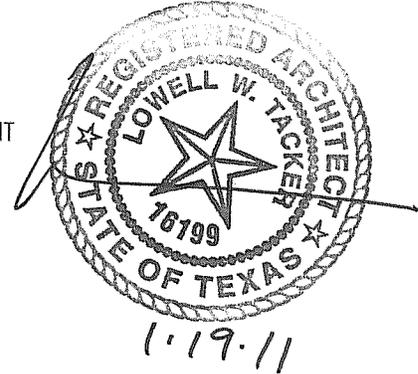


CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

PROJECT NAME: **COSA Fire Dept. Logistics/Services Facility**

DATE: January 19, 2011



ADDENDUM NO. 2

This addendum shall be included in and be considered part of the plans and specifications for the above named project. The contractor shall be required to sign an acknowledgment of the receipt of this addendum at the time he receives it.

To Drawings and Specifications dated October 18, 2010 for **COSA Fire Dept. Logistics/Services Facility** Prepared By: O'Neill Conrad Oppelt Architects, Inc.

This addendum shall be considered part of the Contract Documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence.

Bidders are hereby notified that they shall make any necessary adjustment in their estimates on account of this addendum. It will be construed that each Bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

Total Pages Addendum No. 2: 21

CLARIFICATIONS:

Item	Reference	Description
CL2-1	Pre-Proposal Conference sign in sheet	Refer to Pre-Proposal Conference sign in sheet attached herein.
CL2-2	Metal Building Systems	Subject to compliance with the contract documents, Red Dot Buildings is an acceptable manufacturer of pre-engineered metal buildings.
CL2-3	Loading dock bumpers	Provide and install 4, rubber loading dock bumpers, 14"W x 4 1/2" D x 10" H, Global Industrial model T9A241309 or equivalent.
CL2-4	Corner guards	Corner guards to be 18ga, with countersunk holes and matching screws. Reference Spec. Section 05 5010,

SPECIFICATIONS:

Item	Reference	Description
S2-1	City of San Antonio Addenda Acknowledgement Form	Add new specification attached herein. Form must be completed, executed for each addendum and included in the proposal.
S2-2	Section 01 4419, 1.01 Waste Management Requirements	Delete, "E. LEED Certification for this project is dependent on diversion.....and/or salvage."
S2-3	Section 01 1000, 1.03 Contract Description, A. Contract Type:	Replace, "A single prime.....in the Bid Form." with, "A single prime contract as described in the Bid Form."
S2-4	Section 01 1000, 1.10 Work Sequence and Schedule, B.	Replace, "by August 2008" with, "365 days from notice to proceed with 30 days added if alternates are taken."
S2-5	Section 09 2116, 2.05 Fiberglass Reinforced Board materials	Add, "D. Cementitious Backer Board: ANSI A118.9, aggregated Portland cement panels with glass fiber mesh embedded in front and back surfaces 5/8" thick. <ol style="list-style-type: none"> 1. Product: Durock Cement Board manufactured by USG. 2. Applications: Wall finish as indicated in Warehousing, HD and LD vehicle bays and elsewhere as indicated."
S2-6	Section 10 2800, 2.04 Toilet Room Accessories, A. Mirrors	Referenced subsection A. Mirrors to include TBA-11 as well as TBA-4.
S2-7	Section 10 2800, 2.05 Shower and Tub Accessories	Add, "C. Shower Curtain Rod: Stainless steel tube, 1" outside diameter, .04" wall thickness, satin finished with 3" outside diameter, min. .04" thick satin finished stainless steel flanges for installation with exposed fasteners."
S2-8	Section 10 2800, 2.05 Shower and Tub Accessories	Add, "D. Shower Curtain <ol style="list-style-type: none"> 1. Size: 44 x 72 inches, hemmed edges 2. Grommets: stainless steel; pierced through top hem on 6" centers 3. Color: White. 4. Shower Curtain Hooks: stainless steel spring wire designed for snap closure."
S2-9	Section 03 3513, Concrete Penetrating Sealers and Water Repellents, Addendum 2	Add new specification, "Section 03 3513, Concrete Penetrating Sealers and Water Repellents, Addendum 2" attached herein.
S2-10	Section 14 2010 Passenger Elevators Addendum 2	Replace section, "14 2010 Passenger Elevators" with "Section 14 2010 Passenger Elevators Addendum 2" attached herein.
S2-11	Section 05 5213 Pipe and Tube Railings Addendum 2	Add new specification, "Section 05 5213, Pipe and Tube Railings, Addendum 2", attached herein.

