MPMS#67722

FRY HOLLOW BRIDGE REPLACEMENT

Bridge Replacement
T-479 (Fry Hollow Road) over Wilson Run

Hempfield Township
Westmoreland County



Gibson-Thomas ENGINEERING

U.S. Department of Transportation
Federal Highway Administration

Pennsylvania
Department of Transportation

PROJECT TEAM

Project Owner

Aaron Siko – Township Manager
Hempfield Township Supervisors
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Design Team

Cristin Covert, PE – Local Project Manager
PennDOT – Engineering District 12-0
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Nathan Luczki, PE – Project Manager
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724-539-8562 | nathan.luczki@gibson-thomas.com

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pennsylvania DEPARTMENT OF TRANSPORTATION

PROJECT PURPOSE AND DESCRIPTION

Project Purpose:

The purpose of the project is to address the structural deficiencies of the existing bridge and provide a safe and efficient crossing of Wilson Run along Fry Hollow Road. The existing bridge, constructed in 1931, carries approximately 165 vehicles per day, including 10% truck traffic, and is currently in poor condition and in need of replacement. The bridge is situated on a substandard alignment, with sharp horizontal curves at both approaches. The structure is currently posted with a weight restriction of 12 tons, except combinations up to 19 tons. The bridge has also experienced frequent vehicular strikes at the near right corner, resulting in damage to the existing barrier beyond repair. Temporary barriers have been installed, further reducing the available clear roadway width and increasing the potential for additional vehicular strikes. The proposed project will replace the existing structure and address the associated safety and operational deficiencies.

Anticipated Schedule:

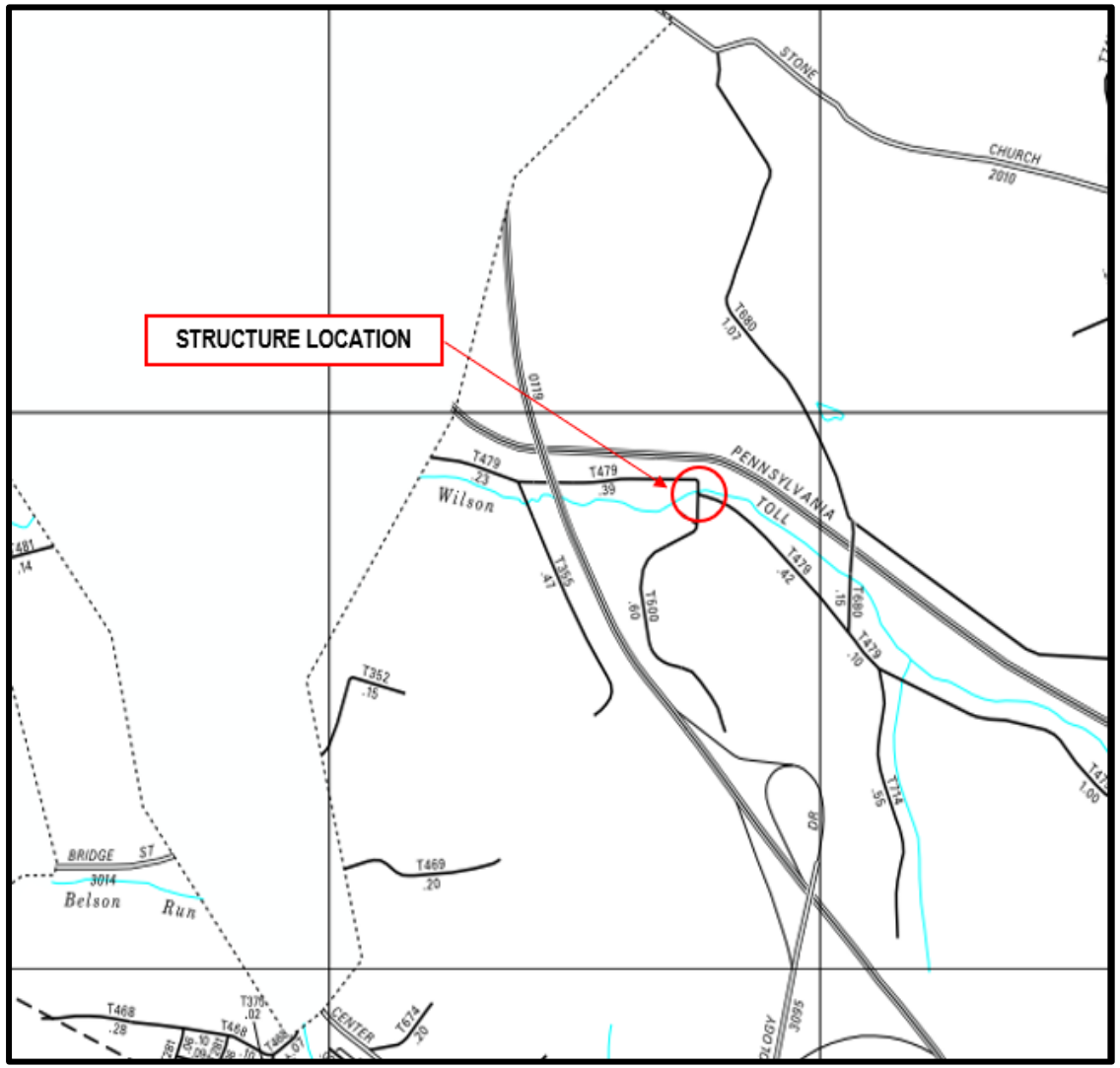
The project is currently in preliminary engineering. Construction letting is anticipated in January 2028 with construction during the summer and fall of 2028. The proposed structure will slightly alter the horizontal geometry to improve turning movements onto the structure. There will be additional minor roadway work, and the new structure will have slightly wider traffic lanes and bridge length.

