



City of Davis - City of West Sacramento - City of Winters
City of Woodland - County of Yolo
Ex Officio: CalTrans District 3 - University of California, Davis

ADDENDUM 2

COVERING
YOLO COUNTY TRANSPORTATION DISTRICT
FACILITY IMPROVEMENTS

ADDENDUM NO. 2
DATE ISSUED: April 18, 2011
ISSUED BY: Janice Phillips, Deputy Director
RFP/IFB NO. IFB 2011-02

Section I – Invitation for Bids:

1. **Revised C-4 PRE-AWARD EVALUATION DATA FORM: See Attachment A**

2. Q: I requested the bid bond for this project from our Surety Company and they came back to me asking if I want them to create a signature block for the Surety Company to sign on the County's bid bond form?, is the Surety Company signature block missing for a reason?
A: Please see the revised “Form C-6 Bidder’s Bond”: See Attachment B

3. Q: The IFB for the above project has many requirements that are not normally found in a hard bid project. Are we to submit all items on the checklist on page 14 of 67? Are we to submit the Cover Letter, Pre-Award Evaluation Form, the Preliminary Work Plan, etc.?
A: The following items ARE NOT REQUIRED to be submitted with the bid:
 - a. Cover Letter
 - b. Preliminary Work Plan**The Pre-Award Evaluation form has been revised (See Attachment A)**

Section II – Plans and Specifications:

ITEM NO.	REFERENCE	DESCRIPTION
1	ANTENNA TOWER	Add specification section 27 4150 Antenna Tower. At Drawing A2.5-AM Roof Plan, Keynote #7 add: “Use a 16 GA. GNPB base plate. Provide (2) 6 x 8 blocking members under the base plate with Simpson HUC68 joist hangers, each side. Provide (3) 3/8” diameter x 4” long lag bolts centered on the blocking members below.” See Attachment C
2	METAL ROOFING REPAIRS	At sheet A3.1-SS keynote 17 and at sheet A2.5-AM keynote 15, add: “The Contractor shall remove all debris, dirt and silt from the metal roof, in a manner that will protect the watertight integrity of the roof and not damage it. Remove all roofing cement, mastic, and alien materials from the metal, fasteners and

mechanical curbs using a wire brush or similar method. Remove all loose, flashing or peeling coatings with a steel broom, wire brush or scraper. Remove any old repairing compounds that are loose, cracked or split or have excessively heavy build-up. Inspect metal roofing for voids or gaps of ¼ inch or greater. Repair or close any gaps using self tapping screw to bring sides flush. Repair any voids using appropriate sheet metal and attach with self tapping screws. Inspect metal roof for loose or missing fasteners. Replace all missing fasteners. Tighten any loose fasteners. Remove and replace all stripped, severely corroded or damaged fasteners. All fasteners being replaced should be replaced with a larger diameter fastener to insure a tight grip. Any missing, damaged or weathered washers shall be replaced with a new butyl rubber or acceptable washers.

