Project Manual

ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES

ISD 11 Project #25048B

prepared for

Anoka-Hennepin School District
2727 N Ferry St.
Anoka, MN 55303

prepared by

Bolton & Menk, Inc.
Landscape Architecture · Site Planning · Civil Engineering
3300 Fernbrook Lane North, Suite 300
Plymouth, MN 55447
763-544-7129

April 22, 2025

Project No. 25X.138549.000

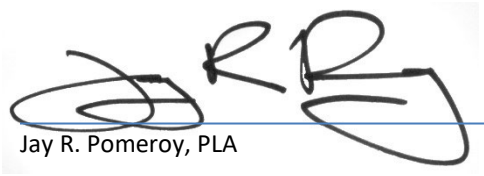
SECTION 00 01 05

CERTIFICATION SHEET

ISD 11 PAVEMENT IMPROVEMENTS AT OAK VIEW MS & OXBOW CREEK ES
ISD 11 PROJECT #25048B

LANDSCAPE ARCHITECT'S CERTIFICATION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the state of Minnesota.



Jay R. Pomeroy, PLA No. 23543 April 22, 2025

SECTION 00 01 10

TABLE OF CONTENTS

END OF SECTION 00 01 10

SECTION 00 01 15

SCHEDULE OF DRAWINGS

ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES

ISD 11 PROJECT #25048B

SHEET	**DESCRIPTION**
G0.01	TITLE SHEET
C1.01	OXBOW FINISHING PLAN
C1.02	OAKVIEW FINISHING PLAN
C2.01	DETAILS

END OF SECTION 00 01 15

ADVERTISEMENT FOR BIDS

Project Identification: The School Board of Anoka-Hennepin School District, Anoka, Minnesota, will receive sealed bids for:

ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES

until **2:00 pm (CDST), May 13, 2025.** Immediately following expiration of the time for receiving bids, representatives of Anoka-Hennepin School District will publicly view bids at an online bid opening meeting. This will be conducted live, through the use of the Google Meet platform. Those interested in attending the bid opening may do so virtually by utilizing the link below or by calling the phone number provided:

#25048B Oak View MS & Oxbow ES Paving Project Bid Opening

Tuesday, May 13 · 2:00pm
Time zone: America/Chicago

Google Meet joining info
Video call link: https://meet.google.com/opq-krix-utu

Or dial: (US) +1 813-393-1636 PIN: 613 446 539#
More phone numbers: https://tel.meet/opq-krix-utu?pin=9948300869765

Bid Form: Bids shall be upon a form provided by the Owner. Vendor to submit one (1) original response printed on standard copy paper. Envelopes containing bids must be sealed, marked "**ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES, Bid #25048B**" with the name and address of the bidder and the date and hour of the opening and addressed to:

Anoka-Hennepin School District
Educational Service Center
Attn: Tiffany Audette, CPPB / Purchasing
2727 North Ferry Street, Entrance 1
Anoka, MN 55303

Acceptable delivery methods are listed below:
US Postal Service
FedEx, Courier, UPS
Personally, hand delivered

The complete form shall be without alterations, additions, or erasures. All bids must be on a lump sum basis.

Description of Work: Work generally includes removals, concrete work, bituminous and concrete paving, curbing, striping, signage, catch basin repair, grass restoration and other work as shown on the Contract Drawings and described in the Project Manual dated April 22, 2025.

Completion of Work: All work under the Contract must be complete by August 10, 2025.

Basis of Bids: Lump sum bids will be received for work at each site included in Contract(s). Bidders shall also submit individual lump sum bids on requested alternates.

Procurement of Documents: Project documents will be available at http://www.questcdn.com. You may download the complete set of digital bidding documents for $30 by entering eBidDoc ™ **# with the keyword '9637577'** on the "Search Projects" page. Please contact QuestCDN.com at 952-233-1632 or info@questcdn.com for a plan holders list or assistance in downloading and working with this digital project information.

Bonding Requirements: Successful contractors shall be required to provide a Performance Bond and a Labor and Material Payment Bond in the amount of 100% of the Contract Amount.

Bid Security: Each bidder must accompany their bid with a cashier's check, bid bond, or certified check equal to 5% of the amount of the bid payable to Anoka-Hennepin School District as a guarantee of prompt execution of the contract in accordance with the bid and contract documents and that they will furnish bond acceptable to Anoka-Hennepin School District covering performance of the contract.

Owner's Right to Reject Bids: The Owner reserves the right to reject a bid which is in any way incomplete or irregular or to waive informalities in a bid received, and accept a bid, which in the owner's judgment is in the owner's best interests.

Prevailing Wage Requirements: The Contractor and all subcontractors are subject to compliance with the Schedule of Prevailing Wages issued by the Minnesota Department of Labor and Industry specifically for the project.

Withdrawal of Bids: No bid shall be withdrawn subsequent to the opening of the bid without the consent of the Anoka-Hennepin School District of Minnesota for a period of 45 days after the scheduled time of closing bids.

ANOKA-HENNEPIN SCHOOL DISTRICT
CLERK OF THE SCHOOL BOARD

Jeff Simon

SECTION 00 21 00

INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.1 EXAMINATION OF SITE AND DOCUMENTS

A. Before submitting a Bid, each bidder shall carefully examine the Drawings, read the Specifications and all other Contract Documents, and visit the site of work. Each Bidder shall be fully informed prior to the bidding as to all existing conditions and limitations under which the work is to be performed and they shall include in their Bid a sum to cover the cost of all items necessary to perform the work as set forth in the Contract Documents. No allowance will be made to any Bidder because of lack of such examination or knowledge. The Submission of a bid shall be construed as conclusive evidence that the bidder has made such examination.

1.2 ORDINANCES, CODES, AND REGULATIONS

A. Each bidder must be familiarized with all Federal, State, County and City laws, Ordinances, and Codes which affect those engaged on the work or the material or equipment used.

1.3 INTERPRETATION AND ADDENDA

A. If any bidder is in doubt as to the meaning of any part of the Drawings and specifications, they may submit a written request to the Engineer for an interpretation thereof. Any interpretation or change will be made only by Addendum duly numbered, dated and issued to each Bidder, on record or receiving a set of documents. The Owner or Engineer will not be responsible for any other explanations or interpretations of the documents. Item described in Addenda shall be covered by the bid and shall be acknowledged on the Bid Form.

1.1 SUBSTITUTION OF MATERIALS

A. Proprietary Specifications Noting "Or Approved Equal":

1. For products specified by naming one or more products or manufacturers and stating "or approved equal", products so named shall establish a standard and Contractor has the option to provide 1 product named or submit a request for approval to Engineer for any product or manufacturer which is not specifically named. Requests for approval of substitute products must be submitted no less than 7 days prior to opening of Bids to allow review by the Engineer. All questions and substitution requests will be compiled and addressed by addendum. Substitute products not approved by Engineer by Addendum shall not be furnished or installed.

1.2 BID SECURITY

A. Each bid must be accompanied by a Bidder's Bond (Form of Bid Bond shall be AIA Document A-310) or a certified bid deposit check, payable to the Owner in the sum of 5% of the total base bid, as a guarantee that the Bidder, if awarded the Contract will promptly execute such Contract in accordance with the bid and in the manner and form required by the Contract Documents and will furnish good and sufficient bond for the faithful performance of the Contract. The bid security of the three lowest bidders will be retained until the Contract is awarded or other disposition is made thereof. The bid security of all bidders will be returned promptly after the opening of Bids. No bid will be considered unless accompanied by the required deposit.

1.3 PERFORMANCE AND PAYMENT BOND

A. The Contractor shall promptly furnish a Performance and Payment Bond (form of Bond shall be AIA Document A-313) in the full amount of the Contract price. The cost of the bond shall be part of the contract price.

1.4 PREPARATION OF BIDS

A. Contract Documents have been prepared for the ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES project. Bids shall be on Bidder's letterhead and the form and wording shall be exact copies of the Bid Form included in the Project Manuals. Bidders are required to include Base Bid, Alternate Bids, and Unit Prices in the appropriate location designated on the Bid Form.

1.5 SUBMISSION OF BIDS

A. Two complete bid responses, including attachments, one of which must be an original, are to be submitted. Bids shall be printed in ink or typewritten, addressed to Anoka-Hennepin School District, and marked on the envelope as to clearly identify the Project Bid upon time and date as given in the advertisement for bids. Envelopes shall also bear the name of the person or firm by whom the bid is submitted.

B. Bidders may submit bids for one or both sites, but each site will be evaluated and awarded separately. Bids containing clauses or phrases which modify the enclosed Bid Form shall be cause for rejection.

C. Bids will be accepted only on the basis of performing all of the work outlined in each bid.

1.6 BASIS OF AWARD

A. The Contract, if awarded, will be awarded to the lowest responsive and responsible base bid, with the inclusion of alternates, if any, in the order listed on the Bid Form. The Owner reserves the right to accept alternates in the order listed, up to the allowable budget for the project, based on the availability of funds, the overall benefit to the project, and the best interests of the District. The total contract amount will include the base bid and the selected alternates.

B. Separate contracts will be awarded for each site included in this solicitation: Oakview Middle School and Oxbow Creek Elementary School. The Contract for each site, if awarded, will be made to the lowest responsive and responsible bidder for that individual site, based on the base bid provided on the Bid Form.

C. The total contract amount for each site will include the base bid and unit pricing.

D. Award decisions will be made independently for each site. Bidders may submit bids for one or both sites, but each site will be evaluated and awarded separately.

1.7 DETERMINATION OF RESPONSIBILITY

A. Prior to award of the Contract, an evaluation will be made to determine if the low Bidder has the capability, in all respects, to perform fully the contract requirements and the moral and business integrity and reliability which will assure good faith performance, and who has been prequalified, if required. In determining the "lowest responsible bidder, "the School District will evaluate a bidder's responsibility, or lack of responsibility, including, but not limited to:

1. Its demonstrated compliance with Minnesota's responsible contractor requirements contained in Section 16C.285 of Minnesota Statutes;

2. References it supplies to the School District which relate to the quality of its performance, management, expertise, responsiveness and timeliness, and its successful completion of work of similar complexity and time restriction.

3. Sufficient financial ability to perform the contract as evidenced by the Bidder's ability to obtain payment and performance bonds from an acceptable surety.

4. Appropriate experience to perform the Work described in the bid documents;

5. Any judgments entered against the Bidder, or any officers, directors, partners or owners for breach of a contract for construction;

6. Any substantial noncompliance with the terms and conditions of prior construction contracts with a public body without good cause where the substantial noncompliance is documented; or

7. A conviction of the Bidder or any officer, director, partner, project manager, procurement manager, chief financial officer, or owner in the last five years of a crime relating to governmental or nongovernmental construction or contracting; payment and performance bonds an acceptable surety; contracting; payment and performance bonds an acceptable surety;

8. Any current debarment of the contractor, any officer, director or owner, from bidding or contracting by any public body of any State, any State agency, or any agency of the Federal government.

9. The School District may consider the quality and timeliness of a bidder's performance of work for the District in determining whether the bidder is "responsible".

10. The School District Reserves the right to disqualify or refuse to accept the bid of any bidder who has been convicted, or entered a plea of guilty or nolo contendere, in any Federal or State court to any charge involving any unlawful, corrupt or collusive practice involving a public contract whether Federal, State, or local, or who has been determined in any judicial proceeding to have violated any antitrust, bid-rigging or collusive practice statute in connection with any public contract, or against whom such formal criminal prosecution or other judicial proceeding has been initiated.

B. A Bidder who, despite being the apparent low bidder, is determined not to be a responsible bidder shall be notified in writing.

1.8 AWARD OF BIDS

A. Owner acceptance of the bid of shall bind the bidder to provide all required bonds and certificates and to execute the Contract within 10 (ten) days after notification of such award. One calendar day shall be subtracted from the specified number of calendar days to complete the Project for each day beyond the six (6) days that the bidder fails to provide the required bonds, certificates and execute the Contract.

1.9 REJECTION OF BIDS

A. A bid may be rejected if it contains any alteration or erasure unless the alteration or erasure is corrected as herein provided. An alteration or erasure may be crossed out and the correction thereof printed in ink by the person signing the bid. The person signing the bid shall also file a certificate with the bid explaining the correction of the alteration or erasure. The Owner reserves the right to reject any or all bids or any part of any bids, waive minor defects or technicalities, or to advertise for new bids as it may deem best for its interest.

1.10 ERROR IN BIDS

A. Bidders or their authorized agent are expected to examine the Drawings, Specifications and also all forms and instructions pertaining to the Work which will be open for inspection. Failure to do so will be at the bidder's risk and they cannot secure relief on the plea of error in bid.

1.11 WITHDRAWAL OF BIDS

A. Bids may be withdrawn by letter request received from the bidders prior to the time set for opening of the bids; provided that any such requests be signed in the same manner and by the same person or persons who signed the bid and should not reveal the amount of the bid; if such request for withdrawal is not explicit and if it is in any sense subject to misinterpretation, the Bid shall be subject to either acceptance or rejection, as may be the best interest of the Anoka-Hennepin School District, and in its discretion.

1.12 DISQUALIFICATION OF BIDDERS

A. Any of the following reasons may be considered sufficient cause for disqualification of a Bidder and the rejection of their Bid or Bids:

1. More than one Bid for the same work from an individual, firm, or corporation under the same or different name.

2. Evidence of collusion among bidders. Participants in collusion will receive no recognition as bidder on future work until they have reinstated as responsible bidders.

3. Evidence that any bidder is interested in more than one Bid for the same work.

1.13 PERMITS

A. The Contractor shall make application for and take out all necessary permits required by all governing authorities. The Contractor shall bear all costs, fees, and charges of required permits. Fees for such permits shall be included in the bid price, and the Contractor shall indemnify and hold harmless the Anoka-Hennepin School District against any such charges.

1.14 TAXES

A. The Contractor shall be deemed to have included in the price quoted the amounts payable by the successful bidder or by the Owner in account of taxes imposed by any taxing authority upon the sale, purchase or use of materials, supplies or equipment.

1.15 EXECUTION OF CONTRACT AND BONDS

A. Within ten (10) calendar days after the contract and bond forms have been mailed to the successful bidder, he shall execute and return a written Contract, furnish satisfactory insurance in the amounts and in the manner specified in the Contract Documents or Addenda thereto. If return of the executed Contract and bond forms within the specified time is impossible due to the absence of one or more of the required signers, an extension of time may be granted by the Anoka-Hennepin School District, provided satisfactory evidence is furnished and due assurance given that the forms will be executed within a brief period of time. The Contract and surety bond shall be in the form attached to and made part of the Contract Documents. Surety bonds shall be issued by a corporation authorized to contract as a surety in the State of Minnesota.

B. The Contract when executed shall be deemed to include the entire agreement between the parties thereto and the Contractor cannot claim modification thereof resulting from any presentation or promise made by any officer, agent, or employee of the Owner or any other person.

1.16 RESPONSIBILITY OF COORDINATION

A. The Owner reserves the right to let other contracts in connection with the Work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work and theirs.

B. If any part of the Contractor's work depends for proper execution or results upon the work of any other Contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results. Their failure so to inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work.

C. To ensure the proper execution of his subsequent work, the Contractor shall measure work already in place and shall at once report to the Engineer any discrepancy between the executed work and the drawings which will affect his work.

1.17 TIME OF COMMENCEMENT - SITE AVAILABILITY

A. Start date: On or about July 1, 2025.

B. Access to and into the sites shall be maintained throughout the project for emergency and related personnel.

1.18 MILESTONE COMPLETION DATES

A. Substantial Completion

1. August 10, 2025

B. Final Completion

1. August 17, 2025

C. Each bid shall be accompanied be a Bidder's Bond or Certified or Cashier's check made payable to Anoka-Hennepin School District for an amount equal to 5% of the bid as Bid Security.

D. No bid may be withdrawn within forty five (45) days after the opening of bids.

E. The Owner reserves the right to accept or reject any or all bids and to waive any informalities or irregularities in bidding.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 00 21 00

SECTION 00 41 00

BID FORM

(Copy this form onto Bidder's letterhead)

BID FOR: **ISD 11 PAVEMENT IMPROVEMENTS AT OAK VIEW MS & OXBOW CREEK ES (ISD 11 PROJECT #25048B)**

BID TO: **ANOKA-HENNEPIN SCHOOL DISTRICT**
ATTN: TIFFANY AUDETTE, PURCHASING MANAGER
2727 N FERRY ST.
ANOKA, MN 55303

BID FROM: _____

_____

_____

_____

We, the undersigned, have examined the construction documents prepared by Bolton & Menk, Inc., Plymouth, Minnesota, dated April 22, 2025, and have become thoroughly familiar with local conditions affecting the cost and performance of the work.

In accordance with all requirements of the construction documents and related addenda, we hereby propose and agree to provide all labor and materials required to construct and complete the work in accordance with the construction documents and addenda for the following amounts:

Base Bid #1 - OAK VIEW MS: **$** _____

written amount: _____

Base Bid #2 - OXBOW CREEK ES: **$** _____

written amount: _____

Unit Prices

Unit Price No. 1- Medium Duty Pavement Reclaim/ Repave $ _____ /SY

Unit Price No. 2- Heavy Duty Pavement Reclaim/ Repave $ _____ /SY

Unit Price No. 3- Concrete Walk $ _____ /SF

Unit Price No. 4- B-612 Curb Repair $ _____ /LF

Unit Price No. 5- D-412 Curb Repair $ _____ /LF

Bid Security Attachment: Accompanying this bid is bid security for all work required to be furnished by the Construction Documents, made payable to Anoka-Hennepin School District as guarantee for this bid, the same being subject to forfeiture in the event of default by the undersigned.

Bidding Documents: We acknowledge receipt of the Construction Drawings and Project Manual, dated April 22, 2025, and affirm that all costs associated with these documents are included in base bid or alternate bid, if applicable, sums.

Responsible Contractor Verification of Compliance: The notarized form is included as an attachment to this document.

Bid Acceptance: If written notice of the acceptance of this bid is received by the undersigned within 45 days after date set for opening of this bid, or at any other time thereafter before bid is withdrawn, the undersigned agrees to enter into and execute a contract with the owner in accordance with this bid and to furnish to the owner the Performance Bond, Labor and Material Payment Bond, and Certificate of Insurance within 7 days after Notice Of Acceptance of this bid.

Start-Up and Completion Dates: If this bid is accepted within 45 days of bid opening, we agree to start and to substantially complete the work by the following dates:

Start Date _____

Substantial Completion Date _____

Addenda: Receipt of the following addenda to the Construction Documents and their costs being incorporated into the bid is acknowledged:

Addendum No. _____ Date _____

Addendum No. _____ Date _____

Addendum No. _____ Date _____

Execution of Bid: The entity(ies) signing this bid is/are fully authorized to sign on behalf of the named firm and to fully bind the named firm to all of the conditions and provisions of the contract. I understand the owner reserves the right to reject any or all bids, and it is agreed that this bid shall remain valid and not be withdrawn for 45 calendar days after bid opening.

Submitted this _____ day of _____, 20 _____

Name of Company _____

Street Address _____

City / State / Zip _____

Name _____

Signature _____

Bidder is (check one) ☐ Individual ☐ Partnership ☐ Corporation

If bidder is a corporation, give legal name of corporation, state where incorporated, and names of president and secretary; if a partnership, give names of all individual co-partners composing the firm; and if an individual, give first and last name in full.

END OF SECTION 00 41 00

SECTION 00 45 18

CERTIFICATION OF COMPLIANCE WITH RESPONSIBLE CONTRACTOR ACT

PART 1 - GENERAL

1.1 SUMMARY

A. Per the Laws of Minnesota, 2014, Chapter 253, Minnesota Statute 16C.285 a construction contract in excess of $50,000 shall not be awarded unless the contractor is considered a "responsible contractor" as defined in Minnesota Statute 16C.285. All Prime Bidders who are submitting a bid for a construction project shall submit along with their bid a signed statement under oath by an owner or officer of the company certifying compliance with each of the minimum criteria specified in subdivision 3 of Minnesota Statute 16C.285, a copy of which is included following this section.

B. All subcontractors that a prime contractor intends to use to perform work on a project must have verified to the contractor through a signed statement under oath by an owner or officer of the company that they meet the minimum criteria listed on clauses (1) through (6) of Subparagraph 3 of Minnesota Statute 16C.285. The List of First-Tier Subcontractors form shall be included with the bid.

C. Prime contractor shall submit to the Engineer / Landscape Architect upon request copies of the signed verifications of compliance from all subcontractors.

D. Responsible bidder shall be defined by those entities which meet the minimum criteria set fourth in subparagraph 3 of Minnesota Statute 16C.285. Refer to copy of Minnesota Statute 16C.285 which is included as an Appendix to this Document. A Bidder or subcontractor who does not meet the minimum criteria established in Minnesota Statutes 16C.285, subdivision 3, or who fails to verify compliance with the minimum requirements will not be a "responsible contractor" and will be ineligible to be awarded the Contract for this Project or to work on this Project.

E. Bidders and subcontractors making a false statement verifying compliance with any of the minimum criteria will render the Bidder or subcontractor ineligible to be awarded a construction contract for this Project and may result in the termination of a contract awarded to a prime contractor or subcontractor that makes a false statement.

F. A copy of the certification form which the bidder is to submit with their bid is included as an attachment to this Document and is titled "Responsible Contractor Verification of Compliance". Form submitted with bid must be notarized.

G. The person who is signing the certification for "Certification By Bidder" shall be a person who is authorized to sign a document on behalf of the organization which is submitting the bid or is contracted to perform the purposed work.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 00 45 18

RESPONSIBLE CONTRACTOR CERTIFICATE

Applies to all prime contracts in excess of $50,000.00

A responsible contractor is defined in Minnesota Statutes §16C.285, subdivision 3.

Any prime contractor or subcontractor who does not meet the minimum criteria under Minnesota Statute §16C.285, subdivision 3, or who fails to verify that it meets those criteria, is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project.

A false statement under oath verifying compliance with any of the minimum criteria shall render the prime contractor or subcontractor that makes the false statement ineligible to be awarded a construction contract for the project and may result in termination of a contract awarded to a prime contractor or subcontractor that makes a false statement.

A prime contractor shall submit to the contracting authority upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to subdivision 3, clause 7.

By signing this statement, I, _____,
(type or print name)

_____, certify that I am an owner or officer of the
(title)

Company and do verify under oath that my company is in compliance with each of the minimum criteria listed in the law.

