Department of Public Works
Engineering Division
James M. Wolfe, P.E., City Engineer

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210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
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Fax: (608) 264-9275
engineering@cityofmadison.com
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Assistant City Engineer
Bryan Cooper, AIA
Gregory T. Fries, P.E.
Chris Petykowski, P.E.

Deputy Division Manager
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

March 12, 2024

NOTICE OF ADDENDUM
ADDENDUM NO. 1
City of Madison, Engineering Department

CONTRACT NO. 9359
Country Grove Park Shelter

This addendum is issued to modify, explain or correct the original Drawings, Specifications, or Contract Documents marked as **Country Grove Park Shelter*, City of Madison, Contract #9359***, ***as issued on February 1, 2024*** and is hereby made a part of the contract documents.

This addendum consists of the following documents:

- **Drawings C1.5, C2.3, C2.4, C2.6, C2.7, C100 & S100**
- **Specification Pages (26 00 00 -1) thru (26 00 00 -6); (32 33 00 -1)**

Please attach these Addendum documents to the Drawings (Exhibit A), Specifications (Exhibit B), and Proposal Specifications in your possession.

1. **GENERAL CONTRACT CONDITIONS**
   A. No Change.

2. **GENERAL QUESTIONS AND ANSWERS**
   A. Q1: Drawing C1.4 - New parking entrance area from the East Pass Street (including the sidewalk) will withstand the load of vehicle traffic. Could a structural detail for this area be provide?

      A1: The driveway entrance shall be constructed in accordance with City of Madison Standard Detail 3.02 and Standard Specifications Article 303. Standard Specifications can be found here: https://www.cityofmadison.com/engineering/developers-contractors/standard-specifications

   B. Q2: Ref Doc 1 – CGC Report - Report indicates the undercutting of the existing soil for the new footings. This is not shown in the drawings, please clarify.

      A2: Structural engineer stated if G.C. follows Geotech report SITE PREP & then have CGC evaluate if soil meets proper compaction.

C. Q3: Drawings C1.1 - Where the topsoil from both areas (new bldg and new courts) can be stockpile?

   A3: Topsoil can be stockpiled anywhere within the boundary of the construction fencing. It is up to the contractor to determine the best location for construction operations. Erosion Control for stockpiles shall be in accordance with Article 210 of the Standard Specifications.

D. Q4: Drawing C2.6 - Please clarify how deep the engineered soil goes.

   A4: The engineered soil goes 2' below the bottom elevation of the basin. Based on soil borings performed, we expect the bottom elevation of the engineered soil to infiltrate into the native sand soil layer.

E. Q5: Structural vs Grading Drawings - Structural drawings indicate a top slab elevation of 100 ft. Grading drawings indicate a top slab elevation of 976. Please clarify.

   A5: Fin. Floor Elevation 976.00' = 100'-0" see attached drawing C1.5 & S100

F. Q6: Drawing C2.0 - Is there is any utility or underground structure between the new building area and the new court's location? Heavy traffic will be required between the locations and going around the playground area.

   A6: There are no utilities crossing the paved path.

G. Q7: Drawing C2.0 - Will the playground area need to be fenced due to the construction equipment going nearby it?

   A7: No

H. Q8: Bid Documents - Will the owner award the job based on the total base bid or separately, based on any of the 3-line items? If the award will be by line item, then they may be redundancy with the General condition cost which will increase the total base bid cost.

   A8: The project will be awarded based on the Total Base Bid.

3. **ACCEPTABLE EQUIVALENTS**
   A. Specification Section 10 21 13 TOILET COMPARTMENTS :
      i. Scranton Hiny Hiders Solid Plastic is an approval to Bradley Phenolic-Series 700 High density polyethylene (HDPE)

4. **SPECIFICATIONS**
   A. Specification Section 26 00 00 Electrical:
      i. Replace entire specification section with new attached section 26 00 00.
         - Section 26 00 00 Electrical, Page 2, 1.04-A, Replace: "City of Kenosha" with "City of Madison".
         - Section 26 00 00 Electrical, Page 2, 1.04-D, Replace with: "Electrical Service Fee: The owner shall secure and pay all fees for new electrical service from electric utility."
         - Section 26 00 00 Electrical, Page 2, 1.04-E, Add: "Electrical contractor shall provide temporary power service and lighting . See also specification 01 50 00 1.4D & 1.4E."
         - Section 26 00 00 Electrical, Page 4, 2.02-A, Replace with: "New Service: New Service is by the City. Alliant Energy contact Krystal

McDermott, 608-852-2311, KrystalMcDermott@alliantenergy.com. Provide new underground 200A, 120/240 volt, 1-phase, 3-wire electric service from pad-mounted transformer as required by the local electric utility (Alliant Energy) and as shown on the Drawings."

- Section 26 00 00 Electrical, Page 4, 2.02-B, Replace: "(MG&E)" with "(Alliant Energy)"

B. Specification Section 32 33 00 Site Furnishings
   i. Replace entire specification section with new attached section 32 33 00.
      - Section 32 33 00 Site Furnishings, Page 1, 2.2A-1, Replace Basis of Design: Madrax Spartan with Graber Madrax UX238-LB-IG(SF) Bike Rack with Lean Bar, 2 Bike.

5. **DRAWINGS**
   A. Civil
      i. **Drawing C1.5:** Replace with attached sheet.
         - Revise Building elevation "976.00" to read "Fin. Floor Elevation 976.00'".
      ii. **Drawing C2.3:** Replace with attached sheet.
         - Basin bottom area increased.
         - Basin bottom elevation changed to 973.50
         - Storm Sewer elevations revised.
         - Revised lengths of Construction Fence and Silt Sock.
      iii. **Drawing C2.4:** Replace with attached sheet.
         - Revised seeding areas
      iv. **Drawing C2.6:** Replace with attached sheet.
         - Basin bottom elevation changed to 973.50
         - Basin storm structure revised.
      v. **Drawing C2.7:** Replace with attached sheet.
         - Changed IE to 973.00
         - Changed standpipes to one 4" and one 6"
         - Changed structure height to 1'-6"
         - Added sawcut "V" to structure

   B. Electrical
      i. **Drawing C100:** Replace with attached sheet.
         - Clarification on proposed new Alliant Energy utility transformer location and electrical service into the park.
   C. Architectural
      i. **Drawing S100:** Replace with attached sheet.
         - Revise Building elevation "976.00" to read "Fin. Floor Elevation 976.00'".

6. **PROPOSAL SPECIFICATIONS**
   A. No Change.

Please acknowledge this addendum in Section E on page E-1: Bidder's Acknowledgement on Bid Express.

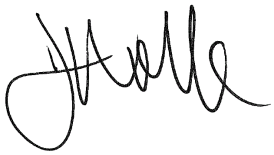
Electronic version of these documents can be found on Bid Express at https://www.bidexpress.com/ and the City of Madison web site at http://www.cityofmadison.com/business/PW/contracts/openforBid.cfm

If you are unable to download plan revisions associated with the addendum, please contact the Engineering office at 608-266-4751 to receive the material by another method.

