OXNARD UNION HIGH SCHOOL DISTRICT

ADDENDUM 1

Dated: December 8, 2021

All interested parties seeking to submit responses to the Oxnard Union High School District's Bid #654 shall incorporate this addendum into the Bid Documents, and mark having received this notice on the Bid Form.

The Oxnard Union High School District hereby amends Bid 654 Well #2 Rehabilitation at Rio Mesa High School, as follows:

THE FOLLOWING WELL SPECIFICATIONS SECTIONS SHALL REPLACE THE SECTIONS FOUND IN THE ORIGINAL TECHNICAL SPECIFICATIONS.

Plate 5 shall be replaced with the new drawing and Plate 4A shall be added.

SECTION 13 – CALIPER SURVEY AND DEVIATION SURVEY
(BID ITEM NO. 4)

Scope

This item shall consist of furnishing professional logging services for the caliper survey and a deviation survey (gyro-directional survey) of the existing well casing and screen sections.

Construction Materials

The Contractor shall furnish services for a caliper log in the well casing and screen sections. The caliper tool shall have the ability to measure diameters up to 24 inches. The Contractor is advised that many of the available caliper tools do not perform adequately. It will be the Contractor's responsibility to deliver a usable caliper log. A record copy of the caliper survey shall be delivered to the Engineering Geologist upon completion of the log. Upon completion of the caliper log, five (5) final quality copies of the caliper survey shall be provided to the Engineering Geologist along with an electronic copy of the data in LAS and PDF formats.

The Contractor shall furnish services for a deviation survey in the well casing and screen sections. It will be the Contractor's responsibility to deliver a usable deviation log. A

record copy of the deviation survey shall be delivered to the Engineering Geologist upon completion of the log. Upon completion of the deviation survey, five (5) final quality copies of the survey shall be provided to the Engineering Geologist along with an electronic copy of the data in LAS and PDF formats.

Measurement and Payment
for
Caliper surveying and deviation logging of the well casing and screen intervals shall be paid on a lump sum basis for the unit price bid for Bid Item No. 4. Payment shall be considered full compensation for all labor, tools, equipment, insurance, and conducting all work necessary and incidental to completion of the work.

SECTION 14 - GRAVEL BACKFILL AND BENTONITE OR CEMENT SEAL
(BID ITEM NO. 5)

Scope

This item shall consist of providing and installing 90 feet of clean washed coarse-grained sand or fine gravel (pea gravel) in the lower portion of the well and a 10-foot bentonite seal, as specified herein and shown on Plate 4. Alternatively, 60 feet of clean washed coarse-grained sand or fine gravel (pea gravel) shall be installed in the lower portion of the well along with a 25-foot cement seal, as specified herein and shown on Plate 4A.

Construction Materials

All gravel/coarse-grained sand used to backfill the 10-inch-diameter well casing shall be hard and washed clean of silt and fine sand and free of organic materials and foreign matter.

The manufacturer shall be identified and a description of the gravel packing materials proposed for use shall be provided with the Contractor's bid package. Transportation and storage of gravel shall be conducted using super sacks. Bulk delivery will not be allowed.

The bentonite seal material shall be installed using coated premium sodium bentonite pellets of the type that is manufactured specifically for well sealing.

The cement seal material shall consist of 80 gallons of a neat cement with approximately 5 percent bentonite added.

Construction Methods

Gravel/coarse sand fill shall be installed in the original well casing from an approximate depth of 585 to 495 feet bgs using a construction tremie pipe. The use of clean water and a gravel pump will be required. As the gravel settles, more shall be added. The gravel shall be sounded and topped off at the designated depth in preparation for bentonite seal placement.

Following gravel backfill placement, a 10-foot bentonite seal shall be installed from approximately 495 to 485 feet bgs. The bentonite seal shall be installed utilizing tremie pipe for installation. The tremie pipe shall be set at a depth of approximately 480 feet or lower.

