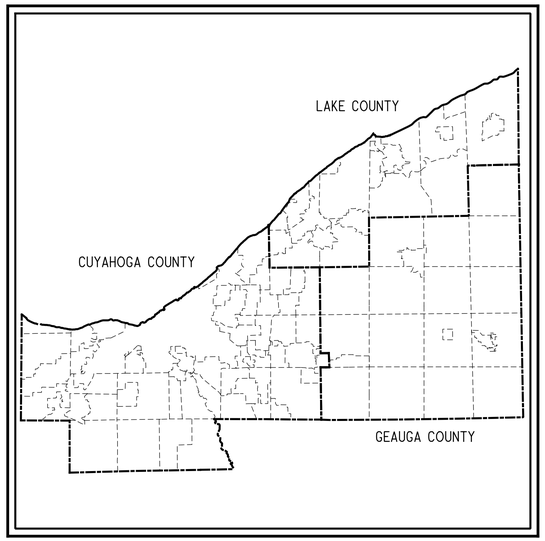
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

D-12 NOISE BARRIER REPAIR

CUYAHOGA & LAKE COUNTIES



LOCATION MAP

LATITUDE: 41°24'54" LONGITUDE: 81°36'54"

PORTION TO BE IMPROVED ———
INTERSTATE HIGHWAY ———
FEDERAL ROUTES ———
STATE ROUTES ———
COUNTY & TOWNSHIP ROADS ———
OTHER ROADS ———

DESIGN DESIGNATION

CURRENT ADT (20)
DESIGN YEAR ADT (20)
DESIGN HOURLY VOLUME (20)
DIRECTIONAL DISTRIBUTION
TRUCKS (24 HOUR B&C)
DESIGN SPEED
LEGAL SPEED
DESIGN FUNCTIONAL CLASSIFICATION:

NHS PROJECT

DESIGN EXCEPTIONS

N/A

ADA DESIGN WAIVERS

N/A

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
District 12 - Planning and Engineering
5500 Transportation Boulevard
Garfield Heights, Ohio 44125

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

NON-FEDERAL

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

THIS PROJECT WILL ENTAIL REPAIR OF INDIVIDUAL NOISE BARRIER PANELS AND NOISE BARRIER WALL RUNS THAT ARE DAMAGED ACROSS THE DISTRICT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*0.5 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*0.3 ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	*N/A (NOI NOT REQUIRED)**

** ROUTINE MAINTENANCE PROJECT*

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

TRAFFIC NOT REROUTED

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

ENGINEER'S SEAL

STATE OF OHIO
KYLE J. DOHLEN
E-79107
REGISTERED PROFESSIONAL ENGINEER

STANDARD CONSTRUCTION DRAWINGS						*SUPPLEMENTAL SPECIFICATIONS*		*SPECIAL PROVISIONS*
NBS-1-09	*7/19/24*					*800-2023*	*1/17/25*	
						821	*4/20/12*	
MT-95.30	*7/19/19*					*832*	*7/19/24*	
MT-95.45	*7/21/23*					*845*	*4/20/18*	
MT-105.10	*1/17/20*					*921*	*7/19/24*	
TC-41.20	*10/18/13*							
TC-41.30	*4/21/23*							
TC-42.20	*10/18/13*							
TC-52.10	*10/18/13*							
TC-52.20	*1/15/21*							

John Picuri, P.E., P.S.
District 12 Deputy Director

Pamela Boratyn
Director, Department of Transportation

TITLE SHEET

DESIGN AGENCY

DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.1 TOTAL 25

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:04:10 AM USER: ngrega
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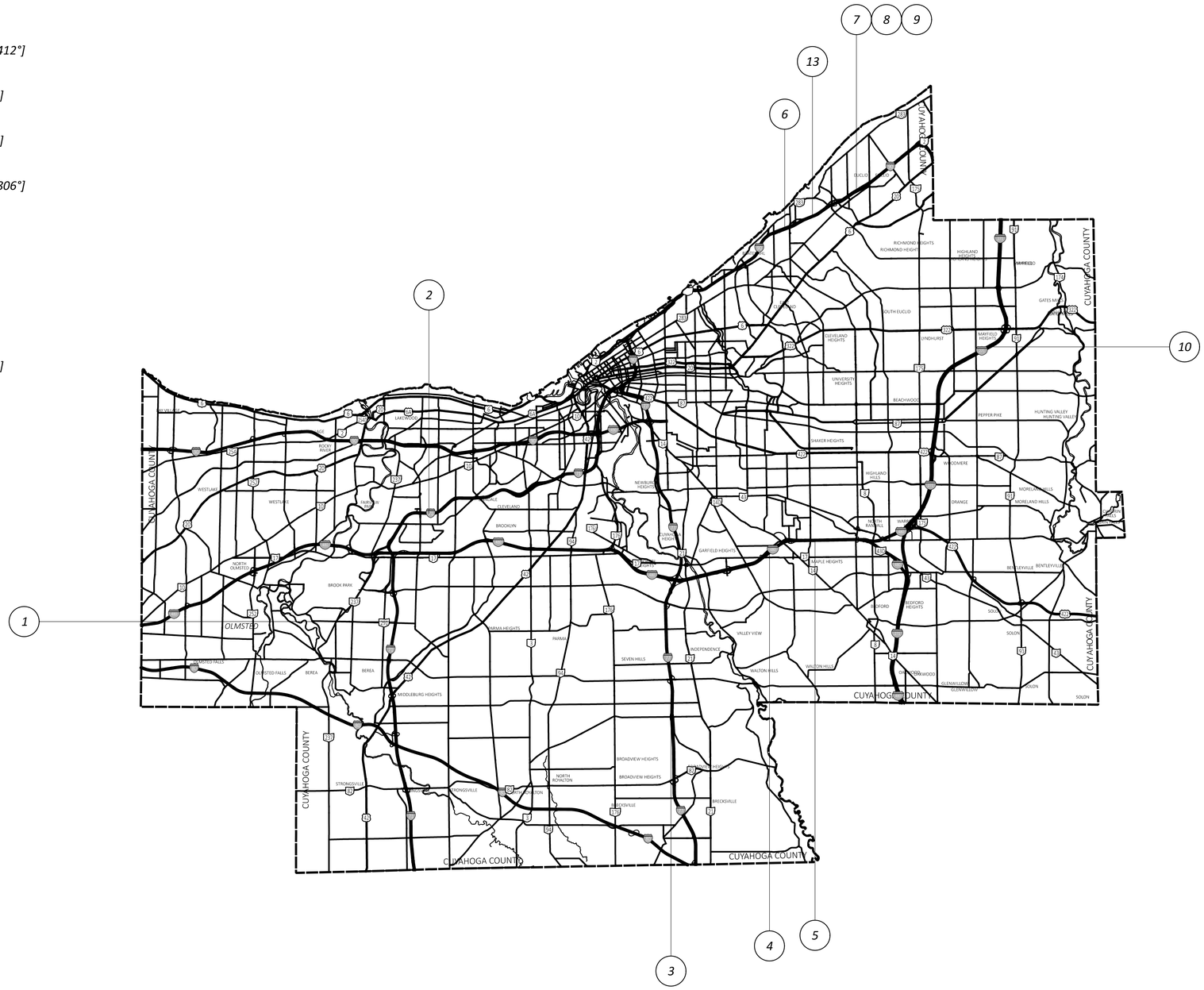
1. *CUY-71-7.922 [41.389380°, -81.816229°]*
2. *CUY-71-12.160 [41.438252°, -81.796104°]*
3. *CUY-RA18384-0.205 [41.359422°, -81.650412°]*
4. *CUY-480-21.055 [41.419167°, -81.589592°]*
5. *CUY-480-22.600 [41.424456°, -81.561836°]*
6. *CUY-RA18492-0.117 [41.567142°, -81.578806°]*
7. *CUY-90-27.045 [41.583795°, -81.535386°]*
8. *CUY-90-27.073 [41.584079°, -81.534807°]*
9. *CUY-90-27.171 [41.584750°, -81.533365°]*
10. *CUY-271-12.363 [41.512147°, -81.456274°]*
13. *CUY-90-25.390 [41.572780°, -81.561419°]*



LOCATION MAP
CUYAHOGA COUNTY

D12 NOISE BARRIER REPAIR

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DESIGN AGENCY

DESIGNER
NDG

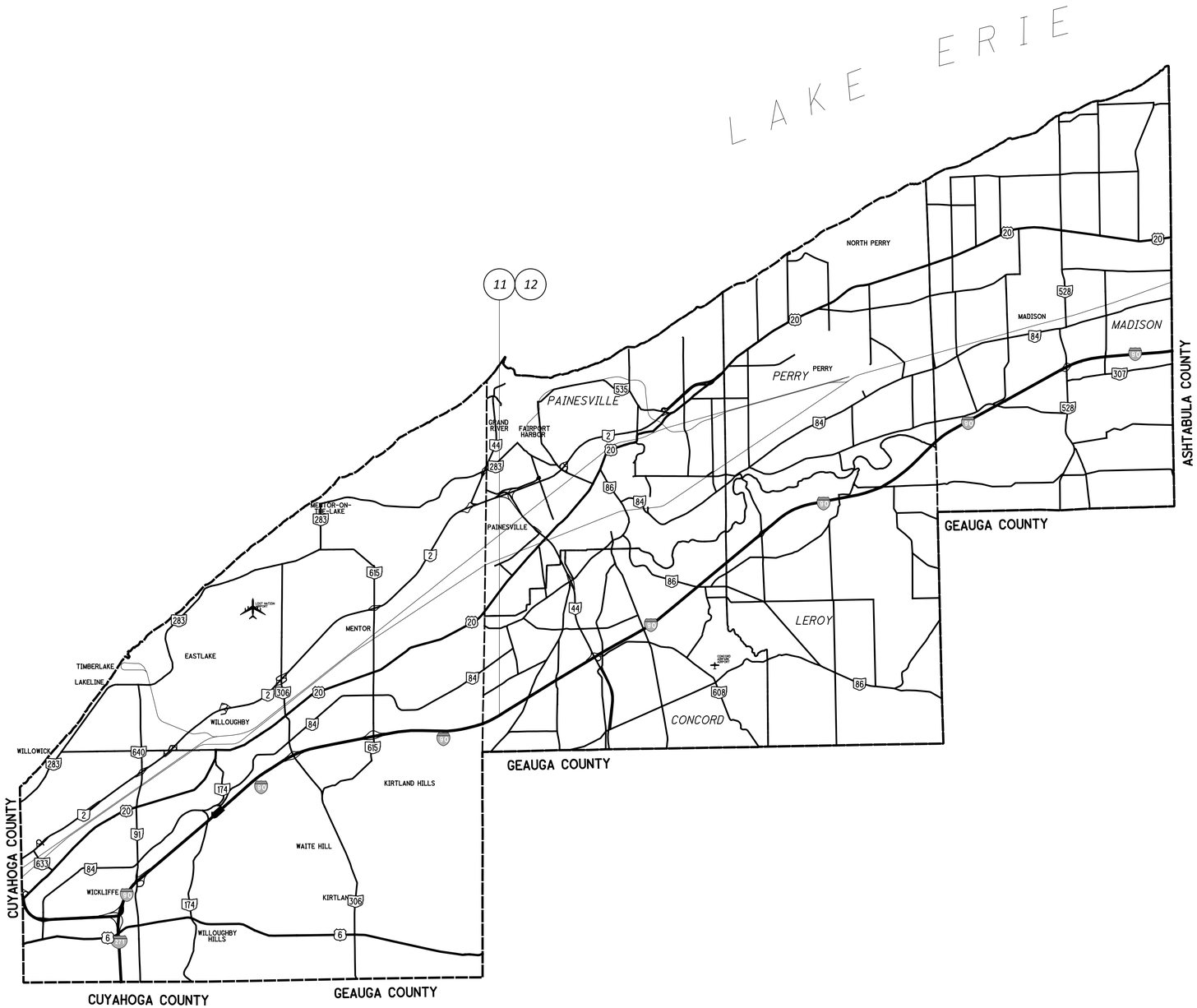
REVIEWER
KJD 01/10/25

PROJECT ID
122128

SHEET P.2 | TOTAL 25

(11) *LAK-RE91078-0.124 [41.649290°, -81.293514°]*

(12) *LAK-RE91080-0.299 [41.654697°, -81.284308°]*



D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:04:27 AM USER: ngrega
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LOCATION MAP
LAKE COUNTY

DESIGN AGENCY

DESIGNER	NDG
REVIEWER	KJD 01/10/25
PROJECT ID	122128
SHEET	P.3
TOTAL	25

GENERAL

Project Description

This project will repair or replace damaged noise barrier panels, posts, and foundations at multiple locations on the interstate system throughout Cuyahoga County.

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.

Construction Noise

Activities and land use adjacent to this project may be affected by construction noise. IN order to minimize any adverse construction noise impacts, do not operate power-operated construction-type devices between the hours of 7pm and 7am. In addition, do not operate at any time any device in such a manner that the noise created substantially exceeds the noise customarily and necessarily attendant to the reasonable and efficient performance of such equipment.

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. No waiver of any provisions of the Constructions and Material Specifications is intended.

Work Limits

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

Right Of Way

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

Item 619 – Field Office, Type B, 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 for the exclusive use of the Department.

All other field office items supplied shall meet the requirements of a Type B Field Office.

Item 619 – Field Office, Type B, As Per Plan ..... **8 Months**

Staging 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 of if it falls within the project limits or not, the Contractor is to use the Right of Way 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.

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.

Utilities

Listed below are all known utilities located within the project construction limits together with their respective owners:

AT&T (Formerly SBC)
13630 Lorain Ave – 2nd Floor
Cleveland, OH 44111
Attn: James Janis
Design Manager
Phone: (216) 534-7285
Fax: (216) 476-6013
pj8191@att.com

BreezeLine (Formerly WOW/Atlantic Broadband)
105 Blaze Industrial Parkway
Berea, OH 44017
Attn: Larry Burruel
Construction Coordinator – East Side
Phone: (440) 915-9256
LBurruel@Breezeline.com

City of Cleveland
Division of Water
1201 Lakeside Ave.
Cleveland, OH 44114
Attn: Fred Roberts
Phone: (216) 664-2444 ext. 75590
fred_roberts@ClevelandWater.com

City of Euclid
585 East 222nd Street
Euclid, OH 44123
Attn: Daniel Knecht
Director of Public Service
Phone: (216) 289-2701
Cell: (216) 701-3878
dknecht@cityofeuclid.com

Utilities (cont.)