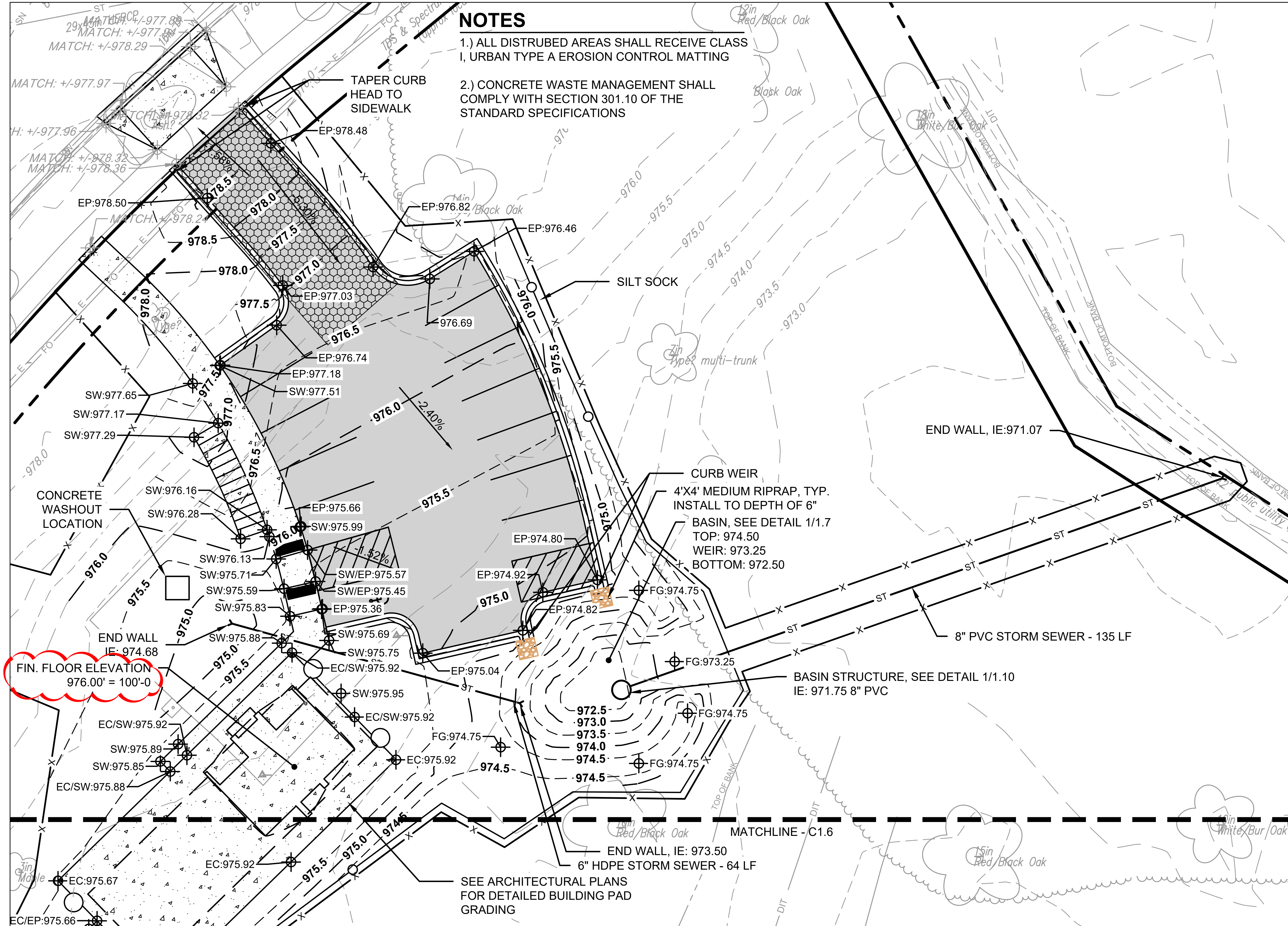
For questions regarding this bid, contact:

The Project Architect for this contract is:	The City Project Manager for this contract is:
Destree Design Architects Richard Dolezal PH: 608-512-1884 Email: Rdolezal@destreearchitects.com	City of Madison Laura Amundson PH: 608-243-5892 Email: LAmundson@cityofmadison.com

Sincerely,



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



TAPER CURB HEAD TO SIDEWALK
EP:978.48
EP:978.50
EP:976.82
EP:976.46
EP:977.03
976.69
SILT SOCK
EP:976.74
EP:977.18
SW:977.51
SW:977.65
SW:977.17
SW:977.29
-2.40%
END WALL, IE:971.07
CURB WEIR
4'X4' MEDIUM RIPRAP, TYP. INSTALL TO DEPTH OF 6"
BASIN, SEE DETAIL 1/1.7
TOP: 974.50
WEIR: 973.25
BOTTOM: 972.50
CONCRETE WASHOUT LOCATION
SW:976.16
SW:976.28
EP:975.66
SW:975.99
EP:974.80
SW:976.13
SW:975.71
SW/EP:975.57
SW/EP:975.45
-1.52%
EP:974.92
SW:975.59
SW:975.83
EP:975.36
EP:974.82
FG:974.75
END WALL IE: 974.68
SW:975.88
SW:975.69
SW:975.75
8" PVC STORM SEWER - 135 LF
FIN. FLOOR ELEVATION 976.00' = 100'-0
EC/SW:975.92
EP:975.04
FG:973.25
BASIN STRUCTURE, SEE DETAIL 1/1.10
IE: 971.75 8" PVC
SW:975.95
EC/SW:975.92
FG:974.75
EC/SW:975.92
SW:975.89
SW:975.85
EC/SW:975.88
FG:974.75
EC:975.92
FG:974.75
MATCHLINE - C1.6
END WALL, IE: 973.50
6" HDPE STORM SEWER - 64 LF
EC:975.92
EC:975.67
EC/EP:975.66
SEE ARCHITECTURAL PLANS FOR DETAILED BUILDING PAD GRADING

NOTES

1.) ALL DISTRUBED AREAS SHALL RECEIVE CLASS I, URBAN TYPE A EROSION CONTROL MATTING

2.) CONCRETE WASTE MANAGEMENT SHALL COMPLY WITH SECTION 301.10 OF THE STANDARD SPECIFICATIONS

City of Madison
Department of Public Works
PARKS DIVISION
330 E. Lakeside St.
Madison, WI 53715

play MADISON PARKS

Graphical Scale
0 20
N

PROJECT:
COUNTRY GROVE PARK SHELTER

PROJECT ADDRESS:
7353 EAST PASS MADISON, WI

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
BID SET	02-07-2024
ADDENDUM #1	03-12-2024

PUBLIC WORKS PROJECT #:
9359

SHEET TITLE:
GRADING AND EROSION CONTROL PLAN

SHEET NUMBER:
C1.5

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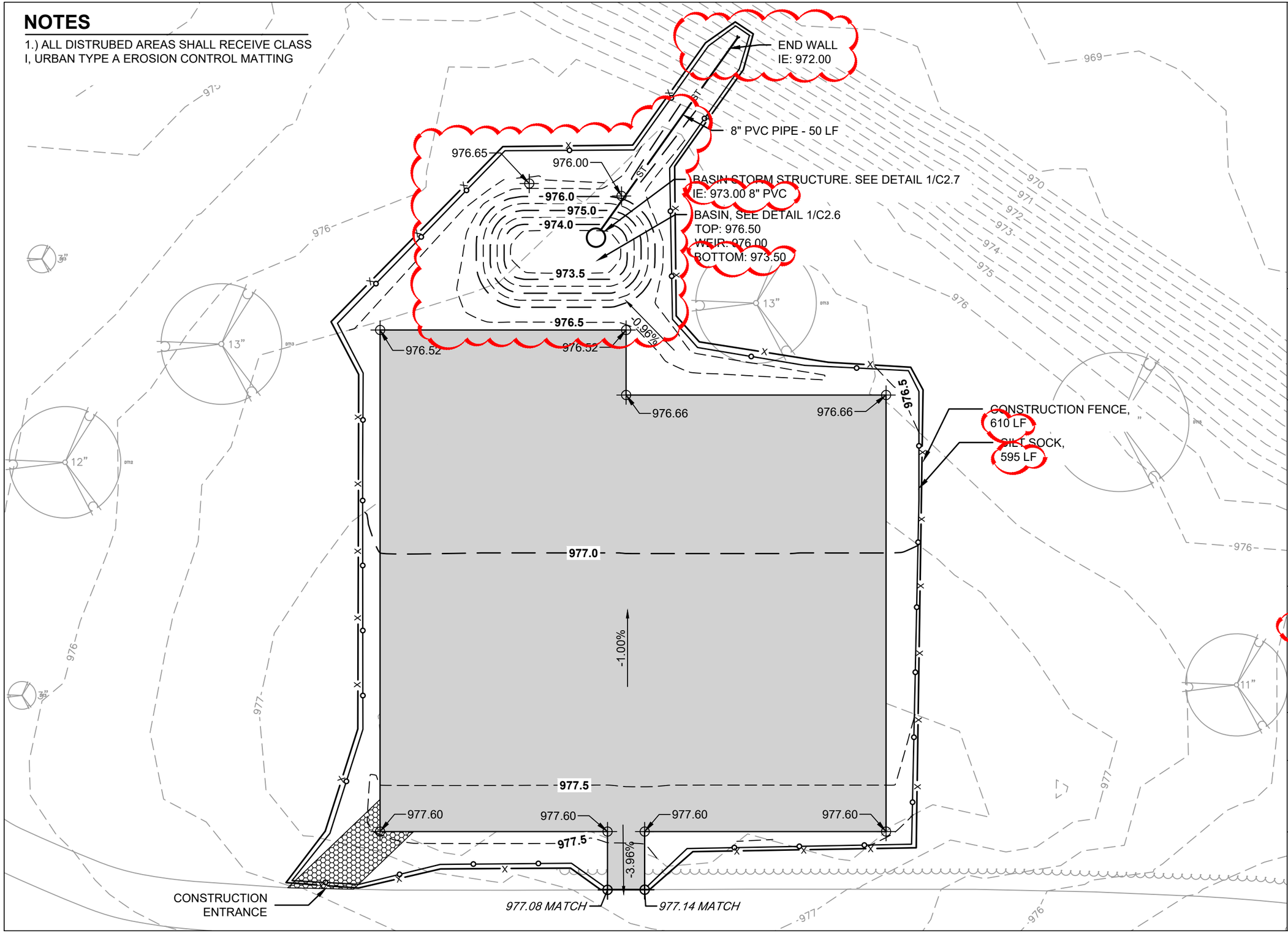
NOTES

