

**TRIBUTARY TO GRAFIUS RUN BANK STABILIZATION PROJECT
LOYALSOCK TOWNSHIP, LYCOMING COUNTY
ADDENDUM #1**

The purpose of this addendum is to add chain link fence on top of the stacked rock wall.

- I. Information provided to Bidders in Addendum #1:
 - A. Addendum to Original Remedial Work document
 - B. Revised Lump Sum Bid Form
 - C. Chain Link Fence drawings
 - D. Specification for Chain Link Fence

**ADDENDUM TO ORIGINAL REMEDIAL WORK
DOCUMENT**

Install chain link fence along an approximately 70' reach on top of the stacked rock wall as shown on the drawings and as directed in the technical specification.

**TRIBUTARY TO GRAFIUS RUN BANK STABILIZATION PROJECT
LOYALSOCK TOWNSHIP, LYCOMING COUNTY
ADDENDUM #1 LUMP SUM BID FORM**

Stream Name (s): Tributary to Grafius Run

Municipality: Loyalsock Township

Bid Due Date and Time: 1 PM August 10, 2020

Bid Opening Date and Time: 2 PM August 10, 2020

Bid Opening Location: Loyalsock Township

2501 East 3rd Street

Williamsport, PA 17701

In compliance with the Bid Instructions, General Instructions For Bidders, Drawings and Specifications, the undersigned proposes to complete the entire project at the Lump Sum Price of:

Stacked Rock Wall \$ _____

R-6 Riprap with Chain Link Fence \$ _____

The undersigned agrees to provide the required bonds and satisfactory evidence of insurance and to begin work at the earliest possible date after award of the contract. The undersigned also agrees to complete all work no later than October 30, 2020 and to provide a Standard Acord Certificate of Insurance, a Performance Bond and a Material and Labor Bond, as stipulated in the General Instructions For Bidders. The undersigned further agrees that, should this bid be accepted and a contract awarded, payment shall be made by Loyalsock Township (Township) no later than ten (10) calendar days after the Township receives the funds from the Commonwealth of Pennsylvania. The undersigned is aware that the Township will submit a request for payment to Commonwealth of Pennsylvania after the final inspection and that it is anticipated that the Township will receive the funds approximately sixty (60) days after application is made.

