

\$554,034.29

BID OF Parisi Construction, LLC

2025

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

RENNEBOHM PARK EAST TENNIS COURTS 2025

CONTRACT NO. 9642

PROJECT NO. 14015

MUNIS NO. 14015

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL
MADISON, WISCONSIN ON May 20, 2025

CITY ENGINEERING DIVISION
1600 EMIL STREET
MADISON, WISCONSIN 53713

<https://bidexpress.com/login>

**RENNEBOHM PARK EAST TENNIS COURTS 2025
CONTRACT NO. 9642**

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This Proposal, and Agreement have
been prepared by:

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


Eric Knepp, Parks Superintendent

EK: ccs

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:	RENNEBOHM PARK EAST TENNIS COURTS 2025
CONTRACT NO.:	9642
SBE GOAL	7%
BID BOND	5%
SBE PRE BID MEETING (2:00 P.M.)	4/10/25
PREQUALIFICATION APPLICATION DUE (2:00 P.M.)	4/10/25
BID SUBMISSION (2:00 P.M.)	4/17/25
BID OPEN (2:30 P.M.)	4/17/25
PUBLISHED IN WSJ	3/27/25, 4/3/25 & 4/10/25

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 Alane Boutelle at (608) 267-1197.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2025 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). 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
- 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, Over \$1,500,000
- 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
- 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.

SECTION B: PROPOSAL

Please refer to the
Bid Express Website
at <https://bidexpress.com>
look up contract number
and go to
Section B: Proposal Page

You can access all City of Madison bid solicitations for FREE at www.bidexpress.com

Click on the "Register for Free" button and follow the instructions to register your company and yourself. You will be asked for a payment subscription preference, since you may wish to bid online someday. Simply choose the method to pay on a 'per bid' basis. This requires no payment until / unless you actually bid online. You can also choose the monthly subscription plan at this time. You will, however, be asked to provide payment information. Remember, you can change your preference at anytime. You will then be able to complete your free registration and have full access to the site. Your free access does not require completion of the 'Digital ID' process, so you will have instant access for viewing and downloading. To be prepared in case you ever do wish to bid online, you may wish to establish your digital ID also, since you cannot bid without a Digital ID.

If you have any problems with the free registration process, you can call the bidexpress help team, toll free at 1-888-352-2439 (option 1, option1).

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

RENNEBOHM PARK EAST TENNIS COURTS 2025 CONTRACT NO. 9642

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 \$76,500 for a single trade contract; or equal to or greater than \$373,000 for a multi-trade contract pursuant to MGO 33.07(7).

SECTION 104: SCOPE OF WORK

This project consists of installing asphalt pavement, including base course for asphalt path and pickleball/tennis courts, installing footings/bases and electrical supply for the court lighting system, installing fencing, gates, net posts, net tie downs and sport court finishing and striping to construct a three (3) court (pickleball and tennis) complex at Rennebohm Park.

The Contractor shall view the site prior to bidding to become familiar with the existing conditions. The Contractor shall work with the existing utilities to resolve conflicts during the construction process.

SECTION 104.4: INCREASED OR DECREASED QUANTITIES

It is agreed and understood that the quantities of any items of work shown on the plans or in the proposal are subject to increase or decrease during the progress of the work. The Engineer reserves the right to increase or decrease the quantities of any items of work, including increase or decrease of quantities by alteration of plans, as may be considered necessary or desirable during the progress of the work to satisfactorily complete the project. Such increases or decreases in quantities shall not be considered as a waiver of any conditions of the contract nor invalidate any of the provisions thereof. All terms of Section 104.5 Increase Items and Section 104.6 Decreased and Deleted Items of the Standard Specifications for Public Works Construction are applicable to this project.

SECTION 105.1: AUTHORITY OF THE ENGINEER

The Engineer shall resolve all questions which arise as to the quality and acceptability of materials furnished, work performed, manner of performance, rate of progress of the work, interpretation of the plans and Specifications, acceptable fulfillment of the contract, compensation, and disputes and mutual rights between Contractors under the Specifications. The Engineer shall determine the amount and quantity of work performed and materials furnished.

All decisions of the Engineer shall, when so requested, be rendered in writing. They shall be final and conclusive in all matters unless within ten (10) days after such decision the Contractor applies in writing to the Board of Public Works for a review of such decision.

Any change proposed by a Contractor in SBE subcontractors, vendors or suppliers from those SBEs indicated on the SBE Compliance Report must be approved by the Engineer and the City's Manager of the Affirmative Action Division (hereafter, AAD). When requested, such decision shall be rendered in writing. Such decisions shall be final and conclusive in all matters unless within ten (10) days after such

decision the Contractor or the affected SBE applies in writing to the Board of Public Works for a review of such decision.

In the event the Engineer and the AAD disagree over the proper decision to be made regarding an SBE, the Mayor shall appoint a third person to resolve the disagreement, within 30 days of appointment. The decision thus rendered may be reviewed by the Board of Public Works upon request of the Contractor or the affected SBE as set forth in Sections 105.1 and 105.2 of the City's standard specifications.

SECTION 105.9: SURVEYS, POINTS, AND INSTRUCTION

The Contractor shall be responsible for setting all lines and/or grades required to complete the work.

Any questions regarding this project should be directed to Corey Stelljes at the Parks Division at cstelljes@cityofmadison.com or (608) 266-9518.

SECTION 105.12: COOPERATION BY CONTRACTOR

Utilities may exist on site. The Contractor shall perform a One Call through Digger's Hotline at least three days prior to beginning construction.

The Contractor shall secure materials at the end of each work day to deter any potential vandalism and theft.

The Contractor shall attend a pre-construction meeting prior to the start of construction. The City may determine that this meeting shall be held via remote conferencing and will provide a method to remote conference the preconstruction meeting if necessary.

The Contractor warrants that its services are performed, within the limits prescribed by the City, with the usual thoroughness and competence of the consulting profession; in accordance with the standard for professional services at the time those services are rendered. The Contractor shall be responsible for the accuracy of the work performed under this Agreement and shall promptly make necessary revisions or corrections resulting from their negligent acts, errors or omissions without additional compensation. The Contractor shall be responsible for any damages incurred as a result of their errors, omissions, or negligent acts and for any losses or costs to repair or remedy construction.

The Contractor shall take care when accessing the site not to damage the existing utilities, concrete curb, sidewalk, existing fencing, gates and electric equipment, trees or asphalt pavement. Any damage shall be repaired by the Contractor per the Standard Specifications and considered incidental to this contract.

All pavement surfaces shall maintain the grades shown on the plan sheets unless approved in writing by the Engineer. Final asphalt surface grades shall be within 0.10% of specified grades shown on the plans and it shall be the Contractor's responsibility to ensure final asphalt grades are accurate and within the acceptable margin of error.

Under no circumstances shall water pond on finished asphalt surfaces. If final asphalt grades are not within the acceptable margin of error, or are found to pond water, the Contractor shall remove and replace the asphalt at no additional cost to the City. If repair or replacement is required in a path all repairs shall be for the full length and entire width of the path.

Rennebohm Park is a public facility that is regularly used by area residents. The Contractor shall expect pedestrian traffic throughout the park and shall be prepared to accommodate park users. The Contractor shall provide and maintain park access to the shelter area (including the full length of the gated access drive) during construction operations. The Capitol City Band will be holding regular Thursday evening concerts throughout the construction timeframe and work hours will be limited to 4:30pm end time on those dates. A complete list of concert dates will be made available at the preconstruction meeting. Additionally, the Contractor shall be aware of maintenance activities that will occur throughout the

duration of the contract. The Contractor shall accommodate mowing and other maintenance activities. The Contractor may contact Charlotte Blotz, acting West Parks Operations Supervisor at (608) 575-4508 or cblotz@cityofmadison.com with questions or concerns regarding park maintenance.

SECTION 105.13: ORDER OF COMPLETION

The Contractor shall submit to the City a detailed schedule at or prior to the preconstruction meeting showing the sequence and anticipated dates of all construction activities, including all operations and bid items to be performed by subcontractors.

SECTION 107.13: TREE PROTECTION SPECIFICATIONS

The Contractor is advised to review Article 107.13 of the Standard Specifications for tree protection. Note that Articles 107.13(a) Underground Utility Excavation & Installation, 107.13(b) Curb Excavation and Installation, and 107.13(c) Sidewalk Excavation and Installation are not applicable to this project except as noted below.

The intent of these designs is to minimize the damage to those trees that remain following construction. Contractor shall not grade, excavate, store materials or equipment or otherwise disturb areas within five (5) feet of any tree to remain in accordance with Article 107.2 of the Standard Specifications. Contractor shall take care at all times to conduct operations in a way that avoids damage to any trees not designated for removal. All above precautions are considered incidental to other items of the work.

It is recognized that grading operations and root cutting of some trees will need to occur in order to complete the work, and care must be taken in these areas. For trees where construction operations, including grading, trenching, stone placement, filling, etc. occur within 5 feet of the trunk, or where a tree marked No Root Cut "(NRC)" on the plan, construction operations shall be done under the supervision of a City of Madison Forestry Representative. The sequence to construct in these areas shall be as follows:

1. Trees within 5' of construction operations shall not be disturbed until inspected by a City of Madison Forestry Representative.
2. The Contractor shall place a yellow ribbon around the tree to highlight these trees for the equipment operator.
3. The ribbon shall remain until the area is fine graded and seeded or sodded. Roots shall be cut cleanly by using a saw, ax, lopping shears, chain saw, stump grinder, or other means which will produce a clean cut. Exposed roots shall be covered as soon as excavation and installation are complete. All roots over one (1) inch in diameter that are damaged shall be cleanly cut immediately back of the damaged section on the same day of the excavation. The Contractor shall not rip or pull roots out towards the trunk of a tree while excavating with a backhoe. The use of a backhoe to cut roots is NOT acceptable.

All provisions of Articles 107.13(d), 107.13(f) Bark Abrasions and Limb Damage, 107.13(g) Soil Compaction, 107.13(h) Contractor/Foreperson Acknowledgement, and 107.13(i) Cost Recovery and Liquidated Damages are applicable to this contract.

Protection of these trees is shown on the plans as No Root Cut (NRC) and shall be paid only if the above sequence is adhered to under Bid Item 10802 – ROOT CUTTING – UNDISTRIBUTED.

The normal work hours for Forestry staff: 7:00 AM – 3:00 PM, Mon-Fri. The Contractor shall provide a minimum 24 hours' notice to Forestry staff for inspection.

The contact information for Forestry Staff is:

Madison West:

Brandon Sly
Office Phone: (608) 266-4816
bsly@cityofmadison.com

SECTION 108.2: PERMITS

The following permits have been applied for by the City:

1. City of Madison Erosion Control Permit
 - a. Reporting Requirements
2. City of Madison Stormwater Management Permit

The following permits will be need to be applied for by the Contractor:

1. City of Madison Lighting Permit (note: City of Madison Parks will provide photometrics from lighting manufacturer for use with the permit application)

A City of Madison Erosion Control permit has been obtained and weekly inspections will be completed by The Contractor weekly and at all times following storm events, and this work will be paid for under the appropriate bid item. See **SECTION 210.1(a)**. The Contractor shall meet the conditions of the permits by properly installing and maintaining the erosion control measures and items shown on the plans, specified in these Special Provisions, or as directed by the Construction Engineer or his designees. A copy of the permit is available at the City of Madison, Engineering Division office.

Copies of these permits will be provided to Contractor prior to start of construction. The Contractor must keep a copy of each individual permit on site at all times throughout construction.

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 all other permits needed for construction.

The Contractor shall meet the conditions of all permits and must keep a copy of each individual permit on site at all times throughout construction.

The Contract shall note that street sweeping shall be incidental to this contract and will not be paid as a separate bid item. The Contractor is responsible for cleaning any material tracked into the street.

The Contractor shall meet the conditions of the permits involving including properly installing and maintaining the erosion control measures shown on the plans, specified in these Special Provisions, or as directed by the Construction Engineer or their designees. 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.

SECTION 109.2: PROSECUTION OF THE WORK

Work cannot start on this contract until after the "Start to Work" letter has been received. Construction work must begin within seven (7) calendar days after the date appearing on the mailed notice to do so that was sent to the Contractor. Construction work shall be carried at a rate so as to secure full completion within the contract times outlined in Section 109.7, the rate of progress and the time of completion being essential conditions of this Agreement.

The fixed, agreed upon, liquidated damages for failure to complete all work within the contract, unless otherwise specified in this section, shall be calculated in accordance with Article 109 of the Standard

Specifications. The Contractor shall limit workdays from 7:00 am to 7:00 pm, Monday - Friday, unless approved by the Engineer in writing.

SECTION 109.7: TIME OF COMPLETION

It is anticipated that the City of Madison will issue a Start to Work letter on or about **June 6, 2025**. Work under the contract shall be substantially complete by **October 30, 2025**.

SECTION 110.1: MEASUREMENT OF QUANTITIES

All bid items listed in the proposal page shall be paid for at the quantity listed in the proposal page and shall not be measured in the field unless otherwise indicated in these special provisions, or there is a significant change approved by the Engineer. A significant change shall be considered more than a 30% change in quantities.

Items listed as "Undistributed" on the proposal page shall only be paid if determined necessary by the engineer and shall be measured in the field by the engineer.

