



OFFICE OF COUNTY MAYOR GLENN JACOBS

Procurement Division, 1000 N. Central Street, Suite 100, Knoxville, TN 37917

Knox County Procurement Division Addendum II to Invitation for Bid 3381 Construction of Lincoln Park Renovation

Addendum Date: March 21, 2023

Buyer: Ben Sharbel

Opening Date: March 23, 2023 at 4:00 PM

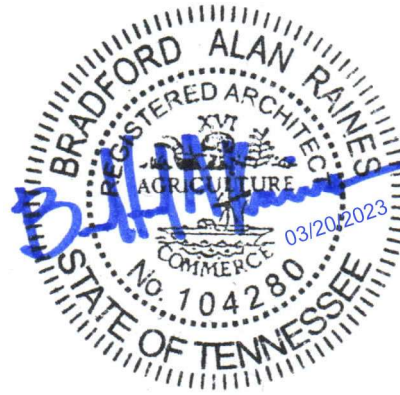
Total Page(s): Ten (10)

1. Please see Addendum II from Sparkman & Associates Architects.

End of Addendum II.

A handwritten signature in blue ink that reads "Ben Sharbel".

Ben Sharbel, CPPO, CPPB
Supervisor of Property Development & Asset Management
Knox County Procurement Division



Bidding Addendum 2

Project: Lincoln Park Renovation

S&A #: 2140-22

Date: March 20, 2023

This Addendum forms a part of the Contract Documents and modifies the Documents dated January 13, 2023 with amendments and additions noted below.

This addendum consists of 2 pages plus the attached 1 drawing sheet and 6 project manual pages.

1.1 Clarifications and RFIs

- A. Question: I have an Electrical contractor who is looking for a Spec on the Cable tray that is to be provided. From what I've seen there is not a spec in the Plans or Job Specifications, Could you Provide a Spec on that?
1. Response: Refer to the attached section 26 05 36 – Cable Trays.
- B. Question: We will not be able to get a drill rig down the exterior stairs into the basement for the soil stabilization work without creating a ramp. Can the existing stair retaining wall be demolished and a ramp built down into the basement for access? After completion of the work the retaining wall would be rebuilt, and the ramp filled in. Are there any additional concerns that need to be accounted for in rebuilding the retaining wall?
1. Response: It is acceptable to demolish the existing concrete retaining wall and construct a temporary ramp for equipment access to the basement. Refer to the attached sheet S1, for criteria for rebuilding the concrete retaining wall.
- C. Substitution Request: 10 21 16.17 – HDPE in lieu of Phenolic Toilet Partitions. Refer to 1.2.D below.
- D. Clarification: The moveable furniture, fixtures, and equipment (FFE) present during the pre-bid meeting held on March 7 is the worst-case quantity of FFE that will be present and required to be removed for demolition. KCS may remove some FFE prior to construction, but no additional FFE will be added.

1.2 Changes to the Project Manual

- A. Unless noted otherwise, replace the following project manual sections with the attached updated sections.
- B. 05 50 00 – Metal Fabrications. Modify paragraphs as indicated below:
1. 2.11. Add “E. Top of bollard may be terminated with hand-formed concrete crown or with a pre-cast, anchored, crowned concrete cap.”
- C. 00 08 71 – Door Hardware. Modify paragraphs as indicated below:

1. Add paragraph: "2.2.A.1.c.iii: Best"
 2. 2.10.A.2.a: Delete "Precision" and replace with "Best"
- D. 10 21 16.17 – Phenolic Toilet Partitions. Modify paragraphs as indicated below:
1. Add the following under 2.2.A "4. Scranton Products"
 2. Add the following to 2.2.O: "4. Solid HDPE partitions from the manufacturers listed under 2.2.A and are acceptable in lieu of solid phenolic partitions. 1" panel thickness.
- E. 26 05 36 – Cable Trays. Add the attached section to the project manual.

1.3 Changes to the Drawings

- A. Add the attached sheet S1 to the drawing set.

1.4 List of Attachments

- A. Project Manual: 25 05 36, dated 3/20/2023.
- B. Drawings: sheet S1, dated 3/20/2023.

