Addendum No. 2

March 16, 2017
Perimeter Fence Replacement at Balboa Elementary School
Bid Number 142-16/17

Scope of work clarification:

Existing Chain link fence is to be removed and disposed of by contractor.

Security to the school site to be maintained at all times at the expense and responsibility of the contractor.

Contractor to maintain a path of travel when working on or near sidewalks at all time to accommodate walkers.

Questions and Answers

Question: What type of paint is to be used on stained concrete?

Answer: Use Concrete and Garage Epoxy Floor Paint.

Question: What is the style of fence?

Answer: W.I. Fencing to be per the "Secure Weld Plus" Standards manufactured by Merchant Metals or equal. "Kent Style"

Question: What type of wrought iron fence is to be installed? You specification shows 3 types. Residential, Commercial, and Industrial. Please chose one.

Answer: Use "Commercial" fence to determine the lowest bidder. Additive Alternate #2 to be submitted for upgrading to Industrial.

Question: Is this wrought iron fencing going to have punched pickets or will it be flat on the top & bottom sides.

Answer: W.I. Fencing to be per the "Secure Weld Plus" Standards manufactured by Merchant Metals or equal.

Question: What color is the fencing going to be?

Answer: Black

Question: Do ALL materials need to be pre galvanized or is raw plain steel acceptable?

Answer: W.I. Fencing to be per the "Secure Weld Plus" "Powder Coated" Standards manufactured by Merchant Metals or equal.

Question: Do any of the walk gates need to have panic hardware? If so, what type of make and model?

Answer: No.

Question: Can we cut all posts in lieu of pulling out footing?

Answer: Yes, cuts shall be flushed to ground leaving less than ¼" lip and filled with concrete to eliminate tripping hazard.

Question: Are we going to core drill post footing on top of wall on the east side or can we use plated posts?

Answer: Plated posts.

Question: Will you issue an addendum to clarify these questions?

Answer: Yes

Question: Do you have a specifications on the chain link portion of the job?

Answer: Yes, see Addendum No. 2.

Question: Do we have to submit for this project the product details, such as Shop Drawings, Product Data, Manufacturer's Instructions, Samples, etc.?

Answer: Product Data and Shop Drawings are not required unless there is a deviation from what is specified in the Bid Documents; see Addendum No. 1 for additional information and clarification. However, the specified "Product Warranty Submittal" is required.

Question: I did not see any section for the Wrought Iron Fence details in the specification?

Answer: Section 32 31 19 01 of the specification is the "Decorative Ornamental Steel Fence" to replace the existing perimeter Chain Link Fence.

Question: On the job walk we talked the height for the interior chain link fence 4ft, but in the spec 5 ft, which one is correct?

Answer: The interior Chain Link Fence is 4 ft., see Addendum No. 1 for additional information.

Question: Is it mandatory to hire Appendices for this project and the 3% DVBE as a subcontractor? Or we can submit the Good Faith in case we did not find any DVBE for the fencing project?

Answer: DVBE is not required, but it is encouraged.

Question: I got a call from manufacturer asking about the following clarification. Please find "Part-1 PRODUDT" from specification:
Item D: What Style?
Item F: 1 - Residential
2 - Commercial
3 - Industrial

Answer: See Addendum No. 2.

Question: Please specify ornamental iron material, style, and specs on pickets, rails, posts (and footings), as well as gate frames.

Answer: See Addendum No. 2.

Question: Please specify material on the add alt. for the chain link.

Answer: See Addendum No. 2

End of Addendum No. 2

CHAIN LINK FENCE AND GATES

PART 1 - GENERAL

1.01 SECTION INCLUDES.

A. Chain link fencing and gates.

1.02 REFERENCE STANDARDS

A. Standard specification for Public Works Construction, current edition.

B. ASTM.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Concrete: Class 500-C-2500 concrete prepared as prescribed in Section 201-1 “Concrete, Mortar and Related Materials” of the Standard Specification for Public Works Construction or at Contractor's option, may be mixed in the following volumetric proportions:

Portland Cement	1 Part
Fine Aggregate	2 Parts
Coarse Aggregate (1/4” to 1-1/2”)	4 Parts
Water	7-1/2 Gallons, maximum per sack of cement

B. Chain Link Fence Fabric: Conforming to “Specification for Zinc—Coated Steel Chain—Link Fence Fabric” A.S.T.M. Designation” A 392-A.

1. Fabric shall be No. 9 gauge woven wire, 2-inch mesh, top and bottom edges knuckled, and hot-dipped galvanized after fabrication, Class I zinc coating, 1.2 oz. minimum per sq. ft. of uncoated wire surface, unless otherwise specified

2. Fabric 12 feet high or less shall be single width.

3. For 16 feet high fences the upper 8 feet of fabric may be No. 11 gauge.

4. Fence fabric erected shall be free from barbs, icicles or other projections resulting from galvanizing process, which might be hazardous. Fence fabric having such defects will be rejected even though it has been erected.