CEI First Energy
The Illuminating Company
Brooklyn Service Center
Attn: John M. Zassick
Office: (216) 546-8706
Cell: (216) 538-1580
jmzassick@firstenergycorp.com

Charter Communications (Adelphia/Spectrum/Time Warner)
7820 Division Drive
Mentor, OH 44060
Attn: Emil Symister
Construction Supervisor - East
Office: (216) 575-8016 opt. 1
ext. +1 (216) 555-1158
Cell: (440) 343-1530
Emil.Symister@charter.com

Cogent Communications
OSP North Central
Attn: Paul Becker
Phone: (815) 557-8416
pbecker@cogentco.com

City of Cleveland
Division of Cleveland Public Power
1300 Lakeside Ave., Room 152
Cleveland, OH 44114-1135
Attn: Christopher M. Hirzel, P.E., P.S.
Phone: (216) 563-7212
Office: (216) 664-3922 ext. 76115
Fax: (216) 664-2972
chirzel@cpp.org

City of Cleveland
Division of Traffic Engineering
601 Lakeside Ave., Room 25
Cleveland, OH 44114
Attn: Robert Mavec
Commissioner, Traffic Engineering
Office: (216) 664-3195
Cell: (216) 857-7488
Fax: (216) 664-3167
fred_roberts@ClevelandWater.com

City of Cleveland
Division of Water Pollution Control
12302 Kirby Ave.
Cleveland, OH 44108
Attn: Alan Schiely
Associate Engineer
Phone: (216) 664-3638
aschiely@ClevelandWPC.com

Enbridge Gas Ohio
320 Springside Drive, Suite 320
Akron, OH 44333
Phone: (330) 664-2409
relocation@dominionenergy.com

Everstream (In cooperation with One Community)
Attn: Scott Lancia
Ohio-Director, Field Services
Senior Director, Field Services
Office: (380) 204-5465
Cell: (614) 515-3479
slancia@everstream.net
permits@everstream.net

Northeast Ohio Regional Sewer District (NEORSD)
3900 Euclid Avenue
Cleveland, OH 44115
Attn: Robert Stoerkel
Watershed Student Co-op
Phone: (216) 881-6600 ext. 6802
stoerkelr@neorsd.org

ODOT D12 Traffic
5500 Transportation Blvd.
Garfield Heights, OH 44125
Phone: (216) 581-2100

ODOT Central Office ITS
1980 West Broad St.
Columbus, OH 43223
Attn: Bryan Comer
ITS Engineer
Phone: (614) 387-1253
bryan.comer@dot.ohio.gov

Verizon (MCI Worldcom/MCI Metro/Western Union/XO Communications/KEPS Technologies/ACD.NET)
12300 Ridge Rd
North Royalton, OH 44133
Attn: David M. Gross PMP
Engr IV Cslt-Proj Mgt/Impl
Phone: (216) 347-7661
david.gross1@verizon.com
vzfiber-northernohio@verizon.com

The location of all existing utilities shall be verified by the Contractor as required by section 153.64 of the Ohio Revised Code and be shown on the shop drawing.

DESIGN AGENCY
DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.4 TOTAL 25

D12 NOISE BARRIER REPAIR
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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, 6, & 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.

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 – Removal Misc.: Noise Barrier Post Removal

This item shall consist of any removal and disposal of existing noise barrier posts. Care shall be taken to prevent damage to mounting bolts during the removal of the noise barrier post. 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

Contractor to remove noise barrier post and foundation to a minimum depth of 1' below final grade at Locations 4, 6, & 8.

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 Locations 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.

D12 NOISE BARRIER REPAIR
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DESIGN AGENCY
DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.5 TOTAL 25

Item 606 – Special – Noise Barrier: Reflective Panels with Integral Cap

This note is intended for Locations 2 & 3.

This item shall consist of furnishing and installing a reflective concrete panel with an integral cap. The panel with a cap shall be installed as the top panel within a bay. The cap will be sealed to match the existing post color

This item shall be paid for at the contract price per Square Foot under Item 606 – Special – Noise Barrier: Reflective Panels with Integral Cap

Item 606 – Special – Noise Barrier: Reflective Panels, Concrete

This item of work is intended for Locations 4, 5, 7, 8, 9, & 13.

This item will be used to install reflective concrete noise barrier panels.

Panels shall use an ODOT approved Concrete Waterproofing Admixture.

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.

The contractor is directed to closely match the existing top of wall elevation. It is our intent to maintain a uniform top of wall within existing posts while still meeting the existing acoustic profile. Elevations may be adjusted to accommodate the contractor supplied panels. The adjusted elevation shall be discussed for each location with the Engineer prior to the approval of the shop drawings.

The Contractor shall provide supports to hold the panels at the elevation provided by the manufacturer and that are acceptable to the Engineer; however, wood shims/blocks shall not be used. The designed supports shall be detailed in the shop drawings.

The tongue and groove joints between adjoining posts must be maintained at constant elevations. Any joint that is offset from the joint in the adjacent panel shall be adjusted in the field to provide an uninterrupted joint line between adjacent panels.

Any additional embankment that is required to obtain the minimum 6” bury depth and fill any voids remaining from the previous panels is included in this item for payment. Additional embankment shall be placed in accordance with CMS 203.

Seeding and mulching is required per standard drawing NBS-1-09.

If the Contractor removes a portion of an existing right-of-way fence for access to the noise barriers or worksite, he is required to restore the fence to its original condition (at minimum). All costs for removal and restoration of the right-of-way fence are included with this item.

Item 606 – Special – Noise Barrier: Reflective Panels, Concrete (cont.)

At the end of daily operations, the contractor shall not leave openings within the noise barrier which would allow pedestrian/animal access to the highway. Any labor and materials required to secure the ROW shall be considered incidental to this item.

Acceptance requirements shall be per the standard drawing.

Payment for all of the above shall be included in the unit price bid per square foot for Item 606 – Special – Noise Barrier: Reflective Panels, Concrete unless otherwise noted, and shall include all labor, equipment, materials and incidentals necessary to complete the above work.

Item 606 – Special – Noise Barrier: Reflective Panels, Fiberglass

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

This item will be used to install reflective fiberglass panels.

At Location 1, Contractor shall carefully remove existing fiberglass cap and place on new noise barrier panels. If cap is damaged during the removal operation, the contractor shall be responsible for its replacement.

At the end of daily operations, the contractor shall not leave openings within the noise barrier which would allow pedestrian/animal access to the highway. Any labor and materials required to secure the ROW shall be considered incidental to this item.

The Contractor shall provide supports to hold the panels at the elevation provided by the manufacturer and that are acceptable to the Engineer; however, wood shims/blocks shall not be used. The designed supports shall be detailed in the shop drawings.

The tongue and groove joints between adjoining posts must be maintained at constant elevations. Any joint that is offset from the joint in the adjacent panel shall be adjusted in the field to provide an uninterrupted joint line between adjacent panels.

Any additional embankment that is required to obtain the minimum 6” bury depth and fill any voids remaining from the previous panels is included in this item for payment. Additional embankment shall be placed in accordance with CMS 203.

Seeding and mulching is required per standard drawing NBS-1-09. For areas adjacent to a residential property, use CMS 659.09 – Class 1 lawn mixture.

If the Contractor removes a portion of an existing right-of-way fence for access to the noise barriers or worksite, he is required to restore the fence to its original condition (at minimum). All costs for removal and restoration of the right-of-way fence are included with this item.

Payment for all of the above shall be include in the unit price bid per square foot for Item 606 – Special – Noise Barrier: Reflective Panels, Fiberglass unless otherwise noted, and shall include all labor, equipment, materials and incidentals necessary to complete the above work.

Item 606 – Noise Barrier: Removal and Reuse

This item shall consist of any removal, on-site storage, and re-installation of existing non-damaged reflective noise barrier panels. It will also include the removal, storage, disposal and replacement of any clip angles, supports, 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.

Item 606 – Removal Misc: Noise Barrier Panel Removal and Reuse (cont.)

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.

This item shall be paid for at the contract unit price bid per square foot under item 606 – Removal Misc.: Noise Barrier Panel Removal and Reuse.

Item 606 – Special – Noise Barrier: Fire Hydrant Access Hole

This item is intended for Location 13.

This item consists of placing a minimum 12 inches high by 12 inches wide, or 12 inches diameter, hole for fire hydrant access. The fire hydrant access holes shall be placed 3 feet above the ground line at the base of the noise barrier. The fire hydrant access holes shall be identified on the shop drawings.

The fire hydrant access holes shall be prefabricated by the manufacturer of the noise barrier panels and include a flap gate cover that covers the entire opening when not in use. The perimeter of the access hole shall be a smooth surface which will prevent snagging of a fire hose. The manufacturer’s design of the fire hydrant access hole, including the flap gate cover, shall be approved by the Engineer prior to fabrication.

Contractor to carefully remove existing Hydrant Access hole signage and re-install on new noise barrier panels. The method of mounting signs on the noise barrier panels shall be per the manufacturer’s recommendations.

Payment to complete all work to install the fire hydrant access holes is included in the unit price bid for Item 606 – Special – Noise Barrier, Misc.: Fire Hydrant Access Hole. No deduction in area will be made to the noise barrier panel quantities for the hole.

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DESIGN AGENCY
DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128

Noise Barrier Pattern and Color

The contractor shall maintain uniformity of barrier type, texture, joints, and color at each location – refer to the below table for the noise barrier color and pattern for each location. The contractor shall provide the panels with the identified formliner pattern or an engineer approved equal.

Location	Material	Pattern Highway Side	Color Highway Side	Pattern Residential Side	Color Residential Side	Post and Cap Color
1	Fiberglass	N/A	#595B-20219 (Cocoa)	N/A	#595B-20219 (Cocoa)	#595B-27722 (Buff)
2	Concrete	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	#595B-25630 (Light Gray)
3	Concrete	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	Architectural Polymers Large Stone Ohio Drystack #911O	#595B-36306 (Beige)	#595B-25630 (Light Gray)
4	Concrete	Architectural Polymers Ashlar #905	#595B-20219 (Cocoa)	Architectural Polymers Ashlar #905	#595B-20219 (Cocoa)	N/A
5	Concrete	Architectural Polymers Ashlar #905	#595B-20219 (Cocoa)	Architectural Polymers Ashlar #905	#595B-20219 (Cocoa)	N/A
6	Concrete	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	#595B-27722 (Buff)
7	Concrete	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	N/A
8	Concrete	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	#595B-27722 (Buff)
9	Concrete	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	N/A
10	Fiberglass	N/A	#595B-36492 (Gray)	N/A	#595B-36492 (Gray)	N/A
11	Fiberglass	N/A	#595B-20219 (Cocoa)	N/A	#595B-20219 (Cocoa)	N/A
12	Fiberglass	N/A	#595B-20219 (Cocoa)	N/A	#595B-20219 (Cocoa)	N/A
13	Concrete	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	Architectural Polymers Ohio Sand Brick #111	#595B-20109 (Red Brown)	N/A

Erosion Control

Item 659 – Seeding and Mulching

The following quantities are provided to promote growth and care of permanent seeded areas:

Item 659 – Soil Analysis Test.....**1 EACH**
Item 659 – Topsoil.....**245 CY**
Item 659 – Seeding and Mulching.....**2,209 SY**
Item 659 – Repair Seeding and Mulching.....**110 SY**
Item 659 – Inter-seeding.....**110 SY**
Item 659 – Commercial Fertilizer.....**0.3 TONS**
Item 659 – Lime.....**0.46 ACRES**
Item 659 – Water.....**11.9 MGAL**

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DESIGN AGENCY

DESIGNER NDG

REVIEWER KJD 01/10/25

PROJECT ID 122128

Maintenance of Traffic

Maintaining Traffic – General Provisions

1. Traffic shall be maintained in accordance with the "Schedule of Through Lanes to be Maintained." The Contractor shall set up and operate his equipment in such a manner as to minimize encroachment upon the traveled width of pavement.

2. Nighttime work shall be permitted in accordance with these plans and notes. The Contractor shall provide flood lighting of the work area in accordance with CMS 401.15 in order to assure the safest conditions during nighttime work. A lighting plan for nighttime operations shall be presented to and approved by the Engineer.

3. The Contractor shall furnish, erect and maintain all warning and information signs necessary for maintaining traffic. The sign faces shall be reflectorized with type G sheeting complying with the requirements of CMS 730.19. The Contractor shall determine what signs are needed and advise the Engineer two weeks in advance of his detailed plans. See the OMUTCD and standard drawings for the minimum signage required.

4. Traffic control devices shall be set up prior to the start of construction and shall be properly maintained during the time special conditions exist. They shall remain in place only as long as they are needed and shall be immediately removed thereafter. Where operations are performed in stages, there shall be in place only those devices that apply to the condition present during the stage in progress. All signs with messages which do not apply during a certain period shall be covered or set aside out of the view of traffic.

5. Placement of final roadway pavement markings and raised pavement markers shall be accomplished in accordance with the "Schedule of Through Lanes to be Maintained." The Contractor shall provide 2 shadow vehicles as per MT-99.20 following the pavement marking equipment. The shadow vehicles shall travel 500' apart with the remote vehicle traveling on the shoulder (left or right as applicable) where usable shoulder is available. The first shadow vehicle in a traffic lane shall be equipped with a truck mounted attenuator meeting NCHRP 350 requirements. Each shadow vehicle shall have a yellow flashing beacon plus 48" construction warning signs mounted on the back facing traffic with standard type messages advising motorists of the work ahead, advisory warning speed, and which lane is closed.

6. During non-working periods, open excavations shall be delineated with warning flashers and/or other approved devices as deemed appropriate by the Engineer.

7. Existing signs located within the road work areas which are necessary for interim or permanent traffic control shall be removed and re-erected in locations as approved by the Engineer.

8. No stoppage of traffic shall occur without law enforcement personnel at each location to direct traffic.

9. Whenever a total closure is implemented, the Contractor shall provide a portable changeable message sign from ODOT's pre-approved list. It shall be placed 1.5 miles to 2 miles in advance of the closure or as directed by the Engineer.

10. For any operation not specifically mentioned in these plans, the traffic shall be maintained in accordance with the OMUTCD.

Payment

All work and traffic control devices shall be in accordance with CMS 614 and other applicable portions of the specifications, as well as the Ohio Manual of Uniform Traffic Control Devices. Payment for all labor, equipment, and materials shall be included in the lump sum contract price for Item 614 – Maintaining Traffic unless separately itemized in the plans.

Permitted Lane Closure Schedule (PLCS)

Lane closure(s) shall conform to the PLCS. Published **PLCS** information can be found on the **ODOT** website.

The monthly published schedules required to be used, for each **PLCS** segment within the project area, are those that comprise the consecutive 12-month period beginning 15 months prior to the month and year of sale and ending 4 months prior to the month and year of sale. These same 12 months apply for the life of the project and shall be applied to each respective month of construction (month of lane closure(s) shall match month of **PLCS** used). Lane closure(s) in place for multiple months shall always comply with the current respective month.

(FOR EXAMPLE: If the sale date for the project was March of 2021, the monthly published schedules for each applicable **PLCS** segment would be December 2019 to November 2020. If this was a three-year project, year three would still be using the December 2019 to November 2020 monthly schedules. If the project desired to close two lanes in June 2021, reference would be made to the June 2020 schedule(s) for the respective **PLCS** segment(s). If the same two lanes were desired to be closed again in July 2021, reference would be made to the July 2020 schedule(s) for the respective **PLCS** segment(s).)

