

**CAPITOL REGION WATERSHED DISTRICT COOPERATIVE MAINTENANCE
AGREEMENT WITH SAINT PAUL PUBLIC WORKS FOR
MAINTENANCE OF STORMWATER BASINS**

Estimated Project Cost: \$864,965

Exhibits: A – Project Map
B – Engineering Consultant Scope of Work
C – Construction Plans and Specifications

This Agreement is between the Capitol Region Watershed District, a watershed district created pursuant to Minnesota Statutes chapter 103D (“CRWD”), and City of Saint Paul (“City”), a municipal corporation, to apportion rights and responsibilities related to the Pooled Best Management Practice Maintenance Program for Sediment Removal from Stormwater Basins constructed and owned by the City and within CRWD’s jurisdictional boundaries (“Project”).

RECITALS

1. The City provided input to CRWD on impediments to conducting maintenance for stormwater Best Management Practices (BMPs) during creation of CRWD’s Comprehensive Stormwater Facility Management Program Plan (“Plan”).
2. The CRWD Board of Managers adopted the Plan on September 20th, 2023.
3. The Plan includes the cooperative Pooled Stormwater BMP Maintenance Approach to assist public entities with operation and maintenance of their stormwater facilities.
4. At the request of CRWD, the City submitted stormwater basins to be considered for inclusion in the Project – see Exhibit A, hereby incorporated by reference into this agreement.
5. The Project details are defined in Exhibit B – the Engineering Consultant Scope of Work, hereby incorporated by reference into this agreement, and generally includes quantification and characterization of existing sediment in each basin, creation of construction plans and specifications for the Project, sediment removal, and basin restoration, and terrestrial vegetation establishment.

AGREEMENTS

1. Responsibility for Planning and Engineering Consultant Services

- 1.1. CRWD shall prepare or contract for the preparation of all plans, specifications, proposals, scopes of work, and estimates for the Project.
- 1.2. CRWD will provide draft plans to City for review and comment at 60% and 90% completion milestones.
- 1.3. Any changes requested after final design shall be the fiscal responsibility of the party requesting the change.

2. Procurement and Award of Construction Contract

- 2.1. CRWD will request bids from contractors in accordance with state law and watershed district rules.
- 2.2. CRWD will award a contract and make payments to the contractor for all actual costs related to the Project.

3. Responsibility for Construction Contractor Oversight

- 3.1. CRWD shall perform or contract the performance of managing and overseeing the contractor for all elements of the Project.
- 3.2. CRWD will obtain authorization from the City prior to the contractor completing items outside of the Scope of Work in Exhibit C.

4. Project Costs

- 4.1. CRWD shall be responsible for the full cost of planning, design, engineering, bidding, and construction administration for the project.

4.2. Notwithstanding 4.1, the City shall be responsible for the full cost of basin survey, sediment coring, and sediment lab analysis.

4.2.1. CRWD shall be responsible for the cost of any sediment lab analysis beyond the analytes required by the Minnesota Pollution Control Agency, namely arsenic, copper, and polyaromatic hydrocarbons (PAHs).

4.3. The City shall be responsible for the full cost of the construction project

5. Payment Schedule

5.1. CRWD will invoice the City for their portion of maintenance costs after maintenance has been completed and prior to December 31st 2026.

5.2. Full payments will be due within 35 days of receipt of an invoice.

6. Time

6.1. The Project will start upon execution of a contract between CRWD and the successful bidder and run until the maintenance work is complete, ending December 31st, 2026.

7. Easement and Access Rights

7.1. The City will allow CRWD and its contractors access to the sites included in the Project.

7.2. The City will issue all necessary permits and provide all necessary approvals to complete the Project at no cost to CRWD.

8. Ownership

8.1. The City shall retain ownership of all basins and associated infrastructure included in the Project.

9. Liability

- 9.1. Each party shall be responsible for the acts and omissions of its own officers, officials, employees, and agents and no party shall be considered another's agent in carrying out the obligations of this agreement. Nothing in this Agreement shall constitute a waiver by the parties of any statutory or common law immunities, limits, or exceptions on liability.

10. Other provisions

- 10.1. This Agreement shall remain in full force and effect until expiration or until terminated by mutual agreement of the parties.
- 10.2. Modification. It is understood and agreed by the parties hereto that this agreement shall not be modified or amended except in writing duly signed by each of the parties.
- 10.3. Execution. This agreement may be executed individually in counterparts, with each part an original, and together all parts form a single document.
- 10.4. Applicable Law. This agreement shall be construed, interpreted, and enforced according to the laws of the State of Minnesota without regard to its conflict of laws provisions. The parties agree that any proceeding arising from this agreement shall be brought in the courts of Ramsey County, Minnesota.
- 10.5. Non-Discrimination. The parties each agree to provide equal employment opportunities to all employees and applicants for employment in accordance with all applicable federal, state, and local laws. No person may be excluded from full employment rights in, participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program, service, or activity based on race, color, religion, age, sex, disability, marital status, sexual preference, public assistance status, creed, or national origin. In addition, the parties each specifically agree not to discriminate unlawfully against any student in any program, service, activity, or decision based on race, color, religion, age, sex, disability, marital status, sexual preference, public assistance status, creed, or national origin.

[Signature pages to follow]

CAPITOL REGION WATERSHED DISTRICT

Joseph Collins, Board President

Date:_____

Anna Eleria, Administrator

Date:_____

Approved as to form:

CRWD Attorney

Date:_____

CITY OF SAINT PAUL

Mayor's Office

Date: _____

Public Works

Date: _____

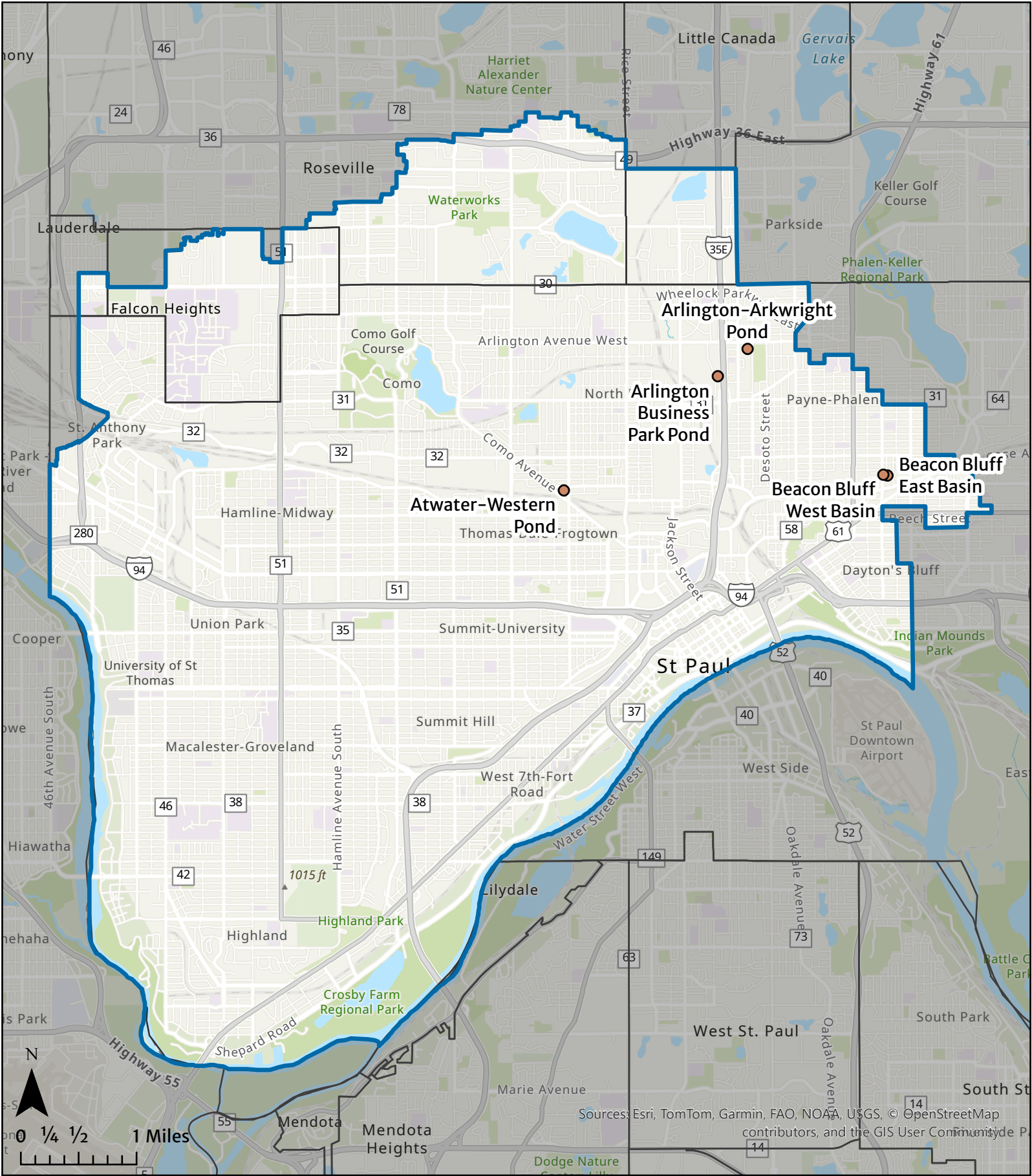
Office of Financial Services

Date: _____

Approved as to form:

City Attorney

Date: _____



CRWD Pond Cleanout Locations

- CRWD Boundary
- Pond Locations
- City Boundaries

Scope of Work

HDR proposes the following tasks be completed to support successful delivery of this project. Project management, including regular monthly check-in meetings, invoicing, and task and schedule tracking, will be conducted throughout the project schedule.

Task 1. Plan Review and Field Data Collection

HDR will evaluate each pond by reviewing available as-built construction plans, conducting bathymetric survey to characterize existing sediment volume, and sampling and analyzing basin sediment cores to determine both their chemical composition and suitability for reuse or disposal. The following items are part of this task:

- 1.1. Schedule and host a 1-hour on-site kickoff meeting with CRWD.
- 1.2. Review as-built drawings provided by CRWD, digitize as-built bathymetric contours.
- 1.3. Conduct bathymetric survey of each pond, constructed of transects performed at minimum every 50 feet.
- 1.4. Engage Braun to perform sediment sampling and analysis in accordance with MPCA's *Managing Stormwater Sediment Best Management Practices* guidance, including additional metals (8-RCRA) and GRO/DRO/DRO+SG sampling. Deliver Basis of Design Report outlining contamination results and reuse/disposal recommendations.
- 1.5. Determine volume of sediment that needs to be removed to restore capacity, as well as a preferred method and preliminary cost for each pond dredging.
- 1.6. Schedule and host a 1-hour virtual project update meeting with CRWD and City of St Paul.

Task 1 Deliverables:

- Agenda and meeting minutes of two (2) meetings described in scope.
- Bathymetric survey provided as georeferenced point cloud, and topographic surface file. Separate files to be developed for each pond.
- Basis of Design Report estimating sediment quantity and contamination level for each pond, summarizing results associated with sediment sampling, and providing recommendations for dredging design of each pond.

Task 2. Plan and Specifications Development

Once all field data is collected, and initial approach is discussed with and approved by CRWD and the City of St. Paul, HDR will perform the following tasks:

- 2.1. Prepare 60%, 90%, and 100% construction documents. Develop supporting figures and documentation to represent the design to permitting agencies. Assist CRWD or City of St. Paul with permitting applications.
- 2.2. Perform constructability reviews prior to the submission of each deliverable.
- 2.3. Schedule and host a 1-hour virtual meeting to walk CRWD and City of St. Paul through deliverables.

Task 2 Deliverables:

- Agenda and meeting minutes of up to four (4) permitting agency coordination meetings.
- Agenda and meeting minutes of two (2) deliverable review meetings described in scope.
- Draft 60% detailed design documentation, to include:
 - Plans
 - Title sheet
 - General notes
 - Site plan including construction access, staging locations, and temporary construction conditions
 - Grading Plan
 - Erosion and sedimentation control plan
 - Specifications
 - Table of contents
 - Tabulation of quantities
 - Engineer's opinion of probable construction cost

- Updated Basis of Design Report
- Draft 90% detailed design documentation, to include:
 - Items listed in 60% draft above, updated to reflect the current design
 - Plans
 - Site restoration plan
 - Construction details including standard details, plans, and plates as necessary
 - Stormwater pollution prevention plan
 - Specifications
 - Front-end specifications
 - Technical specifications
 - Responses to all comments provided on the 60% draft submission
 - Updated Basis of Design Report
- 100% Issue for bid construction documentation
 - Items listed in 90% draft above, updated to reflect the final design
 - Responses to all comments provided on the 90% draft submission
 - Updated Basis of Design Report

Task 3. Bid Phase & Construction Phase Services

HDR will serve as the owner's representative, assisting CRWD through bid and construction phase services. We will also perform project closeout and as-built services. HDR will perform the following tasks:

- 3.1. Bidding phase services
 - Attend and assist CRWD with a pre-bid conference
 - Manage bid solicitation, evaluation, and recommendation of award letter
 - Prepare addenda
- 3.2. Construction Phase Services
 - Attend progress meetings, produce agenda and meeting minutes
 - Assist with construction observation
 - Schedule and attend pre-construction meeting
 - Review submittals and shop drawings
 - Review and respond to request for information
 - Review change order request(s)
 - Provide contract closeout assistance
 - Review of contractor progress, layout, and requested staking relative to drawings
 - Discuss upcoming tasks and interpretation of construction documents with contractor
 - Review condition and status of construction material and site furnishing ordering, delivery, and placement
 - Develop observation reports to document construction progress and developing issues (includes photographs)

Task 3 Deliverables:

- Meeting agendas and minutes for one (1) pre-bid conference, one (1) pre-construction meeting, and up to four (4) field meetings as needed.
- Weekly email summaries to CRWD documenting construction progress, field decisions, testing, and field construction oversight hours spent the past week and cumulative total to date.
- As-built drawings for each of the five ponds.
- Final report documenting the project design, construction, disposal, and final as-built condition including documentation of all associated costs.

Assumptions

The following assumptions are associated with the scope and fee provided as part of this proposal. At the request of CRWD, alterations to these scope assumptions may be negotiated throughout the project:

- Data described in RFP and scope of work above will be provided by CRWD.
- Up to 12 contractor submittals (including pay requests, work plans, RFIs etc.) will be reviewed.
- Timely review, comment, and acceptance of all deliverables will be provided by CRWD.
- All deliverables will be reviewed as part of HDR's quality control process prior to submittal to CRWD.
- Site access will be coordinated by CRWD.
- Bathymetric survey will not be performed by licensed professional land surveyor.

- Up to 14 sediment samples will be collected and tested during the design phase. No testing is anticipated or included as part of the construction task.
- Responses to District comments will be documented in a comment log and incorporated into the next submission milestone, when applicable.
- The fee associated with Task 3 was developed assuming a four (4) month total construction duration with three (3) months of on-site field services at 30 hours per week (75% of FT basis per RFP) and an assumed number of contractor submittals. A total of 360 hours of field construction oversight is included. Should the length or amount of construction oversight required by HDR staff change given the circumstances of construction, HDR will work with CRWD to make adjustments to the associated fee. It is anticipated notice for adjustments to the level of effort for construction oversight will be communicated in response to the weekly email summaries of activity sent by HDR's Project Manager.

Fee

- Fee reflects costs through April 2026 for identified team members.
- If other team members are identified to work on the project they will similarly meet the existing rate sheet submitted by HDR.
- If project schedule extends beyond April 2026, it may be necessary to review the Fee amount if team member billing rates have changed.

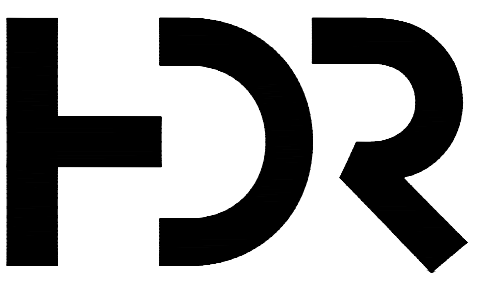
Fee Proposal

Our team proposes a budget of **\$193,965**.

TASK NO.	DESCRIPTION	HDR PROFESSIONAL STAFF HOURS								TOTAL FEE
		CHRISTOPHER GICE PROJECT MANAGER Project Manager II	ANDREW JUDD PRINCIPAL Project Principal	TED SHANNON TECHNICAL ADVISOR Senior Engineer I	RYAN FUCCI QUALITY REVIEWER Senior Engineer I	BRYCE HAINES LEAD ENGINEER Project Engineer I	RANDY KNOTT BATHYMETRIC SURVEYOR Designer III	BEN BOEGEMAN ENGINEERING SUPPORT Technician II	MATT ANGEL CONSTRUCTION SUPPORT Technician I	
	Billing Rates	\$205.00	\$290.00	\$235.00	\$215.00	\$160.00	\$160.00	\$135.00	\$115.00	
1	Plan Review and Field Data Collection	8.0	1.0	2.0	2.0	26.0	26.0	11.0	24.0	\$15,395
2	Plan and Specifications Development	66.0	16.0	11.0	9.0	140.0	0.0	273.0	70.0	\$89,995
3	Bid Phase and Construction Phase Services	43.0	8.0	3.0	5.0	46.0	0.0	78.0	316.0	\$67,145
	SUBCONSULTANT FEE (Braun Intertec)									\$15,920
	ADDITIONAL ANALYTE TESTING (Braun)									\$3,900
	EXPENSES									\$1,610
TOTALS		117.0	25.0	16.0	16.0	212.0	26.0	362.0	410.0	\$193,965

Fee shall mean salaries and wages (basic and overtime) paid to all personnel engaged directly on the Project. The Labor cost was derived from labor rates times a multiplier to cover overhead costs while expenses are billed at cost. Fee reflects costs through April 2026 for identified team members. If other team members are identified to work on the project they will similarly meet the existing rate sheet submitted by HDR. If the project schedule extends beyond April 2026, it may be necessary to review the Fee amount if team member billing rates have changed.

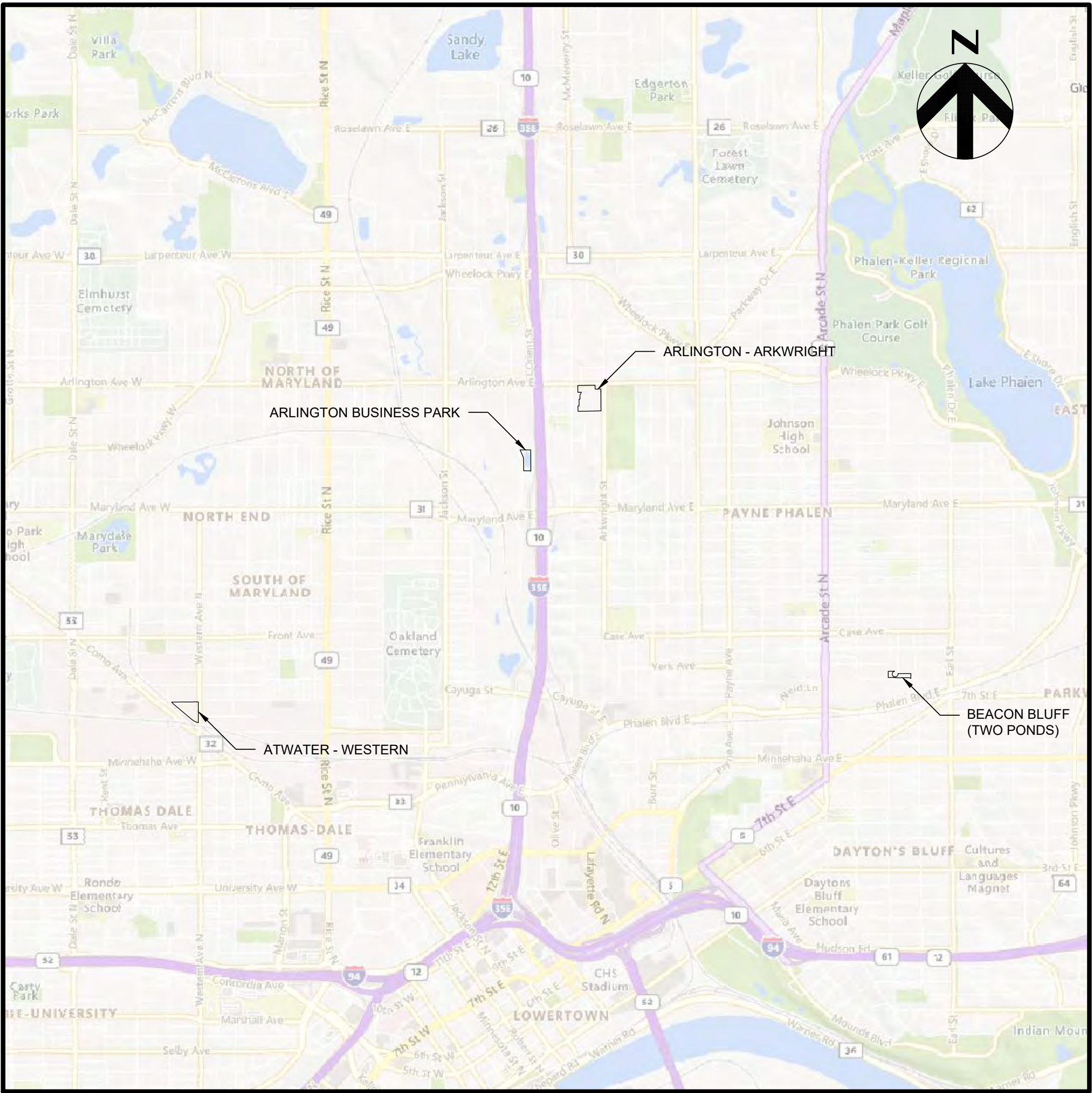
Reimbursable Expenses shall mean the actual expenses incurred directly or indirectly in connection with the Project for equipment, travel, printing, shipping, and other incurred expenses.



SAINT PAUL
MINNESOTA

Contract Drawings For

CAPITOL REGION WATERSHED DISTRICT (CRWD)
**SEDIMENT REMOVAL AND RESTORATION
OF FIVE STORMWATER PONDS**



PROJECT LOCATION MAP

INDEX OF DRAWINGS

GENERAL

- GC-101 TITLE SHEET
- GC-102 GENERAL NOTES & SYMBOLOGY

SITE WORK

- CG-101 ARLINGTON-ARKWRIGHT SITE PLAN
- CG-102 ARLINGTON BUSINESS PARK SITE PLAN
- CG-103 ATWATER - WESTERN SITE PLAN
- CG-104 BEACON BLUFF SITE PLAN
- CG-301 POND GRADING SECTIONS
- CG-501 CIVIL DETAILS (1 OF 2)
- CG-502 CIVIL DETAILS (2 OF 2)
- EC-101 ARLINGTON - ARKWRIGHT EROSION CONTROL PLAN
- EC-102 ARLINGTON BUSINESS PARK EROSION CONTROL PLAN
- EC-103 ATWATER - WESTERN EROSION CONTROL PLAN
- EC-104 BEACON BLUFF EROSION CONTROL PLAN
- EC-501 SWPPP NARRATIVE (1 OF 2)
- EC-502 SWPPP NARRATIVE (2 OF 2)
- EC-503 NPDES SWPPP DETAIL (1 OF 5)
- EC-504 NPDES SWPPP DETAIL (2 OF 5)
- EC-505 NPDES SWPPP DETAIL (3 OF 5)
- EC-506 NPDES SWPPP DETAIL (4 OF 5)
- EC-507 NPDES SWPPP DETAIL (5 OF 5)
- SR-101 ARLINGTON - ARKWRIGHT SITE RESTORATION PLAN
- SR-102 ARLINGTON BUSINESS PARK SITE RESTORATION PLAN
- SR-103 ATWATER - WESTERN SITE RESTORATION PLAN
- SR-104 BEACON BLUFF SITE RESTORATION PLAN



GOPHER STATE ONE CALL: CALL BEFORE YOU DIG. 1-800-252-1166
CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD-LOCATING ALL SITE UTILITIES,
PRIVATE AND PUBLIC, PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON
THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR SHALL BE
REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER.

CIVIL MAPPING SYMBOLOGY	UTILITY/CIVIL LINE SYMBOLOGY	GENERAL SYMBOLOGY	SHEET NAMING CONVENTION	CONSTRUCTION NOTES																					
<div> <div> </div> <div> <div>Embankment Slope (Cut)</div> </div> </div> <div> <div> </div> <div> <div>Embankment Slope (Fill)</div> </div> </div> <div> <div> </div> <div> <div>Embankment Slope Right Arrow</div> </div> </div> <div> <div> </div> <div> <div>Embankment Slope Left Arrow</div> </div> </div> <div> <div> </div> <div> <div>Spot Elevation/Point #</div> </div> </div> <div> <div> </div> <div> <div>Survey Benchmark</div> </div> </div> <div> <div> </div> <div> <div>Survey Control Point</div> </div> </div> <div> <div> </div> <div> <div>Horizontal Control Point</div> </div> </div> <div> <div> </div> <div> <div>Vertical Control Point</div> </div> </div> <div> <div> </div> <div> <div>Flow Arrow</div> </div> </div> <div> <div> </div> <div> <div>Exterior Utility Junction Box</div> </div> </div> <div> <div> </div> <div> <div>Interstate Highway Symbol</div> </div> </div> <div> <div> </div> <div> <div>US Highway Symbol</div> </div> </div> <div> <div> </div> <div> <div>State Highway Symbol</div> </div> </div> <div> <div> </div> <div> <div>Temporary Sediment Trap</div> </div> </div> <div> <div> </div> <div> <div>Fire Hydrant</div> </div> </div> <div> <div> </div> <div> <div>Monitoring Well</div> </div> </div> <div> <div> </div> <div> <div>Sanitary Manhole</div> </div> </div> <div> <div> </div> <div> <div>Storm Square Catch Basin</div> </div> </div> <div> <div> </div> <div> <div>Storm Round Catch Basin</div> </div> </div> <div> <div> </div> <div> <div>Storm Drainage Manhole</div> </div> </div> <div> <div> </div> <div> <div>Pedestal</div> </div> </div> <div> <div> </div> <div> <div>Power Box</div> </div> </div> <div> <div> </div> <div> <div>Pole</div> </div> </div> <div> <div> </div> <div> <div>Overhanging Luminaire</div> </div> </div> <div> <div> </div> <div> <div>Luminaire</div> </div> </div> <div> <div> </div> <div> <div>Target Elevation</div> </div> </div> <div> <div> </div> <div> <div>Vegetation Line</div> </div> </div> <div> <div> </div> <div> <div>Coniferous Tree</div> </div> </div> <div> <div> </div> <div> <div>Deciduous Tree</div> </div> </div> <div> <div> </div> <div> <div>Tree Removal</div> </div> </div> <div> <div> </div> <div> <div>Tree Protection</div> </div> </div> <div> <div> </div> <div> <div>Vertical Riser</div> </div> </div>	<div> <div> </div> <div> <div>UTILITY BENEATH STRUCTURE</div> </div> </div> <div> <div> </div> <div> <div>GRADING LIMITS</div> </div> </div> <div> <div> </div> <div> <div>EASEMENT</div> </div> </div> <div> <div> </div> <div> <div>LIMITS OF CONSTRUCTION</div> </div> </div> <div> <div> </div> <div> <div>CLEARING AND GRUBBING LIMITS</div> </div> </div> <div> <div> </div> <div> <div>EXISTING CONTOUR (MINOR)</div> </div> </div> <div> <div> </div> <div> <div>EXISTING CONTOUR W/ELEVATION (MAJOR)</div> </div> </div> <div> <div> </div> <div> <div>SURVEYED EDGE OF WATER</div> </div> </div> <div> <div> </div> <div> <div>NEW CONTOUR (MINOR)</div> </div> </div> <div> <div> </div> <div> <div>NEW CONTOUR (MAJOR)</div> </div> </div> <div> <div> </div> <div> <div>SEDIMENT CONTROL LOG, TYPE WOOD CHIP</div> </div> </div> <div> <div> </div> <div> <div>SILT FENCE, TYPE HI</div> </div> </div> <div> <div> </div> <div> <div>FIBER OPTIC</div> </div> </div> <div> <div> </div> <div> <div>NATURAL GAS</div> </div> </div> <div> <div> </div> <div> <div>STORM SEWER</div> </div> </div> <div> <div> </div> <div> <div>SANITARY FORCE MAIN</div> </div> </div> <div> <div> </div> <div> <div>SANITARY SEWER</div> </div> </div> <div> <div> </div> <div> <div>WATERMAIN</div> </div> </div> <div> <div> </div> <div> <div>OVERHEAD ELECTRICAL</div> </div> </div> <div> <div> </div> <div> <div>STREET LIGHTS</div> </div> </div> <div> <div> </div> <div> <div>UNDERGROUND ELECTRICAL</div> </div> </div> <div> <div> </div> <div> <div>CABLE</div> </div> </div> <div> <div> </div> <div> <div>UNDERGROUND TELEPHONE</div> </div> </div> <div> <div> </div> <div> <div>TELEPHONE</div> </div> </div> <div> <div> </div> <div> <div>FENCE</div> </div> </div> <div> <div> </div> <div> <div>TEMPORARY PERIMETER CONTROL</div> </div> </div> <div> <div> </div> <div> <div>FLOTATION SILT CURTAIN</div> </div> </div> <div> <div> </div> <div> <div>TEMPORARY FENCE</div> </div> </div> <div> <div> </div> <div> <div>CLAY LINER</div> </div> </div> <div> <div> </div> <div> <div>RIPRAP</div> </div> </div> <div> <div> </div> <div> <div>WETLAND</div> </div> </div> <div> <div> </div> <div> <div>PROTECT IN PLACE</div> </div> </div> <div> <div> </div> <div> <div>REMOVAL</div> </div> </div> <div> <div> </div> <div> <div>IN-PLACE ENGINEERED MEDIA</div> </div> </div> <div> <div> </div> <div> <div>SEED - WET DITCH MIX</div> </div> </div> <div> <div> </div> <div> <div>SEED - SOUTHERN BOULEVARD MIX</div> </div> </div> <div> <div> </div> <div> <div>ASPHALT</div> </div> </div>	<div> <div> </div> <div> <div>ARROW INDICATES DIRECTION OF PLAN NORTH</div> </div> </div> <div> <div> </div> <div> <div>PLAN</div> <div>1/4" = 1'-0"</div> <div>PLAN TITLE</div> </div> </div> <div> <div> </div> <div> <div>SECTION LETTER</div> <div>FLAG INDICATES DIRECTION OF SECTION CUT</div> <div>SHEET WHERE SECTION IS LOCATED</div> <div>SECTION CUT MARKER</div> </div> </div> <div> <div> </div> <div> <div>SECTION LETTER</div> <div>SHEET WHERE SECTION VIEW IS FIRST CUT *</div> <div>DETAIL SECTION</div> <div>SECTION TITLE</div> </div> </div> <div> <div> </div> <div> <div>DETAIL NUMBER</div> <div>SHEET WHERE DETAIL IS LOCATED *</div> <div>DETAIL MARKER</div> <div>FOR REFERENCING DETAILS INCLUDED IN DRAWING SET.</div> </div> </div> <div> <div> </div> <div> <div>DETAIL NUMBER</div> <div>SHEET WHERE DETAIL WAS CALLED OUT *</div> <div>DETAIL SCALE</div> <div>DETAIL TITLE</div> </div> </div> <div> <div> </div> <div> <div>ELEVATION NUMBER</div> <div>ARROW INDICATES POINT OF VIEW</div> <div>SHEET WHERE ELEVATION IS LOCATED *</div> <div>SINGLE ELEVATION OR PHOTO MARKER</div> </div> </div> <div> <div> </div> <div> <div>ELEVATION NUMBER</div> <div>ARROW INDICATES POINT OF VIEW ELEVATION</div> <div>INDICATES SHEET WHERE ELEVATION IS LOCATED</div> <div>MULTIPLE ELEVATION OR PHOTO MARKER</div> </div> </div> <div> <div> </div> <div> <div>ELEVATION IDENTIFICATION NUMBER</div> <div>SHEET WHERE POINT OF VIEW MARKER CAN BE FOUND *</div> <div>ELEVATION SCALE</div> <div>ELEVATION TITLE</div> </div> </div> <div> <div> <div>* EXCEPTIONS WHERE THE SHEET NUMBER IS REPLACED BY A DASH (-).</div> <div>1) FOR COMMON DETAILS, SECTIONS, ELEVATIONS OR DETAILS THAT ARE CUT OR CALLED OUT ON MULTIPLE SHEETS.</div> <div>2) SECTIONS, ELEVATIONS OR DETAILS THAT ARE LOCATED ON THE SAME SHEET THEY ARE CUT OR CALLED OUT ON.</div> </div> </div>	<div> <div> <div>DISCIPLINE DESIGNATOR & DISCIPLINE ORDER</div> <table> <tr> <td>GC</td> <td>GENERAL CIVIL</td> </tr> <tr> <td>CG</td> <td>CIVIL GRADING</td> </tr> <tr> <td>EC</td> <td>EROSION CONTROL</td> </tr> </table> </div> <div> <div> <div>DRAWING TYPE DESIGNATOR</div> <table> <tr> <td>0</td> <td>GENERAL (SCHEDULES, SYMBOLS, LEGENDS)</td> </tr> <tr> <td>1</td> <td>PLANS</td> </tr> <tr> <td>2</td> <td>PROFILES / ELEVATIONS</td> </tr> <tr> <td>3</td> <td>SECTIONS</td> </tr> <tr> <td>4</td> <td>LARGE SCALE VIEWS</td> </tr> <tr> <td>5</td> <td>DETAILS</td> </tr> <tr> <td>6</td> <td>DIAGRAMS</td> </tr> <tr> <td>7</td> <td>3D REPRESENTATIONS</td> </tr> </table> </div> <div> <div> <div>EXAMPLE</div></div></div></div></div>	GC	GENERAL CIVIL	CG	CIVIL GRADING	EC	EROSION CONTROL	0	GENERAL (SCHEDULES, SYMBOLS, LEGENDS)	1	PLANS	2	PROFILES / ELEVATIONS	3	SECTIONS	4	LARGE SCALE VIEWS	5	DETAILS	6	DIAGRAMS	7	3D REPRESENTATIONS
GC	GENERAL CIVIL																								
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5	DETAILS																								
6	DIAGRAMS																								
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							PROJECT MANAGER	CHRIS GICE
1	12/18/25	ISSUED FOR BID						
ISSUE	DATE	DESCRIPTION					PROJECT NUMBER	10442517

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Christopher L. Gia



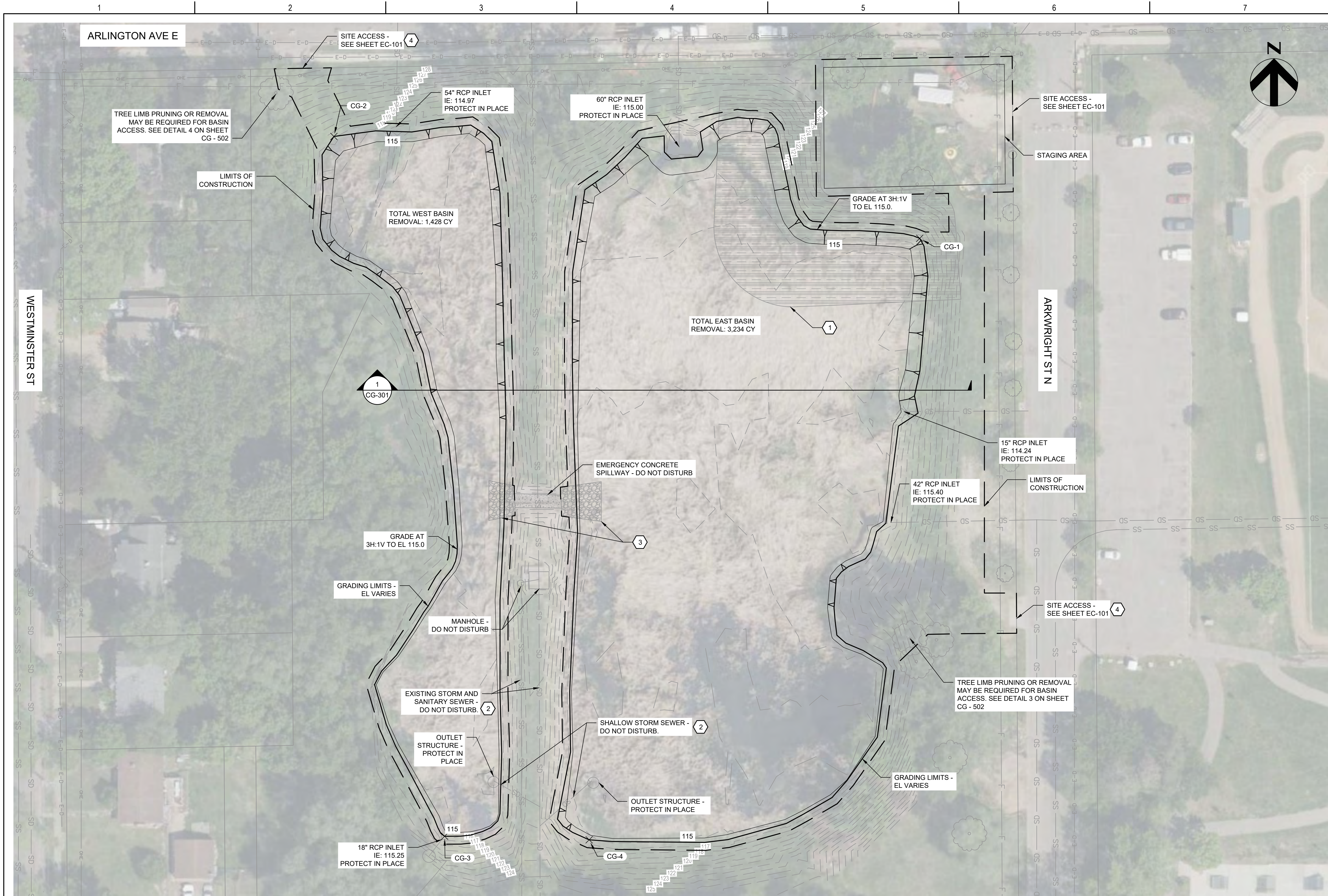
SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

GENERAL NOTES & SYMBOLOGY

FILE NAME	GC-102.DWG	SHEET	GC-102
SCALE	NA		

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GENERAL NOTES

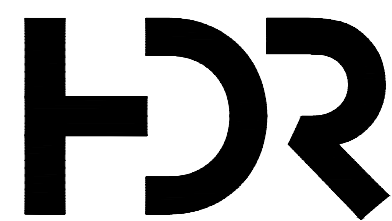
1. SITE ADDRESS: 390 ARLINGTON AVE E SAINT PAUL MN 55130-3115

KEYNOTES

1. EXISTING CLAY LINER FOOTPRINT IS APPROXIMATE. LINER IS LOCATED BELOW THE BOTTOM OF POND ELEVATION AS SHOWN IN PLAN AND SECTION VIEWS. CONTRACTOR TO STOP CONSTRUCTION ACTIVITIES IMMEDIATELY AND COORDINATE WITH OWNER'S REPRESENTATIVE IF CLAY LINER IS OBSERVED DURING CONSTRUCTION ACTIVITIES.
2. THE USE OF HEAVY EQUIPMENT ON THE EXISTING BASIN DIVIDE/BERM IS PROHIBITED. PROTECTION OF SHALLOW EXISTING UTILITIES IS REQUIRED.
3. CONTRACTOR TO REMOVE EXISTING ROCK RIPRAP, SEGREGATE AND FILTER, SALVAGE AND REPLACE.
4. CONTACT PAT MURPHY, CITY OF ST. PAUL PUBLIC WORKS, AT 651-266-6254 TO COORDINATE SITE ACCESS.

GRADING POINT TABLE

POINT NAME	NORTHING	EASTING
CG-1	170534.746	577446.004
CG-2	170598.746	577077.951
CG-3	170159.060	577147.515
CG-4	170156.830	577238.318



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Christopher A. Gice
CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

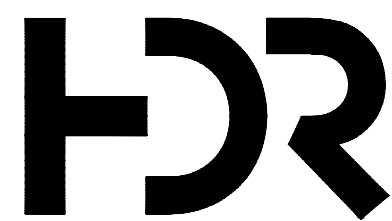
ARLINGTON - ARKWRIGHT SITE PLAN

FILE NAME CG-101.DWG
SCALE 1" = 30'



SHEET
CG-101

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DATE 12/18/2025 LICENSE # 59914

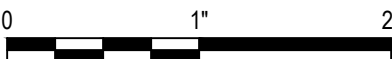


SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

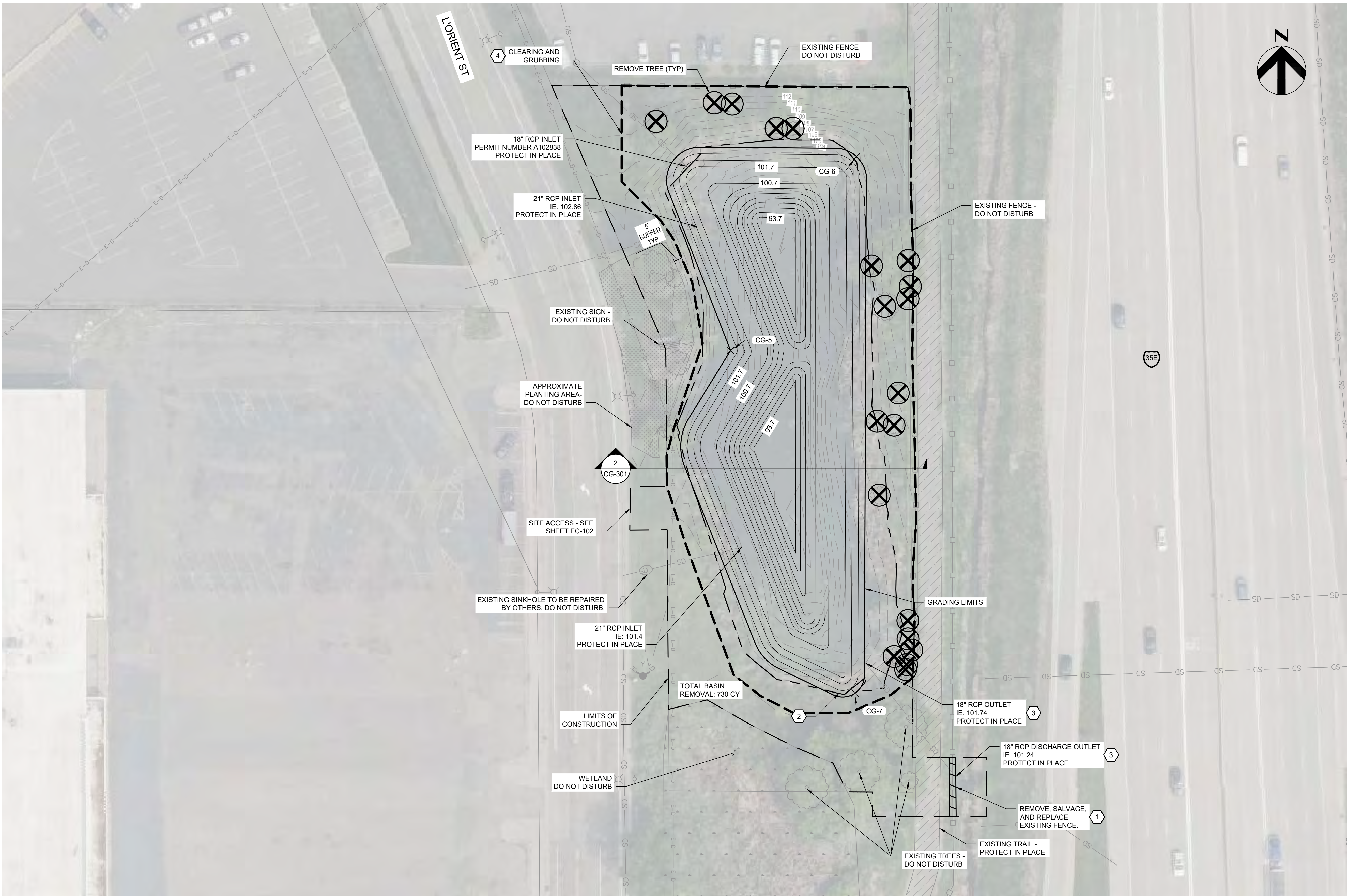
ST. PAUL, MN

ARLINGTON BUSINESS PARK SITE PLAN

FILE NAME CG-102.DWG
SCALE 1" = 30'



SHEET
CG-102



GENERAL NOTES

- SITE ADDRESS: CITY OWNED PARCEL DIRECTLY SOUTH OF 1300 L'ORIENT ST SAINT PAUL MN 55117-3995
- CONTRACTOR TO REMOVE EXISTING ROCK RIPRAP, SEGREGATE AND FILTER, AND REPLACE.

ACCESS NOTE:

- NO CONSTRUCTION ACCESS OR EQUIPMENT UNLOADING WILL BE ALLOWED FROM INTERSTATE 35E

KEYNOTES

- FENCE REMOVAL LIMITS TO BE FIELD VERIFIED. CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY FENCING TO MAINTAIN FUNCTION OF EXISTING FENCE AT ALL TIMES.
- WATER SURFACE ELEVATION OF 105.06 FT WAS SURVEYED ON 09/04/25. THE RESULTING WATER STORAGE VOLUME THAT WILL NEED TO BE DEWATERED IS ESTIMATED TO BE 3.81 AC-FT.
- POND DEWATERING WILL DISCHARGE WATER TO THE SOUTHEAST OUTLET CULVERT. CONTRACTOR TO SUBMIT DEWATERING PLAN FOR APPROVAL PRIOR TO PUMPING.
- CONTRACTOR TO STAKE CLEARING AND GRUBBING LIMITS PRIOR TO REMOVAL. CLEARING AND GRUBBING LIMITS TO EXTEND TO GRADING LIMITS ALONG POND PERIMETER. COORDINATE WITH OWNER'S REPRESENTATIVE TO CONFIRM FINAL LIMITS.

GRADING POINT TABLE

POINT NAME	NORTHING	EASTING
CG-5	169138.068	575935.894
CG-6	169257.309	576013.240
CG-7	168927.281	576012.412

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GENERAL NOTES

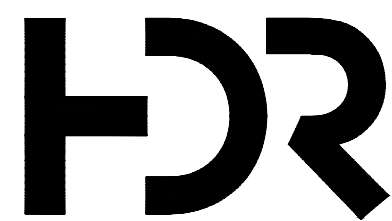
1. SITE ADDRESS: 410 ATWATER ST SAINT PAUL
MN 55117-5207

KEYNOTES

1. CONTACT PAT MURPHY, CITY OF ST PAUL PUBLIC WORKS,
AT 651-265-6254 TO COORDINATE SITE ACCESS.
CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SITE
SECURITY AT ALL TIMES. KEEP GATE CLOSED OR
MONITORED DURING CONSTRUCTION ACTIVITIES.
2. CONTRACTOR TO REMOVE EXISTING ROCK, RIPRAP,
SEGREGATE AND FILTER, SALVAGE AND REPLACE.
3. CONTRACTOR TO COORDINATE WITH ON-SITE
REPRESENTATIVE TO REMOVE DEPOSITED SEDIMENT
NEAR CULVERT FES. GRADE TO DRAIN TO 72\"/>

GRADING POINT TABLE

POINT NAME	NORTHING	EASTING
CG-8	164007.693	568729.413
CG-9	164010.984	569071.611
CG-10	163742.841	569025.299



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CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

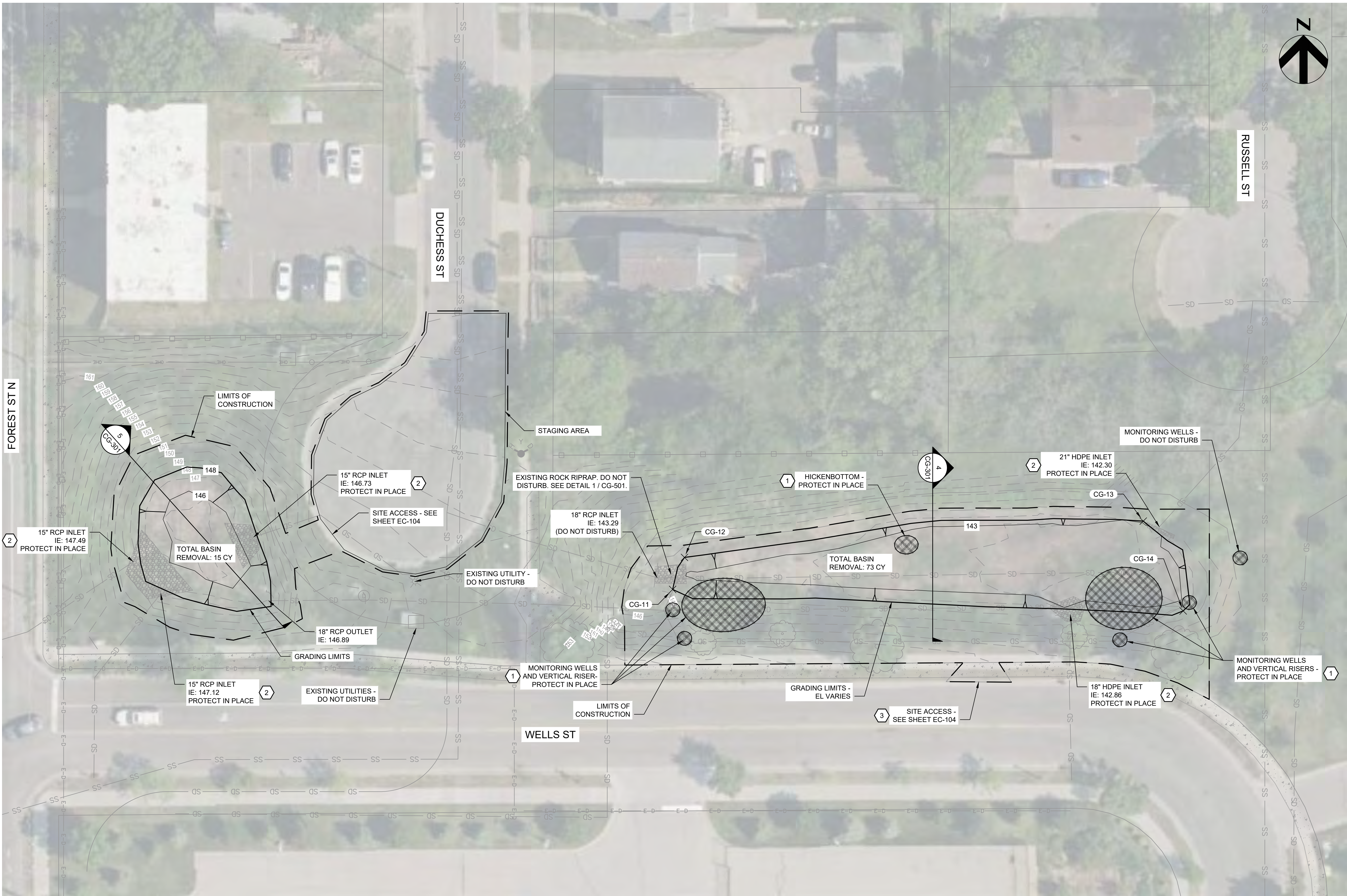
ATWATER - WESTERN SITE PLAN

FILE NAME CG-103.DWG
SCALE 1" = 30'



SHEET
CG-103

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GENERAL NOTES

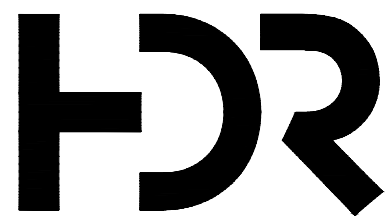
1. SITE ADDRESS: 886 DUCHESS ST SAINT PAUL MN 55106-3808
2. STOP CONSTRUCTION IMMEDIATELY AND NOTIFY OWNER'S REPRESENTATIVE IF ANY ENGINEERED MATERIAL OR RUBBER TIRE CHIPS ARE ENCOUNTERED.

KEYNOTES

1. CONTRACTOR TO IDENTIFY AND CLEARLY MARK ALL MONITORING WELLS AND VERTICAL RISER PIPES BEFORE CONSTRUCTION COMMENCES. SEE DETAIL 2 / CG-501 FOR MORE INFORMATION. PROVIDE A 5 FT (MIN) BUFFER AROUND MONITORING WELLS - NO HEAVY MACHINERY.
2. CONTRACTOR TO REMOVE EXISTING ROCK, RIPRAP, SEGREGATE AND FILTER, SALVAGE AND REPLACE.
3. THIS SITE CONTAINS A CMP INFILTRATION GALLERY UNDERNEATH THE EAST BASIN. HEAVY EQUIPMENT WITHIN THE EAST BASIN FOOTPRINT IS PROHIBITED.

GRADING POINT TABLE

POINT NAME	NORTHING	EASTING
CG-11	164594.712	583734.824
CG-12	164607.839	583739.685
CG-13	164622.730	583927.697
CG-14	164585.910	583944.063



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SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

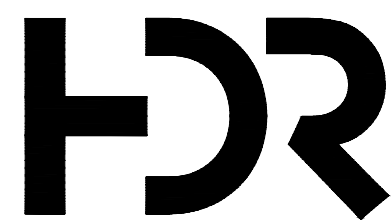
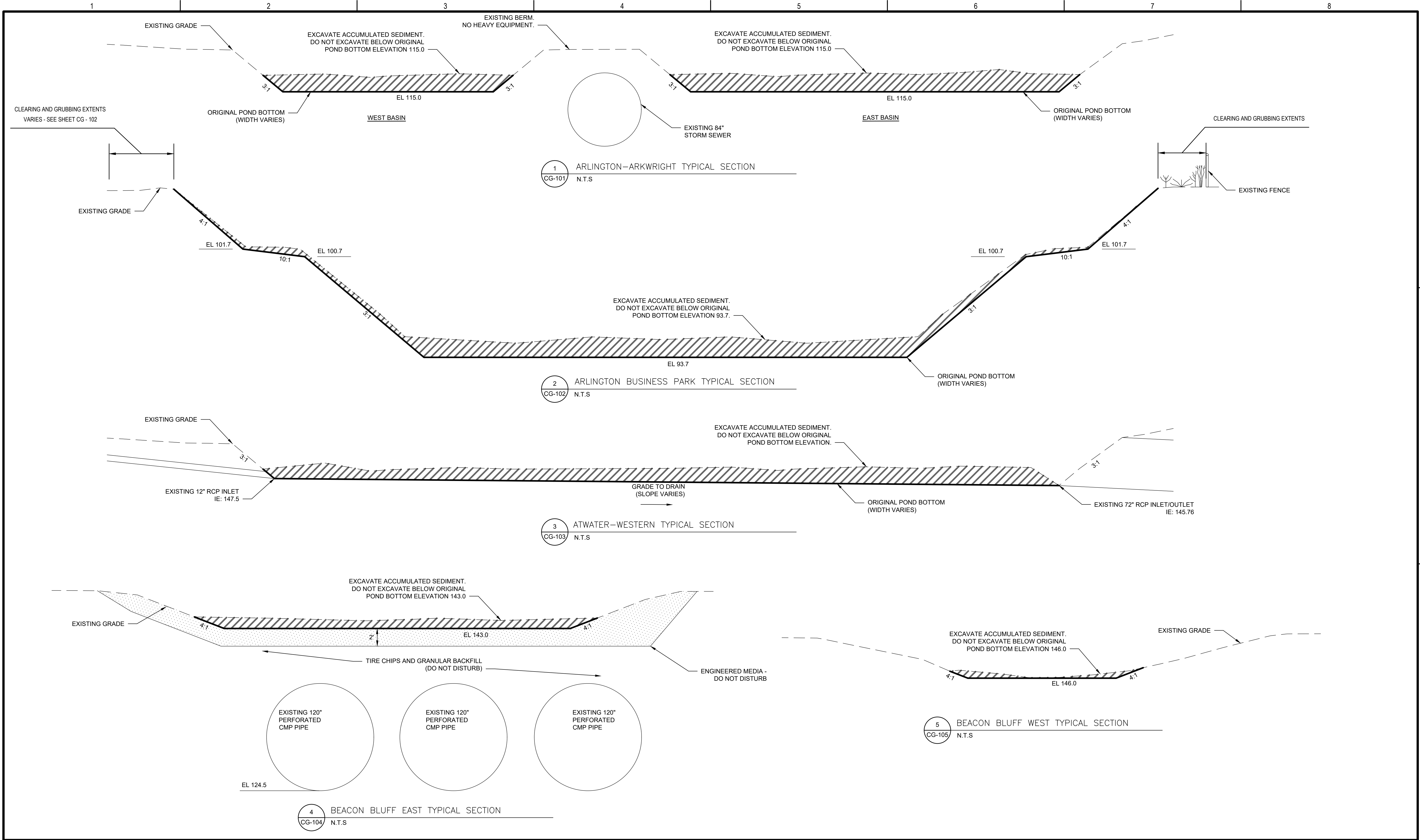
BEACON BLUFF SITE PLAN

FILE NAME CG-104.DWG
SCALE 1" = 20'



SHEET
CG-104

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SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

POND GRADING SECTIONS

FILE NAME CG-301.DWG
SCALE NA

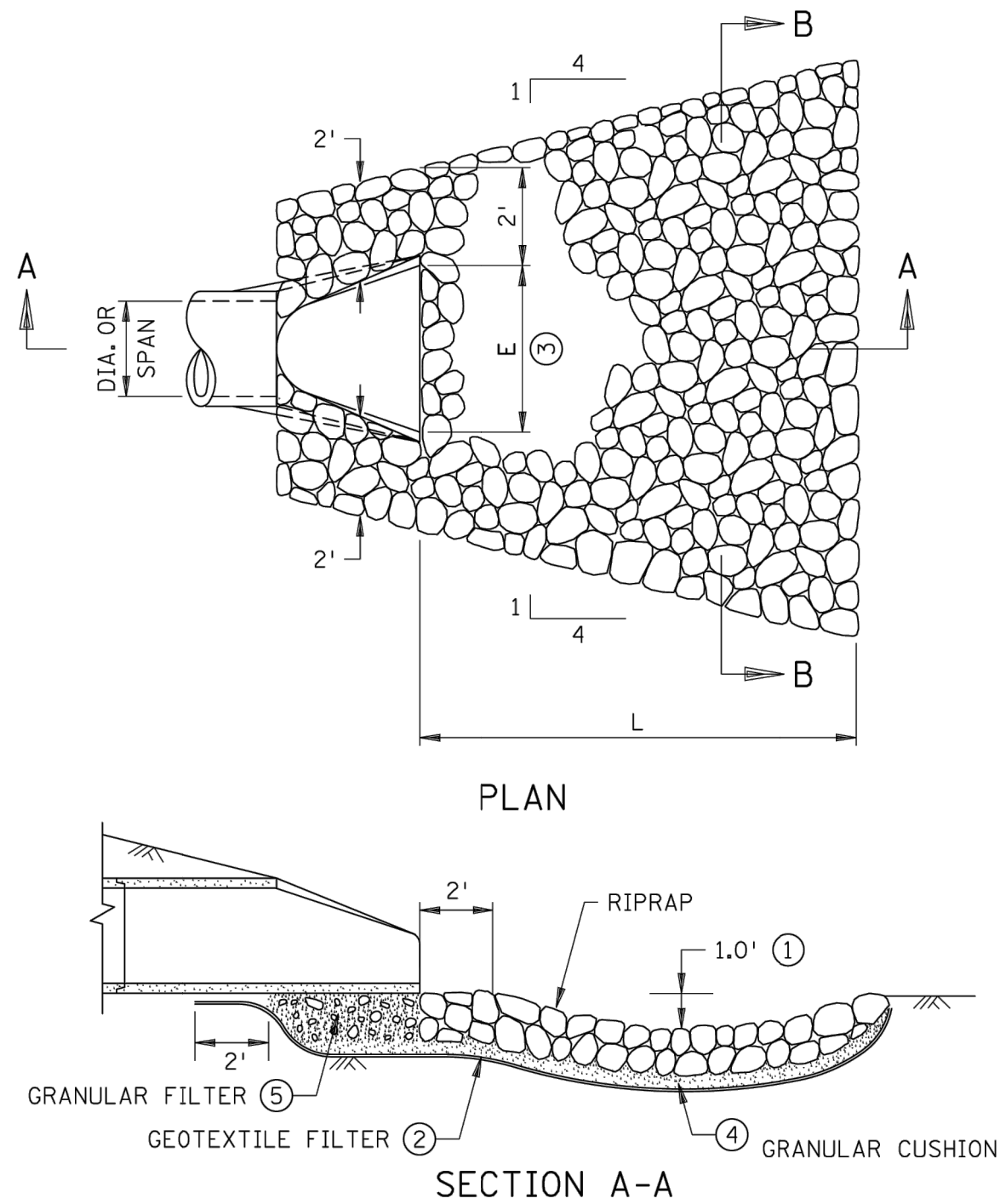


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CG-301

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TABLE OF QUANTITIES RIPRAP AT RCP OUTLETS										
DIA. OF ROUND PIPE (IN.)	L (FT.)	CLASS II d ₅₀ = 6"			CLASS III d ₅₀ = 9"			CLASS IV d ₅₀ = 12"		
		GEO- TEXTILE FILTER (SQ. YD.)	GRANULAR FILTER UNDER APRON (CU. YD.)	12" DEPTH RIPRAP (CU. YD.)	GEO- TEXTILE FILTER (SQ. YD.)	GRANULAR FILTER UNDER APRON (CU. YD.)	18" DEPTH RIPRAP (CU. YD.)	GEO- TEXTILE FILTER (SQ. YD.)	GRANULAR FILTER UNDER APRON (CU. YD.)	24" DEPTH RIPRAP (CU. YD.)
12	8	16.9	0.2	3.0	19.6	0.3	4.4	22.6	0.3	5.9
15	8	18.0	0.2	3.2	20.8	0.3	4.8	23.9	0.4	6.4
18	10	22.4	0.3	4.3	25.6	0.4	6.4	29.0	0.5	8.5
21	10	24.1	0.4	4.7	27.4	0.6	7.1	30.9	0.7	9.4
24	12	29.7	0.5	6.2	33.2	0.8	9.2	37.3	1.0	12.3
27	12	31.4	0.6	6.6	35.2	0.9	9.9	39.2	1.2	13.2
30	14	37.4	0.8	8.2	41.6	1.1	12.3	46.0	1.5	16.4
36	16	45.9	1.1	10.6	50.5	1.6	15.8	55.4	2.1	21.1
42	18	52.8	1.2	12.5	57.8	1.7	18.7	63.0	2.3	24.9
48	20	61.1	1.5	14.8	66.5	2.2	22.2	72.0	2.9	29.6

TABLE OF QUANTITIES RIPRAP AT RCP-A OUTLETS										
SPAN OF PIPE ARCH (IN.)	L (FT.)	CLASS II d ₅₀ = 6"			CLASS III d ₅₀ = 9"			CLASS IV d ₅₀ = 12"		
		GEO- TEXTILE FILTER (SQ. YD.)	GRANULAR FILTER UNDER APRON (CU. YD.)	12" DEPTH RIPRAP (CU. YD.)	GEO- TEXTILE FILTER (SQ. YD.)	GRANULAR FILTER UNDER APRON (CU. YD.)	18" DEPTH RIPRAP (CU. YD.)	GEO- TEXTILE FILTER (SQ. YD.)	GRANULAR FILTER UNDER APRON (CU. YD.)	24" DEPTH RIPRAP (CU. YD.)
22	10	22.4	0.3	4.1	25.6	0.4	6.1	29.0	0.5	8.1
28	12	29.5	0.5	5.7	33.2	0.7	8.5	37.1	0.9	11.3
36	14	37.3	0.8	7.5	41.5	1.1	11.2	45.8	1.5	14.9
43	16	45.9	1.1	9.5	50.5	1.6	14.3	55.3	2.1	19.0
51	18	52.5	1.2	11.3	57.5	1.7	16.9	62.7	2.3	22.5
58	20	59.9	1.3	13.2	65.2	1.9	19.8	70.7	2.5	26.4



- NOTES:**
REQUIREMENTS FOR GEOTEXTILE TYPE, RIPRAP SIZE AND THICKNESS WILL BE DESIGNATED IN THE PLANS.
PIPE SIZES LARGER THAN THOSE SHOWN REQUIRE A SPECIAL DESIGN.
- FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'.
 - GEOTEXTILE FILTER, SPEC. 3733, SHALL COVER THE BOTTOM AND SIDES OF THE AREA EXCAVATED FOR THE RIPRAP, GRANULAR FILTER MATERIALS.
 - DIMENSION E IS GIVEN ON STANDARD PLATES 3100 AND 3110.
 - GRANULAR FILTER, SPEC. 3601, MAY BE USED AS A CUSHION LAYER. PLACE FILTER PER SPEC. 2511. THE CUSHION LAYER IS INCIDENTAL.
 - GRANULAR FILTER OR RIPRAP, SPEC. 3601, TO EXTEND UNDER ENTIRE OPEN PORTION OF PIPE APRON. DEPTH OF MATERIAL UNDER APRON SHALL MATCH RIPRAP DEPTH. WHEN USING RIPRAP INCREASE RIPRAP QUANTITY ACCORDINGLY AND PLACE A 3" LAYER OF 1.5" CRUSHED ROCK UNDER THE APRON TO AID IN GRADING FOR APRON PLACEMENT. CRUSHED ROCK IS INCIDENTAL.


