

NOTICE TO RESPONDENTS

May 2, 2025

ADDENDUM No. 2

UTILITY SUPPLY CENTER CONSTRUCTION

- 1. This addendum consists of incorporates change and/or clarifications to the above referenced RFQ only in the manner and to the extent stated herein and shall become part of the resulting contract.
- 2. Bidder must acknowledge this addendum by accepting the addendum in Bonfire.
- 3. If you have any questions on this or any related matter, please contact: E-mail: <u>catrina.wilson@talgov.com</u> or through FRS TDD at 771.

RESPONSE TO QUESTIONS:

- Question No. 1 On the exterior aluminum railings for the ramps. The specs called for anodized materials. Typically, a pre-anodized material is used since anodizing after fabrication large rail sections is very expensive. Is a pre anodized finish is acceptable?
- Response: The aluminum handrails finish has been changed from Anodized to painted finish. After further investigation we were concerned about the quality of the finish doing anodization before or after could cause. Response revisions are documented in the attachments.

CHANGES / CLARIFICATRIONS:

Attached: Spec and drawing revisions included with this Addendum No. 2.

End of Addendum No. 2



ADDENDUM NO. 2

100% Construction Documents

May 2, 2025

Project: E&G USC Warehouse BKJ Project No. 23.154 <u>Issued by</u>: BKJ, Inc. Architecture 1621 Physicians Drive Tallahassee, FL 32308 ph: 850.524.3701 fax: 850.546.6150

Distribution to: Boscoe Wilhite (COT E&G Utility) Catrina Wilson (COT Procurement) Matt Agrella (KM) Travis Dorn (PE) Richard Darabi (PE) Robert Richards (H2) Anthony Wyrick (H2)

This Addendum forms a part of the **100% Construction Documents** and modifies the original Specifications and Drawings dated March 28, 2025. Please attach new drawings as required in the drawing set. This Addendum consists of **2 pages with 5 attachments**.

SPECIFICATIONS:

- 1-1 S055213 Pipe and Tube Railings Replace section S055213 with attached Revised section S055213.
 - **Revised** railing finished from Anodized to Painted.
- **1-2** S099000 Interior, Exterior and High Performance Coatings Replace section S099000 with attached Revised section S099000.
 - Added paint system for aluminum railings.

1-3 S105629 – Pallet Storage Racks

Replace section S105629 with attached Revised section S105629.

• Provided updated load capacities for warehouse and wire storage shelving, pallet racks, and de-spooling racks.

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DRAWINGS:

1-4 A2.0 – Exterior Elevations

Replace sheet A2.0 with attached Revised sheet A2.0.

• **Revised** Exterior Finish Schedule.

1-5 A2.1 – Exterior Elevations

Replace sheet A2.1 with attached Revised sheet A2.1.

• **Revised** Exterior Finish Schedule.

CLARIFICATIONS: none

Attachments:

Specification Sections: S055213, S099000, and S105629.

Replacement Sheets: A2.0 and A2.1 (30x42)

BY: BKJ, Inc. Architecture

Dan Capoot

SECTION 055213 PIPE AND TUBE RAILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Stair railings and guardrails.
- B. Ramp railings and guardrails.
- C. Free-standing railings at steps and ramps.

1.02 REFERENCE STANDARDS

- A. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum; 2020.
- B. ADA Standards 2010 ADA Standards for Accessible Design; 2010.
- C. AISC 201 AISC Certification Program for Structural Steel Fabricators, Standard for Steel Building Structures; 2006.
- D. ASTM B211/B211M Standard Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire; 2019.
- E. ASTM B241/B241M Standard Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube; 2022.
- F. ASTM B429/B429M Standard Specification for Aluminum-Alloy Extruded Structural Pipe and Tube; 2020.
- G. ASTM B483/B483M Standard Specification for Aluminum and Aluminum-Alloy Drawn Tube and Drawn Pipe for General Purpose Applications; 2021.
- H. ASTM E935 Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings; 2021.
- I. ASTM E985 Standard Specification for Permanent Metal Railing Systems and Rails for Buildings; 2024.
- J. AWS A2.4 Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2020.
- K. AWS D1.1/D1.1M Structural Welding Code Steel; 2020, with Errata (2022).
- L. AWS D1.6/D1.6M Structural Welding Code Stainless Steel; 2017, with Amendment (2021).
- M. AWS C3.4M/C3.4 Specification for Torch Brazing; 2016.
- N. AWS C3.5M/C3.5 Specification for Induction Brazing; 2016, with Amendment (2017).
- O. AWS C3.9M/C3.9 Specification for Resistance Brazing; 2020.

1.03 SUBMITTALS

- A. See Section 013000 Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.

1.04 QUALITY ASSURANCE

- A. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located, or personnel under direct supervision of such an engineer.
- B. Welder Qualifications: Welding processes and welding operators qualified within previous 12 months.
- C. Fabricator Qualifications:
 - 1. A qualified steel fabricator that is certified by the American Institute for Steel Construction (AISC) under AISC 201.