More restrictive changes to the allowable lane closure hours are at the discretion of the Engineer in order to comply with the Traffic Management in Work Zones Policy (21-008(P)) and Standard Procedure (123-001(SP)).

Less restrictive changes to the allowable lane closure hours are subject to the Traffic Management in Work Zones Policy (21-008(P)) and Standard Procedure (123-001(SP)) and shall not be implemented until, and unless, approved by the proper **ODOT** authority.

Allowable lane closure hours for facilities not covered by the PLCS, if any, shall be as specified elsewhere in the plans.

Holiday Closures

No work shall be performed, and all existing lanes shall be open to traffic during the following designated holidays or special events:

New Year's (observed)	General/Regular Election Day (Nov)
Memorial Day	Thanksgiving
Fourth of July (observed)	Christmas (observed)
Labor Day	(Other Holiday or Special Event)

The period of time that the lanes are to be open depends on the day of the week on which the holiday or special event falls. The following schedule shall be used to determine this period:

Day of holiday of special event	Time all lanes must be open to traffic
Sunday	12:00N Friday through 6:00 AM Monday
Monday	12:00N Friday through 6:00 AM Tuesday
Tuesday	12:00N Monday through 6:00 AM Wednesday
Tuesday (Gen./Reg. Election)	5:00 AM Tuesday through 12:00 AM Wednesday
Wednesday	12:00N Tuesday through 6:00 AM Thursday
Thursday	12:00N Wednesday through 6:00 AM Friday
Thursday (Thanksgiving only)	6:00 AM Wednesday through 6:00 AM Monday
Friday	12:00N Thursday through 6:00 AM Monday
Saturday	12:00N Friday through 6:00 AM Monday

Holiday Closures (cont.)

During the same periods, maintain pedestrian access if pedestrian access was present prior to construction.

Should the Contractor fail to meet any of these requirements, the Contractor shall be assessed a disincentive in the amount of $$$ per ### worked.

Notification of Traffic Restrictions

Throughout the duration of the project, the Contractor shall notify the project engineer in writing of all traffic restrictions and upcoming maintenance of traffic changes. The Contractor shall ensure the written notification is submitted in a timely manner to allow the project engineer to meet the required time frames set forth in the table below to inform the Special Hauling Permits Section (Hauling.Permits@dot.ohio.gov) and the District Public Information Office (PIO). This notification shall be received by the project engineer prior to the physical setup of any applicable signs or message boards.

Information should include, but is not limited to, all construction activities that impact or interfere with traffic and shall list the specific location, type of work, road status, date and time of restriction, duration of restriction, number of lanes maintained, number of lanes closed, minimum vertical clearance, minimum width of drivable pavement, detour routes, if applicable, and any other information requested by the project engineer.

Notification of Traffic Restrictions Time Table

Item	Duration of Closure	Sign Displayed to Public
Ramp and Road Closures	≥ 2 weeks	21 calendar days prior to closure
	> 12 hours & < 2 weeks	14 calendar days prior to closure
	≤ 12 hours	4 business days prior to closure
Lane Closures and Restrictions	≥ 2 weeks	2 business days prior to closure
	≤ 2 weeks	5 business days prior to closure
Start of Construction & Traffic Pattern Changes	N/A	14 calendar days prior to implementation

Any unforeseen conditions not specified in the plans requiring traffic restrictions shall also be reported to the project engineer using the Notification Time Table.

Maintenance of Traffic Control Zones

The Contractor shall be responsible to maintain the signs, drums and temporary pavement markings at the locations detailed in the plans or specified in the standard drawings. When the Contractor is notified of deficiencies he shall correct as soon as possible, preferably within 12 hours and no later than 24 hours. If any noted deficiencies are not corrected within 24 hours the Engineer shall deduct one day pay for Item 614 Maintaining Traffic, not as a penalty but as liquidated damages. The Contractor shall be subject to these liquidated damages for each and every day that these provisions are not met. All costs for maintaining the work zones as described above shall be included under Item 614 Maintaining Traffic.

Suspension of Work

If the Contractor fails to comply with the provisions for traffic control as set forth in these plans or with provisions of the OMUTCD, the Engineer shall suspend work until the Contractor complies with the necessary requirements.

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 authorities.

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DESIGN AGENCY

DESIGNER NDG

REVIEWER KJD 01/10/25

PROJECT ID 122128

Covering of Ground-Mounted Signs – General

When required by other items or incidentally to Item 614 – Maintaining Traffic, cover existing ground-mounted signs with plywood or OSB blanks (1/2" minimum thickness) covering 80% of the sign area and all of the sign legend. The use of low quality materials such as duct tape and black plastic is not permitted.

Floodlighting

Floodlighting of the work site for operations conducted during nighttime periods shall be accomplished so that the lights do not cause glare to the drivers on the roadway. To ensure the adequacy of the floodlight placement, the Contractor and the Engineer shall drive through the work site 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.

Payment for all labor, equipment and materials shall be included in the lump sum contract price for Item 614 – Maintaining Traffic.

Item 614 – Portable Changeable Message Signs, As Per Plan

The Contractor shall furnish, install, maintain and remove, when no longer needed, a changeable message sign. The sign shall be of a type shown on a list of approved PCMS units available on the Office of Materials Management web page. The list contains Class A and B units with minimum legibility distances of 800 feet and 650 feet, respectively.

Each sign shall be trailer-mounted and equipped with a functional dimming mechanism, to dim the sign during darkness, and a tamper and vandal proof enclosure. Each sign shall be provided with appropriate training and operation instructions to enable on-site personnel to operate and troubleshoot the unit. The sign shall also be capable of being powered by an electrical service drop from a local utility company. The PCMS shall be delineated in accordance with C&MS 614.03.

Placement, operation, maintenance and all activation of the signs by the Contractor shall be as directed by the Engineer. The PCMS shall be located in a highly visible position yet protected from traffic. The Contractor shall, at the direction of the Engineer, relocate the PCMS to improve visibility or accommodate changed conditions. When not in use, the PCMS shall be turned off. Additionally, when not in use for extended periods of time, the PCMS shall be turned away from all traffic.

The Engineer shall be provided access to each sign unit and shall be provided with appropriate training and operation instructions to enable ODOT personnel to operate and troubleshoot the unit, and to revise sign messages, if necessary.

All messages to be displayed on the sign will be provided by the Engineer. A list of all required pre-programmed messages will be given to the Contractor at the project preconstruction conference. The sign shall have the capability to store up to 99 messages. Message memory or pre-programmed displays shall not be lost as a result of power failures to the on-board computer. The sign legend shall be capable of being changed in the field. Three-line presentation formats with up to six message phases shall be supported. PCMS format shall permit the complete message for each phase to be read at least twice.

The PCMS shall contain an accurate clock and programming logic which will allow the sign to be activated, deactivated or messages changed automatically at different times of the day for different days of the week.

Item 614 – Portable Changeable Message Signs, As Per Plan (cont.)

The PCMS unit shall be maintained in good working order by the Contractor in accordance with the provisions of C&MS 614.07. The Contractor shall, prior to activating the unit, make arrangements, with an authorized service agent for the PCMS, to assure prompt service in the event of failure. Any failure shall not result in the sign being out of service for more than 12 hours, including weekends. Failure to comply may result in an order to stop work and open all traffic lanes and/or in the Department taking appropriate action to safely control traffic. The entire cost to control traffic, accrued by the Department due to the Contractor's noncompliance, will be deducted from moneys due, or to become due the Contractor on his contract.

The Contractor shall be responsible for 24-hour-per-day operation and maintenance of these signs on the project for the duration of the phases when the plan requires their use.

The Portable Changeable Message Sign shall have a Web Based Communication System that will allow the Contractor or ODOT to change or program the message board remotely. This system shall be password protected and may be operated from a computer or have an application that can be opened from a cell phone, android or I phone. The Web Based Communication System will show the location of each message board on a map. All charges for the Web Based Communication System will be included in the cost of this item, Portable Changeable Message Sign, As Per Plan.

Payment for the above described item shall be at the contract unit price. Payment shall include all labor, materials, equipment, fuels, lubricating oils, software, hardware and incidentals to perform the above described work.

Item 614 – Portable Changeable Message Sign,
As Per Plan ..... **4 Sign Month(s)**

Item 614 – Law Enforcement Officer with Patrol Car for Assistance

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 CMS 614 and the latest edition of 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).

In addition to the requirement of CMS 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) may be provided for the following traffic control tasks as approved by the Engineer:

- For lane closures: during initial set-up periods, tear down periods, substantial shifts of a closure point or when new lane closure arrangements are initiated for long-term lane closures/shifts (for the first and last day of major changes in traffic control setup).

Item 614 – Law Enforcement Officer with Patrol Car for Assistance (cont.)

In general, LEOs should be positioned in advance of and on the same side as the lane restriction or at the point of road closure, and to manually control traffic movements through intersections in work zones.

LEOs should not forgo their traffic control responsibilities to apprehend motorists for routine traffic violations. However, if a motorist's actions are considered to be reckless, then pursuit of the motorist is appropriate.

The LEOs work at the direction of the Contractor. The Contractor is responsible for securing the services of the LEOs with the appropriate agencies and communicating the intentions of the plans with respect to duties of the LEOs. The Engineer shall have final control over the LEOs' duties and placement and will resolve any issues that may arise between the two parties.

The LEO shall report in to the Contractor prior to the start of the shift, in order to receive instructions regarding specific work assignments during his/her shift. The LEO is expected to stay at the project site for the entire duration of his/her shift. The LEO shall report to the Contractor at the end of his/her shift. Once the LEO has completed the duties described above and still has time remaining on his/her shift, the LEO may be asked to patrol through the work zone (with flashing lights off) or be placed at a location to deter motorists from speeding. Should it be necessary to leave the project site, the LEO shall notify the Engineer. The Contractor shall provide the LEO with a two-way communication device which shall be returned to the Contractor at the end of his/her shift.

LEOs (with patrol car) required by the traffic maintenance tasks above shall be paid for on a unit price (hourly) basis under Item 614, Law Enforcement Officer (With Patrol Car) for Assistance. The following estimated quantities have been carried to the General Summary.

Item 614 – Law Enforcement Officer
With Patrol Car for Assistance ..... **100 Hours**

The hours paid shall include any minimum show-up time required by the law enforcement agency involved.

Any additional costs (administrative or otherwise) incurred by the Contractor to obtain the services of an LEO are included with the bid price for Item 614, Law Enforcement Officer with Patrol Car for Assistance.

MOT NOTES

DESIGN AGENCY

DESIGNER NDG

REVIEWER KJD 01/10/25

PROJECT ID 122128

SHEET P.9 TOTAL 25

D12 NOISE BARRIER REPAIR

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	4		5		7		9		11				01/IMS/20						
																		ROADWAY	
			LS										LS	201	11000	LS		CLEARING AND GRUBBING	
			LS										LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	5
									24				24	202	75000	24	FT	FENCE REMOVED	
									4				4	202	98100	4	EACH	REMOVAL MISC.: NOISE BARRIER POST REMOVAL	5
									588				588	202	98400	588	SF	REMOVAL MISC.: FIBERGLASS PANEL REMOVAL AND DELIVERY	5
									3,012				3,012	202	98400	3,012	SF	REMOVAL MISC.: NOISE BARRIER PANEL REMOVAL AND DISPOSAL	5
									4				4	SPECIAL	60610810	4	EACH	NOISE BARRIER: CONCRETE POST CAP	6
									1				1	SPECIAL	60610810	1	EACH	NOISE BARRIER: HYDRANT ACCESS HOLE	6
									2				2	SPECIAL	60610810	2	EACH	NOISE BARRIER: STEEL POST INSTALLATION	5
									2,808				2,808	SPECIAL	60610920	2,808	SF	NOISE BARRIER: REFLECTIVE PANELS	5
									306				306	SPECIAL	60610920	306	SF	NOISE BARRIER: REFLECTIVE PANELS WITH INTEGRAL CAP	6
									1,782				1,782	SPECIAL	60610920	1,782	SF	NOISE BARRIER: REFLECTIVE PANELS, CONCRETE	6
									1,152				1,152	SPECIAL	60610920	1,152	SF	NOISE BARRIER: REFLECTIVE PANELS, FIBERGLASS	6
									720				720	SPECIAL	60610920	720	SF	NOISE BARRIER: REMOVAL AND REUSE	6
																		EROSION CONTROL	
					1								1	659	00100	1	EACH	SOIL ANALYSIS TEST	
					245								245	659	00300	245	CY	TOPSOIL	
					2,209								2,209	659	10000	2,209	SY	SEEDING AND MULCHING	
					110								110	659	14000	110	SY	REPAIR SEEDING AND MULCHING	
					110								110	659	15000	110	SY	INTER-SEEDING	
					0.3								0.3	659	20000	0.3	TON	COMMERCIAL FERTILIZER	
					0.46								0.46	659	31000	0.46	ACRE	LIME	
					11.9								11.9	659	35000	11.9	MGAL	WATER	
													4,750	832	30000	4,750	EACH	EROSION CONTROL	
																		MAINTENANCE OF TRAFFIC	
							100						100	614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
							4						4	614	18601	4	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
																		INCIDENTALS	
													LS	108	30000	LS		CPM PROGRESS SCHEDULE SHORT DURATION PROJECTS	
													LS	614	11000	LS		MAINTAINING TRAFFIC	
	8												8	619	16011	8	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	4
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

D12 NOISE BARRIER REPAIR

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DESIGN AGENCY

DESIGNER NDG

REVIEWER KJD 01/10/25

PROJECT ID 122128

SHEET P.10 TOTAL 25

REF. NO.	SHEET NO.	PLAN SPLIT NO.	NOISE BARRIER REPAIR LOCATIONS	202 FENCE REMOVED	202 REMOVAL MISC.: NOISE BARRIER POST REMOVAL	202 REMOVAL MISC.: FIBERGLASS PANEL REMOVAL AND DELIVERY	202 REMOVAL MISC.: NOISE BARRIER PANEL REMOVAL AND DISPOSAL	SPECIAL NOISE BARRIER: CONCRETE POST CAP	SPECIAL NOISE BARRIER: STEEL POST INSTALLATION	SPECIAL NOISE BARRIER: REFLECTIVE PANELS	SPECIAL NOISE BARRIER: REFLECTIVE PANELS WITH INTEGRAL CAP	SPECIAL NOISE BARRIER: REFLECTIVE PANELS, CONCRETE	SPECIAL NOISE BARRIER: REFLECTIVE PANELS, FIBERGLASS	SPECIAL NOISE BARRIER: REMOVAL AND REUSE	SPECIAL NOISE BARRIER: HYDRANT ACCESS HOLE				
				FT	EACH	SF	SF	EACH	EACH	SF	SF	SF	SF	SF	EACH				
NB1	12	1	Location 1: CUY-71-7.922			252							384						
NB2	12	1	Location 2: CUY-71-12.160				154	2			154								
NB3	13	1	Location 3: CUY-RA18384-0.205				152	2			152								
NB4	14	1	Location 4: CUY-480-21.055		1		444		1			444		408					
NB5	15	1	Location 5: CUY-480-22.600				222					222							
NB6	16	1	Location 6: CUY-RA18492-0.117		2		972			2808									
NB7	17	1	Location 7: CUY-90-27.045				150					150		72					
NB8	17	1	Location 8: CUY-90-27.073		1		240		1			240		240					
NB9	18	1	Location 9: CUY-90-27.171				198					246							
NB10	19	1	Location 10: CUY-271-12.363	24		48							480						
NB11	20	1	Location 11: LAK-RE91078-0.124			144							144						
NB12	20	1	Location 12: LAK-RE91080-0.299			144							144						
NB13	20A	1	Location 13: CUY-90-25.390				480					480			1				
TOTALS CARRIED TO GENERAL SUMMARY				24	4	588	3012	4	2	2808	306	1782	1152	720	1				