BID ITEM 10911 - MOBILIZATION

DESCRIPTION

Work under this item shall include all costs associated with mobilization of the Contractor to the site. Parking of equipment, storage of materials, and staging shall be allowed within project limits as shown on plans. The Contractor may only enter the construction site through the construction entrance as shown on the plans. ~~THE CONTRACTOR MAY NOT DRIVE OR STORE EQUIPMENT ON ANY PORTION OF THE PARK OUTSIDE THE CONSTRUCTION LIMITS UNLESS INDICATED OTHERWISE ON PLANS OR DIRECTED IN THE FIELD.~~

The Contractor is responsible for restoration of any damage to the site due to construction access.

METHOD OF MEASUREMENT

Mobilization shall be paid as a lump sum.

BASIS OF PAYMENT

Mobilization shall be measured as described above and shall be paid for at the contract price which shall be full compensation for all work, materials, tools, equipment, labor, and incidentals required to complete the work as set forth in the description.

BID ITEM 20101 – EXCAVATION CUT

DESCRIPTION

Work under this item shall include loosening, loading, hauling and disposal of all materials. Excavation cut shall be in accordance with Article 201 of the Standard Specifications.

The excavation quantities for this contract have been calculated by subtracting digital terrain models of the existing and proposed surfaces and sub surfaces within the different material areas. Cut (in place quantities) and fill have been estimated from these models. The following items have been used to calculate Excavation Cut:

- Removal of existing topsoil and/or gravel
- Excavation to subgrade under proposed base course area
- Net change in subgrade elevation by subtraction of digital terrain models
- Assumption that existing asphalt pavement removal is BY OTHERS prior to start of contract

No shrinkage factor has been applied to fill quantities to estimate net volume. The Contractor is responsible to review attached earthwork calculations. Three-dimensional AutoCAD Civil 3D files containing the digital terrain models used for the earthwork calculations are available.

Excess excavated material deemed unusable shall be disposed of off-site at a suitable location determined by the Contractor at no additional cost to the City of Madison.

Any additional undercut required due to field conditions shall be paid for under BID ITEM 40321 – UNDERCUT (UNDISTRIBUTED), BID ITEM 20219 - BREAKER RUN (UNDISTRIBUTED) and BID ITEM 20140 - GEOTEXTILE FABRIC TYPE SAS NON WOVEN.

The proposal quantity was computed by AutoCAD Civil 3D surface data volume computations. It is estimated that ~676 cubic yards of subsoil shall be made available through Excavation Cut and ~37 cubic yards of subsoil shall be distributed on-site through this bid item. Any additional imported subsoil material necessary to complete the work shall be paid for in BID ITEM 20202 FILL BORROW.

All disturbed areas shall be restored with six (6) inches of topsoil, per BID ITEM 20221 – TOPSOIL, and a minimum of six (6) inches of clean subsoil.

Test rolling for undercut determination is required and incidental to this bid item. Test rolling shall be done with a fully loaded tri axle dump truck. Contractor shall notify construction engineer at least 24 hours prior to test rolling.

See Appendix 1 for site soil boring and geotechnical report information.

METHOD OF MEASUREMENT

Excavation Cut shall be measured by the cubic yard quantity as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Excavation Cut shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 20217 – CLEAR STONE

DESCRIPTION

This item shall not include the quantity of clear stone required for the construction entrance per BID ITEM 21011 – CONSTRUCTION ENTRANCE. If the Contractor chooses to use additional clear stone it shall be at no additional cost to the City.

METHOD OF MEASUREMENT

Clear Stone shall be measured by the ton as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Clear Stone shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 20219 – BREAKER RUN (UNDISTRIBUTED)

DESCRIPTION

Work under this item shall include all necessary work, labor and incidentals required to install breaker run in undercut areas per BID ITEM 40321 – UNDERCUT (UNDISTRIBUTED). Quantities of this bid item may be increased, decreased or eliminated as determined by the Engineer after proof rolling pavement subgrade.

METHOD OF MEASUREMENT

Breaker Run (Undistributed) shall be measured as listed in the proposal page.

BASIS OF PAYMENT

Breaker Run (Undistributed) shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 20221 - TOPSOIL

DESCRIPTION

This item shall include all necessary work, labor and incidentals required to distribute, dispose and/or place topsoil to meet proposed grades. Topsoil shall comply with Article 202 of the Standard Specifications.

Stripped topsoil can be stockpiled on site within the construction fence boundary. Stripped topsoil quantities are identified in the Plans under Design Calculations and in the proposal page.

The topsoil quantities for this contract have been computed by AutoCAD Civil 3D surface data volume computations and the assumptions listed above. Adjustments were made for topsoil assuming excavation of six (6) inches of existing topsoil and placement of six (6) inches of proposed topsoil. Any additional topsoil material required beyond quantities available through stripped topsoil are included in the quantities for this bid item. The Contractor shall provide any additional topsoil required to complete the work based on bid tab quantities. The estimated below quantities of topsoil will need to be imported:

Rennebohm Park: ~1 CY

Excess topsoil shall be disposed offsite at a location to be determined and provided by the City at no extra cost to the City or shall be used as import. The location shall be within the City of Madison. Double handling, stockpiling and placing topsoil is included in this bid item.

Contractor to note - the City of Madison Parks Division is to be called to inspect and approve the finish grade prior to seeding and mulching.

METHOD OF MEASUREMENT

Topsoil shall be measured as each SY placed in the field as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Topsoil shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 20701 – TERRACE SEEDING

DESCRIPTION

Work under this bid item shall consist of preparing seed beds, furnishing and sowing the required seed, furnishing and applying the required stabilizers, fertilizer, and mulching material on all disturbed areas including areas damaged by construction activities, in accordance with Article 207 of the Standard Specifications. Seed mixture shall be either in whole, or a mixture of the City of Madison sun terrace mix and shade terrace mix applied appropriately based on shady and sunny areas of the site.

Since construction is limited to within the construction fence, no additional compensation shall be given for seeding quantities beyond what is specified in this contract.

Contractor to note – the Engineer shall be called to inspect and approve the finish grade prior to seeding and mulching.

Contractor is responsible for obtaining seed bed germination per Article 207 of the Standard Specifications, regardless of site conditions.

METHOD OF MEASUREMENT

Terrace Seeding shall be measured by the square yard quantity as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Terrace Seeding shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, tools, equipment, labor, hauling, placement, and incidentals required to complete the work as set forth in the description.

BID ITEM 20705 – DETENTION BASIN SEEDING

DESCRIPTION

Work under this bid item shall consist of preparing seed beds, furnishing and sowing the required seed, furnishing and applying the required stabilizers, and fertilizer for the proposed bio-retention area in accordance with Article 207 of the Standard Specifications.

Contractor to note – the Engineer shall be called to inspect and approve the finish grade prior to seeding and mulching.

Contractor is responsible for obtaining seed bed germination per Article 207 of the Standard Specifications, regardless of site conditions.

METHOD OF MEASUREMENT

Detention Basin Seeding shall be measured by the square yard quantity as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Detention Basin Seeding shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, tools, equipment, labor, hauling, placement, and incidentals required to complete the work as set forth in the description.

BID ITEM 21017 – SILT SOCK (8 INCH) - COMPLETE

DESCRIPTION

Work under this item shall include all work, materials, labor, and incidentals required to install, maintain and remove silt sock at locations shown on the plans and around any subsoil/topsoil staging piles and to install, maintain and remove additional undistributed silt sock as a precautionary measure to address emergency erosion control.

METHOD OF MEASUREMENT

Silt Sock (8 Inch) - Complete shall be measured per linear foot as described above.

BASIS OF PAYMENT

Silt Sock (8 Inch) - Complete shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 21061 - EROSION MATTING, CLASS I, URBAN TYPE A

DESCRIPTION

Work under this item shall include all work, materials, labor and incidentals necessary to install Erosion Matting, Class I, Urban Type A on all seeded disturbed areas as noted in the plans.

Work under this bid item shall be as set forth in the latest edition of the Standard Specifications, except the Contractor shall note that special care with anchorage devices shall be required so as to not injure park users. Anchorage devices for the mat are required to be a product identified on the Wisconsin Department of Transportation Erosion Control Product Acceptability List (PAL) under the category of "Anchoring Devices for Erosion Matting, Class I, Urban Type A".

Anchorage devices shall be completely biodegradable. Photobiodegradable or metal anchorage devices shall not be allowed. Materials deemed to present a hazard from splintering or spearing shall not be approved, including solid wood devices.

Erosion Matting, Class I, Urban Type A shall be installed correctly with correct anchorage, staple pattern, and overlap. To verify the staple pattern, the Contractor shall provide to the Engineer a manufacturer's recommended staple pattern for the type of matting installed.

Trimming of the Erosion Matting, Class I, Urban Type A required to accommodate existing tree locations shall be considered incidental to this bid item.

METHOD OF MEASUREMENT

Erosion Matting, Class I, Urban Type A shall be measured by the square yard quantity as listed in the proposal page without measurement thereof, not including run out and overlap.

BASIS OF PAYMENT

Erosion Matting, Class I, Urban Type A shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, tools, equipment, labor, hauling, placement, disposal and incidentals required to complete the work as set forth in the description

BID ITEM 40102 – CRUSHED AGGREGATE BASE COURSE GRADATION NO. 2 OR NO. 3

DESCRIPTION

Work under this bid item shall include all work, materials, labor and incidentals necessary for the Contractor to install nine (9) inches of Crushed Aggregate Base Course Gradation No. 2 or No. 3 for asphalt path and twelve (12) inches for tennis court construction.

All aggregate base course shall extend 6 inches beyond the proposed asphalt edges and shall have 3 inches of topsoil and terrace seed over the extended gravel base to be paid for under BID ITEM 20221 – TOPSOIL and 20701 – TERRACE SEEDING for all asphalt paved paths.

The Contractor shall provide base course elevation field data to the Engineer at least 48 hours prior for approval prior to paving.

METHOD OF MEASUREMENT

Crushed Aggregate Base Course Gradation No. 2 or No. 3 shall be measured per ton placed in the field as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Crushed Aggregate Base Course Gradation No. 2 or No. 3 shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 40202 – HMA PAVEMENT 4 LT 58-28 S

DESCRIPTION

Work under this bid item shall include all work, materials, labor and incidentals necessary for the Contractor to install HMA PAVEMENT 4 LT 58-28 S asphalt at a thickness of three (3) inches. The asphalt may be laid in a single lift without the application of tack coat.

All quantities for HMA Pavement 4 LT 58-28 S were determined by measuring an area and multiplying it by the depth shown in the typical sections and converting to tons per assumptions described on Sheet 1.8. It shall be the Contractor's responsibility to verify quantities and notify the Engineer if any changes are required.

The proposal quantity for asphalt was computed by AutoCAD Civil 3D surface data volume computations. It shall be the Contractor's responsibility to verify quantities and notify the Engineer if any changes are required.

METHOD OF MEASUREMENT

HMA PAVEMENT 4 LT 58-28 S shall be measured per Ton placed in the field as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

HMA PAVEMENT 4 LT 58-28 S shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 40321 – UNDERCUT (UNDISTRIBUTED)

DESCRIPTION

This bid item has been included in the event that undercut is necessary for construction of the asphalt tennis courts and/or path. This item may be eliminated if undercut is not required. Test rolling of the pavement installation area(s) will determine need and quantity for undercut. Contractor shall notify the Engineer of intent to undercut any areas and provide a measurement of the undercut area in writing prior to beginning undercut excavation.

METHOD OF MEASUREMENT

Undercut (Undistributed) shall be measured per CY in the field as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Undercut (Undistributed) shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 90000 – FURNISH AND INSTALL 10' HEIGHT CHAIN LINK FENCE, COMPLETE

DESCRIPTION

Work under this item shall include all labor, materials, equipment and incidentals necessary to install 10' fencing around the south tennis courts according to Detail 1, Sheet 1.8, and as shown on the plans. Included in the price per linear foot price will be all materials, labor, equipment and incidentals necessary to fabricate and install 10' height chain link fence, complete. All fencing shall be constructed of schedule 40 water pipe. **Contractor to note: no concrete footings are to be used for any of the fence work.**

METHOD OF MEASUREMENT

Furnish and Install 10' Height Chain Link Fence, Complete shall be measured by the linear foot.

BASIS OF PAYMENT

Furnish and Install 10' Height Chain Link Fence, Complete shall be paid for at the linear foot contract price for work as described and measured above.

BID ITEM 90001 – FURNISH AND INSTALL 4' WIDTH CHAIN LINK GATE, COMPLETE

DESCRIPTION

Work under this item shall include all labor, materials, equipment and incidentals necessary to install 4' width gates at the south tennis courts according to Detail 2, Sheet 1.8, and as shown on the plans. Included in the price per each gate price will be all materials, labor, equipment and incidentals necessary to fabricate and install a total of three (3), 4' wide walk in gates including framework, chain link fabric, fasteners and gate latches. All gate framework shall be constructed of schedule 40 water pipe. All gates are to be installed per industry standards and/or these plans and details. **Contractor to note: no concrete footings are to be used for any of the fence work.**

METHOD OF MEASUREMENT

Furnish and Install 4' Width Chain Link Gate, Complete shall be measured per each gate.

BASIS OF PAYMENT

Furnish and Install 4' Width Chain Link Gate, Complete shall be paid for per each gate at the contract price for work as described and measured above.