APPROVED	DECEMBER 9, 2013	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE 3100 3110 3601 3733 2511	STANDARD PLATE NO. 3133D
 STATE DESIGN ENGINEER		RIPRAP AT RCP OUTLETS		

TABLE OF QUANTITIES RIPRAP AT RCP OUTLETS					
DIA. (IN.)	L (FT.)	CLASS III D50 = 9"		CLASS IV D50 = 12"	
		GEO-TEXTILE FILTER (SQ. YD.)	18" DEPTH RIPRAP (CU. YD.)	GEO-TEXTILE FILTER (SQ. YD.)	24" DEPTH RIPRAP (CU. YD.)
48	20	66.5	22.2	72.0	29.6
54	22	74.7	26.2	80.8	34.9
60	24	83.1	29.6	89.6	39.5
66	26	91.5	33.0	98.5	44.0
72	28	99.8	37.3	107.3	49.7

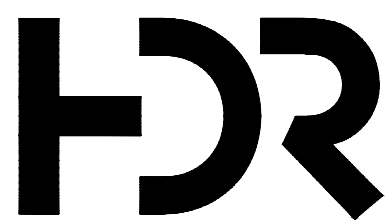
- NOTES:**
1) THIS TABLE IS A CONTINUATION OF THE QUANTITY TABLE SHOWN IN MNDOT STANDARD PLATE 3133D. ALL NOTES IN THAT DETAIL APPLY TO THE TABULATION OF QUANTITIES SHOWN ABOVE.
2) THIS PROJECT ONLY REQUIRES THE PLACEMENT OF NEW RIPRAP AROUND EXISTING APRONS, WHICH MUST BE FIELD FIT SO AS NOT TO DISTURB THE BEDDING BELOW THE EXISTING APRON. ACTUAL QUANTITIES MAY VARY FROM WHATS SHOWN IN THE TABLE.
3) GRANULAR FILTER QUANTITY NOT SHOWN AS NO DISTURBANCE BELOW THE APRON IS ALLOWED DURING INSTALLATION OF NEW RIPRAP.



1 BEACON BLUFF OUTLET DISSIPATION (LOOKING WEST)
CG-104 N.T.S




2 BEACON BLUFF MONITORING WELLS AND RISERS (LOOKING EAST)
CG-104 N.T.S



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DATE 12/18/2025 LICENSE # 59914



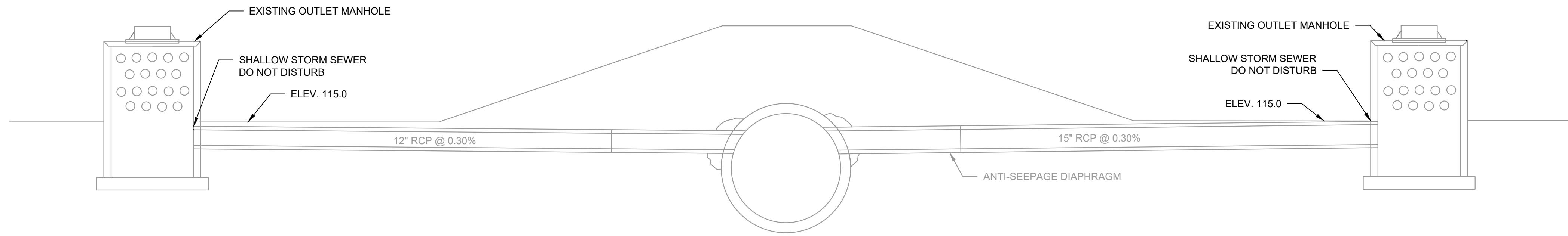
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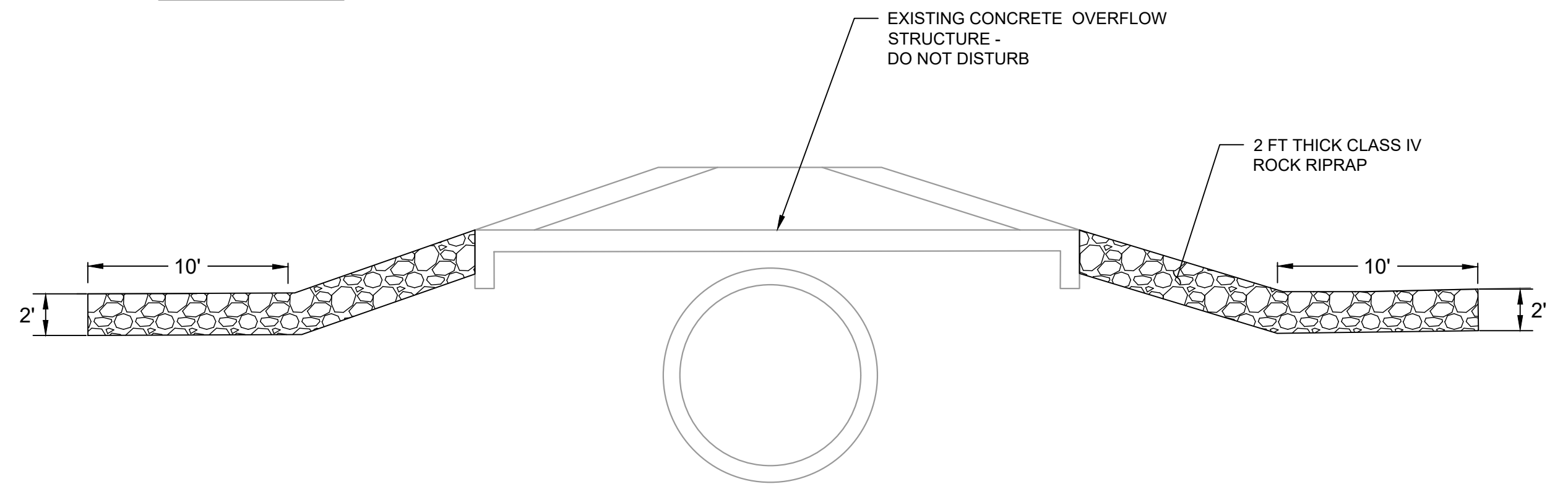
CIVIL DETAILS (1 OF 2)

FILE NAME	CG-501.DWG
SCALE	NA
	

SHEET
CG-501



1 ARLINGTON-ARKWRIGHT OUTLET PROTECTION SECTION
CG-101 N.T.S



2 ARLINGTON-ARKWRIGHT EMERGENCY SPILLWAY ROCK RIPRAP SECTION
SR-101 N.T.S

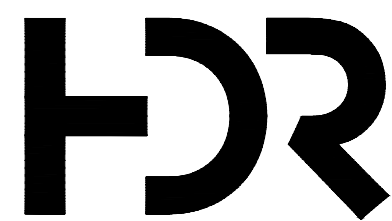


3 ARLINGTON - ARKWRIGHT EAST BASIN ACCESS
CG-101 N.T.S



4 ARLINGTON - ARKWRIGHT WEST BASIN ACCESS
CG-101 N.T.S

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ST. PAUL, MN

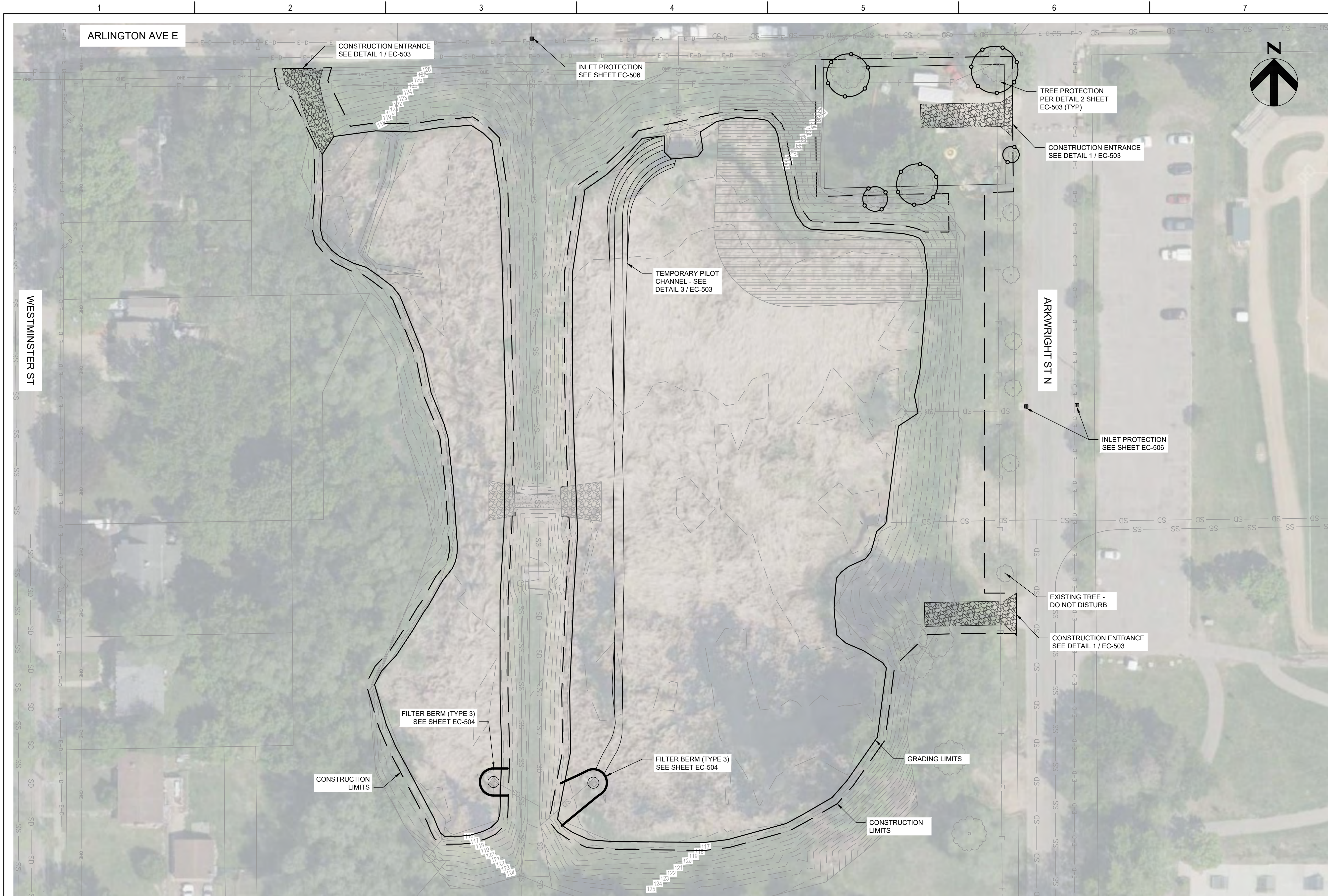
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SCALE NA



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CG-502

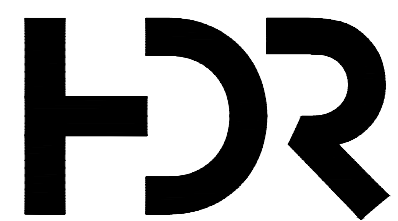
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GENERAL NOTES

- SEE SHEETS EC-503 THRU EC-507 FOR EROSION CONTROL DETAILS.
- CONTRACTOR TO PROVIDE TEMPORARY PILOT CHANNEL(S) AS NEEDED TO DEWATER IN-SITU MATERIAL. GRADE TO DRAIN TO EXISTING OUTLET.

KEYNOTES



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ST. PAUL, MN

ARLINGTON - ARKWRIGHT EROSION CONTROL PLAN

FILE NAME EC-101.DWG
SCALE 1" = 30'
0 1" 2"

SHEET
EC-101

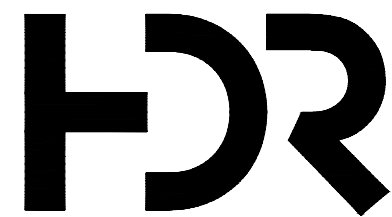
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GENERAL NOTES

- SEE SHEETS EC-503 THRU EC-507 FOR EROSION CONTROL DETAILS.
- CONTRACTOR TO MONITOR DRAINAGE OF DITCH DURING THE DEWATERING PHASE. CONTRACTOR TO ADDRESS DRAINAGE ISSUES IF DITCH CONDITIONS PREVENT CONTINUOUS DRAINAGE.

KEYNOTES



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DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

ARLINGTON BUSINESS PARK EROSION CONTROL PLAN

FILE NAME EC-102.DWG
SCALE 1" = 30'



SHEET
EC-102

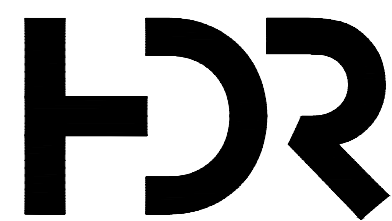
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GENERAL NOTES

- SEE SHEETS EC-503 THRU EC-507 FOR EROSION CONTROL DETAILS.
- CONTRACTOR TO PROVIDE TEMPORARY PILOT CHANNEL(S) AS NEEDED TO DEWATER IN-SITU MATERIAL. GRADE TO DRAIN TO EXISTING OUTLET.

KEYNOTES



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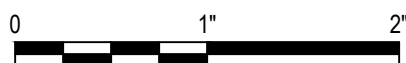


SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

ATWATER - WESTERN
EROSION CONTROL PLAN

FILE NAME EC-103.DWG
SCALE 1" = 30'



SHEET
EC-103

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FOREST ST N

DUCHESS ST

RUSSELL ST

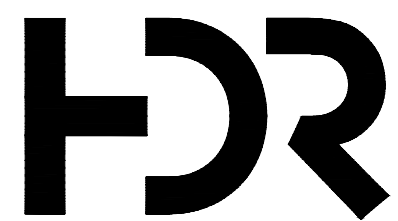
WELLS ST



GENERAL NOTES

- SEE SHEETS EC-503 THRU EC-507 FOR EROSION CONTROL DETAILS.
- STOP CONSTRUCTION IMMEDIATELY AND NOTIFY OWNER'S REPRESENTATIVE IF ANY ENGINEERED MATERIAL OR RUBBER TIRE CHIPS ARE ENCOUNTERED.

KEYNOTES



ISSUE	DATE	DESCRIPTION
1	12/18/25	ISSUED FOR BID

PROJECT MANAGER	CHRIS GICE
PROJECT NUMBER	10442517

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Christopher A. Gice
CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914

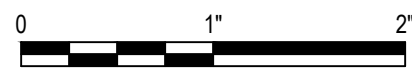


SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

BEACON BLUFF EROSION CONTROL PLAN

FILE NAME EC-104.DWG
SCALE 1" = 20'



SHEET
EC-104

SHEET
EC-501

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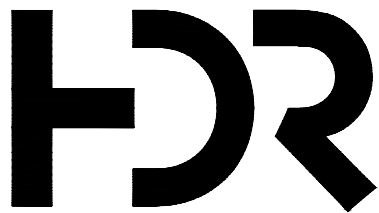
POLLUTION PREVENTION (CONT.)

3. PROVIDE A SECURE STORAGE AREA WITH RESTRICTED ACCESS FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE. RETURN ALL HAZARDOUS MATERIALS AND TOXIC WASTE TO THE DESIGNATED STORAGE AREA AT THE END OF THE BUSINESS DAY UNLESS INFEASIBLE. STORE ALL HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING BUT NOT LIMITED TO OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS WITH SECONDARY CONTAINMENT. CLEAN UP SPILLS IMMEDIATELY.
4. STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.
5. POSITION ALL PORTABLE TOILETS SO THAT THEY ARE SECURE AND CANNOT BE TIPPED OR KNOCKED OVER. PROPERLY DISPOSE OF ALL SANITARY WASTE.
6. FUEL AND MAINTAIN VEHICLES IN A DESIGNATED CONTAINED AREA WHENEVER FEASIBLE. USE DRIP PANS OR ABSORBENT MATERIALS TO PREVENT SPILLS OR LEAKED CHEMICALS FROM DISCHARGING TO SURFACE WATER OR STORMWATER CONVEYANCES. PROVIDE A SPILL KIT AT EACH LOCATION THAT VEHICLES AND EQUIPMENT ARE FUELED OR MAINTAINED AT.
7. LIMIT VEHICLE AND EQUIPMENT TO A DEFINED AREA OF THE SITE. CONTAIN RUNOFF FROM THE WASHING AREA TO A TEMPORARY SEDIMENT BASIN OR OTHER EFFECTIVE CONTROL. PROPERLY DISPOSE OF ALL WASTE GENERATED BY VEHICLE AND EQUIPMENT WASHING. ENGINE DEGREASING IS NOT ALLOWED ON THE SITE.
8. PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND. DESIGN THE CONTAINMENT SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR CONTAINMENT AREA.
9. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. INCLUDE IN THE PLAN HOW THE MATERIAL WILL BE DISPOSED OF AND THE LOCATION OF THE DISPOSAL SITE. SUBMIT PLAN TO THE ENGINEER.
- 10.USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.
- 11.USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, PARTICLES, CONCRETE WASH OUT, AND OTHER CONCRETE WASTES FROM LEAVING CONSTRUCTION LIMITS, DEPOSITING IN EXISTING OR FUTURE VEGETATED AREAS, AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT SAW CUT SLURRY AND PLANING WASTE FROM LEAVING CONSTRUCTION LIMITS AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS INCLUDING PONDS, DITCHES, AND CULVERTS.

PERMIT TERMINATION CONDITIONS

THE FOLLOWING CONDITIONS MUST BE MET FOR NPDES PERMIT TERMINATION:

1. UNIFORM PERENNIAL VEGETATIVE COVER AT LEAST 70% DENSITY OF THE EXPECTED FINAL GROWTH HAS BEEN ESTABLISHED.
2. THE PERMANENT STORMWATER TREATMENT SYSTEM IS CONSTRUCTED, MEETS ALL REQUIREMENTS, AND IS OPERATING AS DESIGNED.
3. ALL TEMPORARY SYNTHETIC EROSION AND SEDIMENT CONTROL BMPs HAVE BEEN REMOVED FROM THE SITE.
4. ALL SEDIMENT HAS BEEN CLEANED OUT FROM CONVEYANCE SYSTEMS AND PERMANENT STORMWATER TREATMENT SYSTEMS.
5. A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO MPCA.



1	12/18/25	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	CHRIS GICE

PROJECT NUMBER	10442517

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Christopher A. Gice

CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

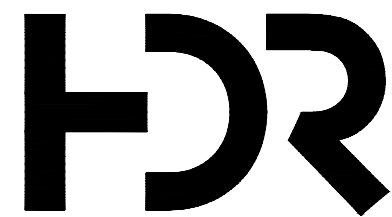
ST. PAUL, MN

SWPPP NARRATIVE (2 OF 2)

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SCALE	NA
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SHEET
EC-502

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1	12/18/25	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	CHRIS GICE
PROJECT NUMBER	10442517

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Christopher A. Gice

CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



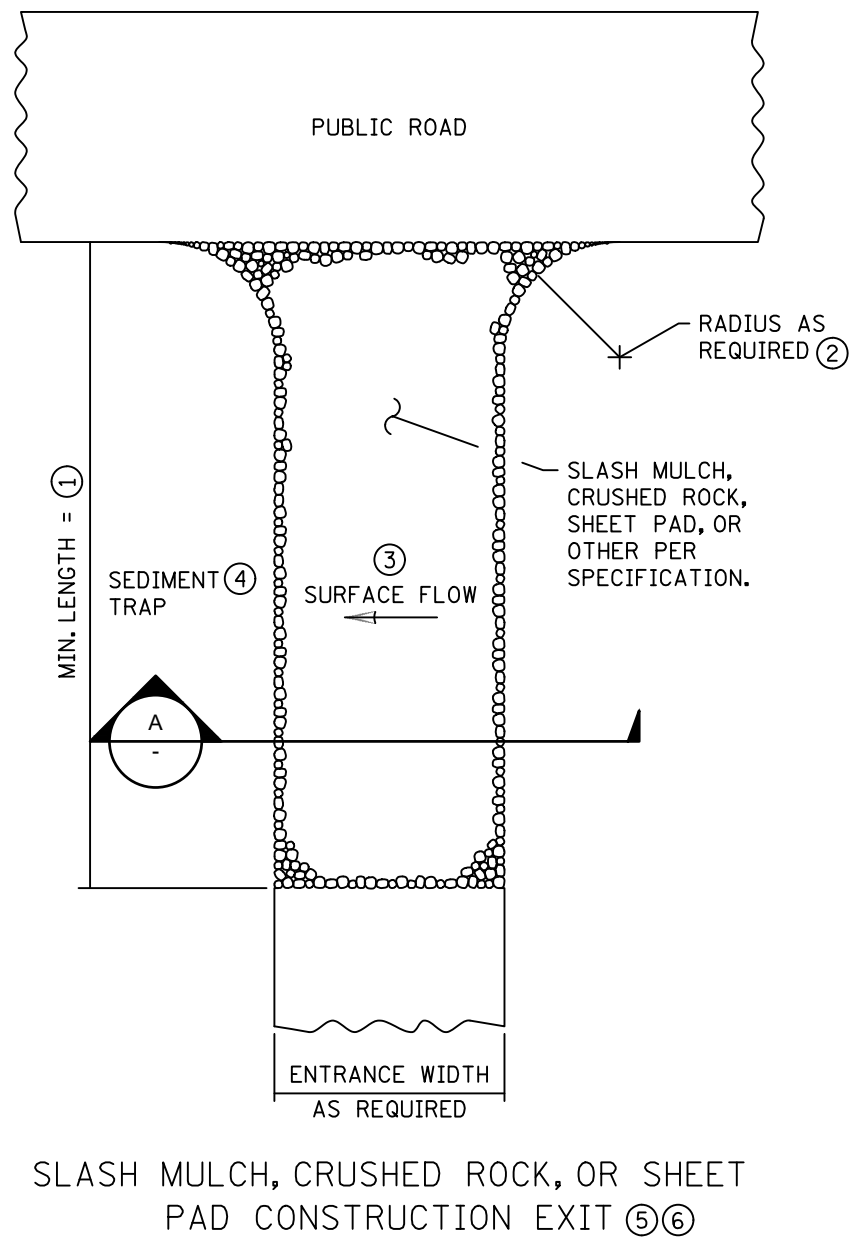
SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

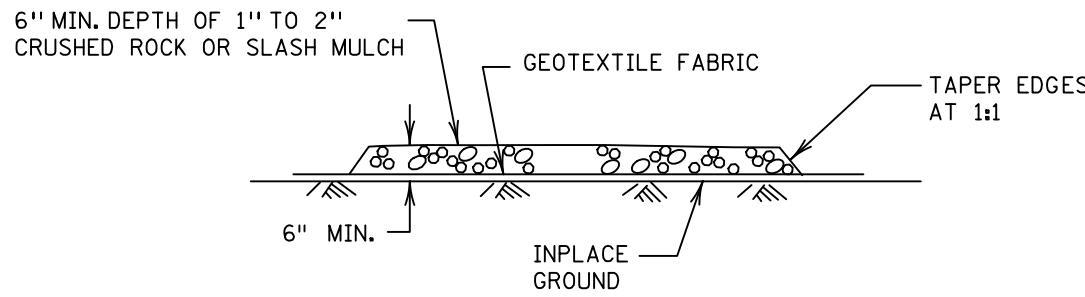
NPDES SWPPP DETAILS (1 OF 5)

FILE NAME	EC-503.DWG
SCALE	NA
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SHEET
EC-503



1 STABILIZE CONSTRUCTION EXIT
EC-503

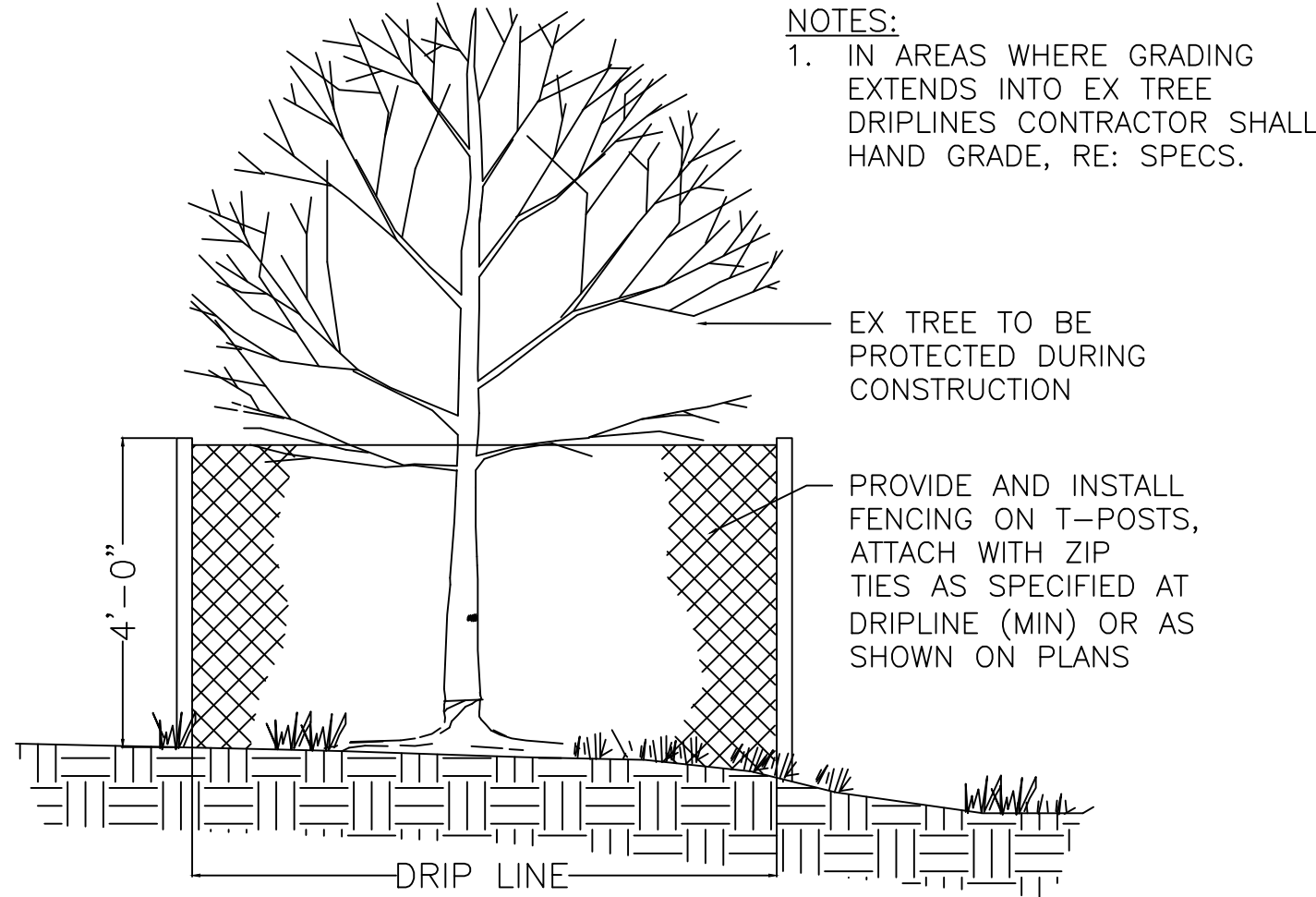


A STABILIZE CONSTRUCTION EXIT SECTION

NOTES:

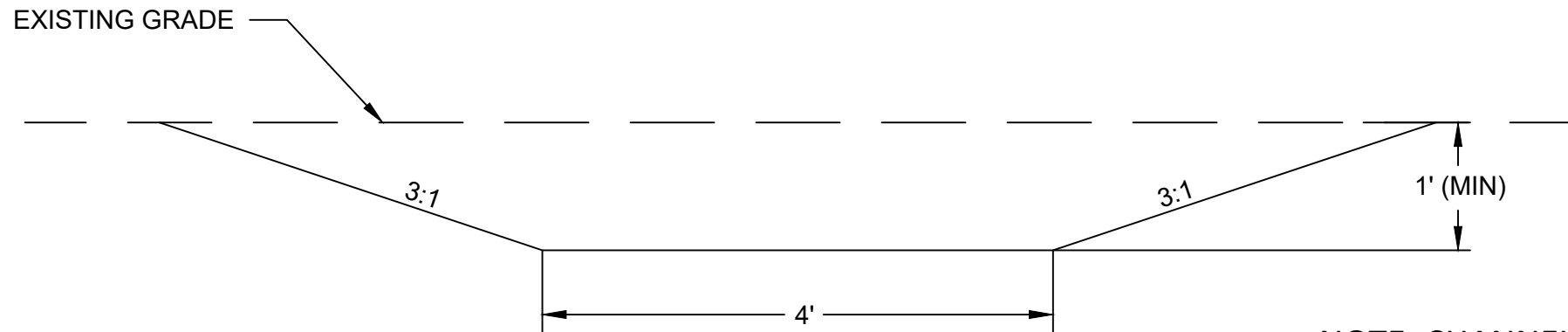
SEE MNDOT SPECS. 2573 & 3882.

- MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.
- PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.
- IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.
- IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.
- IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.
- MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.
- COMPLETELY REMOVE CONSTRUCTION EXIT UPON COMPLETION OF THE PROJECT.



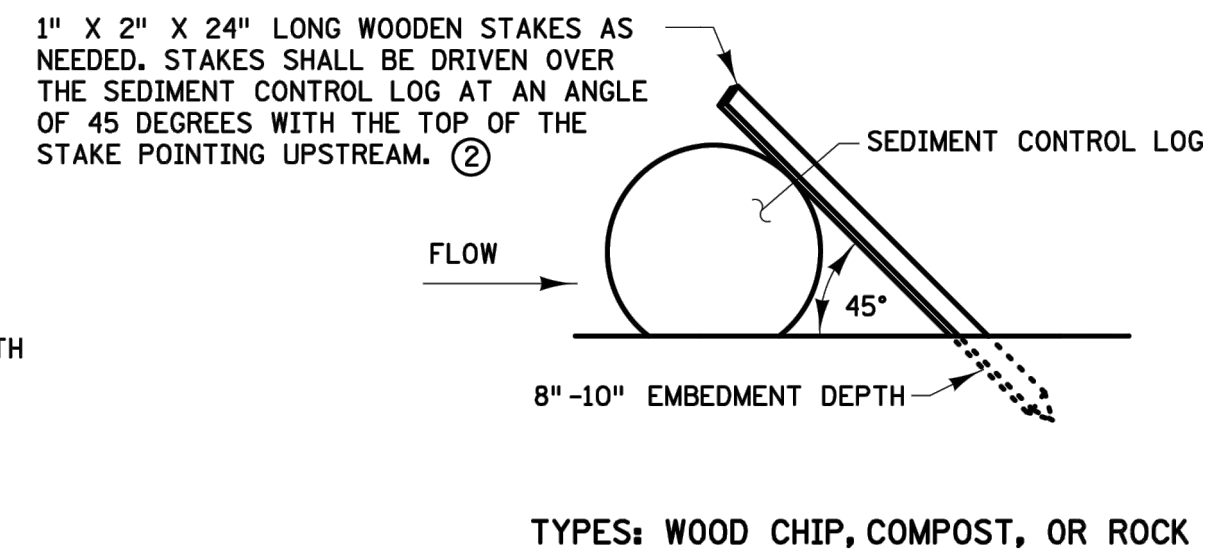
VARIES PER TREE SIZE EXTENDS FROM DRIPLINE TO DRIPLINE

2 TREE PROTECTION SECTION
EC-503

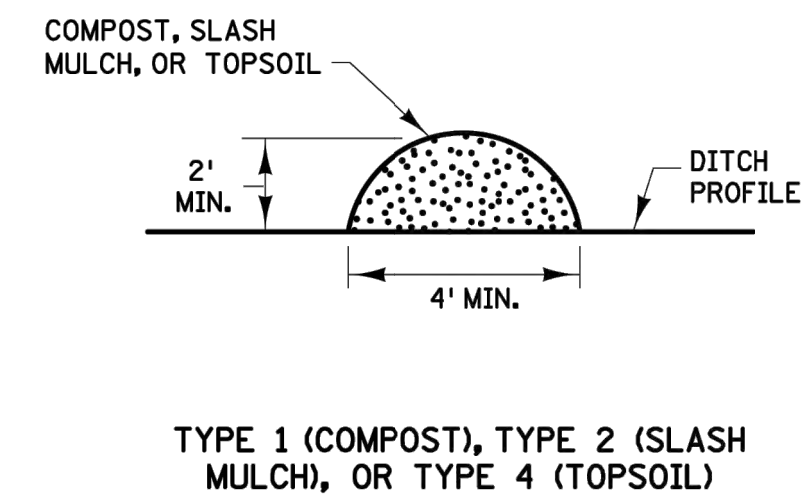
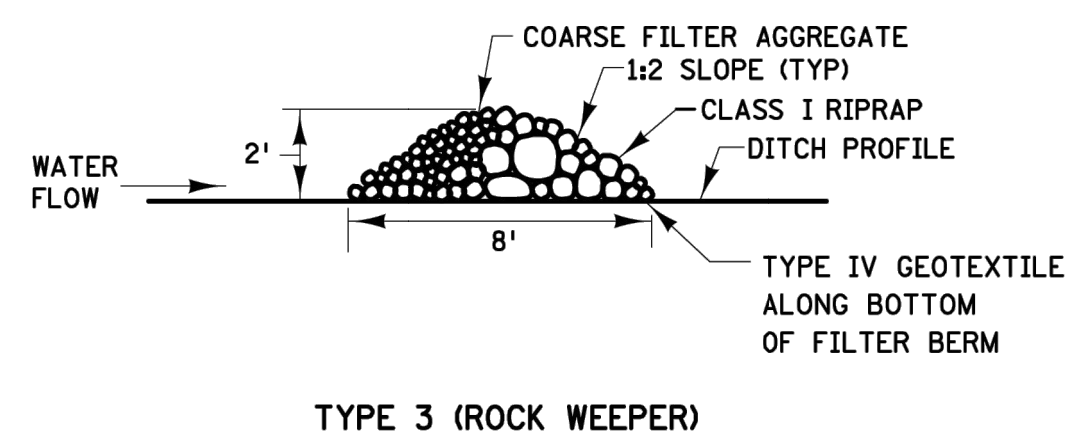


3 TEMPORARY CHANNEL
EC-503

PATH & FILENAME: OTS\DesignStandards\Development\StandardPlans\DEV400_Series\405.2_spsd.dgn



SEDIMENT CONTROL LOGS



NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3149, 3874, 3882, 3885, 3886, AND 3897.

- ① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.
- ② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.


REVISION:

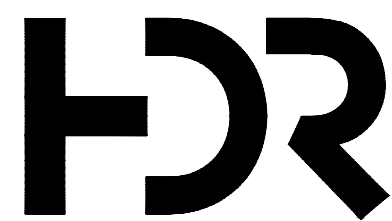
APPROVED: JANUARY 8, 2020

Marni Karnowski

MARNI KARNOWSKI

CHIEF ENVIRONMENTAL OFFICER

 MINNESOTA DEPARTMENT OF TRANSPORTATION	STANDARD PLAN 5-297.405	2 OF 8	TEMPORARY SEDIMENT CONTROL			
	 THOMAS RYBICKI STATE DESIGN ENGINEER	APPROVED: 1-8-2020 REVISED:	FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS			
	STATE PROJ. NO.	(T.H.)	SHEET NO.	OF	SHEETS	



1	12/18/25	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	CHRIS GICE
PROJECT NUMBER	10442517

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PROFESSIONAL ENGINEER UNDER THE LAWS OF THE
STATE OF MINNESOTA.**

Christopher L. Gia

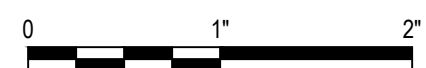


SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

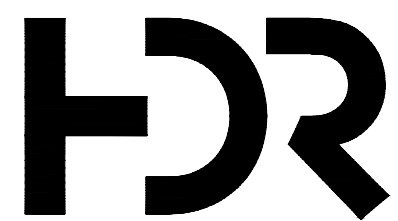
NPDES SWPPP DETAILS (2 OF 5)

FILE NAME	EC-504.DWG
SCALE	NA



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EC-504

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PROJECT NUMBER	10442517

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Christopher A. Gice
CHRISTOPHER A. GICE, PE
DATE 12/18/2025 LICENSE # 59914

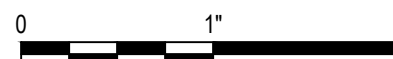


SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

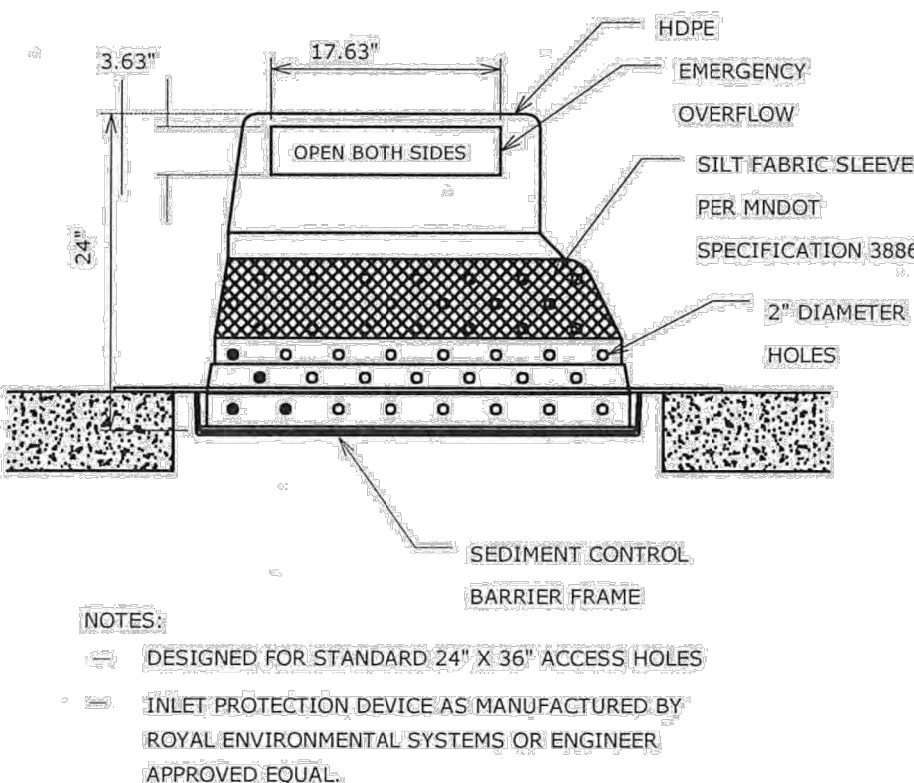
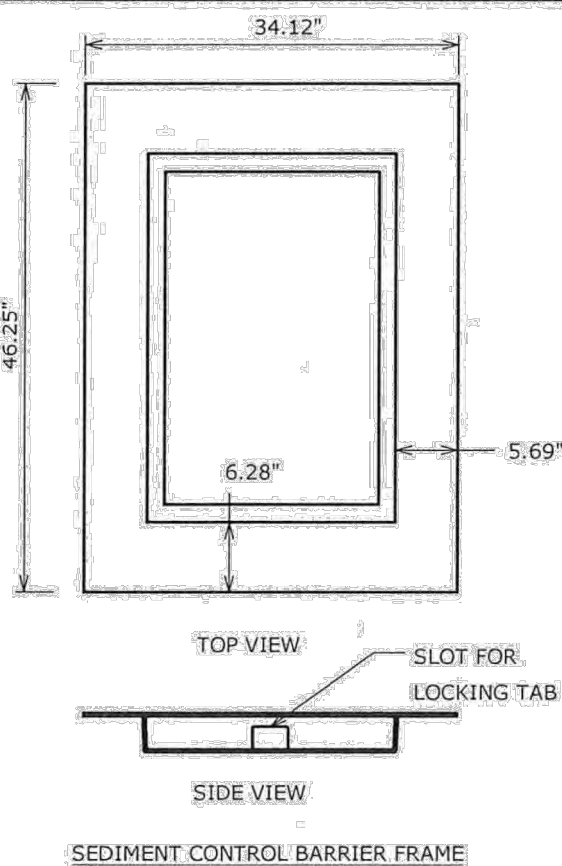
NPDES SWPPP DETAILS (3 OF 5)

FILE NAME EC-505.DWG
SCALE NA



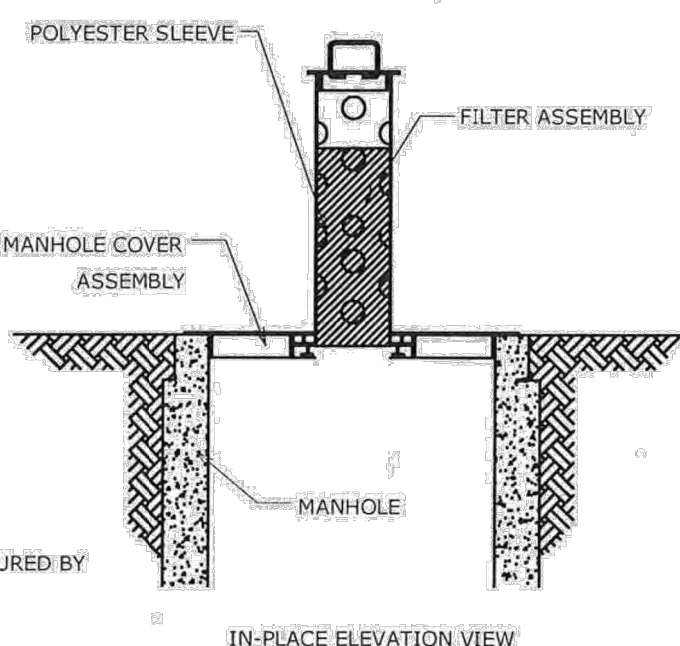
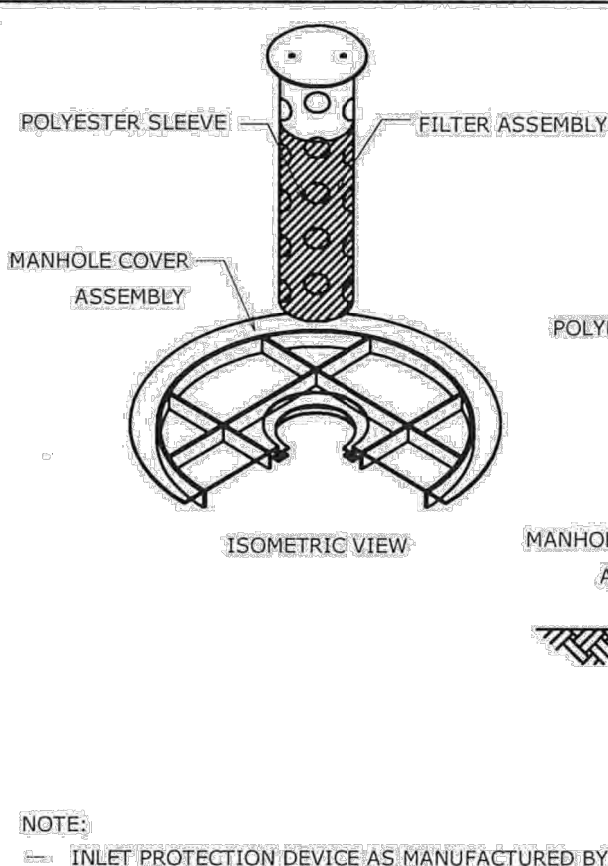
SHEET
EC-505

AREA DRAINS AND INTERIM CONDITIONS



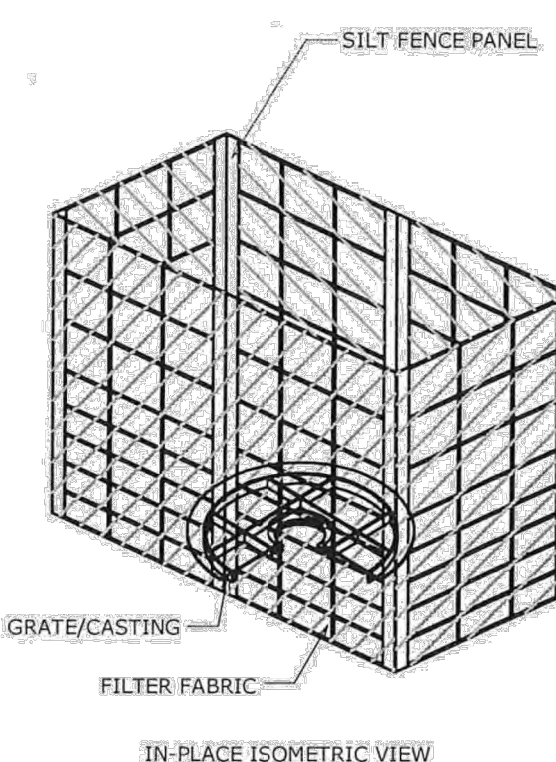
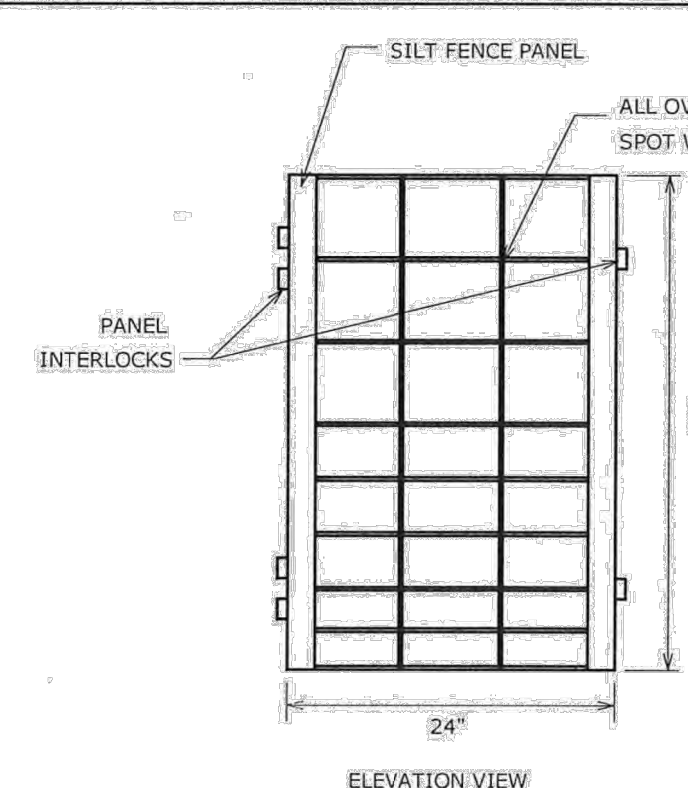
- NOTES:
- DESIGNED FOR STANDARD 24" X 36" ACCESS HOLES
 - INLET PROTECTION DEVICE AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS OR ENGINEER APPROVED EQUAL.

OPTION 1



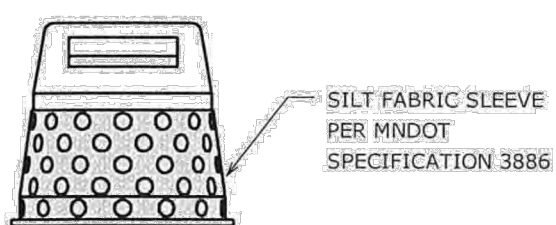
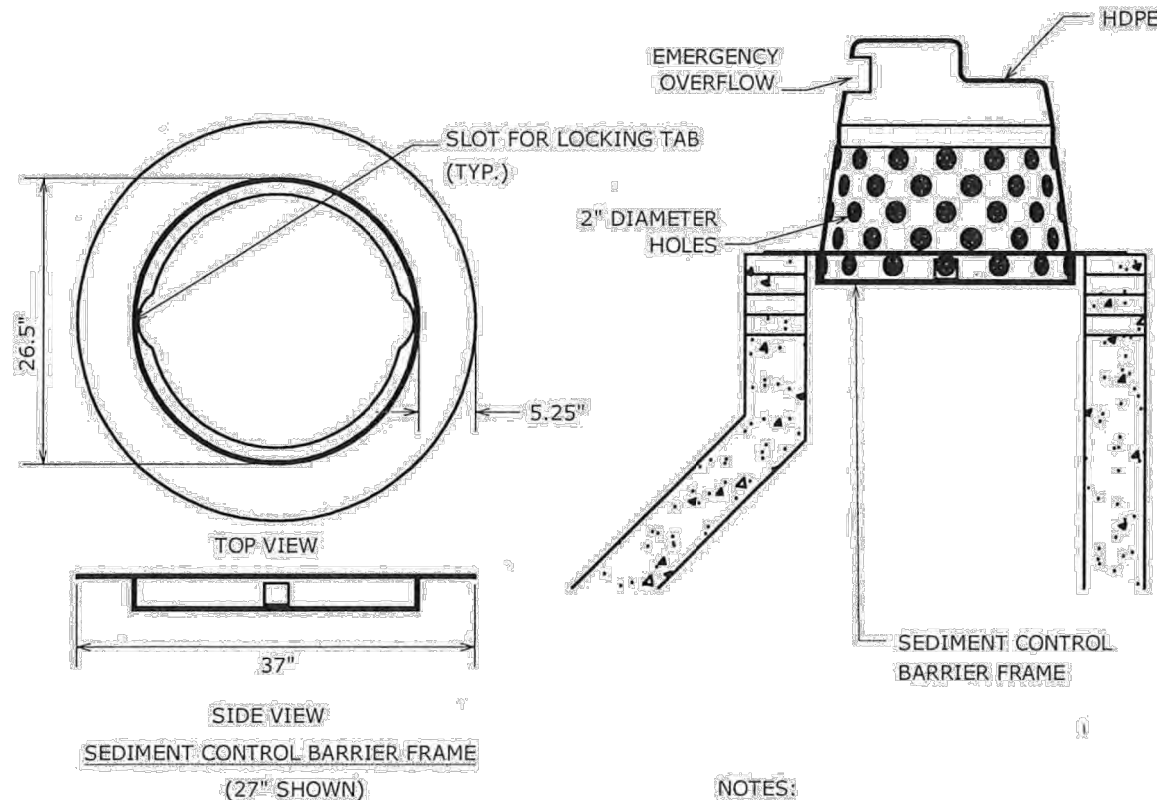
- NOTE:
- INLET PROTECTION DEVICE AS MANUFACTURED BY WIMCO OR ENGINEER APPROVED EQUAL.

OPTION 2



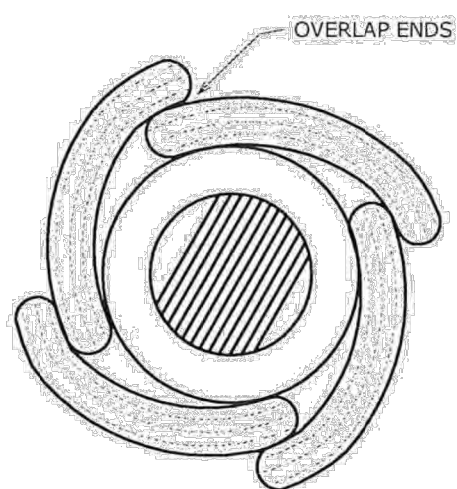
- NOTE:
- INLET PROTECTION DEVICE AS MANUFACTURED BY WIMCO OR ENGINEER APPROVED EQUAL.

OPTION 3



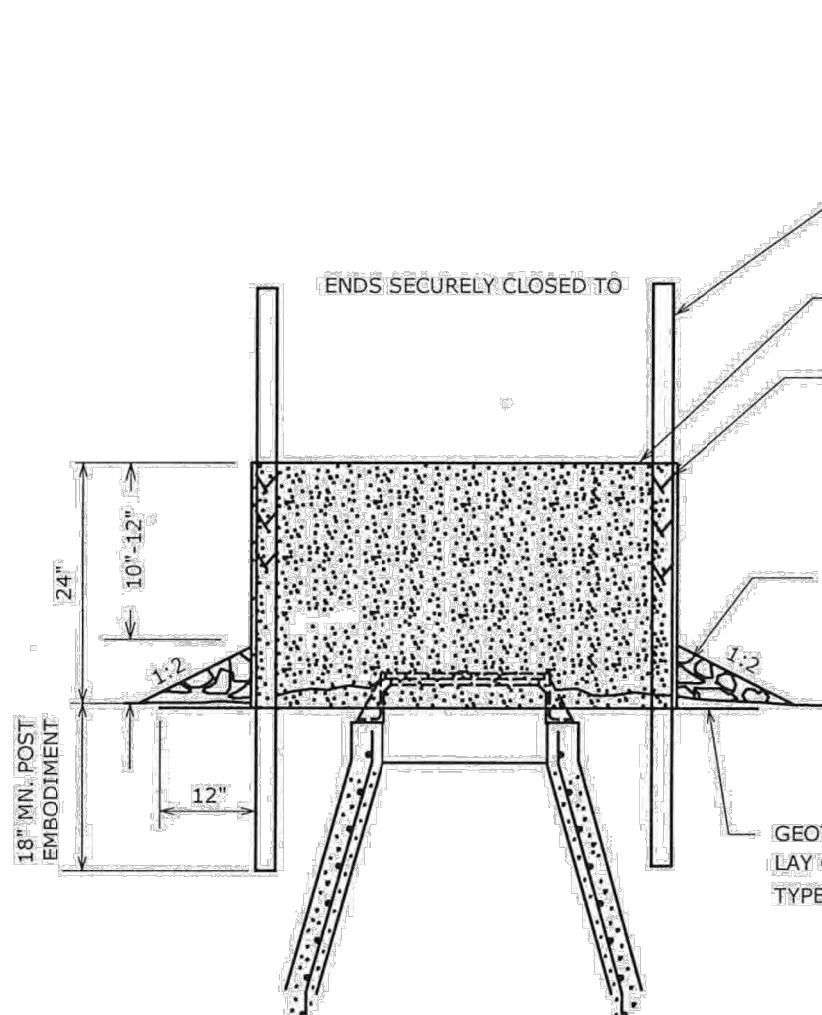
- NOTES:
- DESIGNED FOR STANDARD 24" OR 27" ACCESS HOLES.
 - INLET PROTECTION DEVICE AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS OR ENGINEER APPROVED EQUAL.

OPTION 4



ENDS SECURELY CLOSED TO PREVENT LOSS OF OPEN GRADED AGGREGATE FILL. SECURED WITH 50 PSI ZIP TIE.

OPTION 5



- NOTE:
- USE WITH INLET DRAINS IN AN AREA WITH 1:3 SLOPES OR LESS

OPTION 6

REVISION:

DATE APPROVED: 7/14/17
Tauni Kirt
CITY ENGINEER

SPECIFIC NOTES:

- ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
- GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A EAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.