Alternatively, following gravel backfill placement, a 25-foot cement seal shall be installed from approximately 525 to 500 feet bgs. The cement seal shall be installed utilizing tremie pipe and grout pump for installation. The tremie pipe shall be set at a depth of approximately 2 feet above the top of the gravel backfill (approximately 523 feet) and

installed using the positive displacement method. After the 80 gallons of cement has been pumped the tremie pipe shall be flushed with the same amount of fresh water. Fifty gallons of fresh water shall be installed through the 2-inch diameter tremie pipe prior to lifting the pipe up to 500 feet. After raising the tremie pipe to 500 feet the remaining 30 gallons shall be added to clear the tremie prior to removal.

Measurement and Payment

Payment for furnishing and installing the gravel fill and bentonite or cement seal shall be made on a lump sum basis at the unit price bid for Bid Item No. 5. Payment shall be considered full compensation for furnishing all labor, materials, tools, and equipment necessary and incidental to completion of the work.

SECTION 15 – WELL CASING AND SCREEN
(BID ITEM NOS. 6 THROUGH 9)

Scope

This item shall consist of providing and installing a well casing and screen liner assembly with an end cap, as specified herein and shown on Plate 4. Prior to conducting any well modification work the Contractor shall obtain a well modification permit from the Ventura County Watershed Protection District (County).

Construction Materials

1. 8-Inch Nominal Diameter Stainless Steel Casing: The upper 8-inch nominal diameter casing shall be stainless steel manufactured in accordance with ASTM Standard A-312 or A-778 specifications having a minimum wall thickness of 1/4-inch (0.250 inches). The well liner casing sections shall be plain beveled ends to facilitate butt welding connections. The well liner casing sections shall be fitted with lifting lugs to facilitate installation.

2. 8-Inch To 6-Inch Liner Casing Reducer: The nominal 8-inch-diameter to 6-inch-diameter casing liner reducer shall be Type 304L stainless steel manufactured in accordance with ASTM Standard A-312 or A-778 specifications and have a minimum wall thickness of 0.25-inch. The final wall thickness used shall be adequate to protect against collapse during installation and subsequent production of the well. The well liner reducer shall be plain end construction with beveled ends for butt welding.

3. 6-Inch Nominal Diameter Stainless Steel Casing: The lower 6-inch nominal diameter casing shall be stainless steel manufactured in accordance with ASTM Standard A-139 Grade B or A-53 Grade B having a minimum wall thickness of 1/4-inch (0.25 inches). The well liner casing sections shall be plain beveled ends to facilitate butt

welding connections. The well liner casing sections shall be fitted with lifting lugs. The lugs shall be of the same material as the well casing.

4. 6-Inch Nominal Diameter Stainless Steel Screen: The 6-inch nominal diameter well screen liner shall be Type 304L, stainless steel continuous wire wrap screen of the type manufactured by Roscoe Moss Company, Johnson Screens, or approved equal, with an 0.060-inch slot between the surface wires. The wrap wire shall have a minimum height (altitude) of 0.14 inch and a minimum width of 0.17 inch. The screen shall have a minimum of 32 vertical rods and the rods shall have a minimum diameter of 0.15 inch that provides a minimum cross-sectional area of 0.58 square inches. The well screen design shall provide a minimum collapse strength of 194 pound per square inch (psi) and a minimum safe hanging weight of 6,300 pounds. Screen sections shall be manufactured complete with stainless steel weld rings attached at each end having a minimum wall thickness of 0.25-inch. The weld rings shall be fitted with stainless steel lifting lugs to facilitate centering and connection of each joint. The bottom of the screen section shall be fitted with a rounded end cap manufactured of Type 304L stainless steel material. **The Contractor shall submit the well screen manufacturer's specifications to the District with its bid.**

Construction Methods

Upon the completion of backfill placement and bentonite or cement seal installation; the Contractor shall install the well liner assembly at the intervals indicated on Plate 4 (or 4A).

The 8-inch-diameter casing and screen assemblages shall be straight. All field joints shall be properly butt welded during installation with a minimum of two passes per circumference. During installation the lifting lugs on both the 6-inch-diameter casing and 8-inch-diameter casing shall be removed. Permanent liner/tremie guide lugs shall be installed every 20 feet from an approximate depth of 190 feet bgs up to ground surface. The guide lugs shall have a rounded half moon shape as shown in Figure 2 – Half Moon Tremie and Liner Guide Lugs to prevent hanging up on installation.