BID ITEM 90002 – FURNISH AND INSTALL 10’ WIDTH CHAIN LINK MAINTENANCE GATE, COMPLETE

DESCRIPTION

Work under this item shall include all labor, materials, equipment and incidentals necessary to install one (1) 10’ width gate according to Detail 3, Sheet 1.8, and as shown on the plans. Included in the price per each gate price will be all materials, labor, equipment and incidentals necessary to fabricate and install a total of one (1), 10’ wide (opening) maintenance gate including framework, chain link fabric, fasteners and gate latches. All gate framework shall be constructed of schedule 40 water pipe. All gates are to be installed per industry standards and/or these plans and details. **Contractor to note: no concrete footings are to be used for any of the fence work.**

METHOD OF MEASUREMENT

Furnish and Install 10’ Width Chain Link Maintenance Gate, Complete shall be measured per each gate.

BASIS OF PAYMENT

Furnish and Install 10’ Width Chain Link Maintenance Gate, Complete shall be paid for per each gate at the contract price for work as described and measured above.

BID ITEM 90003 – FURNISH AND INSTALL NET POSTS

DESCRIPTION

Work under this item shall include all labor, materials, equipment and incidentals necessary to fabricate or purchase and install a total of six (6) net posts according to Detail 1, Sheet 1.10 and as indicated in the plans. Included in the price per post will be the hot mix patch installed after the net posts are installed. **Contractor to note: no concrete footings are to be used for installation of the net posts.**

METHOD OF MEASUREMENT

Method of measurement for the work described above will be per each including hot mix patch.

BASIS OF PAYMENT

Furnish and Install Net Posts, as measured above, shall be paid per each for the contract unit price as described above.

BID ITEM 90004 – FURNISH AND INSTALL NET TIE DOWNS

DESCRIPTION

Work under this item shall include all labor, materials, equipment and incidentals necessary to fabricate or purchase a total of three (3) net tie downs according to Detail 2, Sheet 1.10 and install the net tie downs on the courts as indicated in the plans.

METHOD OF MEASUREMENT

Method of measurement for the work described above will be per each installed.

BASIS OF PAYMENT

Furnish and Install Net Tie Downs, as measured above, shall be paid per each for the completed work as described above.

BID ITEM 90005 – EXPANSION JOINT SEALING - ACRYLIC SEALED SPORT COURTS

This bid item shall be performed by a Contractor prequalified in Category 318: Tennis Court Resurfacing. Work under this item shall include all costs associated with pavement crack sealing for the expansion joints as specified in these special provisions.

This work consists of cleaning, preparing and filling expansion joints within existing acrylic sealed bituminous pavements.

The Contractor shall note that water is not available at the site.

Expansion joints shall be filled within 1/4" to the surface of the court with acrylic court patch binder mix and allowed to cure (including saw cut expansion joints). The remaining 1/4" or less shall then be filled with flexible crack filler, level to surface.

Expansion Joint Sealing as defined in this bid item, shall be performed for the quantities listed below:

- 124 linear feet north-south (center line between courts) expansion joints (total of two (2))
- 160 linear feet east-west (net line) expansion joint

METHOD OF MEASUREMENT

Expansion Joint Sealing – Acrylic Sealed Sport Courts shall be paid per linear foot.

BASIS OF PAYMENT

Expansion Joint Sealing – Acrylic Sealed Sport Courts shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 90006 – PROVIDE AND INSTALL FLEXIBLE CRACK REPAIR SYSTEM

This bid item shall be performed by a Contractor prequalified in Category 318: Tennis Court Resurfacing. Work under this item shall include all necessary work. Labor and incidentals required to obtain, receive, store, transport and install flexible crack repair system to the expansion joints in the asphalt court as specified in these special provisions and per the manufacturer's installation instructions.

SURFACE PREPARATION: All surfaces shall be power washed, cleaned and dry prior to the application of flexible crack repair system. All surfaces shall be sound, smooth, and free from dust, leaves, seeds, lawn, dirt, and oily materials.

The Contractor shall note that water is not available at any of the sites.

Flexible Crack Repair System shall be:

Armor Tennis Court Crack Repair System as manufactured by Armor Crack Repair (17 North Main Street Farmingdale, NJ 07727; (877) 99.ARMOR or ArmorCrackRepair.com or Approval Equal

Proposed flexible crack repair system products must meet the following criteria:

- Minimum 24" width flexible fabric
- Two layer fabric installation
- Fabric material of product must be able to expand – fiberglass-based fabric products will not be accepted
- Application of fabric must not include bonding fabric to surface

Contractor shall order flexible crack repair system for delivery from the proposed vendor to the Contractor's pre-determined receiving location. The Contractor shall provide equipment and labor for loading, trucking and off-loading as needed. Contractor is responsible for securing all deliveries and insuring the completeness of the flexible crack repair system order prior to installation.

The flexible crack repair system shall be installed per the manufacturer's installation instructions to the full extent of the expansion joints. The flexible crack repair system must be installed when the mean daily temperature is at least 70°F and the mean overnight temperature is at least 60°F. Court surface and expansion joints must be dry prior to application. Quantities identified in the proposal page have been calculated for installation of the product for the full linear foot quantity of the expansion joints.

Double handling, stockpiling and placing poured-in-place surfacing shall be incidental to this bid item.

METHOD OF MEASUREMENT

Provide and Install Flexible Crack Repair System shall be paid per linear foot.

BASIS OF PAYMENT

Provide and Install Flexible Crack Repair System shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 90007 - PAVEMENT SEAL COAT - ACRYLIC

This bid item shall be performed by a Contractor prequalified in Category 318: Tennis Court Resurfacing. Work under this item shall include all necessary labor and incidentals required to obtain, receive, store, transport and install pavement seal coat-acrylic to the asphalt court as specified in these special provisions and per the manufacturer's installation instructions.

SURFACE PREPARATION: All surfaces shall be power washed and cleaned prior to the application of acrylic resurfacer product. All surfaces to be coated shall be sound, smooth, and free from dust, lawn, dirt, and oily materials.

The Contractor shall note that water is not available at the site.

DEPRESSIONS: Prior to the application of surfacing materials, the entire surface shall be checked for minor depressions or irregularities. Contractor shall perform a flood test to identify and locate any depressions that hold more than a nickel's thickness of water. **Contractor shall contact Engineer a minimum of 24 hours prior to performing the flood test to coordinate a site inspection by the City.** After the court has been flooded and allowed to drain, any depressions meeting the depth requirements described above shall be corrected by applying a tack coat of diluted court patch binder. The binder shall be allowed to thoroughly dry prior to filling depression with court patch binder high strength acrylic latex bonding liquid.

FILLER COATINGS: To fill surface voids and provide a uniform surface texture, one (1) coat of mineral filled acrylic resurfacer shall be applied over the entire surface. Acrylic resurfacer shall contain only high grade, rounded silica sand, 40-70 mesh, at a rate of 12-16 lbs per gallon concentrate. Acrylic resurfacer shall be applied by rubber bladed squeegee. A second coat shall be added to heavy wear areas if needed to provide a uniform surface texture. The first coat shall be allowed to dry thoroughly prior to applying additional coats. The Contractor shall submit manufacturer submittals to the Engineer for approval prior to start of work.

FINISH COATINGS: A minimum of two (2) finish coats of Sportmaster®, Plexipave® or Laykold® textured acrylic color coating shall be applied over entire surface by rubber bladed squeegee. Each application shall contain only high grade, rounded silica sand, 100 mesh, at a rate of 7 lbs. per gallon concentrated. Textured seal coat shall be dark green.

After color coating is complete, the Contractor shall install tennis court nets and ensure that tennis court net tie downs are free of material and debris and suitable for use.

The Contractor shall protect the court with barricades and/or construction fencing throughout the duration of the manufacturer's recommended drying time.

METHOD OF MEASUREMENT

Pavement Seal Coat – Acrylic shall be paid per square yard.

BASIS OF PAYMENT

Pavement Seal Coat – Acrylic shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 90008 - TENNIS COURT LINE PAINTING

Work under this item shall include all necessary labor and incidentals required to obtain, receive, store, and transport product(s) required to install tennis court lines to the asphalt court as specified in these special provisions and as indicated in Detail 1, Sheet 1.9 and according to the manufacturer's installation instructions.

Regulation tennis court playing lines shall be marked as specified by the U.S. Tennis Association for two 78' court layouts. Court lines shall include single sidelines, doubles sidelines, center service lines, center marks, and base lines.

All lines shall be accurately located, masked, and painted with Plexicolor® Line Paint or an approved equal. All lines except tennis court base lines shall be two (2) inches wide. Tennis court base lines may be no more than four (4) inches wide. If paint is spray applied, two coats of paint shall be required. No overspray shall be permitted. All tennis court lines shall be painted white.

All materials shall be mixed and applied according to manufacturers' specifications. Asphalt emulsions and material containing asbestos shall not be permitted. No materials shall be applied when rain is imminent, and air temperature must be at least 50 degrees and rising. Contractor shall secure all gates until completion, and shall leave the site in a clean condition.

All discarded materials, including any excess filler coat or finish coat material dumped on the lawn, shall be removed from the work site. Any ruts caused by vehicles or work equipment shall be repaired by the Contractor at no additional cost to the city.

The Contractor shall protect the asphalt with barricades and/or construction fencing throughout the duration of the manufacturer's recommended drying time.

METHOD OF MEASUREMENT

Tennis Court Line Painting shall be paid per each individual court.

BID ITEM 90009 – PICKLEBALL COURT LINE PAINTING

Work under this item shall include all necessary labor and incidentals required to obtain, receive, store, and transport product(s) required to install tennis court lines to the asphalt court as specified in these special provisions and as indicated in Detail 2, Sheet 1.9 and according to the manufacturer's installation instructions.

Pickleball courts shall be marked as specified by the U.S.A. Pickleball Association. Detailed information on pickleball court line painting is located at the following websites:

<https://usapickleball.org/what-is-pickleball/court-diagram/>

<https://usapickleball.org/wp-content/uploads/2013/06/court-layout-print-version.pdf>

All lines shall be accurately located, masked, and painted with Plexicolor® Line Paint or an approved equal. If paint is spray applied, two coats of paint shall be required. No overspray shall be permitted. All pickleball court lines shall be medium blue. The Contractor shall submit color samples of line painting colors prior to painting.

All materials shall be mixed and applied according to manufacturers' specifications. Asphalt emulsions and material containing asbestos shall not be permitted. No materials shall be applied when rain is imminent, and air temperature must be at least 50 degrees. Contractor shall secure all gates until completion, and shall leave the site in a clean condition.

All discarded materials, including any excess filler coat or finish coat material dumped on the lawn, shall be removed from the work site. Any ruts caused by vehicles or work equipment shall be repaired by the Contractor at no additional cost to the city.

The Contractor shall protect the asphalt with barricades and/or construction fencing throughout the duration of the manufacturer's recommended drying time.

METHOD OF MEASUREMENT

Pickleball Court Line Painting shall be paid per each individual court.

BASIS OF PAYMENT

Pickleball Court Line Painting shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 90010 – LIGHTING SYSTEM, COMPLETE

DESCRIPTION

Work under this item shall include all necessary work, labor and incidentals required to procure and install lighting system. Lighting system shall be by MUSCO or approved equal. See Drawing Sheets E300-510 for lighting plans and Drawing Sheet C1 for pole foundation detail.

METHOD OF MEASUREMENT

Lighting System shall be measured by lump sum.

BASIS OF PAYMENT

Lighting System shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, tools, equipment, labor, hauling, placement, disposal and incidentals required to complete the work as set forth in the description.

BID ITEM 90011 – ELECTRICAL POWER SUPPLY FOR LIGHTING SYSTEM, COMPLETE

DESCRIPTION

Provide all work to furnish and install the electrical supply for the court lighting system as shown on Drawing Sheets E300-510 and in Specification section 26 00 0001 (Appendix 2).

METHOD OF MEASUREMENT

Electrical Supply for Lighting System shall be measured by lump sum.

BASIS OF PAYMENT

Electrical Supply for Lighting System shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, tools, equipment, labor, hauling, placement, disposal and incidentals required to complete the work as set forth in the description.

SECTION E: BIDDERS ACKNOWLEDGEMENT

**RENNEBOHM PARK EAST TENNIS COURTS 2025
CONTRACT NO. 9642**

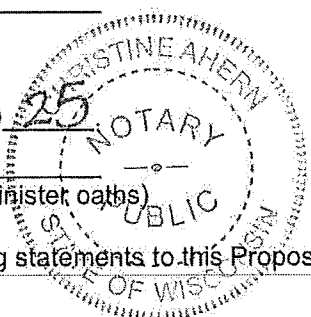
Bidder must state a Unit Price and Total Bid for each item. The Total Bid for each item must be the product of quantity, by Unit Price. The Grand Total must be the sum of the Total Bids for the various items. In case of multiplication errors or addition errors, the Grand Total with corrected multiplication 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 - 2025 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. _____ through _____ 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 Parisi Construction LLC (name of corporation, partnership or person submitting bid) a corporation organized and existing under the laws of the State of Wisconsin; 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.