1.) ALL DISTRUBED AREAS SHALL RECEIVE CLASS I, URBAN TYPE A EROSION CONTROL MATTING



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Department of Public Works
PARKS DIVISION
330 E. Lakeside St.
Madison, WI 53715

play MADISON PARKS

Graphical Scale
0 20

N

PROJECT:
COUNTRY GROVE PARK SHELTER

PROJECT ADDRESS:
7353 EAST PASS MADISON, WI

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ITEM	DATE
BID SET	02-27-2024
ADDENDUM #1	03-12-2024

PUBLIC WORKS PROJECT #:
9359

SHEET TITLE:
GRADING AND EROSION CONTROL PLAN

SHEET NUMBER:
C2.3

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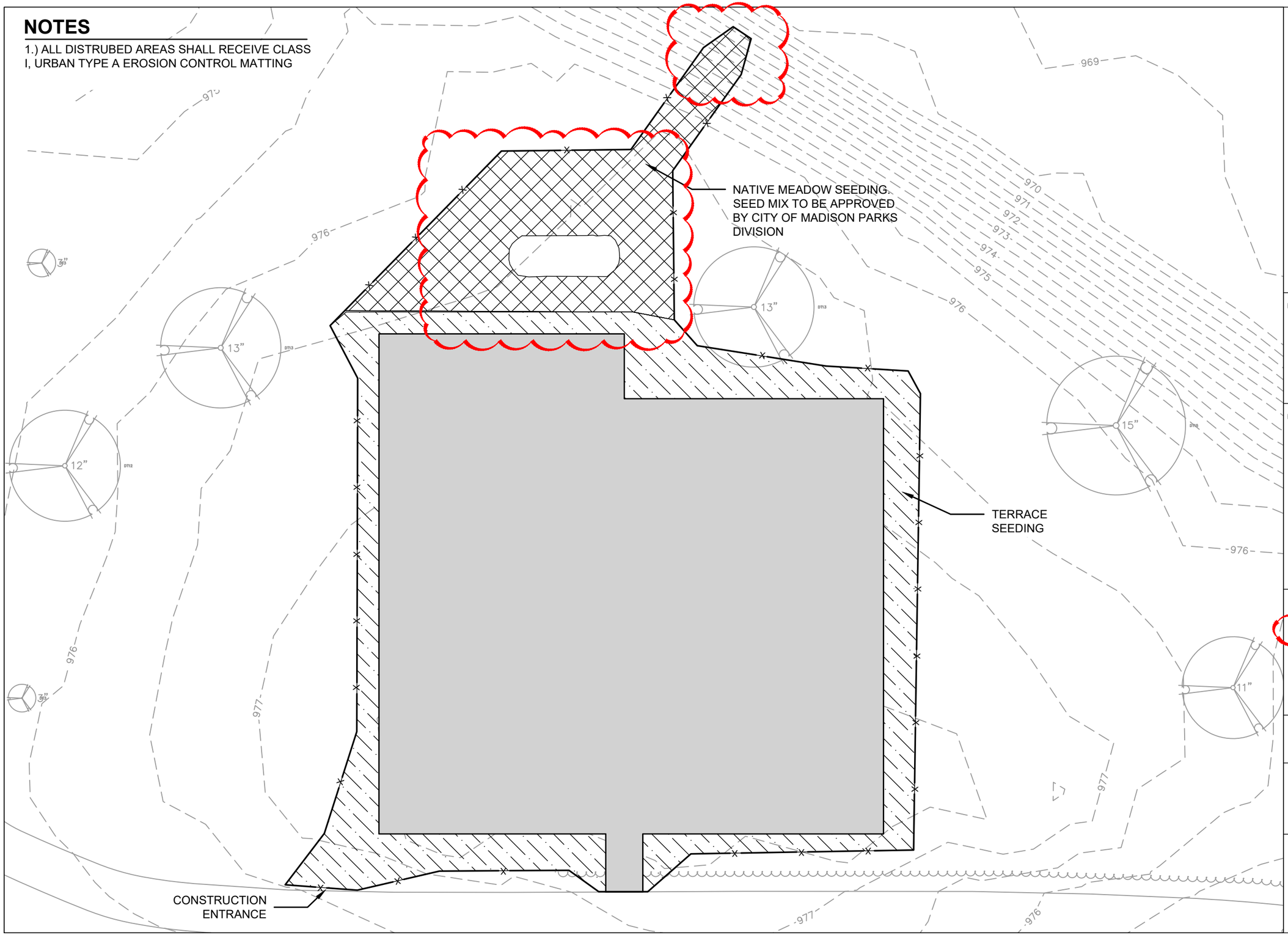
NOTES

1.) ALL DISTRUBED AREAS SHALL RECEIVE CLASS I, URBAN TYPE A EROSION CONTROL MATTING



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PARKS DIVISION
330 E. Lakeside St.
Madison, WI 53715

play MADISON PARKS

Graphical Scale
0 20

N

PROJECT:

COUNTRY GROVE PARK SHELTER

PROJECT ADDRESS:

7353 EAST PASS MADISON, WI

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ITEM	DATE
BID SET	02-27-2024
ADDENDUM #1	03-12-2024

PUBLIC WORKS PROJECT #:

9359

SHEET TITLE:

SITE RESTORATION PLAN

SHEET NUMBER:

C2.4

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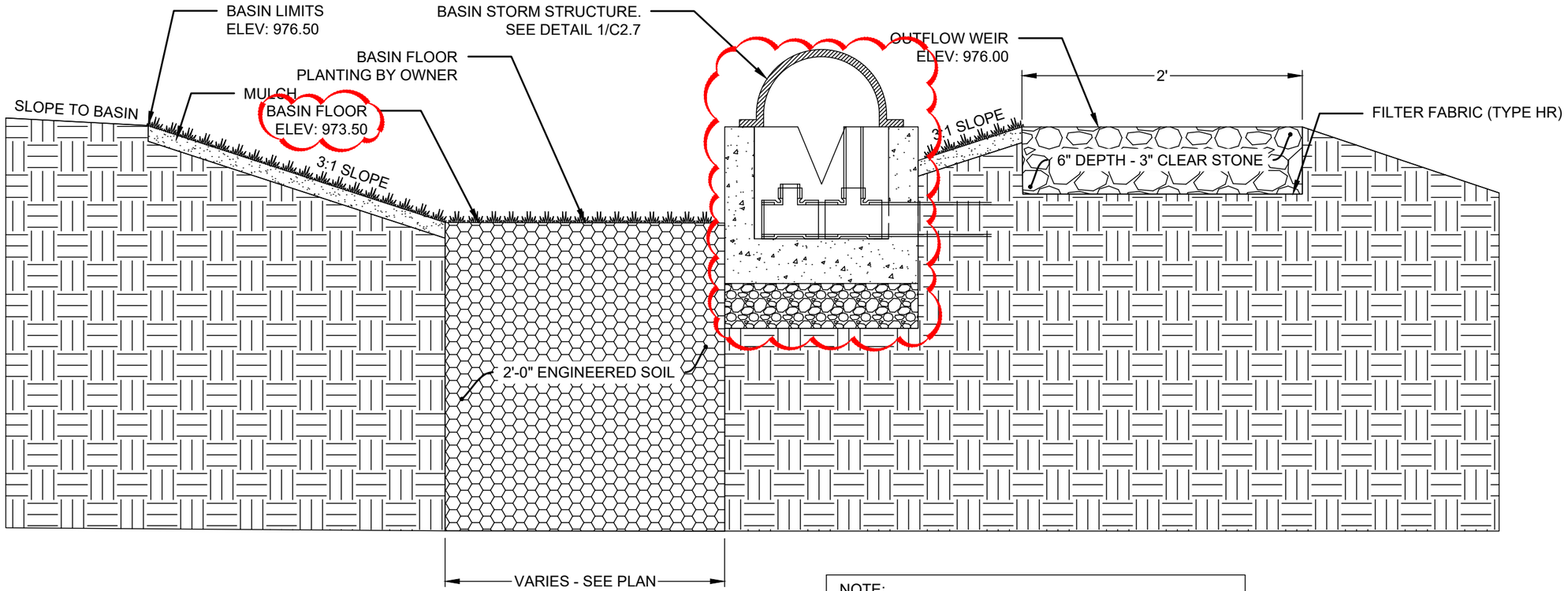