The liner shall be suspended in tension from the surface by means of an appropriate hanger or clamp. The bottom of the casing shall be at a sufficient distance above the casing fill and seal to ensure that the well liner assemblage is not supported from the bottom.

All field-welding shall be performed in accordance with American Welding Society Standards. All welding rods shall be new and designed for stainless steel material.

A construction tremie shall be installed for gravel pack and cement seal placement and shall be a nominal 2-inch-diameter, flush threaded, steel or PVC tubing. The construction tremie shall be installed prior to the upper portion of the 8-inch-diameter nominal liner casing sections are installed, and be installed to an approximate depth of 190 feet bgs.

The tremie and liner guide lugs shall be placed in such a manner as to facilitate a 2.375-inch-outside-diameter construction tremie pipe to be installed along with the 8-inch-diameter blank liner casing. Lugs placed opposite the tremie guide lugs shall be sized by the Contractor to allow cement to seal around the casing and not interfere with liner installation. Figure 3 – Tremie Guide Lug Placement shows a conceptual drawing of the type of protection intended.

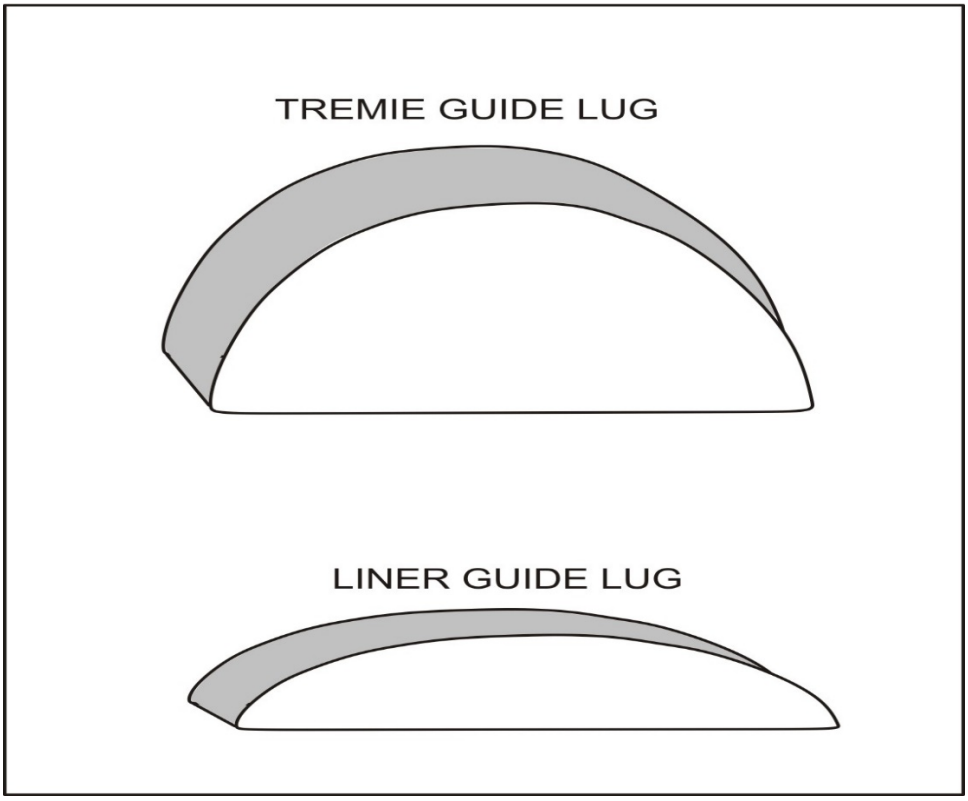

Figure 2 – Half Moon Tremie and Liner Guide Lugs

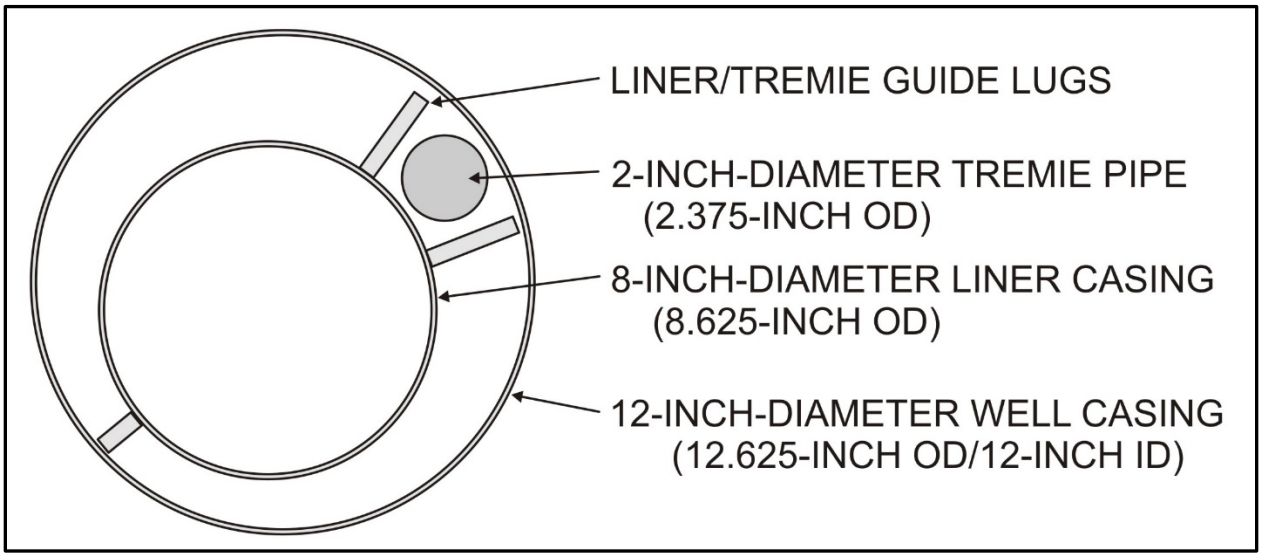

Figure 3 – Tremie and Liner Guide Lug Placement

The stainless steel well casing shall extend 18 inches above the existing concrete slab to facilitate the wellhead plumbing design shown on Plate 5 – Wellhead Design Drawing. Subsequently, the 12-inch-diameter low carbon steel casing shall be extended up 14 inches and fitted with a flange to accommodate the wellhead plumbing shown on Plate 5.