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 Professional Engineer under the laws of the State of Minnesota.

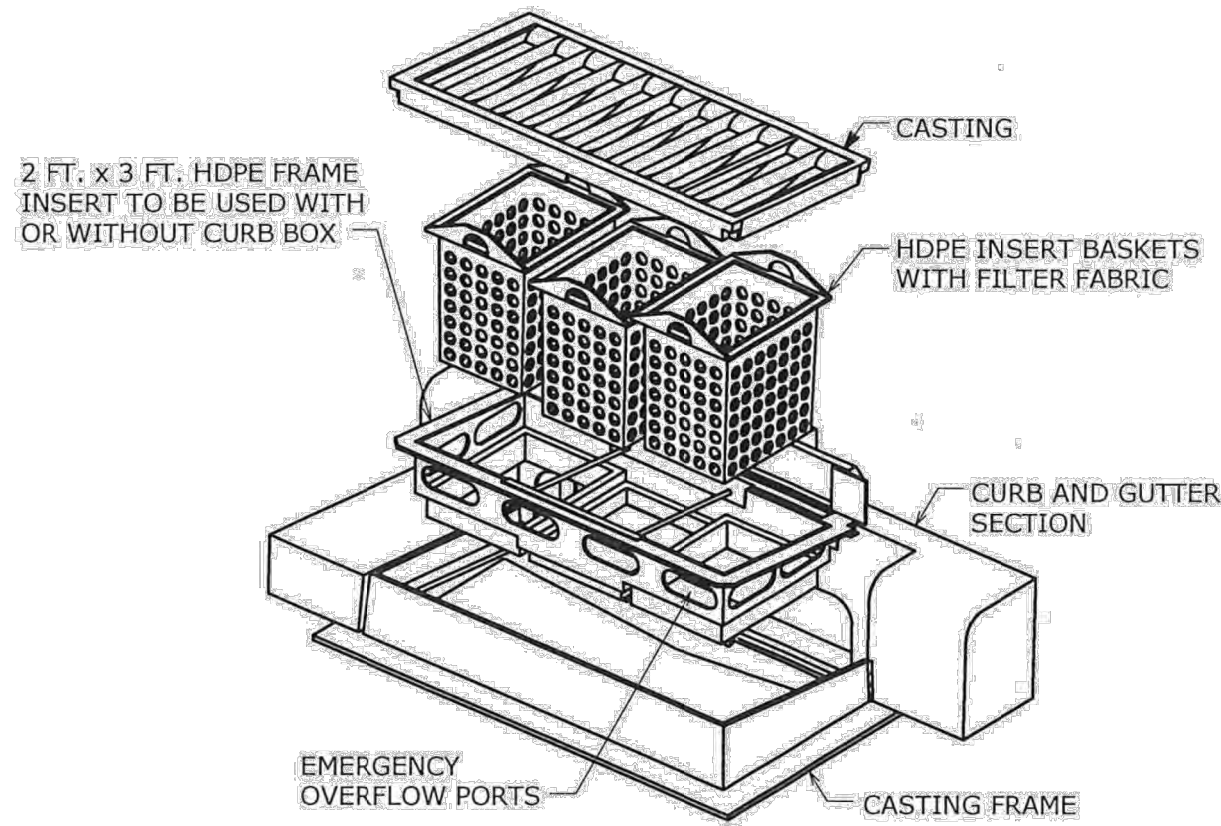
Christopher A. Gice
SEWER DESIGN ENGINEER
DATE: 7-12-17 C.F.N. 26424

TEMPORARY SEDIMENT CONTROL
STORM DRAIN INLET PROTECTION

STANDARD PLATE NO. 2402

TYPE 7A AND 7B CATCH BASIN (2' X 3')

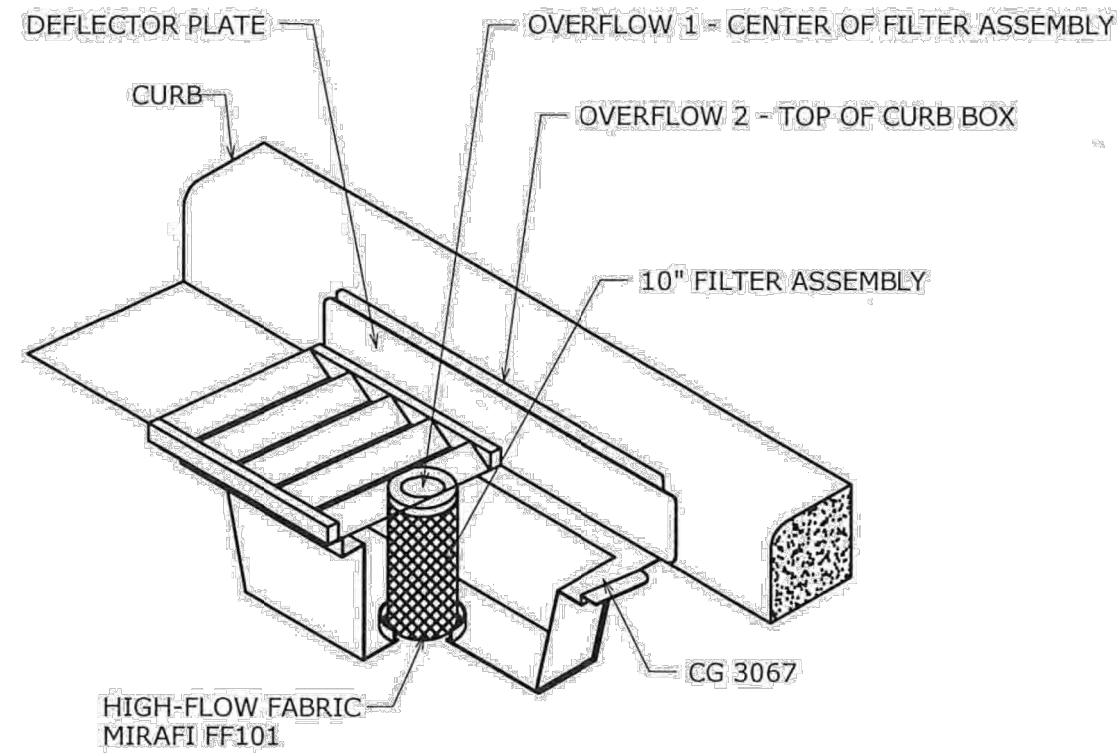
OPTION 1



NOTES:

- HDPE INSERT BASKETS SHALL BE EMPTIED WHEN 2/3 FULL AND GEOTEXTILE FILTER FABRIC SHALL BE REPLACED, AS REQUIRED, IF DEFECTS EXIST.
- INLET PROTECTION DEVICE AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS OR ENGINEER APPROVED EQUAL.

OPTION 2



NOTE:

- INLET PROTECTION DEVICE AS MANUFACTURED BY WIMCO OR ENGINEER APPROVED EQUAL.

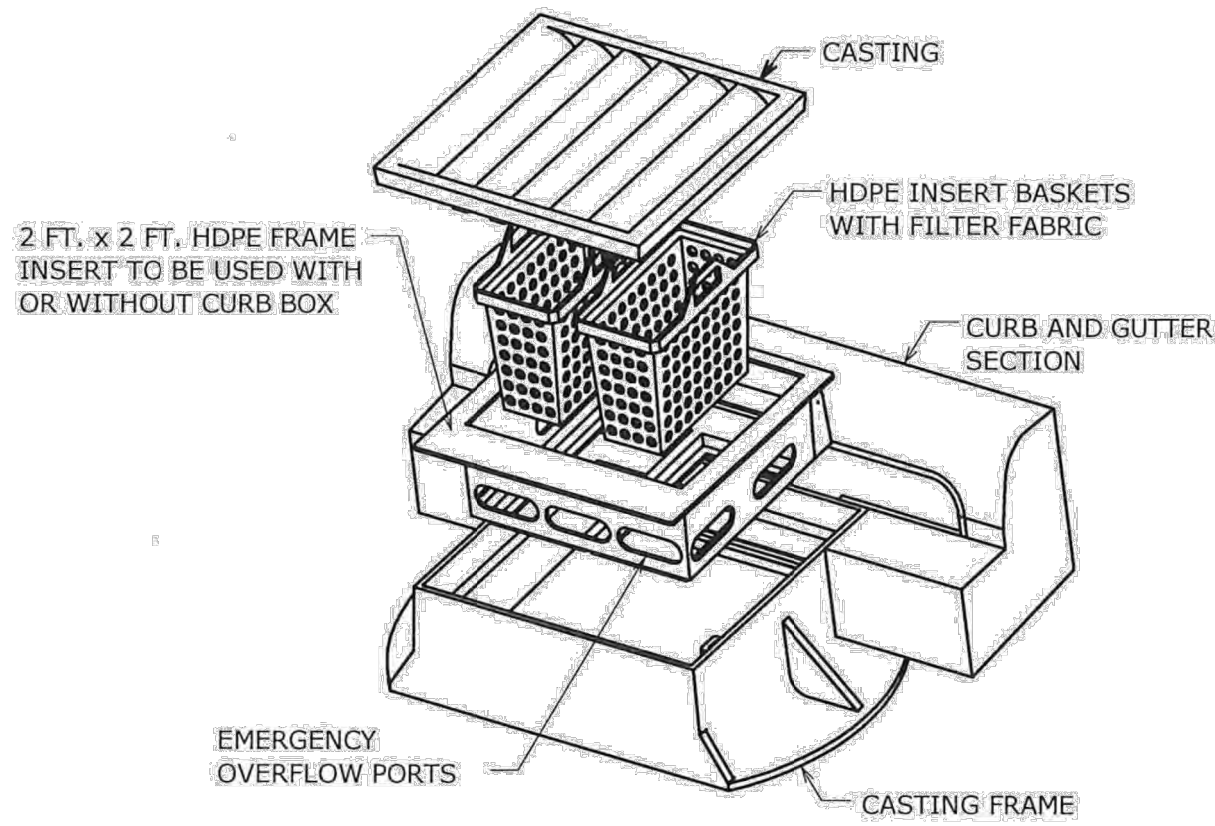
REVISION: 3/27/2018

DATE APPROVED:

Taullah Kurtz
CITY ENGINEER

TYPE 5A AND 6A CATCH BASIN (2' X 2')

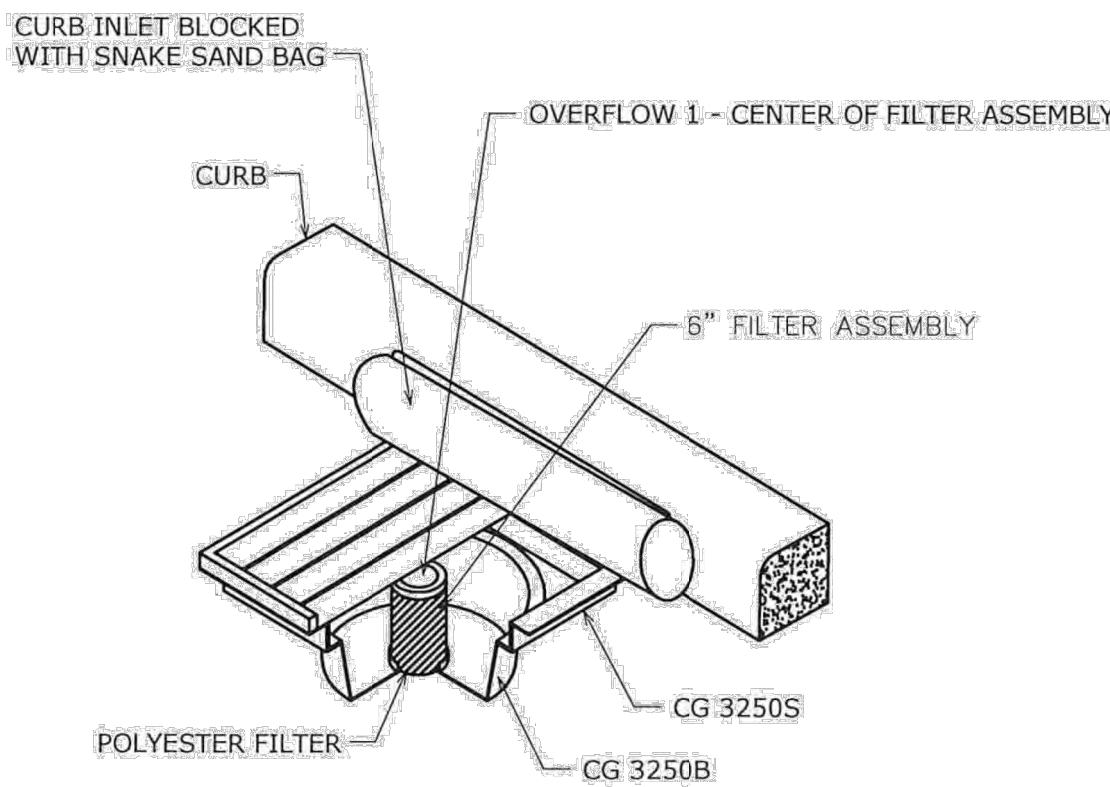
OPTION 1



NOTES:

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OPTION 2

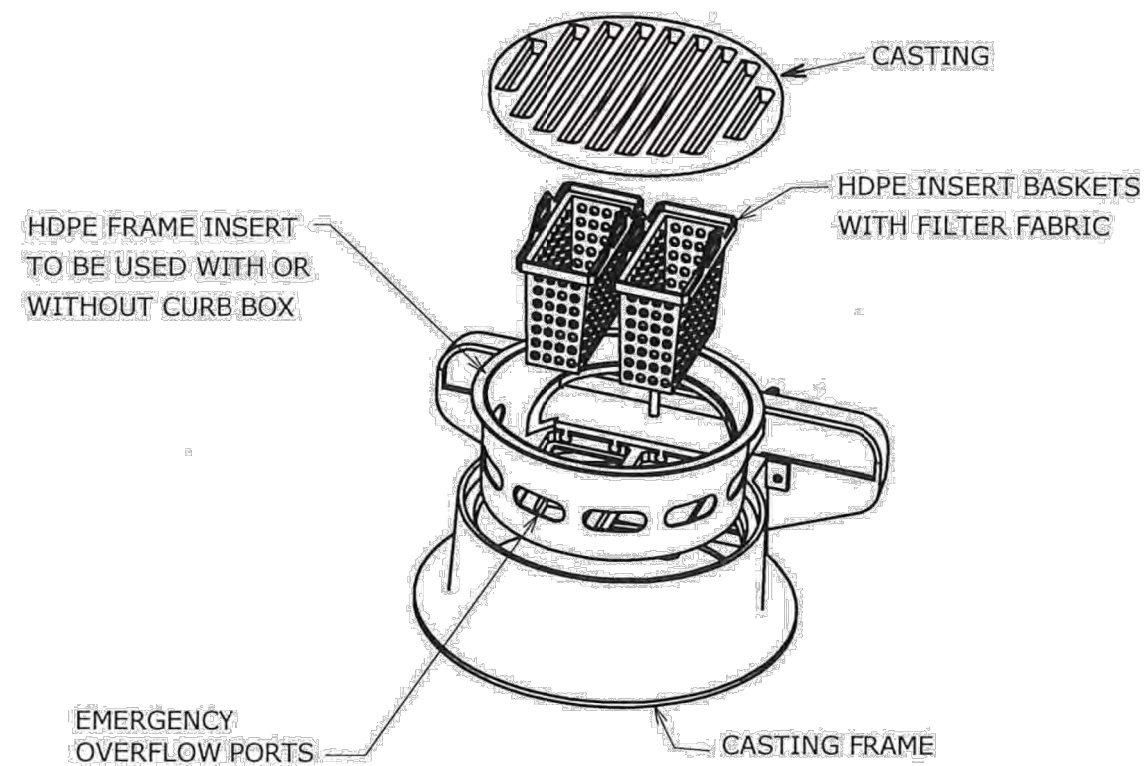


NOTE:

- INLET PROTECTION DEVICE AS MANUFACTURED BY WIMCO OR ENGINEER APPROVED EQUAL.

TYPE 2A, 3B, AND 3C CATCH BASIN (ROUND)

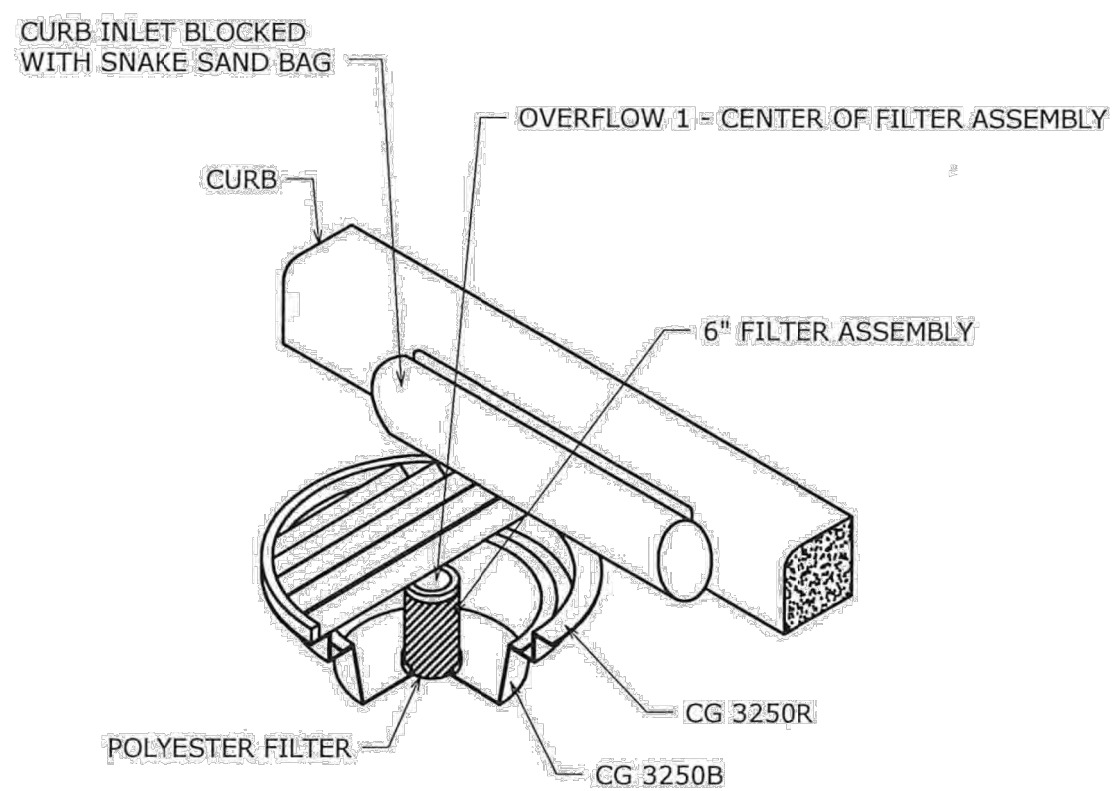
OPTION 1



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OPTION 2



NOTE:

- INLET PROTECTION DEVICE AS MANUFACTURED BY WIMCO OR ENGINEER APPROVED EQUAL.



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 Professional Engineer under the laws of the State of Minnesota.

Clara Hass
SEWER DESIGN ENGINEER

Date: 3/27/2018 Lic. No. 26424

TEMPORARY SEDIMENT CONTROL

STORM DRAIN INLET PROTECTION

STANDARD PLATE NO. 2400A



ISSUE	DATE	DESCRIPTION
1	12/18/25	ISSUED FOR BID

PROJECT MANAGER CHRIS GICE

PROJECT NUMBER 10442517

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Christopher A. Gice
CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914

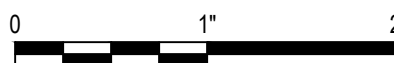


SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

NPDES SWPPP DETAILS (4 OF 5)

FILE NAME EC-506.DWG
SCALE NA



SHEET EC-506



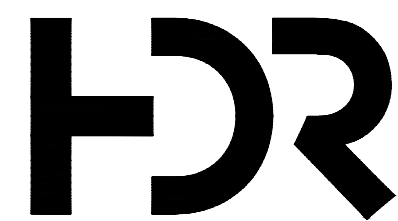
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GENERAL NOTES

1. FIELD FIT RIPRAP AT CULVERT OUTLETS TO NOT DISTURB AGGREGATE BEDDING BELOW THE EXISTING FES. RIPRAP SHALL BE PLACED AT DIRECTION OF OWNER'S REPRESENTATIVE.
2. NO EXCAVATION OR ROCK PLACEMENT WITHIN 5' OF OUTLET STRUCTURE PIPE.

KEYNOTES



1	12/18/25	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	CHRIS GICE
PROJECT NUMBER	10442517

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CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

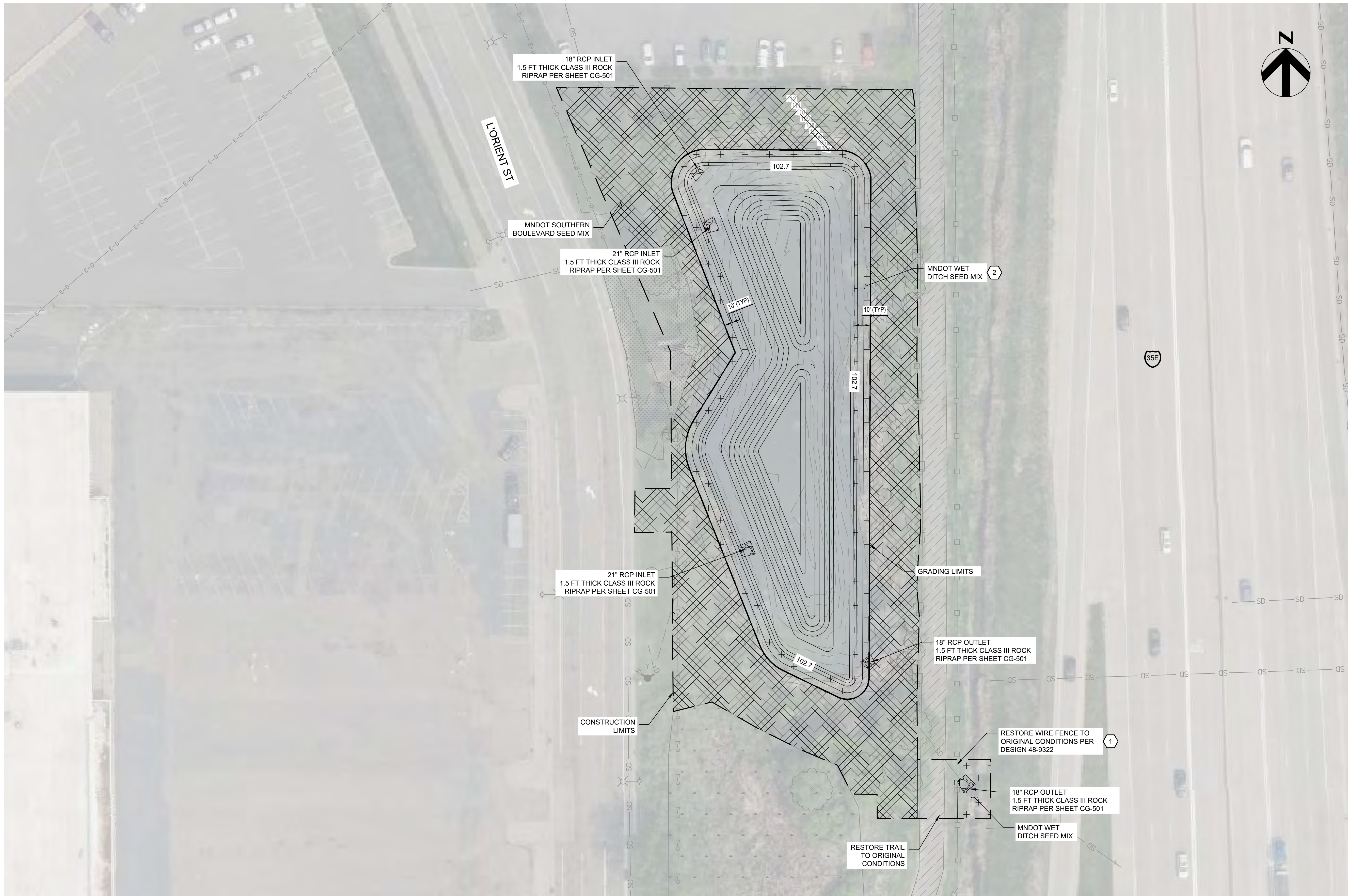
ST. PAUL, MN

ARLINGTON-ARKWRIGHT SITE RESTORATION PLAN

FILE NAME SR-101.DWG
SCALE 1" = 30'
0 1" 2"

SHEET
SR-101

C:\P\WORKING\CENTRAL\20\MS94776SR-102.DWG
03/08/2024 10:57:56 AM

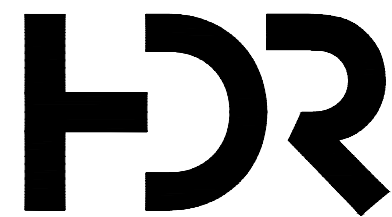


GENERAL NOTES

1. FIELD FIT RIPRAP AT CULVERT OUTLETS TO NOT DISTURB AGGREGATE BEDDING BELOW THE EXISTING FES. RIPRAP SHALL BE PLACED AT DIRECTION OF OWNER'S REPRESENTATIVE.

KEYNOTES

1. WIRE FENCE DESIGN TO REFERENCE MNDOT DESIGN STANDARD PLATE 9322 - CHAIN LINK FENCE.
2. PROVIDE A 10 FT BUFFER OF MNDOT WET DITCH SEED MIX AROUND POND PERIMETER.



1	12/18/25	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	CHRIS GICE
PROJECT NUMBER	10442517

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Christopher A. Gice
CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

ARLINGTON BUSINESS PARK SITE RESTORATION

FILE NAME SR-102.DWG
SCALE 1" = 30'
0 1" 2"

SHEET
SR-102

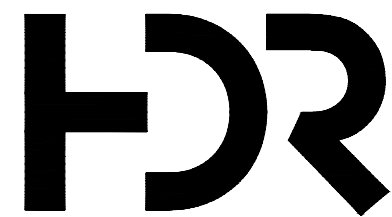
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03/08/2024 10:57:56 AM



GENERAL NOTES

1. FIELD FIT RIPRAP AT CULVERT OUTLETS TO NOT DISTURB AGGREGATE BEDDING BELOW THE EXISTING FES. RIPRAP SHALL BE PLACED AT DIRECTION OF OWNER'S REPRESENTATIVE.

KEYNOTES



1	12/18/25	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	CHRIS GICE
PROJECT NUMBER	10442517

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Christopher A. Gice
CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

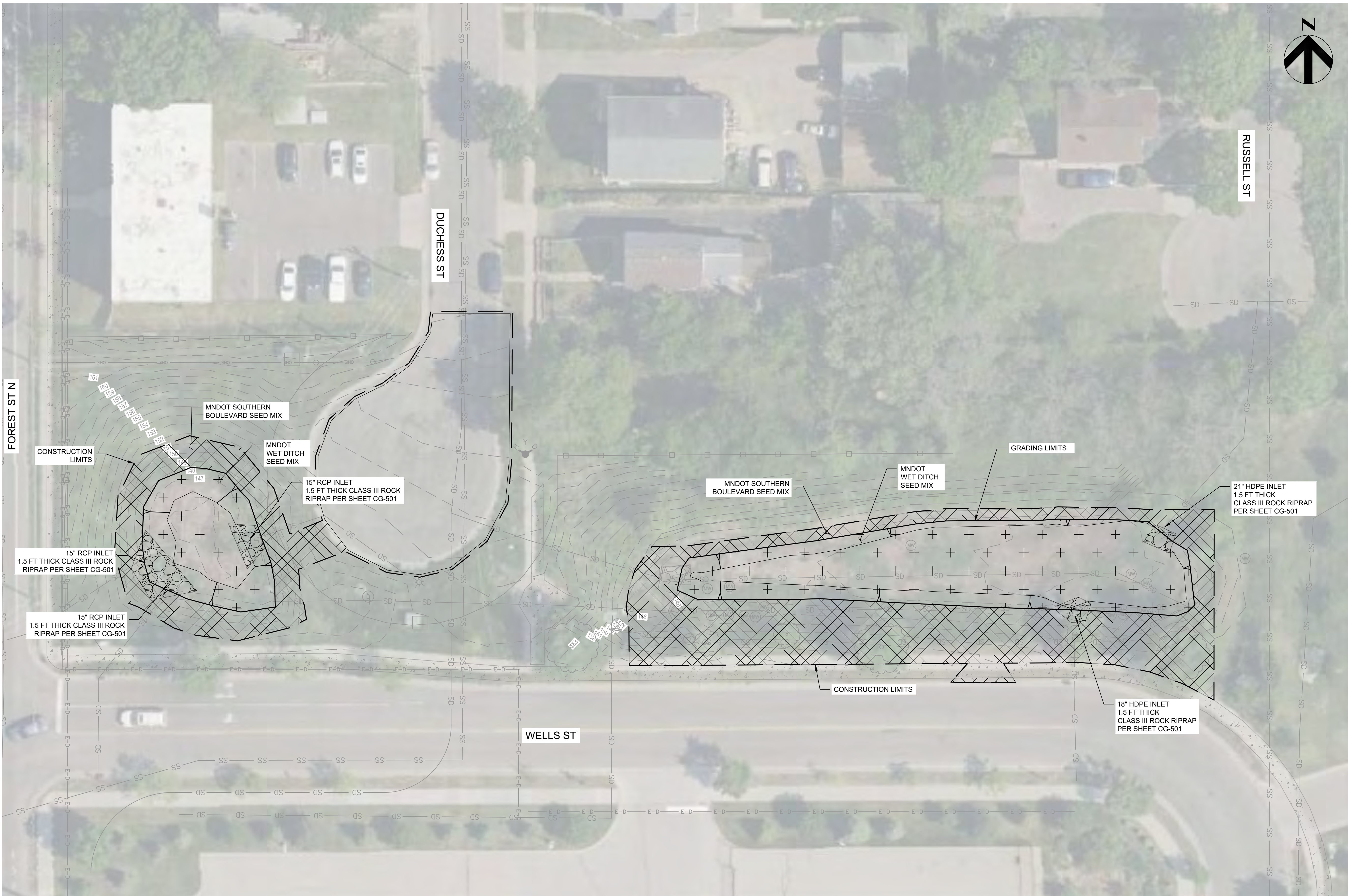
ST. PAUL, MN

ATWATER-WESTERN SITE RESTORATION PLAN

FILE NAME SR-103.DWG
SCALE 1" = 30'
0 1" 2"

SHEET
SR-103

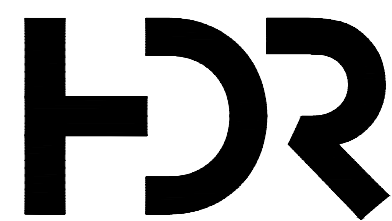
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03/08/2024 10:57:56 AM



GENERAL NOTES

1. FIELD FIT RIPRAP AT CULVERT OUTLETS TO NOT DISTURB AGGREGATE BEDDING BELOW THE EXISTING FES. RIPRAP SHALL BE PLACED AT DIRECTION OF OWNER'S REPRESENTATIVE.

KEYNOTES



1	12/18/25	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	CHRIS GICE
PROJECT NUMBER	10442517

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Christopher A. Gice
CHRISTOPHER A. GICE, PE

DATE 12/18/2025 LICENSE # 59914



SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

ST. PAUL, MN

BEACON BLUFF SITE RESTORATION

FILE NAME SR-104.DWG
SCALE 1" = 20'
0 1" 2"

SHEET
SR-104

Opinion of Probable Construction Cost

BID ITEM	UNIT	QTY	UNIT COST	EXTENDED COST
MOBILIZATION AND DEMOBILIZATION (11%)	LS	1	\$64,000	\$64,000
CONSTRUCTION SURVEYS	LS	1	\$20,000	\$20,000
WATER HANDLING	LS	1	\$25,000	\$25,000
CLEARING, GRUBBING AND TREE REMOVAL	LS	1	\$25,000	\$25,000
CONSTRUCTION ENTRANCE	EA	7	\$1,000	\$7,000
FILTER BERM	LF	255	\$50	\$12,750
INLET PROTECTION	EA	15	\$350	\$5,250
REMOVAL, HAULING AND DISPOSAL OF CONTAMINATED SEDIMENT	CY	6,020	\$65	\$391,300
ROCK RIPRAP CLASS III	CY	82	\$120	\$9,840
ROCK RIPRAP CLASS IV	CY	179	\$105	\$18,795
WET DITCH MIX - SEEDING	SY	19,448	\$1.80	\$35,007
SOUTHERN BOULEVARD - SEEDING	SY	12,311	\$1.80	\$22,159
CHAIN-LINK FENCING 48-9322	LF	20	\$100	\$2,000
SUBTOTAL				\$639,000
CONSTRUCTION CONTINGENCY (5%)				\$32,000
TOTAL				\$671,000



Capitol Region Watershed District



Sediment Removal and Restoration of Five Stormwater Ponds

Construction Documents Project Manual

Issued for Bid

December 18th, 2025

HDR Project No. 10442517



00 01 07
SEALS AND SIGNATURES

Owner Name: Capitol Region Watershed District
Facility or Site Names: Atwater-Western, Arlington Business Park, Arlington-Arkwright, and Beacon Bluff East & West
Project Name: Sediment Removal and Restoration of Five Stormwater Ponds
Project or Contract Designation: 10442517
Engineer: HDR

<p>Christopher A. Gice, PE License No. 59914</p>	<p>The seal and signature to the left applies to the following Specifications divisions and sections of this project manual:</p> <ul style="list-style-type: none">• All sections within Divisions 01 - 32
--	--

Engineer's seal and signature does not apply to the documents that comprise Division 00, Bidding and Contracting Requirements.

It is a violation of applicable laws and regulations governing professional licensing and registration for any person, unless acting under the direction of the licensed and registered design professional(s) indicated above, to alter in any way the Specifications in this project manual.

END OF SEALS AND SIGNATURES

TABLE OF CONTENTS

DIVISION 00 — PROCUREMENT AND CONTRACTING REQUIREMENTS

- 00 01 01 - PROJECT MANUAL COVER
- 00 01 07 - SEALS AND SIGNATURES
- 00 01 10 - TABLE OF CONTENTS
- 00 01 11 - DIVISION 00 DIVIDER
- 00 11 13 - Advertisement for Bids
- 00 21 13 - Instructions to Bidders
- 00 25 13 - Prebid Meeting
- 00 41 13 - Bid Form
- 00 43 13.1 - Payment Bond
- 00 43 13.2 - Performance Bond
- 00 43 22 - Unit Prices Form
- 00 45 13 - Responsible Bidder Evaluation
- 00 51 00 - Notice of Award
- 00 51 13 - Notice to Proceed
- 00 52 13 - Form of Agreement
- 00 72 43 - GENERAL CONDITIONS
- 00 73 13 - Supplementary Conditions

DIVISION 01 — GENERAL REQUIREMENTS

- 01 00 00 - DIVISION 01 DIVIDER
- 01 11 00 - SUMMARY OF WORK
- 01 14 33 - WORK IN RIGHTS-OF-WAY
- 01 22 00 - MEASUREMENT AND PAYMENT
- 01 29 76 - PROGRESS PAYMENT PROCEDURES
- 01 31 13 - PROJECT COORDINATION
- 01 33 00 - SUBMITTAL PROCEDURES
- 01 41 26 - STORMWATER POLLUTION PREVENTION PLAN AND PERMIT
- 01 55 26 - TRAFFIC CONTROL
- 01 57 05 - TEMPORARY CONTROLS
- 01 71 14 - MOBILIZATION AND DEMOBILIZATION
- 01 71 33 - PROTECTION OF THE WORK AND PROPERTY
- 01 77 19 - CLOSEOUT REQUIREMENTS

DIVISION 02 — EXISTING CONDITIONS

- 02 00 00 - DIVISION 02 DIVIDER
- 02 21 13 - SITE SURVEYS

DIVISION 31 — EARTHWORK

- 31 00 00 - DIVISION 31 DIVIDER
- 31 10 00 - SITE CLEARING
- 31 22 00 - SITE GRADING
- 31 23 19 - DEWATERING
- 31 37 00 - RIPRAP

DIVISION 32 — EXTERIOR IMPROVEMENTS

- 32 00 00 - DIVISION 32 DIVIDER
- 32 92 19 - SEEDING



DIVISION 00

PROCUREMENT AND CONTRACTING
REQUIREMENTS



**SECTION 00 11 13
ADVERTISEMENT FOR BIDS**

NOTICE IS HEREBY GIVEN that bids will be received by the Capitol Region Watershed District (CRWD), via QuestCDN VirtuBid (vBid) until **2:00PM Central Time on Thursday, January 15, 2026**, at which time they will be publicly opened and read aloud via Microsoft Teams for the furnishing of all labor and materials and all else necessary for the following:

**Sediment Removal and Restoration of Five Stormwater Ponds
CRWD Project #25833**

Join the virtual bid opening on your computer or mobile app:

[Click here to join the meeting](#)

Meeting ID: 273 692 055 515 29

Passcode: eF9mK3Zh

Or call in (audio only):

[402-513-9026, 295856044#](#) United States, Omaha

[833-255-2803, 295856044#](#) United States (Toll-free)

Phone Conference ID: 295 856 044#

The Work to be performed is sediment removal and restoration of five stormwater ponds in the City of St. Paul and includes, but is not limited to:

1. Mobilization of labor, equipment, materials, and temporary facilities
2. Installation of safety measures, establishing limits of staging and construction, and protecting of all existing utilities, trees and structures as specified on the plans.
3. Traffic control at and around construction sites.
4. Installation of erosion control BMPs in accordance with project SWPPP.
5. Control of water and/or dewatering as necessary to perform the Work.
6. Pre-construction topographic survey of the five ponds performed by licensed surveyor.
7. Clearing, grubbing, and tree removal.
8. Removal of accumulated sediment/muck/vegetation from five stormwater ponds.
9. Hauling and disposal of sediment/muck/vegetation material to a Municipal Solid Waste (MSW) landfill that can accept non-hazardous contaminated sediment.
10. Furnishing and placement of riprap at pond inlets, outlets, and overflow structures.
11. Performance of post-construction topographic survey of the five ponds.
12. Clean-up and restoration of all areas directly or indirectly disturbed by the Work to the pre-existing conditions or as specified on the plans.
13. Demobilization from the site after work is complete.

The contract documents are available at www.questcdn.com. This contract is QuestCDN project number **9989324**. A contractor may download the digital construction documents for forty-two dollars (\$42.00). Registering as a plan holder is recommended for all prime contractors (potential bidders) and subcontractors as plan holders will receive automatic notice of addenda and other contract document updates via QuestCDN. Contact QuestCDN Customer Support at 952.233.1632 or info@questcdn.com for assistance in free membership registration, downloading digital project information and vBid online bid submittal questions. For this project, bids will ONLY be received and accepted via the online electronic bid service through QuestCDN.com.

To access the electronic bid form, download the project documents and click on the online bid button at the top of the bid advertisement page. Prospective bidders must be on the planholder list through QuestCDN for bids to be accepted.

No bids will be considered unless submitted through www.QuestCDN.com and accompanied by a bidder's security naming Capitol Region Watershed District (hereinafter referred to as the "Owner") as obligee, a surety bond from a surety company authorized to do business in the State of Minnesota equal to at least five percent (5%) of the total amount of the bid, which shall be forfeited to the Owner in the event that the bidder fails to enter into a contract.

The Owner reserves the right to retain the deposits of the three lowest bidders for a period not to exceed ninety (90) days after the date and time set for the opening of bids. Deposits of the higher bidders will be returned within sixty (60) days of bid opening. No bids will be withdrawn for a period of sixty (60) days after the date and time set for the opening bids. Payment for the work will be by check. The Owner may investigate as they deem necessary to determine the ability of the Bidder to perform the work. The Bidder shall furnish the Owner all such information and data for this purpose as the Owner may request. A Responsible Bidder Evaluation form is included in the accompanying documents that may be used as part of such investigations.

The Owner reserves the right to reject any and all bids, to waive irregularities and informalities therein and further reserves the right to award the contract(s) in the best interests of the Board. The potential bidders' attention is directed to the Instructions to Bidders, Section 00 21 13 Article 20 and Pre-Bid Meeting, Section 00 25 13 with regard to the optional pre-bid meeting scheduled for **10:00 AM, Central Time on January 9th, 2026**, unless otherwise modified by Addendum. The pre-bid meeting will be held virtually on MS Teams.

Join the virtual pre-bid meeting on your computer or mobile app:

[Click here to join the meeting](#)

Meeting ID: 228 124 821 048 52

Passcode: 3HK2qr36

Or call in (audio only):

[402-513-9026, 975287420#](#) United States, Omaha

[833-255-2803, 975287420#](#) United States (Toll-free)

Phone Conference ID: 975 287 420#

Direct inquiries can be made to Owner's Representative, Chris Gice at HDR Inc., at 763.591.5497 or christopher.gice@hdrinc.com.

CAPITOL REGION WATERSHED DISTRICT

Chris Kucek, Facility Operations Specialist

595 Aldine Street

St. Paul, MN 55104

Published in the St. Paul Pioneer Press

Published on QuestCDN

END SECTION 00 11 13

**SECTION 00 21 13
INSTRUCTIONS TO BIDDERS**

PART 1 - DEFINED TERMS

1.1 TERMS USED IN THESE INSTRUCTIONS TO BIDDERS WILL HAVE THE MEANING INDICATED IN THE STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT (EJCDC C-700, 2007 EDITION) AND THE SUPPLEMENTARY CONDITIONS. ADDITIONAL TERMS USED IN THESE INSTRUCTIONS TO BIDDERS HAVE THE MEANINGS INDICATED BELOW WHICH ARE APPLICABLE TO BOTH THE SINGULAR AND PLURAL THEREOF:

1. *Successful Bidder* – The lowest, qualified, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. Upon execution of the Agreement, the Successful Bidder becomes the Contractor.

1.2 BIDDING DOCUMENTS SHALL CONSIST OF THE FOLLOWING:

1. Bid Form
2. Unit Prices Form
3. Alternates Form (if applicable)
4. Instructions to Bidders
5. Advertisement for Bids
6. Bid Security
7. Contract Documents (including Drawings and Technical Specifications)
8. Addenda to Bid and Contract Documents
9. Responsible Bidder Evaluation Form

In the event of a discrepancy or inconsistency in or among the Bidding Documents, the interpretation most favorable to Owner shall prevail.

PART 2 - CONTRACT DOCUMENTS

2.1 THE *CONTRACT DOCUMENTS* ARE INTENDED TO BE COMPLEMENTARY; WHAT IS CALLED FOR BY ONE IS AS BINDING AS IF CALLED FOR BY ALL. HOWEVER, IN THE CASE OF A DISCREPANCY AMONG THE DOCUMENTS, THE ORDER OF PRECEDENCE FOR THE DOCUMENTS SHALL BE AS SET IN SUPPLEMENTARY CONDITIONS SC-3.01.A (PROVISIONS OF THE DOCUMENTS LISTED FIRST BELOW SHALL CONTROL OVER THE PROVISIONS OF A DOCUMENT LISTED LATER).

In the event of a discrepancy or inconsistency in or among the Contract Documents, the interpretation most favorable to Owner shall prevail.

PART 3 - COPIES OF BIDDING DOCUMENTS

3.1 COMPLETE SETS OF THE BIDDING DOCUMENTS MAY BE OBTAINED DIGITALLY FROM QUEST CONSTRUCTION DATA NETWORK (CDN) AT WWW.QUESTCDN.COM UNDER QUESTCDN #9989324.

3.2 COMPLETE SETS OF THE BIDDING DOCUMENTS MUST BE USED IN PREPARING BIDS. NEITHER OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR ERRORS OR MISINTERPRETATIONS RESULTING FROM THE USE OF INCOMPLETE SETS OF THE BIDDING DOCUMENTS.

3.3 OWNER AND ENGINEER, IN MAKING COPIES OF THE BIDDING DOCUMENTS AVAILABLE ON THE ABOVE TERMS, DO SO ONLY FOR THE PURPOSE OF OBTAINING BIDS ON THE WORK AND DO NOT CONFER A LICENSE OR GRANT FOR ANY OTHER USE.

PART 4 - QUALIFICATIONS OF BIDDERS

The Owner may make investigation as it deems necessary to determine the ability of the Bidder to perform the Work. The Bidder shall furnish the Owner all such information and data for this purpose as the Owner may request. To demonstrate qualifications to perform the Work, Bidders shall submit with Bid

to Owner, on-line through QuestCDN.com, written documentation which demonstrates the Bidder's experience and ability to complete the Work as specified. This documentation can be found in Section 00 45 13 Responsible Bidder Evaluation; and such other information as Owner believes is necessary.

PART 5 - EXAMINATION OF BIDDING DOCUMENTS AND SITE

5.1 IT IS THE RESPONSIBILITY OF EACH BIDDER BEFORE SUBMITTING A BID, TO (A) EXAMINE THE BIDDING DOCUMENTS AND BECOME THOROUGHLY FAMILIAR WITH ALL TERMS, CONDITIONS, AND REQUIREMENTS; (B) VISIT THE SITES TO BECOME FAMILIAR WITH LOCAL CONDITIONS THAT MAY AFFECT COST, PROGRESS, PERFORMANCE OR FURNISHING OF THE WORK; (C) CONSIDER FEDERAL, STATE AND LOCAL LAWS, CODES, ORDINANCES, AND REGULATIONS THAT MAY AFFECT COST, PROGRESS, PERFORMANCE OR FURNISHING OF THE WORK; (D) STUDY AND CAREFULLY CORRELATE BIDDER'S OBSERVATIONS WITH THE BIDDING DOCUMENTS; AND (E) NOTIFY ENGINEER OF ALL CONFLICTS, ERRORS OR DISCREPANCIES IN THE BIDDING DOCUMENTS.

5.2 IT IS THE RESPONSIBILITY OF EACH BIDDER TO BECOME THOROUGHLY FAMILIAR WITH THE SEQUENCE OF WORK REQUIREMENTS, AND BIDDER'S ABILITY TO COMPLETE WORK AS REQUIRED THEREIN. THE SEQUENCE OF WORK CAN BE FOUND IN 01 10 00 SUMMARY OF WORK.

5.3 SUBSURFACE AND PHYSICAL CONDITIONS

A. Subsurface Conditions:

1. The following explorations, reports, and documents relating to this project were provided to, obtained by or prepared by, the Engineer:

- 1.1 In accordance with Minnesota Pollution Control Agency (MPCA) best management practices for stormwater sediment, Braun Intertec (Braun) collected samples from each stormwater pond prior to the planned restoration and maintenance activities.

Samples were analyzed for potential contaminants and compared to MPCA soil reference values, background threshold values, and screening soil leaching values for the following contaminants:

- Diesel Range Organics (DROs)
- Gasoline Range Organics (GROs)
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Metals

Analytical results indicate contaminants are present at all three MPCA Dredge Management Levels (DML) 1, 2 and 3. As a result, the Owner requires all handling and disposal of dredge material to comply with DML 3 requirements.

A detailed sediment sampling report, including testing methods, sampling locations, and contaminant concentrations is available from the Engineer upon request.

2. The information represented by these explorations, reports, and documents was considered by Engineer for project design purposes. The Owner and Engineer do not imply that any subsurface conditions information and tests that exist are necessarily representative, exhaustive, or comprehensive and expressly disclaim any warranties as to their accuracy or reliability for Bidder's purposes or purposes of construction. The Bidder may use this information and the data as Bidder judges appropriate, but Bidder is not entitled to rely on any of the information, technical data, non-technical data, interpretations, or opinions contained therein or the completeness thereof. Bidder's reliance on such for Bidder's purposes is solely at Bidder's own risk.

B. Existing Structures:

1. All existing above ground structures at the site may not be shown on the Drawings and Bidder shall be responsible to verify the existence and location of all above ground structures. In addition, all above ground structures shown on the Drawings may not be accessible and have not been field-verified to its existence. Bidder's Bid shall include the costs necessary for the performance, progress, furnishing, and installing of the Work as relates to existing above ground structures.

C. Underground Facilities and Utilities:

1. Bidder shall comply with the following paragraphs C.2 and C.3.
2. The Owner and Engineer have no reliable information regarding the existence of underground facilities other than those indicated in the Drawings, which are at or contiguous to the Work. If the Bidder suspects or verifies the existence of subsurface structures which may affect the cost, performance, progress, furnishing, or installing of the Work in accordance with the Bidding Documents prior to the time for the opening of bids, the Bidder shall notify Owner and Engineer promptly, in writing, of the conflict. If such an existing subsurface structure is located at any time thereafter, Owner and Engineer will consider the existing subsurface structure under the provisions for differing conditions.
3. Information and data concerning Utilities at or contiguous to the site that is known to Owner and Engineer is available for review by any Bidder at the Engineer's office by appointment. Owner and Engineer do not imply that this information is necessarily representative, exhaustive, or comprehensive and expressly disclaim responsibility for or any warranties as to its accuracy. Whether Utilities are shown or indicated, or not shown or indicated, on the Drawings the Contractor shall have the full responsibility for locating all Utilities prior to the performance of all elements of the Work. The additional responsibilities of Bidder regarding Underground Facilities and Utilities are set forth in the General Conditions.

- 5.4 BEFORE SUBMITTING A BID, EACH BIDDER WILL, AT BIDDER'S OWN EXPENSE, MAKE OR OBTAIN ANY ADDITIONAL EXAMINATIONS, INVESTIGATIONS, EXPLORATIONS, TESTS AND STUDIES, AND OBTAIN ANY ADDITIONAL INFORMATION AND DATA WHICH PERTAIN TO THE PHYSICAL CONDITIONS (SURFACE, SUBSURFACE, UNDERGROUND FACILITIES AND UTILITIES) AT OR CONTIGUOUS TO THE SITE OR OTHERWISE WHICH MAY AFFECT THE COST, PROGRESS, PERFORMANCE OR FURNISHING OF THE WORK, AND WHICH BIDDER DEEMS NECESSARY TO DETERMINE ITS BID FOR PERFORMING AND FURNISHING THE WORK IN ACCORDANCE WITH THE TIME, PRICE, AND OTHER TERMS AND CONDITIONS OF THE BIDDING DOCUMENTS. BIDDER'S FAILURE TO CONDUCT OR PERFORM SUCH EXAMINATIONS, INVESTIGATIONS, EXPLORATIONS, TESTS, AND STUDIES OR OBTAIN ADDITIONAL INFORMATION, SHALL REPRESENT THAT THE BIDDER HAS INCLUDED IN THE BID ADEQUATE COST CONTINGENCIES AS BIDDER DEEMS NECESSARY FOR PERFORMING AND FURNISHING THE WORK IN ACCORDANCE WITH THE TIME, PRICE, AND OTHER TERMS AND CONDITIONS OF THE BIDDING DOCUMENTS.**
- 5.5 BIDDERS ARE SOLELY RESPONSIBLE FOR ALL ASPECTS OF SITE ACCESS, INCLUDING BUT NOT LIMITED TO, SAFETY, LIGHTING, COMMUNICATIONS, CONFINED SPACE ENTRY REQUIREMENTS AND FOR MONITORING HIGH FLOWS AND/OR THE THREAT OF FORECAST RAINFALL THAT MAKE SUCH ACCESS UNREASONABLY RISKY TO PERSONNEL. IT IS THE BIDDER'S RESPONSIBILITY TO OBTAIN ACCESS TO THE SITE, INCLUDING LANDS OWNED BY OWNER, TO CONDUCT SUCH EXPLORATIONS AND TESTS AS BIDDER DEEMS NECESSARY FOR SUBMISSION OF A BID. BIDDER SHALL BE RESPONSIBLE FOR RESTORATION OF ALL SUCH LANDS TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS.**
- 5.6 OWNER WILL MAKE KNOWN TO THE CONTRACTOR ALL LANDS OVER WHICH EASEMENT, TITLE, OR PERMIT HAS BEEN ACQUIRED BY THE OWNER OR OTHERS FOR THE PURPOSES OF THE WORK. THE PERMISSION TO ENTER AND USE ALL ADDITIONAL LANDS AND ACCESS THERETO THAT THE CONTRACTOR BELIEVES ARE REQUIRED FOR CONSTRUCTION ACCESS, TEMPORARY CONSTRUCTION FACILITIES, OR STORAGE OF MATERIALS AND/OR EQUIPMENT ARE TO BE OBTAINED BY CONTRACTOR. OWNER MAY**

OR MAY NOT BE ABLE TO ASSIST OR AID CONTRACTOR WITH ACQUISITION OF LANDS AND ACCESS THERETO FOR PURPOSES OF CONSTRUCTION.

- 5.7 THE SUBMISSION OF A BID WILL CONSTITUTE AN INCONTROVERTIBLE REPRESENTATION BY BIDDER THAT BIDDER HAS COMPLIED WITH EVERY REQUIREMENT OF THIS ARTICLE 5 AND THAT WITHOUT EXCEPTION THE BID IS PREMISED UPON PERFORMING AND FURNISHING THE WORK REQUIRED BY THE BIDDING DOCUMENTS AND BY SUCH MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION AS DETERMINED BY THE BIDDER, SUBJECT TO THE PROVISIONS OF THE BIDDING DOCUMENTS, AND THAT THE BIDDING DOCUMENTS ARE SUFFICIENT IN SCOPE AND DETAIL TO INDICATE AND CONVEY UNDERSTANDING OF ALL TERMS AND CONDITIONS FOR PERFORMANCE AND FURNISHING OF THE WORK, INCLUDING LIQUIDATED DAMAGES (SEE SECTION 00 52 13 FORM OF AGREEMENT).
- 5.8 NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST OR THAT MAY HEREAFTER EXIST, OR OF DIFFICULTIES THAT WILL BE ENCOUNTERED IN THE EXECUTION OF THE WORK, AS A RESULT WILL BE ACCEPTED AS A SUFFICIENT EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE BIDDER TO FULFILL IN EVERY DETAIL ALL THE REQUIREMENTS OF THE BIDDING DOCUMENTS, OR WILL BE ACCEPTED AS A BASIS FOR ANY CLAIM WHATSOEVER FOR EXTRA COMPENSATION OR FOR AN EXTENSION OF TIME.

PART 6 - INTERPRETATIONS AND CLARIFICATIONS

- 6.1 PRIOR TO THE SUBMITTAL OF BIDS, IF ANY POTENTIAL BIDDER IS IN DOUBT AS TO THE TRUE MEANING OR FINDS DISCREPANCIES IN OR OMISSIONS FROM THE BIDDING DOCUMENTS, THAT POTENTIAL BIDDER SHALL SUBMIT TO ENGINEER A WRITTEN REQUEST FOR AN INTERPRETATION OR CLARIFICATION THEREOF. THE POTENTIAL BIDDER SUBMITTING THE REQUEST SHALL BE RESPONSIBLE FOR PROMPT DELIVERY. INTERPRETATIONS AND CLARIFICATIONS CONSIDERED NECESSARY BY ENGINEER IN RESPONSE TO SUCH REQUESTS WILL BE ISSUED BY ADDENDA VIA ELECTRONIC COMMUNICATION (UPLOADED TO QUEST CDN) TO ALL PARTIES RECORDED BY ENGINEER AND QUEST CDN AS HAVING RECEIVED THE BIDDING DOCUMENTS. ALL REQUESTS MUST BE RECEIVED NO LATER THAN 10:00 AM ON JANUARY 9, 2026. REQUESTS RECEIVED AFTER THAT WILL NOT BE CONSIDERED. ONLY INTERPRETATIONS AND CLARIFICATIONS ISSUED BY ADDENDA WILL BE BINDING. ORAL INTERPRETATIONS AND CLARIFICATIONS WILL BE WITHOUT LEGAL EFFECT. AFTER EXECUTION OF THE AGREEMENT CLARIFICATIONS AND INTERPRETATIONS SHALL BE DIRECTED TO ENGINEER IN ACCORDANCE WITH PARAGRAPH 9.04 OF THE GENERAL CONDITIONS.
- 6.2 THE ESTIMATE OF QUANTITIES AS SHOWN IN THE BID FORM SHALL BE USED AS THE BASIS FOR CALCULATION OF THE INITIAL CONTRACT PRICE UPON WHICH THE AWARD OF CONTRACT WILL BE MADE, BUT THESE QUANTITIES ARE NOT GUARANTEED TO BE ACCURATE AND ARE FURNISHED WITHOUT LIABILITY ON THE PART OF OWNER AND ENGINEER. THE ACTUAL QUANTITIES OF THE VARIOUS ITEMS OF WORK PERFORMED CAN BE EXPECTED TO DIFFER FROM THE ESTIMATES INDICATED ON THE BID FORM AND WILL AFFECT THE FINAL CONTRACT PRICE. AFTER CONTRACT EXECUTION, CONTRACTOR SHALL COOPERATE WITH AND ASSIST ENGINEER AS NECESSARY TO OBTAIN THE ACTUAL MEASUREMENTS REQUIRED FOR ENGINEER'S DETERMINATION OF THE ACTUAL QUANTITIES. CONTRACTOR MAY ALSO BE REQUIRED TO FURNISH TO THE RESIDENT PROJECT REPRESENTATIVE OR OWNER'S REPRESENTATIVE, ON A DAILY BASIS, DAILY REPORTS STATING INFORMATION SUCH AS QUANTITIES OF WORK PERFORMED, LABOR FORCE USED, HOURS WORKED, AND EQUIPMENT USED.
- 6.3 IT IS THE INTENT OF THE BIDDING DOCUMENTS TO COVER ALL ASPECTS OF THE WORK. SHOULD THERE BE SOME ITEM OR ITEMS NOT SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS WHICH ARE REQUIRED FOR THE WORK, THESE ITEMS AND THE FURNISHING OF ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT

SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

- 6.4 ANY ADDENDA ISSUED DURING THE BIDDING PERIOD SHALL BE MADE A PART OF THE BIDDING DOCUMENTS. RECEIPT OF EACH ADDENDUM SHALL BE ACKNOWLEDGED BY DOWNLOADING THROUGH QUESTCDN.**

PART 7 - BID SECURITY

- 7.1 EACH BID MUST BE ACCOMPANIED BY BID SECURITY IN THE FORM OF A BID BOND MADE PAYABLE TO OWNER IN AN AMOUNT OF FIVE (5) PERCENT OF THE BIDDER'S BASE BID PRICE ISSUED BY A SURETY MEETING THE REQUIREMENTS OF PARAGRAPH 5.01.B OF THE GENERAL CONDITIONS.**
- 7.2 THE BID SECURITY OF THE APPARENT SUCCESSFUL BIDDER WILL BE RETAINED UNTIL SUCH BIDDER HAS EXECUTED THE AGREEMENT AND FURNISHED THE REQUIRED PERFORMANCE AND PAYMENT BONDS AND CERTIFICATES OF INSURANCE, WHEREUPON THE BID SECURITY WILL BE RETURNED. IF THE SUCCESSFUL BIDDER FAILS TO EXECUTE AND DELIVER THE AGREEMENT, BONDS, AND CERTIFICATE OF INSURANCE WITHIN SEVEN (7) CALENDAR DAYS AFTER NOTICE OF AWARD, OR WITHIN SEVEN (7) CALENDAR DAYS AFTER EXECUTABLE AGREEMENT IS SENT TO SUCCESSFUL BIDDER, WHICHEVER IS LATER, OWNER MAY ANNUL THE NOTICE OF AWARD AND THE BID SECURITY OF THAT BIDDER WILL BE FORFEITED.**

The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security of all other Bidders will be returned within ten (10) days after the Bid opening, although Bids shall remain subject to acceptance per Article 15 of these Instructions to Bidders.