_____
(name of the person, partnership, or corporation submitting this proposal)

_____
(business address)

Signed: _____ Date: _____

ATTACHMENT A

RESPONSIBLE CONTRACTOR AND CERTIFICATION OF COMPLIANCE

ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES

Minn. Stat. §16.285, Subd,. 7, **IMPLEMENTATION.** any prime contractor or subcontractor that does not meet the minimum criteria in subdivision 3 or fails to verify it meets those criteria is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project.

Minn. Stat. §16.285, Subd. 3. **RESPONSIBLE CONTRACTOR, MINIMUM CRITERIA.** "Responsible contractor" means a contractor that conforms to the responsibility requirements in the solicitation document for its portion of the work on the project and verifies that it meets the following minimum criteria:

1. The Contractor:
    a. is in compliance with workers' compensation and unemployment insurance requirements;
    b. is currently registered with the Department of Revenue and the Department of Employment and Economic Development if it has employees;
    c. has a valid federal tax identification number or a valid Social Security number if an individual; and
    d. has filed a certificate of authority to transact business in Minnesota with the secretary of state if a foreign corporation or cooperative.
    e.
2. The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 177.24, 177.25, 177.41 to 177.44, 181.13, 181.14, or 181.722, and has not violated United States Code, title 29, sections 201 to 219, or United States Code, title 40, sections 3141 to 3148. For purposes of this clause, a violation occurs when a contractor or related entity:
    a. repeatedly fails to pay statutorily required wages or penalties on one or more separate projects for a total underpayment of $25,000 or more within the three-year period;
    b. has been issued an order to comply by the commissioner of labor and industry that has become final;
    c. has been issued at least two determination letters within the three-year period by the Department of Transportation finding an underpayment by the contractor or related entity to its own employees;
    d. has been found by the commissioner of labor and industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section 177.27;
    e. has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or
    f. has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court having jurisdiction. Provided that, if the contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case proceeding, a violation does not occur until the contested case proceeding has concluded with a determination that the contractor or related entity underpaid wages or penalties.

3. The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 181.723 or chapter 326B. For purposes of this clause, a violation occurs when a contractor or related entity has been issued a final administrative or licensing order.

4. The contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section 363A.36 revoked or suspended based on the provisions of section 363A.36, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office.

5. The contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantaged business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification.

6. The contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions; and

7. All subcontractors that the contractor intends to use to perform project work have verified to the contractor through a signed statement under oath by an owner or officer that they meet the minimum criteria listed in clauses (1) to (6).

Minn. Stat. 1§16.285, Subd. 5. **SUBCONTRACTOR VERIFICATION.** A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project.

If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7),within 14 days of retaining the additional subcontractors.

A prime contractor shall submit to the contracting authority upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to subdivision 3, clause (7). A prime contractor and subcontractors shall not be responsible for the false statements of any subcontractor with which they do not have a direct contractual relationship. A prime contractor and subcontractors shall be responsible for false statements by their first-tier subcontractors with which they have a direct contractual relationship only if they accept the verification of compliance with actual knowledge that it contains a false statement.

Minn.Stat. §16.285, Subd. 4. **VERIFICATION OF COMPLIANCE.** A contractor responding to a solicitation document of a contracting authority shall submit to the contracting authority a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in subdivision 3 at the time that it responds to the solicitation document.

A contracting authority may accept a sworn statement as sufficient to demonstrate that a contractor is a responsible contractor and shall not be held liable for awarding a contract in reasonable reliance on that statement. Failure to verify compliance with any one of the minimum criteria or a false statement under oath in a verification of compliance shall render the prime contractor or subcontractor that makes the false statement ineligible to be awarded a construction contract on the project for which the verification was submitted.

A false statement under oath verifying compliance with any of the minimum criteria may result in termination of a construction contract that has already been awarded to a prime contractor or subcontractor that submits a false statement. A contracting authority shall not be liable for declining to award a contract or terminating a contract based on a reasonable determination that the contractor failed to verify compliance with the minimum criteria or falsely stated that it meets the minimum criteria. A verification of compliance need not be notarized. An electronic verification of compliance made and submitted as part of an electronic bid shall be an acceptable verification of compliance under this section provided that it contains an electronic signature as defined in section 325L.02, paragraph (h).

CERTIFICATION

By signing this document I certify that I am an owner or officer of the company, and I swear under oath that:

1) **My company meets each of the Minimum Criteria to be a responsible contractor as defined herein and is in compliance with Minn. Stat. §16.285,**
2) **I have included Attachment A-1 with my company's solicitation response, and**
3) **if my company is awarded a contract, I will also submit Attachment A-2 as required.**

Authorized Signature of Owner or Officer:	**Printed Name:**
Title:	**Date:**
Company Name:	

ATTACHMENT A-1

FIRST-TIER SUBCONTRACTOR LIST
(Submit with Prime Contractor Response)

ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES

Minn. Stat. §16.285, Subd. 5: A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project.

First-Tier Subcontractor Names (Legal name of company as registered with the Secretary of State)	**Name of city where company home office is located**

ATTACHMENT A-2

ADDITIONAL SUBCONTRACTOR LIST

(Prime Contractor to submit as subcontractors are added to the project)

ISD 11 Pavement Improvements at Oak View MS & Oxbow Creek ES

This form must be submitted to the Project Manager or individual as identified in the solicitation document.

Minn. Stat. §16.285, Subd. 5: If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors.

Additional Subcontractor Names (Legal name of company as registered with the Secretary of State)	**Name of city where company home office is located**

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-2

By signing this document, I certify that I am an owner or officer of the company, and I swear under oath that:

All additional subcontractors listed on Attachment A-2 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. §16.285.

Authorized Signature of Owner or Officer:	**Printed Name:**
Title:	**Date:**
Company Name:	

SECTION 00 72 00

GENERAL CONDITIONS OF THE CONTRACT

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

A. The General Conditions of the Contract for Construction, AIA Document A201-2017, Fifteenth Edition, Articles 1 through 14 inclusive, is a part of this Contract and is available for review at the Engineer's office.

B. The General Conditions of the Contract for Construction apply to all sections of this Specification.

C. Refer to Section 00 73 00, Supplementary Conditions, for supplements to the General Conditions of the Contract for Construction.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 00 72 00

SECTION 00 73 00

SUPPLEMENTARY CONDITIONS

PART 1 - GENERAL

1.1 SUPPLEMENTS

A. The Supplementary Conditions contain modifications to AIA Document A201™ – 2017, General Conditions of the Contract for Construction, in the form of additions, deletions, and substitutions. Where any part of the AIA General Conditions is modified by these Supplementary Conditions, the unaltered provisions remain in effect.

1.2 ARTICLES AMENDED BY SUPPLEMENTARY CONDITIONS

A. Article 1 General Provisions

§ 1.1 Basic Definitions, add subsection(s) as follows:

§ 1.1.9 Authority

Terms as "approved", "for approval", "selected", and "as directed" shall mean the authority of the Engineer unless linked to the identity "Owner" or "Contractor".

§ 1.1.10 Product

The term "product" as used in the Contract Documents includes materials, systems, and equipment.

§ 1.1.11 Furnish

The term "Furnish" as used in the scope of sections of the Specifications, shall mean to include, without limitations, all products, materials, equipment, accessories and other related items required for complete installation of the Work.

§ 1.1.12 Provide

The term "Provide" as used in the scope of sections of the Specifications shall mean "furnish and install" and shall include without limitations, all labor, materials, equipment, transportation, services, and other items required to complete the indicated and referenced Work.

§ 1.2 Correlation and Intent of the Contract Documents, add subsection(s) as follows:

§ 1.2.1.2 By executing the Contract or a subcontract on this Work, Contractor or Subcontractor warrants that he has reviewed the Contract Documents and that his products will be installed satisfactorily (including features unique to a specific product or assembly not specifically indicated on the Drawings and Specifications, or different from those indicated), including the payment of the cost of additional work of others as may be necessary to bring the Work into conformance with the unique requirements of any such products.

§ 1.2.1.3 If there is an inconsistency in quality or quantity of work required by the Contract Documents, either the greater quality or quantity of work indicated or the lesser quality or quantity of work indicated shall be provided in accordance with Engineer's interpretation, and no change in Contract Sum will be permitted.

§ 1.4 Interpretation, add subsection(s) as follows:

§ 1.4.1 Items indicated "N.I.C." (Not in Contract) on the Drawings or in the Specifications are items furnished, installed, and connected by the Owner or others and all work required for such items is completely excluded from the Contract for construction.

§ 1.4.2 Items indicated "By Owner" on the Drawings or in the Specifications shall be furnished and unloaded at the site by the Owner in a location as directed by the Contractor. The complete installation and service connections of these items shall be the responsibility of the Contractor.

§ 1.4.3 Items indicated "By Others" on the Drawings or in the Specifications shall be furnished, unloaded at the site, and installed or set in place by others in a location shown. Trimming service connections, and fittings of Contract equipment or materials to these items shall be the responsibility of the Contractor as is normal to or set forth under his division of work in the Specifications.

B. Article 3 Contractor

§ 3.2 Review of Contract Documents and Field Conditions by Contractor, add subsection as follows:

§ 3.2.5 Should it appear that Work described or matters relative to Work, are not sufficiently detailed or explained in Contract Documents, Contractor shall apply to Engineer for supplementary drawings or clarifications as may be necessary and shall meet requirements of these documents as far as they are consistent with original Contract Documents. In no case shall Work be commenced, in uncertainty.

§ 3.4 Labor and Materials, add subsection(s) as follows:

§ 3.4.4 The Contractor shall be responsible for costs of additional work and changes required to incorporate substitute materials, products, equipment or systems approved during the bidding period, including all such work and changes performed under other divisions of Work.

§ 3.4.5 After execution of the Contract, substitution of a material, product or piece of equipment will not be allowed unless the specified item is unavailable as a result of a cause beyond the control or without the fault of the Contractor or a Subcontractor or material supplier which the Engineer determines justifies the substitution.

§ 3.5 Warranty, add subsection(s) as follows:

§ 3.5.1.1 The terms "guarantee" and "warrant" or "warranty" may be used interchangeably in the Contract Documents. The definition "warranty (guarantee) of the integrity of a product and of the warrantor's responsibility for the repair or replacement of defective products or parts" is intended.

§ 3.5.1.2 Where a product is specified by a manufacturer or brand name, it shall be understood that this designation is used to establish minimum standard of quality required, and the published data, including manufacturer's extended warranties, pertinent to this material or equipment, shall be considered a requirement of the Contract Documents as if it were quoted therein.

§ 3.5.1.3 Contractor's general warranty obligation is not limited or released by the specification of a particular product or procedure.

§ 3.5.1.4 Warranties provided by manufacturers are in addition to, not in lieu of, Contractor's general warranty.

§ 3.5.1.5 Contractor's general warranty is not limited by the provisions of Section 12.2.

§ 3.7 Permits, Fees, and Notices, add subsection as follows:

§ 3.7.1.1 Contractor shall provide and pay for all permits, fees and charges required by governing authorities.

§ 3.10 Contractor's Construction and Submittal Schedules, add subsection(s) as follows:

§ 3.10.4 Each Contractor and major Subcontractor shall obtain a copy of the General Contractor's Construction Schedule and amendments thereto and shall schedule their operations as work progresses to coordinate with the General Contractor's Construction Schedule and work of other Contractors and Subcontractors.

§ 3.10.5 Each Contractor shall adhere to the Construction Schedule and shall not erect any portions of the work where it is necessary that the work of the Contractors and Subcontractors shall be erected first or carried forward simultaneously without having first given the other Contractors a reasonable notice of

their intentions. Should the other Contractors, after such reasonable notices, fail to have their work in readiness, the General Contractor shall be consulted and his directions followed.

§ 3.10.6 During construction, the General Contractor shall update and revise the Construction Schedule on a monthly basis, to conform to the current status of the work, distribute copies to the parties receiving the original Schedule, and give due and timely notice to all others as necessitated by the revisions.

§ 3.12 Shop Drawings, Product Data, and Samples

Delete § 3.12.7 in its entirety and replace as follows:

§ 3.12.7 By receiving, reviewing, approving, signing, and submitting Shop Drawings, Product Data, and Samples, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, or will do so, and that he has checked and coordinated the information contained within each submittal with the requirements of the Work and of the Contract Documents notwithstanding any statements to the contrary affixed to the submittal by the Contractor.

Add subsection(s) as follows:

§ 3.12.11 Refer to Division 1, General Requirements, for submittal procedures for handling Shop Drawings, Products Data, and Samples, processing of reproducibles, number of copies, identification and labeling, revisions, and resubmission procedures.

§ 3.16 Access to Work, revise section to read:

The Contractor shall provide Owner, Engineer, and their representatives access to the Work in preparation and progress wherever located.

§ 3.18 Indemnification

Revise subsection as follows:

In the first sentence of Subparagraph 3.18.1 after the words “tangible property” add the words “including loss of use resulting therefrom” and delete “(other than the Work itself)”.

Add sentence to end of subsection 3.18.1:

“The Contractor’s obligations set forth in this § 3.18 shall include any claim by the Owner against the Contractor, a Subcontractor, or anyone else directly or indirectly employed by the Contractor or a Subcontractor, or against anyone for whose acts the Contractor or Subcontractor may be liable.”

C. Article 5 Subcontractors

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work, add subsection(s) as follows:

§ 5.2.2.1 The right to reject any Subcontractor or Sub-subcontractor will be exercised by the Owner or the Engineer when, in reasonable opinion of either of them, the proposed Subcontractor or Sub-subcontractor:

.1 cannot provide (or proposes unacceptable deviations in) materials, equipment, systems, methods, facilities, or other Work as required by the Contract Documents;

.2 cannot provide labor and skill necessary to accomplish the part of the Work for which it proposed, including but not limited to quality of workmanship;

.3 lacks experience appropriate to the proper execution and completion for that part of the Work for which the Subcontractor or Sub-subcontractor is proposed;

.4 has previously failed to perform satisfactorily with respect to other projects, including cooperation and necessary services after project completion;

.5 cannot satisfactorily perform the part of the Work for which the Subcontractor or Sub-subcontractor is proposed within the time schedule, due to financial status, size of organization, existing work load, or other consideration;

.6 cannot demonstrate ability, through examples of representative work, to perform the part of the Work, for which the Subcontractor or Sub-subcontractor is being considered;

.7 exhibits other factors bearing on the probability of unsatisfactory performance.

D. Article 7 Changes in the Work

§ 7.3 Construction Change Directives

Delete § 7.3.3.1 and § 7.3.3.2 in their entirety and replace as follows:

.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. A lump sum for an increase in the Contract Sum may contain an allowance for the Contractor's overhead and profit. No allowance for overhead and profit will be required if the change results in a net decrease in cost. When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of net increase, if any.

.2 Unit prices stated in the Contract Documents or subsequently agreed upon. Unit prices shall cover all of the Contractor's costs for labor, materials, equipment, and related services, including such costs for subcontracted work and the Contractor's overhead and profit.

Add § 7.3.3.5 and § 7.3.3.6 as follows:

.5 The cost of a change determined under the methods in § 7.3.3.1, § 7.3.3.3 and § 7.3.3.4 shall include all costs directly related to the change, and the Contractor shall itemize these costs and provide appropriate supporting data as may be necessary to establish their correctness. Indirect costs, whether incurred on or off site, shall be included in the Contractor's overhead.

.6 In the case of a change authorized under § 7.3.3.1,§ 7.3.3.3, and § 7.3.3.4, an allowance for overhead and profit shall be not more than 15 percent of the net cost of work accomplished by the Contractor's own forces and 10 percent of the net cost of work accomplished by subcontractors. Subcontractors may add an allowance of not more than 15 percent of the net cost of the work accomplished by their own forces to cover their overhead and profit.

E. Article 8 Time

§ 8.2 Progress and Completion, add subsection(s) as follows:

§ 8.2.4 Commencement of Work: After award of Contract, it shall be the responsibility of the Contractor to begin Work immediately upon the Engineer's notification to proceed and to thereafter pursue the Work diligently at all times with adequate qualified personnel to adhere to General Contractor's Construction Schedule, coordinate the work and not delay other Contractors and Subcontractors, and be able to deliver the completed Project to the Owner at the earliest possible date. Contractor shall award subcontracts, take required field dimensions, order materials, and submit Shop Drawings for Engineer's approval as soon after award of Contract as practical to ensure that work shall be able to proceed without delay or interruption after notification to proceed is given.

§ 8.2.5 Progress and Supervision of Work: It shall be the responsibility of the Contractor to supervise the operations of all Subcontractors responsible to him so as not to delay the Work.

§ 8.2.6 Completion Date: Contractor understand and agrees that all Work must be performed in an orderly and closely coordinated sequence so that the dates for Substantial Completion, Final Completion and Milestone Dates may be met by Contractor. Timely Final Completion of the Project being of critical importance to the Owner, Contractor agrees that they shall substantially complete all Work under the Contract Documents within the time established therein and that they shall finally complete the Work in detail required and in the time required by the Contract Documents. To the extent that the Contract

Documents contain or provide for specific contractual milestone dates in addition to Final and Substantial Completion dates, such dates shall be adhered to and shall be the last acceptable dates for those milestones and completions, unless modified by the Owner. While it is nor specified that any penalties shall be incurred for failure to meet date indicated, Contractor agrees to make every effort to meet date indicated, and if Owner is damaged by delay beyond date of proposed Contract completion, Contractor may be held liable for such damage.

§ 8.3 Delays and Extension of Time, add subsection(s) as follows:

§ 8.3.4 No payment, compensation or adjustment of any kind (other than the extension of time provided for) shall be made to the Contractor for damages because of hindrances or delays from any cause in the progress of the Work, whether such hindrances or delays be avoidable or unavoidable, and the Contractor agrees that he will make no claim for compensation, damages or mitigation of liquidated damages for any such delays, and will accept in full satisfaction for such delays, said extension of time, except where delay is caused by circumstances clearly beyond the Contractor's control.

§ 8.4 Substantial Completion Date Penalty, add subsection(s) as follows:

§ 8.4 Penalty Date Associated With Substantial Completion: In accordance with the provisions as set forth in Article 8 of the General Conditions of the Contract, the Contractor shall pay to the owner as fixed, agreed, amount for each calendar day of delay beyond the time of substantial completion until the work is completed or accepted the sum of five hundred dollars ($500) per day and the Contractor and his sureties shall be liable for the amount thereof.

§ 8.4.1 "For purposes of determining project is substantially completed, substantial completion shall mean that a project area has received all certificates of occupancy and is in a state of readiness to receive furniture and personnel for normal owner operations occur within the project area on the day immediately following the designated substantial completion date."

§ 8.4.2 Substantial Completion Date Penalty will be enacted if Work is not substantially completed by the date specified for the work in § 8.2.6 at the Owners discretion.

§ 8.5 Final Completion Penalty, add subsection(s) as follows:

§ 8.5 The Contractor, upon entering into a Contract with the Owner for the work under this Project, agrees to pay to the Owner as a fixed and agreed amount for each calendar day of delay beyond the specified date of Final Completion, the sum of five hundred dollars ($500) per calendar day the Contractor fails to achieve Final Completion under the requirements of the Contract Documents. It is understood by all parties to the Contract that this is a penalty relating to the Owner not being able to close out the Project.

§ 8.5.1 Refer to Section 00 21 00 of the Construction Documents for date of Final Completion and related information.

F. Article 9 Payments and Completion

§ 9.3 Application for Payment, add subsection(s) as follows:

§ 9.3.1.3 Until the Work is substantially complete, the Owner will pay 95 percent of the amount due the Contractor on account of progress payments.

§ 9.6 Progress Payments, add subsection(s) as follows:

§ 9.6.2 Each contract with a School District must require the prime contractor to pay any subcontractor within 10 days of the prime contractor’s receipt of payment from the municipality for undisputed services provided by the subcontractor. The contract must require the prime contractor to pay interest of 1.5 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, the prime contractor shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest

penalties from a contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

§ 9.8 Substantial Completion, add subsection(s) as follows:

§ 9.8.3.1 The payment shall be sufficient to increase the total payments to 100 percent of the Contract Sum, less such amounts as the Engineer shall determine for all incomplete work and unsettled claims.

G. Article 11 Insurance and Bonds

§ 11.1 Contractors Insurance and Bonds, add subsection(s) as follows:

§ 11.1.1.1 Liability insurance shall include all major divisions of coverage and be on a comprehensive basis including the following:

.1 General Liability Insurance for Bodily Injury and Property Damage

.2 Products and Competed Operations

.3 Personal Injury and Employee Benefits Injury.

.4 Contractual including specified provision for Contractor's obligation under § 3.18.

.5 Owned, non-owned and hired motor vehicles.

.6 Umbrella/Excess Liability.

§ 11.1.1.2 A General Liability or Umbrella Liability Policy on a claims-made basis will not be accepted without prior approval of the Owner.

§ 11.1.1.3 Insurance required by § 11.1.1 shall be written for not less than the following limits, or greater if required by law:

.1 Workers' Compensation

.1	Minnesota Statutory	
.2	Employer's Liability	$500,000 per accident
		$500,000 disease, policy limit
		$500,000 disease, each employee

.2 Commercial General Liability (comparable to ISO form CG0001798)

.1	Bodily Injury and Property Damage, Each Occurrence $1,000,000	
.2	Personal Injury, Employee Benefit Injury and Advertising Injury	$1,000,000
.3	General Aggregate (Other than Products/Completed Operations)	$1,000,000
.4	Products-Completed Operations Aggregate Limit	$1,000,000
.5	Per Project Aggregate	$1,000,000

.6 The Owner shall be added as additional insured on a primary basis with respect to operations of the Contractor.

.7 Products Completed Operations Insurance shall be maintained for a minimum period of 2 years after final payment. The Contractor shall continue to provide evidence of such coverage to the Owner on an annual basis during the aforementioned period.

.3 Business Auto Liability (including owned, non-owned and hired vehicles):

Bodily Injury and Property Damage, per Accident or Occurrence	$1,000,000

.4 Umbrella/Excess Liability $1,000,000 each occurrence
$1,000,000 per project aggregate

.5 The limits of liability shall not be reduced by the costs of defense.

.6 The Contractor shall maintain the required insurance in force continuously from before commencing work for a period at least twelve months after final completion, or for such longer period as may otherwise be required by the Contract Documents.

.7 If greater limits or coverages are required elsewhere in the Contract Documents, the Contractor shall provide those coverages and limits as well.

