

Environmental Assessment

SR0080 Section 352

I-80 Nescopeck Creek Bridges Project

Black Creek Township, Luzerne County

April 2022

Prepared by:
District 4-0
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ENVIRONMENTAL ASSESSMENT
for the
SR 0080 SECTION 352 LUZERNE COUNTY
INTERSTATE 80 NESCOPECK CREEK BRIDGES PROJECT

MPMS #111769

Prepared by:
US Department of Transportation
Federal Highway Administration
and
Pennsylvania Department of Transportation
Engineering District 4-0

Pursuant to 42 U.S.C. 4332(2)(c) and, as applicable:
Executive Order 11990, Protection of Wetlands; Executive Order 11988, Floodplain Management;
Executive Order 12898, Environmental Justice; and 49 U.S.C. Section 303(c), Section 4(f)

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You can also visit the project web page:

<https://www.penndot.pa.gov/RegionalOffices/district-4/ConstructionsProjectsAndRoadwork/Pages/I-80-Nescopeck.aspx>

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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
ATON	Aids to Navigation
BMPs	Best Management Practices
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CRPs	Cultural Resource Professionals
CWF	Cold Water Fishery
DCNR	Department of Conservation & Natural Resources
DEP	Department of Environmental Protection
DHS	Department of Human Services
E&S	Erosion & Sedimentation
EA	Environmental Assessment
EB	Eastbound
ECMTS	Environmental Commitments & Mitigation Tracking System
EDD	Environmental Due Diligence
ESA	Environmental Site Assessment
ESF	Environmental Stewardship Fund Act
EV	Exceptional Value
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
GG2	Growing Greener Bond Fund
H&H	Hydrology and Hydraulics
HOV	High Occupancy Vehicle
HQ	High Quality
HQ-CWF	High Quality-Cold Water Fishes
I-80	Interstate 80
Key 93	Keystone Recreation, Park and Conservation Fund
LIHEAP	Low Income Home Energy Assistance Program
LOA	Letter of Agreement

LOD	Limits-of-Disturbance
LOU	Letter of Understanding
LWCF	Land and Water Conservation Fund
MeB	Meckesville channery silk loam 3 to 8 percent slopes
MeC	Meckesville channery silk loam 8 to 15 percent slopes
MF	Migratory Fishery
MIT	Massachusetts Institute of Technology
MPMS IQ	Multimodal Project Management System Intelligent Query
MPO	Metropolitan Planning Organization
MSATs	Mobile Source Air Toxics
NAC	Noise Abatement Criteria
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGSIM	Next Generation Simulation
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	The National Register of Historic Places
NSAs	Noise Sensitive Areas
OSHA	Occupational Safety and Health Administration
P3	Public Private Partnership
PA	Specific Programmatic Agreement
PADEP	Pennsylvania Department of Environmental Protection
PAGWIS	Pennsylvania Groundwater Information System
PASPGP	Pennsylvania State Programmatic General Permit
PCSM	Post Construction Stormwater Management
PEL	Alternative Funding Planning and Environmental Linkages Study
PEM	Palustrine Emergent
PennDOT	Pennsylvania Department of Transportation
PFBC	Pennsylvania Fish and Boat Commission

PFO	Palustrine forested
PNDI	Pennsylvania Natural Diversity Inventory
PSA	Project Study Area
RFFAs	Reasonably Foreseeable Future Actions
RIRA	Recreational Improvement and Rehabilitation Act
ROW	Right-of-Way
RPW	Relatively Permanent Waters
RRFB	Rapid-Flashing Beacons
S1 – S6	Stream 1 – Stream 6
SB	Southbound
SNAP	Supplemental Nutrition Assistance Program
SR	State Route
TCE	Temporary Construction Easements
TIP	Traffic Improvement Program
TNM	Traffic Noise Model
TNW	Traditional Navigable Waters
TSF	Trout Stock Fishery
TYP	Twelve Year Program
UE	United Electric REA
US 11	U.S. Route 11
USACE	US Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USTs	Underground Storage Tanks
UNT	Unnamed Tributary
VMT	Vehicle Miles Traveled
WB	Westbound
WUS	Waters of the United States
WWF	Warm Water Fishery

1.0 INTRODUCTION

Supporting documentation for Chapter 1 includes:

- *Alternative Funding: Planning and Environmental Linkages Study (September 2021)*

The Pennsylvania Department of Transportation (PennDOT) has an \$8.1 billion (and growing) funding gap between its current funding levels and what it needs to provide a system of highways and bridges in a state of good repair. To fill this funding gap, PennDOT developed an alternative funding program called PennDOT Pathways and prepared an **Alternative Funding Planning and Environmental Linkages (PEL) Study** to identify potential near- and long-term solutions for highway and bridge funding.

A PEL Study is a flexible tool that can be used to connect the planning process with the environmental process required by National Environmental Policy Act (NEPA). The analyses conducted for the PEL Study can be incorporated by reference into the subsequent NEPA process, which can facilitate completion of the NEPA process.

In the case of the Alternative Funding PEL Study, PennDOT used the PEL Study to:

- Establish the purpose and needs for additional highway and bridge funding.
- Identify potential funding sources and analyze them for meeting the near-term and longer-term funding needs.
- Develop a plan for implementation, which identified alternative bridge funding as an immediately needed priority and bridge tolling as the reasonable means for financing priority bridge improvements. The Major Bridge Public-Private Partnership (P3) Initiative resulted from this conclusion.

PennDOT developed the Alternative Funding PEL Study with input and oversight from Federal Highway Administration (FHWA) and undertook an extensive public and agency outreach program via the PennDOT website, social media, e-newsletters, and public meetings. PennDOT provided opportunities for public input on the PEL Study via a public engagement platform on the Pathway Program’s website which ran between November 17 and December 17, 2020. In addition, comments were solicited during a virtual public meeting held from February 19 to March 23, 2021, when the nine candidate bridges for major bridge tolling were announced. Finally, the Draft PEL Study was made available for formal public comment from April 29 to June 1, 2021. The PEL Study contains details on the outreach activities and the comments received.

1.1 Purpose and Need for Bridge Tolling

The PEL Study documents the purpose and needs for alternative sources of highway and bridge funding. The results are summarized below and the full results from the PEL Study are incorporated herein by reference.

As discussed in the PEL Study, highways and bridges represent the largest PennDOT transportation expenditure. Moreover, maintaining and improving highways and bridges in Pennsylvania is highly dependent (approximately 75% of funding) on gas taxes for funding—the funding source that is at greatest risk of decline. In recent years, gas taxes have become a less predictable source of revenue for transportation agencies across the country. As passenger vehicles become more fuel-efficient, and all-electric vehicle technology continues to evolve, gas tax revenues are being reduced. The continued trend toward more electric vehicles, both for personal and commercial transportation, will further reduce gas consumption and revenue from gas taxes.

The result is that the gap between available transportation revenue and the projected funding required to adequately maintain and improve reliable highways and bridges in the Commonwealth is substantial. Available budgeted funding for highways and bridges is currently \$6.9 billion per year, while the identified current (2020-

2021) funding need is \$15 billion, resulting in a current funding gap of \$8.1 billion. This funding gap is projected to increase by about \$400 million per year to \$12.6 billion in 2030.

Subsequent to the completion of the PEL Study, the new 2021 federal transportation act (Infrastructure Investment and Jobs Act), the largest federal infrastructure investment in decades, was passed and is expected to bring \$4 billion in new federal highway and bridge funds to Pennsylvania spread over 5 years. Because federally funded projects usually require a 20 percent state match, PennDOT will need approximately \$1 billion in additional state funds to be able to fully leverage the new federal funds. With roughly \$2.2 billion in construction value, if federal funds were committed to the nine candidate bridge projects in the Major Bridge P3 Initiative, those projects would take up more than half of the new federal funding. This means that these much-needed funds will only benefit a handful of projects, minimizing the bill's overall effect for Pennsylvania. While the Infrastructure Investment and Jobs Act investment is a huge step in the right direction, it does not fully address Pennsylvania's highway and bridge funding challenges, and therefore PennDOT is continuing to advance the Major Bridge P3 Initiative.

Insufficient funding for critical maintenance work and for expanding the capacity of roadways in the Commonwealth places a burden on taxpayers and drivers. Inadequate timely maintenance results in more extensive and more expensive repairs in the long run, increasing the overall cost to taxpayers. Poor asset conditions and congestion translate into additional costs to roadway users, including more time spent driving in congested conditions, higher vehicle maintenance costs, and increased emissions. Additional delay experienced by freight transportation can also translate to higher prices to consumers.

1.2 Summary of Potential Bridge Financing Alternatives

PennDOT evaluated a number of potential funding options to fill their highway and bridge funding gap as summarized below. The full analysis of highway and bridge funding alternatives is contained in the PEL Study and is incorporated herein by reference.

PennDOT evaluated the following mechanisms to fill their highway and bridge funding gap: sales taxes, personal income taxes, real estate and property taxes, fuel tax increases, road user charges, other taxes and fees, and various forms of tolling. Based on the analysis in the PEL Study, each of the potential funding options has some merit and could be considered as part of PennDOT's long-term strategy in securing sustainable and dedicated revenue for highways and bridges. However, without action by the legislature and/or others, PennDOT only has the ability to implement the following potential solutions: (1) Bridge Tolling and (2) Managed Lanes. To support bridge improvement needs, like those evaluated in the accompanying NEPA document, PennDOT identified bridge tolling as the reasonable near-term financing mechanism for the following reasons:

- Those that use the bridge will pay for it.
- It provides dedicated funding that is used to construct and maintain the bridge from which the toll was collected.
- It helps keep the regional transportation funding program from being diverted to the interstate program.
- Toll collection systems already exist in Pennsylvania, thereby lowering the cost of collection.
- PennDOT has mechanisms in place to implement and collect bridge tolls.

Today, PennDOT must divert funding away from regional projects across the state to fund critical interstate and bridge needs. Moving forward with bridge tolling will allow critical bridges to pay for themselves through tolls, keeping funds available for other regional projects to also move forward. Bridge tolling is also being considered

as a solution due to the proven success of toll collections throughout the country as a funding strategy for the replacement or rehabilitation of bridges.

1.3 How were bridges selected for the initial tolling program?

To meet critical bridge funding needs, PennDOT created the first initiative of the **PennDOT Pathways Alternative Funding Program – The Major Bridge P3 Initiative**. The Major Bridge P3 Initiative is designed to raise revenue through tolling to address the state’s growing backlog of replacement and rehabilitation needs for major bridges that are approaching the end of their useful lives. At the end of a bridge’s useful life, substantial repairs and emergency lane closures become more frequent.

PennDOT is considering nine candidate bridges across the state of Pennsylvania for tolling through the Major Bridge P3 Initiative. These candidate bridges are being considered because they meet the following criteria:

- Located on the interstate or expressway
- Structures of significance based on size, location, and cost to replace or rehabilitate
- Structural conditions that warrant timely attention to enhance safety and avoid disruption and community impacts if closure or weight restrictions were imposed
- Geographic balance across the state
- Can begin construction in two to four years for near-term benefit
- The ability for the project to be financially viable with a reasonable toll rate

Table 1 identifies the initial list of candidate bridge projects meeting these criteria.

**Table 1
Candidate Bridge Projects**

PennDOT District	Bridge Project	Year(s) Built
4	I-81 Susquehanna Bridges Project	1961
4	I-80 Nescopeck Creek Bridges	1965
5	I-78 Lenhartsville Bridge Replacement Project	1955
5	I-80 Over Lehigh River Bridges Project	1965
6	I-95 Girard Point Bridge Improvement Project	Late 1960s-1970s
8	I-83 South Bridge Project	1960
10	I-80 Canoe Creek Bridges	1966
10	I-80 North Fork Bridges Project	1962
11	I-79 Widening, Bridges and Bridgeville Interchange Reconfiguration	1965

Each candidate bridge project is undergoing environmental studies in accordance with the NEPA and other applicable environmental laws and regulations. This includes an assessment of the potential effects of tolling on low-income and minority populations in accordance with a Presidential Executive Order 12898 on Environmental Justice. This Environmental Assessment (EA) is the NEPA documentation for the I-80 Nescopeck Creek Bridges Project. Effects on communities due to traffic choosing to avoid the toll are considered in the I-80 Nescopeck Creek Environmental Justice Analysis Technical Memorandum, February 2022, which is summarized in Chapter 6 of this EA.

2.0 I-80 NESCOPECK CREEK BRIDGES PROJECT OVERVIEW

2.1 Project Bridges

PennDOT, in cooperation with the FHWA, is advancing the replacement of the two bridges carrying Interstate 80 (I-80 or SR 0080), eastbound (EB) (Bridge 1B) and westbound (WB) (Bridge 2B) over Nescopeck Creek, in Black Creek Township, Luzerne County, PA. The existing I-80 EB & WB structures are 507-foot long, four-span continuous welded steel girder bridges on concrete abutments and hammerhead piers built in 1965. Each bridge carries two lanes of traffic in one direction over Nescopeck Creek, and both are currently in poor condition.

2.2 Project Purpose and Needs

Purpose: The purpose of the project is to provide a sustainable travel way/crossing that accommodates interstate highway freight and mobility and to provide a safe and efficient highway for system motorists over Nescopeck Creek.

Need: The bridges are nearly 60 years old and approaching the end of their serviceable lifespan. This means that in the near future, wear and tear on the bridges will cause the need for more frequent and costly repairs.

- I-80 WB (40-0080-2505-1492): The deck has heavy wear with exposed polished aggregate, hairline transverse, longitudinal and diagonal cracks. The steel X-bracing has areas of rust, and the end diaphragm connection plates/bearing stiffeners have advanced section loss and are bowed due to rust. The girders have heavy rust with section loss. The substructure piers have hairline vertical cracks, broken and missing tiles. The abutment and backwalls have hairline transverse cracks and minor edge spalling.
- I-80 EB (40-0080-2504-1425): The deck has heavy wear with exposed polished aggregate, hairline transverse, longitudinal and diagonal cracks. There are spalls with exposed reinforcing steel. The superstructure cross bracing has section loss and holes in the connection plates. The connection plates have advanced section loss and are bowed due to pack rust. The girders have rust and are pitting along the bottom flanges. The fascia girders have rust, section loss and pitting. The abutments and backwall have scaling and vertical cracks. The piers have vertical cracks, minor pop out spalls with reinforcing steel. The piers have loose and missing tiles.

The Purpose and Need for tolling these bridges are discussed in Chapter 1.1 of this EA.

2.3 Project Setting and Distinct Project Features

The overall project area is surrounded by vast forested, rolling terrain with small communities throughout the corridor. The bridge replacements project is located within the Nescopeck Creek gorge. The features at the site include Nescopeck Creek, I-80, the adjacent State Route (SR) 3016 (Tank Road), and mountainous terrain on either side of the bridge structures.

Describe the involvement with utilities with this project:

Relocation of one (1) pole for overhead utilities (including overhead electric and communications lines) is required. It is anticipated that this will be done prior to the replacement of the structures. For electric services to the tolling utility building, a new utility line (mostly underground with some overhead portions) will run along I-80 and Tank Road (SR 3016) in order to connect to the existing grid where that new pole would be relocated. Final coordination will be completed by the P3 development entity.

Describe the involvement with any railroad (active or inactive) including all rail lines, crossings, bridges, or signals:

There would be no involvement with active or inactive railroads.

Describe changes to access control:

No changes to access control are needed.

3.0 ALTERNATIVES

3.1 No-Build Alternative

Under the no-build alternative, regular maintenance would be assumed to occur. This alternative would fail to address other project needs such as addressing the identified bridge deterioration. The I-80 Nescopeck Creek Bridges are nearing the end of their useful life. Currently, both the EB and WB bridges are in poor condition with heavy wear on the decks, and rust, section loss and cracks in structure elements. Without replacement, these bridge structures will need more frequent maintenance and repairs. However, such maintenance can only extend the service life of these bridges for so long before they are at risk of failure.

I-80 is the longest east-west interstate in the Commonwealth of Pennsylvania. Within Pennsylvania, I-80 extends 311 miles across the northern tier of Pennsylvania, providing access to New Jersey, the New York City Metropolitan Area and New England to the east and Ohio and Midwestern states to the west. In the project area, the I-80 corridor is a vital link between two north-south interstates, I-180 to the west and I-81 to the east and is critical for the movement of people and goods through the northern tier of Pennsylvania and beyond. As a critical link in the regional and national highway network, allowing the deterioration of these bridges to reach a level of failure is not reasonable; therefore, due to the project needs, the no-build alternative would not be a reasonable alternative.

The no-build alternative is presented in this EA as a baseline for comparison purposes only.

3.2 Proposed Action

3.2.1. Bridge Replacement

The project will consist of replacement of the two bridges carrying I-80 EB and WB over Nescopeck Creek, in Black Creek Township, Luzerne County, PA. The existing structures are proposed to be replaced with four-span continuous composite prestressed bulb-tee beam bridges with reinforced concrete integral abutments and wingwalls, and reinforced concrete multi-column pier bents on spread footings. The proposed bridges will be widened to accommodate traffic control and future bridge maintenance but will only be striped for two lanes. The proposed structures will be on the same alignment as existing. Roadway work on I-80 is limited to minimal full depth paving replacement (less than 100") on each approach to the interstate bridges. Also includes widening of the I-80 EB shoulder to accommodate the wider bridge. Guide rail will also be replaced and upgraded to the current standards throughout the length of the project.

The roadway work also includes 150' of full depth pavement replacement and guide rail upgrades in the area of the tolling gantry above the I-80 WB roadway. Access to the site will be from off of I-80 and also off of SR 3016 (Tank Road). Roadway work on SR 3016 includes 747' of full depth paving and cross pipe replacement due to reconstruction of a portion of the wall between I-80 and SR 3016. Also includes replacement of guide rail within the Limits of Work along SR 3016 to upgrade to current standards.

The project also includes reconstructing a portion of SR 3016 and a portion of the existing retaining wall along I-80 EB due to the widened I-80 EB structure. Phased construction will be implemented to maintain two lanes of traffic in each direction along I-80 during construction. No detour of I-80 will be needed for the reconstruction of the bridge. A temporary local detour of the adjacent SR 3016 will be required to accommodate the widening of I-80 EB.

Supporting documentation for Chapter 3 includes:

- *I-80 Nescopeck Creek Bridges Diversion Traffic Evaluation Report* (February 2022)

Additional information is provided in **Table 2 – Construction Station and Length**, Appendix A – Engineering Information and Appendix B – Preliminary Design Plans.

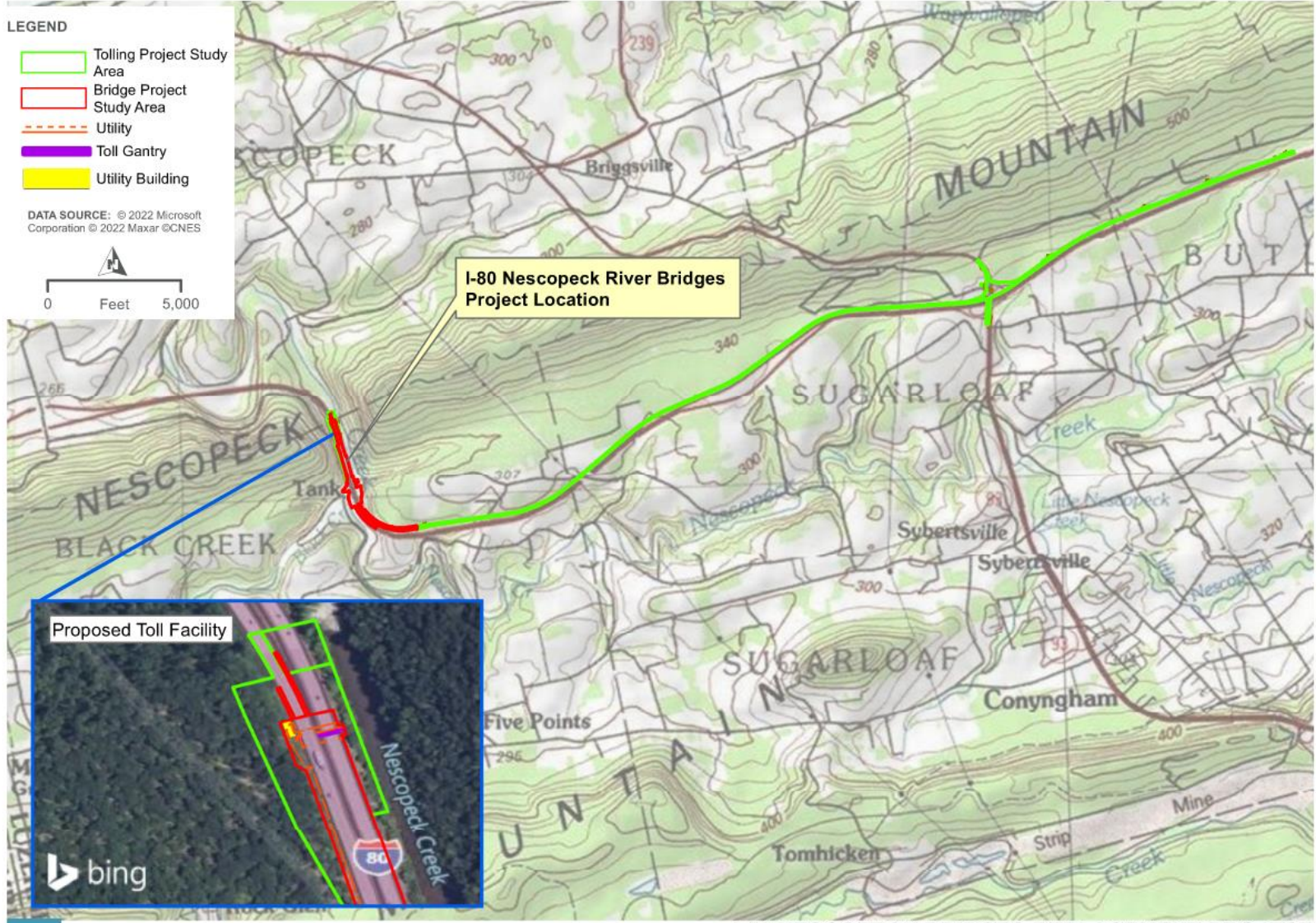
**Table 2
Construction Station and Length**

I- 80 EB/WB over Nescopeck Creek			
Limits of Work (Segment/Offset)		Construction Stations	
EB Limits of Work		EB Construction Stations	
Start	End	Start	End
549+50	610+00	550+60.00	609+00
WB Limits of Work		WB Construction Stations	
Start	End	Start	End
850+25	914+50	851+42	913+37.00
I- 80 EB/WB over Nescopeck Creek			
TOTAL LENGTH:			
EB		WB	
1,891'		2,309'	
I- 80 WB Tolling			
Limits of Work (Segment/Offset)		Construction Stations	
WB Limits of Work		WB Construction Stations	
Start	End	Start	End
2581/1872	2501/2000	852+50	n/a
I- 80 WB Tolling			
TOTAL LENGTH:			
WB			
42,114' or 7.98 mi			

3.2.2. Tolling Facility

The I-80 Nescopeck Creek Bridges project was identified as a candidate for bridge tolling through PennDOT Pathways Program: The Major Bridge P3 Initiative. With the addition of tolling, the Project Study Area (PSA) was expanded for construction of toll gantries and the associated utility shed, utility connections, and advance “toll ahead” signs. **Figure 1 – Project Location Map** shows the Original PSA for the bridge replacement/roadway improvement project and the Expanded PSA that includes the tolling facility. The tolling facility (gantry, utility building, and utility connections) will be constructed west of the bridge replacements with the gantry spanning across the I-80 WB roadway only (unidirectional tolling) and the utility building along the I-80 EB shoulder which will also require the installation of small driveway/parking area for maintenance pull-out and access. In addition, advanced tolling signs will be placed about 1 mile prior to the tolling facility along the approaching WB direction of I-80 to inform drivers about the toll bridge, as well as at the nearest interchange for Exit 256 near Conyngham and its respective local roadway network (along SR 93). All work associated with the tolling facility will occur within existing Commonwealth-owned Right-of-Way (ROW). Design plans for the tolling facility are included in Appendix C.

Based on feedback received from the public and at stakeholder workshops, and because of the close proximity of the two candidate bridges on the western end of the I-80 and the two on the eastern end, PennDOT has decided to pursue one-way tolling on four bridge projects on I-80: Canoe Creek, North Fork, Nescopeck, and Lehigh River bridges. Traffic would be tolled EB at Canoe Creek, WB at North Fork, and EB at Lehigh River, WB at Nescopeck. The one-way tolling will reduce the number of tolls drivers would have to pay on I-80, as well as overall diversions and the need for additional tolling infrastructure.



**I-80 NESCOPECK BRIDGES REPLACEMENT PROJECT
PROJECT LOCATION MAP**

PATH: G:\JOBS\PENNDOT\NESCOPECK\MAP_DOCS\DRAFT\PENNDOT_I-80NESCOPECK_FIG1\PROJLOC\MAP.MXD - USER: L3MITHA - DATE: 3/31/2022

FIGURE 1

3.2.3. Transportation and Travel Patterns

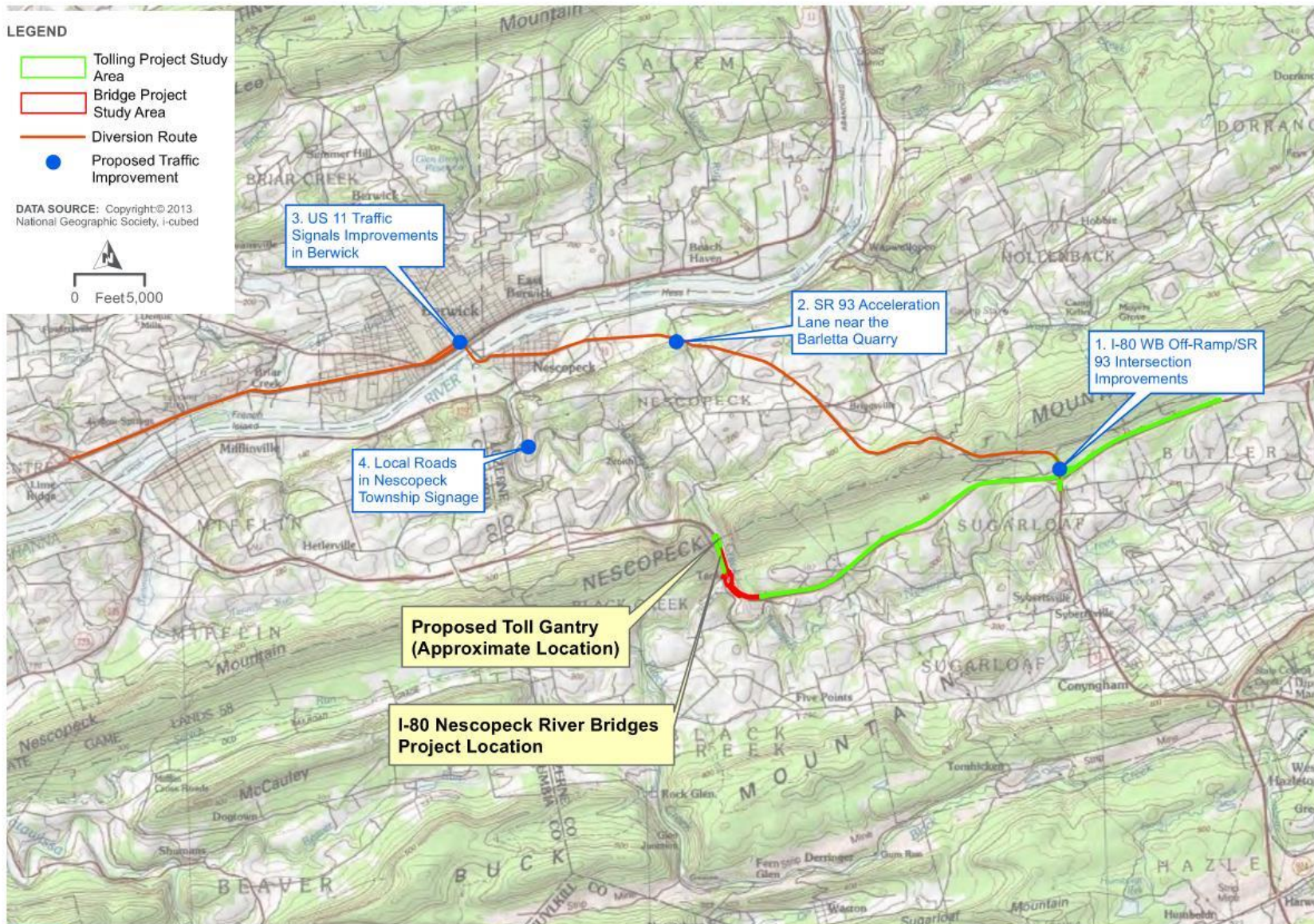
A primary diversion route (north of I-80 between Exits 256 and 241), consisting of primarily SR 93 WB (Nescopeck Turnpike/Berwick/Hazleton Highway), from Exit 256, and then U.S. Route 11 (US 11) (across the Susquehanna River) before re-entering I-80 at Exit 241, was identified (**Figure 2 – Proposed Traffic Improvements**); although stakeholder comments suggested that SR 339 would also be used as an alternative to US 11 for the western portion of the diversion. Traffic modeling indicated that with currently proposed WB-only tolling, approximately 880 vehicles, approximately 3% of total I-80 traffic, would divert daily from I-80 to avoid paying the tolls. Of the total 880 diverting vehicles, approximately 600 vehicles are expected to divert onto this primary diversion route. It was originally proposed to provide tolling in both directions of I-80; however, a subsequent decision was made to implement tolling only in the WB direction for this bridge. As a result, there are no diversions expected in the EB direction. Field observations, highway capacity analysis and crash analysis was conducted to identify areas of existing and anticipated concern. A stakeholder workshop was conducted on July 28, 2021 to gather additional information on potential issues along the diversion routes. Following this workshop, a matrix of issues was identified, and further analysis was conducted to determine the impact of toll diversion traffic, and to identify mitigation measures if appropriate.

Based upon this evaluation, the following improvements along the diversion route are proposed to accommodate the effects of tolling diversion:

- Install a traffic signal at the intersection of SR 93/WB Off Ramp (Exit 256), including realignment of the WB Off Ramp to intersect SR 93 directly opposite Old Berwick Road. Additionally, install a signal ahead sign on the southbound (SB) approach of SR 93, timed to flash RED when the traffic signal is to turn red for that approach. See **Figure 3** for more details.
- Construct a WB acceleration lane along SR 93 extending from the access to the Barletta Quarry for a distance of approximately 1,000 feet to allow for quarry trucks to accelerate before merging with SR 93 traffic. See **Figure 4** for more details.
- Review the overall signal coordination of traffic signals along US 11 within Berwick and provide updates/improvements.
- Overall review of directional signing to I-80 and truck restriction signage for the local roadways south of Nescopeck Borough.

The locations of these proposed traffic improvements are shown on **Figure 2 – Proposed Traffic Improvements**.

Additionally, a before/after study to evaluate actual toll diversion volumes and roadway performance was recommended and will be conducted to evaluate actual future volumes, including truck traffic, and compare it to the projections in this study, and, if appropriate, identify and evaluate additional mitigation measures.



**I-80 NESCOPECK BRIDGES REPLACEMENT PROJECT
PROPOSED TRAFFIC IMPROVEMENTS**



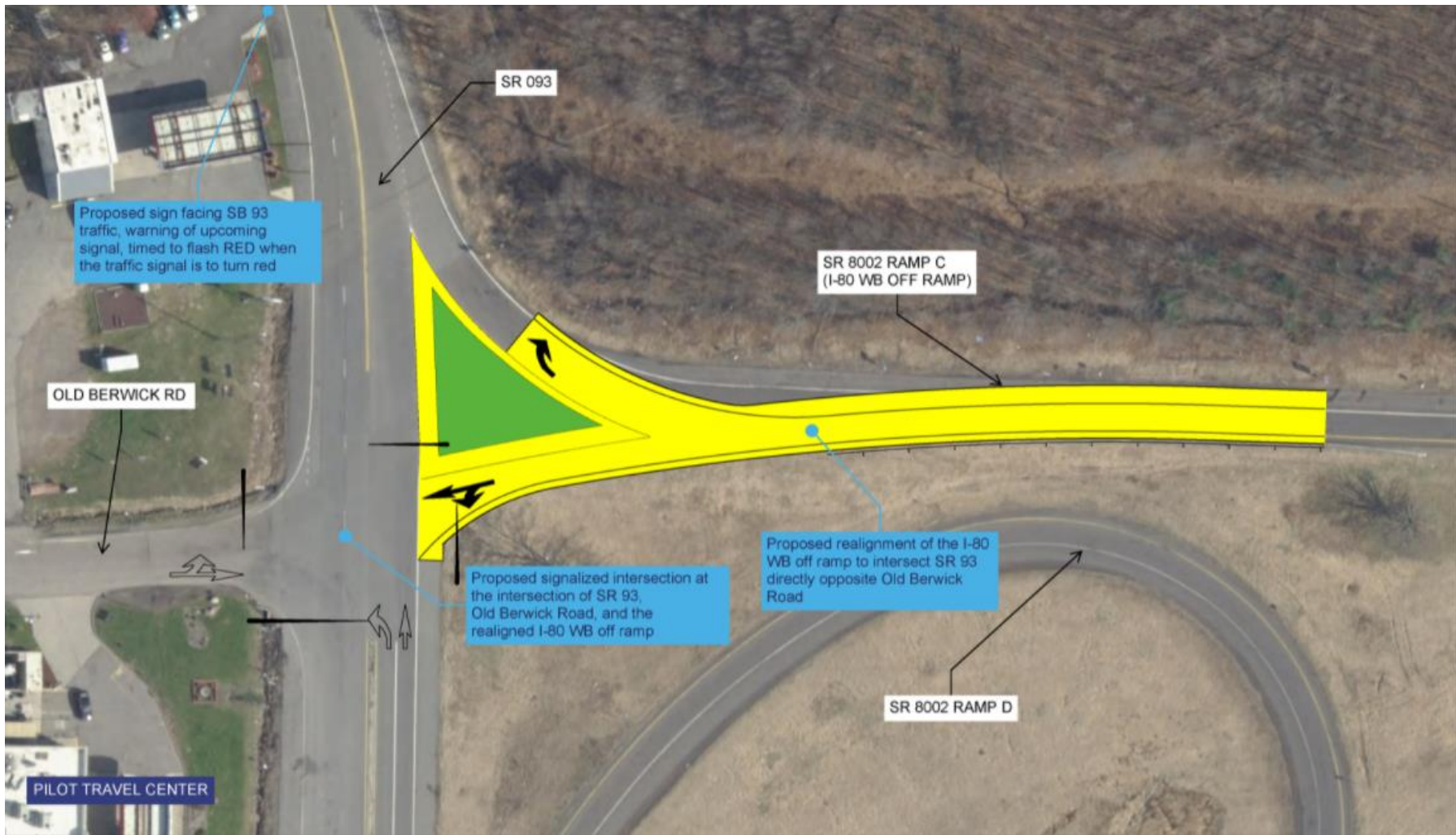
Of the four (4) proposed traffic improvements, two (2) involve traffic signage work within Commonwealth-owned existing legal ROW. It is anticipated that due to the limited scope of work, these two improvements will not have a “design footprint” (or limit of disturbances) with potential to impact environmental resources. These include the roadway improvements #3 and #4 as depicted in **Figure 2**.

The other two (2) proposed traffic improvements (#1 and #2 as depicted in Figure 2) would require some roadway geometry modifications; but they would be done within the existing Legal ROW and no Temporary Construction Easements (TCE) would be required. Conceptual plans for these two physical improvements are depicted below in **Figures 3 – Improvement #1 for I-80 WB Exit 256 Ramp Re-Alignment and Signalization with Old Berwick Road** and **Figure 4 – Improvement #2 for WB Truck Acceleration Lane Along SR 93 at Barletta Quarry**.

Based on conceptual design, it is anticipated that these improvements could be implemented within Commonwealth-owned existing legal ROW. The P3 development entity will be responsible for final design of the traffic improvements. If area is required outside of Commonwealth-owned existing legal ROW for construction of the traffic improvements, the P3 development entity is required to coordinate with PennDOT to determine necessary NEPA Reevaluation studies and documentation (Chapter 7, Environmental Commitments and Mitigation).

The I-80 Nescopeck Creek Bridges Diversion Route Traffic Evaluation report, February 2022 is included in the project technical files and is incorporated by reference to this EA.

In summary, as a result of the addition of tolling per the Major Bridge P3 Initiative, the I-80 Nescopeck Creek Bridges Project encompasses the bridge replacements, the tolling facility and associated infrastructure, and the diversion route improvements, as identified in the sections above.



**PROPOSED RAMP C REALIGNMENT
SR 093 & SR 8002 INTERSECTION
NESCOPEK TOWNSHIP, LUZERNE COUNTY**

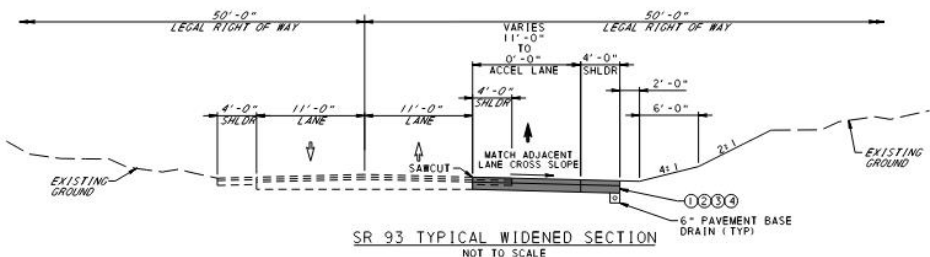
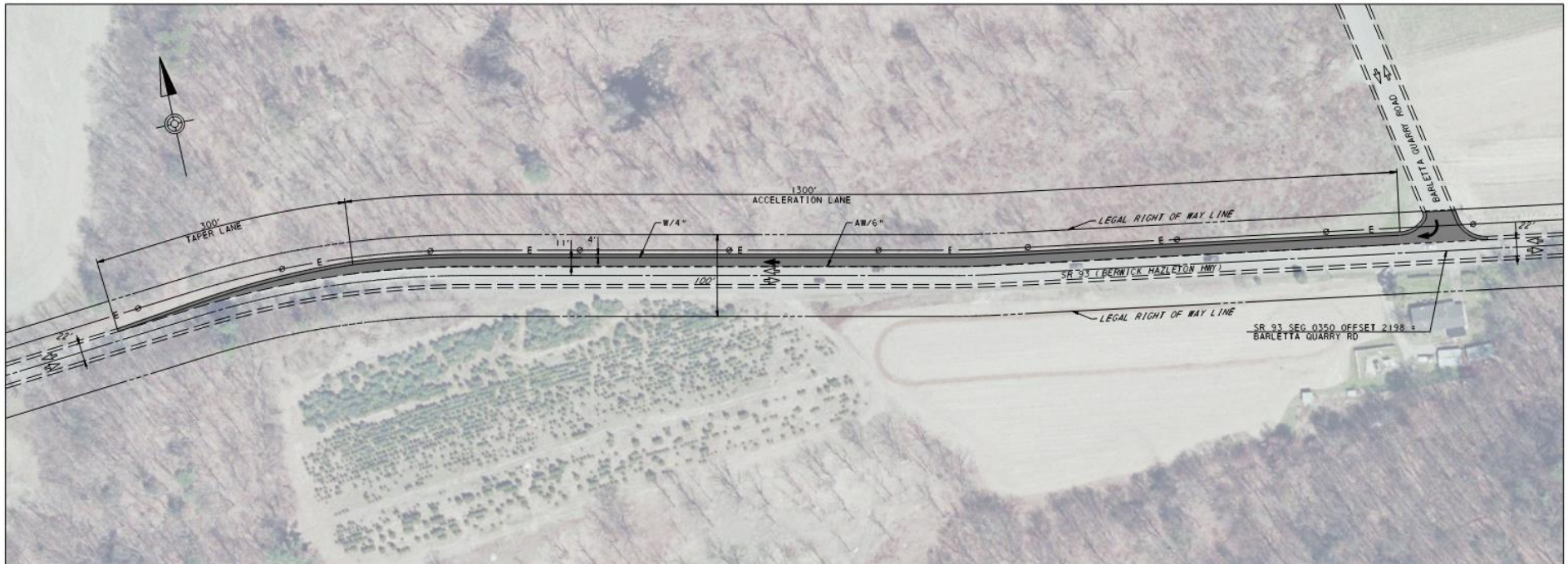
CONCEPTUAL PLAN
NESCOPEK BRIDGE PACKAGE

SCALE
0 50 100 FEET

DATE
NOVEMBER 2021

FIGURE
FIGURE

Figure 3 – Improvement #1 for I-80 WB Exit 256 Ramp Re-Alignment and Signalization with Old Berwick Road



- ① SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 645-22, 0.3 TO < 3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-H
 - ② SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 645-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX, 2 1/2" DEPTH
 - ③ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 645-22, 0.3 TO < 3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH
 - ④ SUBBASE 8" DEPTH (NO. 2A)
- NOTE: APPLY ASPHALT TACK COAT BETWEEN ALL ASPHALT PAVEMENT LAYERS

GENERAL NOTES:

CONSTRUCT PROJECT IN ACCORDANCE WITH PUBLICATION 408 DATED 2020 AND CONTRACT SPECIAL PROVISIONS.

ALL WORK IS TO BE CONFINED WITHIN THE EXISTING HIGHWAY RIGHT-OF-WAY AND/OR PROPERTY OF THE COMMONWEALTH OF PENNSYLVANIA

FURNISH, ERECT, PLACE AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES, AND MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THE DRAWINGS AND THE FOLLOWING:

SPECIAL PROVISIONS OF THE CONTRACT
 PUBLICATION 213, TEMPORARY TRAFFIC CONTROL GUIDELINES
 PA CODE, TITLE 67, CHAPTER 212, OFFICIAL TRAFFIC CONTROL DEVICES
 PENNDOT PUBLICATION 35, APPROVED CONSTRUCTION MATERIALS (BULLETIN 15)
 PENNDOT PUBLICATION 46, TRAFFIC ENGINEERING MANUAL
 PENNDOT PUBLICATION 408, LATEST EDITION
 PENNDOT PUBLICATION 111M, TRAFFIC CONTROL PAVEMENT MARKING AND SIGNING STANDARDS
 PENNDOT PUBLICATION 236, HANDBOOK OF APPROVED SIGNS
 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009

INSTALL ALL MARKING AND DELINEATORS IN ACCORDANCE WITH THE CURRENT PUBLICATION STANDARDS (PUB. 111M, TC-8600 SERIES)



**PROPOSED ACCELERATION LANE
 SR 93 (BERWICK HAZLETON HIGHWAY)
 NESCOPEK TOWNSHIP, LUZERNE COUNTY**

CONCEPTUAL PLAN
 NESCOPEK BRIDGE PACKAGE



DATE
 DECEMBER 2021

FIGURE
 FIGURE

Figure 4 - Improvement #2 for WB Truck Acceleration Lane Along SR 93 at Barletta Quarry

3.3 Impact Summary Table

**Table 3
Impact Summary Table**

Environmental Resource Category	No-Build Alternative¹	Proposed Action	Mitigation for Proposed Action
Aquatic Resources			
Streams, Rivers, & Watercourses	No Impact	Streams: TSF, MF, stocked trout 444 linear feet permanent impact 732 linear feet temporary impact	No work permitted in the stream from February 15 to June 1. Vitrified clay liner plates are to be installed to protect piers from corrosion. P3 development entity will complete final design of the project.
Wild & Scenic Rivers and Streams	Not Present	Not Present	None
Navigable Waterways	No Impact	Recreational Boating Waterway – kayak/canoeing: No permanent impacts to stream navigability. Temporary impacts during construction.	Stream will remain open for boaters per the Aids to Navigation (ATON) plan, to be implemented during construction.
Groundwater	Not Present	Not Present	None
Wetlands	No Impact	Wetlands: 0.049 acre permanent impact 0.118 acre temporary impact	To be determined in Final Design.
Floodplains	No Impact	No significant floodplain encroachment would occur.	None

Environmental Resource Category	No-Build Alternative¹	Proposed Action	Mitigation for Proposed Action
Soil Erosion and Sedimentation	No Impact	Erosion and Sediment (E&S) Control Plan will be implemented during construction.	Conceptual E&S and Stormwater Plans prepared. All disturbed areas will be stabilized upon completion of the project. Post Construction Stormwater Controls (PCSMs) will be evaluated in final design and included in the NPDES permit application, if required
Land Use			
Agricultural Resources	No Impact	No Impact	None
Vegetation	No Impact	Minor impacts to forest land and roadside vegetation.	Care will be taken not to transplant roots or seeds of noted invasive, non-native plants during earth moving operations. All disturbed areas will be restored and revegetated with non-invasive vegetation as part of construction.
Geologic Resources	Not Present	Not Present	None
Parks and Recreation Facilities	Not Present	Not Present	None
State Forest and Gamelands	Not Present	Not Present	None
Wilderness, Natural, & Wild Areas	Not Present	Not Present	None

Environmental Resource Category	No-Build Alternative¹	Proposed Action	Mitigation for Proposed Action
Hazardous or Residual Waste Sites	No Impact	Additional investigation recommended for one retail fueling station near the project.	The P3 development entity will conduct a Phase III Environmental Site Assessment (ESA).
Wildlife			
Wildlife Refuges & Critical Habitat	Not Present	Not Present	None
Threatened & Endangered Species	Not Present	Not Present	None
Cultural Resources			
Archaeological Resources	Not Present	Not Present	None
Historic Resources	Not Present	Not Present	None
Section 4(f) Resources	Not Present	Not Present	None
Air Quality and Noise			
Air Quality	No Impact	Exempt; no impact	None
Noise	No Impact	Type III Project; Noise analysis not required	None
Socioeconomic Areas			
Regional & Community Growth	No Impact	No Impact	None

Environmental Resource Category	No-Build Alternative¹	Proposed Action	Mitigation for Proposed Action
Public Facilities & Services	No Impact	Positive Impacts: Access for public facilities and services will be improved due to design improvements resulting from the project.	Proposed traffic improvements along the toll diversion route are intended to enhance the existing transportation system. Emergency services vehicles will be exempt from paying toll. Emergency responders when traveling to an incident in their own vehicles will be reimbursed for tolling.
Community Cohesion	No Impact	No impact	None
Right-of-Way Acquisitions	No Impact	No impact	None
Displacements	No Impact	No impact	None
Aesthetics	No Impact	No impact	None
Energy	Higher energy usage	Reduced energy usage	None
Cumulative Impacts	No Impact	No adverse cumulative effects	None
Environmental Justice	No Impact	No disproportionately high and adverse effects on low-income or minority populations have been identified.	PennDOT will implement toll-free bridge access for low-income persons and reassess program 5 years after completion of project.

Footnote:

¹ While the No-Build Alternative would not directly affect resources, should the bridge deteriorate to the point where it would have to be weight-posted, closed, or should it experience a partial collapse, there would be impacts to the resources below the bridge. A full or partial closure would have a profound effect on commerce reliant on I-80 and would detour vehicles onto the toll diversion route. With the No-Build Alternative, the traffic improvements proposed to enhance safety and mobility along the toll diversion route would not be completed.

4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

4.1 Aquatic Resources

	PRESENCE	IMPACTS
STREAMS, RIVERS & WATERCOURSES	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	
Intermittent (streams only)	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes
Perennial	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes
Wild trout streams	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Stocked trout streams	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes

Identify all streams and their classifications per Chapter 93 of 25 PA Code (e.g. CWF, WWF, HQ, EV)

Six streams were identified and delineated during the August 1 and 30, 2019 and the May 24, 2021, Aquatic Resources field investigations within the study area associated with the structure replacements. The streams are identified as streams S1-S6 and are described below:

- Stream 1 (S1) is an intermittent watercourse that is an unnamed tributary (UNT) to Nescopeck Creek that generally flows in a northeasterly direction in the northwest quadrant of the study area. This stream flows beneath the I-80 EB bridge and reaches its direct confluence with Stream 2 (S2) beneath the I-80 WB bridge. Stream S1 is classified as a Trout Stock Fishery (TSF) and Migratory Fishery (MF) stream in the Pennsylvania Department of Environmental Protection’s (PADEP), PA Code Title 25, Chapter 93 Water Quality Standards.
- Stream 2 (S2) is a perennial watercourse that is an oxbow channel of Nescopeck Creek, flowing underneath the I-80 bridges and continuing through the northeast quadrant of the study area before draining back into the main stream channel. Stream S2 is classified as a TSF and MF stream in the PADEP’s, PA Code Title 25, Chapter 93 Water Quality Standards.
- Stream 3 (S3) is a perennial watercourse known as Nescopeck Creek that generally flows in a northeasterly direction in the study area. Stream S3 is classified as a TSF and MF stream in the PADEP’s, PA Code Title 25, Chapter 93 Water Quality Standards.
- Stream 4 (S4) is a perennial watercourse that is an unnamed tributary (UNT) to Nescopeck Creek that generally flows in a northeasterly direction in the southwest quadrant of the study area. This stream reaches its confluence with Nescopeck Creek just west of the I-80 EB bridge. Stream S4 is classified as a TSF and MF stream in the PADEP’s, PA Code Title 25, Chapter 93 Water Quality Standards.
- Stream 5 (S5) is an intermittent watercourse that is an UNT to Nescopeck Creek that generally flows in a northwesterly direction in the southeast quadrant of the study area. This stream is situated in a man-made roadside drainage that was created when rock was blasted to allow for the original

Supporting documentation for Chapter 4.1 includes:

- *I-80 Nescopeck Creek Bridges Conceptual Aids to Navigation Plan* (December 2021)
- *I-80 Nescopeck Creek Bridge Stormwater Coordination Meeting Minutes* (May 2021)
- *I-80 Nescopeck Creek Bridges Wetland Identification & Delineation Report* (June 2021)
- *I-80 Nescopeck Creek Bridges DEP Pre-Application Meeting Minutes* (December 2021)
- *I-80 Nescopeck Creek Bridges Revised Hydrologic & Hydraulic Report* (February 2022)

construction of I-80. Although the channel does convey roadway runoff, the primary hydrology in S5 is supplied by groundwater that discharges from the adjacent rock face at several locations alongside the stream. Flow from S5 enters stormwater inlets and appears to be piped beneath I-80 WB and EB before daylighting outside of the study area. Stream S5 is classified as a TSF and MF stream in the PADEP's, PA Code Title 25, Chapter 93 Water Quality Standards.

- Stream 6 (S6) is a perennial watercourse known as Black Creek that flows in a northeasterly direction in the northwest quadrant of the study area, where it discharges into Nescopeck Creek. Black Creek (S6) is listed as a Cold Water Fishery (CWF) and MF in the PADEP's, PA Code Title 25, Chapter 93 Water Quality Standards.

According to the Pennsylvania Fish and Boat Commission (PFBC), the section of Nescopeck Creek (Stream S3) in the project vicinity is listed as Approved Trout Waters and is actively stocked with trout. No streams classified as natural trout reproducing streams or Class A wild trout streams occur within the study area, and no natural trout reproducing streams are located downstream of the study area. Based on the active trout stocking, an in-stream work restriction period of February 15 to June 1 will be required for this project (based on PFBC new Time-of-Year Restrictions issued in January 2022).

In light of the ruling on *Pascua Yaqui Tribe vs. U.S. Environmental Protection Agency*, the U.S. Army Corps of Engineers (USACE) has halted implementation of the Navigable Waters Protection Rule and is defining "waters of the United States" (WUS) consistent with the pre-2015 regulatory regime until a new rule is issued. Because all of the identified streams (S1-S6) are either Relatively Permanent Waters (RPW) tributaries to a Traditional Navigable Waters (TNW, (Susquehanna River)), or have surface water connections to these tributaries, they would all be federally regulated as WUS under the pre-2015 WUS rules and regulations. In addition, all six streams would also be considered jurisdictional watercourses by the PADEP.

As part of the subsequent addition of the tolling action, an additional Three streams were identified as part of the expanded Project Study Area (PSA) for the Tolling Action. Field investigations were conducted on May 19, 2021, and June 16, 2021. The streams are identified as Waters W1-1A and 2 in the report and are described below:

- Waters 1 (W1) is an intermittent watercourse that is an unnamed tributary (UNT) to Nescopeck Creek. W1 flows north to southwest through the project study area. The stream originates from outside of the project study area under the Old Berwick Road roadway through a 24-inch corrugated metal pipe and is located to the west of the I-80 along the SR 93 (Berwick Hazleton Highway) roadway.
- Waters 1A (W1A), also an intermittent watercourse, is located to the west of W1 and flows west to east through the project study area. The stream originates from a 12-inch plastic pipe which leads under the "Pilot" property, located to the west. Both streams are classified as CWF and as MF within the project study area, according to the Chapter 93 Water Quality Standards.
- Waters 2 (W2) is an UNT to Nescopeck Creek that is located to the west of I-80 and flows northeast to southwest through the project study area. The stream is classified as CWF and as MF within the project study area, according to the Chapter 93 Water Quality Standards.

As part of the proposed roadway improvements on SR 93 by the Barletta Quarry, an additional field investigation occurred on November 30, 2021. At the time of the survey, different roadway improvement alternatives were considered such that a large swath of SR 93 (about 1.6 miles) was conservatively surveyed. A total of thirteen

(13) potential watercourses were identified within the expanded Project Study Area for the proposed roadway improvements at the Barletta Quarry. None of the identified watercourses (Stream KLM1 – KLM13) are located within the limits of disturbance associated with the proposed diversion route improvements (WB Truck Acceleration Lane), and therefore are not discussed in detail in this EA. More detailed information on these streams is provided in the project technical files.

Linear feet of Streams permanently impacted: 444

Describe Any Permanent Impacts

Per the current preliminary design of the bridge replacements, a total of 444 linear feet of Nescopeck Creek (Stream S3) and two tributaries to Nescopeck Creek (Streams S1 and S2) will be permanently impacted due to bridge reconstruction activities and placement of the piers. No impacts to streams are anticipated as a result of the tolling or associated actions.

Describe Any Temporary Impacts

Per the current preliminary design of the bridge replacements, a total 732 linear feet of streams will be temporarily disturbed for placement of the temporary partial width causeway and associated stream diversion activities necessary to construct the piers. This includes impacts to three tributaries to Nescopeck Creek (S1, S2, and S4), as well as impacts to Nescopeck Creek (S3). No temporary impacts to streams are anticipated as a result of the tolling or associated actions.

Is mitigation incorporated? No Yes

Mitigation Remarks

Nescopeck Creek is listed as Approved Trout Waters and is actively stocked with trout; therefore, in-stream work will be prohibited from February 15 to June 1. There is evidence of Acid Mine Drainage in Nescopeck Creek and vitrified clay liner plates are on the existing piers. Vitrified clay liner plates are to be installed on the proposed piers to help protect the piers from early corrosion as a result of low stream pH due to acid mine drainage.

The P3 development entity will complete the final design of the project, will complete the permit(s) and plans as needed, and will determine the appropriate mitigation measures in coordination with PennDOT, PA DEP, and the USACE.

	PRESENCE	IMPACTS
FEDERAL WILD & SCENIC RIVERS & STREAMS	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

Remarks

A review of the National Wild and Scenic Rivers System and eMapPA did not identify any Federal Wild or Scenic Rivers or Streams in the project area.

	PRESENCE	IMPACTS
STATE SCENIC RIVERS & STREAMS	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

Remarks

A review of the National Wild and Scenic Rivers System and eMapPA did not identify any State Scenic Rivers or Streams in the project area.

	PRESENCE	IMPACTS
NAVIGABLE WATERWAYS	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	
Coast Guard Navigable	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
PFBC Water Trail	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Recreational Boating Waterway	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes

Documentation

- PFBC ATON Plan
- Coast Guard Coordination

Describe Any Permanent Impacts

No permanent impacts to the navigability of the stream are anticipated as a result of the construction of the proposed structures. Temporary impacts are anticipated during construction and an ATON plan is needed to help navigate boaters through the area during construction.

Remarks

A review of the PFBC Water Trails mapping did not identify any water trails within the project area; however, Nescopeck Creek is navigable according to the Keystone Canoeing Guidebook, as such, Nescopeck Creek will remain open to canoe/kayak traffic during construction and an ATON plan is required. The Conceptual ATON is in the project technical files; however, the P3 development entity will complete the Final Design, adjust the ATON plan as needed to fit their proposed means and methods of construction and construction phasing, and submit and obtain the required approval from PFBC.

	PRESENCE	IMPACTS
OTHER SURFACE WATERS	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

Remarks

Based on the results of the aquatic resources fieldwork, no other surface waters are present within the project area.

	PRESENCE	IMPACTS
GROUNDWATER RESOURCES	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	

Remarks

A review of eMapPA for PAGWIS well water inventory identified one residential groundwater well southwest of and outside the limits of the proposed bridge replacements. Impacts to wells are not anticipated as a result of this project, all work associated with the bridge replacements and tolling will occur within Commonwealth-owned existing-ROW.

	PRESENCE	IMPACTS
WETLANDS	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	
Open Water	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Vegetated		
Emergent	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes
Scrub Shrub	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Forested	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Exceptional Value	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

Documentation

- Data Forms
- Wetland Identification and Delineation Report
- Conceptual Mitigation Plan
- 404 (b)(1) Alternative Analysis
- Jurisdictional Determination Functional
- Assessment Analysis

Methodology

Wetlands were delineated using a combination of secondary data analysis and field verification. Fieldwork was conducted in accordance with the U.S. Army Corps of Engineers Wetland Delineation Manual (1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (2012), and the PennDOT Wetland Resources Handbook (Publication No. 325, 2015).

Number of Wetlands permanently impacted: 1

Acreage of Wetlands permanently impacted: 0.049

Describe Any Permanent Impacts

Permanent impacts to wetlands are anticipated due to bridge reconstruction activities and placement of the piers. Per the current preliminary design of the bridge and assumptions based on an estimated footing size, impacts to wetlands would total 0.049 acres (2,159 SF) to one project area wetland; Wetland W1, a Palustrine Emergent (PEM) wetland located in the southwest and southeast quadrants of the study area. Impacts to wetlands will need to be re-evaluated by the P3 design entity as they complete the final design details. No impacts to wetlands are anticipated as a result of the tolling or associated actions.

Describe Any Temporary Impacts

Per the current preliminary design of the bridge, a total of 0.118 acres (5,123 Sq. ft.) of temporary impacts to two project area wetlands is anticipated during construction. These impacts include 390 SF/0.009 acres of temporary impacts to Wetland W1, a PEM located in the southwest and southeast quadrants of the study area, and 4,733 SF/0.109 acre of temporary impacts Wetland W3, a Palustrine forested (PFO) wetland located in the southwest quadrant of the study area. All areas of temporarily impacted wetlands will be returned to original condition and revegetated per any permit conditions. Temporary impacts to wetlands will need to be re-evaluated by the P3 design entity as they complete the final design details. No temporary impacts to wetlands are anticipated as a result of the tolling or associated actions.

Is mitigation incorporated? No Yes

Mitigation Remarks

Mitigation is to be determined for this project. The P3 development entity will be responsible for final design of the project and will ultimately determine the impacts to wetlands associated with the replacement of the structures, permitting requirements, and mitigation measures, in coordination with PennDOT, PA DEP, and the USACE.

Remarks

Three palustrine wetlands were identified and delineated during the August 1 and 30, 2019 and the May 24, 2021 Aquatic Resources field investigations within the study area associated with the structure replacements. The wetlands are identified as wetlands W1 – W3 and are described below:

- Wetland 1 (W1) is a PEM wetland located in the southwest and southeast quadrants of the study area. This low-lying wetland is situated in a ravine located between Nescopeck Creek and the hillslope beneath the southern approach of the I-80 bridges.
- Wetland 2 (W2) is a PEM wetland located in the southeast quadrant of the study area. This wetland is situated in a man-made roadside drainage that was created when rock was blasted to allow for the original construction of I-80.
- Wetland 3 (W3) is a PFO wetland located in the southwest quadrant of the study area and is located in the floodplain of Nescopeck Creek that drains into Stream 4 at its northern end.

In light of the ruling on Pascua Yaqui Tribe vs. U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers (USACE) has halted implementation of the Navigable Waters Protection Rule and is defining “waters of the United States” (WUS) consistent with the pre- 2015 regulatory regime until a new rule is issued. Because W1 and W3 have surface water connections to a RPW tributary (S3, Nescopeck Creek) of a TNW (Susquehanna River), these wetlands would be federally regulated as WUS under the pre-2015 WUS rules and regulations. W2 is an isolated wetland that does not feature a direct connection to any TNWs or RPW tributaries thereof; thus, W2 would not be federally regulated as a WUS under the pre-2015 WUS rules and regulations. All three wetlands (W1-W3) would be considered jurisdictional wetlands by the PADEP.

One wetland was identified and delineated during the May 19, 2021 and June 16, 2021 field investigations within the study area associated with the Tolling Action. The wetland was identified as wetlands W4 and is described as a PEM wetland located along the I-80 WB roadway W4 captures runoff from the I-80 roadway.

Additional field investigations occurred on November 30, 2021 as part of the proposed roadway improvements on SR 93 by the Barletta Quarry. At the time of the survey, different roadway improvement alternatives were considered such that a large swath of SR 93 (about 1.6 miles) was conservatively surveyed. As a result, a total of four (4) potential wetlands were identified within the expanded Project Study Area, however, none of the wetlands identified are within the limits of disturbance associated with the proposed diversion route improvements. The report is available in the project technical files.

Executive Order 11990 Compliance

Compliance requires the determination that there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

- Options/design modifications were investigated to avoid impacts to wetlands:** Yes No N/A
- There are no practicable alternatives to construction within the wetlands:** Yes No N/A
- Alternative chosen (proposed project) includes all practicable measures to minimize harm to wetlands:** Yes No N/A

	PRESENCE	IMPACTS
COASTAL ZONE	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

Remarks

There are no coastal zones located within PennDOT District 4-0.

	PRESENCE	IMPACTS
FLOODPLAINS	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

No significant floodplain encroachment would occur.

Describe Any Permanent and Temporary Impacts

Based on the Hydrology and Hydraulics (H&H) analysis conducted for the project, the proposed bridges have no increase to the 100-year water surface elevation. The proposed bridges have over 25 feet of freeboard from low chord to 100-year WSE. Increases to the 2-year and 10-year storms remain within the overall Nescopeck Creek channel. Increases to the 100-year storm under temporary conditions do not create any additional impacts.

Based on the Hydrology and Hydraulics (H&H) analysis conducted for the project, the project will have no significant floodplain encroachment, as defined in 23 CFR Part 650, Subpart A, Section 650.105(q), since the project will not: (1) Have a significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route, (2) Have a significant risk, (3) Have a significant adverse impact on natural and beneficial flood plain values. The H&H report is in the project technical files.

Is mitigation incorporated? No Yes

Remarks

The project area is located within a detailed FEMA study area.

SOIL EROSION & SEDIMENTATION

Are there activities that could cause erosion or sedimentation and would require E&S Controls?

Yes No N/A

Documentation

- Coordination w/County Conservation
- District E&S Control Plan
- NPDES Stormwater Construction Permit

Is mitigation incorporated? No Yes

Remarks

The design team has prepared Conceptual E&S and Stormwater Plans, but this design team will not be submitting or obtaining the required permits or coordination. The P3 development entity will complete the Final Design, update the permit and plans as needed, and submit and obtain the required Permits. All disturbed areas will be stabilized upon completion of the project. PCSMs will be evaluated in final design and included in the NPDES permit application, if required.

4.2 Land

	PRESENCE	IMPACTS
AGRICULTURAL RESOURCES	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	
Productive Agricultural Land	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Agricultural Security Areas	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Prime Agricultural Land	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Agricultural Conservation Easements	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

Farmland Enrolled in Preferential

- Tax Assessments Not Present Present No Yes
- Agricultural Zoning Not Present Present No Yes
- Soil Capability Classes I, II, III, IV Not Present Present No Yes
- Prime or Unique Soil Not Present Present No Yes
- Statewide or Locally Important Soils Not Present Present No Yes

Describe Any Permanent and Temporary Impacts

No impacts to agricultural resources will occur as a result of this project.

Is mitigation incorporated? No Yes

Remarks

Per the NRCS Web Soil Survey website, Meckesville channery silt loam, 3 to 8 percent slopes (MeB) soils are classified as Prime farmland and are identified as soil capability class III, and Meckesville channery silt loam, 8 to 15 percent slopes (MeC) soils are classified as farmland of statewide importance and are identified as soil capability class IV. While these agricultural soils exist within the project area, no productive agricultural land is present within the project area. Also, all work will occur along the interstate system within the Commonwealth-owned ROW and the majority of the work will occur within previously disturbed cut and fill areas. Therefore, no impacts to agricultural land will occur as a result of this project.

	PRESENCE	IMPACTS
VEGETATION	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	
Landscaped	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Agricultural	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Forest Land	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes
Rangeland	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes
Other (describe in remarks)	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes

Describe Any Permanent and Temporary Impacts

Typical roadside vegetation (including grasses, trees, and shrubs) and wooded areas can be found within the project area and will be impacted. All work associated with the bridge replacements and tolling will occur within the Commonwealth-owned ROW.

Invasive Non-Native Plants are Present

Mitigation:

Are measures being taken to minimize movement of invasive plant parts (roots, tubers, seeds)? Yes No

Will native plants be used in project landscaping or mitigation? Yes No

Other? Yes No

Describe Mitigation

In accordance with PennDOT’s invasive species guidance (Publication 756, 2014), care will be taken not to transplant roots or seeds of noted invasive, non-native plants during earth moving operations. Re-vegetation of impacted areas will be implemented through the E&S plan. Prior to completion of construction, all remaining

areas of earth disturbance will be restored by re-seeding with standard PennDOT seed formulas. These seed formulas may contain native plant species; but per Executive Order 13112, will avoid those plant species that are listed on the Noxious Weed Control List.

	PRESENCE	IMPACTS
GEOLOGIC RESOURCES	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	

Remarks

A review of the Pennsylvania Department of Conservation & Natural Resources (PA DCNR) Topographic and Geological Survey mapping indicated that there are no unique geologic resources within or in close proximity of the project limits.

	PRESENCE	IMPACTS
PARKS & RECREATION FACILITIES	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	

Remarks

Based on project mapping and field views, no parks or recreation facilities are present within the project area.

	PRESENCE	IMPACTS
FOREST & GAMELANDS	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	

Remarks

A review of the PA State Gamelands Mapping Center did not identify any Federal or State Forest or Gamelands.

	PRESENCE	IMPACTS
WILDERNESS, NATURAL & WILD AREAS	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	

Remarks

A review of Wilderness Connect did not identify any Wilderness or Natural and Wild Areas.

	PRESENCE	IMPACTS
NATIONAL NATURAL LANDMARKS	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	<input checked="" type="radio"/> No <input type="radio"/> Yes

Remarks

A review of the National Park Service website did not identify any National Natural Landmarks.

	PRESENCE	IMPACTS
HAZARDOUS OR RESIDUAL WASTE SITES	<input type="radio"/> Not Present <input checked="" type="radio"/> Present	<input type="radio"/> No <input checked="" type="radio"/> Yes

Documentation

- Phase I
- Phase II
- Phase III
- Other
- No Documentation Required

Describe Any Permanent and Temporary Impacts

No permanent impacts are expected at this time as the proposed re-alignment of I-80 WB Exit Ramp with SR 93 and Old Berwick Road (which is a proposed roadway improvement to the tolling diversion route) should have limited ground excavations, but more investigations should be done by the P3 development entity at time of final design.

Is remediation/mitigation incorporated? No Yes Unknown at this time

Describe Remediation/Mitigation

The P3 development entity will conduct a Phase III ESA for the proposed signage and I-80 WB off-ramp realignment at the intersection of SR 93 and Old Berwick Road because of one Area of Concern (AOC) at the Pilot Travel Center site.

Supporting documentation for Chapter 4.2 includes:

- *Phase I Environmental Site Assessment Report - S.R. 0080, Section 352 Open Road Cashless Tolling Facility, Associated Electrical and Communication Services, and Signing Improvements Project (January 2022)*
- *Environmental Due Diligence (EDD) Phase I Visual Inspection Form – ECMS Project # 31854 (November 2021)*

Remarks

The area within the limits-of-disturbance (LOD) of the structure replacements were inspected during a field investigation on May 24, 2021, with no signs of hazardous releases (e.g., stressed vegetation, stained soils, detectable odors) and no indications of historic fill observed. An EDD form was completed for this portion of the project and can be found in the project technical files.

As part of the tolling action, a Phase I ESA was completed on January 10, 2022 for the entire PSA (including both the bridge replacement project and the tolling project). This Phase I ESA included record reviews, site reconnaissance, compilation of data, data evaluation, and recommendations in accordance with the scope and limitations of the PennDOT Publication 281. A regulatory records file review from the Northcentral Regional Department of Environmental Protection (DEP) Office in Williamsport and the Northeast Regional DEP Office in Wilkes-Barre was conducted in September 2021. Field reconnaissance also was conducted to identify existing conditions and land uses at proposed signage locations on May 19, 2021.

- This report includes a summary of the site reconnaissance completed on May 19, 2021, a review of environmental databases and a review of historical data sources. Along I-80 mainline, the Phase I ESA did not identify any waste sites that have any AOCs which would require further investigation beyond this Phase I ESA, based on the proposed engineering available at the time of this Report.
- However, one (1) waste site with AOCs that which will require further investigation was identified. It is the Pilot Travel Center site (labeled as WS-11 in the Phase I ESA) that is located at 1114 SR 93 at the intersection with Old Berwick Road in Drums, PA. The waste site is currently a gasoline fueling station and was historically a gasoline fueling station since the 1990s according to historic aerial maps and DEP records.
- EDR and DEP records indicated seven (7) Underground Storage Tanks (USTs) currently operated at the facility.

Previous contamination was encountered on the Pilot Travel Center site, and extensive site characterization was conducted. In 2015, the DEP concluded that the site met soil and groundwater Statewide Health Standards. However, additional releases have occurred on the site since the end of site characterization activities in 2015, including releases within or adjacent to the roadway. Additionally, existing USTs have had recent violations of DEP regulations. Therefore, a Phase III ESA will be conducted by the P3 development entity at the location of the

proposed signage and I-80 WB off-ramp realignment. Analytical parameters should include the DEP shortlist for unleaded gasoline and diesel fuel. In accordance with PennDOT Publication 281, a Field Sampling Plan will be developed for review and approval by PennDOT prior to the initiation of field activities.

4.3 Wildlife

	PRESENCE	IMPACTS
WILDLIFE & HABITAT	<input checked="" type="radio"/> Not Present <input type="radio"/> Present	

Remarks

According to the US Fish and Wildlife Service National Wildlife Refuge System, no sanctuaries, refuges, or resources meriting compensation are located within the project area.

	PRESENCE	IMPACTS
THREATENED & ENDANGERED PLANTS & ANIMALS	<input checked="" type="radio"/> Not Present <input type="radio"/> Present <input type="radio"/> No Coordination Needed	<input checked="" type="checkbox"/> No Potential Impacts <input type="checkbox"/> Potential Impacts with Avoidance Measures <input type="checkbox"/> Potential Impacts with Conservation Measures <input type="checkbox"/> Potential Impacts

Documentation

PNDI ER Receipt

The Pennsylvania Natural Diversity Inventory (PNDI) environmental review was obtained for the tolling portion of the project on December 31, 2021 and for the bridge replacement portion of the project on January 6, 2021. The PNDI reviews indicated no known impacts to threatened, endangered, and/or special concern species within the project area. Therefore, no further coordination with threatened and endangered jurisdictional agencies is required. PNDI receipts are included in Appendix D.

For the proposed SR 93 roadway improvements by the Barletta Quarry, another PNDI review indicated no known impacts to threatened, endangered, and/or special concern species within the project area. PNDI receipts are included in Appendix D.

4.4 Cultural Resources

Were Cultural Resource Professionals (CRPs) needed for project scoping? Yes No

Was a Project Early Notification / Scoping Results Form completed? Yes No

Is the project exempted from review by the District Designee or CRP as per Appendix C of the Statewide Section 106 Programmatic Agreement? Yes No

Exempt Project Activity(s): A.1.a, B.1

Individual Making Exemption: Kevin Mock and Heather Gerling, District 4-0 CRPs

Date of Exemption: 11/29/21

Exemption Comments: Project is exempt, no ROW is required. All work will occur within the Commonwealth-owned ROW.

Is the project exempted from review by the District Designee or CRP as per Stipulation III of the Emergency Relief Projects Programmatic Agreement (2005)? Yes No

PRESENCE

	Not Present	Potentially Eligible Resource Present	Eligible Resource Present	Listed Resource Present
CULTURAL RESOURCES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Archaeology				
Pre-Contact:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contact Native American:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historic:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Above-Ground Historic Properties				
Structure/Building:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Describe Any Permanent and Temporary Impacts

None

Are mitigation and/or standard treatments required? No Yes

Remarks, Footnotes, Supplemental Data

PennDOT has determined the proposed undertaking (the bridge replacement and tolling action on I-80 mainline and the roadway improvements along SR 93 diversion route) is exempt from further review under Appendix C of the Statewide Section 106 Programmatic Agreement. Section 106 documents are posted to Project Path at <https://path.penndot.gov/ProjectDetails.aspx?ProjectID=59796> and included in the project technical files.

Supporting documentation for Chapter 4.4 includes:

- Section 106 Finding Summary – Project Path (March 2022)

4.5 Section 4(f) Resources

PRESENCE

USE

SECTION 4(f) RESOURCES

Not Present Present

No Yes

Remarks

Based on project mapping and field reconnaissance, no Section 4(f) resources are present within the project area.

4.6 Air Quality and Noise

AIR QUALITY

Is the project exempt from regional ozone conformity analysis and a CO, PM10 & PM2.5 Hot-Spot analysis? Yes No

Mobile Source Air Toxics (MSATs)

Is the project exempt from an analysis for MSATs based on Pub #321? Yes No

Remarks

Per PennDOT Publication 321, Projects with No Meaningful Potential MSATs Effects include: other projects with no meaningful impacts on traffic volume or vehicle mix. Because this project does not impact the traffic volume or composition, no MSATs analysis or documentation is required for the project. Temporary impacts will occur as a result of construction.

There are no changes to the existing use of the structure or roadway. The cashless tolling facility will not require drivers to stop or slow to pay a toll at the tolling gantry. The tolling system will record vehicles as they pass under the gantry sensor. No permanent impacts will occur.

NOISE

Is the project a:

- A. Type I Project? Yes No
B. Type II Project? Yes No
C. Type III Project? Yes No

Supporting documentation for Chapter 4.6 includes:

- *I-80 Nescopeck Creek Toll Diversion Noise Analysis Report (January 2022)*

The project meets the criteria for a Type III project established in 23 CFR 772. Therefore, the project requires no analysis for highway traffic noise impacts. Type III projects do not involve added capacity, construction of new through lanes or auxiliary lanes, changes in the horizontal or vertical alignment of the roadway or exposure of noise sensitive land uses to a new or existing highway noise source.

PennDOT acknowledges that a noise analysis is required if changes to the proposed project result in reclassification to a Type I project.

Noise Remarks

In accordance with the Federal Noise regulations in 23 CFR 772 and PennDOT Publication #24, this project is a Type III noise project, and therefore, noise mitigation is not required and is not eligible for federal funding. As a result of proposed tolling, traffic studies suggest that portions of the local traveling public would seek alternate travel routes to reach destinations in order to avoid toll facilities. In response to the unusual circumstance of likely increases in diversion route traffic volumes due to traffic diversion, PennDOT and FHWA agreed to perform a qualitative assessment of noise to inform the public of the potential effects. The analysis included modeling of existing (2023) and future (2040) conditions using the FHWA Traffic Noise Model (TNM), version 2.5. Noise modeling was performed to predict noise levels through the corridor under worst-case, peak-hour traffic associated with existing (no-toll), future no-toll, and future toll conditions. A total of 1,192 noise sensitive land uses were identified within a 500-foot buffer on either side of the diversion route roadways, through the length of the corridor. Noise modeling of peak-hour, worst-case noise levels on the local roadway network indicates that traffic noise levels are anticipated to exceed PennDOT/FHWA Noise Abatement Criteria (NAC) at 232 Category B, C, and E receptors in the existing condition. In the future no-toll condition, those same 232 receptors

are anticipated to exceed the NAC. In the future toll condition, 233 receptors are anticipated to exceed the NAC. Differences in traffic noise levels between the future no-toll and future toll conditions are predicted to be no greater than 1 dBA.

The I-80 Nescopeck Toll Diversion Noise Analysis Report, January 2022, is included in the project technical files and incorporated by reference to this EA.

4.7 Socioeconomic Areas

REGIONAL & COMMUNITY GROWTH

Will the project induce impacts (positive and negative) on planned growth, land use, or development patterns for the area? Yes No

Is the project consistent with planned growth? Yes No

Basis of this determination:

The project maintains the existing travel corridor. The project is listed on the Interstate Transportation Improvement Program (TIP) program years 2021, 2022, 2023, 2024, and 2nd 4 years.

Will the project induce secondary growth? Yes No

PUBLIC FACILITIES & SERVICES

Will the project induce negative impacts on health and educational facilities; public utilities; fire, police, and emergency services; civil defense; religious institutions; or public transportation? Yes No

Emergency medical services (EMS) representatives attended the traffic diversion workshop. EMS dispatchers are accustomed to assigning response teams based on current roadway conditions and other factors. Traffic modeling projects that approximately 3% of traffic will divert and that the primary diversion route is capable of absorbing the additional traffic. Improvements proposed along the diversion route would also mitigate for increased traffic due to diversion. Emergency response vehicles, such as ambulances and fire trucks, will be exempt from paying the toll. Emergency responders traveling to an incident in their own vehicles will be reimbursed for tolling.

Does the project incorporate bicycle or pedestrian facilities into the overall design or operations (including construction)? Yes No

No bike or pedestrian facilities occur within the interstate system. In addition, increased traffic diverting to avoid the tolls is not anticipated to interfere or impact the safety or mobility of bicyclists and pedestrians along these routes. The I-80 Nescopeck Creek Bridges Diversion Route Traffic Evaluation report, February 2022, is included in the project technical files and is incorporated by reference to this EA.

Will the project have a positive impact to the public facilities and services listed above? Yes No

The project upgrades the existing transportation system providing current design standards.

COMMUNITY COHESION

Will the project induce impacts to community cohesion? Yes No

Will the project induce impacts to the local tax base or property values?

Yes No

ENVIRONMENTAL JUSTICE (see Chapter 6 of this EA)

RIGHT-OF-WAY ACQUISITIONS OR DISPLACEMENTS OF PEOPLE, BUSINESSES OR FARMS

How many parcels require right-of-way acquisition, either partial or total? None

Describe the extent and locations of acquisitions. Indicate for each acquisition whether it is temporary or permanent. None

Will the project require the relocation of people, businesses, or farms? Yes No

Will the project induce impacts to economic activity, including employment gains and losses? Yes No

MAINTENANCE AND OPERATING COSTS OF THE PROJECT AND RELATED FACILITIES

Will the project induce increases of operating or maintenance costs? Yes No

AESTHETIC AND OTHER VALUES

Will the project be visually intrusive to the surrounding environment? Yes No

Will the project include "multiple use" opportunities? Yes No

Will the project involve "joint development" activities? Yes No

4.8 Energy

Energy usage is generally a function of vehicle miles traveled (VMT) (volume x distance traveled), speed, vehicle mix, and congestion. Vehicles consume greater amounts of energy in congested, stop and go, and idling conditions. Additional energy use is associated with lighting, and operations and maintenance activities. Indirect energy use can be attributable to out-of-direction travel associated with toll diversion or detours for incidents, bridge inspections, maintenance, and repairs. A Transportation Research Board study found that traffic congestion typically led to an increase of fuel consumption on the order of 80 percent, and a study by Massachusetts Institute of Technology (MIT) indicates that for congested traffic conditions, fuel consumption is up to 3.5 times higher than in free-flowing traffic.

Absent traffic incidents, construction, or closing of lanes for maintenance activities and repairs, the interstate is typically free flowing and relatively energy-efficient.

Under the no build alternative, more frequent bridge inspections and more frequent maintenance and repairs would result in lane closures and associated detours and congested conditions leading to higher energy expenditures. Should the bridge have to be weight-posted or closed, the associated detours would result in longer travel routes, congestion, and higher expenditures of energy.

The build alternative would require expenditures of energy for the construction of the project but would result in a new bridge requiring less frequent inspections and maintenance/repairs. The cashless tolling facility will record vehicles as they pass under the gantry sensor and will not require drivers to stop or slow to pay a toll, and therefore would not result in increased energy expenditure. Proposed tolls assessed on the bridge would cause some traffic to divert, which would increase the VMT for those diverting drivers and increase energy use.

However, traffic modeling conducted for the bridge project predicts that approximately 3% of traffic is anticipated to divert, a relatively small percentage of the overall traffic.

4.9 Cumulative Effects

Cumulative effects include “the proposed project’s direct and indirect effects in combination with the effects due to past, present, and reasonably foreseeable future activities or actions of Federal, non-federal, public, and private entities” (PennDOT 2008). This analysis was conducted in accordance with PennDOT Publication 640 *Indirect and Cumulative Effects (ICE) Desk Reference* (PennDOT 2008). No significant cumulative effects resulting from this project together with past, present, and reasonably foreseeable future actions were identified.

The first step in performing the cumulative effects analysis is to identify which resources to consider in the analysis. The no-build alternative would not contribute to cumulative effects and is not discussed. Cumulative effects are considered only for resources with a direct or indirect effect from the I-80 Nescopeck Creek Bridges Project. Resources not evaluated within this EA are not included in this cumulative effects analysis because they are not present. Similarly, resources that are present, but not affected either directly or indirectly by the proposed project, are also not included in the cumulative effects analysis.

Because of the potential for direct or indirect effects that could contribute to cumulative impacts, the following resources are evaluated: streams, rivers, and watercourses; navigation; wetlands; vegetation; environmental justice; and indirect traffic impacts.

4.9.1. Boundaries and Time Frame

Cumulative effects are considered within geographic boundaries that provide context to help understand the health of the resource. The following summarizes the areas used in assessing cumulative effects on resources impacted by the project:

- Aquatic Resources (streams, wetlands) – Nescopeck Creek watershed
- Navigation – the direct study area for the bridge crossing of Nescopeck Creek
- Vegetation - Project area municipalities
- Environmental justice – A one-hour drive time from the bridge
- Indirect traffic impacts – Traffic Diversion Route Area

The time frame for analysis goes back to 1964, just prior to the initial construction of the two bridges on I-80 (one EB and one WB) over Nescopeck Creek in 1965. The following sections provides information on the past, present, and reasonably foreseeable future conditions and provides context for understanding the potential cumulative effects.

4.9.2. Past

The Lackawanna-Luzerne Regional Plan provides detailed history of the development shaping the study area. The following is a synopsis of the pertinent history. According to the plan:

During the 1960s, construction of the interstate highway system with connections in northeastern Pennsylvania began to take shape. By the mid 1960s, I-81E (from Dunmore southeast to Stroudsburg, now called I-380) and I-84 (connecting Scranton with Port Jervis) were both in the planning stages, as was the East Scranton Expressway connecting I-81 with downtown Scranton and Lackawanna Valley Parkway. The East Scranton Expressway was never constructed, but the North Scranton Expressway and the Central Scranton Expressway were built in 1961 and 1966, respectively.

By 1966, I-81 was completed from Scranton to Binghamton to the north and south to Wilkes-Barre. It was completed south through Hazleton in 1968. The section from Scranton to Harrisburg is known as

the Anthracite Expressway. By 1966, the Keystone Shortway (I-80) was completed through Luzerne County and construction was continuing westward. The entire Shortway was opened in 1970. By 1974, all sections of the Pocono Expressway (I-380) were under construction, except the I-84 interchange. I-84 was completed in 1976. The last phase of the North Crossvalley Expressway was completed in November 1991 and connected with I-81. Overall, the North Crossvalley expressway was built in four sections over a 24-year period. The South Crossvalley Expressway (PA Route 29) connecting US Route 11 with I-81 was completed in the mid-1980s.

Today, northeastern Pennsylvania has a well-developed highway network of over 300 miles of turnpike and interstate routes. The Northeastern Extension of the Pennsylvania Turnpike (I-476) provides a direct link to Philadelphia. I-80 and I-84 provide east-west travel, while I-81 and I-380 provide a north-south link. This roadway network makes it possible to reach New York City or Philadelphia in about two hours, and Boston or Baltimore within five hours.

The Lackawanna-Luzerne Regional Plan further describes the changing economic conditions:

Economic success continued into the beginning of the twentieth century. By the 1930s, however, labor strikes, the exploitation of oil discoveries, and the decline of local steelmaking during the Depression, took a large toll on the two counties' economy. Local industrial production increased during World War II, although this trend was short-lived. As the driving forces of the two-county area's economy further ebbed in the 1950s, residential and retail development continued in part due to the popularity of the automobile. New development was now occurring outside of the region's valleys and into its rural townships. Improvements to the transportation system, including completion of the interstate system, furthered this pattern of dispersion of population.

The aerial photographs of the study area from 1985, 2005, and 2020 (**Figure 5 through Figure 7**) show that development has occurred over the area's 37-year time span. As can be seen in the photos, the developed areas north of Mifflinville, Berwick, and Nescopeck have exhibited little expansion, although some infill development is evident. Road and land use development patterns remain largely unchanged, indicating that the area experiences low growth and development pressures, especially around the area of the bridge replacements. The study area exhibits low-density, rural development patterns with the exception of the towns mentioned above. Population statistics demonstrate a similar pattern of slow, flat growth. For example, the population of Nescopeck, according to the 2000 U.S. Census, was 1,523, while the estimated population in 2019 was 1,544 (a gain of only 25 people).

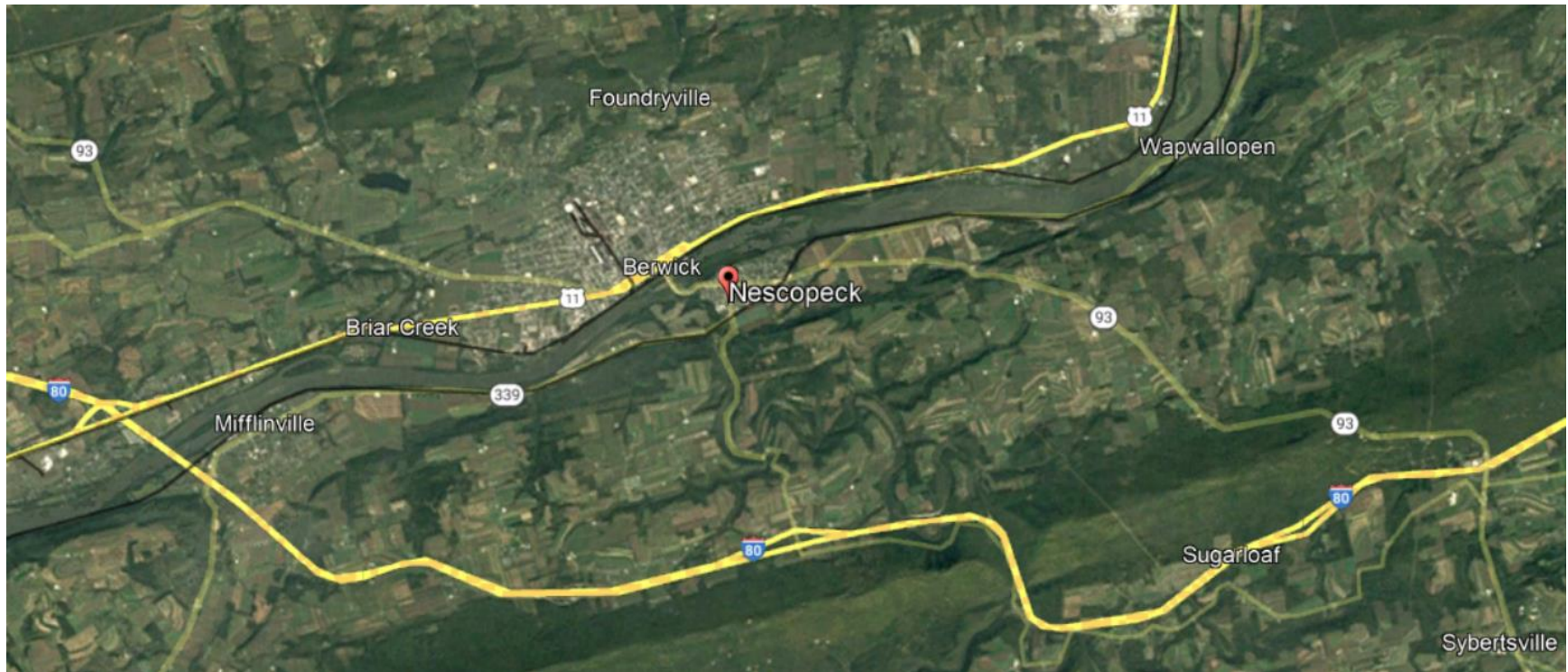


Figure 5 – 1985 Aerial Photograph of the Study Area

Source: Google Earth Pro

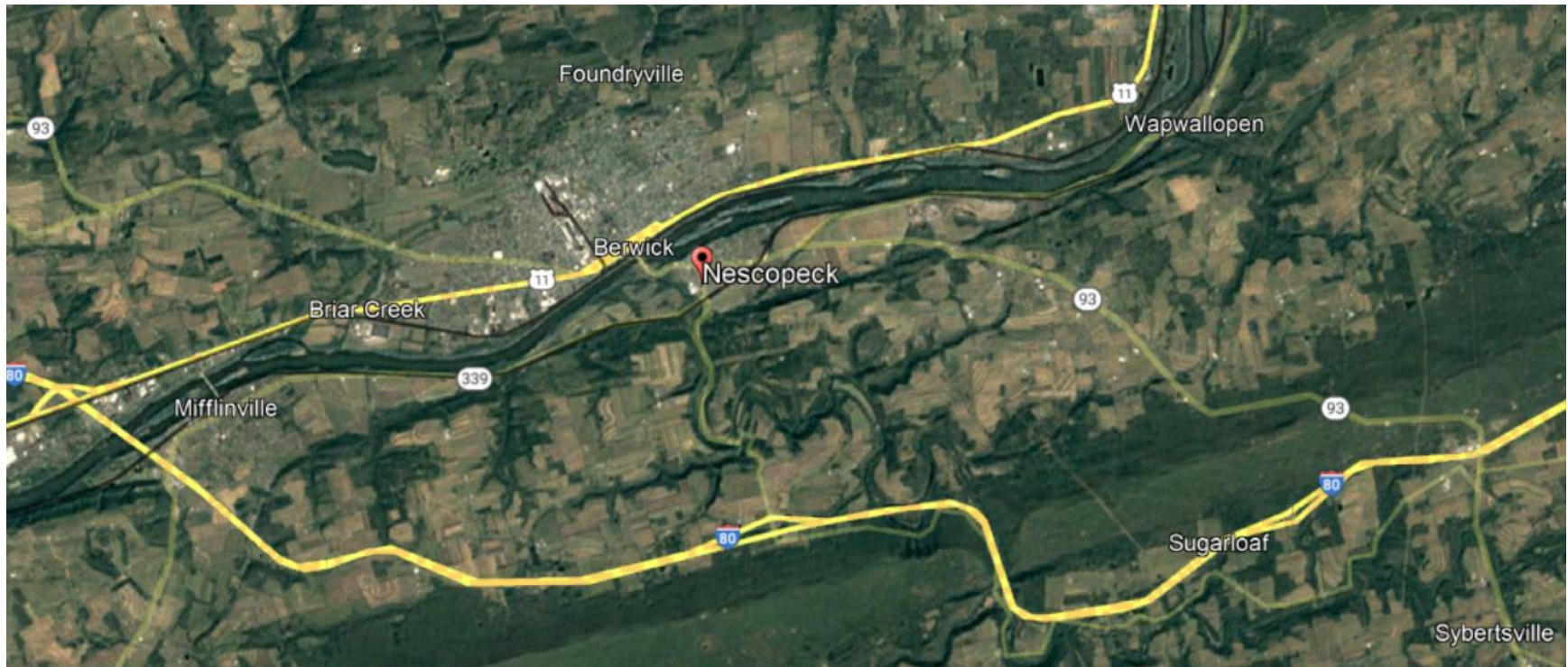


Figure 6 – 2005 Aerial Photograph of the Study Area

Source: Google Earth Pro

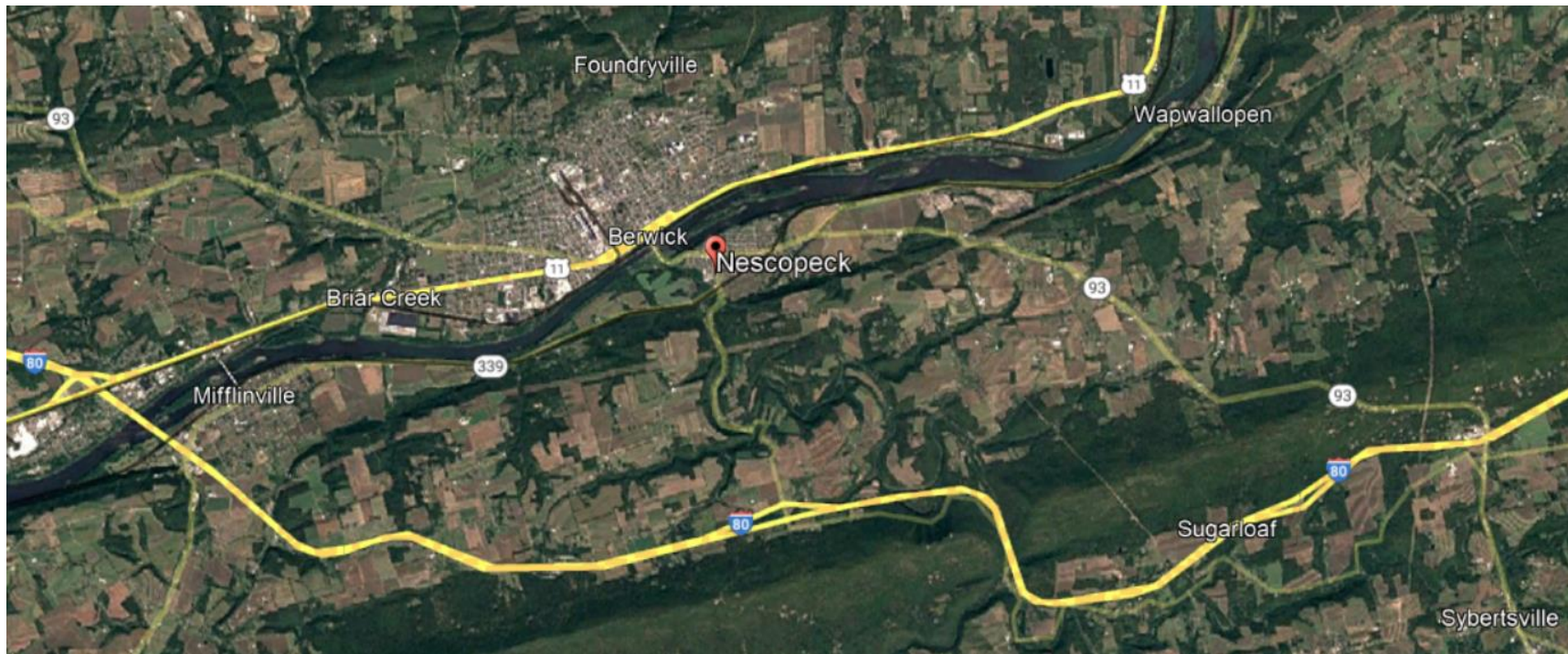


Figure 7 – 2020 Aerial Photograph of the Study Area

Source: Google Earth Pro

4.9.3. Present

Current conditions of each resource are summarized below. Details are described in the corresponding affected environment sections in Chapter 4 of this EA and in technical reports cited in those sections.

Streams, Rivers, and Watercourses: The Nescopeck Creek system consists of a number of tributaries that flow through the study area. Most are perennial streams classified as Trout Stocked Fishery and Migratory Fishery streams in the PADEP's PA Code Title 25, although a couple are listed as a Cold Water Fishery. According to the PFBC, the section of Nescopeck Creek in the project vicinity is listed as Approved Trout Waters and is actively stocked with trout. No streams classified as natural trout-reproducing streams or Class A wild trout streams occur within the study area, and no natural trout-reproducing streams are located downstream of the study area.

Navigable Waterways: Nescopeck Creek is navigable according to the *Keystone Canoeing Guide*.

Wetlands: Four palustrine wetlands were identified and delineated through field investigations. Wetland 1 is a PEM wetland situated in a ravine located between Nescopeck Creek and the hillslope beneath the southern approach of the I-80 bridges. Wetland 2 is a PEM wetland situated in a manmade roadside drainage that was created when rock was blasted to allow for the original construction of I-80. Wetland 3 is a PFO wetland located in the floodplain of Nescopeck. Wetland 4 is a PEM wetland located along the I-80 westbound roadway that captures runoff from the I-80 roadway.

Vegetation: Vegetation within the project corridor consists primarily of roadside vegetation (including, grasses trees and shrubs), and wooded areas along I-80. All work associated with the bridge replacements and tolling will occur within the Commonwealth-owned ROW. All disturbed areas will be restored and revegetated with native species as part of construction, as appropriate

Environmental Justice: The Nescopeck Creek bridges are located within Nescopeck Township near the western border of Luzerne County. Low-income and minority populations are located throughout the regional study area and concentrated in the municipalities along the I-81 and I-80 corridors, including the cities of Wilkes-Barre, Scranton, and Hazleton in Luzerne County; the boroughs of Berwick and Bloomsburg in Columbia County; Danville Borough in Montour County; in and near Pittstown City in Union County; and Williamsport City and areas to the south in Lycoming County.

Indirect Traffic Impacts: With the introduction of tolls on the Nescopeck Bridge, there is potential for traffic to divert off I-80 to avoid paying the tolls. Based on travel demand modeling, the primary traffic diversion route identified is SR 93 connecting to US 11 on the northern side of Nescopeck Creek. Traffic modeling indicated that with currently proposed WB-only tolling, approximately 880 vehicles, approximately 3% of total I-80 traffic, would divert daily from I-80 to avoid paying the tolls. Of the total 880 diverting vehicles, approximately 600 vehicles are expected to divert onto this primary diversion route.

4.9.4. Future

This section identifies reasonably foreseeable future actions anticipated to occur over a 30-year period (the anticipated length that tolls will be in place).

Growth Trends: Because the project is replacing an existing bridge and growth trends have been flat, the project is not anticipated to induce impacts (positive or negative) on planned growth, land use, or development patterns for the area. The project is consistent with planned growth. Therefore, no substantial indirect effects related to induced growth are expected.

Reasonably Foreseeable Future Actions (RFFAs): Several transportation projects are programmed to be completed within the study areas of the Nescopeck Bridges that were evaluated for potential contribution to cumulative impacts. Notable improvements from PennDOT’s Twelve Year Program (TYP)/TIP include the projects listed in **Table 4**.

Table 4
Reasonably Foreseeable Transportation Projects

Locale	Name	Type	Description
I-81/I-80 in Luzerne County	I-81/I-80 Concrete Pave Repairs	Restoration	Interstate resurfacing on I-81 (American Legion Memorial Highway) and I-80 in various municipalities in Luzerne County.
I-80, I-81, I-380 in Luzerne County	I-80, I-81, I-380 Ground Mounted Delineator	Safety Improvement	Ground Mounted Delineator project on I-81 (American Legion Memorial Highway) from Moosic Street to SR 502 (Spring Brook Avenue) and I-380 from the I-84 Junction to the Lackawanna/Wayne County line in Lackawanna County.
Interstate Guide Rail in District 4	Interstate Guide Rail Upgrade	Guiderail Improvement	Project to upgrade existing guiderail and end treatments on Statewide Interstate System based on <i>Manual for Assessing Safety Hardware</i> criteria. These projects will address necessary upgrades that were not already addressed as part of the current project.
SR 3016 in Black Creek Township	SR 3016 Slide	Restoration	Slope repair on SR 3016 (Tank Road) beginning at segment 80 and ending at the intersection of Cedarhead Road in Black Creek Township, Luzerne County.
I-80 EB/WB over SR 93 in Sugarloaf Township	I-80 EB/WB over SR 93	Bridge Improvement	Bridge rehabilitation/replacement on I-80 EB, WB over SR 93, in Sugarloaf Township, Luzerne County.
SR 239, SR 1006, SR 1010, SR 2004, SR 2019, SR 2026, SR 2037, SR 8001, SR 8002, SR 8003, and SR 8005 in Luzerne County	Group 4-15-ST 2	Resurface	Resurfacing on SR 239 (Miner Street, Pond Hill Road and Main Street) from SR 3012 (Hobbie Road) to River Road, Nescopeck and Conyngham Townships, SR 1006 (River Street) from Rutter Avenue to Fort Street, Forty Fort Borough, Luzerne County.
SR 42 AND 93 in Nescopeck Township	SR 42 AND 93 over North Branch	Bridge Preservation	Epoxy Overlay SR 42 and 93 over the North Branch of the Susquehanna River, in Montour Township and Berwick Borough, Columbia County.
US 11 in Berwick Borough	US 11 Signals Berwick Borough	Intersection Improvement	Intersection improvement, signal upgrade on US 11 from South Poplar Street to North Mulberry Street traffic signals in the Borough of Berwick, Columbia County.
US 11 in Various Municipalities, Columbia County	Briar Cr Borough to Berwick Borough line	Resurface	Mill and resurfacing on US 11 from Low Street to Berwick Borough line in Briar Creek Borough and South Centre Township, Columbia County.

Locale	Name	Type	Description
I-80 in Scott and South Centre Townships	I-80 from SR 487 to US 11	Reconstruct	Reconstruction of I-80, with bridge preservation work, from SR 487 to US 11 in Scott and South Centre Townships, Columbia County.
I-80 in Various Municipalities, Columbia County	I-80 from Reichart Rd to US 11	Resurface	Mill, resurface, and centerline patch, with bridge preservation work, on I-80 from Reichart Road to US 11, in Hemlock, Mt Pleasant, Scott, South Centre Townships, and Town of Bloomsburg, Columbia County.

The project team coordinated with Nescopeck Township to identify anticipated land development projects in the project area vicinity that could contribute to cumulative impacts. The developments listed in **Table 5** are planned in the project vicinity.

Table 5
Reasonably Foreseeable Land Development Projects

Locale	Name	Land Use	Description
Nescopeck Township, Luzerne County	Storage Unit	Commercial	Remove existing buildings and construct new storage unit facility.

The identified development is not caused by the project. Because the proposed development is rebuilding in the same location, the effects would be minor and, it would not contribute to cumulative impacts. If there were to be any streams, floodplains, or wetlands affected, there could be minimal impact. However, the developers would have to adhere to permit requirements. For these reasons the land development is not anticipated to contribute to cumulative effects. The traffic modeling completed for the project was based on the approved traffic model, which incorporates approved land uses and zoning densities. That means that the anticipated traffic generated by the type of development listed in **Table 5** is already accounted for in the traffic forecast for the project area. Therefore, the noise, air quality, and other traffic-related cumulative impacts are incorporated into the traffic model and are described in their respective sections of this EA if applicable.

4.9.5. Cumulative Effects Summary

This section presents the cumulative effects analysis of the project on each evaluated resource when added to other past, present, and reasonably foreseeable future actions. The analysis identifies whether the cumulative impacts would be significant. **Table 6**, at the end of this section, shows the effects of past actions combined with past, present, and reasonably foreseeable projects/actions in the cumulative effects study area. The final column presents the cumulative impacts of this project and a finding of significance related to the cumulative effects for each examined resource category. No significant cumulative effects resulting from this project are identified.

Streams, Rivers, and Watercourses: Nescopeck Creek and two tributaries to Nescopeck Creek would be permanently impacted due to bridge reconstruction activities and placement of the piers. No impacts to streams are anticipated as a result of the tolling or associated actions. Approximately 444 linear feet of streams would be permanently impacted, and 732 linear feet of streams would be temporarily disturbed for construction activities necessary to construct the piers. This includes impacts to three tributaries to Nescopeck Creek as well as impacts to Nescopeck Creek itself. No temporary impacts to streams are anticipated as a result of the tolling or associated actions. These impacts would be mitigated with in-stream construction timing restrictions and through coordination with PA DEP, and with the USACE on the permit(s) and plans required. None of the other RFFAs are anticipated to affect Nescopeck Creek. Cumulative waterway impacts would not be significant.

Navigable Waterways: No permanent impacts to the navigability of the stream are anticipated as a result of the construction of the proposed structures. Nescopeck Creek will remain open to canoe/kayak traffic during construction; however, temporary impacts are anticipated during construction, and an ATON Plan is proposed to help navigate boaters through the area during construction. None of the other RFFAs are anticipated to affect Nescopeck Creek's navigation. Cumulative navigation impacts would not be significant.

Wetlands: Permanent impacts to wetlands are anticipated due to bridge reconstruction activities and placement of the piers totaling 0.049 acre (2,159 square feet). A total of 0.118 acre (5,123 square feet) of temporary impacts to two project area wetlands are anticipated during construction. All areas of temporarily impacted wetlands will be returned to original condition and **revegetated** per any permit conditions. No impacts to wetlands are anticipated as a result of the tolling or associated actions. Most of the RFFA projects identified consist of resurfacing or reconstruction projects or are minor guiderail or safety improvements, which are not anticipated to contribute substantive wetland impacts. Additionally, if wetlands were to be affected mitigation would be required by DEP/USACE permits to mitigate for the effects. There are adequate credits available from wetland banks and/or areas where wetland replacement sites could be constructed. Cumulative wetland impacts would not be significant.

Vegetation: Permanent impacts to roadside vegetation and wooded areas would occur for installation of the proposed bridges, abutments, and piers, cut and fill, and stormwater controls. Temporary impacts would occur to provide constructor access. BMPs would be followed to avoid and minimize actions that would transplant roots or seeds of noted invasive, non-native plants during earth-moving operations. All disturbed areas would be stabilized and seeded with non-invasive vegetation following construction. Certain RFFAs may conduct ground-disturbing activities and provide vectors for invasive, non-native plants. However, with BMPs for the project, cumulative impacts are not anticipated to be significant.

Environmental Justice: A toll has the potential to have socioeconomic effects due to the cost of the toll and its potential to change mobility patterns and accessibility to destinations. Implementation of a toll would affect all bridge users regardless of income and minority status. PennDOT is proposing to offer toll-free bridge access to low-income persons. Due to the availability of the diversion routes and the low-income program offered under the PennDOT tolling policy, the effects on low-income travel patterns would be minimal and would not constitute an adverse impact on low-income or minority populations. Additionally, the proposed tolling would result in the revenue needed to construct a new bridge, which would provide overall benefits that include improved safety conditions and reduced delay due to maintenance and incidents on the bridge. These benefits would accrue to all commuters and would offset inconveniences resulting from the introduction of a toll. For these reasons, no disproportionately high and adverse effects on low-income or minority populations have been identified for the I-80 Nescopeck Creek Bridges Project since adverse effects to these populations are not anticipated as a result of project and/or tolling implementation. RFFA projects are minor in nature and are not anticipated to contribute to cumulative environmental justice impacts. Cumulative environmental justice impacts would not be significant.

Indirect Traffic Impacts: A toll would result in some traffic diversion, which has the potential to increase congestion and result in associated quality of life effects along primary diversion routes, particularly where diversion routes traverse developed areas. Traffic modeling indicated that approximately 880 cars on an average day of the 33,340 average daily vehicle trips on the Nescopeck Creek bridges would choose an alternate route to avoid paying the toll in year 2023. Similarly, in 2040, approximately 910 vehicles on an average day of the 36,690 average daily vehicle trips would avoid the toll. Proposed mitigation (signal improvements and

coordination, directional signage, and an acceleration lane) will minimize potential impacts. Restoration and resurfacing of I-80 (the first project in Table 1) could cause delays on the interstate and could cause additional drivers to use diversion routes. With adequate maintenance of traffic during construction, the temporary nature of the resurfacing, and the mitigation for the I-80 Nescopeck Creek Bridges project, the cumulative traffic diversion impacts would not be significant.

**Table 6
Potential Cumulative Impacts**

Topic	Past Actions/Impacts	Present Condition/Project Impacts	RFFA Impacts	Summary
Streams, Rivers, and Watercourses	Nescopeck Creek has been bridged since 1965. Past construction activities impacted the creek, confining it to its current channel.	The creek is a stocked trout stream. Construction timing will minimize bridge replacement impacts.	Identified RFFAs are not anticipated to affect Nescopeck Creek.	In-water work timing will minimize impacts. RFFAs are not expected to contribute to cumulative impacts.
Navigable Waterways	Effects to Nescopeck Creek navigation were affected by the original Interstate construction.	Nescopeck Creek is a recreationally navigable stream by canoes. An ATON plan will protect boaters during construction. No permanent impacts to navigation are anticipated.	Identified RFFAs are not anticipated to affect Nescopeck Creek navigation.	Nescopeck Creek will remain navigable. RFFAs are not expected to contribute to cumulative navigation impacts.
Wetlands	Past wetland impacts from the highway development occurred during construction.	Little development pressure occurs, and few if any recent wetland impacts have occurred because development pressure is so low. Project wetland impacts are minor.	None of the other RFFAs are anticipated to affect Nescopeck Creek.	Project wetland impacts are minor and will be mitigated per USACE/PADEP permit requirements as appropriate. RFFAs are not expected to contribute to cumulative impacts.
Vegetation	Highway and bridge development has removed existing natural forest.	Includes roadside vegetation, and wooded areas. BMPs would be established to prevent the introduction and spread of invasive species.	Transportation and Development RFFAs are only anticipated to affect minor amounts of vegetation.	Project vegetation impacts are minimal. RFFAs are not expected to contribute substantially to cumulative impacts.
Environmental Justice	Past settlement patterns have resulted in a study area population with 15 %	Environmental justice populations are present in the travelshed of the bridge. Without the proposed	RFFAs are minor in nature and are not anticipated to	The project is not expected to result in disproportionately high and adverse effects on

	minorities and 13 percent living below the poverty level compared to statewide statistics of 23.6% and 12%, respectively.	low-income toll program they could experience economic impacts from tolls; however, the low income toll program has been incorporated into the project to mitigate this impact.	contribute to cumulative environmental justice impacts.	low-income and minority populations and RFFA's are not anticipated to contribute to environmental justice effects.
Indirect Traffic Impacts	Bypass routes have been in place since the Interstate was built. Traffic generally has been local and low-volume on diversion routes in the past.	It is estimated that approximately 3% of I-80 traffic may divert to avoid the WB toll. Diversion traffic could contribute to some congestion and safety issues, but improvements are proposed as part of the project to minimize these effects.	With adequate maintenance of traffic during construction, the temporary nature of the I-80 resurfacing, and the mitigation for the Nescopeck Bridge project, the cumulative traffic diversion impacts would not be significant.	The project diversion route improvements will minimize adverse effects of diversion route traffic and RFFAs do not contribute to cumulative effects.

In summary, no significant cumulative effects resulting from this project together with past, present, and reasonably foreseeable future actions were identified.

4.10 Permits Checklist

- No Permits Required**
- United States Army Corps of Engineers Section 404 and/or Section 10 Permit**
 - Individual Nationwide PASPGP
- DEP Waterway Encroachment (105) Permit**
 - Standard Small Project General Other
- DEP 401 Water Quality Certification**
- Coast Guard Permit**
- NPDES Permit**
 - General Individual Exempt
- Other Permits**

Remarks, Footnotes, Supplemental Data

A PA DEP Pre-Application Meeting was held virtually on November 2, 2021 to discuss the proposed bridge replacement project. This project is to be completed as part of the PennDOT Major Bridge Initiative P3 project. The Design team will be preparing 30% Design-Build plans and preparing E&S and Stormwater Plans. In addition, as part of the Major Bridge Initiative P3, high-speed toll gantries and an associated maintenance building, along with approach signing for the tolling at prior interchanges and diversion route improvements, will be included as part of this project and the earth disturbance associated with these items are included in the E&S and Stormwater plans.

The P3 development entity will be responsible for preparing and obtaining all permits for this project. The purpose of the Pre-Application was to gain an understanding of the permits that may be required. The November 2, 2021 DEP Pre-Application meeting minutes are in the project technical files.

5.0 PUBLIC INVOLVEMENT

	#	Comments
<input checked="" type="checkbox"/> Plans Display	1	See remarks below.
<input checked="" type="checkbox"/> Public Officials Meetings	1	See remarks below.
<input checked="" type="checkbox"/> Public Meetings	1	See remarks below.
<input checked="" type="checkbox"/> Public Hearing		A Hearing will be held.
<input checked="" type="checkbox"/> Special Purpose Meetings (specify)	1	See remarks below.
<input type="checkbox"/> Section 106 Public Involvement / Consulting Parties (specify)		
<input type="checkbox"/> Section 106 Tribal Consultation (specify Tribe(s) contacted and Tribal response)		
<input checked="" type="checkbox"/> Environmental Justice Community Involvement (if applicable)		See remarks below.
<input checked="" type="checkbox"/> Other information dissemination activities (specify)		See remarks below.
<input checked="" type="checkbox"/> Commitment for Further Public Involvement		The contractor will continue to coordinate with local municipalities and the public.

Supporting documentation for Chapter 5 includes:

- *I-80 Nescopeck Creek Bridges Project Virtual Public Meeting* (November 15 to December 15, 2021)
- *I-80 Nescopeck Creek Public Meeting Summary* (December 2021)

Remarks

Public outreach activities were conducted beginning in November 2020 for the PennDOT Pathways program under an Alternative Funding PEL Study. Since the I-80 Nescopeck project was identified as a candidate for bridge tolling through PennDOT Pathways Program's Major Bridge P3 Initiative in February 2021, additional public outreach effort was conducted specific to the I-80 Nescopeck project.

- Project information was posted on a project-specific website in February 2021 at <https://www.penndot.pa.gov/RegionalOffices/district-10/ConstructionsProjectsAndRoadwork/Pages/I-80-North-Fork.aspx>
- A diversion route workshop was conducted on July 28, 2021, to gather additional information on potential issues along the diversion routes (mainly SR 93, US 11) and its secondary diversion routes (SR 339).
- The diversion route workshop attendees were invited to attend a follow-up briefing on November 15, 2021, to review the proposed diversion route improvements included in the public meeting materials.
- A project-specific virtual public meeting was held from November 15 through December 15, 2021. The online meeting was comprised of text, graphics and videos that provided a project overview and explained the project purpose and need, project design, proposed funding, traffic studies and associated diversion improvements, environmental studies, comment process and next steps. The online meeting website provided a comment form that allowed individuals to submit their comments directly within the virtual public meeting. The website also noted other ways in which comments could be submitted, including the comment form on the general project website, project phone number, project email and a physical mailing address.
- An in-person public open house was held on Tuesday December 7, 2021, at 4 p.m. at the Nescopeck Social Hall in Nescopeck, PA. Display boards were provided for project purpose and need, project design, proposed funding, traffic studies and associated diversion improvements, environmental studies, and schedule. Comment forms were provided for individuals to submit their comment while in attendance or at their convenience. While the comment period for the public meeting has closed, the online meeting materials are available for reference via the project website. In-person meeting materials were printed versions of the online content.

Prior to and during the public comment period for the second public meeting, the project team executed several outreach strategies to maximize public participation at the public meeting or online consultation of the Virtual Public Meeting on project website. The outreach activities are listed in **Table 7**.

