

\$2,175,727.17

BID OF Speedway Sand & Gravel, Inc.

2026

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

Cannonball Path Phase 6

CONTRACT NO. 7431

PROJECT NO. 10153

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL
MADISON, WISCONSIN ON Jul 7, 2026

CITY ENGINEERING DIVISION
1600 EMIL STREET
MADISON, WISCONSIN 53713

<https://bidexpress.com/login>

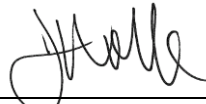
**CANNONBALL PATH PHASE 6
CONTRACT NO. 7431**

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This Proposal, and Agreement have
been prepared by:

**CITY ENGINEERING DIVISION
CITY OF MADISON
MADISON, DANE COUNTY, WISCONSIN**



James M. Wolfe, P.E., City Engineer

JMW: AC

SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

REQUEST FOR BID FOR PUBLIC WORKS CONSTRUCTION CITY OF MADISON, WISCONSIN

A BEST VALUE CONTRACTING MUNICIPALITY

PROJECT NAME:	CANNONBALL PATH PHASE 6
CONTRACT NO.:	7431
SBE GOAL	8%
BID BOND	5%
SBE PRE BID MEETING (2:00 P.M.)	06/04/26; See Pre Bid Meeting info below.
PREQUALIFICATION APPLICATION DUE (2:00 P.M.)	06/04/26
BID SUBMISSION (2:00 P.M.)	06/11/26
BID OPEN (2:30 P.M.)	06/11/26
PUBLISHED IN WSJ	05/28/26 & 06/04/26

SBE PRE BID MEETING: Pre-Bid Meetings are being held virtually. Advance registration is required. Visit the SBE Meeting web page on Engineering's web site:

<https://www.cityofmadison.com/engineering/developers-contractors/contractors/how-to-bid-public-works-contracts/small-business>.

Questions regarding SBE Program requirements may be directed to Tracy Lomax, Affirmative Action Division. Tracy may be reached at (608) 267-8634, or by email, TLomax@cityofmadison.com.

PREQUALIFICATION APPLICATION: Forms are available on our website, www.cityofmadison.com/engineering/developers-contractors/contractors/how-to-get-prequalified. If not currently prequalified in the categories listed in Section A, an amendment to your Prequalification will need to be submitted prior to the same due date. Postmark is not applicable.

BIDS TO BE SUBMITTED: by hand to 1600 EMIL ST., MADISON, WI 53713 or online at www.bidexpress.com.

Bids may be submitted on line through Bid Express or in person at 1600 Emil St. The bids will be posted on line after the bid opening. If you have any questions, please call Isaac Gabriel at (608) 267-1197, or Kyle Frank at (608) 266-9091.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2026 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

These standard specifications are available on the City of Madison Public Works website, www.cityofmadison.com/engineering/developers-contractors/standard-specifications.

The Contractor shall review these Specifications prior to preparation of proposals for the work to be done under this contract, with specific attention to Article 102, "BIDDING REQUIREMENTS AND CONDITIONS" and Article 103, "AWARD AND EXECUTION OF THE CONTRACT." For the convenience of the bidder, below are highlights of three subsections of the specifications.

SECTION 102.1: PRE-QUALIFICATION OF BIDDERS

In accordance with Wisconsin State Statutes 66.0901 (2) and (3), all bidders must submit to the Board of Public Works proof of responsibility on forms furnished by the City. The City requires that all bidders be qualified on a biennial basis.

Bidders must present satisfactory evidence that they have been regularly engaged in the type of work specified herein and they are fully prepared with necessary capital, materials, machinery and supervisory personnel to conduct the work to be contracted for to the satisfaction of the City. All bidders must be pre-qualified by the Board of Public Works for the type of construction on which they are bidding prior to the opening of the bid.

In accordance with Section 39.02(9)(a)l. of the General Ordinances, all bidders shall submit in writing to the Affirmative Action Division Manager of the City of Madison, a Certificate of Compliance or an Affirmative Action Plan at the same time or prior to the submission of the proof of responsibility forms.

The bidder shall be disqualified if the bidder fails to or refuses to, prior to opening of the bid, submit a Certificate of compliance, Affirmative Action Plan or Affirmative Action Data Update, as applicable, as defined by Section 39.02 of the General Ordinances (entitled Affirmative Action) and as required by Section 102.11 of the Standard Specifications.

SECTION 102.4 PROPOSAL

No bid will be accepted that does not contain an adequate or reasonable price for each and every item named in the Schedule of Unit Prices.

A lump sum bid for the work in accordance with the plans and specifications is required. The lump sum bid must be the same as the total amounts bid for the various items and it shall be inserted in the space provided.

All papers bound with or attached to the proposal form are considered a part thereof and must not be detached or altered when the proposal is submitted. The plans, specifications and other documents designated in the proposal form will be considered a part of the proposal whether attached or not.

A proposal submitted by an individual shall be signed by the bidder or by a duly authorized agent. A proposal submitted by a partnership shall be signed by a member/partner or by a duly authorized agent thereof. A proposal submitted by a corporation shall be signed by an authorized officer or duly authorized registered agent of such corporation, and the proposal shall show the name of the State under the laws of which such corporation was chartered. The required signatures shall in all cases appear in the space provided thereof on the proposal.

Each proposal shall be placed, together with the proposal guaranty, in a sealed envelope, so marked as to indicate name of project, the contract number or option to which it applies, and the name and address of the Contractor or submitted electronically through Bid Express (www.bidexpress.com). Proposals will be accepted at the location, the time and the date designated in the advertisement. Proposals received after the time and date designated will be returned to the bidder unopened.

SECTION 102.5: BID DEPOSIT (PROPOSAL GUARANTY)

All bids, sealed or electronic, must be accompanied with a Bid Bond (City of Madison form) equal to at least 5% of the bid or a Certificate of Annual/Biennial Bid Bond or certified check, payable to the City Treasurer. Bid deposit of the successful bidders shall be returned within forty-eight (48) hours following execution of the contract and bond as required.

MINOR DISCREPENCIES

Bidder is responsible for submitting all forms necessary for the City to determine compliance with State and City bidding requirements. Notwithstanding any language to the contrary contained herein, the City may exercise its discretion to allow bidders to correct or supplement submissions after bid opening, if the minor discrepancy, bid irregularity or omission is insignificant and not one related to price, quality, quantity, time of completion or performance of the contract.

Bidders for this Contract(s) must be Pre-Qualified for at least one of the following type(s) of construction denoted by an ☒

Building Demolition

- 101 ☐ Asbestos Removal
120 ☐ House Mover

- 110 ☐ Building Demolition

Street, Utility and Site Construction

- 201 ☐ Asphalt Paving
205 ☐ Blasting
210 ☐ Boring/Pipe Jacking
215 ☐ Concrete Paving
220 ☐ Con. Sidewalk/Curb & Gutter/Misc. Flat Work
221 ☐ Concrete Bases and Other Concrete Work
222 ☐ Concrete Removal
225 ☐ Dredging
230 ☐ Fencing
235 ☐ Fiber Optic Cable/Conduit Installation
240 ☐ Grading and Earthwork
241 ☐ Horizontal Saw Cutting of Sidewalk
242 ☐ Hydro Excavating
243 ☐ Infrared Seamless Patching
245 ☐ Landscaping, Maintenance
246 ☐ Ecological Restoration (Certification required, See Section III & provide a minimum of 3 references)
250 ☐ Landscaping, Site and Street
251 ☐ Parking Ramp Maintenance
252 ☐ Pavement Marking
255 ☐ Pavement Sealcoating and Crack Sealing
260 ☐ Petroleum Above/Below Ground Storage Tank Removal/Installation
262 ☐ Playground Installer

- 265 ☐ Retaining Walls, Precast Modular Units
270 ☐ Retaining Walls, Reinforced Concrete
275 ☒ Sanitary, Storm Sewer and Water Main Construction
276 ☐ Sawcutting
280 ☐ Sewer Lateral Drain Cleaning/Internal TV Insp.
285 ☐ Sewer Lining
290 ☐ Sewer Pipe Bursting
295 ☐ Soil Borings
300 ☐ Soil Nailing
305 ☐ Storm & Sanitary Sewer Laterals & Water Svc.
310 ☒ Street Construction
315 ☐ Street Lighting
318 ☐ Tennis Court Resurfacing
320 ☐ Traffic Signals
325 ☐ Traffic Signing & Marking
332 ☐ Tree pruning/removal
333 ☐ Tree, pesticide treatment of
335 ☐ Trucking
340 ☐ Utility Transmission Lines including Natural Gas, Electrical & Communications
399 ☐ Other _____

Bridge Construction

- 501 ☐ Bridge Construction and/or Repair

Building Construction

- 401 ☐ Floor Covering (including carpet, ceramic tile installation, rubber, VCT)
402 ☐ Building Automation Systems
403 ☐ Concrete
404 ☐ Doors and Windows
405 ☐ Electrical - Power, Lighting & Communications
410 ☐ Elevator - Lifts
412 ☐ Fire Suppression
413 ☐ Furnishings - Furniture and Window Treatments
415 ☐ General Building Construction, Equal or Less than \$250,000
420 ☐ General Building Construction, \$250,000 to \$1,500,000
425 ☐ General Building Construction, \$1,500,000 to \$10,000,000
426 ☐ General Building Construction, over \$10,000,000
428 ☐ Glass and/or Glazing
429 ☐ Hazardous Material Removal
430 ☐ Heating, Ventilating and Air Conditioning (HVAC)
433 ☐ Insulation - Thermal
435 ☐ Masonry/Tuck pointing

- 437 ☐ Metals
440 ☐ Painting and Wallcovering
445 ☐ Plumbing
450 ☐ Pump Repair
455 ☐ Pump Systems
460 ☐ Roofing and Moisture Protection
464 ☐ Tower Crane Operator
461 ☐ Solar Photovoltaic/Hot Water Systems
465 ☐ Soil/Groundwater Remediation
466 ☐ Warning Sirens
470 ☐ Water Supply Elevated Tanks
475 ☐ Water Supply Wells
480 ☐ Wood, Plastics & Composites - Structural & Architectural
499 ☐ Other _____

State of Wisconsin Certifications

- 1 ☐ Class 5 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for quarries, open pits and road cuts.
2 ☐ Class 6 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for trenches, site excavations, basements, underwater demolition, underground excavations, or structures 15 feet or less in height.
3 ☐ Class 7 Blaster - Blasting Operations and Activities for structures greater than 15' in height, bridges, towers, and any of the objects or purposes listed as "Class 5 Blaster or Class 6 Blaster".
4 ☐ Petroleum Above/Below Ground Storage Tank Removal and Installation (Attach copies of State Certifications.)
5 ☐ Hazardous Material Removal (Contractor to be certified for asbestos and lead abatement per the Wisconsin Department of Health Services, Asbestos and Lead Section (A&LS).) See the following link for application: www.dhs.wisconsin.gov/Asbestos/Cert. State of Wisconsin Performance of Asbestos Abatement Certificate must be attached.
6 ☐ Certification number as a Certified Arborist or Certified Tree Worker as administered by the International Society of Arboriculture

State of Wisconsin Certifications (continued)

- 7 ☐ Pesticide application (Certification for Commercial Applicator for Hire with the certification in the category of turf and landscape (3.0) and possess a current license issued by the DATCP)
- 8 ☐ State of Wisconsin Master Plumbers License.
- 9 ☐ Pesticide application (Certification for Commercial Applicator in the category of Right-of-Way (6.0) and possess a current license issued by the DATCP)
- 10 ☐ Other:

SECTION C: SMALL BUSINESS ENTERPRISE

Instructions to Bidders City of Madison SBE Program Information

2 Small Business Enterprise (SBE) Program Information

2.1 Policy and Goal

The City of Madison reaffirms its policy of nondiscrimination in the conduct of City business by maintaining a procurement process which remains open to all who have the potential and ability to sell goods and services to the City. It is the policy of the City of Madison to allow Small Business Enterprises (SBE) maximum feasible opportunity to participate in City of Madison contracting. The bidder acknowledges that its bid has been submitted in accordance with the SBE program and is for the public's protection and welfare.

Please refer to the "ADVERTISEMENT FOR BIDS" for the goal for the utilization of SBEs on this project. SBEs may participate as subcontractors, vendors and/or suppliers, which provide a commercially useful function. The dollar value for SBE suppliers or 'materials only' vendors shall be discounted to 60% for purposes of meeting SBE goals.

A bidder which achieves or exceeds the SBE goal will be in compliance with the SBE requirements of this project. In the event that the bidder is unable to achieve the SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Failure to either achieve the goal or demonstrate a good faith effort to do so will be grounds for the bidder being deemed a non-responsible contractor ineligible for award of this contract.

A bidder may count towards its attainment of the SBE goal only those expenditures to SBEs that perform a commercially useful function. For purposes of evaluating a bidder's responsiveness to the attainment of the SBE goal, the contract participation by an SBE is based on the percentage of the total base bid proposed by the Contractor. The total base bid price is inclusive of all addenda.

Work performed by an SBE firm in a particular transaction can be counted toward the goal only if it involves a commercially useful function. That is, in light of industry practices and other relevant considerations, does the SBE firm have a necessary and useful role in the transaction, of a kind for which there is a market outside the context of the SBE Program, or is the firm's role a superfluous step added in an attempt to obtain credit towards goals? If, in the judgment of the Affirmative Action Division, the SBE firm will not perform a commercially useful function in the transaction, no credit towards goals will be awarded.

The question of whether a firm is performing a commercially useful function is completely separate from the question of whether the firm is an eligible SBE. A firm is eligible if it meets the definitional criteria and ownership and control requirements, as set forth in the City of Madison's SBE Program.

If the City of Madison determines that the SBE firm is performing a commercially useful function, then the City of Madison must then decide what that function is. If the commercially useful function is that of an SBE vendor / supplier that regularly transacts business with the respective product, then the City of Madison will count 60% of the value of the product supplied toward SBE goals.

To be counted, the SBE vendor / supplier must be engaged in selling the product in question to the public. This is important in distinguishing an SBE vendor / supplier, which has a regular trade with a variety of customers, from a firm which performs supplier-like functions on an ad hoc basis or for only one or two contractors with whom it has a special relationship.

A supplier of bulk goods may qualify as an eligible SBE vendor / supplier if it either maintains an inventory or owns or operates distribution equipment. With respect to the distribution equipment; e.g., a fleet of trucks, the term "operates" is intended to cover a situation in which the supplier leases the equipment on a regular basis for its entire business. It is not intended to cover a situation in which the firm simply provides drivers for trucks owned or leased by another party; e.g., a prime contractor, or leases such a party's trucks on an ad hoc basis for a specific job.

If the commercially useful function being performed is not that of a qualified SBE vendor / supplier, but rather that of delivery of products, obtaining bonding or insurance, procurement of personnel, acting as a broker or manufacturer's representative in the procurement of supplies, facilities, or materials, etc., only the fees or commissions will apply towards the goal.

For example, a business that simply transfers title of a product from manufacturer to ultimate purchaser; e. g., a sales representative who re-invoices a steel product from the steel company to the Contractor, or a firm that puts a product into a container for delivery would not be considered a qualified SBE vendor / supplier. The Contractor would not receive credit based on a percentage of the cost of the product for working with such firms.

Concerning the use of services that help the Contractor obtain needed supplies, personnel, materials or equipment to perform a contract: only the fee received by the service provider will be counted toward the goal. For example, use of a SBE sales representative or distributor for a steel company, if performing a commercially useful function at all, would entitle the Contractor receiving the steel to count only the fee paid to the representative or distributor toward the goal. This provision would also govern fees for professional and other services obtained expressly and solely to perform work relating to a specific contract.

Concerning transportation or delivery services: if an SBE trucking company picks up a product from a manufacturer or a qualified vendor / supplier and delivers the product to the Contractor, the commercially useful function it is performing is not that of a supplier, but simply that of a transporter of goods. Unless the trucking company is itself the manufacturer or a qualified vendor / supplier in the product, credit cannot be given based on a percentage of the cost of the product. Rather, credit would be allowed for the cost of the transportation service.

The City is aware that the rule's language does not explicitly mention every kind of business that may contribute work on this project. In administering these programs, the City would, on a case-by-case basis, determine the appropriate counting formula to apply in a particular situation.

2.2 Contract Compliance

Questions concerning the SBE Program shall be directed to the Contract Compliance Officer of the City of Madison Department of Civil Rights, Affirmative Action Division, 210 Martin Luther King, Jr. Blvd., Room 523, Madison, WI 53703; telephone (608) 266-4910.

2.3 Certification of SBE by City of Madison

The Affirmative Action Division maintains a directory of SBEs which are currently certified as such by the City of Madison. Contact the Contract Compliance Officer as indicated in Section 2.2 to receive a copy of the SBE Directory or you may access the SBE Directory online at <https://www.cityofmadison.com/civil-rights/contract-compliance>.

All contractors, subcontractors, vendors and suppliers seeking SBE status must complete and submit the **Targeted Business Certification Application** to the City of Madison Affirmative Action Division by the time and date established for receipt of bids. A copy of the Targeted Business Certification Application is available by contacting the Contract Compliance Officer at the address and telephone indicated in Section 2.2 or you may access the Targeted Business Certification Application online at www.cityofmadison.com/civil-rights/contract-compliance/targeted-business-enterprise-programs/targeted-business-enterprise. Submittal of the Targeted Business Certification Application by the time specified does not guarantee that the applicant will be certified as a SBE eligible to be utilized towards meeting the SBE goal for this project.

2.4 Small Business Enterprise Compliance Report

2.4.1 Good Faith Efforts

Bidders shall take all necessary affirmative steps to assure that SBEs are utilized when possible and that the established SBE goal for this project is achieved. A contractor who self performs a portion of the work, and is pre-qualified to perform that category of work, may subcontract that portion of the work, but shall not be required to do so. When a bidder is unable to achieve the established SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Such a good faith effort should include the following:

- 2.4.1.1 Attendance at the pre-bid meeting.
- 2.4.1.2 Using the City of Madison's directory of certified SBEs to identify SBEs from which to solicit bids.
- 2.4.1.3 Assuring that SBEs are solicited whenever they are potential sources.
- 2.4.1.4 Referring prospective SBEs to the City of Madison Affirmative Action Division for certification.
- 2.4.1.5 Dividing total project requirements into smaller tasks and/or quantities, where economically feasible, to permit maximum feasible SBE participation.
- 2.4.1.6 Establishing delivery schedules, where requirements permit, which will encourage participation by SBEs.
- 2.4.1.7 Providing SBEs with specific information regarding the work to be performed.
- 2.4.1.8 Contacting SBEs in advance of the deadline to allow such businesses sufficient time to prepare a bid.
- 2.4.1.9 Utilizing the bid of a qualified and competent SBE when the bid of such a business is deemed reasonable (i.e. 5% above the lowest bidder), although not necessarily low.
- 2.4.1.10 Contacting SBEs which submit a bid, to inquire about the details of the bid and confirm that the scope of the work was interpreted as intended.
- 2.4.1.11 Completion of Cover Page (page C-6), Summary Sheet (page C-7) and SBE Contact Reports (pages C-8 and C9) if applicable.

2.4.2 Reporting SBE Utilization and Good Faith Efforts

The Small Business Enterprise Compliance Report is to be submitted by the bidder with the bid: This report is due by the specified bid closing time and date. Bids submitted without a completed SBE Compliance Report as outlined below may be deemed non-responsible and the bidder ineligible for award of this contract. Notwithstanding any language to the contrary contained herein, the City may exercise its discretion to allow bidders to correct or supplement submissions after bid opening, if the minor discrepancy, bid irregularity or omission is insignificant and not one related to price, quality, quantity, time of completion, performance of the contract, or percentage of SBE utilization.

2.4.2.1 If the Bidder meets or exceeds the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:

2.4.2.1.1 **Cover Page**, Page C-6; and

2.4.2.1.2 **Summary Sheet**, C-7.

2.4.2.2 If the bidder does not meet the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:

2.4.2.2.1 **Cover Page**, Page C-6;

2.4.2.2.2 **Summary Sheet**, C-7; and

2.4.2.2.3 **SBE Contact Report**, C-8 and C-9. (A separate Contact Report must be completed for each applicable SBE which is not utilized.)

2.5 Appeal Procedure

A bidder which does not achieve the established goal and is found non-responsible for failure to demonstrate a good faith effort to achieve such goal and subsequently denied eligibility for award of contract may appeal that decision to the Small Business Enterprises Appeals Committee. All appeals shall be made in writing, and shall be delivered to and received by the City Engineer no later than 4:30 PM on the third business day following the bidder's receipt of the written notification of ineligibility by the Affirmative Action Division Manager. Postmark not acceptable. The notice of appeal shall state the basis for the appeal of the decision of the Affirmative Action Division Manager. The Appeal shall take place in accordance with Madison General Ordinance 33.54.

2.6 SBE Requirements After Award of the Contract

The successful bidder shall identify SBE subcontractors, suppliers and vendors on the subcontractor list in accordance with the specifications. The Contractor shall submit a detailed explanation of any variances between the listing of SBE subcontractors, vendors and/or suppliers on the subcontractor list and the Contractor's SBE Compliance Report for SBE participation.

No change in SBE subcontractors, vendors and/or suppliers from those SBEs indicated in the SBE Compliance Report will be allowed without prior approval from the Engineer and the Affirmative Action Division. The contractor shall submit in writing to the City of Madison Affirmative Action Division a request to change any SBE citing specific reasons which necessitate such a change. The Affirmative Action Division will use a general test of reasonableness in approving or rejecting the contractor's request for change. If the request is approved, the Contractor will make every effort to utilize another SBE if available.

The City will monitor the project to ensure that the actual percentage commitment to SBE firms is carried out.

2.7 SBE Definition and Eligibility Guidelines

A Small Business Enterprise is a business concern awarded certification by the City of Madison. For the purposes of this program a Small Business Enterprise is defined as:

- A. An independent business operated under a single management. The business may not be a subsidiary of any other business and the stock or ownership may not be held by any individual or any business operating in the same or a similar field. In determining whether an entity qualifies as a SBE, the City shall consider all factors relevant to being an independent business including, but not limited to, the date the business was established, adequacy of its resources for the work in which it proposes to involve itself, the degree to which financial, equipment leasing and other relationships exist with other ineligible firms in the same or similar lines of work. SBE owner(s) shall enjoy the customary incidents of ownership and shall share in the risks and profits commensurate with their enjoyment interests, as demonstrated by an examination of the substance rather than form or arrangements that may be reflected in its ownership documents.
- B. A business that has averaged no more than \$4.0 million in annual gross receipts over the prior three year period and the principal owner(s) do not have a personal net worth in excess of \$1.32 million.

Firm and/or individuals that submit fraudulent documents/testimony may be barred from doing business with the City and/or forfeit existing contracts.

SBE certification is valid for one (1) year unless revoked.

SECTION D: SPECIAL PROVISIONS

CANNONBALL PATH PHASE 6 CONTRACT NO. 7431

It is the intent of these Special Provisions to set forth the final contractual intent as to the matter involved and shall prevail over the Standard Specifications and plans whenever in conflict therewith. In order that comparisons between the Special Provisions can be readily made, the numbering system for the Special Provisions is equivalent to that of the Specifications.

Whenever in these Specifications the term "Standard Specifications" appears, it shall be taken to refer to the City of Madison Standard Specifications for Public Works Construction and Supplements thereto.

SECTION 102.11: BEST VALUE CONTRACTING

This Contract shall be considered a Best Value Contract if the Contractor's bid is equal to or greater than \$79,000 for a single trade contract; or equal to or greater than \$386,500 for a multi-trade contract pursuant to MGO 33.07(7).

ARTICLE 103 AWARD AND EXECUTION OF THE CONTRACT

The awarded Contractor shall completely execute the signing of all contract documents and submit them to City Engineering (Attn: Isaac Gabriel, 1600 Emil Street, Madison, WI 53703) prior to **12:00 pm on Thursday, July 9, 2026**. Delays in turning in the required completed contract documents will not adjust the project completion date. Payment and Performance Bonds shall be dated no sooner than **Wednesday, July 8, 2026**.

ARTICLE 104 SCOPE OF WORK

The work under this contract shall include but is not limited to replacement and upgrade of sanitary sewer and laterals, storm sewer pipes and structures, as well as the installation and replacement of concrete sidewalk, concrete curb & gutter, concrete driveway aprons, concrete pavement, asphalt driveways, asphalt pavement, roadway base, path and street lighting, fiber conduit, pavement markings, bike-pedestrian bridge structure, and soil restoration.

The project limits for the work include the partial reconstruction of the Fish Hatchery Rd to install as shared-use path connection between the terminus of the existing Cannonball Path and the Wingra Creek Path. The work includes reconstruction of the westerly-side curb, sidewalk, and partial roadway on Fish Hatchery Rd from the existing Cannonball Path terminus to Carver St; a new traffic signal at Fish Hatchery Rd & Carver St; the reconstruction of the easterly-side sidewalk on Fish Hatchery Rd from Carver St to the existing widened sidewalk along Bowman Field; and the installation of a new shared-use path on the easterly-side of Fish Hatchery Rd from Plaenert Dr to the Wingra Creek Path, including the installation of a bike-pedestrian bridge over Wingra Creek.

The Contractor shall view the site prior to bidding to become familiar with the existing conditions. It will be the responsibility of the Contractor to work with the utilities located in the right of way to resolve conflicts during the construction process.

SECTION 105.12 COOPERATION BY THE CONTRACTOR

It is expected that certain items of work will require multiple mobilizations to meet the requirements of the excavation, the restoration, and erosion control requirements.

Existing Items to Remain

The Contractor shall use care around existing trees, plantings, fences, walls, steps and driveways that are indicated on the plans to remain. Damage to these items during construction shall be repaired or

replaced at the Contractor's expense. No trees, other than those shown on the plan to be removed, shall be cut without the approval of the Engineer and the City Forester; the abutting property owners shall be notified in accordance with the City's Administrative Procedure Memorandum No. 6-2. The Contractor shall maintain access for property owners.

Coordination with Madison Newspapers (1901 Fish Hatchery Rd)

The City has an easement from Madison Newspapers for the installation and use of the widened concrete sidewalk along their frontage, as well as a right-of-entry signed waiver for tree removals and construction impacts beyond the easement areas. This contract includes removal of the existing concrete pavement at the Madison Newspapers driveway entrance and replacement with asphalt pavement. Madison Newspapers receives frequent semi-truck deliveries at this driveway entrance on a daily basis and that access shall be maintained throughout construction. Short-term driveway access impacts are anticipated during excavation, backfilling, and paving operations. The Contractor shall coordinate with Madison Newspapers directly on any access impacts and shall plan for the majority of the driveway impacts to occur on Friday afternoons or Saturdays when access needs are reduced. The Contractor shall coordinate directly with Clint Williams of Madison Newspapers at O: (608)-252-6292, C: (608)-669-0683, or CWilliams@madison.com.

