STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

TUS-250-(26.03)
TUSCARAWAS COUNTY
UNION TOWNSHIP
BR. NO. TUS-250-2603

	OHIO	1/10
	FHWA REGION 5	
	FEDERAL PROJECT	

TUS-250-(26.03)
BR-67-80

CONVENTIONAL SIGNS

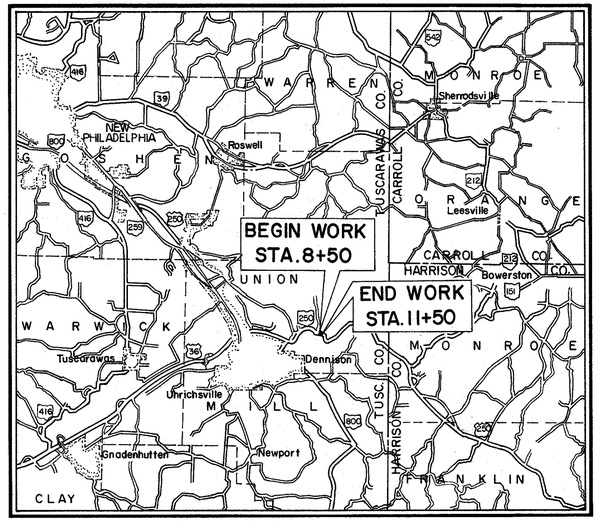
County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line 352 353
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light

Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA & RW
Existing Right of Way
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)

INDEX OF SHEETS

LINE DATA

Begin Work Sta. 8+50
End Work Sta. 11+50
Net Length of Work 300 Lin. Ft. or 0.06 Miles



LOCATION MAP

SCALE IN MILES
0 2 4 6 8

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan
Profile: Horizontal, Vertical
Cross Section: Horizontal, Vertical

1981 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and provisions for the maintenance and safety of traffic will be as set forth in these plans.

Approved Robert M. Short
Date 12-23-80 District Deputy Director of Transportation

Approved Robert B. Chaffee
Date 12-14-81 Engineer, Bureau of Bridges and Structural Design

Approved
Date Chief Engineer, Operations

Approved David L. Miller
Date 12-21-81 Director, Department of Transportation

SUPPLEMENTAL SPECIFICATIONS		
1001	1-3-77	

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
GR-1	12-6-76	BP-5	7-16-81	F-2	5-1-76		
GR-2B	12-6-76	HW-4A	4-1-80				
GR-4	12-6-76	MC-3	6-1-73				

Plan Prepared By:

SEAL

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

Project: TUS-250-(26.03)
Date of Letting 19, Contract No.

LD0300 Rev. 9-3-75

GENERAL NOTES

FHWA REGION	STATE	PROJECT	
5	OHIO		

2/10

TUS-250-(26.03)

PLAN NO. BR-67-80

WORK REQUIRED:

1. Excavate beneath existing structure and place bedding for conduit.
2. Install conduit within existing structure.
3. Build headwalls.
4. Backfill around pipe, as per plan.
5. Remove portions of structure, as per plan.
6. Complete embankment work.
7. Install guardrail and seed and mulch.

REFERENCE: Shall be made to Standard Drawings.

GR-1	Dated 12-6-76	BP-5	Dated 4-16-79
GR-2B	Dated 12-6-76	HW-4A	Dated 4-1-80
GR-4	Dated 12-6-76	MC-3	Dated 6-1-73
		F-2	5-1-76

PORTIONS OF EXISTING STRUCTURE REMOVED:

Portions of abutment wingwalls that will interfere with placement of culvert headwalls shall be removed. The remaining portions of wingwalls shall be removed to a minimum of one foot below the proposed ground line.

Also, the bridge railing shall be removed to the curb line. The steel beam and railing on the left side of the structure shall be stored for removal by State forces. All of the above shall be included with the lump sum price bid for Item 202, Portions of Structure Removed.

ITEM 603- 16'-7"x10'-1" CONDUIT, TYPE A, 707.03, AS PER PLAN:

This work shall consist of constructing a 16'-7"x10'-1" conduit within an existing concrete structure in accordance with 603, this note, and in reasonably close conformity with the line and grade shown on the plans.

The conduit may be assembled and then maneuvered through the existing structure in such a manner as not to damage the roof of the existing structure, the pavement above, or the conduit; or the conduit plates may be assembled inside the existing structure. The class B bedding shall have a thickness of 24" below the bottom of the pipe and will not be required to extend up around the pipe.

