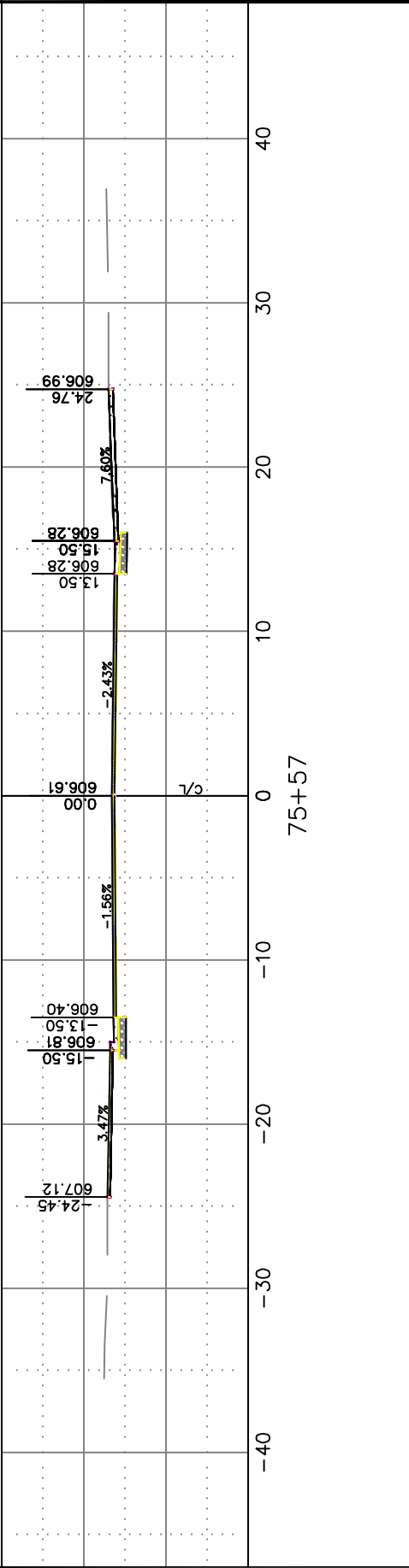
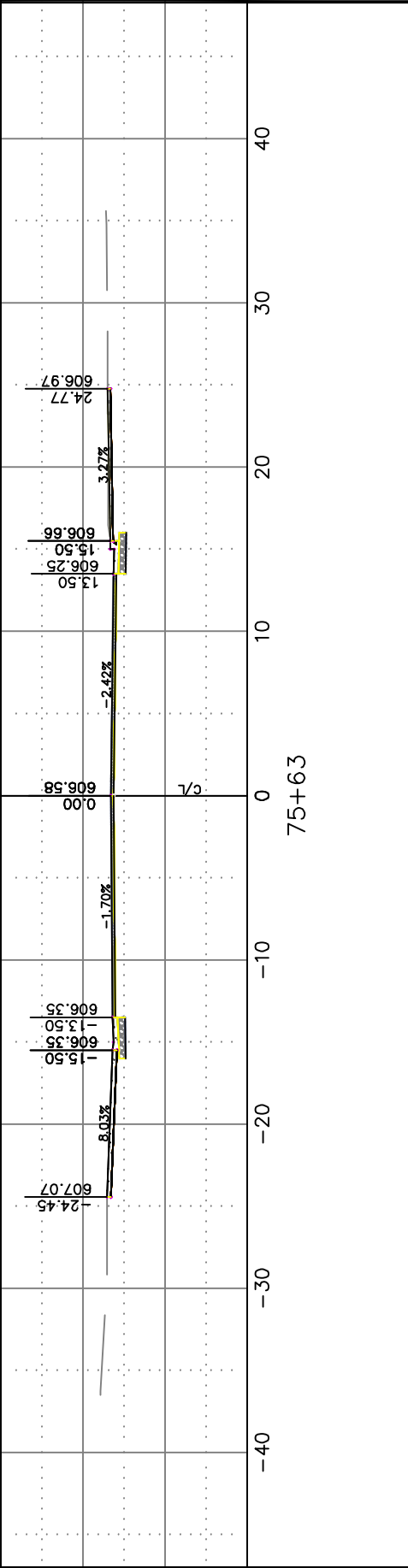
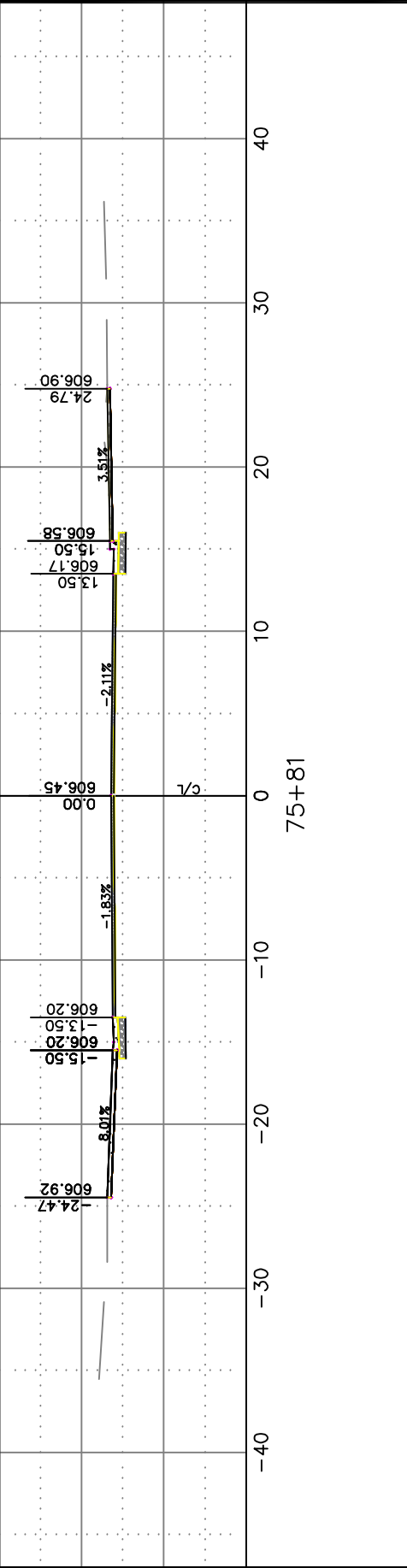
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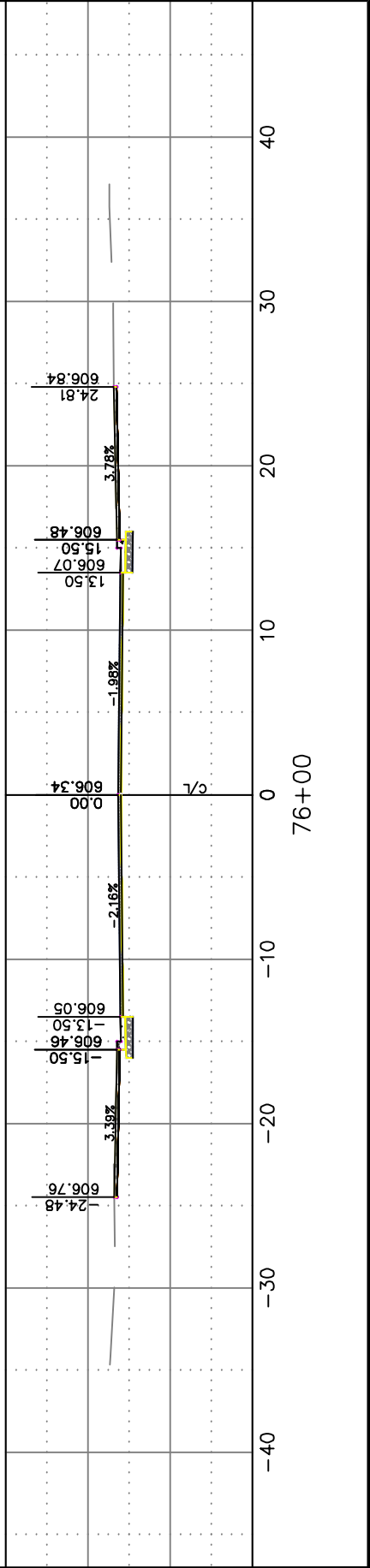
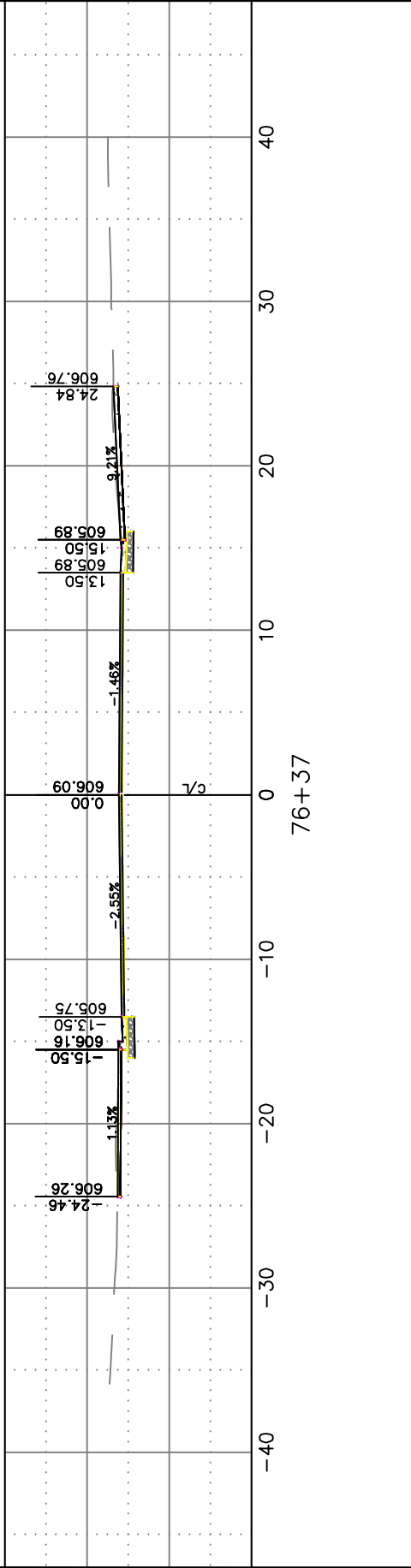
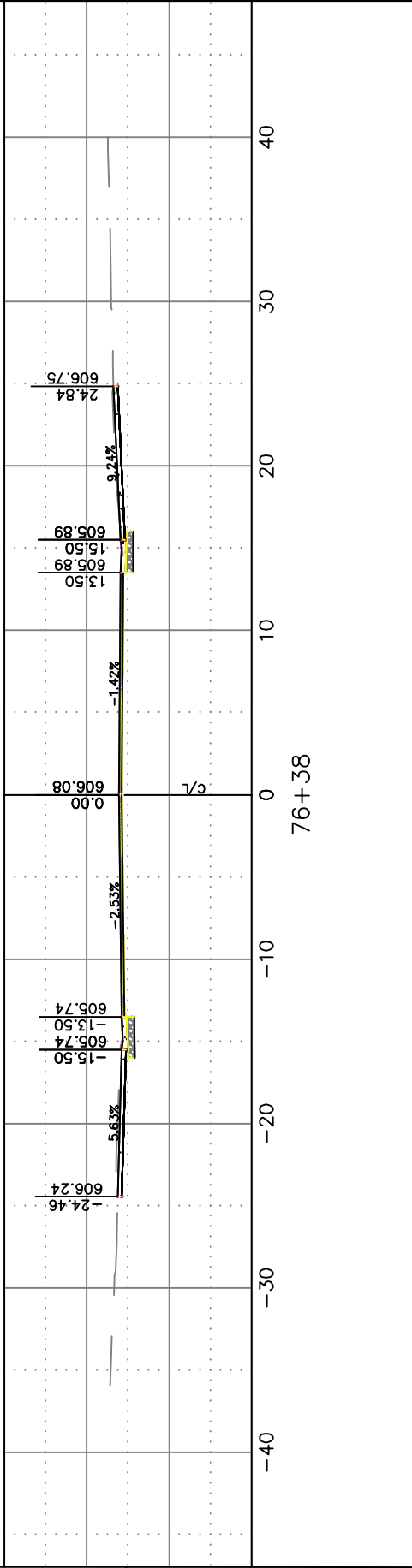
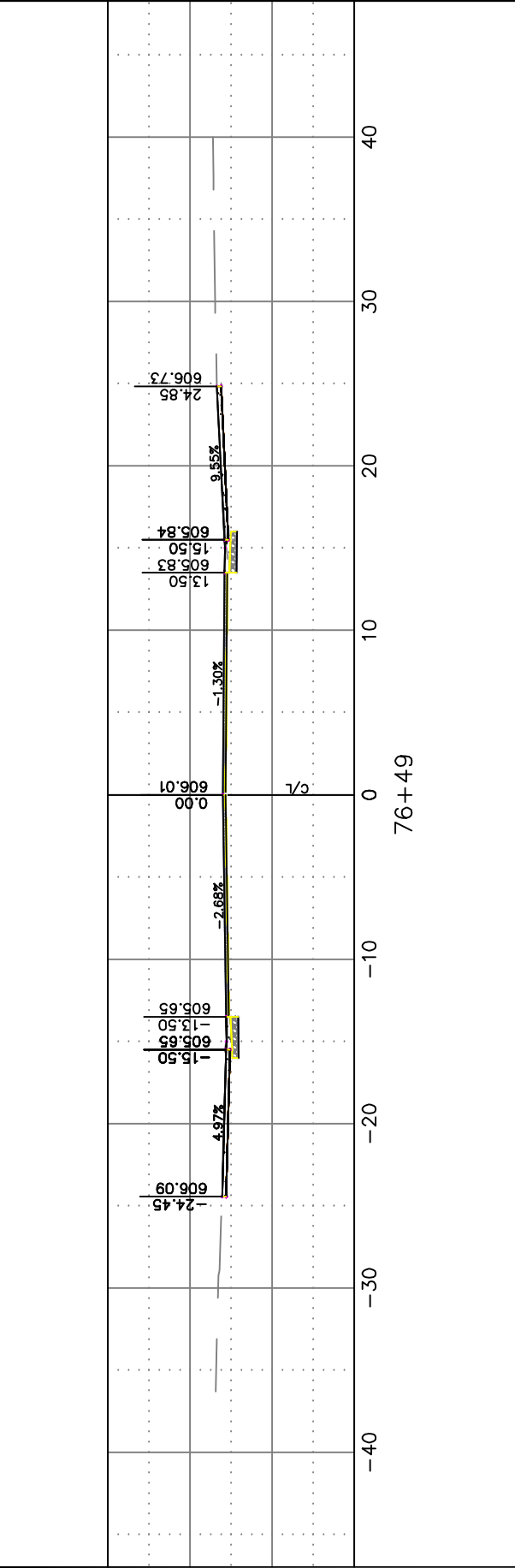
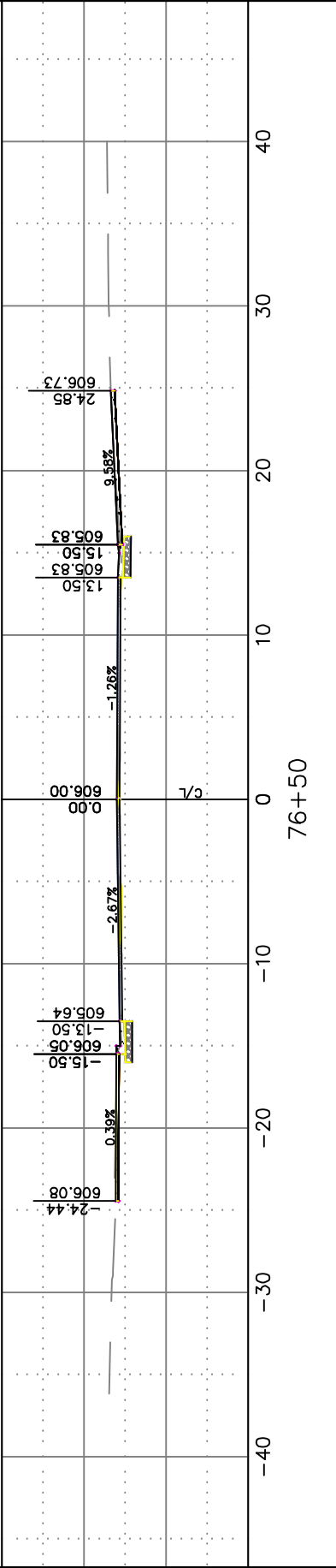
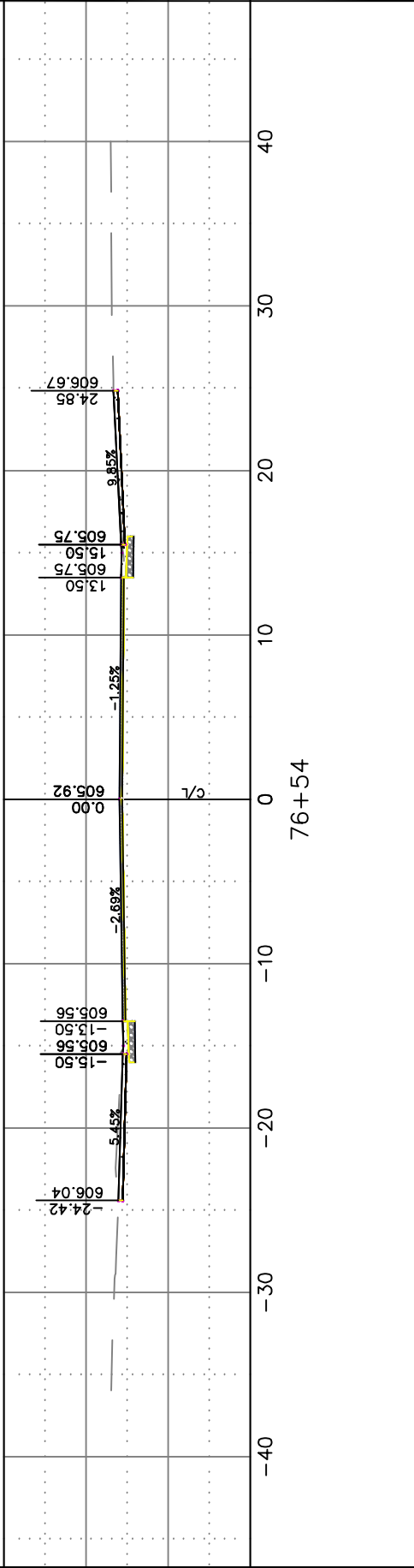