Coordination with Aljan Co. (2008 Fish Hatchery Rd)

The Contractor is to remove the existing boulders and landscaping behind the existing sidewalk along 2008 Fish Hatchery Rd and construct a split-block-retaining wall on the back-side of the new concrete path. The wall is to be built on private property, and a right-of-entry form has been signed by the property owner for this work. The Contractor shall restore the area behind the new wall with bark mulch to match the existing landscaping. The Contractor shall take care as to not damage anything on private property beyond what is needed to construct the new wall. The Contractor shall coordinate with the property owner Darrell Cook at (612) 644-1907 or darrell.cook70@gmail.com, or the clinic manager Kyle Mindermann at (608) 257-7220.

Coordination with Fire Station 6 (1471 Martin St/2120 Fish Hatchery Rd)

There are multiple City agencies that operate out of the former Town of Madison Municipal Building at 2120 Fish Hatchery Rd with the primary use being the temporary location of Madison Fire Department's Fire Station 6 that serves the south-side of Madison on a 24-hrs, 7-days a week basis. Madison Fire will continue to operate out of this location throughout this construction project. To facilitate Madison Fire's emergency response operations, the Contractor shall fully maintain one of the existing Fish Hatchery Rd driveways at all times. The northerly driveway apron is to be permanently removed with this project but shall remain accessible while the southerly driveway apron is inaccessible. The driveway entrance off of Martin St is not an acceptable access point for emergency vehicle response, however, Martin St access shall be maintained for local traffic and routine access to the City facility. Emergency access can be maintained with hard-packed gravel surface and/or steel plates as needed to allow construction to progress while maintaining continued Fire Station 6 access off of one of the Fish Hatchery Rd driveways at all times. The Contractor shall coordinate with Tim Mrowiec of Madison Fire at (608) 266-5966 or tmrowiec@cityofmadison.com to ensure continued emergency vehicle access in and out of the site during the entire duration of construction.

In addition, there are existing landscaping items in front of the municipal building at 1471 Martin St/2120 Fish Hatchery Rd, including a flagpole and lighting electrical equipment, that are to be removed and disposed of by the Contractor for installation of the path and re-grading per plan. The Contractor shall coordinate any impacts to the building site at the former Town of Madison Municipal Building with Bill Sullivan of Madison Fire at (608) 261-9658 or wsullivan@cityofmadison.com, Amy O'Rourke of the Parking Division at aorourke@cityofmadison.com, and Stephen King of City Engineering at (608) 266-5927 or srking@cityofmadison.com. The Contractor shall ensure that any electrical service is turned off prior to removal of existing electrical equipment.

ARCHAEOLOGY

No official archaeological monitoring or reporting is required for this project. However, there is a chance of finding archaeological materials during the ground disturbing portions of this project due to the proximity of known cultural sites. If any human remains or archaeological materials are found, or unusual soils

encountered during the project, all ground disturbing construction activities must cease and contact the Wisconsin Historical Society, SHPO:

WHS General Compliance: compliance@wisconsinhistory.org
Felipe Avila (608) 264-6013 felipe.avila@wisconsinhistory.org

NOTE: Any place where human remains are buried are considered burial sites, subject to the State's Burial Site Preservation law, Wis. Stat. § 157.70. Burial Sites are protected under this law. The Contractor shall be responsible for compliance with the requirements of this Statute should human remains be discovered, and solely liable for the payments of penalties or fines imposed by any state or local agency, and for any violation of any state, or local law or regulation arising as a result of the Contractor's performance. The Contractor, or their agent, shall be fully conversant with Wis. Stat. § 157.70 and shall be expected to act in full conformance with that statute.

SECTION 107.12 RAILROAD - HIGHWAY GRADE SEPARATIONS AND APPROACHES, NEW RAILROAD CROSSINGS, AND OPERATION ON RAILROAD RIGHT- OF WAY

The company representative who may be consulted by Bidders and Contractors with regard to railroad requirements is Roger Schaalma of the Wisconsin & Southern Railroad (WSOR), at (608) 243-9129 x 4211. Notice must be given to Roger Schaalma at least 72 hours prior to working within twenty-five feet (25') of the Railroad Tracks. The Contractor shall obtain the authorization of the WSOR to work within twenty-five feet (25') of the railroad tracks prior to any work being done. Any time that work is being done within twenty-five feet (25') of the track, a WSOR flag person must be present.

It shall be the responsibility of the Contractor to compensate the Railroad for the flag person requirements, and this compensation is considered incidental to this contract. Prior to any work within twenty-five feet (25') of the Railroad Tracks, the Contractor shall provide to WSOR an estimate of the time required to perform the necessary work within twenty-five feet (25') of the Railroad Tracks and the Contractor shall pre-pay WSOR an estimated cost for compensation for a flag person based on the estimated time required to perform all work within twenty-five feet (25') of the tracks and the current hourly rate of compensation charged by WSOR for a flag person. In the event that the pre-paid amount for flag person compensation exceeds the actual cost required for the compensation of the flag person, any excess pre-paid amount will be refunded to the Contractor. In the event that actual cost for compensation of the flag person exceeds the pre-paid estimate, the Contractor shall submit an additional pre-payment for the estimated additional cost for compensation of a flag person, prior to any work continuing within twenty-five feet (25') of the tracks.

Absolutely no staging of equipment or materials will be allowed within the railroad right-of-way.

If a Contractor violates any of these requirements, the Wisconsin & Southern Railroad reserves the right to remove and prohibit the Contractor from any further access or encroachment on the Wisconsin & Southern Railroad right of way regardless of whether or not that access or encroachment is on, under, over, intentional or inadvertent, until such time as the Contractor provides satisfactory assurances and measures to prevent any reoccurrence of such violation.

BID ITEM 10790 - RAILROAD INSURANCE

The Contractor shall provide special third-party protection insurance for, and on behalf of, the Wisconsin and Southern Railroad Company per Section 107.12(c) Railroad Insurance Requirements of the City of Madison Standard Specifications.

SECTION 107.17 UTILITY COORDINATION

Coordination with MG&E Gas

MG&E Gas has underground gas facilities within the project limits, including facilities on Fish Hatchery Rd between the WSOR RR track and Carver St. No conflicts are anticipated with existing MG&E Gas

facilities. However, there will be storm sewer work that crosses or runs adjacent to existing gas facilities at a similar elevation to existing storm sewer facilities. If any conflicts arise in the field, the Contractor shall give proper time and space to MG&E to relocate their gas facilities. The Contractor shall coordinate all MG&E Gas work with Matt Colvin of MG&E at (872) 223-2637 or matt.colvin@mge.com.

Coordination with MG&E Electrical

This project has significant conflicts with existing overhead MG&E Electrical facilities, including in the following areas. The Contractor shall coordinate all MG&E Electrical work with Matt Colvin of MG&E at (872) 223-2637 or matt.colvin@mge.com.

Plaenert Dr to Wingra Dr

MG&E has overhead electrical facilities along the easterly-side of Fish Hatchery Rd from Plaenert Dr to Wingra Dr that are in conflict with the construction of the new bike-pedestrian bridge over Wingra Creek. MG&E is planning to fully underground the overhead lines and poles in conflict within existing underground ducts, the poles and lines would therefore be fully removed prior to bridge construction beginning. MG&E's underground work here is anticipated to occur before this project begins, however, overlapping work is possible. There are no known telecommunication lines on the existing poles that are to be undergrounded in this location, however, MG&E will need to confirm that there are no attachments to their poles prior to removal. The Contractor shall give MG&E the time needed, access and working space to underground their electrical facilities and remove the utility poles within this area.

Martin St to Carver St

MG&E has a series of overhead utility poles along the east-side of Fish Hatchery Rd between Martin St and Carver St that need to be relocated to the new terrace space to make room for the widened concrete sidewalk. There are 5 poles in total are to be relocated occur after the sanitary sewer work is complete on Fish Hatchery Rd. It is anticipated that MG&E will need 3 to 4 weeks to complete these pole relocations. The Contractor shall give MG&E the time needed, access and working space to complete the relocation of their utility poles within this area.

MG&E Electrical Manhole Adjustments

There are several MG&E manholes throughout the project limits within the street, terrace and sidewalk/path areas that will need to be adjusted for final grading and restoration. Below is a list of known MG&E manhole adjustments, additional adjustments may be needed in the field. The Contractor shall give MG&E the time needed, access and working space to complete these adjustments.

- STA 103+22.09, 36.36' LT = RAISE 0.10'
- STA 103+37.26, 39.22' LT = RAISE 0.39'
- STA 111+07.09, 37.18' RT = RAISE 0.08'
- STA 111+34.93, 44.12' RT = RAISE 0.37'
- STA 133+63.17, 57.13' RT = RAISE 0.07'

*Station/Offsets based on Fish Hatchery Rd centerline alignment, elevation difference between survey shots and proposed surface.

Coordination with Charter Spectrum

Charter Spectrum has overhead facilities along the existing MG&E utility poles on the east-side of Fish Hatchery Rd between Martin St and Carver St. Charter will be relocating their facilities in coordination with MG&E utility pole relocation work. The Contractor shall give proper time and space to Charter Spectrum to relocate their facilities. The Contractor shall coordinate all Charter Spectrum work with Sean O'Connor of Charter at (608) 910-2212 or sean.p.oconnor@charther.com.

Coordination with AT&T

There are underground AT&T facilities throughout the project limits. While no AT&T conflicts are currently anticipated, unforeseen conflicts with existing facilities may be encountered during construction. If any conflicts are found in construction, the Contractor shall coordinate with AT&T to adjust or relocate their facilities. The Contractor shall coordinate all AT&T work with Rick Podolak of AT&T at rp4514@att.com or Chuck Bartelt of AT&T at cb1461@att.com.

In addition, AT&T is planning to underground existing aerial facilities along Fish Hatchery Road north of the project limits, north of Wingra Drive, prior to the start of construction for this project. AT&T's undergrounding work may overlap with project construction activities; however, the work is expected to be separated so as not to impact this project.

AT&T Manhole Adjustments

There are 2 known AT&T manholes within the project limits that will need to be adjusted for final grading and restoration. Below is a list of known AT&T manhole adjustments, additional adjustments may be needed in the field. The Contractor shall give AT&T the time needed, access and working space to complete these adjustments.

- STA 101+55.83, 43.39' LT = RAISE 0.11'
- STA 104+60.07, 40.89' LT = RAISE 0.29'

*Station/Offsets based on Fish Hatchery Rd centerline alignment, elevation difference between survey shots and proposed surface.

Coordination with MMSD

Madison Metropolitan Sewerage District (MMSD)'s West Interceptor sewer main crosses Fish Hatchery Rd and the proposed Cannonball Path on the north-end of the project limits, just south of the Wingra Dr. The sewer main is 48-inches, reinforced concrete pipe from 1964 and there is approximately 13-feet of cover over the existing, pile-supported pipe. There are no conflicts anticipated with MMSD's interceptor pipe, however, due to their pipe's vicinity to the proposed bike-pedestrian bridge over Wingra Creek, the Contractor shall notify MMSD prior to bridge abutment construction to verify no conflicts are present. The Contractor shall coordinate with Aaron McFarlin of MMSD at O: (608)-222-1201, C: (608)-471-3005, or aaronm@madsewer.org.

Coordination with WIN

WIN LLC has fiber within the project limits that is within existing City of Madison, Traffic Engineering ducts and handholes. WIN will relocate their facilities in coordination with any City of Madison facilities changes. The Contractor shall coordinate with Todd Ellickson of WIN at (608)-852-4072 or todd.ellickson@wintechology.com.

SECTION 107.6 DUST PROOFING

The Contractor shall take all necessary steps to control dust arising from operations connected with this contract. When ordered by the Engineer, the Contractor shall dust proof the construction area by using power sweepers and water. Dust proofing shall be incidental with operations connected with this contract.

SECTION 107.7 MAINTENANCE OF TRAFFIC

Below is an outline of the individual traffic control phases as specified in the plans and the anticipated work to occur during each phase. The Contractor shall determine the proper phasing and timing for each stage of work and provide an overview construction schedule to the Engineer prior to construction start.

Phase 1: ~ 1 week to complete

Work to be completed:

- Island removal at railroad

Traffic Routes:

- One inbound (northbound, outside) lane on Fish Hatchery Road shall be open. Maintain bike lane.
- One outbound (southbound, outside) lane on Fish Hatchery Road shall be open. Maintain bike lane.

Metro:

- All bus stops remain open at their current location

Phase 2: ~ 1 week to complete

Work to be completed:

- Sanitary sewer installation on eastern side of Fish Hatchery Road
- Pavement, curb & gutter, electrical work, and restoration on the eastern side of Fish Hatchery Rd.

Traffic Routes:

- Open travel lanes (2) shifted to southbound side of Fish Hatchery Road
- One inbound (northbound) lane on Fish hatchery Road shall be open
- One outbound (southbound) lane on Fish Hatchery Road shall be open
- Flexible posts shall be used during this phase
- Bikes may use full lane

Metro:

- Metro buses using stop #0405 will stop in-lane on Fish Hatchery Rd and bus riders will disembark into the area of the road closed to traffic. Bus riders can then move to the crosswalk to get to either side of the street. All other bus stops remain open at their current location.

Phase 3: ~ 10 weeks to complete

Work to be completed:

- Sanitary sewer installation on western side of Fish Hatchery Rd
- Storm sewer installation on western side of Fish Hatchery Rd
- MG&E utility pole relocations on western side of Fish Hatchery Rd
- Pavement, curb & gutter, driveway aprons, sidewalk/ramps, electrical, and restoration on western side of Fish Hatchery Rd

Traffic Routes:

- Open travel lanes (2) shifted to northbound side of Fish Hatchery Rd
- One inbound (northbound) lane on Fish hatchery Road shall be open
- One outbound (southbound) lane on Fish Hatchery Road shall be open
- Flexible posts shall be used during this phase
- Bikes may use full lane

Metro:

- Metro buses using stops #F060 and #0456 will stop in-lane on Fish Hatchery Rd and bus riders will disembark into the area of the road closed to traffic. Bus riders can then move to the crosswalk to get to either side of the street. All other bus stops remain open at their current location.

Phase 4: ~ 2 weeks to complete

Work to be completed:

- Islands and median work
- Electrical work

Traffic Routes:

- One inbound (northbound, outside) lane on Fish Hatchery Road shall be open. Maintain bike lane.
- One outbound (southbound, outside) lane on Fish Hatchery Road shall be open. Maintain bike lane.

Metro:

- All bus stops remain open at their current location

Phase 5: ~ 2 weeks to complete

Work to be completed:

- Pavement, curb & gutter, sidewalk/ramps, electrical, and restoration on eastern side of Fish Hatchery Rd (north of Carver St)

Traffic Routes:

- One inbound (northbound, outside) lane on Fish Hatchery Road shall be open.
- Bikes may use full lane
- Temporary pedestrian detour shall take outside inbound (northbound) lane.
 - The Contractor shall install, maintain, and remove the TEMPORARY PEDESTRIAN BARRICADE throughout the duration of this phase and all associated work shall be considered incidental to the TEMPORARY PEDESTRIAN BARRICADE bid item.

Metro:

- Metro buses using stop #0391 will stop in-lane on Fish Hatchery Rd and bus riders will disembark into the area of the road closed to traffic. Bus riders can then move to the crosswalk to get to either side of the street. All other bus stops remain open at their current location.

Phase 6: Concurrent with all phases

Work to be completed:

- Bike-pedestrian bridge construction across Wingra Creek
- Sidewalk, curb, pavement, electrical, and restoration work on eastern side of Fish Hatchery Rd between Plaenert Dr and W Wingra Dr.

Traffic Routes:

- Outer northbound lane on Fish Hatchery Rd can be closed during off-peak hours only. Two northbound lanes must be open during peak hours (7:00 a.m. – 8:30 a.m.; 4:00 p.m. to 5:30 p.m.)
- Bikes may use full lane
- Temporary pedestrian detour to Plaenert Drive to West Wingra Drive

Metro:

- Metro buses using stop #0845 will stop in-lane on Fish Hatchery Rd and bus riders will disembark into the area of the road closed to traffic. Bus riders can then move to the crosswalk to get to either side of the street. All other bus stops remain open at their current location.

The contractor shall submit a traffic control plan at least 7 days in advance of the preconstruction meeting for the final paving of Fish Hatchery Rd. Traffic in each direction shall be maintained at all times and there shall be two lanes in each direction during peak hours (7:00 a.m. – 8:30 a.m.; 3:30 p.m. to 5:30 p.m.).

Message Boards:

Message Boards shall be placed on Fish Hatchery Road for both directions 10 days in advance to construction

Boards shall read:

“FH WORK
BEGINS
XX/XX

EXPECT

TRAFFIC CHANGES"

All signing and barricading shall conform to Part VI of the Federal Highways Administrations "Manual on Uniform Traffic Control Devices" (MUTCD), the State of Wisconsin Standard Facilities Development Manual (including Chapter 16 – Standard Detail Drawings) and the City of Madison Standards for sidewalk and bikeway closures.

Access to business driveways must be maintained at all times. Construct all driveways in halves when necessary to allow local traffic or notify residence/business 72 hours for full closures. Space barrels so that the traffic coming and going from the City of Madison Fire Station #6 at 2120 Fish Hatchery Rd is able to come and go from either direction during all phases. A sidewalk shall be maintained at all times at a minimum of one side of a street, and both sides of the street when possible. When sidewalk must be closed for construction purposes, contractor shall ensure that the sidewalk on the opposite side of the street is open. Sidewalk closures shall be signed at the crosswalk in advance of the closure. Sidewalk access to all businesses shall remain open from at least one end of a block at all times. Sidewalks shall be fully open during non-working hours except where necessary to enable sidewalk to cure. Work and cost to maintain sidewalk is considered incidental to the contract.

Maintain sidewalk along the Wright Middle School parking lot during the storm sewer and sidewalk replacement work at all times. Maintaining sidewalk access in this location shall be in accordance and paid for under the BID ITEM 10714 TEMPORARY SIDEWALK ACCESS.

Maintain temporary pedestrian crossings of Fish Hatchery Rd at both Martin St and Carver St throughout construction. Maintaining crosswalk access shall be in accordance and paid for under the BID ITEM 10713 TEMPORARY CROSSWALK ACCESS.

The raised path crossing on the western side of Fish Hatchery Rd at Martin St shall be constructed in halves to allow for continued local access in/out of Martin St throughout the construction duration.

Madison Metro shall be notified ten (10) days in advance for bus reroute. Madison Metro can be notified by emailing metronotice@cityofmadison.com. This allows adequate notice for Metro to reroute bus routes and move stops when necessary. All Metro stops shall always have a hard surface that meets ADA requirements.

The bid item "Traffic Control" shall be measured as a lump sum. Payment for "Traffic Control" is full compensation for constructing, assembling, hauling, erecting, re-erecting, maintaining, restoring, and removing non-permanent traffic signs, drums, barricades, and similar control devices, including arrow boards, for providing, placing, and maintaining work zone and for any required flagging personal and associated equipment. Maintaining traffic control shall include replacing damaged or stolen traffic control devices. Temporary pavement markings, electronic flashing arrow boards, and electronic message boards shall be paid for as separate bid items. Traffic control to install temporary or permanent pavement markings shall be included in the Traffic Control Lump Sum Bid Item. The traffic control plan may require modifications as conditions change in the field or as unexpected conditions occur including relocating existing traffic control or providing additional traffic control. This should be considered incidental to providing traffic control for the project.

Contractor shall inspect traffic control at the beginning of working hours and at the end of working hours to ensure all traffic control remains in place and conforms to the approved traffic control plan during the project.

Type A warning lights shall be installed on all barricades used in the project per State of Wisconsin S.D.D. 15C2-4B. Contractor shall also place Type C warning lights on any barrels used to taper traffic or lane closures.

The contractor shall refer to Chapter 6 in the MUTCD to provide adequate signs and taper lengths. The contractor may use drums as a channelizing device to separate traffic from work zone.

The work areas shall be backfilled, plated, or protected by traffic control devices during non-working hours. If steel plates are used, the Contractor shall notify the City of Madison Streets Division, 608-266-4681, one (1) working day prior to placement of the plates.

All temporary inlet or structure plating for traffic control phasing shall be considered incidental to the traffic control bid item.

All traffic control required for performing temporary inlet or structure plating shall be considered incidental to the traffic control bid item.

No construction equipment or materials shall be stored in the roadway or street right-of-way that is open to traffic during non-working hours. Construction equipment and materials are not to be stored within the street right-of-way that is outside the project limits as shown on the approved traffic control plan.

Contractor shall notify the City of Madison Police Department, Fire Department, Madison Metro, and Traffic Engineering 48 hours in advance of all switchovers of traffic lanes and closures of streets. Notifications must be given by 4:00 P.M. on Thursday for any such work to be done on the following Monday.

Emergency vehicle access shall be maintained to all properties at all times from at least one end of each block.

Contractor shall supply all necessary mounting hardware and supports for signing. This shall also include covering and uncovering any conflicting overhead signs during the project. Contractor shall display all signing so as to be easily viewed by all users. Contractor shall mount traffic control on posts or existing poles or drive posts whenever possible. Existing poles may be used with approval of Construction Engineer. Contractor shall inspect traffic control daily to ensure all traffic control remains in place during the project.

The traffic control plan may need to be altered as conditions change in the field or as unexpected conditions occur. This shall include relocating existing traffic control or providing additional traffic control. This should be considered incidental to providing traffic control for the project.

Construction equipment and materials are not to be stored within the street right-of-way that is open to traffic during non-working hours.

Contractor is responsible for obtaining and installing temporary no parking signs to facilitate traffic control plan or as necessary to complete the work within the contract. The contractor shall the City of Madison Parking Division (608-266-4761) at least 3 working days prior to needing the signs. Contractor shall post signs in accordance with the City of Madison Police Department Guidelines for temporary no parking restrictions for construction or special events. The guidelines can be found at the link listed below. This shall be considered incidental to the traffic control lump sum bid item.

http://www.cityofmadison.com/business/pw/documents/guidelines_temporarynoparkingrestrictions.pdf

The Contractor shall not remove traffic signs. For removal or replacement of traffic and parking signs, contact the traffic engineer on the project, Jeremy Nash, 215 Martin Luther King Jr. Blvd, Suite 109, 267-1102, 8:00 a.m. to 4:00 p.m., a minimum of 2 working days in advance of when any existing signs need to be removed. This service is provided free of charge. If the contractor removes the signs, the contractor will be billed for the reinstallation of, and any damage to, the signing equipment. The contractor shall notify the traffic engineer upon completion of final landscaping to have permanent signs reinstalled. The contractor shall expect a minimum of seven working days to have permanent signs reinstalled. The contractor shall leave in place all necessary traffic control until given notice by the construction engineer that permanent signing is in place and temporary traffic control may be removed.

Contact Jeremy Nash, City of Madison Traffic Engineering, at 608-266-6585 or jnash@cityofmadison.com for questions on this spec.

SECTION 108.2 PERMITS

The following permits are required (and have been or will be applied for by the City) for this project:

- City of Madison Erosion Control and Stormwater Management Permit
- Wisconsin Department of Natural Resources Notice of Intent (Stormwater Permit)
- Sewer Extension Permit (for gravity sanitary sewer)
- Wisconsin Department of Natural Resources Statewide General Permit for Waterways Crossings – Culverts, Clear-Span Bridges, and Fords.

These permits cover trench dewatering to a maximum of 70 gallons/minute from the project, provided appropriate control measures are in place. The City's obtaining these permits is not intended to be exhaustive of all permits that may be required to be obtained by the Contractor for construction of this project. It shall be the responsibility of the Contractor to identify and obtain any other permits needed for construction. This includes type II dewatering, which may be needed to construct the proposed sewer utilities on this project.

The Contractor shall meet the conditions of the permits involving properly installing and maintaining the erosion control measures shown on the plans, specified in these Special Provisions, as directed by the Construction Engineer or his designees, or as directed by any official representative of the DNR. This work will be paid for under the appropriate bid items, or if appropriate items are not included in the contract, they shall be paid for as Extra Work.

It shall be the responsibility of the Contractor to obtain the permits listed below, if required, and to pay all applicable charges and fees associated with these permits.

- Permit to Work in County Trunk Highway Right-of-Way

The Contractor will be responsible for acquiring the 'Permit to Work in Country Trunk Highway Right-of-Way' for the work on Fish Hatchery Road (County Highway D)

Contractor should note that all Dane County Highway permit applications are now electronic. Dane County Highway no longer accepts permit applications by paper or email. Navigate to the current Dane County Highway Department "Highway Permit Applications" page or use this link to the online application web site, <https://highway.countyofdane.com/permits>. Dane County Highway also no longer accepts checks or bills/invoices companies as in the past. Once the online application is received, a preliminary review and/or site visit is conducted, then an online invoice is created. Payments can be made through the online application by credit card only and must be paid before the permit is issued. For questions regarding the Dane County Highway permit, the Contractor can coordinate with Kevin Eslick at (608) 283-1486 or eslick.kevin@countyofdane.com.

No work shall commence until all necessary permits are obtained. The Contractor shall be responsible for knowing, understanding, and meeting the conditions of all permits and shall keep a copy of each individual permit on site at all times throughout construction. Any questions pertaining to permit compliance shall be immediately brought to the attention of the Project or Construction Engineer.

The City's obtaining these permits is not intended to be exhaustive of all permits that may be required to be obtained by the Contractor for construction of this project. It shall be the responsibility of the Contractor to identify and obtain any other permits needed for construction.

SECTION 109.2 PROSECUTION OF WORK

The Contractor may begin work as early as **July 20, 2026** with any sanitary sewer work only beginning once the sanitary sewer extension permit is secured. The Contractor shall notify the City Engineer of their anticipated start date a minimum of 4 weeks prior to that date.

All work, excluding portions allowed to be completed in 2027 described below, shall be completed in 2026, including, but not limited to, the installation of all sanitary sewer, storm sewer, concrete items, electrical items, bridge substructure items, landscape restoration, roadway base, mill & overlay, and asphalt pavement. All work under this contract required to be completed in 2026 must be completed by **NOVEMBER 20, 2026**.

If needed due to long lead times, the final installation of the pre-fabricated steel truss bridge over Wingra Creek can occur in 2027. Any work occurring in 2027 must be completed by **May 28, 2027**. This work can include the final concrete path surface between Plaenert Dr and W Wingra Dr, however, the Contractor shall ensure that the existing pedestrian route along the east-side of Fish Hatchery Rd between Plaenert Dr and W Wingra Dr, including curb ramps, is fully restored by the end of construction in 2026 and maintained throughout any work occurring in 2027.

