



LAKE COUNTY FOREST PRESERVES

Preservation, Restoration, Education and Recreation

DATE: November 9, 2017

ADDENDUM NO. 2

INVITATION FOR BID NO. 18001

PROJECT: 64811-18001-874

BID OPENING DATE: November 16, 2017

BID OPENING TIME: 10:00 am local time

Please note the following clarifications, revisions, and additions to the bid documents:

1. QUESTION: Does the spiral stair have to match the specified decking and wire mesh panels?

ANSWER: Spiral stair treads must be galvanized steel, but they do not necessarily have to be the same material as the perforated decking. Spiral stair railing and balusters must be galvanized pipe but do not have to match the wire mesh panels used elsewhere. The tread must comply with the drawing specifications including being a non-slip material, ADA compliant and open or perforated to prevent icing. All materials must be submitted to the Owner for approval during the shop drawing process.

2. QUESTION: Please provide a specification and drawing for the lightning protection system.

ANSWER: See drawing, "ADD-2.2 Lightning Protection Plan"

3. QUESTION: Do you have any loading information? I can assume from the nominal capacity shown in the geotech report that each pile has a 20 Kip design load, but I would like to be sure. I would also like to know if we need to design for lateral or uplift loads.

ANSWER: See drawing, "ADD-2.1 Pier Loading Plan". The design accommodates lateral and uplift loads.

4. QUESTION: I think that helical piers would be a cheaper and easier option than timber piles here; would you be interested in an alternate proposal for helicals? One of the big savings here would be on mobilization and access, as you would only need a small excavator versus a diesel hammer and crane.

ANSWER: Bids should be based upon the currently advertised design. Alternates may be submitted by the successful bidder for consideration by the Owner. Round wood timber piles are most commonly used locally as footings for boardwalks as commonly seen at golf courses and forest preserves and are driven to resistance using a vibratory head mounted to the excavating boom of a combination tractor. Large impact pile driving equipment is typically not required. The Owner has utilized the following companies to perform wood pile driving for boardwalks in the past:

A. DFI Bridge; Palm Bay, FL; 866-727-7100; Attn: Dan Hughes
dan@dfibrige.com

B. Nature Bridges; Monticello, FL; 850-997-8585; estimating@naturebridges.com

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- C. Signature Bridge; Mentor, OH; 800-409-8070;
tina.buehner@signaturebridge.com
- D. Thatcher Foundations, Inc.; Gary, IN; 773-721-9797;
info@thatcherfoundations.com
- E. York Bridge Concepts; Lutz, FL; 888-610-5640; jledbetter@ybc.com

5. QUESTION: Do you anticipate any access issues? If so will you be responsible for crane mats?

ANSWER: See Attachment D – Special Project Requirements, #1. The Structure Contractor may be required to coordinate access with the Trail Contractor. The Structure Contractor will have access from 7th Street to the structure work area along the 14’ wide trail. The trail surface will be the base material (milled asphalt); final placement of the trail surface will occur after the structure has been completed. The Structure Contractor is responsible to provide the ground surface protection described in Att. D: *“It is intended that the existing vegetation in the work area be protected from disturbance as much as possible. During all stages of the work, the ground surface shall be protected by sheeting, plywood or heavy equipment mats. No rutting or significant disturbance of the existing soil surface shall be permitted.”*

6. QUESTION: Should we include for our own layout?

ANSWER: The Owner will provide control points for surveying. The Contractor is responsible for layout of the structure.

7. QUESTION: Is this job tax exempt?

ANSWER: Yes.

8. QUESTION: The drawings call for treated timber pile, but there are no specs for the treatment. Our timber pile supplier has notified me that the common treatment (CSA) uses arsenic, but that this usually isn’t allowed when the piles are above grade and not covered. Are there any specifics on what type of treatment the piles need?

ANSWER: See Sheet No. A-2, Timber Piles - #9 Treatment: Round timber piles shall be preservative-treated in accordance with AWPA standard U1, commodity specification E and meeting the requirements of use category 4C (UC4C) with a minimum retention of .80 pounds per cubic foot (PCF). CCA is acceptable.