**Table 7
Public Outreach Activities**

Outreach Type	Number of Recipients	Type of Recipients	Date Sent
Virtual Public Meeting Website	N/A	- General Public via https://www.penndot.pa.gov/RegionalOffices/district-4/ConstructionsProjectsAndRoadwork/Pages/I-80-Nescopeck-VPM.aspx	Launched 11/15/21
Postcard	15,910	- General public - Mailed via Every Door Direct Mail Service - Sent to all postal routes within the direct project area and along the diversion route.	Mailed week of 11/8/21
Legal Ad	Print circulation approx. 12,000	- General public - Placed in <i>The Times Leader</i>	Ran 11/7/21
Stakeholder & Public Mailing List Email	236	- Key stakeholders, legislators and those who requested to be put on the project's mailing list. - Email with information about the virtual public meeting and in-person open house.	11/15
Knowledgeable Parties Email & Flyer	13	- Knowledgeable parties identified in environmental justice analysis - Email with information about virtual and in-person meetings, along with a flyer to be distributed in the community and copies of social media art for sharing	11/15 /21
News Releases	N/A	- Sent to area media to distribute via news stories and calendars of events for the general public.	11/15/21, 12/7/21
Public Officials Briefing	N/A	- Invited public officials to a pre-launch briefing to get a first look at the materials to launch in the virtual public meeting	11/15/21 at 9:30 a.m.
Social Media Posts	30,795 people reached	- Social media posts on PennDOT social media regarding how to participate in the public meeting and comment period - 238 engagements across three posts	11/15/21, 12/7/21, 12/13/21

Public involvement documentation is located in the project technical files. The I-80 Nescopeck Creek Environmental Justice Analysis, February 2022, and the I-80 Nescopeck Creek Bridges Diversion Route Traffic Evaluation report, February 2022 are included in the project technical files and are incorporated by reference to this EA.

6.0 ENVIRONMENTAL JUSTICE

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (February 11, 1994), directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority and low-income populations. To achieve effective and equitable decision-making, the U.S. Department of Transportation (USDOT) identifies three fundamental principles of environmental justice to consider in all USDOT programs, policies, and activities:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on environmental justice communities of concern.
- To ensure the opportunity for full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or substantial delay in the receipt of benefits by any environmental justice community of concern.

An Environmental Justice Analysis was completed for the project. The I-80 Nescopeck Creek Environmental Justice Analysis, February 2022, is included in the project technical files and is incorporated by reference to this summary.

The Environmental Justice analysis for the project was performed by completing the following process:

- **Step 1: Define the Study Area.** Consistent with NEPA practices, identify the reasonable and logical boundaries by considering the potential for direct and indirect impacts related to the implementation of the toll and increased traffic on routes that may be used to avoid the toll.
- **Step 2: Identify Low-income and Minority Populations.** Collect recent data on race, color, national origin, income, tribal governments, and seasonal and migrant workers in the study area, and apply FHWA and PennDOT methodology to identify low-income and minority populations.
- **Step 3: Solicit Input from Low-income and Minority Populations.** Using PennDOT's *Public Involvement Handbook* and other environmental justice outreach guidance, identify appropriate outreach techniques. Through targeted outreach to potentially affected low-income and minority populations, identify transportation needs and concerns about the project to inform Steps 4, 5, and 6.
- **Step 4: Evaluate Adverse and Beneficial Effects.** Analyze whether the project would create impacts to communities or populations in the near, medium, or long term. Then, with input from the community, assess whether the impacts are adverse, beneficial, or both.
- **Step 5: Identify Disproportionately High and Adverse Effects.** Determine whether adverse effects are predominately borne by low-income persons and minorities, and if these effects are more or greater than those effects borne by the general population.
- **Step 6. Evaluate Mitigation Measures.** If adverse effects would be predominately borne by low-income and minority populations and are more or greater in magnitude than the adverse effect that would be suffered by the general population, consult with the community to identify measures to avoid, minimize, or mitigate the impacts. Determine whether the mitigation measures are practical. Practical mitigation measures are those that are: effective and do not create other adverse effects that

Supporting documentation for Chapter 6 includes:

- *I-80 Nescopeck Creek Environmental Justice Analysis* (February 2022)

are more severe; feasible in terms of implementation and operation; and cost effective, while maintaining the financial viability of the project.

- **Step 7: Re-evaluate Disproportionately High and Adverse Effects and Document Decision.** If practical mitigation measures have been identified, re-evaluate whether adverse effects borne by low-income and minority populations are appreciably more severe or greater than those effects borne by non-environmental justice populations.

As a result of the PEL Study, PennDOT developed a plan for implementation, which identified alternative bridge funding as an immediately needed priority and bridge tolling as the reasonable means for financing priority bridge improvements. PennDOT engaged the community, stakeholders, and legislators in the Pathways Program's Major Bridge P3 Initiative, which included announcing nine bridges as candidates for tolling in February 2021, including the I-80 Nescopeck Creek Bridges. Early outreach activities for the I-80 Nescopeck Creek Bridges project included: a public engagement program conducted throughout the PEL process; targeted outreach to knowledgeable parties; a project-specific traffic diversion route workshop; targeted outreach to low-income and minority populations in the Nescopeck Creek Regional Study Area; on-demand public meetings (virtual) over a 30-day period between November 15 and December 15, 2021; and an in-person meeting held on December 7, 2021 at Nescopeck Social Hall in Nescopeck, PA.

Potential implementation of a toll would affect all bridge users regardless of income and minority status. Because tolls would comprise a larger percentage of a low-income bridge user's income, tolls would have a greater effect on these users, particularly if they depend on the bridge for daily travel to work or other destinations. As a result, and in keeping with other Department of Human Services (DHS) financial assistance programs offered in Pennsylvania (Supplemental Nutrition Assistance Program (SNAP), Medicaid, Low Income Home Energy Assistance Program (LIHEAP)), PennDOT is proposing to offer toll-free bridge access to low-income persons qualifying for one or more of these DHS programs. The DHS financial assistance programs use a progressive income limit based on the number of people in a household (equivalent to approximately \$35,000 for a family of four, but it varies slightly by DHS program). Individuals who qualify for toll-free bridge access would be able to select one toll bridge from the Major Bridge P3 Initiative to apply these benefits. Because of their proximity, the Lehigh River and Nescopeck Creek could be selected as "one bridge." PennDOT's tolling policy would also include toll-free bridge access for emergency vehicles and emergency medical service volunteers when responding to emergencies.

As a result of this analysis and associated outreach effort, no disproportionately high and adverse effects on low-income or minority populations have been identified for the I-80 Nescopeck Creek Bridges Project since adverse effects to these populations are not anticipated as a result of the project and/or tolling implementation. Considering the availability of acceptable options for toll avoidance, PennDOT's toll policy that offers a toll-free ride for low-income drivers and others who meet the eligibility criteria, and a diversion route that has the capacity to accommodate projected traffic increases, with minor improvements proposed, adverse socioeconomic effects on low-income and minority populations would be minimized.

Additionally, PennDOT commits to:

- Reassess the low-income toll program 5 years after substantial completion of the project. The purpose of this reassessment will be to determine the effectiveness of the low-income toll program for reducing the burden of tolls on low-income households and, depending upon the outcome of the reassessment, identify alternative solutions for reducing the burden on low-income households.

- Perform a before and after study on the primary diversion route to identify if additional traffic and/or safety improvements are needed to mitigate the effects of the toll.

As a result, evaluation of additional mitigation measures to off-set adverse effects and the re-evaluation of disproportionately high and adverse effects on low-income and minority populations is not warranted.

7.0 ENVIRONMENTAL COMMITMENTS AND MITIGATION

The mitigation measures summarized in this section shall be incorporated into the project's design documents. In order to track and transfer mitigation commitments through the project development process, Environmental Commitments & Mitigation Tracking System (ECMTS) documentation shall be prepared and submitted through the appropriate channels, as the project moves through Final Design and Construction.

Impacts and mitigation commitments are based on Preliminary Design and may change as the project moves through Final Design and Construction. Final design information and final mitigation commitments will be included in the ECMTS documentation.

STREAMS

Permanent Stream Impacts: *444 linear feet*

Mitigation Remarks:

Nescopeck Creek is listed as Approved Trout Waters and is actively stocked with trout; therefore, in-stream work will be prohibited from February 15 to June 1. There is evidence of Acid Mine Drainage in Nescopeck Creek and vitrified clay liner plates are on the existing piers. Vitrified clay liner plates are to be installed on the proposed piers to help protect the piers from early corrosion as a result of low stream pH due to acid mine drainage.

The P3 development entity will complete the final design of the project, will complete the permit(s) and plans as needed, and will determine the appropriate mitigation measures in coordination with PennDOT, PADEP, and the USACE.

WETLANDS

Permanent Wetland Impacts: *0.049 acre*

Mitigation Remarks:

Mitigation is to be determined for this project. The P3 development entity will be responsible for final design of the project and will ultimately determine the impacts to wetlands associated with the replacement of the structures, permitting requirements, and mitigation measures, in coordination with PennDOT, PADEP, and the USACE.

COMMITMENTS FOR FURTHER PUBLIC INVOLVEMENT

The contractor will continue to coordinate with local municipalities and the public.

SOIL EROSION AND SEDIMENTATION

The design team has prepared Conceptual E&S and Stormwater Plans, but this design team will not be submitting or obtaining the required permits or coordination. The P3 development entity will complete the Final Design, update the permit and plans as needed, and submit and obtain the required Permits. All disturbed areas will be stabilized upon completion of the project. PCSMs will be evaluated in final design and included in the NPDES permit application, if required.

VEGETATION

In accordance with PennDOT's invasive species guidance (Publication 756, 2014), care will be taken not to transplant roots or seeds of noted invasive, non-native plants during earth moving operations. Re-vegetation of impacted areas will be implemented through the E&S plan. Prior to completion of construction, all remaining areas of earth disturbance will be restored by re-seeding with standard PennDOT seed formulas. These seed formulas may contain native plant species; but per Executive Order 13112, will

avoid those plant species that are listed on the Noxious Weed Control List.

HAZARDOUS OR RESIDUAL WASTE SITES

The P3 development entity will conduct a Phase III ESA for the proposed signage and I-80 WB off-ramp realignment at the intersection of SR 93 and Old Berwick Road because of one waste site with AOCs at the Pilot Travel Center site.

NON-RESOURCE SPECIFIC MITIGATION COMMITMENTS

- PennDOT will offer toll-free bridge access to low-income persons qualifying for one or more DHS financial assistance programs. Individuals who qualify for toll-free bridge access would be able to select one toll bridge from the Major Bridge P3 Initiative to apply these benefits. PennDOT's tolling policy would also include a toll-free bridge access for emergency vehicles and emergency medical service volunteers when responding to emergencies; and a High Occupancy Vehicle (HOV) discount program.
- PennDOT will reassess the low-income toll program 5 years after substantial completion of the project. The purpose of this reassessment will be to determine the effectiveness of the low-income toll program for reducing the burden of tolls on low-income households and, depending upon the outcome of the reassessment, identify alternative solutions for reducing the burden on low-income households.
- PennDOT will conduct a before/after traffic study to evaluate actual toll diversion volumes and roadway performance to evaluate actual volumes, including truck traffic, compare it to the projections in the I-80 Canoe Creek Bridges Diversion Route Traffic Evaluation, if appropriate, identify and evaluate additional mitigation measures. This study will identify if additional traffic and/or safety improvements are needed to mitigate the effects of the toll.
- If the P3 development entity requires area outside of the Project PSA delineated in this EA, including the Original PSA and Expanded PSA which includes the areas delineated for the proposed diversion route improvements, the P3 development entity is required to coordinate with PennDOT to determine necessary NEPA Reevaluation studies and documentation.

This NEPA Reevaluation may include but not be limited to:

- Delineation of aquatic resources in accordance with USACE protocol;
 - Phase I ESA or EDD statement;
 - PNDI review and coordination with resource protection agencies;
 - Section 106 Consultation; and
 - Public outreach.
-

Appendix A
Engineering Information

Project Identification

Originating Office: 04 **Date:** 12/20/21
Federal Project Number: TBD
Township/Municipality: Black Creek Township, Nescopeck Township, Sugarloaf Township
Local Name: I-80 EB/WB over Nescopeck Creek
Date of First Federal Authorization for Preliminary Engineering: N/A
Date of Federal Authorization Time Extension(s) for Preliminary Engineering (if applicable): N/A

Design Criteria

Roadway Description: I-80, Seg 2504, Offset 1425 (EB) I-80, Seg 2505, Offset 1492 (WB)

Functional Classification: Freeways/Interstates Urban Rural

Current ADT: 16,944(EB) / 16,755(WB)

Design Year No-Build ADT: N/A

Current LOS: N/A

Design Year Build ADT: 27,281 (EB) / 26,967 (WB)

Design Year Build LOS: N/A

DHV: 2,183 (EB)/2,159 (WB)

Truck %: 35 (EB) / 37 (WB)

D (Directional Distribution) %: 100% (EB & WB)

Design Speed: 70 mi/h

Posted Speed: 65 mi/h

Required Minimum Widths

Lane Width: 12 ft

Shoulder Width: 12'RT/8'LT (4' LT with Median Barrier) ft

Bridge Curb-to-Curb: 44' EB & WB ft

Design Exception Required? Yes No

Typology: Limited Access Freeway – Rural Interstate

Topography: Level Rolling Mountainous

Proposed Design Criteria: Bridge Projects

Traffic Control Measures

The following traffic control measures will be implemented:

- Temporary Bridge(s)
- Temporary Roadway
- Detour
- Ramp Closure
- Other (specify)
- None

Provisions for access by local traffic will be made and so posted. True False

Through-traffic dependent business will not be adversely affected. True False

There will be no interference with any local special event or festival. True False

There will be no substantial environmental consequences associated with the traffic control measure(s). True False

There is no substantial controversy associated with the traffic control measure(s). True False

There are no substantial impacts to bicycle or pedestrian routes. True False

If the answer to any of the above questions was "False", please explain.

Approximate length of planned detour: 8 miles Detour Map

Make the selection that best describes the planned detour:

- Detour will use local roads with no improvements.
- Detour will involve improvements to local roads with no resulting impacts on safety or the environment.
- Detour will involve improvements to local roads and will impact safety and/or the environment.
- Detour will use only state owned roads.

Describe impacts

Replacement of the EB/WB Structures: A detour will be required for SR 3016 (ADT=146) to allow reconstruction of the wall between I-80 and SR 3016. The proposed detour will use local roads as SR 3016 does not connect to another state route at its southern end. See Additional Information.

Estimated Costs

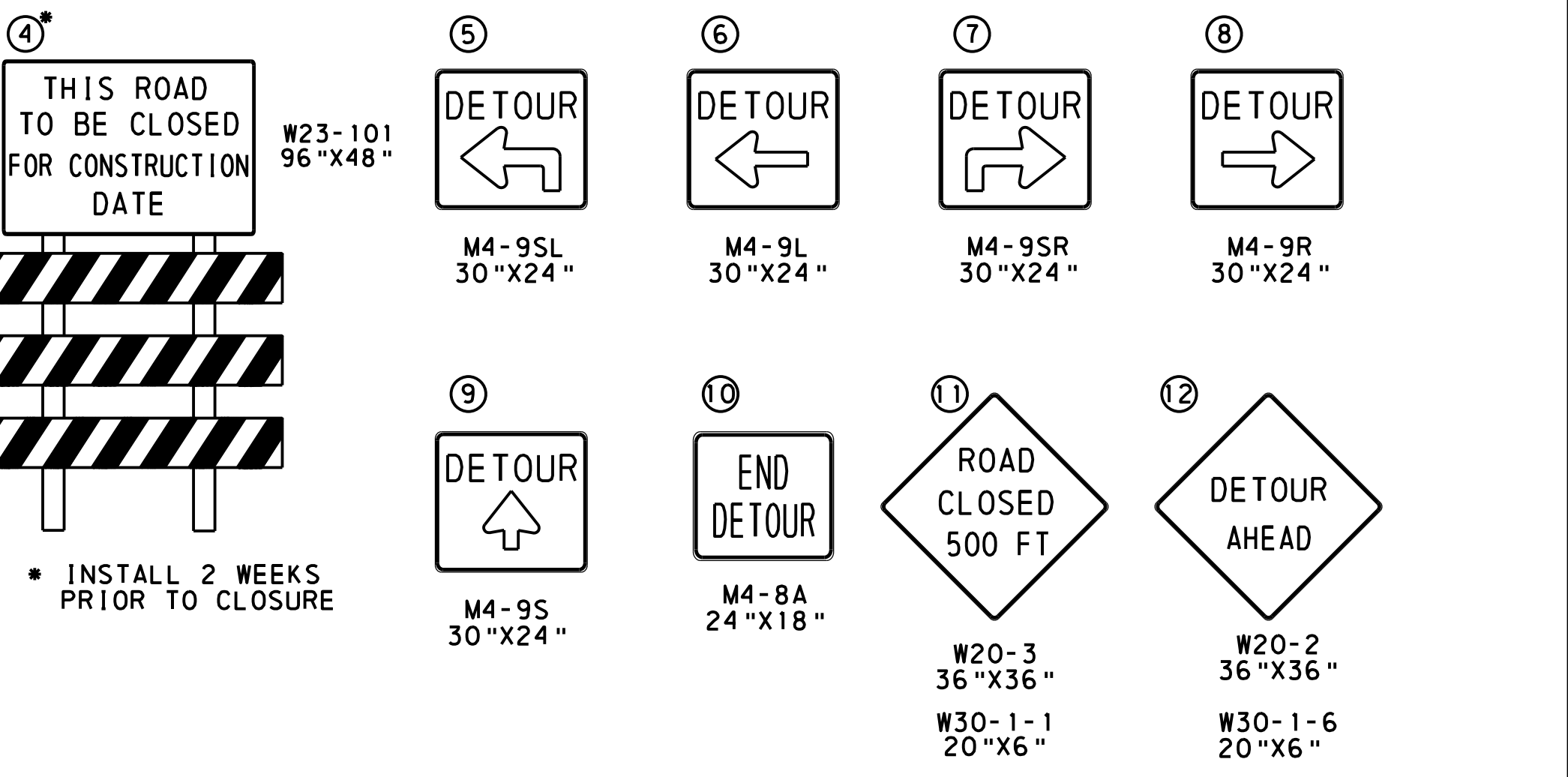
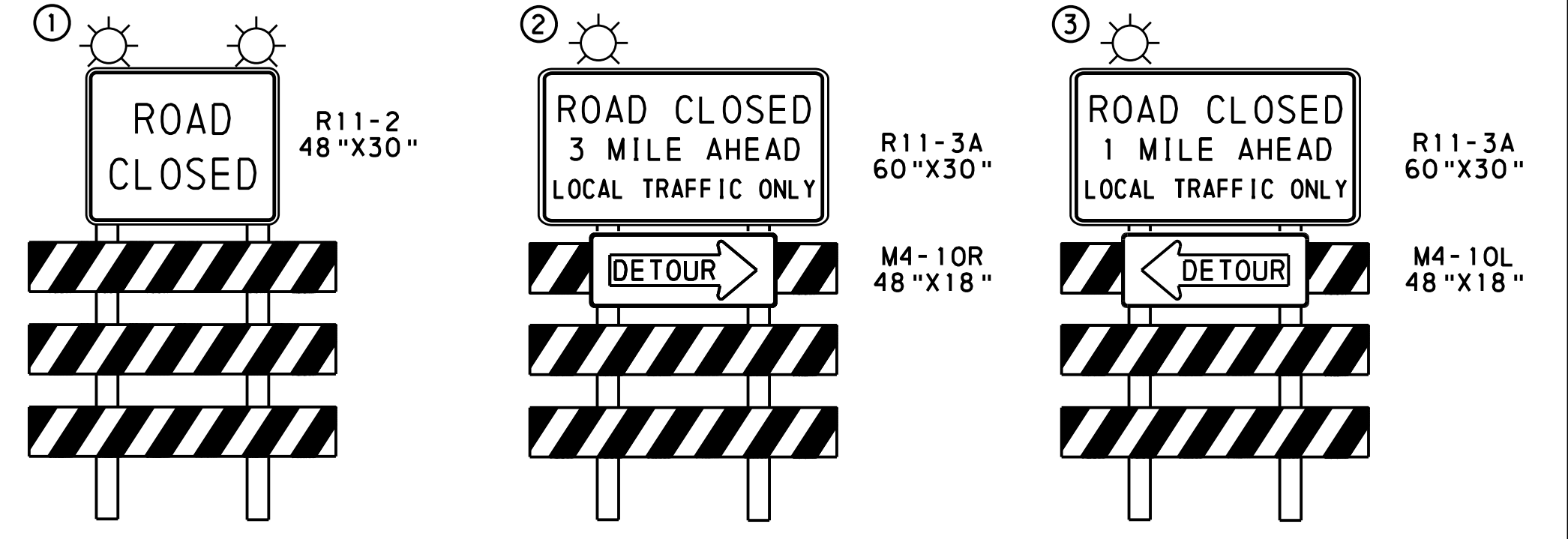
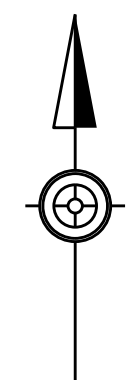
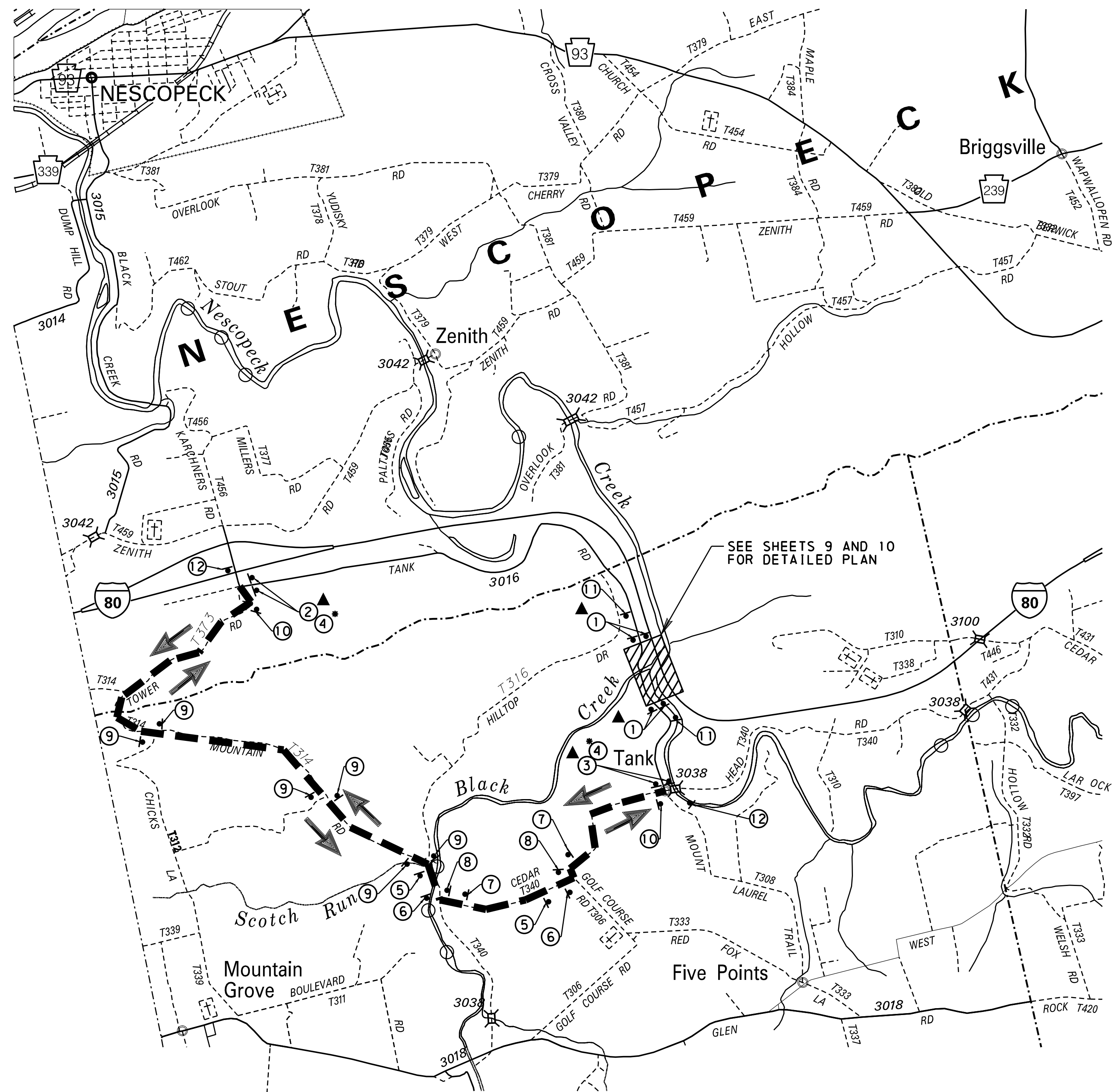
Engineering: \$ 1,885,000

Right-of-Way: \$ 0

Construction: \$ 41,693,000

Utilities: \$ 0

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
4-0	LUZERNE	0080	352	4 OF 47
NESCOPECK AND BLACK CREEK TOWNSHIPS				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



* INSTALL 2 WEEKS PRIOR TO CLOSURE

TABULATION OF TRAFFIC CONTROL DEVICES FOR SR 3016 DETOUR (FOR INFORMATION ONLY)

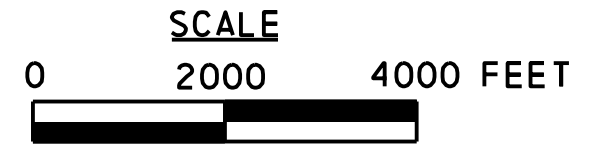
STD NO	SIZE	DESCRIPTION	QTY
M4-8A	24 "X18 "	END DETOUR	2
M4-9R	30 "X24 "	DETOUR, RIGHT	2
M4-9L	30 "X24 "	DETOUR, LEFT	2
M4-9S	30 "X24 "	DETOUR, STRAIGHT	6
M4-9SR	30 "X24 "	RIGHT ADVANCED DETOUR	2
M4-9SL	30 "X24 "	LEFT ADVANCED DETOUR	2
M4-10L	48 "X18 "	DETOUR ARROW, LEFT	1
M4-10R	48 "X18 "	DETOUR ARROW, RIGHT	1
R11-2	48 "X30 "	ROAD CLOSED	4
R11-3A	60 "X30 "	ROAD CLOSED - LOCAL TRAFFIC ONLY (3)	2
R11-3A	60 "X30 "	ROAD CLOSED - LOCAL TRAFFIC ONLY (1)	2
W20-2	36 "X36 "	ADVANCE DETOUR	3
W20-3	36 "X36 "	ADVANCE ROAD CLOSED	2
W23-101	96 "X48 "	THIS ROAD TO BE CLOSED	4
W30-1-1	20 "X6 "	500 FT	2
W30-1-6	20 "X6 "	AHEAD PANEL	3
	EACH	TYPE III BARRICADE	12
	EACH	TYPE B WARNING LIGHT (YELLOW)	12

THE SIZES SHOWN ARE MINIMUM REQUIREMENTS.

NOTES:
 INSTALL TRAFFIC CONTROL DEVICES AND ADVANCE WARNING SIGNS FOR SR 3016 DETOUR IN ACCORDANCE WITH PATA 215 AND AS INDICATED ON THE PLAN.
 COVER ANY SIGNS THAT CONFLICT WITH DETOUR.
 HAVE ADDITIONAL ROUTE MARKERS AND DETOUR SIGNS AVAILABLE IN CASE PROBLEM AREAS ARISE.
 NOTIFY EMERGENCY SERVICES WHEN DETOUR IS IN EFFECT.
 COVER TEMPORARY DETOUR SIGNS WHEN NOT IN USE.
 TOTAL DETOUR LENGTH FOR SR 3016 IS 4.8 MILES.

LEGEND

- TOWNSHIP ROAD
- TOWNSHIP LINE
- STATE HIGHWAY
- ==== RAILROAD
- ==== DETOUR ROUTE
- //// WORK ZONE
- ← TRAFFIC FLOW ARROW
- ⊠ CHANGEABLE MESSAGE SIGN
- ① SIGN DESIGNATION
- ▲ TRAFFIC CONTROL SIGN ON TYPE III BARRICADE
- ▲ EXTEND TYPE III BARRICADE ACROSS ENTIRE ROADWAY



SR 3016 DETOUR MAP PHASE 1

PLOTTED: 0-9012 CADD (02-90) REVISED (10-04) OPERATOR: FILE NAME: sdesignfl1.es\$

CONCEPTUAL TRAFFIC CONTROL PLAN

PRELIMINARY DRAWING OR INFORMATION

This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.

Roadway

Roadway Description

I-80 (SR 0080) /352

	Existing	Proposed
Number of Lanes:	2	2
Lane Width:	12 ft	12 ft
Shoulder Width:	4.33 ft	8' LT, 12' RT ft
Median Width:	36 ft	36 ft
Sidewalk Width:	N/A ft	N/A ft
Bicycle Lane Width:	N/A ft	N/A ft
Clear Zone Width:	30 ft	30 ft

Remarks, Footnotes, Supplemental Data

Roadway work on I-80 is limited to minimal full depth paving replacement (less than 100') on each approach to the interstate bridges. Also includes widening of the I-80 EB shoulder to accommodate the wider bridge. Guide rail will also be replaced and upgraded to the current standards throughout the length of the project. The roadway work also includes 150' of full depth pavement replacement and guide rail upgrades in the area of the tolling gantry above the I-80 WB roadway.

Roadway

Roadway Description

SR 3016 (Tank Road)

	Existing	Proposed
Number of Lanes:	2	2
Lane Width:	10 ft	10 ft
Shoulder Width:	2 ft	2 ft
Median Width:	N/A ft	N/A ft
Sidewalk Width:	N/A ft	N/A ft
Bicycle Lane Width:	N/A ft	N/A ft
Clear Zone Width:	7 ft	7 ft

Remarks, Footnotes, Supplemental Data

Roadway works includes 747' of full depth paving and cross pipe replacement due to reconstruction of a portion of the wall between I-80 and SR 3016. Also includes replacement of guide rail within the Limits of Work along SR 3016 to upgrade to current standards.

Roadway

Roadway Description

I-80 WB Off-Ramp (Exit 256) Re-Alignment and Signalization with Old Berwick Road

	Existing	Proposed
Number of Lanes:	1	1
Lane Width:	N/A ft	no change ft
Shoulder Width:	N/A ft	no change ft
Median Width:	N/A ft	N/A ft
Sidewalk Width:	N/A ft	N/A ft
Bicycle Lane Width:	N/A ft	N/A ft
Clear Zone Width:	N/A ft	N/A ft

Remarks, Footnotes, Supplemental Data

This is a proposed roadway improvement to the tolling diversion route.

To address the crash history and congestion, the realignment of the WB Off Ramp to intersect SR 93 directly opposite Old Berwick Road and a traffic signal are proposed at the intersection of SR 93 and the I-80 WB off-ramp (Exit 256) and "signal ahead" signs are proposed for installation on the southbound SR 93 approach, timed to flash red when the traffic signal is to turn red for that approach.

Roadway

Roadway Description

WB Truck Acceleration Lane Along SR 93 at Barletta Quarry

	Existing	Proposed
Number of Lanes:	2	3 (only along accel lane)
Lane Width:	11 ft	11 ft
Shoulder Width:	4 ft	4 ft
Median Width:	N/A ft	N/A ft
Sidewalk Width:	N/A ft	N/A ft
Bicycle Lane Width:	N/A ft	N/A ft
Clear Zone Width:	N/A ft	6 ft

Remarks, Footnotes, Supplemental Data

This is a proposed roadway improvement to the tolling diversion route.

To address the slow-moving trucks coming out of the Barletta Quarry onto SR 93, a WB acceleration lane along SR 93 is proposed to the west of the Barletta Quarry, extending for a length of approximately 1,000 feet, to allow quarry trucks to accelerate to the speed of SR 93 WB traffic before merging into the traffic stream.

Structure

BMS Number: 40-0080-2505-1492

BRKEY: 23646

Description:

I-80 WB over Nescopeck Creek

	Existing	Proposed
Structure Type:	Steel Stringer	Prestressed Concrete PA Bulb Tee Beams
Weight Restrictions:	None ton	None ton
Height Restrictions:	None ft	None ft
Curb to Curb Width:	32'-8" ft	54 ft
Lane Width:	Two 12' lanes ft	Two 12' lanes ft
Shoulder Width:	4'-4" LT & RT ft	8' LT, 12' RT ft
Sidewalk Width:	N/A ft	N/A ft
Total Bridge Width*:	37'-6" Out to Out ft	57'-4 1/2" Out to Out ft

***Total Bridge Width is measured from outside of barrier to outside of barrier, which should include sidewalks, when present.**

Under Clearance:	37.64 ft	36.96 ft
Lateral Clearance:	NA ft	N/A ft
Sufficiency Rating:	77.4	
Structure Length:	507 ft	521.2 ft

Remarks, Footnotes, Supplemental Data

The work includes the complete replacement of the existing bridge with a new bridge on new substructures. The I-80 WB bridge is anticipated to be replaced in one phase with traffic diverted onto the new I-80 EB bridge. The I-80 WB bridge curb to curb is proposed as 54' per request from the District to accommodate future deck replacement and maintenance activities.

Structure

BMS Number: 40-0080-2504-1425

BRKEY: 23645

Description: (provide name of waterway or facility structure crosses)

I-80 EB over Nescopeck Creek

	Existing	Proposed
Structure Type:	Steel Stringer	Prestressed Concrete PA Bulb Tee Beams
Weight Restrictions:	None ton	None ton
Height Restrictions:	None ft	None ft
Curb to Curb Width:	32'-8" ft	70 ft
Lane Width:	Two 12' lanes ft	Two 12' lanes ft
Shoulder Width:	4'-4" LT & RT ft	8' LT, 12' RT ft
Sidewalk Width:	N/A ft	N/A ft
Total Bridge Width*:	37'-6" Out to Out ft	73'-1/2" Out to Out ft

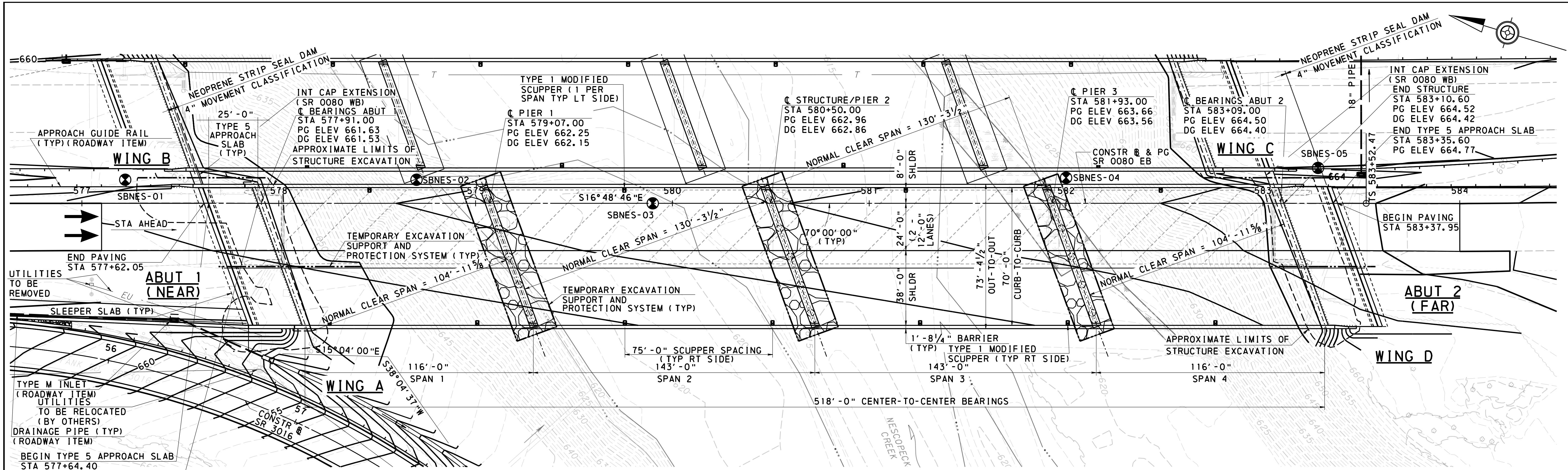
***Total Bridge Width is measured from outside of barrier to outside of barrier, which should include sidewalks, when present.**

Under Clearance:	37.94 ft	36.56 ft
Lateral Clearance:	NA ft	N/A ft
Sufficiency Rating:	77.4	
Structure Length:	507 ft	521.2 ft

Remarks, Footnotes, Supplemental Data

The work includes the complete replacement of the existing bridge with a new bridge on new substructures. The I-80 EB bridge is anticipated to be replaced via half-width construction. The I-80 EB bridge curb to curb is proposed at 70' to accommodate half width construction on the I-80 EB bridge while maintaining 2 lanes of traffic in the EB direction and keeping the baseline of I-80 EB in the same location.

Appendix B
Preliminary Design Plans



HORIZONTAL CURVE DATA

CONSTR @ SR 0080 EB	
PI STA 599+91.01	Es = 557.95'
$\Delta = 81^{\circ}22'40''$ LT	k = 179.93'
$\Delta c = 28^{\circ}56'49''$ LT	p = 3.30'
$Dc = 3^{\circ}29'58''$ (ARC)	Xc = 359.57'
Rc = 1637.28'	Yc = 13.18'
Lc = 827.19'	LT = 240.15'
Os = 6^{\circ}17'56'' LT	ST = 120.14'
Ls = 360.00'	LC = 359.81'
Ts = 1638.54'	SE = 8.00%
TS STA = 583+52.47	CS STA = 608+03.25
SC STA = 587+12.47	ST STA = 611+63.25

PROPOSED SOIL BORING INFORMATION

BORING	APPROX LOCATION
SBNES-01	STA 577+22.00, 12.0' LT
SBNES-02	STA 578+70.00, 12.0' LT
SBNES-03	STA 579+90.00, @
SBNES-04	STA 582+00.00, 13.0' LT
SBNES-05	STA 583+28.00, 18.0' LT

EXISTING STRUCTURE DATA

STA 580+53.35
 FOUR SPAN CONT WELDED PLATE GIRDER BRIDGE
 CLEAR SPAN = 2 @ 112' & 2 @ 140'
 UNDERCLEAR = 37.96'
 CLEAR ROADWAY WIDTH = 32'
 SKEW = 90°

LEGEND

- EXISTING STRUCTURE (TO BE REMOVED) (ROADWAY ITEM)
- NO. 57 COARSE AGGREGATE (ROADWAY ITEM)
- SELECTED BORROW EXCAVATION ROCK, CLASS R-8 (GROUT IN PLACE)
- DELINEATED WETLAND
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM
- DIRECTION OF TRAFFIC
- PROFILE GRADE
- DECK GRADE
- PROPOSED BORING LOCATION

DES: MBM DWG: MBM CKD: JES

DESIGN REVIEWED BY:

PENNONI ASSOCIATES INC.
 672 SOUTH RIVER STREET,
 SUITE 313
 PLAINS, PA 18705

Signature and Date: _____

PREPARED BY:

LARSON DESIGN GROUP
 1000 COMMERCE PARK DRIVE
 WILLIAMSPORT, PA 17701

Signature and Date: _____

**PRELIMINARY
DRAWING
OR
INFORMATION**

This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.
SEAL

**PRELIMINARY
DRAWING
OR
INFORMATION**

This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.
SEAL

DESCRIPTION	DWG. NO.	APP. DATE
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06-01-2010
BACKFILL AT STRUCTURES	RC-12M	02-08-2019
CONCRETE PAVEMENT JOINTS	RC-20M	12-17-2019
SUBSURFACE DRAINS	RC-30M	12-17-2019
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-19-2021
TYPE 31 STRONG POST GUIDE RAIL	RC-51M	02-19-2021
PERMANENT METAL DECK FORMS	BC-732M	01-31-2019
ANCHOR SYSTEMS	BC-734M	02-19-2021
WALL CONSTRUCTION & EXPANSION JOINT DETAILS	BC-735M	09-30-2016
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	01-31-2019
BRIDGE DRAINAGE	BC-751M	01-31-2019
CONCRETE DECK SLAB DETAILS	BC-752M	02-19-2021
BEARINGS	BC-755M	01-31-2019
STEEL PILE TIP REINFORCEMENT AND SPLICES	BC-757M	09-30-2016
NEOPRENE STRIP SEAL DAM FOR PRESTRESSED CONCRETE & STEEL I-BEAM BRIDGES	BC-767M	02-19-2021
STEEL MIDSPAN DIAPHRAGMS FOR P/S CONCRETE AASHTO I-BEAMS AND PA BULB-TEE BEAM BRIDGES	BC-770M	01-31-2019
PRESTRESSED CONCRETE BEAM BRACING	BC-772M	09-30-2016
MISCELLANEOUS PRESTRESS DETAILS	BC-775M	09-30-2016
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	01-31-2019
DESCRIPTION	DWG. NO.	APP. DATE

SUPPLEMENTAL DRAWINGS

- PHASE 1 CONSTRUCTION SEQUENCE**
- INSTALL TEMPORARY SUPPORT AND EXCAVATION PROTECTION SYSTEM, AS SHOWN.
 - CONSTRUCT PHASE 1 STRUCTURE.
 - RELOCATE SR 3016 (TANK ROAD) AND CONSTRUCT WALL.
 - CONSTRUCT MOMENT SLAB AND PROPOSED SHOULDER ALONG SR 0080 EB.
 - COMPLETE PAVING OPERATIONS.

- PHASE 2 CONSTRUCTION SEQUENCE**
- INSTALL TEMPORARY BARRIER ON NEWLY CONSTRUCTED STRUCTURE.
 - SHIFT EASTBOUND TRAFFIC ONTO NEWLY CONSTRUCTED ROADWAY AND STRUCTURE.
 - CONSTRUCT PHASE 2 STRUCTURE.
 - REMOVE TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM.
 - COMPLETE PAVING OPERATIONS.

NOTE: PROFILE GRADE (PG) IS MEASURED AT TOP OF BRIDGE DECK OVERLAY AND CONCRETE APPROACH SLAB. DECK GRADE (DG) IS MEASURED AT THE TOP OF 8" CONCRETE DECK (AFTER ANY MECHANICAL GRINDING, IF NEEDED.)

INDEX OF STRUCTURE DRAWINGS

SHEET NO.	TITLE
1	CONCEPTUAL GENERAL PLAN
2	CONCEPTUAL ELEVATION
3	CONCEPTUAL TYPICAL SECTION
4	CONCEPTUAL PHASED CONSTRUCTION TYPICAL SECTIONS

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					
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	BMS# 40-0080-2504-1414				ECMS#111769 BRKEYXXXX

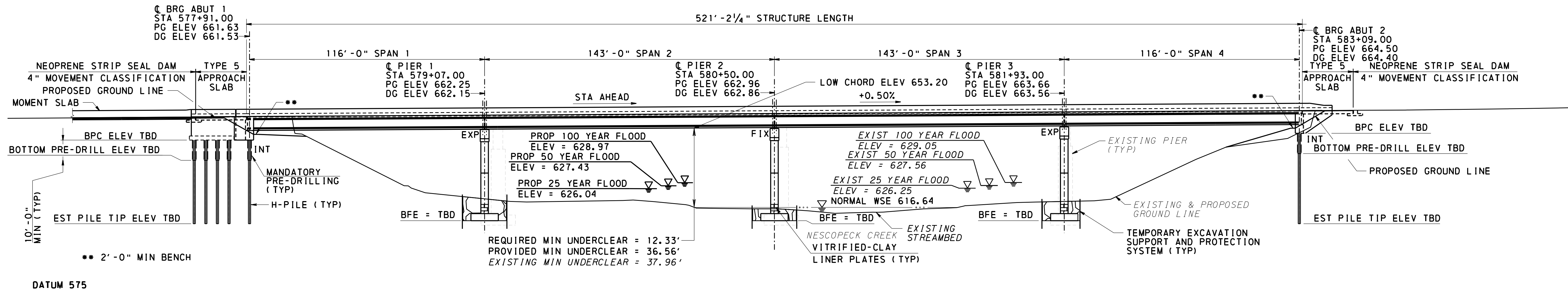
**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

LUZERNE COUNTY
SR 0080 EB SEC 352
 SEGMENT 2504 OFFSET 1414
 SR 0080 EB STA 580+50.00
 OVER NESCOPECK CREEK
 4-SP CONT COMP P/S PA BULB-TEE BEAM BRIDGE
 BRIDGE REPLACEMENT
CONCEPTUAL GENERAL PLAN

RECOMMENDED _____

SHEET 1 OF 4
& SUPPLEMENTAL DRAWINGS
S - 40358D

DISTRICT BRIDGE ENGINEER



DATUM 575

- USE PLAIN NEOPRENE BEARING PADS AT ABUTMENTS.
- USE LAMINATED NEOPRENE BEARING PADS AT THE PIERS
- PROVIDE CONTINUITY DIAPHRAGMS AT PIERS.

GENERAL NOTES:

1. DESIGN IS IN ACCORDANCE WITH THE AASHTO LRFD DESIGN SPECIFICATIONS, 2017, 8TH EDITION AND SUPPLEMENTED BY PENNDOT DESIGN MANUAL PART 4, 2019.
2. LIVE LOAD DISTRIBUTION TO BEAM IS BASED ON DM-4 DISTRIBUTION FACTORS.
3. DESIGN LIVE LOAD IS PHL-93, ML-80, TK527, P-82 PERMIT LOAD AND P2016-13 PERMIT LOAD.
4. DEAD LOAD INCLUDES 30 PSF FOR FUTURE WEARING SURFACE ON THE DECK SLAB AND 15 PSF FOR PERMANENT METAL STAY IN PLACE FORMS, WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORM PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.
5. BEAMS DESIGNED USING 10 ksi CONCRETE AND 0.6" DIA STRANDS.
6. EXISTING ABUTMENTS AND PIERS TO BE REMOVED 3'-0" BELOW PROPOSED FINISHED GRADE OR AS NECESSARY TO CONSTRUCT NEW SUBSTRUCTURE.
7. THE NUMBER OF FIXED PIERS SHALL BE ESTABLISHED BY THE CONTRACTOR'S LEAD DESIGN ENGINEER SUBJECT TO THE DESIGN REQUIREMENTS IN PENNDOT DESIGN MANUAL PART 4, 2019, AND THE CONTRACT SPECIAL PROVISIONS.

NOTE: PROFILE GRADE (PG) IS MEASURED AT TOP OF BRIDGE DECK OVERLAY AND CONCRETE APPROACH SLAB. DECK GRADE (DG) IS MEASURED AT THE TOP OF 8" CONCRETE DECK (AFTER ANY MECHANICAL GRINDING, IF NEEDED.)



SCOUR INFORMATION

	ABUT 1	PIER 1	PIER 2	PIER 3	ABUT 2
ESTIMATED BOTTOM OF FOOTING ELEVATION	TBD	TBD	TBD	TBD	TBD
TOP OF ROCK ELEVATION	TBD	TBD	TBD	TBD	TBD
SCOUR DESIGN ELEVATION	TBD	TBD	TBD	TBD	TBD

1. SCOUR DEPTHS TO BE CALCULATED AFTER TOP OF ROCK ELEVATIONS DETERMINED FROM BORINGS.
2. BOTTOM OF FOOTING ASSUMED 6'-0" BELOW STREAM BED ELEVATION.
3. BORINGS NOT YET PERFORMED.

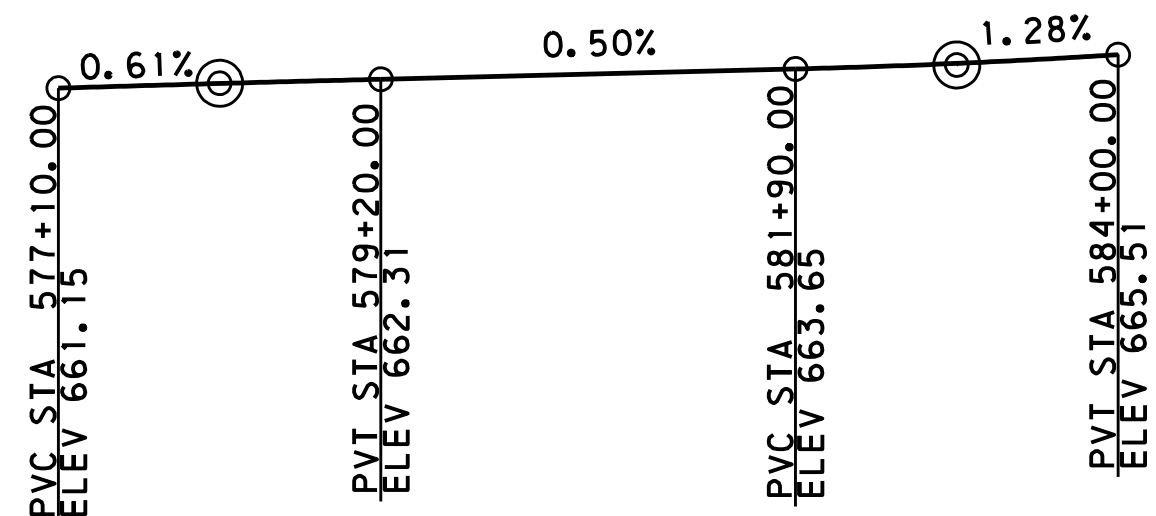
HYDRAULIC DATA

DRAINAGE AREA = 156.0 SQ MI
 DEP DESIGN FLOOD
 FREQUENCY = 25 YEARS
 MAGNITUDE = 14561 CFS
 VELOCITY = 9.48 FPS
 PERT WS ELEV = 626.04
 PENNDOT DESIGN FLOOD
 FREQUENCY = 50 YEARS
 MAGNITUDE = 17456 CFS
 VELOCITY = 9.61 FPS
 PERT WS ELEV = 627.43
 100 YEAR FLOOD RISK ASSESSMENT
 MAGNITUDE = 20837 CFS
 VELOCITY = 9.76 FPS
 PERT WS ELEV = 628.97
 FLOOD OF RECORD = UNKNOWN

VERTICAL CURVE DATA

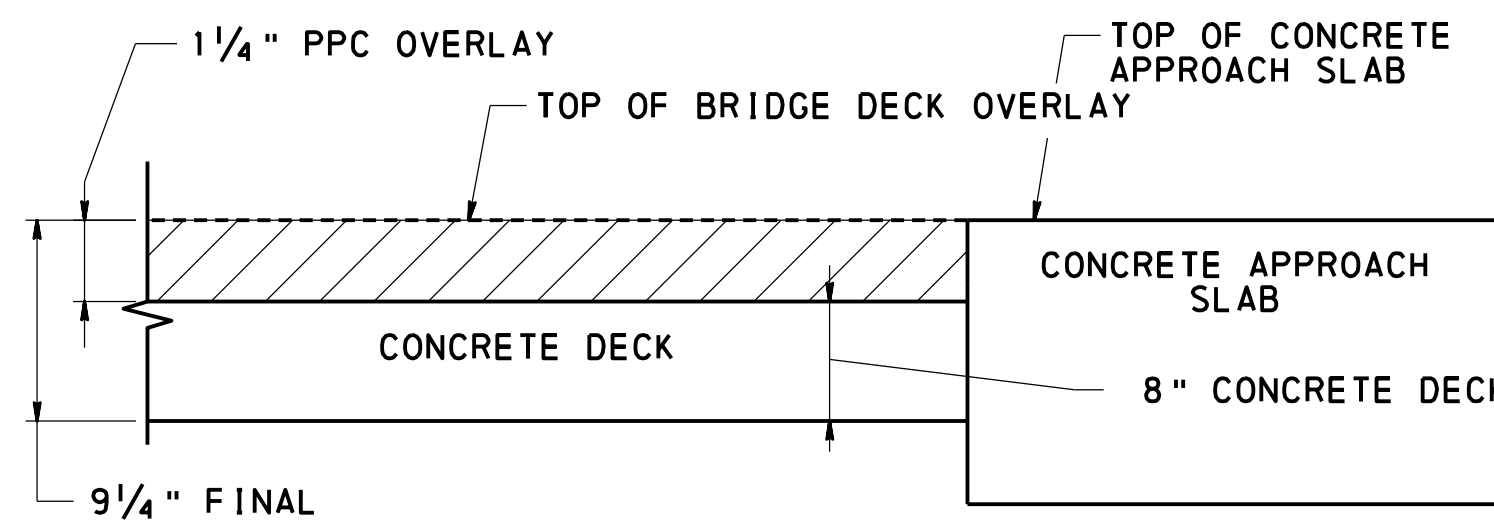
CONSTR & SR 0080 EB

PVI STA 578+15.00 ELEV 661.79 VC 210.00' MO -0.03' SSD 9638'	PVI STA 582+95.00 ELEV 664.17 VC 210.00' MO 0.20' HLS UNLIMITED
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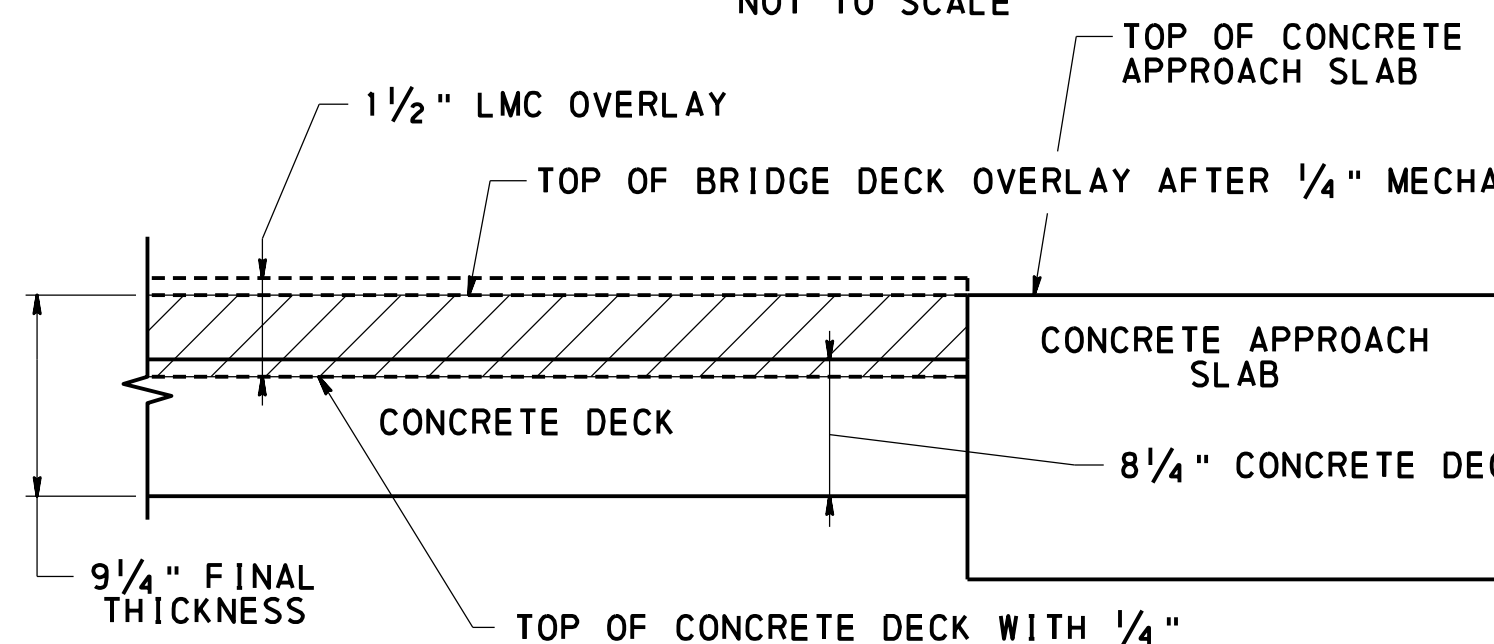
LEGEND

- SELECTED BORROW EXCAVATION ROCK, CLASS R-8 (4'-0" MIN) (GROUT IN PLACE)
- BPC - BOTTOM OF PILE CAP
- BFE - BOTTOM OF FOOTING ELEVATION
- PG - PROFILE GRADE
- DG - DECK GRADE
- TBD - TO BE DETERMINED
- WSE - WATER SURFACE ELEVATION
- INT - INTEGRAL ABUTMENT
- EXP - EXPANSION



BRIDGE DECK WITH PPC OVERLAY

NOT TO SCALE



BRIDGE DECK WITH LMC OVERLAY

NOT TO SCALE

**PRELIMINARY
DRAWING
OR
INFORMATION**

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Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 0080 EB PREVIOUSLY KNOWN AS L.R. 1009
 BMS# 40-0080-2504-1414 ECMS# 111769 BRKEYXXXX

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

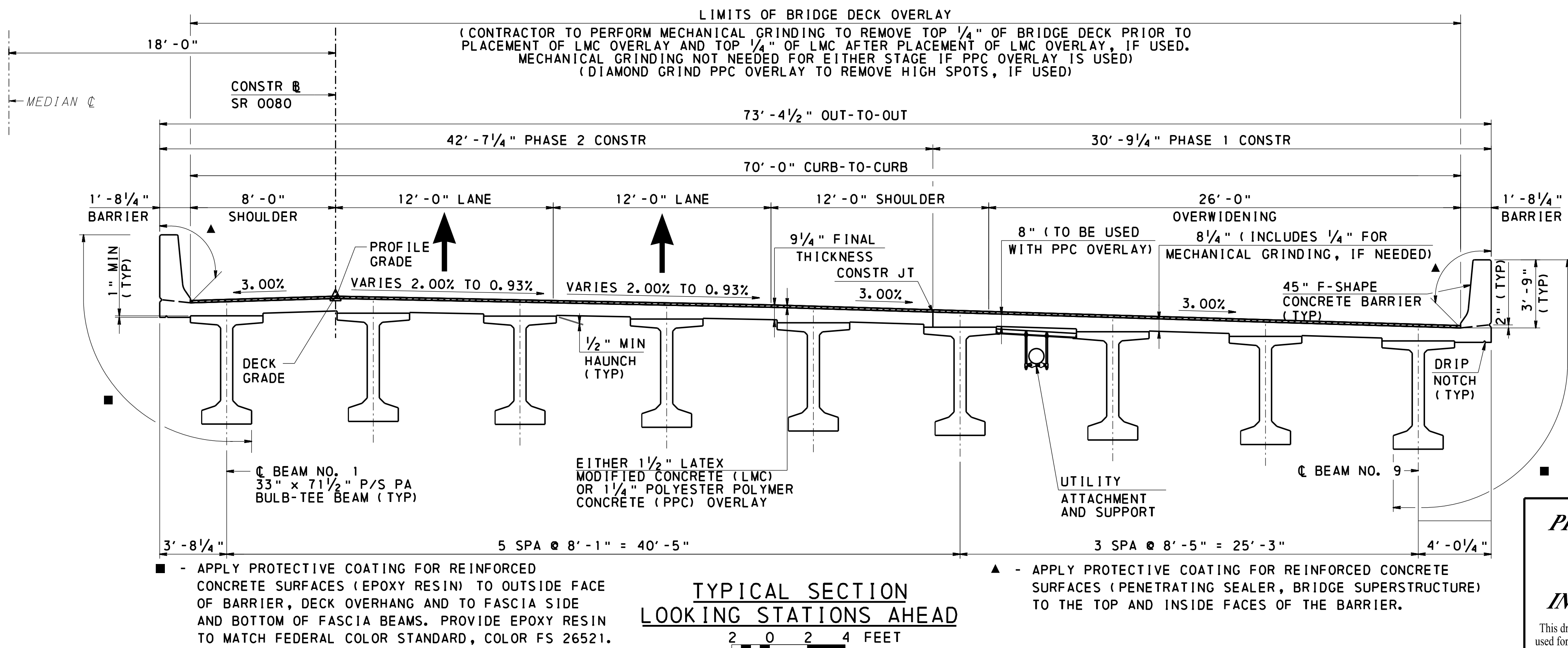
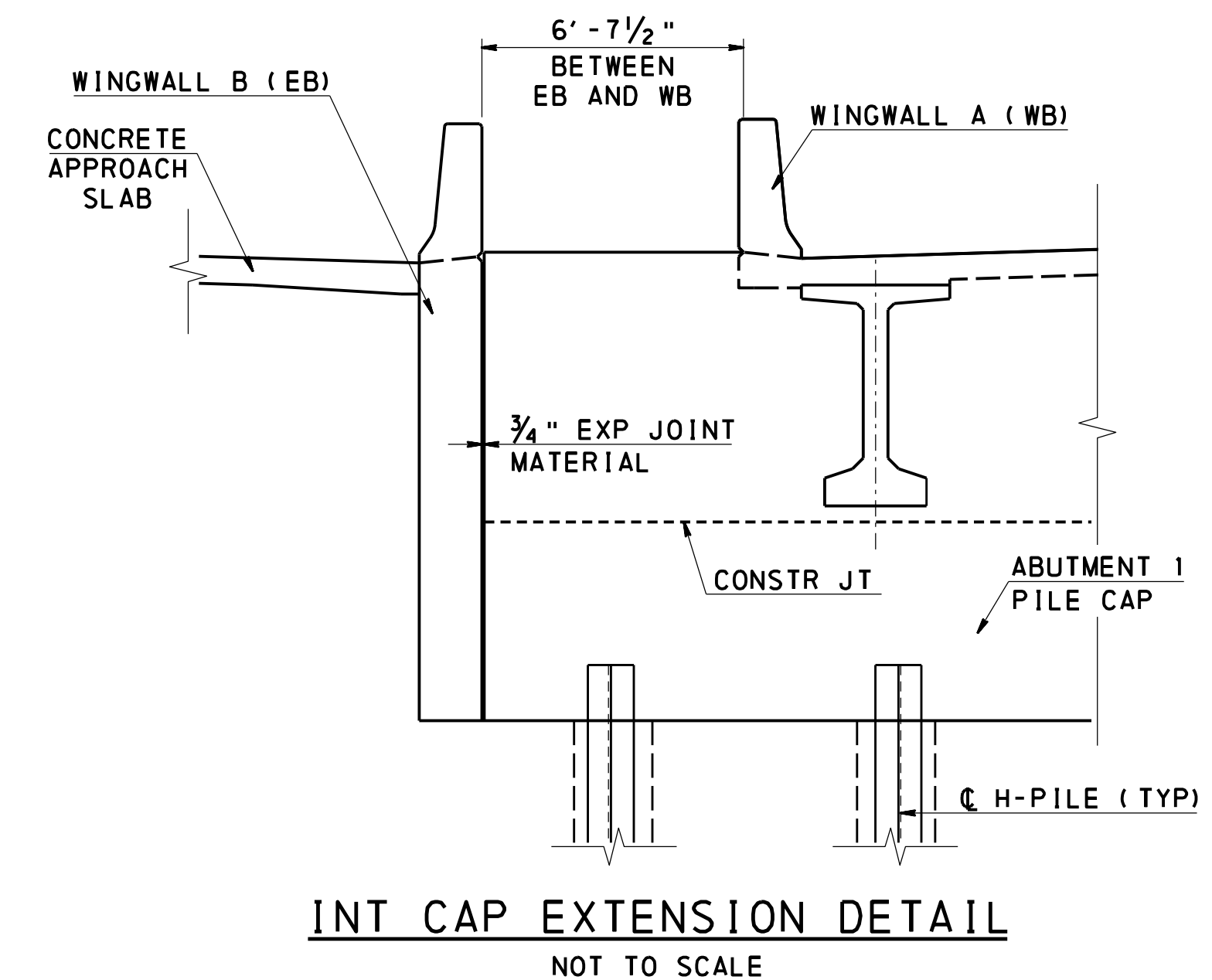
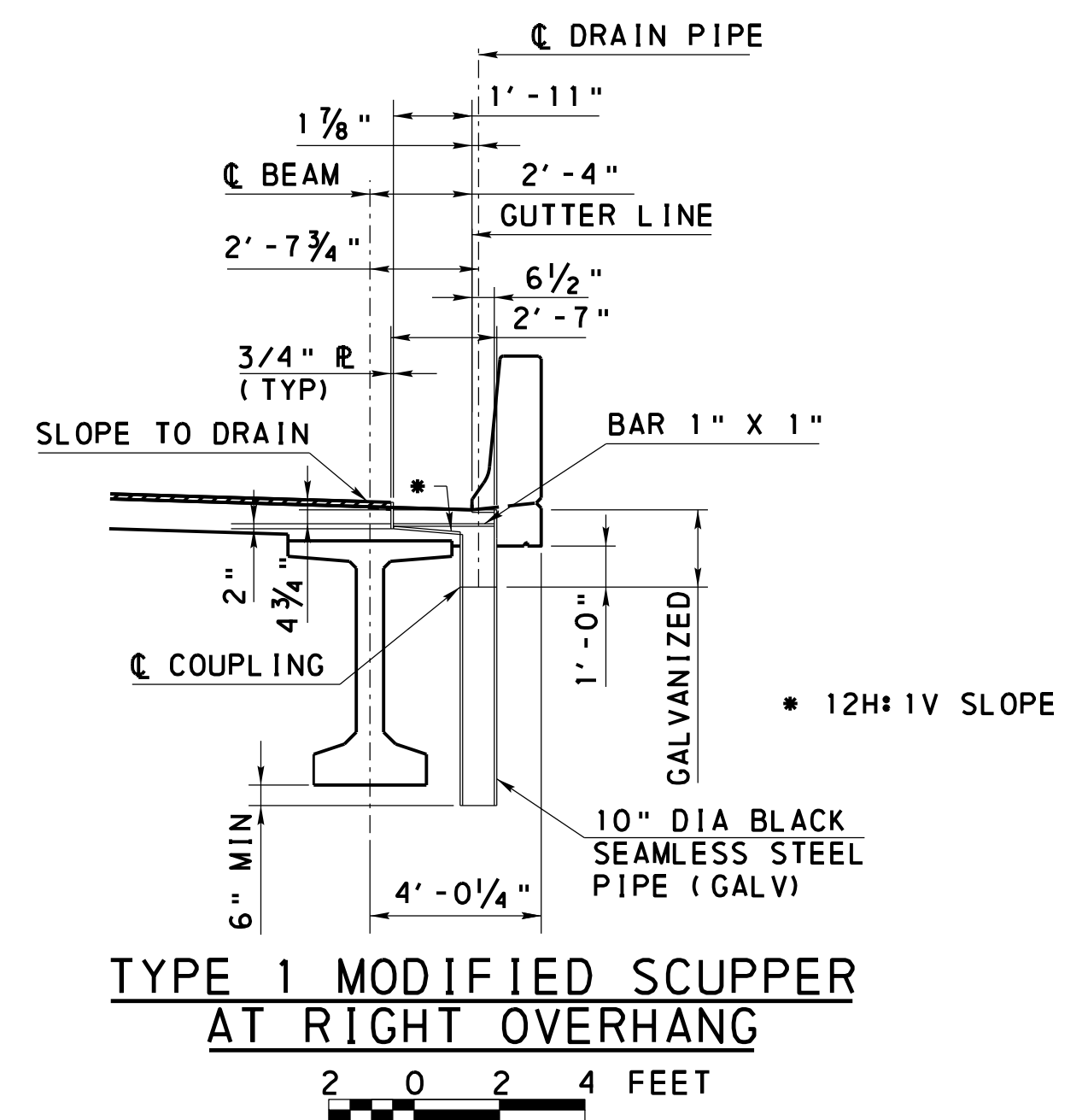
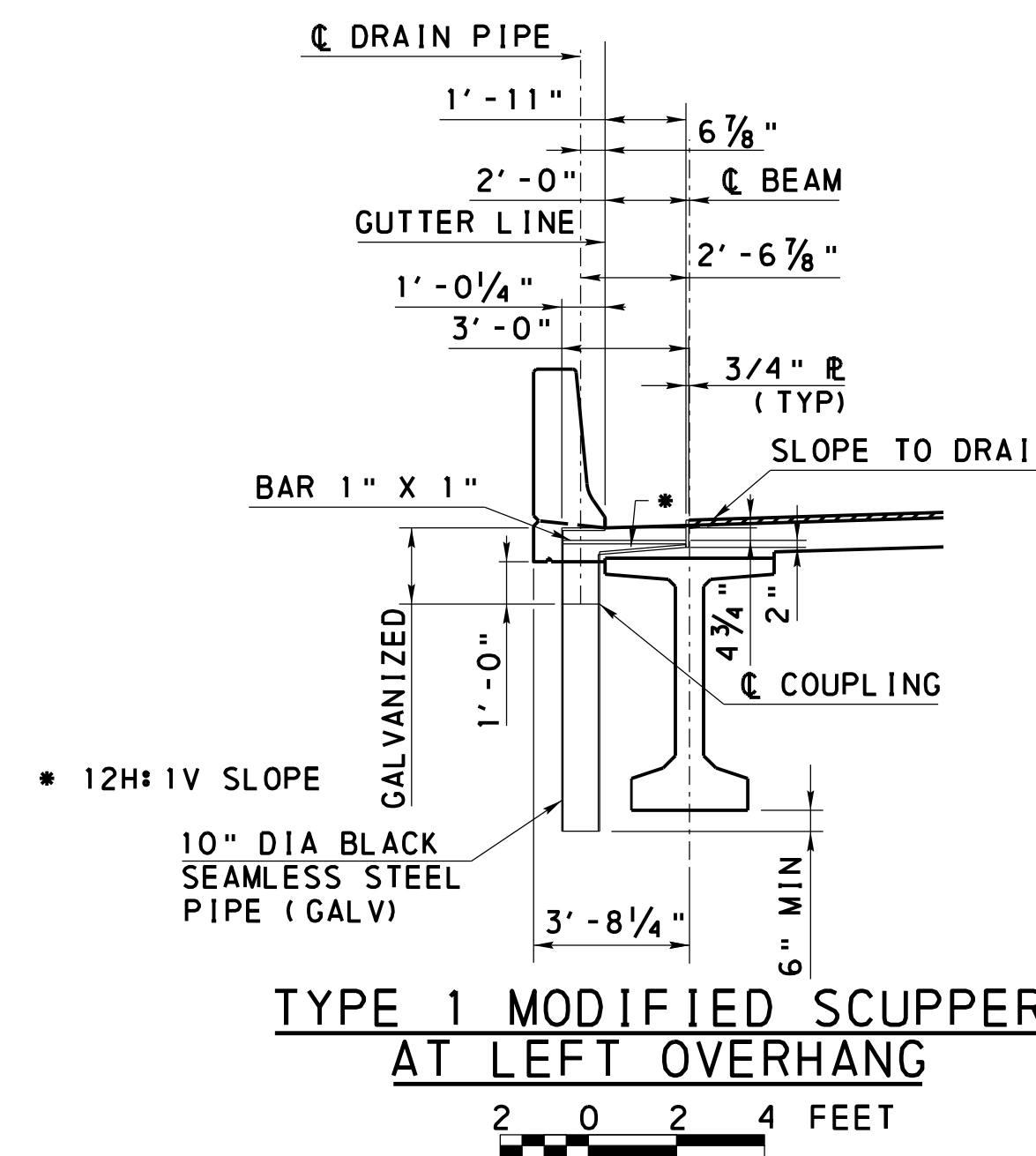
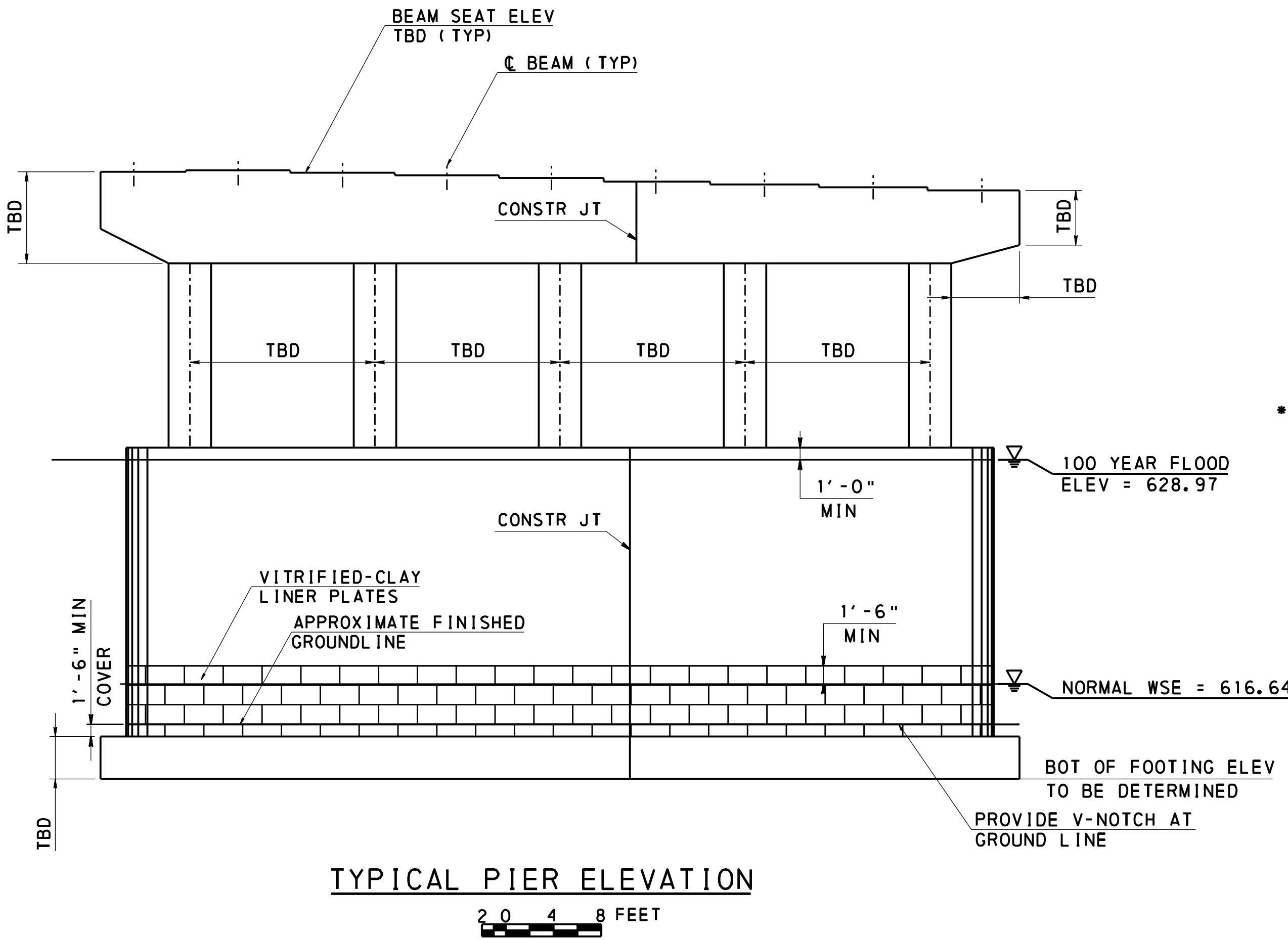
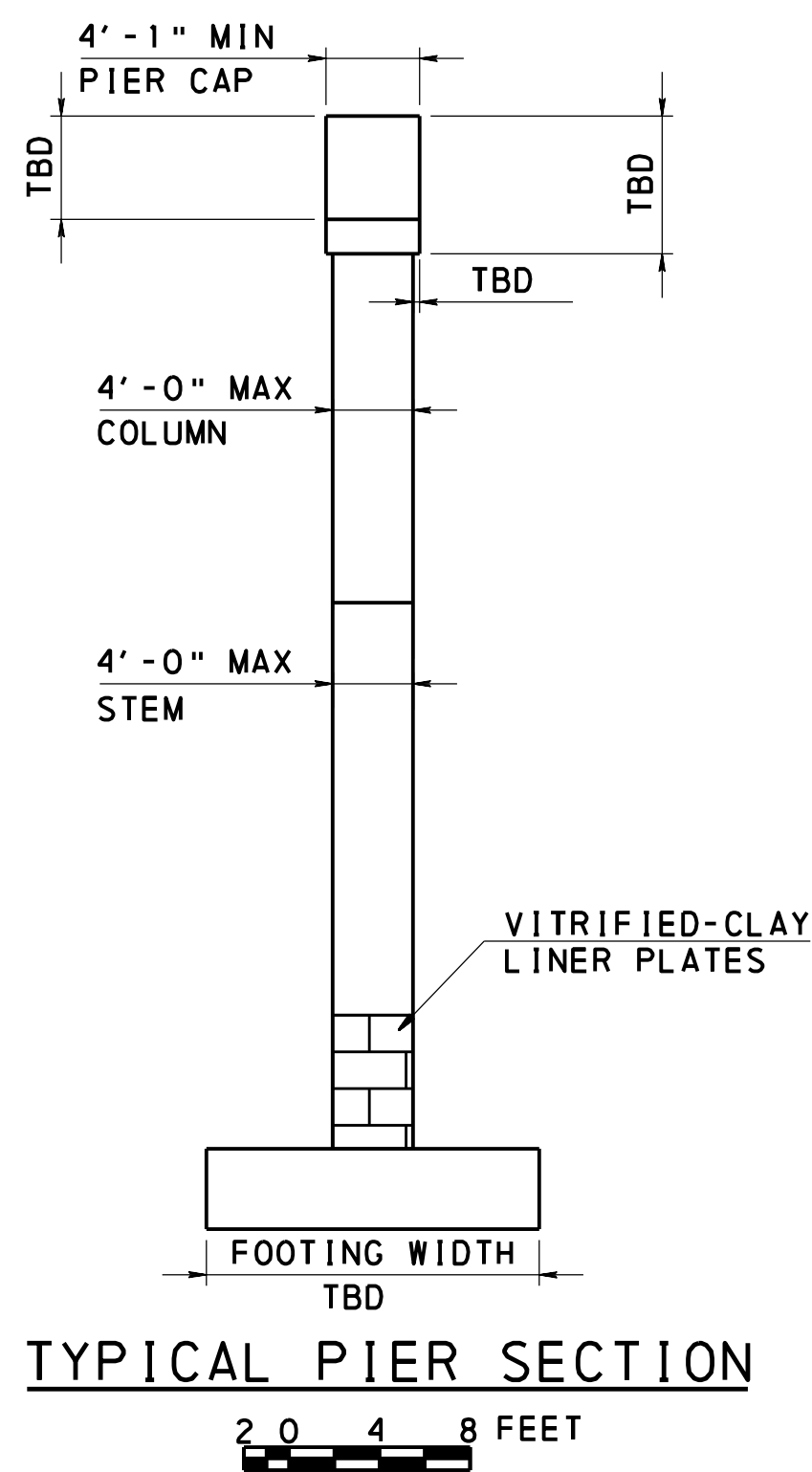
**LUZERNE COUNTY
SR 0080 EB SEC 352**

SEGMENT 2504 OFFSET 1414
 SR 0080 EB STA 580+50.00

OVER NESCOPECK CREEK
 4-SP CONT COMP P/S PA BULB-TEE BEAM BRIDGE
 BRIDGE REPLACEMENT
CONCEPTUAL ELEVATION

RECOMMENDED _____ SHEET 2 OF 4

S - 40358D



Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 0080 EB PREVIOUSLY KNOWN AS L.R. 1009
 BMS# 40-0080-2504-1414 ECMS# 111769 BRKEYXXXX

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

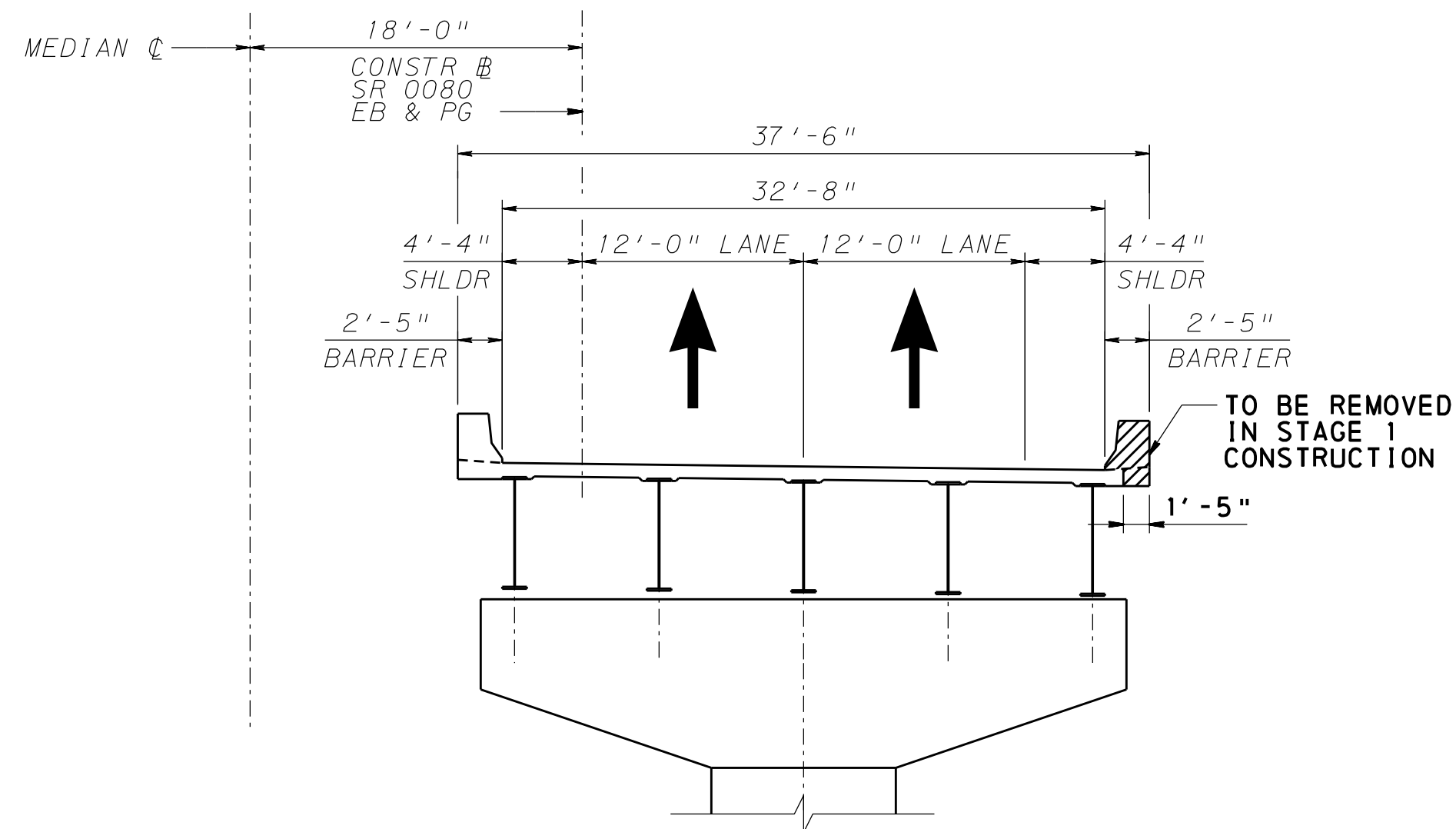
LUZERNE COUNTY
 SR 0080 EB SEC 352
 SEGMENT 2504 OFFSET 1414
 SR 0080 EB STA 580+50.00
 OVER NESCOPECK CREEK
 4-SP CONT COMP P/S PA BULB-TEE BEAM BRIDGE
 BRIDGE REPLACEMENT
CONCEPTUAL TYPICAL SECTION

***PRELIMINARY
 DRAWING
 OR
 INFORMATION***

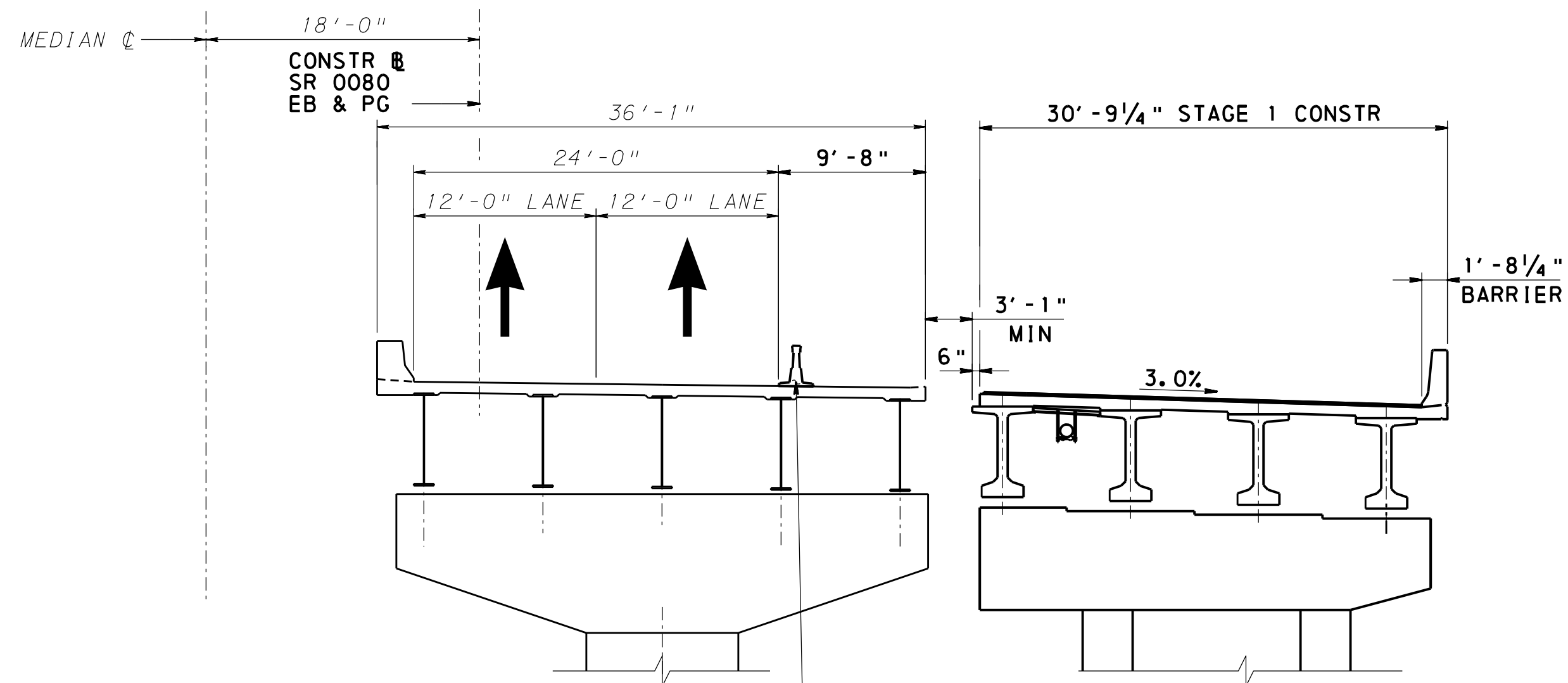
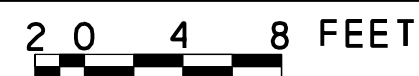
This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.

RECOMMENDED _____ SHEET 3 OF 4

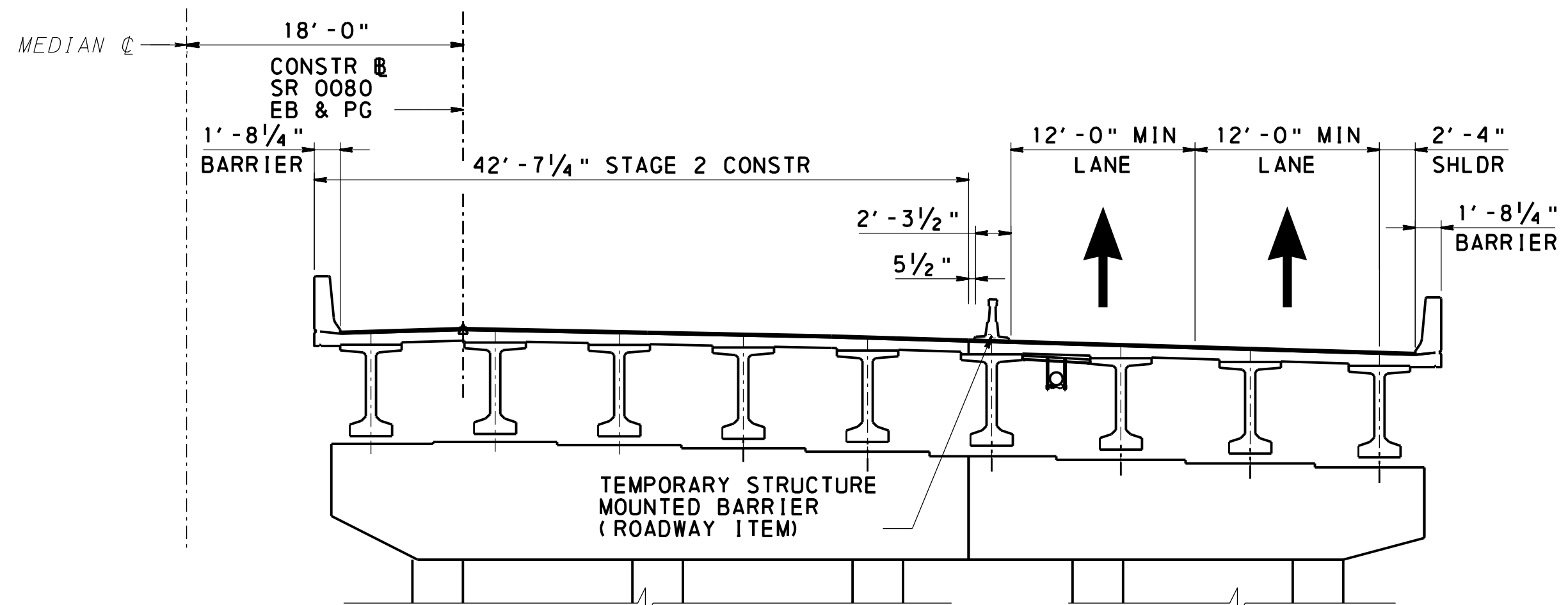
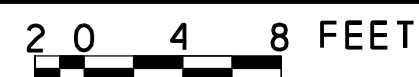
S - 40358D



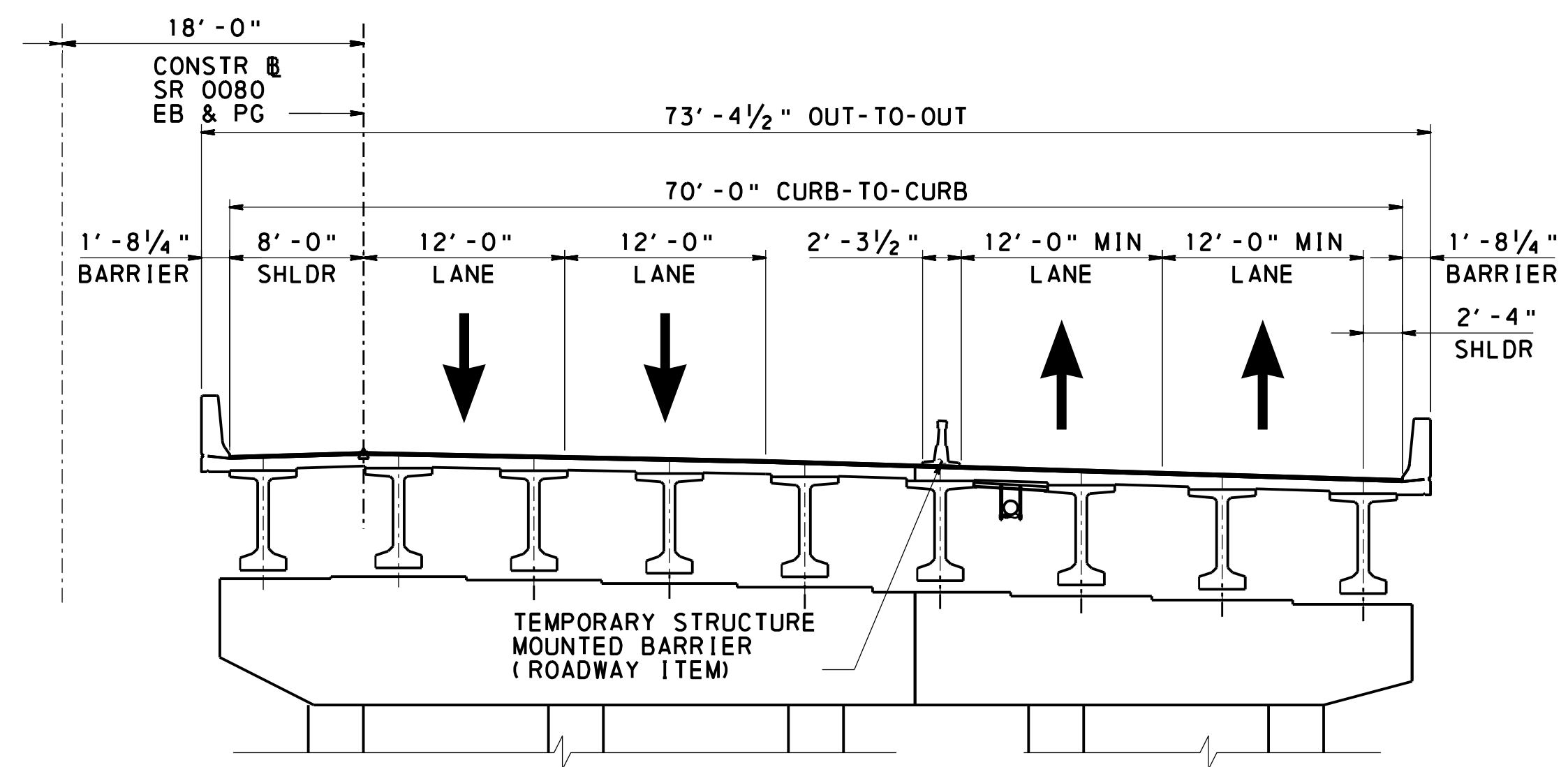
EXISTING SR 0080 EB TYPICAL SECTION



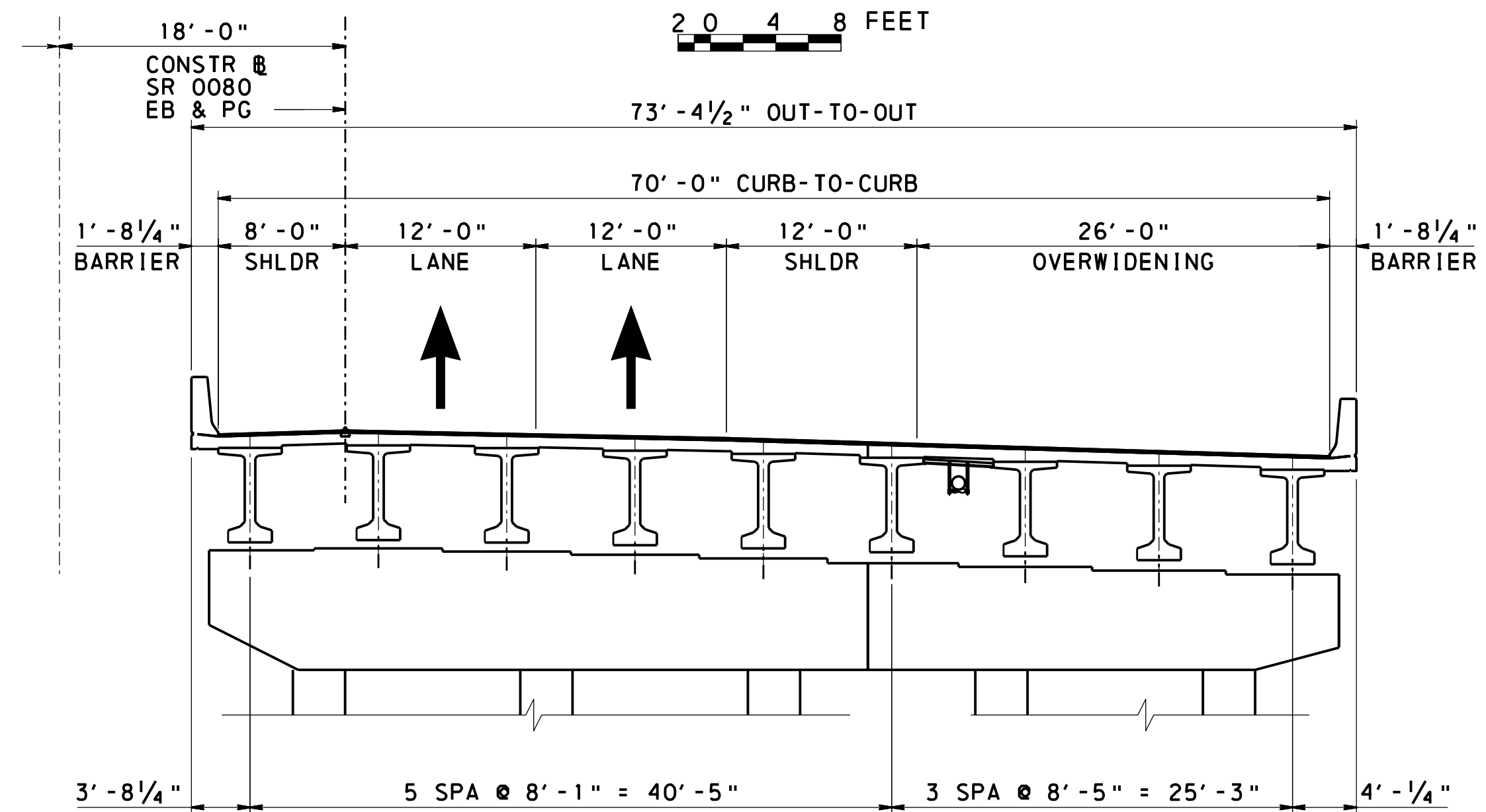
PHASE 1 SR 0080 EB TYPICAL SECTION



PHASE 2 SR 0080 EB TYPICAL SECTION



PHASE 3 SR 0080 EB & WB TYPICAL SECTION



PROPOSED SR 0080 EB TYPICAL SECTION



Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 0080 EB PREVIOUSLY KNOWN AS L.R. 1009
 BMS# 40-0080-2504-1414 ECMS# 111769 BRKEYXXXX

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

LUZERNE COUNTY
SR 0080 EB SEC 352
 SEGMENT 2504 OFFSET 1414
 SR 0080 EB STA 580+50.00
 OVER NESCOPECK CREEK
 4-SP CONT COMP P/S PA BULB-TEE BEAM BRIDGE
 BRIDGE

CONCEPTUAL PHASED CONSTR TYPICAL SECTIONS

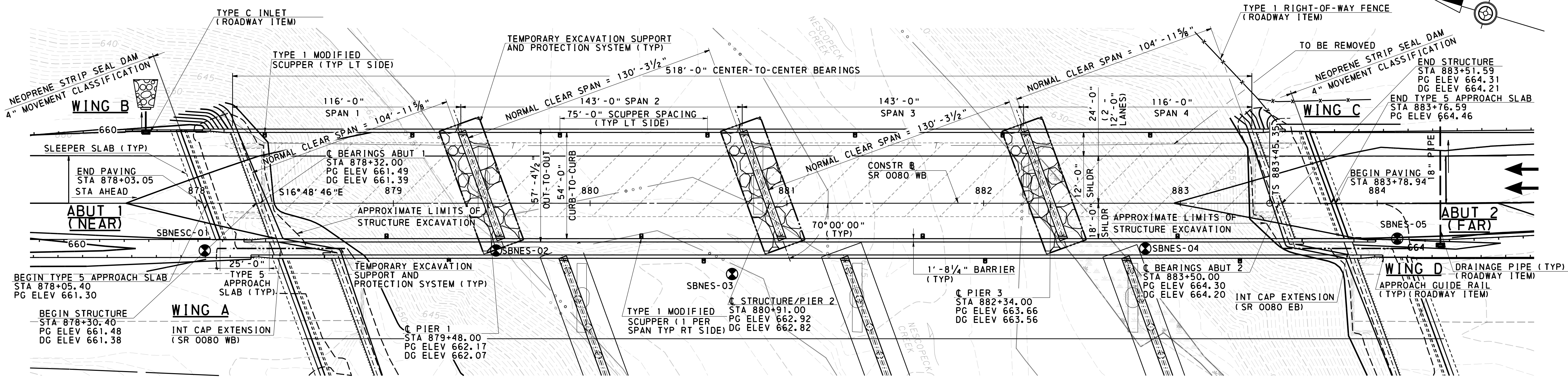
RECOMMENDED _____ SHEET 4 OF 4

S - 40358D

NOTE: CONTRACTOR TO VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.

*PRELIMINARY
 DRAWING
 OR
 INFORMATION*

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NOTE: PROFILE GRADE (PG) IS MEASURED AT TOP OF BRIDGE DECK OVERLAY AND CONCRETE APPROACH SLAB. DECK GRADE (DG) IS MEASURED AT THE TOP OF 8" CONCRETE DECK (AFTER ANY MECHANICAL GRINDING, IF NEEDED.)

HORIZONTAL CURVE DATA

CONSTR @ SR 0080 WB	
PI STA 900+17.95	Es = 556.58'
Δ = 81°22'40" LT	k = 179.94'
Δc = 69°28'31" LT	p = 3.11'
Dc = 3°18'23" (ARC)	Xc = 359.61'
Rc = 1732.95'	Yc = 12.45'
Lc = 2101.32'	LT = 240.14'
θs = 5°57'05" LT	ST = 120.12'
Ls = 360.00'	LC = 359.83'
Ts = 1672.60'	SE = 8.00%
TS STA = 883+45.35	CS STA = 908+06.67
SC STA = 887+05.35	ST STA = 911+66.67

PROPOSED SOIL BORING INFORMATION

BORING	APPROX LOCATION
SBNES-01	STA 878+04.16, 24.0' RT (WB) = 577+22.00, 12.0' LT (EB)
SBNES-02	STA 879+52.16, 24.0' RT (WB) = 578+70.00, 12.0' LT (EB)
SBNES-03	STA 880+72.16, 36.0' RT (WB) = 579+90.00, (EB)
SBNES-04	STA 882+82.16, 23.0' RT (WB) = 582+00.00, 13.0' LT (EB)
SBNES-05	STA 884+10.10, 18.1' RT (WB) = 583+28.00, 18.0' LT (EB)

INDEX OF STRUCTURE DRAWINGS

SHEET NO.	TITLE
1	CONCEPTUAL GENERAL PLAN
2	CONCEPTUAL ELEVATION
3	CONCEPTUAL TYPICAL SECTION

EXISTING STRUCTURE DATA

STA 880+85.34
FOUR SPAN CONT WELDED PLATE GIRDER BRIDGE
CLEAR SPAN = 2 @ 112' & 2 @ 140'
UNDERCLEAR = 38.16'
CLEAR ROADWAY WIDTH = 32'
SKEW = 90°

LEGEND

- EXISTING STRUCTURE (TO BE REMOVED) (ROADWAY ITEM)
- SELECTED BORROW EXCAVATION ROCK, CLASS R-8 (GROUT IN PLACE)
- ROCK APRON (ROADWAY ITEM)
- DELINEATED WETLAND
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM
- DIRECTION OF TRAFFIC
- PROFILE GRADE
- DECK GRADE
- PROPOSED BORING LOCATION

DESIGN REVIEWED BY: PENNONI ASSOCIATES INC. 672 SOUTH RIVER STREET, SUITE 313 PLAINS, PA 18705 Signature and Date:	PRELIMINARY DRAWING OR INFORMATION <small>This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.</small> SEAL
PREPARED BY: LARSON DESIGN GROUP 1000 COMMERCE PARK DRIVE WILLIAMSPORT, PA 17701 Signature and Date:	PRELIMINARY DRAWING OR INFORMATION <small>This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.</small> SEAL

CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06-01-2010
BACKFILL AT STRUCTURES	RC-12M	02-08-2019
CONCRETE PAVEMENT JOINTS	RC-20M	12-17-2019
SUBSURFACE DRAINS	RC-30M	12-17-2019
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-19-2021
TYPE 31 STRONG POST GUIDE RAIL	RC-51M	02-19-2021
PERMANENT METAL DECK FORMS	BC-732M	01-31-2019
ANCHOR SYSTEMS	BC-734M	02-19-2021
WALL CONSTRUCTION & EXPANSION JOINT DETAILS	BC-735M	09-30-2016
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	01-31-2019
BRIDGE DRAINAGE	BC-751M	01-31-2019
CONCRETE DECK SLAB DETAILS	BC-752M	02-19-2021
BEARINGS	BC-755M	01-31-2019
STEEL PILE TIP REINFORCEMENT AND SPLICES	BC-757M	09-30-2016
NEOPRENE STRIP SEAL DAM FOR PRESTRESSED CONCRETE & STEEL I-BEAM BRIDGES	BC-767M	02-19-2021
STEEL MID-SPAN DIAPHRAGMS FOR P/S CONCRETE AASHTO I-BEAMS AND PA BULB-TEE BEAM BRIDGES	BC-770M	01-31-2019
PRESTRESSED CONCRETE BEAM BRACING	BC-772M	09-30-2016
MISCELLANEOUS PRESTRESS DETAILS	BC-775M	09-30-2016
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	01-31-2019
DESCRIPTION	DWG. NO.	APP. DATE

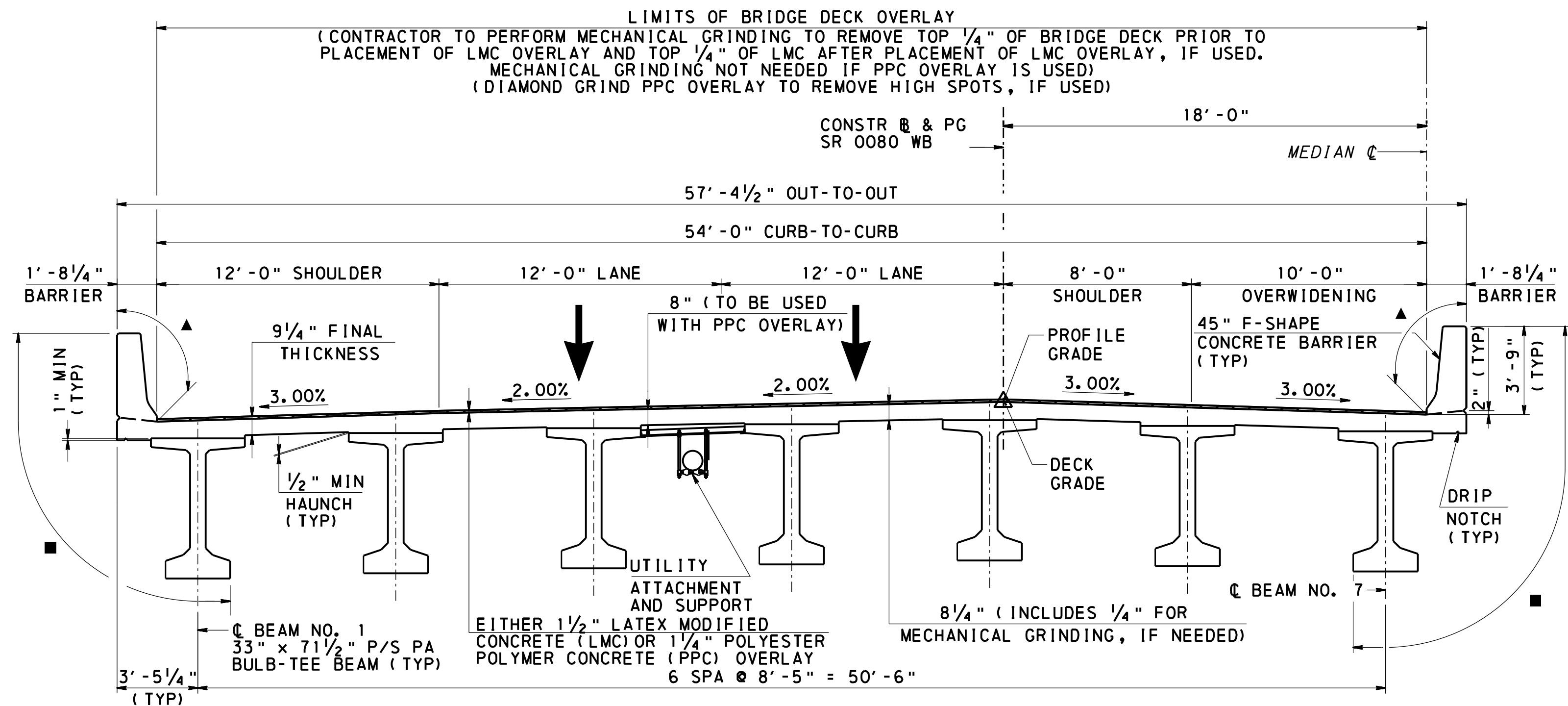
Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					
	SR 0080 WB	PREVIOUSLY KNOWN AS L.R. 1009			
	BMS# 40-0080-2505-1491	ECMS# 111769 BRKEYXXXX			

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

**LUZERNE COUNTY
SR 0080 WB SEC 352
SEGMENT 2505 OFFSET 1491
SR 0080 WB STA 880+91.00
OVER NESCOPECK CREEK
4-SP CONT COMP P/S PA BULB-TEE BEAM BRIDGE
BRIDGE REPLACEMENT
CONCEPTUAL GENERAL PLAN**

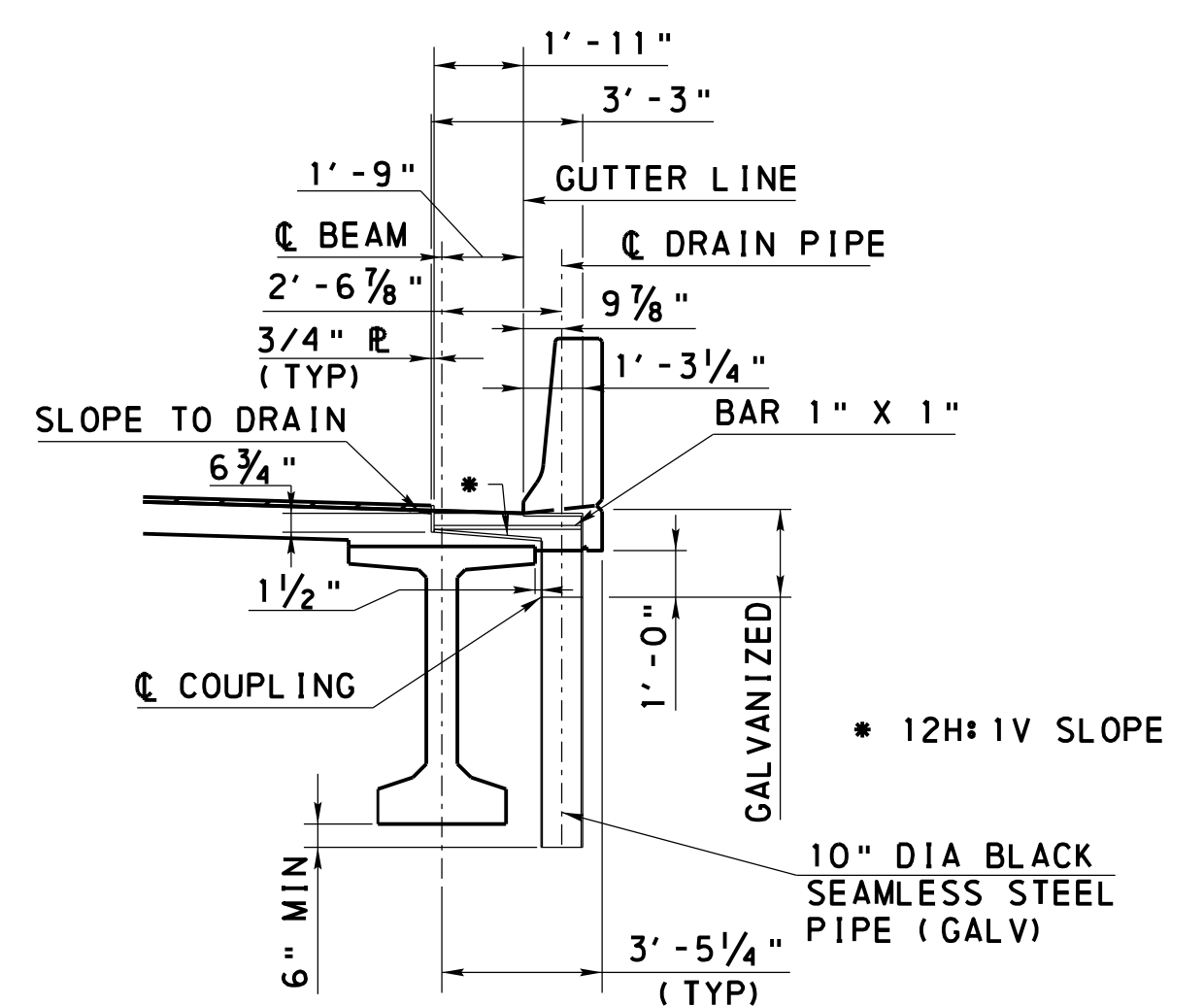
RECOMMENDED _____	SHEET 1 OF 3 & SUPPLEMENTAL DRAWINGS
DISTRICT BRIDGE ENGINEER _____	S - 40356D

D-9002 CADD (02-90) REVISED (10-04) PLOTTED: \$\$\$DATE\$\$\$

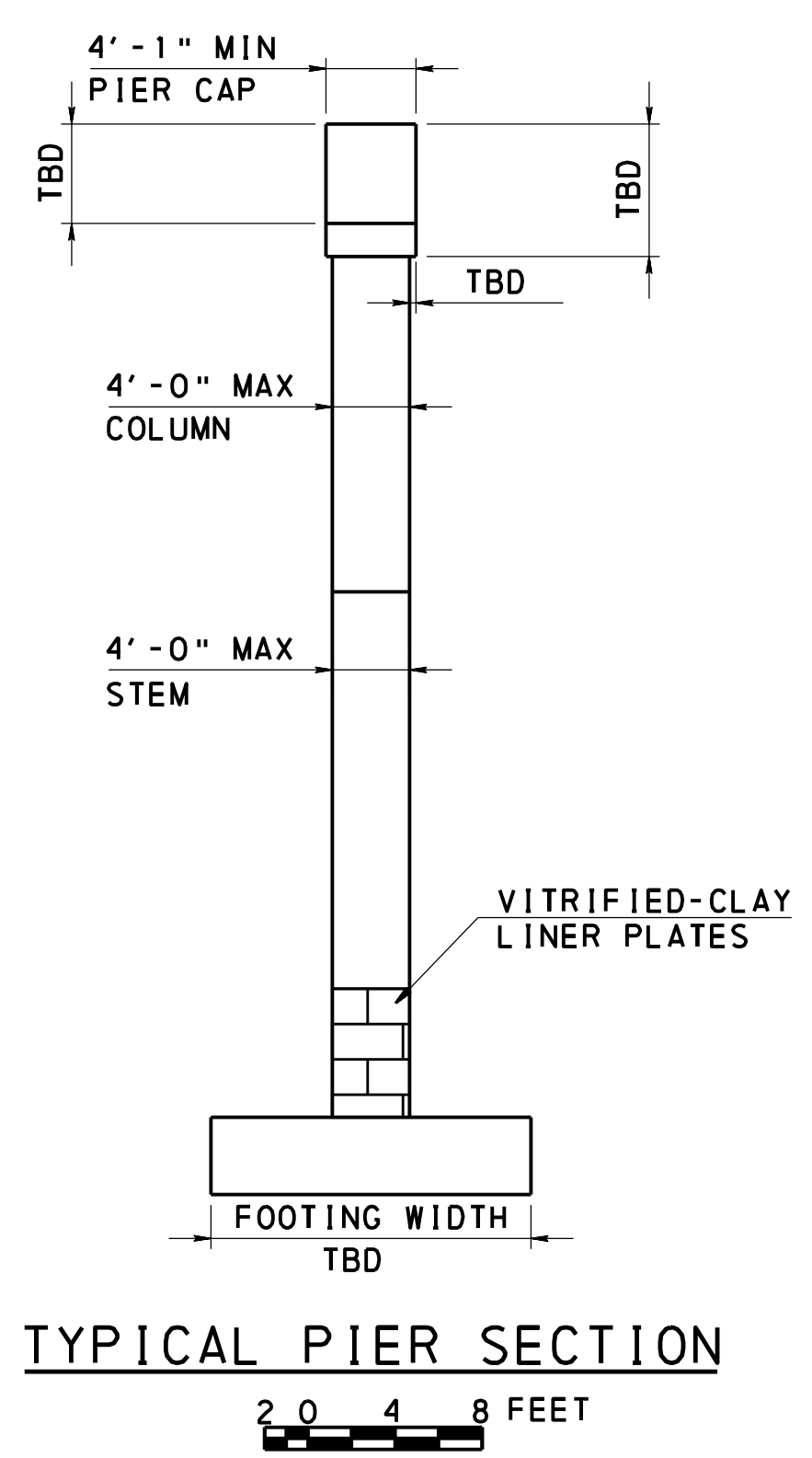
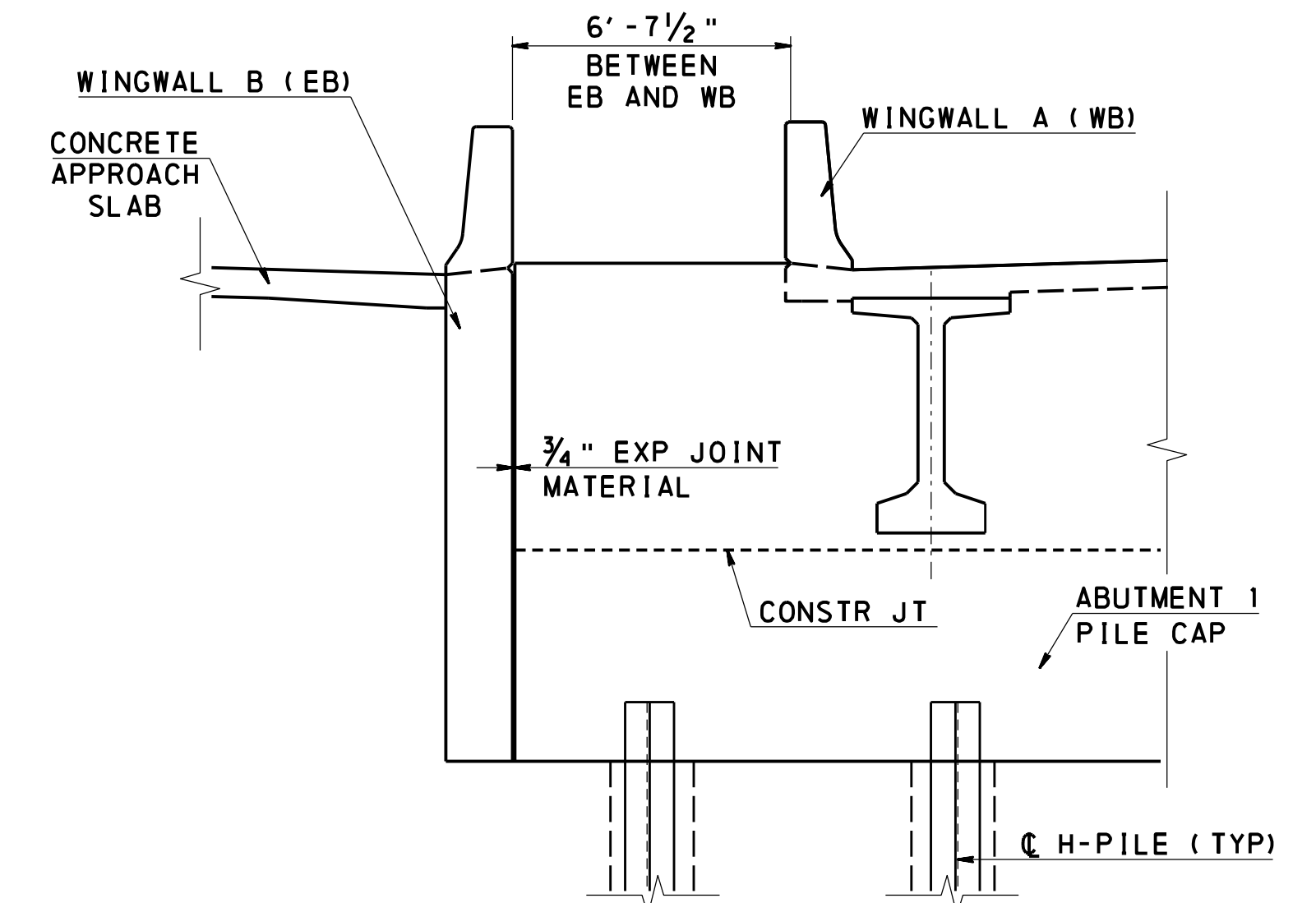


- - APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (EPOXY RESIN) TO OUTSIDE FACE OF BARRIER, DECK OVERHANG AND TO FASCIA SIDE AND BOTTOM OF FASCIA BEAMS. PROVIDE EPOXY RESIN TO MATCH FEDERAL COLOR STANDARD, COLOR FS 26521.
- ▲ - APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALER, BRIDGE SUPERSTRUCTURE) TO THE TOP AND INSIDE FACES OF THE BARRIER.