2. A company specializing in manufacturing products specified in this section, with not less than five years of documented experience.

PART 2 PRODUCTS

2.01 RAILINGS - GENERAL REQUIREMENTS

- A. Design, fabricate, and test railing assemblies in accordance with the most stringent requirements of applicable local code.
- B. Allow for expansion and contraction of members and building movement without damage to connections or members.
- C. Dimensions: See drawings for configurations and heights.
 - 1. Top Rails and Wall Rails: 1-1/2 inches (38 mm) diameter, round.
 - 2. Intermediate Rails: 1-1/2 inches (38 mm) diameter, round.
 - 3. Posts: 1-1/2 inches (38 mm) diameter, round.
 - 4. Balusters: 1/2 inch (12 mm) square solid bar.
- D. 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.
- E. 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.
- F. Welded and Brazed Joints: Make visible joints butt tight, flush, and hairline; use methods that avoid discoloration and damage of finish; grind smooth, polish, and restore to required finish.
 - 1. Ease exposed edges to a small uniform radius.
 - 2. Welded Joints:
 - a. Carbon Steel: Perform welding in accordance with AWS D1.1/D1.1M.
 - b. Stainless Steel: Perform welding in accordance with AWS D1.6/D1.6M.
 - 3. Brass/Bronze Brazed Joints:
 - a. Perform torch brazing in accordance with AWS C3.4M/C3.4.
 - b. Perform induction brazing in accordance with AWS C3.5M/C 3.5.
 - c. Perform resistance brazing in accordance with AWS C3.9M/C3.9.

2.02 ALUMINUM MATERIALS

- A. Aluminum Pipe: Schedule 40; ASTM B429/B429M, ASTM B241/B241M, or ASTM B483/B483M.
- B. Aluminum Tube: Minimum wall thickness of 0.127 inch (3.2 mm); ASTM B429/B429M, ASTM B241/B241M, or ASTM B483/B483M.
- C. Solid Bars and Flats: ASTM B211/B211M.
- D. Welding Fittings: No exposed fasteners; cast aluminum.

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:
 - a. 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. Test welds with anodizing process to eliminate halo or residual inconsistencies in welds prior to fabrication of all components.

- Interior Components: Continuously seal joined pieces by intermittent welds and a. plastic filler.
- Grind exposed joints flush and smooth with adjacent finish surface. Make exposed b. joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

2.04 ALUMINUM FINISHES ξ

- See 099000 Painting and Coatings for Aluminum Railing finish system. Color: To be selected A. by Architect.
- B. Touch-Up Materials: As recommended by coating manufacturer for field application. PART 3 EXECUTION

3.01 INSTALLATION

- Install in accordance with manufacturer's instructions. Α.
- Β. Install components plumb and level, accurately fitted, free from distortion or defects, with tight joints.
- C. Anchor railings securely to structure.

END OF SECTION

SECTION 099000

INTERIOR, EXTERIOR AND HIGH PERFORMANCE PAINTS AND COATINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Interior paint and coating commercial systems including surface preparation.
- B. Exterior high-performance paint and coatings systems including surface preparation.
- C. Exterior paint and coating systems including surface preparation.
- D. High performance concrete floor sealer.

1.02 RELATED SECTIONS

- A. Section 033000 Cast-in-Place Concrete.
- B. Section 042200 Concrete Unit Masonry.
- C. Section 042613 Masonry Veneer.
- D. Section 051200 Structural Steel.
- E. Section 081113 Hollow Metal Doors and Frames.
- F. Section 081416 Flush Wood Doors.
- G. Section 092900 Gypsum Board.

1.03 REFERENCES

- A. Steel Structures Painting Council (SSPC):
 - 1. SSPC-SP 1 Solvent Cleaning.
 - 2. SSPC-SP 2 Hand Tool Cleaning.
 - 3. SSPC-SP 3 Power Tool Cleaning.
 - 4. SSPC-SP 5/NACE No.1, White Metal Blast Cleaning.
 - 5. SSPC-SP 6/NACE No.3, Commercial Blast Cleaning.
 - 6. SSPC-SP 7/NACE No.4, Brush-Off Blast Cleaning.
 - 7. SSPC-SP 10/NACE No.2, Near-White Blast Cleaning.
 - 8. SSPC-SP 11, Power Tool Cleaning to Bare Metal.
 - 9. SSPC-SP12/NACE No. 5, Surface Preparation and Cleaning of Metals by Waterjetting Prior to Recoating.
 - 10. SSPC-SP 13/NACE No.6 Surface Preparation for Concrete.
- B. Material Safety Data Sheets / Environmental Data Sheets: Per manufacturer's MSDS/EDS for specific VOCs (calculated per 40 CFR 59.406). VOCs may vary by base and sheen.
- C. California Department of Public Health (CDPH):

1.04 SUBMITTALS

- A. Submit under provisions of Section 013300 Submittal Procedures.
- B. Product Data: For each paint system indicated, including.
 - 1. Product characteristics.
 - 2. Surface preparation instructions and recommendations.
 - 3. Primer requirements and finish specification.
 - 4. Storage and handling requirements and recommendations.
 - 5. Application methods.
 - 6. Cautions for storage, handling and installation.
- C. Selection Samples: Submit a complete set of color chips that represent the full range of manufacturer's products, colors and sheens available.
- D. Verification Samples: For each finish product specified, submit samples that represent actual product, color, and sheen.