S2-12	Section 10 1400, 2.01 Plaques	Metal plaque to be 24" X 16"
S2-13	Section 10 1400, 2.03 Sign Types	Add, " D. Exterior mounted signs to be exterior grade photopolymer. "

DRAWINGS:

Item	Reference	Description
D2-1	Sheet C3.8, Pump Test Station Enlargement	Delete note, " Alt #1, Fabric Covered Canopy – See Arch. Plans "
D2-2	Sheet A2.3, First Floor-West, Rooms 135, 136A & 136B.	West walls of these rooms to be 5/8" gyp board on 1 5/8" metal studs extended 6" past ceiling, taped, floated and painted.
D2-3	Sheet A2.3, A2.4, A2.5 & A2.6, General Notes	Delete note 1.
D2-4	Sheet A2-3, Tech Bays 126	Delete note, " Computer cabinet, typ. "
D2-5	Sheet A2-3, Tech Bays 126	Revise note, " 3'-0" Wide Man Gate, typ. " To read, " 3'-0" pair lockable gate ". New note refers to 3' pair of gates at SE corner of Tech Bays 126.
D2-6	Sheet A9.2, Room sign Schedule, room 127, notes	Change Note to read, " No Sign "
D2-7	Sheet A9.2, Room sign Schedule,	Add, Room " 136B Office "

END OF ADDENDUM NO. 2

Pre-Proposal Conference
 Sign-In Sheet - Cont'd.

Project Name: COSA Fire Dept. Logistics/Services Facility (OCO Proj. #0807)

<u>NAME (PRINT)</u>	<u>COMPANY</u>	<u>TEL. #</u>	<u>FAX #</u>	<u>E-MAIL</u>
16. Manning Pletz	Pletz Const.	822 0005	822 7990	mpletz@pletzconstruction.com
17. Tony Cortes	CEC	641 9999	641 6440	TCortes@CEC TEXAS.COM
18. Clayton Kennedy	KENCON Ltd.	590.7909 x13	590.8120	clayton@kenconltd.com
19. John Sylvester	Konz Construction	344-6247	344-6288	JSYLVESTER@KONZCONSTRUCTION.COM
20. Amy Burnett	Casias Construction LLC	308-1067	308-1068	amy@casiasconstructionllc.com
21. Jonathan Contreras	Davila Construction	224-5887	224-5735	JONATHAN@DAVILA.CONSTRUCTION.COM
22. Dawn Vernon	O'Haver Contractors	590-2889	657-5888	dawnv@ohavercontractors.com
23. Bobby Walker	GUIDO Bros	344-8321	344-3469	bwalker@guidobros.com jlee@guidobros.com
24. Rocky Whiting	LYDA SWINERTON BUILDERS	210 684 1770	210 680 6656	RWhiting@SWINERTON.COM
25. Robert Mikel II	SAFD	210 355-8523		robert.mikel@sanantonio.gov
26. Chuck Boudreaux	FT Woods Construction	(512) 930-2607		cboudreaux@fwoods.com
27. Stacy Bridges	D. Wilson	210.490.7600	210.490.7602	stacyb@dwilsonconstruction.com
28. Lisa Torres	COSA-Scheduling	210-207-2109		portaischedules@sanantonio.gov
29. MARK BEAVERS	COSFA OPS	207 2730		mark.beavers@sanantonio.gov
30. BRIAN OREBAUGH	COSA CMS	207 . 8203		brian.orebaugh@sanantonio.gov
31. Rodrigo Gorgazzi	OCO Architects	829-1737		rgorgazzi@ocoarchitects.com
32. Lowell Tacker	OCO Architects	829-1737		ltacker@ocoarchitects.com

Pre-Proposal Conference
Sign-In Sheet - Cont'd.

Project Name: COSA Fire Dept. Logistics/Services Facility (OCO Proj. #0807)

<u>NAME (PRINT)</u>	<u>COMPANY</u>	<u>TEL. #</u>	<u>FAX #</u>	<u>E-MAIL</u>
32. David Sablatara	PFS	494-4914	494-5789	dauid5@filingsystems.com
33. Ryan Allen	Harvey-Cleary Builders	210.248.9423	210.248.9464	rallen@harvey-cleary.com
34. Jackson Nahum	Eaton Commercial	210-599-3690	210-599-3691	jnahum@eatoncontracting.com
35. BRYAN BUTLER	KOPKOW CONST.	210.826.9888 210.889.5342	210.826.9822	butler@kopkow.com
36. Michael Bartle	Yantis Company	(210) 655-8526 655-3780	(210) 655-8526	mbartle@yantiscorp.com
37. Sam Nunnally	FA NUNNELLY	210.227.2070	210.227.2072	sam@faunnally.com
38. John R Smith	W.R. Griggs	830 931 2121	830 931 2111	TGriggs & W.R Griggs.com
39. Ron Gonzalez	SABINAL GROUP	210-226-3400	210-226-3425	ron@sabinal-group.com
40. Maria Godina	COSA/Small Bus. Office	(210) 207-5438		Maria.godina@sanantonio.gov
41. Angelica MATA	COSA-CIMS	210-207-8437		Angelica.mata@sanantonio.gov
42. Diane Vasquez	COSA-CIMS	210-207-5872		divasquez@Sanantonio.gov
43.				
44.				
45.				
46.				
47.				