.8 The Contractor's Contractual Liability Insurance shall cover the Contractor's obligations and any other contractual defense or indemnity obligations of the Contractor under the Agreement or Contract.

.9 Should any portion of the above be cancelled before the expiration date, the issuing insurer(s) will agree via endorsement to mail 30 days written notice to the Owner.

§ 11.1.2.1 The Blanket Contractual/Indemnity/Assumed Liability coverage indicated above shall be of the type as will cover the provisions of the Contract, including but not limited to any indemnification provisions, including Article 3.18.

§ 11.1.2.2 Pursuant to the requirements in the Contract, including Article 3.18, the Commercial General Liability and Automobile Liability coverage obtained by Contractor shall include Owner as Additional Insured

On a primary basis, and the Owner's own CGL and Automobile policies shall be non-contributory. The Additional Insured endorsement to provide on-going operations coverage must be submitted on ISO Form CG 20 10 10 01 or its equivalent. The Additional Insured endorsement to provide Product/Completed Operation coverage must be submitted on ISO Form CG 20 37 10 01 or equivalent. In addition, the Contractor's CGL policy shall be endorsed to specify that any person or organization that the named insured has agreed in writing to name as an additional insured is entitled to coverage as an additional insured under that policy. If there is no privity of Contract for any person or organization to be named, an alternative additional insured form shall be used. Contractor shall. ensure that said Product/Completed Operations coverage for the Owner remains in effect for at least two (2) years from the date of Final Completion on each Project Contractor performs for Owner.

§ 11.1.2.3 It is understood and agreed that the insurance coverage and limits, required above, shall not be construed to negate, abridge, or otherwise reduce Contractor's indemnity obligations in Article 3.18.

§ 11.1.2.4 The Contractor's commercial general liability policy shall include a per project endorsement providing that the limits of such insurance specified in the Contract Documents shall apply to the Project without erosion of such limits by other claims or occurrences.

§ 11.1.4.1 Certificates of Insurance acceptable to the Owner shall be submitted prior to the commencement of the Work. These certificates and insurance policies required by § 11.1 shall contain a provision that coverage afforded under the policies will not be cancelled, materially altered or allowed to expire until at least 60 days prior written notice has been given to the Owner. If any of the foregoing insurance coverages are required to remain in force after final payment, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by § 9.8. Information concerning reduction in coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief. Certified copies of the policies providing coverage for the Contractor will be provided upon request of the Owner.

§ 11.1.3.1 Insurance Certificate shall be the ACORD Form 25 2009/09 or 2010/05, without exception. No other form of Insurance Certificate will be accepted. Each Certificate shall contain a provision that the policy will not be canceled or allowed to expire until at least 30 days' prior written notice has been given

to parties to whom this certificate is issued. Cancellation wording will be added to the policy and to the ACORD Form to read as follows:

CANCELLATION: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will mail 30 days written notice to the certificate holder named

§ 11.1.3.2 Approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder. It is to be understood that the Owner and the Architect do not in any way represent that the insurance or the limits of insurance specified in these articles are sufficient or adequate to protect the Contractor's interests or liabilities but are merely minimums.

§ 11.1.3.3 Certificate of Insurance shall list the Owner, the Owner's Contractors arid Consultants, the Architect and the Architect's Consultants as additional insured on the actual liability policy, on a primary and non-contributory basis, including Product/Completed Operations coverage. Additional Insured Endorsement Form CG 2032 or equivalent shall be used to add Architect and Architect's consultants.

§ 11.1.3.4 All insurance companies listed on the Certificate of Insurance shall have an A.M. Best rating of A-, VI or higher to be deemed acceptable and shall be authorized as an admitted insurance company in the state in which the Project is located.

§ 11.1 .3.5 If requested, the Contractor shall provide the Owner with a copy of its CGL and umbrella policies applicable to the Project within 14 days of issuance by the insurer.

§ 11.1.5 Where special or unusual hazards peculiar to this Project are foreseeable, the Contractor shall take such steps as are necessary to insure himself against them.

§ 11.2 Owner’s Insurance, revise section to read as follows:

§ 11.2 Property Insurance

§ 11.2.1 The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder’s risk “all risk” or equivalent policy form in the amount of the contract Sum, plus value of subsequent Contract modifications, and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles.

Add to the end of the last sentence of Subsection 11.3.1: The Contractor shall include the Owner, Architect, Subcontractors and Sub-subcontractors as additional insureds on the property insurance required by this Section 11.3.1 and shall furnish to the Owner and Architect one copy of the Certificates of Insurance which shall specifically set forth evidence of coverage required by Subsections 11.4. If the Owner is damaged by the failure of the Contractor to procure or maintain such insurance, then the Contractor shall be liable for all damages, injury, costs, and expenses, including attorneys’ fees, arising out of or resulting from the Contractor’s failure to procure or maintain such insurance.

In the first sentence of Clause 11.3.1.1. delete the words “and Contractor’s” and substitute the words “and Owner’s”.

Delete Clauses 11.3.1.2, 11.3.1.3, 11.3.4, and 11.3.5 in their entirety.

Replace 11.3.6 with the following: Before an exposure to loss may occur, the Contractor shall file with the Owner, 2 certified copies of the policy or policies providing this Property Insurance coverage, each containing those endorsements specifically related to the Project. Each policy shall contain a provision that the policy will not be cancelled or allowed to expire until at least 60 days prior written notice has been given to the contractor.

Replace the first sentence in 11.3.8 with the following: A loss insured under the insurance required by Section 11.3.1 shall, at the discretion of the Owner, be adjusted by the Contractor as fiduciary and made payable to the Contractor as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgagee clause and Subsection 11.3.10 as supplemented herein.

In Subsection 11.3.9 delete “Owner” each time it appears and substitute the word “Contractor”.

§ 11.4 Performance Bond and Payment Bond

Begin Subsection 11.4.1 with the following: As required by MN Statute 574.26 Subdivision 2, the Contractor shall...

H. Article 13 Miscellaneous Provisions

§ 13.4 Tests and Inspections, add subsection as follows:

§ 13.4.4.1 When and where required by state or local ordinances, laws or codes, submit all certificates of testing, inspection or approval to the Engineer before final payment is made to Contractor.

I. Article 15 Claims and Disputes

§ 15.1.7 Waiver of Claims for Consequential Damages, replace in its entirety as follows:

§ 15.1.7 The Owner, at its sole discretion, shall be entitled to seek any and all legal and equitable relief it deems appropriate in order to protect its rights, remedies or redress, including claims for all consequential damages. This provision shall supersede and take precedence over any other conflicting provision in § 15.1 or this Agreement.

§ 15.1.7.1 Nothing in § 15.1 shall negate, abridge or reduce the rights of the Owner's insurer(s) or carriers to seek any and all legal and equitable relief they deem appropriate against the Architect, Contractor, Subcontractors, Sub-subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, for any injury, damage, loss or expense, including all consequential damages.

§ 15.4 Arbitration, add the following statement to § 15.4.1:

Pre-arbitration discovery shall be conducted in accordance with Rules 26 through 37 of the Federal Rules of Civil Procedure.

J. Article 16 Equal Opportunity, add article and subsequent section:

§ 16.1 Policies of Employment

§ 16.1.1 The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin or age. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, national origin or age. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

§ 16.1.2 The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, national origin or age.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 00 73 00

SECTION 00 73 46

WAGE DETERMINATION SCHEDULE

PART 1 - GENERAL

1.1 WAGE DETERMINATION REQUIREMENTS

A. Bids and all Contractors shall be subject to State Prevailing Wage Rates for Highway and Heavy and shall be in accordance with Minnesota Statutes 177.41 thru 177.43. Any wage determinations which are found not to be so promulgated do not relieve the Contractor from any responsibility for paying the prevailing wage rate of the trade in question. Additional classifications may develop between certifications by the Minnesota Department of Labor and Industry. Therefore, no inferences may be drawn from the omission of a classification which has local usage. Further, the Owner will not be liable for increased labor costs, or errors or changes to the rates or classifications, prior to the awarding of Contracts.

1.2 MINIMUM WAGE DETERMINATION

A. The Contractor may view the applicable Prevailing Wage Determination Schedule at website: https://secure.doli.state.mn.us/prevwage/highway_data.php?region=09

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 00 73 46

SECTION 00 74 00

SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 START OF WORK AND PROGRESS SCHEDULE

A. Contractor shall apply for construction permits within three (3) days after notification of award of contract and shall commence construction within three (3) business days after General Construction Permits have been issued; a detailed Progress Schedule shall be submitted to the Landscape Architect/Engineer and Owner within twelve (12) business days after notification of award of contract in accordance with the requirements of Section 01 33 00.

1.2 TIME OF COMPLETION

A. Substantial Completion dates shall be as outlined in Document 00 21 00 - Instructions to Bidders, Item No. 1.19 - Milestone Completion Dates.

B. To meet the time of completion and occupancy schedule outlined above, the Landscape Architect/Engineer and Owner strongly believe that Construction Scheduling, Project Coordination, and Project Communications (i.e. timely and productive Project Meetings) are essential.

C. Material and Systems have been selected and specified with the time of completion in mind. Both the Owner and Landscape Architect/Engineer are committed to working closely with the Contractor and in aiding him in ways that will assist him in meeting the time of completion in a profitable manner to the satisfaction of Contractor and Owner alike.

1.3 TOBACCO RESTRICTIONS

A. Anoka-Hennepin School District sites are designated "No Tobacco" areas. No tobacco will be allowed by any construction personnel on the site at any time. The Contractor shall be responsible for the enforcement of this restriction, and violators, after adequate warnings, will be removed from the site.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 00 74 00

SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

A. This Contract shall include, but is not necessarily limited to, work relating to pavement and site improvements at Oak View Middle School (**Base Bid #1**) & Oxbow Creek Elementary School (**Base Bid #2**) including removals, concrete work, bituminous and concrete paving, curbing , striping, signage, catch basin repair, grass restoration and other work and as shown on the Contract Drawings and described in the Project Manual dated April 22, 2025, prepared by Bolton & Menk, Inc., Landscape Architects, Site Planners and Civil Engineers, Plymouth, Minnesota.

B. It is intended that Work shall be complete, unless specifically shown otherwise. Labor and materials required to complete the Work shown shall be considered a part of this Contract, whether or not they are specifically detailed or specified.

C. The words "Furnish", "Provide", "Include", "Supply", "Erect", "Deliver", "Install", "Apply", "Lay" or "Place": These words are intended to be synonymous and to indicate that the material or work specifically mentioned is to be furnished and installed completely by this Contractor and incorporated into the Project. Whenever a material is to be furnished by this Contractor and installed by another Contractor or installed by this Contractor and furnished by another Contractor, it will be specifically specified.

1.2 CONTRACTOR'S USE OF PREMISES

A. Confine operations at site to areas permitted by Owner. Do not unreasonably encumber site with materials or equipment. Coordinate use of site for access to construction area, for maintaining security, and for storage of materials with Owner.

B. Assume full responsibility for protection and safekeeping of products stored on construction site. Move stored products which interfere with operations of Owner.

C. Replace Owner's property to be reused, relocated or to remain, which has been damaged during work operations. Items replaced shall be of equal or better quality as Engineer directs.

1. Where new work is being performed on existing site and no patching is called for, it shall be assumed that areas damaged by Work under this Contract shall be restored to match existing conditions.

D. The Contractor shall be aware that other site and building work will be accomplished during the Summer months by separate contractors. Construction activities may include the use of site dumpsters, equipment, storage, and other construction-related means and methods. This Contractor shall be responsible for coordinating their work with the other site contractor(s) as needed to complete their work in a timely manner and in accordance with the specifications.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 10 00

SECTION 01 22 00

UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for Unit Prices.

B. A Unit Price is an amount proposed by Bidders and stated on the Bid Form as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the estimated quantities of Work required by the Contract Documents (identified as “base bid” quantities) are increased or decreased.

C. Unit prices include all necessary material, labor, overhead, profit and applicable taxes.

D. Refer to individual Specification Sections for construction activities requiring the establishment of unit prices.

1.2 UNIT PRICE SCHEDULE

A. A "Unit Price Schedule" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods described under each Unit Price.

B. The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established Unit Prices, and to have this Work measured by an independent surveyor acceptable to the Contractor at the Owner's expense.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 UNIT PRICES

A. Unit Prices quoted on the Bid Form will be reviewed and accepted or rejected at the Owner’s option. One amount shall be stated for each Unit Price. Accepted Unit Prices will be identified in the Owner-Contractor Agreement.

3.2 UNIT PRICE SCHEDULE

A. Unit Price No. 1 - Medium Duty Pavement Reclaim/ Repave: State the amount on the Bid Form to be added to or deducted from the Contract to construct medium duty pavement reclaim and repave including reclamation of existing pavement section, reshaping of aggregate base and construction of two (2) 1-1/2" lifts of bituminous pavement as required by the Specifications and in accordance with Detail 3A/C2.01. State amount per square yard.

B. Unit Price No. 2 - Heavy Duty Pavement Reclaim/ Repave: State the amount on the Bid Form to be added to or deducted from the Contract to construct medium duty pavement reclaim and repave including reclamation of existing pavement section, reshaping of aggregate base and construction of two (2) 2" lifts of bituminous pavement as required by the Specifications and in accordance with Detail 3B/C2.01. State amount per square yard.

C. Unit Price No. 3 - Concrete Walk: State the amount to be added to or deducted from the Contract for the construction of concrete pavement including excavation of soils and replacement with 4" concrete over 4" sand base or stabilized aggregate base per Detail 4A/C2.01 and 4B/C2.01. State the amount per square foot.

D. Unit Price No. 4 - B-612 Curb Repair: State the amount to be added to or deducted from the Contract for the construction of B-612 concrete curb including removal of existing curb, excavation of soils and replacement with new concrete B-612 per Detail 5/C2.01. State the amount per linear foot.

E. Unit Price No. 5 - D-412 Curb Repair: State the amount to be added to or deducted from the Contract for the construction of B-612 concrete curb including removal of existing curb, excavation of soils and replacement with new concrete D-412 per Detail 6/C2.01. State the amount per linear foot.

END OF SECTION 01 22 00

SECTION 01 29 00

PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

A. Submit Applications for Payment to Engineer in accordance with the schedule established by Conditions of the Contract and Agreement Between Owner and Contractor.

1.2 FORMAT AND DATA REQUIRED

A. Submit itemized applications typed on AIA Document G702, Application and Certificate for Payment, and Continuation Sheets G702A and G703.

1.3 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

A. Application Form:

1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.

2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.

3. Execute certification with signature of a responsible officer of Contract firm.

B. Continuation Sheets:

1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.

2. Fill in dollar value in each column for each scheduled line item when Work has been performed on products stored. Round off values to nearest dollar.

3. List, at end of continuation sheets, each Change Order executed prior to date of submission. List Change Orders by number and description, as for an original component item of Work.

1.4 PREPARATION OF APPLICATION FOR FINAL PAYMENT

A. Fill in AIA Documents G702 and G702A as specified in Paragraph 1.3.

B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01 70 00.

C. Refer to Section 01 70 00 for list of required documents to be submitted prior to final Payment Application authorization.

1.5 SUBMITTAL PROCEDURE

A. Submit Applications for Payment to Engineer at times stipulated in Agreement.

1. Submit 3 notarized copies of each Application; one Application must be original AIA documents G702 and G703.

B. When Engineer finds Application properly completed and correct, Engineer will transmit Certificate for Payment to Owner.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 29 00

SECTION 01 31 19

PROJECT MEETINGS

PART 1 - GENERAL

1.1 PRE-CONSTRUCTION MEETING

A. The Pre-Construction Meeting shall be scheduled before work commences. No work shall proceed before pre-construction meeting.

B. The Pre-Construction Meeting shall be held at the School District office or as otherwise designated by Landscape Architect / Engineer.

C. The Landscape Architect / Engineer will schedule and administer a Pre-Construction Meeting and will be responsible for the following meeting functions:

1. Preparation of agenda.
2. Obtaining physical meeting arrangements.
3. Presiding over the meeting.
4. Recording minutes, including significant proceedings and decisions.
   (a) Reproduction and distribution of minutes to meeting participants.
5. Notification (in advance of meeting date) to persons expected to attend the meeting. Attendees shall include:
   (a) Owner's Representative
   (b) Landscape Architect / Engineer
   (c) Contractor's Project Manager
   (d) Contractor's Resident Superintendent or Foreman
   (e) Others, appropriate for agenda

1.2 PROGRESS MEETINGS

A. Meeting administration and functions for periodic progress meetings shall be handled as follows:

1. The Contractor shall prepare agenda for meetings.
2. The Contractor shall notify persons expected to attend meetings in advance of meeting date.
   (a) Contractor and others requested shall be expected to attend meetings scheduled. Representatives of Contractor, subcontractors, and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
3. The Contractor shall make physical arrangements for meetings.
4. The Contractor shall preside at meetings.
5. Landscape Architect / Engineer will record minutes of meetings, including significant proceedings and decisions.
   (a) Landscape Architect / Engineer will reproduce and distribute minutes to meeting participants.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 31 19

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 REQUIREMENTS

A. Before Contract will be executed, submit the following:

1. Performance Bond
2. Labor and Material Payment Bond
3. Insurance Certificates

B. Submit the following within the period specified herein after execution of the Contract:

1. Construction Schedule
2. Schedule of Values

C. Submit the following during the construction period:

1. Shop drawings
2. Application for Payment
3. Test Reports as required by individual sections of Specifications

D. Submit project Closeout Documents as specified in Section 01 70 00 Closeout Requirements.

1.2 CONSTRUCTION SCHEDULE

A. Submit Construction Schedule within 10 days after award of Contract. The schedule shall include critical path work and sub-contractor’s schedules.

B. Prepare schedules in the form of a horizontal bar chart, unless otherwise approved.

1.3 SCHEDULE OF VALUES

A. Submit Schedule of Values within 10 days after award of Contract.

B. Upon request, support the values with data which will substantiate their correctness.

C. The Schedule of Values shall be used as the basis for the Contractor's Applications for Payment.

D. Form and Content of Schedule of Values:

1. Prepare schedule on AIA Form G703 unless approved.
2. General Information to be Included:
   (a) Title of Project and Location
   (b) Landscape Architect / Engineer’s Name and Project Number
   (c) Name and Address of Contractor
   (d) Contract Designation
   (e) Date of Submission
3. List the installed value of the component parts of the Work in sufficient detail to serve as a basis for computing values for progress payments during construction.
4. Follow the Table of Contents of the Project Manual as the format for listing component items. Identify each line item with the number and title of the respective major section of the Specifications.

5. For each major line item, list sub-values of major products or operations under the item.
6. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
7. For items on which progress payments will be requested for stored materials, break down the value into cost of materials, delivered and unloaded, with taxes paid and total installed value.
8. The sum of all values listed in the schedule shall equal the total Contract Sum.

1.4 SHOP DRAWINGS AND PRODUCT INFORMATION

A. Submit shop drawings and product information required by Contract Documents.

B. Drawings shall be presented in a clear and thorough manner.

C. Submit required shop drawings in .pdf format.

D. Make corrections and changes to the submittals to the satisfaction of the Landscape Architect / Engineer. Resubmit as required.

E. Distribute shop drawings and product information which have been stamped by the reviewer to the Subcontractors, suppliers, and fabricators as deemed appropriate by the Contractor.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 33 00

SECTION 01 45 00

QUALITY CONTROL

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Quality Control

1. Procedures to Measure and Report the Quality and Performance of Construction
2. Quality Assurance and Control of Installation
3. Field Samples
4. Mock-Up Requirements

B. References

1. Conform to reference standard by date of issue current on date of Contract Documents.
2. Obtain copies of standards when required by Contract Documents.
3. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
4. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

C. Quality Assurance and Control of Installation

1. Monitor quality control over suppliers, manufacturers, Products, services, site conditions and workmanship to produce Work of specified quality.
2. Comply fully with manufacturers' instructions, including each step in sequence.
3. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
4. Comply with specified standards as a minimum quality for the Work, except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
5. Perform work by persons qualified to produce workmanship of specified quality.
6. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 45 00

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 REQUIREMENTS

A. Minimum administrative and procedural actions are specified in this section as extensions of provisions in General Conditions and other Contract Documents. These requirements have been included for purposes indicated. Nothing in this section is intended to limit types and amounts of temporary work required and no omission from this section will be recognized as an indication by Landscape Architect / Engineer that work is not required for successful completion of the Work, meeting requirements of Contract Documents and governing regulatory agencies and codes.

B. Furnish, install, and maintain temporary utilities required for construction and remove on completion of Work. Temporary utilities shall be in accordance with Owner's requirements pertaining to use of existing services.

1.2 JOB CONDITIONS

A. Make required connections to existing utility systems which are permitted to be used with minimum disruption to existing utility systems. When disruption of an existing service is required, do not proceed without Engineer's approval, and when required, provide temporary service.

B. Establish and initiate use of each item of required temporary work at a time first reasonably required for proper performance of the Work. Terminate use and remove temporary work at earliest reasonable time, when no longer needed or when permanent facilities have, with authorized use, replaced the need.

PART 2 - PRODUCTS

2.1 TEMPORARY UTILITIES

A. Temporary Electricity:

1. Contractor may secure electrical power from Owner's existing power source if electrical power is required.

2. Owner will pay for cost of electricity.

3. Contractor shall be responsible for providing Underwriters' Laboratories approved construction-type power cords required by Work.

4. If Owner's existing power supply or source is not sufficient or convenient for certain work, Contractor shall satisfy his power requirements at his own expense.

B. Temporary Telephone Service:

1. Contractor shall be responsible for telephone service.

C. Temporary Water:

1. Make arrangements with Owner to procure water needed for construction purposes from Owner's existing facilities.

PART 3 - EXECUTION

3.1 REMOVAL OF TEMPORARY UTILITIES

A. Completely remove temporary materials and equipment when their use is no longer required.

B. Restore existing facilities used for temporary services to their original condition. Repair or replace existing facilities damaged by their use for construction purposes.

END OF SECTION 01 50 00

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 MATERIAL AND EQUIPMENT REQUIREMENTS

A. Products shall meet requirements of applicable Specifications and standards.

B. Products shall be in accordance with size, make, type, and quality specified, or as specifically approved, in writing, by Engineer.

C. Manufactured and fabricated products shall meet the following requirements:

1. Design, fabricate, and assemble products in accordance with the best engineering and shop practices.

2. Manufacture like parts of duplicate units to permit components to be interchangeable.

3. Two or more items of the same kind shall be identical and by the same manufacturer.

4. Products shall be suitable for service conditions.

5. Equipment capacities, sizes, and dimensions shown or specified shall be adhered to, unless variations are specifically approved in writing.

