State of Alaska
Department of Environmental Conservation
Village Safe Water Program
555 Cordova Street
Anchorage, AK 99501
evan.patterson@alaska.gov

January 14, 2025

To: Vendor List

Re: Amendment 3
ITB 25-VSW-SNP-016
Saint Paul Lift Station Project
ITB Due Date: January 22, 2025 @ 2:00 PM AST

The following are vendor questions and the State's response:

1. Vendor: In the job specs under section 1.08 warranty, in both the "Steel frames and doors" and "Fill" sections, there are five year warranty requirements for defective work. This creates a problem for our bonding underwriter. Is there any way to change the language in these specifications to two or three years?

   Department: See attached revised specifications.

2. Vendor: We do not see any available geotechnical information for the sites in the specs. Is there any available geotechnical data?

   Department: As there were no site-specific reports executed for geotechnical information within our project - the contractor should be able to reference Section 4.1.1.1. Soil Conditions in the DAR. We believe it is sufficient for project understanding as it also coincides with the 2020 PER and the design drawings.

Evan Patterson

Evan Patterson

Procurement Specialist

SECTION 081119
STAINLESS-STEEL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Stainless-steel hollow metal doors and frames.
   1. Non-fire-rated doors and frames.
   2. Thermally broken insulated doors with frames.

1.02 RELATED REQUIREMENTS

A. Section 087100 - Door Hardware.

1.03 ABBREVIATIONS AND ACRONYMS

A. ANSI: American National Standards Institute.

B. ASTM International.

C. HMMA: Hollow Metal Manufacturers Association.

D. NAAMM: National Association of Architectural Metal Manufacturers.

E. SDI: Steel Door Institute.

F. UL: Underwriters Laboratories.

1.04 REFERENCE STANDARDS

A. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2018.

B. ASTM A480/A480M - Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip; 2020a.

C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.

D. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.

E. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable; 2021a.

F. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2018a.

G. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2019.

H. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2022.

I. BHMA A156.115 - Hardware Preparation in Steel Doors and Steel Frames; 2016.

J. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames; 2002.

K. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2011.

L. NAAMM HMMA 840 - Guide Specifications For Receipt, Storage and Installation of Hollow Metal Doors and Frames; 2007.

M. NAAMM HMMA 866 - Guide Specifications for Stainless Steel Hollow Metal Doors and Frames; 2012 (Reapproved 2018).

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.

C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.

D. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than ten years documented experience.

B. Maintain at project site copies of reference standards relating to installation of specified products.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Comply with NAAMM HMMA 840 in accordance with specified requirements.

B. Deliver doors and frames palletized, packaged, or crated during transit and providing necessary protection.

C. Protect with resilient packaging; avoid humidity build-up under coverings by allowing for air circulation; prevent corrosion and adverse effects on stainless-steel finish.

D. Do not remove wraps or covers from stainless-steel doors and frame material until ready for installation.

E. Store door and frame material in up-right vertical position, with wood blocking to raise above floor level and to provide separation between units.

1.08 WARRANTY

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

B. Correct defective Work within a three year period after Date of Substantial Completion.

C. Provide manufacturer warranty for doors and frames to be free from material or workmanship defects and within commercial tolerances within a two year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Stainless-Steel Doors and Frames Manufacturers:
   1. AMBICO; Stainless Steel Doors and Frames: www.ambico.com/#sle.
   2. ASI Doors Inc; Stainless Steel Cleanroom Doors: www.asidoors.com/#sle.
   3. Steelcraft, an Allegion brand: www.allegion.com/#sle.
   4. Titan Metal Products, Inc; Stainless Steel Doors and Frames: www.titanmetalproducts.com/#sle.

B. Substitutions: See Section 016000 - Product Requirements.

2.02 STAINLESS-STEEL DOORS AND FRAMES

A. Stainless-Steel Exterior Doors and Frames: Thermally broken, insulated.
   1. Based on NAAMM HMMA Custom Guidelines: Comply with guidelines of NAAMM HMMA 866 for stainless-steel hollow metal doors and frames.
      a. Physical Endurance - Level A (1,000,000 cycles), in accordance with ANSI/SDI A250.4 for Swing Test.
      b. Applications: Comply with designated application in accordance with NAAMM HMMA 866 guidelines.
         1) Highly corrosive.
      c. Door Face Sheets: Stainless-steel, Type 304 alloy.

1) Sheet Thickness: 16 gauge, 0.053 inch (1.3 mm), minimum.
2) Door Finish: No.4 - Brushed satin finish in accordance with ASTM A480/A480M.

d. Frames: Stainless-steel, knock-down type in compliance with NAAMM HMMA 866, with Type 304 alloy in compliance with ASTM A666.
1) Sheet Thickness: 16 gauge, 0.053 inch (1.3 mm), minimum.

