BIDDING DOCUMENTS

Project Manual

State Project No. 7224-00-72
Town of Buffalo
Great River State Trail Winona Connector
Non-Highway
Buffalo County, Wisconsin

DBE Percentage: Discretionary
This Project is Federally Funded

SEH No. BUFFC 141867

May 2, 2019

SEH
Building a Better World for All of Us®
Engineers | Architects | Planners | Scientists

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ADVERTISEMENT FOR BIDS

7224-00-72
Town of Buffalo
Great River State Trail Winona Connector
Non-Highway
Buffalo County, Wisconsin
THIS PROJECT IS FEDERALLY FUNDED

Notice is hereby given that sealed bids will be received by the **Buffalo County Highway Department, S1672 State Road 37, Alma, WI 54610, until 4:00 p.m., Thursday, May 23, 2019** at which time they will be publically opened and read aloud, for the furnishing of all labor and material for the construction of the following items in the approximate quantities indicated:

Quantity		Item
82	STA	Clearing
65	STA	Grubbing
1	LS	Removing Old Structure 1014+24.19
1,024	SY	Removing Pavement
2,245	CY	Excavation Common
1	LS	Excavation for Structures Bridges B-06-0500
1	LS	Excavation for Structures Bridges B-06-0501
15,905	CY	Borrow
1,155	TON	Backfill Structure Type A
6,100	TON	Base Aggregate Dense 3/4-inch
344	CY	Concrete Masonry Bridges
26	CY	Concrete Masonry Endwalls
56,115	LB	Bar Steel Reinforcement HS Structures
1	LS	Prefabricated Steel Truss Pedestrian Bridge LRFD B-06-0500
1	LS	Prefabricated Steel Truss Pedestrian Bridge LRFD B-06-0501
130	LF	Culvert Pipe Corrugated Steel 84-inch
5,040	LF	Piling CIP Concrete 10 3/4-inch by 0.25-inch
5,167	SF	Concrete Sidewalk 6-inch
400	LF	Replacing Guardrail Rail and Hardware
199	LF	Fence Chain Link 4-feet
437	LF	Fence Chain Link 6-feet
1	EACH	Mobilization
17,402	SY	Topsoil
7,967	LF	Silt Fence
9,556	SY	Erosion Mat Class II Type B
8,327	SY	Erosion Mat Class III Type B
3,608	SY	Erosion Mat Class III Type D
584	SY	Turbidity Barriers
1	EACH	Field Office Type B
1	EACH	Traffic Control
6,886	LF	Construction Staking Slope Stakes
334	LF	Special Protective Throw Fence
1,812	LF	Special Rub Rail

192	SF	Special Wall Modular Block Mechanically Stabilized Earth LRFD/QMP Station 10+00
415	SF	Special Wall Modular Block Mechanically Stabilized Earth LRFD/QMP Station 20+00
5,014	TON	Special Limestone Screenings

Bids shall be on the form provided for that purpose and according to the Bidding Requirements prepared by Short Elliott Hendrickson Inc. (SEH®) dated May 2, 2019.

The Bidding Documents may be viewed for no cost at http://www.sehinc.com by selecting the Project Bid Information link at the bottom of the page and the View Plans option from the menu at the top of the selected project page.

Digital image copies of the Bidding Documents are available at http://www.sehinc.com for a fee of $30. These documents may be downloaded by selecting this project from the PROJECT BID INFORMATION link and by entering eBidDoc™ Number 6319764 on the SEARCH PROJECTS page. For assistance and free membership registration, contact QuestCDN at 952.233.1632 or info@questcdn.com.

Paper copies of the Bidding Documents may be obtained from Docunet Corp. located at 2435 Xenium Lane North, Plymouth, MN 55441 (763.475.9600) for a fee of $100.

Bid security in the amount of 5 percent of the Bid must accompany each Bid in accordance with the Instructions to Bidders.

Bids shall be directed to the County Highway Department securely sealed and endorsed upon the outside wrapper, “BID FOR GREAT RIVER STATE TRAIL WINONA CONNECTOR.”

Bidders Proof of Responsibility must be submitted to SEH in accordance with the Instructions to Bidders.

Contractors on the Project shall be required to comply with the minimum wages and labor standards as determined by the Federal Government Wage Rate Determination.

The DBE goal for this project is discretionary.

The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training.”

An affidavit on non-collusion will be required and must accompany each bid.

Prime Contractor Participation: Perform at least 30 percent of the original contract amount with the Contractor’s own organization. The Contractor’s own organization is defined as workers the contractor employs and pays directly as well as equipment the contractor owns or rents, either with or without operators.

To demonstrate Bidder’s qualifications to perform the Work, within five days of Owner’s request, Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be deemed necessary by the Owner.

Buffalo County reserves the right to reject any and all bids, to waive irregularities and informalities therein and to award the Contract in the best interests of the County.

Bob Platteter, Highway Commissioner
Buffalo County Highway Department
S1672 State Road 37
Alma, WI 54610

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INSTRUCTIONS TO BIDDERS

ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* - The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Authorized sets of the Bidding Documents may be obtained digitally or by paper copy as directed in the Advertisement for Bids.

2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete or unauthorized sets of Bidding Documents.

2.03 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its bid and within 5 days of Owner's request, Bidder shall submit (a) Bidders Proof of Responsibility, and (b) such other data as may be deemed necessary by the Owner.

3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify:

(a) those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
(b) those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

(c) reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
(d) Technical Data contained in such reports and drawings.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. Underground Facilities

1. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

C. Adequacy of Data:

1. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

A. On request, and to the extent Owner has control over the Site, 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. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

B. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

C. 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 excavations and utility locates.

4.04 *Owner's Safety Program*

A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or

others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding documents, including Addenda;

B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy itself as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;

D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;

E. consider the information known to Bidder; information commonly known to Contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) 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 to be employed by Bidder; and (3) Bidder's safety precautions and programs;

F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid 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 required, and in accordance with the other terms and conditions of the Bidding Documents;

G. 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;

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;

I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and

J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 6 – PRE-BID CONFERENCE

6.01 A pre-Bid conference will not be held for this Project.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 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 delivered to all parties recorded 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.

7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

7.03 This specification references the Wisconsin Department of Transportation Standard Specification for Highway and Structure Construction 2019 Edition. References to the specification are noted by using the nomenclature "Standard Spec XXX.X.X" or "Standard Specification XXX.X.X" or "Section XXX.X.X. of the Standard Specifications" with the X's referring to the section in the WisDOT Specification.

7.04 The current edition of Part 1 of the WisDOT Standard Specifications for Highway and Structure Construction will be part of this contract and will govern the work on this contract. If there is any conflict between Part 1 of the WisDOT Standard Specifications and the Owner's specifications, then the stricter of the two shall apply. Furthermore references to WisDOT personnel or positions will be interpreted as a reference to the applicable Owner's personnel or positions. Part 1 language that solely refers to WisDOT State let procedures would not apply.

ARTICLE 8 – BID SECURITY

8.01 A bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and 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 released. 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 consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.

8.03 The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

9.01 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 Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.

12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers.

If requested by Owner, 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, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a 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.

12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

13.01 The Bid Form and attachments are included with the Bidding Documents. Photocopies of these documents should be made for the purpose of submitting the Bid.

13.02 All blanks on the Bid Form shall be completed by printing in ink or by typewriter 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 Bid item and unit price item listed therein.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer 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 incorporation shall be shown.

13.04 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.

13.05 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.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

13.08 All names shall be typed or printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID; EVALUATION OF BIDS

14.01 *Unit Price*

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.

B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of 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.

14.02 *Allowances*

A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02 B of the General Conditions.

ARTICLE 15 – SUBMITTAL OF BID

15.01 The Bid Form is included with the Bidding Documents. A photocopy of the Bid Form is to be completed and submitted with all the attachments as required in Article 2 of the Bid Form.

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement for Bids and shall be enclosed in an opaque sealed package plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the 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, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Owner at address in Article 1.01 of Bid Form.

15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

15.04 The submitted Bid Bond shall bear original signatures and the seal of the Surety.

15.05 Submission of Bid Forms and/or Bid Bonds by electronic transmission (such as Fax or e-mail) will be a cause for rejection.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be withdrawn by an appropriate document duly executed in the same 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. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.

16.03 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 17 – OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the Advertisement for Bids 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. The abstract can be found by following the "Project Bid Information" link of www.sehinc.com then following the "Project Results" link on the top of the second page.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – AWARD OF CONTRACT

19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, non-responsive, unbalanced, or conditional bids. Owner will reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive. 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.

19.02 If Owner awards the Contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid. 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.

19.03 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.

19.04 *Evaluation of Bids*

A. 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.

B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.

19.05 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Bidding Documents.

19.06 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.

ARTICLE 20 – BONDS AND INSURANCE

20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 5 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within 10 days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

END OF DOCUMENT

The Bid is to be submitted on photocopies of this Bid Form and the attachments provided.

DOCUMENT 00 41 00

BID FORM

Total Amount of Bid $_____

Contractor's Name _____

Telephone _____

PROJECT IDENTIFICATION: **Town of Buffalo Great River State Trail Winona Connector Non-Highway**
Buffalo County, Wisconsin
State Project No. 7224-00-12
SEH No. BUFFC 141867

BIDS DUE: **4:00 p.m., Thursday, May 23, 2019**

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Article 1 – BID RECIPIENT

1.01 This Bid is submitted to: **Buffalo County Highway Department**
S1672 State Road 37
Alma, WI 54610

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

Article 2 – ATTACHMENTS TO THIS BID

2.01 The following documents are attached to and made a condition of this Bid:

A. Required Bid security.

B. List of Proposed Subcontractors.

C. List of Proposed Suppliers.

D. List of Project References.

E. Affidavit of Non-Collusion.

Article 3 – BASIS OF BID

3.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

UNIT PRICE SCHEDULE

Item No.	Description	Unit	Est. Quantity	Bid Unit Price	Bid Price
201.0105	Clearing	STA	82	$_____	$_____
201.0205	Grubbing	STA	65	$_____	$_____
203.0200	Removing Old Structure 1014+24.19	LS	1	$_____	$_____
204.0100	Removing Pavement	SY	1,024	$_____	$_____
204.9105.S.01	Removing Concrete Masonry Endwall	LS	1	$_____	$_____
204.9105.S.02	Removing Gate and Concrete Barrier	LS	1	$_____	$_____
205.0100	Excavation Common	CY	2,245	$_____	$_____
206.1000	Excavation for Structures Bridges B-06-0500	LS	1	$_____	$_____
206.1000	Excavation for Structures Bridges B-06-0501	LS	1	$_____	$_____
208.0100	Borrow	CY	15,905	$_____	$_____
210.1500	Backfill Structure Type A	TON	1,155	$_____	$_____
213.0100	Finishing Roadway 7224-00-72	EACH	1	$_____	$_____
305.0110	Base Aggregate Dense 3/4-inch	TON	6,100	$_____	$_____
305.0120	Base Aggregate Dense 1 1/4-inch	TON	119	$_____	$_____
310.0115	Base Aggregate Open-Graded	CY	40	$_____	$_____
502.0100	Concrete Masonry Bridges	CY	344	$_____	$_____
502.4205	Adhesive Anchors No. 5 Bar	EACH	69	$_____	$_____
504.0900	Concrete Masonry Endwalls	CY	26	$_____	$_____
505.0400	Bar Steel Reinforcement HS Structures	LB	56,115	$_____	$_____
506.8005.S	Prefabricated Steel Truss Pedestrian Bridge LRFD B-06-0500	LS	1	$_____	$_____
506.8005.S	Prefabricated Steel Truss Pedestrian Bridge LRFD B-06-0501	LS	1	$_____	$_____
516.0500	Rubberized Membrane Waterproofing	SY	10	$_____	$_____
520.8700	Cleaning Culvert Pipes	EACH	3	$_____	$_____
521.3184	Culvert Pipe Corrugated Steel 84-inch	LF	130	$_____	$_____

UNIT PRICE SCHEDULE

Item No.	Description	Unit	Est. Quantity	Bid Unit Price	Bid Price
550.2104	Piling CIP Concrete 10 3/4 by 0.25-inch	LF	5,040	$_____	$_____
602.0415	Concrete Sidewalk 6-inch	SF	5,167	$_____	$_____
606.0300	Riprap Heavy	CY	35	$_____	$_____
612.0406	Pipe Underdrain Wrapped 6-inch	LF	250	$_____	$_____
614.0920	Salvaged Rail	LF	400	$_____	$_____
614.0950	Replacing Guardrail Posts and Blocks	EACH	32	$_____	$_____
614.0951	Replacing Guardrail Rail and Hardware	LF	400	$_____	$_____
616.0204	Fence Chain Link 4-feet	LF	199	$_____	$_____
616.0206	Fence Chain Link 6-feet	LF	437	$_____	$_____
616.0329	Gates Chain Link 12-feet	EACH	1	$_____	$_____
618.0100	Maintenance and Repair of Haul Roads 7224-00-72	EACH	1	$_____	$_____
619.1000	Mobilization	EACH	1	$_____	$_____
624.0100	Water	MGAL	60	$_____	$_____
625.0100	Topsoil	SY	17,402	$_____	$_____
627.0200	Mulching	SY	8,416	$_____	$_____
628.1504	Silt Fence	LF	7,967	$_____	$_____
628.1520	Silt Fence Maintenance	LF	7,967	$_____	$_____
628.1905	Mobilizations Erosion Control	EACH	3	$_____	$_____
628.1910	Mobilizations Emergency Erosion Control	EACH	6	$_____	$_____
628.2023	Erosion Mat Class II Type B	SY	9,556	$_____	$_____
628.2033	Erosion Mat Class III Type B	SY	8,327	$_____	$_____
628.2039	Erosion Mat Class III Type D	SY	3,608	$_____	$_____
628.6005	Turbidity Barriers	SY	584	$_____	$_____
628.6505	Soil Stabilizer Type A	ACRE	0.67	$_____	$_____
629.0205	Fertilizer Type A	CWT	11.9	$_____	$_____
630.0175	Seeding Mixture No. 75	LB	113	$_____	$_____

UNIT PRICE SCHEDULE

Item No.	Description	Unit	Est. Quantity	Bid Unit Price	Bid Price
630.0200	Seeding Temporary	LB	510	$_____	$_____
630.0400	Nurse Crop	LB	129	$_____	$_____
634.0612	Posts Wood 4 by 6-inch by 12-feet	EACH	3	$_____	$_____
634.0614	Posts Wood 4 by 6-inch by 14-feet	EACH	6	$_____	$_____
634.0616	Posts Wood 4 by 6-inch by 16-feet	EACH	6	$_____	$_____
637.2230	Signs Type II Reflective F	SF	37.75	$_____	$_____
638.2102	Moving Signs Type II	EACH	7	$_____	$_____
638.2602	Removing Signs Type II	EACH	1	$_____	$_____
638.3000	Removing Small Sign Supports	EACH	7	$_____	$_____
642.5001	Field Office Type B	EACH	1	$_____	$_____
643.0300	Traffic Control Drums	DAY	14,580	$_____	$_____
643.0420	Traffic Control Barricades Type III	DAY	2,160	$_____	$_____
643.0900	Traffic Control Signs	DAY	2,970	$_____	$_____
643.5000	Traffic Control	EACH	1	$_____	$_____
645.0111	Geotextile Type DF Schedule A	SY	194	$_____	$_____
645.0120	Geotextile Type HR	SY	80	$_____	$_____
650.4500	Construction Staking Subgrade	LF	6,886	$_____	$_____
650.5000	Construction Staking Base	LF	6,886	$_____	$_____
650.6000	Construction Staking Pipe Culverts	EACH	3	$_____	$_____
650.6500	Construction Staking Structure Layout Retaining Wall 10+00	LS	1	$_____	$_____
650.6500	Construction Staking Structure Layout Retaining Wall 20+00	LS	1	$_____	$_____
650.6500	Construction Staking Structure Layout B-06-0500	LS	1	$_____	$_____
650.6500	Construction Staking Structure Layout B-06-0501	LS	1	$_____	$_____
650.9910	Construction Staking Supplemental Control 7224-00-72	LS	1	$_____	$_____

UNIT PRICE SCHEDULE

Item No.	Description	Unit	Est. Quantity	Bid Unit Price	Bid Price
650.9920	Construction Staking Slope Stakes	LF	6,886	$_____	$_____
690.0250	Sawing Concrete	LF	233	$_____	$_____
715.0502	Incentive Strength Concrete Structures	DOL	2,720	$_____	$_____
801.0117	Railroad Flagging Reimbursement	DOL	1	$_____	$_____
SPV.0060.01	Chain Link Fence Post Concrete Surface Mount Anchor Sleeve	EACH	18	$_____	$_____
SPV.0090.01	Protective Throw Fence	LF	334	$_____	$_____
SPV.0090.02	Special Rub Rail	LF	1,812	$_____	$_____
SPV.0165.01	Wall Modular Block Mechanically Stabilized Earth LRFD/QMP Station 10+00	SF	192	$_____	$_____
SPV.0165.02	Wall Modular Block Mechanically Stabilized Earth LRFD/QMP Station 20+00	SF	415	$_____	$_____
SPV.0195.01	Limestone Screenings	TON	5,014	$_____	$_____
TOTAL BID PRICE					**$**_____

Unit Prices have been computed in accordance with Paragraph 13.03 of 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.

Article 4 – TIME OF COMPLETION

4.01 Bidder agrees that the Work will be substantially complete and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

Article 5 – BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD , INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 Bid Acceptance Period

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the day of Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 Instructions to Bidder

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security

5.03 Receipt of Addenda

A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum No.	Addendum Date

Article 6 – BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 Bidders Representations

A. In submitting this Bid, Bidder represents that:

1. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda.

2. Bidder has visited the site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress and performance of the Work.

4. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

5. Bidder has carefully studied reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, and (3) Bidder's safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 Bidder certifies that:

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

3. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

a. “corrupt practice” means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

b. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

c. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

d. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

Defined Terms
The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

Bid Submittal
This Bid submitted by:
If Bidder is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____ (SEAL)

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

Name (typed or printed): _____

A Joint Venture

Name of Joint Venturer: _____

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 - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

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

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

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

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

Name (typed or printed): _____

Title: _____
(CORPORATE SEAL)

Attest: _____
(Signature of Corporate Secretary)

Date of Qualification to do business in _____ is ____/____/____.
(State Where Project is Located)

6.03 Contact Information

Bidder's Business Address: _____

_____

Phone: _____ Facsimile: _____ E-mail: _____

Submitted on _____, 20_____.

State Contractor License No. _____. (If applicable)

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DOCUMENT 00 43 37

LIST OF PROPOSED SUPPLIERS

Company _____ Telephone No. _____

Name of Contact _____

Address _____

Material/Equipment to be Supplied _____

Company _____ Telephone No. _____

Name of Contact _____

Address _____

Material/Equipment to be Supplied _____

Company _____ Telephone No. _____

Name of Contact _____

Address _____

Material/Equipment to be Supplied _____

Company _____ Telephone No. _____

Name of Contact _____

Address _____

Material/Equipment to be Supplied _____

Company _____ Telephone No. _____

Name of Contact _____

Address _____

Material/Equipment to be Supplied _____

Company _____ Telephone No. _____

Name of Contact _____

Address _____

Material/Equipment to be Supplied _____

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DOCUMENT 00 44 14

PROJECT REFERENCES

Below is a listing of the 5 most recent projects of a similar nature to this project which we have completed.

1. Contracting Agency _____
   Description of Work _____
   Agency Representative _____
   Title _____ Phone _____ Date of Contract _____

2. Contracting Agency _____
   Description of Work _____
   Agency Representative _____
   Title _____ Phone _____ Date of Contract _____

3. Contracting Agency _____
   Description of Work _____
   Agency Representative _____
   Title _____ Phone _____ Date of Contract _____

4. Contracting Agency _____
   Description of Work _____
   Agency Representative _____
   Title _____ Phone _____ Date of Contract _____

5. Contracting Agency _____
   Description of Work _____
   Agency Representative _____
   Title _____ Phone _____ Date of Contract _____

Name of Bidder _____

By _____

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DOCUMENT 00 45 17

BIDDERS PROOF OF RESPONSIBILITY

This Bidders Proof of Responsibility must be submitted in accordance with Article 3.01 of the Instructions to Bidders.

On all contracts, bidder must submit a full and complete statement sworn to before any officer authorized to administer oaths of financial ability, equipment, experience in the work prescribed, and such other matters as the municipality may require for the protection and welfare of the public.

The objective of the questionnaire is not to discourage bidding or make it difficult for qualified bidders to file bids. Neither is it intended to discourage beginning contractors. It is intended to make it possible for the Owner to have exact information on financial ability, equipment and experience involved in awarding contracts to parties unfamiliar to the Owner. Owner reserves the right to require additional information before awarding the contract in order to determine qualification for the work.

The contents of this questionnaire will be considered confidential.

This questionnaire is to be submitted to the following; the outside clearly marked “BIDDERS PROOF OF RESPONSIBILITY”:

Attn: Tara Krista, PE
Short Elliott Hendrickson Inc.
10 North Bridge Street
Chippewa Falls, WI 54729-2550
715.720.6200

It is recommended that this questionnaire be returned by Registered Mail.

If the Owner is not satisfied with the sufficiency of the answers to the questionnaire a financial statement may be required or they may reject the bid or require additional information.

STATEMENT OF BIDDER’S QUALIFICATIONS

1. Name of Bidder:

2. Bidder’s Address:

3. When Organized:

4. Where Incorporated:

5. How many years have you been engaged in the contracting business under the present firm name:

6. Contracts on hand (attach a list of present contracts, including a schedule as to estimate completion date and gross amount of each contract).

7. General character of work performed by your firm.

8. Have you ever failed to complete any work awarded to you:
   Yes_____ No_____. If so, attach a statement detailing where and why.

9. Have you ever defaulted on a contract:
   Yes_____ No_____. If so, attach a statement detailing where and why.

10. Attach list of the more important contracts completed by your firm, including kind of work and approximate cost.

11. Attach list of your major equipment.

12. Attach a statement of your experience in the construction of work similar in scope to this project.

13. Attach statement of background and experience of the principal members of your personnel, including the officers.

14. Credit availability: Furnish written evidence, preferably from banks.

15. Additional information may also be submitted if desired.

DOCUMENT 00 45 19

AFFIDAVIT OF NON-COLLUSION

STATE OF _____

COUNTY OF _____

I Hereby swear (or affirm) under the penalty of perjury:

1) That I am the bidder (if the bidder is an individual), a partner in the bidder (if the bidder is a partnership) or an officer or employee of the bidder corporation having authority to sign on its behalf (if the bidder is a corporation);

2) That the attached bid or bids have been arrived at by the bidder individually and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit individual bidding or competition;

3) That the contents of the bid or bids have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid or bids, and will not be communicated to any such person, prior to any official opening of the bid or bids; and

4) That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Subscribed and sworn to before me this

_____ day of _____, 20____

_____
Bidder's Signature

_____
Notary

_____
Title

(Seal)

_____
Company

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DOCUMENT 00 52 00

STANDARD FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
ON THE BASIS OF A STIPULATED PRICE

THIS AGREEMENT is by and between the Buffalo County

(Owner) and _____ (Contractor).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: Prefabricated steel truss pedestrian bridge, LRFD, concrete masonry bridges, modular block mechanically stabilizer earth RFD, qorp walls, 84-inch corrugated steel pipe culvert, concrete masonry endwall, chain link fence, limestone screenings, as well as cleaning, grubbing, grading, borrow, and traffic control and railroad coordination.

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Town of Buffalo Great River State Trail Winona Connector, Buffalo County, Wisconsin.

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by Short Elliott Hendrickson Inc. (SEH®).

3.02 The Owner has retained SEH (Engineer) to act as Owner's representative for the design phase of the project, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the design of the Work in accordance with the Contract Documents. Buffalo County may act as Engineer during the construction phase of the Work.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

A. The Work will be substantially completed on or before June 15, 2020 and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before June 30, 2020. The work shall be completed within 270 working days of commencement.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Liquidated damages shall be assessed in the amount of $1,000 per day for each calendar day required to achieve Substantial Completion specified if 4.02A. above, and $500 (if any liquidated damages are to be assessed) per day for each day required for readiness for final

payment, and $1,000 for each day for Milestones (if any) beyond the dates set forth in the Owner-Contractor Agreement, subject to agreed-on adjustments.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item as indicated in Contractor's Bid.

The Bid Prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 10.06 of the General Conditions.

The Estimated Total of All Unit Price Work is: $_____

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make monthly progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications of Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract:

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract:

a. 95 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate of 5 percent per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

1. Addenda (numbers 00 00 11 to 00 00 12, inclusive).

2. This Agreement (pages 00 52 00-1 to 00 52 00-6, inclusive).

3. Performance Bond (Document 00 61 13).

4. Payment Bond (Document 00 61 14).

5. General Conditions (pages 00 72 00-1 to 00 72 00-65, inclusive).

6. Supplementary Conditions (pages 00 73 00-1 to 00 73 00-6 inclusive).

7. Specifications as listed in the table of contents of the Project Manual.

8. Drawings consisting of 38 sheets with each sheet bearing the following general title: Great River State Trail - Winona Connector, STH 54 - Marshland.

9. Exhibits to this Agreement (enumerated as follows).

   a. Contractor's Bid (Document 00 41 00).

   b. Documentation submitted by Contractor prior to Notice of Award (pages ___ to ___, inclusive).

   c. Certificate of Insurance.

10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:

    a. Notice to Proceed.

    b. Field Order(s).

    c. Work Change Directive(s).

    d. Change Order(s).

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 11 – BURLINGTON NORTHERN AND SANTA FE RAILROAD COMPANY AGREEMENT (BNSF RAILWAY)

11.01 See attached to this Agreement the Exhibit C-1 Agreement Between BNSF Railway Company and the Contractor.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____, _____ (which is the Effective Date of the Contract).

OWNER:

Buffalo County

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for Giving Notices:

_____

_____

_____

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Owner-Contractor Agreement).

Designated Representative:

Name: _____

Title: _____

Address: _____

_____

Phone: _____

Facsimile: _____

CONTRACTOR:

_____

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for Giving Notices:

_____

_____

_____

License No. _____
(Where Applicable)

Agent for service of process: _____

_____
(If Contractor is a corporation or a partnership, attach evidence of authority to sign.)

Designated Representative:

Name: _____

Title: _____

Address _____

_____

Phone: _____

Facsimile: _____

EXHIBIT "C"

CONTRACTOR REQUIREMENTS

1.01 General:

- **1.01.01** The Contractor must cooperate with **BNSF RAILWAY COMPANY**, hereinafter referred to as "**Railway**" where work is over or under on or adjacent to Railway property and/or right-of-way, hereafter referred to as "Railway Property", during the construction of _____ _____

- **1.01.02** The Contractor must execute and deliver to the Railway duplicate copies of the Exhibit “C-1” Agreement, in the form attached hereto, obligating the Contractor to provide and maintain in full force and effect the insurance called for under Section 3 of said Exhibit “C-1”. Questions regarding procurement of the Railroad Protective Liability Insurance should be directed to Rosa Martinez at Marsh, USA, 214-303-8519.

- **1.01.03** The Contractor must plan, schedule and conduct all work activities so as not to interfere with the movement of any trains on Railway Property.

- **1.01.04** The Contractor's right to enter Railway's Property is subject to the absolute right of Railway to cause the Contractor's work on Railway's Property to cease if, in the opinion of Railway, Contractor's activities create a hazard to Railway's Property, employees, and/or operations. Railway will have the right to stop construction work on the Project if any of the following events take place: (i) Contractor (or any of its subcontractors) performs the Project work in a manner contrary to the plans and specifications approved by Railway; (ii) Contractor (or any of its subcontractors), in Railway’s opinion, prosecutes the Project work in a manner which is hazardous to Railway property, facilities or the safe and expeditious movement of railroad traffic; (iii) the insurance described in the attached Exhibit C-1 is canceled during the course of the Project; or (iv) Contractor fails to pay Railway for the Temporary Construction License or the Easement. The work stoppage will continue until all necessary actions are taken by Contractor or its subcontractor to rectify the situation to the satisfaction of Railway’s Division Engineer or until additional insurance has been delivered to and accepted by Railway. In the event of a breach of (i) this Agreement, (ii) the Temporary Construction License, or (iii) the Easement, Railway may immediately terminate the Temporary Construction License or the Easement. Any such work stoppage under this provision will not give rise to any liability on the part of Railway. Railway’s right to stop the work is in addition to any other rights Railway may have including, but not limited to, actions or suits for damages or lost profits. In the event that Railway desires to stop construction work on the Project, Railway agrees to immediately notify the following individual in writing:

Andy Stensland
WisDOT NW Region
1701 N 4th Street
Superior, WI 54880
Tel: (715) 392-7963
Andrew.stensland@dot.wi.gov

Anna Davey
WisDOT NW Region
1701 N 4th Street
Superior, WI 54880
Tel: (715) 392-7960
Anna.davey@dot.wi.gov

- **1.01.05** The Contractor is responsible for determining and complying with all Federal, State and Local Governmental laws and regulations, including, but not limited to environmental laws and regulations (including but not limited to the Resource Conservation and Recovery Act, as amended; the Clean Water Act, the Oil Pollution Act, the Hazardous Materials Transportation Act, CERCLA), and health and safety laws and regulations. The Contractor hereby indemnifies, defends and holds harmless Railway for, from and against all fines or penalties imposed or assessed by Federal, State and Local Governmental Agencies against the Railway which arise out of Contractor's work under this Agreement.

- **1.01.06** The Contractor must notify the Wisconsin DOT at 715-392-7963 and Railway's Manager Public Projects, telephone number 763-782-3495 at least thirty (30) calendar days before commencing any work on Railway Property. Contractor's notification to Railway must refer to Railway's file _____.

- **1.01.07** For any bridge demolition and/or falsework above any tracks or any excavations located with any part of the excavations located within, whichever is greater, twenty-five (25) feet of the nearest track or intersecting a slope from the plane of the top of rail on a 2 horizontal to 1 vertical slope beginning at eleven (11) feet from centerline of the nearest track, both measured perpendicular to center line of track, the Contractor must furnish the Railway five sets of working drawings showing details of construction affecting Railway Property and tracks. The working drawing must include the proposed method of installation and removal of falsework, shoring or cribbing, not included in the contract plans and two sets of structural calculations of any falsework, shoring or cribbing. For all excavation and shoring submittal plans, the current "BNSF-UPRR Guidelines for Temporary Shoring" must be used for determining the design loading conditions to be used in shoring design, and all calculations and submittals must be in accordance with the current "BNSF-UPRR Guidelines for Temporary Shoring". All submittal drawings and calculations must be stamped by a registered professional engineer licensed to practice in the state the project is located. All calculations must take into consideration railway surcharge loading and must be designed to meet American Railway Engineering and Maintenance-of-Way Association (previously known as American Railway Engineering Association) Coopers E-80 live loading standard. All drawings and calculations must be stamped by a registered professional engineer licensed to

practice in the state the project is located. The Contractor must not begin work until notified by the Railway that plans have been approved. The Contractor will be required to use lifting devices such as, cranes and/or winches to place or to remove any falsework over Railway's tracks. In no case will the Contractor be relieved of responsibility for results obtained by the implementation of said approved plans.

- **1.01.08** Subject to the movement of Railway's trains, Railway will cooperate with the Contractor such that the work may be handled and performed in an efficient manner. The Contractor will have no claim whatsoever for any type of damages or for extra or additional compensation in the event his work is delayed by the Railway.

1.02 Contractor Safety Orientation

- **1.02.01 No employee of the Contractor, its subcontractors, agents or invitees may enter Railway Property without first having completed Railway's Engineering Contractor Safety Orientation, found on the web site www.bnsfcontractor.com. The Contractor must ensure that each of its employees, subcontractors, agents or invitees completes Railway's Engineering Contractor Safety Orientation through internet sessions before any work is performed on the Project. Additionally, the Contractor must ensure that each and every one of its employees, subcontractors, agents or invitees possesses a card certifying completion of the Railway Contractor Safety Orientation before entering Railway Property. The Contractor is responsible for the cost of the Railway Contractor Safety Orientation. The Contractor must renew the Railway Contractor Safety Orientation annually. Further clarification can be found on the web site or from the Railway's Representative.**

1.03 Railway Requirements

- **1.03.01** The Contractor must take protective measures as are necessary to keep railway facilities, including track ballast, free of sand, debris, and other foreign objects and materials resulting from his operations. Any damage to railway facilities resulting from Contractor's operations will be repaired or replaced by Railway and the cost of such repairs or replacement must be paid for by the Agency.

- **1.03.02** The Contractor must notify the Railway's Division Engineer _____ at (_____)_____ and provide blasting plans to the Railway for review seven (7) calendar days prior to conducting any blasting operations adjacent to or on Railway's Property.

- **1.03.03** The Contractor must abide by the following temporary clearances during construction:
  - 15'-0" Horizontally from centerline of nearest track
  - 21'-6" Vertically above top of rail

- 27'-0" Vertically above top of rail for electric wires carrying less than 750 volts
- 28'-0" Vertically above top of rail for electric wires carrying 750 volts to 15,000 volts
- 30'-0" Vertically above top of rail for electric wires carrying 15,000 volts to 20,000 volts
- 34'-0" Vertically above top of rail for electric wires carrying more than 20,000 volts

- **1.03.04** Upon completion of construction, the following clearances shall be maintained:
  - 25’ Horizontally from centerline of nearest track
  - 23’ 6” Vertically above top of rail

- **1.03.05** Any infringement within State statutory clearances due to the Contractor's operations must be submitted to the Railway and to the Wisconsin DOT and must not be undertaken until approved in writing by the Railway, and until the Wisconsin DOT has obtained any necessary authorization from the State Regulatory Authority for the infringement. No extra compensation will be allowed in the event the Contractor's work is delayed pending Railway approval, and/or the State Regulatory Authority's approval.

- **1.03.06** In the case of impaired vertical clearance above top of rail, Railway will have the option of installing tell-tales or other protective devices Railway deems necessary for protection of Railway operations. The cost of tell-tales or protective devices will be borne by the Agency.

- **1.03.07** The details of construction affecting the Railway's Property and tracks not included in the contract plans must be submitted to the Railway by Wisconsin DOT for approval before work is undertaken and this work must not be undertaken until approved by the Railway.

- **1.03.08** At other than public road crossings, the Contractor must not move any equipment or materials across Railway's tracks until permission has been obtained from the Railway. The Contractor must obtain a "Temporary Construction Crossing Agreement" from the Railway prior to moving his equipment or materials across the Railways tracks. The temporary crossing must be gated and locked at all times when not required for use by the Contractor. The temporary crossing for use of the Contractor will be constructed and, at the completion of the project, removed at the expense of the Contractor.

- **1.03.09** Discharge, release or spill on the Railway Property of any hazardous substances, oil, petroleum, constituents, pollutants, contaminants, or any hazardous waste is prohibited and Contractor must immediately notify the Railway's Resource Operations Center at 1(800) 832-5452, of any discharge, release or spills in excess of a reportable quantity. Contractor must not allow Railway Property to become a

treatment, storage or transfer facility as those terms are defined in the Resource Conservation and Recovery Act or any state analogue.

- **1.03.10** The Contractor upon completion of the work covered by this contract, must promptly remove from the Railway's Property all of Contractor's tools, equipment, implements and other materials, whether brought upon said property by said Contractor or any Subcontractor, employee or agent of Contractor or of any Subcontractor, and must cause Railway's Property to be left in a condition acceptable to the Railway's representative.

1.04 Contractor Roadway Worker on Track Safety Program and Safety Action Plan:

- **1.04.01** Each Contractor that will perform work within 25 feet of the centerline of a track must develop and implement a Roadway Worker Protection/On Track Safety Program and work with Railway Project Representative to develop an on track safety strategy as described in the guidelines listed in the on track safety portion of the Safety Orientation. This Program must provide Roadway Worker protection/on track training for all employees of the Contractor, its subcontractors, agents or invitees. This training is reinforced at the job site through job safety briefings. Additionally, each Contractor must develop and implement the Safety Action Plan, as provided for on the web site **www.contractororientation.com**, which will be made available to Railway prior to commencement of any work on Railway Property. During the performance of work, the Contractor must audit its work activities. The Contractor must designate an on-site Project Supervisor who will serve as the contact person for the Railway and who will maintain a copy of the Safety Action Plan, safety audits, and Material Safety Datasheets (MSDS), at the job site.

- **1.04.02** Contractor shall have a background investigation performed on all of its employees, subcontractors and agents who will be performing any services for Railroad under this Agreement which are determined by Railroad in its sole discretion **a)** to be on Railroad's property, or **b)** that require access to Railroad Critical Infrastructure, Railroad Critical Information Systems, Railroad's Employees, Hazardous Materials on Railroad's property or is being transported by or otherwise in the custody of Railroad, or Freight in Transit involving Railroad.

  The required background screening shall at a minimum meet the rail industry background screening criteria defined by the e-RAILSAFE Program as outlined at http://www.e-railsafe.com, in addition to any other applicable regulatory requirements. Contractor shall obtain written consent from all its employees, subcontractors or agents screened in compliance with the e-RAILSAFE Program to participate in the Program on their behalf and to release completed background information to Railroad's designee. Contractor shall be subject to periodic audit to ensure compliance.

Contractor subject to the e-RAILSAFE Program hereunder shall not permit any of its employees, subcontractors or agents to perform services hereunder who are not first approved under e-RAILSAFE Program standards. Railroad shall have the right to deny entry onto its premises or access as described in this section above to any of Contractor's employees, subcontractors or agents who do not display the authorized identification badge issued by a background screening service meeting the standards set forth in the e-RAILSAFE Program, or who in Railroad's opinion, which may not be unreasonable, may pose a threat to the safety or security of Railroad's operations, assets or personnel.

Contractors shall be responsible for ensuring that its employees, subcontractors and agents are United States citizens or legally working in the United States under a lawful and appropriate work VISA or other work authorization.

1.05 Railway Flagger Services:

- **1.05.01** The Contractor must give Railway's **Roadmaster (telephone _____)** a minimum of thirty (30) calendar days advance notice when flagging services will be required so that the Roadmaster can make appropriate arrangements (i.e., bulletin the flagger's position). If flagging services are scheduled in advance by the Contractor and it is subsequently determined by the parties hereto that such services are no longer necessary, the Contractor must give the Roadmaster five (5) working days advance notice so that appropriate arrangements can be made to abolish the position pursuant to union requirements.

- **1.05.02** Unless determined otherwise by Railway's Project Representative, Railway flagger will be required and furnished when Contractor's work activities are located over, under and/or within twenty-five (25) feet measured horizontally from centerline of the nearest track and when cranes or similar equipment positioned beyond 25-feet from the track centerline could foul the track in the event of tip over or other catastrophic occurrence, but not limited thereto for the following conditions:

    - **1.05.02a** When, upon inspection by Railway's Representative, other conditions warrant.
    - **1.05.02b** When any excavation is performed below the bottom of tie elevation, if, in the opinion of Railway's representative, track or other Railway facilities may be subject to movement or settlement.
    - **1.05.02c** When work in any way interferes with the safe operation of trains at timetable speeds.
    - **1.05.02d** When any hazard is presented to Railway track, communications, signal, electrical, or other facilities either due to persons, material, equipment or blasting in the vicinity.

- **1.05.02e** Special permission must be obtained from the Railway before moving heavy or cumbersome objects or equipment which might result in making the track impassable.

- **1.05.03** Flagging services will be performed by qualified Railway flaggers.

  - **1.05.03a** Flagging crew generally consists of one employee. However, additional personnel may be required to protect Railway Property and operations, if deemed necessary by the Railways Representative.

  - **1.05.03b** Each time a flagger is called, the minimum period for billing will be the eight (8) hour basic day.

  - **1.05.03c** The cost of flagger services provided by the Railway will be borne by the contractor. The estimated cost for one (1) flagger is approximately between $800.00-$1,600.00 for an eight (8) hour basic day with time and one-half or double time for overtime, rest days and holidays. The estimated cost for each flagger includes vacation allowance, paid holidays, Railway and unemployment insurance, public liability and property damage insurance, health and welfare benefits, vehicle, transportation, meals, lodging, radio, equipment, supervision and other costs incidental to performing flagging services. Negotiations for Railway labor or collective bargaining agreements and rate changes authorized by appropriate Federal authorities may increase actual or estimated flagging rates. **THE FLAGGING RATE IN EFFECT AT THE TIME OF PERFORMANCE BY THE CONTRACTOR HEREUNDER WILL BE USED TO CALCULATE THE ACTUAL COSTS OF FLAGGING PURSUANT TO THIS PARAGRAPH.**

  - **1.05.03d** The average train traffic on this route is _____ freight trains per 24-hour period at a timetable speed _____ MPH and _____ passenger trains at a timetable speed of _____ MPH.

1.06 Contractor General Safety Requirements

- **1.06.01** Work in the proximity of railway track(s) is potentially hazardous where movement of trains and equipment can occur at any time and in any direction. All work performed by contractors within 25 feet of any track must be in compliance with FRA Roadway Worker Protection Regulations.

- **1.06.02** Before beginning any task on Railway Property, a thorough job safety briefing must be conducted with all personnel involved with the task and repeated when the personnel or task changes. If the task is within 25 feet of any track, the job briefing must include the Railway's flagger, as applicable, and include the procedures the Contractor will use to protect its employees, subcontractors, agents or invitees from moving any equipment adjacent to or across any Railway track(s).

- **1.06.03** Workers must not work within 25 feet of the centerline of any track without an on track safety strategy approved by the Railway's Project Representative. When authority is provided, every contractor employee must know: (1) who the Railway flagger is, and how to contact the flagger, (2) limits of the authority, (3) the method of communication to stop and resume work, and (4) location of the designated places of safety. Persons or equipment entering flag/work limits that were not previously job briefed, must notify the flagger immediately, and be given a job briefing when working within 25 feet of the center line of track.

- **1.06.04** When Contractor employees are required to work on the Railway Property after normal working hours or on weekends, the Railway's representative in charge of the project must be notified. A minimum of two employees must be present at all times.

- **1.06.05** Any employees, agents or invitees of Contractor or its subcontractors under suspicion of being under the influence of drugs or alcohol, or in the possession of same, will be removed from the Railway's Property and subsequently released to the custody of a representative of Contractor management. Future access to the Railway's Property by that employee will be denied.

- **1.06.06** Any damage to Railway Property, or any hazard noticed on passing trains must be reported immediately to the Railway's representative in charge of the project. Any vehicle or machine which may come in contact with track, signal equipment, or structure (bridge) and could result in a train derailment must be reported immediately to the Railway representative in charge of the project and to the Railway's Resource Operations Center at 1(800) 832-5452. Local emergency numbers are to be obtained from the Railway representative in charge of the project prior to the start of any work and must be posted at the job site.

- **1.06.07** For safety reasons, all persons are prohibited from having pocket knives, firearms or other deadly weapons in their possession while working on Railway's Property.

- **1.06.08** All personnel protective equipment (PPE) used on Railway Property must meet applicable OSHA and ANSI specifications. Current Railway personnel protective equipment requirements are listed on the web site, **www.contractororientation.com,** however, a partial list of the requirements include: a) safety glasses with permanently affixed side shields (no yellow lenses); b) hard hats; c) safety shoe with: hardened toes, above-the-ankle lace-up and a defined heel; and d) high visibility retro-reflective work wear. The Railway's representative in charge of the project is to be contacted regarding local specifications for meeting requirements relating to hi-visibility work wear. Hearing protection, fall protection, gloves, and respirators must be worn as required by State and Federal regulations. **(NOTE – Should there be a discrepancy between the information contained on the web site and the information in this paragraph, the web site will govern.)**

- **1.06.09 THE CONTRACTOR MUST NOT PILE OR STORE ANY MATERIALS, MACHINERY OR EQUIPMENT CLOSER THAN 25'-0" TO THE CENTER LINE OF THE NEAREST RAILWAY TRACK. MATERIALS, MACHINERY OR EQUIPMENT MUST NOT BE STORED OR LEFT WITHIN 250 FEET OF ANY HIGHWAY/RAIL AT-GRADE CROSSINGS OR TEMPORARY CONSTRUCTION CROSSING, WHERE STORAGE OF THE SAME WILL OBSTRUCT THE VIEW OF A TRAIN APPROACHING THE CROSSING. PRIOR TO BEGINNING WORK, THE CONTRACTOR MUST ESTABLISH A STORAGE AREA WITH CONCURRENCE OF THE RAILWAY'S REPRESENTATIVE.**

- **1.06.10** Machines or vehicles must not be left unattended with the engine running. Parked machines or equipment must be in gear with brakes set and if equipped with blade, pan or bucket, they must be lowered to the ground. All machinery and equipment left unattended on Railway's Property must be left inoperable and secured against movement. (See internet Engineering Contractor Safety Orientation program for more detailed specifications)

- **1.06.11** Workers must not create and leave any conditions at the work site that would interfere with water drainage. Any work performed over water must meet all Federal, State and Local regulations.

- **1.06.12** All power line wires must be considered dangerous and of high voltage unless informed to the contrary by proper authority. For all power lines the minimum clearance between the lines and any part of the equipment or load must be; 200 KV or below - 15 feet; 200 to 350 KV - 20 feet; 350 to 500 KV - 25 feet; 500 to 750 KV - 35 feet; and 750 to 1000 KV - 45 feet. If capacity of the line is not known, a minimum clearance of 45 feet must be maintained. A person must be designated to observe clearance of the equipment and give a timely warning for all operations where it is difficult for an operator to maintain the desired clearance by visual means.

1.07 Excavation:

- **1.07.01** Before excavating, the Contractor must determine whether any underground pipe lines, electric wires, or cables, including fiber optic cable systems are present and located within the Project work area. The Contractor must determine whether excavation on Railway's Property could cause damage to buried cables resulting in delay to Railway traffic and disruption of service to users. Delays and disruptions to service may cause business interruptions involving loss of revenue and profits. Before commencing excavation, the Contractor must contact **BNSF's Field Engineering Representative (_____).** All underground and overhead wires will be considered HIGH VOLTAGE and dangerous until verified with the company having ownership of the line. **It is the Contractor's responsibility to notify any other companies that have underground utilities in the area and arrange for the location of all underground utilities before excavating.**

- **1.07.02** The Contractor must cease all work and notify the Railway immediately before continuing excavation in the area if obstructions are encountered which do not appear on drawings. If the obstruction is a utility and the owner of the utility can be identified, then the Contractor must also notify the owner immediately. If there is any doubt about the location of underground cables or lines of any kind, no work must be performed until the exact location has been determined. There will be no exceptions to these instructions.

- **1.07.03** All excavations must be conducted in compliance with applicable OSHA regulations and, regardless of depth, must be shored where there is any danger to tracks, structures or personnel.

- **1.07.04** Any excavations, holes or trenches on the Railway's Property must be covered, guarded and**/**or protected when not being worked on. When leaving work site areas at night and over weekends, the areas must be secured and left in a condition that will ensure that Railway employees and other personnel who may be working or passing through the area are protected from all hazards. All excavations must be back filled as soon as possible.

1.08 Hazardous Waste, Substances and Material Reporting:

- **1.08.01** If Contractor discovers any hazardous waste, hazardous substance, petroleum or other deleterious material, including but not limited to any non-containerized commodity or material, on or adjacent to Railway's Property, in or near any surface water, swamp, wetlands or waterways, while performing any work under this Agreement, Contractor must immediately: (a) notify the Railway's Resource Operations Center at 1(800) 832-5452, of such discovery: (b) take safeguards necessary to protect its employees, subcontractors, agents and/or third parties: and (c) exercise due care with respect to the release, including the taking of any appropriate measure to minimize the impact of such release.

1.09 Personal Injury Reporting

- **1.09.01** The Railway is required to report certain injuries as a part of compliance with Federal Railroad Administration (FRA) reporting requirements. Any personal injury sustained by an employee of the Contractor, subcontractor or Contractor's invitees while on the Railway's Property must be reported immediately (by phone mail if unable to contact in person) to the Railway's representative in charge of the project. The Non-Employee Personal Injury Data Collection Form contained herein is to be completed and sent by Fax to the Railway at 1(817) 352-7595 and to the Railway’s Project Representative no later than the close of shift on the date of the injury.

NON-EMPLOYEE PERSONAL INJURY DATA COLLECTION

(If injuries are in connection with rail equipment accident/incident, highway rail grade crossing accident or automobile accident, ensure that appropriate information is obtained, forms completed and that data entry personnel are aware that injuries relate to that specific event.)

Injured Person Type:

- ☐ Passenger on train (C)
- ☐ Non-employee (N) *(i.e., emp of another railroad, or, non-BNSF emp involved in vehicle accident, including company vehicles)*
- ☐ Contractor/safety sensitive (F)
- ☐ Contractor/non-safety sensitive (G)
- ☐ Volunteer/safety sensitive (H)
- ☐ Volunteer/other non-safety sensitive (I)
- ☐ Non-trespasser (D) - to include highway users involved in highway rail grade crossing accidents who did not go around or through gates
- ☐ Trespasser (E) - to include highway users involved in highway rail grade crossing accidents who went around or through gates
- ☐ Non-trespasser (J) - Off railroad property

If train involved, Train ID: _____

Transmit attached information to Accident/Incident Reporting Center by:
Fax 1-817-352-7595 or by Phone 1-800-697-6736 **or email to:**
Accident-Reporting.Center@BNSF.com

Officer Providing Information:

_____ _____ _____
(Name) (Employee No.) (Phone #)

REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS AND PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903 AND 83 U.S.C. 490

BNSF RAILWAY

NON-EMPLOYEE PERSONAL INJURY DATA COLLETION

INFORMATION REQUIRED TO BE COLLECTED PURSUANT TO FEDERAL REGULATION IT SHOULD BE USED FOR COMPLIANCE WITH FEDERAL REGULATIONS ONLY AND IT IS NOT INTENDED TO PRESUME ACCEPTANCE OF RESPONSIBILITY OR LIABILITY

1. Accident City/St:_____ 2. Date:_____ Time:_____

   County:_____ 3. Temperature:_____ 4. Weather:_____
   (if non BNSF location)

   Mile Post/Line Segment:_____

5. Driver's License No. (and state) or other ID:_____ SSN(Required)_____

6. Name (last, first, mi):_____

7. Address:_____ City:_____ State:_____ Zip:_____

8. Date of Birth:_____ and/or Age:_____ Gender:_____
   (if available)

Phone Number:_____ Employer:_____

9. Injury:_____ 10. Body Part:_____
   (i.e., Laceration, etc.) (i.e., Hand, etc.)

11. Description of Accident (To include location, action, result, etc.):_____

_____

_____

12. Treatment: ☐ First Aid Only _____

    ☐ Required Medical Treatment _____

    ☐ Other Medical Treatment _____

13. Dr. Name:_____ Date:_____

14. Dr. Address:

    Street:_____ City:_____ State:_____ Zip:_____

15. Hospital Name:_____

16. Hospital Address:

    Street:_____ City:_____ State:_____ Zip:_____

17. Diagnosis:_____

REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS AND PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903

EXHIBIT "C-1"

Agreement Between
BNSF RAILWAY COMPANY
and the
CONTRACTOR

Railway File: _____

Agency Project: _____

Contractor Name(hereinafter called "Contractor"), has entered into an agreement (hereinafter called "Agreement") dated _____, 201_, with the Wisconsin Department of Transportation for the performance of certain work in connection with the following project:_____ Performance of such work will necessarily require Contractor to enter **BNSF RAILWAY COMPANY** (hereinafter called "Railway") right of way and property (hereinafter called "Railway Property"). The Agreement provides that no work will be commenced within Railway Property until the Contractor employed in connection with said work for the Wisconsin Department of Transportation (i) executes and delivers to Railway an Agreement in the form hereof, and (ii) provides insurance of the coverage and limits specified in such Agreement and Section 3 herein. If this Agreement is executed by a party who is not the Owner, General Partner, President or Vice President of Contractor, Contractor must furnish evidence to Railway certifying that the signatory is empowered to execute this Agreement on behalf of Contractor.

Accordingly, in consideration of Railway granting permission to Contractor to enter upon Railway Property and as an inducement for such entry, Contractor, effective on the date of the Agreement, has agreed and does hereby agree with Railway as follows:

1) RELEASE OF LIABILITY AND INDEMNITY

Contractor hereby waives, releases, indemnifies, defends and holds harmless Railway for all judgments, awards, claims, demands, and expenses (including attorneys' fees), for injury or death to all persons, including Railway's and Contractor's officers and employees, and for loss and damage to property belonging to any person, arising in any manner from Contractor's or any of Contractor's subcontractors' acts or omissions or any work performed on or about Railway's property or right-of-way. **THE LIABILITY ASSUMED BY CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DESTRUCTION, DAMAGE, DEATH, OR INJURY WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF RAILWAY, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIMS ARE PROXIMATELY CAUSED BY THE INTENSIONAL MISCONDUCT OR GROSS NEGLIGENCE OF RAILWAY.**

THE INDEMNIFICATION OBLIGATION ASSUMED BY CONTRACTOR INCLUDES ANY CLAIMS, SUITS OR JUDGMENTS BROUGHT AGAINST RAILWAY UNDER THE FEDERAL EMPLOYEE'S LIABILITY ACT, INCLUDING CLAIMS FOR STRICT LIABILITY UNDER THE SAFETY APPLIANCE ACT OR THE LOCOMOTIVE INSPECTION ACT, WHENEVER SO CLAIMED.

Contractor further agrees, at its expense, in the name and on behalf of Railway, that it will adjust and settle all claims made against Railway, and will, at Railway's discretion, appear and defend any suits or actions of law or in equity brought against Railway on any claim or cause of action arising or growing out of or in any manner connected with any liability assumed by Contractor under this Agreement for which Railway is liable or is alleged to be liable. Railway will give notice to Contractor, in writing, of the receipt or dependency of such claims and thereupon Contractor must proceed to adjust and handle to a conclusion such claims, and in the event of a suit being brought against Railway, Railway may forward summons and complaint or other process in connection therewith to Contractor, and Contractor, at Railway's discretion, must defend, adjust, or settle such suits and protect, indemnify, and save harmless Railway from and against all damages, judgments, decrees, attorney's fees, costs, and expenses growing out of or resulting from or incident to any such claims or suits.

In addition to any other provision of this Agreement, in the event that all or any portion of this Article shall be deemed to be inapplicable for any reason, including without limitation as a result of a decision of an applicable court, legislative enactment or regulatory order, the parties agree that this Article shall be interpreted as requiring Contractor to indemnify Railway to the fullest extent permitted by applicable law. **THROUGH THIS AGREEMENT THE PARTIES EXPRESSLY INTEND FOR CONTRACTOR TO INDEMNIFY RAILWAY FOR RAILWAY'S ACTS OF NEGLIGENCE.**

It is mutually understood and agreed that the assumption of liabilities and indemnification provided for in this Agreement survive any termination of this Agreement.

2) TERM

This Agreement is effective from the date of the Agreement until (i) the completion of the project set forth herein, and (ii) full and complete payment to Railway of any and all sums or other amounts owing and due hereunder.

3) INSURANCE

Contractor shall, at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

A. Commercial General Liability insurance. This insurance shall contain broad form contractual liability with a combined single limit of a minimum of $5,000,000 each occurrence and an aggregate limit of at least $10,000,000 but in no event less than the amount otherwise carried by the Contractor. Coverage must be purchased on a post 2004 ISO occurrence form or equivalent and include coverage for, but not limit to the following:

- Bodily Injury and Property Damage
- Personal Injury and Advertising Injury
- Fire legal liability
- Products and completed operations

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

- The definition of insured contract shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- Waver of subrogation in favor of and acceptable to Railway.
- Additional insured endorsement in favor of and acceptable to Railway.
- Separation of insureds.
- The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

It is agreed that the workers' compensation and employers' liability related exclusions in the Commercial General Liability insurance policy(s) required herein are intended to apply to employees of the policy holder and shall not apply to ***Railway*** employees.

No other endorsements limiting coverage as respects obligations under this Agreement may be included on the policy with regard to the work being performed under this agreement.

B. Business Automobile Insurance. This insurance shall contain a combined single limit of at least $1,000,000 per occurrence, and include coverage for, but not limited to the following:

- Bodily injury and property damage
- Any and all vehicles owned, used or hired

The policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- Waiver of subrogation in favor of and acceptable to Railway.
- Additional insured endorsement in favor of and acceptable to Railway.
- Separation of insureds.
- The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

C. Workers Compensation and Employers Liability insurance including coverage for, but not limited to:

- Contractor's statutory liability under the worker's compensation laws of the state(s) in which the work is to be performed. If optional under State law, the insurance must cover all employees anyway.
- Employers' Liability (Part B) with limits of at least $500,000 each accident, $500,000 by disease policy limit, $500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- Waiver of subrogation in favor of and acceptable to Railway.

D. Railroad Protective Liability insurance naming only the ***Railway*** as the Insured with coverage of at least $5,000,000 per occurrence and $10,000,000 in the aggregate. The policy Must be issued on a standard ISO form CG 00 35 12 04 and include the following:

- Endorsed to include the Pollution Exclusion Amendment
- Endorsed to include the Limited Seepage and Pollution Endorsement.
- Endorsed to remove any exclusion for punitive damages.

- No other endorsements restricting coverage may be added.
- The original policy must be provided to the ***Railway*** prior to performing any work or services under this Agreement
- Definition of "Physical Damage to Property" shall be endorsed to read: "means direct and accidental loss of or damage to all property owned by any named insured and all property in any named insured' care, custody, and control arising out of the acts or omissions of the contractor named on the Declarations.

In lieu of providing a Railroad Protective Liability Policy, Licensee may participate (if available) in Railway's Blanket Railroad Protective Liability Insurance Policy.

Other Requirements:

Where allowable by law, all policies (applying to coverage listed above) shall contain no exclusion for punitive damages.

Contractor agrees to waive its right of recovery against ***Railway*** for all claims and suits against ***Railway***. In addition, its insurers, through the terms of the policy or policy endorsement, waive their right of subrogation against ***Railway*** for all claims and suits. Contractor further waives its right of recovery, and its insurers also waive their right of subrogation against ***Railway*** for loss of its owned or leased property or property under Contractor's care, custody or control.

Allocated Loss Expense shall be in addition to all policy limits for coverages referenced above.

Contractor is not allowed to self-insure without the prior written consent of ***Railway.*** If granted by ***Railway***, any self-insured retention or other financial responsibility for claims shall be covered directly by Contractor in lieu of insurance. Any and all ***Railway*** liabilities that would otherwise, in accordance with the provisions of this Agreement, be covered by Contractor's insurance will be covered as if Contractor elected not to include a deductible, self-insured retention or other financial responsibility for claims.

Prior to commencing services, Contractor shall furnish to ***Railway*** an acceptable certificate(s) of insurance from an authorized representative evidencing the required coverage(s), endorsements, and amendments. The certificate should be directed to the following address:

BNSF Railway Company
c/o CertFocus
P.O. Box 140528
Kansas City, MO 64114
Toll Free: 877-576-2378
Fax number: 817-840-7487
Email: BNSF@certfocus.com
www.certfocus.com

Contractor shall notify ***Railway*** in writing at least 30 days prior to any cancellation, non-renewal, substitution or material alteration.

Any insurance policy shall be written by a reputable insurance company acceptable to ***Railway*** or with a current Best's Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provided.

If coverage is purchased on a "claims made" basis, Contractor hereby agrees to maintain coverage in force for a minimum of three years after expiration, cancellation or termination of this Agreement. Annually Contractor agrees to provide evidence of such coverage as required hereunder.

Contractor represents that this Agreement has been thoroughly reviewed by Contractor's insurance agent(s)/broker(s), who have been instructed by Contractor to procure the insurance coverage required by this Agreement.

Not more frequently than once every five years, ***Railway*** may reasonably modify the required insurance coverage to reflect then-current risk management practices in the railroad industry and underwriting practices in the insurance industry.

If any portion of the operation is to be subcontracted by Contractor, Contractor shall require that the subcontractor shall provide and maintain insurance coverage(s) as set forth herein, naming ***Railway*** as an additional insured, and shall require that the subcontractor shall release, defend and indemnify ***Railway*** to the same extent and under the same terms and conditions as Contractor is required to release, defend and indemnify ***Railway*** herein.

Failure to provide evidence as required by this section shall entitle, but not require, ***Railway*** to terminate this Agreement immediately. Acceptance of a certificate that does not comply with this section shall not operate as a waiver of Contractor's obligations hereunder.

The fact that insurance (including, without limitation, self-insurance) is obtained by Contractor shall not be deemed to release or diminish the liability of Contractor including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by ***Railway*** shall not be limited by the amount of the required insurance coverage.

In the event of a claim or lawsuit involving ***Railway*** arising out of this agreement, Contractor will make available any required policy covering such claim or lawsuit.

These insurance provisions are intended to be a separate and distinct obligation on the part of the Contractor. Therefore, these provisions shall be enforceable and Contractor shall be bound thereby regardless of whether or not indemnity provisions are determined to be enforceable in the jurisdiction in which the work covered hereunder is performed.

For purposes of this section, ***Railway*** shall mean "Burlington Northern Santa Fe LLC", "BNSF Railway Company" and the subsidiaries, successors, assigns and affiliates of each.

4) SALES AND OTHER TAXES

In the event applicable sales taxes of a state or political subdivision of a state of the United States are levied or assessed in connection with and directly related to any amounts invoiced by Contractor to Railway ("Sales Taxes"), Railway shall be responsible for paying only the Sales Taxes that Contractor separately states on the invoice or other billing documents provided to Railway; *provided, however,* that (i) nothing herein shall preclude Railway from claiming whatever Sales Tax exemptions are applicable to amounts Contractor bills Railway, (ii) Contractor shall be responsible for all sales, use, excise, consumption, services and other taxes which may accrue on all services, materials, equipment, supplies or fixtures that Contractor and its subcontractors use or consume in the performance of this Agreement, (iii) Contractor shall be responsible for Sales Taxes (together with any penalties, fines or interest thereon) that Contractor fails to separately state on the invoice or other billing documents provided to Railway or fails to collect at the time of payment by Railway of invoiced amounts (except where Railway claims a Sales Tax exemption), and (iv) Contractor shall be responsible for Sales Taxes (together with any penalties, fines or interest thereon) if Contractor fails to issue separate invoices for each state in which Contractor delivers goods, provides services or, if applicable, transfers intangible rights to Railway.

Upon request, Contractor shall provide Railway satisfactory evidence that all taxes (together with any penalties, fines or interest thereon) that Contractor is responsible to pay under this Agreement have been paid. If a written claim is made against Contractor for Sales Taxes with respect to which Railway may be liable for under this Agreement, Contractor shall promptly notify Railway of such claim and provide Railway copies of all correspondence received from the taxing authority. Railway shall have the right to contest, protest, or claim a refund, in Railway's own name, any Sales Taxes paid by Railway to Contractor or for which Railway might otherwise be responsible for under this Agreement; provided, however, that if Railway is not permitted by law to contest any such Sales Tax in its own name, Contractor shall, if requested by Railway at Railway's sole cost and expense, contest in Contractor's own name the validity, applicability or amount of such Sales Tax and allow Railway to control and conduct such contest.

Railway retains the right to withhold from payments made under this Agreement amounts required to be withheld under tax laws of any jurisdiction. If Contractor is claiming a withholding exemption or a reduction in the withholding rate of any jurisdiction on any payments under this Agreement, before any payments are made (and in each succeeding period or year as required by law), Contractor agrees to furnish to Railway a properly completed exemption form prescribed by such jurisdiction. Contractor shall be responsible for any taxes, interest or penalties assessed against Railway with respect to withholding taxes that Railway does not withhold from payments to Contractor.

5) EXHIBIT "C" CONTRACTOR REQUIREMENTS

The Contractor must observe and comply with all provisions, obligations, requirements and limitations contained in the Agreement, and the Contractor Requirements set forth on Exhibit "C" attached to the Agreement and this Agreement, including, but not be limited to, payment of all costs incurred for any damages to Railway roadbed, tracks, and/or appurtenances thereto, resulting from use, occupancy, or presence of its employees, representatives, or agents or

subcontractors on or about the construction site. Contractor shall execute a Temporary Construction Crossing Agreement or Private Crossing Agreement (http://www.bnsf.com/communities/faqs/permits-real-estate/), for any temporary crossing requested to aid in the construction of this Project, if approved by BNSF.

6) TRAIN DELAY

Contractor is responsible for and hereby indemnifies and holds harmless Railway (including its affiliated railway companies, and its tenants) for, from and against all damages arising from any unscheduled delay to a freight or passenger train which affects Railway's ability to fully utilize its equipment and to meet customer service and contract obligations. Contractor will be billed, as further provided below, for the economic losses arising from loss of use of equipment, contractual loss of incentive pay and bonuses and contractual penalties resulting from train delays, whether caused by Contractor, or subcontractors, or by the Railway performing work under this Agreement. Railway agrees that it will not perform any act to unnecessarily cause train delay.

For loss of use of equipment, Contractor will be billed the current freight train hour rate per train as determined from Railway's records. Any disruption to train traffic may cause delays to multiple trains at the same time for the same period.

Additionally, the parties acknowledge that passenger, U.S. mail trains and certain other grain, intermodal, coal and freight trains operate under incentive/penalty contracts between Railway and its customer(s). Under these arrangements, if Railway does not meet its contract service commitments, Railway may suffer loss of performance or incentive pay and/or be subject to penalty payments. Contractor is responsible for any train performance and incentive penalties or other contractual economic losses actually incurred by Railway which are attributable to a train delay caused by Contractor or its subcontractors.

The contractual relationship between Railway and its customers is proprietary and confidential. In the event of a train delay covered by this Agreement, Railway will share information relevant to any train delay to the extent consistent with Railway confidentiality obligations. The rate then in effect at the time of performance by the Contractor hereunder will be used to calculate the actual costs of train delay pursuant to this agreement.

Contractor and its subcontractors must give Railway’s representative (_____) _____ (__) weeks advance notice of the times and dates for proposed work windows. Railway and Contractor will establish mutually agreeable work windows for the project. Railway has the right at any time to revise or change the work windows due to train operations or service obligations. Railway will not be responsible for any additional costs or expenses resulting from a change in work windows. Additional costs or expenses resulting from a change in work windows shall be accounted for in Contractor’s expenses for the project.

Contractor and subcontractors must plan, schedule, coordinate and conduct all Contractor's work so as to not cause any delays to any trains.

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed by its duly authorized officer the day and year first above written.

Contractor Name

By: _____

Printed Name: _____

Title: _____

BNSF Railway Company

By: _____

Name: _____
Manager Public Projects

Accepted and effective this _____day of 20__.

Contact Person: _____

Address: _____

City: _____

State: _____ Zip: _____

Fax: _____

Phone: _____

E-mail: _____

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

PERFORMANCE BOND

Contractor	**Surety**
Name: **[Full formal name of Contractor]**	Name: **[Full formal name of Surety]**
Address *(principal place of business)*: **[Address of Contractor's principal place of business]**	Address *(principal place of business)*: **[Address of Surety's principal place of business]**
Owner	**Contract**
Name: **[Full formal name of Owner]**	Description *(name and location)*: **[Owner's project/contract name, and location of the project]**
Mailing address *(principal place of business)*: **[Address of Owner's principal place of business]**	Contract Price: **[Amount from Contract]**
	Effective Date of Contract: **[Date from Contract]**

Bond

Bond Amount: **[Amount]**

Date of Bond: **[Date]**

(Date of Bond cannot be earlier than Effective Date of Contract)

Modifications to this Bond form:

☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

Contractor as Principal	Surety
_____	_____
(Full formal name of Contractor)	*(Full formal name of Surety) (corporate seal)*
By: _____	By: _____
(Signature)	*(Signature)(Attach Power of Attorney)*
Name: _____	Name: _____
(Printed or typed)	*(Printed or typed)*
Title: _____	Title: _____
Attest: _____	Attest: _____
(Signature)	*(Signature)*
Name: _____	Name: _____
(Printed or typed)	*(Printed or typed)*
Title: _____	Title: _____

Notes: (1) Provide supplemental execution by any additional parties, such as joint ventures. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:

    3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;

    3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

    3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

    5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

    5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

    5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

    5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

        5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

        5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in

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whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

    7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

    7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

    7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.

12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

    14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

    14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

    14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

    14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

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14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

16. Modifications to this Bond are as follows: **[Describe modification or enter "None"]**

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ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

PAYMENT BOND

Contractor	**Surety**
Name: **[Full formal name of Contractor]** Address *(principal place of business)*: **[Address of Contractor's principal place of business]**	Name: **[Full formal name of Surety]** Address *(principal place of business)*: **[Address of Surety's principal place of business]**
Owner	**Contract**
Name: **[Full formal name of Owner]** Mailing address *(principal place of business)*: **[Address of Owner's principal place of business]**	Description *(name and location)*: **[Owner's project/contract name, and location of the project]** Contract Price: **[Amount, from Contract]** Effective Date of Contract: **[Date, from Contract]**

Bond

Bond Amount: **[Amount]**

Date of Bond: **[Date]**

(Date of Bond cannot be earlier than Effective Date of Contract)

Modifications to this Bond form:

☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

Contractor as Principal	Surety
_____ *(Full formal name of Contractor)*	_____ *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: _____ *(Signature)(Attach Power of Attorney)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____
Attest: _____ *(Signature)*	Attest: _____ *(Signature)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____

Notes: (1) Provide supplemental execution by any additional parties, such as joint ventures. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond will arise after the following:

    5.1. Claimants who do not have a direct contract with the Contractor

        5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

        5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).

    5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

    7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

    7.2. Pay or arrange for payment of any undisputed amounts.

    7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all

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funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

    16.1. *Claim*—A written statement by the Claimant including at a minimum:

        16.1.1. The name of the Claimant;

        16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;

        16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;

        16.1.4. A brief description of the labor, materials, or equipment furnished;

        16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;

        16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

        16.1.7. The total amount of previous payments received by the Claimant; and

        16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

    16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute

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against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

18. Modifications to this Bond are as follows: **[Describe modification or enter "None"]**

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By

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ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

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GUIDELINES FOR USE OF EJCDC® C-700, STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

1.0 PURPOSE AND INTENDED USE OF THE DOCUMENT

EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), is the foundation document for the EJCDC Construction Series. The General Conditions define the basic rights, responsibilities, risk allocations, and contractual relationship of the Owner and Contractor, and establish how the Contract is to be administered.

2.0 OTHER DOCUMENTS

EJCDC documents are intended to be used as a system and changes in one EJCDC document may require a corresponding change in other documents. Other EJCDC documents may also serve as a reference to provide insight or guidance for the preparation of this document.

These General Conditions have been prepared for use with either EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price), or EJCDC® C-525, Agreement Between Owner and Contractor for Construction Contract (Cost-Plus-Fee) (2018 Editions). The provisions of the General Conditions and the Agreement are interrelated, and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018).

The full EJCDC Construction series of documents is discussed in the EJCDC® C-001, Commentary on the 2018 EJCDC Construction Documents (2018).

3.0 ORGANIZATION OF INFORMATION

All parties involved in a construction project benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. Careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521, Uniform Location of Subject Matter (2012 Edition) when preparing documents. EJCDC® N-122/AIA® A521 is available at no charge from the EJCDC website, www.ejcdc.org, and from the websites of EJCDC's sponsoring organizations.

If CSI MasterFormat™ is used for organizing the Project Manual, consult CSI MasterFormat™ for the appropriate document number (e.g., under 00 11 00, Advertisements and Invitations), and accordingly number the document and its pages.

4.0 EDITING THIS DOCUMENT

Remove these Guidelines for Use. Some users may also prefer to remove the two cover pages.

Although it is permissible to revise the Standard EJCDC Text of C-700 (the content beginning at page 1 and continuing to the end), it is common practice to leave the Standard EJCDC Text of C-700 intact and unaltered, with modifications and supplementation of C-700's provisions set forth in EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018). If the Standard Text itself is revised, the

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user must comply with the terms of the License Agreement, Paragraph 4.0, Document-Specific Provisions, concerning the tracking or highlighting of revisions. The following is a summary of the relevant License Agreement provisions:

1. The term "Standard EJCDC Text" for C-700 refers to all text prepared by EJCDC in the main body of the document. Document covers, logos, footers, instructions, or copyright notices are not Standard EJCDC Text for this purpose.
2. During the drafting or negotiating process for C-700, it is important that the two contracting parties are both aware of any changes that have been made to the Standard EJCDC Text. Thus, if a draft or version of C-700 purports to be or appears to be an EJCDC document, the user must plainly show all changes to the Standard EJCDC Text, using "Track Changes" (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions.
3. If C-700 has been revised or altered and is subsequently presented to third parties (such as potential bidders, grant agencies, lenders, or sureties) as an EJCDC document, then the changes to the Standard EJCDC Text must be shown, or the third parties must receive access to a version that shows the changes.
4. Once the document is ready to be finalized (and if applicable executed by the contracting parties), it is no longer necessary to continue to show changes to the Standard EJCDC Text. The user may produce a final version of the document in a format in which all changes are accepted, and the document at that point does not need to include any "Track Changes," redline/strikeout, highlighting, or other indication of additions and deletions to the Standard EJCDC Text.

5.0 LICENSE AGREEMENT

This document is subject to the terms and conditions of the **License Agreement, 2018 EJCDC® Construction Series Documents**. A copy of the License Agreement was furnished at the time of purchase of this document, and is available for review at www.ejcdc.org and the websites of EJCDC's sponsoring organizations.

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*

a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

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requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.

c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.

d. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.

21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

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recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.

23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.

    a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.

    b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.

    c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.

28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.

32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

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33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.

34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.

36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.

39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.

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43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.

44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

46. *Technical Data*

    a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.

    b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.

    c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.

47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.

48. *Unit Price Work*—Work to be paid for on the basis of unit prices.

49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

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1.02 *Terminology*

A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*: The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*: The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

1. does not conform to the Contract Documents;

2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

3. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).

E. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

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F. *Contract Price or Contract Times*: References to a change in "Contract Price or Contract Times" or "Contract Times or Contract Price" or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term "or both" is not expressed.

G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).

B. *Evidence of Contractor's Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.

C. *Evidence of Owner's Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

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into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.

B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

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ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

G. Nothing in the Contract Documents creates:

1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or

2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

A. *Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

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inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

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B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

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established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. Abnormal weather conditions;

3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and

4. Acts of war or terrorism.

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D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.

2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.

3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.

E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;

2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;

3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;

4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and

5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.

F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.

G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

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B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

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and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;

2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and

3. Technical Data contained in such reports and drawings.

B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

C. *Reliance by Contractor on Technical Data*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

D. *Limitations of Other Data and Documents*: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, 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;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;

3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or

4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

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5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;

2. is of such a nature as to require a change in the Drawings or Specifications;

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

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Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;

b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

2. complying with applicable state and local utility damage prevention Laws and Regulations;

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3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;

4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.

C. *Engineer's Review*: Engineer will:

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;

2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;

3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and

4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

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or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and

c. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, 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

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of construction to be employed by Contractor, and safety precautions and programs incident thereto;

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.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.

H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

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conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.

B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.

C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

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Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.

E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.

F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.

H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.

D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

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Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.

F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

H. Contractor shall require:

1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.

I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.

K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

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L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.

M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.

N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

A. *Required Insurance*: Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.

B. *General Provisions*: The policies of insurance required by this Paragraph 6.03 as supplemented must:

1. include at least the specific coverages required;

2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;

3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;

4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and

5. include all necessary endorsements to support the stated requirements.

C. *Additional Insureds*: The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:

1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;

2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;

3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

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4. not seek contribution from insurance maintained by the additional insured; and

5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.

B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.

C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.

E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

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Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.

C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.

D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

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6.06 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

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B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.

C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

A. *Contractor's Request; Governing Criteria*: Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that the proposed item:

1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

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2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) has a proven record of performance and availability of responsive service; and

4) is not objectionable to Owner.

b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

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3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:

    a. will certify that the proposed substitute item will:

        1) perform adequately the functions and achieve the results called for by the general design;

        2) be similar in substance to the item specified; and

        3) be suited to the same use as the item specified.

    b. will state:

        1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;

        2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

        3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

    c. will identify:

        1) all variations of the proposed substitute item from the item specified; and

        2) available engineering, sales, maintenance, repair, and replacement services.

    d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

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E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.

B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.

E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.

F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

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H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.

J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.

K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.

L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

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7.09 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.

C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

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7.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.

B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.

H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

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I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:

a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determine and verify:

1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;

2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;

c. confirm that the Submittal is complete with respect to all related data included in the Submittal.

2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

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3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.

1. *Shop Drawings*

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.

2. *Samples*

a. Contractor shall submit the number of Samples required in the Specifications.

b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Engineer's Review of Shop Drawings and Samples*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

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document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. *Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.

2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. *Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:

   a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.

   b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.

   c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

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d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.

2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03. 2.04, and 2.05.

F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.

B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:

1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and

2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.

C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:

1. Observations by Engineer;

2. Recommendation by Engineer or payment by Owner of any progress or final payment;

3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. Use or occupancy of the Work or any part thereof by Owner;

5. Any review and approval of a Shop Drawing or Sample submittal;

6. The issuance of a notice of acceptability by Engineer;

7. The end of the correction period established in Paragraph 15.08;

8. Any inspection, test, or approval by others; or

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9. Any correction of defective Work by Owner.

E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.

C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

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D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Paragraph 7.19;

2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and

3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.

F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.

G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.

D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

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E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. An itemization of the specific matters to be covered by such authority and responsibility; and

3. The extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

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B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.

2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.

C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

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9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

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ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.

B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

A. Engineer has the authority to reject Work in accordance with Article 14.

B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.

C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.

D. Engineer's authority as to changes in the Work is set forth in Article 11.

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E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

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ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.

C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and

4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

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B. If Owner has issued a Work Change Directive and:

1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.

2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.

B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.

B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.

C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

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1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);

2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or

3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:

1. A mutually acceptable fixed fee; or

2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;

b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;

c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;

d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and

f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

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11.08 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.

B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

A. *Purpose and Content*: Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. *Change Proposal Procedures*

1. *Submittal*: Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.

2. *Supporting Data*: The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.

    a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.

    b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

    The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review*: Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.

4. *Engineer's Full Review and Action on the Change Proposal*: Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

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Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and

4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

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and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

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2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.

5. Other costs consisting of the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

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consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.

2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.

3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

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g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. The cost of purchasing, renting, or furnishing small tools and hand tools.

3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

6. Expenses incurred in preparing and advancing Claims.

7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:

a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.

b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:

1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.

2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.

2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

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Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

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thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:

a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.

2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

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D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

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losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

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or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

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establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

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4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

    a. to supervise, direct, or control the Work;

    b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;

    c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;

    d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or

    e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

    a. the Work is defective, requiring correction or replacement;

    b. the Contract Price has been reduced by Change Orders;

    c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

    d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

    e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

    a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

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b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. The Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

h. The Contract Price has been reduced by Change Orders;

i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;

j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or

l. Other items entitle Owner to a set-off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

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submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

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significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.

2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.

2. The final Application for Payment must be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents;

   b. consent of the surety, if any, to final payment;

   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

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d. a list of all duly pending Change Proposals and Claims; and

e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Final Application and Recommendation of Payment*: If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Notice of Acceptability*: In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.

D. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.

E. *Final Payment Becomes Due*: Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

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appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such adjacent areas;
2. correct such defective Work;
3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.

B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.

C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.

D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

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F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

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attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

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provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and

2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:

1. in person, by a commercial courier service or otherwise, to the recipient's place of business;

2. by registered or certified mail, postage prepaid, to the recipient's place of business; or

3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

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18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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SUPPLEMENTARY CONDITIONS

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These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2018 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

SC-2.02 Copies of Documents

Delete Paragraph 2.02.A in its entirety and insert the following:

A. Owner shall furnish to Contractor 2 printed copies of the Contract Documents (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished on request at the cost of reproduction.

SC-4.03 Reference Points

Add a new paragraph immediately after Paragraph 4.03.A to read as follows:

B. Contractor shall provide a minimum of 48 hours' notice to the Engineer in advance of the need for construction stakes on the Project. No claim for delays under Paragraph 4.05 of the General Conditions due to the need for construction stakes will be considered unless 48 hour written notice has been provided and the Contractor is proceeding under an accepted Progress Schedule.

SC-5.01 Availability of Lands

Add the following new paragraph immediately after Paragraph 5.01.C:

D. Contractor shall provide the bond required for the permit to work within the Wisconsin Department of Transportation right-of-way.

SC-5.03 Subsurface and Physical Conditions

Add the following new paragraph(s) immediately after Paragraph 5.03.B:

C. The following reports of explorations and tests of subsurface conditions at or adjacent to the Site are known to Owner:

1. Report dated November 20, 2018 prepared by Professional Service Industries, Inc., titled: Subsurface Exploration and Testing, Great River State Trail Winona Connector, Town of Buffalo, Wisconsin PSI Project No. 00951113, consisting of 9 pages.
2. Report dated October 3, 2014 prepared by River Valley Testing Corp., titled: Supplementary #2 to Geotechnical Report, Proposed Winona Connector Bridge, Great River State Trail, Buffalo County, Wisconsin, WISDOT ID #7224-00-01, RVT #N13-102.1 consisting of 20 pages.
3. Report dated June 25, 2013 prepared by River Valley Testing Corp., titled: Supplementary #1 to Geotechnical Report, Proposed Winona Connector Bridge, Great River State Trail, Buffalo County, Wisconsin, WISDOT ID #7224-00-01, RVT #N13-102 consisting of 38 pages.

E. Copies of reports and drawings identified in SC-5.03.C that are not included with the Bidding Documents may be examined at SEH, 10 North Bridge Street, Chippewa Falls, Wisconsin.

SC-5.05 Underground Facilities

Add the following sentence at the end of the first sentence of Paragraph 5.05.A:

The subsurface utility information in this plan is utility quality Level D. This quality level was determined according to the guidelines of CI/ASCE 38-02, titled “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.

SC-5.05.B Underground Facilities

Add new paragraph immediately after Paragraph 5.05.B to read as follows:

1. Underground utility locations can be obtained from the following owners and services:

Utility	Owner	Phone
Distribution	Xcel Energy	608.789.3712
Transmission	Xcel Energy	651.214.2620
Communication	CenturyLink	608.796.7869
Communication	Hiawatha Broadband	507.474.5805
Distribution	Riverland Energy Coop	715.829.3402

SC-5.06 Hazardous Environmental Conditions

Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

A. A search of the WDNR BRRTS website resulted in two sites near the proposed project. The potential hazardous materials sites are both located greater than 1250 feet from the project corridor. Accordingly, no additional assessment or investigation was required adjacent to these sites.

B. Not Used.

SC-6.03 Contractor's Insurance

Add the following new paragraph immediately after Paragraph 6.03.C.5:

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Worker's Compensation and related coverages under Paragraphs 6.03 of the General Conditions:

a.	State:	Statutory
b.	Federal, if applicable (e.g., Longshoreman's):	Statutory
c.	Employer's Liability:	
	1) Bodily injury, each accident	$1,000,000
	2) Bodily injury by disease, each employee	$1,000,000
	3) Bodily injury/disease, aggregate	$3,000,000
d.	Foreign voluntary worker compensation:	Statutory

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

a.	General Aggregate	$5,000,000
b.	Products - Completed Operations Aggregate	$5,000,000
c.	Personal and Advertising Injury	$5,000,000
d.	Each Occurrence (Bodily Injury and Property Damage)	$5,000,000

3. Automobile Liability under Paragraph 6.03.D of the General Conditions:

a.	Bodily Injury:	
	Each person	$1,000,000
	Each Accident	$1,000,000
b.	Property Damage:	
	Each Accident	$500,000

4. Excess or Umbrella Liability

a.	General Aggregate	$10,000,000
b.	Each Occurrence	$5,000,000

SC-6.05 Property Losses; Subrogation

Delete paragraphs A. through F. in their entirety and substitute the following paragraph in their place:

A. Property Insurance will not be required of the Contractor.

SC-7.09 Permits

Add new paragraphs immediately after Paragraph 7.09.A to read as follows:

B. See Special Provisions for additional permit information.

SC-7.11 Laws and Regulations

Add new paragraphs immediately after Paragraph 7.11.C which are to read as follows:

D. Contractor shall specifically comply with Equal Opportunity Requirements as listed in Wisconsin Standard State Equal Employment Opportunity Construction Contract Specifications.

E. Contractor shall specifically comply with Wisconsin, Disabled Individuals Affirmative Action Clause.

SC-10.03 Project Representative

Add the following new paragraphs immediately after Paragraph 10.03.B:

B. The Resident Project Representative (RPR) may be Engineer's employee or agent at the Site, or Owner's representative and will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.

1. *General:* RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. The RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
2. *Schedules*: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
3. *Conferences and Meetings*: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
4. *Liaison*:
    a. Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative or designee, assist in providing information regarding the intent of the Contract Documents.
    b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
    c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
5. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
6. *Shop Drawings and Samples*:
    a. Record date of receipt of Samples and approved Shop Drawings.
    b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
    c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
7. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
8. *Review of Work and Rejection of Defective Work*:
    a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
    b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents,

or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. *Inspections, Tests, and System Startups*:

    a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

    b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

10. *Records*:

    a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

    b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.

    c. Maintain records for use in preparing Project documentation.

11. *Reports*:

    a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.

    b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.

    c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. *Payment Requests:* Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. *Completion*:

    a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.

    b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.

c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the Work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including “or-equal” items).

2. Exceed limitations of Engineer’s authority as set forth in the Contract Documents.

3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor’s superintendent.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor’s work.

5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.

6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.

7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.

8. Authorize Owner to occupy the Project in whole or in part.

SC-12.01 Claims

Amend the first sentence of Paragraph 12.01.B to read as follows:

B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 10 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 10 days of the decision under appeal.

SC-13.03 Unit Price Work

Delete Paragraph 13.03.E in its entirety and insert the following in its place:

E. The unit price of an item of Unit Price Work shall be subject to re-evaluation and adjustment under the following conditions:

1. if the extended price of a particular item of Unit Price Work amounts to 25 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and

2. if there is no corresponding adjustment with respect to any other item of Work; and

3. if Contractor believes that Contractor has incurred additional expense as a result thereof; Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a claim, seeking an adjustment in the Contract Price.

SC-15.03 Substantial Completion

Add a new paragraph immediately after Paragraph 15.03.A which reads as follows:

1. For this Work, Substantial Completion is further defined as follows:

a. Pedestrian bridge (B-6-500) over the Burlington Northern Santa Fe Railroad complete

b. Pedestrian bridge (B-6-501) over a Mississippi River backwater complete

c. MSE retaining walls complete

d. B-6-0055, triple culvert extention and headwall complete

e. Limestone screening placement complete

f. Fence installations complete

g. Project signing complete

h. Disturbed areas seeded, mulched, and fertilized.

SC-15.05 Final Inspection

Add the following language after the second sentence of Paragraph 15.05.A:

If, after such measures are taken, subsequent inspections by Engineer reveal that any of the previously identified particulars remain incomplete or defective, Engineer will again notify Contractor in writing of the remaining particulars. All costs associated with any subsequent inspections in which said remaining particulars are revealed, will be documented by Engineer and paid by Contractor to Owner.

SC-15.08 Correction Period

Delete Paragraph 15.08.A in its entirety and insert the following in its place:

A. If within one year after the date of Final Payment (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas; or
2. correct such defective Work; or
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

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DOCUMENT 00 73 43

WAGE RATE REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Wage Rates.
   2. Equal Employment Opportunity.

B. Related Sections:
   1. General Conditions, Supplementary Conditions and Division 1 sections apply to the Work of this Section.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 WAGE RATES

A. Wage rates shall be determined by the Federal Government.

B. Post wage rates in conspicuous and easily accessible location at the Site.

C. Contractor shall submit affidavit with Owner stating he has complied with the provisions and the requirements of the Wage Rate Determination, and has received evidence of compliance from each of his agents and subcontractors.

D. Wage Rate Determination is included at the end of this section.

3.02 EQUAL EMPLOYMENT OPPORTUNITY

A. Post copies of the equal employment opportunity notice in a location available to employees or applicants for employment.

END OF DOCUMENT

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General Decision Number: WI190010 02/22/2019 WI10

Superseded General Decision Number: WI20180010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate,if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	02/22/2019

BRWI0001-002 06/01/2018

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.06	22.65

BRWI0002-002 06/01/2018

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes

BRICKLAYER.....$ 38.87 21.26

BRWI0002-005 06/01/2018

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	$ 35.39	21.46

BRWI0003-002 06/01/2018

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	$ 33.44	22.27

BRWI0004-002 06/01/2018

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	$ 37.66	23.35

BRWI0006-002 06/01/2018

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	$ 34.30	21.41

BRWI0007-002 06/01/2018

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	$ 34.82	22.59

BRWI0008-002 06/01/2018

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	$ 38.03	22.55

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* BRWI0011-002 06/01/2018

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.44	22.27

BRWI0019-002 06/01/2018

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.97	22.74

BRWI0034-002 06/01/2018

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 34.80	22.61

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 06/04/2018

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 34.21	20.46

ELEC0014-007 06/05/2018

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 26.25	13.92

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2017

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 38.50	30%+10.57

ELEC0158-002 06/04/2018

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:	$ 32.50	19.68

ELEC0159-003 06/01/2018

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
Electricians:	$ 39.04	21.56

ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 32.38	18.63

Electrical contracts under $180,000	$ 30.18	18.42

ELEC0242-005 05/16/2018

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 36.85	26.17

ELEC0388-002 06/03/2018

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:	$ 32.55	19.02

* ELEC0430-002 01/01/2019

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 38.78	21.59

ELEC0494-005 06/01/2018

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 39.31	24.69

ELEC0494-006 06/01/2018

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 33.40	22.08

ELEC0494-013 06/01/2018

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes

Sound & Communications

Installer	$ 19.56	15.78
Technician	$ 28.99	16.25

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2018

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:	$ 32.18	18.59

ELEC0890-003 06/01/2018

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 34.15	19.63

ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 42.14	32% + 5.00
(2) Heavy Equipment Operator	$ 40.03	32% + 5.00
(3) Equipment Operator	$ 33.71	32% + 5.00
(4) Heavy Groundman Driver	$ 26.78	14.11
(5) Light Groundman Driver	$ 24.86	13.45
(6) Groundsman	$ 23.18	32% + 5.00

ENGI0139-005 06/04/2018

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 40.72	22.10
Group 2	$ 40.22	22.10
Group 3	$ 39.72	22.10
Group 4	$ 39.46	22.10
Group 5	$ 39.17	22.10
Group 6	$ 33.27	22.10

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" protection - $3.00 per hour
EPA Level "B" protection - $2.00 per hour
EPA Level "C" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing

machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

IRON0008-002 06/01/2017

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 31.24	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2017

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.19	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2017

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 34.50	23.82

IRON0498-005 06/01/2016

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 36.29	30.77

IRON0512-008 05/01/2017

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.50	26.45

IRON0512-021 05/01/2017

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.04	26.45

LABO0113-002 06/04/2018

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.88	21.76
Group 2	$ 28.03	21.76
Group 3	$ 28.23	21.76
Group 4	$ 28.38	21.76
Group 5	$ 28.53	21.76
Group 6	$ 24.37	21.76

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/04/2018

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.13	21.76
Group 2	$ 27.23	21.76
Group 3	$ 27.28	21.76
Group 4	$ 27.48	21.76
Group 5	$ 27.33	21.76
Group 6	$ 24.22	21.76

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/04/2018

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.94	21.76
Group 2	$ 27.09	21.76
Group 3	$ 27.29	21.76
Group 4	$ 27.26	21.76

Group 5	$ 27.59	21.76
Group 6	$ 24.08	21.76

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/04/2018

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.80	17.20
Group 2	$ 31.90	17.20
Group 3	$ 31.95	17.20
Group 4	$ 32.15	17.20
Group 5	$ 32.00	17.20
Group 6	$ 28.43	17.20

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper);

Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/04/2018

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 32.08	17..20
Group 2	$ 32.18	17..20
Group 3	$ 32.23	17..20
Group 4	$ 32.43	17..20
Group 5	$ 32.28	17..20
Group 6	$ 28.43	17..20

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/01/2017

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 30.33	17.27
Spray, Sandblast, Steel	$ 30.93	17.27
Repaint:		
Brush, Roller	$ 28.83	17.27
Spray, Sandblast, Steel	$ 29.43	17.27

PAIN0108-002 06/01/2017

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 33.74	18.95
Spray & Sandblast	$ 34.74	18.95

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2018

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 31.60	23.51
Brush	$ 31.55	23.51
Spray & Sandblast	$ 32.30	23.51

PAIN0802-002 06/01/2017

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		

Brush	$ 28.25	17.72

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2017

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 24.89	12.05

PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 33.74	18.95
Spray	$ 34.74	18.95
Structural Steel	$ 33.89	18.95

PAIN1011-002 06/01/2017

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 24.86	12.23

PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,

MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2018

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 28.12	21.20
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic	$ 28.27	21.20
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in

the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

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REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

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

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

SEPTEMBER 2002

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

http://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

http://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc

Buy America Certification

WS4567 3/26/12

Wisconsin Department of Transportation

Project ID: _____ Highway: _____ County: _____

Name of Road/Project: _____

Prime Contractor: _____

Address: _____

Contact Person: _____ Phone: _____

DOT Project Manager: _____ Project Leader: _____

The undersigned certifies that only domestic steel and iron was permanently incorporated into the construction portion of the project.