Bidder's Firm Name and Address: _____

Witness

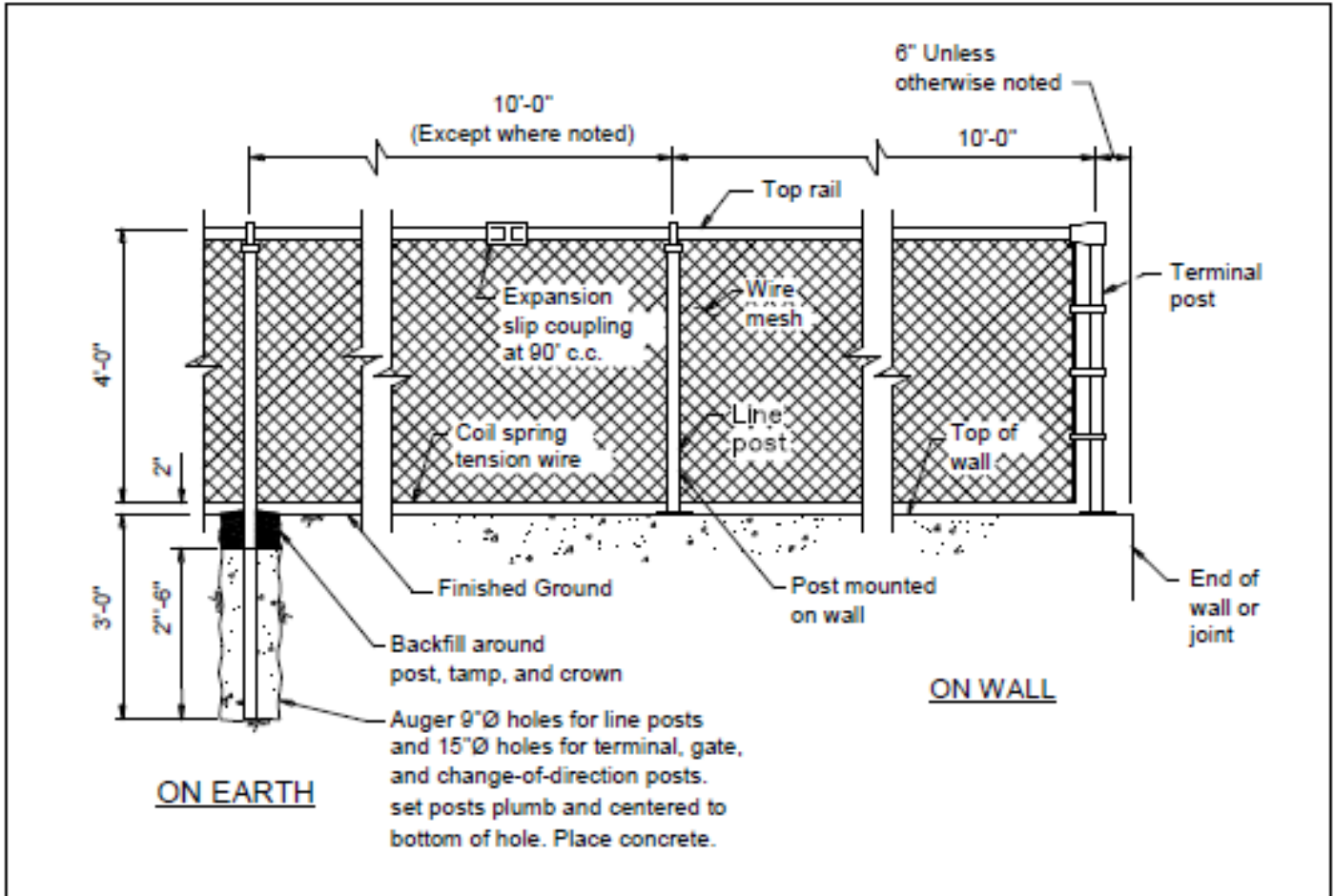
Signature

Title

Contractor Federal Identification No.: _____

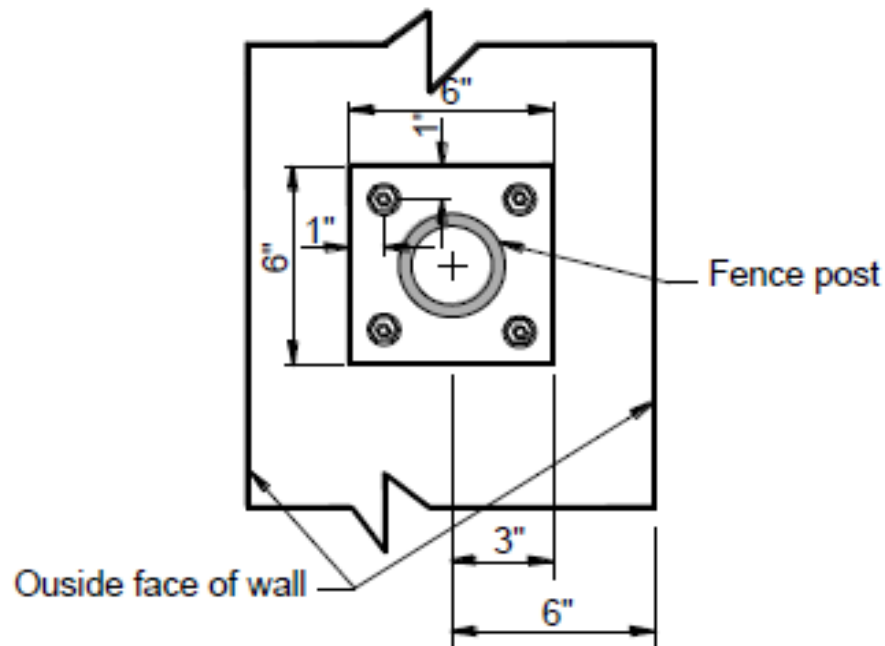
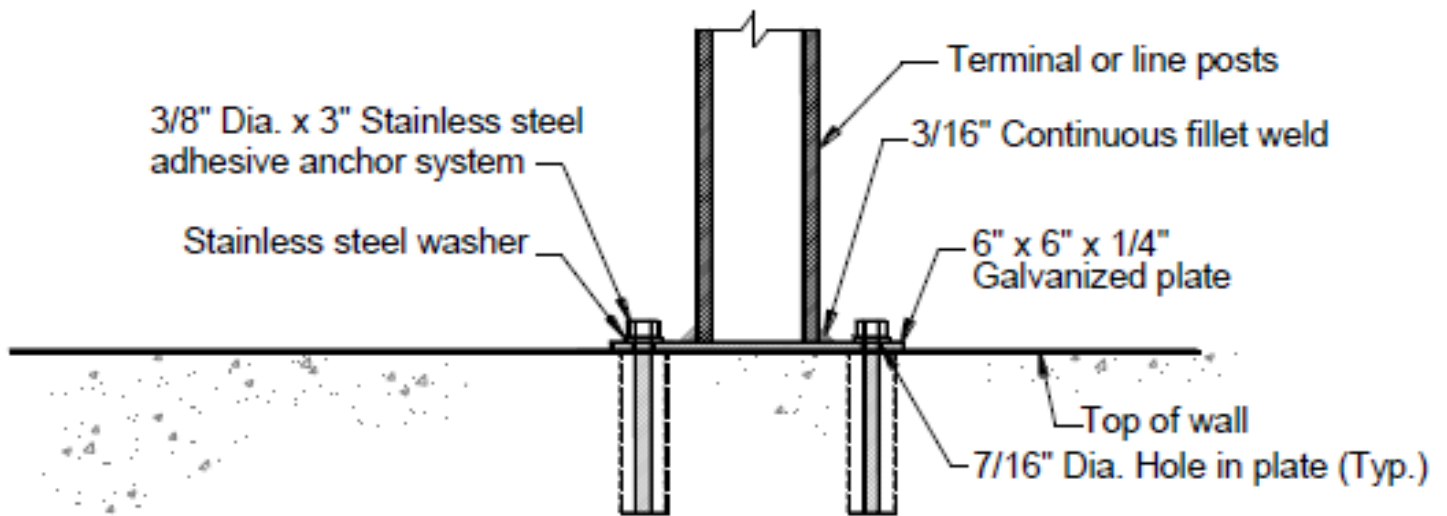
Contract award approved by:

Signature Title Date



CHAIN LINK FENCE

No Scale



ANCHOR PLATE DETAILS

No Scale

NOTE: Only Adhesive Anchor System is shown. Wedged Anchor System is also acceptable, see Technical Specification Titled, "Chain Link Fence".

TECHNICAL SPECIFICATIONS

CHAIN LINK FENCE

SCOPE

This work is furnishing and installing chain link fence of height shown on the Drawings.

APPLICABLE PUBLICATIONS

AASHTO M 232 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

AASHTO M 280 - Standard Specification for Zinc-Coated (Galvanized) Steel Barbed Wire.

ANSI B 18.22.1 - Standard Specification for Plain Washers.

ASTM A 6 - Standard Specification for General Requirements for Rolled Steel Plates, Shapes, Sheet Piling and Bars for Structural Use.

ASTM A 36 - Standard Specification for Structural Steel.

ASTM A 53 - Standard Specification for Pipe Steel, Black and Hot-Dipped, Zinc Coated Welded Seamless.

ASTM A 276 - Standard Specification Stainless Steel Bars and Shapes.

ASTM A 582 - Standard Specification Free-Machining Stainless Steel Bars.

ASTM C 387 - Standard Specification for Packaged, Dry, Combined Materials for Mortar and Concrete.

ASTM F 593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws and Studs.

ASTM F 594 - Standard Specification Stainless Steel Nuts.

ASTM F 626 - Standard Specification for Fence Fittings.

ASTM F 668 - Standard Specification for Poly (Vinyl Chloride) (PVC)-Coated Steel Chain Link Fence Fabric

ASTM F 1043 - Standard Specification for Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework.

ASTM F 1083 - Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures.