Work shall begin only after the contract is fully signed and executed and the start work letter is received. If it is desirable to begin work before the above-mentioned date, the Contractor shall establish a mutually acceptable date with the City Engineer, and the agreed upon date must be determined prior to the preconstruction meeting. Depending on the status of contract routing, it may not be feasible to start prior to the date above.

SECTION 109.9 LIQUIDATED DAMAGES

The fixed, agreed, and liquidated damages due to the City by the Contractor for failure to complete all required 2026 work by the specified date shall be \$1,750 per Calendar Day.

The fixed, agreed, and liquidated damages due to the City by the Contractor for failure to complete all remaining work in 2027 by the specified completion date shall be \$1,000 per Calendar Day.

SECTION 210.1(d) STREET SWEEPING

When required, either by the erosion control plan or the Construction Engineer, the Contractor shall perform mechanical street sweeping on all streets or paved surfaces affected by construction equipment, hauling or related construction activities that result in mud tracking or siltation. Mechanical street sweeping shall be completed as directed by the Construction Engineer and shall remove all loose material to the satisfaction of the Construction Engineer. Depending on site conditions, construction activities, and hauling methods utilized by the Contractor mechanical street sweeping may be required multiple times throughout the day with an absolute minimum that all streets are clean at the end of the workday. Areas not accessible by mechanical street sweepers may require hand scraping with shovels.

BID ITEM 20101 – EXCAVATION CUT

This contract includes 2190 CY of EXCAVATION CUT (measured plan quantity). Fish Hatchery Rd was last reconstructed circa 2011 and, based on As-builts from the previous project, includes 5.5-inches of asphalt pavement, 12-inches of crushed aggregate base course no. 2, and 21.5-inches of crushed aggregate base course no. 1. Full depth excavation and replacement of the existing asphalt pavement on Fish Hatchery Rd shall be completed in full within the sawcut areas as shown on the plans. Full depth base course excavation and replacement on Fish Hatchery Rd will only be needed in areas of sewer replacement. Additional base course excavation and replacement shall be conducted as directed by the Construction Engineer based on grade changes for the new curb line and/or condition. Full depth excavation and replacement of the existing base course on Fish Hatchery Rd shall not be conducted beyond the need for the project and will not be paid for under the measured plan quantity for EXCAVATION CUT and/or the CRUSHED AGGREGATE BASE COURSE bid items.

BID ITEM 20140 – GEOTEXTILE FABRIC TYPE SAS (NON-WOVEN) (UNDISTRIBUTED)

This contract includes 1470 SY of undistributed GEOTEXTILE FABRIC TYPE SAS (NON-WOVEN) to be used at the direction of the Construction Engineer for any weak subgrade areas underneath the path and/or roadway.

BID ITEM 20204 – SELECT FILL

This contract includes 280 TONS of SELECT FILL to be used at the direction of the Construction Engineer for establishing subgrade of the path per plan in areas where the path is set substantially higher than existing ground. It is anticipated that SELECT FILL will be needed for the path construction between Plaenert Dr and the Wingra Creek Path on either approach to the new bike-pedestrian bridge over Wingra Creek.

BID ITEM 20219 – BREAKER RUN

This contract includes 1060 TONS of BREAKER RUN to be used at the direction of the Construction Engineer for undercut purposes in areas of weak subgrade underneath the path and/or roadway.

BID ITEM 21302 – CONSTRUCTION FENCE (PLASTIC) (UNDISTRIBUTED)

This contract includes 500 LF of CONSTRUCTION FENCE (PLASTIC) to be used at the direction of the Construction Engineer for establishing safe separation between active work and the traveling public. It is anticipated that CONSTRUCTION FENCE (PLASTIC) will be used for the path and bridge work over Wingra Creek due to the adjacent Wright Middle School and school-aged children walking to/from school. It is also anticipated that CONSTRUCTION FENCE (PLASTIC) will be used for tree protection for existing trees around Wingra Creek as shown in the plans and as directed by City Forestry.

BID ITEM 30205 – TYPE ‘E’ CONCRETE CURB & GUTTER

Type ‘E’ concrete curb & gutter shall be used as shown in the plans for the median island on Fish Hatchery Rd north of the WSOR railroad crossing. A modified type ‘E’ concrete curb & gutter with a 3-foot wide gutter pan shall be used on the westerly-side of this median island to match the existing island, all other curb & gutter dimensioning shall match the City of Madison Standard Detail Drawing for Type ‘E’ concrete curb & gutter. The modified 3-foot gutter pan shall be considered incidental to this bid item.

BID ITEM 30453 – SPLIT BLOCK RETAINING WALL

DESCRIPTION

This work shall include construction of a modular block retaining wall at the locations indicated on the plans or as directed by the Engineer, and in accordance with the manufacturer's recommendations. The wall shall be constructed of StoneWall Select, County Block, Rockwood Classic Colonial, Keystone Century Wall, or an approved equal. Select product is subject to the Engineer's approval and Contractor shall submit selected product information to Engineer prior to preconstruction meeting. The color shall be gray or tan with the final color to be approved by the Engineer.

Split Block Retaining Wall shall be constructed in accordance with the manufacturer's specifications. The Wall shall be constructed on a minimum base of 6 inches of compacted gradation 2 crushed aggregate. All disturbed areas shall be restored in kind (paid under appropriate bid items) and grading adjacent to the walls shall ensure proper drainage.

Any disturbed area behind the split block retaining wall shall be restored with 4 inches of bark mulch to match the existing landscaping. Bark mulch restoration behind the wall is included with this bid item.

METHOD OF MEASUREMENT

Split Block Retaining Wall shall be measured by the acceptably completed square foot of exposed wall.

BASIS OF PAYMENT

Payment for Split Block Retaining Wall shall be full compensation for providing all needed materials, including but not limited to modular blocks, select backfill, fabrics, and drainage materials; for all excavation and preparation of foundation, placing and compacting select backfill, backfilling and disposing of surplus material, landscape restoration; and for all labor, tools, equipment and incidentals required to complete the work.

BID ITEM 40101 – CRUSHED AGGREGATE BASE COURSE GRADATION NO. 1

BID ITEM 40102 – CRUSHED AGGREGATE BASE COURSE GRADATION NO. 2

It is assumed that both existing layers of crushed aggregate base course underneath the asphalt pavement on Fish Hatchery Rd are in good condition as the roadway was fully reconstructed within the last fifteen years. Both layers of crushed aggregate base course shall be replaced to match existing conditions where needed, specifically in the areas of storm and sanitary sewer replacement. Where applicable and as directed by the Construction Engineer, the Contractor shall maintain as much of the existing crushed aggregate base course as possible, particularly in areas where only the curb & gutter is shifting horizontally with minimal vertical change in grade from existing conditions. Where applicable, the Contractor shall leave the majority of the top layer of crushed aggregate base course. Complete fine grading as needed for construction of the new curb & gutter as specified in the plan, which shall be considered incidental to the relative items of work.

BID ITEM 40203 – HMA PAVEMENT 3 MT 58-28 S

BID ITEM 40205 – HMA PAVEMENT 4 MT 58-28 S

All pavement within the sawcut as shown on the plans shall be replaced in full depth per the Fish Hatchery Rd typical section, this includes a roughly 8-foot swath of pavement on either side of the concrete panels at the WSOR railroad crossing.

BID ITEM 40251 – ASPHALT MATERIAL FOR CURB FRONT FILL (UNDISTRIBUTED)

This contract includes 60 LF of undistributed ASPHALT MATERIAL FOR CURB FRONT FILL to be used at the direction of the Construction Engineer for pavement next to curb replacement areas.

BID ITEM 40308 – RAMPING SAS (UNDISTRIBUTED)

This contract includes 10 EACH of undistributed RAMPING SAS unit items to be used at the direction of the Construction Engineer for ramping pavement around manholes in the roadway prior to final surface paving.

BID ITEM 40396 – TEMPORARY ASPHALT PAVEMENT WEDGING (UNDISTRIBUTED)

This contract includes 200 LF of undistributed TEMPORARY ASPHALT PAVEMENT WEDGING to be used at the direction of the Construction Engineer for ramping driveways and curb ramps prior to final surface paving.

BID ITEM 70104 – ADJUST WATER VALVE BOX (UNDISTRIBUTED)

This contract includes 5 EACH of undistributed ADJUST WATER VALVE BOX unit items to be used at the direction of the Construction Engineer for adjusting City of Madison water valve box lids in either the roadway and/or path.

ARTICLE 500 SEWER AND SEWER STRUCTURES GENERAL

The sanitary sewer and storm sewer designer for this project is Daniel Olivares and may be contacted at daolivares@cityofmadison.com or (608) 261-9285.

SANITARY SEWER GENERAL

This project shall include installing approximately 148 feet of new 8" PVC sanitary sewer main, 671 feet of new 12" PVC sanitary sewer main, new sanitary access structures, and includes existing pipe and structure removals and/or abandonment.

8" and 12" ASTM D3034 SDR-26 sewer main as called for on the plan set shall be payable under Bid Items 50301 and 50303. 6" ASTM D3034 SDR-26 sewer main as called for on the plan set shall be payable under Bid Items 50352.

All new City sanitary sewer access structures shall include Neenah R-1550 castings with the City of Madison casting detail (see S.D.D. 5.7.16) of the City of Madison Standard Specifications for Public Works Construction. All new sewer main connections may be factory cored and shall be included in the structure.

All existing main connections shall be field cored to accommodate existing conditions and shall be compensated under Bid Item 50791 SANITARY SEWER TAP. All sewer main and/or laterals not slated for replacement that are damaged during the installation of a structure shall be replaced by the Contractor and shall be considered incidental to the project. All benches and flowlines shall have a smooth trowel finish.

It is advised that the Contractor visit the site prior to bidding to determine the type of trench protection that will be necessary for the sanitary sewer main installation.

STORM SEWER GENERAL

Storm sewer work shall include installing new RCP sewer pipe sized from 12" to 24", new sewer structures, and removal existing sewer structures.

Reconnection of existing pipes at new or existing structures, or new pipes at new or existing structures, shall be considered to be part of the work required to construct the new structure or to construct the new sewer pipe and shall not be rewarded with additional compensation. However, if the structure being removed is larger than the new structure, thus requiring additional pipe, the new pipe shall be paid under the appropriate bid item and the connection of the old pipe to the new pipe shall be accomplished with a concrete collar.

Where a new structure is to be constructed at an existing pipe, it is expected that the Contractor shall saw cut the existing pipe in the required location to accommodate the placement of the new structure. If the Contractor for his or her convenience deems it more suitable to remove the existing pipe to a full joint, the additional pipe and concrete collar required to reconnect to the new structure shall be the Contractor's responsibility and shall not be compensated.

The Contractor shall review the site conditions and proposed plans prior to submitting precast storm structure drawings to the Engineer. The Contractor shall review the drawings for accuracy prior to submitting to the Engineer. Precast structures are only allowed where field poured structures are not specifically called for, and no precast structures are allowed until ULO's are completed and approval of the Design Engineer has been received.

ULO's shall be completed where called for on plans and paid under Bid Item 50801. There are additional undistributed ULO's to be used at the discretion of the Construction Engineer.

BID ITEM 90030 – 4' X 7' STORM SAS

DESCRIPTION

Work under this item includes construction of a new field-poured 4' X 7' STORM SAS, providing and installing castings as described in sewer schedule, setting and adjustment of the castings to the grade as called out in the plan set or as directed in the field. The 4' X 7' STORM SAS shall be constructed per S.D.D. 5.7.3.

METHOD OF MEASUREMENT

4' X 7' STORM SAS shall be measured for payment as a single unit complete in place.

BASIS OF PAYMENT

4' X 7' STORM SAS shall be paid for according to the unit bid price. The unit price shall include all materials, labor and equipment necessary for a complete installation as shown and specified including excavation, bedding reinforced concrete, and connections to existing and proposed pipes.

SECTION 601 ELECTRICAL GENERAL REQUIREMENTS

General Provisions for City Conduit Installation.

Supplement standard spec 652 as follows:

Use Schedule 80 conduit under all traffic areas.

Install all conduit at a minimum depth of 30 inches, unless otherwise approved by the engineer. Solvent weld all joints. Mark the location of each conduit, where conduit crosses traffic areas, by a permanent chiseled arrow or other appropriate permanent stamp in top of the curb head.

Install and connect all conduit to the concrete bases, manholes, handholes, existing conduit, or conduit elbows so as to provide a continuous network, unless otherwise indicated on the plan. All connections shall be watertight. Do not install drainage holes in conduit. Uncover the ends or mid-sections of all existing conduit that is being extended by or incorporated into this project work.

When connections are to be made to an existing conduit, first verify that the existing conduit is fully clear and useable for its entire cross-section and length. When the existing conduit is found to be defective, notify the engineer and do not proceed until the engineer so directs. If the contractor connects to an existing defective conduit without the express direction from the engineer, make any and all necessary repairs and replacements to all conduits, including conduit that was "existing" prior to the contractor starting work and to the satisfaction of the engineer. All costs of this work shall be at the expense of the contractor.

Where conduits terminate in a non-paved location and not in a structure, securely attach a PVC cap at the end at conduit depth of 30". Where conduit runs parallel to curb and gutter, place the conduit within 12 inches of the back of the curb, except as directed by the engineer. The engineer will determine termination points not within pull boxes or concrete bases.

Unless the contract provides for installation of cable, cap the ends of each run of conduit with standard conduit caps or otherwise appropriately plug the ends to preclude infiltration of water and soil. Install a pull wire in each conduit, except those with only streetlight wire. A pull wire shall be approximately 4 feet longer than the conduit run, and shall be doubled back for at least 2 feet at each terminal. The pull wire shall be #10 AWG copper, stranded, with THHN insulation and green color coding. Install the pull wire within seven days of completing a conduit installation from structure-to-structure.

Use a 6-inch minimum sand padding below the conduit and a 6-inch minimum sand lift above the conduit. Do not backfill trench with any rocks larger than 4 inches in diameter or any foreign debris.

General Provisions for City Traffic Signals.

Perform all work on the lighting and conduit/pull box system in accordance to the Wisconsin Electrical Code, the applicable provisions of the standard specifications, and these special provisions and plans.

The City of Madison will remove existing traffic signals and “signal only” poles when the temporary signals are in place at each intersection. Contact Chad Veinot at the City of Madison Traffic Engineering Shop, (608) 266-9031, to coordinate removal of existing signals and installation of new signals.

Remove existing streetlight poles identified for removal, including those that also have traffic signal equipment on them.

Each pedestrian push button installation shall include “Push Button for Walk Signal” signs. Single direction arrow signing shall also be used with all buttons except two direction arrow signing is needed for single buttons on median poles.

If existing conduits, handholes and bases designated as “save” cannot be saved, contact Jerry Schippa, (608) 267-2969, for further direction.

All new electric services shall be metered power, 100 amperes, 120 volt, CG-3 rate. A minimum of 6 feet separation shall be maintained between any adjacent loop detectors.

General Provisions for City Electric Systems.

A General Requirements

Perform this work in accordance to the Wisconsin Electrical Code, National Electrical Contractor's Association (NECA) electrical construction practices, OSHA and the standard specifications.

Perform all work on the lighting and conduit/pull box system in accordance to the Wisconsin Electrical Code, and applicable provisions of standard spec 659, and these special provisions and plans.

Carefully remove and salvage the steel frames and covers from all pull boxes and manholes to be removed or abandoned, and all street light poles, arms, transformer bases, fixtures, concrete handholes, and associated equipment. Material designated by the City to be saved shall be returned to City Traffic Engineering, 1120 Sayle St., Madison.

Complete electrical work by a journey-worker electrician or be completed by an electrical apprentice under the supervision of a journey-worker electrician. Legal status or standing as a journey-worker and apprentice electricians shall be certified or otherwise documented to the engineer before beginning any electrical work. Electrical work is hereby defined as electrical and related construction required to be performed under the contract by the contractor, in accordance to the standard specifications, contract provisions, standard detail drawings and plan details applicable to electrical construction. At the pre-construction conference, supply the engineer with a list of names and qualifications of journey-workers and/or electrical apprentices who will or may be working on this contract.

Proof of qualification to do electrical journey-worker level work shall be the “Completion of Apprenticeship” certification card issued by an approved state agency, or a resume showing sufficient electrical education and a minimum of 14,000 hours of varied electrical work experience. All apprentices shall be indentured by an approved state agency.

The contractor is hereby advised that electrical apprentices must work under the terms of their indentures, which require an apprentice be under the direct supervision of a journey-worker with the exception of an apprentice in the final year as an apprentice. Any violation, or suspected violation, of these terms will be reported to the Bureau of Apprenticeship Standards.

On completion of the work, test the installation and ensure that it is entirely free of grounds and short circuits. This contract contemplates and intends a complete and operating installation of electrical work. Everything in the form of labor or material necessary for this result is in the intent of the contract.

It must be understood that electrical drawings and details are diagrammatic; they are not intended to be shop drawings. It is expected it may be necessary to move conduit, and/or equipment in some cases, to get a coordinated installation. Such changes are considered part of the contract obligation, without cost to the owner. Do not locate any equipment where its usefulness and/or operation may be affected by the work of other trades, door swing, counter, equipment, etc.

The contractor acknowledges his acquaintance with the plans and specifications and their respective requirements, and shall guarantee the electrical system has been installed strictly in accordance to the electrical plans and specifications, using only the best of materials available and installed in a substantial manner by experienced labor. The contractor agrees to replace and/or repair items failing from causes of faulty workmanship, material or design, without extra cost, at any time within one year from the date of final acceptance.

Furnish the City of Madison with service manuals for all items furnished under this contract. Service manuals shall be complete with drawings, diagrams, operation and installation instructions, and parts lists.

New streetlight wire in conduits shall consist of (3) #4 and (1) #8 green wire. The color coding for the #4 wire shall be one black, one red, and one white.

Ground wires shall have green insulation or be marked with green tape at all junction or pull boxes and at all terminations. Equipment and enclosures shall be grounded, ground connection surfaces shall be cleaned, and connections shall be made so it is impossible to move them.

All maintenance of existing street light facilities within the project limits, and street lights outside the project limit but serviced by electrical services within the project limit shall be the contractor's responsibility. Maintain the new street lights until project work is accepted. This work shall be considered incidental to installation of street light units, temporary lighting, structures and ducts, and no separate compensation will be paid.

Extend existing lighting circuits to feed the new and relocated lights as part of this project. Verify the existing loads of each lighting circuit before adding additional load to a lighting circuit. Loading on any circuit shall not exceed NEC requirements.

Submit one copy of as-built plans, including cable and conduit routing diagrams, wiring of fixtures and other pertinent details, to the engineer and the City of Madison.

Furnish equipment and appliances necessary to test the complete installation of electrical conductors. Test and demonstrate to the satisfaction of the engineer that the circuits are properly connected, continuous and free from short circuits and unspecified grounds, that the circuits are connected in accordance to the manufacturer's wiring layout, and that each circuit is operational. The lighting system shall not be deemed complete until the electrical work has been completed and the electrical systems are found to be in proper working order, including operation for ten consecutive nights without failure.

B Materials

All materials furnished by the contractor for lighting installation under this contract are subject to approval by the engineer.

Manufacturers shall be responsible for providing materials listed by UL or other approved agencies and all governing codes and ordinances. Materials must bear a UL and/or other approved labels, where possible. Items specified by catalog number of brand name and shop drawing approval will not relieve the manufacturer of this responsibility. All electrical material for which a standard has been established by the Underwriters Laboratories, Inc. shall be furnished and installed under this contract. Material shall have the UL label firmly attached and be listed by UL Listing signifies that the material has passed the established standard testing. All electrical materials shall conform to the latest requirements of the Wisconsin Electrical Code.

All materials, not specified herein, used in the work shall conform to the requirements specified on the plan or the contract special provisions.

Furnish and install incidental items, such as wire nuts, grommets, tape, connectors, and electrical varnish that are obviously necessary to make the proposed system complete from the source of supply to the most remote unit.

Touch up mars and scratches on painted equipment with two coats of synthetic resin enamel or as directed by the engineer.

Furnish a complete list and cut sheets/shop drawings of materials to be furnished and used for lighting. Include the names and addresses of manufacturers, together with catalog numbers, certificates of compliance, specifications, and other product information requested by the engineer. Submit the list and cut sheets/shop drawings within 20 calendar days of the award of the contract. Do not incorporate any materials into the lighting system prior to obtaining the written approval of the engineer. Approval does not change the intent of the specifications. Do not substitute any materials. The contractor is allowed up to two submittals of material for approval. If more than two submittals are required, the contractor will be charged on a time-and-material basis for additional review time with payment made before submittals will be reviewed.

C Splices

Splices shall comply with standard spec 659.3.2. All splices within a junction box, handhole, etc. shall be of the same type. No splices are allowed in underground pull boxes, except for grounding conductors.

D Circuit Identification

Accomplish color coding by using cable jackets of the proper color. Code all tails of all splices. Color-code secondary distribution circuits as shown on the plans; the ground conductor shall be green. Each accessible location of underground cable in junction boxes, pull boxes and pole bases shall have a permanent white nylon tag with black lettering, attached in a "flag" manner using a nylon tie, identifying the cabinet and conductor circuit number.

E Branch Circuit Tagouts

The contractor may at his option work on live circuits or he may disconnect and tag out circuits. Any branch circuit not disconnected and tagged out shall be considered live; restrict work force to those qualified to work on live circuits. Disconnection may be made by disconnecting branches at the overcurrent device. Make tagouts with contractor furnished manufactured electrical warning tags and endorse with the name of the contractor, the date, and the project. Clear all tagouts by the end of the workday.

F Threaded Fasteners

Liberally coat all threaded fasteners, i.e., screws, and bolts with an approved anti-seize compound. Excepting fasteners inside control cabinets, fasteners up to 1/2-inch in diameter shall be stainless steel.

Provide rust, corrosion and anti-seize protection at threaded assemblies by coating the

mating surfaces with Markal (Hightemp E-Z Break), Never-Seez (marine grade), LPS 100, Lubriplate or approved equal.

G Bonding Wire

Install bonding wire in conduits for equipment grounding. Ground all equipment as required.

H Initial Failures

The contractor and the engineer shall agree on a time for test burning of completed installations, which is generally toward the end of the contract period. Replace failed lamps, along with any other non-functioning component, for no additional compensation. Only one test burn for the purpose of identifying initial failures will be required. Coordinate supply of replacement lamps with the city.

I Project Construction Staging

The construction of the new lighting system shall maintain the integrity of the existing lighting systems within and beyond the project limits at all times. Exceptions to this shall only be granted for just cause by the inspector.

J Items of the Same Classification

All items of the same classification shall be of the same manufacturer and series.

L Underground Installation

Ensure that the engineer has inspected all underground conduit and concrete base forms before backfilling any trench or pouring concrete. Any work completed without such inspection is subject to rejection as unacceptable work and shall be immediately removed and acceptably replaced or otherwise satisfactorily corrected by and at the expense of the contractor. It is the contractor's responsibility to arrange for inspections. There will not be any additional compensation to the contractor for delays and inconvenience associated with arranging and waiting for inspections.

BID ITEM 90060 – FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 1

BID ITEM 90061 – FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 2

BID ITEM 90062 – FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 3

A Description

This item number includes furnishing and installing street lighting fixture luminaires.

B Materials

B.1 Material Qualifications

Provide an integral LED lighting unit. All parts not specifically mentioned, which are necessary and are regularly furnished in order to provide a complete unit, shall be furnished by the successful bidder at the bid price and shall conform in quality of material and workmanship to that usually provided by the engineering practice indicated in this specification.

Furnish luminaires of the "cutoff" type conforming to all general aspects for luminaires as specified under standard spec 659 except as modified herein. All equipment to be furnished shall be new, unused, and the latest model being produced. The LED Luminaire Types shall be as follows:

Type 1: USSL-PA1-A-730-U-T2R-SA-BK	(BIKE PATH - PATH)
Type 2: USSL-PA2-A-730-U-T2R-SA-AP	(STREET)
Type 3: USSL-PA2-A-730-U-T3-SA-BK	(BIKE PATH - STREET)

B.2 Manufacturer's Warranty

The manufacturer shall warrant that goods provided for this project will conform to

applicable specifications, drawings, designs, samples, descriptions and will be free from defects in material and workmanship and will be fit for the particular purpose intended by the city.

This warranty shall remain in effect for one year. The warranty period commences on the date the luminaires are installed.

Under this warranty, the manufacturer agrees to replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the City of Madison.

New lighting units will not be accepted before luminaires and lamps have operated without failure for a period of at least ten consecutive nights.

C Construction

Install LED Luminaires and Mounting Bracket (Type) in accordance to the pertinent provisions of standard spec 659 and as the manufacturer directs.

D Measurement

The department will measure LED Luminaires and Mounting racket (Type) as each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
90060	FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 1	Each
90061	FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 2	Each
90062	FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 3	Each

Payment is full compensation for furnishing and installing all materials, including all luminaires, and mounting equipment.

BID ITEM 90063 – POLE ALUMINUM 20-FT STREET LIGHT (BLACK)

A Description

This special provision describes Poles Aluminum 20-Foot Street Light (BLACK) in accordance to the plans and as hereinafter provided. It is the intent to describe in these specifications minimum functional and design requirements for aluminum light poles for the City of Madison, Wisconsin.

Poles under this bid item shall be powder coated black.

B Materials

Provide all poles that conform to the electrical detail drawing in the plans; the manufacturer's approved shop drawing; and these specifications. Submit exceptions to these specifications and city drawings to the engineer for review prior to manufacturing. Coordinate mounting needs with the LED luminaires selected for the project prior to ordering poles to ensure mounting and wire raceway holes are compatible with the selected LED luminaires.

Provide poles that have round aluminum shafts with a base welded to the lower end of each.

Certify that all poles have been designed to withstand a 90-mile-per-hour sustained wind

velocity and a 117-mile-per-hour gust velocity, with one light fixture attached.

B.1 Shaft

Provide a grounding nut or nut holder for accommodating a 1/2 inch 13 UNC threaded bolt or stud on the inside of the shaft immediately opposite the center of the handhole. Provide poles that after fabrication and assembly, will have no sharp edges, corners or points on both the interior and exterior surfaces, except at the base plate. Restore to the design alloy by heat treating after fabrication.

B.2 Pole Coatings

Confer with Jerry Schippa of City Traffic Engineering, (608) 267-1969, as to the specifications for a black anodized finish in order to assure the city that the city's desires are being fulfilled. Spin the poles using a fine (120) grit. Provide a uniform finish appearance free from any streaking during the pole extrusion, spinning and anodizing. Use a two-step matte black anodizing finish (AA-C22-A44-Black) or an alternate process which produces a dark black finish. A light black finish is not acceptable.