[Signature]
 SIGNATURE
president
 TITLE, IF ANY

Sworn and subscribed to before me this 14 day of April, 2025

[Signature]
 (Notary Public or other officer authorized to administer oaths)
 My Commission Expires 12/4/2026



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

RENNEBOHM PARK EAST TENNIS COURTS 2025
CONTRACT NO. 9642

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: Parisi Construction LLC
Address: 508 S. Nine Mound Rd. Verona, WI 53593
Telephone Number: 608 848 5991 Fax Number: 608 848 5992
Contact Person/Title: Robert Endres, president

Prime Bidder Certification

I, Robert Endres, president of
Parisi Construction LLC Company
Name Title certify that the information

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

Christine A
Witness' Signature

[Signature]
Bidder's Signature

4/17/2025
Date

RENNEBOHM PARK EAST TENNIS COURTS 2025

CONTRACT NO. 9642

DATE: 4/17/25

Parisi Construction, LLC

Item	Quantity	Price	Extension
Section B: Proposal Page			
10802 - ROOT CUTTING - UNDISTRIBUTED - LF	40.00	\$12.25	\$490.00
10911 - MOBILIZATION - LS	1.00	\$40,500.00	\$40,500.00
20101 - EXCAVATION CUT - CY	1234.00	\$30.75	\$37,945.50
20140 - GEOTEXTILE FABRIC TYPE SAS NON WOVEN - SY	2205.00	\$2.80	\$6,174.00
20202 - FILL BORROW - CY	639.00	\$0.01	\$6.39
20217 - CLEAR STONE - TON	1543.00	\$24.00	\$37,032.00
20219 - BREAKER RUN (UNDISTRIBUTED) - TON	427.00	\$14.50	\$6,191.50
20221 - TOPSOIL - SY	336.00	\$20.00	\$6,720.00
20303 - SAWCUT ASPHALT PAVEMENT - LF	18.00	\$3.40	\$61.20
20701 - TERRACE SEEDING - SY	336.00	\$4.20	\$1,411.20
20705 - DETENTION BASIN SEEDING - SY	76.00	\$53.00	\$4,028.00
21002 - EROSION CONTROL INSPECTION - EA	4.00	\$210.00	\$840.00
21011 - CONSTRUCTION ENTRANCE - EA	1.00	\$1,400.00	\$1,400.00
21017 - SILT SOCK (8 INCH) - COMPLETE - LF	439.00	\$6.90	\$3,029.10
21061 - EROSION MATTING, CLASS I, URBAN TYPE A - SY	336.00	\$5.30	\$1,780.80
21302 - CONSTRUCTION FENCE (PLASTIC) - LF	766.00	\$3.20	\$2,451.20
40102 - CRUSHED AGGREGATE BASE COURSE, GRADATION NO. 2 OR NO. 3 - TON	772.00	\$20.00	\$15,440.00
40202 - HMA PAVEMENT 4 LT 58-28 S - TON	409.00	\$130.00	\$53,170.00
40321 - UNDERCUT (UNDISTRIBUTED) - CY	225.00	\$40.00	\$9,000.00
40302 - PAVEMENT JOINT GRINDING - LF	408.00	\$13.25	\$5,406.00
90000 - FURNISH AND INSTALL 10' HEIGHT CHAIN LINK FENCE, COMPLETE - LF	552.00	\$76.00	\$41,952.00
90001 - FURNISH AND INSTALL 4' WIDTH CHAIN LINK FENCE GATE, COMPLETE - EA	3.00	\$1,800.00	\$5,400.00
90002 - FURNISH AND INSTALL 10' WIDTH CHAIN LINK FENCE GATE, COMPLETE - EA	1.00	\$2,400.00	\$2,400.00
90003 - FURNISH AND INSTALL NET POST - EA	6.00	\$1,400.00	\$8,400.00
90004 - FURNISH AND INSTALL NET TIE DOWN - EA	3.00	\$300.00	\$900.00
90005 - EXPANSION JOINT SEALING - ACRYLIC SEALED SPORT COURTS - LF	408.00	\$7.80	\$3,182.40
90006 - PROVIDE AND INSTALL FLEXIBLE CRACK REPAIR SYSTEM - LF	408.00	\$21.25	\$8,670.00
90007 - PAVEMENT SEAL COAT - ACRYLIC - SY	2204.00	\$19.50	\$42,978.00
90008 - TENNIS COURT LINE PAINTING - EA	3.00	\$1,100.00	\$3,300.00
90009 - PICKLEBALL COURT LINE PAINTING - EA	3.00	\$530.00	\$1,590.00
90010 - LIGHTING SYSTEM AND INSTALLATION, COMPLETE - LS	1.00	\$167,885.00	\$167,885.00
90011 - ELECTRICAL POWER SUPPLY TO LIGHTING SYSTEM, COMPLETE - LS	1.00	\$34,300.00	\$34,300.00
32 Items	Totals		\$554,034.29



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

Deputy City Engineer
 Bryan Cooper, AIA
 Gregory T. Fries, P.E.
 Chris J. Petykowski, P.E.

Deputy City Engineer
 Kathleen M. Cryan

Principal Engineer 2
 John S. Fahrney, P.E.
 Janet Schmidt, P.E.

Principal Engineer 1
 Mark D. Moder, P.E.
 Andrew J. Zwieg, P.E.

Financial Manager
 Steven B. Danner-Rivers

BIENNIAL BID BOND

Paris Construction, LLC
 (a corporation of the State of WI)
 (individual), (partnership), (hereinafter referred to as the "Principal") and
 Western Surety Company

a corporation of the State of SD (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 January 11, 2024 through January 10, 2026.

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.

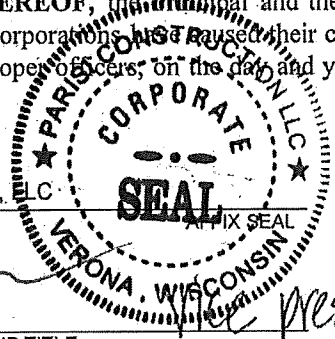
The Surety, for value received, hereby agrees that the obligations of it and its bond shall be in no way impaired or affected by any extension of time within which the City may accept a bid, and the Surety does hereby waive notice of any such extension.

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

Parisi Construction, LLC
COMPANY NAME



December 21, 2023
DATE

By: [Signature]
SIGNATURE AND TITLE vice president

SURETY

Western Surety Company
COMPANY NAME AFFIX SEAL

December 19, 2023
DATE

By: [Signature]
SIGNATURE AND TITLE
Trudy A. Szalewski, Attorney-in-fact

This certifies that I have been duly licensed as an agent for the Surety in Wisconsin under National Provider No. 6502661 for the year 2024 and appointed as attorney in fact with authority to execute this bid bond, which power of attorney has not been revoked.

December 19, 2023
DATE

[Signature]
AGENT SIGNATURE Trudy A. Szalewski

10700 W. Research Drive - #450
ADDRESS

Milwaukee, WI 53226
CITY, STATE AND ZIP CODE

414-225-5394
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.

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

**Kelly Cody, Roxanne Jensen, Marc Sacia, Individually of Green Bay, Wisconsin
Trudy A. Szalewski, Brian Krause, Individually of Milwaukee, Wisconsin**

its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 23rd day of May, 2023.



WESTERN SURETY COMPANY

Larry Kasten

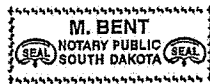
Larry Kasten, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 23rd day of May, 2023, before me personally came Larry Kasten, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



M. Bent

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 19th day of Dec 2023



WESTERN SURETY COMPANY

L. Nelson

L. Nelson, Assistant Secretary

SECTION H: AGREEMENT

THIS AGREEMENT made this 2nd day of June in the year Two Thousand and Twenty-Five between **Parisi Construction, LLC** 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 **May 20, 2025** 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:

Rennebohm Park East Tennis Courts CONTRACT NO. 9642

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 **FIVE HUNDRED FIFTY-FOUR THOUSAND THIRTY-FOUR AND 29/100 (\$554,034.29)** 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.

Rennebohm Park East Tennis Courts

CONTRACT NO. 9642

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:

Parisi Construction, LLC

Christine Phew 5/8/25

Witness

Date

Company Name

[Signature] 5-8-25

President

Date

Christine Phew 5/8/25

Witness

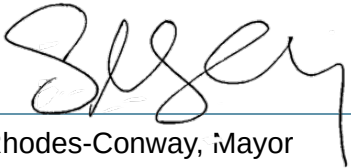
Date

[Signature] 5/8/25

Secretary

Date

CITY OF MADISON

 06/02/2025
Satya Rhodes-Conway, Mayor Date

 05/28/2025
Michael Haas, Acting City Clerk Date

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

 05/28/2025
David P Schmiedicke, Finance Director Date

Approved as to form:

 5/30/2025
for Michael Haas, City Attorney Date

Execution of this Agreement by City was authorized by Resolution Enactment No. RES25-00311, ID No. 88099, adopted by the Common Council of the City of Madison on May 20, 2025.

SECTION I: PAYMENT AND PERFORMANCE BOND

LET ALL KNOW BY THESE DOCUMENTS PRESENTED, that we Parisi Construction, LLC as principal, and Western Surety Company Company of Chicago, IL as surety, are held and firmly bound unto the City of Madison, Wisconsin, in the sum of **FIVE HUNDRED FIFTY-FOUR THOUSAND THIRTY-FOUR AND 29/100 (\$554,034.29)** 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:

**Rennebohm Park East Tennis Courts
CONTRACT NO. 9642**

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 21st day of May, 2025

Countersigned:

Parisi Construction, LLC

Company Name (Principal)

Christene Aha
Witness

[Signature]
President



[Signature]
Secretary

Western Surety Company

Surety

Seal

Salary Employee Commission

By *[Signature]*
Trudy A. Szalewski
Attorney-in-Fact

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under National Producer Number 6502661 for the year 2025, and appointed as attorney-in-fact with authority to execute this payment and performance bond which power of attorney has not been revoked.

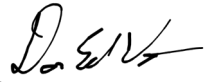
May 21, 2025
Date

[Signature]
Agent Signature

The foregoing Bond has been approved as to form:

5/30/2025

Date



for City Attorney

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

**Kelly Cody, Roxanne Jensen, Marc Sacia, Individually of Green Bay, Wisconsin
Trudy A. Szalewski, Brian Krause, Individually of Milwaukee, Wisconsin**

its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 23rd day of May, 2023.



WESTERN SURETY COMPANY

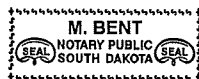
Larry Kasten, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 23rd day of May, 2023, before me personally came Larry Kasten, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 21st day of May, 2025



WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety Company.

This Power of Attorney may be signed by digital signature and sealed by a digital or otherwise electronic-formatted corporate seal under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 27th day of April, 2022:

“RESOLVED: That it is in the best interest of the Company to periodically ratify and confirm any corporate documents signed by digital signatures and to ratify and confirm the use of a digital or otherwise electronic-formatted corporate seal, each to be considered the act and deed of the Company.”

APPENDIX 1
SOIL BORING AND
GEOTECHNICAL REPORT
INFORMATION

RENNEBOHM PARK

Kane, Kathleen

From: Mike Schultz <mschultz@cgcinc.net>
Sent: Wednesday, February 16, 2022 8:54 AM
To: Kane, Kathleen
Cc: 'Eric Fair'
Subject: Rennebohm Park Improvements Geotech C21051-32
Attachments: 21051-32 Rennebohm Park.pdf

Caution: This email was sent from an external source. Avoid unknown links and attachments.

At your request, CGC completed four soil borings where park improvements are planned in Rennebohm Park. We understand that playground equipment is being replaced in 2022 near where Borings 3 and 4 were drilled. Furthermore, the tennis courts will be replaced, with the west set in 2022 and the east set in 2023 or 2024. Borings 1 and 2 were drilled along the north edge of each set of courts. We understand that construction of the courts will involve asphalt/base course removal, followed by pavement section reconstruction and new perimeter fencing. The soil borings were done by Soil Essentials (under subcontract to CGC) on February 4, 2022 at locations selected by City of Madison personnel (location map attached), with the borings field staked by CGC. The soil profile at each boring location is fairly consistent and involves about 5 to 9-in. of topsoil, over 2 to 8.5 ft of fill, over medium dense to very dense native sands that generally contain some silt and gravel with scattered cobbles/boulders. The native sands extend to the maximum depths explored at each boring location. Regarding the fill, it is comprised of reasonably firm soils involving a mix of medium stiff to hard clays and/or loose to medium dense sands. Note that some of the upper portion of the sands in B-1 are considered possible fill. Groundwater was not encountered within the drilling depths during and/or shortly after drilling completion. Note that water levels can vary depending upon precipitation, nearby lake levels and other factors. More specific details at each boring location are provided on the attached soil boring logs.

In our opinion, with the exception of the softer clay fill encountered at Boring 2 with depth near 3.5 ft +/-, the observed fill or native sands at a minimum 4 ft (for frost protection) are acceptable for footings designed for a maximum design soil bearing pressure of 2500 psf. Foundations should be a minimum 30-in. square (or equivalent surface area for circular elements) for column pads. Footing subgrades should be cut with a smooth-edged bucket to minimize disturbance and loose/soft spoils removed from the excavation. The softer clays referred to above at B-2 should be removed to a depth of 5 ft to expose the sands. Similarly, if loose/soft soils are encountered elsewhere, they too should be undercut. We recommend that replacement material be clear stone that is compacted in lifts until deflection ceases. Similarly, shafts (if drilled – likely for the perimeter fencing) should not have soft clays or loose sands at the base and be cleaned of potential loose soils that could remain from the drilling operation. Provided that the above recommendations are implemented, it is our opinion that potential settlements will not exceed typical tolerable levels of 1-in. total and 0.5-in. differential.