C. Post, Top Rails, **Bottom Rails,** Brace Rails and Gate Frames: Schedule 80, galvanized, welded or seamless steel pipe, conforming to “Standard Specifications for Black and Hot-Dipped Zinc-Coated Galvanized Welded and Seamless Steel Pipe, for heavy duty uses, A.S.T.M. Designation A 120-1. All other hardware shall be hot dipped galvanized steel. Pipe sizes and weights shall conform to the following schedule:

Item	Nominal Pipe Size Inches	Outside Diameter Inches	Minimum Weight (lb) Per Foot
Top & Bottom Rails, Brace and Transom Rails	**1 1/4**	**1.660**	**2.27**
Gate Frames	**1 1/2**	**1.900**	**2.77**
Line Posts	**2**	**2.375**	**3.65**
Terminal, Corner, Angle,	**3**	**3.5**	**7.58**
Pull & Pedestrian Gate Posts	**3 1/2**	**4**	**9.11**
Driveway Gate Posts:			
Opening to 11'-3 l/2"	**3**	**3.5**	**7.58**
Opening 11'-3 1/2" to 20'-3 1/2"	**4**	**4.5**	

D. Post Caps: Malleable iron, (A.S.T.M. A 47, Grade 32510). Design caps to fit snugly over posts with a minimum projection of 1-1/2" below top of posts. Post caps shall be made with curved top.

E. Eye Tops: Malleable iron, (A.S.T.M. A 47, Grade 32510). Design tops to fit over line posts and for through passage of top rail.

F. Expansion Sleeve Couplings for Top Rails and Bottom Rails: Steel, 6" long, designed to fit tightly on inside of rail, fitted with raised center.

G. Rail Ends for Top Rails, Bottom Rails and Brace Rails: Malleable iron, (A.S.T.M. A 47, Grade 32510), with holes to receive 3/8" bolts for securing to rail end bands.

H. Tension Bands and Bands for Securing Rail Ends: Mild steel galvanized flats, not less than 1/8" x 1", except tension bands in gates shall be 1/8" x 3/4". Bolts for use with tension bands and rail end bands shall be 3/8" x 1-1/2".

I. Tension Bars: Mild steel galvanized flats not less that 1/4" x 3/4".

J. **Tension Wire when specified:** Two strands of No. 6 gauge steel conforming to requirements of A.S.S .1. Steel Products Manual, Carbon Steel Wire, Section 16, merchant quality, galvanized, soft temper with Type l coating.

K. Turnbuckles for Use with Tension Wires: Eye and eye type, drop forged steel, right and left hand threads, not less than 5/16" screw diameter with not less than 4-1/2" take-up.

L. Tie Wire: Soft annealed galvanized steel wire. No. 9 gauge wire for fastening fabric to posts, top rails and brace rails tied 18 inches on center on the rails. At bottom tension wire #9 gauge galvanized hog rings shall be used.

M. Finish of Metal Parts: Post caps, couplings, rail ends, tension bands, tension bars, turnbuckles, rivets, bolts, and all other metal parts and fittings to be hot-dipped galvanized after fabrication.

PART 3 - EXECUTION

3.01 INSTALLATION ON GRADE

A. The fence heights indicated on Drawings refer to the height of fence fabric.

B. Space fence posts at equal intervals between terminal, angle, corner, and gate posts, and not more than 10’-0” apart measured from center to center of posts. In curved fence sections having a radius of 50'-0” or less, space posts not more than 5'-6” apart. Set posts so that the top of the eye of the post caps are level with top of fabric.

C. Install angle or corner posts at each change in direction of 15 degrees or more, at change of 5I or more in grade of fencing, and at the beginning and end of all curved fence sections.

D. Install terminal posts at ends of runs of fencing. Install gate posts on both sides of driveway and pedestrian gates. For double leaf gates, net opening between gate posts shall be gate size as noted on the Drawings plus 3-1/2” for single leaf gates, net opening shall be gate size plus 2-1/2”.

E. All fence post concrete footings shall be 10” in diameter, except for gate posts which shall be 16” in diameter. For fences 6’-0” and over set posts 30” into footings cast 36” deep into solid ground and for under 6’-0”, set posts 24” into footings cast 30” into solid ground. Align posts and set plumb and true. In bituminous surfaced areas, cover top of concrete footings with seal coat. Remove all cement from exposed pipe surfaces while cement is still soft.

F. Install all fences with top rail. Top rail shall pass through eye tops and be secured at ends with rail-end fittings and bands.