- E. Coating Maintenance Manual: Upon conclusion of project, the Contractor or paint manufacturer/supplier shall furnish a coating maintenance manual, such as Sherwin-Williams, "Custodian Project Color and Product Information" report or equal. Manual shall include an Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Material Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used. "
- F. Only submit complying products based on project requirements (i.e. LEED). One must also comply with the regulations regarding VOCs (CARB, OTC, SCAQMD, LADCO). To ensure compliance with district regulations and other rules, businesses that perform coating activities should contact the local district in each area where the coating will be used.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Paint exposed surfaces. If a color of finish, or a surface is not specifically mentioned, Architect will select from standard products, colors and sheens available.
- C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels unless indicated.
- D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish surfaces for verification of products, colors and sheens.
 - 2. Finish area designated by Architect.
 - 3. Provide samples that designate primer and finish coats.
 - 4. Compatibility and Adhesion: Check after one week of drying and curing by testing in accordance with ASTM D3359; Adhesion by tape test. If coating system is incompatible, additional surface preparation up to and including complete removal may be required.
 - 5. Do not proceed with remaining work until the Architect approves the mock-up.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and the following list of information.
 - 1. Product name, and type (description).
 - 2. Application and use instructions.
 - 3. Surface preparation.
 - 4. VOC content.
 - 5. Environmental handling.
 - 6. Batch date.
 - 7. Color number.
- B. Storage: Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- C. Store materials in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.
- D. Handling: Maintain a clean, dry storage area, to prevent contamination or damage to the coatings.

1.07 PROJECT CONDITIONS

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

1.08 EXTRA MATERIALS

- A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
- B. Furnish Owner with an additional one percent of each material and color, but not less than 1 gal (3.8 l) or 1 case, as appropriate.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design Manufacturer: Sherwin-Williams, which is located at: 101 Prospect Ave.; Cleveland, OH 44115; ASD Toll Free Tel: 800-524-5979; Tel: 216-566-2000; Fax: 440-826-1989; Email: request infospecifications@sherwin.com; Web:www.swspecs.com.
- B. Requests for substitutions will be considered in accordance with provisions of Section 012500 Substitution Procedures.

2.02 APPLICATIONS/SCOPE

- A. Interior Paint and Coating Commercial Systems:
 - 1. Metal: Structural steel, joists, trusses, beams, partitions and similar items.
 - 2. Drywall: Drywall board, Gypsum board.
- B. High Performance Exterior Paint and Coating Systems:
 - 1. Metal: Miscellaneous iron, ornamental iron, ferrous metal.
 - 2. Concrete: Warehouse floors
 - 3. Concrete: Warehouse floor striping
- C. Exterior Paint and Coating Systems:
 - 1. Concrete Masonry Units
 - 2. Metal: Aluminum, galvanized steel.
 - 3. Metal: Miscellaneous iron, ornamental iron, ferrous metal.

2.03 PAINT MATERIALS - GENERAL

- A. Paints and Coatings:
 - 1. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
 - 2. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color. Or follow manufactures product instructions for optimal color conformance.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- C. Coating Application Accessories: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.
- D. Color: Refer to Finish Schedule for paint colors, and as selected.

2.04 INTERIOR PAINT AND COATING COMMERCIAL SYSTEMS

- A. Metal: Hollow Metal Doors and Frames:
 - 1. Alkyd Systems; Waterbased:
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series
 - 2) 2nd Coat: S-W Pro Industrial Water based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series.
- B. Drywall: Walls, Ceilings, Gypsum Board and similar items.
 - 1. Latex Systems:

- a. Eg-Shel Finish Scuff Resistant Waterbase Enamel:
 - 1) 1st Coat: Sherwin-Williams ProMar 200 Zero VOC Interior Latex Primer, B28W2600
 - 2) 2nd Coat: Sherwin-Williams ProMar Zero VOC Interior Latex Eggshell, B31-2600 Series.
 - 3) 3rd Coat: Sherwin-Williams ProMar Zero VOC Interior Latex Eggshell, B31-2600 Series.
- 2. Epoxy Systems; Waterbased: Restroom/Wet Areas
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28W2600
 - 2) 2nd Coat: S-W Pro Industrial Pre-Catalyzed Water Based, K46 Series.
 - 3) 3rd Coat: S-W Pro Industrial Pre-Catalyzed Water Based, K46 Series.

