

Surveying Parameters

Primary project control monuments govern all positioning on ODOT projects. See sheet 16 of the plans for a table containing project control information.

Use the following project control, vertical positioning, and horizontal positioning parameters for all surveying:

Project Control	
Positioning Method:	ODOT GPS RTN Position Observed August 2024
Monument Type:	Type B Primary Project Control
Vertical Positioning	
Orthometric Height Datum:	NAVD88
Geoid:	GEOID 18
Horizontal Positioning	
Reference Frame:	NAD83 (2011)
Ellipsoid:	GRS 80
Map Projection:	Transverse Mercator
Coordinate System:	ODOT Ohio County Coordinate System-Cuyahoga
Combined Scale Factor:	1.000029
(Per system parameters, coordinates provided herein are in their final format)	
Origin of Coordinate System:	N 40°09'00" E 278°15'00"

Use the positioning methods and monument type used in the original survey to restore all monuments related to primary project control that are damaged or destroyed by construction activities. Restore the damaged or destroyed monuments in accordance with CMS 623.

Units are in U.S. SURVEY FEET.

Roadway & Noise Barriers

Follow standard drawing NBS-1-09 and the details of these plans.

Item 201 – Clearing and Grubbing

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. No trees shall be cut down for this project. 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.

Item 202 – Portions of Structure Removed, As Per Plan

This item of work is intended for Locations 4 & 8.

Contractor shall remove the existing anchor bolts and concrete of the noise barrier foundation to the limits shown in these plans. Use chipping hammers that are not heavier than the nominal 35-pound class. Care shall be taken by the contractor to not damage the existing vertical reinforcing. Replace the ties within the removal limits in kind. Operate the chipping hammers at an angle of less than 45 degrees measured from plumb. Remove the concrete in a manner that prevents cutting, elongating or damaging reinforcing steel. Any damage to the rebar shall repaired at the direction of a licensed engineer in the State of Ohio. Adequately support and tie back into place reinforcement which has become loose. This work will be performed for a total of two (2) noise barrier foundations. See sheet 22 for details.

Payment for all of the above work shall be included in the Lump Sum Bid price for Item 202 – Portions of Structure Removed, As Per Plan unless otherwise noted and shall include all labor, equipment, materials and incidentals necessary to complete the above work.

Item 202 – Portions of Structure Removed, Noise Barrier Foundation

Contractor to remove noise barrier post and foundation to a minimum depth of 2’ below final grade at Location 6.

Item 202 – Fence Removed

Fence removal at Location 10 shall be removed after the proposed noise barrier panels have been installed to a matching height of the existing fence. Contractor shall not leave the noise barrier bay open to permit uncontrolled access to the highway.

Item 202 – Removal Misc.: Noise Barrier Post Removal

This item shall consist of any removal and disposal of existing noise barrier posts. Disposal shall follow any applicable local, state or federal laws regarding such disposal.

This shall be paid for at the contract unit price bid per each under Item 202 – Removal Misc.: Noise Barrier Post Removal

Item 202 – Removal Misc.: Fiberglass Panels Removal and Delivery

This item is intended for Locations 1, 10, 11, & 12.

The contractor shall remove existing fiberglass noise barrier panels. Panels that are determined to be in salvageable condition as determined by the project engineer shall be delivered to the following location: Cleveland FSMF, 3263 E 44th Street Cleveland, Ohio 44127. Contractor shall contact Leo Cicirella (216-630-8373), a minimum of 2 business days prior to the removal of the fiberglass panels to coordinate delivery of the panels. Panels that will not be delivered to ODOT shall be handled in accordance with Item 202 – Removal Misc.: Noise Barrier Panel Removal and Disposal

Contractor shall take care to prevent damage to the fiberglass panels during removal and transportation.

Payment for item shall be paid for at the contract unit price bid per square foot under item Removal Misc.: Fiberglass Panel Removal and Delivery unless otherwise noted, and shall include all labor, equipment, materials and incidentals necessary to complete the above work.

Item 202 – Removal Misc.: Noise Barrier Panel Removal and Disposal

This item shall consist of any removal, storage and disposal of existing damaged noise barrier panels. It will also include the removal, storage and disposal of any clip angles and/or other appurtenances that may be in conflict with the proposed design. Disposal shall follow any applicable local, state, or federal laws regarding such disposal.