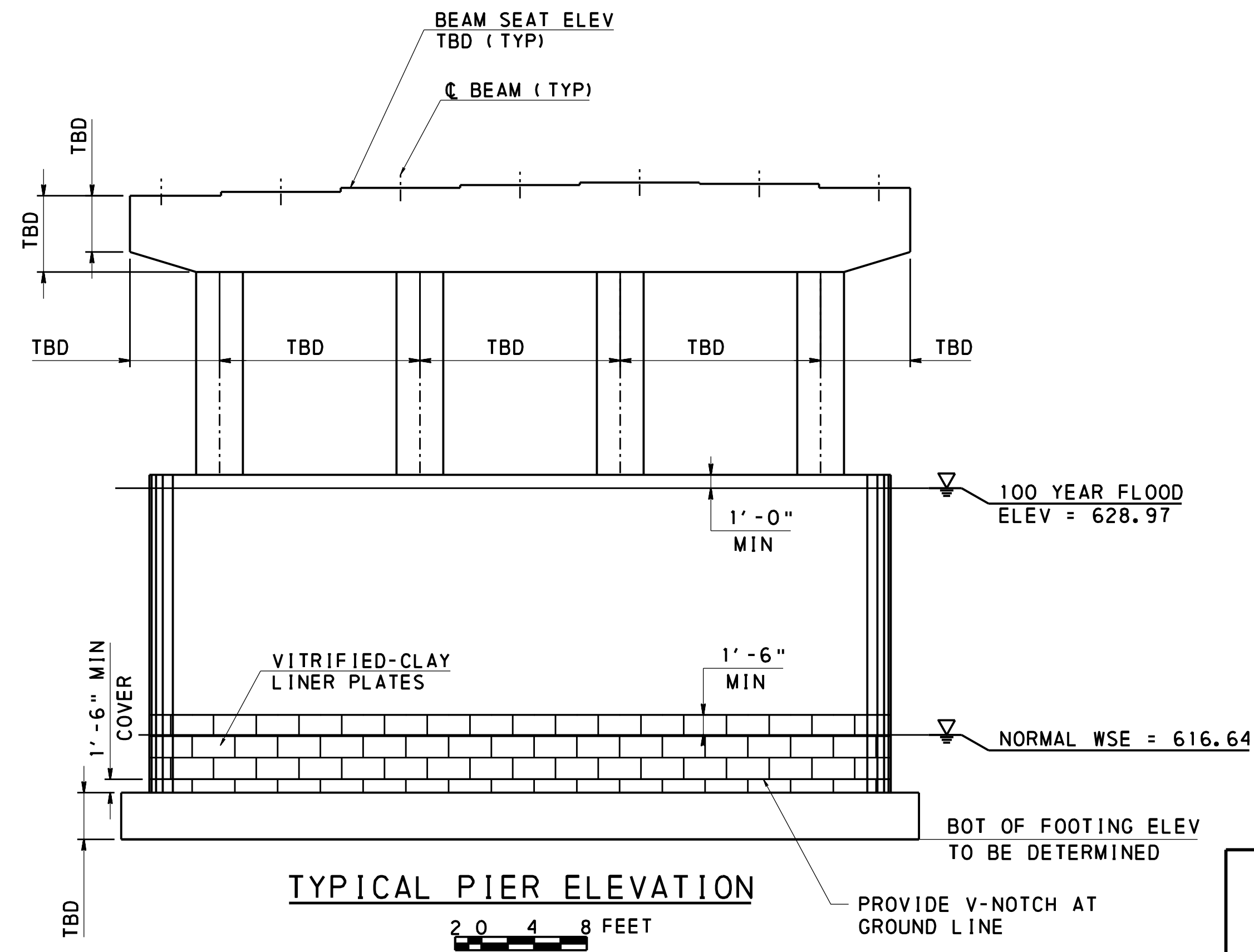
2 0 2 4 FEET



2 0 2 4 FEET



2 0 4 8 FEET



2 0 4 8 FEET

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 0080 WB PREVIOUSLY KNOWN AS L.R. 1009
BMS# 40-0080-2505-1491 ECMS# 111769 BRKEYXXXX

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

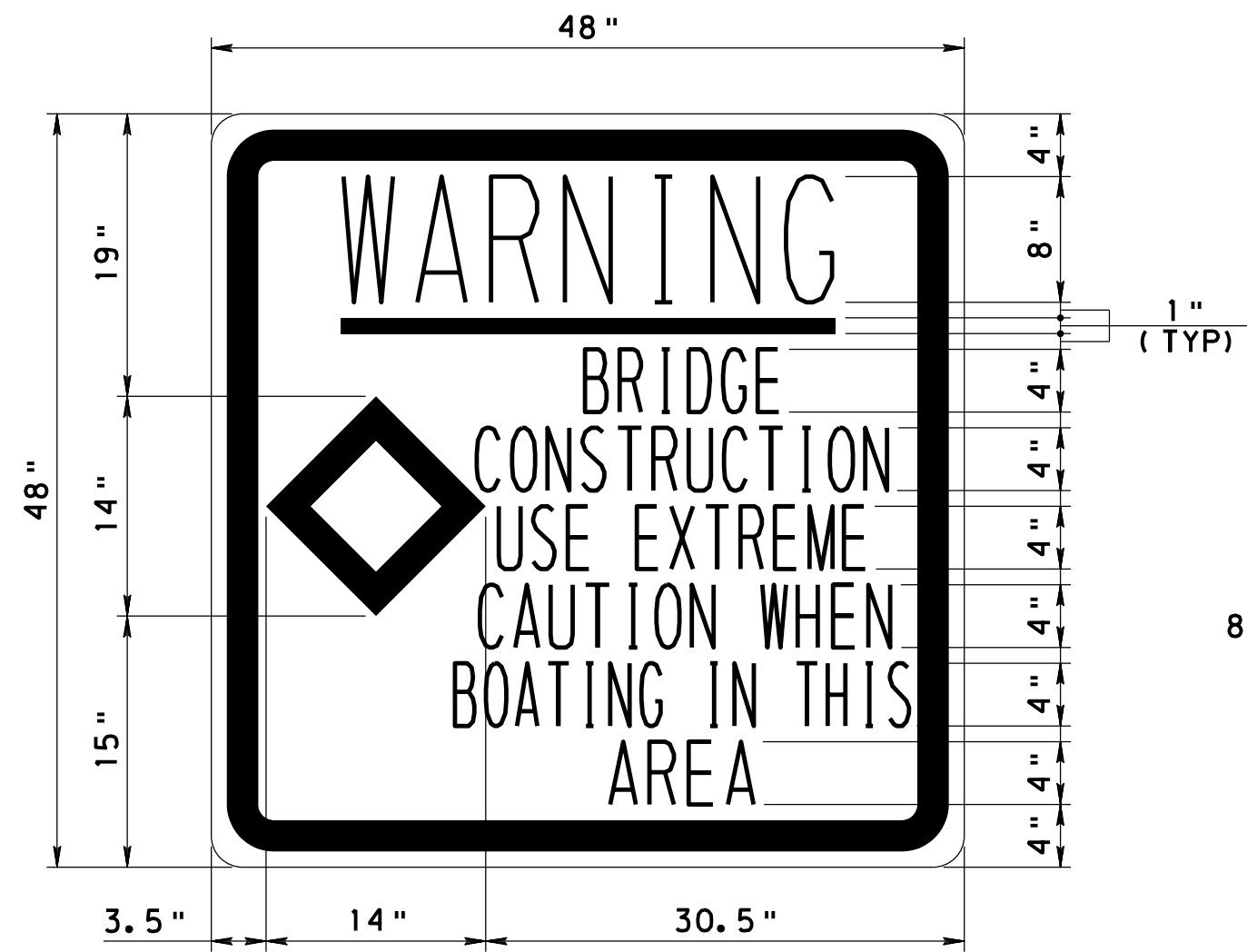
LUZERNE COUNTY
SR 0080 WB SEC 352
SEGMENT 2505 OFFSET 1491
SR 0080 WB STA 880+91.00
OVER NESCOPECK CREEK
4-SP CONT COMP P/S PA BULB-TEE BEAM BRIDGE
BRIDGE REPLACEMENT
CONCEPTUAL TYPICAL SECTION

**PRELIMINARY
DRAWING
OR
INFORMATION**

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RECOMMENDED _____ SHEET 3 OF 3

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
4-0	LUZERNE	0080	352	46 OF 47
BLACK CREEK TOWNSHIP				
REV NO	REVISIONS	DATE	BY	APPD



2" ORANGE BORDER WITH 2" RADIUS.
BLACK LEGEND ON WHITE BACKGROUND
2" ORANGE DIAMOND AND
1" ORANGE UNDERLINE

8" SERIES B CAPITOLS

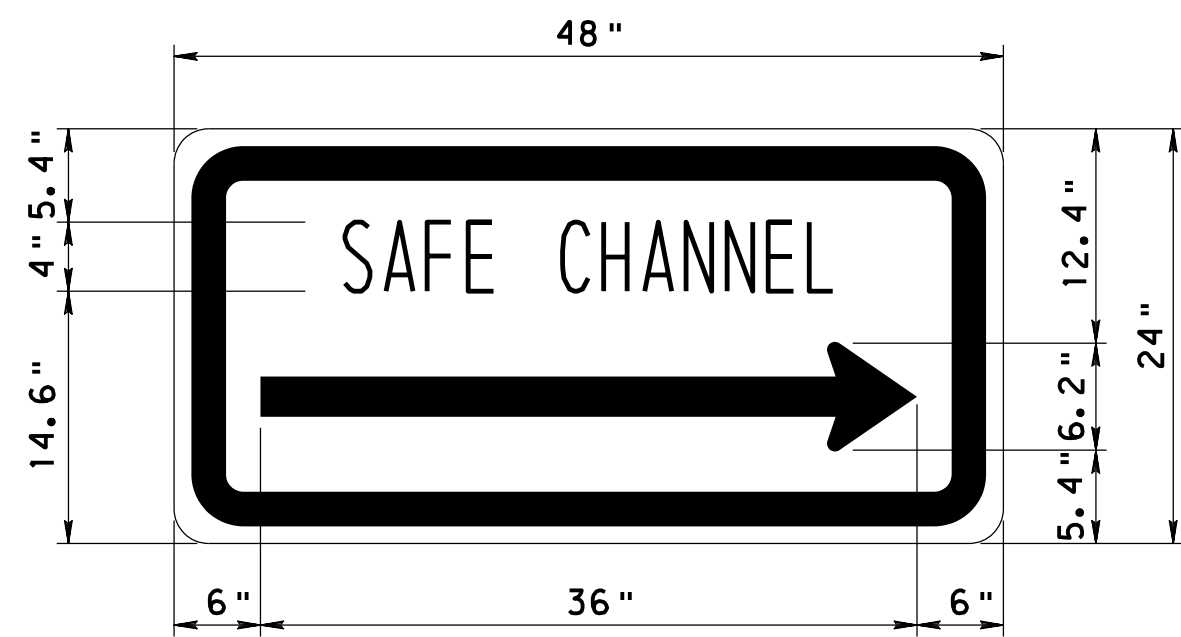
SPACE	8.25"
W	8.25"
A	4.40"
R	4.40"
N	2.00"
I	4.40"
C	4.40"
ON	3.40"
SPACE	8.25"
TOTAL	48.0"

(SP1) SPECIAL SIGN (48"X48")

NOTE: PLACE SIGN 200' UPSTREAM AND DOWNSTREAM OF PROJECT SITE.

4" SERIES B CAPITOLS

SPACE	23.85"	SPACE	16.85"	SPACE	18.3"	SPACE	17.15"	SPACE	15.5"	SPACE	25.45"
W	2.4"	CON	2.3"	US	2.4"	CA	2.1"	BO	2.3"	ARE	2.7"
ARR	1.3"	STR	2.4"	ES	1.5"	UT	2.3"	A	2.4"	E	2.4"
D	2.3"	UC	2.3"	SPACE	2.0"	IO	2.1"	T	2.1"	A	1.9"
I	2.4"	T	2.4"	SPACE	2.1"	N	1.3"	I	2.1"	SPACE	2.1"
SPACE	11.85"	ION	2.4"	SPACE	2.2"	SPACE	1.7"	ON	1.7"	TOTAL	48.0"
TOTAL	48.0"	N	2.1"	SPACE	2.1"	SPACE	2.0"	SPACE	2.0"		
		ON	2.1"	SPACE	2.1"	SPACE	1.7"	SPACE	1.7"		
		SPACE	4.85"	SPACE	6.3"	SPACE	4.75"	SPACE	2.4"		
		TOTAL	48.0"	TOTAL	48.0"	TOTAL	48.0"	SPACE	1.3"		
								SPACE	1.7"		
								TOTAL	48.0"		



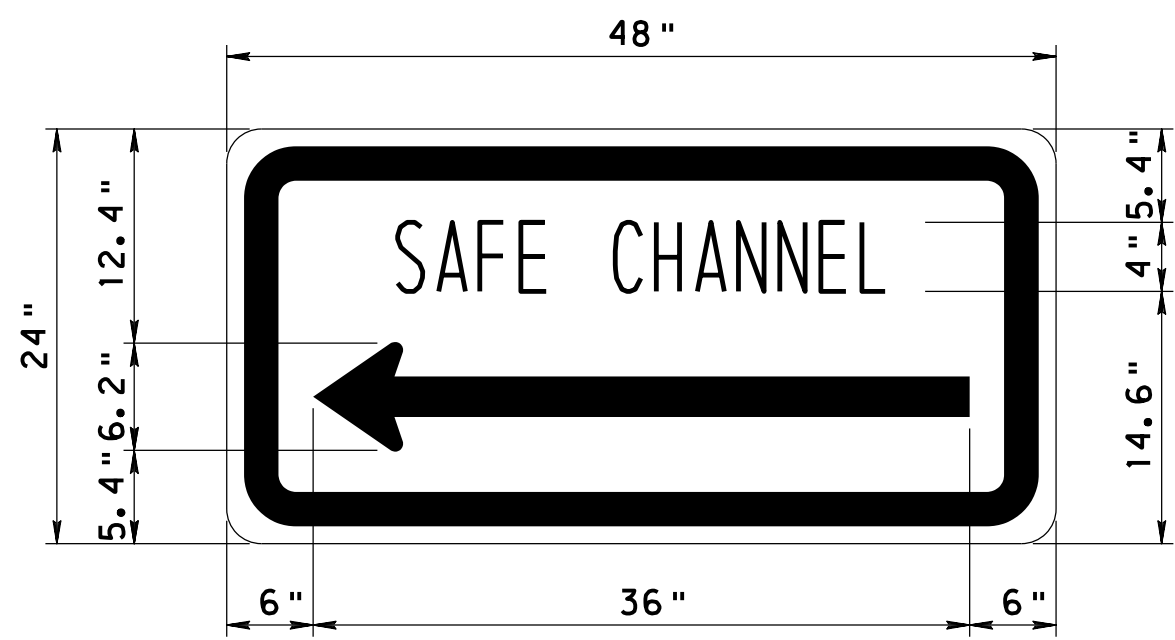
2" ORANGE BORDER WITH 2" RADIUS.
BLACK LEGEND ON WHITE BACKGROUND

4" SERIES B CAPITOLS

SPACE	9.85"
S	2.7"
A	2.1"
F	1.5"
SPACE	4.1"
C	2.3"
H	2.3"
A	2.7"
N	2.4"
N	2.4"
E	2.1"
SPACE	9.85"
TOTAL	48.0"

(SP2) SPECIAL SIGN (48"X24")

NOTE: PLACE SIGN 100' UPSTREAM AND DOWNSTREAM OF CAUSEWAY ALONG CHANNEL BANK.



2" ORANGE BORDER WITH 2" RADIUS.
BLACK LEGEND ON WHITE BACKGROUND

4" SERIES B CAPITOLS

SPACE	9.85"
S	2.7"
A	2.1"
F	1.5"
SPACE	4.1"
C	2.3"
H	2.3"
A	2.7"
N	2.4"
N	2.4"
E	2.1"
SPACE	9.85"
TOTAL	48.0"

(SP3) SPECIAL SIGN (48"X24")

NOTE: PLACE SIGN 100' UPSTREAM AND DOWNSTREAM OF CAUSEWAY ALONG CHANNEL BANK.

**PRELIMINARY
DRAWING
OR
INFORMATION**

This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.

**CONCEPTUAL AIDS TO NAVIGATION PLAN
CONCEPTUAL TRAFFIC CONTROL PLAN**

OPERATOR: FILE NAME: \$designfiles\$
 PLOTTED: \$\$\$DATE\$\$\$
 D:\9012 CADD (02-90) REVISED (10-04)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
4-0	LUZERNE	0080	352	47 OF 47
BLACK CREEK TOWNSHIP				
REV NO	REVISIONS	DATE	BY	APPD

GENERAL NOTES

THIS WORK CONSISTS OF THE INSTALLATION AND MAINTENANCE OF SIGNAGE FOR SAFE NAVIGATION OF THE WATERWAY BY BOAT TRAFFIC.

INSTALL SIGNS AND DEVICES AT THE LOCATIONS SHOWN ON THE AIDS TO NAVIGATION MAP.

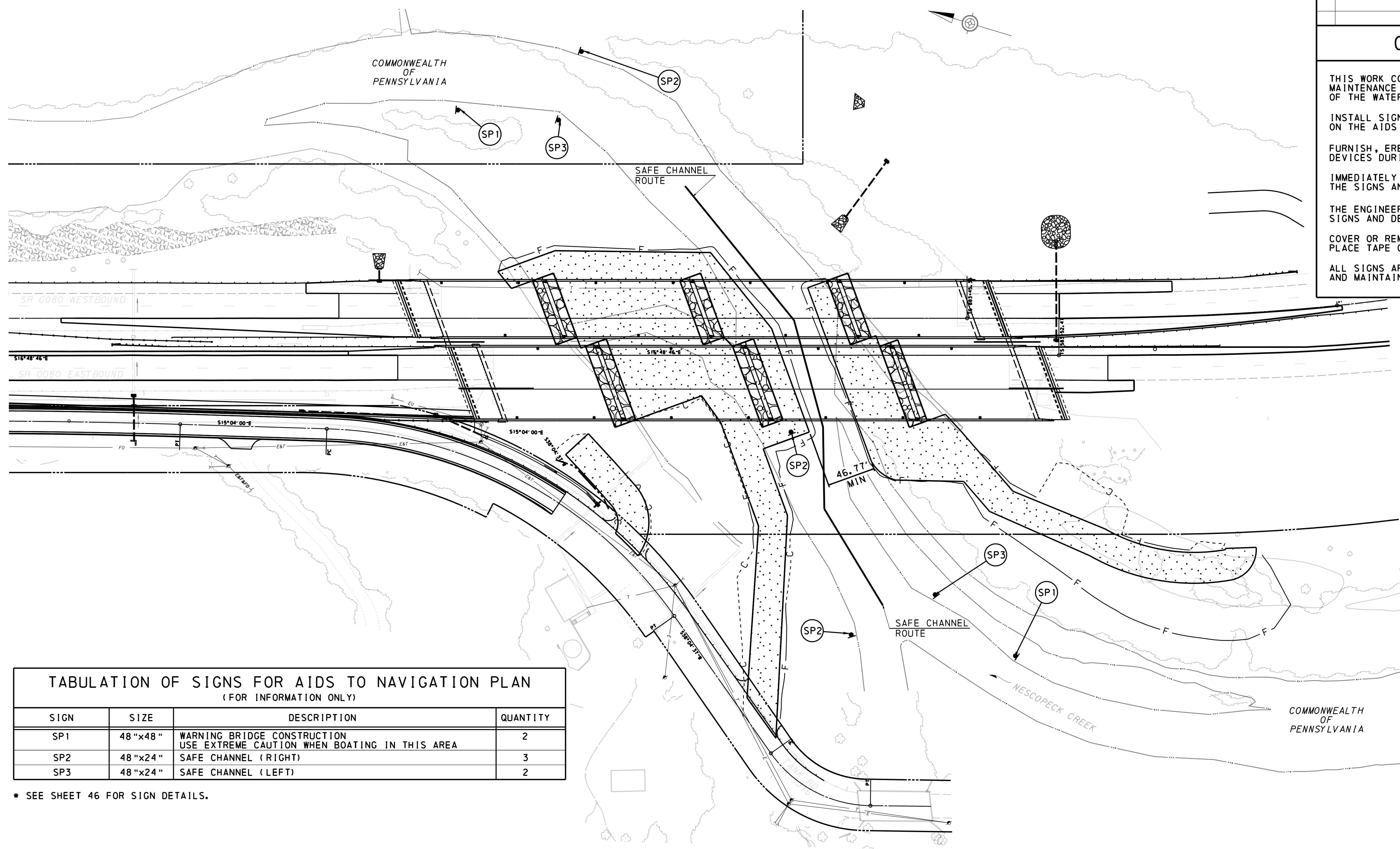
FURNISH, ERECT, PLACE AND MAINTAIN SIGNS AND DEVICES DURING IN-STREAM CONSTRUCTION.

IMMEDIATELY UPON REMOVAL OF CAUSEWAY, REMOVE THE SIGNS AND DEVICES.

THE ENGINEER IS RESPONSIBLE TO INSPECT ALL SIGNS AND DEVICES PRIOR TO THE START OF WORK.

COVER OR REMOVE ALL SIGNS NOT IN USE. DO NOT PLACE TAPE ON THE FACE OF ANY SIGN.

ALL SIGNS ARE TO BE IN NEW OR LIKE NEW CONDITION AND MAINTAINED AS SUCH.

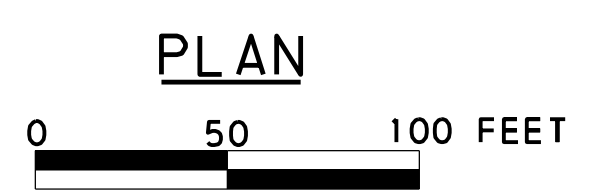


TABULATION OF SIGNS FOR AIDS TO NAVIGATION PLAN (FOR INFORMATION ONLY)			
SIGN	SIZE	DESCRIPTION	QUANTITY
SP1	48"x48"	WARNING BRIDGE CONSTRUCTION USE EXTREME CAUTION WHEN BOATING IN THIS AREA	2
SP2	48"x24"	SAFE CHANNEL (RIGHT)	3
SP3	48"x24"	SAFE CHANNEL (LEFT)	2

* SEE SHEET 46 FOR SIGN DETAILS.

LEGEND

- TEMPORARY CAUSEWAY
- SIGN DESIGNATION
- SIGN



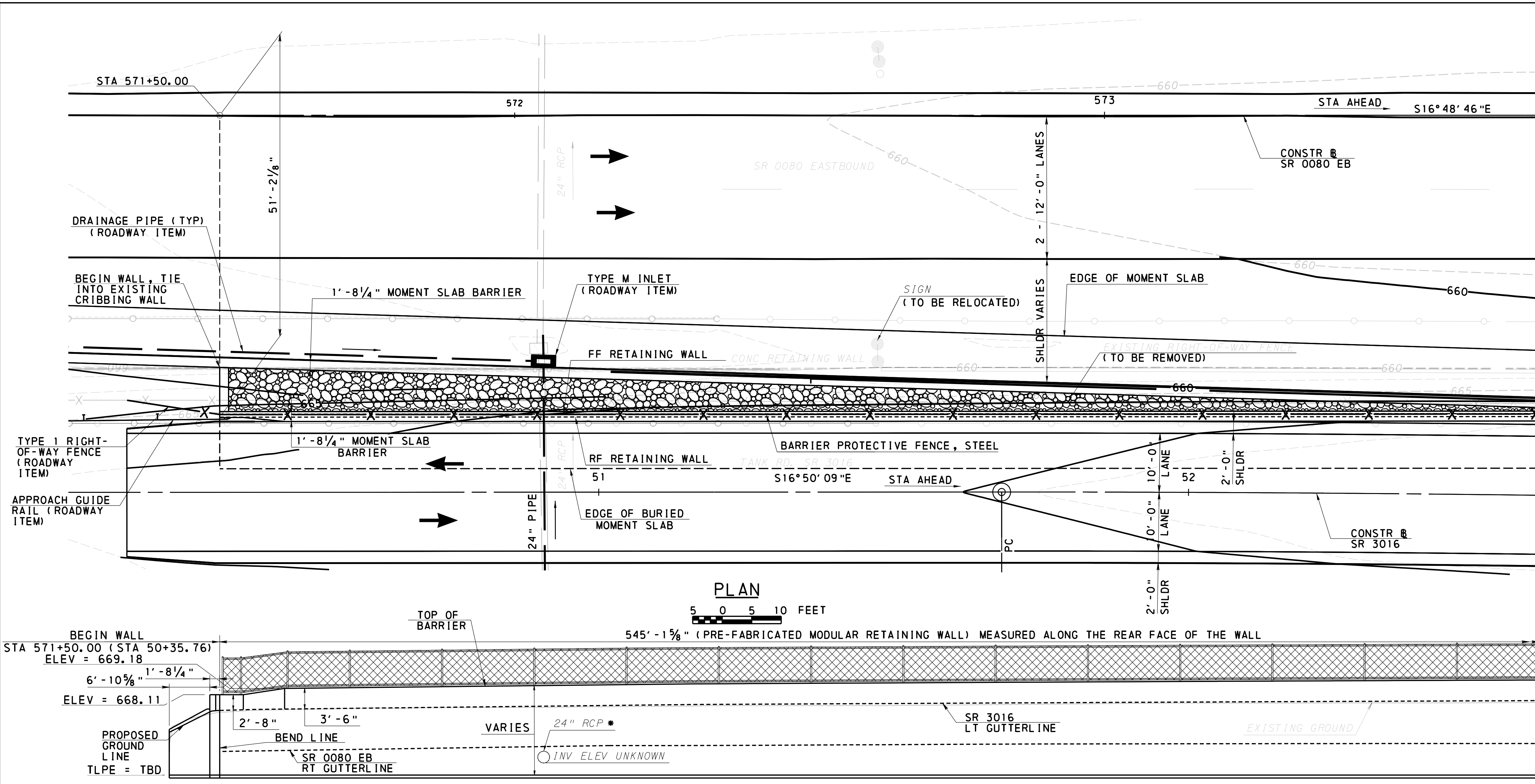
NOTE:
CONTRACTOR TO PROVIDE SAFE CHANNEL ROUTE FOR BOATERS AS SHOWN ON THIS PLAN, AT ALL TIMES. SHOULD THE CONTRACTOR PROPOSE AN ALTERNATE ROUTE OTHER THAN WHAT IS SHOWN, IT MUST BE APPROVED BY THE PA FISH AND BOAT COMMISSION.

**PRELIMINARY
DRAWING
OR
INFORMATION**

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**CONCEPTUAL AIDS TO NAVIGATION PLAN
CONCEPTUAL TRAFFIC CONTROL PLAN**

OPERATOR: FILE NAME: \$\$\$designfil\$\$\$
 PLOTTED: \$\$\$DATE\$\$\$
 D:\9012 CADD (02-90) REVISED (10-04)

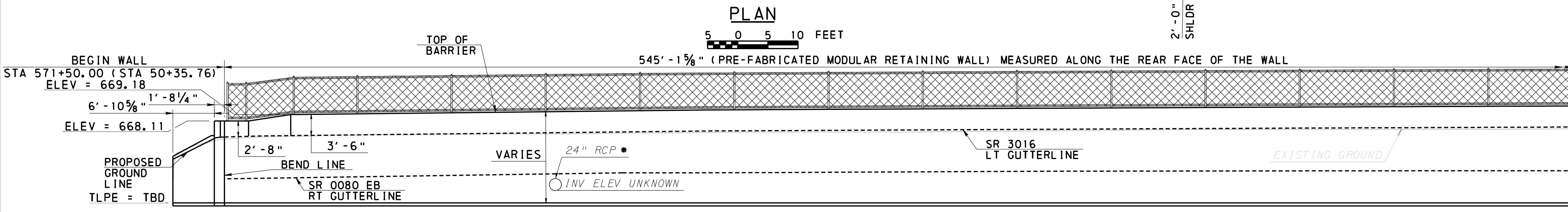


HORIZONTAL CURVE DATA

CONSTR @ SR 0080 EB	
NO CURVE	
CONSTR @ SR 3016	
PI STA 52+76.40	PI STA 57+41.36
Δ = 1°46'09" RT	Δ = 53°08'37" RT
T = 108.08'	T = 214.44'
L = 216.14'	L = 397.68'
R = 7000.00'	R = 428.75'
E = 0.83'	E = 50.64'
PC STA 51+68.32	PC STA 55+26.92
PT STA 53+84.46	PT STA 59+24.60

VERTICAL CURVE DATA

CONSTR @ SR 0080 EB	
GRAPHIC GRADE	
PVI STA 571+00.00	ELEV 666.94
PVI STA 577+10.00	ELEV 661.15
CONSTR @ SR 3016	
PVI STA 55+07.57	ELEV 668.73
VC 350.00'	MO -3.54'
SSD 306'	



DATUM: 645

NOTE: (STA XX+XX.XX) REFERENCES SR 3016.
 * - PIPE TO BE REPLACED THROUGH RETAINING WALL. SEE SR 3016 CROSS SECTIONS. PIPE LOCATION AND DETAILS TO BE DETERMINED BY THE CONTRACTOR.

LEGEND

	- NO. 57 COARSE AGGREGATE (ROADWAY ITEM)
	- EXISTING CONTOUR
	- PROPOSED CONTOUR
	- DIRECTION OF TRAFFIC
FF	- FRONT FACE
RF	- REAR FACE

DESIGN REVIEWED BY:
 PENNONI ASSOCIATES INC.
 672 SOUTH RIVER STREET,
 SUITE 313
 PLAINS, PA 18705
 Signature and Date: _____

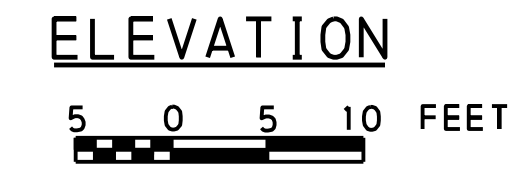
PRELIMINARY DRAWING OR INFORMATION

This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.
 SEAL

PREPARED BY:
 LARSON DESIGN GROUP
 1000 COMMERCE PARK DRIVE
 WILLIAMSPORT, PA 17701
 Signature and Date: _____

PRELIMINARY DRAWING OR INFORMATION

This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.
 SEAL



INDEX OF STRUCTURE DRAWINGS

SHEET NO.	TITLE
1	CONCEPTUAL GENERAL PLAN AND ELEV - 1 OF 2
2	CONCEPTUAL GENERAL PLAN AND ELEV - 2 OF 2
3	CONCEPTUAL TYPICAL WALL SECTION

DESCRIPTION	DWG. NO.	APP. DATE
PRE-FABRICATED T-WALL SYSTEM	87-402PE	04-13-2017
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06-01-2010
BACKFILL AT STRUCTURES	RC-12M	02-08-2019
SUBSURFACE DRAINS	RC-30M	12-17-2019
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-19-2021
TYPE 31 STRONG POST GUIDE RAIL	RC-51M	02-19-2021
RIGHT-OF-WAY FENCE	RC-60M	06-01-2010
PROTECTIVE FENCE	BC-701M	02-19-2021
ANCHOR SYSTEMS	BC-734M	02-19-2021
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	01-31-2019
BRIDGE DRAINAGE	BC-751M	01-31-2019

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

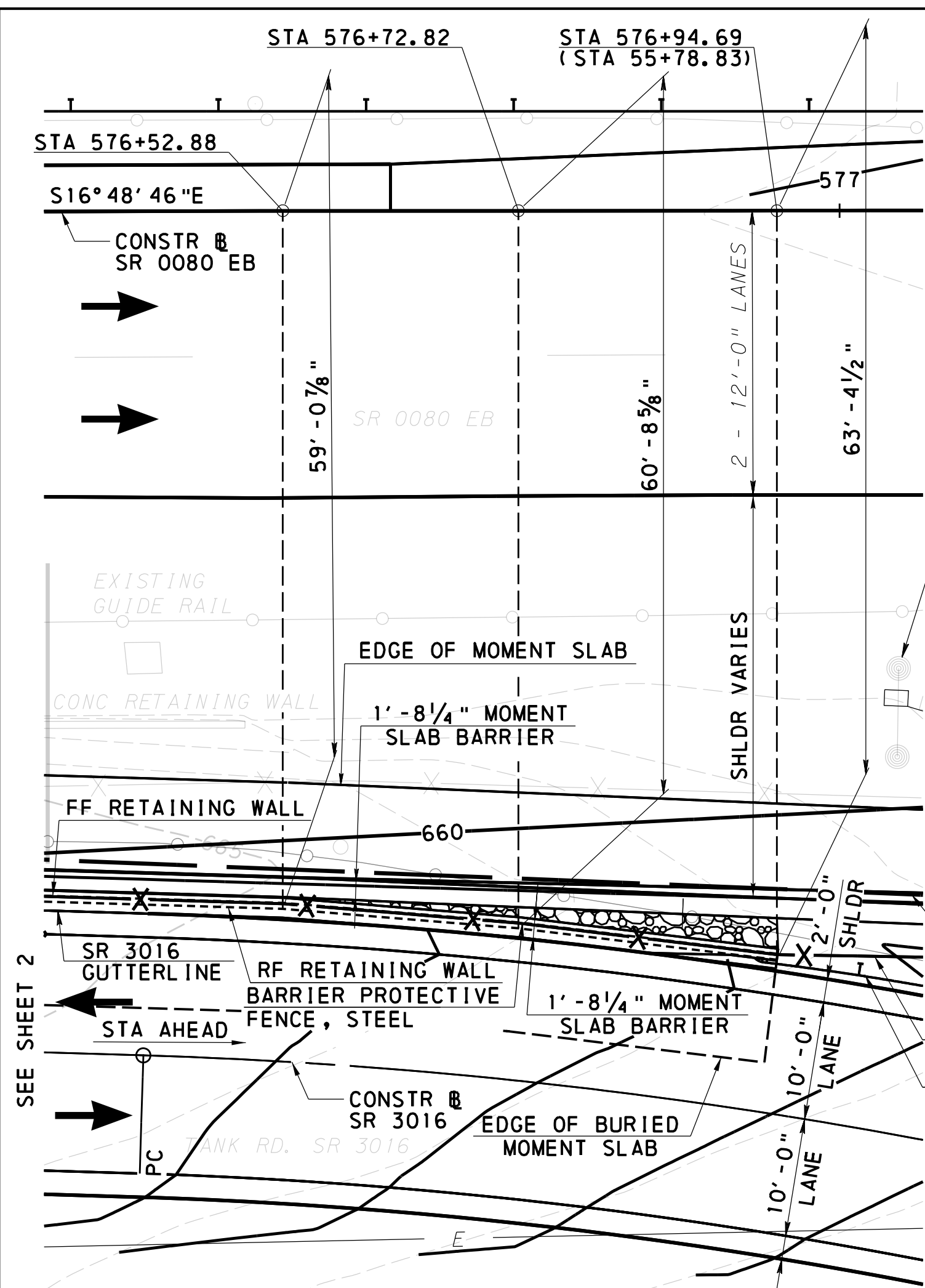
SR 0080 EB PREVIOUSLY KNOWN AS L.R. 1009
 BMS# XX-XXXX-XXXX-XXXX ECMS# 111769 BRKEYXXXX

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

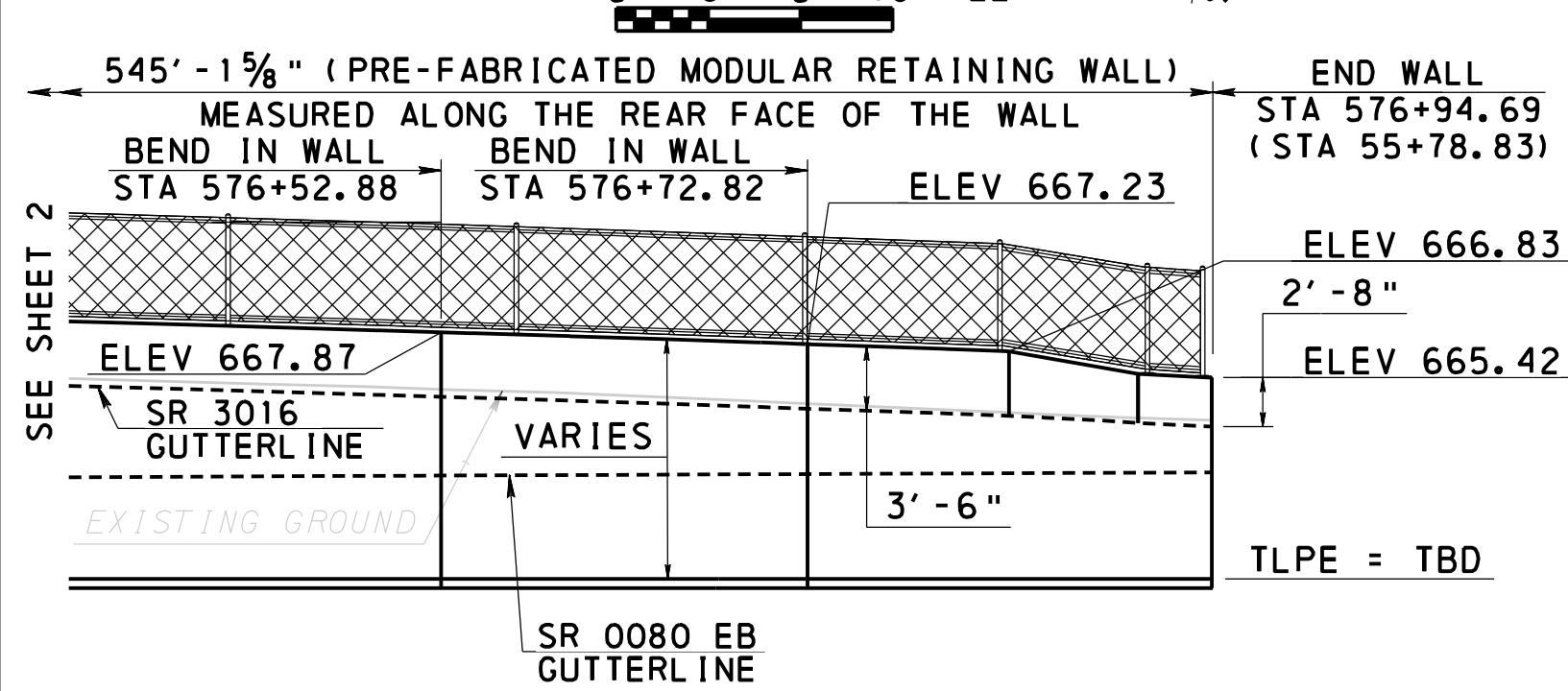
LUZERNE COUNTY
SR 0080 EB SEC 352
 SEGMENT 2504 OFFSET 0775
 SR 0080 EB STA 571+50.00 TO STA 576+94.69

PRE-FABRICATED MODULAR RETAINING WALL
 CONCEPTUAL GENERAL PLAN AND ELEV - 1 OF 2

RECOMMENDED _____	SHEET 1 OF 3 & SUPPLEMENTAL DRAWINGS S - 40357D
DISTRICT BRIDGE ENGINEER _____	



PLAN
5 0 5 10 FEET



ELEVATION
5 0 5 10 FEET

NOTE: (STA XX+XX.XX) REFERENCES SR 3016.

- LEGEND**
- NO. 57 COARSE AGGREGATE (ROADWAY ITEM)
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - DIRECTION OF TRAFFIC
 - FRONT FACE
 - REAR FACE

SIGN (TO BE REMOVED)

CONSTR SR 0080 EB

2 - 12'-0" LANES

SHLDR VARIES

1'-8 1/4" MOMENT SLAB BARRIER

FF RETAINING WALL

SR 3016 GUTTERLINE

RF RETAINING WALL BARRIER PROTECTIVE FENCE, STEEL

1'-8 1/4" MOMENT SLAB BARRIER

CONSTR SR 3016

EDGE OF BURIED MOMENT SLAB

10'-0" LANE

2'-0" SHLDR

DRAINAGE PIPE (ROADWAY ITEM)

TYPE 1 RIGHT-OF-WAY FENCE (ROADWAY ITEM)

APPROACH GUIDE RAIL (ROADWAY ITEM)

CONSTR SR 0080 EB

EDGE OF BURIED MOMENT SLAB

10'-0" LANE

2'-0" SHLDR

SR 3016 GUTTERLINE

RF RETAINING WALL BARRIER PROTECTIVE FENCE, STEEL

1'-8 1/4" MOMENT SLAB BARRIER

CONSTR SR 3016

EDGE OF BURIED MOMENT SLAB

10'-0" LANE

2'-0" SHLDR

SR 0080 EB GUTTERLINE

VARIES

SHLDR VARIES

CONCRETE PAVEMENT VARIES

MATCH EXISTING EDGE OF CONCRETE PAVEMENT

PAVEMENT SECTION SEE RDWY PLANS (ROADWAY ITEMS)

SR 0080 EB GUTTERLINE VARIES

42" F-SHAPE CONCRETE BARRIER. NO OVERLAY ALLOWED ON THE SHOULDER TO MAINTAIN TL-5 DESIGNATION OF 42" BARRIER.

6" PAVEMENT BASE DRAIN BELOW MOMENT SLAB (ROADWAY ITEM)

NO. 57 COARSE AGGREGATE (ROADWAY ITEM)

LEVELING PAD

ELEV = TBD

NO. 57 COARSE AGGREGATE ENCASED IN GEOTEXTILE, CLASS 1

6" STRUCTURE FOUNDATION DRAIN

COMPACTED NO. 57 COARSE AGGREGATE BEDDING, DEPTH, TBD

GEOTEXTILE, CLASS 4, TYPE A

APPROXIMATE LIMITS OF STRUCTURE EXCAVATION (TYP)

EMBAKMENT (TYP BEHIND STEMS) (ROADWAY ITEM)

PRE-FABRICATED MODULAR WALL STEM (TYP)

SHEAR KEY (TYP)

10'-0" LANE

2'-0" SHLDR

CONSTR SR 3016

PAVEMENT SECTION SEE RDWY PLANS (ROADWAY ITEMS)

SR 3016 GUTTERLINE VARIES

10'-0" LANE

2'-0" SHLDR

CONSTR SR 3016

SR 0080 EB GUTTERLINE

BARRIER PROTECTIVE FENCE, STEEL

1'-8 1/4" BARRIER

VARIES

42" F-SHAPE CONCRETE BARRIER

FF PRECAST PANEL

8'-0" MOMENT SLAB

1'-8 1/4" BARRIER

6" MIN

ELEV = TBD

NO. 57 COARSE AGGREGATE (ROADWAY ITEM)

LEVELING PAD

ELEV = TBD

NO. 57 COARSE AGGREGATE ENCASED IN GEOTEXTILE, CLASS 1

6" STRUCTURE FOUNDATION DRAIN

COMPACTED NO. 57 COARSE AGGREGATE BEDDING, DEPTH, TBD

GEOTEXTILE, CLASS 4, TYPE A

APPROXIMATE LIMITS OF STRUCTURE EXCAVATION (TYP)

EMBAKMENT (TYP BEHIND STEMS) (ROADWAY ITEM)

PRE-FABRICATED MODULAR WALL STEM (TYP)

SHEAR KEY (TYP)

10'-0" LANE

2'-0" SHLDR

CONSTR SR 3016

PAVEMENT SECTION SEE RDWY PLANS (ROADWAY ITEMS)

SR 3016 GUTTERLINE VARIES

10'-0" LANE

2'-0" SHLDR

CONSTR SR 3016

SR 0080 EB GUTTERLINE

SR 0080 EB GUTTERLINE

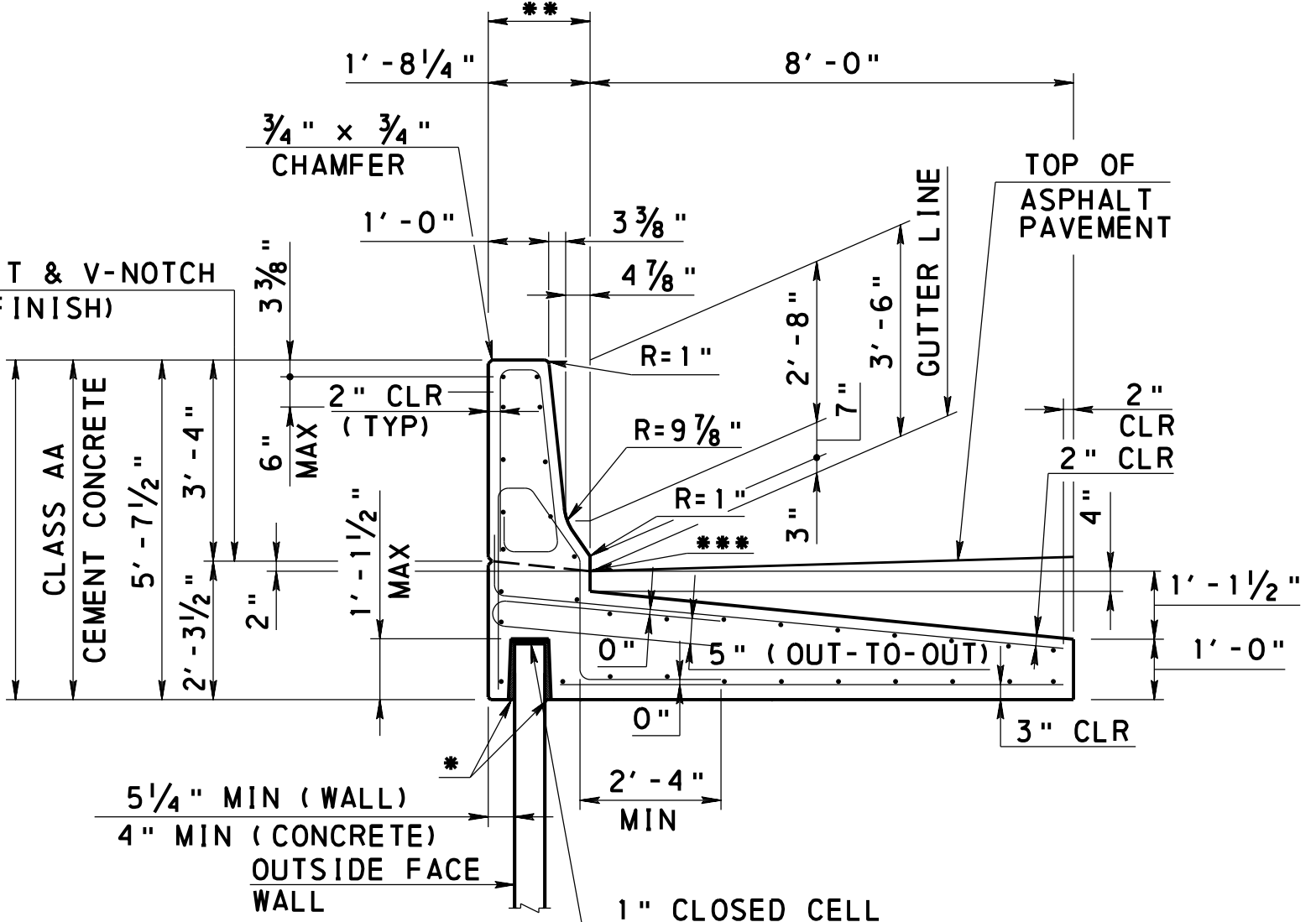
TYPICAL PRE-FABRICATED MODULAR RETAINING WALL SECTION

STA 571+50.00 TO STA 576+94.69

2 0 2 4 FEET

NOTE: ALL BARRIER AND MOMENT SLAB REINFORCEMENT TO BE EPOXY COATED.

MOMENT SLAB SECTION



1 0 1 2 3 FEET

- * - PREFORMED CELLULAR POLYSTYRENE (REMOVE AT FF WALL AFTER CONCRETE IS CURED, RF WALL TO REMAIN IN PLACE). GLUE TO PANEL AS REQUIRED TO KEEP PREFORMED CELLULAR POLYSTYRENE IN PLACE DURING PLACEMENT OF CONCRETE.
- ** - APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALER, BRIDGE SUPERSTRUCTURE) TO INSIDE FACE AND TOP OF BARRIER.
- *** - ASPHALT RUBBER SEALING COMPOUND PER PUB. 408, SECTION 705.4(g)
- - APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (EPOXY RESIN) TO OUTSIDE FACE OF BARRIER. PROVIDE EPOXY RESIN TO MATCH FEDERAL COLOR STANDARD, COLOR FS 26521.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 0080 EB PREVIOUSLY KNOWN AS L.R. 1009
BMS# XX-XXXX-XXXX-XXXX ECMS#111769 BRKEYXXXX

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

LUZERNE COUNTY
SR 0080 EB SEC 352
SEGMENT 2504 OFFSET 0775
SR 0080 EB STA 571+50.00 TO STA 576+94.69

PRE-FABRICATED MODULAR RETAINING WALL
CONCEPTUAL TYPICAL WALL SECTION

RECOMMENDED _____ SHEET 3 OF 3

S - 40357D

**PRELIMINARY
DRAWING
OR
INFORMATION**

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Appendix 7
Health: UWJmDesign Plans

9/22/2021
PLOTTED:

400080352_RD.r101.dgn

BRIDGE OPEN ROAD TOLLING SITE DEVELOPMENT

**Toll Facility Plans are being updated.
Decision has been made to toll in
westbound direction only. The P3
Development Entity will construct tolling
gantry over westbound lanes only.**




DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	1 OF 10	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

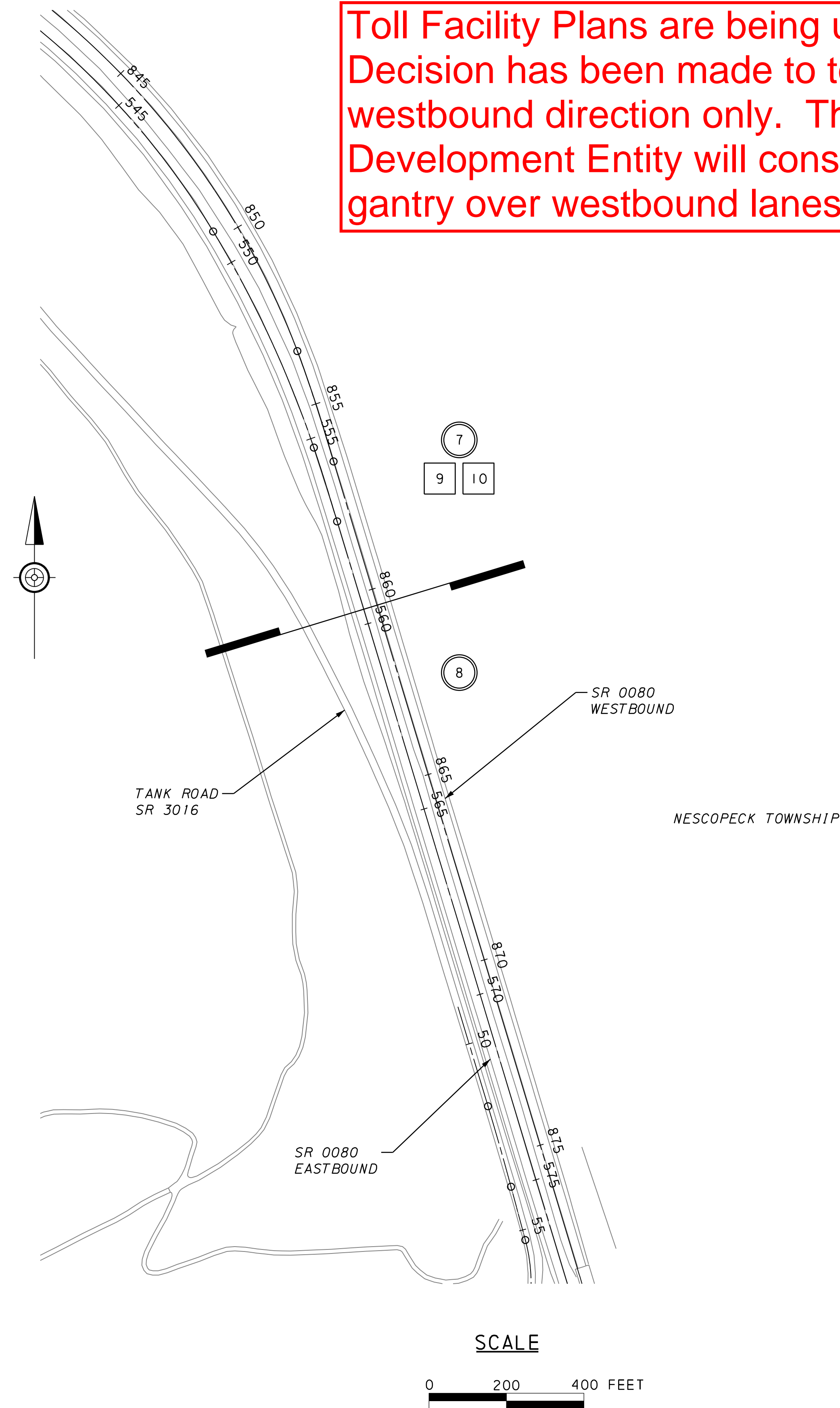
** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

INDEX OF DRAWINGS

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LEGEND

 PLAN
 PROFILE
 SHEET LIMITS



INDEX MAP

**PRE-FINAL
DESIGN
SUBMISSION**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	2 OF 10
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

SUMMARY OF PROJECT COORDINATES

HORIZONTAL CONTROL IS TIED TO PA STATE PLANE COORDINATE SYSTEM (NORTH ZONE), NORTH AMERICAN DATUM (NAD) 1983 (2011) ESTABLISHED BY GPS (OBSERVATION). AVERAGE COMBINED SCALE FACTOR: 1.000.

RTE	STATION	POINT	COORDINATES		BEARING
			NORTH	EAST	
SR 0080 EASTBOUND CONSTR & SURVEY	400+00.00	BEGIN STA POT	312993.0887	2390264.0889	N82° 50' 07 "E
	523+91.34	TS	314538.5764	2402558.6750	
	525+91.40	SPI	314563.5280	2402757.1689	
	526+91.34	SC	314568.7285	2402857.0844	
	543+01.08	PI	314776.7649	2404453.5003	S16° 48' 46 "E
	549+07.33	PCC	313580.2340	2404721.2319	
	555+24.20	CS	313022.1523	2404981.2455	
	555+90.88	SPI	312959.0398	2405002.7463	
	557+24.20	ST	312831.3976	2405041.3148	
	583+52.47	TS	310315.4720	2405801.5300	
	585+92.62	SPI	310085.5852	2405870.9929	
	587+12.47	SC	309975.0891	2405918.1503	
	595+39.66	PCC	309326.5380	2406417.3361	
	599+91.01	PI	308746.9718	2406275.4699	
	608+03.25	CS	308949.2066	2407596.0190	N81° 48' 34 "E
	609+23.37	SPI	308954.3170	2407716.0255	
611+63.25	ST	308998.5269	2407953.7030		
712+35.57	END STA POT	310423.4899	2417923.2787		
SR 0080 WESTBOUND CONSTR & SURVEY	700+00.00	BEGIN STA POT	312993.0887	2390264.0889	N82° 50' 07 "E
	823+91.41	TS	314538.5764	2402558.6750	
	825+91.47	SPI	314563.5280	2402757.1689	
	826+91.41	SC	314568.7285	2402857.0844	
	843+27.40	PI	314776.7649	2404453.5003	S16° 48' 46 "E
	853+55.37	CS	313580.2340	2404721.2319	
	854+55.42	SPI	313022.1523	2404981.2455	
	856+55.37	ST	312959.0398	2405002.7463	
	883+45.35	TS	312831.3976	2405041.3148	
	885+85.48	SPI	310315.4720	2405801.5300	
	887+05.35	SC	310085.5852	2405870.9929	
	900+17.95	PI	309975.0891	2405918.1503	
	908+06.67	CS	309326.5380	2406417.3361	
	909+26.79	SPI	308746.9718	2406275.4699	
	911+66.67	ST	308949.2066	2407596.0190	
	1012+34.60	END STA POT	308954.3170	2407716.0255	

NOTE: FOUR (4) PLACE COORDINATES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES.

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY LINES FOR LIMITED ACCESS, AS SHOWN ON THE SITE DEVELOPMENT PLANS, ARE FOR "INFORMATIONAL PURPOSES ONLY" AND HAVE NOT BEEN VERIFIED.

DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

- RC-10M JUN 01, 2010
- RC-11M JUN 01, 2010
- RC-12M FEB 08, 2019
- RC-13M JUN 01, 2010
- RC-22M FEB 08, 2019
- RC-25M FEB 08, 2019
- RC-30M DEC 17, 2019
- RC-50M FEB 19, 2021
- RC-54M DEC 17, 2019
- RC-58M AUG 04, 2017
- RC-81M JUN 01, 2010
- RC-82M JUN 01, 2010
- RC-84M JUN 01, 2010
- ITS-1201 MAR 01, 2013

THREE WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC., PHONE 1-800-242-1776, SERIAL NO. ----- FOR BLACK CREEK TOWNSHIP, SERIAL NO. ----- FOR NESCOPECK TOWNSHIP, SERIAL NO. ----- FOR SUGARLOAF TOWNSHIP, SERIAL NO. ----- FOR MIFFLIN TOWNSHIP, AND SERIAL NO. ----- FOR SOUTH CENTRE TOWNSHIP.

HORIZONTAL CONTROL IS TIED TO PA STATE PLANE COORDINATE SYSTEM (NORTH ZONE), NORTH AMERICAN DATUM (NAD) 1983 (2011) ESTABLISHED BY GPS (OBSERVATION). AVERAGE COMBINED SCALE FACTOR: 1.000.

VERTICAL CONTROL IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) (GEOID 12B).

ALL CURVE DATA IS BASED ON THE ARC DEFINITION UNLESS OTHERWISE INDICATED.

BEARINGS ARE BASED ON GRID NORTH.

GENERAL NOTES

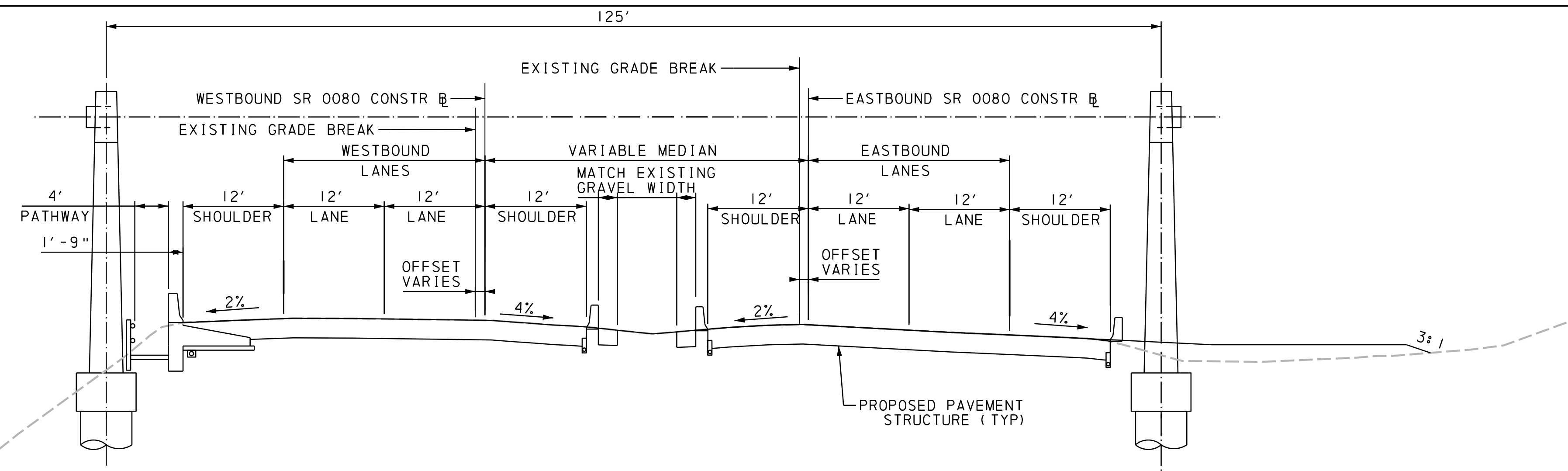
**PRE-FINAL
DESIGN
SUBMISSION**

9/22/2021 PLOTTED:

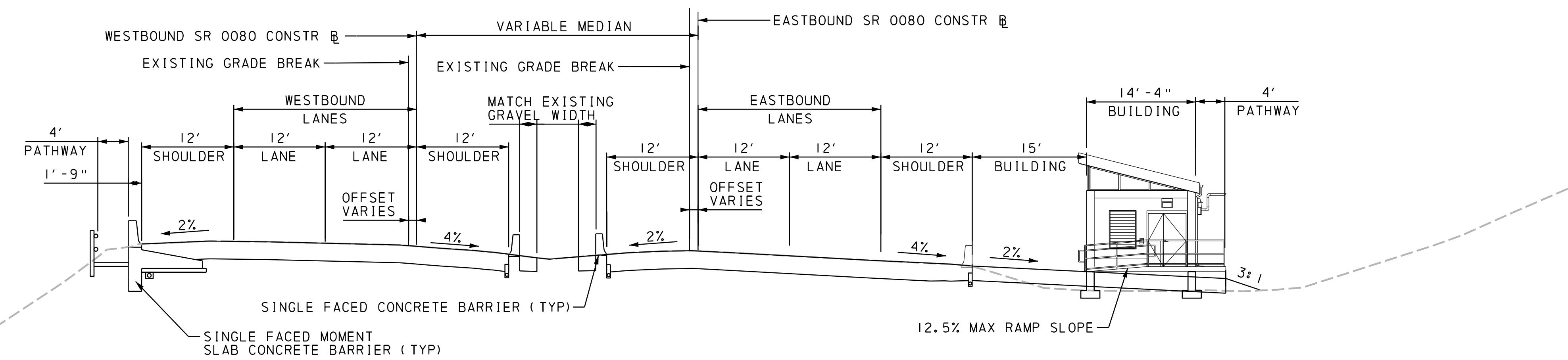
40080352_RD1S_01.DG

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	3 OF 10	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

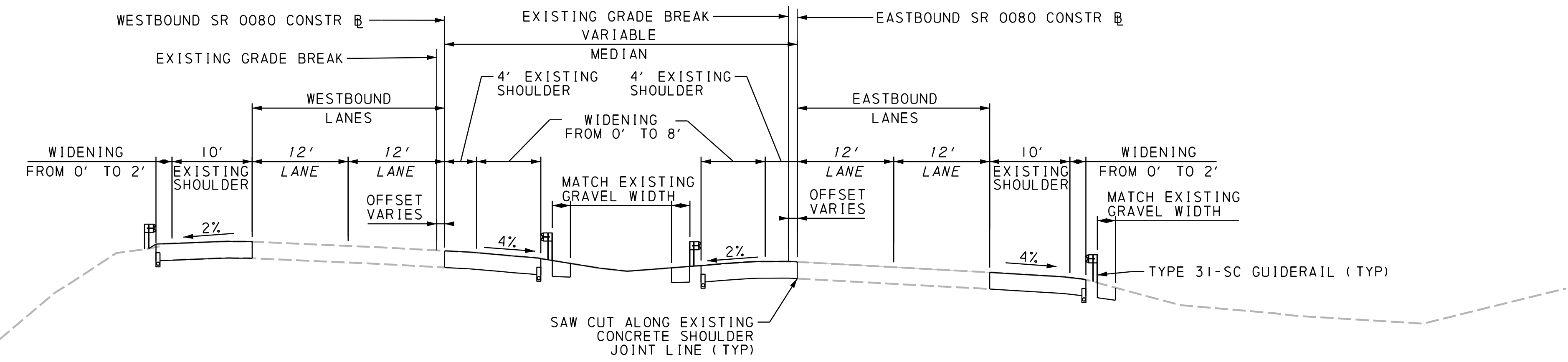
** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



TYPICAL SECTION - GANTRY
 NTS
 EB STA 554+85 TO STA 556+35
 WB STA 855+67 TO STA 857+17



TYPICAL SECTION - TOLL BUILDING
 NTS
 EB STA 554+85 TO STA 556+35
 WB STA 855+67 TO STA 857+17



TYPICAL PROPOSED MAINLINE SECTION (SHOULDER WIDENING)
 NTS
 EB STA 550+65 TO STA 554+85 & STA 556+35 TO STA 560+55
 WB STA 851+47 TO STA 855+67 & STA 857+17 TO STA 861+37

TYPICAL SECTIONS

**PRE-FINAL
 DESIGN
 SUBMISSION**

9/22/2021

40080352.ELEC1.01

LEGEND

- JUNCTION BOX JB-11 (MODIFIED)
- JUNCTION BOX JB-1 (MODIFIED)
- JUNCTION BOX JB-2 (MODIFIED)
- READER PAD
- CONDUIT STUB-UP
- TOLL/GANTRY POWER CONDUIT
- TOLL/GANTRY COMMUNICATIONS CONDUIT
- ELECTRICAL/FIBER CONDUIT (PROPOSED)

NOTES:

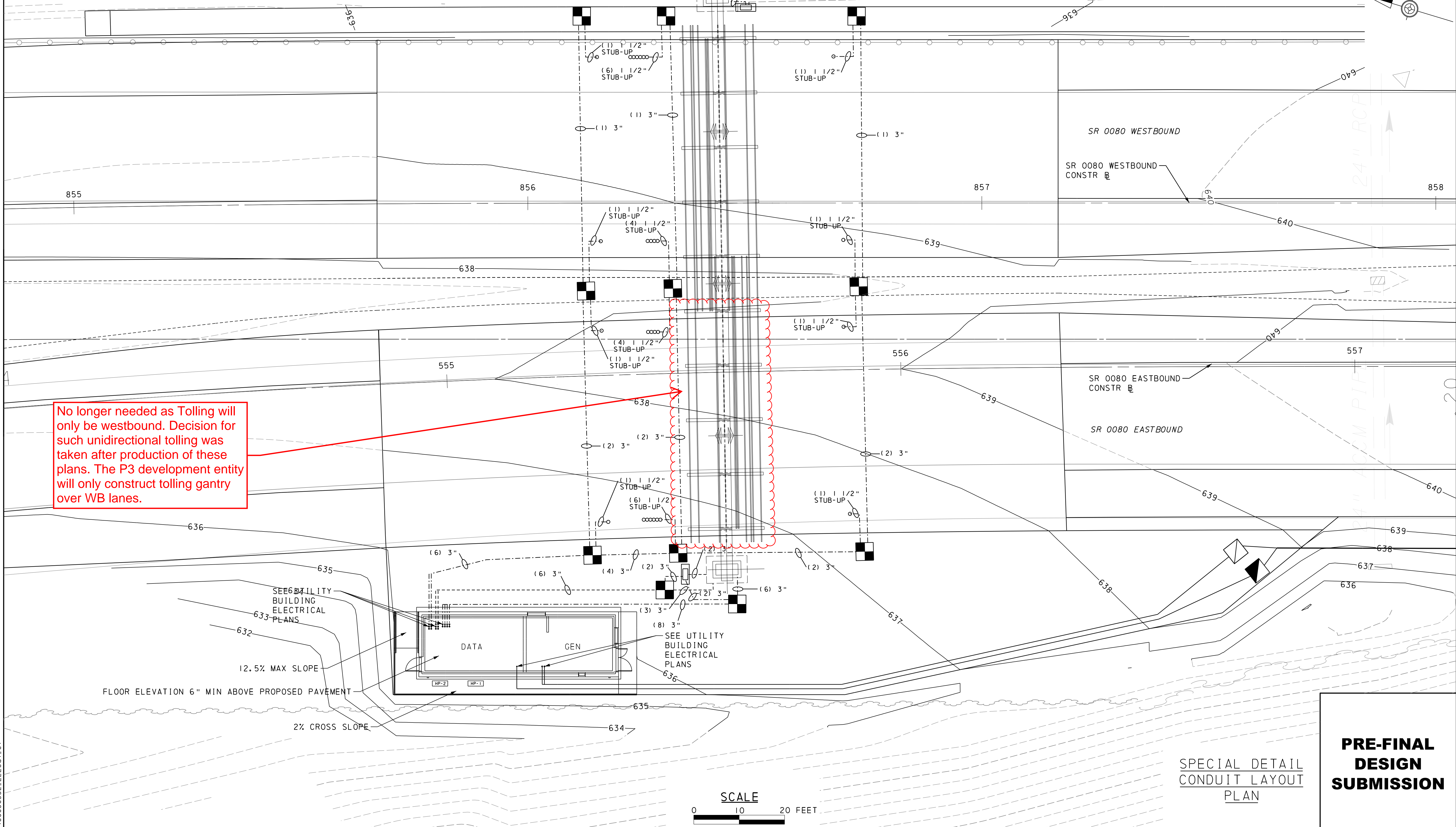
1. GANTRY COLUMN HEIGHT ASSUMED TO BE APPROXIMATELY 25 FEET.
2. NETWORK APPLIANCE CABINET NOT NEEDED AS DISTANCES ARE LESS THAN 300 FEET.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	5 OF 10	
4-0	LUZERNE	0080	352		

REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct tolling gantry over WB lanes.



SPECIAL DETAIL
CONDUIT LAYOUT
PLAN

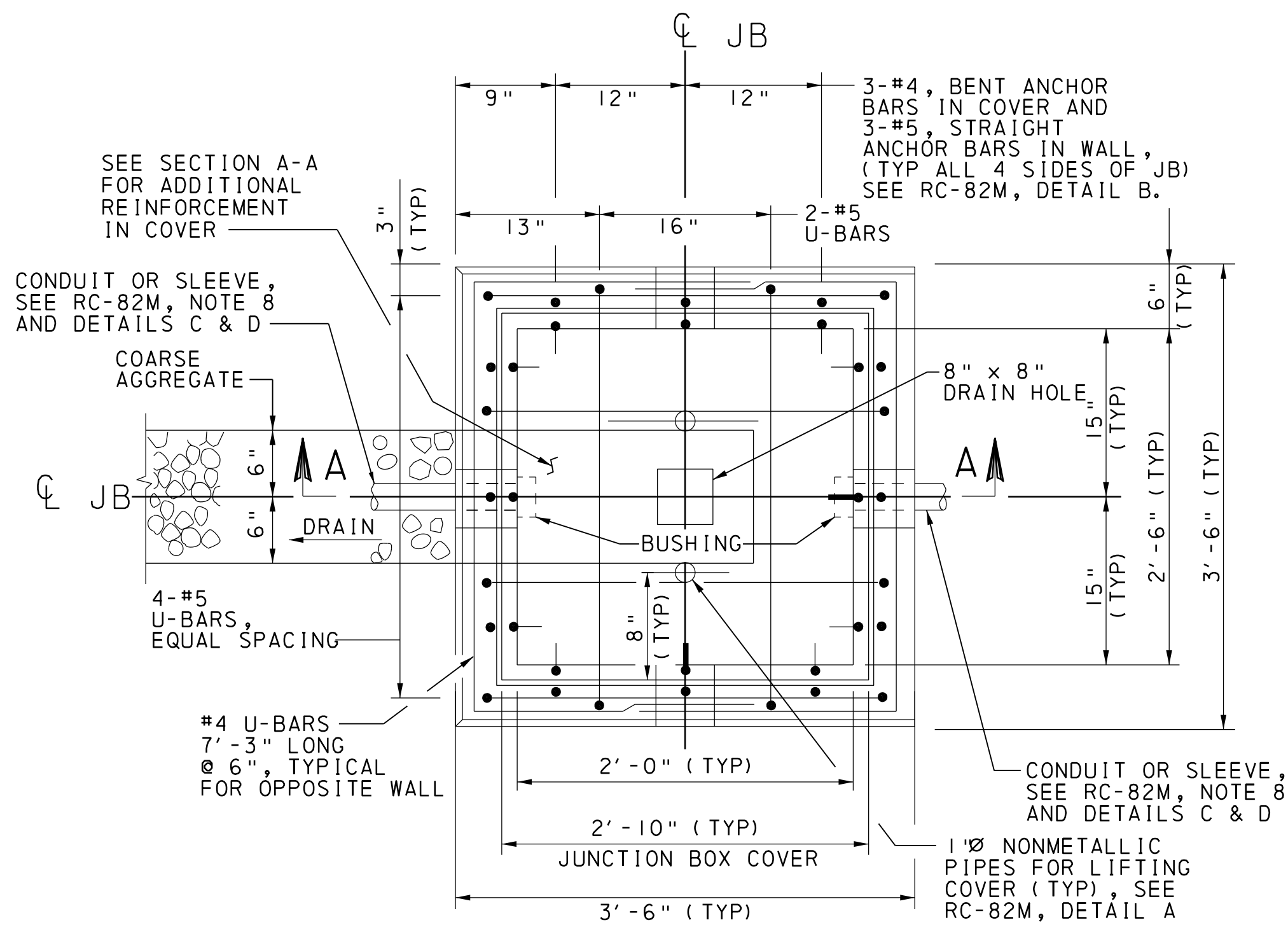
**PRE-FINAL
DESIGN
SUBMISSION**

9/22/2021

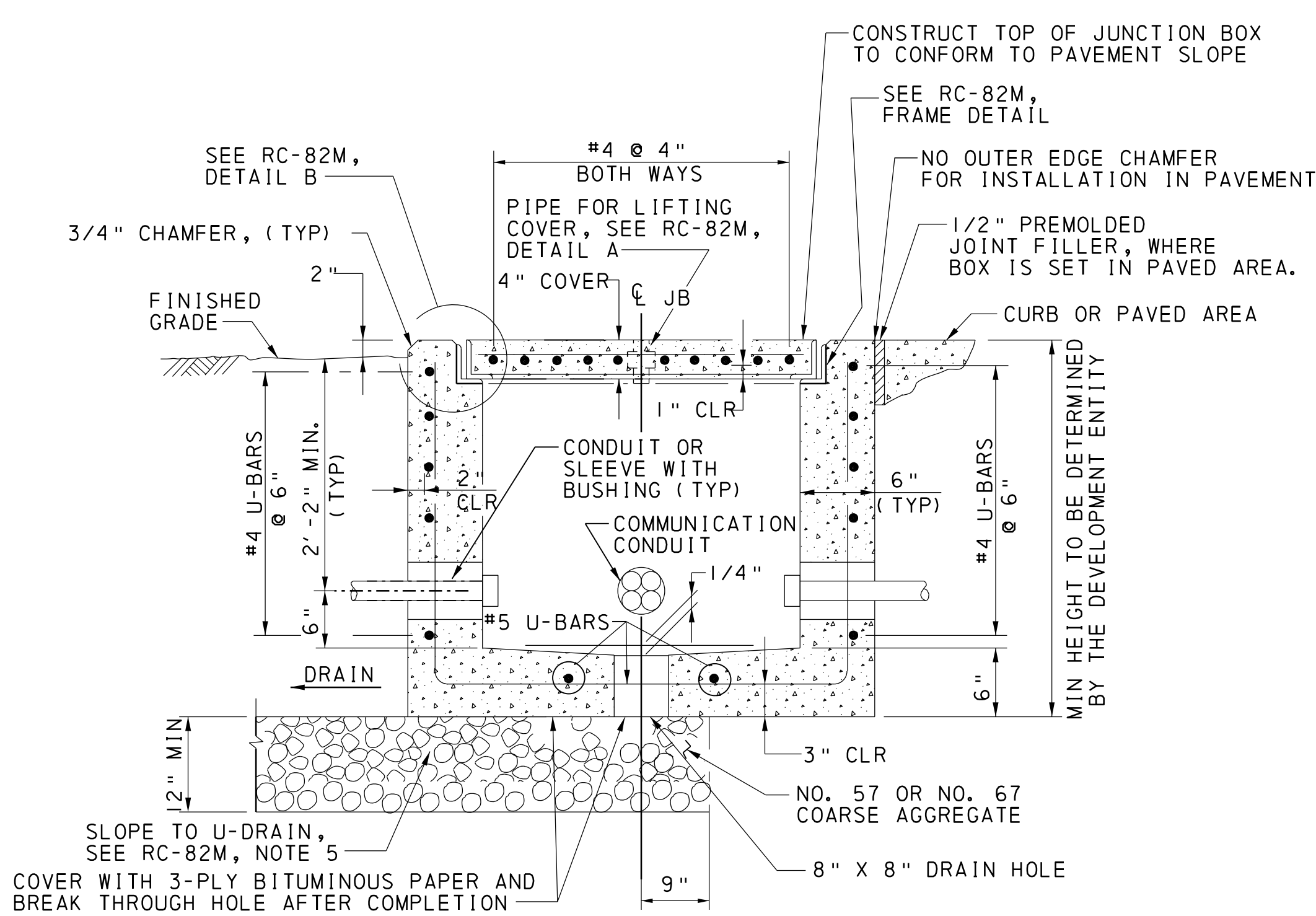
PLOTTED:

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	6 OF 10	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

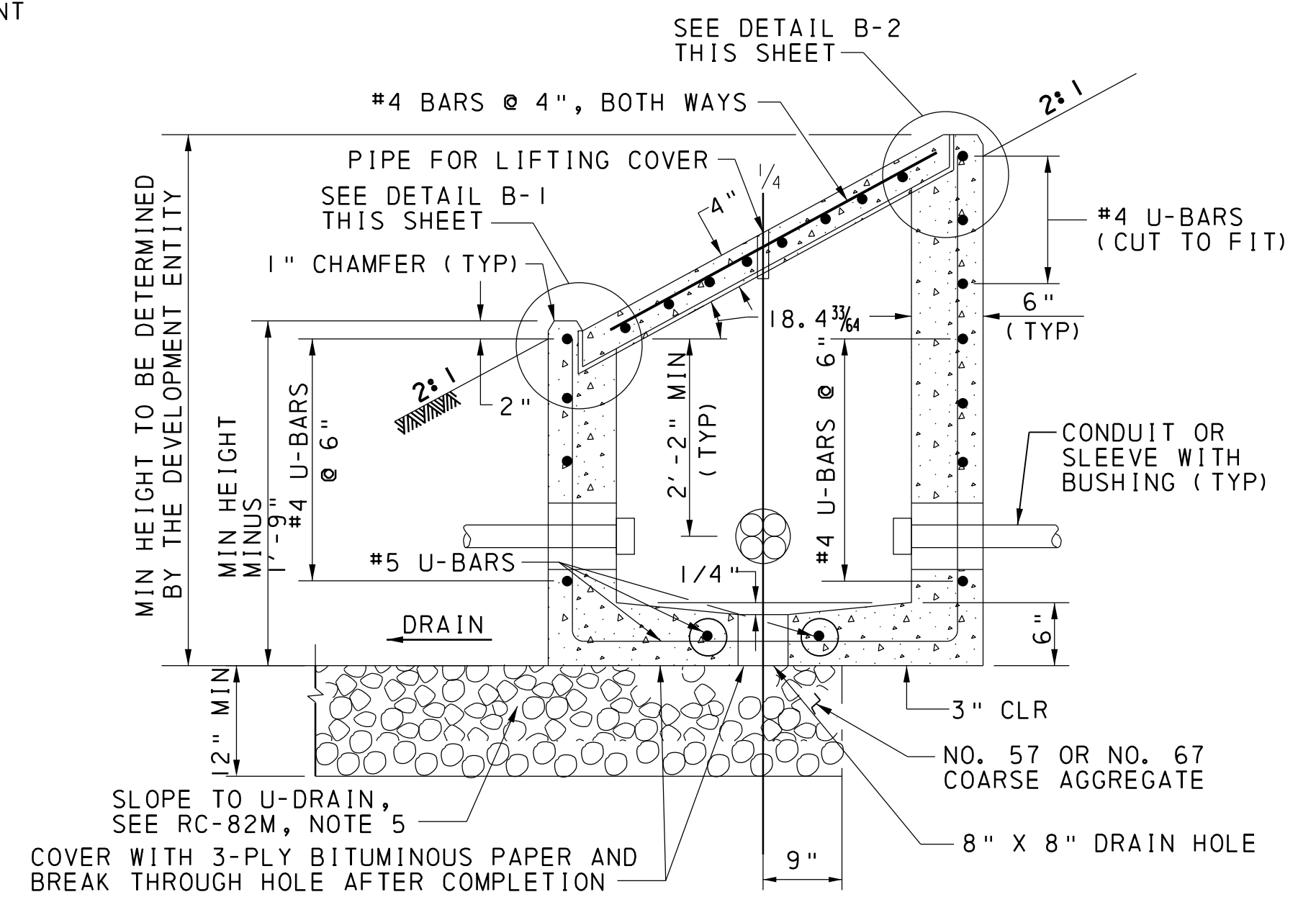
** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



PLAN (BOTH CONDITIONS)
NTS

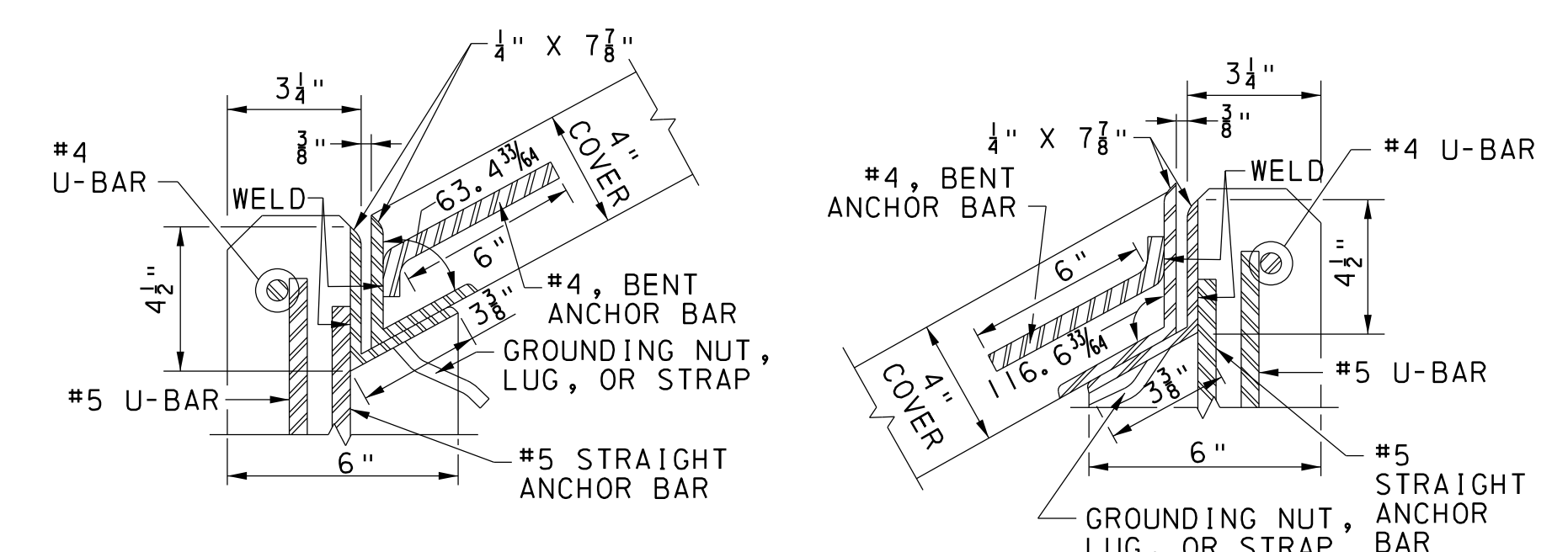


SECTION A-A (FLAT CONDITION)
NTS



SECTION A-A (SLOPED CONDITION)
NTS

JUNCTION BOXES JB-II, FLAT CONDITION
NTS



DETAIL B-1
COVER FRAME AND
SUPPORTING FRAME

DETAIL B-2
COVER FRAME AND
SUPPORTING FRAME

JUNCTION BOXES JB-II, SLOPED CONDITION
NTS

JUNCTION BOX NOTES (BOTH CONDITIONS):
 IF CONDITIONS ARE NOT CONDUCIVE FOR OUTLETTING THE DRAIN, THEN CONSTRUCT A 1' DEEP BY 2' SQUARE SUMP (SIDES CAN BE CONICAL), CENTERED ABOUT THE DRAIN HOLE AND FILL WITH COMPACTED NO. 57 OR NO. 67 COARSE AGGREGATE.

DRAIN LOCATION TO BE DETERMINED BY FIELD CONDITIONS.

CONDUIT SLEEVE (5"), SIZE OF OPENING TO BE DETERMINED AND VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION; NUMBER AND POSITION OF OPENING TO MATCH THE PLAN LOCATIONS. SEE RC-82M, NOTE 8.

PROVIDE STEPS WHEN THE DEPTH BETWEEN THE TOP CENTER ELEVATION OF THE JUNCTION BOX AND THE TOP OF THE BOTTOM SLAB ELEVATION IS GREATER THAN 5'-0". PROVIDE STEPS IN ACCORDANCE WITH RC-46M, SHEET 1 OF 34, GENERAL NOTE 14.

SEE RC-82M FOR DETAILS & NOTES NOT SHOWN.

SPECIAL DETAILS

**PRE-FINAL
DESIGN
SUBMISSION**

40080352_ELECd1_02

CONSTRUCTION NOTES

- 1 INSTALL NEW ELECTRICAL/COMMUNICATIONS CONDUIT IN UNPAVED AREA.
- 2 INSTALL CONDUIT IN PAVED SHOULDER/ROADWAY AREA.
- 3 INSTALL ELECTRICAL SERVICE.
- 4 120/240 UTILITY SERVICE.
- 5 PROPOSED AT&T COMMUNICATION SERVICE.
- 6 INSTALL ELECTRICAL CABLE IN NEW CONDUIT.
- 7 INSTALL STEP UP TRANSFORMER
- 8 INSTALL STEP DOWN TRANSFORMER

CONDUIT

- (A) 2" DIRECT BURIAL CONDUIT HDPE
 - (B) 3" DIRECT BURIAL CONDUIT HDPE
- # CABLE
- 1 2-600 KCMIL AWG
 - 2 CABLE PROVIDED AND INSTALLED BY AT&T

SYMBOL LEGEND

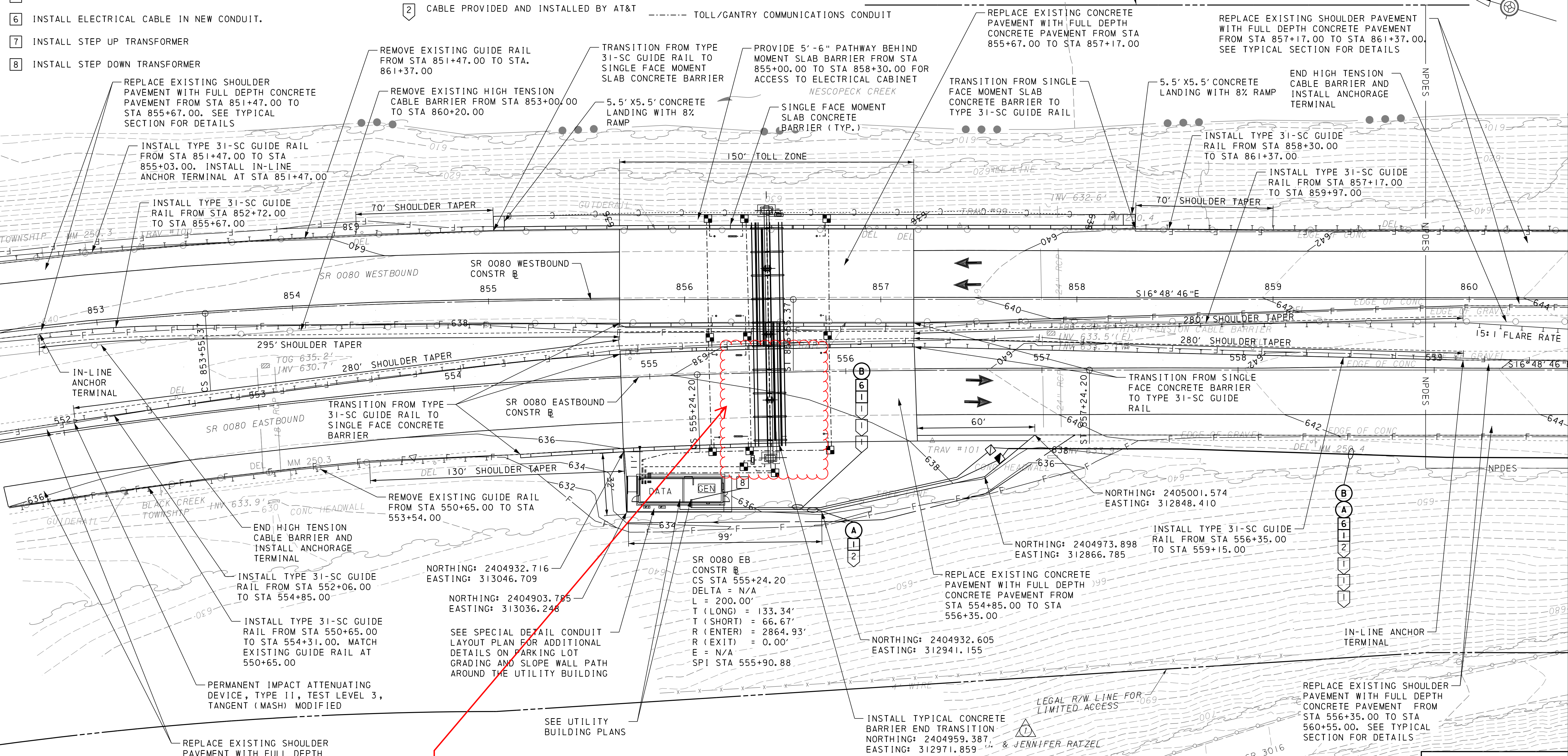
- ELECTRICAL/FIBER CONDUIT (PROPOSED)
- ▣ JB-1 (PROPOSED)
- ▣ JB-2 (PROPOSED)
- Ⓛ POWER SUPPLY (PROPOSED)
- Ⓜ UTILITY POLE (PROPOSED)
- TOLL/GANTRY POWER CONDUIT
- TOLL/GANTRY COMMUNICATIONS CONDUIT

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	7 OF 10
4-0	LUZERNE	0080	352	

REVISION NUMBER	REVISIONS	DATE	BY
	**		

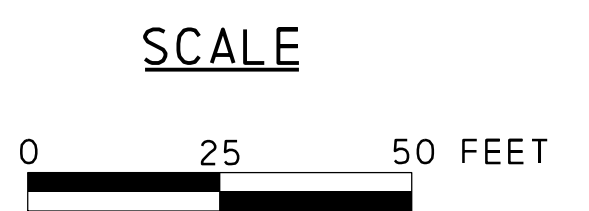
** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

9/22/2021 PLOTTED:



WILLIAM J & LAVERNE A

No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct tolling gantry over WB lanes.



FOR SR 0080 PROFILES, SEE SHEETS 9 AND 10

SITE DEVELOPMENT PLAN

PRE-FINAL DESIGN SUBMISSION

CONSTRUCTION NOTES

- 1 INSTALL NEW ELECTRICAL/COMMUNICATIONS CONDUIT IN UNPAVED AREA.
- 2 INSTALL CONDUIT IN PAVED SHOULDER/ROADWAY AREA.
- 3 INSTALL ELECTRICAL SERVICE.
- 4 120/240 UTILITY SERVICE.
- 5 PROPOSED AT&T COMMUNICATION SERVICE.
- 6 INSTALL ELECTRICAL CABLE IN NEW CONDUIT.
- 7 INSTALL STEP UP TRANSFORMER
- 8 INSTALL STEP DOWN TRANSFORMER

CONDUIT

- (A) 2" DIRECT BURIAL CONDUIT HDPE
- (B) 3" DIRECT BURIAL CONDUIT HDPE

CABLE

- 1 2-600 KCMIL AWG
- 2 CABLE PROVIDED AND INSTALLED BY AT&T

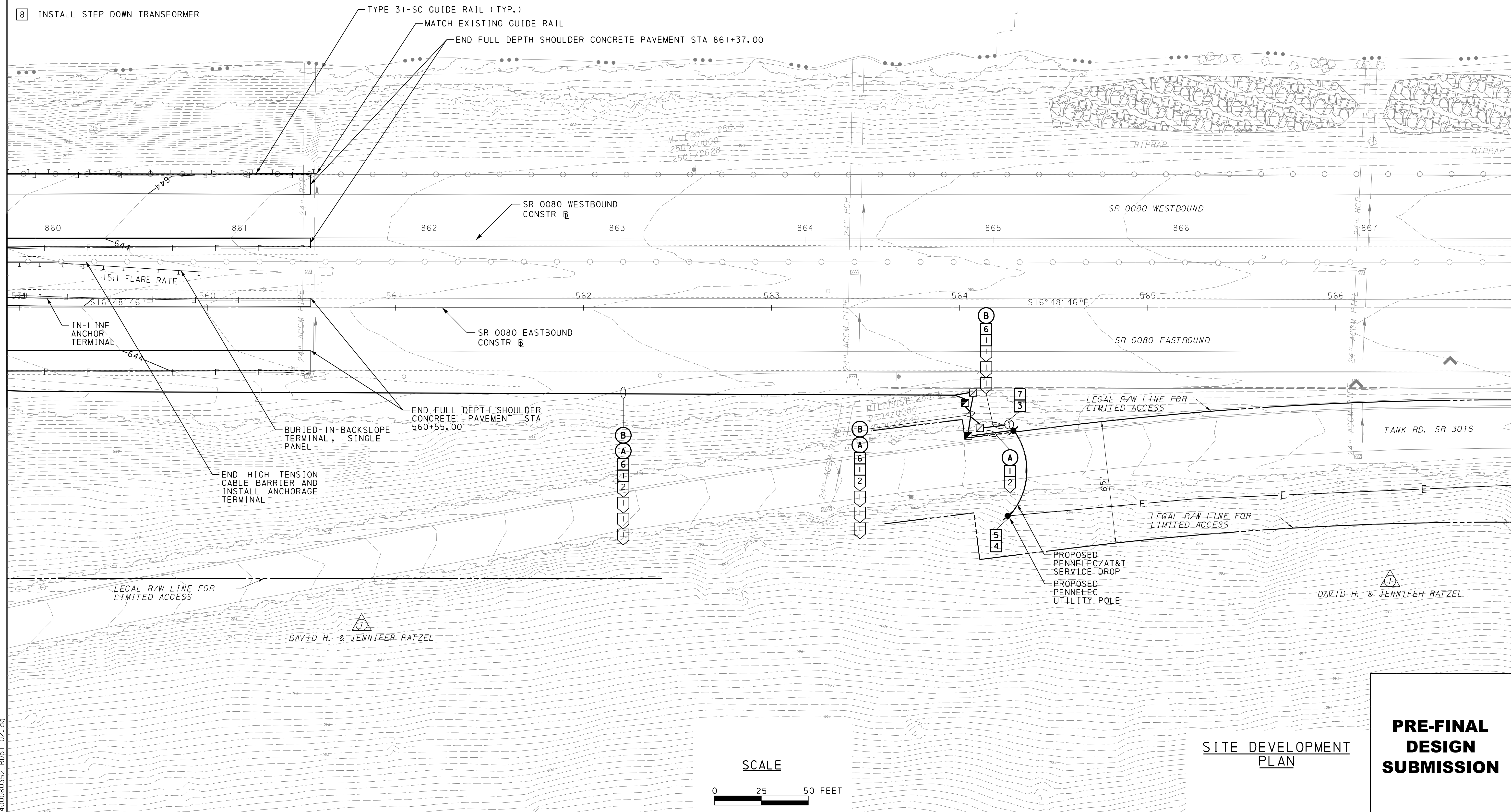
SYMBOL LEGEND

- ELECTRICAL/FIBER CONDUIT (PROPOSED)
- ▣ JB-1 (PROPOSED)
- ▣ JB-2 (PROPOSED)
- Ⓛ POWER SUPPLY (PROPOSED)
- ⦿ UTILITY POLE (PROPOSED)
- - - - TOLL/GANTRY POWER CONDUIT
- - - - TOLL/GANTRY COMMUNICATIONS CONDUIT

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	8 OF 10
4-0	LUZERNE	0080	352	
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

9/22/2021 PLOTTED:



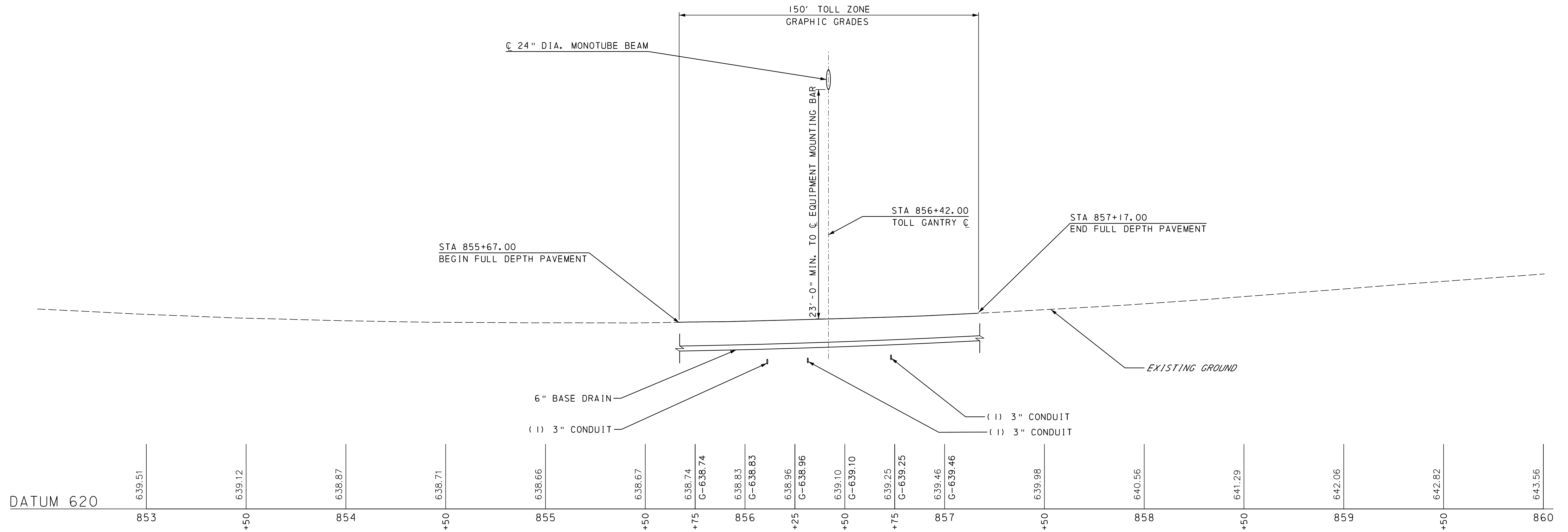
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**PRE-FINAL
DESIGN
SUBMISSION**

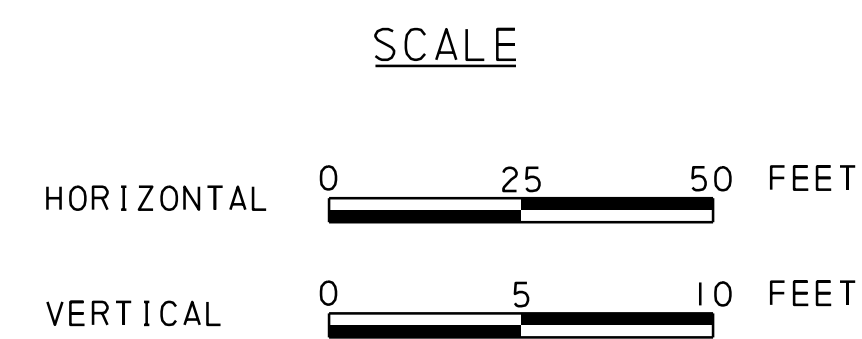
9/22/2021
PLOTTED:

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	9 OF 10
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



SR 0080 WESTBOUND CONSTR B



FOR SR 0080 PLAN, SEE SHEET 7

PROFILE

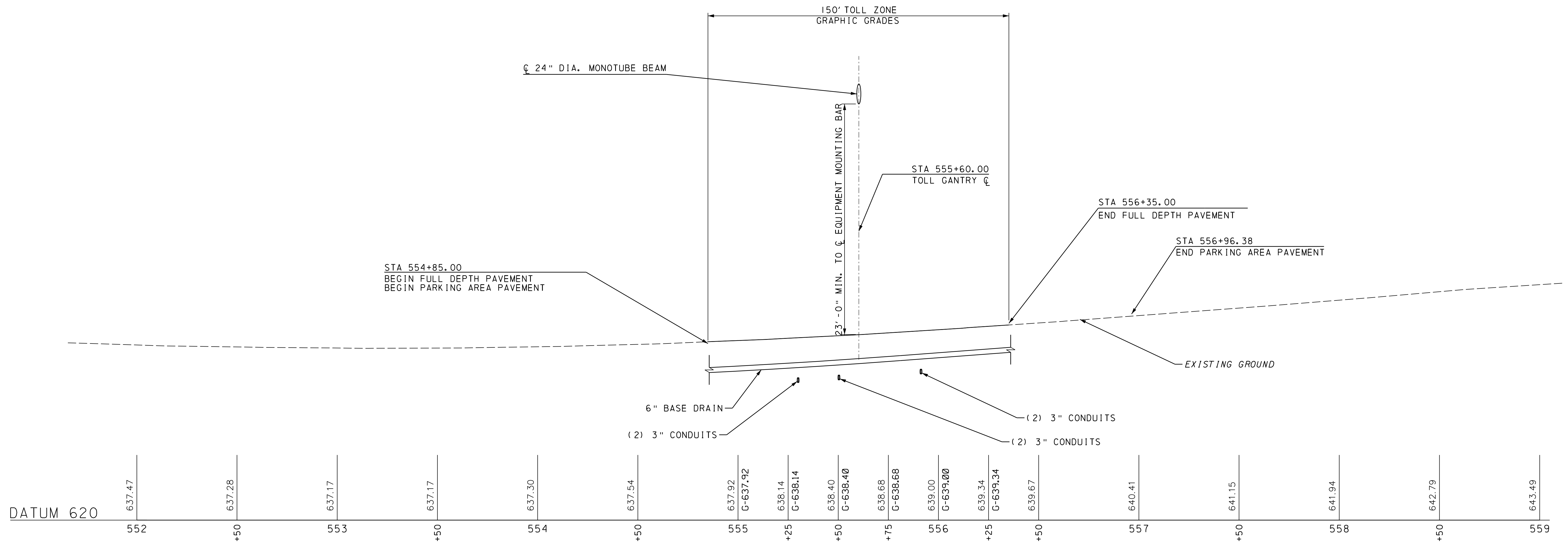
**PRE-FINAL
DESIGN
SUBMISSION**

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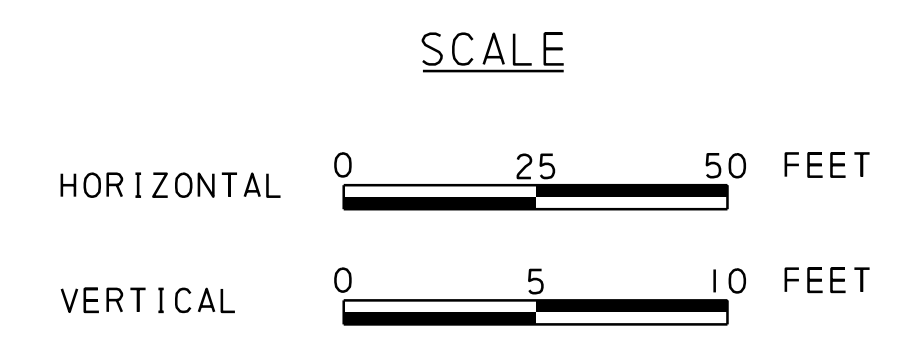
9/22/2021
PLOTTED:

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	10 OF 10
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



SR 0080 EASTBOUND CONSTR B



FOR SR 0080 PLAN, SEE SHEET 7

PROFILE

**PRE-FINAL
DESIGN
SUBMISSION**

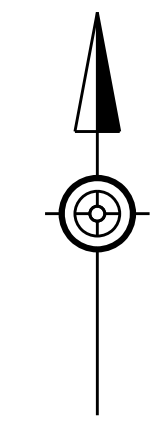
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9/21/2021
PLOTTED:

BRIDGE OPEN ROAD TOLLING SIGNING AND PAVEMENT MARKING

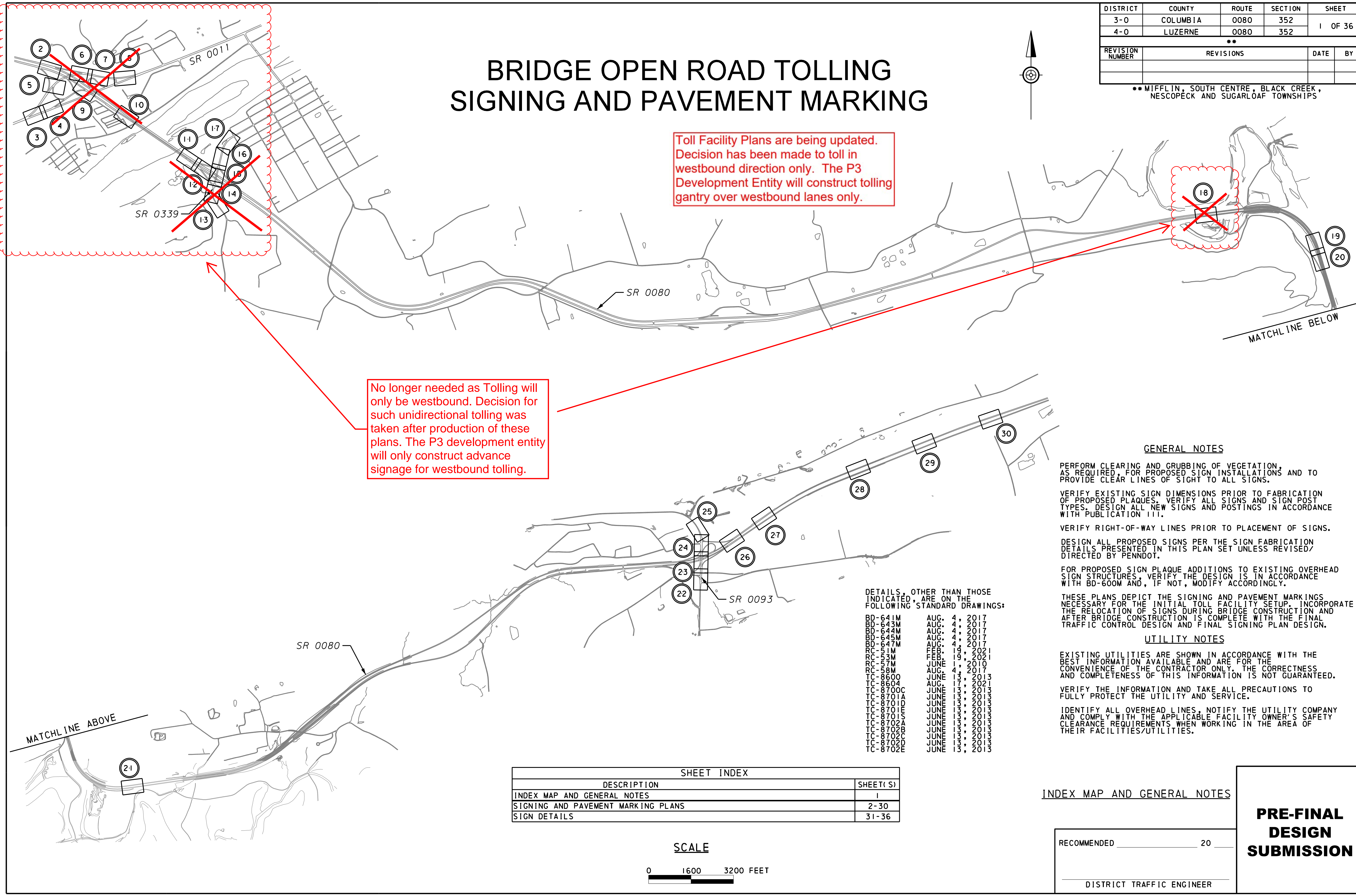
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	1 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



Toll Facility Plans are being updated. Decision has been made to toll in westbound direction only. The P3 Development Entity will construct tolling gantry over westbound lanes only.

No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct advance signage for westbound tolling.



GENERAL NOTES

- PERFORM CLEARING AND GRUBBING OF VEGETATION, AS REQUIRED, FOR PROPOSED SIGN INSTALLATIONS AND TO PROVIDE CLEAR LINES OF SIGHT TO ALL SIGNS.
- VERIFY EXISTING SIGN DIMENSIONS PRIOR TO FABRICATION OF PROPOSED PLAQUES. VERIFY ALL SIGNS AND SIGN POST TYPES. DESIGN ALL NEW SIGNS AND POSTINGS IN ACCORDANCE WITH PUBLICATION 111.
- VERIFY RIGHT-OF-WAY LINES PRIOR TO PLACEMENT OF SIGNS.
- DESIGN ALL PROPOSED SIGNS PER THE SIGN FABRICATION DETAILS PRESENTED IN THIS PLAN SET UNLESS REVISED/DIRECTED BY PENNDOT.
- FOR PROPOSED SIGN PLAQUE ADDITIONS TO EXISTING OVERHEAD SIGN STRUCTURES, VERIFY THE DESIGN IS IN ACCORDANCE WITH BD-600M AND, IF NOT, MODIFY ACCORDINGLY.
- THESE PLANS DEPICT THE SIGNING AND PAVEMENT MARKINGS NECESSARY FOR THE INITIAL TOLL FACILITY SETUP. INCORPORATE THE RELOCATION OF SIGNS DURING BRIDGE CONSTRUCTION AND AFTER BRIDGE CONSTRUCTION IS COMPLETE WITH THE FINAL TRAFFIC CONTROL DESIGN AND FINAL SIGNING PLAN DESIGN.

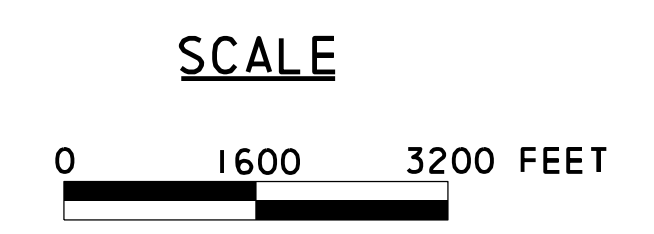
UTILITY NOTES

- EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CORRECTNESS AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED.
- VERIFY THE INFORMATION AND TAKE ALL PRECAUTIONS TO FULLY PROTECT THE UTILITY AND SERVICE.
- IDENTIFY ALL OVERHEAD LINES, NOTIFY THE UTILITY COMPANY AND COMPLY WITH THE APPLICABLE FACILITY OWNER'S SAFETY CLEARANCE REQUIREMENTS WHEN WORKING IN THE AREA OF THEIR FACILITIES/UTILITIES.

DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

BD-641M	AUG. 4, 2017
BD-643M	AUG. 4, 2017
BD-644M	AUG. 4, 2017
BD-645M	AUG. 4, 2017
BD-647M	AUG. 4, 2017
RC-51M	FEB. 19, 2021
RC-53M	FEB. 19, 2021
RC-57M	JUNE 4, 2010
RC-58M	AUG. 4, 2017
TC-8600	JUNE 13, 2013
TC-8604	AUG. 17, 2021
TC-8700C	JUNE 13, 2013
TC-8701A	JUNE 13, 2013
TC-8701D	JUNE 13, 2013
TC-8701E	JUNE 13, 2013
TC-8701S	JUNE 13, 2013
TC-8702A	JUNE 13, 2013
TC-8702B	JUNE 13, 2013
TC-8702C	JUNE 13, 2013
TC-8702D	JUNE 13, 2013
TC-8702E	JUNE 13, 2013

SHEET INDEX	
DESCRIPTION	SHEET(S)
INDEX MAP AND GENERAL NOTES	1
SIGNING AND PAVEMENT MARKING PLANS	2-30
SIGN DETAILS	31-36



INDEX MAP AND GENERAL NOTES

RECOMMENDED _____ 20 _____

DISTRICT TRAFFIC ENGINEER

**PRE-FINAL
DESIGN
SUBMISSION**

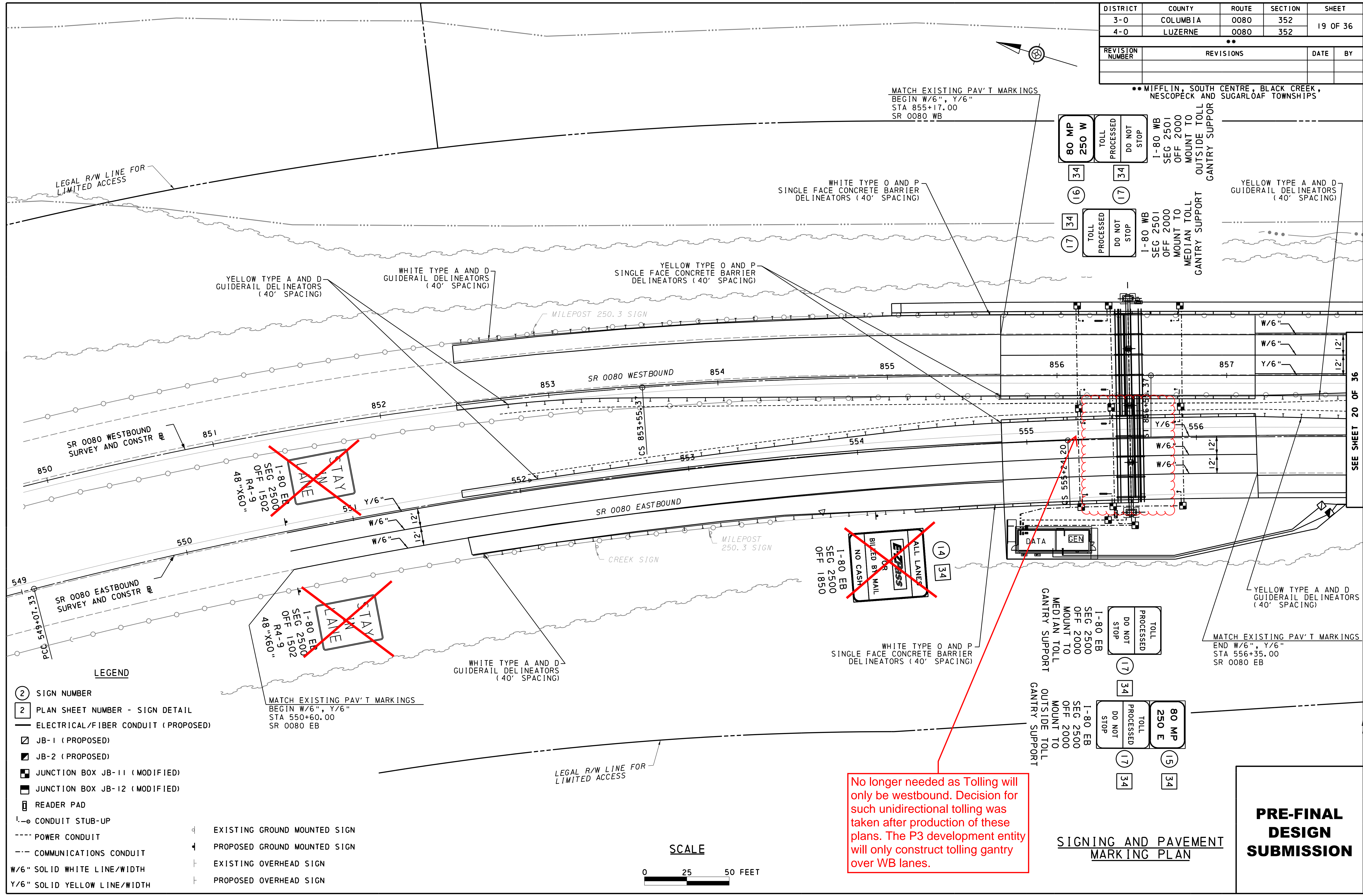
Signing and Pavement Marking Plans

9/21/2021
PLOTTED:

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	19 OF 36
4-0	LUZERNE	0080	352	

REVISION NUMBER	REVISIONS	DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



LEGAL R/W LINE FOR LIMITED ACCESS

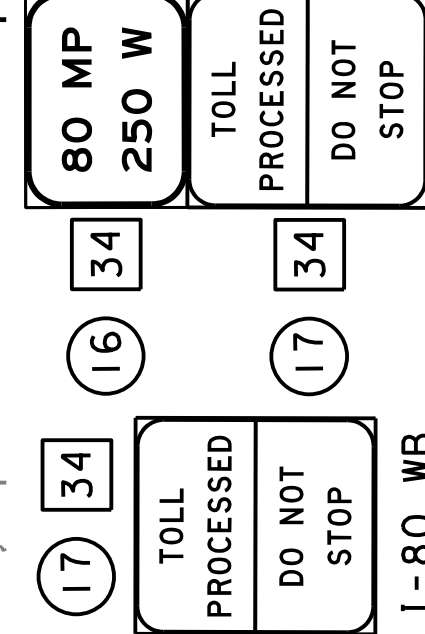
MATCH EXISTING PAV'T MARKINGS
BEGIN W/6", Y/6"
STA 855+17.00
SR 0080 WB

YELLOW TYPE A AND D GUIDERAIL DELINEATORS (40' SPACING)

WHITE TYPE A AND D GUIDERAIL DELINEATORS (40' SPACING)

YELLOW TYPE O AND P SINGLE FACE CONCRETE BARRIER DELINEATORS (40' SPACING)

WHITE TYPE O AND P SINGLE FACE CONCRETE BARRIER DELINEATORS (40' SPACING)



1-80 WB SEG 2501 OFF 2000 MOUNT TO MOUNT TO OUTSIDE TOLL GANTRY SUPPORT

YELLOW TYPE A AND D GUIDERAIL DELINEATORS (40' SPACING)

SR 0080 WESTBOUND SURVEY AND CONSTR

SR 0080 WESTBOUND

SR 0080 EASTBOUND

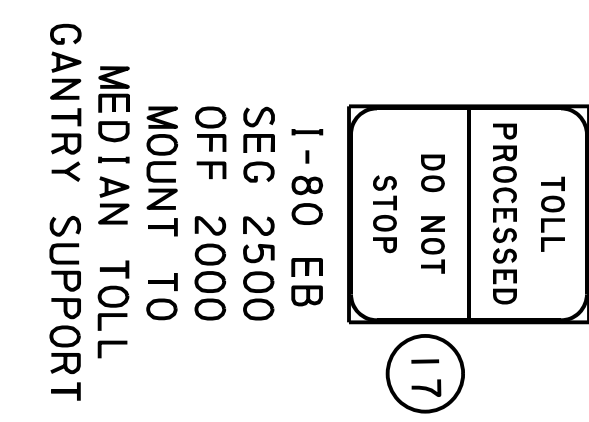
SR 0080 EASTBOUND SURVEY AND CONSTR

1-80 EB SEG 2500 OFF 1502 RA-9 48"X60"

1-80 EB SEG 2500 OFF 1502 RA-9 48"X60"

1-80 EB SEG 2500 OFF 1850

DATA GEN



1-80 EB SEG 2500 OFF 2000 MOUNT TO MOUNT TO MEDIAN TOLL GANTRY SUPPORT

YELLOW TYPE A AND D GUIDERAIL DELINEATORS (40' SPACING)

MATCH EXISTING PAV'T MARKINGS
END W/6", Y/6"
STA 556+35.00
SR 0080 EB

LEGEND

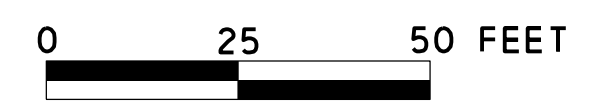
- ② SIGN NUMBER
- 2 PLAN SHEET NUMBER - SIGN DETAIL
- ELECTRICAL/FIBER CONDUIT (PROPOSED)
- ☐ JB-1 (PROPOSED)
- ☑ JB-2 (PROPOSED)
- ☐ JUNCTION BOX JB-11 (MODIFIED)
- ☐ JUNCTION BOX JB-12 (MODIFIED)
- ☐ READER PAD
- CONDUIT STUB-UP
- POWER CONDUIT
- COMMUNICATIONS CONDUIT
- W/6" SOLID WHITE LINE/WIDTH
- Y/6" SOLID YELLOW LINE/WIDTH

- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ⊕ EXISTING OVERHEAD SIGN
- ⊕ PROPOSED OVERHEAD SIGN

MATCH EXISTING PAV'T MARKINGS
BEGIN W/6", Y/6"
STA 550+60.00
SR 0080 EB

LEGAL R/W LINE FOR LIMITED ACCESS

SCALE



No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct tolling gantry over WB lanes.

SIGNING AND PAVEMENT MARKING PLAN

PRE-FINAL DESIGN SUBMISSION

SEE SHEET 20 OF 36

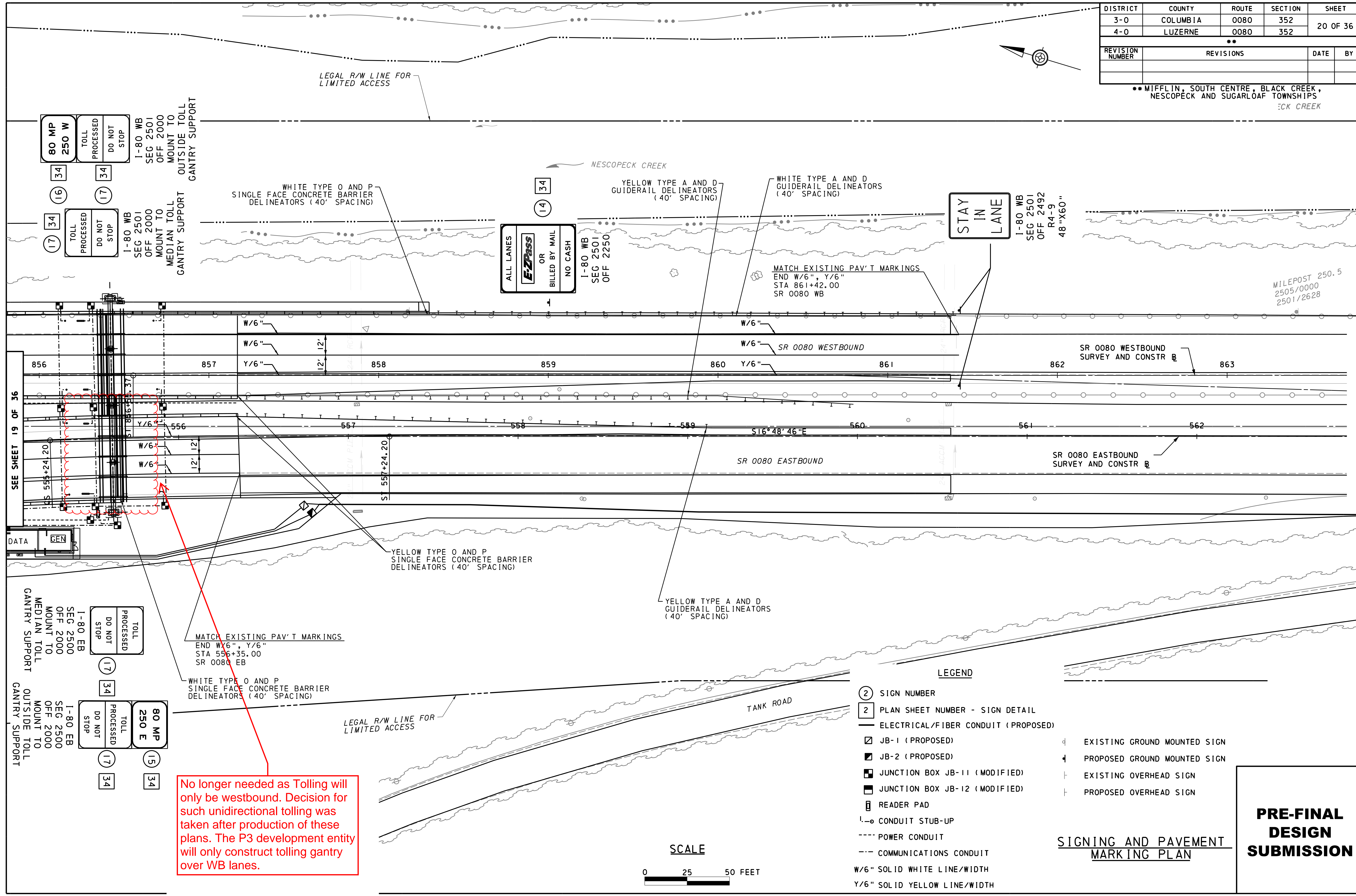
9/21/2021

PLOTTED:

Signing and Pavement Marking Plans

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	20 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS
ECK CREEK



No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct tolling gantry over WB lanes.

SEE SHEET 19 OF 36

DATA GEN

1-80 EB
SEG 2500
OFF 2000
MOUNT TO
MEDIAN TOLL
GANTRY SUPPORT

1-80 EB
SEG 2500
OFF 2000
MOUNT TO
OUTSIDE TOLL
GANTRY SUPPORT

80 MP
250 E

1-80 WB
SEG 2501
OFF 2000
MOUNT TO
MEDIAN TOLL
GANTRY SUPPORT

1-80 WB
SEG 2501
OFF 2000
MOUNT TO
OUTSIDE TOLL
GANTRY SUPPORT

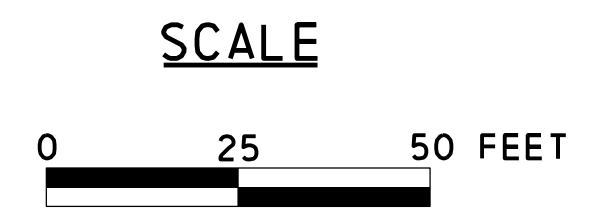
80 MP
250 W

1-80 WB
SEG 2501
OFF 2000
MOUNT TO
MEDIAN TOLL
GANTRY SUPPORT

1-80 WB
SEG 2501
OFF 2000
MOUNT TO
OUTSIDE TOLL
GANTRY SUPPORT

LEGEND

- ② SIGN NUMBER
- 2 PLAN SHEET NUMBER - SIGN DETAIL
- ELECTRICAL/FIBER CONDUIT (PROPOSED)
- ▣ JB-1 (PROPOSED)
- ▣ JB-2 (PROPOSED)
- ▣ JUNCTION BOX JB-11 (MODIFIED)
- ▣ JUNCTION BOX JB-12 (MODIFIED)
- ▣ READER PAD
- ┌-o CONDUIT STUB-UP
- POWER CONDUIT
- COMMUNICATIONS CONDUIT
- W/6" SOLID WHITE LINE/WIDTH
- Y/6" SOLID YELLOW LINE/WIDTH
- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ┌-o EXISTING OVERHEAD SIGN
- ┌-o PROPOSED OVERHEAD SIGN



SIGNING AND PAVEMENT MARKING PLAN

PRE-FINAL DESIGN SUBMISSION

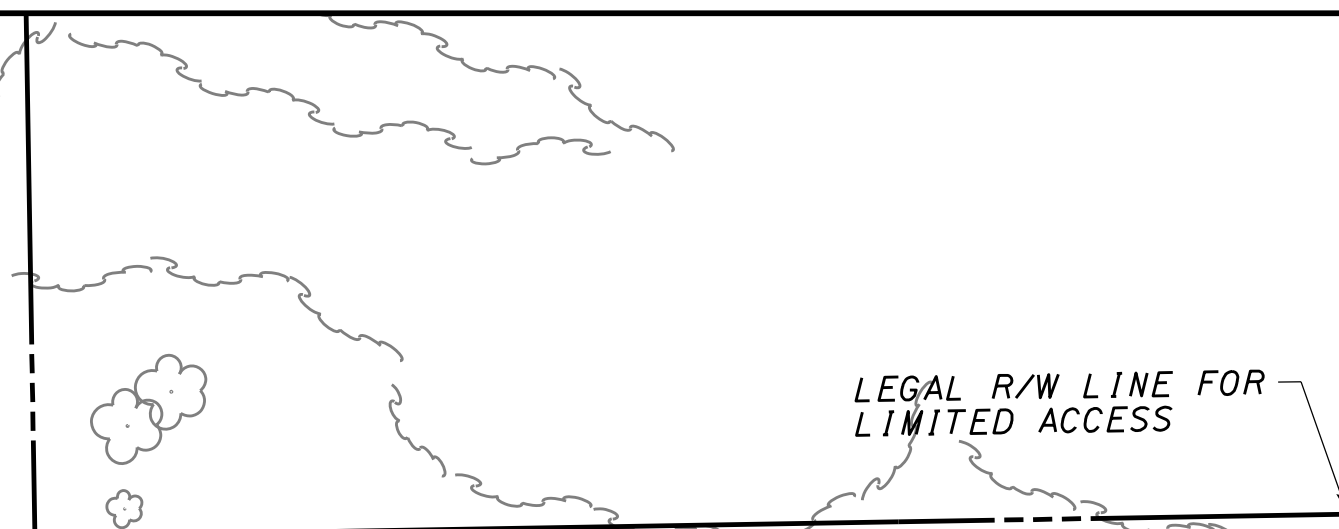
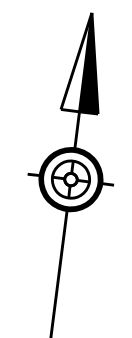
MILEPOST 250.5
2505/0000
2501/2628

9/21/2021
PLOTTED:

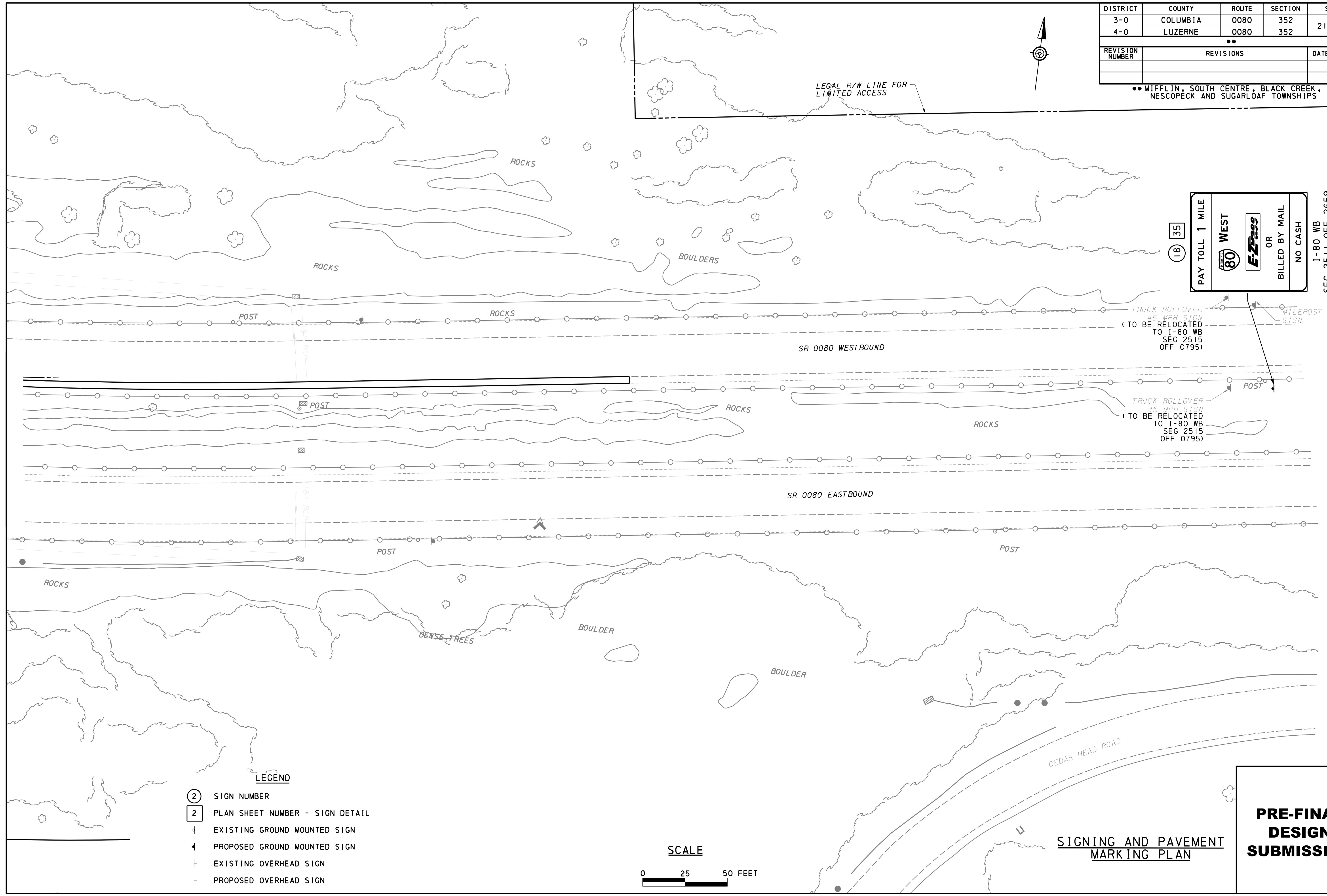
Signing and Pavement Marking Plans

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	21 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



LEGAL R/W LINE FOR LIMITED ACCESS



PAY TOLL 1 MILE
WEST
80
EZPass
OR
BILLED BY MAIL
NO CASH

I-80 WB
SEC 2511 OFF 2659

TRUCK ROLLOVER
45 MPH SIGN
(TO BE RELOCATED
TO I-80 WB
SEG 2515
OFF 0795)

TRUCK ROLLOVER
45 MPH SIGN
(TO BE RELOCATED
TO I-80 WB
SEG 2515
OFF 0795)

MILEPOST 251.5
SIGN

LEGEND

- ② SIGN NUMBER
- 2 PLAN SHEET NUMBER - SIGN DETAIL
- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ⊕ EXISTING OVERHEAD SIGN
- ⊕ PROPOSED OVERHEAD SIGN

SCALE



SIGNING AND PAVEMENT MARKING PLAN

PRE-FINAL DESIGN SUBMISSION

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	22 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



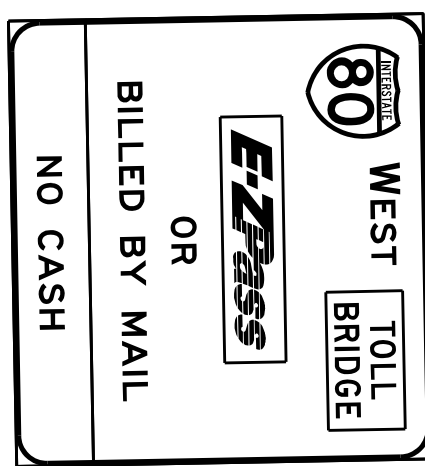
SR 8002 RAMP G

SR 0093

SR 93 NB
SEG 0230
OFF 3421



SR 93 NB SEG 0240 OFF 0042

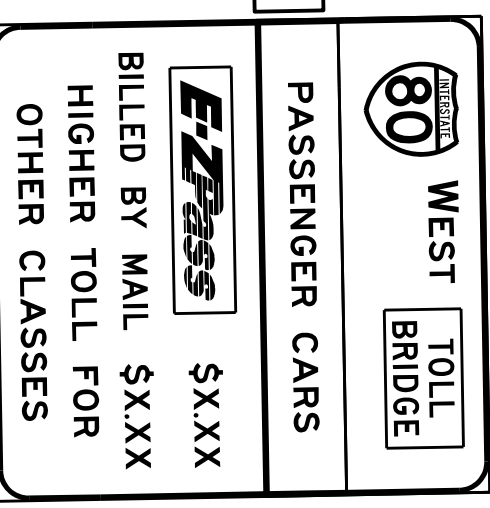


SP-1
24"X18" TOLL BRIDGE
M3-4-1 WEST
24"X12" M1-1
24"X24" M6-3-1
21"X15" SR 93 NB
SEG 0240
OFF 0188







M3-2-1
24"X12" M1-1
24"X24" M5-2-1R
21"X15"

WAYFINDING GUIDE SIGNS

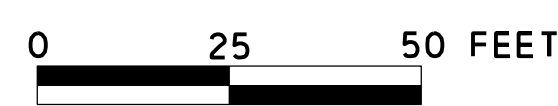
SR 93 NB SEG 0240 OFF 0335



LEGEND

-  SIGN NUMBER
-  PLAN SHEET NUMBER - SIGN DETAIL
-  EXISTING GROUND MOUNTED SIGN
-  PROPOSED GROUND MOUNTED SIGN
-  EXISTING OVERHEAD SIGN
-  PROPOSED OVERHEAD SIGN

SCALE

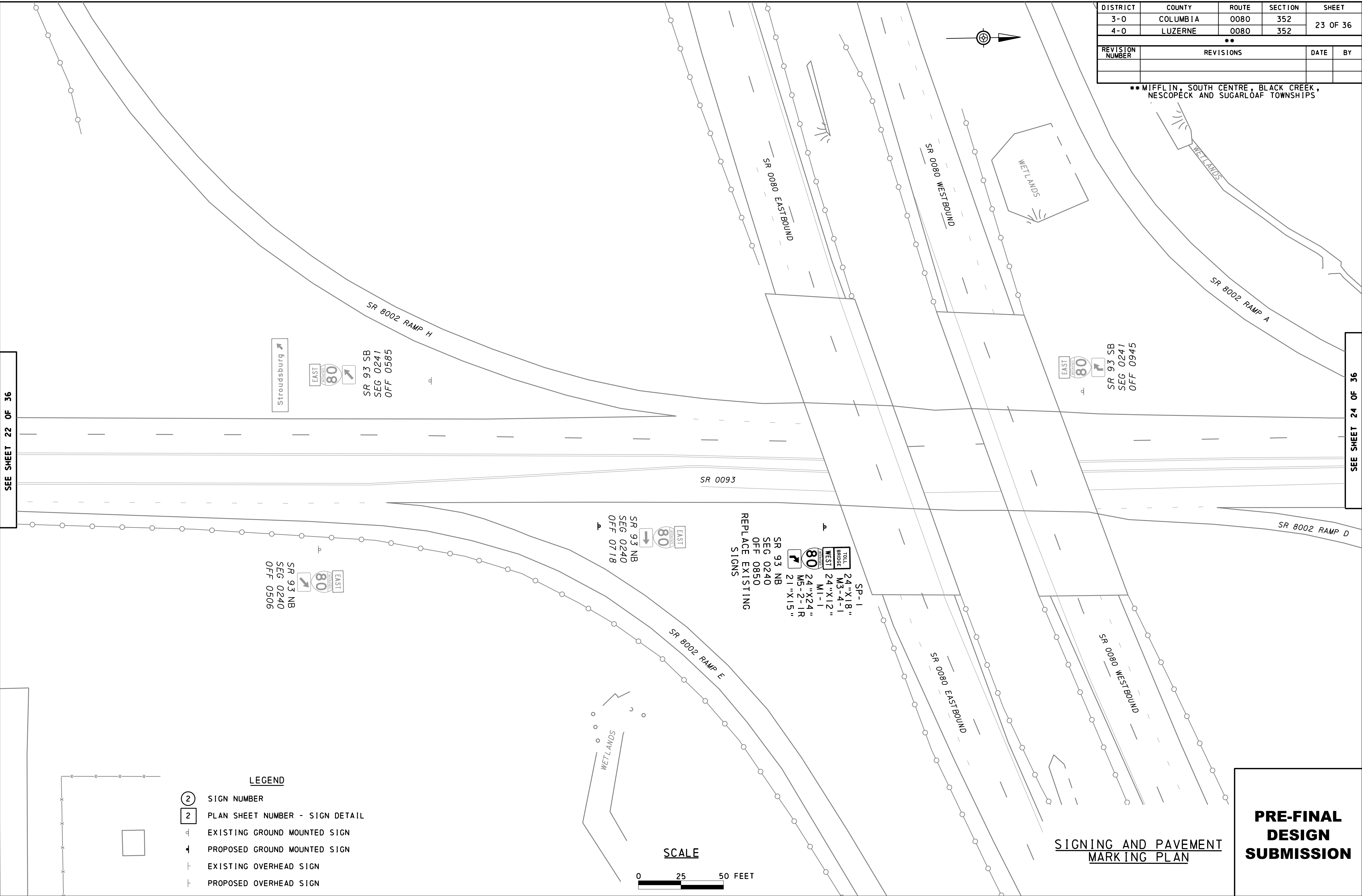


SIGNING AND PAVEMENT MARKING PLAN

PRE-FINAL DESIGN SUBMISSION

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	23 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



SEE SHEET 22 OF 36

SEE SHEET 24 OF 36

Stroudsburg

SR 93 SB
SEG 0241
OFF 0585

SR 93 SB
SEG 0241
OFF 0945

SR 93 NB
SEG 0240
OFF 0506

SR 93 NB
SEG 0240
OFF 0718

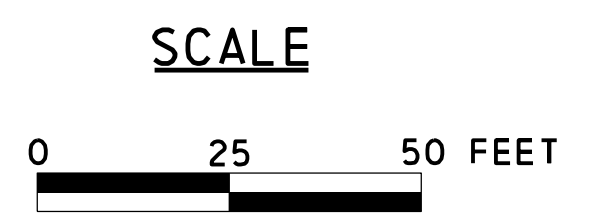
SP-1
24"X18"
M3-4-1
24"X12"
M1-1
24"X24"
M5-2-1R
21"X15"

SR 93 NB
SEG 0240
OFF 0850

REPLACE EXISTING SIGNS

LEGEND

- ② SIGN NUMBER
- 2 PLAN SHEET NUMBER - SIGN DETAIL
- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ⊥ EXISTING OVERHEAD SIGN
- ⊥ PROPOSED OVERHEAD SIGN

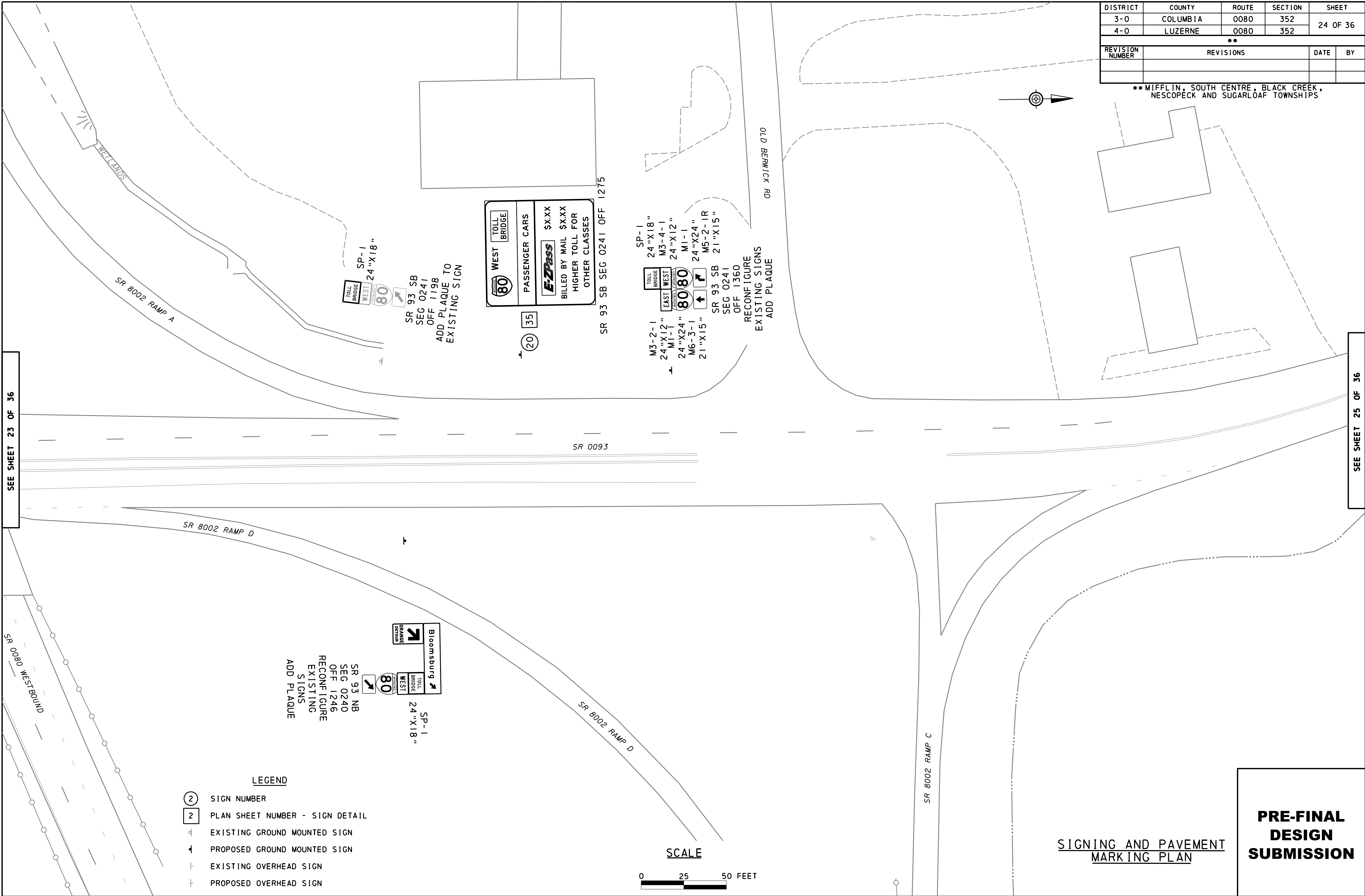
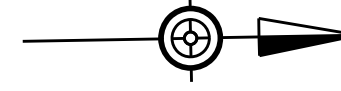


SIGNING AND PAVEMENT MARKING PLAN

PRE-FINAL DESIGN SUBMISSION

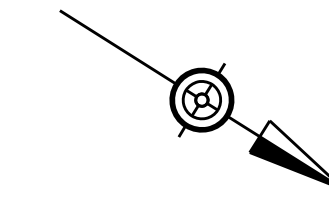
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	24 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



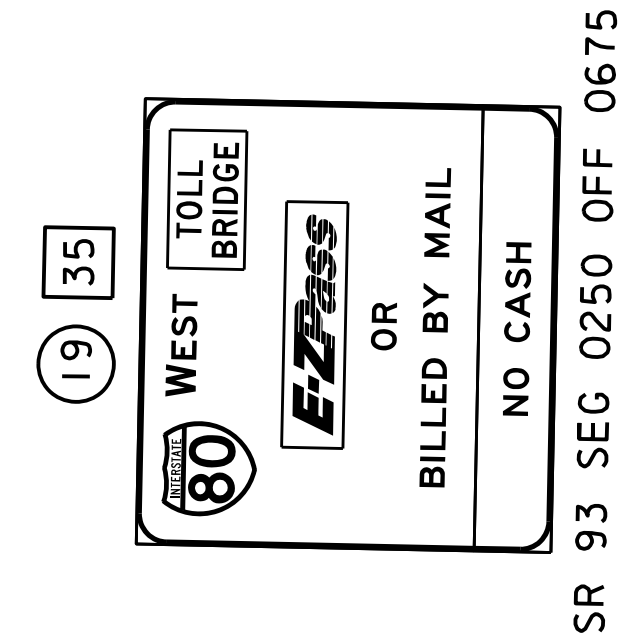
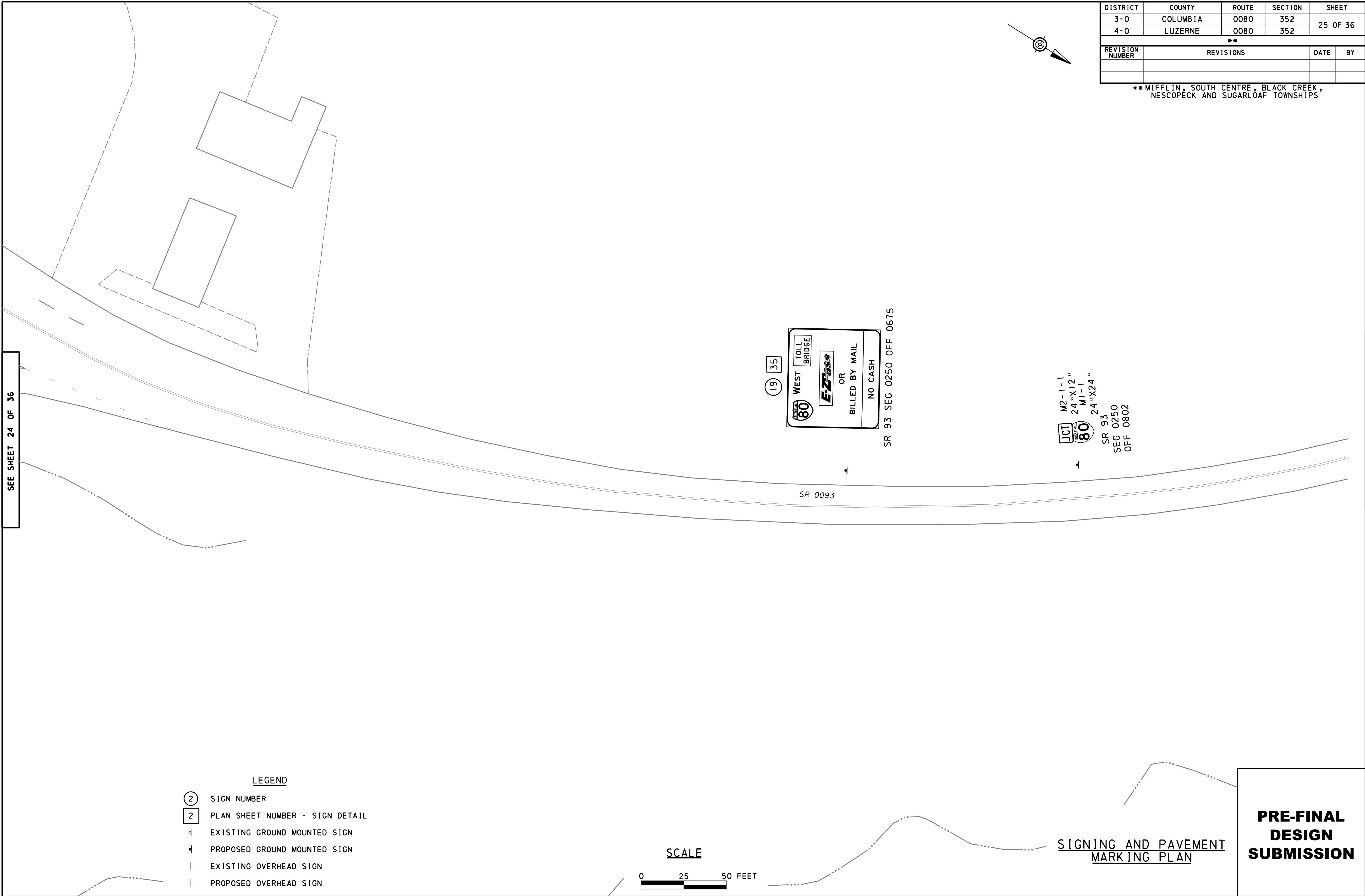
SIGNING AND PAVEMENT MARKING PLAN

PRE-FINAL DESIGN SUBMISSION

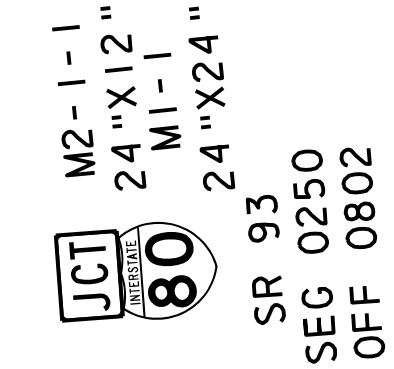


DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	25 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

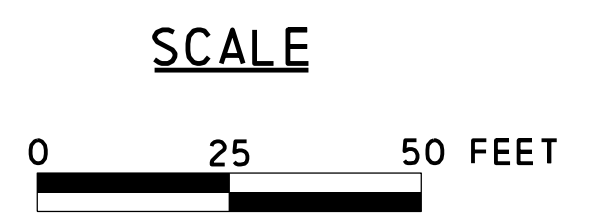


SR 93 SEG 0250 OFF 0675



SR 93
SEG 0250
OFF 0802

- LEGEND**
- ② SIGN NUMBER
 - 2 PLAN SHEET NUMBER - SIGN DETAIL
 - ⊕ EXISTING GROUND MOUNTED SIGN
 - ⊕ PROPOSED GROUND MOUNTED SIGN
 - ⊕ EXISTING OVERHEAD SIGN
 - ⊕ PROPOSED OVERHEAD SIGN



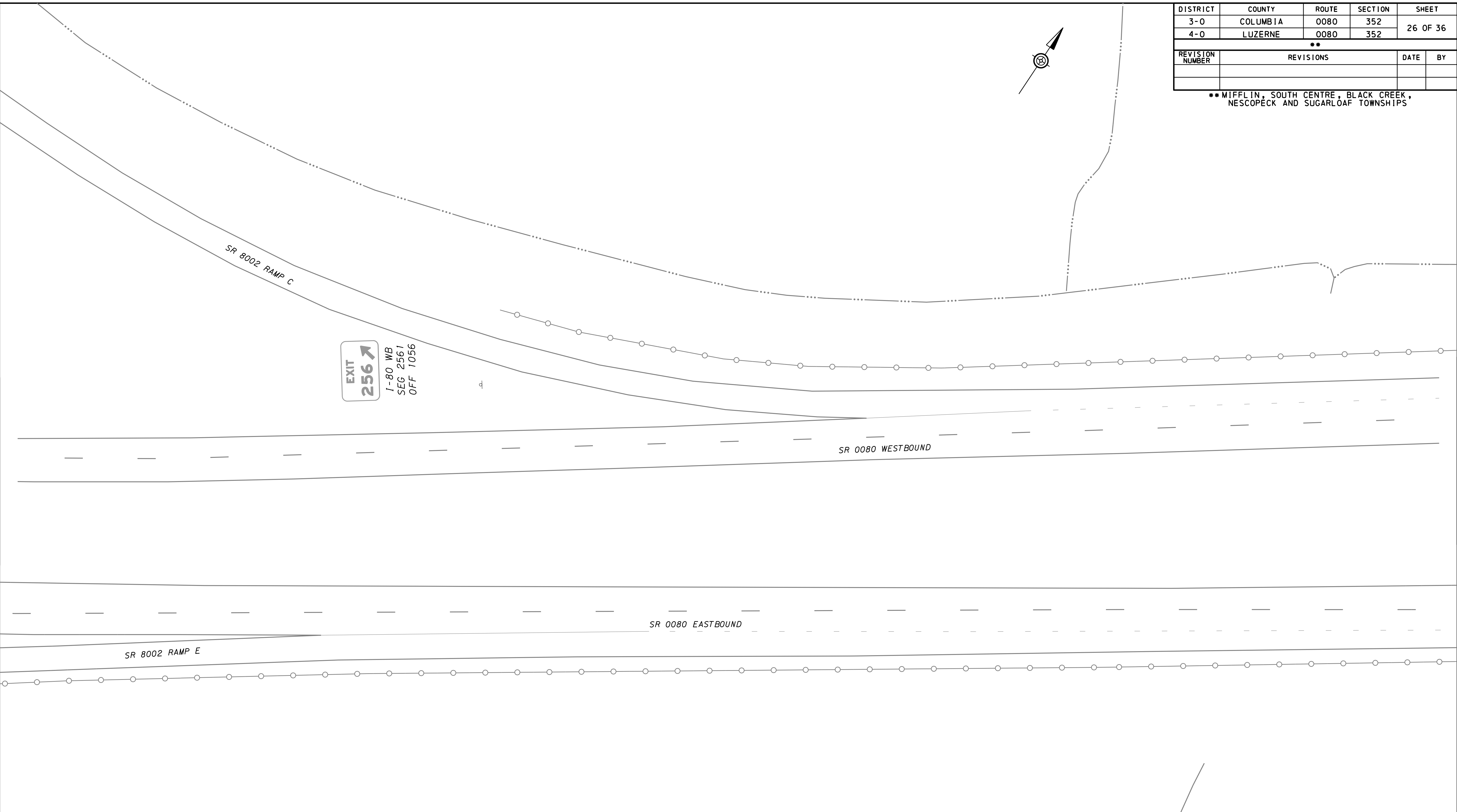
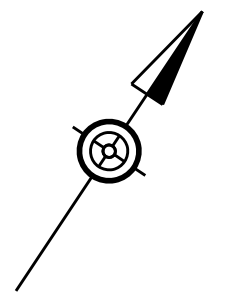
SIGNING AND PAVEMENT MARKING PLAN

PRE-FINAL DESIGN SUBMISSION

9/21/2021
PLOTTED:

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	26 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



EXIT
256 ↗
I-80 WB
SEG 2561
OFF 1056

SR 8002 RAMP C

SR 0080 WESTBOUND

SR 0080 EASTBOUND

SR 8002 RAMP E

LEGEND

- ② SIGN NUMBER
- 2 PLAN SHEET NUMBER - SIGN DETAIL
- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ⊥ EXISTING OVERHEAD SIGN
- ⊥ PROPOSED OVERHEAD SIGN

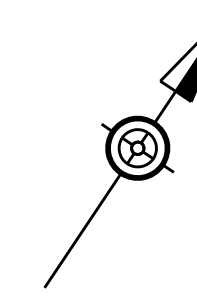
SCALE



SIGNING AND PAVEMENT MARKING PLAN

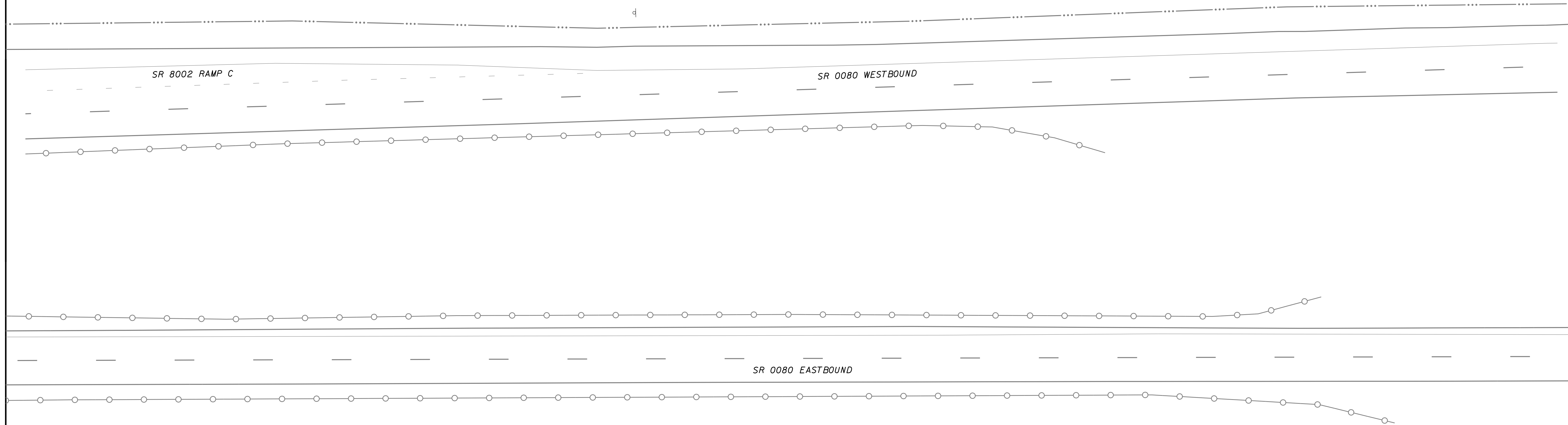
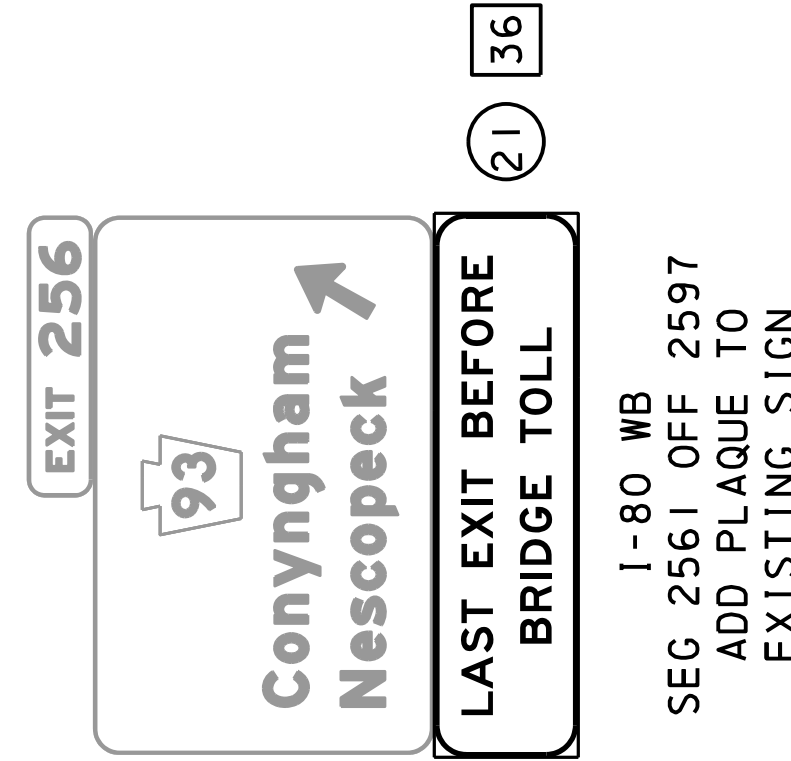
PRE-FINAL DESIGN SUBMISSION

Signing and Pavement Marking Plans

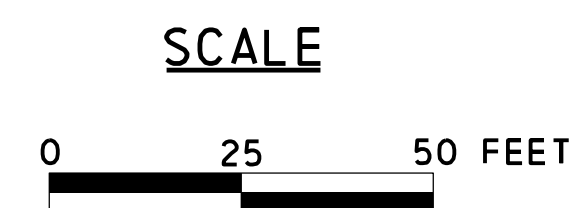


DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	27 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

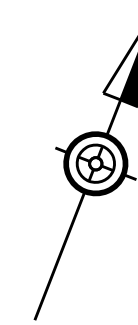


- LEGEND**
- 2 SIGN NUMBER
 - 2 PLAN SHEET NUMBER - SIGN DETAIL
 - ⊕ EXISTING GROUND MOUNTED SIGN
 - ⊕ PROPOSED GROUND MOUNTED SIGN
 - ⊕ EXISTING OVERHEAD SIGN
 - ⊕ PROPOSED OVERHEAD SIGN



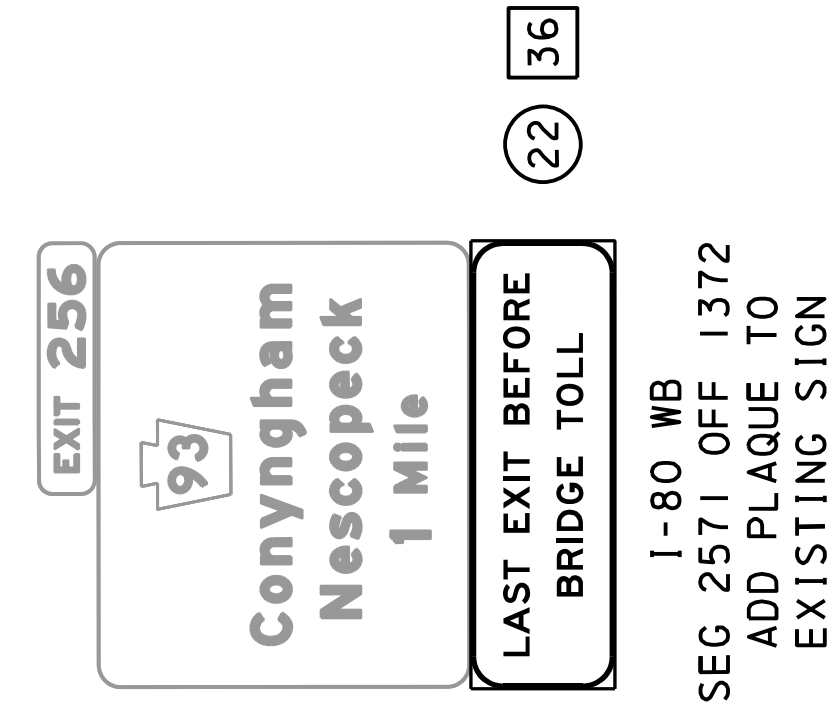
SIGNING AND PAVEMENT
MARKING PLAN

**PRE-FINAL
DESIGN
SUBMISSION**



DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	28 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



4

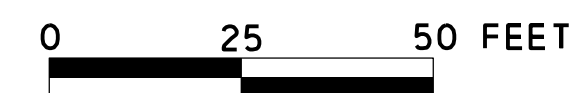
SR 0080 WESTBOUND

SR 0080 EASTBOUND

LEGEND

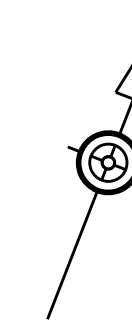
- ② SIGN NUMBER
- 2 PLAN SHEET NUMBER - SIGN DETAIL
- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ⊕ EXISTING OVERHEAD SIGN
- ⊕ PROPOSED OVERHEAD SIGN

SCALE



SIGNING AND PAVEMENT MARKING PLAN

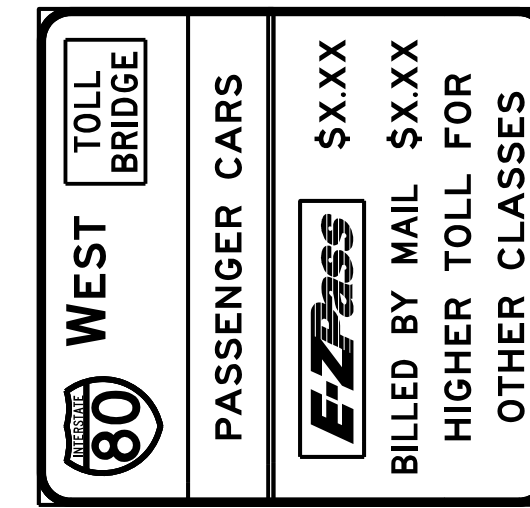
PRE-FINAL DESIGN SUBMISSION



DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	29 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS

23 36



I-80 WB SEC 2575 OFF 1270

MILEPOST 257.8 SIGN

SR 0080 WESTBOUND

SR 0080 EASTBOUND

LEGEND

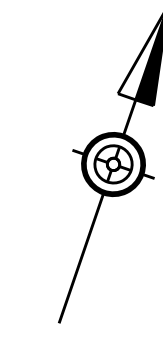
- ② SIGN NUMBER
- 2 PLAN SHEET NUMBER - SIGN DETAIL
- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ⊕ EXISTING OVERHEAD SIGN
- ⊕ PROPOSED OVERHEAD SIGN

SCALE




SIGNING AND PAVEMENT MARKING PLAN


PRE-FINAL DESIGN SUBMISSION



DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	30 OF 36	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS **

EXIT 256

**Conyngham
 Nescopeck
 2 Miles**
 I-80 WB
 SEG 2581 OFF 1372

(24) (36)
 PAY TOLL 8 MILES

 OR
 BILLED BY MAIL
 NO CASH

I-80 WB SEG 2581 OFF 1872

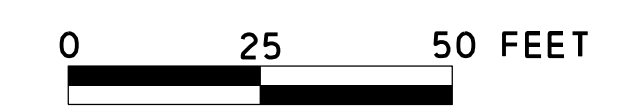
SR 0080 WESTBOUND

SR 0080 EASTBOUND

LEGEND

- (2) SIGN NUMBER
- [2] PLAN SHEET NUMBER - SIGN DETAIL
- ⊕ EXISTING GROUND MOUNTED SIGN
- ⊕ PROPOSED GROUND MOUNTED SIGN
- ⊕ EXISTING OVERHEAD SIGN
- ⊕ PROPOSED OVERHEAD SIGN

SCALE

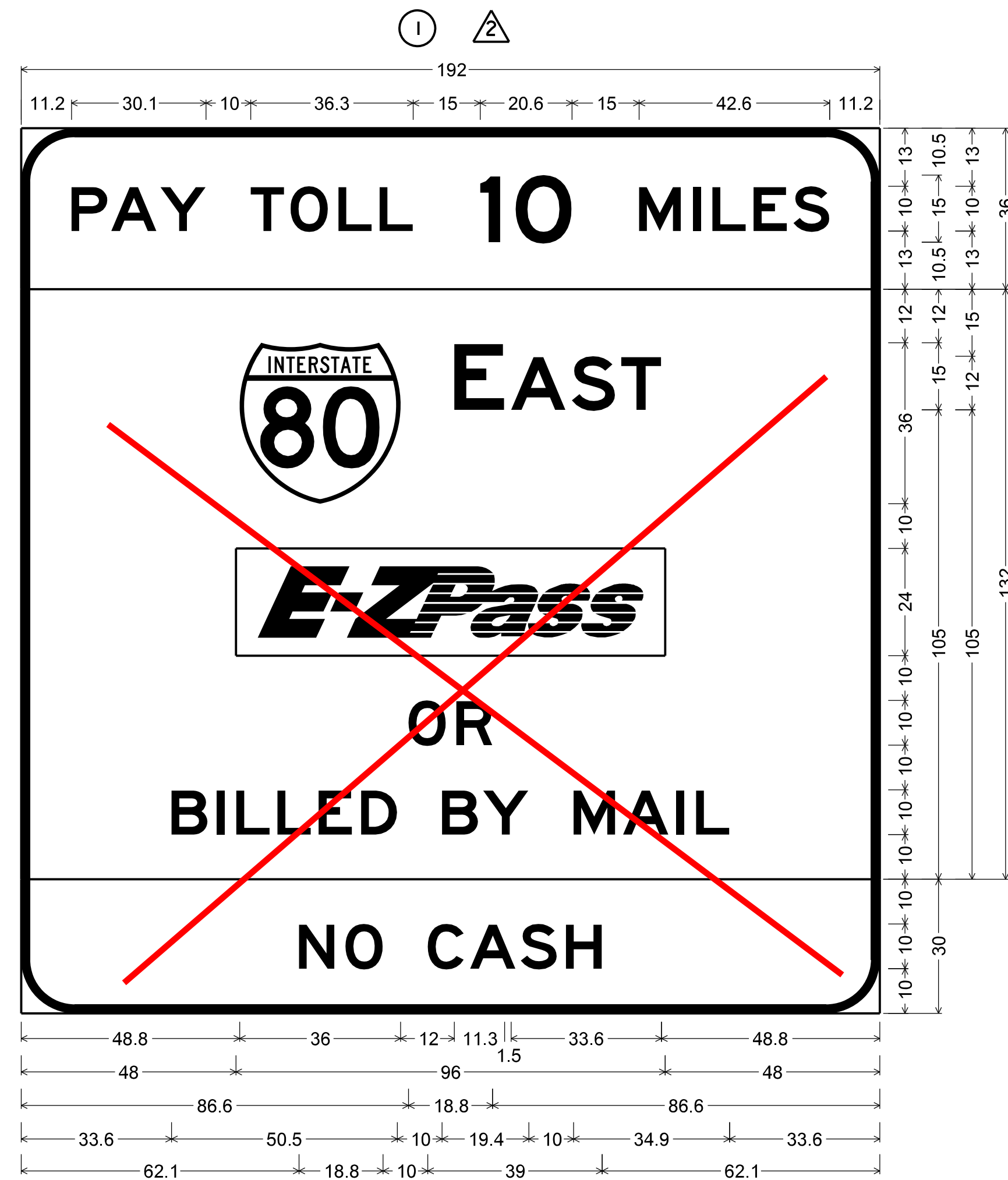


**SIGNING AND PAVEMENT
MARKING PLAN**

**PRE-FINAL
DESIGN
SUBMISSION**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	31 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



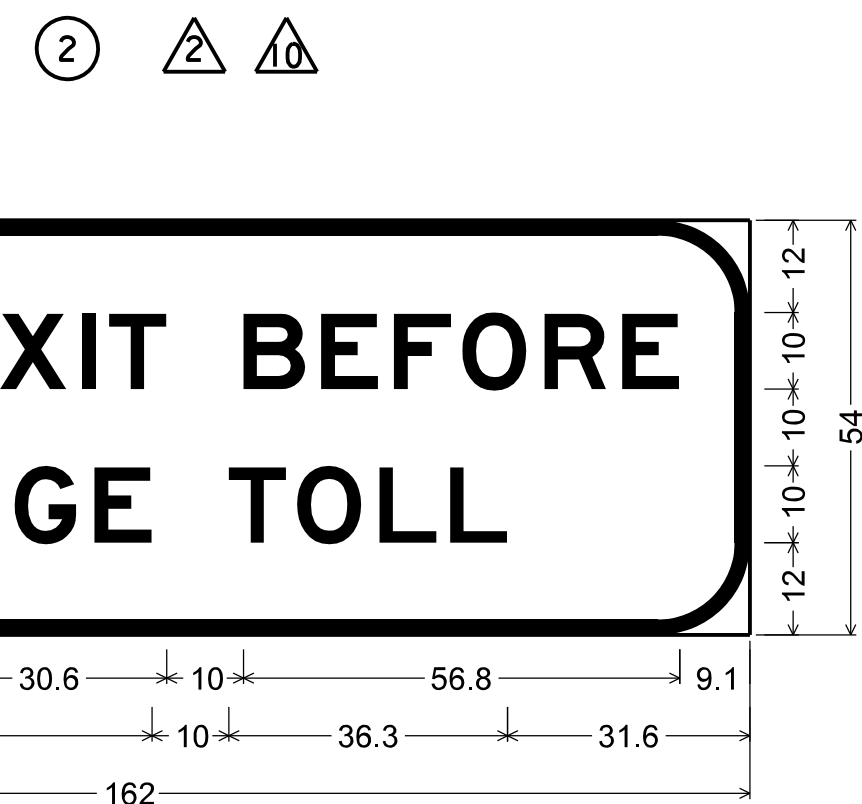
12.0" Radius, 2.0" Border, Black on, Yellow;
"PAY TOLL 10 MILES", E 2K;

12.0" Radius, 2.0" Border, White on, Green;
"EAST", E 2K; "OR", E 2K; "BILLED BY MAIL", E 2K;

12.0" Radius, 2.0" Border, Black on, White;
"NO CASH", E 2K;

Table of letter and object lefts

P	A	Y	T	O	L	L	I	O	M	I	L	E	S	
11.2	20.1	31.1	51.3	60.2	70.9	80.1	102.6	110.6	138.2	150.2	154.6	163.8	172.7	
EAST														
E	A	S	T											
48.8	96.8	109.6	123.1	134.2										
OR														
O	R													
86.6	97.3													
BILLED BY MAIL														
B	I	L	L	E	D	B	Y	M	A	I	L			
33.6	43.7	48.1	57.3	66.5	76.0	94.1	103.3	123.5	134.6	146.5	150.9			
NO CASH														
N	O	C	A	S	H									
62.1	72.5	90.9	100.4	111.7	121.8									



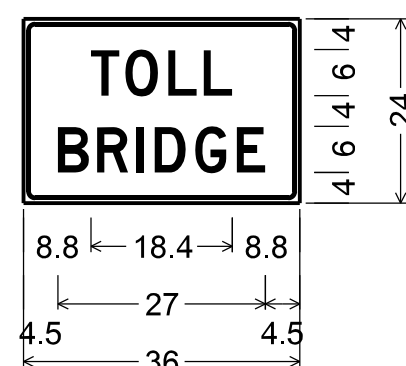
12.0" Radius, 2.0" Border, Black on, Yellow;

"LAST EXIT BEFORE", E 2K; "BRIDGE TOLL", E 2K;

Table of letter and object lefts

L	A	S	T	E	X	I	T	B	E	F	O	R	E	
9.2	17.5	28.8	38.0	55.5	64.4	75.1	78.6	96.1	106.2	115.7	124.6	135.3	145.4	
LAST EXIT BEFORE BRIDGE TOLL														
B	R	I	D	G	E	T	O	L						
31.5	41.6	51.7	56.1	66.2	76.6	94.1	103.0	113.7	122.9					

SP-1



1.5" Radius, 0.6" Border, 0.4" Indent, Black on, Yellow;

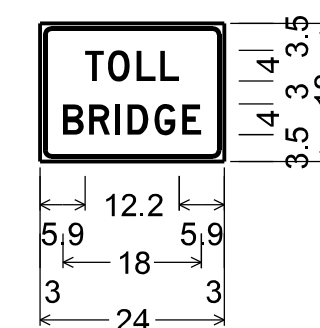
"TOLL", D 2K;

"BRIDGE", D 2K;

Table of letter and object lefts

T	O	L	L				
8.8	13.3	18.9	23.5				
TOLL BRIDGE							
B	R	I	D	G	E		
4.5	9.6	14.7	17.1	22.4	27.8		

SP-2



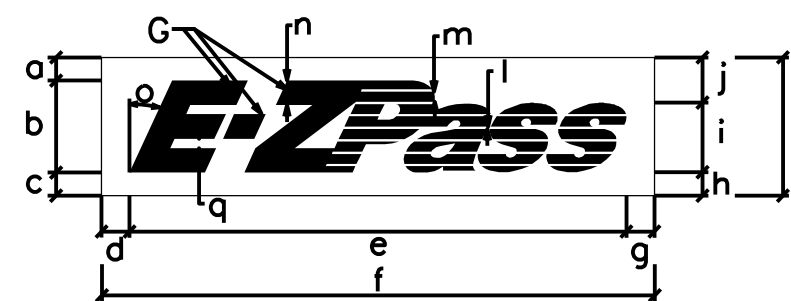
1.5" Radius, 0.6" Border, 0.4" Indent, Black on, Yellow;

"TOLL", D 2K;

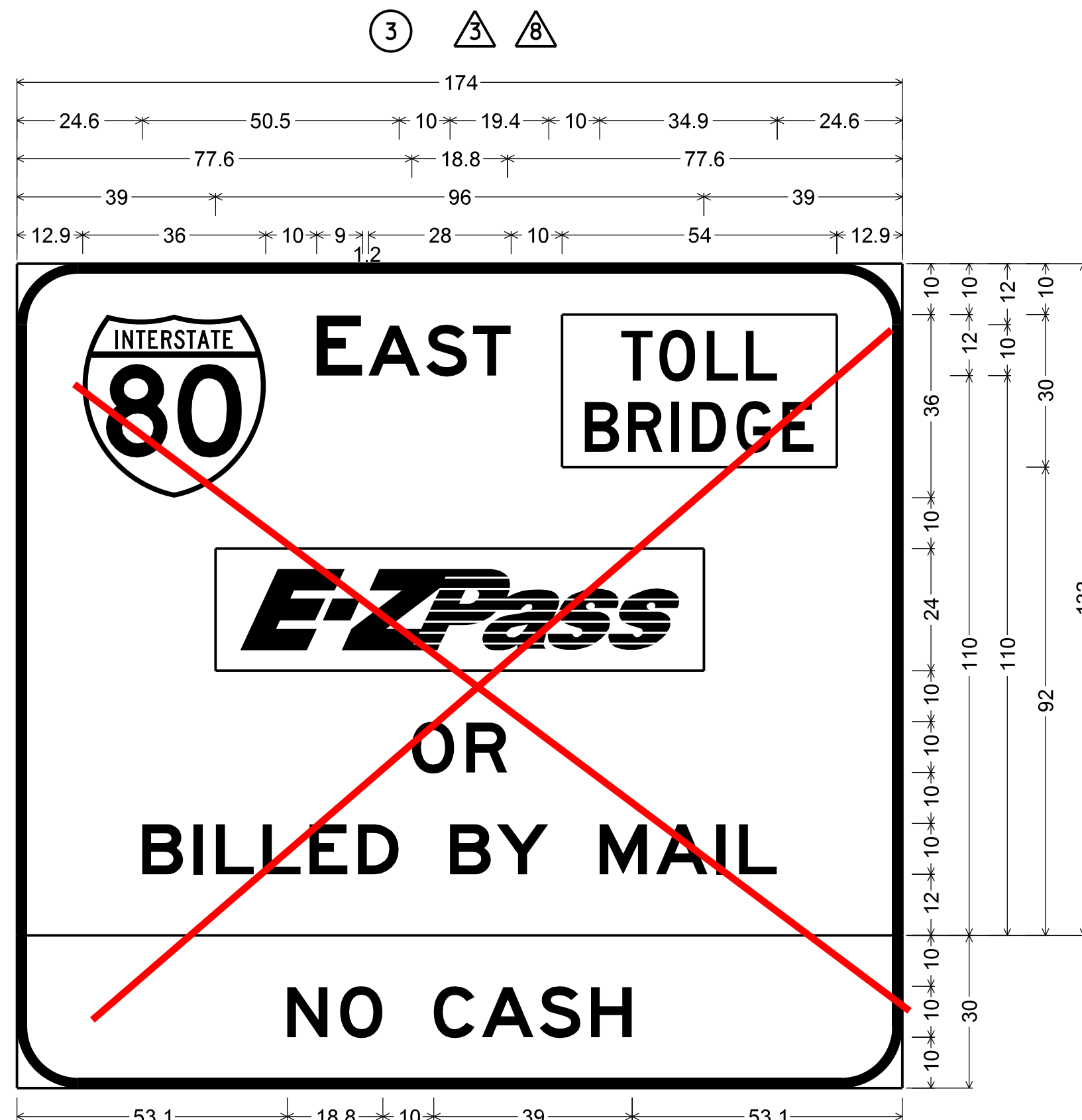
"BRIDGE", D 2K;

Table of letter and object lefts

T	O	L	L				
5.9	8.9	12.6	15.7				
TOLL BRIDGE							
B	R	I	D	G	E		
3.0	6.4	9.8	11.4	14.9	18.5		



a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
12.2	2.2	8.1	1.8	2.2	43.8	48.0	2.2	1.8	6.4	4.2	12.0	2.0	9.2	2.2	25.3	7.0
18.3	3.3	12.2	7.3	3.6	5.4	72.0	3.3	2.6	9.6	6.4	18.0	2.9	1.4	3.2	25.3	7.1
24.4	4.4	16.3	6.4	4.8	7.2	96.0	4.4	3.5	12.8	8.5	24.0	3.9	1.8	4.3	25.3	7.1
36.6	6.6	24.5	4.6	6.1	130.6	144.6	6.6	5.3	18.1	12.7	36.0	5.9	2.7	6.5	25.3	7.2

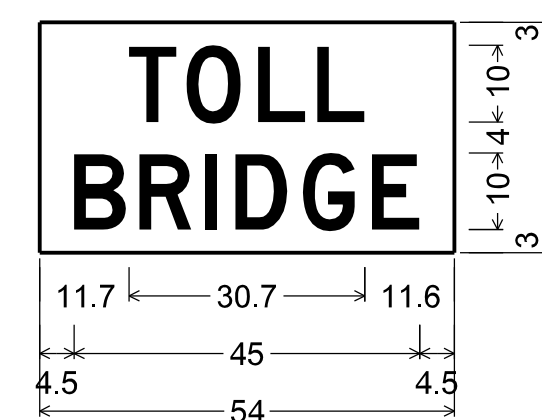


12.0" Radius, 2.0" Border, White on, Green;
"EAST", E 2K; "TOLL BRIDGE LARGE"; "OR", E 2K; "BILLED BY MAIL", E 2K;

12.0" Radius, 2.0" Border, Black on, White;
"NO CASH", E 2K;

Table of letter and object lefts

E	A	S	T											
12.9	58.9	69.1	80.4	89.6	107.1									
EAST														
O	R													
77.6	88.3													
TOLL BRIDGE														
B	I	L	L	E	D	B	Y	M	A	I	L			
24.6	34.7	39.1	48.3	57.5	67.0	85.1	94.3	114.5	125.6	137.5	141.9			
NO CASH														
N	O	C	A	S	H									
53.1	63.5	81.9	91.4	102.7	112.8									



No border, White on, Yellow;

"TOLL" Black, D 2K;

"BRIDGE" Black, D 2K;

Table of letter and object lefts

T	O	L	L				
11.7	19.2	28.5	36.2				
TOLL BRIDGE							
B	R	I	D	G	E		
4.5	13.0	21.5	25.5	34.3	43.3		

NOTE

ALL DIMENSIONS ARE GIVEN IN INCHES
UNLESS OTHERWISE NOTED.

LEGEND

② SIGN NUMBER

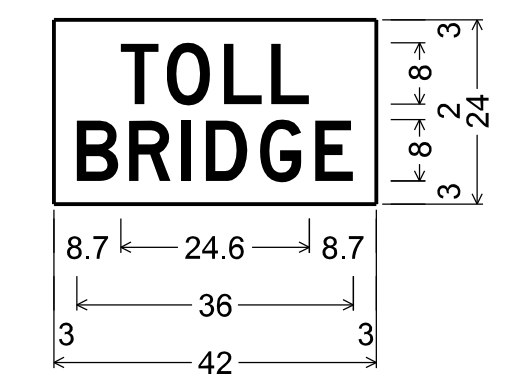
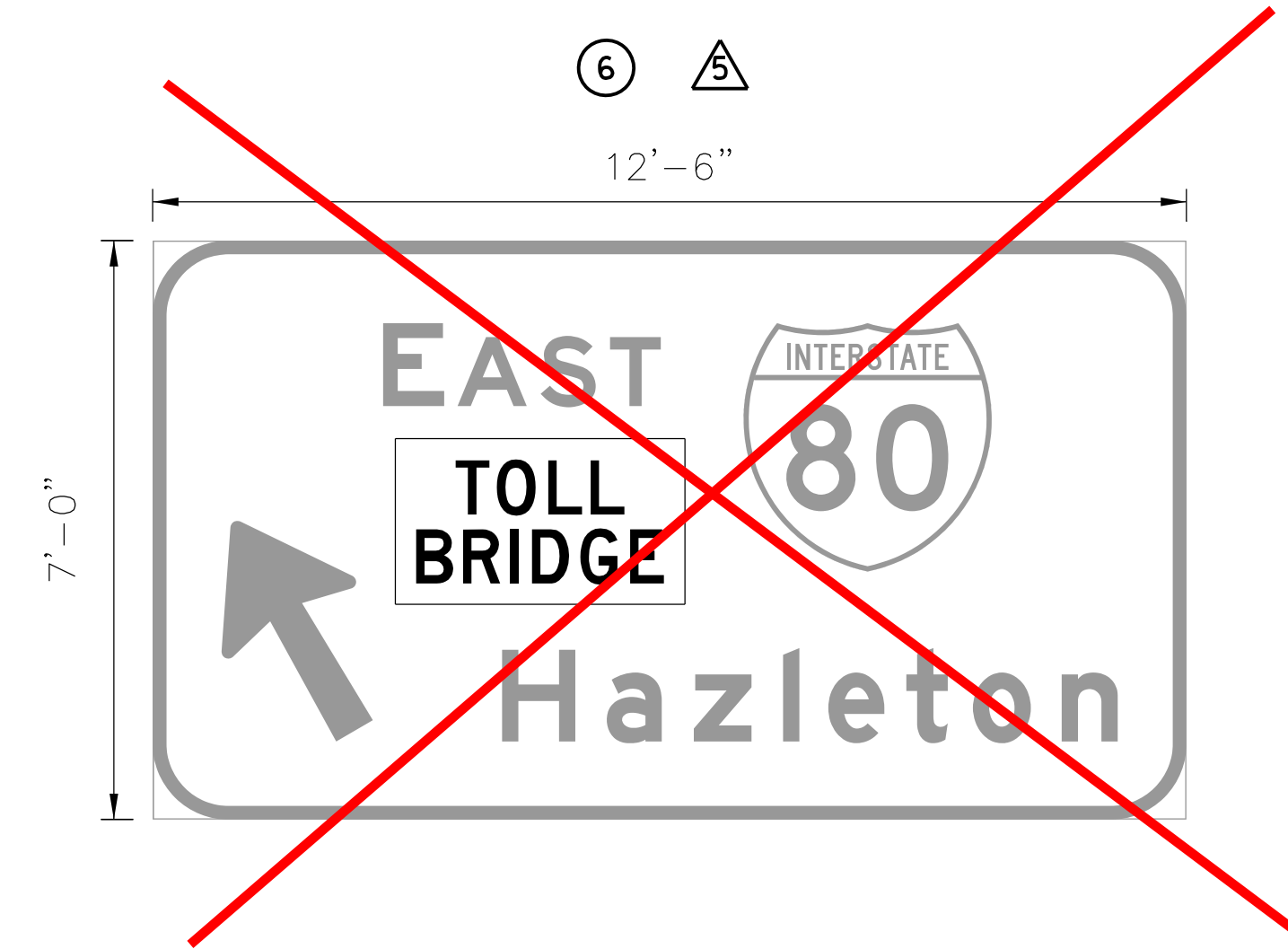
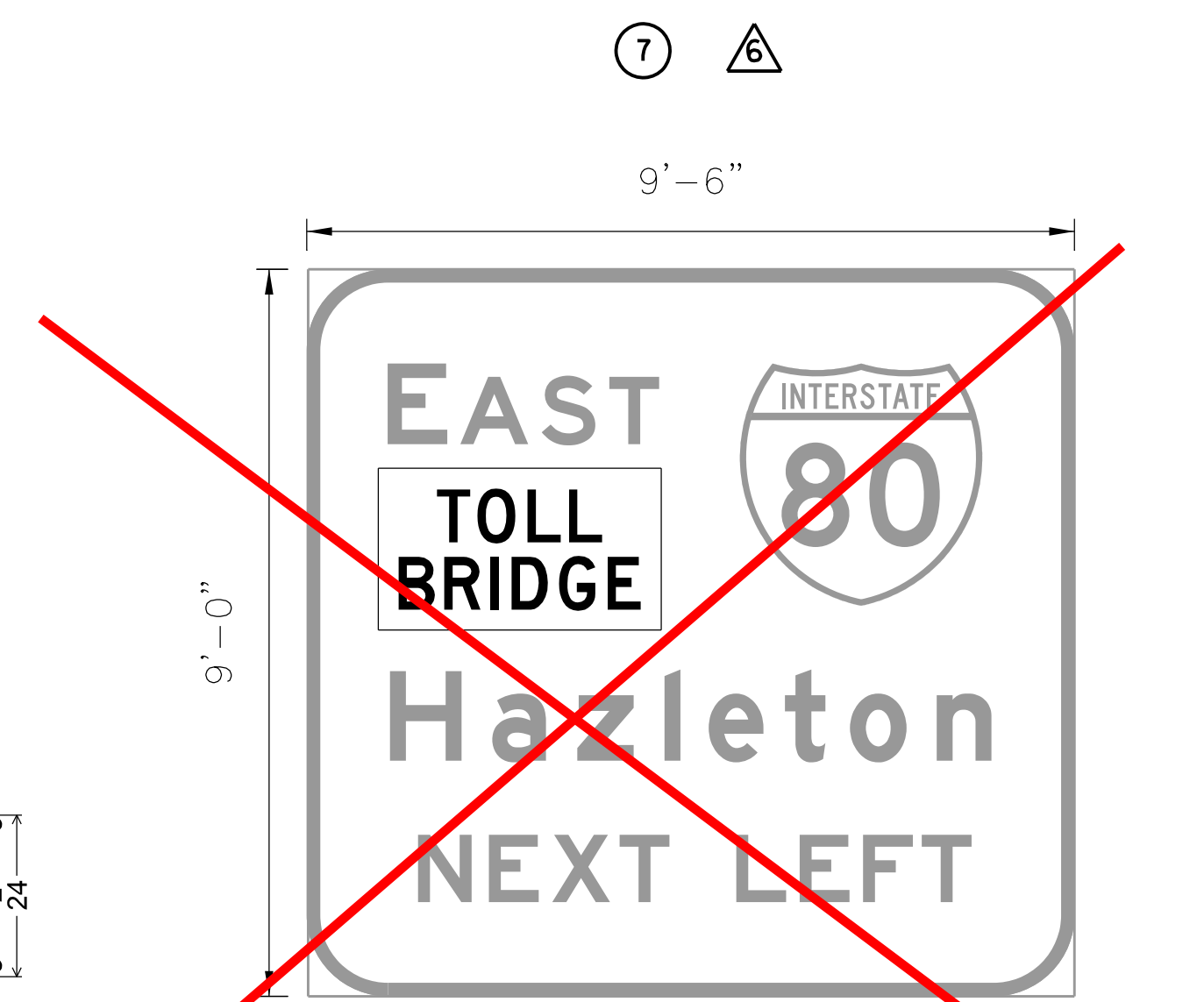
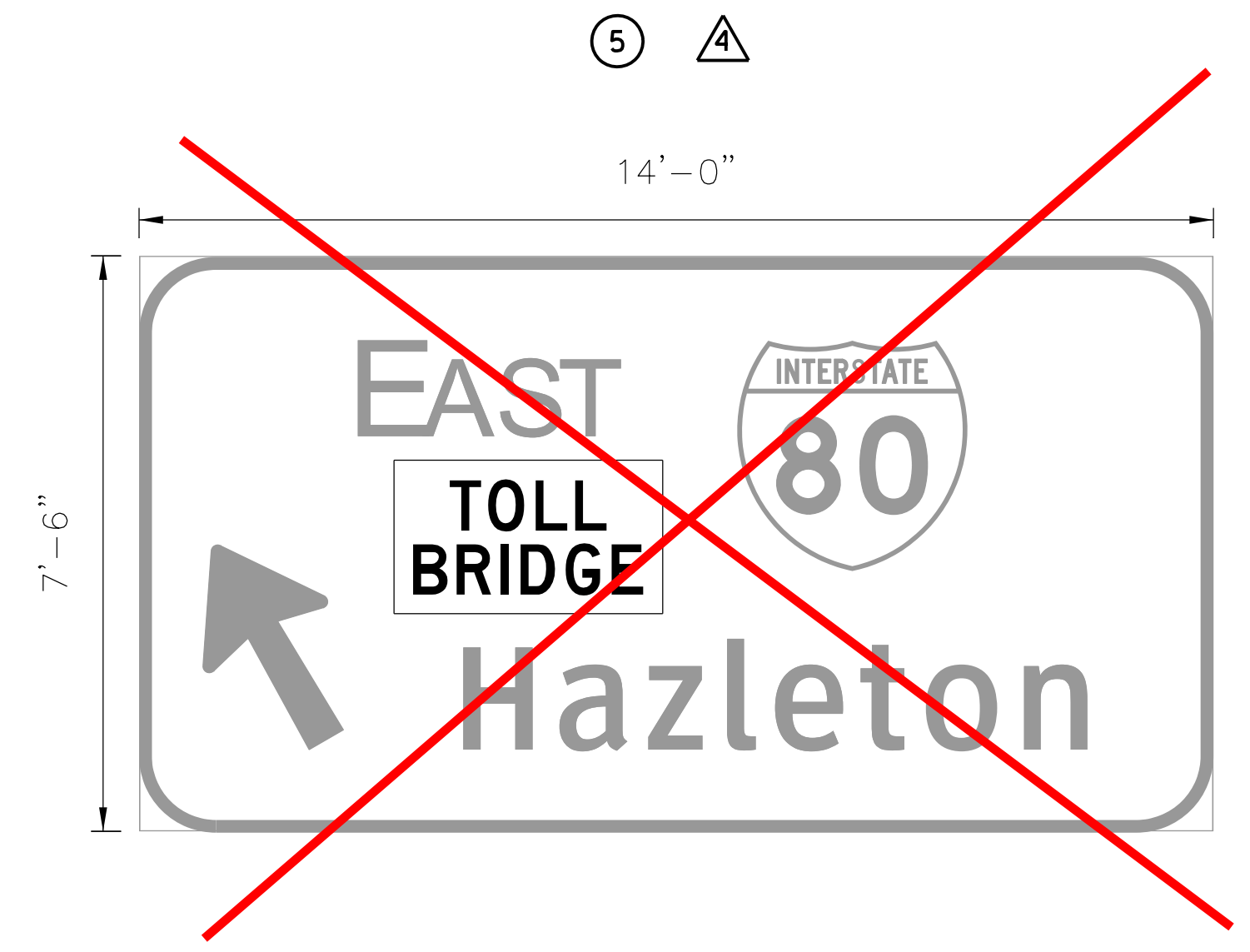
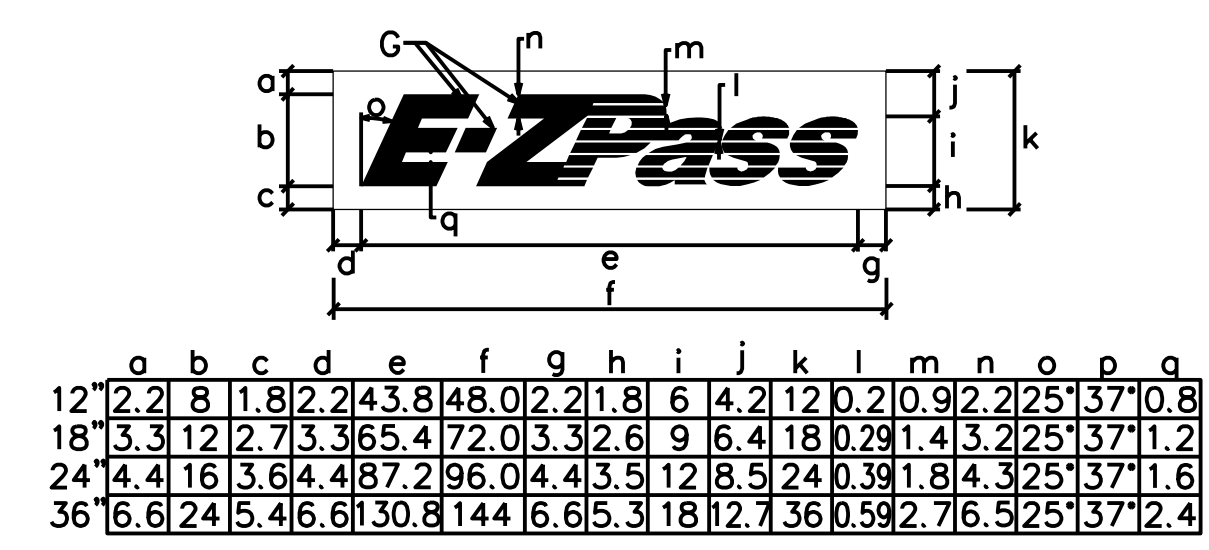
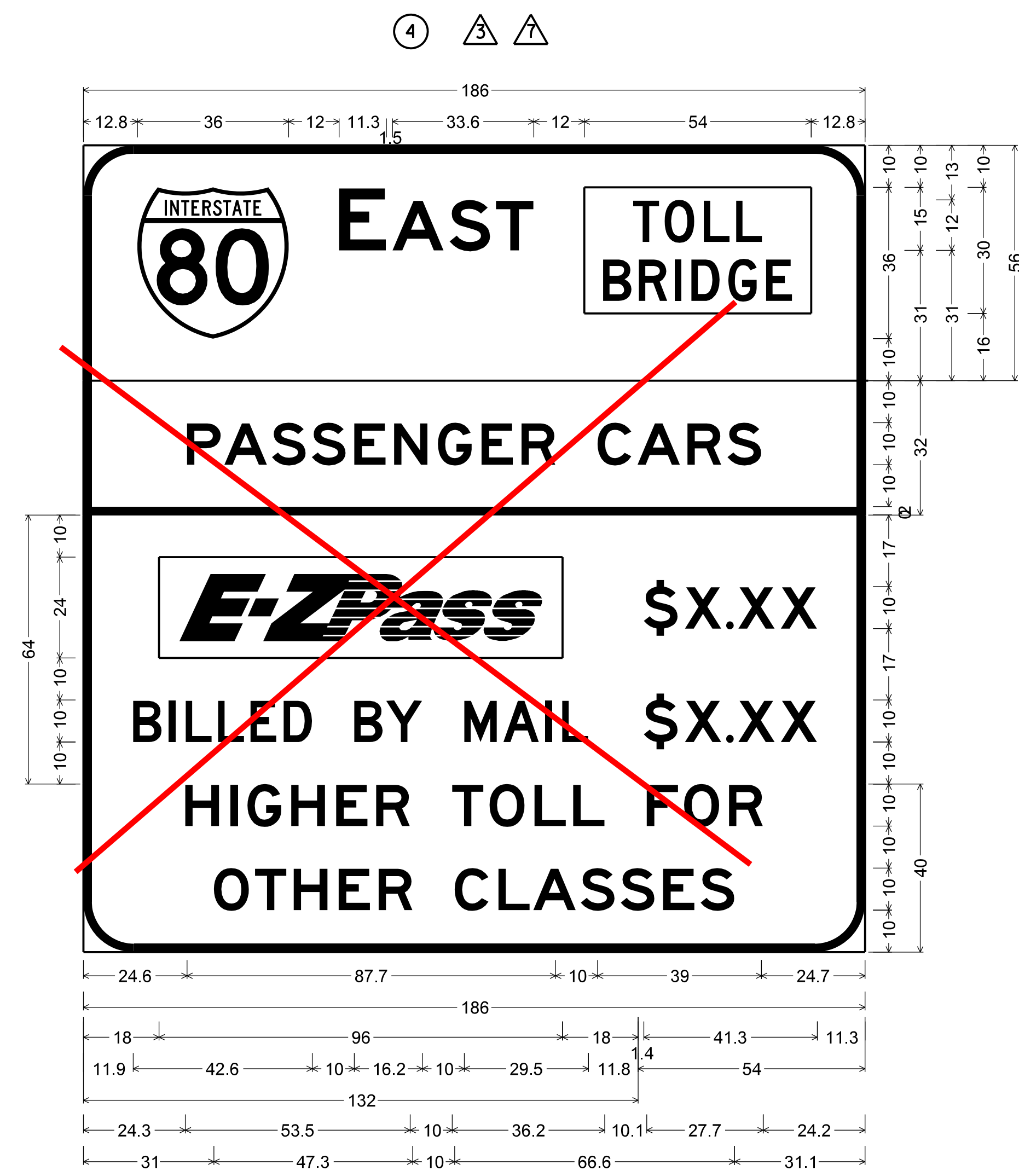
△ PLAN SHEET NUMBER - SIGN LOCATION

**PRE-FINAL
DESIGN
SUBMISSION**

SIGN DETAILS

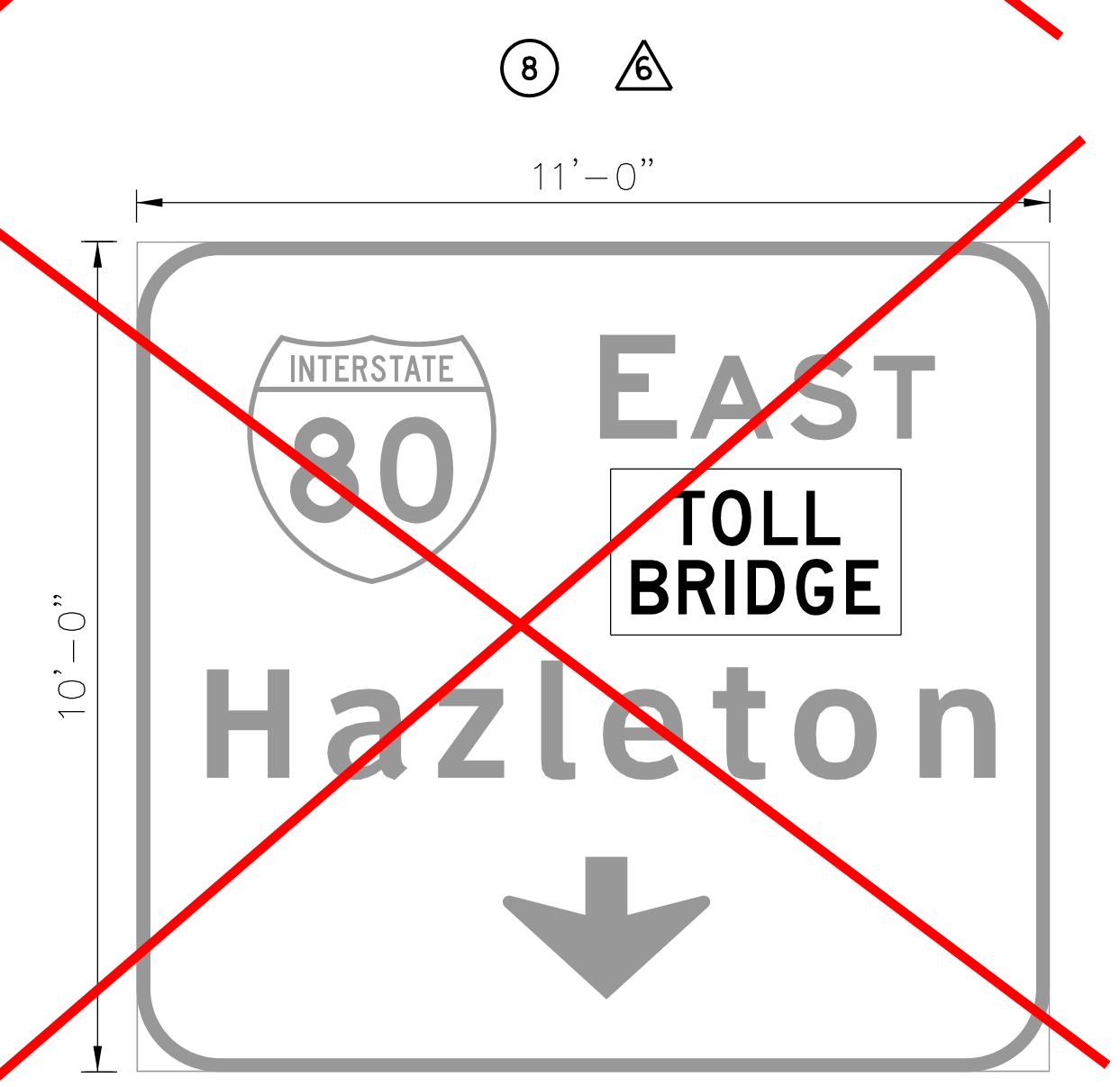
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	32 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



No border, White on, Yellow;
 "TOLL" Black, D 2K;
 "BRIDGE" Black, D 2K;
 Table of letter and object lefts

T	O	L	L		
8.7	14.7	22.2	28.3		
B	R	I	D	G	E
3.0	9.8	16.6	19.8	26.8	34.0



12.0" Radius, 2.0" Border, White on, Green;
 "EAST", E 2K; TOLL BRIDGE LARGE;

12.0" Radius, 2.0" Border, Black on, White;
 "PASSENGER CARS", E 2K;

12.0" Radius, 2.0" Border, Black on, White;
 Rectangle White; "BILLED BY MAIL", D 2K;

12.0" Radius, 2.0" Border, Black on, White;
 "\$X.XX", E 2K; "\$X.XX", E 2K;

12.0" Radius, 2.0" Border, Black on, White;
 "HIGHER TOLL FOR", E 2K; "OTHER CLASSES", E 2K;

Table of letter and object lefts

E	A	S	T
12.8	60.8	73.6	87.1
98.2	119.2		

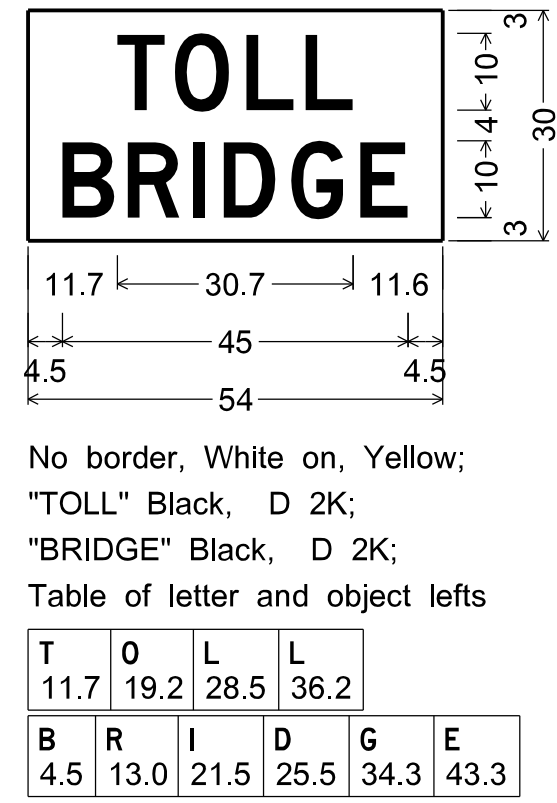
P	A	S	S	E	N	G	E	R	C	A	R	S
24.6	33.5	44.8	54.3	64.4	73.9	84.3	94.7	104.2	122.3	131.8	143.7	153.2

B	I	L	L	E	D	B	Y	M	A	I	L
11.9	20.4	24.4	32.1	39.8	47.7	64.5	72.1	90.7	100.0	110.0	114.0

\$	X	X	X
1.4	11.2	21.0	23.9
			34.0

H	I	G	H	E	R	T	O	L	L	F	O	R
24.3	35.0	39.0	49.4	60.1	69.7	87.8	96.7	107.3	116.6	134.1	143.0	153.6

O	T	H	E	R	C	L	A	S	S	E	S
31.0	40.8	50.0	60.7	70.2	88.3	98.7	107.0	118.3	127.8	137.9	146.8



No border, White on, Yellow;
 "TOLL" Black, D 2K;
 "BRIDGE" Black, D 2K;
 Table of letter and object lefts

T	O	L	L		
11.7	19.2	28.5	36.2		
B	R	I	D	G	E
4.5	13.0	21.5	25.5	34.3	43.3

NOTE
 ALL DIMENSIONS ARE GIVEN IN INCHES
 UNLESS OTHERWISE NOTED.

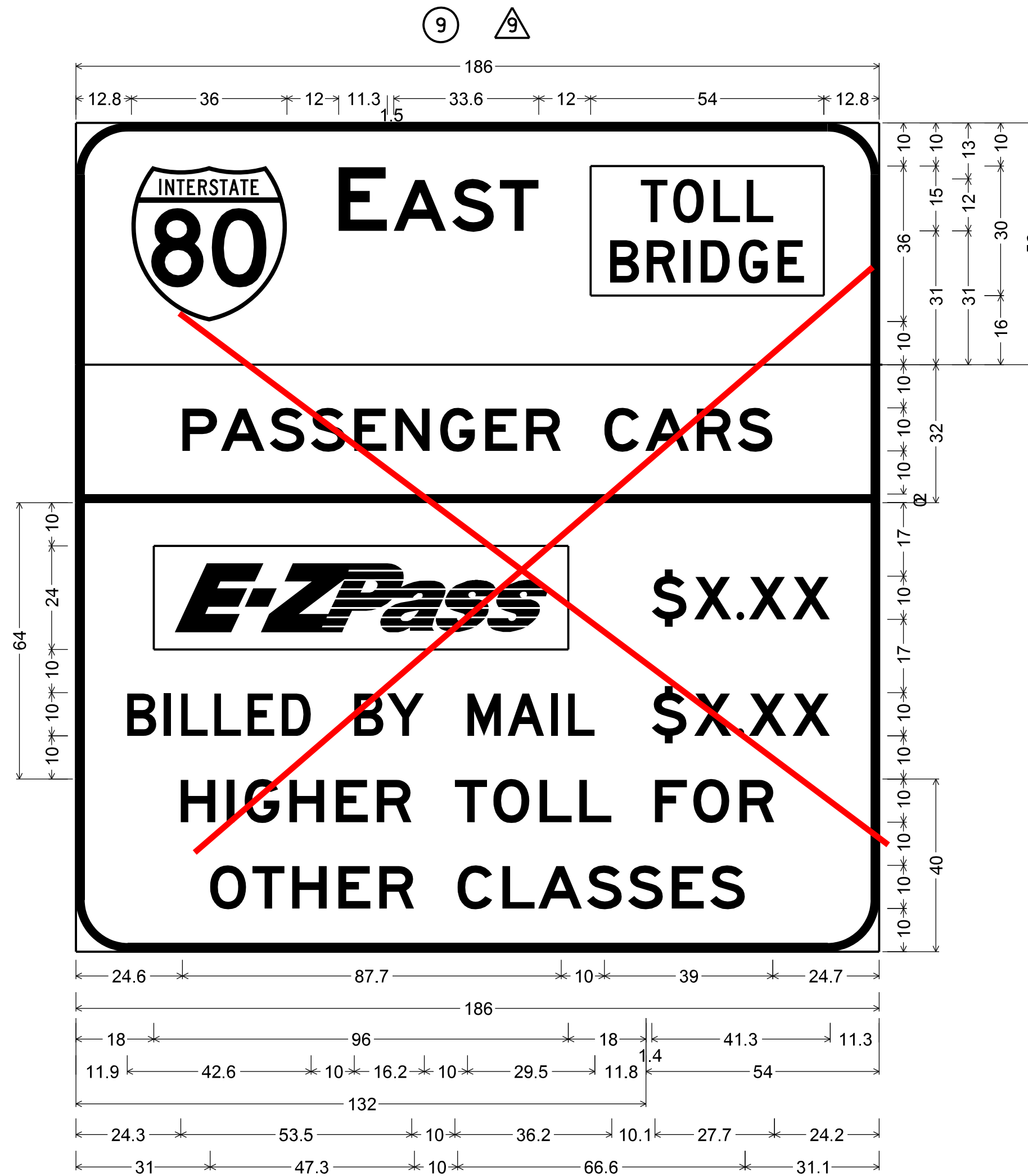
LEGEND
 (2) SIGN NUMBER
 (A) PLAN SHEET NUMBER - SIGN LOCATION

**PRE-FINAL
 DESIGN
 SUBMISSION**

SIGN DETAILS

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	33 OF 36
4-0	LUZERNE	0080	352	
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



12.0" Radius, 2.0" Border, White on, Green; "EAST", E 2K; TOLL BRIDGE LARGE;

12.0" Radius, 2.0" Border, Black on, White; "PASSENGER CARS", E 2K;

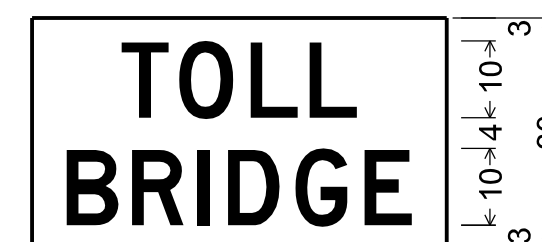
12.0" Radius, 2.0" Border, Black on, White; Rectangle White; "BILLED BY MAIL", D 2K;

12.0" Radius, 2.0" Border, Black on, White; "\$X.XX", E 2K; "\$X.XX", E 2K;

12.0" Radius, 2.0" Border, Black on, White; "HIGHER TOLL FOR", E 2K; "OTHER CLASSES", E 2K;

Table of letter and object lefts

E	A	S	T	12.8	60.8	73.6	87.1	98.2	119.2																
P	A	S	S	E	N	G	E	R	C	A	R	S	24.6	33.5	44.8	54.3	64.4	73.9	84.3	94.7	104.2	122.3	131.8	143.7	153.2
0.0	18.0	B	I	L	L	E	D	B	Y	M	A	I	L	11.9	20.4	24.4	32.1	39.8	47.7	64.5	72.1	90.7	100.0	110.0	114.0
\$	X	.	X	X	1.4	11.2	21.0	23.9	34.0																
\$	X	.	X	X	1.4	11.2	21.0	23.9	34.0																
H	I	G	H	E	R	T	O	L	L	F	O	R	24.3	35.0	39.0	49.4	60.1	69.7	87.8	96.7	107.3	116.6	134.1	143.0	153.6
O	T	H	E	R	C	L	A	S	S	E	S	31.0	40.8	50.0	60.7	70.2	88.3	98.7	107.0	118.3	127.8	137.9	146.8		



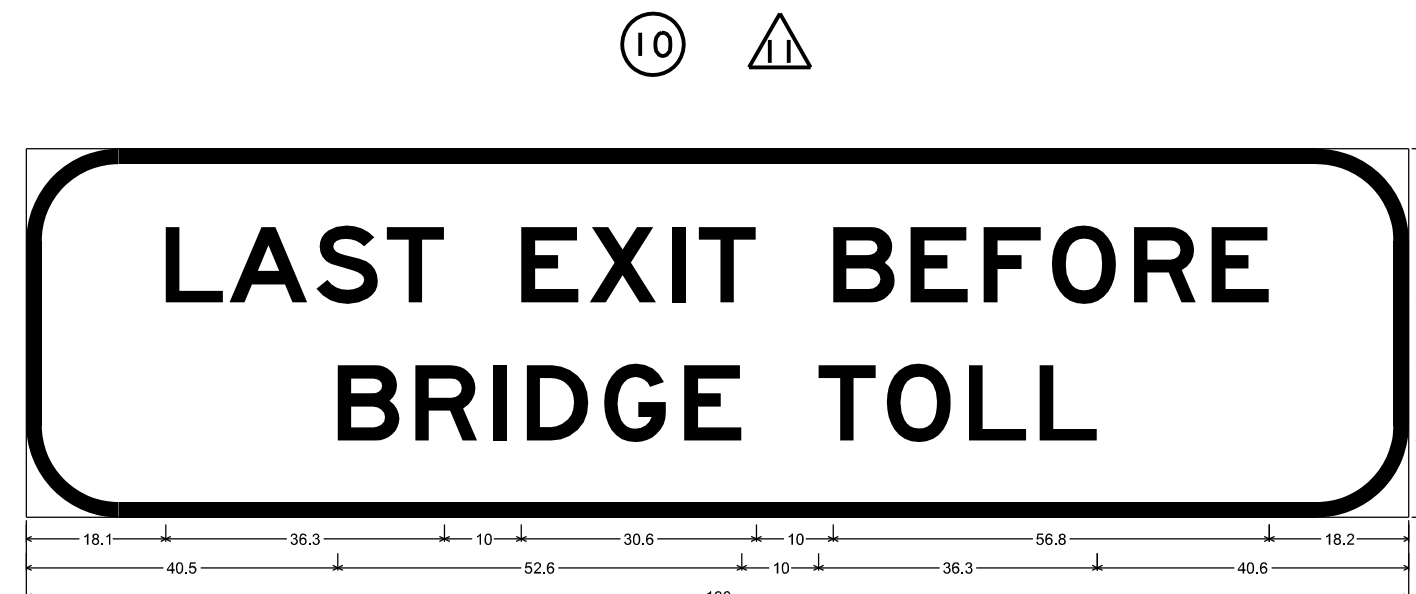
No border, White on, Yellow;

"TOLL" Black, D 2K;

"BRIDGE" Black, D 2K;

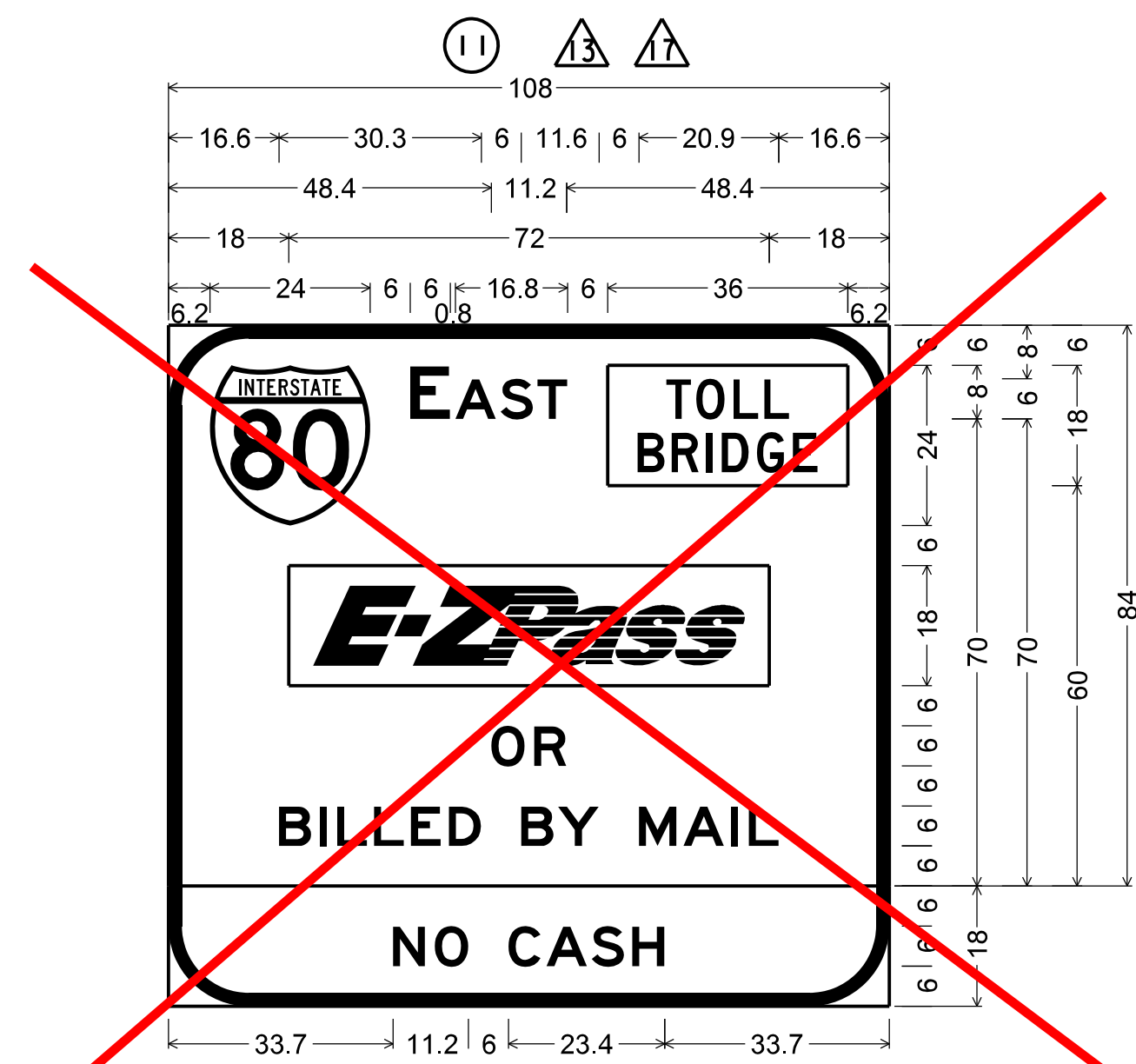
Table of letter and object lefts

T	O	L	L	11.7	30.7	11.6					
B	R	I	D	G	E	4.5	13.0	21.5	25.5	34.3	43.3



12.0" Radius, 2.0" Border, Black on, Yellow; "LAST EXIT BEFORE BRIDGE TOLL", E 2K; Table of letter and object lefts

L	A	S	T	E	X	I	T	B	E	F	O	R	E	18.1	26.4	37.7	46.9	64.4	73.3	84.0	97.5	105.0	115.1	124.8	133.5	144.2	154.3
B	R	I	D	G	E	T	O	L	L	40.5	50.6	60.7	65.1	75.2	85.6	103.1	112.0	122.7	131.9								



12.0" Radius, 2.0" Border, White on, Green;

"EAST", E 2K; "OR", E 2K;

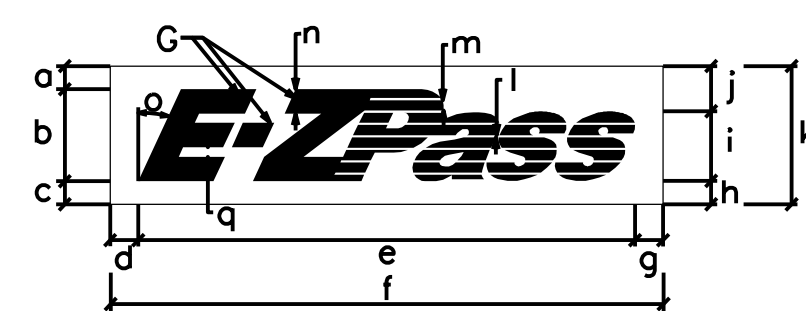
"BILLED BY MAIL", E 2K;

12.0" Radius, 2.0" Border, Black on, White;

"NO CASH", E 2K;

Table of letter and object lefts

E	A	S	T	6.2	36.2	43.0	49.8	55.3	65.8						
O	R	48.4	54.8												
B	I	L	L	E	D	B	Y	16.6	22.6	25.3	30.8	36.3	42.0	52.9	58.4
M	A	I	L	70.5	77.2	84.3	86.9								
N	O	C	A	S	H	33.7	39.9	50.9	56.6	63.4	69.5				



a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	12.2	2.8	1.8	2.2	4.3	8.4	8.0	2.1	8.6	4.2	12.0	2.0	9.2	2.2	5.1	37.0	8.8
18	3.3	12.2	7.3	3.6	5.4	7.2	0.3	3.2	6.9	6.4	18.0	29.1	4.3	2.2	5.1	37.1	1.2																
24	4.4	16.3	6.4	4.8	7.2	9.6	0.4	4.3	5.1	12.8	5.2	24.0	39.1	8.4	3.2	5.1	37.1	1.6															
36	6.6	24.4	5.4	6.6	30.8	14.4	6.6	5.3	18.1	12.7	36.0	59.2	7.6	5.2	5.1	37.1	2.4																

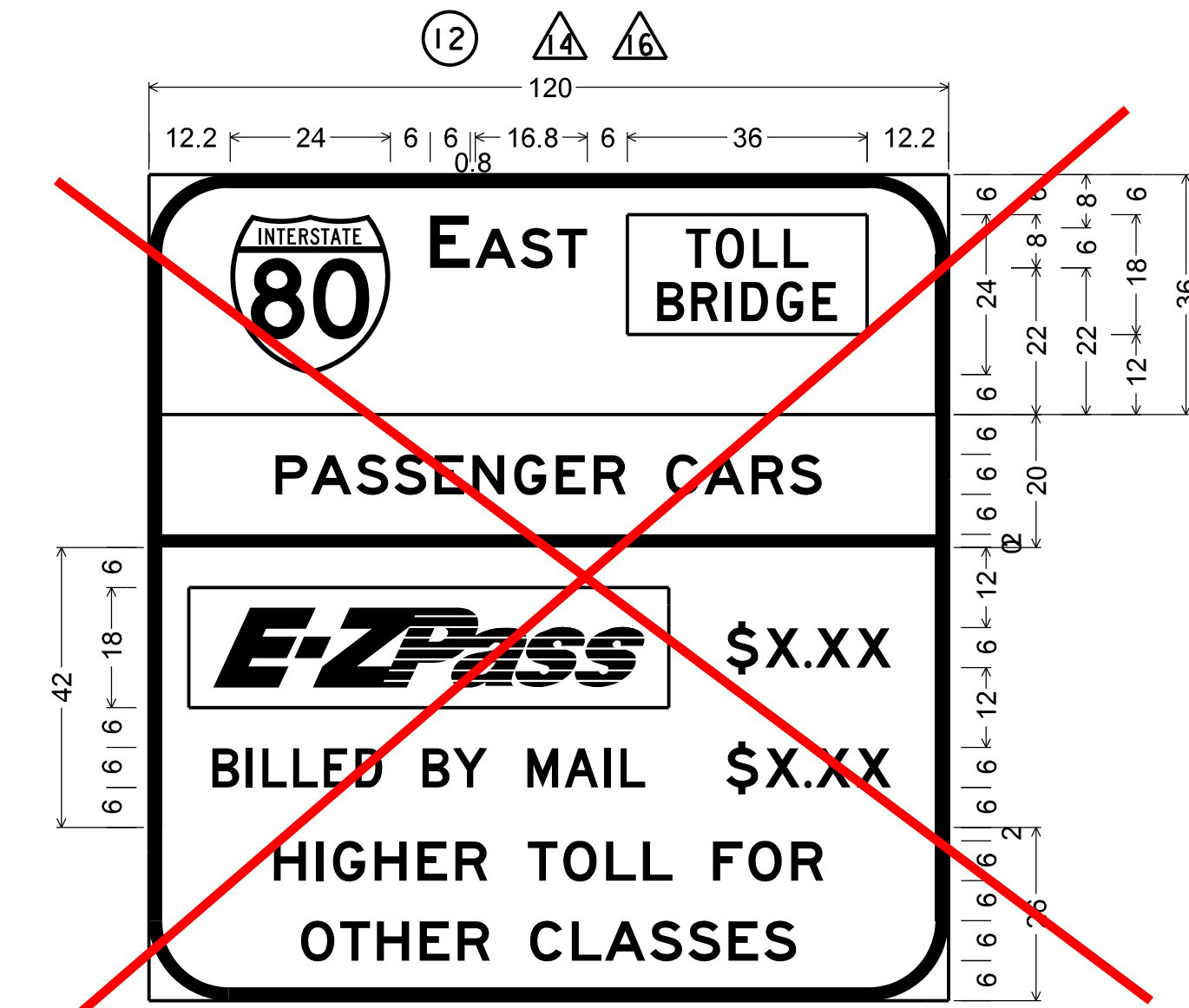
LEGEND

② SIGN NUMBER

△ PLAN SHEET NUMBER - SIGN LOCATION

NOTE

ALL DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE NOTED.