B.3 City Approval of Shop Drawings

Submit shop drawings to the City of Madison Traffic Engineering Division, PO Box 2986, Madison, WI 53701-2986, Attn: Jerry Schippa. Manufacture no poles until the City has approved the shop drawings. City review and approval of shop drawings will be done within three work days of their receipt unless revisions to shop drawings are necessary as determined by the city.

C Construction

Construct according to standard spec 657.

D Measurement

The department will measure Poles Aluminum 20-Foot Street Light as each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90063	Poles Aluminum 20-Foot Street Light	Each

Payment is full compensation for furnishing and installing poles, all hardware and fittings necessary to completely install the pole; for corrosion prevention where required; for installing identification required plaques.

BID ITEM 90066 – FURNISH & INSTALL 30-FT, 7 GAUGE POLE

BID ITEM 90067 – FURNISH & INSTALL 30-FT, 11 GAUGE POLE

BID ITEM 90064 – FURNISH & INSTALL 15-FT TRAFFIC SIGNAL STANDARD POLE

BID ITEM 90065 – FURNISH & INSTALL 20-FT TRAFFIC SIGNAL STANDARD POLE

A Description

This special provision describes furnishing and installing poles and arms in accordance to section 657 of the standard specifications, the details shown on the plans, and these special provisions.

B Materials

Provide round poles, with a base plate welded to the bottom end of the pole. All 20 foot poles are to be a single section, with an eight-inch diameter shaft at the base and 0.14 inches per foot taper. All 30 foot poles are to be a single section, with an eight and 11/16-inch diameter shaft at the base and 0.14 inches per foot taper.

Provide base plates with a slotted opening for anchor bolts. All 30-ft poles to be able to be mounted to an 11 1/2" bolt circle with 1" anchor bolts (LB-3R bases, and 16-INCH Transformer Bases); all 20-ft poles to be able to be mounted to an 11 1/2" bolt circle with 1 1/4" anchor bolts (LB-8R bases).

Certify that all 30-foot poles have been designated to withstand a 90 mile per hour sustained wind velocity and 117 mile per hour gust velocity with the bracket arm and luminaires in place.

Use 20-foot 7 gauge poles for supporting aluminum trombone arms holding signs and/or signal heads.

Provide a 4" x 6 1/2" galvanized handhole with contoured or flat cover plate joined to the reinforced handhole frame with two bolts. Locate the handhole at 90 degrees clockwise from the bracket arm side of poles as viewed when looking down from the top of the pole. The center of the handhole should be 14 inches from the bottom of the pole. Provide a solid metal bracket, with a drilled and tapped hole for securing cover plate bolts. Clips for holding these bolts are not acceptable. The machine bolts shall be a slotted hex-head style.

Fabricate the pole shaft from the herein specified manufacturer's best grade, hot rolled basic option hearth, or basic oxygen process steel. Provide a shaft with only one longitudinal, electrically welded joint, with the strength rated at not less than 100 percent of the yield strength of the steel and shall have no intermediate horizontal joints or welds. Only one length of steel shall be used, and form it into a continuously tapered shaft, having a taper of approximately 0.14 inches per foot. Provide smooth welds allowing the specified taper to be constant. Provide a pole that is within 1/4" in 10 feet of being straight and centered on its longitudinal axis.

Provide a grounding nut or nut holder for accommodating a 1/2 inch x 13 UNC threaded bolt or stud on the inside of the shaft immediately opposite the center of the handhole. Make the nut completely free of any metal residue that would prevent a bolt from easily screwing entirely into the nut.

Provide all poles holding LED fixtures with mounting and wire raceway holes placed before being hot-dipped galvanized. Coordinate mounting needs with the LED luminaires selected for the project prior to ordering poles.

Furnish and install a pole-top cover and four nut covers for each pole.

Provide each steel pole with a permanent imprinted metal label attached with rivets midway between the base plate and the handhole. State the overall pole height, shaft gauge, and year of manufacture on the label. Provide a label that will conform to the curvature of the pole and not have any sharp edges or corners. Install rivets so they are smooth inside and outside of the pole.

Thoroughly clean the exterior surface of the pole, arm, and hardware to make them free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances after all welding has been completed. Hot-dip galvanized the poles and arms in accordance to the requirements of ASTM Designation A123. Hot-dip galvanize the hardware in accordance to ASTM designation A153. Provide a bright, shiny, and uniform galvanized finish. Matted or dull pole sections will not be accepted.

Furnish non-shrink commercial grout from approval products list.

15-FT Traffic Signal Standard Poles shall conform to WisDOT specification 657.2.5.

B.3 Pole Coatings

[VACANT]

C Construction

Set and plumb metal poles with the use of leveling nuts furnished with the anchor bolts. Level luminaires after erecting and leveling the metal standards with bracket arms. The proper leveling method may be obtained from the manufacturer's instruction manual. Torque nuts on anchor and transformer bolts to 175-200 foot pounds or as directed by the engineer. Provide rust, corrosion, and snit-seize protection at all

threaded assemblies by coating and mating surfaces with Markal (hightemp – E-Z Break), Never-Seez (Marine Grade), LPS 100, Lubricates, or approved equal.

Attach the stranded copper ground wire that is installed as a part of the base construction with an approved connector (Fargo GC 202 or approved equal) to a ground nut locate inside the pole opposite the handhole.

When transformer bases are not installed, trowel grout between the pole and concrete base and finished at an angle from the edge of the pole base to the outer edge of the foundation. Leave a ½ inch slot for drainage through the grouting on the street side at the top of the concrete base.

D Measurement

The department will measure Pole (description) as each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90066	FURNISH & INSTALL POLE 30-FT, 7 GAUGE	Each
90067	FURNISH & INSTALL POLE 30-FT, 11 GAUGE	Each
90064	FURNISH & INSTALL POLE 15-FT TRAFFIC SIGNAL STANDARD POLE	Each
90065	FURNISH & INSTALL POLE 20-FT, TRAFFIC SIGNAL STANDARD POLE	Each

BID ITEM 90079 – FURNISH & INSTALL TRANSFORMER BASE, 16-INCH STEEL

A Description

This special provision describes furnishing and installing steel transformer bases as shown on the plans and as follows.

B Materials

Provide hot-dipped galvanized steel transformer bases in accordance to ASTM designation A123. Provide bases with slotted bolt openings. Furnish steel connecting bolts, size 1.00 inches by 4 inches, hold down lugs for 1.00 or 1.25 inch bolts and nuts and washers. Verify the bolt diameter projection and bolt circle dimension required for each application. Ensure the concrete bases and pole bases are compatible with the transformer bases and bolts. Hot-dip galvanize all material and verify they are of sufficient size and strength to exceed the capacity of the bases. Construct 16-Inch bases to conform to the detail in the plan.

Furnish to the engineer at the time of delivery of the bases, a manufacturer's certificate of compliance that the base and hardware as furnished meets the above requirements.

B.1 Coatings

[VACANT]

C Construction

Install transformer bases in accordance to the manufacturer's instructions, and as shown on the plans.

D Measurement

The department will measure Tranformer Base 16-Inch Steel as each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90079	FURNISH & INSTALL TRANSFORMER BASE, 16-INCH STEEL	Each

Payment is full compensation furnishing and installing transformer bases, streetlight pole wire, mechanical grounding connector and related hardware; for leveling shims when required.

BID ITEM 90078 – FURNISH & INSTALL PEDESTAL BASE**A Description**

This special provision describes furnishing and installing Pedestal Bases (BLACK) as shown on the plans and as follows.

B Materials

Conform to WisDOT specification of WisDOT bid item 657.0100

B.1 Coatings

[VACANT]

C Construction

Install transformer bases in accordance to the manufacturer's instructions, and as shown on the plans.

D Measurement

The department will measure Pedestal Base (Black) as each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90078	FURNISH & INSTALL PEDESTAL BASE	EACH

Payment is full compensation furnishing and installing transformer bases, streetlight pole wire, mechanical grounding connector and related hardware; for leveling shims when required.

BID ITEM 90068 – FURNISH & INSTALL TROMBONE ARM, 12-FT**BID ITEM 90069 – FURNISH & INSTALL TROMBONE ARM, 18-FT****A Description**

This special provision describes furnishing and installing trombone mast arms and all necessary miscellaneous hardware needed to complete the installation of the trombone mast arm as shown on the plans, in the standard specifications, and as hereinafter provided.

B Material

Furnish traffic signal trombone arms designed to withstand loadings resulting from up to two 12" 3-section aluminum signal with backplate and an 18" x 90" aluminum street name sign mounted on the arm as shown on the drawing. Design factors in accordance to the AASHTO Specifications for the Design and Construction of Structural Supports for Traffic Signals, Signs, and Highway Lighting, together with a wind pressure resulting from a wind velocity of 80 miles per hour plus gust factor, shall be applied to these arms, with the above signals attached.

Furnish certification of compliance with these stated AASHTO performance requirements with submission of the material list.

Submit shop drawings that include dimensions of width, depth, length and thickness of all members and ASTM designation and alloy designation of aluminum members.

Construct trombone arms of aluminum consisting of round or oval upper and lower members joined by one or more tubular vertical struts welded to them. Construct the pole end of the mast arm with a mounting clamp welded to it which will permit the attachment of the mast arm to a round pole of varying diameter. Construct the lower clamp to be 5-7/8" I.D. and the upper clamp to be 5-1/2" I.D. Design the clamps to accommodate some variation in pole diameter while still attaining full contact between the clamp and the pole. The surface area of the clamp contacting the pole shall be sufficiently large and designed to prevent horizontal rotation in windy conditions. Provide bolts connecting the arm bracket to the back bracket from galvanized steel; stainless steel bolts are not acceptable. Design the vertical strut, which has provision for mounting the signal head, to provide for horizontal adjustability along the main mast arm members so that signal heads of various lengths with backplates, up to and including 5-section 12" heads, can be accommodated within the confines of the mast arm. Design the cross tees for signal heads to have two slots on the threaded hubs that face each other.

Provide the wiring raceway entrance to be through the lower mounting bracket.

Provide the mast arm with a uniform natural aluminum finish and clean. No painting or other corrosion preventive maintenance will be required.

Construct the portion of the main members of the arm to which the arm attachment bands are welded as one piece of seamless tapered aluminum tubes.

Attach the main arm member to the pole using extruded aluminum clamps fastened with continuously threaded stainless steel bolts with nuts and washers meeting the requirements of ASTM Designation A-320. List the strength and/or grade specification ratings on the shop drawings. Provide stiffeners or gussets at the joints between the main arm tubes and arm clamps to provide adequate strength to resist side loads.

Provide shims made of an aluminum alloy.

Provide a permanent imprint of the "Type" and "Year of Manufacture" on the underside of the lower member of each arm.

B.1 Trombone Arm Coatings [VACANT]

C [Vacant]

D Measurement

The department will measure Traffic Signal Trombone Arm Aluminum 12-FT, and 18-FT by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90068	FURNISH & INSTALL TROMBONE ARM, 12-FT	EACH
90069	FURNISH & INSTALL TROMBONE ARM, 18-FT	EACH

Payment is full compensation furnishing and installing all materials including all hardware, fittings, mounting clamps, shims and attachments necessary to completely install the mast arms.

BID ITEM 90070 – FURNISH & INSTALL 3-SECTION, 12-INCH TRAFFIC SIGNAL HEADS

BID ITEM 90071 – FURNISH & INSTALL 4-SECTION 12-INCH TRAFFIC SIGNAL HEADS

BID ITEM 90072 – FURNISH & INSTALL 3-SECTION 4-INCH BICYCLE SIGNAL HEADS

BID ITEM 90073 – FURNISH & INSTALL 16-INCH PEDESTRIAN SIGNAL WITH COUNTDOWN TIMER

A Description

This special provision describes furnishing and installing vehicle, bicycle, and pedestrian signals with LED indications in accordance to the standard specifications and these special provisions. Items include any hardware necessary to mount signals vertically on poles, and trombone arms.

Note that there are two different bicycle signal displays included in these bid items, a 12-inch far side bicycle signal and a 4-inch near side mount bicycle signal. See plans for all indications used.

B Materials

Make all vehicle and pedestrian signal heads with polycarbonate material, UV stabilized, with color impregnated in the material. All features and performance shall meet the requirements outlined in the latest revision of the Institute of Transportation Engineers' publication, "Adjustable Face Vehicular Traffic Control Signal Heads" The front face, all visors (inside and outside), and other exterior parts shall be flat or semi-gloss black. Use only exterior hardware made of stainless steel.

All vehicle and pedestrian signal heads shall have Black housings

All 12-inch vehicle and bicycle signal heads shall come with a polycarbonate black backplate. Mounting included in each item.

B.1 12-INCH Vehicle and bicycle indications

Furnish circular and arrow LED modules from the departments approved product list and conforming to ITE VTCSH-LED. LED modules shall have a lens which covers each LED such that a more uniform display is shown.

All vehicle signals shall be equipped with a cutaway visor.

Provide snow-shedding shield on each signal indication on all signals mounted on monotube arms or trombone arms. The shield shall be impact resistant polycarbonate, designed and installed specifically to reduce snow accumulation, while not allowing water to enter or reside in the signal unit.

B.2 4-INCH Bicycle Indications

Furnish 4-inch bicycle signals. Contractor may contact Jerry Schippa (608-267-1969) at City of Madison Traffic Engineering for list of manufacturers and contact as the WisDOT state contract does not include this device.

Any connecting wiring from the bicycle signal housing to the home run wires shall be long enough to place the splice in the transformer base. Typically a minimum of 6'.

B.3 16" Pedestrian Signal Heads with Countdown Timers

Furnish state approved 16-Inch Pedestrian LED Full Hand/Full Man Overlay Module with Countdown conforming to ITE VTCSH-LED.

All pedestrian signals shall be equipped with a tunnel visor.

Pedestrian countdown timers shall have a control wire so that when 120V AC current is applied, the timer will immediately go dark. This control wire shall be wired back to the signal control cabinet.

C Construction

Construct according to standard spec 658.

Mount all pole mounted traffic signals 7' from ground or sidewalk level.

Mount all 4-Inch bicycle signal heads at 4' from ground or sidewalk level.

D Measurement

The department will measure each 12-Inch traffic signal head, 4-Inch bicycle signal head, and 16-inch pedestrian signal with countdown timer item by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90070	FURNISH & INSTALL 3-SECTION 12-INCH TRAFFIC SIGNAL HEADS	EACH
90071	FURNISH & INSTALL 4-SECTION 12-INCH TRAFFIC SIGNAL HEADS	EACH
90072	FURNISH & INSTALL 3-SECTION 4-INCH BICYCLE SIGNAL HEADS	EACH
90073	FURNISH & INSTALL 16-INCH PEDESTRIAN SIGNAL WITH COUNTDOWN TIMER	EACH

Payment is full compensation for furnishing and installing all materials, and for furnishing all equipment and incidentals necessary to complete the work.

BID ITEM 90074 – INSTALL CITY FURNISHED ACCESSIBLE PEDESTRIAN SIGNAL BUTTONS**A Description**

This special provision describes installing Accessible Pedestrian Signal (APS) buttons furnished by the city of Madison.

B Materials

City of Madison shall furnish 3-wire APS button, Ped Control Unit, wiring, and mounting hardware.

C Construction

Contractor shall coordinate with Ed Smith at Traffic Engineering Electrical shop 24 hours prior to pickup of equipment. Coordinate with City of Madison traffic engineer, Jerry Schippa (608-267-1969) when buttons are installed to have audible messages downloaded to each button.

D Measurement

The department will measure each Accessible Pedestrian Signal by each button installed and proven to be operational.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
90074	INSTALL CITY FURNISHED ACCESSIBLE PEDESTRIAN SIGNAL BUTTONS	EACH

Payment is full compensation for furnishing and installing all materials, and for furnishing all equipment and incidentals necessary to complete the work.

BID ITEM 90075 – INSTALL CITY FURNISHED RRFB (FISH HATCHERY & MARTIN), 90075**A. Description**

This specification describes coordinating with City Traffic Engineering Shop (Ed Smith) 48 hours prior to needing Rectangular Rapid Flashing beacon and signs.

B. General Requirements

Contractor is responsible for coordinating pick up from 1120 Sayle Street and installing in the field per plans.

C. Materials

City of Madison to furnish RRFB devices, signs, and mounting hardware.

D INSTALLATION

Contractor shall install RRFB's in the field per plan and manufacturer's specifications. Contractor shall punch out any side tabs to allow pedestrians to view the flashing lights from the side.

E Measurement

The department will measure this item upon completion by the location (lump).

F Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
90075	INSTALL CITY FURNISHED RRFB (FISH HATCHERY & MARTIN)	EACH

Payment is full compensation for furnishing, configuring and delivering all materials to the City of Madison, 1120 Sayle Street.

BID ITEM 90076 – TEMPORARY STREET LIGHTING FIXTURES**A Description**

This special provision describes installing, maintaining, and removal of temporary traffic street lighting fixtures.

This item does not include support structures or cables. Support structures and overhead conductors shall be paid out in the following standard bid items:

60510	INSTALL AND MAINTAIN SUPPORT STRUCTURES FOR STREET LIGHTS
60511	INSTALL AND MAINTAIN AERIAL CABLE FOR STREET LIGHTS

B Materials

Furnish and install luminaire arms and luminaries conforming to the pertinent requirements of standard specs 657 and 659. The luminaries shall be 150 watt, full cutoff, high-pressure sodium or 120 watt, LED and shall be furnished with photo electric cells to turn the luminaire on and off.

C Construction**C.1 General**

The contractor shall furnish and maintain temporary lighting fixtures on contractor installed and maintained wood poles utilizing new or existing street lighting services.

D Measurement

The department will measure Temporary Street Lighting fixtures by the each fixture contingent upon inspection.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEMNUMBER	DESCRIPTION	UNIT
90076	TEMPORARY STREET LIGHTING FIXTURES	EACH

Payment is full compensation in accordance to standard spec 661.5.

BID ITEM 90077 – FURNISH & INSTALL #10 AWG GROUND WIRE**A Description**

This special provision describes furnishing and installing #10 AWG neutral wire from the neutral terminal block in the traffic signal cabinet to each traffic signal pole.

B Material

Furnish one green coated #10 AWG ground wire.

C Construction

Make all field connections in cabinet and in traffic signal bases.

D Measurement

The department will measure #10 AWG Neutral Wire by the linear foot acceptably completed, measured from the splice with the system lighting circuit in the pole base to the connection terminals in the luminaire.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90077	FURNISH & INSTALL #10 AWG GROUND WIRE	LF

Payment is full compensation for furnishing and installing all materials, and for furnishing all equipment and incidentals necessary to complete the work.

BID ITEM 90080 – INSTALL CITY FURNISHED TS2 TRAFFIC SIGNAL CABINET**A. Description**

This specification describes coordinating with City Traffic Engineering Shop (Ed Smith) one week prior to needing traffic signal cabinet for testing purposes. Item includes contractor picking up cabinet from 1120 Sayle Street, Madison, WI and delivering to the project site and installing.

B. General Requirements

Hardware necessary to install cabinet on contractor constructed shall be included in this item. Contractor shall make all wiring connections to field displays and electrical service, field test each output, and operate signal prior to City acceptance.

C. Materials

City of Madison to furnish TS2 cabinet, all cabinet components, tested prior to contractor installation.

D INSTALLATION

The contractor shall coordinate picking up the fully configured and tested traffic signal control cabinet and controller from the City of Madison shop 7 days prior to installing the contractor installing the cabinet in the field. This lead time is to allow City of Madison staff to test the cabinet prior to installation.

The contractor is responsible for picking up, transporting, and installing the cabinet to the intersection, and connecting all wiring to the cabinet.

The contractor shall coordinate an in place test of the cabinet, EVP, and all indications and inputs prior to the City of Madison accepting this item.

E Measurement

The department will measure this item upon completion and field testing of the City Furnished TS2 cabinet.

F Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
90080	INSTALL CITY FURNISHED TS2 TRAFFIC SIGNAL CABINET	EACH

Payment is full compensation for furnishing, configuring and delivering all materials to the City of Madison, 1120 Sayle Street.

BID ITEM 90081 – INSTALL CITY FURNISHED OPTICAL SIGNAL PREEMPTION

A Description

This special provision describes installing optical signal preempt equipment for the 1 signalized intersection on the major (Fish Hatchery Road) approaches. The acceptability of alternate equipment rests solely with the City of Madison Traffic Engineering Division.

B Materials

Provided by the City of Madison.

C Construction

Install detectors on the top horizontal member of trombone arms, between the first traffic signal head and pole, and as otherwise shown on the plan or directed by Madison Traffic Engineering.

The detectors will generally be on the far side of the intersection, and aimed at approaching traffic, as further directed by Madison Traffic Engineering staff. Install detector cable from the detector to the control cabinet at each intersection, using the shortest path.

All installation methods to be consistent with the manufacturer's instructions. Card rack

and discriminator installation, as well as cabinet connections, will be made by City of Madison Traffic Engineering staff.

D Measurement

The department will measure Optical Signal Preempt as a single lump sum unit of work for optical signal preempt, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
90081	INSTALL CITY FURNISHED OPTICAL SIGNAL PREEMPTION	LS

Payment is full compensation furnishing and installing detectors and cable; for furnishing and delivering discriminators, card racks, cables and miscellaneous materials to the city Traffic Engineering Field Office, 1120 Sayle Street.

STRUCTURAL SPECIAL PROVISIONS

BID ITEMS 90001 – 90013 – BRIDGE CONSTRUCTION

Scope of Work: The work under this section includes all items related to construction of the bridge.

Source of Materials: All materials are subject to City's approval before incorporation into the work. Submit a source of materials report to City for review and approval.

Specifications:

Unless otherwise specified or required, all work shall conform to the requirements of the STATE SPECIFICATIONS, Parts 2 through 5.

The Specifications, Method of Measurement, and Basis of Payment for the following Bid Items are provided in the STATE SPECIFICATIONS. Where the STATE SPECIFICATIONS reference the "Department" or "Engineer," change to "City."

Bid Item	Section
#90001 Excavation for Structures Bridges B-13-969	206
#90002 Backfill Structure Type A	210
#90003 Concrete Masonry Bridges	502
#90004 Expansion Device	502
#90005 Protective Surface Treatment	502
#90006 Bar Steel Reinforcement HS Structures	505
#90007 Bar Steel Reinforcement HS Coated Structures	505
#90008 Rubberized Membrane Waterproofing	516
#90009 Piling CIP Concrete 10 3/4 x 0.365-inch	550
#90010 Riprap Medium	606
#90011 Pipe Underdrain Wrapped 6-inch	612
#90012 Geotextile Type DF Schedule A	645
#90013 Geotextile Type HR	645

Special Provisions:

These Special Provisions govern wherever there is a conflict or discrepancy with the STATE SPECIFICATIONS.

Concrete Structures Quality Management Plan (QMP):

Description:

This section describes Contractor mix design and testing requirements for Class I concrete used in concrete structures.

Quality Control Program:

General: Conform to the general requirements under Sections 701 and 710 of the STATE SPECIFICATIONS, as well as the additional specific Contract QMP provisions for Class I concrete specified herein. City defines Class I concrete as cast-in-place concrete used in structure applications where all of the following apply:

Mix design requires review by City.

The Contract defines specification limits for strength.

Small Quantities: City defines small quantities of Class I concrete, subject to reduced requirements under Section 710.2 of STATE SPECIFICATIONS, as follows: Less than 150 cubic yards of structure concrete placed under a single Bid Item.

Pre-Pour Meeting for Structure Concrete: Arrange a pre-pour meeting to discuss concrete placement. Discuss the placement schedule, personnel roles and responsibilities, testing and quality control, and how test results will be communicated. Schedule the meeting before placing any concrete. Representatives from all parties involved with the concrete work, including Contractor, subcontractor, ready-mix supplier, testers, and City, shall attend the meeting.

Quality Control (QC) Plan: Submit a quality control plan 7 business days before producing concrete, conforming to Section 701.1.2.2 of the STATE SPECIFICATIONS and include the following:

Concrete mix design documentation as required in 710.4.

Proposed methods for monitoring and recording batch weights.

Aggregate gradation acceptance method for Class I concrete items.

Methods for monitoring and adjusting blended aggregate gradations before corrective action is required under Section 710.5.7 of the STATE SPECIFICATIONS; and methods for documenting corrective action.

Materials:

General:

Determine mixes for Class I concrete used under the Contract using one or more of the following methods:

Have a HTCP-certified PCC Technician II develop new concrete mixes qualified based on the results of mix development tests performed by a City-qualified laboratory.

Submit previously used City-approved mixes qualified based on field performance.

In addition to the mix information required under Section 710.4 of the STATE SPECIFICATIONS, submit two copies of a concrete mix report at least three business days before producing concrete. For lab qualified mixes, include strength data, test dates, and the name and location of the laboratory that performed mix development testing. For field-qualified mixes, include historical data that demonstrate acceptable strength and field performance.

Provide mix report shop drawing for City to review prior to the start of concreting operations.

Class I Concrete Mixes.

Structures:

Qualify compressive strength according to ACI 301-Specifications for Structural Concrete-Subsections 4.2.3.1 through 4.2.3.4. Demonstrate that the 28-day compressive strength of the proposed mix will equal or exceed the 90 percent within limits criterion specified in Section 715.5.3 of the STATE SPECIFICATIONS.

Provide Grade A concrete with SCM as a partial replacement for cement as specified in Section 501.3.2.2.2 of the STATE SPECIFICATIONS.

The target ratio of net water to cementitious material (w/cm) for the submitted mix design shall not exceed 0.45 by weight. Include free water on the aggregate surface but do not include water absorbed within aggregate particles. Control the w/cm ratio throughout production by adjusting batch weights for changes in the aggregate moisture as required under Section 715.3.3 of the STATE SPECIFICATIONS.

Do not use mixes containing accelerators, except Contractor may use mixes containing non-chloride accelerators in substructure elements.

Testing and Acceptance:

Class I Concrete Testing

General:

Provide slump, air content, concrete temperature, and compressive strength test results, as specified in Section 710.5 of the STATE SPECIFICATIONS. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each subplot. Cast three cylinders for strength evaluation.

If a subplot random test location falls within a mainline pavement gap, relocate the test to a different location within the subplot.

Lot and Sublot Definition:

General:

Designate the location and size of all lots before placing concrete. No lot shall contain concrete of more than one mix design, as defined in these Specifications, or more than one placement method, defined as either slip formed, not slip formed, or placed under water.

Lots and sublots include ancillary concrete placed integrally with the Class I concrete.

Lots by Cubic Yard: Define standard lots and sublots conforming to the following:

Max of 250 cubic yard lot size.