2. Performance Requirements: Comply with design requirements as specified for door type indicated.
3. Door Core Material: Manufacturers standard core material and construction in compliance with specified requirements.
a. Foam Plastic Insulation: Manufacturer's standard board insulation with maximum flame spread index (FSI) of 75, and maximum smoke developed index (SDI) of 450 in accordance with ASTM E84, and completely enclosed within interior of door.
4. Door Thickness: 1-3/4 inch (44.5 mm).
5. Vertical Door Edge: Seamless, fully and continuously welded and finished to match No.4 finish of door face.
6. Top Edge of Door: Inverted stainless-steel channel welded to face sheets.
7. Bottom Edge of Door: Inverted stainless-steel channel welded to face sheets.
8. At exterior doors, provide openings in bottom edge to permit escape of entrapped moisture.
9. Weatherstripping: Refer to Section 087100.

B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with most stringent.

2.03 PERFORMANCE REQUIREMENTS

2.04 MATERIALS

A. Stainless-Steel, Type 304: Complying with ASTM A666.

B. Cold-Rolled Steel: Comply with ASTM A1008/A1008M, Commercial Steel (CS), Type B.

C. Hot-Rolled, Pickled and Oiled (HRPO) Steel: Comply with ASTM A1011/A1011M, Commercial Steel (CS), Type B.

D. Zinc-Coated (Galvanized) Steel: Complying with ASTM A653/A653M, Commercial Steel (CS), Type B; with at least G60 (Z180) or A60 (ZF180) metallic coatings.

E. Expanded Polystyrene (EPS) Insulation: Rigid board, with minimum density of 1.0 lb/cu ft (16 kg/cu m), in accordance with ASTM C578.

2.05 ASSEMBLY

A. Door Hardware: As specified in Section 087100
1. Hardware Reinforcements and Preparations: Comply with specified requirements in accordance with NAAMM HMMA 866 and BHMA A156.115.

B. Floor and Jamb Anchors: Comply with specified requirements in compliance with NAAMM HMMA 866 for application.

C. Tolerances: Comply with manufacturing tolerances in compliance with NAAMM HMMA 866 for stainless-steel doors, frames, and hardware.

2.06 FINISHES

A. Stainless-Steel Finishes:
1. For No.4 - Brushed satin finish, ensure the following are completed on exposed metal surfaces:
a. Remove tool and die marks and stretch lines, or blend into finish.
b. Provide uniform finish, grind and polish exposed surfaces and free of cross hatches.

c. Provide surfaces that are chemically clean without any embedded foreign materials.
d. Grain Direction: Ensure specified grain direction runs vertically on door faces and frame jambs.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that opening sizes and tolerances are acceptable.

C. Verify that finished walls are in plane to ensure proper door alignment.

D. Verify that finished floor area within path of door swing complies with flatness criteria and correct as necessary.

E. Verify each door and frame for correct size, swing, fire rating and opening number.

3.02 PREPARATION

A. Remove frame spreaders, and restore exposed finish as required to ensure repaired area is smooth, flush, and not visible on exposed faces.

B. Do not proceed with installation until support structure and substrates have been properly prepared and deviations from manufacturing tolerances are corrected; commencement of installation constitutes acceptance of conditions.

3.03 INSTALLATION

A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.

B. Coordinate frame anchor placement with wall construction.
1. Provide anchors appropriate for substrate door frame is fastened to and conditions specified for loading on door and frame.

C. Install door hardware as specified in Section 087100.
1. Comply with recommended practice for hardware placement of stainless-steel doors and frames in accordance with NAAMM HMMA 866, NAAMM HMMA 830 and NAAMM HMMA 831.

3.04 TOLERANCES

A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with NAAMM HMMA 866

B. Maximum Diagonal Distortion: 1/16 in (1.5 mm) measured with straight edge, corner to corner.

3.05 ADJUSTING

A. Adjust for smooth and balanced door movement.

3.06 CLEANING

A. Clean grout and other materials from stainless-steel doors and frames immediately after installation.

B. Touch up stainless-steel immediately after erection, smooth scratched or damaged areas and polish to match adjacent undamaged finish.

SECTION 312323
FILL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Filling, backfilling, and compacting for building volume below grade, footings, slabs-on-grade, paving, and utilities within the building.

B. Backfilling and compacting for utilities outside the building to utility main connections.

C. Filling holes, pits, and excavations generated as a result of removal (demolition) operations.

1.02 RELATED REQUIREMENTS

A. Section 033000 - Cast-in-Place Concrete.

B. Section 312316 - Excavation: Removal and handling of soil to be re-used.

1.03 DEFINITIONS

A. Finish Grade Elevations: Indicated on drawings.

B. Subgrade Elevations: Indicated on drawings.

1.04 REFERENCE STANDARDS

A. AASHTO M 147 - Standard Specification for Materials for Aggregate and Soil–Aggregate Subbase, Base, and Surface Courses; 2017 (Reapproved 2021).

B. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop; 2022, with Errata .

C. ASTM C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2019.

D. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.

E. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2018.

F. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)); 2012 (Reapproved 2021).

G. ASTM D1556/D1556M - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method; 2015, with Editorial Revision (2016).

H. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3)); 2012 (Reapproved 2021).

I. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method; 2015.

J. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2017, with Editorial Revision (2020).

K. ASTM D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils; 2017, with Editorial Revision (2018).

L. ASTM D6938 - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth); 2023.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Soil Samples: 10 pounds (4.5 kg) sample of each type of fill; submit in air-tight containers to testing laboratory.

C. Materials Sources: Submit name of imported materials source.

D. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used, including manufactured fill.

E. Compaction Density Test Reports.

1.06 QUALITY ASSURANCE

A. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

1.07 DELIVERY, STORAGE, AND HANDLING

A. When necessary, store materials on site in advance of need.

B. When fill materials need to be stored on site, locate stockpiles where indicated.
   1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
   2. Prevent contamination.
   3. Protect stockpiles from erosion and deterioration of materials.

1.08 WARRANTY

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

B. Correct defective Work within a three year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.01 FILL MATERIALS

A. General Fill: Compacatable soil, free of clay, organics, or debris.

B. Structural Fill - Gravel : _____ Compactable well graded gravel; free of shale, clay, friable material and debris.
   1. Graded in accordance with ASTM C136/C136M, within the following limits:
      a. 3 inch (75 mm) sieve: 100 percent passing.
      b. 3/4 inch (19 mm) sieve: 75 to 100 percent passing.
      c. No. 4 (4.75 mm) sieve: 15 to 60 percent passing.
      d. No. 200 (75 micro m): 0 to 6 percent passing.
   2. Non-frost Suseptible

C. Bedding Sand: sand; free of silt, clay, loam, friable or soluble materials, and organic matter.
   1. Graded in accordance with ASTM C136/C136M; within the following limits:
      a. 1/2 inch (12.5 mm)sieve: 100 percent passing.
      b. 3/8 inch (9 mm) sieve: 80 to 100 percent passing.
      c. No. 4 (4.75 mm) sieve: 20 to 75 percent passing.
      d. No. 8 (236 micro m)sieve: 12 to 60 percent passing.
      e. No. 30 (500 micro m) No. 30 (600 micro m) sieve: _____ 2 to 30 30 percent passing.
      f. No. 200 (75 micro m) sieve: 0 to 6 percent passing.

2.02 SOURCE QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for general requirements for testing and analysis of soil material.

B. Where fill materials are specified by reference to a specific standard, testing of samples for compliance will be provided before delivery to site.

C. If tests indicate materials do not meet specified requirements, change material and retest.

D. Provide materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that survey bench marks and intended elevations for the Work are as indicated.

B. Identify required lines, levels, contours, and datum locations.

C. See Section 312200 for additional requirements.

D. Verify areas to be filled are not compromised with surface or ground water.

3.02 PREPARATION

A. Scarify and proof roll subgrade surface to a depth of 6 inches (150 mm) to identify soft spots.

B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.

C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.

D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

3.03 FILLING

A. Fill to contours and elevations indicated using unfrozen materials.

B. Employ a placement method that does not disturb or damage other work.

C. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.

D. Maintain optimum moisture content of fill materials to attain required compaction density.

E. Place and compact fill materials in equal continuous layers not exceeding 8 inches of compacted depth.

F. Slope grade away from building minimum 2 inches in 10 feet (50 mm in 3 m), unless noted otherwise. Make gradual grade changes. Blend slope into level areas.

G. Correct areas that are over-excavated.
   1. Load-bearing foundation surfaces: Use structural fill, flush to required elevation, compacted to 95 percent of maximum dry density.
   2. Other areas: Use general fill, flush to required elevation, compacted to minimum 97 percent of maximum dry density.

H. Compaction Density Unless Otherwise Specified or Indicated:
   1. Under paving, slabs-on-grade, and similar construction: 95 percent of maximum dry density.
   2. At other locations: 90 percent of maximum dry density.

I. Reshape and re-compact fills subjected to vehicular traffic.

J. Maintain temporary means and methods, as required, to remove all water while fill is being placed as required, or until directed by the Architect/Engineer. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.

3.04 FILL AT SPECIFIC LOCATIONS

A. Use general fill unless otherwise specified or indicated.

B. Structural Fill under footings, foundations, buildings pads, manholes, and wet wells:
   1. Maximum depth per lift: 8 inches (200 mm), compacted.
   2. Compact to minimum 95 percent of maximum dry density.

3.05 TOLERANCES

A. Top Surface of General Filling: Plus or minus 1 inch (25 mm) from required elevations.

3.06 CLEANING

A. See Section 017419 - Construction Waste Management and Disposal, for additional requirements.

B. Leave unused materials in a neat, compact stockpile.

C. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.

D. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.