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PROJECT LOCATION



EXISTING CONDITIONS



Far Approach Looking North



Damage to Near Left Barrier

EXISTING CONDITIONS



Western Approach Looking at Bridge



View of Structure from Fry Hollow Road, facing North

EXISTING CONDITIONS



Looking Down Western Approach Away From Bridge



Looking Down Eastern Approach Away From Bridge

EXISTING CONDITIONS



Looking Upstream from Bridge



Looking Downstream from Bridge

EXISTING CONDITIONS



Upstream Elevation



Downstream Elevation

EXISTING CONDITIONS



Spall with Exposed and Rusted Rebar on the Bottom of Beam 6 at the Near End



Spall with Exposed and Rusted Rebar on the Bottom of Beam 1 at the Near Abutment

PROPOSED PROJECT IMPROVEMENTS

Existing Structure:

Single-span reinforced concrete T-beam bridge on reinforced concrete abutments.

Proposed Improvements:

- Replace the bridge structure with a slight alteration to the horizontal geometry to improve turning movements onto the structure
- Provide a safer bridge barrier, bridge barrier transitions, and guide rail that meet current standards
- A 2' left shoulder and variable 2’ to 8’ right shoulder will be installed to help improve turning movements for larger vehicles
- Minor approach roadway improvements such as new asphalt pavement

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PROPOSED DETOUR

Traffic will be detoured via Sportsmen Road, Stone Church Road, and Thermo Village Road.

The 3.7-mile detour will be in place for approximately 6 months.

