

Addendum 2

Heritage Elementary Access

April 15, 2019

The following changes are to be made to the contract documents.

1. Specification Section 32900 Landscape Planting: Replace 2.A, 2.B and 3.1.D with the following:

PART 2 – MATERIALS

- A. Topsoil for planting operations shall be harvested from the portions of the site used for agriculture at a depth of 12”. Do not use surface material from the area of the site once occupied by homes. Topsoil shall be stockpiled, and protected from contamination throughout construction.
 1. Topsoil shall be free from debris such as rocks, roots, sticks and clods.
 2. Amend topsoil with fertilizer as recommended by the topsoil test. (See attached)
- B. Topsoil shall not be used for planting operations while in a frozen or muddy condition.

3.1 INSTALLATION OF TOPSOIL

- D. Preparation of the topsoil:
 1. Spread the stockpiled topsoil over the entire turf area. This topsoil layer will be 6” deep.
 2. Calculate the fertilizer requirements of the entire topsoil profile and spread the required fertilizer over the entire turf area.
 3. Till the topsoil, and amendments to a depth of 6”

Please note that screening and amending with compost will not be required.

2. Add to the project: Remove three (3) existing water meters and vaults and terminate the lateral lines at the main per Ogden City standards. Repair road per UDOT Standards and specifications. Obtain permit from Ogden City and Encroachment Permit from UDOT.
3. Add the specification Section 323113 – Chain Link Fences and Gates (Attached).
 - a. Clarification: Privacy slats shall be installed on all new perimeter fencing. Internal fencing will not have privacy slats.
4. Clarification: The pipe under the road that is to be filled with flowable fill is an 18" corrugated steel pipe.

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TOPSOIL REPORT AND QUALITY GUIDELINES*

Sample Name	pH	Soluble Salts dS/m or mmho/cm	Sodium Adsorption Ratio (SAR)	Organic Matter %	Sand %	Silt %	Clay %	Texture Class
Topsoil	7.4	0.4	0.2	2.2	58	22	20	Sandy Loam
Ideal	5.5-7.5	<2	<3	≥2.0	<70	<70	<30	Loam (L), Silt Loam (SiL)
Acceptable	5.0-8.2	<4	3 to 7 SiL, SiCL, CL 3 to 10 SCL, SL, L	≥1.0	<70	<70	<30	Sandy Clay Loam (SCL) Sandy Loam (SL) Clay Loam (CL) Silty Clay Loam (SiCL)
Suspect	<5.0 >8.2	>4	>10	<1.0	≥70	≥70	≥30	Loamy Sand (LS) Sandy Clay (SC) Silty Clay (SiC) Sand (S), Silt (S), Clay(C)

COARSE FRAGMENTS*

Sample Name	% >2 mm (>5.0% exceeds guidelines)	Rocks Present >1.5" (>1.5" exceeds guidelines)
Topsoil	7.5 (majority <1/4")	Not Present
Ideal	≤2.0	—
Acceptable	2.1-5.0	—
Suspect	>5.0	—

TOPSOIL NUTRIENT REPORT AND SPECIFICATION*

Sample Name	Nitrate Nitrogen ppm	Phosphorus ppm	Potassium ppm	Iron ppm
Topsoil	3	19	181	18
Specification	>20	>15	>150	>10

*from "Topsoil Quality Guidelines for Landscaping", June 2002, AG/SO-02, prepared by Rich Koenig, Utah State University Cooperative Extension Soil Specialist, and Von Isaman, QA Consulting and Testing, LLC.

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Interpretation:

Topsoil Coarse Fragment Percent >2mm is in the Suspect category for the Topsoil Guidelines. Nitrate Nitrogen does not meet Nutrient Specification.

Recommendations:

Apply an Nitrogen fertilizer at label rate.

Incorporate 3.0 cu yds/1000 sq ft of an organic material for every 3” of soil depth.

Be sure the organic material meets the Compost Quality Guidelines shown below. No additional organic material is recommended for organic matter content $\geq 5.0\%$.

Scarify the subsoil at least 6 inches before applying topsoil.