SUBSUMMARY

DESIGN AGENCY

DESIGNER NDG

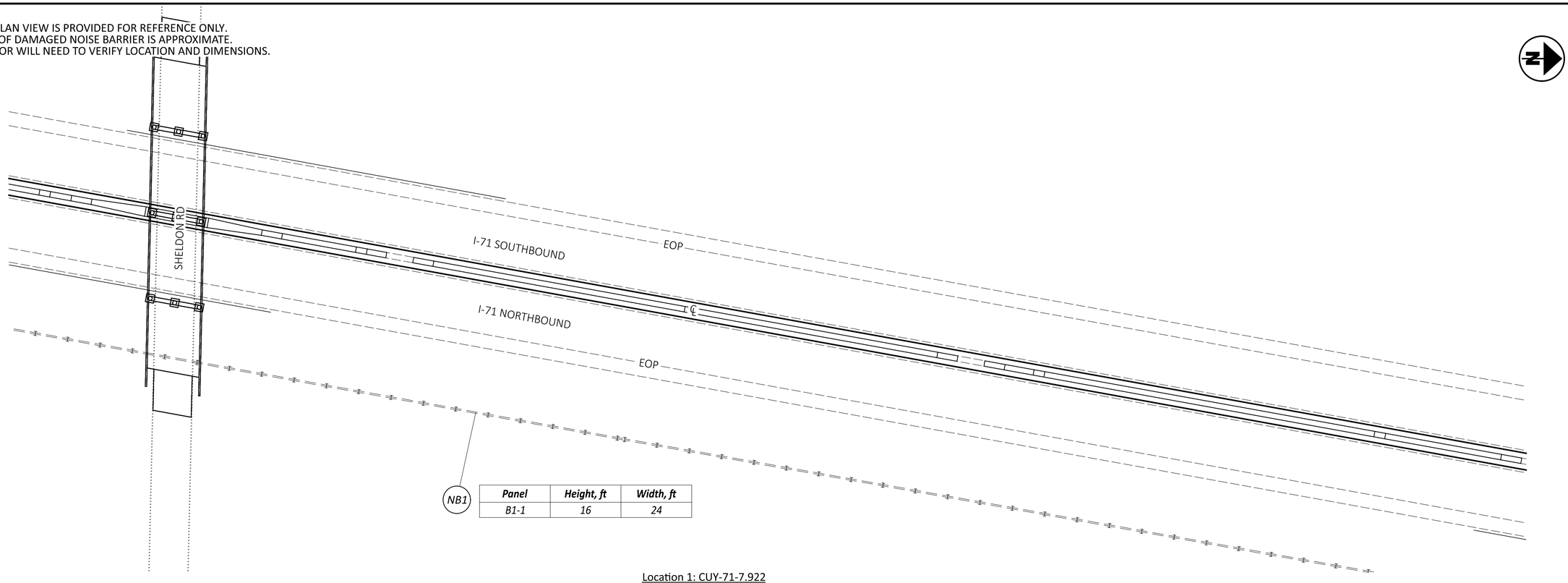
REVIEWER KJD 01/10/25

PROJECT ID 122128

SHEET P.11 TOTAL 25

D12 NOISE BARRIER REPAIR

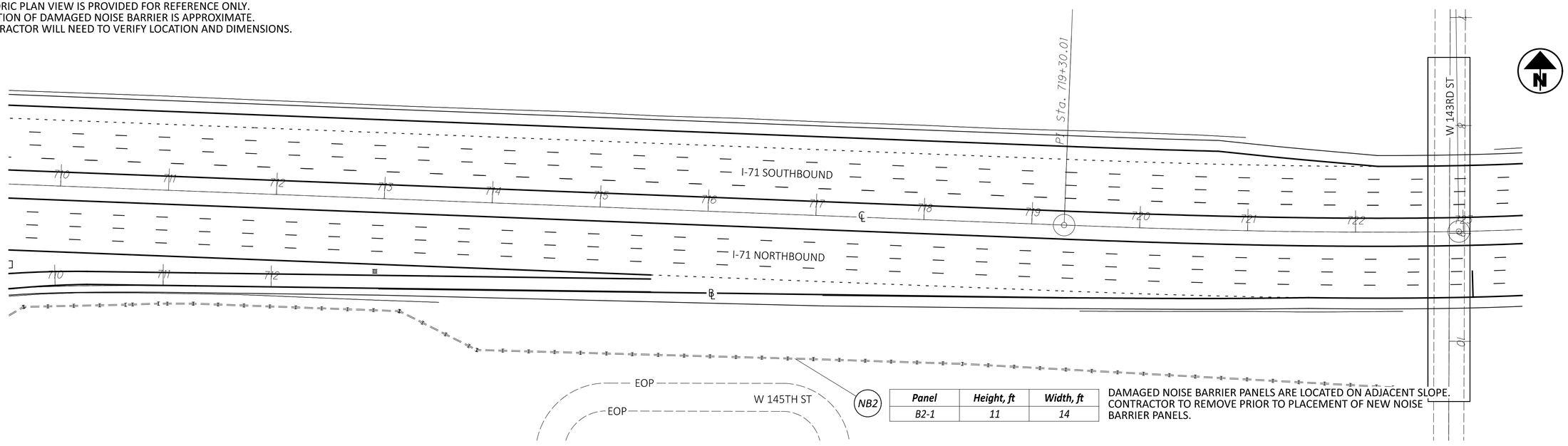
HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



Panel	Height, ft	Width, ft
B1-1	16	24

Location 1: CUY-71-7.922

HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



Panel	Height, ft	Width, ft
B2-1	11	14

DAMAGED NOISE BARRIER PANELS ARE LOCATED ON ADJACENT SLOPE. CONTRACTOR TO REMOVE PRIOR TO PLACEMENT OF NEW NOISE BARRIER PANELS.

Location 2: CUY-71-12.160

D12 NOISE BARRIER REPAIR

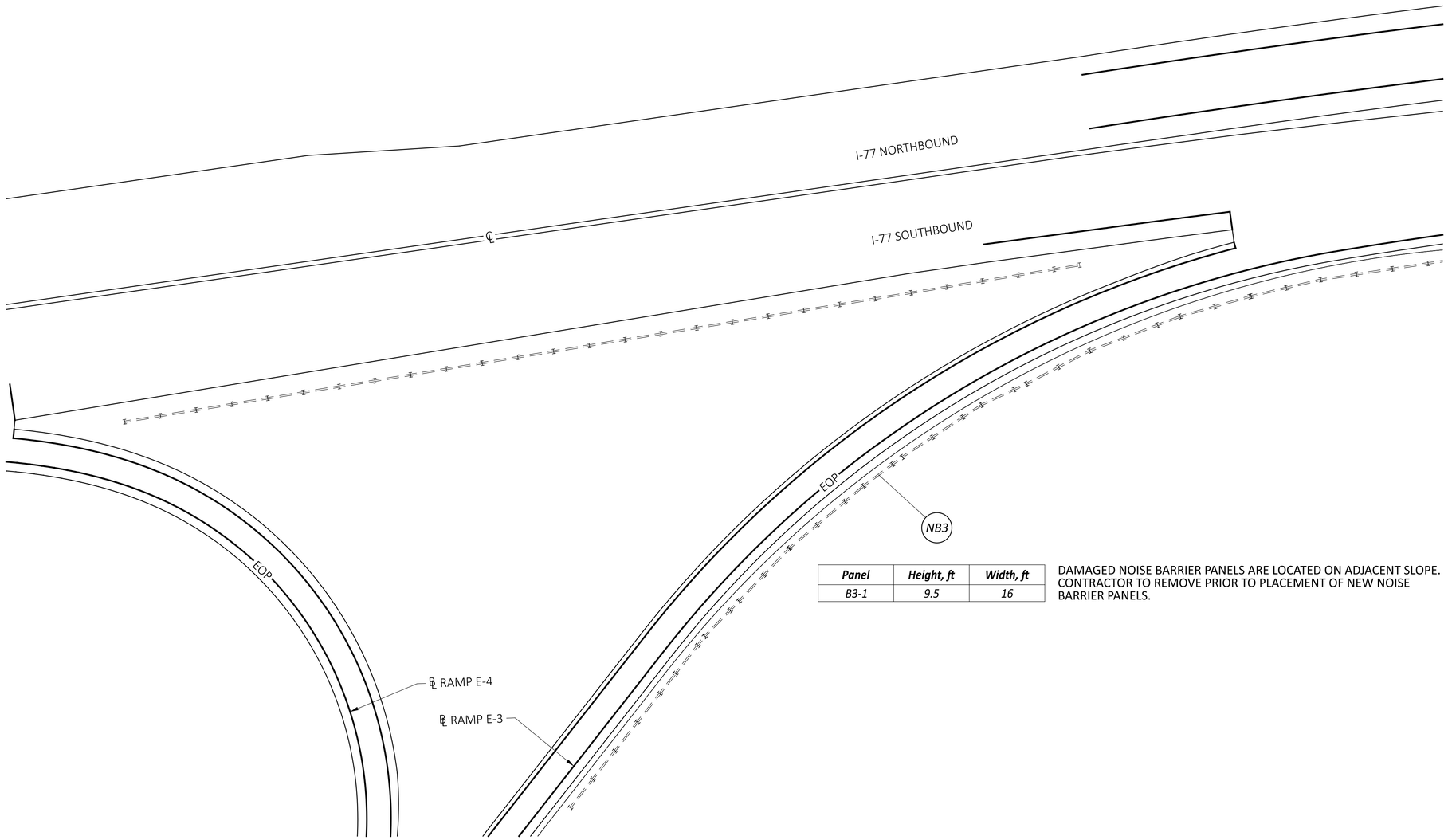
NOISE BARRIER REPAIR LOCATIONS
LOCATIONS 1 & 2

DESIGN AGENCY

DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.12 TOTAL 25

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:10:47 AM USER: ngrega
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12_D12\122128\400-Engineering\Roadway\Sheets\122128_GP101.dgn

HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



Panel	Height, ft	Width, ft
B3-1	9.5	16

DAMAGED NOISE BARRIER PANELS ARE LOCATED ON ADJACENT SLOPE. CONTRACTOR TO REMOVE PRIOR TO PLACEMENT OF NEW NOISE BARRIER PANELS.

LOCATION 3: CUY-RA18384-0.205

NOISE BARRIER REPAIR LOCATIONS
LOCATION 3

D12 NOISE BARRIER REPAIR

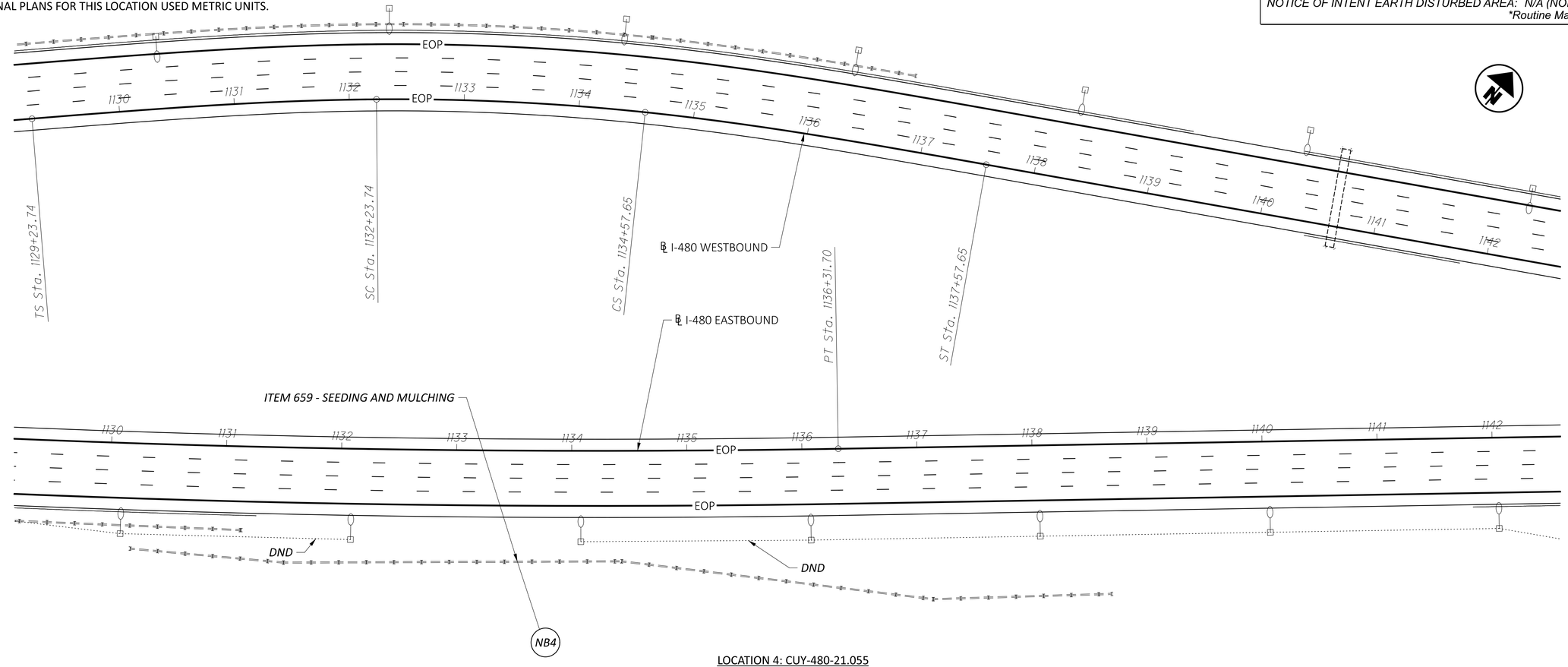
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:11:07 AM USER: ngrega
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12_D12\122128\400-Engineering\Roadway\Sheets\122128_GP201.dgn

DESIGN AGENCY

DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.13 TOTAL 25

HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIERS IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.
THE ORIGINAL PLANS FOR THIS LOCATION USED METRIC UNITS.