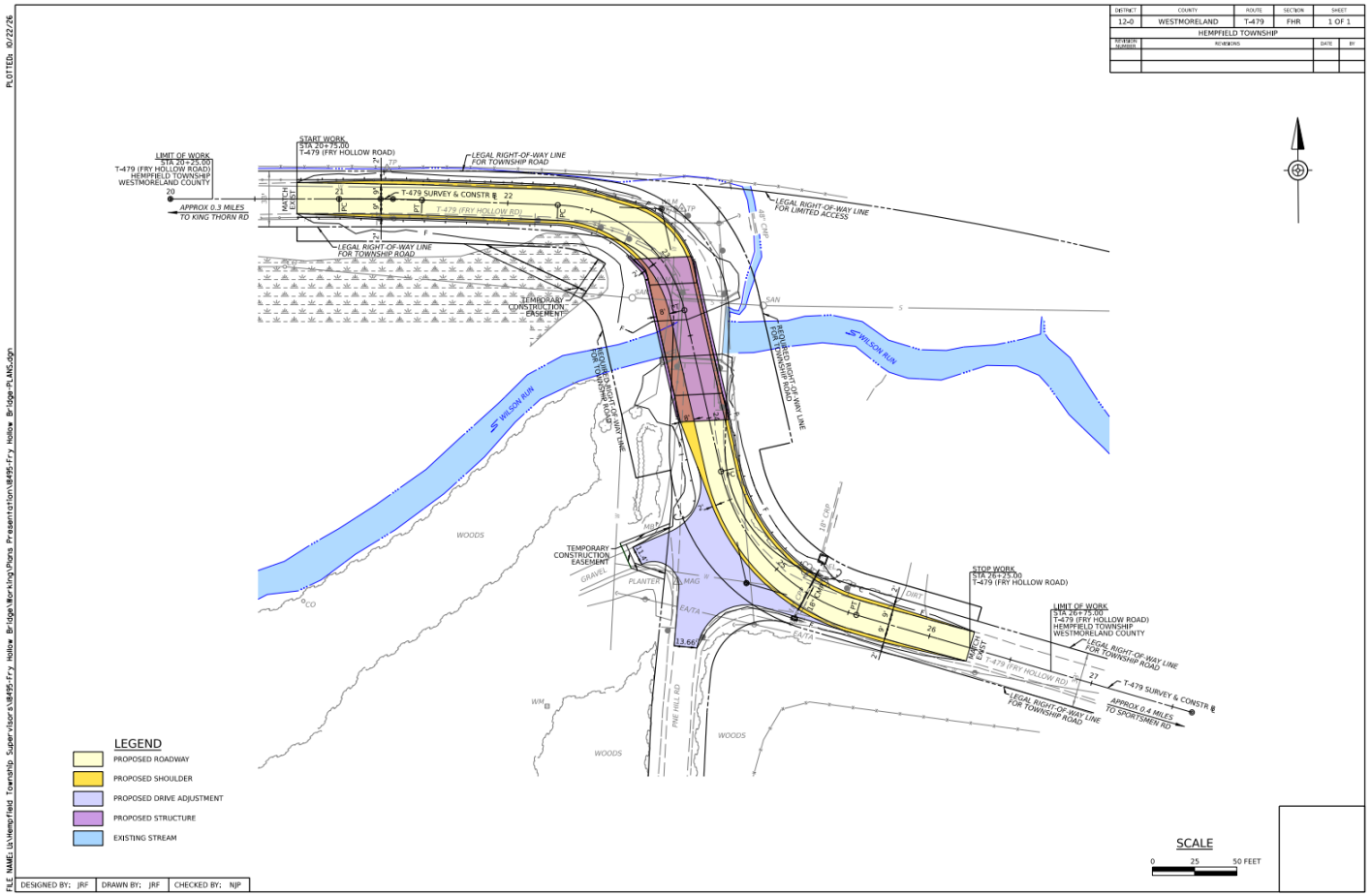


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ROADWAY PLAN

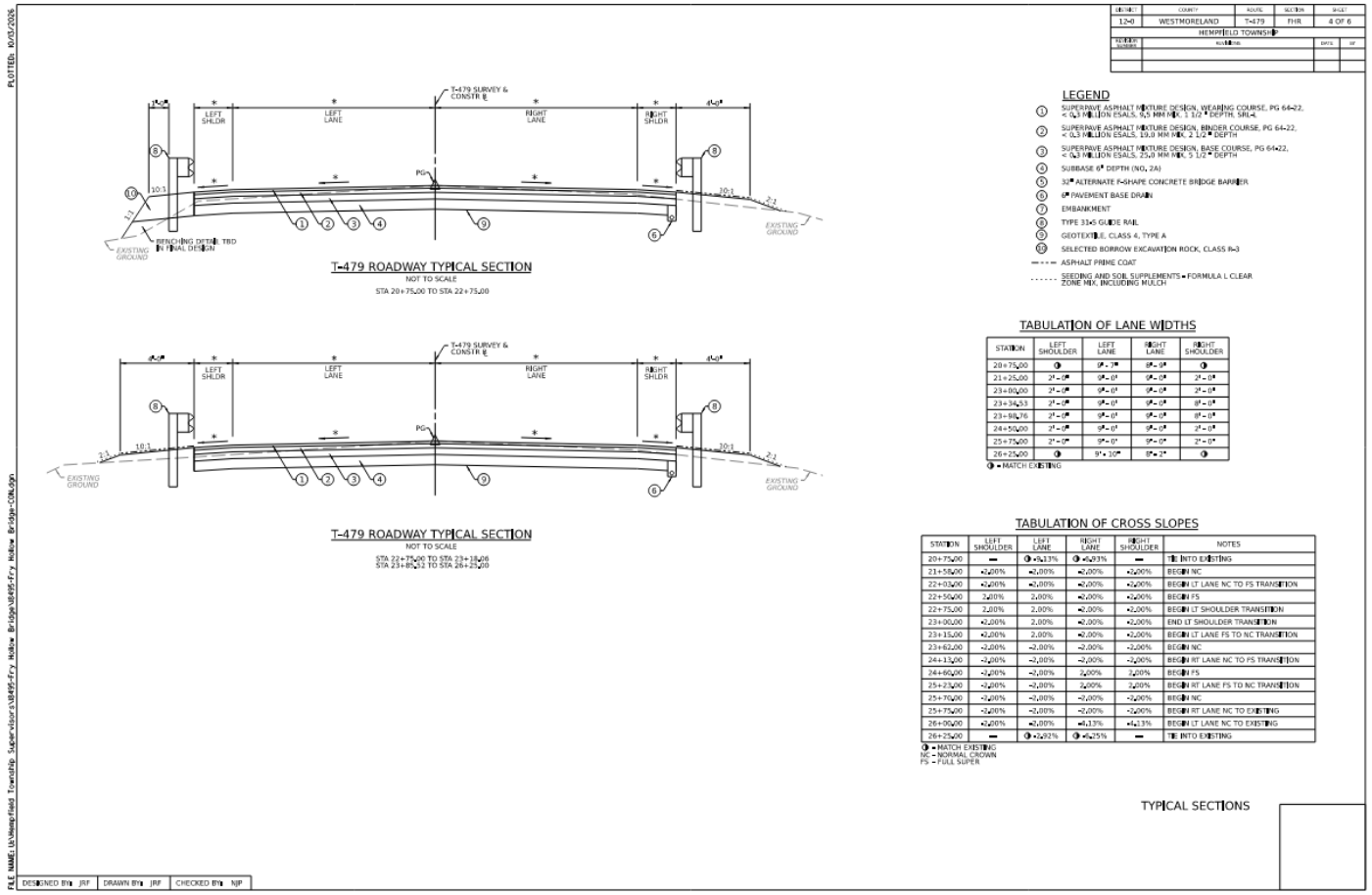


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ROADWAY TYPICALS

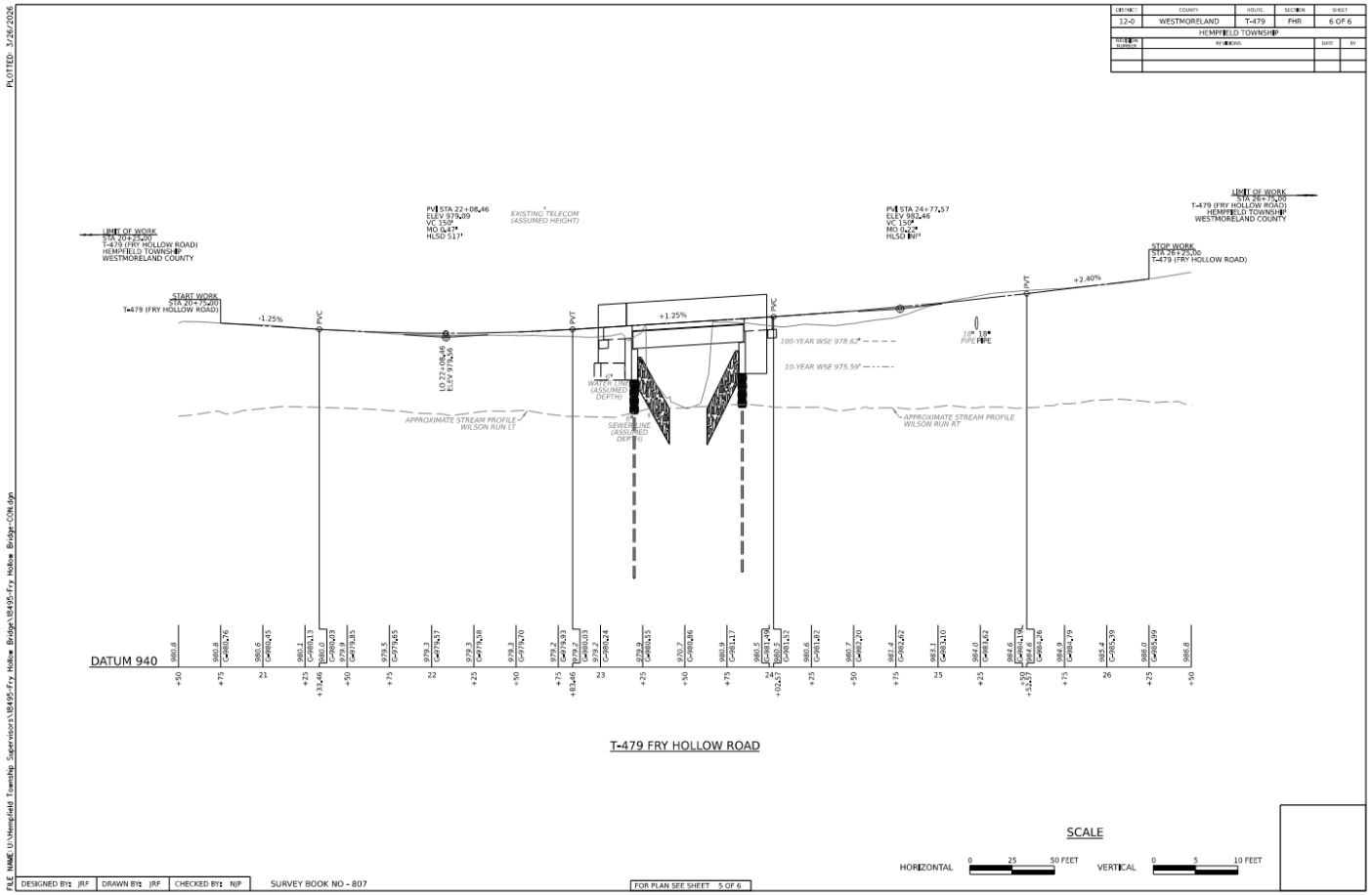