**CITY OF SAN ANTONIO
DEPARTMENT OF CAPITAL IMPROVEMENTS MANAGEMENT SERVICES
CONTRACT SERVICES DIVISION**

RECEIPT OF ADDENDUM NUMBER _____ IS HEREBY ACKNOWLEDGED FOR PLANS AND

SPECIFICATIONS FOR CONSTRUCTION OF _____

FOR WHICH BIDS WILL BE OPENED ON _____

THIS ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED WITH THE BID PACKAGE.

Company Name: _____

Address: _____

City/State/Zip Code: _____

Date: _____

Signature

Print Name/Title

SECTION 03 3513**CONCRETE PENETRATING SEALERS AND WATER REPELLENTS ADDENDUM 2****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Finishing slabs on grade.
- B. Surface treatment with penetrating sealer and water repellent.

1.02 RELATED REQUIREMENTS

- A. Section 03 3000 - Cast-in-Place Concrete: Prepared concrete floors ready to receive finish.
- B. Section 03 3000 - Cast-in-Place Concrete: Control and formed expansion and contraction joints and joint devices.
- C. Section 07 9005 - Joint Sealers.

1.03 REFERENCE STANDARDS

- A. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; 2005.
- B. ACI 302.1R - Guide for Concrete Floor and Slab Construction; American Concrete Institute International; 2004 (Errata 2007) .
- C. ASTM E 1155 - Standard Test Method for Determining F(F) Floor Flatness and F(L) Floor Levelness Numbers; 1996 (Reapproved 2008).

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with concrete floor placement and concrete floor curing.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on penetrating sealer and water repellent, including information on compatibility of different products and limitations.
- C. Maintenance Data: Provide data on maintenance renewal of applied coatings.

1.06 QUALITY ASSURANCE

- A. Applicator/Commercial: Company specializing in applying coatings, waterproofing/repellents with five (5) years minimum experience and approved by manufacturer required. Consult local distributor or Endur-O-Seal USA,/EOS Systems for recommendations.

1.07 MOCK-UP

- A. Construct mock-up area under conditions similar to those that will exist during actual placement, 6 feet long by 6 feet wide, with coatings applied.
- B. Locate where directed.
- C. Sample shall indicate that there is no change appearance and when water is poured on the sample, the water shall bead or run off and not soak in.
- D. Mock-up may remain as part of the Work.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's sealed packaging, including application instructions.

1.09 FIELD CONDITIONS

- A. Environmental Requirements: Do not apply EOS Poly Top Sealer CS2O when the following conditions are present, except with written instructions from manufacturer:
 1. Ambient or surface temperature less than 40° F within twenty four (24) hours prior to or following application.
 2. Rain within seventy- two (72) hours prior to application or predicted within twenty- four (24) hours after application.
 3. Wet or frozen substrates
 4. High winds which could cause excessive over spray.
- B. Provide ventilation sufficient to prevent injurious gases from temporary heat or other sources affecting concrete.

1.10 WARRANTY

- A. Manufacturer's limited five (5) year warranty. Failure is indicated by water soaking into the substrate surface, when water is placed on surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Concrete Penetrating sealers and water repellents: Subject to compliance with the specifications manufacturers are, but not limited to:
 1. Endur-O-Seal USA, Inc./ EOS Systems, 1-800-259-8855 or 281-356-9332 fax.

2.02 MATERIALS

- A. EOS Poly Top Sealer CS2O PLUS: Water based membrane-forming polysiloxane penetrating sealer; this system is non-flammable, non-hazardous and non-toxic.
 1. Maximum VOC content; 0.19 lbs/gallon, complies with all applicable regulations regarding VOC's.
 2. Do not dilute or modify EOS Poly Top Sealer CS-2O, apply as supplied.

2.03 SPRAY EQUIPMENT:

- A. 60 psi or below airless, and/or Hudson pump up type. Tip should be fan pattern and of the size (Hudson 80-5R Color Jet) or smaller. Keep equipment and hoses clean and free of foreign contaminants that could obstruct equipment or be deposited on surfaces to be treated. Note! Do not over saturate!

PART 3 EXECUTION

3.01 EXAMINATION

- A. Confirm that the substrates have been prepared properly, and weather conditions are suitable for application. Notify architect/designer/engineer in writing of unsatisfactory substrates and conditions. Do not continue until conditions have been corrected in a manner acceptable to applicator.

3.02 PREPARATION

- A. Clean substrates: Remove dirt, oil, wax, curing compounds, efflorescence, coatings and other graffiti matter. Use methods compatible with substrates and required appearance including, as applicable.
 1. Sweeping and compressed air blasting
 2. Water blasting
 3. Sandblasting, follow with an air and/or water blast to remove loose particulate.
 4. Detergent scrubbing. Rinse with water and allow to dry.