9. QUESTION: Please confirm if we must figure ALL steel on job must be galvanized.

ANSWER: Yes. All steel is to be galvanized. All field connections to be mechanically fastened. Refer to the revised Structural Steel and Miscellaneous Metal Notes (item 14 of this addendum). Structural Steel note 9.G. has been removed.

10. QUESTION: Note 17 per sheet A-2 is calling out the “decking” as 12” wide 11 ga planks similar to McNichol’s traction tread, @ 1 1/2” deep, however section 2/A6 calls it out as 2” deep. Can you please confirm with architect which he wants us to use & if he’s comfortable with loads attached, per whichever he chooses?

ANSWER: Structural Steel and Miscellaneous Metal note #17 has been revised. See Item 14 of this Addendum.

11. QUESTION: Also, we don't think the traction tread, which is also specified @ the upper/ circular platform per A6 will work there. The supporting channel portion of the planks would be cut off at end planks @ outer edge & @ center stair opening, no matter which way we'd span it, as they would have to be cut to match platform radius. A grating sales rep I spoke with suggested an ADA compliant grating would make more sense. If architect agrees, we need him to specify the size, and confirm if he'd then want us to revise the walkways to match.

ANSWER: Although not shown in the details, it is understood that some perimeter conditions will require a custom fabricated decking plank and additional support, which shall be determined by the contractor. These custom planks shall be fabricated from Traction Tread material with additional steel shapes added for support. The final determination of supports will be resolved in the shop drawing phase.

12. QUESTION: ...have since gotten rough square foot pricing on at least one type of the close mesh grating vs the traction tread, & as the close mesh grating appears to be 2-3 times the cost, I'm guessing the architect/ forest preserve district would not want to go that route, at least not on the entire job, if you want to pass that along.

ANSWER: See answer to Question 10.

13. QUESTION: Also, after thinking about it, we could possibly modify our steel to make the traction tread work @ the upper/ circular platform, but would appreciate getting confirmation of the size we should be pricing, that will handle whatever loads the architect deems necessary for the required spans

ANSWER: See answer to Questions 10 and 11.

14. DELETE: "Structural Steel, & Miscellaneous Metal:", notes, sheet A-2.

REPLACE WITH: "Structural Steel, & Miscellaneous Metal:", notes, sheet ADD-2.3



Please **sign** this form and **return original** with your **bid**.

Sincerely,

Christine F. Miller
Purchasing Manager

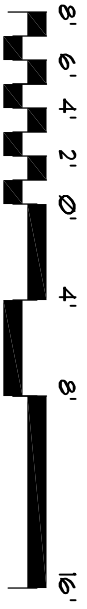
Acknowledged and Accepted:

Signature: _____

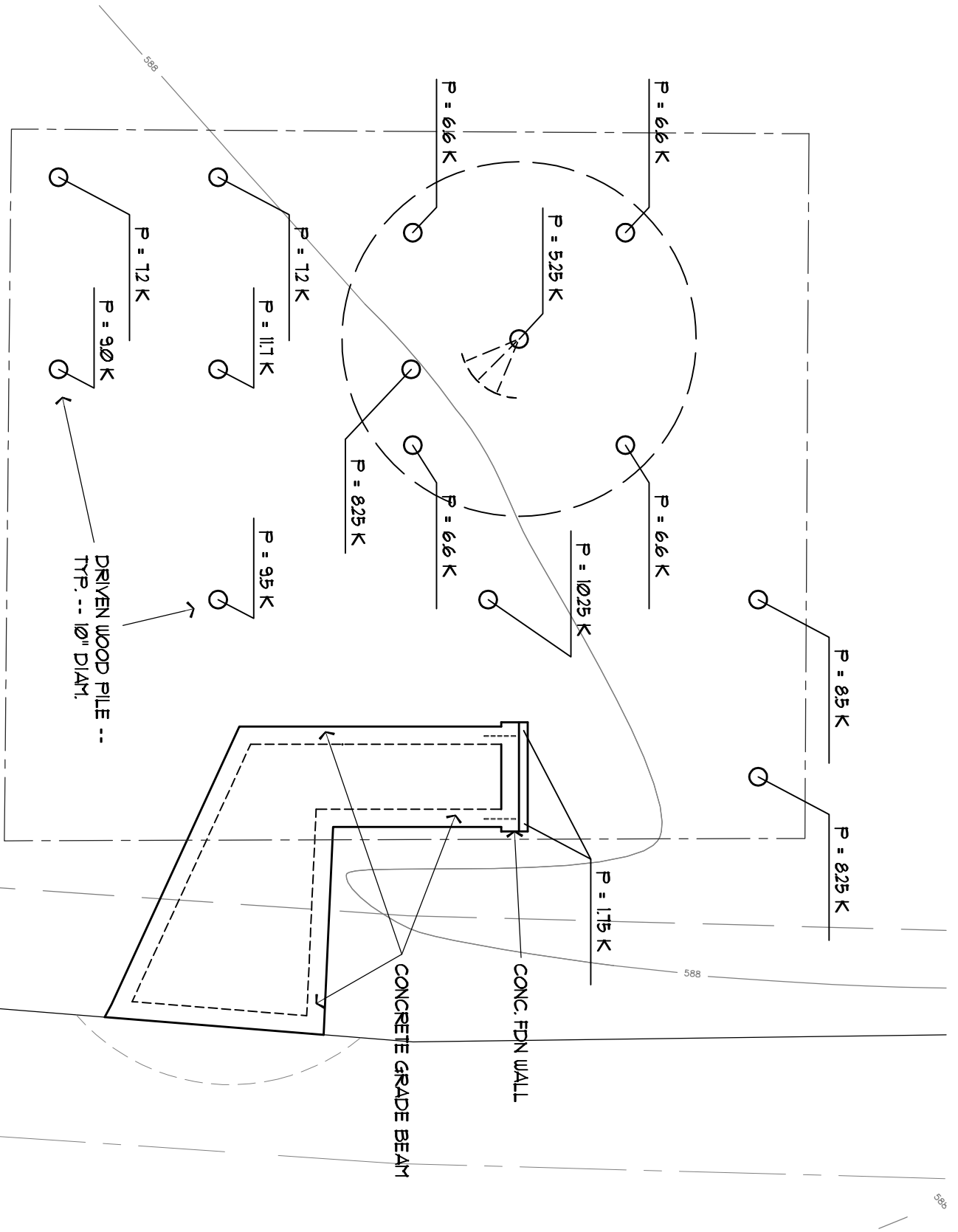
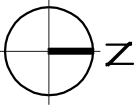
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SCALE:

PIER LOADING PLAN



1/8" = 1'-0"