- 3 METAL ROOFING REPAIRS At sheet A3.1-SS keynote 19 and at sheet A2.5-am keynote 13, add: “The Contractor shall be responsible for removing all debris, dirt and silt from the metal gutters, in a manner that will protect the watertight integrity of the gutters and not damage them. Remove all loose, flashing or peeling coatings with a steel broom, wire brush or scraper. Remove any old repairing compounds that are loose, cracked or split or have excessively heavy build-up. After the gutters have been cleaned, the Contractor shall inspect each seam and weld for a watertight seal, and seal where necessary with appropriate gutter sealant.
- 4 METAL ROOFING REPAIRS At sheet A2.1-SS, keynote 27 “EXISTING METAL ROOF TO REMAIN”, add “SEE SHEET A3.1-SS FOR REPAIRS”.
- 5 HVAC AT SMALL SHOP At sheet A3.1-SS keynote 16, delete keynote “LOCATION OF MECHANICAL UNIT TO BE REPLACED, S.M.D.” and replace with “EXISTING MECHANICAL UNIT TO REMAIN”.
- 6 CONCRETE CUTTING Assume all existing concrete to be cut in shop areas is 6 inches thick. Assume all existing concrete to be cut in office areas is 4 inches thick.
- 7 SMALL SHOP REPAIRS
- A. At small shop offices 100, 101, 102 and 103 shown in 4/A2.1-SS:
 - 1. Remove existing flooring and base
 - 2. At all east/west walls along gridline A, and at all north/south walls for a distance of 8 feet perpendicular to the south wall, remove existing interior gypsum board to a height of 4 feet.
 - B. At small shop offices 101, 102 and 103 shown in 4/A2.1-SS:
 - 1. Provide new gypsum board at areas described in item 2 above. Finish gypsum board to match existing adjacent surfaces. Paint all walls within the rooms.
 - 2. Clean and seal the existing concrete slab.
 - 3. At north/south exterior walls between gridlines A and B, and at east/west exterior walls between grids 1 and 4: Remove all debris, dirt and silt from the metal siding, in a manner that will protect the watertight integrity of the siding and not damage it. Remove all cement, mastic, and alien materials from the metal and fasteners using a wire brush or similar method. Remove all loose, flashing or peeling coatings with a steel broom, wire brush or scraper. Remove any old repairing compounds that are loose, cracked or split or have excessively heavy build-up. Inspect metal siding for voids or gaps of ¼ inch or greater. Repair or close any gaps using self tapping screw to bring sides flush. Repair any voids using appropriate sheet metal and attach with self tapping screws. Inspect metal siding for loose or missing fasteners. Replace all missing fasteners. Tighten any loose fasteners. Remove and replace all stripped, severely corroded or damaged fasteners. All fasteners being replaced should be replaced with a larger diameter

fastener to insure a tight grip. Any missing, damaged or weathered washers shall be replaced with a new butyl rubber or acceptable washers. Paint the metal siding.

8 METHANE DETECTION
ANNUNCIATOR

Contractor shall remove and salvage the methane detection annunciator from the dispatch office. The annunciator shall be relocated to the new dispatch office location. The contractor shall provide a 120 volt control circuit as necessary to the new annunciator location. Contractor shall field verify the existing low voltage control wiring to the annunciator and provide new low voltage control cable "in kind" and in conduit to the new dispatch office location. Field verify the exact location for the annunciator with the owner's representative.

9 FIRE RESISTANCE
REFERENCES

At Wall Types 11A, 11B, and 15, add this note: "Install per Gypsum Association GA File No. WP 3510 for one hour construction: One layer 5/8" type X gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 2x4 (or size indicated) wood studs 24 inches o.c. with 6d coated nails, 1-7/8" long, 0.0915" shank, 1/4" heads, 7" o.c. Joints staggers 24" on opposite sides. See also note 2 below. See also notes in detail 10/A8.9AM."

10 FIRE RESISTANCE
REFERENCES

At Wall Type 17, add this note: "Install per Gypsum Association GA File No. WP 6800 for one hour construction: One layer 1" x 24" proprietary type X gypsum panels inserted between 2-1/2" floor and ceiling runners with T sections of 2-1/2" steel C-T studs between panels. Opposite side: One layer 5/8" proprietary type X gypsum wallboard applied parallel to studs with 1" Type S drywall screws 12" o.c. Sound tested with horizontal resilient channels 24" o.c. and 2-1/2" glass fiber friction fit in stud space. Proprietary Gypsum Board: PABCO 5/8" FLAME CURB Super 'C', and 1" PABCORE Gypsum Liner Board."

11 FIRE RESISTANCE
REFERENCES

Add detail 10/A8.9, FIRE RESISTANCE GENERAL NOTES as follows:

1. Per Gypsum Association Fire Resistance Design Manual General Explanatory Notes, item 6: The face layers of all systems, except those with predecorated or metal covered surfaces, shall have joints taped (minimum Level 1 as specified in GA-214, Recommended Levels of Gypsum Board Finish) and fastener heads treated. Base layers in multi-layer systems shall not be required to have joints taped.
2. Per Gypsum Association Fire Resistance Design Manual General Explanatory Notes, item 8: Metallic outlet boxes shall be permitted to be installed in wood and steel stud walls or partitions having gypsum board facings and classified as two hours or less. The surface area of individual boxes shall not exceed 16 square inches. The aggregate surface area of the boxes shall not exceed 100 square inches in any 100 square feet. Boxes located on opposite sides of walls or partitions shall be in separate stud cavities and shall be separated by a minimum horizontal distance of 24 inches. Approved nonmetallic outlet boxes shall be permitted as allowed by local code.
3. Per Gypsum Association Fire Resistance Design Manual General Explanatory Notes, item 10: When not specified as a component of a fire tested wall or partition system, mineral fiber, glass fiber, or cellulose fiber insulation of a thickness not exceeding that of the stud depth shall be permitted to be added within the stud cavity.