NOTE:
ENGINEERED SOIL: SEE STANDARD SPECIFICATIONS
70-85% PRE WASHED COURSE SAND
15-30% COMPOST PER SPECIAL PROVISIONS

1 BIO-RETENTION BASIN X-SEC (TYP)
NTS

City of Madison
Department of Public Works
PARKS DIVISION
330 E. Lakeside St.
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PROJECT:
COUNTRY GROVE PARK SHELTER

PROJECT ADDRESS:
7353 EAST PASS MADISON, WI

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
BID SET	02-07-2024
ADDENDUM #1	03-12-2024

PUBLIC WORKS PROJECT #:
9359

SHEET TITLE:
COURT BASIN DETAIL

SHEET NUMBER:
C2.6

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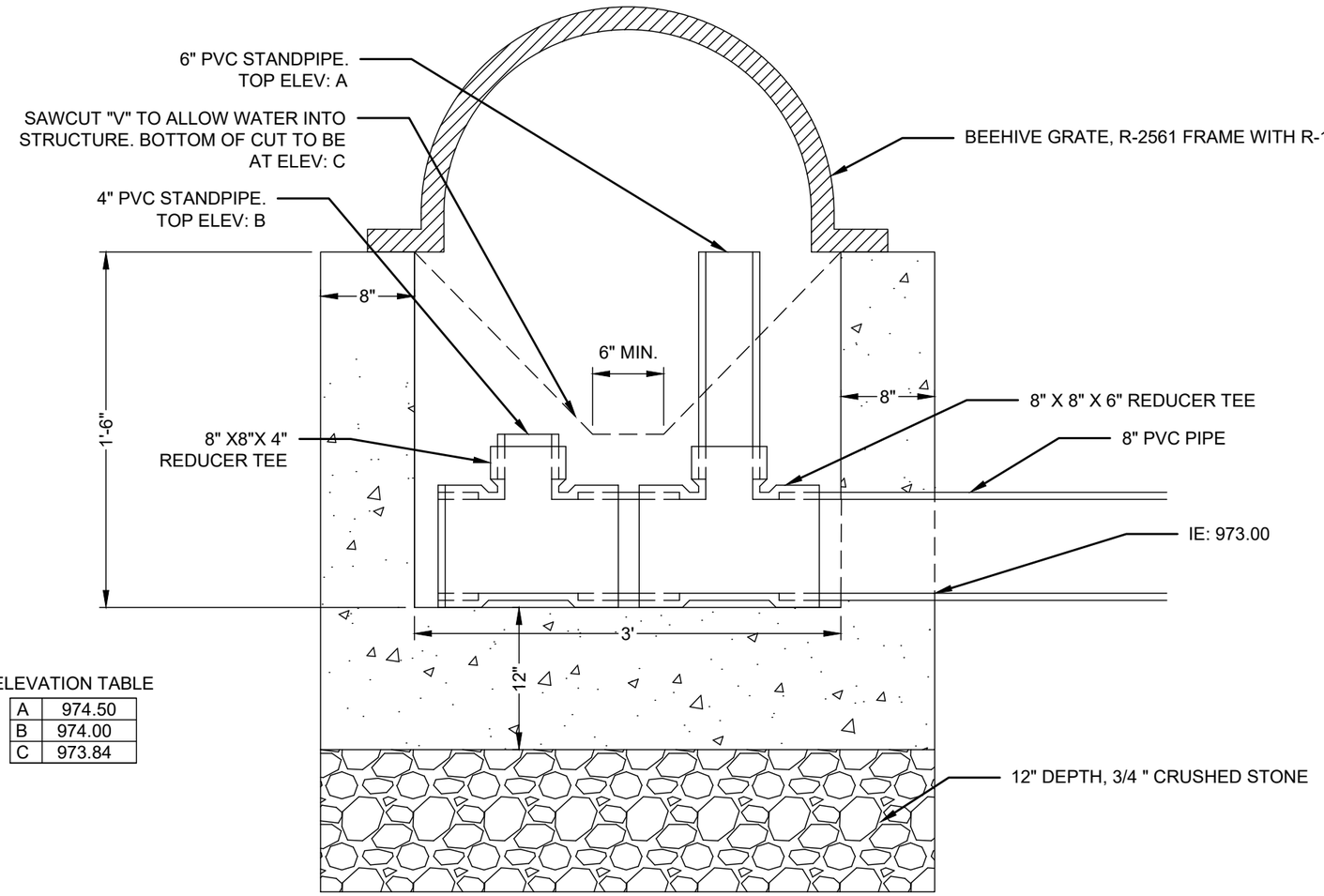

ELEVATION TABLE

A	974.50
B	974.00
C	973.84

1 BIO-RETENTION BASIN STORM STRUCTURE
NTS

City of Madison
Department of Public Works
PARKS DIVISION
330 E. Lakeside St.
Madison, WI 53715

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PROJECT:

COUNTRY GROVE PARK SHELTER

PROJECT ADDRESS:

7353 EAST PASS MADISON, WI

ITEM	DATE
BID SET	02-07-2024
ADDENDUM #1	03-12-2024

PUBLIC WORKS PROJECT #:
9359

SHEET TITLE:
COURT BASIN STRUCTURE

SHEET NUMBER:
C2.7

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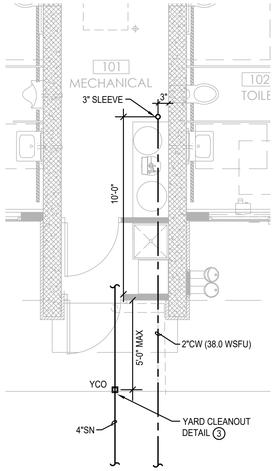
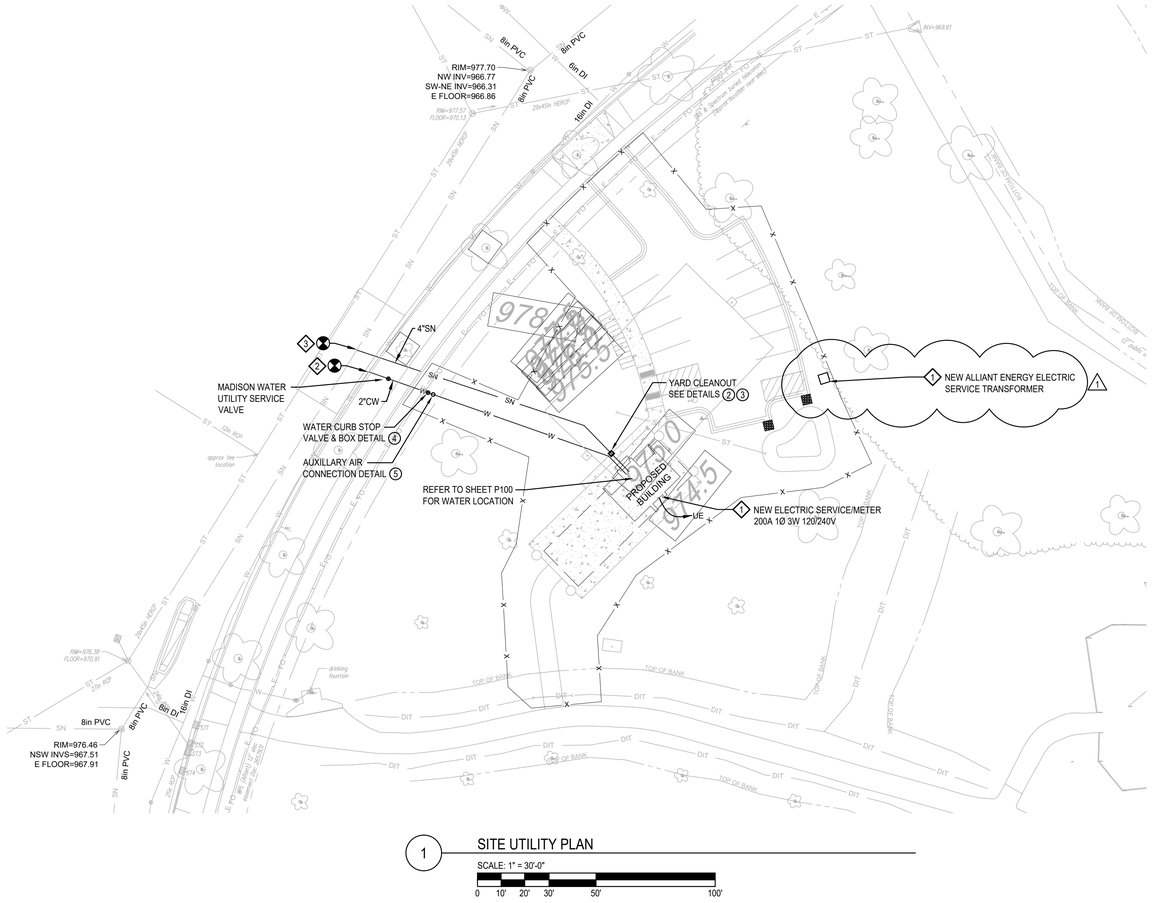
PLOT DATE: 03/12/2024



2 ENLARGED MECH ROOM 101 PLAN

SCALE: 1/4" = 1'-0"

12" 0 1' 5' 10'



1 SITE UTILITY PLAN

SCALE: 1" = 30'-0"

0 10' 20' 30' 50' 100'

SYMBOLS LIST	
SYMBOL	DESCRIPTION
SN	EXISTING SANITARY SEWER
ST	EXISTING STORM
W	EXISTING WATER SERVICE
FO	EXISTING FIBER OPTIC
E	EXISTING ELECTRICAL SERVICE
W	WATER SERVICE
SN	UNDERGROUND SANITARY
UE	UNDERGROUND ELECTRICAL SERVICE
	NEW CONNECTION TO EXISTING

SITE UTILITY PLAN NOTES:

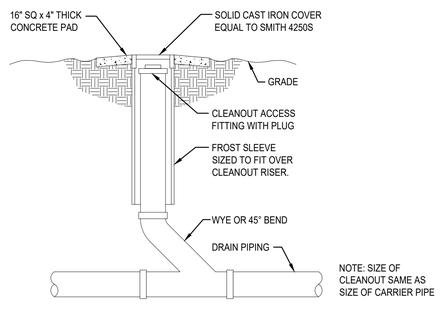
1. ALL SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF MADISON AND WISCONSIN DSPS STANDARDS.
2. WATER SERVICE SHALL BE BURIED TO A DEPTH OF 6 FEET. THE DEPTH IS DEFINED AS THE DISTANCE BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF WATER MAIN OR SERVICE.
3. MAINTAIN AN 8 FOOT MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN PUBLIC SANITARY SEWER, WATER MAIN AND STORM SEWER. PROVIDE 18" MINIMUM VERTICAL SEPARATION WHERE SEWER CROSSES OVER WATER MAIN.
4. ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
5. ALL UNDERGROUND EXTERIOR NON-METALLIC SEWERS AND WATER SERVICES MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE BE LOCATED IN ACCORDANCE WITH 182.0715(2R) OF STATE STATUTES.
6. CONTRACTOR SHALL VERIFY MATERIAL, SIZE, AND INVERT OF SANITARY SEWER, WATER MAIN, AND STORM SEWER PRIOR TO CONSTRUCTION.
7. COORDINATE NEW ELECTRIC SERVICE INSTALLATION WITH ALLIANT ENERGY (KRYSTAL McDERMOTT 608-852-2311). OWNER TO PAY ALL NEW SERVICE FEES.
8. REFER TO SHEET P100 PLUMBING PLAN & SHEET E100 ELECTRICAL PLAN FOR COORDINATION OF SERVICES TO NEW SHELTER.
9. REFER TO DIVISION 33 SPECIFICATIONS AND CITY OF MADISON STD SPECIFICATIONS FOR FURTHER REQUIREMENTS.

SITE UTILITY PLAN KEYED NOTES:

1 COORDINATE FEEDERS TO NEW ELECTRIC SERVICE AND METER WITH ALLIANT ENERGY. COORDINATE EXACT UTILITY TRANSFORMER LOCATION AND UNDERGROUND SERVICE INSTALL DURING CONSTRUCTION.

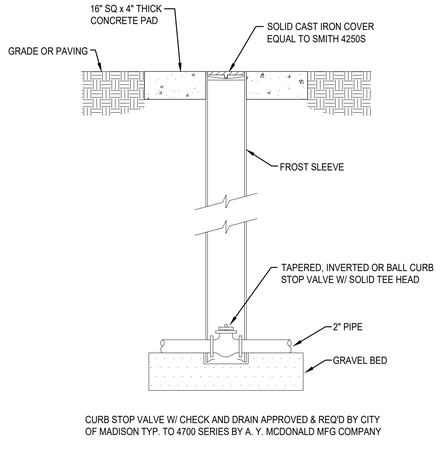
2 EXTEND 2" WATER SERVICE TO NEW SHELTER WITH CURB STOP & AUXILLARY AIR CONNECTION AS DETAILED. VERIFY PROPER DEPTH (6FT) FOR FROST-PROOFING WATER LINE. STUB 2" WATER UP IN MECH RM LOCATION AS INDICATED WITH 3" SLEEVE THRU FLOOR.

3 EXTEND 4" NEW SANITARY TO EXISTING AT STREET. VERIFY FLOW LINE AND ADEQUATE DEPTH. EXPOSE & CONFIRM LATERAL ELEVATION PRIOR TO INSTALLATION OF LATERAL. PROVIDE FROST PROTECTION AS NECESSARY. CONNECT TO MUNICIPAL SEWER LATERAL PER CITY OF MADISON STDS. CONTACT CITY ENGINEERING FOR FURTHER DETAILS.



