GENERAL

Project Description

This project consists of the painting of structural steel on four overpasses along Interstate Route 77 in the Cities of Broadview Heights, Brecksville, and Independence in Cuyahoga County.

Existing Structure Verification

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structures and from field observations and measurements. Consequently, they are indicative of the existing structures and the proposed work but shall be considered tentative and approximate. The contractor is referred to sections 102.05 and 105.02 of the 2023 construction and material specifications. Base contract bid prices upon a recognition of the uncertainties described above and upon a pre-bid examination of the existing structures by the contractor.

The existing structure plans may be reviewed at the:

Ohio Department of Transportation District 12 Office 5500 Transportation Boulevard Garfield Heights, OH 44125

Or

http://www.dot.state.oh.us/divisions/contractadmin/contracts/pages/designfiles.asp

Contingency Quantities

The Contractor shall not order materials or perform work for items designated by plan note to be used "as directed by the engineer" unless authorized by the engineer. The actual work locations and quantities used for such items shall be incorporated into the final change order governing completion of this project.

Equipment and Material Storage

In order to provide for the safety of the traveling public the Contractor's attention is directed to 614.03. In addition the following provisions shall apply:

- 1. Any removed items shall not be stored on the right of way for more than thirty (30) days.
- 2. The storage of equipment, materials, and vehicles within the highway right of way will be permitted. The number of areas and exact locations shall be approved by the Engineer.
- 3. All disturbed areas shall be returned to their original condition at no expense to the State.
- At no point can equipment, materials, or vehicles be stored atop the bridge decks at any of the project locations.

Cooperation Between Contractors

The Contractor shall cooperate and coordinate operations with the contractors on other projects that may be in force during the life of the contract

Bridge CUY-77-8.81E at Location 4 will be receiving superstructure steel repairs as part of project 24-0120, D12-BH-FY2024 (PID 107286) in the summer of 2024. The contractor shall not perform any work at this location until 2025 to allow for these steel repairs to be completed. Please contact Project Engineer Adam Delfs at Adam.Delfs@dot.ohio.gov or at 216-312-0532 for coordination.

.Work Limits

All work shall be within the existing right-of-way, and no work shall take place in streams, wetlands, or pollinator initiative sites.

The work limits shown on these plans are for physical construction only. Provide the installation and operation of all work zone traffic control and work zone traffic control devices required by these plans whether inside or outside these work

Utility Ownership

The following utilities and owners are located within the work limits of this project. The Ohio Department of Transportation has used the best available information to determine the utility companies serving this area but cannot guarantee the utility list is complete.

Illuminating Co. 6896 Miller Road Brecksville, Ohio 44141 Attn: John Zassick Phone: (440) 546-8706

Northeast Ohio Regional Sewer District (NEORSD) 3900 Euclid Avenue Cleveland, Ohio 44115 Attention: Robert Stoerkel Phone: (216) 881-6600 x 6802

13630 Lorain Ave. - 2nd floor Cleveland, Ohio 44111 Attn: James Janis Phone: (216) 534-7285

Dominion Energy Ohio 320 Springside Drive Suite 320, Akron, Ohio 44333 Phone: (330) 664-2409

Cox Communications 12221 Plaza Drive Parma, Ohio 44130 Attention: Craig Smith Phone: (216) 535-3356

Century Link 4000 Chester Ave. Cleveland, Ohio 44103 Attention: Doug Holloway Phone: (216) 906-6284

BreezeLine 105 Blaze Industrial Parkway Berea, Ohio 44017 Attention: Larry Burruel Phone: (440) 915-9256 Attention: Jose Diaz Phone: (216) 385-3901

City of Broadview Heights 9543 Broadview Road Broadview Heights, Ohio 44147 Attention: Gene Esser Phone: (440) 838-4705

City of Cleveland Division of Water 1201 Lakeside Ave. Cleveland, Ohio 44114 Attn: Fred Roberts Phone: (216) 664-2444 x 75590

ODOT Traffic Monitoring Section 1980 West Broad Street Columbus, Ohio 43223 Attn: Ed Newmeyer (Field Rep) Phone: (614) 204-0914 Attn: Sandra Mapel (Field Operations) Phone: (614) 644-0291

Charter Communications 7820 Division Drive Mentor, Ohio 44060 Attention: Emil Symister Phone: (216) 575-8016 Opt. 1

Cuyahoga County Sanitary Engineer 2079 E. 9th Street, 5th Floor Cleveland, Ohio 44113 Attention: Hugh Blocksidge Phone: (216) 443-8205