4. Per Gypsum Association Fire Resistance Design Manual General Explanatory Notes, item 15: Greater stud sized (depths) shall be permitted to be used in metal- or wood-stud systems. The assigned rating of any load-bearing system shall also apply to the same system when used as a nonload-bearing system. Indicated stud spacings are maximums.
5. Per Gypsum Association Fire Resistance Design Manual General Explanatory Notes, item 21: Additional layers of type X or regular gypsum board shall be permitted to be added to any system.
6. Per Gypsum Association Fire Resistance Design Manual General Explanatory Notes, item 22: When not specified as a component of a fire-resistance rated wall or partition system, wood structural panels shall be permitted to be added to one or both sides. Such panels shall be permitted to be applied either as a base layer directly to the framing (under the gypsum board), as a face layer (over the face layer of gypsum board), or between layers of gypsum board in multi-layer systems. When such panels are applied under the gypsum board or between layers of gypsum board the length of the fasteners for the attachment of the gypsum board applied over the wood structural panels shall be increased by not less than the thickness of the wood structural panels. Fastener spacing for the gypsum board and the number of layers of gypsum board shall be as specified in the system description.
7. Penetrations:
 - A. Where sleeves are used, they shall be securely fastened to the assembly penetrated. Insulation and coverings on or in the penetrating item shall not penetrate the assembly unless the specific material used has been tested as part of the assembly in accordance with CBC section 712.
 - B. Where the penetrating items are steel, ferrous or copper pipes, tubes or conduits, the annular space between the penetrating item and the fire-resistance-rated walls shall comply with the following: The material used to fill the annular space shall prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to ASTM E 119 time-temperature fire conditions under a minimum positive pressure differential of 0,01 inch (2.49 Pa) of water at the location of the penetration for the time period equivalent to the fire-resistance rating of the construction penetrated.
 - C. Through-penetrations shall be protected by an approved penetration firestop system installed as tested in accordance with ASTM E 814 or UL 1479, with a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water and shall have an F rating of not less than the required fire-resistance rating of the wall penetrated. Exceptions shall be as allowed in CBC 712.3.2 for electrical boxes and automatic sprinklers.
 - D. For ducts and air transfer openings, see mechanical drawings for locations of dampers.
 - E. For access openings, see the door schedule.
 - F. For joints in fire-rated walls in excess of 0,625 inch, fire resistant joint systems shall be tested in accordance with the requirements of either ASTM E 1966 or UL 2079. Nonsymmetrical wall joint systems shall be tested with both faces exposed to the furnace, and the assigned fire-resistance rating shall be the shortest duration obtained from the two tests. When evidence is furnished to show that the wall was tested with the least fire-resistant side exposed to the furnace, submit to acceptance of the building official, the wall need not be subjected to tests from the opposite side.