To be considered domestic, all steel and iron used and all products manufactured from steel and iron must be produced in the United States. This includes smelting, coating, bending, shaping, and all other manufacturing processes performed on the product. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.

This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1 percent of the contract price or $2500 whichever is greater. Attached to this certification are invoices and other available documentation substantiating a claimed exemption.

Signature (prime contractor representative) _____

Typed or Printed Name _____

Title _____

Date _____

Effective February 2016 letting

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

COMMITMENT TO SUBCONTRACT TO DBE NON-TRADITIONAL PROJECTS

Wisconsin Department of Transportation

DT1880 4/2010 s.84.06(2) Wis. Stats.

Project(s): _____

Prime Contractor: _____

County: _____

Letting Date: _____

This contract requires that a specified percentage of the work be subcontracted to a disadvantaged business enterprise and that this information be submitted within **10 business days** after the notification of contract award. Completion of the following information indicates your intent in the fulfillment of these contract requirements.

Total $ Value of: _____

Prime Contract: _____

DBE Contract Goal: _____ %

This form must be completed and returned for THIS contract. See reverse side for instructions.

A	V	NAME OF DBE SUBCONTRACTOR	TYPE OF WORK	SUBCONTRACT $ VALUE	Government Use Only Adjusted Amounts
		SUBTOTAL DBE $ VALUE	**A ($)**	**TOTAL %**	
			V ($)	**TOTAL %**	

A	V	NAME OF DBE SUPPLIER AND/OR MANUFACTURER (see #3 on Instructions)	TYPE OF MATERIAL	SUBCONTRACT $ VALUE	Government Use Only Adjusted Amounts
		SUBTOTAL DBE $ VALUE	**A ($)**	**TOTAL %**	
			V ($)	**TOTAL %**	

A	V	NAME OF DBE TRUCKING FIRM	MATERIAL HAULED	EST. # OF TON/C.Y.	EST. # OF TRUCKS REQ'D		$ VALUE	Government Use Only Adjusted Amounts
					O=	L=		
					O=	L=		
					O=	L=		
					O=	L=		
					O=	L=		
		SUBTOTAL DBE $ VALUE	**A ($)**		**TOTAL %**			
			V ($)		**TOTAL %**			
		GRAND TOTAL DBE $ VALUE	**A ($)**		**TOTAL %**			
			V ($)		**TOTAL %**			
			T =		**TOTAL %**			

I certify that arrangements have been made for the foregoing work with the listed DBE Contractors. I further understand that any willful falsification, fraudulent statement or misrepresentation will result in appropriate sanctions, which may include debarment and/or prosecution under applicable State (Trans 504) and Federal laws.

	Government Use Only Approved Amounts		
O = Owned Trucks Used on Project			**X**
L = Leased Trucks Used on Project	A =	$ %	(Authorized Agent)
A = Assigned (DBE Conscious)	V =	$ %	(Date)
	Total =	$ %	Mail to: Wisconsin Department of Transportation

V = Voluntary (DBE Neutral)	Signature: Date: Good faith waiver granted: Yes ☐ No ☐	DBE Programs Office, Rm. 451 PO Box 7965 Madison, WI 53707-7965

Proposal Number _____

Instructions For Completing Commitment To Subcontract To DBE Form:

1 In accordance with the DBE Regulations (49 CFR part 26), WisDOT is tracking Assigned Goals for DBE's (DBE Conscious) and Voluntary Usage of DBE Firms (DBE Neutral). DBE participation reported on this form will be used to periodically adjust (DBE Conscious and DBE Neutral) components of WisDOT's overall annual DBE goal.

2 For each DBE firm listed on this form, place an "x" in the appropriate column to indicate whether it will be used to meet the Assigned Goal (A) and/or whether it is used on a Voluntary basis (V). Any achievement above assigned goals should be reported as a voluntary achievement. If you indicate that a firm will be used to meet both assigned and voluntary goals, indicate the dollar amount attributable to assigned goals and the amount attributable to the voluntary goal. Our objective is to capture all DBE achievement you generate. The following is an example:

a. The total contract amount is $100,000 and the DBE goal is 10% or $10,000 in DBE participation
b. If $10,000 is the subcontract dollar value to ADBE Landscaping Co. then $10,000 would be Assigned (DBE Conscious) and you would place an "x" in the "A" column
c. If $15,000 is the subcontract dollar value to ADBE Landscaping Co. then $10,000 would be Assigned (DBE Conscious) and you would place an "x" in the "A" column and ADBE Landscaping Co. would be listed **on the next line** for $5,000 which would be Voluntary (DBE Neutral) and an "x" would be placed in the "V" column

3 The department will give full credit toward the DBE goal if the DBE is a manufacturer of their materials or supplies. The department will give 60 percent credit or brokerage fee set by industry's standard toward the DBE goal if the DBE is merely a supplier of these materials or supplies. It is the Prime Contractor's responsibility to use the Bidder's List or UCP Directory to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form. WisDOT will apply the appropriate credit when approving the form.

4 After completing the form, if it does not indicate that the DBE goal has been met or exceeded, please complete and supply the necessary documentation on the Certificate of Good Faith Efforts form (DT1202 6/2007.)

Instructions For Completing Attachment A Form:

5 Section 26.53 (49 CFR part 26) requires written confirmation of participation from each DBE firm to be used on the contract. Please submit one copy of a completed Attachment A, Confirmation of Participation form, for each DBE firm to be used on this contract. Each form must be signed by the Prime Contractor, the hiring contractor (if applicable) and the DBE Firm specified on the form.

6 DBE crediting for the trucking industry is achieved in the following manner:

a. A minimum of one truck owned by the DBE must be used on the contract.
b. Full DBE credit is given for owned trucks and trucks leased from another DBE.
c. For one truck owned by the DBE firm, they can receive DBE credit for a truck leased from a non-DBE firm (one DBE truck owned = one non-DBE truck leased).
d. Trucks leased from non-DBE firms above the one-for-one ratio described in letter c, will be given DBE credit only for the brokerage fee charged by the DBE.
e. All trucks used for credit must be listed and approved on the DBE firm's Schedule of Owned/Leased Vehicles for DBE Credit and/or a WisDOT approved trucking utilization plan.

It is the Prime Contractor's and the DBE firm's responsibility to ensure that utilization of trucks and the DBE credit earned is in accordance with the above and will yield the subcontract dollar value listed on the Commitment to Subcontract to DBE form.

If you have questions about filling out these forms, please contact the Civil Rights and Compliance Office at (608) 266-6961.

COMMITMENT TO SUBCONTRACT TO DBE
ATTACHMENT A

CONFIRMATION OF PARTICIPATION

Project I.D.:	Proposal Number:
Letting Date:	Total $ Value of Prime Contract:

Name of DBE Firm Participating in this Contract:
Name of the Prime/Subcontractor who hired the DBE Firm: *(list all names of tiers if more than one)*
Type of Work or Type of Material Supplied:
Total Subcontract Value:

FOR PRIME CONTRACTORS ONLY: I certify that I made arrangements with the participating DBE firm to perform the type of work listed or supply the material indicated above for the subcontract value listed above.	Prime Contractor Representative's Signature
	Prime Contractor Representative's Name (Print Name)
	Prime Contractor (Print Company Name)
	Date

FOR PARTICIPATING DBE FIRMS ONLY: I certify that I made arrangements with the Prime Contractor or the Hiring Contractor to perform the type of work or supply the material indicated above for the subcontract value listed above. **FOR DBE TRUCKING FIRMS ONLY:** I certify that I will utilize, for DBE credit, only trucks listed on my WisDOT approved Schedule of Owned/Leased Vehicles for DBE Credit form and I will be utilizing the number of trucks and material hauled as listed below.	Participating DBE Firm Representative's Signature
	Participating DBE Firm Representative's Name (Print Name)
	Participating DBE Firm (Print Company Name)
	Date

# Owned Trucks	# Leased Trucks	# Estimated Tons/C.Y.	Material(s) Hauled

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor may also withhold routine retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

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ADDITIONAL SPECIAL PROVISIONS 5

Fuel Cost Adjustment

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $2.15 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1 \right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

ADDITIONAL SPECIAL PROVISION 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

107.17.1 General

Replace paragraph seven with the following effective with the December 2018 letting:

(7) Have a professional engineer registered in the state of Wisconsin sign and seal the shop drawings. At least 30 calendar days before starting falsework, form, or shoring construction; submit a PDF file of shop drawings to the railroad's chief engineering officer and to the engineer. The engineer and the railroad may review the shop drawings. If the engineer or the railroad finds the shop drawings unsatisfactory, the contractor shall make the required changes. A satisfactory shop drawing review does not relieve the contractor of responsibility and liability for the structural integrity and proper functioning of the falsework, forms, or shoring.

109.1.1 General

Replace the entire text with the following effective with the January 2019 letting:

(1) The engineer will use the US standard system to measure all work completed under the contract. The engineer will determine quantities of materials the contractor furnishes and work the contractor performs using measurement methods and computations conforming to standard engineering practice, modified to meet department requirements. The engineer will document these measurements using department procedures.

(2) The engineer will measure the work as the contract measurement subsection for individual items specifies. The department will measure the actual quantities of work the contractor acceptably completes and make final payment based on those actual measured quantities except as follows:

1. If the measurement subsection for a bid item specifically restricts the quantity measured for payment or allows for use of conversion factors.
2. If the engineer executes a contract change order modifying the method of measurement for specific bid items, the engineer will measure the quantities of applicable bid items for payment using the change order methods.
3. If the engineer, under 105.3.1(2), approves a contractor-requested plan dimension change between US standard and SI metric dimensions, the engineer will measure whichever of the following is less:
    - Actual quantities constructed.
    - Quantities derived from the original plan dimensions.
4. For substitutions made under 106.2.3 between US standard and SI metric products, the engineer will measure the actual quantities of the substitute products using the original contract measuring system.

305.2.1 General

Replace paragraph two with the following effective with the December 2018 letting:

(2) Where the contract specifies or allows 1 1/4-inch base, do not place reclaimed asphalt, reprocessed material, or blended materials below virgin aggregate materials unless the contract specifies or the engineer allows in writing. The department will allow virgin aggregate above reclaimed asphalt, reprocessed material, or blended materials in shoulder areas adjacent to concrete pavement.

420.3.2.1 General

Replace paragraph one with the following effective with the December 2018 letting:

(1) Use self-propelled grinding machines with depth, grade, and slope controls designed for grinding and texturing concrete. Equip grinding machines with diamond blades and a vacuuming system capable of removing liquid and solid residue from the ground surface. Shroud the machine to prevent discharging loosened material into adjacent work areas or live traffic lanes. Provide the specified effective wheelbase, defined as the center of the front to center of the rear main support wheels.

420.3.2.2 Continuous Grinding

Replace paragraph one with the following effective with the December 2018 letting:

(1) Under the Continuous Diamond Grinding Concrete Pavement bid item, ensure that the grinding machine, including the grinding head, weighs 35,000 pounds or more, will grind a strip at least 4 feet wide, and has an effective wheel base of 25 feet or more. For pavements with a design speed less than 40 miles per hour and areas difficult to access, the contractor may use equipment with an effective wheel base of 12 feet or more.

450.3.2.8 Jointing

Replace paragraphs three through five with the following effective with the December 2018 letting:

(3) Construct notched wedge longitudinal joints for mainline paving if the pavement thickness conforms to the minimums specified in 460.3.2, unless the engineer directs or allows an alternate joint. Construct the wedge using a slope no steeper than 3:1. Extend the wedge 12 inches beyond the normal lane width, or as the engineer directs. Ensure that the wedge for all layers directly overlaps and slopes in the same direction.

(4) Locate the joint at the pavement centerline for 2-lane roadways, or at lane lines if the roadway has more than 2 lanes. Construct a vertical notch 1/2-inch to 3/4-inch high on the centerline or lane line at the top of each wedge. Place a 1/2-inch to 3/4-inch notch at the outside bottom edge of the wedge after compacting each layer. Align the finished longitudinal joint line of the upper layer with the centerline or lane line.

(5) Construct the wedge for each layer using an engineer-approved strike-off device that will provide a uniform slope and will not restrict the main screed. Shape and compact the wedge with a weighted steel side roller wheel the same width as the wedge. Apply a tack coat to the wedge surface and both notches before placing the adjacent lane.

455.2.4.3 Emulsified Asphalts

Replace paragraph two with the following effective with the December 2018 letting:

(2) The bill of lading for emulsified asphalts shall indicate the asphalt content of the original emulsion and dilution rate of the additional water added to the original emulsion. If undiluted samples are not available, test the diluted material and modify AASHTO M140, M208, or M316 to reflect properties resulting from dilution of the asphalt.

460.2.8.3.1.4 Department Verification Testing Requirements

Replace paragraph three with the following effective with the December 2018 letting:

(3) The department will perform testing conforming to the following standards:

Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T166.

Maximum specific gravity (G_{mm}) according to AASHTO T209.

Air voids (V_a) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

Asphalt content by ignition oven according to AASHTO T308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T-164, or Asphalt Analyzer™ according to manufacturer recommendations.

460.2.8.3.1.6 Acceptable Verification Parameters

Replace paragraph one with the following effective with the December 2018 letting:

(1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:

- Va is within a range of 2.0 to 4.3 percent. For SMA, Va is within a range of 2.7 to 5.3 percent.
- VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.
- Asphalt content is within minus 0.3 percent of the JMF.

460.2.8.3.1.7 Dispute Resolution

Replace paragraph one with the following effective with the December 2018 letting:

(1) When QV test results do not meet the specified limits for 100 percent pay, the bureau's AASHTO accredited laboratory and certified personnel will referee test the retained portion of the QV sample and the retained portion of the required forward and backward QC retained samples according to CMM 8-36.

460.5.2.1 General

Replace paragraphs five and six with the following effective with the December 2018 letting:

(5) The department will reduce pay for nonconforming QMP HMA mixtures as specified in 460.2.8.2.1.7, starting from the stop point to the point when the running average of 4 is back inside the warning limits. The engineer will determine the quantity of material subject to pay reduction based on the testing data and an inspection of the completed pavement. The department will reduce pay as follows:

PAYMENT FOR MIXTURE[1] [2] [3]

ITEM	PRODUCED WITHIN WARNING BANDS	PRODUCED OUTSIDE JMF LIMITS
Gradation	90%	75%
Asphalt Content[4]	___	___
Air Voids	70%	50%
VMA	90%	75%

[1] For projects or plants where the total production of each mixture design requires less than 4 tests refer to CMM 8-36.

[2] Payment is in percent of the contract unit price for the HMA Pavement bid item. The department will reduce pay based on the nonconforming property with lowest percent pay. If the quantity of material subject to pay adjustment based on the running average of 4 is also subject to pay adjustment resulting from dispute resolution in accordance with 460.2.8.3.1.7, the department will apply the single pay adjustment resulting in the lowest percent pay.

[3] In addition to any pay adjustment listed in the table above, the department will adjust pay for nonconforming binder under the Nonconforming QMP Asphaltic Material administrative item. The department will deduct 25 percent of the contract unit price of the HMA Pavement bid item per ton of pavement placed with nonconforming PG binder the engineer allows to remain in place.

[4] The department will not adjust pay based on a running average of 4 asphalt content tests; however, corrective action will be applied to nonconforming material according to 460.2.8.2.1.7.

(6) If during a QV dispute resolution investigation the department discovers unacceptable mixture defined by one or more of the following:

- Va greater than 5.0 or less than 1.5.
- VMA more than 1.0 below the minimum allowed in table 460-1.
- AC more than 0.5 % below the JMF target.

Remove and replace the material, or if the engineer allows the mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

506.3.2 Shop Drawings

Replace paragraph four with the following effective with the December 2018 letting:

(4) Ensure that the fabricator submits a PDF file of shop drawings for railroad structures to the railroad company's chief engineering officer upon contract completion.

646.3.1.2 Liquid Marking

Replace paragraph five with the following effective with the January 2019 letting:

(5) Apply liquid marking and glass beads across the line at or exceeding the following:

LIQUID MARKING	PAVEMENT TYPE	THICKNESS (mils)	BEAD APPLICATION (pounds per gallon)
Paint	all	16	8
Epoxy	SMA, seal coats, and polymer overlays	25	25
Epoxy	all other	20	22.5
Wet Reflective Epoxy	all	20	18

646.3.2.3.2 Wet Reflective Epoxy

Replace paragraph five with the following effective with the January 2019 letting:

(1) Apply wet reflective epoxy binder in a grooved slot. and provide a double drop bead system as follows:

- First: wet reflective/recoverable elements at the application rate specified for the product chosen from the department's APL.
- Second: glass beads at the application rate specified in 646.3.1.2(5).

650.3.1 General

Replace the entire text with the following effective with the December 2018 letting:

(1) Department and contractor responsibilities for construction staking are specified in 105.6. Conform to 105.6 and the additional requirements specified here in 650.3 for the individual contractor-staking bid items the contract includes.

(2) Protect and preserve known property and survey marks and land monuments as specified in 107.11.3. The contract may require related work under the 621 bid items.

(3) Obtain or calculate benchmark data, grades, and alignment from plan information. The engineer will furnish data for the horizontal and vertical control points, control point ties, horizontal alignments, profiles, and elevations. Reestablish, set additional, and maintain the horizontal and vertical control points and control point ties, as needed for bid items.

(4) Check horizontal and vertical information including but not limited to alignments, locations, elevations, and dimensions, that either the plans show or the engineer provides, for compatibility with existing field conditions. Conduct similar compatibility checks and accuracy checks of horizontal and vertical positions either the department or the contractor establishes in the field.

(5) Perform survey work using conventional methods, or AMG methods capable of achieving the lines and grades the plans show for the work in question. Establish additional benchmarks and control points as necessary to support the method of operation.

650.3.1.1 Staking

(1) Furnish, set, reference, and maintain stakes and markings necessary to establish the alignment, location, benchmarks, elevations, and continuous profile-grades for road and structure work as needed for bid items. Supervise and coordinate construction staking.

(2) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. Make the survey notes and computations available to the engineer within 24 hours, upon request, as the work progresses.

(3) Furnish surveying equipment, stakes, flags, pins, lath, whiskers, and other materials necessary to perform this work, subject to the engineer’s approval.

650.3.1.2 Automated Machine Guidance

650.3.1.2.1 General

(1) The contractor may substitute AMG for conventional staking on all or part of the work under the individual staking bid items. Coordinate with the engineer throughout the course of construction to ensure that work performed using AMG conforms to the contract tolerances and that the methods employed conform to the contractor's AMG work plan and accepted industry standards. Revert to conventional staking methods for all or part of the work at any point during construction if AMG is producing unacceptable results.

650.3.1.2.2 AMG Work Plan

(1) Submit a comprehensive written AMG work plan for department review at least 5 business days before the preconstruction conference. In that plan discuss how AMG technology will be integrated into other

technologies employed on the project. List the staking bid items that will have work performed using AMG and, for each bid item listed, include the following:

1. Designate which portions of the contract will be done using AMG and which portions will be done using conventional staking.
2. Designate a single staff person as the primary contact for AMG technology issues.
3. List and map the primary and secondary control points required under 105.6.2 enveloping the site.
4. Describe the contractor's quality control procedures. Include the frequency and type of checks performed to ensure that the work conforms to the contract plans.

(2) The engineer will review the plan to determine if it conforms to the contract. Do not perform AMG work until the engineer approves the governing portion of the AMG workplan. Perform the work as the contractor's AMG work plan provides. Update the plan as necessary.

650.3.1.2.3 Geometric and Surface Information

650.3.1.2.3.1 Department Responsibilities

(1) At any time after the contract is awarded the contractor may request the contractor data packet. The department will provide the packet within 5 business days of receiving the contractor's request.

650.3.1.2.3.2 Contractor Responsibilities

(1) Develop and maintain a contractor construction model for areas of the project employing AMG. Confirm that the resulting model agrees with the contract plans.

(2) If the engineer requests, provide the construction model to the department in LandXML or other engineer-approved format.

650.3.1.2.4 Managing and Updating Information

(1) Notify the department of any errors or discrepancies in department-provided information. The department will determine what revisions may be required. The department will revise the contract plans, if necessary, to address errors or discrepancies that the contractor identifies. The department will provide the best available information related to those contract plan revisions.

(2) Revise the construction model as required to support construction operations and to reflect any contract plan revisions the department makes. Perform checks to confirm that the revised construction model agrees with the contract plan revisions. If the engineer requests, provide construction model updates to the engineer. The department will pay for costs incurred to incorporate contract plan revisions as extra work.

650.3.1.2.5 Construction Checks

(1) Check the work against the plan elevation at randomly selected points on cross-sections located at stations evenly divisible by 100 at the frequency the engineer approved as a part of the AMG work plan. Submit the results of these random checks to the engineer daily. Notify the engineer immediately if a check exceeds the tolerances specified in 650.3.1.2.6 below.

(2) Check the work at additional points as the engineer directs. The department may conduct periodic independent checks.

650.3.1.2.6 Construction Tolerances

(1) Ensure that the finished work vertically matches existing or other completed features. Ensure that the work conforms to revised plan elevations as follows:

- Subgrade : +/- 0.10 feet.
- Base : within the tolerance specified in 301.3.4.1(2).

650.3.3 Subgrade

Retitle and replace the entire text with the following effective with the December 2018 letting:

650.3.3 Subgrade Staking

(1) Set construction stakes or marks at intervals of 100 feet, or more frequently, for rural sections and at intervals of 50 feet, or more frequently, for urban sections. Include additional stakes at each cross-section as necessary to match the plan cross-section, achieve the required accuracy, and to support construction operations. Also set and maintain stakes as necessary to establish the horizontal and vertical positions of intersecting road radii, auxiliary lanes, horizontal and vertical curves, and curve

transitions. Locate stakes to within 0.25 feet horizontally and establish the grade elevation to within 0.03 feet vertically.

Errata

520.3.3 Laying Pipe

Correct errata by replacing "sections" with "joints" to clarify the intent that the last 3 joints need ties.

(5) Provide joint ties on the upstream and downstream ends of circular and horizontal elliptical concrete culvert and concrete cattle pass installations. Tie the next 3 pipe joints or, if using apron endwalls, the endwall joint and the last 2 pipe joints. Ties are not required on culverts with masonry endwalls unless the plans show otherwise.

608.3.3 Laying Pipe

Correct errata by replacing "sections" with "joints" to clarify the intent that the last 3 joints need ties.

(5) Provide joint ties on concrete storm sewer system infall and outfall pipes. Tie the last 3 pipe joints or, if using apron endwalls, the endwall joint and the next 2 pipe joints. Ties are not required on installations with masonry endwalls unless the plans show otherwise.

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Effective with February 2017 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

I. Prevailing Wage Rates, Hours of Labor, and Payment of Wages
II. Payroll Requirements
III. Postings at the Site of the Work
IV. Wage Rate Distribution
V. Additional Classifications

I. PREVAILING WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) attached hereto and made a part hereof furnishes the prevailing wage rates pursuant to Section 84.062 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 84.062, Stats. Apprentices shall be paid at rates not less than those prescribed in their apprenticeship contract.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 16.856 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly base rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half:

January 1
Last Monday in May
July 4
First Monday in September
Fourth Thursday in November
December 25
The day before if January 1, July 4 or December 25 falls on a Saturday, and

The day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, euclid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 84.062 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 84.062 of the Wisconsin Statutes.

b. A copy of the U.S. Department of Labor (Davis-Bacon, Minimum Wage Rates).

c. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. WAGE RATE REDISTRIBUTION

A contractor or subcontractor performing work subject to a Davis-Bacon wage determination may discharge its minimum wage obligations for the payment of both straight time wages and fringe benefits by (1) paying both in cash, (2) making payments or incurring costs for bona fide fringe benefits, or (3) by a combination thereof. Thus, under the Davis-Bacon a contractor may offset an amount of monetary wages paid in excess of the minimum wage required under the determination to satisfy its fringe benefit obligations. *See* 40 USC 3142(d) and 29 CFR 5.31.

V. ADDITIONAL CLASSIFICATIONS

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5(a)(1)(ii)). The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination.

The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

a. The work to be performed by the classification requested is not performed by a classification in the wage determination; and

b. The classification is utilized in the area by the construction industry; and

c. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

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March 2010

LIST OF SUBCONTRACTORS

Section 66.0901(7), Wisconsin Statutes, provides that as a part of the proposal, the bidder also shall submit a list of the subcontractors the bidder proposes to contract with and the class of work to be performed by each. In order to qualify for inclusion in the bidder's list a subcontractor shall first submit a bid in writing, to the general contractor at least 48 hours prior to the time of the bid closing. The list may not be added to or altered without the written consent of the municipality. A proposal of a bidder is not invalid if any subcontractor and the class of work to be performed by the subcontractor has been omitted from a proposal; the omission shall be considered inadvertent or the bidder will perform the work personally.

No subcontract, whether listed herein or later proposed, may be entered into without the written consent of the Engineer as provided in Subsection 108.1 of the Standard Specifications.

Name of Subcontractor	Class of Work	Estimated Value

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Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

The bidder, signing and submitting this proposal, agrees and declares as a condition thereof, to be bound by the following conditions and requirements.

If the bidder has a corporate relationship with the proposal design engineering company, the bidder declares that it did not obtain any facts, data, or other information related to this proposal from the design engineering company that was not available to all bidders.

The bidder declares that they have carefully examined the site of, and the proposal, plans, specifications and contract forms for the work contemplated, and it is assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the specifications, special provisions and contract. It is mutually agreed that submission of a proposal shall be considered conclusive evidence that the bidder has made such examination.

The bidder submits herewith a proposal guaranty in proper form and amount payable to the party as designated in the advertisement inviting proposals, to be retained by and become the property of the owner of the work in the event the undersigned shall fail to execute the contract and contract bond and return the same to the office of the engineer within fourteen (14) days after having been notified in writing to do so; otherwise to be returned.

The bidder declares that they understand that the estimate of quantities in the attached schedule is approximate only and that the attached quantities may be greater or less in accordance with the specifications.

The bidder agrees to perform the said work, for and in consideration of the payment of the amount becoming due on account of work performed, according to the unit prices bid in the following schedule, and to accept such amounts in full payment of said work.

The bidder declares that all of the said work will be performed at their own proper cost and expense, that they will furnish all necessary materials, labor, tools, machinery, apparatus, and other means of construction in the manner provided in the applicable specifications and the approved plans for the work together with all standard and special designs that may be designed on such plans, and the special provisions in the contract of which this proposal will become a part, if and when accepted. The bidder further agrees that the applicable specifications and all plans and working drawings are made a part hereof, as fully and completely as if attached hereto.

The bidder, if awarded the contract, agrees to begin the work not later than ten (10) days after the date of written notification from the engineer to do so, unless otherwise stipulated in the special provisions.

The bidder declares that if they are awarded the contract, they will execute the contract agreement and begin and complete the work within the time named herein, and they will file a good and sufficient surety bond for the amount of the contract for performance and also for the full amount of the contract for payment.

The bidder, if awarded the contract, shall pay all claims as required by Section 779.14, Statutes of Wisconsin, and shall be subject to and discharge all liabilities for injuries pursuant to Chapter 102 of the Statutes of Wisconsin, and all acts amendatory thereto. They shall further be responsible for any damages to property or injury to persons occurring through their own negligence or that of their employees or agents, incident to the performance of work under this contract, pursuant to the Standard Specifications for Road and Bridge Construction applicable to this contract.

In connection with the performance of work under this contract, the contractor agrees to comply with all applicable state and federal statutes relating to non-discrimination in employment. No otherwise qualified person shall be excluded from employment or otherwise be subject to discrimination in employment in any manner on the basis of age, race, religion, color, gender, national origin or ancestry, disability, arrest or conviction record (in keeping with s.111.32), sexual orientation, marital status, membership in the military reserve, honesty testing, genetic testing, and outside use of lawful products. This provision shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor further agrees to ensure equal opportunity in employment to all applicants and employees and to take affirmative action to attain a representative workforce.

The contractor agrees to post notices and posters setting forth the provisions of the nondiscrimination clause, in a conspicuous and easily accessible place, available for employees and applicants for employment.

If a state public official (section 19.42, Stats.) or an organization in which a state public official holds at least a 10% interest is a party to this agreement, this contract is voidable by the state unless appropriate disclosure is made to the State of Wisconsin Ethics Board.

DECEMBER 2000

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.

4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.

7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

(1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 7224-00-72, Great River State Trail - Winona Connector, STH 54 - Marshland, Town of Buffalo, Buffalo County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2019 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.

100-005 (20181119)

2. Scope of Work.

The work under this contract shall consist of B-06-500, B-06-501, MSE retaining walls, culvert extensions and concrete headwall on B-6-055, grading, base aggregate dense, concrete sidewalk 6-inch, limestone screenings, erosion control, turf establishment, permanent signing and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Provide the time frame for construction of the project within the 2019 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the beginning of the approved time frame.

To revise the time frame, submit a written request to the engineer at least two weeks before the beginning of the intended time frame. The engineer will approve or deny that request based on the conditions cited in the request and its effect on the department's scheduled resources.

The schedule of operations as required under Standard Spec 108.9.2 shall provide for completion of Structures B-06-500, B-06-501 and B-6-055 by November 30, 2019.

When, in the fall of 2019, after completion of the structures B-06-500, B-06-501 and B-6-055, and weather conditions or seasonal restrictions preclude the satisfactory performance of further work under this contract, the engineer will, in writing, suspend operations until the spring of 2020. Construction operations shall be resumed in the spring of 2020 within ten days after the date on which a written order to do so has been issued by the engineer.

Observe the weight restriction on the Historic Wagon Bridge on Old Duke Road in the City of Winona.

0031 (20090901)

Northern Long-eared Bat *(Myotis septentrionalis)*

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts have been identified within 150 feet of the project limits. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

To avoid adverse impacts upon the NLEBs, no Clearing is allowed between June 1 and July 31, both dates inclusive.

If the required Clearing is not completed by May 31, the department will suspend all clearing and associated work directly impacted by Clearing. The department will issue a notice to proceed with Clearing and associated work directly impacted by clearing after consulting with the United States Fish and Wildlife Service (USFWS).

Submit a schedule and description of clearing operations with the ECIP 14 days prior to any Clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of Clearing operations, and list those additional measures in the ECIP.

Birds

The following birds were identified to have suitable habitat in the project area: Cerulean Warbler, Prothonotary Warbler, Red-shouldered Hawk, Bald Eagle, Great Egret, Black-crowned Night-Heron, Yellow-crowned Night-Heron. Tree clearing is prohibited from March 15 through August 24 of any calendar year.

This project is within 1 mile of a bald eagle nest and suitable habitat for the eagle is present in the project area. If an eagle nest is present and active, then human activity should be avoided from January 15 through July 30 within 660 feet of the nest. The bald eagle is federally protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Visit the USFWS Bald Eagle Management website at www.fws.gov/midwest/MidwestBird/EaglePermits/baeatake/step1.html for detailed guidelines and conservation measures. Contact Anna Rossler, Endangered Resources Reviewer at 608.264.8968 for location of the nest.

Blanchard's Cricket Frog

The Blanchard's Cricket Frog may inhabit the project limits in and near areas of open water. The frog is a state endangered and protected species. If any living or dead frog is found during construction operations, stop work at that location and notify the Wisconsin Department of Natural Resources Environmental Monitor for collection and removal of the frog. Environmental Monitor contact: Cameron Bump at 715.839.2786

Buffalo County has obtained an Incidental Take Permit for the Blanchard's Cricket Frog. A copy of the permit is available from the county by contacting David Schmidt at 651.560.4081. Comply with the pertinent requirements of the permit in addition to any requirements of these special provisions. Post the permit in a conspicuous place at the construction site.

Environmental Monitor, Blanchard's Cricket Frog

Provide a weekly schedule of work to the Environmental Monitor.

Allow the Environmental Monitor access to the project at any time to survey for the Blanchard's Cricket Frog. Provide notice to the Environmental Monitor each day prior to prosecuting any work within the protected habitat area. Do not commence any ground disturbing activity within the protected habitat area until the Environmental Monitor is present and has surveyed and cleared the work area.

Communicate and cooperate with the Environmental Monitor and accommodate the daily survey activities. Establish a communication procedure with the Environmental Monitor to avoid delays.

Potential delays caused by the activity of the Environmental Monitor will be evaluated as excusable, non-compensable delays in accordance with Section 108.10.2 of the standard specifications.

Protected Habitat Area, Blanchard's Cricket Frog

The protected habitat area is defined as STA 1014+50 to STA 1031+00.

Ground disturbing activities are defined as clearing, grubbing, common excavation, borrow, topsoil, and placement of erosion control items.

Perform ground disturbing activities within the protected habitat area only during the periods April 8 - May 19, and/or August 16 - October 15.

Perform ground disturbing activities outside of the protected habitat area only during the period April 8 - October 15.

There are no habitat work date restrictions for any structure item of work for Structures B-6-500 and B-6-501. Notify the Environmental Monitor prior to commencing any excavation for structures.

4. Traffic.

Shoulder closures will be allowed along STH 35 to facilitate construction access to the proposed trail and enable delivery of equipment and materials. All traffic control devices shall be pulled back and shoulders opened at the end of each work day, unless prior written approval is obtained from the engineer to allow an overnight shoulder closure.

5. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 35/STH 54 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, May 24, 2019 to 6:00 AM Tuesday, May 27, 2019;
- From noon Wednesday, July 3, 2019 to 6:00 AM Monday, July 8, 2019
- From noon Friday, August 30, 2019 to 6:00 AM Tuesday, September 3, 2019.

- From noon Friday, May 22, 2020 to 6:00 AM Tuesday, May 26, 2020;
- From noon Friday, July 3, 2020 to 6:00 AM Monday, July 6, 2020
- From noon Friday, September 4, 2020 to 6:00 AM Tuesday, September 8, 2020.

stp-107-005 (20050502)

6. Verification of Top of Rail Elevation.

Contractor to verify top of rail elevation at Station 1006+57.51 matches the plan elevation of 660.6. Structure B-6-500 has a required minimum vertical clearance of 23.5 feet over top of the Burlington Northern Santa Fe Railroad tracks. See Structure Plans B-6-500. This work is incidental to Item 506.8005.S.01 Prefabricated Steel Truss Pedestrian Bridge B-6-500.

7. Temporary Railroad Grade Crossing.

Due to the posted weight restriction on the Historic Wagon Bridge on Old Duke Road in the City of Winona, a temporary railroad grade crossing must be constructed to cross the BNSF railway facility. Collaborate with BNSF to determine the exact location and length of crossing needed. The temporary railroad grade crossing will be approved and constructed by BNSF.

8. Railroad Insurance and Coordination - BNSF Railway Company.

A Description

Comply with Standard Spec 107.17 for all work affecting BNSF Railway Company property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to Standard Spec 107.26, provide railroad protective liability insurance coverage as specified in Standard Spec 107.17.3.

Insurance is filed in the name of BNSF Railway Company.

Requirements of the Standard Specifications are changed as follows: [1]

Before the state issues its notice to proceed to the contractor or contractors (collectively, the contractor) awarded the contract for construction involving the project described in this stipulation (the project), the state shall require the contractor to provide certain insurance coverage to protect the railroad (as defined in this section) from loss for property and liability exposures relating to the construction activities on the PROJECT. The manner and process in which this will be accomplished is as detailed below.

TYPE OF INSURANCE	MINIMUM LIMITS REQUIRED
1. Commercial general liability insurance; shall be endorsed to include blanket contractual liability coverage; shall cover bodily injury and property damage, personal and advertising injury, and fire legal liability. There shall be no endorsements limiting coverage for the work to be performed pursuant to this Stipulation.	$5,000,000 combined single limits per occurrence with an annual aggregate limit of not less than $10,000,000.
2. Workers' compensation and employer's liability coverage.	Workers' compensation limits: statutory limits. Employers' liability limits: Bodily injury by accident $100,000 each accident Bodily injury by disease $500,000 each accident $100,000 each employee
3. Commercial automobile liability insurance; shall cover all owned, non-owned, and hired vehicles used by the CONTRACTOR in carrying out the contract, and shall include coverage for bodily	$1,000,000 combined single limit per occurrence.
4. Railroad Protective Liability Insurance, issued on a standard ISO form 00 35 10 93 or its equivalent and endorsed to include the Pollution Exclusion Amendment (ISO Form CG 28 31 10 93) and the Limited Seepage and Pollution Endorsement. No endorsements restricting FELA coverage may be added.	$5,000,000 per occurrence $10,000,000 in the aggregate

[1] As used in this section, "STATE" and "COMPANY" have the meanings assigned to them in the Stipulation to which this Exhibit is attached, "FELA" means the Federal Employment Liability Act, and "this Stipulation" means the Stipulation to which this Exhibit is attached.

[2] The CONTRACTOR may satisfy the requirements for Insurance Types 1, 2 and 3 through primary insurance coverage or through excess/umbrella policies.

1. The policies for Insurance Types 1, 2 and 3 may not contain an exclusion for punitive damages.
2. The commercial general liability policy shall include an endorsement that removes any restrictions on coverage regarding work being performed within 50 feet of a railroad or railroad property and an endorsement that removes any exclusion related to explosion, collapse or underground hazard.
3. The CONTRACTOR must waive its right of recovery against the RAILROAD for all claims and suits against the RAILROAD. In addition, the CONTRACTOR's insurers, through the terms of the policy or policy endorsement, must waive their right of subrogation against the RAILROAD for all claims and suits. The certificates of insurance must reflect the waiver of subrogation endorsement. The CONTRACTOR also must waive its right of recovery, and its insurers must also waive their right of subrogation, against the RAILROAD for loss of the CONTRACTOR's owned or leased property or property under the CONTRACTOR's care, custody or control.
4. The CONTRACTOR's insurance policies, except for excess liability/umbrella policies, through policy endorsement, must include wording to the effect that such policies are primary and non-contributing with respect to any insurance carried by the RAILROAD. The certificates of insurance must reflect that such wording is included in the evidenced policies.
5. The policies for Insurance Types 1 and 3, above, must include a severability of interest endorsement. The RAILROAD and Jones Lang LaSalle Global Services- RR, Inc. must be named as an additional insured with respect to work performed under this project. Severability of interest

and naming the RAILROAD and Jones Lang LaSalle Global Services- RR, Inc. as additional insured must be indicated on the certificates of insurance.

6. The CONTRACTOR shall provide the original Railroad Protective Liability policy to the RAILROAD prior to performing any work on the PROJECT.
7. The CONTRACTOR shall only obtain coverage from insurance companies licensed to do business in the State of Wisconsin that have an AM Best rating of A- and Class VII or better.
8. The CONTRACTOR is not allowed to self-insure.
9. Prior to performing any work on the PROJECT, the CONTRACTOR shall provide the RAILROAD acceptable certificates of insurance, including original signatures of the authorized representatives evidencing the required coverages, endorsements, and amendments and referencing the RAILROAD's contract audit/folder number (if available), as evidence that required coverages for Insurance Types 1, 2 and 3 are in force.
10. The policies for Insurance Types 1, 2 and 3 must contain a provision that obligates the insurer to notify the RAILROAD at least 60 calendar days before a cancellation, non- renewal, substitution or material change in coverage, and such provision must be reflected on the insurance certificates.
11. The CONTRACTOR shall send the required insurance documentation to the RAILROAD at the following address:

BNSF Risk Management

2500 Lou Menk Drive AOB-1

Fort Worth, TX 76131-2828

12. Acceptance by the RAILROAD of a certificate of insurance that does not comply with this section shall not operate as a waiver of the CONTRACTOR's obligation to provide the insurance required by this section.
13. If the RAILROAD notifies the STATE that the CONTRACTOR does not have the required insurance, the STATE's engineer shall immediately suspend work on the PROJECT until the matter is resolved.
14. The requirements for Insurance Types 1, 2, and 3 shall apply with equal force whether the CONTRACTOR or a subcontractor, or anyone directly or indirectly employed by either, performs work on the PROJECT. If any portion of the PROJECT work is subcontracted, the CONTRACTOR must require the subcontractor to provide and maintain insurance coverages for Insurance Types 1, 2, and 3 that meet the requirements of this section, except that the minimum limits required for the subcontractor's commercial general liability policy shall be $2,000,000 per occurrence and $4,000,000 in the aggregate.
15. The fact that the CONTRACTOR obtains insurance as required by this section shall not release or diminish the CONTRACTOR's liability. Damages recoverable by the RAILROAD will not be limited by the required insurance coverages.
16. Upon request from the RAILROAD, the CONTRACTOR will provide a certified duplicate original of any requested policy.
17. For purposes of this section references to the RAILROAD mean the COMPANY, Burlington Northern Santa Fe Corporation, and the subsidiaries, successors, assigns and affiliates of each.

Notify evidence of the required coverage, and duration to Contact Daniel Peltier, Manager of Public Projects; 80 44th Avenue NE, Minneapolis, MN 55421; Telephone (763) 782-3495; E-mail daniel.peltier@BNSF.com to determine the applicable railroad rules and regulations. Once determined send the RPLI policy to bnsf@certfocus.com . Approval of the policy will not take place until the Manager of Public Projects has been contacted. Also, send a copy to the following: Anna Davey, NW Region Railroad Coordinator; 1701 N 4th Street, Superior, WI 54880; Telephone (715) 392-7960; E-mail: anna.davey@dot.wi.gov.

Include the following information on the insurance document:

Project ID: 7224-00-72
Project Location: Winona, Buffalo County
Route Name: Winona Connector, Buffalo County
Railroad Subdivision: St Croix Sub
Crossing ID: None Assigned
Railroad Milepost: 327.9
Work Performed: construct pedestrian overpass

A.2 Train Operation

Approximately 44 through freight trains operate daily at up to 60 mph. There are multiple switching movements.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination

Construction Contact

Daniel Peltier, Manager of Public Projects; 80 44th Avenue NE, Minneapolis, MN 55421; Telephone (763) 782-3495; E-mail daniel.peltier@BNSF.com for consultation on railroad requirements during construction.

Amend Standard Spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

Flagging Contact

Notify the Construction Contact above a minimum of 40 working days in advance to arrange for a railroad flagger. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

Cable Locate Contact

In addition to contacting Diggers Hotline, contact the BNSF Communications Network Control Center at (800) 533-2891, five working days before the locate is needed. Reference Wisconsin Milepost 327.9 on Line Segment 3.

BNSF will only locate railroad owned facilities located in the railroad right-of-way. The railroad does not locate any other utilities.

A.4 Work by Railroad

The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. Install temporary crossing surface.

Amend Standard Spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

A.5 Temporary Grade Crossing

The department has made arrangements for a temporary grade crossing to be installed by the railroad at a location deemed appropriate for both contractor needs and railroad requirements. Contact the railroad representative named in A.3 at least 40 days prior to the time it is desired to have the crossing installed.

A.6 Temporary Clearances During Construction

Replace subparagraphs (3) 4.1 and (3) 4.2 of Standard Spec 107.17.1 with the following:

Provide 15 feet 0 inches plus 1.5 inches per degree of track curvature, measured horizontally from the track center line.

Provide 21 feet 6 inch plus 1.5 compensation for super-elevated track, measured vertically above the top of the highest rails.

B Railroad Flagging

Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in Subsection 107.17.1 are not maintained during construction operations.

The following conditions may also warrant flagging:

1. Cranes swinging (including length of boom/outriggers and /or appurtenances) or handling materials or equipment within 25 feet of the centerline of any track.
2. Construction operations that are in proximity of power lines or railroad signal and communication lines, underground cables, fuel oil facilities or pipe lines and which might result in fire or damage to such facilities, danger to railroad operations or danger to the public in the transaction of business on railroad premises.
3. Excavation, tunneling, blasting, pile driving, placing, or removing cofferdams or sheeting, or similar activities that might cause the railroad's tracks or buildings to be undermined, heaved out of normal level, shifted out of alignment, or otherwise impaired.
4. Bridge painting activities including rigging of falsework, scaffolding or similar activities over railroad tracks.
5. Deck removal activities over railroad tracks.
6. Pouring of bridge decks in spans over an operated track.
7. At any other time in railroad representative's judgment, the contractor's work or operations constitute an intrusion into the track zone and create an extraordinary hazard to railroad traffic, and at any other time when flagging protection is necessary for safety to comply with the operating rules of the railroad.

Projects with concurrent activity may require more than one flagger.

Projects with heavy contractor activity within 25 feet of the centerline of any track or unusual or heavy impact on railroad facilities will normally require a full-time flagger.

The department and railroad will monitor operations for compliance with the above flagging requirements. Violations may result in removal from railroad property until arrangements to adhere to the flagging requirements are satisfied. If the railroad imposes additional flagging requirements beyond the above flagging requirements due to the previous violations, the contractor shall bear all costs of the additional flagging requirements.

C Flagging by Railroad– Railroad Does Not Pay Flagging Costs

C.1 General

Replace paragraph (4) of Standard Spec 107.17.1 with the following:

Comply with the railroad's rules and regulations regarding operations on railroad right-of-way. If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and make payment directly to the railroad. Notify the appropriate railroad representative as listed in Section A.3 above, in writing, at least 40 business days before starting work near a track. Provide the specific time planned to start the operations.

Work that requires railroad flaggers to occupy the work zone for longer duration or longer than the normal work day will require 40-day written notice to the railroad.

C.2 Rates – BNSF

The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging:

$800 daily rate for an eight-hour day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$1,200 "Rest Time" or nightly rate for weekday overnight work for an eight-hour day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$1,200 daily rate for an eight-hour day on Saturdays, Sundays or holidays (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$1,650 “Rest Time” or nightly rate for weekend overnight work for an eight-hour day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$180 per hour overtime rate for all time worked before or after the regular assigned eight hours on any day, or for a minimum three hour call on Saturdays, Sundays, or Holidays.

The flagger is required to set flags each day in advance of the contractor commencing work that will require flagging. The flagger must also remove the flags each day after the completion of work that required flagging. Any time worked before or after the minimum eight-hour flagging day to set or remove flags will be billed at the overtime rate. The contractor is responsible for knowing the requirements of the railroad for arranging and terminating flagging services and for the associated costs of those services.

C.2 Reimbursement Provisions

The actual cost for flagging will be billed by the railroad. After the completion of the work requiring flagging protection as provided in Section B above, the department will reimburse 50 percent of the cost of such services up to the rates provided above based on paid railroad invoices, except for the excluded conditions enumerated below. In the event, actual flagging rates exceed the rates stated above, the department will reimburse 100 percent of the portion of the rate that is greater than the rates stated above.

C.3 Excluded Conditions

The department will not reimburse any of the cost for additional flagging attributable to the following:

1. Additional flagging requirements imposed by the railroad beyond the flagging requirements provided in Subsection B above due to violations by the contractor.
2. Temporary construction crossings arranged for by the contractor.

The contractor shall bear all costs of the additional flagging requirements for the excluded conditions.

C.4 Payment for Flagging

The department will pay for the department’s portion of flagging reimbursement as specified in Section C of this provision under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
801.0117	Railroad Flagging Reimbursement	DOL

The reimbursement payment, as shown on the Schedule of Items, is solely for department accounting purposes. Actual flagging costs will vary based on the contractor’s means and methods.

Railroads may issue progressive invoices. Notify the railroad when the work is completed and request a final invoice from the railroad. Promptly pay railroad-flagging invoices, less any charges that may be in dispute. The department will withhold flagging reimbursement until any disputed charges are resolved and the final invoice is paid. No reimbursement for flagging will be made by the department if a violation of Subsection B is documented.

D Rail Security Awareness and Contractor Orientation

Prior to entry on railroad right-of-way, the contractor shall arrange for on-line security awareness and contractor orientation training and testing, and be registered through “e-RAILSAFE” for all contractor and subcontractor employees working on railroad right-of-way. See e-railsafe.com “Information”. The security awareness and contractor orientation training is shown under the railroad’s name.

The department has secured right of entry to railroad property; neither the contractor nor subcontractors or their employees will be required to sign a right of entry form.

The security awareness and contractor orientation certification is valid for 1 year and must be renewed for projects that will carry over beyond the 1 year period. Contractor and subcontractor employees shall wear the identification badge issued by e-RAILSAFE when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.

E Project Oversight Inspection

Prior to and during construction railroad will have an employee designated as the Project Oversight Inspector. The duties of the inspector are, but not limited to the following:

1. Act as BNSF representative and point person for contractors' questions, issues and general coordination functions.
2. Attend Preconstruction Meeting
3. Obtain and review Contractors Safety plan
4. Attend Project Meetings as necessary
5. Perform Weekly site inspections including:
    a. Safety assessment
    b. Job site assessment
    c. Coordinate corrective actions directly with contractor
    d. Submit Site inspection report to all BNSF parties
6. Coordinate Flagging needs
7. Perform final site inspections including:
    a. Site restoration
    b. Measure final clearances

9. Information to Bidders, Status of Environmental Permits.

The WPDES General Construction Storm Water Discharge Permit will be approved by WisDNR upon completion of all real estate acquisition.

The WisDNR Incidental Take Permit for the Blanchard's Cricket Frog will be approved by May 31, 2019.

10. Information to Bidders, Status of Right of Way

The following parcels shown in the Plat of Right of Way are not fully acquired:

Parcel 1: BNSF Railway Company.

Acquisition in progress; rights of access expected to be acquired and recorded by May 31, 2019.

Parcel 2: United States of America, Trempealeau National Wildlife Refuge.

Acquisition in progress; rights of access expected to be acquired and recorded by May 31, 2019.

11. Information to Bidders, WPDES General Construction Storm Water Discharge Permit.

Buffalo County has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from Buffalo County by contacting David Schmidt at 651.560.4081. Post the permit in a conspicuous place at the construction site.

12. Information to Bidders, General Wetland Permit.

Buffalo County has obtained coverage through the Wisconsin Department of Natural Resources to discharge fill into wetlands under Permit #GP-WC-2018-6-00798. A copy of the permit is available from the county by contacting David Schmidt at 651.560.4081. Comply with the requirements of the permit in addition to requirements of the special provisions. Post the permit in a conspicuous place at the construction site.

13. Information to Bidders, Bridge and Culvert Permit.

Buffalo County has obtained coverage through the Wisconsin Department of Natural Resources for bridge construction and culvert extension under Permit #GP-WC-2018-6-00829 and -00796. A copy of the permit is available from the county by contacting David Schmidt at 651.560.4081. Comply with the requirements of the permit in addition to requirements of the special provisions. Post the permit in a conspicuous place at the construction site.

14. Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.

Buffalo County has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from Buffalo County by contacting David Schmidt at 651.560.4081.

15. Notice to Contractor – Determination of No Hazard to Air Navigation, Winona Municipal Airport.

The Federal Aviation Administration (FAA) has determined there is no hazard to air navigation based on estimated equipment heights.

Provide the engineer at least 30 days notice prior to erecting any construction equipment exceeding 175 feet in height.

16. Construction Over or Adjacent to Navigable Waters.

The backwater of the Mississippi River is classified as a federal navigable waterway under Standard Specification 107.19.

The backwater of the Chicken Valley / Whiskey Creek is classified as a state navigable waterway under Standard Specification 107.19.

stp-107-060 (20171130)

17. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220.

stp-107-066 (20080501)

CenturyLink has underground fiber optic facilities located on the north east side of the BNSF railroad that is attached to Xcel Energy's distribution poles. The fiber optic feeds a BNSF switch hut 1200 feet south east of the deck of the proposed bridge over the BNSF. Conflicts are anticipated with Xcel Energy's overhead lines near Span 4 and Pier 4. Relocation of Xcel Energy's facilities will require relocation of Centurylink's facilities. Relocation of these facilities will involve placing a new buried fiber optic away from conflict area. This work will take place during construction prior to construction of Pier 4. Contact Tom Murray, 608.796.7869, 21 days prior to construction to coordinate work.

Hiawatha Broadband Communication has underground fiber optic facilities located on the north side of STH 35 along Bluff Siding Road. No conflicts are anticipated.

Riverland Energy has overhead distribution facilities approximately 800 feet north of STH 35. No conflicts are anticipated.

Xcel Energy - Distribution has overhead distribution facilities and poles within the project limits. Overhead lines and poles are located on the west side of the trail from approximately Station 1000+00 to Station 1006+00. Temporary widening for construction will occur on the west side of the trail from Station 1000+00 to Station 1006+24. Temporary fill will be placed around the poles with in the temporary widening area. Xcel Energy has no concern with placing the temporary fill as shown in the plans from Station 1000+00 to Station 1006+24. Overhead electric conductor and poles located near Span 4 and Pier 4 will be in conflict. Xcel Energy will remove the pole located at Station 1006+87, 24 ft. rt., and the existing overhead line crossing at Station 1007+08 will be buried. The minimum working clearance from electric conductors is 10 feet. Xcel Energy will de-energize any lines close to the work zone. Relocation and de-energizing of these facilities will take place during construction. Contact Laura Jorstad, 608.789.3712, 21 days prior to construction to coordinate work.

Xcel Energy - Transmission has transmission facilities within the project limits. Retaining walls with a safety fence will be constructed to maintain a 5-foot separation from the trail slopes to the transmission facilities. The retaining walls are located at Station 1021+50 and Station 1028+50. No conflicts are anticipated however care should be taken when constructing the walls so when complete, no additional fill is added and water will not pool at the base of the wood pole structures.

Prior to commencing work, designate a person who will supervise and control the work, and who shall be present during the work each day. Review the retaining wall locations, plans, schedule, and construction operations with Xcel Energy prior to commencing work. Consult with the engineer to address concerns.

Immediately suspend work near transmission facilities if requested by Xcel Energy. Communicate and consult with Xcel Energy and the engineer to resolve the issue.

Fill above the steel anchor rod onto any guy wire is not permitted.

The ground elevations shown within the easement shall not be increased above the proposed grades as shown in the plans. Stock piling of soil and/or material within the easement will not be permitted, expect as shown on the plans where the retaining walls are being installed.

A working clearance of 15 feet (in all directions) between the 69kV electrical conductors and any cranes or digging equipment used in or near the easement and a clearance of 10 feet (in all directions) to the physical proximity of workers must be maintained at all times. Vehicles (i.e. in transport mode) are restricted to a maximum height of 15 feet above existing ground.

In addition, any construction near the transmission line(s) shall comply with all OSHA Safety Clearances. If this clearance cannot be maintained, the contractor or developer must arrange for a line outage by calling Xcel Energy's Transmission Line Construction department (Charlie Dienger at 715-737-1576). At least four (4) weeks advance notice must be provided in order to schedule a line outage. Be advised that line outages may not be available due to weather or system operating conditions.

Do not refuel vehicles or equipment nor store fuel tanks or any other hazardous material or pollutant within the Xcel Energy easement area. Maintain the easement work area in a safe and lawful manner.

Maintain and provide evidence to Xcel Energy of insurance coverage at least equivalent to the following coverage:

1. Worker's Compensation at statutory limits with Employers Liability coverage of at least $100,000 limits if Licensee is at any time during the term of this License Agreement an "employer" as that term is defined in Wisconsin's Workers Compensation Act, Chapter 102, Wis. Stats.
2. Comprehensive General Liability Coverage, (including blanket contractual liability) against claims for bodily I injury, death and property damage, including environmental damage, arising out of Licensee's operations, affording combined single limit protection of One Million Dollars ($1,000,000 with respect to personal injury or death and property damage, including environmental damage.

All policies shall be endorsed to (1) name Xcel Energy its directors, officers, employees and affiliates as additional insured with respect to any and all bodily injury and/or property damage, and (2) to require thirty (30) days written notice be given to Xcel Energy prior to any cancellation or material changes in the policy.

18. Environmental Protection, Aquatic Exotic Species Control.

Exotic invasive organisms such as VHS, zebra mussels, purple loosestrife, and Eurasian water milfoil are becoming more prolific in Wisconsin and pose adverse effects to waters of the state. Wisconsin State Statutes 30.07, "Transportation of Aquatic Plants and Animals; Placement of Objects in Navigable Waters", details the state law that requires the removal of aquatic plants and zebra mussels each time equipment is put into state waters.

At construction sites that involve navigable water or wetlands, use the follow cleaning procedures to minimize the chance of exotic invasive species infestation. Use these procedures for all equipment that comes in contact with waters of the state and/or infested water or potentially infested water in other states.

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels before being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Guidelines from the Wisconsin Department of Natural Resources for disinfection are available at:

http://dnr.wi.gov/topic/invasives/disinfection.html

Use the following inspection and removal procedures:

1. Before leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can before leaving the area or invested waters; and
4. Disinfect your boat, equipment and gear by either:
   4.1. Washing with ~212 F water (steam clean), or
   4.2. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
   4.3. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore this disinfect should be used in conjunction with a hot water (>104º F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.

stp-107-055 (20130615)

19. Environmental Protection, Emerald Ash Borer.

The emerald ash borer (EAB) has resulted in a quarantine of ash trees (Fraxinus, sp) by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR).

Ash trees include the following species:

Green ash (F. pennsylvanica) is found throughout the state, but is most common in southern Wisconsin. It may form pure stands or grow in association with black ash, red maple, swamp white oak, and elm. It grows as an associate in upland hardwood stands, but is most common in and around stream banks, floodplains, and swamps.

Black ash (F. nigra) is distributed over the entire state but is most frequently found in northern Wisconsin. It is most common in swamps, but is also found in other wet forest types.

Blue ash (F. quadrangulata) is a threatened species that is currently found only at a few sites in Waukesha county. The species is at the edge of its range in Wisconsin, but is common in states farther south. The species is not of commercial importance.

Mountain ash (Sorbus Americana and S. decora) is not a true ash and is not susceptible to EAB infestation.

Follow and obey the following Wisconsin Department of Agriculture, Trade, and Consumer Protection order:

ATCP 21.17 Emerald ash borer; import controls and quarantine.

IMPORTING OR MOVING REGULATED ITEMS FROM INFESTED AREAS; PROHIBITION. Except as provided in sub. (3), no person may do any of the following:

(a) Import a regulated item under sub. (2) into this state if that item originates from an emerald ash borer regulated area identified in 7CFR 301.53-3.

(b) Move any regulated item under sub. (2) out of an emerald ash borer regulated area that is identified in 7CFR 301.53-3 and located in this state.

Note: the United States Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS) periodically updates the list of regulated areas in 7CFR 301.53-3. Subsection (1) applies to new regulated areas as those areas are identified in the CFR.

REGULATED ITEMS. The following are regulated items for purposes of sub. (1): the emerald ash borer, Agrilus planipennis (Fairmaire) in any living stage.

Ash trees.

Ash limbs, branches, and roots.

Ash logs, slabs or untreated lumber with bark attached.

Cut firewood of all non-coniferous species.

Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.

Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

Regulatory Considerations

The quarantine means that ash wood products may not be transported out of the quarantined area.

If ash trees are identified within clearing and grubbing limits of the Project, the following measures are required for the disposal:

Chipped ash trees

May be left on site if used as landscape mulch within the project limits.

May be buried on site within the right-of-way in accordance with Section 201.3 (14) of the standard specifications.

May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer in accordance with Section 201.3 (15) of the standard specifications.

May be trucked to a licensed landfill within the quarantined zone with the engineer’s approval in accordance with Section 201.3 (15) of the standard specifications.

Burning chips is optional if in compliance with Section 201.3 of the standard specifications.

Chips must be disposed of immediately and may not be stockpiled.

Chipper equipment must be cleaned following post-chipping activities to insure no spread of wood chip debris into non-quarantined counties.

Ash logs, branches, and roots

May be buried without chipping within the existing ROW or on adjacent properties in accordance with Section 201.3 (14)(15) of the standard specifications.

May be trucked to a licensed landfill within the quarantined zone with the engineer’s approval in accordance with Section 201.3 (15) of the standard specifications.

Burning is optional if in compliance with Section 201.3 of the standard specifications.

Ash logs, branches, and roots must be disposed of immediately and may not stockpiled.

All additional costs will be incidental to clearing and grubbing items.

Anyone moving firewood or ash products from the state or these counties is subject to state and federal fines up to $1,000.00. All fines are the responsibility of the contractor. Obtain updated quarantine information at the DNR Firewood Information Line at 1-800-303-WOOD.

Updates for compliance

Each year, as a service, the Wisconsin Department of Agriculture, Trade and Consumer Protection distributes an updated federal CFR listing to nursery license holders and other affected persons in this state. More frequent updates, if any, are available on the department's website at www.datcp.state.wi.us. Subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from the department. Persons may request update notices by calling (608) 224−4573, by visiting the department's website, or by writing to the following address:

Wisconsin Department of Agriculture, Trade and Consumer Protection
Division of Agricultural Resource Management
P.O. Box 8911
Madison WI 53708−8911

(2) REGULATED ITEMS. More frequent updates, if any, are available on the department's website at www.datcp.state.wi.us. Subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from the department. Persons may request update notices by calling (608) 224−4573, by visiting the department's website, or by writing to the above address.

20. Erosion Control Structures.

Within seven calendar days after beginning work on the bridge superstructure, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, soil stabilizer, or any other item required by the contract or deemed necessary by the engineer. These devices shall be in place in the area under the bridge and on both sides of the roadway, from the waterway to a point 100-feet behind the backwall of the abutment. Within said limits, place these devices to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as the engineer directs. Before initial construction operations, place turbidity barriers, silt screens, and other temporary erosion control measures as the plans show, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.

stp-107-070 (20030820)

21. Archaeological Site.

Bluff Siding (47BF45/BBF-0095), Bluff Siding II (47BF131) and Alf Site (47BF46) are located east of the Buffalo Town Park and are not within the project limits shown on the plans.

Do not use the site for borrow or waste disposal. Do not use the site area not currently capped by asphalt/concrete for the staging of personnel, equipment and/or supplies.

22. Removing Concrete Masonry Endwall, Item 204.9105.S.01.

A Description

This special provision describes removing the concrete masonry endwall from Structure B-6-55 conforming to Standard Spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Concrete Masonry Endwall as Lump Sum acceptably completed.

E Payment

Add the following to Standard Spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S	Removing Concrete Masonry Endwall	LS

stp-204-025 (20150630)

23. Removing Gate and Concrete Barrier, Item 204.9105.S.02.

A Description

This special provision describes removing existing traffic gate and concrete barrier conforming to Standard Spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Gate and Concrete Barrier as Lump Sum acceptably completed.

E Payment

Add the following to Standard Spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S	Removing Gate and Concrete Barrier	LS

stp-204-025 (20150630)

24. Prefabricated Steel Truss Pedestrian Bridge B-6-500 LRFD, Item 506.8005.S.01, Prefabricated Steel Truss Pedestrian Bridge B-6-501 LRFD, Item 506.8005.S.02.

A Description

This special provision describes providing a fully engineered, fabricated steel truss pedestrian bridge structure, including bearings the plans show. Conforming to Standard Spec Part 5 as modified in this special provision. Regard these specifications as minimum standards for design and construction.

B Materials

B.1 Approved Manufacturers

The bridge shall be designed and manufactured by an approved designer and supplier selected from the department's approved products list.

To be eligible for this project, pre-fabricated bridges from other manufacturers must be pre-approved before the bid opening date. Applications for pre-approval may be submitted at any time. Prepare the application according to the department requirements. If needed, obtain information and assistance with the pre-approval process from the Structures Maintenance Section in the Bureau of Structures, by sending an email to the following address: DOTDLStructuresFabrication@dot.wi.gov

B.2 Design Requirements

Structural design of the pedestrian bridge shall be by a professional engineer registered in the State of Wisconsin.

Design the bridge according to the most recent edition of the AASHTO LRFD Bridge Design Specifications, all current interims, and the AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, except as modified herein.

The truss is to be constructed of unpainted, weathering steel.

Design welded tubular connections according to the Structural Welding Code-Steel ANSI/AWS D1.1. The fracture critical requirements of ANSI/AWS D1.5 do not apply, and Charpy V-notch impact testing will not be required. Loading shall be as stated in Section 3 of the AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges. The bridge shall be a half-through truss with profile as the plans show with one diagonal per panel. Chords, diagonals, verticals, bracing, and floor beams may be tube steel. Tube steel shall have a minimum thickness of 1/4 inch, angles shall have a minimum thickness of 1/4-inch, C-shaped side dams shall have a minimum web thickness of 3/16-inch, and W-shapes shall have a minimum web thickness of 1/4-inch if painted or coated and 5/16-inch if not painted or coated. All other steel shapes shall have a minimum thickness of 5/16 inch unless contract plans allow a minimum thickness of less than 5/16 inch for other steel shapes. Field splices shall be bolted with ASTM F3125 Grade A325 high `strength bolts according to the "Specifications for Structural Joints Using High Strength Bolts". Type 3 bolts are required for weathering steel. For top and bottom chord field splices, splice plates are required on both the inside and outside surface of all four sides of the spliced tubing so that each bolt will be acting in double shear. Nuts may be welded to the splice plates to hold them in place during

installation. When the collection of water inside a structural tube is a possibility, either during construction or during service, provide the tube with a drain hole at its lowest point.

For a bridge with two or more spans, if the profile grade line has a constant slope (no vertical curve), camber the bridge to offset the calculated dead load deflection only. For the center span over the railroad, in addition to the dead load deflection, add a residual camber of between 6 inches and 12 inches.

This truss will have a treated timber deck. Dimensions and treatments are shown in the plans.

Install protective throw fence as the plans show. Protective throw fence is a separate pay item. The fence will be connected using truss connection plates, welded to the truss and are incidental to the truss.

B.3 Plan Requirements and Submittals

Submit shop drawings and calculations to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings.

Make the submittal no later than 12 weeks after date of notice of contract approval. Allow the following time period in the construction schedule: 20 calendar days after the first receipt of plans by the Structures Design Section for a complete initial review of the design and plans submittal, and an additional 20 calendar days for any necessary revisions and/or corrections.

In the submittal, include the following:

1. Basic design criteria shown on the design plans.
2. Complete detailed drawings of all structural steel connections, sizes of members, span lengths between bearing points, skews, walkway widths, height of handrails and safety rails, bearing assembly details, anchor bolt locations, concrete deck reinforcement, design data, materials data, and dead and live load bearing reactions.
3. Engineer's certification. The plans shall be sealed, signed, and dated by a professional engineer registered in the State of Wisconsin.
4. One set of design calculations with independent checks.

The department will return shop drawings from this submittal, and any subsequent submittals, to the fabrication library, either indicating acceptance or marked with required revisions and/or corrections.

B.4 Weld Testing

An independent agency shall perform nondestructive weld testing; the manufacturer shall pay for this testing. All welds are to be visually inspected except as noted below.

Ten percent of all fillet welds shall be magnetic particle tested.

All full penetration welds of chords shall be ultrasonically or radiographically tested.

Bottom chord welded tube splices for tube thicknesses less than 3/8 inches thick shall be radiographically tested or covered with fillet welded splice plates with non-intersecting welds which develop 75 percent of the spliced member strength.

Submit electronically a written testing report upon completion.

C Construction

C.1 Delivery and Erection

Deliver the bridge by truck to the location that is nearest to the site and accessible by road. The contractor is responsible for unloading the bridge from the trucks at the time of arrival.

The manufacturer shall notify the contractor in advance of the expected arrival time. Information regarding delays after the trucks depart the plant such as inclement weather, delays in permits, rerouting by public agencies, or other circumstances shall be passed on to the contractor as soon as possible.

The manufacturer shall provide an erection procedure to the contractor and shall advise the contractor of the actual lifting weights, attachment points, and all other information needed to install the bridge. Unloading, splicing, bolting, and providing proper lifting equipment as well as all tools, equipment, labor, and miscellaneous items required to complete the work is the responsibility of the contractor. The procedure for bolting field splices shall be given to the contractor by the manufacturer.

C.2 Finishes

When unpainted steel is specified on the plans, all fabrications shall be produced from high strength, low alloy, atmospheric corrosion resistant ASTM A847 cold-formed welded square and rectangular tubing, ASTM A606 sheet, and/or ASTM A588, ASTM A242, or ASTM A709 Grade 50W plate and structural steel shapes (F_y=50,000 psi) with a minimum corrosion index of 5.8 per ASTM G101.

Blast-clean all exposed surfaces of weathering steel according to Steel Structures Painting Council Surface Preparation Specifications No. 7 Brush-Off Blast Cleaning (SSPC-SP7), latest edition. Exposed surfaces of weathering steel shall be defined as those surfaces seen from the deck and from outside the structure. Stringers, floor beams, lower brace diagonals and the inside face of the truss below the deck, and bottom of the bottom chord do not need to be blasted.

When the plans specify painted steel, paint the bridge with a three-coat epoxy system from the department's approved products list as specified in Standard Spec 517.

D Measurement

The department will measure Prefabricated Steel Truss Pedestrian Bridge (Structure) LRFD as a single lump sum unit of work for the bridge acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
506.8005.S.01	Prefabricated Steel Truss Pedestrian Bridge B-6-500 LRFD	LS
506.8005.S.01	Prefabricated Steel Truss Pedestrian Bridge B-6-501 LRFD	LS

Payment is full compensation for designing, manufacturing, transporting and erecting the pedestrian bridge; furnishing bearing plates, pads, bolts, anchors bolts, and grout. The department will pay separately for painting under the Painting Epoxy System Steel Truss (structure) bid item.

25. Culvert Pipe Corrugated Steel 84-Inch, Item 521.3184

This special provision describes providing Culvert Pipe Corrugated Steel 84-Inch as per Section 504 of the Standard Specifications in it's entirely with the exception of the following:

Furnishing and installing all materials required to cut the existing pipe end to sound metal and install a 2-foot wide metal band collar to connect the existing pipes to the proposed pipes are incidental to this item.

26. Fence Chain Link 4-feet, Item 616.0204

This special provision describes providing Fence Chain Link, 4-ft. in accordance with Section 616 of the standard specifications with the exception of the following:

Ground the fences on Retaining Walls 10+00 and 20+00 in accordance with Section 616.3.5 of the standard specifications. Install at least one ground rod on each electrically isolated section of fence.

27. Erosion Mat Class II Type B, Item 628.2023

This special provision describes providing erosion mat as per Section 628 of the Standard Specifications with the following exception:

Furnish only biodegradable products from the following approved products list:

American Excelsior, FibreNet products

Erosion Control Blanket, C32 BD

North American Green, C125BN

Western Excelsior, Excel CC-4 All Natural

28. Chain Link Fence Post Concrete Surface Mount Anchor Sleeve, Item SPV.0060.01.

A Description

This special provision describes installing Chain Link Fence Post Concrete Surface Mount Anchor Sleeve.

B Materials

All materials conform to Section 616.2.3 of the Standard Specifications

C Construction

Install Chain Link Fence Post Concrete Surface Mount Anchor Sleeves on top of the retaining walls per the plan details.

D Measurement

The department will measure Chain Link Fence Post Concrete Surface Mount Anchor Sleeve by the each acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

SPV.0060.01 Chain Link Fence Post Concrete Surface Mount Anchor Sleeve Each

Payment is full compensation for mounting each anchor sleeve; for all furnishing bolts, materials and equipment required to complete the installation.

29. Protective Throw Fence, Item SPV.0090.01.

A Description

This special provision describes installing Protective Throw Fence as per Section 616 of the Standard Specifications.

B Materials

All materials will conform to Section 616.2.3 of the Standard Specifications

C Construction

Construct Protective Throw Fence as per Section 616.3.3 of the Standard Specifications and per the plan details.

D Measurement

The department will measure Protective Throw Fence by the linear foot acceptably completed, measured from center to center of end posts, along the top tension wire.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Protective Throw Fence	LF

Payment is full compensation for setting posts; for erecting and tensioning all fencing components; for installing grounds; and for removing and disposing of all debris and surplus material.

30. Treated Timber Rub Rail, Item SPV.0090.02.

A Description

This special provision describes constructing a 2-inch by 12-inch treated timber rub rail on the back of the steel plate beam guard post in accordance to the details shown in the plan and as hereinafter provided.

B Materials

The species of wood shall be 2 by 12 southern yellow pine, Grade 2 or better. The preservation treatment shall conform to Standard Spec 507.2.3. Fasteners shall be No. 10 by 3-inch galvanized wood screws.

C Construction

Fasten the rub rails to the back of the beam guard posts in accordance to the plan details.

D Measurement

The department will measure Treated Timber Rub Rail, by the linear foot of rail in place, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.02	Treated Timber Rub Rail	LF

Payment is full compensation for furnishing and installing treated timber rub rail, and furnishing all labor, tools, equipment, materials, and incidentals needed to complete the contract work.

31. Wall Modular Bock Mechanically Stabilized Earth LRFD/QMP, Item SPV.0165.01.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years minimum.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

This special provision describes contractor quality control (QC) sampling and testing for backfill density testing, documenting those results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Modular Block Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The location of the plant manufacturing the facing units shall be furnished to the engineer at least 14 days prior to the project delivery.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared in accordance to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

B.2 Design Requirements

It is the responsibility of the Contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Certify that shop drawings conform to quality control standards by submitting Department Form DT2329 with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11-inch by 17-inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 1/2-inch by 11-inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All

plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (Standard Spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the Department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls in accordance to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2-feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratio (CDR) for sliding, eccentricity, and bearing checks is provided by the department and are provided on the wall plans.

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass in accordance with AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and wall facing-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

Wall facing units shall be designed in accordance with AASHTO LRFD 11.10.2.3.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 6.0 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be two times the block width (front face to back face) or 32 inches, whichever is less. The first (bottom) layer of reinforcement shall be placed no further than 12 inches above the top of the leveling pad or the height of the block, but at least one block height above the leveling pad. The last (top) layer of soil reinforcement shall be no further than 21 inches below the top of the uppermost block.

All soil reinforcement required for the reinforced soil zone shall be connected to the wall facing.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3 inches shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a concrete leveling pad. The bottom row of blocks shall be horizontal and 100 percent of the block surface shall bear on the leveling pad.

Concrete leveling pads shall be as wide as the proposed blocks plus six inches, with six inches of the leveling pad extending beyond the front face of the blocks. The minimum thickness of the leveling pad shall be 6 inches.

B.3 Wall System Components

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 Wall Facing

Wall facing units shall consist of precast modular concrete blocks. Furnish concrete produced by a dry-cast or wet-cast process. Concrete for all blocks shall not contain less than 565 pounds of cementitious materials per cubic yard. The contractor may use cement conforming to Standard Spec. 501.2.1 or may substitute for portland cement at the time of batching conforming to Standard Spec. 501.2.6 for fly, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.

Dry-cast concrete blocks shall be manufactured in accordance with ASTM C1372 and this specification.

All units shall incorporate a mechanism or devices that develop a mechanical connection between vertical block layers. Units that are broken, have cracks wider than 0.02 inch and longer than 25 percent of the nominal height of the unit, chips larger than 1 inch, have excessive efflorescence, or are otherwise deemed unacceptable by the engineer, shall not be used within the wall. A single block front face style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan.

The top course of facing units shall be as noted on the plans, either;

- Solid precast concrete unit designed to be compatible with the remainder of the wall. The finishing course shall be bonded to the underlying facing units with a durable, high strength, flexible adhesive compound compatible with the block material.
- A formed cast-in-place concrete cap. A cap of this type shall have texture, color, and appearance, as noted on the plans. The vertical dimension of the cap shall not be less than 3 1/2 inches. Expansion joints shall be placed in the cap at a maximum spacing of 20 feet unless noted otherwise on the plan. Use Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to Standard Spec 501 as modified in Standard Spec 716. Provide QMP for cast in place cap and coping concrete as specified in Standard Spec 716, Class II Concrete.

Block dimensions may vary no more than ±1/8 inch from the standard values published by the manufacturer. Blocks must have a minimum width (front face to back face) of 8 inches. The minimum front face thickness of blocks shall be 4 inches measured perpendicular from the front face to inside voids greater than 4 square inches. The minimum allowed thickness of any other portions of the block is 1 3/4 inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

If pins are used to align modular block facing units, they shall consist of a non-degrading polymer, or hot dipping galvanized steel and be made for the express use with the modular block units supplied, to develop mechanical interlock between facing unit block layers. Connecting pins shall be capable of holding the wall in the proper position during backfilling. Furnish documentation that establishes and substantiates the design life of such devices.

For concrete leveling pad, use Grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to Standard Spec 501 as modified in Standard Spec 716. Provide QMP for leveling pad concrete as specified in Standard Spec 716, Class III Concrete.

B.3.2 Material Testing

Provide independent quality verification testing of project materials according to the following requirements:

Test	Method	Requirement	
		Dry-cast	Wet-cast
Compressive Strength (psi)	ASTM C140	5000 min.	4000 min.
Air Content (%)	AASHTO T152	N/A	6.0 +/-1.5
Water Absorption (%)	ASTM C140	6 max.[3]	N/A
Freeze-Thaw Loss (%) 40 cycles, 5 of 5 samples 50 cycles, 4 of 5 samples	ASTM C1262[1]	1.0 max.[2][3] 1.5 max.[2][3]	N/A

[1] Test shall be run using a 3 percent saline solution and blocks greater than 45 days old.

[2] Test results that meet either of the listed requirements for Freeze-Thaw Loss are acceptable.

[3] The independent testing laboratory shall control and conduct all sampling and testing. Prior to sampling, the manufacturer's representative shall identify materials by lot. Five blocks per lot shall be randomly selected for testing. Solid blocks used as a finishing or top course shall not be selected. The selected blocks shall remain under the control of the person who conducted the sampling until shipped or delivered to the testing laboratory. All pallets of blocks within a lot shall be strapped or wrapped to secure the contents and tagged or marked for identification. The engineer will reject any pallet of blocks delivered to the project without intact security measures. At no expense to the department, the contractor shall remove all rejected blocks from the project. If a random sample of five blocks of any lot tested by the department fails to meet any of the above testing requirements, the entire lot will be considered non-conforming.

The contractor and fabricator shall coordinate with the independent testing agency to ensure that strength and air content samples can be taken appropriately during manufacturing. At the time of delivery of materials, furnish the engineer a certified report of test from an AASHTO-registered or ASTM-accredited independent testing laboratory for each lot.

The certified test report shall include the following:

- Project ID
- Production process used (dry-cast or wet-cast)
- Name and location of testing facility
- Name of sampling technician
- Lot number and lot size

Testing of project materials shall be completed not more than 18 months prior to delivery. Independent testing frequency shall not exceed 5000 blocks for dry-cast blocks and the lesser of 150 CY or 1 day's production for wet-cast blocks. The certified test results will represent all blocks within the lot. Each pallet of blocks delivered shall bear lot identification information. Block lots that do not meet the requirements of this specification or blocks without supporting certified test reports will be rejected and shall be removed from the project at no expense to the department.

Nonconforming materials will be subject to evaluation according to Standard Spec 106.5.

B.3.3 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Wall Backfill, Type A, shall comply with the requirements for Coarse Aggregate No. 1 as given in Standard Spec 501.2.5.4.4. All backfill placed within a zone from the top of the leveling pad to the top of the final layer of wall facing units and within 1 foot behind the back face of the wall shall be Wall Backfill, Type A. This includes all material used to fill openings in the wall facing units.

Wall Backfill, Type B, shall be placed in a zone extending horizontally from 1 foot behind the back face of the wall to 1 foot beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material Type A and Type B shall meet the following requirements.

Test	**Method**	**Value**
pH	AASHTO T-289	4.5-9.0
Sulfate content [1]	AASHTO T-290	200 ppm max.
Chloride content [1]	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.
Organic Content [1]	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236[2]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2)

[1] Requirement does not apply to walls with non-metallic reinforcement.

[2] If the amount of P-4 material is greater than 60 percent, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60 percent, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90 percent of the material is fractured on one face and more than 50 percent is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1 material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion

thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

B.3.4 Soil Reinforcement

B.3.4.1 Geogrids

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester. Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall supplier shall provide the nominal long-term design strength (T_{al}) and nominal long-term connection strength, Talc as discussed below.

Nominal Long-Term Design Strength (T_{al})

The wall supplier shall supply the nominal long-term design strength (T_{al}) used in the design for each reinforcement layer and shall be determined by dividing the Ultimate Tensile Strength (T_{ult}) by the factors RF_{ID}, RF_{CR}, RF_D.

Hence,

$$T_{al} = \frac{T_{ult}}{RF_{ID} x RF_{CR} x RF_D}$$

where:

T_{ult} = Ultimate tensile strength of the reinforcement determined from wide width tensile tests (ASTM D6637) for geogrids based on the minimum average roll value (MARV) for the product.

RF_{ID} = Strength reduction factor to account for installation damage to the reinforcement. In no case shall RF_{ID} be less than 1.1.

RF_{CR} = Strength reduction factor to prevent long-term creep rupture of the reinforcement. In no case shall RF_{CR} be less than 1.2.

RF_D = Strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation. In no case shall RF_D be less than 1.1.

Values for RF_{ID}, RF_{CR}, and RF_D shall be determined from product specific test results. Guidelines for determining RF_{ID}, RF_{CR}, and RF_D from product specific data are provided in FHWA Publication No. FHWA-NHI-10-024 and FHWA–NHI-10-025 “Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes”.

Nominal Long-term Connection Strength T_{ac}

The nominal long term connection strength, T_{ac}, shall be based on laboratory geogrid connection tests between wall facing and geogrids. T_{ac} shall be as given below

$$T_{ac} = \frac{T_{ult} * CR_{cr}}{RF_D}$$

where:

T_{ac} = Nominal long-term reinforcement facing connection strength per unit reinforcement width at a specified confining pressure.

T_{ult} = Ultimate tensile strength of the reinforcement for geogrids defined as the minimum average roll value (MARV) for the product.

CR_{cr} = Long term connection strength reduction factor to account for reduced ultimate strength resulting from connection.

RF_D = Strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation.

T_{ac} shall be developed from the tests conducted by an independent laboratory on the same facing blocks and geogrids as proposed for the wall and shall cover a range of overburden pressures comparable to those anticipated in the proposed wall. The connection strength reduction factor CR_{cr} shall be determined in accordance with long-term connection test as described in Appendix B of FHWA Publication No. FHWA-NHI 10-025 “Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes”. CR_{cr} may also be obtained from the short term connection test meeting the requirements of NCMA test method SRWU-1 in Simac et al 1993 or ASTM D4884.

The Contractor shall provide a manufacturer’s certificate that the Tult (MARV) of the supplied geogrid has been determined in accordance with ASTM D4595 or ASTM D6637 as appropriate. Contractor shall also provide block to block and block to reinforcement connection test reports prepared and certified by an independent laboratory. Also provide calculations in accordance with AASHTO LRFD, and using the results of laboratory tests, that the block-geogrid connections shall be capable of resisting 100 percent of the maximum tension load in the soil reinforcements at any level within the wall, for the design life of the wall system.

B.3.4.2 Galvanized Metal Reinforcement

In lieu of polymeric geogrid earth reinforcement, galvanized metal reinforcement may be used. Design and materials shall be in accordance to AASHTO LRFD 11.10.6.4.2. The design life of steel soil reinforcements shall also comply with AASHTO LRFD. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be in accordance to Standard Spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction. Backfilling shall closely follow erection of each course of wall facing units.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facing units, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back face of modular blocks. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing units.

C.2 Compaction

Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

Compact all backfill Type B as specified in Standard Spec 207.3.6. Compact the backfill Type B to 95.0 percent of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the modular blocks. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 6 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect wall facing units and other associated elements according to the wall manufacturer's construction guide and to the lines, elevations, batter, and tolerances as shown on the plans. Center the initial layer of facing units on the leveling pad; then level them and properly align them. Fill formed voids or openings in the facing units with wall backfill, Type A. Remove all debris on the top of each layer of facing units, before placing the next layer of facing units.

Install all pins, rods, clips, or other devices used to develop mechanical interlock between facing unit layers in accordance with the manufacturer's directions.

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

C.3.2 Soil Reinforcement

C.3.2.1 Geogrid Layers

Place soil reinforcement at the positions and to the lengths as indicated on the accepted shop drawings. Take care that backfill placement over the positioned soil reinforcement elements does not cause damage or misalignment of these elements. Correct any such damage or misalignment as directed by the engineer. Do not operate wheeled or tracked equipment directly on the soil reinforcement. A minimum cover of 6 inches is required before such operation is allowed.

Place and anchor geogrid material between wall unit layers in the same manner as used to determine the Geogrid Block-to-Connection Strength. Place the grid material so that the machine direction of the grid is perpendicular to the wall face. Each grid layer shall be continuous throughout the lengths indicated on the plans. Join grid strips with straps, rings, hooks or other mechanical devices to prevent movement during backfilling operations. Prior to placing backfill on the grid, pull the grid taunt and hold in position with pins, stakes or other methods approved by the engineer.

C.3.2.2 Steel Layers

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

C.4 Quality Management Program

C.4.1 Quality Control Plan

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.

4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

C.4.2 Quality Control Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

If an Assistant Certified Technician (ACT) is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician Ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

C.4.3 Equipment

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

C.4.4 Documentation

1. Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.
2. Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.
3. Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to

the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Testing

C.4.6.1 General

1. The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

C.4.6.2 Quality Verification (QV) Testing

1. The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
2. The department will conduct QV tests at the minimum frequency of 30 percent of the required contractor density, Proctor and gradation tests.
3. The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.
4. The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
5. The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, Standard Spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

1. Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
    a. Split sample testing.
    b. Proficiency sample testing.
    c. Witnessing sampling and testing.
    d. Test equipment calibration checks.
    e. Reviewing required worksheets and control charts.
    f. Requesting that testing personnel perform additional sampling and testing.
2. If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

C.4.6.4 Dispute Resolution

1. The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.
2. Production test results, and results from other process control testing, may be considered when resolving a dispute.
3. If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in Standard Spec 106.5.

C.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

D Measurement

The department will measure Wall Modular Block Mechanically Stabilized Earth by the square foot acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

E Payment

The department will pay for accepted measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Wall Modular Block Mechanically Stabilized Earth	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pad, and leveling pad steps; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

SPV.0165.01 (20180523)

32. Trail Clearing, Item SPV.0170.01

A Description

This special provision describes the trimming and disposing of all vegetation, brush and overhanging tree limbs on and along the existing roadway of Aghaming Park Road.

B (Vacant)

C Construction

Perform trail clearing at locations designated in the plans.

Remove all vegetation, brush, and overhanging tree limbs that encroach onto the roadway between STA 983+00 to STA 1000+00. The lateral removal limit is 2 feet behind the existing curb.

Do not remove trees or saplings outside of the clearing limits.

Treat cut surfaces, abrasions, and damaged areas of healthy oak trees and saplings, and cut surfaces of stumps of trees as specified for preventing oak wilt under Section 201.3 of the Standard Specifications. Clean the existing concrete pavement surface of Aghaming Park Road after trail clearing, to furnish a final clean pavement surface. Cleaning shall be performed by brooming or sweeping the entire pavement surface including gutters, and disposing of vegetation and debris.

Dispose of timber, stumps, brush, vegetation, waste logs and limbs, tops, and all debris resulting from trail clearing and pavement cleaning as specified in 201.3 of the Standard Specifications, except do not use Aghaming Park or Trempealeau National Wildlife Refuge lands for disposal.

D Measurement

The department will measure Trail Clearing by the full 100-foot station acceptably completed, measured along the trail centerline with each full 100-foot station starting and ending at a +00 station.

The department will include only stations where trail clearing is designated and performed. The department will include each station conforming to these criteria as a full station.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0170.01	Trail Clearing	STA

Payment for the Trail Clearing bid item is full compensation for cutting, clearing, wound treatment, pavement cleaning, and disposal of all waste vegetation; and for furnishing all labor, tools, equipment, materials, and incidentals needed to complete the contract work.

33. Limestone Surface, Item SPV.0195.01.

A Description

This special provision describes the preparation and surfacing of a trail with limestone screenings. The work under this section includes providing material, foundation preparation, and surfacing.

B Materials

Furnish limestone screenings conforming to the quality and gradation requirements hereinafter set forth. Gradation analysis shall be performed by a certified laboratory using AASHTO Method T-27.

The furnished limestone screenings shall conform to the following gradation requirements:

Sieve Size	% by Weight Passing
3/8 inch	100
No. 4	80-95
No. 40	65-85
No. 100	25-40
No. 200	8-25

C Construction

Trail preparation shall include the removal of branches and debris. Remove ruts and other irregularities from the base aggregate foundation. Correct the base aggregate foundation by blading, leveling and rolling prior to placement of the limestone surface. Prepare the base aggregate foundation in accordance with Section 211 of the Standard Specifications. Compact the base aggregate foundation prior to placing the limestone surface.

The limestone screenings shall not be placed on a base aggregate foundation that is soft or spongy or one that is covered by ice or snow. The engineer shall inspect and approve the condition of the base aggregate foundation prior to placement of the limestone surface.

The limestone surface may be placed by tailgate spreading or by the use of a paving machine. If tailgate spread, maintain the width and thickness shown in the plans. Roll and compact the limestone screenings to achieve a smooth, firm, and uniform finished surface that meets the line and grade shown in the plans.