Marathon Pipe Line LLC 539 South Main Street Findlay, Ohio 45840 Attention: Aron Velazquez Phone: (419) 421-3704

Verizon 120 Ravine St. Akron OH 44303 Attention: Al Guest Phone: (330) 622-5967

City of Independence 6335 Selig Drive Independence, Ohio 44131 Attention: Donald Ramm Phone: (216) 524-1374

City of Brecksville 9069 Brecksville Road Brecksville, Ohio 44141 Attention: Gerald Wise Phone: (440) 526-4351

There are no underground utilities shown on this plan. The nature of the work required by this project will not affect any known underground utilities that exist under or adjacent to the work area.

The Contractor shall exercise caution while performing work activities near utility conduits located in the superstructure beam bays. If any utilities are damaged during construction activities, the Contractor shall immediately notify the engineer and the appropriate utility owner(s).

Refer to original structure plans for locations of utilities within the superstructure beam bays. No utilities are to be disturbed throughout the course of this project.

Protection of Right-of-Way Landscaping

Prior to beginning work, the Contractor, the Project Engineer and a representative of the maintaining agency will review and record all landscaping items within the right-of-way (both within and outside the construction limits). A record of this review will be kept in the Project Engineer's files. Prior to final acceptance, a final review of landscaping items will be made.

Constrict all activities, equipment storage and staging to within the construction limits. Unless otherwise identified in the plans or proposal, the construction limits are identified as 30 feet from the edge of pavement.

Submit a written request to the Project Engineer to use any area outside these limits. The document submitted must clearly identify the area and explain the proposed use and restoration of the area. Use of these areas for disposal of waste material and construction debris, excavation of borrow material and placement of portable plants is prohibited. The request must be approved, in writing, before the Contractor has permission to use the area.

Any items damaged beyond the construction limits, as defined above, will be replaced in kind or as approved by the Project Engineer.

Temporary Minimum Vertical Clearance

The temporary minimum vertical clearance over roadways and shoulders shall not be less than 14'-6".

Notification of Minimum Vertical Clearance Reduction

The Contractor shall notify the Special Hauling Permits Section of the Ohio Department of Transportation at Hauling.Permits@dot.ohio.gov and the Engineer of any temporary reduction of vertical clearance. The notification shall be given at least 14 days prior to reducing the vertical clearance of a bridge and shall include the following information:

- State Project Number
- PID
- SFN
- Bridge Number
- Location map
- Direction of reduced vertical clearance. For example:
 - Bidirectional
 - Cardinal (north or east)
 - Non-Cardinal (south or west)
- Temporary vertical clearance
- Estimated/actual start and end dates of the reduction
- Contractor's contact person and telephone number
- Engineer's name and telephone number
- Any other information requested by the Special Hauling Permits Section

The Contractor shall inform the Special Hauling Permits Section of the Ohio Department of Transportation and the Engineer within 14 days after restoring the vertical clearance of a bridge to its original vertical clearance.

The above requirements shall be considered incidental to the work that causes the reduction in the vertical clearance.



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Right Of Way

All work shall be performed within the existing right of way or easements

Stagling Areas

There are no specific areas given in the plans for the Contractor to use as a staging area(s). If the Contractor wants to use an area(s) for staging, regardless if it falls within the project limits or not, the Contractor is to use the Right of Wav E-Permitting System at https://odhcp.bemcorp.net/Accounts/Account/Account in order to apply for a permit per Section 107.02 of the CMS. For specific permitting questions, the Contractor can contact the District Permitting Office, (Melvin Safford) at 216-584-2137, (Andrew Tomko) at 216-584-2195 or at District12Permits@dot.ohio.gov.

If a permit is granted, all conditions of the permit shall be met in addition to the requirements of 104.04 of the CMS, at no additional cost to the State. If the Project Engineer deems that all the conditions of the permit were not met, then 10% of the Contract bid amount for mobilization shall be withheld until all the conditions of the permit are satisfied.

Item 201 - Clearing and Grubbing, As Per Plan

Although there are no trees or stumps specifically marked for removal within the limits of the project, a lump sum quantity is included in the general summary for Item 201, Clearing and Grubbing, As Per Plan. All provisions as set forth in the specifications under this item are included in the lump sum price bid for Item 201, Clearing and Grubbing, As Per Plan. This item includes trimming back of all tree branches and brush that are within 10'-0" of any location to have a painted or sealed surface. No complete tree removals are permitted, and no tree removals are required for construction access.