D. Do not use material or equipment for any purpose other than that for which it is designed or specified.

1.2 MANUFACTURER'S INSTRUCTIONS

A. When Contract Documents require that installation of Work shall meet requirements of manufacturer's printed instructions, obtain, and distribute copies of instructions to persons involved in installation, including 2 copies to Engineer. Maintain 1 set of complete instructions at the job site during installation and until completion.

B. Handle, install, connect, clean, condition, and adjust products in strict accordance with manufacturer's instructions and in accordance with specified requirements.

1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.

2. Do not proceed with Work without clear instructions.

C. Perform Work in accordance with manufacturer's instructions. Do not omit preparatory steps or installation procedures, unless specifically modified or exempted by Contract Documents.

1.3 TRANSPORTATION AND HANDLING

A. Arrange deliveries of products in accordance with construction schedules and coordinate to avoid conflict with Work and conditions at the site. Contractor shall have on-site personnel to receive deliveries which pertain to Work. No deliveries will be received or signed for by Owner.

B. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.

C. Immediately on delivery, inspect shipments to ensure products meet requirements of Contract Documents and approved submittals and that products are properly protected and undamaged.

D. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.4 STORAGE AND PROTECTION

A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.

1. Store products subject to damage by the elements in weathertight enclosures.

2. Maintain temperature and humidity within ranges required by manufacturer's instructions.

B. Exterior Storage:

1. Store fabricated products above ground, on blocking or skids, to prevent soiling or staining. Cover products subject to deterioration with impervious sheet coverings. Provide adequate ventilation to avoid condensation.

2. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.

C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to ensure that products are maintained under specified conditions and free from damage or deterioration.

D. Provide substantial coverings to protect installed products due to damage from traffic and subsequent construction operations. Remove when no longer needed.

1.5 SUBSTITUTIONS AND PRODUCT OPTIONS

A. Within 10 days after award of Contract, submit to Engineer a complete list of major products proposed to be used, with name of manufacturer and installing subcontractor as specified in Section 01 33 00.

B. For products specified only by reference standard, Contractor shall select a product meeting the requirements of a specified standard. Contractor bears the sole responsibility that the product provided meets the requirements of the specified reference standard.

C. For products specified by only indicating performance properties and description of a product, Contractor is allowed to provide products meeting criteria specified and related requirements indicated on Contract Drawings. Approval of Engineer, for use of product, is not required. Contractor bears the sole responsibility that the product provided meets the requirements of the Contract Documents.

D. For products specified by naming more than one product or manufacturer, Contractor may select one of the products or manufacturers named.

E. For products specified by naming one or more products or manufacturers and stating "or equal", products so named shall establish a standard and Contractor has the option to provide one of products named or substitute a product which is equivalent to products specified without being required to secure approval from Engineer. Contractor shall bear the responsibility that substituted products are equivalent to that specified in performance, type, function, dimensions, appearance, quality, and finish.

F. For products specified by naming only one product or manufacturer and not noting "or approved equal", there is no option and no substitution will be allowed.

G. Substitute products which require Engineer's prior approval shall not, under any circumstances, be ordered, used or installed, without written acceptance of Engineer. Except where Contractor is permitted to make product selections without Engineer's prior approval, products which are installed and which are not specified in Contract Specifications or otherwise approved by Engineer, in writing, shall be subject to removal and replacement with an approved product. Contractor shall bear costs involved in the removal and replacement of a product which has not been specified or approved by Engineer.

H. Substitutions:

1. Conditions for Substitutions:

(a) No substitutions of materials and equipment from that specified within Contract Specifications or approved by Addenda issued to Contract Documents will be entertained by Engineer, except in the case of product unavailability or other conditions beyond control of Contractor.

(b) Substitutions will be entertained by Engineer, prior to Bids being received, in accordance with approval procedure specified in the Instruction to Bidders.

2. Substitution Request Procedure:

(a) Where conditions exist beyond Contractor's control, Contractor shall be permitted to submit for substitution. Submit separate request for each substitution.

(b) Support each request with complete data substantiating that proposed substitution meets requirements stated in Contract Documents. Indicate significant variations.

3. Contractor's Responsibility When Making a Substitution:

(a) Whenever a product selection or substitution is made by Contractor, Contractor represents that he has done the following:

(1) Investigated proposed product and has determined that it is equal to or superior in all respects to that specified.

(2) Provide same warranties or bonds for substitution as for product specified.

(3) Coordinate installation of accepted substitution into the Work and shall make changes as may be required for Work to be complete in all respects.

(4) Waives claims for additional costs caused by substitution which may subsequently become apparent.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 60 00

SECTION 01 70 00

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 REQUIREMENTS

A. Meet requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.

1.2 FINAL INSPECTION AND SUBSTANTIAL COMPLETION

A. When the Contractor considers the Work is substantially complete, the Contractor shall submit to the Engineer a written notice that the Work is substantially complete, along with a list of items to be completed or corrected.

B. Within a reasonable time after receipt of such notice, Engineer will make an inspection to determine the status of completion.

C. Should Engineer determine that work is not substantially complete, Engineer will promptly notify Contractor, in writing, giving the reasons for deficiencies.

D. Contractor shall remedy deficiencies and send a second written notice of substantial completion. Engineer will reinspect the Work after receiving notice.

E. When Engineer determines that the Work is substantially complete, the Engineer will submit AIA Form G704 – Certificate of Substantial Completion.

1.3 CONTRACTOR'S CLOSEOUT SUBMITTALS TO LANDSCAPE ARCHITECT / ENGINEER

A. The Contractor shall submit 2 copies of the following affidavits to the Engineer for approval. Engineer will forward items to Owner.

1. Inspection Certificates; properly signed.
2. Contractor's Affidavit of Payments of Debts And Claims, AIA Form G706.
3. Contractor's Affidavit of Release of Liens, AIA Form G706A.
4. Consent of Surety for Final Payment from Surety Company, AIA Form G707.
5. Form IC-134, Affidavit for Obtaining Final Settlement of Contract with the State of Minnesota and its Political or Governmental Subdivisions.

(a) Form IC-134 is a certificate of compliance with Minnesota Statutes 290.92 and 290.97. The Form requires that a contractor, prime contractor, or subcontractor that has a contract with the State of Minnesota or its political or governmental subdivisions, complete and submit Form IC-134. In addition, prime contractors that have subcontractors are required to list each subcontractor's name and address on their IC-134 affidavit and attach a certified Form IC-134 from each of the subcontractors to their Form IC-134 when submitting it for certification. Form must be completed in its entirety in order to obtain certification. Copies of the form can be obtained by writing to the Minnesota Department of Tax Forms, Mail Station 1421, St. Paul, Minnesota 55146, or calling 651-296-4444.

B. The Contractor shall provide 2 copies of warranties and bonds for materials, equipment, and systems as called for in individual sections of the Specifications. All warranties and bonds shall indicate Owner's name, date of beginning of warranty period, and name of Contractor responsible for warranty.

C. The Contractor shall provide 3 copies of Operating and Maintenance Data for Equipment. Complete catalog data, manufacturer's literature, and manuals covering the operation and maintenance of equipment provided under this Contract as called for in individual sections of the Specifications.

1. Provide digitized PDF copies of all Operating and Maintenance documents.

2. Provide digitized PDF copies of all final approved shop drawings and as-built documents.

D. Submittals shall be delivered to Engineer after substantial completion and before final payment.

1.4 ADJUSTMENT OF ACCOUNTS

A. Contractor shall submit a final statement of accounting which reflects adjustments to Contract Sum. Statement shall include:

1. Original Contract Sum.

2. Additions and deductions resulting from:

(a) Change Orders

(b) Allowances

(c) Unit Prices

(d) Deductions for any Uncorrected Work

(e) Any Other Adjustments

3. Total Contract Sum, as adjusted.

4. Previous payments.

5. Sum remaining due.

B. Engineer will issue a final Change Order, if necessary, reflecting approved adjustments to the Contract Sum not previously made by Change Order.

1.5 FINAL APPLICATION FOR PAYMENT

A. Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in Conditions of the Contract and Section 01 29 00.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 70 00

SECTION 01 71 23

FIELD ENGINEERING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Provide and pay for field engineering services including:

(a) Establish and continually maintain lines and levels, laid out by instrumentation, for all proposed site improvements, including:

(1) rough and finish grading

(2) pavements

(3) curbs and gutters

(4) sidewalks

(5) other miscellaneous site improvements.

1.2 SUBMITTALS

A. Submit information in accordance with Section 01 33 00 – Submittal Procedures.

1.3 QUALITY ASSURANCE

A. Entity retained by the Contractor to perform surveying or field engineering services shall be a Registered Professional of the discipline required for the specific service on the Project, licensed in the State of Minnesota.

1.4 SITE CONDITIONS

A. Maintain benchmarks, monuments, and other reference points. If disturbed or destroyed, replace, or relocate by a registered land surveyor at the Contractor's expense.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 71 23

SECTION 02 01 10

EXISTING UTILITIES

PART 1 - GENERAL

1.1 NOTIFICATION

A. Notify public utility companies and municipalities as to which of their properties (such as pole lines, conduits, fiber optic lines, gas pipes, TV lines, cable lines, telephone lines, and sewers) must be removed or relocated to complete the work. This notice shall note the locations to where their properties could be relocated. However, no warranty is made or implied that the utility owners will remove or relocate their properties prior to commencement of construction operations or in sufficient time or manner to prevent interference with the Contractor's operations.

B. Give notice to the owners of all known utilities at least 48 hours before starting any operations affecting those properties. If during the course of his operations, the Contractor discovers utility property whose existence was not known, he shall immediately notify the owner thereof and the Engineer.

C. Construction operations adjacent to utility property shall not be commenced until arrangements satisfactory to the utility owner have been made for the protection of said property and continuation of service. Should any of the Contractor's equipment come in contact with or damage utility property in any way, even though there may be no apparent evidence of breakage or harm, promptly notify the proper authorities and cooperate with them in determining damage and restoring interrupted services as may be needed. Where contact is made with a utility, operations shall be suspended immediately, and the area vacated, until it has been determined by the utility owner that it is safe to resume operations.

D. Locate all private utilities (such as electric lines, irrigation, conduits, fiber optic lines, cable lines, telephone lines, water pipes, sewers and tile lines). The Owner will provide school personnel to aid the Contractor’s locate company in locating existing private lines. The Contractor will be required to confirm all utilities which must be removed or relocated to complete the work. No additional compensation will be paid to the Contractor for utilities shown on the drawings or which otherwise may have been anticipated prior to the construction.

1.2 COMPENSATION

A. It is understood and agreed that the Bidder has considered in the bid the relative locations of existing utilities, as shown on the Drawings, and that no additional compensation will be allowed for any delays, inconveniences or damages sustained due to interference which may result from those utilities or the operations of moving them.

1.3 PRIVATE UTILITIES

A. Hire the services of a utility locator company to locate all privately owned utilities that may be disturbed by construction operations. Obtain any record information from the Owner related to existing utilities to aid in the location of all existing utilities.

1.4 CARE AND RESPONSIBILITY

A. Employ special equipment or construction methods (including hand labor, if necessary) to accomplish the work as planned adjacent to utility properties without damage thereto. At no time shall the Contractor interfere with any persons engaged in protecting or moving utility property or in the operation of the utility.

B. Assume full responsibility for reimbursing the utility owners for any damages caused to utility properties whose existence and approximate locations were made known to him before the damage was done. Nothing in this Section shall make the Contractor liable for damage to utility property located below the ground surface, in the absence of negligence, if the owner of the utility, after reasonable notice from the Contractor, fails to advise the Contractor of its location and approximate depth below the ground surface.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 02 01 10

SECTION 02 41 13

SELECTIVE SITE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Provide removal of miscellaneous concrete and asphalt pavements, concrete curb and gutter, storm sewer structures, traffic signs and posts, vegetation, and other miscellaneous existing site features which are in the path of proposed improvements.

B. Employ a utility locating company to locate all privately owned utilities.

1.2 SITE CONDITIONS

A. Protection of Persons: Install barricades and post with warning lights.

B. Bench Marks and Monuments: Maintain bench marks and monuments.

C. Protection of Existing Property to Remain: Protect existing trees and vegetation, equipment, pavements, curbing, facilities, utilities, and structures which are in area where work will be performed and which are to remain. Repair or replace existing property which is to remain that is damaged by the work, to Owner's satisfaction, at no additional cost to the Owner.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 SITE REMOVALS

A. Site features that are to be removed or relocated are generally indicated on the Drawings. Remove and dispose of, off-site, all features and materials except for that which is permitted to remain upon determination being made by the Engineer, that their existence does not interfere with, endanger, or detract from the new construction in any way.

B. Visit the site prior to bidding; be familiar with actual conditions in the field. Extra compensation will not be allowed for conditions which could have been determined or anticipated by examination of the site, the Contract Documents, and the information available pertaining to existing soils, utilities, and other site characteristics.

C. All removal operations that may endanger new construction shall be completed prior to construction of affected work.

D. Comply with all instructions and ordinances of the State of Minnesota, and all counties and municipalities regarding disposal operations, signs, traffic intersections, danger signals, barricades, fire protection, and all safety laws, ordinances, and rulings.

E. All debris resulting from the removal and demolition operations shall be disposed of, off-site, subject to any specific regulations imposed by laws, ordinances, orders, or decrees.

F. Removal of Existing Pavements and Curbing:

1. Where a portion of an existing pavement, curb, walk, or similar structure is to be retained for use, that portion shall not be damaged during removal operations.

2. In removing asphalt or other flexible pavements, where the cut will be exposed in the finished work, saw the pavement along the removal lines with a concrete saw to a depth of not less than 1/3 the thickness of the asphalt before breaking off the asphalt. In such cases, the use of wedges, driven into the saw cut to break off the portion to be removed, will not be permitted. Cut the pavement to true lines and vertical faces.

3. In removing concrete or other rigid pavements, curbs, and similar structures, remove to the nearest joint. Saw to a depth of not less than 1/3 the thickness of the concrete before breaking off the concrete. In such cases, the use of wedges, driven into the saw cut to break off the portion to be removed, will not be permitted. Cut the concrete to true lines and vertical faces.

4. All demolished materials shall be removed from site unless noted otherwise.

5. Where removal of pavement will result in a finished edge or will be abut new pavement, sawcut the existing pavement edge immediately prior to paving, or at a time when damage to the sawcut edge will be minimized.

6. Pavement removals shall include underlying aggregate base and related materials.

G. Removal of traffic signs and posts, and similar:

1. Removal shall include complete removal of system materials and components, including posts, footings, and other features. Unless noted otherwise, materials scheduled for removal shall not be reused.

3.2 PROTECTION OF TREES AND PLANT LIFE

A. Protection of plant life to remain within the construction limits and adjacent thereto shall include the following:

1. Orange snow fence or orange silt fence shall be placed at drip line of trees to protect against root compaction.

2. No equipment shall be allowed to move under drip line areas, nor shall any materials be stored within a drip line.

3. No toxic materials shall be dumped near trees.

END OF SECTION 02 41 13

SECTION 10 14 53

TRAFFIC SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Sign assemblies as indicated on the Drawings, including:

(a) Signs

(b) Posts

(c) Other miscellaneous materials

2. Bollards

3. Temporary construction zone signage.

1.2 SUBMITTALS

A. Submit information and shop drawings in accordance with Section 01 33 00 – Submittal Procedures.

B. Submit the following product information:

1. Signs

2. Posts

3. Bollards

C. Submit temporary construction zone signage plan to the appropriate governing agency for review and approval.

1.3 QUALITY ASSURANCE

A. All work shall comply with the requirements of Mn/DOT Specification 3352, unless otherwise noted.

PART 2 - PRODUCTS

2.1 SIGN AND POST MATERIALS

A. Signs

1. Shall meet the requirements of Mn/DOT Specification 3352 unless otherwise noted.

2. Shall be as specified in the Minnesota Manual on Traffic Control Devices (Mn MUTCD).

3. Material: Sheet aluminum for sign panels, delineators and markers shall conform to ASTM B 209M, for Alloy 5052-H38, or 6061-T6.

   (a) The thickness of sheet aluminum for single section sign panels, delineators and markers and for panel sections of multiple section signs and "Overlays" shall be in accordance with the following:

Length of Longest Side (mm)	Thickness (um)
460 mm (18 inches) or less	1600 ± 100 (0.063 ± 0.004)
Over 460 mm (18 inches) through 760 (30 inches)	2030 ± 130 (0.080 ± 0.005)
Over 760 mm (30 inches)	2540 ± 130 (0.100 ± 0.005)
Overlays	1020 ± 100 (0.040 ± 0.004)

   Alb Extrude Aluminum, Bolted Type

   Extrude aluminum sections shall conform to ASTM B 221M, for Alloy 6063-T6

4. Finish

   (a) Apply epoxy primer and epoxy enamel to sign background by electrostatic spray method. Apply not less than two coats of contrasting epoxy enamel to message and border by means of power driven rubber rollers.

   (b) Message and border shall be reflectorized.

5. Reflective Sheeting

   (a) Shall conform to AASHTO M 268 and shall be of two types designated as Standard No. 1 and Standard No. 2. Ensure compatibility between manufactured product and application.

      (1) Standard No. 1: Reflective sheeting shall conform to AASHTO M 268 Type I, Class 1 (pressure sensitive).

      (2) Standard No. 2: Reflective sheeting shall conform to AASHTO M 268 Type III, Class 1. Reflectivity of Standard No. 2 shall conform to AASHTO M 268 Table 4.

6. Fabrication

   (a) Message and border shall be embossed to a depth of approximately 1/8 inch.

   (b) Hardware used for anchorage shall be rustproof.

7. Approved Manufacturers:

   (a) Lyle Signs, Inc., Eden Prairie, MN; 701-252-9492.

   (b) Safety Signs, LLC., Lakeville, MN; 952-469-6700.

   (c) Or approved equal.

B. Brackets:

(a) Shall be rust proof.

(b) Shall securely attach sign to the post.

(c) Approved products:

(1) Lyle Universal Bucket Bracket

(2) Or equal

C. Posts

1. Flanged Channel Sign Post

(a) Shall meet Mn/DOT 3401, 3 lbs/ft standard weight minimum.

2. Square Post set in breakaway base

(a) Shall meet Mn/DOT 3402, 2" x 2", 12 gauge.

2.2 BOLLARDS

A. Regular Grade Schedule 40 steel pipe.

B. Bollards shall meet the requirements of ASTM F1043.

C. Bollards shall be hot-dip galvanized, coated inside and out, meeting the requirements of ASTM F1083.

D. Bollards shall be painted as indicated on the Details.

E. Size: Bollards shall be 5” nominal dimension schedule 40 pipe, with standard weight of 14.7 pounds per foot.

F. Concrete: 3,000 psi air entrained.

2.3 MISCELLANEOUS MATERIALS

A. Concrete shall be 3,000 psi, air entrained concrete.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Locate all underground utilities prior to commencing work.

B. Sign locations on the Drawings are approximate. Install sign assembly 18" behind the back of walk or back of curb, unless otherwise noted. Deviations from plan sign locations must be approved by the Engineer.

C. Signs

1. Securely attach sign to post using bracket or other anchorage device.

(a) Utilize tamper proof nuts, bolts or screws to minimize theft.

2. Install signs at the heights indicated on the Drawings.

D. Posts

1. Shall be installed square and plumb.

2. Shall be installed at the depths and heights indicated on the Drawings.

3. Posts that are bent or otherwise damaged shall be removed from the site and replaced at the Contractor’s expense.

4. Remove rust and clean with mineral spirits so that metal is free of grease, oil, and other contaminating materials.

E. Bollards

1. Install square and plumb.
2. Install at the depths and heights indicated on the Drawings.
3. Remove and replace bollards that are bent or otherwise damaged at no additional cost to the Owner.
4. Remove rust and clean with mineral spirits so that metal is free of grease, oil, and other contaminating materials.
5. Fill annular space between steel pipe and post with grout.
6. Provide one coat of primer and two coats of paint. Color shall be approved by the Owner.

3.2 CLEANING AND PROTECTION

A. Clear site of all excess spillage of concrete, grout, scrap materials, and post hole excavation materials.

END OF SECTION 10 14 53

SECTION 31 25 00

EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Install and maintain all erosion and sedimentation control devices.
2. Additional erosion and sedimentation control devices as may be required by Local or State regulations.
3. Sweeping of paved areas.
4. Temporary stabilization of disturbed areas and stockpiles.
5. Removal of all erosion and sedimentation devices, and restoration from removal of these devices.

1.2 SUBMITTALS

A. Submit information and shop drawings in accordance with Section 01 33 00 – Submittal Procedures.

B. Submit the following product information:

1. Inlet Protection Devices
2. Sediment Control Logs

C. Submit a proposed schedule for implementation of erosion and sedimentation control devices.

D. Submit maintenance Logs on a weekly basis.

1.3 QUALITY ASSURANCE

A. Construction activities shall not commence until all required permits are obtained.

B. Erosion and sedimentation control devices shall be inspected and approved by local authorities prior to commencement of construction operations.

C. Provide a knowledgeable and responsible person to implement and maintain inspection logs and provide inspections as required herein.

D. All erosion and sedimentation control devices shall remain in place until permanent stabilization has been accomplished including, but not limited to, 80% turf establishment and the first lift of pavement.

1.4 SITE CONDITIONS

A. Protect adjacent properties and water resources from erosion and sedimentation damage throughout Work.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Inlet Protection Devices

1. Shall be sized specifically for each structure and casting.
2. Provide all materials as recommended by the manufacturer for complete installation.

3. Approved Products:
    (a) Road Drain “Top Slab”, Manufactured by Wimco
    (b) Road Drain “Curb & Gutter”, Manufactured by Wimco
    (c) Infrasafe® “Sediment Control Barrier”, Manufactured by Royal Environmental Systems, Inc.
    (d) InfraSafe® “Debris Collection Device”, Manufactured by Royal Environmental Systems, Inc.
    (e) InfraSafe® “Culvert Inlet Protector”, Manufactured by Royal Environmental Systems, Inc.
    (f) Dandy Sack®, Manufactured by Dandy Products, Inc.
    (g) Dandy Curb Sack®, Manufactured by Dandy Products, Inc.
    (h) Or approved equal.