Limestone surface shall consist of the compacted thickness of limestone screenings placed and finished in conformance with the cross sections shown on the plans or as directed by the engineer. Compact the limestone surface in accordance with Section 305.3.2 of the Standard Specifications.

D Measurement

The department will measure Limestone Surface by the Ton, acceptably placed and finished.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Limestone Screenings	Ton

Payment is full compensation for preparing and compacting the foundation, providing limestone screenings, placing and compacting the limestone surface, and furnishing all labor, tools, equipment, materials, and incidentals needed to complete the contract work.

107-056

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Building a Better World
for All of Us®

Engineers | Architects | Planners | Scientists

PROJECT ID: 7224-00-72
WITH: N/A

COUNTY: BUFFALO

INDEX OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile (Includes Erosion Control Plans)
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS =

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF BUFFALO
GREAT RIVER STATE TRAIL WINONA CONNECTOR

NON-HIGHWAY

BUFFALO COUNTY

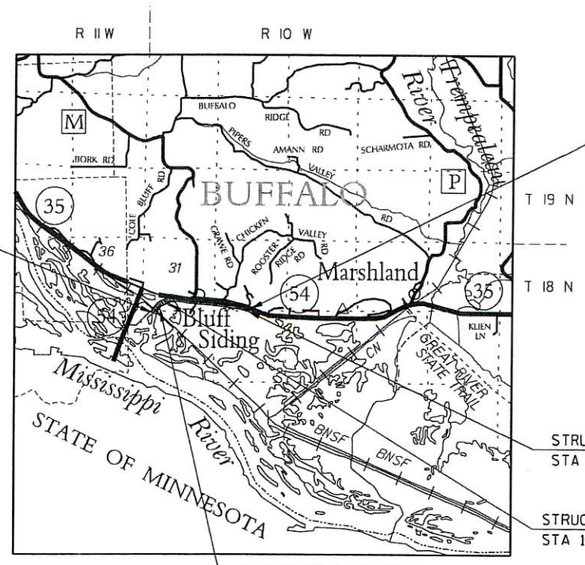
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7224-00-72		

THIS PROJECT IS FEDERALLY FUNDED.

BIDDING DOCUMENTS

STATE PROJECT NUMBER
7224-00-72





BEGIN PROJECT 7224-00-72
STA 983+00.00
Y = 212021.429
X = 619254.873

END PROJECT 7224-00-72
STA 1078+44.37

STRUCTURE B-06-0055
STA 1077+38.64

STRUCTURE B-06-0500
STA 1013+99.31 - STA 1014+49.07

STRUCTURE B-06-0500
STA 1002+33.86 - STA 1011+40.58

DESIGN DESIGNATION

A.A.D.T.	2008	=	XXXX
A.A.D.T.	2028	=	XXXX
D.H.V.		=	XX
D.D.		=	XXXX
T.		=	N/A
DESIGN SPEED		=	15 MPH
ESALS		=	N/A

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE (P.L. + SB.L)
LOT LINE
LIMITED EASEMENT
EARTHWORK BALANCE POINT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SURVEY LINE
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
MARSH AREA
WOODED OR SHRUB AREA

COMBUSTIBLE FLUIDS (CAUTION)
UNDERGROUND UTILITIES
GAS (G)
ELECTRIC (E)
TELEPHONE OR TELEGRAPH (T)
TV/CABLE (TV)
SERVICE PEDESTAL
POWER POLE
TELEPHONE POLE
RAILROAD
SANITARY SEWER (SAN)
STORM SEWER (SS)
WATER (W)
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
CULVERT (Profile View)

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.486 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), BUFFALO County.

ACCEPTED FOR
COUNTY of BUFFALO
4/25/19
DATE:

ORIGINAL PLANS PREPARED BY:
SEH

WISCONSIN
TARA L. KRISTA
37975
CHIPPEWA FALLS, WI
PROFESSIONAL ENGINEER
4-24-19

PREPARED BY
Surveyor SEH
Designer SEH

E

FILE NAME : P:\AE\B\Buffc\070100\CAD\TTBUFBIKE01.dgn
PLOT DATE : 3/7/2019
PLOT TIME: 4:48:58 PM
PLOT BY : SEH
PLOT NAME :
PLOT SCALE : N/A

WISDOT/CADDS SHEET 10

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
ASPH	ASPHALTIC
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BF	BACK FACE
BM	BENCH MARK
BNSF	BURLINGTON NORTHERN SANTA FE
BR	BRIDGE
CE	COMMERCIAL ENTRANCE
CL OR C/L OR ℄	CENTER LINE
△	CENTRAL ANGLE OR DELTA
CONC	CONCRETE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CR	CREEK
CY	CUBIC YARD
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DISCH	DISCHARGE
DG	DITCH GRADE
DWY	DRIVEWAY
X	EAST GRID COORDINATE
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
EOR	END POINT OF RADIUS
EL	ELEVATION
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FC	FACE OF CURB
FF	FACE TO FACE
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FO	FIBER OPTIC
CWT	HUNDREDWEIGHT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE ON PIN
LHF	LEFT-HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MH	MANHOLE
MOR	MID POINT OF RADIUS
NC	NORMAL CROWN
NO	NUMBER
OBLIT	OBLITERATE
PAVT	PAVEMENT
PE	PRIVATE ENTRANCE
PVRC	POINT OF VERTICAL REVERSE CURVE
QOR	QUARTER POINT OF RADIUS
R	RADIUS
REQ'D	REQUIRED
RES	RESIDENCE OR RESIDENTIAL
RHF	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RDWY	ROADWAY
R/L OR ~	REFERENCE LINE
SALV	SALVAGED
SAN	SANITARY SEWER
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SE	SUPERELEVATION RATE
TC	TOP OF CURB
T OR TN	TOWN
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
VAR	VARIABLE
VC	VERTICAL CURVE
Y	NORTH GRID COORDINATE
YD	YARD

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

CURVE DATA IS BASED ON THE ARC DEFINITION.

BEARINGS SHOWN ON THE PLANS ARE PROJECT BEARINGS TO THE NEAREST SECOND.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

GRADE TO MATCH PROPOSED CROSS SLOPE AND SUPER ELEVATION.

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

CONTROL TABLE

NO	STATION	OFFSET	COORDINATES	DESCRIPTION
1	1079+16.75	99.35' RT	Y = 214331.386 X = 626518.136	¾" REBAR
113	1077+79.10	82.36' LT	Y = 214541.974 X = 626429.816	60 D NAIL
114	1065+21.94	22.78' LT	Y = 214709.025 X = 625176.512	60 D NAIL
115	1050+35.72	2.81' LT	Y = 214866.868 X = 623698.413	60 D NAIL
116	1041+48.76	2.00' RT	Y = 214942.202 X = 622814.636	60 D NAIL
117	1029+62.47	1.03' LT	Y = 215056.769 X = 621633.888	60 D NAIL

UTILITY CONTACTS

CENTURYLINK
20244 W MILL ROAD, P.O. BOX 524
GALESVILLE, WI 54630
TELEPHONE: 608.796.7869
ATTENTION: TOM MURRAY
EMAIL: TOM.L.MURRAY@CENTURYLINK.COM

HIAWATHA BROADBAND COMMUNICATION
58 JOHNSON STREET
WINONA, MN 55987
TELEPHONE: 507.474.5805
ATTENTION: DAN PECARINA
EMAIL: DAN.PECARINA@HBCI.COM

RIVERLAND ENERGY COOP
P.O. BOX 277
ARCADIA, WI 54612
TELEPHONE: 715.829.3402
ATTENTION: JOSH ABRAMCZAK
EMAIL: JABRAMCZAK@RIVERLANDENERGY.COM

XCEL ENERGY - TRANSMISSION
414 NICOLLET MALL, 5
MINNEAPOLIS, MN 55401
TELEPHONE: 601.330.7815
ATTENTION: BRUCE M. ZEMKE
EMAIL: BRUCE.M.ZEMKE@XCELENERGY.COM

XCEL ENERGY - DISTRIBUTION
414 NICOLLET MALL, 5
MINNEAPOLIS, MN 55401
TELEPHONE: 608.789.3712
ATTENTION: LAURA JORSTAD
EMAIL: LAURA.JORSTAD@XCELENERGY.COM

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

CITY OF WINONA

ENGINEERING DEPARTMENT
207 LAFAYETTE STREET
WINONA, MN 55987
TELEPHONE: 507.457.8269
ATTENTION: BRIAN DEFRANG
EMAIL: BDEFRANG@CI.WINONA.MN.US

BUFFALO COUNTY

HIGHWAY COMMISSIONER
S1672 STATE ROAD 37
ALMA, WI 54610
TELEPHONE: 608.685.6226
ATTENTION: BOB PLATTETER
EMAIL: BOB.PLATTETER@CO.BUFFALO.WI.US

WISDOT

NW REGION, EAU CLAIRE OFFICE
718 W CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
TELEPHONE: 715.225-4159
ATTENTION: MATT THORNSEN
EMAIL: MATTHEW.THORNSEN@DOT.WI.GOV

TREMPEALEAU NATIONAL WILDLIFE REFUGE

W28488 REFUGE ROAD
TREMPEALEAU, WI 54661
TELEPHONE: 608.539.2311
EMAIL: TREMPEALEAU@FWS.GOV

TOWN OF BUFFALO

TOWN OF BUFFALO CHAIRMAN
W394 BLUFF SIDING ROAD
FOUNTAIN CITY, WI 54629
TELEPHONE: 608.687.7591
ATTENTION: STEVE JAMES
EMAIL: TOBCHAIRMAN@GMAIL.COM

DESIGN CONTACT

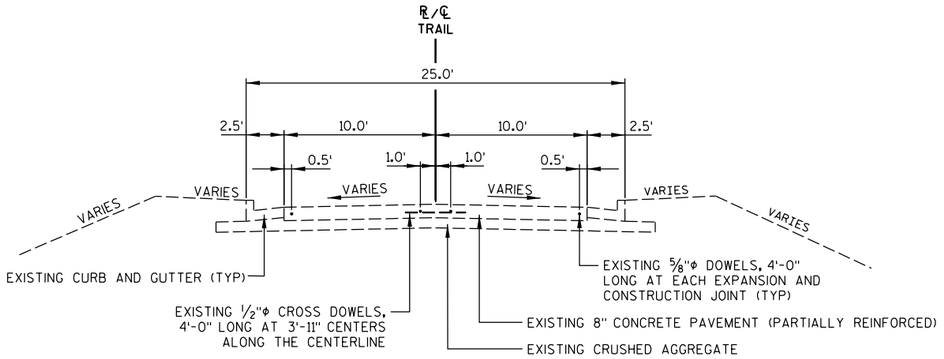
SEH INC.
10 NORTH BRIDGE STREET
CHIPPEWA FALLS, WI 54729
TELEPHONE: 715.720.6200
ATTENTION: TARA KRISTA
EMAIL: TKRISTA@SEHINC.COM

WDNR CONTACT

EAU CLAIRE SERVICE CENTER
1300 W CLAIREMONT AVENUE
EAU CLAIRE, WI 54701-6127
TELEPHONE: 715.839.1600
ATTENTION: DAVID HON
EMAIL: DAVID.HON@WISCONSIN.GOV

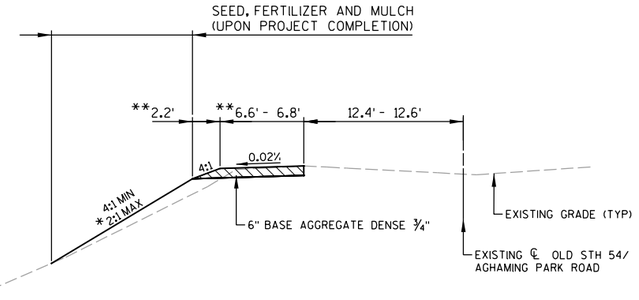
RAILROAD COORDINATOR

NORTHWEST REGION, SUPERIOR
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
TELEPHONE: 715.392.7960
ATTENTION: ANNA DAVEY
EMAIL: ANNA.DAVEY@DOT.STATE.WI.US



TYPICAL EXISTING SECTION AGHAMING PARK ROAD/OLD STH 54

STA 1000+00.00 TO STA 1002+33.86

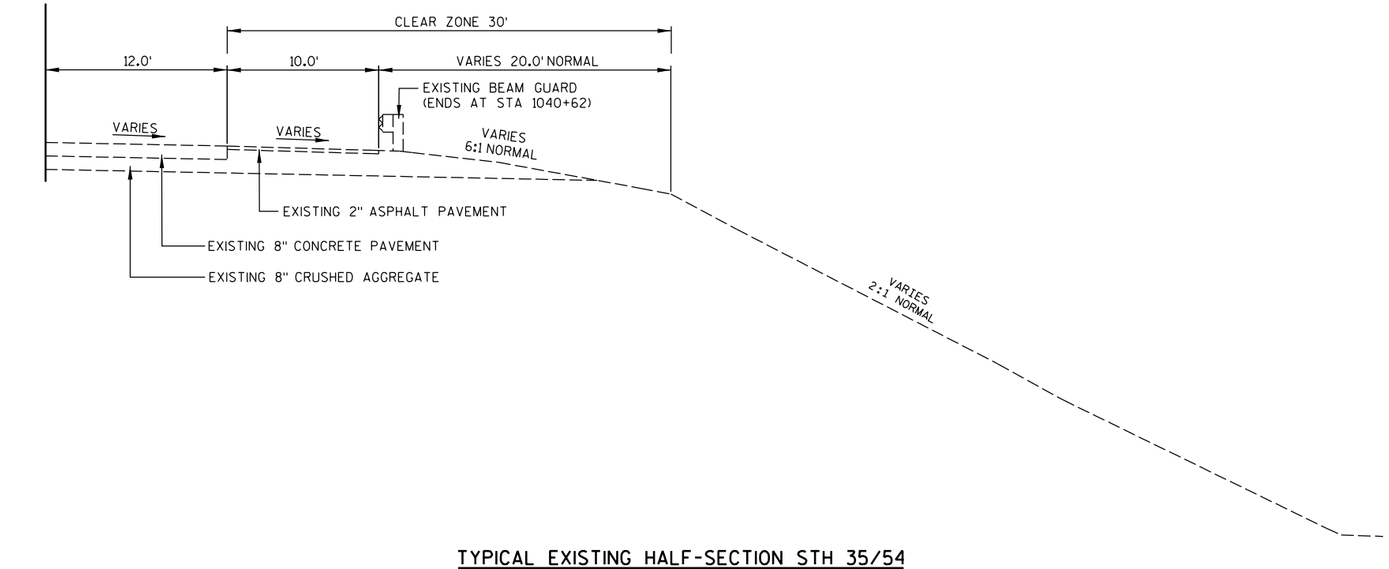


ACCESS WIDENING TYPICAL FINISHED SECTION

STA 1001+07.44 TO STA 1006+23.82

*ON ALL 2:1 SLOPES USE EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B.

**0.0' AT STA 1001+07.44 TO FULL WIDENING AT STA 1001+89.04

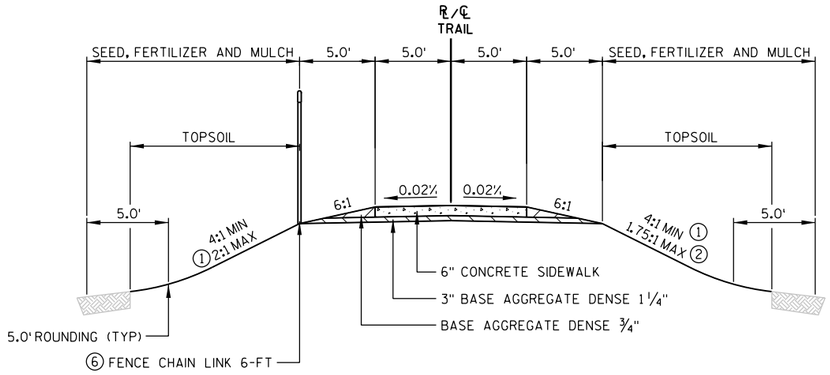


TYPICAL EXISTING HALF-SECTION STH 35/54

STA 1021+33.83 TO STA 1078+44.37

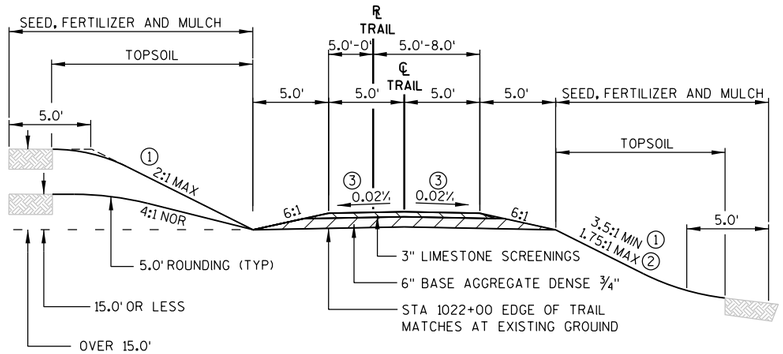
PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\TYBUFBIKE01.dgn PLOT TIME : 3:17:48 PM PLOT DATE : 3/6/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A



TYPICAL FINISHED SECTION

STA 1000+00.00 TO STA 1002+33.86
STA 1011+40.58 TO STA 1013+98.31
STA 1014+50.07 TO STA 1014+75.10



TYPICAL FINISHED SECTION

STA 1020+50.00 TO STA 1021+33.83

NOTES:

① ON ALL 2:1 SLOPES USE EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B.

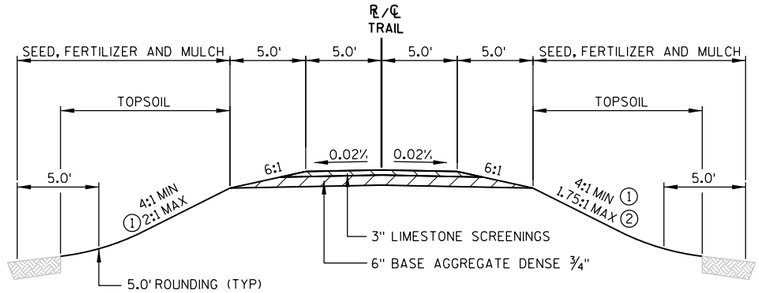
② ON ALL SLOPES STEEPER THAN 2:1 USE EROSION MAT CLASS III, TYPE D AND SOIL STABILIZER TYPE A.

③ CROSS SLOPE TRANSITIONS FROM STA 1021+00 NORMAL CROWN TO STA 1021+50 REVERSE CROWN. WIDTH VARIES FROM 5.0' AT STA 1020+88 TO 4.0' AT STA 1022+16.

④ WIDTH VARIES FROM 4.0' AT STA 1037+00.00 TO 5.0' AT STA 1037+50.00.

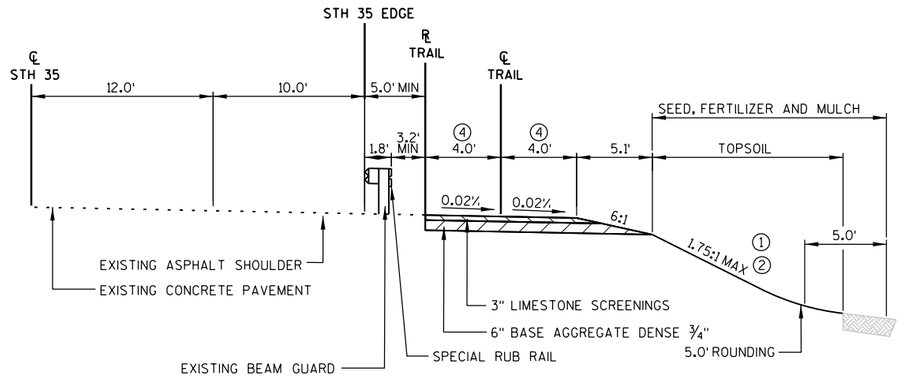
⑤ EXISTING BEAM GUARD ENDS AT STA 1040+62.

⑥ FENCE CHAIN LINK 6-FT STA 1011+40.51 TO STA 1013+98.31



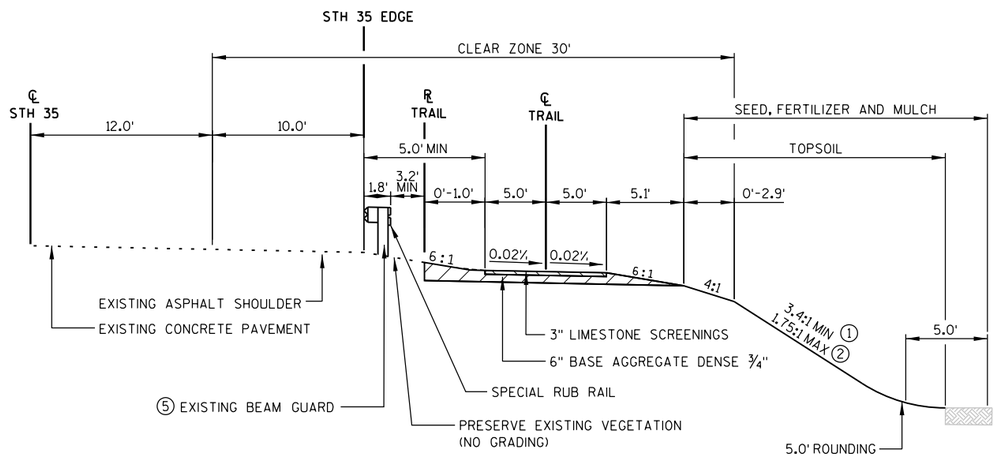
TYPICAL FINISHED SECTION

STA 1014+75.10 TO STA 1020+50.00



TYPICAL FINISHED BEAM GUARD SECTION

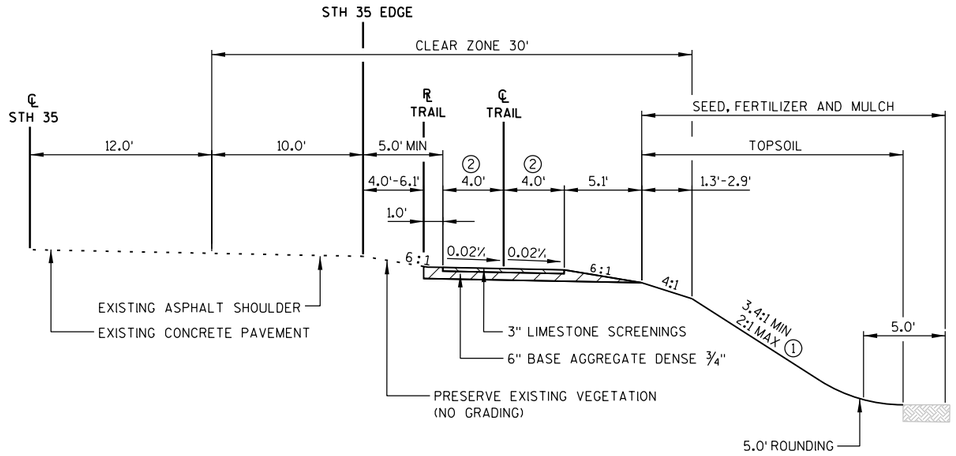
STA 1021+33.83 TO STA 1037+50.00



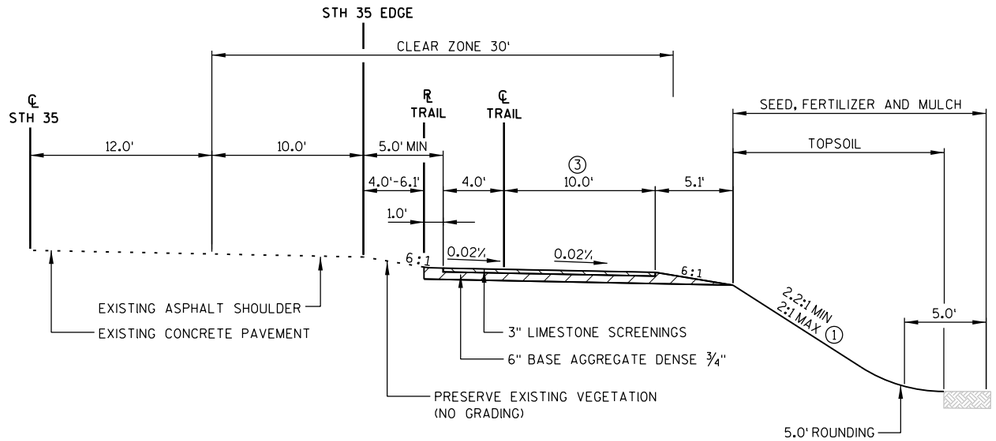
TYPICAL FINISHED BEAM GUARD SECTION

STA 1037+50.00 TO STA 1041+50.00

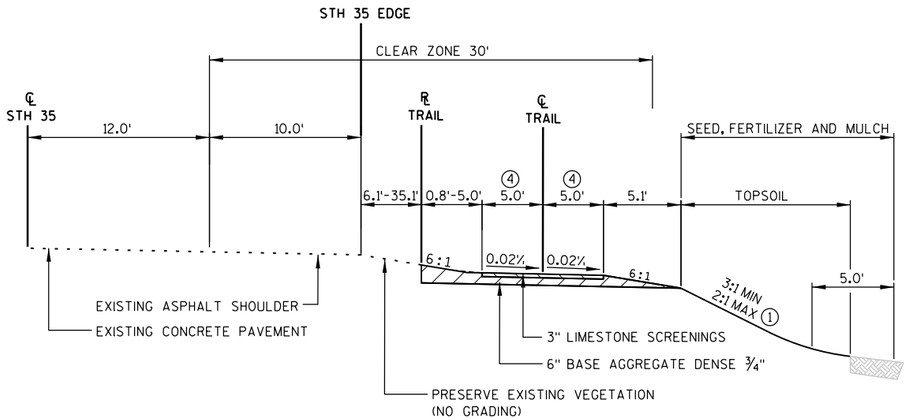
PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET	E



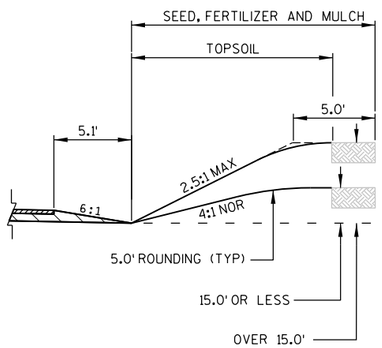
TYPICAL FINISHED SECTION
STA 1041+50.00 TO STA 1046+90.00



TYPICAL FINISHED SECTION
STA 1046+90.00 TO STA 1047+60.00

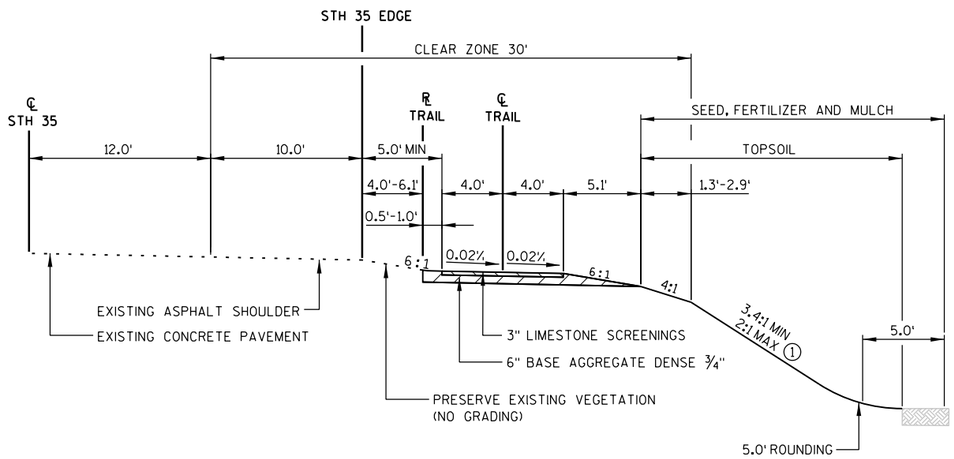


IN FILL



IN CUT

TYPICAL FINISHED SECTION
STA 1054+81.66 TO STA 1078+44.37



TYPICAL FINISHED SECTION
STA 1047+60.00 TO STA 1054+81.66

NOTES:

① ON ALL 2:1 SLOPES USE EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B.

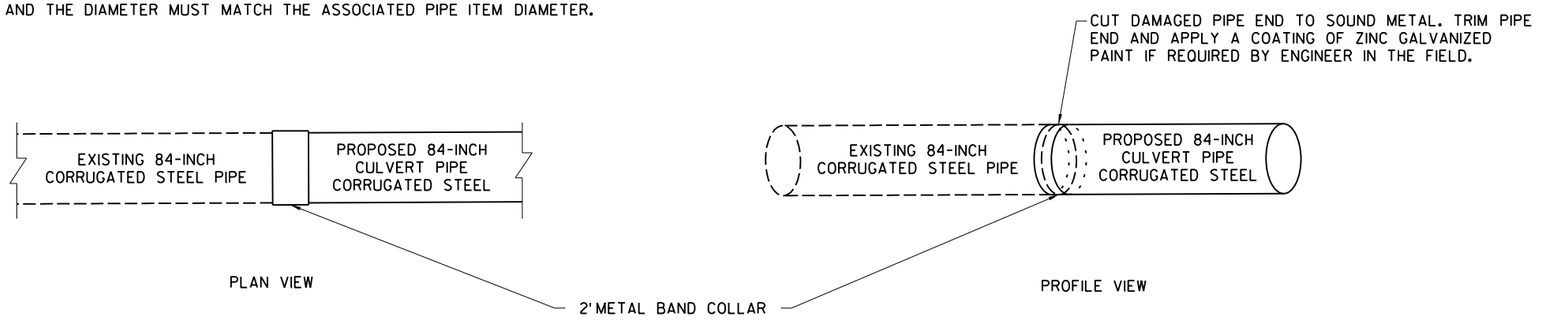
② WIDTH VARIES FROM 5.0' AT STA 1041+50.00 TO 4.0' AT STA 1042+00.00.

③ WIDTH VARIES FROM 4.0' AT STA 1046+90.00 TO 10.0' AT STA 1047+00.00 AND FROM 10.0' AT STA 1047+50.00 TO 4.0' AT STA 1047+60.00.

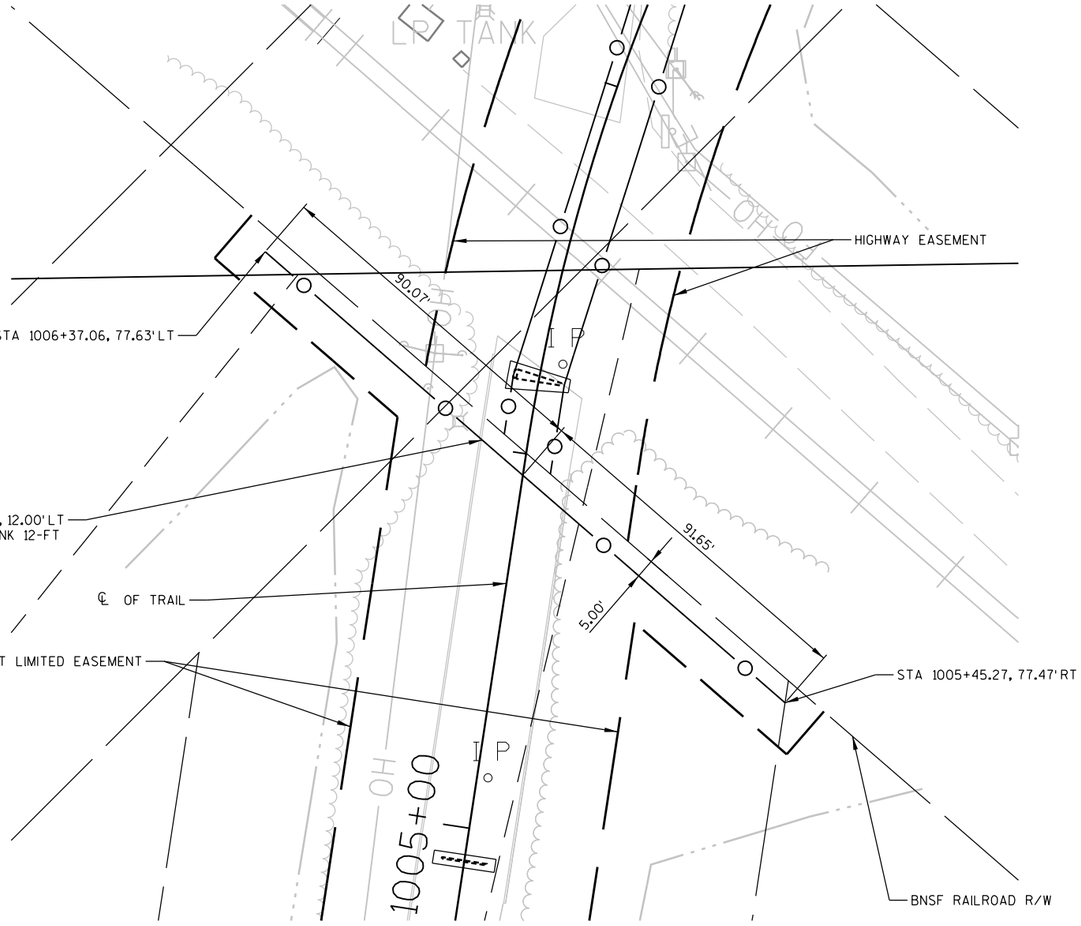
④ WIDTH VARIES FROM 4.0' AT STA 1056+09.66 TO 5.0' AT STA 1057+97.45.

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET	E

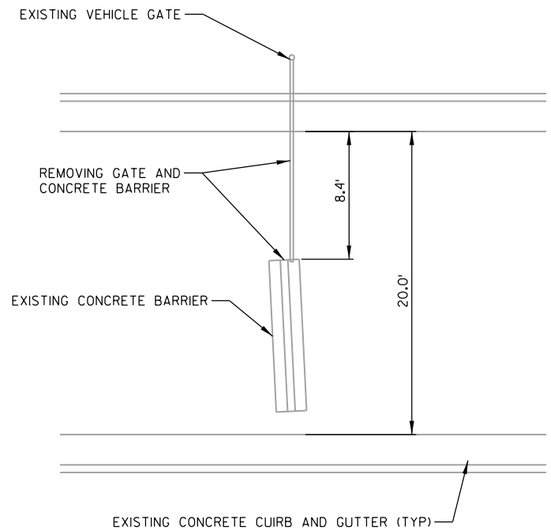
NOTE:
THE 2-FOOT WIDE METAL BAND COLLAR MATERIAL AND INSTALLATION ARE INCIDENTAL TO THE CULVERT PIPE CORRUGATED STEEL 84-INCH PAY ITEM, AND THE DIAMETER MUST MATCH THE ASSOCIATED PIPE ITEM DIAMETER.



STEEL CULVERT PIPE EXTENSION DETAIL



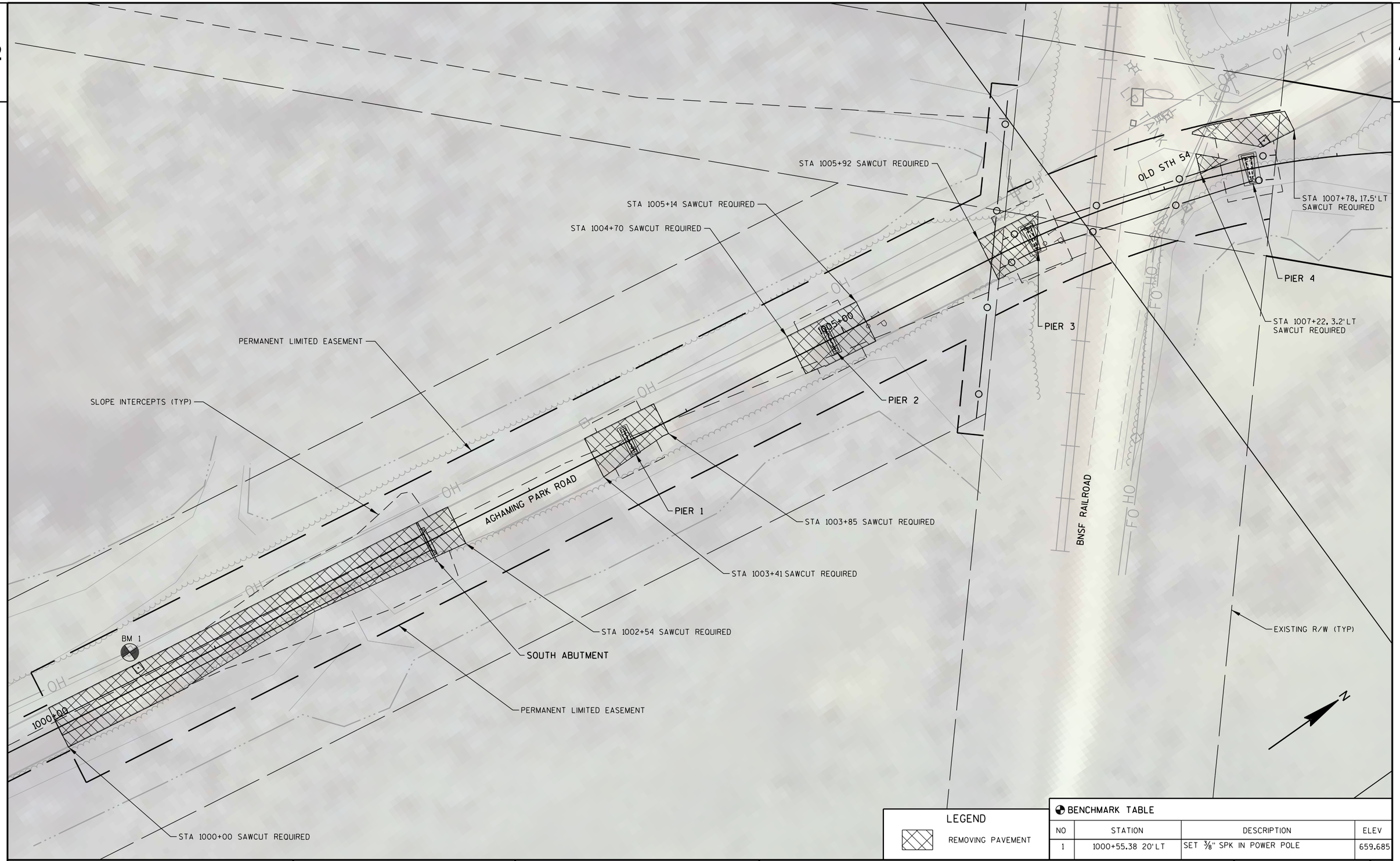
FENCE CHAIN LINK 6-FT ADJACENT TO BNSF RAILROAD R/W



TRAIL ENTRANCE
STA 983+00

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	CONSTRUCTION DETAILS	SHEET	E

2



LEGEND

REMOVING PAVEMENT

BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEV
1	1000+55.38 20'LT	SET 3/8" SPK IN POWER POLE	659.685

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	REMOVING PAVEMENT LIMITS DETAIL	SHEET	E

2

SEE STEEL CULVERT PIPE EXTENSION DETAIL (TYP)

STA 1077+38.64
REMOVE EXISTING CONCRETE MASONRY ENDWALL
CLEAN EXISTING PIPES

STH 35/54

7' 3' 7' 4' 7'

SLOPE INTERCEPT (TYP)

84-INCH, 43 FEET CPS REQUIRED (TYP)

CONCRETE MASONRY HEADWALL, WINGWALLS AND APRON. SEE STANDARD DETAIL DRAWING "CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH" FOR CONSTRUCTION DETAILS

1076+00

S 75°22'01" E

1077+00

1078+00

1079+00

PT 1076+00.75

PC 1078+66.43

GREAT RIVER STATE TRAIL

FENCE CHAIN LINK 4-FT

A

B

C

D

E

F

G

H

I

WELL

HEAVY RIPRAP & GEOTEXTILE TYPE HR REQUIRED

EXISTING R/W (TYP)

END PROJECT
STA. 1078+44.37
MATCH EXISTING

PERMANENT LIMITED EASEMENT

CENTURYLINK

XCEL ENERGY

OH

T

7' 7' 4' 7' 3' 7' 7'

2' BASE AGGREGATE DENSE 3/4-INCH

A-A PIPE BEDDING SECTION

LEGEND

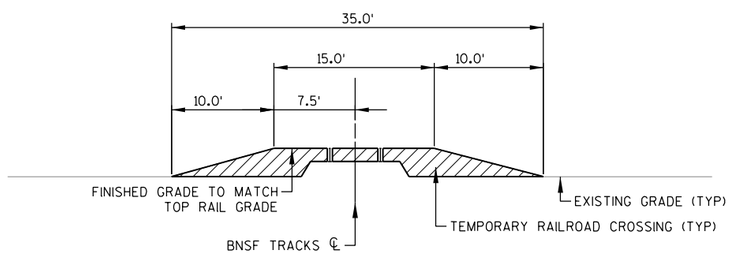
- EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B
- SILT FENCE
- HEAVY RIPRAP

CURVE POINT TABLE

POINT	STATION	OFFSET	ELEVATION
A	1077+27.65	24.0' RT	654.87
B	1077+38.65	24.0' RT	655.10
C	1077+48.96	24.0' RT	655.33
D	1077+57.82	35.5' RT	657.51
E	1077+57.82	47.8' RT	657.15
F	1077+47.03	47.8' RT	655.89
G	1077+44.14	47.8' RT	656.05
H	1077+18.62	47.8' RT	659.68
I	1077+18.62	35.5' RT	659.69

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	CULVERT EXTENSION DETAIL	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\IDBUFBIKE01.dgn PLOT TIME : 2:18:07 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A



TEMPORARY CROSSING TYPICAL SECTION
(BY OTHERS)

NOTES:
TEMPORARY RAILROAD CROSSING CONSTRUCTED BY BNSF
TYPE OF CROSSING DETERMINED BY BNSF

2

N

TEMPORARY CROSSING APPROXIMATE LOCATION, ACTUAL LOCATION TO BE DETERMINED BY CONTRACTOR AND RAILROAD DURING CONSTRUCTION (BY OTHERS)

BNSF TRACKS

SWITCH HUT

EXISTING ℄ OLD STH 54

BM 2

CONSTRUCTION SLOPE INTERCEPTS

ACCESS WIDENING SLOPE INTERCEPTS (TYP)

ACCESS WIDENING

1005+00

AGHAMING PARK ROAD

OLD STH 54

SOUTH ABUTMENT

PIER 1

PIER 2

PIER 3

PIER 4

TRAIL ℄

PIER 5

BNSF RAILROAD

EXISTING R/W (TYP)

LEGEND

EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B

SILT FENCE

BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEV
2	1008+41.2 87.8'LT	SET 3/8 SPK IN POWER POLE	658.083

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TEMPORARY CROSSING/WIDENING DETAIL	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\PLBUFBIKE01.dgn PLOT TIME : 4:02:53 PM PLOT DATE : 3/6/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

2

BEGIN PROJECT
STA. 983+00.00
N = 212021.429
E = 619254.873

985+00 990+00 995+00

N 8°37'44" E

MATCHLINE STA 995+75

1-1 NO MOTOR VEHICLES R5-3 24" X 24" INSTALL

AUTHORIZED VEHICLES ONLY R5-11 30" X 24" INSTALL

MATCHLINE STA 995+75

1000+00 1005+00

BM 1

AGHAMING PARK ROAD

PC 1005+98.94

PI 1008+48.61

BM 2

OLD STH 54

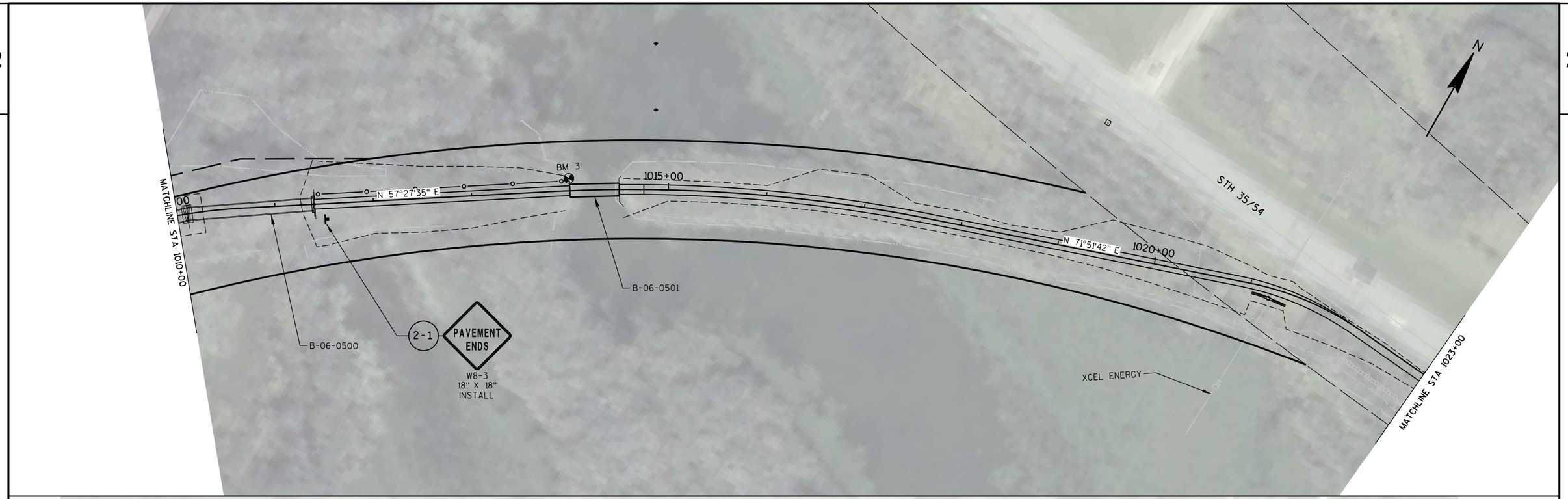
1010+00

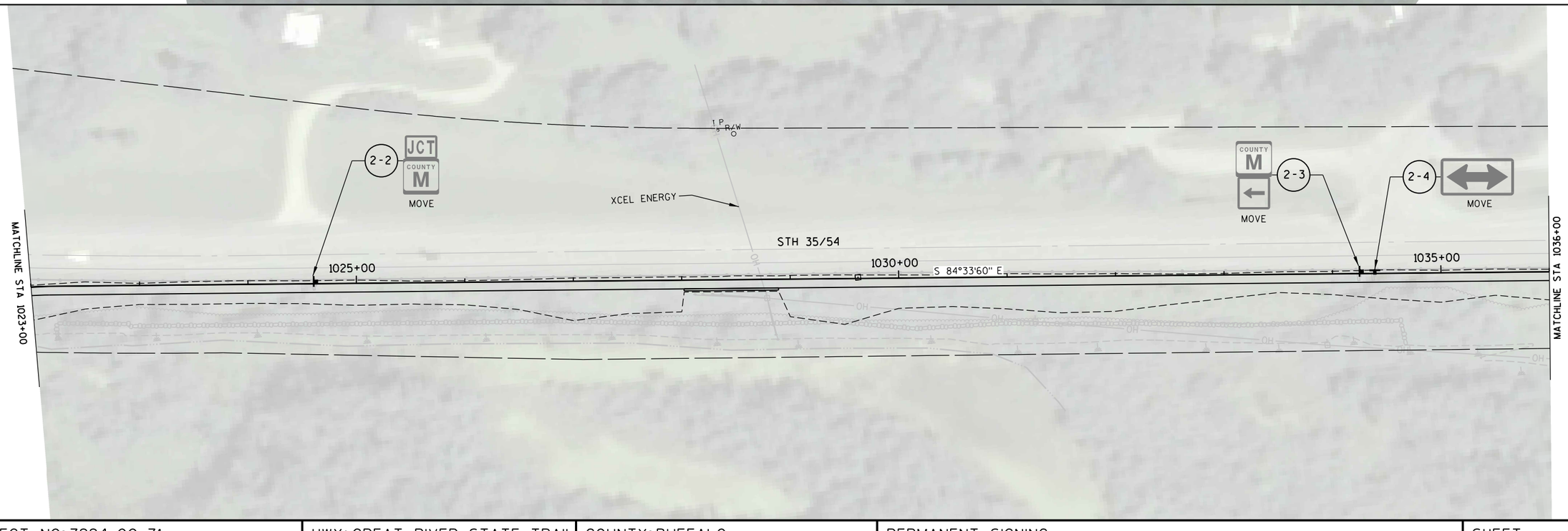
PT 1010+67.68

MATCHLINE STA 1011+00

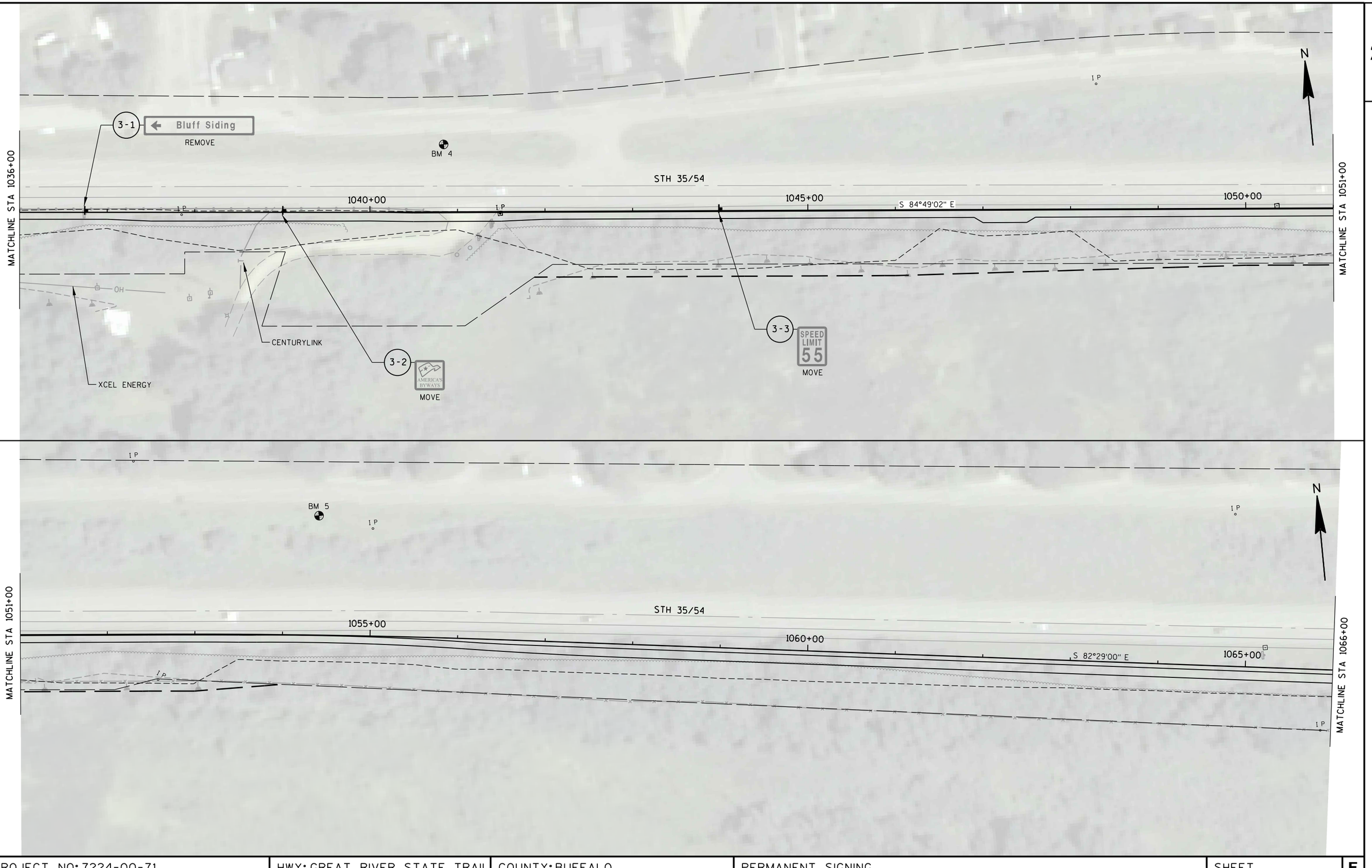
PROJECT NO: 7224-00-71	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PERMANENT SIGNING	SHEET	E

FILE NAME : P:\AE\B\Buffc\070100\CAD\PSBUFBIKE01.dgn PLOT TIME : 4:36:26 PM PLOT DATE : 3/7/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A


N
MATCHLINE STA 1010+00
00
N 57°27'35" E
BM 3
1015+00
STH 35/54
N 71°51'42" E
1020+00
B-06-0501
B-06-0500
2-1
PAVEMENT ENDS
W8-3
18" X 18"
INSTALL
XCEL ENERGY
MATCHLINE STA 1023+00


N
1/4 R/W
2-2
JCT
COUNTY
M
MOVE
XCEL ENERGY
STH 35/54
COUNTY
M
2-3
MOVE
2-4
MOVE
MATCHLINE STA 1023+00
1025+00
1030+00
S 84°33'60" E
1035+00
MATCHLINE STA 1036+00

2



PROJECT NO: 7224-00-71	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PERMANENT SIGNING	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\PSBUFBIKE03.dgn PLOT TIME : 2:19:18 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

2

2

N

BM 6

1 P

STH 35/54

MATCHLINE STA 1066+00

1070+00

1075+00

S 75°22'01" E

1080+00

4-1

W11-15
30" X 30"
INSTALL

4-2

NO MOTOR VEHICLES

R5-3
24" X 24"
INSTALL

AUTHORIZED VEHICLES ONLY

R5-11
30" X 24"
INSTALL

XCEL ENERGY

OH

CENTURYLINK

END PROJECT
STA. 1078+44.37

STOP

4-3

R1-1
18" X 18"
INSTALL

PROJECT NO: 7224-00-71	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PERMANENT SIGNING	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\PSBUFBIKE04.dgn PLOT TIME : 2:19:46 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

2

2

BEGIN PROJECT
STA. 983+00.00
N = 212021.429
E = 619254.873

985+00

990+00

995+00

N 8°37'44" E

MATCHLINE STA 995+75

ROAD CLOSED
R11-2
48" X 30"

LEGEND

BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)

MATCHLINE STA 995+75

1000+00

BM 1

AGHAMING PARK ROAD

1005+00

PC 1005+98.94

PI 1008+48.61

BM 2

OLD STH 54

1010+00

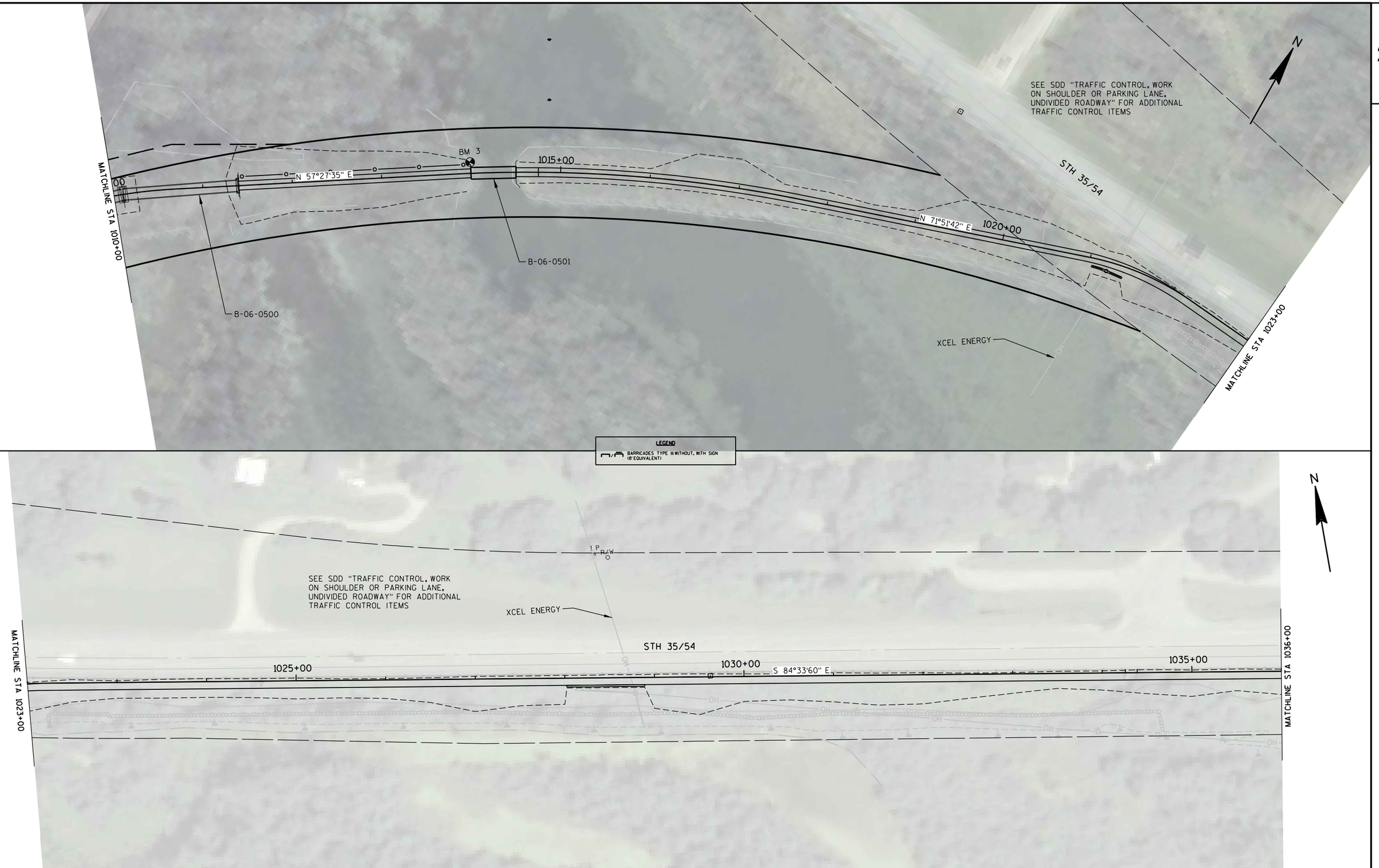
PT 1010+67.68

MATCHLINE STA 1011+00

PROJECT NO: 7224-00-71	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TRAFFIC CONTROL	SHEET	E

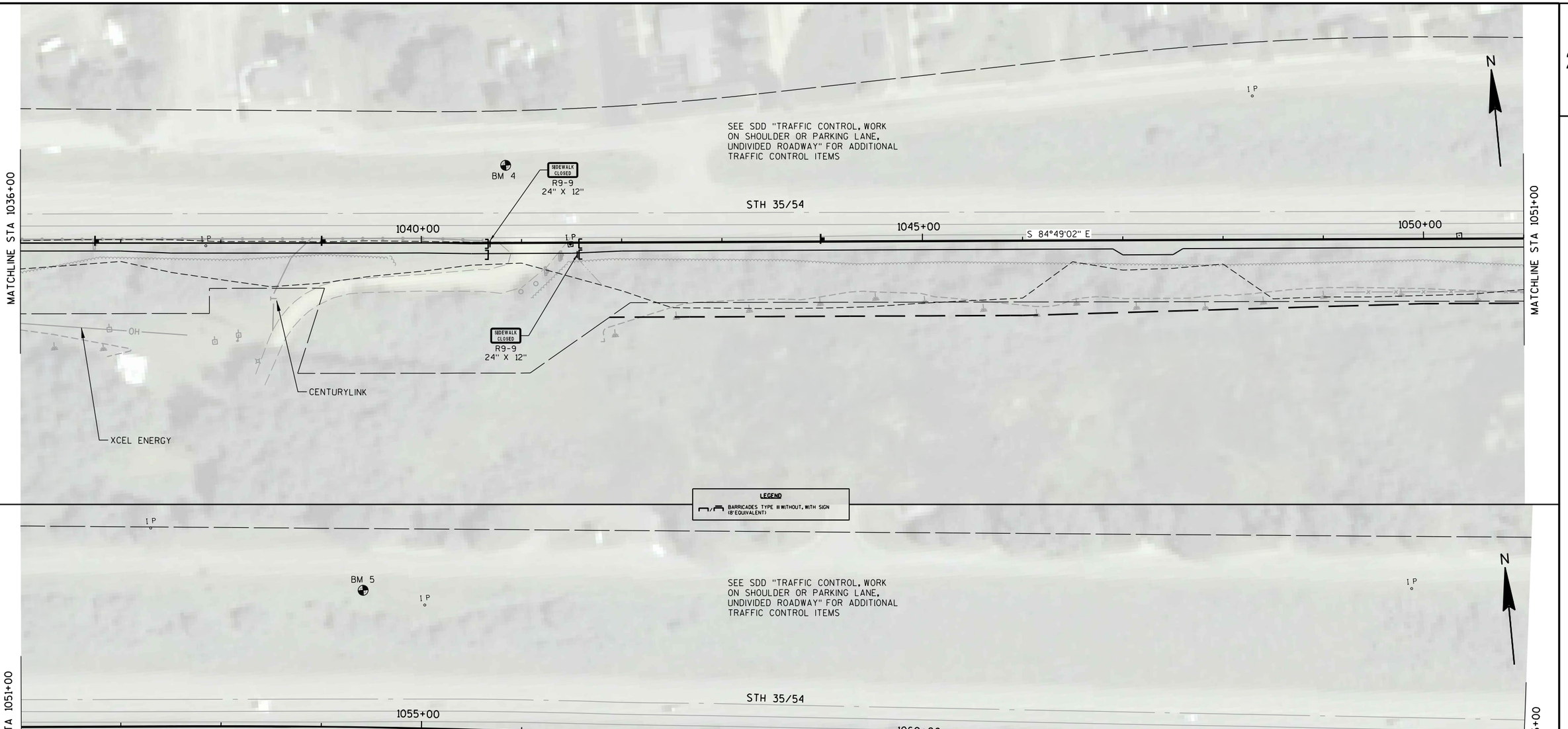
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2



PROJECT NO: 7224-00-71	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TRAFFIC CONTROL	SHEET	E

2



PROJECT NO: 7224-00-71	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TRAFFIC CONTROL	SHEET	E

2

2

N

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL TRAFFIC CONTROL ITEMS

BM 6

STH 35/54

MATCHLINE STA 1066+00

1070+00

1075+00

1080+00

S 75°22'01" E

SIDEWALK CLOSED
R9-9
24" X 12"

XCEL ENERGY

OH

CENTURYLINK

END PROJECT
STA. 1078+44.37

LEGEND

BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)

PROJECT NO: 7224-00-71	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	TRAFFIC CONTROL	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\TCBUFBIKE04.dgn PLOT TIME : 3:42:25 PM PLOT DATE : 3/6/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

CLEARING & GRUBBING

STATION-STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
983+00 - 1000+00	LT & RT	17	
1000+00 - 1002+35	LT & RT	3	3
1011+41 - 1013+94	LT & RT	3	3
1014+54 - 1022+00	LT & RT	8	8
1022+00 - 1057+00	RT	32	32
1057+00 - 1078+44	LT & RT	19	19
ITEM TOTALS		82	65

REMOVING

STATION	LOCATION	204.0100 PAVEMENT SY	204.9105.S.02 GATE AND CONCRETE BARRIER LS
983+00	LT & RT		1
1000+00-1002+54	LT & RT	633	
1003+41-1003+85	LT & RT	104	
1004+70-1005+14	LT & RT	121	
1005+92-1006+29	LT & RT	87	
1007+22-1007+78	LT	79	
ITEM TOTALS		1024	1

FINISHING ROADWAY (7224-00-72)

STATION	213.0100 EACH
1000+00 - 1078+44	1
ITEM TOTAL	1

BASE AGGREGATE

STATION	-	STATION	LOCATION	**305.0110 DENSE 3/4-INCH TON	305.0120 DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
1000+00	-	1002+34	LT & RT	37	51	1	
1003+41	-	1003+85	LT & RT	58	6	1	REMOVING PAVEMENT BACKFILL
1004+70	-	1005+14	LT & RT	67	0	1	REMOVING PAVEMENT BACKFILL
1005+92	-	1006+29	LT & RT	48	0	0	REMOVING PAVEMENT BACKFILL
1007+22	-	1007+78	LT	64	0	1	REMOVING PAVEMENT BACKFILL
1011+41	-	1013+98	LT & RT	41	56	1	
1014+50	-	1014+75	LT & RT	4	6	0	
1014+75	-	1021+34	LT & RT	539	0	5	
1021+34	-	1037+00	RT	858	0	9	
1037+00	-	1042+00	RT	485	0	5	
1042+00	-	1046+90	RT	306	0	3	
1046+90	-	1047+60	RT	63	0	1	
1047+60	-	1054+82	RT	450	0	5	
1054+82	-	1078+44	RT	2735	0	27	
ITEM TOTALS				5755	119	60	

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (1) Cut (2)	(item # 205.0100) EBS Excavation (3)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Marsh Excavation (6) (item #205.0500)	Rock Excavation (7) (item #205.0200)	Reduced Marsh in Fill (8) Factor 0.60	Reduced EBS in Fill (9) Factor 0.80	Expanded Marsh Backfill (10) Factor 1.50	Expanded EBS Backfill (11) Factor 1.30	Expanded Rock (12) Factor 1.10	Unexpanded Fill (4)	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14)	Waste	Borrow (item #208.0100)	Comment:
1	1000+00 to 1002+34	MAINLINE	163	0	148	15	0	0	0	0	0	0	0	852	1065	-1050 0			AGHAMING PARK ROAD TO B-06-0500
Division 1 Subtotal			163	0	148	15	0	0	0	0	0	0	0	852	1065	-1050		1050	
2	1003+49 to 1010+27	MAINLINE	1117	0	0	1117	0	0	0	0	0	0	0	1067	1333	-216 0			B-06-0500 PIERS
Division 2 Subtotal			1117	0	0	1117	0	0	0	0	0	0	0	1067	1333	-216		216	
3	1011+41 to 1013+94	MAINLINE	2	0	0	2	0	0	0	0	0	0	0	1699	2124	-2123 0			B-06-0500 TO B-06-0501
Division 3 Subtotal			2	0	0	2	0	0	0	0	0	0	0	1699	2124	-2123		2123	
4	1014+54 to 1078+44	MAINLINE	912	0	0	912	0	0	0	0	0	0	0	10731	13414	-12502 0			B-06-0501 TO TOWN OF BUFFALO PARK ENTRANCE
Division 4 Subtotal			912	0	0	912	0	0	0	0	0	0	0	10731	13414	-12502		12502	
5	1001+07 to 1006+24	MAINLINE	51	0	0	51	0	0	0	0	0	0	0	52	66	-15 0			ACCESS WIDENING
Division 5 Subtotal			51	0	0	51	0	0	0	0	0	0	0	52	66	-15		15	
Grand Total			2245	0	148	2097	0	0	0	0	0	0	0	14402	18002	-15905	0	15905	
		Total Common Exc	2245																

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material - to be backfilled with Borrow. Area added to Unexpanded Fill for inclusion in Borrow.
5) Available Material = Cut - Salvaged/Unusable Pavement Material
6) Marsh Excavation - to be backfilled with Select Borrow Material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well. Item number 205.0500
7) Rock Excavation item number 205.0200
8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item number 208.1100
11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
12) Expanded Rock - Factor = 1.1.
13) Expanded Fill. Factor = 1.25
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

CLEANING CULVERT PIPES

STATION	LT / RT	520.8700 EACH
1077+28	RT	1
1077+39	RT	1
1077+49	RT	1
ITEM TOTALS		3

CONCRETE SIDEWALK 6-INCH

STATION - STATION	LOCATION	602.0415 SF
1000+00 - 1002+34	LT & RT	2339
1011+41 - 1013+98	LT & RT	2578
1014+50 - 1014+75	LT & RT	250
ITEM TOTALS		5167

GUARDRAIL ITEMS

STATION - STATION	LOCATION	614.0920 SALVAGED RAIL LF	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EACH	614.0951 REPLACING GUARDRAIL RAIL AND HARDWARE LF	REMARKS
1020+90 - 1221+78	LT	100	8	100	ADJACENT TO RETAINING WALL 10+00
1027+50 - 1028+50	LT	100	8	100	ADJACENT TO RETAINING WALL 20+00
1032+00 - 1033+00	LT	100	8	100	
1036+00 - 1037+00	LT	100	8	100	
ITEM TOTALS		400	32	400	

MAINTENANCE AND REPAIR OF HAUL ROADS (7224-00-72)

STATION - STATION	618.0100 EACH
1000+00 - 1078+44	1
ITEM TOTAL	1

**ADDITIONAL QUANTITY SHOWN ELSEWHERE IN THE PLAN

FENCING ITEMS

STATION - STATION	LOCATION	**616.0204 FENCE CHAIN LINK 4-FT LF	616.0206 FENCE CHAIN LINK 6-FT LF	616.0329 GATES CHAIN LINK 12-FT EACH	REMARKS
1005+45 - 1006+37	LT		170		ADJACENT TO BNSF RR R/W
1006+02	LT			1	ADJACENT TO BNSF RR R/W
1011+39 - 1014+00	LT		267		FROM B-06-0500 TO B-06-050
1077+03 - 1077+73	RT	76			SEE B-06-0055
ITEM TOTALS		76	437	1	

TOPSOIL, MULCHING AND SEEDING

STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0205 FERTILIZER TYPE A CWT	630.0175 SEEDING MIXTURE NO. 75 LB	630.0200 SEEDING TEMPORARY LB	630.0400 NURSE CROP LB
1000+00-1002+34	LT	221	181	0.2	2	7	2
1000+00-1002+34	RT	219	242	0.2	2	7	2
1003+41-1010+27	LT & RT	999	-	0.6	0	27	0
1011+41-1013+98	LT	690	147	0.5	5	21	5
1011+41-1013+98	RT	685	145	0.5	5	20	5
1014+50-1020+50	LT	799	405	0.6	6	26	7
1014+50-1020+50	RT	379	511	0.3	3	15	4
1020+50-1037+50	LT	127	163	0.1	1	4	1
1020+50-1037+50	RT	2636	1242	2.0	20	84	22
1037+50-1041+50	RT	858	349	0.6	6	26	7
1041+50-1054+82	RT	6075	1219	3.6	36	154	41
1054+82-1078+44	RT	3715	3813	2.8	28	118	32
ITEM TOTALS		17402	8416	11.9	113	510	129

MOBILIZATIONS EROSION CONTROL

STATION - STATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
1000+00 - 1078+44	3	6
ITEM TOTALS	3	6

FIELD OFFICE TYPE B

STATION - STATION	642.5001 EACH
1000+00 - 1078+44	1
ITEM TOTAL	1

TRAFFIC CONTROL

STATION	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0900 SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
1000+00 - 1078+44	14580	2160	2970	1
ITEM TOTAL	14580	2160	2970	1

PERMANENT SIGNING

SIGN GROUP CODE	SIGN CODE	MESSAGE	TYPE II SIZE	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH 12-FT EACH	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1-1	R5-3	NO MOTOR VEHICLES	24"X24"	8.00		1					INSTALL
	R5-11	AUTHORIZED VEHICLES ONLY	30"X24"	10.00							INSTALL
2-1	W8-3	PAVEMENT ENDS	18"X18"	2.25		1					INSTALL
2-2	M2-1	JCT	21"x15"				1	1		1	MOVE
	M1-5A	COUNTY M	24"X24"					1			MOVE
2-3	M1-5A	COUNTY M	24"X24"				1	1		1	MOVE
	M6-1	LEFT ARROW	21"x21"					1			MOVE
2-4	W1-7	DOUBLE ARROW	48"x24"				1	1		1	MOVE
3-1	D1-56L	BLUFF SIDING	90"-15"						1	2	REMOVE
3-2	D6-4	NATIONAL SCENIC BYWAY	24"x24"				1	1		1	MOVE
3-3	R2-1	SPEED LIMIT 55	24"x30"				1	1		1	MOVE
4-1	W11-15	BIKE / PED	30"X30"	6.25			1				INSTALL
4-2	R5-3	NO MOTOR VEHICLES	24"X24"	4.00		1					INSTALL
	R5-11	AUTHORIZED VEHICLES ONLY	30"X24"	5.00							INSTALL
4-3	R1-1	STOP	18"X18"	2.25	1						INSTALL
ITEM TOTALS				37.75	1	3	6	7	1	7	

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6000 PIPE CULVERTS EACH	650.6500 STRUCTURE LAYOUT (RET 10+00) LS	650.6500 STRUCTURE LAYOUT (RET 20+00) LS	650.6500 STRUCTURE LAYOUT (B-06-0500) LS	650.6500 STRUCTURE LAYOUT (B-06-0501) LS	650.9910 SUPPLEMENTAL CONTROL (7224-00-72) LS	650.9920 SLOPE STAKES LF
1000+00 - 1002+34	LT & RT	234	234							234
1002+34 - 1011+41	LT & RT						1			
1011+41 - 1013+98	LT & RT	258	258							258
1013+98 - 1014+50	LT & RT							1		
1014+50 - 1078+44	LT & RT	6394	6394							6394
1077+28	RT			1						
1077+39	RT			1						
1077+49	RT			1						
1000+00 - 1078+44	LT & RT								1	
10+00.00 - 10+35.90	LT & RT				1					
20+00.00 - 20+87.10	LT & RT					1				
ITEM TOTALS		6886	6886	3	1	1	1	1	1	6886

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2023 EROSION MAT CLASS II TYPE B SY	628.2033 EROSION MAT CLASS III TYPE B SY	628.2039 EROSION MAT CLASS III TYPE D SY	628.6005 TURBIDITY BARRIERS SY	628.6505 SOIL STABILIZER TYPE A AC
1000+75-1002+34	LT & RT	321	321	-	-	-	-	-
1001+75-1002+36	LT	-	-	103	103	-	-	-
1002+17-1002+34	RT	-	-	32	32	-	-	-
1003+41-1010+27	LT & RT	-	-	1117	-	-	-	-
1011+40-1013+94	LT & RT	-	-	-	-	-	456	-
1011+41-1013+94	LT	-	-	687	687	-	-	-
1011+40-1011+75	RT	-	-	-	-	134	-	0.03
1011+75-1012+25	RT	-	-	149	149	-	-	-
1012+25-1012+75	RT	-	-	-	-	150	-	0.03
1012+75-1013+94	RT	-	-	257	257	-	-	-
1014+54-1014+75	RT	-	-	-	-	6	-	0.01
1014+54-1018+75	LT & RT	770	770	-	-	-	-	-
1016+25-1017+25	LT	-	-	246	246	-	-	-
1016+37-1017+17	LT	-	-	-	-	-	75	-
1018+75-1021+25	LT	258	258	-	-	-	-	-
1019+25-1020+75	LT	-	-	384	384	-	-	-
1018+75-1040+75	RT	2200	2200	-	-	-	-	-
1022+26-1039+75	RT	-	-	-	-	2991	-	0.54
1039+75-1040+25	RT	-	-	77	77	-	-	-
1041+25-1077+19	RT	3628	3628	-	-	-	-	-
1041+75-1046+25	RT	-	-	2546	2546	-	-	-
1048+25-1053+25	RT	-	-	2449	2449	-	-	-
1071+25-1075+25	RT	-	-	606	606	-	-	-
1077+14-1077+62	RT	-	-	33	33	-	-	-
1077+58-1078+44	RT	66	66	-	-	-	-	-
1000+00-1078+44	LT & RT	724	724	869	757	328	53	0.06
ITEM TOTALS		7967	7967	9556	8327	3608	584	0.67

SAWING CONCRETE

STATION	LOCATION	690.0250 LF
1000+00	LT & RT	25
1002+54	LT & RT	23
1003+41	LT & RT	24
1003+85	LT & RT	19
1004+70	LT & RT	24
1005+14	LT & RT	25
1005+92	LT & RT	25
1007+22	LT	12
1007+78	LT	56
ITEM TOTAL		233

LIMESTONE SCREENINGS

STATION - STATION	LOCATION	SPV .0195.01 TON
1014+75 - 1020+50	LT & RT	105
1020+50 - 1022+50	LT & RT	33
1022+50 - 1037+50	LT & RT	426
1037+50 - 1040+25	LT & RT	124
1040+25 - 1041+50	LT & RT	73
1041+50 - 1046+90	LT & RT	436
1046+90 - 1047+60	LT & RT	63
1047+60 - 1053+50	LT & RT	560
1053+50 - 1054+81	LT & RT	139
1054+81 - 1070+50	LT & RT	1957
1070+50 - 1078+44	LT & RT	1098
ITEM TOTALS		5014

SPECIAL RUB RAIL

STATION - STATION	LOCATION	SPV.0090.02 LF
1022+50 - 1040+62	LT	1812
ITEM TOTALS		1812

**ADDITIONAL QUANTITY SHOWN ELSEWHERE IN THE PLAN

CONVENTIONAL SIGNS AND ABBREVIATIONS

A.P.	ACCESS POINT
AC	ACRES
AG	AGRICULTURAL
ALUM.	ALUMINUM
ANT	ANTENNA
B.	BARN
℄	CENTERLINE
CONC	CONCRETE
COR.	CORNER
C.S.M.	CERTIFIED SURVEY MAP
C.T.H.	COUNTY TRUNK HIGHWAY
DOC.	DOCUMENT
EASE.	EASEMENT
ET.AL.	AND OTHERS
FDN	FOUNDATION
FE	FIELD ENTRANCE
FRL.	FRACTIONAL
G	GARAGE
GP	GAS PUMPS
GRAV	GRAVEL
GV	GAS
HSE	HOUSE
IP	IRON PIPE OR PIN
L	LENGTH OF CURVE
LC	LONG CHORD OR LAND CONTRACT
LCB	LONG CHORD BEARING
LT	LEFT
MH	MANHOLE
MON.	MONUMENT
O.L.	OUTLOT
P.	PAGE
PC	POINT OF CURVATURE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PK	PARKER-KALON FASTENER
P.L.	PROPERTY LINE
P.L.E.	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENCY
R	RADIUS OR RANGE
R.D.E.	RESTRICTED DEVELOPMENT EASEMENT
REM.	REMAINING
℟	REFERENCE LINE
RT	RIGHT
R/W	RIGHT OF WAY
S	SHED
SEC.	SECTION
SEPV	SEPTIC VENT
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
T	TANGENT LENGTH OF CURVE OR TOWN
TAV	TAVERN
T.I.	TEMPORARY INTEREST
U.S.H.	UNITED STATES HIGHWAY
V.	VOLUME
W	WALL
X	EAST COORDINATE (GRID)
Y	NORTH COORDINATE (GRID)
N	NORTH COORDINATE (GROUND) OR NORTH
E	EAST COORDINATE (GROUND), EAST OR EXTERNAL
Δ	CENTRAL ANGLE OR DELTA

STATE LINE
COUNTY LINE
TOWN OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
PROPOSED OR NEW R/W LINE
EXISTING R/W LINE
LOT LINE
P.L. ± 58.L PROPERTY LINE
NO ACCESS (By Previous Acquisition)
NO ACCESS (By Acquisition)
NO ACCESS (By Statutory Authority)
LIMITED EASEMENT (Temporary or Permanent)
CORPORATE LIMITS

SECTION CORNER
RIGHT OF WAY POINT (NOT MONUMENTED)
RIGHT OF WAY POINT (MONUMENTED)
(Type) RECOVERED IRON PIN/PIPE
TRIANGULATION POINT OR HORIZONTAL CONTROL STATION
INLET
HYDRANT

COMPENSABLE	NON COMPENSABLE	
		TELEPHONE POLE
		POWER POLE
		RIGHT OF WAY POINT NUMBER

(Size)W WATER
(Size)G GAS
T TELEPHONE OR TELEGRAPH
E ELECTRIC
TV CABLE TELEVISION
FO FIBER OPTIC
(Size)SAN SANITARY SEWER
(Size) SS STORM SEWER
NOTATION FOR COMBUSTIBLE FLUIDS
SERVICE PEDESTAL
(Label) SILO, MANHOLE OR WELL, ETC.

RAILROAD
BRIDGE
(Label) BUILDING
(Label) FOUNDATION OR RUINS
FENCE
MARSH AREA
LAKE OR POND
WOODED OR SHRUB AREA
TREE

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
7224-00-02	4.01	6
FEDERAL PROJECT NUMBER		

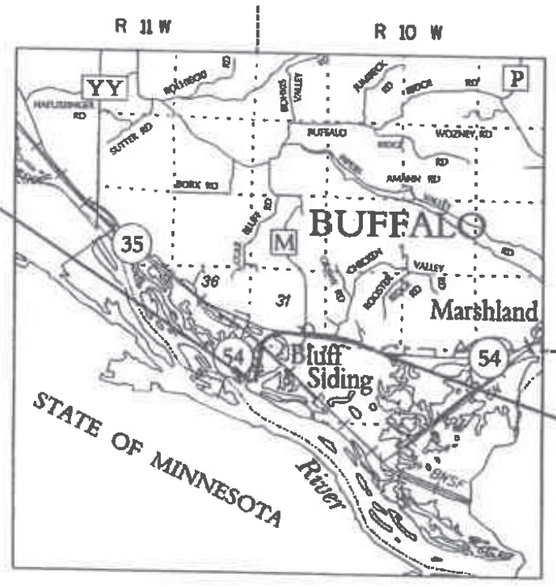
PLAT OF RIGHT-OF-WAY REQUIRED FOR
GREAT RIVER STATE TRAIL
WINONA CONNECTOR
NON-HIGHWAY — BUFFALO COUNTY

CONSTRUCTION PROJECT NUMBER
7224-00-72

BEGIN RELOCATION ORDER
STA. 983+00.00

Y= 212,021.429
X= 619,254.873

2307.69' SOUTH AND 603.18' EAST OF THE SOUTHWEST CORNER OF SECTION 31, T19N, R10W



END RELOCATION ORDER
STA. 1081+00.01

Y= 214,386.448
X= 626,720.795

11,053' SOUTH AND 171.472' EAST OF THE SOUTH 1/4 CORNER OF SECTION 32, T19N, R10W

LAYOUT
SCALE 0 — 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.856 MI.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BUFFALO COUNTY, NAD 83 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARING, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE-2 (5/8" X 24" REINFORCEMENT BAR WEIGHING 1.04 lb/FT) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

SECTION CORNER MONUMENT TYPE AND COORDINATE VALUE INFORMATION SHOWN ON DETAIL SHEETS WAS PROVIDED BY OTHERS.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT OF WAY FOR STH 35 ESTABLISHED FROM PREVIOUS PROJECT 7151-01-22.
EXISTING RIGHT OF WAY FOR RAILROADS ESTABLISHED FROM RAILROAD PLAT MAPS AND PHYSICAL EVIDENCE.

ORIGINAL PLANS PREPARED BY
SEH

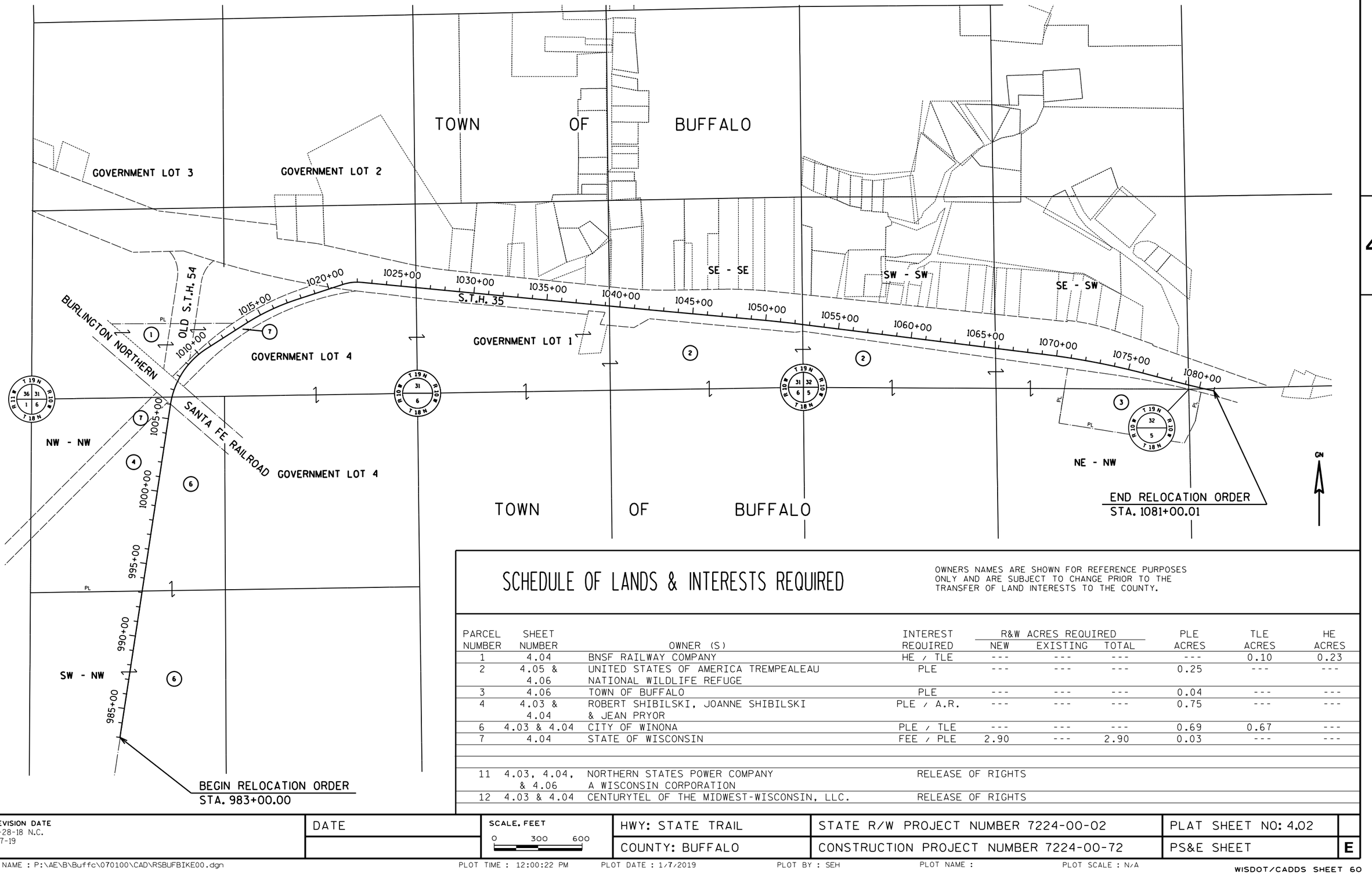
WISCONSIN
JASON L. CANCE
S-2689
CHIPPEWA FALLS WI
LAND SURVEYOR

11-28-2018 (Date) (Signature)

REVISION DATE
11-28-18 N.C.
1-7-19 N.C.

ACCEPTED FOR
COUNTY BUFFALO
11/28/18 (Date) (Signature & Title of Official)

E



TOWN OF BUFFALO

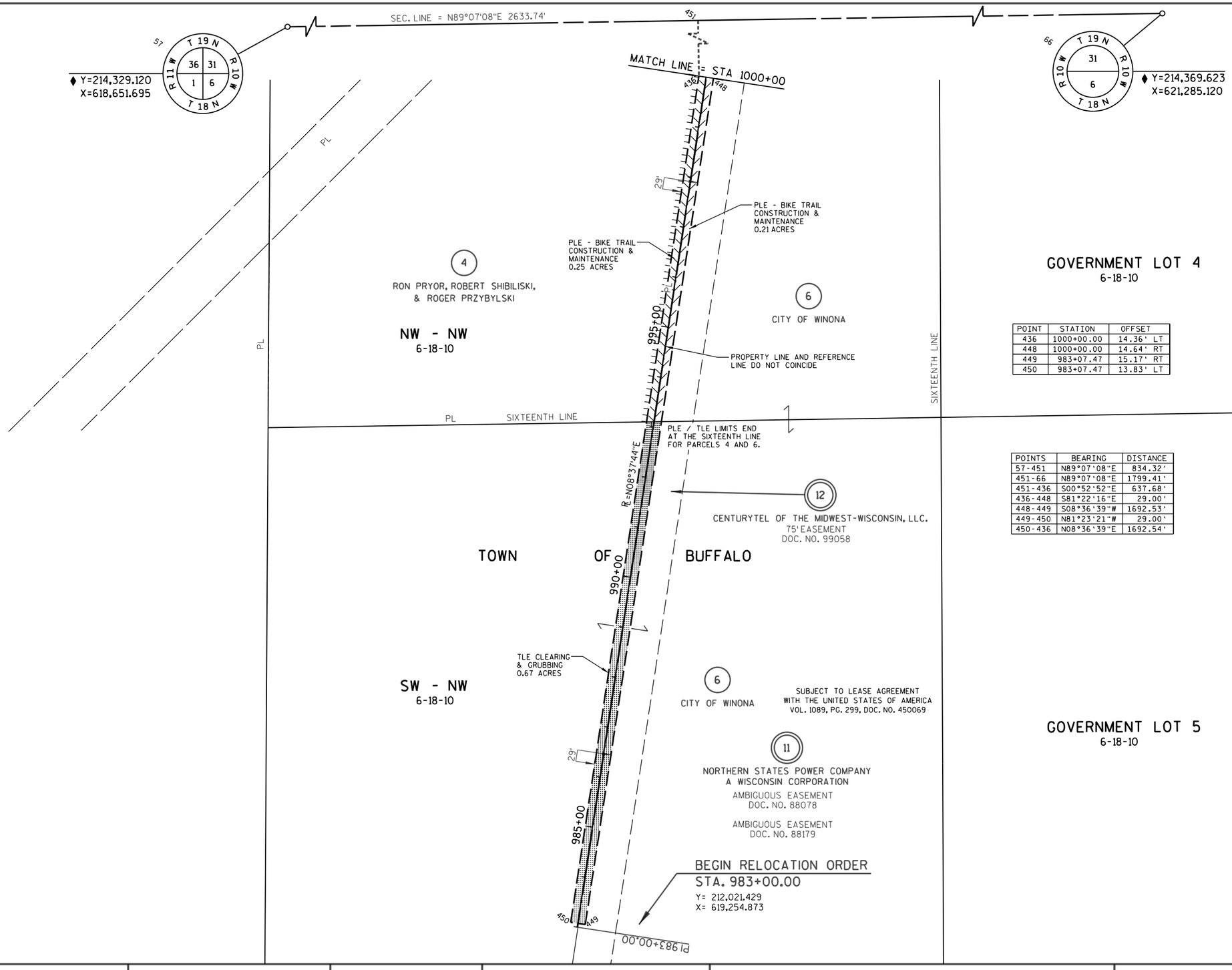
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	SHEET NUMBER	OWNER (S)	INTEREST REQUIRED	R&W ACRES REQUIRED NEW	R&W ACRES REQUIRED EXISTING	R&W ACRES REQUIRED TOTAL	PLE ACRES	TLE ACRES	HE ACRES
1	4.04	BNSF RAILWAY COMPANY	HE / TLE	---	---	---	---	0.10	0.23
2	4.05 & 4.06	UNITED STATES OF AMERICA TREMPEALEAU NATIONAL WILDLIFE REFUGE	PLE	---	---	---	0.25	---	---
3	4.06	TOWN OF BUFFALO	PLE	---	---	---	0.04	---	---
4	4.03 & 4.04	ROBERT SHIBILSKI, JOANNE SHIBILSKI & JEAN PRYOR	PLE / A.R.	---	---	---	0.75	---	---
6	4.03 & 4.04	CITY OF WINONA	PLE / TLE	---	---	---	0.69	0.67	---
7	4.04	STATE OF WISCONSIN	FEE / PLE	2.90	---	2.90	0.03	---	---
11	4.03, 4.04, & 4.06	NORTHERN STATES POWER COMPANY A WISCONSIN CORPORATION	RELEASE OF RIGHTS						
12	4.03 & 4.04	CENTURYTEL OF THE MIDWEST-WISCONSIN, LLC.	RELEASE OF RIGHTS						

4

REVISION DATE	DATE	SCALE, FEET	HWY: STATE TRAIL	STATE R/W PROJECT NUMBER 7224-00-02	PLAT SHEET NO: 4.02	
11-28-18 N.C. 1-7-19		0 300 600	COUNTY: BUFFALO	CONSTRUCTION PROJECT NUMBER 7224-00-72	PS&E SHEET	E



POINT	STATION	OFFSET
436	1000+00.00	14.36' LT
448	1000+00.00	14.64' RT
449	983+07.47	15.17' RT
450	983+07.47	13.83' LT

POINTS	BEARING	DISTANCE
57-451	N89°07'08"E	834.32'
451-66	N89°07'08"E	1799.41'
451-436	S00°52'52"E	637.68'
436-448	S81°22'16"E	29.00'
448-449	S08°36'39"W	1692.53'
449-450	N81°23'21"W	29.00'
450-436	N08°36'39"E	1692.54'

REVISION DATE 11-28-18 N.C. 1-7-19	DATE	SCALE, FEET 0 100 200	HWY: STATE TRAIL	STATE R/W PROJECT NUMBER 7224-00-02	PLAT SHEET NO: 4.03	
	GRID FACTOR N/A		COUNTY: BUFFALO	CONSTRUCTION PROJECT NUMBER 7224-00-72	PS&E SHEET	E

GOVERNMENT LOT 3
31-19-10

ORIGINAL GOVERNMENT MEANDER LINES FOR SLOUGH SEPERATING GOVERNMENT LOT 4 FROM GOVERNMENT LOT 2 AND 3.