Payment for all labor, tools, materials and incidentals necessary to complete the above work shall be included in the unit price bid for Item 603, 16'-7"x10'-1" conduit, Type A, 707.03, as per plan.

ITEM SPECIAL-FILLING INSIDE EXISTING STRUCTURE:

This work shall consist of filling any voids inside the existing structure by the installation of 'Elastizell' low density concrete fill or an approved equal. The low density concrete fill shall extend through the existing structure from headwall to headwall and to within one foot of the proposed grade lines for a width on each side of the conduit of 4 feet or against the existing structure. The remaining fill shall be placed under Item 203.

Portland cement, mixing water and admixtures shall meet requirements under Item 499. The foaming agent shall have been tested under ASTM C796. Mix design, mixing and placing shall be as per manufacturer's recommendations. Specimens shall be tested in accordance with ASTM C495 except that test specimens shall not be oven dried prior to compressive testing. Minimum compressive strength shall be 40 p.s.i.

Payment for the above including furnishing and placing all materials and all labor, equipment and incidentals necessary to complete the Item shall be included in the lump sum price bid for Item Special-Filling Inside Existing Structure.

UTILITIES: All expenses involved in relocating any affected utilities shall be borne by the Owners. The Contractor and Owners are requested to cooperate by arranging any work in a manner that inconvenience to either will be held to a minimum. Following are Owners known to be within the work limits:

Tennesee Gas Pipline Company
Attn: W.A. Richey, Jr., East Dist. Supt.
R.D. # 1 Box 39
Carrollton, Ohio 44615

The Ohio Bell Telephone Company
150 E. Gay St.
Columbus, Ohio 43215

MAINTENANCE OF TRAFFIC: The Contractor shall maintain traffic at all times in accordance with the requirements of Item 614. One way traffic as required by the work shall be held to a minimum and shall only occur during working hours. During non-working hours both lanes of U.S. 250 shall be open to traffic. The Contractor may utilize the shoulders to maintain one-way traffic. Therefore, quantities for Item 616 have been included.

All signs, drums, barricades and flagmen shall be utilized in conformance with the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, current edition, latest revision. Payment for all of the above except Item 411 and 616 shall be included in the price bid for Item 614, Maintaining Traffic.

FIELD OFFICE: The Contractor shall provide a suitable field office having a minimum of 150 sq. ft. of floor space and in addition to the requirements of Item 619, he shall provide and maintain sanitary provisions as per 107.06. All of the above is included in the lump sum price bid for Item 624, Mobilization, as per plan.

RIGHT OF WAY: All work shall be performed within the existing right of way and areas indicated on the plan to be covered by the maintenance work agreement(s) signed with respective property owners. Areas covered by the work agreements shall be graded to meet the line of the channel cross-sections, or shall be restored to original condition under Item 203, Excavation for payment, after other work has been completed. Restored to original condition shall include restoring 12" field drain, if disturbed by the Contractor.

NEW PAVEMENT: shall be placed from Sta. 9+00 to Sta. 11+00 and shall consist of a variable thickness of 402 placed parallel to and 1¼" below finished grade and a 1¼" thickness of 404. A butt joint type feathered area as per Standard Drawing BP-5 shall be used.

GUARDRAIL OVER CONDUIT: Where sufficient post depth is not available due to the conduit, guardrail posts directly over the conduit shall be set in holes and encased in a minimum of 4" thickness of Class 'C' concrete for the full depth of the post, or as detailed on Std. Dwg. GR-1 (dated 12-6-76) for inlet mounted posts. The method shall be approved by the Engineer. Payment for the above shall be included in the unit price bid for Item 606-Guardrail, Type 5.