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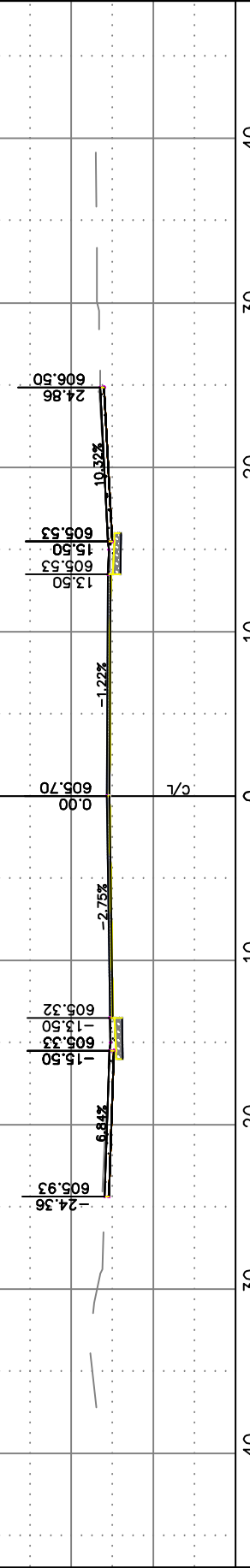
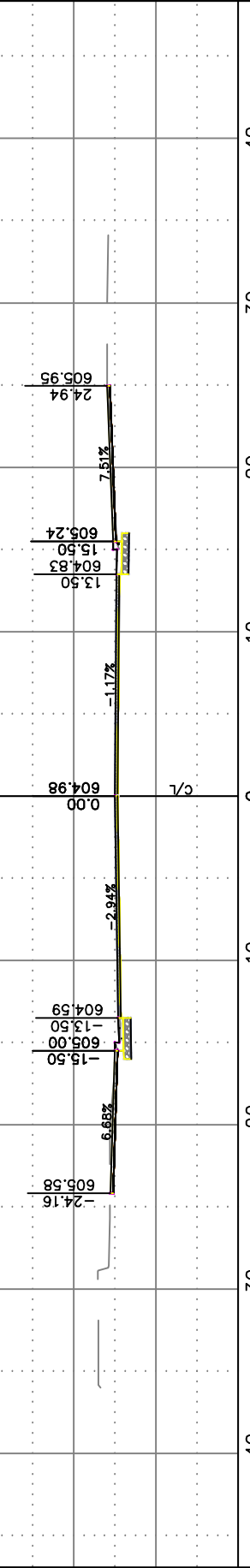
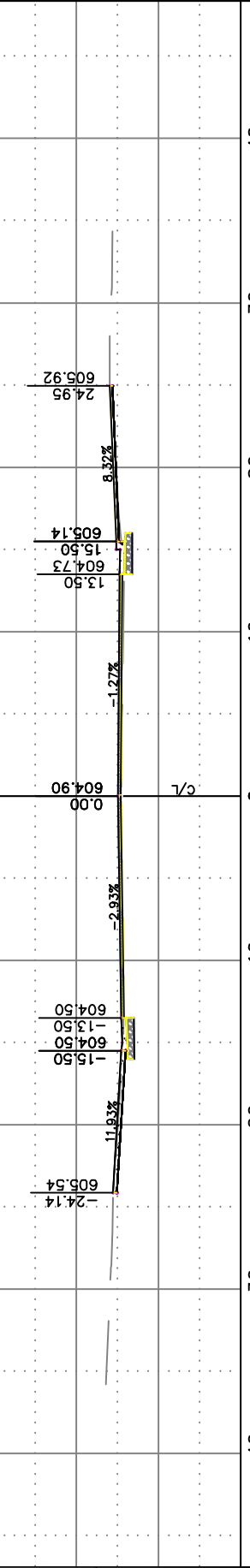
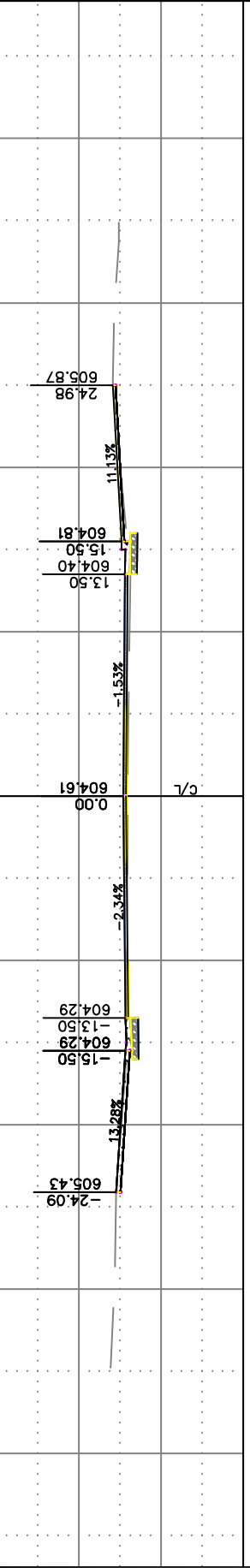
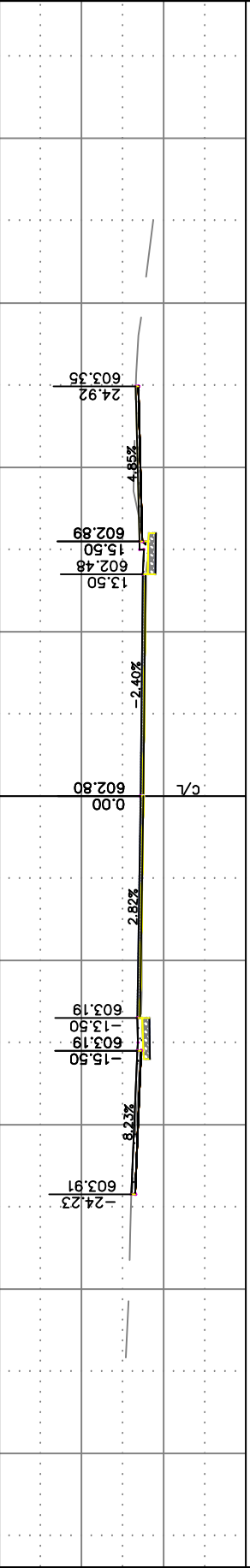
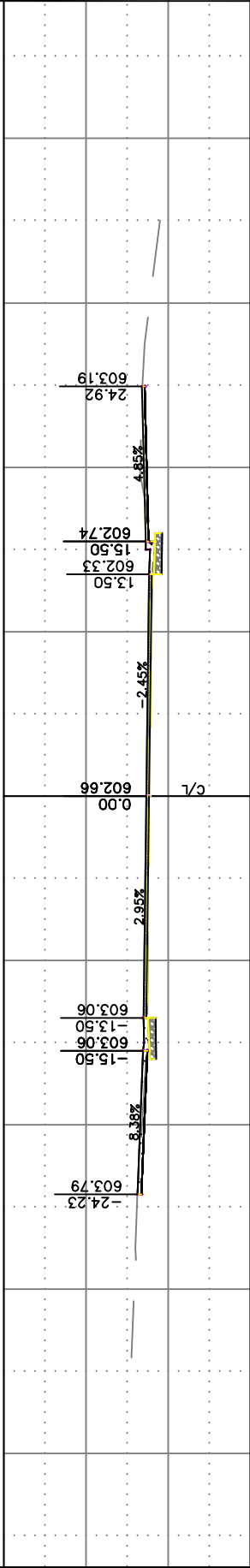