End of Bidding Addendum 2

SECTION 26 05 36

CABLE TRAYS

PART 1- GENERAL

1.1 SECTION INCLUDES

- A. Continuous, rigid, welded wire mesh cable management system.

1.2 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code (NEC).
- B. ASTM International (ASTM):
 - 1. ASTM A 123 - Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 2. ASTM A 380 - Specification for Standard Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment, and Systems.
 - 3. ASTM A 510 - Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel.
 - 4. ASTM A 653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality.
 - 5. ASTM B 633 - Specification for Electrodeposited Coatings of Zinc on Iron and Steel.
 - 6. ASTM C 3451 - Specification for Powder Coated Painted Tray.
 - 7. ASTM F 1136 - Standard Specification for Zinc/Aluminum Corrosion Protective Coatings for Fasteners.
- C. IEC 61537 - Cable Tray Systems and Cable Ladder Systems for Cable Management.
- D. NEMA VE 1/CSA C22.2 No. 126.1-02 - Metal Cable Tray Systems.
- E. NEMA VE 2 - Metal Cable Tray Installation Guidelines.
- F. TIA 569-A (1998) - Commercial Building Standard for Telecommunications Pathways and Spaces.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Include dimensions, materials, and finishes, including UL Classification and NEMA/CSA Certification.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods.
- C. Shop Drawings:
 - 1. Submit shop drawings indicating materials, finish, dimensions, accessories, layout, supports, splices, and installation details.
 - 2. Verify loading capacities for supports.

- D. Coordination Drawings: Include floor plans and sections drawn to scale. Include scaled cable tray layout and relationships between components and adjacent structural and mechanical elements. Field verification of all dimensions, routing, etc., is required.
- E. Certification:
 - 1. Submit manufacturer's certification indicating ISO 9001 quality certified.
 - 2. Submit training procedure for certifying cable tray installers.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Certified by manufacturer.
 - 1. Certified Installers: Cable tray installers shall have successfully completed Cablofil's Certified Installer program.
- B. Product Requirements:
 - 1. Source Limitations: Obtain cable tray components through one source from a single manufacturer.
 - 2. Approval and Labeling: Provide cable trays and accessories specified in this Section that are approved and labeled.
 - a. The Terms "Classified" pertaining to cable trays (rather than "Listed") and "Labeled": As defined in NFPA 70, Article 100.
 - b. Listing and Labeling Agency Qualifications: A "Nationally Recognized Testing Laboratory" as defined in OSHA Regulation 1910.7.
 - 3. Comply with NFPA 70, National Electrical Code, Article 392: Cable Trays; provide UL Classification and labels.
 - 4. Comply with IEC 61537, Cable Tray Systems and Cable Ladder Systems for Cable Management.
 - 5. Comply with NEMA VE 1/CSA C22.2 No. 126.1, Metal Cable Tray Systems, for materials, sizes, and configurations; provide cCSAus Certificate and labels.
 - 6. Provide documentation of the following certifications:
 - a. ISO 9001 quality certification.
 - b. American Bureau of Shipping (ABS) Product Design Assessment certification.
 - c. Det Norske Veritas (DNV) certification.
 - d. E 90 Fire Testing certification.
 - 7. Provide UL (or ETL) test documentation showing cable compression/deformation testing.
 - 8. Provide military test documentation showing compliance with the following standards:
 - a. MIL-S-901D (Navy) - Military Specification, Requirements for Shock Tests, High Impact; Shipboard Machinery, Equipment and Systems
 - b. MIL-STD-167-1 (Ships) - Military Standards Mechanical Vibrations of Shipboard Equipment
 - 9. Structural Performance: Cable trays shall be tested and rated for load carrying capacity and safety factors.