MATERIALS

A. Fence - Fabric, posts, gates, and necessary hardware shall meet the following requirements:

- 1. Fabric** - Fabric shall be Class 2b, PVC-coated wire consisting of a PVC coating fused and adhered to a zinc-coated, aluminum-coated, or zinc-5% aluminum-mischmetal alloy-coated steel wire, conforming to the requirements of ASTM F 668 with the following additions and/or modifications. Fabric shall be not less than No. 9 gage wire with 2-inch mesh sizes. The vinyl coating shall be of color approved by the Inspector. The selvage shall be knuckle-knuckle (top-bottom). All wire ends shall be coated.
- 2. Posts** - Use posts of galvanized steel and that will be referred to as "terminal" or "line". Terminal posts include corner, angle, pull, and end posts. Line posts are also known as "intermediate" posts. Pipes for posts shall conform with the requirements of ASTM F 1083, Schedule S-40, or the requirements of SS-40 of Allied Tube and Conduit Fence Division, 16100 South Lathrop Ave., Harvey, IL 60426, except that the weight of zinc coating shall not be less than 2 ounces per square foot.

For fence heights of less than 5 feet, the nominal sizes of terminal and line posts shall not be less than 2 inches and 1-1/2 inches, respectively. For fence heights of 5 feet or more, the nominal sizes of terminal and line posts shall not be less than 2-1/2 inches and 2 inches, respectively.

- 3. Anchorage** – Either type specified below may be used. The Inspector must approve the anchorage system and installation method. Submit manufacturer's product specifications and installation recommendations for Inspector approval prior to installation.
 - a. Wedged Anchorage** – Anchorage shall be stainless steel. Bolts shall conform to ASTM A 276, Type 304, or ASTM A 582, Type 303. Bolts shall be 3/8-inch diameter and factory fitted with wedged shields that expand to securely anchor the bolts in place when the anchoring nut is fully tightened to the manufacturer's specification.
 - b. Adhesive Anchorage** – Anchorage shall be stainless steel adhesive anchor system. Bolts shall conform to ASTM F 593. Nuts shall conform to ASTM F 594. Washers shall conform to ANSI B18.22.1, Type A Plain. Bolts shall be 3/8-inch diameter and each anchor shall develop minimum tensile bond strength of 4,000 lbs. per anchor.
- 4. Top Rail** - Top rail shall not be less than 1-1/4 inch nominal size galvanized steel pipe conforming with the requirements of ASTM F 1083, Schedule S-40, or the requirements of SS-40 of Allied Tube and Conduit Fence Division, 16100 South Lathrop Ave., Harvey, IL 60426, except that the weight of zinc coating shall not be less than 2 ounces per square foot.
- 5. Bottom Wire** - Bottom wire shall be galvanized and vinyl-coated coil spring tension wire. The galvanized core wire shall not be less than 7 gage in size, and it shall be vinyl coated conforming to the same requirements as those of the fabric mentioned above.

6. **Braces** - When required, braces shall not be less than 1-1/4 inch nominal size galvanized steel pipe conforming with the requirements of ASTM F 626, Schedule S-40, or the requirements of SS-40 of Allied Tube and Conduit Fence Division, 16100 South Lathrop Ave., Harvey, IL 60426, except that the weight of zinc coating shall not be less than 2 ounces per square foot.
7. **Truss Rods** - When required, truss rods shall not be less than 3/8-inch diameter steel rods conforming with the requirements of ASTM F 626, except that the weight of the zinc coating shall not be less than 2 ounces per square foot. Truss rods shall be provided with suitable turnbuckles.
8. **Gates** - When required, gates shall be of types and widths shown on the Drawings. Frames shall be of round pipes of not less than 2 inches in diameter conforming with the requirements of ASTM F 1083, Schedule S-40, or the requirements of SS-40 of Allied Tube and Conduit Fence Division, 16100 South Lathrop Ave., Harvey, IL 60426, except that the thickness of zinc coating shall be as specified for the posts mentioned above. All joints shall be securely welded, and the gates shall be galvanized after fabrication. The fabric for the gates shall be the same as the fence.
9. **Fittings** - All fittings shall conform with the requirements of ASTM F 626. Terminal post caps shall be fitted with recessed allen wrench head set screws for anchoring the cap to the post.
10. **Hardware** - All hardware (bolts, nuts, washers, etc.) shall be of commercial quality or better, and shall be galvanized in accordance with the requirements of AASHTO M 232.
11. **Locks and Keys** - Provide a waterproof lock for each gate and a set of 3 brass keys for each lock. Key all locks on the project alike.
 - a. **Anchoring Grout** - Use either hydraulic cementitious grout or epoxy resin mortar.