SPRING BLUFF OBSERVATION PLATFORM

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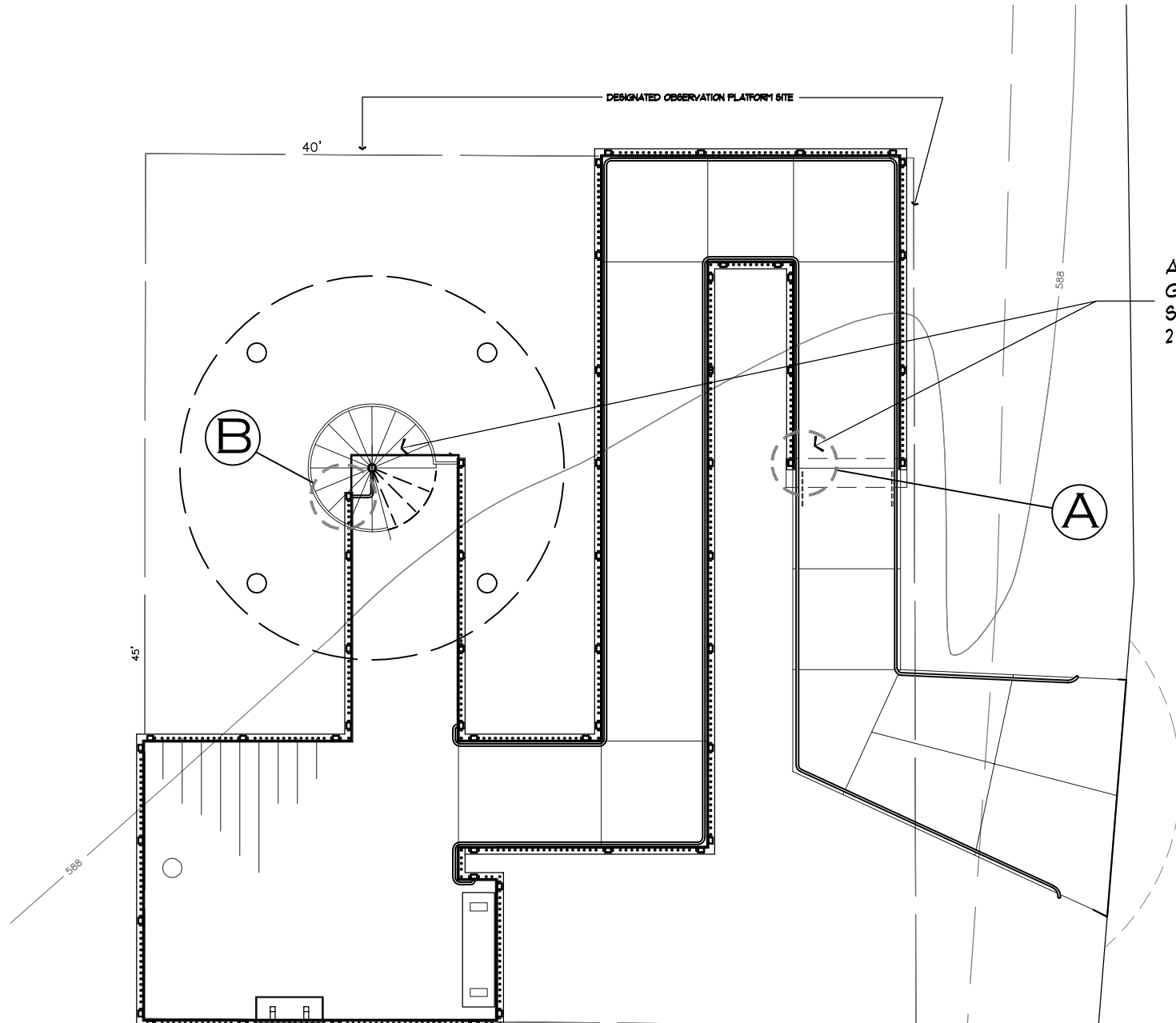
1899 W. WINCHESTER RD.
LIBERTYVILLE IL 60048

ADD-2.1

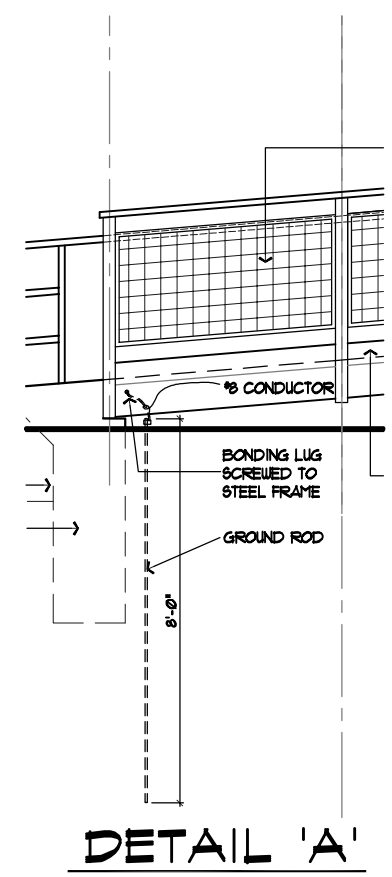
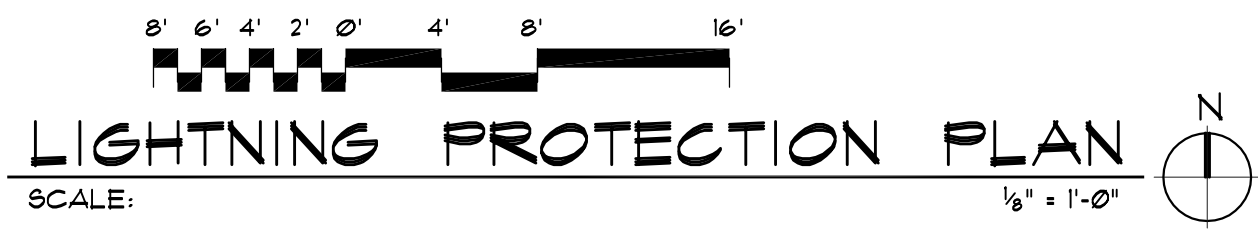
NOVEMBER 3, 2017