PROJECT EARTH DISTURBED AREA:	*0.02 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*N/A*
NOTICE OF INTENT EARTH DISTURBED AREA:	*N/A (NOI not required) **
	**Routine Maintence Project*



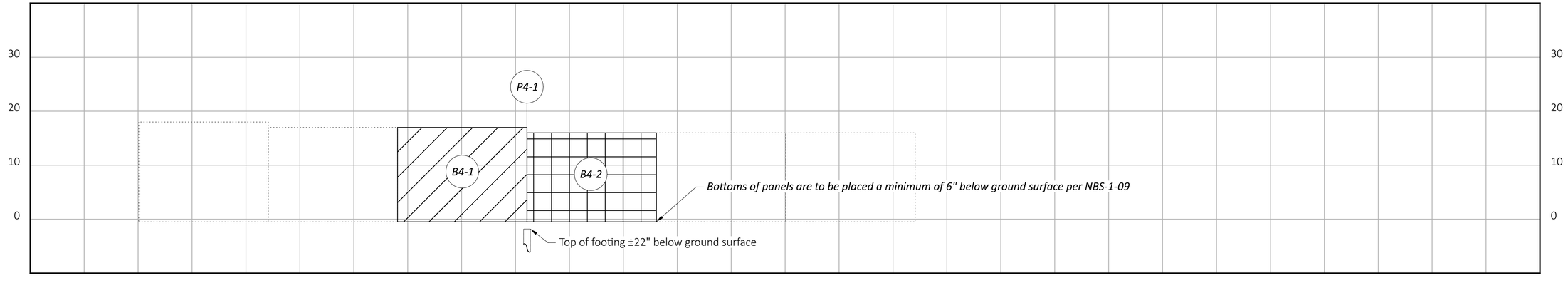
LOCATION 4: CUY-480-21.055

PLAN ELEVATIONS

ELEVATIONS SHOWN ARE BASED ON AN ASSUMED VALUE AND ARE INCLUDED FOR AN INDICATION OF THE HEIGHT OF THE EXISTING AND PROPOSED NOISE BARRIERS.

Panel	*Height, ft*	*Width, ft*
B4-1	*18.5*	*24*
B4-2	*17*	*24*

Post	*Height, ft*
P4-1	*20*



ITEM 202 - REMOVAL MISC: NOISE BARRIER PANEL REMOVAL AND DISPOSAL
ITEM 606 - NOISE BARRIER: REFLECTIVE PANELS, CONCRETE

ITEM 606 - NOISE BARRIER: REMOVAL AND REUSE

D12 NOISE BARRIER REPAIR

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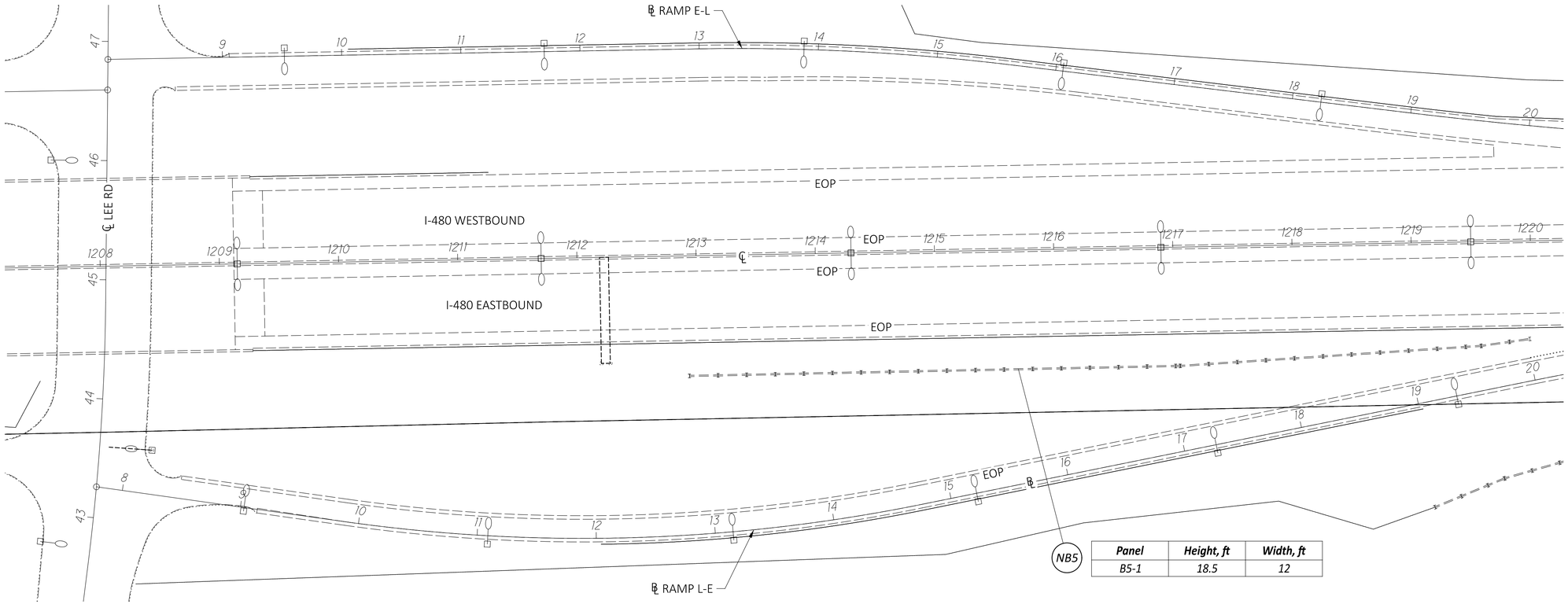
NOISE BARRIER REPAIR LOCATIONS
LOCATION 4

DESIGN AGENCY

DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.14 TOTAL 25

HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



Panel	Height, ft	Width, ft
B5-1	18.5	12

LOCATION 5: CUY-480-22.600

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:12:30 AM USER: ngrega
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12_D12\122128\400-Engineering\Roadway\Sheets\122128_GP401.dgn

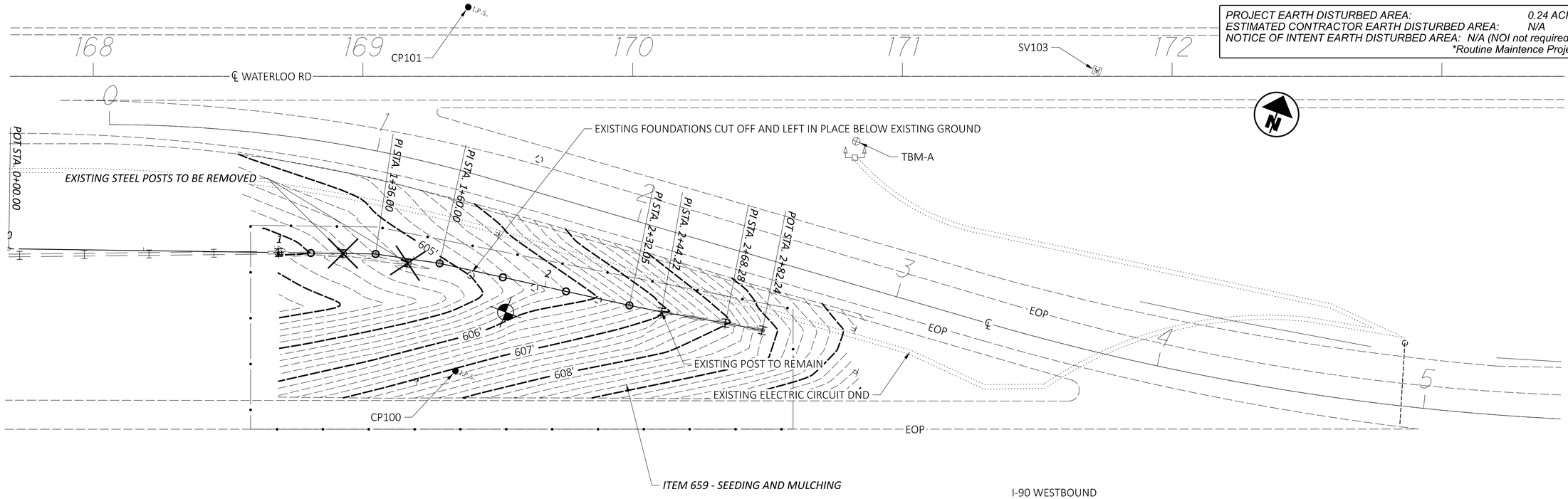
NOISE BARRIER REPAIR LOCATIONS
LOCATION 5

DESIGN AGENCY

DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.15 TOTAL 25

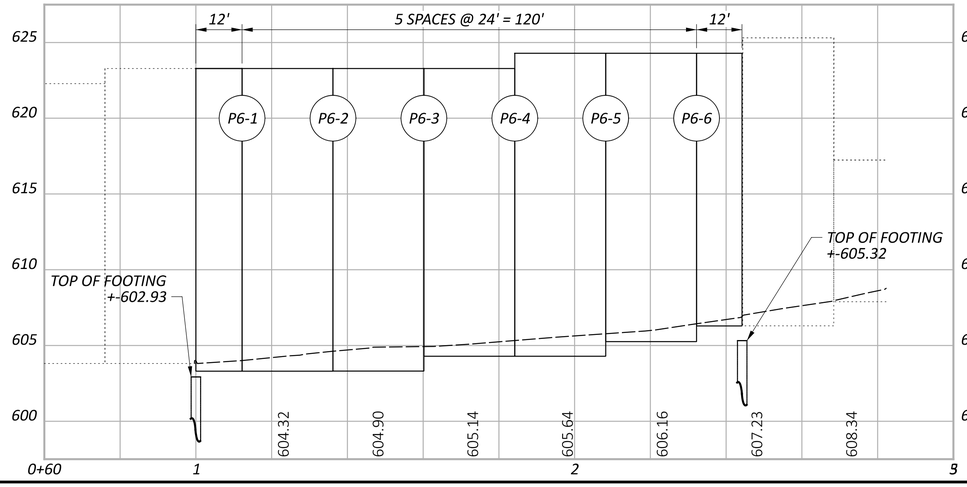
PROJECT EARTH DISTURBED AREA:	0.24 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI not required) *
	*Routine Maintence Project

HORIZONTAL SCALE IN FEET
0 10 20 40



Location 6: CUY-RA18492-0.117

TOP OF NOISE BARRIER ELEVATION	623.28	623.28	623.28	623.28	624.29	624.29	624.29
BOTTOM OF NOISE BARRIER ELEV.	603.29	603.29	603.29	603.29	604.29	605.26	606.29
PANEL ID	1	2	3	4	5	6	7



Panel	Post	Noise Barrier Station	Post Type	Top of Post Elevation	Top of Barrier Elevation	Bottom of Barrier Elevation	Post Spacing, Ft.	Shaft Length, Ft.	Barrier Height	Top of Shaft Elevation	Tip of Shaft Elevation	Item Reflective Noise Barrier, SF
B6-1		1+00.00		623.78	623.28	603.3	12	10	20	602.85	592.85	240
B6-2	P6-1	1+12.00	A-20	623.78	623.28	603.3	24	10	20	602.85	592.85	480
B6-3	P6-2	1+36.00	A-20	623.78	623.28	603.3	24	10	20	602.85	592.85	480
B6-4	P6-3	1+60.00	A-20	623.78	623.28	604.29	24	10	19	603.84	593.84	456
B6-5	P6-4	1+84.00	A-20	624.79	624.29	604.29	24	10	20	603.84	593.84	480
B6-6	P6-5	2+08.00	A-20	624.79	624.29	605.26	24	10	19	604.81	594.81	456
B6-7	P6-6	2+32.00	A-20	624.79	624.29	606.29	12	10	18	605.84	595.84	216

Control Points						
Name	Northing	Easting	Elevation	Feature	Point Type	Description
CP100	516348.8286	210888.9765	607.03	IPINS	Project Control Points	Set 5/8" Rebar with plastic cap "D12"
CP101	516477.0236	210846.7356	605.5843	IPINS	Project Control Points	Set 5/8" Rebar with plastic cap "D12"
TBM-A	516480.11	210998.95	604.1	Anchor Bolt	Anchor Bolt	SW anchor bolt light pole
SV102	516360.38	210598.5		IPIN	Existing Centerline Control Point	Found 3/4" Iron Pin in Monument Box
SV103	516535.59	211073.56		IPIN	Existing Centerline Control Point	Found 3/4" Iron Pin in Monument Box

			Alignment		
Point	Northing	Easting	Station	Offset	Bearing
1	516333.963	210717.966	0+00.0	0	N70°33'26"E
2	516379.233	210846.212	1+36.0	0	N78°03'26"E
3	516384.2	210869.692	1+60.0	0	N82°15'01"E
4	516393.915	210941.083	2+32.1	0	N81°12'10"E
5	516395.776	210953.11	2+44.2	0	N79°42'44"E
6	516400.072	210976.779	2+68.3	0	N80°45'51"E
7	516402.313	210990.558	2+82.2	0	

NOISE BARRIER LOCATIONS
LOCATION 6

DESIGN AGENCY

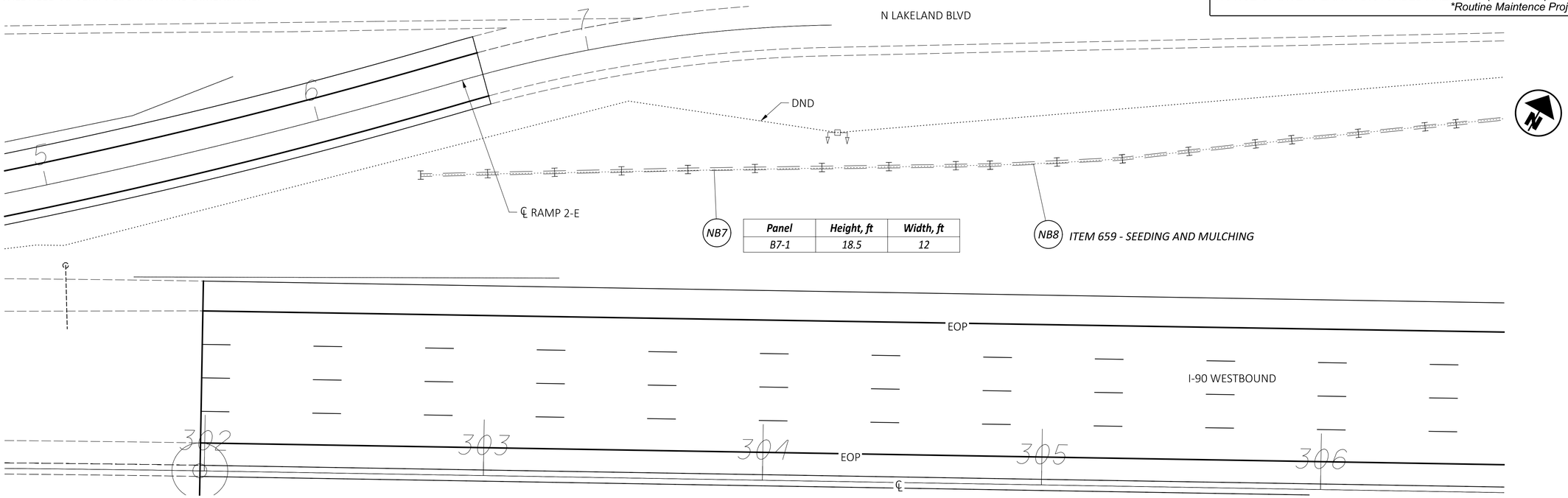
DESIGNER KJD
REVIEWER DAB 01/07/25
PROJECT ID 122128
SHEET P.16 TOTAL 25

D12 NOISE BARRIER REPAIR

MODEL: Location 6 - Wall 6 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 3/27/2025 TIME: 10:22:09 AM USER: ngrega
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12_D12\122128\400-Engineering\Roadway\Sheets\122128_GP501.dgn

HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIERS IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.