G. Provide all fences over 10 feet in height, in addition to top rail, with a horizontal mid-rail set at the mid-height of the fence. The District will supply “Star” fittings for the installation of mid-rail. In fences higher than 10 feet set brace rails at all angles, corners, and terminals at one-fourth and three-fourths of the fence height.

H. Provide one horizontal brace rail in all panels adjacent to terminal, angle, corner, and gate posts, set at the mid—height of the fence and rigidly secured to posts with rail end fittings and bands. Provide horizontal brace rails, as specified, in all panels of curved sections having a radius of 50’-0” or less. Brace rails are not required in fencing 4'-0” or less in height.

I. Provide a transom rail and fabric at the top of all pedestrian gate openings. Set transom rail 6'-8” above the high point of the grade at the gate opening. Ends of transom rails shall be pinned or riveted to rail end fittings with 1/4” mild steel rivets.

J. Securely attach ends of tension wires to posts in a manner to prevent slipping or loss of tension. Turn end of wire around post twisted not less than three times around the wire. At turnbuckles, wire through eye and twist the end not less than three times around wire.

K. Install fence fabric on the outward facing side of the posts and the top edge projecting over the top rail of the fence.

L. Set bottom of fence fabric to clear finish grades, except on bituminous surface set 3/4” above such surface. Locally shape and trench ground surfaces where necessary to provide uniform top and bottom alignment of fence.

M. Tightly stretch fabric and at terminal, pull corner, angle, and gateposts, secure with tension bars extending the full height of the fence. Secure tension bars to posts with bolted tension bands spaced not more than 14” apart.

N. Bands and Ties: Install bands and ties in accordance with the following schedule:

7 Bands on 8' fence	7 ties on 8' fence
6 Bands on 6' fence	6 ties on 6' fence
4 Bands on 4' fence	4 ties on 4' fence

O. Fasten fabric to line posts with wire ties spaced not more than 16" apart. Use tie wires of No. 9 gauge galvanized wire, hooked the tie at both ends. The use of hooked ties with links will not be permitted.

P. Fasten fabric to top rails, bottom rails, mid-rails and brace rails with wire ties spaced not more than 16" apart. Bend back ends of tie wires so as not to be a hazard. Where two fabrics are used, lap the fabrics one mesh at the mid-rail, and both fabrics tied with No. 9 gauge galvanized wire ties to mid-rail.

Q. Field welds shall be cleaned of flux and spatter, all damaged galvanizing removed, all hazardous projections ground off, properly prepared, then heavily coated "Galvalloy" as distributed by Metalloy Products Company Newport Beach, CA. Apply coating in strict accordance with manufacturer's directions.

3.02 FABRICATION OF GATES

A. Frames: Fabricate gate frames from steel pipe of size specified, with joints at corners miter cut and continuously welded to sides.

B. Fabric: Attach fence fabric to side members with tension bars and tension bands as specified, spaced not more than 14" apart. Tension bars shall extend the full height of the gate. Attach fence fabric to top and bottom members and to brace rail with wire ties as specified for top rails, spaced not more than 12" apart.

C. Latches: Gate latches will be Heavy duty fork latch, with padlock feature as integral part of latch. Cast fork latches are unacceptable. Weld gate latches to gate frames. Welding shall be done before gate frames are galvanized, or welds shall be finished as specified for field welds.

D. Rolling Gates: Provide manufacturer's standard heavy-duty track, ball-bearing hanger sheaves, overhead framing and supports, guides, stays, bracing, and accessories as required.

E. Gate Lock Access: Provide a six-inch by ten-inch (6" X 10"), inside clear dimension, access hand hole through each gate to allow the gate to be locked or unlocked from each side of the gate by accessing the lock from either side. Frame this hand hole with 1 ¼ inch galvanized pipe as listed above and attach to the center horizontal pipe.

F. Hinges: Hinges, including bolts, of type allowing gate to swing back parallel to the line of fencing shall be heavy duty type. Install and adjust the hinges; burr or center punch threads of gate hinge bolts to prevent the removal of nuts. Install 3 hinges on each post for swing gates more than 16'-0" wide.

G. Ground all welds flush and smooth, hot-dip galvanize all fabricated parts after welding, in lieu thereof, finish all welds as hereinbefore specified for field welds.

3.03 SURPLUS MATERIAL DISPOSAL

A. All existing fencing, including fabric, posts, parts and fittings, removed and not reused in the work, shall become the property of the Contractor and shall be removed from the site, unless otherwise specified or noted on the Drawings.

B. **The Contractor shall legally dispose of all surplus earth resulting from chain link fencing work that is not used in the site grading work. Coordinate removal with Project Manager.**

END OF SECTION