VARIABLE RW

S.T.H. 35

GOVERNMENT LINE BETWEEN GOVERNMENT LOTS 2 AND 3 TERMINATING AT EDGE OF CURRENT WATER LOCATION

166'

OLD STH. 54

TOWN OF BUFFALO

PISTA 1015+75.51
PIY =214948.640
PIX =620275.822
DELTA =14°24'07" (RT)
R =1550.00
D =3°41'47"
T =195.84
L =389.61

PI 1015+75.51

PISTA 1008+48.61
PIY =214541.191
PIX =619637.245
DELTA =48°49'52" (RT)
R =550.00
D =10°25'03"
T =249.67
L =468.74

PI 1008+48.61

PL

150'

1 BURLINGTON NORTHERN SANTA FE RAILROAD

SUBJECT TO SCENIC RIGHTS TO WISCONSIN DOT VOL. 149, PG. 199

TLE-PIER CONSTRUCTION 0.10 AC.

HE-OVERPASS CONSTRUCTION MAINTENANCE 0.23 AC.

PLE-APPROACH CONSTRUCTION 0.03 AC.

7 STATE OF WISCONSIN

SECTION LINE = 1006+49.44

Y=214,329.120
X=618,651.695

T 19 N R 11 W
36 31 1 6
T 18 N

NW - NW
6-18-10

DOT RIGHT OF WAY ACQUIRED UNDER PROJECT 7151-01-22 DOCUMENT NO. 343370

PLE - BIKE TRAIL CONSTRUCTION & MAINTENANCE 0.50 ACRES

PLE - BIKE TRAIL CONSTRUCTION & MAINTENANCE 0.48 ACRES

6 CITY OF WINONA

PROPERTY LINE AND REFERENCE LINE DO NOT COINCIDE

4 ROBERT SHIBILSKI, JOANNE SHIBILSKI, & JEAN PRYOR

MATCH LINE = STA 1000+00

PC 1005+98.94

BNSF RAILWAY

150'

11 NORTHERN STATES POWER COMPANY A WISCONSIN CORPORATION
AMBIGUOUS EASEMENT DOC. NO. 88078

AMBIGUOUS EASEMENT DOC. NO. 88179

GOVERNMENT LOT 4
6-18-10

SUBJECT TO LEASE AGREEMENT WITH THE UNITED STATES OF AMERICA VOL. 1089, PG. 299, DOC. NO. 450069

12 CENTURYTEL OF THE MIDWEST-WISCONSIN, LLC.
75' EASEMENT
DOC. NO. 99058

GOVERNMENT LOT 4
31-19-10

PC 1010+00

PT 1010+61.68

PC 1013+79.67

PT 1017+99.28

SLOPE INTERCEPTS

GOVERNMENT LOT 2
31-19-10

PISTA 1021+61.61
PIY =215131.743
PIX =620834.761
DELTA =23°34'18" (RT)
R =300.00
D =19°05'55"
T =62.60
L =123.42

PI 1021+61.61

PC 1020+99.01

PT 1022+22.43

TO POINT 420

FOR THE LATEST ACCESS CONTROL INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORATION EAU CLAIRE OFFICE.

MATCH LINE = QUARTER LINE STA 1026+03.62
QUARTER LINE = N00°41'23"W 5234.15'

Y=219,603.398
X=621,222.109

T 19 N R 10 W
30 31

GN

Y=214,369.623
X=621,285.120

T 19 N R 10 W
31 6
T 18 N

SEC. LINE = N89°07'08"E 2633.74'

TOWN OF BUFFALO

POINT	STATION	OFFSET
401	1009+47.30	0.00' LT
402	1009+47.32	17.52' LT
403	1010+67.68	50.00' LT
404	1012+00.00	43.01' LT
405	1019+17.42	57.20' LT
406	1021+89.97	58.97' RT
407	1023+76.37	62.84' RT
408	1009+47.17	82.48' RT
428	1009+61.3	40.0' LT
429	1009+32.5	17.8' LT
436	1000+00.00	14.36' LT
437	1000+00.00	35.00' LT
438	1006+04.23	35.03' LT
439	1006+60.30	35.00' RT
440	1005+44.54	87.97' RT
441	1006+17.90	30.00' LT
442	1007+72.14	30.00' LT
443	1007+55.95	30.00' RT
444	1005+98.94	30.00' RT
445	1005+81.21	30.00' RT
446	1005+31.87	79.96' RT
447	1000+00.00	35.00' RT
448	1000+00.00	14.64' RT
452	1006+33.17	90.32' LT
453	1007+49.55	50.31' RT
454	1007+76.00	46.45' LT
457	1006+44.59	83.24' LT

BUFFALO

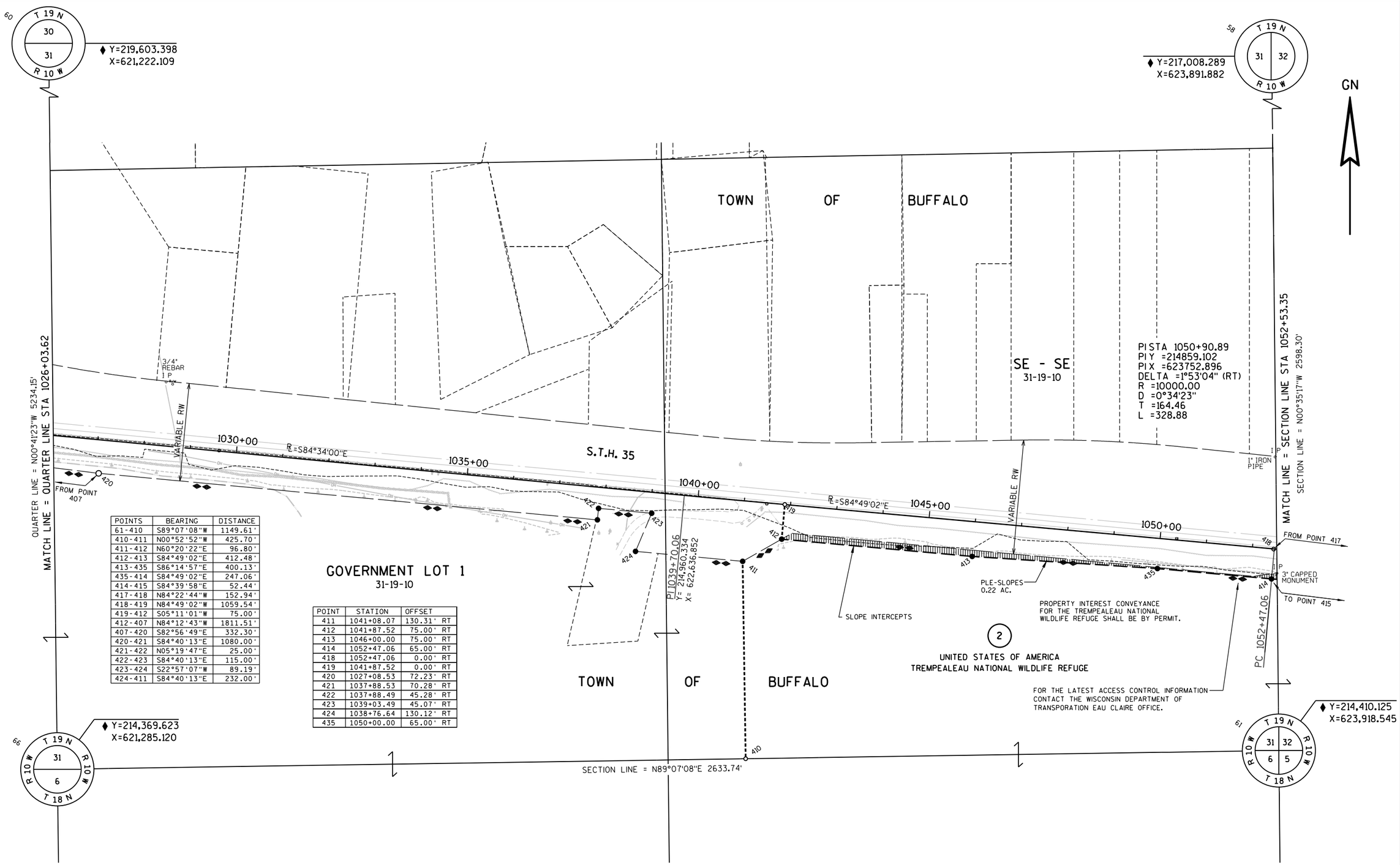
POINTS	BEARING	DISTANCE
57-400	N89°07'08"E	1196.55'
400-401	N20°24'23"W	269.58'
401-402	N45°00'25"W	17.52'
402-405	SEE CURVE DATA	
405-406	SEE CURVE DATA	
406-407	SEE CURVE DATA	
407-420	S82°56'49"E	332.30'
406-408	SEE CURVE DATA	
408-453	S44°59'35"W	175.71'
453-454	N49°03'47"W	100.25'
454-402	N44°59'35"E	182.80'
400-443	N64°29'05"W	194.88'
443-444	SEE CURVE DATA	
444-445	S08°37'44"W	17.73'
445-441	N49°03'47"W	70.58'
441-442	SEE CURVE DATA	
442-443	S49°03'47"E	62.14'

POINTS	BEARING	DISTANCE
436-437	N81°22'16"W	20.64'
437-438	N08°37'44"E	604.56'
438-452	N49°03'47"W	63.99'
452-457	N40°56'13"E	15.00'
457-440	S49°03'47"E	200.00'
440-446	S40°56'13"W	15.00'
446-439	N49°03'47"W	53.19'
439-447	S08°37'44"W	560.30'
447-448	N81°22'16"W	20.36'
408-453	S44°59'35"W	175.71'
453-454	N49°03'47"W	100.25'
454-402	N44°59'35"E	182.80'

CURVE	ARC LENGTH	RADIUS	BEARING	DISTANCE	DELTA
402-405	989.50'	1959.80' R	N59°27'27"E	979.02'	28°55'43"
405-406	283.69'	5819.58' L	S81°30'06"E	283.66'	2°47'35"
406-407	179.99'	5819.58' L	S83°47'03"E	179.98'	1°46'19"
406-408	1197.81'	1859.80' L	S63°26'38"W	1177.21'	36°54'05"
441-442	162.66'	580.00' R	N18°38'17"E	162.12'	16°04'05"
443-444	148.44'	520.00' L	S16°48'25"W	147.94'	16°21'22"

REVISION DATE 11-28-18 N.C. 1-7-19	DATE	SCALE, FEET 0 100 200	HWY: STATE TRAIL	STATE R/W PROJECT NUMBER 7224-00-02	PLAT SHEET NO: 4.04
	GRID FACTOR N/A		COUNTY: BUFFALO	CONSTRUCTION PROJECT NUMBER 7224-00-72	PS&E SHEET E

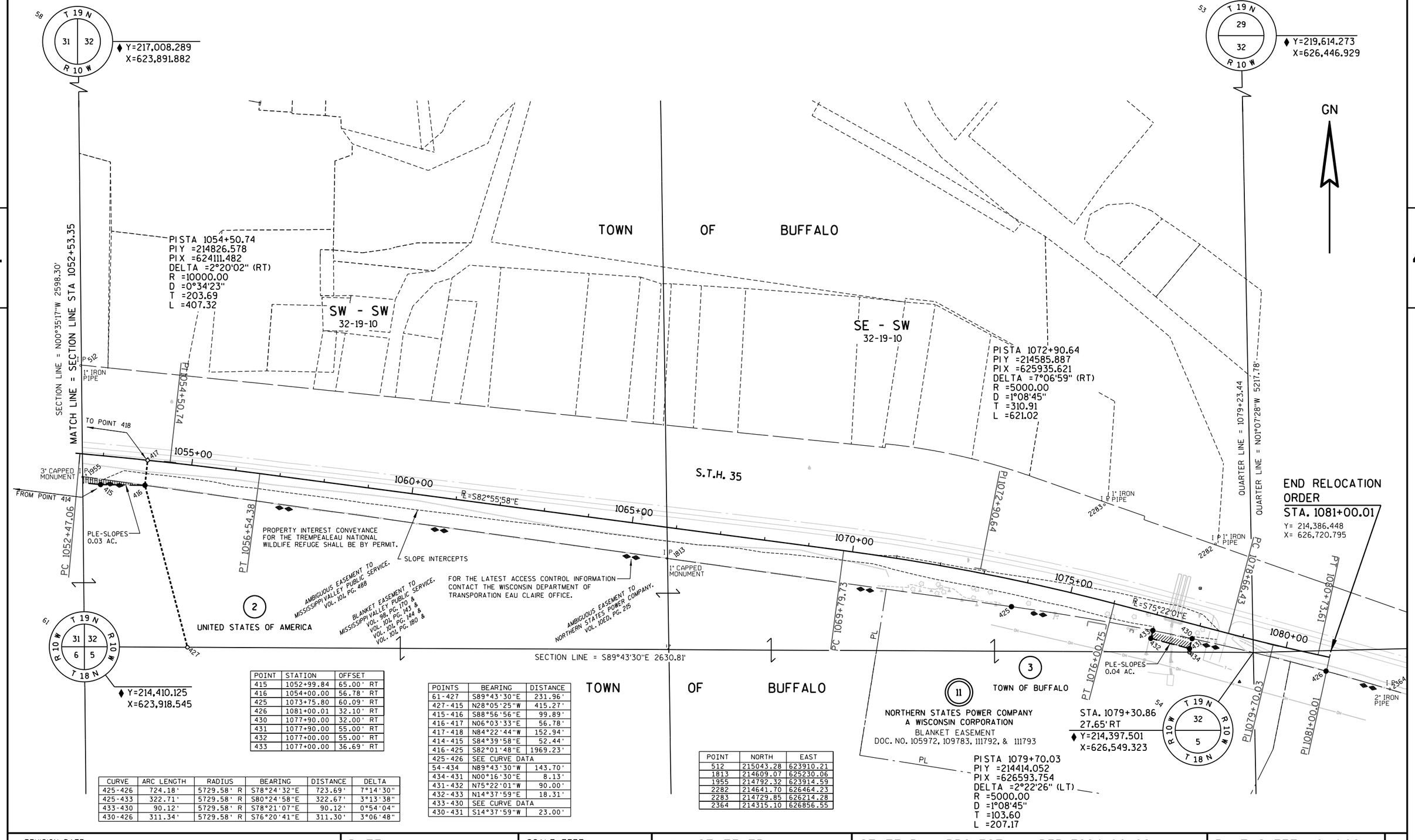
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POINTS	BEARING	DISTANCE
61-410	S89°07'08"W	1149.61'
410-411	N00°52'52"W	425.70'
411-412	N60°20'22"E	96.80'
412-413	S84°49'02"E	412.48'
413-435	S86°14'57"E	400.13'
435-414	S84°49'02"E	247.06'
414-415	S84°39'58"E	52.44'
417-418	N84°22'44"W	152.94'
418-419	N84°49'02"W	1059.54'
419-412	S05°11'01"W	75.00'
412-407	N84°12'43"W	1811.51'
407-420	S82°56'49"E	332.30'
420-421	S84°40'13"E	1080.00'
421-422	N05°19'47"E	25.00'
422-423	S84°40'13"E	115.00'
423-424	S22°57'07"W	89.19'
424-411	S84°40'13"E	232.00'

POINT	STATION	OFFSET
411	1041+08.07	130.31' RT
412	1041+87.52	75.00' RT
413	1046+00.00	75.00' RT
414	1052+47.06	65.00' RT
418	1052+47.06	0.00' RT
419	1041+87.52	0.00' RT
420	1027+08.53	72.23' RT
421	1037+88.53	70.28' RT
422	1037+88.49	45.28' RT
423	1039+03.49	45.07' RT
424	1038+76.64	130.12' RT
435	1050+00.00	65.00' RT

REVISION DATE 11-28-18 N.C. 1-7-19 N.C.	DATE GRID FACTOR N/A	SCALE, FEET 0 100 200	HWY: STATE TRAIL COUNTY: BUFFALO	STATE R/W PROJECT NUMBER 7224-00-02 CONSTRUCTION PROJECT NUMBER 7224-00-72	PLAT SHEET NO: 4.05 PS&E SHEET	E



POINT	STATION	OFFSET
415	1052+99.84	65.00' RT
416	1054+00.00	56.78' RT
425	1073+75.80	60.09' RT
426	1081+00.01	32.10' RT
430	1077+90.00	32.00' RT
431	1077+90.00	55.00' RT
432	1077+00.00	55.00' RT
433	1077+00.00	36.69' RT

POINTS	BEARING	DISTANCE
61-427	S89°43'30"E	231.96'
427-415	N28°05'25"W	415.27'
415-416	S88°56'56"E	99.89'
416-417	N06°03'33"E	56.78'
417-418	N84°22'44"W	152.94'
414-415	S84°39'58"E	52.44'
416-425	S82°01'48"E	1969.23'
425-426	SEE CURVE DATA	
54-434	N89°43'30"W	143.70'
434-431	N00°16'30"E	8.13'
431-432	N75°22'01"W	90.00'
432-433	N14°37'59"E	18.31'
433-430	SEE CURVE DATA	
430-431	S14°37'59"W	23.00'

POINT	NORTH	EAST
512	215043.28	623910.21
1813	214609.07	625230.06
1955	214792.32	623914.59
2282	214641.70	626464.23
2283	214729.85	626214.28
2364	214315.10	626856.55

CURVE	ARC LENGTH	RADIUS	BEARING	DISTANCE	DELTA
425-426	724.18'	5729.58' R	S78°24'32"E	723.69'	7°14'30"
425-433	322.71'	5729.58' R	S80°24'58"E	322.67'	3°13'38"
433-430	90.12'	5729.58' R	S78°21'07"E	90.12'	0°54'04"
430-426	311.34'	5729.58' R	S76°20'41"E	311.30'	3°06'48"

REVISION DATE
11-28-18 N.C.
1-7-19 N.C.

DATE

GRID FACTOR N/A

SCALE, FEET
0 100 200

HWY: STATE TRAIL

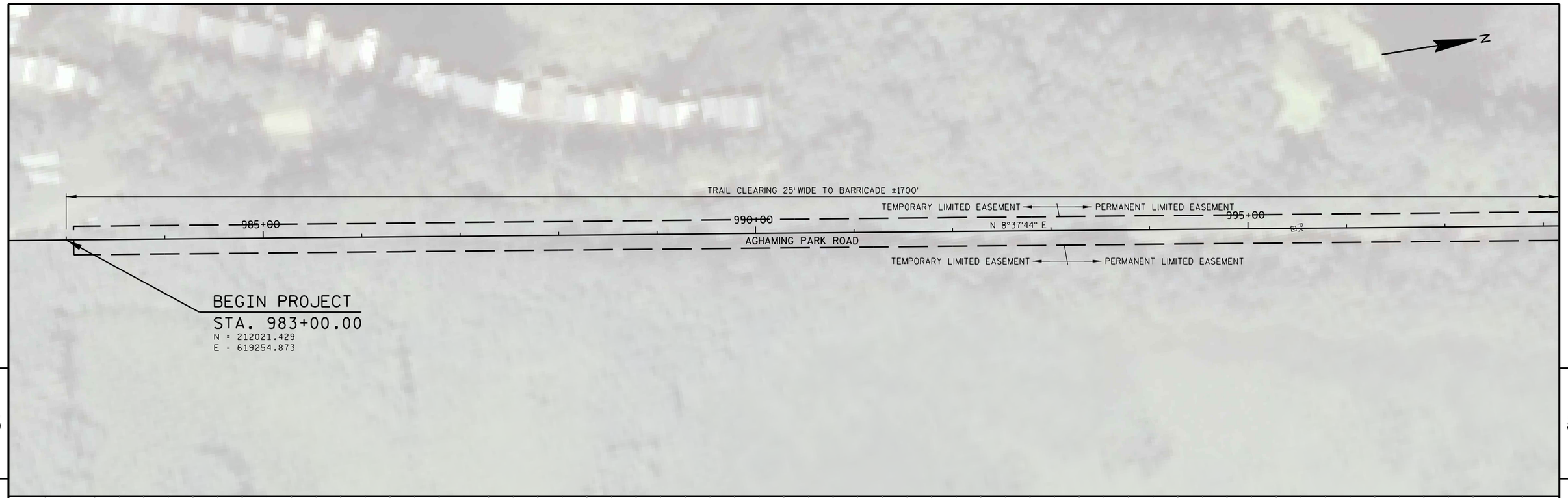
COUNTY: BUFFALO

STATE R/W PROJECT NUMBER 7224-00-02

CONSTRUCTION PROJECT NUMBER 7224-00-72

PLAT SHEET NO: 4.06

PS&E SHEET E



5

5

700
690
680
670
660
650
640
630

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PLAN AND PROFILE	SCALE, FEET 0 50 100	SHEET E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\PPBUFBIKE01.dgn PLOT TIME : 2:20:49 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

LEGEND

- EROSION MAT CLASS III, TYPE D AND SOIL STABILIZER TYPE A
- EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B
- HEAVY RIPRAP
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- TURBIDITY BARRIERS

BEGIN CONSTRUCTION
STA. 1000+00.00
N = 213702.187
E = 619509.927
MATCH EXISTING
SAWCUT REQ'D

TRAIL CLEARING 25' WIDE TO BARRICADE ±1700'

AGHAMING PARK ROAD

CONCRETE SIDEWALK 6-INCH

PERMANENT LIMITED EASEMENT

XCEL ENERGY

BM 1

1000+00

1005+00

PC 1005+98.94

SLOPE INTERCEPT (TYP)

PERMANENT LIMITED EASEMENT

B-06-0500

FENCE CHAIN LINK 6-FT

PROTECTIVE THROW FENCE, OVER RAILROAD

BNSF TRACKS

SWITCH HUT

EXISTING R/W (TYP)

CENTURYLINK

PI 1008+48.61

BM 2

OLD STH 54

XCEL ENERGY

PIER 4

EDGE OF DECK

MP 327.90
STA 20+00 BNSF EAST TRACK=
STA 1006+57.51 TRAIL

CENTURYLINK

XCEL ENERGY

BNSF RAILROAD

PT 1010+67.68

FENCE CHAIN LINK 6-FT

TEMPORARY LIMITED EASEMENT

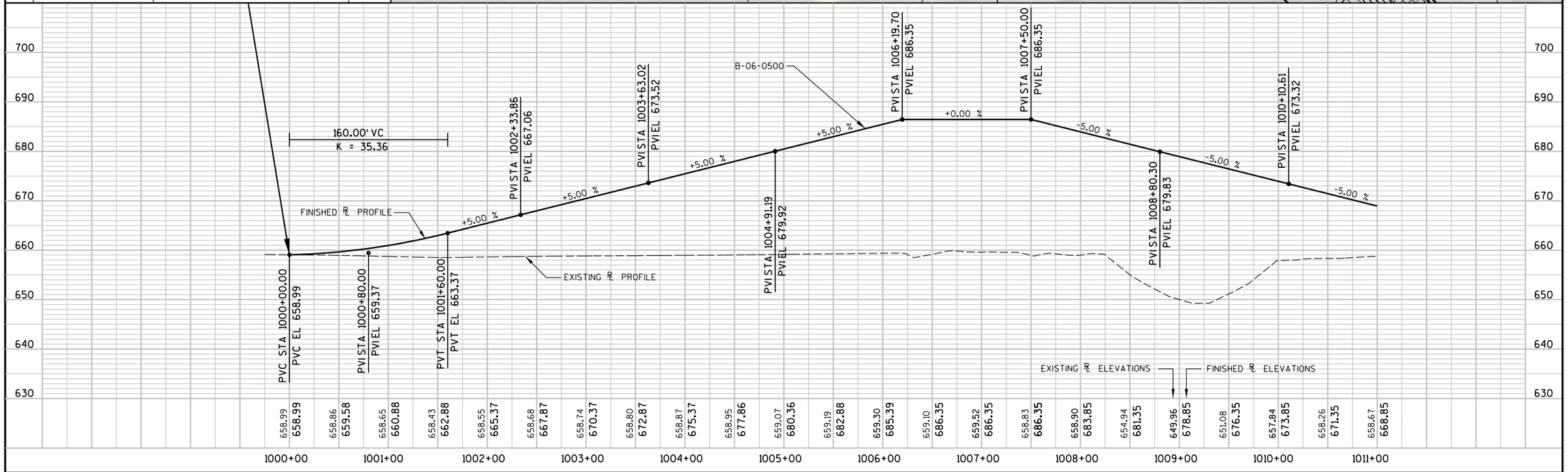
CONCRETE SIDEWALK 6-INCH

CURVE DATA
DELTA =48°49'52" (RT)
D =10°25'03"
T =249.67
L =468.74
E =54.02
R =550.00
DB =N 8°37'44" E
DA =N 57°27'35" E
PC STA 1005+98.94
PC Y =214294.347
PC X =619599.787
PI STA 1008+48.61
PI Y =214541.191
PI X =619637.245
PT STA 1010+67.68
PT Y =214675.487
PT X =619847.721

N

BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEV
1	1000+55.38 20'LT	SET 3/8" SPK IN POWER POLE	659.685
2	1008+41.2 87.8'LT	SET 3/8" SPK IN POWER POLE	658.083



PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PLAN AND PROFILE	SCALE, FEET 0 50 100	SHEET E

TEMPORARY LIMITED EASEMENT

OLD STH 54

FENCE CHAIN LINK 6-FT

90°0'0"

B-06-0500

CONCRETE SIDEWALK 6-INCH

CONCRETE SIDEWALK 6-INCH

B-06-0501

90°0'0"

FENCE CHAIN LINK 6-FT

PI 1015+75.51

SLOPE INTERCEPT (TYP)

BM 3

1010+00

N 57°27'35" E

1015+00

PT 1010+67.68

B-06-0500

CONCRETE SIDEWALK 6-INCH

PC 1013+79.67

B-06-0501

CONCRETE SIDEWALK 6-INCH

CURVE DATA
DELTA =14°24'07" (RT)
D =3°41'47"
T =195.84
L =389.61
E =12.32
R =1550.00
DB =N 57°27'35" E
DA =N 71°51'42" E
PC STA 1013+79.67
PC Y =214843.301
PC X =620110.729
PI STA 1015+75.51
PI Y =214948.640
PI X =620275.822
PT STA 1017+69.28
PT Y =215009.607
PT X =620461.927

PT 1017+69.28

STA 1020+90.0 TO STA 1021+78.3, LT
SALVAGED RAIL
REPLACING GUARDRAIL POSTS AND BLOCKS
REPLACING GUARDRAIL RAIL AND HARDWARE

EXISTING R/W (TYP)

STH 35/54

CURVE BEGINING
STA 1020+87.55, 5.00' LT

N 71°51'42" E

1020+00

CURVE BEGINING STA 1020+90.47, 5.00' RT

RETAINING WALL

XCEL ENERGY

CURVE MIDPOINT STA 1021+53.21, 6.55' RT

R 300.00'

CURVE END STA 1022+16.44, 7.94' RT

PC 1020+99.01

PI 1021+61.61

PT 1022+22.43

CURVE DATA
DELTA =23°34'18" (RT)
D =19°05'55"
T =62.60
L =123.42
E =6.46
R =300.00
DB =N 71°51'42" E
DA =S 84°33'60" E
PC STA 1020+99.01
PC Y =215112.256
PC X =620775.275
PI STA 1021+61.61
PI Y =215131.743
PI X =620834.761
PT STA 1022+22.43
PT Y =215125.816
PT X =620897.075

R 300.00'

CURVE MIDPOINT
STA 1021+48.59, 2.80' LT

CURVE END
STA 1022+09.94, 0.26' LT

N

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEV
3	1013+99.5 12.6' LT	BRIDGE CORNER	658.491

LEGEND

- EROSION MAT CLASS III, TYPE D AND SOIL STABILIZER TYPE A
- EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B
- HEAVY RIPRAP
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- TURBIDITY BARRIERS

B-06-0500

-5.00 %

-4.96 %

150.00' VC
K = 40.20

-1.23 %

B-06-0501

+0.11 %

FINISHED ℄ PROFILE

EXISTING ℄ PROFILE

210.00' VC
K = 78.34

+2.79 %

+0.78 %

PVI STA 1011+40.58
PVI EL 666.82

PVC STA 1011+75.00
PVC EL 665.11

PVI STA 1012+50.00
PVI EL 661.39

PVT STA 1013+25.00
PVT EL 660.47

PVI STA 1013+75.00
PVI EL 659.85

PVC STA 1017+72.71
PVC EL 660.28

PVI STA 1018+77.71
PVI EL 660.39

PVT STA 1019+82.71
PVT EL 663.32

PVI STA 1022+00.00
PVI EL 669.38

PVI STA 1023+00.00
PVI EL 670.16

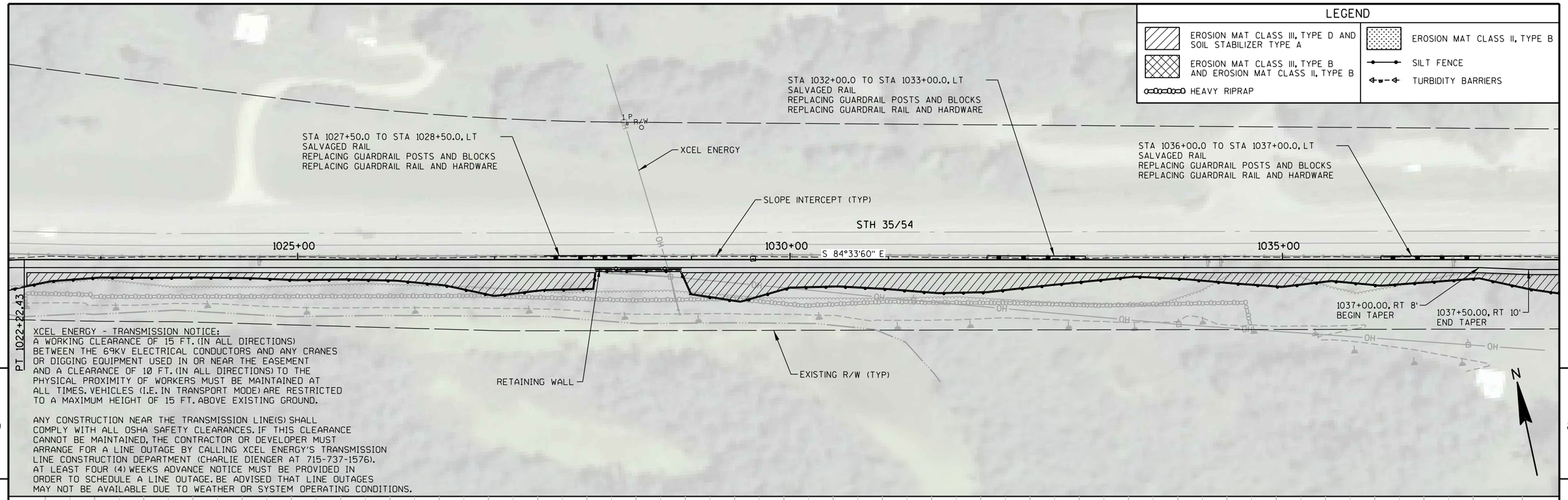
EXISTING ℄ ELEVATIONS

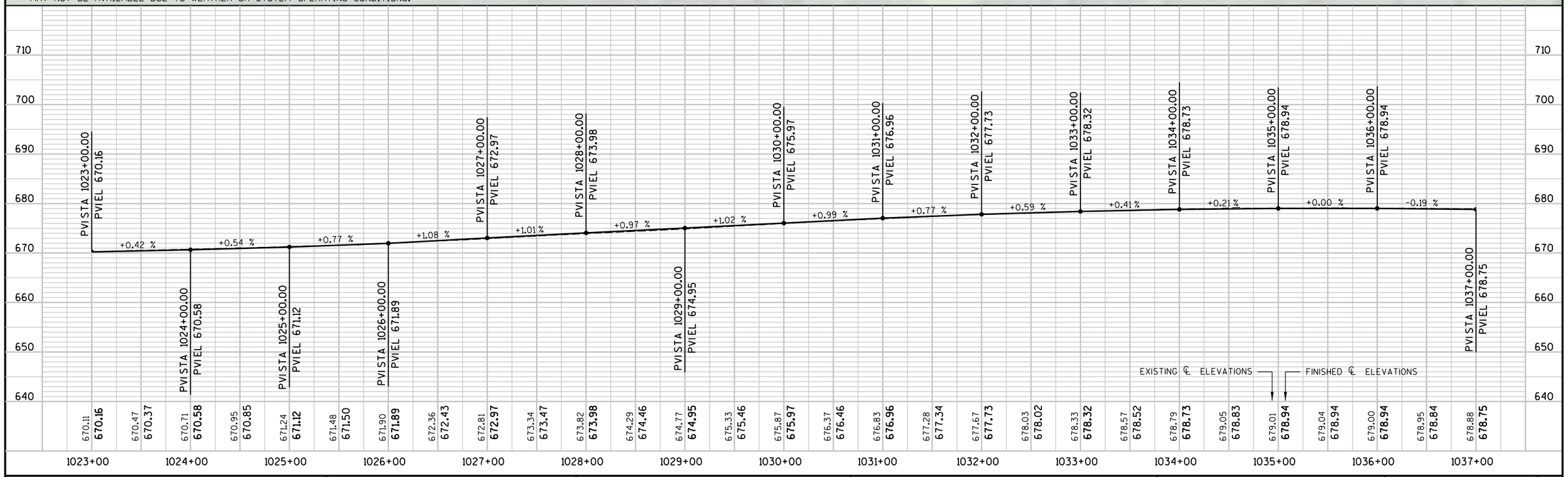
FINISHED ℄ ELEVATIONS

1011+00	1012+00	1013+00	1014+00	1015+00	1016+00	1017+00	1018+00	1019+00	1020+00	1021+00	1022+00	1023+00
658.67	668.85	658.89	666.35	659.04	663.95	658.92	662.09	659.10	660.85	658.43	660.16	658.12	659.88	653.01	659.93	659.01	659.98	659.10	660.04	659.22	660.09	659.32	660.15	659.39	660.20	659.65	660.25	659.55	660.35	659.57	660.74	659.90	661.45	659.73	662.47	659.58	663.80	657.28	665.19	658.74	666.59	666.67	667.98	669.25	669.38	669.88	669.77	670.11	670.16

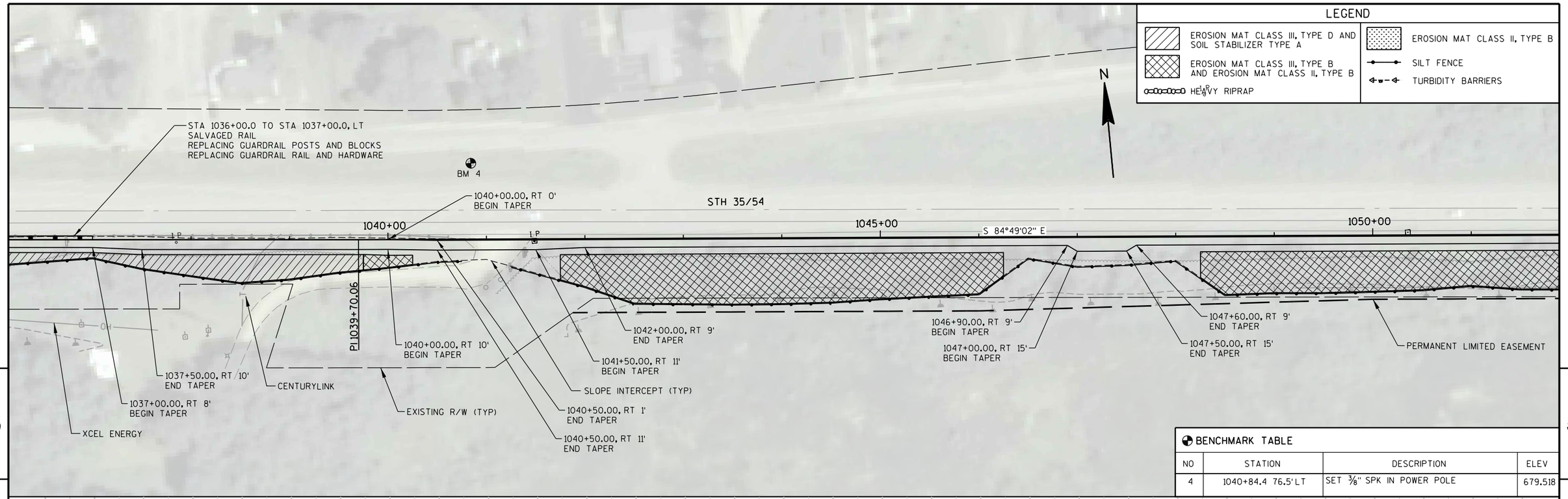
PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PLAN AND PROFILE	SCALE, FEET 0 50 100	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\PPBUFBIKE03.dgn PLOT TIME : 3:46:13 PM PLOT DATE : 3/6/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A





PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PLAN AND PROFILE	SCALE, FEET 0 50 100	SHEET	E



5

5

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PLAN AND PROFILE	SCALE, FEET 0 50 100	SHEET	E

CURVE DATA
DELTA =2°20'02" (RT)
D =0°34'23"
T =203.69
L =407.32
E =2.07
R =10000.00
DB =S 84°49'02" E
DA =S 82°29'00" E
PC STA 1052+47.06
PC Y =214844.978
PC X =623908.626
PI STA 1054+50.74
PI Y =214826.578
PI X =624111.482
PT STA 1056+54.38
PT Y =214799.932
PT X =624313.421

LEGEND

- EROSION MAT CLASS III, TYPE D AND SOIL STABILIZER TYPE A
- EROSION MAT CLASS III, TYPE B AND EROSION MAT CLASS II, TYPE B
- HEAVY RIPRAP
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- TURBIDITY BARRIERS

EXISTING R/W (TYP)

N

CURVE END/BEGINING STA 1053+70.61, 0.87' RT
R 2000.00'
CURVE MIDPOINT STA 1053+50.00, 0.97' RT
BM 5
1 P
PI 1054+50.74
CURVE END/BEGINING STA 1053+50.00, 1.00' RT
CURVE MIDPOINT STA 1052+98.53, 1.00' RT
R 9999.00'
CURVE BEGINING STA 1052+47.06, 1.00' RT
CURVE MIDPOINT STA 1054+90.15, 0.87' RT
R 3256.81'
CURVE END/BEGINING STA 1056+09.66, 3.83' RT
CURVE MIDPOINT STA 1056+42.33, 4.73' RT
R 2000.00'
CURVE END STA 1056+75.00, 5.00' RT
STH 35/54
1055+00
1060+00
1065+00
S 82°29'00" E
PERMANENT LIMITED EASEMENT
CURVE BEGINING STA 1052+47.06, 9.00' RT
PC 1052+47.06
R 9991.00'
R 2008.00'
CURVE MIDPOINT STA 1053+60.35, 8.97' RT
CURVE END/BEGINING STA 1053+50.00, 9.00' RT
CURVE MIDPOINT STA 1052+98.53, 9.00' RT
CURVE END/BEGINING STA 1053+70.71, 8.87' RT
R 3248.81'
CURVE MIDPOINT STA 1054+90.05, 8.87' RT
PT 1056+54.38
R 5724.89'
CURVE END/BEGINING STA 1056+09.37, 11.83' RT
CURVE MIDPOINT STA 1057+03.42, 14.23' RT
CURVE END STA 1057+97.45, 15.00' RT
SLOPE INTERCEPT (TYP)

5

5

BENCHMARK TABLE

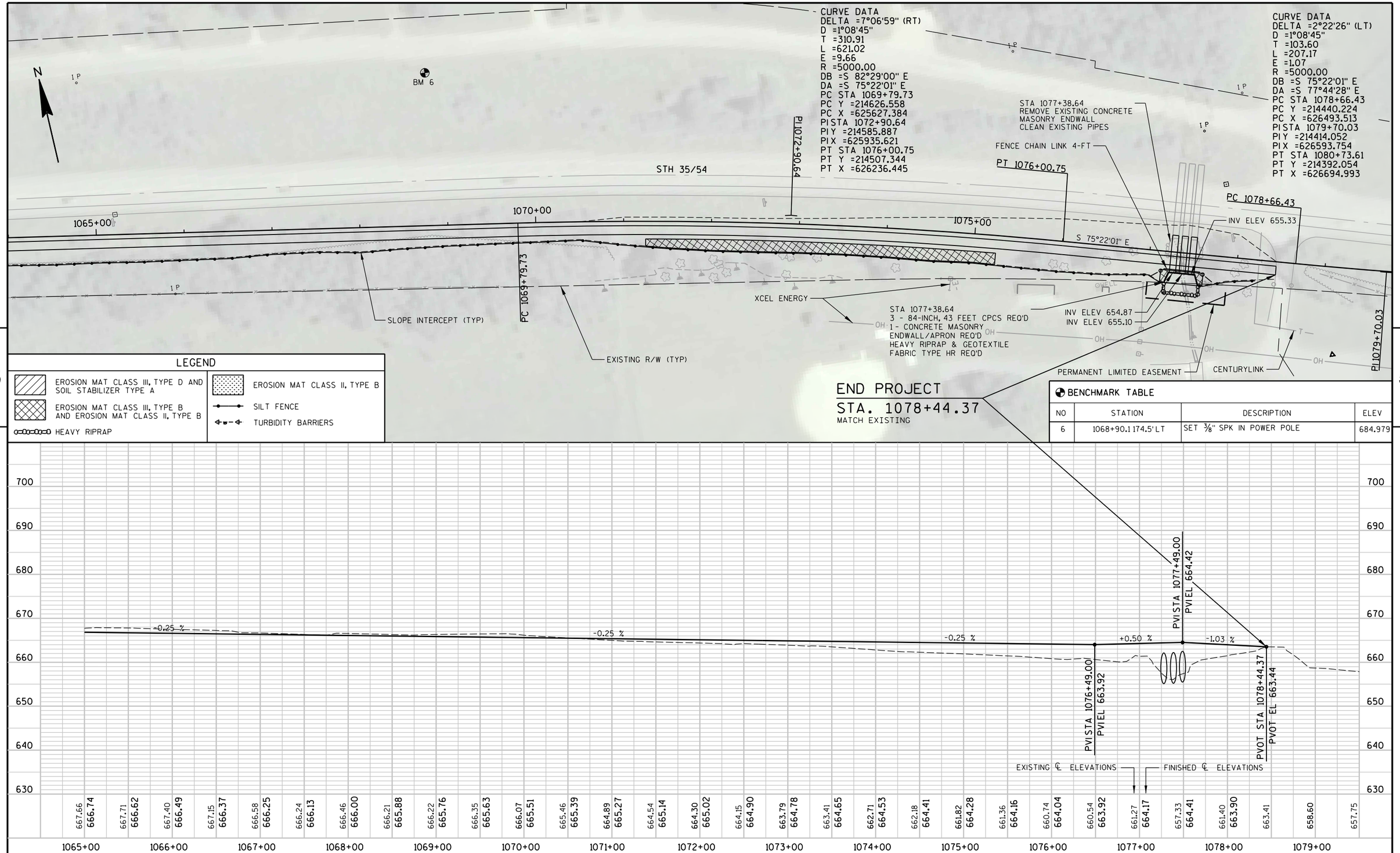
NO	STATION	DESCRIPTION	ELEV
5	1054+37.9 146.1' LT	SET 3/8" SPK IN POWER POLE	698.089

PVI STA 1051+00.00 PVIEL 670.13
PVI STA 1052+00.00 PVIEL 669.95
PVI STA 1052+50.00 PVIEL 669.91
PVI STA 1053+00.00 PVIEL 669.85
PVI STA 1053+50.00 PVIEL 669.56

-0.18 % -0.08 % -0.12 % -0.57 % -0.25 % -0.25 %

EXISTING ℄ ELEVATIONS
FINISHED ℄ ELEVATIONS

| | | |



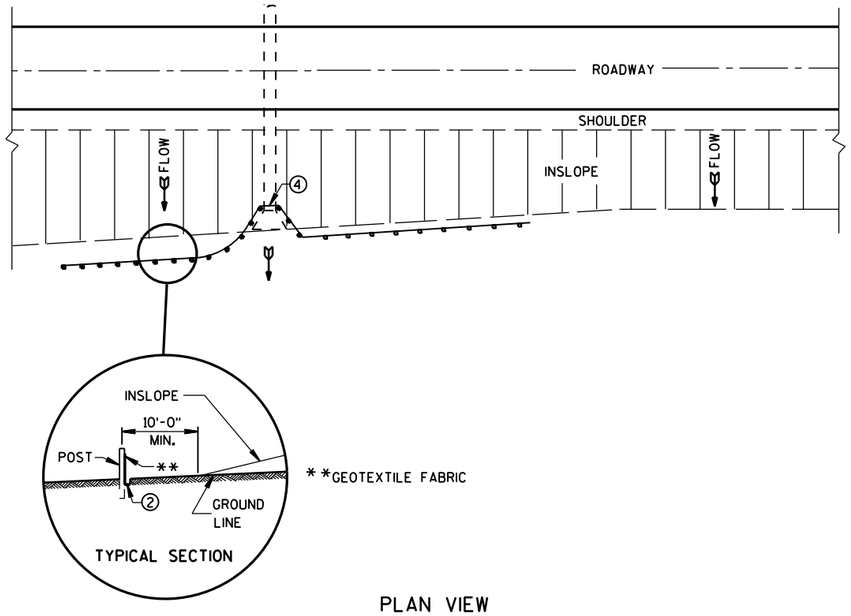
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5

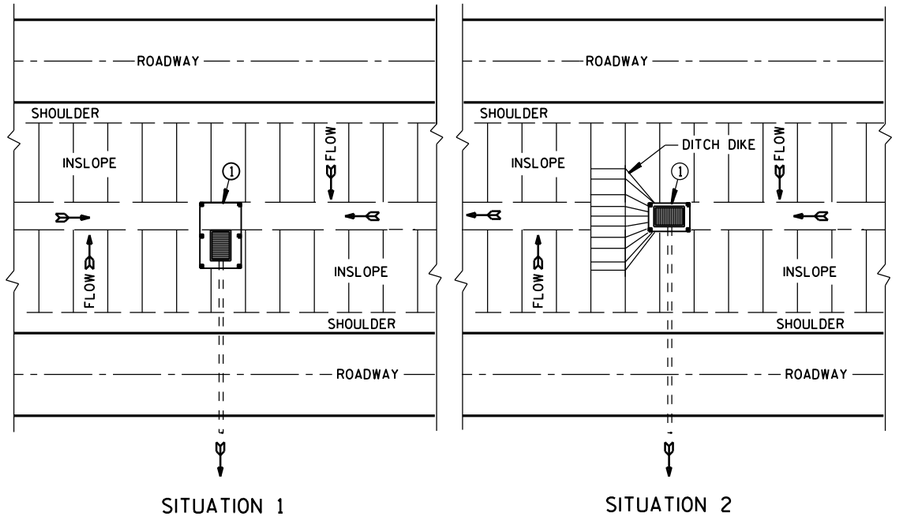
PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	PLAN AND PROFILE	SCALE, FEET 0 50 100	SHEET	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\PPBUFBIKE07.dgn PLOT TIME : 3:46:53 PM PLOT DATE : 3/6/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

SDD 8e9 Silt Fence



TYPICAL APPLICATION OF SILT FENCE



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.

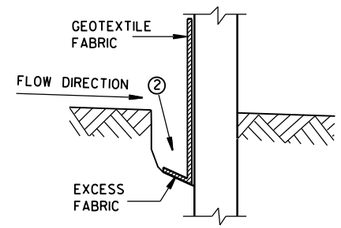
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

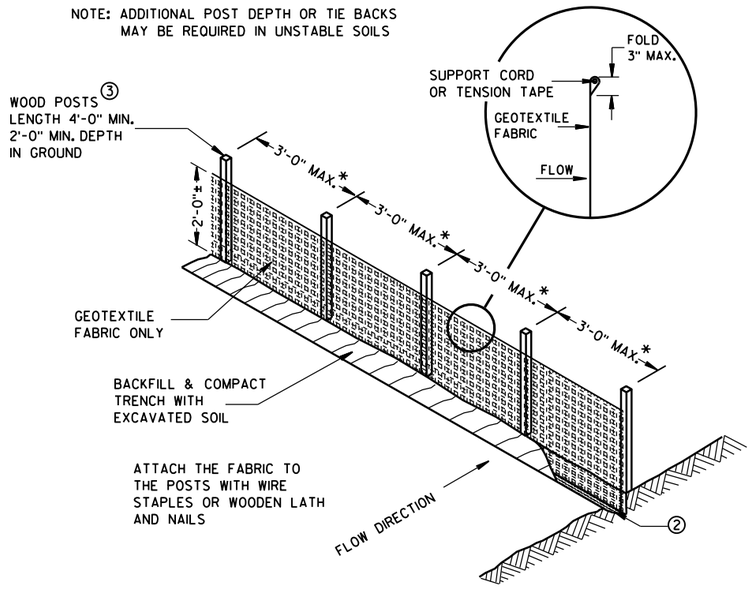
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

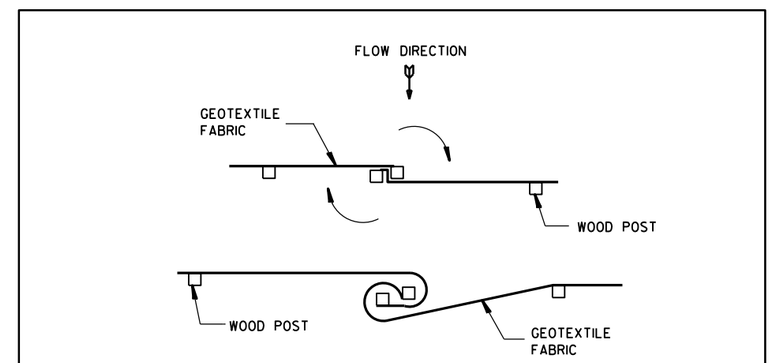
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



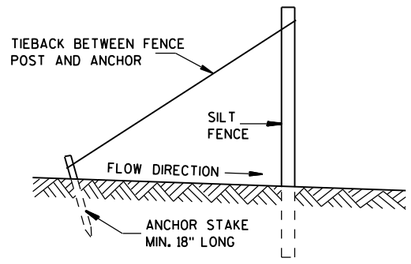
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

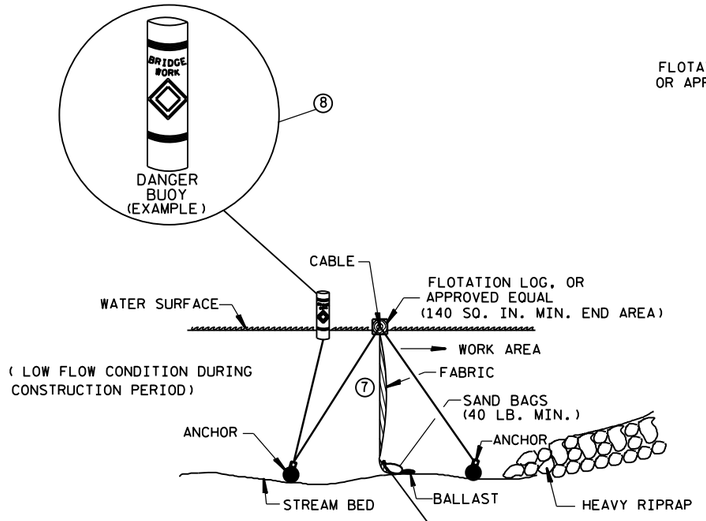
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

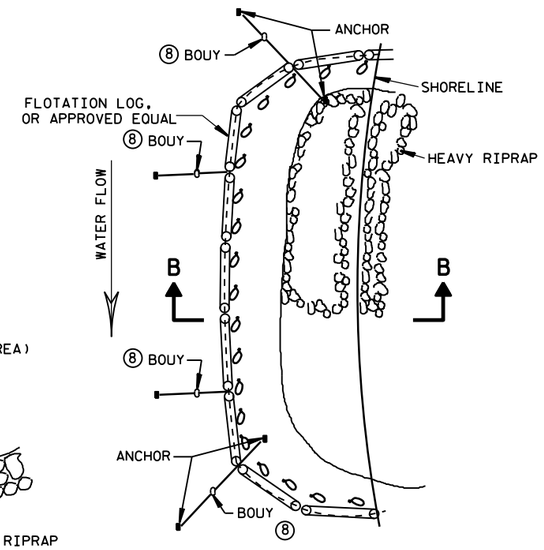
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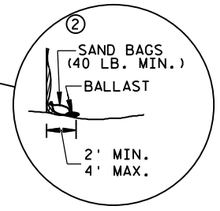
S.D.D. 8 E 9-6

SDD 8e11 Turbidity Barrier

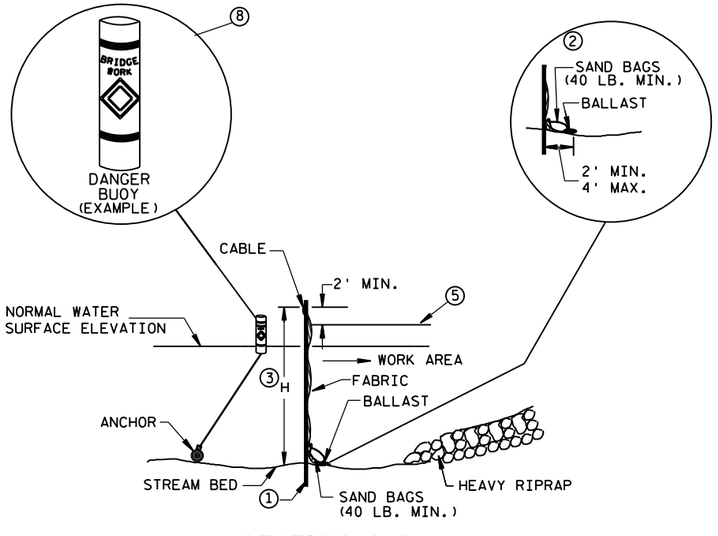


SECTION B-B

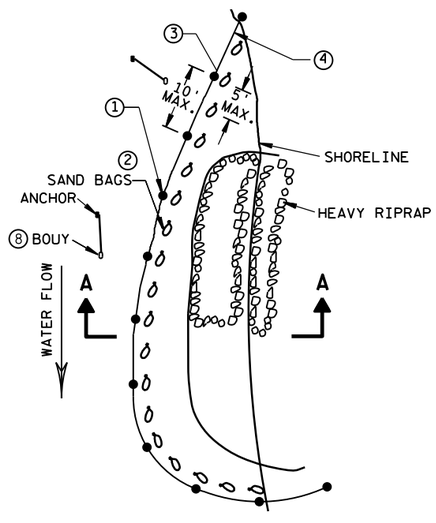




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

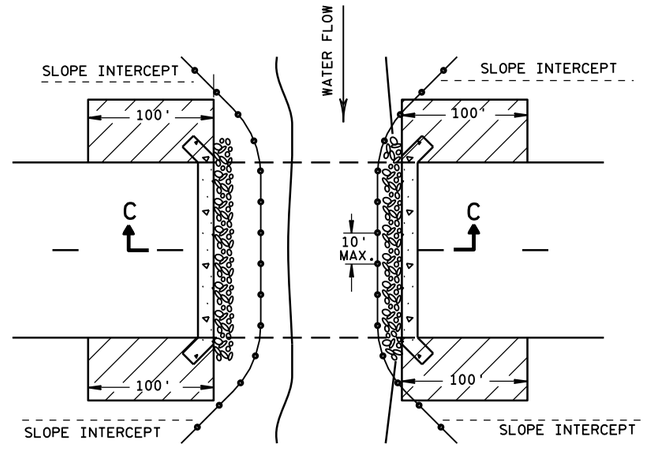
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

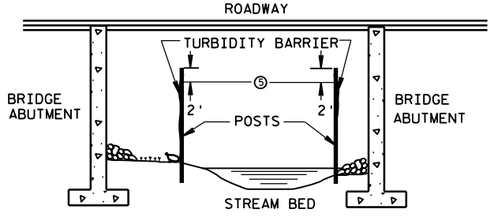
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-04-02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

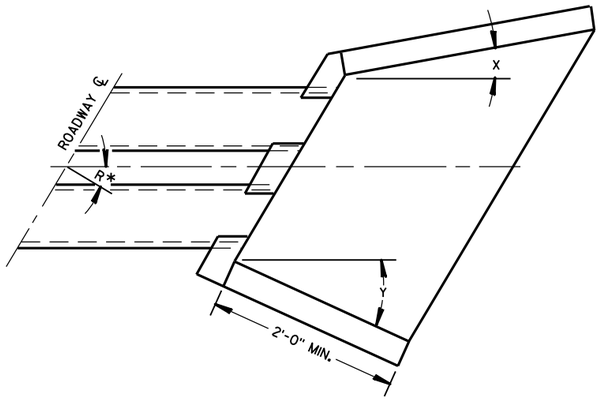
6

S.D.D. 8 E 11-2

6

S.D.D. 8 E 11-2

SDD 8f10 Concrete Masonry Endwalls for Culvert Pipe and Pipe Arch



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

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.

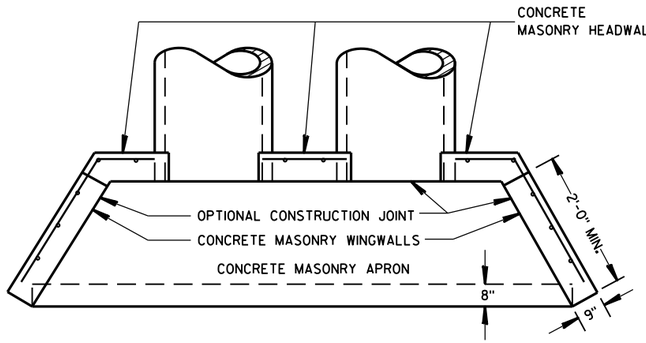
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

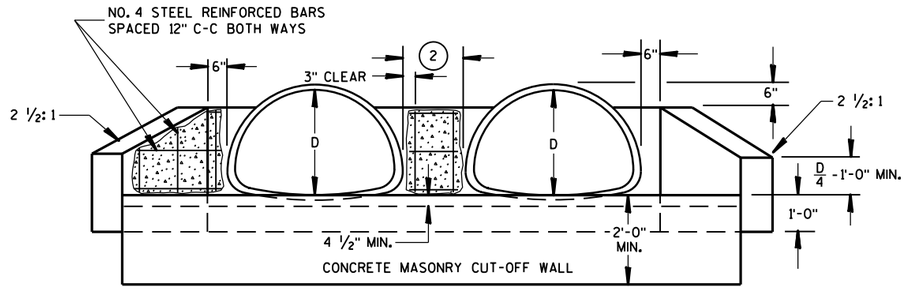
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



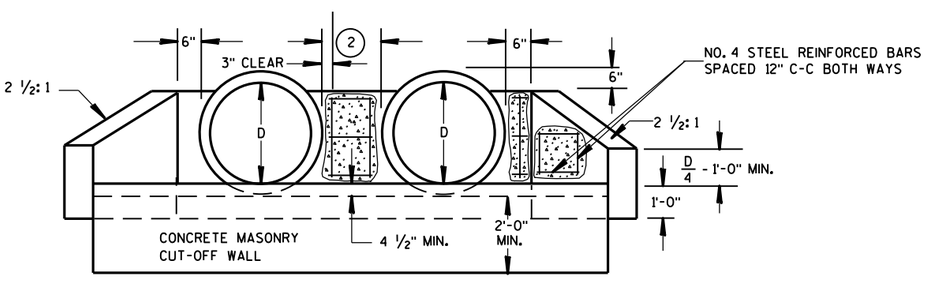
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



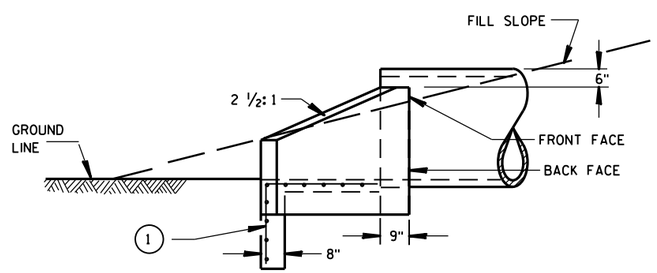
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-14-98 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 F 10-1

6

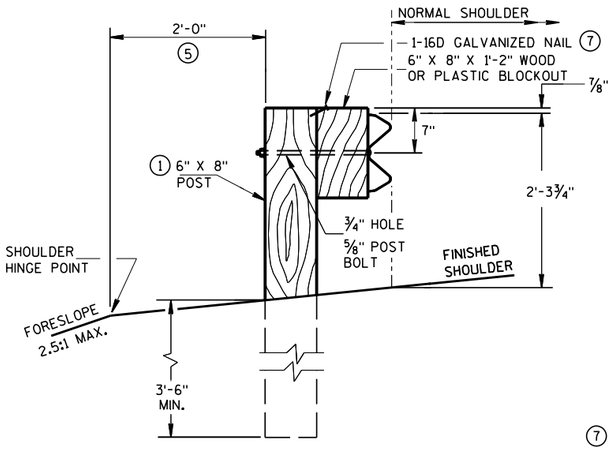
S.D.D. 8 F 10-1

SDD 14b15-a Steel Plate Beam Guard, Class "A", Installation and Elements

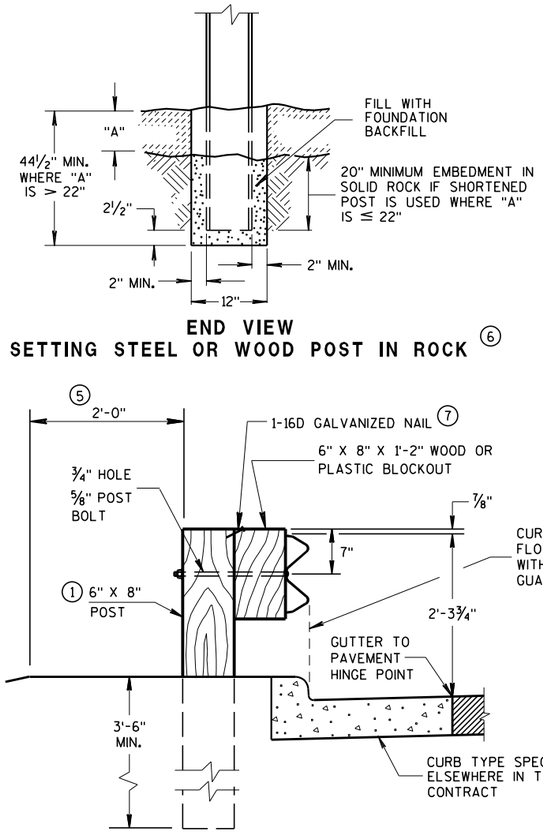
GENERAL NOTES

1. W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.
   DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
2. USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.
3. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
4. USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
5. IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
6. IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.
7. WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.

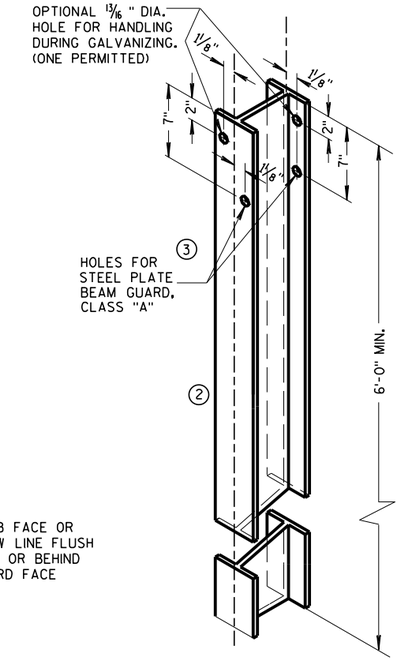


END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



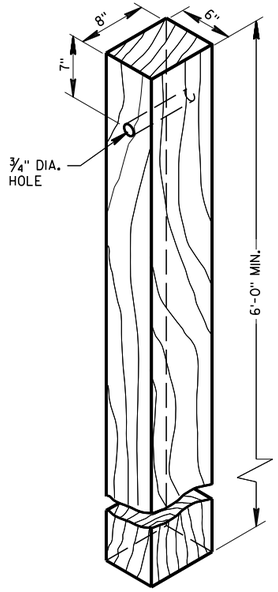
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥

END VIEW
LOCATED ALONG A CURBED ROADWAY

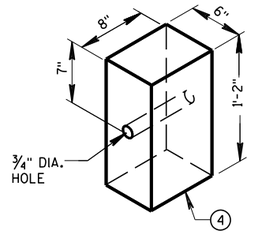


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①

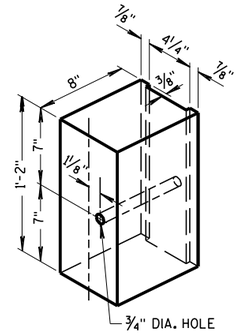
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



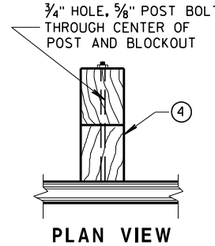
WOOD POST
(6"X8") NOMINAL



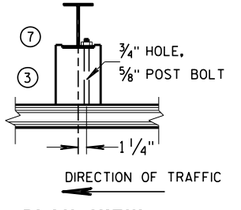
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



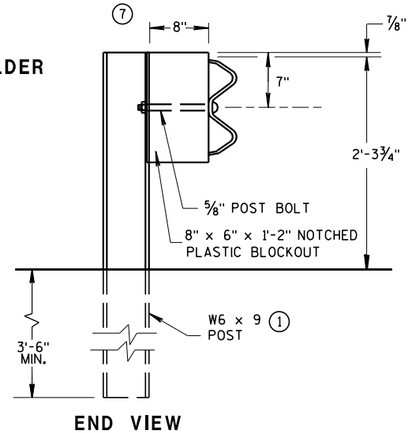
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS ①



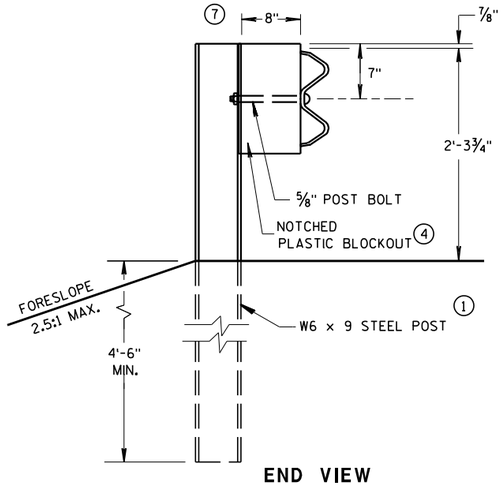
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



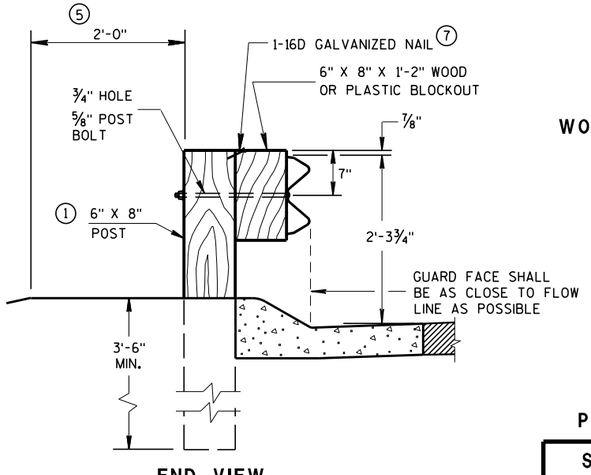
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

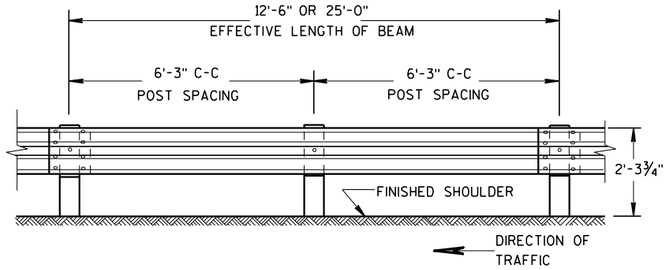
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S.D.D. 14 B 15-11a

6

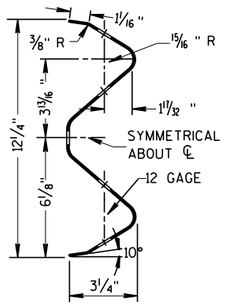
S.D.D. 14 B 15-11a

SDD 14b15-b Steel Plate Beam Guard, Class "A", Installation and Elements

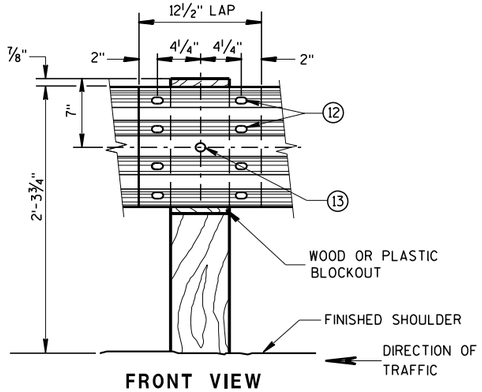


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

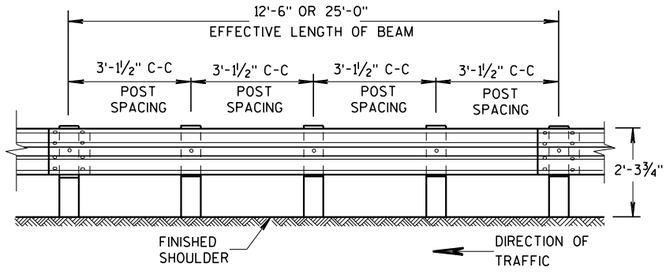
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

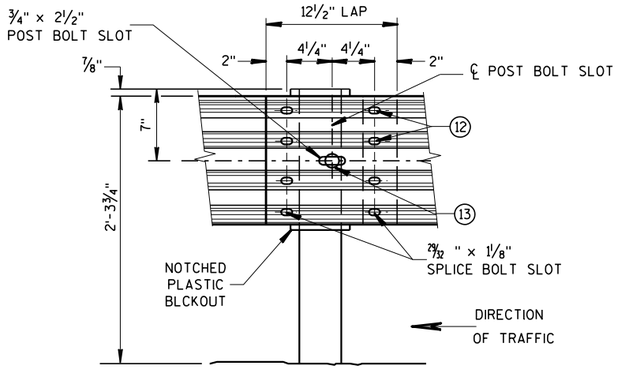
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



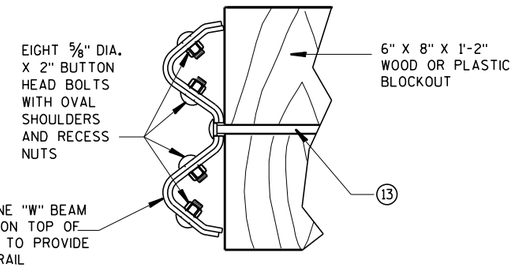
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

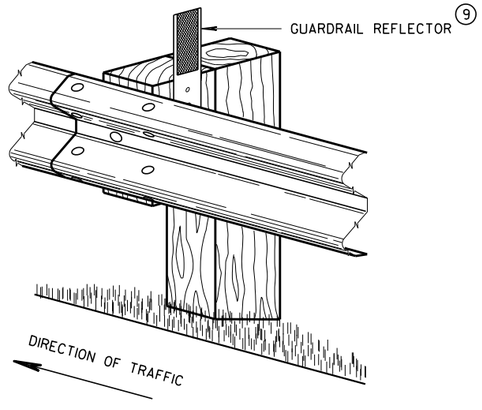


NESTED W BEAM (NW)

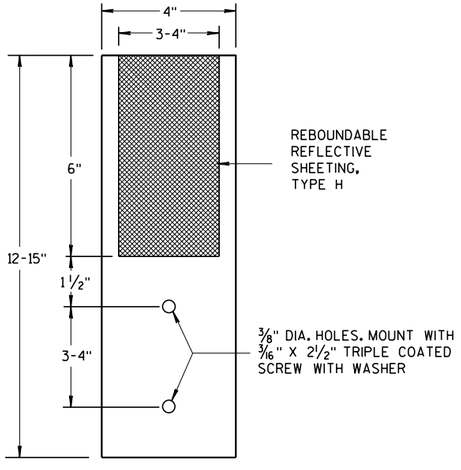
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

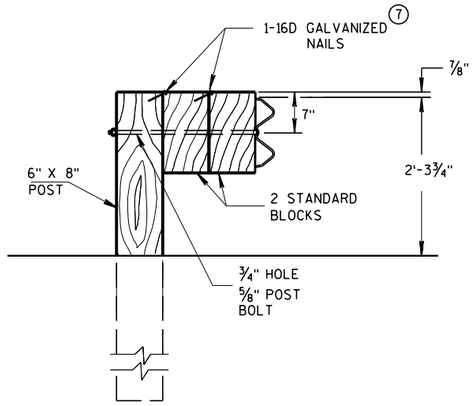
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S.D.D. 14 B 15-11b

6

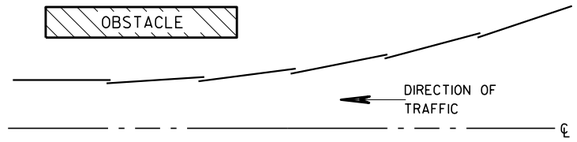
S.D.D. 14 B 15-11b

SDD 14b15-c Steel Plate Beam Guard, Class "A", Installation and Elements

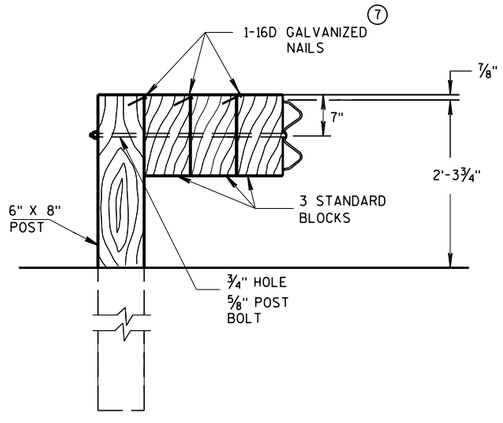


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

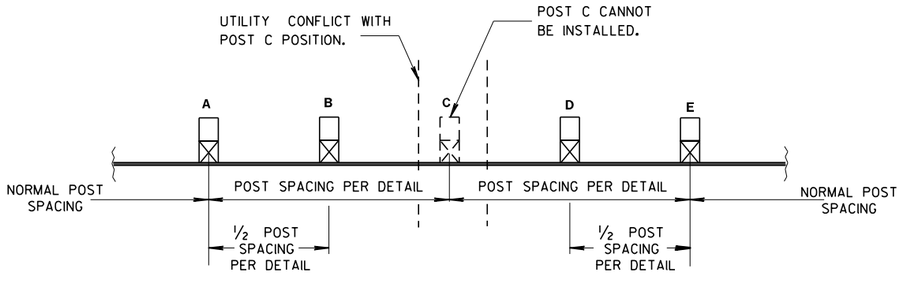


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

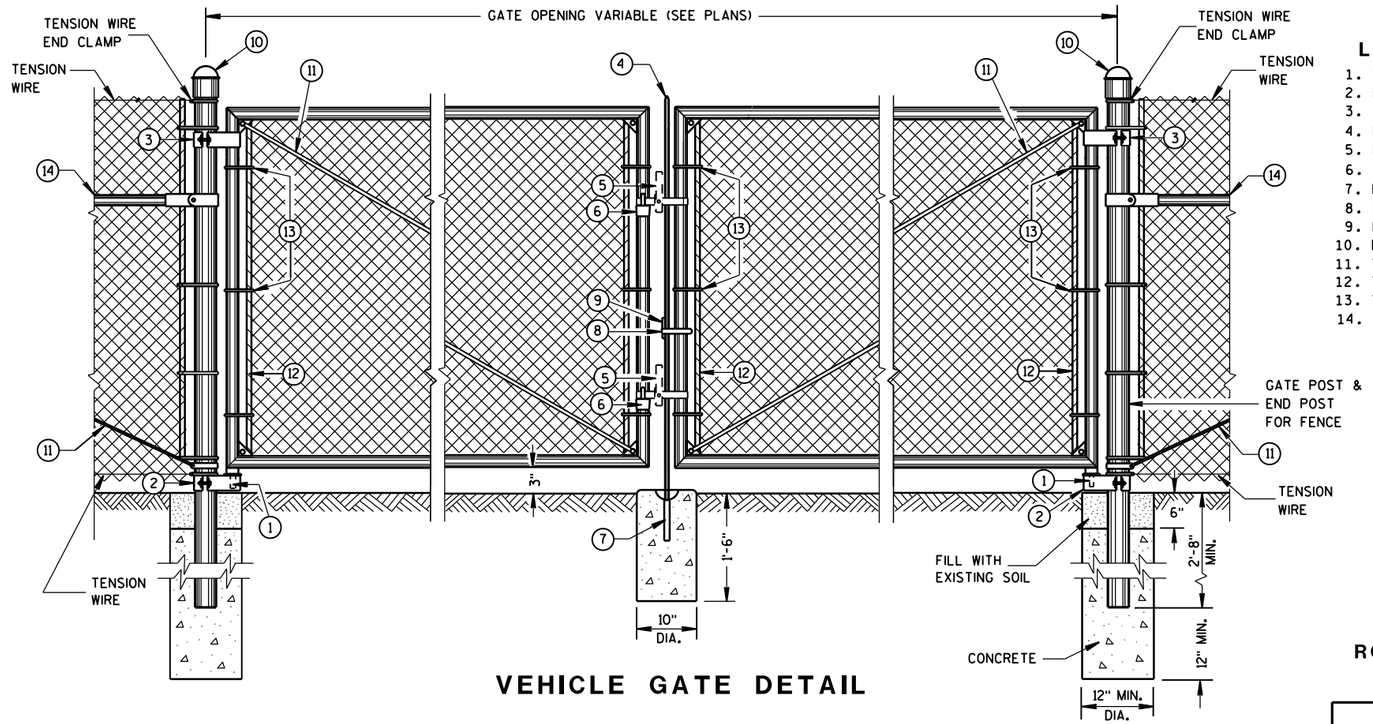
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S.D.D. 14 B 15-11c

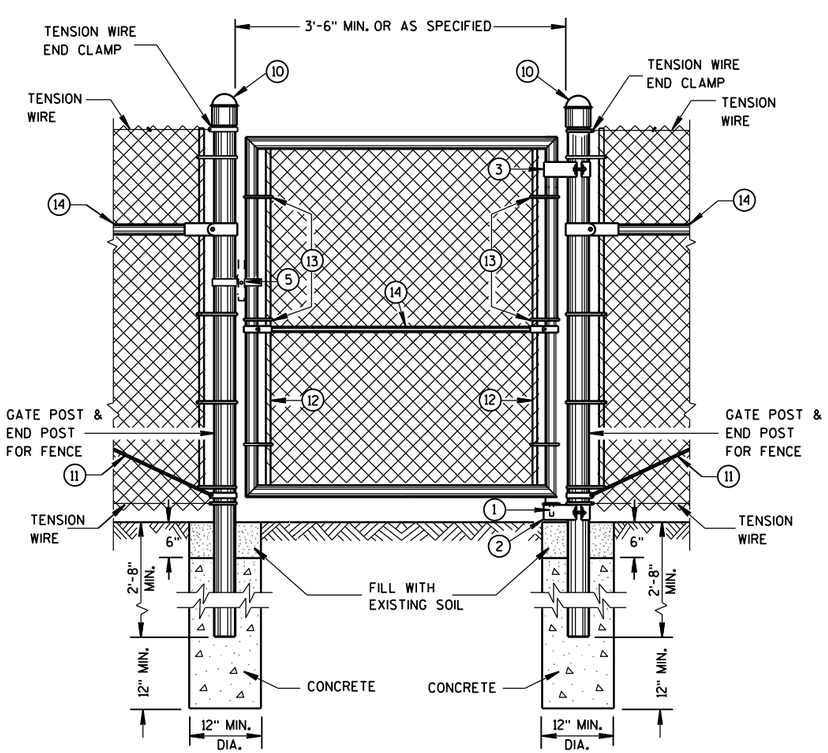
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S.D.D. 14 B 15-11c

SDD 15b3-a Chain Link Fence



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

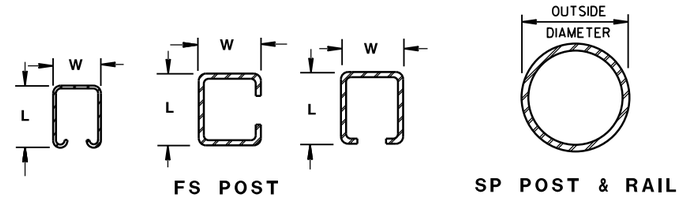
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

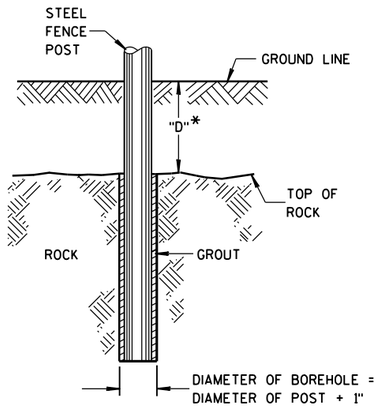
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S.D.D. 15 B 3-15a

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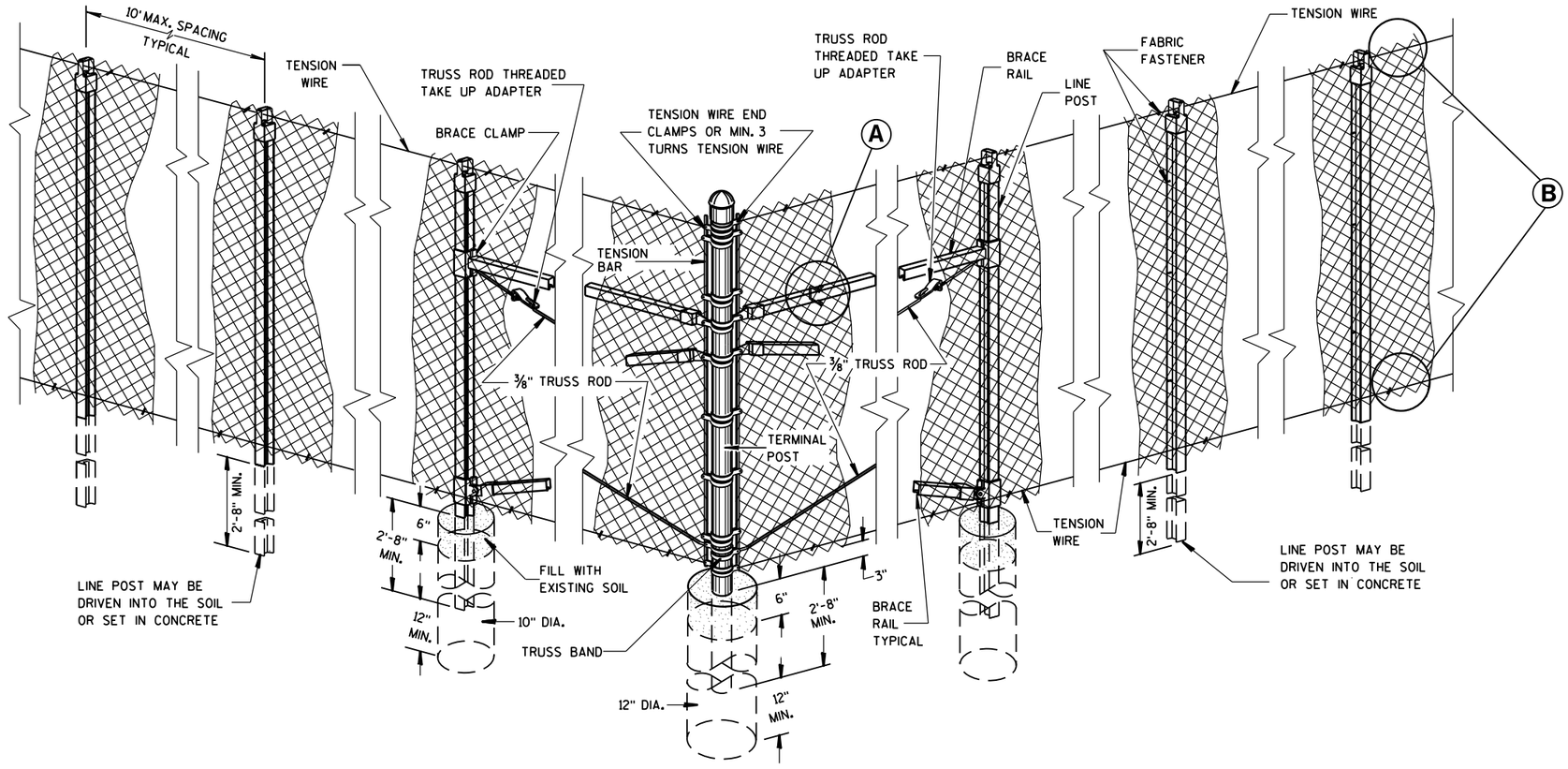
S.D.D. 15 B 3-15a

SDD 15b3-b Chain Link Fence

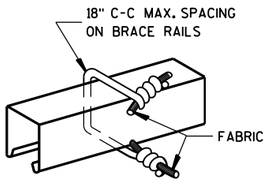


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

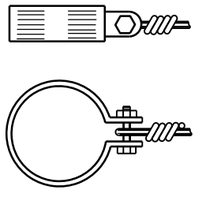
ROCK INSTALLATION OF LINE POST



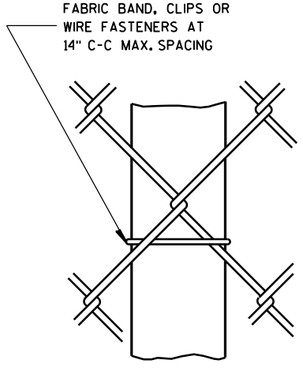
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



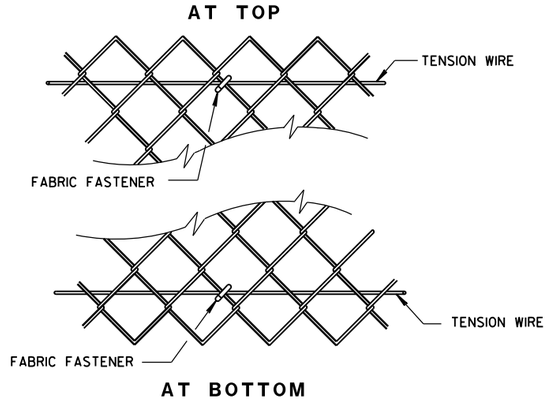
BRACE RAIL
FABRIC FASTENER
(A)



TENSION WIRE END CLAMP



LINE POST
FABRIC FASTENER



SELVAGES
(B)

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 15 B 3-15b

SDD 15d28 Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

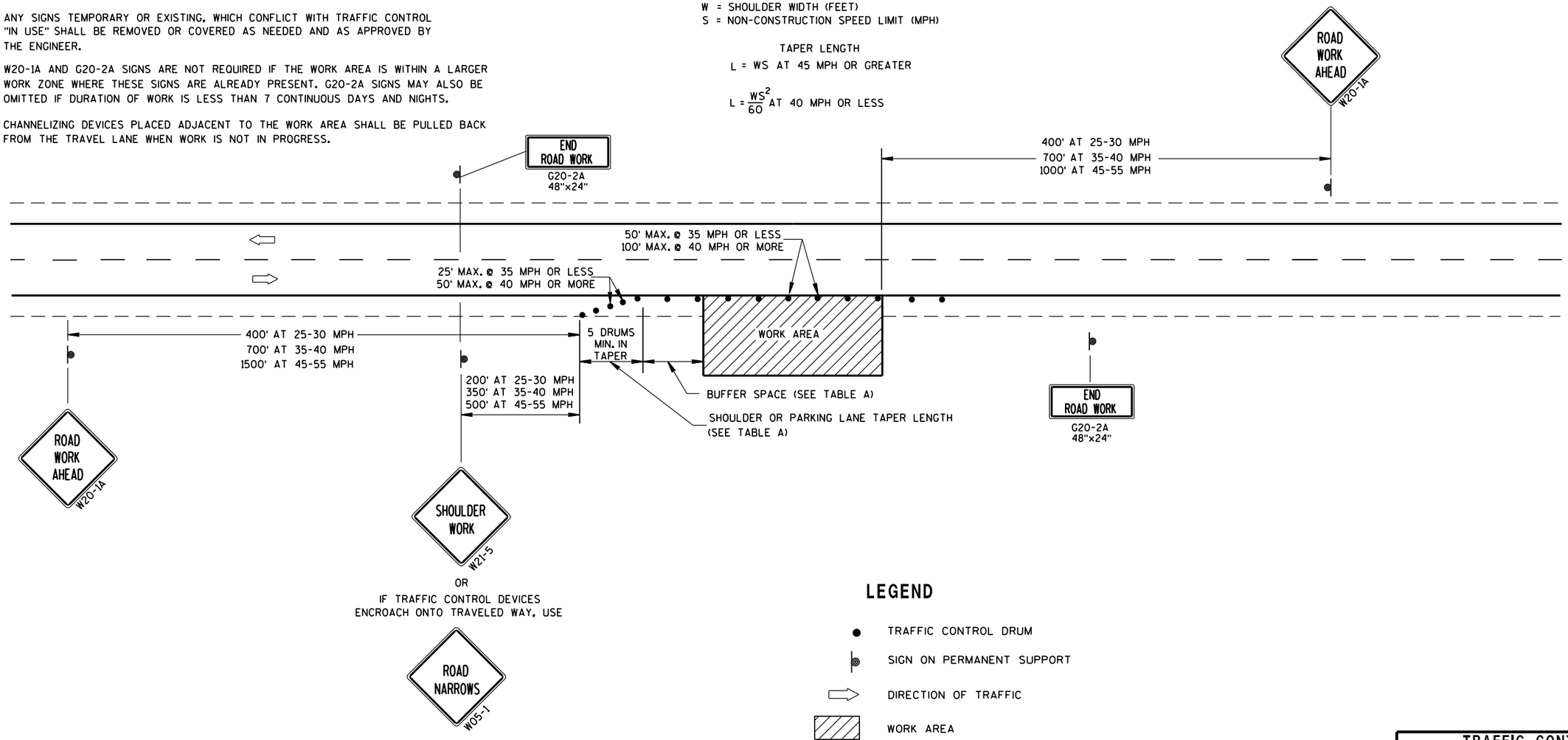
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

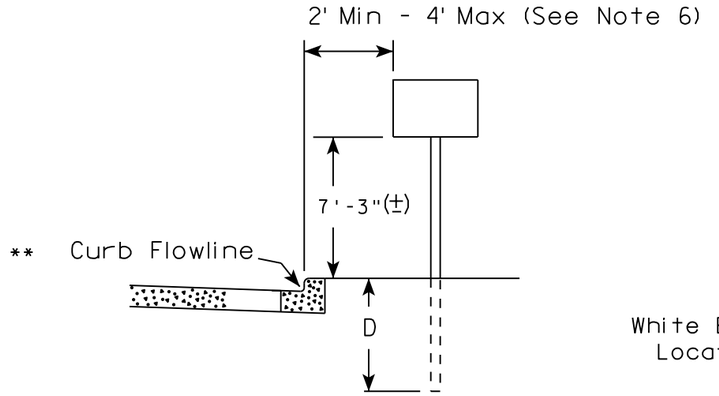
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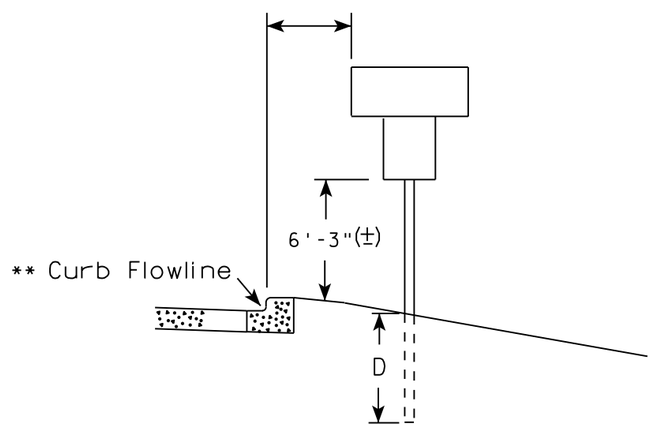
S.D.D. 15 D 28-3

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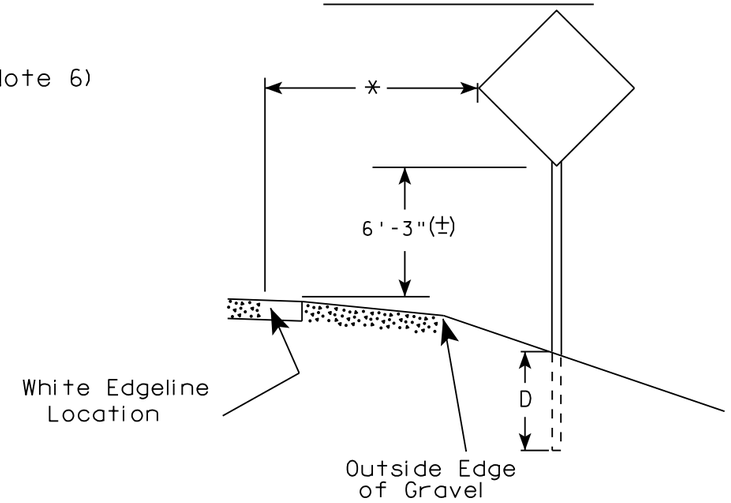
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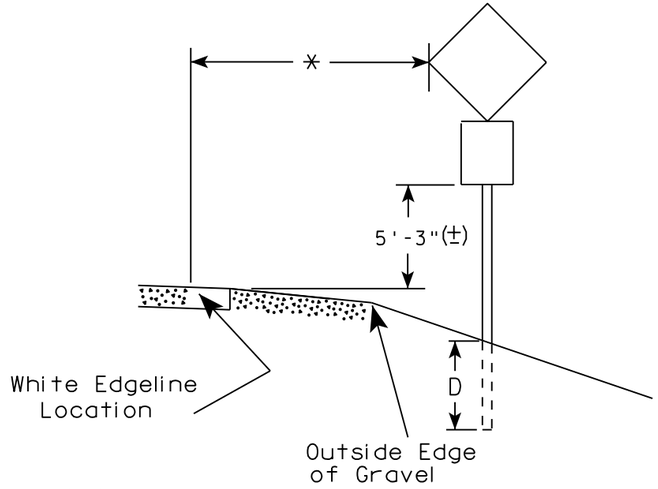
URBAN AREA





RURAL AREA (See Note 2)





GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

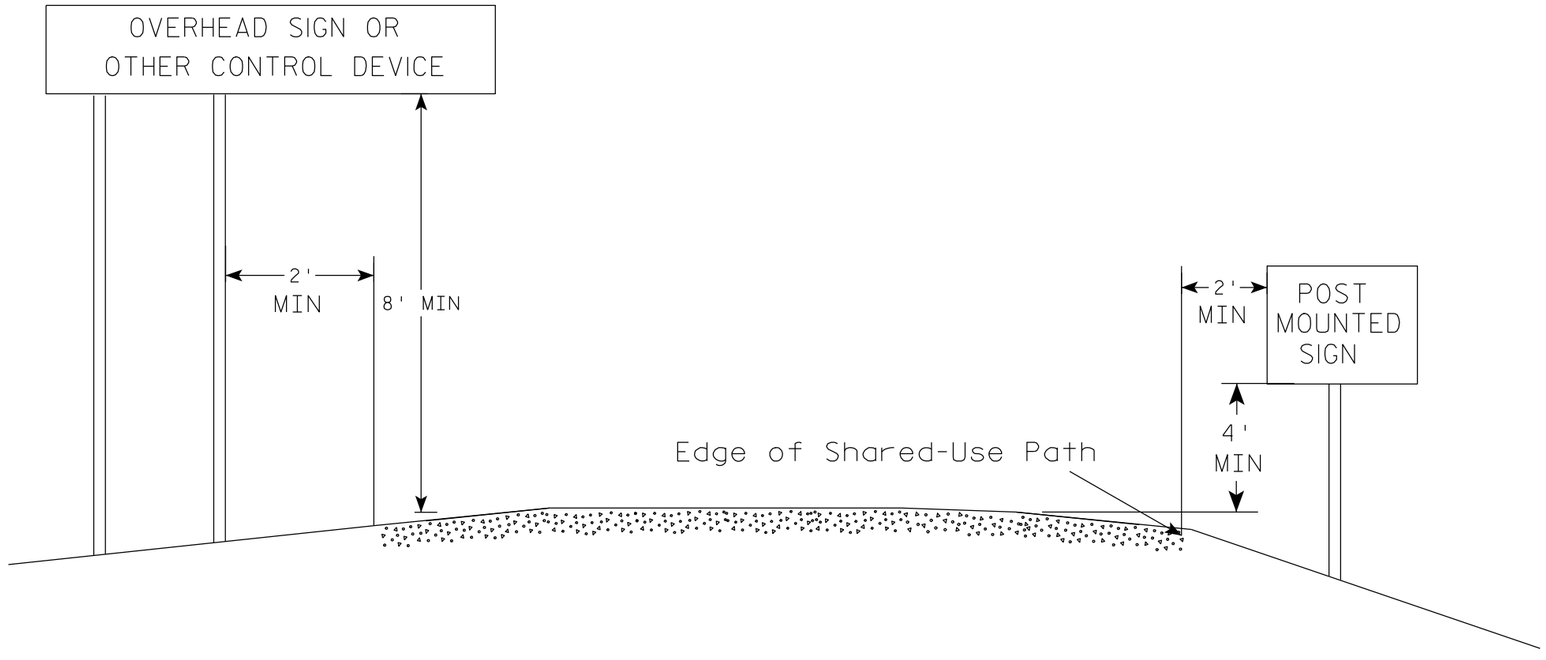
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. Offset distance shall be consistent with existing signs or consistent throughout length of project.



POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

7

7

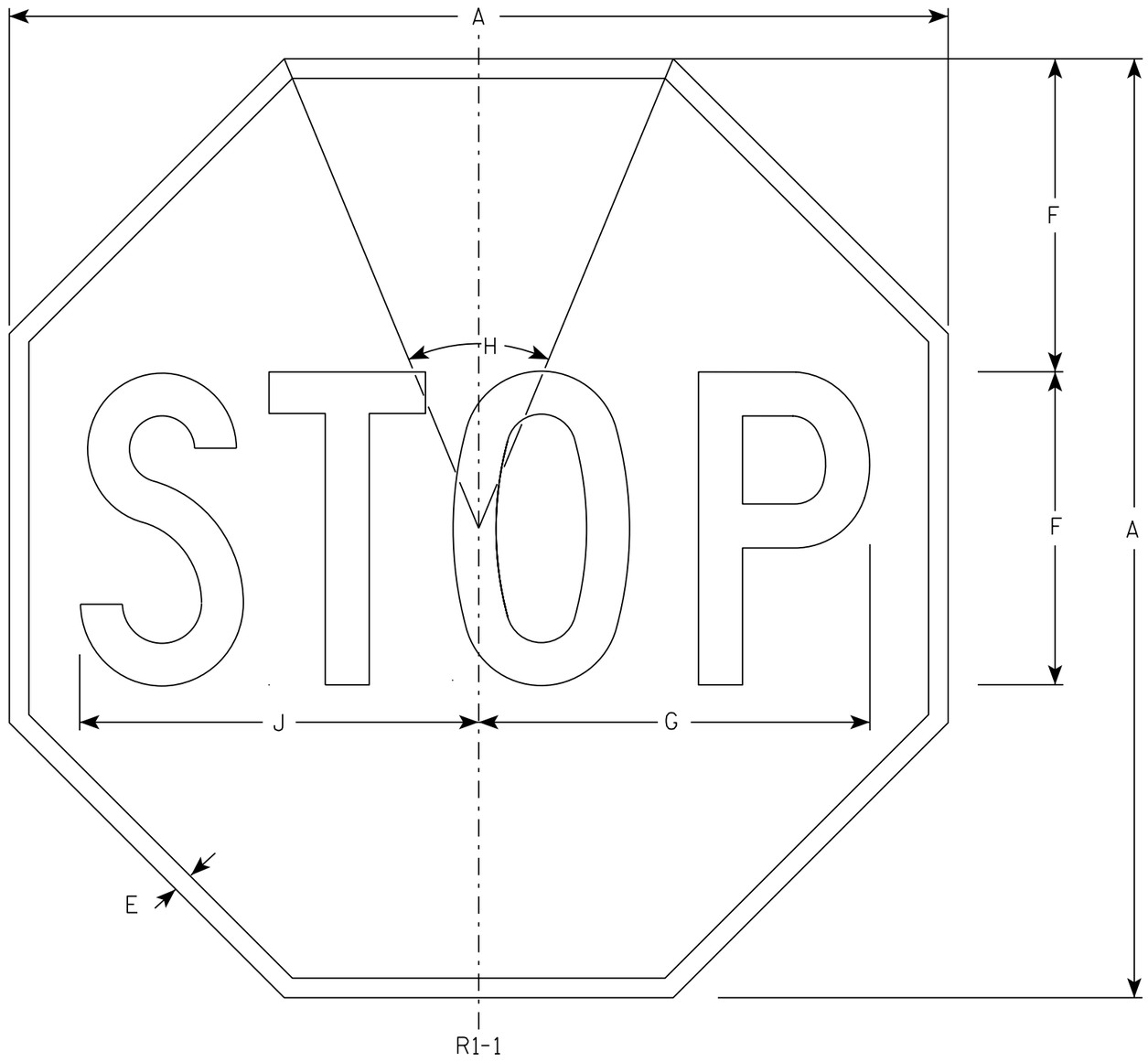
TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON MULTI USE PATHS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/2012 PLATE NO. A4-3S.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

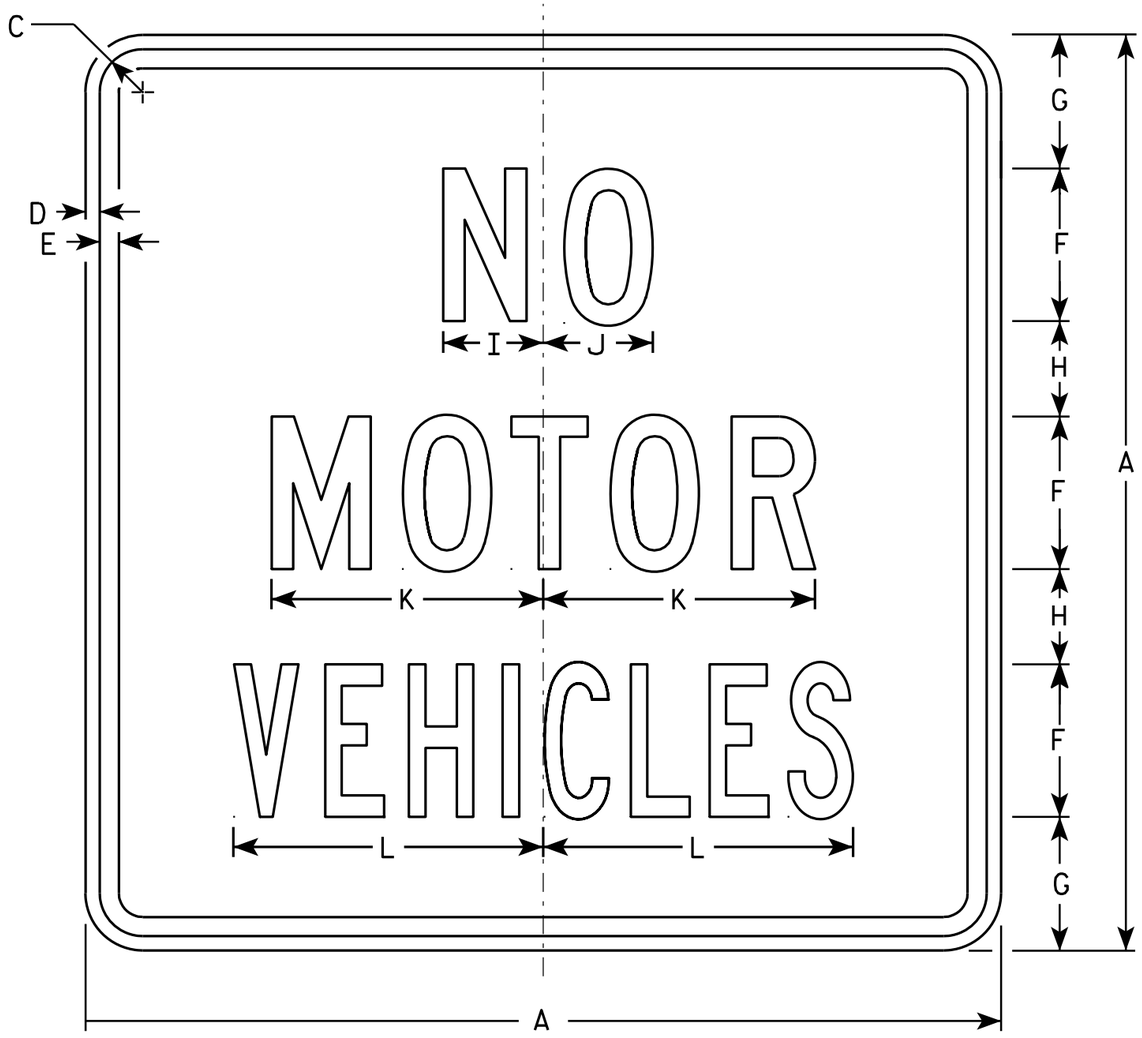
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R5-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 & 2 are Series C.
   Line 3 is Series B.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
3																											
4																											
5																											

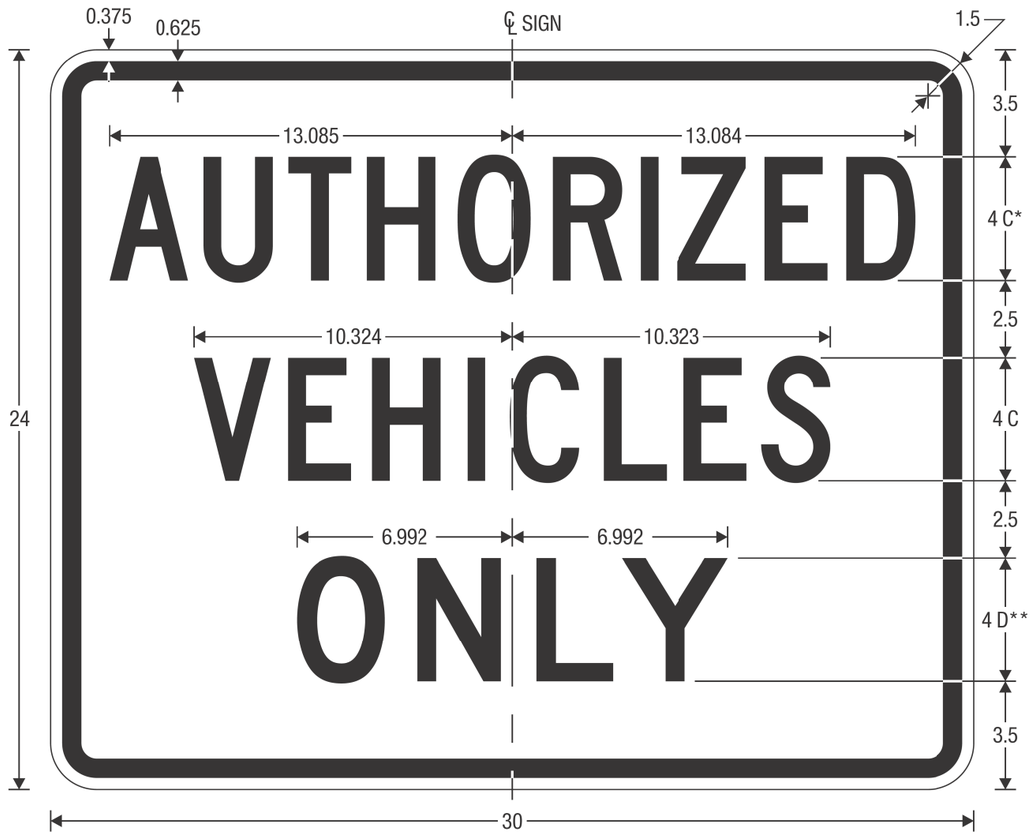
STANDARD SIGN
R5-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-3.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R5-11

AUTHORIZED VEHICLES ONLY

7

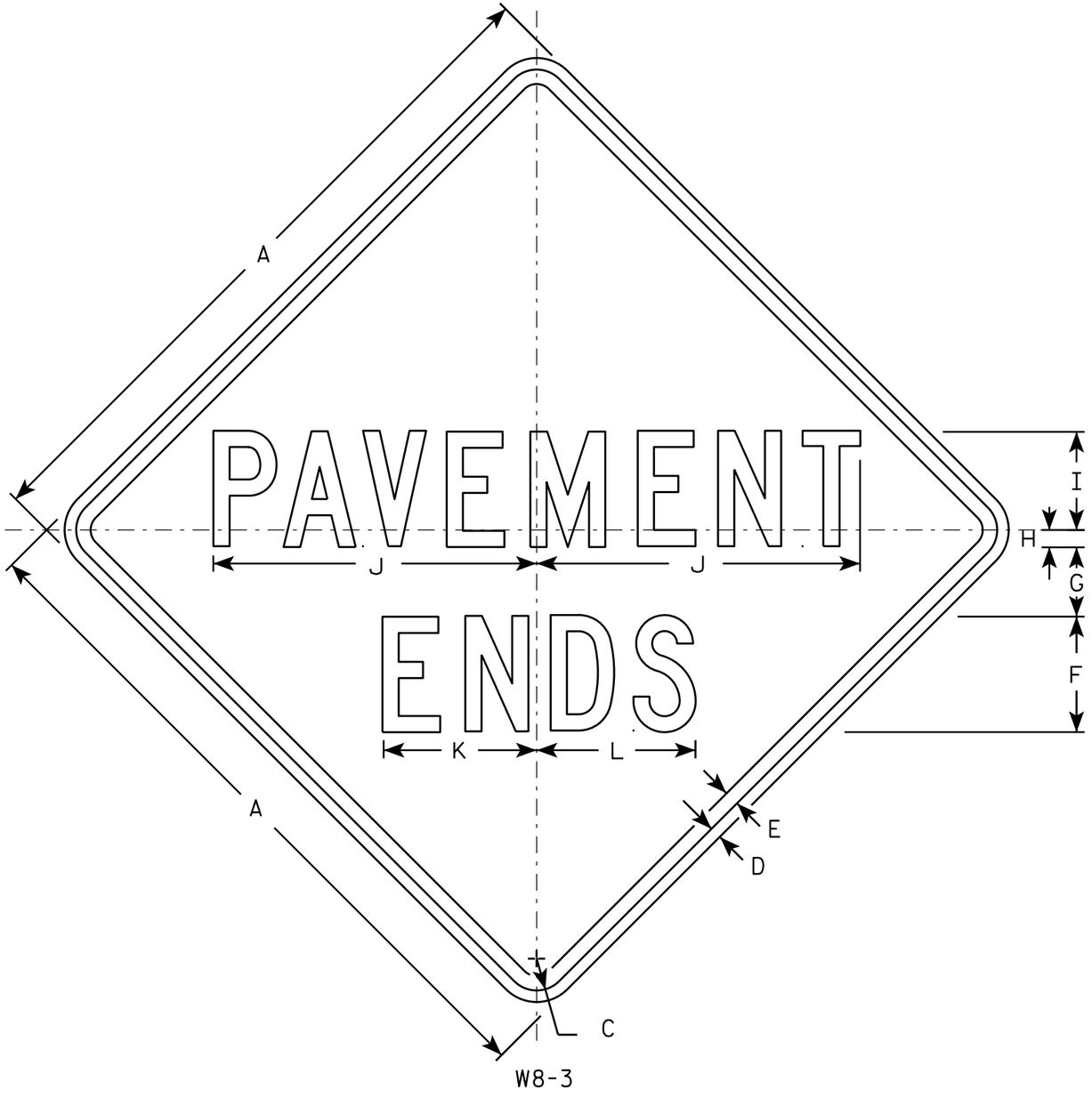
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* Reduce character spacing 10%.

** Increase character spacing 20%.

COLORS: LEGEND, BORDER — BLACK
BACKGROUND — WHITE (RETROREFLECTIVE)

PROJECT NO: 7224-00-72	HWY: GREAT RIVER STATE TRAIL	COUNTY: BUFFALO	SIGN R5-11	SHEET	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	3	3/4	4 1/4	14	6 5/8	6 7/8															6.25
2S	36		1 5/8	5/8	3/4	6	3 1/2	1	5	16 3/4	8	8 1/4															9.0
2M	36		1 5/8	5/8	3/4	6	3 1/2	1	5	16 3/4	8	8 1/4															9.0
3	36		1 5/8	5/8	3/4	6	3 1/2	1	5	16 3/4	8	8 1/4															9.0
4	36		1 5/8	5/8	3/4	6	3 1/2	1	5	16 3/4	8	8 1/4															9.0
5																											

STANDARD SIGN
W8-3

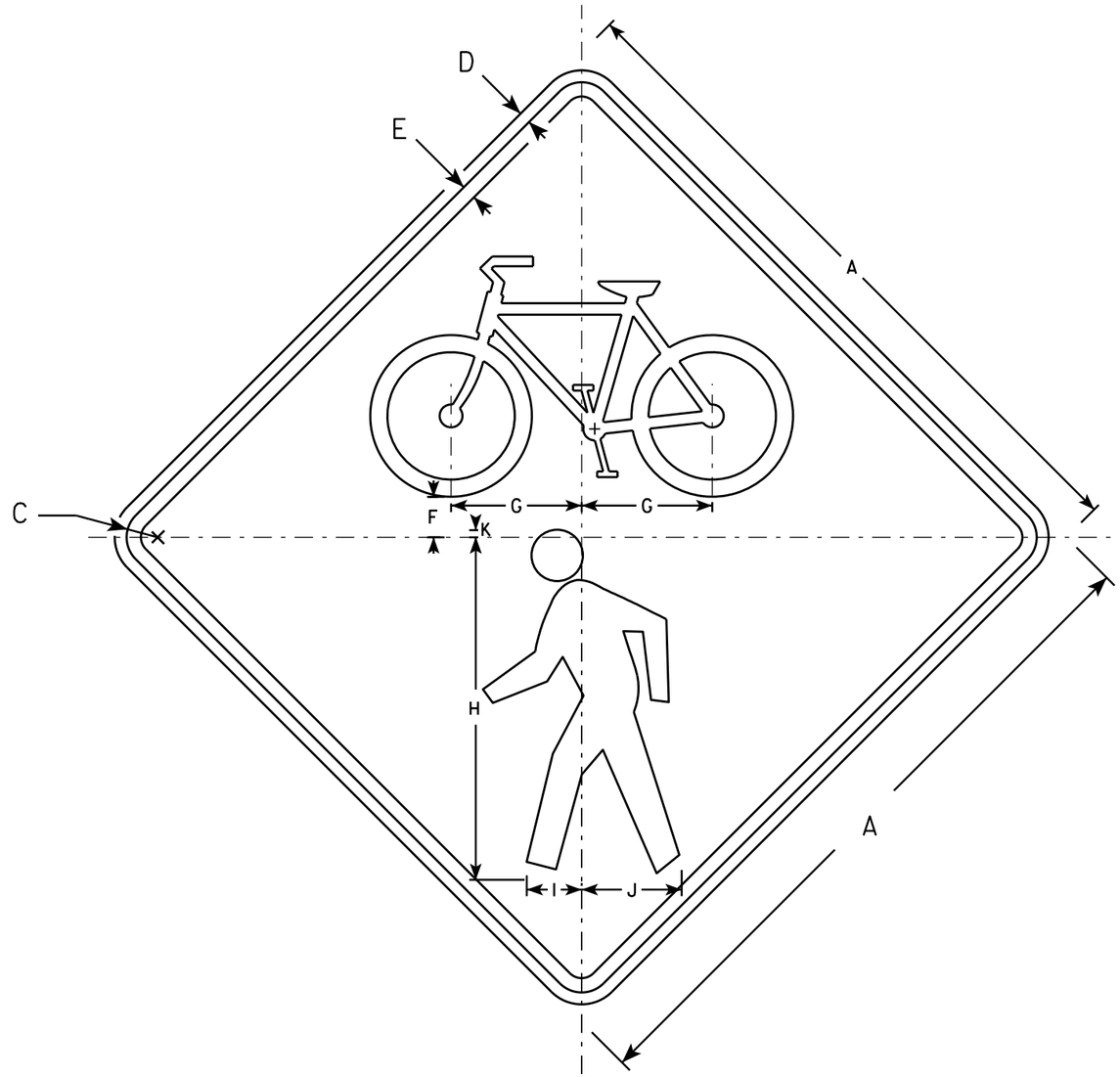
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/25/13 PLATE NO. W8-3.9

PROJECT NO:	HWY:	COUNTY:			SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W83.DGN PLOT DATE : 25-NOV-2013 15:27 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W11-15

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 3/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																16.0
4	48		2 1/4	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

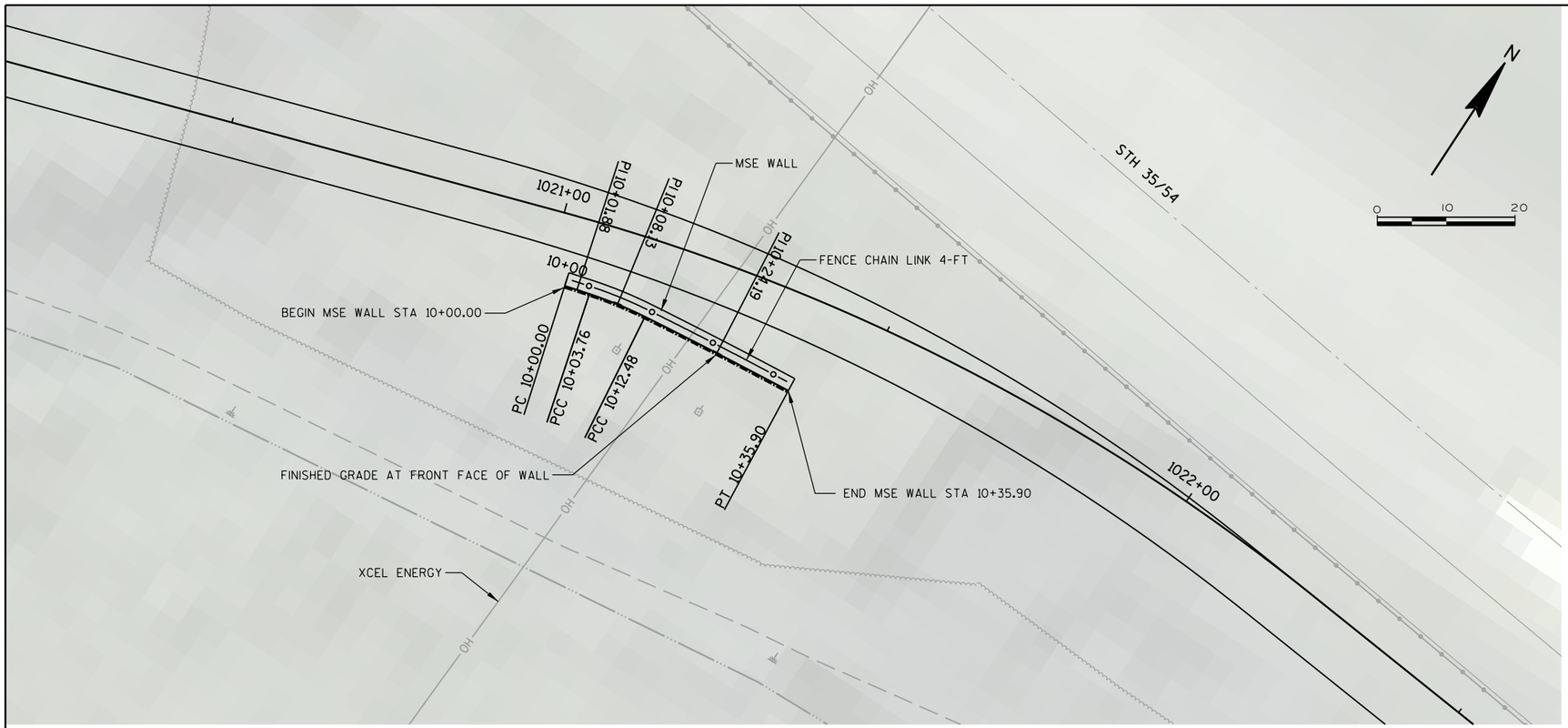
STANDARD SIGN
W11-15

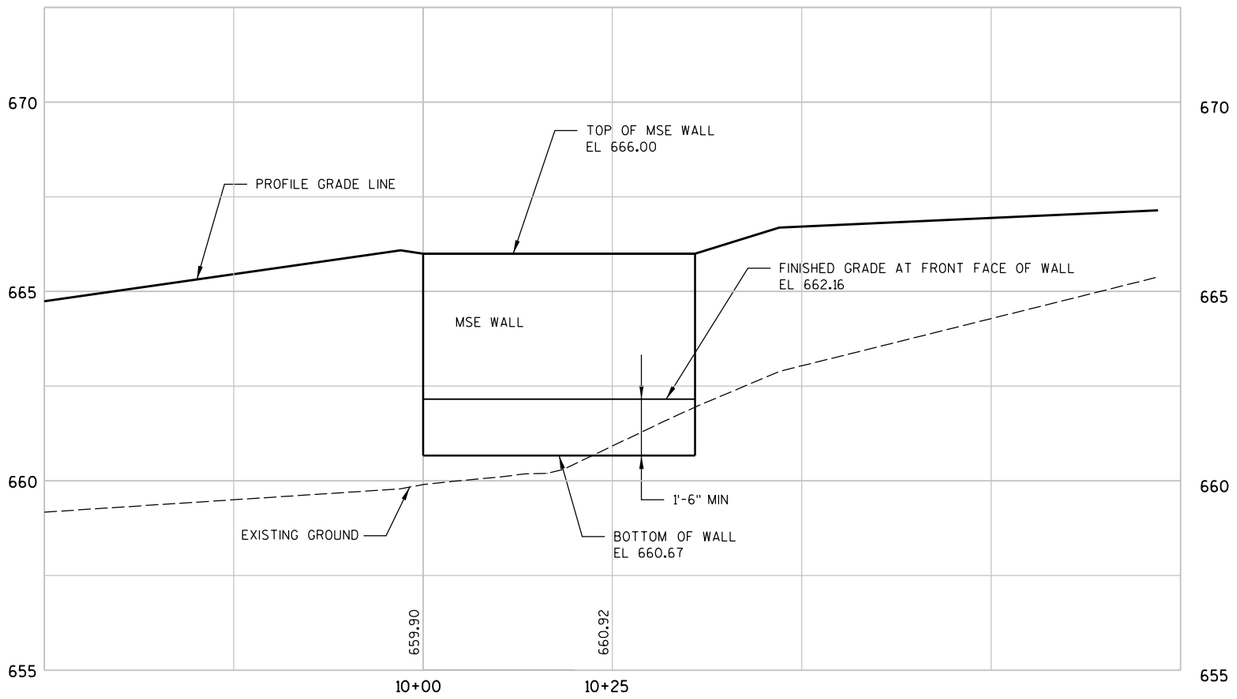
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/14 PLATE NO. W11-15.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E





STATE PROJECT NUMBER

7224-00-72

CURVE DATA	CURVE DATA	CURVE DATA
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L =3.76	L =8.72	L =23.42
E =.01	E =.15	E =.10
R =295.00	R =61.91	R =718.35
DB =N 74°15'53" E	DB =N 74°59'41" E	DB =N 83°04'09" E
DA =N 74°59'41" E	DA =N 83°04'09" E	DA =N 84°56'14" E
PC STA 10+00.00	PC STA 10+03.76	PC STA 10+12.48
PC Y =215103.698	PC Y =215104.694	PC Y =215106.353
PC X =620782.106	PC X =620785.730	PC X =620794.288
PI STA 10+01.88	PI STA 10+08.13	PI STA 10+24.19
PI Y =215104.208	PI Y =215105.826	PI Y =215107.766
PI X =620783.915	PI X =620789.950	PI X =620805.914
PT STA 10+03.76	PT STA 10+12.48	PT STA 10+35.90
PT Y =215104.694	PT Y =215106.353	PT Y =215108.800
PT X =620785.730	PT X =620794.288	PT X =620817.580

SEH CONTACT: CHRIS BLUM, PE, 608.826.6468

WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

NO.	DATE	REVISION	BY

SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

RETAINING WALL 10+00

MSE WALL 10+00.00 - 10+35.95

COUNTY	TOWN ~~/CITY/VILLAGE~~
BUFFALO	BUFFALO

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
HDF	WSW	SKW	HDF/WSW

SHEET 1 OF 3

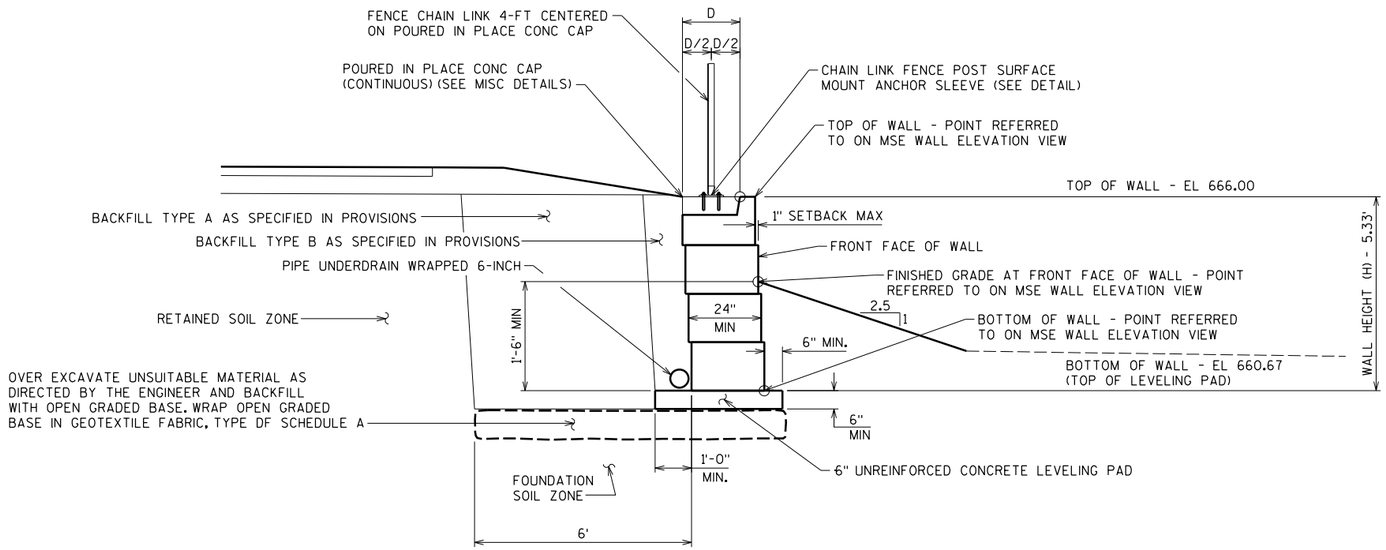
PLOT DATE: 3/7/2019 PLOT TIME: 4:47:01PM

FILE NAME : P:\AE\B\Buffc\070100\CAD\WALL01RW1.dgn

8

8

STATE PROJECT NUMBER
7224-00-72



TYPICAL SECTION

MSE WALL
STA 10+00.00 TO STA 10+35.90

DESIGN DATA

1. THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST FOR FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH".
2. PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTH, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.
3. THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATION GIVEN ON THE MSE WALL PLAN AND ELEVATION VIEW SHEET.
4. A LIVE LOAD SURCHARGE OF 100 PSF IS USED FOR DESIGN.

ALLOWABLE WALL SYSTEMS

1. WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH.
2. WALL FACING UNITS TO CONSIST OF PRECAST MODULAR CONCRETE BLOCKS PRODUCED BY A WETCAST PROCESS.

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL REQUIRED SUBMITTALS HAVE BEEN RECEIVED AND APPROVED PRIOR TO COMMENCING CONSTRUCTION.
2. MSE = MECHANICALLY STABILIZED EARTH.
3. OVER EXCAVATION IS INCIDENTAL TO WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP 10+00, ITEM SPV.0165.01.

SOIL PARAMETERS

STRATUM LOCATION & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL ZONE (SAND) *	115	32	0
RETAINED SOIL ZONE *	115	32	0

* DESIGN WALL FOR THESE VALUES

CAPACITY DEMAND RATIO (CDR)

MINIMUM DOT STANDARD	CALCULATED CDR (≥ 1.0 REQUIRED)
SLIDING	2.39
BEARING RESISTANCE	4.65
ECCENTRICITY	2.88
GLOBAL STABILITY	1.00

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBERS	BID ITEMS	UNIT	TOTALS
(1)	SPV.0165.01	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP 10+00	SF	192
(2)	310.0115	BASE AGGREGATE OPEN GRADED	CY	12
(2)	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	40
(2)	616.0204	FENCE CHAIN LINK 4-FT	LF	36
(2)	645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	45
(2)	SPV.0060.01	CHAIN LINK FENCE POST SURFACE MOUNT ANCHOR SLEEVE	EA	6

(1) QUANTITY IS EXPOSED HT OF WALL - THE GROUND LINE AT FRONT FACE OF WALL TO THE TOP OF THE WALL.

(2) ADDITIONAL QUANTITY SHOWN ELSEWHERE IN THE PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

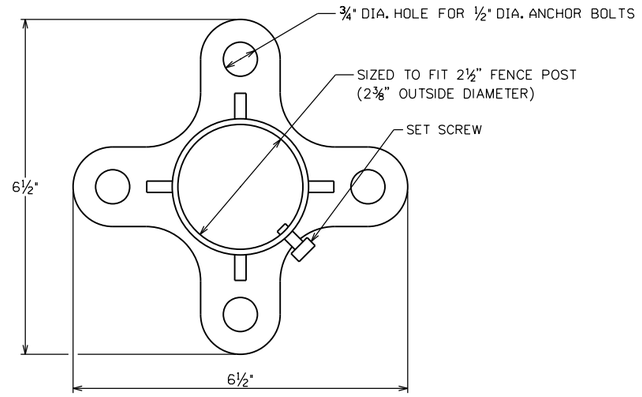
RETAINING WALL 10+00

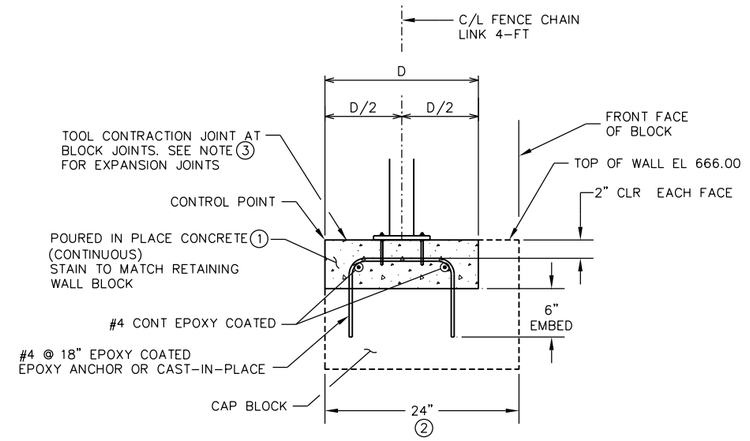
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SHEET 2 OF 3

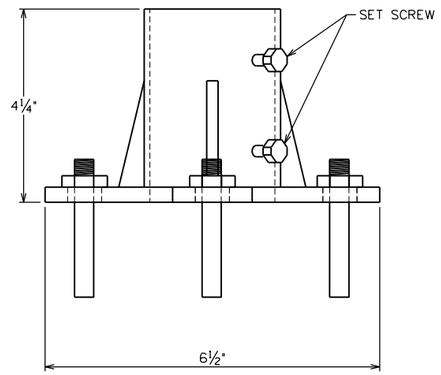
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FILE= SCALE =

8 8





STA 10+00.00 – STA 10+35.90



CHAIN LINK FENCE POST SURFACE MOUNT ANCHOR SLEEVE DETAIL
NOT TO SCALE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

RETAINING WALL 10+00

DRAWN BY SKW | PLANS CK'D. HDF/WSW

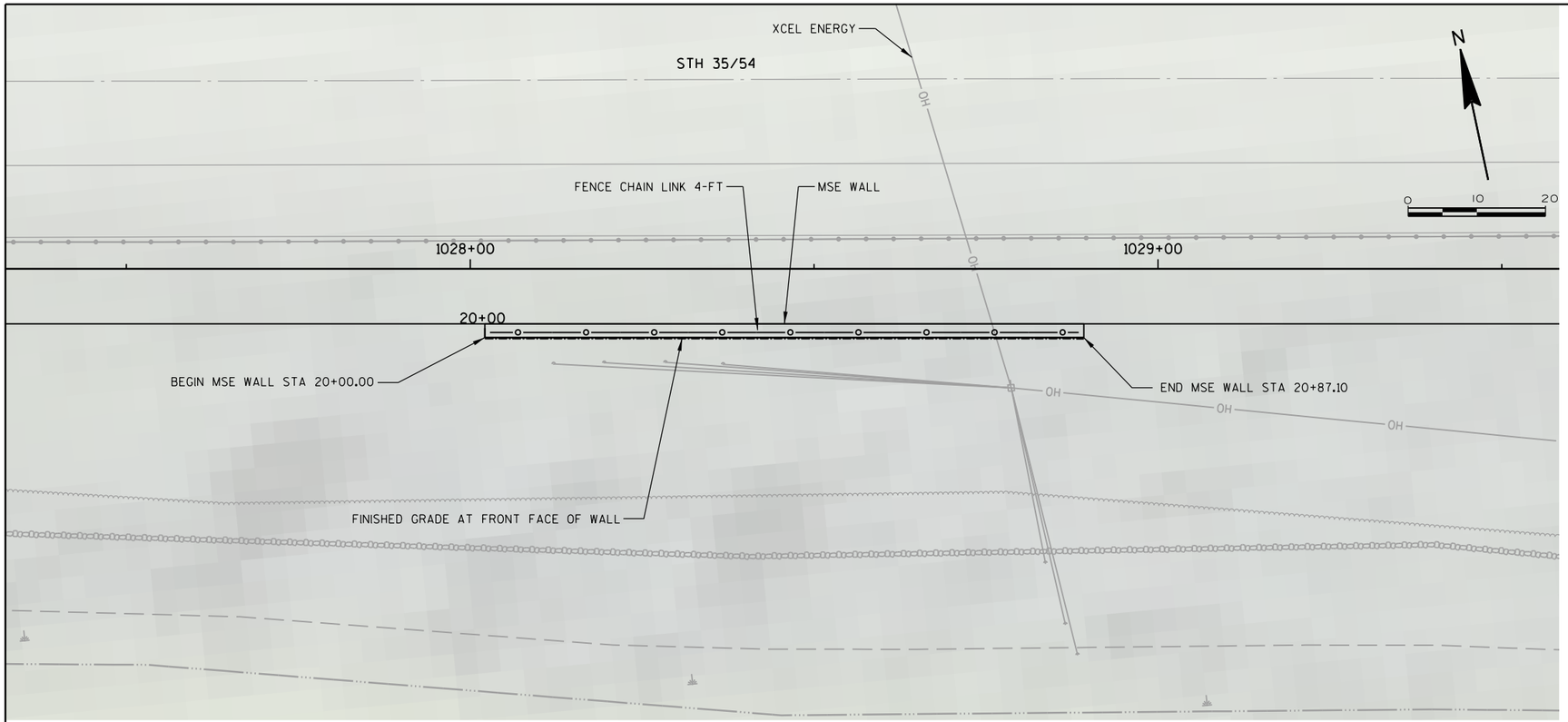
SHEET 3 OF 3

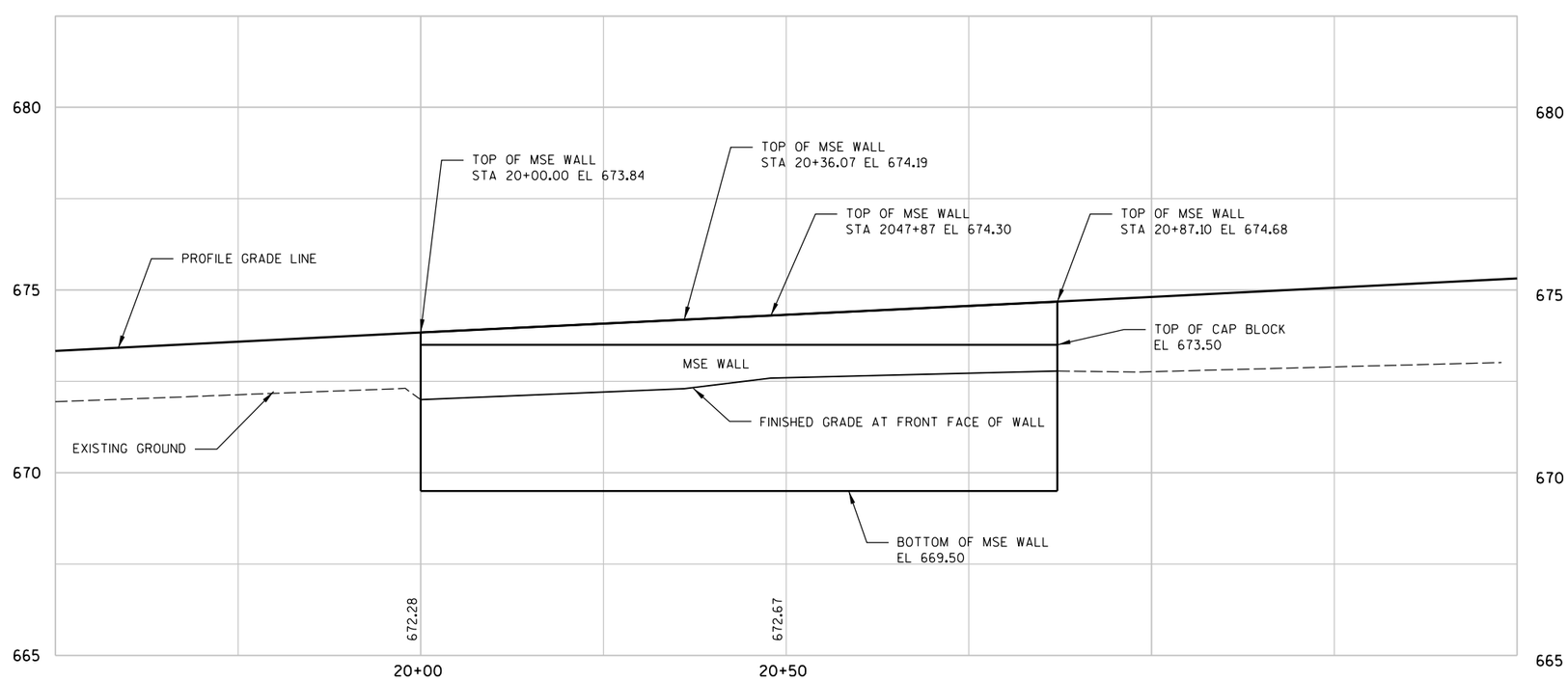
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FILE NAME : P:\AE\B\Buffs\070100\CAD\WALL01RW3.dgn
FILE=
SCALE =

STATE PROJECT NUMBER
7224-00-72





NO.	DATE	REVISION	BY

SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER — DATE

RETAINING WALL 20+00

MSE WALL 20+00.00 - 20+87.10

COUNTY	TOWN ~~CITY/VILLAGE~~
BUFFALO	BUFFALO

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
HDF	WSW	SKW	HDF/WSW

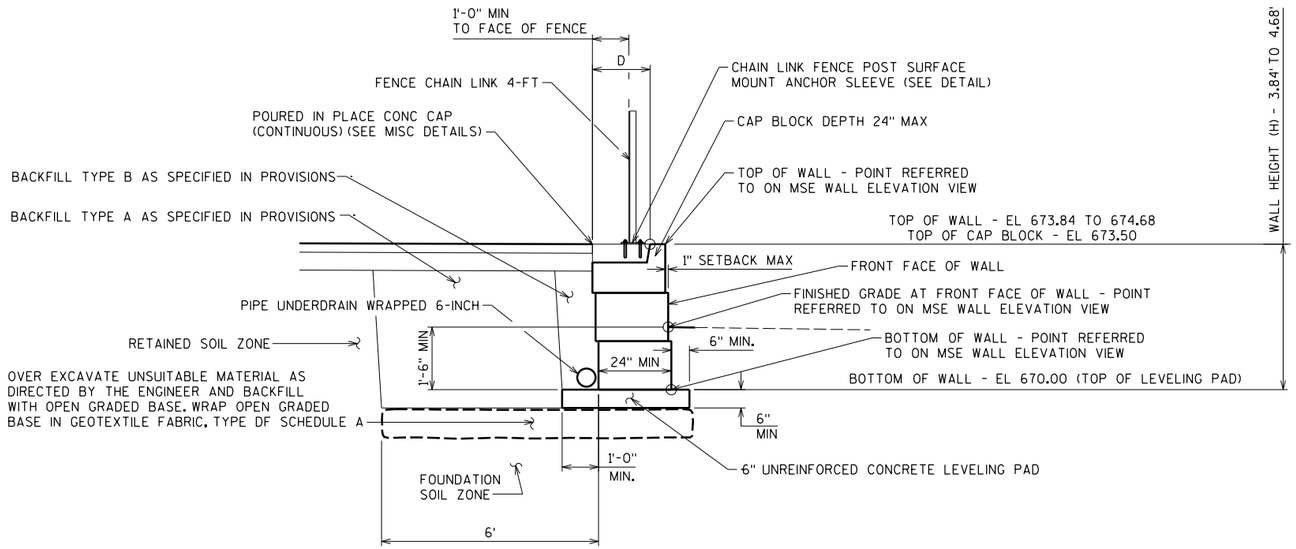
SHEET 1 OF 3

SEH CONTACT: CHRIS BLUM, PE, 608.826.6468
WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

PLOT TIME: 4:45:35 PM
PLOT DATE: 3/7/2019
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8

8



TYPICAL SECTION

MSE WALL
STA 20+00.00 TO STA 20+87.16

DESIGN DATA

1. THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST FOR FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH".
2. PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTH, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.
3. THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATION GIVEN ON THE MSE WALL PLAN AND ELEVATION VIEW SHEET.
4. A LIVE LOAD SURCHARGE OF 100 PSF IS USED FOR DESIGN.

ALLOWABLE WALL SYSTEMS

1. WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH.
2. WALL FACING UNITS TO CONSIST OF PRECAST MODULAR CONCRETE BLOCKS PRODUCED BY A WETCAST PROCESS.

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL REQUIRED SUBMITTALS HAVE BEEN RECEIVED AND APPROVED PRIOR TO COMMENCING CONSTRUCTION.
2. MSE = MECHANICALLY STABILIZED EARTH.
3. OVER EXCAVATION IS INCIDENTAL TO WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP 20+00, ITEM SPV.0165.02.

SOIL PARAMETERS

STRATUM LOCATION & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL ZONE (SAND) *	115	32	0
RETAINED SOIL ZONE *	115	32	0

* DESIGN WALL FOR THESE VALUES

CAPACITY DEMAND RATIO (CDR)

MINIMUM DOT STANDARD	CALCULATED CDR (≥ 1.0 REQUIRED)
SLIDING	2.93
BEARING RESISTANCE	7.29
ECCENTRICITY	3.84
GLOBAL STABILITY	1.00

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBERS	BID ITEMS	UNIT	TOTALS
(1)	SPV.0165.02	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP 20+00	SF	415
(2)	310.0115	BASE AGGREGATE OPEN GRADED	CY	28
(2)	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90
(2)	616.0204	FENCE CHAIN LINK 4-FT	LF	87
(2)	645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	105
(2)	SPV.0060.01	CHAIN LINK FENCE POST SURFACE MOUNT ANCHOR SLEEVE	EA	12

(1) QUANTITY IS EXPOSED HT OF WALL - THE GROUND LINE AT FRONT FACE OF WALL TO THE TOP OF THE WALL.

(2) ADDITIONAL QUANTITY SHOWN ELSEWHERE IN THE PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

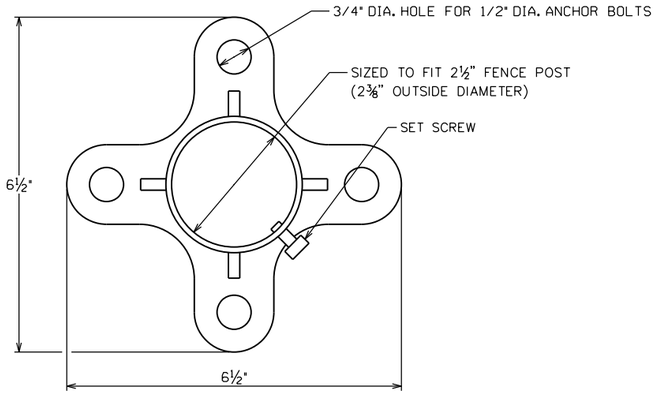
RETAINING WALL 20+00

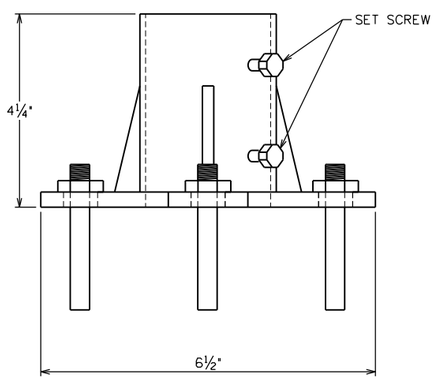
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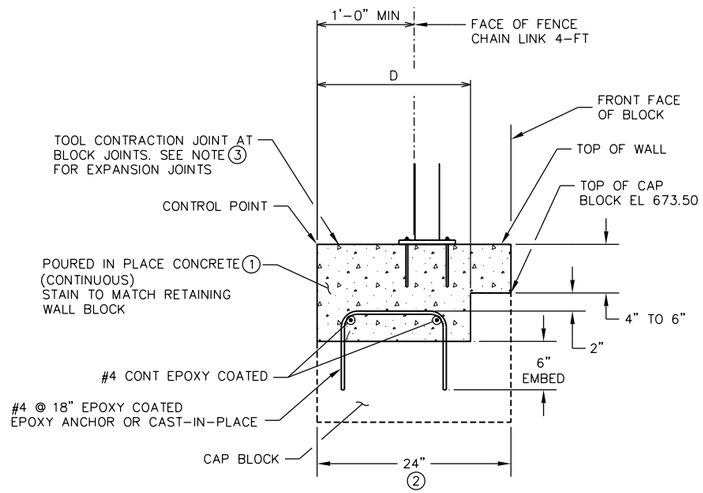
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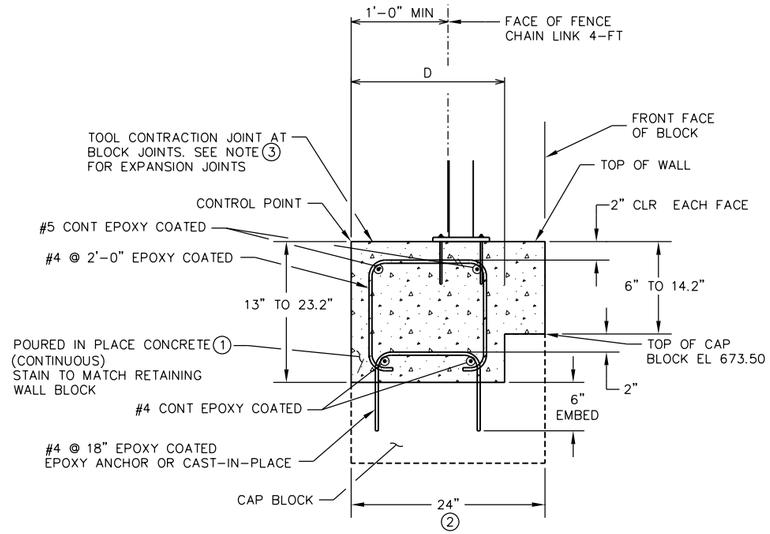




CHAIN LINK FENCE POST SURFACE MOUNT ANCHOR SLEEVE DETAIL
NOT TO SCALE



STA 20+00.00 – STA 20+16.50



STA 20+16.50 – STA 20+87.10

CONCRETE CAP DETAILS
NOT TO SCALE

NOTES:

(1) REINFORCEMENT SHALL BE EPOXY COATED.

(2) VERIFY WITH BLOCK MANUFACTURER FOR RETAINING WALL UNIT DIMENSIONS.

(3) PROVIDE EXPANSION JOINTS AT 30' MAX INTERVALS. DO NOT RUN BARS THROUGH EXPANSION JOINTS. USE ¾" JOINT FILLER AND SEAL ALL JOINTS WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW FINISHED CONCRETE SURFACE).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

RETAINING WALL 20+00

DRAWN BY SKW | PLANS CK'D. HDF/WSW

SHEET 3 OF 3

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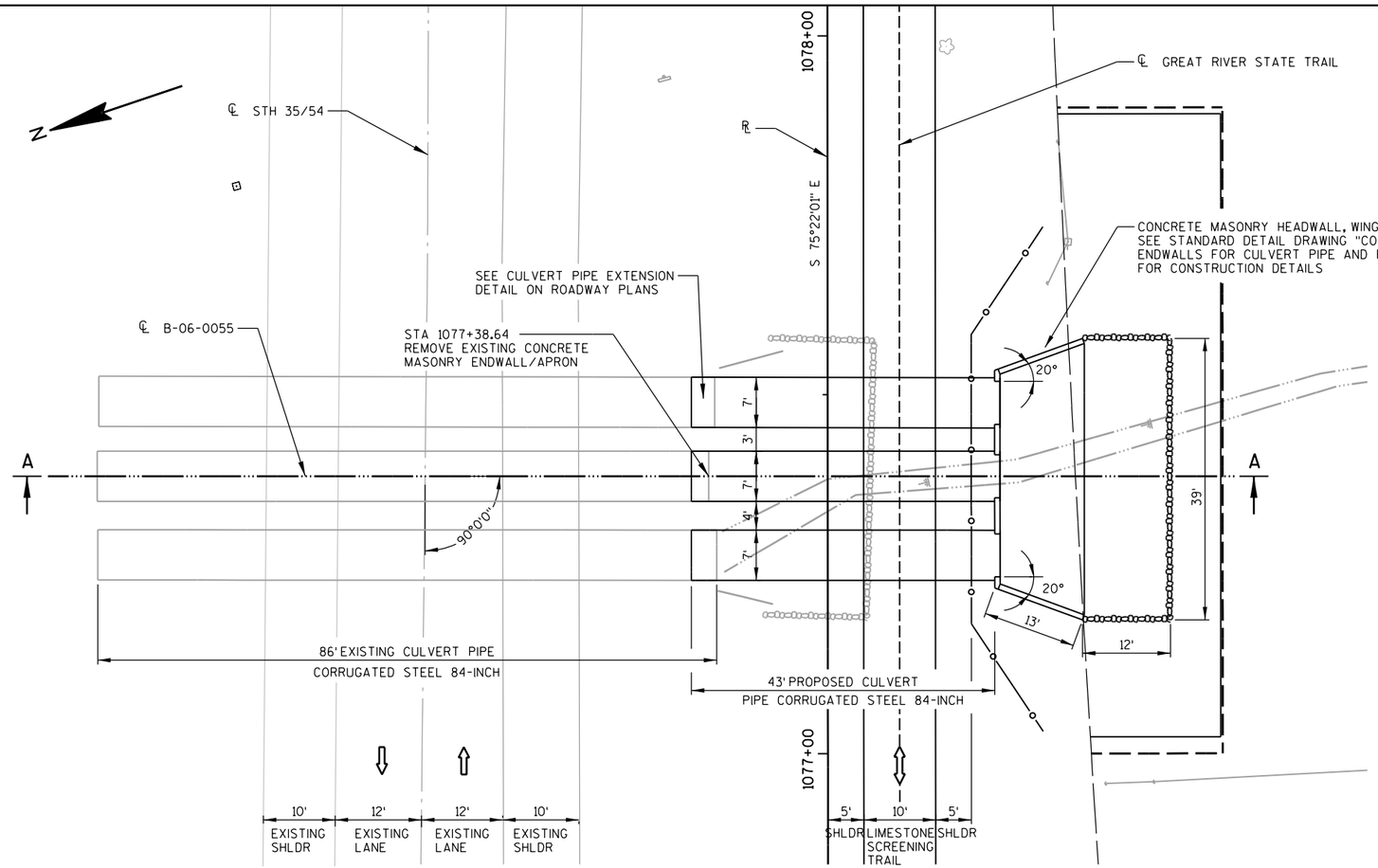
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STATE PROJECT NUMBER
7224-00-72



PLAN

(THREE CELL 84-INCH CORRUGATED STEEL CULVERT PIPE WITH CONCRETE MASONRY ENDWALL - LOOKING EAST)

GENERAL NOTES

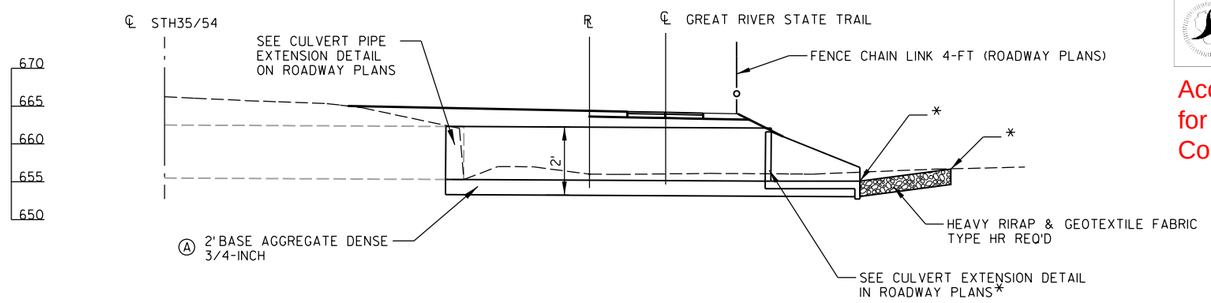
DRAWING SHALL NOT BE SCALED.

SEE ROADWAY DRAWINGS FOR EXISTING UTILITY LOCATIONS.

Ⓐ QUANTITY FOR BASE AGGREGATE DENSE 3/4-INCH IN THE "ESTIMATE OF QUANTITIES B-06-0055" IS FOR THE PORTION UNDER THE PIPES AND APRON. SEE ROADWAY PLANS FOR ADDITIONAL QUANTITIES, COMMON EXCAVATION AND BACKFILL INFORMATION.

TOTAL ESTIMATED QUANTITIES - B-06-055

BID ITEM NUMBERS	BID ITEMS	UNIT	TOTALS
204.9105.01	REMOVING CONCRETE MASONRY ENDWALL	LS	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	1015
305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	345
504.0900	CONCRETE MASONRY ENDWALLS	CY	26
521.3184	CULVERT PIPE CORRUGATED STEEL 84-INCH	LF	130
606.0300	RIPRAP HEAVY	CY	35
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	80



SOUTH INLET

SECTION A-A

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

Accepted by BOS for Locally Let Contract.
SDR 02/18/19

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEV
6	1068+90.1 174.5' LT	SET 3/8" SPK IN POWER POLE	684.979

NO.	DATE	REVISION	BY

SEH
SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-06-0055

7' DIA X 84' LONG STEEL CULVERT (3 PIPES)
HEADWALLS, WINGWALLS AND APRONS UNDER STH 35/54

COUNTY	TOWN/~~CITY/VILLAGE~~
BUFFALO	BUFFALO

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
TLK		AMJ	TLK

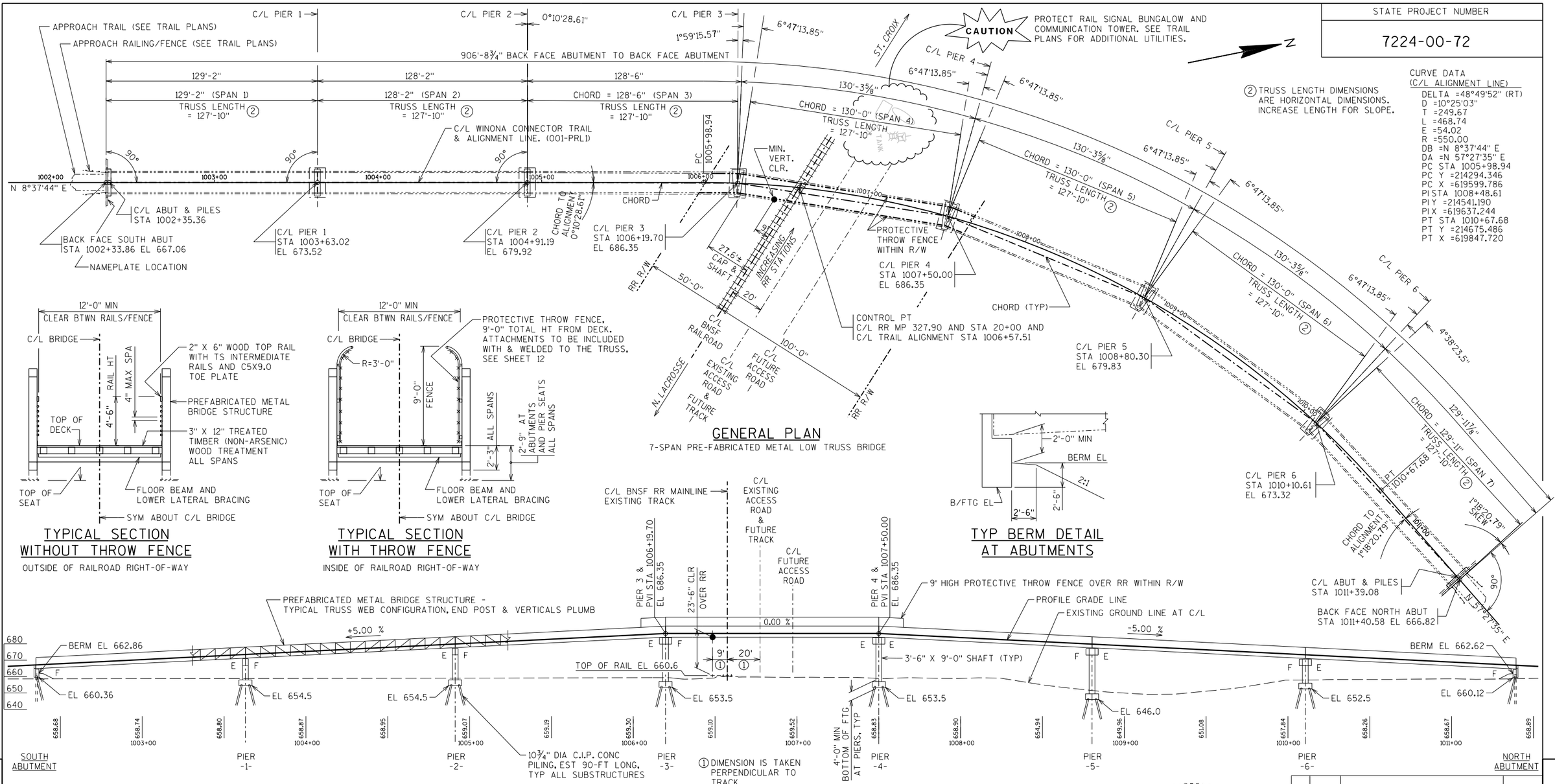
GENERAL PLAN

SHEET 1 OF 1

SEH CONTACT: TARA KRISTA 715.720.6291
WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

8

STATE PROJECT NUMBER
7224-00-72



GENERAL PLAN

7-SPAN PRE-FABRICATED METAL LOW TRUSS BRIDGE

TYPICAL SECTION WITHOUT THROW FENCE

OUTSIDE OF RAILROAD RIGHT-OF-WAY

TYPICAL SECTION WITH THROW FENCE

INSIDE OF RAILROAD RIGHT-OF-WAY

ELEVATION

TYP BERM DETAIL AT ABUTMENTS

ESTIMATED TRUSS REACTIONS USED FOR SUBSTRUCTURE DESIGN

BRIDGE REACTIONS		+ DOWNWARD LOAD - UPWARD LOAD	
	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD	17,050		
UNIFORM LIVE LOAD	35,100		
VEHICLE LOAD	10,000		
WIND UPLIFT 20 PSF WINDWARD	-12,675		
WIND UPLIFT 20 PSF LEEWARD	-4,225		
WIND	±9,630	21,045	
THERMAL			2,560

"P" - VERTICAL LOAD EACH BASE PLATE (4 PER BRIDGE)
"H" - HORIZONTAL LOAD EACH FOOTING (2 PER BRIDGE)
"L" - LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE)

DESIGN DATA

2014 AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES.

LIVE LOAD:

LIVE LOAD ON TRAIL BRIDGE = GREATER OF:
90 PSF PER AASHTO
OR H-10 MAINTENANCE (20,000 LB) VEHICLE WITHOUT IMPACT

INVENTORY RATING = NOT APPLICABLE
OPERATING RATING = NOT APPLICABLE

MATERIAL PROPERTIES:

CONCRETE MASONRY _____ f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT AASHTO GRADE 60 (UNCOATED) _____ fy = 60,000 psi

STRUCTURAL STEEL:

STEEL TRUSS & ATTACHMENTS WELDED TO TRUSS (WEATHERING STEEL, UNPAINTED) _____ fy = 50,000 psi
RAILING (WEATHERING STEEL, UNPAINTED) _____ fy = 50,000 psi

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 10¾" X 0.25-INCH CAST-IN-PLACE CONCRETE PILES WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 90-FT LONG.

PIERS TO BE SUPPORTED ON 10¾" X 0.25-INCH CAST-IN-PLACE CONCRETE PILES WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 90-FT LONG.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

LIST OF DRAWINGS

1 ..... GENERAL PLAN
2 ..... PROFILE GRADE, QUANTITIES & NOTES
3 ..... SUBSURFACE EXPLORATION
4 ..... SUBSURFACE EXPLORATION (CONT)
5 ..... NORTH & SOUTH ABUTMENT DETAILS
6 ..... NORTH & SOUTH ABUTMENT DETAILS
7 ..... PIER DETAILS
8 ..... PIER DETAILS
9 ..... PIER DETAILS
10 ..... PIER DETAILS
11 ..... PIER DETAILS
12 ..... PROTECTIVE THROW FENCE CONCEPT DETAILS

WISCONSIN PROFESSIONAL ENGINEER
JEFFREY A. JOHNSON
E-23938
CHIPPEWA FALLS, WI
1/9/2019

SEH CONTACT: JEFF JOHNSON, PE, 651-490-2078
WISDOT BRIDGE OFFICE CONTACT: BILL DRECHER, PE, 608.266.8489

SEH
SHORT ELLIOTT HENDRICKSON INC.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Drecher SDR 02/18/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-6-500

GREAT RIVER STATE TRAIL WINONA CONNECTOR
OVER BNSF RAILROAD MP 327.90 ST CROIX SUB

COUNTY	TOWN ~~CITY/VILLAGE~~
BUFFALO	BUFFALO

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPEC.

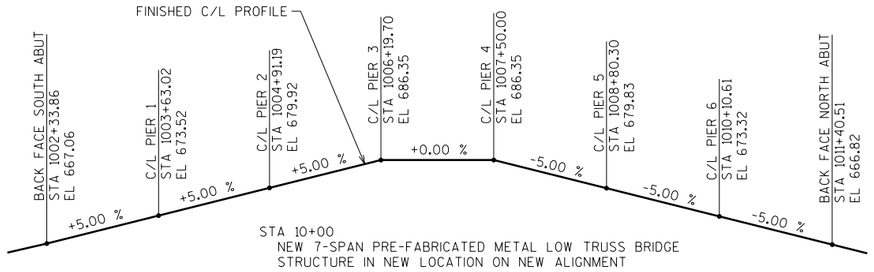
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JAJ	NCK	DLF	JAJ/NCK

GENERAL PLAN

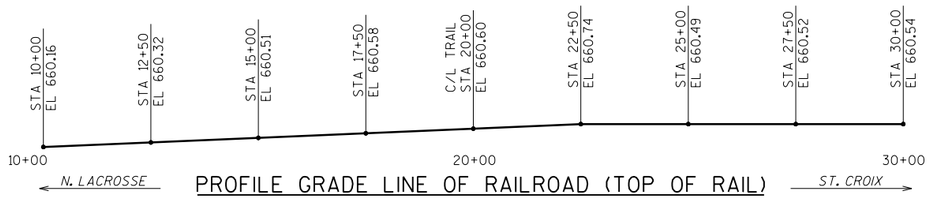
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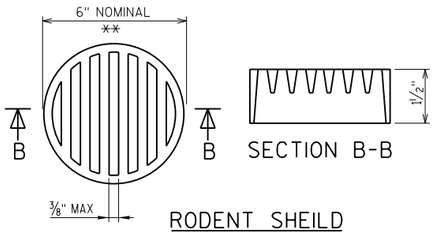
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PROFILE GRADE LINE OF THE TRAIL



PROFILE GRADE LINE OF RAILROAD (TOP OF RAIL)



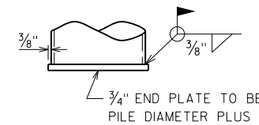
SECTION B-B

RODENT SHEILD

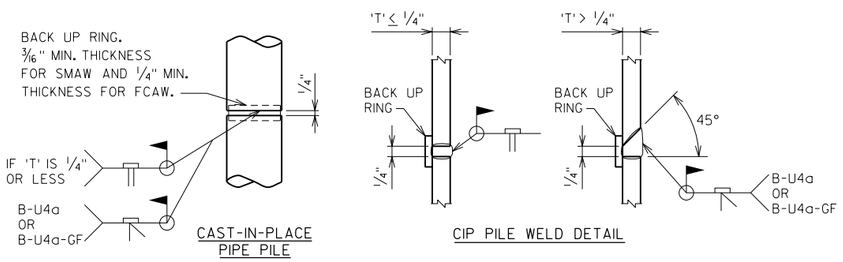
** DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

RODENT SHIELD, PIPE COUPLING, AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMLAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



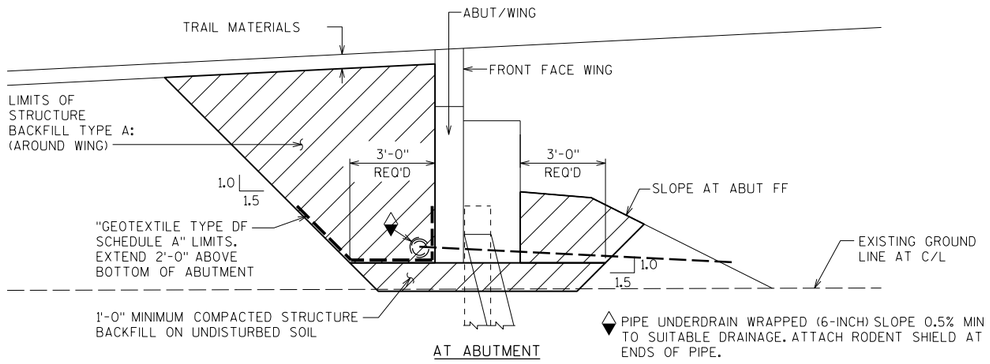
END PLATE DETAIL FOR CIP PILING



CAST-IN-PLACE PIPE PILE

CIP PILE WELD DETAIL

PILE SPLICE DETAIL



AT ABUTMENT

BACKFILL STRUCTURE LIMITS

A FACTOR OF 2.0 WAS USED TO CONVERT CU YDS TO TONS

TOTAL ESTIMATED QUANTITIES - B-6-500

	BID ITEM NUMBER	BID ITEMS	UNIT	SOUTH ABUT	NORTH ABUT	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	TOTALS
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-6-500	LS	-	-	-	-	-	-	-	-	1
(1)	210.1500	BACKFILL STRUCTURE TYPE A	TON	70	70	-	-	-	-	-	-	140
	502.0100	CONCRETE MASONRY BRIDGES	CY	11.5	11.5	38.9	46.4	59.2	59.2	60.4	45.2	332
	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1840	1840	6358	7520	9627	9627	9805	7479	54,095
◐	506.8005.S	PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-6-500	LS	-	-	-	-	-	-	-	-	1
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5	5	-	-	-	-	-	-	10
	550.2104	PILING CIP CONCRETE 10 3/4 X 0.25-INCH	LF	360	360	720	720	720	720	720	720	5040
(2)	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	60	60	-	-	-	-	-	-	120
	645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	22	22	-	-	-	-	-	-	44
(3)	SPV.0090	PROTECTIVE THROW FENCE	LF	-	-	-	-	-	-	-	-	334
		NON-BID ITEMS										
	FILLER		SIZE	-	-	-	-	-	-	-	-	½ , ¾ , 1"
	NAMEPLATE		EACH	-	-	-	-	-	-	-	-	1
	BENCHMARK		EACH	-	-	-	-	-	-	-	-	1

(1) A FACTOR OF 2.0 WAS USED TO CONVERT CU YDS TO TONS. COMPACTED BACKFILL WAS USED BELOW ABUTMENT FOOTINGS FOR STABILIZATION.

(2) INCLUDES RODENT SHIELD FOR PIPE UNDERDRAIN PER SDD 8F6-4.

(3) INCLUDES FENCE FABRIC AND ALL COMPONENTS AND INSTALLATION.

BENCHMARK (DATUM = NAVD 88)

NO	STATION	DESCRIPTION	ELEV
1	1000+55.38 20'LT	SET 3/8 SPK IN POWER POLE	659.685
2	1008+41.2 87.8'LT	SET 3/8 SPK IN POWER POLE	658.083

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THIS BRIDGE IS A NEW BRIDGE IN A NEW LOCATION.

CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH WISDOT "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" SECTION 501.

SEE TRAIL PLANS FOR EXISTING & PROPOSED UTILITY LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES. ALL UTILITIES TO REMAIN IN SERVICE. COORDINATE WITH UTILITY COMPANIES.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE 1, 2, OR 3 OR AASHTO DESIGNATION M213.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-6-500 SHALL BE THE EXISTING GROUNDLINE.

EXCAVATION BELOW THE ABUTMENTS AND ABUTMENTS BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT

STRUCTURE BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH COMPACTED FILL AND TOPSOIL TO THE EXTENT SHOWN IN THE TRAIL PLANS, SEE TRAIL PLANS FOR FINISHED GRADING, MATERIALS AND QUANTITIES.

ALL APPROACH TRAIL ITEMS, BACKFILL, BACKFILL QUANTITIES AND BACKFILL REQUIREMENTS ARE CONSIDERED ROADWAY ITEMS. COORDINATE WITH THE TRAIL PLANS AND THESE STURCTURE PLANS.

WOOD DECKING SHALL BE NOMINAL 3" X 12" DOUGLAS FIR-LARCH (DFL) OR SOUTHERN YELLOW PINE (SYP) SELECT STRUCTURAL S1S2E TREATED WITH ALKALINE COPPER QUATERNARY (ACQ) TO AN 0.40 PCF RETENTION. DECK PLANK SHALL BE PLACED ROUGH SIDE UP AND SECURED WITH A MINIMUM OF TWO FASTENERS AT EACH STRINGER.

◐ "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE STRUCTURE B-6-500"

SEE SPECIAL PROVISIONS.

PRE-FABRICATED STEEL TRUSS INCLUDES:
DESIGN, FURNISHING AND INSTALLING THE BRIDGE TRUSSES, THE BEARINGS, THE RAILING IN SPANS 1-3 & 5-7, THE WELDED ATTACHMENTS FOR SUPPORTING THE CHAIN LINK FENCE IN SPANS 3, 4, & 5. WOOD DECKING, THE GALVANIZED JOINT COVER PLATES AND ANCHOR BOLTS, NUTS & WASHERS PER TRUSS MANUFACTURER. TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR DETERMINING ANCHOR BOLT SIZE AND LOCATION.

TRUSS, RAILING & WELDED ATTACHMENTS TO BE WEATHERING STEEL, UNCOATED.

BRIDGE TRUSS GROUNDING SYSTEM IS INCLUDED IN THIS ITEM, COORDINATE WITH CONTRACTOR.

TRUSS SPANS 1-3 AND 5-7 SHALL HAVE NO DL CAMBER. SPAN 4 SHALL HAVE 6" TO 12" OF DL CAMBER.

TRUSS STRINGERS AND DECK TO CANTILEVER PAST FLOOR BEAM TO DECK JOINT AT C/L OF PIER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

PROFILE GRADE, QUANTITIES & NOTES

SHEET 2 OF 12

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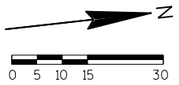
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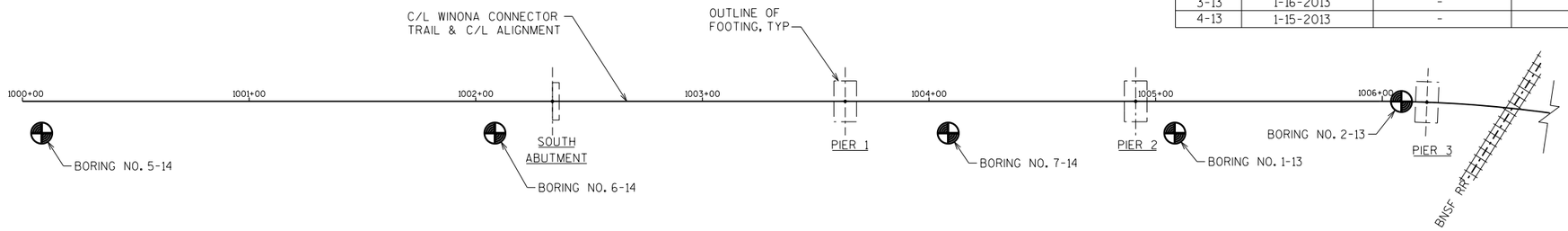
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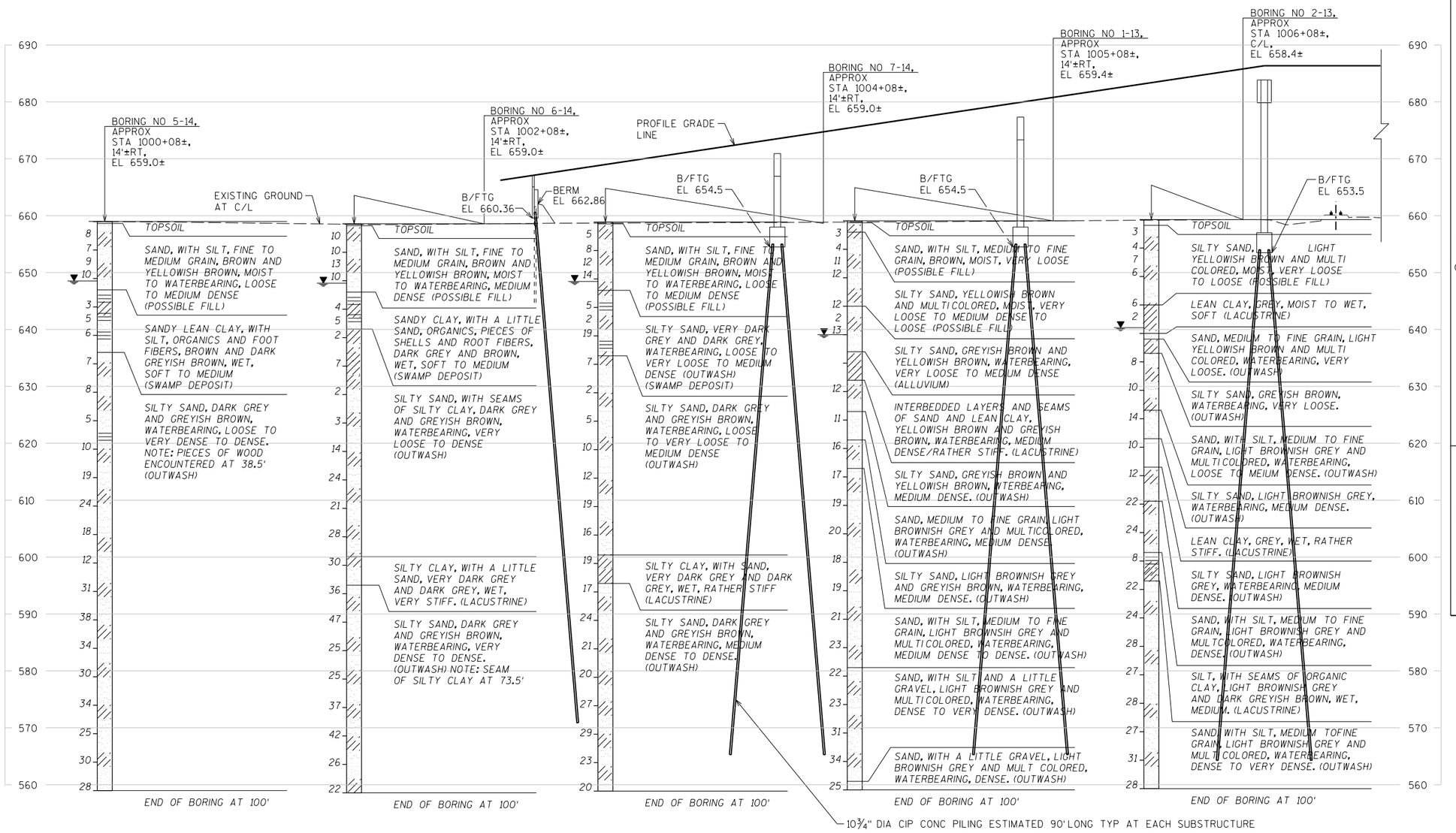
SOIL BORINGS PERFORMED BY:
RVT RIVER VALLEY TESTING CORP.
1060 BREEZEWOOD LANE, SUITE 102
NEENAH, WI 54956,
PH: 920-886-1406, FAX: 920-886-1409

REPORT BY:
MATTHEW A MEYER, P.E.
STAFF GEOTECHNICAL ENGINEER

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
5-14	4-10-2014	-	-
6-14	4-9-2014	-	-
7-14	4-8-2014	-	-
8-14	6-25-2014	-	-
9-14	6-19-2014	-	-
1-13	1-24-2013	-	-
2-13	1-18-2013	-	-
3-13	1-16-2013	-	-
4-13	1-15-2013	-	-







STATE PROJECT NUMBER

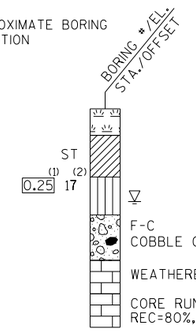
7224-00-72

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING

= APPROXIMATE BORING LOCATION



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

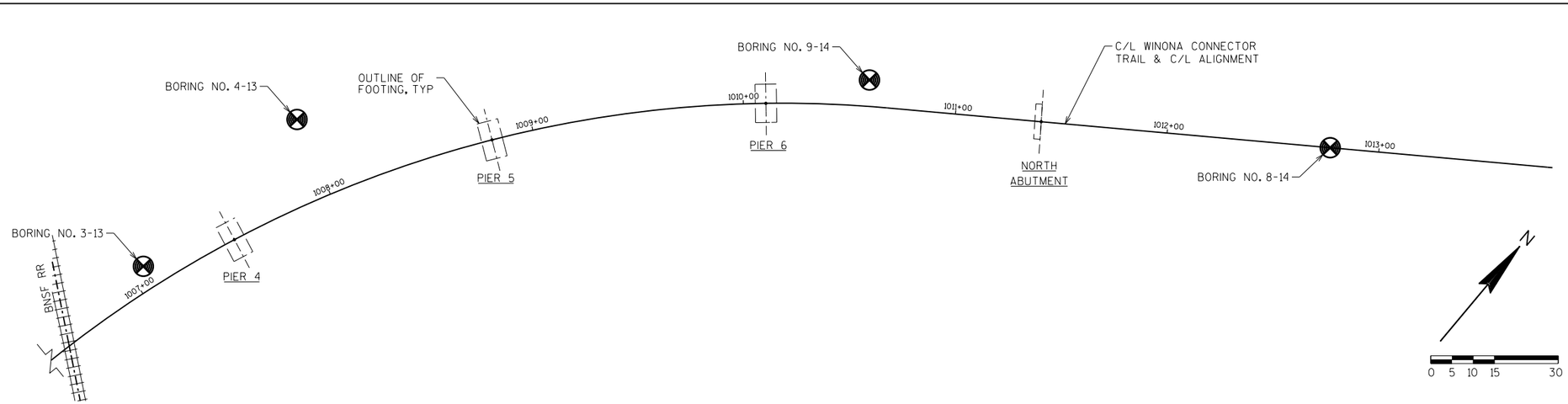
DRAWN BY DLF | PLANS CK'D. JAJ/NCK

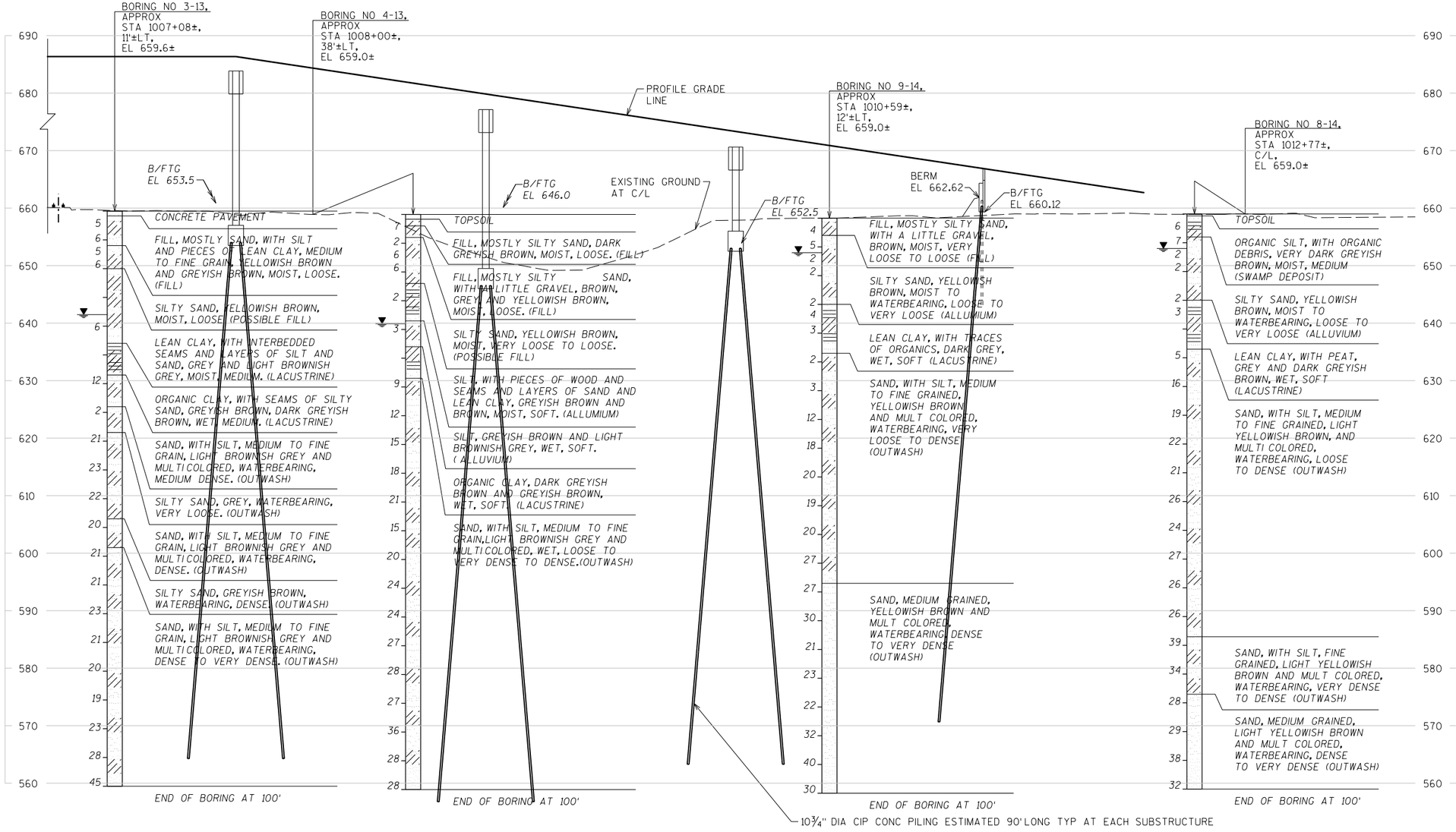
SUBSURFACE EXPLORATION

SHEET 3 OF 12

8

8





STATE PROJECT NUMBER

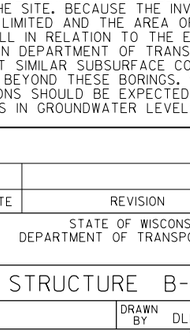
7224-00-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

SUBSURFACE EXPLORATION (CONT.)