- 5. Chemical cleaners that are residual free and do not interfere with penetrating sealer/repellent. Rinse with water and allow substrate to dry.
- B. Protect against over spray onto glass surfaces, plants, plastic, asphaltic surfaces, painted and polystyrene insulation surfaces.
- C. Protect surfaces against oil/grease/fuel drips caused by cleaning equipment and other contamination of surfaces that are to be tested.

3.03 JOINT SEALERS

- A. If necessary, install joint sealants as specified in other sections and allow to cure before application of water repellent.
- B. If joint sealants are installed after application of EOS Poly Top Sealer CS2O, verify adhesion of joint sealant to treated surfaces, prior to execution of work. If required, protect joint sealant adhesion surfaces against over spray.
- C. Install asphaltic joint sealant after application of EOS Poly Top Sealer CS2O.

3.04 APPLICATION

- A. General:
 - 1. Properly clean and dry area to be treated, if unsure as to the best procedure, contact Endur-O-Seal or substrate manufacturer.
 - 2. The temperature of the substrate should be 40°F - 120°F (4.4 C - 49° C)
 - 3. The area to be treated should have relative moisture content of less than 15%.
 - 4. The EOS Poly Top Sealer CS2O should be thoroughly stirred/ mixed prior to application.
 - 5. Apply a thorough wetting coat in accordance with rates specified below, but Do Over Not Saturate.
 - 6. If applying by spray, motion should be side to side and followed by a crosshatch up and down motion.
 - 7. On horizontal applications, remove any excess after fifteen (15) minutes from initial application (use clean mop or cotton cloth).
 - 8. Treated areas should be kept moisture free for 8-12 hours after application.
 - 9. Always test a sample are prior to application.
- B. If work is stopped prior to completion, clearly mark location and resume work without any gap in coverage.
- C. COVERAGE:
 - 1. Horizontal Surfaces:
 - a. Poured-in-place: 300 (minimum)/ 400 (maximum) sq. ft./Gal.
 - b. Pavers: 150 (minimum)/ 300 (maximum) sq. ft./Gal.

3.05 CLEANING

- A. Clean overspray on glass or metallic surfaces before evaporation of water. Wipe dry with clean, dry-cloth. If material has cured use a 50/50 mix of denatured alcohol and water and rub with a clean cloth.

3.06 PROTECTION

- A. Do not permit traffic on treated surfaces until EOS Poly Top Sealer CS2O has completely penetrated and the substrate is fully dry.
- B. Treated areas should be kept moisture free for 8-12 hrs after application.
- C. Always utilize proper industrial hygiene practices. Adequate ventilation should be provided during application and observe manufacturer's safety instructions. Read MSDS and labels before using.

END OF SECTION

SECTION 14 2010

PASSENGER ELEVATORS ADDENDUM 2

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Complete elevator systems.
- B. Elevator maintenance.

1.02 RELATED REQUIREMENTS

- A. Section 03 3000 - Cast-in-Place Concrete: Elevator machine foundation.
- B. Section 04 2000 - Unit Masonry: Masonry hoistway enclosure; building-in and grouting hoistway door frames.
- C. Section 05 1200 - Structural Steel Framing: Hoistway framing.
- D. Section 05 5000 - Metal Fabrications: Pit ladder, Sill supports, divider beams, and overhead hoist beams.
- E. Section 08 3100 - Access Doors and Panels: Fire rated access doors into hoistway.
- F. Section 09 2116 - Gypsum Board Assemblies: Gypsum shaft walls.
- G. Section 28 3100 - Fire Detection and Alarm:
- H. Section 21 1300 - Fire-Suppression Sprinkler Systems: Sprinkler heads in hoistway.
- I. Section 22 3000 - Plumbing Equipment: Pit drain.
- J. Section 26 0534 - Conduit:
- K. Section 26 2717 - Equipment Wiring:

1.03 REFERENCE STANDARDS

- A. AISC 360 - Specification for Structural Steel Buildings; American Institute of Steel Construction, Inc.; 2005.
- B. ASME A17.1 - Safety Code for Elevators and Escalators; The American Society of Mechanical Engineers; 2007.
- C. ASME A17.2 - Guide for Inspection of Elevators, Escalators, and Moving Walks; The American Society of Mechanical Engineers; 2007.
- D. AWS D1.1/D1.1M - Structural Welding Code - Steel; American Welding Society; 2010.
- E. NFPA 70 - National Electrical Code; National fire Protection Association; 2008.
- F. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2010.
- G. UL (BMD) - Building Materials Directory; Underwriters Laboratories Inc.; current edition.
- H. UL (ECMD) - Electrical Construction Materials Directory; Underwriters Laboratories Inc.; current edition.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a meeting one week prior to starting work.
 - 1. Review schedule of installation, installation procedures and conditions, and coordination with related work.