PROJECT EARTH DISTURBED AREA:	*0.03 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*N/A*
NOTICE OF INTENT EARTH DISTURBED AREA:	*N/A (NOI not required) **
	**Routine Maintence Project*



Panel	Height, ft	Width, ft
B7-1	18.5	12

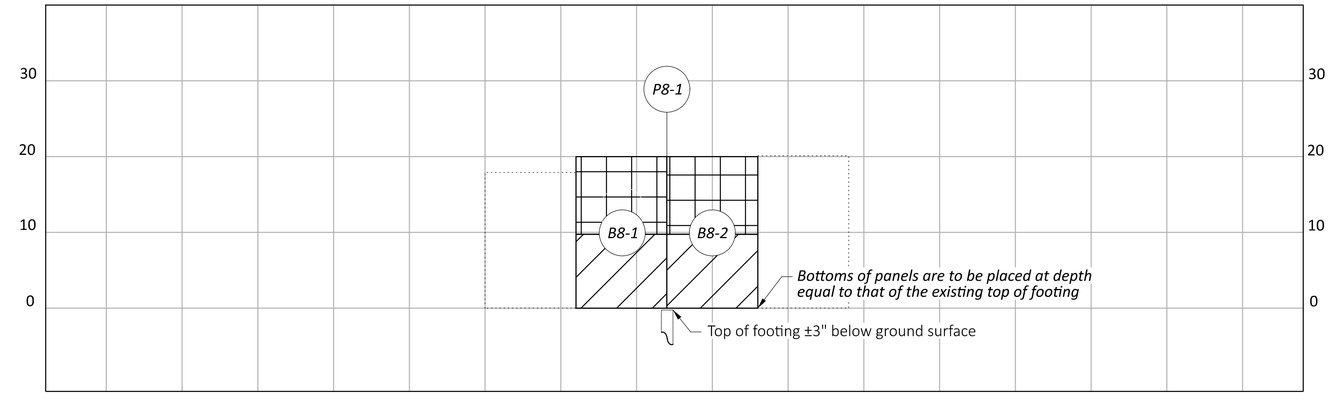
LOCATION 7: CUY-90-27.045 & LOCATION 8: CUY-90-27.073

PLAN ELEVATIONS

ELEVATIONS SHOWN ARE BASED ON AN ASSUMED VALUE AND ARE INCLUDED FOR AN INDICATION OF HEIGHT OF THE EXISTING AND PROPOSED NOISE BARRIERS.

Panel	Height, ft	Width, ft
B8-1	20	12
B8-2	20	12

Post	Height, ft
P8-1	20.5



ITEM 202 - REMOVAL MISC: NOISE BARRIER PANEL REMOVAL AND DISPOSAL
ITEM 606 - NOISE BARRIER: REFLECTIVE PANELS, CONCRETE

ITEM 606 - NOISE BARRIER: REMOVAL AND REUSE

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:13:44 AM USER: ngrega
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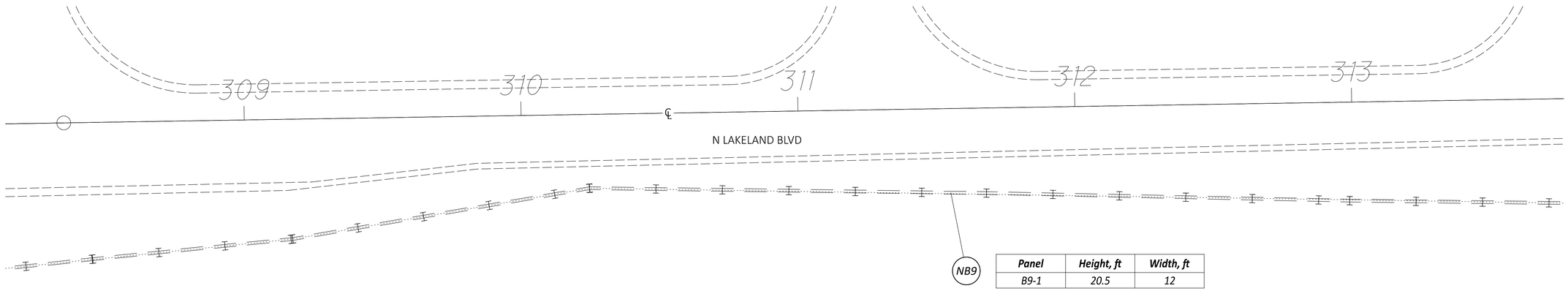
NOISE BARRIER REPAIR LOCATIONS
LOCATIONS 7 & 8

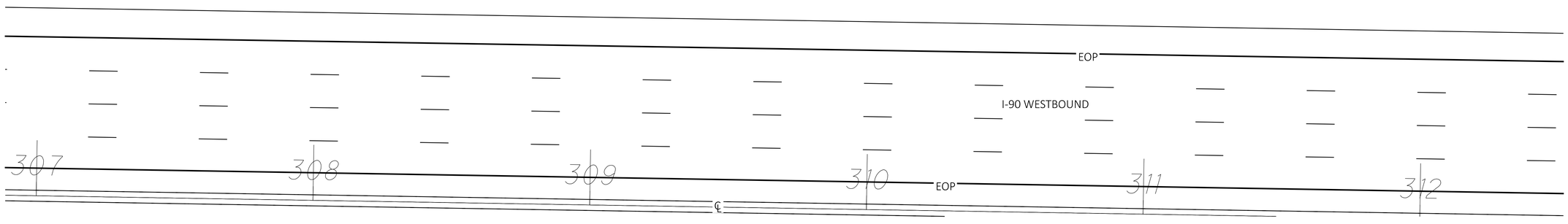
DESIGN AGENCY

DESIGNER NDG
REVIEWER KJD 01/10/25
PROJECT ID 122128
SHEET P.17 TOTAL 25

HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



Panel	Height, ft	Width, ft
B9-1	20.5	12



LOCATION 9: CUY-90-27.171

NOISE BARRIER REPAIR LOCATIONS
LOCATION 9

DESIGN AGENCY

DESIGNER NDG

REVIEWER KJD 01/10/25

PROJECT ID 122128

SHEET P.18 TOTAL 25

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:13:56 AM USER: ngrega
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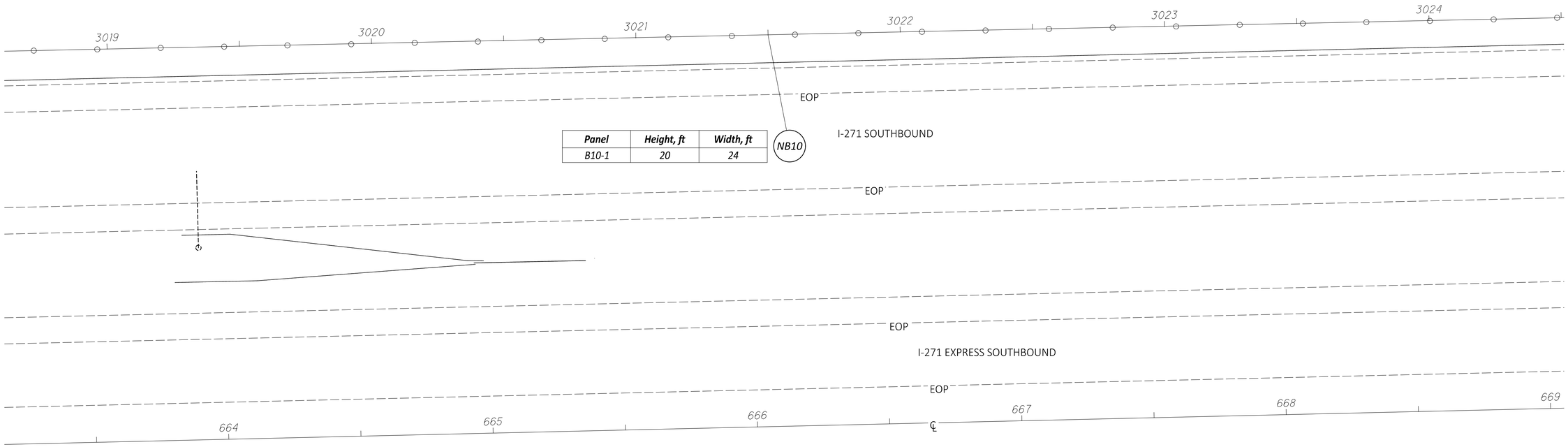
HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



Panel	Height, ft	Width, ft
B10-1	20	24

LOCATION 10: CUY-271-12.363

D12 NOISE BARRIER REPAIR

NOISE BARRIER REPAIR LOCATIONS
LOCATION 10

DESIGN AGENCY

DESIGNER NDG

REVIEWER KJD 01/10/25

PROJECT ID 122128

SHEET P.19 TOTAL 25

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:14:15 AM USER: ngrega
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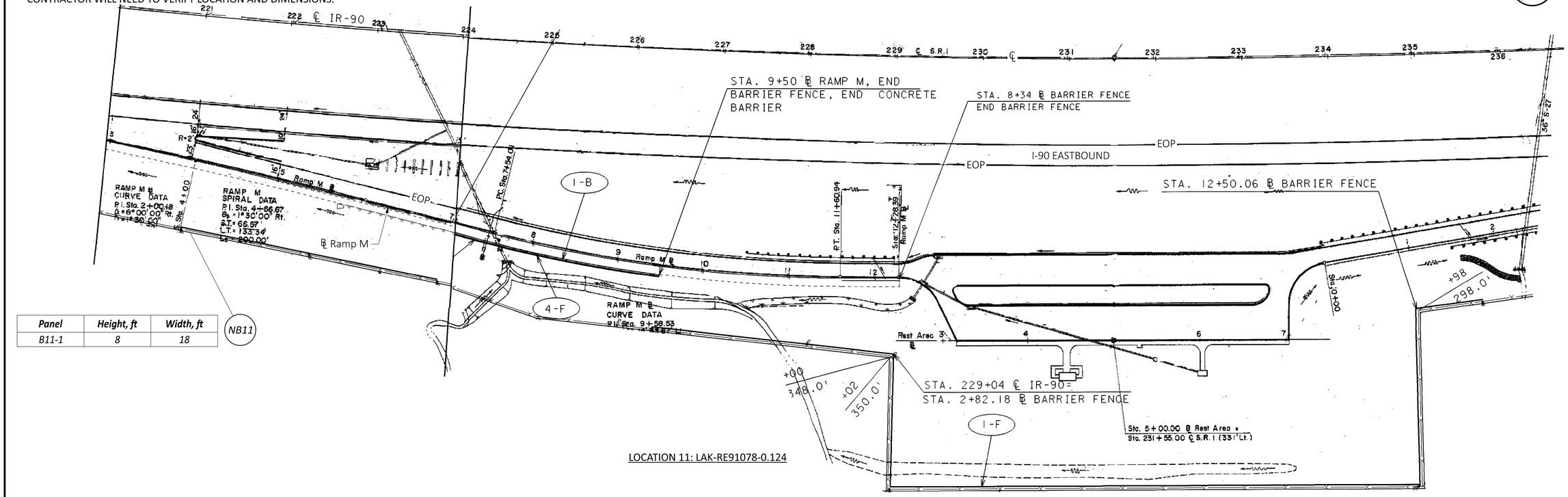
HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.