3 YARD CLEANOUT DETAIL

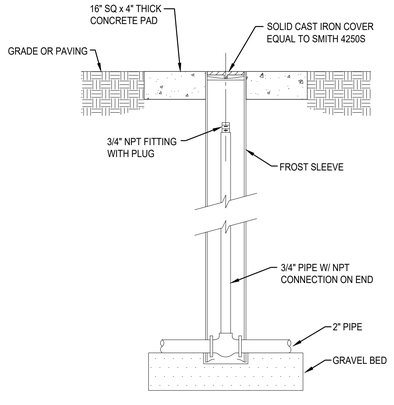
NO SCALE



CURB STOP VALVE W/ CHECK AND DRAIN APPROVED & REQ'D BY CITY OF MADISON TYP. TO 4700 SERIES BY A. Y. MCDONALD MFG COMPANY

4 WATER CURB STOP VALVE & BOX

NO SCALE



5 AUXILLARY AIR CONNECTION DETAIL

NO SCALE

DESTREE
architecture & design
222 WEST WASHINGTON AVE. SUITE 310
MADISON, WI 53703
PH: 608.268.1499
www.Destreearchitects.com

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ECHELON
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3530 TIMBER LANE
CROSS PLAINS, WI 53528

MEP DESIGN SERVICES PROVIDED BY:
Henneman Engineering
Madison:
1241 John Q Hammons Dr, Suite 503
Madison, Wisconsin 53717
T 608.833.7000
Email: info@henneman.com
Website: http://www.henneman.com

JOB NO. 23-10419

COUNTRY GROVE
PARK SHELTER
7353 EAST PASS
MADISON, WI 53719
CONTRACT #9359 / MUNIS #13937

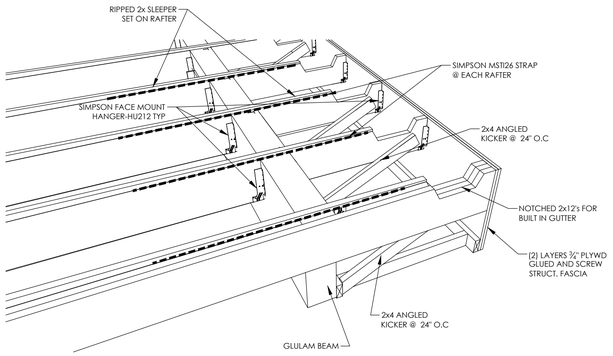
ISSUANCES:

02.01.24 - BID SET
03.12.24 - ADDENDUM #1

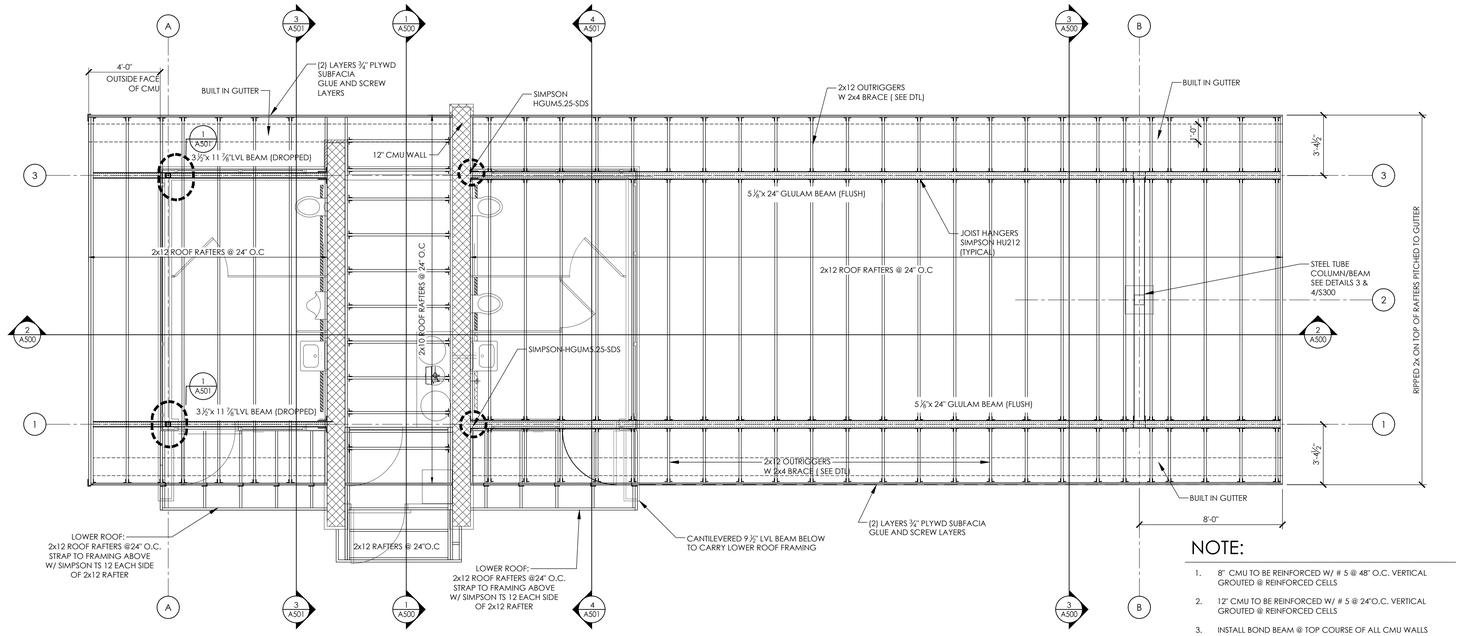
SHEET NAME
SITE UTILITY PLAN

SHEET NUMBER
C100

PLOT DATE: 03/14/2024



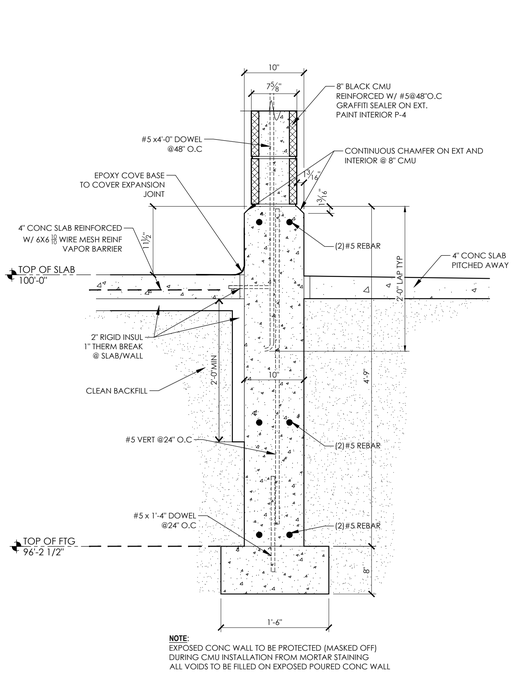
4 BUILT-IN GUTTER DETAIL
3/8" = 1'-0"



2 ROOF FRAMING PLAN
1/4" = 1'-0"

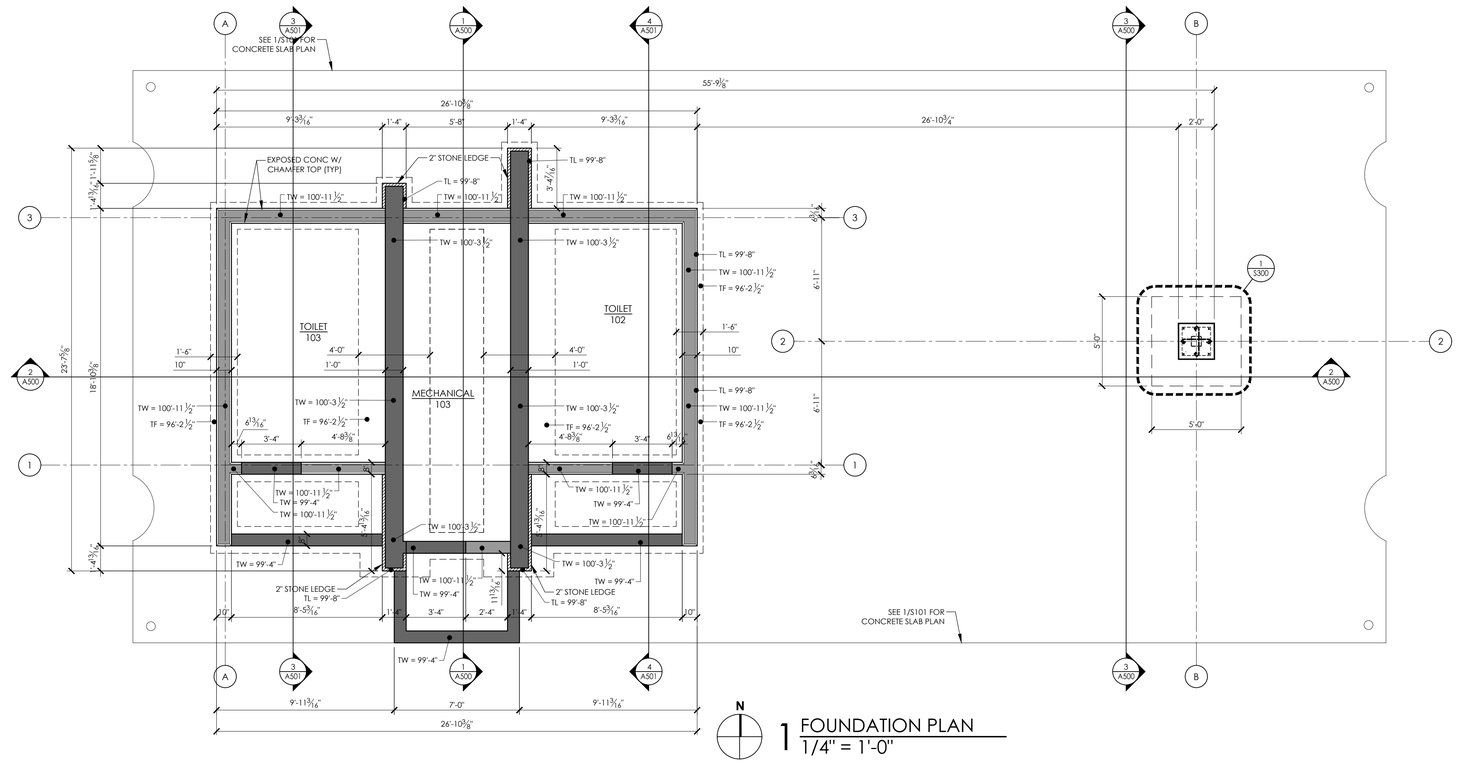
NOTE:

1. 8" CMU TO BE REINFORCED W/ # 5 @ 48" O.C. VERTICAL GROUTED @ REINFORCED CELLS
2. 12" CMU TO BE REINFORCED W/ # 5 @ 24"O.C. VERTICAL GROUTED @ REINFORCED CELLS
3. INSTALL BOND BEAM @ TOP COURSE OF ALL CMU WALLS W/ (2) # 5 BARS CONTINUOUS. INSTALL BOND BEAM @ ALL THROUGH WALL PENETRATIONS. EXTEND 16" PAST OPENING
4. FIN. FLOOR ELEVATION 976.00' = 100'-0"



NOTE:
EXPOSED CONC WALL TO BE PROTECTED (MASKED OFF) DURING CMU INSTALLATION FROM MORTAR STAINING
ALL VOIDS TO BE FILLED ON EXPOSED POURED CONC WALL

3 FOUNDATION DETAIL
1" = 1'-0"



1 FOUNDATION PLAN
1/4" = 1'-0"

DESTREE
architecture & design
222 WEST WASHINGTON AVE. SUITE 310
MADISON, WI 53703
PH: 608.268.1499
www.Destreearchitects.com

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ECHELON STRUCTURES
3530 TIMBER LANE
CROSS PLAINS, WI 53528

MEP DESIGN SERVICES PROVIDED BY:
Henneman Engineering
Madison:
1241 John Q Hammons Dr, Suite 503
Madison, Wisconsin 53717
T 608.833.7000
Email: info@henneman.com
Website: http://www.henneman.com

JOB NO. 23-10419

COUNTRY GROVE
PARK SHELTER
7353 EAST PASS
MADISON, WI 53719
CONTRACT #9359 / MUNIS #13937

ISSUANCES:
02.01.24 - BID SET
03.12.24 - ADDENDUM #1

SHEET NAME
FOUNDATION & FRAMING PLANS & DETAILS

SHEET NUMBER
S100

SECTION 26 00 00
ELECTRICAL

PART 1 – GENERAL

1.01 DESCRIPTION

A. Work *Included:* Provide complete electrical service and distribution system with equipment and materials where shown on the Drawings, as specified herein, and as needed for a complete and proper installation including, but not necessarily limited to:
   1. Underground Electric Service (200-amp, 1-phase, 120/240 volt), service disconnect -meter cabinet with service ground, distribution panel with main circuit breaker, SPD device and branch circuit breakers;
   2. Branch circuit wiring, for lighting, receptacles, motors and equipment;
   3. Lighting fixtures;
   4. Wiring system for equipment and controls provided under other Sections of these Specifications including General Construction, Plumbing and HVAC trades;
   5. Lighting Control System;
   6. Power to new site lighting and new lighting and receptacles at existing shelter.
   7. Power to door operators and electric hand dryers by others.
   8. Hangers, anchor sleeves, chase supports for fixtures, and other electrical materials and equipment;
   9. Demolition and deactivation of electrical systems in existing facilities as noted on Site Drawings.
   10. Other items and services required to complete the electrical systems.

B. Related *Work:*
   1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications;
   2. Equipment structural supports, etc.;
   3. All line voltage control wiring and starter interlocks, where specified;
   4. Final equipment electrical connections.

C. Work *of Other Sections:*
   1. Low-voltage (less than 100 volts) controls for General Construction, Plumbing, and HVAC trades.

1.02 GENERAL PROVISIONS

A. Everything essential for the completion of the work implied to be covered by these Specifications to make the system ready for normal and proper operation must be furnished and installed by this Contractor. Accordingly, any omission from either the plans or the Specifications, or both, of details necessary for the proper installation and operation of the system shall not relieve this Contractor from furnishing such detail in full and proper manner.

B. In addition to the electrical plans, see General Plans of the building, as all electrical work appearing on the latter pl`ans will be part of this contract unless especially specified to be done by other contractors, as well as, the said work detailed on the electrical plans.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work of this Section.

B. Without additional cost to the Owner, provide such other labor and materials as required to complete the work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.

C. Reference Standard: The following standards are imposed, as applicable to the work: 11

ASTM	American Society of Testing and Materials
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association

A. UL Underwriters laboratories

1.04 CODES AND PERMITS

A. The Contractor must comply with national, State of Wisconsin and City of Madison building and electrical codes and other ordinances in force where the building is located as far as same apply to his work.
   1. IBC 2015
   2. IEEC 2015
   3. NEC 2014
   4. Wisconsin Electrical Code SPS Sections

B. He must secure permits from proper offices and pay fees as may be necessary for fulfilling the requirements of these sections.

C. One (1) copy of all permits must be furnished to the Owner.

D. Electric Service Fee: The owner shall secure and pay all fees for new electrical service from electric utility.

E. Electrical contractor shall provide temporary power service and lighting. See also specification 01 50 00 1.4D & 1.4E

1.05 COORDINATION

A. Cooperate and coordinate with other trades to assure that all systems in the electrical work may be installed in the best arrangement. Coordinate as required with all other trades to share space in common areas and to provide the maximum of access to each system.

B. Arrange electrical work in neat, well-organized manner with piping and similar running parallel with primary lines of building construction.

C. Locate operating and control equipment properly to provide easy access and install entire electrical systems with adequate access for operation and maintenance.

D. Give right-of-way to piping which must slope for drainage.

1.06 ELECTRICAL PROVISIONS OF THE MECHANICAL WORK

A. Line Voltage Wiring: The Electrical Contractor shall make all line voltage (100 volts and greater) electrical wiring, final connections and motor wiring for Mechanic equipment.

B. Control Wiring: Low-voltage (less than 100 volts) control wiring in conjunction with Mechanical work shall be by the Mechanical Contractor in strict accordance with the applicable sections of the Electrical Specification.

C. Motors, Starters, and Disconnects: All motors starter and disconnects shall be provided by the Electrical Contractor, unless provided with the equipment or indicated otherwise.
   1. Mechanical Contractors shall furnish list of and location of all Mechanical equipment and requirements for electrical connections, along with wiring diagrams.

1.07 FLOOR, WALL, ROOF AND CEILING OPENINGS.

A. The General Contractor will be required to leave openings in new construction ceiling, floors, walls, roof, partitions, etc., as required to install the Electrical work specified or shown on the Drawings. The Electrical Contractor is responsible for correct size and location of openings.

B. Provisions for openings, holes and clearances through new construction walls, floors, ceilings and partitions are to be made in advance of construction of such parts of the building.

C. The Electrical Contractor shall set sleeves and anchors for all equipment, etc., and shall provide watertight seals on pipes through exterior walls, floors and roof locations, and where noted on the Drawings.

1.08 CUTTING AND PATCHING

A. General: Refer to Division 1 General Requirements.

B. Perform all cutting and patching required for complete installation of the Electrical systems, Unless specifically noted otherwise. Provide all materials required for patching unless otherwise noted.
   1. All cutting and patching necessary of structural members to install any Electrical work shall not be done without permission, and then only carefully done under the direction of the Architect and General Contractor.