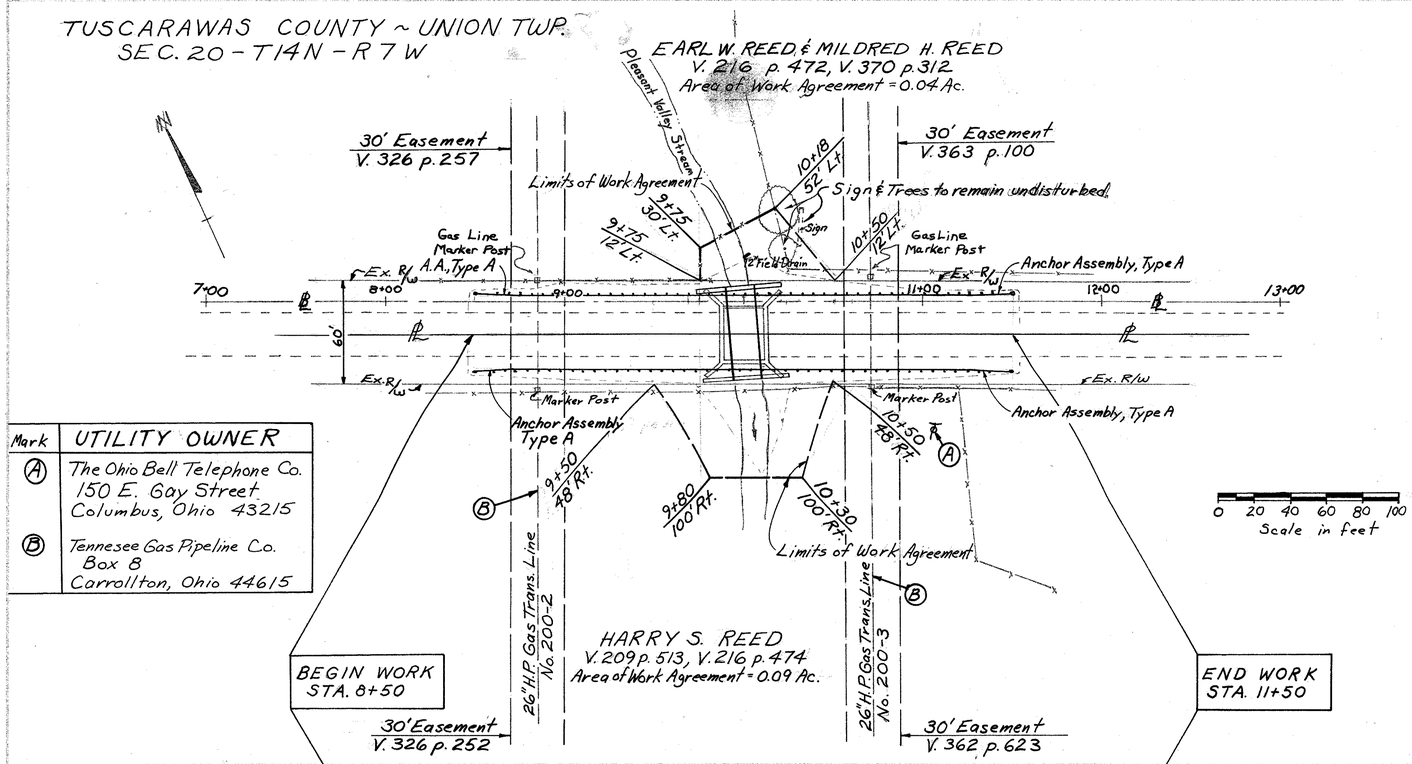
LOCATION OF GUARDRAIL: The location of guardrail runs as shown in these plans are subject to adjustment by the Engineer to assure that the installation will afford maximum protection for traffic.

SEEDING: Quantities for seeding are calculated for soil areas between work limits as shown on the cross-sections.