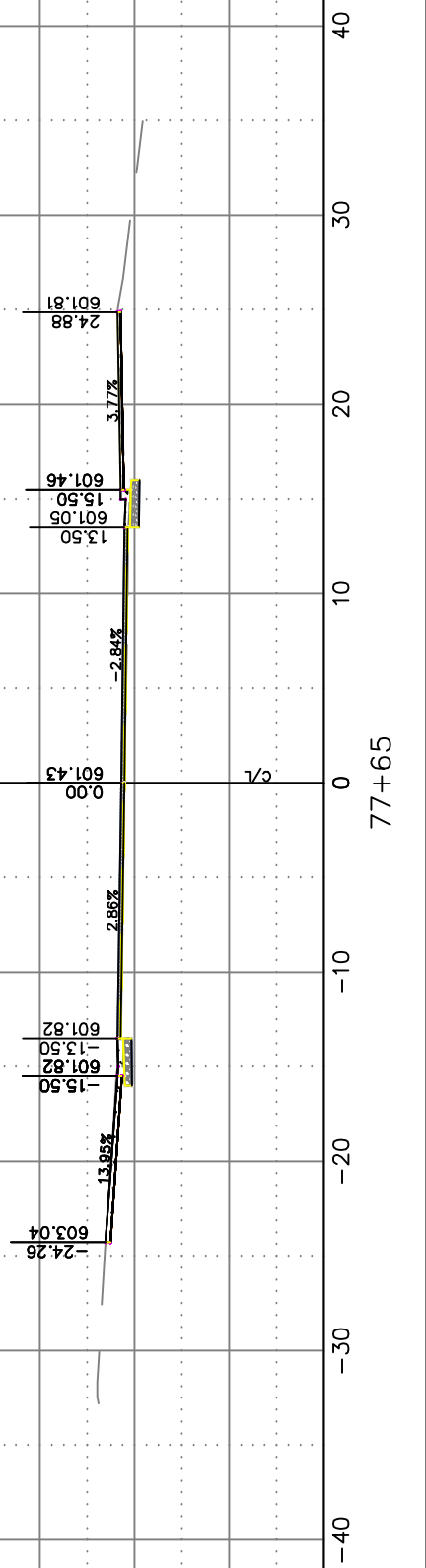
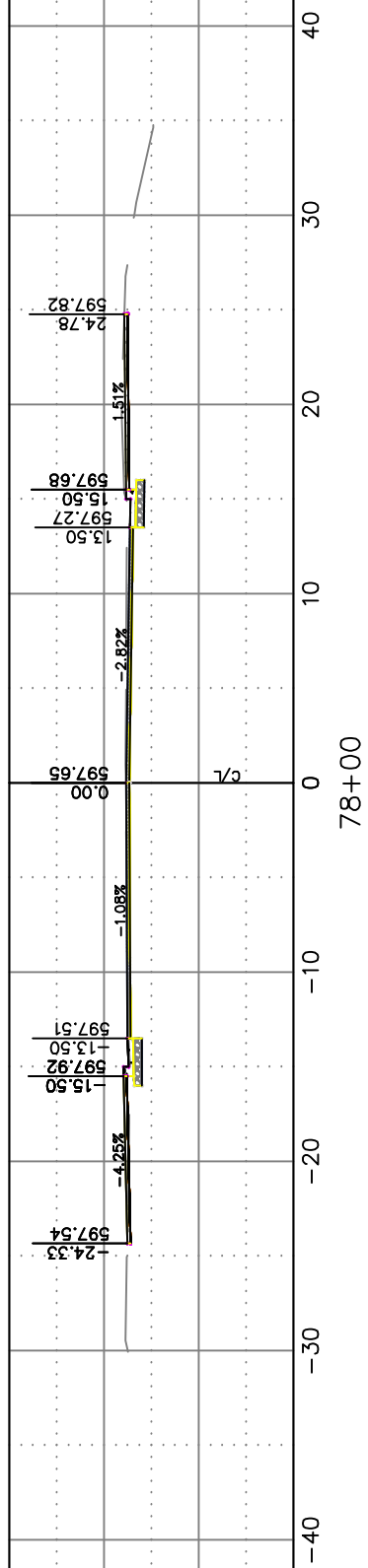
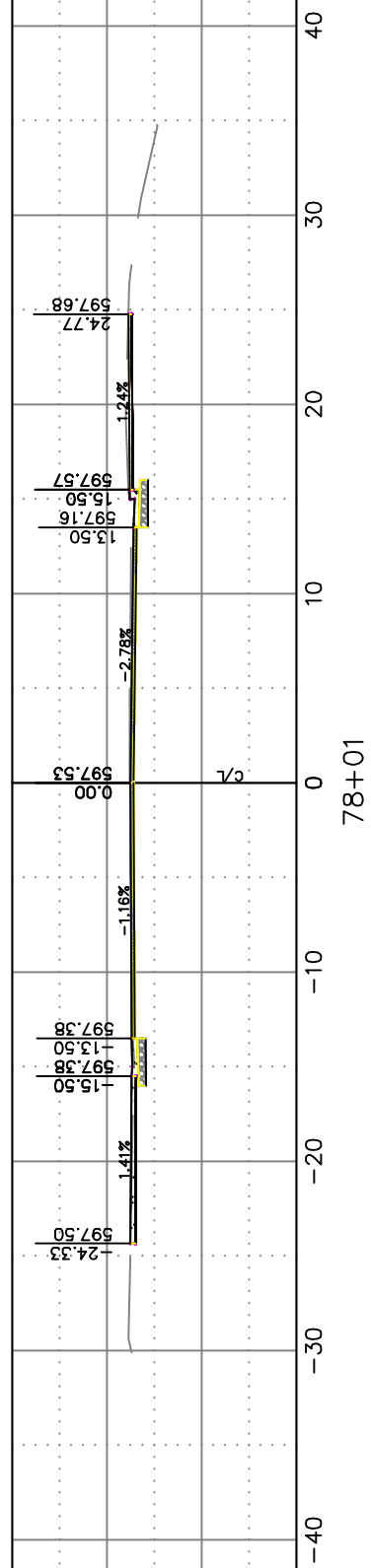
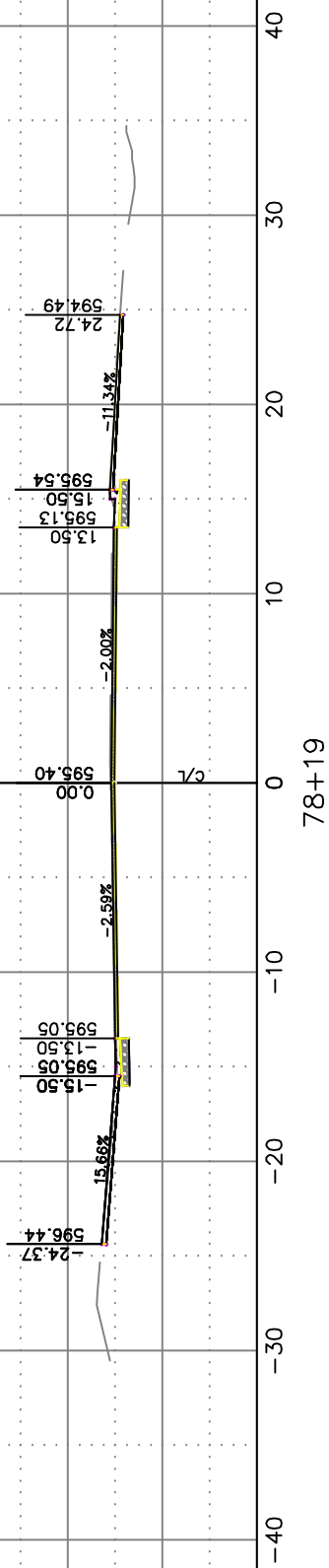
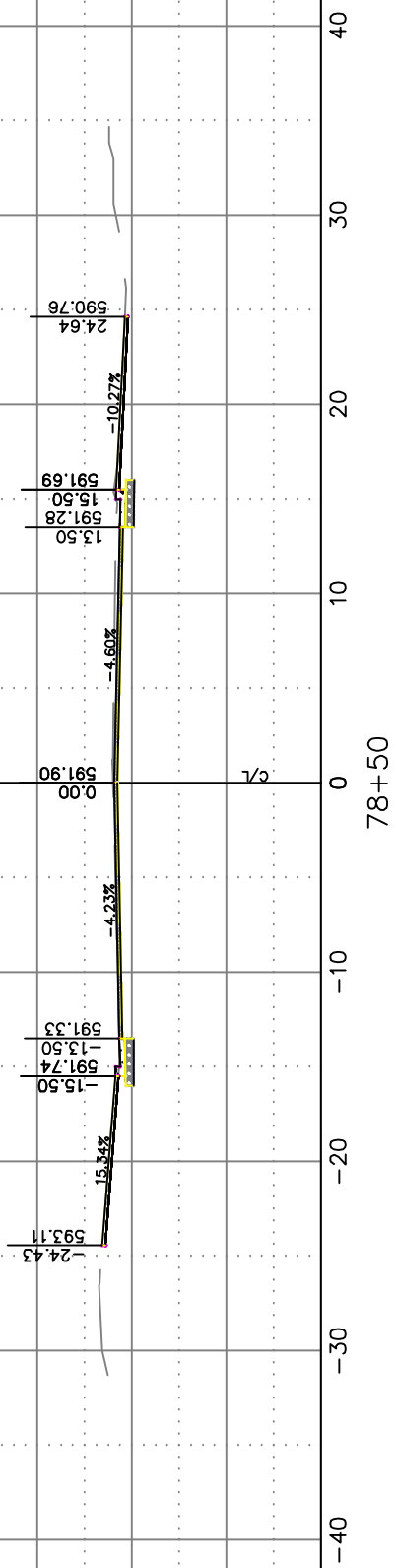
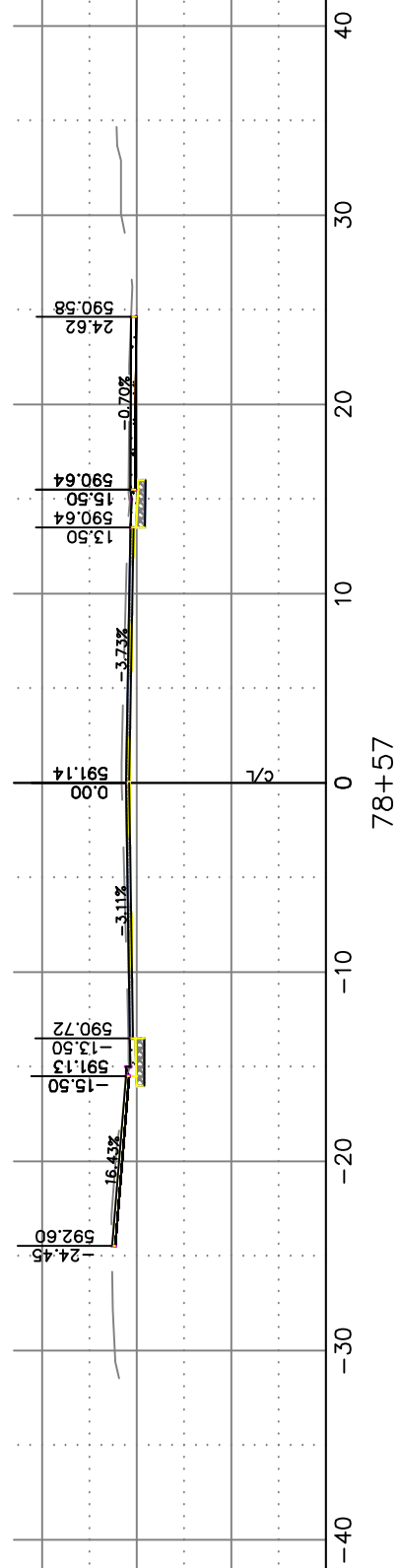
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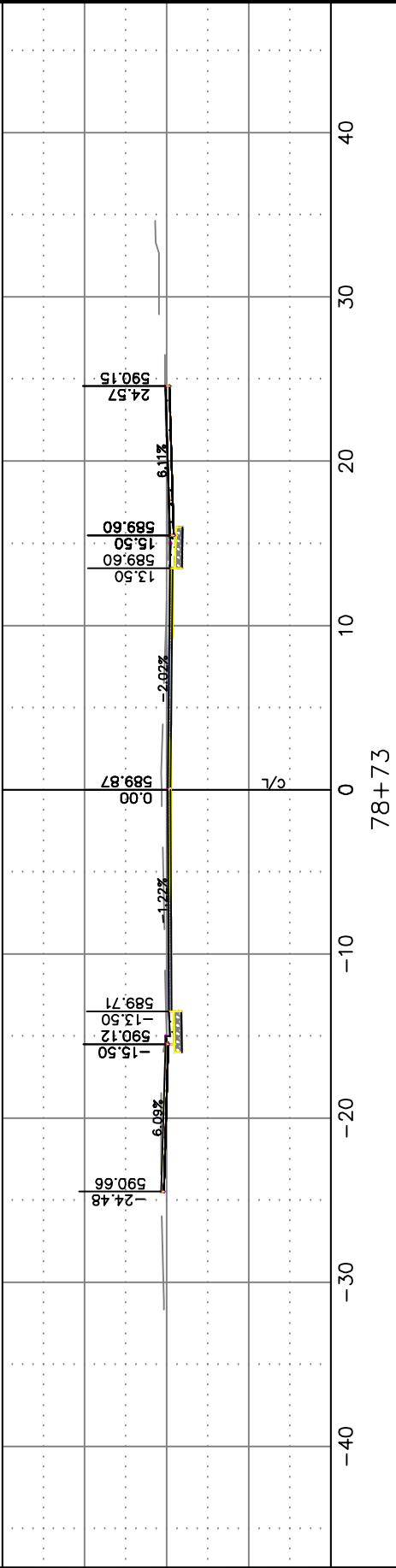
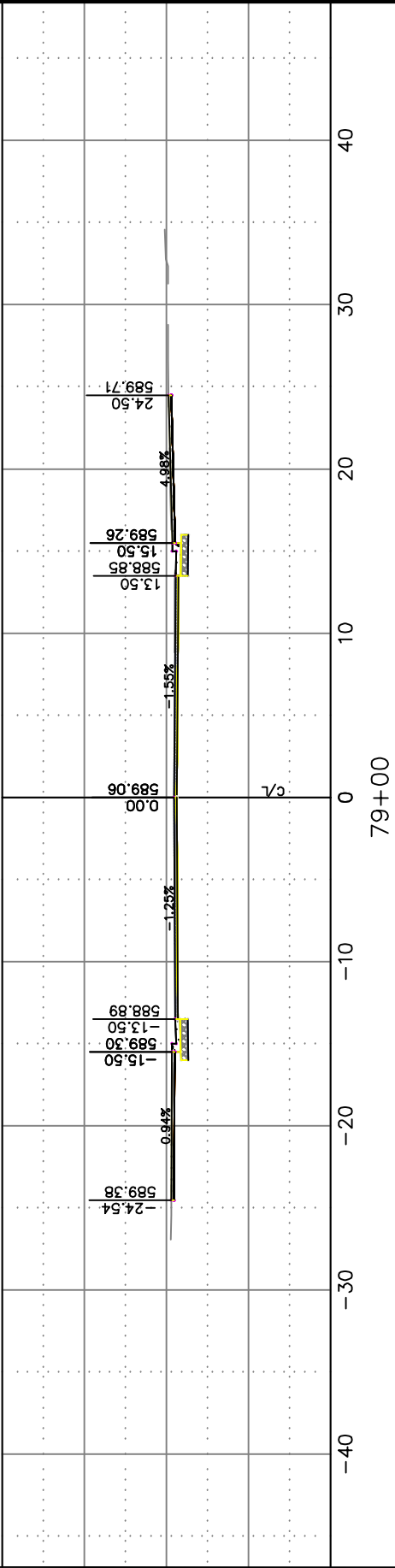
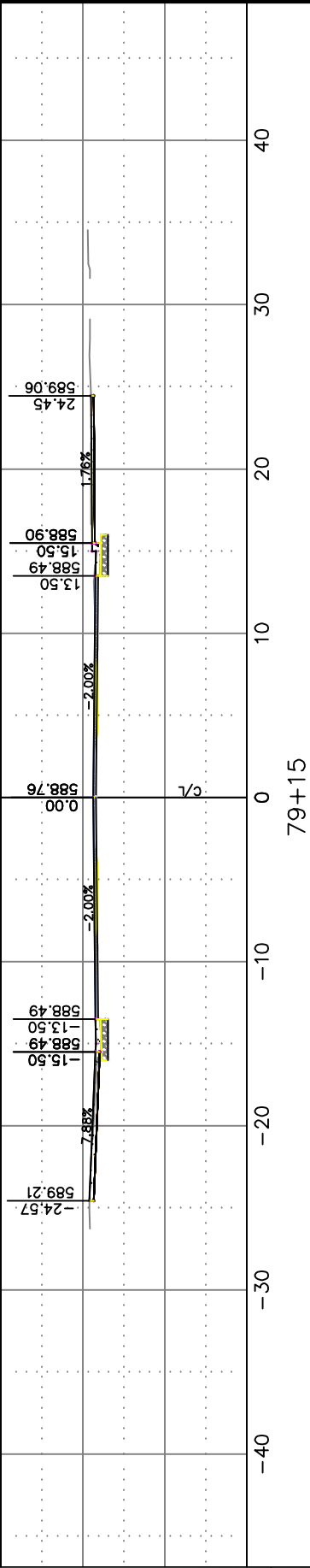
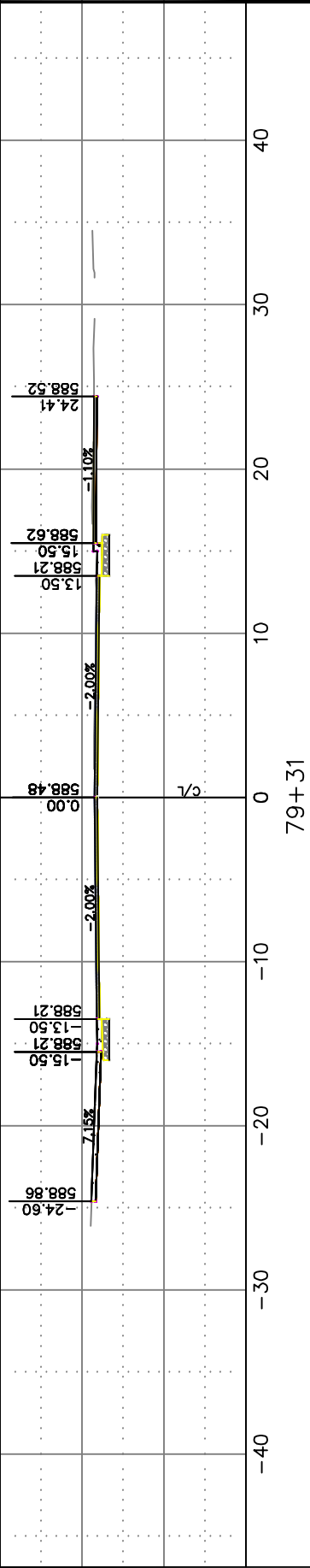
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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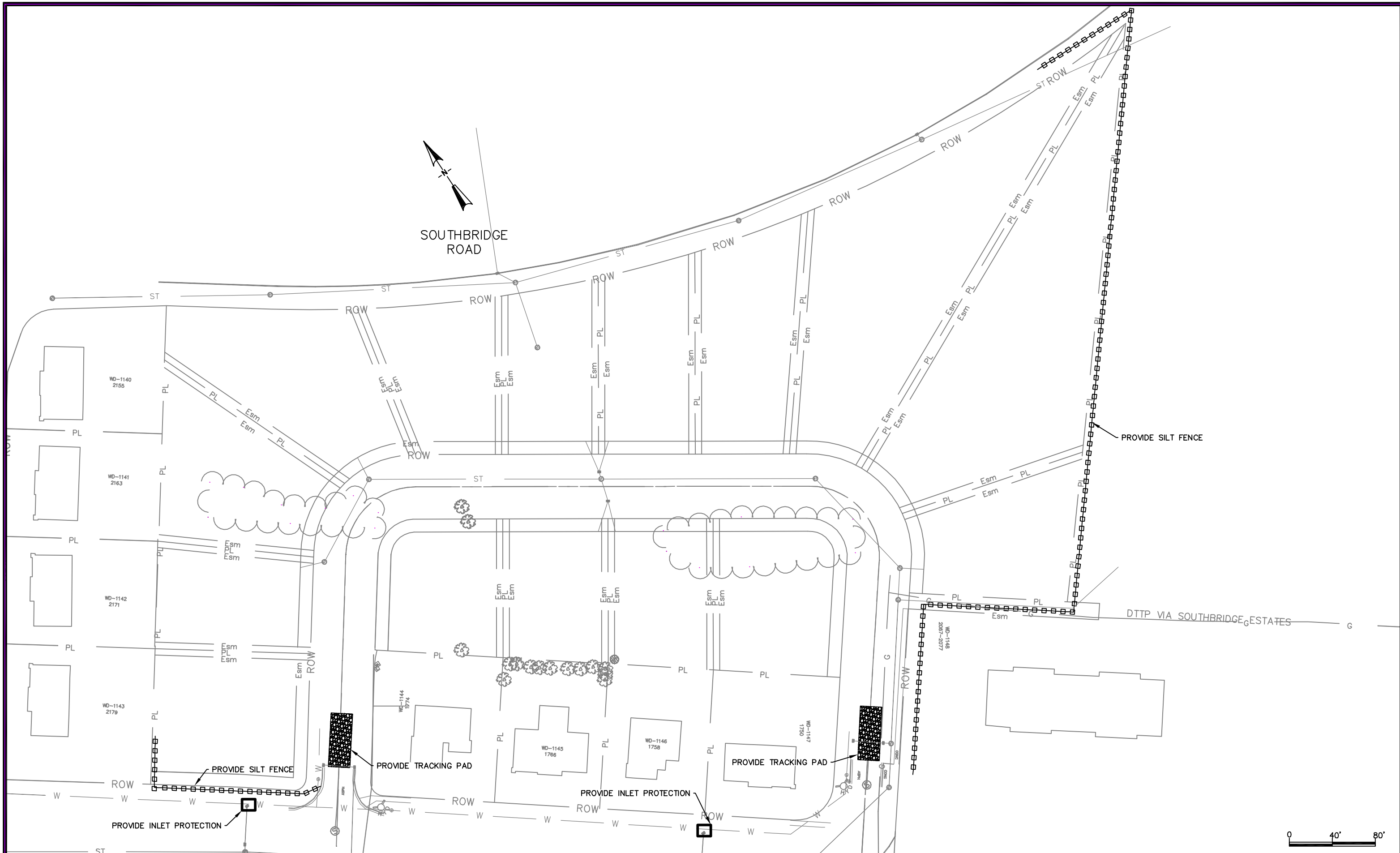
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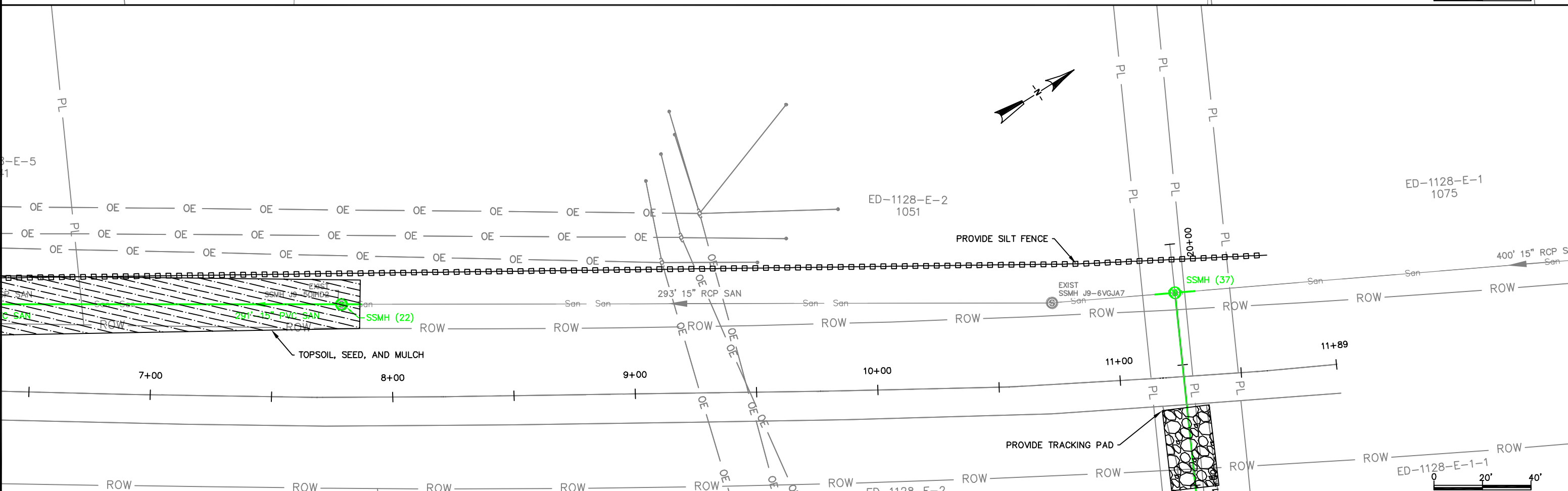
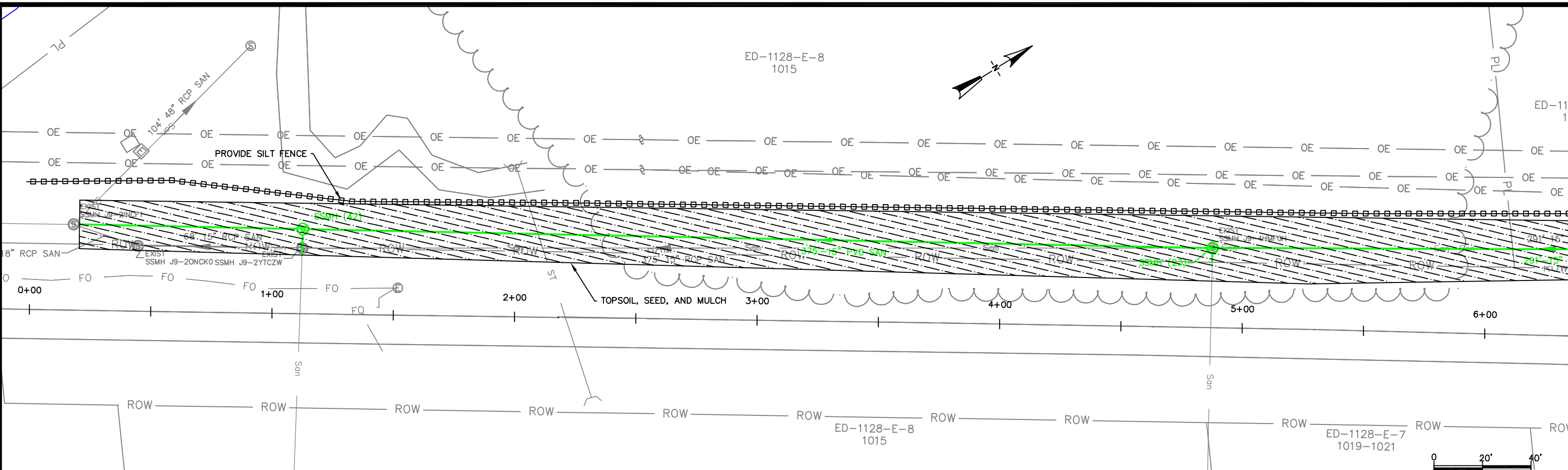
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**BRIDGEPORT CIRCLE
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			NO.	DATE	REMARKS	
SURVEYED	KAD	12-2017				60
DRAWN	KAD	12-2017				
DESIGNED	KAD	12-2017				
CHECKED	CKK	12-2017				