12	PAINTING	Paint all perforated metal panels (decorative metal).
13	ELECTRICAL DEMOLITION	At sheet E2.0.AM Electrical Demolition Plan add note at the west side of the large shop: "Remove two existing surface mounted light fixtures" and add general note "Remove all abandoned surface mounted electrical conduit".
14	EXTERIOR STAIR NOSING	Basis of Design for exterior stair nosing shall be Amstep 231A, manufactured by Amstep Products, 190 Century Drive Bristol, Connecticut 06010, telephone 800-457-0869.
15	SKYLIGHT SHADES	At Specification Section 12 2413 "Window Roller Shades" Part 2.1 Materials, Section B Shades at Skylights a. Shade Cloth, delete "Equinox 0100 series blackout shade cloth, color/pattern as selected by architect" and replace with "0700 blackout series shade cloth, color/pattern as selected by architect."
16	ARCHITECTURAL PRE-CAST SPECIALTIES	At Sheet A8.4-AM, Detail 17 delete callout "Pre-Cast Cap (Napa Valley Cast #WC-1467)" and replace with "Pre-Cast Cap (Napa Valley Cast Stone, Custom Cap, 1" Thick, 2 equal divisions, 2'-8" X 2'-0" each.) Delete callout "Pre-Cast Concrete Veneer (Napa Valley Cast Stone # VN-6100 RLD)" and replace with "Pre-Cast Concrete Quoin at Corners (Napa Valley Cast Stone # QN-612) With Custom Pre-Cast Veneer, 1" Thick, 11 5/8" high, width varies"
17	WASHFOUNTAINS	At Drawing P2.2-AM "Partial Plumbing New Floor Plans" A/P2.2 AM delete "WS-1" and replace with "WF-1": BRADLEY TERREON 54" SEMI-CIRCULAR 8 1/2" Deep Bowl WASHFOUNTAIN TDB3104. At B/P2.2-AM delete "JS-1" and replace with "WF-2" BRADLEY TERREON 36" SEMI-CIRCULAR 7 1/2" DEEP BOWL WASHFOUNTAIN TDB3103
18	ACCESS CONTROL SYSTEMS	At Specification Section 28 1300 Access Control Systems" 1. Part 2, 2.1 Access System Capability, add this Basis of Design Product: S2 Netbox Extreme with Video Integration Licenses. 2. Part 1, 1.7 Maintenance Material Submittals, Remove A1 "Alarm Printer: Black/Red Ribbons, Package of 12" and A2 "Laser Printers: Three toner cassettes and one replacement drum unit" and replace with A1 "Card Printer: three replacement cartridges"
19	VIDEO SURVEILLANCE	At Specification Section 28 2300 Video Surveillance,: 1. Part 2, 2.1 remove title "Overall Access System Capability" and replace title with "Overall Video System Capability". 2. Part 2, 2.3 remove line that reads "live and achieved video" and replace with "live and archived video" 3. Part 2, remove Section 2.4 I "NVR Server System Requirements" 4. Part 2, 2.5 camera selection, add Basis of Design Selection to be either Panasonic, Axis, IQeye models or equal. On Drawing E1.1 "Electrical Site Plan" there are 23 exterior Security Cameras indicated on the plan. Of these 23 Cameras, 7 are to be 3 Megapixel, 10 are to be 2 Megapixel, and 6 are to be 1.3 Megapixel. There are existing security cameras in the existing count room in the

Large Shop, labeled on A2.2-AM at “Battery Room” 310. These cameras are to be removed and relocated into the new Count Room 100 in the Small Shop. Locate these cameras as directed by the owner and connect to the new NVR System.

20 DECORATIVE FENCES & GATES

At Specification Section 32 3119 Decorative Fences and Gates:

1. Part 1, Section 1.3 G delete “vehicular t age reader” and replace with “vehicular card reader”.
2. Part 2, Section 2.1 Steel Tubular Fence. Delete this section and replace with A. Basis of Design: Ameristar Fence Products, Montage Plus standard picket space, welded and Rackable, Genesis Style manufactured by Ameristar Fence Products, Inc. in Tulsa, OK. Contact: Nathan Downs, 1-800-321-8724.
3. Part 2, Section 2.2 Pedestrian Gates, B.1. Remove “Hardware: Latches permitting operation from both sides of gates, hinges, and keepers for each gate leaf more than 5’ wide. Provide center gate stops and cane bolts for pairs of gates”. Replace with B.1. Hardware: See Door Hardware Section 08 7111
4. Part 2, Section 2.3 Hardware, delete sections A through I, and replace with “Hardware: See Door Hardware Section 08 7111”
5. Part 2, Section 2.4 Vehicle Horizontal-Slide Gates. D1: Frame Members: Delete Steel tubing 4 by 6 inches and replace with Steel tubing 4” x 4” 11 ga.
6. Part 2, Section 2.4 Vehicle Horizontal-Slide Gates. M:Sliding Gate Operator, replace ½ HP motor with ¾ HP motor min.
7. Part 2, Section 2.4 Vehicle Horizontal-Slide Gates. N1. Delete “The keyswitch shall be placed between 42” and 48” above the roadway surface within two feet of the edge of the roadway”. Replace with “The keyswitch shall be placed between 42” and 48” above the roadway surface and as indicated on the drawings.”
8. Part 2, Section 2.4 Vehicle Horizontal-Slide Gates. O1. Control Pedestal: Delete Control Pedestal Information and replace with Viking VE-GNG Gooseneck pedestal and Viking VE-6X7 Back Box.