Measurement and Payment

1. 8-Inch Nominal Diameter Stainless Steel Casing: The 8-inch nominal diameter Type 304L stainless steel casing having a 0.250-inch wall thickness for the upper portion of the well liner will be paid for on a per linear foot basis in place at the unit price bid for Bid Item No. 6. Payment shall be considered full compensation for furnishing all labor, materials, tools, fuel, and equipment necessary and incidental to completion of the work.

2. 8-Inch-Diameter by 6-Inch-Diameter Stainless Steel Reducer: The nominal 8-inch-diameter by 6-inch-diameter Type 304L stainless steel reducer will be paid for on a lump sum basis in place at the unit price bid for Bid Item No. 7. Payment shall be considered full compensation for furnishing all labor, materials, tools, and equipment necessary and incidental to completion of the work.

3. 6-Inch Nominal Diameter Stainless Steel Casing: The 6-inch nominal diameter Type 304L stainless steel casing having a 0.25-inch wall thickness will be paid for on a per linear foot basis in place at the unit price bid for Bid Item No. 8. Payment shall be considered full compensation for furnishing all labor, materials, tools, and equipment necessary and incidental to completion of the work.

4. 6-Inch Nominal Diameter Stainless Steel Liner Screen: The 6-inch nominal diameter Type 304L stainless steel wire wrap screen with end cap will be paid for on a per linear foot basis in place at the unit price bid for Bid Item No. 9. Payment shall be considered full compensation for furnishing all labor, materials, tools, and equipment necessary and incidental to completion of the work.