CITY OF DE PERE

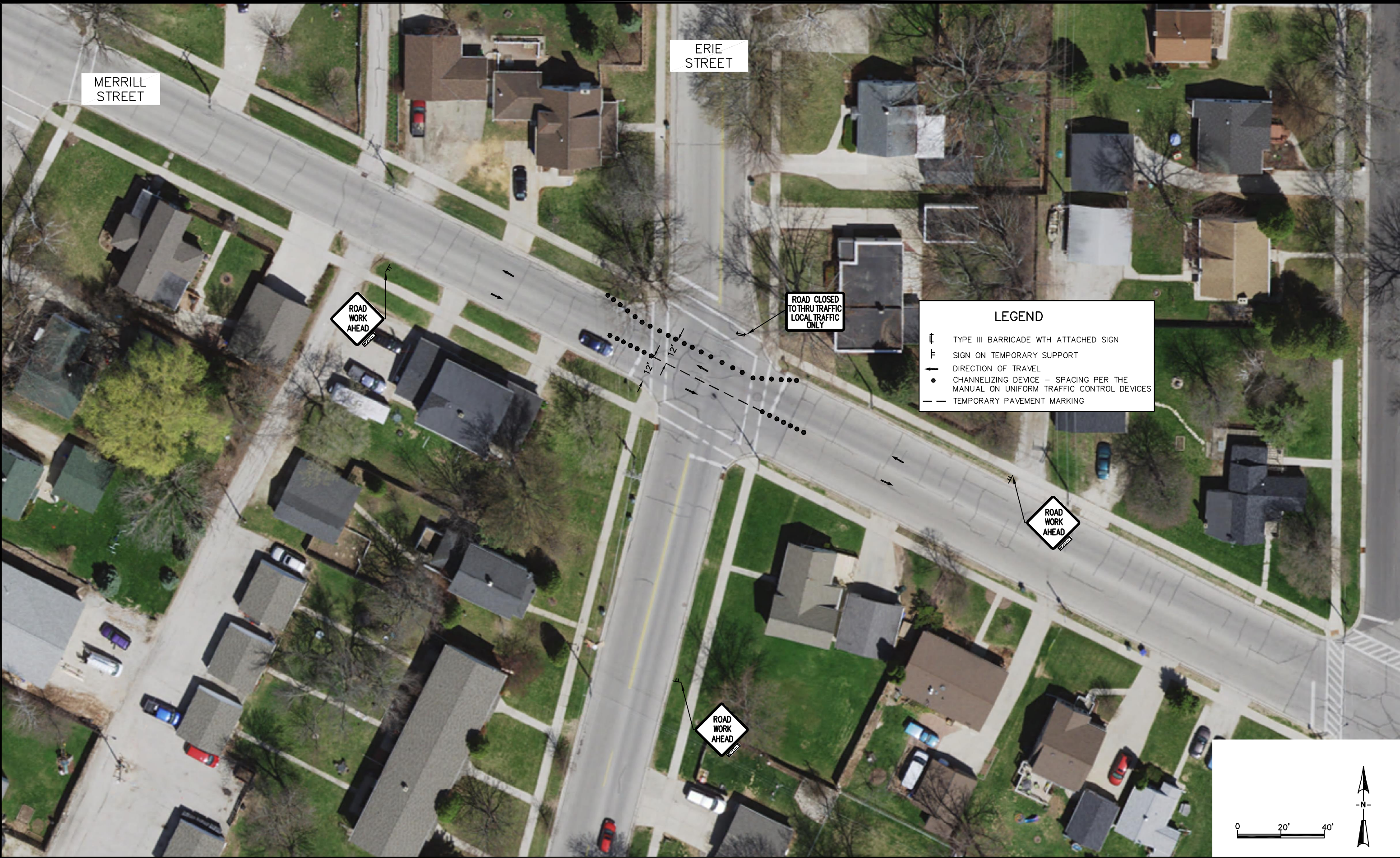
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**FOX RIVER TRAIL
EROSION CONTROL PLAN**