2.05 HIGH PERFORMANCE EXTERIOR PAINT AND COATING SYSTEMS

- A. Concrete: Floor Slabs (Warehouse, Wire Storage, Other exposed interior concrete floors.)
 - 1. Basis of Design: Cemlack Concrete Sealer The Sherwin-Williams Company.
 - a. Description: Cemlack Concrete Sealer is a patented dual-crystalline, penetrating concrete and masonry sealer. It iis designed to protect surfaces from the delaminating effects of water, moisture saturation, freeze/thaw, ASR, chloride-ionn penetration and ice adhesion.
 - b. Uses: Ideal for exterior or interior concrete and masonry surfaces and can be applied to both positive and negative hydrostatic pressure sides of concrete.
 - c. Application: Prep surfaces, apply Cemlack Concrete Sealer, and clean up work areas and tools per the manufacturers instructions

2.06 EXTERIOR PAINT AND COATING SYSTEMS

- A. Concrete: Concrete Slab Safety Striping
 - 1. Epoxy Systems:
 - a. High solids, high build Semi-Gloss:
 - 1) 1st Coat: S-W Macropoxy 646.
 - 2) 2nd Coat: S-W Macropoxy 646.
- B. Concrete Masonry Units
 - 1. Acrylic Systems:
 - a. Satin Finish:
 - 1) Block Filler / Surfacer: S-W Loxon Acrylic Block Surfacer LX1W200
 - 2) 1st Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50
 - 3) 2nd Coat: S-W Loxon Self-Cleaning Acrylic, LX14 Series.
 - 4) 3rd Coat: S-W Loxon Self-Cleaning Acrylic, LX14 Series.
- C. Metal: Hollow Metal Doors and Frames, Bollards:
 - 1. Alkyd Systems; Waterbased:
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series
 - 2) 2nd Coat: S-W Pro Industrial Waterbased Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series.
 - 3rd Coat: S-W Pro Industrial Waterbased Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series.
- D. Metal: Metal building structural frame, purlins, metal deck, exposed steel.
 - 1. Dryfall Waterborne System:
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series.
 - 2) 2nd Coat: S-W Pro Industrial Waterborne Acrylic Dryfall, Semi-Gloss, B42-80 Series.

- 3rd Coat: S-W Pro Industrial Waterborne Acrylic Dryfall, Semi-Gloss, B42-80
- E. Metal: Aluminum handrails and guardrails.
 - 1. Commercial Maintenance System:
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W Pro Industrial ProCryl Metal Primer, B66 Series.
 - 2) 2nd Coat: S-W Pro Industrial Waterbased Alkyd Urethane, B53 Series.
 - 3) 3rd Coat: S-W Pro Industrial Waterbased Alkyd Urethane, B53 Series.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared; notify Architect of unsatisfactory conditions before proceeding. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- B. Proceed with work only after conditions have been corrected and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.
- C. Previously Painted Surfaces: Verify that existing painted surfaces do not contain lead based paints, notify Architect immediately if lead based paints are encountered.

3.02 SURFACE PREPARATION

- A. General: Surfaces shall be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.
 - 1. Prior to attempting to remove mildew, it is recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions are advised.
 - 2. Remove mildew before painting by washing with a solution of 1 part liquid household bleach and 3 parts of warm water. Apply solution and scrub the mildewed area. Allow solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow surface to dry before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.
 - 3. Remove items including but not limited to thermostats, electrical outlets, switch covers and similar items prior to painting. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
 - 4. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50 degrees Fahrenheit (10 degrees Celsius), unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface and material temperatures must be 50 degrees Fahrenheit (10 degrees Celsius) or higher to use low temperature products.
- B. Aluminum: Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP 1, Solvent Cleaning.
- C. Block (Cinder and Concrete): Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners. Concrete and mortar must be cured at least 30 days at 75 degrees Fahrenheit (23.89 degrees Celsius). The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments. On tilt-up and poured-in-place concrete, commercial detergents and abrasive blasting may be necessary to prepare the surface. Fill bug holes, air pockets, and other voids with a cement patching compound.
- D. Concrete, SSPC-SP13 or NACE 6: This standard gives requirements for surface preparation of concrete by mechanical, chemical, or thermal methods prior to the application of bonded protective coating or lining systems. The requirements of this standard are applicable to all types of cementitious surfaces including cast-in-place concrete floors and walls, precast slabs, masonry walls, and shotcrete surfaces. An acceptable prepared concrete surface should be

free of contaminants, laitance, loosely adhering concrete, and dust, and should provide a sound, uniform substrate suitable for the application of protective coating or lining systems.