21 SITE LIGHTING

At Fixture Schedule on Sheet E0.2 add Fixture Type SK. Description: (3) 4’-0” F32 T8 Fluorescent Linear Sign Light in Swivel Conduit Fitters. Manufacturer: Hadco # WA2HF232E. Volts: 120. Lamps: (3) F32 2900K. VA: 64. Mounting: 2’-0” from Sign on J-Box. Remarks: See Details 5, 7/A1.15.

22 SITE IMPROVEMENTS

Replace sheets:
C-00 Title Sheet
C-03 Surface Improvements-South
C-04 Surface Improvements – North
C-07 Site Demolition Plan
A1.1 Site Plan
A1.2 Enlarged Site Plan
A1.3 Enlarged Site Plan
A1.4 Enlarged Site Plan
A1.8 Enlarged Site Plan
A1.9 Enlarged Site Plans
A1.10 Enlarged Site Plan
A1.11 Enlarged Site Plans
A1.12 Site Sections
A1.13 Site Sections

A1.14 Site Details

A1.15 Site Details

A2.4-AM Enlarged Plans

Replace listed Sheets with Sheets of Same Name and Number, issued as part of Addendum #2, dated April 18, 2011.

Add Sheets: A1.5 Site Demolition Plan dated April 18, 2011

- 23 EXCAVATION & BACKFILL Provide fill material at all foundations and footings excavated per the A1.5 Demolition Site Plan.
- 24 CEILINGS
- On Sheet A4.3 Finish Schedules under Ceilings
ACT 1 – remove “GRID: Armstrong Prelude ML 15/16” Exposed Tee” and replace with: “GRID: Armstrong Prelude XL 15/16” Exposed Tee (Heavy Duty to Meet ASTM C635)
ACT 2 – at GRID add (Heavy Duty to Meet ASTM C635)
ACT 3 – at GRID add (Heavy Duty to Meet ASTM C635)
ACT 4 – at GRID add (Heavy Duty to Meet ASTM C635)
- 25 DECORATIVE METALS Add Specification Section 05 7000 Decorative Metals. **See Attachment D**
- 26 DECOMPOSED GRANITE At Specification Section 32 9526 2.1 F – Decomposed Granite-Acceptable Suppliers
Add Robinson Sand & Gravel, Auburn, CA and add C. L. Smith, Woodland, CA

ATTACHMENT A

C-4 PRE-AWARD EVALUATION DATA FORM

- 1 Name of Firm: _____
- 2 Address: _____
- 3 [] Individual [] Partnership [] Corporation [] Joint Venture
- 4 Date Organized: _____
State in which incorporated: _____
5. Name of Officers or Partners:
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
6. How long has your firm been in business under its present name? _____
7. Attach as **SCHEDULE ONE** a list of similar current contracts which demonstrates your technical proficiency, each with contract amount, name of contracting party, character or type of work and percentage of completion.
8. Attach as **SCHEDULE TWO** a list of similar contracts, each with contract amount, name of contracting party, and character or type of work for similar contracts completed in the last three (3) years.
9. In the last three (3) years have you ever been denied an award where you were selected?
Yes___ No___ If the answer is YES, attach as **SCHEDULE THREE** the full particulars regarding each occurrence.
10. Have you ever failed to complete, in the last three (3) years, any contract on which you were selected?
Yes___ No___ If the answer is YES, attach as **SCHEDULE FOUR**, the full particulars regarding each occurrence.

The above information is confidential and will not be divulged to any unauthorized personnel. The undersigned certifies to the accuracy of all information.