12.0" Radius, 2.0" Border, White on, Green; "EAST", E 2K;

12.0" Radius, 2.0" Border, Black on, White; "PASSENGER CARS", E 2K;

12.0" Radius, 2.0" Border, Black on, White; Rectangle White; "BILLED BY MAIL", D 2K;

12.0" Radius, 2.0" Border, Black on, White; "\$X.XX", E 2K; "\$X.XX", E 2K;

12.0" Radius, 2.0" Border, Black on, White; "HIGHER TOLL FOR", E 2K;

"OTHER CLASSES", E 2K;

Table of letter and object lefts

E	A	S	T	12.2	42.2	49.0	55.8	61.3	71.8								
P	A	S	S	E	N	G	E	R	19.0	24.3	31.1	36.8	42.9	48.6	54.8	61.0	66.8
C	A	R	S	77.6	83.3	90.5	96.2										

0.0	6.0	B	I	L	L	E	D	B	Y	9.5	14.6	17.0	21.6	26.3	31.0	41.1	45.6
M	A	I	L	56.8	62.4	68.4	70.8										

\$	X	.	X	X	2.6	8.5	14.4	16.1	22.2
\$	X	.	X	X	2.6	8.5	14.4	16.1	22.2

H	I	G	H	E	R	T	O	L	L	18.7	25.2	27.6	33.9	40.3	46.0	56.8	62.2	68.6	74.1
F	O	R	84.6	90.0	96.4														
O	T	H	E	R	22.8	28.7	34.2	40.6	46.3										

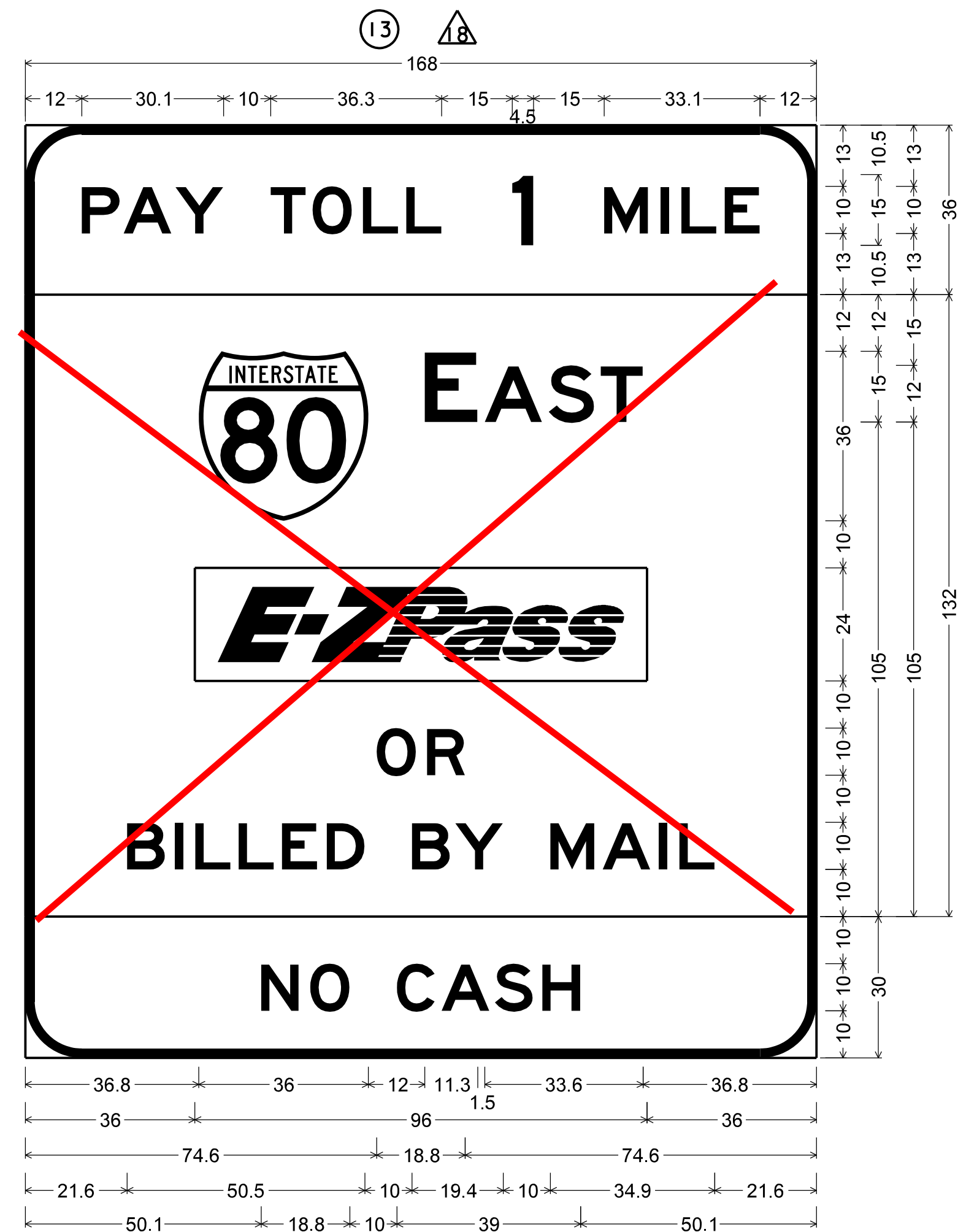
C	L	A	S	S	E	S	57.2	63.4	68.4	75.2	80.9	87.0	92.3
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SIGN DETAILS

PRE-FINAL DESIGN SUBMISSION

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	34 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



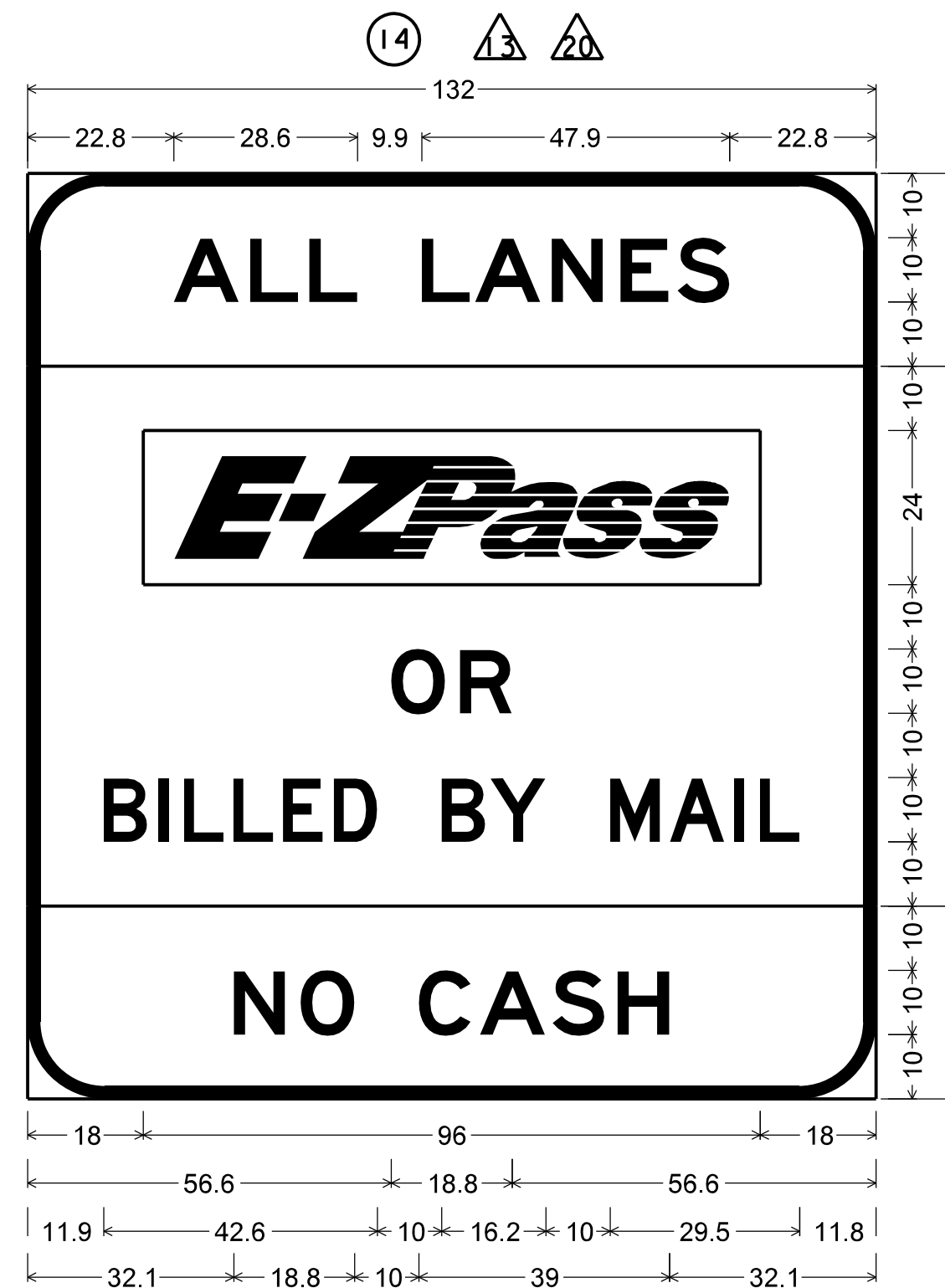
12.0" Radius, 2.0" Border, Black on, Yellow;
"PAY TOLL 1 MILE", E 2K;

12.0" Radius, 2.0" Border, White on, Green;
"EAST", E 2K; "OR", E 2K; "BILLED BY MAIL", E 2K;

12.0" Radius, 2.0" Border, Black on, White;
"NO CASH", E 2K;

Table of letter and object lefts

P	A	Y	T	O	L	L	I	M	I	L	E
12.0	20.9	31.9	52.1	61.0	71.7	80.9	103.4	122.9	134.9	139.3	148.5
EAST											
36.8	84.8	97.6	111.1	122.2							
OR											
74.6	85.3										
B	I	L	L	E	D	B	Y	M	A	I	L
21.6	31.7	36.1	45.3	54.5	64.0	82.1	91.3	111.5	122.6	134.5	138.9
NO CASH											
50.1	60.5	78.9	88.4	99.7	109.8						



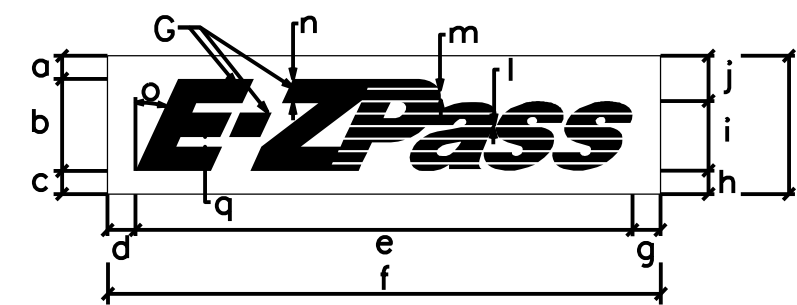
12.0" Radius, 2.0" Border, Black on, Yellow;
"ALL LANES", E 2K;

12.0" Radius, 2.0" Border, Black on, White;
Rectangle White; "OR", E 2K; "BILLED BY MAIL", D 2K;

12.0" Radius, 2.0" Border, Black on, Yellow;
"NO CASH", E 2K;

Table of letter and object lefts

A	L	L	L	A	N	E	S
22.8	34.7	43.8	61.3	69.7	81.6	92.3	101.2
OR							
18.0							
O	R						
56.6	67.3						
B	I	L	L	E	D	B	Y
11.9	20.4	24.4	32.1	39.8	47.7	64.5	72.1
NO CASH							
32.1	42.5	60.9	70.4	81.7	91.8		



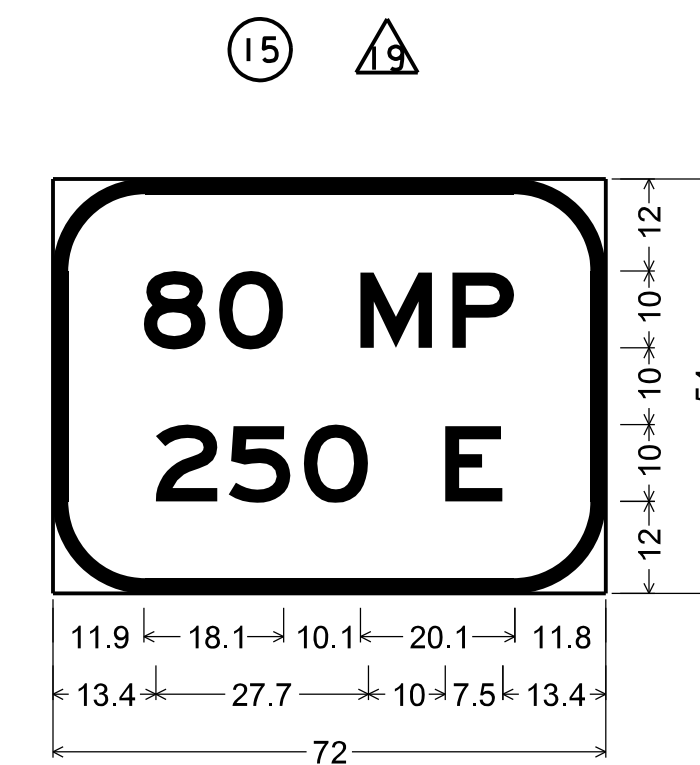
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
12	2.2	8	1.8	2.2	43.8	48.0	2.2	1.8	6	4.2	12	0.2	0.9	2.2	25	37	0.8
18	3.3	12	2.7	3.3	65.4	72.0	3.3	2.6	9	6.4	18	0.29	1.4	3.2	25	37	1.2
24	4.4	16	3.6	4.4	87.2	96.0	4.4	3.5	12	8.5	24	0.39	1.8	4.3	25	37	1.6
36	6.6	24	5.4	6.6	130.8	144	6.6	5.3	18	12.7	36	0.59	2.7	6.5	25	37	2.4

LEGEND

- ② SIGN NUMBER
- △ PLAN SHEET NUMBER - SIGN LOCATION

NOTE

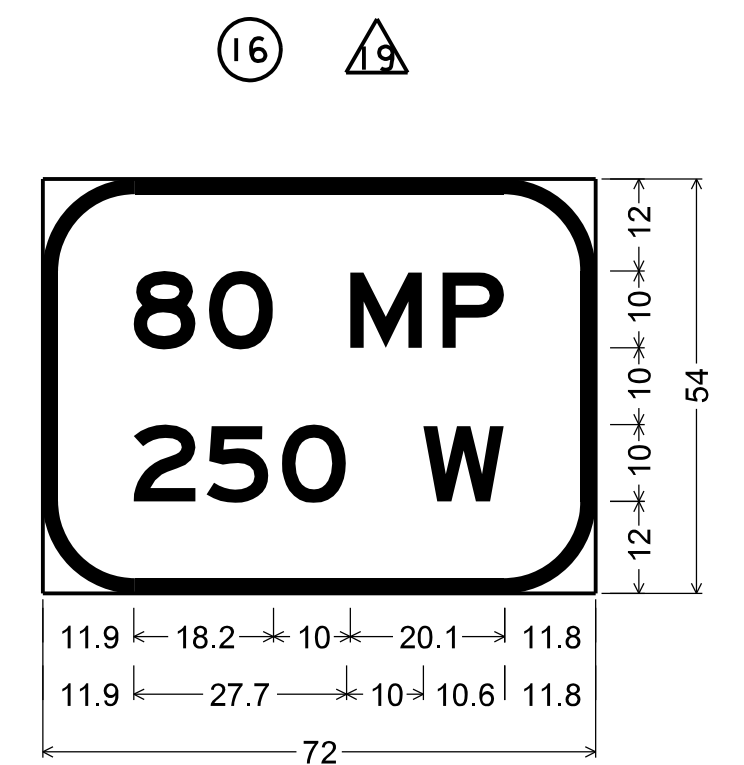
ALL DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE NOTED.



12.0" Radius, 2.0" Border, Black on, White;
"80 MP", E 2K; "250 E", E 2K;

Table of letter and object lefts

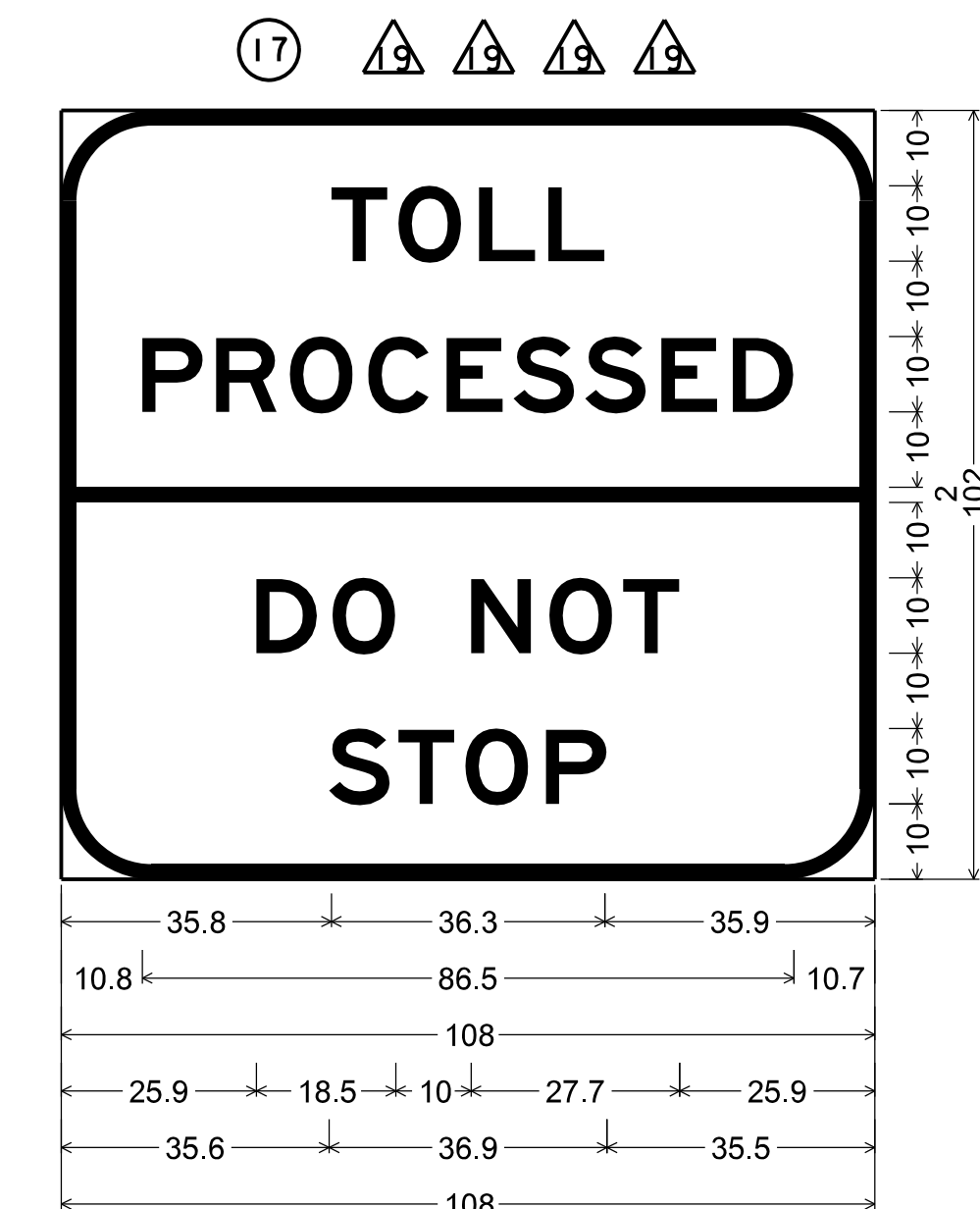
B	O	M	P
11.9	21.6	40.1	52.0
2	5	0	E
13.4	22.9	32.7	51.1



12.0" Radius, 2.0" Border, Black on, White;
"80 MP", E 2K; "250 W", E 2K;

Table of letter and object lefts

B	O	M	P
11.9	21.7	40.1	52.1
2	5	0	W
11.9	21.4	31.2	49.6



12.0" Radius, 2.0" Border, Black on, White;
"TOLL", E 2K; "PROCESSED", E 2K;
"DO NOT", E 2K; "STOP", E 2K;

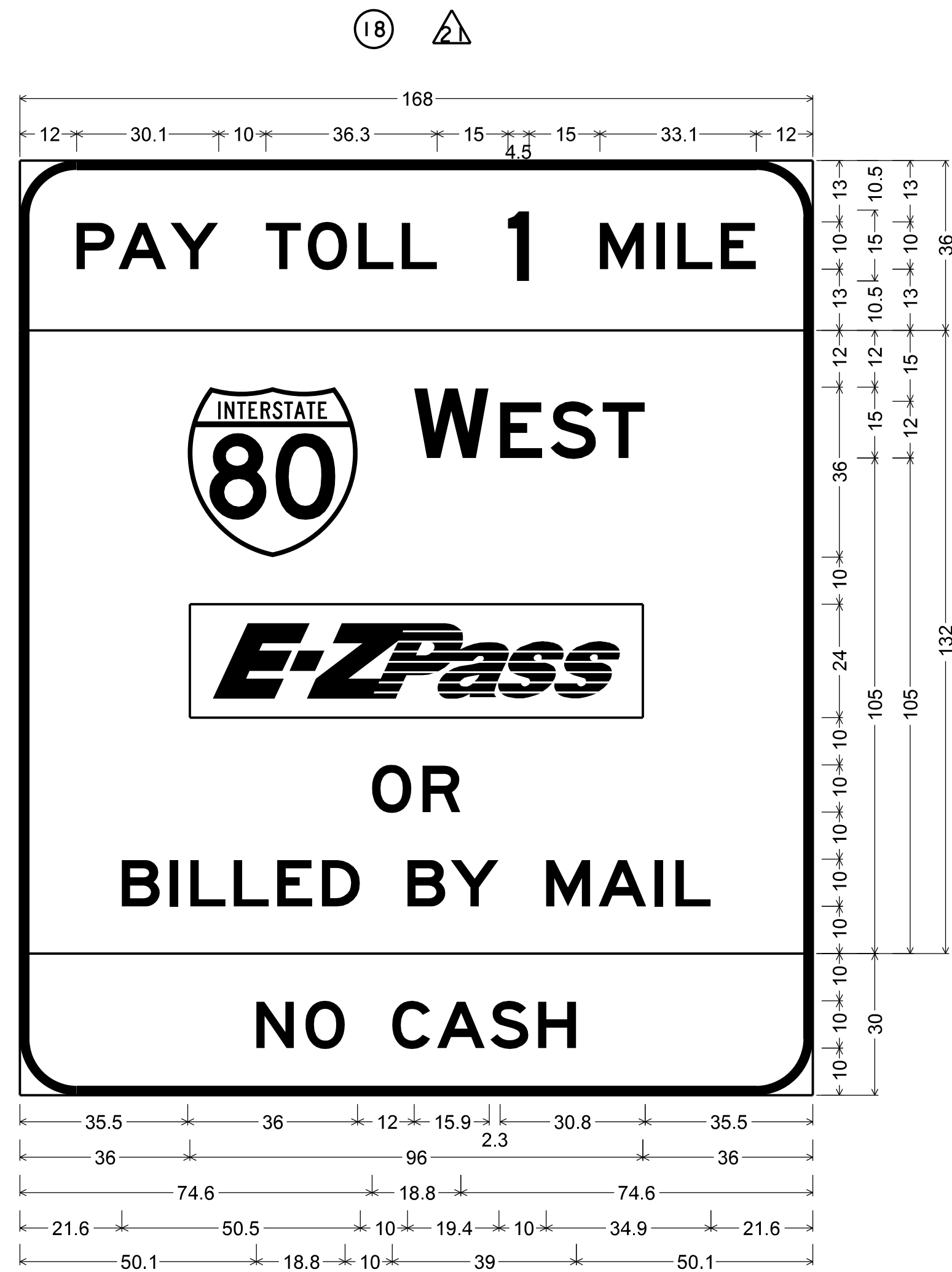
Table of letter and object lefts

T	O	L	L					
35.8	44.8	55.4	64.6					
P	R	O	C	E	S	S	E	D
10.8	20.5	30.4	40.8	51.2	60.0	69.6	79.7	89.2
DO NOT STOP								
0.0								
D	O	N	O	T				
25.9	36.0	54.4	64.8	74.6				
S	T	O	P					
35.6	44.8	53.7	64.3					

PRE-FINAL DESIGN SUBMISSION

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	35 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



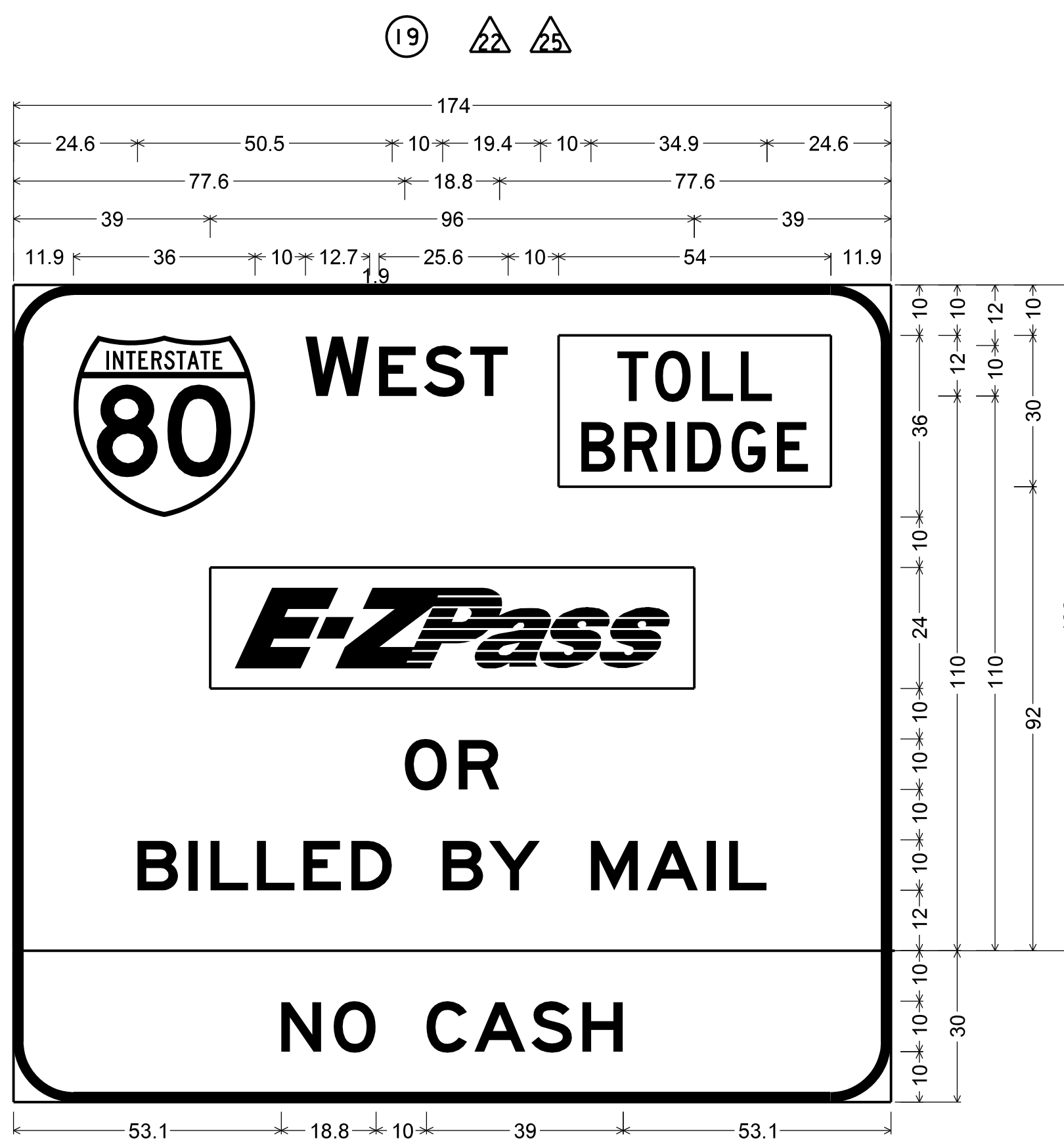
12.0" Radius, 2.0" Border, Black on, Yellow; "PAY TOLL 1 MILE", E 2K;

12.0" Radius, 2.0" Border, White on, Green; "WEST", E 2K; "OR", E 2K; "BILLED BY MAIL", E 2K;

12.0" Radius, 2.0" Border, Black on, White; "NO CASH", E 2K;

Table of letter and object lefts

P	A	Y	T	O	L	L	I	M	I	L	E
12.0	20.9	31.9	52.1	61.0	71.7	80.9	103.4	122.9	134.9	139.3	148.5
W	E	S	T								
35.5	83.5	101.7	112.4	123.5							
O	R										
74.6	88.3										
B	I	L	L	E	D	B	Y	M	A	I	L
21.6	31.7	36.1	45.3	54.5	64.0	82.1	91.3	111.5	122.6	134.5	138.9
N	O	C	A	S	H						
50.1	60.5	78.9	88.4	99.7	109.8						

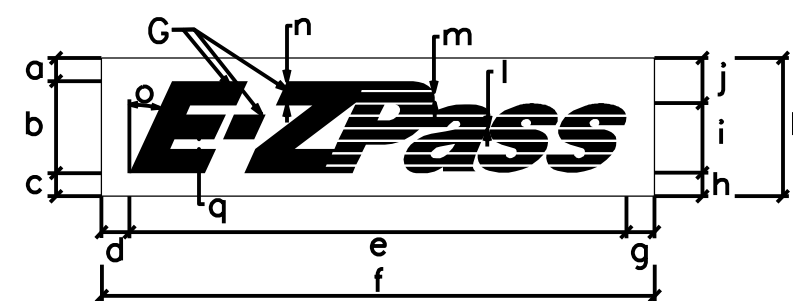


12.0" Radius, 2.0" Border, White on, Green; "WEST", E 2K; TOLL BRIDGE LARGE; "OR", E 2K; "BILLED BY MAIL", E 2K;

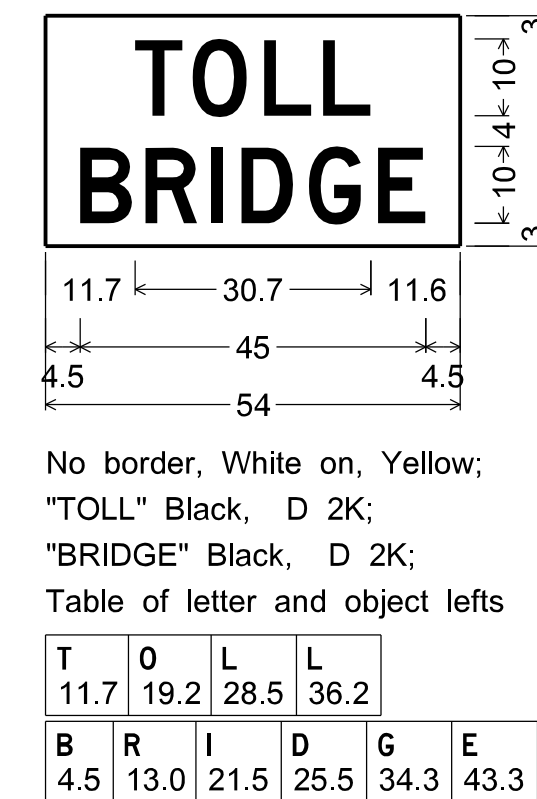
12.0" Radius, 2.0" Border, Black on, White; "NO CASH", E 2K;

Table of letter and object lefts

W	E	S	T								
11.9	57.9	72.5	81.4	90.6	108.1						
O	R										
77.6	88.3										
B	I	L	L	E	D	B	Y	M	A	I	L
24.6	34.7	39.1	48.3	57.5	67.0	85.1	94.3	114.5	125.6	137.5	141.9
N	O	C	A	S	H						
53.1	63.5	81.9	91.4	102.7	112.8						



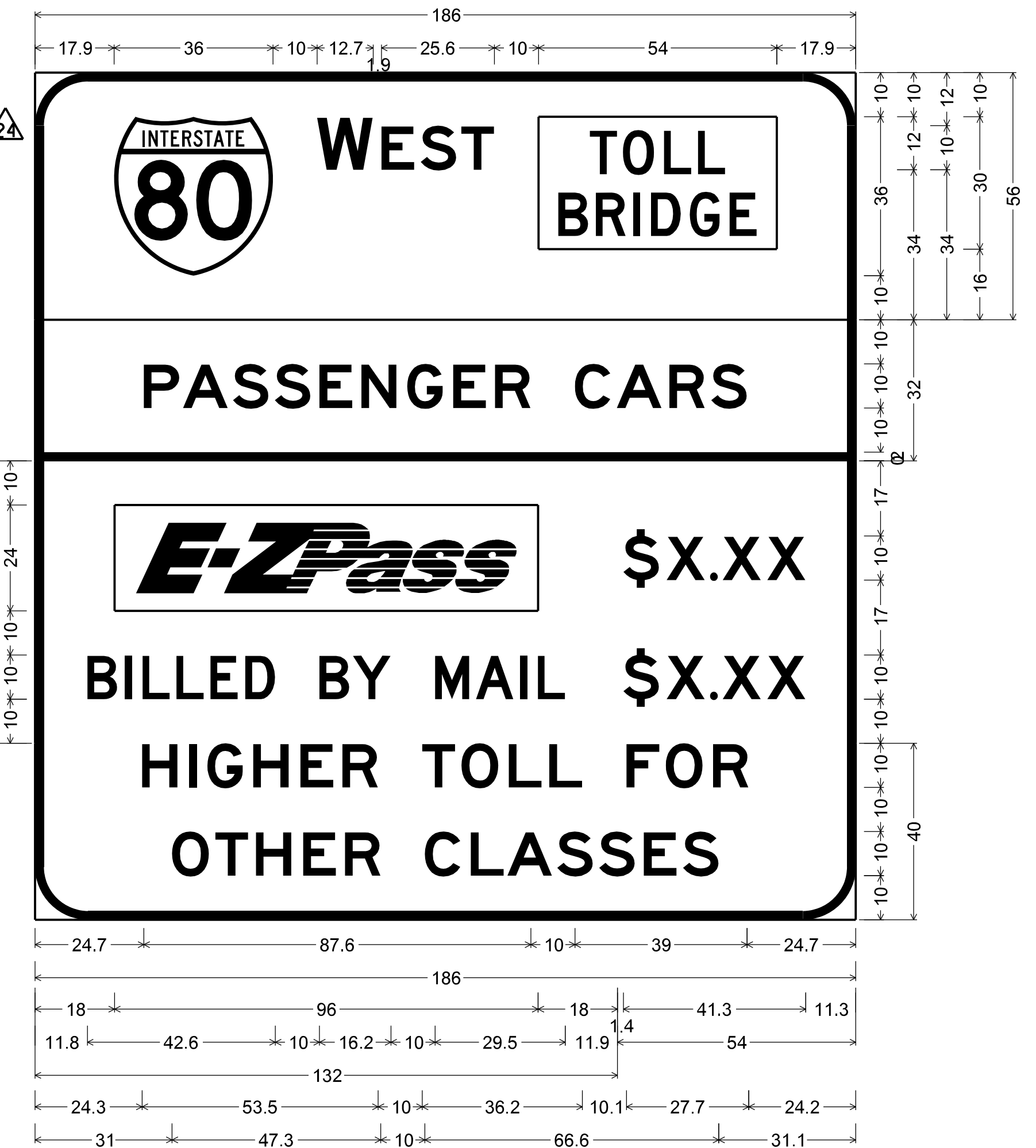
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q														
12	2.2	8	1.8	2.2	4.3	8	48	0	2.2	1.8	6	4	2	12	0	2	0.9	2	2	25	37	0	8							
18	3	3	12	2	7	3	6	5	4	7	2	0	3	3	2	6	9	6	4	18	0	29	1	4	3	2	25	37	1	2
24	4	4	16	3	6	4	8	7	2	9	6	0	4	4	3	5	12	8	5	24	0	39	1	8	4	3	25	37	1	6
36	6	6	24	5	4	6	6	1	30	8	14	6	6	5	3	18	12	7	36	0	59	2	7	6	5	25	37	2	4	



No border, White on, Yellow; "TOLL" Black, D 2K; "BRIDGE" Black, D 2K;

Table of letter and object lefts

T	O	L	L							
11.7	19.2	28.5	36.2							
B	R	I	D	G	E					
4.5	13.0	21.5	25.5	34.3	43.3					



12.0" Radius, 2.0" Border, White on, Green; "WEST", E 2K; TOLL BRIDGE LARGE;

12.0" Radius, 2.0" Border, Black on, White; "PASSENGER CARS", E 2K;

12.0" Radius, 2.0" Border, Black on, White; Rectangle White; "BILLED BY MAIL", D 2K;

12.0" Radius, 2.0" Border, Black on, White; "\$X.XX", E 2K; "\$X.XX", E 2K;

12.0" Radius, 2.0" Border, Black on, White; "HIGHER TOLL FOR", E 2K; "OTHER CLASSES", E 2K;

Table of letter and object lefts

W	E	S	T											
17.9	63.9	78.5	87.4	96.6	114.1									
P	A	S	S	E	N	G	E	R	C	A	R	S		
24.7	33.5	44.8	54.3	64.4	73.9	84.3	94.8	104.3	122.3	131.8	143.8	153.3		
O	R													
18.0														
B	I	L	L	E	D	B	Y	M	A	I	L			
11.8	20.3	24.3	32.0	39.7	47.6	64.4	72.1	90.6	99.9	109.9	114.0			
\$	X	.	X	X										
1.4	11.2	21.0	23.9	34.0										
\$	X	.	X	X										
1.4	11.2	21.0	23.9	34.0										
H	I	G	H	E	R	T	O	L	L	F	O	R		
24.3	35.0	39.0	49.4	60.1	69.7	87.8	96.7	107.3	116.6	134.1	143.0	153.6		
O	T	H	E	R	C	L	A	S	S	E	S			
31.0	40.8	50.0	60.7	70.2	88.3	98.7	107.0	118.3	127.9	138.0	146.9			

NOTE

ALL DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE NOTED.

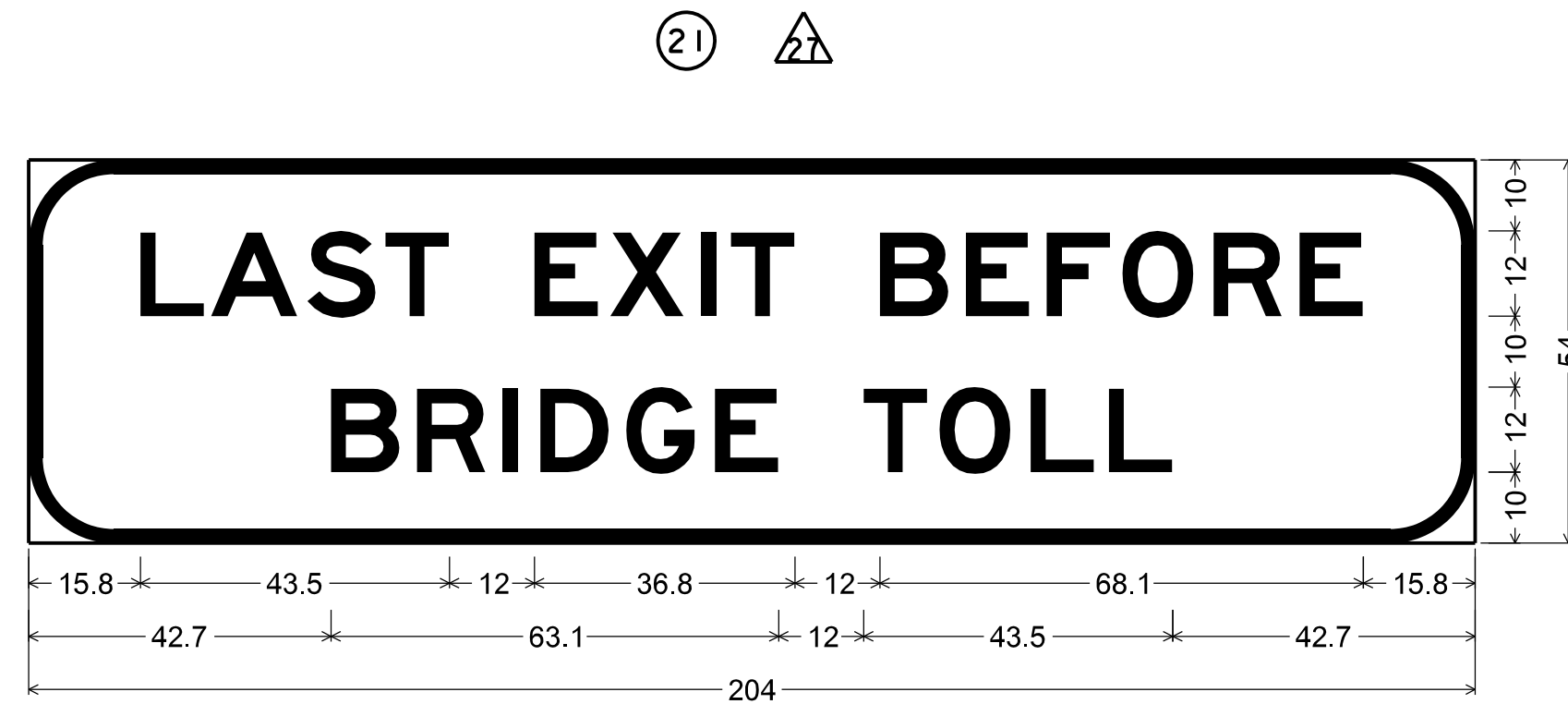
LEGEND

- ② SIGN NUMBER
- △ PLAN SHEET NUMBER - SIGN LOCATION

PRE-FINAL DESIGN SUBMISSION

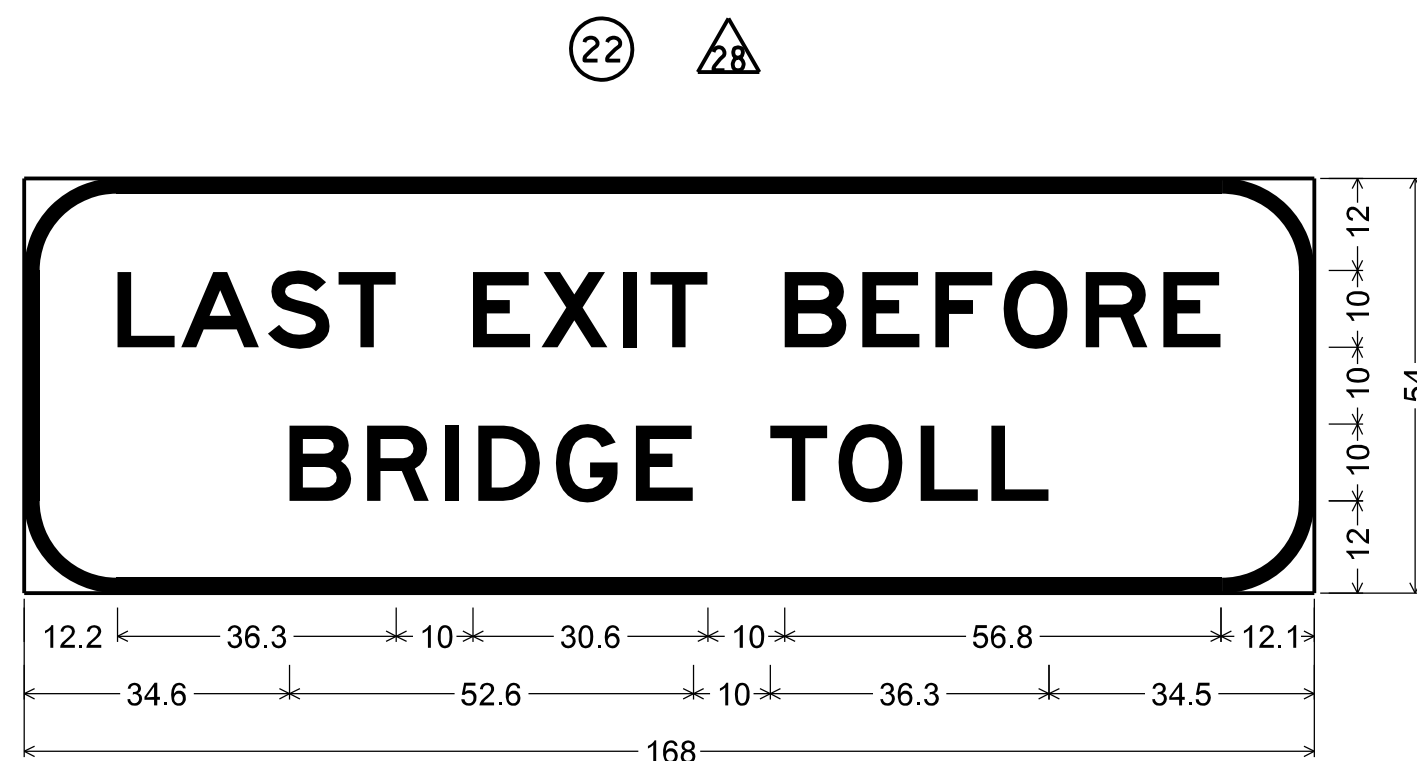
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	36 OF 36
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



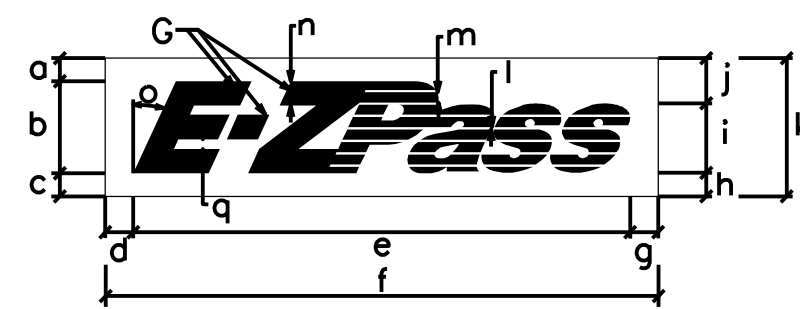
12.0" Radius, 2.0" Border, Black on, Yellow;
"LAST EXIT BEFORE", E 2K; "BRIDGE TOLL", E 2K;
Table of letter and object lefts

L	A	S	T	E	X	I	T	B	E	F	O	R	E
15.8	25.7	39.3	50.3	71.3	82.0	94.9	99.1	120.1	132.2	143.6	154.3	167.1	179.2
B	R	I	D	G	E	T	O	L	L				
42.7	54.8	66.9	72.2	84.3	96.8	117.8	128.5	141.3	152.3				

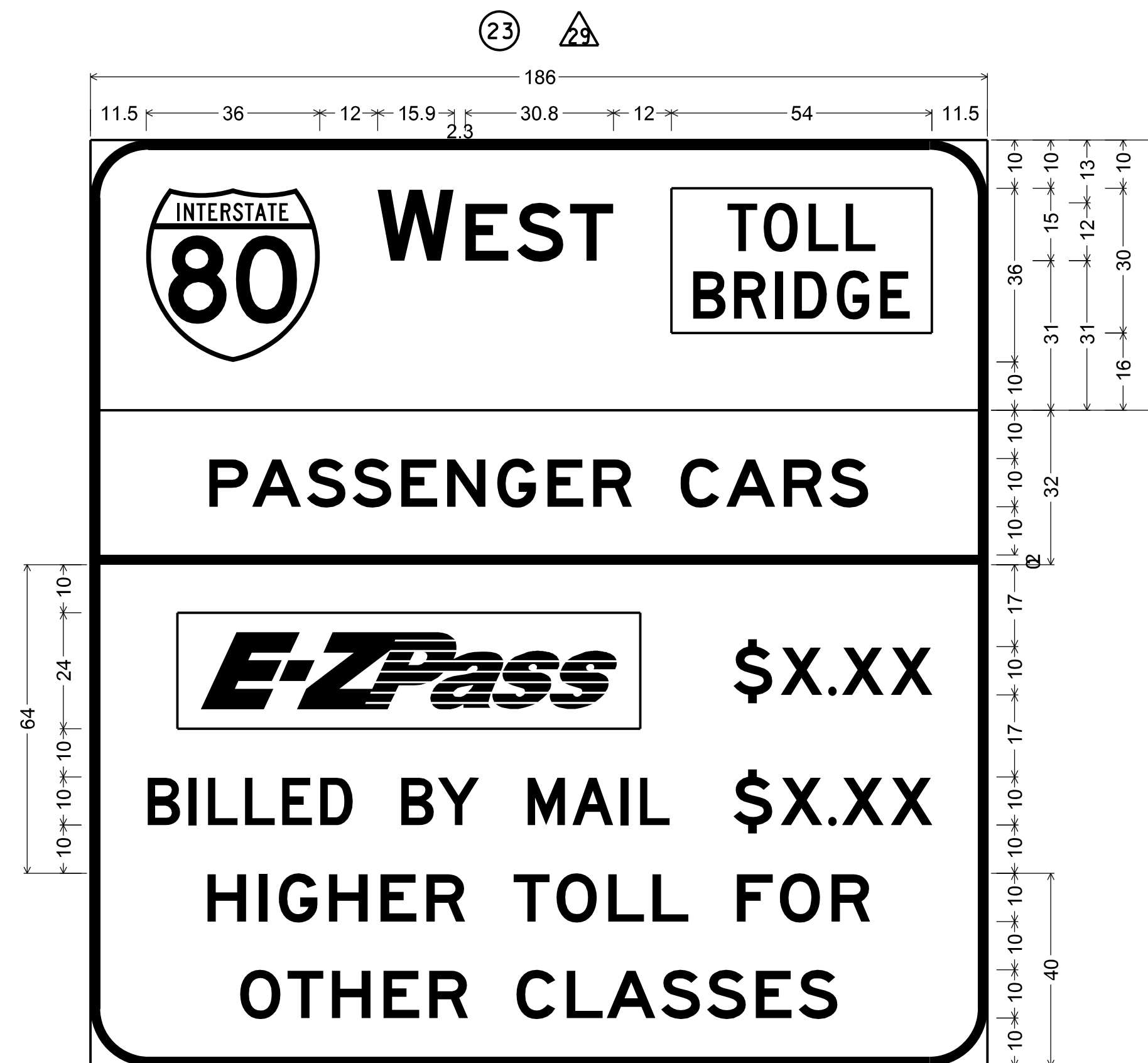


12.0" Radius, 2.0" Border, Black on, Yellow;
"LAST EXIT BEFORE", E 2K; "BRIDGE TOLL", E 2K;
Table of letter and object lefts

L	A	S	T	E	X	I	T	B	E	F	O	R	E
12.2	20.5	31.8	41.0	58.5	67.4	78.1	81.6	99.1	109.2	118.7	127.6	138.3	148.4
B	R	I	D	G	E	T	O	L	L				
34.6	44.7	54.8	59.2	69.3	79.7	97.2	106.1	116.8	126.0				



12"	2.2	8	1.8	2.2	4.3	8	48.0	2.2	1.8	6	14.2	12	0.2	0.9	2.2	25	137	0.8
18"	3.3	12	2.7	3.3	6.5	4	72.0	3.3	2.6	9	6.4	18	0.29	1.4	3.2	25	137	1.2
24"	4.4	16	3.6	4.4	8.7	2	96.0	4.4	3.5	12	8.5	24	0.39	1.8	4.3	25	137	1.6
36"	6.6	24	5.4	6.6	13.0	8	144	6.6	5.3	18	12.7	36	0.59	2.7	6.5	25	137	2.4

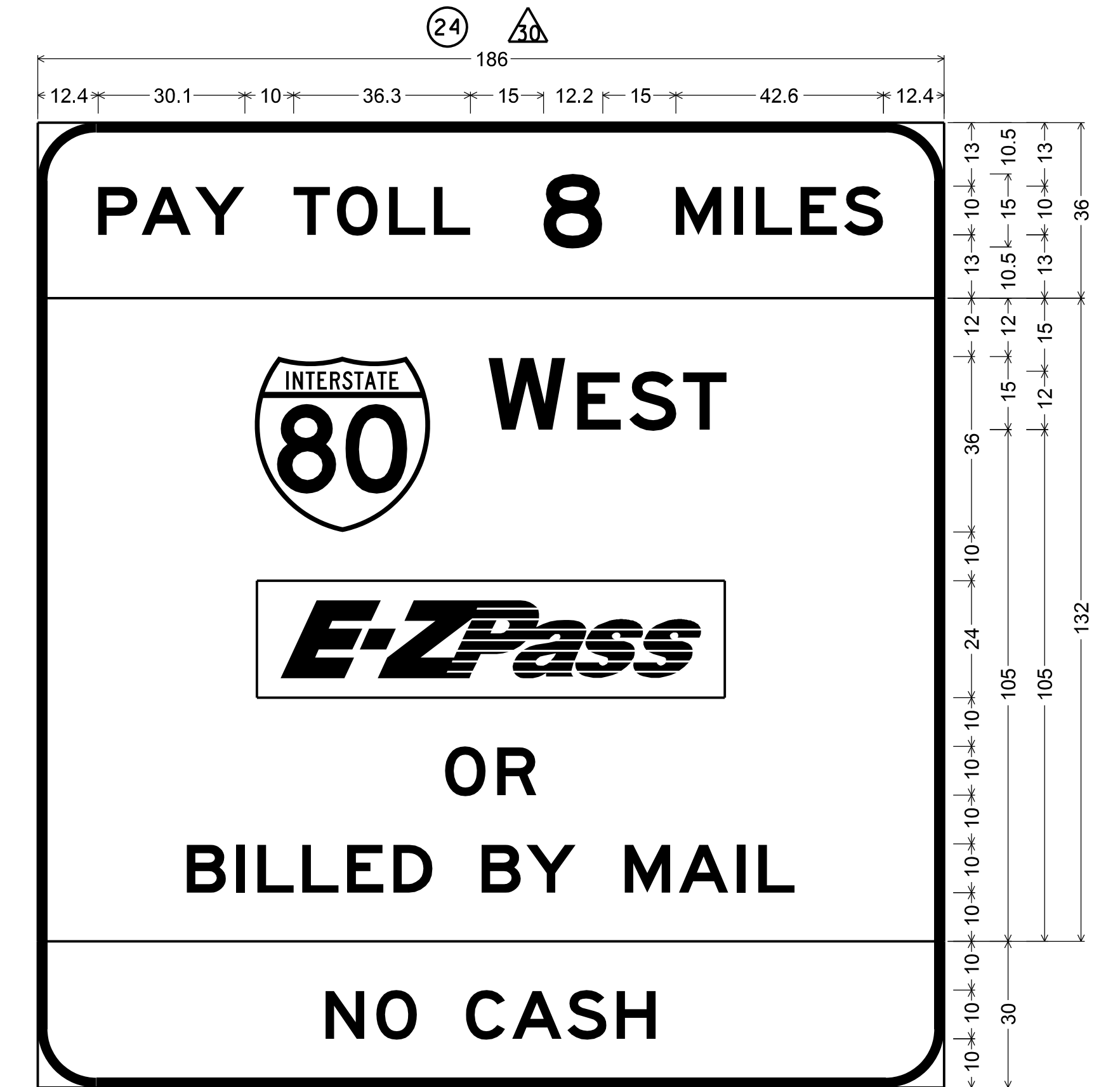


12.0" Radius, 2.0" Border, White on, Green;
"WEST", E 2K; TOLL BRIDGE LARGE;
12.0" Radius, 2.0" Border, Black on, White;
"PASSENGER CARS", E 2K;
12.0" Radius, 2.0" Border, Black on, White;
Rectangle White; "BILLED BY MAIL", D 2K;
12.0" Radius, 2.0" Border, Black on, White;
"\$X.XX", E 2K; "\$X.XX", E 2K;
12.0" Radius, 2.0" Border, Black on, White;
"HIGHER TOLL FOR", E 2K; "OTHER CLASSES", E 2K;
Table of letter and object lefts

W	E	S	T									
11.5	59.5	77.7	88.4									
P	A	S	S	E	N	G	E	R	C	A	R	S
24.7	33.5	44.8	54.3	64.4	73.9	84.3	94.8	104.3	122.3	131.8	143.8	153.3
-0.0												
18.0												
B	I	L	L	E	D	B	Y	M	A	I	L	
11.8	20.3	24.3	32.0	39.7	47.6	64.4	72.1	90.6	99.9	109.9	114.0	
\$	X	.	X	X								
1.4	11.2	21.0	23.9	34.0								
\$	X	.	X	X								
1.4	11.2	21.0	23.9	34.0								
H	I	G	H	E	R	T	O	L	L	F	O	R
24.3	35.0	39.0	49.4	60.1	69.7	87.8	96.7	107.3	116.6	134.1	143.0	153.6
O	T	H	E	R	C	L	A	S	S	E	S	
31.0	40.8	50.0	60.7	70.2	88.3	98.7	107.0	118.3	127.9	137.9	146.9	

LEGEND
 (21) SIGN NUMBER
 (23) PLAN SHEET NUMBER - SIGN LOCATION

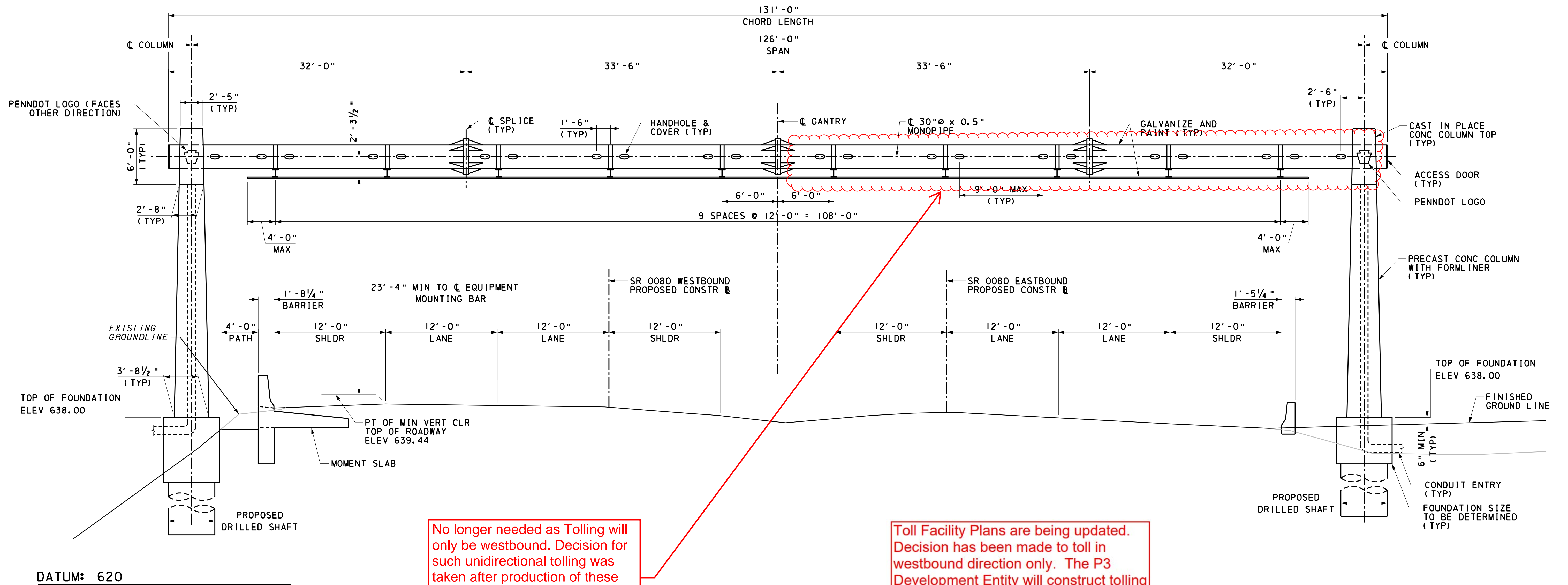
NOTE
 ALL DIMENSIONS ARE GIVEN IN INCHES
 UNLESS OTHERWISE NOTED.



12.0" Radius, 2.0" Border, Black on, Yellow;
"PAY TOLL 8 MILES", E 2K;
12.0" Radius, 2.0" Border, White on, Green;
"WEST", E 2K; "OR", E 2K; "BILLED BY MAIL", E 2K;
12.0" Radius, 2.0" Border, Black on, White;
"NO CASH", E 2K;
Table of letter and object lefts

P	A	Y	T	O	L	L	B	M	I	L	E	S
12.4	21.3	32.3	52.5	61.4	72.1	81.3	103.8	131.0	143.0	147.4	156.6	165.5
W	E	S	T									
44.5	92.5	110.7	121.4	132.5								
45.0												
O	R											
83.6	94.3											
B	I	L	L	E	D	B	Y	M	A	I	L	
30.6	40.7	45.1	54.3	63.5	73.0	91.1	100.3	120.5	131.6	143.5	147.9	
N	O	C	A	S	H							
59.1	69.5	87.9	97.4	108.7	118.8							

PRE-FINAL
 DESIGN
 SUBMISSION



No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct tolling gantry over WB lanes.

Toll Facility Plans are being updated. Decision has been made to toll in westbound direction only. The P3 Development Entity will construct tolling gantry over westbound lanes only.

FRONT ELEVATION
 2 0 2 4 6 FEET
 SCALE: 3/16" = 1'-0"

- NOTES:**
- FOR GENERAL NOTES, SEE SHEET 3.
 - FOR GANTRY PLAN, SEE SHEET 2.

PREPARED BY:
wsp WSP USA
 2401 Walnut Street
 Suite 501
 Philadelphia, PA 19103

DESCRIPTION	DWG. NO.	REC'D DATE
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	01-31-2019
OVERHEAD SIGN STRUCTURES	BC-743M	08-04-2017
MONOPIPE SIGN STRUCTURES	BC-747M	08-04-2017
CONCRETE DECK SLAB DETAILS	BC-752M	02-19-2021
CLASSIFICATION OF EARTHWORK	RC-10M	06-01-2010
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06-01-2010
CONCRETE PAVEMENT JOINTS	RC-20M	12-17-2019
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-19-2021

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

BMS 04-0080-XXXX-XXXX | MPMS XXXXX | BRKEY XXXXX

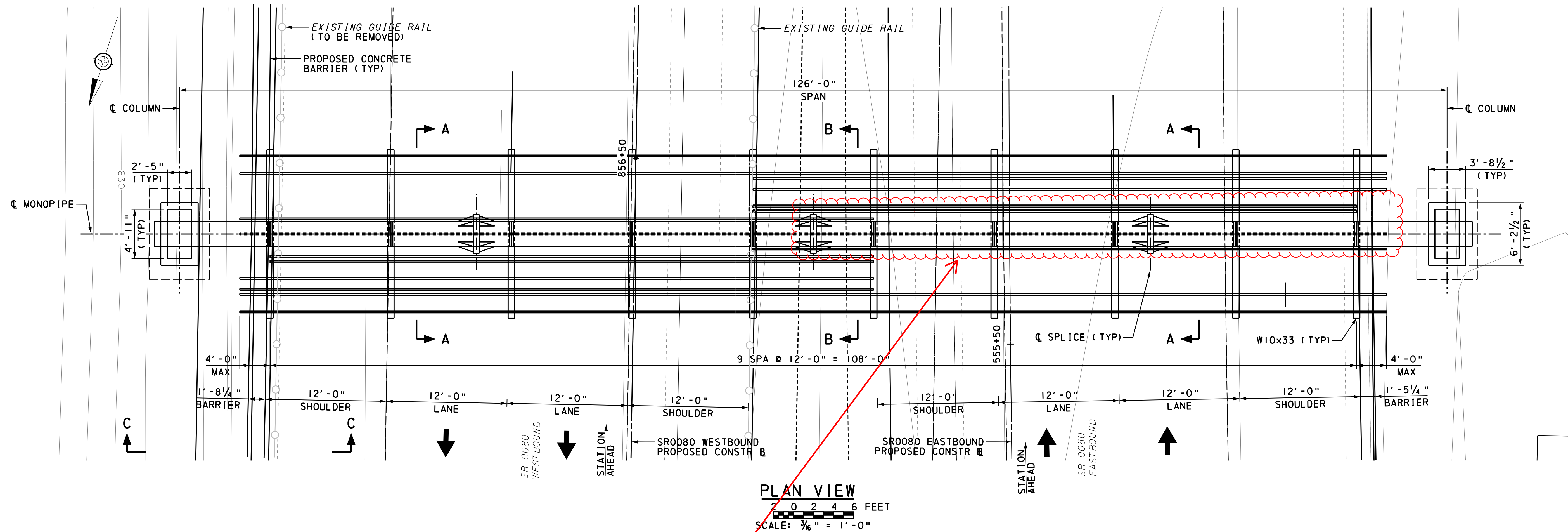
COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

LUZERNE COUNTY
 SR 0080 SECTION 352
 SR 0080 WB STA 856+42.49 EB 555+60.95
 WB SEGMENT 2501 OFFSET 1897,
 EB SEGMENT 2500 OFFSET 1807
 ORT GANTRY STRUCTURE

GANTRY ELEVATION

DPM	NP	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

PROFESSIONAL ENGINEER
 DATE: _____



No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct tolling gantry over WB lanes.

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR GANTRY ELEVATION, SEE SHEET 1.
3. FOR SECTION A-A AND B-B, SEE SHEET 7.
FOR SECTION C-C, SEE SHEET 12.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

BMS 04-0080-XXXX-XXXX | MPMS XXXXX | BRKEY XXXXX

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

LUZERNE COUNTY
SR 0080 SECTION 352
SR 0080 WB STA 856+42.49 EB 555+60.95
WB SEGMENT 2501 OFFSET 1897,
EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE

GANTRY PLAN

RECOMMENDED _____ SHEET 2 OF 14

S-XXXXX

DPM	NP	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

GENERAL NOTES:

DESIGN SPECIFICATIONS:

1. DESIGN SPECIFICATIONS
 - * AASHTO 1ST EDITION LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (2015).
 - * AASHTO 8TH EDITION LRFD BRIDGE DESIGN SPECIFICATION (2017).
 - * PENNDOT PUBLICATION 15M, DM-4, DECEMBER 2019 EDITION.
2. DESIGN IS IN ACCORDANCE WITH THE LRFD METHOD.

DESIGN LIVE LOADS:

1. WIND LOADS
 - * BASIC WIND SPEED = 115 MPH (3 SECOND GUST)
 - * FATIGUE IMPORTANCE FACTOR = 1.0 FOR NATURAL WIND GUSTS.
 - * FATIGUE IMPORTANCE FACTOR = 1.0 FOR TRUCK-INDUCED GUSTS.
2. ANTICIPATED MAXIMUM DEFLECTION DUE TO NATURAL WIND GUST: 0.339".
3. ANTICIPATED MAXIMUM DEFLECTION DUE TO TRUCK INDUCED GUST: 0.295".

DEAD LOADS:

1. INCLUDES SUPERIMPOSED DEAD LOADS OF
 - * TOLL EQUIPMENT + TRAPEZE = 40 PLF
 - * CABLING + CABLE TRAY = 40 PLF

GENERAL:

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2020, AASHTO/AWS D1.5M/D1.5-2015 BRIDGE WELDING CODE (USE AASHTO/AWS D1.1/D1.1M-2015 FOR WELDING NOT COVERED IN AASHTO IN AASHTO D1.5M/D1.1-2015), AND CONTRACT SPECIAL PROVISIONS.
2. PROVIDE STRUCTURAL STEEL, OTHER THAN PIPES, CONFORMING TO AASHTO M270, GRADE 36 (ASTM A709, GRADE 36) DESIGNATION EXCEPT WHEN NOTED OTHERWISE.
3. PROVIDE WELDED OR SEAMLESS STEEL PIPE CONFORMING TO PUBLICATION 408, SECTION 948.2(c) 1.
4. TOLL SYSTEM EQUIPMENT MOUNTING BARS SHALL BE 2" NOMINAL PIPE, SCHEDULE 40 AND SHALL CONFORM TO ASTM A53 GRADE B.
5. PROVIDE HIGH-STRENGTH BOLTS CONFORMING TO ASTM F3125, GRADE A325 AND ANCHOR BOLTS CONFORMING TO ASTM F1554, GRADE 55. NUTS SHALL BE ASTM A563, AND WASHERS SHALL BE ASTM F436, TYPE 1. U-BOLTS SHALL CONFORM TO ASTM A449. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED PER ASTM A153.
6. PROVIDE WELDED ANCHOR STUD SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO AASHTO M169 (ASTM A108).
7. USE CLASS AA CEMENT CONCRETE MODIFIED TO 5000 PSI IN THE CAST-IN-PLACE COLUMN TOP.
8. USE 5000 PSI CEMENT CONCRETE FOR PRECAST COLUMN PER PUBLICATION 408, SECTION 714.
9. A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST, IF APPROVED BY THE DEPARTMENT.
10. PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A615/A615M, A996/A996M OR A706/A706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. REINFORCEMENT BARS SHALL BE EPOXY COATED PER ASTM A775.
11. RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.
12. CHAMFER EXPOSED CONCRETE EDGES 3/4 INCH BY 3/4 INCH, EXCEPT AS NOTED.
13. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
14. ALL STRUCTURAL STEEL TO BE GALVANIZED AND PAINTED IN GREY COLOR.
15. CHARPY V-NOTCH TESTING IS REQUIRED ON ALL STEEL PLATES AND PIPES GREATER THAN 1/2" THICK. PROVIDE STEEL CONFORMING TO THE CHARPY V-NOTCH REQUIREMENTS FOR ZONE 2, NON FRACTURE CRITICAL AS GIVEN IN THE AASHTO MATERIAL SPECIFICATIONS.
16. ALL BOLTED SUB-ASSEMBLY TO BE MADE AFTER GALVANIZING.
17. ANY DAMAGE TO THE GALVANIZED FINISH DURING HANDLING, TRANSPORTATION, INSTALLATION OR ANY FIELD WORK SHALL BE REPAIRED, IN ACCORDANCE WITH ASTM A780 - A2 USING AN APPROVED ZINC RICH PRODUCT PER THE MANUFACTURERS SPECIFICATIONS.
18. REAM SUBDRILLED OR SUBPUNCHED HOLES FOR FIELD SPLICES IN THE FABRICATION SHOP. PROVIDE A CLASS C SURFACE CONDITION ON ALL BOLTED PARTS. ALL CONTACTING SURFACES SHALL HAVE FULL BEARING AND SHALL BE THOROUGHLY CLEANED BY HAND TO REMOVE ANY LOOSE OR FOREIGN MATERIAL AS APPROVED BY THE REPRESENTATIVE. ALL MATING SURFACES BETWEEN SPLICE PLATES SHALL BE MACHINED AFTER FABRICATION AND PRIOR TO GALVANIZATION TO ENSURE 100% CONTACT BETWEEN THE SPLICE PLATES.
19. BOLT HOLES IN THE FIELD AND SHOP SHALL BE MADE BY DRILLING PERPENDICULAR TO METAL SURFACES. FLAME CUTTING HOLES OR ENLARGING HOLES BY BURNING IN THE FIELD SHALL NOT BE PERMITTED.
20. THE LENGTH OF BOLTS SHALL BE SUCH THAT THE THREADED END OF THE BOLT WILL PROJECT A MINIMUM OF 1/4" FROM THE OUTSIDE FACE OF THE NUT WHEN COMPLETELY INSTALLED. SUFFICIENT THREAD MUST BE PROVIDED TO PREVENT THE NUT FROM REACHING THE THREAD RUN-OUT. THREADS SHALL BE EXCLUDED FROM SHEAR PLANE.
21. HIGH STRENGTH BOLTS, NUTS AND WASHERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 1105.02(d) 7. HIGH STRENGTH BOLT ASSEMBLIES SHALL BE INSTALLED, TESTED AND INSPECTED PER SECTION 1050.3(c) 7, PTM NO. 427, AND PTM NO. 429.
22. DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS.
23. FIELD WELDING IS NOT PERMITTED EXCEPT WHERE SHOWN ON THE DRAWINGS.
24. DO NOT FIELD WELD OR BURN WHEN THE TEMPERATURE IS BELOW 0°F. PREHEAT AND MAINTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70°F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN 0°F AND 32°F DURING WELDING.

GENERAL:

25. DO NOT WELD WHEN SURFACES TO BE WELDED ARE MOIST OR EXPOSED TO RAIN, SNOW, OR WIND, OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF WORK.
26. PREHEAT THE STEEL TO THE SPECIFIED MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING WELDED, BUT NOT LESS THAN 3 INCHES IN ALL DIRECTIONS FROM THE POINT OF WELDING.
27. REMOVE BY APPLICATION OF HEAT ANY MOISTURE PRESENT AT POINT OF WELD. PROVIDE WINDBREAKS FOR PROTECTION FROM DIRECT WIND.
28. PRIOR TO PLACING THE WELD, THOROUGHLY CLEAN ALL SURFACES TO RECEIVE WELDS OF ALL FOREIGN MATTER FOR A DISTANCE OF 2 INCHES FROM EACH SIDE OF THE OUTSIDE LINES OF THE WELD.
29. WELDS SHALL BE TESTED IN ACCORDANCE WITH SECTION 948.2(d) AND AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. CJP WELDS CONNECTING THE MONOPIPES TO SPLICE PLATES SHALL BE ULTRASONICALLY INSPECTED ALONG THEIR ENTIRE LENGTH FOR TOE CRACKS AFTER GALVANIZING. THIS INSPECTION IS IN ADDITION TO THE VOLUMETRIC INSPECTION REQUIRED AFTER FABRICATION.
30. GRIND ALL AREAS TO BE WELDED TO BRIGHT METAL. BUTT WELD SPLICES ARE NOT PERMITTED UNLESS SHOWN ON THE PLANS. COMPLETE ALL WELDING AND REQUIRED TESTING BEFORE ANY MATERIAL IS GALVANIZED. NON-DESTRUCTIVELY TEST ALL CIRCUMFERENTIAL WELDS USING THE METHODS AND PROCEDURES IN ACCORDANCE WITH THESE NOTES AND PLANS. THE ACCEPTABLE CRITERIA ARE STATED IN TABLE 6.1 OF ANSI/AWS D1.1/D1.1M. PROVIDE FULL PENETRATION GROOVE WELDS FOR ALL LONGITUDINAL WELDS WITHIN 6" OF A FULL PENETRATION CIRCUMFERENTIAL GROOVE WELD AND INSPECT AS SPECIFIED ABOVE. UNDERCUT GREATER THAN 0.01" IS NOT PERMITTED.
31. ALL CUT EDGES OF STEEL SHALL BE GROUND SMOOTH.
32. THREADED COUPLERS CONFORMING TO ASTM A865 SHALL BE USED TO SPLICE EQUIPMENT MOUNTING PIPES. COUPLERS SHALL BE LOCATED TO AVOID INTERFERENCE WITH OTHER COMPONENTS OF THE TOLL SUPPORT SYSTEM.
33. PROVIDE A MINIMUM OF 3 INCHES OF CONCRETE COVER ON REINFORCEMENT BARS, UNLESS OTHERWISE NOTED.
34. PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH PENNDOT STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.
35. WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED, UNLESS SPECIFIED.
36. SPACING FOR REINFORCEMENT IS A MAXIMUM, UNLESS OTHERWISE NOTED.
37. FOR GROUDED COUPLERS USE ONLY PRE-APPROVED BULLETIN 15 COUPLERS. COUPLERS SHALL BE GALVANIZED.
38. FORMLINER PATTERN ON THE COLUMN TO BE RANDOM FIELD STONE.
39. ALL ACCESS DOORS AND HANDHOLES TO BE DETAILED PER CONSTRUCTION STANDARDS FOR OVERHEAD SIGN STRUCTURES (BC-743M).
40. THESE DRAWINGS ARE INTENDED FOR THE SOLE PURPOSE OF SUPPORTING THE ELECTRONIC TOLLING EQUIPMENT, CAMERAS, AND OTHER MISCELLANEOUS APPURTENANCES. NO ADDITIONAL SIGN AREA, EQUIPMENT OR APPURTENANCES MAY BE MOUNTED ON THIS STRUCTURE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE REPRESENTATIVE.
41. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD AS NECESSARY AND REQUIRED FOR THE COMPLETION OF THE WORK UNDER THE CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY AND FOR THE CORRECT FIT OF ALL CONSTRUCTION.
42. IMMEDIATELY REPORT ANY DEVIATIONS OF THE ACTUAL CONDITIONS FROM THOSE DEPICTED ON THE DRAWINGS TO THE REPRESENTATIVE. THE REPRESENTATIVE SHALL REVIEW THE CONTRACTOR RECOMMENDED CORRECTIVE ACTIONS TO BE TAKEN.

CONSTRUCTION:

1. SUBMIT DETAILED WORKING DRAWINGS AND CALCULATIONS OF GANTRY ERECTION, INCLUDING GANTRY LIFTING LOCATIONS AND PROCEDURES. DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER FOR THE REVIEW AND APPROVAL BY THE REPRESENTATIVE AND THE DEPARTMENT.
2. GANTRY SHALL BE LIFTED WITH W/O SUPPORT BEAMS, MOUNTING BARS AND LIGHT ANGLES ATTACHED. THE CONTRACTOR SHALL MAINTAIN LATERAL STABILITY OF THE GANTRY DURING LIFTING AND ALL STAGES OF ERECTION. CAST-IN-PLACE PORTION OF COLUMN MUST BE PLACED AFTER MONOPIPE, SUPPORT BEAMS, PIPES, AND ANGLES ARE IN PLACE. TOLL EQUIPMENT AND TRAPEZE SYSTEM MAY BE INSTALLED EITHER BEFORE OR AFTER THE CAST-IN-PLACE PORTION OF THE CONCRETE COLUMN HAS BEEN POURED AND CURED. THE LENGTH OF TIME BETWEEN SETTING OF THE MONOPIPE AND PLACEMENT OF THE CAST-IN-PLACE COLUMN PORTION SHALL NOT EXCEED 2 DAYS.
3. GANTRY STRUCTURES SHALL BE CONSTRUCTED TRUE TO THE SPECIFIED DIMENSIONS, SHALL BE FREE FROM KINKS, TWISTS, OR BENDS, AND SHALL BE UNIFORM IN APPEARANCE. THE COMPLETED SECTIONS SHALL BE ASSEMBLED IN THE SHOP AND SHALL BE CHECKED FOR STRAIGHTNESS, ALIGNMENT, AND DIMENSIONAL ACCURACY. ANY VARIATIONS SHALL BE CORRECTED TO THE SATISFACTION OF THE REPRESENTATIVE.
4. CLIPS, EYES, OR REMOVABLE BRACKETS SHALL BE AFFIXED TO ALL GANTRY SECTIONS, AS NECESSARY, TO SECURE THE STRUCTURE DURING SHIPPING AND FOR LIFTING AND MOVING DURING ERECTION. THIS IS TO PREVENT DAMAGE TO THE FINISHED SURFACES. BRACKETS ON TUBULAR STRUCTURES SHALL BE REMOVED AFTER ERECTION. DETAILS OF SUCH DEVICES SHALL BE SHOWN ON THE SHOP DRAWINGS.
5. TEMPORARILY SUPPORT PIPE SEGMENTS TO RELIEVE LOAD FROM THE SPLICES WHILE HIGH-STRENGTH BOLTS ARE BEING TIGHTENED IN ORDER TO FIRMLY SEAT THE CONNECTION PLATES.
6. GANTRY SHALL BE ASSEMBLED IN THE SHOP PRIOR TO SHIPMENT TO SITE TO VERIFY CAMBER AND OVERALL FIT AND FINISH. ELEVATIONS AND GANTRY END PIPE LOCATIONS SHALL BE VERIFIED BY A LICENCED LAND SURVEYOR. GANTRY SHALL BE DISASSEMBLED FOR SHIPMENT.
7. IT IS EXPECTED THAT THE GANTRY PIPE WILL BE USED TO ROUTE CABLING FOR TOLLING EQUIPMENT COMMUNICATION AND POWER.
8. ALL DIMENSIONS ARE IN US CUSTOMARY UNITS. SHOP DRAWINGS AND ERECTION DRAWINGS SUBMITTED FOR THIS PROJECT MUST BE IN ENGLISH UNITS.
9. CONFORM TO ALL OSHA REGULATIONS PERTAINING TO WORKER SAFETY AND SPECIFICALLY TO 29 CFR PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION.

GROUNDING AND BONDING NOTES:

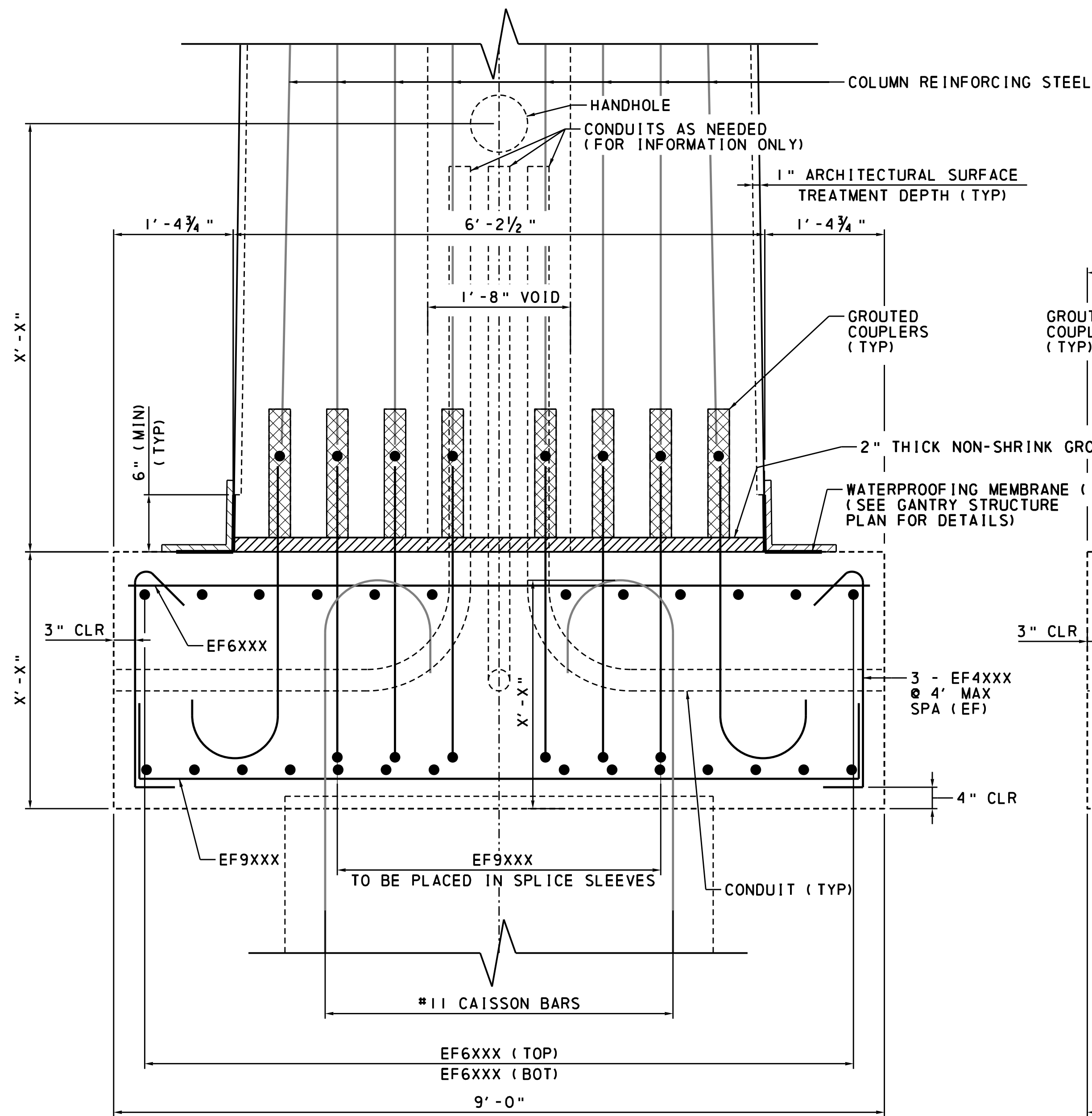
1. PROVIDE GROUNDING OF THE GANTRY STRUCTURE AND ALL COMPONENTS PER THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. COORDINATE THE EXACT GROUNDING AND BONDING PROCEDURES WITH THE EQUIPMENT VENDOR PRIOR TO INSTALLING ANY EQUIPMENT OR COMPONENTS.
2. PROVIDE A UL LISTED LIGHTNING PROTECTION SYSTEM FOR THE GANTRY STRUCTURE CONSISTING OF GROUNDING TO THE EARTH AND ALL REQUIRED CONDUCTORS AND AIR TERMINALS FOR A FULL FUNCTIONING SYSTEM. BOND ALL METALLIC COMPONENTS OF THE GANTRY STRUCTURE TO THIS SYSTEM. THE CONTRACTOR'S REGISTERED UL MASTER LABEL DESIGNER AND INSTALLER SHALL COORDINATE THE EXACT REQUIREMENTS WITH THE EQUIPMENT VENDOR AND THE REPRESENTATIVE.

INDEX OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	GANTRY ELEVATION
2	GANTRY PLAN
3	GENERAL NOTES - GANTRY STRUCTURE
4	FOUNDATION PLAN & ELEVATION
5	FOUNDATION DETAILS
6	MOMENT SLAB DETAILS
7	EQUIPMENT SUPPORT BEAM CROSS SECTIONS
8	COLUMN PLAN & ELEVATION
9	COLUMN GEOMETRY AND LOADS
10	MONOPIPE SUPPORT DETAILS
11	SPLICE CONNECTION DETAILS & CAMBER TABLES
12	TOLL EQUIPMENT SUPPORT DETAILS
13	HANDHOLE AND ACCESS DOOR DETAILS
14	REINFORCEMENT SCHEDULE

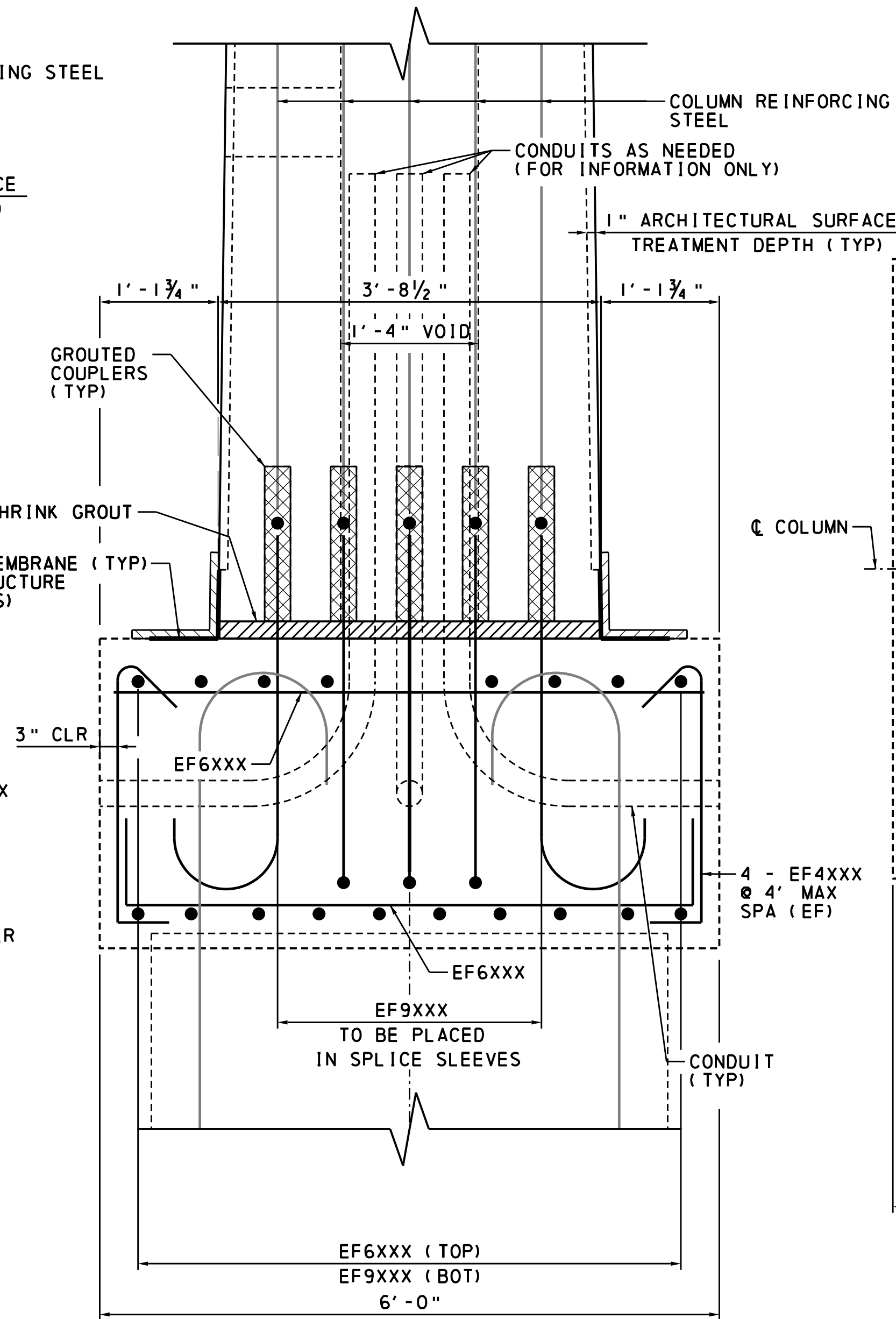
Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

BMS 04-0080-XXXX-XXXX	MPMS XXXXX	BRKEY XXXXX
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION		
LUZERNE COUNTY SR 0080 SECTION 352 SR 0080 WB STA 856+42.49 EB 555+60.95 WB SEGMENT 2501 OFFSET 1897, EB SEGMENT 2500 OFFSET 1807 ORT GANTRY STRUCTURE		
GENERAL NOTES - GANTRY STRUCTURE		
RECOMMENDED _____	SHEET <u>3</u> OF <u>14</u>	
S-XXXXX		

DPM	NP	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

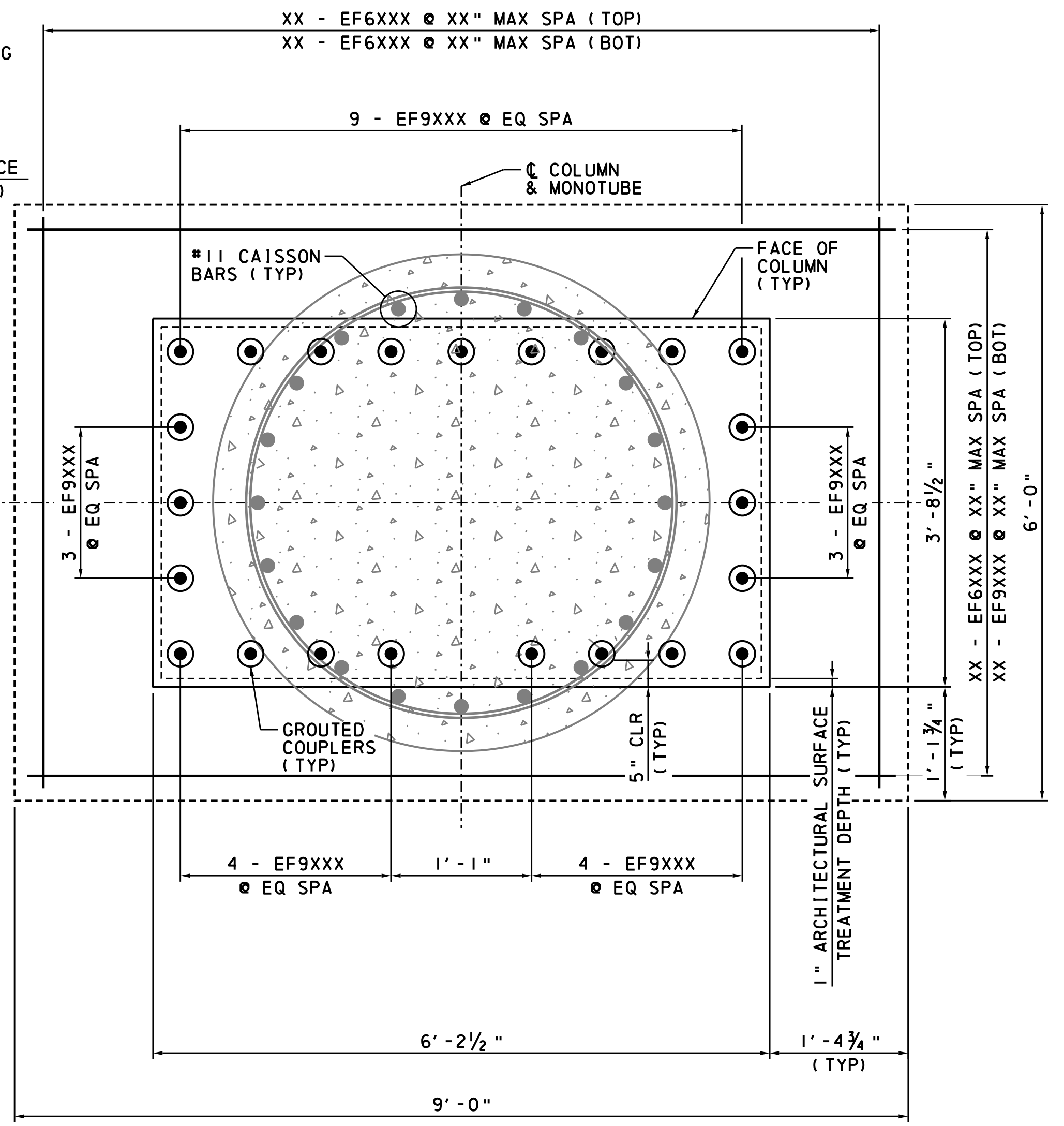


PROFILE
6 0 6 12 INCHES



ELEVATION
6 0 6 12 INCHES

PRECAST COLUMN - FOOTING DETAIL



PLAN
6 0 6 12 INCHES

- NOTES:**
- FOR TOP OF FOUNDATION ELEVATIONS, SEE SHEET 1.
 - CONDUITS AND COLUMN VOID ARE NOT SHOWN IN PLAN VIEW FOR CLARITY.

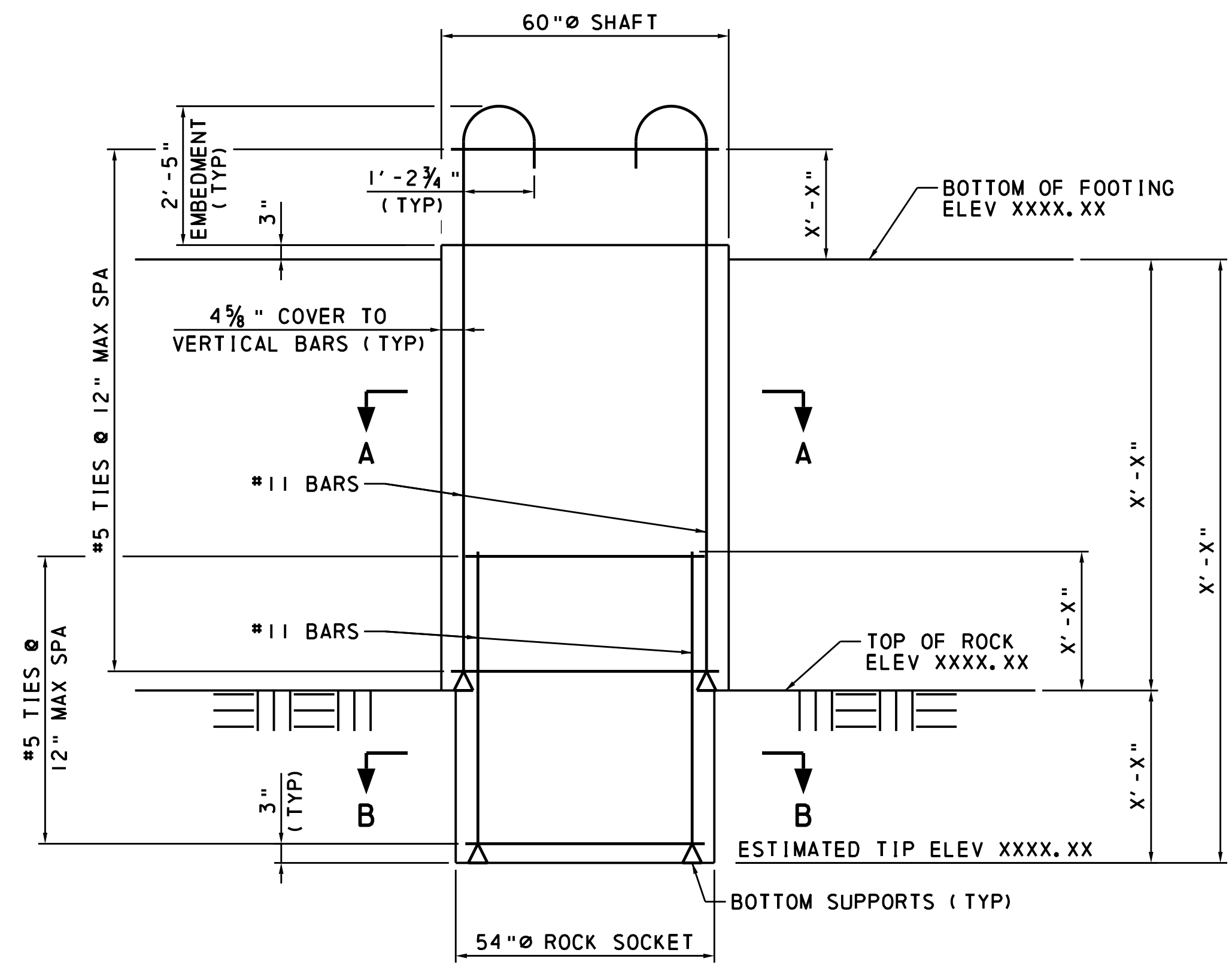
- LEGEND:**
- GROUT FOR COUPLER, SEE SPECIAL PROVISION FXX.XX "GROUTED COUPLERS (FOR #9 BARS)"
 - NON-SHRINK GROUT

DPM	NP	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

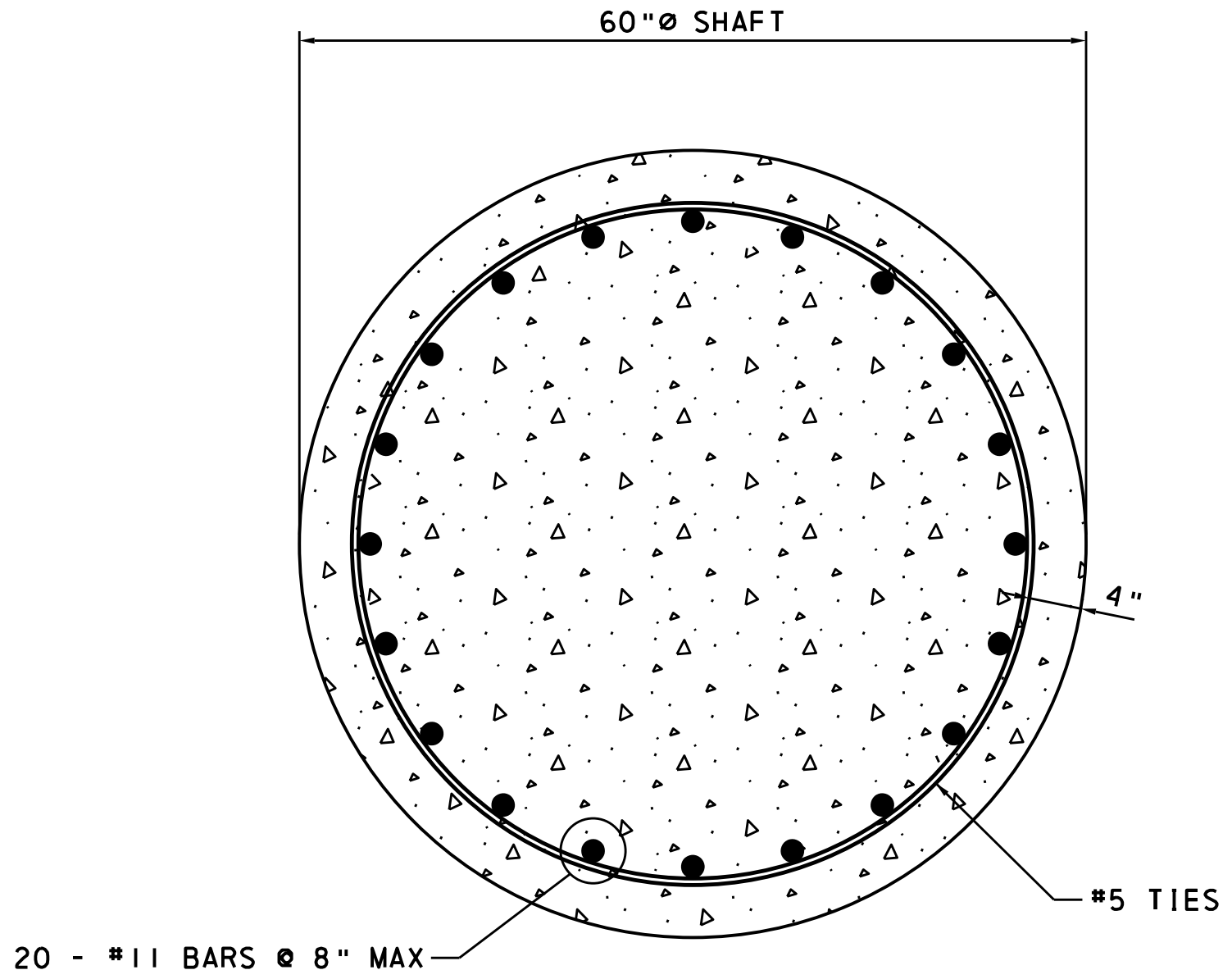
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COMMONWEALTH OF PENNSYLVANIA
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 EB SEGMENT 2500 OFFSET 1807
 ORT GANTRY STRUCTURE
FOUNDATION PLAN & ELEVATION

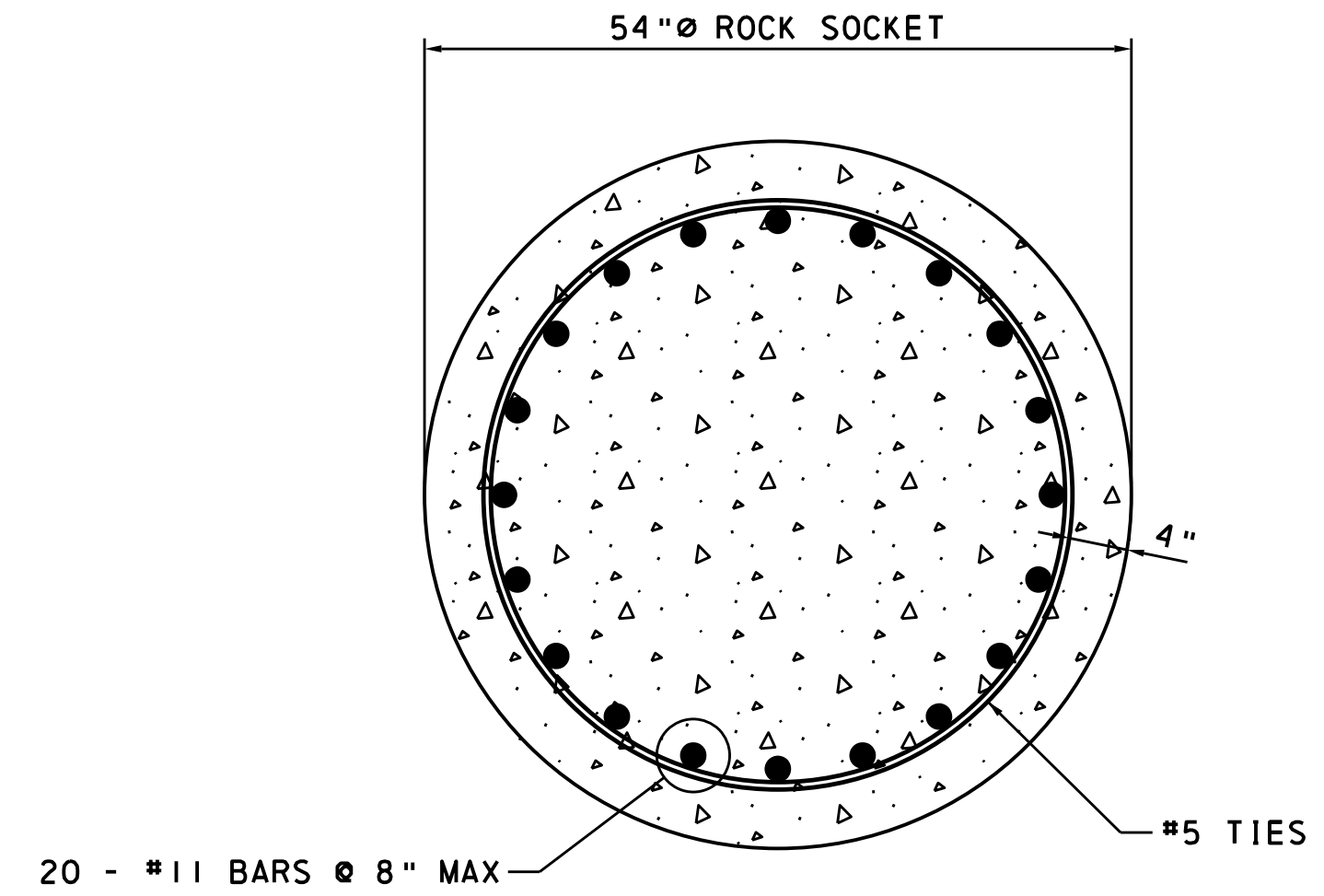
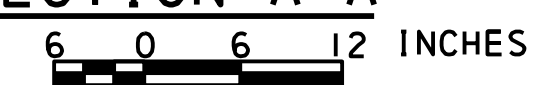
RECOMMENDED	SHEET 4 OF 14
	S-XXXXX



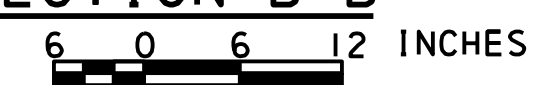
DRILLED SHAFT CAISSON ELEVATION



SECTION A-A



SECTION B-B



- NOTES:**
- LAP SPIRALS FOR ONE FULL TURN WHEN REQUIRED.
 - FOR CAISSON FOUNDATION NOTES, SEE SHEET 3.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

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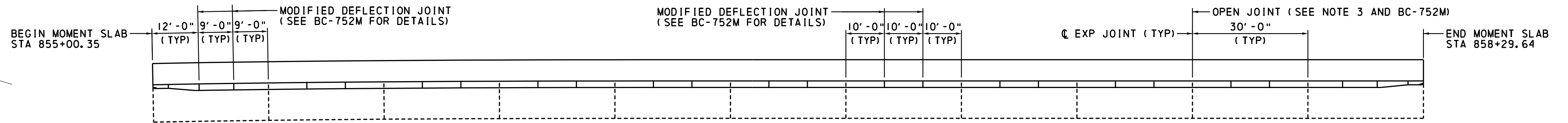
COMMONWEALTH OF PENNSYLVANIA
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ORT GANTRY STRUCTURE
FOUNDATION DETAILS

RECOMMENDED _____ SHEET 5 OF 14

S-XXXXX

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DESIGNED	CHECKED	DRAWN	CHECKED



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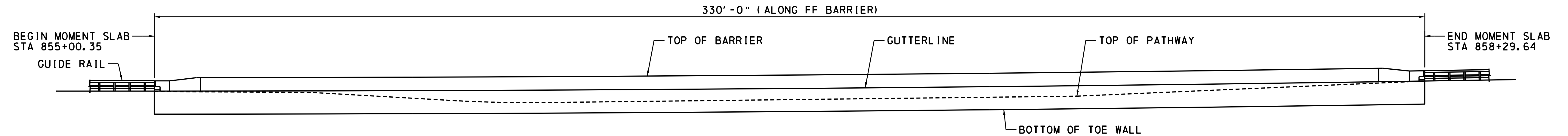
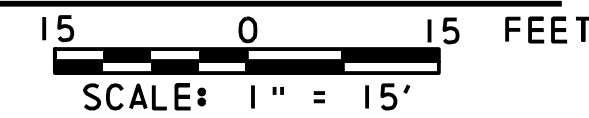
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STA AHEAD

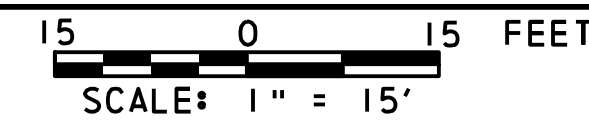
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858

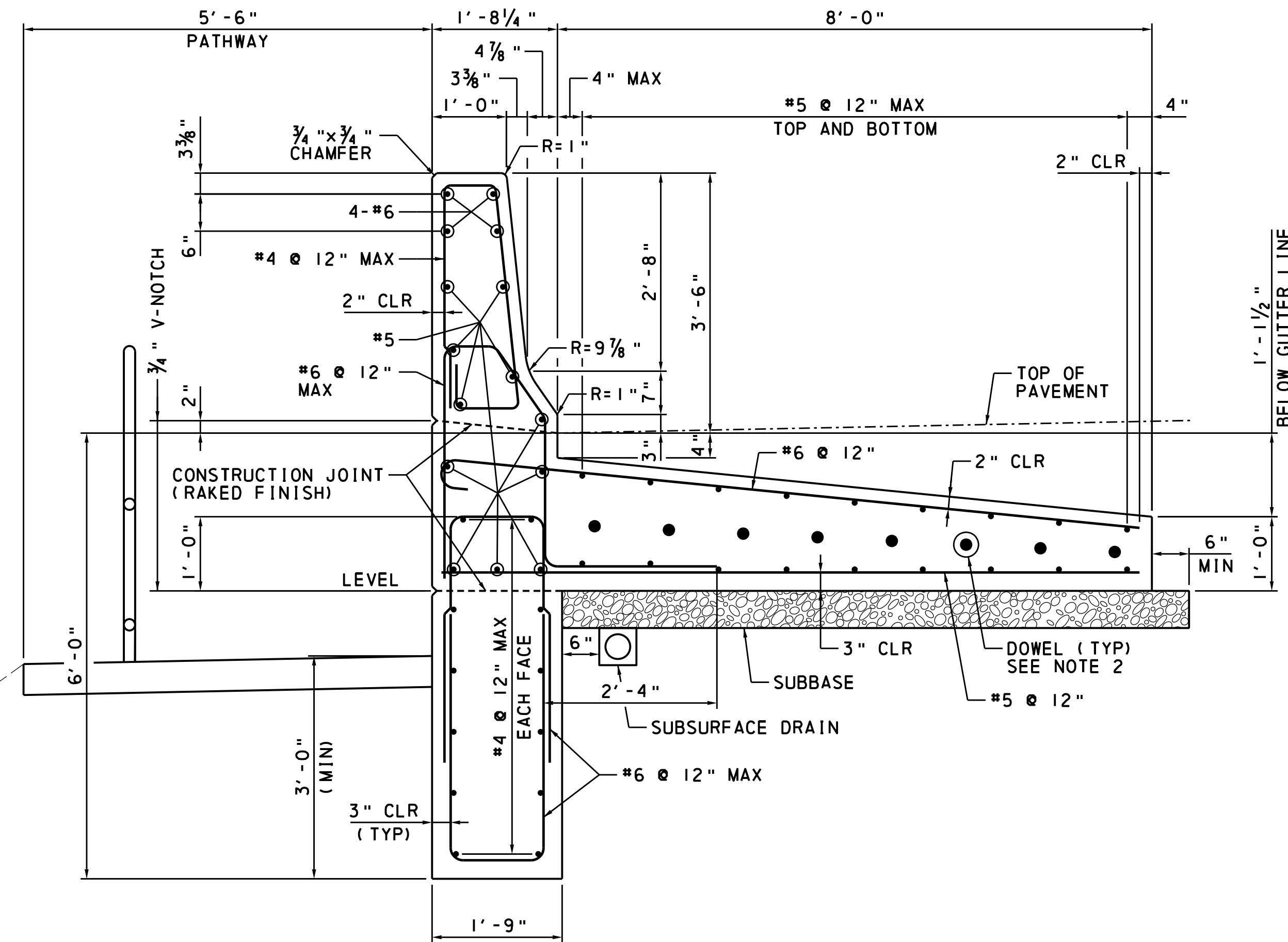
MOMENT SLAB - PLAN



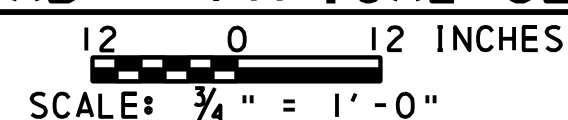
MOMENT SLAB - ELEVATION



NOTE: ELEVATIONS OF EXISTING GUTTERLINE NOT AVAILABLE. RESPONSIBILITY OF DEVELOPMENT ENTITY TO SET THE ELEVATION OF TOP OF BARRIER, GUTTERLINE, TOP OF PATHWAY, AND BOTTOM OF TOE WALL ONCE THAT INFORMATION IS KNOWN.



MOMENT SLAB - TYPICAL SECTION



NOTES:

- MOMENT SLAB REINFORCEMENT DESIGN FOR INFORMATION ONLY. MATERIAL OF REINFORCEMENT BARS MAY CHANGE FROM STEEL TO GFRP PER REQUIREMENTS OF TOLL INTEGRATOR SELECTED.
- PROVIDE DOWELS AT EXPANSION JOINTS. USE TYPE D OR E JOINT PER RC-20M. USE SAME JOINT AS PROVIDED IN PAVEMENT.
- PROVIDE OPEN JOINTS IN BARRIER AT SAME LOCATIONS AS THOSE PROVIDED IN MOMENT SLAB.