- B. Construction Use of Elevator: Not permitted.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate the following information:
 - 1. Locations of machine room equipment: driving machines, controllers, governors and other component.
 - 2. Hoistway components: Car, counterweight, sheaves, machine and sheave beams, guide rails, buffers, ropes, and other components.
 - 3. Rail bracket spacing; maximum loads imposed on guide rails requiring load transfer to building structural framing.
 - 4. Individual weight of principal components; load reaction at points of support.
 - 5. Loads on hoisting beams and location of trolley beams.
 - 6. Clearances and over-travel of car and counterweight.
 - 7. Locations in hoistway and machine room of traveling cables and connections for car light.
 - 8. Location and sizes of access doors, doors, and frames.
 - 9. Electrical characteristics and connection requirements.
 - 10. Show arrangement of equipment in machine room so rotating elements, sheaves, and other equipment can be removed for repairs or replaced without disturbing other components. Arrange equipment for clear passage through access door.
- C. Product Data: Provide data on the following items:
 - 1. Signal and operating fixtures, operating panels, indicators.
 - 2. Cab design, dimensions, layout, and components.
 - 3. Cab and hoistway door and frame details.
 - 4. Electrical characteristics and connection requirements.
- D. Maintenance Contract.
- E. Maintenance Data: submt four (4) O & M Manuals including manufacturers standard information
 - 1. Parts catalog with complete list of equipment replacement parts; identify each entry with equipment description and identifying code.
 - 2. Legible schematic of wiring diagrams of installed electrical equipment and changes made in the Work. List symbols corresponding to identity or markings on machine room and hoistway apparatus.

1.06 QUALITY ASSURANCE

- A. Perform Work in accordance with applicable code and as supplemented in this section.
- B. All designs, clearances, construcion, workmanship and material shall be in accordance with ANSI/ASME code, handicap accessibility, Americans with Disabilities Act and all codes having legal jursidiction. ANSI A17.1 shall govern exceptr where codes having legal jursidiction include more stringent requirements or conflict with the ANIS A17.1 code.
- C. The elevator shall follow design and manufacturig procedures, certified in accordance with International Organization for Standardization (ISO9001-2000) to meet product and service requirements for quality assurance for new products.
- D. Perform welding of steel in accordance with AWS D1.1.
- E. Fabricate and install door and frame assemblies in accordance with NFPA 80.
- F. Perform electrical work in accordance with NFPA 70.
- G. Maintain one copy of each quality standard document on site.
- H. Manufacturer Qualifications: Company specializing in manufacturing the Products specified

in this section with minimum ten years documented experience.

- I. Installer Qualifications: Company specializing in performing the work of this section and approved by elevator equipment manufacturer.
- J. Products Requiring Fire Resistance Rating: Listed and classified by UL.
- K. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

1.07 PRE-INSTALLATION MEETING

- A. Review schedule of installation, installation procedures and conditions, and coordination with related work.

1.08 PROJECT CONDITIONS

- A. Hoistway: legally enclosed, plumb, top-to-bottom with variation <1"/100ft; topped-out/dried-in (taped/floated), 75° bevel on ledges >4"; legal overhead to bottom of safety/hoist beam; ventilation, per local code. Complete walls except where openings occur.
 - 1. Adequate support to sustain the load of all equipment (rails, jacks, buffers, etc). Rail support at each floor, above top floor, and between floors where floor span >13'. Horizontal support surface shall be flat, min. 6" x 24" on CL of rail, flush with inside face of hoistway. Cells of masonry walls shall be filled solid. Wood structure shall be suitably constructed. Provide divider beams between cars.
 - 2. Proper sill support surface, edges parallel, level and plumb from centerline of hoistway, top to bottom, with allowable variation < 1/4". Proper rough opening with full width support header. Interface between wall and elevator frame shall be in accordance with our requirements to insure proper fire rating; grouting of sills and frames.
 - 3. Clean, dry pit, with smooth, flat floor; GFI outlets, lighting w/switch* (min. 10fc in ALL areas) located adjacent to a pit access door or properly sized non-combustible ladder (min. 4½" from CL rung to nearest obstruction). Provide guarding between pits of different levels, per code rule 2.2.3. Refer to ASME A17.1, Section 2.2; sump pump shall require no human intervention (power from non-GFI, single outlet; min. pump capacity = 3,000 gal/hr.). Provide a positive means for preventing gases, water, odors, etc. from entering hoistway.
 - 4. Safety/hoist-beam in top of shaft (5,000lb. capacity), installed rail-to-rail (remove if necessary to obtain min. overhead). Mark beams to indicate safe working loads.
 - 5. Free standing, moveable OSHA compliant barricades at each opening.
 - 6. Glass shall comply with ASME A17.1, rule 2.1.1.2.2(d) in conformance with ANSI Z97.1, 16CFR, Part 1201.
- B. Machine Room: Legally enclosed (taped/floated), including 'labeled' access door with proper hardware; lighting w/switch* (min.19fc. in ALL areas of room), GFI outlets, ABC fire extinguisher, and sound attenuated ceiling and walls. Provide clear access to and space above ceiling for installation of oil line and duct, from shaft to remote machine room.
 - 1. An independent HVAC system (IBC 3006.2) to maintain 55 - 90 F; humidity <95%, non-condensing.
 - 2. Confirmed 3phase 60Hz. power, through a legal, properly identified, lockable branch circuit protection device* (BCPD), with feeders to elevator controller, per our requirements. Include shunt trip protection when sprinklers are located in shaft and/or machine room. 220/120v. power for welder, hoist, tools, etc. Permanent confirmed 3 phase power required to adjust elevator, prior to adjusting and state inspection/acceptance.
 - 3. Individual 15 amp, 120v. power circuits, through a legal, properly identified, lockable BCPD* with feeders extending to elevator controller, for car lights, heat exchanger, etc.
 - 4. Dedicated analog telephone line (in conduit) to each elevator controller.
- C. Fire alarm system, per ASME A17.1 and NFPA, including status panel and fire alarm initiating devices (heat and/or smoke detectors) with required wiring (in conduit) to elevator