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 18-01

SURVEYED	MAL	06-2017
DRAWN	MAL	06-2017
DESIGNED	MAL	07-2017
CHECKED	CKK	07-2017

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS



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OFFICE 920-339-4061 FAX 920-339-4071

**ERIE STREET
ERIE STREET AND MERRILL STREET
TRAFFIC CONTROL**

NAME: SEWER AND WATER RELAY AND STREET RESURFACING PROJECT #	BY	DATE	REVISIONS / ISSUES				PAGE NO. 62
			NO.	DATE	BY	REMARKS	
18-01	KAD	02-2018					
	CKK	02-2018					
	CKK	02-2018					



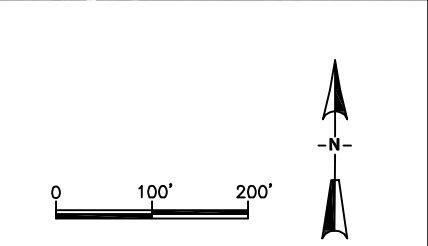
LEGEND

⦿

TYPE III BARRICADE WITH ATTACHED SIGN

⦿

SIGN ON TEMPORARY SUPPORT



CITY OF DE PERE

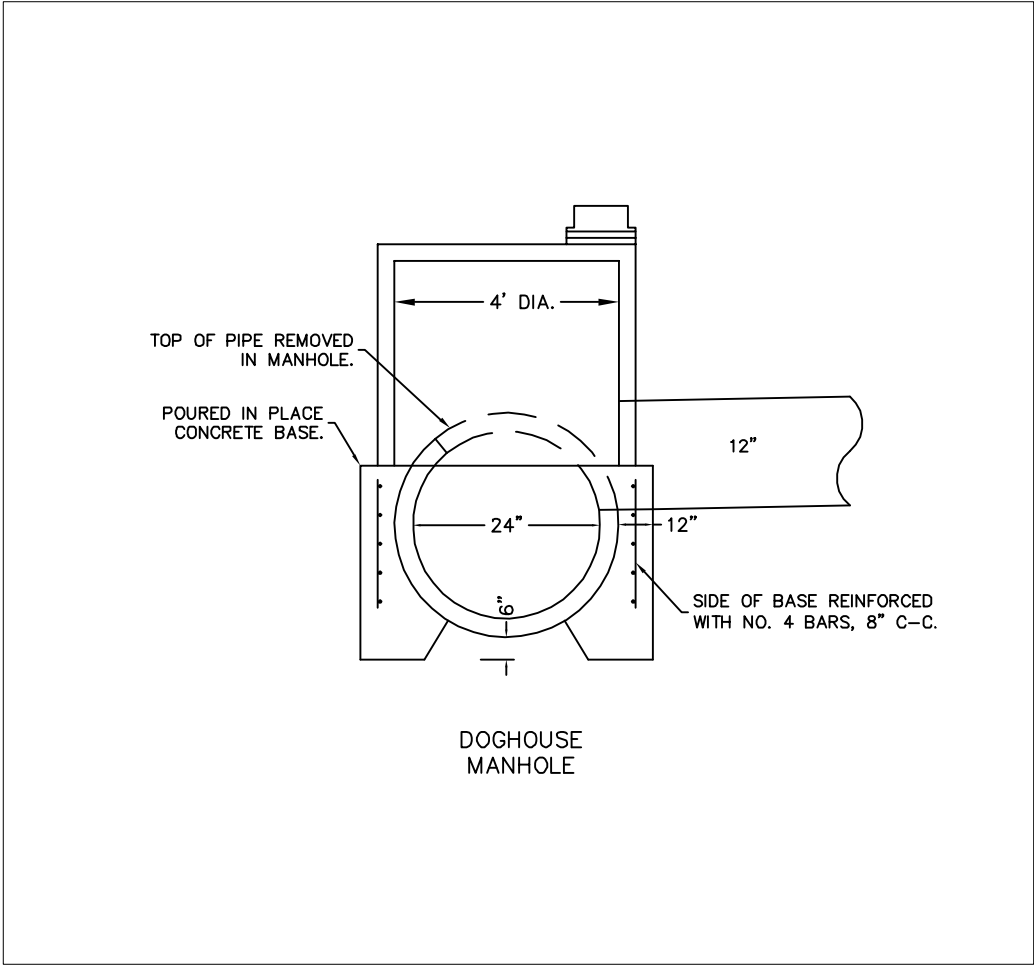
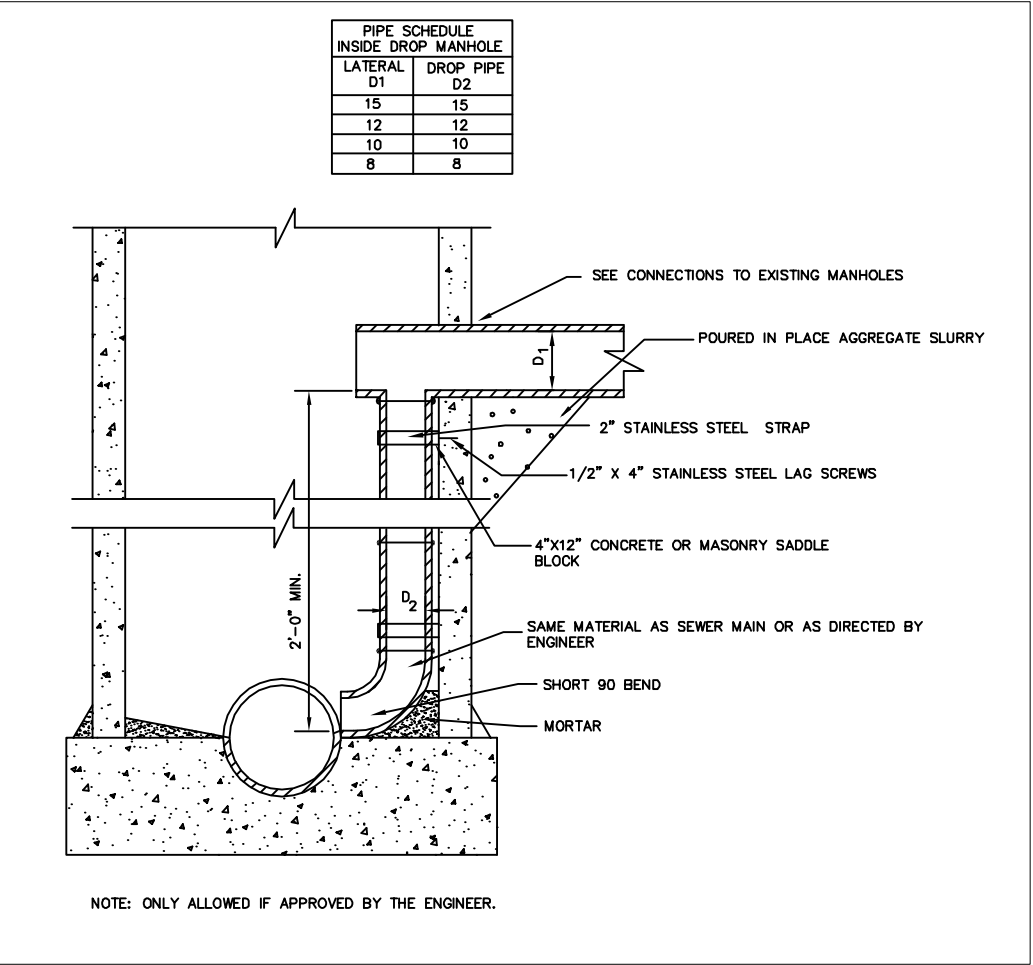
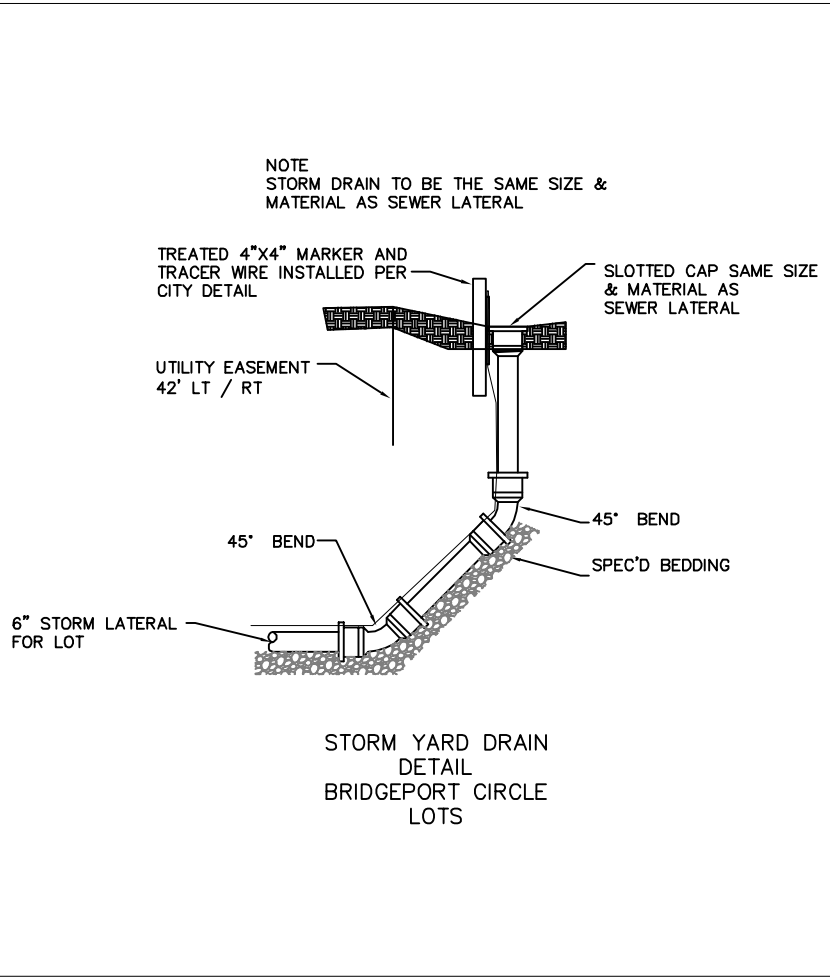
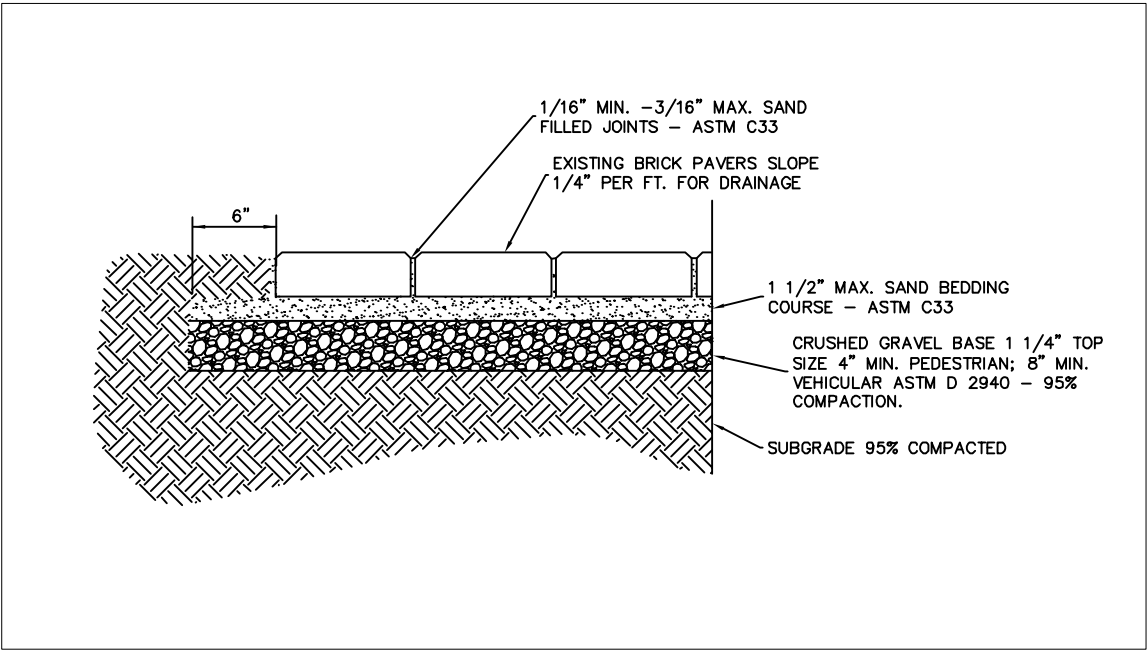
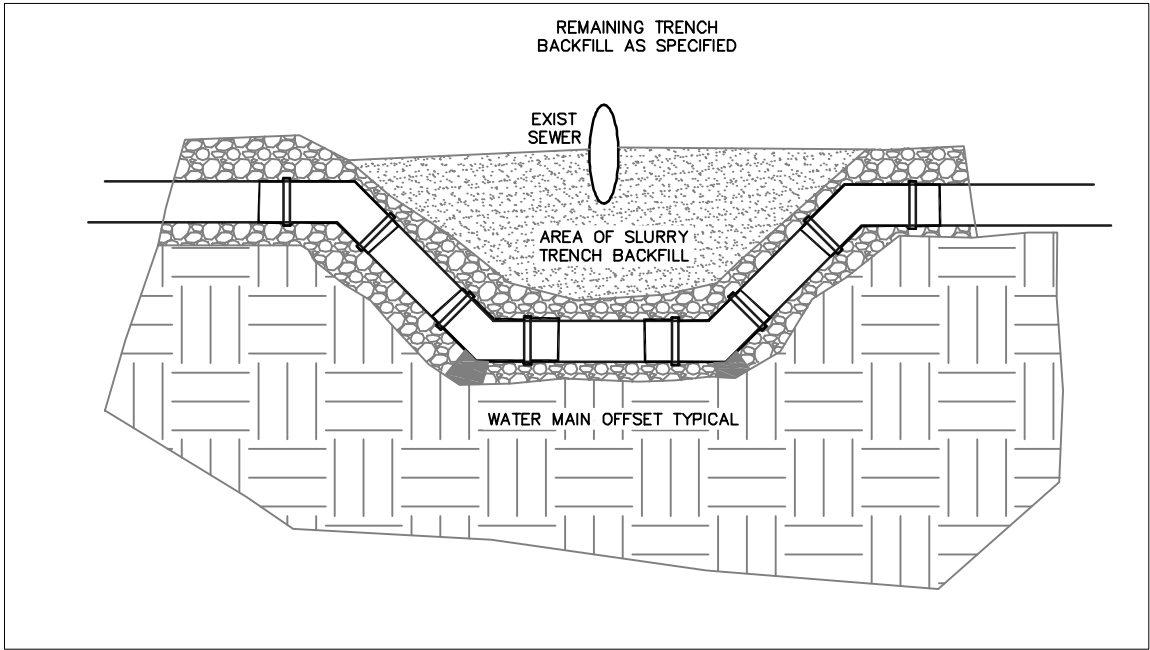
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