PART 8 - CONTRACT TIME

- 8.1 SEE SECTION 00 52 13 FORM OF AGREEMENT**
- 8.2 SEE ARTICLE 5 FOR EXAMINATION OF BIDDING DOCUMENTS FOR SEQUENCE OF WORK REQUIREMENTS.**

PART 9 - LIQUIDATED DAMAGES

- 9.1 SEE SECTION 00 52 13 FORM OF AGREEMENT FOR LIQUIDATED DAMAGES EXPLANATION AND DETAILS.**

PART 10 - SUBSTITUTE OR "OR-EQUAL" ITEMS

- 10.1 EACH BID WILL BE CONSIDERED ON THE BASIS OF MATERIALS AND EQUIPMENT DESCRIBED IN THE DRAWINGS OR STATED IN THE SPECIFICATIONS WITHOUT CONSIDERATION OF POSSIBLE SUBSTITUTE OR "OR -EQUAL" ITEMS. WHENEVER IT IS INDICATED IN THE DRAWINGS OR STATED IN THE SPECIFICATIONS THAT A SUBSTITUTE OR "OR-EQUAL" ITEM OF MATERIAL OR EQUIPMENT MAY BE FURNISHED OR USED BY CONTRACTOR IF APPROVED, APPLICATION FOR SUCH APPROVAL, INCLUDING TECHNICAL AND OTHER PERTINENT DATA, MUST BE SUBMITTED UNDER ARTICLE 6 OF THESE INSTRUCTIONS TO BIDDERS. THE EVALUATION OF THE REQUEST WILL BE IN ACCORDANCE WITH THE PROCEDURE FOR SUBMISSION OF ANY SUCH APPLICATION AND CONSIDERATION OF APPLICATION SET FORTH IN PARAGRAPHS 6.05.A THROUGH 6.05.F OF THE GENERAL CONDITIONS.**

PART 11 - BID FORM

- 11.1 THE BID FORM, UNIT PRICES FORM, AND ALTERNATES FORM (IF APPLICABLE) ARE INCLUDED WITH THE BIDDING DOCUMENTS FOR REFERENCE ONLY. BIDS WILL ONLY BE**

RECEIVED AND ACCEPTED VIA THE ONLINE ELECTRONIC BID SERVICE THROUGH QUESTCDN.COM.

- 11.2 THE BLANK SPACES ON THE BID FORM SHALL BE FILLED IN CORRECTLY WHERE INDICATED FOR EACH AND EVERY ITEM, AND SUBMITTED ON QUESTCDN.COM. THE UNIT PRICES AND ALTERNATES FORMS (IF APPLICABLE) ARE FOR REFERENCE ONLY. THE UNIT PRICES SHALL BE SUBMITTED THROUGH QUESTCDN.COM "BID WORKSHEET" AND MUST BE FILLED IN CORRECTLY FOR EACH AND EVERY ITEM FOR WHICH A QUANTITY IS GIVEN AND THE BIDDER SHALL CLEARLY INDICATE THE PRICES FOR WHICH THE BIDDER PROPOSES TO DO EACH ITEM OF WORK CONTEMPLATED.
- 11.3 BIDS BY CORPORATIONS MUST BE EXECUTED IN THE CORPORATE LEGAL NAME BY THE PRESIDENT OR A VICE-PRESIDENT (OR OTHER CORPORATE OFFICER ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN). THE CORPORATE ADDRESS AND STATE OF INCORPORATION MUST BE SHOWN BELOW THE SIGNATURE.
- 11.4 BIDS BY PARTNERSHIPS MUST BE EXECUTED IN THE PARTNERSHIP LEGAL NAME AND SIGNED BY A PARTNER, WHOSE TITLE MUST APPEAR UNDER THE SIGNATURE AND THE OFFICIAL ADDRESS OF THE PARTNERSHIP MUST BE SHOWN BELOW THE SIGNATURE.
- 11.5 THE BID SHALL CONTAIN AN ACKNOWLEDGMENT OF RECEIPT OF ALL ADDENDA (THE NUMBERS OF WHICH MUST BE FILLED IN ON THE BID FORM).

PART 12 - SUBMISSION OF BIDS

12.1 BIDS SHALL BE SUBMITTED IN ACCORDANCE WITH THE FOLLOWING:

1. Oral submissions will not be considered.
2. It is the sole responsibility of the Bidder to see that the Bidder's Bid Form and all accompanying documents is received at the proper place and in proper time. Any Bid received after the scheduled closing time for receipt of the Bids will be rejected.
3. In case of a difference between the unit prices and the extensions of the unit price, the unit prices shall govern.
4. Discrepancies between the indicated sum of any column of numbers and the correct sum thereof shall be resolved in favor of the correct sum.
5. All Bids shall be submitted via the online electronic bid service through QuestCDN.com.
6. The Bid materials submitted for this project shall include the documents and submittal required in the online electronic bid service through QuestCDN.com.
7. Bids shall be received not later than the date and time identified in Section 00 11 13 Advertisement for Bids unless modified by Addendum.

12.2 UNIT PRICES

1. Bidders shall submit a Base Bid on a unit prices basis with unit prices for items included in the online electronic bid service through QuestCDN.com.

12.3 THE BASE BID PRICE SHALL INCLUDE SUCH AMOUNTS AS THE BIDDER DEEMS PROPER FOR OVERHEAD AND PROFIT ON ACCOUNT OF CASH ALLOWANCES, IF ANY, NAMED IN THE CONTRACT DOCUMENTS AS PROVIDED IN PARAGRAPH 11.02 OF THE GENERAL CONDITIONS.

PART 13 - MODIFICATION AND WITHDRAWAL OF BIDS

- 13.1 A BID MAY BE WITHDRAWN WITHOUT PREJUDICE TO THE BIDDER AT ANY TIME PRIOR TO THE TIME SET FOR RECEIPT OF BIDS. THE REQUEST FOR WITHDRAWAL SHALL BE EXECUTED IN THE MANNER A BID MUST BE EXECUTED; 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 IN THE BEST INTEREST OF THE OWNER, AND IN ITS DISCRETION.

WITHDRAWN BIDS MAY BE MODIFIED AND RESUBMITTED ANY TIME PRIOR TO THE TIME SET FOR THE OPENING OF BIDS.

PART 14 - OPENING OF BIDS

14.1 BIDS WILL BE OPENED PUBLICLY AND THE BIDDERS' NAMES AND BASE BID AMOUNTS WILL BE READ ALOUD VIRTUALLY VIA MICROSOFT TEAMS AT SUCH PLACE, TIME AND DATE AS DESIGNATED IN THE ADVERTISEMENT FOR BIDS. BIDDERS OR THEIR AUTHORIZED AGENTS ARE INVITED TO BE PRESENT. THE BALANCE OF THE DATA INCLUDED IN THE BID IS PRIVATE OR NON-PUBLIC UNTIL COMPLETION OF THE SELECTION PROCESS.

PART 15 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

15.1 ALL BIDS WILL REMAIN SUBJECT TO ACCEPTANCE FOR SIXTY (60) CALENDAR DAYS AFTER THE BID OPENING, BUT OWNER MAY, IN OWNER'S SOLE DISCRETION, RELEASE ANY BID PRIOR TO THAT DATE. BID SECURITY SHALL BE RETURNED AS STATED IN ARTICLE 7 OF THESE INSTRUCTIONS TO BIDDERS.

PART 16 - REJECTION OF BIDS AND AWARD OF CONTRACT

16.1 ONLY BIDS THAT ARE SUBMITTED BY A RESPONSIBLE BIDDER AND RESPONSIVE TO THE BID SPECIFICATIONS WILL BE CONSIDERED. OWNER RESERVES THE RIGHT TO WAIVE ANY AND ALL MINOR INFORMALITIES NOT INVOLVING PRICE, TIME, OR CHANGES IN THE WORK. OWNER RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS. DISCREPANCIES IN THE MULTIPLICATION OF UNITS OF WORK AND UNIT PRICES (IF USED) SHALL BE RESOLVED IN FAVOR OF THE UNIT PRICES. DISCREPANCIES BETWEEN THE INDICATED SUM OF ANY COLUMN OF FIGURES AND THE CORRECT SUM THEREOF SHALL BE RESOLVED IN FAVOR OF THE CORRECT SUM.

16.2 IF THE CONTRACT IS TO BE AWARDED, IT WILL BE AWARDED TO THE LOWEST RESPONSIBLE RESPONSIVE BIDDER OF THE BASE BID.

16.3 IF THE CONTRACT IS TO BE AWARDED, OWNER WILL GIVE THE SUCCESSFUL BIDDER A NOTICE OF AWARD WITHIN FORTY-FIVE (45) CALENDAR DAYS AFTER THE DAY OF THE BID OPENING.

PART 17 - CONTRACT SECURITY

Paragraphs 5.01A., B. and C. of the General Conditions set forth Owner's requirements as to performance and payment bonds. When the successful bidder delivers the executed Agreement to Owner, it must be accompanied by the required performance and payment bonds, and a Certificate of Insurance evidencing compliance with the insurance requirements in these Bidding Documents.

PART 18 - SIGNING OF AGREEMENT

When Owner gives a Notice of Intent to Award to the successful bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all attachments. The agreement between Owner and Contractor shall be as represented in the Agreement. Within seven (7) calendar days of the date of the Notice of Intent to Award, the successful bidder shall sign and deliver the required number of counterparts of the Agreement with all attachments to Owner, via the Engineer, in accordance with the instructions for delivery in the Notice of Intent to Award along with the required bonds, evidence of required insurance, and any other required submittals.

PART 19 - PAYMENT AND RETAINAGE

19.1 PROVISIONS CONCERNING PROGRESS PAYMENTS AND FINAL PAYMENT ARE SET FORTH IN ARTICLE 14 OF THE GENERAL CONDITIONS AS MODIFIED BY THE

SUPPLEMENTARY CONDITIONS AND SECTION 01 29 76 PROGRESS PAYMENT PROCEDURES.

- 19.2 PAYMENT AMOUNTS ON ACCOUNT OF EQUIPMENT (NOT MATERIALS) DELIVERED TO THE SITE PRIOR TO BEGINNING THE WORK MAY BE MADE UPON THE DISCRETION OF THE OWNER AND ONLY ON ITEMS THAT ARE STATED IN THE SPECIFICATIONS AS REQUIRING ADVANCED ORDERING. PROGRESS PAYMENTS WILL ONLY BE MADE WHEN MATERIALS ARE COMPLETELY INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.**
- 19.3 THE OWNER SHALL WITHHOLD A RETAINAGE OF THE TOTAL CONTRACT VALUE FROM PROGRESS PAYMENTS. THE RETAINAGE SHALL BE RELEASED WITH THE FINAL PAYMENT IN ACCORDANCE WITH PARAGRAPH 14.07 OF THE GENERAL CONDITIONS.**
- 19.4 RETAINAGE SHALL BE FIVE PERCENT (5%) OF THE VALUE OF THE WORK COMPLETED TO DATE.**

PART 20 - PRE-BID MEETING AND PRECONSTRUCTION CONFERENCE

- 20.1 PRIOR TO BID CLOSING, AN OPTIONAL PRE-BID MEETING WILL BE HELD. THIS MEETING IS SCHEDULED AT SUCH PLACE, DATE, AND TIME AS DESIGNATED IN SECTION 00 11 13 ADVERTISEMENT FOR BIDS.**
- 20.2 PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS, A PRECONSTRUCTION CONFERENCE WILL BE HELD AS PROVIDED FOR BY PARAGRAPH 2.06 OF THE GENERAL CONDITIONS.**

END OF SECTION 00 21 13

**SECTION 00 25 13
PREBID MEETING**

1.01 PREBID MEETING

- A. Owner will conduct a Prebid meeting at a place, date, and time as indicated Section in 00 11 13 Advertisement for Bids.
- B. Attendance:
 - 1. Prime Bidders: Attendance at Prebid meeting is recommended.
 - 2. Subcontractors: Attendance at Prebid meeting is recommended.
- C. Agenda: Prebid meeting agenda will include review of topics that may affect proper preparation and submittal of bids, including the following:
 - 1. Procurement and Contracting Requirements:
 - a. Advertisement for Bids.
 - b. Instructions to Bidders.
 - c. Bidder Qualifications.
 - d. Bonding.
 - e. Insurance.
 - f. Bid Security.
 - g. Bid Form and Attachments.
 - h. Bid Submittal Requirements.
 - i. Bid Submittal Checklist.
 - j. Notice of Award.
 - 2. Communication during Bidding Period:
 - a. Obtaining documents.
 - b. Bidder's Requests for Information.
 - c. Bidder's Substitution Request/Prior Approval Request.
 - d. Addenda.
 - 3. Contracting Requirements:
 - a. Agreement.
 - b. The General Conditions.
 - c. The Supplementary Conditions.
 - d. Other Owner requirements.
 - 4. Construction Documents:
 - a. Scopes of Work.
 - b. Temporary Facilities.
 - c. Use of Site.
 - d. Work Restrictions.
 - e. Alternates, Allowances, and Unit Prices.
 - f. Substitutions following award.
 - 5. Schedule:
 - a. Project Schedule.
 - b. Contract Time.
 - c. Liquidated Damages.
 - d. Other Bidder Questions.

6. Post-Meeting Addendum.

- D. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes to attendees. Minutes of meeting are issued as Available Information. Modifications to the Procurement and Contracting Documents are issued by written Addendum only.
1. Sign-in Sheet: Minutes will include list of meeting attendees.
 2. List of Plan holders: Minutes will include list of plan holders.

END OF SECTION 00 25 13

SECTION 00 41 13

BID FORM

**PROJECT NAME: SEDIMENT REMOVAL AND RESTORATION OF FIVE
STORMWATER PONDS**

Saint Paul, Minnesota

BIDS DUE: See Section 00 11 13 ADVERTISEMENT FOR BIDS

PROPOSAL TO: Capitol Region Watershed District
Attn: Chris Kucek
595 Aldine Street
St. Paul, MN 55104

PROPOSAL OF: _____
(CONTRACTOR'S NAME)

The undersigned has examined the Bidding Documents, is familiar with the site and location of the project, and the nature of the work and local conditions affecting the cost of the work. The undersigned has had the opportunity to undertake all reasonable examination of the surface and subsurface conditions, including the existence and nature of all natural and artificial structures, relevant to or affecting the work and has accounted in the bid for all foreseeable consequences thereof. The undersigned hereby proposes to furnish all labor, materials, skills and equipment required for the complete construction of work described in strict accordance with all requirements of the Contract Documents.

- A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Plans, Specifications, and all subsequent Addenda, as prepared by HDR Inc., having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. _____
Dollars
(\$ _____).

1.2 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish required number of signed counterparts of the Agreement with all attachments as specified within (7) calendar days after a written Notice of Award, if offered within 45 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached certified check or surety bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above

1. _____
Dollars
(\$ _____).

In submitting this bid it is understood that the Owner retains the right to reject any and all bids and to waive irregularities and informalities therein and to award the Contract to the best interests of the Owner.

In submitting this bid it is understood that payment will be by check.

It is understood that bids may not be withdrawn for a period not to exceed sixty (60) days after the date set for the opening of bids. The Owner reserves the right to retain the certified check or bond of the three lowest bidders as determined by the Owner for a period not to exceed ninety (90) days after the date set for the opening of bids.

1.3 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are submitted virtually via the online electronic bid service through QuestCDN.com.
1. Bid Form Supplement - Unit Prices
 2. Responsible Bidder Evaluation Form

Respectfully submitted,

Bidder is (circle one) **Corporation** **Partnership** **Individual**

FIRM: _____

BY: _____

(Printed Name of Signer)

TITLE: _____

ADDRESS: _____

TELEPHONE: _____

FEDERAL TAX ID NO. _____

DATE: _____

Acknowledge Addenda by inserting number and date below:

Addendum Number

Date Received

END OF SECTION 00 41 13

PAYMENT BOND

CAPITOL REGION WATERSHED DISTRICT

KNOW ALL PERSONS BY THESE PRESENTS,

That we, located at in _____ County, MN, as Principal, and located at _____ as surety, are severally and jointly held and firmly bound unto Capitol Region Watershed District in the State of Minnesota, as obligee, for the use of said Capitol Region Watershed District and also for the use of all persons, who may do work or furnish skill, tools, machinery or materials under or for the purposes of that certain **contract*** entered into between the said Principal, and the said Capitol Region Watershed District, and hereinafter more particularly described, in the sum of _____ (\$) Dollars, lawful money of the United States of America, well and truly to be paid, for which payment we hereby bind ourselves, and each of us by him/her, our and each of our heirs, executors, administrators, successors or assigns firmly by these presents.

Sealed with our seals and signed with our hands and dated this _____ day of _____, 20__.

The condition of the above obligation is such, that
Whereas, The said principal did, on the _____ day of _____, 20____, make, execute and enter into a certain contract with the above obligee for _____ at the contract price of _____ (\$) Dollars, which contract is or will be filed with Capitol Region Watershed District.

Now Therefore, If the said principal shall pay, as they become due, all just claims for all work and labor performed, and for all skill, tools, machinery and material furnished in the execution of said contract, and also save the obligee named in this bond harmless from any cost, charge or expense or claim that may accrue on account of the doing of the work or furnishing of the skill, tools, machinery or material specified in such contract, then the above obligation is to be void, otherwise to be in full force and effect.

*The term "contract", as used herein, shall include the original agreement plus all subsequent change orders and/or amendments. The contract price to which the principal is bound shall be the amount as reflected by the terms of the contract.

In Testimony Whereof, We have hereunto set our hands and seals and executed and delivered the foregoing bond on the day and year first above written.

Signed, Sealed and Delivered in Presence of }

_____ }	}	_____ (Seal)
Witness for Principal }	}	Principal
_____ }	}	_____ (Seal)

_____ }	}	_____ (Seal)
Witness for Surety }	}	Surety

Service of Notices of claims on this bond are authorized to be accepted for the contractor and surety as follows:

FOR CONTRACTOR:

Name: _____

Address: _____

FOR SURETY:

Name: _____

Address: _____

ACKNOWLEDGMENT OF PRINCIPAL (Individual) or (Partnership)

COUNTY OF _____ } SS
 personally came before me _____ } Be it known that on this _____ day of _____, 20_____,
 and to me well known to be the persons described in and who executed the foregoing bond, and each for his/her
 acknowledged that he/she executed the same as his/her free act and deed, and for the uses and purposes therein
 expressed.

My Commission Expires _____20

ACKNOWLEDGMENT OF PRINCIPAL (Corporation)

1.1 STATE OF MINNESOTA }

COUNTY OF } ss
}

On the _____ day of _____, 20_____, before me appeared to me personally known, who, being by me duly sworn upon oath, did, say that he/she is the _____ for the corporation described in and which executed the above instrument; that the seal affixed to the foregoing instrument is the corporate seal of said corporation; that said instrument was executed on behalf of said corporation by authority of its Board of Directors; and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Minnesota. Notary Public, County of

20 My Commission Expires

A. ACKNOWLEDGMENT OF THE SURETY

STATE OF MINNESOTA }
}ss.
COUNTY OF }

On this _____ day of _____, 20_____, before me a Notary Public within and for said County and State, personally appeared _____ to me personally known who, being by me duly sworn, upon oath did say that he/she is the Agent and Attorney-in-Fact of and for the a corporation of, _____ created, organized and existing under and by virtue of the laws of the State of _____; that the corporate seal affixed to the foregoing within instrument is the seal of said Company; that the said seal was affixed and the said instrument was executed by authority of its Board of Directors; and the _____ did acknowledge that he/she executed the said instrument as the free act and deed of said Company.

Minnesota. Notary Public, County of

20 My Commission Expires

Rev 03/08

PERFORMANCE BOND

CAPITOL REGION WATERSHED DISTRICT

KNOW ALL PERSONS BY THESE PRESENTS,

That we _____, located at _____ in _____ County, MN, as Principal, and _____, located at _____ as Surety, are severally and jointly held and firmly bound unto Capitol Region Watershed District in the State of Minnesota, as obligee, for the use of said Capitol Region Watershed District and conditioned on saving Capitol Region Watershed District harmless from all costs and charges that may accrue on account of completing the performance of the **contract*** entered into between said Principal, and the said Capitol Region Watershed District, and hereinafter more particularly described, in the sum of _____ (\$) Dollars, lawful money of the United States of America, well and truly to be paid, for which payment we hereby bind ourselves, and each of us by him/her, our and each of our heirs, executors, administrators, successors or assigns firmly by these presents.

Sealed with our seals and signed with our hands and dated this _____ day of 20____.

The condition of the above obligation is such, that

Whereas, The said _____ did, on the _____ day of _____ 20____, make, execute and enter into a certain contract with the above obligee for _____ at the contract price of (\$) _____ Dollars, which contract is or will be filed with Capitol Region Watershed District.

Now Therefore, If the said _____ shall complete such contract according to the terms thereof and the contract price; and comply with all the requirements of law, then the above obligation is to be void, otherwise to be in full force and effect.

*The term "contract", as used herein, shall include the original agreement plus all subsequent change orders and/or amendments. The contract price to which the principal is bound shall be the amount as reflected by the terms of the contract.

In Testimony Whereof, We have hereunto set our hands and seals and executed and delivered the foregoing bond on the day and year first above written.

Signed, Sealed and Delivered in Presence of

Witness for Principal

Witness for Surety

}
}
}
}
}

Principal

Surety

(Seal)

(Seal)

ACKNOWLEDGMENT OF PRINCIPAL (Individual)

STATE OF MINNESOTA}
} ss.
County of _____ }

On this _____ day of _____ 20____, before me, a Notary Public within and for said County and State, appeared _____, to me personally known, who, being by me duly sworn upon oath did say that he/she executed the foregoing bond as his/her free act and deed, and for the uses and purposes therein expressed.

Notary Public, County of _____, Minnesota

My Commission Expires _____ 20____

ACKNOWLEDGMENT OF PRINCIPAL (Partnership)

STATE OF MINNESOTA }
 } ss.
County of _____ }

On this _____ day of _____, 20____, before me, a Notary Public within and for said County and State, appeared _____, to me personally known, who, being by me duly sworn upon oath did say that he/she is the _____ for the Partnership described in and which executed the foregoing bond; that said bond was executed on behalf of said Partnership by authority of its _____; and said _____ acknowledged said bond to be the free act and deed of said Partnership.

Notary Public, County of _____, Minnesota

My Commission Expires _____ 20____

STATE OF MINNESOTA }
 } ss.
County of _____ }

_____, Minnesota Notary Public, County of _____

My Commission Expires _____
20__

STATE OF MINNESOTA }
 } ss.
County of _____ }

_____, Minnesota

Notary Public, County of _____

My Commission Expires _____

20__

Rev 03/08

SECTION 00 43 22

UNIT PRICES FORM

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Prime Contract: Sediment Removal and Restoration of Five Stormwater Ponds.
- C. Project Location: Saint Paul, Minnesota.
- D. Owner: Capitol Region Watershed District.
- E. Owner Project Number: 25833
- F. Engineer: HDR Inc.
- G. Engineer Project Number: 10442517
- H. Construction Manager: Chris Kucek, Capitol Region Watershed District

1.2 BID FORM SUPPLEMENT

- A. This form is for reference only.
- B. Unit prices must be submitted through the online bidding system of QuestCDN.com. The Bidder proposes to complete the Work for the following prices submitted therein.

1.3 UNIT PRICES

A. BID ITEMS

BASE BID: GENERAL				
Bid Item	Unit	Estimated Quantity	Unit Price	Total Estimated Price
Mobilization and Demobilization	LS	1		
Pre- and Post-Construction Surveys	LS	1		
Water Handling	LS	1		
Clearing, Grubbing and Tree Removal	LS	1		
Construction Entrance	EA	7		
Inlet Protection	EA	15		
Filter Berm (Type 3)	LF	255		
Removal, Hauling and Disposal of Sediment	CY	6,020		
Riprap MnDOT Class III	CY	82		
Riprap MnDOT Class IV	CY	179		
Wet Ditch Mix - Seeding	SY	19,448		
Southern Boulevard Mix - Seeding	SY	12,311		

BASE BID: GENERAL				
Bid Item	Unit	Esti- mated Quantity	Unit Price	Total Estimated Price
Chain-link Fencing (48-9322)	LF	20		
TOTAL				

Notes:

See Section 01 22 00 MEASUREMENT AND PAYMENT PROCEDURES for definitions, procedures, measurement and payment for unit prices.

1.4 QUANTITIES

- A. Quantities are not guaranteed and are expected to vary. Final payment will be based on actual quantities of work performed as determined by the Engineer in accordance with Article 9 of the General Conditions. The Owner reserves the right to reduce or remove any quantity listed in the Unit Prices Forms at the time of award without a renegotiation of the unit prices.

1.5 SUBMISSION OF BID SUPPLEMENT

- A. Respectfully submitted this ____ day of _____, 202__.
- B. Submitted By: _____ (Insert name of bidding firm or corporation).
- C. Authorized
Signature: _____ (Handwritten
signature).
- D. Signed By: _____ (Type
or print name).
- E. Title: _____ (Owner/Partner/President
/Vice President).

END OF SECTION 00 43 22

SECTION 00 45 13

RESPONSIBLE BIDDER EVALUATION

To demonstrate Bidder's qualifications to perform the Work, each Bidder must submit written evidence of financial data, previous similar experience, present commitments, and such other data as called for below:

- A. Evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of Contract.
- B. Evidence of genuineness of Bid and lack of collusion in conjunction therewith.

The following information is required and will be evaluated to determine if a Bidder is "responsible." Bidders must complete and submit this information online through QuestCDN.com.

1. Identify similar public projects in which you were the contractor. A similar project is defined as one that includes mechanical dredging, general earthwork, and/or stormwater pond restoration. If you have had more than 5 such contracts, list only the last 5 contracts, and as to each contract identified, provide the following information:

Project Description (include specific information on what type of elements were installed as noted above, and what construction methods were used):

Date of Construction:

Date of Warranty Expiration:

Contact Person for the Project:

Were change orders in excess of 5 percent requested? If yes, explain the circumstances.

Were liquidated damages assessed? If yes, explain the circumstances.

Was the project completed on the original schedule? If no, explain the circumstances.

2. Describe all construction arbitration claims and any construction or project litigation in which you have been a party in the last five (5) years.
3. Identify all public projects you have had with the Capitol Region Watershed District or similar public agency (watershed district, watershed management organization, JPO, municipality, county, state, or conservation district) in the last five (5) years.
4. In the last five (5) years, has a bonding company ever refused to issue you a performance bond? If yes, explain the circumstances.
5. In the last five (5) years have any claims been filed against a performance or payment bond that you have provided a public entity? If yes, explain the circumstances.
6. In the last five (5) years, has your firm or any of its owners or employees been fined by a federal state agency for a contract or workplace matter (such as wage or hour or

safety violations), or debarred under Part 29, Title 49 CFR or any other law from submitting bids on public projects? If yes, explain the circumstances.

7. In the last five (5) years, has your firm or any of its owners or employees been charged or convicted of a crime involving the awarding, bidding or performance of a government contract? If yes, provide full details.

END OF SECTION 00 45 13

SECTION 00 51 00

NOTICE OF AWARD

To: _____

Owner: Capitol Region Watershed District
Class of Work: SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER
PONDS

The OWNER has considered the Bid submitted by you for the above described work in response to its Advertisement of Bids dated _____, 20__ and the Information to Bidders.

You are hereby notified that your Bid in the Amount of \$ _____ has been accepted. You are required to execute the Agreement and furnish the required CONTRACTOR's Performance Bond and, Payment Bond, and provide the Certificate(s) of Insurance and endorsement(s) within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said bonds, certificate(s) and endorsement(s) within ten (10) calendar days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your bid as abandoned and to your bid bond proceeds. The OWNER will be entitled to such other rights and remedies as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this ____ day of _____, 20__.

Capitol Region Watershed District

(OWNER)

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____ this the
____ day of _____, 20__.

By: _____

Title: _____

END OF SECTION 00 51 00

SECTION 00 51 13

NOTICE TO PROCEED

To: _____ Date: _____

Project: SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS

You are hereby notified to commence WORK in accordance with the Agreement dated _____, on or before _____, 20__, and you are to substantially complete the WORK on or before April 30, 2026.

The date of final completion of all work is June 15, 2026.

Capitol Region Watershed District

(OWNER)

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of this above Notice to Proceed is hereby acknowledged by _____ this the ____ day of _____, 20__.

By: _____

Title: _____

END OF SECTION 00 51 13

SECTION 00 52 13

FORM OF AGREEMENT

THIS AGREEMENT is by and between Capitol Region Watershed District (hereinafter called Owner) and _____, address, _____, corporate legal status (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1. WORK

- 1.1 Contractor shall complete all Work as specified or indicated in the Contract Documents for the SEDIMENT REMOVAL AND RESTORATION OF FIVE STORMWATER PONDS project. The Work is generally described in Division 1 (General Requirements) of the Technical Specifications. The Work to be provided under the Contract Documents may be the whole or only a part of the total construction for the Project.

ARTICLE 2. ENGINEER

- 2.1 The Project has been designed by Engineer (defined in the Supplementary Conditions) and Engineer is to act as Owner's Representative, assume all duties and responsibilities and have the limited rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents. The duties and responsibilities and rights and authority of Engineer cannot be extended without written consent of Owner and Engineer.

ARTICLE 3. CONTRACT TIMES

3.1 *Time of the Essence*

- A. All time limits for Milestones, if any; Substantial Completion, Final Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- B. The Work shall commence not more than five calendar days after execution of the Agreement between Owner and the Successful Bidder unless Notice to Proceed states a later date. Notice to Proceed is expected to be issued on or around Monday, February 2, 2026
- C. Contractor shall submit a Work Plan to Engineer prior to mobilization and site access. The Work Plan is described in paragraph 1.11.A.1 of Section 01 11 00 – Summary of Work.

3.2 *Dates of Substantial Completion and Final Payment*

- A. The Work will be substantially completed on or before April 30, 2026, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before June 15, 2026.
- B. Work shall be considered substantially complete when all sediment/muck/vegetation has been excavated, consolidated, and hauled off-site for all five stormwater basins.

- C. Work shall be considered complete and ready for final payment once all sites have been seeded and site restoration and clean-up has been achieved and accepted by Owner and Owner's Engineer.

3.3 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 3.1 above and that Owner will suffer financial and other losses if the Work is not completed within the times specified in Paragraph 3.2 above, plus any extensions thereof allowed in accordance with the Contract Documents. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
- B. Substantial Completion: Contractor shall pay Owner \$1,000 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 3.2 above for Substantial Completion until the Work is substantially complete.
- C. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500 for each day that expires after such time until the Work is completed and ready for final payment.
- D. Liquidated damages for failing to timely attain Substantial Completion and Final Completion are not additive and will not be imposed concurrently.

ARTICLE 4. CONTRACT PRICE

- 4.1 Owner shall pay Contractor for completion of the Work, all as Unit Price Work, in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 4.1.A and 4.1.C below.

- A. For all Unit Price Work including lump sum units, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item as determined by Engineer as provided in paragraph 9.07 of the General Conditions. The established unit price shall be as set forth in the Bid Form except as may be stated below or adjusted by Modification to this Agreement. No exceptions.
- B. The initial Contract Price, as determined by the sum of the established unit price for each item of Work times the estimated quantity of that item as set forth in the Bid Form, is:

Dollars (\$) (in words)

- C. As provided in paragraph 11.03.A of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by Engineer as provided in paragraph 9.08 of the General Conditions and such determinations by Engineer will be used to compute the final Contract Price. Contractor acknowledges that

unit prices as set forth above, in the Bid Form, and in Modifications have been or will be computed as provided in paragraph 11.03.B of the General Conditions.

ARTICLE 5. PAYMENT PROCEDURES

5.1 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with the General Requirements and Article 14 of the General Conditions as may be modified by the Supplementary Conditions.

5.2 *Progress Payments; Retainage*

- A. Contractor's Applications for Payment will be processed by Engineer as provided in the General Conditions as may be modified by the Supplementary Conditions. Retainage on account of progress payments will be as provided for in the Instructions to Bidders.
- B. The Owner shall withhold a retainage of 5% of the total Contract value from progress payments. The retainage shall be released with the Final Payment in accordance with paragraph 14.07 of the General Conditions.

5.3 *Final Payment*

- A. Final payment will be prepared and paid in accordance with paragraph 14.07 of the General Conditions.

ARTICLE 6. PAYMENT OF INTEREST AND DISPUTES

- 6.1 Payment due dates and calculation of interest for monies not paid when due as provided in ARTICLE 14 of the General Conditions, shall be determined in accordance with the provisions of the Minnesota Prompt Pay Law, Minnesota Statutes §471.425.

ARTICLE 7. CONTRACTOR'S REPRESENTATIONS

7.1 By signing this Agreement, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Bidding Documents including all Addenda and the other related data identified in the Bidding Documents including "technical data."
- B. Contractor has become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, performance or furnishing of the Work.
- C. Contractor is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work.
- D. Contractor makes all representations, previously made as Bidder, upon signing and submitting the Bid Form as though fully repeated herein.
- E. Contractor is aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

- F. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports, and drawings identified in the Bidding Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- G. Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Bidding Documents and the written resolution thereof by Engineer is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- H. The Contractor agrees to renew or repair any work or materials found to be defective within one (1) year of project acceptance by the Owner. The Contractor will make any necessary repairs within the one (1) year warranty period at a time when requested by the Owner.

ARTICLE 8. CONTRACT DOCUMENTS

8.1 *Contents*

- A. The Contract Documents are listed in the Instructions to Bidders and are attached to and made a part of this Agreement.
- B. Written Amendments, Modifications, Change Orders, and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs 3.04 of the General Conditions, as modified by the Supplementary Conditions, after the date of execution of this Agreement shall become incorporated into, attached to, and made a part of this Agreement on the effective date of such document.
- C. There are no Contract Documents other than those identified above in this Article 8. Beginning on the Effective Date of this Agreement the Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.04 of the General Conditions, as modified by the Supplementary Conditions.

ARTICLE 9. MISCELLANEOUS

9.1 *Terms*

- A. Terms used in this Agreement which are defined in the General Conditions have the meanings assigned to them in the General Conditions except as modified by the Supplementary Conditions.
- B. Terms used in this Agreement which are defined in the Contract Documents have the meanings assigned to them in the Contract Documents.
- C. If there is a discrepancy between a definition in the General Conditions, as modified by the Supplementary Conditions, and a definition in the Contract Documents, the provision most favorable to Owner shall prevail.

9.2 *Indemnification*

- A. Contractor shall indemnify, hold harmless and defend Owner, the State of Minnesota, and the City of Saint Paul, their officers, officials, agents, and employees against any and all

liability, losses, costs, damages, expenses, claims, or actions, including attorney's fees, which Owner, the State of Minnesota, and the City of Saint Paul, their officers, officials, agents, or employees may hereafter sustain, incur, or be required to pay, arising out of or by reason of any act or omission of Contractor or its subcontractors, or Contractor's or subcontractors' officers, agents, subcontractors, or employees, in the execution, performance, or failure to adequately perform Contractor's obligations pursuant to this Agreement.

9.3 *Assignment of Contract*

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

9.4 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, officers, officials, successors, assigns and legal representatives to the other party hereto, its partners, officers, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in this Agreement.

9.5 *Severability*

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

9.6 *Other Provisions*

- A. This Agreement shall be governed by the laws of the State of Minnesota.
- B. There are no other provisions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor and Engineer. All portions of the Contract Documents have been signed, initialed or identified by Owner and Contractor or on their behalf as required.

This Agreement will be effective as of the last date written below, which is the Effective Date of the Agreement).

Owner:	Contractor:
<u>Capitol Region Watershed District</u>	_____
By: _____	By: _____
Date: _____	Date: _____

Attest _____

Address for giving notices:

Capitol Region Watershed District
595 Aldine Street
Saint Paul, MN 55104

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone: _____

Facsimile: _____

Approved as to form and insurance:

Assistant Ramsey County Attorney

Attest

Address for giving notices:

License No. _____
(Where applicable)

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone: _____

Facsimile: _____

END OF SECTION 00 52 13

General Conditions

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



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NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology	1
1.01 Defined Terms.....	1
1.02 Terminology.....	5
Article 2 – Preliminary Matters.....	6
2.01 Delivery of Bonds and Evidence of Insurance.....	6
2.02 Copies of Documents.....	6
2.03 Commencement of Contract Times; Notice to Proceed	6
2.04 Starting the Work.....	7
2.05 Before Starting Construction	7
2.06 Preconstruction Conference; Designation of Authorized Representatives	7
2.07 Initial Acceptance of Schedules	7
Article 3 – Contract Documents: Intent, Amending, Reuse.....	8
3.01 Intent.....	8
3.02 Reference Standards	8
3.03 Reporting and Resolving Discrepancies	8
3.04 Amending and Supplementing Contract Documents	9
3.05 Reuse of Documents	10
3.06 Electronic Data.....	10
Article 4 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions; Reference Points	10
4.01 Availability of Lands	10
4.02 Subsurface and Physical Conditions	11
4.03 Differing Subsurface or Physical Conditions.....	11
4.04 Underground Facilities	13
4.05 Reference Points	14
4.06 Hazardous Environmental Condition at Site.....	14
Article 5 – Bonds and Insurance	16
5.01 Performance, Payment, and Other Bonds	16
5.02 Licensed Sureties and Insurers	16
5.03 Certificates of Insurance	16
5.04 Contractor’s Insurance	17
5.05 Owner’s Liability Insurance	18
5.06 Property Insurance	18
5.07 Waiver of Rights	20
5.08 Receipt and Application of Insurance Proceeds	21
5.09 Acceptance of Bonds and Insurance; Option to Replace.....	21

5.10	Partial Utilization, Acknowledgment of Property Insurer	21
Article 6 – Contractor’s Responsibilities		22
6.01	Supervision and Superintendence	22
6.02	Labor; Working Hours.....	22
6.03	Services, Materials, and Equipment	22
6.04	Progress Schedule	23
6.05	Substitutes and “Or-Equals”	23
6.06	Concerning Subcontractors, Suppliers, and Others	25
6.07	Patent Fees and Royalties	26
6.08	Permits.....	27
6.09	Laws and Regulations.....	27
6.10	Taxes	28
6.11	Use of Site and Other Areas	28
6.12	Record Documents.....	29
6.13	Safety and Protection	29
6.14	Safety Representative	30
6.15	Hazard Communication Programs	30
6.16	Emergencies	30
6.17	Shop Drawings and Samples	30
6.18	Continuing the Work	32
6.19	Contractor’s General Warranty and Guarantee.....	32
6.20	Indemnification	33
6.21	Delegation of Professional Design Services	34
Article 7 – Other Work at the Site.....		34
7.01	Related Work at Site	34
7.02	Coordination.....	35
7.03	Legal Relationships.....	35
Article 8 – Owner’s Responsibilities		36
8.01	Communications to Contractor.....	36
8.02	Replacement of Engineer.....	36
8.03	Furnish Data	36
8.04	Pay When Due	36
8.05	Lands and Easements; Reports and Tests	36
8.06	Insurance	36
8.07	Change Orders.....	36
8.08	Inspections, Tests, and Approvals	36
8.09	Limitations on Owner’s Responsibilities	36
8.10	Undisclosed Hazardous Environmental Condition.....	37
8.11	Evidence of Financial Arrangements	37
8.12	Compliance with Safety Program.....	37
Article 9 – Engineer’s Status During Construction		37
9.01	Owner’s Representative.....	37
9.02	Visits to Site	37
9.03	Project Representative	38

9.04	Authorized Variations in Work	38
9.05	Rejecting Defective Work	38
9.06	Shop Drawings, Change Orders and Payments	38
9.07	Determinations for Unit Price Work	38
9.08	Decisions on Requirements of Contract Documents and Acceptability of Work	39
9.09	Limitations on Engineer's Authority and Responsibilities.....	39
9.10	Compliance with Safety Program.....	40
Article 10 –	Changes in the Work; Claims	40
10.01	Authorized Changes in the Work	40
10.02	Unauthorized Changes in the Work	40
10.03	Execution of Change Orders.....	40
10.04	Notification to Surety.....	41
10.05	Claims.....	41
Article 11 –	Cost of the Work; Allowances; Unit Price Work.....	42
11.01	Cost of the Work	42
11.02	Allowances	44
11.03	Unit Price Work	45
Article 12 –	Change of Contract Price; Change of Contract Times.....	45
12.01	Change of Contract Price.....	45
12.02	Change of Contract Times	47
12.03	Delays.....	47
Article 13 –	Tests and Inspections; Correction, Removal or Acceptance of Defective Work.....	48
13.01	Notice of Defects	48
13.02	Access to Work	48
13.03	Tests and Inspections	48
13.04	Uncovering Work	49
13.05	Owner May Stop the Work.....	49
13.06	Correction or Removal of Defective Work.....	49
13.07	Correction Period	50
13.08	Acceptance of Defective Work	51
13.09	Owner May Correct Defective Work	51
Article 14 –	Payments to Contractor and Completion.....	52
14.01	Schedule of Values	52
14.02	Progress Payments	52
14.03	Contractor's Warranty of Title	54
14.04	Substantial Completion.....	55
14.05	Partial Utilization	55
14.06	Final Inspection.....	56
14.07	Final Payment	56
14.08	Final Completion Delayed.....	57
14.09	Waiver of Claims	58

Article 15 – Suspension of Work and Termination	58
15.01 Owner May Suspend Work	58
15.02 Owner May Terminate for Cause	58
15.03 Owner May Terminate For Convenience.....	59
15.04 Contractor May Stop Work or Terminate	59
Article 16 – Dispute Resolution	59
16.01 Methods and Procedures.....	59
Article 17 – Miscellaneous.....	59
17.01 Giving Notice.....	59
17.02 Computation of Times	59
17.03 Cumulative Remedies.....	59
17.04 Survival of Obligations.....	59
17.05 Controlling Law	59
17.06 Headings.....	59

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. Addenda—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. Agreement—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. Application for Payment—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. Asbestos—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. Bid—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. Bidder—The individual or entity who submits a Bid directly to Owner.
 7. Bidding Documents—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. Bidding Requirements—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. Change Order—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. Claim—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. Contract—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. Contract Documents—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. Contract Price—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. Contract Times—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. Contractor—The individual or entity with whom Owner has entered into the Agreement.
16. Cost of the Work—See Paragraph 11.01 for definition.
17. Drawings—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. Effective Date of the Agreement—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. Engineer—The individual or entity named as such in the Agreement.
20. Field Order—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. General Requirements—Sections of Division 1 of the Specifications.
22. Hazardous Environmental Condition—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. Hazardous Waste—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. Laws and Regulations; Laws or Regulations—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. Liens—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. Milestone—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. Notice of Award—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. Notice to Proceed—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. Owner—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. PCBs—Polychlorinated biphenyls.
31. Petroleum—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. Progress Schedule—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. Project—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. Project Manual—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. Radioactive Material—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. Resident Project Representative—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. Schedule of Submittals—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. Schedule of Values—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. Site—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. Specifications—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. Subcontractor—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. Successful Bidder—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. Supplementary Conditions—That part of the Contract Documents which amends or supplements these General Conditions.
47. Supplier—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. Underground Facilities—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. Unit Price Work—Work to be paid for on the basis of unit prices.
50. Work—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. Work Change Directive—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. Intent of Certain Terms or Adjectives:

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. Day:

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective:

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. Furnish, Install, Perform, Provide:

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. Evidence of Insurance: Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 Copies of Documents

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

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

2.04 Starting the Work

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

2.05 Before Starting Construction

- A. Preliminary Schedules: Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference; Designation of Authorized Representatives

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 Initial Acceptance of Schedules

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

- A. Reporting Discrepancies:

1. Contractor's Review of Contract Documents Before Starting Work: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. Contractor's Review of Contract Documents During Performance of Work: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 Reuse of Documents

A. Contractor and any Subcontractor or Supplier shall not:

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

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

3.06 Electronic Data

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

- A. Reports and Drawings: The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

- A. Notice: If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:
 - 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
 - 2. is of such a nature as to require a change in the Contract Documents; or
 - 3. differs materially from that shown or indicated in the Contract Documents; or

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

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. Engineer's Review: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. Possible Price and Times Adjustments:

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 Underground Facilities

A. Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated:

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 Reference Points

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

- A. Reports and Drawings: The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to

permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 Licensed Sureties and Insurers

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 Certificates of Insurance

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 Contractor's Insurance

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
 - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners,

employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 Owner's Liability Insurance

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 Property Insurance

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of

them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 Waiver of Rights

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 Supervision and Superintendence

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 Labor; Working Hours

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 Substitutes and “Or-Equals”

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. “Or-Equal” Items: If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items:

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. Special Guarantee: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. Contractor's Expense: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 Concerning Subcontractors, Suppliers, and Others

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or

entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 Patent Fees and Royalties

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

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

6.08 Permits

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 Taxes

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

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas:

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. Removal of Debris During Performance of the Work: During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. Cleaning: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. Loading Structures: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

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

6.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts

any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 Safety Representative

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

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

6.16 Emergencies

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

6.17 Shop Drawings and Samples

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings:

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. Samples:

- a. Submit number of Samples specified in the Specifications.

- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. Submittal Procedures:
 - 1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
 - 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
 - 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.
- D. Engineer's Review:
 - 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 - 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the

Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 Continuing the Work

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

6.20 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 Coordination

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 Legal Relationships

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.01 Communications to Contractor

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 Replacement of Engineer

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 Furnish Data

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 Pay When Due

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 Lands and Easements; Reports and Tests

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 Insurance

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 Inspections, Tests, and Approvals

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 Limitations on Owner’s Responsibilities

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 Evidence of Financial Arrangements

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 Compliance with Safety Program

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Owner's Representative

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 Visits to Site

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 Project Representative

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Authorized Variations in Work

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 Rejecting Defective Work

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 Shop Drawings, Change Orders and Payments

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 Determinations for Unit Price Work

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations

on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 Limitations on Engineer's Authority and Responsibilities

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of,

and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 Compliance with Safety Program

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 Unauthorized Changes in the Work

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 Claims

- A. Engineer's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. Notice: Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. Engineer's Action: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 Cost of the Work

- A. Costs Included: The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. Costs Excluded: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. Cash Allowances:
1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance:

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 Delays

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 Owner May Stop the Work

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 Correction or Removal of Defective Work

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 Correction Period

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments:

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's

review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
- 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 Partial Utilization

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 Final Inspection

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 Final Payment

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

- #### A.
- At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 Owner May Terminate for Cause

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
3. Contractor's repeated disregard of the authority of Engineer; or
4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 Owner May Terminate For Convenience

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 Methods and Procedures

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or
3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 Giving Notice

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 Headings

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SECTION 00 73 13

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition) hereinafter referred to as the "General Conditions," and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below or elsewhere in the Contract Documents, which are applicable to both the singular and plural thereof.

SC-1.01.A.2 Delete the definition of *Agreement* in Paragraph SC-1.01.A.2 of the General Conditions: in its entirety and insert the following in its place:

2. *Agreement* – The written instrument which is evidence of the agreement between Owner and Contractor covering the Work, which includes the Contract Documents.

SC-1.01.A.12 Delete the definition of *Contract Documents* in Paragraph 1.01.A.12 of the General Conditions in its entirety and insert the following in its place:

Contract Documents - The items which comprise the Contract Documents are set forth in the Instructions to Bidders. Only printed or hard copies of the items listed are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by Owner or Engineer to Contractor are not Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

SC-1.01.A.19 Delete the definition of *Engineer* in Paragraph 1.01.A.19 of the General Conditions in its entirety and insert the following in its place:

Engineer – HDR Inc., 1601 Utica Avenue South, Suite 600, St. Louis Park, MN 55416-3400. Engineer may designate an employee to serve as Project Engineer. This designation can be changed upon written notification to Contractor. All correspondence to or through Engineer shall be directed to the attention of the designated Project Engineer.

SC-1.01.A.29 Delete the definition of *Owner* in Paragraph 1.01.A.29 of the General Conditions in its entirety and insert the following in its place:

Owner – Capitol Region Watershed District with whom Contractor has entered into the Agreement and for whom the Work is to be provided.

SC-1.01.A.52 Add the following defined terms to Paragraph 1.01.A of the General Conditions:

1. *Bid Form/Unit Prices* - The prescribed form on which bidder submits bidder's offer setting forth the bidder's prices for the Work to be performed.
2. *General Conditions* - Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). Any reference to the General Conditions shall also be a reference to the Supplementary Conditions.
3. *Utilities* - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, poles or other such facilities or attachments and supports, and any encasements containing such facilities which have been installed above or underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.
4. *As Specified, as specified* - In accordance with the requirements of the Contract Documents.

5. *Technical Specifications* – The Specifications.
6. *Electronic Document* - Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
7. *Electronic Means* - Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
8. *Submittal* - A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

and as so amended, Paragraph 1.01 remains in effect.

- SC-2.01.B** Delete Paragraph 2.01.B of the General Conditions in its entirety and insert the following in its place:
- Evidence of Insurance:* Before any Work at the Site is started, Contractor shall deliver to Owner, with copies to Engineer, certificates of insurance including copies of endorsements required by the Contract Documents (and other evidence of insurance requested by Owner) which Contractor is required to purchase and maintain in accordance with the Agreement and Article 5 of the General Conditions.
- SC-2.02.A** Delete Paragraph 2.02.A of the General Conditions in its entirety and insert the following in its place:
- Owner shall furnish Contractor up to five copies of the Contract Documents. A reasonable number of additional copies will be furnished upon request at Owner's cost of reproduction.
- SC-2.03.A** Delete Paragraph 2.03.A of the General Conditions in its entirety and insert the following in its place:
- The Contract Time will commence to run on the day indicated in the Notice to Proceed. Contractor's failure to proceed immediately with the performance of the Work shall not be justification for Contractor to make a claim for an adjustment of the Contract Time or a change in the Contract Price and shall be deemed to be a delay within Contractor's control under Paragraph 12.03.E of the General Conditions.
- SC-2.08** Add the following Paragraph after Paragraph 2.07.A.3:

2.08 *Progress Meetings*

- A. Contractor shall attend progress meetings as required by the Technical Specifications.

SC-2.09

Add the following Paragraph after Paragraph 2.08.A:

2.09 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to longterm compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

SC-3.01.A

Delete Paragraph 3.01.A of the General Conditions in its entirety and insert the following in its place:

The Contract Documents are intended to be complementary; what is called for by one is as binding as if called for by all. However, in the case of a discrepancy among the documents, the order of precedence for the documents shall be as follows (provisions of the documents listed first below shall control over the provisions of a document listed later):

- a. Change Orders
- b. Written Amendments to Agreement
- c. Agreement
- d. Work Change Directives
- e. Field Orders
- f. Notice of Award
- g. Notice to Proceed
- h. Addenda to Request For Bids
- i. Bid Submission
- j. Drawings
- k. Technical Specifications
- l. Supplementary Conditions
- m. Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition)
- n. Bonds

In the event of a discrepancy or inconsistency in or among the Contract Documents, the interpretation most favorable to Owner shall prevail.

SC-3.01.B

Add the following language immediately after the second sentence of Paragraph 3.01.B of the General Conditions:

Any item or items shown on the Drawings or described in the Specifications, but not specifically included in any of the unit prices, shall be considered incidental to the other work.

and as so amended, Paragraph 3.01.B remains in effect.

SC-3.02.A.1 Add the following language following the last sentence of Paragraph 3.02.A.1 of the General Conditions:

If there is any conflict between the provisions of the Contract Documents and any such referenced provisions, such discrepancy shall be resolved in accordance with Paragraph 3.03.B of the General Conditions.

and as so amended, Paragraph 3.02.A.1 remains in effect.

SC-3.03.A.1 Delete Paragraph 3.03.A.1 and insert the following in its place:

Contractor's Review of Contract Documents Before Starting Work: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein against all applicable field measurements and conditions. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

SC-3.03.B Delete Paragraph 3.03B of the General Conditions and insert the following in its place:

D. Resolving Discrepancies

In the case of a discrepancy between the Contract Documents and the Standards, Specifications, codes, Laws, and Regulations referenced in Paragraph 3.02, the interpretation most favorable to Owner shall prevail unless such an interpretation would result in violation of such Law or Regulation.

SC-3.05.A.1 Delete the phrase "bearing the seal of Engineer" from Paragraph 3.05.A.1 of the General Conditions and insert the following phrase in its place:

bearing the certification or seal of Engineer and as so amended, Paragraph 3.05.A.1 remains in effect.

SC-3.06.A Delete the first sentence in Paragraph 3.06.A of the General Conditions, and as so amended, Paragraph 3.06.A remains in effect

SC-3.06.B Delete the last sentence in Paragraph 3.06.B of the General Conditions and insert the following in its place:

Any errors detected within the 60-day acceptance period will be corrected by the transferring party except for those errors resulting from the use of software application package, operating systems, or computer hardware differing from those used by the data's creator.

and as so amended, Paragraph 3.06.B remains in effect.

SC-4.01.A Add the following after the first sentence of Paragraph 4.01.A of the General Conditions:

The construction limits as provided by Owner are shown on the Drawings except as may be otherwise described in the Specifications.

and as so amended, Paragraph 4.01.A remains in effect.

SC-4.01.C Delete Paragraph 4.01.C of the General Conditions in its entirety and insert the following in its place:

Contractor shall provide for all additional lands and access thereto that Contractor may require for performance of the Work, temporary construction facilities, or storage of materials and equipment.

- SC-4.02.A.1** Delete Paragraph 4.02.A.1 of the General Conditions in its entirety and insert the following in its place:
- those explorations, report and documents of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents and additional provisions related thereto that are identified in the Instructions to Bidders; and
- SC-4.02.A.2** Delete Paragraph 4.02.A.2 of the General Conditions in its entirety and insert the following in its place:
- those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities and Utilities) that Engineer has used in preparing the Contract Documents and additional provisions relating thereto that are identified in the Instructions for Bidders.
- SC-4.04.A** Delete Paragraphs 4.04.A through 4.04.B.2 of the General Conditions in their entirety and insert the following in their place:
- Refer to the Instructions for Bidders for the provisions relating to Underground Facilities and Utilities.
- SC-5.01.A** Add the following language to the end of Paragraph 5.01.A of the General Conditions:
- Contractor shall furnish such additional bonds as may be required by any permitting authority as a condition of any such permit. Contractor shall maintain the performance and payment bonds in amounts equal to the Contract Price as modified by agreement of the parties.
- and as so amended, Paragraph 5.01.A remains in effect.
- SC-5.03.B** Delete Paragraph 5.03.B of the General Conditions in its entirety.
- SC-5.04.A** Delete Paragraph 5.04.A of the General Conditions in its entirety and replace with the following:
- A. Contractor shall purchase and maintain such insurance as will protect Contractor from claims which may arise out of, or result from, Contractor's operations under this Agreement, whether such operations are by Contractor or by any subcontractor or by anyone directly employed by them or by anyone for whose acts or omissions any one of them may be liable. Contractor shall secure the following coverages and comply with all provisions noted. Certificates of Insurance shall be issued evidencing such coverage to Owner and Engineer throughout the term of this Agreement.
1. A combination of Commercial General Liability Insurance and Excess or Umbrella coverage, including contractual liability, totaling:
 - 1.1 \$5,000,000 per occurrence
\$5,000,000 aggregate per project
 - 1.2 All policies shall be written on an occurrence basis using ISO form CG 00 01 or its equivalent.
 - 1.3 Owner, Engineer, City of Saint Paul, Minnesota Department of Natural Resources, and Minnesota Department of Transportation shall be added to the policy as additional insured on a primary basis with respect to the operations of Contractor, including completed operations, using ISO endorsement form CG 20 10 and CG 20 37 or the equivalent.
 2. Automobile Insurance
 - 2.1 Coverage shall be provided for hired, owned and non-owned auto.

- 2.2 Minimum limits: \$1,500,000 combined single limit.
3. Workers' Compensation and Employer's Liability
 - 3.1 Workers' Compensation as required by Minnesota Statutes.
 - 3.2 Employer's Liability limits: \$500,000/\$500,000/\$500,000
4. Railroad Protective Liability
 - 4.1 \$2,000,000 per occurrence
 - 4.2 \$6,000,000 aggregate per project
5. Umbrella Liability
 - 5.1 Owner, Engineer, City of Saint Paul, and Minnesota Department of Transportation shall be added to the policy as additional insured as required under the Commercial General Liability policy.
 - 5.2 The policy will provide excess coverage over the commercial general liability, employer's liability, and automobile liability policies as necessary to meet the required coverage amounts.
6. The insurance required by this Paragraph 5.04 shall include policy or policies which afford coverage to damage to property of others arising out of the perils of explosion, collapse and damage to underground facilities. The policy or policies shall afford the same limits of liability as set forth in these Supplementary Conditions for liability assumed under the Contract.
7. All responsibility for payment of any sums resulting from any deductible provision, corridor, or self-insured retention condition of the policy or policies shall remain with Contractor.
8. All Certificates of Insurance shall provide that the insurer give Owner prior written notice of cancellation or non-renewal of the policy as required by the provisions of Minn. Stat. Ch. 60A, as applicable.
9. The above paragraphs establish minimum insurance requirements, and it is the sole responsibility of Contractor to purchase and maintain additional insurance that may be necessary in connection with this agreement.
10. Nothing in this Agreement shall constitute a waiver by Owner of any statutory or common law immunities, limits, or exceptions on liability.
11. Certificates shall specifically indicate if the Policy is written with an admitted or non-admitted carrier. Best's Rating for the insurer(s) shall be noted on the certificate, and shall be no less than an A-.
12. Contractor is solely responsible for securing any and all permits for adjacent landowners that may be needed to accomplish the work, and any and all required insurance coverages.
13. Contractor shall furnish with the certificate(s) of insurance copies of all endorsements providing additional insured status of Owner and Engineer.

and as so amended, Paragraph 5.04. A. remains in effect.

SC-5.04.B.1-2 Delete Paragraph 5.04.B.1. and 2. of the General Conditions.

SC-5.04.B.3 Modify Paragraph 5.04.B. 3 of the General Conditions to read "...under Paragraphs 6.07.C, 6.11, and 6.20:"

and as so amended, Paragraph 5.04.B.3 remains in effect.

SC-5.04.B.4 Delete the words “materially changed” in the first sentence of Paragraph 5.04.B.4 of the General Conditions.”

SC-5.06.A Delete Paragraphs 5.06.A.1 through 5.06.A.7 of the General Conditions in their entirety and insert the following in their place:

- A. Contractor shall purchase and maintain property insurance upon the Work at the site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Agreement or these Supplementary Conditions or required by Laws and Regulations). This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, Engineer, any pertinent property owners (as requested) and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 2. be written on a Builder's Risk "all-risk" or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, false work and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued; and
 5. the Builder's Risk Insurance required herein shall apply to projects involving construction of structures and building only. The requirements of this section shall be waived on projects involving only underground utilities, grading, street improvements and similar construction work, but any damage or loss to property shall be the sole responsibility of Contractor until final acceptance of the work.
 6. The policies of insurance required to be purchased and maintained by Contractor in accordance with this Paragraph 5.6 shall contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days' prior written notice has been given to Owner, Engineer, and Contractor and to each other additional insured to whom a certificate of insurance has been issued.

SC-5.06.B Delete Paragraph 5.06.B of the General Conditions in its entirety.

SC-5.06.C Delete “materially changed” in Paragraph 5.06.C of the General Conditions.

SC-5.06.E Delete Paragraph 5.06.E of the General Conditions in its entirety.

SC-5.09: Delete the language in Paragraph 5.09 and substitute the following:

Owner will not sign the Agreement until Contractor has submitted proof of insurance and bonds in accordance with the requirements of the Contract Documents.

SC 6.05.A.2.c Add the following at the end of Paragraph 6.05:

Approval of a substitution or equal will not result in an extension of the Contract Time unless specifically stated in writing. Contractor will be responsible for any additional costs incurred by Owner that are attributable to the use of the substitution.

SC-6.08.A Delete the first sentence of Paragraph 6.08.A of the General Conditions and insert the following sentence in its place:

Unless otherwise specifically provided in the Specifications, Contractor shall obtain and pay for all permits and licenses required to perform the Work.

and as so amended, Paragraph 6.08.A remains in effect.