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REVISIONS					

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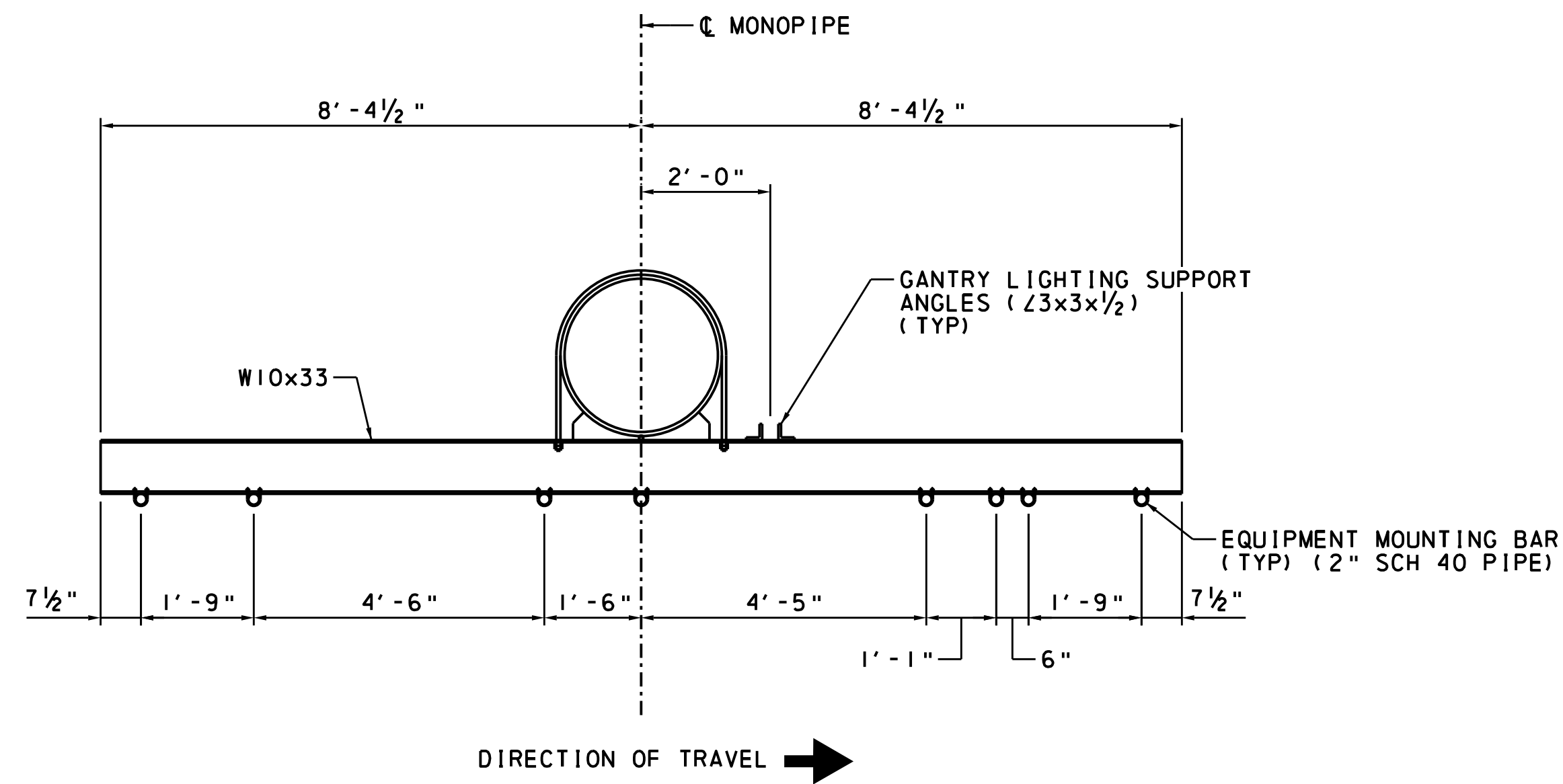
LUZERNE COUNTY
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SR 0080 WB STA 856+42.49 EB 555+60.95
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EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE

MOMENT SLAB DETAILS

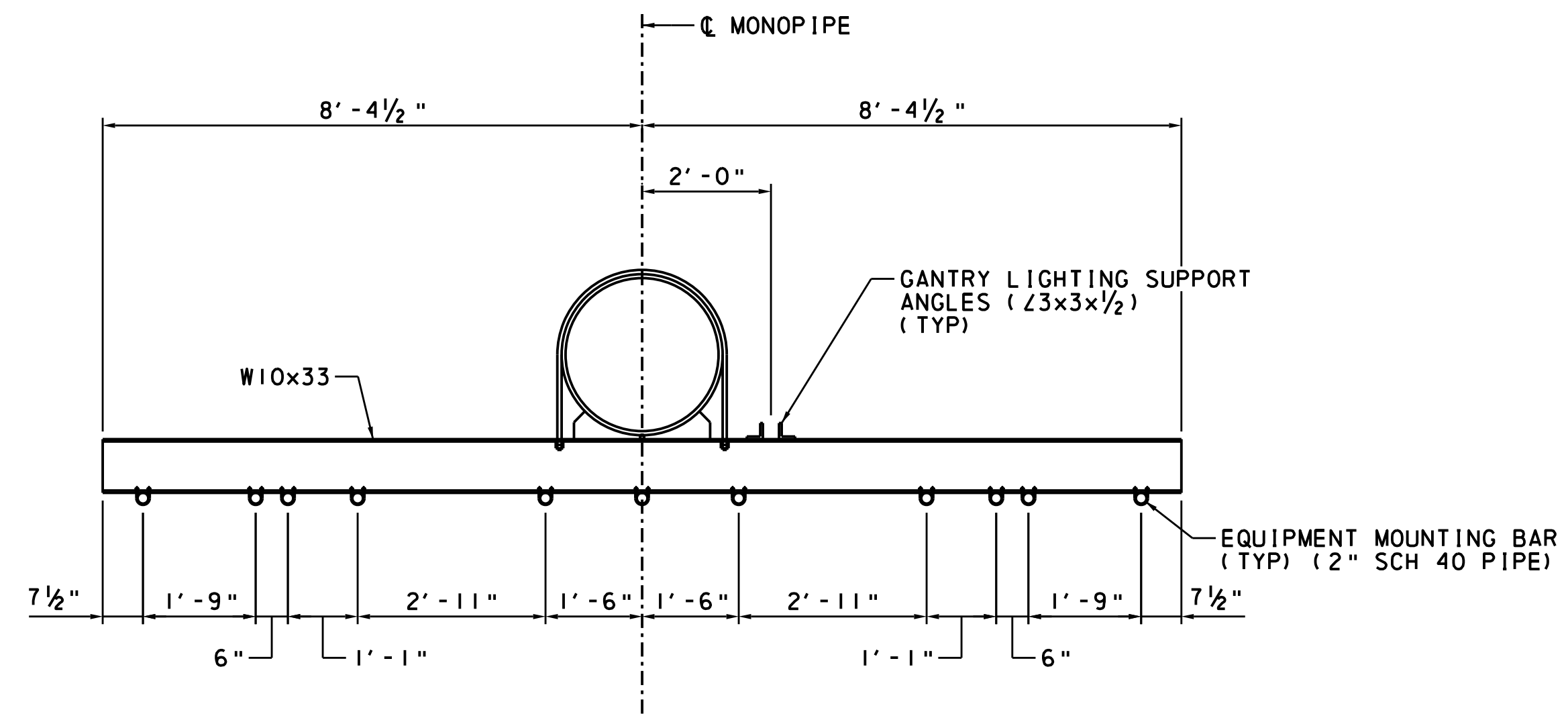
RECOMMENDED _____ SHEET 6 OF 14

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DESIGNED	CHECKED	DRAWN	CHECKED



SECTION A-A - EQUIPMENT SUPPORT BEAM



SECTION B-B - EQUIPMENT SUPPORT BEAM



NOTES:

1. TOLL EQUIPMENT AND ASSOCIATED TRAPEZE PIPES SHALL BE PROVIDED BY OTHERS.
2. FOR LOCATION OF SECTION A-A AND B-B, SEE SHEET 2.

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REVISIONS					

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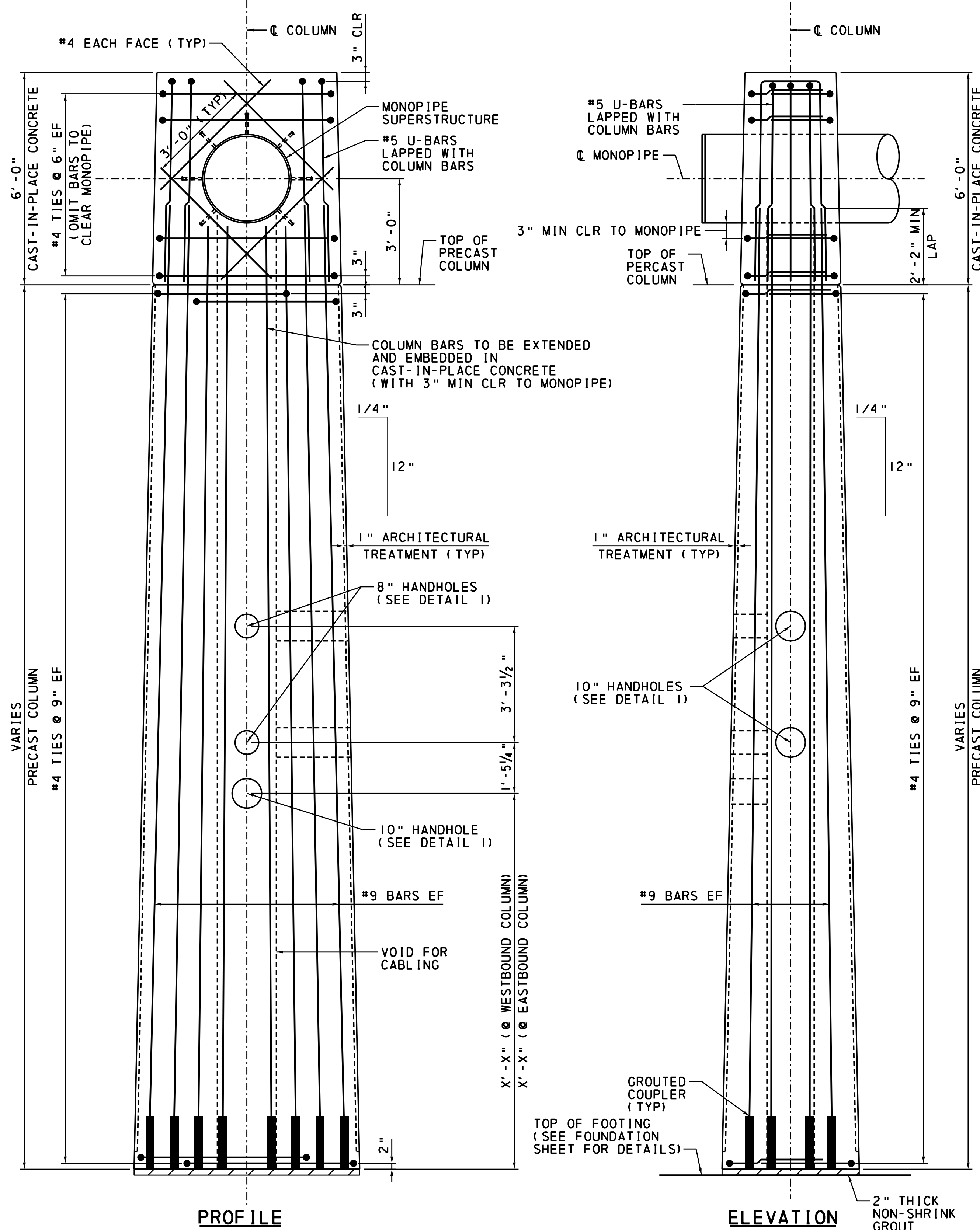
LUZERNE COUNTY
SR 0080 SECTION 352
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WB SEGMENT 2501 OFFSET 1897,
EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE
EQUIPMENT SUPPORT BEAM
CROSS SECTIONS

RECOMMENDED _____

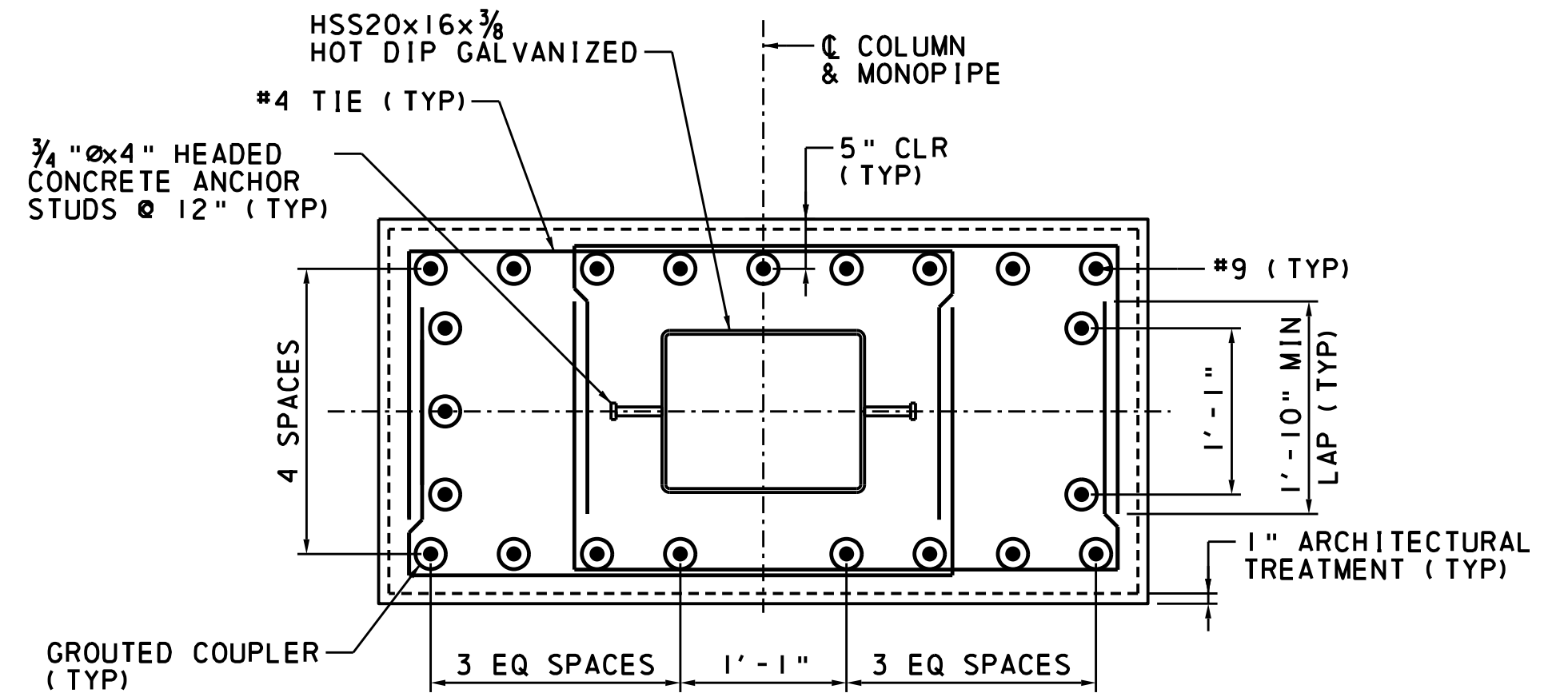
SHEET 7 OF 14

S-XXXXX

DPM	RDM	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

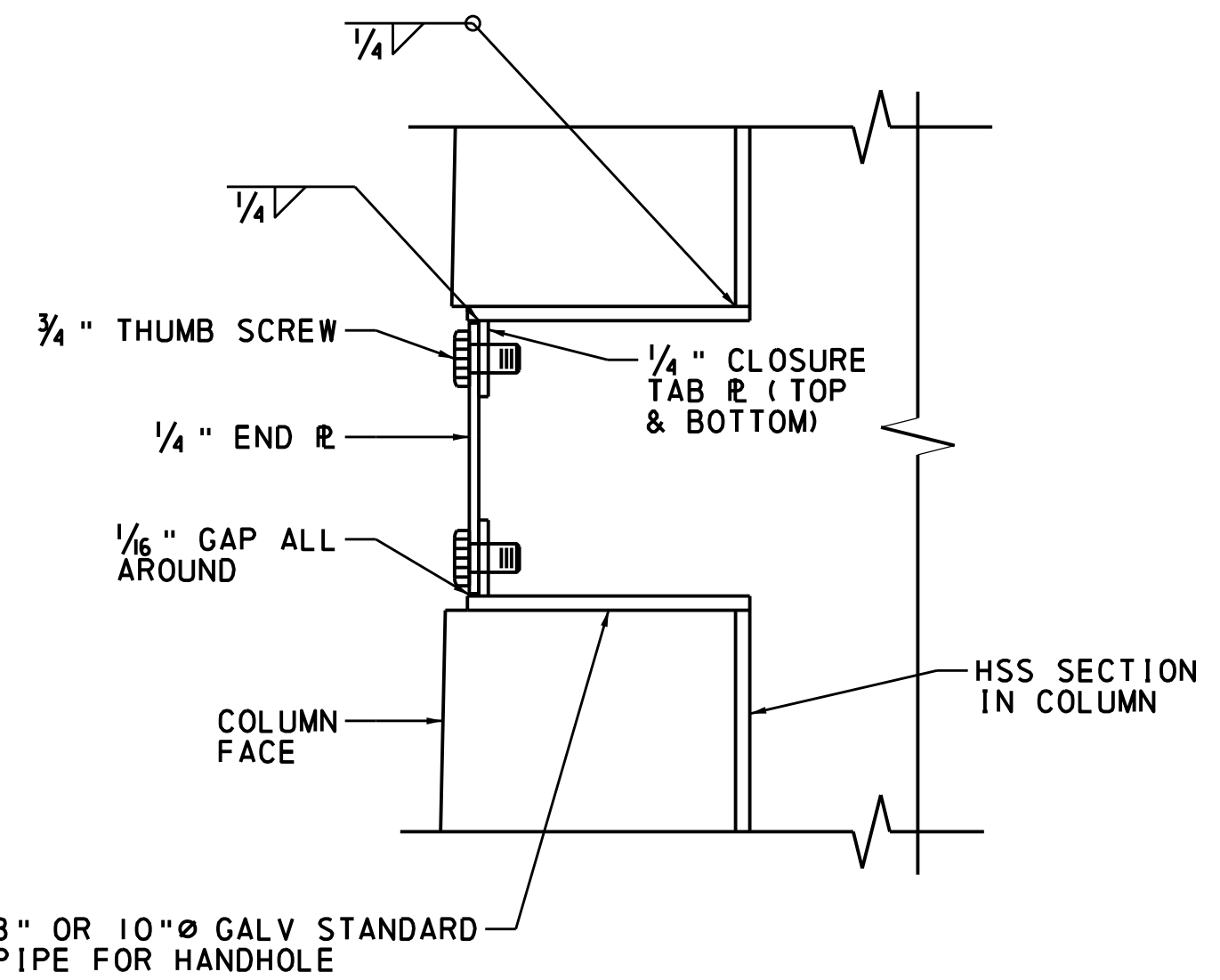


GANTRY COLUMN GEOMETRY
0 2 FEET

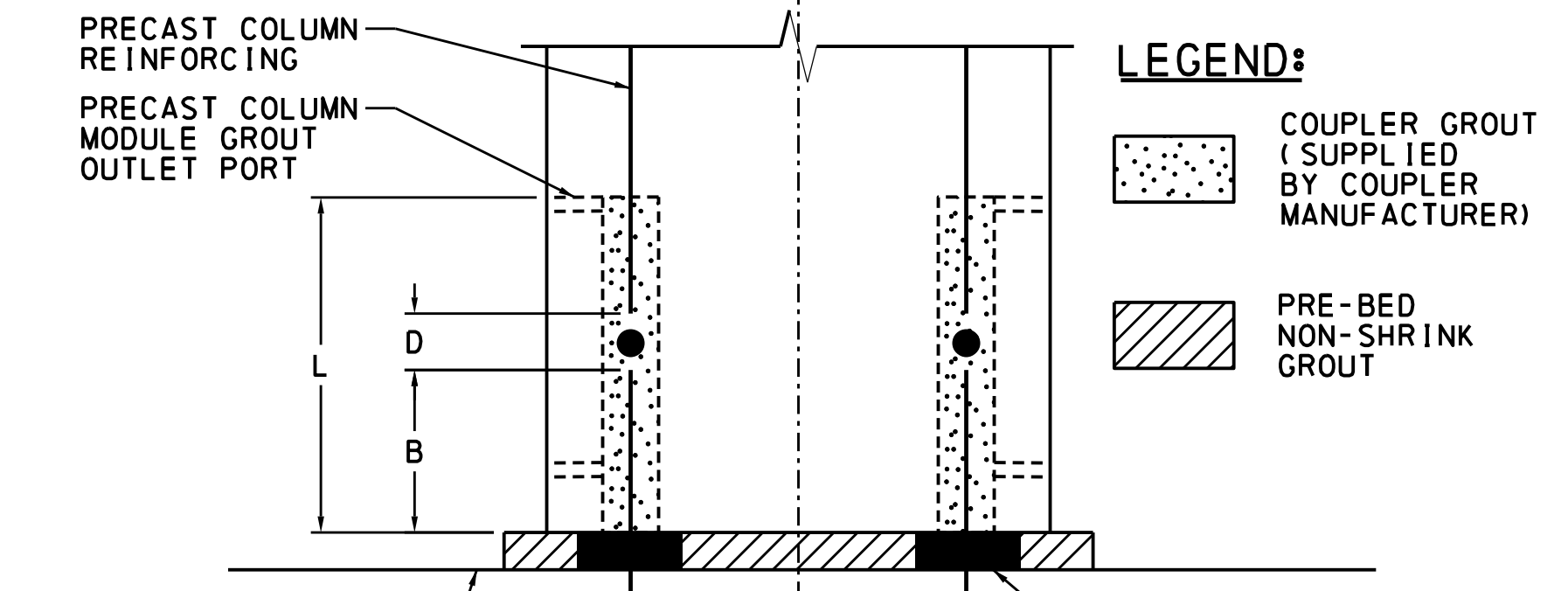


COLUMN PLAN (BOTTOM OF COLUMN)
6 0 6 12 INCHES

NOTE: DETAILS FOR CONDUIT NOT SHOWN, NUMBER OF CONDUITS TO BE DETERMINED PER TOLL VENDOR REQUIREMENTS.



DETAIL 1
8" HANDHOLE SHOWN, 10" HANDHOLE SIMILAR NOT TO SCALE



GRADED COUPLER DETAILS
6 0 6 12 INCHES

- NOTES:**
- USE MATCHING TEMPLATES FOR THE LOCATION OF FOOTING REINFORCMENT DOWELS AND COLUMN GRADED COUPLER PLACEMENT.
 - CONSULT MANUFACTURER OF THE GRADED COUPLER FOR PROPER DIMENSIONS "B", "D" AND "L" AND FOR TOLERANCE ON THESE DIMENSIONS.
 - BEFORE EXECUTING GRADED COUPLER ASSEMBLIES, ALWAYS SEEK INSTALLATION RECOMMENDATIONS FROM THE MANUFACTURER OF THE GRADED COUPLER USED.
 - THIS CONNECTION BEHAVES AS A HINGE DURING INSTALLATION AND WILL REQUIRE LATERAL BRACING. THE BRACING SHOULD REMAIN IN PLACE UNTIL ALL CONNECTIONS HAVE BEEN COMPLETED, AND NON-SHRINK AND COUPLER GROUT HAVE BEEN CURED.
 - FILL ENTIRE 2" JOINT WITH NON-SHRINK GROUT. BE SURE NO GROUT ENTERS GRADED COUPLER DURING THIS OPERATION.
 - FILL GRADED COUPLER IN ITS ENTIRETY WITH GROUT (SUPPLIED BY COUPLER MANUFACTURER).
 - REINFORCEMENT SHALL BE EPOXY COATED, GRADED COUPLERS SHALL BE GALVANIZED.
 - FOR COLUMN DIMENSIONS, SEE SHEET 9.

Mark	Description	By	Chk'd.	Recm'd.	Date
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DEPARTMENT OF TRANSPORTATION

LUZERNE COUNTY
SR 0080 SECTION 352
SR 0080 WB STA 856+42.49 EB 555+60.95
WB SEGMENT 2501 OFFSET 1897,
EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE

COLUMN PLAN & ELEVATION

RECOMMENDED _____ SHEET 8 OF 14

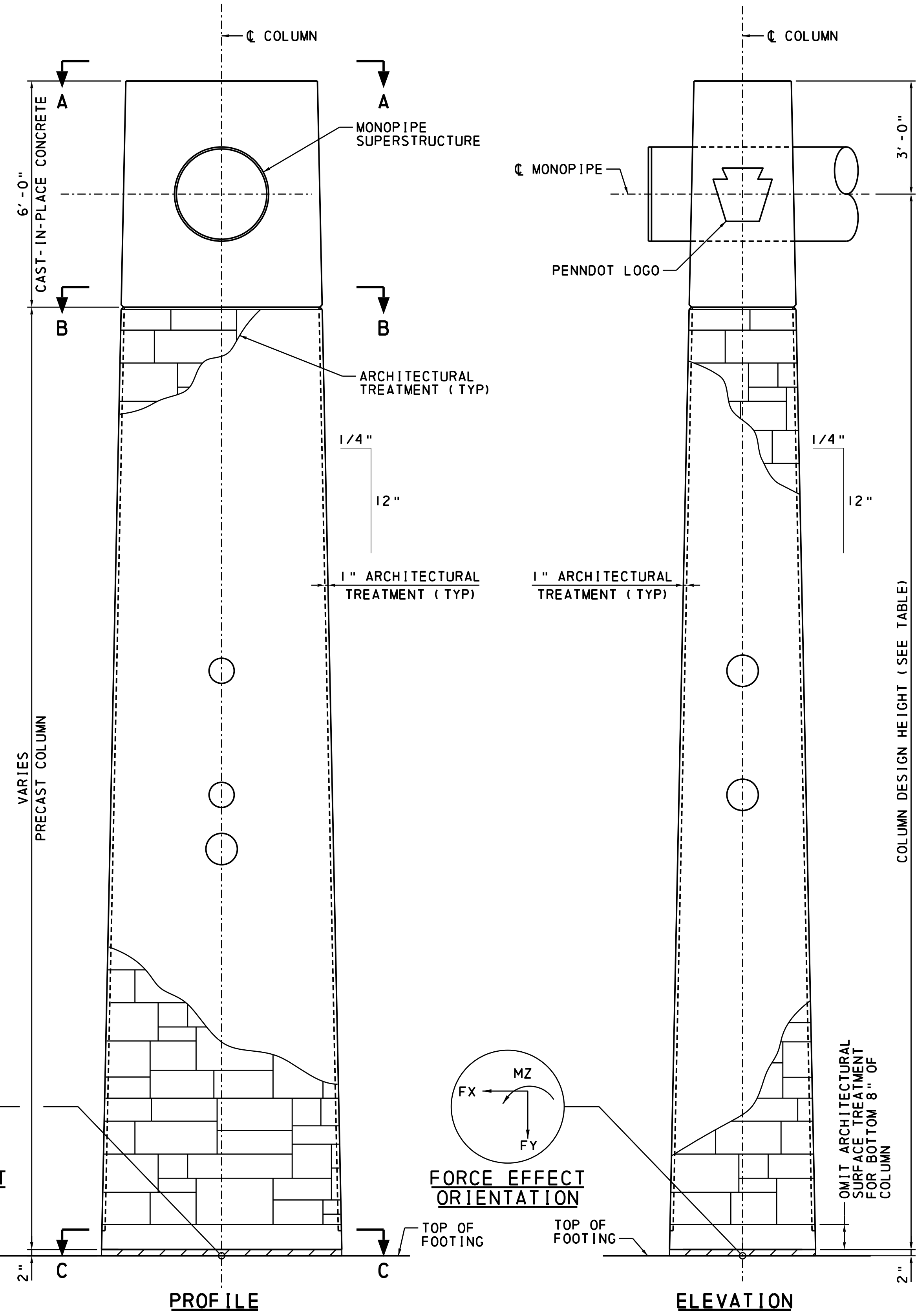
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DPM	WSC	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

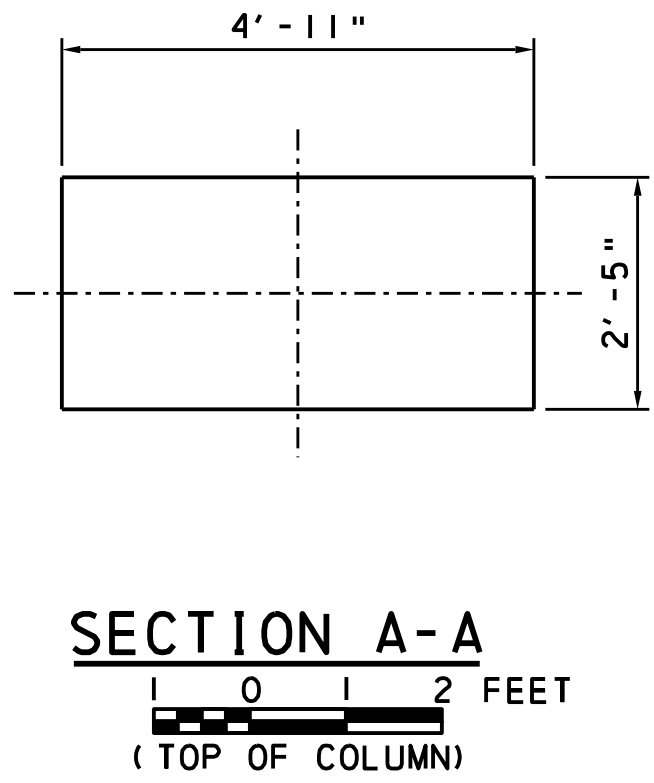
UNFACTORED FORCE EFFECTS AT CENTERLINE OF COLUMN AT TOP OF FOOTING																
SPAN (FT)	COLUMN DESIGN HEIGHT (FT)	DEAD LOAD					TEMPERATURE					WIND				
		FX (K)	FY (K)	FZ (K)	MX (K-FT)	MZ (K-FT)	FX (K)	FY (K)	FZ (K)	MX (K-FT)	MZ (K-FT)	FX (K)	FY (K)	FZ (K)	MX (K-FT)	MZ (K-FT)
126'-0"	28	18	104	0	0	-14	23	0	0	0	597	15	0	14	-316	231

* NOTE: FORCES ARE PROVIDED FOR INFORMATION ONLY

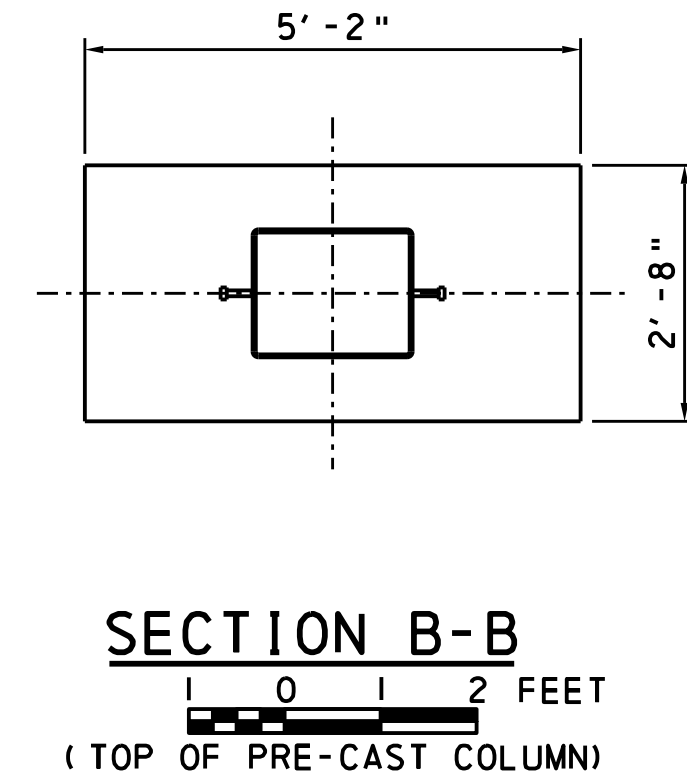
COLUMN DESIGN HEIGHT (FT)	DIMENSION A	DIMENSION B
28	6'-2 1/2"	3'-8 1/2"



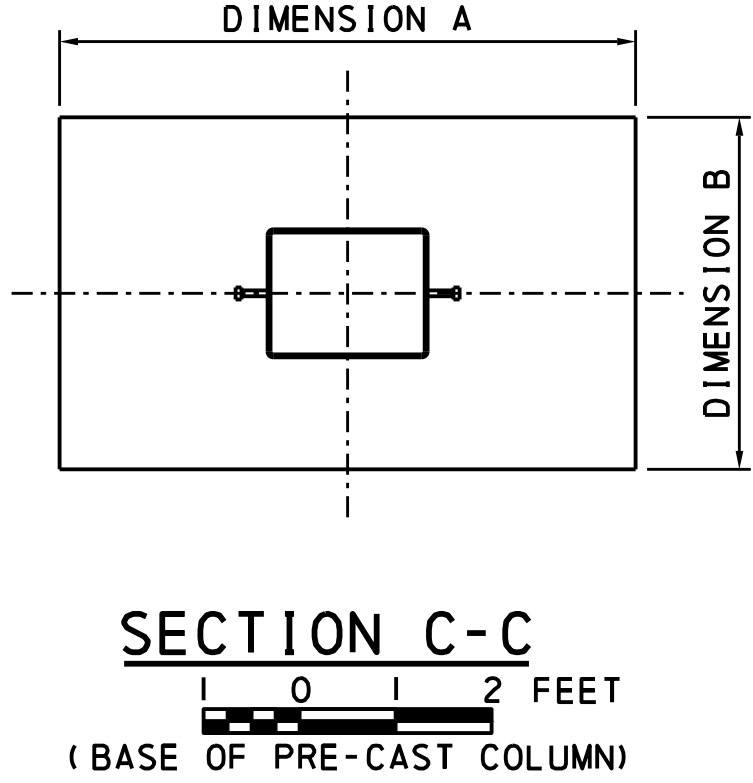
GANTRY COLUMN GEOMETRY



SECTION A-A
0 1 2 FEET
(TOP OF COLUMN)

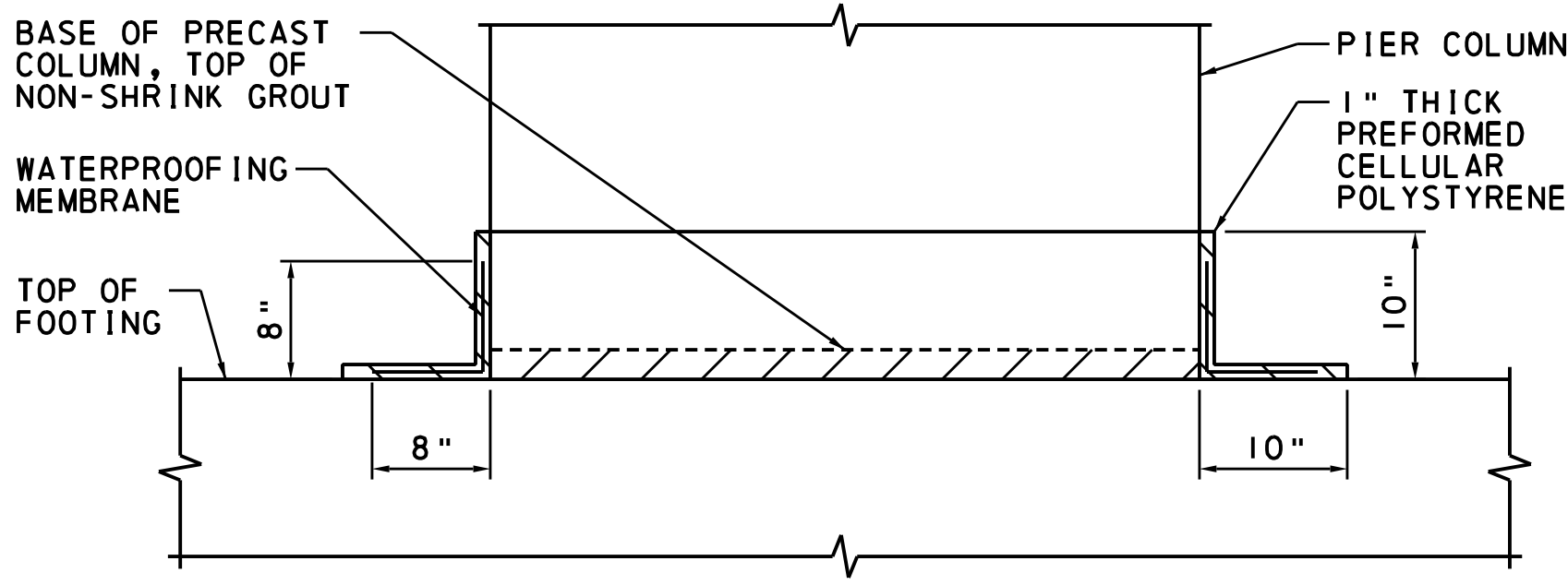


SECTION B-B
0 1 2 FEET
(TOP OF PRE-CAST COLUMN)



SECTION C-C
0 1 2 FEET
(BASE OF PRE-CAST COLUMN)

NOTE: DETAILS FOR CONDUIT NOT SHOWN, NUMBER OF CONDUITS TO BE DETERMINED PER TOLL VENDOR REQUIREMENTS.



PIER WATERPROOFING DETAILS
NOT TO SCALE

PIER WATERPROOFING NOTE:
INSTALL 1'-4" WIDE WATERPROOFING MEMBRANE TO FIT COLUMN AND TOP OF FOOTING AS SHOWN, RUN MEMBRANE CONTINUOUS ALONG APPLICABLE FACE OF COLUMN. USE AN ADHESIVE BACKED, PREFORMED WATERPROOFING MEMBRANE PER SECTION 680.2 (b). PROVIDE 10" MINIMUM PREFORMED CELLULAR POLYSTYRENE IN EACH DIRECTION OVER WATERPROOFING MEMBRANE AS PROTECTION.

- NOTES:**
- FORCE EFFECTS ARE GIVEN AT THE CENTERLINE OF THE COLUMN, AT THE TOP OF FOOTING.
 - FORCE EFFECT ORIENTATION IS SHOWN ON THIS SHEET. ARROWS POINT IN THE DIRECTION OF POSITIVE FORCES.
 - TEMPERATURE LOADS WERE CALCULATED ASSUMING A 120°F TEMPERATURE DIFFERENTIAL.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

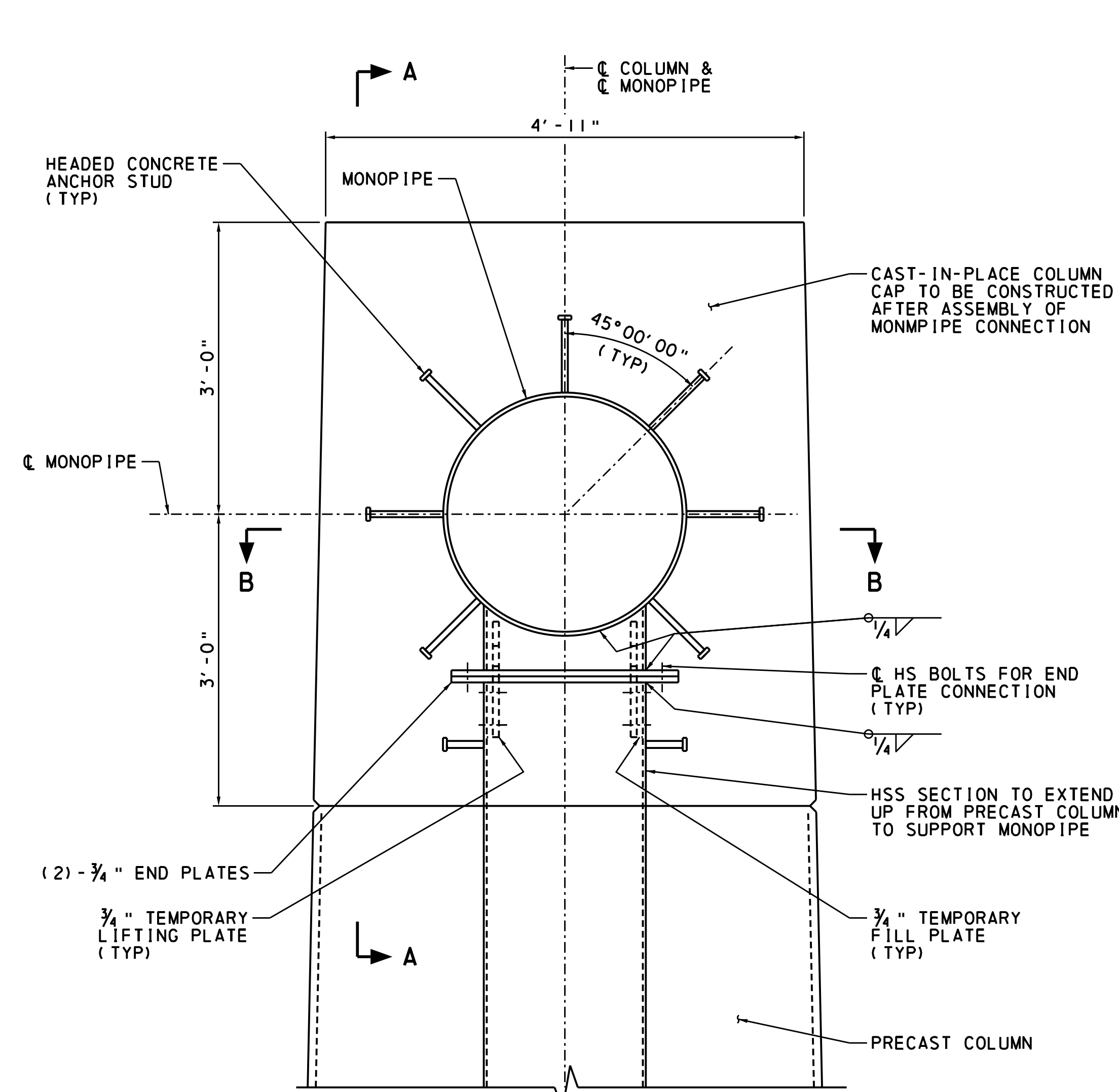
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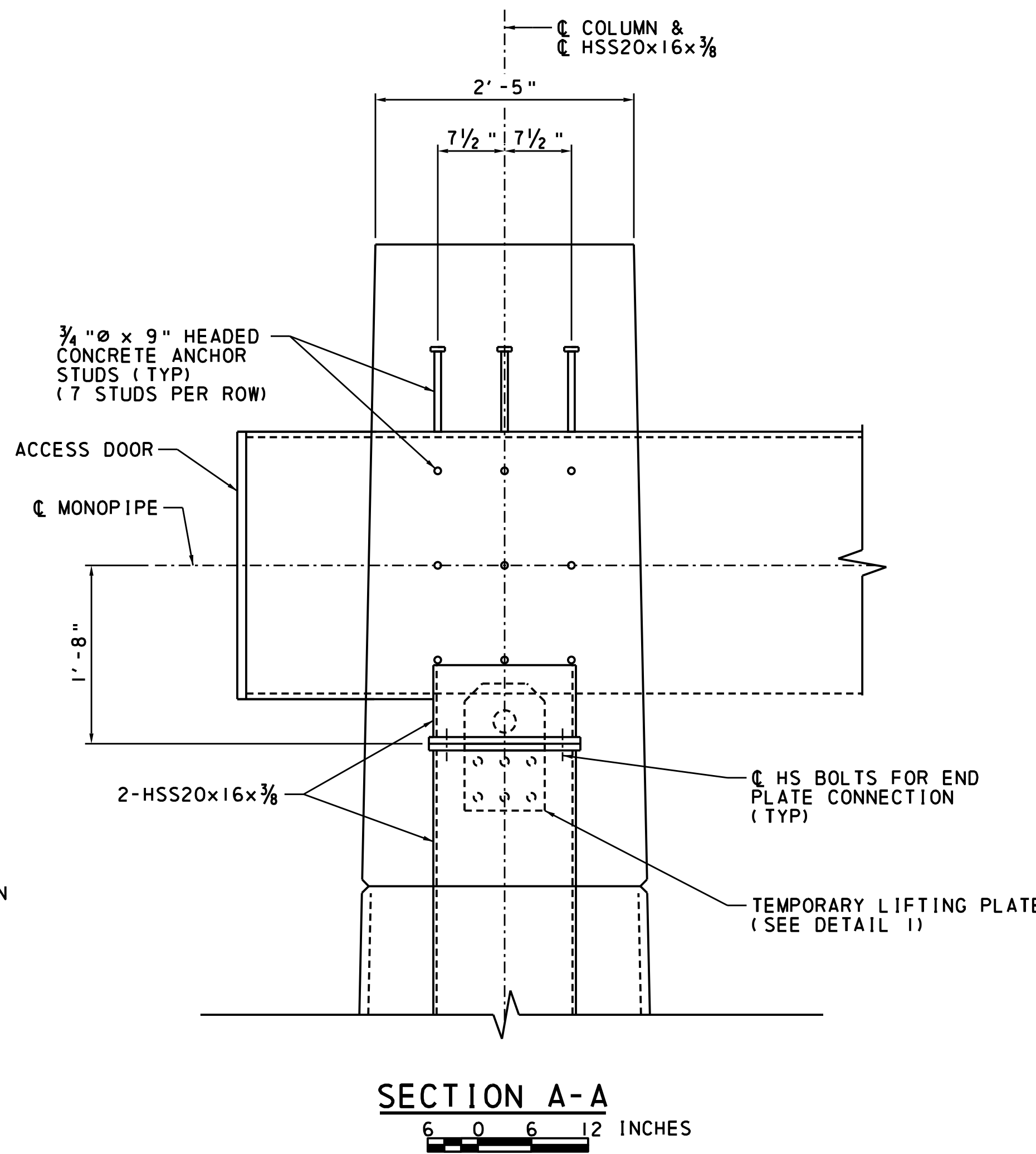
LUZERNE COUNTY
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EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE

COLUMN GEOMETRY AND LOADS

DPM	WSC	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

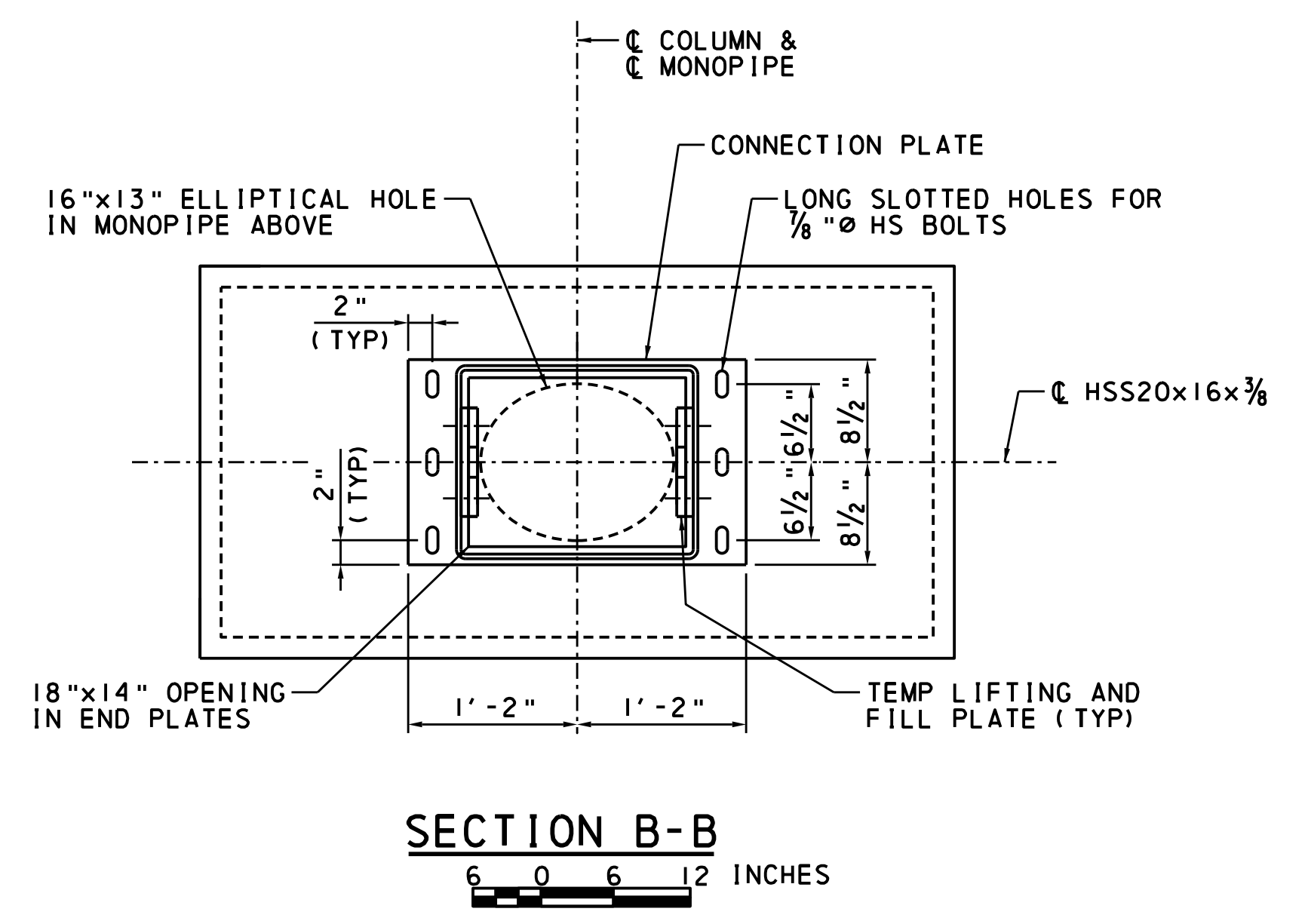


MONOPIPE CONNECTION ELEVATION
6 0 6 12 INCHES



SECTION A-A
6 0 6 12 INCHES

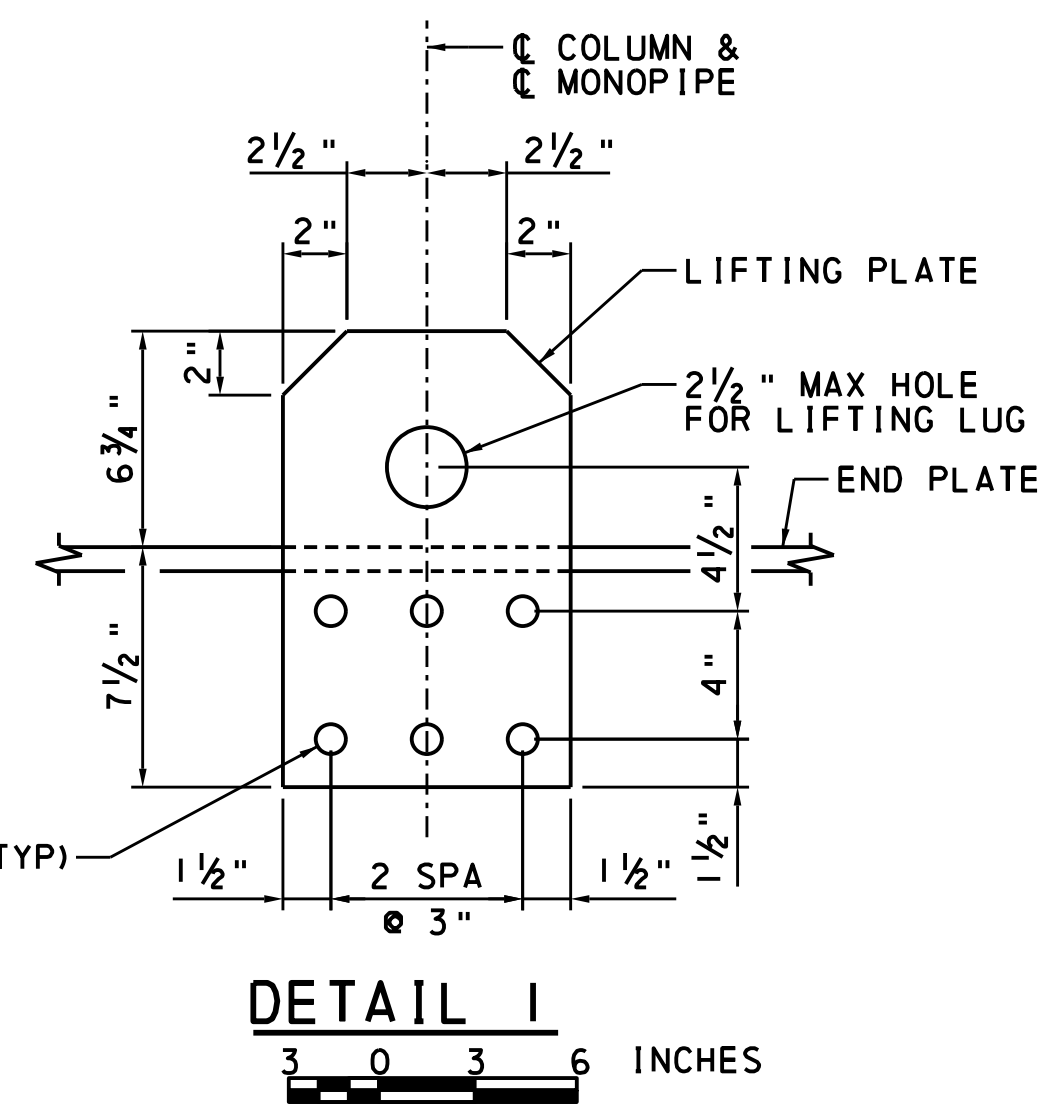
NOTE: DETAILS FOR CABLE TRAY AND CONDUIT SUPPORT WILL BE DETERMINED PER TOLL VENDER REQUIREMENTS.



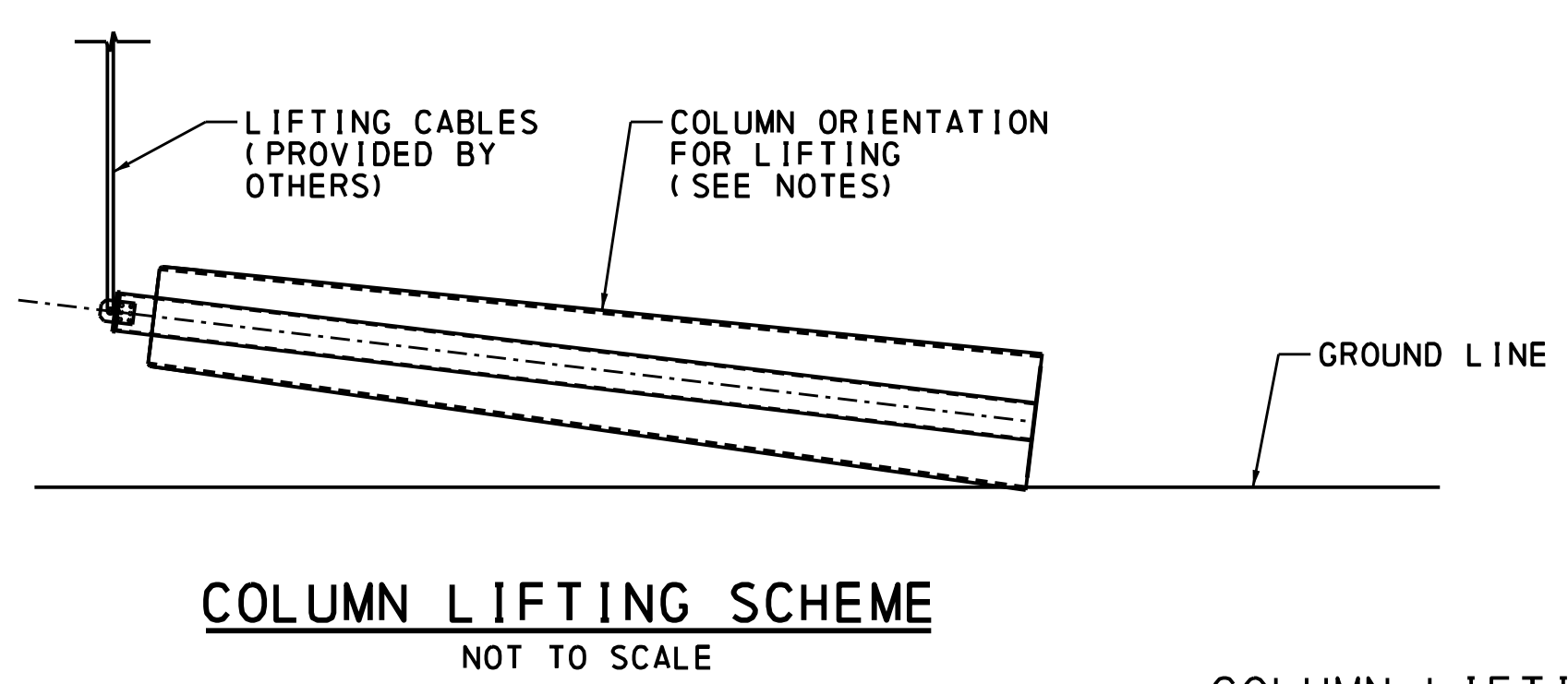
SECTION B-B
6 0 6 12 INCHES

NOTES:
1. AFTER COLUMN IS LIFTED AND SET IN PLACE, LIFTING AND FILL PLATES SHALL BE REMOVED. THE HOLES IN THE HSS SECTION SHALL THEN BE FILLED WITH HIGH STRENGTH BOLTS. THE THREADS SHALL BE ORIENTED SO THAT THEY ARE CAST INTO THE CONCRETE TO AVOID CONFLICT WITH THE CABLING IN THE HSS.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					



DETAIL 1
3 0 3 6 INCHES

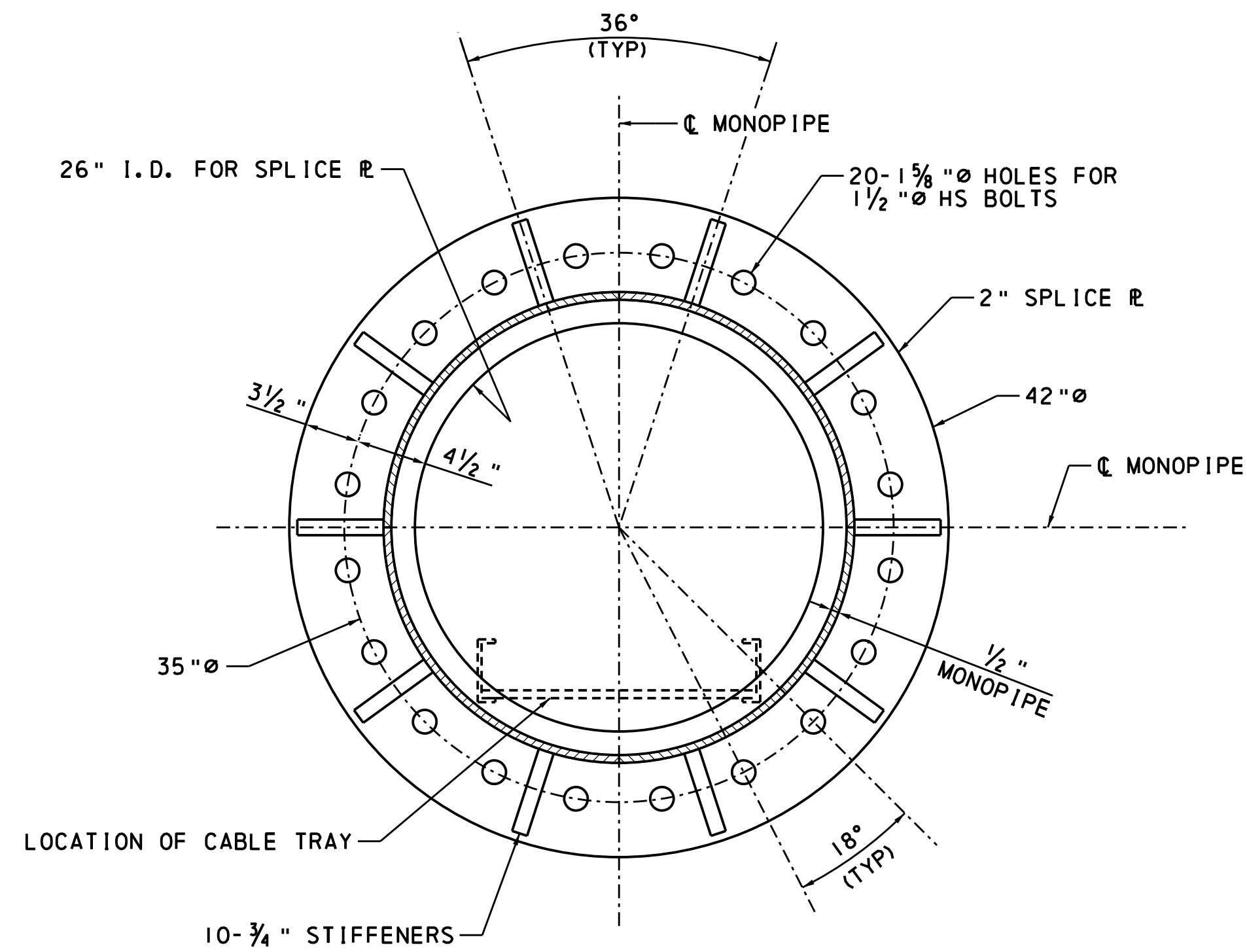


COLUMN LIFTING SCHEME
NOT TO SCALE

COLUMN LIFTING NOTES:
COLUMN SHALL BE LIFTED FROM TRUCK BED TO THE GROUND IN A HORIZONTAL POSITION USING TWO STRAPS. CONTRACTOR TO DETERMINE CENTER OF GRAVITY FOR CORRECT PLACEMENT OF STRAPS. COLUMN SHALL BE ORIENTED SO THAT THE LONG SIDE LAYS ON THE GROUND.
COLUMN SHALL BE TILTED INTO POSITION USING BOTH LIFTING LUGS SIMULTANEOUSLY.
IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE COLUMN'S AESTHETIC COATING DURING ALL STEPS OF THE LIFTING OPERATION.

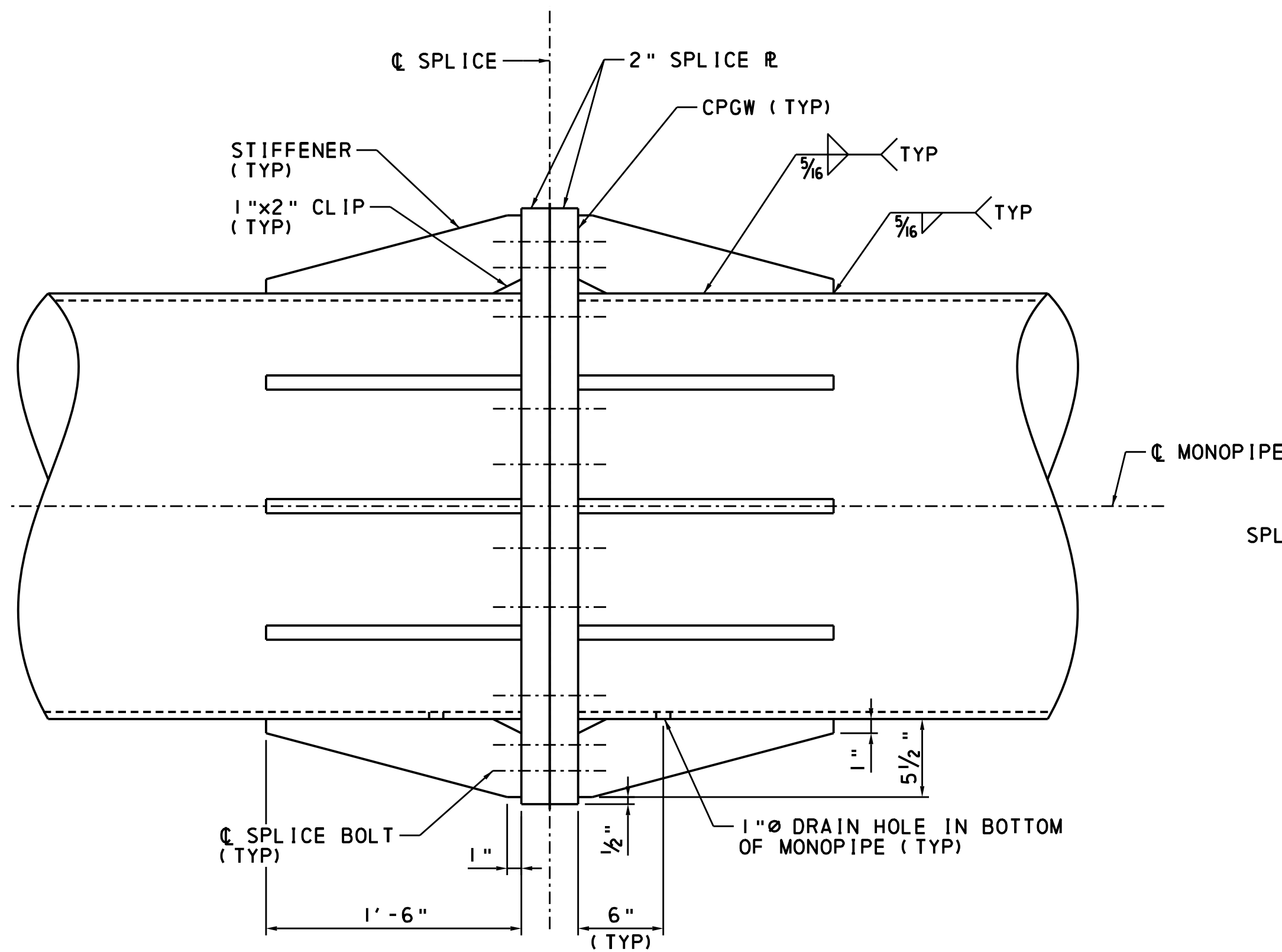
DPM	WSC	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION LUZERNE COUNTY SR 0080 SECTION 352 SR 0080 WB STA 856+42.49 EB 555+60.95 WB SEGMENT 2501 OFFSET 1897, EB SEGMENT 2500 OFFSET 1807 ORT GANTRY STRUCTURE MONOPIPE SUPPORT DETAILS		
RECOMMENDED _____	SHEET 10 OF 14	
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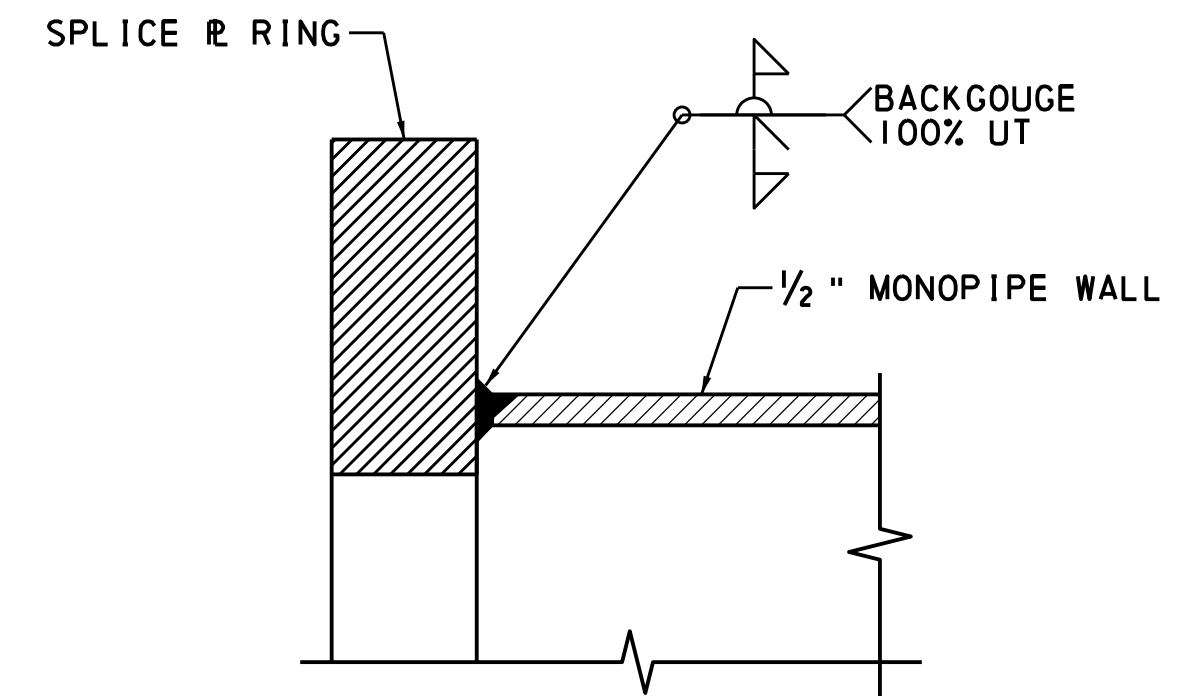
SPLICE PLATE FOR 30" MONOPIPE

6 0 6 INCHES



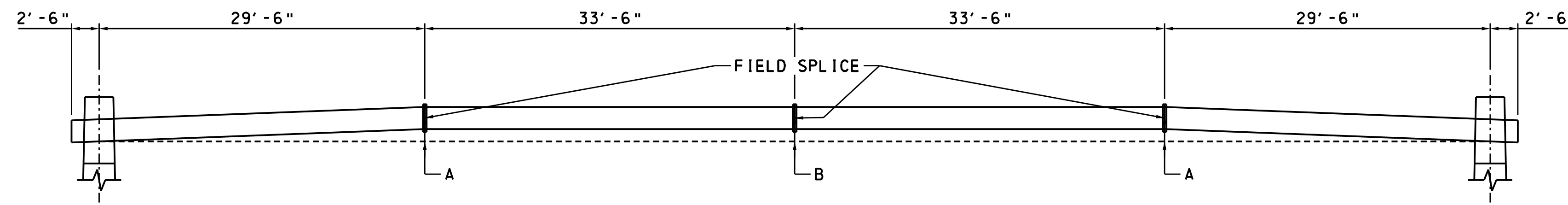
SPLICE ASSEMBLY DETAIL

6 0 6 INCHES



SPLICE PLATE WELD DETAIL

NOT TO SCALE



CAMBER DIAGRAM FOR 30" MONOPIPE

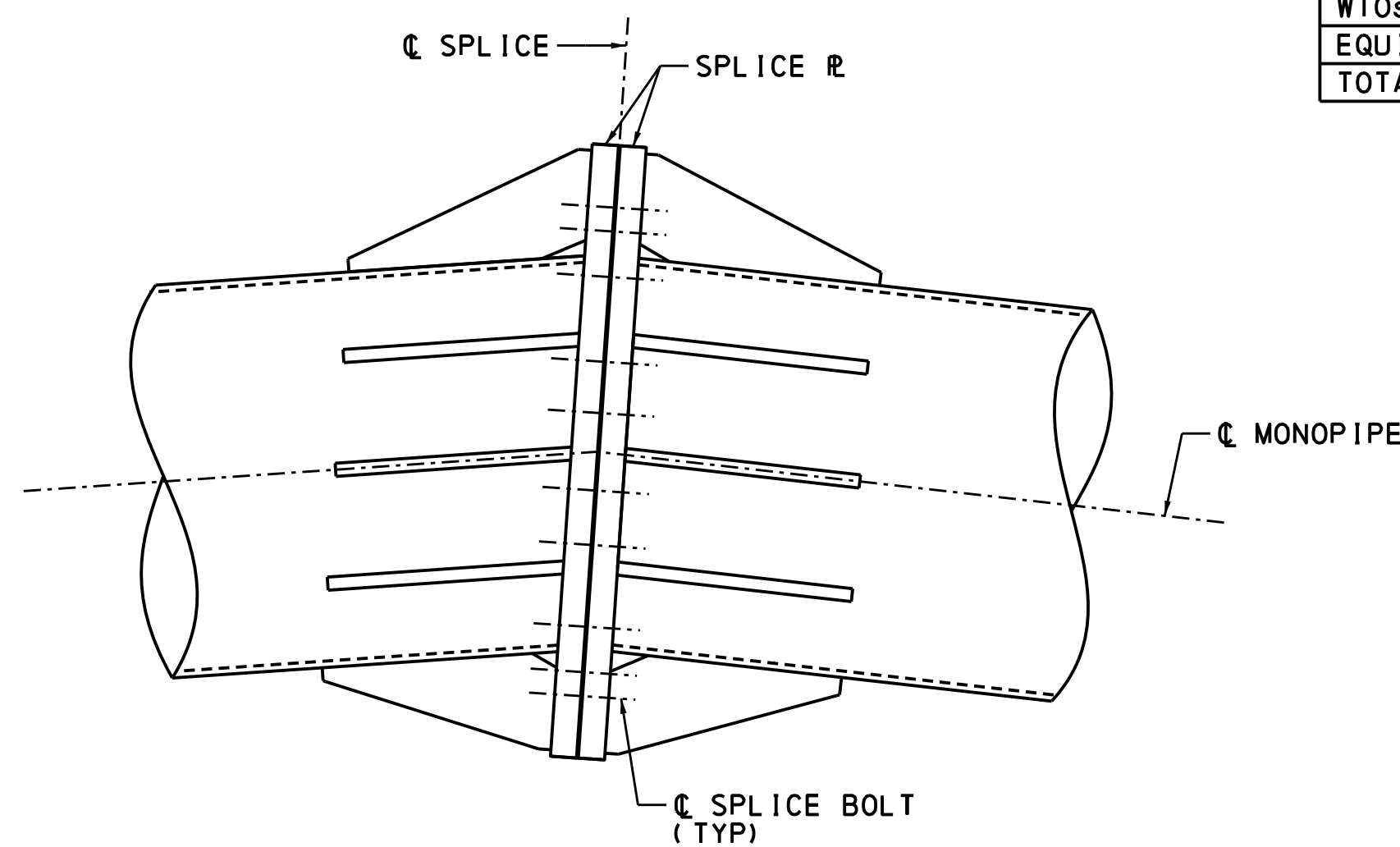
NOT TO SCALE

DEAD LOADS	CAMBER	
	A	B
30" MONOPIPE	4 9/16"	6 3/4"
W10s + SCH 40 PIPES + LIGHT ANGLES	2 1/8"	4 7/16"
EQUIPMENT + CABLES + TRAPEZE	2 7/8"	3 7/8"
TOTAL	9 1/2"	14 1/16"

NOTES:

- CABLE TRAY IS ASSUMED TO BE 18" WIDE AND SHALL BE PROVIDED WITH THE MONOPIPE.
- MONOPIPE ENDS SHALL BE CUT TO ACCOUNT FOR ANGLE REQUIRED BY CAMBER VALUES GIVEN IN THE TABLE.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					



SPLICE ELEVATION (SHOWN IN CAMBERED POSITION)

NOT TO SCALE

MM	NP	NAL	NP
DESIGNED	CHECKED	DRAWN	CHECKED

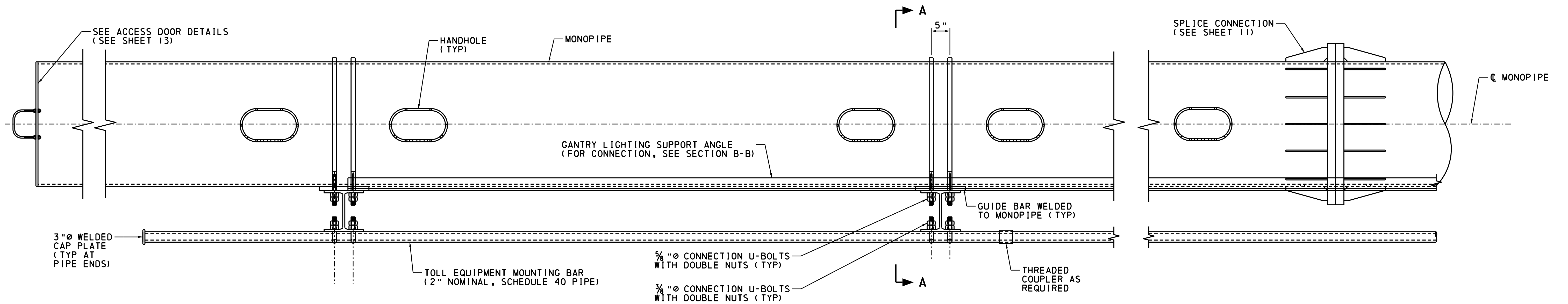
BMS 04-0080-XXXX-XXXX | MPMS XXXXX | BRKEY XXXXX

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

LUZERNE COUNTY
SR 0080 SECTION 352
SR 0080 WB STA 856+42.49 EB 555+60.95
WB SEGMENT 2501 OFFSET 1897,
EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE
SPLICE CONNECTION DETAILS & CAMBER TABLES

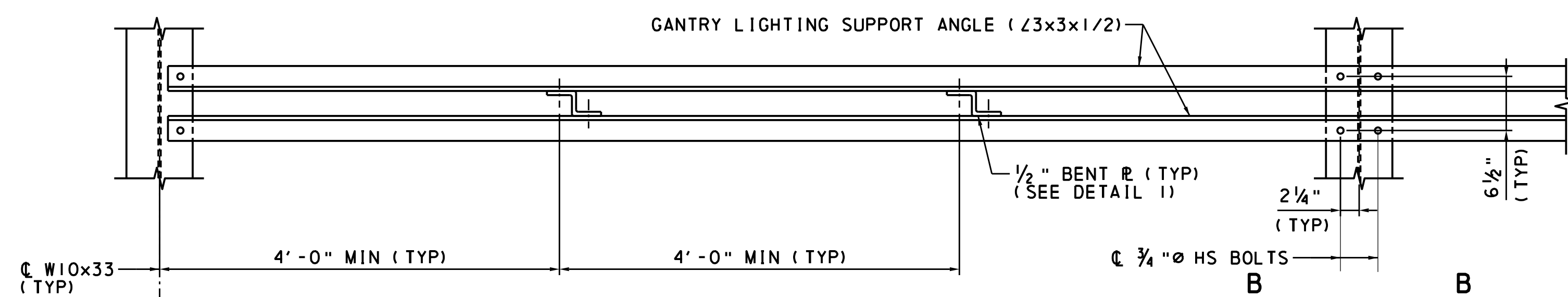
RECOMMENDED _____ SHEET 11 OF 14

S-XXXXX



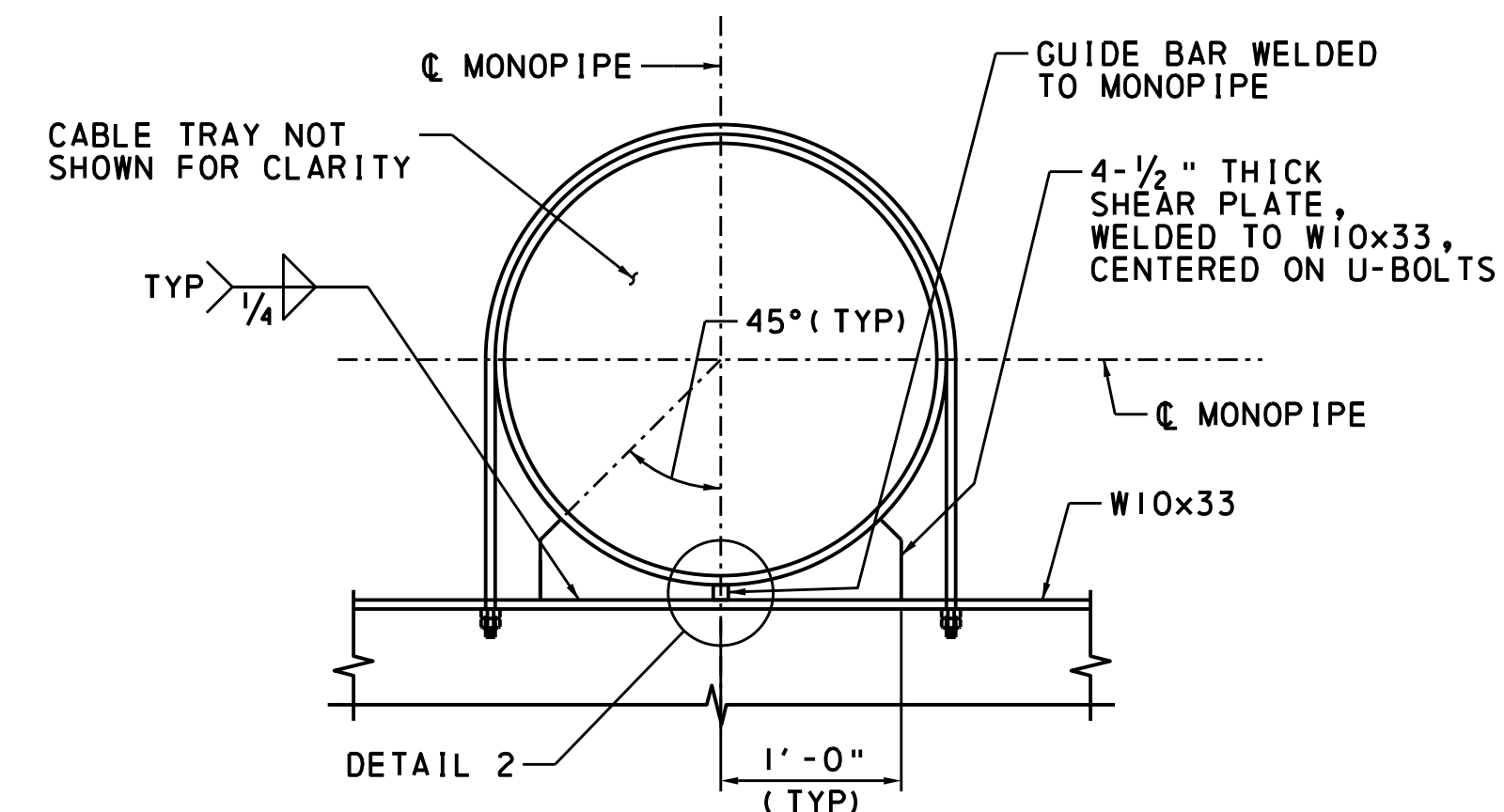
SECTION C-C MONOPIPE UTILITY SUPPORT ELEVATION

6 0 6 12 INCHES



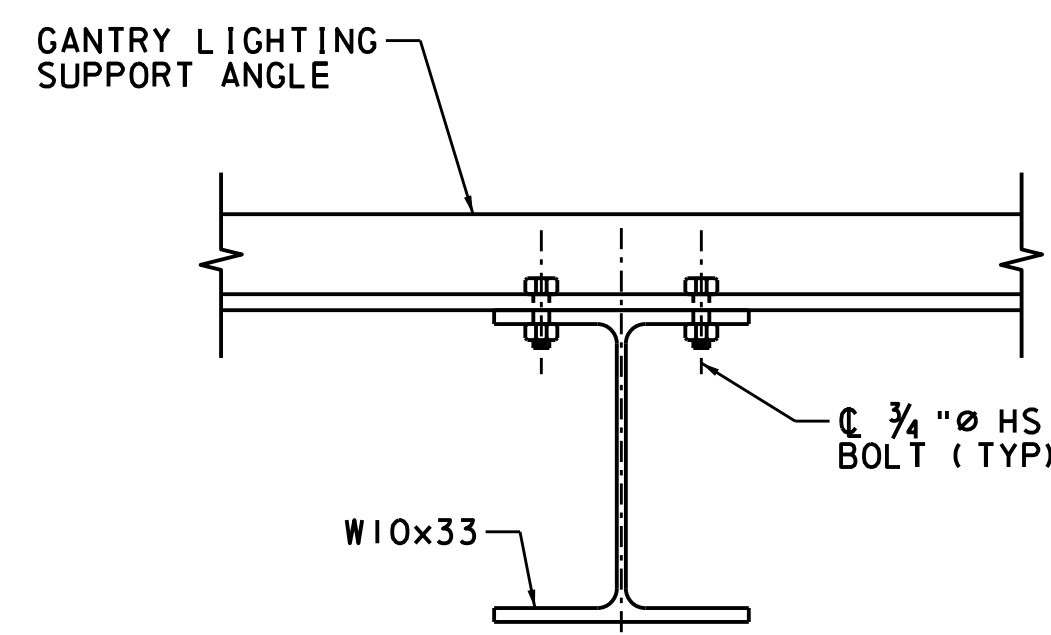
GANTRY LIGHTING SUPPORT PLAN

6 0 6 12 INCHES



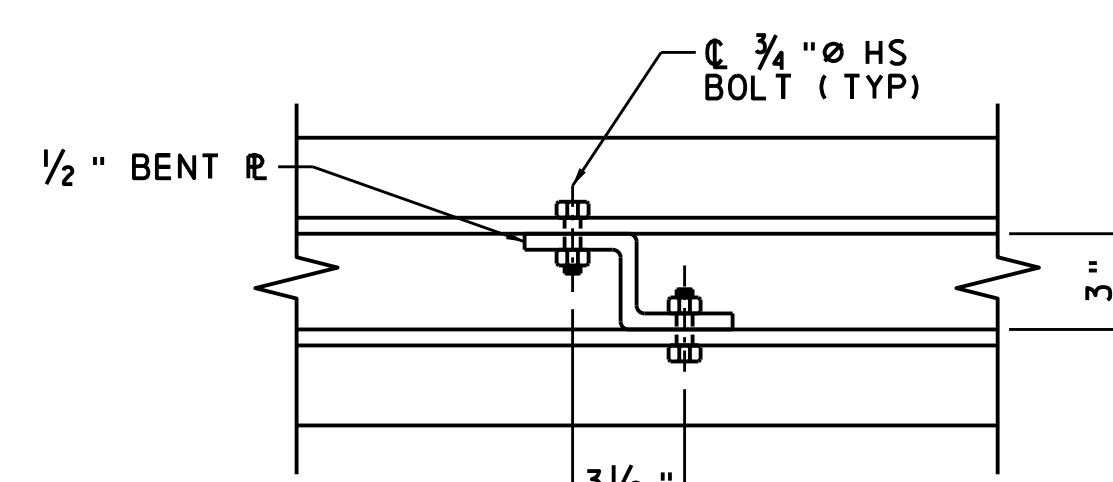
SECTION A-A

6 0 6 12 INCHES



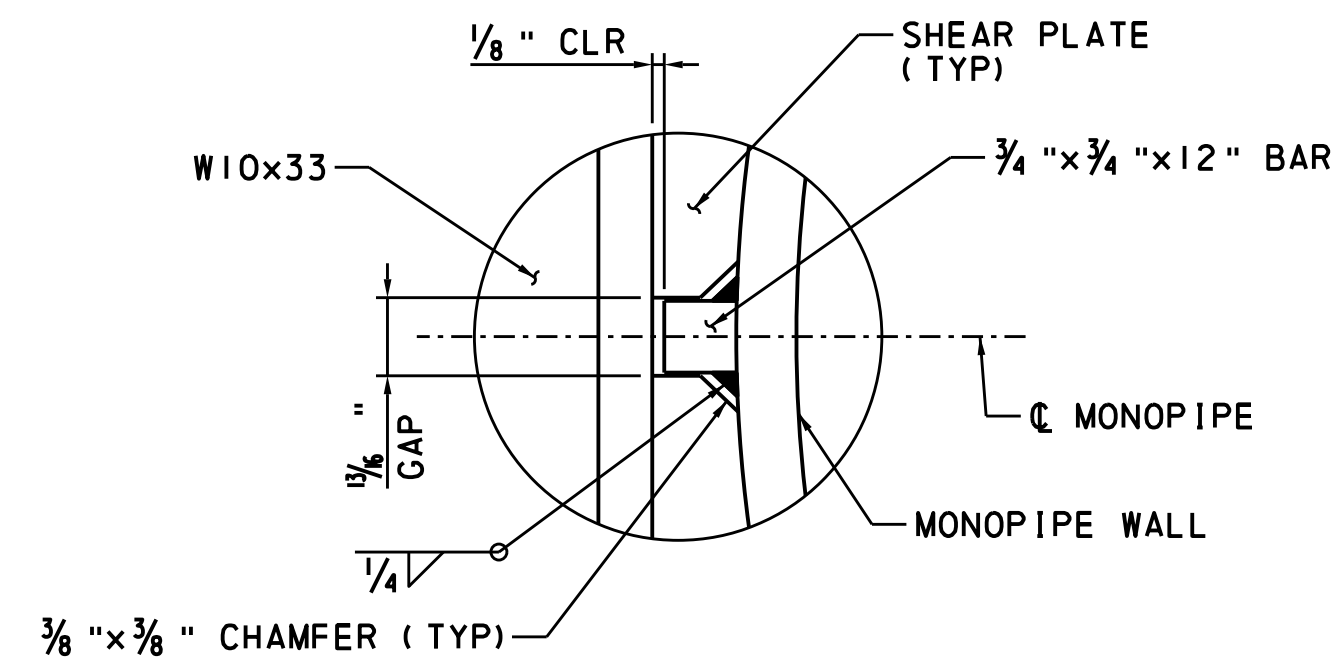
SECTION B-B

3 0 3 6 INCHES



DETAIL 1

3 0 3 6 INCHES



DETAIL 2

NOT TO SCALE

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

BMS 04-0080-XXXX-XXXX | MPMS XXXXX | BRKEY XXXXX

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

LUZERNE COUNTY
SR 0080 SECTION 352
SR 0080 WB STA 856+42.49 EB 555+60.95
WB SEGMENT 2501 OFFSET 1897,
EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE

TOLL EQUIPMENT SUPPORT DETAILS

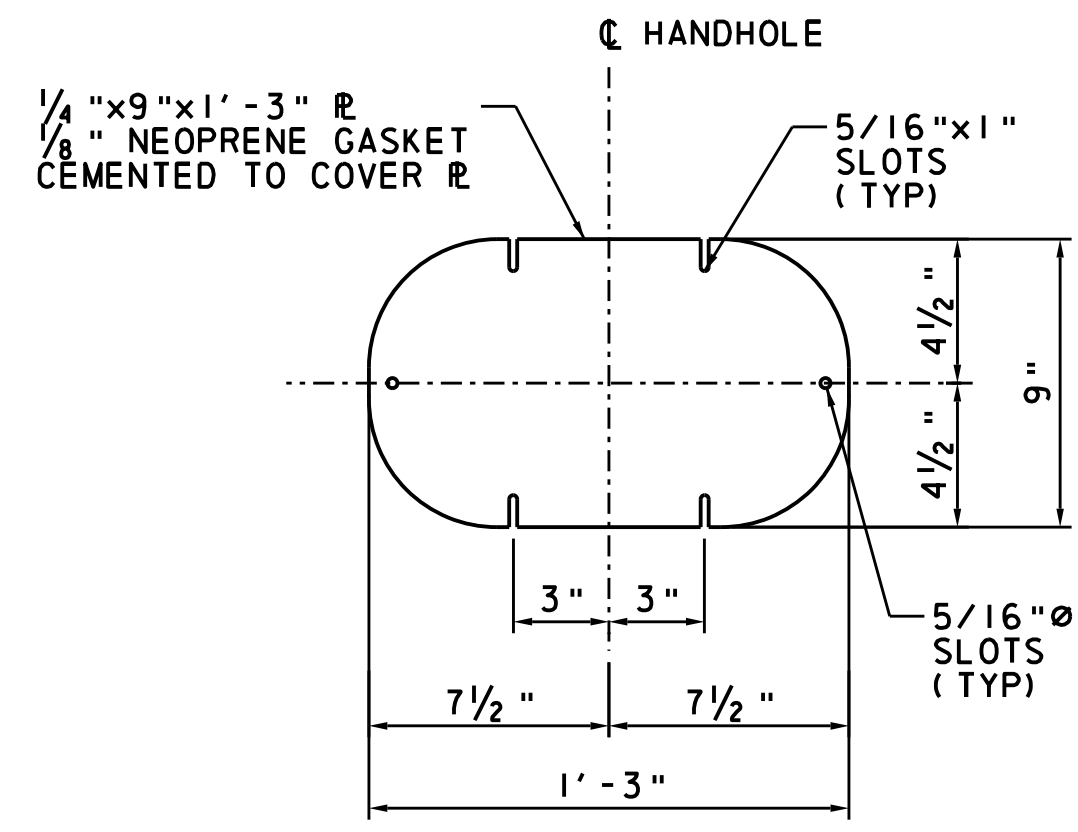
RECOMMENDED _____ SHEET 12 OF 14

S-XXXXX

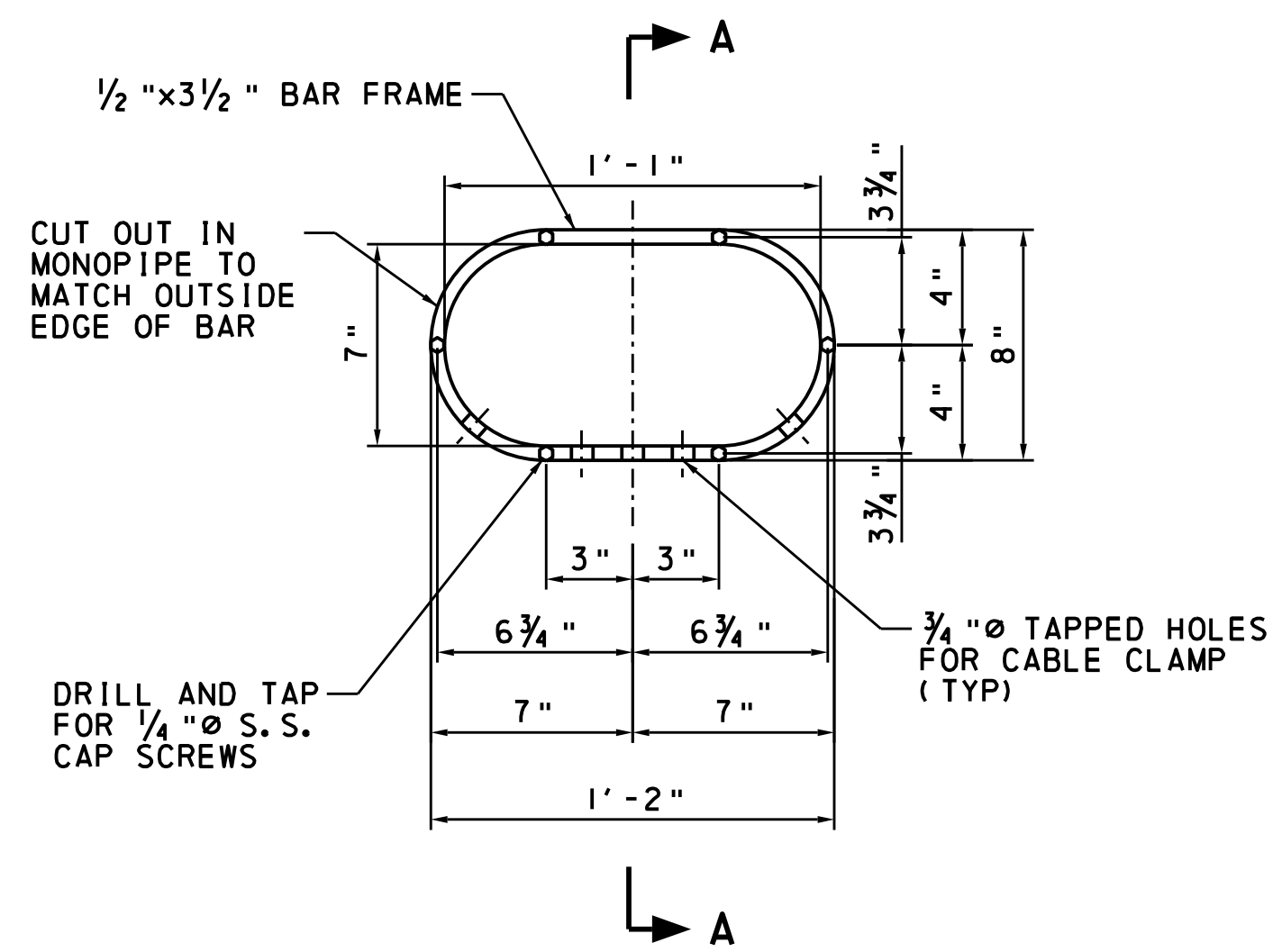
NOTES:

1. FOR SPLICE LOCATIONS, SEE SHEET 11.
2. FOR LOCATION AND NUMBER OF W10x33 SUPPORT BEAMS, SEE SHEET 1.
3. FOR HANDHOLE LOCATIONS, SEE SHEET 1.
4. FOR LOCATION OF SECTION C-C, SEE SHEET 2.

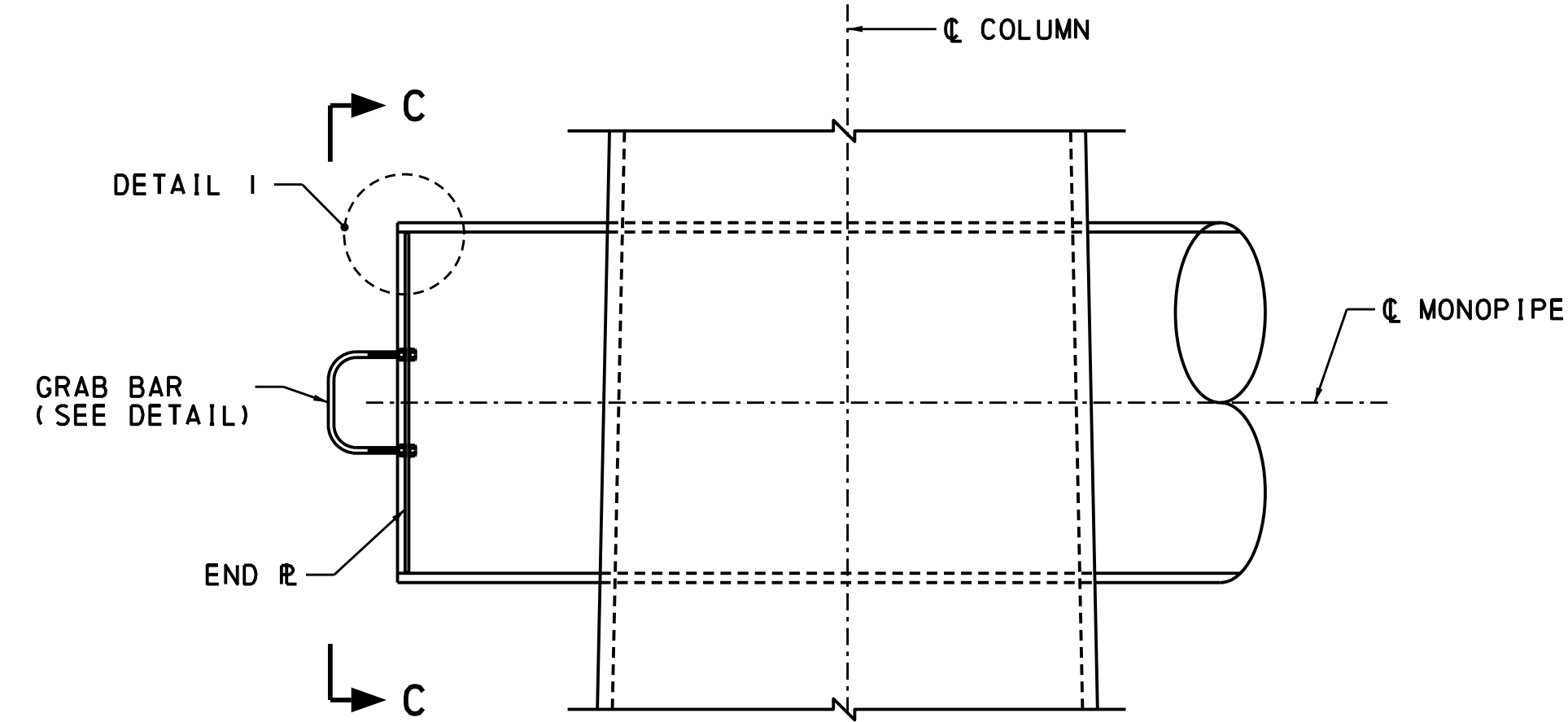
DPM	NP	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED



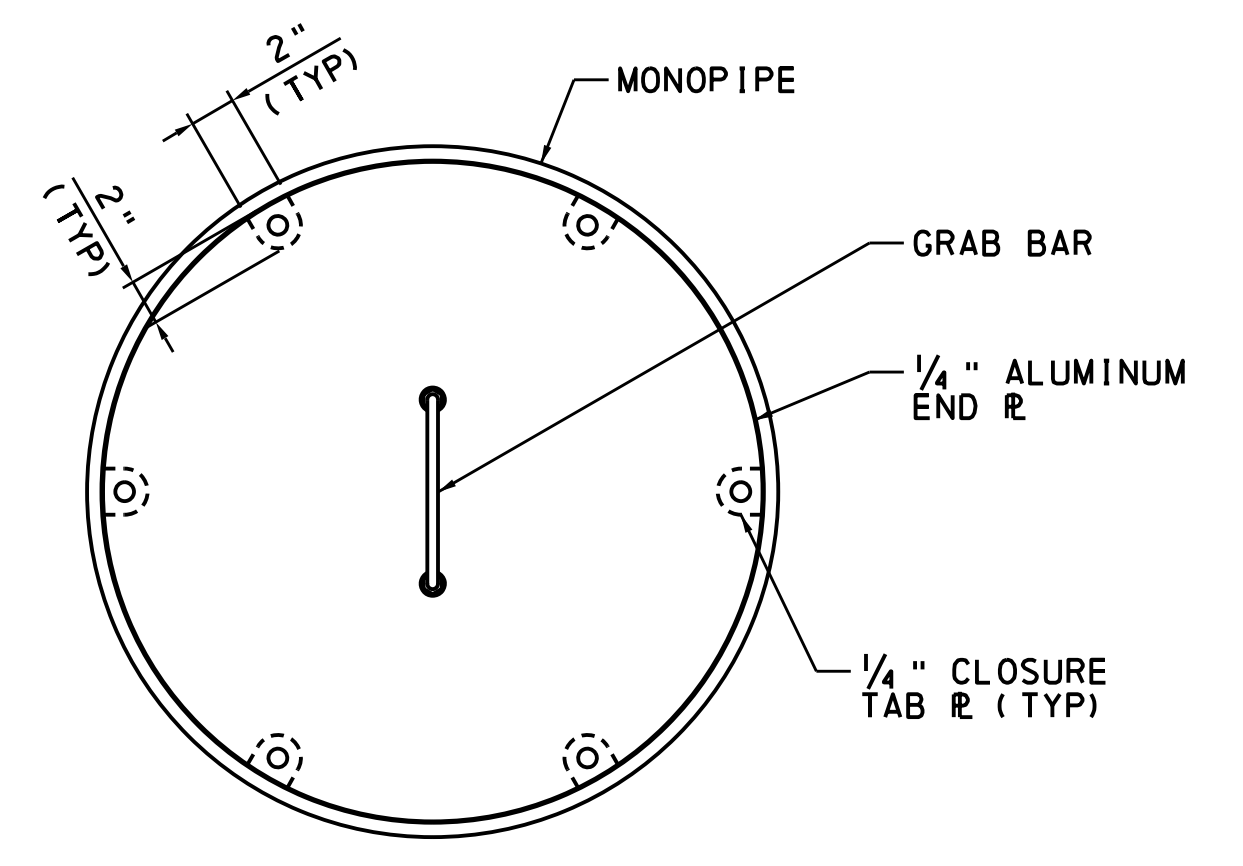
MONOPIPE HANDHOLE COVER PLATE DETAIL
NOT TO SCALE



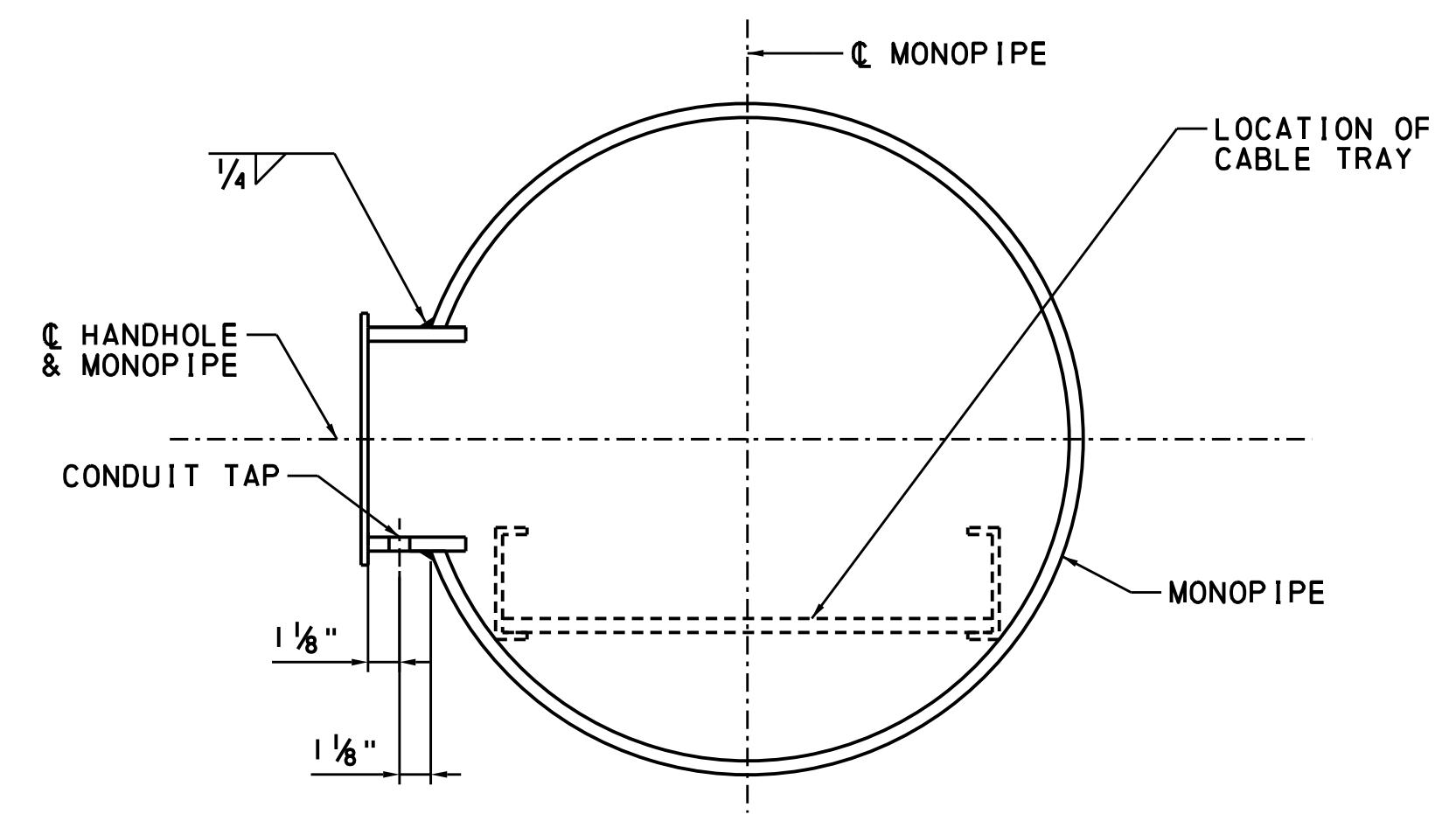
MONOPIPE HANDHOLE DETAIL
NOT TO SCALE



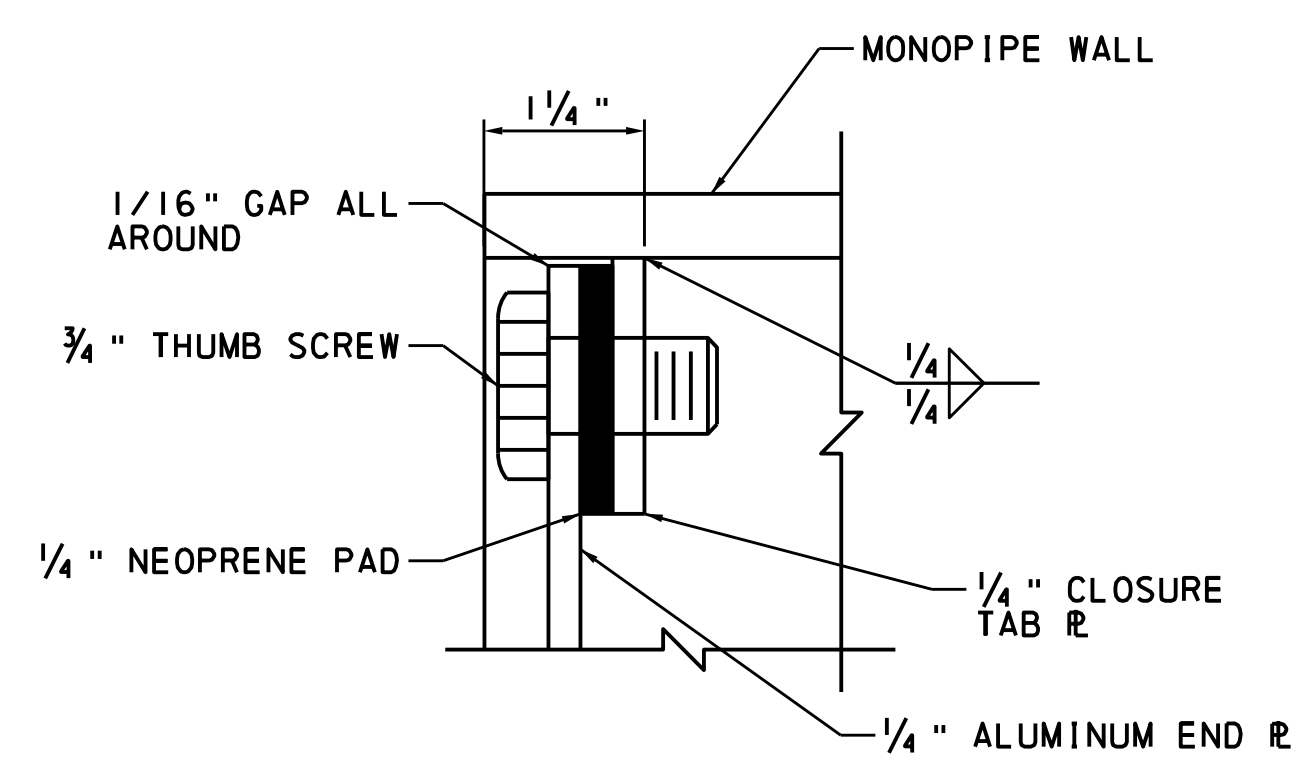
PARTIAL ELEVATION
NOT TO SCALE



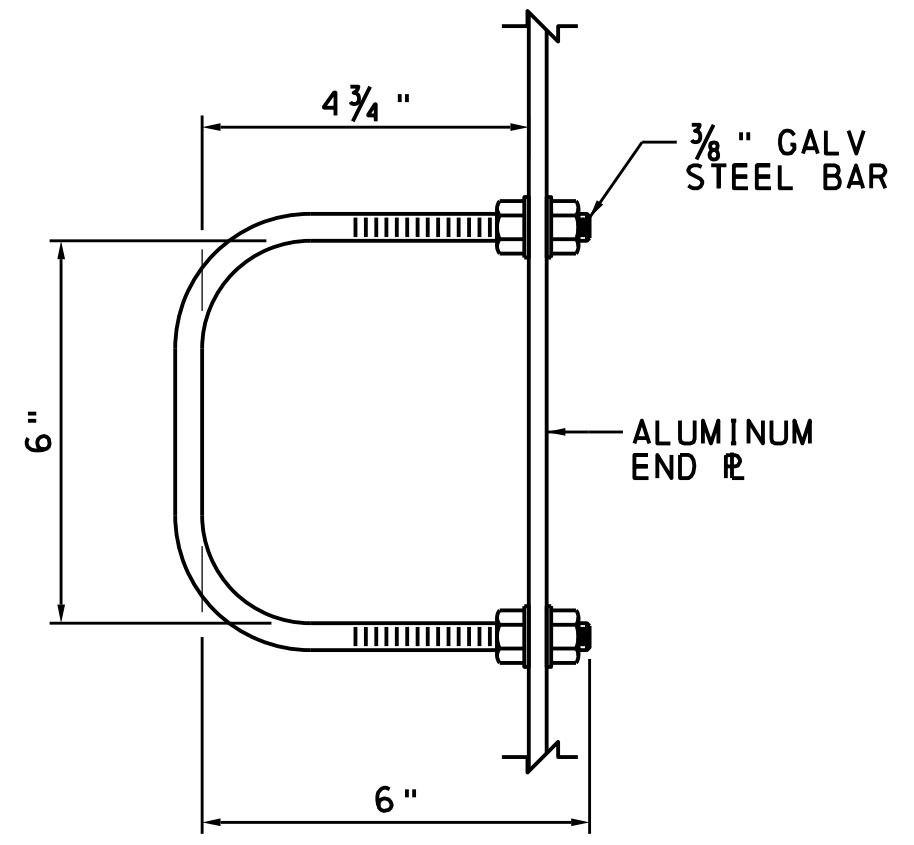
SECTION C-C
NOT TO SCALE



SECTION A-A - HANDHOLE
NOT TO SCALE



DETAIL I
NOT TO SCALE



GRAB BAR DETAIL
NOT TO SCALE

NOTES:
1. THE GRAB BAR SHALL BE ATTACHED USING GALVANIZED STEEL NUTS AND WASHERS.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

BMS 04-0080-XXXX-XXXX | MPMS XXXXX | BRKEY XXXXX

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

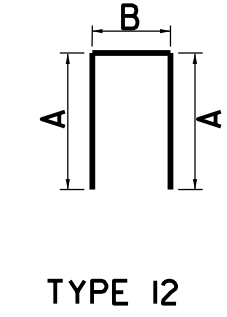
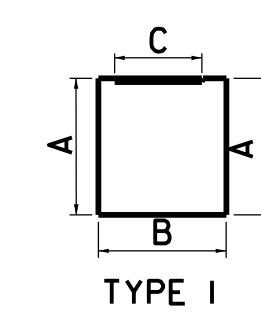
LUZERNE COUNTY
SR 0080 SECTION 352
SR 0080 WB STA 856+42.49 EB 555+60.95
WB SEGMENT 2501 OFFSET 1897,
EB SEGMENT 2500 OFFSET 1807
ORT GANTRY STRUCTURE

HANDHOLE AND ACCESS DOOR DETAILS

RECOMMENDED _____	SHEET <u>13</u> OF <u>14</u>
	S-XXXXX

DPM	NP	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

MARK	BAR SIZE	BAR TYPE	NUMBER OF BARS	LENGTH	A	B	C	D	E	F	R	COMMENTS
CIP CONCRETE COLUMN TOPS												
EC401	4	1	12	14'-6"	4'-5"	1'-11"	1'-10"					
				TO 15'-6"	TO 4'-8"	TO 2'-2"						
EC402	4	STR	16	4'-1"								
EC501	5	12	8	12'-8"	5'-6"	1'-8"						
EC502	5	12	6	15'-5"	5'-6"	4'-5"						
DRILLED CAISSONS												
TBD												
CIP FOOTING												
TBD												



Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

BMS 04-0080-XXXX-XXXX	MPMS XXXXX	BRKEY XXXXX
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION		
LUZERNE COUNTY SR 0080 SECTION 352 SR 0080 WB STA 856+42.49 EB 555+60.95 WB SEGMENT 2501 OFFSET 1897, EB SEGMENT 2500 OFFSET 1807 ORT GANTRY STRUCTURE REINFORCEMENT SCHEDULE		

RECOMMENDED _____	SHEET <u>14</u> OF <u>14</u>
S-XXXXX	

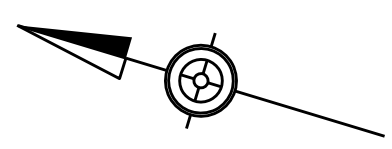
MM	DPM	NAL	DPM
DESIGNED	CHECKED	DRAWN	CHECKED

9/22/2021
PLOTTED:

BRIDGE OPEN ROAD TOLLING UTILITY BUILDING

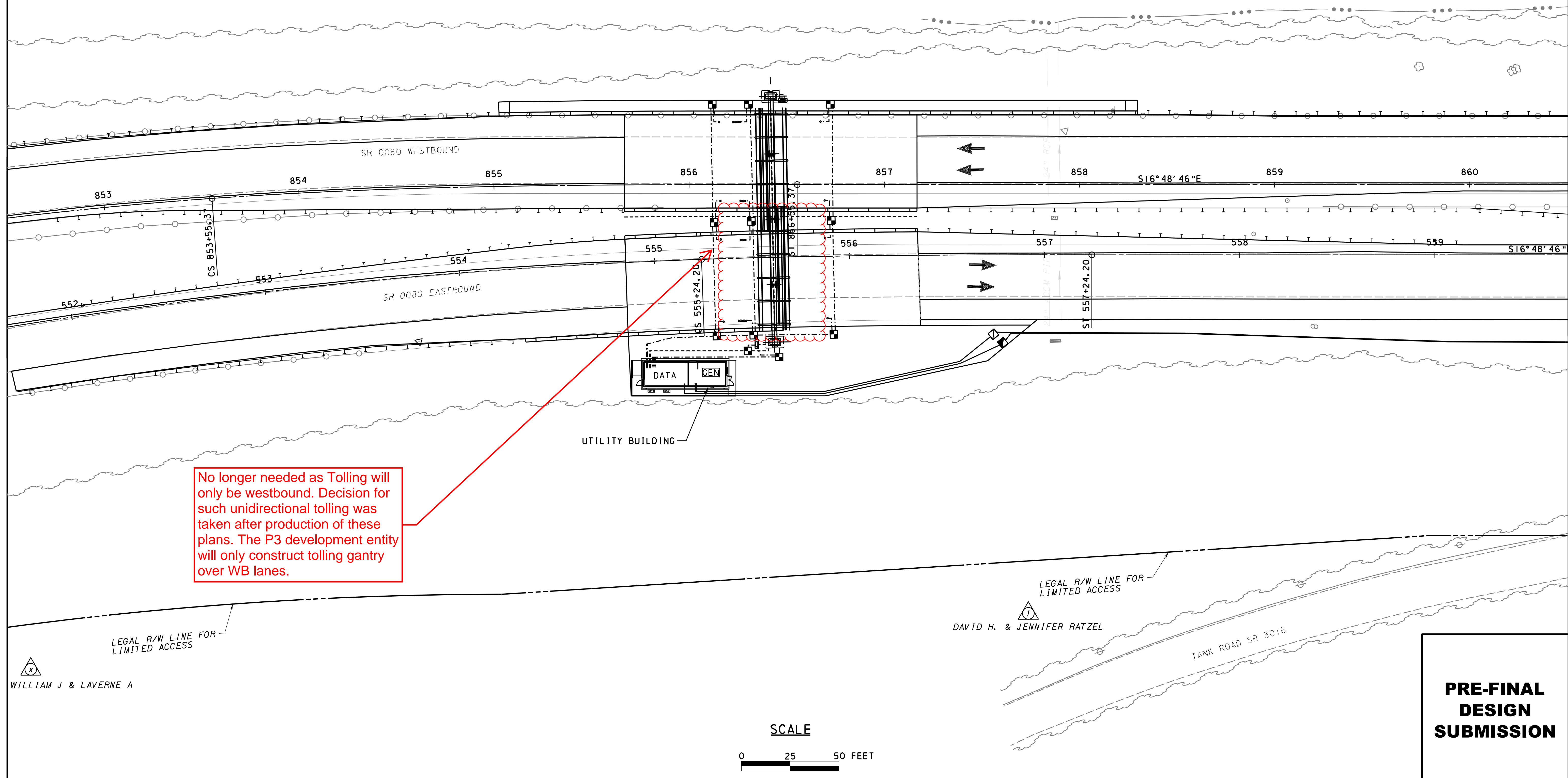
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	1 OF 15	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTRE, BLACK CREEK, NESCOPECK AND SUGARLOAF TOWNSHIPS



Toll Facility Plans are being updated. Decision has been made to toll in westbound direction only. The P3 Development Entity will construct tolling gantry over westbound lanes only.