controller.

1.09 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide one year manufacturer warranty for elevator operating equipment and devices.
- C. Provide service and maintenance of elevator system and components for one year from Date of Substantial Completion.
- D. Examine system components quarterly. Clean, adjust, and lubricate equipment.
- E. Include systematic examination, adjustment, and lubrication of elevator equipment. Maintain hydraulic fluid levels. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original equipment. Replace wire ropes when necessary to maintain the required factor of safety.
- F. Perform work without removing cars during peak traffic periods.
- G. Perform maintenance work using competent and qualified personnel under the supervision and in the direct employ of the elevator manufacturer or original installer.
- H. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of City of San Antonio.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Schindler; Product 330A, Holeless Hydraulic
- B. Other Acceptable Manufacturers: Industry standard non proprietary hydraulic elevator is acceptable as long as elevator meets specified requirements.
 - 1. ThyssenKrupp Elevator; Product ____: www.thyssenkruppelevator.com.
 - 2. Otis Elevator Co; Product ____: www.otis.com.
 - 3. Schindler Elevator Corp; Product ____: www.us.schindler.com.
 - 4. Substitutions: See Section 01 6000 - Product Requirements.
- C. All components to be manufactured by same entity, unless otherwise indicated.

2.02 ELEVATORS

- A. Elevator No. 1: Passenger, holeless hydraulic
 - 1. Operation and Controls: Two-stop automatic.
 - 2. Hoistway Doors and Frames: No. 4 stainless steel.
 - 3. Hoistway and Cab Entrance Frame Opening Size: 48 x 84 inches.
 - 4. Door Type: Double leaf.
 - 5. Door Operation: Center opening.
 - 6. Rated Net Capacity: 4000 lbs.
 - 7. Rated Speed: 100 ft/min.
 - 8. Nominal Platform Size: 72 x 96 inches.
 - 9. Travel Distance: Approximately 12'.
 - 10. Number of Stops: 2.
 - 11. Number of Openings: 1 Front.
 - 12. Hydraulic Motor and Pump Location: Adjacent to hoistway.
- B. Car Enclosure
 - 1. Walls: 16 ga. steel with manufacturers standard plastic laminate finished removable raised panels.
 - 2. Fronts, transom, columns, base, reveals, frieze and door: No. 4 stainless steel.
 - 3. Canopy: 13 ga. steel, 8'-0" high, white baked enamel finish.

4. Ceiling: Manufacturers standard metal frame, 7'-5" high, with white translucent diffusers.
5. Handrail: 1 1/2" dia, No. 4 stainless steel on 3 walls.
6. Sill: Extruded Aluminum
7. Ventilation: Exhaust fan and natural ventilation slots in base.
8. Wall protection: One set of vinyl pads with hangers.
9. Finish floor: VCT.

2.03 CONTROLS

- A. Elevator Controls: Provide landing buttons and hall lanterns.
- B. Door Controls:
 1. Program door control to open doors automatically when car arrives at floor.
 2. Render "Door Close" button inoperative when car is standing at dispatching terminal with doors open.
 3. If doors are prevented from closing for approximately ten seconds because of an obstruction, automatically disconnect door reopening devices, close doors more slowly until obstruction is cleared. Sound buzzer.
 4. Door Safety Device: Infra red light rays (min. 40) across opening from floor to 72" high.
- C. Landing Buttons: Stainless steel type, one for originating UP and one for originating DOWN calls, one button only at terminating landings; marked with arrows.
- D. Provide "Firefighter's Operation" in accordance with applicable code. Designated Landing:.
- E. Controller manufacturers such as MCE or GAL would be acceptable contingent upon compliance with specified controller.

2.04 HOISTWAY ENTRANCES

- A. Hoistway door and frame construction shall be UL rated, with required fire rating. Doors shall be min. 18 ga. rigid flush panel construction and contain sound-deadening material. 4" profile 16 ga. frames, bolted construction, securely fastened at the corners to form a unit frame. Provide extruded aluminum sill.
 1. Exposed areas of the frames and doors shall be No.4 st.stl.