ERIE STREET
DETOUR ROUTE
TRAFFIC CONTROL

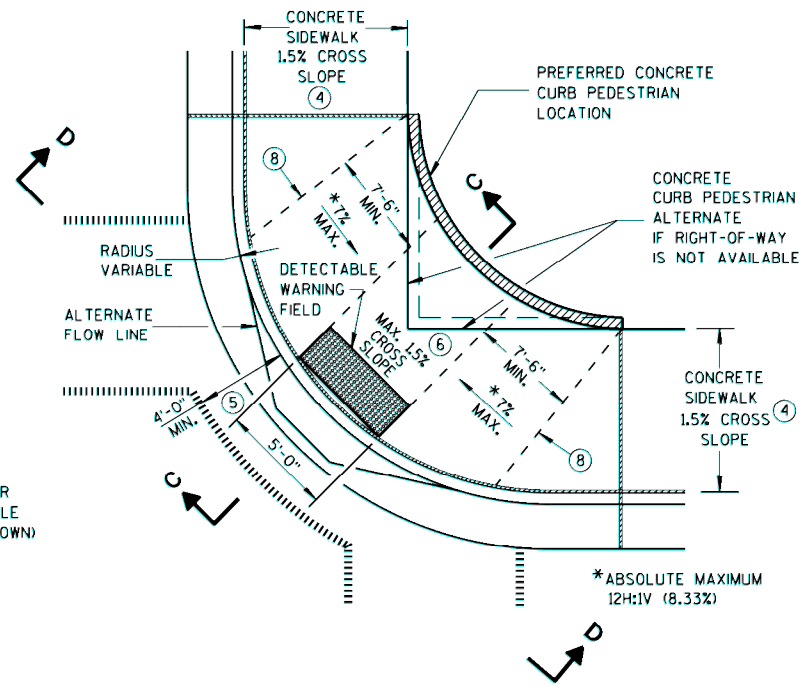
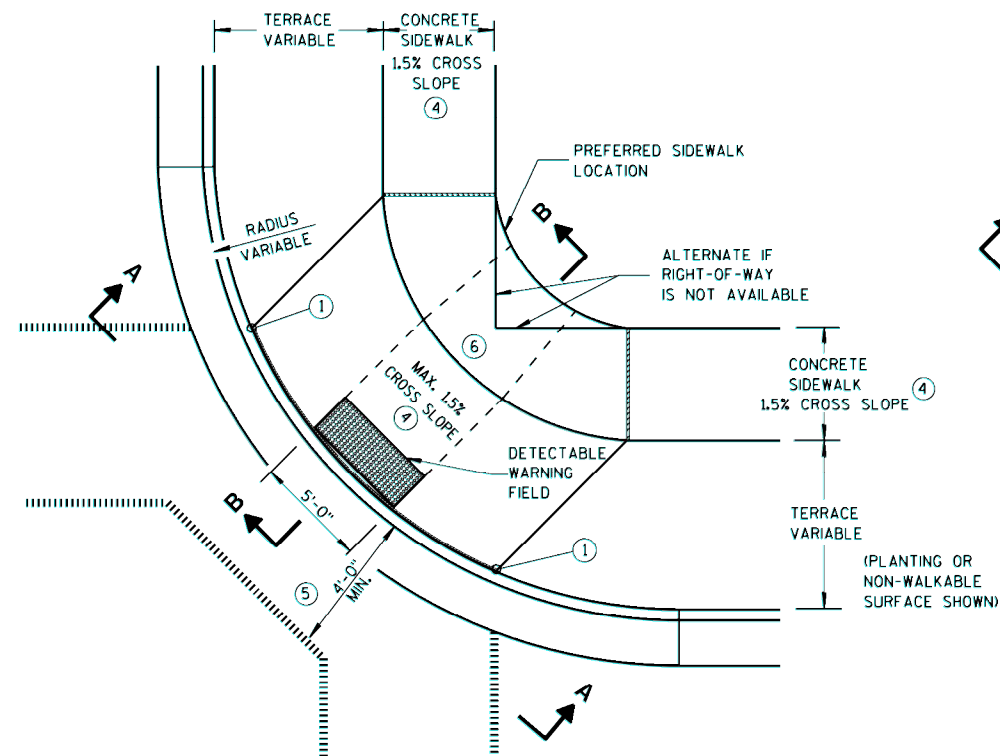
NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
18-01

	BY	DATE
SURVEYED		
DRAWN	KAD	02-2018
DESIGNED	CKK	02-2018
CHECKED	CKK	02-2018

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS



	BY	DATE	REVISIONS / ISSUES			
			NO.	DATE	BY	REMARKS
SURVEYED						
DRAWN	KAD	01-2018				
DESIGNED	KAD	01-2018				
CHECKED	CKK	01-2018				



GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

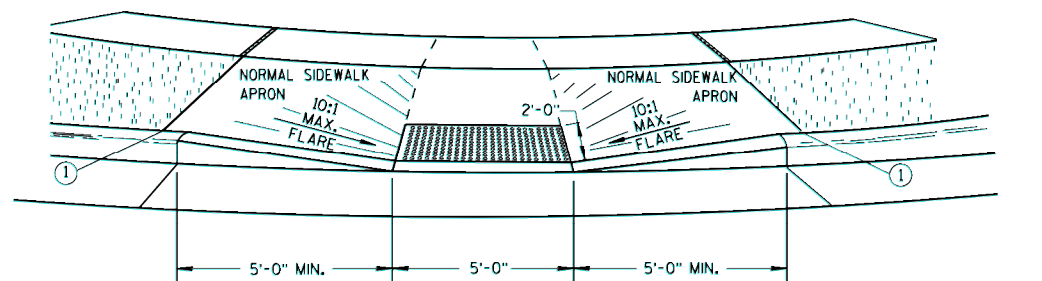
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

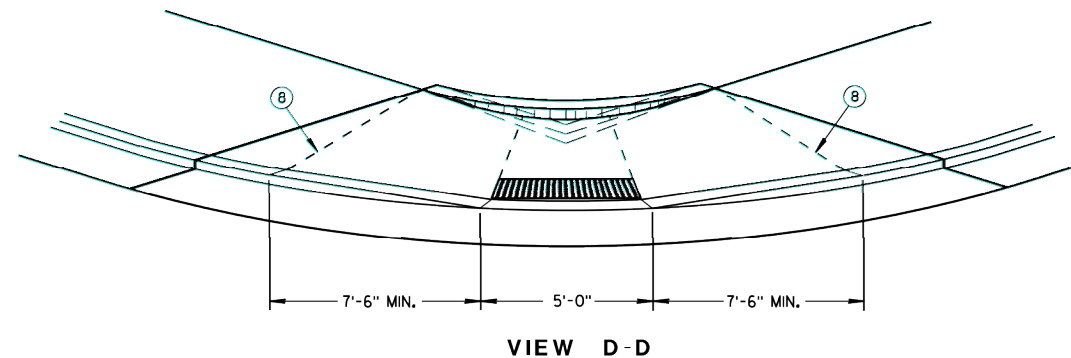
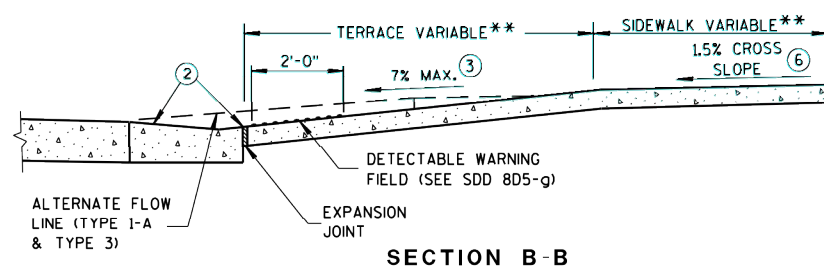
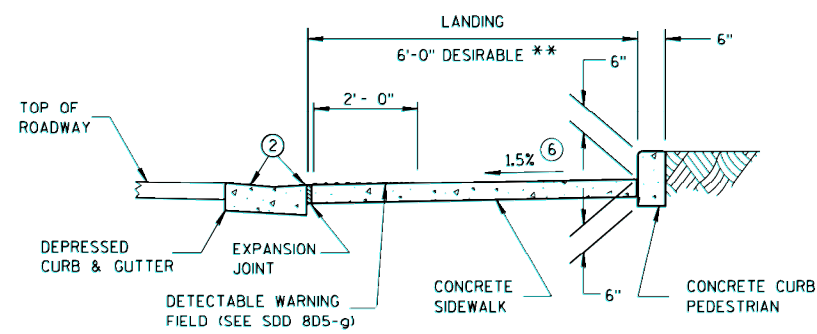
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



** WIDTH SHOWN ELSEWHERE IN THE PLANS



CURB RAMPS
TYPES 1 AND 1-A



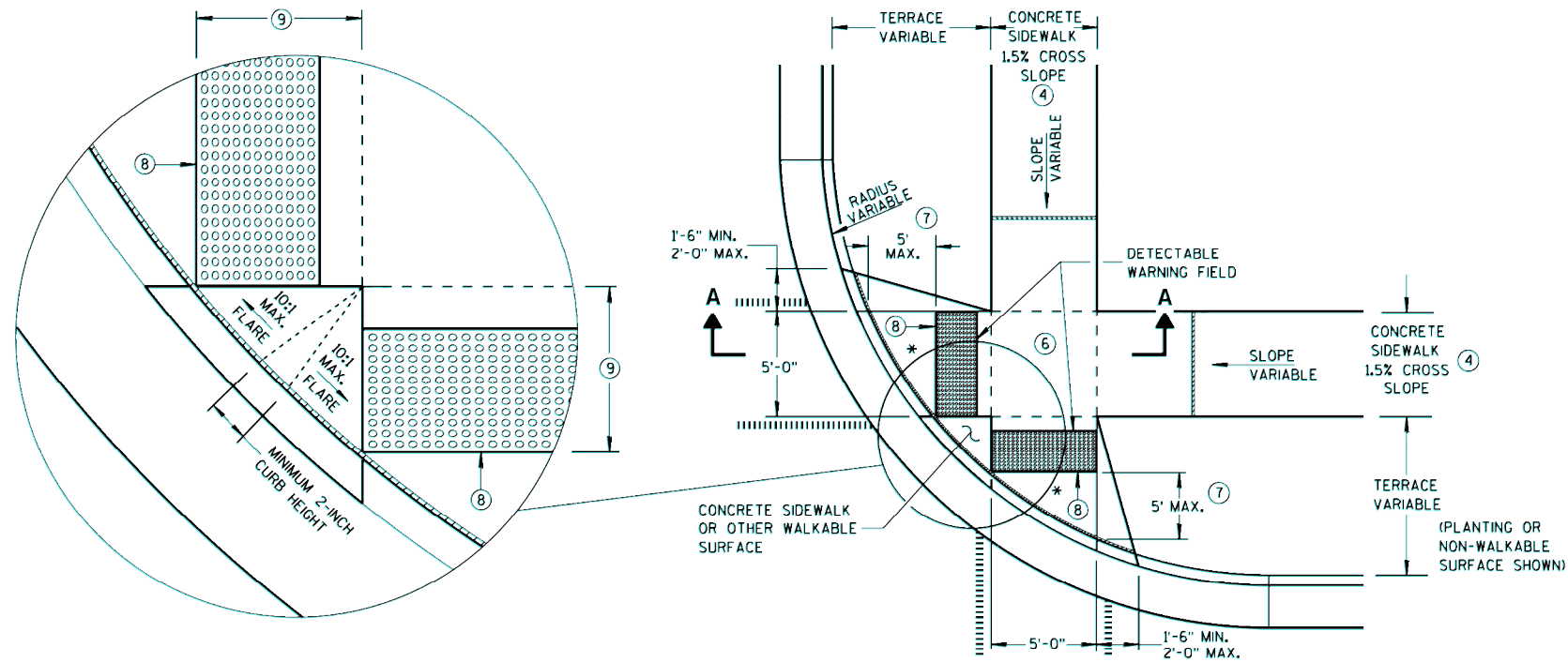
CITY OF DE PERE
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS CURB RAMPS

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
18-01

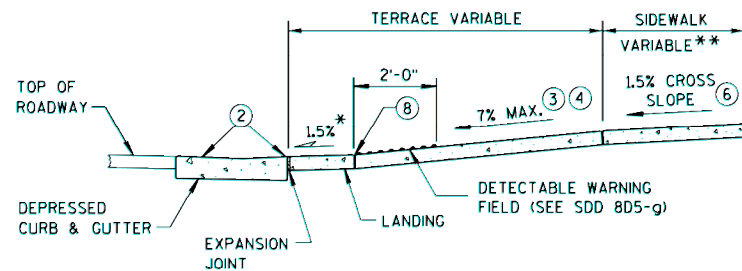
NO.	DATE	BY	REMARKS
SURVEYED			
DRAWN	KAD	01-2018	
DESIGNED	KAD	01-2018	
CHECKED	CKK	01-2018	