Item 513 – Structural Steel Members, Level UF, As Per Plan

This item consists of furnishing and installing structural steel plate, angle, channel, and other rolled shapes as required for miscellaneous structural steel repairs as directed by the Engineer.

After blasting and surface preparation operations to remove existing paint and loose rust are complete, the Engineer will inspect the structural steel for deficiencies such as section loss, holes, broken or detached welds, and loose or missing bolts. If the Engineer identifies deficiencies that require repair, the Engineer will provide the proposed method of repair to the Contractor and direct the Contractor to order materials. Repairs to structural steel may include but not be limited to the welding and/or bolting of steel plate to existing beam or girder flanges, webs, and/or stiffeners; the partial or complete replacement of existing stiffener plates in-kind; the partial or complete replacement of existing crossframe members and/or gusset plates in-kind; and the replacement of loose or missing bolts. Perform structural steel repairs in accordance with C&MS 513, except shop drawings per CMS 513.06 will not be required.

The Contractor's approved schedule shall include a time allowance for the Engineer's inspection and the possibility of structural steel repairs being required after completion of the blasting and surface preparation. Subject to the approval of the Engineer, prime coat application may proceed concurrent with steel repairs. However, all structural steel repairs directed by the Engineer within a given phase of the bridge painting work shall be completed with the prime coat applied prior to beginning application of the intermediate and finish coats in that phase.

The Department will measure this item on a per pound basis, based on the actual weight of structural steel plate, angle, channel, or other rolled shapes furnished and installed. Payment will be made at the unit price bid for Item 513 - Structural Steel Members, Level UF, As Per Plan, which shall include all labor, materials, equipment, and incidentals necessary to complete the work. The Estimated Quantities table for each bridge includes a contingency quantity of this item for use as directed by the Engineer.

Item 514 - Field Painting

The contractor shall not overspray onto the concrete deck or concrete substructure components (back walls, abutments, and piers). Painting shall be confined to the structural steel components, utility supports, and the drainage scuppers including downspouts.

Utility conduits shall not be painted and shall be protected from sandblasting. Steel utility supports and drainage scuppers shall be painted.

Structures 1 through 3 included in the painting shall have a two-color scheme for this structural steel. The finish coat color for structures 1 through 3 shall be federal color number FC#595B-14516 (Light Green) with an exception to the fascia. The fascia color shall be federal color number FC#595B-14066 (Dark Green) and shall be painted in accordance with the "fascia paint detail." The finish coat color for structure 4 shall be federal color number FC#595b-16440 (Grey Gloss). The contractor shall provide sample color chips to the engineer for approval prior to commencing work.

Item 619 - Field Office, Type C, As Per Plan

In addition to the requirements of CMS 619, the Contractor shall furnish and set up a Wi-Fi router meeting the requirements of IEEE 802.11ac and provide internet service with a minimum download speed of 1 GBS for the exclusive use of the Department.

All other field office items supplied shall meet the requirements of a Type C, Field

Item 623 - Construction Layout Stakes, As Per Plan

In addition to the requirements of the CMS, this item of work will include the following additional requirements.

An Ohio Professional Surveyor shall determine the minimum vertical clearances of all existing and new bridges within the project limits. At a minimum, measurements shall be taken along each fascia beam at the edge of shoulders, edge lines, lane lines, and crown of the roadway below. The ODOT District 12 Vertical Clearance Survey Form shall be used, where applicable, to document the measurements. Where the ODOT District 12 Vertical Clearance Survey Form is not applicable, the measurements shall be documented on a contractor-developed form that closely resembles the ODOT District 12 Vertical Clearance Survey Form and accurately depicts the bridge and the lane and shoulder configuration of the roadway that passes below the bridge. The completed form shall bear the stamp or seal of the Ohio Professional Surveyor who has taken the measurements and shall be submitted to the project engineer prior to final acceptance of the project.

The ODOT District 12 Vertical Clearance Survey Form can be downloaded from the following FTP site:

ftp://ftp.dot.state.oh.us/pub/Contracts/Attach/CUY-110502

Payment for all of the above work shall at the unit price bid for Item 623 – Construction Layout Stakes, As Per Plan, which shall include all labor, equipment, materials, and incidentals necessary to complete the above work.