PROCEDURE FOR INSTALLATION ON TOP OF WALL

For installing fence on concrete or masonry structures, furnish and install anchor plates as shown on the drawings titled, "Anchor Plate Details", or as recommended by the precast modular wall manufacturer. Drill holes with a rotary bit with no damage to the surrounding materials. Percussion drilling will not be permitted. Drilling of core holes to place posts will not be permitted.

Install posts plumb, in proper horizontal alignment with the top of the posts in proper vertical alignment, and in equal spacing not exceeding 10 feet. Install corner posts at changes in direction where the deflection angle so requires in the opinion of the manufacturer, as approved by the Inspector.

Install pull posts at changes in grade of 10 percent or more. Also, install pull posts at intervals not exceeding 500 feet and at closer equal spacing on curves, as recommended by the manufacturer, so that the strain of the fence shall not bend the line posts. Space pull posts evenly between corner, gate and/or end posts.

Insert top rails through the base of the line post caps, with expansion couplings joining the rails to form a continuous brace for each stretch of fence between terminal posts. Outside sleeve type expansion

couplings shall be at least 6 inches long and shall be installed at spacings recommended by the manufacturer. Securely fasten the top rails to the terminal and gate posts by rail ends and brace bands. Install bottom wire as shown on the Drawings.

For fences 4 feet in height, braces will be required only when recommended by the manufacturer. Follow manufacturer's instructions for installing braces.

Securely fasten the fabric to all posts, top rail, and bottom wire at intervals of not more than 14 inches. Fasten fabric to the outside or most commonly seen side of the posts. Place fabric parallel to the base surface. The nominal distance between the base surface and the fabric shall be 2 inches and shall not exceed 3 inches. In case of irregular ground surfaces, grade the area at no additional cost.

If necessary, install gates in accordance with the recommendations of the manufacturer and as directed by the Inspector, at locations shown on the Drawings.

Close gaps between terminal posts and adjoining features with extensions of fencing, as approved by the Inspector.

At no additional cost, repair or replace any damaged component of the fence for the duration of the Contract.

PROCEDURE FOR INSTALLATION IN SOIL

Identify post locations. Auger 36-inch-deep footing holes (9-inch-diameter for line posts and 15-inch-diameter for terminal, gate, and change-of-direction posts). Set posts, centered and plumb, on the bottom of the holes. Place and tamp backfill. Crown the finished surface to shed water.

Install fence posts in proper horizontal alignment with the top of the posts in proper vertical alignment. Posts shall be equally spaced not more than 10 feet apart.

Install corner posts at changes in direction where the deflection angle so requires in the opinion of the manufacturer, as approved by the Inspector.

Install pull posts at changes in grade of 10 percent or more. Also, install pull posts at intervals not exceeding 500 feet and at closer equal spacings on curves, as recommended by the manufacturer so that the strain of the fence shall not bend the line posts. Space pull posts evenly between corner, gate and/or end posts.

Insert top rails through the base of the line post caps, with expansion couplings joining the rails to form a continuous brace for each stretch of fence between terminal posts. Outside sleeve type expansion couplings shall be at least 6 inches long and shall be installed at spacings recommended by the manufacturer. Securely fasten the top rails to the terminal and gate posts by rail ends and brace bands. Install bottom wire as shown on the Drawings.

Install braces as recommended by the manufacturer if braces are required by the manufacturer. Place the truss rods with turnbuckles between the brace end on the line post and the bottom wire end on the terminal post.

Securely fasten the fabric to all posts, top rail, and bottom wire at intervals of not more than 14 inches. Fasten fabric to the outside or most commonly seen side of the posts. Place fabric parallel to the base surface. The nominal distance between the base surface and the fabric shall be 2 inches and shall not exceed 3 inches. In case of irregular ground surfaces, grade the area.

Close gaps between terminal posts and adjoining features with extensions of fencing as approved by the Inspector.

At no additional cost for the duration of the contract, repair or replace all damaged fence components; and apply a manufacturer recommended vinyl repair paint to all exposed surfaces of fabric wire damaged by construction activities.