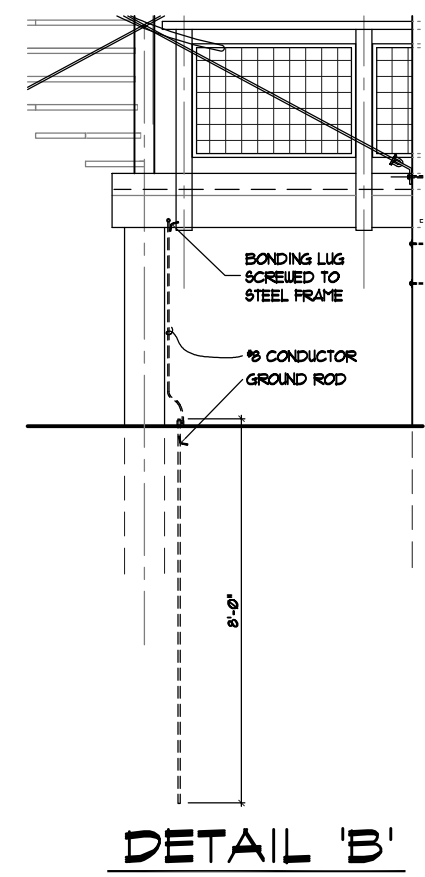
WELLS P. WHEELER, ARCHITECT
 ° A.L.A. ° N.C.A.R.B. °
 1100 NORTH WAUKEGAN ROAD
 LAKE FOREST ° ILLINOIS ° 60045
 847 604 8819 ° CEL: 847 804 0487
 EMAIL: WWARCH@SBCGLOBAL.NET