SHEET INDEX	
DESCRIPTION	SHEET(S)
TITLE SHEET	1
ARCHITECTURAL	2-6
MECHANICAL	7-8
ELECTRICAL	9-15



No longer needed as Tolling will only be westbound. Decision for such unidirectional tolling was taken after production of these plans. The P3 development entity will only construct tolling gantry over WB lanes.

**PRE-FINAL
DESIGN
SUBMISSION**

40080352_ARCH11.01.dgn

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	LPT	LOW POINT
ACT	ACOUSTICAL CEILING TILE	MFD	MANUFACTURED
ALUM	ALUMINUM	MFR	MANUFACTURER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MAS	MASONRY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MO	MASONRY OPENING
L	ANGLE	MECH	MECHANICAL
ARCH	ARCHITECTURAL, ARCHITECT	MTL	METAL
BL	BASE LINE	MT	METAL THRESHOLD
BM	BEAM	MIN	MINIMUM
BRG	BEARING	MR	MOISTURE RESISTANT
BD	BOARD	MTD	MOUNTED
BOT	BOTTOM	MJ	MOVEMENT JOINT
BLDG	BUILDING	NCOMBL	NON-COMBUSTIBLE
BUR	BUILT UP ROOF	NA	NOT APPLICABLE
CLG	CEILING	NIC	NOT IN CONTRACT
CLG HT	CEILING HEIGHT	NTS	NOT TO SCALE
CTR	CENTER	NO	NUMBER
CL	CENTER LINE	OC	ON CENTER
CLR	CLEAR	OPNG	OPENING
CLO	CLOSET	OPP	OPPOSITE
CONC	CONCRETE	OPH	OPPOSITE HAND
CMU	CONCRETE MASONRY UNIT	OD	OUTSIDE DIAMETER, OUTSIDE
CON	CONNECT	PT	PAINT, PAINTED, PRESSURE TREATED
CONSTR	CONSTRUCTION	PR	PAIR
CONT	CONTINUE	PLYWD	PLYWOOD
CONTR	CONTRACT, CONTRACTOR	POL	POLISHED
CJ	CONTROL JOINT	PSF	POUNDS PER SQUARE FOOT
D	DEEP, DEPTH	PSI	POUNDS PER SQUARE INCH
DEMO	DEMOLISH, DEMOLITION	PREFIN	PREFINISHED
DET	DETAIL	PROJ	PROJECT, PROJECTED
DEC	DETENTION EQUIPMENT CONTRACTOR	R	RADIUS
DIAG	DIAGONAL	RWC	RAIN WATER CONDUCTOR
DIA	DIAMETER	RWL	RAIN WATER LEADER
DIM	DIMENSION	REF	REFERENCE
DR	DOOR	RCP	REFLECTED CEILING PLAN
DWG	DRAWING	REINF	REINFORCING
EA	EACH	REQD	REQUIRED
EW	EACH WAY	REV	REVERSE, REVISED, REVISION
EWC	ELECTRIC WATER COOLER	RHR	RIGHT HAND REVERSE
ELEC	ELECTRIC, ELECTRICAL	RD	ROOF DRAIN
EL	ELEVATION	RL	ROOF LADDER
EQ	EQUAL	RTU	ROOF TOP UNIT
EQUIP	EQUIPMENT	RM	ROOM
EXIST	EXISTING	RO	ROUGH OPENING
EJ	EXPANSION JOINT	SCHED	SCHEDULED
EXP	EXPANSION, EXPOSED	SECT	SECTION
EXT	EXTERIOR	SHT	SHEET
EIFS	EXTERIOR INSULATION FINISH SYSTEM	SIM	SIMILAR
FRP	FIBER REINFORCED PLASTIC/ POLYMER	SGL	SINGLE
FIN	FINISH	SPEC	SPECIFICATION
FIN FLR	FINISH FLOOR	SF	SQUARE FOOT/FEET
FF EL	FINISH FLOOR ELEVATION	SST	STAINLESS STEEL
FE	FIRE EXTINGUISHER	STD	STANDARD
FEC	FIRE EXTINGUISHER CABINET	STL	STEEL
FHC	FIRE HOSE CABINET	STRUC	STRUCTURAL
FR	FIRE RATING	SUSP	SUSPENDED
FD	FLOOR DRAIN	SYMM	SYMMETRICAL
FLR	FLOOR, FILLER	SYS	SYSTEM
FTG	FOOTING	TEMP	TEMPORARY
FDTN	FOUNDATION	TPO	THERMOPLASTIC POLYOLEFIN
GALV	GALVANIZED	THK	THICK, THICKNESS
GA	GAUGE	THRES	THRESHOLD
GC	GENERAL CONTRACTOR	TOM	TOP OF MASONRY
GYP BD	GYPSUM BOARD	TOS	TOP OF STEEL
HC	HANDICAP	TOW	TOP OF WALL
HCP	HANDICAPPED	TYP	TYPICAL
HDW	HARDWARE	UL	UNDERWRITERS LABORATORIES
HVAC	HEATING VENTILATION AND AIR CONDITIONING	UNO	UNLESS NOTED OTHERWISE
HT	HEIGHT	UTIL	UTILITY
HDPE	HIGH DENSITY POLYETHYLENE	VTR	VENT THROUGH ROOF
HM	HOLLOW METAL	VERT	VERTICAL
HORIZ	HORIZONTAL	VEST	VESTIBULE
ID	INSIDE DIAMETER	WSCOT	WAINSCOT
INSUL	INSULATION	WT	WEIGHT
INT	INTERIOR	W/	WITH
IBC	INTERNATIONAL BUILDING CODE	WD	WOOD
LT	LIGHT	WKPT	WORKING POINT

SYMBOLS LEGEND

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
DRAWING BLOCK TITLE MARK		ROOM NAME INDICATOR	
WALL SECTION MARK		COLUMN GRID IDENTIFICATION	
BUILDING SECTION MARK		DOOR IDENTIFICATION	
DETAIL INDICATOR		WINDOW IDENTIFICATION	
EXTERIOR ELEVATION MARK		WALL TYPE IDENTIFICATION	
EXTERIOR ELEVATION MARK (W/ MULTIPLE VIEWS SHOWN)		KEYNOTE IDENTIFICATION	
DATUM POINT IDENTIFICATION		REVISION IDENTIFICATION	

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	2 OF 15
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

GENERAL NOTES

- UTILITY BUILDING: CONCRETE STRUCTURE TO BE CAST-IN-PLACE: 8" CONCRETE W/ 3 1/2" STUD INTERIOR FURRING, MINERAL WOOL CAVITY INSULATION & 3/4" PAINTED PLYWOOD INTERIOR FINISH. FINAL WALL DESIGN DELEGATED TO CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF COLD REFORMED METAL FRAMING CLERESTORY & ROOF FRAMING, ACM FASCIA & SOFFIT, STANDING STEAM ROOF SYSTEM, GUTTERS, DOWNSPOUTS, SIGNAGE, AND ALL ASSOCIATED SYSTEM - STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND EQUIPMENT.
- REFER TO STRUCTURAL DRAWINGS FOR FOUNDATIONS AND EQUIPMENT PADS.
- ALL DIMENSIONS ARE TO THE OUTER SURFACE OF ALL MATERIALS UNLESS OTHERWISE NOTED.
- COORDINATE ALL THRU FLOOR AND WALL PENETRATIONS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND COMMUNICATIONS CONDUIT. COORDINATE WITH TOLL SYSTEM INTEGRATOR.
- COORDINATE ALL LOCATIONS AND SIZES OF LOUVERS AND OPENINGS WITH MECHANICAL DRAWINGS.
- EXAMPLE EQUIPMENT SHOWN FOR INFORMATION PURPOSES ONLY, FINAL EQUIPMENT AND LAYOUT TO BE DETERMINED AND COORDINATED WITH TOLL SYSTEM INTEGRATOR

BUILDING CODE REQUIREMENTS

THE BUILDING SHALL COMPLY TO THE LATEST EDITION OF THE FOLLOWING CODES, STANDARDS, AND REGULATIONS ADOPTED BY THE STATE OF PENNSYLVANIA

CODE	CURRENT	ADOPTED CODE	EDITION
BUILDING	BUILDING CODE 2015 OF PENNSYLVANIA	INTERNATIONAL BUILDING CODE	2015 EDITION (W/ AMENDMENTS)
ENERGY CONSERVATION	ENERGY CONSERVATION CODE 2015 OF PA	INTERNATIONAL ENERGY CONSERVATION CODE	2015 EDITION (W/ AMENDMENTS)
PLUMBING	PLUMBING CODE 2015 OF PENNSYLVANIA	INTERNATIONAL PLUMBING CODE	2015 EDITION (W/O AMENDMENTS)
MECHANICAL	MECHANICAL CODE 2015 OF PENNSYLVANIA	INTERNATIONAL MECHANICAL CODE	2015 EDITION (W/O AMENDMENTS)
FUEL GAS	FUEL GAS CODE 2015 OF PENNSYLVANIA	INTERNATIONAL FUEL GAS CODE	2015 EDITION (W/ AMENDMENTS)
FIRE	FIRE CODE 2015 OF PENNSYLVANIA	INTERNATIONAL FIRE CODE	2015 EDITION (W/ AMENDMENTS)
ELECTRICAL	NATIONAL ELECTRIC CODE	NATIONAL ELECTRIC CODE	2020 EDITION
STRUCTURAL CONCRETE	BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE OF PENNSYLVANIA ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES 2009 OF PENNSYLVANIA	ACI 318 A117.1	2014 EDITION (W/AMENDMENTS) 2009 EDITION (W/O AMENDMENTS)
OTHER	FACILITIES 2009 OF PENNSYLVANIA AMERICANS WITH DISABILITIES ACT STANDARDS	ADA STANDARDS FOR ACCESSIBLE DESIGN	2010 EDITION (W/O AMENDMENTS)
OTHER	PERFORMANCE CODE FOR BUILDINGS AND FACILITIES 2009 OF PENNSYLVANIA	ICC PERFORMANCE CODE	2009 EDITION (W/O AMENDMENTS)
OSHA	RECORD KEEPING	OSHA 1904 RECORD KEEPING	CURRENT EDITION
OSHA	GENERAL INDUSTRY	OSHA 1910 GENERAL INDUSTRY	CURRENT EDITION
OSHA	CONSTRUCTION	OSHA 1926 CONSTRUCTION	CURRENT EDITION

BUILDING INFORMATION

BUILDING TYPE	CONSTRUCTION	AREA	SECTION
UTILITY BUILDING	NEW BUILDING	630.52 SF	N/A

OCCUPANCY CLASSIFICATION (IBC 302)

OCCUPANCY	CLASSIFICATION	NOTES	SECTION
UTILITY BUILDING	U - UTILITY	DATA & EMERGENCY GENERATOR	312.1

GENERAL BUILDING HEIGHT AND AREA (IBC 503)

OCCUPANCY CLASSIFICATION	FOOTNOTES	TYPE OF CONSTRUCTION	SECTION
UTILITY BUILDING	NOT REQUIRED - EXCEPTION- SECTION 903.2	TYPE 2-B NON SPRINKLERED	TABLE 504.3

TYPES OF CONSTRUCTION - II B- NONCOMBUSTIBLE (IBC 601)

ELEMENT	RATING	NOTES	SECTION
PRIMARY STRUCTURE	0 HRS	--	TABLE 601
BEARING WALLS	0 HRS	--	TABLE 601
NON-BEARING WALLS-INTERIOR	0 HRS	--	TABLE 601
FLOOR CONSTRUCTION	0 HRS	--	TABLE 601
ROOF CONSTRUCTION	0 HRS	--	TABLE 601

INTERIOR FINISHES (IBC 803)

NON-SPRINKLERED BUILDINGS			
USE GROUP	INTERIOR EXIT STAIRWAYS, RAMPS & EXIT PASSAGEWAYS	CORRIDORS & ENCLOSURES FOR EXIT ACCESS STAIRWAYS & RAMPS	SECTION
U	0 HRS	--	TABLE 803.11

OCCUPANT LOAD (IBC 10)

NON-SPRINKLERED BUILDINGS			
USE GROUP	FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	SECTION
U	DATA AND EMERGENCY GENERATOR	300 GROSS SF/OCCUPANT	TABLE 1006.3.1

COMMON PATH OF EGRESS TRAVEL REQUIRED (IBC 10)

NON -SPRINKLERED BUILDINGS			
USE GROUP	MAXIMUM OCCUPANT LOAD OF SPACE	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE	SECTION
U	49 OCCUPANTS	100 FEET	TABLE 1006.2.1

EXTERIOR WALL OPENINGS (IBC 705)

FIRE SEPARATION DISTANCE	% OF ALLOWABLE AREAS PROTECTED OPENINGS	SECTION
0-3 FEET	NONE PERMITTED	TABLE 705.8
3-5 FEET	15%	TABLE 705.8
5-10 FEET	25%	TABLE 705.8
10-15 FEET	45%	TABLE 705.8
15-20 FEET	75%	TABLE 705.8
20-25 FEET	NO LIMIT	TABLE 705.8
25-30 FEET	NO LIMIT	TABLE 705.8
>30 FEET	NO LIMIT	TABLE 705.8

GENERAL NOTES, ABBREVIATIONS, SYMBOLS & LEGENDS A-001

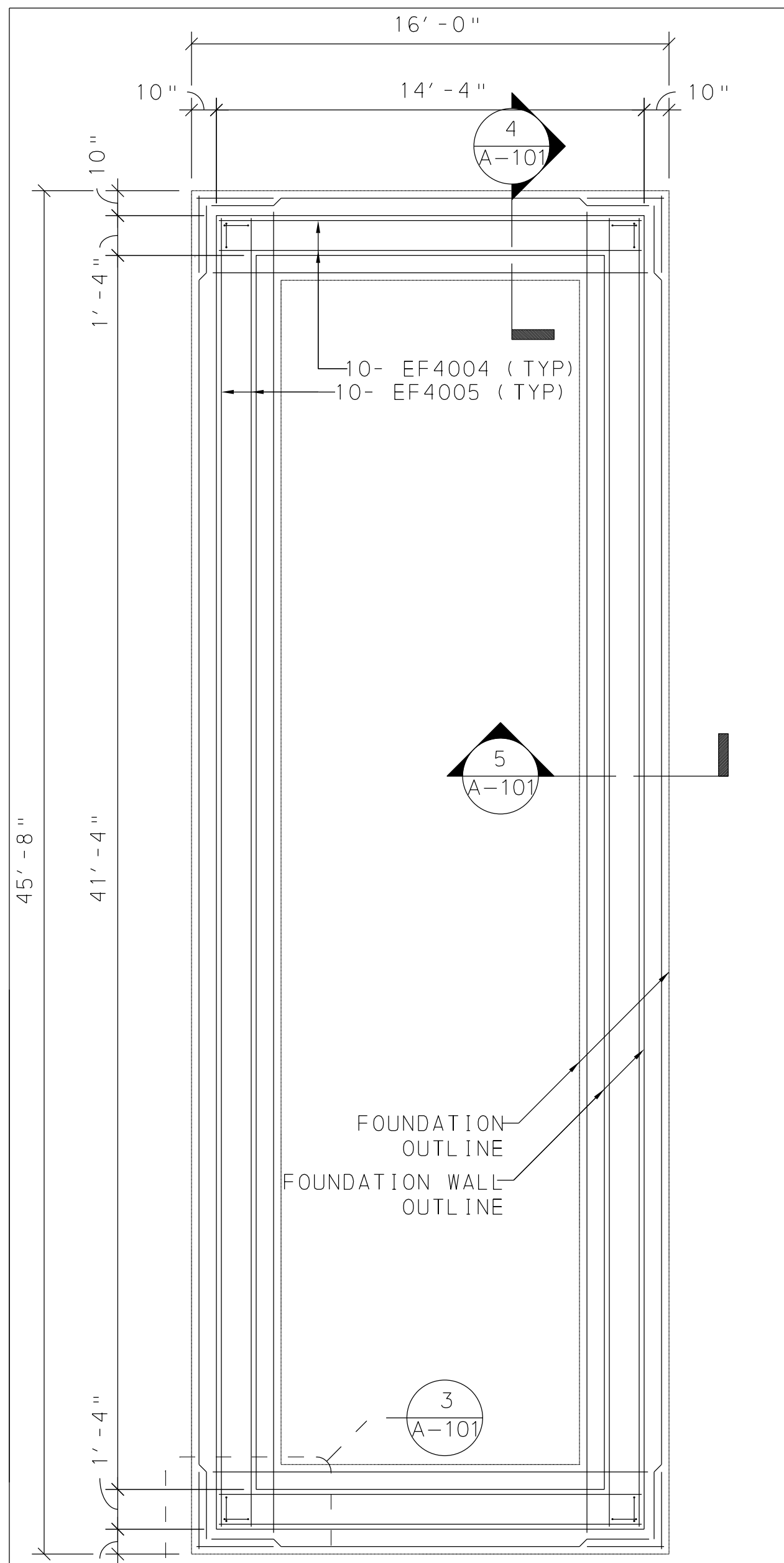
PRE-FINAL DESIGN SUBMISSION

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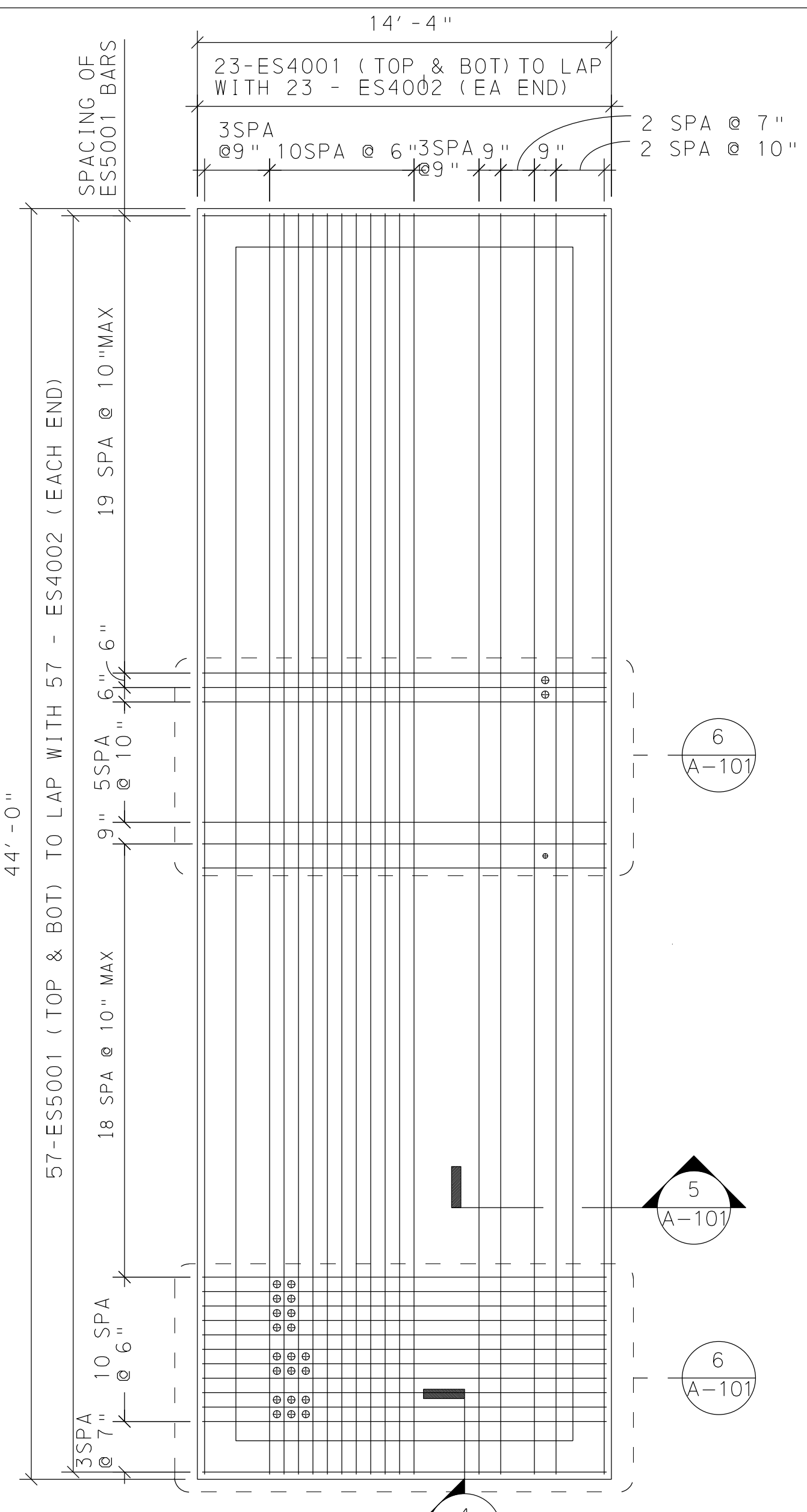
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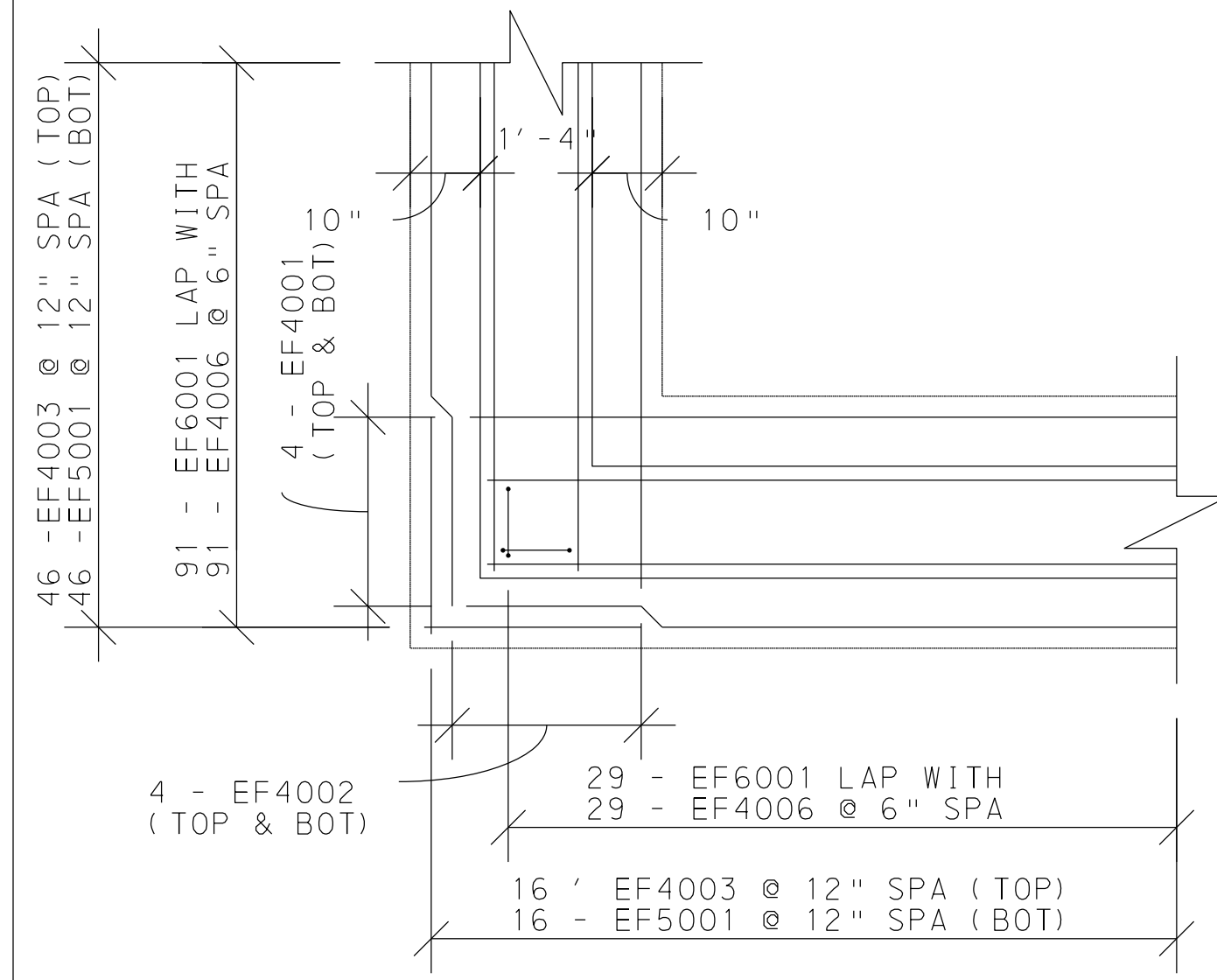
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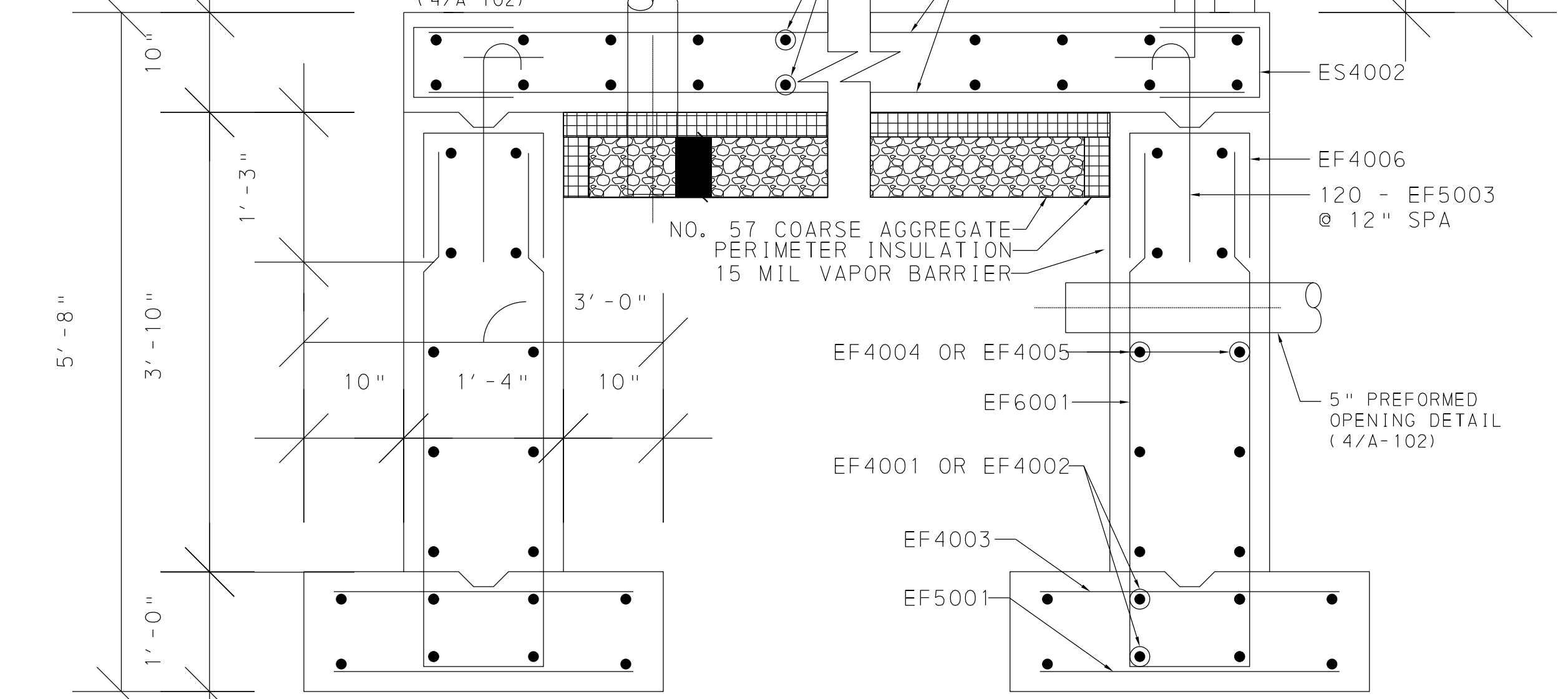
1 FOUNDATION WALL PLAN
1/4" = 1'-0"



2 SLAB PLAN
1/4" = 1'-0"



3 FOUNDATION WALL CORNER DETAIL
1/2" = 1'-0"

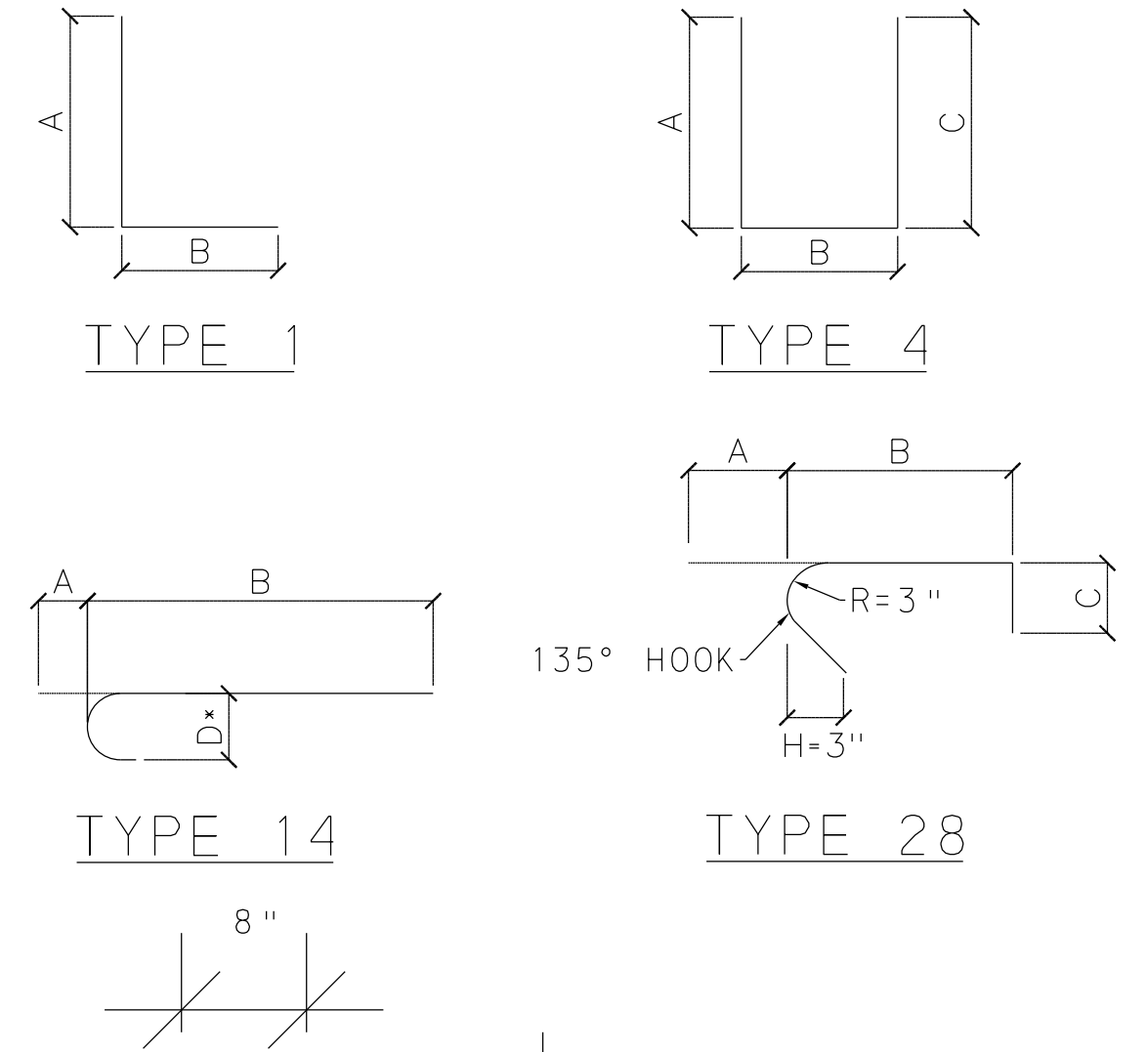


4 FOUNDATION WALL SECTION
1" = 1'-0"

5 BUILDING WALL SECTION
1" = 1'-0"

NOTES

- "E" IN BAR MARKS INDICATES EPOXY COATED BARS.
- "F" IN BAR MARKS INDICATES FOOTING BARS.
- "S" IN BAR MARKS INDICATES SLAB BARS.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE STANDARD DRAWINGS BC-736M.

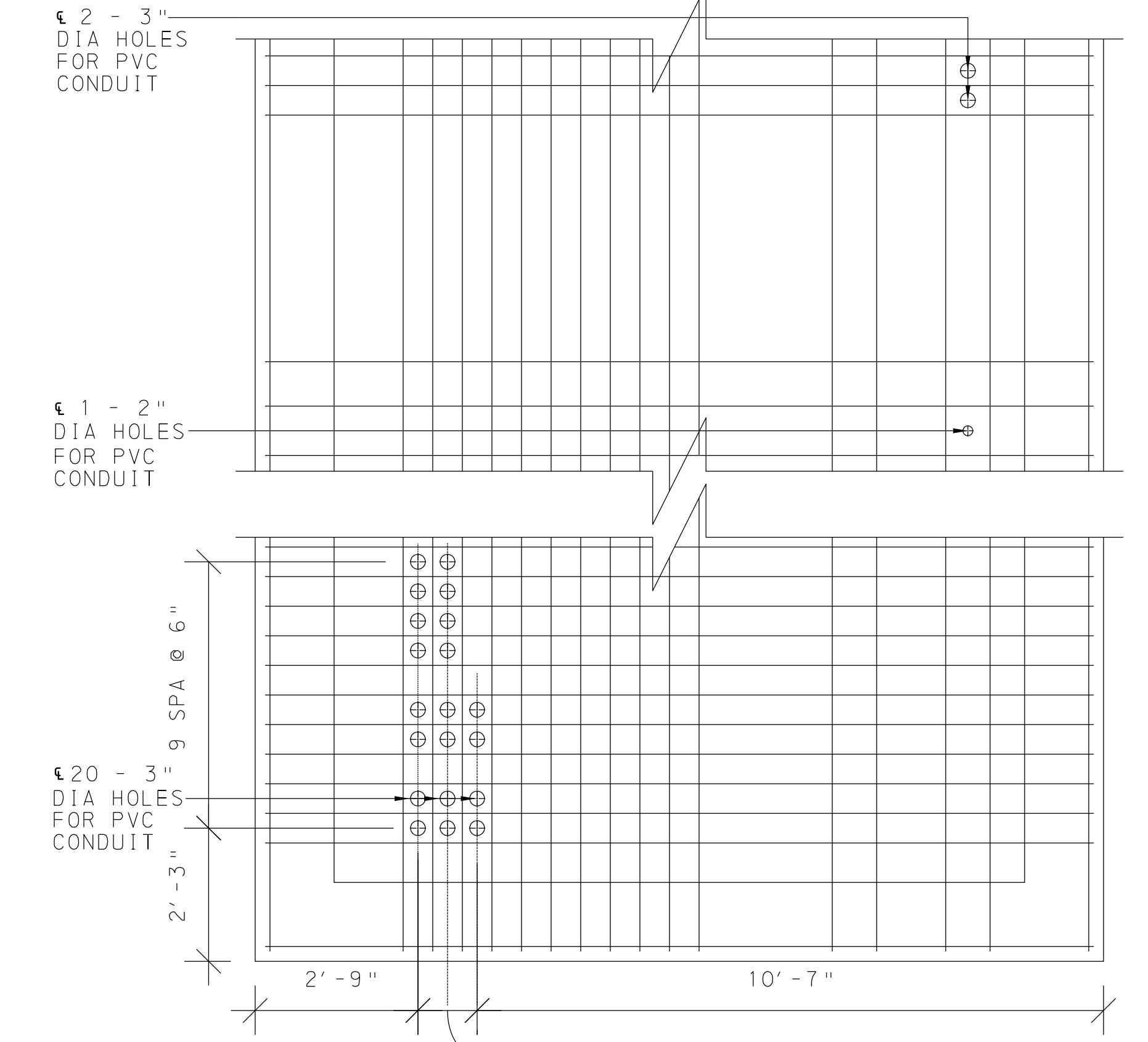


DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	3 OF 15	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

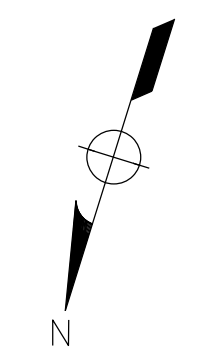
** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

BUILDING SLAB, FOUNDATION, AND WALL

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSION				REMARKS
					A	B	C	D	
EF4001	4	16	15'-4"	STR					
EF4002	4	16	45'-0"	STR					
EF4003	4	124	2'-6"	STR					
EF4004	4	20	14'-0"	STR					
EF4005	4	20	43'-8"	STR					
EF4006	4	240	2'-10"	4	1'-0"	10"	1'-0"		
EF5001	5	124	2'-6"	STR					
EF5003	5	120	2'-4"	14	7"	1'-9"		3 3/4"	
EF6001	6	240	9'-6"	4	4'-4"	10"	4'-4"		
ES4001	4	46	43'-8"	STR					
ES4002	4	160	2'-4"	4	1'-0"	4"	1'-0"		
ES5001	5	114	14'-0"	STR					
EW5001	5	116	3'-10"	1	3'-0"	10"			
EW5002	5	116	9'-8"	STR					
EW5003	5	22	13'-10"	STR					
EW5004	5	22	43'-6"	STR					
EW5005	5	44	5'-0"	1	2'-6"	2'-6"			



6 CONDUIT HOLE SPACING DETAIL
1/2" = 1'-0"



BUILDING FOUNDATION AND SLAB DETAIL

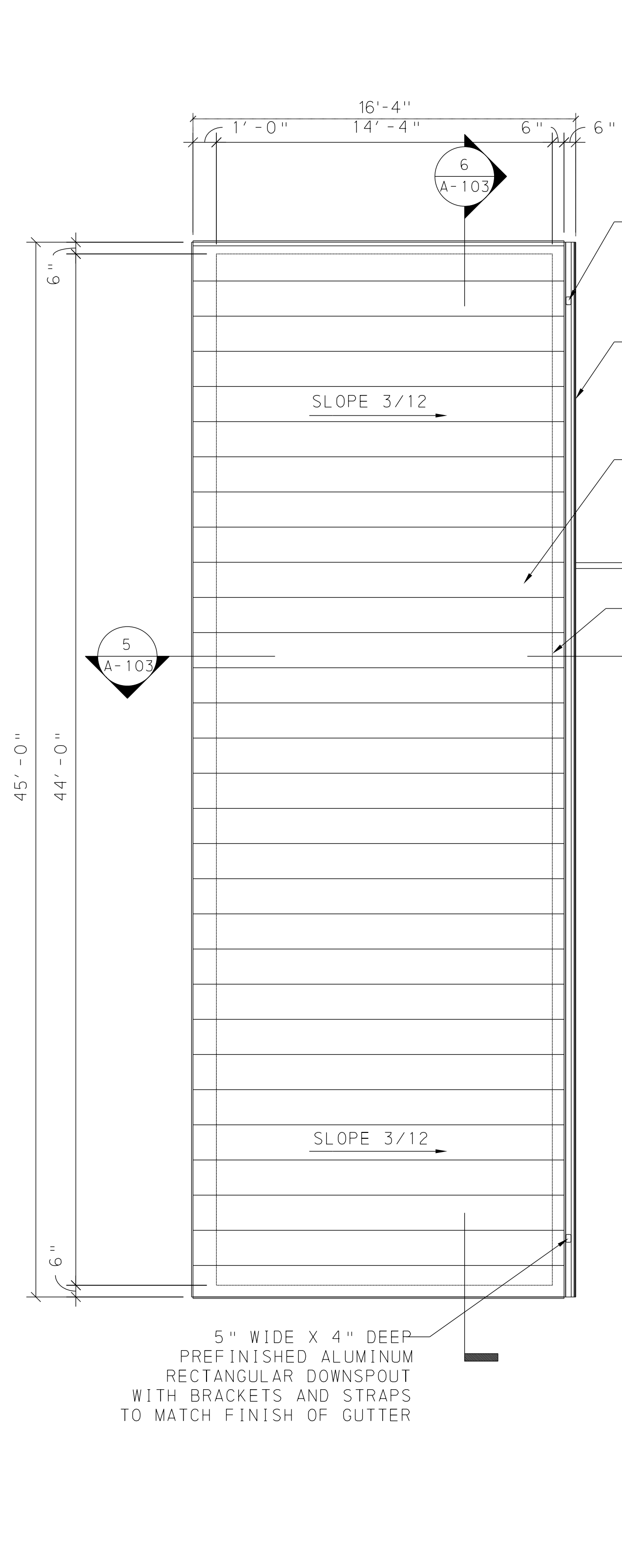
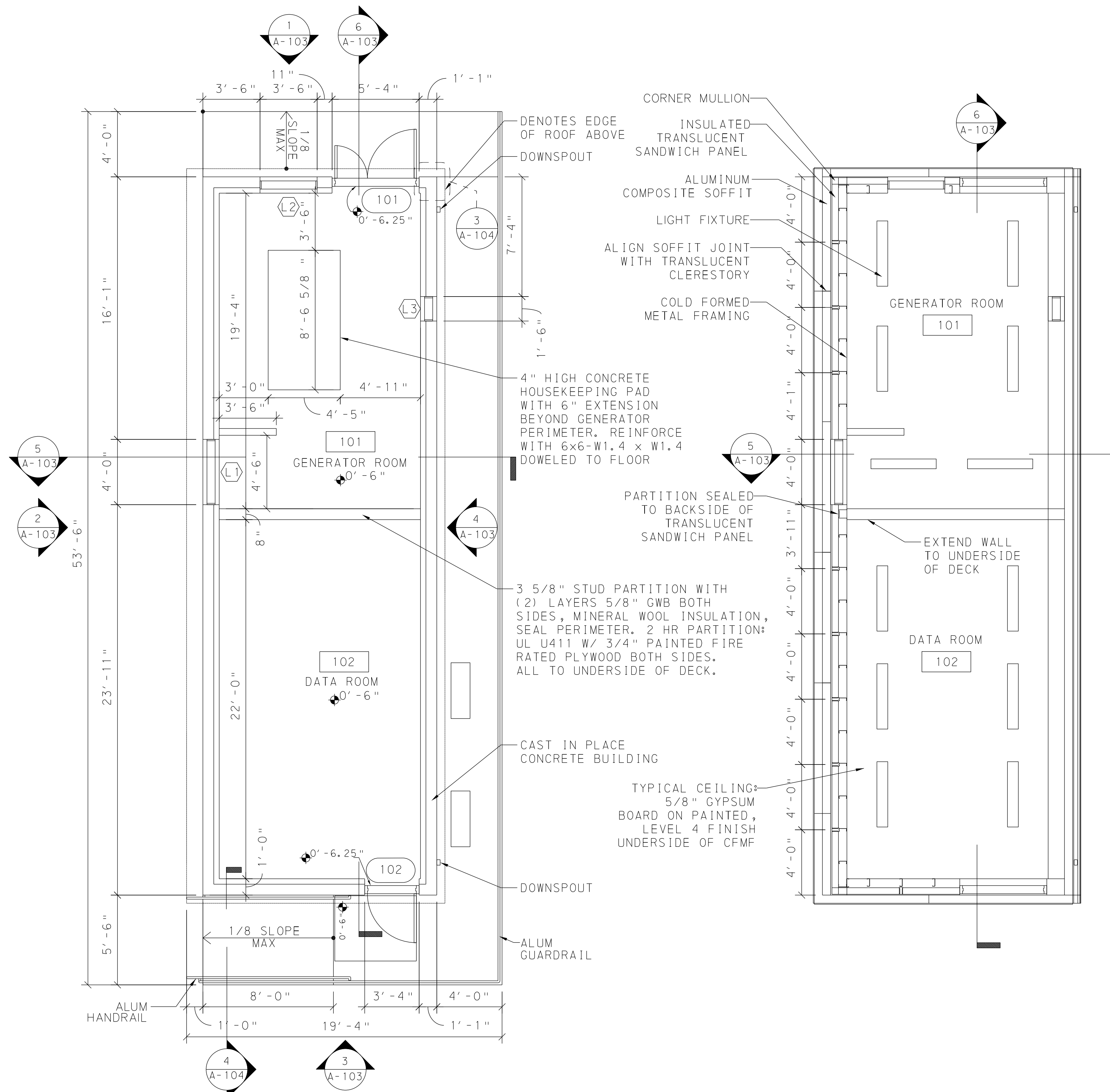
A-101

PRE-FINAL DESIGN SUBMISSION

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	4 OF 15
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

PLOTTED: \$DATES \$FILES\$



NOTE:
ADDITIONAL REINFORCEMENT INDICATED IS NOT REQUIRED FOR OPENING LESS THAN 6".

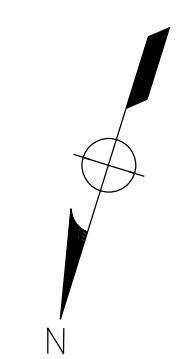
5 TYPICAL STRUCTURAL WALL OPENING
NOT DRAWN TO SCALE

4 5" PREFORMED OPENING DETAIL
NOT DRAWN TO SCALE

1 FIRST FLOOR PLAN
1/4" = 1'-0"

2 REFLECTED CEILING PLAN
1/4" = 1'-0"

3 ROOF PLAN
1/4" = 1'-0"

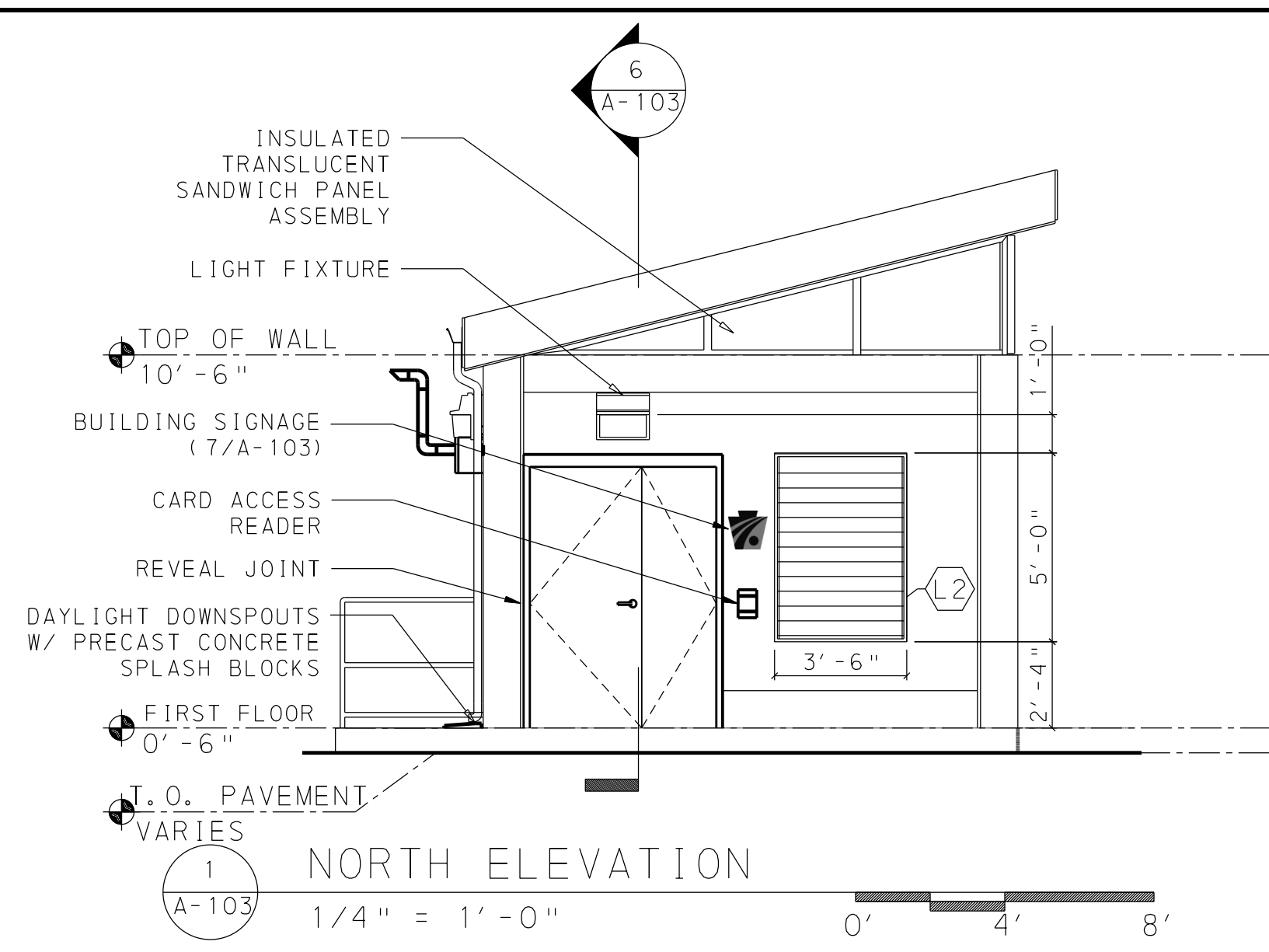


BUILDING FLOOR PLANS
& DETAILS
A-102

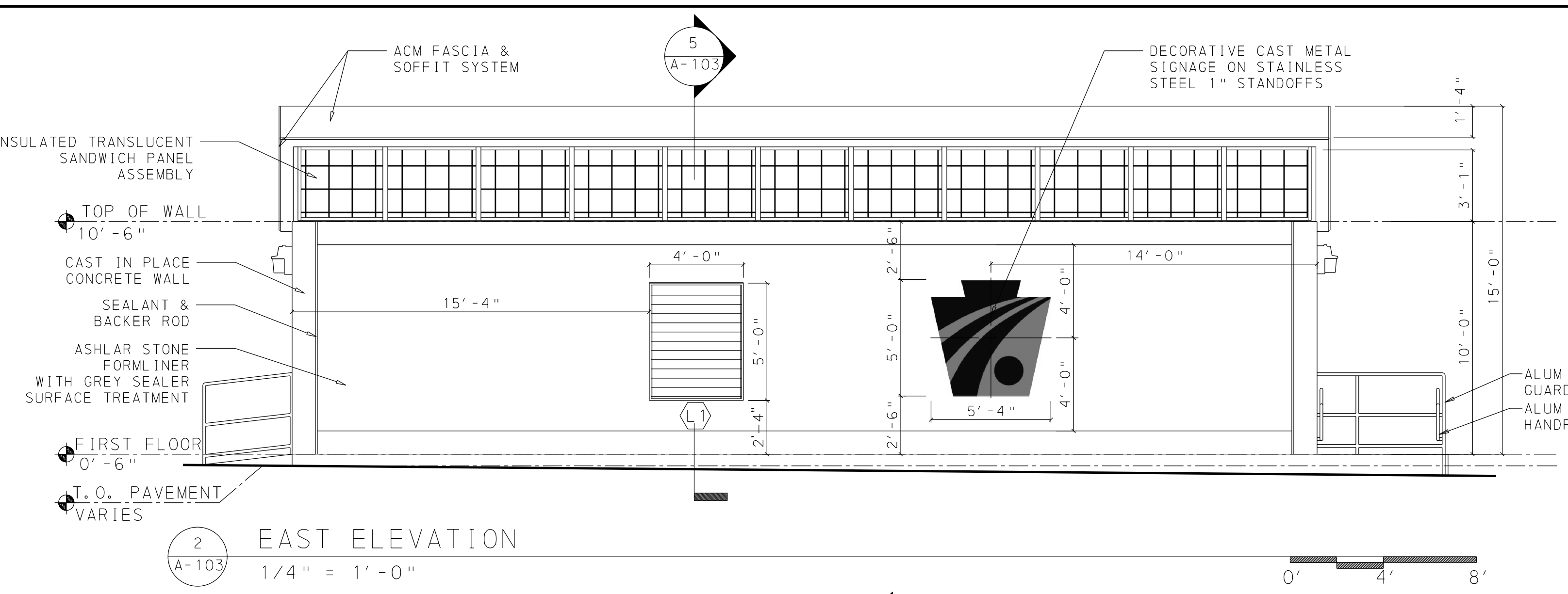
**PRE-FINAL
DESIGN
SUBMISSION**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	5 OF 15	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

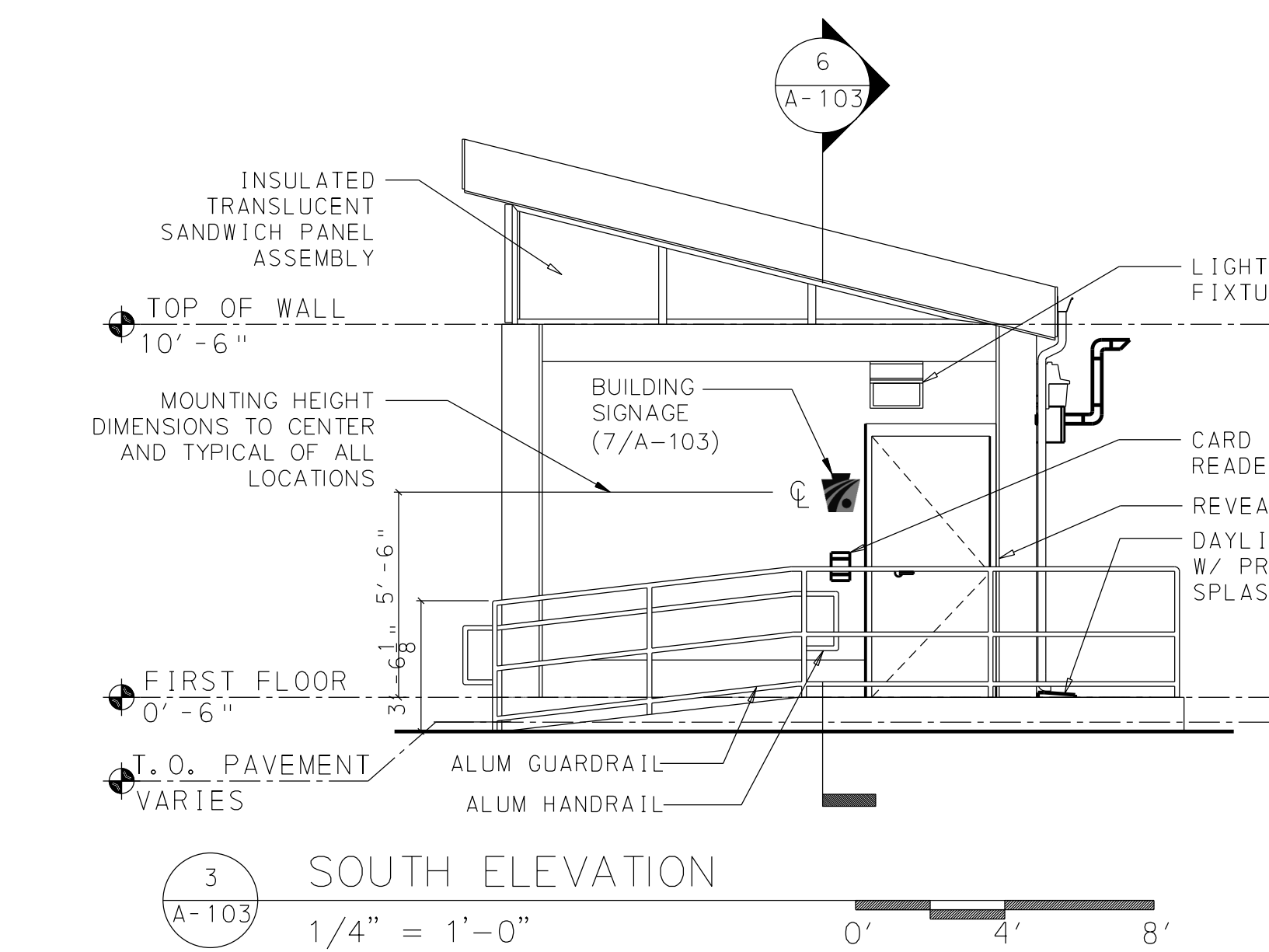
** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS



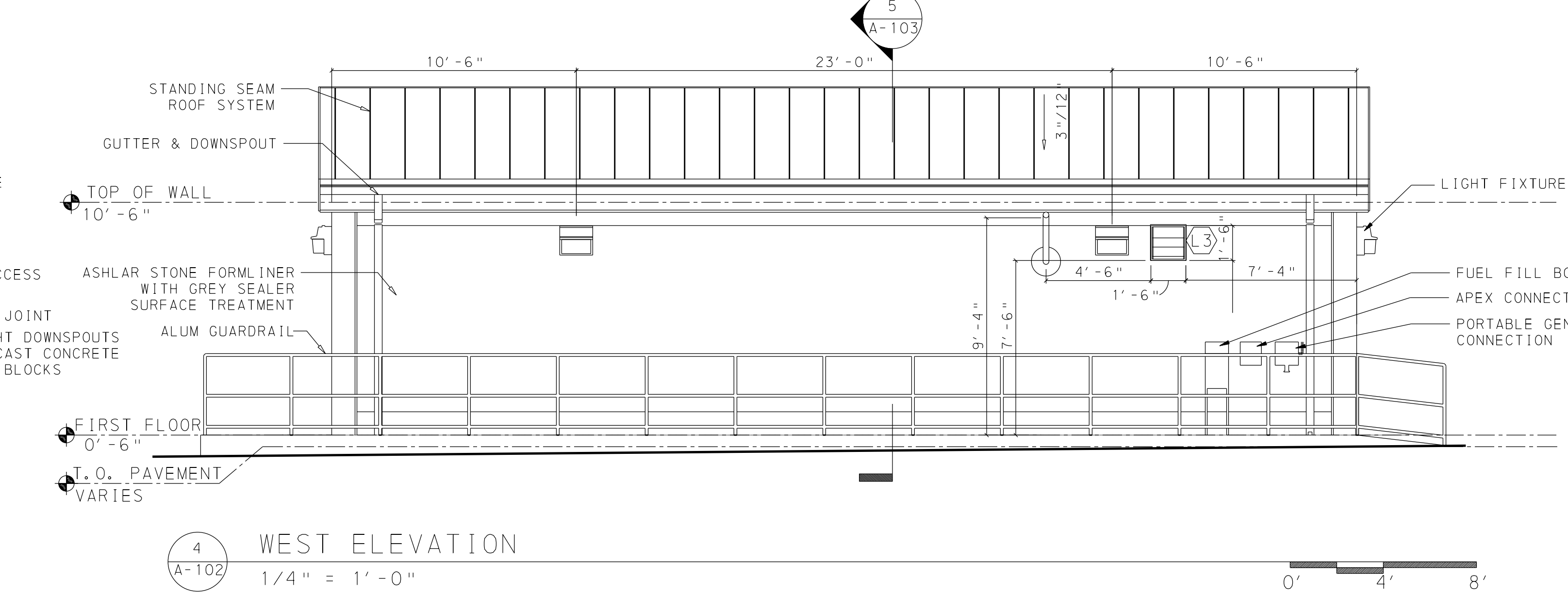
1 NORTH ELEVATION
A-103 1/4" = 1'-0"



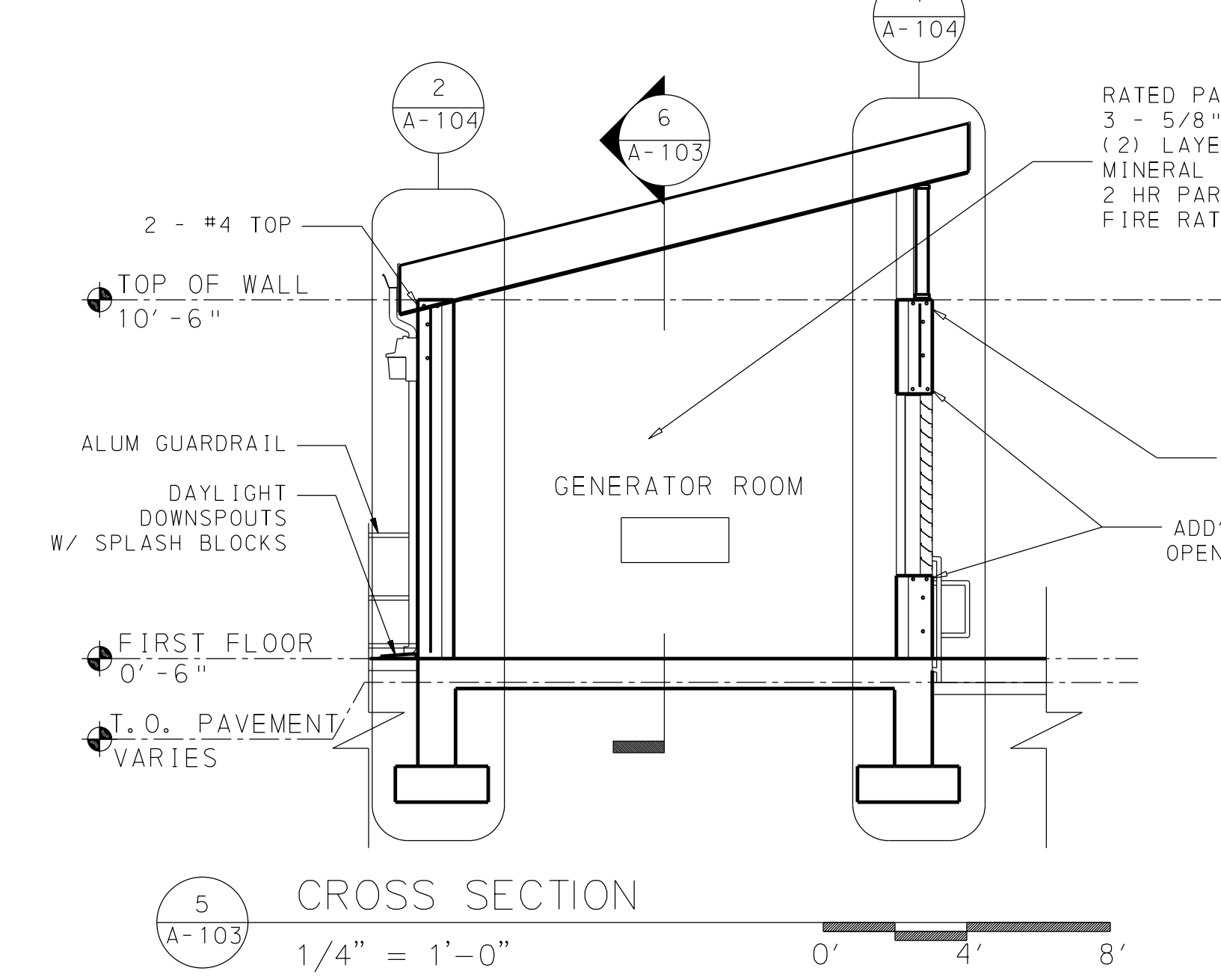
2 EAST ELEVATION
A-103 1/4" = 1'-0"



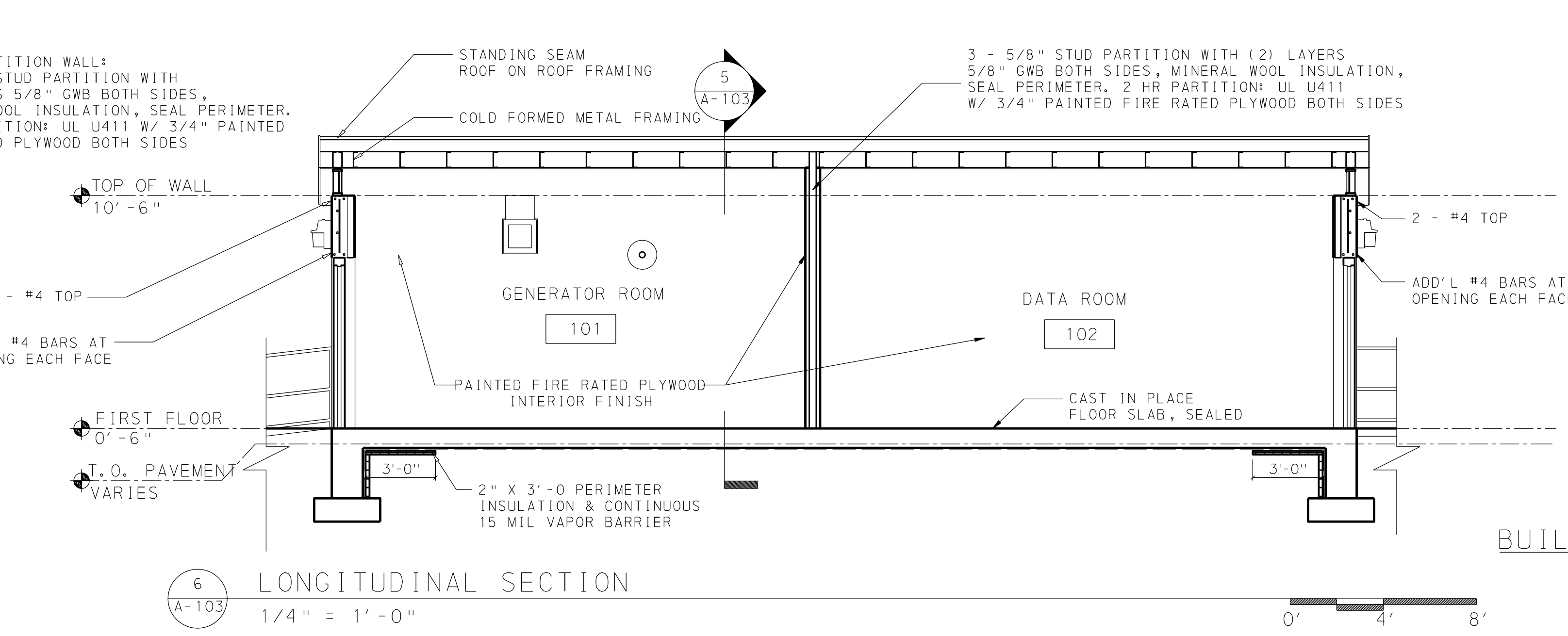
3 SOUTH ELEVATION
A-103 1/4" = 1'-0"



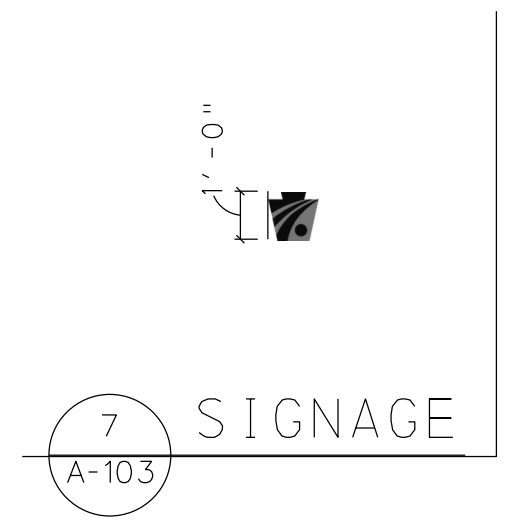
4 WEST ELEVATION
A-102 1/4" = 1'-0"



5 CROSS SECTION
A-103 1/4" = 1'-0"



6 LONGITUDINAL SECTION
A-103 1/4" = 1'-0"



BUILDING ELEVATIONS & SECTIONS
A-103

PRE-FINAL DESIGN SUBMISSION

DATE:

PLOTTED:

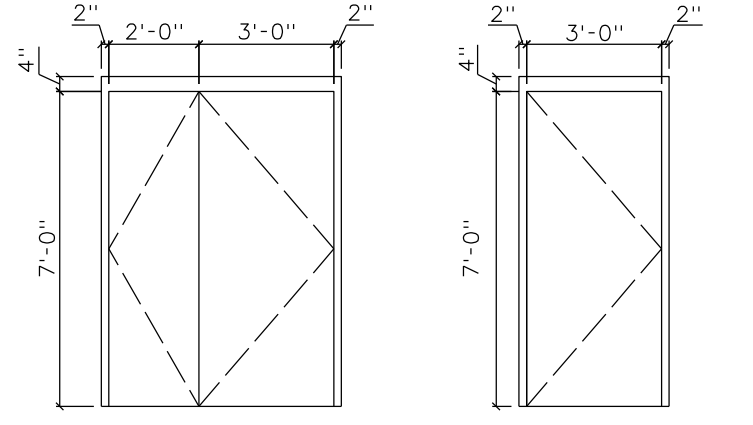
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	6 OF 15	
4-0	LUZERNE	0080	352		
**					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

DOOR SCHEDULE													
FLR. #	RM. #	ROOM NAME	CLEAR DIM.		NO. OF PANELS	PANEL WIDTH		THICK-NESS	TYPE	MAT'L	FRAME		COMMENTS
			WIDTH	HEIGHT		PANEL 1 WIDTH	PANEL 2 WIDTH				TYPE	MAT'L	
FIRST FLOOR	101	GENERATOR ROOM	5'-0"	7'-0"	2	2'-0"	3'-0"	1 3/4"	F	GALV. STEEL	2	GALV. STEEL	
	102	DATA ROOM	3'-0"	7'-0"	1	2'-0"	3'-0"	1 3/4"	F	GALV. STEEL	2	GALV. STEEL	

DOOR HARDWARE:
 OPERATION: OMRON 3S4YR-HSR CARD READER BY OTHERS, RELEASES ELECTRIC STRIKE FOR ENTRY.
 1 HES ELECTRIC STRIKE 310 SERIES (ACTIVE 3'-0" LEAF)
 2 CONT. HINGE 780-224HD CLEAR ROTON
 1 CYLINDER RIM 1E72 X PREMIUM 26D BEST LOCK CORP
 1 EXIT DEVICE 9927
 -NL X 07 LEVER 26D VON DUPRIN (ACTIVE 3'-0" LEAF)
 1 DUSTPROOF STRIKE - DP2 IVES
 2 OVERHEAD HO 90-H 32D GLYNN-JOHNSON
 1 DOOR CLOSER 4111-EDA X ST-2730 ALUM LCN
 2 KICK PLATE K1050 8" X 2" LDW 32D ROCKWOOD
 1 THRESHOLD 2005AKT X SS/MS&S25 X PEMKOTE AK PEMKO
 1 GASKETING PK55D (HEAD & JAMBS) D PEMKO
 1 RAIN DRIP 346C X FWMO C PEMKO



LOUVER SCHEDULE					
FLR. #	NO.	WIDTH	HEIGHT	NOTES	
FIRST FLOOR	L1	4'-0"	5'-0"	STATIONARY, DRAINABLE BLADE ALUMINUM LOUVER W/ INSECT SCREEN, MIN 50% FREE AREA, COLOR TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE	
	L2	3'-6"	5'-0"	STATIONARY, DRAINABLE BLADE ALUMINUM LOUVER W/ BIRD SCREEN, MIN 50% FREE AREA, COLOR TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE	
	L3	1'-6"	1'-6"	STATIONARY, DRAINABLE BLADE ALUMINUM LOUVER W/ BIRD SCREEN, MIN 50% FREE AREA, COLOR TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE	

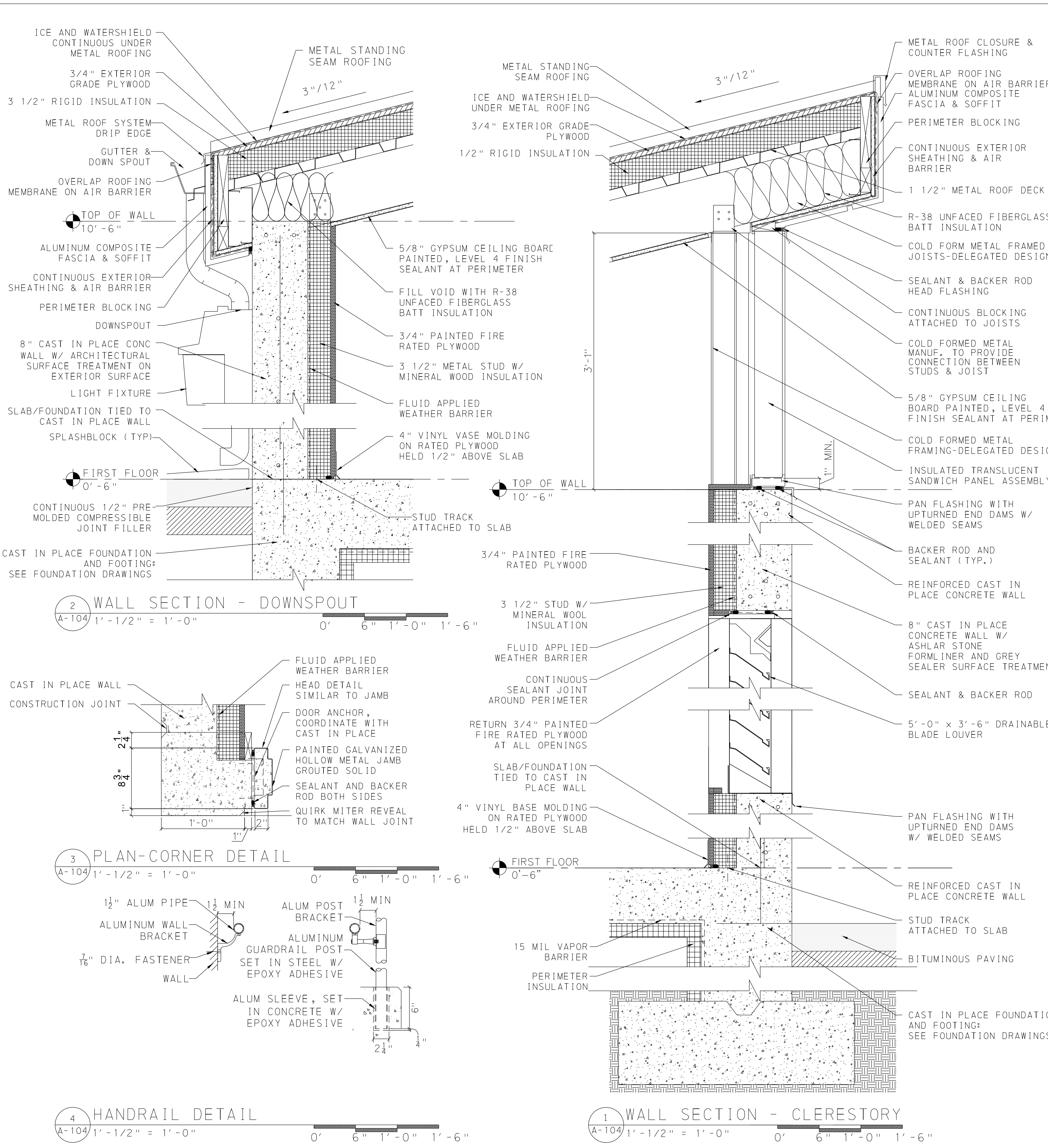
CONCRETE UTILITY BUILDING
 ITEM NO. 4000-001 LUMP SUM
 APPROXIMATE QUANTITIES FOR INFORMATION ONLY

1	EACH 14'-4" X 44'-0" CONCRETE UTILITY BUILDING	2	EACH 25KW UPS
1	EACH CAST METAL PA PENNDOT LOGO	2	EACH SECURITY CAMERAS
200	SF INSULATED TRANSLUCENT SANDWICH PANEL SYSTEM	2	EACH CARD READER
2	EACH 3.5 TON DUCTLESS SPLIT SYSTEM HEAT PUMP (AC UNIT AND HEAT PUMP UNIT)/THERMOSTAT	4	EACH DOOR CONTACTS
1	EACH GENERATOR ROOM EXHAUST FAN WITH THERMOSTAT	2	EACH PUSH BUTTON DOOR RELEASE
2	EACH ELECTRIC UNIT HEATER WITH THERMOSTAT	2	EACH ELECTRIC STRIKE
7	EACH VARIOUS MOTORIZED DAMPERS	5	EACH PHOTO CELL
1	EACH GENERATOR RADIATOR EXHAUST DUCTWORK	4	EACH VARIOUS DISCONNECTS
1	EACH DDC CONTROL SYSTEM (PENNDOT TO PROVIDE)	1	EACH 60A NEMA 3R NON-FUSED SAFETY SWITCH
660	SF STANDING SEAM METAL ROOM SYSTEM	1	EACH 60KW DIESEL GENERATOR
1,860	LF COLD FORMED ROOF FRAMING	1	EACH 200A ISOLATION/BYPASS TYPE TRANSFER SWITCH
1	5' X 7' DOOR AND FRAME	5	EACH MOTOR CONTROLLER
1	3' X 7' DOOR AND FRAME	1	EACH UTILITY METER SOCKET
3	EACH VARIOUS LOUVERS (SEE DWGS FOR DETAILS)	160	EACH VARIOUS BREAKERS
2,575	FEET VARIOUS CONDUIT	56	FEET 20" X 4" CABLE TRAY
3,975	FEET VARIOUS CONDUCTORS	16	EACH VARIOUS LIGHTING FIXTURES
275	FEET #4/0 ALUMINUM QUADRUPLE X CABLE W/ MESSENGER CABLE	1	EACH UL LISTED LIGHTNING PROTECTION SYSTEM FOR THE GENTRY STRUCTURE AND CONCRETE UTILITY BUILDING (DESIGN AND INSTALL)
6	EACH VARIOUS 120/240V, 1P, 3W PANELBOARDS	870	SF ARCHITECTURAL SURFACE TREATMENT
30	FEET BASE TANK FUEL FILL PIPING		
80	FEET EMERGENCY AND NORMAL BASE TANK VENT PIPING		
22	FEET DIESEL GENERATOR EXHAUST PIPING		
60	FEET REFRIGERANT LINE PIPING (SUCTION AND LIQUID / RETURN SIDE-BOTH UNITS)		
3	EACH FLEXIBLE CONNECTIONS (PIPING AND DUCTWORK)		

WALL SECTIONS AND DETAILS

A-104

**PRE-FINAL
 DESIGN
 SUBMISSION**



\$DATES PLOTTED: \$FILES\$

MECHANICAL GENERAL NOTES

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	7 OF 15
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

ABBREVIATIONS:

- A - AMPERES
- AC - AIR CONDITIONER
- AD - ACCESS DOOR
- ADJ - ADJUSTABLE
- AFF - ABOVE FINISHED FLOOR
- AHJ - AUTHORITY HAVING JURISDICTION
- BACNET - BUILDING AUTOMATION AND CONTROLS NETWORK
- BAS - BUILDING AUTOMATION SYSTEM
- BHP - BRAKE HORSEPOWER
- BTU - BRITISH THERMAL UNIT
- BOD - BOTTOM OF DUCT
- BOP - BOTTOM OF PIPE
- CAPP - COMPACT AUTOMATIC FUEL PORT
- CD - CONDENSATE DRAIN
- CFM - CUBIC FEET PER MINUTE
- DDC - DIRECT DIGITAL CONTROL
- DEG F - DEGREE FAHRENHEIT
- DG - DIESEL GENERATOR
- DIA - DIAMETER
- EF - EXHAUST FAN
- EUH - ELECTRIC UNIT HEATER
- FC - FLEXIBLE CONNECTION
- FT - FEET
- HP - HORSEPOWER OR HEAT PUMP
- HR - HOUR
- HZ - HERTZ
- IN WG - INCHES WATER GAGE
- MBH - THOUSAND BTU PER HOUR
- MCA - MINIMUM CIRCUIT AMPACITY
- MIN - MINIMUM
- MFR - MANUFACTURER
- MOCPP - MAXIMUM OVER CURRENT PROTECTION
- MOD - MOTOR OPERATED DAMPER
- NTS - NOT TO SCALE
- OAI - OUTSIDE AIR INTAKE
- OD - OUTSIDE DIAMETER
- PH - PHASE
- R - RADIUS
- RL - REFRIGERATION LIQUID
- RPM - REVOLUTIONS PER MINUTE
- RS - REFRIGERATION SUCTION
- SEER - SEASON ENERGY EFFICIENCY RATIO
- SMACNA - SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
- SP - STATIC PRESSURE
- SS - STAINLESS STEEL
- SOO - SEQUENCE OF OPERATIONS
- SQ.FT - SQUARE FEET
- TYP - TYPICAL
- V - VOLTS
- WG - WATER GAUGE
- TEMP - TEMPERATURE

ID	SERVICE	TYPE AND ARRANGEMENT	CFM	SP IN WG	FAN RPM	MOTOR			MANUFACTURER AND MODEL	APROX. DIMENSIONS (WxDxH)	APPROX. WEIGHT (lbs)	NOTES
						BHP	NAMEPLATE HP	V/PH/HZ				
EF 1	GENERATOR ROOM 101	INLINE CENTRIFUGAL	613	0.5	1833	0.26	0.26	120/1/60	GREENHECK BSQ-80	15"x21"x15"	79	1 2 3 4

1. PROVIDE WITH STARTER / DISCONNECT
2. FAN SHALL BE CONTROLLED BY THERMOSTAT
3. PROVIDE W/ INLET GUARD, FAN MOTOR COVER AND BELT GUARD

4. PROVIDE WITH VIBRATION ISOLATION HANGERS

ID	SERVICE	CFM	TOTAL KW	NAME-PLATE HP	AMP	V/PH	MANUFACTURER AND MODEL	APROX. DIMENSIONS (WxDxH)	APPROX. WEIGHT (lbs)	NOTES
EUH 1	GENERATOR ROOM 101	350	5	1/100	21	240/1	Q-MARK MUH05-21	14"x7.5"x16"	27	1 2 3
EUH 2	DATA ROOM 102	350	5	1/100	21	240/1	Q-MARK MUH05-21	14"x7.5"x16"	27	1 2 3

1. PROVIDE WITH REMOTE THERMOSTAT
2. PROVIDE WITH DISCONNECT SWITCH
3. PROVIDE WITH MOUNTING BRACKET

ID	SERVICE	CFM	TOTAL CAPACITY (COOLING)	TOTAL CAPACITY (HEATING)	ELECTRIC		MANUFACTURER AND MODEL	APROX. DIMENSIONS (WxDxH)	APPROX. WEIGHT (lbs)	NOTES
					MCA	V/PH/HZ				
AC 1	DATA ROOM 102	955	42 MBH	45 MBH	2	240/1/60	mitsubishi PCA-A42KA7	63"x27"x9"	79	1 2 3 4 7
AC 2	DATA ROOM 102	955	42 MBH	45 MBH	2	240/1/60	mitsubishi PCA-A42KA7	63"x27"x9"	79	1 2 3 5 6 7

1. SUSPEND FROM CEILING STRUCTURE
2. PROVIDE REMOTE THERMOSTAT
3. PROVIDE 1" CONDENSATE DRAIN LINE
4. PAIRS WITH HP-1
5. REDUNDANT UNIT

6. PAIRS WITH HP-2
7. INDOOR UNIT SHALL RECEIVE POWER FROM THE OUTDOOR UNIT

ID	SERVICE	SEER	CONTROL STEPS	TOTAL MBH (MIN)	MCA/MOCPP	V/PH/HZ	MANUFACTURER AND MODEL		REFRIGERANT PIPE SIZE		APROX. DIMENSIONS (WxDxH)	APPROX. WEIGHT (lbs)	NOTES
							PUZ-A42NKA7	PUZ-A42NKA7	(RS)	(RL)			
HP 1	DATA ROOM 102	17.6	1	42	25/31	240/1/60	mitsubishi PUZ-A42NKA7	mitsubishi PUZ-A42NKA7	5/8"	3/8"	41"x14"x54"	214	1 2 3 6
HP 2	DATA ROOM 102	17.6	1	42	25/31	240/1/60	mitsubishi PUZ-A42NKA7	mitsubishi PUZ-A42NKA7	5/8"	3/8"	41"x14"x54"	214	1 2 4 5 6

1. PROVIDE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATION
2. PROVIDE FOR LOW AMBIENT OPERATION DOWN TO 0°F AMBIENT
3. PAIRS WITH HP-1
4. REDUNDANT UNIT

5. PAIRS WITH HP-2
6. PROVIDE UNITS ON A 4" THICK HOUSEKEEPING CONCRETE PAD

SYMBOLS:

- RISER DOWN
- CAP ON END OF PIPE
- MOTOR OPERATED DAMPER
- THERMOSTAT
- FLEXIBLE CONNECTION (DUCT)
- AD ACCESS DOOR
- AIRFLOW DIRECTION
- GATE VALVE
- LONG SWEEP ELBOW
- ELECTRIC UNIT HEATER
- DAMPER
- LOUVER

1. THE INTENT OF THE DRAWINGS IS TO ENSURE THAT THE WORK AND ALL PARTS THEREOF SHALL BE, WHEN FULLY COMPLETED, SUITABLE IN EVERY WAY FOR THE PURPOSES FOR WHICH IT IS INTENDED. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY FOR COMPLETE AND PROPERLY FUNCTIONING SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES, CONTRACT DRAWINGS, AND SPECIFICATIONS.
2. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATIVE OF THE WORK TO BE PERFORMED AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. THE DRAWINGS ARE INTENDED TO INDICATE CAPACITY, SIZE, LOCATION, DIRECTION AND GENERAL ARRANGEMENT, BUT NOT EXACT DETAILS OF CONSTRUCTION. EXACT LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING ETC. SHALL BE DETERMINED AT THE SITE TO SUIT ACTUAL SITE CONDITIONS.
3. COORDINATE ALL WORK AND WORK SCHEDULES WITH THAT OF OTHER TRADES AFFECTED BY THE ENTIRE SCOPE OF THE PROJECT SO THAT ALL WORK MAY BE INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER AND SO THAT INTERFERENCE WITH DUCTWORK, PIPING, EQUIPMENT, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL COMPONENTS AND OTHER WORKS IS AVOIDED. COORDINATION DRAWINGS MUST BE SUBMITTED AND REVIEWED AND ALL COMMENTS RESOLVED BEFORE ANY WORK WILL BE ALLOWED TO START.
4. INSTALLATIONS SHALL PERMIT ACCESSIBILITY FOR SERVICE OR REPLACEMENT. COORDINATE INSTALLATIONS OF ALL EQUIPMENT AND COMPONENTS FOR ACCESSIBILITY TO MEET MANUFACTURER SUGGESTED CLEARANCES AROUND EQUIPMENT FOR MAINTENANCE AND REPAIR. THE INSTALLATION OF BUILDING MATERIALS AND COMPONENTS SHALL ALLOW SUFFICIENT SPACE FOR MAINTENANCE AND SERVICE WITHOUT LIMITED RANGE OF MOTION THAT WOULD REQUIRE DECONSTRUCTION OF THE SPACE OR INSTALLATION TO PROVIDE REQUIRED SERVICE. CONTRACTOR SHALL DEMONSTRATE SAFE ACCESS TO ALL ITEMS REQUIRING FUTURE MAINTENANCE AND REPAIR. WHENEVER THERE IS A DISPUTE CONCERNING ACCESSIBILITY DURING CONSTRUCTION AND/OR THE TURNOVER PROCESS, THE ONUS SHALL BE ON THE CONTRACTOR TO DEMONSTRATE HOW THE FUTURE WORK WOULD NEED TO BE PERFORMED IN A MANNER THAT IS REASONABLE, SAFE AND AFFORDABLE.
5. WHEREVER THE REQUIREMENTS AND REGULATIONS OF FEDERAL OR STATE ARE MORE STRINGENT THAN THE REQUIREMENTS INDICATED ON THE DRAWINGS OR SPECIFICATIONS, THEY SHALL TAKE PRECEDENCE OVER THE DRAWINGS OR SPECIFICATIONS AND SHALL BE MADE PART OF THE CONTRACT AT NO ADDITIONAL COST TO THE OWNER. HOWEVER, WHERE THE DRAWINGS OR SPECIFICATIONS ARE MORE STRINGENT THAN FEDERAL OR STATE AUTHORITY REQUIREMENTS AND REGULATION, THE MORE STRINGENT SHALL APPLY.
6. DESIGN OF SYSTEMS, EQUIPMENT SIZES AND SPACE ALLOCATIONS FOR MECHANICAL EQUIPMENT ARE BASED ON INFORMATION FROM THE SCHEDULED MANUFACTURERS. THE CONTRACTOR SHALL VERIFY ACTUAL DESIGNS, MAINTENANCE REQUIREMENTS AND SIZES BASED ON EQUIPMENT SUPPLIER'S DESIGN REQUIREMENTS, MAINTENANCE REQUIREMENTS AND CERTIFIED DRAWINGS AND MODIFY WORK AS REQUIRED TO SUIT SIZES OF ACTUAL EQUIPMENT TO BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
7. HOUSEKEEPING PADS FOR MECHANICAL EQUIPMENT ARE BASED ON THE SCHEDULED MANUFACTURER'S EQUIPMENT SIZES. THE

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ACTUAL EQUIPMENT SIZES FROM CERTIFIED MANUFACTURER'S DRAWINGS AND SHALL MAKE MODIFICATIONS WITHOUT ANY ADDITIONAL COST TO THE OWNER. COORDINATE EQUIPMENT SIZES WITH STRUCTURAL.
8. ELECTRICAL POWER PROVISIONS FOR MECHANICAL EQUIPMENT ARE BASED ON PRELIMINARY INFORMATION FROM THE SCHEDULED MANUFACTURERS. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF ANY PROPOSED CHANGES FOR ACCEPTANCE BY THE ENGINEER. ALL ACCEPTED CHANGES SHALL BE RECORDED ON "AS BUILT" DRAWINGS.
9. ALL DUCTWORK AND PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AND AS CLOSE AS POSSIBLE TO CEILING/FLOOR STRUCTURES TO MAINTAIN MAXIMUM CEILING HEIGHTS, TO CONCEAL WORK AND TO KEEP OUT OF WAY. PIPING AND DUCTWORK SHALL BE CONCEALED IN ALL FINISHED AREAS.
10. PROVIDE SLEEVES FOR ALL PIPES PENETRATING WALLS AS PER SPECIFICATIONS. ALL OPENINGS AROUND PENETRATIONS SHALL BE SEALED (AIRTIGHT AND WATERTIGHT) AND/OR FIREPROOFED, AS APPLICABLE, WITH APPROVED MATERIALS.
11. LOCATIONS OF THERMOSTATS AND TEMPERATURE SENSORS ARE APPROXIMATE AND FINAL LOCATIONS SHALL BE COORDINATED IN THE FIELD.
12. PROVIDE VALVED AND CAPPED CONNECTIONS WHETHER SHOWN OR NOT SHOWN, AT ALL LOW POINTS OF ALL PIPING SYSTEMS AS REQUIRED FOR COMPLETE DRAINAGE OF THE SYSTEMS.
13. THE CONTRACTOR SHALL COORDINATE IN THE FIELD AND PROVIDE NECESSARY OFFSETS IN VERTICAL AND HORIZONTAL PIPING, FITTINGS AND VALVES AS REQUIRED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
14. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH CURRENT SMACNA STANDARDS.
15. PROVIDE DDC SYSTEMS FOR THE CONTROL AND MONITORING OF EQUIPMENT FURNISHED UNDER THIS SECTION AS INDICATED ON THE AUTOMATIC TEMPERATURE CONTROLS DRAWINGS.
16. ALL WORK SHALL BE DESIGNED TO MEET SEISMIC RESTRAINT LOADINGS PER THE CRITERIA STATED IN THE GENERAL STRUCTURAL NOTES ON THE STRUCTURAL DRAWINGS.
17. PROVIDE UNIONS OR FLANGED CONNECTIONS AS REQUIRED TO FACILITATE FUTURE MAINTENANCE.
18. VALVES, GAUGES, THERMOMETERS AND OTHER SUCH DEVICES SHALL BE LOCATED WHERE THEY ARE ACCESSIBLE.
19. PROVIDE IDENTIFICATION TAGS/LABELS FOR ALL EQUIPMENT, TEMPERATURE SENSORS, THERMOSTATS, ALL SWITCHES AND SIMILAR COMPONENTS WITH IDENTIFICATION OF EQUIPMENT CONTROLLED OR FUNCTION.

GENERAL NOTES,
ABBREVIATIONS, SYMBOLS &
EQUIPMENT SCHEDULES
M-101

**PRE-FINAL
DESIGN
SUBMISSION**

DATE\$
PLOTTED:

\$FILES\$

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	8 OF 15
4-0	LUZERNE	0080	352	
**				
REVISION NUMBER	REVISIONS	DATE	BY	

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

KEYNOTES:

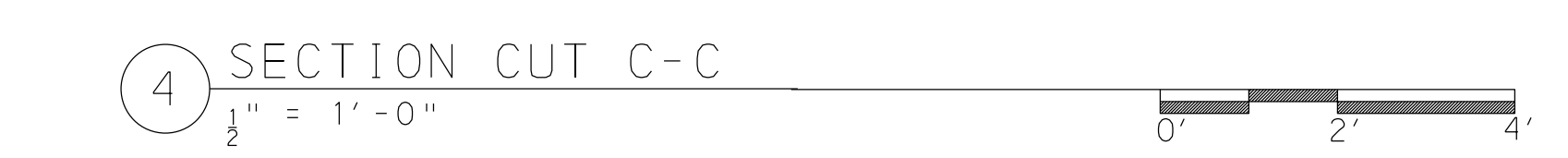
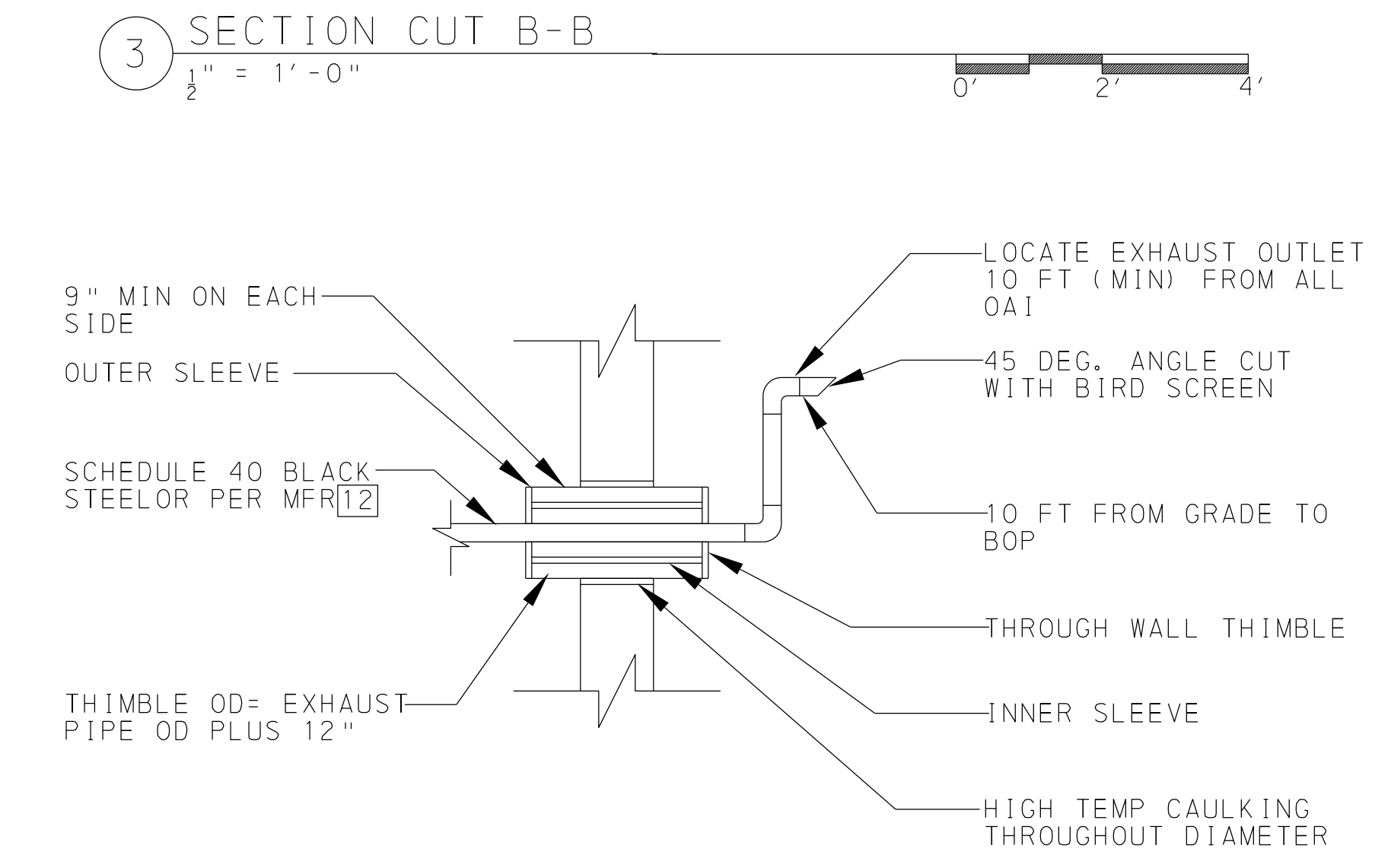
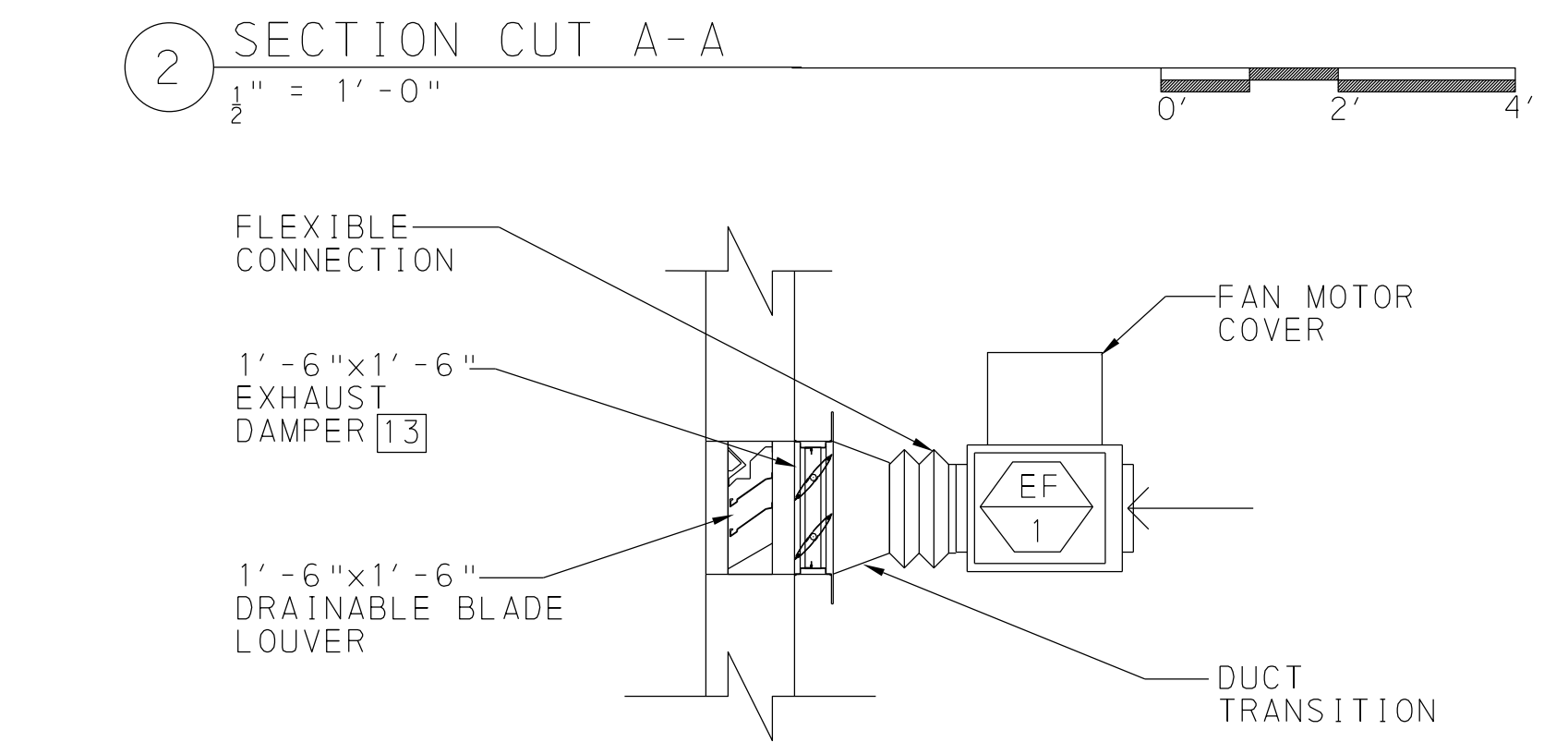
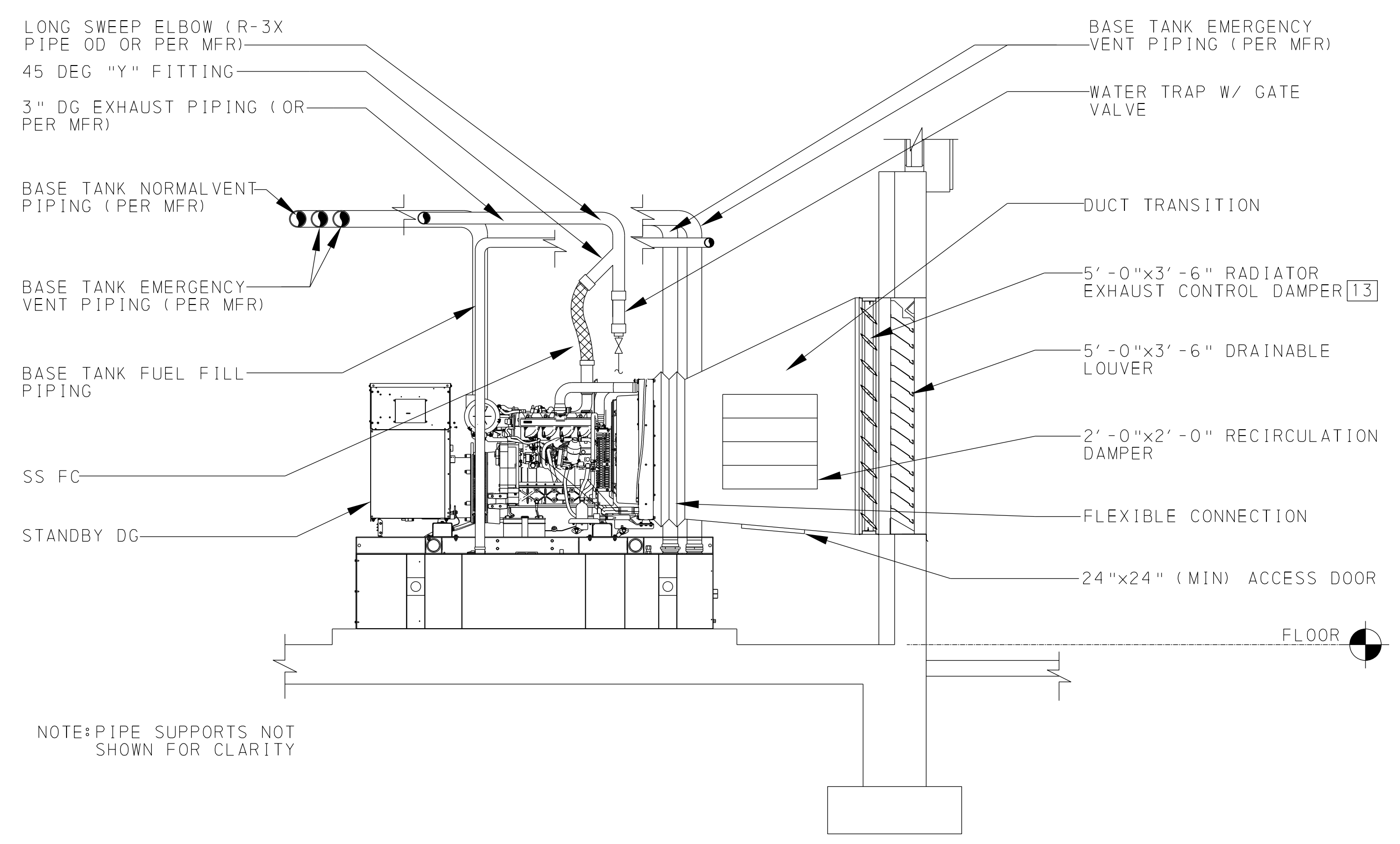
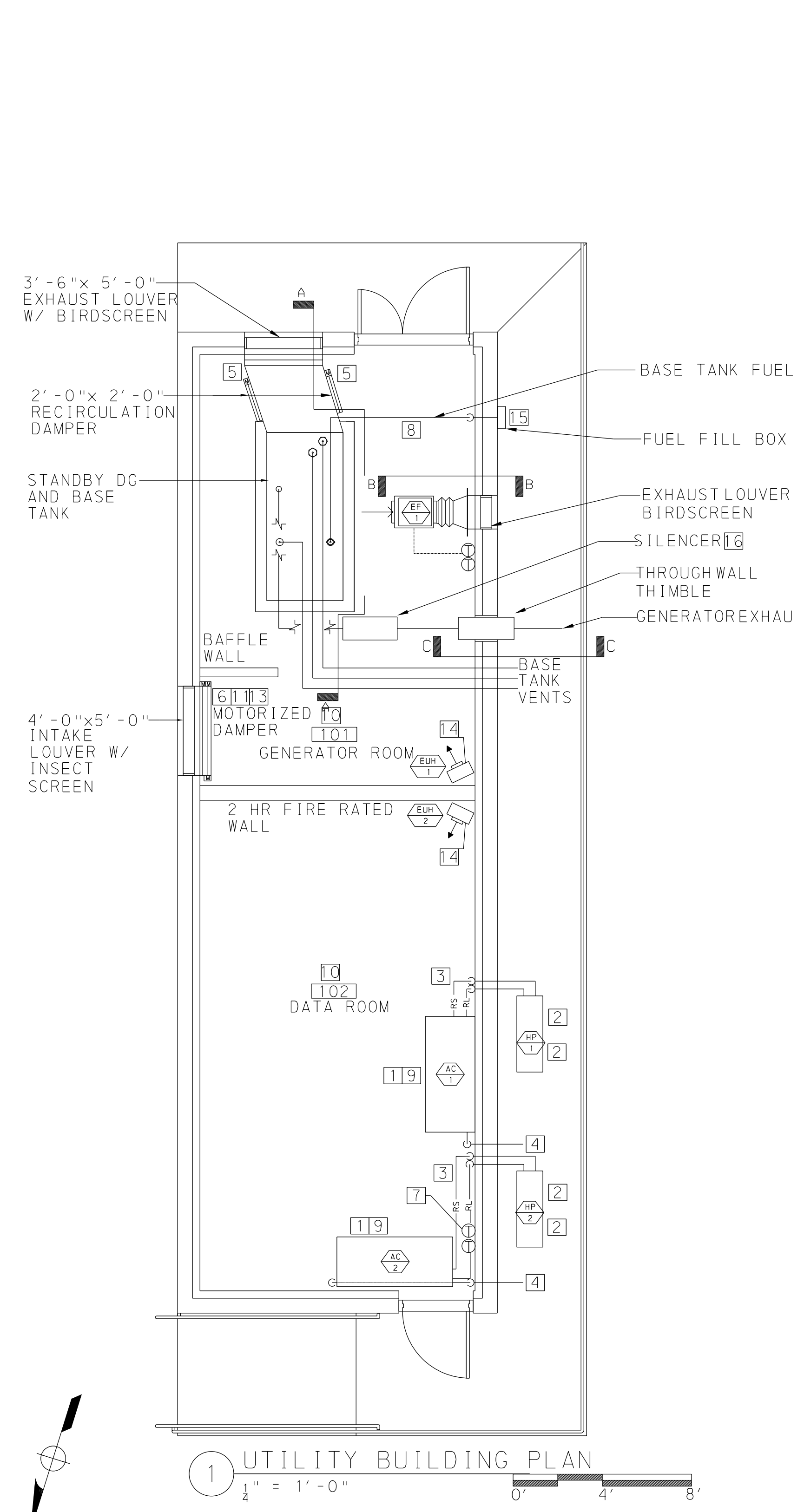
1. COORDINATE INSTALLATION OF AC UNIT IN FIELD AND WITH EQUIPMENT IN SPACE. INSTALL TOP OF AC UNIT 9'-6" AFF.
2. OUTDOOR UNITS' EXACT LOCATION TO BE COORDINATED W/ OWNER AND PER MFR'S INSTALLATION INSTRUCTIONS.
3. INSTALL REFRIGERANT PIPING PER EQUIPMENT MFR RECOMMENDATIONS. VERIFY PIPE SIZES AND COORDINATE ROUTING WITH EQUIPMENT / DATA RACK INSTALLATION, ELECTRICAL EQUIPMENT AND CABLE TRAY.
4. EXTEND 1" CONDENSATE DRAIN TO OUTSIDE OF BUILDING.
5. PROVIDE FRAMED BIRD SCREEN ON OPEN END DUCT.
6. 4'-0"x4'-0" MOTORIZED DAMPER FOR DG INTAKE. 3'-0"x1'-0" MOTORIZED DAMPER FOR EF-1. 1'-0"x1'-0" MOTORIZED DAMPER FOR DG COMBUSTION AIR.
7. MONITOR SPACE TEMPERATURE OF DATA ROOM THROUGH EXISTING PENNDOT DDC SYSTEM. PROVIDE ALARM FOR HIGH AND LOW TEMPERATURE IN SPACE. THERMOSTAT CONTROLS TO BE BACNET COMPATIBLE WITH CONNECTION TO OWNER PROVIDED DDC SYSTEM BY OTHERS.
8. ROUTE FUEL FILL PIPING HIGH NEAR TO STRUCTURE AND SLOPE DOWNWARD TOWARDS TANK. CONFIRM SIZE OF FUEL FILL PIPE WITH DG MANUFACTURER.
9. ALTERNATE RUN TIMES 50/50 FOR AC-1 (PRIMARY UNIT) AND AC-2 (REDUNDANT). SET THERMOSTAT FOR BOTH UNITS TO 75 DEG. F (ADJ).
10. EXAMPLE EQUIPMENT SHOWN FOR INFORMATION PURPOSES ONLY. FINAL EQUIPMENT, SIZE AND LAYOUT TO BE DETERMINED AND COORDINATED WITH TOLL SYSTEM INTEGRATOR/OWNER.
11. DAMPERS SHALL BE NORMALLY OPEN AND POWER CLOSED.
12. EXHAUST PIPING AND FITTINGS SHALL BE INSULATED PER THE SPECIFICATIONS AND COVERED WITH ALUMINUM JACKETING.
13. MOTORIZED DAMPERS SHALL BE RUSKIN CD60 LOW LEAKAGE CONTROL DAMPERS, HIGH PERFORMANCE AIRFOIL, CLASS 1A LEAKAGE RATED OR APPROVED EQUAL.
14. INSTALL BOTTOM OF EUH 7'-6" AFF. ENSURE EUH DOES NOT INTERFERE WITH EQUIPMENT IN SPACE.
15. AUTOMATIC FUEL FILLING PORT, SIMPLEX CAFF-2 OR EQUAL. FILL PORT SHALL INTERFACE WITH PENNDOT DDC SYSTEM.
16. COORDINATE GENERATOR EXHAUST AND PIPING SUPPORTS WITH BUILDING STRUCTURE.

SEQUENCE OF OPERATIONS:

1. THE OUTSIDE AIR INTAKE DAMPER, COMBUSTION AIR INTAKE DAMPER, AND THE RADIATOR EXHAUST AIR DAMPER SHALL FULLY OPEN UPON RECEIVING A DG START SIGNAL.
2. THE RECIRCULATION DAMPERS, OUTSIDE AIR INTAKE DAMPER, AND RADIATOR EXHAUST AIR DAMPER SHALL MODULATE IN UNISON IN ORDER TO MAINTAIN SPACE TEMPERATURE. THE COMBUSTION AIR DAMPER SHALL REMAIN OPEN WHILE THE DG IS RUNNING.
3. THE OUTSIDE AIR INTAKE DAMPER, COMBUSTION AIR DAMPER, AND RADIATOR EXHAUST AIR DAMPER SHALL CLOSE UPON THE DG STOPPING AND THE RECIRCULATION DAMPERS SHALL OPEN.
4. DG STATUS (DI) DG TEMP. (AI) DG FUEL LEVEL (AI), DG ROOM TEMP. (AI) SHALL BE MONITORED BY THE PENNDOT BUILDING DDC SYSTEM (SIEMENS OR APPROVED EQUAL).
5. ALARM AND MONITORING OF THE DG FUEL TANK SHALL BE PERFORMED BY A VEEDER ROOT SYSTEM PROVIDED BY ELECTRICAL. THE DG FUEL TANK ALARM AND MONITORING SHALL INCLUDE FUEL TANK FULL, TANK LEAK ALARM, AND OVERFILL ALARM. A MODBUS/BACNET INTERFACE SHALL BE PROVIDED WITH THE VEEDER ROOT SYSTEM FOR TIE-IN INTO THE PENNDOT BUILDING DDC SYSTEM FOR MAPPING AND MONITORING OF VEEDER ROOT POINTS.
6. THE EXHAUST FAN EF-1 SHALL BE CONTROLLED BY A LINE VOLTAGE THERMOSTAT AND SHALL RUN WHEN THE ROOM TEMPERATURE RISES ABOVE THE SET POINT. WHEN THE FAN RECEIVES A START SIGNAL, THE EF-1 OUTSIDE AIR DAMPER AND THE EF-1 EXHAUST DAMPER SHALL OPEN. WHEN THE DAMPERS ARE CONFIRMED VIA END SWITCHES, THE EF MOTOR SHALL BE ENERGIZED. WHEN THE EF IS DE-ENERGIZED, THE MOTORIZED DAMPERS SHALL CLOSE.

MECHANICAL FLOOR PLAN AND SECTION VIEWS
M-102

PRE-FINAL DESIGN SUBMISSION



NOTE: PIPE SUPPORTS NOT SHOWN FOR CLARITY

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	9 OF 15	
4-0	LUZERNE	0080	352		
NESCOPECK					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

ELECTRICAL ABBREVIATIONS

THIS LIST OF ABBREVIATIONS & SYMBOLS IS PROVIDED FOR CONVENIENCE ONLY. ITEMS HERE MAY OR MAY NOT BE USED IN THIS PROJECT.