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ROADWAY PROFILE

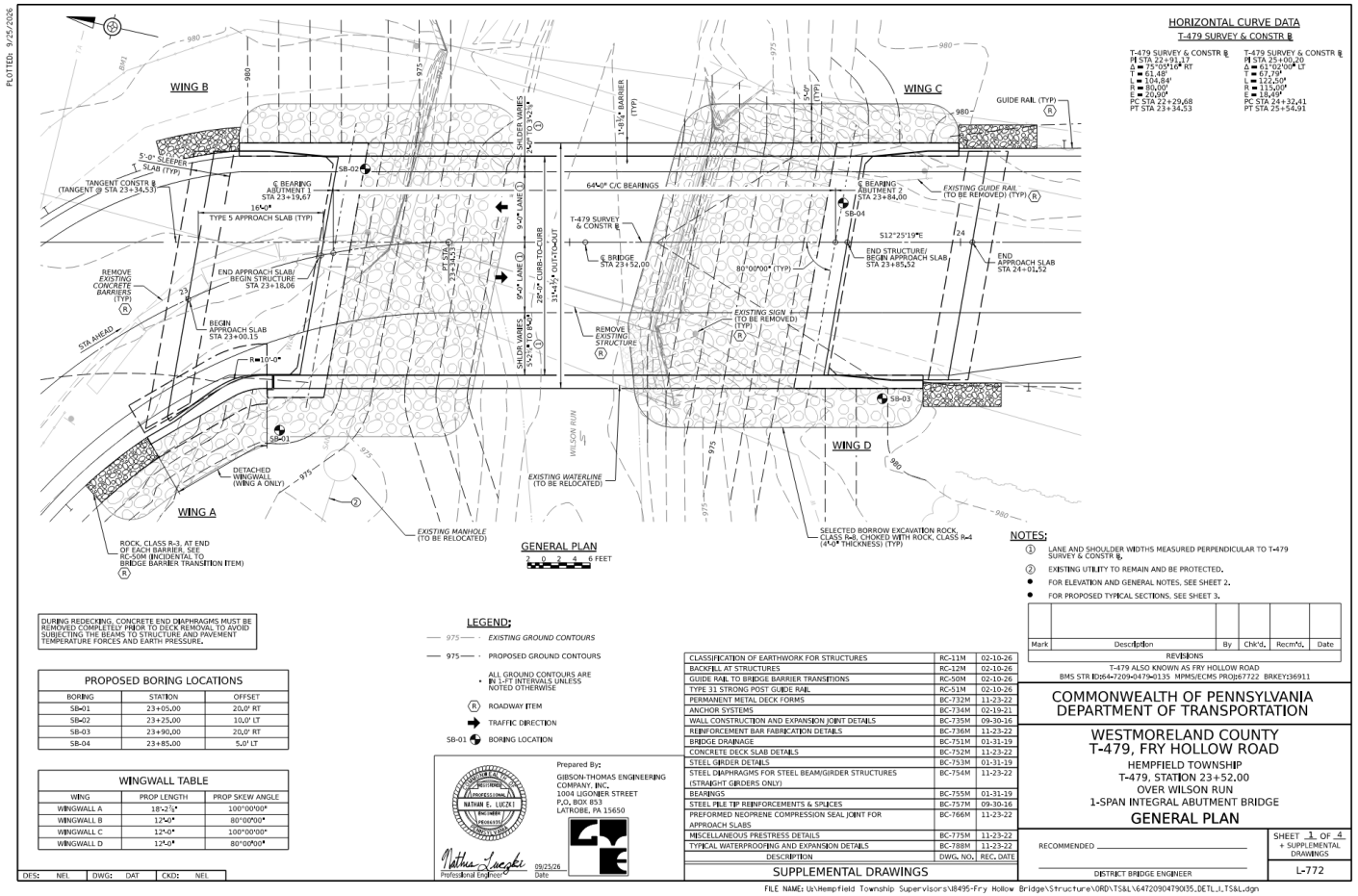


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STRUCTURE PLAN



PLOTTED: 9/25/2026

HORIZONTAL CURVE DATA

T-479 SURVEY & CONSTR ℄

T-479 SURVEY & CONSTR ℄	T-479 SURVEY & CONSTR ℄
℄ STA 22+91.17	℄ STA 25+00.20
Δ = 75°05'16" RT	Δ = 61°02'00" LT
T = 61.48'	T = 67.79'
L = 104.84'	L = 122.50'
R = 80.00'	R = 115.00'
E = 20.90'	E = 18.49'
PC STA 22+29.68	PC STA 24+32.41
PT STA 23+34.53	PT STA 25+54.91