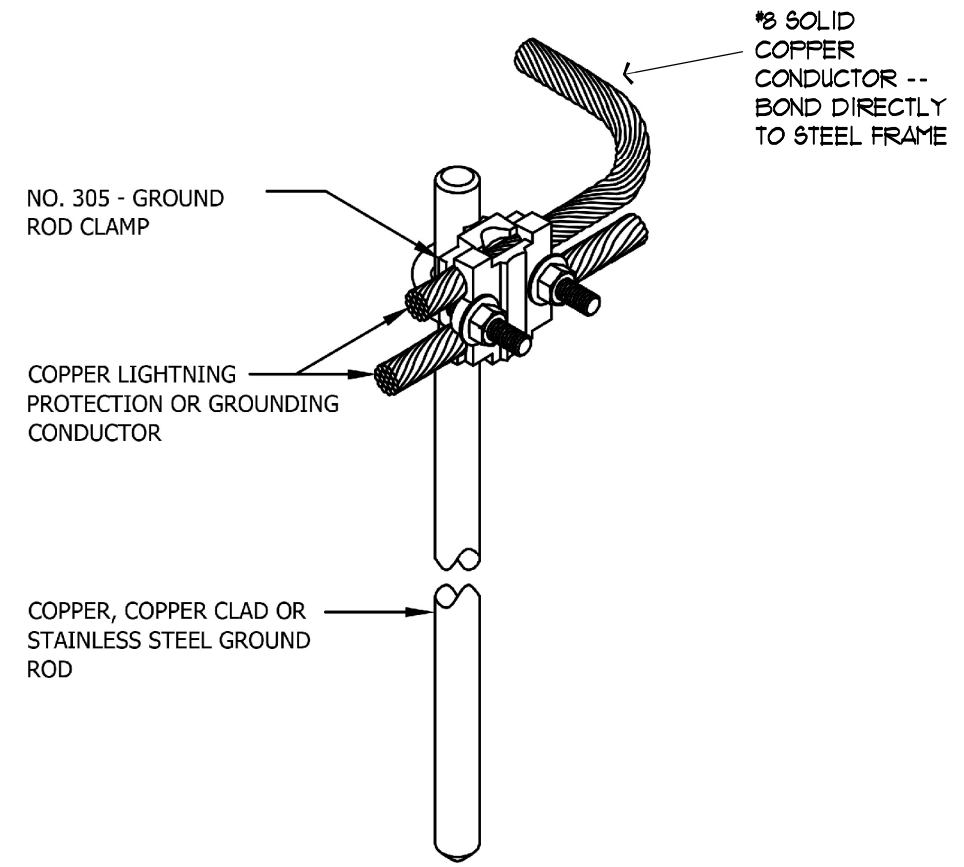
ATTACH 8' LONG GROUNDING ROD TO STEEL STRUCTURE @ 2 LOCATIONS



DETAIL 'A'



DETAIL 'B'



SPRING BLUFF
OBSERVATION PLATFORM
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ADD-2.2
NOVEMBER 3, 2017

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STRUCTURAL STEEL, & MISCELLANEOUS METAL:

1. SCOPE OF WORK: LABOR, MATERIALS, EQUIPMENT AND SERVICES FOR FABRICATING AND ERECTING STRUCTURAL STEEL AND PROVIDING (FURNISHING & INSTALLING) MISCELLANEOUS METAL COMPONENTS, INCLUDING WUF PANELS, SPIRAL STAIR, BENCHES, AND HANDRAILS.
2. COOPERATE WITH OTHER CONTRACTORS REGARDING STEEL WORK WHICH IS RELATED TO THE WORK OF OTHERS. ARRANGE AND EXECUTE STEEL WORK SO THAT OTHER CONSTRUCTION IS NOT DELAYED.
3. SHOP DRAWINGS: PREPARE AND SUBMIT SHOP DRAWINGS TO THE ARCHITECT IN ACCORDANCE WITH A.I.S.C. STANDARD PRACTICE FOR DETAILING STEEL AND A.C.I. MANUAL OF STANDARD PRACTICE FOR REINFORCING STEEL. THE ARCHITECT SHALL REVIEW AND NOTE EXCEPTIONS TO SHOP DRAWINGS. ARCHITECT'S REVIEW SHALL APPLY TO ARRANGEMENT, SIZE, AND WEIGHT OF MEMBERS, DESIGN OF CONNECTIONS AND OTHER DETAILS, BUT SHALL NOT APPLY TO THE CORRECTNESS OF THE DIMENSION FIGURES ON THE SHOP DRAWINGS. DIMENSIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. DELIVERY: EXERCISE CARE IN HANDLING AND UNLOADING MATERIALS. BENT, WARPED, OR DAMAGED MATERIAL WILL BE REJECTED AND REPAIRED OR REPLACED.
5. UPON NOTIFICATION FROM THE GENERAL CONTRACTOR, ERECTION SHALL BE STARTED AND CONTINUED UNTIL COMPLETION.
6. MEASUREMENTS: WORK AFFECTED SHALL BE MEASURED AT THE BUILDING AND NOT FROM SCALE DRAWINGS. AS MUCH WORK AS POSSIBLE SHALL BE FITTED TOGETHER IN THE SHOP AND DELIVERED READY FOR ERECTION.