SC-6.13.F Add the following Paragraphs 6.13.G through 6.13.L after the end of Paragraph 6.13.F of the General Conditions:

- G. Contractor shall be solely and completely responsible for conditions on the job site, including safety of all persons and property during the performance of the Work. This requirement shall apply continuously and not be limited to normal work hours.
- H. Observation of Contractor's performance by Engineer is not intended to include review of the adequacy of Contractor's safety measures on or near the Site.
- I. Contractor shall be responsible for furnishing Contractor's and any Subcontractor's employees with all safety equipment, including but not limited to, hard hats, eye protection, respiratory protection equipment and all other protection devices needed to comply with Laws and Regulations or with accepted safety practices. Contractor shall be responsible for any safety violation and/or fine that may occur because of any neglect by Contractor, Contractor's employees or any third party.
- J. Contractor has responsibility for the design and safety of excavations. Engineer and Owner will not provide any excavation designs, nor should excavation designs be presumed to be contained in the Contract Documents. Engineer and Owner will not assist Contractor in classifying soils or interpreting applicable regulations.
- K. No representation is made that the available subsurface information is suitable for excavation design or consistent with the soil classifications in OSHA Regulations for Excavations and Trenches (20 CFR Part 1926, Subpart B).
- L. Additional provisions regarding Contractor's responsibilities for health, safety and protection may be included in Division 1 (General Requirements) of the Technical Specifications.

and as so amended, Paragraph 6.13 remains in effect.

SC-5.06.A Delete Paragraphs 6.17 General Conditions in their entirety and insert the following in their place:

6.17 Submittals

A. Shop Drawing and Sample Requirements

- a. Before submitting a Shop Drawing or Sample, Contractor shall:
 - i. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - ii. determine and verify:

1. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 2. the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 3. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
- iii. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- b. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.
 - c. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
- a. *Shop Drawings*
 - i. Contractor shall submit the number of copies required in the Specifications.
 - ii. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.C.
 - b. *Samples*
 - i. Contractor shall submit the number of Samples required in the Specifications.
 - ii. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 6.17.C.
 - c. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. Engineer's Review of Shop Drawings and Samples

- a. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- b. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
- c. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- d. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.
- e. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 6.17.A and B.
- f. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
- g. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
- h. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 6.17.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

- a. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
- b. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
- c. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

- a. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - i. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - ii. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - iii. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
 - iv. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- b. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.05, 2.06, and 2.07.

F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 6.21.

SC-9.03.A Add the following Paragraphs after Paragraph 9.03.A of the General Conditions:

- B. The Resident Project Representative is the Agent of Engineer and shall act as directed by and under the supervision of Engineer. The Resident Project Representative shall confer with Engineer regarding the Resident Project Representative's actions. The Resident Project Representative's dealings in matters pertaining to the on-site work will, in general, be only with Engineer and Contractor. The Resident Project Representative's dealings with Subcontractors will only be through or with the full knowledge of Contractor or Contractor's superintendent.
- C. Limitations of Authority for the Resident Project Representative are as follows:
 1. Cannot authorize deviation from the Contract Documents or approve any substitute material or equipment;
 2. Cannot issue written clarification or interpretation of the requirements of the Contract Documents;
 3. Cannot make binding decisions for Engineer or undertake or assume to fulfill any of the responsibilities of Engineer under the Contract Documents unless such is specifically called for in the Contract Documents;
 4. Cannot undertake any of the responsibilities of Contractor;
 5. Cannot expedite work for Contractor;
 6. Cannot advise on or issue directions relative to any aspects of the means, methods, techniques, sequences or procedures of construction unless specifically called for in the Contract Documents;

7. Cannot advise on or issue directions as to health and safety precautions and programs in connection with the Work; and
8. Is not a representative of Owner.

SC-9.05.A Delete Paragraph 9.05.A of the General Conditions in its entirety and insert the following in its place:

- A. Owner will disapprove or reject Work, based on Engineer's written recommendations indicating the Work Engineer believes to be defective and outlining the reasons Engineer believes cause the Work to be defective. Engineer will have the authority to require special inspection or testing of the Work Engineer believes to be defective, in accordance with the provisions of Paragraph 13.04 of the General Conditions, whether or not the Work in question is completed.

SC-9.08: Delete Sections B-D of Paragraph 9.08 of the General Conditions in their entirety and insert the following in their place:

Engineer will provide an interpretation concerning performance under, and requirements of, the Contract Documents on written request of either Owner or Contractor.

Interpretations of Engineer will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations, Engineer will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations so rendered in good faith.

If Owner agrees to the claim for an increase in the Contract Time, Contractor will be liable for its own costs related to the increase and Owner will be liable for its own costs, unless otherwise agreed to by the parties in writing.

SC-10.05.A: Delete the language in Section 10.05 of the General Conditions and insert the following in its place:

- A. *Claims Process:* The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 14.09, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 14.07.B.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 16 for final resolution of disputes.
- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price

SC-11.01.A Delete Paragraphs 11.01.A through 11.01.A.5.i of the General Conditions in their entirety and insert the following in their place:

- A. The term Cost of the Work means the sum of all actual costs necessarily incurred and paid by Contractor in the proper performance of the Work plus 15 percent (15%) for overhead and profit.
1. The term "actual cost" shall cover the payroll expenses for the workers employed and supervision required to perform the work including salary, worker's compensation, social security, pension and retirement allowances and other regular payroll charges. Also included in the actual cost will be the cost of additional insurance required by the Contract Documents for this Work, the cost of all materials and supplies required of either temporary or permanent character including fuel and lubricants.
 2. In addition to the Cost of the Work as outlined above, Contractor will be paid for all power-driven equipment at a rate equal to 85 percent of the rate listed in the most recent edition of the "Rental Rate Bluebook" published by

Neilson/Dataquest, Inc., to which there will be no percentage added for overhead or profit. The rates used for each piece of equipment used in the performance of the work will be based on the applicable monthly, weekly, daily or hourly rate which reflects the status of the particular piece of equipment on the project. All rates shall be subject to approval by Engineer.

3. The cost of all such work done each day shall be submitted to Engineer in satisfactory form on succeeding day and shall be approved by Engineer or adjusted at once.

SC-11.01.C Delete Paragraph 11.01.C of the General Conditions in its entirety.

SC-11.03.B.3. Delete paragraph 11.03.D in its entirety and insert the following:

- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. Adjustments to Unit Price

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

SC-12.01.B.3. Delete paragraph 12.01.B.3. in its entirety and insert the following:

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01).

SC-12.01C Delete Paragraph 12.01.C of the General Conditions in its entirety.

SC-13.02 Add the following Paragraph 13.02.B to the end of Paragraph 13.02 of the General Conditions:

- B. Said access shall conform to all requirements of the regulatory agency or agencies who claim jurisdiction over the safety of the project site. Contractor shall provide, at its non-reimbursed cost, all scaffolding, fall protection, ventilation, and similar items needed for required third-party observation and testing, not including personal protective gear of others. Failure by Contractor to provide safe access for the above parties will be a violation in a substantial way

of the provisions of the Contract Documents as provided for in Paragraph 15.02.A.4 of the General Conditions.

SC-13.06.A Delete “by Engineer” in first sentence of Paragraph 13.06.A of the General Conditions and insert the following in its place:

by Owner or Engineer

and as so amended, Paragraph 13.06.A remains in effect.

SC-13.09.A Delete Paragraph 13.09.A of the General Conditions in its entirety and insert the following sentence in its place:

If Contractor fails within a reasonable time after written notice from Owner to correct defective Work or to remove and replace rejected Work as required by Owner in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provisions of the Contract Documents, Owner may, after seven 7 days written notice to Contractor, correct and remedy any such deficiency.

SC-14.01.A Delete Paragraph 14.01.A of the General Conditions in its entirety and insert the following in its place:

The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Owner. Progress payments on accounts of Unit Price Work will be based on the number of units completed.

SC-14.02.A.1 Delete the first sentence in Paragraph 14.02.A.1 of the General Conditions in its entirety and insert the following sentence in its place:

At least fourteen (14) days before the first Wednesday of each month (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment, on forms furnished by Engineer or otherwise acceptable to Engineer, filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

SC-14.02.A.3 Delete Paragraph 14.02.A.3 of the General Conditions in its entirety and insert the following in its place:

The amount of retainage with respect to progress payments will be as stipulated in the Instructions to Bidders.

SC-14.02.B.1 Delete Paragraph 14.02.B.1 of the General Conditions in its entirety and insert the following in its place:

Engineer will, within seven days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may, not later than the first Wednesday of the month, make the necessary corrections and resubmit the Application. Engineer will, within seven days after receipt of the revised Application for Payment review resubmitted Application to verify that all necessary corrections have been made and upon verification of said corrections indicate in writing a recommendation of payment and present the Application to Owner. Application for payment recommended for approval will be presented to the Board of Managers for approval at their next scheduled meeting. Contractor's failure to submit Application for Payment by the time provided in Paragraph 14.02.A or resubmit corrected Application by the time provided in this Paragraph 14.02.B.1 may delay presentation to the Board to the third Wednesday of the following month.

SC-14.02.C Delete Paragraph 14.02.C of the General Conditions in its entirety.

SC-14.09.A.2 Delete Paragraph 14.09.A.2 of the General Conditions in its entirety and insert the following in its place:

A waiver of all claims, stated and unstated, known and unknown, by Contractor against Owner and Engineer other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner and Engineer in writing as still unsettled.

SC-15.03.A.3 Delete Paragraph 15.03.A.3 of the General Conditions in its entirety.

SC-15.03.A.4 Delete Paragraph 15.03.A.4 of the General Conditions in its entirety.

SC-16 Delete ARTICLE 16 of the General Conditions in its entirety.

SC-17.01 Add the following as Section B. of Paragraph 17.01 of the General Conditions: All notices to be given to the parties shall be sent to or made at:

Owner: Capitol Region Watershed District
595 Aldine Street, Saint Paul, MN 55104
Attn: Chris Kucek, Project Manager

Contractor: _____

SC-17.05 Delete Paragraph 17.05 of the General Conditions and insert the following in its place:

This Contract shall be governed by the laws of the State of Minnesota.

SC-18 Add the following as ARTICLE 18 - Additional Language of the General Conditions:

ARTICLE 18 – ADDITIONAL LANGUAGE

18.1 Progress Schedule

- a. If, in the opinion of Owner, Contractor falls behind the progress schedule, or if it appears that Contractor will not achieve Substantial Completion in accordance with the agreed upon schedule, Contractor shall take any and all steps necessary to improve the progress to assure Substantial Completion in accordance with the schedule, at no additional cost to Owner.
- b. Owner may require Contractor to submit for approval and at no additional cost to Owner, such supplementary progress schedules as may be deemed necessary to demonstrate the manner in which the approved progress schedule or date of Substantial Completion will be regained.
- c. Failure of Contractor to comply with the requirements of this subparagraph shall be grounds for determination that Contractor is not performing the work with such diligence as will ensure completion within the time specified in the contract between Owner and Contractor. Upon such determination, Owner may terminate Contractor's right to proceed with the work, or any separable part thereof, in accordance with other applicable provisions of the General Conditions or may obtain the services required to bring the project into compliance with the schedule at Contractor's cost.

18.2 Subcontractor payments

Contractor is required to pay any subcontractor within ten days of Contractor's receipt of payment from Owner for undisputed services provided by the subcontractor. Contractor will be required to pay interest of 1 ½% 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 any unpaid balance of less than \$100, Contractor shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from a prime contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

18.3 Independent Contractor

It is agreed that nothing contained in this Agreement is intended or should be construed as creating the relationship of agents, partners, joint venturers, or associates between the parties hereto or as constituting Contractor as the employee of Owner for any purpose or in any manner whatsoever. Contractor is an independent contractor and neither it, its employees, agents nor representatives are employees of Owner. From any amounts due Contractor, there will be no deductions for federal income tax or FICA payments, nor for any state income tax, nor for any other purposes which are associated with an employer- employee relationship unless required by law. Payment of federal income tax, FICA payments, and state income tax are the responsibility of Contractor.

18.4 Equal Employment Opportunity

Contractor agrees to comply with all federal, state, and local laws, resolutions, ordinances, rules, regulations and applicable executive orders pertaining to unlawful discrimination on account of race, color, creed, religion, national origin, sex, marital status, status with regard to public assistance, sexual preference, disability, or age. When required by law or requested by Owner, Contractor shall furnish a written affirmative action plan.

18.5 Out-of-State Contractor

Out-of-State Contractors for contracts that exceed or can reasonably be expected to exceed \$100,000 shall comply with the following Minnesota Department of Revenue Requirements:

File form SD-E (Exemption from Surety Deposits for Out-of-State Contractors), Exhibit E, with the Department of Revenue, Mail Station 4450, Saint Paul, Minnesota 55146- 4450. An exemption will be granted if:

Contractor provides a cash surety or bond, secured by an Insurance Company licensed in Minnesota, which guarantees compliance with all provisions of Minnesota withholding, sales and corporate income tax laws, or:

Contractor provides evidence of full compliance with such laws on previous construction work in Minnesota during the last three years.

Submit a copy of form SD-E, certified by the Department of Revenue, with Contractor's initial Application for Payment.

If an exemption is not granted, 8 percent of each Application for Payment will be withheld as surety and deposited with the Department of Revenue, to be refunded with interest after Contractor's State tax obligations are fulfilled.

18.6 Access to Documents

Until the expiration of six years after the furnishing of services pursuant to this agreement, Contractor, upon written request, shall make available to Owner, the State Auditor or Owner's ultimate funding source, a copy of this agreement and the books, documents, records and accounting procedures and practices of Contractor relating to this agreement.

18.7 Data Practices

All data collected, created, received, maintained or disseminated for any purpose in the course of Contractor's performance of this agreement is governed by the Minnesota Government Data Practices Act, Minn. Stat. Chapter 13, any other applicable state statutes, any state rules adopted to implement the Act or other statute, as well as federal statutes and regulations on data privacy.

18.8 Prevailing Wage

Contractor and all subcontractors shall conform to the labor laws of the State of Minnesota, and all other laws, ordinances and legal requirements affecting the work in the County of Ramsey and State of Minnesota.

Pursuant to Minnesota Statutes 177.41 to 177.44 and corresponding Minnesota Rules 5200.1000 to 5200.1120, this contract is subject to the prevailing wages as established by the Minnesota Department of Labor and Industry. Specifically, all contractors and subcontractors must pay all

laborers and mechanics the established prevailing wages for work performed under the contract. Failure to comply with the aforementioned may result in civil or criminal penalties.

Throughout the term of this Agreement, Contractor shall submit certified payroll records within 14 days of the end of a pay period and in accordance Minnesota Statutes §177.43, subd. 3. Contractor shall use the form located at http://www.doli.state.mn.us/sites/default/files/pdf/pw_certified_payroll_form.pdf or one substantially similar.

For purposes of this agreement, the terms "prevailing wage", "minimum wage rate per hour", and "prevailing rate" shall mean "prevailing wage rate" as defined in Minnesota Statutes §177.42.

See the following link for Prevailing Wages for State Funded Projects for additional requirements and the most recent minimum wage rates adopted by the Minnesota Department of Labor and Industry:

http://workplace.doli.state.mn.us/prevwage/commercial_data.php?county=62

18.9 Non-Assignability

Contractor shall not assign any interest in this Agreement and shall not transfer any interest in the same, whether by subcontract, assignment or novation, without the prior written consent of Owner.

18.10 Unavailability of Funding

The purchase of goods or services from Contractor under this Agreement is subject to the availability and provision of funding from the United States, the State of Minnesota, or other funding sources. Owner may immediately terminate this Agreement if the funding for the contracted goods and services is no longer available. Upon receipt of Owner's notice of termination of the Agreement Contractor shall take all actions necessary to discontinue further commitments of funds to the Agreement. Termination shall be treated as termination without cause and will not result in any penalty or expense to Owner.

18.11 Interpretation of Agreement; Venue

This Agreement shall be interpreted and construed according to the laws of the State of Minnesota. All litigation regarding this Agreement shall be venued in the appropriate state or federal district court in Ramsey County, Minnesota.

18.12 Audits

Contractor must respond to requests for audit information to support claimed costs no later than 60 days after receiving the request or the State of Minnesota will cite all costs in question. If Contractor does not respond during this 60-day period, the State will consider the audit citations accepted and will make payment accordingly.

END OF SECTION 00 73 13



DIVISION 01

GENERAL REQUIREMENTS



SECTION 01 11 00
SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Location and description of Work and prior uses of the Site.
 2. Construction Contracts for this Project.
 3. Others retained by Owner for the Project.
 4. Work by others under Owner's control on other projects.
 5. Work by others not under Owner's control.
 6. Work by Owner.
 7. Sequence and progress of Work.
 8. Contractor's use of the Site.
 9. Easements and rights-of-way.
 10. Partial utilization by Owner.
 11. Utility owners.
 12. Tree trimming, clearing, and tree removal.
- B. Related Requirements:
1. Include, but are not limited to, the following:
 - a. Section 01 14 33 - Work in Rights-of-Way.
 - b. Section 01 71 33 - Protection of the Work and Property.

1.2 LOCATION AND DESCRIPTION OF WORK

- A. The Work is located at four distinct locations within the City of St. Paul, MN. Addresses and names of each site are listed below:
1. 410 ATWATER STREET ST. PAUL, MN 55117-5207 (AWATER-WESTERN POND)
 2. 390 ARLINGTON AVENUE E ST. PAUL, MN 55130-3115 (ARLINGTON-ARKWRIGHT POND)
 3. 400 FEET SOUTH OF 1300 L'ORIENT STREET ST. PAUL, MN 55117-3995 (ARLINGTON BUSINESS PARK POND)
 4. 886 DUCHESS STREET ST. PAUL, MN 55106-3808 (BEACON BLUFF WEST AND EAST PONDS)
- B. Work to be performed under this Contract includes, but is not necessarily limited to, furnishing all labor, tools, equipment, and materials necessary for:
1. Mobilization and demobilization of labor, equipment, materials, and temporary facilities at multiple sites.
 2. Site preparation including the protection of surface and subsurface existing facilities and structures not planned for removal, including, but not limited to pavement, paths, irrigation systems, lighting, fences and sidewalks, etc. Protection of existing vegetation identified within the work limits identified by the Owner to remain and all vegetation, facilities, and structures near but outside the work area.
 3. Furnish, install, and maintain erosion control features and removal/disposal of features and accumulated sediment and debris upon substantial completion.
 4. Dewatering and control of surface water and groundwater as necessary to complete the Work.

5. Performance of pre- and post-construction topographic surveys of each basin by a licensed professional surveyor.
 6. Clearing and grubbing, and removals as required, including removal of all excess materials from the sites.
 7. Traffic Control and pedestrian controls as necessary and required by local authorities, at all Work locations.
 8. Excavation of contaminated sediment/muck/vegetation to original pond grades as determined by comparison to the original design plans
 9. Hauling and disposal of excavated contaminated sediment/muck/vegetation to approved off-site solid waste disposal facility.
 10. Documentation of all dredged materials disposed of at solid waste facilities.
 11. Furnishing and placement of riprap, and all incidental materials, as shown in the drawings or as directed.
 12. Seeding, site restoration, clean-up of all sites and removal of all temporary erosion control BMPs at the completion of Work to the satisfaction of the Owner.
 13. Replacement in-kind or better of all surface and subsurface existing facilities and structures not planned for removal, including, but not limited to pavement, paths, lighting, utilities, fences, and sidewalks, etc., and existing vegetation damaged during the Work.
- C. Contracting Method: The Project will be constructed under a single prime construction Contract.
- D. Hazardous Environmental Conditions:
1. To the best of Owner's knowledge, information, and belief, the prior use of the Site(s) included commercial, residential, and/or industrial operations situated in an urban environment.
 2. A Hazardous Environmental Condition, described in reports referenced in the Instructions to Bidders, will (or has reasonable potential to) affect the Work.

1.3 CONSTRUCTION CONTRACTS FOR THIS PROJECT

- A. Single Prime Construction Contract: The Contract requires all the Work for the Project not expressly allocated to Owner or others in the Contract Documents to be performed by a single prime contractor.

1.4 OTHERS RETAINED BY OWNER FOR THE PROJECT

- A. Engineer:
1. Engineer is identified in the Agreement.
 2. Engineer's responsibilities for the Project, relative to Contractor, are indicated throughout the Contract Documents.
 3. Whether the Engineer will furnish the services of a Resident Project Representative (RPR) for the Project is indicated in the Supplementary Conditions.

1.5 SEQUENCE AND PROGRESS OF WORK

- A. Sequencing:
1. Incorporate sequencing of the Work into the Progress Schedule.
 2. Sequencing Requirements:
 - a. Mobilize labor, equipment, materials, and temporary facilities.
 - b. Install safety measures, establish limits of staging and construction, and protect all existing utilities, trees (to not be removed) and structures as specified on the plans.
 - c. Install water management, erosion control, and traffic control requirements.
 - d. Dewater ponds as necessary.
 - e. Perform pre-construction topographic survey of the five ponds.
 - f. Clearing, grubbing, and tree removal.

- g. Removal of contaminated sediment and other debris (waste material).
- h. Hauling and disposal of waste material to MPCA approved solid waste and/or industrial waste landfill as required.
- i. Furnish and place riprap at pond outlets, inlets, and other structures as shown on the plans or as directed.
- j. Restore all areas directly or indirectly disturbed by the Work to the pre-existing conditions and/or as specified on the plans.
- k. Perform post-construction topographic survey of the five ponds.
- l. Perform clean-up of all sites and remove all temporary erosion control BMPs to the satisfaction of the Owner.
- m. Demobilize from the site after work is complete.

1.6 CONTRACTOR'S USE OF SITE

A. Use of Site - General:

- 1. The Sites are defined as the area within the Construction Limits shown on the Drawings.
- 2. Limits on Contractor's use of the Site are as indicated in the Drawings.
- 3. Hours of Operation: Contractor's operations shall be limited to the hours approved by the City of St. Paul in accordance with local laws and regulations.
- 4. Relocate stored materials and equipment that interfere with operations of Owner, other contractors, and others performing work for Owner.

1.7 EASEMENTS AND RIGHTS-OF-WAY

A. Easements and Rights-of-Way - General:

- 1. Easements and rights-of-way required for the permanent improvements included in the Work will be provided by Owner in accordance with the General Conditions and Supplementary Conditions.
- 2. Confine construction operations within Owner's property, public rights-of-way, easements obtained by Owner, and limits shown, and property for which Contractor has made arrangements directly with property owner(s).
- 3. Use care in placing construction tools, machinery and equipment, excavated materials, and materials and equipment to be incorporated into the Work to avoid damaging property and interfering with traffic.
- 4. Do not enter private property outside the construction limits without permission from the owner of the property.

B. Within Highway Rights-of-Way:

- 1. Permits required for the permanent facilities will be obtained by Owner.
- 2. Owners of rights-of-way are indicated in Section 01 14 33 - Work in Rights-of-Way.
- 3. Work performed and Contractor's operations within rights-of-way, including highway rights-of-way, shall comply with requirements of right-of-way owner and owners of facilities thereon, and with applicable work permits, and orders of authorities having jurisdiction over right-of-way.
- 4. Contractor shall reimburse Owner for any deductions resulting from Work performed by Contractor not meeting conditions set forth by applicable permit(s).

C. Within City/County/All other Rights-of-Way

- 1. Contractor to obtain all permits required for permanent for temporary access or obstruction to all other Rights-of-Way not previously listed.
- 2. See section 01 14 33 – Works in Rights-of-Way

1.8 UTILITY OWNERS

- A. Utilities known to Engineer and that may have Underground Facilities or other facilities in the vicinity of the Work are:
1. City of St.Paul:
 - a. Sewer, water distribution, traffic and lighting facilities
 - b. Telephone: (651) 266-9850.
 2. Century Link:
 - a. Telecommunications
 - b. Telephone: (800) 778-9140
 3. Xcel Energy
 - a. Underground electrical facilities
 - b. Telephone: (651) 229-2427
 4. Comcast
 - a. Telecommunications
 - b. Telephone: (812) 483-7923
- B. Utilities and their owners indicated in the Contract Documents are for Contractor's convenience. Neither Owner nor Engineer will be liable to Contractor or any utility owner for failure to indicate utility, its owner, or complete and correct contact information in the Contract Documents where Contractor's reasonable and ordinarily exercised diligence would reveal the presence of the utility and its owner. Nothing in the Contract mitigates Contractor's responsibilities under the General Conditions, Section 01 71 33 - Protection of the Work and Property, and Laws and Regulations, including "call before you dig" regulations.

1.9 TREE TRIMMING, CLEARING, AND TREE REMOVAL

- A. Provide all required labor and equipment for trimming, clearing, and tree removal as follows:
1. Tree trimming and removal as shown in the construction drawings.
 2. Comply with Section 01 71 33 - Protection of the Work and Property.

1.10 SUBMITTALS

- A. Informational Submittals: Submit the following:
1. Work Plan: Contractor shall submit a Work Plan prior to construction. The Work Plan submittal shall contain the following information:
 - a. Mobilization, Construction, and Demobilization schedule.
 - 1) This schedule shall act as the "Progress Schedule" as defined paragraph 2.05.A.1 of the General Conditions.
 - b. Proposed dewatering/water management plan for all sites.
 - 1) Include proposed configuration and operation of temporary dewatering areas and stockpiling locations, as specified in 31 23 19 – Dewatering.
 - c. Mechanical dredging and hauling equipment list.
 - d. Snow Management Plan.
 - 1) Include procedures for each project site for adequate storage of snow and control of meltwater.
 - e. Health and Safety Plan
 - 1) Include procedures which address the handling and transportation of contaminated sediment materials in accordance with all local laws and regulations.
 - 2) Include a severe storm plan which describes procedures to:
 - a) Secure outside equipment and materials and place materials that could be damaged or cause damage if left unsecured in protected areas and;
 - b) Evacuation of site personnel to designated shelters.

- f. Selected landfill(s) and proposed haul route(s)
 - 1) Submit truck and material haul routes along with a plan for controlling dirt, debris, and dust on roadways while limiting water usage due to Winter weather conditions.
 - 2) At minimum, identify in the plan the personnel and equipment for cleaning along the haul route(s) and measures to reduce dirt, mud, dust and debris from roadways.

Submit Work Plan at least ten (10) days prior to Mobilization and prior to the first monthly pay estimate. The Work Plan shall be reviewed by Owner and Engineer for coordination of work and comments regarding sequencing and schedule. After incorporating comments, Contractor will transmit a finalized copy of the Work Plan to the Owner and Engineer for their files. Any major deviation to the plan must be submitted by Contractor for Engineer and Owner's review prior to implementation.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

END OF SECTION

SECTION 01 14 33
WORK IN RIGHTS-OF-WAY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. General requirements for:
 - a. Work in street and highway rights-of-way
 - b. Work in other rights-of-way.

B. Scope:

1. Unless otherwise stated in this section, Contractor shall obtain necessary permits, arrange and pay for inspections required by each right-of-way owner, and pay all charges for the Work in each right-of-way where the Work will be performed.
2. Comply with applicable rules, regulations, permits, and standards of right-of-way owner.

1.2 WORK IN STREET AND HIGHWAY RIGHTS-OF-WAY

A. Owners of streets or highway rights-of-way in which the Work will be performed include:

1. Street or highway name as it appears on the Drawings: I-35E
 - a. Jurisdiction: Minnesota Department of Transportation (MnDOT).
 - b. Method: The Work includes installation of sediment and erosion control measures in a stormwater ditch located alongside I-35E as shown in the project drawings (Arlington Business Park Pond).
 - c. Occupancy Permit: Application has been submitted by Owner and occupancy permit issuance is anticipated on or around January 15th, 2026.
 - 1) MNDOT Permit ID# 116161
 - d. Special Requirements:
 - 1) Comply with all standard conditions listed in [*MnDOT Form 1723 OPLA Instructions*](#).
 - 2) Access to the I-35E ditch is prohibited from the highway and must occur from the west as shown in the project drawings.
2. Street or highway name as it appears on the Drawings: Arlington Ave E, Arkwright St N, L'Orient St, Atwater St W, Western Ave N, Wells St, Forrest St N, Duchess St
 - a. Jurisdiction: City of St. Paul.
 - b. Method: The Work includes extended occupancy of public right-of-way to perform sediment removal and restoration of five stormwater ponds.
 - c. Obstruction Permit: Contractor is responsible for obtaining and paying for City-issued obstruction permit for all project sites prior to mobilization.
 - d. Special Requirements:
 - 1) Comply with all standard conditions as required by the permit.
3. Street or highway name as it appears on the Drawings: Any street(s) not shown on the drawings that Contractor will utilize for hauling and disposal of excavated sediment/muck/vegetation materials.
 - a. Jurisdiction: MnDOT/City of St.Paul/Ramsey County/Others
 - b. Method: The Work includes hauling of contaminated materials by way of local, state and federal roadways.
 - c. Permit: Contractor is responsible for obtaining and paying for all other construction permits and licenses as necessary to utilize public highways and streets to complete the Work.
 - d. Special Requirements:

- 1) Comply with all standard conditions as required by the permits.
- B. Work in other Rights-of-Way
- a. Jurisdiction: Minnesota Department of Natural Resources (MnDNR).
 - b. Method: The Work requires installation of sediment and erosion control measures in a stormwater ditch located alongside I-35E as shown in the project drawings (Arlington Business Park Pond). To access the ditch, the Contractor will have to cross the MnDNR Gateway Trail.
 - c. Occupancy Permit: Application has been submitted by Owner and occupancy permit has been issued.
 - 1) MnDNR Permit#: 2025-PAT-D7-GWST009
 - d. Special Requirements:
 - 1) Comply with all standard conditions listed in the permit, which is attached to the end of this section.
- C. Traffic Control During Construction: Comply with Section 01 55 26 - Traffic Control.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Materials used shall be in accordance with requirements of associated right-of-way owner and the Contract Documents.

PART 3 - EXECUTION

3.1 PREPARATION AND PROTECTION

- A. Contractor shall implement means necessary to prevent accidents caused or influenced by the Work. Provide flaggers, temporary barriers, barricades, lights, signs, and other temporary measures to provide safe conditions during the Work.

3.2 INSTALLATION

- A. Sediment and Erosion Control Measures:
1. Work shall be located as shown on the Drawings.
- B. Restoration for Other than Paved Areas:
1. Restore disturbed areas of rights-of-way in accordance with associated permits and the Contract Documents. Where permits and the Contract Documents do not expressly address the type or extent of such restoration, restore all areas disturbed during the Work to condition equal to or better than preconstruction conditions.
 2. After work is complete, Contractor shall notify the Area Maintenance Engineer or their authorized representative that such work has been completed and is ready for final inspection and acceptance by owner of the right-of-way.
 3. If owner of the right-of-way requires restorations beyond that required by the Contract Documents and applicable permits, promptly advise Engineer and submit Change Proposal in accordance with the Contract Documents. Obtain authorization in accordance with the Contract prior to performing any Work not in accordance with or beyond the scope of the Contract Documents.

END OF SECTION

Special Use/Event Permit

Minnesota Department of Natural Resources (DNR), Division of Parks and Trails

Permit Number	2025-PAT-D7-GWST009	Permit Issue Date	
Event Title	Gateway - L'Orient Pond Outlet		
Event Description	<p>Capital Region Watershed District will conduct some stormwater pond sediment removals this winter, and their engineer has identified a pond outlet along the I-35E ROW in Saint Paul just north of L'Orient and Maryland that the construction contractor will likely need regular pedestrian access to during the work to monitor the dewatering effluent that's pumped from the pond. The pipe outlet is in a ditch on the east side of the Gateway Trail. Capitol Region Water District intends to pump the pond effluent through the pipe under the trail, but the contractor will need to cross the trail to access the pipe outlet to install and uninstall a temporary rock check dam at the outlet.</p> <p>Approximately 1 hour of 1 day will be needed to install the rock check and 1 hour of 1 day to uninstall it. 1 weeks' notice will be given to DNR on the days that the work will be done, which will not occur on the weekend. Appropriate signage will be placed around the work site noting that work is occurring on trail, and a flagger will be used to manage trail traffic during the work. The trail will not be closed.</p> <p>Access to the site will be taken from the pond adjacent to the trail. If the permit holder or their designee needs to access the site via Arlington Blvd, the permit holder will notify DNR and place appropriate signage at the trail entrance.</p>		
Date(s) and Time Start/End of Event	mid-January through April 2026; comprising of two days as described above.		
Unit/Trail/PWA Name	Central Region, Area 3B:		
Specific Location(s) Covered	Gateway Trail at Maryland; 44.979806, -93.089403		
Fee for this Permit	NONE		
Insurance Level Required Covers damage to state property.	<input checked="" type="checkbox"/> \$1,500,000	<input type="checkbox"/> \$500,000	<input type="checkbox"/> Waiver * Reduced to \$##
		<input type="checkbox"/> None required	
* Insurance may be reduced or waived by the division director only by their signature here		Ann Pierce, Director, Division of Parks and Trails Date	

Permittee Contact Information (cell phone number required for event-day contact)

Permittee must designate a contact person and an alternate who have full authority to act on behalf of the permittee.

Organization Name	CAPITOL REGION WATERSHED DISTRICT	
Contact Person	CHRIS KUCEK	
Address	595 ALDINE ST.	
Phone	Primary: 651-644-8888 (EXT. 112)	Cell: 262-506-4268
Email	CKUCEK@CAPITOLREGIONWD.ORG	
Alternate Contact	FORREST KELLEY	
Address		
Phone	Primary: 651-644-8888 (EXT. 116)	Cell: 651-210-7692
Email	FKELLEY@CAPITOLREGIONWD.ORG	

Signatures: Parties agree to the Terms and Conditions described herein.

Signature of Permittee	Signature of DNR Unit Supervisor
Date:	Date:

Terms and Conditions:

1. Permittee must comply with all state regulations and is subject to the oversight of the unit supervisor.
2. Permittee shall take all reasonable precautions to protect state property used herein, and the permittee hereby agrees to pay the cost of any damage to state property.
3. This permit may be revoked at any time at the discretion of the division director or their authorized representative. The permittees must remove all evidence of its use and return the property to the prior condition within 10 days after notice of termination is mailed to the MN DNR St Paul Area PAT Office by certified mail.
4. Permittee and participants waive and release all claims against the State of Minnesota, its officers, or employees for any damage to persons or property, arising from the exercise or the privileges granted by this permit, and agrees to hold harmless said state and its employees from any such claim.
5. Permittee is responsible for providing all personnel necessary to run the event.
6. Permittee is responsible for cleaning up all litter and garbage and arranging for its lawful disposal. State property must be returned to the condition it was found prior to the event, and the permittee hereby agrees to pay any operational costs to do so if the property requires additional maintenance to return it to its pre-event condition.
7. Permittee shall not use DNR, employee, unit names or branded marks in any manner that would imply endorsement of the project without express written consent of the DNR.
8. Permittee shall comply with all state and federal laws pertaining to human rights.
9. Permittee and all event spectators and participants shall not interfere with other users' enjoyment of public resources, except as outlined in this permit.

10. The unit supervisor shall determine if any DNR personnel, equipment, or materials will be necessary for the event.
11. Permittee agrees to reimburse the DNR for expenses incurred as a result of this permit.
12. Permittee shall have obtained any/all permits necessary to engage in activity being requested.
13. Permittees shall indemnify and hold harmless the Minnesota Department of Natural Resources (DNR) and its employees from any claims, costs, or expenses arising out of the use of the premises, whether such claims are asserted by civil action or not waives and releases all claims against the Minnesota Department of Natural Resources, its officers or employees, for any damage to person or property arising from the exercise of the privileges granted by this permit. **The DNR requires the permittees provide the DNR with an insurance certificate in the amount of \$1,500,000 or greater with the Minnesota Department of Natural Resources names as additional insured.**
14. Permittee shall prevent invasive species from entering into or spreading within the event sites by cleaning equipment prior to arriving at the site. Before entering and leaving the site, be sure all equipment is free of caked mud, dirt clods, plants, plant parts, bark, or debris.
15. Permittee shall take any and all precautions to ensure the safety of the users of the trail for this permit, which may include, but not limited to placing flag people while event is occurring.
16. Motorized vehicles on the trail must travel no faster than 10mph, have their flashers on, and have copy of this permit. Vehicles must yield to trail users at all times.
17. Permittee shall take all reasonable precautions to protect state property used hereunder, including but not limited to, facilities and natural resources, and hereby agrees to pay the cost of any damage which it does not otherwise repair to DNR's satisfaction.
18. No modification of the public trail shall take place.
19. Permittee shall not close the trail at any time other than specified above.
20. The trail will not be closed.
21. Permittee shall remove all signs, structures, and other materials/equipment from the trail within 1 day after the work is completed and will repair any damages and restore the area within 1 week after the event. NO PAINT MARKING ALLOWED ON THE STATE TRAIL PROPERTY. The unit supervisor shall determine if any DNR personnel, equipment, or materials will be necessary for the event.
22. The DNR may add other reasonable conditions if unanticipated circumstances arise.

*Connection trails to the Gateway State Trail are not the property of the DNR. Special permission to use the connection trails needs to be granted from the property owners.

Distribution of copies: Permittee, Unit Supervisor, District Supervisor, Conservation Officer

SECTION 01 22 00
MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. General requirements applicable to all bid/pay items.
2. General provisions on unit prices and quantities.
3. General provisions on lump sums.
4. Listing of the various bid/pay items in the Project, together with criteria for measuring Unit Price Work for payment.

B. Related Requirements: Include, but are not necessarily limited to:

1. Section 01 29 76 - Progress Payment Procedures.

1.2 REQUIREMENTS APPLICABLE TO ALL BID/PAY ITEMS

A. In this Section and elsewhere in the Contract Documents, the terms “bid item”, “pay item”, “bid/pay item”, “Item” followed by a number designation, “this item”, and the like all have the same meaning, and refer to one or more specific elements of the Contract, established for pricing and payment, as indicated in the Bid Form and in the Agreement (or exhibit to the Agreement) at the time the Contract was signed by the parties.

B. This Article applies to all bid/pay items in the Contract.

C. Prices – General:

1. The bid/pay items listed starting with Article 1.5 of this Section refer to and are the same bid items listed in the Bid Form and included in the Contract, and constitute all bid/pay items for the Work at the time the Contract was signed by the parties.
2. No direct or separate payment will be made, outside of the bid/pay items in the Contract, for the following: providing miscellaneous temporary or accessory materials or equipment, temporary works, temporary construction facilities, Contractor's project management, superintendence, and similar costs for Subcontractors or Suppliers; bonds and insurance; schedules and schedule updates; coordination (with: Owner's and facility manager's (if other than Owner) operations (including, but not limited to, lockout/tag-out procedures), other contractors, utility owners, owners of transportation facilities, adjacent property owners and occupants, authorities having jurisdiction, Subcontractors and Suppliers, and others with whom Contractor is to coordinate the Work); information technology systems required by the Contract Documents; Submittals; photographic documentation; Project meetings; Contractor's hazard communication program; Contractor's compliance with environmental procedures for Constituents of Concern (including spill control and countermeasures plans and implementation); professional services (required for Contractor's means and methods of construction, and for delegated designs required by the Contract Documents); obtaining and complying with permits and licenses; temporary utilities (including electric power, water supply and disposal, fuel, and communications); temporary lighting; temporary fire protection; temporary enclosures and HVAC; temporary sanitary facilities; temporary first-aid facilities and services; Contractor's field offices and sheds, Engineer's field offices (when required elsewhere in the Contract Documents); temporary vehicular access and parking (including access to the Site, temporary access roads and parking, onsite traffic controls for construction traffic, and offsite haul routes); traffic control of non-construction vehicular and pedestrian traffic; temporary controls (including temporary erosion and sediment controls, noise control, control of storm water, surface water, and groundwater, pollution controls (including solid waste control, water pollution control, and control of atmospheric pollution), dust control, pest and rodent controls, odor controls, and other temporary controls required by the Contract Documents); temporary security for the

Work; temporary barriers; Project signage (when required elsewhere in the Contract Documents); delivering, handling, and storing materials and equipment to be incorporated into the Work; layouts and surveys for the Work; construction equipment, machinery, tools, and vehicles; safety and protection; Site maintenance during construction; cleaning and removal and disposal of waste and debris; checkout and startup; testing and other quality control activities required by the Contract Documents; record documents, operation and maintenance data; warranties; spare parts and extra materials required by the Contract Documents; instruction of facility personnel as required by the Contract Documents; commissioning (when required elsewhere in the Contract Documents); Contractor's correction period, Contractor's general warranty and guarantee; Contractor's indemnification obligations; other labor, cost, or effort required by the General Conditions and Supplementary Conditions, Division 01 Specifications, and other requirements of the Contract Documents.

3. Price Escalation:

- a. Unless expressly indicated otherwise in the Contract Documents, Owner is not obligated to change the stipulated prices (including lump sums, unit prices, and allowances) that are all or part of the Contract Price because of escalation of costs when there is no corresponding change in the Contract Times.
 - b. Changes in the Contract Times do not necessarily entitle Contractor to a change in Contract Price due to escalation.
 - c. Should Contractor claim a change in Contract Price for one or more stipulated price pay items without a corresponding change in scope, extent, or quality in the associated Work, prior to receiving any such change in Contract Price, Contractor shall submit with Contractor's associated Change Proposal, documentation satisfactory to Engineer supporting and documenting that Contractor's costs have increased because of delays beyond Contractor's control within the associated change in Contract Times included in such Change Proposal.
4. Compensation for all services, labor, materials, and equipment shall be included in prices stipulated for the lump sum and unit price bid/pay items in the Contract.
 5. Each lump sum and unit price in the Contract shall include an amount considered by Contractor as sufficient for all overhead and profit for each separately identified bid/pay item.

D. Contract Price, Payment Procedures, and Related Matters:

1. Contract Price: The Contract Price, as apportioned among bid/pay items in the Contract, is indicated in the Agreement and any associated exhibits thereto and may be modified by Change Order.
2. Payments to Contractor: Refer to the General Conditions (as may be modified by the Supplementary Conditions), the Agreement (including provisions on retainage, if any), and Section 01 29 76 - Progress Payment Procedures, among other applicable Contract Documents.
3. Schedule of Values: Refer to the General Conditions (as may be modified by the Supplementary Conditions).
4. Procedures for Changes in Contract Price: Refer to the General Conditions (as may be modified by the Supplementary Conditions).
5. Defective Work is not eligible for payment.

1.3 GENERAL PROVISIONS ON UNIT PRICES AND QUANTITIES

A. Quantities:

1. Quantities of Unit Price Work indicated in the Bid Form and in the Contract (at the time the Agreement was signed by the parties) are estimates for purposes of pricing and comparison of Bids.
2. Owner does not represent, either expressly or by implication, or agree that the nature of materials encountered below ground surface or in concealed areas, or actual quantities of

Unit Price Work required, will correspond with the quantities in the Contract at the time the Agreement was signed by the parties. Owner reserves the right to increase or decrease quantities, and to eliminate quantities, as Owner may deem necessary or as may be necessary due to Site conditions encountered.

3. Adjustment of Unit Prices Due to Variation in Quantities:

- a. Provisions, if any, regarding adjustment of unit prices due to variations in actual quantities (eligible for payment) from the estimated quantities in the Contract (including quantities at the time the Agreement was signed by the parties and as subsequently modified by Change Order) are in the General Conditions, as may be modified by the Supplementary Conditions.
 - 1) Engineer's review for possible unit price adjustment, when provision for such adjustment is expressly indicated in the Contract, will be at a time Engineer deems reasonable and proper.
 - 2) When the Supplementary Conditions establish that, to be eligible for an adjustment in the unit price, a pay item of Unit Price Work must have a total computed, extended price (at the time the Agreement was signed by the parties) equal to or greater than a specified percentage (stipulated in the Supplementary Conditions) of the total Contract Price (at the time the Agreement was signed by the parties), and the total extended price of such pay item does not exceed the stipulated percentage of the Contract Price, then the associated pay item will be paid at the unit price in the Contract without adjustment for variations in actual quantity.
4. Quantities eligible for payment will be actual quantities furnished and installed (as applicable) in accordance with the Contract Documents, within the pay limits shown or indicated, as measured by Engineer (or other entity so empowered in the Contract Documents) and recommended for payment by Engineer.
5. At Contractor's expense, Contractor may independently verify quantities measured by Engineer for payment. Should Contractor disagree with quantities measured and recommended for payment by Engineer, submit appropriate Change Proposal (appealing Engineer's measurements) indicating the specific reasons for Contractor's appeal, with detailed reasons therefor and associated calculations and estimates, in accordance with the Contract Documents.
6. Quantity Overruns:
 - a. When the quantity of a pay item of Unit Price Work eligible for payment exceeds the pay item's quantity included in the Contract, Owner will pay for quantities that exceed those in the Contract only while the estimated total payments to Contractor under the Contract will not exceed the Contract Price. Otherwise, a Change Order is required to modify the associated quantity in the Contract, thus changing the Contract Price.
7. Except as may be established elsewhere in the Contract Documents, make no claim for anticipated profit, loss of profit, damages, or additional compensation arising from difference between quantities of Unit Price Work eligible for payment and the estimated quantities in the Contract.

B. Measuring for Payment:

1. At Engineer's option, Engineer may delegate to Resident Project Representative (RPR) (if any), some or all of Engineer's responsibilities for measuring Unit Price Work eligible for payment.
2. Unless expressly indicated otherwise in the Contract Documents, measurements will be in United States standard measurements.
3. Unless indicated otherwise elsewhere in the Contract Documents, quantities of Unit Price Work eligible for payment will be rounded to the nearest whole number.
4. In the event of conflict between this Section and the measurement criteria in the Specifications of Divisions 02-49, the measurement criteria in this Section will govern. Typical intent when measurement criteria are in both this Section and the associated Division 02-49 Specifications section, is for the criteria to be interpreted together.
5. Assistance with Measurements:

- a. Assist Engineer and Resident Project Representative (RPR) (if any), by providing measuring equipment, labor, and survey personnel necessary to measure quantities eligible for payment.
6. Quantities eligible for payment can be adjusted by Engineer to correct quantities included in Contractor's prior payment requests, and for incomplete or defective Unit Price Work. Such corrections are at Engineer's sole discretion.

1.4 GENERAL PROVISIONS ON LUMP SUM ITEMS

- A. Progress payments for Work paid on a lump sum basis will be based on Engineer's estimate of the Work (in accordance with the Contract Documents) performed through the end of the associated pay period, based on the Schedule of Values accepted by Engineer in accordance with the Contract Documents.
- B. At its sole discretion, Engineer may correct amounts of lump sum Work included in prior payment requests based on improved data or information available to Engineer, or Engineer's knowledge or reasonable belief that Work is incomplete or defective.

1.5 BID/PAY ITEMS - GENERAL CONTRACT

- A. Item No. 1 - Mobilization and Demobilization:
 1. Measurement: In accordance with the Contract's provisions on Schedule of Values and progress payments for lump sum Work.
 2. Item Includes:
 - a. Work and activities indicated in this provision are intended as illustrative for purposes of scope and payment and do not represent a complete list of all preconstruction activities and Submittals, or all Work or activities required by the contract for mobilization and demobilization.
 - b. Mobilization Work paid under this item will include:
 - 1) Furnishing required performance bond and payment bond.
 - 2) Furnishing required insurance and associated documentation.
 - 3) Obtaining Owner's acceptance of proposed Subcontractors and Suppliers and entering into subcontracts and purchase orders needed to start the Work.
 - 4) Preparing and obtaining Engineer's approval of the Work Plan required in Section 01 11 00 – Summary of Work.
 - 5) Preparing and obtaining Engineer's approval of the Traffic Control Plan required in Section 01 55 26 – Traffic Control.
 - 6) Implementation of Traffic Control and signage, and all Work required to maintain Traffic Control throughout the Project.
 - 7) Preparing and obtaining Engineer's acceptance of schedules, including Progress Schedule, Schedule of Submittals, and Schedule of Values.
 - 8) Preconstruction conference(s) required by the Contract Documents.
 - 9) Preconstruction photographic documentation.
 - 10) Establishing Contractor's Site-specific health and safety plan, preconstruction activities needed to start implementing Contractor's safety programs, and verifying status of training of construction workers and personnel and condition of construction equipment, machinery, and tools.
 - 11) Submitting acceptable emergency contact information
 - 12) Obtaining required permits needed to start the Work.
 - 13) Initial establishment of temporary utilities and temporary facilities needed by the Contractor to perform the work.
 - 14) Establishing Contractor's field office and sheds, Contractor's storage areas, staging and laydown areas, and other areas necessary to perform the Work.
 - 15) Initial establishment of construction vehicular access to the Site, parking needed for construction, and offsite haul routes.

- 16) Establishing construction equipment, machinery, and tools at the Site.
 - 17) Providing and maintaining temporary controls, including dust control, daily site clean-up, and street sweeping during the Work or more frequently as requested by the Owner.
 - 18) Temporary security needed to start Work at the Site.
 - 19) Snow and ice removal as necessary for Winter work
 - 20) Protection of existing trees as shown on the Drawings.
 - 21) Other mobilization acceptable to Engineer.
 - c. Demobilization Work paid under this item will include:
 - 1) Removal from the Site and adjacent areas of excess materials and equipment.
 - 2) Removal of temporary controls, temporary facilities, temporary barriers, and similar materials and equipment.
 - 3) Removal of temporary access roads and parking areas not part of permanent pavement or otherwise allowed to remain by Owner, including temporary traffic controls established for construction vehicles and equipment.
 - 4) Removal of all field office and sheds, storage areas, staging and laydown areas, and other areas needed to perform the Work and restoration of such areas.
 - 5) Removal from the Site of all construction equipment, machinery, tools, Contractor's containers, temporary fuel storage tanks, and similar items.
 - 6) Closeout of permits on which Contractor is a permittee or co-permittee.
 - 7) Final cleaning.
 - 8) Furnishing required closeout documents.
 - 9) Other costs and effort by Contractor for demobilization.
 - d. Other cost and Work are under other bid/pay items in the Contract.
 3. Payment: Lump sum (LS) price for this item will be full compensation for all mobilization and demobilization required and needed for the Contract, not included under other bid/pay items or contracts.
- B. Item No. 2 – Construction Surveys:
1. Measurement: In accordance with the Contract's provisions on Schedule of Values and progress payments for lump sum Work.
 - a. Construction Survey work paid for under this item will include:
 - 1) All supervision, labor, materials, equipment, overhead and profit, and performing of all operations as necessary to produce pre- and post-construction topographic surveys of the five stormwater ponds as specified.
 - 2) Provide Site control staking as required for clearing and grubbing, sediment removal (grading limits), and seeding limits.
 - 3) Surveyor shall be professionally licensed in the state of Minnesota and in good standing with the Minnesota Board of Architecture, Engineering, and Land Surveying.
 2. Payment: Lump sum (LS) price for this item will be full compensation for all costs associated with furnishing of topographic surveys performed as part of the Work.
- C. Item No. 3 – Water Handling:
1. Measurement: In accordance with the Contract's provisions on Schedule of Values and progress payments for lump sum Work.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, materials, equipment, overhead and profit, and performing all operations as necessary to control and manage surface water, storm water, groundwater, and all dewatering at the site throughout the duration of the Work as specified.

- 2) Any and all temporary barriers, temporary sediment basins, temporary dewatering channels, filtering systems, pumps and pumping system, temporary piping, or other measures as needed to meet effluent turbidity requirements and so as not to create nuisance conditions.
 2. Payment: Lump sum (LS) price for this item will be full compensation for all costs associated with furnishing of water handling performed as part of the Work.
- D. Item No. 4 – Clearing, Grubbing and Tree Removal
1. Measurement: In accordance with the Contract's provisions on Schedule of Values and progress payments for lump sum Work.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, materials, equipment, overhead and profit, and performing all operations as necessary for clearing and grubbing, pruning of tree limbs, removal and disposal of trees, shrubs, stumps, deciduous material, and other live or dead vegetation, as identified in the field by Engineer and within the work limits as shown on the Drawings.
 2. Payment: Lump sum (LS) price for this item will be full compensation for all costs associated with clearing, grubbing and tree removal performed as part of the Work.
- E. Item No. 5 – Construction Entrance
1. Measurement: Construction Entrance will be measured per Each (EA) Construction Entrance installed and recorded in the field by Engineer.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, equipment, materials, overhead and profit, and performing all operations as necessary to furnish, install, maintain, and remove the Construction Entrance as specified.
 - 2) Installation and removal of geotextile filter fabric as specified
 2. Payment: Unit price will be full compensation per Each (EA) Construction Entrance furnished, installed, maintained and removed.
- F. Item No. 6 – Inlet Protection
1. Measurement: Inlet Protection will be measured per Each (EA) Inlet Protection installed and recorded in the field by Engineer.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, equipment, materials, overhead and profit, and performing all operations as necessary to furnish, install, maintain, and remove the Inlet Protection and any collected waste material following the completion of the Work, all complete as specified.
 2. Payment: Unit price will be full compensation per Each (EA) Inlet Protection furnished, installed, maintained, and removed.
- G. Item No. 7 – Filter Berm (Type 3)
1. Measurement: Filter Berm will be measured per linear foot (LF) Filter Berm (Type 3) as measured along the berm's centerline and verified in the field by Engineer.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, equipment, materials, overhead and profit, and performing all operations as necessary to furnish, install, maintain, and remove Filter Berm (Type 3), all complete as specified.
 - 2) Type IV Geotextile Fabric as specified in MnDOT 3733, "Geosynthetic Materials".
 - 3) Front half of berm composed of coarse filter aggregate as specified in MnDOT 3149.2H "Coarse Filter Aggregate".
 - 4) Back half of berm composed of Class I Riprap as specified in MnDOT 3601, "Riprap Material".

H. Item No. 8 – Removal, Hauling and Disposal of Contaminated Sediment

1. Measurement: Sediment Removal, Hauling and Disposal will be measured based upon in-situ unit volume of Cubic Yards (CY) of sediment removed as measured by comparison of pre- and post-construction topographic surveys.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, equipment, materials, overhead and profit, and performing all operations as necessary for the excavation and removal of contaminated sediment/muck/vegetation to the lines and grades as shown on the Drawings, all complete as specified.
 - 2) Temporary material handling, stockpiling and dewatering of dredged material.
 - 3) Furnishing and installing temporary matting (mud mats, timbers) as needed.
 - 4) Separation of ice from the excavated material prior to hauling and disposal.
 - 5) Loading, hauling and disposal of all dredged materials in accordance with current MPCA guidance for SRV level 3 material, including all fees charged by the receiving landfill.
 - 6) Copies of delivery tickets showing disposal facility location, date, time, weight, and all other pertinent information submitted to Engineer for each load delivered to the landfill.
 - 7) Immediate clean-up of haul routes as necessary.
 2. Payment: Unit price per Cubic Yard of in-situ sediment volume removed for this item will be full compensation upon verification using pre- and post-construction surveys.
 3. Monthly Estimates: Prior to post-construction survey verification and for the purposes of tracking and payment for progress, volume removed will be determined by assuming a 1.4 tons per cubic yard conversion factor for all validated weight tickets submitted to the Engineer. Loads delivered without any accompanying weight ticket will not be included for payment. Progress payments will be made at 80% of the estimated volume removed, with full compensation upon final completion and verification of total in-situ volume removed.

I. Item No. 9 & 10 – MnDOT Classes III and IV Riprap w/Type IV Geotextile Filter Fabric

1. Measurement: Riprap w/ geotextile filter fabric will be measured based on the in-place volume as calculated based on field measurement performed by Engineer and verification that an average minimum thickness of at least 95 percent as required by Contract is achieved.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, equipment, materials, overhead and profit, and performing all operations as necessary to furnish and install riprap, granular cushion, and geotextile filter fabric as directed in the field by Engineer and as shown on the Drawings, all complete as specified.
 - 2) Removal, segregation, filtering, salvaging and replacement of all existing riprap as indicated.
 - 3) Type IV Geotextile Fabric as specified in MnDOT 3733, "Geosynthetic Materials".
 - 4) Granular filter as specified in MnDOT 3601, "Coarse Filter Aggregate".
 - 5) Class III Riprap as specified in MnDOT 3601, "Riprap Material".
 - 6) Class IV Riprap as specified in MnDOT 3601, "Riprap Material".
 - b. Work not paid for under this item will include:
 - 1) Excess material delivered to the site, but not used as part of the Work, will not be considered for payment.
 2. Payment: Unit price per Cubic Yard of furnished in-place riprap volume for this item will be full compensation upon field verification of layer thickness as installed.

J. Item No. 11 & 12 – Wet Ditch and Southern Boulevard Mix Seeding and Erosion Control Blanket

1. Measurement: Seeding and Erosion Control Blanket will be measured based on the actual surface area restored, in Square Yards (SY) within the construction limits and as shown on the Drawings. The area restored will be verified by post-construction survey, or other horizontal measurements, of the total surface area of established vegetation meeting the coverage requirements as specified.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, equipment, materials, overhead and profit, and performing all operations as necessary to furnish and install seed mixes and erosion control blankets as warranted and specified.
 - 2) Seed bed preparation, final finish grading, application of seed, tackifiers, watering, and all other items as required by the Contract for adequate seed establishment, all complete as specified.
 2. Payment: Unit price per Acre of furnished of established vegetation for this item will be full compensation upon field verification of horizontal area and coverage requirements.
- K. Item No. 14 – Chain-link Fencing 48-9322
1. Measurement: Installation of Chain-link Fencing 48-9322 will be measured based on the actual length along the bottom of the fence, in linear feet (LF), from center to center of end posts as measured in the field by Engineer and rounded to the nearest linear foot.
 - a. Work paid for under this item will include:
 - 1) All supervision, labor, equipment, materials, overhead and profit, and performing all operations as necessary to furnish and install Chain-link Fencing as shown on the Drawings, and as specified in Mn/DOT Standard Plate 48-9322K and Specification 2557.
 - 2) Removal of existing fence only to the extent necessary for ditch access.
 - 3) Wire fence, concrete, fence posts, intermediate posts, stakes, braces, extra fabric, or wires as required.
 - 4) Stretching and/or post-tensioning of the chain-link fence as required.
 2. Payment: Unit price per Linear Feet (LF) of furnished and installed chain-link fencing for this item will be full compensation upon verification via field measurement.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

END OF SECTION

SECTION 01 29 76
PROGRESS PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for Contractor's progress payments.

B. Scope:

1. Contractor's requests for payment shall be in accordance with the Agreement, General Conditions and Supplementary Conditions, and the Specifications.
2. Applications for Payment shall be on a form approved or provided by Engineer.

1.2 CONTENT AND PROCEDURE FOR REQUESTING PROGRESS PAYMENTS

A. Procedure:

1. Review with Resident Project Representative (RPR) quantities and the Work proposed for inclusion in each progress payment request. Application for Payment shall cover only the Work and quantities recommended by the RPR.
2. Submit to Engineer 1 printed originals, each with Contractor's signature, of each complete Application for Payment and other documents to accompany the Application for Payment.
3. Engineer will act on request for payment in accordance with the General Conditions and Supplementary Conditions.

B. Content: Each request for payment shall include:

1. A tabulation of the items, unit prices, quantities completed, completed values in a form acceptable to Engineer.
2. Supplemental documentation in the form of invoices, statements, weight tickets, affidavits, lien releases, surety releases, etc. as may be required by Engineer or Owner, and such other documentation, certificates, and schedules as are otherwise required by the Contract Documents.
3. Documentation for Stored Materials and Equipment:
 - a. For materials and equipment not incorporated in the Work but suitably stored, submit documentation in accordance with the General Conditions and Supplementary Conditions.
 - b. UCC-1 Financial Statement:
 - 1) For each lot or delivery of stored materials and equipment for which payment is requested prior to installation of the item(s) at the Site, complete UCC-1, "Financial Statement" form. On UCC-1 form, indicate Owner as "security party"; indicate Supplier as "debtor" when stored item(s) are in Supplier's custody, and indicate Contractor as "debtor" when stored item(s) are in Contractor's custody; and clearly indicate in detail all stored item(s) included in the filing as "collateral" on the form. Include attachments to the form when necessary to clearly and fully indicate in detail the associated "collateral".
 - 2) File completed UCC-1 form with the secretary of state in the state where the subject item(s) are stored.