Max of 50 cubic yard subplot size.

Max number of 5 sublots per lot.

Strength Evaluation:

General:

Randomly select two QC cylinders to test at 28 days for percent within limits (PWL). Compare the strengths of the two randomly-selected QC cylinders and determine the 28 day subplot average strength as follows:

aa. If the lower strength divided by the higher strength is 0.9 or more, average the two QC cylinders.

bb. If the lower strength divided by the higher strength is less than 0.9, break one additional cylinder and average the two higher-strength cylinders.

City will evaluate the subplot for possible removal and replacement if the 28-day subplot average strength is < f'c-500 psi (f'c is design strength found in Drawings or Special Provisions).

Removal and Replacement:

Structures:

City will request Contractor to core the affected subplot to determine the structural adequacy. Timeframe of coring operations and locations will be agreed upon between City and Contractor. Determine core locations that do not interfere with reinforcing steel.

Perform coring according to CMM 870 Attachment 9: WTM AASHTO T24.

Have an independent consultant test cores according to CMM 870 Attachment 9: WTM AASHTO T24. City will assess concrete for removal and replacement based on subplot-by-subplot analysis of core strength. Perform coring and testing, fill voids with an City-approved non-shrink grout or concrete, and provide traffic control during operations.

The subplot will remain in place if the 3-core average is greater than or equal to 85 percent of f'c, and no individual core is less than 75 percent of f'c. The 28-day QC average subplot strength will be included in the compressive strength PWL equation of Section 715.5.2 of the STATE SPECIFICATIONS.

If the compressive strength of the 3-core average is less than 85 percent of f'c or an individual core is less than 75 percent f'c, City will request Contractor to do either of the following, and the final determination to accept or reject any materials will be made by the Construction Engineer:

aa. Remove and replace unacceptable structure or cast-in-place barrier subplot with new concrete of conforming strength. There is no incentive for replaced concrete, but City will adjust pay for PWL values <85 according to 715.5.2. City will pay once for the area at the full contract price.

bb. Permit concrete to remain in place. The original 28-day QC average subplot strength will be included in the compressive strength PWL equation of Section 715.5.2 of the STATE SPECIFICATIONS.

Aggregate:

General: Except as allowed for small quantities in Section 710.2 of the STATE SPECIFICATIONS provide aggregate test results conforming to Section 710.5.6 of the STATE SPECIFICATIONS.

Structures:

In addition to the aggregate testing required under Section 710.5.6 of the STATE SPECIFICATIONS, determine the fine and coarse aggregate moisture content for each sample.

Calculate target batch weights for each mix when the production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5%, adjust the batch weights to maintain the design W/Cm ratio.

Basis of Payment: Costs for all sampling, test, and documentation required under this Specification and all changes incurred for coring, including traffic control, are incidental to Bid Item #90003–Concrete Masonry Bridges

BID ITEM 90014 – PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-13-969 LRFD, ITEM 508.8006.S

A. Description: Furnish a fully engineered, fabricated steel truss pedestrian bridge structure, including bearings, and transport and erect it as shown in the plans, in accordance to Part 5 Structures of the Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, current edition, and as hereinafter provided. These specifications shall be regarded as minimum standards for design and construction.

B. Materials:

1. Approved Manufacturers: The bridge shall be designed and manufactured by an approved designer and supplier selected from the Wisconsin Department of

Transportation's current approved products list for prefabricated steel truss pedestrian bridge.

To be eligible for this project, pre-fabricated bridges from other manufacturers must be pre-approved prior to the bid opening date. Applications for pre-approval may be submitted at any time.

2. Design Requirements: Structural design of the pedestrian bridge shall be by a professional engineer registered in the State of Wisconsin.

Design the bridge according to the most recent edition of the AASHTO LRFD Bridge Design Specifications, all current interims, and the AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, except as modified herein.

Design welded tubular connections according to the Structural Welding Code-Steel ANSI/AWS D1.1. The fracture critical requirements of ANSI/AWS D1.5 do not apply, and Charpy V-notch impact testing will not be required. Loading shall be as stated in Section 3 of the AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges. The bridge shall be a half-through truss with profile as the plans show with one diagonal per panel. Chords, diagonals, verticals, bracing, and floor beams may be tube steel. Tube steel shall have a minimum thickness of 1/4-inch, angles shall have a minimum thickness of 1/4-inch, C-shaped side dams shall have a minimum web thickness of 3/16-inch, and W-shapes shall have a minimum web thickness of 5/16-inch if not painted or coated. All other steel shapes shall have a minimum thickness of 5/16-inch unless contract plans allow a minimum thickness of less than 5/16-inch for other steel shapes. Field splices shall be bolted with ASTM F3125 Grade A325 high strength bolts according to the "Specifications for Structural Joints Using High Strength Bolts." Type 3 bolts are required for weathering steel. For top and bottom chord field splices, splice plates are required on both the inside and outside surface of all four sides of the spliced tubing so that each bolt will be acting in double shear. Nuts may be welded to the splice plates to hold them in place during installation. When the collection of water inside a structural tube is a possibility, either during construction or during service, provide the tube with a drain hole at its lowest point.

If the profile grade line is on a crest vertical curve, camber the bridge to match the profile grade line the plans show plus the calculated dead load deflection. Concrete bridge decks shall be continuous over the floor beams. Concrete bridge decks may be supported by stay in place corrugated galvanized steel deck forms unless the contract plans specify removable deck forms only. The maximum depth of the stay in place corrugated steel deck forms shall be 2 inches. The steel area of the stay in place corrugated steel deck forms shall not be considered for the design of the concrete deck. Design of the stay in place corrugated steel deck forms shall be included with the truss design. The minimum slab thickness shall be 6 inches for stay in place corrugated steel deck forms, measured from the bottom of the deck form. Design the longitudinal reinforcing steel in the slab based on a wheel load located 1 foot from the face of the curb or toe plate, or a pedestrian live load of 90 psf, whichever controls.

Concrete strength (f'_c) shall be 4,000 psi and F_y of bar steel shall be 60,000 psi. A concrete mix with a unit weight of 120 pcf or 150 pcf may be used at the option of the manufacturer/Contractor. Use a design dead load of 120 pcf or 150 pcf to match the concrete mix selected. Use load factors of 1.25 for dead load and 1.75 for live load for the design of the concrete slab and floor beams. Minimum concrete cover shall be 2 inches for top reinforcement and 1 inch for bottom reinforcement. Design the bridge for expansion and contraction with a temperature range of -30°F to 120°F. Utilize Teflon slip pads or other approved material on the sliding surface of the expansion bearing assembly.

3. Plan Requirements and Submittals: Submit shop drawings and design computations to the City for review. In the submittal, include the following:
 - a. Basic design criteria shown on the design plans.

- b. Complete detailed drawings of all structural steel connections, sizes of members, span lengths between bearing points, skews, walkway widths, height of handrails and safety rails, bearing assembly details, anchor bolt locations, concrete deck reinforcement, design data, materials data, and dead and live load bearing reactions.
 - c. Engineer's certification. The plans shall be sealed, signed, and dated by a professional engineer registered in the State of Wisconsin.
 - d. One set of design calculations with independent checks.
4. Weld Testing: An independent agency shall perform nondestructive weld testing; the manufacturer shall pay for this testing. All welds are to be visually inspected except as noted below.
- a. Ten percent of all fillet welds shall be magnetic particle tested.
 - b. All full penetration welds of chords shall be ultrasonically or radiographically tested.
 - c. Bottom chord welded tube splices for tube thicknesses less than 3/8-inch-thick shall be radiographically tested or covered with fillet welded splice plates with non-intersecting welds which develop 75% of the spliced member strength.

C. Construction:

1. Delivery and Erection: Deliver the bridge by truck to the site. The Contractor is responsible for unloading the bridge from the trucks at the time of arrival.

The manufacturer shall notify the Contractor in advance of the expected arrival time. Information regarding delays after the trucks depart the plant such as inclement weather, delays in permits, rerouting by public agencies, or other circumstances shall be passed on to the Contractor as soon as possible.

The manufacturer shall provide an erection procedure to the Contractor and shall advise the Contractor of the actual lifting weights, attachment points, and all other information needed to install the bridge. Unloading, splicing, bolting, and providing proper lifting equipment as well as all tools, equipment, labor, and miscellaneous items required to complete the work is the responsibility of the Contractor. The procedure for bolting field splices shall be given to the Contractor by the manufacturer.

Concrete deck construction methods shall be in accordance with Section 502.3 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, current edition. Concrete testing shall be in accordance with Section 301.2 of the City of Madison Standard Specifications for Public Works Construction. Bar steel reinforcement construction methods shall be in accordance with Section 505.3 of Wisconsin Standard Specifications for Highway and Structure Construction, current edition.

2. Finishes: All fabrications shall be produced from high strength, low alloy, atmospheric corrosion resistant ASTM A847 cold-formed welded square and rectangular tubing, ASTM A606 sheet, and/or ASTM A588, ASTM A242, or ASTM A709 Grade 50W plate and structural steel shapes ($F_y=50,000$ psi) with a minimum corrosion index of 5.8 per ASTM G101.

Blast-clean all exposed surfaces of weathering steel according to Steel Structures Painting Council Surface Preparation Specifications No. 7 Brush-Off Blast Cleaning (SSPC-SP7), latest edition. Exposed surfaces of weathering steel shall be defined as those surfaces seen from the deck and from outside the structure. Stringers, floor beams, lower brace diagonals and the inside face of the truss below the deck, and bottom of the bottom chord do not need to be blasted.

- D. Measurement: The City will measure Prefabricated Steel Truss Pedestrian Bridge B-13-969 LRFD as a single unit of work for each structure bridge, acceptably completed.

- E. Payment: The City will pay for measured quantities at the contract unit price. Payment is full compensation for designing, manufacturing, transporting and erecting the pedestrian bridge; furnishing bearing plates, pads, bolts, anchors bolts, and grout. Providing and placing the concrete deck and curbs, and reinforcing steel for the concrete deck is included in this work.

BID ITEM 90015 – STEEL PEDESTRIAN RAILING

- A. Description: This special provision describes fabricating, galvanizing, painting, and installing railing at the approaches to the bridges in accordance with Sections 506, 513, and 517 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, and the plan details, and as hereinafter provided.
- B. Materials: All materials for railing shall be new stock, free from defects impairing strength, durability, and appearance. Railing assemblies shall be galvanized and receive a two-coat paint system. Bubbles, blisters, and flaking in the coating will be a basis for rejection.
1. Coating System:
- a. Galvanizing. After fabrication, blast clean steel railing assemblies per SSPC-SP6 and galvanize according to ASTM A123. Vent holes shall be drilled in members as required to facilitate galvanizing and drainage. Location and size of vent holes are to be shown on the shop drawings. All burrs at component edges, corners, and at holes shall be removed and sharp edges chamfered before galvanizing. Condition any thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove any hardened surface layer. Remove all evident steel defects exposed in accordance to AASHTO M 160 prior to blast cleaning. Lumps, projections, globules, or heavy deposits of galvanizing, which will provide surface conditions that when painted, will produce unacceptable aesthetic and/or visual qualities, will not be permitted.
 - b. Two-Coat Paint System. After galvanizing, paint all exterior surfaces of steel railing assemblies and inside of rail elements at field erection and expansion joints as hereinafter provided. All galvanized surfaces to be painted shall be cleaned per SSPC-SP1 to remove chlorides, sulfates, zinc salts, oil, dirt, organic matter, and other contaminants. The cleaned surface shall then be brush blast cleaned per SSPC-SP16 to create a slight angular surface profile per manufacturer's recommendation for adhesion of the tie coat. Blasting shall not fracture the galvanized finish or remove any dry film thickness. After cleaning, apply a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface, per manufacturer's recommendations. The tie coat shall etch the galvanized rail and prepare the surface for the top coat. Apply a top coat per manufacturer's recommendations, matching the specified color shown on the plans. Use a preapproved top coat that is resistant to the effects of the sun and is suitable for a marine environment. The tie and top coats should be of contrasting colors, and come from the same manufacturer.

The paint manufacturer shall review the process to be used for surface preparation and application of the paint coating system with the paint applier. The review shall include a visit to the facility performing the work if requested by the paint manufacturer. Provide written confirmation, from the paint manufacturer to City, that the review has taken place and that issues raised have been addressed before beginning coating work under the contract.

Use one of the qualified paint manufacturers and products given below. An equivalent system may be used with the written approval of City.

Manufacturer	Coat	Products	Dry Film Min./Max. Thickness (mils)	Min. Time¹ Between Coats (hours)
Sherwin Williams Schaumburg, IL	Tie	Recoat Epoxy Primer B67-5 Series/B65-650	2.0 to 4.0	6
	Tie	Macropoxy 646	3.0 to 5.0	6
	Top	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
Carboline St. Louis, MO	Tie	Rustbond Penetrating Sealer FC	1.0 to 2.0	36
	Tie	Carboguard 60	4.0 to 6.0	10
	Tie	Carboguard 635	4.0 to 6.0	1
	Top	Carbothane 133 LH (satin)	4.0	NA
Wasser Corporation Auburn, WA	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	3.0 to 5.0	NA
PPG Industries Protective and Marine Coatings Little Rock, AR	Tie	Amercoat 399	3.0 to 5.0	3
	Top	Amercoat 450H	2.0 to 4.0	NA

¹ Time is dependent on temperature and humidity. Contact manufacturer for more specific information, and to confirm minimum time between coats.

2. Shop Drawings: Submit shop drawings showing the details of railing construction. Show the railing height post spacing, rail location, weld sizes and locations, and all dimensions necessary for the construction of the railing. Show location of shop rail splices, field erection joints, and expansion joints. State the name of the paint manufacturer and the product name of the tie coat and top coat used along with the color. State the size and material type used for all components. Also show the size and location of any vent or drainage holes provided.

C. Construction Methods:

1. Delivery, Storage, and Handling: Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to verify that no damage occurred during shipping or handling and conditions of materials is in conformance with these specifications. If coating is damaged, Contractor shall repair or replace railing assemblies to the approval of City at no additional cost to City. Carefully store the material off the ground to provide proper ventilation and drainage. Exercise care so as not to damage the coated surface during railing installation. No field welding, field cutting, or drilling will be permitted unless acceptable to City.
2. Touch-up and Repair: For minor damage caused by shipping, handling, or installation to coated surfaces, touch-up the surface in conformance with the manufacturer's recommendations. If damage is excessive, the railing assembly shall be replaced at no additional cost to the City. Contractor shall provide City with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

D. Measurement: The City will measure Steel Pedestrian Railing by the linear foot acceptably completed.

E. Payment: The City will pay for the measured quantity at the contract unit price. Payment is full compensation for fabricating, galvanizing, painting, transporting, and installing the railing, including any touch-up and repairs; and for furnishing all labor, tools, equipment, materials, and incidentals necessary to satisfactorily complete the work.

BID ITEM 90016 – CONCRETE PAVEMENT APPROACH SLABS

- A. Description: This special provision describes constructing reinforced concrete pavement approach slabs as shown in the drawings.
- B. Materials: Materials shall be in accordance with Section 415.2 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, Current Edition.
- C. Construction Methods: Construction methods shall be in accordance with Section 415.3 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, Current Edition.
- D. Method of Measurement: The City will measure reinforced Concrete Pavement Approach Slabs as a single lump sum unit. The single lump sum unit will include one reinforced concrete approach slab at the south abutment and one at the north abutment.
- E. Basis of Payment: Reinforced Concrete Pavement Approach Slabs will be paid for at the contract unit price. Payment is full compensation for providing and placing the concrete, bar steel reinforcement, and jointing materials.

BID ITEM 90017 – TEMPORARY ASPHALT PAVEMENT (UNDISTRIBUTED)

DESCRIPTION

This item includes all work, materials, equipment, hauling, and incidentals necessary to place temporary asphalt pavement where required to maintain traffic operations in accordance with these special provisions, as directed by the Construction Engineer. This item shall only be used in locations where it is necessary to maintain on-street vehicle and bicycle traffic and as a transition between phases of the project. Pavement required to maintain crosswalks is included under the appropriate item.

The Contractor shall place temporary pavement to provide a safe, rideable, and maintainable surface. The pavement structure for the temporary asphalt pavement shall be a minimum of 3 inches of HMA on 6 inches of Gradation 2 Base Course (paid under the appropriate item). The pavement type shall match the specified pavement type for the binder layer of asphalt pavement, and all work shall be completed in accordance with Part IV of the Standard Specifications.

This item also includes removal of all temporary pavement. Removal of base course and grading shall be considered incidental to the Excavation Cut bid item.

METHOD OF MEASUREMENT

Temporary Asphalt Pavement will be measured by the Square Yard, acceptably installed.

BASIS OF PAYMENT

Temporary Asphalt Pavement shall be measured as described above, which shall be full compensation for all work, materials, equipment and incidentals necessary to complete the work as set forth in the description.

BID ITEM 90018 – DIRECTIONAL GUIDANCE INDICATOR

DESCRIPTION

This special provision is for the contractor to install Directional Guidance Indicator in locations identified on the plans or as directed by the Engineer. The contractor shall purchase and provide the Directional

Guidance Indicator. The product to be installed by the contractor is R-4984 1' X 2' Directional-Bar Plate, manufactured by Neenah Foundry, or approved equal.

CONSTRUCTION METHODS

The Contractor shall install the Directional Guidance Indicator per the manufacturer instructions for the product.

MEASUREMENT

Directional Guidance Indicator will be measured by each unit acceptably installed.

BASIS OF PAYMENT

This item, measured as provided above, will be paid for at the contract unit price for all labor, tools, equipment, pick-up, delivery, and incidentals necessary to acceptably complete the product installation.

BID ITEM 90019 – TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS

DESCRIPTION

This bid item includes all work, materials, equipment and labor necessary to install Traffic Control Flexible Tubular Marker Posts. All work under this bid item shall be in accordance with Section 633 of the current edition of the WISDOT standard specs.

METHOD OF MEASUREMENT

Traffic Control Flexible Tubular Marker Posts shall be measured as set forth in Section 633.4 of the Wisconsin DOT Standard Specifications, which shall be measured on a per unit basis acceptably installed.

BASIS OF PAYMENT

Traffic Control Flexible Tubular Marker posts will be paid at the contract unit price, which shall be full compensation for all work as provided in the description.

BID ITEM 90020 – TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES

DESCRIPTION

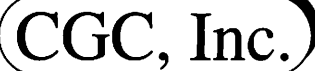
This bid item includes all work, materials, equipment and labor necessary to install Traffic Control Flexible Tubular Marker Bases. All work under this bid item shall be in accordance with Section 633 of the current edition of the WISDOT standard specs.

METHOD OF MEASUREMENT

Traffic Control Flexible Tubular Marker Bases shall be measured as set forth in Section 633.4 of the Wisconsin DOT Standard Specifications, which shall be measured on a per unit basis acceptably installed.

BASIS OF PAYMENT

Traffic Control Flexible Tubular Marker posts will be paid at the contract unit price, which shall be full compensation for all work as provided in the description.



Construction • Geotechnical
Consulting Engineering/Testing

June 2, 2022
C21051-30

Mr. Jim Wolfe
City of Madison – Engineering Department
210 Martin Luther King, Jr. Boulevard, Room 115
Madison, WI 53710

Re: Geotechnical Exploration Report
Cannonball Path and Bridge - Phase 6
Fish Hatchery Road to West Wingra Drive
Madison, Wisconsin

Dear Mr. Wolfe:

Construction • Geotechnical Consultants, Inc. (CGC) has completed the geotechnical exploration program for the project referenced above. The purpose of this exploration program was to evaluate the subsurface conditions within the proposed construction area and to provide geotechnical recommendations regarding bridge foundation, sanitary sewer and mixed-use path pavement design/construction. An electronic copy of this report is provided for your use, and a paper copy can be provided upon request.

PROJECT AND SITE DESCRIPTION

We understand that a new section of paved pedestrian path will be constructed extending northeast from the existing Cannonball Path at Fish Hatchery Road along an abandoned railroad corridor, north through Duane F. Bauman Park and James C. Wright Middle School lands to Wingra Creek. A new single-span bridge is planned extending south to north over the creek connecting Plaenert Drive and West Wingra Drive, between South Street and Fish Hatchery Road. A sanitary sewer installation is also proposed in the project vicinity. While preliminary plans were not available at the time of this submittal, we assume the path will be asphalt paved, approximately 10 ft wide and anticipate that minor cutting and filling will be required to establish path subgrade elevations along its proposed alignment.

Based on limited information available, the pre-fabricated steel truss bridge, which will involve cast-in-place concrete deck, abutments, and wing walls, will span approximately 80 ft and have bottom of abutments elevation near EL 845 ft. Although the path and bridge will generally experience very light loads associated with pedestrian and bicycle traffic, occasional maintenance vehicles and infrequent emergency vehicles may travel on both the path and bridge. Thus, we assume the bridge will be designed for using a live load of 90 psf and H-10 vehicle traffic (20,000 lbs).

The area of the planned pedestrian path and bridge construction ranges from developed to wooded, with site grades sloping gently down from south to north toward Wingra Creek. Commercial and residential properties border the new path alignment south of the park, and the path will intersect with Plaenert Drive as it approaches the creek.

SUBSURFACE CONDITIONS

A total of seven Standard Penetration Test (SPT) soil borings were completed for this project. Two of the borings (B6 and B7) were extended to depths of 65 and 60 ft below existing site grades, respectively, near the proposed bridge abutments. Five of the borings (B1-B5) were drilled to planned depths of 15 ft below existing site grades (20 ft at B1) for the path and sewer. Note that the targeted depth at B1 was not achieved due to auger refusal on presumed bedrock or a possible boulder. The borings were drilled by Badger State Drilling (under subcontract to CGC) on December 6, 2021 and February 15, 2022 using an ATV-mounted D-50 drill-rig equipped with hollow-stem augers, mud rotary tools and an automatic SPT hammer.

The borings were located in the field by CGC based off a map provided by the City, and ground surface elevations at the boring locations were estimated by CGC using information obtained from Dane County DCiMap, which should be considered approximate (± 1 ft). The boring locations are shown in plan on the Soil Boring Location Map attached in Appendix B.

The subsurface conditions at the boring locations varied significantly due to previous filling activity along the more than half-mile of proposed alignment investigated. However, a generalized profile includes the following strata, in descending order:

Proposed Path and Sanitary Sewer (Borings 1-5)

- About 6 in. of *topsoil fill* (not encountered at B2 or B3 where 10 to 12 in. of base course was present); underlain by
- About 2 to 7.5 ft of *fill*, involving layers of *loose to dense sand with variable silt/gravel contents* and/or *medium stiff to hard clay*, over
- About 1 to 2 ft of medium stiff to very stiff native *clay* (considered possible fill at B5 and not encountered at B4 where about 2.5 ft of *organic silt* was present), followed by
- Loose to dense *sands* with variable silt and gravel contents to the maximum depths explored (with possible *bedrock* beginning about 15-16 below existing grade at B1; which as stated terminated short of the requested depth due to auger refusal.

Proposed Bridge (Borings 6 and 7)

- About 6 to 8 in. of *topsoil fill*, followed by
- About 1.5 to 5 ft of *fill*, involving soft clay at B6 and loose sand at B7 (with 2.5 ft of loose stratified sandy silt/silty sand considered *possible fill* at B7), atop

- About 2.5 to 8 ft of very loose *organic deposits*, including *peat* (overlain by a 2.5 ft layer of stratified sandy silt and silty sand considered possible fill at B7), over
- About 18 to 21 ft of very soft silty to lean *clay*, resting atop
- About 31 to 36 ft of loose to very dense *sands* which generally become siltier and contain scattered cobbles and boulders to the maximum depths explored.

Groundwater was noted at depths of 6 to 13.5 ft below existing grades in the borings during and shortly after drilling. Groundwater levels can be expected to fluctuate with the stage of the creek, seasonal variations in precipitation, infiltration, evapotranspiration, as well as other factors. A more detailed description of the site soil and groundwater conditions is presented on the Soil Boring Logs attached in Appendix B.

DISCUSSION AND RECOMMENDATIONS

Subject to the limitations discussed below and based on the subsurface exploration, we recommend that the proposed bridge be supported on piles driven to capacity within the granular soils (which become dense to very dense at greater depths) encountered beneath organic and lacustrine deposits greater than 25 feet thick along the creek. In addition, the site generally appears suitable for the extension of the mixed-use path, including the installation of a new sanitary sewer. *However, some undercutting/stabilization of the path subgrades will likely be required due to the presence of variable fill, organic soils and softer natural cohesive materials. In addition, temporary dewatering and pipe subgrade stabilization will also likely be required to facilitate utility installation.* The following subsections provide our recommendations for bridge foundation, sanitary sewer installation and path pavement design/construction.

1. Bridge Foundation Recommendations

A. General

As noted previously, we understand that a pre-fabricated steel truss bridge with concrete deck and cast-in-place concrete abutments and wingwalls will be constructed to span over Wingra Creek between Fish Hatchery Road and South Street. The bridge will have an overall span length of 80 ft, and the clear width will be 14 ft. Although the bridge will primarily carry non-motorized (pedestrian, bicycle) traffic, it will also need to support occasional City maintenance vehicles and potential emergency vehicles, and thus is being designed using an H-10 vehicle (20,000 lbs) or for a live load of up to 90 psf for pedestrian traffic. Although final foundation loads were not available at the time of this report, based on preliminary discussion with Strand Associates personnel and previous City pedestrian bridge projects, we envision that 10.75-in. and 12.75-in. diameter, steel-shelled cast-in-place (CIP) piles, driven to maximum nominal (unfactored) compression resistances of up to about 100 tons will be considered by the design team.

For pile design, the *nominal (ultimate, unfactored)* geotechnical capacities and associated estimated depths were determined using the A-Pile (Ensoft) software program in general accordance with the WisDOT *Load and Resistance Factored Design (LRFD)* procedures (adopted from the AASHTO *LRFD Bridge Design Specifications*). The *factored* resistance can be calculated by multiplying the nominal resistance by the applicable resistance factor (ϕ), with the resistance factor determined by the level of pile testing completed prior to and during construction. For example, if pile driving will be monitored during construction using the Modified Gates formula, the minimum amount expected on WisDOT projects, a resistance factor of 0.5 is applicable. If dynamic (PDA) or static pile load testing is completed, the resistance factor can be increased, but we do not anticipate that the moderate to significant expense associated with pile load testing and the limited number of piles anticipated to be necessary for the support of the bridge will make economic sense for this project. We can provide additional consultation on load testing, if needed.