7. CONNECTIONS: A.I.S.C. SERIES "B" UNLESS OTHERWISE NOTED. ONE-HALF (1/2) INCH THICK BEARING PLATES AND BEAM ANCHORS WITH ANCHOR BOLTS FOR ALL MEMBERS BEARING ON CONCRETE UNLESS OTHERWISE NOTED. IF WEIGHTS SHOWN ON THE DRAWINGS ARE UNOBTAINABLE, USE NEXT HEAVIER SHAPES. (VERIFY PHYSICAL SIZE WITH ARCHITECTURAL DETAILS).

8. CONTROL OF CORROSION: PREVENT GALVANIC ACTION AND OTHER FORMS OF CORROSION BY INSULATING METALS AND OTHER MATERIALS FROM DIRECT CONTACT WITH INCOMPATIBLE MATERIALS.

9. MATERIALS AND WORKMANSHIP: STANDARD SPECIFICATIONS OF THE A.I.S.C. AND S.J.I. UNLESS OTHERWISE NOTED ON THE DRAWINGS, MATERIALS SHALL COMPLY WITH THE FOLLOWING:

- A. ROLLED SHAPES, PLATES, & BARS: ASTM A-36
- B. STEEL PIPE: ASTM A-53, TYPE "E" OR "S", GRADE "B" AND WHERE APPLICABLE, API-5L, GRADE "B"
- C. STEEL TUBE: ASTM A-501
- D. ANCHOR BOLTS: ASTM A-307, NON-HEADED TYPE w/ HEAVY HEXAGONAL NUTS, UNO.
- E. UNFINISHED THREADED FASTENERS: —
ASTM A-307, GRADE A, REGULAR LOW CARBON STEEL BOLTS & NUTS
- F. ALL STRUCTURAL FASTENERS SHALL MEET THE REQUIREMENTS OF ASTM F-1554 FOR STRUCTURAL BOLTS, ASTM A563 GRADE DH FOR STRUCTURAL NUTS, ASTM F436 FOR STRUCTURAL WASHERS, AND ASTM F2329 FOR HOT-DIPPED GALVANIZATION OF FASTENERS.
- G. SHOP PRIMER: "10-99 TNEHC" OR "RUSTOLEUM 5769 PRIMER", OR APPROVED EQUAL
- H. WELDING ELECTRODES: AWS CODE, USING AWS A-51 OR A-55 E70XX ELECTRODES
- I. EXPANSION ANCHORS: "WUE-IT" OR "HILTI" EXPANSION ANCHOR BOLTS IN SIZES INDICATED

10. DRILLING AND FITTING: FURNISH DRILLING, LUGS, CONNECTIONS, RIVETS, ANCHORS, SCREWS, BOLTS ETC. NECESSARY FOR ATTACHING TO OTHER WORK

11. GALVANIZATION: ALL STEEL STRUCTURAL AND MISCELLANEOUS COMPONENTS MUST MEET ASTM A123/ ASTM 123M 11 FOR HOT-DIPPED GALVANIZATION ON STRUCTURAL IRON AND STEEL PRODUCTS.

12. COLD GALVANIZING: COVER ALL AREAS OF EXPOSED UN-GALVANIZED STEEL WHETHER DUE TO FIELD CUTTING OR TRANSPORTATION DAMAGE WITH A COLD GALVANIZING COMPOUND OR WITH RUSTOLEUM 9100 DTM OR EQUAL, AND FOLLOW PROCEDURES AS OUTLINED IN AMERICAN GALVANIZERS ASSOCIATION PUBLICATIONS.

13. MISCELLANEOUS STEEL AND PIPE COLUMNS: PROVIDE MISCELLANEOUS STEEL ANGLES, LINTELS, COLUMNS, COMPLETE WITH CAP AND BASE, ANCHOR BOLTS AND SETTING PLATES.

14. ERECTION: THIS CONTRACTOR SHALL FULLY ERECT ALL STRUCTURAL STEEL AND SHALL PROVIDE CABLE TIES AND BRACING AS MAY BE NECESSARY TO SECURE THE STRUCTURE IN A STABLE CONDITION, AND THEN HE SHALL REMOVE ALL TEMPORARY BRACING.