B. Sediment Control Logs
1. Provide all materials as recommended by the manufacturer for complete installation.
2. Shall consist of an outside open weave containment fabric filled with curled Aspen fibers.
3. Density shall not exceed 2.6 lb/ft^3.
4. Fibers shall be:
    (a) curled with soft, interlocking barbs to form a strong, organic filtration matrix
    (b) six inches or longer in length (80% minimum)
    (c) seed free
    (d) evenly distributed throughout the diameter and length of the Sediment Control Log
5. Anchors shall be:
    (a) Wooden Stakes
    (b) E-Staple®, Manufactured by American Excelsior Company® (staples shall not be used in channelized flow applications)
6. Approved Products
    (a) Curlex® “Sediment Log®” (Type III-9 inch), Manufactured by American Excelsior Company®
    (b) Or approved equal

PART 3 - EXECUTION

3.1 PREPARATION

A. Review the Erosion and Sediment Control Plans.

B. Notify the Engineer of deficiencies or changes in the Erosion and Sediment Control Plans required by current site conditions. Revisions to the plans will be made as determined by the Engineer.

3.2 PHASING OF THE WORK

A. Schedule and conduct operations so as to minimize erosion of soils and to prevent sedimentation of Surface Waters of the State. Surface Waters include curb and gutter, pavements, storm sewer, swales, stormwater treatment areas, or other similar storm water conveyance means.

B. Construction of drainage facilities, turf establishment items, and other contract Work which will contribute to the control of erosion and sedimentation shall be carried out concurrently with earthwork operations or as soon thereafter as practicable.

3.3 LIMITATION OF WORK AREA

A. The Engineer will have authority to limit the surface area of erodible soil that can be exposed to possible erosion at any one time, without having the permanent erosion control features completed and operative.

B. Incorporate the erosion control features into the Work at the earliest practicable time and provide all additional temporary control measures as may be needed to correct conditions developing during construction.

3.4 INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

A. Inlet Protection Devices

1. Install per Mn/DOT Standard Specification 2573.3 M and in accordance with manufacturer's recommendations.

B. Sediment Control Log

1. Place logs on smooth prepped soils and prepare a shallow trench for the sediment control log to be placed.

2. Logs shall be secured with anchors placed every two lineal feet across the length of the log and shall be driven into the ground a minimum of 16 inches at a 45 degree angle with the top of the anchor pointed upstream.

(a) Anchors shall be intertwined with the outer mesh on the downstream side only.

3. Logs shall be overlapped 6 inches in locations requiring more than one unit across the indicated area with an anchor at each end.

(a) Overlapping shall not be located in heavier flow areas such as center of swales or channels.

3.5 STABILIZATION PRACTICES

A. Stabilize denuded areas and stockpiles within the following number of days of last construction activity in all areas:

1. All areas shall be stabilized within 7 days.

2. Temporary soil stockpiles shall be treated with appropriate erosion control measure, including silt fence and temporary seeding, when stockpiles are left inactive for periods longer than 7 days.

B. Temporary Stabilization:

1. Stockpiles and disturbed portions of the site where construction activity temporarily ceases for the time frames noted above shall be stabilized with a temporary seed and mulch according to the following:

(a) All areas of bare soil exposed to possible erosion shall be shaped to drain with minimum potential for erosion.

(b) The disturbed areas shall then be seeded with perennial ryegrass and annual wheat at a rate of 10 pounds per acre (0.25 lbs./1,000 sq. ft.) and 20 pounds per acre (0.50 lbs./1,000 sq. ft.) respectively, then and covered with hydromulch (Mn/DOT 3882, Type 5) at the rate of 1,500 pounds per acre.

3.6 MAINTENANCE

A. Maintenance of erosion and sedimentation control devices shall meet the minimum requirements of this specification.

B. Provide continual maintenance on all erosion and sedimentation control devices as identified herein. Repairs or replacements to all erosion and sedimentation control devices shall occur within 24 hours.

C. Maintain these devices throughout their temporary life and remove these devices when so approved by the Engineer.

D. Maintenance and removal costs shall be included in the bid. No additional costs will be permitted.

E. Inlet Protection Devices

1. Shall be cleaned when device becomes at most 1/3 full or as required to prevent flooding of adjacent areas.

F. Sediment Control Logs

1. Shall be cleaned when sediment reaches 1/3 the height of the log.

2. Sediment Control Logs which have washed out shall be replaced and reinforced with additional stakes to reduce the possibility of future washouts.

G. Paved Areas

1. At a minimum, provide daily sweeping of all paved surfaces. Provide additional sweeping as needed to remove excess sediment from paved surfaces.

3.7 REMOVAL AND RESTORATION

A. Control of drainage and erosion shall include restoration work in preventing siltation of public waters.

B. Restoration shall include cleanup, shaping, replacement of topsoil, and establishment of vegetative cover on all disturbed areas where water pollution potentials have been increased due to the construction operations.

C. Following final turf and vegetation establishment:

1. Remove any and all excess sediment from site prior to removal of devices.

2. All erosion and sedimentation control materials shall be completely removed and disposed of off-site.

3. All trenches and divots from anchors shall be backfilled and restored with vegetation.

4. Do not allow re-suspension of sediment or loss of trash or oil into the water during device removal.

3.8 COMPENSATION

A. All expenses related to complying with the provisions herein shall be borne by the Contractor with no additional compensation being permitted.

END OF SECTION 31 25 00

SECTION 32 12 16

ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Reclaiming existing pavements, removal of excess millings and paving over reclaimed materials.
2. Constructing stabilized aggregate base on prepared subgrade in accordance with Mn/DOT 2211.
3. Constructing stabilized aggregate base under miscellaneous concrete slabs, and concrete curbs and gutters.
4. Performing a proof roll on the stabilized aggregate base prior to paving the binder course.
5. Constructing asphalt binder and wear courses in accordance with Mn/DOT 2360.
6. Schedule and coordinate testing of Asphalt Courses.

1.2 SUBMITTALS

A. Submit shop drawings in accordance with Section 01 33 00 – Submittal Procedures.

B. Submit the following shop drawings:

1. Asphalt Mix Design:

(a) Submit a report by an approved testing laboratory certifying that materials are in accordance with Specification requirements.

(b) Submit a job mix formula for each pavement course and the mix temperature.

C. During paving:

1. Provide hot mix samples to the Independent Testing Lab (ITL) for determination of the actual asphalt mixture properties during production and for laboratory testing.

1.3 QUALITY ASSURANCE

A. Construction of asphalt paving, including stabilized aggregate base, shall be done by a responsible Contractor having necessary equipment, plant, and not less than 10 years-experience in performing Work similar to that included under this Contract.

B. Use only materials which are furnished by a bulk asphalt pavement producer regularly engaged in production of hot-mix, hot-laid asphalt pavement. The plant shall be a Mn/DOT certified plant.

C. Employ and pay for the services of a registered Engineer or Land Surveyor to stake and tape limits of the work. Refer to Section 01 71 23 Field Engineering.

D. Testing and Inspection:

1. The Owner will employ and pay for the services of a testing and inspection service for quality control testing (Independent Testing Lab (ITL)).
2. Coordinate all paving activities with the Testing Laboratory. Inform the Testing Laboratory representative of the proposed paving schedule at least 48 hours prior to commencing work. Do not perform paving operations which require inspection by the Testing Laboratory unless Testing Laboratory representative is present.
3. Provide hot-mix asphalt samples, from behind the paver, to the ITL prior to compaction.

4. The ITL will test in-place asphalt pavement courses for compliance with requirements for density and thickness.

   (a) Take eight (8) - 4" diameter pavement specimens for each completed course, from locations as directed by ITL. Provide specimens to the ITL.

   (b) Repair holes from test specimens as specified for patching defective work.

E. Density Requirements:

1. The ITL will determine maximum specific gravity (Gmm) of asphalt materials in accordance with AASHTO T209, Mn/DOT modified procedure.

2. In place pavement with density less than 87% of maximum shall be removed and replaced at no additional cost to the Owner.

F. Thickness:

1. Minimum design thicknesses are shown on the Drawings. In-place, compacted thicknesses will not be accepted if the variation from the design thickness is more than the following:

   (a) Wear Course: More than ½" below design thickness.

   (b) Non-wear Course: More than ½" below design thickness.

2. Single courses which do not meet the minimum design thickness or acceptable variation from design thickness listed herein shall be removed and replaced at no additional cost to the Owner.

3. The total thickness of the final, in-place asphalt pavement shall not be less than the total thickness of the design asphalt courses shown on the Drawings. In-place asphalt pavement which does not meet the minimum overall thickness referenced above shall be removed and replaced at no additional cost to the Owner.

G. Surface Smoothness:

1. Provide final surfaces of uniform texture, conforming to required grades and cross-sections.

2. Test finished surface of each asphalt pavement course for smoothness, using a 10' straight edge applied parallel to and at right angles of paved areas.

3. Check paved surfaces at intervals directed by Engineer.

4. Tolerance:

   (a) Surfaces will not be acceptable if exceeding the following:

      (1) Non-wear Course: 1/4" in 10'

      (2) Wear Course: 3/16" in 10' when measured in any direction

H. Ponding:

1. Surfaces will not be acceptable if ponding water exceeds 3/16" as determined by the Engineer.

2. Remove and replace all unacceptable ponding pavement areas at no additional cost to the Owner.

3. Provide positive drainage of the finished surface. Any "bird baths" will be considered unacceptable and shall be remedied to the satisfaction of the Engineer at no additional cost to the Owner.

1.4 SITE CONDITIONS

A. Weather Limitations:

1. Apply bituminous tack coat only when the ambient temperature in the shade is at least 50°F and when the temperature has not been below 35° F for 12 hours immediately prior to application.

2. Do not apply tack coat when the base surface is wet or contains an excess of moisture which would prevent uniform distribution and the required penetration.

3. Construct asphalt pavement courses only when atmospheric temperature is above 40°F, when the underlying base is dry, and when weather is not rainy.

4. Paving shall not take place when, in the opinion of the Engineer or testing laboratory, the weather or surface conditions are considered unfavorable.

5. Comply with Mn/DOT 2360.3 A.4 for Weather Limitations and Paving Date. Do not pave after the Paving Date listed in the Mn/DOT specification.

B. Grade Control: Establish and maintain the required lines and grades for each course during construction operations.

C. Protect grass, vegetation, concrete work, building, and other work adjacent to paving, with building paper or other suitable material, so that stains of bitumen shall not reach these surfaces.

D. Traffic Control:

1. Maintain vehicular and pedestrian traffic during paving operations as required for other construction activities.

2. Provide flagmen, barricades, warning signs, and warning lights for movement of traffic and safety and to cause the least interruption of work.

E. Coordination and Responsibility:

1. Coordinate pavement construction with casting adjustments.

2. Coordinate installation of Stabilized Aggregate Base with Earthwork Contractor. Stabilized Aggregate Base shall not be installed until proof roll is conducted by the Earthwork Contractor and approved by the Geotechnical Engineer. Once approved, stability of the subgrade soils shall be the responsibility of the Asphalt Paving Contractor. Measures to protect subgrade from becoming unstable and maintaining stability of subgrade soils shall be provided. Subgrade stabilization will not be an additional cost to the Owner. If unstable areas are encountered, provisions for testing and corrective action outlined in Section 31 00 00 Earthwork shall be strictly adhered to by the Asphalt Paving Contractor.

3. Coordinate installation of Stabilized Aggregate Base with concrete Contractor.

4. Coordinate installation of Stabilized Aggregate Base with Electrical contractor for installation of conduits, light pole bases and other electrical items.

1.5 REQUIREMENTS

A. Job-Mix Criteria:

1. Provide job-mix formulas for each required asphalt-aggregate mixture.

2. Establish a single percentage of aggregate passing each required sieve size, a single percentage of asphalt cement to be added to aggregate, and a single temperature at which asphalt pavement is to be produced.

3. Comply with the mix requirements of the Minnesota Department of Transportation (Mn/DOT) standards.

4. Maintain material quantities within allowable tolerances of the governing standards.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Stabilized Aggregate Base:

1. Stabilized Aggregate Base shall be one of the following products:

(a) Limestone product:

(1) Aggregate shall meet the requirements of Mn/DOT Spec 3138. Gradation shall meet Table 3138.2-3, Class 5, modified to be 100% crushed limestone.

(b) Igneous Stone product:

(1) Aggregate shall meet the requirements of Mn/DOT Spec 3138. Gradation shall meet Table 3138.2-3, Class 5, modified to be 100% crushed igneous stone.

(c) Product containing recycled materials:

(1) Aggregate shall meet the requirements of Mn/DOT Spec 3138. Gradation shall meet Table 3138.2-4, Class 5.

(d) Reclaimed product:

(1) Aggregate shall meet the requirements of Mn/DOT Spec 3138. Gradation shall meet Table 3138.2-6, Class 5.

B. Binder and Wear Course:

1. Mix Designs shall conform to Mn/DOT Section 2360.2, except as modified herein:

(a) Sewage Sludge Ash (SSA) (2360.2A2j) is not allowed in binder or wear course pavements.

C. Asphalt Binder Course:

1. Materials and methods of preparation and construction shall meet requirements of Mn/DOT Spec 2360.

(a) SP NW B 3 30 C

D. Bituminous Tack Coat:

1. Tack coat shall be CSS-1H or CRS-2 cationic emulsified asphalt diluted 50/50 with clean water.

(a) Tack coat shall meet requirements of Mn/DOT Spec 2357.

E. Asphalt Wear Course:

1. Materials and methods of preparation and construction shall meet requirements of Mn/DOT Spec 2360.

(a) SP WE A 3 30 C

PART 3 - EXECUTION

3.1 PAVEMENT RECLAIMING

A. Reclaim existing pavements using self-propelled equipment.

B. Maximum reclamation depth shall be 12 inches. Reclaiming operations shall not penetrate to the subgrade materials. Adjust reclamation depth as necessary.

C. Reclaiming equipment shall be equipped with automatic grade and slope controls and a slope meter. The equipment shall be capable of maintaining an accurate depth of cut, profile and cross slope. The automatic control of profile shall be accomplished by reference to a floating beam, skid or sonic sensor.

D. Reclaim the asphalt pavement to its full depth and width in such a manner as to avoid contaminating the pavement with granular material, subgrade soil or deleterious material. Minimum depth shall be as noted on the Drawings, unless otherwise approved by the Engineer.

E. Pavement millings may be used in the stabilized aggregate base course but shall meet the requirements for Stabilized Aggregate Base materials in this Specification. Millings shall be processed to meet the specified gradation (Mn/DOT 3138 Table 3138-4). Provide additional crushing or material separation as required to achieve this gradation. Coordinate testing of the material with the ITL.

F. Between pavement reclaiming and until asphalt pavement is constructed, the reclaimed materials and underlying subgrade may be susceptible to disturbance from construction traffic, rain, snow, or frost. Minimize disturbance of these areas until pavement is constructed. Direct traffic away from these areas until the new pavement is constructed. Correct subgrade in accordance with Section 31 00 00 Earthwork. Include all costs for subgrade correction in the Bid. No additional costs related to subgrade correction will be permitted.

G. Moisture condition reclaimed materials to achieve compaction. Moisture conditioning shall be approved by the Geotechnical Engineer.

H. Prior to paving the areas shall be finish graded and proof rolled.

3.2 PREPARATION PRIOR TO PAVING

A. Proof Roll:

1. Refer to Section 31 00 00 for proof roll requirements. Stabilized Aggregate Base shall not be installed until the subgrade area has been reviewed, tested, and approved.

2. Do not begin paving work until such conditions have been corrected and are ready to receive paving. Once subgrade is accepted by the paving Contractor, cost of subgrade correction, if required, will be borne by the paving Contractor.

B. Stabilized Aggregate Base Installation:

1. In accordance with Mn/DOT 2211, construct aggregate base to the thickness shown on the Drawings. Extend aggregate base to one foot beyond back of curbs, where applicable.

2. Uniformly grade all ruts and ridges prior to installation of Stabilized Aggregate Base to provide uniform material thickness.

3. Aggregate base shall be compacted to 100% Standard Proctor (ASTM D698).

C. Proof Roll on Stabilized Aggregate Base:

1. All proposed pavement areas shall be proof rolled in accordance with Mn/DOT 2111 after finish grading the aggregate base in the presence of the Geotechnical Engineer.

2. The pavement aggregate base shall be proof rolled, using a fully loaded tandem rear axle dump truck immediately prior to placement the binder course.

3. Proof roll shall occur no more than 48 hours before placement of subsequent courses. Proof roll shall be redone if precipitation falls on the site between initial proof roll and placement of subsequent courses.

4. Test rolling shall not be performed until the Geotechnical Engineer and Contractor mutually agree that the aggregate base has been properly prepared and is acceptable for test rolling.

5. The test rolling shall be performed by making 2 passes over each strip covered by the width of a tire. Unrolled areas between the tire paths shall not be wider than 12 inches. The roller shall be operated at a speed of not less than 2½ nor more than 5 miles per hour and in a pattern approved by the Geotechnical Engineer.

6. The required subgrade stability shall be such that during placement of the base, rutting and displacement does not occur. Maximum yield: 0" (no deflection).

7. Furnish a device that will mark the surface where rutting or yielding occurs.

8. If test rolling shows any area to be unstable (yielding or rutting at the time the roller passes over the grade), remove the aggregate base course to expose the subgrade, scarify the subgrade and aerate or add moisture to the subgrade soil as necessary, and recompact the soil to the extent it will be stable when retested by rolling.

   (a) The exposed subgrade shall be scarified to a depth of not less than 12 inches, moistened or dried to within the percentage of the soils optimum moisture content (ASTM D698) specified herein, and compacted to the specified density. Disc and dry soils as required to accomplish the specified moisture content. Include all costs for subgrade correction in the Bid. No additional costs related to subgrade correction will be permitted.

      (1) Spread, disk, or otherwise dry wet soils as required to achieve a uniform moisture content throughout the soil. Moisten soils when too dry to achieve the required moisture content.

      (2) Scarify, remove, recompact or otherwise rectify all soft or yielding areas resulting from construction operations, rain, groundwater, or other sources at no additional cost to the Owner.

      (3) If there are areas which cannot be compacted, the upper 2 feet of the resulting subgrade shall be scarified to a moisture content not more than 2 percent above optimum and compacted to a minimum of 100 percent Standard Proctor. If after scarifying the areas still cannot be compacted, the unstable materials shall be subexcavated to a depth of 3 feet and be replaced with materials which can be compacted.

9. Areas shall be reworked and retested to the satisfaction of the Geotechnical Engineer.

D. Tack Coat:

1. Apply to contact surfaces of previously constructed asphalt pavement or concrete and similar surfaces.
2. Apply at rate of 0.05 to 0.15 gal. per sq. yd. of surface.
3. Apply tack coat by brush to contact surfaces of curbs, gutters, manholes, catch basins, gate valve boxes, and other structures projecting into or abutting asphalt pavement.
4. Allow surfaces to dry until material is at condition of tackiness and to receive pavement.

3.3 PAVING

A. Prepare the site to receive the subsequent improvements shown on Drawings and outlined herein.

1. Remove loose and foreign materials from the stabilized aggregate base surface immediately before paving.
2. Do not displace aggregate base material.
3. Construct asphalt binder and wear courses with self-propelled power operated paving equipment. The paver shall be equipped with a heated, adjustable screed.
4. Begin paving at the high elevation side of the area. After first strip has been placed and rolled, place succeeding strips, progressing down slope.
5. Complete binder course for the area before placing wear course.
6. Place mixture in as continuous an operation as practicable.
7. Hand Placing:

   (a) Spread, tamp and finish mixture using hand tools in areas where machine spreading is not possible.

   (b) Place mixture at a rate that will ensure handling and compaction before mixture becomes cooler than acceptable working temperature.

8. Joints:

   (a) Gradually make joints between old and new pavements, or between successive days' work, to ensure a continuous bond between adjoining work.

   (b) Construct joints to have the same texture, density and smoothness as adjacent sections of asphalt pavement course.

   (c) Clean contact surfaces free of sand, dirt, or other objectionable material and apply tack coat.

   (d) Offset transverse joints in succeeding courses not less than five feet.

   (e) Sawcut the back edge of previously placed course to expose an even, vertical surface for full course thickness.

   (f) Offset longitudinal joints in succeeding courses not less than 6".

   (g) When the edges of longitudinal joints are irregular, honeycombed, or inadequately compacted, cut back unsatisfactory section to expose an even, vertical surface for full course thickness.

B. Asphalt Binder Course:

1. Construct the asphalt binder course with power operated paving equipment designed for paving. Inaccessible and small areas may be placed by hand. Place at a thickness so that when compacted it will be in accordance with indicated grade, cross-section, finish thickness, and density specified.

2. Apply tack coat to all vertical surfaces of existing concrete or asphalt which will be in contact with new pavement.

3. Construct an asphalt binder course over the previously placed stabilized aggregate base course. Thickness shall be as shown on the Drawings.

4. Compact binder course as outlined herein.

C. Asphalt Wear Course:

1. Construct an asphalt wear course with power operated paving equipment designed for paving. Inaccessible and small areas may be placed by hand. Place at a thickness so that when compacted it will be in accordance with indicated grade, cross-section, finish thickness, and density indicated.

2. Apply tack coat to all vertical surfaces of existing concrete or asphalt which will be in contact with new pavement. Apply tack coat to previously installed binder course.

3. Construct an asphalt wear course over the previously placed asphalt binder course or stabilized aggregate base course. Thickness shall be as shown on the Drawings.

4. Compact wear course as outlined herein.

3.4 COMPACTING THE MIX

A. General Requirements:

1. Breakdown and second rolling shall be accomplished by a self-propelled, steel-wheel type, tandem roller weight not less than eight tons and exerting a compression of not less than 250 pounds per inch on the rear rollers. During break-down rolling, vibratory rollers shall operate at 8 to 10 impacts per foot.

2. Provide adequate number of rollers to obtain the minimum required pavement density of 90% of the recorded laboratory specimen density.

3. Begin rolling operations as soon after pavement placement as practicable, when the mixture will bear weight of roller without excessive displacement.

4. Roller must be properly moistened, must operate continually and must not stand idle on newly placed mixture.

5. Do not permit heavy equipment, including rollers, to stand idle on finished surface before it has thoroughly cooled or set.
6. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.
7. Start rolling longitudinally at extreme lower side of the area and proceed upslope. Roll to slightly different lengths on alternate roller runs.
8. Do not roll centers of crowned road or drive section first under any circumstances.