NO.	DATE	BY	REMARKS



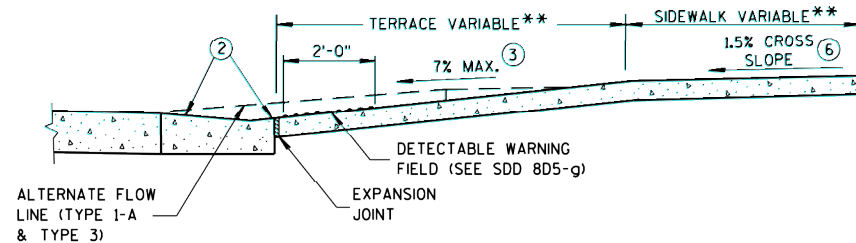
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

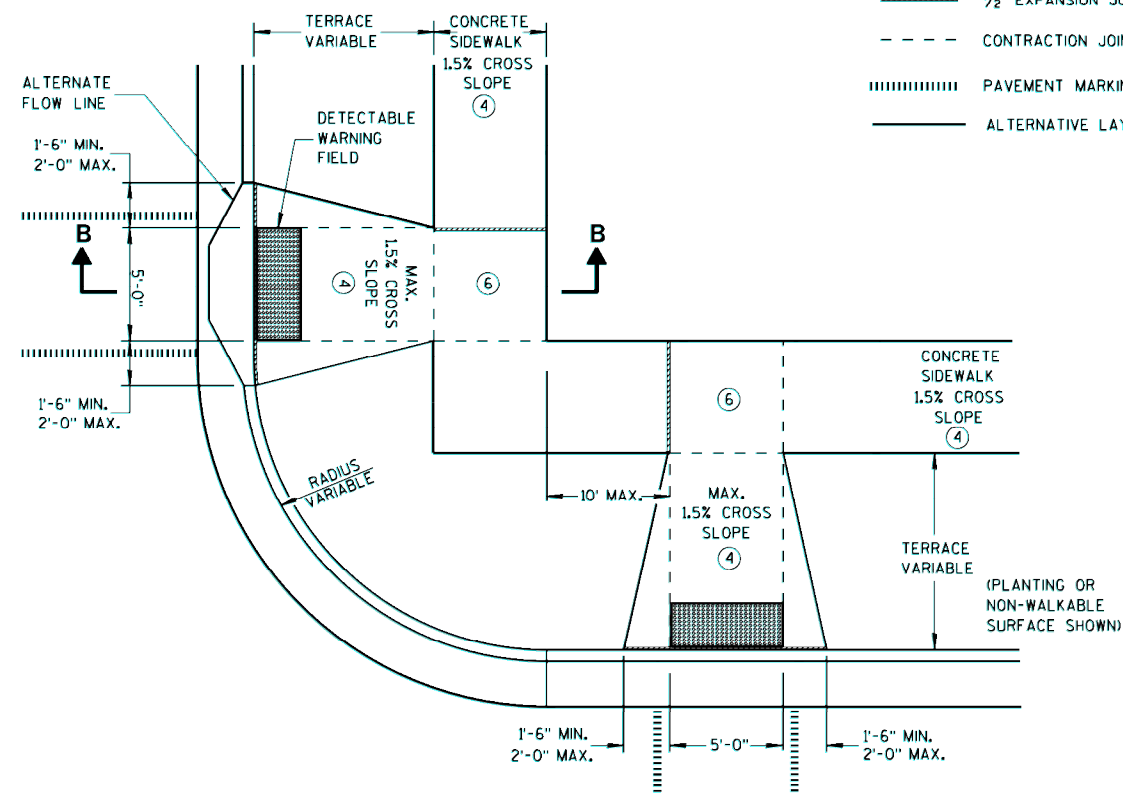
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

6

S.D.D. 8 D 5-19b

6

S.D.D. 8 D 5-19b



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CONSTRUCTION DETAILS

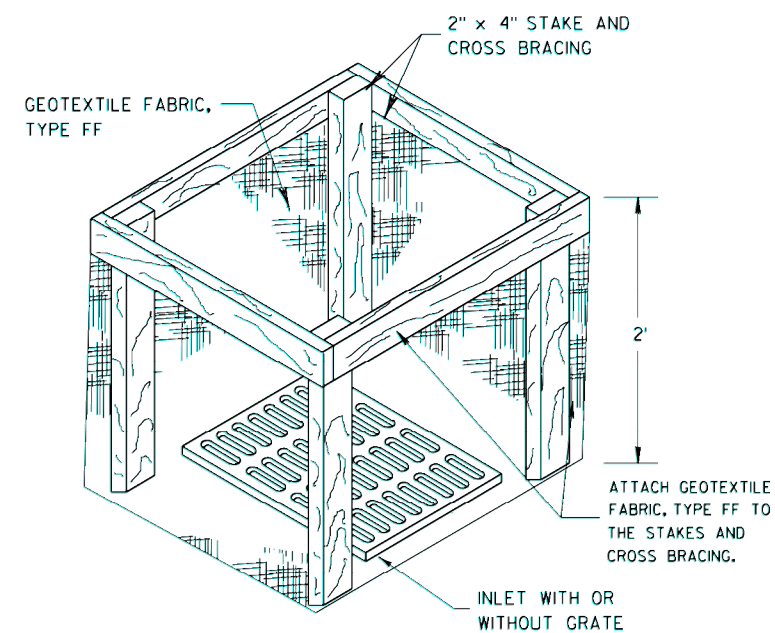
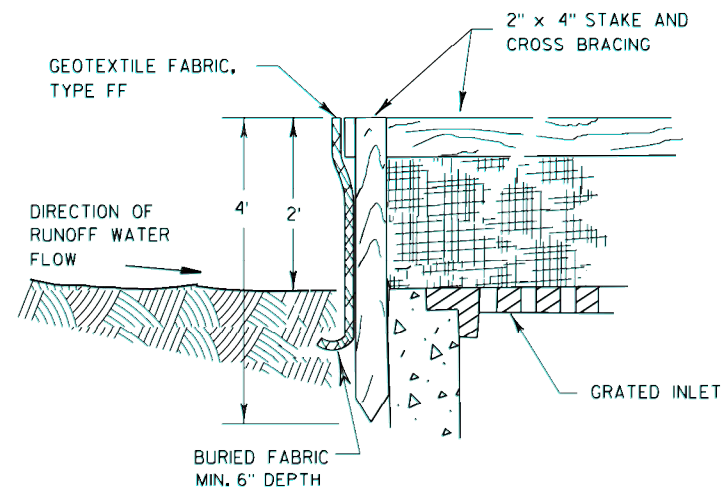
CURB RAMPS

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
18-01

NO.	DATE	BY	REMARKS
SURVEYED			
DRAWN	KAD	01-2018	
DESIGNED	KAD	01-2018	
CHECKED	CKK	01-2018	

NO.	DATE	BY	REMARKS

8E10: Inlet Protection Type A, B, C and D



INLET PROTECTION, TYPE A

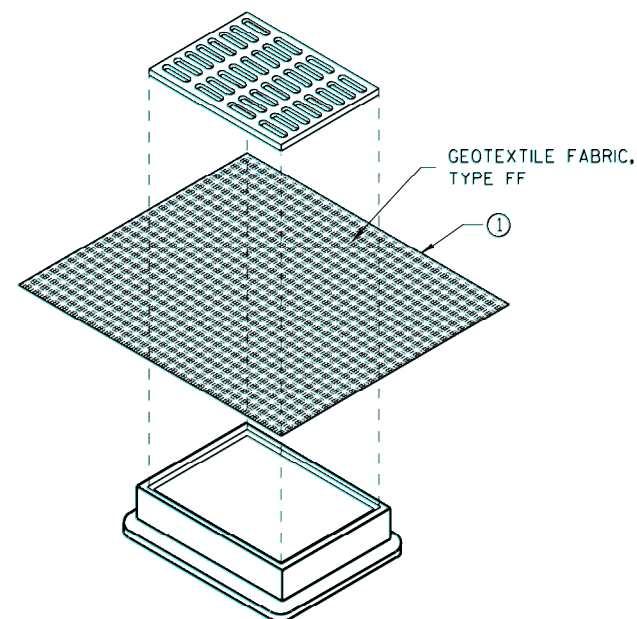
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

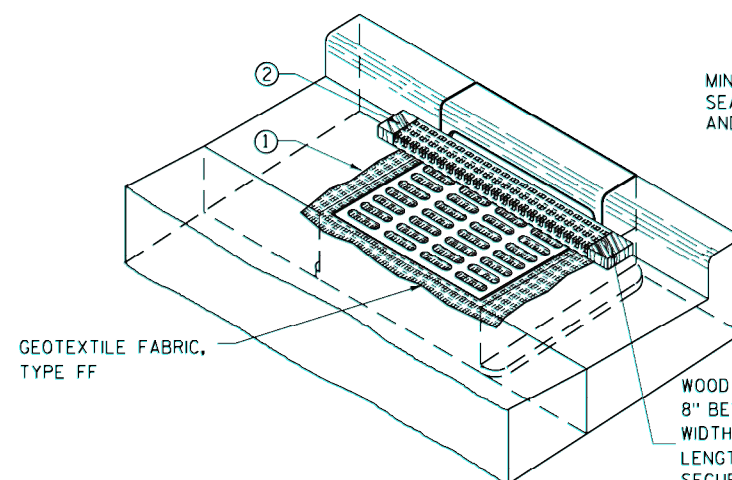
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

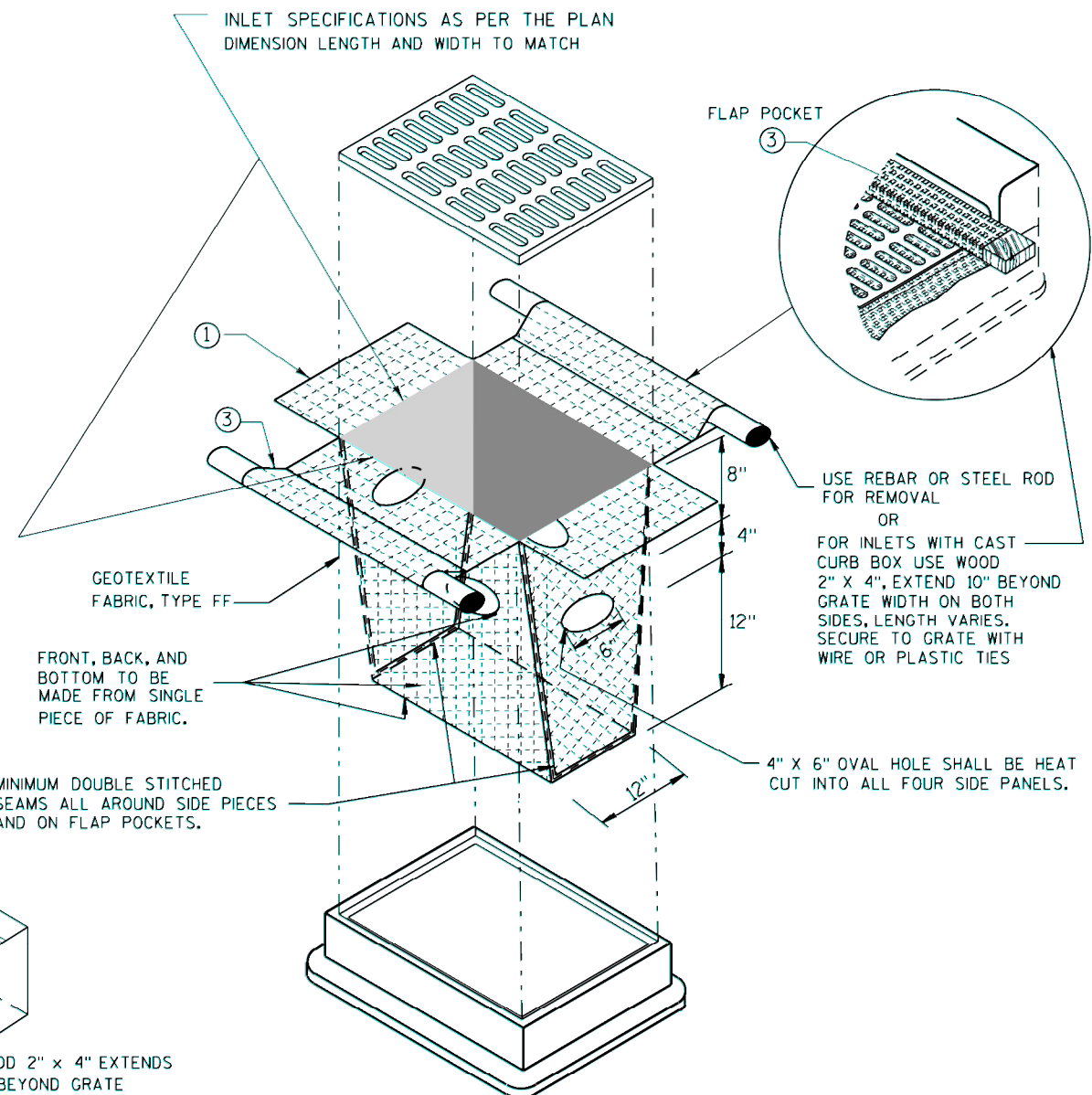
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