COMPOST QUALITY GUIDELINES FOR LANDSCAPING*

Category	pH**	Soluble Salts** dS/m or mmho/cm	Sodium Adsorption Ratio** (SAR)	Carbon:Nitrogen Ratio*** (C:N)	% Moisture****	$\geq 98\%$ Coarse Material Passing (dry wt basis)
Ideal	6 to 8	≤ 5	<10	$\leq 20:1$	25 to 35	3/8" (9.5 mm)
Acceptable	5-6, 8-9	≤ 10	≤ 20	21:1 to 30:1	<25, >35	3/4" (19 mm)
Suspect	<5, >9	>10	>20	<10:1, >30:1	<20, >50	<98% 3/4"

for composts with biosolid feedstocks, biosolids must meet EPA 503 Class A standards

*Von Isaman MS, President of QA Consulting and Testing LLC, Dr. Rich Koenig, USU Cooperative Extension Soils Specialist, and Dr. Teresa Cerny, USU Cooperative Extension Horticulturalist, 3 March 2003.

** 1:5 Compost:Water Slurry on Coarse Material passing 3/8" (9.5 mm), *** on Coarse Material passing 3/8" (9.5 mm)

**** on total sample

Acceptable level Soluble Salts and/or SAR composts then do not exceed 3 cu yds/1000 sq ft for every 3 inches of soil depth.

End.

OgdenSchoolDistTopsoilTbl19.410

SECTION 323113 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Chain-Link Fences: Industrial.
 - 2. Gates: Horizontal swing.
 - 3. Privacy slats.
- B. Related Sections include the following:
 - 1. Division 03 Section "Cast-in-Place Concrete".

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide chain-link fences and gates capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Minimum Post Size and Maximum Spacing for Wind Velocity Pressure: Determine based on mesh size and pattern specified, and on the following minimum design wind pressures and according to CLFMI WLG 2445, for exterior fence and gates:
 - a. Wind Speed: 105 mph.
 - b. Fence Height: 6 feet.
 - c. Line Post Group: IA, ASTM F 1043, Schedule 40 steel pipe.
 - d. Wind Exposure Category: B.
 - 2. Determine minimum post size, group, and section according to ASTM F 1043 for framework up to 6 feet high, and post spacing not to exceed 10 feet for interior fence and gates. Spans across pipelines may be greater. Size posts according to actual span.

1.4 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.
 - 1. Fence and gate posts, rails, and fittings.
 - 2. Chain-link fabric, reinforcements, and attachments.

3. Gates and hardware.

1.5 QUALITY ASSURANCE

- A. **Installer Qualifications:** An experienced installer who has completed chain-link fences and gates similar in material, design, and extent to those indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

1.6 PROJECT CONDITIONS

- A. **Field Measurements:** Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.
- B. **Interruption of Existing Utility Service:** Do not interrupt utility services to facilities occupied by Owner or others.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. **Manufacturers:** Subject to compliance with requirements, provide products by one of the following:
 1. **Chain-Link Fences and Gates:**
 - a. Master Halco, Inc.
 - b. Allied Tube and Conduit Corp.
 - c. Anchor Fence, Inc.
 - d. Coloraguard Corp.
 - e. Davis Walker Corp.
 - f. Dominion Fence and Wire Prod.
 - g. United States Steel

2.2 CHAIN-LINK FENCE FABRIC

- A. **General:** 6' fence. Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage twist. Comply with ASTM A 392, CLFMI CLF 2445, and requirements indicated below:
 1. **Steel Wire Fabric:** 9ga. Metallic-coated wire with a diameter of 0.148 inch (3.76 mm).
 - a. **Mesh Size:** 2 inches.
 - b. **Weight of Metallic (Zinc) Coating:** ASTM A 392, Type II, Class 1, 1.2 oz./sq. ft. (366 g/sq. m) after weaving.
 - c. **Coat selvage ends of fabric that is metallic coated before the weaving process with manufacturer's standard clear protective coating.**

2.3 INDUSTRIAL FENCE FRAMING

- A. Posts and Rails: Comply with ASTM F 1043 for framing, ASTM F 1083 for Group IC round pipe, and the following:
1. Group: IC, round steel pipe, yield strength 50,000 psi or II, roll-formed C section.
 2. Fence Height: Up to 6 feet.
 3. Strength Requirement: Heavy industrial according to ASTM F 1043.
 4. Post Diameter and Thickness: Round pipe according to ASTM F 1083.
 5. Post Size and Thickness: C Section according to ASTM F 1043.
 - a. Top Rail: 1.66 inches.
 - b. Line Post: 2.375 inches.
 - c. End, Corner and Pull Post: 2.875 inches.
 - d. Swing Gate Post: According to ASTM F 900, 2.375-inch (60-mm) diameter, 3.11-lb/ft. (4.63-kg/m) weight.
 - e. Horizontal-Slide Gate Post: According to ASTM F 1184.
 - 1) Openings up to 12 Feet (3.7 m): Steel post, 2.875-inch (73-mm) diameter, and 4.64-lb/ft. (6.91-kg/m) weight.
 - 2) Guide posts for Class 1 horizontal-slide gates equal the gate post height, 1 size smaller, but weight is not less than 3.11 lb/ft. (4.63 kg/m); installed adjacent to gate post to permit gate to slide in space between.
 6. Coating for Steel Framing:
 - a. Metallic Coating:
 - 1) Type A, consisting of not less than minimum 2.0-oz./sq. ft. (0.61-kg/sq. m) average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. (1.22-kg/sq. m) zinc coating per ASTM A 653/A 653M.