COMPANY: _____

AUTHORIZED SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____

DATE: _____

ATTACHMENT B C-6 BIDDER'S BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE, THE UNDERSIGNED _____ as principal; and _____ as Surety, are hereby held and bound unto THE YOLO COUNTY TRANSPORTATION DISTRICT, hereinafter called "YCTD", in the sum of _____ dollars (\$_____) which sum is equal to at least five (5) percent of the total amount of the bid for the work, payment of which sum, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns. The condition of the above obligation is such that whereas the Principal has submitted to YCTD a certain Bid, attached hereto and hereby made a part hereof, to enter into a Contract in writing, for the construction of:

YOLO COUNTY TRANSPORTATION DISTRICT FACILITY IMPROVEMENTS

NOW, THEREFORE,

- a) If the Bid is rejected, or in the alternative,
- b) If the Bid is accepted and the Principal shall sign and deliver a Contract, in the form of Contract attached hereto (all completed in accordance with said Bid and Contract), and shall in all other respects perform the agreement created by the acceptance of said Bid;

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal hereunder shall be the amount of this obligation as herein stated.

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

IN WITNESS THEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 2011, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

IN PRESENCE OF:

_____	_____ Affix
	(Individual Principal)
_____	_____
(Address)	(Business Address)
_____	_____ Affix
	(Individual Principal)
_____	_____
(Address)	(Business Address)

	(Corporate Principal)

	(Business Address)
_____	_____ Affix
	(Corporate Seal)

ATTEST:

	(Corporate Surety)

	(Business Surety)
_____	_____ Affix
	(Corporate Seal)

The rate of premium on this bond is _____ per thousand.
Total amount of premium charged \$ _____.

- SECTION 27 4150 -

ANTENNA TOWER

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. All labor, tools and materials necessary to install, test and place in operation complete and operable one tubular steel tower with guy wire supports and base plate.
- B. Secure all permits and pay all fees necessary for the prosecution and completion of this work.

1.2 DRAWINGS

- A. See location of roof mounted antenna on the architectural roof plan A2.5-AM. See architectural elevation A3.1-AM for further detail. The exact locations and routing of guy wires shall be governed by structural conditions and physical interferences.

1.3 QUALITY ASSURANCE

- A. All work shall be in full accord with the latest edition of all local, state, and federal codes.
- B. All materials used on this tower and appurtenances shall be best possible grade of their kinds, new, free from defects and, unless otherwise specifically noted, shall conform to applicable standards of National Tower Manufacturers Association. Each article of a kind shall be the standard product of a single manufacturer.
- C. Specific brand names and catalog numbers are used to describe materials in order to establish standards of performance and quality. The decision of the Architect shall govern as to what materials may be substituted shall be upon the Contractor.

1.4 SUBMITTALS

- A. Submit to the Architect a complete list of materials and equipment stating manufacturer's names, catalog numbers, etc. No materials shall be installed until final approval is given.

1.5 WARRANTY

- A. Guarantee all work for one year from date of acceptance against all defects in material, equipment and workmanship.

PART 2 - PRODUCTS

2.1 TUBULAR TOWER

- A. Legs and braces shall consist of galvanized tubular steel, with precision swagged legs for precision tolerance fit.
- B. Construction shall be high strength welded connections.
- C. Sleeve bearing for mast up to 1.5" diameter.
- D. Weld point shall be pressure tested to ensure strength requirements.
- E. Tower shall consist of 16 gauge straight section, 10 feet 10 inches in length and 16 gauge top section 9 feet 6 inches in length. Wade Antenna #GN16S and #GN16T or equal.
- F. All sections complete with all necessary nuts and bolts.
- G. Top section shall include top bearing set screw and lower mast clamp assembly.
- H. Tower shall be manufactured to support equipment up to 3 square feet (0.28 square meters) projected wind area.

2.2 GUY WIRE STATION

- A. Provide guy wire station apparatus from attachment of stainless steel guy wires to tower, Wade Antenna #GS-GN or equal.
- B. See Sheet A2.5-AM, keynote #7 for guy wire requirements.

2.3 TOWER BASE PLATE

- A. Tower shall mount to base plate constructed of 16 gauge galvanized steel, Wade Antenna #GNBP or equal.