Utilizing the subsurface information obtained from the borings, we estimated pile tip depths and elevations required for each of the two sizes of each pile type described above to develop an ultimate ($\phi = 1.0$) capacity of 100 tons for each of the analyzed pile sizes (and shell thickness) per WisDOT *Bridge Manual*, Table 11.3-5, which is based on the use of the Modified Gates Formula. For the purposes of estimating pile lengths using A-Pile, the closed-end pipe pile option was selected for CIP pile analysis. We expect that the CIP piles will reach to the required driving resistance within the dense to very dense sand encountered Borings 6 and 7, and the estimated CIP pile tip elevations are summarized in Table 1.

Although final grading plans were not available, we envision that grade may be raised at each of the bridge approaches. Therefore, settlement of the organic and very soft clay/silt soils could occur that will result in down drag loads (negative skin friction) being developed on the piles that will reduce the available load carrying capacity of the piles. In order to help reduce, though not eliminate, down drag loads on the piles, we recommend that the bridge approach embankments be filled well in advance of pile driving operations to allow for consolidation/settlement of the new embankment fill and underlying highly-compressible soils to largely occur prior to pile driving. While early fill placement will help reduce the potential for down drag loads, we recommend that an unfactored (ultimate) negative skin friction load of 10 kips (5 tons) for the organic and soft clay soils, as well and newly-placed fill above the organic soils, be added as a load to the piles to account for potential longer-term settlement after pile driving.

Down drag loads can typically be accommodated by driving the piles to a greater driving resistance, as 10.75-in. CIP piles (0.365-in. shell thickness) and 12.75-in. CIP piles (0.375-in. shell thickness) can be driven to an ultimate capacity of 150 tons (300 kips) and 210 tons (420 kips), respectively, according to Table 11.3.-5 in the WisDOT *LRFD Bridge Manual*. These maximum ultimate capacities are greater than the 100 tons that we anticipate will be required for bridge support. Therefore, because we estimate that the piles will be driven to the required capacity shortly after encountering the dense to very dense granular soils in the borings, it is our opinion that the greater driving resistance required to accommodate up to 10 kips of down drag can be achieved by driving the piles to the estimated pile

depths included in Table 1. Care should be exercised such that the maximum capacity of the pile is not exceeded during driving. Actual required driving resistances should be clearly stated on the project plans.

Table 1 - Estimated CIP Pile Tip Elevations and Lengths

Location	Boring	Approximate Bottom of Abutment Elevation (ft)	10.75-in. CIP (0.365-in.) Nominal (Ultimate - ϕ = 1.0) Axial Compression Resistance of 100 tons ²		12.75-in. CIP (0.375-in.) Nominal (Ultimate - ϕ = 1.0) Axial Compression Resistance of 100 tons ²	
			Tip Elevation (ft)	Length (ft) ⁽¹⁾	Tip Elevation (ft)	Length (ft) ⁽¹⁾
South Abutment	B-6	845	805	40	805	40
North Abutment	B-7	845	800	45	800	45

Notes:

1. Length measured below bottom of abutment, rounded to nearest foot.
2. Nominal Axial Compression Resistance does not include resistance factor (i.e., ϕ = 1.0).
Maximum ultimate capacity of up to 150 and 210 tons for 10.75 and 12.75-in. CIP, respectively.

B. Drivability

Based on our past experience completing drivability analyses for piles driven to capacity within very dense soils, CIP piles can generally be driven to the required driving resistance *with an appropriately sized pile hammer to achieve the required driving resistance while not overstressing the piles*. However, we recommend that a drivability analysis be completed by the pile driving contractor prior to construction to check that the selected pile type, cushion and hammer are compatible and do not result in the pile being overstressed, while still being able to develop the required driving resistance. It is also important that pile driving stop shortly after capacity (and possible refusal) occurs to reduce the risk of pile damage.

C. Lateral Earth Pressures

In accordance with WisDOT *Bridge Manual* procedures (Sections 12.4 and 12.8), wing walls (if any) should be designed as cantilever retaining walls extending from the abutments, and an equivalent fluid pressure of 40 psf per foot of depth and a 2 ft surcharge (240 psf) should be used in design. This recommendation is based on granular fill being used as backfill, as indicated in Section 210 of the WisDOT *Standard Specifications*. It is recommended that procedures for placement and compaction

of backfill conform to those outlined in paragraph 207.3.6.2 (Standard Compaction) of the *Standard Specifications*. The wing wall design should include surcharge loads, if applicable.

D. Additional Recommendations

We recommend that thicker-walled pile shells (minimum 0.365 in.) and reinforced end plates be used in order to reduce the risk of overstressing the piles during driving into very dense soils. Oil field reject pipe piles, which have a higher yield stress, could also be considered. End plates must not extend beyond the outer diameter of the pile wall in order to not adversely affect development of side friction.

Other pertinent pile design parameters include the following:

- Based on observations made during the field exploration and normal surface water elevation of Wingra Creek, excavations for abutment excavations will likely extend to or below the groundwater level. Cofferdams around the abutments may be required for diversion, and dewatering with well points or pumps operating from filtered sump pits or a stone (working mat) layer will likely be required to adequately lower the groundwater below the bottom of abutment grade so that work can occur “in the dry.” Cofferdam (or other retaining structures) design must be performed by an experienced structural engineer. Dewatering is recommended to be performed to a depth of at least 2 feet below the lowest level of excavation performed. Dewatering means and methods are the contractor’s responsibility.
- For adequate frost protection, we recommend that the abutment pile caps be founded at least 4 ft below finish grade. A minimum embedment depth of 2.5 ft is recommended for abutments, per *WisDOT Bridge Manual*.
- It is recommended that the minimum spacing between individual piles be no less than 2.5 ft or 2.5 times the pile diameter, whichever is greater. WisDOT recommends a maximum pile spacing of 8 ft. During driving, heaving and/or lateral displacements of driven piles may occur during subsequent nearby pile driving operations. Therefore, it is important that horizontal and vertical alignment checks be performed during pile driving operations. Piles that heave more than 0.25 in. vertically must be resealed. However, heaving is generally not a concern with HP piling since they are considered non-displacement piles.
- Appropriate scour protection should be provided to prevent soil eroding from below the abutments (and around the piles) in the event of high-water events.

2. Sanitary Sewer Installation

Based on information obtained from borings 1-5 and preliminary plans provided, the proposed sewer soil subgrade will generally coincide with native granular soils having variable silt and gravel contents. However, the sewer subgrade is expected to consist of very soft organic to lean clays (such as those encountered at B5) with proximity to Wingra Creek. Groundwater levels in borings 1-5 varied significantly between 8 and 13.5 ft below existing grades; or approximately EL 844 to EL 854.

Where the new sanitary sewer alignment coincides with soft/loose conditions (which were encountered at all of the borings), we recommend that increased bedding thicknesses, possibly underlain by a geotextile, be considered. In addition, organic (especially peaty) soils, as well as any non-engineered fill materials *should be removed from beneath the sewer*. Furthermore, dewatering will be necessary to install the sewer. We recommend that groundwater levels be lowered at least 2 ft below the bottom of the planned excavation depths. For excavations extending less than about 2 ft below the groundwater table, dewatering can likely be accomplished using pumps operating from filtered sumps. Where excavations extend more than 2 ft below the groundwater table, effective dewatering generally requires a series of deep wells or vacuum well-point system. Dewatering means and methods are the responsibility of the contractor.

3. Path Pavement Design

For purposes of pavement design, our pavement recommendations are based on clay soils, as surficial fill materials containing clay were encountered at all of the boring locations. Due to the high variability of materials possible along the new path alignment, *we recommend that the project budget include a generous contingency for undercutting/stabilization (i.e., EBS) below the planned pavement section*. Pavement subgrades should be recompacted and proof-rolled per standard City of Madison protocol, with soft/yielding areas undercut and replaced with granular fill compacted to a minimum of 95% compaction based on modified Proctor methods (ASTM D1557) or coarse aggregate (e.g., 3-in. Dense Graded Base (DGB) or select crushed material (SCM), *WisDOT Standard Specifications for Highway and Structure Construction*, Sections 305 and 312, respectively) compacted into the subgrade until deflection is no longer evident. If long, continuous stretches of the path subgrade require undercutting/stabilization, a heavy-duty woven geotextile or geogrid can be used to provide additional reinforcement, and potentially reduce the thickness of the aggregate stabilization layer.

Based on the presence of shallow mixed fill in all of the borings performed along the pavement alignment, it is our opinion that the soil properties listed in Table 2 are generally appropriate for pavement design, assuming that lower quality soils will be at least partially undercut, where encountered. Therefore, the soil parameters in Table 2 should be used to develop the design pavement sections for the new mixed-use path. The pavement design parameters are based on pavement design methods described in the *WisDOT Geotechnical Manual*.

Table 2
Recommended Pavement Design Parameters

Parameter	Recommended Design Values
USCS Classification	ML/CL
AASHTO classification	A-4/A-6
Design Group Index	14
Frost Index	F-3
Soil Support Value	3.9
Subgrade Modulus, k, pci	125

Note: These values are based on the following assumptions:

1. The subgrade has been closely monitored.
2. Thorough and adequate compaction of the subgrade has been accomplished.
3. Adequate subgrade drainage has been achieved.
4. Wet zones have been dried, drained, or removed.
5. Pockets of dissimilar material have been removed, replaced or mixed to achieve a homogeneous subgrade.

Typical path pavement design includes about 3 to 3.5 in. of asphalt pavement over 8 in. of base course. This assumes a firm subgrade has been developed as outlined above. Alternative pavement designs based on WisDOT Local Road or City of Madison projects may prove acceptable.

As previously stated, we generally expect that minor amounts of filling will occur to establish pavement subgrades. However, depending on final site grades, *we recommend that the new fill be placed early in the construction process due to the presence of marginal natural clay and organic soils (which should be considered slightly to moderately compressible). The new fill should be placed to pavement subgrades, followed by a time delay to allow the marginal soils to consolidate and settle under the weight of the additional material.* We generally anticipate that the settlement caused by the weight of the new fill will occur fairly quickly, with some occurring during fill placement. However, where new fill thicknesses are greater than about 2 ft, we recommend including a time delay period of 3 to 6 weeks in the project schedule to allow for the majority of fill-induced settlement to occur. Settlement platforms or monitoring points can be established where fill thickness is the greatest. The settlement monitoring points should be surveyed at the time of installation, immediately after the fill reaches its full height and then bi-weekly to weekly until three consecutive sets of survey readings indicate that settlement has largely ceased. Note that if desired, final subgrade elevations can be established including the installation of the planned base course section, followed by the monitoring period. After completion of the settlement monitoring, additional base course placement may be required to re-establish pavement subgrade elevations where settlement occurred. If desired, we can provide additional information regarding early fill placement upon request.

CONSTRUCTION CONSIDERATIONS

Due to variations in weather, construction methods and other factors, specific construction problems are difficult to predict. Soil related difficulties that could be encountered on the site are discussed below:

- Earthwork construction during the early spring or late fall could be complicated as a result of wet weather and freezing temperatures. During cold weather, exposed subgrades should be protected from freezing before and after pile cap construction. Fill should never be placed while frozen or on frozen ground.
- Excavations extending greater than 4 ft in depth below the existing ground surface should be sloped in accordance with current OSHA standards.
- Based on observations made during the field exploration and proposed abutment and culvert elevations, groundwater should be anticipated during bridge construction. Temporary cofferdams/stream diversions and dewatering will be required so that abutment construction can occur “in the dry,” as discussed in detail above. Additional seeping groundwater or infiltrating surface water accumulating at the base of the excavations should be controlled and removed using pumps operating from filtered sump pits.

RECOMMENDED CONSTRUCTION MONITORING

The level of care exercised during site development will largely determine the quality of the foundations and pavement subgrades. To check that earthwork and foundation construction proceeds in accordance with our recommendations, qualified construction inspectors should monitor the following operations:

- Pile driving observations;
- Proof-rolling and subgrade preparation;
- Fill/backfill placement and compaction; and
- Concrete and asphalt placement.

* * * * *



Geotechnical Exploration Report
Cannonball Path and Bridge Phase 6
CGC Project No. C21051-30
June 2, 2022
Page 10

We appreciate the opportunity to be of service on this project and trust this report addresses your present needs. General limitations regarding the conclusions and opinions presented in the report are discussed in Appendix B. If you have any questions, please contact us.

Sincerely,

CGC, Inc.

A handwritten signature in black ink, appearing to read "Eric S. Fair".

Eric S. Fair
Senior Staff Engineer/Geologist

A handwritten signature in black ink, appearing to read "Alex J. Bina".

Alex J. Bina, P.E.
Consulting Professional

Encl: Appendix A - Subsurface Exploration
Appendix B - Soil Boring Location Map
Logs of Test Borings (7)
Log of Test Boring-General Notes
Unified Soil Classification System
Appendix C - Document Qualifications

APPENDIX A
SUBSURFACE EXPLORATION

APPENDIX A

SUBSURFACE EXPLORATION

A total of seven Standard Penetration Test (SPT) soil borings were completed for this project. One of the borings (B1) terminated short of the requested 20 ft depth due to auger refusal on presumed sandstone bedrock or a possible boulder. Two of the borings (B6 and B7) were extended to depths of 65 and 60 ft, respectively, below existing site grades near the proposed bridge abutments. The remaining 4 borings (B2-B-5) were drilled to planned depths of 15 ft below existing site grades for the path and sanitary sewer. The borings were drilled by Badger State Drilling (under subcontract to CGC) on December 6, 2021, and February 15, 2022, using an ATV-mounted Diedrich D-50 drill-rig equipped with hollow-stem augers, mud-rotary tools and an automatic SPT hammer. The borings were located in the field by CGC based off a map provided by the City. Ground surface elevations at the boring locations were estimated by CGC using an online mapping tool (Dane County DCiMap) and should be considered approximate (± 1 ft). The boring locations are shown in plan on the Soil Boring Location Map attached in Appendix A.

Soil samples were obtained at 2.5-foot intervals to a depth of 15 ft and at 5-foot intervals thereafter. The soils samples were obtained in general accordance with specifications for standard penetration testing, ASTM D 1586. The specific procedures used for drilling and sampling are described below:

1. Boring Procedures Between Samples

The boring is extended downward, between samples, by a hollow stem auger (B1-B5) or mud-rotary tools (B6 and B7).

2. Standard Penetration Test and Split-Barrel Sampling of Soils
(ASTM Designation: D 1586)

This method consists of driving a 2-in. outside diameter split barrel sampler using a 140-pound weight falling freely through a distance of 30 in. The sampler is first seated 6 inches into the material to be sampled and then driven 12 in. The number of blows required to drive the sampler the final 12 in. is recorded on the log of borings and known as the Standard Penetration Resistance. Recovered samples are first classified as to texture by the driller.

During the field exploration, the driller visually classified the soil and prepared a field log. Water level observations were made in each boring during and after drilling (with only initial observations possible when the use of drilling fluid is necessary) and are shown at the bottom of each boring log. *Field screening of the soil samples for possible environmental contaminants was not conducted by the drillers, as environmental site assessment activities were not part of CGC's work scope.* Upon completion of drilling, the borings were backfilled to satisfy WDNR requirements, and soil samples delivered to our laboratory for visual classification and laboratory testing. The soils were visually classified by a geotechnical engineer using the Unified Soil Classification System. The final logs prepared by the engineer and a description of the Unified Soil Classification System are presented in Appendix B.

APPENDIX B

SOIL BORING LOCATION MAP

LOGS OF TEST BORINGS (7)

LOG OF TEST BORING – GENERAL NOTES

UNIFIED SOIL CLASSIFICATION SYSTEM



Legend

● Denotes Boring Location

Notes

1. Boring locations are approximate
2. Soil borings performed by Badger State Drilling in December 2021 and February 2022



Scale: Reduced

Job No.
C21051-30

Date:
3/2022

CGC, Inc.

SOIL BORING LOCATION MAP
Cannonball Path Phase 6
Madison, Wisconsin



LOG OF TEST BORING

Project Cannonball Path - Phase 6
Location Madison, WI

Boring No. 1
Surface Elevation (ft) 868±
Job No. C21051-30
Sheet 1 of 1

2921 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	TYPE	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LI
						6 in. TOPSOIL					
1		10	M	11		FILL: Medium Dense Brown Silt with Some Sand to 3'					
2		8	M	12		Hard Brown Silty Clay to 5'					
					5	Loose Brown Sand with Some Silt and Clay to 8'	(4.5+)				
3		16	M	8							
4		18	M/W	5		Medium Stiff, Brown Lean CLAY (CL)	(0.6)				
					10	Dense to Medium Dense, Reddish-Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					
5		18	M	38							
6		18	W	13							
					15	Firm to Hard Drilling Noted Beginning Near 15.5'					
						End of Boring at 17 ft Due to Auger Refusal on Presumed Bedrock/Possible Boulder					
					20	Backfilled with Bentonite Chips					
					25						
					30						
					35						
					40						

WATER LEVEL OBSERVATIONS				GENERAL NOTES	
While Drilling	☒	13.5'	Upon Completion of Drilling	Start	12/6/21
Time After Drilling				End	12/6/21
Depth to Water				Driller	BSD
Depth to Cave in				Chief	MC
				Logger	KD
				Editor	ESF
				Drill Method	2.25" HSA; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project **Cannonball Path - Phase 6**Location **Madison, WI**Boring No. **6**Surface Elevation (ft) **847±**Job No. **C21051-30**Sheet **1** of **2**

2921 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		q_u (qa) (tsf)	W	LL	PL	LI
1	18	M	3		8 in. TOPSOIL (OL)					
					FILL: Soft Gray Clay	(0.4)				
2	18	M	3		Very Loose, Dark Brown Sedimentary PEAT (PT)					
				5	Very Loose, Light Gray Organic SILT, Little to Some Sand, Scattered Plant Fibers and Shells (OL)		89.8			4.5
3	18	M/W	2		Very Soft, Gray Organic CLAY, Trace Sand, Plant Fibers and Shells (OH)	(<0.2)				
4	18	M/W	2		Very Loose, Gray Organic SILT (OL)					
5	18	W	2	10	Very Soft, Gray to Light Gray Silty to Lean CLAY (CL-ML/CL)	(<0.2)				
6	18	W	2	15		(<0.2)				
7	18	W	2	20		(<0.2)				
8	18	W	2	25	Scattered Fine Sand Partings Noted Near 24'	(<0.2)				
9	18	W	8	30	Loose to Medium Dense, Light Gray to Brown Fine SAND, Trace to Little Silt (SP/SP-SM)					
10	18	W	15	35						
11	18	W	37	40	Dense to Very Dense, Gray to Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					

WATER LEVEL OBSERVATIONS				GENERAL NOTES	
While Drilling	☒ 11.0'	Upon Completion of Drilling		Start	2/15/22 End 2/15/22
Time After Drilling				Driller	BSD Chief KD Rig D-50
Depth to Water				Logger	GB Editor ESF
Depth to Cave in				Drill Method	4.25" HSA to 14'; 3 7/8" RB with Mud to 65'; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.



LOG OF TEST BORING

Project Cannonball Path - Phase 6
Location Madison, WI

Boring No. 6
Surface Elevation 847±
Job No. C21051-30
Sheet 2 of 2

2921 PERRY STREET, MADISON, WIS. 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N	Depth (ft)	qu (qa) (tsf)	W	LL	PL	LI
						Dense to Very Dense, Gray to Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)				
12		18	W	41	45					
13		18	W	68	50					
14		18	W	72	55					
						End of Boring at 65 ft Backfilled with Bentonite Slurry and Chips				
15		18	W	45	60					
16		5	W	50/5"	65					
					70					
					75					
					80					
					85					



LOG OF TEST BORING

Project Cannonball Path - Phase 6
 Location Madison, WI

Boring No. 7
 Surface Elevation (ft) 850±
 Job No. C21051-30
 Sheet 1 of 2

2921 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	Reg (in.)	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LI
						6 in. TOPSOIL (OL)					
1		10	M	7		FILL: Loose Brown Sand with Silt, Clay and Gravel					
2		18	M	5		Loose, Stratified Gray and Brown SILT and Silty Fine SAND, Trace Clay (ML/SM - Possible Fill)					
3		18	M/W	2		Very Loose, Light Gray Organic SILT, Little to Some Clay, Trace Sand, Scattered Plant Fibers and Shells (OL)					
4		18	M	2		Very Soft, Gray to Light Gray Silty to Lean CLAY (CL-ML/CL)					
5		18	M/W	2			(<0.2)				
6		18	W	2			(<0.2)				
7		18	W	2			(<0.2)				
8		18	W	2		Scattered Fine Sand Partings Noted Near 24'	(<0.2)				
9		18	W	17		Medium Dense, Light Gray to Brown Fine SAND, Trace to Little Silt (SP/SP-SM)					
10		18	W	18							
11		16	W	16							

WATER LEVEL OBSERVATIONS

While Drilling ▽ 13.5' Upon Completion of Drilling _____
 Time After Drilling _____
 Depth to Water _____
 Depth to Cave in _____

GENERAL NOTES

Start 2/15/22 End 2/15/22
 Driller BSD Chief KD Rig D-50
 Logger GB Editor ESF
 Drill Method 4.25" HSA to 14'; 3 7/8"
RB with Mud to 65'; Autohammer

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

LOG OF TEST BORING

General Notes

DESCRIPTIVE SOIL CLASSIFICATION

Grain Size Terminology

Soil Fraction	Particle Size	U.S. Standard Sieve Size
Boulders	Larger than 12"	Larger than 12"
Cobbles	3" to 12"	3" to 12"
Gravel: Coarse.....	¾" to 3"	¾" to 3"
Fine	4.76 mm to ¾"	#4 to ¾"
Sand: Coarse.....	2.00 mm to 4.76 mm.....	#10 to #4
Medium	0.42 to mm to 2.00 mm	#40 to #10
Fine	0.074 mm to 0.42 mm.....	#200 to #40
Silt.....	0.005 mm to 0.074 mm.....	Smaller than #200
Clay	Smaller than 0.005 mm	Smaller than #200

Plasticity characteristics differentiate between silt and clay.

General Terminology

Physical Characteristics
Color, moisture, grain shape, fineness, etc.

Major Constituents
Clay, silt, sand, gravel

Structure
Laminated, varved, fibrous, stratified, cemented, fissured, etc.

Geologic Origin
Glacial, alluvial, eolian, residual, etc.

Relative Density

Term	"N" Value
Very Loose.....	0 - 4
Loose.....	4 - 10
Medium Dense.....	10 - 30
Dense.....	30 - 50
Very Dense.....	Over 50

Relative Proportions Of Cohesionless Soils

Proportional Term	Defining Range by Percentage of Weight
Trace.....	0% - 5%
Little.....	5% - 12%
Some.....	12% - 35%
And	35% - 50%

Consistency

Term	q _u -tons/sq. ft
Very Soft.....	0.0 to 0.25
Soft.....	0.25 to 0.50
Medium.....	0.50 to 1.0
Stiff.....	1.0 to 2.0
Very Stiff.....	2.0 to 4.0
Hard.....	Over 4.0

Organic Content by Combustion Method

Soil Description	Loss on Ignition
Non Organic.....	Less than 4%
Organic Silt/Clay.....	4 - 12%
Sedimentary Peat.....	12% - 50%
Fibrous and Woody Peat...	More than 50%

Plasticity

Term	Plastic Index
None to Slight.....	0 - 4
Slight.....	5 - 7
Medium.....	8 - 22
High to Very High ..	Over 22

The penetration resistance, N, is the summation of the number of blows required to effect two successive 6" penetrations of the 2" split-barrel sampler. The sampler is driven with a 140 lb. weight falling 30" and is seated to a depth of 6" before commencing the standard penetration test.

SYMBOLS

Drilling and Sampling

CS – Continuous Sampling
RC – Rock Coring: Size AW, BW, NW, 2"W
RQD – Rock Quality Designation
RB – Rock Bit/Roller Bit
FT – Fish Tail
DC – Drove Casing
C – Casing: Size 2 ½", NW, 4", HW
CW – Clear Water
DM – Drilling Mud
HSA – Hollow Stem Auger
FA – Flight Auger
HA – Hand Auger
COA – Clean-Out Auger
SS - 2" Dia. Split-Barrel Sample
2ST – 2" Dia. Thin-Walled Tube Sample
3ST – 3" Dia. Thin-Walled Tube Sample
PT – 3" Dia. Piston Tube Sample
AS – Auger Sample
WS – Wash Sample
PTS – Peat Sample
PS – Pitcher Sample
NR – No Recovery
S – Sounding
PMT – Borehole Pressuremeter Test
VS – Vane Shear Test
WPT – Water Pressure Test

Laboratory Tests

q_a – Penetrometer Reading, tons/sq ft
q_a – Unconfined Strength, tons/sq ft
W – Moisture Content, %
LL – Liquid Limit, %
PL – Plastic Limit, %
SL – Shrinkage Limit, %
LI – Loss on Ignition
D – Dry Unit Weight, lbs/cu ft
pH – Measure of Soil Alkalinity or Acidity
FS – Free Swell, %

Water Level Measurement

▽ - Water Level at Time Shown
NW – No Water Encountered
WD – While Drilling
BCR – Before Casing Removal
ACR – After Casing Removal
CW – Cave and Wet
CM – Caved and Moist

Note: Water level measurements shown on the boring logs represent conditions at the time indicated and may not reflect static levels, especially in cohesive soils.

CGC, Inc.

Madison - Milwaukee

Unified Soil Classification System

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)		
		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)		
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)		
		SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)		
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

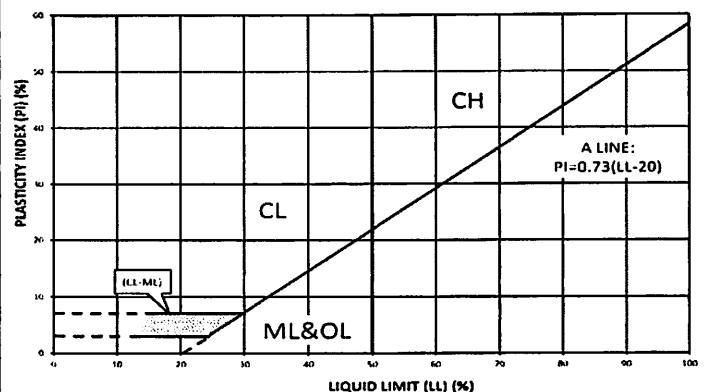
LABORATORY CLASSIFICATION CRITERIA

GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
GP	Not meeting all gradation requirements for GW	
GM	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
GC	Atterberg limits above "A" line or P.I. greater than 7	
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
SP	Not meeting all gradation requirements for GW	
SM	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
SC	Atterberg limits above "A" line with P.I. greater than 7	

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 percent GW, GP, SW, SP
More than 12 percent GM, GC, SM, SC
5 to 12 percent Borderline cases requiring dual symbols

PLASTICITY CHART



APPENDIX C
DOCUMENT QUALIFICATIONS

APPENDIX C

DOCUMENT QUALIFICATIONS

I. GENERAL RECOMMENDATIONS/LIMITATIONS

CGC, Inc. should be provided the opportunity for a general review of the final design and specifications to confirm that earthwork and foundation requirements have been properly interpreted in the design and specifications. CGC should be retained to provide soil engineering services during excavation and subgrade preparation. This will allow us to observe that construction proceeds in compliance with the design concepts, specifications and recommendations, and also will allow design changes to be made in the event that subsurface conditions differ from those anticipated prior to the start of construction. CGC does not assume responsibility for compliance with the recommendations in this report unless we are retained to provide construction testing and observation services.