Item 630-Signing, Misc.: Overpass Name Installation

This item shall apply to the following structures:

- Location 1; CUY-77-0.38; W Snowville Rd Over IR-77; SFN 1805649
- Location 2: CUY-77-2.24: Oakes Rd Over IR-77: SFN 1805762
- Location 3; CUY-77-4.26; Lacey Ln Over IR-77; SFN 1805940
- Location 4: CUY-77-8.81E: Ramp F-7 Over Ramp SW (Rockside Rd to IR-77N): SFN 1806297

The contractor is required to install overhead street name designation signs on the fascia beams after painting and approval of painting is completed.

Install signs, as directed by the Engineer, where they are most visible to the travelling public but not over travelled lanes. Signs may be installed over berms but may not be cut for installation.

The sign decals will be provided by the District. The sign decal may be picked up at the District Office from the District Traffic Engineer, Keith Hamilton, at 216-584-2200. The District Traffic Engineer requires 45 days advance notification for coordination of acquisition of the sign decals.

All labor and equipment required to perform the above-described work shall be included for payment as Item 630-Signing, Misc.: Overpass Name Installation.

Item 832 - Erosion Control

Although no specific erosion control measures or project site plans have been included in these plans, the following quantity is included in the general summary for use as directed by the engineer.



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3. Flashing Arrow Requirement

Whenever any part of the traveled surface is closed, the motorists shall be warned and directed by the contractor through the use of one flashing arrow panel for each lane closed. The contractor shall refer to Supplement Specification 821 and the provisions set forth in the "Manual" for all information regarding furnishing, maintaining, and use of flashing arrow panels.

4. <u>Drums</u>

Drums shall be in accordance with pertinent sections of the "Manual". All costs for installing, maintaining, and subsequent removal of said drums is to be included in the lump sum bid price for Item 614 - Maintaining Traffic.

5. Cones

Cones, if utilized, are to be located as shown in the "Manual" and the standard drawings

6. Barrier

Portable barrier if necessary is to be located as shown in the "manual" and the standard drawings.

7. Flashers

Flashers shall be 12 volt battery-operated models with 7 inch diameter yellow lenses illuminated by rapid intermittent flashers of short duration and are to be placed on all signs at all times as required by the "Manual" and the standard construction drawings.

Floodlighting

Floodlighting of the worksite for operations conducted during the nighttime periods shall be accomplished so that the lights do not cause glare to the drivers on the roadway. To ensure adequacy of the floodlight placement, the contractor and engineer shall drive through the worksite each night when the lighting is in place and operative prior to commencing any work. If glare is detected, the light placement and shielding shall be adjusted to the satisfaction of the engineer before work proceeds.

9. Work Vehicles

All work vehicles licensed to operate on the highway, shall be equipped with a flashing, rotating, or oscillating amber light visible to all directions of traffic for a minimum of one-quarter mile in bright sunlight and shall be operated with lighted head and tail lamps. The amber light shall be in operation at all times within the work zone and while traveling to and from the work zone whenever the vehicle speed is below the posted legal limit. Vehicle hazard lights do not satisfy this requirement. All other equipment shall be equipped with a flashing, rotating, or oscillating amber light visible to all directions of traffic for a minimum of one-quarter mile in bright sunlight. The amber light shall be in operation while the equipment is within the work zone.

V. <u>Payment</u>

Payment for providing, erecting, maintaining and removing temporary maintenance of traffic control devices shall be made under the lump sum price bid for Item 614 -Maintaining Traffic.

Continuous Access

The contractor shall maintain safe and adequate driveways and walkways in order to provide continuous access for pedestrians, passenger vehicles, trucks, and safety equipment to all adjoining properties. The cost for all materials, equipment and labor necessary to provide continuous access shall be included in the lump sum price bid for Item 614 - Maintaining Traffic.

Construction Traffic

All construction traffic shall use acceptable truck routes to access the construction area. Use of local residential streets is strictly prohibited unless allowed in writing by the local enforcement authority.

Location 4 Maintenance of Traffic Scheme

For the installation and removal of cables at Location 4 (Ramp F-7) ramps from Rockside Rd to IR-77 NB and the ramp from IR-77NB to IR-480 EB/WB shall be closed per Maintenance of Traffic Plans - Phase 1 from 11 PM to 5 AM on weekdays only. For installation of plates, ramps from Rockside Rd to IR-77 NB shall be closed and traffic from IR-77NB to IR-480 EB/WB shall be shifted per Maintenance of Traffic Plans - Phases 2 and 3 between 11 PM and 5 AM on weekdays only. Closures shall not be implemented on Saturday and Sunday