- E. Cement Composition Siding/Panels: Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Pressure clean, if needed, with a minimum of 2100 psi (14479.00 kPa) pressure to remove all dirt, dust, grease, oil, loose particles, laitance, foreign material, and peeling or defective coatings. Allow the surface to dry thoroughly. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments.
- F. Copper and Stainless Steel: Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP 2, Hand Tool Cleaning.
- G. Exterior Composition Board (Hardboard): Some composition boards may exude a waxy material that must be removed with a solvent prior to coating. Whether factory primed or unprimed, exterior composition board siding (hardboard) must be cleaned thoroughly and primed with an alkyd primer.
- H. Drywall Exterior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting. Exterior surfaces must be spackled with exterior grade compounds.
- I. Drywall Interior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting.
- J. Galvanized Metal: Clean per SSPC-SP 1 using detergent and water or a degreasing cleaner to remove greases and oils. Apply a test area, priming as required. Allow the coating to dry at least one week before testing. If adhesion is poor, Brush Blast per SSPC-SP 16 is necessary to remove these treatments.
- K. Plaster: Must be allowed to dry thoroughly for at least 30 days before painting unless the products are designed to be used in high pH environments. Room must be ventilated while drying; in cold, damp weather, rooms must be heated. Damaged areas must be repaired with an appropriate patching material. Bare plaster must be cured and hard. Textured, soft, porous, or powdery plaster should be treated with a solution of 1 pint household vinegar to 1 gallon of water. Repeat until the surface is hard, rinse with clear water and allow to dry.
- L. Steel: Structural, Plate, And Similar Items: Should be cleaned by one or more of the surface preparations described below. These methods are used throughout the world for describing methods for cleaning structural steel. Visual standards are available through the Society of Protective Coatings. A brief description of these standards together with numbers by which they can be specified follow.
 - 1. Solvent Cleaning, SSPC-SP 1: Solvent cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants. Solvent cleaning does not remove rust or mill scale. Change rags and cleaning solution frequently so that deposits of oil and grease are not spread over additional areas in the cleaning process. Be sure to allow adequate ventilation.
 - 2. Hand Tool Cleaning, SSPC-SP 2: Hand Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Before hand tool cleaning, remove visible oil, grease, soluble welding residues, and salts by the methods outlined in SSPC-SP 1.
 - 3. Power Tool Cleaning, SSPC-SP 3: Power Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Before power tool cleaning, remove visible oil, grease, soluble welding residues, and salts by the methods outlined in SSPC-SP 1.
 - 4. White Metal Blast Cleaning, SSPC-SP5 or NACE 1: A White Metal Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter. Before blast

cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP 1 or other agreed upon methods.

- 5. Commercial Blast Cleaning, SSPC-SP6 or NACE 3: A Commercial Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except for staining. Staining shall be limited to no more than 33 percent of each square inch of surface area and may consist of light shadows, slight streaks, or minor discoloration caused by stains of rust, stains of mill scale, or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP 1 or other agreed upon methods.
- 6. Brush-Off Blast Cleaning, SSPC-SP7 or NACE 4: A Brush-Off Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose paint. Tightly adherent mill scale, rust, and paint may remain on the surface. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP 1 or other agreed upon methods.
- 7. Power Tool Cleaning to Bare Metal, SSPC-SP 11: Metallic surfaces that are prepared according to this specification, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxide corrosion products, and other foreign matter. Slight residues of rust and paint may be left in the lower portions of pits if the original surface is pitted. Prior to power tool surface preparation, remove visible deposits of oil or grease by any of the methods specified in SSPC-SP 1, Solvent Cleaning, or other agreed upon methods.
- 8. Near-White Blast Cleaning, SSPC-SP10 or NACE 2: A Near White Blast Cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except for staining. Staining shall be limited to no more than 5 percent of each square inch of surface area and may consist of light shadows, slight streaks, or minor discoloration caused by stains of rust, stains of mill scale, or stains of previously applied paint. Before blast cleaning, visible deposits of oil or grease shall be removed by any of the methods specified in SSPC-SP 1 or other agreed upon methods.
- 9. High- and Ultra-High Pressure Water Jetting for Steel and Other Hard Materials: SSPC-SP12 or NACE 5: This standard provides requirements for the use of high- and ultra-high pressure water jetting to achieve various degrees of surface cleanliness. This standard is limited in scope to the use of water only without the addition of solid particles in the stream.
- 10. Water Blasting, SSPC-SP12/NACE No. 5: Removal of oil grease dirt, loose rust, loose mill scale, and loose paint by water at pressures of 2,000 to 2,500 psi (17236.90 kPa) at a flow of 4 to 14 gallons per minute.
- M. Vinyl Siding, Architectural Plastics, EIFS and Fiberglass: Clean vinyl siding thoroughly by scrubbing with a warm, soapy water solution. Rinse thoroughly. Do not paint vinyl siding with any color darker than the original color unless the paint system features Sherwin-Williams VinylSafe technology. Painting with darker colors that are not Sherwin-Williams VinylSafe may cause siding to warp. Follow all painting guidelines of the vinyl manufacturer when painting. Only paint properly installed vinyl siding. Deviating from the manufacturer's painting guidelines may cause the warranty to be voided.
- N. Stucco: Must be clean and free of any loose stucco. If recommended procedures for applying stucco are followed, and normal drying conditions prevail, the surface may be painted in 30 days. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments such as Loxon.
- O. Wood: Must be clean and dry. Prime and paint as soon as possible. Knots and pitch streaks must be scraped, sanded, and spot primed before a full priming coat is applied. Patch all nail holes and imperfections with a wood filler or putty and sand smooth.

