PITTSBURGH DRIVE RAILROAD TRACK AND GRADE CROSSING REHABILITATION PROJECT SCOPE OF SERVICES

It is understood and agreed that the CONTRACTOR has, by careful examination, satisfied himself as to the nature and location of the work; the conformation of the ground; the character, quality, and quantity of the materials to be encountered; the character or equipment and facilities needed preliminary to and during the prosecution of the work; the general and local conditions; and all other matters which can, in any way, affect the work under this Contract.

All known structures, pipelines, and utilities have been indicated in their approximate locations on the plans, and any reasonable variation in size and location of structures and pipe shall not be cause for extra payment.

Major deviations or modifications during construction, from that shown on, or the true intent of, the plans and specifications requiring more or less labor and materials shall be authorized by Change Order.

If construction procedures and equipment being utilized by the CONTRACTOR prove to be inadequate in the performance of the Contract, the procedures and equipment shall be modified or alternative equipment furnished and used at no additional cost to the OWNER.

The price Bid shall include the following:

1. All labor, materials, and equipment in accordance with Article 6 of the General Conditions.
2. All field staking necessary for construction from control points established by the ENGINEER.
3. All assistance required by the Owner's Representative to verify compliance with the Contract Documents, including measuring for quantities.

The lump sum Bid for this item shall include furnishing all materials, labor, tools, and equipment necessary to perform all general, civil, mechanical, or electrical work described below to complete the PITTSBURGH DRIVE RAILROAD TRACK AND GRADE CROSSING, complete and ready for operation in accordance with the Contract Documents.

The price Bid shall include but is not limited to necessary costs for mobilization, demobilization, site safety, demolition, track connections, testing, utility costs, temporary facilities, and other tasks.

1. PROJECT BACKGROUND
   1.1. The City of Delaware Department of Public Works is accepting bids for the rehabilitation of a pair of railroad crossings to be constructed on Pittsburgh Drive located southeast of Colomet Drive, Delaware, Ohio. Exhibits are included with the bid request that describe the location.
   1.2. This project proposes to renew both railroad crossings with precast concrete track modules from Omni Precast, Oldcastle/StarTrack, or equivalent approved alternate with reuse of existing railroad 133#RE rail. Finished rail elevation to be raised two-inched (2") above current top of track grade at the centerline of the road.

2. PROJECT PLANS
   2.1. Following receipt of the "Notice to Proceed" from the City, the Contractor shall furnish detailed drawings and specifications to the City for the work, to include any necessary rail authority approvals as may be required
   2.2. All fees associated with plan review and approval, and construction inspection, normally charged by the City of Delaware will be waived for this project. Contractor is responsible for all non-city required plan reviews, permits, fees, inspections etc.

3. WORKMANSHIP
   3.1. The material supplier shall be a reputable manufacturer, shall have a direct experience in the design, manufacture and installation of structures of the type specified herein; must provide written references with contact information for at least two similar crossings improvements completed in the past five years.

4. CONTRACT TIME
   4.1. The Contractor understands that this project is to be completed in a timely manner in in order to minimize the length of the closure of Pittsburgh Drive**.** The **maximum** length of closure of Pittsburgh drive shall **not exceed twelve (12) consecutive days.**
   4.2. The following project interim milestones shall be identified on the included project schedule, with each milestone date given in terms of #days following receipt of the Notice to Proceed from the City. Allow one week minimum for City approvals.
      a) Project Awarded
      b) Shop drawings and details submitted to City for Review
      c) Project to start on September 28, 2015
      d) Delivery of components to site

e) Project completion by October 31, 2015

4.3. Payments

4.3.1. Due to the abbreviated time frame to complete the work, a single invoice shall be submitted upon acceptance of the work.

4.3.2. Final invoice to be submitted after project has been completed and accepted.

5. INTENT OF SPECIFICATION

5.1. This specification covers the construction of two railroad crossings.

5.2. It is the intent of this specification that the bidder shall include all labor, materials, equipment services and transportation to the site.

5.3. All materials used in the structure shall be new, with exception of the existing rails, without defects and free of repairs. The quality of the materials used shall be such that the crossing is in conformance with the performance requirements as specified herein.

6. PROJECT SPECIFICATIONS:

6.1. MOBILIZATION

6.1.1. Mobilize crew, equipment and supplies required to complete the project.

6.1.2. Receive and unload all required project materials at the work location.

6.1.3. SAFETY AND TRAFFIC CONTROL

6.1.4. The City shall be responsible to establish the necessary traffic control, detour routing and all associated signage for closure of Pittsburg Dr. Contractor shall place necessary contacts with utility marking services in advance of minimum 48-hour notice.

6.1.5. Contractor shall furnish, erect and maintain lighted work area barricades at the crossings.

6.1.6. Contractor shall furnish, place, and maintain temporary derails, one at each end of the crossings as on-track work crew protection devices.

6.1.7. All work shall be performed in adherence to CSXT, FRA, OSHA and City of Delaware safe working rules.

6.2. TRACK AND CROSSING REMOVAL

6.2.1. Establish survey control and set centerline and grade stakes prior to commencing track and crossing removals. It is understood that the intent of the project is to make a raise in the top of rail elevation of approximately 2-inches.

6.2.2. Make full-depth pavement saw cut to existing asphalt pavement on west side of Sam Dong crossing; saw cut will be made approximately 6-inches beyond the existing asphalt seam (Approx. 10-feet from the crossing's west rail).