2.05 CAR FIXTURES

- A. Provide main car operating panel in the front return; comply with ADA requirements and include: VR st.stl. pushbuttons w/LED jewel, keyed emergency stop switch, door open and close buttons, integral ADA telephone, digital position indicator and emergency light.
- B. Include fire service devices in locked panel located above car buttons.
- C. A locked service panel shall include emergency light test button, required switches and a 110v outlet.
- D. In car lantern mounted in strike jamb.

2.06 HALL FIXTURES

- A. Match car buttons; No.4 stainless steel faceplate, with tamper resistant screws.
- B. Provide lanterns at each level. Single arrow at terminal landings
- C. Mount devices in face of frame.
- D. Floor Identification Pads: Provide door jamb pads at each floor. Jamb pads shall comply with Americans with Disabilities Act (ADA) requirements.

2.07 ELECTRICAL CHARACTERISTICS AND COMPONENTS

- A. Electrical Characteristics:

1. 460 volts, 3 Phase, 60 Hz.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that hoistway, pit, and machine room are ready for work of this section.
- C. Verify hoistway shaft and openings are of correct size and within tolerance.
- D. Verify location and size of machine foundation and position of machine foundation bolts.
- E. Verify that electrical power is available and of the correct characteristics.

3.02 PREPARATION

- A. Arrange for temporary electrical power for installation work and testing of elevator components.

3.03 INSTALLATION

- A. Install system components. Connect equipment to building utilities.
- B. Provide conduit, boxes, wiring, and accessories.
- C. Install machinery, guides, controls, car and all equipment and accessories to provide a quiet, smoothly operating installation, free from sway, oscillation or vibration.
- D. Coordinate elevator work with the work of other trade to avoid construction delays. Use benchmarks/lines/levels designated by the general contractor to ensure dimensional coordination.
- E. Adjust for smooth operation. Adjust automatic floor leveling feature at each floor to achieve within 1/4" of the landing.
- F. Provide welded connections for installation of elevator work where bolted connections are not required. Comply with AWS standards for workmanship and for qualification of welding operators.
- G. Mount power unit on vibration absorption mounts, designed to prevent the transmission of vibrations to the structure and eliminate sources of noise from the elevator system.
- H. If required, elevator contractor shall:
 1. Excavate jack hole based on drilling in unclassified soil conditions. No extras will be authorized for rock, boulders, water, quicksand, gravel, building construction members, underground caves or utilities, or other foreign matter, which may be encountered while drilling.
 2. Properly locate jack hole from building lines and established benchmarks.
 3. Remove drilling spoils from site.
 4. Waterproof and seal opening in pit floor at jack.
- I. Install hydraulic piping between cylinder and pump unit.
- J.
- K. Accurately machine and align guide rails. Form smooth joints with machined splice plates.
- L. Field Welds: Chip and clean away oxidation and residue, wire brush; spot prime with two coats.
- M. Coordinate installation of hoistway wall construction.
- N. Install hoistway door sills, frames, and headers in hoistway walls. Grout sills in place. Set

entrances in vertical alignment with car openings and aligned with plumb hoistway lines.

- O. Structural Metal Surfaces: Clean surfaces of rust, oil or grease; wipe clean with solvent; prime two coats.
- P. Machine Room Components: Clean and degrease; prime one coat, finish with one coat of enamel.
- Q. Adjust equipment for smooth and quiet operation.

3.04 ERECTION TOLERANCES

- A. Guide Rail Alignment: Plumb and parallel to each other in accordance with ASME A17.1.
- B. Cab Movement on Aligned Guide Rails: Smooth movement, with no objectionable lateral or oscillating movement or vibration.

3.05 FIELD QUALITY CONTROL

- A. Testing and inspection by regulatory agencies will be performed at their discretion.
 - 1. Schedule tests with agencies and notify City of San Antonio and OCO Architects.
 - 2. Obtain permits required to perform tests.
 - 3. Document regulatory agency tests and inspections in accordance with the requirements of Section 01 4000.
 - 4. Perform tests required by regulatory agencies.
 - 5. Furnish test and approval certificates issued by authorities having jurisdiction.

3.06 ADJUSTING

- A. Adjust for smooth acceleration and deceleration of car so not to cause passenger discomfort.
- B. Adjust automatic floor leveling feature at each floor to achieve 1/4 inch from flush.

3.07 PERMITS AND TESTS

- A. The elevator contractor shall obtain and pay for all necessary Municipal and State permits and relating to the installation of the elevator at his expense, shall make all tests as required by governing codes in effect at the time of the award. The elevator contractor shall be reimbursed for any permits, tests or equipment necessitated by governing authorities after the date of the award.

3.08 DEMONSTRATION

- A. Instruct Owner's personnel in proper use and operations of elevators. Review emergency provisions, including procedures to be followed at time of failure in operation and other building emergencies. Instruct Owner's personnel in normal procedures to be followed in checking for sources of operational failures or malfunctions.
- B. Make a final check of each elevator operation, with Owner's personnel present, immediately before date of substantial completion. Determine that control systems and operating devices are functioning properly.