DURING REDECKING, CONCRETE END DIAPHRAGMS MUST BE REMOVED COMPLETELY PRIOR TO DECK REMOVAL TO AVOID SUBJECTING THE BEAMS TO STRUCTURE AND PAVEMENT TEMPERATURE FORCES AND EARTH PRESSURE.

PROPOSED BORING LOCATIONS

BORING	STATION	OFFSET
SB-01	23+05.00	20.0' RT
SB-02	23+25.00	10.0' LT
SB-03	23+90.00	20.0' RT
SB-04	23+85.00	5.0' LT

WINGWALL TABLE

WING	PROP LENGTH	PROP SKEW ANGLE
WINGWALL A	18'-2½"	100°00'00"
WINGWALL B	12'-0"	80°00'00"
WINGWALL C	12'-0"	100°00'00"
WINGWALL D	12'-0"	80°00'00"

DES:	NEL	DWG:	DAT	CKD:	NEL

LEGEND:

- 975 EXISTING GROUND CONTOURS
- 975 PROPOSED GROUND CONTOURS
- ALL GROUND CONTOURS ARE IN 1-FT INTERVALS UNLESS NOTED OTHERWISE
- Ⓡ ROADWAY ITEM
- TRAFFIC DIRECTION
- SB-01 BORING LOCATION

Prepared By:
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LATROBE, PA 15650

NATHAN E. LUCZKI — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA

Nathan Luczki
Professional Engineer
09/25/26
Date

SUPPLEMENTAL DRAWINGS		
DESCRIPTION	DWG. NO.	REC. DATE
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	02-10-26
BACKFILL AT STRUCTURES	RC-12M	02-10-26
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-10-26
TYPE 31 STRONG POST GUIDE RAIL	RC-51M	02-10-26
PERMANENT METAL DECK FORMS	BC-732M	11-23-22
ANCHOR SYSTEMS	BC-734M	02-19-21
WALL CONSTRUCTION AND EXPANSION JOINT DETAILS	BC-735M	09-30-16
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	11-23-22
BRIDGE DRAINAGE	BC-751M	01-31-19
CONCRETE DECK SLAB DETAILS	BC-752M	11-23-22
STEEL GIRDER DETAILS	BC-753M	01-31-19
STEEL DIAPHRAGMS FOR STEEL BEAM/GIRDER STRUCTURES (STRAIGHT GIRDERS ONLY)	BC-754M	11-23-22
BEARINGS	BC-755M	01-31-19
STEEL PILE TIP REINFORCEMENTS & SPLICES	BC-757M	09-30-16
PREFORMED NEOPRENE COMPRESSION SEAL JOINT FOR APPROACH SLABS	BC-766M	11-23-22
MISCELLANEOUS PRESTRESS DETAILS	BC-775M	11-23-22
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	11-23-22

NOTES:

① LANE AND SHOULDER WIDTHS MEASURED PERPENDICULAR TO T-479 SURVEY & CONSTR ℄.
② EXISTING UTILITY TO REMAIN AND BE PROTECTED.
- FOR ELEVATION AND GENERAL NOTES, SEE SHEET 2.
- FOR PROPOSED TYPICAL SECTIONS, SEE SHEET 3.

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

REVISIONS

T-479 ALSO KNOWN AS FRY HOLLOW ROAD
BMS STR ID064-7209-0479-0135 MPMS/ECMS PROJ:67722 BRKEY:36911

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND COUNTY
T-479, FRY HOLLOW ROAD
HEMPFIELD TOWNSHIP
T-479, STATION 23+52.00
OVER WILSON RUN
1-SPAN INTEGRAL ABUTMENT BRIDGE