B. Breakdown Rolling (Binder and Wear Courses):
1. Accomplish breakdown or initial rolling immediately following rolling of transverse and longitudinal joints and outside edge.
2. Operate rollers as close as possible to paver without causing pavement displacement.
3. Check crown, grade, and smoothness after breakdown rolling.
4. Repair displaced areas by loosening at once with lutes or rakes and filling, if required, with hot loose material before continuing rolling.

C. Second Rolling (Binder and Wear Courses):
1. Follow breakdown rolling as soon as possible, while mixture is hot and in condition for compaction.
2. Continue second rolling until mixture has been thoroughly compacted.

D. Finish Rolling (Wear Courses):
1. A pneumatic tired roller followed by a smooth drum steel wheeled roller shall be used for finish rolling. Pneumatic tired rollers shall be capable of exerting a pressure of not less than 200 pounds per inch of rolling width.
2. Perform finish rolling while mixture is still warm enough for removal of roller marks.
3. Continue rolling until roller marks are eliminated and course had attained specified density.
4. Depression or high areas which develop during rolling shall be corrected to produce a surface with no variations greater than 3/16 inch as measured by a ten-foot straight edge. Roller marks shall be rolled-out to provide smooth surface, however over compaction will require removal and replacement of the area.

3.5 PATCHING

A. Remove and replace defective/unacceptable areas.
B. Remove deficient areas for full depth of course.
C. Sawcut sides perpendicular and parallel to direction of traffic with edges vertical.
D. Apply tack coat to exposed surfaces before placing new asphalt pavement mixture.
E. Cut-out and fill with fresh, hot asphalt pavement.
F. Compact by rolling to specified surface density and smoothness.
G. Use infrared thermal patching equipment at all patching joints eliminate cold joints.

3.6 CLEANING

A. After completion of paving operations, clean surfaces of excess or spilled asphalt materials to the satisfaction of Architect/Engineer.

3.7 PROTECTION

A. After final rolling, do not permit vehicular traffic on asphalt pavement until it has cooled and hardened and in no case sooner than 6 hours.

B. Provide barricades and warning devices as required to protect pavement and the general public.

C. Cover openings of structures in the area of paving until permanent coverings are placed.

END OF SECTION 32 12 16

SECTION 32 16 13

CURBS AND GUTTERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Cast-in-place concrete as follows:

(a) Curbs and Gutters

2. Expansion joint material.
3. Formwork for cast-in-place concrete.
4. Schedule and coordinate testing of concrete.
5. Adequate measures to protect fresh concrete from traffic and damage/staining.

1.2 SUBMITTALS

A. Submit information and shop drawings in accordance with Section 01 33 00 – Submittal Procedures.

B. Submit the following product information and shop drawings:

1. Mix Design
2. Curing Compounds
3. Admixtures
4. Expansion Joint Material

C. Submit the following plans (if applicable):

1. Cold Weather Placement Plan
2. Hot Weather Placement Plan
3. Plans shall include:

(a) Proposed Adjustments to Mix Design

(b) Proposed Method of Curing

(c) Detailed Schedule

(d) Plan for Additional Testing Procedures

D. During construction:

1. Provide materials to the Independent Testing Lab (ITL) for testing.

1.3 QUALITY ASSURANCE

A. Employ and pay for the services of a registered Engineer or Land Surveyor to stake and tape limits of Work.

B. The Owner will provide testing services performed by a testing laboratory. Should a test fail, correct the failure and pay costs for retesting until approved by the testing laboratory and Owner.

C. Coordinate with the Testing Laboratory. Inform the Testing Laboratory representative of the proposed schedule at least 48 hours prior to commencing work. Do not perform operations which require testing by the Testing Laboratory unless Testing Laboratory representative is present.

D. Cold weather and hot weather placement shall be in accordance with ACI 306.1 and 305.1, respectively, and as stated herein.

E. Source Limitations

1. Each type or class of cementitious material shall be of the same brand from the same manufacturer's plant.

2. Obtain all aggregates from a single source.

3. For all admixtures and curing compounds, one single product (each) shall be used to complete the entire project unless otherwise indicated.

F. Ready-mix concrete supplier shall comply with ASTM C94.

G. Field Quality Control

1. Testing

(a) Test the first three truck loads then every fifth truck load thereafter.

(b) Sampling shall be per ASTM C172.

(c) Testing shall include:

(1) Slump per ASTM C143

(2) Temperature per ASTM C1064

(3) Water Content per AASHTO T-318

(4) Air Content per ASTM C231

(5) Strength per ASTM C39

(6) Minimum five cylinders required for overall testing

(d) All test reports indicating non-compliance shall be emailed immediately to all parties on the test distribution list.

(e) Work that fails to meet requirements shall constitute consideration for rejection by the Engineer. Cost of measures to make work satisfactory shall be paid for by the Contractor.

2. Finish

(a) Finished concrete shall be uniform in color and texture.

(b) Finished surface shall be free of pits, pop-outs, spalling, blisters, delamination, cracks (other than at control joints), curling, scaling, or discoloration.

(c) Finished concrete curbs and gutters that do not comply with this specification shall be removed and replaced in complete sections from joint to joint unless otherwise approved by the Engineer.

PART 2 - PRODUCTS

2.1 CONCRETE

A. Mix Design Requirements

1. Strength

(a) In place minimum compressive strength at 28 days shall meet or exceed 4,500 psi.

(b) High-early strength concrete shall also have an in place minimum compressive strength at 3 days that meets or exceeds 3,000 psi.

2. Water-Cement Ratio

(a) Shall not be more than 0.42

3. Air Content

(a) Shall be 5 to 8.5% percent by volume.

4. Slump

(a) Shall be +/- 1.5” of the design slump on the reviewed mix designs.

5. Workability

(a) Concrete shall be of a consistency which will fill forms without voids or honeycombs, completely embed and bond to reinforcing without permitting materials to separate, and not promote excess water to collect on surface.

B. Materials

1. Cement shall meet or exceed ASTM C595, Type 1L.

(a) Adding additional amounts of Type I Portland cement may be used to produce high-early strength concrete when approved.

2. Fly Ash shall meet or exceed ASTM C618, Class C or F.

(a) Not more than 20% by weight.

3. Aggregates shall meet MNDOT Class C, ASTM #67 per MnDOT Table 3137.2-4.

4. Water shall meet or exceed ASTM C1602.

5. Admixtures

(a) Provide admixtures certified by manufacturer to be compatible with other admixtures.

(b) Shall be used in accordance with manufacturers recommendations.

(c) Approved Manufacturers:

(1) The Euclid Chemical Company

(2) BASF Corporation

(3) Sika Group

(4) General Resource Technology

(5) GCP Applied Technologies

(6) Or Approved Equal

(d) Use of the following admixtures are at the Contractor's discretion:

(1) Air-Entraining Admixture shall meet or exceed ASTM C260.

(2) Water Reducing Admixture shall meet or exceed ASTM C 494/C 494M, Type A.

(3) Retarding Admixture shall meet or exceed ASTM C 494/C 494M, Type B.

(4) Water Reducing and Retarding Admixture shall meet or exceed ASTM C 494/C 494M, Type D.

(5) Viscosity Modifying Admixture (VMA) shall meet or exceed ASTM C 494/C 494M, Type S.

(6) Non-Chloride, Non-Corrosive Accelerating Admixture shall conform to ASTM C494, Type C or E, and not contain more chloride ions than are present in municipal drinking water.

(e) Use of the following admixtures is prohibited:

(1) Calcium Chloride

2.2 EVAPORATION RETARDER:

A. Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

B. Approved Products

1. Euclid Chemical Company (The); Eucobar
2. BASF; MasterKure ER 50
3. Or Approved Equal

2.3 CURING AND SEALING

A. Absorbent Covers

1. AASHTO M 182, Class 2, new, never been used before burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
2. Material shall be free of harmful substances, such as sugar or fertilizer, or substances that may discolor the concrete. To remove soluble substances, burlap should be thoroughly rinsed in water before placing it on the concrete.

B. Moisture Retaining Covers

1. Plastic Film Curing Membrane: 4-10 mil thick polyethylene sheeting, complying with ASTM C171 and Product Standard PS17. Use white for exterior warm weather applications. Use either white or black for exterior cold weather applications.
2. White burlap polyethylene sheet meeting ASTM C 171.
3. Conforming to ASTM C171: A naturally colored, non-woven polypropylene fabric with a 4 mil non-perforated reflective (white) polyethylene coating containing stabilizers to resist degradation from ultraviolet light. Fabric shall exhibit low permeability and high moisture retention.

(a) Approved Products

(1) PNA Construction Technologies, Inc.; Hydracure M15.

(2) Reef Industries Incorporated; Transguard 4000.

(3) Or Approved Equal

C. Curing Compounds

1. Shall meet ASTM C 1315, Type 1, Class A with Siloxane.
2. Do not use products with a manufacturing date older than 1 year from the date of application.
3. Shall be a clear, membrane forming curing compound.
4. Use one single product to complete the entire project unless otherwise noted.
5. Manufacturer's certification is required.
6. Approved Products
   (a) PROSOCO, Single Step
   (b) TK Products, TK-ONE STEP
   (c) Or Approved Equal

2.4 MISCELLANEOUS MATERIAL

A. Expansion Joints

1. Shall meet ASTM D1751 and Federal Specification HH-F-341F, Type 1.
2. Shall be composed with fibers of cellular nature bonded together with bituminous binder with sheets saturated in asphalt.
3. An expansion joint cap shall be used.
4. Approved Products
   (a) Fibre Expansion Joint with SNAP-CAP by W.R. Meadows Company
   (b) Or Approved Equal.

PART 3 - EXECUTION

3.1 PREPARATION BEFORE PLACING CONCRETE

A. Examine conditions under which concrete work is to be performed. Do not proceed with work until unsatisfactory conditions have been corrected.

B. Before concrete placement, complete formwork installation, secure reinforcement in place, and position all embedded items.

1. Use standard metal forms. Wood forms will not be permitted.
2. Construct forms in accordance with ACI 301, to the sizes, lines, and dimensions shown and as required to obtain accurate alignment, location, and grades.
3. Design, support, brace, and maintain formwork to safely support loads that will be applied.
4. Thoroughly clean and remove surface irregularities from forms and excavations including ice, water, wire, and other debris prior to pouring concrete.
5. Fog spray forms, reinforcement, and base materials just before placing concrete.
6. Level and plumb forms in finished structures.

C. Remove hardened concrete and foreign materials from inner surfaces of conveying equipment.

3.2 CONVEYING CONCRETE

A. Handle concrete from mixer to place of final deposit as rapidly as practical by methods which shall prevent segregation or loss of ingredients and in a manner which shall ensure that concrete quality is maintained.

3.3 PLACING CONCRETE

A. Do not allow concrete to drop freely more than 4 feet for conventional concrete and 10 feet for concrete containing the high range water reducing admixture.

B. Do not begin to place concrete while rain, sleet, or snow is falling unless adequate protection is provided and, when required, acceptance of protection is obtained. Do not allow rainwater to increase mixing water or to damage the surface of the concrete.

C. Cold Weather Placement

1. Submit a plan prior to concrete installation in cold weather conditions.

2. Comply with ACI 306.1 and as follows:

(a) Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

(b) When average high and low temperature is expected to fall below 40°F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.

(c) Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

(d) Only approved admixtures shall be used.

D. Hot Weather Placement

1. Submit a plan prior to concrete installation in hot weather conditions.

2. Comply with ACI 305.1 and as follows:

(a) Maintain concrete temperature below 80˚F at time of placement.

E. Curbs and Gutters

1. Provide construction joints 10 feet on center or as otherwise noted.

2. Provide expansion joints at a maximum of 60 feet on center. Form joints by using oiled steel plates. Remove plates as soon as concrete has set. Rub edges of joints smooth with a jointing tool. Seal joints with hot poured concrete joint sealer. Rub edges of joints smooth with a jointing tool. Provide expansion joints between walks and curbing strip and other concrete features.

3. Construct on stabilized aggregate base.

4. Mechanical curb machines may be used to place curb and gutter using an approved extrusion machine that will produce a finished curb meeting the standards, workmanship, and appearance that would be achieved using metal forms. The same tolerances which apply using metal forms shall apply to work done with curb machines.

3.4 CONSOLIDATING CONCRETE

A. Consolidate concrete by vibrating, spading, rodding or forking so that concrete is thoroughly worked around reinforcement, around embedded items, and into corners of forms to eliminate air or stone pockets which may cause honeycombing, pitting or planes of weakness.

3.5 FINISHING CONCRETE

A. Curbs and Gutters

1. Fill cavities with mortar and finish edges with an edging tool immediately after removal of forms and divider plates.

2. Trowel exposed face to a smooth, uniform surface and then brush exposed surfaces lightly.

B. Evaporation Retarder

1. Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.1 lb/sq. ft. x h before and during finishing operations.

2. Apply according to manufacturer's written instructions one or more times after placing, screeding, and bull floating or darbying concrete, but before float finishing.

3.6 CURING CONCRETE

A. Begin curing procedures within 30 minutes of conclusion of finishing operations.

1. Cure concrete surfaces in accordance with ACI 308.1 utilizing one or a combination of the following methods:

(a) Water cure continuously for seven days utilizing sprinklers, soaker hoses, ponding, or fog spray. Take care to prevent damage to the surface of the concrete.

(b) Absorbent Cover

(1) Cover shall be water saturated and kept continuously wet.

(2) Cover concrete surfaces and edges with a 12 inch lap over adjacent absorptive covers when placing.

(3) Provide continuous supply of moisture such as sprinklers or soaker hoses when high temperature, low humidity, or windy conditions prevail. Do not allow Absorbent Cover materials to dry out during specified curing period.

(c) Moisture Retaining Cover Curing

(1) Cover concrete surfaces with moisture retaining cover meeting ASTM C 171 as soon as possible after final finishing without marring the surface. Place in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive.

(2) Place the cover flat on the concrete surface, avoiding wrinkles, to minimize mottling immediately after wetting the slab to rejection. Place and weight the cover so that it remains in contact with the concrete during the specified duration of curing. Place windrows of sand or earth, or place pieces of lumber along all edges and joints in the film to retain moisture and prevent wind from getting under the film and displacing it.

(3) Immediately repair any holes or tears during curing period using cover material and waterproof tape.

(4) Install Moisture Retaining Fabric, in largest practical widths, in accordance with manufacturer’s written recommendations. Wet the concrete to rejection, then thoroughly wet fabric side of cover and install with poly side up. Lap over adjacent covers a minimum 18”. Weight all laps and outside edges to prevent displacement and to ensure intimate contact with concrete and adjacent covers. Rewet as necessary and protect covers from damage during curing process.

(5) Moisture cure or use moisture retaining covers to cure concrete surfaces to receive penetrating sealers, coatings, adhesives, or other subsequent treatments.

(d) Curing Compounds

(1) Protect surrounding site features during application including, but not limited to, structures, plantings, pavements, surface utilities, light poles, etc.

(2) Apply curing compound using the equipment and methods as recommended by the manufacturer.

(3) Rate of application shall be as recommended by the manufacturer.

(4) Ensure complete, uniform coverage over all concrete surfaces.

2. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.

B. Protect newly placed concrete from damage by adjacent vibratory or backfilling operations for a minimum of 24 hours. Perform vibratory operations on backfilling 72 hours after placing concrete or after the concrete reaches a compressive strength of at least 3,000 psi.

3.7 CLEANUP

A. Remove all form materials, excess joint materials, concrete spoils, and excess concrete from the site.

3.8 CONCRETE WASHOUT AREA

A. Provide effective containment for all liquid and solid wastes generated by washout operations (concrete, paint, form release oils, curing compounds, and other construction materials) related to the construction activity.

1. The liquid and solid washout wastes must not contact the ground. Design the containment such that the contained material does not wash away or become mixed with surface runoff.

2. Liquid and solid wastes must be disposed of properly and in compliance with MPCA rules.

3. Install a sign adjacent to each washout facility.

(a) The sign shall require site personnel to utilize these containment facilities for disposal of concrete and other washout wastes.

END OF SECTION 32 16 13

SECTION 32 17 23

PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Prepare pavement surfaces for pavement markings.
2. Furnish and apply paint for pavement areas as shown on the Drawings and specified herein.

1.2 QUALITY ASSURANCE

A. All paint shall be obtained from a single source/brand.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Paint:

1. Low VOC Acrylic Copolymer Traffic Marking Paint.
   (a) Paint shall be 100% acrylic, conventional dry (non-heat applied) acetone-based paint.
   (b) Paint shall be developed for use over concrete, asphalt, brick, and for use on highways and parking lots.
   (c) Paint shall have the following performance characteristics:

Test Name	Test Method	Results
Bleed Ratio	TT-P-115F	0.95 min (white & yellow)
Directional Reflectance	ASTM E97	84% min (white); 50% min (yellow)
Dry-No-Pickup	ASTM D-711	10 min max (white & yellow)
Dry Opacity (contrast ratio) - White	Fed. Test Method 141C (5 mils bird applicator)	0.92 min
Dry Opacity (contrast ratio) - Yellow	Fed. Test Method 141C @ 15 mils	0.97 min
Hegman Grind	ASTM D-1210	3 min (white); 2 min (yellow)
Viscosity	ASTM D-562	75-90 KU (white & yellow)
Water Resistance	TT-P-115-F	Pass (white & yellow)

2. Color shall be as follows:
   (a) White for:
      (1) Parking stalls
      (2) No parking areas
      (3) Cross walks

(4) Same direction lane divider

(5) Directional arrows

(6) Accessible parking insignia

(b) Yellow for:

(1) Curb

(2) Safety striping

(c) Black for:

(1) Marking out existing stalls to be eliminated

PART 3 - EXECUTION

3.1 RESTRICTIONS

A. Do not paint during the threat of rain or when the pavement surface is damp.

B. Apply paint when the air temperature is between 40°F and 90°F and at least 5°F above the dewpoint. Apply paint when the relative humidity is 85% or less.

3.2 SWEEPING

A. Immediately prior to applying paint, thoroughly sweep the surface.

B. Properly dispose of sweepings.

C. Include costs for sweeping and disposal in the bid.

3.3 SURFACE PREPARATION

A. When pavement markings are placed on newly completed concrete pavements, remove the existing curing compound film from horizontal surfaces in these locations. Curing compound film need not be removed from curbs or other vertical surfaces. Remove the curing compound in a manner that does not damage the underlying concrete pavement.

B. Ensure the pavement surface is dry and free from dirt, dust, oil, curing compound, and other contaminates which may interfere with markings properly bonding to the surface. Ensure the clean surface is at least 1 inch wider than the anticipated marking. Shoot an air blast on the pavement surface immediately prior to placing the new marking. The air blast is not intended to remove large amounts of dust, but only a very small amount of residue that might be left from the removal and cleaning operation.

3.4 LAYOUT AND DIMENSIONS

A. Ensure the following for all painted pavement markings:

1. Uniform thickness,

2. Line widths as specified, with a tolerance of ± 1/4 inch for 4 inch lines and ± 1/2 inch for wider lines,

3. Symbols and Legends are visually proportional to contract documents with an out-to-out tolerance of ± 6 inches, and

4. Markings have sharp edges and cutoffs at the ends.

B. Accurately place all lines to a close tolerance using a guide. Locate the lines as follows:

1. For straight or nearly straight lines, reference the locations to a stringline set between marking line points.

2. For curves, reference the locations to closely spaced marking line points. For sharp curves, a spacing of 10 feet may be required.

C. Striping for vehicle areas:

1. 4" in width, unless otherwise noted.

3.5 PAINT APPLICATION

A. Apply paint according to the manufacturer's requirements and instructions.

B. Use an applicator that is capable of producing a uniform straight line with sharp edges.

C. Apply paint at the rate of 320 lineal feet of standard 4" stripe per gallon, unless otherwise recommended by the paint manufacturer.

3.6 DISPOSAL OF PAINT CONTAINERS

A. Dispose of paint containers properly and in accordance with applicable regulatory requirements.

END OF SECTION 32 17 23

SECTION 32 32 13

CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes labor, materials, equipment, and accessories to provide the following:

1. Cast-in-place concrete as follows:

(a) Walks

2. Expansion joint material
3. Reinforcement materials
4. Caulking over expansion joints
5. Schedule and coordinate testing of concrete.
6. Adequate measures to protect fresh concrete from traffic and damage/staining

1.2 SUBMITTALS

A. Submit information and shop drawings in accordance with Section 01 33 00 – Submittal Procedures.

B. Submit the following product information and shop drawings:

1. Mix Designs
2. Curing Compounds
3. Sealing Compounds
4. Admixtures
5. Expansion Joint Material
6. Reinforcement Materials

C. Submit the following plans (if applicable):

1. Cold Weather Placement Plan
2. Hot Weather Placement Plan
3. Alternative Jointing Plan
4. Plans shall include:

(a) Proposed Adjustments to Mix Design

(b) Proposed Method of Curing

(c) Detailed Schedule

(d) Plan for Additional Testing Procedures

1.3 QUALITY ASSURANCE

A. Employ and pay for the services of a registered Engineer or Land Surveyor to stake and tape limits of Work.

B. The Owner will provide testing services performed by a testing laboratory. Should a test fail, correct the failure and pay costs for retesting until approved by the testing laboratory.

C. Coordinate with the Testing Laboratory. Inform the Testing Laboratory representative of the proposed schedule at least 48 hours prior to commencing work. Do not perform operations which require testing by the Testing Laboratory unless Testing Laboratory representative is present.

D. Cold weather and hot weather placement shall be in accordance with ACI 306.1 and 305.1, respectively, and as stated herein.

E. Source Limitations:

1. Each type or class of cementitious material shall be of the same brand from the same manufacturer's plant.

2. Obtain all aggregates from a single source.

3. For all admixtures, curing compounds and sealing compounds, one single product each shall be used to complete the entire project unless otherwise indicated.

F. Ready-mix concrete supplier shall comply with ASTM C94.

G. Installer's Qualifications: A certified ACI flatwork finisher shall be on site at all times during installation.

H. Field Quality Control

1. Testing:

(a) Test the first three truck loads then every fifth truck load thereafter.

(b) Sampling shall be per ASTM C172.

(c) Testing shall include:

(1) Slump per ASTM C143

(2) Temperature per ASTM C1064

(3) Water Content per AASHTO T-318

(4) Air Content per ASTM C231

(5) Strength per ASTM C39

(6) Minimum five cylinders required for overall testing

(d) All test reports indicating noncompliance shall be emailed immediately to all parties on the test distribution list.