1.09 TRENCHING AND BACKFILLING

A. Comply with pertinent provisions of Division 1.

B. Perform trenching and backfilling associated with the work of this Section and in strict accordance with the provisions of Division 2 of the Specifications.

1.10 SUBMITTALS

A. Comply with pertinent provisions of Division 1.

B. Shop Drawing Submittals: Submit six (6) copies of shop drawings to the Architect for approval with complete detail for all equipment, materials, etc., to be furnished and installed for this project follows:

1. Electric Service Equipment;
2. Distribution Panelboards;
3. Starters and Disconnects;
4. Light Fixtures;
5. Electrical Devices.
6. Lighting

C. Shop Drawings:

1. The Electrical Contractor will be held responsible for correction of work deemed necessary by the Engineer due to proceeding with the electrical work without approved shop drawings that have the Architect/Engineers final approval.
2. Shop drawings shall include data on physical dimensions, gauges, materials of construction and capacities. Incomplete drawings will be disapproved.
3. This Contractor will be responsible for all figures, quantities and dimensions shown on the shop drawings.
4. Approval of shop drawings describing equipment that cannot fit in the space allotted does not relieve this Contractor from responsibility of resubmitting equipment that will meet the space requirements.

D. As-built Drawings: Record installation as-built on a set of blueline prints during construction. Plan shall represent actual locations, materials and circuiting of equipment installed.

1.11 PRODUCT HANDLING

A. Comply with pertinent provisions of Division 1.

1.12 WARRANTY

A. In addition to standard one year warranty on all labor and materials, provide an additional warranty on ballasts for all new fluorescent and HID lighting fixtures as specified.

1.13 HOUSEKEEPING AND CLEAN-UP

A. Periodically as work progresses and/or as directed by the Architect, the Contractor shall remove waste materials from the building and leave the area of the workroom clean. Upon completion of work remove all tools, scaffolding, broken and waste materials, etc., from the site.

1.13 HOUSEKEEPING AND CLEAN-UP

B. This Contractor shall provide temporary lighting and power as required throughout the construction period.

C. Arrange for temporary electrical utility with local electrical utility. Electrical Contractor shall pay all temporary electrical service and usage fees.

PART 2 – PRODUCTS

2.01 GENERAL

A. Provide only materials that are new, of the type and quality specified. Where Underwriters' Laboratories, Inc. has established standards for such materials, provide only materials bearing the UL label.

2.02 SERVICE ENTRANCES AND METERING

A. New Service: New Service is by the City. Alliant Energy contact Krystal McDermott, 608-852-2311, KrystalMcDermott@alliantenergy.com. Provide new underground 200A, 120/240 volt, 1-phase, 3-wire electric service from pad-mounted transformer as required by the local electric utility (Alliant Energy) and as shown on the Drawings.

B. Metering: Provide combination service disconnect with ground and metering socket cabinet for exterior mounting and related metering equipment per local electrical utility requirements(Alliant Energy).

Utility approved metering equipment: Milbank U5784-O-200-5T-CB 10

C. Main Switches: Provide a 200-amp main circuit breakers in the service metering cabinet with current limiting capabilities to meet utility AIC requirements.

D. Service Distribution Panel (Panel 'A'):
   1. Provide 200-amp, 1-phase main distribution panel as indicated on plans complete with 200-amp main circuit breaker, 10,000 AIC branch circuit breakers, NEMA 1 enclosure, main service ground and solid neutral buss lugs and other components required for a complete installation.
   2. SPD service device as specified herein and scheduled on Drawings.

2.03 SURGE PROTECTIVE DEVICES

A. The surge protective device (SPD) shall be designated a location Type 2 device intended for installation on the load side of the service equipment overcurrent device, including SPDs located at the branch panel. The SPD shall be Listed in accordance with UL 1449.

B. The SPD shall be made up of metal oxide varistors (MOV's), or a combination of MOV's with selenium cells or silicon avalanche diodes, ensuring that all of the performance requirements are met. Gas tubes shall not be used.

C. The SPD shall have a maximum continuous operating voltage (MCOV) rating not less than 115% of nominal voltage of the system it is protecting.
   1. MCOV = 150 volt. 36

D. Protection Modes: The SPD shall have line to neutral (L-N), line to ground (L-G), line to line (L-L) and neutral to ground (N-G) protection modes for grounded wye configured systems. For a delta configured system, the device shall have line to line (L-L) and line to ground (L-G) protection modes.

E. Voltage Protection Rating (VPR): The UL 1449 Voltage Protection Rating (VPR) for the device shall not exceed the following:
   1. Surge current per phase rating: 80kA
   2. 240/120 volt applications: 900V L-N, 1200V L-G, 700V N-G, 1500 L-L

F. Nominal Discharge Current (In): The SPD shall have a UL 1449 Nominal Discharge Current Rating (In) of not less than 20kA.

G. Short Circuit Current Rating (SCCR): The SPD shall have a UL 1449 Short Circuit Current Rating (SCCR) of not less than 200kA.3

2.04 GROUNDING SYSTEM

PART 3 – EXECUTION

3.01 INSTALLATION

A. Mount motors on a rigid base designed to accept a motor, using metal shims as required under each mounting foot to obtain a secure installation.

B. Inspect and align each motor when direct coupled to the driven device. Alignment shall be within HVAC equipment manufacturer's limits.

C. Perform dynamic balancing and test motors for vibration after manufacture. Self-excited vibration velocity of motors shall not exceed 0.157/0.06 inches per second at bearing caps.

D. Inspect and align each motor when flexible coupled to the driven device. Use a dial indicator to check angular misalignment of the two shafts. Adjust the motor position as required so that the angular misalignment of the shafts does not exceed 0.002" per inch diameter of the coupling hub or the HVAC equipment manufacturer's limits, whichever is more stringent. Use a dial indicator to check the shaft for run-out to assure concentricity of the shafts. Adjust as required so that run-out does not exceed 0.002" per inch diameter of the coupling hub or the HVAC equipment manufacturer's limits, whichever is more stringent.

E. Inspect and align each motor when connected to the driven device by means of a belt drive. Mount motor sheaves on the appropriate shafts as recommended by the equipment and motor manufacturers. Use a straight edge to check alignment of the sheaves. Reposition the sheaves as required to obtain the proper alignment. After the sheaves are aligned, adjust the motor base as required so that the belt(s) can be added and then tighten the motor base so that the belt tension is in accordance with the drive manufacturers recommendations. Frequently check the belt tension during the first 24 hours of operation and again after 80 hours of operation for proper belt tension. Adjust belt tension as required.

3.02 START-UP

A. Test start each motor to verify proper rotation prior to operating system.

B. Lubricate all motors as recommended by motor manufacturer. Record lubrication material used and frequency of use. Include this lubrication log in the Operation and Maintenance manuals.

END OF SECTION

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SECTION 32 33 00
SITE FURNISHINGS

PART 1 – GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data, shop drawings showing installation and color Samples.
B. Maintenance Data: Include recommended methods for repairing damage to the powder coat finish.
C. Store bicycle parking racks in original undamaged packages and containers until ready for installation.
D. Handle powder coated bicycle parking racks with sufficient care to prevent any scratches or damage to the finish.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M, hot-dip galvanized.
B. Steel Pipe: ASTM A 53/A 53M or ASTM A 13, hot-dip galvanized.
C. Steel Tubing: ASTM A 500 0, hot-dip galvanized.
D. Steel Finish: Powder coat, color as selected by City Parks Staff from full line of manufacturer's standard colors.

2.2 SITE FURNISHINGS

A. Bicycle Racks:
   1. Basis of Design: Graber Madrax UX238-LB-IG(SF) Bike Rack with Lean Bar, 2 Bike
   2. Bicycle Rack Construction: Steel galvanized steel tubing
   3. Style: Double-side parking
   4. Installation Method: Surface mount on concrete slab, anchor with 1/2" stainless steel expansion anchors with 3" embedment.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Handle and install bicycle parking racks in accordance with manufacturer's recommendations and installation instructions.
B. General: Anchor bicycle rack securely, positioned at locations and elevations indicated.

END OF SECTION 32 33 00