Regarding the proposed pavement improvements for the tennis courts, a typical base course replacement thickness would be 10-in. for the observed clay subgrade. Subgrade preparation measures would involve proof-rolling with a heavy piece of construction equipment. If soft/loose areas are detected during proof-rolling, those soils should be removed and replaced with compacted granular soils that are densified to at least 95% compaction based on modified Proctor methods (ASTM D1557). We recommend that an allowance be established for soil improvement. Subsequently base course should be placed and compacted, followed by asphalt pavement placement that would likely be an overall thickness of 3.5-in which is placed in two lifts. We envision the pavement would be crowned to promote surface water drainage toward the edges. Additional details can be provided upon request.

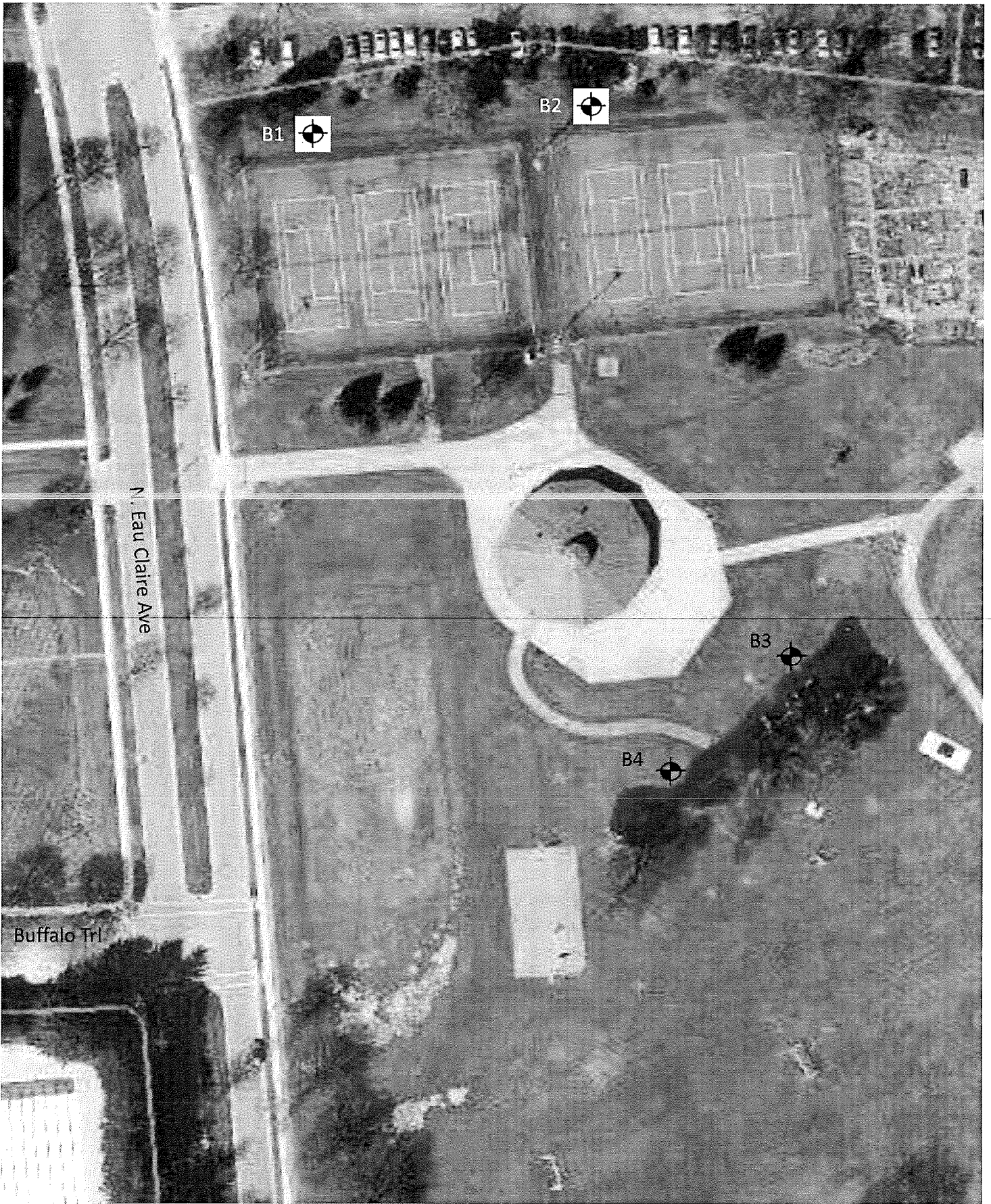
We trust this brief report addresses your present needs. Please contact CGC if we can be of further service or should questions develop upon review of this transmittal. Information regarding limitations pertaining to opinions presented in this submittal is attached. Thank you.

Michael N. Schultz, P.E.
President - CGC, Inc.
2921 Perry St.
Madison, WI 53713
Phone: 608-288-4100
Fax: 608-288-7887
Cell: 608-712-0571
Web Site: www.cgcinc.net



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Legend

⊕ Denotes Boring Location

Notes

1. Soil borings performed by Soil Essentials in February 2022
2. Boring locations are approximate



Scale: Reduced

Job No. C21051-32	
Date: 2/2022	

SOIL BORING LOCATION MAP
Rennebohm Park
Madison, Wisconsin



LOG OF TEST BORING

Project Rennebohm Park
Tennis Courts and Playground
 Location Madison, WI

Boring No. 1
 Surface Elevation (ft) 935±
 Job No. C21051-32
 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 E	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LI
					0	9 in. Dark Brown Silty TOPSOIL					
1	█	12	M	8	5	FILL: Mixed Stiff Brown Clay and Loose Silty Sand	(1.5)				
2	█	0	M	20	10	Medium Dense, Brown Fine to Medium SAND, Some Silt, Trace Gravel (SM - Possible Fill)					
3	█	9	M	30	15	Medium Dense to Dense, Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					
4	█	15	M	15	20						
5	█	16	M	26	25						
6	█	9	M	30	30						
					20	End of Boring at 20 ft Backfilled with Bentonite Chips					

WATER LEVEL OBSERVATIONS					GENERAL NOTES				
While Drilling	<input checked="" type="checkbox"/>	NW	Upon Completion of Drilling	<input type="checkbox"/>	Start	2/4/22	End	2/4/22	
Time After Drilling					Driller	SE	Chief	CRS	Rig 7822DT
Depth to Water				<input checked="" type="checkbox"/>	Logger	CRS	Editor	ESF	
Depth to Cave in					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 Rennebohm Park
Tennis Courts and Playground
 Location Madison, WI

Boring No. 2
 Surface Elevation (ft) 935±
 Job No. C21051-32
 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.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LI
					5 in. Dark Brown Silty TOPSOIL					
1	16	M	6		FILL: Loose Brown Sand with Silt and Gravel to 2'	(1.25)				
					Stiff to Soft Brown Clay with Traces Sand and Gravel to 5'					
2	12	M	4			(0.5)				
					Medium Dense, Grayish Brown Silty Fine SAND, Some Gravel, Trace Clay (SM)					
3	15	M	17							
					Medium Dense, Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					
4	14	M	13							
5	15	M	18							
6	16	M	21							
					End of Boring at 20 ft					
					Backfilled with Bentonite Chips					

WATER LEVEL OBSERVATIONS	GENERAL NOTES
While Drilling <input checked="" type="checkbox"/> NW Upon Completion of Drilling _____ Time After Drilling _____ Depth to Water _____ Depth to Cave in _____	Start <u>2/4/22</u> End <u>2/4/22</u> Driller <u>SE</u> Chief <u>CRS</u> Rig <u>7822DT</u> Logger <u>CRS</u> Editor <u>ESF</u> Drill Method <u>2.25" HSA; Autohammer</u>
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.	



LOG OF TEST BORING

Project Rennebohm Park
Tennis Courts and Playground
 Location Madison, WI

Boring No. 3
 Surface Elevation (ft) 932±
 Job No. C21051-32
 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.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LI
					8 in. Dark Brown Clayey TOPSOIL					
1	14	M	8		FILL: Hard to Very Stiff Brown Silty Clay with Scattered Sand and Gravel, Traces Wood Pieces	(4.5+)				
2	14	M	11			(3.0)				
3	16	M	23		Medium Dense to Very Dense, Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					
4	15	M	22							
5	4	M	79							
15					End of Boring at 15 ft					
Backfilled with Bentonite Chips										
20										
25										

WATER LEVEL OBSERVATIONS	GENERAL NOTES
While Drilling <input checked="" type="checkbox"/> <u>NW</u> Upon Completion of Drilling _____ Time After Drilling _____ Depth to Water _____ Depth to Cave in _____	Start <u>2/4/22</u> End <u>2/4/22</u> Driller <u>SE</u> Chief <u>CRS</u> Rig <u>7822DT</u> Logger <u>CRS</u> Editor <u>ESF</u> Drill Method <u>2.25" HSA; Autohammer</u>
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.	



LOG OF TEST BORING

Project Rennebohm Park
Tennis Courts and Playground
 Location Madison, WI

Boring No. 4
 Surface Elevation (ft) 933±
 Job No. C21051-32
 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.	Rec (in.)	Moist	N	Depth (ft)		q _u (qa) (tsf)	W	LL	PL	LI
				0	6 in. Dark Brown Clayey TOPSOIL					
1	14	M	5	5	FILL: Hard Brown Silty Clay with Traces Sand and Gravel to 5'	(4.25)				
2	16	M	6	6		(4.0+)				
3	15	M	22	9	Medium Dense Silty Sand with Gravel and Clay to 9'					
4	14	M	28	10	Medium Dense to Very Dense, Brown Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)					
5	0	M	100/5"	15	End of Boring at 15 ft Backfilled with Bentonite Chips					

WATER LEVEL OBSERVATIONS	GENERAL NOTES
While Drilling <input checked="" type="checkbox"/> <u>NW</u> Upon Completion of Drilling _____ Time After Drilling _____ Depth to Water _____ Depth to Cave in _____	Start <u>2/4/22</u> End <u>2/4/22</u> Driller <u>SE</u> Chief <u>CRS</u> Rig <u>7822DT</u> Logger <u>CRS</u> Editor <u>ESF</u> Drill Method <u>2.25" HSA; Autohammer</u>
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 Proportions Of Cohesionless Soils

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

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%

Relative Density

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

Plasticity

Soil Description	Loss on Ignition	Term	Plastic Index
Non Organic.....	Less than 4%	None to Slight.....	0 - 4
Organic Silt/Clay.....	4 - 12%	Slight.....	5 - 7
Sedimentary Peat.....	12% - 50%	Medium.....	8 - 22
Fibrous and Woody Peat...	More than 50%	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)

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

GRAVELS
More than 50% of coarse fraction larger 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

SANDS
50% or more of coarse fraction smaller than No. 4 sieve size

FINE-GRAINED SOILS

(50% or more of material is smaller than No. 200 sieve size.)



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



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



PT

Peat and other highly organic soils

SILTS AND CLAYS
Liquid limit less than 50%

SILTS AND CLAYS
Liquid limit 50% or greater

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
 GC Atterberg limits above "A" line or P.I. greater than 7

Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols

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

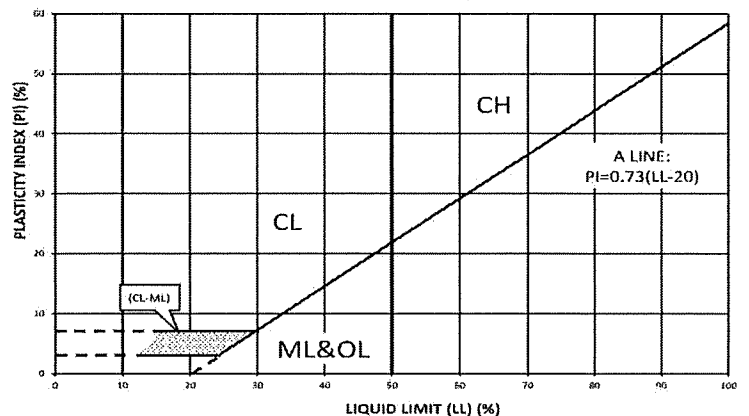
SM Atterberg limits below "A" line or P.I. less than 4
 SC Atterberg limits above "A" line with P.I. greater than 7

Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols

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



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.

- completed before important project changes were made.

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

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.

- 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.*

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.

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.

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:

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

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or

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.