(e) Work that fails to meet requirements shall constitute consideration for rejection by the Engineer. Cost of measures to make work satisfactory shall be paid for by the Contractor.

2. Finish

(a) Finished concrete shall be uniform in color and texture.

(b) Finished surface shall be free of pits, pop-outs, spalling, blisters, delamination, cracks (other than at control joints), curling, scaling, or discoloration.

(c) Finished concrete that does not comply with this specification shall be removed and replaced in complete sections from joint to joint unless otherwise approved by the Engineer.

PART 2 - PRODUCTS

2.1 CONCRETE

A. Mix Design Requirements

1. Strength:

(a) In place minimum compressive strength at 28 days shall meet or exceed 5,000 psi.

(b) High-early strength concrete shall have an in place minimum compressive strength at 3 days that meets or exceeds 3,000 psi.

2. Water-Cement Ratio:

(a) Shall not be more than 0.42

3. Air Content:

(a) Shall be 5 to 8.5% percent by volume.

4. Slump:

(a) Shall be +/- 1.5” of the design slump on the reviewed mix designs.

5. Workability:

(a) Concrete shall be of a consistency which will fill forms without voids or honeycombs, completely embed and bond to reinforcing without permitting materials to separate, and not promote excess water to collect on surface.

B. Materials

1. Cement shall meet or exceed ASTM C595, Type 1L.

(a) Adding additional amounts of Type I Portland cement may be used to produce high-early strength concrete when approved.

2. Fly Ash shall meet or exceed ASTM C618, Class C or F.

(a) Not more than 20% by weight.

3. Aggregates shall meet MnDOT Class A, ASTM #67 per MnDOT Table 3137.2-4.

4. Water shall meet or exceed ASTM C1602.

5. Admixtures

(a) Provide admixtures certified by manufacturer to be compatible with other admixtures.

(b) Shall be used in accordance with manufacturers recommendations.

(c) Approved Manufacturers:

(1) The Euclid Chemical Company

(2) BASF Corporation

(3) Sika Group

(4) General Resource Technology

(5) GCP Applied Technologies

(6) Or Approved Equal

(d) Use of the following admixtures are at the Contractor's discretion:

(1) Air-Entraining Admixture shall meet or exceed ASTM C260.

(2) Water Reducing Admixture shall meet or exceed ASTM C 494/C 494M, Type A.

(3) Retarding Admixture shall meet or exceed ASTM C 494/C 494M, Type B.

(4) Water Reducing and Retarding Admixture shall meet or exceed ASTM C 494/C 494M, Type D.

(5) Viscosity Modifying Admixture (VMA) shall meet or exceed ASTM C 494/C 494M, Type S.

(6) Non Chloride, Non Corrosive Accelerating Admixture shall conform to ASTM C494, Type C or E, and not contain more chloride ions than are present in municipal drinking water.

(e) Use of the following admixtures is prohibited:

(1) Calcium Chloride

2.2 EVAPORATION RETARDER:

A. Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

B. Approved Products:

1. Euclid Chemical Company (The); Eucobar
2. BASF; MasterKure ER 50
3. Or Approved Equal

2.3 CURING AND SEALING

A. Absorbent Covers:

1. AASHTO M 182, Class 2, new, never been used before burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
2. Material shall be free of harmful substances, such as sugar or fertilizer, or substances that may discolor the concrete. To remove soluble substances, burlap should be thoroughly rinsed in water before placing it on the concrete.

B. Moisture Retaining Covers:

1. Plastic Film Curing Membrane: 4-10 mil thick polyethylene sheeting, complying with ASTM C171 and Product Standard PS17. Use white for hot weather applications and black for cold weather applications.
2. White burlap polyethylene sheet meeting ASTM C 171.
3. Conforming to ASTM C171: A naturally colored, non-woven polypropylene fabric with a 4 mil non-perforated reflective (white) polyethylene coating containing stabilizers to resist degradation from ultraviolet light. Fabric shall exhibit low permeability and high moisture retention.
4. Approved Products

(1) PNA Construction Technologies, Inc.; Hydracure M15.

(2) Reef Industries Incorporated; Transguard 4000.

(3) Or Approved Equal

C. Curing Compounds

1. Shall meet ASTM C309, Type 1 Class A
2. Do not use products with a manufacturing date older than 1 year from the date of application.
3. Shall be a water based dissipating curing compound

4. Use one single product to complete the entire project unless otherwise noted.
5. Manufacturer's certification is required.
6. Approved Products:
   (a) DW WB Dissipating Cure 2519 by TK Products
   (b) Or Approved Equal.

D. Curing Compounds for cold weather applications
1. Products used in this section will require the Contractor to return to the site the following Spring, once weather permits, to apply the specified sealing compound to all concrete surfaces.
2. Shall meet ASTM C 1315, Type 1, Class A with Siloxane
3. Do not use products with a manufacturing date older than 1 year from the date of application.
4. Shall be a clear, membrane forming curing compound
5. Use one single product to complete the entire project unless otherwise noted.
6. Manufacturer's certification is required.
7. Approved Products:
   (a) PROSOCO, Single Step ® (not film forming)
   (b) TK Products, TK-ONE STEP (not film forming)
   (c) Or Approved Equal

E. Sealing Compounds
1. Shall be a penetrating silane/siloxane water repellent treatment providing a minimum 85% reduction in water absorption and 82% reduction in chloride penetration when tested in accordance with NCHRP 244.
2. Approved Products:
   (a) Euclid Chemical Company (The), Barricade WB 244
   (b) W.R. Meadows Inc, Intraguard
   (c) Or Approved Equal.

2.4 REINFORCING MATERIALS

A. Macrofiber Reinforcement
1. Shall meet ASTM C1116 and ASTM D7508 Level 3.
   (a) The Steel Reinforcement Ratio (%) to calculate the f_{e3} value shall be 0.15
2. Approved Manufacturers:
   (a) BASF
   (b) Sika Fibers LLC
   (c) General Resource Technology (GRT)
   (d) Forta
   (e) Grace
   (f) Cemstone
   (g) Full Force

(h) Or Approved Equal

2.5 MISCELLANEOUS MATERIAL

A. Expansion Joints

1. Shall meet ASTM D1751and Federal Specification HH-F-341F, Type 1.
2. Shall be composed with fibers of cellular nature bonded together with bituminous binder with sheets saturated in asphalt.
3. An expansion joint cap shall be used.
4. Approved Products:
   (a) Fibre Expansion Joint with SNAP-CAP by W.R. Meadows Company
   (b) Or Approved Equal.

B. Caulk

1. Shall be specifically designed for sealing expansion joints.
2. Shall be suitable for temperature ranges from -20^{o}F to 120^{o}F.
3. Shall be non-sag.
4. Shall be weather and UV resistant.
5. Shall adhere directly to the concrete surface without the use of a primer.
6. Shall be gray in color.
7. Approved products:
   (a) Dow Corning 888 Silicone Joint Sealant.
   (b) Crafco RoadSaver #34902NS.
   (c) Or approved equal.

PART 3 - EXECUTION

3.1 INTEGRATION OF MACROFIBER REINFORCEMENT

A. Provide macrofiber reinforcement in all concrete covered by this Specification.

B. Add fibers to the concrete at the beginning of the mixing cycle, but not at the same time as the cement, at a proportion of 3 to 5 pounds per cubic yard.

C. Mix fibers with concrete for a minimum of 5 minutes at mixing speed to ensure complete dispersion and uniformity.

3.2 PREPARATION BEFORE PLACING CONCRETE

A. Examine conditions under which concrete work is to be performed. Do not proceed with work until unsatisfactory conditions have been corrected.

B. Before concrete placement, complete formwork installation, secure reinforcement in place, and position all embedded items.

1. Use standard metal forms. Wood forms will not be permitted.
2. Construct forms in accordance with ACI 301, to the sizes, lines, and dimensions shown and as required to obtain accurate alignment, location, and grades.
3. Design, support, brace, and maintain formwork to safely support loads that will be applied.

4. Thoroughly clean and remove surface irregularities from forms and excavations including ice, water, wire, and other debris prior to pouring concrete.

5. Fog spray forms, reinforcement, and base materials just before placing concrete.

6. Level and plumb forms in finished structures.

C. Remove hardened concrete and foreign materials from inner surfaces of conveying equipment.

3.3 CONVEYING CONCRETE

A. Handle concrete from mixer to place of final deposit as rapidly as practical by methods which shall prevent segregation or loss of ingredients and in a manner which shall ensure that concrete quality is maintained.

3.4 PLACING CONCRETE

A. Do not allow concrete to drop freely more than 4 feet for conventional concrete and 10 feet for concrete containing the high range water reducing admixture.

B. Do not begin to place concrete while rain, sleet, or snow is falling unless adequate protection is provided and, when required, acceptance of protection is obtained. Do not allow rainwater to increase mixing water or to damage the surface of the concrete.

C. Cold Weather Placement

1. Submit a plan prior to concrete installation in cold weather conditions.

2. Comply with ACI 306.1 and as follows:

(a) Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

3. When average high and low temperature is expected to fall below 40^{o}F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.

4. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

5. Only approved admixtures shall be used.

D. Hot Weather Placement

1. Submit a plan prior to concrete installation in hot weather conditions.

2. Comply with ACI 305.1 and as follows:

(a) Maintain concrete temperature below 80^{o}F at time of placement.

E. Walks

1. Provide control joints.

3.5 CONSOLIDATING CONCRETE

A. Consolidate concrete by vibrating, spading, rodding or forking so that concrete is thoroughly worked around reinforcement, around embedded items, and into corners of forms to eliminate air or stone pockets which may cause honeycombing, pitting or planes of weakness.

3.6 FINISHING CONCRETE

A. Walks

1. Level concrete after striking off with template or straightedge. After water sheen has left surface, float and follow with a light trowel finish. Care shall be taken not to bring an excess of water and fine sand to surface.

(a) Walks:

(1) Give surface a light broom finish with a coarse broom.

2. Control Joints

(a) Provide control joints with the intended pattern as indicated on the Drawings. Alterations to jointing pattern shall be reviewed with and approved by the Engineer.

(b) Expansion Joints:

(1) Provide a ½-inch thick expansion joint in concrete flatwork (walks, slabs) at intervals of a maximum of 60 feet in length of run. Provide expansion joint between concrete flatwork and stoops, between concrete flatwork and retaining walls, and between concrete flatwork and building walls.

(2) Provide caulk sealant over expansion joint at all stoops, cast-in-place retaining walls, and building walls.

(c) Construction joints shall be either tooled or sawcut, but not both on a single site, to a minimum of 1/3 the thickness of the concrete section depth.

(1) Tooled Joints:

1. Round surface edges and control joints to a ¼ inch radius.

2. Maximum joint radius is ½ inch unless noted otherwise. Concrete with joints larger than ½ inch radius will require the sections of concrete to be removed and replaced.

(2) Sawcut Joints

1. Sawcut lines shall be measured for uniformity (equal distance between joint lines) and chalk lined before making the cuts.

2. A walk-behind type sawcut machine shall be used. Handheld saws will not be permitted. Use wet-cut saws for dust control.

3. Sawcut joints shall be 1/8 inch width.

4. Begin joint sawing as soon as the concrete has hardened sufficiently to allow sawing without raveling or moving of aggregate. Saw joints before uncontrolled cracking takes place.

B. Evaporation Retarder

1. Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.1 lb/sq. ft. x h before and during finishing operations.

2. Apply according to manufacturer's written instructions one or more times after placing, screeding, and bull floating or darbying concrete, but before float finishing.

3.7 CURING CONCRETE

A. Begin curing procedures within 30 minutes of conclusion of finishing operations.

1. Cure concrete surfaces in accordance with ACI 308.1 utilizing one or a combination of the following methods:

(a) Water cure continuously for seven days utilizing sprinklers, soaker hoses, ponding, or fog spray. Take care to prevent erosion damage to the surface of the concrete.

(b) Absorbent Cover:

(1) Cover shall be water saturated and kept continuously wet.

(2) Cover concrete surfaces and edges with a 12 inch lap over adjacent absorptive covers when placing.

(3) Provide continuous supply of moisture such as sprinklers or soaker hoses when high temperature, low humidity, or windy conditions prevail. Do not allow Absorbent Cover materials to dry out during specified curing period.

(c) Moisture Retaining Cover:

(1) Cover concrete surfaces with moisture retaining cover meeting ASTM C 171 as soon as possible after final finishing without marring the surface. Place in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive.

(2) On flat surfaces such as pavements, the cover shall extend beyond the edges of the slab at least twice the thickness of the slab. Place the cover flat on the concrete surface, avoiding wrinkles, to minimize mottling immediately after wetting the slab to rejection. Place and weight the cover so that it remains in contact with the concrete during the specified duration of curing. Place windrows of sand or earth, or place pieces of lumber along all edges and joints in the film to retain moisture and prevent wind from getting under the film and displacing it.

(3) Immediately repair any holes or tears during curing period using cover material and waterproof tape.

(4) Install Moisture Retaining Fabric, in largest practical widths, in accordance with manufacturer's written recommendations. Wet the concrete to rejection, then thoroughly wet fabric side of cover and install with poly side up. Lap over adjacent covers a minimum 18". Weight all laps and outside edges to prevent displacement and to ensure intimate contact with concrete and adjacent covers. Rewet as necessary and protect covers from damage during curing process.

(5) Moisture cure or use moisture retaining covers to cure concrete surfaces to receive penetrating sealers, coatings, adhesives, or other subsequent treatments.

(d) Curing Compounds

(1) Protect surrounding site features during application including, but not limited to, structures, plantings, pavements, surface utilities, light poles, etc.

(2) Apply curing compound using the equipment and methods as recommended by the manufacturer.

(3) Rate of application shall be as recommended by the manufacturer.

(4) Ensure complete, uniform coverage over all concrete surfaces.

2. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.

B. Protect newly placed concrete from damage by adjacent vibratory or backfilling operations for a minimum of 24 hours. Perform vibratory operations on backfilling 72 hours after placing concrete or after the concrete reaches a compressive strength of at least 3,000 psi.

3.8 SEALING CONCRETE

A. Apply sealing compound to concrete no earlier than 28 days after curing operations have completed.

B. Protect surrounding site features during application including, but not limited to, structures, plantings, pavements, surface utilities, light poles, etc.

C. Clean surfaces free from dirt, bitumen, efflorescence, oil, curing compounds, form oil, and other foreign matter. Thoroughly dry surfaces prior to application.

D. Apply sealing compound using the equipment and methods as recommended by the manufacturer.

1. Rate of application shall be as recommended by the manufacturer.

E. Ensure complete, uniform coverage over all concrete surfaces.

F. Protect the treated area from all vehicular and pedestrian traffic until sealing compound has dried completely.

3.9 CLEANUP

A. Remove all form materials, excess joint materials, concrete spoils, and excess concrete from the site.

3.10 CONCRETE WASHOUT AREA

A. Provide effective containment for all liquid and solid wastes generated by washout operations (concrete, paint, form release oils, curing compounds, and other construction materials) related to the construction activity.

1. The liquid and solid washout wastes must not contact the ground. Design the containment such that the contained material does not wash away or become mixed with surface runoff.

2. Liquid and solid wastes must be disposed of properly and in compliance with MPCA rules.

3. Install a sign adjacent to each washout facility.

(a) The sign shall require site personnel to utilize these containment facilities for disposal of concrete and other washout wastes.

END OF SECTION 32 16 23

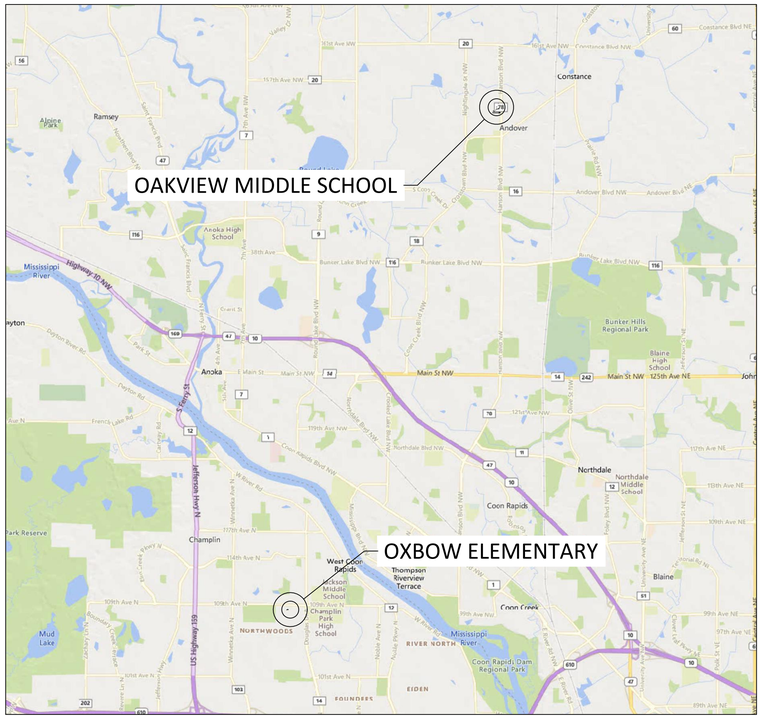
ISD 11 PAVEMENT IMPROVEMENTS at OAK VIEW MS & OXBOW CREEK ES (#25048B)

2727 N Ferry St. Anoka, MN 55303

OXBOW CREEK
ELEMENTARY SCHOOL
6505 109th Ave N,
Champlin, MN 55316

OAK VIEW MIDDLE
SCHOOL
15400 Hanson Blvd NW,
Andover, MN 55304

VICINITY MAP



GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE STATE AND LOCAL ORDINANCES.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR AND SHALL PAY FOR ALL CONSTRUCTION STAKING / LAYOUT.
3. OBTAIN AND PAY FOR ALL RELATED CONSTRUCTION PERMITS. SUBMIT A COPY OF ALL PERMITS TO THE ENGINEER/ LANDSCAPE ARCHITECT.
4. ALL PHYSICAL ELEMENTS IMPACTING CONSTRUCTION MAY NOT BE IDENTIFIED ON THE PLANS. THE CONTRACTOR MUST VISIT THE SITES, PRIOR TO BIDDING, TO CONFIRM OR TO SUPPLEMENT THE EXTENT OF WORK NECESSARY. EXTRA COMPENSATION WILL NOT BE ALLOWED FOR CONDITIONS WHICH COULD HAVE BEEN DETERMINED OR ANTICIPATED BY EXAMINATION OF THE SITE(S).
5. LOCATE ALL ON-SITE UTILITIES (PUBLIC AND PRIVATE) BEFORE BEGINNING CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR CONTRACTOR'S LACK OF VERIFICATION OR OMISSION BY LOCATION SERVICE.
6. PROVIDE ALL MATERIALS NECESSARY TO ACCOMPLISH MAINTENANCE ACTIVITIES AND REMOVE ALL EXCESS MATERIALS FROM SITE AS MAY BE NECESSARY.
7. INSTALL BARRICADES AS NECESSARY TO FULLY SECURE SITE AND TO PROTECT THE PUBLIC.
8. MAINTAIN ADJACENT CITY STREETS CONTINUOUSLY CLEAN FROM WORK CAUSED DIRT AND DEBRIS DURING OPERATIONS. PROTECT DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF WORK RELATED DIRT AND DEBRIS.
9. MINIMIZE DISTURBANCE TO SITE AND PROTECT EXISTING VEGETATION AND SITE FEATURES WHICH ARE TO REMAIN.
10. REPAIR OR REPLACE EXISTING PROPERTY AND SITE FEATURES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE WORK, AT NO ADDITIONAL COST TO THE OWNER.
11. MAP AND RECORD EXISTING PARKING CONFIGURATION FOR RE-STRIPING AFTER PAVING. PRIOR TO RE-STRIPING, REVIEW WITH OWNER FOR ANY MINOR MODIFICATIONS.
12. SHOOT AND RECORD ELEVATIONS OF EXISTING PAVEMENTS TO BE MAINTAINED. RESTORE PAVEMENTS TO SAME GENERAL ELEVATIONS ALLOWING FOR AN ADJUSTMENT RESULTING FROM MODIFICATIONS TO IMPROVE DRAINAGE.
13. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INCLUDING DETERMINATION OF ALL QUANTITIES, PRIOR TO THE WORK. BASE BID AMOUNT INCLUDES ALL WORK TO ACCOMPLISH THAT WHICH IS ILLUSTRATED ON THE PLAN, UNLESS OTHERWISE NOTED.
"ESTIMATED" QUANTITIES PROVIDED ARE FOR THE CONTRACTOR'S REFERENCE ONLY.
"ASSUMED" QUANTITIES SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID COST. FINAL QUANTITIES WILL BE ADJUSTED USING UNIT PRICES.