TYPE C INLET EQUALS CITY OF DE PERE TYPE B INLET

STANDARD DETAIL MODIFIED

**INLET PROTECTION
TYPE A, B, C, AND D**

CONSTRUCTION DETAILS

INLET PROTECTION

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
18-01

DESIGNED		CHECKED	
KAD	01-2018	CKK	01-2018

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

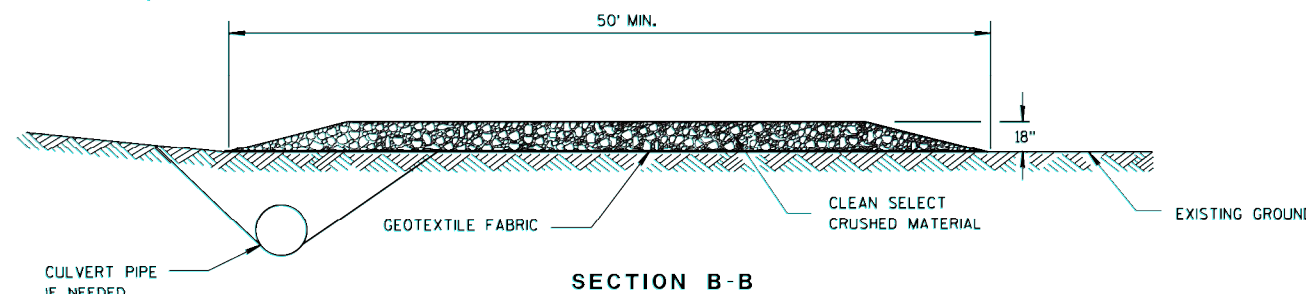
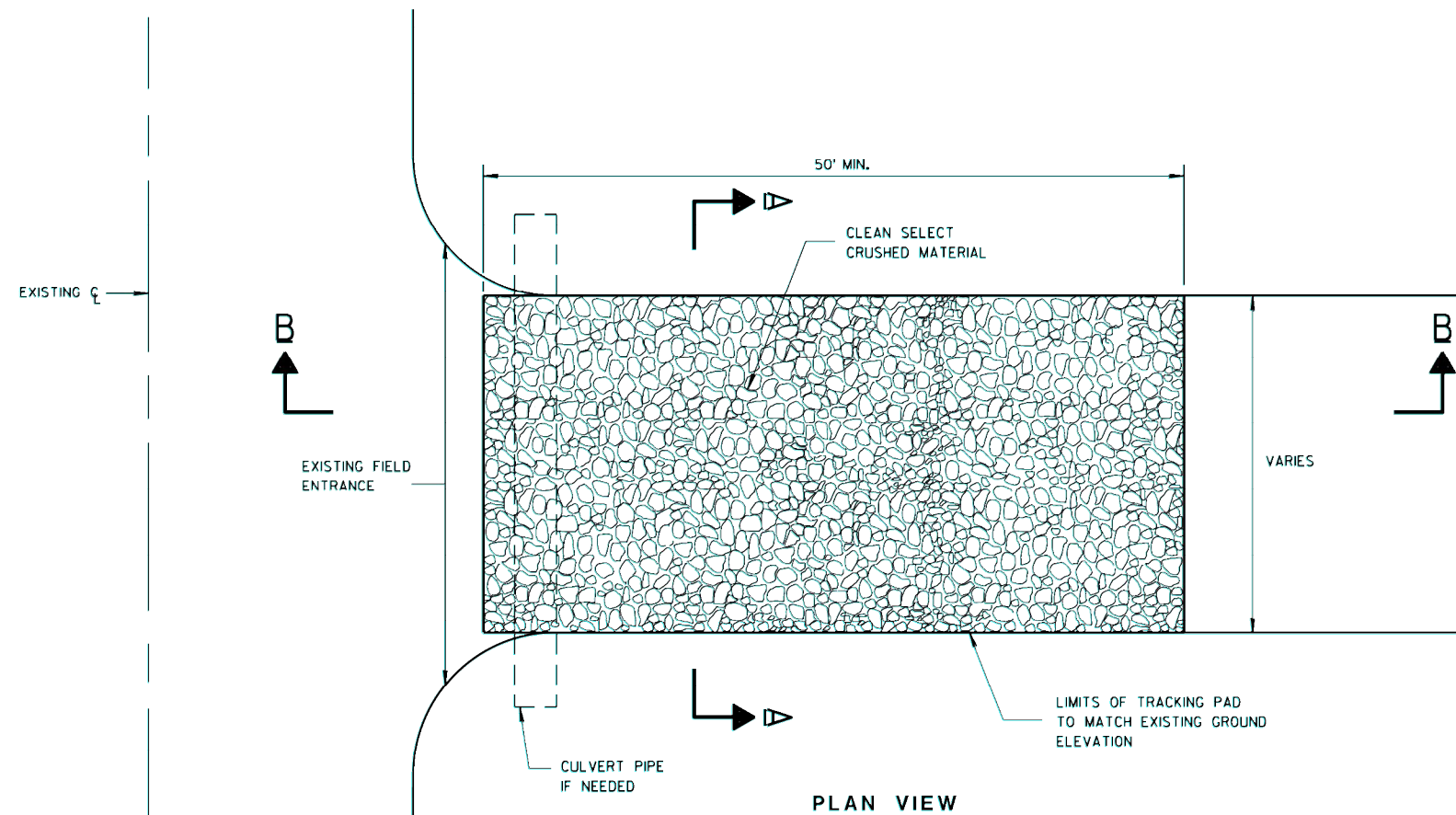
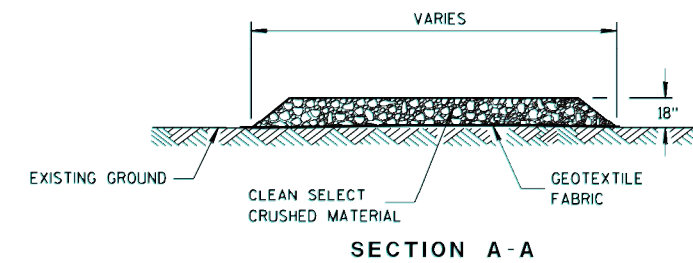
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



TRACKING PAD

TRACKING PAD

6

6

S.D.D. 8 E 14-1

S.D.D. 8 E 14-1



CITY OF DE PERE

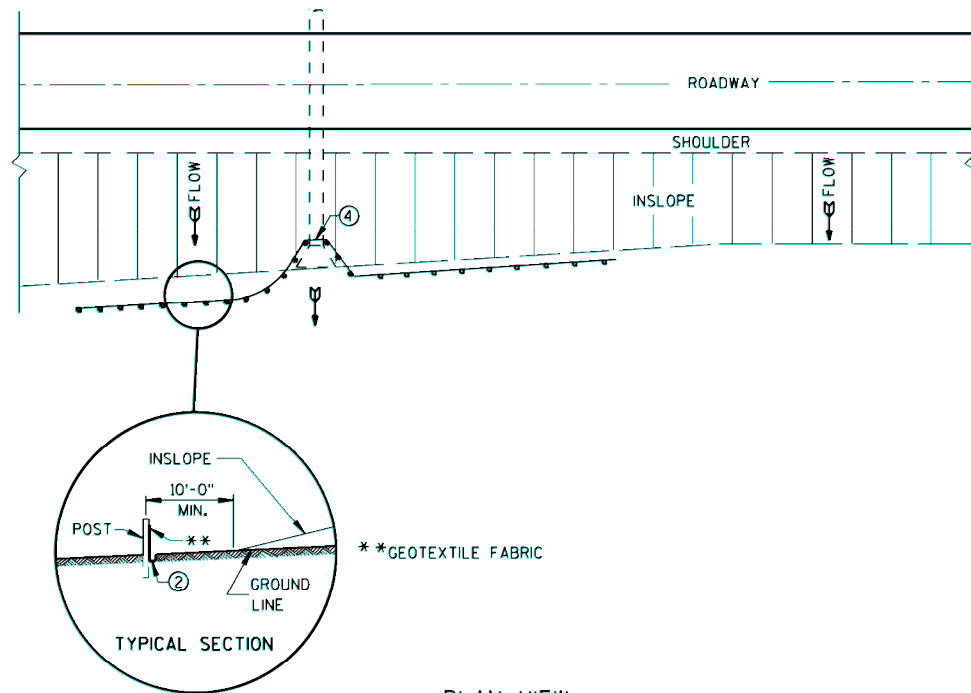
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CONSTRUCTION DETAILS

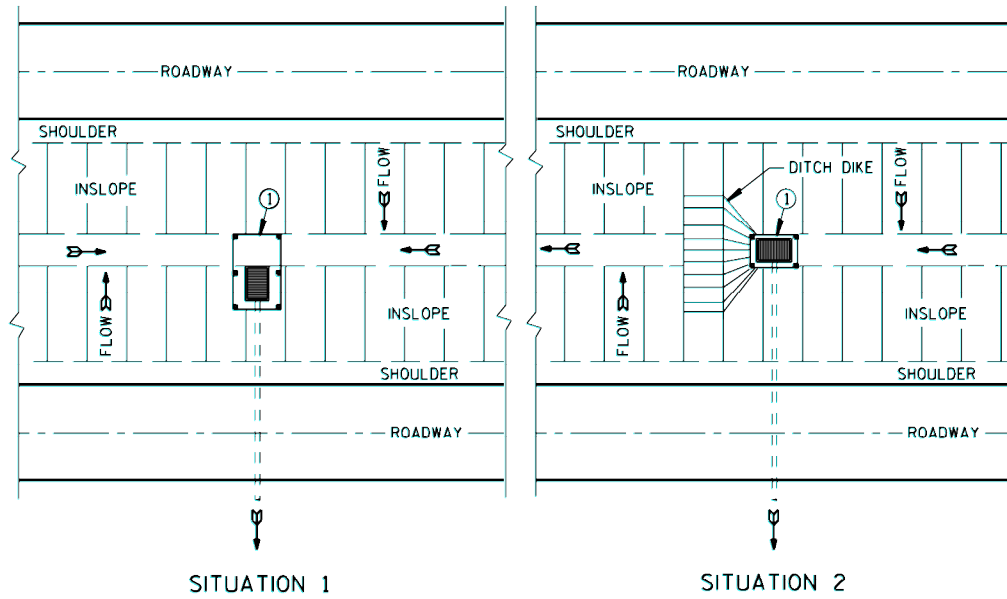
TRACKING PAD

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 18-01

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NO.	DATE	BY	REMARKS
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PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

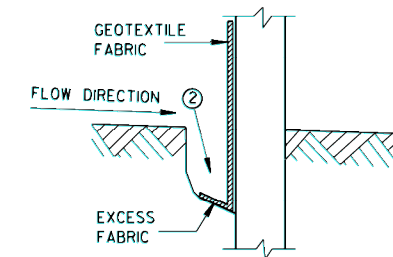


PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

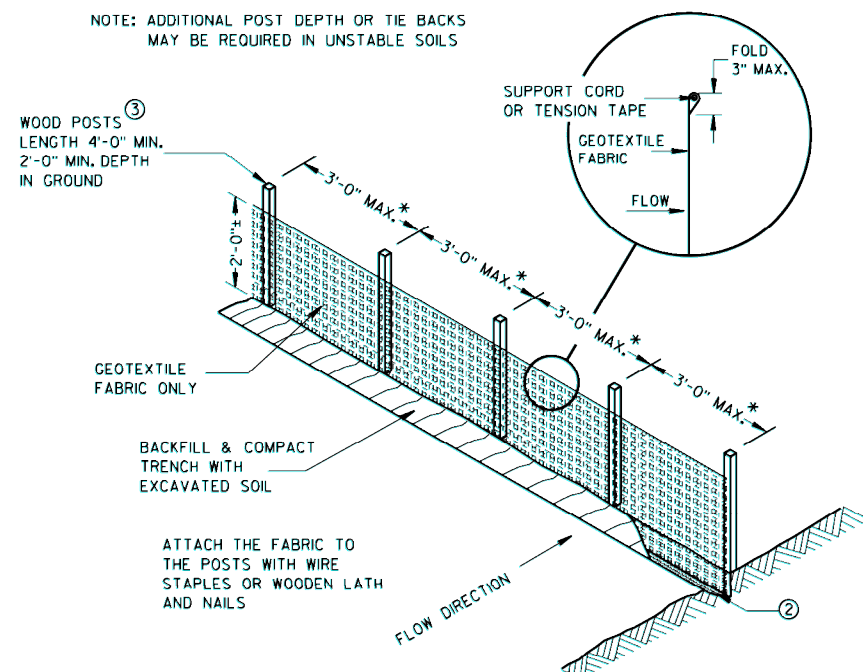
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

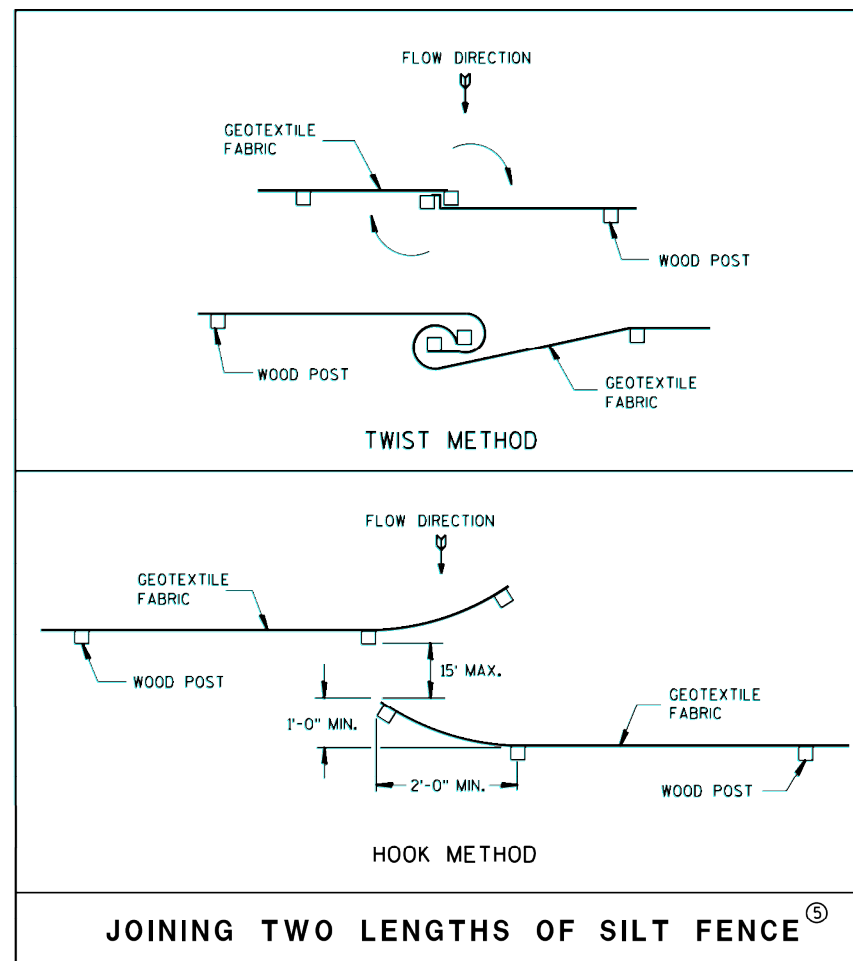
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



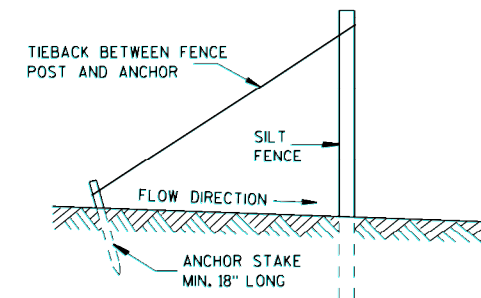
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

6

6

S.D.D. 8 E 9-6

S.D.D. 8 E 9-6