This report has been prepared in accordance with generally accepted soil and foundation engineering practices and no other warranties are expressed or implied. The opinions and recommendations submitted in this report are based on interpretation of the subsurface information revealed by the test borings indicated on the location plan. The report does not reflect potential variations in subsurface conditions between or beyond these borings. Therefore, variations in soil conditions can be expected between the boring locations and fluctuations of groundwater levels may occur with time. The nature and extent of the variations may not become evident until construction.

II. IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes. While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you* - should apply the report for any purpose or project except the one originally contemplated.

READ THE FULL REPORT

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A GEOTECHNICAL ENGINEERING REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *CGC cannot accept responsibility or liability for problems that occur because our reports do not consider developments of which we were not informed.*

SUBSURFACE CONDITIONS CAN CHANGE

A geotechnical engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

MOST GEOTECHNICAL FINDINGS ARE PROFESSIONAL OPINION

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgement to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ - sometimes significantly - from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most

effective method of managing the risks associated with unanticipated conditions.

A REPORT'S RECOMMENDATIONS ARE NOT FINAL

Do not over-rely on the confirmation-dependent recommendations included in your report. *Those confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgement and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *CGC cannot assume responsibility or liability for the report's confirmation-dependent recommendations if we do not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A GEOTECHNICAL ENGINEERING REPORT IS SUBJECT TO MISINTERPRETATION

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical engineering report. Confront that risk by having CGC participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

DO NOT REDRAW THE ENGINEER'S LOGS

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

GIVE CONSTRUCTORS A COMPLETE REPORT AND GUIDANCE

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time to perform additional study.* Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

READ RESPONSIBILITY PROVISIONS CLOSELY

Some clients, design professionals, and constructors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic

expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineer's responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

ENVIRONMENTAL CONCERNS ARE NOT COVERED

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

OBTAIN PROFESSIONAL ASSISTANCE TO DEAL WITH MOLD

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.* Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.

RELY ON YOUR GEOTECHNICAL ENGINEER FOR ADDITIONAL ASSISTANCE

Membership in the Geotechnical Business Council (GBC) of Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with CGC, a member of GBC, for more information.

Modified and reprinted with permission from:

Geotechnical Business Council
of the Geoprofessional Business Association
8811 Colesville Road, Suite G 106
Silver Spring, MD 20910



Legend

 Denotes boring location



Notes

1. Soil borings performed by ADC in April 2026
2. Boring locations are approximate

Scale: Reduced

Date: 5/2026		Soil Boring Location Map Martin Street Madison, WI
Job No. C26051-7		



LOG OF TEST BORING

Project Martin Street
235'W of Fish Hatchery, 6'N of Centerline
Location Madison, WI

Boring No. 1
Surface Elevation (ft) 869±
Job No. C26051-7
Sheet 1 of 1

2921 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	TYPE	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LOI
						4 in. Asphalt/3 in. Recycled Asphalt Base Medium Dense to Dense, Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					
1		10	M	14							
2		10	M	16							
					5						
3		6	M	45							
4		14	M	36		Scattered Pockets with Less Silt and Gravel Beginning Near 8'					
					10						
5		10	M	42							
6		10	M	26							
					15	End of Boring at 15 ft Backfilled with Bentonite Chips and Asphalt Patch					
					20						
					25						

WATER LEVEL OBSERVATIONS					GENERAL NOTES					
While Drilling	☒ NW	Upon Completion of Drilling			Start	4/17/26	End	4/17/26		
Time After Drilling				10 Min.	Driller	ADC	Chief	KD	Rig	CME-55
Depth to Water					Logger	LD	Editor	ESF		
Depth to Cave in				12.2'	Drill Method	2.25" HSA; Autohammer				
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.										



LOG OF TEST BORING

Project Martin Street
75'W of Fish Hatchery, 5'N of Centerline
Location Madison, WI

Boring No. 2
Surface Elevation (ft) 870±
Job No. C26051-7
Sheet 1 of 1

2921 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N		qu (qa) (tsf)	W	LL	PL	LOI
					4 in. Asphalt Pavement/3 in. Base Course					
1		10	M	5	Stiff, Brown Lean CLAY (CL)	(1.5)				
2		10	M	8		(1.75)				
3		14	M/W	3	Very Loose to Loose, Brown and Dark Brown Fine to Medium SAND, Little Silt and Gravel (SP-SM)					
4		10	M/W	4						
5		12	M	10	Loose to Medium Dense, Tan Fine SAND, Trace Silt (SP)					
6		10	M	23	Scattered Seams and Lenses of Sandy Silt Near 14'					
7		12	W	60	Very Dense, Brown Laminated Silty Fine SAND and Sandy SILT, Little Clay (SM/ML)					
8		10	W	60	Very Dense, Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					
					End of Boring at 20 ft					
					Backfilled with Bentonite Chips and Asphalt Patch					

WATER LEVEL OBSERVATIONS					GENERAL NOTES				
While Drilling	▽	16.0'	Upon Completion of Drilling		Start	4/17/26	End	4/17/26	
Time After Drilling				10 Min.	Driller	ADC	Chief	KD	Rig CME-55
Depth to Water				15.1'	Logger	LD	Editor	ESF	
Depth to Cave in				16.1'	Drill Method	2.25" HSA; Autohammer			
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.									

SECTION E: BIDDERS ACKNOWLEDGEMENT

CANNONBALL PATH PHASE 6 CONTRACT NO. 7431

Bidder must state a Unit Price and Total Bid for each item. The Total Bid for each item must be the product of quantity, by Unit Price. The Grand Total must be the sum of the Total Bids for the various items. In case of multiplication errors or addition errors, the Grand Total with corrected multiplication and/or addition shall determine the Grand Total bid for each contract. The Unit Price and Total Bid must be entered numerically in the spaces provided. All words and numbers shall be written in ink.

1. The undersigned having familiarized himself/herself with the Contract documents, including Advertisement for Bids, Instructions to Bidders, Form of Proposal, City of Madison Standard Specifications for Public Works Construction - 2026 Edition thereto, Form of Agreement, Form of Bond, and Addenda issued and attached to the plans and specifications on file in the office of the City Engineer, hereby proposes to provide and furnish all the labor, materials, tools, and expendable equipment necessary to perform and complete in a workmanlike manner the specified construction on this project for the City of Madison; all in accordance with the plans and specifications as prepared by the City Engineer, including Addenda Nos. N/A through N/A to the Contract, at the prices for said work as contained in this proposal. (Electronic bids submittals shall acknowledge addendum under Section E and shall not acknowledge here)
2. If awarded the Contract, we will initiate action within seven (7) days after notification or in accordance with the date specified in the contract to begin work and will proceed with diligence to bring the project to full completion within the number of work days allowed in the Contract or by the calendar date stated in the Contract.
3. The undersigned Bidder or Contractor certifies that he/she is not a party to any contract, combination in form of trust or otherwise, or conspiracy in restraint of trade or commerce or any other violation of the anti-trust laws of the State of Wisconsin or of the United States, with respect to this bid or contract or otherwise.
4. I hereby certify that I have met the Bid Bond Requirements as specified in Section 102.5.
(IF BID BOND IS USED, IT SHALL BE SUBMITTED ON THE FORMS PROVIDED BY THE CITY. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID).
5. I hereby certify that all statements herein are made on behalf of Speedway Sand & Gravel Inc. (name of corporation, partnership, or person submitting bid) a corporation organized and existing under the laws of the State of WI a partnership consisting of _____; an individual trading as _____; of the City of _____ State of _____; that I have examined and carefully prepared this Proposal, from the plans and specifications and have checked the same in detail before submitting this Proposal; that I have fully authority to make such statements and submit this Proposal in (its, their) behalf; and that the said statements are true and correct.

Dustin Bittner
SIGNATURE

Vice President

TITLE, IF ANY

Sworn and subscribed to before me this

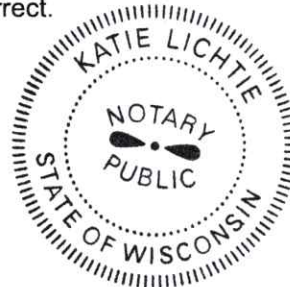
10 day of June, 2020.

Katie Lichtie

(Notary Public or other officer authorized to administer oaths)

My Commission Expires 01-01-27

Bidders shall not add any conditions or qualifying statements to this Proposal.



Section F: Best Value Contracting (BVC) Fillable Online Form

Best Value Contracting

1. The Contractor shall indicate the non-apprenticeable trades used on this contract.

2. Madison General Ordinance (M.G.O.), 33.07(7), does provide for some exemptions from the active apprentice requirement. Apprenticeable trades are those trades considered apprenticeable by the State of Wisconsin. Please check applicable box if you are seeking an exemption.

☐ Contractor has a total skilled workforce of four or less individuals in all apprenticeable trades combined.

☐ No available trade training program; The Contractor has been rejected by the only available trade training program, or there is no trade training program within 90 miles.

☐ Contractor is not using an apprentice due to having a journey worker on layoff status, provided the journey worker was employed by the contractor in the past six months.

☐ First time contractor on City of Madison Public Works contract requests a onetime exemption but intends to comply on all future contracts and is taking steps typical of a "good faith" effort.

☐ Contractor has been in business less than one year.

☐ Contractor doesn't have enough journeyman trade workers to qualify for a trade training program in that respective trade.

☐ An exemption is granted in accordance with a time period of a "Documented Depression" as defined by the State of Wisconsin.

3. The Contractor shall indicate on the following section which apprenticeable trades are to be used on this contract. Compliance with active apprenticeship, to the extent required by M.G.O. 33.07(7), shall be satisfied by documentation from an applicable trade training body; an apprenticeship contract with the Wisconsin Department of Workforce Development or a similar agency in another state; or the U.S Department of Labor. This documentation is required prior to the Contractor beginning work on the project site.

☐ The Contractor has reviewed the list and shall not use any apprenticeable trades on this project.

LIST APPRENTICABLE TRADES (check all that apply to your work to be performed on this contract)

☐ BRICKLAYER

☐ CARPENTER

☐ CEMENT MASON / CONCRETE FINISHER

☐ CEMENT MASON (HEAVY HIGHWAY)

☒ CONSTRUCTION CRAFT LABORER

☐ DATA COMMUNICATION INSTALLER

☐ ELECTRICIAN

☐ ENVIRONMENTAL SYSTEMS TECHNICIAN / HVAC SERVICE TECH/HVAC INSTALL / SERVICE

☐ GLAZIER

☒ HEAVY EQUIPMENT OPERATOR / OPERATING ENGINEER

☐ INSULATION WORKER (HEAT and FROST)

☐ IRON WORKER

☐ IRON WORKER (ASSEMBLER, METAL BLDGS)

☐ PAINTER and DECORATOR

☐ PLASTERER

☐ PLUMBER

☐ RESIDENTIAL ELECTRICIAN

☐ ROOFER and WATER PROOFER

☐ SHEET METAL WORKER

☐ SPRINKLER FITTER

☐ STEAMFITTER

☐ STEAMFITTER (REFRIGERATION)

☐ STEAMFITTER (SERVICE)

☐ TAPER and FINISHER

☐ TELECOMMUNICATIONS (VOICE, DATA and VIDEO) INSTALLER-TECHNICIAN

☐ TILE SETTER

**CANNONBALL PATH PHASE 6
CONTRACT NO. 7431**

Small Business Enterprise Compliance Report

This information may be submitted electronically through
Bid Express or submitted with bid in sealed envelope.

Cover Sheet

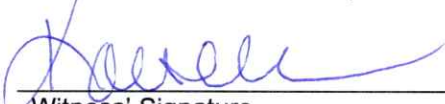
Prime Bidder Information

Company: Speedway Sand & Gravel Inc.
Address: 8500 Greenway Blvd Suite 202 Middleton, WI 53562
Telephone Number: 608-836-1071 Fax Number: 608-836-7485
Contact Person/Title: Dustin Bittner/ Vice President

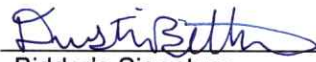
Prime Bidder Certification

I, Dustin Bittner, Vice President of
Name Title
Speedway Sand & Gravel Inc. certify that the information
Company

contained in this SBE Compliance Report is true and correct to the best of my knowledge and belief.



Witness' Signature



Bidder's Signature

06/11/2026

Date

Small Business Enterprise Compliance Report

Summary Sheet

Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
Crowley	Pavement Marking	1.6 %
Schlobohm	Trucking	3.6 %
Greener Valley	Landscaping	2.8 %
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
Subtotal SBE who are NOT suppliers:		8 %

Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
		%
		%
		%
		%
		%
		%
		%
Subtotal Contractors who are suppliers:		_____ % x 0.6 = _____ % (discounted to 60%)
Total Percentage of SBE Utilization:		8 %.

Cannonball Path Phase 6

CONTRACT NO. 7431

DATE: 6/11/26

**Speedway
Sand &
Gravel, Inc.**

Item	Quantity	Price	Extension
Section B: Proposal Page			
10701 - TRAFFIC CONTROL - LUMP SUM	1.00	\$19,200.00	\$19,200.00
10712 - TEMPORARY PEDESTRIAN BARRICADE - L.F.	750.00	\$5.00	\$3,750.00
10713 - TEMPORARY CROSSWALK ACCESS (UNDISTRIBUTED) - EACH	6.00	\$100.00	\$600.00
10714 - TEMPORARY SIDEWALK ACCESS (UNDISTRIBUTED) - EACH	6.00	\$100.00	\$600.00
10720 - TRAFFIC CONTROL SIGN - PORTABLE ARROW BOARD - DAYS	328.00	\$19.00	\$6,232.00
10721 - TRAFFIC CONTROL SIGN - PORTABLE CHANGEABLE MESSAGE - DAYS	60.00	\$49.00	\$2,940.00
10730 - PROJECT INFORMATION SIGN - EACH	1.00	\$250.00	\$250.00
10790 - RAILROAD INSURANCE - LUMP SUM	1.00	\$10,000.00	\$10,000.00
10911 - MOBILIZATION - LUMP SUM	1.00	\$196,129.00	\$196,129.00
20101 - EXCAVATION CUT - C.Y.	2190.00	\$24.00	\$52,560.00
20130 - UNDERDRAIN - L.F.	370.00	\$20.00	\$7,400.00
20140 - GEOTEXTILE FABRIC TYPE SAS (NON-WOVEN) (UNDISTRIBUTED) - S.Y.	1470.00	\$1.00	\$1,470.00
20204 - SELECT FILL - TON	280.00	\$12.20	\$3,416.00
20217 - CLEAR STONE - TON	160.00	\$17.60	\$2,816.00
20219 - BREAKER RUN - TON	1060.00	\$13.00	\$13,780.00
20221 - TOPSOIL - S.Y.	6090.00	\$5.00	\$30,450.00
20303 - SAWCUT ASPHALT PAVEMENT - L.F.	1965.00	\$1.90	\$3,733.50
20311.1 - REMOVE SEWER ACCESS STRUCTURE (STORM) - EACH	3.00	\$650.00	\$1,950.00
20311.2 - REMOVE SEWER ACCESS STRUCTURE (SANITARY) - EACH	4.00	\$760.00	\$3,040.00
20313 - REMOVE INLET - EACH	6.00	\$620.00	\$3,720.00
20314.1 - REMOVE PIPE (STORM) - L.F.	247.00	\$16.00	\$3,952.00
20314.2 - REMOVE PIPE (SANITARY) - L.F.	148.00	\$15.00	\$2,220.00
20321 - REMOVE CONCRETE PAVEMENT - S.Y.	130.00	\$5.10	\$663.00
20322 - REMOVE CONCRETE CURB & GUTTER - L.F.	1400.00	\$5.15	\$7,210.00
20323 - REMOVE CONCRETE SIDEWALK & DRIVE - S.F.	7865.00	\$1.95	\$15,336.75
20335 - ABANDON SEWER PIPE WITH SLURRY - C.Y.	3.60	\$505.00	\$1,818.00
20336 - PIPE PLUG (UNDISTRIBUTED) - EACH	4.00	\$321.00	\$1,284.00
20401 - CLEARING - I.D.	119.00	\$63.00	\$7,497.00
20402 - GRUBBING - I.D.	119.00	\$20.00	\$2,380.00
20501 - ADJUST SEWER ACCESS STRUCTURE (SANITARY) - EACH	2.00	\$650.00	\$1,300.00
20502 - ADJUST CATCHBASIN - EACH	2.00	\$400.00	\$800.00
20503 - ADJUST INLET - EACH	4.00	\$400.00	\$1,600.00
20701 - TERRACE SEEDING - S.Y.	6090.00	\$2.00	\$12,180.00
21002 - EROSION CONTROL INSPECTION - EACH	3.00	\$66.00	\$198.00
21011 - CONSTRUCTION ENTRANCE - EACH	3.00	\$300.00	\$900.00
21013 - STREET SWEEPING - LUMP SUM	1.00	\$3,600.00	\$3,600.00
21017 - SILT SOCK (8 INCH) - COMPLETE - L.F.	200.00	\$4.00	\$800.00
21031 - INLET PROTECTION, TYPE C - COMPLETE - EACH	5.00	\$150.00	\$750.00
21049 - INLET PROTECTION, RIGID FRAME - PROVIDE & INSTALL - EACH	25.00	\$369.00	\$9,225.00
21050 - INLET PROTECTION, RIGID FRAME - MAINTAIN - EACH	60.00	\$20.00	\$1,200.00
21051 - INLET PROTECTION, RIGID FRAME - REMOVE - EACH	25.00	\$60.00	\$1,500.00
21063 - EROSION MATTING, CLASS I, TYPE A - ORGANIC - S.Y.	6090.00	\$2.28	\$13,885.20
21302 - CONSTRUCTION FENCE (PLASTIC) (UNDISTRIBUTED) - L.F.	500.00	\$4.90	\$2,450.00

Cannonball Path Phase 6

CONTRACT NO. 7431

DATE: 6/11/26

**Speedway
Sand &
Gravel, Inc.**

Item	Quantity	Price	Extension
30201 - TYPE 'A' CONCRETE CURB & GUTTER - L.F.	190.00	\$38.15	\$7,248.50
30204 - TYPE 'D' CONCRETE CURB & GUTTER - L.F.	35.00	\$33.20	\$1,162.00
30205 - TYPE 'E' CONCRETE CURB & GUTTER - L.F.	120.00	\$45.50	\$5,460.00
30206 - TYPE 'G' CONCRETE CURB & GUTTER - L.F.	10.00	\$33.35	\$333.50
30207 - TYPE 'H' CONCRETE CURB & GUTTER - L.F.	1050.00	\$29.90	\$31,395.00
30208 - HAND FORMED CONCRETE CURB & GUTTER - L.F.	40.00	\$38.15	\$1,526.00
30302 - 5 INCH CONCRETE SIDEWALK - S.F.	875.00	\$9.25	\$8,093.75
30304 - 7 INCH CONCRETE SIDEWALK AND DRIVE - S.F.	16030.00	\$8.50	\$136,255.00
30311 - CONCRETE MOUNTABLE MEDIAN ISLAND NOSE - S.F.	105.00	\$16.15	\$1,695.75
30339 - DETECTABLE WARNING FIELDS RADIAL - S.F.	205.00	\$56.00	\$11,480.00
30340 - CURB RAMP DETECTABLE WARNING FIELD - S.F.	184.00	\$46.00	\$8,464.00
30355 - STAMPED AND COLORED 7-INCH CONCRETE - S.F.	265.00	\$15.10	\$4,001.50
30453 - SPLIT BLOCK RETAINING WALL - S.F.	250.00	\$75.00	\$18,750.00
40101 - CRUSHED AGGREGATE BASE COURSE GRADATION NO. 1 - TON	2700.00	\$18.60	\$50,220.00
40102 - CRUSHED AGGREGATE BASE COURSE GRADATION NO. 2 - TON	2700.00	\$17.00	\$45,900.00
40203 - HMA PAVEMENT 3 MT 58-28 S - TON	440.00	\$99.00	\$43,560.00
40205 - HMA PAVEMENT 4 MT 58-28 S - TON	790.00	\$93.00	\$73,470.00
40218 - TACK COAT - GAL.	400.00	\$2.75	\$1,100.00
40231 - ASPHALT DRIVE & TERRACE - S.Y.	70.00	\$40.00	\$2,800.00
40251 - ASPHALT MATERIAL FOR CURB FRONT FILL (UNDISTRIBUTED) - L.F.	60.00	\$25.00	\$1,500.00
40301 - FULL WIDTH GRINDING - S.Y.	3570.00	\$5.00	\$17,850.00
40308 - RAMPING SAS (UNDISTRIBUTED) - EACH	10.00	\$300.00	\$3,000.00
40396 - TEMPORARY ASPHALT PAVEMENT WEDGING (UNDISTRIBUTED) - L.F.	200.00	\$5.00	\$1,000.00
40402 - 9 INCH CONCRETE PAVEMENT - S.Y.	80.00	\$105.00	\$8,400.00
50103 - RECONSTRUCT BENCH AND FLOWLINE(S) - EACH	1.00	\$1,875.00	\$1,875.00
50201 - ROCK EXCAVATION (UNDISTRIBUTED) - C.Y.	75.00	\$75.00	\$5,625.00
50202 - TYPE II DEWATERING - L.S.	1.00	\$100.00	\$100.00
50211 - SELECT BACKFILL FOR STORM SEWER - T.F.	345.00	\$0.01	\$3.45
50212 - SELECT BACKFILL SANITARY SEWER - T.F.	885.00	\$0.01	\$8.85
50301 - 8 INCH PVC SANITARY SEWER PIPE - L.F.	205.00	\$183.85	\$37,689.25
50303 - 12 INCH PVC SANITARY SEWER PIPE - L.F.	671.00	\$202.60	\$135,944.60
50352 - 6 INCH SANITARY SEWER LATERAL - L.F.	9.00	\$268.10	\$2,412.90
50359 - COMPRESSION COUPLING - EACH	4.00	\$560.00	\$2,240.00
50361 - WASTEWATER CONTROL - L.S.	1.00	\$9,175.00	\$9,175.00
50390 - SEWER ELECTRONIC MARKERS - EACH	3.00	\$30.00	\$90.00
50401 - 12 INCH TYPE I RCP STORM SEWER PIPE - L.F.	140.00	\$109.35	\$15,309.00
50402 - 15 INCH TYPE I RCP STORM SEWER PIPE - L.F.	158.00	\$114.30	\$18,059.40
50403 - 18 INCH TYPE I RCP STORM SEWER PIPE - L.F.	37.00	\$119.65	\$4,427.05
50405 - 24 INCH TYPE I RCP STORM SEWER PIPE - L.F.	10.00	\$136.50	\$1,365.00
50499 - CONCRETE COLLAR - EACH	1.00	\$1,200.00	\$1,200.00
50701 - 4' DIA. SANITARY SAS - EACH	2.00	\$6,848.00	\$13,696.00
50702 - 5' DIA. SANITARY SAS - EACH	3.00	\$8,752.00	\$26,256.00
50723 - 3'X3' STORM SAS - EACH	2.00	\$4,900.00	\$9,800.00
50724 - 4'X4' STORM SAS - EACH	1.00	\$7,255.00	\$7,255.00

Cannonball Path Phase 6

CONTRACT NO. 7431

DATE: 6/11/26

**Speedway
Sand &
Gravel, Inc.**

Item	Quantity	Price	Extension
50726 - 6'X6' STORM SAS - EACH	1.00	\$7,455.00	\$7,455.00
50741 - TYPE H INLET - EACH	6.00	\$3,683.00	\$22,098.00
50768 - TERRACE INLET TYPE 3 - EACH	1.00	\$6,650.00	\$6,650.00
50771 - INTERNAL CHIMNEY SEAL - EACH	4.00	\$400.00	\$1,600.00
50783 - INSIDE DROP - V.F.	5.56	\$477.00	\$2,652.12
50791 - SANITARY SEWER TAP - EACH	6.00	\$1,060.00	\$6,360.00
50792 - STORM SEWER TAP - EACH	1.00	\$1,225.00	\$1,225.00
50797 - EXTERNAL SEWER ACCESS STRUCTURES JOINT SEAL - EACH	5.00	\$700.00	\$3,500.00
50801 - UTILITY LINE OPENING (UNDISTRIBUTED) - EACH	18.00	\$875.00	\$15,750.00
60207 - FURNISH & INSTALL 1 1/4 INCH CABLE-IN-DUCT - L.F.	41.00	\$8.30	\$340.30
60222 - FURNISH & INSTALL 3 INCH PVC (SCHEDULE 80) CONDUIT - L.F.	416.00	\$8.25	\$3,432.00
60224 - FURNISH & INSTALL 3 INCH PVC (SCHEDULE 40) CONDUIT - L.F.	1701.00	\$5.80	\$9,865.80
60230 - FURNISH & INSTALL 2 INCH PVC (SCHEDULE 80) CONDUIT - L.F.	425.00	\$5.60	\$2,380.00
60232 - FURNISH & INSTALL 2 INCH PVC (SCHEDULE 40) CONDUIT - L.F.	341.00	\$4.25	\$1,449.25
60253 - FURNISH & INSTALL 3 #4 AND 1 #8 WIRES IN EXISTING OR CONTRACTOR INSTALLED CONDUIT - L.F.	2977.00	\$17.80	\$52,990.60
60261 - ELECTRICAL TRENCH - L.F.	1825.00	\$8.55	\$15,603.75
60269 - FURNISH & INSTALL TRAFFIC SIGNAL CABLES 12-14 AWG - L.F.	2380.00	\$3.10	\$7,378.00
60292 - FURNISH & INSTALL FIBER OPTIC CABLE 24-COUNT - L.F.	650.00	\$2.60	\$1,690.00
60296 - FURNISH & INSTALL FIBER OPTIC CABLE 144-COUNT - L.F.	2100.00	\$3.90	\$8,190.00
60310 - FIBER OPTIC FUSION SPLICE - 1 TO 12 PER LOCATION - EACH	6.00	\$1,635.00	\$9,810.00
60402 - CONSTRUCT LB-2 BASE - EACH	9.00	\$1,145.00	\$10,305.00
60413 - CONSTRUCT TYPE "P" BASE - EACH	1.00	\$2,250.00	\$2,250.00
60415 - CONSTRUCT LB-3R BASE - EACH	3.00	\$1,150.00	\$3,450.00
60416 - CONSTRUCT LB-8R BASE - EACH	7.00	\$1,560.00	\$10,920.00
60417 - CONSTRUCT "GR" BASE - EACH	6.00	\$1,005.00	\$6,030.00
60421 - REMOVE STREET LIGHT BASE - EACH	3.00	\$540.00	\$1,620.00
60422 - REMOVE STREET LIGHT POLE - EACH	12.00	\$700.00	\$8,400.00
60423 - REMOVE TRAFFIC SIGNAL BASE - EACH	4.00	\$540.00	\$2,160.00
60424 - REMOVE TRAFFIC SIGNAL POLE - EACH	4.00	\$300.00	\$1,200.00
60427 - REMOVE ELECTRICAL HANDHOLE - EACH	6.00	\$300.00	\$1,800.00
60510 - INSTALL AND MAINTAIN SUPPORT STRUCTURES FOR STREET LIGHTS - EACH	2.00	\$1,650.00	\$3,300.00
60511 - INSTALL AND MAINTAIN AERIAL CABLE FOR STREET LIGHTS - L.F.	140.00	\$7.70	\$1,078.00
60602 - INSTALL METERED ELECTRIC SERVICE - EACH	1.00	\$1,735.00	\$1,735.00
60702 - CONSTRUCT ELECTRICAL HANDHOLE TYPE 1 - EACH	5.00	\$1,465.00	\$7,325.00
60706 - CONSTRUCT ELECTRICAL HANDHOLE TYPE 5 - EACH	12.00	\$1,885.00	\$22,620.00
60708 - CONSTRUCT ELECTRICAL HANDHOLE TYPE 7 - EACH	2.00	\$2,260.00	\$4,520.00
60801 - PAVEMENT MARKING EPOXY, 4-INCH - L.F.	3435.00	\$2.50	\$8,587.50
60802 - PAVEMENT MARKING EPOXY, LINE, 6-INCH - L.F.	891.00	\$3.75	\$3,341.25