SHEET LIST

Sheet List Table	
Sheet Number	Sheet Title
G0.01	TITLE SHEET
C1.01	OXBOW FINISHING PLAN
C1.02	OAKVIEW FINISHING PLAN
C2.01	DETAILS

#25048B

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

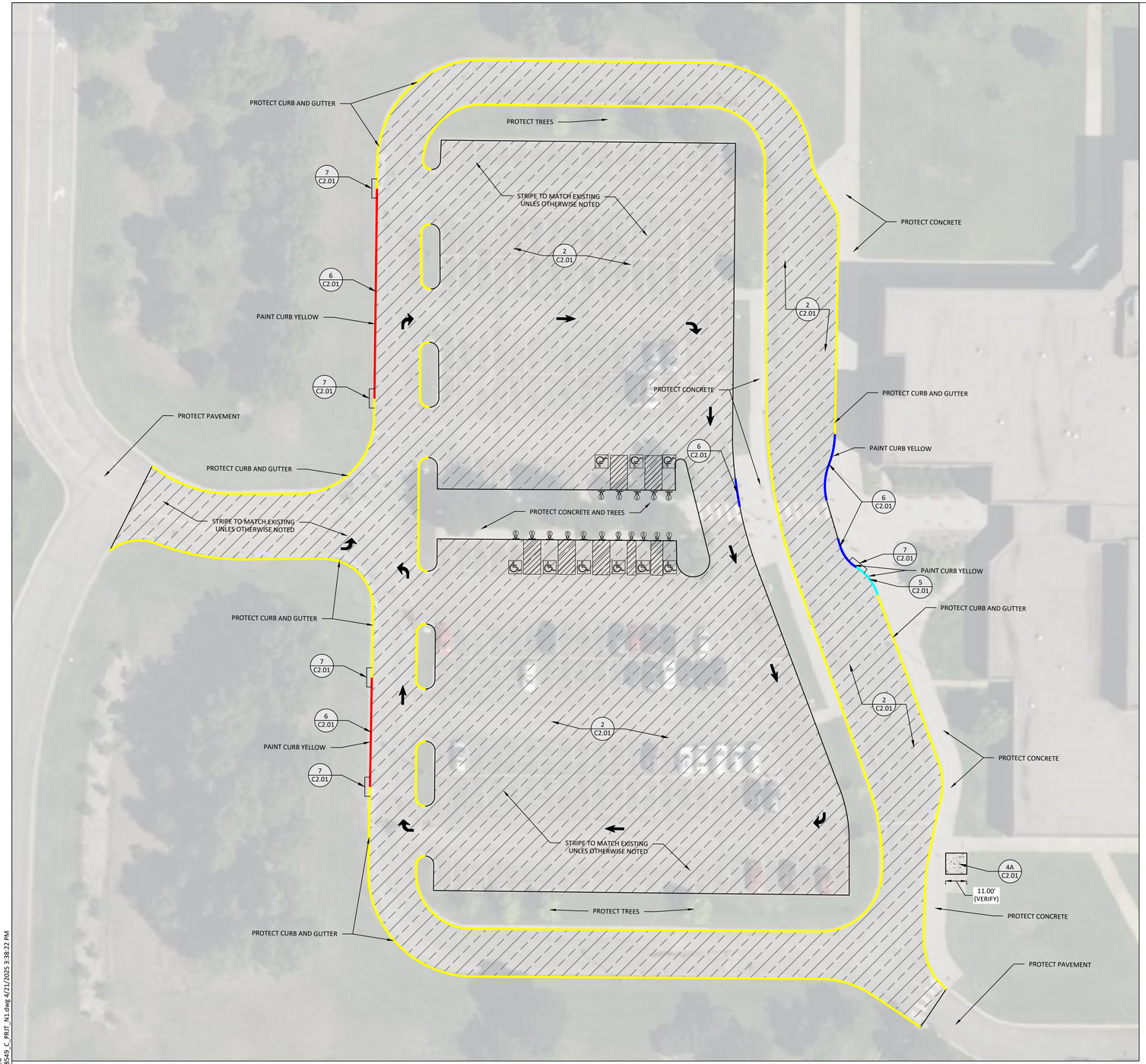
JAY R. POMEROY
LIC. NO. 23543 DATE 04/22/2025

BOLTON & MENK
3300 FERNBROOK LANE NORTH, SUITE 300
PLYMOUTH, MN 55447
Phone: (763) 544-7129
Email: Plymouth@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
CCA			
DRAWN			
CCA			
CHECKED			
JRP			
CLIENT PROJ. NO.			
25X138549000			

ANOKA - HENNEPIN SCHOOLS - ISD 11
PAVEMENT IMPROVEMENTS at OAKVIEW MS & OXBOW CREEK ES
TITLE SHEET

SHEET G0.01



NOTES

1. REFER TO SHEET G0.01, TITLE SHEET, FOR GENERAL NOTES.
2. CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.
3. TRAFFIC SIGNS SHALL BE INSTALLED 18'' BEHIND THE BACK OF CURB OR EDGE OF PAVEMENT.
4. ALL DISTURBED AREAS WHICH ARE NOT DESIGNATED TO BE PAVED, SHALL RECEIVE AT LEAST 6" OF TOPSOIL AND SHALL BE SEEDED.
5. FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, RE-SEED ALL APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER OR LANDSCAPE ARCHITECT.
6. RESTRIPE PARKING LOT STALLS AS APPLICABLE. OBSERVE AND MAP EXISTING PRIOR TO BEGINNING WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SHOOTING AND RECORDING EXISTING PAVEMENT SURFACE ELEVATIONS. ONCE BITUMINOUS PAVEMENT HAS BEEN REMOVED, THE CONTRACTOR SHALL BE RE-ESTABLISH ELEVATIONS THAT WILL ENSURE POSITIVE DRAINAGE AS APPROPRIATE.
8. PARKING LOT STRIPING TO BE YELLOW, UNLESS OTHERWISE NOTED.

LEGEND

- 1 C2.01 — REFERENCE KEY TO SITE DETAILS (DETAIL I.D. NUMBER (TOP), DETAIL SHEET NUMBER (BOTTOM))
- PROPOSED CONCRETE PANEL REPLACEMENT — 4A C2.01
- PROPOSED MEDIUM DUTY RECLAIM REPAVE — 2 C2.01
- REMOVE CURB & REPLACE WITH D-412 — 6 C2.01
- REMOVE AND REPLACE D-412 — 6 C2.01
- REMOVE AND REPLACE B-612 — 5 C2.01
- PAINT CURB YELLOW
- PROPOSED TRAFFIC SIGN WITH BOLLARD — 8 C2.01
- PROPOSED ACCESSIBLE SYMBOL
- DIRECTIONAL ARROWS (STUDENT DROP-OFF ROUTE)

OXBOW CREEK QUANTITIES

THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INCLUDING DETERMINATION OF ALL QUANTITIES, PRIOR TO THE WORK. BASE BID AMOUNT INCLUDES ALL WORK TO ACCOMPLISH THAT WHICH IS ILLUSTRATED ON THE PLAN, UNLESS OTHERWISE NOTED.

"ESTIMATED" QUANTITIES PROVIDED ARE FOR THE CONTRACTOR'S REFERENCE ONLY.
"ASSUMED" QUANTITIES SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID COST.
FINAL QUANTITIES WILL BE ADJUSTED USING UNIT PRICES.

1. PARKING LOT PAVEMENT
   - 1.1. ESTIMATED BITUMINOUS RECLAIM REPAVE = 11,860 S.Y.
   - 1.2. ASSUMED CONCRETE REPLACEMENT = 121 S.F.
2. PARKING LOT CURB AND GUTTER
   - 2.1. ASSUMED D-412 REPLACEMENT = 240 L.F.
   - 2.2. ASSUMED B-612 REPLACEMENT = 16 L.F.
   - 2.3. ESTIMATED REPAINT CURB YELLOW = 2,600 L.F.
3. SIGN POSTS:
   - 3.1. ACCESSIBLE PARKING SIGN AND POST WITH BOLLARD: 16 each

HORZ. SCALE 0 30 60 FEET

#25048B

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

JAY R. POMEROY
LIC. NO. 23543 DATE 04/22/2025

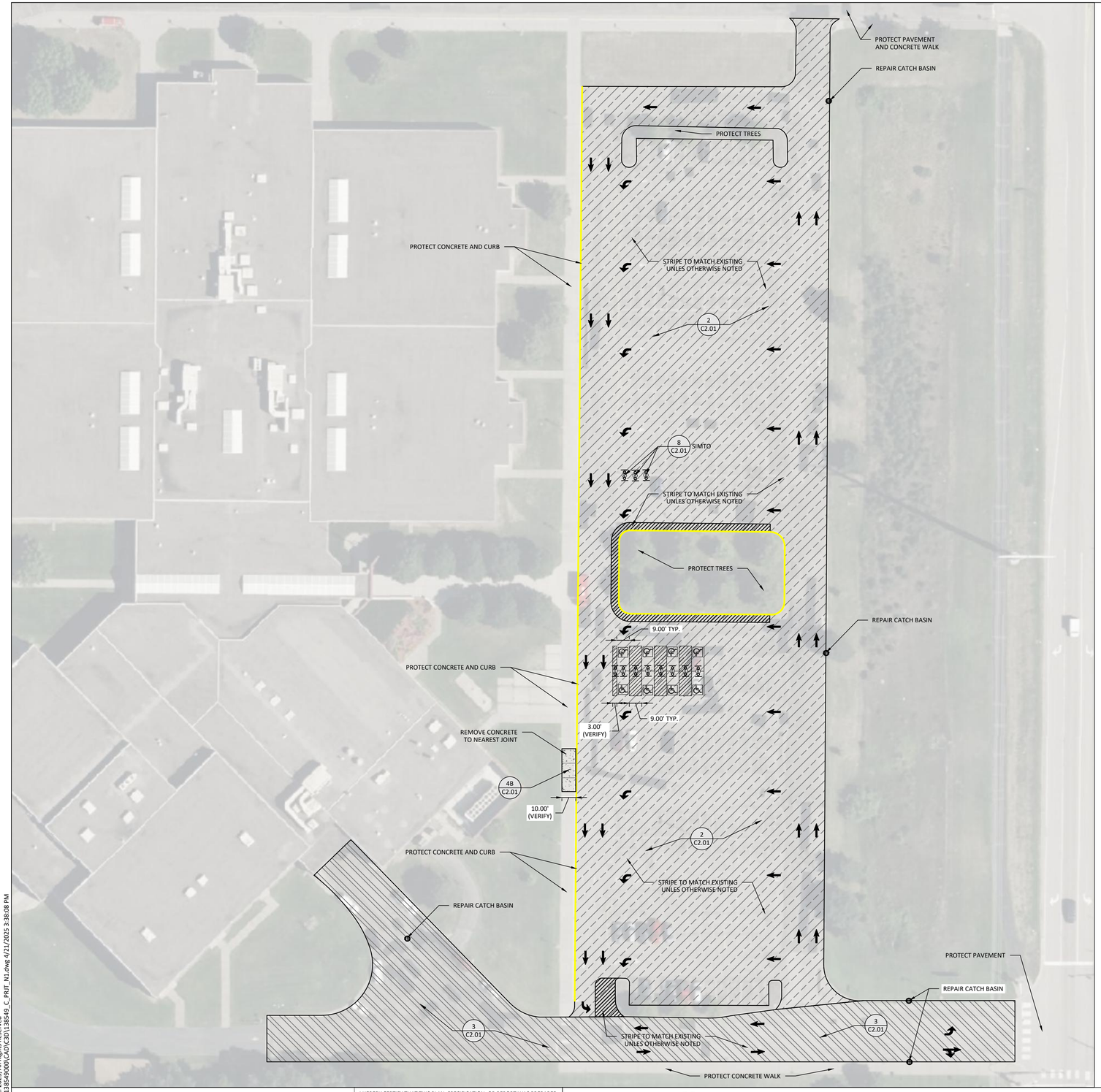
BOLTON & MENK
3300 FERNBROOK LANE NORTH, SUITE 300
PLYMOUTH, MN 55447
Phone: (763) 544-7129
Email: Plymouth@bolton-menk.com
www.bolton-menk.com

DESIGNED	CCA
DRAWN	CCA
CHECKED	JRP
CLIENT PROJ. NO.	25X138549000

NO.	ISSUED FOR	DATE

ANOKA - HENNEPIN SCHOOLS - ISD 11
PAVEMENT IMPROVEMENTS at OAKVIEW MS & OXBOW CREEK ES
OXBOW E.S. FINISHING PLAN

SHEET C1.01



NOTES

1. REFER TO SHEET G0.01, TITLE SHEET, FOR GENERAL NOTES.
2. CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.
3. TRAFFIC SIGNS SHALL BE INSTALLED 18'' BEHIND THE BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE SHOWN.
4. ALL DISTURBED AREAS WHICH ARE NOT DESIGNATED TO BE PAVED, SHALL RECEIVE AT LEAST 6" OF TOPSOIL AND SHALL BE SEEDED. ALL AREAS NOT DESIGNATED FOR A SPECIFIC SEED MIX, WHICH ARE DISTURBED BY CONSTRUCTION, SHALL BE SEEDED WITH SEED MIX #1.
5. FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, RE-SEED ALL APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER OR LANDSCAPE ARCHITECT.
6. RESTRIPE PARKING LOT STALLS AS APPLICABLE. OBSERVE AND MAP EXISTING PRIOR TO BEGINNING WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SHOOTING AND RECORDING EXISTING PAVEMENT SURFACE ELEVATIONS. ONCE BITUMINOUS PAVEMENT HAS BEEN REMOVED, THE CONTRACTOR SHALL BE RE-ESTABLISH ELEVATIONS THAT WILL ENSURE POSITIVE DRAINAGE AS APPROPRIATE.
8. PARKING LOT STRIPING TO BE WHITE, UNLESS OTHERWISE NOTED.
9. CATCH BASIN REPAIR (5):
   - 9.1. REMOVE EXISTING CURB & GUTTER, WHERE APPLICABLE, AND DISPOSE OF OFF-SITE.
   - 9.2. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT, APPROX. 10' X 10'.
   - 9.3. REMOVE AND SALVAGE EXISTING CATCH BASIN CASTING, REMOVE & REPLACE CONCRETE RINGS AND SEAL HOLES AND LEAKS, RE-INSTALL CATCH BASIN CASTING.
   - 9.4. FURNISH AND INSTALL NEW B-612 CONCRETE CURB AND GUTTER.
   - 9.5. INSTALL TACK COAT TO VERTICAL EDGES, PATCH AROUND CATCH BASIN CASTING AND ADJACENT TO NEW CURB WITH ONE 2" LIFT OF BINDER COURSE AND ONE 2" LIFT OF WEAR COURSE ASPHALT MIX.
   - 9.6. COMPACT WITH STEEL ROLLER FOR SMOOTH TRANSITION AND TO MATCH EXISTING ADJACENT SURFACE.

LEGEND

- 1 / C2.01 — REFERENCE KEY TO SITE DETAILS (DETAIL I.D. NUMBER (TOP), DETAIL SHEET NUMBER (BOTTOM))
- PROPOSED CONCRETE PANEL REPLACEMENT — 4B / C2.01
- PROPOSED MEDIUM DUTY RECLAIM REPAVE — 2 / C2.01
- PROPOSED HEAVY DUTY RECLAIM REPAVE — 3 / C2.01
- PAINT CURB YELLOW
- PROPOSED ACCESSIBLE PARKING SIGN WITH BOLLARD — 8 / C2.01
- PROPOSED ACCESSIBLE SYMBOL
- PROPOSED CATCH BASIN REPAIR

OAKVIEW QUANTITIES

THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INCLUDING DETERMINATION OF ALL QUANTITIES, PRIOR TO THE WORK. BASE BID AMOUNT INCLUDES ALL WORK TO ACCOMPLISH THAT WHICH IS ILLUSTRATED ON THE PLAN, UNLESS OTHERWISE NOTED.

"ESTIMATED" QUANTITIES PROVIDED ARE FOR THE CONTRACTOR'S REFERENCE ONLY.
"ASSUMED" QUANTITIES SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID COST.
FINAL QUANTITIES WILL BE ADJUSTED USING UNIT PRICES.

1. PARKING LOT PAVEMENT
   - 1.1 ESTIMATED 3" BITUMINOUS RECLAIM REPAVE = 12,450 S.Y.
   - 1.2 ASSUMED CONCRETE REPLACEMENT = 310 S.F.
2. DRIVE AISLE PAVEMENT
   - 2.1 ESTIMATED 4" BITUMINOUS RECLAIM REPAVE = 3,060 S.Y.
3. PARKING LOT CURB AND GUTTER
   - 3.1 ESTIMATED REPAINT CURB YELLOW = 1,000 L.F.
4. OTHER:
   - 4.1. ACCESSIBLE PARKING SIGN AND POST WITH BOLLARD: 8 double-sided
   - 4.2. OTHER PARKING SIGNS WITH BOLLARD: 3 each
   - 4.3. CATCH BASIN REPAIR: 5 each (see Note #9 above)

HORZ. SCALE 0 40 80 FEET

#25048B

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

JAY R. POMEROY
LIC. NO. 23543 DATE 04/22/2025

BOLTON & MENK
3300 FERNBROOK LANE NORTH, SUITE 300
PLYMOUTH, MN 55447
Phone: (763) 544-7129
Email: Plymouth@bolton-menk.com
www.bolton-menk.com

DESIGNED	CCA
DRAWN	CCA
CHECKED	JRP
CLIENT PROJ. NO.	25X138549000

NO.	ISSUED FOR	DATE

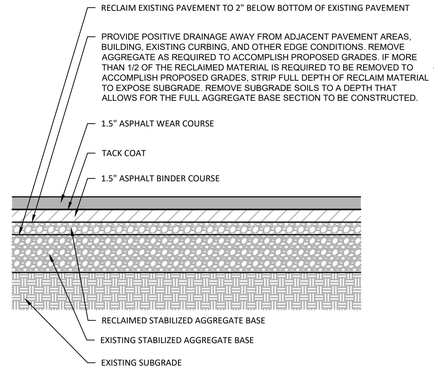
ANOKA - HENNEPIN SCHOOLS - ISD 11
PAVEMENT IMPROVEMENTS at OAKVIEW MS & OXBOW CREEK ES
OAKVIEW M.S. FINISHING PLAN

SHEET C1.02

1 C2.01

NOT TO SCALE

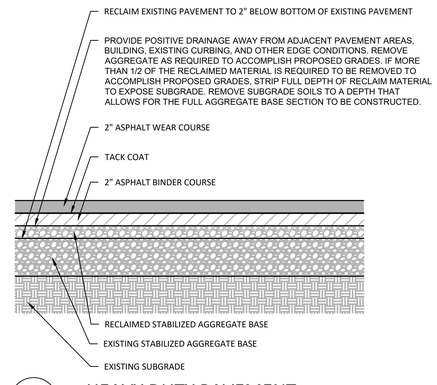
NOT USED



2 C2.01

NOT TO SCALE

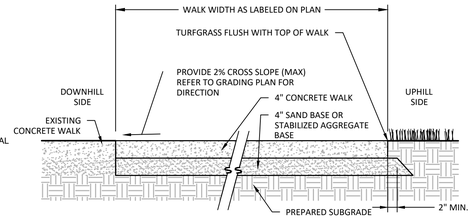
MEDIUM DUTY PAVEMENT RECLAIM / REPAVE



3 C2.01

NOT TO SCALE

HEAVY DUTY PAVEMENT RECLAIM / REPAVE

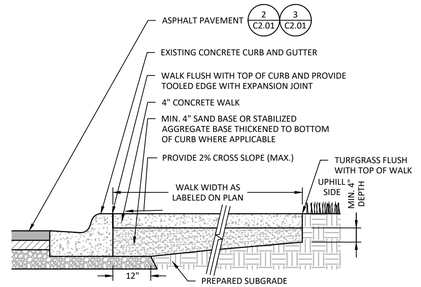


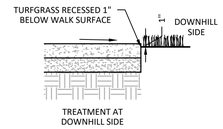
NOTE:
PROVIDE EXPANSION JOINT AND CAULK SEALANT AT ALL WALK, BUILDING, AND STOOP JOINTS.

4A C2.01

NOT TO SCALE

CONCRETE WALK

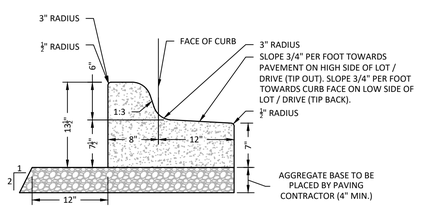




4B C2.01

NOT TO SCALE

CONCRETE WALK

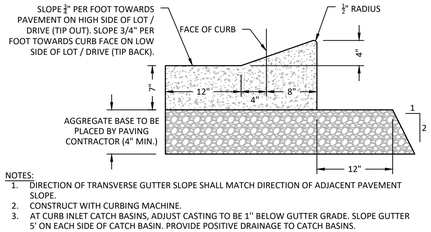


NOTES:
1. DIRECTION OF TRANSVERSE GUTTER SLOPE SHALL MATCH DIRECTION OF ADJACENT PAVEMENT SLOPE.
2. CONSTRUCT WITH CURBING MACHINE.
3. AT CURB INLET CATCH BASINS, ADJUST CASTING TO BE 1" BELOW GUTTER GRADE. SLOPE GUTTER 5' EACH SIDE OF CATCH BASIN. PROVIDE POSITIVE DRAINAGE TO CATCH BASINS.

5 C2.01

NOT TO SCALE

B-612 CURB AND GUTTER

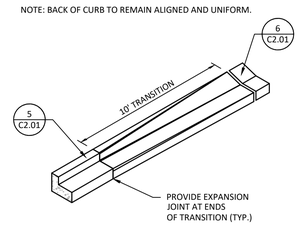


NOTES:
1. DIRECTION OF TRANSVERSE GUTTER SLOPE SHALL MATCH DIRECTION OF ADJACENT PAVEMENT SLOPE.
2. CONSTRUCT WITH CURBING MACHINE.
3. AT CURB INLET CATCH BASINS, ADJUST CASTING TO BE 1'' BELOW GUTTER GRADE. SLOPE GUTTER 5' ON EACH SIDE OF CATCH BASIN. PROVIDE POSITIVE DRAINAGE TO CATCH BASINS.

6 C2.01

NOT TO SCALE

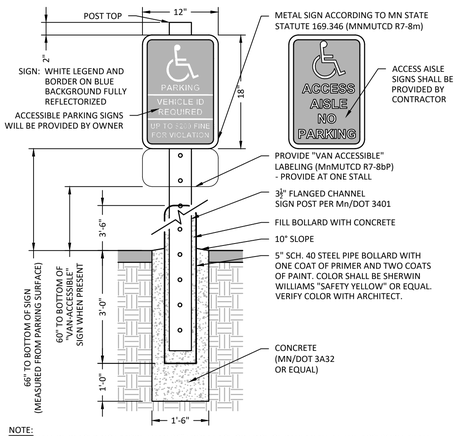
D-412 CURB & GUTTER



7 C2.01

NOT TO SCALE

CURB TRANSITION D-412 TO B-612



NOTE:
SIGN SHALL BE PLACED NOT MORE THAN 96" FROM FACE OR EDGE OF PAVEMENT AT THE ACCESSIBLE STALL.

8 C2.01

NOT TO SCALE

ACCESSIBLE PARKING SIGN AND POST WITH BOLLARD

#25048B

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

JAY R. POMEROY
LIC. NO. 23543 DATE 04/22/2025

BOLTON & MENK
3300 FERNBROOK LANE NORTH, SUITE 300
PLYMOUTH, MN 55447
Phone: (763) 544-7129
Email: Plymouth@bolton-menk.com
www.bolton-menk.com

DESIGNED	CCA
DRAWN	CCA
CHECKED	JRP
CLIENT PROJ. NO.	25X138549000

NO.	ISSUED FOR	DATE

ANOKA - HENNEPIN SCHOOLS - ISD 11
PAVEMENT IMPROVEMENTS at OAKVIEW MS & OXBOW CREEK ES

DETAILS

SHEET C2.01