SHEET 4 OF 12

8

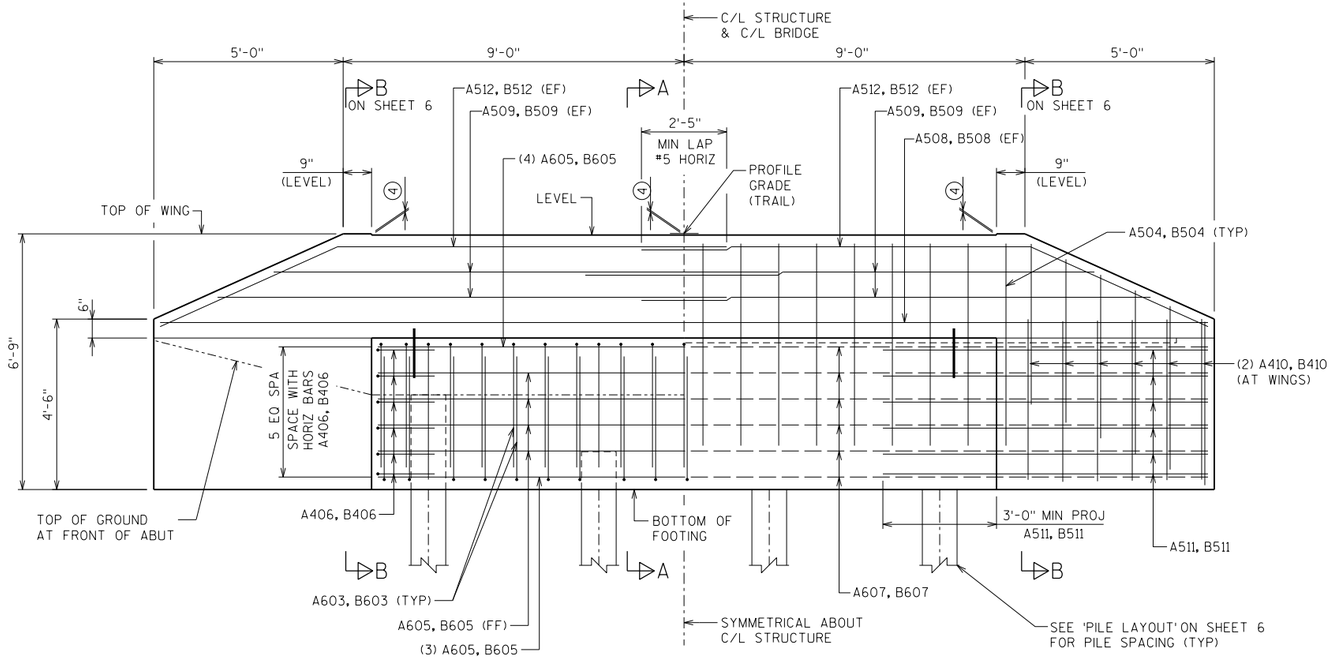
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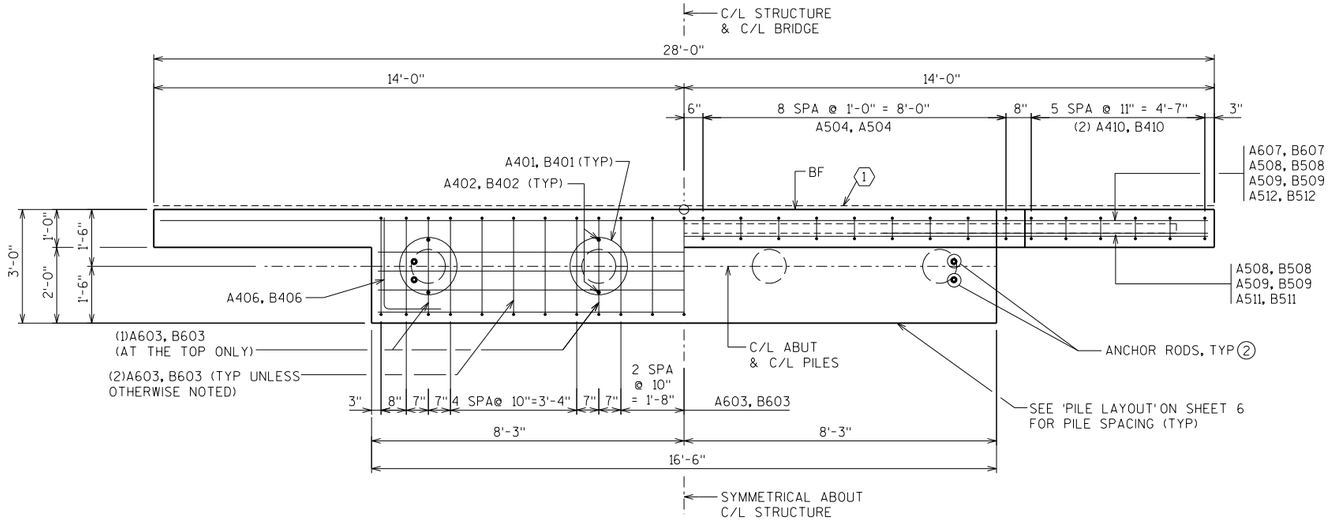
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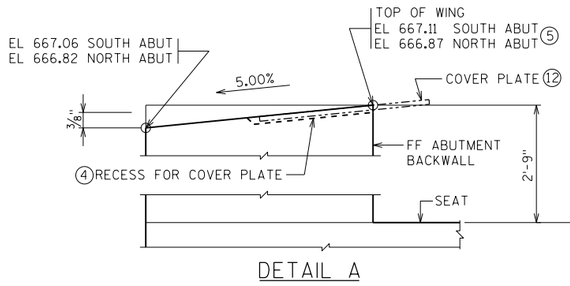
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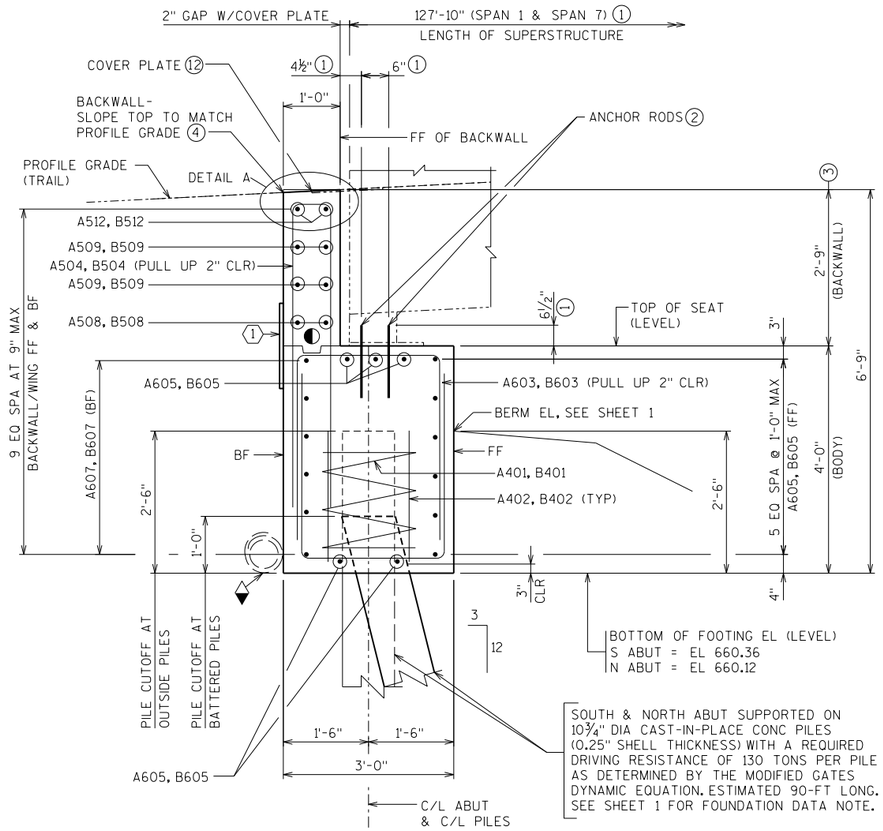
FRONT ELEVATION



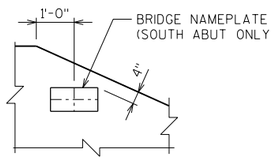
PLAN



DETAIL A



SECTION A-A THRU ABUT



NAMEPLATE LOCATION DETAIL

(ON SE WING SOUTH ABUTMENT)
(SEE SHEET 1 FOR LOCATION)

ABUTMENT NOTES:

SEE TRAIL PLANS FOR BACKFILL AND GRADING REQUIREMENTS.

SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS NOT SPECIFICALLY CALLED OUT IN PLANS.

PROVIDE 2" COVER OVER REINFORCEMENT UNLESS SHOWN OTHERWISE.

PROVIDE ¾" CHAMFER ON ALL ABOVE GRADE CORNERS.

1. VERIFY DIMENSIONS WITH SUPERSTRUCTURE MANUFACTURER.
2. GALVANIZED ANCHOR RODS, NUTS AND WASHERS. BRIDGE MANUFACTURER SHALL BE BE RESPONSIBLE FOR DETERMINING ANCHORAGE SIZE AND LOCATION. RODS MAY BE DRILLED AND ADHESIVE ANCHORED.
3. SEAT MAY VARY 0'-6" ABOVE OR BELOW ELEVATION SHOWN BY MOVING SEAT BARS UP OR DOWN. BAR LENGTHS & LAPS ACCOUNT FOR VARYING SUPERSTRUCTURE DEPTH BASED ON TRUSS MANUFACTURERS DIMENSIONS.
4. RECESS BACKWALL CONCRETE TO ACCOMMODATE THE COVER PLATE. INTENT IS TO MAINTAIN A SMOOTH TRANSITION FROM TRAIL APPROACH SURFACE TO TRUSS BRIDGE DECK SURFACE. SEE TRUSS PLANS FOR PLATE THICKNESS.
5. ELEVATIONS ARE AT TOP OF COVER PLATE.

(1) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ & VERT JOINTS ON BACKFACE.

◐ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".

◆ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE.

(11) ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN, FOR RODENT SHIELD DETAIL SEE SHEET 2.

(12) GALVANIZED CHECKER PLATE ¼" MIN THICKNESS. SEE TRUSS SHOP DRAWINGS.

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE
T = TOP
B = BOTTOM
S ABUT = SOUTH ABUTMENT
N ABUT = NORTH ABUTMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

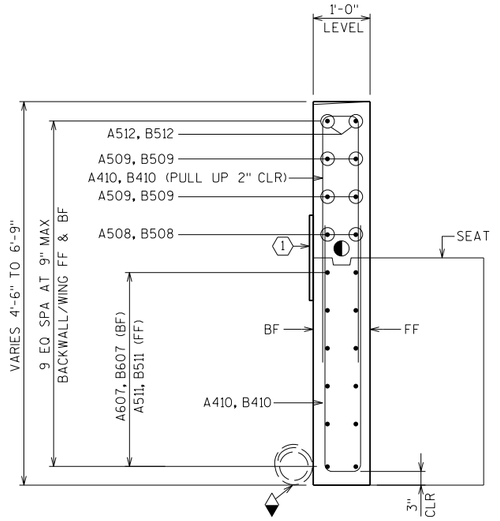
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NORTH & SOUTH ABUTMENT DETAILS

SHEET 5 OF 12

8

8



SECTION B-B THRU WING

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

BILL OF BARS — SOUTH ABUTMENT

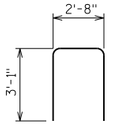
BAR MARK	COAT	NO. REQ'D. S ABUT	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
A401		4	28 - 0		X	AT PILES
A402		8	2 - 3			AT PILES
A603		42	8 - 6		X	VERTS BODY
A504		18	10 - 7		X	VERTS BACKWALL
A605		11	16 - 2			HORIZ BODY
A406		12	4 - 1		X	HORIZ BODY ENDS
A607		6	27 - 8			HORIZ BACKWALL
A508		2	27 - 8			HORIZ BACKWALL
A509		8	13 - 6			HORIZ BACKWALL
A410		24	8 - 6		X	VERTS WING
A511		12	7 - 10			HORIZ WING FF
A512		4	15 - 6		X	HORIZ WING TOP

BILL OF BARS — NORTH ABUTMENT

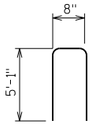
BAR MARK	COAT	NO. REQ'D. N ABUT	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
B401		4	28 - 0		X	AT PILES
B402		8	2 - 3			AT PILES
B603		42	8 - 6		X	VERTS BODY
B504		18	10 - 7		X	VERTS BACKWALL
B605		11	16 - 2			HORIZ BODY
B406		12	4 - 1		X	HORIZ BODY ENDS
B607		6	27 - 8			HORIZ BACKWALL
B508		2	27 - 8			HORIZ BACKWALL
B509		8	13 - 6			HORIZ BACKWALL
B410		24	8 - 6		X	VERTS WING
B511		12	7 - 10			HORIZ WING FF
B512		4	15 - 6		X	HORIZ WING TOP



A401, B401



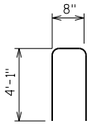
A603, B603



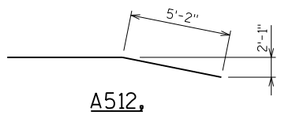
A504, B504



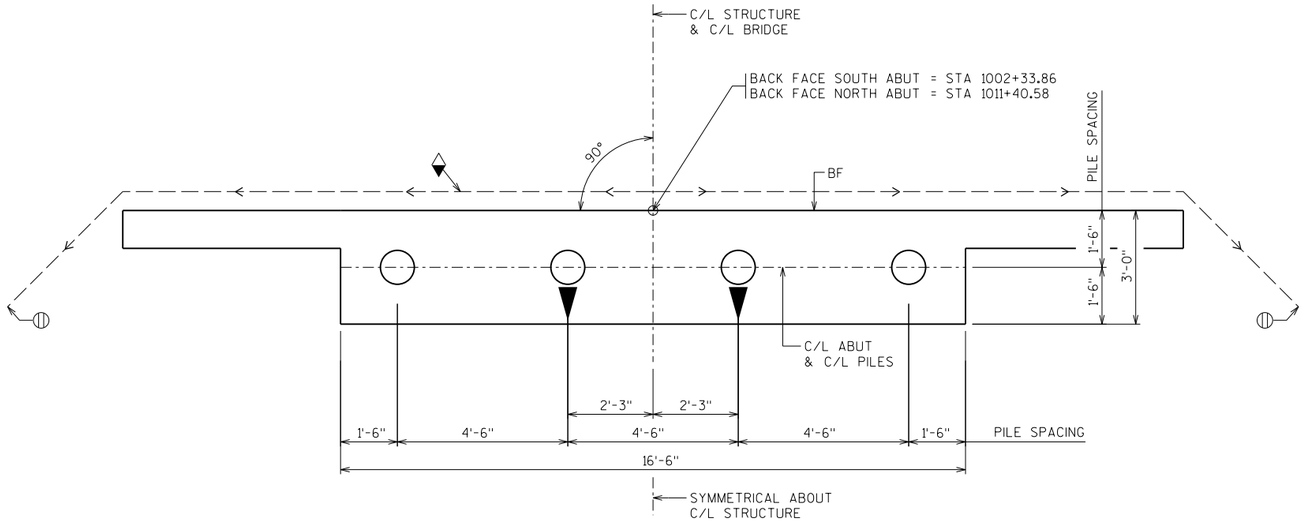
A406, B406



A410, B410



A512, B512



PILE LAYOUT

INDICATES DIRECTION OF PILE BATTER 3/12

NOTES

SEE ABUTMENT NOTES ON SHEET 5 - (◐ 1 ◆ ◍).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

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NORTH & SOUTH ABUTMENT DETAILS

SHEET 6 OF 12

8

8

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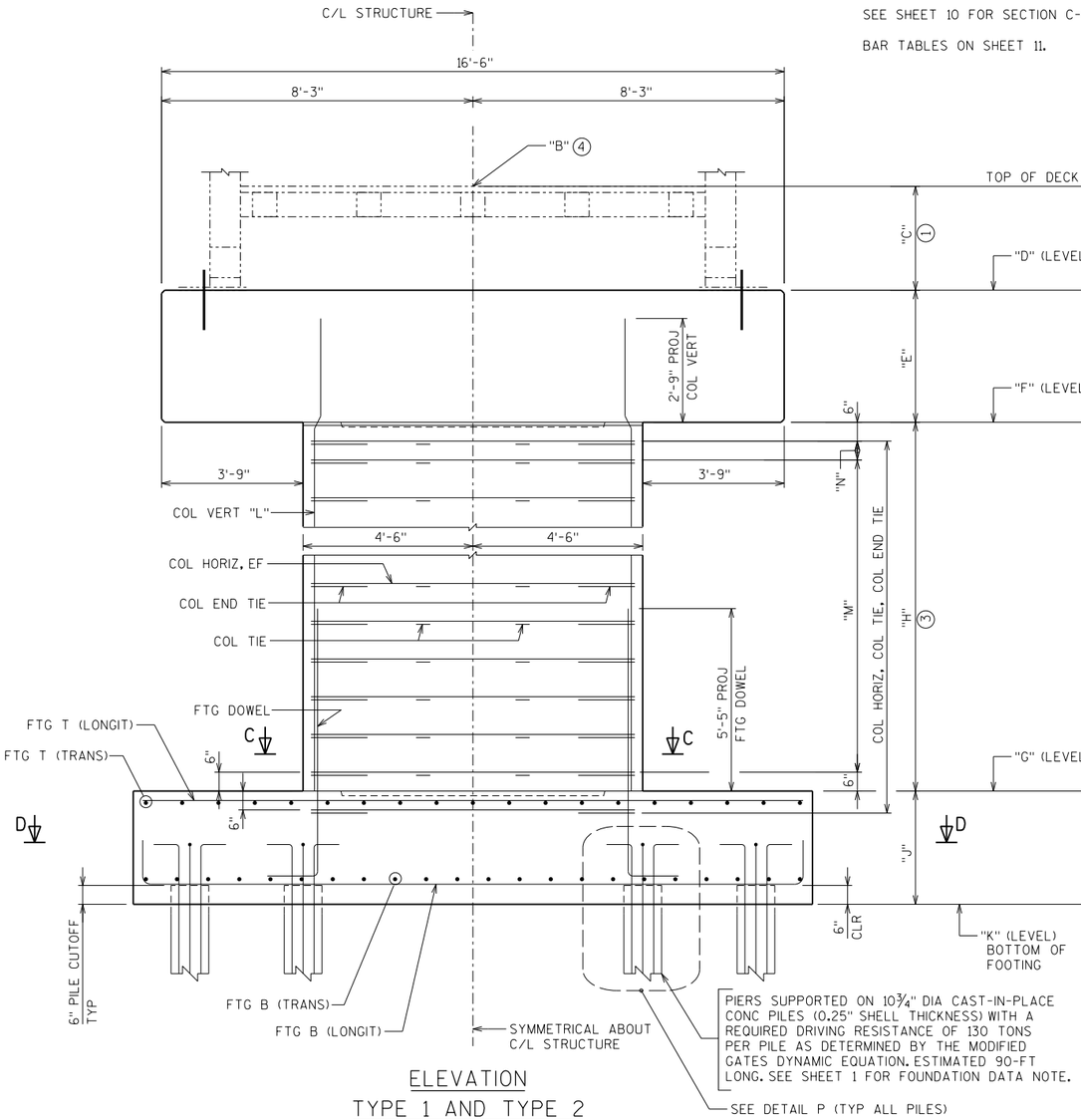
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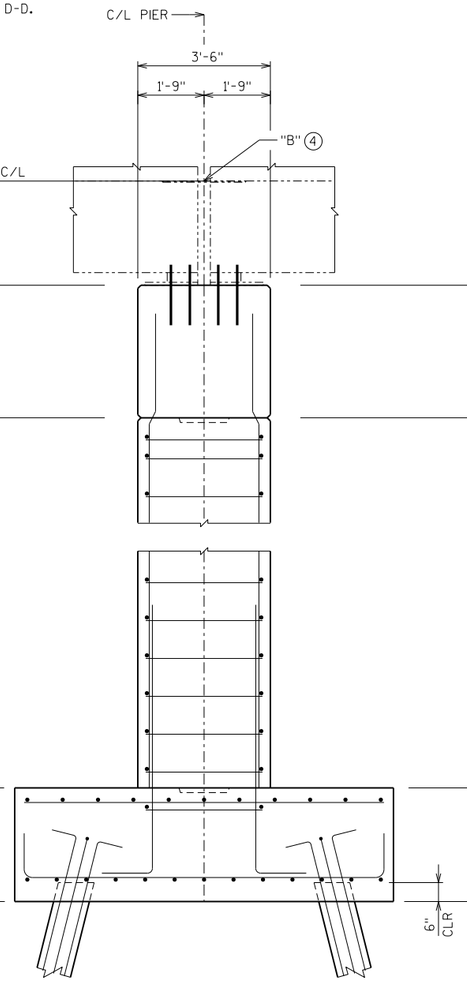
SEE PIER NOTES ON SHEET 9.

SEE SHEET 10 FOR SECTION C-C & D-D.

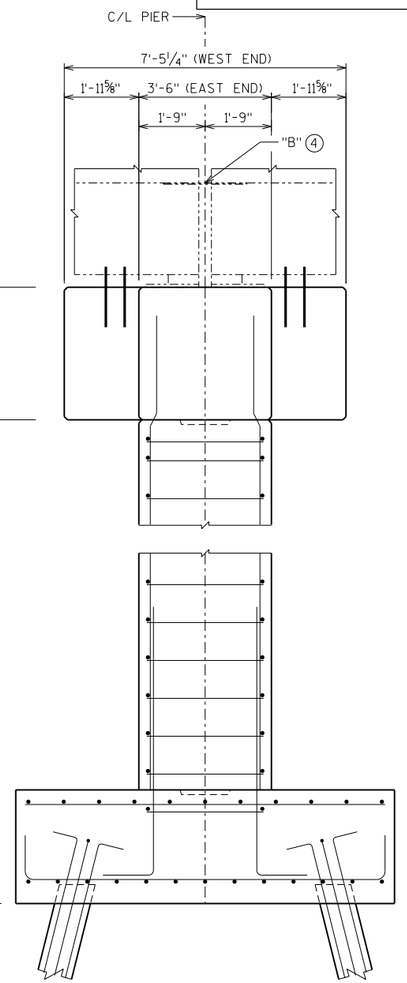
BAR TABLES ON SHEET 11.



ELEVATION
TYPE 1 AND TYPE 2



END ELEVATION
TYPE 1
(2 PIERS)



END ELEVATION
TYPE 2
(4 PIERS)

PIER TYPE 1

	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	REINFORCEMENT			
											"L"		"M"	"N"
LOCATION	STA	PROFILE GRADE ELEV	SEAT HT	CAP ELEV	CAP THICKNESS	COLUMN ELEV	TOP OF FOOTING ELEV	COLUMN HT.	FOOTING THICKNESS	BOTTOM OF FOOTING ELEV	BAR MARK	LENGTH VERT BAR	SPACING HORIZ BAR	SPACING HORIZ BAR
PIER 1	1003+63.02	673.52	2'-9"	670.77	3'-6"	667.27	657.50	9'-9¼"	3'-0"	654.50	C906	12'-6"	8 SPA @ 1'-0" = 8'-0"	9¼"
PIER 2	1004+91.19	679.92	2'-9"	677.17	3'-6"	673.67	657.50	16'-2"	3'-0"	654.50	D906	18'-11"	15 SPA @ 1'-0" = 15'-0"	2"

PIER TYPE 2

	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	REINFORCEMENT			
											"L"		"M"	"N"
LOCATION	STA	PROFILE GRADE ELEV	SEAT HT	CAP ELEV	CAP THICKNESS	COLUMN ELEV	TOP OF FOOTING ELEV	COLUMN HT.	FOOTING THICKNESS	BOTTOM OF FOOTING ELEV	BAR MARK	LENGTH VERT BAR	SPACING HORIZ BAR	SPACING HORIZ BAR
PIER 3	1006+19.70	686.35	2'-9"	683.60	3'-6"	680.10	656.50	23'-7¼"	3'-0"	653.50	E906	26'-4"	22 SPA @ 1'-0" = 22'-0"	7¼"
PIER 4	1007+50.00	686.35	2'-9"	683.60	3'-6"	680.10	656.50	23'-7¼"	3'-0"	653.50	F906	26'-4"	22 SPA @ 1'-0" = 22'-0"	7¼"
PIER 5	1008+80.30	679.83	2'-9"	677.08	3'-6"	673.58	649.00	24'-7"	3'-0"	646.00	G906	27'-4"	23 SPA @ 1'-0" = 23'-0"	7"
PIER 6	1010+10.61	673.32	2'-9"	670.57	3'-6"	667.07	655.50	11'-6⅞"	3'-0"	652.50	H906	14'-3"	10 SPA @ 1'-0" = 10'-0"	6⅞"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

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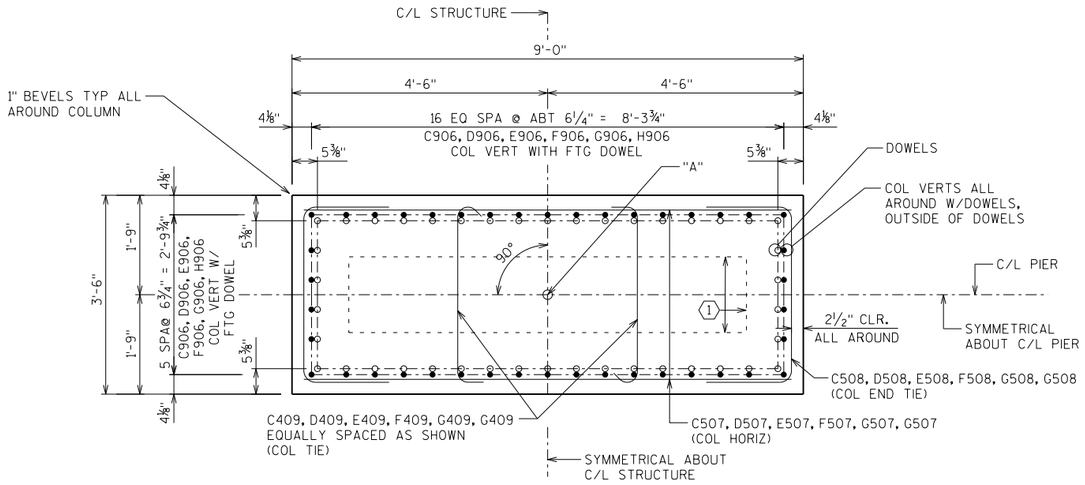
PIER DETAILS

SHEET 7 OF 12

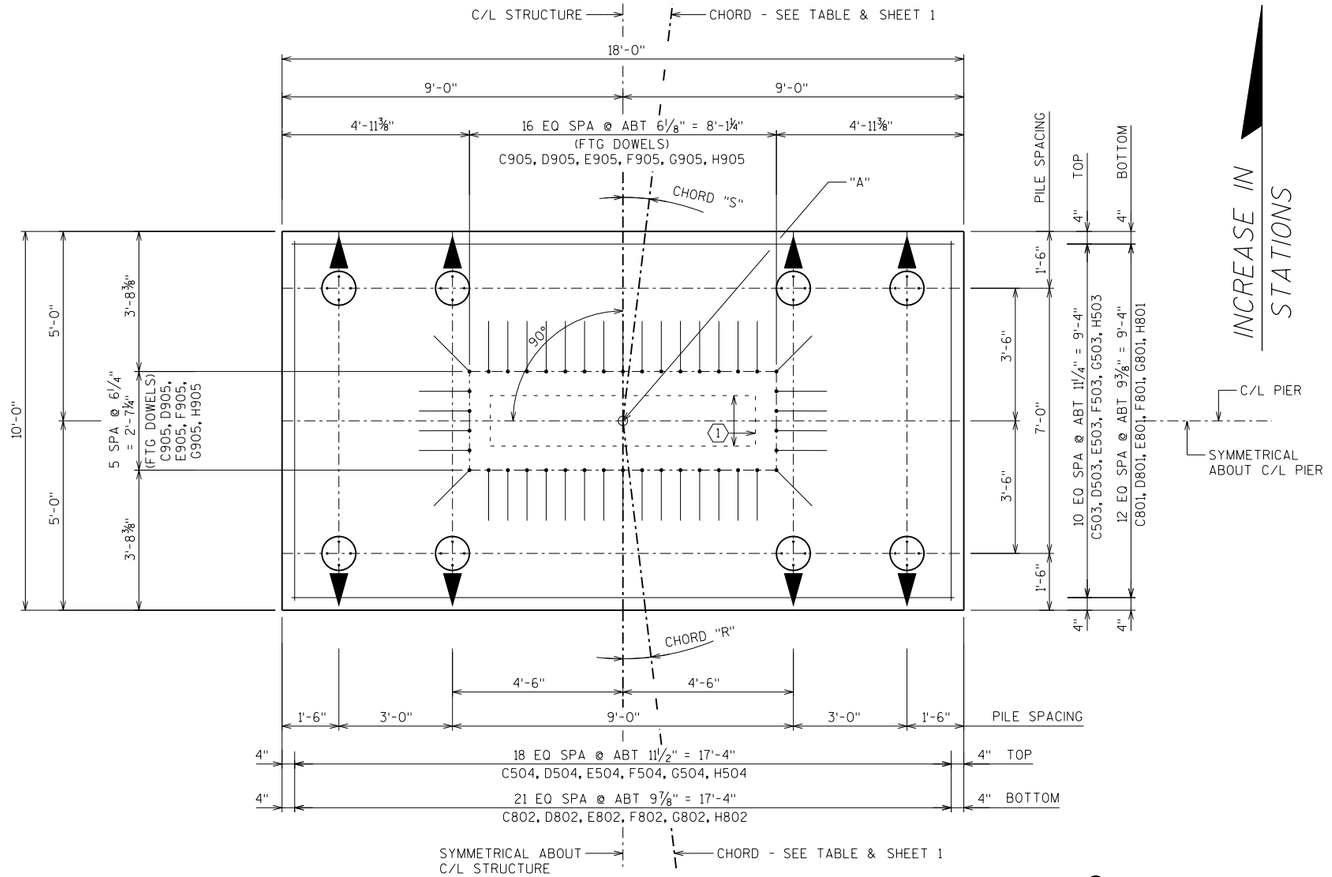
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8



SECTION C-C
STEM TYPE 1 & TYPE 2
(6 STEMS)

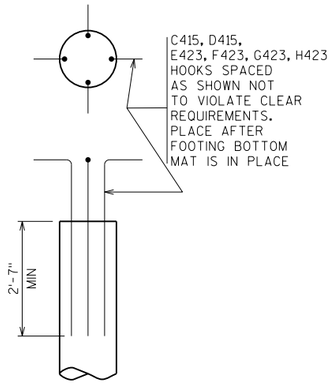


SECTION D-D
FOOTING PLAN & PILE LAYOUT TYPE 1 & TYPE 2
(6 FOOTINGS)

INCREASE IN STATIONS

INDICATES DIRECTION OF PILE BATTER 3:12

CHORD TABLE		
LOCATION	CHORD "R" (BACK)	CHORD "S" (FORWARD)
PIER 1	0°	0°
PIER 2	0°	0° 10' 28.61"
PIER 3	1° 59' 15.57"	6° 47' 13.85"
PIER 4	6° 47' 13.85"	6° 47' 13.85"
PIER 5	6° 47' 13.85"	6° 47' 13.85"
PIER 6	6° 47' 13.85"	4° 38' 23.5"



DETAIL P
TYPICAL PILE REINF

NOTES:

SEE PIER NOTES ON SHEET 7.

SEE PIER TABLES ON SHEET 9.

BAR TABLES ON SHEET 11.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

PIER DETAILS

SHEET 8 OF 12

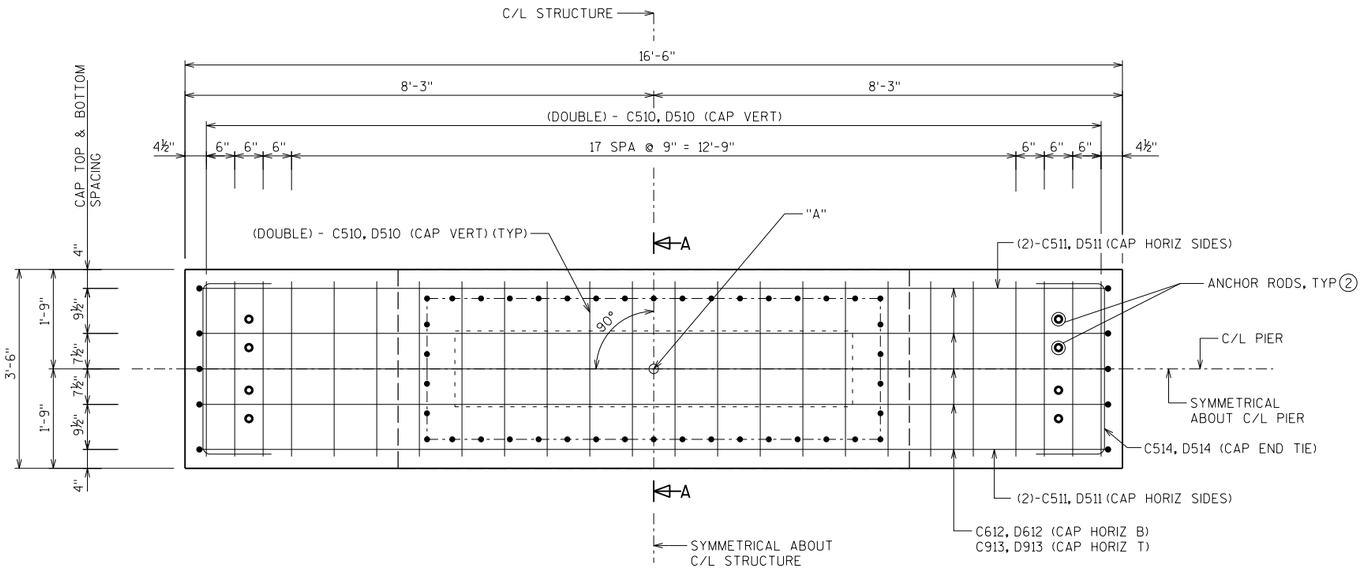
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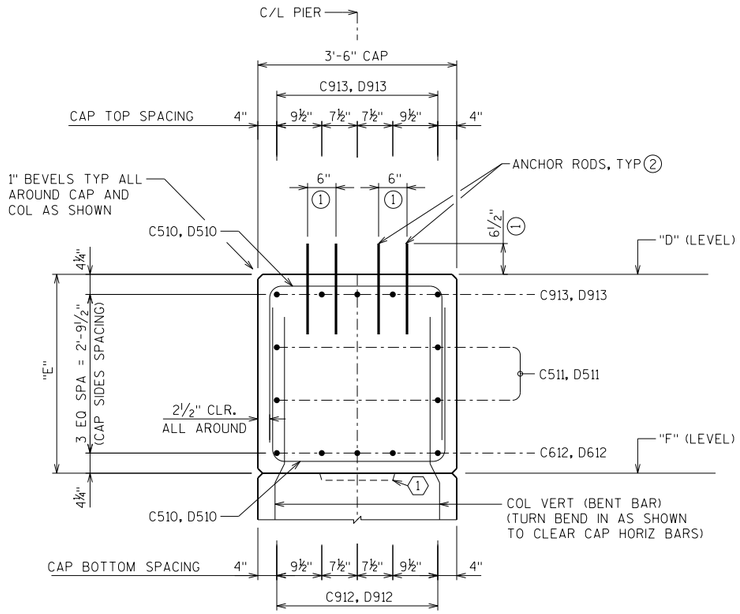
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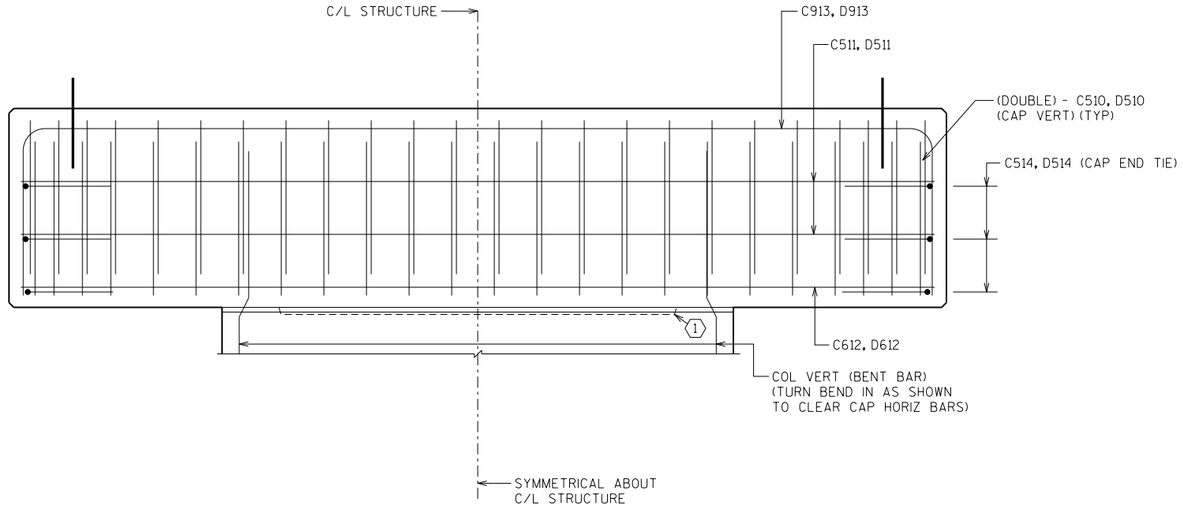
STATE PROJECT NUMBER
7224-00-72



PLAN TYPE 1
(2 CAPS)



SECTION A-A



CAP ELEVATION TYPE 1
(2 CAPS)

PIER NOTES:

SEE TRAIL PLANS FOR BACKFILLING AND GRADING REQUIREMENTS.

SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS NOT SPECIFICALLY CALLED OUT IN PLANS.

PROVIDE 2" COVER OVER REINFORCEMENT UNLESS SHOWN OTHERWISE.

PROVIDE ¾" CHAMFER ON ALL ABOVE GRADE CORNERS.

(1) VERIFY DIMENSIONS WITH SUPERSTRUCTURE MANUFACTURER.

(2) GALVANIZED ANCHOR RODS, NUTS AND WASHERS. BRIDGE MANUFACTURER SHALL BE BE RESPONSIBLE FOR DETERMINING ANCHORAGE SIZE AND LOCATION. RODS MAY BE DRILLED AND ADHESIVE ANCHORED

(3) COLUMN HEIGHT MAY VARY 0'-6" ABOVE OR BELOW ELEVATION SHOWN BASED ON TRUSS MANUFACTURERS DIMENSIONS.

(4) ELEVATIONS ARE CENTER OF PIER AT TOP OF COVER PLATE.

⟨1⟩ 1'-3" WIDE X 2" DEEP HORIZ CONST JOINT FORMED BY BEVELED KEYWAY

BAR MARK C = PIER 1
BAR MARK D = PIER 2
BAR MARK E = PIER 3
BAR MARK F = PIER 4
BAR MARK G = PIER 5
BAR MARK H = PIER 6

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE
T = TOP
B = BOTTOM

S ABUT = SOUTH ABUTMENT
N ABUT = NORTH ABUTMENT

NOTES:

SEE PIER TABLES ON SHEET 7.

BAR TABLES ON SHEET 11.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

PIER DETAILS

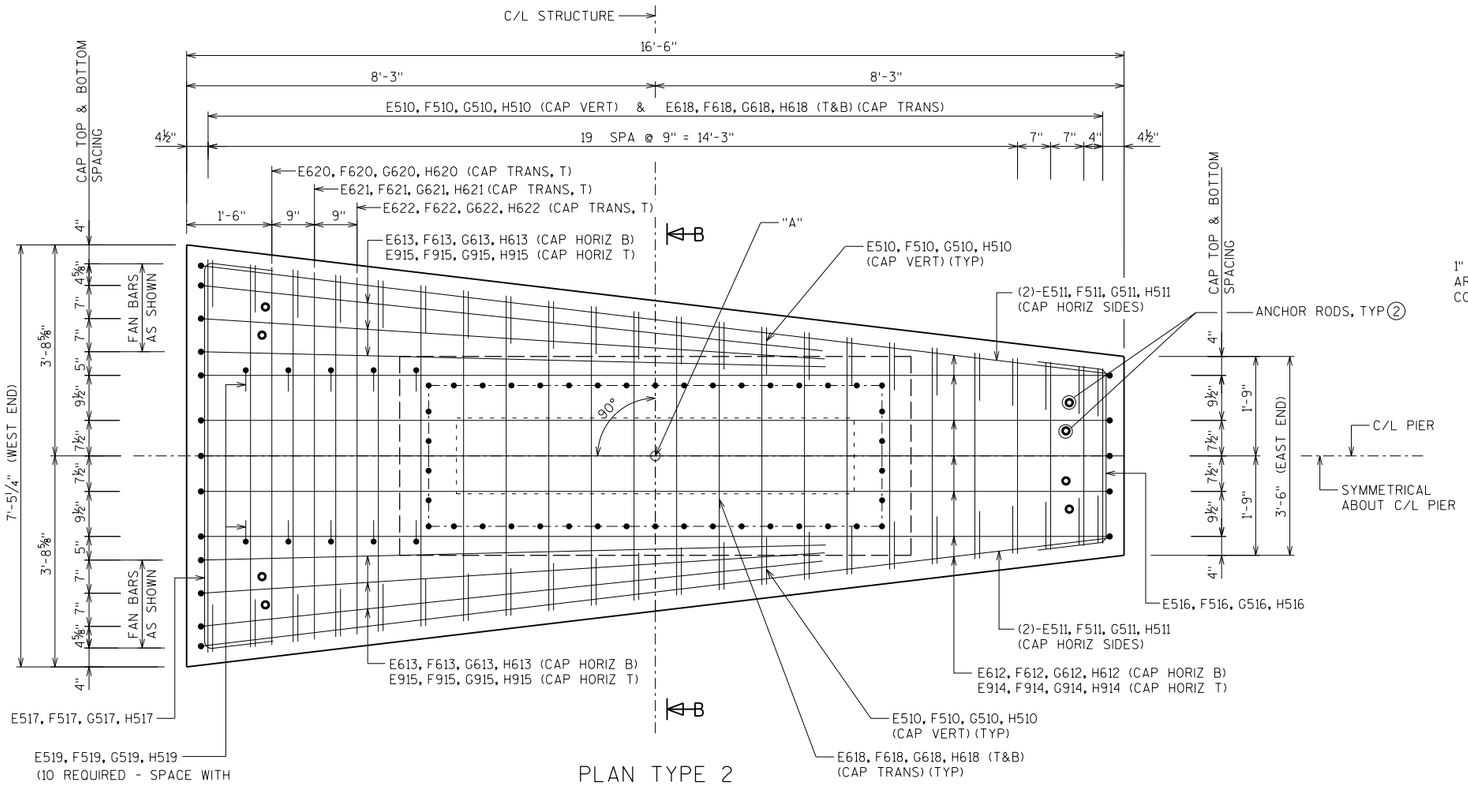
SHEET 9 OF 12

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PLOT TIME: 9:55:00 AM
PLOT DATE: 1/9/2019
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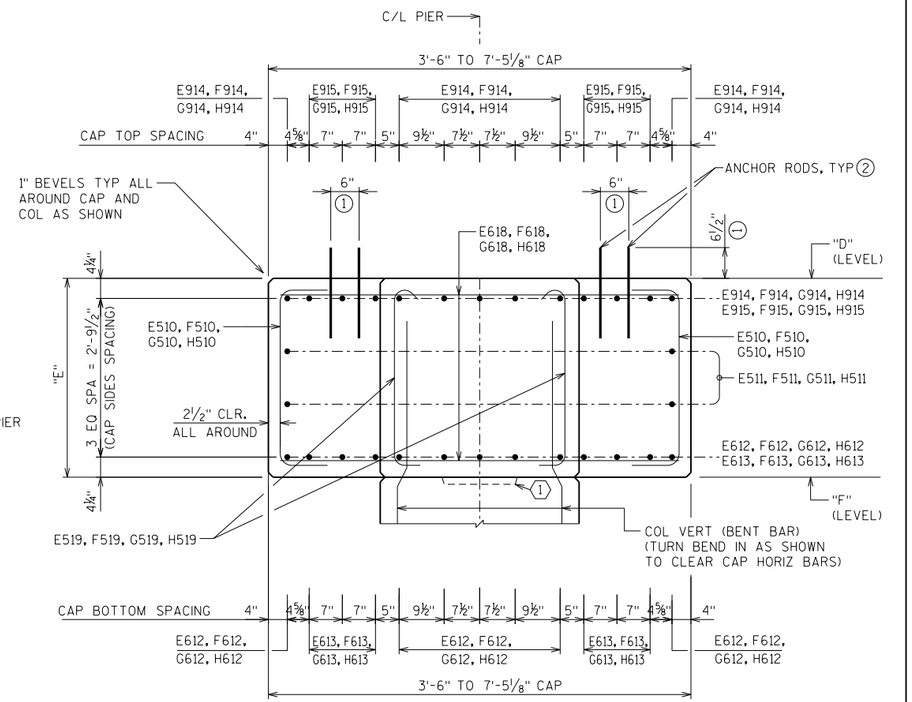
STATE PROJECT NUMBER

7224-00-72

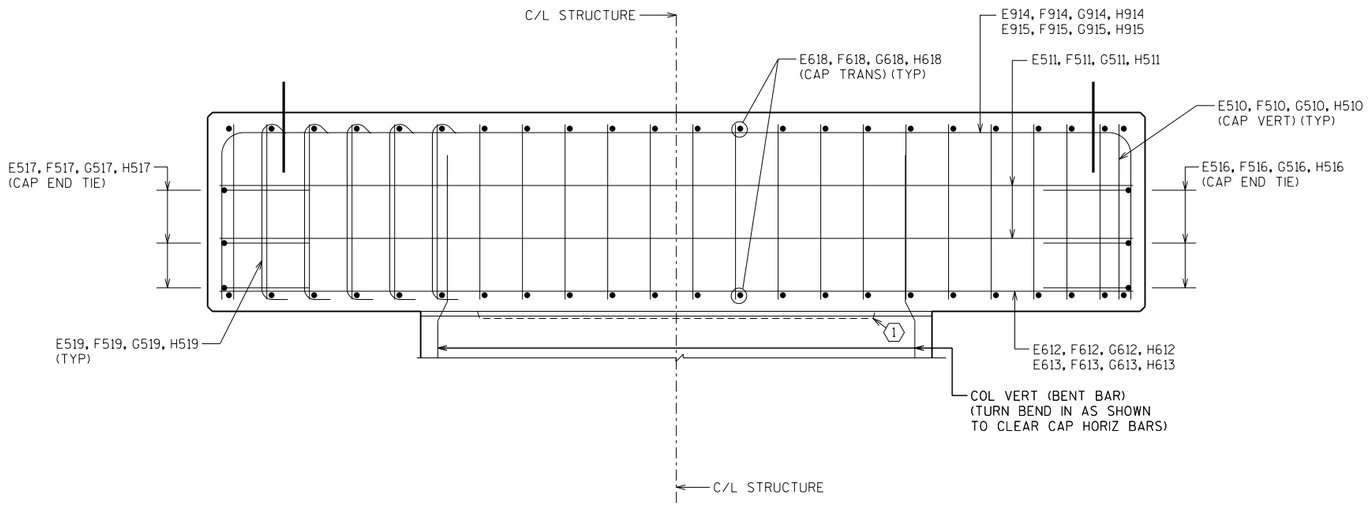


PLAN TYPE 2

(4 CAPS)



SECTION B-B



CAP ELEVATION TYPE 2

(4 CAPS)

NOTES:

SEE PIER NOTES ON SHEET 7.

SEE PIER TABLES ON SHEET 9.

BAR TABLES ON SHEET 11.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

PIER DETAILS

SHEET 10 OF 12

8

8

PLOT DATE: 1/9/2019 PLOT TIME: 9:55:00 AM

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PLOT DATE: 1/9/2019 PLOT TIME: 9:55:00 AM
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STATE PROJECT NUMBER

7224-00-72

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

▲BAR SERIES LENGTH SHOWN IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE AND BENDING DETAILS FOR ACTUAL LENGTHS.

BAR MARK C = PIER 1
BAR MARK D = PIER 2
BAR MARK E = PIER 3
BAR MARK F = PIER 4
BAR MARK G = PIER 5
BAR MARK H = PIER 6

BILL OF BARS PIER 1

BAR MARK	COAT	NO. REQ'D. PIER 1	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
C801		13	19 - 11		X	FTG B
C802		22	11 - 11		X	FTG B
C503		11	17 - 8			FTG T
C504		19	9 - 8			FTG T
C905		42	9 - 4		X	FTG DOWEL
C906		42	12 - 6		X	COL VERT
C507		20	8 - 7			COL HORIZ
C508		20	5 - 10		X	COL END TIE
C409		20	3 - 10		X	COL TIE
C510		48	8 - 6		X	CAP VERT
C511		4	16 - 1			CAP HORIZ SIDES
C612		5	16 - 1			CAP HORIZ B
C913		5	21 - 2		X	CAP HORIZ T
C514		6	5 - 10		X	CAP END TIE
C415		32	4 - 4		X	IN PILES

BILL OF BARS PIER 2

BAR MARK	COAT	NO. REQ'D. PIER 2	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
D801		13	19 - 11		X	FTG B
D802		22	11 - 11		X	FTG B
D503		11	17 - 8			FTG T
D504		19	9 - 8			FTG T
D905		42	9 - 4		X	FTG DOWEL
D906		42	18 - 11		X	COL VERT
D507		34	8 - 7			COL HORIZ
D508		34	5 - 10		X	COL END TIE
D409		34	3 - 10		X	COL TIE
D510		48	8 - 6		X	CAP VERT
D511		4	16 - 1			CAP HORIZ SIDES
D612		5	16 - 1			CAP HORIZ B
D913		5	21 - 2		X	CAP HORIZ T
D514		6	5 - 10		X	CAP END TIE
D415		32	4 - 4		X	IN PILES

BILL OF BARS PIER 3

BAR MARK	COAT	NO. REQ'D. PIER 3	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
E801		13	19 - 11		X	FTG B
E802		22	11 - 11		X	FTG B
E503		11	17 - 8			FTG T
E504		19	9 - 8			FTG T
E905		42	9 - 4		X	FTG DOWEL
E906		42	26 - 4		X	COL VERT
E507		48	8 - 7			COL HORIZ
E508		48	5 - 10		X	COL END TIE
E409		48	3 - 10		X	COL TIE
E510		46	4 - 7		X	CAP VERT
E511		4	16 - 3			CAP HORIZ SIDES
E612		7	16 - 1			CAP HORIZ B
E613		6	11 - 0			CAP HORIZ B
E914		7	21 - 2		X	CAP HORIZ T
E915		6	13 - 7		X	CAP HORIZ T
E516		3	5 - 10		X	CAP END TIE
E517		3	9 - 9		X	CAP END TIE
E618		46	5 - 0	▲		CAP TRANS T & B
E519		10	3 - 11		X	CAP VERT TIE
E620		1	12 - 0		X	CAP TRANS T
E621		1	11 - 10		X	CAP TRANS T
E622		1	11 - 8		X	CAP TRANS T
E423		32	4 - 4		X	IN PILES

BILL OF BARS PIER 4

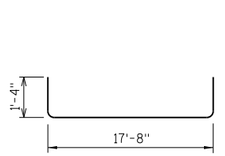
BAR MARK	COAT	NO. REQ'D. PIER 4	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
F801		13	19 - 11		X	FTG B
F802		22	11 - 11		X	FTG B
F503		11	17 - 8			FTG T
F504		19	9 - 8			FTG T
F905		42	9 - 4		X	FTG DOWEL
F906		42	26 - 4		X	COL VERT
F507		48	8 - 7			COL HORIZ
F508		48	5 - 10		X	COL END TIE
F409		48	3 - 10		X	COL TIE
F510		46	4 - 7		X	CAP VERT
F511		4	16 - 3			CAP HORIZ SIDES
F612		7	16 - 1			CAP HORIZ B
F613		6	11 - 0			CAP HORIZ B
F914		7	21 - 2		X	CAP HORIZ T
F915		6	13 - 7		X	CAP HORIZ T
F516		3	5 - 10		X	CAP END TIE
F517		3	9 - 9		X	CAP END TIE
F618		46	5 - 0	▲		CAP TRANS T & B
F519		10	3 - 11		X	CAP VERT TIE
F620		1	12 - 0		X	CAP TRANS T
F621		1	11 - 10		X	CAP TRANS T
F622		1	11 - 8		X	CAP TRANS T
F423		32	4 - 4		X	IN PILES

BILL OF BARS PIER 5

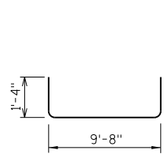
BAR MARK	COAT	NO. REQ'D. PIER 5	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
G801		13	19 - 11		X	FTG B
G802		22	11 - 11		X	FTG B
G503		11	17 - 8			FTG T
G504		19	9 - 8			FTG T
G905		42	9 - 4		X	FTG DOWEL
G906		42	27 - 4		X	COL VERT
G507		50	8 - 7			COL HORIZ
G508		50	5 - 10		X	COL END TIE
G409		50	3 - 10		X	COL TIE
G510		46	4 - 7		X	CAP VERT
G511		4	16 - 3			CAP HORIZ SIDES
G612		7	16 - 1			CAP HORIZ B
G613		6	11 - 0			CAP HORIZ B
G914		7	21 - 2		X	CAP HORIZ T
G915		6	13 - 7		X	CAP HORIZ T
G516		3	5 - 10		X	CAP END TIE
G517		3	9 - 9		X	CAP END TIE
G618		46	5 - 0	▲		CAP TRANS T & B
G519		10	3 - 11		X	CAP VERT TIE
G620		1	12 - 0		X	CAP TRANS T
G621		1	11 - 10		X	CAP TRANS T
G622		1	11 - 8		X	CAP TRANS T
G423		32	4 - 4		X	IN PILES

BILL OF BARS PIER 6

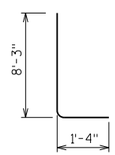
BAR MARK	COAT	NO. REQ'D. PIER 6	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
H801		13	19 - 11		X	FTG B
H802		22	11 - 11		X	FTG B
H503		11	17 - 8			FTG T
H504		19	9 - 8			FTG T
H905		42	9 - 4		X	FTG DOWEL
H906		42	14 - 3		X	COL VERT
H507		24	8 - 7			COL HORIZ
H508		24	5 - 10		X	COL END TIE
H409		24	3 - 10		X	COL TIE
H510		46	4 - 7		X	CAP VERT
H511		4	16 - 3			CAP HORIZ SIDES
H612		7	16 - 1			CAP HORIZ B
H613		6	11 - 0			CAP HORIZ B
H914		7	21 - 2		X	CAP HORIZ T
H915		6	13 - 7		X	CAP HORIZ T
H516		3	5 - 10		X	CAP END TIE
H517		3	9 - 9		X	CAP END TIE
H618		46	5 - 0	▲		CAP TRANS T & B
H519		10	3 - 11		X	CAP VERT TIE
H620		1	12 - 0		X	CAP TRANS T
H621		1	11 - 10		X	CAP TRANS T
H622		1	11 - 8		X	CAP TRANS T
H423		32	4 - 4		X	IN PILES



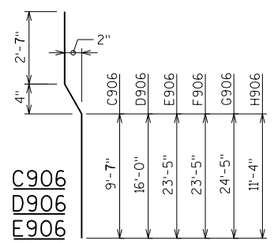
C801 D801 E801 F801 G801 H801



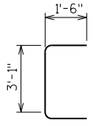
C802 D802 E802 F802 G802 H802



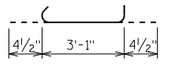
C905 D905 E905 F905 G905 H905



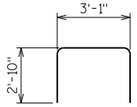
C906 D906 E906 F906 G906 H906



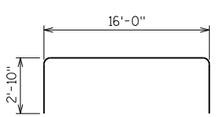
C508 D508 E508 F508 G508 H508



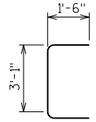
C409 D409 E409 F409 G409 H409



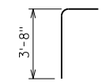
C510 D510



C913 D913



C514 D514

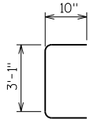


C415 D415

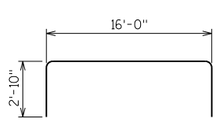
BAR SERIES TABLE PIERS

BAR MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
E618	2 SERIES OF 23	3'-1" TO 6'-11"		CAP TRANS AT & B
F618	2 SERIES OF 23	3'-1" TO 6'-11"		CAP TRANS AT & B
G618	2 SERIES OF 23	3'-1" TO 6'-11"		CAP TRANS AT & B
H618	2 SERIES OF 23	3'-1" TO 6'-11"		CAP TRANS AT & B

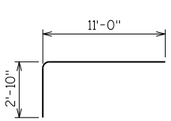
BUNDLE AND TAG EACH SERIES SEPARATELY



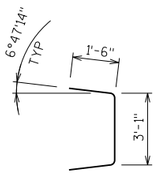
E510 F510 G510 H510



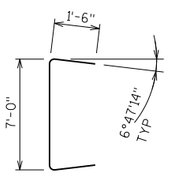
E914 F914 G914 H914



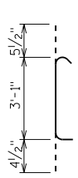
E915 F915 G915 H915



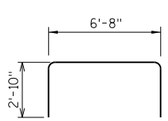
E516 F516 G516 H516



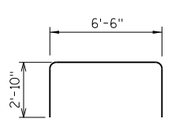
E517 F517 G517 H517



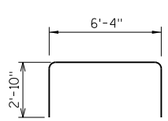
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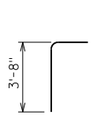
E620 F620 G620 H620



E621 F621 G621 H621



E622 F622 G622 H622



E423 F423 G423 H423

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

PIER DETAILS

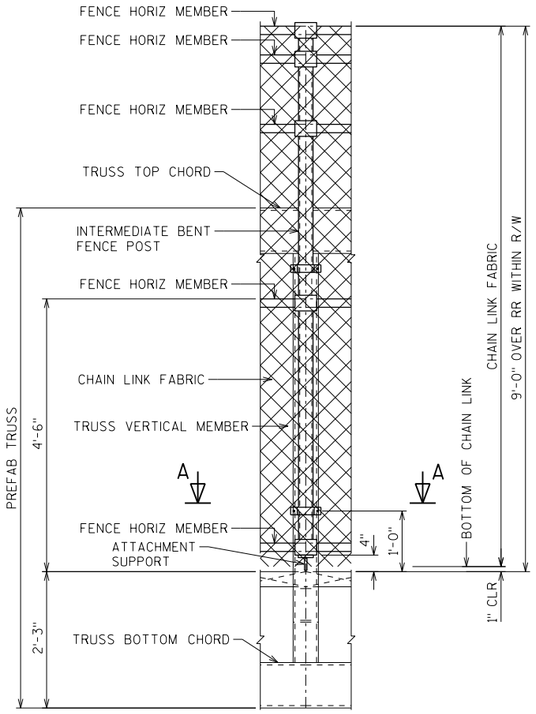
SHEET 11 OF 12

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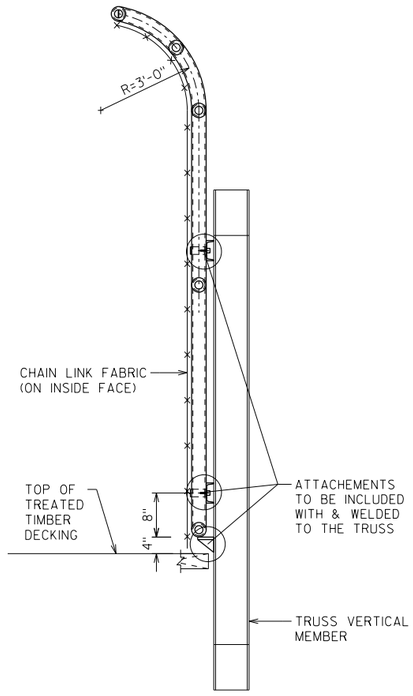
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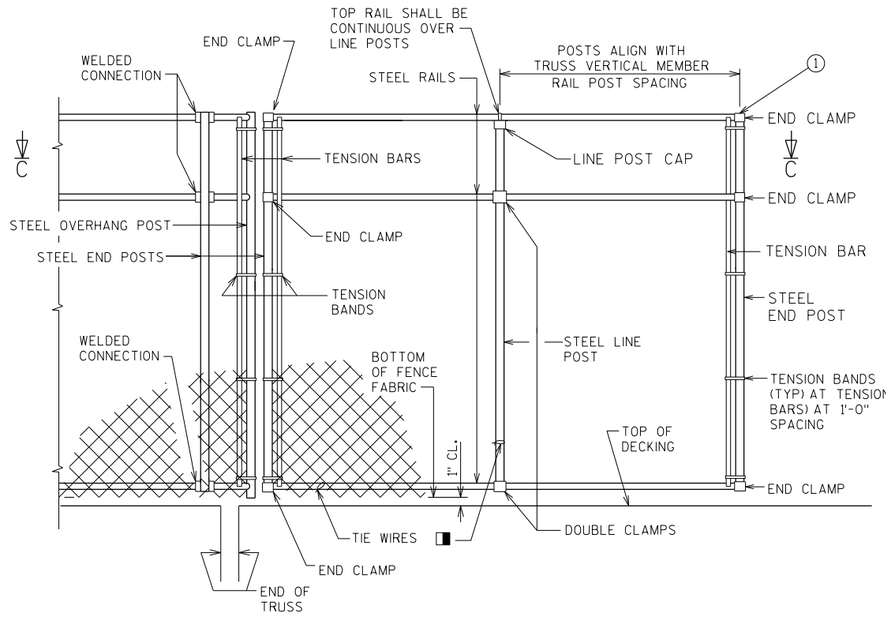


RAIL POST CONNECTION CONCEPT

PROTECTIVE THROW FENCE OVER SPANS 3, 4 & 5
BID ITEM SHALL BE "PROTECTIVE THROW FENCE "



SECTION B-B



FENCE PART ELEVATION

VIEWING FABRIC SIDE
POST CONNECTIONS NOT SHOWN FOR CLARITY
ALL RAILS NOT SHOWN FOR CLARITY

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "PROTECTIVE THROW FENCE."

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

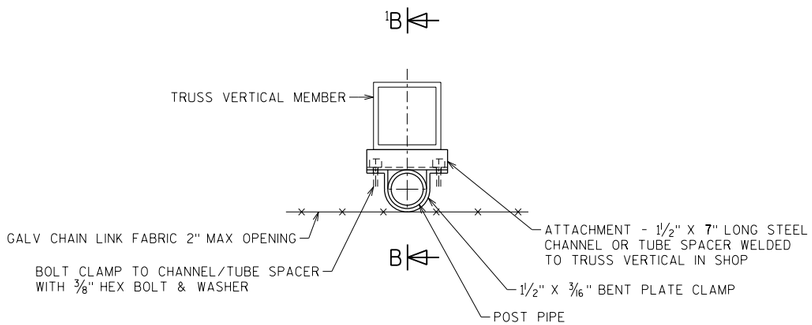
✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

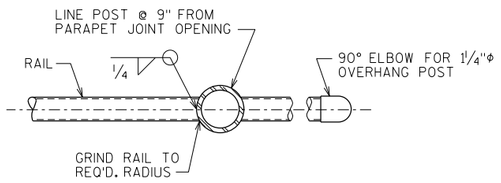
◥ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.

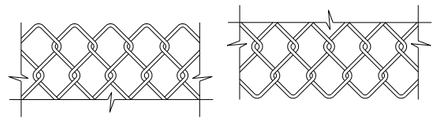
(1) MINIMUM LENGTH OF PROTECTIVE THROW FENCE FROM: STA 1006+02 TO STA 1007+67 ON WEST RAILING AND STA 1005+95 TO STA 1007+64 ON EAST RAILING.



SECTION A-A



OVERHANG DETAIL



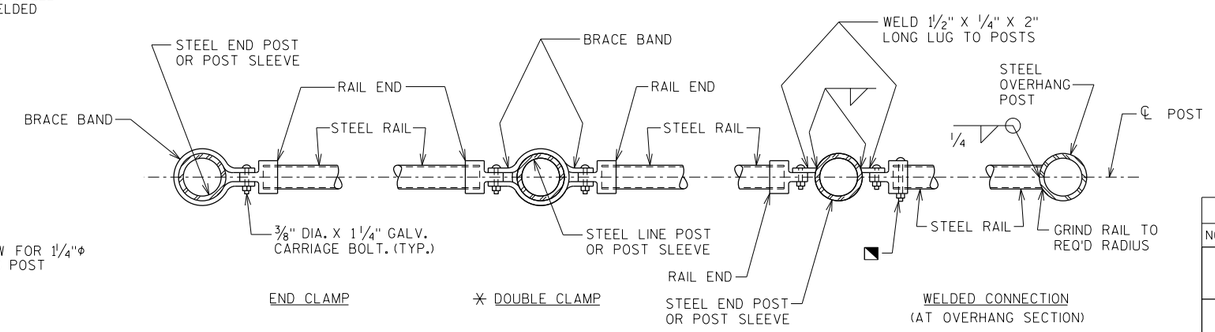
TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.375	3.65
OVERHANG POST	2.375	3.65
LINE POST	2.375	3.65
POST SLEEVE	N/A	N/A



SECTION C-C POST CONNECTION OPTIONS

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

NOTE:
ALL DETAILS ON THIS SHEET DEVELOPED FROM WISCONSIN BRIDGE MANUAL STANDARD DETAIL 30.11 AND WISCONSIN STANDARD INSERT SHEET "FENCING DETAILS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-500

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

PROTECTIVE THROW FENCE CONCEPT DETAILS

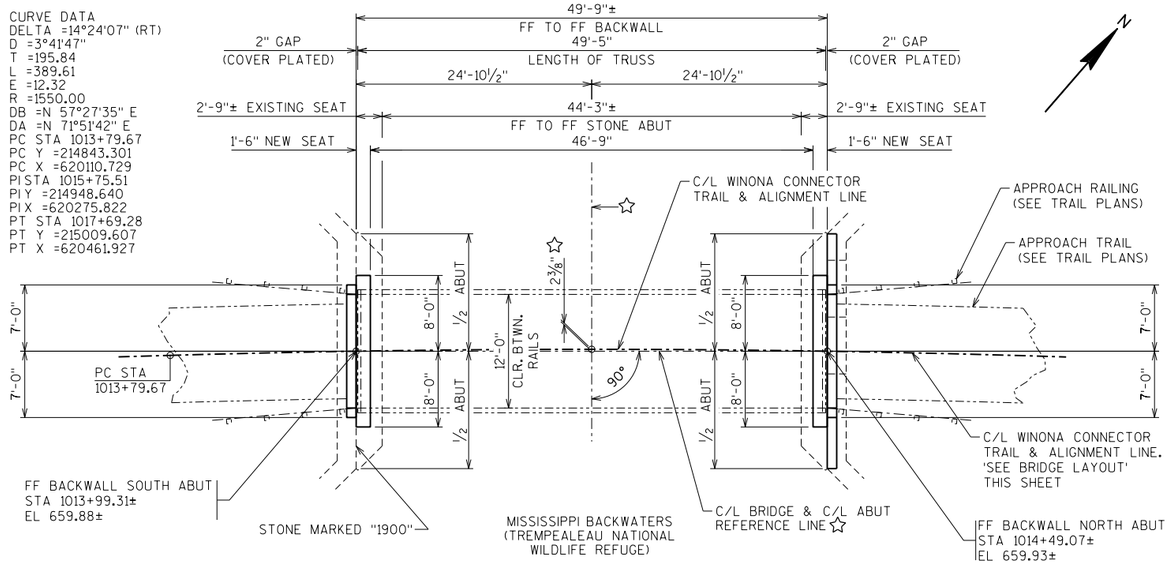
SHEET 12 OF 12

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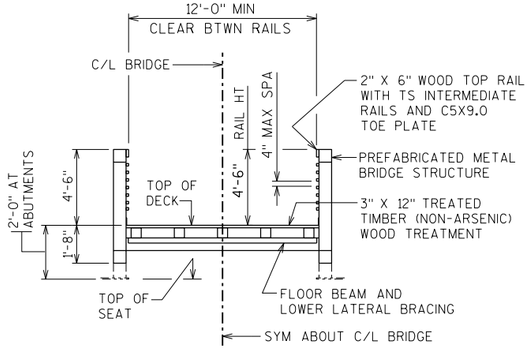
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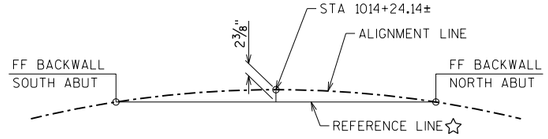
GENERAL PLAN

SINGLE-SPAN PRE-FABRICATED METAL LOW TRUSS BRIDGE STRUCTURE

BENCHMARK (DATUM = NAVD 88)			
NO	STATION	DESCRIPTION	ELEV
3	1013+99.5 12.6'LT	BRIDGE CORNER	658.491



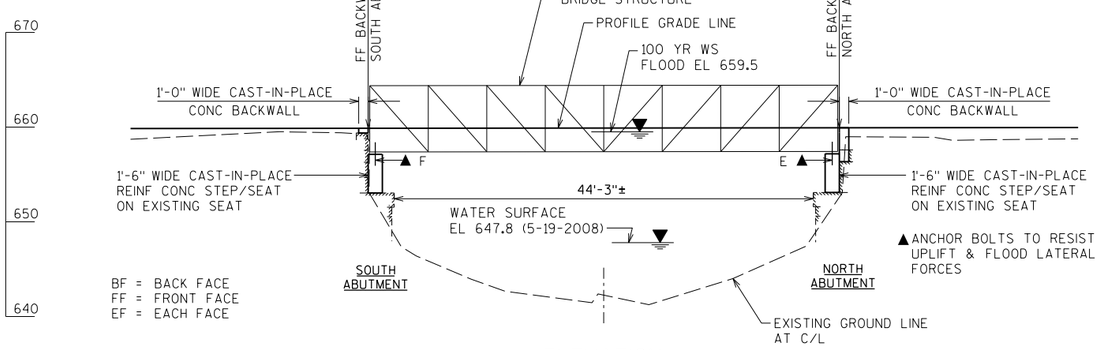
TYPICAL SECTION



BRIDGE LAYOUT DETAIL

☆CENTER BETWEEN FF OF SOUTH ABUT AND FF OF NORTH ABUT

PROFILE GRADE LINE



ELEVATION

DESIGN DATA

2014 AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES.

LIVE LOAD:

LIVE LOAD ON TRAIL BRIDGE = GREATER OF:
90 PSF PER AASHTO
OR H-10 MAINTENANCE (20,000 LB)
VEHICLE WITHOUT IMPACT

INVENTORY RATING = NOT APPLICABLE
OPERATING RATING = NOT APPLICABLE

MATERIAL PROPERTIES:

CONCRETE MASONRY _____ f'c = 3,500 psi

HIGH STRENGTH BAR STEEL REINFORCEMENT
AASHTO GRADE 60 (UNCOATED) _____ fy = 60,000 psi

STRUCTURAL STEEL:

STEEL TRUSS & ATTACHMENTS WELDED TO TRUSS
(WEATHERING STEEL, UNPAINTED) _____ fy = 50,000 psi
RAILING (WEATHERING STEEL, UNPAINTED) _____ fy = 50,000 psi

ESTIMATED TRUSS REACTIONS
USED FOR SUBSTRUCTURE DESIGN

BRIDGE REACTIONS		+ DOWNWARD LOAD - UPWARD LOAD	
	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD	17,050		
UNIFORM LIVE LOAD	35,100		
VEHICLE LOAD	10,000		
WIND UPLIFT 20 PSF WINDWARD / LEEWARD	-12,675 / -4,225		
WIND	±9,630	21,045	
THERMAL			2,560

"P" - VERTICAL LOAD EACH BASE PLATE (4 PER BRIDGE)
"H" - HORIZONTAL LOAD EACH FOOTING (2 PER BRIDGE)
"L" - LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE)

GENERAL NOTES

CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH WISDOT "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" SECTION 501.

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

REINFORCING SPLICES SHALL BE MADE IN ACCORDANCE WITH ACI 318 CLASS C LAPS UNLESS OTHERWISE NOTED.

SEE TRAIL PLANS FOR EXISTING & PROPOSED UTILITY LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES. ALL UTILITIES TO REMAIN IN SERVICE. COORDINATE WITH UTILITY COMPANIES.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROVIDE A ¾" CHAMFER ON ALL ABOVE GRADE CORNERS.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

WHEN STRUCTURE BACKFILL IS REQUIRED ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION.

WOOD DECKING SHALL BE NOMINAL 3" X 12" DOUGLAS FIR-LARCH (DFL) OR SOUTHERN YELLOW PINE (SYP) SELECT STRUCTURAL S1S2E TREATED WITH ALKALINE COPPER QUATERNARY (ACQ) TO AN 0.40 PCF RETENTION. DECK PLANK SHALL BE PLACED ROUGH SIDE UP AND SECURED WITH A MINIMUM OF TWO FASTENERS AT EACH STRINGER.

◐ "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE STRUCTURE B-6-501"

SEE SPECIAL PROVISIONS.

PRE-FABRICATED STEEL TRUSS INCLUDES:
DESIGN, FURNISHING AND INSTALLING THE BRIDGE TRUSSES, THE BEARINGS, RAILING, WOOD DECKING, THE GALVANIZED JOINT COVER PLATES AND ANCHOR BOLTS, NUTS & WASHERS PER TRUSS MANUFACTURER. TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR DETERMINING ANCHOR BOLT SIZE AND LOCATION.

TRUSS, RAILING & WELDED ATTACHMENTS TO BE WEATHERING STEEL, UNCOATED.

BRIDGE TRUSS GROUNDING SYSTEM IS INCLUDED IN THIS ITEM, COORDINATE WITH CONTRACTOR.

TOTAL ESTIMATED QUANTITIES - B-6-501

	BID ITEM NUMBER	BID ITEMS	UNIT	SOUTH ABUT	NORTH ABUT	TOTALS
(1)	203.0200	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 1014+24.19	LS	-	-	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-6-501	LS	-	-	1
(2)	502.0100	CONCRETE MASONRY BRIDGES	CY	5	7	12
◐	502.4205	ADHESIVE ANCHORS NO.5 BAR	EA	38	31	69
	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	820	1,200	2,020
	506.8005.S	PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-6-501	LS	-	-	1

QUANTITY NOTES:

SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS NOT SPECIFICALLY CALLED OUT IN PLANS.

SEE TRAIL PLANS FOR BACKFILLING AND GRADING REQUIREMENTS & QUANTITIES.

(1) INCLUDES ALL BRUSH AND OVERGROWTH ON TOP AND FACE OF ABUTMENT TO A CLEAN SURFACE. INCLUDES RELOCATION OF EXISTING BEARINGS ON THE SOUTH ABUTMENT. EXISTING SUPERSTRUCTURE HAD PREVIOUSLY BEEN REMOVED AND IS NO LONGER PRESENT ON SITE.

(2) INCLUDES REPOINTING EXISTNG MASONRY ABOVE WATERLINE & GROUNDLINE, TYPE "O" MORTAR. ASSUME 200 LF PER ABUTMENT.

HYDRAULIC DATA

100 YEAR FREQUENCY
*100 YR FLOOD EL _____ 659.5 FT
*FROM THE 2003 FLOW FREQUENCY STUDY AT THE WINONA GAGE
SCOUR CODE _____ 8

LIST OF DRAWINGS

1 ..... GENERAL PLAN
2 ..... SOUTH ABUTMENT DETAILS
3 ..... NORTH ABUTMENT DETAILS

WISCONSIN
JEFFREY A. JOHNSON
E-23938
CHIPPEWA FALLS, WI
PROFESSIONAL ENGINEER
1/9/2019

SEH CONTACT: JEFF JOHNSON, PE, 651-490-2078
WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

SEH
SHORT ELLIOTT HENDRICKSON INC.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 02/18/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-6-501

GREAT RIVER STATE TRAIL WINONA CONNECTOR OVER THE MISSISSIPPI BACKWATER

COUNTY	TOWN/~~CITY/VILLAGE~~
BUFFALO	BLUFF SIDING

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JAJ	NCK	DLF	JAJ/NCK

GENERAL PLAN

SHEET 1 OF 3

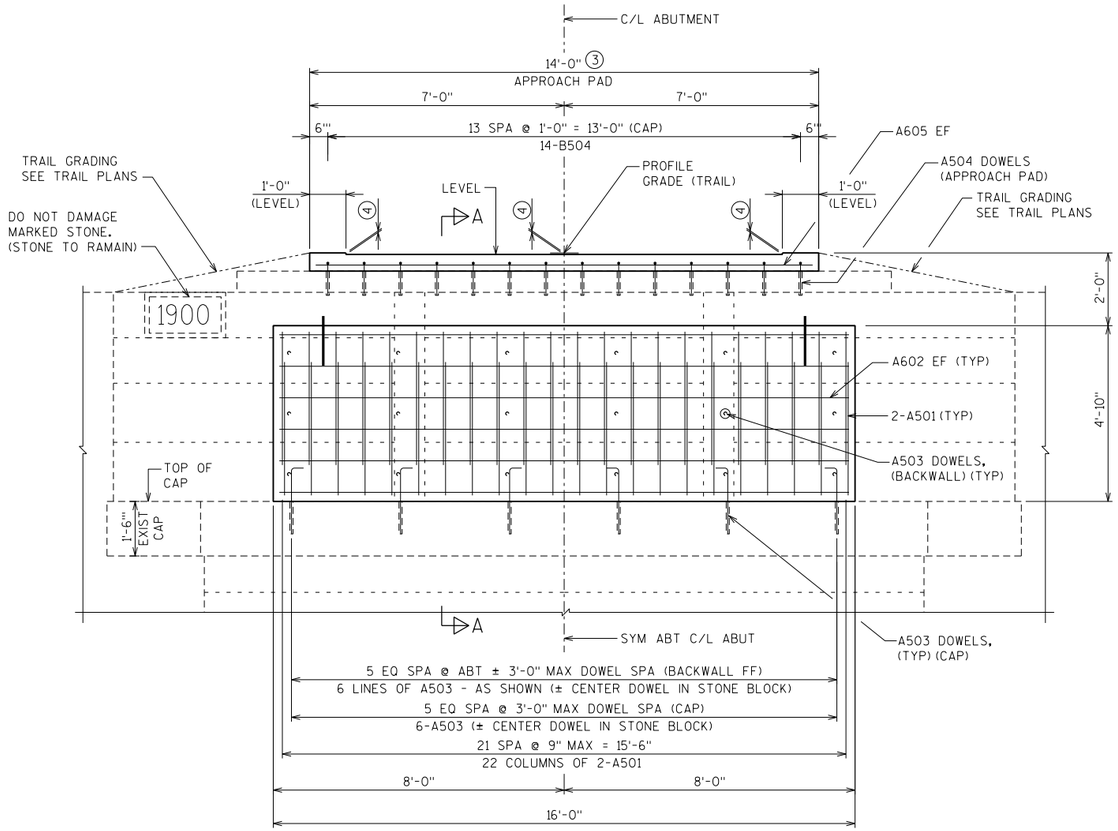
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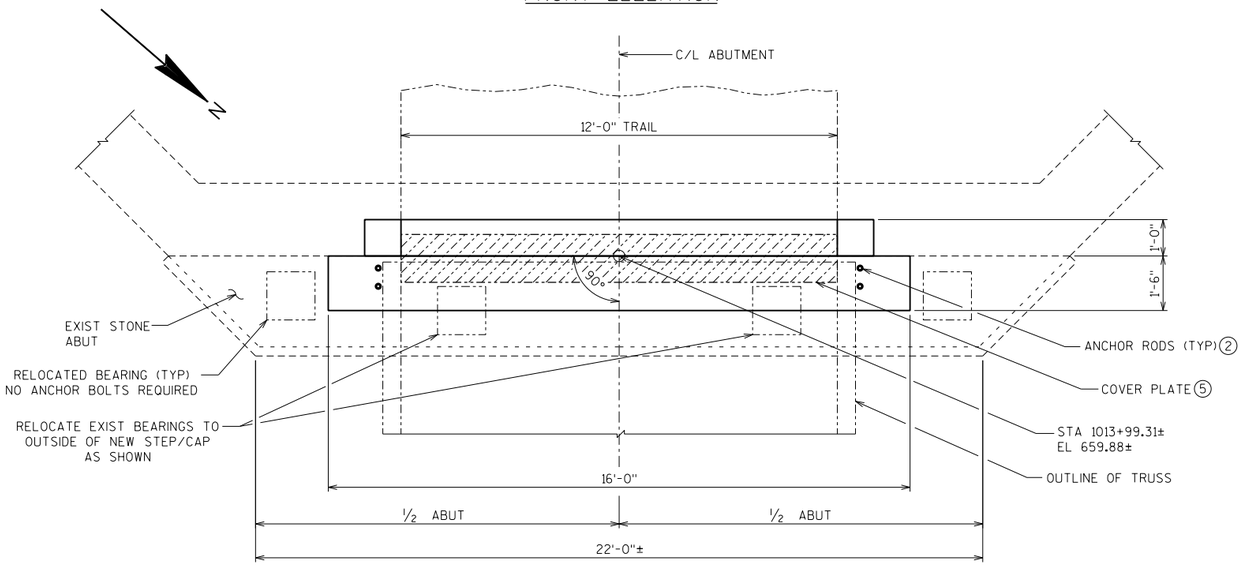
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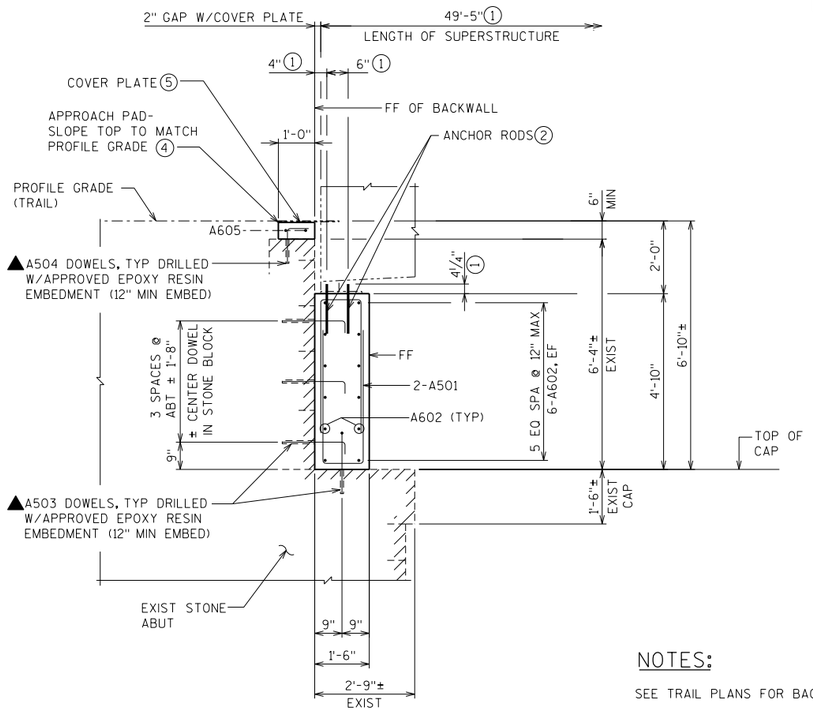
STATE PROJECT NUMBER
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FRONT ELELATION



PLAN



SECTION A-A THRU ABUT

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE
T = TOP
B = BOTTOM

NOTES:

SEE TRAIL PLANS FOR BACKFILLING AND GRADING REQUIREMENTS.

SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS NOT SPECIFICALLY CALLED OUT IN PLANS.

PROVIDE 2" COVER OVER REINFORCEMENT UNLESS SHOWN OTHERWISE.

PROVIDE ¾" CHAMFER ON ALL ABOVE GRADE CORNERS.

① VERIFY DIMENSIONS WITH SUPERSTRUCTURE MANUFACTURER.

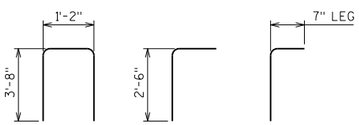
② GALVANIZED ANCHOR RODS, NUTS AND WASHERS. BRIDGE MANUFACTURER SHALL BE BE RESPONSIBLE FOR DETERMINING ANCHORAGE SIZE AND LOCATION.

③ DIMENSION IS CLEAR DISTANCE BETWEEN TRUSS CHORDS PLUS TWO 1'-0" APPROACH SHOULDERS.

④ RECESS APPROACH PAD CONCRETE TO ACCOMMODATE THE COVER PLATE. INTENT IS TO MAINTAIN A SMOOTH TRANSITION FROM TRAIL APPROACH SURFACE TO TRUSS BRIDGE DECK SURFACE. SEE TRUSSS PLANS FOR PLATE THICKNESS.

⑤ GALVANIZED CHECKER PLATE ¼" MIN THICKNESS. SEE TRUSS SHOP DRAWINGS.