3.03 INSTALLATION

- A. Apply all coatings and materials with the manufacturer's specifications in mind. Mix and thin coatings according to manufacturer's recommendations.
- B. Do not apply to wet or damp surfaces. Wait at least 30 days before applying to new concrete or masonry. Or follow manufacturer's procedures to apply appropriate coatings prior to 30 days. Test new concrete for moisture content. Wait until wood is fully dry after rain or morning fog or dew.
- C. Apply coatings using methods recommended by manufacturer.
- D. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.
- E. Apply coatings at spreading rate required to achieve the manufacturers recommended dry film thickness.
- F. Regardless of number of coats specified, apply as many coats as necessary for complete hide, and uniform appearance.
- G. Inspection: The coated surface must be inspected and approved by the Architect just prior to the application of each coat.

3.04 PROTECTION

- A. Protect finished coatings from damage until completion of project.
- B. Touch-up damaged coatings after substantial completion, following manufacturer's recommendation for touch up or repair of damaged coatings. Repair any defects that will hinder the performance of the coatings.

END OF SECTION

SECTION 105629.16 PALLET STORAGE RACKS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Pallet storage racks, Storage Shelving and Wire despooling racks.
- B. Pallet decking.

1.02 RELATED REQUIREMENTS

- A. Section 017419 Construction Waste Management and Disposal.
- B. Section 017800 Closeout Submittals: Project record documents, operation and maintenance (O&M) data, warranties and bonds.

1.03 DEFINITIONS

- A. Industrial Pallet Rack: Single or multi-level structural storage system used to support high stacking of single items or palletized loads. Configured to allow rapid access to stored or mounted materials.
- B. Industrial Wire Despooling Rack: Single or multi-level structural storage and despooling system used to store wire for distribution into the field. Configured to allow rapid access to stored wire material.
- C. Upright Frame: Columns, and bracing members between the columns.
- D. Pallet Beam: Front and back shelf members that bear the weight of the load and transfer it to upright frames.
- E. Pallet: A flat transport structure that supports goods in a stable fashion while being lifted by a forklift, pallet jack, front loader, work saver, or other jacking device, or a crane.

1.04 REFERENCE STANDARDS

- A. 29 CFR 1910 Occupational Safety and Health Standards; Current Edition.
- B. ANSI MH16.1 Design, Testing, and Utilization of Industrial Steel Storage Racks; 2023.
- C. ANSI MH26.2 Specification for the Design, Testing and Utilization of Welded Wire Rack Decking; 2017.
- D. ASTM A36/A36M Standard Specification for Carbon Structural Steel; 2019.
- E. ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- F. ASTM A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- G. ASTM A500/A500M Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2021a.
- H. ASTM F3125/F3125M Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength; 2022.
- I. SSPC-Paint 15 Steel Joist Shop Primer/Metal Building Primer; 2004.
- J. SSPC-Paint 20 Zinc-Rich Coating (Type I Inorganic, and Type II Organic); 2019.

1.05 SUBMITTALS

- A. See Section 013000 Administrative Requirements, for submittal procedures.
- B. Product Data: Materials and details of design and construction. Include system components, accessories, and substrate preparation recommendations.

- C. Shop Drawings: Indicate locations, type and layout of pallet racks, and erection sequence. Include lengths, heights, and aisle layout, and relationship (and connections, if any) to adjacent construction. Indicate configuration, and method of installation of decking units.
- D. Design Data: Provide design calculations, bearing seal and signature of structural engineer licensed to practice in the State in which the Project is located, showing load application and rack configuration(s).
- E. Designer's Qualification Statement.
- F. Project Record Documents: Record actual locations and initial configuration of racks in the project.

1.06 QUALITY ASSURANCE

- A. Designer Qualifications: Perform design under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located. Design to meet loads provided in sections below.
 - 1. Preliminary design and materials handling guidance provided by Southern States Material Handling in Tampa Florida. 1-813-458-9756.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with minimum ten years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver all items to project site in packaging.
- B. Inspect for dents, scratches, or other damage.
- C. Store rack system components, accessories and installation anchors and fasteners in manufacturer's unopened packaging until ready for installation.

1.08 FIELD CONDITIONS

A. Ambient Conditions: Maintain temperature within range recommended by the rack manufacturer during and after installation of pallet rack system.

1.09 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Husky Rack and Wire; _____: www.huskyrackandwire.com/#sle.
- B. Steel King Industries, Inc; ____: www.steelking.com/#sle.
- C. Unarco Material Handling, Inc; _____: www.unarcorack.com/#sle.
- D. Or approved equal, subject to requirements..
- E. Substitutions: See Section 016000 Product Requirements.
- F. Source Limitations: Obtain storage racks, including shelving, from single manufacturer.

2.02 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, licensed in the State in which the Project is located to design storage systems.
- B. Structural Performance: Provide pallet systems capable of safely supporting loads as indicated below.
 - 1. Design in compliance with applicable requirements of 2015 IBC, including any amendments made by the State in which the Project is located.
- C. Safety and Loading Performance: Comply with requirements of ANSI MH16.1.