2.4 TENSION WIRE

- A. General: Provide horizontal tension wire at the following locations:
1. Location: Extended along bottom of fence fabric.
- B. Metallic-Coated Steel Wire: 0.177-inch- (4.5-mm-) diameter, marcelled tension wire complying with ASTM A 817, ASTM A 824, and the following:
1. Metallic Coating: Type II, zinc coated (galvanized) by process, with the following minimum coating weight:
 - a. Class 2: Not less than 1.2 oz./sq. ft. (366 g/sq. m) of uncoated wire surface.

2.5 INDUSTRIAL SWING GATES

- A. General: Comply with ASTM F 900 for double swing gate types.

1. Metal Pipe and Tubing: Galvanized steel. Comply with ASTM F 1043 and ASTM F 1083 for materials and protective coatings.
- B. Frames and Bracing: Fabricate members from round or square, galvanized steel tubing with outside dimension and weight according to ASTM F 900 and the following:
 1. Gate Fabric Height: 72".
 2. Leaf Width: As indicated on drawings.
 3. Frame Members:
 - a. Tubular Steel 1.90 inches (48 mm) round or 2 inches (50 mm) rectangular.
- C. Frame Corner Construction:
 1. Welded or assembled with corner fittings.
- D. Hardware: Latches permitting operation from both sides of gate, hinges, center gate stops. Fabricate latches with integral eye openings for padlocking; padlock accessible from both sides of gate. See hardware groups for padlocks.

2.6 FITTINGS

- A. General: Comply with ASTM F 626.

2.7 PRIVACY SLATS

- A. Tubular Polyethylene Slats: Minimum 0.023-inch (0.58-mm)-thick tubular polyethylene, manufactured for chain-link fences from virgin polyethylene with UV inhibitor, sized to fit mesh specified for direction indicated, with vandal-resistant fasteners and lock strips.
- B. Color: As selected by Owner from manufacturer's full range.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements specified.

3.2 CHAIN-LINK FENCE INSTALLATION

- A. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- B. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
 1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.

2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
 - a. Exposed Concrete: Extend 2 inches (50 mm) above grade on exterior footings only; shape and smooth to shed water. Set flush at interior posts.
 - b. Posts Set into Concrete in Sleeves: Use steel pipe sleeves preset and anchored into concrete for installing posts. After posts have been inserted into sleeves, fill annular space between post and sleeve with nonshrink grout, mixed and placed to comply with anchoring material manufacturer's written instructions, and finished sloped to drain water away from post.
- C. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of as indicated on Drawings.
- D. Line Posts: Space line posts uniformly as shown on drawings.
- E. Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Install braces at end and gate posts and at both sides of corner and pull posts.
 1. Locate horizontal braces at midheight of fabric 6 feet (1.83 m) or higher, on fences with top rail and at $\frac{2}{3}$ fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.
- F. Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Pull wire taut, without sags. Fasten fabric to tension wire with 0.120-inch- (3.05-mm-) diameter hog rings of same material and finish as fabric wire, spaced a maximum of 24 inches (610 mm) o.c. Install tension wire in locations indicated before stretching fabric.
 1. Bottom Tension Wire: Install tension wire within 6 inches (150 mm) of bottom of fabric and tie to each post with not less than same diameter and type of wire.
- G. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.
- H. Bottom Rails: Install, spanning between posts.
- I. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 2 inches (50 mm) between finish grade or surface and bottom selvage, unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.
- J. Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches (380 mm) o.c.
- K. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at 1 end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

1. Maximum Spacing: Tie fabric to line posts at 12 inches (300 mm) o.c. and to braces at 24 inches (610 mm) o.c.
- L. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.3 GATE INSTALLATION

- A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

3.4 ADJUSTING

- A. Gate: Adjust gate to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

END OF SECTION 323113