I/C	SINGLE CONDUCTOR	INCL	INCLUDE
A/C	AIR CONDITIONING UNIT	INST	INSTANTANEOUS
A	AMPS	INSU	INSULATION
AC	ALTERNATING CURRENT		
ACT	ABOVE CEILING TILE	JB	JUNCTION BOX
AFF	ABOVE FINISHED FLOOR	JH	JACKET HEATER
AFG	ABOVE FINISHED GRADE	JT	JOINT
AHU	AIR HANDLING UNIT		
AL	ALUMINUM	LV	LOW VOLTAGE
ATS	AUTOMATIC TRANSFER SWITCH	LTG	LIGHTING
ADJ	ADJUSTABLE	LTS	LIGHTS
ALT	ALTERNATE	LVR	LOUVER
ARCH	ARCHITECTURAL	MCB	MAIN CIRCUIT BREAKER
AUTO	AUTOMATIC	MH	MANHOLE
AVG	AVERAGE	MAX	MAXIMUM
		MDP	MAIN DISTRIBUTION PANEL
BC	BATTERY CHARGER		
BKR	BREAKER		
BLDG	BUILDING	MECH	MECHANICAL
BTM	BOTTOM	MFR	MANUFACTURER
		MGB	MAIN GROUNDING BAR
C	CONDUIT	MIN	MINIMUM
CT	CURRENT TRANSFORMER	MISC	MISCELLANEOUS
CKT	CIRCUIT	MLO	MAIN LUG ONLY
CLG	CEILING	MTD	MOUNTED
CO	COMPANY	MTG	MOUNTING
CONC	CONCRETE	N	NEUTRAL
CONN	CONNECTION	N.C	NORMALLY CLOSE
CONST	CONSTRUCTION	NE	NORMALZ EMERGENCY
CONT	CONTINUOUS	NFSS	NON-FUSED SAFETY SWITCH
CONTR	CONTRACTOR		
CU	COPPER	N.O	NORMALLY OPEN
CU	CONVENTION UNIT	NO	NUMBER
		NOM	NOMINAL
		NTS	NOT TO SCALE
DED	DEDICATED	OC	ON CENTER
DET	DETAIL	OH	OVER HEAD
DIAM	DIAMETER	OPNG	OPENING
DIM	DIMENSION		
DISC	DISCONNECT	PE	PROTECTIVE EARTH
DIV	DIVISION	PEND	PENDANT
DN	DOWN	PH	PENTHOUSE
DPR	DAMPER	PS	PULL SWITCH
DWG	DRAWING	PLBG	PLUMBING
D.S.	DISCONNECT SWITCH	PNL	PANEL
		PRESS SW	PRESSURE SWITCH
EA	EACH	RA	RETURN AIR
EF	EXHAUST FAN	REC	RECESSED
ELEC	ELECTRICAL	RECEPT	RECEPTACLE
EM	EMERGENCY ONLY	REQD	REQUIRED
EM GEN	EMERGENCY GENERATOR	RM	ROOM
ENCL	ENCLOSURE		
EQUIP	EQUIPMENT	SECT	SECTION
ER	EXISTING RELOCATED	SIM	SIMILAR
ETR	EXISTING TO REMAIN	SQ FT	SQUARE FOOT
EUH	ELECTRIC UNIT HEATER	STAT	THERMOSTAT
EWC	ELECTRIC WATER COOLER	STD	STANDARD
EXH	EXHAUST	STL	STEEL
EX	EXISTING	STOR	STORAGE
EXTER	EXTERIOR	STRUCT	STRUCTURAL
		SURF	SURFACE
F&I	FURNISHED AND INSTALLED	SUSP	SUSPENDED
FACP	FIRE ALARM CONTROL PANEL	SW	SWITCH
FBO	FURNISHED BY OTHERS		
FIN	FINISH	T-STAT	THERMOSTAT
FIXT	FIXTURE	TEMP	TEMPERATURE
FLR	FLOOR	TERM	TERMINAL
FLUOR	FLUORESCENT	THK	THICK
FU	FUSE	TYP	TYPICAL
		TMGB	TELECOM MAIN GROUND BAR
GA	GAUGE		
GAL	GALLONS		
GC	GENERAL CONTRACTOR		
GFI	GROUND FAULT INTERRUPTER	UG	UNDERGROUND
		UPS	UNINTERRUPTIBLE POWER SUPPLY
		UV	UNIT VENTILATOR
HV	HIGH VOLTAGE		
HGT	HEIGHT		
HORIZ	HORIZONTAL		
HP	HORSEPOWER	VT	VAPOR TIGHT
HTG	HEATING	VERT	VERTICAL
HZ	HERTZ	VOL	VOLUME
HP	HEAT PUMP		
		WP	WEATHERPROOF
		WT	WEIGHT
		XFMR	TRANSFORMER

ELECTRICAL SYMBOLS

GENERAL SYMBOLS

	KEY NOTE INDICATOR
	ELECTRICAL EQUIPMENT INDICATOR
	SCHEDULE ITEM INDICATOR
	DRAWING REVISION INDICATOR
	MECHANICAL EQUIPMENT INDICATOR - SEE MECHANICAL SHEETS FOR SCHEDULE INFORMATION

CONDUIT AND WIRING

	CIRCUIT BREAKER
	BRANCH CIRCUIT RUN CONCEALED
	BRANCH CIRCUIT UP OR DOWN
	HOME RUN TO PANEL 2A CKTS 3 & 5
	NORMAL & EMERGENCY BRANCH CIRCUIT
	EMERGENCY ONLY BRANCH CIRCUIT
	NIGHT LIGHT BRANCH CIRCUIT
	LOW VOLTAGE CIRCUIT
	EXISTING BRANCH CIRCUIT
	SURFACE METAL RACEWAY SIZED FOR NO. OF CONDUCTORS TO BE INSTALLED
	CABLE TRAY
	INDICATES CONNECTION TO EXISTING

POWER SYSTEM AND DISTRIBUTION

	SURFACE MOUNTED PANELBOARD
	UTILITY METERING EQUIPMENT
	DISCONNECT SWITCH
	JUNCTION BOX
	DUPLEX RECEPTACLE
	GENERATOR
	DAMPER MOTOR

SECURITY

	CARD READER
	ELECTRIC STRIKE
	SECURITY POWER SUPPLY
	SURFACE MOUNTED DOOR CONTACTS
	AUDIBLE DOOR ALARM
	PUSH BUTTON DOOR RELEASE
	ELECTROMAGNETIC DOOR LOCK
	REQUEST FOR EXIT
	SECURITY CAMERA

LIGHTING

	WALL BOX DUAL TECHNOLOGY OCCUPANCY SENSOR
	STRIP LIGHTING FIXTURE
	WALL MOUNTED LIGHTING FIXTURE

GROUNDING AND LIGHTNING PROTECTION

	GROUNDING CONNECTION
	GROUND ROD TRIODE

GENERAL NOTES

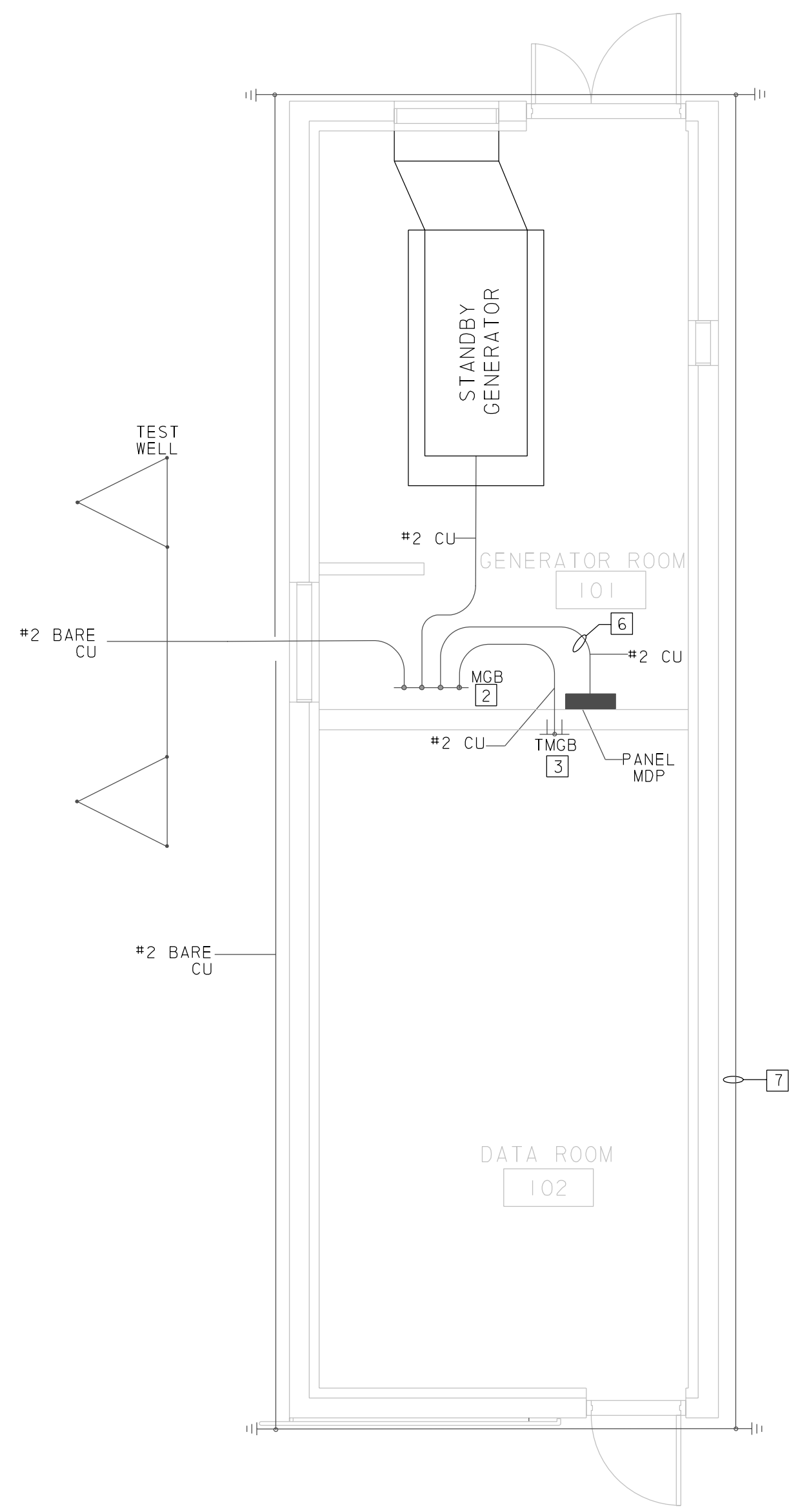
- ALL WORK SHALL COMPLY WITH REQUIREMENTS OF THE APPLICABLE EDITION OF THE N.E.C., N.E.S.C., ALL LOCAL CODES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORK.
- ALL SYSTEMS SHALL BE INSTALLED AND WIRED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
- WORK SHALL MEET THE APPROVAL OF THE OWN REPRESENTATIVE.
- MATERIAL AND EQUIPMENT SHALL BE NEW AND UL APPROVED AND SHALL MEET NEMA, ANSI, IEEE & N.E.C REQUIREMENTS FOR INTENDED SERVICE. MATERIAL AND INSTALLATION SHALL MEET REQUIREMENTS OF THE N.E.C
- DUPLEX RECEPTACLES SHALL BE SURFACE MOUNTED ON MASONRY WALLS WITH SURFACE MOUNTED OUTLETS BOX AND SURFACE METAL RACEWAY WHERE DUPLEX RECEPTACLES ARE SHOWN AND CAN BE INSTALLED IN GYPSUM BOARD CONSTRUCTION, THEY SHALL BE RECESS MOUNTED.
- LOCATE JUNCTION BOXES AS REQUIRED TO ALLOW ACCESS AFTER MECHANICAL EQUIPMENT AND DUCTWORK IS INSTALLED. COORDINATE EXACT LOCATIONS WITH THE MECHANICAL DRAWINGS.
- ANY ADDITIONAL COST TO ENSURE DELIVERY OF PANELS, LIGHT FIXTURES, ETC. TO MEET THE CONSTRUCTION SCHEDULE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- PROVIDE GREEN GROUND WIRE FROM PANEL FOR ALL NEW CIRCUITS. PROVIDE A GREEN GROUND WIRE FOR EACH COMMON NEUTRAL TO POINT OF USE. PROVIDE GROUND BUS BARS IN EACH PANEL SHOWN ON DRAWINGS REGARDLESS IF WORK IS SHOWN IN THEM.
- EXPOSED CONDUITS SHALL BE GALVANIZED RIGID STEEL, CONNECTION TO VIBRATING EQUIPMENT SHALL BE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR ELECTRICAL RACEWAY INSIDE BUILDING.
- CONDUCTORS SHALL BE THHN-THWN, SINGLE CONDUCTORS IN RACEWAY, SOLID OR STRANDED FOR #10 AWG AND SMALLER, STRANDED FOR #8 AWG AND LARGER. CONDUCTORS SMALLER #12 AWG SHALL NOT BE USED FOR POWER OR LIGHTING CIRCUITS.
- EACH DESIGNATED CIRCUIT HOME RUN SERVING RECEPTACLES SHALL HAVE ITS OWN INDIVIDUAL FULL SIZE NEUTRAL BACK TO PANEL.
- WHERE CONDUITS TERMINATE AT ELECTRICAL ENCLOSURE IN OUTDOOR LOCATIONS AND IN WET INDOOR LOCATIONS, PROVIDE CABLE SEALS FOR CABLES IN THE CONDUIT TO PREVENT WATER FROM SEEPING INTO ELECTRICAL ENCLOSURES. CONDUIT TERMINATIONS AT ELECTRICAL ENCLOSURES IN OUTDOOR AND WET INDOOR AREAS SHALL BE MADE THROUGH THE BOTTOM OR SIDE OF THE ENCLOSURE.
- COORDINATE ELEVATION AND LOCATION OF ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.
- BALANCE PANEL PHASES ONCE USER EQUIPMENT IS INSTALLED AND OPERATIONAL.
- WHERE NO SHORT CIRCUIT INTERRUPT/WITHSTAND RATING IS INDICATED, DEVICES OR EQUIPMENT SHALL BE RATED THE SAME AS THE NEAREST UPSTREAM DEVICE. SHORT CIRCUIT WITHSTAND RATINGS SHALL BE DETERMINED BY THE MANUFACTURER DURING THE SHORT CIRCUIT COORDINATION STUDY.
- WIRE SIZES ARE BASED ON 75 AND 90 DEGREE C TEMPERATURE RATING FOR EQUIPMENT LUGS AS DETERMINED BY N.E.C. TABLE 310.15(B)(16).
- ALL SWITCH LEGS SHALL HAVE A NEUTRAL AND GROUND CONDUCTOR INSTALLED IN ADDITION TO SWITCH LEGS.
- WHERE UNGROUNDED CONDUCTORS ARE INCREASED IN SIZE, EQUIPMENT GROUNDING CONDUCTORS, WHERE INSTALLED SHALL BE INCREASED IN SIZE.
- CONDUIT SHALL NOT BE USED AS GROUND. ALL CIRCUITS SHALL CONTAIN AN INDIVIDUAL NEUTRAL CONDUCTOR AND GROUND CONDUCTOR.
- COLOR CODING OF CONDUCTORS SHALL BE AS FOLLOWS.
120/240V SYSTEM
PHASE A = BLACK
PHASE B = RED
NEUTRAL = WHITE
GROUND = GREEN
- CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERABLE WIRING SYSTEM.
- CONTRACTOR TO SUPPLY AND INSTALL ADEQUATE APPROVED SERVICE ENTRANCE EQUIPMENT FOR 120/240V, 1 PHASE 400A UNDERGROUND SERVICE

ELECTRICAL SYMBOLS AND
GENERAL NOTES
E-01

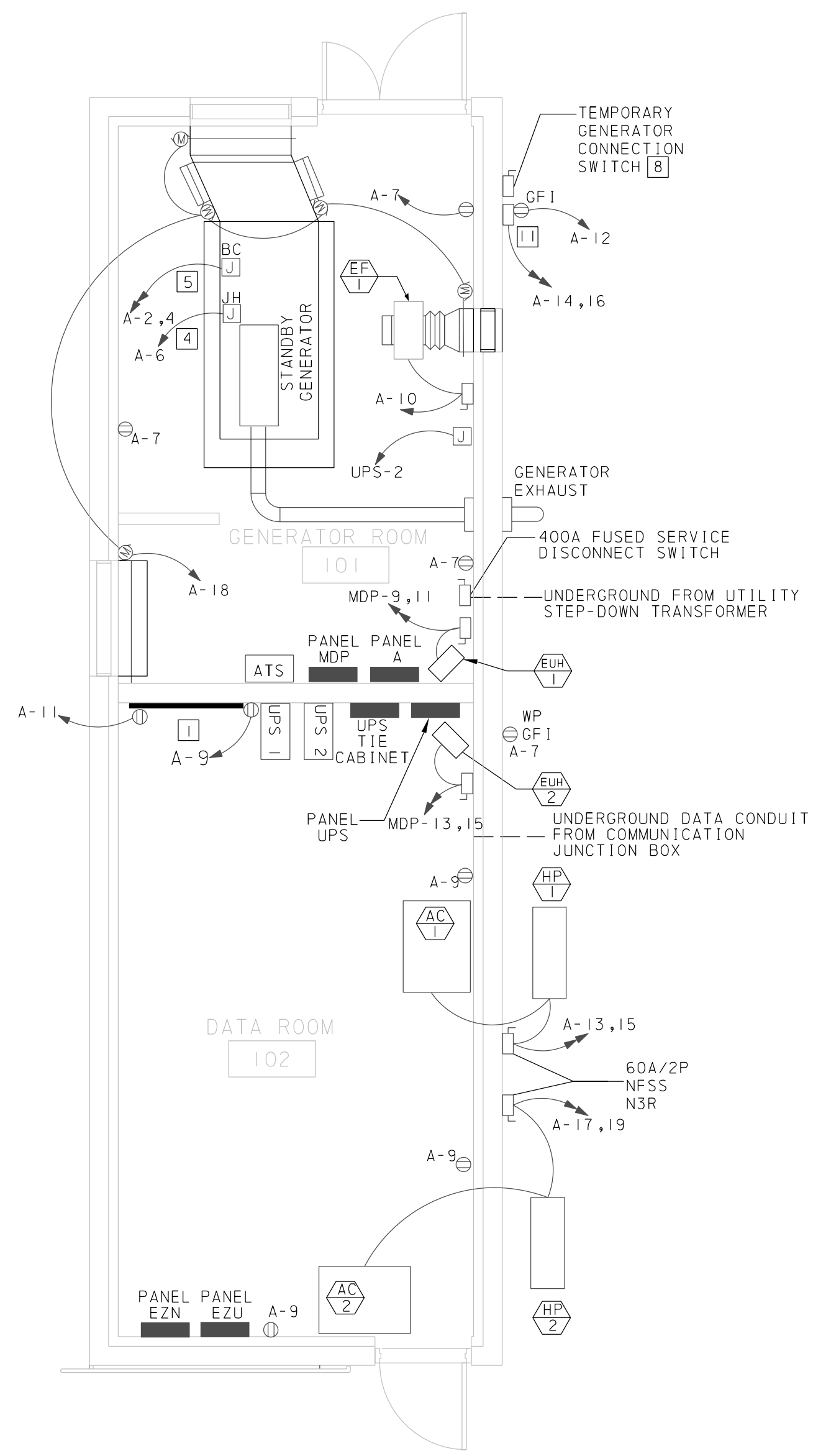
**PRE-FINAL
DESIGN
SUBMISSION**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	10 OF 15	
4-0	LUZERNE	0080	352		
NESCOPECK					
REVISION NUMBER	REVISIONS			DATE	BY

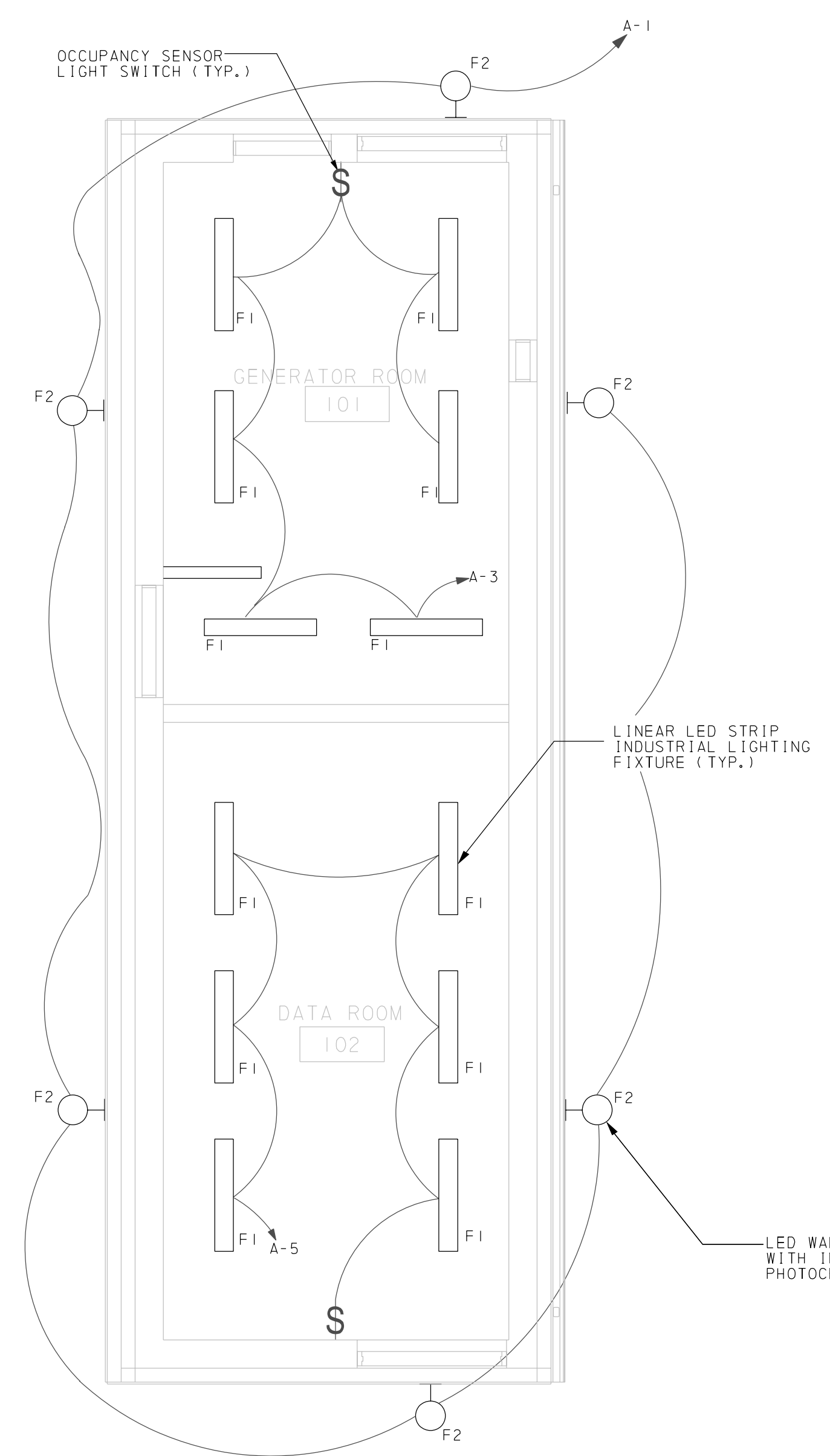
** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS



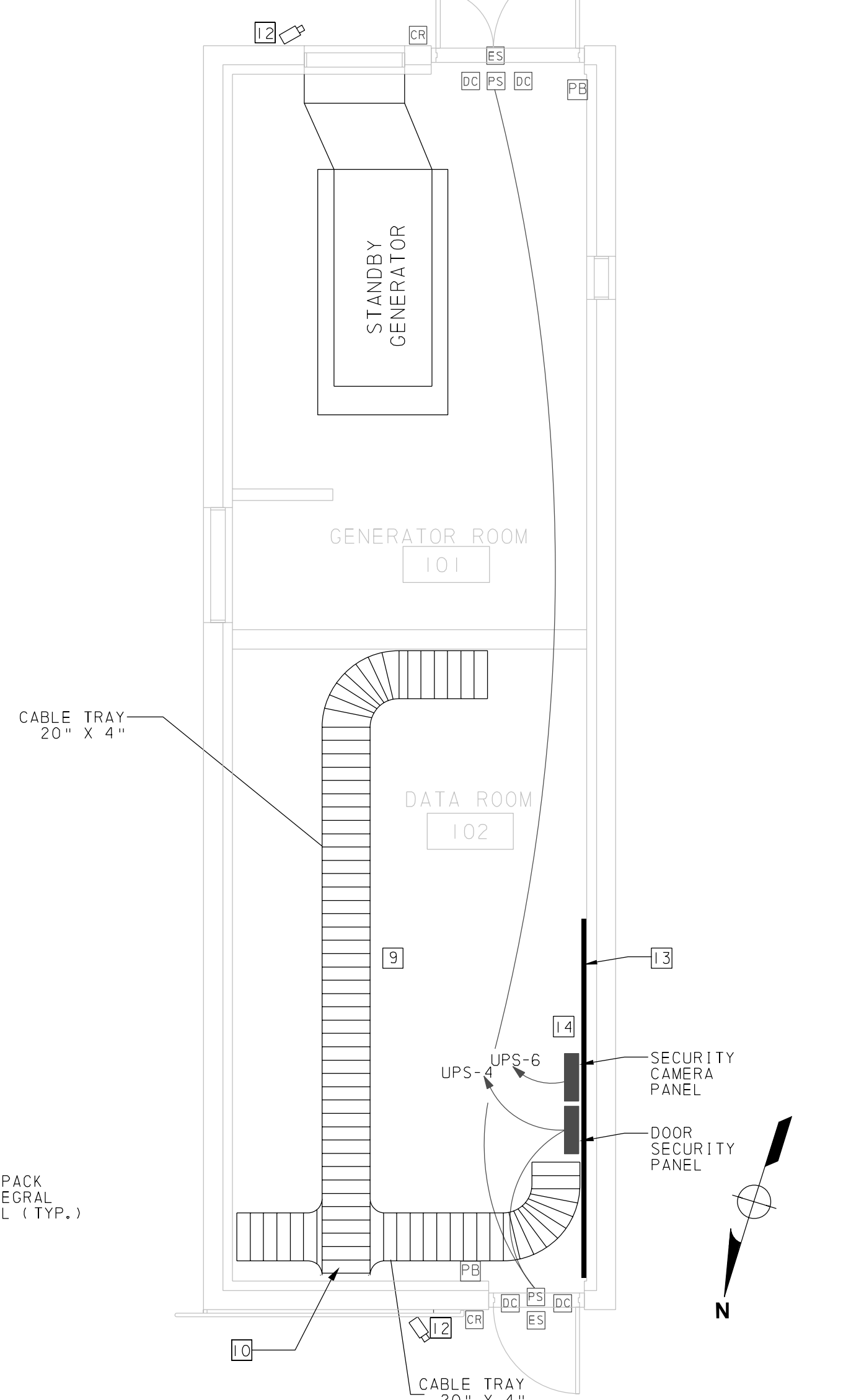
1 UTILITY BUILDING GROUNDING PLAN
NOT DRAWN TO SCALE



2 UTILITY BUILDING POWER AND SYSTEMS PLAN
NOT DRAWN TO SCALE



3 UTILITY BUILDING LIGHTING PLAN
NOT DRAWN TO SCALE



4 UTILITY BUILDING SECURITY PLAN
NOT DRAWN TO SCALE

DRAWING NOTES

- SEE SHEET E-103 UNDERGROUND CONDUIT DETAILS. COORDINATE THE FINAL LOCATIONS OF GROUNDING ELECTRODES (GROUND RODS, GROUND RING, TEST WELLS ETC) IN FIELD PRIOR TO INSTALLATION. REFER TO E-106 FOR GROUND BAR DETAILS.
- ABOVE EQUIPMENT PLAN SHOWN FOR INFORMATION PURPOSES ONLY, FINAL EQUIPMENT AND LAYOUT TO BE DETERMINED AND COORDINATED WITH TOLL SYSTEM INTEGRATOR.
- SEE ROADWAY AND UNDERGROUND CONDUIT PLAN DRAWINGS FOR

- CONDUIT ROUTINGS. CONDUITS SHALL BE PROVIDED BY CONTRACTOR.
- PROVIDE COMPLETE LIGHTNING PROTECTION SYSTEM FOR THIS BUILDING. THE COMPLETED INSTALLATION SHALL MEET THE REQUIREMENTS OF THE NFPA 780, AND "INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS, UL 96A" OF UNDERWRITERS LABORATORIES, INC. THE UL LIGHTNING PROTECTION MASTER LABEL INSPECTION CERTIFICATE SHALL BE FURNISHED UPON COMPLETION. ALL CABLING FOR THIS SYSTEM SHALL BE CONCEALED AS APPROVED BY THE REPRESENTATIVE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

- PROVIDE SURGE PROTECTION DEVICES (SPDs) FOR ALL NEW ELECTRICAL PANEL BOARDS. SURGE PROTECTION DEVICES SHALL BE BUS MOUNTED.
- INSTALL EXTERIOR WALL PACKS CENTERED ABOVE DOOR. COORDINATE LOCATION IN THE FIELDS. MOUNT LIGHT FIXTURE SUCH THAT THE BOTTOM OF FIXTURE IS APPROX. 8'-0" ABOVE FURNISHED FLOOR.
- INSTALL INTERIOR LIGHT FIXTURE SUCH THAT THE BOTTOM OF FIXTURE IS APPROX. 9'-0" ABOVE FURNISHED FLOOR. SEE SHEET E-106 FOR DETAILS.

KEYNOTES

- LOCATION OF TELEPHONE TERMINAL BOARD. PROVIDE 3/4" PLYWOOD, IN THIS AREA. PAINT PLYWOOD WHITE ON ALL SIDES.
- PROVIDE A 12" LONG COPPER GROUND BAR WITH INSULATING STANDOFFS AND TWO BOLT CRIMP CONNECTORS ON ALL WIRES, IN THIS LOCATION. BOND ALL GROUNDING ELECTRODES TO THIS BAR.
- PROVIDE A 12" LONG COPPER GROUND BAR WITH INSULATING STANDOFFS AND TWO BOLT CRIMP CONNECTORS ON ALL WIRES, IN THIS LOCATION. FOR ALL TELECOMMUNICATIONS GROUNDING.
- POWER TO GENERATOR JACKET HEATER.
- POWER TO GENERATOR BATTERY CHARGER.
- INSTALL GROUND CONDUCTOR IN 1" PVC CONDUIT TO MDP.

- INSTALL BARE GROUND WIRE AT THE TOP OF THE FOOTING. COORDINATE EXACT LOCATION WITH FIELD CONDITIONS.
- LOCATION OF PORTABLE GENERATOR CONNECTION. PROVIDE DOUBLE THROW SWITCH WITH CAM LOCK CONNECTIONS INTEGRAL TO THE SWITCH PER THE RISER DIAGRAM.
- PROVIDE 4" HIGH X 20" WIDE LADDER STYLE CABLE TRAY. COORDINATE EXACT LOCATION AND ROUTING WITH THE EQUIPMENT VENDOR PRIOR TO INSTALLATION.
- EXTEND CABLE TRAY VERTICALLY DOWN WALL TO CONDUIT SLEEVES. COORDINATE EXACT LENGTH IN THE FIELD WITH EQUIPMENT VENDOR PRIOR TO INSTALLATION.

- PROVIDE APEX CONNECTION BOX FOR TEMPORARY GENERATOR CONNECTION PER THE TURNPIKE COMMISSION REQUIREMENTS. PROVIDE (1) 1-1/4" CONDUIT FROM BOX TO ATS FOR CONTROLS. ADDITIONAL COMPONENTS SHALL BE (1) 20A GFI RECEPTACLE, AND (1) 30A, 240V BLOCK HEATER CONNECTION.
- COORDINATE THE SECURITY CAMERA LOCATION WITH OWNER. VERIFY THE EXACT LOCATION IN THE FIELD.

- PROVIDE 3/4" PLYWOOD IN THIS AREA. PAINT PLYWOOD WHITE ON ALL SIDES.
- PROVIDE ALL CABLING FOR SECURITY DEVICES AS PER THE SPECIFICATION.

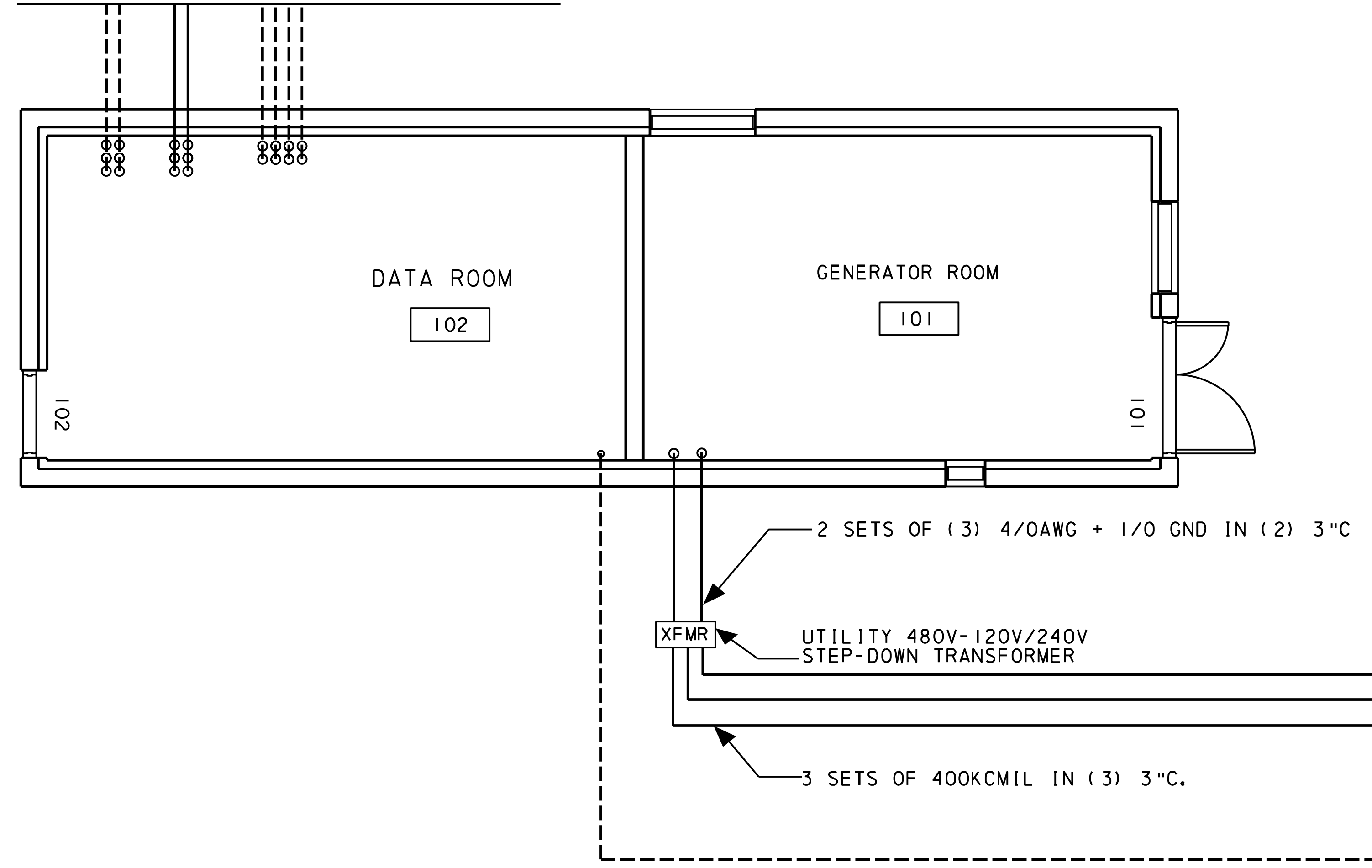
ELECTRICAL FLOOR PLANS
E - 102

**PRE-FINAL
DESIGN
SUBMISSION**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	11 OF 15	
4-0	LUZERNE	0080	352		
NESCOPECK					
REVISION NUMBER	REVISIONS			DATE	BY

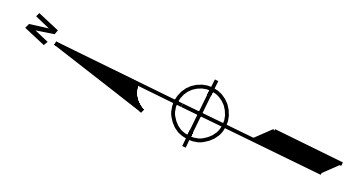
** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

SEE ROADWAY SET SHEET FOR CONDUIT LAYOUT



LEGEND

- PROPOSED 2" CONDUIT
- PROPOSED 3" CONDUIT
- PROPOSED COMMUNICATIONS CONDUIT
- PROPOSED POWER CONDUIT



NOTES:

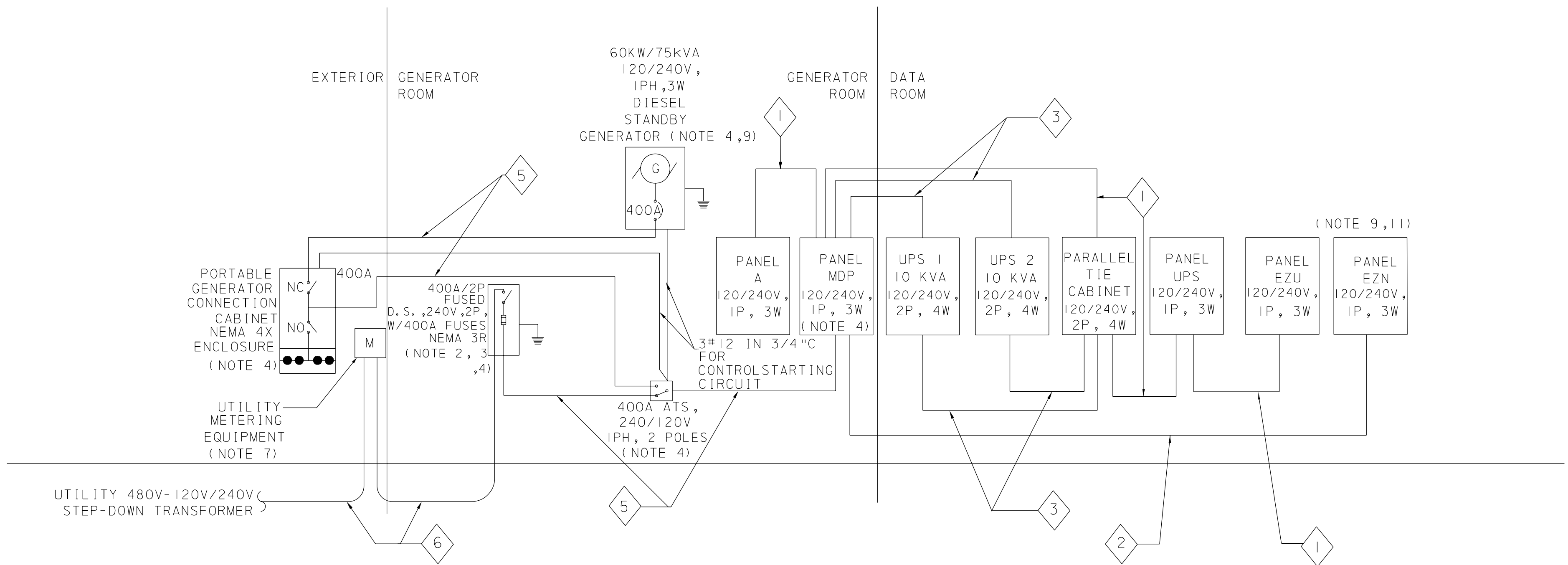
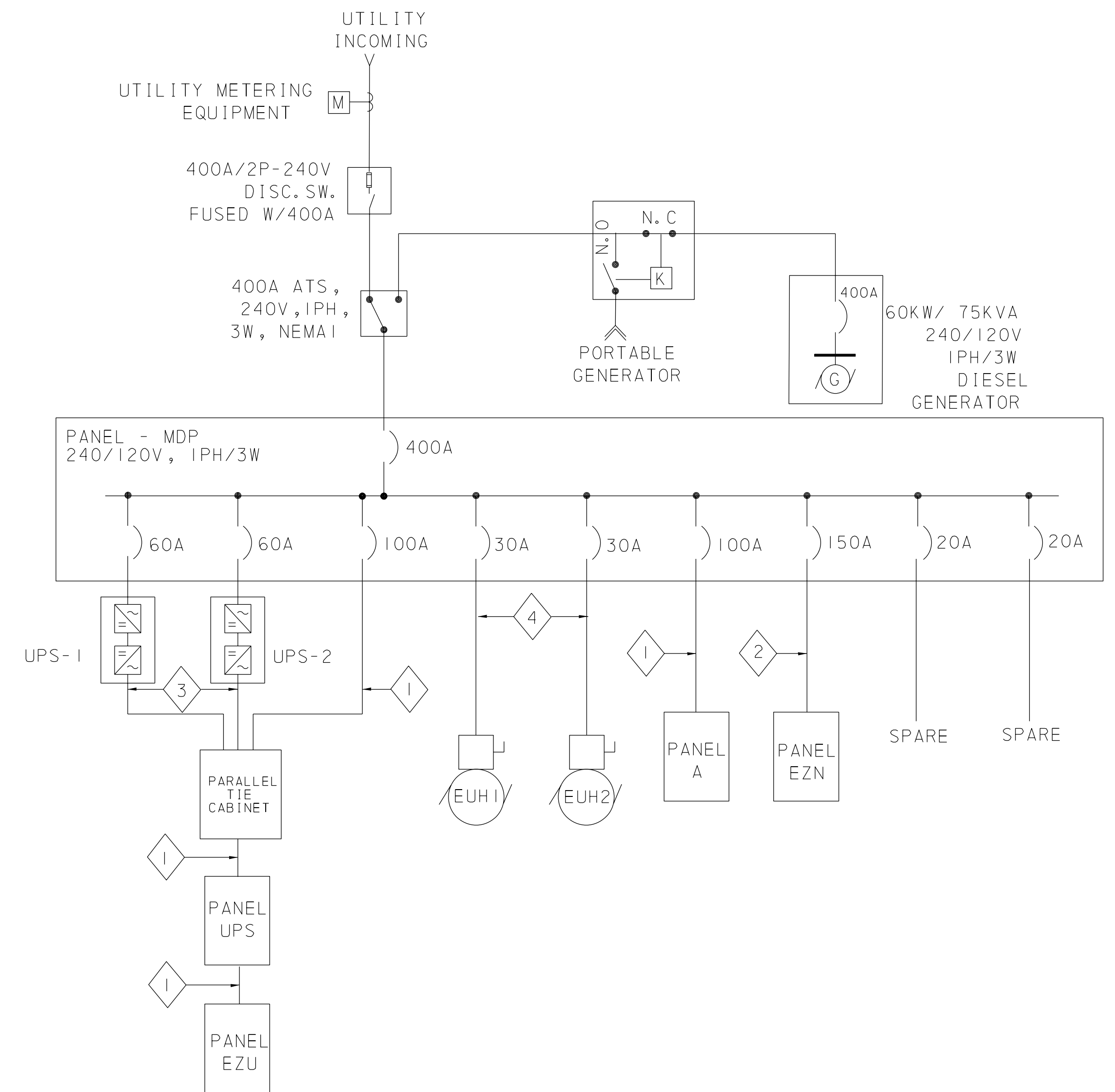
1. REFER TO ROADWAY SET FOR DETAILED CONDUIT LOCATION AND ADDITIONAL UNDERGROUND INFORMATION.
2. CONDUITS SHALL BE PLACED 6" ABOVE THE FLOOR.
3. CONDUITS IN DATA ROOM SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE WALL.
4. CONDUITS SHALL BE SPACED IN ACCORDANCE TO NFPA 70.

UNDERGROUND CONDUIT
PLAN
E - 103

**PRE-FINAL
DESIGN
SUBMISSION**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	12 OF 15	
4-0	LUZERNE	0080	352		
NESCOPECK					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS



1 SINGLE LINE DIAGRAM

2 POWER RISER DIAGRAM

NOTES:

- COORDINATE LOCATION OF METERING EQUIPMENT WITH UTILITY REPRESENTATIVE. PROVIDE METERING EQUIPMENT PER UTILITY STANDARDS.
- PROVIDE GROUNDING IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE.
- FUSED DISCONNECT SHALL BE RATED FOR A SERVICE ENTRANCE.
- NEUTRAL BUS AND GROUND BUS SHALL BE BONDED TO DERIVE SERVICE GROUND FOR ELECTRICAL SYSTEM.
- SERVICE DISCONNECTING MEANS SIGN SHALL BE PROVIDED AT INDICATED LOCATIONS.
- PROVIDE A #2 INSULATED COPPER GROUNDING ELECTRODE CONDUCTOR, IN 1" PVC CONDUIT TO WALL MOUNTED GROUND BUS. REFER TO THE GROUNDING PLAN FOR ADDITIONAL INFORMATION.
- THESE DESIGN DRAWINGS ARE NOT FOR CONSTRUCTION, PRELIMINARY AND SUBJECT TO CHANGE WHEN MORE INFORMATION IS AVAILABLE.

- PROVIDE SURGE PROTECTION DEVICES (SPDs) FOR ALL NEW ELECTRICAL PANEL BOARDS. SURGE PROTECTION DEVICES SHALL BE BUSS MOUNTED.
- ALL PANELS, IN ADDITION TO MAIN BREAKER, SHALL BE 80% RATED.
- MAIN BREAKER FOR GENERATOR SHALL ALSO BE 80% RATED.
- ALL PANELS SHALL BE NEMA 3R RATED.

FEEDER SCHEDULE	
1	(3) # 1 + 1 # 6G IN 1-1/2 " RGS
2	(3) # 1 / 0 + 1 # 6G IN 1-1/2 " RGS
3	(3) # 6 + 1 # 8G IN 3/4 " RGS
4	(3) # 10 + 1 # 8G IN 3/4 " RGS
5	(2) SET OF (3) 4/0 + 1 # 1/0G IN (2) 3 " RGS
6	(2) SET OF (3) 4/0 + 1 # 1/0G IN (2) 3 " PVC SCH-80

POWER RISER AND SINGLE LINE DIAGRAM
E - 104

PRE-FINAL DESIGN SUBMISSION

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	13 OF 15	
4-0	LUZERNE	0080	352		
NESCOPECK					
REVISION NUMBER	REVISIONS			DATE	BY

** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS

PANEL SCHEDULE															
PANEL: MDP (NEW)		LOCATION: GENERATOR ROOM SERVICE: ATS BUS: 400A MOUNTING: SURFACE INTERRUPTING CURRENT: TBD				MAIN TYPE: MCB MCB RATING: 400A VOLTAGE: 120/240V PHASE: 1Ø-4W									
Wiring Size Cond.	Wiring Size Wire	Load Description	Load kVA	Brkr P	Brkr Trip	Ckt No	KVA A	KVA B	Ckt No	Brkr Trip	Brkr P	Load kVA	Load Description	Wiring Size Wire	Wiring Size Cond.
1-1/2"	#1	PANEL A	8.53	2	100	1	8.5		2	100	2	20.00	BYPASS PARALLEL TIE	#1	1-1/2"
			8.25			3		8.2	4						
1-1/2"	#10	PANEL EZN	10.32	2	150	5	20.3		6	60	2	10.00	UPS - 1	#6	3/4"
			9.96			7		10.0	8						
3/4"	#10	EUH-1	2.78	2	30	9	12.8		10	60	2	10.00	UPS - 2	#6	3/4"
			2.78			11		2.8	12						
3/4"	#10	EUH-2	2.78	2	30	13	3.0		14	20	1	0.18	TEMP GENERATOR GFI	#12	3/4"
			2.78			15		2.8	16	30	2	0.00	TEMP GEN BLOCK HEATER	#10	3/4"
		SPARE		1	20	17			18				SPARE		
		SPARE		1	20	19			20	1	20		SPARE		
		SPARE		1	20	21			22	1	20		SPARE		
		SPARE		1	20	23			24	1	20		SPARE		
		SPARE		1	20	25			26	1	20		SPARE		
		SPARE		1	20	27			28	1	20		SPARE		
		SPARE		1	20	29			30	1	20		SPARE		
		SPARE		1	20	31			32	1	20		SPARE		
		SPARE		1	20	33			34	1	20		SPARE		
		SPARE		1	20	35			36	1	20		SPARE		
		SPARE		1	20	37			38	1	20		SPARE		
		SPARE		1	20	39			40	1	20		SPARE		
Subtotal Load Per Phase, KVA							44.6	23.8							
Total connected load, KVA							68.4								
Total Connected Current, AMPS							284.8								

NOTES:
1 - MDP PANELBOARD MAIN BUS SHALL BE EQUIPPED WITH INTEGRAL VOLTAGE SURGE SUPPRESSOR.

PANEL SCHEDULE															
PANEL: EZN (NEW)		LOCATION: DATA ROOM SERVICE: PANEL MDP BUS: 225A MOUNTING: SURFACE INTERRUPTING CURRENT: TBD				MAIN TYPE: MLO MCB RATING: N/A VOLTAGE: 120/240V PHASE: 1Ø-4W									
Wiring Size Cond.	Wiring Size Wire	Load Description	Load kVA	Brkr P	Brkr Trip	Ckt No	KVA A	KVA B	Ckt No	Brkr Trip	Brkr P	Load kVA	Load Description	Wiring Size Wire	Wiring Size Cond.
3/4"	#10	RACK #1 RECEPTACLE	0.67	2	30	1	1.3		2	30	2	0.67	RACK #1 RECEPTACLE	#10	3/4"
			0.67			3		1.3	4			0.67			
3/4"	#10	RACK #2 RECEPTACLE	0.67	2	30	5	1.3		6	30	2	0.67	RACK #2 RECEPTACLE	#10	3/4"
			0.67			7		1.3	8			0.67			
3/4"	#10	RACK #3 RECEPTACLE	0.67	2	30	9	1.3		10	30	2	0.67	RACK #3 RECEPTACLE	#10	3/4"
			0.67			11		1.3	12			0.67			
3/4"	#10	RACK #4 RECEPTACLE	0.67	2	30	13	1.3		14	30	2	0.67	RACK #4 RECEPTACLE	#10	3/4"
			0.67			15		1.3	16			0.67			
3/4"	#10	RACK #5 RECEPTACLE	0.67	2	30	17	1.3		18	30	2	0.67	RACK #5 RECEPTACLE	#10	3/4"
			0.67			19		1.3	20			0.67			
3/4"	#10	RACK #6 RECEPTACLE	0.67	2	30	21	1.3		22	30	2	0.67	RACK #6 RECEPTACLE	#10	3/4"
			0.67			23		1.3	24			0.67			
3/4"	#12	RACK #1 RECEPTACLE	0.18	1	20	25	0.4		26	20	1	0.18	RACK #4 RECEPTACLE	#12	3/4"
3/4"	#12	RACK #2 RECEPTACLE	0.18	1	20	27		0.4	28	20	1	0.18	RACK #5 RECEPTACLE	#12	3/4"
3/4"	#12	RACK #3 RECEPTACLE	0.18	1	20	29	0.4		30	20	1	0.18	RACK #6 RECEPTACLE	#12	3/4"
		SPARE		1	20	31		0.0	32	20	1		SPARE		
		SPARE		1	20	33	0.0		34	20	1		SPARE		
		SPARE		1	20	35		0.0	36	20	1		SPARE		
3/4"	#12	GANTRY LIGHTING	0.80	1	20	37	1.6		38	20	1	0.80	GANTRY LIGHTING	#12	3/4"
3/4"	#12	GANTRY LIGHTING	0.80	1	20	39		1.6	40	20	1	0.80	GANTRY LIGHTING	#12	3/4"
Subtotal Load Per Phase, KVA							10.32	9.96							
Total connected load, KVA							20.29								
Total connected current, Amps							84.53								

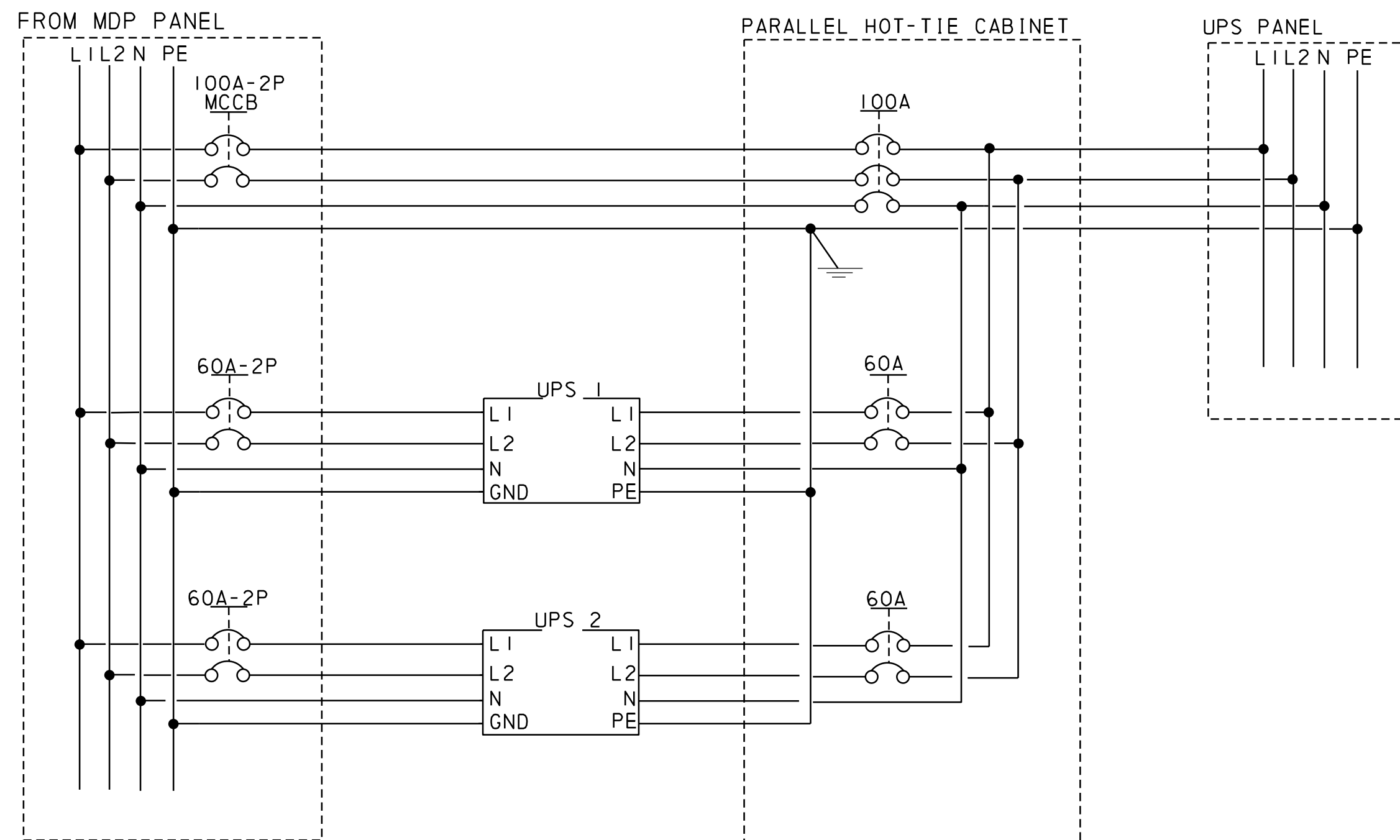
PANEL SCHEDULE															
PANEL: UPS (NEW)		LOCATION: GENERATOR ROOM SERVICE: PANEL MDP BUS: 100A MOUNTING: SURFACE INTERRUPTING CURRENT: TBD				MAIN TYPE: MLO MCB RATING: N/A VOLTAGE: 120/240V PHASE: 1Ø-4W									
Wiring Size Cond.	Wiring Size Wire	Load Description	Load kVA	Brkr P	Brkr Trip	Ckt No	KVA A	KVA B	Ckt No	Brkr Trip	Brkr P	Load kVA	Load Description	Wiring Size Wire	Wiring Size Cond.
1-1/2"	#1	PANEL EZU	8.00	2	100	1	8.3		2	20	1	0.25	GENERATOR FUEL CONTROL SYSTEM	#12	3/4"
			8.00			3		8.3	4	20	1	0.25	DOOR SECURITY PANEL	#12	3/4"
		SPARE		1	20	5	0.3		6	20	1	0.25	SECURITY CAMERAS PANEL	#12	3/4"
		SPARE		1	20	7	0.0		8	20	1		SPARE		
		SPARE		1	20	9	0.0		10	20	1		SPARE		
		SPARE		1	20	11		0.0	12	20	1		SPARE		
		SPARE		1	20	13	0.0		14	20	1		SPARE		
		SPARE		1	20	15	0.0		16	20	1		SPARE		
		SPARE		1	20	17	0.0		18	20	1		SPARE		
		SPARE		1	20	19		0.0	20	20	1		SPARE		
Subtotal Load Per Phase, KVA							8.5	8.3							
Total connected load, KVA							16.8								
Total connected current, Amps							69.8								

PANEL SCHEDULE															
PANEL: A (NEW)		LOCATION: GENERATOR ROOM SERVICE: PANEL MDP BUS: 100A MOUNTING: SURFACE INTERRUPTING CURRENT: TBD				MAIN TYPE: MLO MCB RATING: N/A VOLTAGE: 120/240V PHASE: 1Ø-4W									
Wiring Size Cond.	Wiring Size Wire	Load Description	Load kVA	Brkr P	Brkr Trip	Ckt No	KVA A	KVA B	Ckt No	Brkr Trip	Brkr P	Load kVA	Load Description	Wiring Size Wire	Wiring Size Cond.
3/4"	#12	EXTERIOR LIGHTING	0.07	1	20	1	1.6		2	20	2	1.50	JACKET HEATER	#12	3/4"
3/4"	#12	INTERIOR LIGHTING	0.14	1	20	3		1.6	4			1.50			
3/4"	#12	INTERIOR LIGHTING	0.14	1	20	5	0.4		6	20	1	0.25	BATTERY CHARGER	#12	3/4"
3/4"	#12	RECEPTACLES	0.54	1	20	7		0.6	8	20	1	0.10	GENERATOR CONTROL SYSTEM	#12	3/4"
3/4"	#12	RECEPTACLES	0.72	1	20	9	0.9		10	20	1	0.14	EF-1	#12	3/4"
3/4"	#12	RECEPTACLES TELEPHONE	0.18	1	20	11		0.4	12	20	1	0.18	TEMP GENERATOR GFI	#12	3/4"
3/4"	#10	HP-1 (PRIME)	5.61	2	40	13	5.6		14	30	2	0.00	TEMP GEN BLOCK HEATER	#10	3/4"
			5.61			15		5.6	16	20		0.00			
3/4"	#10	HP-2 (BACKUP)	0.00	2	40	17	0.1		18	20	1	0.10	MOTORIZED DAMPERS	#12	3/4"
			0.00			19		0.0	20	20	1		SPARE		
		SPARE		1	20	21	0.0		22	20	1		SPARE		
		SPARE		1	20	23		0.0	24	20	1		SPARE		
		SPARE		1	20	25	0.0		26	20	1		SPARE		
		SPARE		1	20	27		0.0	28	20	1		SPARE		
		SPARE		1	20	29			30	20	1		SPARE		
		SPARE		1	20	31			32	20	1		SPARE		
		SPARE		1	20	33			34	20	1		SPARE		
		SPARE		1	20	35			36	20	1		SPARE		
		SPARE		1	20	37			38	20	1		SPARE		
		SPARE		1	20	39			40	20	1		SPARE		
Subtotal Load Per Phase, KVA							8.5	8.2							
Total connected load, KVA							16.8								
Total Connected Current, AMPS							69.92								

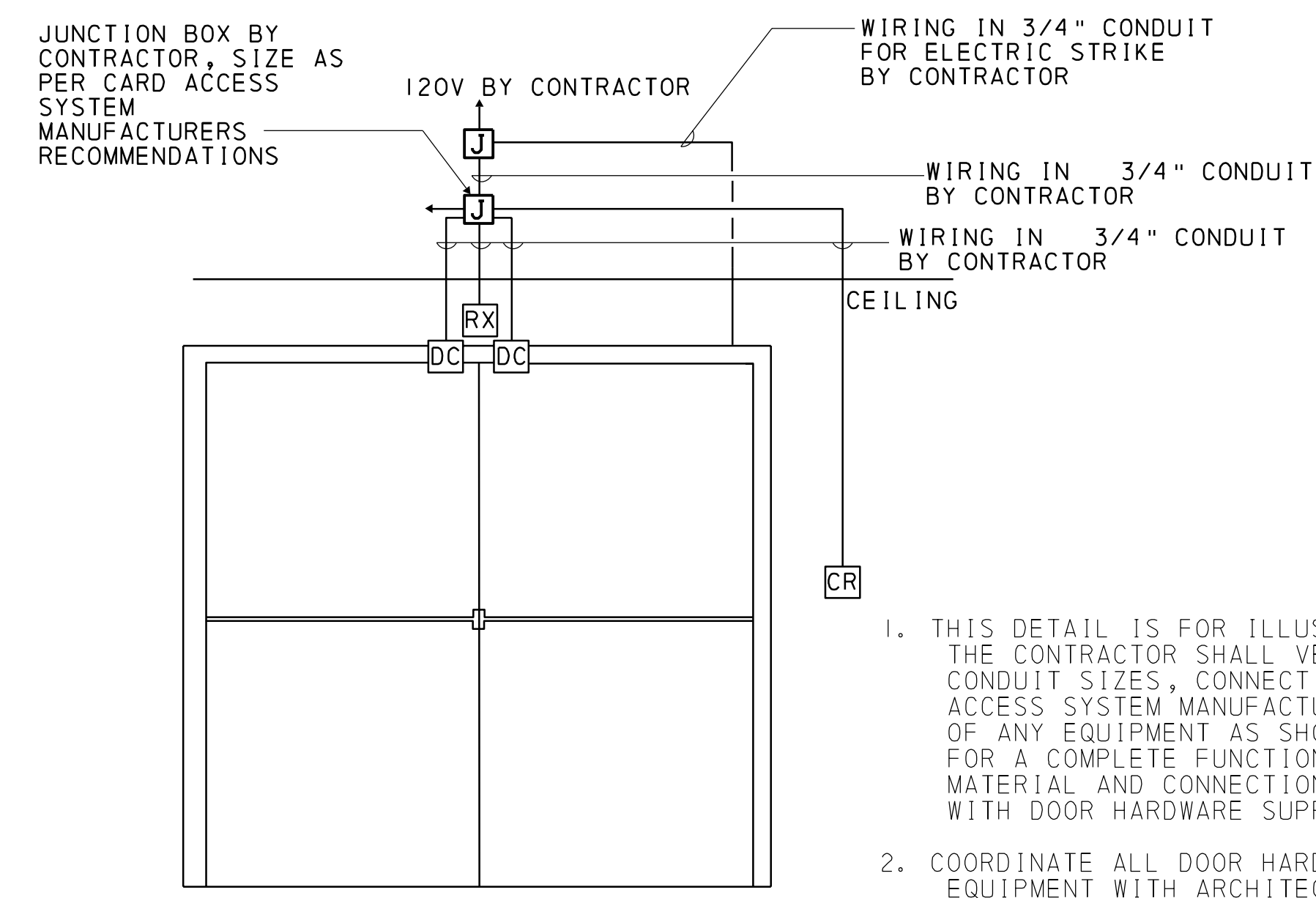
PANEL SCHEDULE															
PANEL: EZU (NEW)		LOCATION: DATA ROOM SERVICE: PANEL UPS BUS: 125A MOUNTING: SURFACE INTERRUPTING CURRENT: TBD				MAIN TYPE: MLO MCB RATING: N/A VOLTAGE: 120/240V PHASE: 1Ø-4W									
Wiring Size Cond.	Wiring Size Wire	Load Description	Load kVA	Brkr P	Brkr Trip	Ckt No	KVA A	KVA B	Ckt No	Brkr Trip	Brkr P	Load kVA	Load Description	Wiring Size Wire	Wiring Size Cond.
3/4"	#10	RACK #1 RECEPTACLE	0.67	2	30	1	1.3		2	30	2	0.67	RACK #1 RECEPTACLE	#12	3/4"
			0.67			3		1.3	4			0.67			
3/4"	#10	RACK #2 RECEPTACLE	0.67	2	30	5	1.3		6	30	2	0.67	RACK #2 RECEPTACLE	#12	3/4"
			0.67			7		1.3	8			0.67			
3/4"	#10	RACK #3 RECEPTACLE	0.67	2	30	9	1.3		10	30	2	0.67	RACK #3 RECEPTACLE	#12	3/4"
			0.67			11		1.3	12			0.67			
3/4"	#10	RACK #4 RECEPTACLE	0.67	2	30	13	1.3		14	30	2	0.67	RACK #4 RECEPTACLE	#12	3/4"
			0.67			15		1.3	16			0.67			
3/4"	#10	RACK #5 RECEPTACLE	0.67	2	30	17	1.3		18	30	2	0.67	RACK #5 RECEPTACLE	#12	3/4"
			0.67			19		1.3	20			0.67			

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
3-0	COLUMBIA	0080	352	14 OF 15
4-0	LUZERNE	0080	352	
NESCOPECK				
REVISION NUMBER	REVISIONS	DATE	BY	

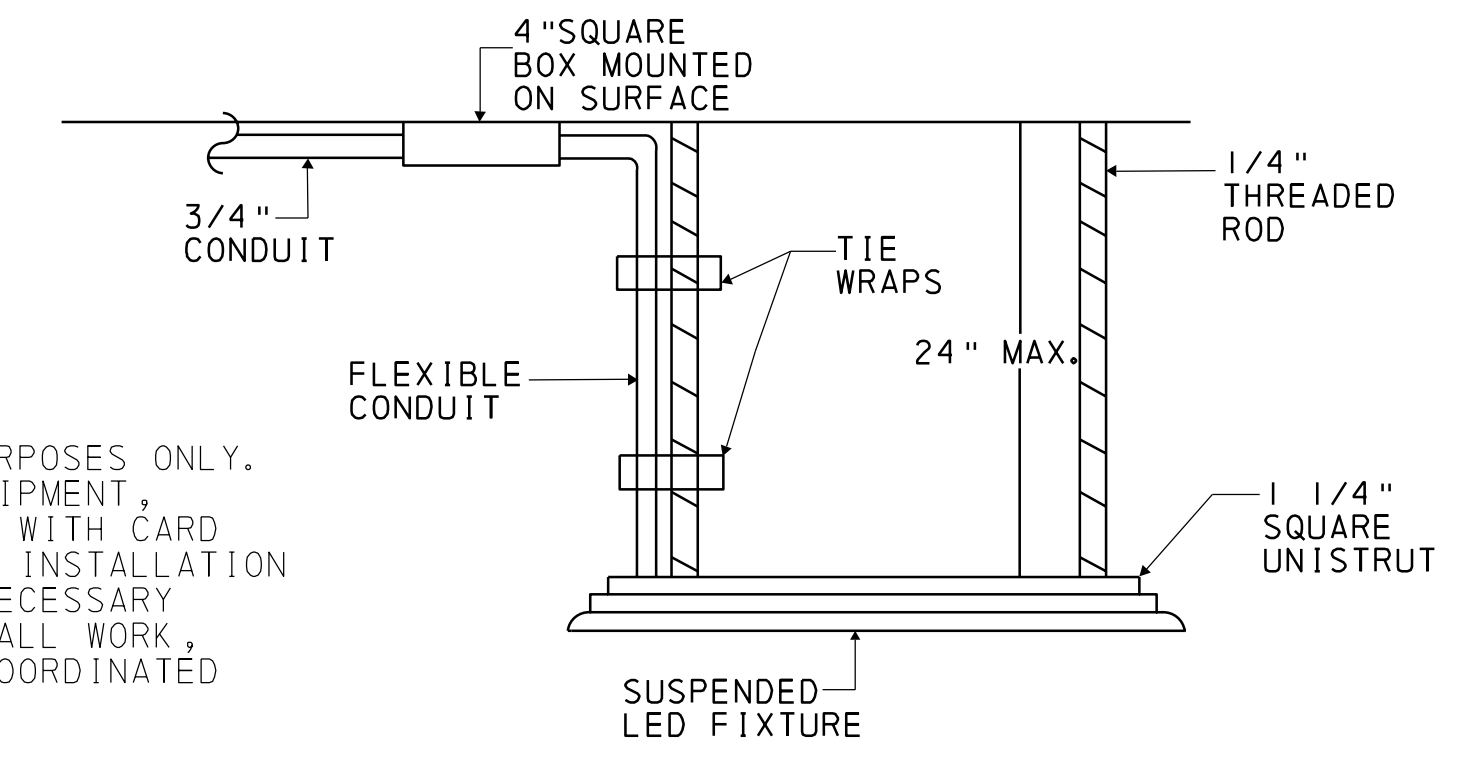
** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS



① 120/240V UPS PARALLEL TIE CABINET WIRING DIAGRAM

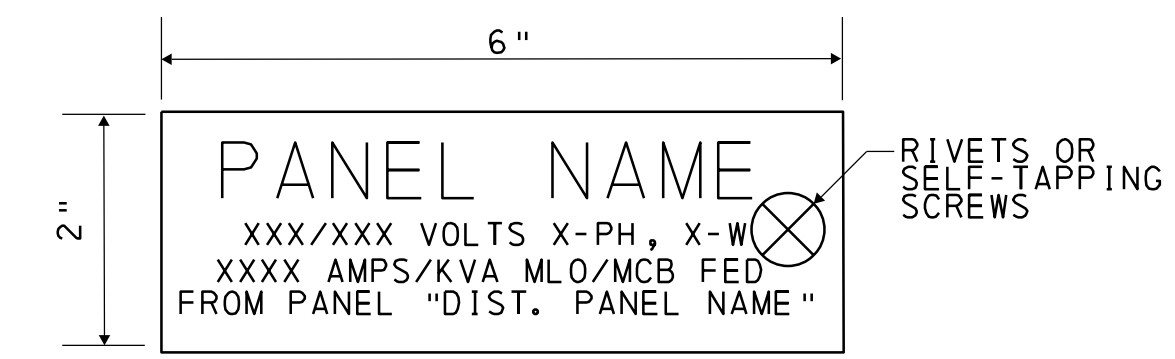


② CARD ACCESS SYSTEM WIRING DETAIL



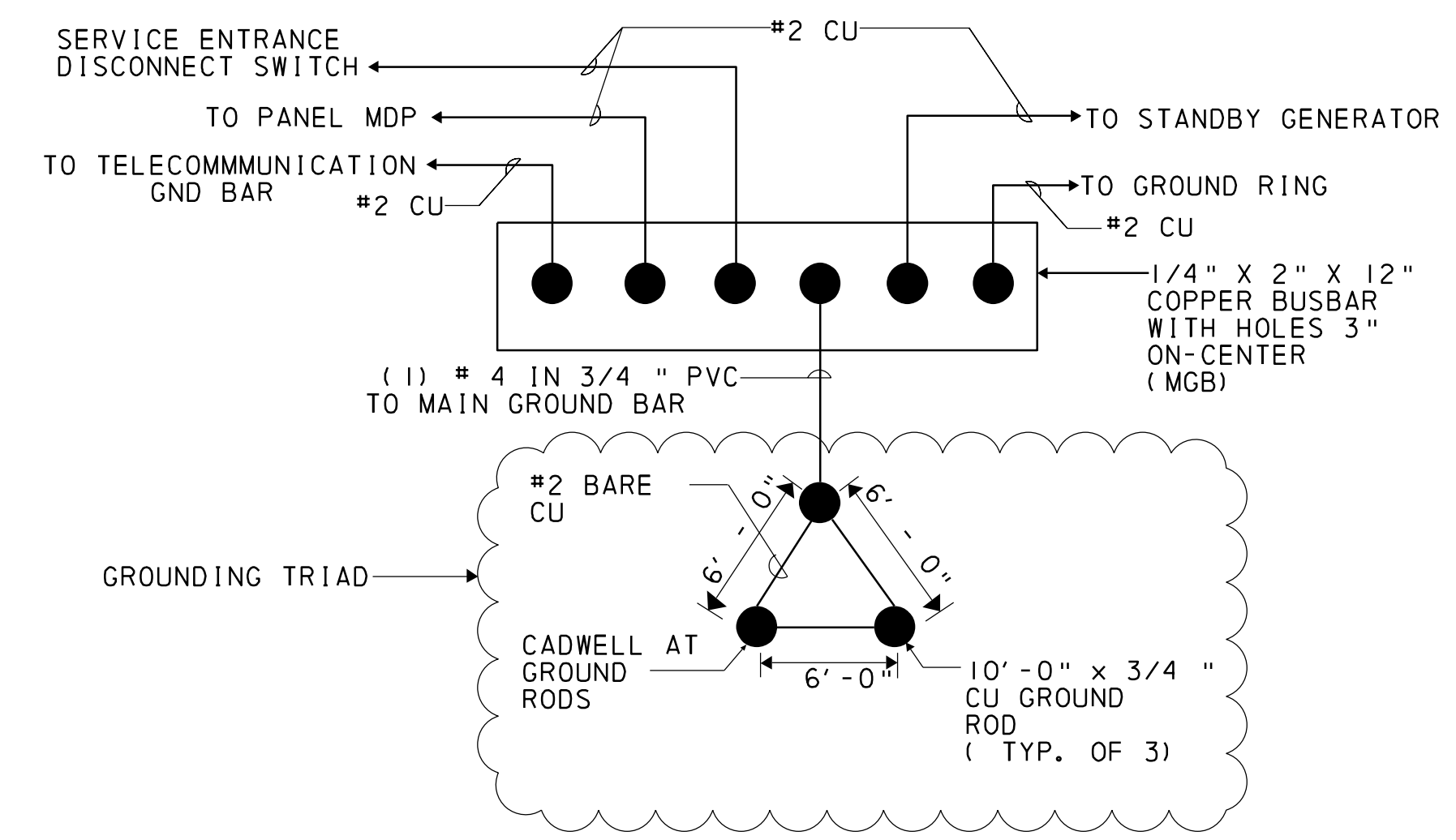
③ INTERIOR LED LIGHT FIXTURE MOUNTING DETAIL

1. THIS DETAIL IS FOR ILLUSTRATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT, CONDUIT SIZES, CONNECTION POINT ETC WITH CARD ACCESS SYSTEM MANUFACTURER PRIOR TO INSTALLATION OF ANY EQUIPMENT AS SHOWN AND AS NECESSARY FOR A COMPLETE FUNCTIONING SYSTEM, ALL WORK, MATERIAL AND CONNECTIONS SHALL BE COORDINATED WITH DOOR HARDWARE SUPPLIER.
2. COORDINATE ALL DOOR HARDWARE AND CARD ACCESS EQUIPMENT WITH ARCHITECTURAL DOOR HARDWARE SCHEDULE. REPORT ANY DISCREPANCIES TO REPRESENTATIVE.



1. PANEL NAME SHALL HAVE A MINIMUM LETTER HEIGHT OF 3/8". ALL OTHER TEXT SHALL HAVE A MINIMUM LETTER HEIGHT OF 1/4"
2. NAMEPLATE SHALL BE MACHINE ENGRAVED, LAMINATED PLASTIC WITH WHITE LETTERING, PANEL BOARD NAMEPLATE SCHEDULE FOR BACKGROUND COLOR SHALL BE BLACK.
5. "X" INDICATED FIELD TO BE FILLED IN PER ELECTRICAL PANEL BOARD SCHEDULES
6. PROVIDE NAMEPLATE FOR ALL ELECTRICAL EQUIPMENT AS INDICATED ON THE ELECTRICAL PANEL BOARD SCHEDULES.
3. NAMEPLATE SHALL BE ATTACHED WITH RIVETS OR SELF-TAPPING SCREWS.
4. DIMENSIONS INDICATED ARE MINIMUM DIMENSIONS. PROVIDE LARGER DIMENSIONED NAMEPLATE IF REQUIRED TO FIT ALL PERTINENT INFORMATION OF NAMEPLATE.

④ EQUIPMENT NAMEPLATE DETAIL

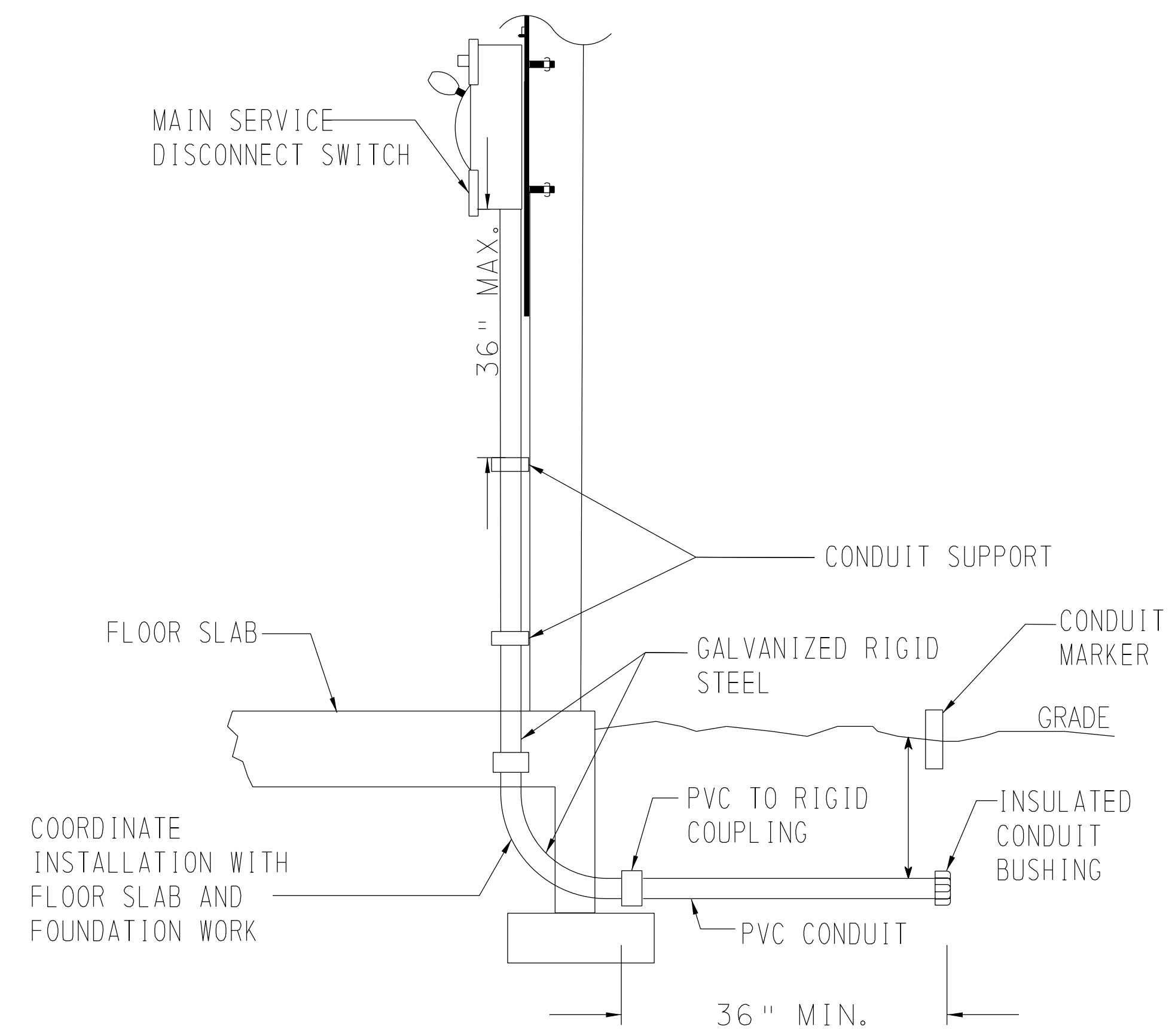


⑤ GROUNDING BAR WIRING DIAGRAM

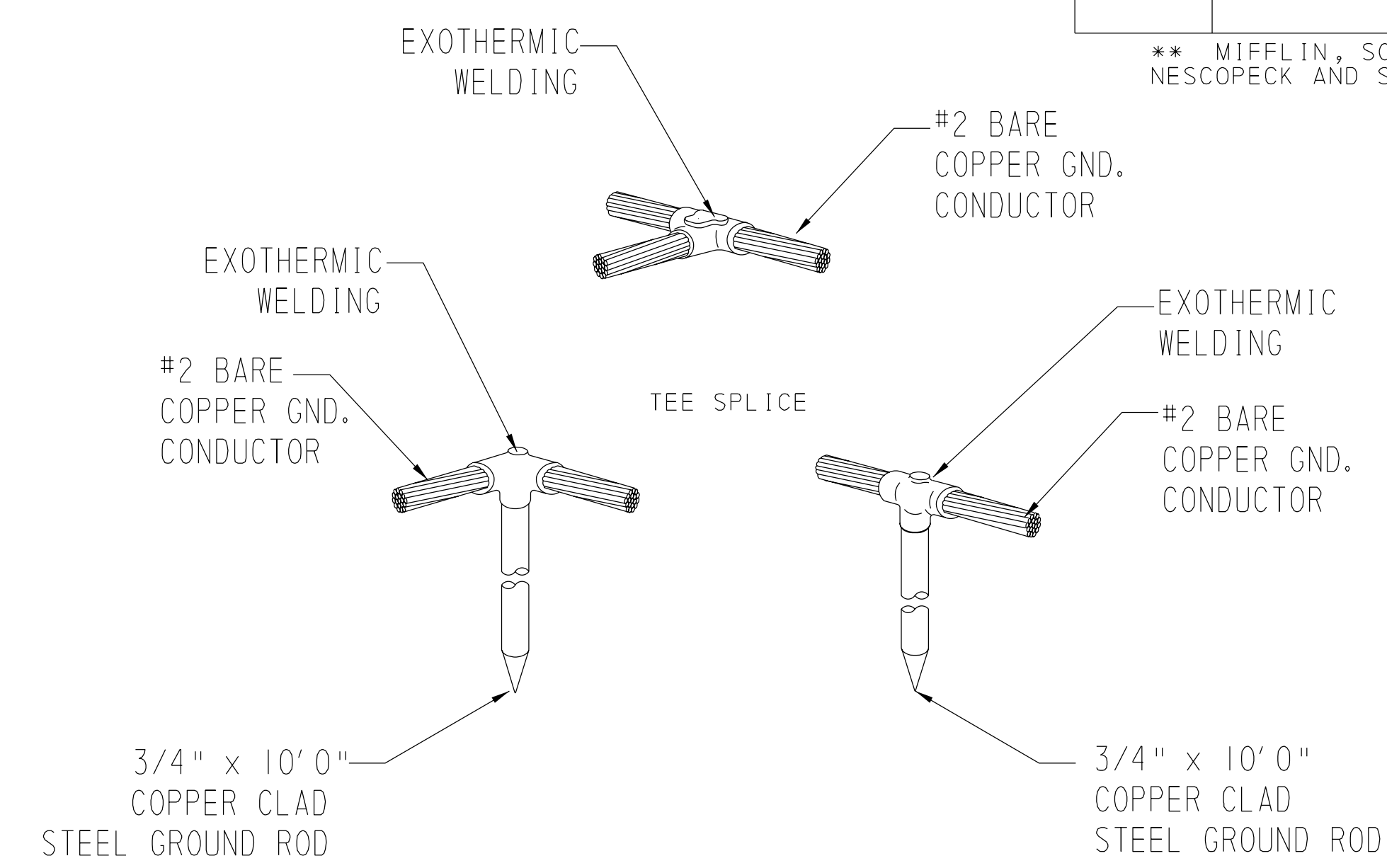
**PRE-FINAL
DESIGN
SUBMISSION**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
3-0	COLUMBIA	0080	352	15 OF 15	
4-0	LUZERNE	0080	352		
NESCOPECK					
REVISION NUMBER	REVISIONS			DATE	BY

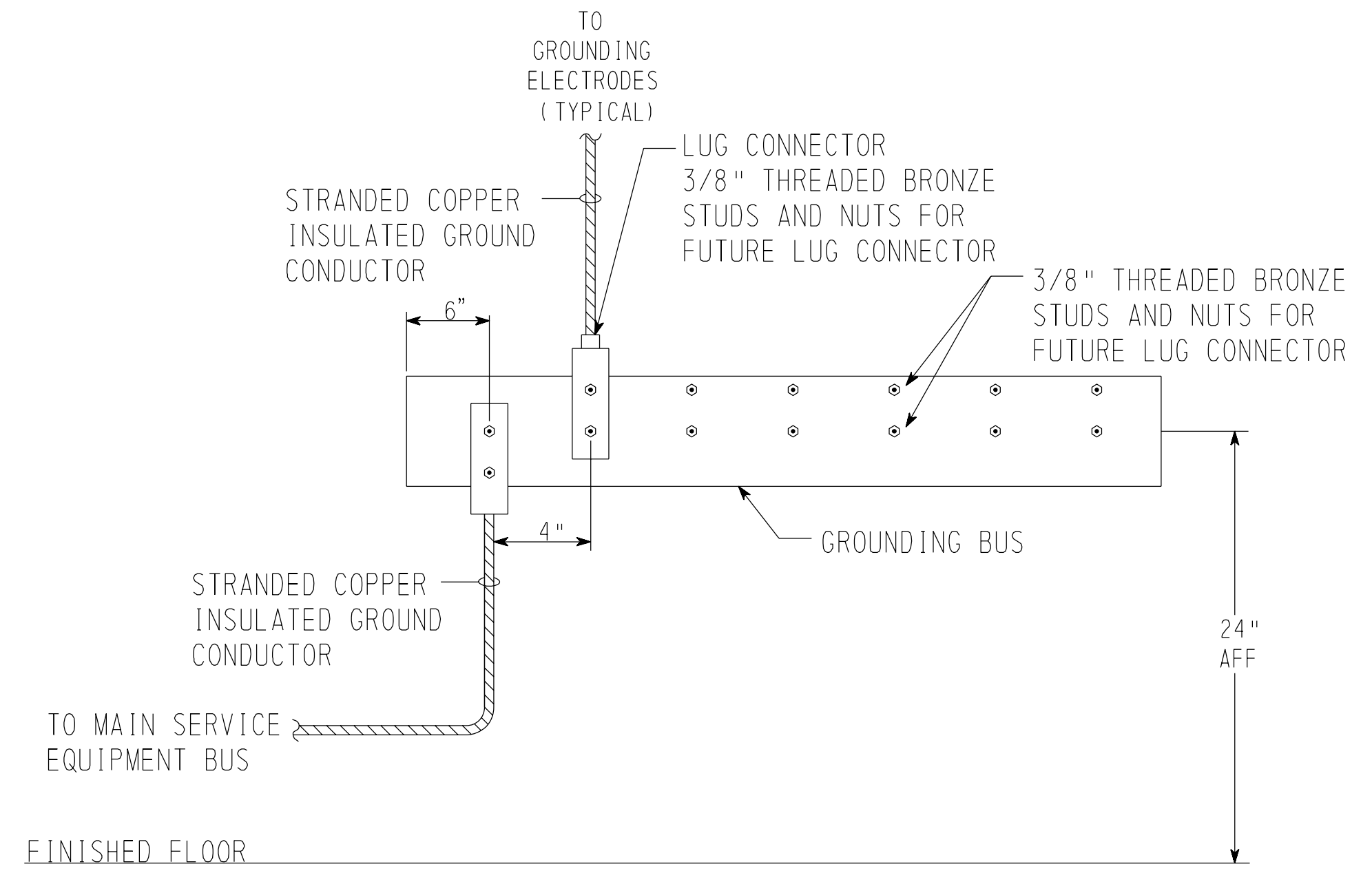
** MIFFLIN, SOUTH CENTER, BLACK CREEK, NESCOPECK AND SUGAR LOAF TOWNSHIPS



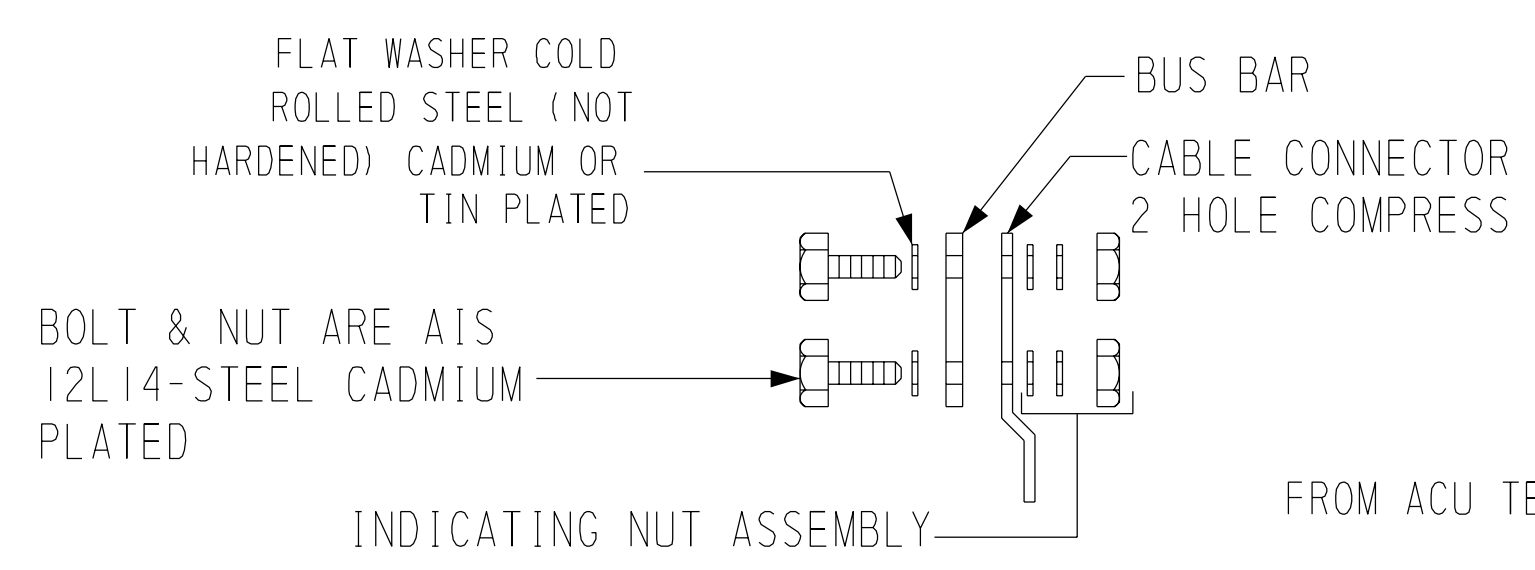
1 UTILITY CONDUIT TIE-IN TO FACILITY DETAIL
NTS



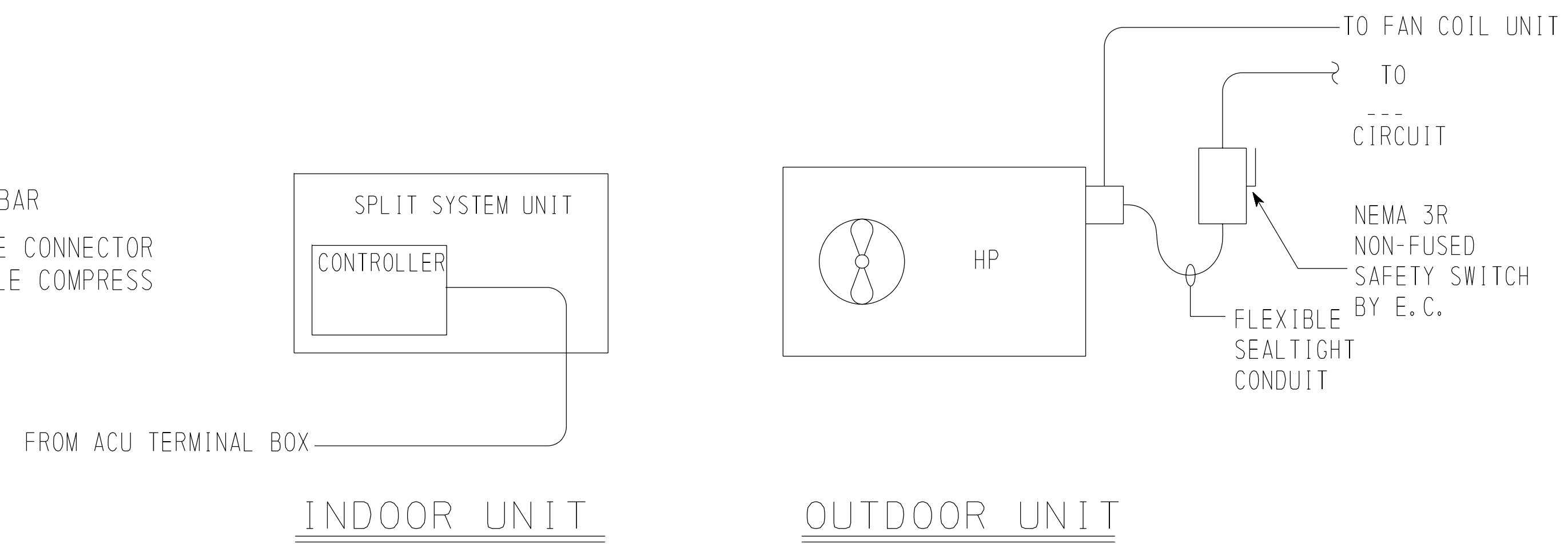
2 GROUND RODS CONNECTIONS AND BONDING DETAILS
NTS



3 WALL MOUNTED EQUIPMENT GROUND BAR
NTS



4 GROUND WIRE CONNECTION
NTS



5 HVAC CONNECTIONS - SPLIT SYSTEM HEAT PUMP
NTS

Appendix D
Threatened and Endangered Species

1. PROJECT INFORMATION

Project Name: **PennDOT: I-80 Tolling Station over Nescopeck Creek**

Date of Review: **12/13/2021 11:52:30 AM**

Project Category: **Transportation, Other**

Project Area: **287.74 acres**

County(s): **Luzerne**

Township/Municipality(s): **BLACK CREEK TOWNSHIP; BUTLER TOWNSHIP; NESCOPECK TOWNSHIP; SUGARLOAF TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **BERWICK; SYBERTSVILLE**

Watersheds HUC 8: **Upper Susquehanna-Lackawanna**

Watersheds HUC 12: **Nescopeck Creek-Susquehanna River**

Decimal Degrees: **41.022058, -76.105592**

Degrees Minutes Seconds: **41° 1' 19.4095" N, 76° 6' 20.1312" W**

2. SEARCH RESULTS

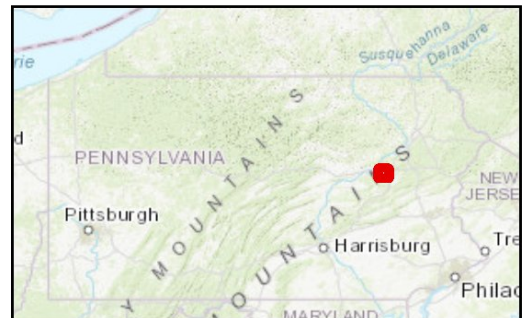
Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

PennDOT: I-80 Tolling Station over Nescopeck Creek

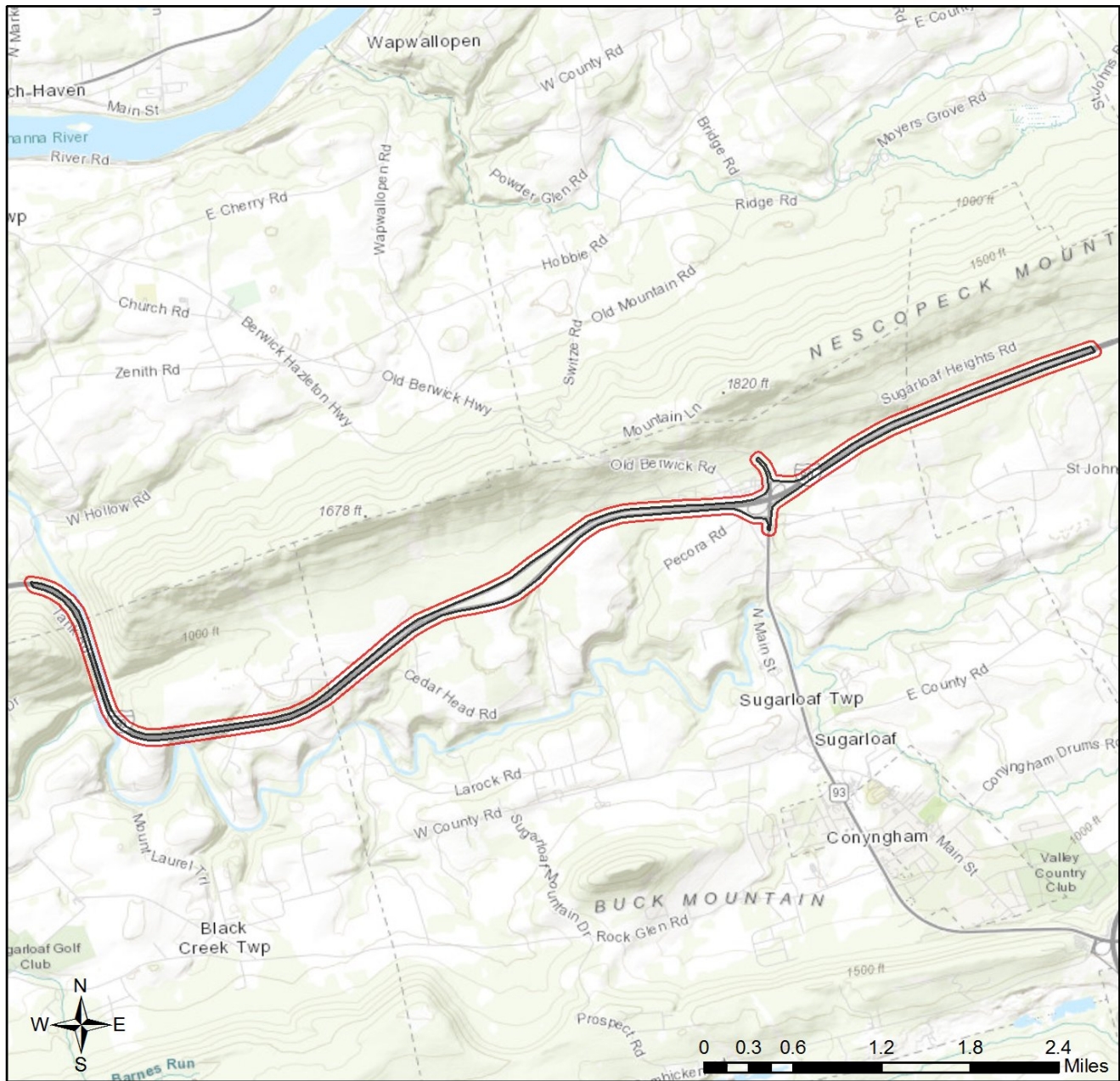


- Project Boundary
- Buffered Project Boundary



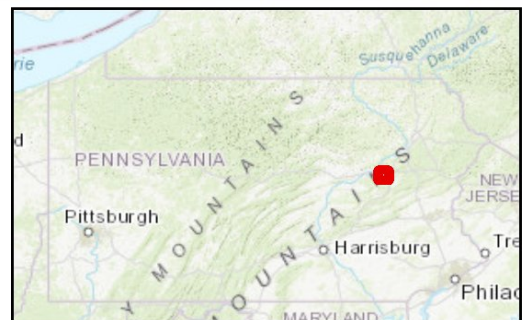
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China

PennDOT: I-80 Tolling Station over Nescopeck Creek



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, Garmin, Intemap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



RESPONSE TO QUESTION(S) ASKED

Q1: The proposed project is in the range of the Indiana bat. Describe how the project will affect bat habitat (forests, woodlots and trees) and indicate what measures will be taken in consideration of this. Round acreages up to the nearest acre (e.g., 0.2 acres = 1 acre).

Your answer is: The project will affect 1 to 39 acres of forests, woodlots and trees.

Q2: Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?

Your answer is: No

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.



5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Christina Stouffer
Company/Business Name: Navarro & Wright Consulting Engineers, Inc.
Address: 151 Reno Avenue
City, State, Zip: New Cumberland, PA 17070
Phone: (717) 441-2216 Fax: (717) 659-7449
Email: cstouffer@navarrowright.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.



applicant/project proponent signature

12/13/21

date

1. PROJECT INFORMATION

Project Name: **PennDOT Pathways - Nescopeck Acceleration Lane**

Date of Review: **12/2/2021 10:43:51 AM**

Project Category: **Transportation, Roads, Widening, adding lanes with disturbance beyond existing shoulders
WITH drainage pipe replacements**

Project Area: **25.58 acres**

County(s): **Luzerne**

Township/Municipality(s): **NESCOPECK TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **BERWICK**

Watersheds HUC 8: **Upper Susquehanna-Lackawanna**

Watersheds HUC 12: **City of Berwick-Susquehanna River; Nescopeck Creek-Susquehanna River**

Decimal Degrees: **41.052925, -76.167580**

Degrees Minutes Seconds: **41° 3' 10.5288" N, 76° 10' 3.2897" W**

2. SEARCH RESULTS

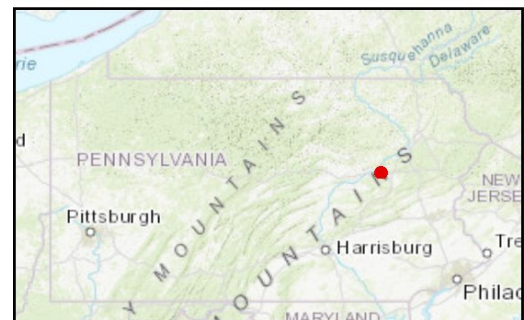
Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

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PennDOT Pathways - Nescopec Acceleration Lane

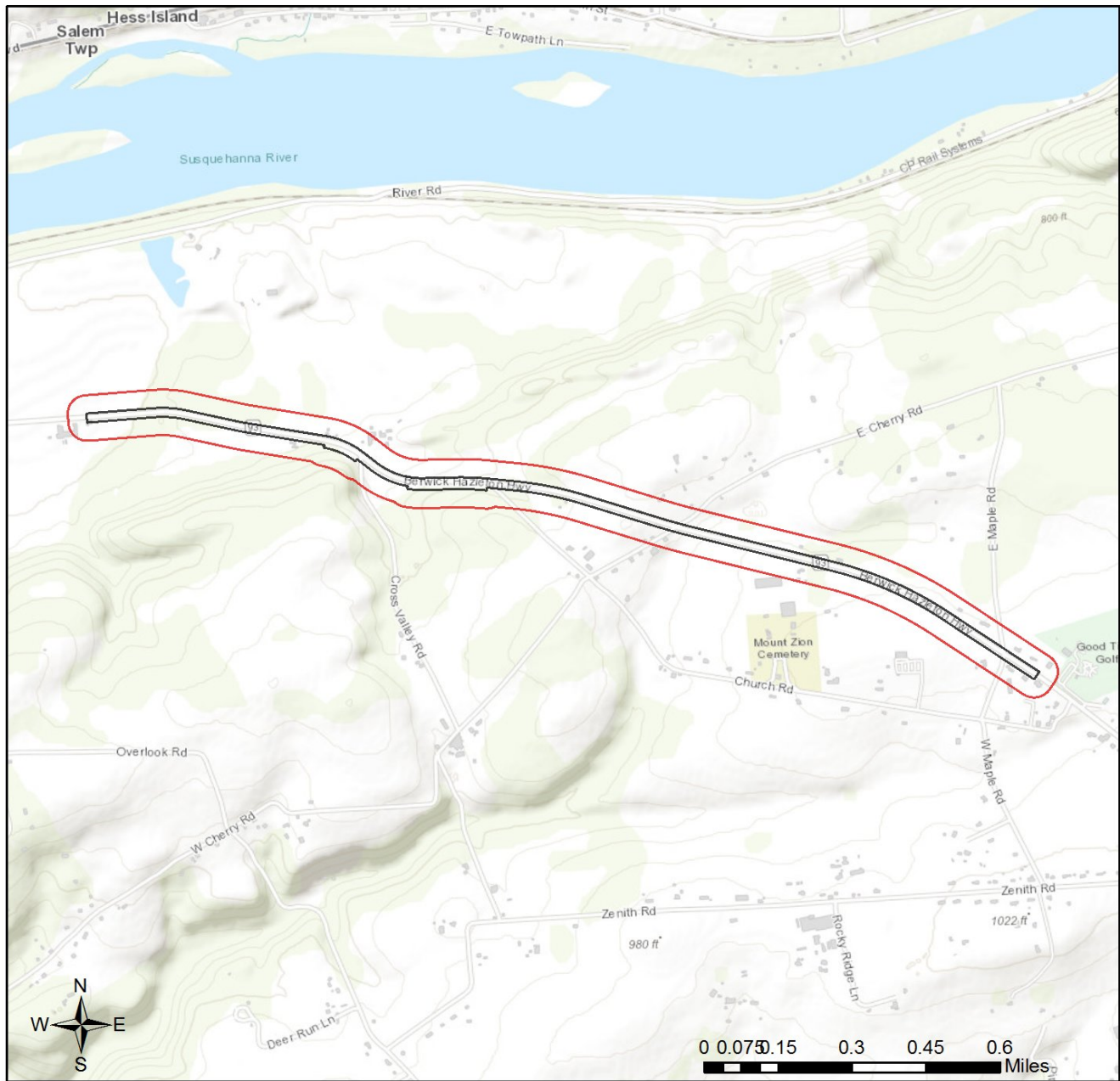




- Project Boundary
- Buffered Project Boundary



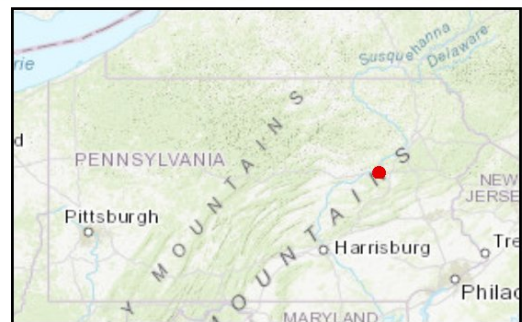
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China

PennDOT Pathways - Nescopeck Acceleration Lane



-  Project Boundary
-  Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, Garmin, Intemap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



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Your answer is: The project will affect 1 to 39 acres of forests, woodlots and trees.

Q2: Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?

Your answer is: No

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.



5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Kathleen I Krommes
Company/Business Name: HDR
Address: 4900 Ritter Rd, Suite 101
City, State, Zip: Mechanicsburg, PA 17055
Phone: (717) 516-3158 Fax: ()
Email: Kathy.krommes@hdrinc.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Kathy I. Krommes
applicant/project proponent signature

1/24/2022
date

Appendix E
Technical Support Data Index

I-80 Nescopeck Creek Bridges Project Technical Support Data Index

Technical reports and memos have been prepared for the subject areas within the I-80 Nescopeck Creek Bridges Project Environmental Assessment and are included in the project file. Specific documentation for each chapter of the Environmental Assessment is referenced within the chapters and listed (with links) below:

Chapter 1: Introduction

- *Alternative Funding: Planning and Environmental Linkages Study* (September 2021)

Chapter 3: Alternatives

- *I-80 Nescopeck Creek Bridges Diversion Traffic Evaluation Report* (February 2022)

Chapter 4.1: Aquatic Resources

- *I-80 Nescopeck Creek Bridges Conceptual Aids to Navigation Plan* (December 2021)
- *I-80 Nescopeck Creek Bridge Stormwater Coordination Meeting Minutes* (May 2021)
- *I-80 Nescopeck Creek Bridges Wetland Identification & Delineation Report* (June 2021)
- *I-80 Nescopeck Creek Bridges DEP Pre-Application Meeting Minutes* (December 2021)
- *I-80 Nescopeck Creek Bridges Revised Hydrologic & Hydraulic Report* (February 2022)

Chapter 4.2 Land

- *Phase I Environmental Site Assessment Report - S.R. 0080, Section 352 Open Road Cashless Tolling Facility, Associated Electrical and Communication Services, and Signing Improvements Project and Appendices* (January 2022)
- *Environmental Due Diligence (EDD) Phase I Visual Inspection Form – ECMS Project # 31854* (November 2021)

Chapter 4.4: Cultural Resources

- *Section 106 Finding Summary – Project Path*
(<https://path.penndot.gov/ProjectDetails.aspx?ProjectID=59796>)

Chapter 4.6: Air Quality and Noise

- *I-80 Nescopeck Creek Toll Diversion Noise Analysis Report* (January 2022)

Chapter 5: Public Involvement

- *I-80 Nescopeck Creek Bridges Project Virtual Public Meeting* (November 15 to December 15, 2021)
- *I-80 Nescopeck Creek Public Meeting Summary* (December 2021)

Chapter 6:

- *I-80 Nescopeck Creek Environmental Justice (EJ) Analysis* (February 2022)

Appendix F
Distribution List

DISTRIBUTION LIST

Federal Agencies

Advisory Council on Historic Preservation

Eastern Office of Review

Attn: Preservation Specialist

Federal Emergency Management Agency

Attn: Mitigation Division

Federal Highway Administration

Pennsylvania Division

Attn: Division Administrator

U.S. Army Corps of Engineers (USACE)

Baltimore District

Attn: Chief, Regulatory Branch

U.S. Fish and Wildlife Service (USFWS)

Pennsylvania Field Office

U.S. Department of Health & Human Services

Centers for Disease Control & Prevention

Attn: Chief, Special Programs Group

U.S. Department of Housing & Urban Development

Pennsylvania State Office

Attn: Environmental Officer

U.S. Department of Interior

Office of Environmental Policy and Compliance

Attn: Director

U.S. Department of Transportation

Federal Transit Administration

Office of Planning and Program Development

Attn: Transportation Program Specialist

U.S. Environmental Protection Agency

Region III (3ES43)

Attn: Chief, Environmental Assessment and Protection
Division

U.S. Department of Agriculture

National Resources Conservation Service

Attn: Water Resources Department

U.S. Environmental Protection Agency

Office of Federal Activities

State Agencies

PA Department of Agriculture

Bureau of Farmland Preservation

Attn: Director

PA Department of Community and Economic Development

Policy Office

Attn: Director

PA Department of Conservation and Natural Resources

Office of Policy

Attn: Director

PA Department of Environmental Protection

Office of Policy

Attn: Director

PA Department of Environmental Protection

Northeast Regional Office

PA Department of Health

Office of Policy

Attn: Executive Policy Assistant

PA Department of Transportation

Bureau of Project Delivery

Highway Delivery Division

*Environmental Policy and Development
Section*

Attn: Section Chief

PA Department of Transportation

Bureau of Project Delivery

Highway Delivery Division

Highway Design and Technology Section

Attn: Section Chief

PA Department of Transportation

Office of Policy & Public Private Partnerships

Attn: Director

PA Fish and Boat Commission

Environmental Services Division

Attn: Chief, Environmental Services Division

PA Game Commission

Environmental Planning and Habitat Protection

Attn: Chief, Environmental Planning and Habitat
Protection Division

PA Game Commission

Northeast Region

PA Hist PA Historical and Museum Commission

Bureau for Historic Preservation Commonwealth

Attn: Chief, Division of Archaeology and Protection

Pennsylvania Governor's Office

Policy Development

Public Utility Commission (PUC)

Utility Office

Attn: Administrator

MPO

Luzerne County Planning Commission

Attn: Transportation Planner

Lackawanna Luzerne Transportation Study

Attn: Transportation Planner

Native American Tribes

**Absentee-Shawnee Tribe of Indians of
Oklahoma**

Delaware Nation, Oklahoma

Delaware Tribe of Indians

Eastern Shawnee Tribe of Oklahoma

Oneida Indian Nation

Onondaga Nation

Seneca-Cayuga Nation

Shawnee Tribe

Stockbridge-Munsee Community, Wisconsin

Tuscarora Nation

Appendix G
List of Preparers

Name	Organization	EA Role	Education	Years
Camille Otto Director of Planning, Environment, and Finance	FHWA PA Division	FHWA Approver	B.S. Biology	25
Jon Crum Senior Environmental Specialist	FHWA PA Division	FHWA Environmental Reviewer	B.S. Biology M.S. Environmental Science and Management	17
Sarah Cordek Transportation Engineer	FHWA PA Division	FHWA Engineering Reviewer	B. S. Civil Engineering Technology	9
Kelley Sartori Consultant Project Manager	PennDOT District 4-0/Pennoni	Consultant Project Manager	B.S. Civil Engineering Certificate Transportation Engineering	22
Greg Augustine, PE District Environmental Manager	PennDOT District 4-0	Environmental Reviewer	B.S. Environmental Engineering Technology	30
Julianne Lawson, PE District 4 Portfolio Manager	PennDOT District 4-0	Project Manager	B.S. Civil Engineering M.B.A Operations	19
Heather Gerling Architectural Historian	PennDOT Districts 3-0 & 4- 0	Above Ground Cultural Properties	B.S. History M.A. Historic Preservation	5
Drew Ames Environmental Planning Manager	PennDOT Central Office	Environmental Reviewer	B.H Communications M.S. Community and Regional Planning	26
Kenda Gardner Deputy Chief Counsel	PennDOT Office of Chief Counsel	Legal Review	B.S. Chemistry J.D.	28
Neal Brofee Environmental Counsel	PennDOT Office of Chief Counsel	Legal Review	B.A. Mathematics J.D.	24
Kristine Thompson Architectural Historian	PennDOT Central Office	Above-Ground Cultural Resources	B.S. Historic Preservation; M.A. Anthropology	28
Kevin Mock Archeology Supervisor and District 4-0 Archaeologist	PennDOT Central Office	Archaeology	B.A. Anthropology M.A. History	28
Ryan Shiffler, PE Project Development Engineer	PennDOT Central Office	Engineering Reviewer	B.S Civil Engineering	18
Diane Nulton Environmental Project Manager	HDR	EA Project Manager	B.S. Biology/Ecology	35
Jean-Philippe (JP) Magron Environmental Planning Manager	HDR	Environmental Lead	M.S. Coastal Zone Management B.S. Biological/Chemical Oceanography	25
Kathleen Krommes, ENV SP Environmental Project Manager	HDR	EA Technical Writer/Editor	B.S. Chemical Engineering	35
Katherine Markowitz Environmental Scientist	HDR	EA Technical Writer/Editor	B.S. Marine and Environmental Biology and Policy	8
John McPherson, AICP Environmental Services Director	HDR	EA, Cumulative Impacts	B.A. Math/Economics; M.U.P.	30
Jenn Walsh, PE Traffic & Planning Section Manager	HDR	Traffic Diversion Analysis	B.S. Civil Engineering; M.S. Civil Engineering	28
Ken O'Brien, PE Senior Project Manager	HDR	Traffic Diversion Analysis	B.S. Civil Engineering;	27

Name	Organization	EA Role	Education	Years
Audrey Heffernan Senior Environmental Planner	HDR	Environmental Justice	B.A. Math; M.A. Math; M.S. City & Regional Planning	28
Connie Eskin Administrative Coordinator	HDR	Technical Editor	Pennsylvania State University	25
Tina Adair Technical Editor	HDR	Technical Editor	B.S. Communications	35
Frank Brilhante GIS Manager	HDR	GIS Analysis	B.S. Engineering; M.S Environmental Engineering	28
Matthew Nulton, P.E. PA Surface Transportation Lead	JMT	I-80/-181 Bridge Program Project Manager	B.S. Civil Engineering Technology	32
Amy Altimare Senior Associate Natural & Cultural Resources	JMT	I-80 Nescopeck Environmental Analysis and Technical Writer/Review	B.S. Environmental Science M.S. Environmental Management	25
David Johnson, P.E. Senior Project Manager - Bridge	Larson Design Group	LDG I-80 Nescopeck Project Manager/Bridge Design	Bachelor of Science - Civil Engineering; Master of Science - Civil Engineering	20
Terri Slack National Discipline Lead, Trans. Revenue Systems & Operations	CDM Smith	Traffic Forecasting	BA Economics; BA Political Science M.B.A Management	33
Tarannum Rima Travel Demand Modeler	CDM Smith	Traffic Forecasting	B.S. Civil Engineering M.S Transportation Engineering M.S. Computer Systems Engineering	16
Nathaniel Weinstock Air Quality and Acoustical Group Leader, Sr. Air Quality and Acoustical Scientist	Navarro & Wright	Diversion Route Noise Analysis	B.S. Public Service	22
Kyle Brubaker SR. Environmental Specialist, TD Environmental Task Leader	Navarro & Wright	Hazardous Materials	B.S. Environmental Science	13
Robert C. Kolmansberger Director of Environmental Services, Sr. Air Quality & Acoustical Scientist	Navarro & Wright	Diversion Route Noise Analysis, QA/QC	B.A. Geography & Environmental Planning	30

Appendix H References

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