2.03 SYSTEMS AND COMPONENTS

- A. General: Provide manufacturer's standard storage shelving systems and components.
- B. Where components are not explicitly indicated, provide manufacturer's standard components as required for a complete system.

2.04 PALLET RACK TYPES

A. Single-Face Rack: One continuous row of units joined together and side-to-side, positioned along a wall, to be serviced by one service aisle, single-deep.

2.05 STEEL PALLET RACKS AND WIRE DESPOOLING RACKS

- A. Pallet Racks: Rack system consisting of upright frames, and beams with integral locking devices for bolted connection to frame columns.
 - 1. Structural Columns: Bolted-beams application steel channel complying with ASTM A36/A36M; nominal depth; weight-per-foot as required by structural design calculations.
 - a. Connection holes on column face, on 2 inch (51 mm) centers for bolts and nuts complying with ASTM F3125/F3125M.
 - 2. Structural Columns: Bolted-beams application hollow structural steel tube complying with ASTM A500/A500M; nominal minimum size; subject to structural design calculations.
 - a. Connection holes on column face, on 2 inch (51 mm) centers for bolts and nuts complying with ASTM F3125/F3125M.
 - 3. Pallet Beams:
 - a. Steel Structural Channel Beams: Manufacturer's standard, with fully-welded endplates; size selected to safely carry design loads.
 - b. Beam Locking Devices: Manufacturer's standard pins, bolts or other mechanisms that resist disengagement of beam from its supports.
 - 4. Horizontal and Diagonal Bracing: Manufacturer's standard, sized and configured to provide required stability and minimize sway, selection of members determined by structural design calculations.
- B. Storage Positions:

- 1. Number of Aisles and Storage Lanes: As indicated on drawings.
- 2. Sizes: As indicated on drawings.
- 3. Maximum Loading / Shelf and Rack Required Capacities:
 - a. Warehouse Storage See drawings.
 - 1) Type: Warehouse Pallete Storage Racks (S1): 6,000 pounds (1,361 kg) per shelf.
 - Type: Warehouse Pallete Storage Racks (S2-S8): 3,000 pounds (2,722 kg) per shelf.
 - b. Storage Shelving See drawings.
 - 1) Type: [Storage Shelving Units (S10-S11)]: [300] pounds ([136] kg) per shelf.
 - c. Wire Storage See drawings.
 - 1) Type: Wire Storage Pallete Storage Racks (S12): 12,500 pounds (5,670 kg) per shelf.
 - 2) Type: Wire Storage Pallete Storage Racks (S13-S16): 6,000 pounds (1,361 kg) per shelf.
 - 3) Type: De-Spooling Racks (S17): 7,000 pounds (3,175 kg) per level / 14,000 pounds (6,350 kg) per rack.
 - 4) Type: De-Spooling Racks (S18): 2,000 pounds (3,175 kg) per level / 6,000 pounds (1,361 kg) per rack.
 - 5) Type: De-Spooling Racks (S19): 2,000 pounds (3,175 kg) per level / 8,000 pounds (3,629 kg) per rack.
 - 6) Type: De-Spooling Racks (S20): 2,000 pounds (3,175 kg) per level / 10,000 pounds (4,536 kg) per rack.
- 4. Decking: Welded-wire fabric; in gauge and configuration required to support loading.

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2.06 ACCESSORIES

- A. Column Protector Guards: Manufacturer's standard, independently-mounted.
 - 1. Color: Safety Yellow, complying with requirements of 29 CFR 1910 Subpart J, Standard 1910.144(a)(3).
- B. End-Aisle Protector Assembly: Manufacturer's standard.
 - 1. Color: Safety Yellow, complying with requirements of 29 CFR 1910 Subpart J, Standard 1910.144(a)(3).
- C. Wall Ties: Welded or bolted, manufacturer's standard.
- D. Row Spacers: Welded or bolted, manufacturer's standard.
- E. Fasteners and Anchors:
 - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M.

2.07 FINISHES - STEEL

- A. Galvanizing of Framing Items: Galvanize after fabrication to ASTM A123/A123M requirements.
- B. Baked-Enamel or Powder-Coat Finish: Manufacturer's standard two-coat finish consisting of prime coat applied as per SSPC-Paint 15 or SSPC-Paint 20 requirements, and a thermosetting topcoat to achieve a minimum dry film thickness of 2 mils, 0.002 inch (0.05 mm).
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved samples and are assembled or installed to minimize contrast.
- D. Color and Gloss: As selected by Architect from manufacturer's full range.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

- A. Level and plumb racks to a tolerance of 1/2 inch in 120 inches (12.5 mm in 3048 mm).
- B. Use permanent shims or non-shrink grout as indicated by manufacturer.
- C. Set pallet rack system sufficiently away from walls to allow access behind shelving for maintenance, including treatment for pests and vermin.