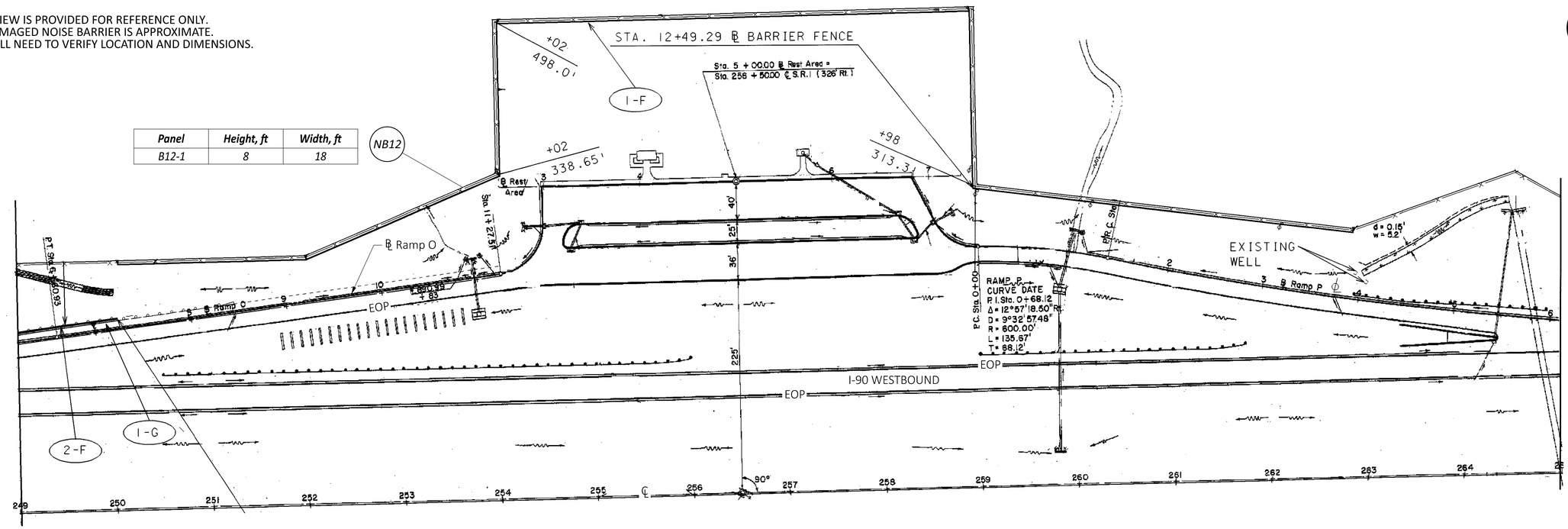


Panel	Height, ft	Width, ft
B11-1	8	18

NB11

LOCATION 11: LAK-RE91078-0.124

HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



LOCATION 12: LAK-RE91080-0.299

D12 NOISE BARRIER REPAIR

NOISE BARRIER REPAIR LOCATIONS
LOCATIONS 11 & 12

DESIGN AGENCY

DESIGNER	NDG
REVIEWER	KJD 01/10/25
PROJECT ID	122128
SHEET	P.20
TOTAL	25

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:14:38 AM USER: ngrega
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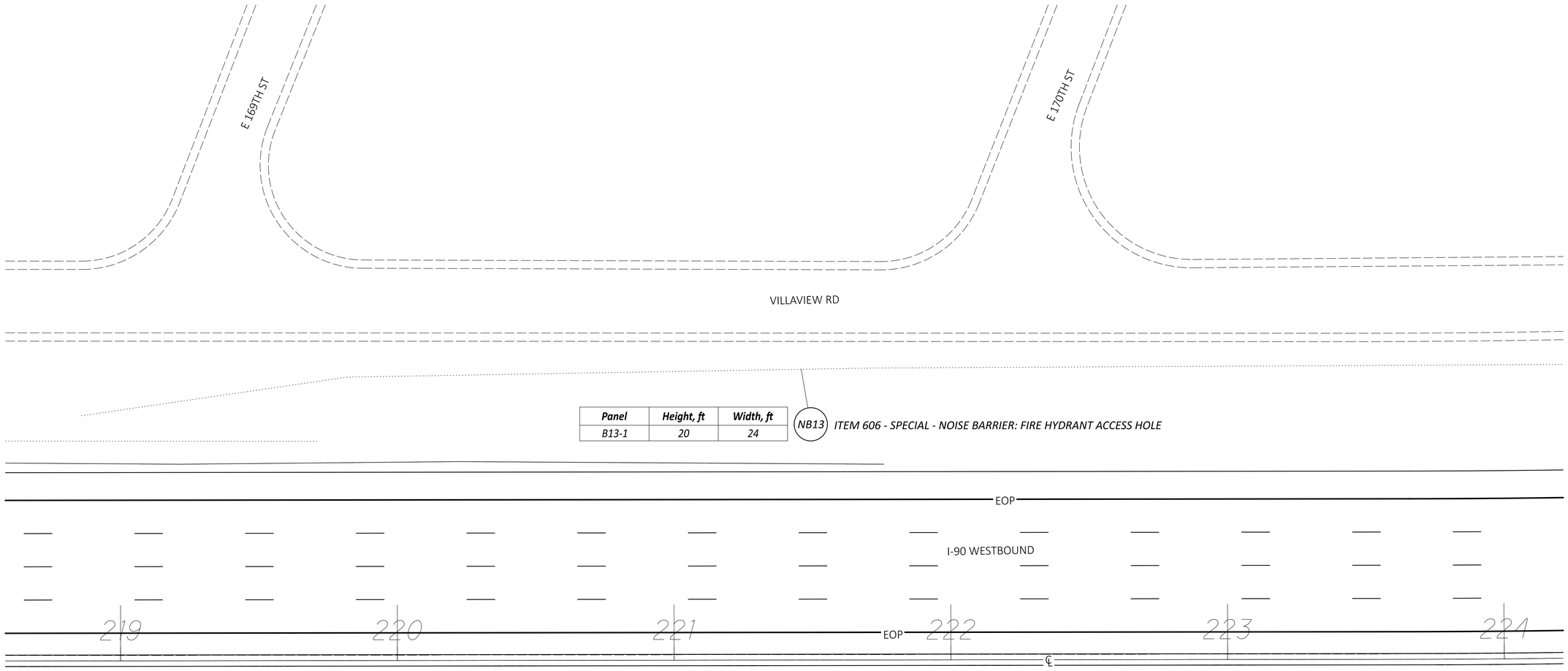
HISTORIC PLAN VIEW IS PROVIDED FOR REFERENCE ONLY.
LOCATION OF DAMAGED NOISE BARRIER IS APPROXIMATE.
CONTRACTOR WILL NEED TO VERIFY LOCATION AND DIMENSIONS.



Panel	Height, ft	Width, ft
B13-1	20	24

NB13 ITEM 606 - SPECIAL - NOISE BARRIER: FIRE HYDRANT ACCESS HOLE

LOCATION 13: CUY-90-25.390

NOISE BARRIER REPAIR LOCATIONS
LOCATION 13

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:15:31 AM USER: ngrega
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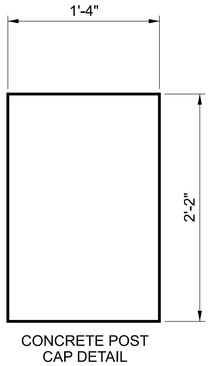
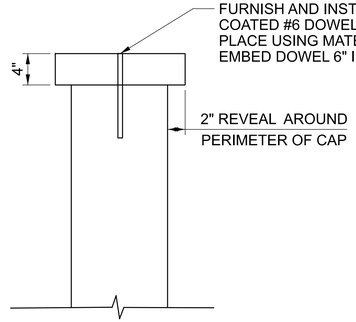
DESIGN AGENCY

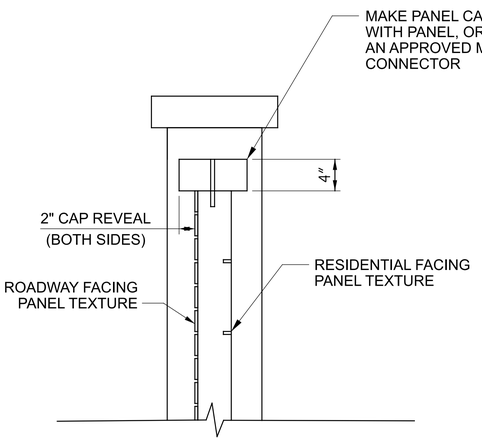
DESIGNER NDG
REVIEWER KJD 03/20/25
PROJECT ID 122128
SHEET P.20A TOTAL 25



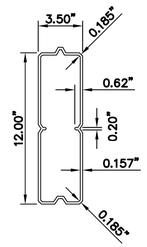
CONCRETE POST
CAP DETAIL

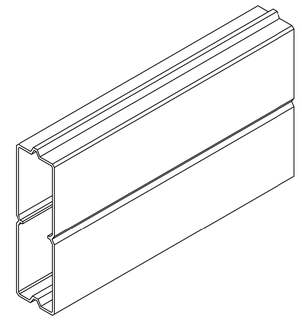


ITEM 606 - NOISE BARRIER: CONCRETE POST CAP
PROJECT LOCATIONS 2 & 3

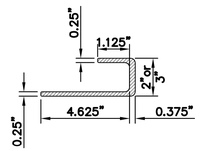


ITEM 606 - NOISE BARRIER:
REFLECTIVE PANELS WITH INTEGRAL CAP
PROJECT LOCATIONS 2 & 3

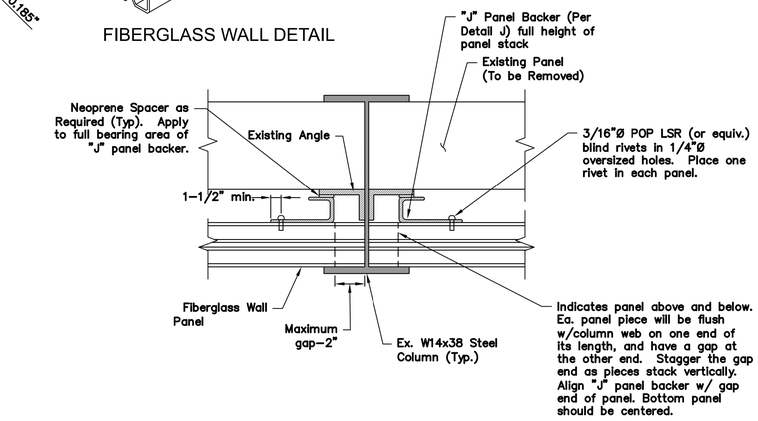




FIBERGLASS WALL DETAIL



ITEM 606 - "J" SHAPED
PANEL BACKER



ITEM 606 - NOISE BARRIER: REFLECTIVE PANELS, FIBERGLASS
PROJECT LOCATIONS 1, 10, 11, & 12

NOISE BARRIER DETAILS

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:15:47 AM USER: ngrega
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12_D12\122128\400-Engineering\Roadway\Sheets\122128_GY001.dgn

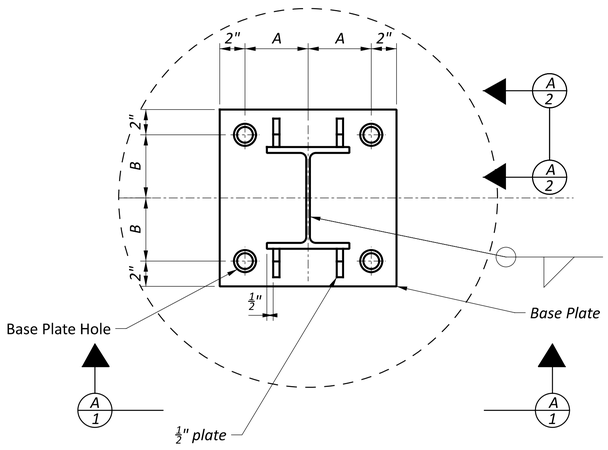
DESIGN AGENCY

DESIGNER
NDG

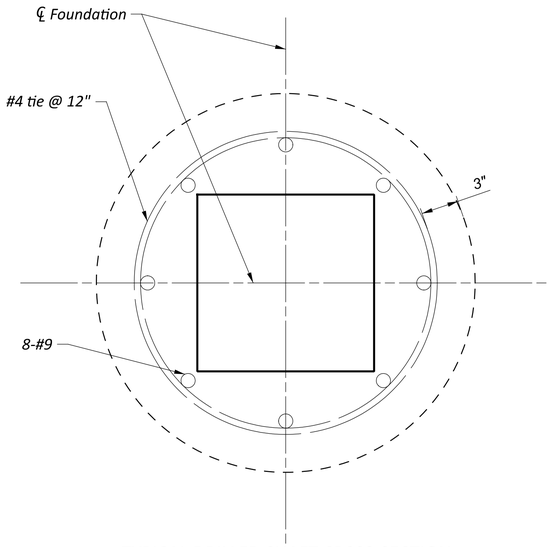
REVIEWER
KJD 01/10/25

PROJECT ID
122128

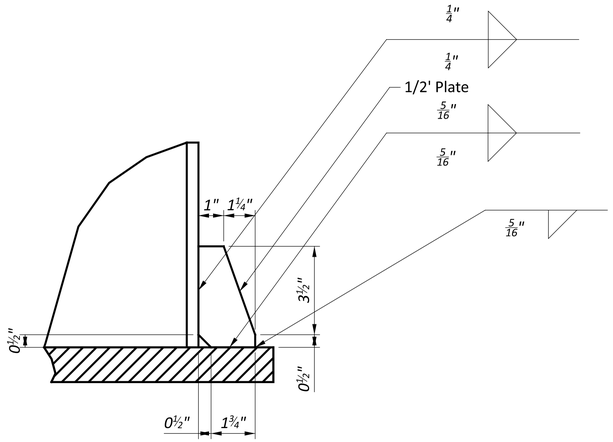
SHEET P.21 | TOTAL 25



PLAN



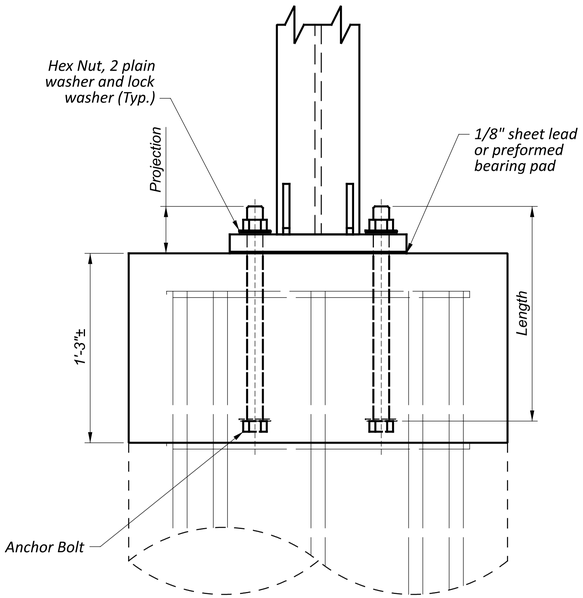
TYPICAL DRILLED SHAFT CR0SS-SECTION



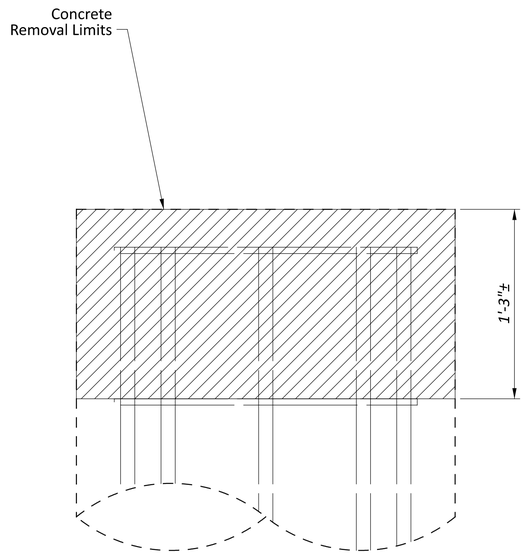
Section A-2

Post Mounting Details

Steel Post	Base Plate	Dim. A	Dim. B	Min. Weld Size	Anchor Bolts	Projection	Threaded Length	Base Plate Hole Dimension
W 8x28	14"x14"x1-3/8"	5"	5"	5/16"	4 - 1-1/4" Ø x 17"	3-1/4"	5-1/4"	1-3/4"
W 14x38	14"x20"x1-1/2"	5"	8"	5/16"	4 - 1-3/8" Ø x 18"	3-1/2"	5-1/2"	1-7/8"



Partial Elevation A-1



Removal Limits

NOISE BARRIER DETAILS

DESIGN AGENCY

DESIGNER
NDG

REVIEWER
KJD 01/10/25

PROJECT ID
122128

SHEET P.22 TOTAL 25

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:17:08 AM USER: ngrega
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PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPAIR AND REPLACEMENT OF DAMAGED NOISE BARRIER PANELS IN CUYAHOGA AND LAKE COUNTIES. THE GEOTECHNICAL EXPLORATION WAS PERFORMED AT LOCATION 6. APPROXIMATELY 144 FEET OF NOISE BARRIER IS BEING CONSTRUCTED TO REPLACE NOISE BARRIER WHICH WAS DAMAGED AND REMOVED. THE PANELS VARY IN HEIGHT FROM 18 FEET TO 20 FEET AND ARE SPACED BETWEEN 12 FEET AND 24 FEET.