▲ ADHESIVE ANCHORS NO. 5 BAR, 12" MIN. EMBEDMENT. WEIGHT OF ANCHORS INCLUDED IN "BAR STEEL REINFORCEMENT HS STRUCTURES"



NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

BILL OF BARS — SOUTH ABUTMENT

	BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
	A501		44	8 - 3		X	BODY VERTS
	A602		12	15 - 8			BODY HORIZ
▲	A503		24	3 - 3		X	DOWEL
▲	A504		14	1 - 10		X	DOWEL
	A605		2	13 - 8			APPROACH PAD HORIZ

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-501

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

SOUTH ABUTMENT DETAILS

SHEET 2 OF 3

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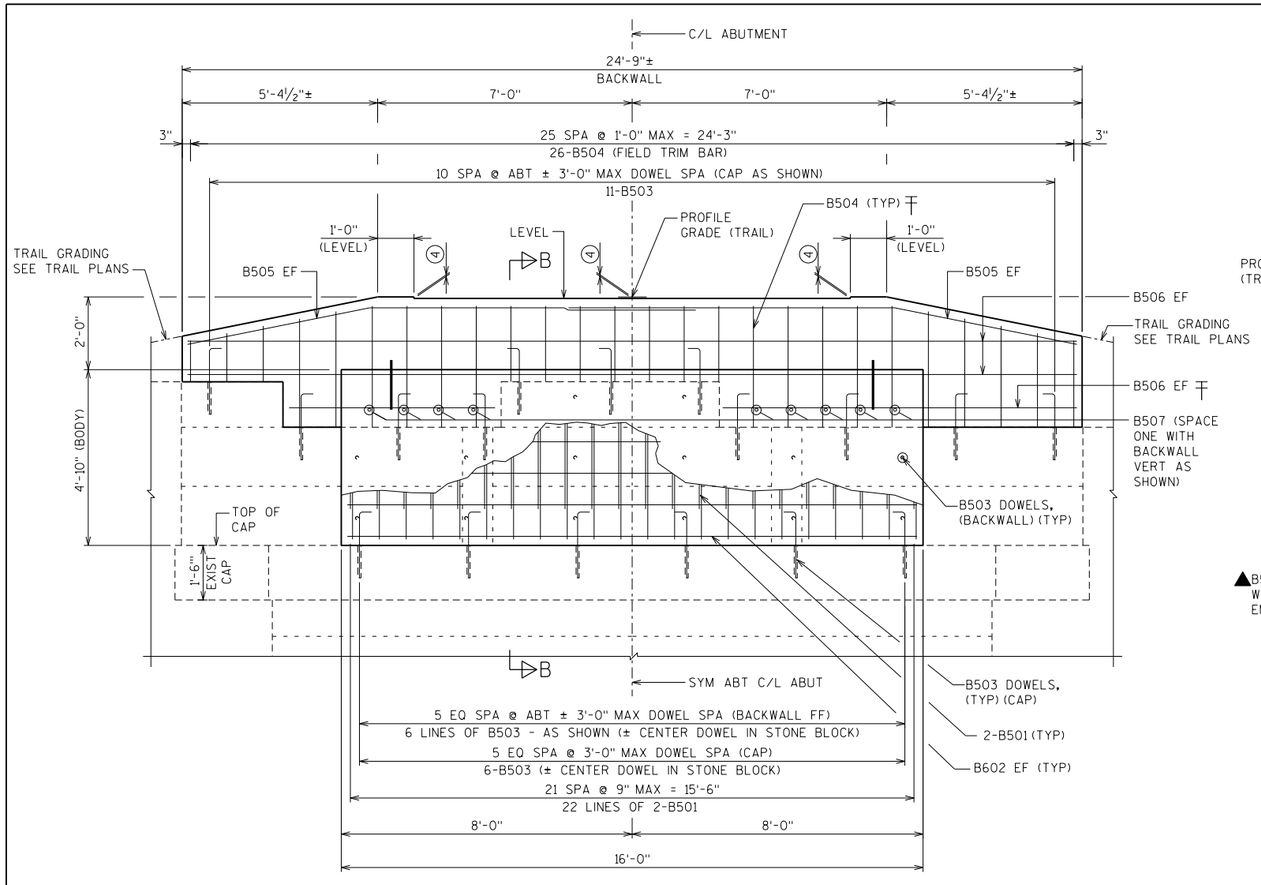
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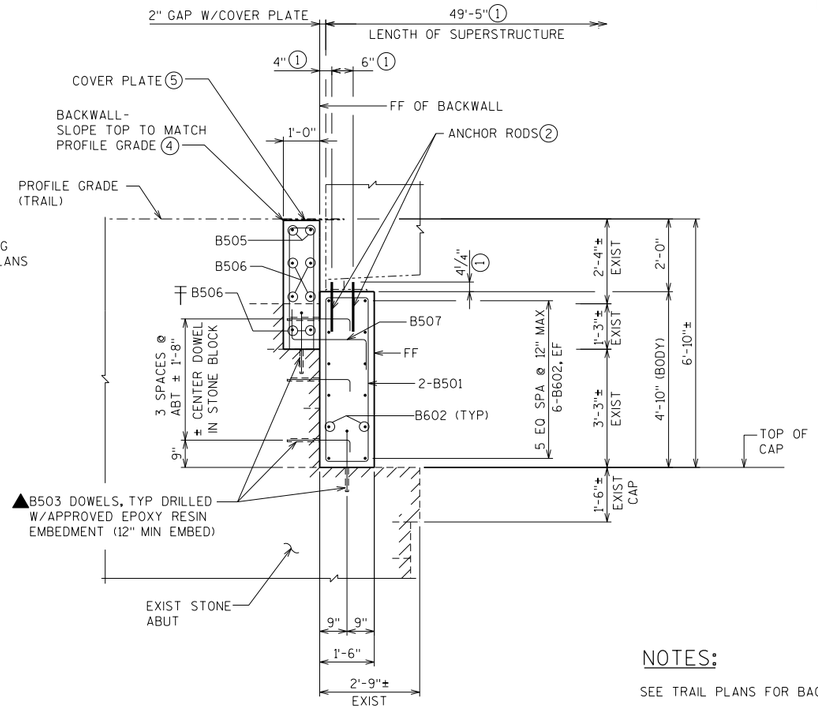
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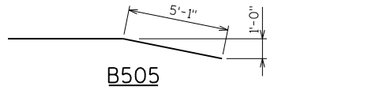
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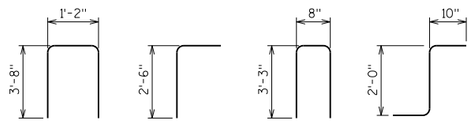
FRONT ELELATION



SECTION B-B THRU ABUT



B505



B501 B503 B504 A507

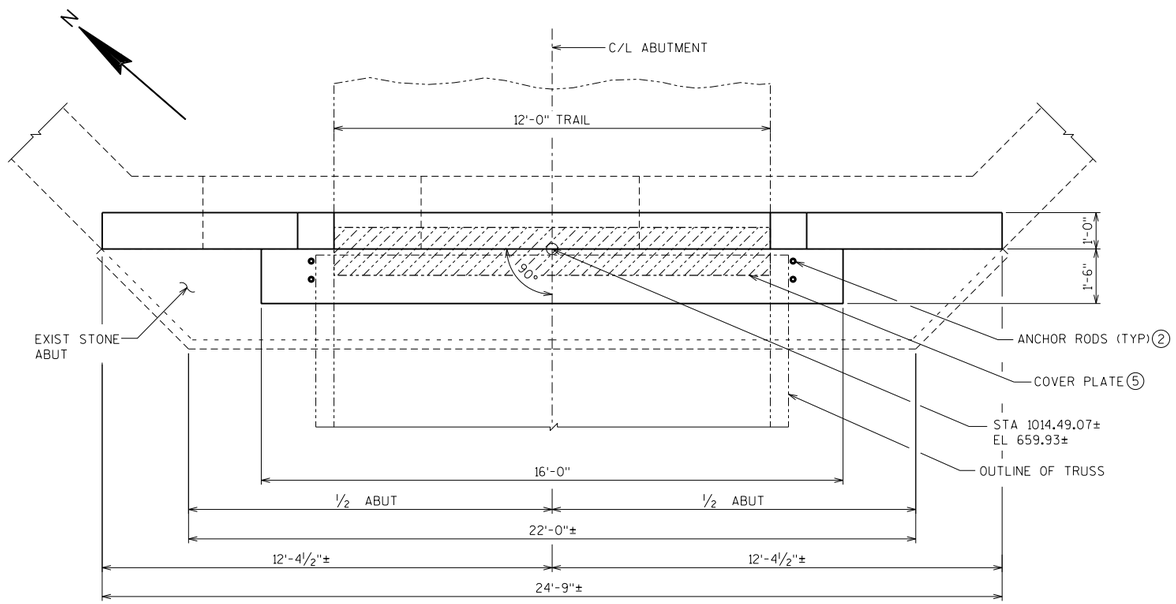
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DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

BILL OF BARS — NORTH ABUTMENT

	BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
	B501		44	8 - 3		X	BODY VERTS
	B602		12	15 - 8			BODY HORIZ
▲	B503		29	3 - 3		X	DOWEL
‡	B504		26	7 - 2		X	BACKWALL VERT
	B505		4	14 1		X	BACKWALL TOP
‡	B506		6	24 5			BACKWALL HORIZ
	B507		9	3 5		X	BACKWALL TIE

‡ FIELD TRIM BAR IN FIELD TO FIT



PLAN

NOTES:

SEE TRAIL PLANS FOR BACKFILLING AND GRADING REQUIREMENTS.

SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS NOT SPECIFICALLY CALLED OUT IN PLANS.

PROVIDE 2" COVER OVER REINFORCEMENT UNLESS SHOWN OTHERWISE.

PROVIDE ¾" CHAMFER ON ALL ABOVE GRADE CORNERS.

(1) VERIFY DIMENSIONS WITH SUPERSTRUCTURE MANUFACTURER.

(2) GALVANIZED ANCHOR RODS, NUTS AND WASHERS. BRIDGE MANUFACTURER SHALL BE BE RESPONSIBLE FOR DETERMINING ANCHORAGE SIZE AND LOCATION.

(3) NOT USED

(4) RECESS BACKWALL CONCRETE TO ACCOMMODATE THE COVER PLATE. INTENT IS TO MAINTAIN A SMOOTH TRANSITION FROM TRAIL APPROACH SURFACE TO TRUSS BRIDGE DECK SURFACE. SEE TRUSSS PLANS FOR PLATE THICKNESS.

(5) GALVANIZED CHECKER PLATE ¼" MIN THICKNESS. SEE TRUSS SHOP DRAWINGS.

▲ ADHESIVE ANCHORS NO. 5 BAR, 12" MIN. EMBEDMENT. WEIGHT OF ANCHORS INCLUDED IN "BAR STEEL REINFORCEMENT HS STRUCTURES"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-6-501

DRAWN BY DLF | PLANS CK'D. JAJ/NCK

NORTH ABUTMENT DETAILS

SHEET 3 OF 3

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EARTHWORK TABULATIONS AGHAMING PARK ROAD TO B-06-0500

DIVISION 1	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
STATION	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	Expanded Rock 1.10	Expanded EBS Backfill 1.30	Reduced Marsh In Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
1000+00.00	18	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000+50.00	21	17	17	0	0	0	36	25	25	0	0	0	36	31	0	0	0	0	0	-21
1001+00.00	18	18	46	0	0	0	36	32	58	0	0	0	72	104	0	0	0	0	0	-89
1001+50.00	20	20	119	0	0	0	35	35	153	0	0	0	107	295	0	0	0	0	0	-280
1002+00.00	17	17	211	0	0	0	34	34	306	0	0	0	142	677	0	0	0	0	0	-662
1002+33.86	17	17	284	0	0	0	22	22	310	0	0	0	163	1065	0	0	0	0	0	-1050
					Column totals		163	148	852	0	0	0								

EARTHWORK TABULATIONS B-06-0500 PIERS

DIVISION 2	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
STATION	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	Expanded Rock 1.10	Expanded EBS Backfill 1.30	Reduced Marsh In Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
1003+49.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1003+52.02	130	0	121	0	0	0	7	0	7	0	0	0	7	8	0	0	0	0	0	-1
1003+74.02	130	0	121	0	0	0	106	0	98	0	0	0	113	131	0	0	0	0	0	-18
1003+77.02	0	0	0	0	0	0	7	0	7	0	0	0	121	139	0	0	0	0	0	-19
1004+77.19	0	0	0	0	0	0	0	0	0	0	0	0	121	139	0	0	0	0	0	-19
1004+80.19	146	0	129	0	0	0	8	0	7	0	0	0	129	148	0	0	0	0	0	-20
1005+02.19	146	0	129	0	0	0	119	0	105	0	0	0	248	280	0	0	0	0	0	-33
1005+05.19	0	0	0	0	0	0	8	0	7	0	0	0	256	289	0	0	0	0	0	-33
1006+03.61	0	0	0	0	0	0	0	0	0	0	0	0	256	289	0	0	0	0	0	-33
1006+06.61	193	0	185	0	0	0	11	0	10	0	0	0	266	302	0	0	0	0	0	-36
1006+32.77	193	0	185	0	0	0	187	0	180	0	0	0	454	527	0	0	0	0	0	-73
1006+35.77	0	0	0	0	0	0	11	0	10	0	0	0	465	539	0	0	0	0	0	-75
1007+33.92	0	0	0	0	0	0	0	0	0	0	0	0	465	539	0	0	0	0	0	-75
1007+36.92	163	0	129	0	0	0	9	0	7	0	0	0	474	548	0	0	0	0	0	-75
1007+62.92	163	0	129	0	0	0	157	0	125	0	0	0	630	704	0	0	0	0	0	-74
1007+65.92	0	0	0	0	0	0	9	0	7	0	0	0	639	713	0	0	0	0	0	-74
1008+64.39	0	0	0	0	0	0	0	0	0	0	0	0	639	713	0	0	0	0	0	-74
1008+67.39	279	0	291	0	0	0	16	0	16	0	0	0	655	733	0	0	0	0	0	-78
1008+93.39	279	0	291	0	0	0	269	0	280	0	0	0	924	1083	0	0	0	0	0	-160
1008+96.39	0	0	0	0	0	0	16	0	16	0	0	0	939	1103	0	0	0	0	0	-164
1009+94.53	0	0	0	0	0	0	0	0	0	0	0	0	939	1103	0	0	0	0	0	-164
1009+97.53	166	0	171	0	0	0	9	0	10	0	0	0	948	1115	0	0	0	0	0	-167
1010+23.53	166	0	171	0	0	0	159	0	165	0	0	0	1108	1321	0	0	0	0	0	-214
1010+26.53	0	0	0	0	0	0	9	0	10	0	0	0	1117	1333	0	0	0	0	0	-216
					Column totals		1117	0	1067	0	0	0								

EARTHWORK TABULATIONS B-06-0500 TO B-06-0501

DIVISION 3	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
STATION	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	Expanded Rock 1.10	Expanded EBS Backfill 1.30	Reduced Marsh In Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
1011+40.58	0	0	471	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1011+50.00	0	0	455	0	0	0	0	0	163	0	0	0	0	203	0	0	0	0	0	-203
1012+00.00	0	0	291	0	0	0	0	0	691	0	0	0	0	1067	0	0	0	0	0	-1067
1012+50.00	0	0	165	0	0	0	0	0	423	0	0	0	0	1595	0	0	0	0	0	-1595
1013+00.00	0	0	111	0	0	0	0	0	255	0	0	0	0	1914	0	0	0	0	0	-1914
1013+50.00	0	0	33	0	0	0	0	0	133	0	0	0	0	2081	0	0	0	0	0	-2081
1013+94.31	2	0	9	0	0	0	2	0	35	0	0	0	2	2124	0	0	0	0	0	-2123
					Column totals		2	0	1699	0	0	0								

EARTHWORK TABULATIONS B-06-0501 TO TOWN OF BUFFALO PARK ENTRANCE

DIVISION 4	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
STATION	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	Expanded Rock 1.10	Expanded EBS Backfill 1.30	Reduced Marsh In Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
1014+54.07	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1015+00.00	0	0	4	0	0	0	0	0	25	0	0	0	0	31	0	0	0	0	0	-31
1015+50.00	0	0	3	0	0	0	0	0	6	0	0	0	0	38	0	0	0	0	0	-38
1016+00.00	0	0	1	0	0	0	0	0	3	0	0	0	0	42	0	0	0	0	0	-42
1016+50.00	1	0	22	0	0	0	2	0	21	0	0	0	2	69	0	0	0	0	0	-67
1017+00.00	2	0	20	0	0	0	3	0	39	0	0	0	5	118	0	0	0	0	0	-113
1017+50.00	6	0	0	0	0	0	8	0	19	0	0	0	13	142	0	0	0	0	0	-128
1018+00.00	4	0	1	0	0	0	9	0	1	0	0	0	22	143	0	0	0	0	0	-120
1018+50.00	0	0	6	0	0	0	4	0	6	0	0	0	26	151	0	0	0	0	0	-124
1019+00.00	0	0	16	0	0	0	0	0	20	0	0	0	26	176	0	0	0	0	0	-150
1019+50.00	0	0	122	0	0	0	0	0	127	0	0	0	26	335	0	0	0	0	0	-308
1020+00.00	0	0	250	0	0	0	0	0	344	0	0	0	26	765	0	0	0	0	0	-739
1020+50.00	0	0	304	0	0	0	0	0	513	0	0	0	26	1406	0	0	0	0	0	-1380
1021+00.00	0	0	199	0	0	0	0	0	466	0	0	0	26	1988	0	0	0	0	0	-1962
1021+02.97	0	0	74	0	0	0	0	0	15	0	0	0	26	2007	0	0	0	0	0	-1981
1021+06.86	0	0	58	0	0	0	0	0	9	0	0	0	26	2019	0	0	0	0	0	-1993
1021+15.87	0	0	40	0	0	0	0	0	16	0	0	0	26	2039	0	0	0	0	0	-2013
1021+40.15	0	0	21	0	0	0	0	0	27	0	0	0	26	2073	0	0	0	0	0	-2047
1021+50.00	0	0	72	0	0	0	0	0	17	0	0	0	26	2094	0	0	0	0	0	-2068
1022+00.00	1	0	19	0	0	0	1	0	84	0	0	0	28	2199	0	0	0	0	0	-2171
1022+50.00	3	0	8	0	0	0	4	0	25	0	0	0	32	2230	0	0	0	0	0	-2198
1023+00.00	2	0	7	0	0	0	5	0	14	0	0	0	36	2247	0	0	0	0	0	-2211
1023+50.00	3	0	6	0	0	0	5	0	11	0	0	0	41	2261	0	0	0	0	0	-2220
1024+00.00	4	0	5	0	0	0	7	0	9	0	0	0	48	2273	0	0	0	0	0	-2225
1024+50.00	5	0	4	0	0	0	8	0	8	0	0	0	56	2282	0	0	0	0	0	-2226
1025+00.00	5	0	4	0	0	0	9	0	7	0	0	0	65	2292	0	0	0	0	0	-2227
1025+50.00	3	0	5	0	0	0	8	0	9	0	0	0	72	2302	0	0	0	0	0	-2230
1026+00.00	3	0	7	0	0	0	6	0	11	0	0	0	78	2316	0	0	0	0	0	-2238
1026+50.00	2	0	12	0	0	0	5	0	18	0	0	0	83	2338	0	0	0	0	0	-2256
1027+00.00	2	0	19	0	0	0	3	0	29	0	0	0	86	2374	0	0	0	0	0	-2288
1027+50.00	2	0	15	0	0	0	3	0	31	0	0	0	89	2413	0	0	0	0	0	-2324
1028+00.00	2	0	14	0	0	0	3	0	26	0	0	0	92	2446	0	0	0	0	0	-2353
1028+02.13	1	0	0	0	0	0	0	0	1	0	0	0	92	2446	0	0	0	0	0	-2354
1028+38.20	1	0	0	0	0	0	1	0	0	0	0	0	94	2446	0	0	0	0	0	-2353
1028+50.00	2	0	0	0	0	0	1	0	0	0	0	0	94	2446	0	0	0	0	0	-2352
1028+89.23	1	0	0	0	0	0	2	0	0	0	0	0	96	2446	0	0	0	0	0	-2350
1029+00.00	2	0	19	0	0	0	1	0	4	0	0	0	97	2451	0	0	0	0	0	-2354
1029+50.00	2	0	24	0	0	0	3	0	40	0	0	0	100	2501	0	0	0	0	0	-2401
1030+00.00	2	0	13	0	0	0	4	0	34	0	0	0	104	2544	0	0	0	0	0	-2440
1030+50.00	2	0	12	0	0	0	4	0	24	0	0	0	108	2573	0	0	0	0	0	-2466
1031+00.00	2	0	15	0	0	0	4	0	25	0	0	0	112	2604	0	0	0	0	0	-2493
1031+50.00	3	0	16	0	0	0	4	0	28	0	0	0	116	2640	0	0	0	0	0	-2524
1032+00.00	3	0	15	0	0	0	5	0	29	0	0	0	121	2676	0	0	0	0	0	-2555
1032+50.00	4	0	9	0	0	0	7	0	22	0	0	0	128	2704	0	0	0	0	0	-2576
1033+00.00	5	0	5	0	0	0	8	0	13	0	0	0	136	2721	0	0	0	0	0	-2584
1033+50.00	5	0	3	0	0	0	9	0	8	0	0	0	146	2730	0	0	0	0	0	-2585
1034+00.00	5	0	4	0	0	0	10	0	6	0	0	0	155	2738	0	0	0	0	0	-2583
1034+50.00	7	0	8	0	0	0	11	0	12	0	0	0	166	2753	0	0	0	0	0	-2587
1035+00.00	6	0	11	0	0	0	12	0	18	0	0	0	178	2775	0	0	0	0	0	-2598
1035+50.00	7	0	8	0	0	0	12	0	18	0	0	0	190	2797	0	0	0	0	0	-2608
1036+00.00	6	0	11	0	0	0	11	0	18	0	0	0	201	2819	0	0	0	0	0	-2618
1036+50.00	5	0	7	0	0	0	10	0	17	0	0	0	211	2840	0	0	0	0	0	-2629
1037+00.00	6	0	5	0	0	0	10	0	10	0	0	0	222	2853	0	0	0	0	0	-2631
1037+50.00	6	0	16	0	0	0	11	0	19	0	0	0	233	2877	0	0	0	0	0	-2644
1038+00.00	5	0	28	0	0	0	10	0	41	0	0	0	244	2928	0	0	0	0	0	-2685
1038+50.00	4	0	35	0	0	0	8	0	58	0	0	0	252	3001	0	0	0	0	0	-2749
1039+00.00	4	0	48	0	0	0	7	0	76	0	0	0	259	3096	0	0	0	0	0	-2838
1039+50.00	4	0	36	0	0	0	8	0	78	0	0	0	267	3194	0	0	0	0	0	-2927
1040+00.00	4	0	24	0	0	0	8	0	56	0	0	0	275	3264	0	0	0	0	0	-2989
1040+50.00	7	0	6	0	0	0	10	0	28	0	0	0	285	3299	0	0	0	0	0	-3014
1041+00.00	20	0	0	0	0	0	24	0	6	0	0	0	309	3306	0	0	0	0	0	-2997
1041+50.00	9	0	20	0	0	0	26	0	19	0	0	0	335	3329	0	0	0	0	0	-2994
1042+00.00	3	0	51	0	0	0	11	0	66	0	0	0	345	3412	0	0	0	0	0	-3066
1042+50.00	3	0	130	0	0	0	6	0	168	0	0	0	351	3621	0	0	0	0	0	-3270

EARTHWORK TABULATIONS B-06-0501 TO TOWN OF BUFFALO PARK ENTRANCE

DIVISION 4	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
STATION	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	Expanded Rock 1.10	Expanded EBS Backfill 1.30	Reduced Marsh In Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
1043+00.00	3	0	202	0	0	0	6	0	307	0	0	0	357	4005	0	0	0	0	0	-3648
1043+50.00	2	0	221	0	0	0	5	0	392	0	0	0	363	4495	0	0	0	0	0	-4132
1044+00.00	2	0	250	0	0	0	4	0	436	0	0	0	367	5040	0	0	0	0	0	-4674
1044+50.00	2	0	269	0	0	0	3	0	480	0	0	0	370	5640	0	0	0	0	0	-5270
1045+00.00	2	0	167	0	0	0	4	0	404	0	0	0	374	6145	0	0	0	0	0	-5771
1045+50.00	2	0	135	0	0	0	4	0	280	0	0	0	378	6495	0	0	0	0	0	-6117
1046+00.00	3	0	91	0	0	0	5	0	210	0	0	0	382	6757	0	0	0	0	0	-6375
1046+50.00	2	0	14	0	0	0	5	0	97	0	0	0	387	6879	0	0	0	0	0	-6492
1047+00.00	3	0	30	0	0	0	5	0	41	0	0	0	391	6930	0	0	0	0	0	-6538
1047+50.00	3	0	30	0	0	0	5	0	55	0	0	0	396	6999	0	0	0	0	0	-6603
1048+00.00	3	0	7	0	0	0	5	0	34	0	0	0	402	7042	0	0	0	0	0	-6640
1048+50.00	4	0	54	0	0	0	6	0	57	0	0	0	408	7112	0	0	0	0	0	-6704
1049+00.00	2	0	113	0	0	0	5	0	155	0	0	0	413	7305	0	0	0	0	0	-6892
1049+50.00	2	0	129	0	0	0	4	0	224	0	0	0	417	7585	0	0	0	0	0	-7168
1050+00.00	2	0	107	0	0	0	4	0	218	0	0	0	421	7858	0	0	0	0	0	-7437
1050+50.00	3	0	95	0	0	0	4	0	187	0	0	0	426	8092	0	0	0	0	0	-7666
1051+00.00	3	0	73	0	0	0	5	0	155	0	0	0	430	8286	0	0	0	0	0	-7856
1051+50.00	3	0	90	0	0	0	5	0	151	0	0	0	435	8475	0	0	0	0	0	-8039
1052+00.00	2	0	117	0	0	0	5	0	191	0	0	0	440	8714	0	0	0	0	0	-8274
1052+50.00	2	0	81	0	0	0	4	0	184	0	0	0	444	8944	0	0	0	0	0	-8499
1053+00.00	3	0	42	0	0	0	5	0	114	0	0	0	449	9086	0	0	0	0	0	-8637
1053+50.00	3	0	10	0	0	0	5	0	48	0	0	0	454	9146	0	0	0	0	0	-8692
1054+00.00	4	0	6	0	0	0	6	0	14	0	0	0	460	9163	0	0	0	0	0	-8704
1054+50.00	3	0	8	0	0	0	6	0	13	0	0	0	465	9180	0	0	0	0	0	-8714
1055+00.00	4	0	5	0	0	0	6	0	13	0	0	0	471	9195	0	0	0	0	0	-8724
1055+50.00	5	0	4	0	0	0	8	0	9	0	0	0	479	9206	0	0	0	0	0	-8727
1056+00.00	8	0	8	0	0	0	11	0	11	0	0	0	490	9220	0	0	0	0	0	-8730
1056+50.00	9	0	7	0	0	0	15	0	14	0	0	0	505	9238	0	0	0	0	0	-8733
1057+00.00	9	0	6	0	0	0	16	0	12	0	0	0	521	9253	0	0	0	0	0	-8732
1057+50.00	9	0	7	0	0	0	16	0	12	0	0	0	538	9268	0	0	0	0	0	-8731
1058+00.00	9	0	8	0	0	0	17	0	14	0	0	0	554	9285	0	0	0	0	0	-8731
1058+50.00	7	0	9	0	0	0	15	0	16	0	0	0	569	9305	0	0	0	0	0	-8736
1059+00.00	7	0	14	0	0	0	13	0	22	0	0	0	582	9332	0	0	0	0	0	-8750
1059+50.00	7	0	12	0	0	0	13	0	24	0	0	0	595	9362	0	0	0	0	0	-8767
1060+00.00	6	0	13	0	0	0	12	0	23	0	0	0	607	9390	0	0	0	0	0	-8783
1060+50.00	6	0	12	0	0	0	12	0	23	0	0	0	619	9418	0	0	0	0	0	-8799
1061+00.00	5	0	13	0	0	0	11	0	23	0	0	0	630	9447	0	0	0	0	0	-8818
1061+50.00	5	0	16	0	0	0	10	0	27	0	0	0	639	9481	0	0	0	0	0	-8841
1062+00.00	5	0	16	0	0	0	10	0	29	0	0	0	649	9517	0	0	0	0	0	-8868
1062+50.00	5	0	15	0	0	0	10	0	29	0	0	0	659	9553	0	0	0	0	0	-8894
1063+00.00	5	0	13	0	0	0	10	0	26	0	0	0	668	9585	0	0	0	0	0	-8917
1063+50.00	5	0	17	0	0	0	9	0	28	0	0	0	678	9620	0	0	0	0	0	-8943
1064+00.00	5	0	16	0	0	0	9	0	31	0	0	0	686	9659	0	0	0	0	0	-8973
1064+50.00	4	0	23	0	0	0	8	0	36	0	0	0	695	9705	0	0	0	0	0	-9010
1065+00.00	4	0	22	0	0	0	7	0	41	0	0	0	702	9756	0	0	0	0	0	-9054
1065+50.00	4	0	24	0	0	0	7	0	42	0	0	0	709	9809	0	0	0	0	0	-9100
1066+00.00	4	0	22	0	0	0	8	0	43	0	0	0	717	9862	0	0	0	0	0	-9145
1066+50.00	4	0	20	0	0	0	8	0	39	0	0	0	724	9910	0	0	0	0	0	-9186
1067+00.00	5	0	10	0	0	0	8	0	27	0	0	0	733	9944	0	0	0	0	0	-9212
1067+50.00	5	0	10	0	0	0	9	0	19	0	0	0	741	9968	0	0	0	0	0	-9226
1068+00.00	4	0	20	0	0	0	8	0	28	0	0	0	749	10002	0	0	0	0	0	-9253
1068+50.00	5	0	9	0	0	0	8	0	27	0	0	0	757	10036	0	0	0	0	0	-9279
1069+00.00	9	0	4	0	0	0	13	0	12	0	0	0	770	10051	0	0	0	0	0	-9281
1069+50.00	12	0	2	0	0	0	19	0	5	0	0	0	789	10057	0	0	0	0	0	-9268
1070+00.00	8	0	1	0	0	0	19	0	2	0	0	0	808	10060	0	0	0	0	0	-9253
1070+50.00	10	0	0	0	0	0	17	0	1	0	0	0	825	10061	0	0	0	0	0	-9236
1071+00.00	0	0	22	0	0	0	10	0	20	0	0	0	835	10086	0	0	0	0	0	-9251
1071+50.00	0	0	56	0	0	0	0	0	72	0	0	0	835	10176	0	0	0	0	0	-9341
1072+00.00	0	0	61	0	0	0	0	0	108	0	0	0	835	10312	0	0	0	0	0	-9477
1072+50.00	0	0	67	0	0	0	0	0	119	0	0	0	835	10460	0	0	0	0	0	-9625
1073+00.00	0	0	70	0	0	0	0	0	127	0	0	0	835	10618	0	0	0	0	0	-9783
1073+50.00	0	0	73	0	0	0	0	0	132	0	0	0	835	10783	0	0	0	0	0	-9948
1074+00.00	0	0	89	0	0	0	0	0	150	0	0	0	835	10970	0	0	0	0	0	-10135
1074+50.00	0	0	107	0	0	0	0	0	181	0	0	0	835	11197	0	0	0	0	0	-10362

EARTHWORK TABULATIONS B-06-0501 TO TOWN OF BUFFALO PARK ENTRANCE

DIVISION 4	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
STATION	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	Expanded Rock 1.10	Expanded EBS Backfill 1.30	Reduced Marsh In Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
1075+00.00	0	0	121	0	0	0	0	0	210	0	0	0	835	11460	0	0	0	0	0	-10625
1075+50.00	0	0	140	0	0	0	0	0	241	0	0	0	835	11762	0	0	0	0	0	-10927
1076+00.00	0	0	161	0	0	0	0	0	279	0	0	0	835	12110	0	0	0	0	0	-11275
1076+50.00	0	0	153	0	0	0	0	0	291	0	0	0	835	12474	0	0	0	0	0	-11639
1077+00.00	0	0	108	0	0	0	0	0	242	0	0	0	835	12776	0	0	0	0	0	-11941
1077+27.64	0	0	0	0	0	0	0	0	55	0	0	0	835	12845	0	0	0	0	0	-12010
1077+38.64	0	0	0	0	0	0	0	0	0	0	0	0	835	12845	0	0	0	0	0	-12010
1077+48.91	0	0	0	0	0	0	0	0	0	0	0	0	835	12845	0	0	0	0	0	-12010
1078+00.00	0	0	71	0	0	0	0	0	67	0	0	0	835	12929	0	0	0	0	0	-12094
1078+44.37	14	0	0	0	0	0	77	0	388	0	0	0	912	13414	0	0	0	0	0	-12502
					Column totals		912	0	10731	0	0	0								

EARTHWORK TABULATIONS ACCESS WIDENING

DIVISION 5	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
STATION	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.25	Expanded Marsh Backfill 1.50	Expanded Rock 1.10	Expanded EBS Backfill 1.30	Reduced Marsh In Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
1001+07.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1002+00.00	5	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	0	8
1003+00.00	3	0	0	0	0	0	15	0	0	0	0	0	23	0	0	0	0	0	0	23
1004+00.00	2	0	5	0	0	0	10	0	9	0	0	0	33	11	0	0	0	0	0	22
1005+00.00	2	0	8	0	0	0	7	0	23	0	0	0	40	39	0	0	0	0	0	1
1006+00.00	3	0	3	0	0	0	9	0	20	0	0	0	48	64	0	0	0	0	0	-15
1006+24.00	3	0	0	0	0	0	3	0	1	0	0	0	51	66	0	0	0	0	0	-15
					Column totals		51	0	52	0	0	0								

LEGEND

REMOVING PAVEMENT

STRUCTURE B-06-0500

1002+33.86

1002+00

1001+50

1001+00

1000+50

1000+00

BEGIN CONSTRUCTION
STA 1000+00.00

BEGIN PROJECT
STA 983+00.00

5.0 FT

5.0 FT

PLE

OHE

2:1

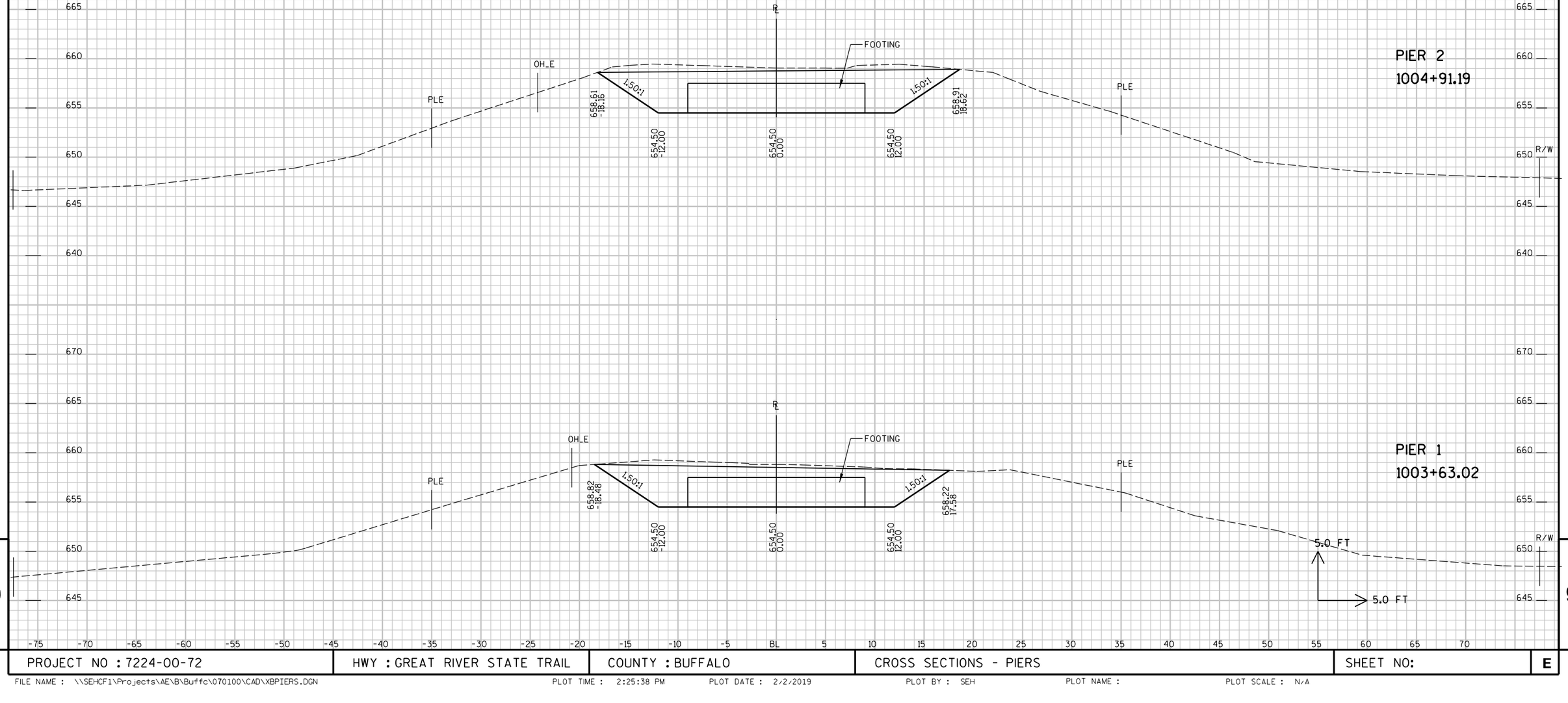
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR

SHEET NO: E

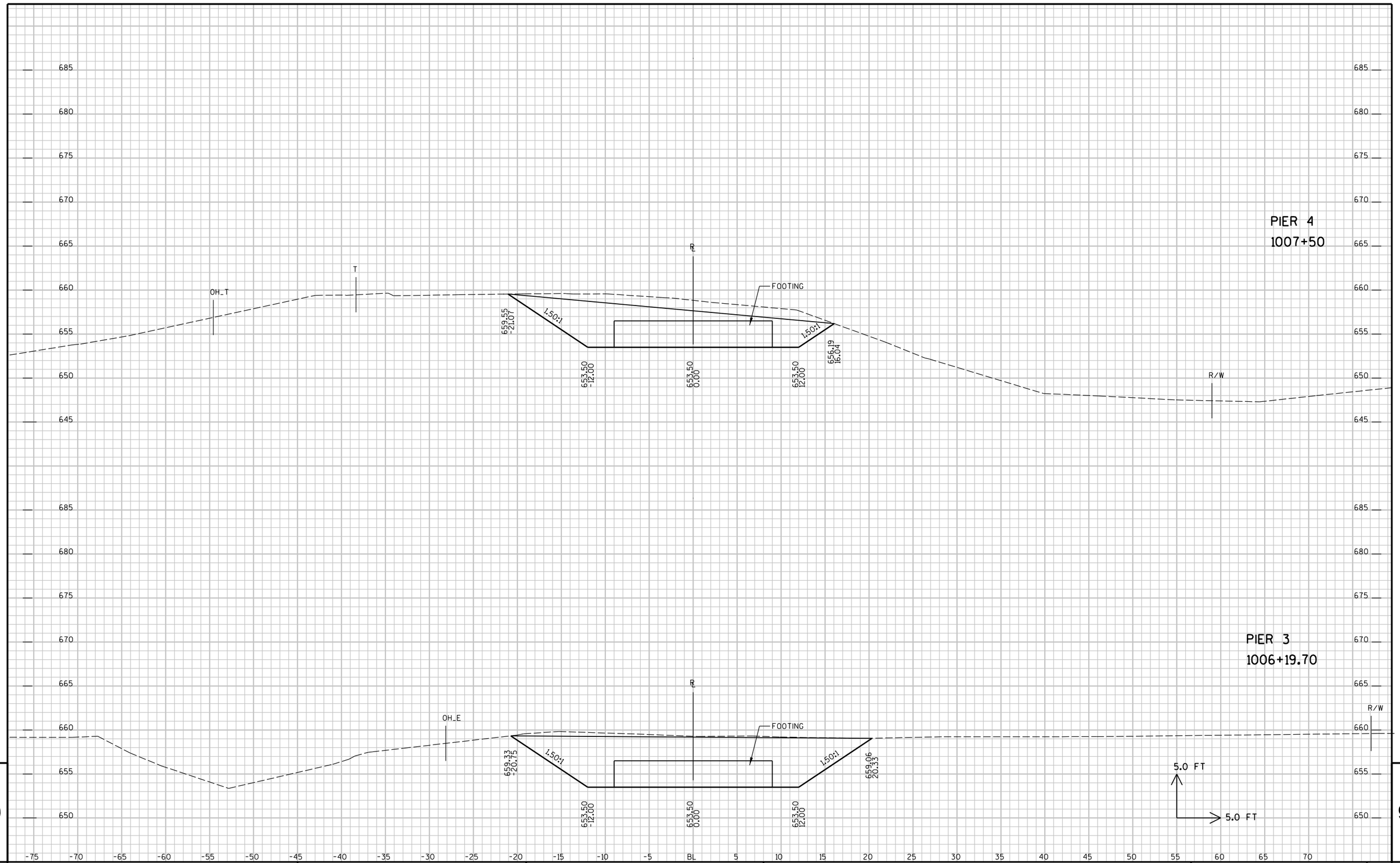
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - PIERS	SHEET NO:	E

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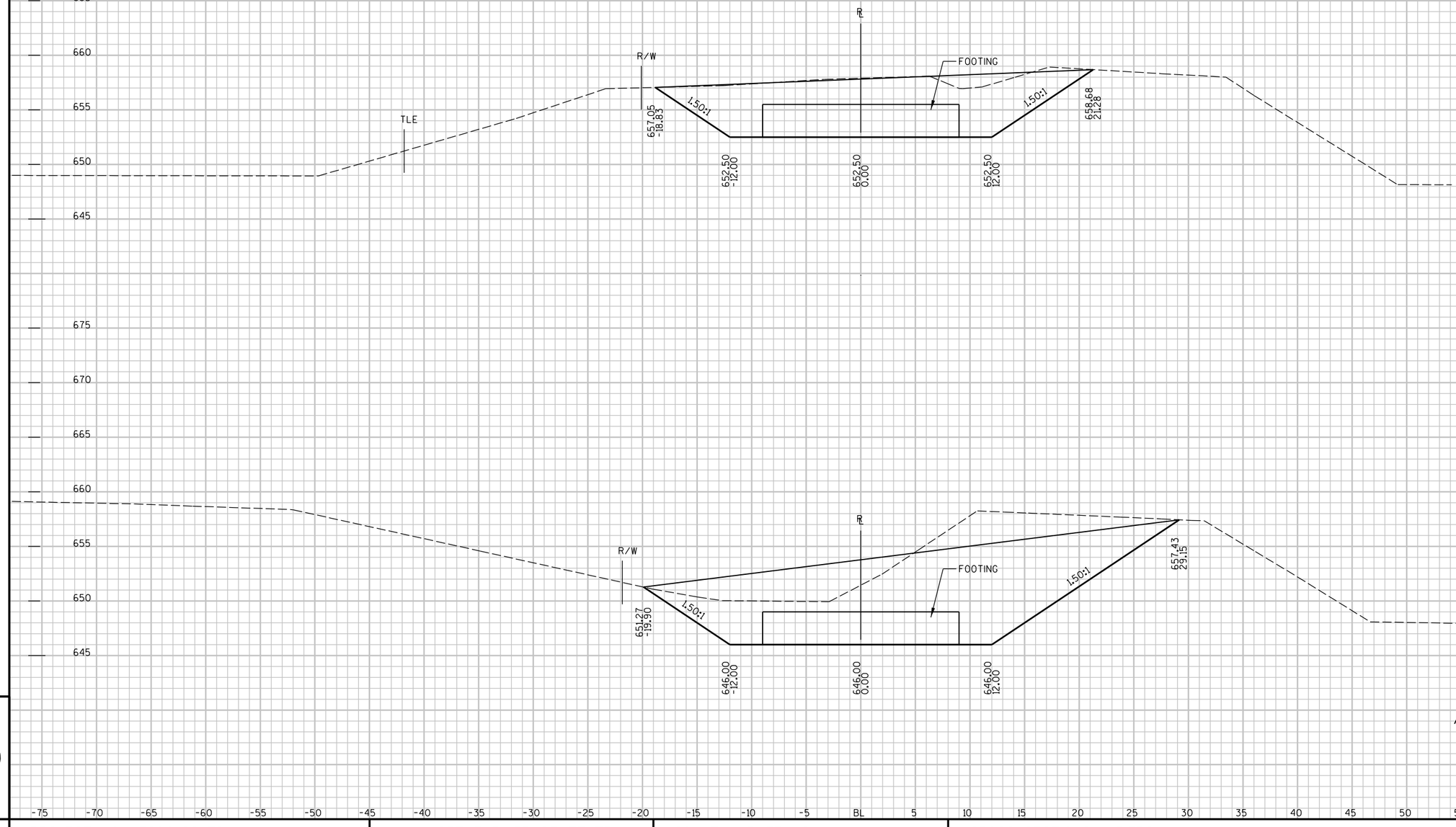


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - PIERS	SHEET NO:	E

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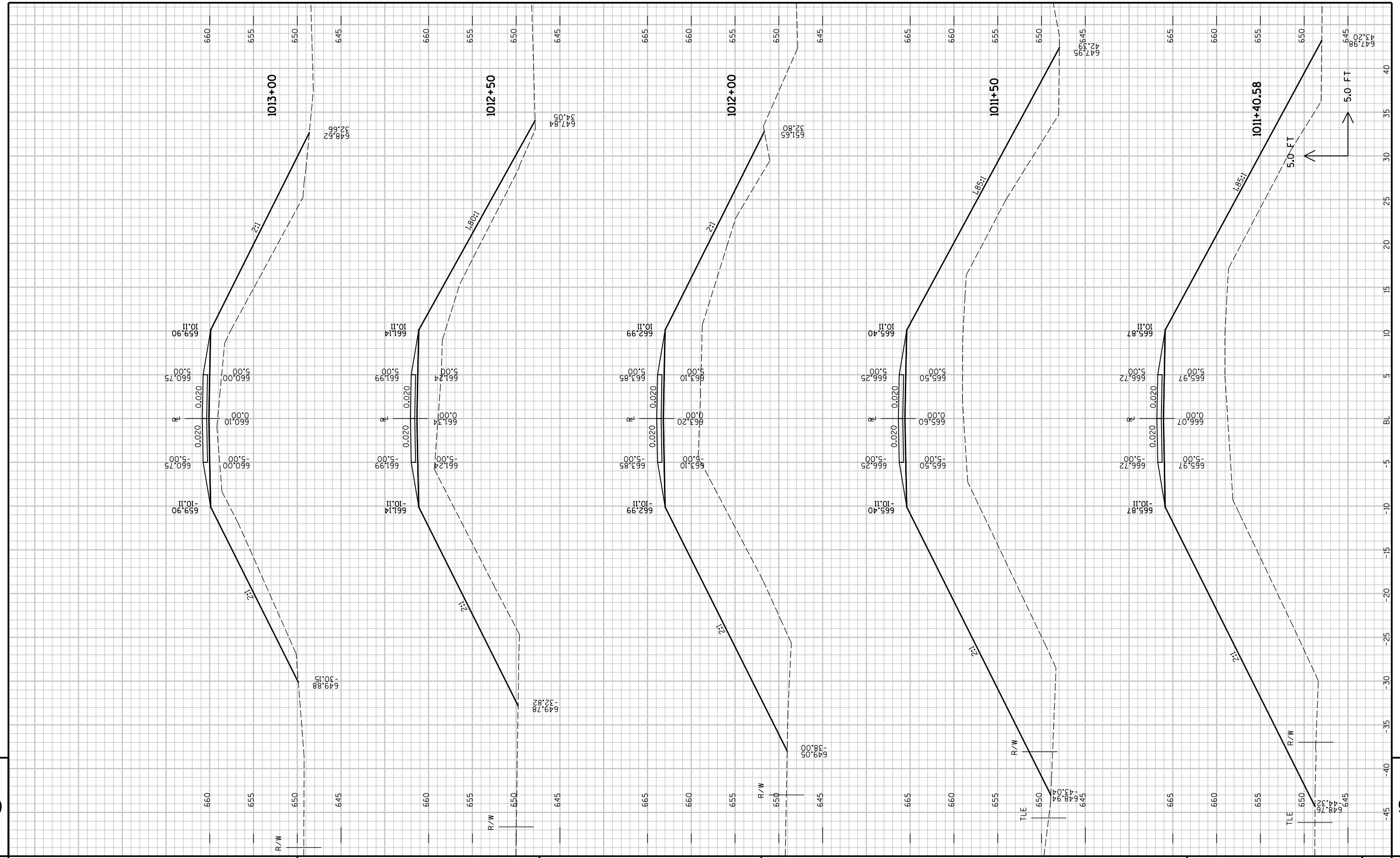


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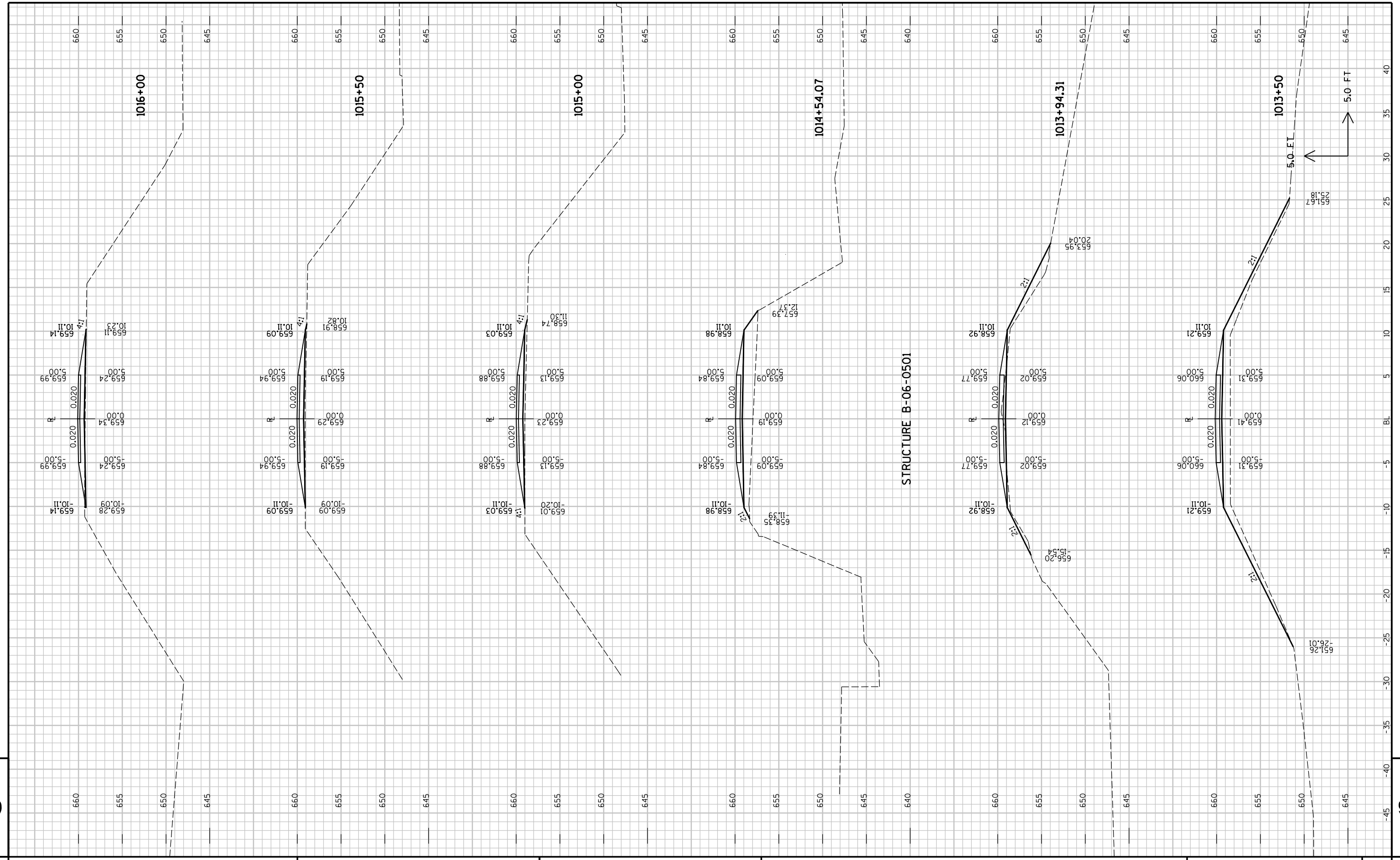
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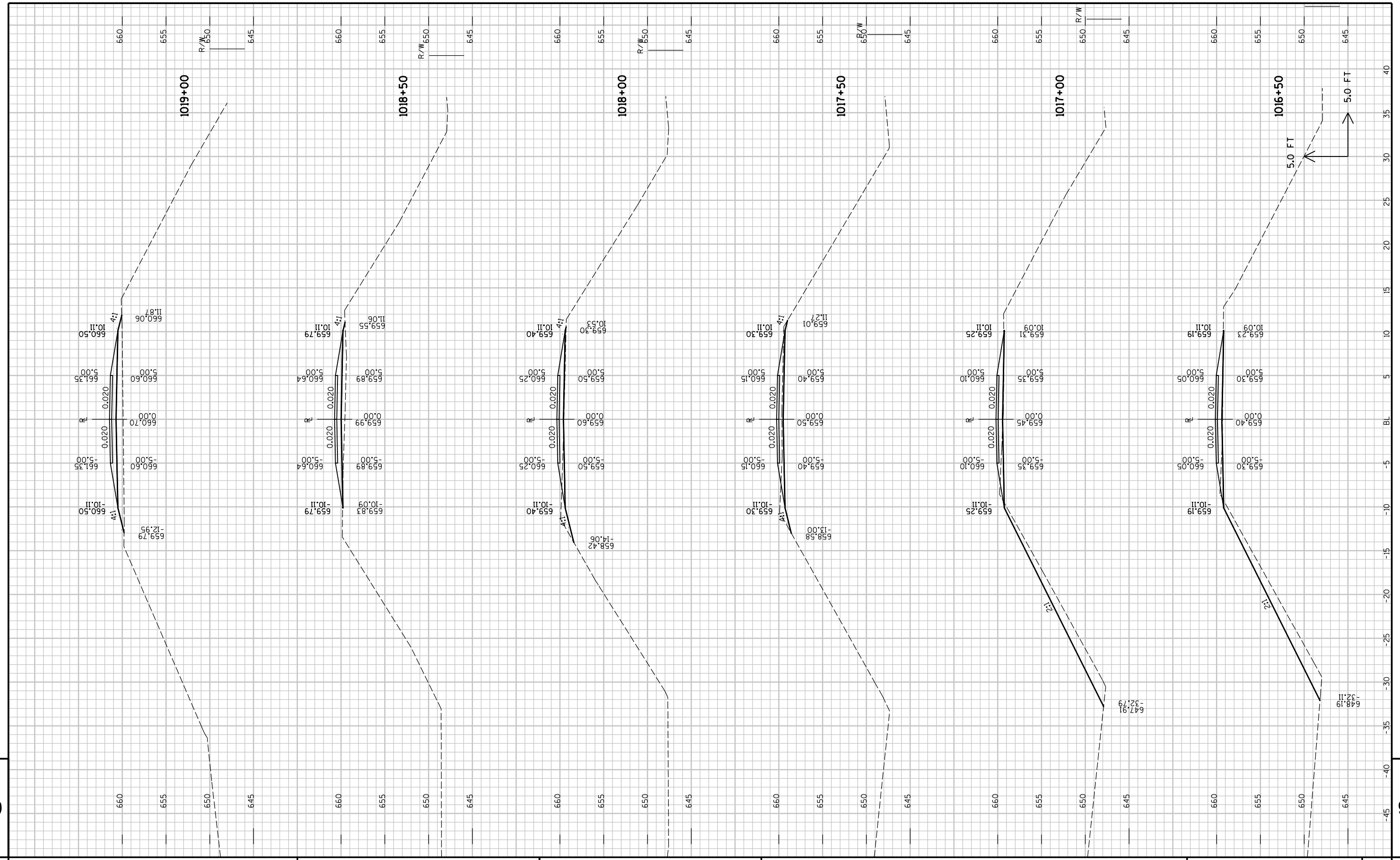
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO: E

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1016+00
1015+50
1015+00
1014+54.07
1013+94.31
1013+50
STRUCTURE B-06-0501
5.0 FT
5.0 FT
659.14
10.11
659.24
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659.09
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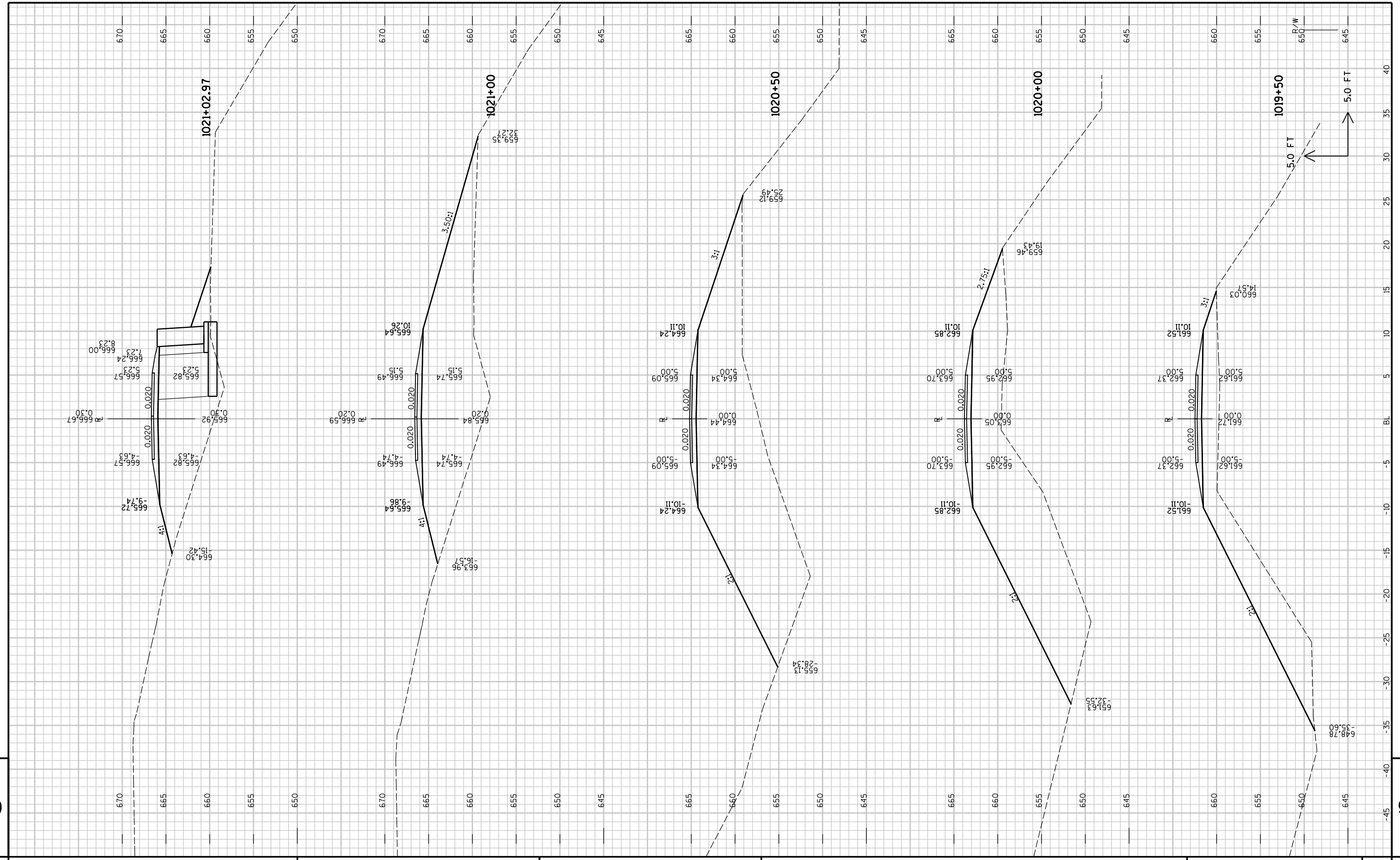


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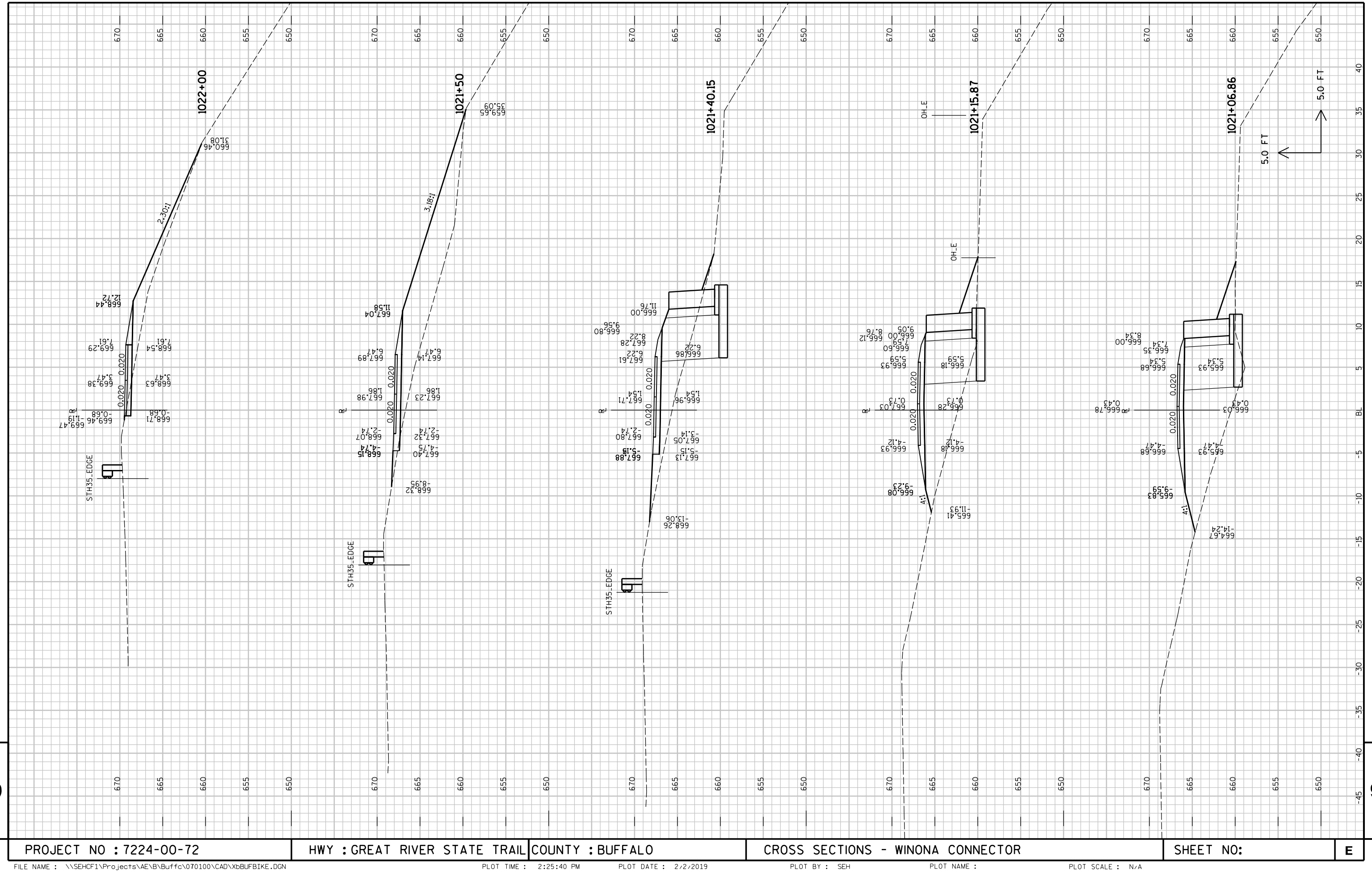
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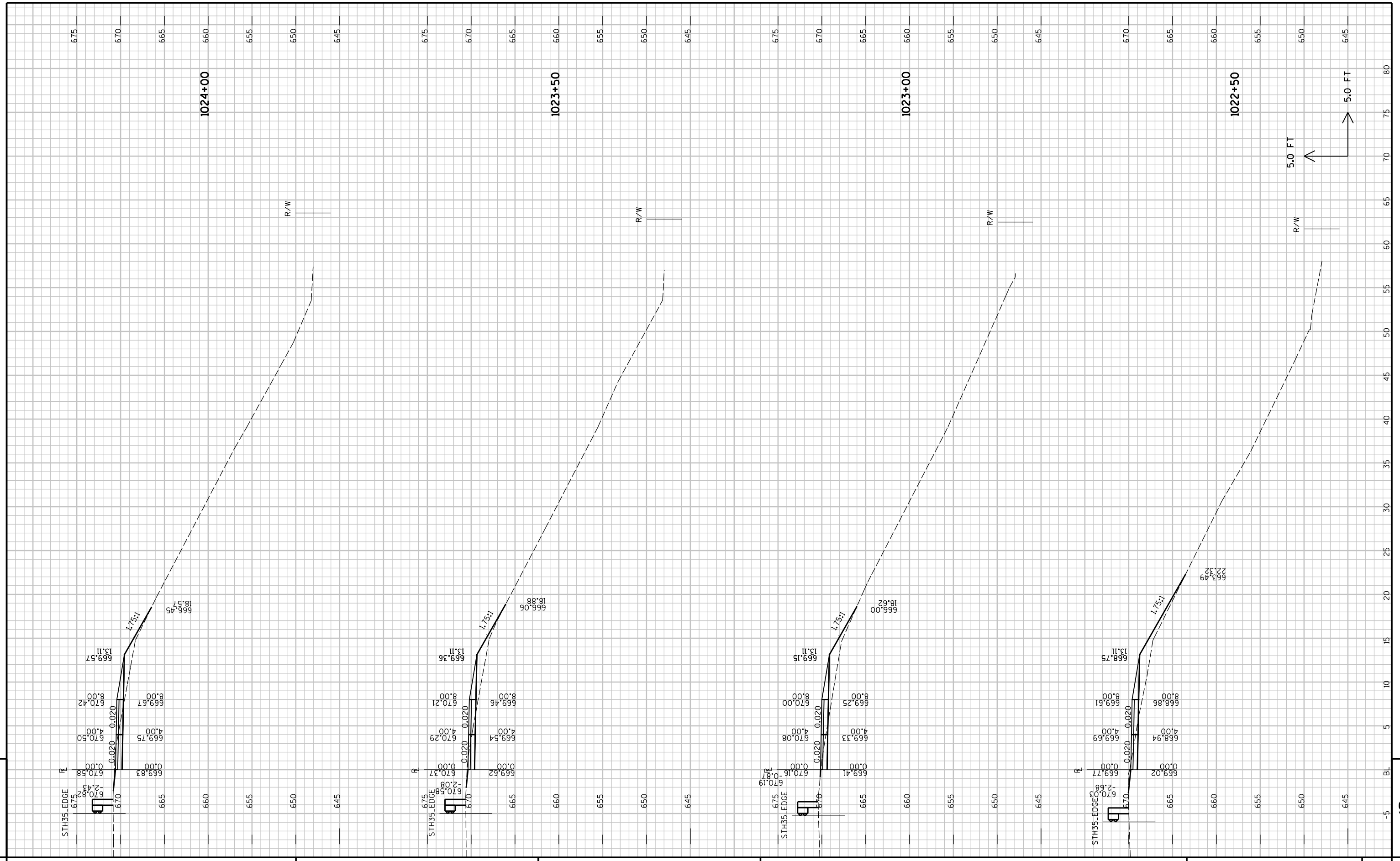
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO: E

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PROJECT NO : 7224-00-72
HWY : GREAT RIVER STATE TRAIL
COUNTY : BUFFALO
CROSS SECTIONS - WINONA CONNECTOR
SHEET NO:
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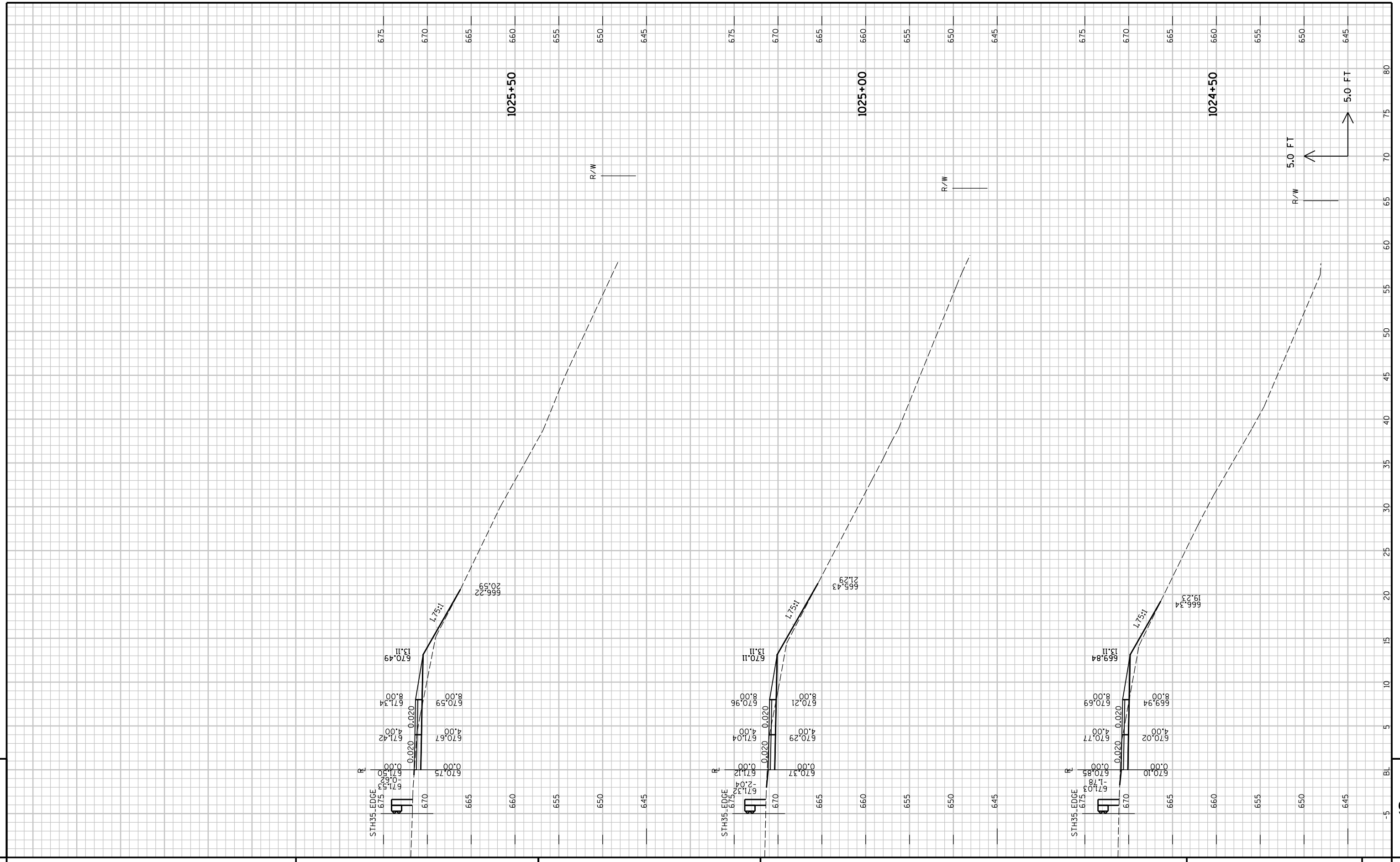


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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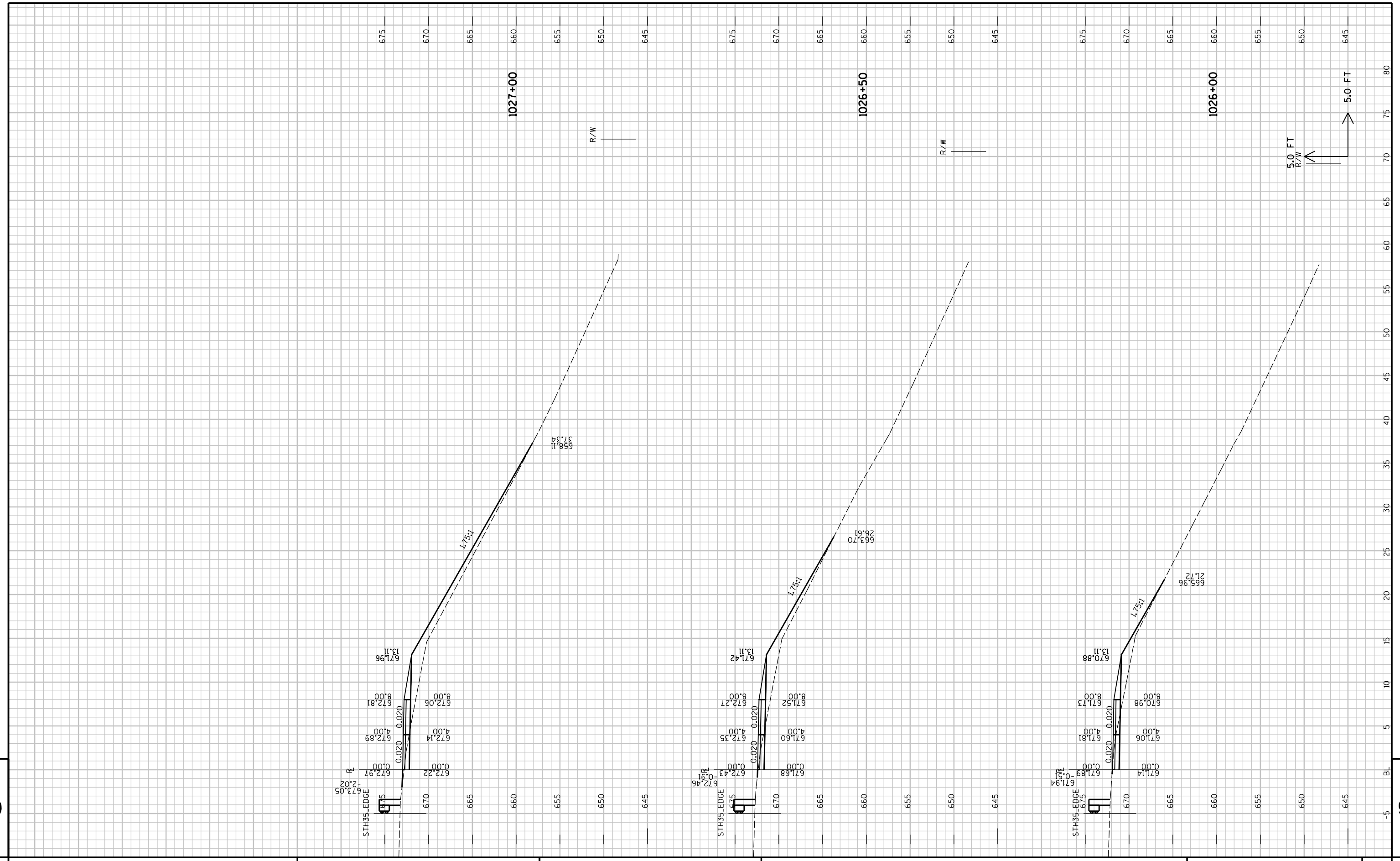


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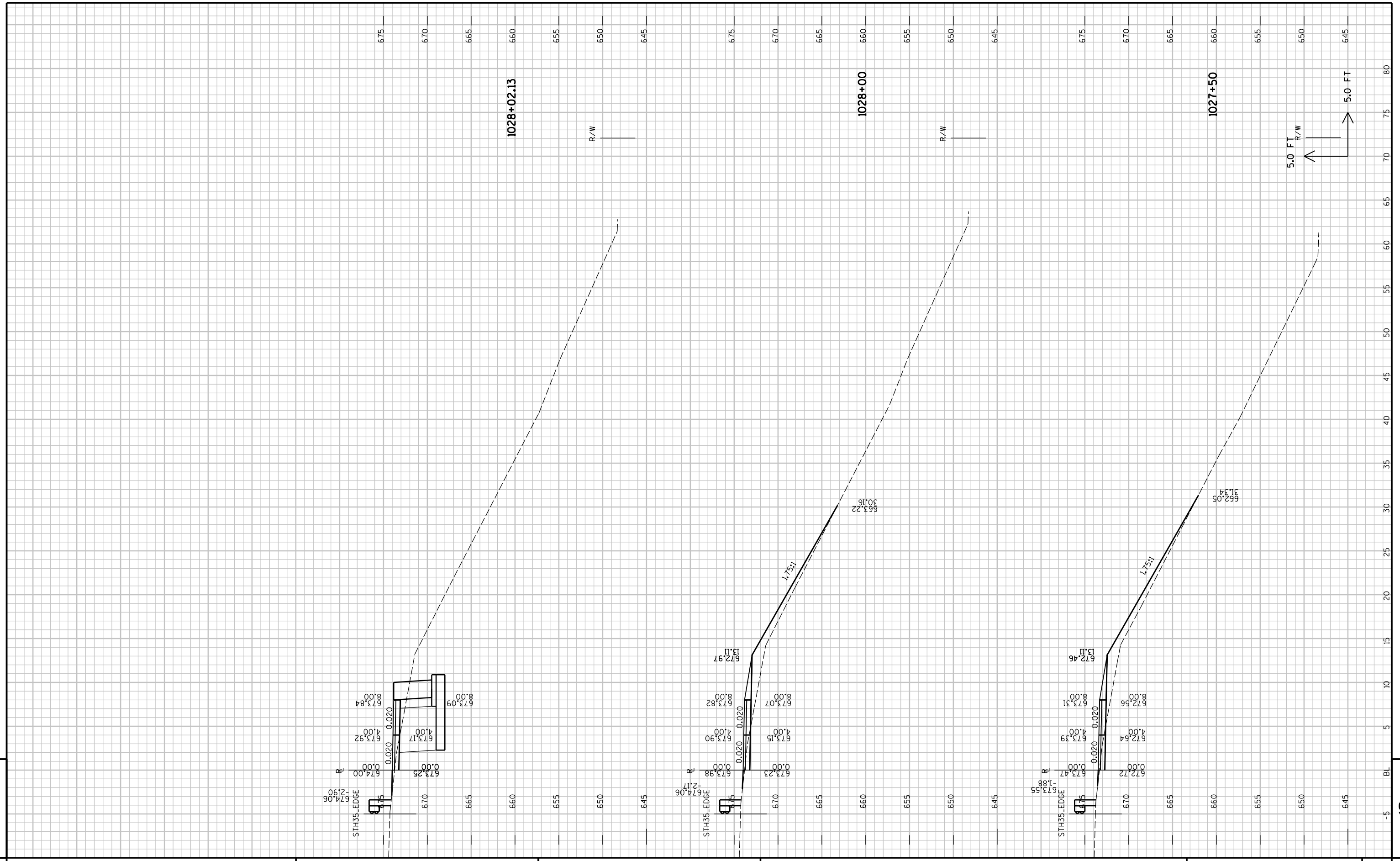
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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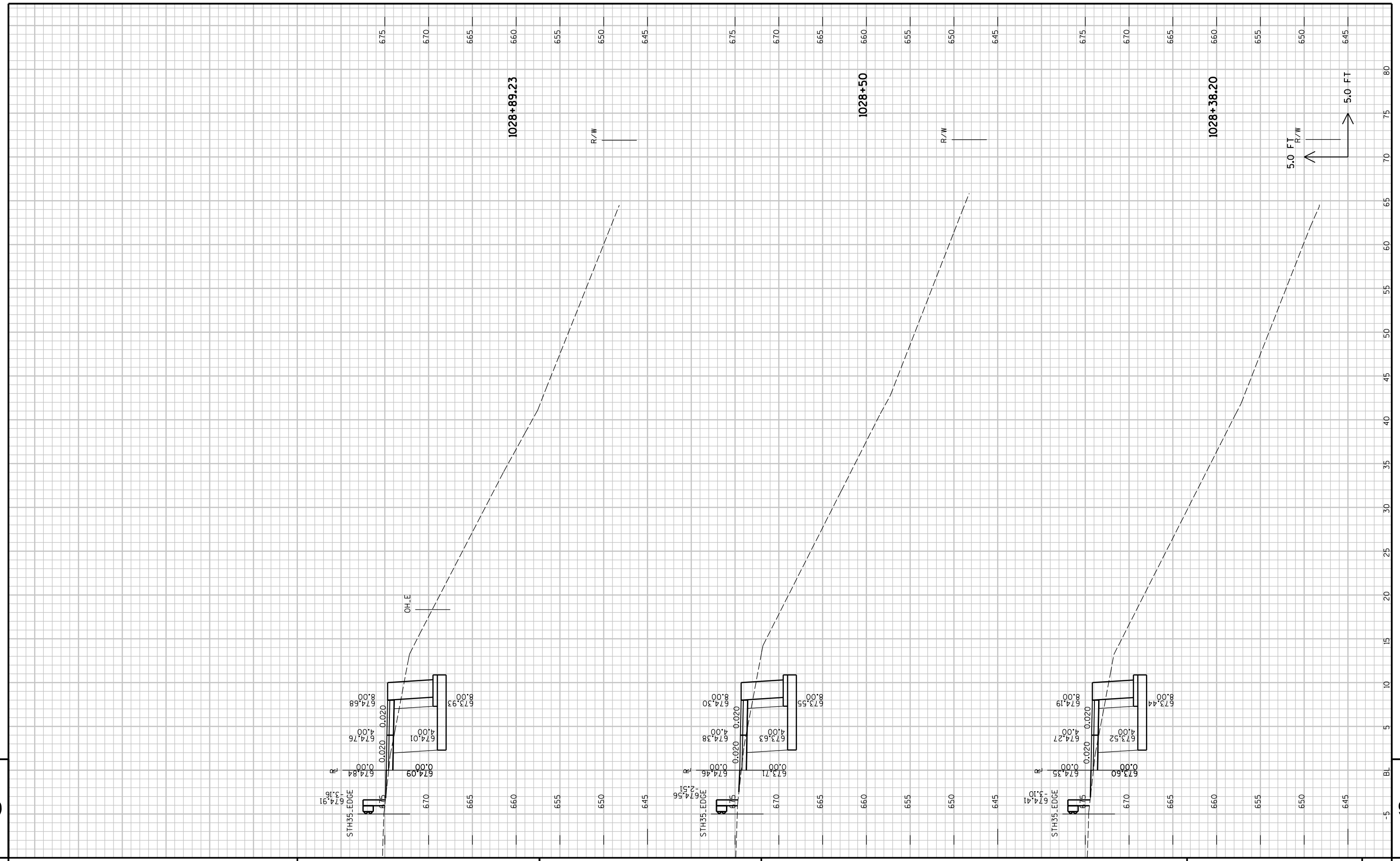


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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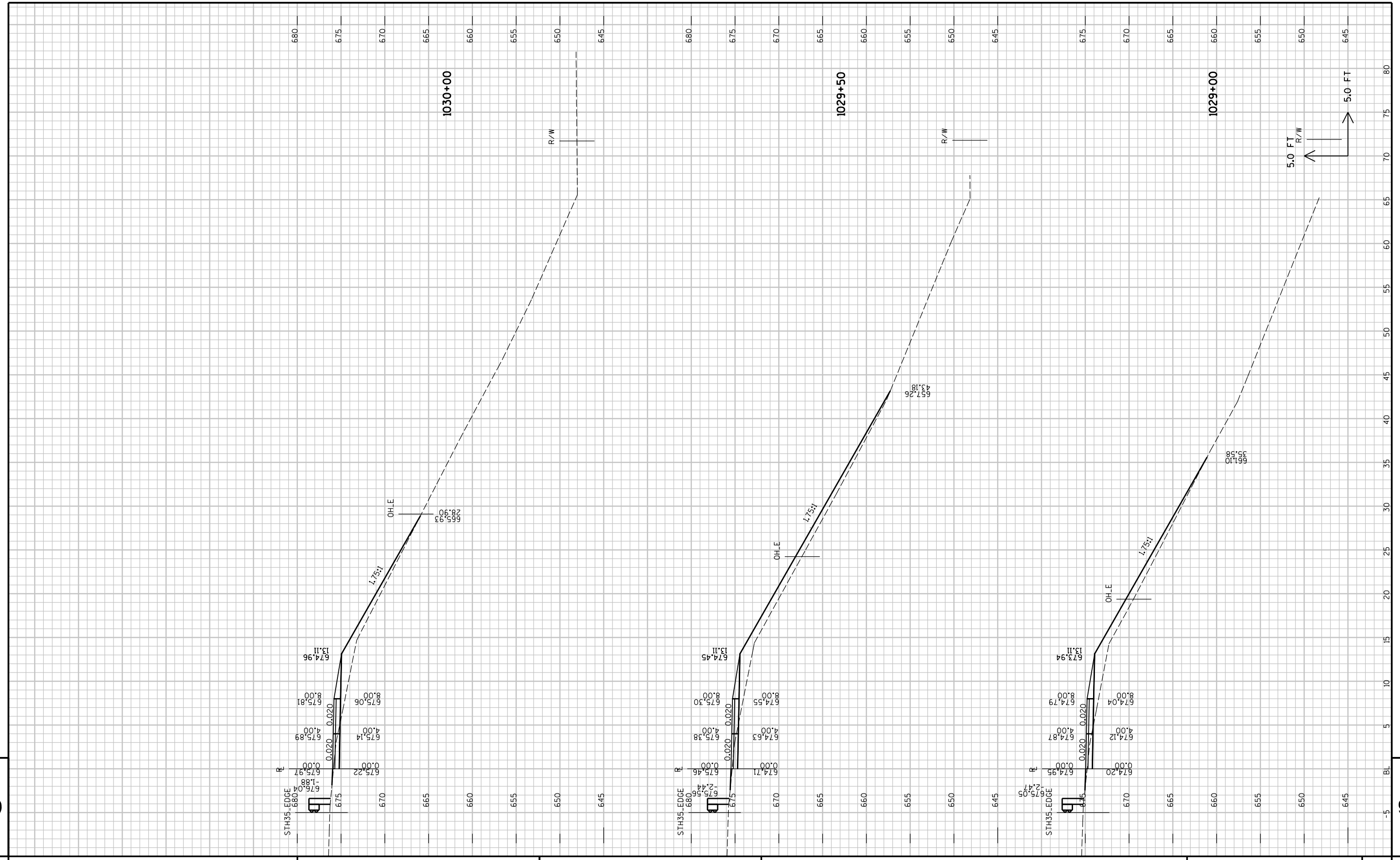


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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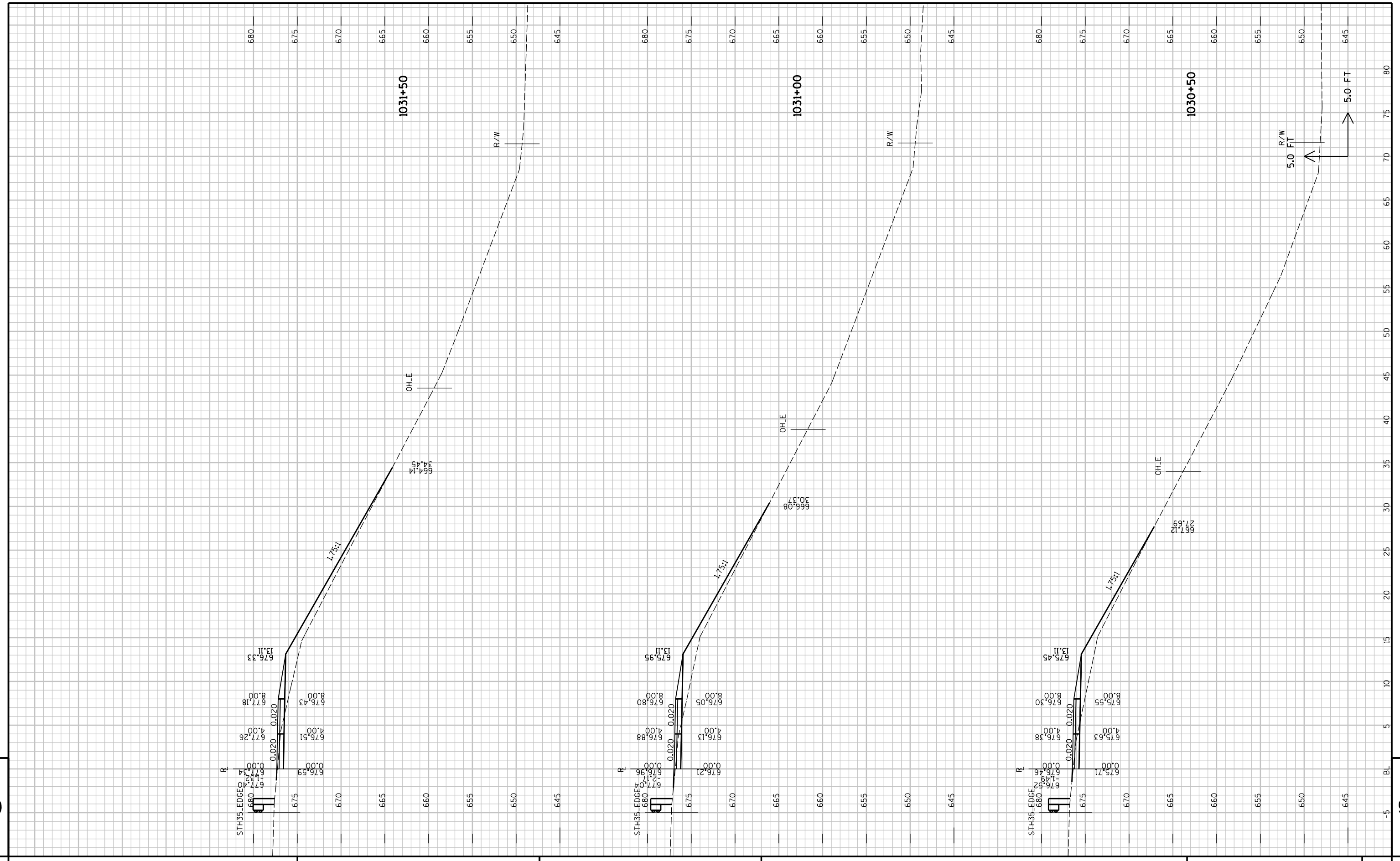