3.02 RACK SYSTEM INSTALLATION

- A. Install rack system according to manufacturer's written instructions and as required to prevent movement and seismic distortion, to meet loading requirements, and to allow access for future adjustment of shelves.
- B. Provide anchors and fasteners required for securing rack system to structure.
- C. Connect groups together with standard fasteners according to manufacturer's written instructions, using concealed fasteners where possible.
- D. Install horizontal members at locations indicated on Drawings and as indicated in field by Architect, according to manufacturer's written instructions.

3.03 SPECIAL INSPECTIONS

3.04 CLOSEOUT ACTIVITIES

- A. Demonstration: Demonstrate operation of system to Owner's personnel.
 - 1. Use operation and maintenance data as reference during demonstration.
 - 2. Briefly describe function, operation, and maintenance of each component.

END OF SECTION



MASONRY FINISHES			
E100:	BRICK VENEER - FIELD / RUNNING BOND - PALMETTO BRICK - 2.0 GREYS		
E101:	BRICK VENEER - ACCENT / STACK BOND - PALMETTO BRICK - IVORYSTON		
E102:	BRICK ROWLOCK COURSE - PALMETTO BRICK - IVORYSTONE		
E103:	CAST STONE: COLOR - TBD (MATCH EXIST. FACILITY)		
CEMENTITIOUS FINISHES			
E200:	EIFS WALL FINISH - DRYVIT AMARILLO WHITE #113 - SANDPEBBLE DPR (S		
E201:	TEXTURED ACRYLIC FINISH - MATCH EIFS - DRYVIT AMARILLO WHITE #11		
METAL FINISHES			
E300:	PRE-FINISHED METAL WALL PANEL - COLOR: TBD		
E301:	PRE-FINISHED METAL ROOF PANEL - COLOR: TBD		
E302:	PRE-FINISHED METAL GUTTER / DOWNSPOUT - COLOR: TBD		
E303:	PRE-FINISHED METAL TRIM - COLOR: TBD		
E304:	PRE-FINISHED METAL SOFFIT - COLOR: TBD		
E305:	PRE-FINISHED FALL PROTECTION GUARDRAIL - YELLOW - SEE SPEC		
E306:	PRE-FINISHED OVERHEAD DOOR - SEE SPEC		
E307:	PRE-FINISHED METAL CORING - COLOR: TBD		
E308:	ALUMINUM HANDRAIL/GUARDRAIL: PAINTED - COLOR: TBD		
PAINT	ED FINISHES		
E400:	CMU - PAINTED - COLOR: SW6107 NOMADIC DESERT		
E401:	ALUMINUM AWNING - POWDER COATED - COLOR: TBD		
E402:	HM DOOR AND FRAME - COLOR: SW0732 WARM STONE		
E403:	6" DIA. METAL BOLLARD - COLOR: SW SAFETY YELLOW		
E404:	METAL GATE - POWDER COATED - COLOR: BLACK		





Exterior Finish Schedule

MASONRY FINISHES	
E100: E101: E102: E103:	BRICK VENEER - FIELD / RUNNING BOND - PALMETTO BRICK - 2.0 GREYSTONE BRICK VENEER - ACCENT / STACK BOND - PALMETTO BRICK - IVORYSTONE BRICK ROWLOCK COURSE - PALMETTO BRICK - IVORYSTONE CAST STONE: COLOR - TBD (MATCH EXIST. FACILITY)
CEMENTITIOUS FINISHES	
E200: E201:	EIFS WALL FINISH - DRYVIT AMARILLO WHITE #113 - SANDPEBBLE DPR (ST) TEXT TEXTURED ACRYLIC FINISH - MATCH EIFS - DRYVIT AMARILLO WHITE #113
METAL FINISHES	
E300: E301: E302: E303: E304: E305: E306: E307: E308:	PRE-FINISHED METAL WALL PANEL - COLOR: TBD PRE-FINISHED METAL ROOF PANEL - COLOR: TBD PRE-FINISHED METAL GUTTER / DOWNSPOUT - COLOR: TBD PRE-FINISHED METAL TRIM - COLOR: TBD PRE-FINISHED METAL SOFFIT - COLOR: TBD PRE-FINISHED FALL PROTECTION GUARDRAIL - YELLOW - SEE SPEC PRE-FINISHED OVERHEAD DOOR - SEE SPEC PRE-FINISHED METAL CORING - COLOR: TBD ALUMINUM HANDRAIL/GUARDRAIL: PAINTED - COLOR: TBD
PAINTED FINISHES	
E400: E401: E402: E403: E404: E405:	CMU - PAINTED - COLOR: SW6107 NOMADIC DESERT ALUMINUM AWNING - POWDER COATED - COLOR: TBD HM DOOR AND FRAME - COLOR: SW0732 WARM STONE 6" DIA. METAL BOLLARD - COLOR: SW SAFETY YELLOW METAL GATE - POWDER COATED - COLOR: BLACK STEEL STRUCTURAL FRAME - COLOR: SW7020 BLACK FOX