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

APPENDIX 2
ELECTRICAL POWER SUPPLY
SPECIFICATION SECTION

RENNEBOHM PARK

RENNEBOHM PARK TENNIS COURT LIGHTING

Madison, Wisconsin

City of Madison Parks Division
330 E Lakeside Street
Madison, Wisconsin

PROJECT MANUAL

March 01, 2024

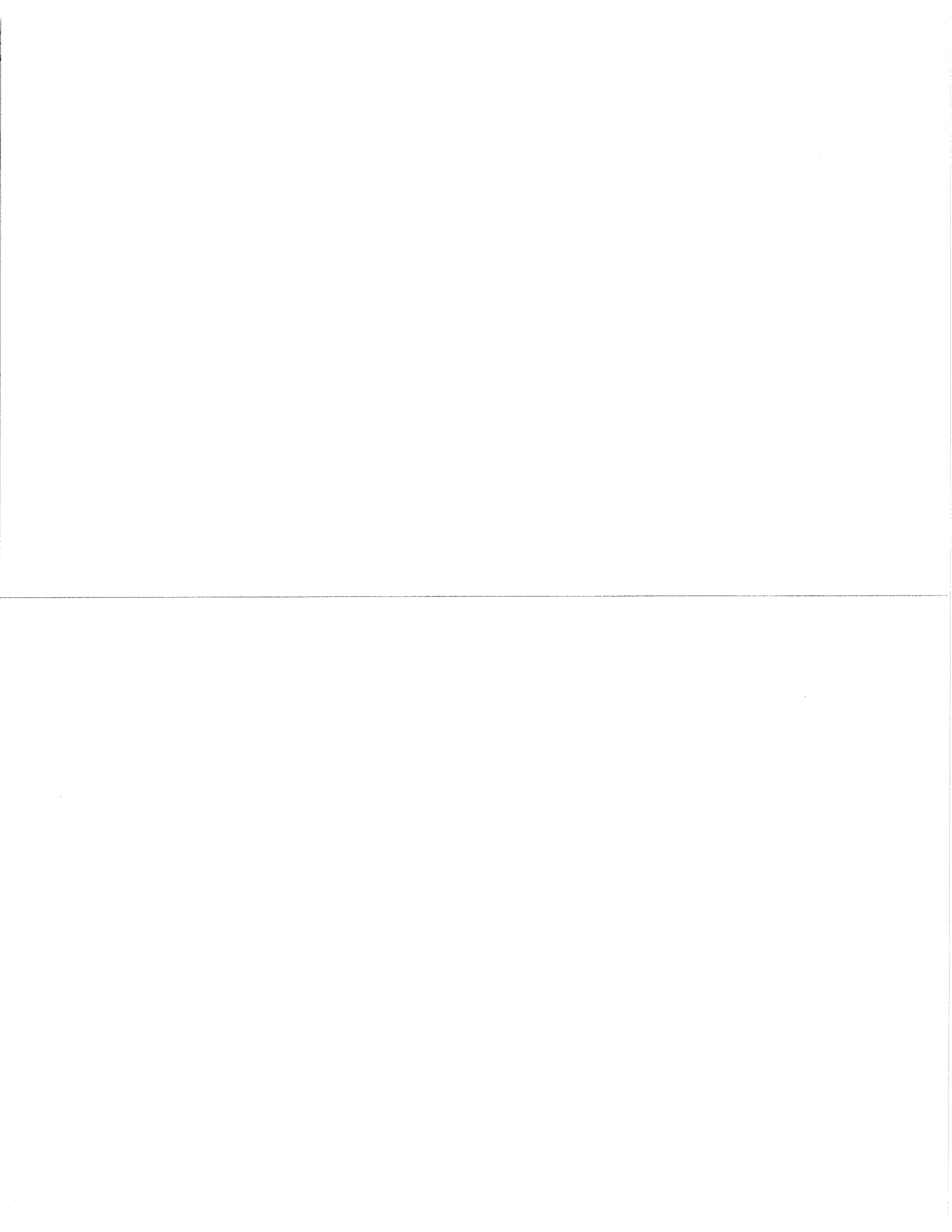
DE PROJECT # 24017



IOWA
8801 Prairie View Lane SW, Suite 200
Cedar Rapids, IA 52404-4850
319.841.1944

WISCONSIN
8215 Greenway Blvd, Suite 180
Middleton, WI 53562
608.424.8815

brad.biddick@designengineers.com

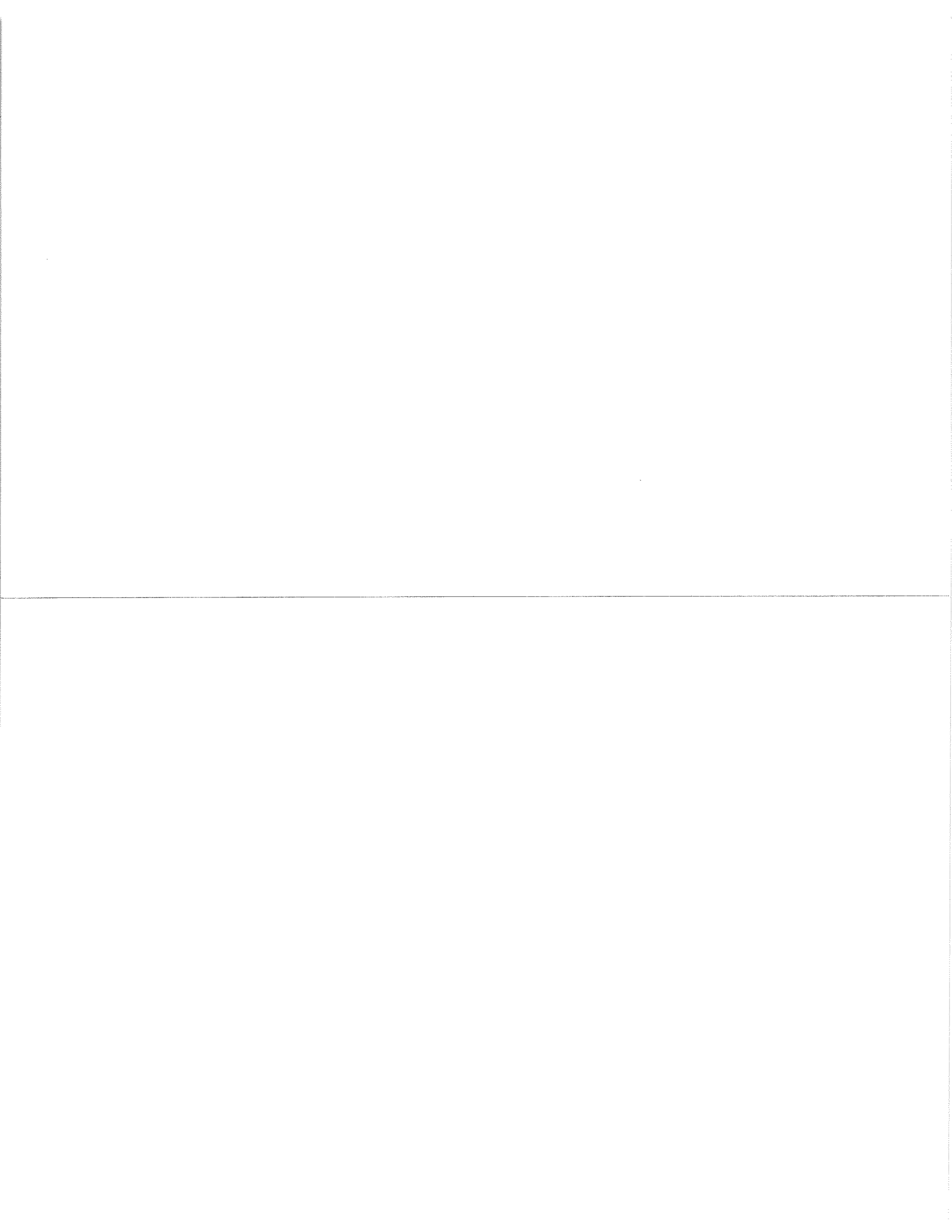


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END OF SECTION 00 0001



Division 26

Electrical

Division **26**

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SECTION 26 0010 - ELECTRICAL GENERAL PROVISIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Refer to Division 00 – Procurement, Contracting and Warranty Requirements and Division 01 - General Requirements, which all apply to work under this section.

1.02 DESCRIPTION OF WORK

- A. Work shall include furnishing of all systems, equipment and material specified in this division and as called for on the electrical drawings, to include supervision, operations, methods and labor for the fabrication, installation, start up and tests for the complete electrical installation.
- B. All elements of the construction shall be performed by workmen skilled in the particular craft involved, and regularly employed in that particular craft.
- C. All work shall be performed in a neat, professional manner in keeping with the highest standards of the craft.

1.03 CODES AND STANDARDS

- A. All work shall be done in accordance with the applicable portion of the following codes and standards:
 - 1. National Electrical Code
 - 2. National Fire Protection Association
 - 3. National Electrical Manufacturers Association
 - 4. Standards of Institute of Electrical and Electronic Engineers
 - 5. International Building Code
 - 6. Occupational Safety and Health Act
 - 7. Wisconsin Administrative Code
 - 8. NECA Standards
 - 9. Americans With Disabilities Act (ADA)
 - 10. City of Madison General Ordinances (MGO)
- B. All Contractors shall familiarize themselves with all codes and standards applicable to their work and shall notify Design Professional of any discrepancies between the design and applicable code requirements so that any conflicts can be resolved. Where two or more codes or standards are in conflict, that requiring the highest order of professionalism shall take precedence, but such questions shall be referred to Design Professional for final decision.

1.04 REQUIREMENTS & FEES OF REGULATORY AGENCIES

- A. Contractor shall comply with the rules and regulations of the local utility companies. They shall check with each utility company providing service to this project and determine or verify their requirements regarding incoming services.
- B. Secure all required permits and pay for all inspections, licenses and fees required in connection with the electrical work including City of Madison Electrical Inspections. Contractor shall post all bonds and obtain all licenses required by the State, City, and County.

1.05 ELECTRICAL DRAWINGS

- A. The electrical drawings indicate a general site arrangement only. Contractor shall examine construction drawings to become familiar with the specific type of building/site construction, i.e. type of structural system, floors, walls, ceilings, room finishes and elevations.
- B. Drawings for the electrical work are in part diagrammatic, and are intended to convey the scope of the work and to indicate in general the location of equipment.
- C. Contractor shall layout their own work and shall be responsible for determining the exact locations for equipment and rough ins and the exact routing of conduits and raceway so as to best fit the layout of the work within the defined parameters of the project.
- D. Contractor shall take their own field measurements for verifying locations and dimensions; scaling of the drawings will not be sufficient for laying out the work.

- E. Because of the scale of the drawings, certain basic items such as couplings, pull or splice boxes may not be shown, but where such items are required by code or by other sections of the specifications or where they are required for proper installation of the work, such items shall be furnished and installed.

1.06 ACTIVE SERVICES

- A. Contractor shall be responsible for verifying exact locations of all existing services prior to beginning work in that area.
- B. Existing active services, i.e., water, gas, sewer, electric, when encountered, shall be protected against damage. Do not prevent or disturb operation of active services which are to remain.
- C. When active services are encountered which require relocation, Contractor shall make request to authorities with jurisdiction for determination of procedures.

1.07 SITE INSPECTION

- A. Contractor shall inspect the site prior to submitting bid for work to familiarize themselves with the conditions of the site which will affect their work and shall verify routing of exterior conduit to include required clearances from any existing structures, trees or other obstacles.
- B. Extra payment will not be allowed for changes in the work required because of Contractor's failure to make this inspection.

1.08 COORDINATION AND COOPERATION

- A. It shall be Contractor's responsibility to schedule and coordinate their work with the schedule of the General Contractor so as to progress the work expeditiously, and to avoid unnecessary delays.
- B. Contractor shall fully examine the drawings and specifications for other trades and shall coordinate the installation of their work with the work of the other contractors. Contractor shall consult and cooperate with the other contractors for determining space requirements and for determining that adequate clearance is allowed with respect to their equipment, other equipment and the building.
- C. Drawings and specifications are intended to be complimentary. Any work shown in either of them, whether in the other or not, shall be executed according to the true intent and meaning thereof, the same as if set forth in all. Conflicts between the drawings and the specifications or between the requirements set forth for the various contractors shall be called to the attention of the Design Professional. If clarification is not asked for prior to the taking of bids, it will be assumed that none is required, and that the Contractor is in agreement with the drawings and specifications as issued. If clarification is required after the contract is awarded, such clarification will be made by the Design Professional and their decision will be final.
- D. Special care shall be taken for protection for all equipment. All equipment and material shall be completely protected from weather elements, painting, plaster, etc., until the project is substantially completed. Damage from rust, paint, scratches, etc., shall be repaired as required to restore equipment to original condition.
- E. Where the final installation or connection of equipment requires the contractor to work in areas previously finished by the General Contractor, the Electrical Contractor shall be responsible that such areas are protected and are not marred, soiled or otherwise damaged during the course of such work. Electrical Contractor shall arrange with the General Contractor for patching and refinishing of such areas which may be damaged in this respect.

1.09 EXCAVATING AND BACKFILLING

- A. Contractor shall do all excavating necessary for light pole bases, underground wiring, conduit and, and shall backfill trenches and excavations after work has been inspected. Care shall be taken in excavating that walls and footings and adjacent load bearing soils are not disturbed in any way. Excavation shall be kept free from water by pumping if necessary.

- B. Backfilling of trenches shall progress as rapidly as the testing and acceptance of the finished sections of the work will permit and shall be carried to a crown approximately six (6) inches above the existing grades. In backfilling trenches, selected material shall be compacted firmly around and to a depth of not less than six (6) inches over the top of work in trench. All fill and backfill and rough grading shall be compacted thoroughly in layers and shall be brought up to within six (6) inches of finished grades. All fill and backfill shall be sand or pit run sand/gravel graded from 1" size downward.