HISTORIC RECORDS

THE ODOT TIMS DATABASE LISTED TWO SOIL BORINGS FOR HIGHMAST LIGHT TOWERS WITHIN THE VICINITY OF THE PROJECT AREA. THE BORINGS WERE LOCATED TOO FAR FROM THE PROPOSED NOISE BARRIER AND WERE NOT USED IN THE FOUNDATION ANALYSIS FOR THIS PROJECT.

GEOLOGY

THIS PROJECT IS LOCATED WITHIN THE ERIE LAKE PLAIN, WHICH IS CHARACTERIZED AS BEING AT THE EDGE OF A VERY LOW RELIEF ICE-AGE BASIN SEPARATED FROM MODERN LAKE ERIE BY SHORE LINE CLIFFS. MAJOR STREAMS AND GORGES ARE LOCATED THROUGHOUT THE REGION. THE SOILS WITHIN THE REGION ARE COMPRISED OF PLIESTONCEC-AGE LACUSTRIE SAND, SILT, CLAY AND WAVE-PLANED TILL OVER DEVONIAN AND MISSISSIPPIAN-AGE SHALES AND SANDSTONES.

RECONNAISSANCE

RECONNAISSANCE WAS PERFORMED AT THE PROJECT LOCATION ON JUNE 23, 2023 BY ODOT D-12 TO ASSESS THE DAMAGE TO THE NOISE BARRIER. THE NOISE BARRIER IS LOCATED IN THE GRASS SHOULDER BETWEEN IR-90 AND THE ADJACENT FRONTAGE ROAD. THE AREA IS RELATIVELY FLAT. THE ADJACENT LAND USAGE IS PRIMARLY URBAN RESIDENTIAL

SUBSURFACE EXPLORATION

ONE (1) SOIL BORING, B-001-0-24 WAS COMPLETED AS PART OF THE SUBSURFACE EXPLORATION ON NOVEMBER 1, 2024. THE BORING WAS PERFORMED BY SME, USING AN ATV MOUNTED CME 55 ROTARY DRILL RIG. THE BORING WAS COMPLETED USING A 3.75-INCH I.D. HOLLOW STEM AUGER TO ADVANCE THE BORING THROUGH THE SOIL. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT 2.5-FOOT INTERVALS WITHIN THE OVERBURDEN SOILS. THE HAMMER SYSTEMS USED WAS CALIBRATED ON AUGUST 5, 2022 WITH AN AVERAGE DRILL ROD ENERGY RATIO (ER) OF 83%.

EXPLORATION FINDINGS

BORING B-001 WAS COMPLETED WITHIN THE GRASS COVERED FRONTAGE AREA. TOPSOIL WAS ENCOUNTERED TO A DEPTH OF 5 INCHES BELOW THE GROUND SURFACE. UNDERLYING THE TOPSOIL, THE BORING ENCOUNTERED COHESIVE AND GRANULAR SOILS. THE COHESIVE SOILS WERE COMPRISED OF VERY-STIFF TO HARD SANDY SILTS, SILTS, SILT AND CLAY AND SILTY CLAY (A-4a, A-4b, A-6a AND A-6b). THE GRANULAR SOILS WERE COMPRISED OF MEDIUM DENSE COARSE AND FINE SANDS.

GROUNDWATER WAS ENCOUNTERED DURING DRILLING AT A DEPTH OF 14.5 FEET BELOW THE GROUND SURFACE AND WAS MEASURED AT PRIOR TO BORING TERMINATION AT A DEPTH OF 19 FEET.

BEDROCK WAS NOT ENCOUNTERED DURING DRILLING.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2024.

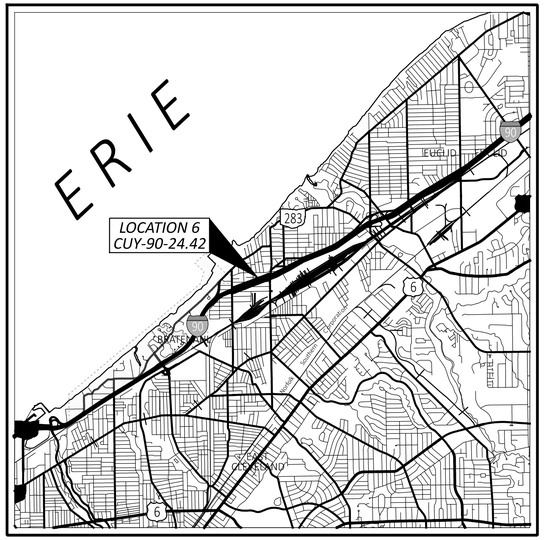
AVAILABLE INFORMATION

THE SOIL, BEDROCK, AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE GEOTECHNICAL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
COARSE AND FINE SAND	A-3a	-	3
SANDY SILT	A-4a	1	1
SILT	A-4b	1	1
SILT & CLAY	A-6a	1	3
SILTY CLAY	A-6b	1	1
	TOTAL	4	9

SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL
BORING LOCATION - PLAN VIEW.	
DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.	
WC — INDICATES WATER CONTENT IN PERCENT.	
N_{60} — INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.	
X/Y/Z — NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X= NUMBER OF BLOWS FOR FIRST 6 INCHES. Y= NUMBER OF BLOWS FOR SECOND 6 INCHES. Z= NUMBER OF BLOWS FOR THIRD 6 INCHES.	
W — INDICATES FREE WATER ELEVATION.	
INDICATES WATER ELEVATION AT THE END OF DRILLING	
SS — INDICATES A SPLIT SPOON SAMPLE.	



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS |	COBBLES |	GRAVEL |	COARSE SAND |	FINE SAND |	SILT | CLAY
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE	

RECON. - KJD 7/16/2024
DRILLING - SME 11/1/2024
DRAWN - KJD 12/13/2024
REVIEWED - NDG 1/27/2025

GEOTECHNICAL PROFILE - STRUCTURE

DESIGN AGENCY

DESIGNER KJD

REVIEWER NDG 01/27/25

PROJECT ID 122128

SUBSET 1 | TOTAL 3

SHEET P.23 | TOTAL 25

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:17:18 AM USER: ngrega
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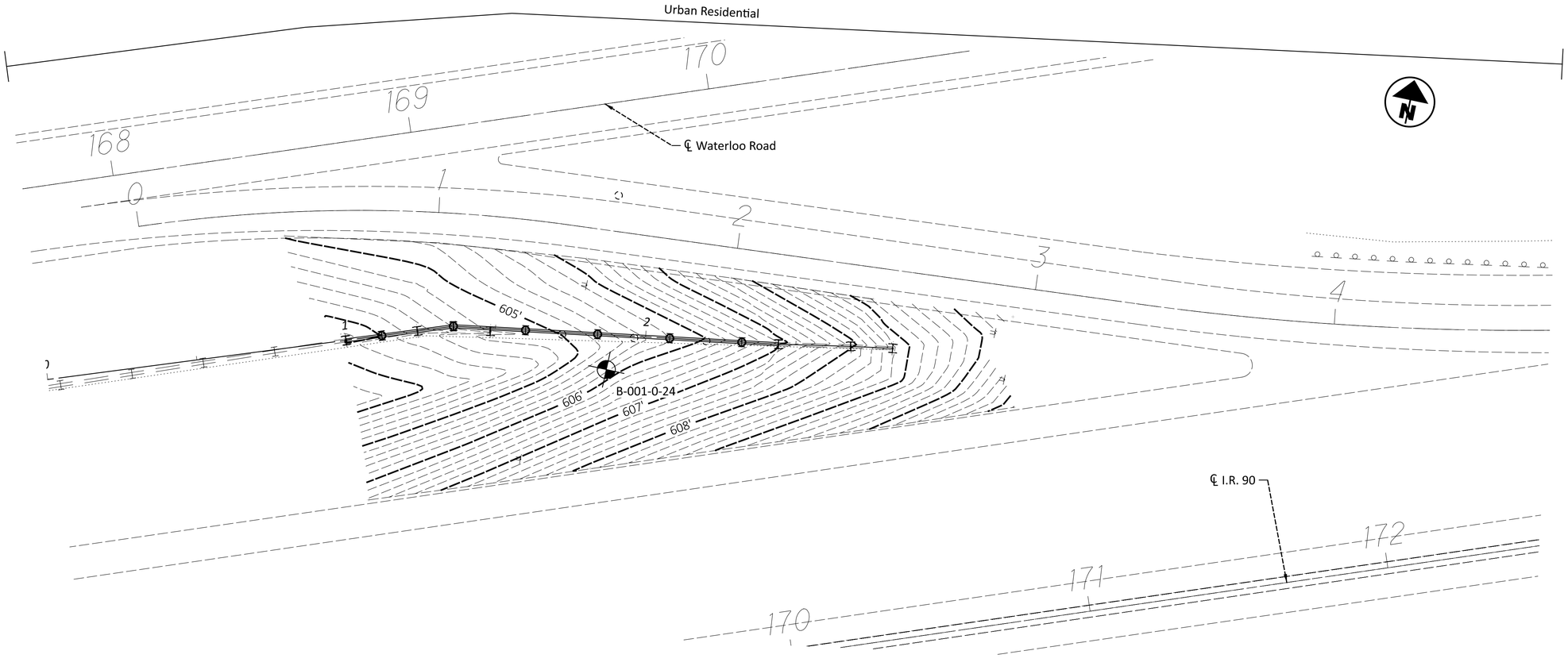

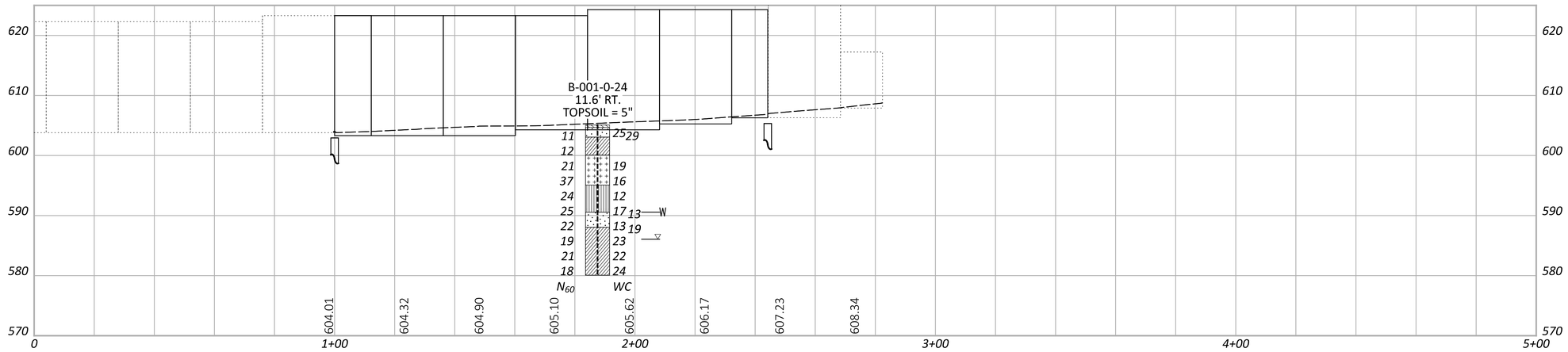

D12 NOISE BARRIER REPAIR

MODEL: CLP_Wall_8 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:17:30 AM USER: ngrega
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GEOTECHNICAL PROFILE - STRUCTURE LOCATION 6

DESIGN AGENCY

DESIGNER KJD
REVIEWER NDG 01/27/25
PROJECT ID 122128
SUBSET 2 TOTAL 3
SHEET P.24 TOTAL 25

D12 NOISE BARRIER REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/19/2025 TIME: 10:17:41 AM USER: ngrega
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PROJECT: D12 NOISE BARRIER REPAIR
TYPE: NOISE WALL
PID: 122128 SFN:
START: 11/1/24 END: 11/1/24

DRILLING FIRM / OPERATOR: ODOT / LP/RM
SAMPLING FIRM / LOGGER: ODOT / BAM
DRILLING METHOD: 3.75" HSA
SAMPLING METHOD: SPT

DRILL RIG: CME 55 RT ATV
HAMMER: CME AUTOMATIC
CALIBRATION DATE: 12/11/24
ENERGY RATIO (%): 84

STATION / OFFSET: 1+88, 12' RT.
ALIGNMENT: WALL 6 CENTERLINE
ELEVATION: 604.8 (MSL) EOB: 25.0 ft.
LAT / LONG: 41.567121, -81.578885

EXPLORATION ID B-001-0-24
PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
5 inches TOPSOIL	604.4																	
MEDIUM DENSE, BROWN AND BLACK, **COARSE AND FINE SAND**, LITTLE SILT, TRACE CLAY, TRACE ROOTS, **FILL**, DAMP	602.8		4 3 5	11	100	SS-1A	-	-	-	-	-	-	-	-	-	25	A-3a (V)	
						SS-1B	3.00	0	1	7	55	37	38	20	18	29	A-6b (11)	
VERY STIFF, GRAY, **SILTY CLAY**, TRACE SAND, TRACE ROOTS, **FILL**, MOIST @3.5' - PUSHED PIECE OF SLAG GRAVEL.	599.8		3 4 5	13	11	SS-2	-	-	-	-	-	-	-	-	-	-	A-6b (V)	
HARD, BROWN, **SILT**, AND CLAY, TRACE GRAVEL, DAMP	594.8		4 5 10	21	100	SS-3	4.50	2	3	6	50	39	28	19	9	19	A-4b (8)	
			6 10 17	38	100	SS-4	4.50	-	-	-	-	-	-	-	-	16	A-4b (V)	
HARD, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP	590.3		6 7 10	24	100	SS-5	4.50	13	18	10	33	26	22	16	6	12	A-4a (5)	
		▼ 590.3	6 9 9	25	100	SS-6A	4.50	-	-	-	-	-	-	-	-	17	A-4a (V)	
MEDIUM DENSE, GRAY, **COARSE AND FINE SAND**, LITTLE GRAVEL, LITTLE SILT, TRACE CLAY, WET	587.8	▽ 589.8				SS-6B	-	-	-	-	-	-	-	-	-	13	A-3a (V)	
			6 7 9	22	100	SS-7A	-	-	-	-	-	-	-	-	-	13	A-3a (V)	
VERY STIFF, GRAY, **SILT AND CLAY**, TRACE SAND, MOIST						SS-7B	3.50	-	-	-	-	-	-	-	-	19	A-6a (V)	
			6 7 7	20	100	SS-8	3.50	-	-	-	-	-	-	-	-	23	A-6a (V)	
			6 6 9	21	100	SS-9	3.00	0	1	2	45	52	29	18	11	22	A-6a (8)	
	579.8	EOB	6 6 7	18	100	SS-10	4.00	-	-	-	-	-	-	-	-	24	A-6a (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; BACKFILLED WITH BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 12/17/24 09:55 - W:\092062.21\PROJECT DATA\GINT\092062.21 D12 NOISE BARRIER REPAIR.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.25 / TOTAL 25	3 / TOTAL 3	122128	NDG 01/27/25	KJD	

GEOTECHNICAL PROFILE - STRUCTURE
BORING LOG B-001-0-24