- Portable Changeable Message Signs (PCMS) shall be placed before the ramps 14 full days prior to closure per the applicable note. Provide a PCMS at the point of closure to direct traffic on IR-77 NB to remain on IR-77 NB, follow IR-77 NB to the Grant Ave exit (Exit 205), and re-enter IR-77 SB from Grant Ave. From there, motorists can access IR-480 EB/WB. In addition to the first PCMS used to detour traffic at the point of closure, provide a second PCMS on IR-77 NB located 1-mile in advance advising motorists of the detour ahead.
- Portable Changeable Message Signs (PCMS) shall be placed before the Rockside Rd ramps to I-77NB 14 full days prior to closure per the applicable note. Provide a PCMS at the point of closure to direct traffic on Rockside Rd EB to follow Brecksville Rd (SR-21 NB) to IR-77 NB to the Grant Ave exit (Exit 205), and re-enter IR-77 SB from Grant Ave. From there, motorists can access IR-480 EB/WB. Additionally, provide a PCMS at the point of closure to direct traffic on Rockside Rd WB to follow Broadview Rd (SR-176 NB) to Brookpark Rd (SR-17) to IR-480 EB. From there, motorists can access IR-77 NB.
- In addition to the first PCMS used to detour traffic at the point of closure. provide a second PCMS on Rockside Rd EB/WB located 1-mile in advance advising motorists of the detour ahead.
- Suggested messages for IR-77 NB PCMS boards prior to date of closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

Phase 1	Phase 2	Phase 1	Phase 2
[RAMP	[11 PM TO 5 AM]	[RAMP TO	XX/XX/XX
CLOSED		I-480	11 PM
XX/XX/XX]		TO CLOSE]	TO 5 AM

• Suggested messages for IR-77 NB PCMS boards during closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

Phase 1	Phase 2	Phase 1	Phase 2
[RAMP CLOSED]	[USE EXIT 158 TO I-77 SB]	[RAMP TO I-480 CLOSED]	[FOLLOV DETOUR EXIT 158

Suggested messages for Rockside Rd EB/WB PCMS boards prior to date of closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

Phase 1	Phase 2	Phase 1	Phase 2
[RAMP	[11 PM 7 5 AM]	[RAMP TO	[XXXXXXX
CLOSED		I-77 & I-480	11 PM
XX/XX/XX]		TO CLOSE]	TO 5 AM]

• Suggested messages for Rockside Rd EB PCMS boards during closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

Phase 1	Phase 2	Phase 1	Phase 2
[RAMP CLOSED]	[USE SR-21 TO I-77 TO GRANT]	[RAMP TO I-77 & I-480 CLOSED]	[FOLLOW DETOUR SR-21]

• Suggested messages for Rockside Rd WB PCMS boards during closure:

PCMS at point of closure: PCMS 1 mile in advance of closure:

Phase 1	Phase 2	Phase 1	Phase 2
[RAMP CLOSED]	[USE SR-176 NB TO SR-17 TO I-480]	[RAMP TO I-77 & I-480 CLOSED]	[FOLLOW DETOUR SR-176]

- Closure shall take place between 11:00 PM and 5:00 AM except on Saturday and Sunday mornings.
- One night-time closure will be permitted for cable assembly (MOT Phase 1), two night-time closures will be permitted for platform assembly (MOT Phases 2 & 3), two night-time closures will be permitted for platform disassembly (MOT Phases 4 & 5), and one night-time closure will be permitted for cable disassembly (MOT Phase 6). Therefore, six total night-time closures are permitted for this location.
- PCMS's notifying the public of the closure shall be installed 14 calendar days prior to the closure being implemented per the applicable plan note.
- The Contractor shall notify the City of Independence Fire Chief Steve Rega at (216) 524-4001 a minimum of 14 calendar days prior to the closure being implemented and include him in all discussions involving maintained EMS access to the Ramp.

Item 614 - Law Enforcement Officer (With Patrol Car) for Assistance During **Construction Operations**

Use of Law Enforcement Officers (LEOs) by contractors other than the uses specified below will not be permitted at project cost. LEOs should not be used where the OMUTCD intends that flaggers be used.

In addition to the requirements of C&MS 614 and the OMUTCD, a uniformed **LEO** with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) shall be provided for the following traffic control tasks:

- During the entire advance preparation and closure sequence where complete blockage of traffic is required.
- During a traffic signal installation when impacting the normal function of the signal or the flow of traffic, or when traffic needs to be directed through an energized traffic signal contrary to the signal display (e.g., directing motorists through a red light).



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