1.10 MATERIALS AND EQUIPMENT

- A. All materials and equipment shall be the standard product of a reputable U.S.A. manufacturer regularly engaged in the manufacture of the specified item unless authorized in writing by Design Professional. Where more than one unit is required of the same system, they shall be furnished by the same manufacturer except where specified otherwise.
- B. All material and equipment shall be installed in strict accordance with the manufacturer's recommendations.
- C. The equipment specifications cannot deal individually with any minute items such as parts, controls, devices, etc., which may be required to produce the equipment performance and function as specified, or as required to meet the equipment guarantees. Such items when required shall be furnished as part of the equipment, whether or not specifically called for.

1.11 SUBMITTALS

- A. Contractor shall furnish, to the Design Professional, complete sets of shop drawings and other submittal data. Contractor shall review and sign shop drawings before submittal. Refer to Division 01 specifications for additional requirements.
- B. Shop drawings shall be bound into sets and cover related items for a complete system as much as practical and shall be identified with symbols or "plan marks" used on drawings. Incomplete, piecemeal or unbound submittals will be rejected.
- C. Submit required information on the following items:

SPEC SECTION	EQUIPMENT	DETAIL DWGS	PROD DATA	PROD SAMPLES	INSTALL METHODS	O & M MANUAL	CERTIFICATE OF SYSTEM DEMONSTRATION	OTHER (SEE NOTES)
26 0519	Low-Voltage Power Conductors and Cables		X			X		
26 0533	Raceway and Boxes for Electrical Systems		X			X		
NOTES:								
1. NA								

- D. Design Professional will review shop drawings solely to assist contractors in correctly interpreting the plans and specifications.
- E. Contract requirements cannot be changed by shop drawings which differ from contract drawings and specifications.

1.12 OPERATION AND MAINTENANCE MANUALS

- A. Operation and maintenance manuals shall be submitted to Design Professional. Refer to Division 01 specifications for additional information.

- B. Submit manuals in duplicate upon completion of the job. Manuals shall be bound in a three ring hard-backed binder. Front cover and spine of each binder shall have the following lettering done:

OPERATION
AND
MAINTENANCE
MANUAL
FOR
ELECTRICAL SYSTEMS

(PROJECT NAME)
(LOCATION)
(DATE)

SUBMITTED BY
(NAME AND ADDRESS OF CONTRACTOR)

- C. Provide a master index at the beginning of manual showing items included. Use plastic tab indexes for sections of manual. Each section shall contain the following information for equipment furnished under this contract:
1. Equipment and system warranties and guarantees.
 2. Installation instructions.
 3. Operating instructions.
 4. Maintenance instructions.
 5. Spare parts identification and ordering list.
 6. Local service organization, address, contact and phone number.
 7. Shop drawings with reviewed stamp of Design Professional and Contractor shall be included, if applicable, along with the items listed above.
- D. Items to be included shall be those listed in shop drawing section.

1.13 TESTS AND DEMONSTRATIONS

- A. All systems shall be tested by Contractor and placed in proper working order prior to demonstrating systems to Owner.
- B. Prior to acceptance of the electrical installation, the Contractor shall demonstrate to the Owner, or their designated representatives, all essential features and functions of all systems installed, and shall instruct the Owner in the proper operation and maintenance of such systems. Owner instruction shall be provided for the following systems:

Sections	Description	Hrs. on Site	Hrs. off Site	Presented By	Others Present	Remarks
NA	Musco Lighting Controls	2		Manufacturer's Representative	Contractor	

REMARKS:

1. NA

- C. Contractor shall submit to the Design Professional a certificate signed by the Owner stating the date, time, and persons instructed and that the instruction has been completed to the Owner's satisfaction. An example of a certificate form is as follows:

CERTIFICATE OF SYSTEM DEMONSTRATION

This document is to certify that the contractor has demonstrated the hereafter listed systems to the Owner's representatives in accordance with the Contract documents and that the instruction has been completed to the Owner's satisfaction.

- A. Project:
- B. System(s):
- C. Contractor's representatives giving instruction and demonstration:

Contractor: _____

NAMES	DATE	HOURS

- D. Owner's representatives receiving instruction:

Owner: _____

NAMES	DATE	HOURS

- E. Acknowledgement of demonstration:

Contractor's Representative: _____
signature

_____ date

Owner's Representative: _____
signature

_____ date

1.14 SUBSTITUTIONS

- A. To obtain approval to use unspecified equipment, Bidding Contractors (not equipment supplier, manufacturers, etc.) shall submit written requests to Design Professional at least 10 days prior to bid due date. Requests shall clearly describe the equipment for which approval is being requested. Include all data necessary to demonstrate that equipment's capacities, features and performance are equivalent between specified equipment and equipment for which approval is being requested. If the equipment is acceptable, Design Professional will approve it in an addendum. Design Professional will, under no circumstances, be required to prove that an item proposed for substitution is or is not of equal quality to the specified item.
- B. Where substitutions are approved, Contractor assumes all responsibility for physical dimensions and all other resulting changes. This responsibility extends to cover all extra work necessitated by other trades as a result of the substitution.

1.15 ACCEPTABLE MANUFACTURERS

- A. In most cases, equipment specifications are based on a specific manufacturer's type, style, dimensional data, catalog number, etc. Listed with the base specification, either in the manual or on the plan schedules are acceptable manufacturers approved to bid products of equal quality. These manufacturers are encouraged to submit to Design Professional at least 8 days prior to the bid due date drawings and catalog numbers of products to be bid as equals.
- B. Manufacturers, who do not submit prior to bidding, run the risk of having the product rejected at time of shop drawing submittal. Extra costs associated with replacing the rejected product shall be the responsibility of the Contractor and/or the manufacturer.
 - 1. If Contractor chooses to use a manufacturer listed as an equal, it shall be their responsibility to assure that the manufacturer has complied with the requirements in 'A' above. Contractor shall assume all responsibility for physical dimensions, operating characteristics, and all other resulting changes. This responsibility extends to cover all extra work necessitated by other trades as a result of using the alternate manufacturer.
 - 2. Where a model or catalog number is provided, it may not be inclusive of all product requirements. Refer to additional requirements provided on the plans or in the specifications as required. Similarly, there may be additional requirements included in the model or catalog number that are not specifically stated. These requirements shall also be met.

1.16 WARRANTY

- A. Refer to Divisions 00 and 01 for information on warranties and correction of work within the warranty period.
 - 1. If a warranty or warranty period are not defined in Division 00 or 01, then the start of all warranty periods shall be the date of Substantial Completion and the length of the warranty shall be for one year.
 - a. If construction is phased with distinct and separate Substantial Completion dates for portions of the building and/or systems, separate warranties shall be provided for each of these phased areas and/or systems.
 - b. The entire Electrical system, including all sub-systems, shall be guaranteed against defect in materials and installation for the duration of the warranty period. Any malfunctions or defects which occur within the warranty period shall be promptly corrected without cost to the Owner. This guarantee shall not limit or void any manufacturer's express or implied warranty.
- B. Refer to other Division 26 sections for systems, equipment, or material requiring extended warranties.
- C. The date of systems/equipment startup or equipment/material shipment to the site shall not be considered the notable date with relation to the warranty of that item. All systems, equipment, material, etc., shall have the same start date with respect to the warranty period.
- D. Systems, equipment or material put into use to facilitate construction activities (e.g. testing and balancing, commissioning, temporary conditioning, etc.) prior to the start of the warranty period shall not impact the length of the warranty in any way.

1.17 CHANGES IN THE WORK

- A. Refer to Divisions 00 and 01.

1.18 COMPLETION

- A. Systems, at time of completion, shall be complete, efficiently operating, non-hazardous and ready for normal use by the Owner.
- B. When all the electrical work is complete Contractor shall thoroughly clean all material and equipment installed as a part of this contract and leave all equipment and material in new condition.
- C. Contractor shall clean up and remove from the site all debris, excess material and equipment left during the progress of this contract at job completion.

1.19 CLEANING

- A. Prior to assembly of electrical equipment, all loose dirt, scale, oil, and other foreign matter on internal and exterior surfaces shall be removed by means consistent with good electrical practices.
- B. All temporary labels, stickers, etc., shall be removed from all fixtures and equipment. Name plates, ratings, instruction plates, etc., shall not be obscured by paint, insulation, or placement of units.
- C. Electrical equipment shall be thoroughly cleaned on the interior and exterior of equipment. This includes, but is not limited to: removal of wiring trimmings within electrical panels and dirt/debris from activation boxes.
- D. All light fixtures shall be wiped clean with all fingerprints and dust removed.

END OF SECTION 26 0010

SECTION 26 0500 - COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. The requirements of Division 00 – Procurement, Contracting and Warranty Requirements, Division 01 - General Requirements and Section 26 0010 - Electrical General Provisions are applicable to work required of this section.

1.02 DESCRIPTION OF WORK

- A. This section includes the following:
 - 1. Demolition.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All materials removed shall be the property of the removing contractor and shall be removed from the site unless otherwise specified.

PART 3 - EXECUTION

3.01 GENERAL

- A. Demolition shall be accomplished by the proper tools and equipment for the work to be removed. Personnel shall be experienced and qualified in the type of work to be performed.

3.02 EXAMINATION

- A. Verify field measurements and circuiting arrangements are as shown on Drawings.
- B. Verify that abandoned wiring and equipment serve only abandoned facilities.
- C. Demolition Drawings are based on casual field observation. Report discrepancies to Owner before disturbing existing installation.

3.03 PREPARATION

- A. Disconnect electrical systems scheduled for removal.
- B. Existing Electrical Services: Maintain existing system in service. Disable system only to make switchovers and connections. Obtain permission from Owner at least 72 hours before partially or completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area.

3.04 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Demolish and extend existing electrical work under provisions of this Section.
- B. Remove, relocate, and extend existing installations to accommodate new construction. Extend existing installations using materials and methods as specified.
- C. Remove abandoned wiring to source of supply.
- D. Remove exposed abandoned conduit.
- E. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
- F. Disconnect and remove HID court lighting and ballast enclosures from existing poles. Remove brackets, stems, hangers, and other accessories as required to facilitate new installation.
- G. Repair adjacent construction and finishes damaged during demolition and extension work.
- H. Maintain access to existing electrical installations which remain active. Modify installation or provide access panel as appropriate.
- I. Clean and repair existing materials and equipment which remain or are to be reused.

3.05 LAMP AND BALLAST DISPOSAL

- A. Lamps and ballasts shall be removed from the site and recycled per state and local regulations.

3.06 WORK BY OTHERS

- A. Unless specifically noted under other contracts, Electrical Contractor shall assume all required work shall be performed by them

3.07 OWNER'S RIGHT OF SALVAGE

- A. Owner may designate and have salvage rights to any material herein demolished by the Contractor.

END OF SECTION 26 0500

SECTION 26 0519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.01 RELATED WORK

- A. The requirements of Division 00 – Procurement, Contracting and Warranty Requirements, Division 01 - General Requirements and Section 26 0010 - Electrical General Provisions are applicable to work required of this section.

1.02 DESCRIPTION OF WORK

- A. Contractor shall furnish all material, tools, labor, and supervision necessary to install all wiring systems.
- B. This section describes the basic materials and methods of installation for general wiring systems of 600 volts and less. Wiring for a higher voltage rating, if required, shall be as specified in other sections or called for on the drawings.

1.03 QUALITY ASSURANCE

- A. NEC Compliance: Comply with NEC as applicable to construction and installation of electrical wire, cable, and connectors.
- B. UL Compliance: Comply with UL standards pertaining to wire, cable, and connectors.
- C. UL Labels: Provide electrical wires, cables and connectors which have been UL listed and labeled.
- D. NEMA/ICEA Compliance: Comply with applicable portions of NEMA/Insulated Cable Engineers Association standards pertaining to materials, construction and testing of wire and cable.
- E. ANSI/ASTM: Comply with applicable portions of ANSI/ASTM standards pertaining to construction of wire and cable.
- F. The materials used for wiring systems shall be the products of a manufacturer regularly engaged in the manufacturing of the specified material.

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data for each product specified.

PART 2 - PRODUCTS

2.01 WIRE AND CABLE

- A. All wire and cable for power, lighting, control, and signal circuits shall have copper conductors of not less than 98% conductivity and shall be insulated to 600 V. All conductors shall be stranded.
- B. Minimum size conductors shall be #12 AWG for control power and #8 AWG for lighting.
- C. Type of wire and cable for various applications shall be as follows:
 - 1. Type XHHW-2 (90 deg. C)

2.02 CONDUCTOR COLOR CODING

- A. Wiring systems shall be color coded. Conductor insulation shall be colored in sizes up through #8 AWG. Conductors #6 AWG and larger shall be colored or have black insulation and shall be phase color coded with one half inch band of colored tape at all junctions and terminations. Colors shall be assigned to each conductor as described below and carried throughout all main and branch circuit distribution. When necessary to use tape, use colored tape on black wire. Do not use colored tape on colored wire. Match existing color coding scheme. If a scheme does not exist, utilize the following:

	120/240V
Phase '1' Conductor	Black
Phase '2' Conductor	Red
Neutral Conductor	White
Equipment Grounding Conductor	Green

2.03 CONNECTORS

- A. Twist-on Wire Connectors.
 - 1. Wet locations. 600V rated, UL 485D listed with pre-filled silicone sealant. Ideal industries 61/62/63 series or equal by 3M or Thomas and Betts. Use for #8 and smaller. To be used for all above ground splices in exterior locations.
 - 2. Underground locations. 600V rated, UL 485D listed for direct burial with pre-filled silicone sealant. Ideal Industries 60/64/66 series or equal buy 3M or Thomas and Betts. Use for #8 and smaller. To be used for all below ground (hand hole) locations.
- B. Conductor Taps and Splices.
 - 1. Wet and Underground Locations. 600V rated, UL 486D listed, watertight mechanical termination suitable for direct burial in earth. IlSCO SafetySub PDSS or equal by Burndy or 3M. Use for #6 and larger.
 - 2. Insulation piercing taps are not allowed.
 - 3. Split bolt connectors and splices are not allowed.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Conduit shall be swabbed free of moisture and debris prior to pulling in wiring. Pull mouse through conduits prior to pulling conductors.