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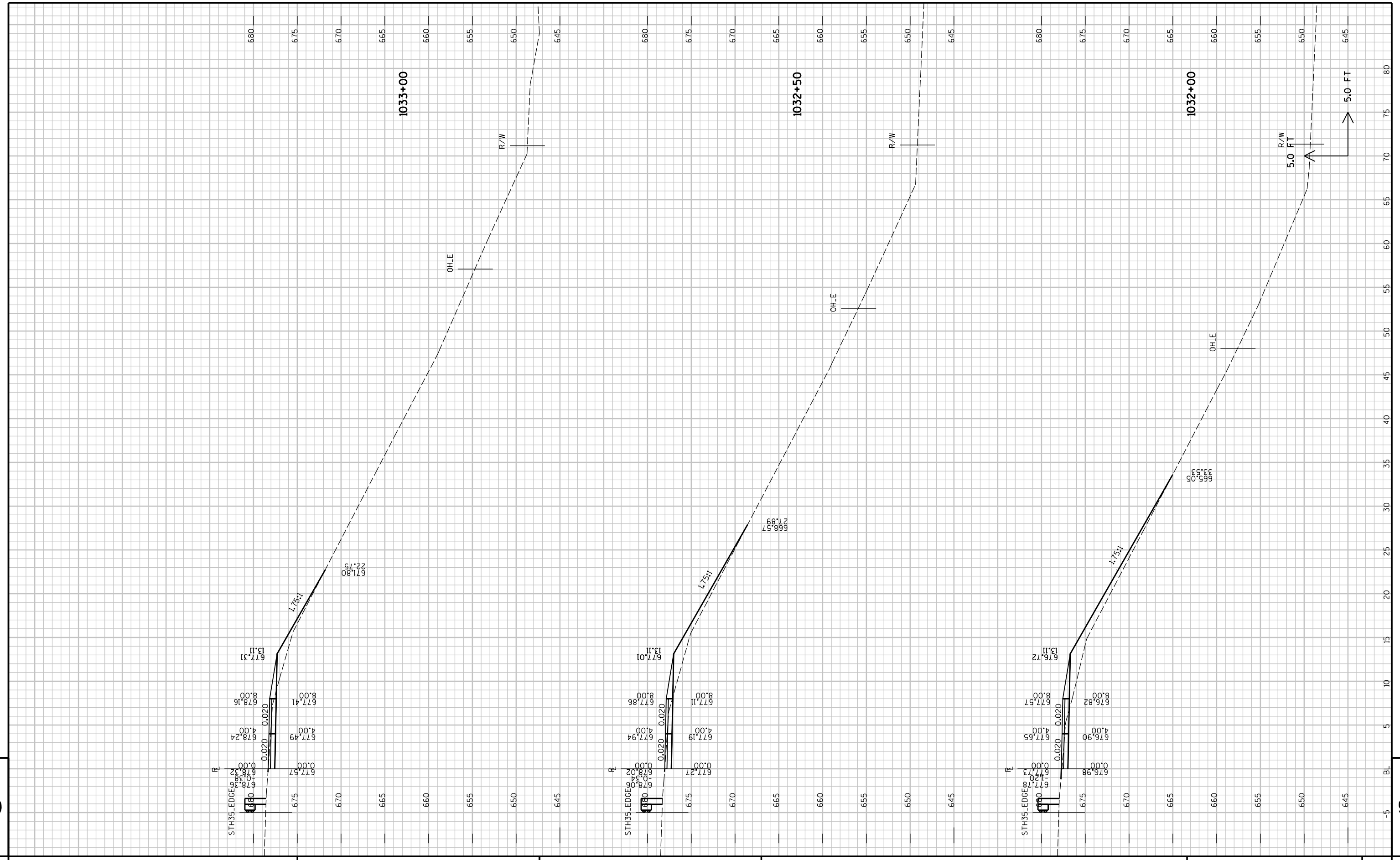


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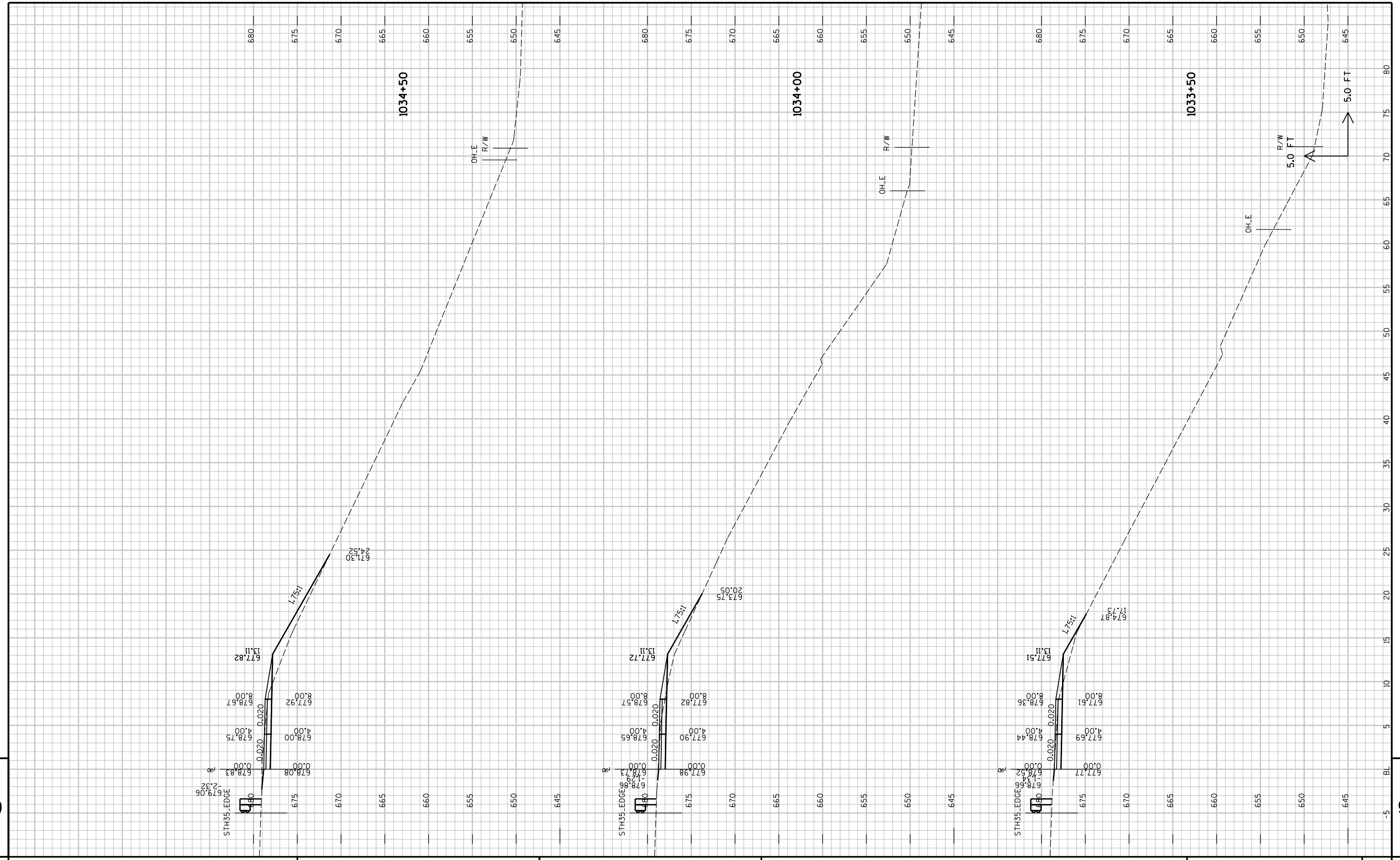
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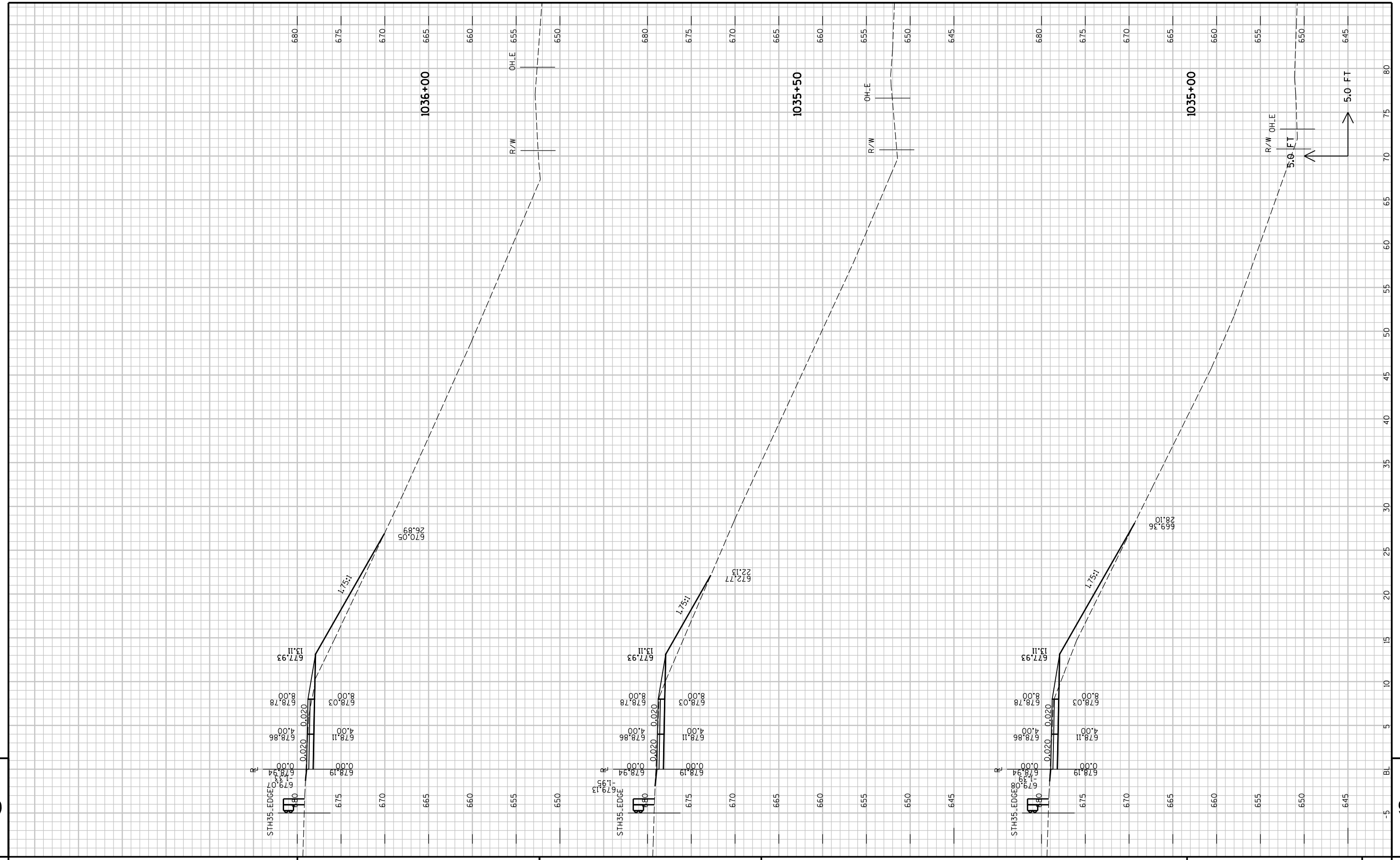
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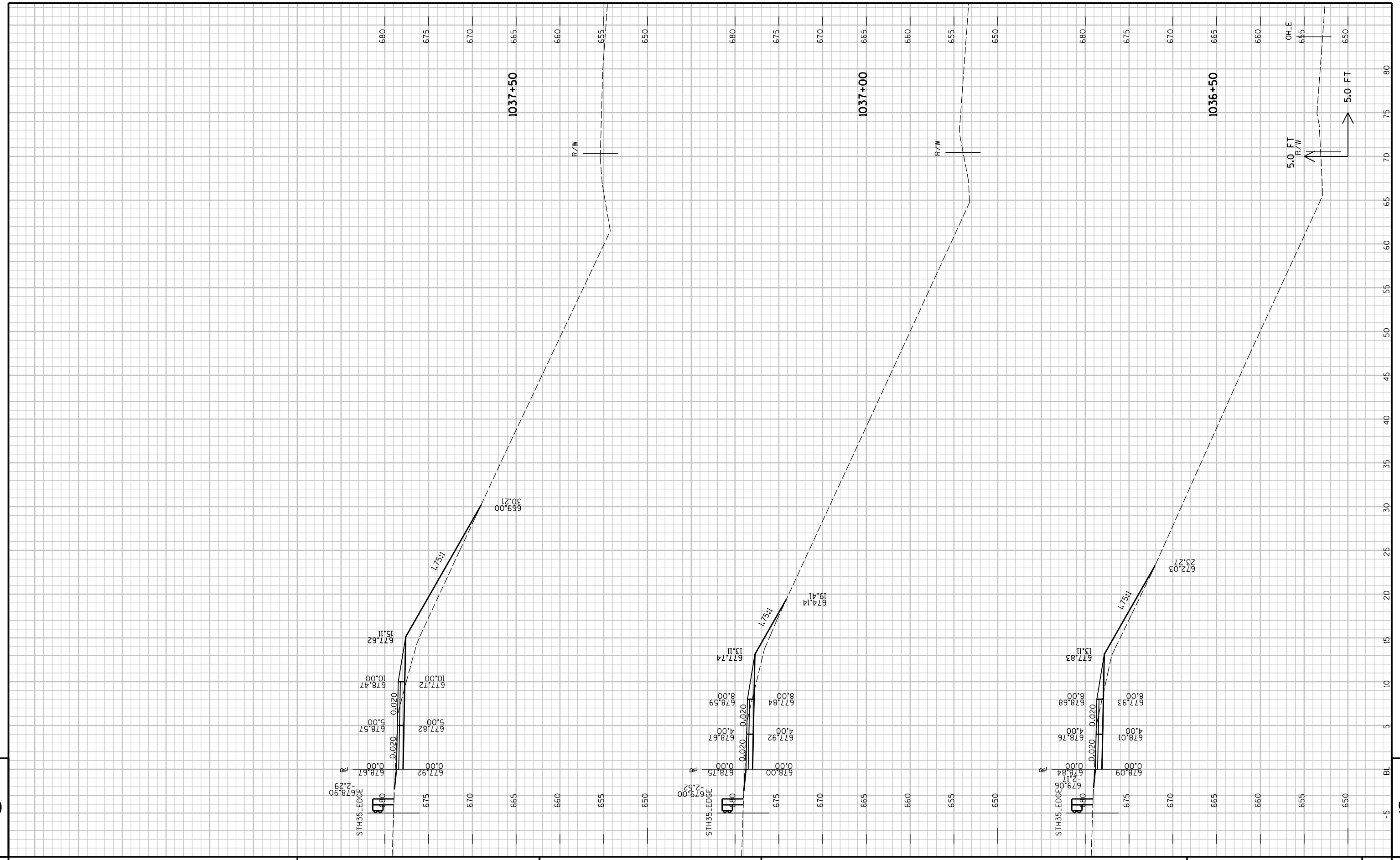


PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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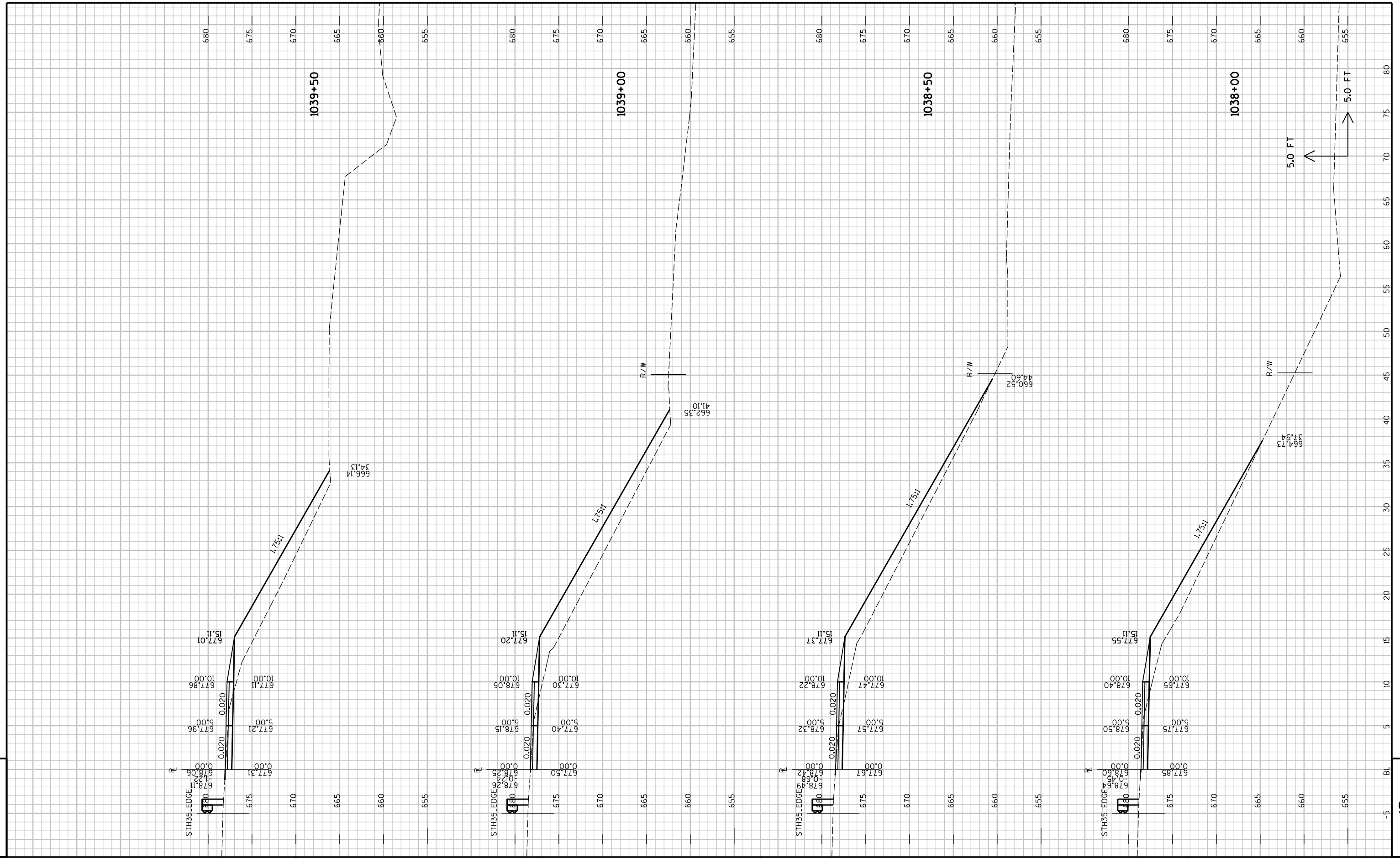
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1035+00
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R/W
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5.0 FT
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28.10
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13.11
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9	PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO: E	9

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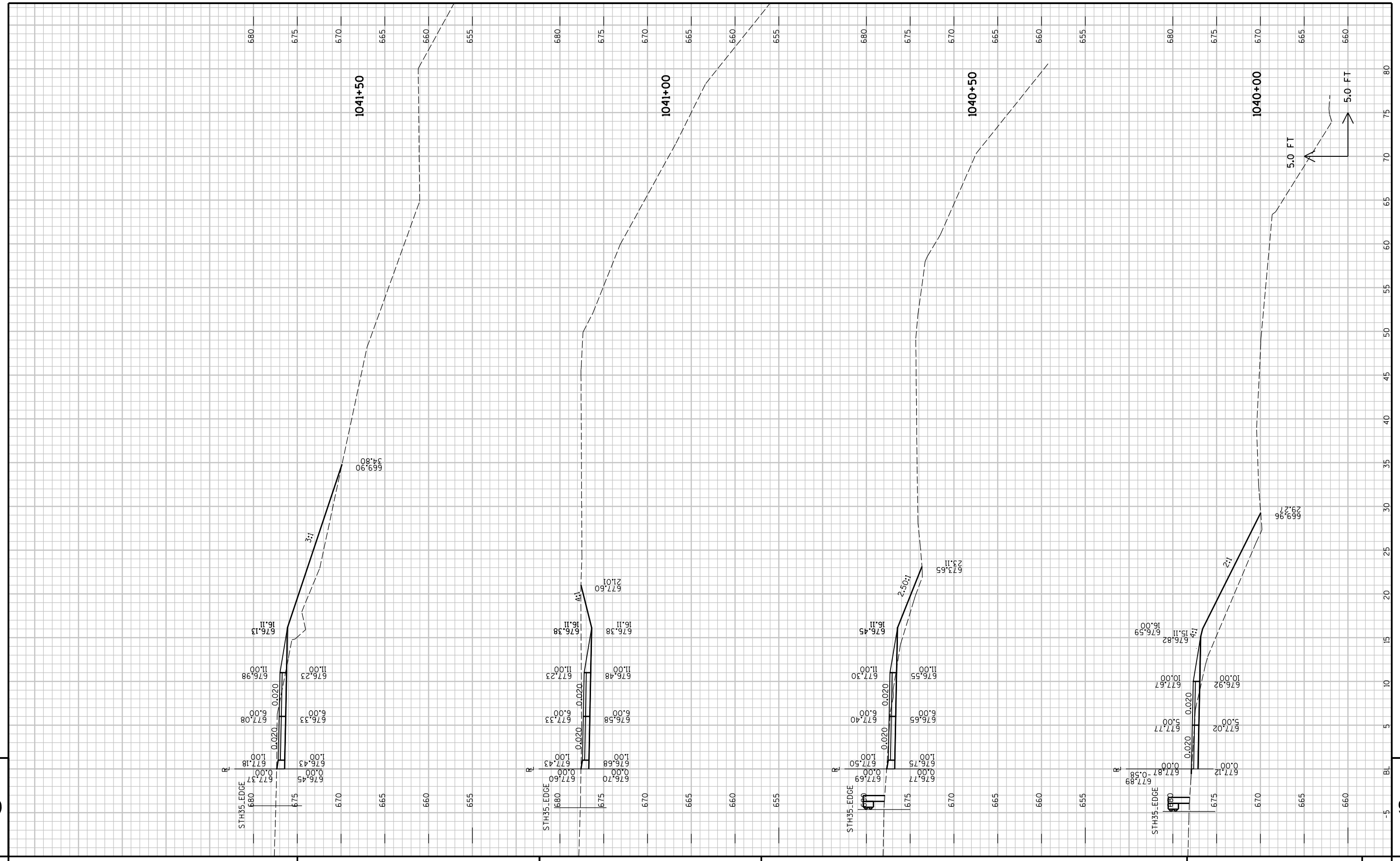


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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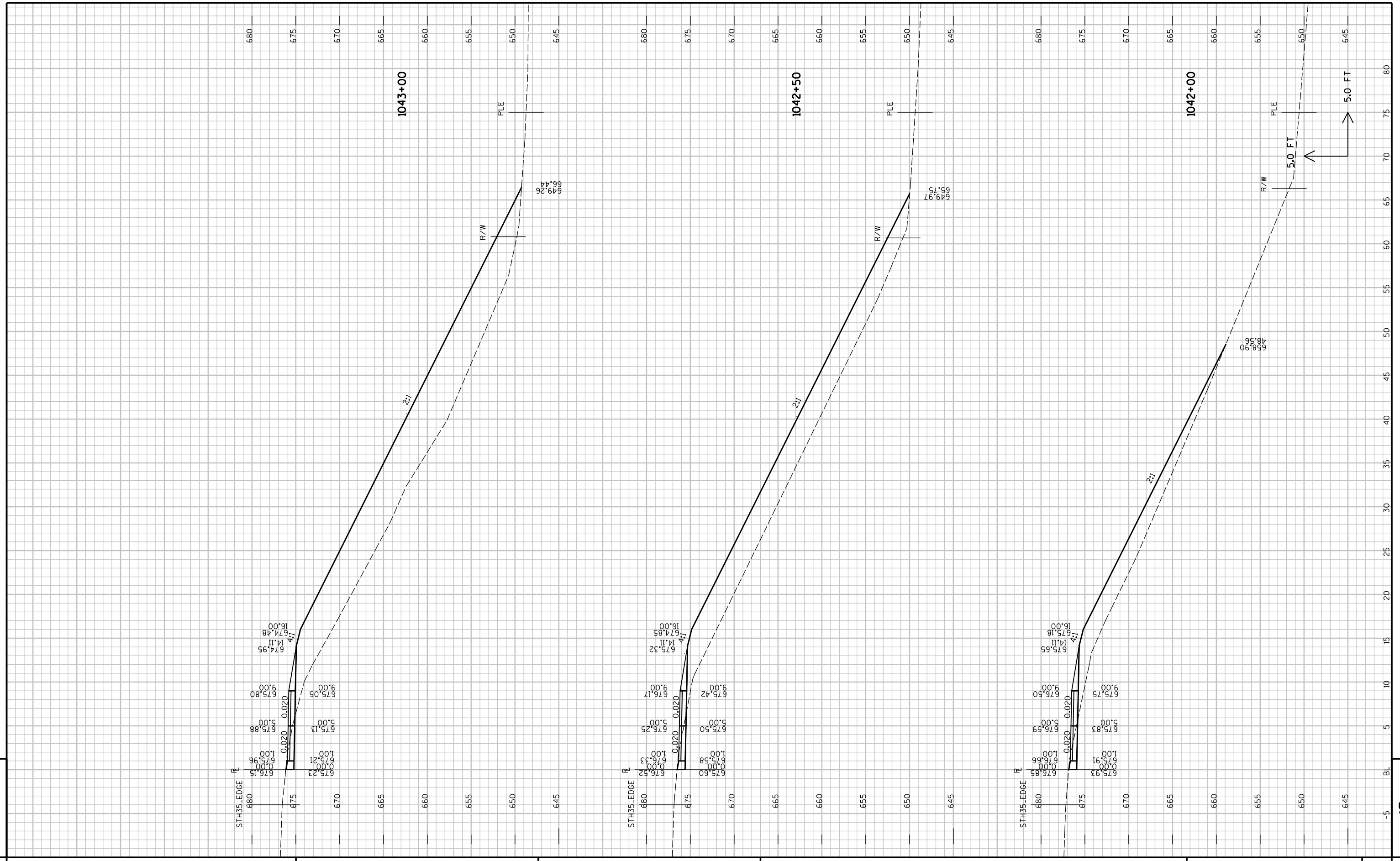


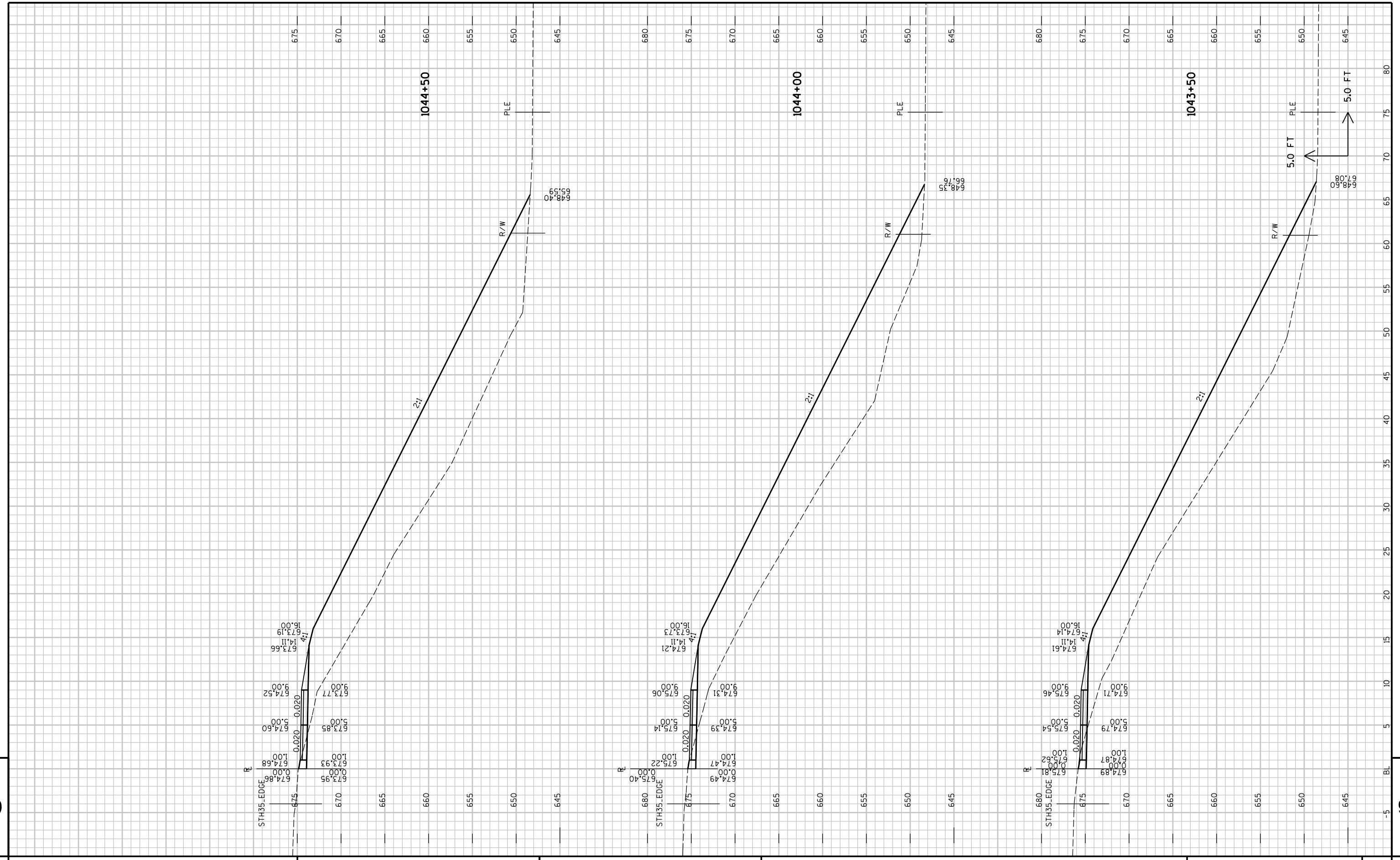
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

9

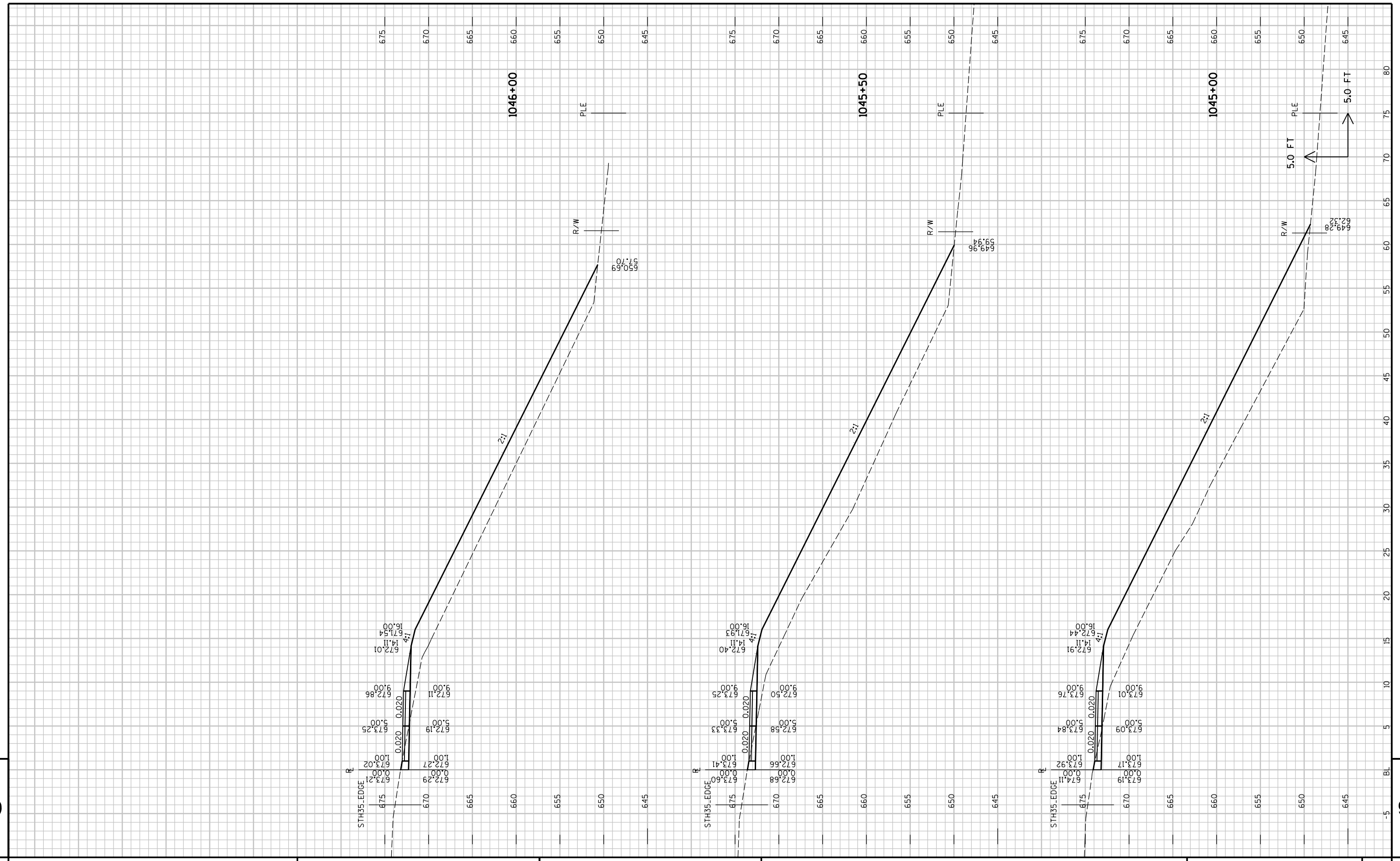
FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\XbBUFBIKE.DGN PLOT TIME : 2:25:44 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\XbBUFBIKE.DGN PLOT TIME : 2:25:44 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

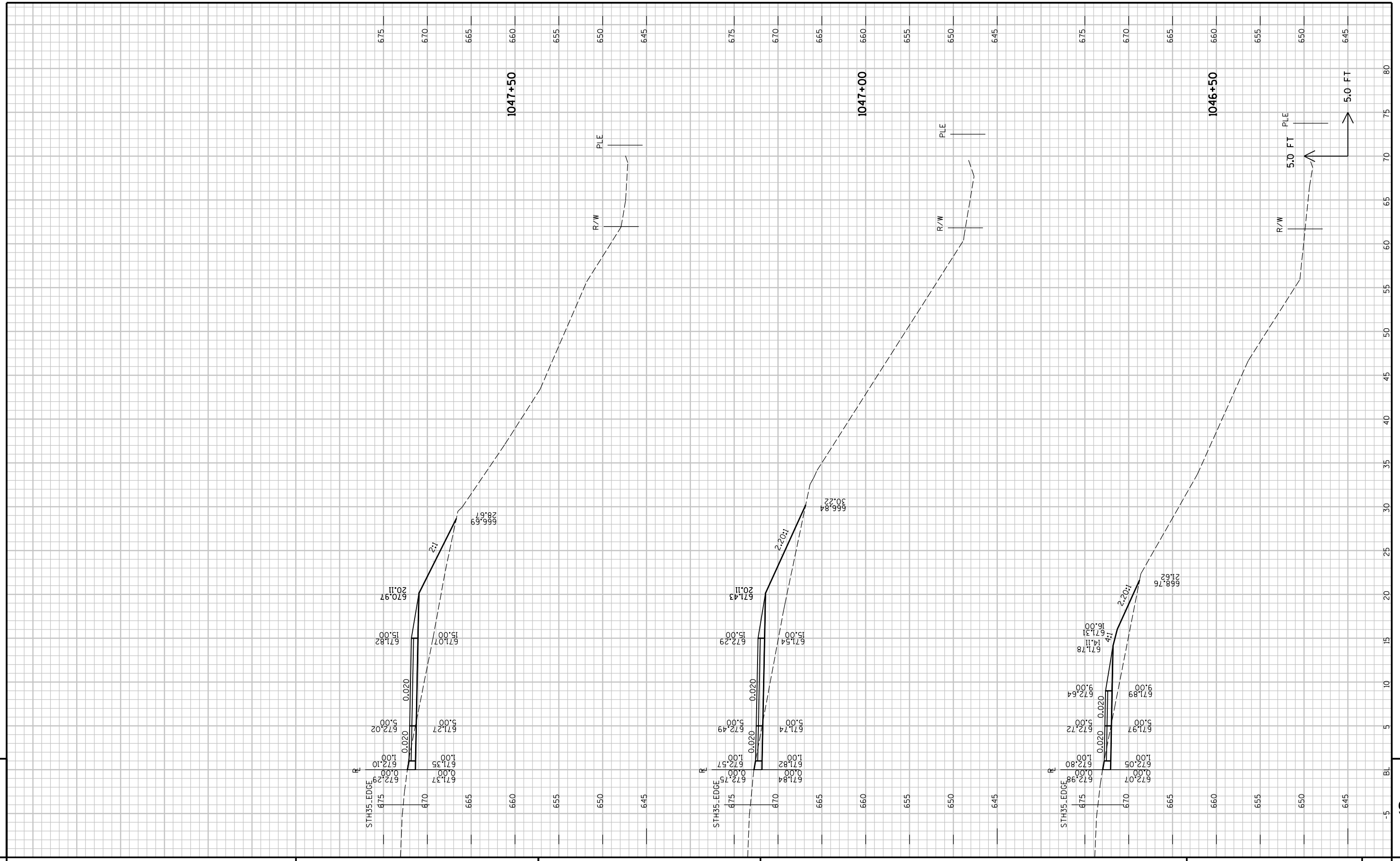


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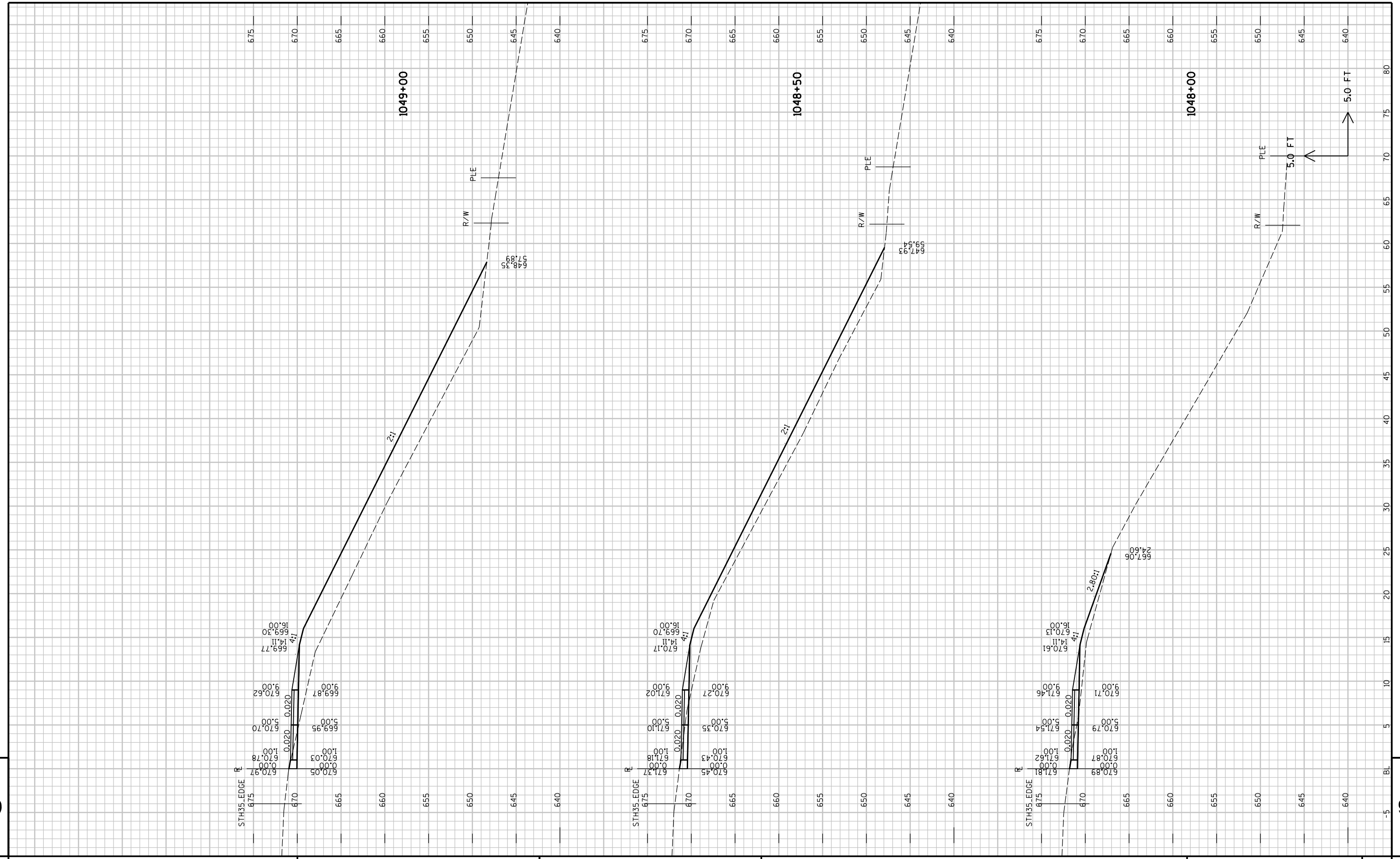
PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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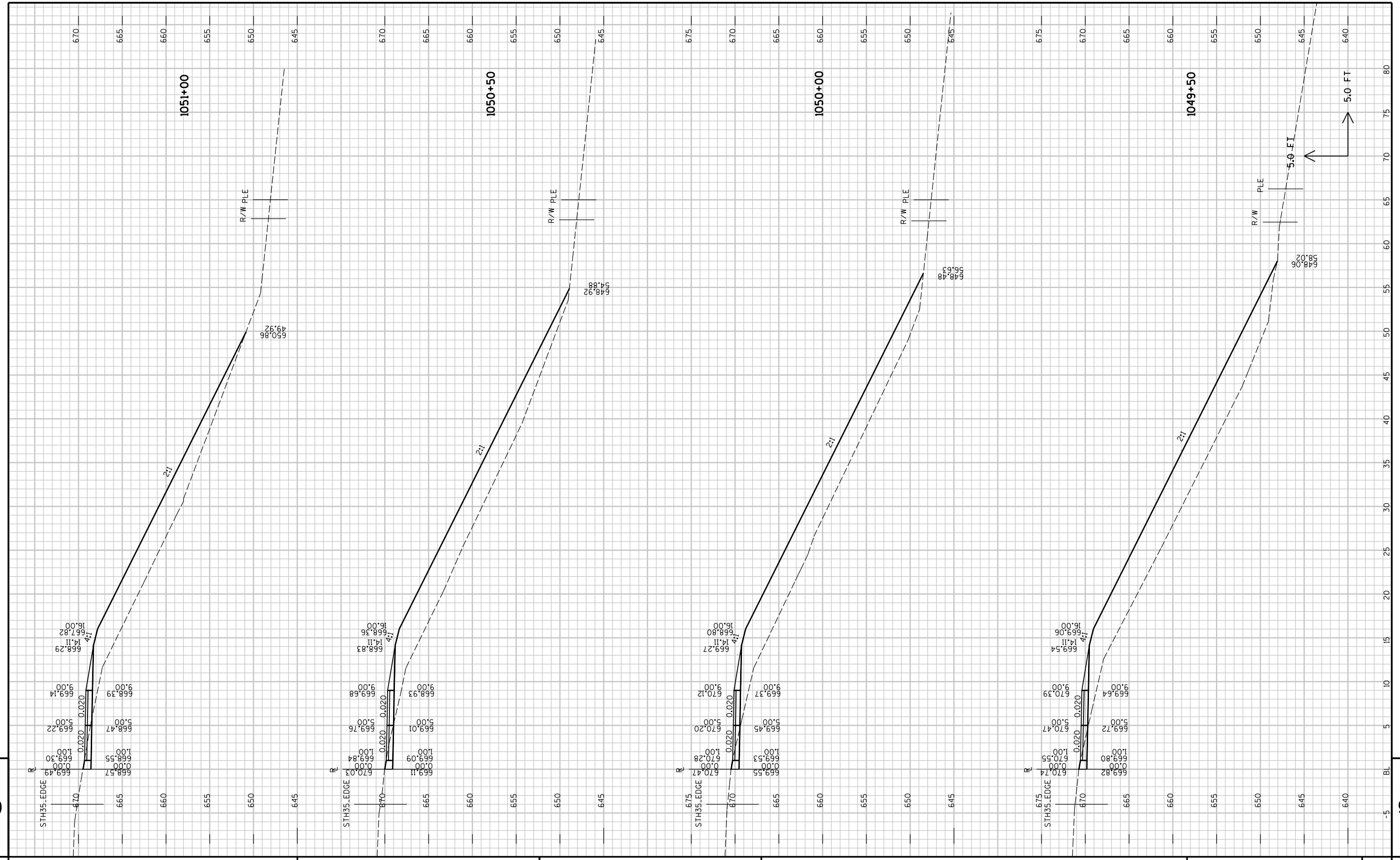
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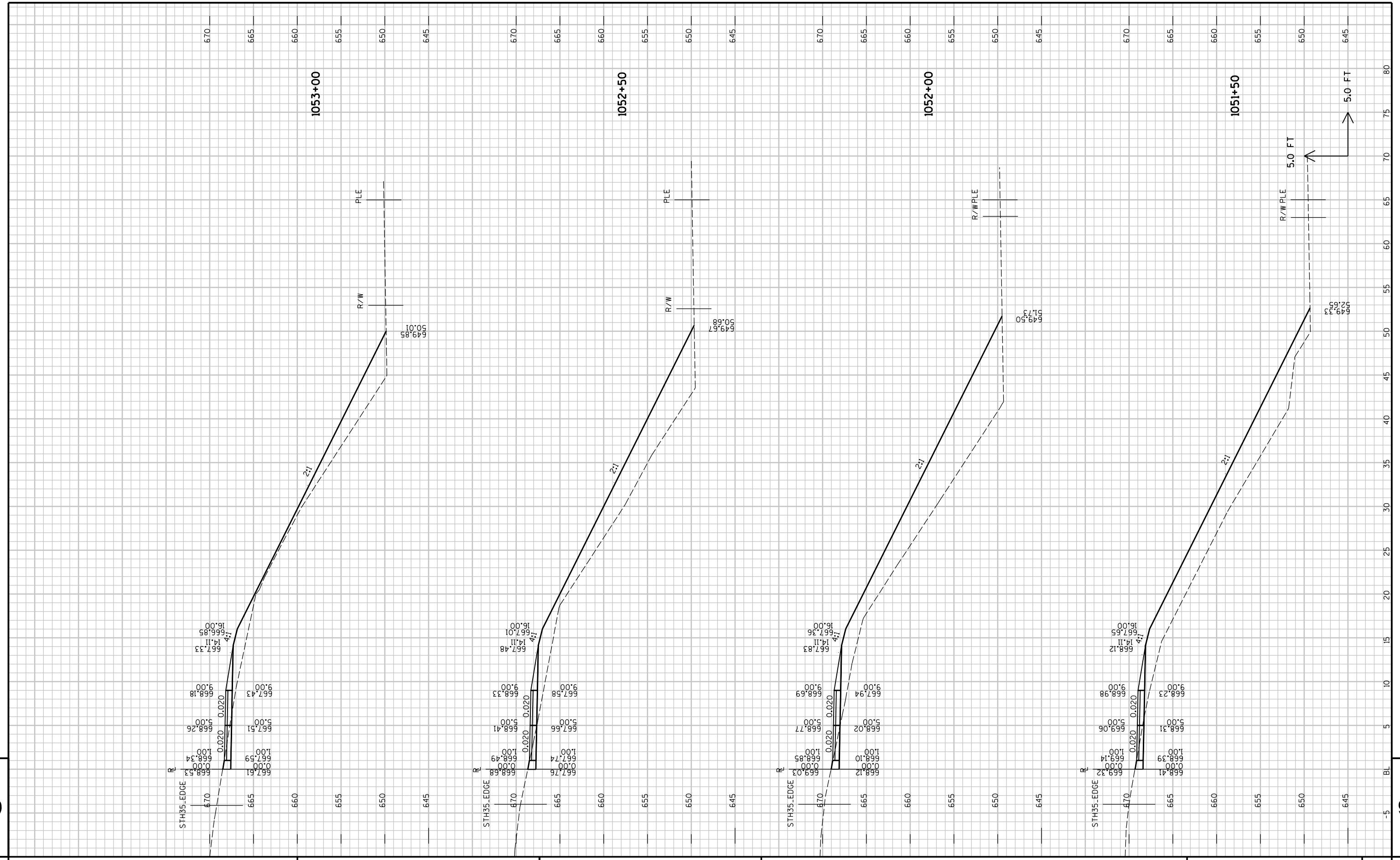
PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO: E

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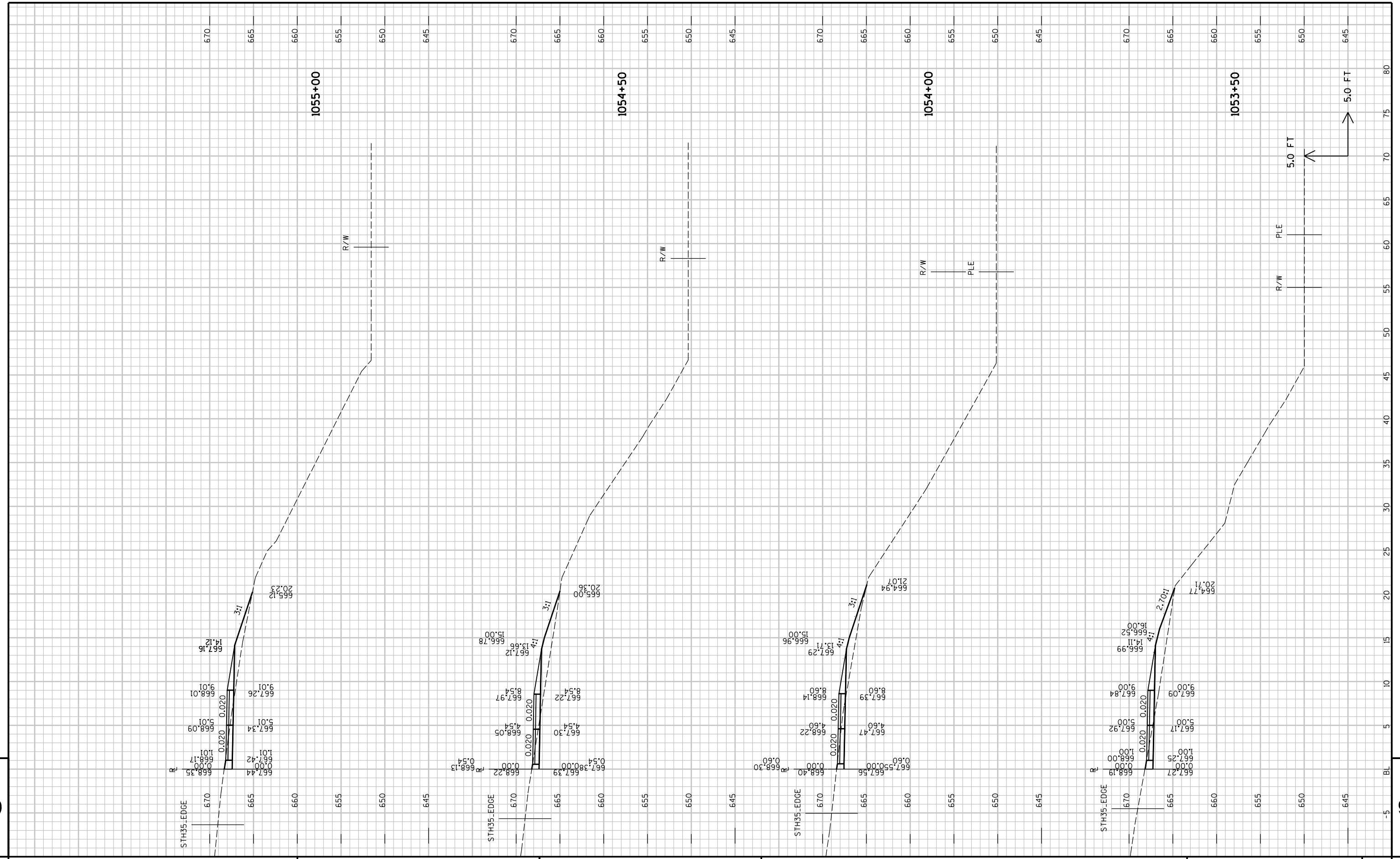
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\XbBUFBIKE.DGN PLOT TIME : 2:25:45 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

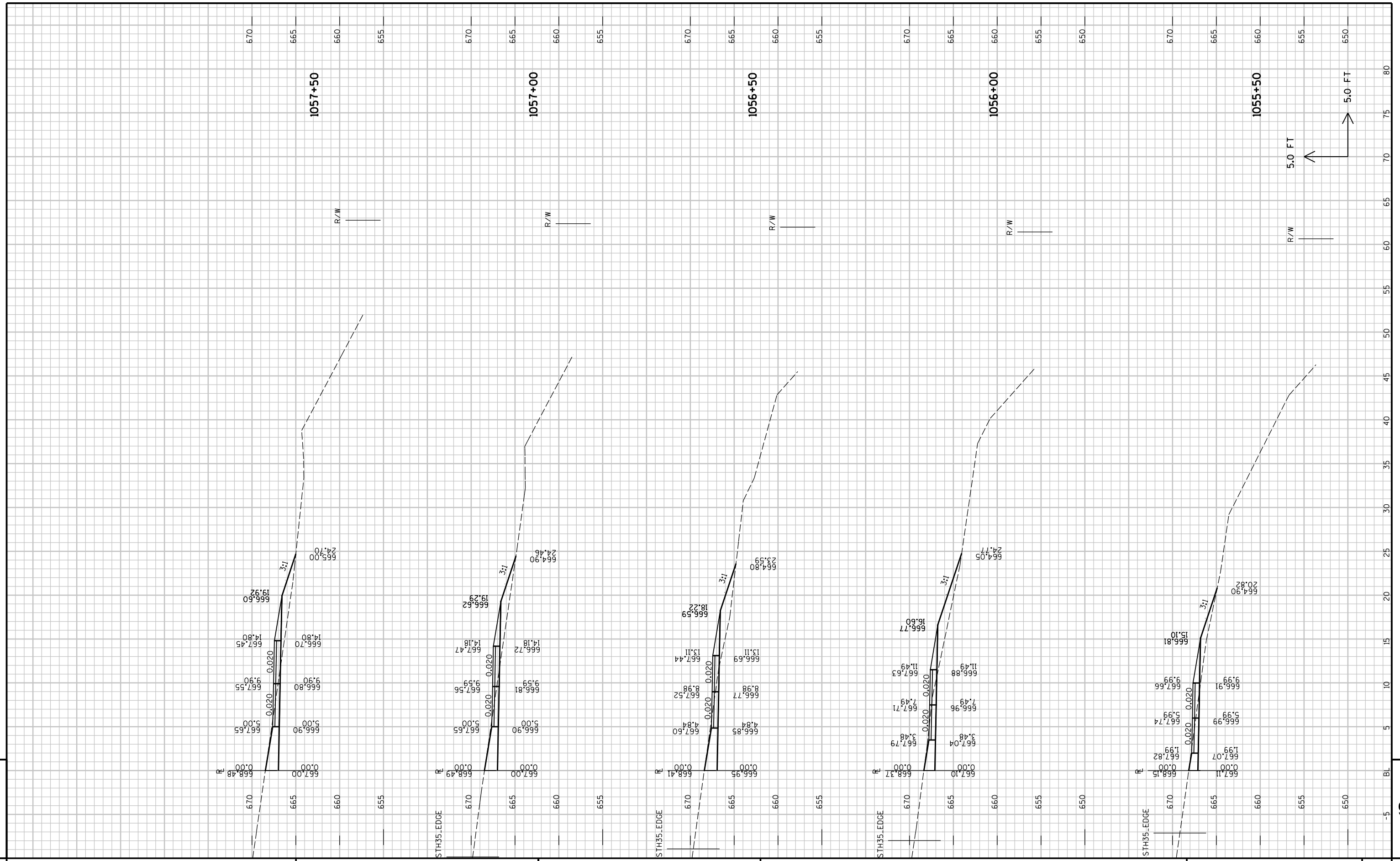
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO: E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\XbBUFBIKE.DGN PLOT TIME : 2:25:46 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

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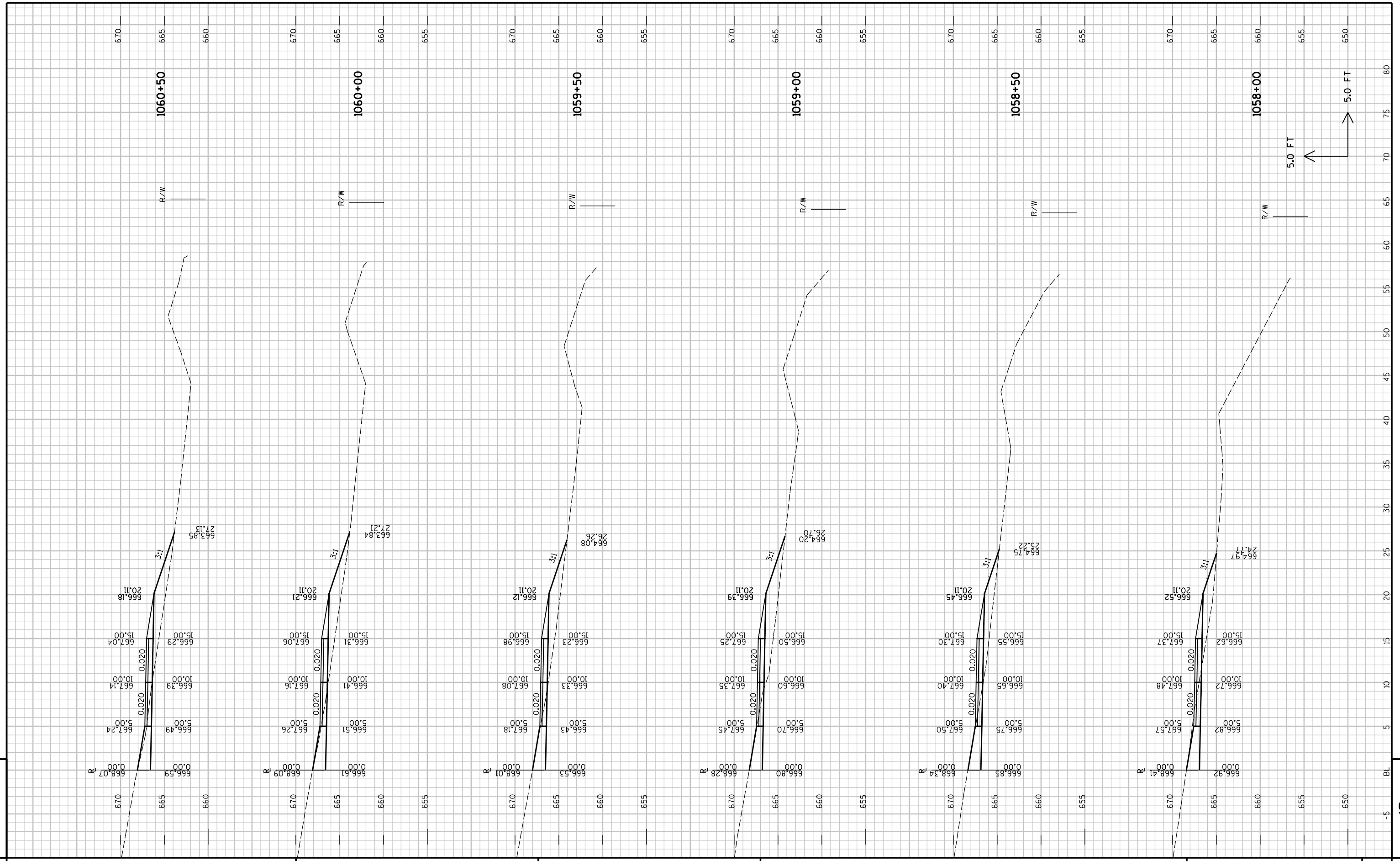


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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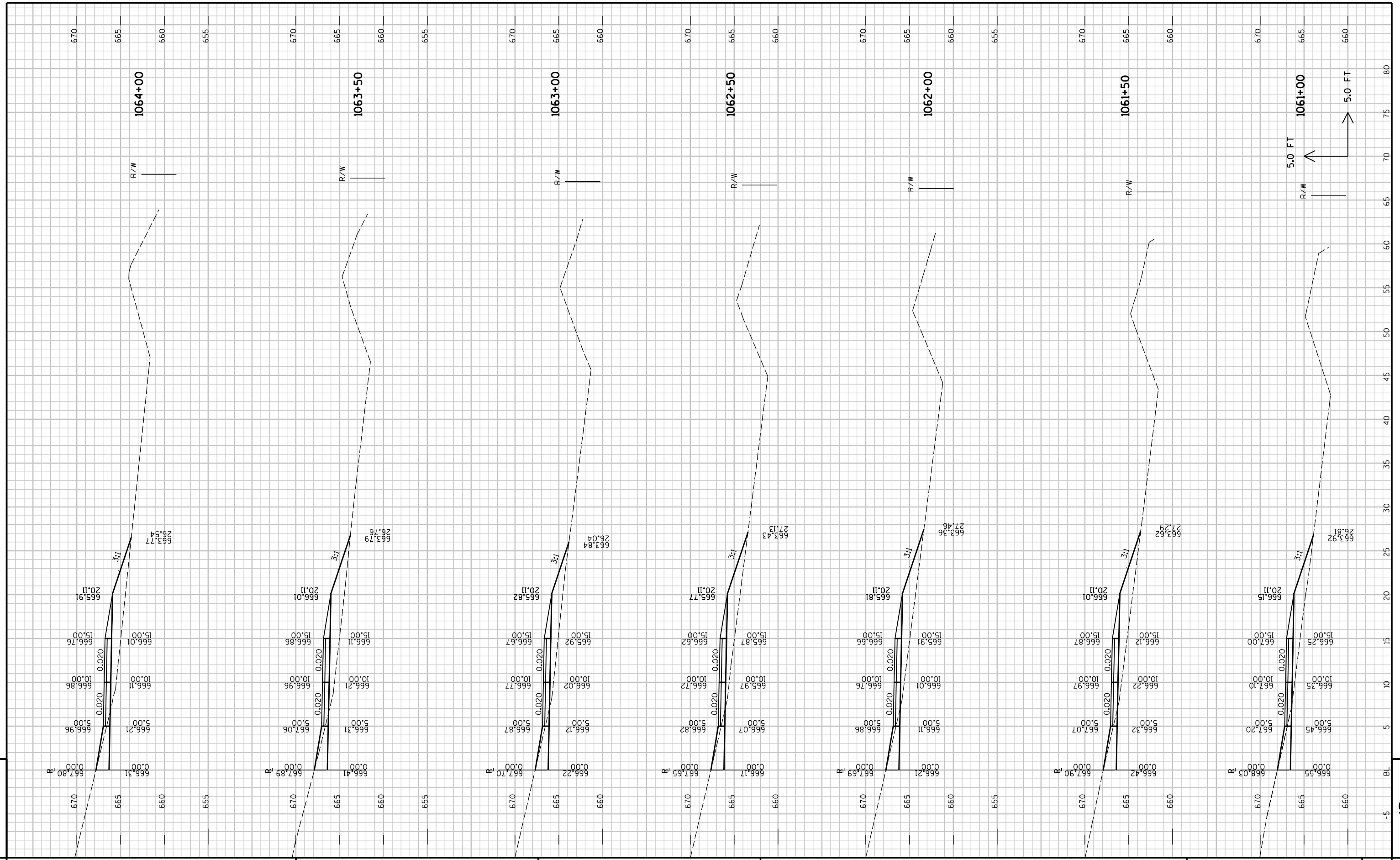


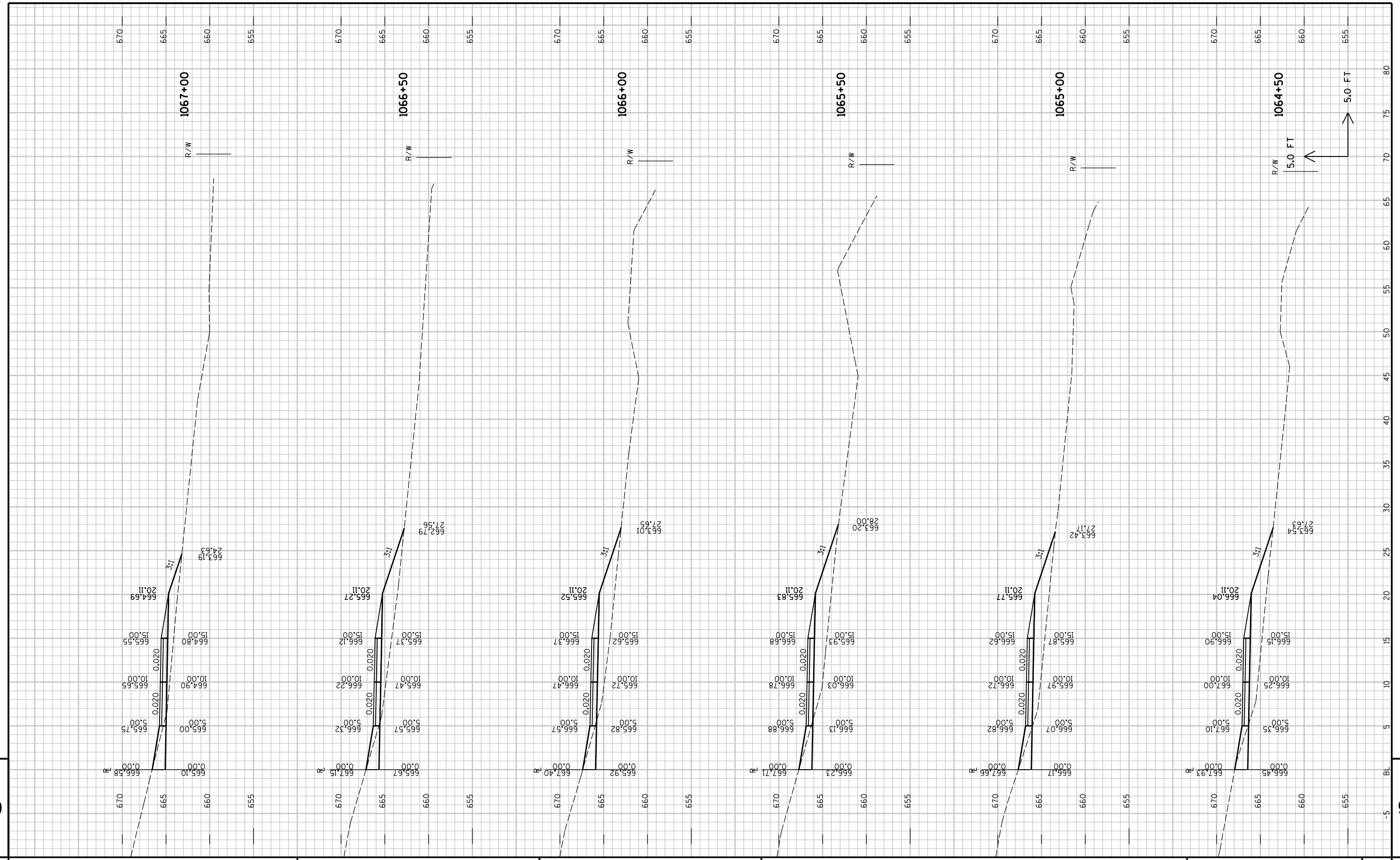
PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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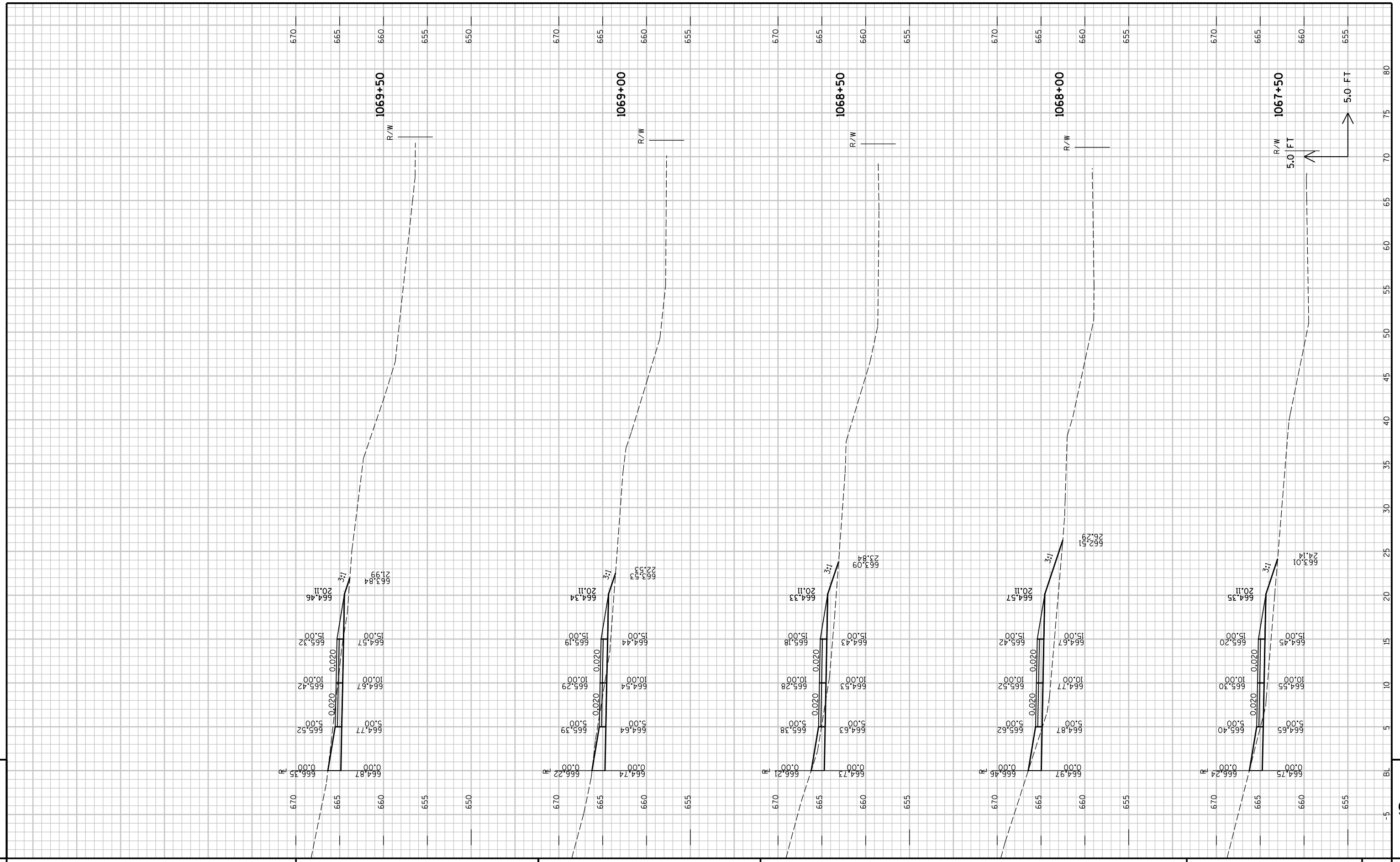


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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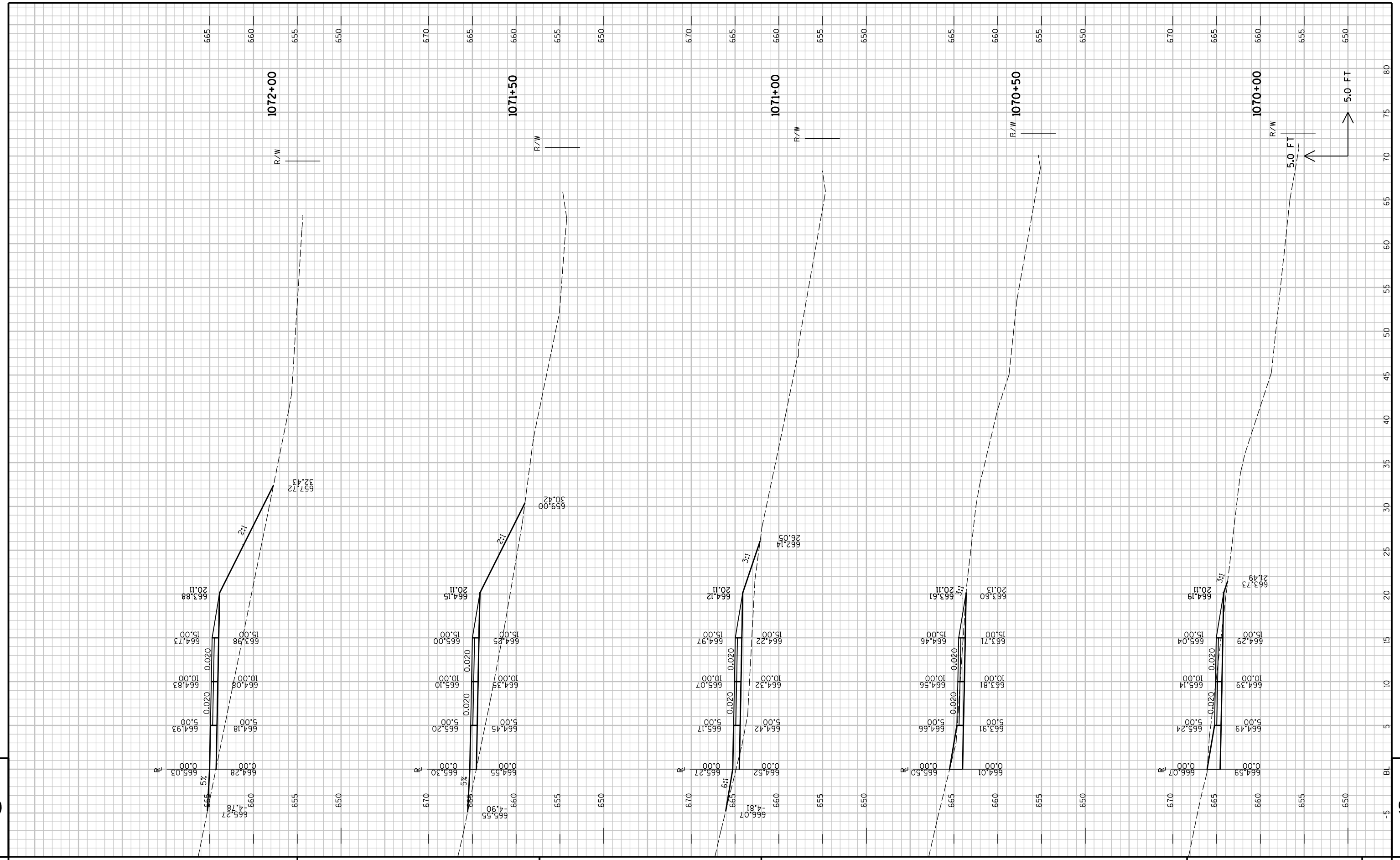


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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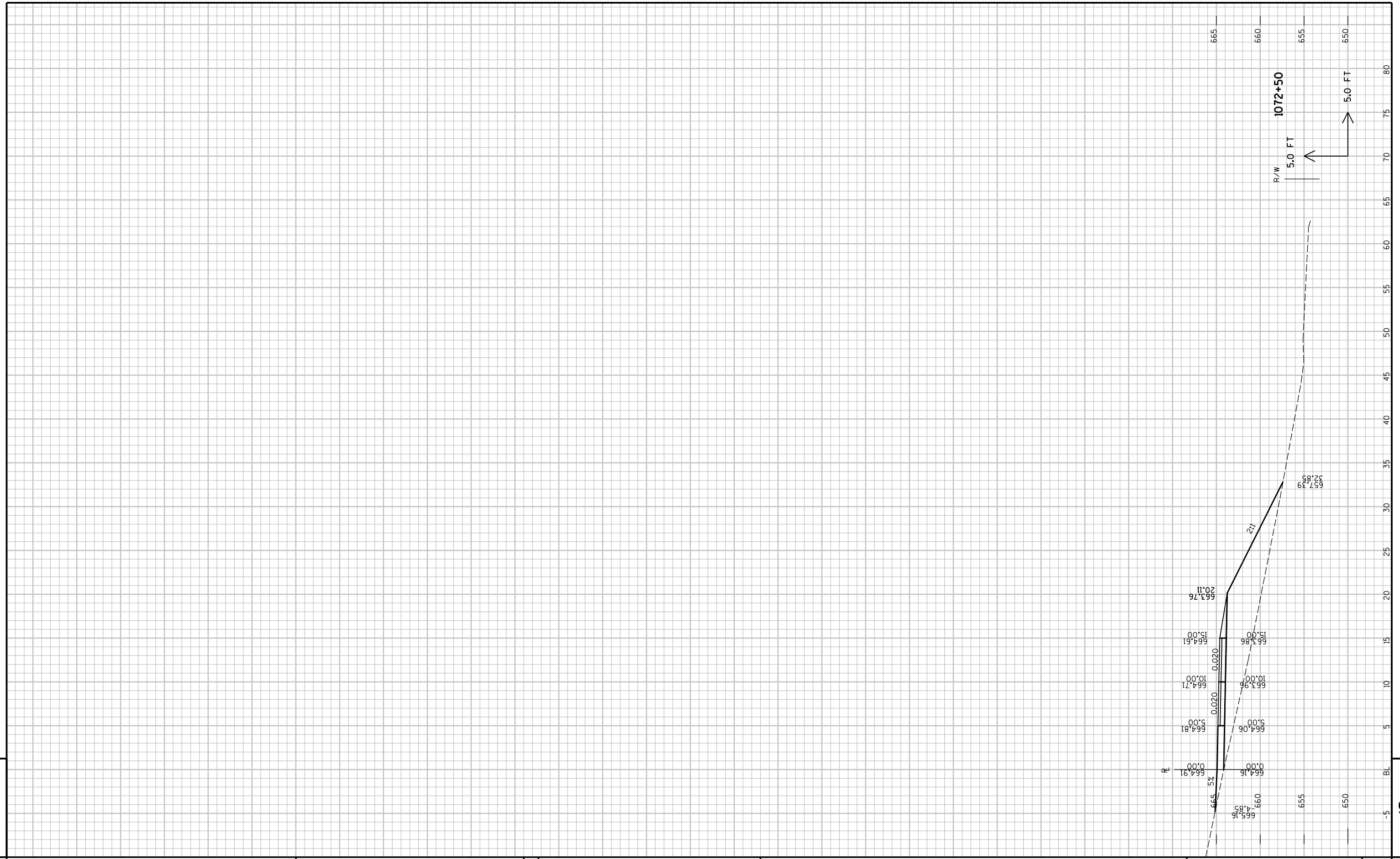


PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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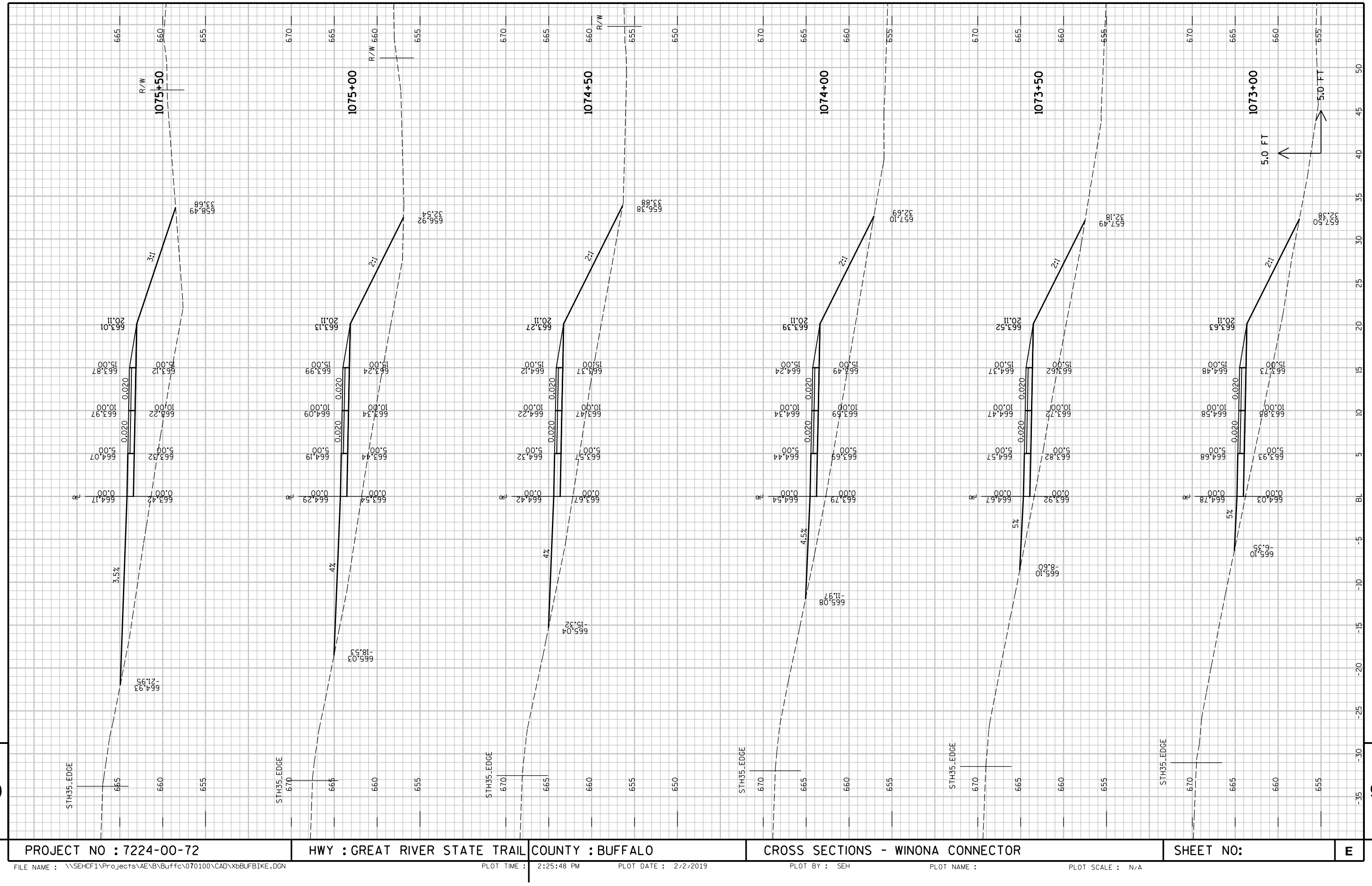


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PROJECT NO : 7224-00-71	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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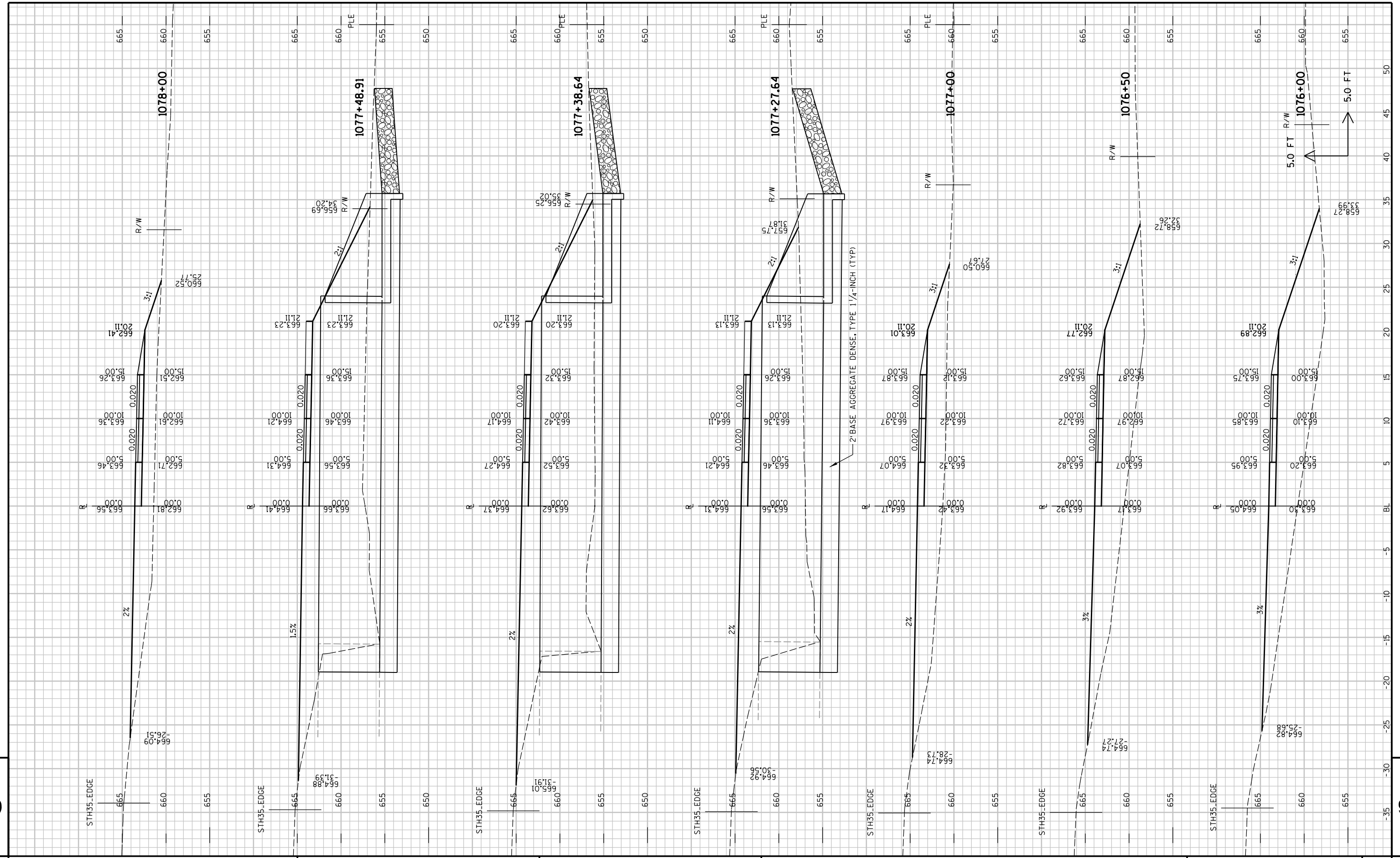


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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

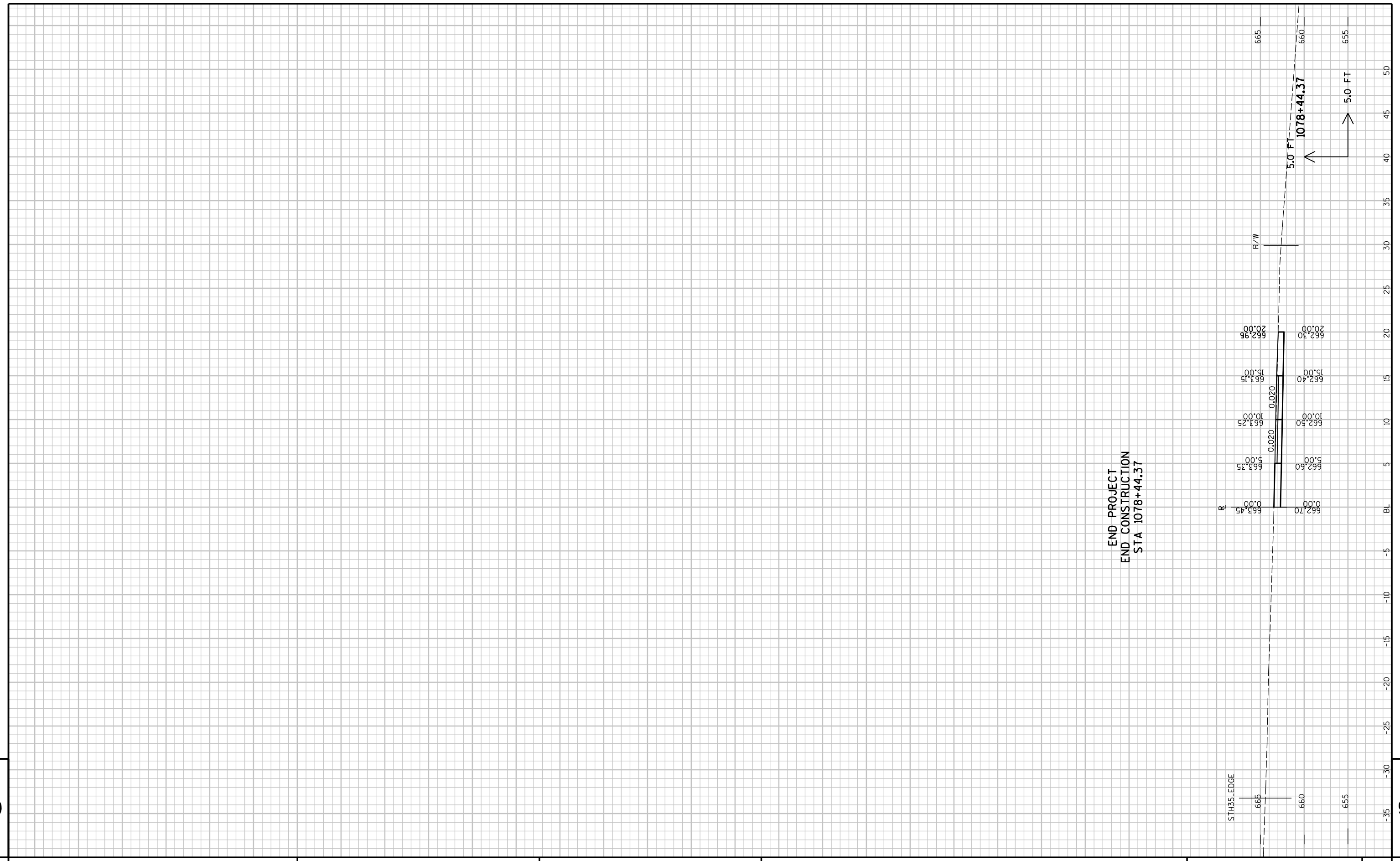
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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO: E

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PROJECT NO : 7224-00-72	HWY : GREAT RIVER STATE TRAIL	COUNTY : BUFFALO	CROSS SECTIONS - WINONA CONNECTOR	SHEET NO:	E

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1004+00

1003+00

1002+00

5.0 FT

5.0 FT

℄_OLD_STH_54

OH_E

PLE

0.020

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PROJECT NO : 7224-00-72 | HWY : GREAT RIVER STATE TRAIL | COUNTY : BUFFALO | CROSS SECTIONS - OLD STH 54 TEMPORARY WIDENING | SHEET NO: E

FILE NAME : \\SEHCF1\Projects\AE\B\Buffc\070100\CAD\XBTMPWIDNG.DGN PLOT TIME : 2:25:49 PM PLOT DATE : 2/2/2019 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A