PART 3 - EXECUTION & APPLICATION

3.1 TOWER ATTACHMENT

- A. Tower shall be lag bolted to roof structure as described on Architectural Sheet A2.5-AM, keynote #7.
- B. Tower shall be plumb and secured by guy wires as specified by keynote #7 on Architectural Sheet A2.5-AM.

3.2 TESTS

- A. Test tower system in the presence of the Owner's representative upon completion of the work to demonstrate that equipment furnished is structurally sound, solid and plumb.

- END OF SECTION -

- SECTION 05 7000 -
DECORATIVE METAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Perforated metal wall panels.

1.3 RELATED SECTIONS:

- A. Division 05 Section "Metal Fabrications" for non-decorative metal fabrications.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated, including finishing materials.
- B. Shop Drawings: Show fabrication and installation details for decorative metal.
 - 1. Include plans, elevations, component details, and attachments to other work.
 - 2. Indicate materials and profiles of each decorative metal member, fittings, joinery, finishes, fasteners, anchorages, and accessory items.
- C. Samples for Initial Selection: For products involving selection of color, texture, or design including mechanical finishes.
- D. Samples for Verification: For each type of exposed finish required.
 - 1. Sections of linear shapes.
 - 2. Full-size Samples of castings and forgings.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified fabricator.
- B. Welding certificates.

1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: A firm experienced in producing decorative metal similar to that indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- B. Installer Qualifications: Fabricator of products.
- C. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
 - 2. AWS D1.3, "Structural Welding Code - Sheet Steel."

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store decorative metal in a well-ventilated area, away from uncured concrete and masonry, and protected from weather, moisture, soiling, abrasion, extreme temperatures, and humidity.
- B. Deliver and store cast-metal products in wooden crates surrounded by sufficient packing material to ensure that products will not be cracked or otherwise damaged.

1.8 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with decorative metal by field measurements before fabrication and indicate measurements on Shop Drawings.

1.9 COORDINATION

- A. Coordinate installation of anchorages for decorative metal items. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. Provide materials without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

2.2 STEEL AND IRON

- A. Tubing: ASTM A 500 (cold formed).
- B. Bars: Hot-rolled, carbon steel complying with ASTM A 29/A 29M, Grade 1010.
- C. Plates, Shapes, and Bars: ASTM A 36/A 36M.

- D. Cast Iron: Either gray iron, ASTM A 48/A 48M, or malleable iron, ASTM A 47/A 47M unless otherwise indicated.
- E. Steel Sheet, Cold Rolled: ASTM A 1008/A 1008M, either commercial steel or structural steel, exposed.

2.3 FASTENERS

- A. Fastener Materials: Unless otherwise indicated, provide the following:
 - 1. Galvanized-Steel Items: Plated steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating.
 - 2. Dissimilar Metals: Type 304 stainless-steel fasteners.
- B. Fasteners for Anchoring to Other Construction: Unless otherwise indicated, select fasteners of type, grade, and class required to produce connections suitable for anchoring indicated items to other types of construction indicated.
- C. Provide concealed fasteners for interconnecting components and for attaching decorative metal items to other work unless otherwise indicated.
 - 1. Provide tamper-resistant flat-head machine screws for exposed fasteners unless otherwise indicated.
- D. Anchors, General: Anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.
- E. Post-Installed Anchors: Torque-controlled expansion type.
 - 1. Material for Exterior Locations and Where Stainless Steel Is Indicated: Alloy Group 1 (A1) stainless-steel bolts, ASTM F 593 (ASTM F 738M), and nuts, ASTM F 594 (ASTM F 836M).

2.4 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Etching Cleaner for Galvanized Metal: Complying with MPI#25.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- D. Shop Primers: Provide primers that comply with Division 09 Section "High-Performance Coatings."

2.5 FABRICATION, GENERAL

- A. Assemble items in the shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.