GENERAL PLAN

RECOMMENDED _____
DISTRICT BRIDGE ENGINEER

SHEET 1 OF 4 + SUPPLEMENTAL DRAWINGS

L-772

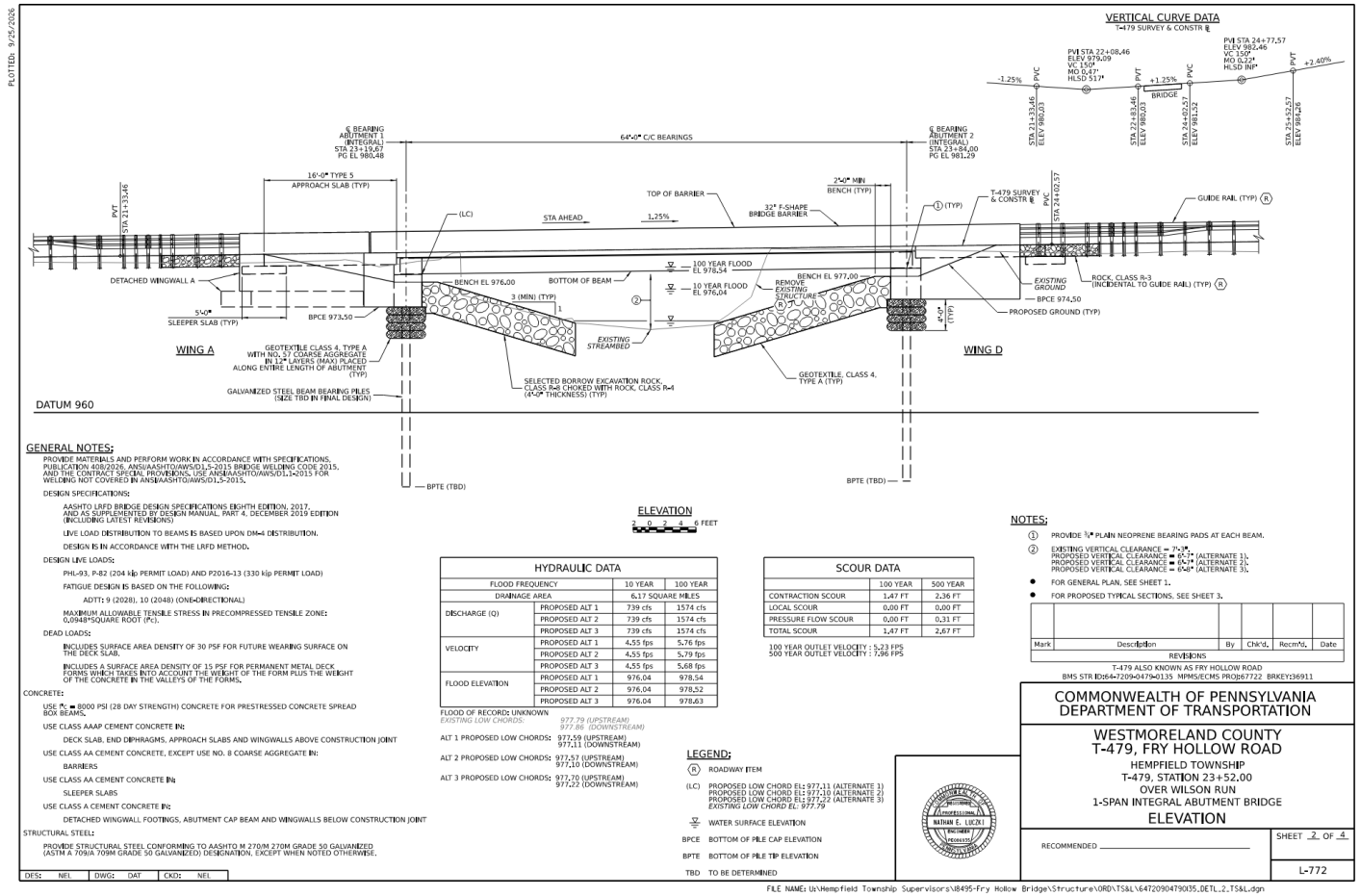
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BRIDGE ELEVATION