15. FABRICATION: SHOP FABRICATE AND PRE-ASSEMBLE ITEMS IN ACCORDANCE WITH AISC SPECIFICATIONS AND AS INDICATED ON REVIEWED SHOP DRAWINGS. PROPERLY MARK AND MATCH-MARK MATERIALS FOR FIELD ASSEMBLY. PROVIDE FINISHED CLEANED SURFACES FOR EXPOSED MEMBERS. PROVIDE ALL NECESSARY HOLES, BOLTS, ETC., NEEDED TO COMPLETE THE WORK.

16. HAND RAILS: PROVIDE 1 1/2" GALVANIZED SCHEDULE 40 STEEL TUBE RAILINGS ASTM A 53 AND COMPATIBLE BAR SUPPORTS, FITTINGS, AND CONNECTORS FOR ALL HANDRAILS FROM GRADE TO THE LOWER AND UPPER PLATFORM AND ON THE SPIRAL STAIR. SUBMIT SHOP DRAWINGS FOR ALL HANDRAILS AND CONNECTORS. HOT-DIP GALVANIZE STEEL HANDRAILS TO COMPLY WITH ASTM-A-123. HARDWARE SHALL COMPLY WITH ASTM-A-153/A-153M.

PIPE AND TUBE RAILINGS MUST BE DESIGNED TO WITHSTAND THE FOLLOWING STRUCTURAL LOADS WITHOUT EXCEEDING THE ALLOWABLE DESIGN WORKING STRESS OF THE MATERIALS FOR HANDRAILS, RAILING SYSTEMS, ANCHORS, AND CONNECTIONS.

TOP RAIL OF GUARDRAIL SYSTEMS: CONCENTRATED LOAD OF 200 LBF APPLIED AT ANY POINT AND IN ANY DIRECTION; UNIFORM LOAD OF 50 LBF PER LINEAR FOOT APPLIED HORIZONTALLY AND CONCURRENTLY WITH UNIFORM LOAD OF 100 LBF PER LINEAR FOOT APPLIED VERTICALLY DOWNWARD. CONCENTRATED AND UNIFORM LOADS ABOVE NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

17. DECKING: THE SURFACES OF ALL RAMPS AND PLATFORMS SHALL BE "TRACTION TREAD" BY McNICOLS OR GRATINGS PACIFIC OR APPROVED EQUAL, GALVANIZED PERFORATED PLANKS, 13 GAUGE CARBON STEEL, TYPICALLY 12" WIDE x 2" DEEP, MECHANICALLY FASTENED TO FRAME w/ GALVANIZED CLAMPS. SUBMIT SHOP DRAWINGS INDICATING PLANK LAYOUT.

18. SPIRAL STAIR: GALVANIZED POST, TREADS (PERFORATED OR GRATING), BALUSTERS, AND HANDRAIL, CODE COMPLIANT. SUBMIT SHOP DRAWINGS FOR REVIEW. FURNISH AND INSTALL.

19. BENCHES: BENCHES WILL BE FURNISHED AND INSTALLED BY OWNER. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THE BENCH FASTENING PLATES. PLATES WILL BE SUPPORTED ON GALVANIZED CHANNELS AND PRE-DRILLED PLATES PROVIDED AS PART OF THE FABRICATION AND ERECTION CONTRACT. BENCH "A" WILL BE "LANDSCAPEFORM" BACKLESS "STAYBENCH", STANDARD METALLIC SILVER COLOR. BENCH "B" WILL BE "MAGLIN OGM1900-SCR3-FB-PGN" AS DIMENSIONED ON DRAWINGS

20. FIELD CONNECTIONS: ALL FIELD CONNECTIONS SHALL BE BOLTED WITH GALVANIZED STEEL BOLTS, NUTS, AND WASHERS.

ADDENDUM #2: REVISE STEEL SPECIFICATION AS INDICATED

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ADD-2.3

NOVEMBER 9, 2017



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