- 3) Include with Application for Payment the completed UCC-1 form together with evidence of filing with the required state(s). Submit UCC-1 form and related documentation once for each lot or delivery of stored items.
 - c. Photographs of the stored items at the storage location. Submit photographs sufficient to clearly indicate each stored item, clearly showing marking of Owner's property in accordance with Paragraph 1.3.C of this section. For each month that such item(s) are stored, take and submit monthly new photographs of each stored item, with date-stamp on each photograph.
 - d. Legibly indicate on invoice or bill of sale the specific stored materials or equipment included in the payment request and corresponding bid/payment item number for each and the Supplier price for each item.
4. Listing of Subcontractors and Suppliers:
 - a. In accordance with the General Conditions, submit not less than monthly updated listing of all Subcontractors and Suppliers known to Contractor, whether or not such entities have a contract directly with Contractor.
 - b. Submit complete information using the form attached to this Specifications section.
 5. Partial Release or Reduction of Retainage:
 - a. For each Application for Payment where Contractor requests partial release or reduction of retainage in any amount (other than request for final payment), submit with associated progress payment request consent of surety to partial release or reduction of retainage, duly completed by Contractor and surety.
 - b. Acceptable form includes AIA G707A, "Consent of Surety to Reduction in or Partial Release of Retainage" (1994 or later edition), or other form acceptable to Owner.
 - c. For payment requests that include reduction in or payment of retainage in an amount greater than that required by the Contract Documents, obtain Owner's concurrence for partial release or reduction in retainage prior to submitting such Application for Payment.
- C. Final Payment:
1. Requirements for request for final payment are in the General Conditions, as may be modified by the Supplementary Conditions, and Section 01 77 19 - Closeout Requirements.

1.3 ADDITIONAL PROCEDURES FOR PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Observation of Stored Materials and Equipment as Condition Precedent to Eligibility for Payment:
1. General:
 - a. Prior to materials or equipment suitably stored but not yet incorporated into the Work can be eligible for payment, Engineer or Resident Project Representative (RPR) shall visit the storage location and verify the extent, condition, and storage environment of the stored items.
 - b. When the same material or equipment item is stored for more than two months, such visits to storage location shall be not less than once every two months.
 2. Cost Responsibility for Observations:
 - a. When storage location is less than 20 miles from the Site or less than 20 miles from Engineer's office, Contractor is not responsible for reimbursing Owner for

cost of Engineer's time and expenses for observing stored materials and equipment.

- b. When storage location is more than 20 miles from the Site and more than 20 miles from Engineer's office, Contractor shall reimburse Owner, via a set-off under the Contract Documents, for reasonable cost of Engineer's time and expenses, including travel time, to visit the storage location and observe the stored materials and equipment.

B. Other Requirements for Stored Items: Regardless of storage location, perform the following for stored materials and equipment for which payment is sought:

1. Clearly mark each stored container, crate, or item as follows: "Property of Capitol Region Watershed District" using permanent marking. Such marking shall not blemish or deface the finish of items that will be exposed to view after installation at the Site.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.1 ATTACHMENTS

- A. The forms listed below, following this Specifications section's "End of Section" designation, are part of this Specifications section:
1. List of Subcontractors and Suppliers form (two pages).

END OF SECTION

LIST OF SUBCONTRACTORS AND SUPPLIERS

Owner: [][]
Project Name: [][]

Contractor: _____ Date: []
Contract Designation: _____

Indicate below complete information for each Subcontractor and Supplier known to Contractor, regardless of whether the firm has a direct contract with Contractor. Include all lower-tier Subcontractors and associated Suppliers. Copy and paste the paragraphs below as required to indicate all Subcontractors and Suppliers.

SUBCONTRACTORS

1. **Subcontractor Name:**

- Address:
- Contact Person:
- Telephone No.:
- E-mail Address:
- Work Under Specifications Section Nos.:
- Brief Description of Work:
- Current Subcontract Price:
- Approximate Subcontract Start Date:
- Approximate Subcontract End Date:

2. **Subcontractor Name:**

- Address:
- Contact Person:
- Telephone No.:
- E-mail Address:
- Work Under Specifications Section Nos.:
- Brief Description of Work:
- Current Subcontract Price:
- Approximate Subcontract Start Date:
- Approximate Subcontract End Date:

3. **Subcontractor Name:**

- Address:
- Contact Person:
- Telephone No.:
- E-mail Address:
- Work Under Specifications Section Nos.:
- Brief Description of Work:
- Current Subcontract Price:
- Approximate Subcontract Start Date:
- Approximate Subcontract End Date:

Total of Subcontract Prices for all subcontracts equals approximately [] percent of the Contract Price (Contractor to fill in blank monthly)

SUPPLIERS

1. **Supplier Name:**

- *Address:*
- *Contact Person:*
- *Telephone No.:*
- *E-mail Address:*
- *Furnishing Items Under Specifications Section Nos.:*
- *Brief Description of Items:*
- *Current Purchase Order Amount:*
- *Approximate Purchase Order Date:*
- *Approximate Purchase Order End Date:*

2. Supplier Name:

- *Address:*
- *Contact Person:*
- *Telephone No.:*
- *E-mail Address:*
- *Furnishing Items Under Specifications Section Nos.:*
- *Brief Description of Items:*
- *Current Purchase Order Amount:*
- *Approximate Purchase Order Date:*
- *Approximate Purchase Order End Date:*

3. Supplier Name:

- *Address:*
- *Contact Person:*
- *Telephone No.:*
- *E-mail Address:*
- *Furnishing Items Under Specifications Section Nos.:*
- *Brief Description of Items:*
- *Current Purchase Order Amount:*
- *Approximate Purchase Order Date:*
- *Approximate Purchase Order End Date:*

SECTION 01 31 13
PROJECT COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. General requirements for:
 - a. Project coordination when the Project is implemented using a single prime construction Contract.
 - b. Coordination requirements between Contractor, Owner, and Engineer.
 - c. Coordination progress documentation.
 - d. Meetings

B. Scope:

1. Contractor shall coordinate the Work, whether performed by Contractor's employees or by Subcontractors, Suppliers, or others for whom Contractor is responsible, to provide Work in accordance with the Contract Documents.
2. Coordinate the Work with testing entities and inspectors (whether hired by Contractor, Owner, or others) employed on the Project, forces of Owner and facility manager (if other than Owner), and other contractors retained by Owner or facility manager, and other entities with which the Work needs to be coordinated.
3. Requirements for preconstruction meetings are in the General Conditions (as may be modified by the Supplementary Conditions).

C. Related Requirements:

1. Include, but are not necessarily limited to, the following:
 - a. Section 01 11 00 - Summary of Work.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Coordination – General:
 - a. In accordance with the General Conditions as may be modified by the Supplementary Conditions, and Section 01 11 00 - Summary of Work, Contractor shall coordinate the Work with, and cooperate with, other contractors, utility owners and their contractors, owners of transportation facilities and their contractors, Owner's and facility manager's workers at the Site, and other entities working at or adjacent to the Site.
2. Coordination, Inspection, and Observation to Ensure Quality:
 - a. Contractor shall continuously inspect the Work throughout the Project to ensure that the Work complies with the Contract Documents.
 - b. Inspect (including testing, where required or necessary) substrates and surfaces on which the Work will be constructed, applied, adhered, or attached, to ensure substrate and surface conditions are appropriate for providing Work in accordance with the Contract Documents.
3. Contractor is not responsible for, or liable for, damage or loss unless damage or loss resulted from action, inaction, or negligence of Contractor, or Subcontractor(s), Supplier(s), or other entity for whom Contractor is responsible. This provision does not mitigate or reduce Contractor's responsibility for security for the Work, in accordance with the Contract.

B. Coordination Meetings:

1. Contractor's Coordination Meetings:

- a. Schedule, attend, chair, and actively participate in coordination meetings deemed appropriate by Contractor for purposes of coordinating the Work of Contractor's employees, Subcontractors, Suppliers, and others for whom Contractor is responsible.
 - b. Frequency, location, date, time, and duration of Contractor's coordination meetings are at Contractor's discretion. Record and distribute to attendees and other members of Contractor's team a record of topics discussed, decisions made, and other relevant matters at Contractor's coordination meetings.
 - c. Engineer, Resident Project Representative (if any), Owner, and Owner's Site Representative (if any) will not attend Contractor's coordination meetings.
2. Progress Meetings:
- a. Weekly progress meetings may be scheduled by the Engineer at a regular time mutually agreeable to the Owner, Contractor, and Engineer. A preferred time for these meetings is prior to Contractor's submittal of Application for Payment. The Contractor shall attend these meetings and shall coordinate and require the attendance of subcontractors whose work may be in progress at the time or whose presence may be required for any purpose. Scheduling of required attendees shall meet with the approval of the Engineer.
 - b. Engineer will prepare and distribute copies of the meeting minutes to Owner and Contractor following each meeting. These will include a brief summary of the progress of the Work since the previous meeting.
3. Other Meetings:
- a. The Contractor is to attend other unscheduled meetings with may be reasonably requested by the Engineer or Owner to discuss unanticipated changes in the Work, or conditions at the Site, or other issues which must be resolved before progression of the Work.
 - b. A final closeout meeting will be scheduled prior to acceptance of final completion. Meeting is to be hosted by the Owner. Owner, Engineer, and Contractor are required to attend.

1.3 SUBMITTALS

A. Informational Submittals

- 1. Preliminary Construction Schedule as described in the General Conditions.
- 2. Construction progress reports provided weekly (preferred) or bi-weekly.
- 3. Updated Progress Schedules with each Application for Payment.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Definition of various types of Submittals.
2. Coordination requirements for Submittals.
3. General provisions concerning Submittals.
4. Schedule of Submittals.
5. Contractor's preparation of Submittals, including:
 - a. Numbering.
 - b. Marking.
 - c. Organization and content.
 - d. Proposed "or-equals", substitutes, and deviations from Contract requirements.
 - e. Electronic Documents Submittals.
 - f. Contractor's review and approval of each Submittal.
 - g. Resubmittals.
6. Contractor's transmittal of Submittals, including transmittal letters, transmittal and delivery method, and delivery of Samples, Closeout Submittals, and Maintenance Materials Submittals.
7. Engineer's review, including:
 - a. Timing.
 - b. Meaning of Engineer's Submittal action code(disposition) assigned.
 - c. Delivery of Engineer's responses on Submittals.

B. Scope:

1. Contractor shall provide all labor, materials, equipment, tools, services, incidentals, and other effort necessary to furnish Shop Drawings, product data Submittals, Samples, and other Submittals in accordance with the Contract Documents.
2. This Section's Article, "General Provisions Concerning Submittals" includes a summary of the Contract Documents' locations of Submittals requirements.
3. Shop Drawings, product data Submittals, Samples, and other Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Engineer's approval or acceptance, as applicable, of a Submittal does not alter or modify the Contract Documents.
4. Engineer and Owner have the right to rely on Contractor's representations and certifications made regarding each Submittal.

C. Related Requirements: Include but are not limited to:

1.2 REFERENCES

A. References – Introduction:

1. This Article presents definitions and terminology used in this Section and throughout the Contract Documents.

2. Applicability of the Term "Submittals": Where reference is made to Shop Drawings, product data Submittals, Samples, or other Submittals in this Section and elsewhere in the Contract Documents, the term "Submittals", as defined in the Contract Documents, is intended. The foregoing applies regardless of whether such term is indicated with an initial capital letter, unless context of the subject provision clearly indicates otherwise.
 3. Types of Submittals:
 - a. Submittal types are classified as follows: (1) Action Submittals, (2) Informational Submittals, (3) Closeout Submittals, and (4) Maintenance Materials Submittals.
 - b. Type of each required Submittal is indicated in the associated Specifications section. When Submittal type is not clearly indicated in the associated Specifications section, Submittal will be classified as indicated in this Article. Submit request for interpretation when Contractor is uncertain of required Submittal type.
- B. Action Submittals:
1. Action Submittals require an explicit, written approval or other appropriate action by Engineer (or other entity to whom the Submittal is required to be furnished, in accordance with the Contract Documents) before Contractor may release the associated item(s) for raw materials procurement, fabrication, production, and shipping.
 2. Unless otherwise indicated in the Contract Documents, Action Submittals include the following:
 - a. Shop Drawings.
 - b. Product data.
 - c. Samples.
 - d. Testing plans for quality control activities required by the Contract Documents.
 - e. Delegated Designs: Delegated design professional's "instruments of service" Submittals required by the Contract Documents
 3. General Conditions' requirements for Shop Drawings and Samples hereby apply to all Action Submittals.
- C. Informational Submittals:
1. Informational Submittals are so indicated in the Contract Documents. Unless otherwise indicated, Informational Submittals include certifications, evaluation reports, results of source quality control activities, results of field quality control activities, Supplier instructions, reports of Suppliers' visits to the Site, sustainable design Submittals (that are not Closeout Submittals), delegated design Submittals that are not "instruments of service" Submittals, qualifications statements, and others.
 2. Informational Submittals, when submitted in accordance with the Contract and indicating full compliance with the Contract Documents, do not require explicit response from Engineer (or other entity to whom the Submittal is to be delivered); Engineer's (or other entity's) acceptance thereof will be indicated in the Engineer's Submittals log. Copy of Engineer's Submittals log is available to Contractor upon Contractor's written request.
 3. When Informational Submittal does not indicate full compliance with the Contract Documents, Engineer (or other entity to which Submittal is to be delivered) will indicate the non-compliance in a written response to Contractor.
- D. Closeout Submittals:

1. Closeout Submittals are so indicated in the Contract Documents and are, in general, required before the associated Work is completed, unless earlier submittal is required by the Contract Documents.
2. Unless indicated otherwise in the Contract Documents, Closeout Submittals include maintenance contracts, operation and maintenance data, warranties, bonds (other than performance and payment bonds required prior to the start of construction), record documents, sustainable design closeout Submittals, software, keys, and others.
3. Closeout Submittals are processed in the same manner as described above for Informational Submittals.

E. Maintenance Materials Submittals:

1. Maintenance materials include spare parts, extra materials, tools, and similar items required to be furnished in accordance with the Contract Documents.
2. Furnish required physical maintenance materials, delivered to Owner or facility manager (if other than Owner), as applicable, at the location(s) indicated in the Contract Documents, for the corresponding required Maintenance Materials Submittals.
3. Maintenance Materials Submittals are documentation of delivery to Owner's or facility manager, and their acceptance of, required physical maintenance materials.
4. Maintenance Materials Submittals are processed in the same manner as described above for Informational Submittals.

F. Additional Terms:

1. The following terms have the meanings indicated below, regardless of whether such terms are indicated using initial capital letters, and apply to singular and plural of each:
 - a. "Product data" means illustrations, standard schedules, performance charts, Supplier's published instructions, brochures, diagrams, and other information furnished by Contractor to illustrate or describe materials or equipment for some portion of the Work. In general, product data are manufacturers' pre-published information on the items proposed to be incorporated into the Work. Product data includes manufacturer's catalog pages and similar documents with contractor-made markings and indications of proposed products and proposed options.
 - b. The term "Shop Drawings", defined in the General Conditions, is supplemented by the following: Shop Drawings include: (1) fabrication and assembly drawings, usually having a title block, or (2) schedules, prepared specifically for the Project. Here, "schedules" means a Project-specific summary of systems and components, such as a schedule of HVAC equipment, schedules of doors and door hardware, or windows, or a schedule of paint systems by room and surface, or other, similar Project information in a tabular format. In contrast, construction Progress Schedules, Schedules of Submittals, and Schedules of Values are not Shop Drawings. Unless expressly required otherwise in the Contract Documents, Shop Drawings shall not be prepared from, or on, the Drawings or any other component of the Contract Documents.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Furnish Submittals well in advance of need for the associated material or equipment, or procedure (as applicable), in the Work and with ample time necessary for delivery of materials and equipment and to implement procedures following Engineer's approval or acceptance of the associated Submittal.

2. Work covered by a Submittal will not be included in payments by Owner until approval or acceptance (as applicable) of related Submittals has been obtained in accordance with the Contract Documents.

1.4 GENERAL PROVISIONS CONCERNING SUBMITTALS

A. Locations of Requirements:

1. Requirements concerning Submittals are generally located as follows:
 - a. General Conditions, as may be modified by the Supplementary Conditions, applicable to the Project.
 - b. This Section, which presents general requirements for Submittals applicable to the Project.
 - c. The "Submittals" Article of the various Specifications sections, which indicates the required Submittals for the associated Work. Furnish all Submittals required by the Contract Documents regardless of whether explicitly indicated in the associated Specifications' "Submittals" Article.
- B. This Section augments and supplements the requirements of the General Conditions, as may be modified by the Supplementary Conditions, relative to Submittals.

1.5 SCHEDULE OF SUBMITTALS

A. Informational Submittals: Submit the following:

1. Schedule of Submittals:
 - a. Timing:
 - 1) Furnish Schedule of Submittals within time frames indicated in the General Conditions, as may be modified by the Supplementary Conditions.
 - 2) Submit updated Schedule of Submittals with each submittal of the updated Progress Schedule.
 - b. Content: In accordance with the General Conditions, as may be modified by the Supplementary Conditions, and this Section. Requirements for content of preliminary Schedule of Submittals and subsequent Submittals of the Schedule of Submittals are identical. Identify on Schedule of Submittals all Submittals required in the Contract Documents. Updates of Schedule of Submittals shall show scheduled dates and actual dates for completed tasks. Clearly indicate Submittals that are on the Project's critical path. Indicate the following for each Submittal:
 - 1) Date by which Submittal will be received by Engineer.
 - 2) Whether Submittal will be for a substitution or "or-equal".
 - 3) Date by which Engineer's response is required. Allow not less than 14 days for Engineer's review, starting on Engineer's actual receipt of each Submittal. Allow increased time for large or complex Submittals.
 - 4) For Submittals for materials or equipment, date by which material or equipment must be at the Site to avoid delaying the Work and to avoid delaying the work of others (if any).
 - c. Coordinate Schedule of Submittals with the Progress Schedule.
 - d. Schedule of Submittals that is not compatible with the Progress Schedule, or that does not indicate Submittals on the Project's critical path, or that places extraordinary demands on Engineer for time and resources, is unacceptable. Do not include Submittals not required by the Contract Documents.
 - e. In preparing Schedule of Submittals:

- 1) Considering the nature and complexity of each Submittal, allow sufficient time for reviews and revisions.
- 2) Allow reasonable time for: Engineer's review and processing of Submittals, for Submittals to be revised and resubmitted, and for returning Submittals to Contractor.
- 3) Identify and accordingly schedule Submittals that are expected to have long anticipated review times.

1.6 PREPARATION OF SUBMITTALS

A. Prior to Submittal Preparation:

1. The General Conditions, as may be modified by the Supplementary Conditions, address Contractor's responsibility for submitting for Owner's acceptance identification of Subcontractors and Suppliers. Obtain Owner's acceptance before entering into subcontracts and purchase orders for the Work.
2. Comply with the Contract Documents relative to terms and conditions of subcontracts and purchase orders for the Work.
3. Contractor's responsibilities for the following are set forth in the General Conditions, as may be modified by the Supplementary Conditions, and as may be augmented elsewhere in the Contract Documents:
 - a. Obtaining field measurements and dimensions.
 - b. Determining and verifying required quantities.
 - c. Verifying compatibility of materials.
 - d. Apportioning the Work among Subcontractors, Suppliers, and Contractor.
 - e. Reconciling required materials, equipment, and other Contract requirements with Contractor's means, methods, techniques, sequences, and procedures of construction and with Contractor's safety and protection programs and precautions incident thereto.
 - f. Reviewing applicable provisions of the Contract Documents and obtaining from Engineer necessary interpretations or clarifications.

B. Submittal Identification:

1. Submittal Number: Shall be a unique number assigned to each individual Submittal. Assign Submittal numbers as follows:
 - a. First part of Submittal number shall be the applicable Specifications section number, followed by a hyphen.
 - b. Second part of Submittal number shall be a three-digit number (sequentially numbered from 001 through 999) assigned to each separate Submittal furnished under the associated Specifications section.
 - c. Example: Submittal number for the third Submittal furnished for Section 10 14 00 - Signage, would be "10 14 00-003".
2. Review Cycle Number: Each resubmittal of a given Submittal shall be indicated with a lower-case letter designation:
 - a. No letter designation for initial (first) submittal of the Submittal number.
 - b. "a" shall indicate first resubmittal of the Submittal number.
 - c. "b" shall indicate second resubmittal of the Submittal number.
3. Examples:

Example Description	Submittal Identification
---------------------	--------------------------

	Submittal No.	Review Cycle
Initial (first) review cycle of the third Submittal furnished under Section 10 14 00 – Signage	10 14 00-003-	
Second review cycle (first resubmittal) of third Submittal furnished under Section 10 14 00 - Signage	10 14 00-003-	a

C. Marking of Submittals:

1. Mark on each page of each Submittal and each individual component submitted with Submittal number and applicable Specifications paragraph.
2. Mark each page of each Submittal with the Submittal page number.
3. Each Shop Drawing sheet shall have title block with complete identifying information satisfactory to Engineer.
4. For product data Submittals, operation and maintenance data Submittals, and other Submittals:
 - a. Mark options to be furnished using broad, dark arrows or “clouds” clearly drawn around the relevant text or diagrams. Do not use highlighter for indicating options and features.
 - b. Indicate options and features not furnished using clear strikeouts through the text or diagrams.

D. Submittal Organization and Content – General:

1. Page or Sheet Size; Furnish Submittals with one or more of the following page or sheet sizes: (a) 8.5 inches by 11 inches; (b) 11 inches by 17 inches; (c) 22 inches by 34 inches; unless another sheet size is acceptable to Engineer.
2. Language: All parts of each Submittal shall be in the English language.
3. Units of Measurement: Clearly indicate units of measurement on Shop Drawings, product data Submittals, record documentation, and operation and maintenance data Submittals.
4. Organize each Submittal logically to facilitate ease of understanding and review.
5. To the extent practicable, arrange Submittal information in same order as requirements are written in the associated Specifications section.
6. Each Submittal shall cover Work under only one Specifications section.
7. To the extent practicable, package together Submittals for the same Specifications section. Do not furnish required information piecemeal.
8. For large or complex Submittals, include a title page and table of contents.
9. Include appropriately labeled fly sheets to separate distinct parts of each Submittal.
10. Ensure legibility of all pages in each Submittal.
11. Minimize extraneous and unnecessary information in Submittals for materials and equipment. Do not submit information not relevant to the Submittal and associated requirements of the Contract Documents.
12. Contractor's, Subcontractor's, and Supplier's written comments on Shop Drawings and product data diagrams shall be colored green
13. Do not submit under Specifications sections with title that includes either, “Common Work Results for” or, “Basic Requirements”, unless the subject material or equipment is specified, in total, in a Specifications section with the words, “Common Work Results for” or, “Basic Requirements” in its title.

E. Electronic Documents Submittals:

1. Format: Electronic Documents Submittals shall be “portable document format” (.PDF) files unless expressly required otherwise by applicable provisions of the Contract Documents.
 2. Electronic Documents Submittals must be electronically searchable when delivered to Engineer and other recipients.
 3. Organization and Content:
 - a. Each Electronic Documents Submittal shall be one file; do not divide individual Submittals into multiple Electronic Documents files each unless file size will exceed 20 MB.
 - b. When Submittal is large or contains multiple parts, furnish PDF file with suitably titled electronic bookmark for each section of the Submittal.
 - c. Content shall be identical to paper or other original Submittal. First page of each Electronic Documents Submittal shall be transmittal letter required in this’s Paragraph 1.7.A.
 4. Quality and Legibility: Electronic Documents Submittal files shall be made from the original and shall be clear and legible. Markings applied by Contractor, Subcontractor, or Supplier shall be clear, distinct, and readily apparent. Electronic Documents file shall be full size of original documents. Properly orient all pages for convenient reading on a computer display; do not furnish pages sideways or upside-down..
 5. Provide sufficient internet service, software, and systems for Contractor with capability appropriate for transmitting the necessary files and receiving responses from Engineer or other entities.
 6. Check not less than once per day for distribution of Electronic Documents Submittals responses and related Electronic Documents correspondence.
- F. Proposed “Or-Equals”, Substitutes, and Deviations from Contract Requirements:
1. “Or-Equals”:
 - a. The meaning of “or-equal” is addressed in Paragraph 6.05.A.1 of the General Conditions.
 - b. Contractor’s request for approval of “or-equals” is to be presented via the associated Action Submittal(s) and shall include the information required in provisions governing “or-equals”.
 - c. Expressly and prominently indicate, “Proposed Or-Equal” on the associated Action Submittals when Submittal is for an “or-equal”.
 - d. Submittals requesting approval of an “or-equal” but not accompanied by the required, supplemental information will be deemed incomplete by Engineer and returned to Contractor without approval.
 2. Substitutes:
 - a. The meaning of “substitute” is indicated in paragraph 6.05.A.2 of the General Conditions.
 - b. ntractor’s request for approval of substitute is separate from the associated Action Submittal(s). Action Submittals that request approval of a substitute when a separate, formal substitution request (furnished in accordance with the Contract Documents) was not previously furnished to Engineer, followed by formal approval in via an appropriate contract modification (typically either a Field Order or Change Order), will be deemed by Engineer as non-compliant with the Contract Documents and will be returned to Contractor without approval.

- c. Contractor is solely responsible for delays incurred due to substitutes proposed via Submittals that have not been previously duly approved via an appropriate Contract modification.
 - d. Action Submittals for items or procedures approved via an appropriate Contract modification shall include a copy of the Contract modification in which the substitute was approved.
- 3. Submittals with Proposed Deviations from Contract Requirements:
 - a. When Submittal proposes deviations from requirements of the Contract Documents, the Submittal shall clearly and expressly indicate each proposed deviation.
 - b. Also comply with this Section's provision, in the Article below, on Contractor's transmittal letter expressly alerting Engineer to the proposed deviations.
 - c. Comply with requirements of the Contract regarding substitutes and "or-equals".
 - d. When deviation is proposed, also appropriately revise text of Contractor's approval, from that required below in this Article.
 - e. When Submittal includes deviations from Contract requirements and either the Submittal itself, Contractor's transmittal letter, or both, do not comply fully with Contract requirements for indicating deviations in Submittals and giving separate written notice thereof, Engineer's approval of such deviations will be deemed null and void unless Engineer's written response to the Submittal has expressly acknowledged such deviation and indicated Engineer's approval thereof.
 - f. Contractor is solely responsible for delays and costs incurred due to any and all Submittals with deviations from Contract requirements that were not properly, expressly indicated and approved in accordance with the Contract Documents. Deviations not duly approved in accordance with the Contract Documents may be deemed defective Work. Contractor is solely responsible for remedying defective Work and all associated cost and time impacts.
- G. Contractor's Approval of Submittals:
 - 1. Contractor's Review: Before transmitting Submittals to Engineer, review each Submittal to:
 - a. Ensure proper coordination of the Work.
 - b. Determine that each Submittal is in accordance with Contractor's desires.
 - c. Verify that Submittal contains sufficient information for Engineer to determine compliance with the Contract Documents.
 - 2. Incomplete or inadequate Submittals will be returned without detailed review by Engineer.
 - 3. Contractor's Approval Stamp and Signature:
 - a. Each Submittal furnished shall bear Contractor's approval stamp (or facsimile thereof) and signature, as evidence that the Submittal has been reviewed and approved by Contractor and verified as complete and in accordance with the Contract Documents.
 - b. Submittals without Contractor's approval and signature (as required by the contract Documents) will be returned to Contractor without further review by Engineer and deemed incomplete.
 - c. Engineer reserves the right to reject as incomplete Submittals where Contractor's approval signature appears computer-generated or reproduced without the active involvement or review of Contractor's signatory.
 - d. Contractor's approval shall contain the following text:

Project Name: _____
Contractor's Name: _____
Contract Designation: _____
Date: _____

----- *Reference* -----

Submittal Title: _____
Specifications: _____
 Section: _____
 Page No.: _____
 Paragraph No.: _____
Drawing No.: [] of _____
Location of Work: _____

Submittal No. and Review Cycle: _____
Coordinated by Contractor with Submittal Nos.: _____

I hereby certify that Contractor has satisfied Contractor's obligations under the Contract Documents relative to Contractor's review and approval of this Submittal, including: (1) reviewed and coordinated the Submittal with other Submittals and with the requirements of the Work and the Contract Documents; (2) determined and verified all: field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal, (b) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work, and (c) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; (3) confirmed the Submittal is complete with respect to all related data included in the Submittal; and (4) clearly and expressly indicated all proposed deviations (if any) from the requirements of the Contract Documents both in the Submittal itself and in the Submittal's transmittal letter. Accordingly, this Submittal is hereby approved for Contractor by:

Approved for Contractor by: _____

H. Resubmittals:

1. Refer to the General Conditions, as may be modified by the Supplementary Conditions, for requirements regarding resubmitting required Submittals.
2. In addition to limits on the quantity of resubmittals, as indicated in the General Conditions, Contractor shall furnish Submittals with such completeness, accuracy, and compliance with the Contract Documents to obtain Engineer's approval or acceptance, as applicable, without the total quantity of Submittals furnished, including all initial Submittals and all resubmittals, exceeding 125% of the number of Submittals indicated on the Schedule of Submittals initially accepted by Engineer, plus a corresponding percentage of the quantity of Submittals required by Change Orders, Work Change Directives, and Field Orders.
3. Do not increase the scope of prior review cycle of the same Submittal.
4. Indicate on Contractor's transmittal letter how Submittal was revised from previous review cycle of the Submittal and where the revisions or corrections are located within the resubmittal.

5. Expressly address and provide response for all components previously transmitted by Engineer on prior review cycles of the subject Submittal. Where resubmittal lacks complete response to Engineer's prior comments, Engineer may deem such resubmittal as incomplete and return it to Contractor without further review.
6. Where part of the Submittal's prior review cycle was expressly approved or accepted, as applicable, by Engineer, do not include such items in subsequent resubmittals.
7. Indicate, "Not Yet Resolved—To Be Resubmitted at a Later Date" for any items not approved in prior review cycle of the Submittal for items not included in the subject resubmittal. Engineer reserves the right to deem incomplete Submittals "Not Approved" or "Revise and Resubmit". Furnishing incomplete or partial resubmittals is discouraged.
8. Resubmittal of Previously Approved or Accepted Items:
 - a. Do not resubmit on a given item previously approved or accepted, as applicable, by Engineer, without Engineer's advance consent. Consent will be given for bona-fide unavailability of a previously approved or accepted item where Contractor has acted in good faith in a timely manner with due diligence to comply with the Contract Times.
 - b. Destroy or conspicuously mark "SUPERSEDED" on all documents having previously received Engineer's approval or acceptance, as applicable, that are superseded by a resubmittal.

1.7 TRANSMITTAL OF SUBMITTALS BY CONTRACTOR

A. Contractor's Transmittal Letters for Submittals:

1. Furnish separate transmittal letter with each Submittal. Use transmittal form attached to this Section (as Exhibit 01 33 00-A) unless other transmittal form is acceptable to Engineer at the start of the Project's construction.
2. When transmittal form other than this Section's Exhibit 01 33 00-A is acceptable to Engineer, at beginning of each transmittal, include a reference heading indicating: Contractor's name, Owner's name, Project designation, Contract designation, transmittal number, and Submittal number (with review cycle).
3. "Or-Equals": When the Submittal is proposing an "or-equal", expressly so indicate on transmittal form submitted by Contractor.
4. Proposed Deviations from Contract Requirements: When the Submittal proposes deviations from requirements of the Contract Documents, transmittal letter shall specifically describe each proposed deviation.

B. Submittal Delivery Method:

1. This provision presents general requirements for delivery of all Submittals unless otherwise required elsewhere in the Contract Documents.
2. Furnish Submittals as Electronic Documents delivered via e-mail and/or as an attachment to an e-mail.
3. Furnish Submittals to Engineer and each other entity indicated in the Contract Documents as receiving a Submittal directly from Contractor.
4. Address Submittals to Engineer as follows:

HDR
Christopher Gice
Christopher.gice@hdrinc.com.

C. Closeout Submittals –Transmittal and Delivery:

1. Furnish the following Closeout Submittals in accordance with general requirements for transmitting and delivering Submittals, indicated above in this Article: maintenance contracts; warranty bonds (when required) and other bonds required for specific materials, equipment, or systems; warranty documentation; and sustainable design closeout documentation (when required). On documents such as maintenance contracts and bonds, include on each document furnished original ("wet") signature of entity issuing said document. When original "wet" signatures are required, furnish such Submittals to Engineer both on original paper and as Electronic Documents, and to other entities furnish as indicated above in this Article for general requirements for Submittals.

1.8 ENGINEER'S REVIEW OF SUBMITTALS

- A. This Article applies to review of all Submittals by Engineer or other entity to whom the Contract Documents require such Submittal be furnished.
- B. Timing:
 1. Timing of Engineer's review will be in accordance with the Schedule of Submittals accepted by Engineer.
 2. When Submittal is delivered to Engineer on a date other than that indicated in the Schedule of Submittals accepted by Engineer, duration of Engineer's review may differ from that indicated in the Schedule of Submittals, based on Engineer's availability and resources. Engineer will make good-faith effort to furnish responses to Submittals in a timely manner.
 3. Contractor is responsible for communicating to Engineer when a Submittal is on the Project's critical path.
- C. Engineer's Review:
 1. Markings:
 - a. Comments or responses marked directly on Submittal by Engineer (or other entity reviewing Submittal) will be colored red.
 - b. Engineer may also present narrative comments on a comment sheet inserted by Engineer into the Submittal or included on Engineer's transmittal letter for the Submittal. Such comments will be in black text. When a separate comment sheet is included by Engineer, such sheet will be clearly identified as Engineer's comments.
 2. Engineer's review and disposition assigned to Submittal are subject to the following:
 - a. Submittal disposition is subject to: Engineer's comments on the Submittal; disclaimer language on Engineer's Submittal transmittal letter; Engineer's Submittal review stamp (when used) or equivalent (when used); and this provision.
 - b. Engineer's review is only for general compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, and for general compliance with the information given in the Contract Documents.
 - c. Contractor shall be solely responsible for complying with the Contract Documents, as well as with Supplier instructions consistent with the Contract Documents, Owner's directions, and Laws and Regulations. Contractor is solely responsible for obtaining, correlating, confirming, and correcting dimensions at the Site; quantities; information and choices pertaining to fabrication processes; means, methods, sequences, procedures, and techniques of construction; safety precautions and programs incident thereto; and for coordinating the work of all trades.

- d. Engineer is not responsible for resubmittals not yet furnished by Contractor or tracking Contractor's progress on resubmittals.
 - 3. Documents not required by the Contract Documents but nonetheless furnished by Contractor as submittals will not be reviewed by Engineer.
- D. Meaning of Submittal disposition Assigned by Engineer:
 - 1. Action Submittals:
 - a. "Approved" (Action Code A): Upon return of Submittal marked "Approved", order, ship, or fabricate materials and equipment included in the Submittal (pending Engineer's approval or acceptance, as applicable, of production-related qualifications statements and certifications, and required source quality control Submittals) or otherwise proceed with the Work in accordance with the Submittal and the Contract Documents.
 - b. "Approved as Noted" (Action Code B): Upon return of Submittal marked "Approved as Noted", order, ship, or fabricate materials and equipment included in the Submittal (pending Engineer's approval or acceptance, as applicable, of production-related qualifications statements and certifications, and required source quality control Submittals) or otherwise proceed with the Work in accordance with the Submittal and the Contract Documents, and in accordance with Engineer's comments and notes indicated in Engineer's Submittal response
 - c. "Revise and Resubmit" (Action Code C): Upon return of Submittal marked "Revise and Resubmit", make the revisions necessary and indicated and resubmit to Engineer for approval.
 - d. "Not Approved" (Action Code D): This disposition indicates material or equipment that cannot be approved. "Not Approved" disposition may also be applied to Submittals that are incomplete. Upon return of Submittal marked "Not Approved", repeat initial submittal procedure utilizing approvable material or equipment, with a complete Submittal clearly indicating all information required.
 - 2. Informational, Closeout, and Maintenance Materials Submittals:
 - a. "Accepted" (Action Code F): Information included in Submittal complies with the applicable requirements of the Contract Documents and is acceptable. No further action by Contractor is required relative to such Submittal, and the Work covered by the Submittal may proceed. Materials and equipment with Submittals with this disposition may be shipped or operated, as applicable. Submittals assigned "Accepted" by Engineer (or other reviewing entity) does not indicate Engineer's acceptance of the associated Work, which is indicated only as set forth in the General Conditions and Section 01 77 19 – Closeout Requirements.
 - b. "Not Acceptable" (Action Code G): Submittal, or part thereof, does not indicate full compliance with applicable requirements of the Contract Documents and is not acceptable. Provide labor, materials, equipment, services, and incidentals necessary to properly and accurately revise Submittal and resubmit to indicate acceptability and compliance with the Contract Documents
 - 3. Other:
 - a. "Submittal Not Reviewed" (Action Code E): Documents so marked by Engineer are not required by the Contract Documents. Submittals may also be marked with this disposition when information in the document was previously reviewed and approved or accepted by Engineer, as applicable.
- E. Distribution of Engineer's Responses:

1. Unless otherwise indicated in the Contract Documents, Engineer will distribute written responses (as Electronic Documents) to Submittals to the following:
 - a. Contractor.
 - b. Owner.
 - c. Engineer's file.
2. Engineer's acceptance of Informational Submittals, Closeout Submittals, and Maintenance Materials Submittals will be recorded in Engineer's Submittal log. Copy of Engineer's Submittals log is available from Engineer upon written request of Owner or Contractor. If no such request is received by Engineer, Engineer will distribute copy of Engineer's Submittals log once per month (when Submittals have been received or acted on by Engineer). Engineer may distribute copy of Engineer's Submittals log as an Electronic Document or as handout at construction progress meetings.
3. Paper copies of Engineer's Submittal responses will not be distributed unless otherwise required by the Contract Documents or otherwise agreed to by Engineer.
4. Contractor is responsible for forwarding Engineer's Submittals responses to Subcontractors and Suppliers as appropriate, and for coordinating the Work of all trades.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.1 ATTACHMENTS

- A. The documents listed below, following this Section's "End of Section" designation, are part of this Specifications Section:
 1. "Exhibit 01 33 00-A – Transmittal for Submittal No. ##" (one page).

END OF SECTION

Transmittal for Submittal

No. _____ - _____

Project Name:				Date Received:	
Project Owner:				Checked By:	
Contractor:		HDR Engineering, Inc.		Log Page:	
Address:		Address:		HDR No.:	
				Spec Section:	
				Drawing/Detail No.:	
Attn (Contractor):		Attn (HDR):		Review Cycle	
Date Transmitted by Contractor:		Date of Engineer's Response Transmittal:			
Item No.	Submittal No.	Description (indicate number of copies where paper copies of physical Samples are returned)	Manufacturer	Supplier Dwg or Data No.	Engineer's Disposition (Action Code) *
1					
2					
3					
4					
Contractor's Remarks (insert text):					
Engineer's Remarks (insert text): :					
* Legend for Action Code indicated above, assigned by Engineer:					
Action Submittal: A – Approved B – Approved as Noted C – Revise and Resubmit D – Not Approved		E – Submittal Not Reviewed Informational, Closeout, or Maintenance Materials Submittal: F – Accepted (this code normally recorded in Engineer's Submittals log). G – Not Acceptable			
Engineer's Disclaimer (for Submittals that do <u>not</u> involve delegated design):					
a. Submittal action code is subject to: Engineer's comments on the Submittal, comment sheets (if any), and this transmittal letter; disclaimer language on Engineer's Submittal review stamp or equivalent; and Specifications Section 01 33 00 – Submittal Procedures.					
b. Engineer's review is only for general compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, and for general compliance with the information given in the Contract Documents.					
c. Contractor shall be solely responsible for complying with the Contract Documents, as well as with Supplier instructions consistent with the Contract Documents, Owner's directions, and Laws and Regulations. Contractor is solely responsible for obtaining, correlating, confirming, and correcting dimensions at the Site; quantities; information and choices pertaining to fabrication processes; means, methods, sequences, procedures, and techniques of construction; safety precautions and programs incident thereto; and for coordinating the work of all trades.					
d. Engineer is not responsible for resubmittals or tracking progress of resubmittals.					
Reviewed for HDR by:				Date of Engineer's Review:	
Distribution:	Contractor	File	Field	Owner	Other

SECTION 01 41 26
STORMWATER POLLUTION PREVENTION PLAN AND PERMIT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Requirements for compliance with the Project's Storm Water Pollution Prevention Plan (SWPPP) and its revisions, Laws and Regulations, and permit(s) applicable to the Project, including:
 - a. Contractor's general responsibilities for storm water discharges associated with construction activity.
 - b. SWPPP Revisions.
 - c. Inspection, during construction, of storm water controls and temporary erosion and sediment controls, and associated repair and maintenance.
2. Administrative forms for documenting compliance with the SWPPP and the Project's storm water permit are attached to this Section.

B. Scope:

1. Contractor shall provide all labor, materials, tools, equipment, services, and incidentals necessary and required to fulfill Contractor's responsibilities under this Section, including complying with the applicable NPDES general permit for storm water discharges associated with construction activity ("storm water permit") administered by the Minnesota Pollution Control Agency for the Project (MPCA).
 - 1) Other prime Contractors shall cooperate and, as applicable to their Work, provide to the contractor responsible for preparing SWPPP Revisions such information necessary to prepare SWPPP Revisions relative to their Work.
 - 2) Other prime Contractors (other than contractor responsible for temporary storm water controls and temporary erosion and sediment controls) engaging in earthwork, including trenching, stockpiling soil or other erodible material, and backfilling, shall be co-permittee with Owner on the Project's storm water permit, and shall comply with the SWPPP and other applicable permits and with requirements for controlling discharges of storm water and erosion and sediment, control requirements associated with their Work. Such other prime Contractors engaging in earthwork shall coordinate their earthwork with contractor responsible for the temporary storm water controls and temporary erosion and sediment controls on a daily basis, and submit to Engineer complete Notice of Termination documents.
2. Requirements of this Section are in addition to, and do not supersede or conflict with, requirements of other Specifications, including:
 - a. Section 01 57 05 - Temporary Controls, including requirements for controlling storm water during construction and temporary erosion and sediment controls.

C. Related Requirements:

1. Include, but are not necessarily limited to:
 - a. Section 01 57 05 - Temporary Controls.

1.2 REFERENCES

A. Relevant Documents:

1. Storm Water Pollution Prevention Plan (SWPPP):
 - a. Initially prepared for the Project by or for Owner, prior to construction, the SWPPP was submitted to authorities having jurisdiction over storm water discharges associated with construction activity.
 - b. The SWPPP is part of the Contract Documents and includes:
 - 1) This Section.
 - 2) Section 01 57 05 – Temporary Controls, relative to temporary storm water controls and temporary provision and sediment controls.
 - 3) Required temporary erosion and sediment controls shown on the Drawings.
 - 4) SWPPP narrative on sheets EC-501 to EC-502
 - c. The SWPPP is intended to establish requirements so that the Project's construction complies with the Project's storm water permit and other, related permits (if any).
2. Storm Water Permit for the Project:
 - a. Application for the Project's storm water permit shall be prepared by the Contractor for the Owner and, prior to construction, submitted to the authority having jurisdiction.
 - b. The Project's storm water permit is part of the Contract Documents and is an attachment to this Section.
 - c. Prior to starting Work at the Site that disturbs ground cover, Contractor shall sign Co-Permittee Agreement and become a co-permittee with Owner on the Project's storm water permit.
3. SWPPP Revisions:
 - a. SWPPP Revisions shall be prepared by Contractor or Subcontractor and submitted to Engineer by Contractor.
 - b. Contractor shall submit SWPPP Revision prior to starting Work at the Site, and as required by authorities having jurisdiction.
 - c. SWPPP Revision shall include Contractor's proposed temporary means for storm water control during all phases of the Work and include plans for storm water conveyance and retention, as applicable. Coordinate with Contractor's plans for excavation and filling.
 - d. Should Contractor-propose deviations to the SWPPP included in the Contract Documents, or if Project-specific modifications of the SWPPP are required because of field conditions, Contractor shall prepare and submit additional SWPPP Revisions as necessary, in accordance with requirements of authorities having jurisdiction and applicable permits.
 - e. Comply with this Section's Article titled, "SWPPP Revisions"..
 - f. SWPPP Revisions shall use the SWPPP Revision form included in this Section, with supporting documents attached as necessary and required, or forms available from authorities having jurisdiction.
 - g. SWPPP Revisions that do not comply with the Contract Documents and are not required by authorities having jurisdiction will be regarded as substitutions, in accordance with the General Conditions and substitution procedures requested by the Specifications.
4. Storm Water Certification Statement:

- a. To be prepared by Contractor and submitted to Engineer on the form included with this Section, or on appropriate form obtained from authority having jurisdiction.
 - b. Do not perform Work at the Site until the Storm Water Certification Statement has been submitted to and accepted by Engineer.
- 5. Notice of Intent (NOI):
 - a. Prepared by Contractor and submitted to authorities having jurisdiction following Engineer's receipt and acceptance of Contractor's SWPPP Revision and preliminary Progress Schedule.
 - b. Do not perform Work at Site until NOI is submitted to authorities having jurisdiction.
- 6. Co-Permittee Agreement:
 - a. Prepared by Contractor using forms included with the SWPPP, and submitted to Engineer within five days of the date the Contract Times commence running, for signature by Owner.
 - b. Engineer will submit co-permittee agreement to authorities having jurisdiction.
 - c. Do not perform Work at the Site until co-permittee agreement is submitted to authorities having jurisdiction.
- 7. Storm Water Inspection Report:

Prepared by Contractor using the appropriate form included in this Section, or appropriate form provided by authority having jurisdiction.

 - a. Storm water inspection reports will be filed in a log book kept at the Site by the Contractor. Copy of each storm water inspection report will be furnished to Owner or Engineer upon request.
 - b. Storm water inspection report will be completed for each of the following:
 - 1) Preconstruction: After installation of temporary storm water management measures, including erosion and sediment controls, and temporary field offices and other temporary facilities, prior to starting Work at the Site (other than mobilization and initial establishment of temporary controls).
 - 2) During the Work: Every seven days until Notice of Termination is completed. When the Site is stabilized relative to storm water, erosion, and discharge of sediment, inspection frequency during temporary shutdowns of construction and seasonal shutdowns of construction shall be once per month until Notice of Termination is completed.
 - 3) Within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.
 - 4) Final: Final inspection report will be prepared prior to completion of Notice of Termination.
- 8. Notice of Termination (NOT):
 - a. Prepared by Contractor on the form included in the Project's storm water permit and submitted to Engineer for review and signature by Owner.
 - b. Contractor shall submit the NOT following completion of all Work that may result in pollution in storm water discharges, including landscaping Work.
 - c. Final payment to Contractor will not be made until the NOT is submitted to authorities having jurisdiction in accordance with this provision and the Project's storm water permit.

1.3 CONTRACTOR'S GENERAL RESPONSIBILITIES UNDER THIS SECTION

- A. The Contract Price includes all labor, material, tools, equipment, services, and incidental costs necessary for:

1. Preparing SWPPP Revisions and other documents that are Contractor's responsibility, in accordance with this Section.
 2. Submittal of the NPDES General Stormwater Construction permit application through the MPCA's e-Services portal for online applications.
 3. Installing and maintaining structural and non-structural items used in complying with the SWPPP and its revisions.
 4. Other administrative Work required by this Section.
 5. Clean-up, disposal, and repairs following precipitation events or spills caused by Contractor.
 6. Implementing and maintaining "best management practices", as defined in applicable permits and Laws or Regulations, to comply with requirements that govern storm water discharges at the Site.
 7. Complying with other requirements of this Section.
- B. Storm Water Pollution Prevention and Approval of System Owner:
1. Prevent erosion on the Site and discharge of sediment to surface waters, drainage routes, streets and rights-of-way, and private property, including dewatering operations.
 2. Prevent onsite trash, debris, and other pollutants from leaving the Site via storm water runoff.
 3. Provide berms, swales, and other appropriate methods of directing storm water around work areas to appropriate drainage routes.
 4. Prior to starting the Work associated with such discharge of storm water, construction-related discharges to publicly-owned conveyance or treatment systems shall be approved by owner of system to which the discharge will be directed.
- C. Water Quality:
1. Do not cause or contribute to a violation of water quality standards, Laws or Regulations, or the Project's storm water permit.
 2. Notify Engineer of revisions to the SWPPP, update the SWPPP, and implement SWPPP changes necessary to prevent any violations of the stormwater permit.
- D. Liability for Costs Incurred due to Violations:
1. Contractor shall pay civil penalties and other costs incurred by Owner, including additional engineering (including RPR) and inspection services, associated with non-compliance with applicable permits related to storm water discharges associated with construction activity and erosion and sediment controls associated with the Project.
 2. Owner may deduct such amounts, as one or more set-offs, from payments due Contractor for the Project.
- E. Inspections and Recordkeeping:
1. Contractor shall perform inspections of storm water, and erosion and sediment controls in accordance with this Section
 2. RPR shall prepare and maintain records of storm water inspections.
 3. Contractor shall maintain records of maintenance of storm water controls and temporary erosion and sediment controls, SWPPP Revisions, and other records required by this Section and shall keep these records and copies of all documents that make up the SWPPP at the construction site and available to the inspector and engineer that may need to review them.

F. Coordination:

1. Coordinate requirements of this Section with requirements for earthwork, temporary and permanent erosion and sediment controls, and landscaping in the Contract, applicable permit requirements, and Laws and Regulations.
2. Implement SWPPP controls and practices prior to starting other Work at the Site. Each prime contractor and Subcontractor identified in the SWPPP and SWPPP Revisions shall sign a copy of the storm water certification statement.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Comply with Laws and Regulations, including federal, state, and local, relative to storm water discharges associated with construction activity, and associated restoration. Comply with applicable permits.

1.5 SUBMITTALS

A. Informational Submittals: Submit the following:

1. Submit the following, in accordance with Paragraph 1.2.A and Article 1.6 of this Section. When the Project involves Work at multiple sites, submit each of the following for each Site, as applicable:
 - a. SWPPP Revisions.
 - b. Co-permittee Agreement.
 - c. Storm Water Certification Statement.
2. Approval to Discharge to Publicly-Owned Conveyance or Treatment Works:
 - a. For storm water discharges associated with construction activity that are discharged to a publicly owned conveyance or treatment system, prior to commencing discharges, submit system owner's written approval for such discharges.
3. Storm Water Site Plan Updates:
 - a. Within three days after each storm water inspection, submit updated storm water site plan.

B. Closeout Submittals: Submit the following:

1. Notice of Termination:
2. Submit in accordance with Paragraph 1.2.A and Article 1.6, "SWPPP Revisions", of this Section.
3. When the Project involves Work at multiple sites, submit separate Notice of Termination for each Site, as applicable.

1.6 SWPPP REVISIONS

A. Contractor shall prepare a SWPPP Revision in accordance with the Project's storm water permit when:

1. There is a significant change in design, construction, operation, or maintenance of the Project that significantly affects the potential for discharging pollutants.
2. SWPPP proves ineffective relative to:
 - a. Eliminating or significantly minimizing discharge of pollutants from sources identified in the SWPPP required by the Project's storm water permit; or
 - b. Achieving general objectives of controlling pollutants in storm water discharged from permitted construction activity.

3. Prepare and submit SWPPP Revisions identifying responsibilities of Contractor, Subcontractors, and other prime contractors (if any) at the Site, relative to implementing part of the SWPPP.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.1 INSPECTIONS AND REPAIRS

- A. Perform site inspections and assessments of the Site as required by the Project's storm water permit and this Section. Inspections and assessments shall be by Contractor's site superintendent or project manager, together with RPR.
- B. Inspections:
 1. After the Effective Date of the Contract, relative to the Project's storm water permit, inspect the Site:
 - a. Preconstruction: After controls required to comply with the SWPPP, including temporary erosion and sediment controls and other temporary controls necessary for mitigating or eliminating pollution in storm water discharged from the Site, are installed and prior to starting other Work at the Site.
 - b. During Construction: At the interval called out within the SWPPP until Notice of Termination is completed and submitted to authority having jurisdiction. When the Site is stabilized relative to storm water and pollution sources that may impair quality of storm water discharged from the Site, temporary shutdowns of construction activity, and during seasonal shutdowns of construction activity, required frequency of inspections shall be at the interval called out within the SWPPP until Notice of Termination is completed.
 - c. Prior to Contractor submitting the Notice of Termination.
 2. During each inspection:
 - a. Inspect and verify erosion and sediment control physical controls and practices, and other controls of pollution of storm water discharges associated with construction activity.
 - b. For temporary erosion and sediment controls, record the approximate degree of sediment accumulation as percentage of acceptable sediment storage volume. Where appropriate, obtain measurements of sediment accumulation to support reasonably accurate estimation of sediment accumulation.
 - c. Inspect and record maintenance performed on physical controls for erosion and sedimentation, and for other sources of storm water pollution.
 - d. Inspect (where possible) and verify pollution control management practices performed and practices for managing and maintaining such physical controls.
 - e. Record maintenance performed on physical controls for storm water pollution.
 - f. Observe and record deficiencies relative to implementation of the SWPPP.
 3. RPR will complete Storm Water Inspection Report (on the form attached to this Section).
 4. Contractor shall record and submit the following:
 - a. Storm Water Site Plan: On a copy of the Site plan included in the Drawings or other map of the Site acceptable to Engineer, indicate extent of all areas of disturbed ground cover and drainage pathways. Indicate areas expected to undergo initial disturbance of ground cover or significant site work within the next 14 days.

- b. Indicate on storm water Site plan areas of Site that have undergone temporary or permanent stabilization of ground cover and other erodible materials.
 - c. Indicate on storm water site plan all disturbed areas that have not undergone active site work during the previous 14 days.
- C. Maintain at the Site a copy of storm water Site plans from each storm water inspection and submit each storm water Site plan to Engineer and RPR. RPR will maintain at the Site a log book with a copy of each Storm Water Inspection Report.
- D. Cooperate with representatives of authorities having jurisdiction during their periodic visits to the Site, and promptly furnish information requested by authorities having jurisdiction.
- E. Repair physical controls of storm water pollution, including (but not limited to temporary erosion and sediment controls), in accordance with applicable requirements and to satisfaction of Engineer, within two days of each inspection (unless shorter period is required elsewhere in the Contract Documents).

3.2 ATTACHMENTS

- A. The following, bound after this Section's "End of Section" designation, are part of this Specifications Section:
 - 1. Forms:
 - a. Storm Water Inspection Report form (two pages).
 - b. Storm Water Permit Certification form (one page).
 - c. SWPPP Revision Form (one page).
 - 2. Permits:
 - a. The Project's storm water permit for storm water discharges associated with construction activity (_____ pages).

END OF SECTION

STORM WATER INSPECTION REPORT

Owner: _____
Site: _____
Project: _____
Contractor: _____

Date of Inspection: _____
Day of Week: S M T W T F S
Sheet No. _____ of _____ sheets

If pertinent to the Operation	
Weather:	
Temperature:	

This inspection and maintenance form is to be used when the Work is subject to a Storm Water General Permit for Construction Activity. Inspections shall be performed not less than once every seven calendar days; for sites that are stabilized and temporarily shut down inspections may be reduced to once per month. Each erosion and sediment control measure installed on the Site is to be inspected and the Contractor must complete all required maintenance within two calendar days from the date of inspection.

Reason for this inspection:

☐ Pre-construction Site assessment
☐ Seven calendar day inspection
☐ Monthly inspection (when Site is stabilized and shut down)
☐ Post-construction inspection prior to Notice of Termination

Key for erosion and sediment control measures to be inspected: [Use the following designations in the table below] (1) mulch, (2) seed and mulch, (3) check dams, (4) hay bale/straw bales, (5) silt fence, (6) sediment trap, (7) turbidity curtains, (8) pipe slope drains, (9) drainage structure inlet protection, (10) rolled erosion control products, (11) soil stabilizers, (12) construction entrances, (13) pipe inlet/outlet protection, (14) water diversion structures, (15) sedimentation basins, (16) cofferdams, (17) Other____.

ID	Location	Disturbance		Measure		Remarks (Evaluate integrity of measure, describe evidence of erosion)	Approximate Sediment Accumulation (% of Depth)	Maintenance Required? (Y or N) (If Yes, Describe Below)
		Existing? (Y or N)	Next 14 Days? (Y or N)	Code #	Temp or Perm? (T, P or NA)			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

ID	Location	Disturbance		Measure		Remarks (Evaluate integrity of measure, describe evidence of erosion)	Approximate Sediment Accumulation (% of Depth)	Maintenance Required? (Y or N) (If Yes, Describe Below)
		Existing? (Y or N)	Next 14 Days? (Y or N)	Code #	Temp or Perm? (T, P or NA)			
12								
13								
14								
15								
16								
17								
18								
19								
20								

DESCRIPTION OF REQUIRED MAINTENANCE AND ANY EXISTING DEFICIENCIES IN THE SWPPP:
Specify for each location using row ID number from the table above.

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein may be punishable by Law.

Signature _____	Prepared _____	Copy to Contractor _____
Resident Project Representative	(Date)	(Date)
Qualified Professional Name _____ (w/Firm Name, if Consultant)		

STORM WATER PERMIT CERTIFICATION STATEMENT

Contract Number: _____

Project: _____

Owner _____

Each Contractor and Subcontractor identified in the Storm Water Pollution Prevention Plan (SWPPP) must certify that they understand the permit conditions and their responsibilities. Every Contractor and Subcontractor performing an activity that involves soil disturbance shall sign this certification and submit it to the Engineer prior to performing the Work. This certification shall be signed by an owner, principal, president, secretary, or treasurer of the firm.

I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction Site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that my firm and its employees and Subcontractors shall comply with the terms and conditions of Owner's general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards, Laws, or Regulations.

Firm: _____

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Name (Print): _____ **Signature:** _____ **Date:** _____

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REVISION

Owner: _____

Date of Inspection: _____

Site: _____

Sheet No. _____ of _____ sheets

Project: _____

Contractor: _____

This form shall be used when revisions to the current Storm Water Pollution Prevention Plan (SWPPP) are required by the Storm Water General Permit for Construction Activity or the Contract Documents.

Reason for the Revision(s): Revisions were requested by State: ☐ Yes ☐ No

Describe the Revision(s) to the SWPPP:

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein may be punishable by Law.

Signature: _____ Prepared: _____ Submitted: _____
(Date) (Date)

Copy to: ☐ Engineer ☐ Contractor: _____

SECTION 01 55 26

TRAFFIC CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. General requirements for traffic control during construction, including:
 - a. Coordination with owners of streets, highways, and other travelled ways affected by the Project and coordination with owners of properties at or adjacent to the Site regarding traffic control.
 - b. Traffic controls for general vehicular traffic affected by the Work.
 - c. Traffic controls for pedestrians and other non-vehicular traffic affected by the Work.
 - d. Traffic control personnel.
 - e. Maintenance of traffic controls.
 - f. Removal of traffic controls.

B. Scope:

1. Contractor shall provide all labor, materials, tools, equipment, services, incidentals, and pay all expenses necessary and required to keep all streets, highways, and other travelled ways open for passage of traffic and pedestrians during the Project, unless: (1) otherwise approved by owner of the street, highway, or travelled way, and Engineer, or (2) as expressly allowed by the Contract Documents.

C. Related Requirements:

1. Include but are not necessarily limited to:
 - a. Section 01 57 05 - Temporary Controls.
 - b. Section 01 71 33 - Protection of the Work and Property.

1.2 REFERENCES

A. Terminology:

1. The following terminology, although not indicated with initial capital letters, has the following meaning in this Section:
 - a. "Maintenance and protection of traffic" and "traffic control":
 - 1) "Maintenance and protection of traffic" and "traffic control", whether singular or plural, have the same meaning and, unless expressly indicated otherwise, refer to temporary measures provided by Contractor to control, maintain, and safeguard vehicular traffic, pedestrians, bicycles, and other traffic during construction.
 - 2) "Traffic controls" are signage, barriers, barricades, signal and warning lights, and other measures provided by Contractor for controlling other than routine use of existing and temporary access roads and parking areas by construction traffic.
 - 3) "Traffic control" includes, but is not necessarily limited to, traffic controls for: (a) excavations, (b) construction vehicle parking areas, (c) storage and laydown areas for materials and equipment to be incorporated in the Work, and (d) other work-related areas; in, opening into, or adjacent to streets, highways, or other travelled ways.
 - b. "Traffic" means any and all users of the subject street, highway, or other travelled way, including sidewalks, bicycle paths, and similar facilities. "Traffic" includes motor vehicles of all types, including automobiles, motorcycles and similar vehicles, trucks, busses, light rail, mobile equipment, and others; pedestrians; bicyclists; and others using the travelled way or right-of-way.