- a. Uniform Load Distribution: Capable of supporting a uniformly distributed load on the indicated support span when supported as a simple span and tested according to NEMA VE 1.
- b. Concentrated Load: A load applied at midpoint of span and centerline of tray.
- c. Load and Safety Factors: Applicable to both side rails and rung capacities.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Avoid breakage, denting and scoring finishes. Damaged products shall not be installed. Store cable trays and accessories in original cartons and in clean dry space; protect from weather and construction traffic. Wet materials will be unpacked and dried before storage.
- B. Store products in manufacturer's unopened packaging until ready for installation.
- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 COORDINATION

- A. Coordinate layout and installation of cable tray with other installations.
 - 1. Revise locations and elevations from those indicated as required to suit field conditions and as approved by the Architect.

PART 2- PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Cablofil®, which is located at: 8319 State Rte. 4 ; Mascoutah, IL 62258; Toll Free Tel: 800-658-4641; Tel: 618-566-3230; Fax: 618-566-3250; Email: request info (info@cablofil.com); Web: www.legrand.us/Cablofil.aspx
- B. Substitutions: Equal systems by other manufacturers will be considered.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 WIRE MESH CABLE TRAY

- A. Cable tray shall consist of continuous, rigid, welded steel wire mesh cable management system, to allow continuous ventilation of cables and maximum dissipation of heat, with UL Classified splices where tray acts as Equipment Grounding Conductor (EGC). Wire mesh cable tray will have continuous Safe-T-Edge T-welded top side wire to protect cable insulation and installers.
 - 1. Cable tray systems shall include, but are not limited to, straight sections, supports and accessories.
 - 2. Product: Cablofil CF (or ZF) Series Cable Tray as manufactured by Legrand.
 - 3. Provide splices, supports, and other fittings necessary for a complete, continuously grounded system.
 - a. Mesh: 2 by 4 inches (50 by 100 mm).

- b. Straight Section Lengths: 118 inches (3,000 mm).
 - c. Wire Diameter: Patented design includes varying wire sizes to meet application load requirements; to optimize tray strength; and to allow tray to remain lightweight.
 - d. Safe-T-Edge: Patented Safe-T-Edge technology on side wire to protect cable insulation and installers' hands.
 - e. Fittings: Wire mesh cable tray fittings shall be field-fabricated from straight tray sections, in accordance with manufacturer's instructions.
 - f. Tape: Painted wire mesh cable tray to include metallic conductive UL tape.
4. Wire-Basket Depth: 4-inch (200-mm) usable loading depth.
 5. Wire-Basket Width: 12-inch (600-mm) usable loading width.
 6. Length: Cable tray section length shall be 118.1 inches (3000 mm) unless otherwise shown on drawings.
 7. Cable Tray Material: Carbon steel wire, ASTM A 510, Grade 1008. Wire welded, bent, and surface treated after manufacture.
 - a. Electrodeposited Zinc Plating: ASTM B 633, Type III, SC-1.
 8. Cable Tray Material: Stainless steel wire, AISI 304L or AISI 316L, 2B, finished cold drawn wire.
 - a. Finish for Stainless Steel Wire: Passivated according to ASTM B 380.
 9. Load Span Criteria:
 - a. Install and support cable management system in accordance with NEMA VE-1, with Safety Factor of 1.5.
 - b. Cable tray will be capable of carrying a uniformly distributed load of 25 pounds per foot on an 8 foot (2.4 m) support span, according to load tests of standard specified.
 10. Fittings/Supports: Wire mesh cable tray fittings are field-fabricated from straight tray sections, in accordance with manufacturer's instructions. Supports shall include the FAS (Fast Assembly System) where possible so that screws, bolts, and additional tools are not required for cable tray mounting to reduce installation time; and tray path can adapt to installation obstacles without the need for additional parts. Place supports so that support span does not exceed that shown on the drawings and is capable of supporting total fill capacity loading.
 - a. Ceiling-mounted supports mount to ceiling structure directly or with threaded rod sized for total fill capacity.
 - b. Wall-mounted supports.
 - c. Underfloor supports mount directly to floor or to floor posts.
 - d. Splices, including those approved for electrical continuity (bonding), as recommended by cable tray manufacturer.

PART 3- EXECUTION

3.1 EXAMINATION

- A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of cable trays. Do not proceed with installation until unsatisfactory conditions have been corrected.

- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation..
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 CABLE TRAY INSTALLATION

- A. Comply with recommendations in NEMA VE 2. Install as a complete system, including all necessary fasteners, hold-down clips, splice-plate support systems, barrier strips, hinged horizontal and vertical splice plates, elbows, reducers, tees, and crosses.
- B. On jobs over 300 feet (90 m) in total length, installers must be certified and trained by manufacturer.
- C. Remove burrs and sharp edges from cable trays. All wire mesh tray must be manufactured with top wire safety edge design.
- D. Fasten cable tray supports to building structure and install seismic restraints. Underfloor cable tray shall be installed with adjustable floor supports that do not attach rigidly to floor posts. Supports shall be free standing and shall be usable with 24 inch (610 mm) sections or 120 inch (3048 mm) sections of cable tray.
 - 1. Design each fastener and support to carry load indicated by seismic requirements.
 - 2. Design each fastener and support to comply with seismic-restraint details according to Division 26 Section "Vibration and Seismic Controls for Electrical Systems."
 - 3. Place supports so that spans do not exceed maximum spans on schedules.
 - 4. Construct supports from channel members, threaded rods, and other appurtenances furnished by cable tray manufacturer. Arrange supports in trapeze or wall-bracket form as required by application.
 - 5. Support bus assembly to prevent twisting from eccentric loading.
 - 6. Manufacture center-hung support, designed for 60 percent versus 40 percent eccentric loading condition, with a safety factor of 3.
 - 7. Locate and install supports according to NEMA VE 2.
- E. Make connections to equipment with flanged fittings fastened to cable tray and to equipment. Support cable tray independent of fittings. Do not carry weight of cable tray on equipment enclosure.
- F. Install expansion connectors where cable tray crosses building expansion joint and in cable tray runs that exceed dimensions recommended in NEMA VE 2. Space connectors and set gaps according to applicable standard.
- G. Make changes in direction, connections and elevation using manufacturer recommended fittings.
- H. Workspace: Install cable trays with enough space to permit access for installing cables.

3.4 FIELD QUALITY CONTROL

- A. After installing cable trays and after electrical circuitry has been energized, survey for compliance with requirements. Perform the following field quality-control survey:

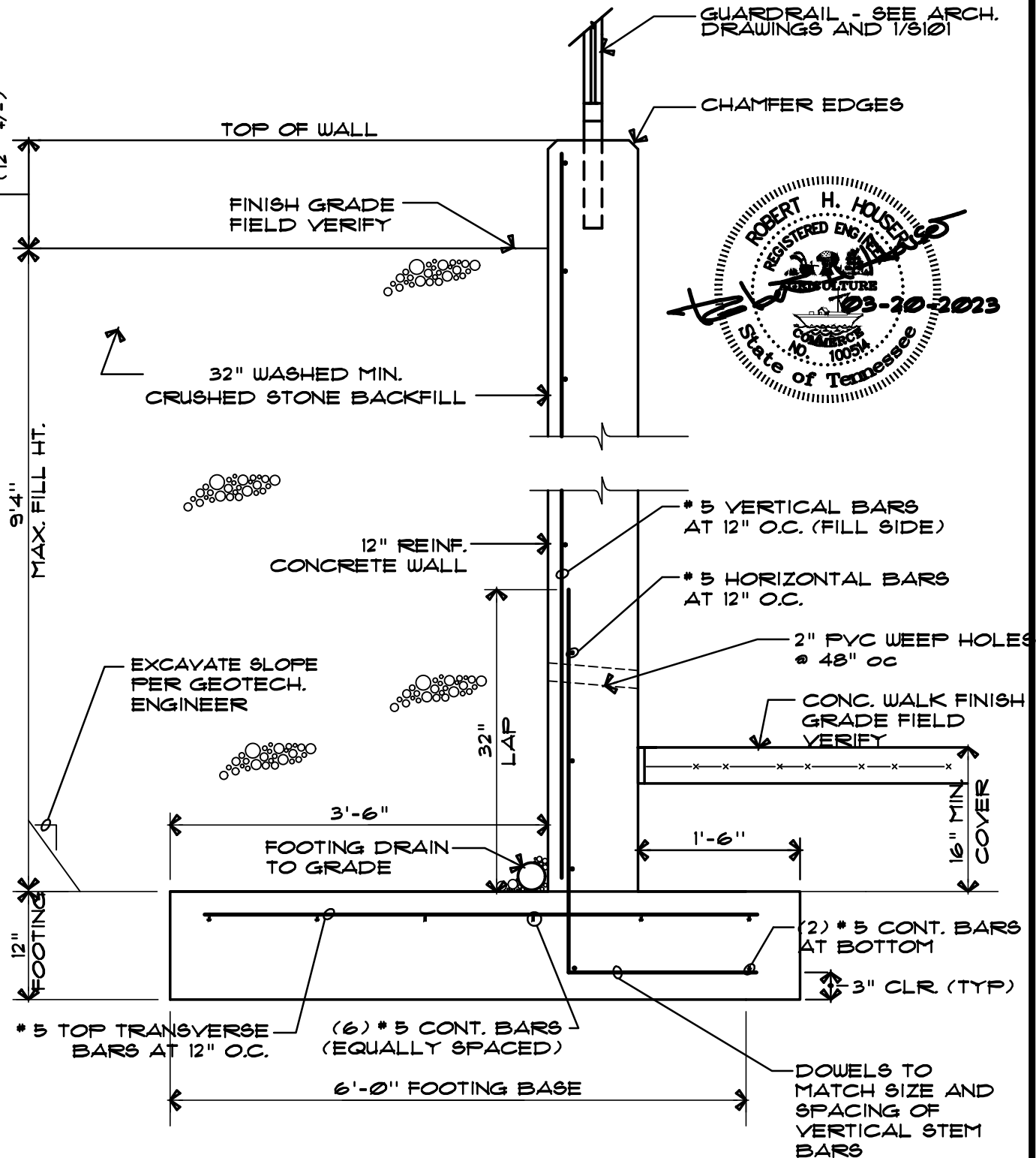
1. Visually inspect cable insulation for damage. Correct sharp corners, protuberances in cable tray, vibration, and thermal expansion and contraction conditions, which may cause or have caused damage.
2. Verify that the number, size, and voltage of cables in cable tray do not exceed that permitted by NFPA 70. Verify that communication or data-processing circuits are separated from power circuits by barriers.
3. Verify that there is no intrusion of such items as pipe, hangers, or other equipment that could damage cables.
4. Remove deposits of dust, industrial process materials, trash of any description, and any blockage of tray ventilation.
5. Visually inspect each cable tray joint and each ground connection for mechanical continuity. Check bolted connections between sections for corrosion. Clean and re-torque in suspect areas.
6. Check for missing or damaged bolts, bolt heads, or nuts. When found, replace with specified hardware.
7. Perform visual and mechanical checks for adequacy of cable tray grounding; verify that all takeoff raceways are bonded to cable tray. Test cable tray in accordance with NFPA 70B Chapter 18 and verify cable tray is bonded with a total resistance less than 5 ohms.

3.5 PROTECTION

- A. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SEE ARCH. DIGG'S FIELD VERIFY MATCH EXIST (12" +/-)



1 SECT. AT RETAINING WALL @ BASEMENT ENTRANCE
 S1 SCALE: 3/4" = 1'-0"

BENDER AND ASSOCIATES
 STRUCTURAL ENGINEERS L.L.C.
 NO. 110 FOREST CT. - KNOXVILLE, TENNESSEE
 PHONE (865) 584-6532

9'-4" FT CONCRETE RETAINING WALL
 LINCOLN PARK RENOVATIONS
 PRE-BID WALL OPTION
 ●BASEMENT ENTRANCE
 SPARKMAN AND ASSOC. ARCHITECTS, INC.

DRAWN KC
 CHECKED RHH
 DATE 3.20.23
 SCALE 3/4" = 1'-0"
 JOB NO. -

SHEET
S1
 OF 1 SHEETS