6.2.3. Excavate existing asphalt from both crossings; between each crossing, within the Sam Dong crossing, and west of Sam Dong crossing to prior saw cut. Load and dispose asphalt in responsible manner.

6.2.4. Make full-depth pavement saw cut and excavate existing concrete on east side of International Paper crossing to first pavement joint approximately 8 to 10-feet from existing crossing edge. Load and dispose concrete in responsible manner.

6.2.5. Remove rubber railseal from Sam Dong crossing; load and dispose used rubber product in responsible manner.

6.2.6. Remove existing concrete crossing panels from International Paper crossing. Load and dispose concrete in responsible manner.

6.2.7. Remove and store a total of 395 lineal feet of rail from both crossings; placing rail strings elsewhere onsite for reuse.

6.2.8. Remove existing crossties and other track material within both crossings and within 6-foot approach to each crossing end; placing portion of material onsite for reuse (tie plates), load and dispose of remaining track material in a responsible manner (remaining tie plates, track spikes, used crossties, etc.).

6.3. GRADE PREPARATION

6.3.1. Excavate track-bed in crossings to an elevation of approximately 32 inches below top of rail under each proposed 36-feet-wide crossings, including approx. 6-feet past the end of each crossing – total area approximately 96-feet of track; load and dispose of excavated material in a responsible manner.

6.3.2. Compact subgrade with a vibratory roller.

6.3.3. Furnish and place 16 oz./SY subgrade stabilization fabric in crossing using two (2) pieces of material, each measuring approximately 15-feet wide by approximately 50-feet in length within each crossing area, and with a minimum 12 inch overlap at all joints.

6.3.4. Furnish and place one section of 4-inch Schedule 40 PVC conduit for future crossing signal wiring; conduit to be a minimum of 60' in length. Conduit will be installed at a depth of 42 inches, parallel to and four (4) feet west of the west crossing, capped at each end and marked with buried marking device for the event of future location and conduit use.

6.3.5. Furnish and place 9-inches of compacted COC Item 304 aggregate base under each proposed crossing.

6.3.6. Furnish and place 9-inches of COC Item 301 compacted asphalt base material under each proposed crossing to near the bottom of the crossing module elevation Furnish and place 2 inches of COC Item 411 stabilized crushed aggregate material as final leveling course prior to placing concrete crossing modules in each crossing; per manufacture recommendations.

6.4. CROSSING AND TRACK CONSTRUCTION

6.4.1. Crossings shall be installed per the exhibit or as modified by approval of the city.

6.4.2. Furnish and place two 36'-wide precast crossing modules, centered to accommodate the existing roadway and each track centerline.

6.4.3. Furnish and install 12 each new 10-foot track ties on each end of the concrete modules (3 at each end of both concrete crossings). Ties shall be spaced no wider than 20-inches on center, fastened to proper track gage with 4 each spikes per tie plate.

6.4.4. Furnish and install 2 each relay quality 133#RE rails in 39' lengths, to be cropped and field welded to the rails removed from the Sam Dong crossing, creating longer welded rail strings to relocate track joints further from the crossing edge. Contractor to adjust, cut, weld as necessary, rail sections to eliminate any mechanical joint within 5 feet of the edge of new crossings.

6.4.5. Install railroad rails into concrete crossing modules with rail insulating boot and/or abrasion pads, and manufacture supplied rail fasteners; install supplied rubber field and/or gage side filler strips. Rails will span the concrete crossing modules and new wood track ties in each crossing track approach.

6.4.6. Make all bolted rail joints in each rail end; coupling to existing track, with prior salvaged and reusable 6-hole joint bars, fully joined with new trackbolt sets with AREMA lockwashers.

6.4.7. Furnish and apply new or relay quality drive-on rail anchors on 10 crossties off each end of the crossings. Rail anchors applied to each side of the crosstie at each rail (box anchored).

6.4.8. Furnish and place #4 limestone ballast in-track around each crossing end to allow for track surfacing.

6.4.9. Raise, align and level rails and machine-tamp ties off each crossing end to created uniform track profile and crossing approaches.

6.4.10. Dress ballasted track to top of crosstie and proper track shoulder profile.

6.5. ROAD APPROACH PREPARATION AND FINAL PAVING

6.5.1. Railroad crossing road approach and final paving to be performed by City of Delaware.

6.5.2. Work is to be coordinated with City concrete and paving crews who will be performing road approach work concurrently with rail crossing Work.

6.6. DEMOBILIZATION

6.6.1. Load and dispose of all excess, salvaged or spoiled project materials from the work location.

6.6.2. Remove required on-track protection devices.

6.6.3. Remove worksite road closure signage on close of paving work done by others.

6.6.4. Demobilize crew, equipment and supplies required to complete the project.

7. PREVAILING WAGE
   7.1. Federal Prevailing Wage rates apply to this project.

8. OPERATION AND USE
   8.1. The crossings shall be designed with a minimum warrantee of 6 years against component failure. Contractor to provide warrantee for one year from date of acceptance of work for any defect in materials or labor involved with the crossing installations.
   8.2. Contractor is responsible to coordinate closure and reopening of rail crossings with owners and CSX railway as required.

9. INSPECTIONS
   9.1. Contractor is responsible for arranging and paying for all required rail plan and construction inspections and approvals.

10. INSURANCE
    10.1. Railroad Protective Liability Insurance, if required, is the responsibility of the CONTRACTOR.