3.09 CLEANING

- A. Remove protective coverings from finished surfaces.
- B. Clean surfaces and components ready for inspection.

3.10 PROTECTION

- A. Do not permit construction traffic within cab after cleaning.
- B. Protect installed products until project completion.

- C. Touch-up, repair, or replace damaged products before Date of Substantial Completion.

3.11 MAINTENANCE

- A. See Section 01 7000 - Execution Requirements, for additional requirements relating to maintenance service.
- B. Provide a separate maintenance contract for specified maintenance service.
- C. Perform maintenance work using competent and qualified personnel under the supervision and in the direct employ of the elevator manufacturer or original installer.
- D. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of City of San Antonio.
- E. Provide service and maintenance of elevator system and components for one year from Date of Substantial Completion.
- F. Examine system components monthly. Clean, adjust, and lubricate equipment.
- G. Include systematic examination, adjustment, and lubrication of elevator equipment. Maintain hydraulic fluid levels. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original equipment. Replace wire ropes when necessary to maintain the required factor of safety.
- H. Perform work without removing cars during peak traffic periods.
- I. Maintain an adequate stock of parts for replacement or emergency purposes locally, near the place of the Work. Have personnel available to ensure the fulfillment of this maintenance service, without unreasonable loss of time.
- J. Include 24/7 minor emergency callback and repair service.

END OF SECTION

SECTION 05 5213**PIPE AND TUBE RAILINGS ADDENDUM 2****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Wall mounted handrails.
- B. Stair railings and guardrails.
- C. Free-standing railings at steps.
- D. Balcony railings and guardrails.

1.02 RELATED REQUIREMENTS

- A. Section 03 3000 - Cast-in-Place Concrete: Placement of anchors in concrete.
- B. Section 04 2000 - Unit Masonry: Placement of anchors in masonry.
- C. Section 05 5100 - Metal Stairs: Attachment plates for handrails specified in this section.
- D. Section 09 2116 - Gypsum Board Assemblies: Placement of backing plates in stud wall construction.
- E. Section 09 9000 - Painting and Coating: Paint finish.

1.03 REFERENCE STANDARDS

- A. ASTM A 53/A 53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2007.
- B. ASTM A 500/A 500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2007.
- C. ASTM E 935 - Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings; 2000 (Reapproved 2006).
- D. ASTM E 985 - Standard Specification for Permanent Metal Railing Systems and Rails for Buildings; 2000 (Reapproved 2006).

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.

PART 2 PRODUCTS**2.01 RAILINGS - GENERAL REQUIREMENTS**

- A. Design, fabricate, and test railing assemblies in accordance with the most stringent requirements of ASTM E 985 and applicable local code.
- B. Concentrated Loads: Design railing assembly, wall rails, and attachments to resist a concentrated force of 200 pounds applied at any point on the top of the assembly and in any direction, without damage or permanent set. Test in accordance with ASTM E 935.
- C. Design railing assembly, wall rails, and attachments to resist lateral force of 75 lbs at any point without damage or permanent set. Test in accordance with ASTM E 935.
- D. Allow for expansion and contraction of members and building movement without damage to

connections or members.

- E. Dimensions: See drawings for configurations and heights.
- F. Provide anchors and other components as required to attach to structure, made of same materials as railing components unless otherwise indicated; where exposed fasteners are unavoidable provide flush countersunk fasteners.
- G. Provide welding fittings to join lengths, seal open ends, and conceal exposed mounting bolts and nuts, including but not limited to elbows, T-shapes, splice connectors, flanges, escutcheons, and wall brackets.

2.02 STEEL RAILING SYSTEM

- A. Steel Tube: ASTM A 500, Grade B cold-formed structural tubing.
- B. Welding Fittings: Factory- or shop-welded from matching pipe or tube; seams continuously welded; joints and seams ground smooth.
- C. Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing.

2.03 FABRICATION

- A. Accurately form components to suit specific project conditions and for proper connection to building structure.
- B. Fit and shop assemble components in largest practical sizes for delivery to site.
- C. Fabricate components with joints tightly fitted and secured. Provide spigots and sleeves to accommodate site assembly and installation.
- D. Welded Joints:
 - 1. Exterior Components: Continuously seal joined pieces by intermittent welds and plastic filler. Drill condensate drainage holes at bottom of members at locations that will not encourage water intrusion.
 - 2. Interior Components: Continuously seal joined pieces by intermittent welds and plastic filler.
 - 3. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Supply items required to be cast into concrete or embedded in masonry with setting templates, for installation as work of other sections.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install components plumb and level, accurately fitted, free from distortion or defects, with tight joints.
- C. Anchor railings securely to structure.
- D. Field weld anchors as indicated on drawings. Touch-up welds with primer. Grind welds smooth.

- E. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.

3.04 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per floor level, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.
- C. Maximum Out-of-Position: 1/4 inch.

END OF SECTION