3.02 INSTALLATION

- A. Branch circuit conductor sizes shall be increased to maintain a maximum 3% voltage drop.
 - 1. 120V, 20A homeruns shall be sized as follows based on one-way circuit length:
 - a. 0'- 210': #8 AWG
 - b. 211' and over: #6 AWG
- B. Splices shall be made only in accessible junction boxes or handholes.
- C. All power feeder cable shall be pulled with the use of approved pulling compound or powder. Compound must not deteriorate conductor or insulation.
- D. If conductor insulation is damaged during installation, replace entire conductor.
- E. Use pulling means, including fish tape, cable or rope which cannot damage raceway.
- F. Keep branch circuit conductor splices to a minimum.
- G. The continuity of circuit conductors shall not be dependent on service connections such as lamp holders, receptacles, etc., where the removal of such devices would interrupt the continuity.
- H. Provide separate green equipment ground conductor throughout entire electrical system.
- I. All branch circuits shall have dedicated neutrals when a neutral conductor is required.

3.03 FIELD QUALITY CONTROL

- A. Prior to energizing system, test cable and wire for continuity of circuitry, and for short circuits. Correct malfunctions when detected.
- B. After wire terminations are complete, energize circuitry and demonstrate functioning in accordance with requirements.

END OF SECTION 26 0519

SECTION 26 0526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 RELATED WORK

- A. The requirements of Division 00 – Procurement, Contracting and Warranty Requirements, Division 01 - General Requirements and Section 26 0010 - Electrical General Provisions are applicable to work required of this section.

1.02 DESCRIPTION OF WORK

- A. Extent of grounding work is indicated by drawings and shall comply with NEC.
- B. Applications of grounding work in this section include the following:
 - 1. Grounding electrodes.
 - 2. Equipment grounding conductors.
 - 3. Grounding rods.
- C. Requirements of this section apply to electrical grounding work specified elsewhere in these specifications.

1.03 QUALITY ASSURANCE

- A. NEC Compliance: Comply with NEC requirements as applicable to materials and installation of electrical grounding systems, associated equipment and wiring. Provide grounding products which are UL-listed and labeled.
- B. UL Compliance: Comply with applicable requirements of UL Standards Nos. 467 and 869 pertaining to electrical grounding and bonding.
- C. IEEE Compliance: Comply with applicable requirements of IEEE Standard 142 and 241 pertaining to electrical grounding.

PART 2 - PRODUCTS

2.01 GROUNDING SYSTEMS

- A. Materials and Components
 - 1. General: Except as otherwise indicated, provide electrical grounding systems indicated; with assembly of materials, including, but not limited to, cables/wires, connectors, terminals (solderless lugs), grounding rods/electrodes and plate electrodes, bonding jumper braid, surge arresters, and additional accessories needed for complete installation. Where more than one type unit meets indicated requirements, selection is Installer's option. Where materials or components are not indicated, provide products complying with NEC, UL, IEEE, and established industry standards for applications indicated.
 - 2. All components shall be listed under ANSI/UL 467 – "Grounding and bonding Equipment".
 - 3. Raceways: Provide raceways, and electrical boxes and fittings complying with Division 26, Section 26 0533 – Raceway and Boxes for Electrical Systems.
 - 4. Conductors: Unless otherwise indicated, provide electrical grounding conductors for grounding connections matching power supply wiring materials and sized according to NEC.
- B. Connectors
 - 1. Lugs: Grounding and bonding conductors shall terminate in two-hole, long barrel irreversible compression lugs, Burndy YGA series or equal by Blackburn, Ilasco, Erico, Harger or Anderson.
- C. Grounding Rods
 - 1. Ground Rods:
 - a. Copper clad steel, 5/8" dia x 8'.

PART 3 - EXECUTION

3.01 INSTALLATION OF ELECTRICAL GROUNDING

- A. General: Install electrical grounding systems where shown, in accordance with applicable portions of NEC, with NECA's "Standard of Installation", and in accordance with recognized industry practices to ensure that products comply with requirements and serve intended functions.

- B. When making ground and ground bonding connections, apply a corrosion inhibitor to all contact surfaces. Use corrosion inhibitor appropriate for protecting a connection between the metals used.
- C. Bury ground rods vertically with rod top a minimum of 2 feet below grade, or with rod top terminated in a gravel filled ground well. If extensive rock formation is encountered, inform the Design Professional and relocate ground rods, or provide supplemental ground rods as directed by the Design Professional.
- D. A No. 6 AWG minimum stranded copper wire shall be furnished and exothermically welded to all of the ground rods.
- E. Exothermic Welding
 - 1. Clean and dry the surface to be welded. Wire brush or file the point of contact to a clean bare metal surface.
 - 2. Use welding cartridges and molds for the type of weld recommended by the manufacturer and perform welding in accordance with the manufacturer's recommendations. Worn or damaged molds not to be used.
 - 3. Test all welds by striking with a 2 pound steel hammer. Replace any defective welds.
 - 4. Where exothermic welds are made to a galvanized surface, remove the galvanizing using a non-resin bonded grinding wheel to expose a clean surface. After welding, touch up the steel surface with zinc rich primer.
- F. Provide separate green ground conductor throughout entire electrical system sized as required by the NEC.
- G. Conduit Grounding
 - 1. Provide ground conductors in non-metallic conduits in accordance with the NEC.

END OF SECTION 26 0526

SECTION 26 0533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 RELATED WORK

- A. The requirements of Division 00 – Procurement, Contracting and Warranty Requirements, Division 01 - General Requirements and Section 26 0010 - Electrical General Provisions are applicable to work required of this section.

1.02 DESCRIPTION OF WORK

- A. Contractor shall furnish all materials, tools labor and supervision necessary to fabricate and install complete conduit systems.
- B. Conduit systems shall be provided for all wiring, except where the drawings or other sections of the specifications indicate that certain wiring may be installed in cable trays, surface raceway, underfloor raceway, wireways and/or auxiliary gutters.
- C. Types of raceways in this section include the following:
 - 1. Rigid non metallic conduit.
- D. Provide factory painted red conduit for fire alarm system.
- E. Contractor shall furnish all material, tools, labor and supervision necessary to install electrical boxes and fittings as required by drawings and specifications.
- F. Types of electrical boxes and fittings in this section include the following:
 - 1. Handholes

1.03 QUALITY ASSURANCE

- A. NEMA Compliance: Comply with applicable requirements of NEMA standards pertaining to raceways.
- B. UL Compliance and Labeling: Comply with provisions of UL safety standards pertaining to electrical raceway systems; and provide products and components which have been UL listed and labeled.
- C. NEC Compliance: Comply with requirements as applicable to construction and installation of raceway systems.
- D. The materials used in the fabrication of the raceway system shall be products of a manufacturer regularly engaged in the manufacturing of the specified material.
- E. NEC compliance: Comply with NEC as applicable to construction and installation of electrical wiring boxes and fittings.
- F. UL Compliance: Provide electrical boxes and fittings which have been UL listed and labeled.
- G. ANSI/NEMA Standards Compliance: Comply with ANSI C 134.1 (NEMA Standards Pub No. OS 1) as applicable to sheet steel outlet boxes, covers and box supports.

1.04 SUBMITTALS

- A. Raceway Product Data: Submit manufacturer's data including specifications, installation instructions and general recommendations, for each type of raceway listed below. Include data substantiating that materials comply with requirements for the following:
 - 1. Raceway
- B. In-Ground Handhole Product Data: Submit manufacturer's data including specifications, installation instructions and general recommendations for each type of handhole required. Include data substantiating that units comply with requirements.

PART 2 - PRODUCTS

2.01 RACEWAYS

- A. General: Provide metal conduit, tubing and fittings of types, grades, sizes and weights (wall thicknesses) for each service indicated. Where types and grades are not indicated, provide proper selection determined by Installer to fulfill wiring requirements, and comply with applicable portions of NEC for raceways. Conduit shall be used where concealed in permanent wall construction or in ceiling plenums

- B. PVC Conduit: Conduit shall be Carlon PV Duit, Type 40, 90 deg.C. Conduit shall be composed of Polyvinyl Chloride and shall conform to NEMA Standards. Conduit, fittings and cement shall be produced by the same manufacturer. May be used where installed in earth fill.
- C. MC cable will not be allowed.

2.02 IN-GROUND HANDHOLES

- A. UL or ETL Listed, polymer concrete construction, open bottom stackable. Quazite PG style or equal.
 - 1. Manufacturer: Subject to compliance with requirements, the following manufacturers are acceptable:
 - a. Quazite
 - b. HiLine
 - c. Armorcast
- B. All stainless steel hardware with minimum two fasteners per lid.
- C. Extra heavy duty covers with non-skid surface, Tier 15.
- D. Refer to schedule on drawings for additional product information.

PART 3 - EXECUTION

3.01 INSTALLATION OF RACEWAY

- A. Minimum size conduit shall be 1" trade size. Where specified size is not called for on drawings or in the specifications, conduit shall be sized per NEC.
- B. Install the conduit system mechanically and electrically continuous from outlet to outlet and to all cabinets, junction or pull boxes. Conduit shall enter and be secured to all cabinets and boxes in such a manner that all parts of the system will have electrical continuity.
- C. Installation of PVC conduit shall comply with the NEC with regard to grounding and expansion fittings.
- D. Support conduit raceway systems in accordance with requirements as set forth in the National Electric Code.
- E. All connections to NEMA 3R enclosures shall maintain the enclosure listing regardless of the equipment location.

3.02 IN-GROUND HANDHOLE INSTALLATION

- A. Install all handholes flush with surrounding grade. Adjust handholes as required for finished grade.
- B. Do not install handholes at low grade points. Install at locations to allow drainage away from box.
- C. Provide 1" clean compacted fill beneath handholes for drainage. Clean fill shall extend 8" beyond the sides of the handhole enclosure, and a minimum of 12" deep.

END OF SECTION 26 0533

SECTION 26 0553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 RELATED WORK

- A. The requirements of Division 00 – Procurement, Contracting and Warranty Requirements, Division 01 - General Requirements and Section 26 0010 - Electrical General Provisions are applicable to work required of this section.

1.02 DESCRIPTION OF WORK

- A. Contractor shall provide identification for wiring systems and equipment as called for in this section.
- B. Types of electrical identification specified in this section include the following:
 - 1. Buried cable warnings.
 - 2. Cable conductor identification.

1.03 QUALITY ASSURANCE

- A. UL Compliance: Comply with applicable portions of UL safety standards pertaining to electrical marking and labeling identification systems.
- B. NEC Compliance: Comply with NEC as applicable to installation of identifying labels and markers for wiring and equipment.

PART 2 - PRODUCTS

2.01 ELECTRICAL IDENTIFICATION MATERIALS

- A. General: Except as otherwise indicated, provide manufacturer's standard products of categories and types required for each application. Where more than a single type is specified for an application, selection is Installer's option, but provide single selection for each application.
- B. Underground Type Plastic Line Marker
 - 1. General: Manufacturer's standard permanent, bright colored, continuous printed plastic tape; not less than 6" wide x 4 mils thick intended for underground service. Provide tape with printing which most accurately indicates type of service of buried cable/conduit.
- C. Cable/Conductor Identification Bands
 - 1. General: Provide manufacturer's standard vinyl cloth self-adhesive cable/conductor markers of wrap around type; either pre numbered plastic-coated type or write on type with clear plastic self-adhesive cover flap; numbered to show circuit identification.
- D. Self-Adhesive Tape for Circuit Identification
 - 1. General: Provide clear self-adhesive or pressure sensitive, preprinted, flexible vinyl tape for panel name and circuit number.

PART 3 - EXECUTION

3.01 APPLICATION AND INSTALLATION

- A. Underground Cable/Conduit Identification
 - 1. General: During back filling/top/soiling of each exterior underground electrical conduit, install continuous underground type plastic line marker, located directly over buried line at 6" to 8" below finished grade. Where multiple small lines are buried in a common trench and do not exceed an overall width of 16", install a single line marker.
- B. Cable/Conductor Identification
 - 1. General: Apply cable/conductor identification on each cable and conductor in each box/enclosure/cabinet where wires of more than one circuit are present, except where another form of identification (such as color-coded conductors) is provided. Match identification with marking system used in panelboards, shop drawings, contract documents and similar previously established identification for project electrical work.

C. Operational Identification and Warnings

1. General: Wherever reasonably required to ensure safe and efficient operation and maintenance of electrical systems, and electrically connected mechanical systems and general systems and equipment, including prevention of misuse of electrical facilities by unauthorized personnel, install self-adhesive plastic signs or similar equivalent identification, instruction or warnings on switches, outlets and other controls, devices and covers of electrical enclosures. Where detailed instructions or explanations are needed, provide plasticized tags with clearly written messages adequate for intended purposes.

END OF SECTION 26 0553