- B. Reference Standards: Standards referenced in this Section include, but are not necessarily limited to, the following:
1. Unless otherwise shown or indicated in the Contract Documents, traffic controls shall be in accordance with:
 - a. the "Minnesota Manual on Uniform Traffic Control Devices" (MN MUTCD);
 - b. the "Minnesota Temporary Traffic Control Field Manual" (Field Manual);
 - c. Minnesota's Work Zone Speed Limit Guidelines;
 - d. the "MnDOT Standard Signs and Markings Summary and Update";
 - e. the Project Plans;
 - f. all applicable standard specifications and special provisions.
 - g. Manuals listed above may be found at:
<https://www.dot.state.mn.us/trafficeng/publ/index.html>
 2. In the event of conflict between the standard specifications referenced above and the MUTCD, the referenced standard specifications will govern.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Owner of Street, Highway, or Travelled Way:
 - a. Coordinate with owner of each street, highway, and other travelled way affected by the Work and the Project and obtain from such owner requirements for traffic control during construction.
 - b. Obtain and pay for work permits, street opening permits, and other permits required by the owner of the street, highway, or other travelled way.
 - c. Give written notices required by the owner of the street, highway, or other travelled way.
2. Notice to Emergency Services:
 - a. Give required advance, oral and written notices to fire departments, police departments having jurisdiction, ambulance services, and other emergency services as applicable, of proposed construction operations that may impact or affect emergency services' ability to perform their respective functions.
 - b. Give such notices as indicated immediately below for notice to adjacent properties.
3. Notice to Adjacent Properties:
 - a. Give reasonable advance, written notice to owners and occupants of private property directly affected by construction operations, including properties adjacent to the Site where such property's vehicular or pedestrian access will be affected by the Project.
 - b. Give such notice not less than five days prior to when such property will or may be affected by construction operations and again not less than 24 hours prior to such property being affected by construction operations.
 - c. Such notices to properties shall clearly indicate the intended dates the property will be affected and the scheduled end-date of such activity, and a brief summary of the ways the property will be affected during the Project's construction. Such notices shall be on Contractor's letterhead and shall indicate the Project name, Owner, Owner's project or contract number (if any), and Contractor's contact person with telephone number and office hours.
4. Coordinate traffic controls with requirements of the following:
 - a. Section 01 71 33 - Protection of the Work and Property, regarding temporary barriers.

1.4 QUALITY ASSURANCE

1.5 SUBMITTALS

A. Informational Submittals: Submit the following:

1. Traffic Control Plan: Detailed plan, procedures, and sequencing for traffic control during construction.

- a. The Submittal shall clearly indicate the following:
 - 1) Traffic staging plan, and construction sequencing as applicable to traffic control during construction. Coordinate with the Progress Schedule accepted by Engineer.
 - 2) Product data, including Supplier's catalog information, standard detail drawings, and specifications, for temporary barriers, barricades, signs, signals and warning lights, illumination devices, and other items used for traffic control during construction.
 - 3) Materials and procedures for providing access to properties along the route of the proposed traffic controls.
 - 4) Identity any pertinent qualifications of the entity, such as Subcontractor or Contractor, that will select, install, maintain, and remove traffic controls.
 - 5) Number and types of personnel dedicated to traffic control during construction, including flaggers. Include documentation of flaggers' training and qualifications. Indicate where number of personnel will vary by work shift or during certain hours.
 - 6) Evidence of plan acceptance from authorities having jurisdiction, including owner of each street, highway, and other travelled ways that will have traffic controls during construction.
 - 7) Proposed signage, including layout, colors, text, quantity, and locations, for advising the public in advance of implementing traffic controls.
- b. Unless expressly allowed otherwise by the Contract Documents, traffic control plan Submittal shall cover all traffic control during construction for the entire Project. Do not furnish separate, staged traffic control plan Submittals.
- c. Furnish acceptable traffic control plan Submittal not less than 7 days prior to installing traffic controls.
- d. Submit updates to the traffic control plan as necessary.
- e. Engineer's or Owner's comments on or acceptance of traffic control plan Submittal is only for the limited purpose of endeavoring to verify compliance with the Contract Documents and in no way imposes on Owner, Engineer, or any of their respective consultants or subcontractors, any responsibility for construction means, methods, procedures, techniques, or sequences, or the safety and protection measures and programs incident thereto, or any of Contractor's other responsibilities under the Contract. Engineer's and Owner's review is in no way for benefit of Contractor or anyone for whom Contractor is responsible.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT FOR TRAFFIC CONTROL DURING CONSTRUCTION

A. Materials and Equipment Used for Traffic Control:

- 1. Materials and equipment used for traffic control during construction shall comply with the reference specifications indicated in Paragraph 1.2.B of this Section and the MUTCD.
- 2. Materials and equipment used for traffic control shall include easily legible, weather-resistant text indicating contact information, including telephone number, for entity providing and maintaining traffic controls, for alerts of damage, mislocation, or apparent unsafe traffic control items.

PART 3 - EXECUTION

3.1 TRAFFIC CONTROL – GENERAL

A. General Provisions for Traffic Control:

- 1. Provide traffic controls, as necessary and required, prior to commencing work in, or adjacent to, streets, highways, and other travelled ways.

2. Provide traffic controls in accordance with the Contract Documents, applicable permits, requirements of authorities having jurisdiction, referenced standard specifications indicated in Paragraph 1.2.B of this Section, and the MUTCD.
 3. Not less than once per month, check and ensure legibility of contract information on each traffic control device or item, as required in Article 2.1 of this Section.
 4. Traffic controls such as temporary barriers and barricades; channelizing devices such as delineators, traffic cones, traffic barrels, temporary bollards, vertical panels, and similar items; signs (including reflective signs, mobile changeable-message signs, and temporary LED-illuminated signs), temporary signals; warning lights; and temporary illumination shall be prominently but safely positioned and located, be highly visible to traffic and pedestrians, and include provisions for visibility during periods of darkness, reduced light, and reduced visibility such as smoke and fog.
 5. Supplement temporary traffic barriers and barricades with standard delineation pavement markings or channelizing devices for improved daytime and nighttime visibility, when traffic controls channel vehicular traffic.
 6. Keep accessible for use permanent facilities such as hydrants, utility valves, fire alarm boxes, postal boxes, delivery service boxes, existing permanent traffic controls (including signs and signals) as appropriate, and other facilities that may require access or use during construction.
 7. Do not block access to essential facilities including hospitals, emergency services, and the like, and public facilities such as public buildings, public schools, public event venues, recreational facilities open during construction, and similar facilities.
 8. Coordinate traffic controls for commercial and residential access with their respective owners and occupants.
 9. Provide traffic controls suitable for pedestrians and bicyclists with disabilities. Comply with the MUTCD, referenced specifications indicated in Paragraph 1.2.B of this Section, and Laws and Regulations, including the Americans with Disabilities Act (ADA).
- B. Temporary Obstructions of Streets, Highways, and Other Travelled Ways:
1. Do not store materials or equipment to be incorporated into the Work; construction equipment, machinery, or tools; Contractor's vehicles, vehicles owned by construction workers and personnel; or other items, whether on short-term, infrequent basis or on a more-frequent basis, in streets, highways, and other travelled ways. Do not store or locate materials and equipment in rights-of-way or adjacent areas in positions that reduce traffic visibility or otherwise create or exacerbate traffic hazards.
 2. When construction activities necessitate a short-term obstruction of traffic, provide adequate traffic controls, flaggers, and other measures as appropriate. Have such obstructions in place for the shortest duration possible and do not leave such obstructions in place at the end of the work day.
 3. When construction activities necessitate a longer-duration obstruction or partial closure to traffic, provide appropriate temporary barriers and barricades, signage, warning devices, and other appropriate measures for traffic control.
 4. Obstruction of public parking shall be in accordance with requirements of authorities having jurisdiction.
- C. Temporary Closures of Streets, Highways, and Other Travelled Ways:
1. This provision applies to full closure of all traffic or partial closure.
 2. Do not close passage to traffic or pedestrians without approval of authorities having jurisdiction and obtaining necessary permits.
 3. Provide appropriate temporary signage, signals and warning devices, temporary barriers and barricades, detours, and temporary facilities (such as temporary bridges or covered walkways, and other temporary facilities) as necessary.

4. Detours shall be as short as practicable but should generally avoid, when feasible, routing traffic through residential areas and other sensitive areas. Provide appropriate temporary signage to mark detours.
5. Detours and temporary facilities shall be appropriate for the types of traffic (which may include heavy truck traffic or construction equipment), traffic volume, loading, and hours of the day.
6. Closures shall be for shortest duration practical, and passage shall be restored immediately after completion of filling and temporary paving, bridging, or other Work.
7. Obtain approvals and permits needed for full and partial lane closures.
8. Provide all required temporary signage, signals, and warning devices prior to implementing each closure.

3.2 TRAFFIC SIGNS, SIGNALS, AND LIGHTS

- A. Provide and operate temporary traffic signs, signals, and warning lights necessary and required to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by the Project's construction.
- B. Provide temporary traffic signs, signals, and warning lights mounted on temporary barriers, barricades, or standard posts, at the following locations:
 1. Each change of direction of a roadway and at each crossroad.
 2. Detours and areas of hazard.
 3. Parking areas.
 4. Vehicular entrance and exit from each of the Project's construction work areas and construction vehicle and machinery parking and storage areas.
- C. Lighting and Flares: During periods of low visibility provide temporary lights and, where appropriate, flares for the following:
 1. To clearly delineate traffic lanes, to guide traffic, and to warn of hazardous areas.
 2. For use by traffic control personnel directing traffic.
 3. Provide adequate illumination of critical traffic and parking areas.
- D. Power and Fuel:
 1. Provide appropriate power supply for temporary lighting and illuminated devices, whether battery-powered, solar-powered, or temporary generators.
 2. At the end of each work day, check power supplies and fuel supplies and ensure sufficient power and fuel is in place and available for proper traffic control until Contractor's personnel return to the Site
 3. Comply with noise control and air quality control Laws and Regulations and Section 01 57 05 – Temporary Controls.
 4. Locate and position temporary generators to avoid nuisances, such as noticeable emissions, odors, noise, and vibration, and other nuisances, and hazards to traffic, pedestrians, adjacent occupants of buildings and structures, and the public.

3.3 TRAFFIC CONTROL PERSONNEL

- A. Traffic Control Personnel – General:
 1. When the Project's construction operations encroach on traffic lanes, furnish qualified, trained, suitably-equipped traffic control personnel as necessary and required for controlling traffic, in accordance with: requirements of authorities having jurisdiction, the referenced specifications indicated in Paragraph 1.2.B of this Section, and Section 6E of the MUTCD.
 2. Traffic control personnel shall use appropriate flags, hand signs or mobile signs.
 3. Equip traffic control personnel with appropriate personal protection equipment and appropriate communications devices. Traffic control personnel attire shall be highly-visible, suitable, and shall not create nuisances or distractions to vehicle occupants and pedestrians, and shall not give offense to vehicle occupants, pedestrians, and the public.

4. Conduct of traffic control personnel shall be professional, appropriate, and courteous to vehicle occupants, pedestrians, and the public.

3.4 PARKING CONTROL

A. Parking Control – General:

1. Provide appropriate temporary parking for the public, as necessary and required because of the Project's construction operations.

B. Control parking of construction and private vehicles at the Site as follows:

1. Maintain free vehicular access to and through public and private parking areas.
2. Prohibit parking on or adjacent to access roads, and in non-designated areas.
3. Construction vehicles shall possess current vehicle registration and licensure. Do not park or store unregistered vehicles at or adjacent to the Site.

3.5 MAINTENANCE OF TRAFFIC CONTROLS

A. Maintenance of Traffic Controls – General:

1. Properly maintain traffic controls until removal.
2. Relocate traffic controls as the Work progresses.
3. Promptly replace or repair, as appropriate, damaged traffic controls.
4. Ensure adequate power supplies and fuel supplies for traffic controls.
5. Perform manufacturer's recommended routine and preventative maintenance on equipment used for temporary traffic control.
6. Where traffic controls have reduced efficacy or reduced visibility due to accumulations of dirt or foreign matter (including graffiti and vandalism), or exposure to the elements, promptly replace or remedy the subject traffic controls.
7. Maintain traffic controls in operation during adverse weather and climate conditions.

3.6 REMOVAL OF TRAFFIC CONTROLS

A. Duration of Traffic Controls:

1. Prior to Substantial Completion, provide traffic controls at the Site until no longer necessary or required due to the progress of the Work and the Project.
2. After Substantial Completion, provide appropriate traffic controls when Contractor is onsite to perform punch list Work, correction period work, or warranty work.

B. When traffic controls are no longer necessary or required, completely remove traffic controls and restore the Site to condition required by the Contract Documents or, when not indicated in the Contract Documents, restore the Site to pre-construction conditions.

C. Store unused traffic control items at an appropriate location that does not adversely affect public or private property or transportation.

D. Completely remove all traffic control items from the Site and adjacent areas prior to final inspection.

END OF SECTION

SECTION 01 57 05
TEMPORARY CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Requirements for temporary controls during construction, including:
 - a. Snow control.
 - b. Dust control.
 - c. Pollution control, including solid waste, water pollution, atmospheric pollution, and other types of pollution.

B. Scope:

1. Contractor shall provide and maintain materials, equipment, labor, services, and temporary construction as necessary and required to control environmental conditions at the Site and adjacent areas during construction.
2. Contractor shall pay all costs, including fines and civil penalties, if any, for failure to implement and maintain temporary controls in accordance with the Contract Documents and Laws and Regulations. Contractor is not eligible for increase in Contract Price or Contract Times due to failure to comply with requirements for temporary controls.
3. Maintain temporary controls until no longer necessary or required. Provide temporary controls at all times when Contractor is working at the Site.

C. Related Requirements:

1. Include, but are not necessarily limited to, the following:
2. Section 31 23 19 - Dewatering.

1.2 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Comply with applicable provisions and recommendations of the following:
 - a. Minnesota Pollution Control Agency's construction stormwater best management practices.
 - b. City of St. Paul Code of Ordinances, Chapter 293, Section 293.07 (Noise source limitations).

1.3 SUBMITTALS

A. Action Submittals:

1. Submit the following:
 - a. Shop Drawings:
 - 1) Plan for construction staging and maintenance of the Site relative to erosion and sediment controls as described in the SWPPP narrative on Drawing sheets EC-501 and EC-502. Indicate on a site plan approximate areas of planned disturbance of soils and soil cover over time during the Project. For areas not indicated in the Contract Documents as being disturbed and that Contractor proposes to disturb, Shop Drawing shall include proposed erosion and sediment control measures for the additional areas.
 - b. Product Data:
 - 1) Silt fencing materials.
 - 2) Other materials proposed for temporary erosion and sediment controls, when requested by Engineer.

B. Informational Submittals:

1. Submit the following:
 - a. Procedural Submittals:
 - 1) Proposed dust and snow control measure(s), when Submittal is requested by Engineer.
 - b. Field Quality Control:
 - 1) When requested by Engineer, promptly obtain and submit results of field measurements and field test data substantiating compliance of Contractor's temporary controls with the Contract Documents.

PART 2 - PRODUCTS

2.1 MATERIALS FOR TEMPORARY EROSION AND SEDIMENT CONTROLS

- A. Materials for temporary erosion and sediment controls shall be as shown or indicated on the Drawings.

PART 3 - EXECUTION

3.1 NOISE CONTROL

- A. Noise Control – General:
1. Contractor's vehicles, construction equipment, and machinery shall minimize noise emissions to greatest degree practicable. When necessary, provide mufflers and silencers on construction equipment, machinery, and vehicles, and provide temporary sound barriers sound-absorbing blankets, sound-reducing enclosures, modified backup alarms, and other mitigation measures when necessary.
 2. Noise threshold levels shall comply with Laws and Regulations, including (a) OSHA requirements and recommendations, and (b) local ordinances or other Laws or Regulations.
 3. Noise emissions shall not interfere with the work of Owner, facility manager (if other than Owner), or others. The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning and emergency purposes only.
 4. Music or entertainment systems, including personal and vehicle radios, media players, and the like, when used, shall not be audible at the property line and shall not disturb others at the Site.
 5. Field Quality Control of Noise:
 - a. If Owner or Engineer believes potential exists that allowable noise levels are being exceeded, Contractor will be required to, and shall promptly perform, appropriate noise monitoring in presence of Owner or Engineer and shall submit written results to Engineer.
 - b. Owner and Engineer reserve the right to perform independent noise monitoring at any time during the Work.
 6. If noise level exceeds allowable maximum, Contractor shall immediately cease the activity emitting the excessive noise and promptly implement noise-mitigating measures to comply with noise limitations.

3.2 DUST CONTROL

- A. Dust Control – General:
1. Control objectionable dust caused by Contractor's operation of vehicles and construction equipment and machinery, site clearing, demolition, cleaning, and other actions. To minimize airborne dust, apply water or use other methods subject to acceptance of Engineer and approval of authorities having jurisdiction.
 2. Contractor shall prevent blowing and movement of dust from exposed soil surfaces and access roads to reduce onsite and off-Site damage, inconvenience, nuisances, and health hazards associated with dust emissions from Contractor's activities.

B. Dust Control Methods:

1. Dust control may be accomplished by irrigation in which the dust-prone work activity or area of the Site is sprinkled with water until the surface is moist.
2. Apply dust controls as frequently as necessary or required without creating inconveniences, nuisances, or hazards, such as excessive mud and ponding of water at or adjacent to the Site. Do not use water for dust control when water will cause hazardous or objectionable conditions such as ice, mud, ponds, and pollution.
3. In winter conditions, use methods that don't freeze, such as chemical dust suppressants, temporary covering of materials, and using winterized equipment for water spraying.
4. Provide dust control that is non-polluting and does not contribute to tracking-out of dirt, mud, and dust onto pavement.
5. Do not allow water used for dust control to discharge to storm water drainage system or surface waters.
6. Where appropriate, reduce travel speed of construction vehicles and construction equipment to reduce the potential for dust emissions arising from vehicle and equipment passage.
7. Where appropriate, apply gravel or other appropriate binder to access roads and parking areas.

C. Removal of Dust and Dirt from Pavement and Other Travelled Ways:

1. Remove dust, mud, and dirt from roads, parking areas, and other travelled ways not less than weekly.
2. Perform dust and dirt removal from travelled ways by mechanical wet vacuum sweeping or other method acceptable to Engineer.
3. Remove mud from roads, parking areas, and other travelled ways by appropriate means, including scraping. Avoid damaging surface of travelled way. Remedy damage to roads, parking areas, and travelled ways resulting from mud removal activities.

D. Removal of Dust and Dirt from Buildings and Structures:

1. When dust and dirt from Contractor's activities has accumulated to a noticeable or objectionable extent (compared with preconstruction conditions) on buildings or structures, remove the dust and dirt caused by Contractor's operations by appropriate methods, including power-washing using mild detergent. Remedy damage caused by dust, dirt, and power-washing.
2. Dust in sensitive equipment, such as electrical and control panels, instruments, HVAC systems and other equipment shall be cleaned by a Subcontractor specializing in cleaning such items.
3. During the Project, remove objectionable and noticeable dust, dirt, and mud in areas occupied by Owner or facility manager, and Contractor's work areas, resulting from Contractor's activities. Owner and facility manager will take reasonable measures to avoid tracking dust, dirt, and mud into their occupied areas.

3.3 WATER CONTROL

A. Water Control – General:

1. During the Project, provide methods to appropriately control storm water, surface water, water from excavations and structures, groundwater flows altered by Contractor's activities, and groundwater discharges from the Site, to prevent damage to the Work, the Site, adjacent properties, and downstream properties.
2. Control trenching, filling, and grading to direct water away from excavations, pits, tunnels and other construction areas, and prevent water from entering existing buildings and structures.
3. Properly manage and control storm water, surface water, and groundwater entering the Site from upstream, where such flows or discharges have potential to affect the Work or to be exacerbated by Contractor's activities.

4. Avoid ponding of water onsite, except in specially-designated, temporary settlement basins. Where water ponding occurs during construction, perform rough grading to eliminate ponding.
 5. Prevent water from discharging onto roads, parking areas, paved or finished areas, and other travelled ways. Prevent storm water runoff from discharging across access roads and parking areas.
- B. Materials, Equipment, and Facilities for Water Control:
1. Provide, operate, and maintain materials, equipment, and facilities of adequate size, materials, and capacity to control storm water, surface water, groundwater, and discharges from tanks.
- C. Discharge and Disposal of Water during Construction:
1. Discharge storm water, surface water, and groundwater from the Site, and discharges of clean water from tanks, to proper discharge locations, in accordance with Laws and Regulations and the Contract Documents.
 2. Prevent damage and nuisances arising from water discharges on the Site and discharges from the Site.
 3. Dispose of water in manner that avoids flooding, erosion, sediment transport, and other damage, in accordance with Laws and Regulations.
 4. Avoid overland discharges from the Site and construction activities to adjacent properties,
 5. Water discharges from the Site and construction activities shall be via a storm water drainage route or conduit with sufficient capacity for the flow under associated weather and flow conditions and in accordance with requirements of authorities having jurisdiction
 6. Do not discharge storm water, surface water, groundwater, or clean water from tanks, into sanitary sewers. Obtain consent of sewerage system owner before discharging such flows into existing combined sewers.
 7. Obtain sewerage system owner's consent and approval before discharging polluted water to sewerage system.

3.4 POLLUTION CONTROL

- A. Pollution Control – General:
1. Provide means, methods, and facilities necessary and required to prevent contamination of soil, water, and atmosphere caused by accumulation or discharge of substances and materials that are either noxious, polluting, or both, from or caused by construction and related activities.
 2. Construction equipment and machinery shall comply with Laws and Regulations.
- B. Spills and Contamination:
1. Perform emergency containment, cleanup, and remedy of spills and contamination resulting from construction and related activities. Promptly remove and properly dispose of contaminated soils and liquids.
 2. Excavate contaminated material and properly dispose of off-Site, and replace with suitable compacted fill and appropriate cover.
 3. Comply with spill prevention measures as described in the SWPPP narrative on sheets EC-501 and EC-502 of the Drawings.
- C. Protection of Surface Water and Groundwater:
1. Provide and maintain appropriate, temporary measures to prevent harmful substances from entering surface water, groundwater, and drinking water. Prevent disposal of wastes, effluents, chemicals, and the like into or adjacent to groundwater, surface water, drainage routes (including swales, ditches, and storm sewers) and drinking water.
 2. Obtain sewerage system owner's consent and approval prior to discharging into sanitary sewers or combined sewers. Do not discharge pollutants not in accordance with Laws and

Regulations into combined sewers, or sewers tributary to combined sewers, when wet weather overflows to receiving waters may occur.

D. Atmospheric Pollutants:

1. Provide and maintain temporary controls for atmospheric pollutants resulting from construction and related activities, whether to outdoor or indoor atmospheres.
2. Prevent harmful dispersal of pollutants into atmosphere.
3. Do not discharge exhaust from internal combustion engines or combustion operations into buildings, structures, or near ventilation intakes for buildings or structures.
4. Prevent toxic and noxious concentrations of chemicals, fumes, and vapors.

E. Solid Waste:

1. Provide and maintain temporary controls for managing solid waste related to the Work.
2. Prevent solid waste from:
 - a. Becoming airborne or blowing in the wind.
 - b. Being inadvertently transmitted to adjacent, offsite properties, and areas of the Site not part of the Project.
 - c. Being deposited in or discharging to surface waters, and drainage routes..
3. Properly handle and dispose of solid waste. Burning or burying solid waste, including unused materials, at the Site or adjacent areas is prohibited.
4. Cleaning and Disposal of Debris: Comply with applicable requirements of the General Conditions, as may be modified by the Supplementary Conditions.
5. Do not mix or store in the same container solid waste containing Constituents of Concern (and constitutes, or may constitute, a Hazardous Environmental Condition) with solid waste that does not contain Constituents of Concern.
6. Store solid waste in appropriate, covered, containers.
7. Promptly, and at regular intervals, remove solid waste from the Site for transport and disposal in accordance with Laws and Regulations.

3.5 EROSION AND SEDIMENT CONTROLS

A. Installation and Maintenance of Temporary Erosion and Sediment Controls – General:

1. General Provisions:
 - a. Provide temporary erosion and sediment controls as shown and indicated on the Drawings and as indicated in this Section and elsewhere in the Contract Documents, and as necessary for compliance with Laws and Regulations.
 - b. Provide erosion and sediment controls as the Work progresses into areas where ground cover was previously undisturbed.
 - c. Use necessary and required methods to appropriately control erosion and sediment transport in storm water runoff, including using soil conservation-oriented construction practices (including scheduling and sequencing), vegetative measures, and temporary physical controls.
 - d. Use best management practices (BMP) in accordance with Laws and Regulations, and regulatory requirements indicated in this Section's "Quality Assurance" Article (unless more-stringent requirement are shown or indicated in the Contract Documents), to control erosion and sediment transport in storm water runoff during the Project.
 - e. Plan and execute disturbances of soils and soil cover, and earthwork by methods to control storm water runoff from exposed soil (including stockpiles, borrow areas, and spoil disposal areas), banks of surface waters affected by the Work, and discharges of groundwater, to prevent erosion and sediment transport.
 - f. Where areas must be cleared for storage of materials or equipment, or for temporary facilities, provide measures for regulating storm water discharges and controlling erosion and sediment transport. Where Owner is a co-permittee with Contractor for applicable permits, or when plans for temporary erosion and sediment controls were

- sealed and signed by Engineer, such methods are subject to Engineer's approval or acceptance, as applicable.
- g. Provide erosion and sediment controls, including stabilization of soils, at the end of each workday.
2. Coordination:
 - a. Coordinate temporary erosion and sediment controls with this Section's requirements on water control and Section 01 41 26 - Storm Water Pollution Prevention Plan and Permit.
 - b. Coordinate temporary erosion and sediment controls with construction of permanent drainage facilities, permanent erosion controls and soil stabilization (if any), and other Work, to the extent necessary for effective and continuous erosion and sediment controls.
 3. Before commencing activities that will disturb soil or soil cover at the Site or other areas to be occupied by Contractor during the Project, provide all appropriate temporary erosion and sediment controls required by the Contract Documents for the areas where soil or soil cover will be disturbed.
 4. Vegetation Removal and Disturbance:
 - a. Remove only those shrubs, grasses, trees, and other vegetation that must be removed for construction.
 - b. Protect undisturbed vegetation. Do not wantonly or unnecessarily drive construction vehicles and equipment over undisturbed vegetation and soil cover.
 - c. Promptly stabilize exposed soil where vegetation or soil cover was unnecessarily disturbed. Fill and restore ruts and damage to vegetation and soil cover caused by wanton or unnecessary passage of construction vehicles and equipment.
 5. Access Roads and Parking Areas:
 - a. When possible, locate and construct temporary access roads and parking areas to avoid adverse effects on the environment.
 - b. Provide measures to regulate drainage, avoid erosion and sediment transport in storm water runoff, and minimize damage to vegetation and soil cover.
 6. Earthwork and Temporary Controls:
 - a. Perform excavation, fill, and related activities in accordance with Section 31 22 00 – Site Grading and Section 31 23 19 - Dewatering.
 - b. Temporary erosion and sediment control measures may include, but are not limited to, using berms, swales and ditches, silt fencing, straw bale sediment barriers, gravel or crushed stone, mulching and soil stabilization, slope drains, and other methods. Apply such temporary measures to erodible soils and other erodible materials exposed by construction activities.
 - c. Minimize areas of bare soil exposed at one time. Provide fills and spoil areas by selectively placing fill and spoil materials to reduce or eliminate exposed erodible soils.
 - d. Exercise special care on and above steep slopes, where disturbance of vegetation and soil cover shall be minimized to greatest extent reasonably practicable.
 - e. Protect stockpile storage not in active use by providing suitable, durable covering prevent sediment transport in storm water runoff and windblown transport. Covering shall be suitable for outdoor exposure.
 7. Inspection and Maintenance:
 - a. Periodically inspect areas of non-stabilized, erodible soils, including all areas of soil cover disturbance and stockpiles, for evidence of start of erosion and sediment transport. Promptly implement corrective action as necessary and appropriate to control erosion and sediment transport. Continue inspections and corrective action until soils are permanently stabilized and permanent vegetation has been appropriately established.

- b. Inspect not less often than the frequency indicated in Section 01 41 26 - Storm Water Pollution Prevention Plan and Permit.
 - c. Repair or replace damaged erosion and sediment controls within 24 hours of Contractor becoming aware of such damage.
 - d. Periodically remove sediment that has accumulated in or behind sediment and erosion controls. Remove sediment not less often than when sediment is at approximately one-half of storage capacity of associated control element, unless more-frequent interval is indicated elsewhere in the Contract Documents. Properly dispose of sediment.
8. Duration of Temporary Erosion and Sediment Controls:
- a. Maintain temporary erosion and sediment controls in effective, working condition until soil cover of the associated storm water drainage area has been permanently stabilized.
9. Work Stoppage:
- a. If the Work is temporarily stopped or suspended for any reason, Contractor shall provide additional temporary controls necessary to prevent environmental damage to the Site and adjacent areas while the Work is stopped or suspended.
 - b. When temporary erosion and sediment controls remain in place during periods of stopped or suspended Work, continue to perform Contractor's obligations relative to periodic inspection and maintenance of temporary erosion and sediment controls, including removal of accumulated sediment.
10. Failure to Provide Adequate Temporary Erosion and Sediment Controls:
- a. If Contractor repeatedly fails to satisfactorily control erosion and sediment transport in storm water runoff, Owner reserves the right to use Owner's own forces or employ a third-party contractors for temporary erosion and sediment control. Owner's costs for such work, including engineering and inspection costs, will be deducted from amounts due Contractor, as set-offs in accordance with the Contract Documents.

B. Perimeter Controls:

- 1. Provide and maintain perimeter controls at the locations shown or indicated in the Contract Documents and where necessary or required.
- 2. Locations of Temporary Perimeter Control:
 - a. Where possible, provide perimeter controls along contour lines, so each run is at the same elevation.
 - b. On slopes, provide temporary perimeter controls at intervals that do not exceed the maximum indicated in the following table:

Perimeter Control Spacing on Slopes	
Slope (percent)	Maxim Allowable Length of Slope Above Each Control (feet)
2 and less	150
2.1 to 5	100
5.1 to 10	50
10.1 to 20	25
20.1 to 25	20
25.1 to 40	15
40.1 to 50	10

- c. Provide temporary perimeter controls around perimeter of each stockpile of topsoil, general fill material, and excavated spoil material. Install perimeter controls before expected soil is subject to precipitation. Maintain until stockpile is removed.
 - d. Do not install temporary temporary perimeter controls at the following types of locations:
 - 1) Area of concentrated storm water flows such as ditches, swales, or channels.
 - 2) Where rock or rocky soils prevent full and uniform anchoring of silt fencing.
 - 3) Across upstream or discharge ends of storm water conduits.
 - 3. Installation:
 - a. Install perimeter controls in accordance with the manufacturer's instructions and recommendations.
 - 4. Maintenance:
 - a. Do not allow formation of concentrated storm water flows on slopes above temporary perimeter controls unless so shown or indicated in the Contract Documents. If unauthorized concentrated storm water flows occur, stabilize the slope via other appropriate stabilization methods as necessary and required to prevent flow of concentrated storm water flows toward temporary perimeter controls.
- C. Mulching and Soil Stabilization:
- 1. Use mulching to temporarily stabilize exposed soil, including spoil and fill materials.
 - a. Immediately following final grading, provide mulch and stabilize with mats or netting, or sprayed soil stabilization emulsion with fiber additive.
 - b. Application of mulching for soil stabilization shall be as follows.
 - 1) Non-Rotted Straw or Salt Hay: Provide 1.5 to two tons per acre.
 - 2) Soil stabilization emulsions, when used, shall be applied in accordance with manufacturer's instructions, and shall be applied with mulch or stabilization fibers.
 - 3) Wood-Fiber or Paper-Fiber Application: Provide 1,500 pounds per acre, installed by hydroseeding.
 - c. Where mats or netting are used:
 - 1) Only wildlife-friendly erosion control netting may be used.
 - a) Products must use natural, biodegradable materials like coconut, straw, or wood excelsior held by biodegradable jute or cotton netting (or no netting at all).
 - b) Use of plastics will be not accepted.
 - 2) Cover entire area to be stabilized with mats or netting.
 - 3) Provide anchoring trenches at the top and bottom of slopes to receive mats or netting. Bury at least the top and bottom ends of mat or netting, 4 inches or more wide, at top and bottom of slope. Ensure that mesh or netting is secure and will not wash out over time. Tamp trench full of soil. 4 inches from trench, secure mat or netting with appropriate staples at intervals of 10 inches.
 - 4) Overlap adjacent strips of mat or netting by not less than 4 inches.
- D. Protection of Storm Water Drainage Inlets and Catch Basins:
- 1. Protect each drainage inlet and catch basin that has potential to receive storm water runoff from exposed soils and does not discharge into a storm water settlement basin.
 - 2. Provide temporary inlet filter bags inside of drainage inlet or catch basin in accordance with inlet filter bag manufacturer's instructions. Secure inlet filter bag with the structure's grate or by other acceptable means.
 - 3. Inlet filter bags shall not pose any obstruction, above the preconstruction elevation of the drainage inlet or catch basin grate that would necessitate or require temporary barricades or warning lights, or cause interference with winter plowing conditions.
 - 4. When removing sediment from inlet filter bags, do not dump filter bag's contents into the drainage inlet or catch basin. Promptly remove from drainage inlets and catch basins sediment accidentally dumped into the structure.

5. Remove sediment from inlet filter bags, or replace inlet filter bags, when inlet filter bag is not more than half-full.

E. Temporary Settlement Basin:

1. For constructing embankments comply with requirements in Division 31 Specifications on embankments, excavation, and fill.
2. Overflow Weir and Discharge Pipe:
 - a. Provide piping in accordance with manufacturer's instructions. Where permanent piping will be used for temporary settlement basin, provide piping in accordance with the Contract Documents and fully clean piping prior to Substantial Completion.
 - b. Provide overflow weirs at elevation(s) shown or indicated on the Drawings. When not shown or indicated in the Contract Documents, discharge weir elevation(s) shall be in accordance with design by licensed, professional civil engineer retained by Contractor or Subcontractor. Such design and temporary construction shall avoid overtopping and overfilling of settlement basin without short-circuiting the settlement basin's hydraulic performance.
 - c. Wrap and secure geotextile material specified for temporary silt fencing around discharge structures of temporary settlement basins
3. Crushed Stone and Riprap: Provide in accordance with Division 31 Specifications on excavation, fill, and riprap. Provide in areas of temporary settlement basin subject to erosion, and at upstream and downstream ends of each settlement basin's discharge piping.
4. Remove sediment when necessary or required, based on accumulation of material.
5. When temporary settlement basin is no longer required, remove the temporary settlement basin discharge weir, discharge piping, and spillway, fill the temporary settlement basin to required grade in accordance with requirements of Division 31 Specifications on excavation and fill, and provide landscaping in accordance with the Contract Documents.

F. Filter Bag on Dewatering Pump Discharge:

1. Provide dewatering of excavations in compliance with Section 31 23 19 - Dewatering.
2. Locate filter bags and temporary pump discharge lines to avoid interfering with the public, use of private and public property, and Owner's and facility manager's operations. Relocate filter bags and appurtenances when necessary or required.
3. Filter bag discharge shall be directed to appropriate storm water drainage route. Do not discharge into roads, driveways, access roads, parking areas, other travelled ways, or overland. When temporary settlement basin is used, locate filter bags to discharge to temporary settlement basin when practicable.
4. Provide filter bag on discharge of each dewatering pump drawing from an excavation or other area with exposed soil.
5. Securely attach filter bag to pump discharge pipe or hose.
6. Maintain, clean out, and replace filter bags as necessary or required.

G. Temporary Stone Construction Entrance:

1. Where shown on the Drawings, and where construction vehicles will regularly transition to paved surfaces from unstabilized surfaces, provide temporary stone construction entrance. Contractor vehicles and mobile construction equipment and machinery shall use temporary stone construction entrances.
2. Provide temporary stone construction entrances of the width, length, and thickness shown or indicated on the Drawings. When not shown or indicated on the Drawings, temporary stone construction entrance shall be not less than 50 feet long, by 20 feet wide, by 8 inches deep.
3. Installation:

- a. Ensure that subgrade under each temporary stone construction entrance is suitably dense for the intended purpose and dry. Suitably prepare subgrade as necessary for temporary stone construction entrance.
 - b. Provide on subgrade a layer of geotextile separation fabric, installed in accordance with geotextile separation fabric manufacturer's recommendations for separation.
 - c. Provide stone on installed geotextile separation fabric. Grade the stone for passage of vehicles.
4. Maintenance:
- a. Maintain temporary stone construction entrance at not less than the minimum required thickness. Add stone as required to maintain thickness.
 - b. When upper layer of temporary stone construction entrance becomes contaminated with soil, mud, or other material, remove the contaminated material and replace with clean stone.
 - c. Using water to wash down temporary construction entrance or paved areas onto which soil material has been tracked is unacceptable.

3.6 REMOVAL OF TEMPORARY CONTROLS

A. Removals – General:

1. Unless otherwise indicated elsewhere in this Section in requirements for respective temporary controls, upon completion of the associated Work and when temporary controls are no longer necessary, remove temporary controls and restore the Site to condition in accordance with the Contract Documents; if condition is not shown or indicated, restore the Site to pre-construction condition.
2. After soils are permanently stabilized, remove from the Site temporary erosion and sediment controls.

END OF SECTION

SECTION 01 71 14
MOBILIZATION AND DEMOBILIZATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Construction mobilization and demobilization.
- B. Scope:
 - 1. Contractor shall provide all labor, materials, equipment, tools, services, and incidentals to perform mobilization and demobilization for the Work.
 - 2. This Section is general and does not necessarily indicate all activities required for mobilization and demobilization, which may be indicated in other parts of the Contract Documents.
- C. Related Requirements: Include, but are not necessarily limited to:
 - 1. Section 01 22 00 - Measurement and Payment.
 - 2. Section 01 57 05 - Temporary Controls.
 - 3. Section 01 71 33 - Protection of the Work and Property.

1.02 PRICE AND PAYMENT PROCEDURES

- A. Measurement and Payment:
 - 1. Where costs of mobilization and demobilization are to be included in a specific bid/pay item, such item is indicated in the Contract, including Section 01 22 00 - Measurement and Payment.
- B. If costs for mobilization, demobilization, or both change as a result of Contract modifications, include the total cost of such changes to mobilization and demobilization in Change Proposal submitted for each associated change. Make no subsequent claim, whether via Change Proposal, Claim, or dispute, for additional compensation for mobilization, demobilization, or both.

1.03 MOBILIZATION AND DEMOBILIZATION - GENERAL

- A. Do not commence mobilization at the Site or other areas until:
 - 1. The Contract is signed by both parties and is effective.
 - 2. Required insurance documentation, performance bond, and payment bond have been submitted by Contractor and accepted by Owner, and builder's risk insurance complying with the Contract Documents is furnished and in place, and documentation thereof accepted by the parties.
 - 3. Conditions, if any, of Owner-issued Notice to Proceed, if any, have been complied with by the applicable party.
 - 4. Preconstruction conference(s), including items on agenda for site mobilization matters, is completed.
 - 5. Preconstruction photographic documentation is obtained and submitted in accordance with the Contract Documents.
- B. Mobilization Work includes, but is not limited to:
 - 1. Establishing temporary controls in accordance with Section 01 57 05 - Temporary Controls
 - 2. Establishing temporary utilities and temporary facilities in accordance with the Contract Documents.
 - 3. Establishing required and necessary temporary project signage.

4. Other mobilization Work required by the Contract Documents, including Section 01 22 00 - Measurement and Payment
- C. Demobilization Work includes, but is not limited to:
1. Removing from the Site and other areas Contractor's temporary utilities, temporary facilities, temporary signage, temporary security measures; construction equipment, machinery, and tools; ,unused items of materials and equipment; and other items.
 2. Final restoration and repair of damage caused by Contractor, in accordance with Section 01 71 33 - Protection of the Work and Property.
 3. Other demobilization Work required by the Contract Documents, including Section 01 22 00 - Measurement and Payment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION - (NOT USED)

SECTION 01 71 33
PROTECTION OF THE WORK AND PROPERTY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. General requirements for protecting the Work and property, including:
 - a. Accessing or entering property.
 - b. Temporary barricades and temporary warning lights and signs.
 - c. Responsibility to remedy damaged property.
 - d. Protecting natural habitats, including trees, plants, lawns and meadows, and wildlife.
 - e. Protecting Underground Facilities.
 - f. Protecting existing surface structures.
 - g. Protecting other installed items and landscaping.
- B. Scope:
 - 1. This Section augments requirements of the General Conditions as may be modified by the Supplementary Conditions regarding protection of the Work and property, including Underground Facilities.
 - 2. Contractor shall provide all labor, materials, equipment, tools, services, and incidentals necessary and required for protecting the Work and property in accordance with the Contract Documents.
 - 3. Responsibilities for security during the Project are as indicated on the Construction Drawings and as detailed in this section.
- C. Related Requirements: Include, but are not necessarily limited to:
 - 1. Section 01 55 26 - Traffic Control.
 - 2. Section 01 57 05 - Temporary Controls.

1.2 PROTECTION - GENERAL

- A. Contractor shall provide all precautions and programs and perform all actions necessary to protect personnel health and safety, and to protect the Work and all public and private property and facilities from damage, in accordance with the Contract Documents, Laws and Regulations, and other applicable requirements.
- B. Contractor's security measure shall be at least equal to those usually provided by Owner or facility manager (if other than Owner) to protect existing facilities during normal operation.
- C. Existing security at the Site:
 - 1. Atwater-Western is surrounded by fencing with a secure access gate. Contractor shall provide their own gate lock and secure Site until Work is completed, and Site is returned to Owner.
 - 2. Arlington-Arkwright has two swing gates that are locked under normal operation but will need to be used by Contractor to mobilize equipment into the basin. Contractor shall provide their own gate locks and secure Site until work is completed, and Site is returned to Owner.
- D. To prevent damage, injury, and loss, Contractor's actions shall include the following:
 - 1. Providing measures for safety of all personnel at and adjacent to the Site, whether engaged in performing the Work, operating or maintaining the facility, or performing other functions for Owner or others.

2. Storing construction equipment, machinery, tools, and similar items, materials and equipment to be incorporated into the Work, supplies, and other items in an orderly, safe manner that does not unduly interfere with progress of the Work or work of others, including Owner and facility manager (if other than Owner).
3. Suitably storing materials and equipment to be incorporated into the Work, in accordance with the Contract Documents.
4. Placing upon the Work or any part thereof only loads consistent with the safety and integrity of that portion of the Work and existing construction and facilities.
5. Frequently removing and disposing of rubbish, scrap materials, and debris, in accordance with the Contract Documents.

PART 2 - PRODUCTS

2.1 TEMPORARY BARRICADES

A. Materials and Construction - General:

1. Temporary barricades shall be of materials that are either new or of good quality and sufficient for the intended purpose, exposure, and duration of use.
2. Provide temporary barricades of sturdy materials of grade, thickness, and durability sufficient for the probable loads to which they will be subject. Temporary barricades intended for fall prevention, such as railings and handrails on temporary stairs and temporary walkways and at openings, shall be in accordance with Laws and Regulations, including the applicable building and safety codes.
3. Color: Use appropriately colored and reflective barricades, or paint barricades accordingly, to be visible at night and during periods of low visibility.
4. Where owner of transportation right-of-way or transportation facility having jurisdiction or other authority having jurisdiction requires compliance with standards more stringent than the Contract Documents, comply with both the Contract Documents and requirements of the authorities having jurisdiction.

B. Temporary Snow Fence-type Barriers:

1. Unless shown or indicated otherwise, temporary barrier shall be not less than snow fence-type, four feet high, orange-colored or other high-visibility color. Polyethylene material or other, similar, durable material. Mesh size 1.25-inch by 1.5-inch.
2. Supports: Adequately support barriers to protect persons and property. Vertical supports may be timber, metal, or other appropriate material sufficient for the intended use, exposure, and duration of use. Properly secure fencing to supports with appropriate, stout, wire or other fastenings, sufficient to engage fencing for the intended use.

PART 3 - EXECUTION

3.1 ACCESSING OR ENTERING PROPERTY

A. Accessing or Entering Property - General:

1. Use and occupy only lands and easements furnished by Owner, unless appropriate consent from property owner and occupants is obtained by Contractor.
2. The foregoing applies to personnel, construction equipment and machinery, tools, vehicles, materials or equipment to be incorporated into the Work, supplies, temporary facilities, and other items or obstructions.

3.2 BARRICADES

A. Temporary Barricades and Temporary Warning Lights and Signs - General:

1. All Work Areas:
 - a. Provide temporary barricades, warning lights, and warning signs for both indoor and outdoor Work, in accordance with Laws and Regulations and requirements of owners of affected property and facilities.

- b. Warning Lights and Signage: From 30 minutes before terrestrial sunset to 30 minutes after terrestrial sunrise, provide and maintain not less than one temporary flashing light at each vehicle barricade and at other barriers and barricades as necessary.
 - c. Provide temporary barriers where shown or indicated, and where necessary to protect persons and property. At minimum, provide temporary barriers for all excavations that remain open during non-working hours.
 - d. Promptly replace temporary barricades that are damaged or are otherwise no longer capable of serving their intended function.
 - 2. Where the Work is performed on or adjacent to roadway, access road, other area travelled by motor vehicles, railroad, or similar transportation right-of-way, or public place:
 - a. Provide temporary barricades, temporary fences, temporary guard rails, temporary lights and warning signs, temporary danger signals, and other precautions for protecting persons, property, vehicles, and the Work.
 - b. Provide sufficient temporary barricades to keep vehicles from being driven on or into excavations and the Work under construction.
 - c. Comply with Section 01 55 26 - Traffic Control.
 - 3. Temporary Barriers for Areas Not Subject to Vehicular Traffic:
 - a. Provide temporary barriers around:
 - 1) Openings.
 - 2) Scaffolding.
 - 3) Temporary stairs and ramps.
 - 4) Around excavations.
 - 5) Around elevated walkways, slabs, and platforms.
 - 6) Other areas that may present a fall-hazard or hazard to persons and property.
 - b. Provide appropriate temporary barriers, warning signs and, where necessary, warning lights, at ground level and other low elevations, and at higher elevations. Protect persons and property from fall-hazards and protect persons and property at lower elevations from falling objects.
 - 4. Duration of Temporary Barriers, Barricades, Signs, and Warning Lights:
 - a. Contractor's responsibility for maintaining temporary barriers, barricades, signs, and warning lights shall continue until the associated Work is substantially complete in accordance with the Contract Documents, unless other provision for protection are agreed to by the parties.
 - b. After Substantial Completion, protect Work and property during periods when Contractor is onsite: completing the remaining Work, performing correction period work, and performing warranty work.
- B. Temporary Snow Fence-type Barriers:
- 1. Establish temporary barriers around excavations and other areas as necessary for the protection of persons and property.
 - 2. Install snow fence-type barriers vertical for entire height of barrier.
 - 3. Maintenance:
 - a. Maintain temporary snow fence-type barriers as necessary.
 - b. Repair or replace when damaged, when barrier (or any section thereof) is no longer vertical, or when barrier (or any section thereof) is no longer properly supported for its full height and .
 - c. Reinstall barriers promptly following temporary removals for performing work and where barrier installation has degraded over original temporary barrier installation.
 - 4. Removal:
 - a. Remove temporary barriers from the Site when associated excavation is properly filled and the area is sufficiently safe for persons and other property.

3.3 RESPONSIBILITY TO REMEDY DAMAGED PROPERTY

A. Contractor to Remedy Damage:

1. Contractor has full responsibility for preserving public and private property and facilities on and adjacent to the Site.
2. Direct or indirect damage done by, or on account of, any act, omission, neglect (including inadvertent acts), or misconduct by Contractor (including any person or entity for whom contractor is responsible) in performing the Work, shall be promptly remedied by Contractor, at Contractor's expense, in accordance with the Contract Documents.
3. If the Contract Documents do not show or indicate the required restoration, or remedy, restore or remedy the damage to condition equal or better than that existing before damage was done.

B. Owner May Remedy:

1. Should Contractor fail to protect and safeguard property and the Work after requests from Engineer or Owner, Owner reserves the right to implement measures to protect property and the Work.
2. Cost of such Owner-implemented measures shall be paid by Contractor. Owner may deduct from payments due Contractor such amounts as set-offs in accordance with the Contract Documents.
3. Such right, however, does not obligate Owner or Engineer to continuously monitor or have responsibility for protection of property and the Work, which responsibility is exclusively Contractor's.
4. In exercising its rights under this provision, Owner will endeavor to give Contractor sufficient notice to allow Contractor to remedy the damage or defect within a reasonable time. However, if Owner or Engineer deems that the situation requires prompt remedy, Owner may act as quickly as Owner deems appropriate, without infringing on or mitigating Owner's rights under this provision and elsewhere in the Contract Documents

3.4 PROTECTION OF NATURAL HABITATS

A. Tree and Plant Protection – General:

1. Protect existing trees, shrubs, and plants on or adjacent to the Site, shown or designated to remain in place, against unnecessary cutting, breaking, damage, and skinning of trunk, branches, bark, and roots.
2. Protect irrigation servicing existing trees, shrubs, and plants on or adjacent to the Site that remain in place.
3. Do not store materials or equipment or park construction equipment, machinery, or vehicles within foliage drip lines.
4. In areas subject to traffic, provide temporary fencing or temporary barricades to protect trees and plants.
5. Burning is not allowed at or adjacent to the Site, including burning, in open fires or otherwise, trees, plants, debris, or other combustible materials.

B. Coordinate the Work in this Article with the following Specifications:

1. Section 31 10 00 - Site Clearing.

C. Remedy of Damaged Trees:

1. If branches are damaged, prune branches immediately and protect as indicated below.
2. If bark on trunk or major branches is scraped or damaged, using a sharp knife or other suitable cutting implement, clean the edge of the wound, leaving the bark smooth and tight against the wood. Avoid exposing more live tissue and do not remove too much healthy bark. Apply material indicated below.

3. After pruning and cutting back damaged wood and bark, protect cut or damaged wood by applying emulsified asphaltic sealant specifically manufactured for sealing pruned and damaged trees. Apply sealant in accordance with sealant manufacturer's instructions, in manner acceptable to Engineer and tree owner.
4. When directed by Engineer, remove and dispose of (at location away from the Site) damaged trees and plants (and parts thereof) that die or suffer permanent injury, and replace each such damaged tree and plant with new tree or plant of equal or better species and quality.

D. Protection of Lawns and Meadows:

1. Protect lawns and meadows from unnecessary damage during performance of the Work.
2. To extent practicable, do not drive vehicles, construction equipment, machinery, or wheeled items such as carts and wheelbarrows, across lawns and meadows.
3. When existing lawn or meadow areas are disturbed, promptly stabilize exposed soil in accordance with Section 01 57 05 - Temporary Controls.
4. Remedy damaged lawns and meadows in accordance with the Contract Documents. If not otherwise addressed in the Contract Documents, restore to preconstruction condition or better with the same or substantively similar species.

E. Protection of Wildlife:

1. To extent practicable, avoid harming wildlife and damaging or destroying wildlife habitats, except for areas where the Work is to be located.
2. In the event a threatened or endangered species is discovered at the Site for which provisions was not otherwise provided, stop work in the vicinity and immediately orally advise Engineer by telephone or in-person, promptly followed by written notice in accordance with the Contract's provisions for notice for differing Site conditions. If species is not threatened or endangered, promptly resume work; no change in Contract Price or Contract Times is due for misidentification of threatened or endangered species.
3. Contractor is not responsible for wholesale inventorying or Site-wide evaluation of wildlife at the Site, except as indicated in the paragraph immediately above this paragraph.

3.5 PROTECTION OF UNDERGROUND FACILITIES

A. Underground Facilities – General:

1. Underground Facilities known to Owner and Engineer, except laterals or services to individual structures or properties, such as water, wastewater, storm water, gas and fuel, hydronic, steam, electric, and communications laterals or services, are shown on the Drawings. Information shown for Underground Facilities is the best available to Engineer but, in accordance with the General Conditions, as may be modified by the Supplementary Conditions, is not guaranteed to be correct or complete.
2. Comply with Laws and Regulations regarding notification of utility owners prior to performing the Work, including necessary "call before you dig" notifications.
3. Contractor shall explore ahead of trenching and excavating Work and shall sufficiently uncover Underground Facilities that will or may interfere with the Work to determine their location, to prevent damage to Underground Facilities, and to prevent service interruption to structures and properties served by Underground Facilities.
4. If Contractor damages an Underground Facility, Contractor shall promptly restore the damaged Underground Facility in accordance with requirements of the owner of the damaged facility and the Contract Documents. If the Contract Documents do not address repair or remedy of the damaged facility, restore to not less than preconstruction condition.
5. Necessary changes in the location of the Work may be directed by Engineer to avoid Underground Facilities not shown or indicated on the Contract Documents.
6. If permanent relocation of an existing Underground Facility is required and is not otherwise shown or indicated in the Contract Documents, Contractor may be directed in writing to perform the required work. When such relocation Work results in a change in the Contract

Price, Contract Times, or both, the associated Contract modification procedures and payment for such Work shall be in accordance with the Contract Documents.

B. Protection of Underground Facilities under Roads and Parking Areas:

1. Provide temporary, heavy-duty steel roadway plates to protect existing manholes, handholes, valve boxes, vaults, and other Underground Facilities near to, or visible at, the ground surface.
2. Avoid imparting heavy loads, especially transitory loading (such as heavy truck traffic), vibration forces, and impact loads on Underground Facilities that are close to the ground surface and below-grade work areas. Provide temporary bridging or other appropriate protection where traffic must pass over Underground Facilities in close proximity to the ground surface.

3.6 PROTECTION OF EXISTING SURFACE STRUCTURES

A. Surface Structures – General:

1. Surface structures are existing buildings, structures, and other facilities at or extending above ground surface, including their foundations and any extension below ground surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage routes, exposed piping and utilities, poles, exposed wires and cabling, posts, signs, markers, curbs, walks, fencing, and other facilities visible at or above ground surface.
2. Protect surface structures as necessary and promptly remedy damage and defects resulting or arising from Contractor's operations. Unless expressly shown or indicated otherwise in the Contract Documents, protect such items regardless of whether shown or indicated on the Drawings or elsewhere in the Contract Documents.
3. Protection of Overhead Utilities:
 - a. Protect visible, overhead utilities, including electrical power, communications, and piped utilities, and related supports, regardless of whether such items are shown or indicated in the Contract Documents.
 - b. When required by the Contract Documents or when acceptable to owner of such utility or facility, temporarily relocate overhead utilities or facilities as necessary perform the Work.
 - c. Provide temporary barriers, barricades, and warning signs identifying overhead utilities within reach of Contractor's construction equipment, machinery, or operations.

B. Temporary Removals of Surface Structures:

1. Existing surface facilities, including but not limited to guard rails, handrails, posts, guard cables, signs, poles, markers, curbs, and fencing, that are temporarily removed to facilitate the Work shall be replaced and restored promptly after the associated Work is performed.
2. Replace and restore such items in accordance with the Contract Documents. If not addressed in the Contract Documents, replace and restore such items to preconstruction condition or better.
3. Remedy damage to all items temporarily removed and later replaced and restored.
4. All such temporary relocations, replacement, and restoration is at Contractor's cost.

C. Protection of Surface Structures:

1. Sustain in their original location and protect from direct and indirect injury all surface structures located within or adjacent to the Site. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure or facility.
2. Before proceeding with the Work of sustaining and supporting such structure or facility, Contractor shall, upon Engineer's request, promptly satisfy Engineer that methods and procedures to be used have been approved by party owning the surface structure or facility.
3. Regardless of approval or acceptance by owner of property, structure, or facility, responsibility for protecting the Work and property is solely Contractor's.

3.7 PROTECTION OF INSTALLED MATERIALS, EQUIPMENT, AND LANDSCAPING

A. General:

1. Protect existing facilities and installed Work to prevent damage from subsequent operations.
2. Remove protective items when no longer needed, prior to Substantial Completion of the associated Work.
3. Where work will continue in adjacent area(s) after Substantial Completion of a portion of the Work, protect the substantially completed Work until all work in the area is complete.

B. Control traffic (foot traffic, wheeled items such as carts, vehicles, and other traffic) to prevent damage to equipment, materials, and surfaces.

C. Coverings:

1. Provide temporary coverings to protect materials and equipment from damage.
2. Cover: projections, wall corners and jambs, sills, and soffits of openings, in areas used for traffic and for passage of materials and equipment in subsequent work.
3. Fasten protective items without harming the Work. Use tape or adhesives that do not leave residue when removed.

END OF SECTION

SECTION 01 77 19
CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Administrative and procedural requirements for:

1. Substantial Completion.
2. Final inspection.
3. Request for final payment and acceptance of the Work.

1.2 SUBSTANTIAL COMPLETION

A. Substantial Completion – General:

1. Prior to requesting inspection for Substantial Completion, perform the following for the substantially completed Work:
 - a. Materials and equipment for which Substantial Completion is requested shall be fully ready for their intended use, including full operating and monitoring capability in automatic, manual, and other operating modes set forth in the Contract Documents.
 - b. Permanent provisions for safety and protection, shown and indicated in the Contract Documents and associated with the substantially completed Work or for personnel accessing and using the substantially completed Work, shall be in place and ready for their intended use.
 - c. Complete field quality control Work, including inspections and testing at the Site, indicated in Specifications sections for individual materials and equipment items and related Contract Documents. Submit results of, and obtain Engineer's acceptance of, field quality control tests and inspections required by the Contract Documents.
 - d. Contractor shall clean the site and keep each site free from accumulations of waste materials, rubbish, and other debris resulting from the remainder of the Work.
 - e. Obtain and submit to Engineer all required permits, inspections, and approvals of authorities having jurisdiction for the substantially completed Work to be occupied and used by Owner.
 - f. Complete other tasks that the Contract requires be completed prior to Substantial Completion.
2. Procedures for requesting and documenting Substantial Completion are in the General Conditions, as may be modified by the Supplementary Conditions.
3. Sample letter for Contractor's request for inspection for Substantial Completion is attached to this Specifications section. Use the model language of the sample letter, modified to suit the Project and the needs of Contractor's request.
4. Unless decided otherwise by Owner and Engineer, form of certificate of Substantial Completion will be EJCDC C-625, "Certificate of Substantial Completion" (2018 edition or later), prepared by Engineer.
5. Refer to the Agreement and Section 01 29 76 - Progress Payment Procedures, for requirements regarding consent of surety to partial release of or reduction in retainage.

1.3 FINAL INSPECTION

A. Final Inspection – General:

1. Upon final completion of the work and prior to requesting final inspection, verify that all the Work is fully complete and ready for final payment. Remove all waste materials, rubbish, and debris from the premises as well as all tools, construction equipment and machinery, temporary facilities, and surplus materials. Contractor shall leave the site clean to the Owner's satisfaction and ready for occupancy by the Owner.
2. Sample letter for Contractor to request final inspection is attached to this Specifications section. Use the model language of the sample letter, modified to suit the Project.
3. Procedures for requesting and documenting the final inspection are in the General Conditions, as may be modified by the Supplementary Conditions, and as augmented in this Specifications section.