- B. Form decorative metal to required shapes and sizes, true to line and level with true curves and accurate angles and surfaces. Finish exposed surfaces to smooth, sharp, well-defined lines and arris.
- C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing the Work.
- D. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately **1/32 inch (1 mm)** unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- E. Mill joints to a tight, hairline fit. Cope or miter corner joints. Fabricate connections that will be exposed to weather in a manner to exclude water.
- F. Provide weep holes where water may accumulate. Locate weep holes in inconspicuous locations.
- G. Provide necessary rebates, lugs, and brackets to assemble units and to attach to other work. Cut, reinforce, drill, and tap as needed to receive finish hardware, screws, and similar items unless otherwise indicated.
- H. Comply with AWS for recommended practices in shop welding. Weld behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded joints of flux, and dress exposed and contact surfaces.
 - 1. Where welding cannot be concealed behind finished surfaces, finish joints to comply with NOMMA's "Voluntary Joint Finish Standards" for Type 1 Welds: no evidence of a welded joint.
- I. Provide castings that are sound and free of warp, cracks, blowholes, or other defects that impair strength or appearance. Grind, wire brush, sandblast, and buff castings to remove seams, gate marks, casting flash, and other casting marks.

2.6 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

2.7 STEEL AND IRON FINISHES

- A. Galvanizing: Hot-dip galvanize products made from rolled, pressed, and forged steel shapes, castings, plates, bars, and strips indicated to be galvanized to comply with ASTM A 123/A 123M.
 - 1. Hot-dip galvanize steel and iron hardware indicated to be galvanized to comply with ASTM A 153/A 153M.
 - 2. Do not quench or apply post-galvanizing treatments that might interfere with paint adhesion.
 - 3. Fill vent and drain holes that will be exposed in finished Work, unless indicated to remain as weep holes, by plugging with zinc solder and filing off smooth.

- B. Preparing Galvanized Items for Shop Priming: After galvanizing, thoroughly clean decorative metal of grease, dirt, oil, flux, and other foreign matter, and treat with etching cleaner.
- C. Preparing Nongalvanized Items for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
 - 1. Retain or revise subparagraphs below to suit Project service conditions of installed Work. See referenced
- D. Primer Application: Apply shop primer to prepared surfaces of items unless otherwise indicated. Comply with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.
 - 1. Shop prime uncoated ferrous-metal surfaces with primers specified in Division 09 Section "High-Performance Coatings" .
 - 2. Do not apply primer to galvanized surfaces.
- E. High-Performance Coating: Apply epoxy intermediate and polyurethane topcoats to prime-coated surfaces. Comply with coating manufacturer's written instructions and with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting. Apply at spreading rates recommended by coating manufacturer.
 - 1. Color: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of decorative metal.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Provide anchorage devices and fasteners where needed to secure decorative metal to in-place construction.
- B. Perform cutting, drilling, and fitting required to install decorative metal. Set products accurately in location, alignment, and elevation, measured from established lines and levels. Provide temporary bracing or anchors in formwork for items to be built into concrete, masonry, or similar construction.
- C. Fit exposed connections accurately together to form tight, hairline joints or, where indicated, uniform reveals and spaces for sealants and joint fillers. Where cutting, welding, and grinding are required for proper shop fitting and jointing of decorative metal, restore finishes to eliminate evidence of such corrective work.
- D. Do not cut or abrade finishes that cannot be completely restored in the field. Return items with such finishes to the shop for required alterations, followed by complete refinishing, or provide new units as required.

- E. Install concealed gaskets, joint fillers, insulation, and flashings as work progresses.
- F. Restore protective coverings that have been damaged during shipment or installation. Remove protective coverings only when there is no possibility of damage from other work yet to be performed at same location.
 - 1. Retain protective coverings intact; remove coverings simultaneously from similarly finished items to preclude nonuniform oxidation and discoloration.
- G. Field Welding: Comply with applicable AWS specification for procedures of manual shielded metal arc welding and requirements for welding and for finishing welded connections in "Fabrication, General" Article. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations.

3.3 CLEANING AND PROTECTION

- A. Unless otherwise indicated, clean metals by washing thoroughly with clean water and soap, rinsing with clean water, and drying with soft cloths.
- B. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Division 09 Section "High-Performance Coatings."
- C. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.
- D. Protect finishes of decorative metal from damage during construction period with temporary protective coverings approved by decorative metal fabricator. Remove protective covering at time of Substantial Completion.
- E. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units.

- END OF SECTION -