Cannonball Path Phase 6

CONTRACT NO. 7431

DATE: 6/11/26

**Speedway
Sand &
Gravel, Inc.**

Item	Quantity	Price	Extension
60803 - PAVEMENT MARKING EPOXY, LINE, 8-INCH - L.F.	42.00	\$5.00	\$210.00
60812 - PAVEMENT MARKING EPOXY, CROSSWALK, 6-INCH - L.F.	418.00	\$3.75	\$1,567.50
60816 - PAVEMENT MARKING EPOXY, CONTINENTAL CROSSWALK, 18-INCH - L.F.	490.00	\$11.25	\$5,512.50
60818 - PAVEMENT MARKING EPOXY, STOP LINE, 24-INCH - L.F.	192.00	\$14.95	\$2,870.40
60820 - PAVEMENT MARKING EPOXY, MEDIAN NOSE - EACH	4.00	\$125.00	\$500.00
60824 - PAVEMENT MARKING EPOXY, SYMBOL, BIKE STRAIGHT ARROW - EACH	1.00	\$75.00	\$75.00
60829 - PAVEMENT MARKING EPOXY, SYMBOL, LEFT ARROW - EACH	9.00	\$100.00	\$900.00
60835 - PAVEMENT MARKING EPOXY, SYMBOL, RAILROAD CROSSING - EACH	2.00	\$925.00	\$1,850.00
60894 - SKID/SLIP RESISTANT PREFORMED THERMOPLASTIC PAVEMENT MARKING, BIKE LANE GREEN - S.F.	400.00	\$18.75	\$7,500.00
60896 - SKID/SLIP RESISTANT PREFORMED THERMOPLASTIC PAVEMENT MARKING, 6-INCH WHITE RETROREFLECTIVE LINE - L.F.	200.00	\$9.35	\$1,870.00
60941 - TEMPORARY PAVEMENT MARKING TAPE, REMOVABLE, REFLECTIVE, DOUBLE LINE, 4-INCH - L.F.	2000.00	\$3.00	\$6,000.00
60975 - TEMPORARY PAVEMENT MARKING TAPE, REMOVABLE, LINE, 24- INCH - L.F.	25.00	\$10.00	\$250.00
70104 - ADJUST WATER VALVE BOX (UNDISTRIBUTED) - EACH	5.00	\$375.00	\$1,875.00
90001 - EXCAVATION FOR STRUCTURES BRIDGES B-13-969 - EACH	1.00	\$2,500.00	\$2,500.00
90002 - BACKFILL STRUCTURE TYPE A - TON	150.00	\$19.15	\$2,872.50
90003 - CONCRETE MASONRY BRIDGES - CY	51.00	\$1,145.00	\$58,395.00
90004 - EXPANSION DEVICE - LF	30.00	\$945.00	\$28,350.00
90005 - PROTECTIVE SURFACE TREATMENT - SY	171.00	\$6.00	\$1,026.00
90006 - BAR STEEL REINFORCEMENT HS STRUCTURES - LB	3400.00	\$8.00	\$27,200.00
90007 - BAR STEEL REINFORCEMENT HS COATED STRUCTURES - LB	1350.00	\$8.00	\$10,800.00
90008 - RUBBERIZED MEMBRANE WATERPROOFING - SY	8.00	\$125.00	\$1,000.00
90009 - PILING CIP CONCRETE 10 3/4 X 0.365-INCH - LF	330.00	\$117.00	\$38,610.00
90010 - RIPRAP MEDIUM - CY	36.00	\$95.00	\$3,420.00
90011 - PIPE UNDERDRAIN WRAPPED 6-INCH - LF	140.00	\$15.00	\$2,100.00
90012 - GEOTEXTILE TYPE DF SCHEDULE A - SY	22.00	\$9.00	\$198.00
90013 - GEOTEXTILE TYPE HR - SY	82.00	\$5.50	\$451.00
90014 - PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-13-969 LRFD - EACH	1.00	\$191,482.00	\$191,482.00
90015 - STEEL PEDESTRIAN RAILING - LF	32.00	\$300.00	\$9,600.00
90016 - CONCRETE PAVEMENT APPROACH SLABS - LS	1.00	\$4,800.00	\$4,800.00
90017 - TEMPORARY ASPHALT PAVEMENT (UNDISTRIBUTED) - S.Y.	2090.00	\$21.00	\$43,890.00
90018 - DIRECTIONAL GUIDANCE INDICATOR - S.F.	25.00	\$60.00	\$1,500.00

Cannonball Path Phase 6

CONTRACT NO. 7431

DATE: 6/11/26

**Speedway
Sand &
Gravel, Inc.**

Item	Quantity	Price	Extension
90019 - TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS - EACH	500.00	\$25.00	\$12,500.00
90020 - TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES - EACH	500.00	\$8.00	\$4,000.00
90030 - 4'X7' STORM SAS - EACH	2.00	\$7,215.00	\$14,430.00
90060 - FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 1 - EACH	9.00	\$1,500.00	\$13,500.00
90061 - FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 2 - EACH	10.00	\$1,500.00	\$15,000.00
90062 - FURNISH & INSTALL STREET LIGHT LUMINAIRE TYPE 3 - EACH	8.00	\$1,500.00	\$12,000.00
90063 - POLE ALUMINUM 20-FT STREET LIGHT (BLACK) - EACH	9.00	\$2,050.00	\$18,450.00
90064 - FURNISH & INSTALL 15-FT STANDARD SIGNAL POLE - EACH	6.00	\$1,410.00	\$8,460.00
90065 - FURNISH & INSTALL 20-FT 7 GAUGE POLE - EACH	4.00	\$2,850.00	\$11,400.00
90066 - FURNISH & INSTALL 30-FT 7 GAUGE POLE, DRILLED - EACH	3.00	\$3,600.00	\$10,800.00
90067 - FURNISH & INSTALL 30-FT 11 GAUGE POLE, DRILLED - EACH	3.00	\$3,260.00	\$9,780.00
90068 - FURNISH & INSTALL 12-FOOT TROMBONE ARM - EACH	4.00	\$3,160.00	\$12,640.00
90069 - FURNISH & INSTALL 18-FT TROMBONE ARM - EACH	2.00	\$3,595.00	\$7,190.00
90070 - FURNISH & INSTALL 3-SECTION 12-INCH TRAFFIC SIGNAL HEADS - EACH	16.00	\$1,025.00	\$16,400.00
90071 - FURNISH & INSTALL 4-SECTION 12-INCH TRAFFIC SIGNAL HEADS - EACH	6.00	\$1,150.00	\$6,900.00
90072 - FURNISH & INSTALL 4-INCH BICYCLE SIGNAL HEADS - EACH	6.00	\$1,135.00	\$6,810.00
90073 - FURNISH & INSTALL 16-INCH PEDESTRIAN SIGNAL WITH COUNTDOWN TIMER - EACH	6.00	\$855.00	\$5,130.00
90074 - INSTALL CITY FURNISHED ACCESSIBLE PEDESTRIAN BUTTONS - EACH	5.00	\$250.00	\$1,250.00
90075 - INSTALL CITY FURNISHED RRFB (FISH HATCHERY & MARTIN) - LUMP	2.00	\$1,500.00	\$3,000.00
90076 - TEMPORARY STREET LIGHTING FIXTURES - EACH	1.00	\$1,320.00	\$1,320.00
90077 - FURNISH & INSTALL #10 AWG GROUND WIRE - L.F.	1545.00	\$1.95	\$3,012.75
90078 - FURNISH & INSTALL PEDESTAL BASE - EACH	6.00	\$385.00	\$2,310.00
90079 - FURNISH & INSTALL TRANSFORMER BASE - EACH	3.00	\$970.00	\$2,910.00
90080 - INSTALL CITY FURNISHED (TRAFFIC SIGNAL CONTROLLER CABINET) - EACH	1.00	\$930.00	\$930.00
90081 - INSTALL CITY FURNISHED OPTICAL SIGNAL PRE-EMPT - LUMP	1.00	\$1,386.00	\$1,386.00
181 Items	Totals		\$2,175,727.17



Department of Public Works

Engineering Division

James M. Wolfe, P.E. City Engineer

City-County Building, Room 115
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
Phone: (608) 266-4751
Fax: (608) 264-9275
engineering@cityofmadison.com
www.cityofmadison.com/engineering

Assistant City Engineer

Bryan Cooper, AIA
Gregory T. Fries, P.E.
Chris Petykowski, P.E.

Deputy Division Manager

Kathleen M. Cryan

Principal Architect

Amy Loewenstein Scanlon, AIA

Principal Engineer 2

Janet Schmidt, P.E.

Principal Engineer 1

Kyle Frank, P.E.
Mark D. Moder, P.E.
Fadi El Musa Gonzalez, P.E.
Andrew J. Zwieg, P.E.

Financial Manager

Steven B. Danner-Rivers

BIENNIAL BID BOND

Speedway Sand & Gravel Inc.

(a corporation of the State of Wisconsin)
(individual), (partnership), (hereinafter referred to as the "Principal") and
Fidelity and Deposit Company of Maryland

a corporation of the State of Illinois (hereinafter referred to as the "Surety") and licensed to do business in the State of Wisconsin, are held and firmly bound unto the City of Madison, Wisconsin (hereinafter referred to as the "City"), in the sum equal to the individual proposal guaranty amounts of the total bid or bids of the Principal herein accepted by the City, for the payment of which the Principal and the Surety hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of this obligation is that the Principal has submitted to the City certain bids for projects from the time period of February 1, 2026 through January 31, 2028.

If the Principal is awarded the contract(s) by the City and, within the time and manner required by law after the prescribed forms are presented for its signature, the Principal enters into (a) written contract(s) in accordance with the bid(s), and files with the City its bond(s) guaranteeing faithful performance and payment for all labor and materials, as required by law, or if the City rejects all bids for the work described, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

In the event the Principal shall fail to execute and deliver the contract(s) or the performance and payment bond(s), all within the time specified or any extension thereof, the Principal and Surety agree jointly and severally to pay to the City within ten (10) calendar days of written demand a total equal to the sum of the individual proposal guaranty amounts of the total bid(s) as liquidated damages.

The Surety, for value received, hereby agrees that the obligations of it and its bond shall be in no way impaired or affected by any extension of time within which the City may accept a bid, and the Surety does hereby waive notice of any such extension.

This bond may be terminated by the Surety upon giving thirty (30) days written notice to the City of its intent to terminate this bond and to be released and discharged therefrom, but such termination shall not operate to relieve or discharge the Surety from any liability already accrued or which shall accrue before the expiration of such thirty (30) day period.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year set forth below.

PRINCIPAL

Speedway Sand & Gravel Inc.

COMPANY NAME

AFFIX SEAL

DATE

Dec 4, 2025

By:

SIGNATURE AND TITLE

SURETY

Fidelity and Deposit Company of Maryland

COMPANY NAME

AFFIX SEAL

November 5, 2025

DATE

By:

SIGNATURE AND TITLE

Nicole Stillings, Attorney-in-Fact



This certifies that I have been duly licensed as an agent for the Surety in Wisconsin under National Provider No. 6966174 for the year 26 and appointed as attorney in fact with authority to execute this bid bond, which power of attorney has not been revoked.

November 5, 2025

DATE

AGENT SIGNATURE

Nicole Stillings

Holmes, Murphy and Associates, LLC

1818 Parmenter Street, Suite 240

ADDRESS

Middleton, WI 53562

CITY, STATE AND ZIP CODE

(612) 349-2400

TELEPHONE NUMBER

Note to Surety and Principal: Any bid submitted which this bond guarantees may be rejected if the Power of Attorney form showing that the Agent of Surety is currently authorized to execute bonds on behalf of Surety is not attached to this bond.

CERTIFICATE OF BIENNIAL BID BOND

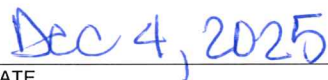
TIME PERIOD- VALID (FROM/TO)	
FROM: February 1, 2026	TO: January 31, 2028
NAME OF SURETY	
Fidelity and Deposit Company of Maryland	
NAME OF CONTRACTOR	
Speedway Sand & Gravel Inc.	
CERTIFICATE HOLDER	
City of Madison, Wisconsin	

This is to certify that a biennial bid bond issued by the above-named Surety is currently on file with the City of Madison.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the biennial bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing Surety will give thirty (30) days written notice to the certificate holder indicated above.


SIGNATURE OF AUTHORIZED CONTRACTOR REPRESENTATIVE


DATE

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Christopher Nolan, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **R. W. FRANK, Brian J. OESTREICH, Melinda C. BLODGETT, Nathan WEAVER, Joshua R. LOFTIS, R. C. BOWMAN, Ted JORGENSEN, Colby D. WHITE, Nicole STILLINGS, Sarah ROBINSON, Sandra M. ENGSTRUM, Michelle MORRISON, Joseph CARDINAL, Kristine M. BECKS, Austin K. MUEHLSCHLEGEL, Ryan-Olivia E. LUNDY, Tina DOMASK, Ross S SQUIRES of St. Louis Park, Minnesota**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 18th day of April, A.D. 2025.



ATTEST:
**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

By: Christopher Nolan
Vice President

By: Dawn E. Brown
Secretary

**State of Maryland
County of Baltimore**

On this 18th day of April, A.D. 2025, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Christopher Nolan, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison
Notary Public
My Commission Expires January 27, 2029



EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 5th day of November, 2025.



Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfclaims@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 8th day of July, 2026.



Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfelaims@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

SECTION H: AGREEMENT

THIS AGREEMENT made this 21st day of July in the year Two Thousand and Twenty Six between **Speedway Sand & Gravel, Inc.** hereinafter called the Contractor, and the City of Madison, a Wisconsin municipal corporation, hereinafter called the City.

WHEREAS, the Common Council of the City of Madison ("Council") under the provisions of a resolution adopted on **Jul 7, 2026** and by virtue of authority vested in the Council, has awarded to the Contractor the work of performing certain public construction.

NOW, THEREFORE, the Contractor and the City, for the consideration hereinafter named, agree as follows:

1. **Scope of Work.** The Contractor shall, perform the construction, execution and completion of the following listed complete work or improvement in full compliance with the Plans, Specifications, Standard Specifications, Supplemental Specifications, Special Provisions and Agreement; perform all items of work covered or stipulated in the Proposal; perform all altered or extra work; and shall furnish, unless otherwise provided in the contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work or improvements:

Cannonball Path Phase 6 CONTRACT NO. 7431

2. **Completion Date/Contract Time.** Construction work must begin within seven (7) calendar days after the date appearing on mailed written notice to do so shall have been sent to the Contractor and shall be carried at a rate so as to secure full completion SEE SPECIAL PROVISIONS, the rate of progress and the time of completion being essential conditions of this Agreement.
3. **Contract Price.** The City shall pay to the Contractor at the times, in the manner and on the conditions set forth in said specifications, the sum of **TWO MILLION ONE HUNDRED SEVENTY FIVE THOUSAND SEVEN HUNDRED TWENTY SEVEN AND 17/100 (\$2,175,727.17)** Dollars being the amount bid by such Contractor and which was awarded as provided by law.
4. **A. Non-Discrimination.** During the term of this Agreement, the Contractor agrees not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs, or student status. The Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

B. Affirmative Action. The Contractor agrees that within thirty (30) days after the effective date of this agreement, the Contractor will provide to the City Affirmative Action Division certain workforce utilization statistics, using a form to be furnished by the City.

If the contract is still in effect, or if the City enters into a new agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form

will be submitted to the City Affirmative Action Division no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this contract, it will notify the City Affirmative Action Division of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications and application procedures and deadlines, shall be provided to the City by the opening date of advertisement and with sufficient time for the City to notify candidates and make a timely referral. The Contractor agrees to interview and consider candidates referred by the Affirmative Action Division, or an organization designated by the Division, if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date started in the notice.

Articles of Agreement

Article I

The Contractor shall take affirmative action in accordance with the provisions of this contract to ensure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin and that the employer shall provide harassment free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this contract.

Article II

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin.

Article III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by the City advising the labor union or worker's representative of the Contractor's equal employment opportunity and affirmation action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

Article V

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works contractors in a form approved by the Affirmative Action Division Manager.

Article VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City Affirmative Action Division with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by law.

Article VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action Provisions of this contract or Section 39.03 or 39.02 of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

1. Cancel, terminate or suspend this Contract in whole or in part.
2. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.
3. Recover on behalf of the City from the prime Contractor 0.5 percent of the contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the contract price, or ten thousand dollars (\$10,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the non-complying subcontractor.

Article VIII

The Contractor shall include the above provisions of this contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

Article IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this contract. (In federally funded contracts the terms "DBE, MBE, and WBE" shall be substituted for the term "small business" in this Article.)

5. **Substance Abuse Prevention Program Required.** Prior to commencing work on the Contract, the Contractor, and any Subcontractor, shall have in place a written program for the prevention of substance abuse among its employees as required under Wis. Stat. Sec. 103.503
6. **Contractor Hiring Practices.**
Ban the Box - Arrest and Criminal Background Checks. (Sec. 39.08, MGO)

This provision applies to all prime contractors on contracts entered into on or after January 1, 2016, and all subcontractors who are required to meet prequalification requirements under MGO 33.07(7)(l), MGO as of the first time they seek or renew pre-qualification status on or after January 1, 2016. The City will monitor compliance of subcontractors through the pre-qualification process.

- a. **Definitions.** For purposes of this section, "Arrest and Conviction Record" includes, but is not limited to, information indicating that a person has been questioned, apprehended, taken into custody or detention, held for investigation, arrested, charged with, indicted or tried for any felony, misdemeanor or other offense pursuant to any law enforcement or military authority.

"Conviction record" includes, but is not limited to, information indicating that a person has been convicted of a felony, misdemeanor or other offense, placed on probation, fined, imprisoned or paroled pursuant to any law enforcement or military authority.

"Background Check" means the process of checking an applicant's arrest and conviction record, through any means.

- b. **Requirements.** For the duration of this Contract, the Contractor shall:

1. Remove from all job application forms any questions, check boxes, or other inquiries regarding an applicant's arrest and conviction record, as defined herein.
2. Refrain from asking an applicant in any manner about their arrest or conviction record until after conditional offer of employment is made to the applicant in question.
3. Refrain from conducting a formal or informal background check or making any other inquiry using any privately or publicly available means of obtaining the arrest or conviction record of an applicant until after a conditional offer of employment is made to the applicant in question.
4. Make information about this ordinance available to applicants and existing employees, and post notices in prominent locations at the workplace with information about the ordinance and complaint procedure using language provided by the City.
5. Comply with all other provisions of Sec. 39.08, MGO.

- c. **Exemptions:** This section shall not apply when:

1. Hiring for a position where certain convictions or violations are a bar to employment in that position under applicable law, or
2. Hiring a position for which information about criminal or arrest record, or a background check is required by law to be performed at a time or in a manner that would otherwise be prohibited by this ordinance, including a licensed trade or profession where the licensing authority explicitly authorizes or requires the inquiry in question.

To be exempt, Contractor has the burden of demonstrating that there is an applicable law or regulation that requires the hiring practice in question, if so, the contractor is exempt from all of the requirements of this ordinance for the position(s) in question.

7. **Choice of Law and Forum Selection.** This Contract shall be governed by and construed, interpreted and enforced in accordance with the laws of the State of Wisconsin. The parties agree, for any claim or suit or other dispute relating to this Contract that cannot be mutually resolved, the

venue shall be a court of competent jurisdiction within the State of Wisconsin and the parties agree to submit themselves to the jurisdiction of said court, to the exclusion of any other judicial district that may have jurisdiction over such a dispute according to any law.

8. **Counterparts, Electronic Signature, and Delivery.** This Contract may be signed in counterparts, each of which shall be taken together as a whole to comprise a single document. Signatures on this Contract may be exchanged between the parties by facsimile, electronic scanned copy (.pdf) or similar technology and shall be as valid as original; and this Contract may be converted into electronic format and signed or given effect with one or more electronic signature(s) if the electronic signature(s) meets all requirements of Wisc. Stat. ch 137 or other applicable Wisconsin or Federal law. Executed copies or counterparts of this Contract may be delivered by facsimile or email and upon receipt will be deemed original and binding upon the parties hereto, whether or not a hard copy is also delivered. Copies of this Contract, fully executed, shall be as valid as an original.

Cannonball Path Phase 6

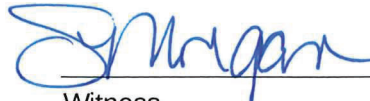
CONTRACT NO. 7431

IN WITNESS WHEREOF, the Contractor has hereunto set his/her hand and seal and the City has caused this contract to be executed by its Mayor and City Clerk on the dates written below.

Countersigned:

Speedway Sand & Gravel, Inc.

Company Name



Witness Date

July 8, 2026



V. President Date

July 8, 2026



Witness Date

July 8, 2026



Secretary Date

July 8, 2026

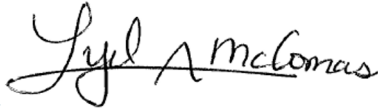
CITY OF MADISON



Satya Rhodes-Conway, Mayor

07/21/2026

Date



Lydia A. McComas, City Clerk

7/17/2026

Date

Provisions have been made to pay the liability that will accrue under this contract.

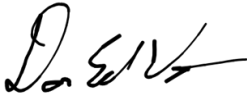


David P Schmiedicke, Finance Director

7/20/2026

Date

Approved as to form:



Michael Haas, City Attorney

07/20/2026

Date

Execution of this Agreement by City was authorized by Resolution Enactment No. RES-26-00382, ID No. 93605, adopted by the Common Council of the City of Madison on July 7, 2026.

SECTION I: PAYMENT AND PERFORMANCE BOND

LET ALL KNOW BY THESE DOCUMENTS PRESENTED, that we **Speedway Sand & Gravel, Inc.** as principal, and Fidelity and Deposit Company of Maryland Company of Schaumburg, IL as surety, are held and firmly bound unto the City of Madison, Wisconsin, in the sum of **TWO MILLION ONE HUNDRED SEVENTY FIVE THOUSAND SEVEN HUNDRED TWENTY SEVEN AND 17/100 (\$2,175,727.17)** Dollars, lawful money of the United States, for the payment of which sum to the City of Madison, we hereby bind ourselves and our respective executors and administrators firmly by these presents.

The condition of this Bond is such that if the above bounden shall on his/her part fully and faithfully perform all of the terms of the Contract entered into between him/herself and the City of Madison for the construction of:

**Cannonball Path Phase 6
CONTRACT NO. 7431**

in Madison, Wisconsin, and shall pay all claims for labor performed and material furnished in the prosecution of said work, and save the City harmless from all claims for damages because of negligence in the prosecution of said work, and shall save harmless the said City from all claims for compensation (under Chapter 102, Wisconsin Statutes) of employees and employees of subcontractor, then this Bond is to be void, otherwise of full force, virtue and effort.

Signed and sealed this 8th day of July, 2026

Countersigned:

Speedway Sand & Gravel, Inc.

Company Name (Principal)

Witness

V. President

Seal NA

Secretary

Fidelity and Deposit Company of Maryland

Surety

Seal

☒ Salary Employee ☐ Commission

By

Nicole Stillings
Attorney-in-Fact Nicole Stillings



This certifies that I have been duly licensed as an agent for the above company in Wisconsin under National Producer Number 6966174 for the year 2026, and appointed as attorney-in-fact with authority to execute this payment and performance bond which power of attorney has not been revoked.

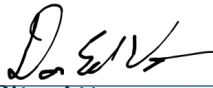
July 8, 2026

Date

Agent Signature

The foregoing Bond has been approved as to form:

07/20/2026
Date


for City Attorney

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Christopher Nolan, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **R. W. FRANK, Brian J. OESTREICH, Melinda C. BLODGETT, Nathan WEAVER, Joshua R. LOFTIS, R. C. BOWMAN, Ted JORGENSEN, Colby D. WHITE, Nicole STILLINGS, Sarah ROBINSON, Sandra M. ENGSTRUM, Michelle MORRISON, Joseph CARDINAL, Kristine M. BECKS, Austin K. MUEHLSCHLEGEL, Ryan-Olivia E. LUNDY, Tina DOMASK, Ross S SQUIRES** of St. Louis Park, Minnesota, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 18th day of April, A.D. 2025.



ATTEST:
**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

By: *Christopher Nolan*
Vice President

By: *Dawn E. Brown*
Secretary

**State of Maryland
County of Baltimore**

On this 18th day of April, A.D. 2025, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Christopher Nolan, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison
Notary Public
My Commission Expire January 27, 2029



Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 8th day of July, 2026.



Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfclains@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790