1.4 REQUEST FOR FINAL PAYMENT AND ACCEPTANCE OF THE WORK

A. Procedure:

1. After successful completion of the final inspection, submit request for final payment in accordance with the Agreement and General Conditions, as may be modified by the Supplementary Conditions, and using procedure specified in Section 01 29 76 - Progress Payment Procedures, and this Specifications section.
2. Acceptance of the Work:
 - a. Upon Engineer's concurrence that the Work is complete and ready for final payment (as a result of the final inspection and other communications between the parties and Engineer) and receipt of the final Application for Payment, accompanied by other required Contract closeout documentation, all in accordance with the Contract Documents, Engineer will issue to Owner and Contractor a notice of acceptability of the Work, in accordance with the General Conditions, as may be modified by the Supplementary Conditions.
 - b. Unless decided otherwise by Owner and Engineer, form of acceptance will be EJCDC C-626, "Notice of Acceptability of Work", (2018 edition or later).
 - c. Nothing other than receipt of such notice of acceptability from Engineer constitutes acceptance of the Work.
 - d. Receipt of Engineer's notice of acceptability of the Work does not relieve Contractor of Contractor's continuing obligations under the Contract, including correction period obligations, warranty obligations, indemnification obligations, insurance requirements, and Contractor's other obligations following acceptance of the Work by Engineer and final payment. Such obligations shall commence and remain in effect as indicated elsewhere in the Contract Documents.

B. Request for final payment shall include:

1. Documents required for progress payments in Section 01 29 76 - Progress Payment Procedures.
2. Documents required in the General Conditions, as may be modified by the Supplementary Conditions.
3. List, on Contractor's letterhead, of all Change Proposals, Claims, and disputes that Contractor believes are unsettled. If there are no such Change Proposals, Claims, or disputes, so indicate in writing.
4. Consent of Surety to Final Payment:

- a. Acceptable form includes AIA G707, "Consent of Surety to Final Payment" (1994 or later edition), or other form acceptable to Owner.
- 5. Releases of Liens:
 - a. Submit complete and legally effective releases (satisfactory to Owner) of all Liens filed in connection with the Work, regardless of whether such Lien was filed by Contractor, Subcontractor, or Supplier.
 - b. Each release of Lien shall be signed by an authorized representative of the entity submitting the release of Lien, and shall include Contractor's, Subcontractor's, or Supplier's (as applicable) corporate seal, when applicable.
- 6. Waivers of Lien Rights:
 - a. Submit legally-binding waivers of rights to file Liens, acceptable to Owner, as required in the General Conditions (as may be modified by the Supplementary Conditions) from Contractor and each Subcontractor and Supplier that furnished or provided labor, material, or equipment totaling \$1,000 or more for the Work.
 - b. Furnish final list of Subcontractors and Suppliers indicating final amount of the associated subcontract or purchase order for each. Include on the list all lower-tier Subcontractors and Suppliers retained by higher-tier Subcontractors and Suppliers. Prepare the list using the form included in Section 01 29 76 - Progress Payment Procedures.
 - c. Each waiver of Lien rights shall be signed by an authorized representative of the entity submitting waiver of Lien rights, and shall include Contractor's, Subcontractor's, or Supplier's (as applicable) corporate seal, when applicable.
 - d. Waiver of Lien rights may be conditional upon receipt of final payment.
 - e. Required Affidavits: Submit the following:
 - 1) Affidavit of payment of debts and claims, submitted by Contractor. Acceptable form includes AIA G706, "Contractor's Affidavit of Payment of Debts and Claims" (1994 or later edition), or other form acceptable to Owner, and;
 - 2) Affidavit of release of Liens, submitted by Contractor. Acceptable form includes AIA G706A, "Affidavit of Release of Liens" (1994 or later edition).
 - 3) Each affidavit shall be signed by an authorized representative of Contractor and shall bear Contractor's corporate seal, as applicable.
 - f. In the event Contractor is unable to obtain one or more required waivers of Lien rights, recourse is set forth in the General Conditions, as may be modified by the Supplementary Conditions.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.1 ATTACHMENTS

- A. The documents listed below, following this Specification section's "End of Section" designation, are part of this Specifications section:
 - 1. Sample letter for Contractor's use in requesting inspection for Substantial Completion (two pages).
 - 2. Sample partial checklist to identify readiness for final inspection (four pages).
 - 3. Sample letter for Contractor's use in requesting final inspection (one page).

- B. In the model language of the attached sample letters for Contractor to request inspection for Substantial Completion and the final inspection, italicized language in brackets, e.g., “[insert date]” indicates instructions to the drafter of the letter and often indicates specific information to be inserted by Contractor; do not include bracketed, italicized text in the final version of the letter(s) prepared for the Project. Non-italicized language in brackets is optional language; use the appropriate language to complete the actual letter for the Project and edit where required to suit the specific circumstances.

END OF SECTION

**SAMPLE LETTER FOR CONTRACTOR'S USE IN
REQUESTING INSPECTION FOR SUBSTANTIAL COMPLETION**

SENT VIA E-MAIL AND U.S. CERTIFIED MAIL/RETURN RECEIPT REQUESTED

[Date]

[Name of Engineer's contact person]

HDR

[Street address]

[City, state, postal code]

Subject:

[Project name, Contract designation]

Request for Inspection for Substantial Completion

Dear [addressee]:

In our opinion, [all of] [or] [a portion of] the Work under the above-referenced Contract is substantially complete as of [insert month, day, year on which Substantial Completion was achieved]. [The specific portion of the Work that we believe is substantially complete is [insert identification of that portion of the Work that is substantially complete].]

Enclosed is our listing of uncompleted Work items ("punch list"). In accordance with Paragraph 15.03.A of the General Conditions, we hereby request: (1) That the Engineer schedule and perform the inspection for Substantial Completion as soon as possible, and (2) Issuance of the certificate of Substantial Completion.

In accordance with Paragraph 15.03.D of the General Conditions, upon Substantial Completion, we propose the following relative to apportionment of responsibilities between the Owner and the Contractor:

1. Security, Protection, Insurance:
 - a. Site Security: [insert proposal; address whether Owner or Contractor will be responsible for security of the Site].
 - b. Protection of the Substantially Completed Work: [insert proposal; address whether Owner or Contractor will be responsible for protection].
 - c. Property Insurance: [insert proposal; typically Owner assumes responsibility for property insurance upon Substantial Completion]
2. Operation and Maintenance:
 - a. Operation: [insert proposal; address whether Owner or Contractor will be responsible for operating the substantially completed Work].
 - b. Maintenance: [insert proposal; address whether Owner or Contractor will be responsible for maintaining the substantially completed Work].
3. Utilities: [for each of the following, indicate whether Owner or Contractor will be responsible for utilities and services, or whether responsibility will be shared; if shared, indicate proposed cost-sharing]
 - a. Electricity: [insert proposal].
 - b. Natural Gas/Fuel/Heating: [insert proposal].

- c. Water Supply: [insert proposal].
- d. Wastewater: [insert proposal].
- e. Communications (Telephone, Internet, Video): [insert proposal].

In accordance with Paragraph 15.08.A of the General Conditions, we understand that the Contract's correction period for the Work covered by the certificate of Substantial Completion commences on the Substantial Completion date documented in said certificate. [Drafter: Also see Paragraph 15.04 ("Partial Utilization") of the General Conditions and, where necessary, edit this paragraph of the letter accordingly.]

Should you have questions or comments regarding this notice, please contact [the undersigned] [or] [insert other contact person's name], at [insert telephone number and e-mail address].

Sincerely,

[Contractor's company name]

[Signatory name]

[Signatory's title]

Attachments:

Preliminary list of uncompleted Work items ("punch list"; [##] pages)

Copies:

[Owner's project manager]

SAMPLE PARTIAL CHECKLIST TO IDENTIFY READINESS FOR FINAL INSPECTION

Project: []
 Contract: []
 Contractor: []

Item No./Description	Completed/Date	In Progress	Not Started	Not Applicable	Target Date	Responsible Entity/Person
1. All Submittals, including all Shop Drawings and Samples, approved or accepted by Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
1. Final services completed by Suppliers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
2. Final Work completed by Subcontractors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
3. Permits closed out and regulatory compliance transitioned from construction to operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
4. All outstanding change issues are addressed and all Change Proposals submitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
5. All Change Proposals and Claims are resolved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						

Item No./Description	Completed/Date	In Progress	Not Started	Not Applicable	Target Date	Responsible Entity/Person
6. All defective Work of which Contractor is aware has been corrected in accordance with the Contract Documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
7. Issues related to Constituents of Concern and potential Hazardous Environmental Condition have been fully addressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
8. All spare parts, tools, and extra materials have been furnished in accordance with the Contract Documents, and documentation thereof submitted to Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
9. All final operations & maintenance manuals have been submitted and accepted by Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
10. Manufacturer warranties and software license(s) furnished	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<i>Remarks:</i>						
11. Instruction and training of operations and maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Item No./Description	Completed/Date	In Progress	Not Started	Not Applicable	Target Date	Responsible Entity/Person
personnel is complete and records of training submitted						
Remarks:						
12. MBE/WBE/DBE/VBE compliance report(s) submitted (when applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
13. All field engineering Submittals, including survey data, furnished	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
14. All Work on "punch list" is complete in accordance with the Contract Documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
15. All record documents submitted to and accepted by Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
16. Contractor is fully demobilized from the Site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
17. All Site restoration is complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
18. Final cleaning of all work areas is complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						

Item No./Description	Completed/Date	In Progress	Not Started	Not Applicable	Target Date	Responsible Entity/Person
19. Releases of Liens and waivers of Lien rights (or acceptable alternative) obtained from Subcontractors and Suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
20. Evidence of Contractor liability insurance furnished for correction period	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
21. All other required Contract closeout documents obtained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						
Remarks:						
22. All other Work and documentation required prior to final payment is complete and provided in accordance with the Contract Documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remarks:						

SAMPLE LETTER FOR CONTRACTOR'S USE IN REQUESTING FINAL INSPECTION

SENT VIA E-MAIL AND U.S. CERTIFIED MAIL/RETURN RECEIPT REQUESTED

[Date]

[Name of Engineer's contact person]

HDR

[Street address]

[City, state, postal code]

Subject:

[Project name, Contract designation]

Request for Final Inspection

Dear [addressee]:

The Work under the above-referenced Contract is complete and ready for final payment as of [insert month, day, year on which final completion was achieved]. In accordance with Paragraph 15.05 of the General Conditions, we hereby request that the Engineer schedule and perform the final inspection as soon as possible. Upon successful completion of the final inspection, we will submit our final Application for Payment accompanied by the required Contract closeout documentation in accordance with the Contract Documents.

Should you have questions or comments regarding this notice, please contact [the undersigned] [or] [insert other contact person's name], at [insert telephone number and e-mail address].

Sincerely,

[Contractor's company name]

[Signatory name]

[Signatory's title]

Attachments:

None

Copies:

[Owner's project manager]



DIVISION 02

EXISTING CONDITIONS



SECTION 02 21 13

SITE SURVEYS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Underground utility locate.
2. Pre- and post-construction topographic survey of five stormwater ponds.
3. Photography of local site features and legal monuments.

1.2 QUALITY ASSURANCE

A. Referenced Standards:

1. National Society of Professional Surveyors:
 - a. Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, 2/16.

B. General:

1. Furnish all necessary equipment, materials, and labor to effectively measure the site in accordance with these Specifications. Additional local surveying requirements for local platting, mapping, etc., shall be researched and followed by the surveyor.
2. The Contractor shall be responsible for all damage to public and private property resulting from the operations of its employees.
3. The Contractor shall be responsible for gaining permission to access any site(s) required for surveying. Any site-specific training to access the property shall be the responsibility of the Contractor.

1.3 DEFINITIONS

- A. "Contractor" shall mean person, firm, or corporation with whom Owner may enter into contract for execution of work specified relating to the Survey of the site.

1.4 SUBMITTALS

- A. Topographical Survey: Provide topographic surveys of pre- and post-dredging conditions of each of the five stormwater ponds for calculation of in-situ sediment removal quantity.
1. Submit to the Engineer complete CAD files within one week after field visit.
 2. CAD files shall be AutoCAD Civil 3D files with 3D points and TIN (Triangulated Irregular Network) surfaces of topography included. All site features shall be drawn and included within CAD file. Contractor shall receive Engineer's approval to use different CAD software.
 3. TIN surface(s) shall be exported as individual .XML format files. XML files shall be delivered with CAD files.
 4. Point files of all field survey data, including control shall be delivered in .csv format. Any point code description data sets shall be included with point files.
 5. Submit PDF of the completed topography survey to the Engineer.
 6. Post-sediment removal survey will be completed after all sediment and waste has been removed from the site. Coordinate schedule with Engineer.
- B. Site Photos:
1. Field survey photos of key project features shall be included with the topographical survey.
- C. Site Staking:
1. Provide site control staking as required for clearing and grubbing, sediment removal (grading limits) and seeding limits. Work with the Engineer to determine amount of staking to be completed.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.1 SURVEY

- A. The following shall be included in the final pre- and post-construction topography surveys:
 - 1. Survey datum and units: the vertical and horizontal datum shall meet state and local guidelines. The datum and units shall be provided with the survey, including coordinate system, foot units (international, U.S. survey), ground conversion factors (as applicable), etc.
 - a. All surveys shall be spatially tied in and geo-referenced.
 - b. Survey shall be performed in the horizontal and vertical datums as described in the Drawings.
 - c. The contractor shall provide all digital source data (i.e., for Trimble equipment, the .job file) and the RTK survey report.
 - 2. Site topography including but not limited to:
 - a. Existing ground topography shall be recorded with a maximum cross-section spacing of no more than 25 feet, and with a maximum point spacing of no more than 10 feet. Topography shall be presented in 1 foot intervals unless otherwise noted.
 - b. Grade breaks, including but not limited to: berms (tops and toes), depressions, ditches, swales, drainages, hills, rock piles, and steep hill faces.
- B. Monuments: All monuments shall be clearly surveyed and labeled within survey file. All section corners and existing property pins shall be located. Section corners (minimum of three) shall be located or established for development of new property parcels. Research of monuments shall be the responsibility of the Contractor prior to site visit.
- C. Control shall be clearly established on the site. Contractor will be responsible for establishing a minimum of three control points that can be located within each of the pond sites. Control shall be clearly established in an area that will preserve the horizontal and vertical information. Marked rebar (12 inches minimum depth) shall be used for control points.
- D. Underground utilities shall be located via Call before you dig 811 locate services. All private and public underground utilities shall be located.
- E. Culverts shall be located and surveyed; inlets and outlet elevation shall be provided along with culvert size and type.
- F. A 3D TIN surface shall be developed with the approved CAD software. Contractor shall review and prepare a 3D TIN surface to be used for grading and volume calculations.
- G. Survey notes and legend information shall be included in survey deliverables.

3.2 WORKMANSHIP AND METHODS

- A. Provide equipment capable of recording horizontal and vertical measurements within 1/100 feet degree of accuracy.
- B. Surveyor shall be a professionally licensed Land Surveyor (PLS) in the state of Minnesota and in good standing with the Minnesota Board of Architecture, Engineering, and Land Surveying.
- C. Contractor is responsible for meeting local surveying best practices and plat recording requirements.
- D. Contractor is responsible for providing additional survey equipment if needed when GPS equipment may not be suitable.
- E. Aerial surveys are not to be used unless requested and approved by the Owner.

END OF SECTION



DIVISION 31

EARTHWORK



SECTION 31 10 00

SITE CLEARING

SECTION 31 10 00 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Site clearing, tree protection, stripping topsoil and demolition.
- B. Related Specification Sections include but are not necessarily limited to:
 - 1. Section 01 57 05 – Temporary Controls.
 - 2. Section 31 22 00 – Site Grading.

1.2 PROJECT CONDITIONS

- A. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's property within staging and laydown area, or where indicated by the Owner during the pre-construction conference.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect existing trees and other vegetation to remain against damage.
 - 1. Do not smother trees by stockpiling construction materials or excavated materials within drip line.
 - 2. Avoid foot or vehicular traffic or parking of vehicles within drip line.
 - 3. Provide temporary protection as required.
- B. Repair or replace trees and vegetation damaged by construction operations that were not identified for removal.
 - 1. Repair to be performed by a qualified tree surgeon/licensed arborist.
 - 2. Remove trees which cannot be repaired and restored to full-growth status.
 - 3. Replace with new trees of minimum 4 IN caliper or as required by local tree ordinance.
- C. Owner will obtain authority for removal and alteration work on adjoining property, as applicable.

3.2 TREE PROTECTION

- 1. Erect and maintain temporary fencing around drip line of individual trees or around perimeter drip line of groups of trees as indicated in the Drawings.
- 2. Do not excavate within tree protection zones, unless otherwise indicated.
- 3. Where excavation for new construction is required within drip line of trees, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
- 4. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by the Owner or Engineer.

3.3 MONITORING WELL AND RISER PROTECTION

- 1. Erect and maintain temporary markers around all vertical risers and monitoring wells.
- 2. Do not excavate with a 5 ft diameter of all pipes, unless otherwise indicated or directed.
- 3. Where excavation is required, hand clear and excavate to minimize disturbance to structures.

4. Repair or replace vertical risers and monitoring wells that are damaged by construction operations, in a manner approved by the Owner or Engineer at the Contractor's expense.

3.4 SITE CLEARING

A. Clearing and Grubbing:

1. Clear from within limits of construction all trees marked for removal.
 - a. Include shrubs, brush, downed timber, rotten wood, heavy growth of grass and weeds, vines, rubbish, structures and debris in areas marked for clearing and grubbing.
2. Grub (remove) from within limits of construction all stumps, roots, root mats, logs, and debris encountered.
3. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction. Removal includes digging out stumps and obstructions and grubbing roots.
4. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
5. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
6. Grind stumps and completely remove roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade.
7. Use only hand methods for grubbing within drip line of remaining trees.
8. Chip removed tree branches and dispose of off-site.
9. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earth moving is indicated.
10. Place fill material in horizontal layers not exceeding a loose depth of 8 inches and compact each layer to a density equal to adjacent original ground.

B. Disposal of Waste Materials:

1. Do not burn combustible materials on site.
2. Remove all waste materials from site.
3. Do not bury organic matter on site.
4. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials and waste materials including trash and debris, and legally dispose of them off Owner's property.
5. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 31 10 00

SECTION 31 22 00 - SITE GRADING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Earthwork - site excavation, grading, compaction, disposal of waste and surplus materials, construction of temporary berms or pilot channels, dewatering and other Earthwork related work.

B. Related Specification Sections include but are not necessarily limited to:

1. Section 01 41 26 – Stormwater Pollution Prevention Plan and Permit.
2. Section 01 57 05 – Temporary Controls.

1.2 QUALITY ASSURANCE

A. Referenced Standards:

1. ASTM International (ASTM):
 - a. C33, Standard Specification for Concrete Aggregates.
 - b. D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 FT-LBF/CUFT).
 - c. D1241, Standard Specification for Material for Soil-Aggregate Subbase, Base, and Surface Courses.
 - d. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 FT-LBF/CUFT (2,700 kN-M/M)).
 - e. D2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
 - f. D3786, Standard Test Method for Bursting Strength of Textile Fabrics--Diaphragm Bursting Strength Tester Method.
 - g. D4253, Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.
 - h. D4254, Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.
 - i. D4632, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.
2. American Association of State Highway and Transportation Officials (AASHTO)
 - a. M 43, Standard Specification for Sizes of Aggregate for Road and Bridge Construction.
 - b. M 57, Standard Specification for Materials for Embankment and Subgrades.
 - c. M 147, Standard Specification for Materials for Aggregate and Soil-Aggregate Subbase, Base, and Surface Courses.
3. Federal Regulations:
 - a. Occupational Safety and Health Administration (OSHA):
 - 1) 29 CFR Part 1926.650, Occupational Safety and Health Standards, referred to herein as OSHA Standards.

1.3 DEFINITIONS

A. Excavation:

1. Consists of removal of material encountered to subgrade or rough grade elevations required or indicated.
2. Includes excavation of soils; debris, riprap, trash and other obstructions visible on surface; underground structures, utilities, and other items indicated to be demolished and removed.

- B. Non-Structural Fill/Backfill: Soil materials placed and compacted to achieve finish grade elevations that do NOT support foundations, slabs, paving, or other flatwork.
- C. Finish Grade: The earth or soil layer immediately below the surfacing material of the site.
- D. Rough Grade: The earth or soil layer immediately below the finish grade surface.
- E. Subgrade: The earth or soil layer immediately below foundation bearing elevation, subbase material, fill material, backfill material, or topsoil materials.
- F. Unauthorized Excavation:
 - 1. Consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of the Owner or Owner's Representative.
 - a. Unauthorized excavation, as well as associated remedial work as directed by the Owner or Engineer, shall be at Contractor's expense.

1.4 SUBMITTALS

- A. Product Data:
 - 1. Receipt of validated disposal tonnage and fees for each landfill delivery.
 - 2. Acknowledgement that products submitted meet requirements of the referenced standards.
 - 3. Manufacturer's installation instructions.
 - 4. Certifications.

1.5 PROJECT CONDITIONS

- A. Salvageable Items: Carefully remove items to be salvaged, and store on Owner's premises unless otherwise directed.
- B. Dispose of waste materials, legally, off site.
 - 1. Burning, as a means of waste disposal, is not permitted.
 - 2. Waste material to be hauled to an approved Minnesota Pollution Control Agency (MPCA) industrial landfill site or other approved site.
 - 3. List of approved Municipal Solid Waste landfills that can accept contaminated sediment are listed at this webpage:
 - a. [Minnesota Landfills Accepting Mixed Municipal Solid Waste](#)
- C. Site Information:
 - 1. Data in the as-built pond construction plans and September 2025 topographic survey was used for the basis of the design.
 - a. Conditions are not intended as representations or warranties of accuracy or continuity between topographic data sources.
 - b. The Owner or Engineer will not be responsible for interpretations or conclusions drawn from this data by Contractor.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Riprap: See Section 31 37 00.
- B. Geotextile Filter Fabric: See Section 31 37 00.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Erosion Control:
 - 1. See Specification Sections 01 41 26 – Stormwater Pollution Prevention Plan and Permit and 01 57 05 – Temporary Controls.

2. Clean paved roadways immediately following any spillage of dirt, rocks or debris from vehicles and equipment entering or leaving site.
 3. Conduct work to minimize erosion of site. Remove eroded material washed off site.
 - a. If necessary or requested by Owner or Owner's Representative, construct stilling areas to settle and detain eroded material.
- B. Protect existing surface and subsurface features on-site and adjacent to site as follows:
1. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing items indicated to remain in place.
 2. Protect and maintain benchmarks, monuments or other established reference points and property corners.
 - a. If disturbed or destroyed, replace at own expense to full satisfaction of Owner and controlling agency.
 3. Verify location of utilities.
 - a. Omission or inclusion of utility items does not constitute nonexistence or definite location.
 - b. Secure and examine local utility records for location data.
 4. Maintain free of damage, existing walkways and structures not indicated to be removed.
 - a. Protect new and existing structures, utilities, walkways, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
 - b. Any item known or unknown or not properly located that is inadvertently damaged shall be repaired to original condition.
 - c. All repairs to be made and paid for by Contractor.
 5. Provide full access to public and private premises, fire hydrants, and other points as designated by Owner or Owner's Representative to prevent serious interruption of travel.
 6. Maintain stockpiles and excavations in such a manner to prevent inconvenience or damage to structures on-site or on adjoining property.
 7. Temporary stockpiling of materials within excavation boundaries is permissible.
 8. Avoid surcharge or excavation procedures which can result in heaving, caving, or slides.
- C. Protection of trees to remain:
1. Coordinate with Owner or Owner's Representative to identify existing trees that require protection prior to construction activities.
 2. Perform excavation by hand within dripline of large trees designated on Drawings or identified by Owner or Owner's Representative to remain. Protect root systems from damage or dry out to the greatest extent possible.
 3. Maintain moist condition for root system and cover exposed roots with moistened burlap.

3.2 SITE EXCAVATION AND GRADING

- A. The site excavation and grading work includes the offsite disposition of all material:
1. That exceed quantities required for earthwork on the project.
 2. That the Engineer or Owner classifies as unclassified excavation.
 3. That the Engineer or Owner classifies as unacceptable.
 4. That the Engineer or Owner classifies as potentially contaminated.
- Borrow:
5. Provide necessary amount of approved fill compacted to density equal to that indicated in this Specification.
 6. Include cost of all borrow material in original proposal.
 7. Fill material to be approved by Engineer or Owner's Representative prior to placement.

- B. Construct embankments and fills as required by the Contract Drawings:
1. Construct embankments and fills at locations and to lines of grade indicated.
 - a. Completed fill shall correspond to shape of typical cross section or contour indicated regardless of method used to show shape, size, and extent of line and grade of completed work.
 2. Provide approved fill material which is free from roots, organic matter, trash, frozen material, and stones having maximum dimension greater than 6 IN.
 - a. Ensure that stones larger than 4 IN are not placed in upper 6 IN of fill or embankment.
 - b. Do not place material in layers greater than 8 IN loose thickness.
 - c. Place layers horizontally and compact each layer prior to placing additional fill.
 3. Compact soils as required to obtain specified density. Selection of appropriate equipment is the Contractor's responsibility.
 - a. In general, compact cohesive soils by sheep'sfoot, and granular soils by pneumatic rollers, vibrators, or by other equipment as required to obtain specified density.
 - b. Control moisture for each layer necessary to meet requirements of compaction.
- C. Grading Tolerances: ± 0.1 FT.

3.3 USE OF EXPLOSIVES

- A. Blasting with any type of explosive is prohibited.

3.4 COMPACTION DENSITY REQUIREMENTS

- A. Obtain approval from Engineer or Owner's Representative with regard to suitability of soils and acceptable subgrade prior to subsequent operations.
- B. Remove frozen, loose, wet, or soft material and replace with approved material as directed by Engineer or Owner's Representative.
- C. Stabilize subgrade with well graded granular materials as directed by Engineer or Owner's Representative.
- D. Assure by results of testing that compaction densities comply with the following requirements:
1. Sitework:

LOCATION	COMPACTION DENSITY	MOISTURE CONTENT
Inside of structures under foundations and scarified existing subgrade under fill material	98% per ASTM D698	-2 to +2% of optimum
Outside structures, next to walls, and any other structure exterior member	95% of ASTM D698	-2 to +2% of optimum

3.5 FIELD QUALITY CONTROL

- A. All excavation, trenching, and related sheeting, bracing, etc. shall comply with the requirements of OSHA standards 29 CFR Part 1926.650 Subpart P, and state requirements. Where conflict between OSHA and state regulations exists, the more stringent requirements shall apply.
- B. Special Inspection and testing:
- C. Responsibilities of Special Inspector:
1. Review proposed materials for fill and backfill around structures.
 2. All testing, observation and work indicated in this Specification Section.
 3. Services will include verification and documentation of satisfactory soil materials, subgrade quality, sampling, placement, moisture conditioning, compaction and testing of proposed soil materials, and field testing for quality control.
 4. Moisture density relations required for all materials to be compacted.

5. Extent of compaction testing will be as necessary to assure compliance with specifications.
 6. Prepare and submit inspection and test reports to the Engineer or Owner's Representative.
 - a. Coordinate such work with other Special Inspectors.
 7. Test reports to include the following:
 - a. Report and certification of aggregate fill and drainage fill.
 - b. Test reports on borrow material.
 - c. Verification of suitability of each footing subgrade material, in accordance with specified requirements.
 - d. Field reports; in-place soil density and moisture tests.
 - e. One optimum moisture-maximum density curve for each type of soil encountered.
 - f. Report of actual unconfined compressive strength and/or results of bearing tests of each strata tested.
 - g. Other documentation necessary for Engineer or Owner to approve earthwork.
 - h. Assist Engineer or Owner to determine corrective measures necessary for defective work.
- D. Responsibilities of Testing Agency for Site Excavation and Grading:
1. All testing, observation and work indicated as being performed by the Owner or Owner's Representative in other than Article 3.5 of this Specification Section.
 2. Services will include verification and documentation of satisfactory soil materials, subgrade quality, sampling, placement, moisture conditioning, compaction and testing of proposed soil materials, and field testing for quality control.
 3. Moisture density relations required for all materials to be compacted.
 4. Extent of compaction testing will be as necessary to assure compliance with specifications.

END OF SECTION 31 22 00

SECTION 31 23 19

DEWATERING

SECTION 31 23 19 - DEWATERING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Dewatering system.
 - 2. Surface water control system.
 - 3. Monitoring wells.
 - 4. System operation and maintenance.
 - 5. Water disposal.
- B. Related Specification Sections include but are not necessarily limited to:
 - 1. Section 01 41 26 – Stormwater Pollution Prevention Plan and Permit
 - 2. Section 01 57 05 - Temporary Controls.
 - 3. Section 31 22 00 - Site Grading.

1.2 DEFINITIONS

- A. Dewatering:
 - 1. Lowering of groundwater table and intercepting horizontal water seepage to prevent groundwater from entering excavations and, trenches.
 - 2. Disposing of removed water.
- B. Surface Water Control:
 - 1. Removal of surface water within open excavations.
- C. Foundations:
 - 1. Footings, base slabs, foundation walls, mat foundations, grade beams, and any other support placed directly on soil.

1.3 PRICE AND PAYMENT PROCEDURES

- A. Measurement and Payment:
 - 1. Dewatering of excavations is part of the Work associated with excavating and temporary control of water and water pollution. Include costs for dewatering of excavations under bid/pay items for water handling and related Work. No separate payment will be made for dewatering of excavations or temporary control of water and water pollution.

1.4 SUBMITTALS

- A. Water Handling Plan:
 - 1. Submit to Engineer for approval at least 5 days before Work commences.
 - 2. Dewatering plan design data and Drawings including the following:
 - a. Proposed type of dewatering system with complete description of equipment and instrumentation to be used at each Site.
 - b. Arrangement, locations, and depths of system components.
 - c. Pipe sizes and capacities.
 - d. Filter types and sizes.
 - e. Water disposal method and location.

- f. Surface water control devices.
 - g. System operation, monitoring, and maintenance procedures.
 - h. Method of monitoring water quality.
 - i. Signed and sealed by Professional Engineer licensed in the State of Minnesota.
3. Product technical data including:
- a. Dewatering pump data including the following:
 - 1) Size, capacity, and means of operation of engine and motor.
 - b. Pumping equipment for control of surface water within excavation.

1.5 ENVIROMENTAL REQUIREMENTS

- A. Control water in compliance with all applicable local, State, and Federal stream discharge and pollution requirements.
- B. As indicated in Section 01 41 26 – Stormwater Pollution Prevention Plan and Permit, obtain and implement a Stormwater Pollution Prevention Plan (SWPPP) as required by the Minnesota Pollution Control Agency (MPCA) under the National Pollutant discharge Elimination System/State Disposal System (NPDES/SDS).
- C. Obtain any permits required to carry out the activities outlined in this Section of the Specifications.

PART 2 - PRODUCTS

2.1 DEWATERING EQUIPMENT

- A. Select dewatering equipment to meet specified performance requirements.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Erosion Control:
 - 1. See Specification Section 01 57 05 – Temporary Controls.
 - 2. Clean paved roadways daily of any spillage of dirt, rocks or debris from vehicles and equipment entering or leaving site.
 - 3. Conduct work to minimize erosion of site. Remove eroded material washed off site.
 - a. If necessary or requested by Owner's Representative, construct stilling areas to settle and detain eroded material.
- B. Protect existing surface and subsurface features on-site and adjacent to site as follows:
 - 1. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing items indicated to remain in place.
 - 2. Protect and maintain benchmarks, monuments or other established reference points and property corners.
 - a. If disturbed or destroyed, replace at own expense to full satisfaction of Owner and controlling agency.
 - 3. Verify location of utilities.
 - a. Omission or inclusion of utility items does not constitute nonexistence or definite location.
 - b. Obtain and examine local utility records for location data.
 - c. Take necessary precautions to protect existing utilities from damage due to any construction activity.
 - 1) If utilities are indicated to remain in place, provide adequate means of support and protection during earthwork operations.

- 2) Do not interrupt existing utilities serving facilities occupied by Owner or others, during occupied hours, except when permitted in writing by Owner and then only after acceptable temporary utility services have been provided.
- 3) Obtain Owner's approval prior to disconnecting any utility service.
- d. Repair damages to utility items at own expense.
- e. In case of damage, notify the Owner and Owner's Representative at once so required protective measures may be taken.
4. Maintain free of damage, existing walkways and structures not indicated to be removed.
 - a. Protect new and existing structures, utilities, walkways, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
 - b. Any item known or unknown or not properly located that is inadvertently damaged shall be repaired to original condition.
 - c. All repairs to be made and paid for by Contractor.
5. Provide full access to public and private premises, fire hydrants, and other points as designated by Owner or Owner's Representative to prevent serious interruption of travel.

3.2 TEMPORARY DEWATERING DURING CONSTRUCTION

A. Performance Criteria:

1. Provide and maintain adequate drainage and dewatering equipment to remove and dispose of all surface water and ground water entering excavations, or other parts of the Work and work areas. Keep each excavation dry during excavation, subgrade preparation, and continually thereafter until temporary dewatering system is no longer required, in accordance with Article 3.3 of this Section.

B. Related Work:

1. Provide temporary erosion and sediment controls in accordance with Section 01 57 05 - Temporary Controls.
2. Comply with Section 01 57 05 - Temporary Controls, regarding control of surface water, storm water runoff, water pollution, air pollution, noise, and others as applicable.
3. Comply with Section 01 41 26 - Stormwater Pollution Prevention Plan and Permit.

C. Temporary Dewatering Systems - General:

1. Design, provide, operate, and maintain temporary systems for dewatering of excavations in accordance with the Contract Documents, Laws and Regulations, and prevailing practice typical in the industry. In the event of conflict between such requirements, obtain interpretation or clarification from Engineer before proceeding.
2. Temporary dewatering systems, may include the following temporary elements: swales, sumps, pumps, hoses, piping, wells (whether dewatering wells, monitoring wells, or other wells), and similar facilities.
3. Furnish, either at the Site or within reasonably close proximity thereto, available standby items, such as pumps, piping, hoses, instrumentation, controls, and others, should elements of operating temporary dewatering system fail.
4. Locate elements of temporary dewatering systems to allow continuous dewatering operation without interfering with the Work, and the work of other contractors (if any), to the extent practicable.

D. Disposal of Water Removed by Dewatering System:

1. Water conveyed by temporary dewatering systems that includes oils, sediments, or Constituents of Concern that will reduce the quality of surface water or groundwater downstream of the point of discharge, shall not be directly discharged. Divert such waters through temporary settling basin, or filters before discharging to surface water, groundwater, or drainage routes.

2. Temporary dewatering systems shall not discharge across roadways, driveways, parking areas, other travelled ways, sidewalks, or overland across other property adjacent to the Site. Where hoses that are part of temporary dewatering system discharge to existing gutters or swales, such discharge shall not exceed capacity of such swales and gutters especially during precipitation and runoff events.
3. Contractor's temporary dewatering systems shall discharge to location at or adjacent to the Site acceptable to Owner and Engineer, as indicated on the Drawings, and in accordance with Laws and Regulations.
4. Convey water from excavations in closed conduits or appropriate drainage swales. Do not use trench excavations as temporary drainage ditches.
5. Dispose of water removed from excavations in a manner that does not endanger health and safety, property, the Work, and other portions of the Project.
6. Dispose of water in manner that causes no inconvenience to Owner, others involved in the Project, and adjacent and downstream property owners and occupants.

3.3 OPERATION, MAINTENANCE, AND REMOVAL OF TEMPORARY DEWATERING SYSTEMS

A. Operation and Maintenance of Temporary Dewatering Systems:

1. Contractor shall operate temporary dewatering systems continuously, 24 hours per day, seven days per week, until such system is no longer necessary or required.
2. Not less than once per work shift, visit and visually inspect temporary dewatering system, operating components, including pumps, instrumentation, and controls, and verify proper operation. At the same time, visually observe discharge location of temporary dewatering systems to verify operations. Establish and maintain written records of each location checked, observations made, readings and data taken or recorded (if any), and furnish copies of such records to Engineer upon request.
3. Contractor shall be responsible for condition of piping, conduits, and channels used for drainage and such piping, conduits, and channels shall be clean and free of oils, sediments, and Constituents of Concern.
4. Provide temporary electricity, temporary fuel, and other temporary facilities as necessary.
5. Perform pumping of water from excavations in a manner that prevents carrying away of unconsolidated concrete materials, and that avoids damaging the subgrade.
6. During construction, Contractor shall maintain all materials, equipment, and systems used for temporary dewatering regardless of whether such items were provided by Contractor or existed prior to commencement of temporary dewatering, in accordance with operating instructions and recommendations of manufacturer of the associated equipment and systems, Laws and Regulations, the Contract Documents, and practice typical in the industry. Perform routine, preventative, and troubleshooting maintenance. Where temporary dewatering system fails or becomes inoperable, immediately remedy the situation, whether by appropriate repairs or operation of standby equipment.

B. Criteria for Discontinuation of Temporary Dewatering Operations:

1. Operate and maintain temporary dewatering systems until all excavation is completed to a sufficient extent and has achieved structural strength and integrity sufficient for discontinuation of operation of temporary dewatering systems.
2. Do not discontinue dewatering operations without first obtaining Engineer's concurrence for such discontinuation.
3. Shut off dewatering system at such a rate to prevent quick upsurge of water that might weaken the subgrade.

C. Removal of Temporary Dewatering Systems:

1. When temporary dewatering system is permanently deactivated, remove from the Site all elements of temporary dewatering system unless Owner (through Engineer) approves temporary dewatering system's, or part thereof, continuing existence at the Site after final payment.

2. Restore disturbed areas in accordance with the Contract Documents. Where the Contract Documents do not indicate requirements for restoration, restore such areas in accordance with Section 01 71 33 - Protection of the Work and Property.

END OF SECTION 31 23 19

SECTION 31 37 00

RIPRAP

SECTION 31 37 00 - RIPRAP

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Stone revetment (riprap) for protection of slopes and drainage ways against erosion.
 - a. Channel protection.
 - b. Embankment protection.
 - c. Culvert outlets.
- B. Related Specification Sections include but are not necessarily limited to:
 - 1. Section 31 22 00 – Site Grading.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
 - 1. ASTM International (ASTM):
 - a. C127, Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate.
 - b. D3744/D3744M, Standard Test Method for Aggregate Durability Index.
 - c. D5312/D5312M, Standard Test Method for Evaluation of Durability of Rock for Erosion Control Under Freezing and Thawing Conditions.
 - d. D5313/D5313M, Standard Test Method for Evaluation of Durability of Rock for Erosion Control Under Wetting and Drying Conditions.
 - e. D5519, Standard Test Methods for Particle Size Analysis of Natural and Man-Made Riprap Materials.

1.3 SUBMITTALS

- A. Shop Drawings:
 - 1. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.
 - 2. Certifications.
 - 3. Test reports.
 - 4. Submit all tests and certification in a single coordinated submittal.
 - a. Partial submittals will not be accepted.
 - 5. Delivery tickets including quantity of riprap and aggregate bedding.

PART 2 - PRODUCTS

2.1 MATERIALS

Riprap shall be made up of durable angular quarry stone. Recycled Portland Cement Concrete (RPCC) is not allowed.

- A. Individual stones making up the riprap shall be resistant to weathering and shall not contain cracks, non-mineralized defects, shale, unsound sandstone, or organic material.
- B. Do not use thin, slab-like pieces. Neither the width nor thickness of any stone shall be less than one-third of the stone's length.

C. Gradation of the Material:

1. Riprap shall have the following gradations conforming to Minnesota DOT Section 3601 Stone and Brick Table 3601.2-1 Random Riprap Gradation Requirements.
 - a. Type II gradation for riprap placed at the Arlington-Arkwright outlet spillway protection.
 - b. Type III gradation for riprap placed at culverts with pipe diameters less than 42 inches.
 - c. Type IV gradation for riprap placed at culverts with pipe diameters greater than or equal to 42 inches and the Arlington-Arkwright emergency spillway protection.

2.2 MATERIAL QUALITY CONTROL

A. Aggregate Bedding:

1. The material making up the aggregate bedding shall not weigh less than 135 LBS/CUFT (saturated surface dry). The material shall be composed of tough durable particles free of organic matter, soft material, and friable particles. The aggregate bedding shall have the following gradation:
 - a. Minnesota DOT Granular Filter Under Other Riprap, gabion, and Revet Mattress section 3601 meeting sizing requirements described in Table 3601.2-2 Granular Filter Material.

B. Riprap:

1. Riprap material quality shall be evaluated using the following method:
 - a. Specific rock properties:
 - 1) Quarry rock tests completed on rock that is representative of the material to be used on the project may be submitted for review if the testing was completed by a reputable testing company for State or Federal agency certification purposes within the last five years. The material testing requirements are as follows:

C. Geotextile:

1. Geotextile Filter Material shall meet the following criteria described in Minnesota DOT 3733 Geosynthetic Materials.

PART 3 - EXECUTION

3.1 MATERIAL ACCEPTANCE

- A. Final acceptance is determined at the in-place riprap installation which shall consist of a homogenous mass with a distribution of rock sizes that meets the specified gradation. Riprap transport, handling, and placement methods shall not cause breakage of individual rocks or segregation of riprap gradation.
- B. Rock quality shall be determined at the quarry. Stone with a coloration or appearance dissimilar to the accepted material shall be rejected.
- C. A representative gradation sample shall be located adjacent to the stockpile locations at both the quarry and project stockpile area for the duration of the project.
- D. Arriving loads of material not bearing reasonable similarity to the representative gradation sample shall be rejected. The Contractor may arrange for gradation measurements of rejected loads at the project site. If the analysis proves the rejected stone meets the project requirements, then the Contractor shall be reimbursed for the gradation measurements.
- E. The representative gradation sample must be of adequate size to demonstrate compliance with the specified gradation. The Contractor may use test Method A or B as defined in ASTM D5519 to determine the gradation. The minimum sample size shall be 20 times the largest individual stone of the gradation, unless a smaller sample size is approved by the Owner.

- F. The gradation test shall be performed by the Contractor or qualified geotechnical testing company, with the Owner or Owner's Representative present, for each class of installed riprap and repeated for every 50,000 tons of placed material. If the gradation of installed riprap is questioned, then the Owner's Representative may use ASTM D5519 Test Method D to determine if the installed material meets the specification.
- G. The riprap gradation shall be produced at the quarry and shall not be accomplished by mixing at the project site.
- H. The representative gradation sample may be incorporated into the project during final placement upon notification and approval by the Owner's Representative.

3.2 STOCKPILE AREAS

- A. Riprap stockpiles shall be a maximum of 12 FT high and placed so rock does not roll down the slope. The stockpile areas shall have a compacted surface with a minimum 6 IN thick sand-clay-gravel or crushed stone pad to provide for storage of riprap without fines being introduced to the riprap gradation. Any riprap or stone which has become contaminated with topsoil, fines, or debris shall not be used unless the contaminating material has been removed from the riprap prior to placement at no additional cost to the Owner. Stockpiles shall not be placed within 10 FT of the crests of slopes or excavations.

3.3 PLACEMENT

- A. Provide at least 24 HR notice for the Owner or Owner's Representative to review the work in the field including the subgrade, geotextile fabric, and aggregate bedding. Do not place any geotextile fabric, aggregate bedding, or stone material on prepared base prior to the Owner or their Owner's Representative review. Placement of bedding, fabric, or riprap on ice or snow is not permitted.
- B. Subgrade:
 - 1. Compact fill areas to density specified for backfill in accordance with Specification Section 31 22 00 – Site Grading.
 - 2. Grade subgrade to elevations indicated in the plans within plus or minus 0.1 FT in dry areas and ± 0.3 FT in areas that are underwater and do not require dewatering for construction.
 - 3. The subgrade shall be smooth and free of topsoil, organic material, roots, sticks, debris, yielding material or other materials that would prevent meeting the specified subgrade elevation tolerance.
- C. Aggregate Bedding:
 - 1. Place aggregate bedding only after inspection of the subgrade by Owner or Owner's Representative.
 - 2. Finished top of bedding elevations shall be ± 0.1 FT in dry areas and $+0.1$ FT or -0.3 FT in areas below water that do not require dewatering for construction. The extreme of any elevation or thickness tolerance shall not be continuous over an area greater than two hundred square feet. Any difference in aggregate bedding layer shall not result in a thinner than the specified riprap thickness or additional payment volumes unless approved by the Owner's Representative.
 - 3. Place granular bedding material to the lines and grades shown on the Drawings.
 - 4. Compaction of the granular bedding is not required, but the material shall be finished to an even surface.
 - 5. The bedding materials shall not be contaminated with soils, debris or vegetation. If contaminated, the bedding material shall be removed and replaced at the Contractor's expense.
 - 6. Placement of riprap shall be completed in a timely manner, after placement of bedding material to avoid loss of bedding material over time or material erosion.
 - 7. Maintain the bedding material until the riprap is in place.
- D. Aggregate Filter:

1. Place the aggregate filter only after inspection of the subgrade by Owner or Owner's Representative.
2. Place aggregate filter material to the lines and grades shown on the drawings.
3. The finished top of the aggregate filter shall be ± 0.1 FT in dry areas and $+0.1$ FT or -0.3 FT in areas below water that do not require dewatering for construction. The extreme of any elevation or thickness tolerance shall not be continuous over an area greater than two hundred square feet. Any difference in the aggregate filter layer shall not result in a riprap thickness thinner than specified unless approved by the Owner's Representative.
4. Compaction of the aggregate filter material is not required, but the material shall be finished to an even surface.
5. The filter materials shall not be contaminated with soils, debris or vegetation. If contaminated, the filter material shall be removed and replaced at the Contractor's expense.
6. Placement of riprap shall be completed in a timely manner, after placement of the aggregate filter to avoid loss of the filter material over time or material erosion.
7. Maintain the aggregate filter material until the riprap is in place.

E. Riprap:

1. Place riprap on prepared bedding only after the Owner or Owner's Representative has reviewed the work.
2. Place riprap on prepared foundation per line and grade shown on the plans. The riprap thickness tolerance is $+0.5$ FT and -0 FT as measured over an area of 200 SQFT when placed in the dry, and 400 SQFT when placed underwater.
3. Riprap material shall be placed to result in a homogenous mass with a minimum of voids. Rearranging of individual rock may be required to obtain a suitable distribution of rock sizes.
4. Riprap placement methods shall not result in the following: cause breakage of individual rocks, result in segregation of riprap gradation, result in introduction of fines, or impact the filter material.
5. Individual stones making up the riprap shall not be dropped from a height greater than 1 FT.
6. When placing riprap on a slope, start placement from the bottom of slope and proceed to top of slope.
7. Place rock to full thickness in a single operation to avoid displacing the underlying material.
8. The top of riprap shall match adjoining grades and allow for positive drainage.
9. Maintain the riprap until acceptance at project completion.

END OF SECTION 31 37 00

END OF SECTION



DIVISION 32

EXTERIOR IMPROVEMENTS



SECTION 32 92 19 - SEEDING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Temporary Stabilization.
 - 2. Preparation for Seeding.
 - 3. Hydroseeding.
 - 4. Native grass seeding.
- B. Related Sections:
 - 1. Section 31 22 00 - Site Grading.

1.2 SUBMITTALS

- A. Product Technical Data including:
 - 1. Erosion control blankets, tackifier, and other accessories.
 - 2. Manufacturer's installation instructions.
 - 3. Signed copies of vendor's statement for seed mixture required, stating botanical and common name, place of origin, stain, percentage of purity, percentage of germination, and amount of Pure Live Seed (PLS) per bag.
- B. Certification that each container of seed delivered will be labeled in accordance with Federal and State Seed Laws and equals or exceeds Specification requirements.

1.3 SEQUENCING AND SCHEDULING

- A. Installation Schedule:
 - 1. Show schedule of when grass areas are anticipated to be planted
 - 2. Indicate seeding schedules in relation to schedule for substantial completion of sediment removal and Site preparation.
 - 3. Indicate anticipated dates Engineer will be required to review installation for initial acceptance and final acceptance.
- B. Pre-Installation Meeting
 - 1. Meet with Engineer and other parties as necessary to discuss schedule and methods, unless otherwise indicated by Engineer.

1.4 EQUIPMENT CLEANING

- A. Hydro-Mulch/Seeding Equipment Cleaning: All hydro-seeding/mulching equipment used at the Site will be free of all mud, seed, and mulch materials when they enter the Site. At a minimum all equipment including tanks, trailers, and all associated hydro-mulching parts will be triple rinsed with clean water. The Contractor is responsible for inspecting and removing any seed or fibers from the interior of the hydro seeding equipment. This will require the Contractor to use proper OSHA safety procedures to physically inspect the enclosed interior space of the hydro-seeding equipment tank and all of its parts. This type of inspection is necessary to assure no foreign seed is brought into the Site.

1.5 QUALITY ASSURANCE

- A. Referenced Standards:
 - 1. Minnesota Department of Transportation Seeding Manual, 2024 Edition (Mn/DOT)
 - 2. Mn/DOT Standard Specifications for Construction, 2025 Edition.

3. American Nursery and landscape Association/American National Standards Institute (ANLA/ANSI).
 - a. Z60, American Standard for Nursery Stock
4. AOAC International (AOAC).
5. United States Department of Agriculture (USDA):
 - a. Federal Seed Act (53 Stat. 1275). Rules and Regulations

1.6 QUALIFICATIONS

- A. Installer: Company specializing in performing work of this section with minimum 5 years documented experience.

1.7 ACCEPTANCE

- A. Successful germination of seed must be achieved prior to Owner or Engineer's notice of Final Completion. When seeding is part of the Work and in the event the Contractor cannot meet the seeding windows identified in Part 3 – Execution of this Section, the Contractor shall consult with the Engineer to determine an alternative course of action.

1.8 ESTABLISHMENT PERIOD

- A. The Seed Establishment Period extends 60 growing days from written notice of final completion (exclusive of days between fall freeze – April 15) or until seed is fully established.
- B. Conditions of acceptance include:
 1. Planted seed shall have robustly-germinated with seedlings spaced an average of 1" from plant center to plant center, uniformly establishing 80% opacity across the turf area.
 2. The maximum void between seedlings shall be 4 inches square.
 3. Seed shall be fully rooted with no dead or apparently-stressed voids larger than 4 inches square.
 4. Eroded gullies or runnels are not present in seeding area.
 5. Erosion control has been removed and areas restored.
- C. Contractor shall notify Engineer when they believe Seed Establishment Period is ready for acceptance. Engineer shall have five days after Contractor notification to accept or extend Turf Establishment Period.
- D. Seed replacements to achieve conditions of acceptance at the end of one Seed Establishment Period shall be subject to an additional Seed establishment Period.

1.9 SEED WARRANTY

- A. The Contractor warrants successful seed establishment as previously defined in in paragraph 1.8.B for a period which includes at least two full growing seasons (May 1 – October 31) after seeding and planting is complete.
- B. Reseed and otherwise correct work which does not meet the Conditions and Coverage standards during and at the end of the Warranty period, without cost to the Owner.
 1. Perform corrective work in conformance with the requirements of this specification.
 2. Corrective work may extend warranty period if coverages are not in compliance with coverages listed above.

PART 2 - PRODUCTS

2.1 SEED MIXTURE

- A. Seed shall be delivered to the site in the original packaging of the manufacturer. Each package shall clearly identify the dealer's guarantee as to the year grown, percent composition by weight, percent of purity, percent of age of germination and the date of the test by which the percentage of purity and germination were determined.
- B. Seed shall be purchased from Mn/DOT Approved Seed Vendors.

1. <https://www.dot.state.mn.us/environment/erosion/certifiedvendors.html>

- C. All seed shall conform to requirements of latest seed laws of the state, including those governing weed seed tolerances. Also, the seed shall conform to the purity and germination requirements by Mn/DOT Standard Specification 3876, current edition. Labels from all seed packages shall be delivered to the Owner's Representative at the end of each working day.
- D. The seed mix as shown on the Drawings shall be the following:
 - 1. Mn/DOT Southern Boulevard Mix
 - 2. Mn/DOT Wet Ditch Mix

2.2 SEED BLANKET

- A. Seed blanket shall conform to Mn/DOT Standard Specification 3885, Category 20 medium-duty two-sided natural net straw blanket.
 - 1. Erosion control blankets may be installed over frozen ground. However, 6-inch long nails with washers shall be used to anchor the blanket in lieu of staples.

2.3 MULCH (WEED FREE)

- A. Provided certified weed free mulch conforming to Mn/DOT Standard Specification 3882.2B, Type 3 Mulch.

2.4 HYDRO-MULCH

- A. For ground conditions above freezing, provide hydraulically applied erosion control products conforming to Mn/DOT Standard Specification 3884.2B.1, Organic Fiber Matrix (OFM).
- B. For frozen ground conditions, the application requires exposed soils and a high performance mechanically bonded fiber matrix.
 - 1. Provide hydraulically applied erosion control products conforming to Mn/DOT Standard Specification 3884.2B.4, Bonded Fiber Matrix (BFM).

2.5 EMULSION TACKIFIERS

- A. Non-asphalt emulsions having a water soluble, natural guar gum base (or equivalent), blended with dispersal and hardening agents. All ingredients are non-toxic, 100% environmentally safe and natural and biodegradable. The emulsion can be used with a variety of mulch types or fibers. The emulsion shall have good cover and adherence to soil. The cured product has high resistance to wind and rain drop impacts.
- B. Apply at the manufactures recommended rate consistent with the conditions at the desired location. Mulch and tackifier must be applied per manufacturer's requirements for steep slope stabilization with a functional longevity greater than or equal to, 12 months.

2.6 ACCESSORIES

- A. Water: Clean, fresh, and free of substances or matter capable of inhibiting vigorous growth of grass.
 - 1. Water for seeding and all landscaping shall be obtained by the Contractor and at the Contractor's expense.
- B. Hydro-Mulching/Seeding Attachments: All hydro-mulching/seeding hoses shall be newly purchased for this project. Contractor shall submit receipts to Engineer prior to use.

2.7 PROHIBITED USE OF CHEMICALS

- A. The class of chemicals known as Neonicotinoids contained in some pesticides and the chemical known as Glyphosate, an ingredient in some formulations of Roundup are not allowed for use on the Project.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify prepared soil base is ready to receive the Work of this section. Final grading shall be in accordance with Specification Sections 31 22 00 – Site Grading.
- B. Before proceeding with work, notify the Engineer in writing of any unsuitable conditions.

3.2 TIME OF SEEDING

- A. Seeding activities may commence once substantial completion of sediment removal has been completed and approved by Engineer.
 - 1. Perform seeding work from April 20 to May 15 for spring planting, and August 1 to September 15 for fall planting, unless otherwise approved by Engineer.
 - a. Dormant seeding, snow seeding and other stabilization methods appropriate for Winter Season Work are acceptable outside of the seeding window described above upon written approval by Engineer.
 - b. Winter Season seeding will not relieve the Contractor from the warranty or the acceptance requirements specified elsewhere in this specification.

3.3 PREPERATION FOR SEEDING

- A. Notify the Engineer 24 hours prior to beginning seeding operations.
- B. The seedbed shall be free from subsoil, noxious weeds, stones, lime, concrete, ashes, slag or other deleterious matter and shall be well drained in its original conditions and free of toxic quantities of acid or alkaline elements.
- C. On all turf areas the soil shall be prepared as indicated above and brought to a smooth, well drained, evenly textured surface conforming to the grades shown on the Construction Drawings. The Contractor shall do finish grading until the soil is in a mellow condition to finish grade. All holes, depressions and rivulets shall be filled in and brought to a smooth grade to ensure no disruption of established drainage patterns.
- D. All rubble, sticks, branches or stones and extraneous material over ½" diameter on the surface which will interfere with a quality installation of the seed shall be picked up and removed.
- E. Grades are considered critical and shall be inspected and approved by the Owner and/or Engineer before seed is delivered to the site.
- F. Immediately prior to seed placement, scarify or till seedbed to a minimum depth of 3 inches. Repeat cultivation in areas where equipment has compacted sub-soil.

3.4 INSTALLATION

- A. Lawn-Type and Pasture Seeding:
 - 1. Do not use seed which is wet, moldy, or otherwise damaged.
 - 2. Employ satisfactory methods of sowing using mechanical power-driven drills or seeders, or mechanical hand seeders, or other approved equipment.
 - a. Immediately prior to seeding, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate.
 - b. Drill shall be checked at the end of each seeding pass to ensure even distribution of seed.
 - 3. Distribute seed evenly over entire area at rate recommended by seed supplier, 50% sown in one direction, remainder at right angles to first sowing. See shall be sown at approximately 1/8" to 1/4" deep and no deeper than 1/2" deep.
 - 4. Stop work when work extends beyond most favorable planting season for species designated, or when satisfactory results cannot be obtained because of drought, high winds excessive moisture, or other factors.
 - a. Resume work only when favorable conditions develop.

5. Lightly rake seed into soil followed by light rolling or cultipacking.
6. Immediately protect seeded areas against erosion with erosion control blanket, or by other methods approved by Engineer.
 - a. Install erosion control blanket in accordance with the manufacturer's specifications and recommendations.

B. Hydroseeding

1. Two Step Hydroseeding Method
2. Step 1: Use hydro-type equipment (must use centrifugal pump) capable of providing a uniform application using water as the carrying agent. Add 400 lbs. per acre of hydro-mulch consisting of wood cellulose fiber mulch as a tracer material to the water. The Contractor will ensure equipment is properly agitated for even distribution. Add the seed to the water slurry no more than 30 minutes before application.
 - a. Apply mulch and seeded slurry with hydraulic seeder at rate of 400 lbs. per acre on slopes less than 3H:1V. Apply at a rate of 400 lbs per acre on slopes greater than 3H:1V. Apply evenly and within project limits. Include seed in slurry so it will be spread at a rate of 200 seeds per square foot on all slopes.
 - b. Seed by hand areas inaccessible to seeding equipment, see standard below.
 - c. Do not use seed that has become wet, moldy, or otherwise contaminated or damaged.
3. Step 2: Using the same equipment, make a second pass, applying mulch only at the rate of 1500 lbs. per acre. On slopes greater than 3H:1V the second pass pf mulch should be made at a rate of 2000 lbs. per acre.
 - a. Mulch will be accepted when it uniformly covers the area being applied and is no less than ¼" thick at the time of application. Mulch applied to non-designated areas, such as roadways is to be cleaned immediately following application and will not be counted towards the total being applied.
4. After application, apply water with fine spray immediately after each area has been hydroseeded. Saturate to 4 inches of soil.
5. Do not seed areas in excess of that which can be stabilized on same day.
6. Do not spray immediately following rain, when ground is too dry, when winds are over 12 mph, or when rain is forecasted shortly after application.

C. Broadcast Method

1. If broadcast seeding method is used, ensure the broadcaster is equipped with an agitator that prevents seed from bridging or plugging.
2. Seed shall be broadcast twice over each area to insure even distribution.
3. Seeded areas shall be hand-raked or harrowed to the extent necessary to cover the seed with 1/8" to ¼" of soil.

3.5 SOIL STABILIZATION

- A. Contractor is responsible for implementing and maintaining permanent and temporary erosion control measures within prescribed seeding areas until vegetated cover has been established to the Owner's satisfaction.
- B. Straw mulch blanket shall be applied to all seeded areas in accordance with manufacturer's specifications and recommendations.

3.6 MAINTENANCE

- A. General:
 1. Begin maintenance of seeded areas immediately after each portion is seeded and continue until final acceptance or for a specific time period as stated earlier in this section, whichever is the longer.

2. Provide and maintain temporary piping, hoses, and watering equipment as required to convey water from water sources and to keep seeded areas uniformly moist as required for proper growth.
3. Protection of new materials:
 - a. Provide barricades, coverings or other types of protection necessary to prevent damage to existing improvements indicated to remain.
 - b. Repair and pay for all damaged items.
4. Replace unacceptable materials with materials and methods identical to the original specifications unless otherwise approved by the Engineer.
5. Engineer will review final acceptability of installed areas at end of maintenance period.
6. Maintain repaired areas until remainder of maintenance period or approved by Engineer, whichever is the longer period.

END OF SECTION 32 92 19