Care shall be taken with removal as to not damage any portion of the existing noise barrier post and foundation that is to remain. Replace or repair posts damaged by panel removal operations at no cost to the project. At least 7 days before performing repair work, submit a proposed repair plan developed by an Ohio registered professional engineer to the Engineer. Obtain the Engineer’s approval before performing the repair.

Payment for the above work shall be made at the contract price per square foot for Item 202 – Removal Misc: Noise Barrier Panel Removal and Disposal.

Field Verification of Panel Dimensions

Prior to Fabrication/Casting of all new panels, contractor is to field verify the existing panel dimensions. Field Verification of existing dimensions is included in the unit price bid for the panel.

Item 606 – Special – Noise Barrier: Concrete Post Cap

This note is intended for Locations 2 & 3.

This item shall consist of furnishing and installing a concrete post cap on existing noise barrier posts. It will also include connection materials to attach the cap to the existing post. The cap shall be sealed to match the existing post color.

This item shall be paid for at the contract price Each under Item 606 – Special – Noise Barrier, Concrete Post Cap

Item 606 – Special – Noise Barrier: Steel Post Installation

This note is intended for Locations 4 & 8.

The contractor shall supply steel noise barrier posts in accordance with these plans.

The W14x38 post at Location 4 is 20 feet in length. The W8x28 post at Location 8 is 20.5 feet in length.

Contractor shall provide anchor bolts and all necessary hardware as shown in these plans.

Structural steel shall be ASTM A709, Grade 50 as per C&MS 711.01. Anchor bolts shall be ASTM F1554 Grade 105. Threaded rods shall be deformed, one-end threaded, ASTM A615, Grade 60. Nuts shall be ASTM A563, Grade DH. Washers shall be ASTM F436.

Galvanize all structural steel, base plates, anchor bolts, threaded rods, nuts, and washers as per C&MS 711.02. Ensure that the entire length of anchor bolts and threaded rods are galvanized.

Concrete Class QC5 – Compressive Strength 4.5 ksi (Drilled Shafts)

Contractor shall paint the supplied posts, contractor to apply a 3-coat paint system to the posts per C&MS 514.

Payment for this shall be included in the unit price bid, Each for Item 606 – Special – Noise Barrier: Steel Post Installation unless otherwise noted, and shall include all labor, equipment, materials and incidentals necessary to complete the above work.

Item 606 – Special – Noise Barrier: Steel Post Installation 2 Each

Item 606 – Special – Noise Barrier: Reflective Panels

This item of work is intended for Location 6

This item of work shall follow NBS-01-09.

If the existing clip angles installed within the noise barrier post conflict with the noise barrier panel installation, the contractor shall remove the existing clip angle per Item 202 – Removal Misc: Noise Barrier Panel Removal and Disposal. The department has provided an installation detail for installation of an angle bracket which shall be welded to the flange of the existing post. The panel shall be kept tight to the highway face. The contractor can provide an alternate installation plan which shall be developed by an Ohio registered professional engineer. The installation plan shall be provided to the Project Engineer, 10 business days prior to the beginning of installation of the panels. The clip angles shall be installed such that the panel is securely held within the existing post and shall permit minimal movement after the panels are in place. The contractor is advised that the original construction plans permitted the original contractor to install galvanized posts at their discretion. The department has no record of which posts, if any were galvanized. The contractor shall take appropriate measures to mitigate risks associated with welding to galvanized materials. If galvanized material is removed in the act of welding the angle bracket to the existing post. The contractor shall replace the galvanization using methods described in CMS 514 or CMS 711.02.

DESIGN AGENCY



DESIGNER

NDG

REVIEWER

KJD 01/10/25

PROJECT ID

122128

SHEET

TOTAL

P.5

25

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/2/2025 TIME: 12:30:46 PM USER: nrgcia
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GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

NDG

REVIEWER

PROJECT ID

122128

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D12 NOISE BARRIER REPAIR

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DESIGN AGENCY



DESIGNER

NDG

REVIEWER

KJD 01/10/25

PROJECT ID	122128
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SHEET	TOTAL
P.11	2