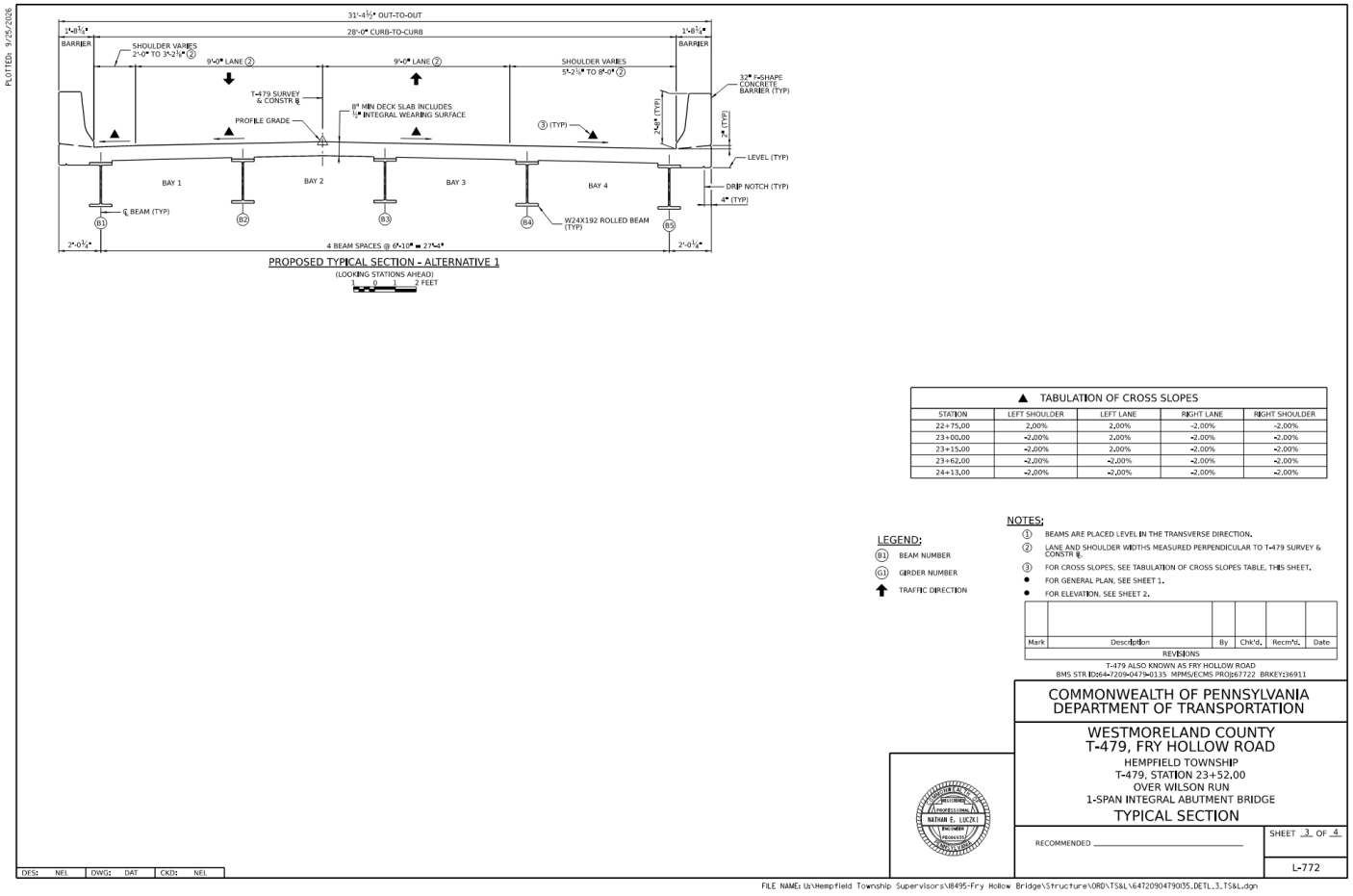


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BRIDGE TYPICAL SECTION



▲ TABULATION OF CROSS SLOPES

STATION	LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
22+75.00	2.00%	2.00%	-2.00%	-2.00%
23+00.00	-2.00%	2.00%	-2.00%	-2.00%
23+15.00	-2.00%	2.00%	-2.00%	-2.00%
23+62.00	-2.00%	-2.00%	-2.00%	-2.00%
24+13.00	-2.00%	-2.00%	-2.00%	-2.00%

LEGEND:
- (B1) BEAM NUMBER
- (G1) GIRDER NUMBER
- TRAFFIC DIRECTION

NOTES:
1. BEAMS ARE PLACED LEVEL IN THE TRANSVERSE DIRECTION.
2. LANE AND SHOULDER WIDTHS MEASURED PERPENDICULAR TO T-479 SURVEY & CONSTR ℄.
3. FOR CROSS SLOPES, SEE TABULATION OF CROSS SLOPES TABLE, THIS SHEET.
- FOR GENERAL PLAN, SEE SHEET 1.
- FOR ELEVATION, SEE SHEET 2.

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

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BMS STR ID264-7209-0479-0135 MPMS/ECMS PROJ#67722 BRKEY:36911

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T-479, STATION 23+52.00
OVER WILSON RUN
1-SPAN INTEGRAL ABUTMENT BRIDGE
TYPICAL SECTION

RECOMMENDED _____

SHEET 3 OF 4

L-772

DES: NEL | DWG: DAT | CKD: NEL

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