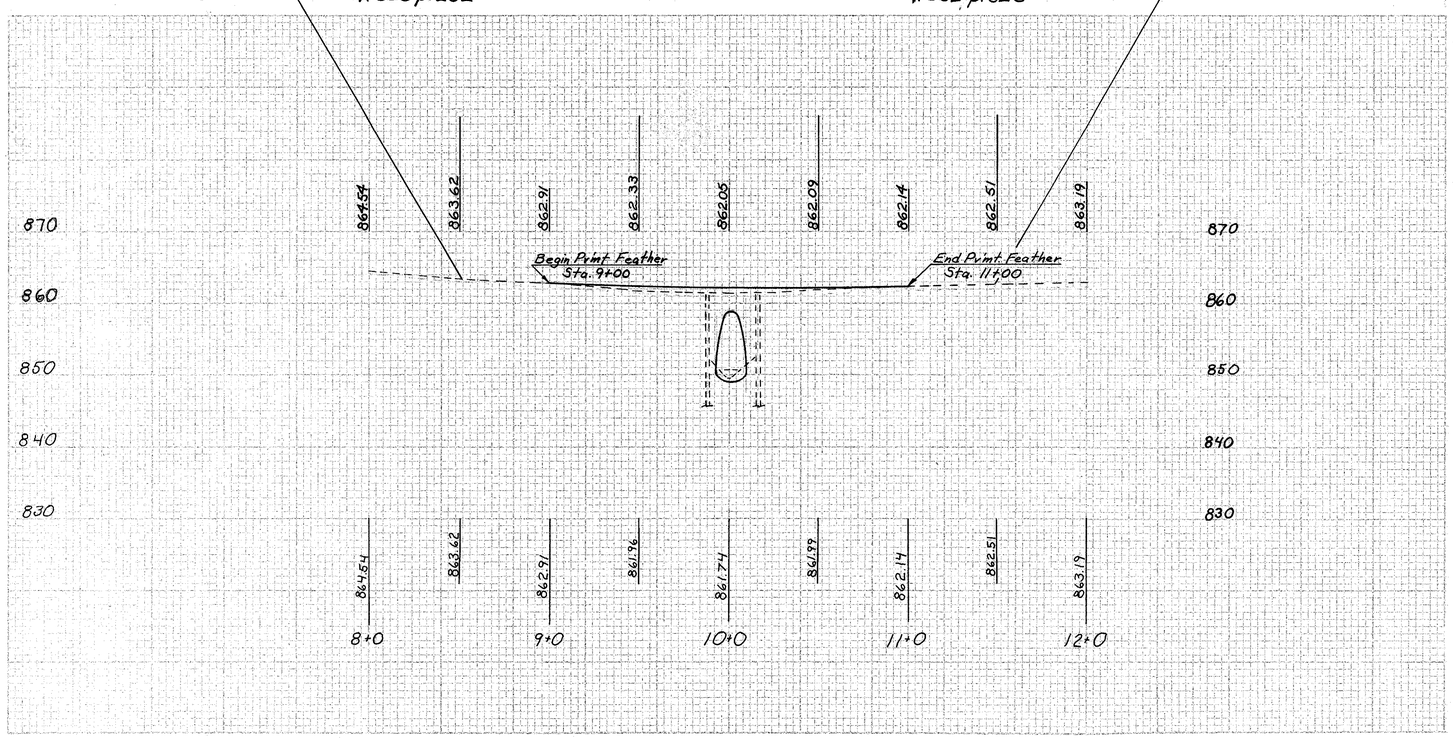
ROUNDING OF CORNERS: The rounded corners, shown on the TYPICAL SECTION apply to all cross sections even though otherwise shown on these plans.

ITEM 607, FENCE, TYPE 47RA, MODIFIED AS PER PLAN: This item shall include the temporary installation of woven steel wire fence along the limits of work agreement for the duration of proposed work, and subsequently using the fence materials to restore the original farm fence disturbed by construction as directed by the Engineer. Fence posts shall be new, but may be the same type as existing; other materials shall be as per 607.02. Post assemblies will not be required for temporary installation. Stream crossings shall be as existing for both temporary and final fence lines. All labor, materials and equipment required to complete above work shall be included in price bid for Lin. Ft., Item 607.

TUSCARAWAS COUNTY ~ UNION TWP.
SEC. 20 - T14N - R7W



Mark	UTILITY OWNER
(A)	The Ohio Bell Telephone Co. 150 E. Gay Street Columbus, Ohio 43215
(B)	Tennesee Gas Pipeline Co. Box 8 Carrollton, Ohio 44615



STATION 8+00 to 12+00

MICROFILMED
FEB 3 1986

FED. ROAD DIVISION	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			3	10

TUS - 250 - (26.03)

PLAN NO. 8R-67-80

GUARDRAIL

STATION FROM	STATION TO	SIDE ℄	ITEM 606 GUARDRAIL TYPE 5 LIN. FT.	ITEM 606 ANCHOR ASSEMBLY TYPE A EACH
8+50	11+50	LEFT	250	2
8+50	11+50	RIGHT	250	2
TOTALS			500	4

GENERAL SUMMARY

ITEM	TOTAL	UNIT	DESCRIPTION
202	LumpSum	Lump Sum	Portions of structure removed, as per plan
203	95	Cu. Yds.	Excavation not including embankment construction
203	103	Cu. Yds.	Embankment
402	19	Cu. Yds.	Asphalt concrete (AC-20)
404	19	Cu. Yds.	Asphalt concrete (AC-20)
407	53	Gallons	Tack coat
407	2	Tons	Cover aggregate
411	59	Cu. Yds.	Stabilized crushed aggregate
509	3045	Lbs.	Reinforcing steel
601	13	Cu. Yds.	Rock channel protection, Type A with bedding
602	1133	Cu. Yds.	Concrete masonry
603	54	Lin. Ft.	16'-7"x 10'-1" Conduit, Type A, 707.03, 0.138-0.168 installed as per plan with type B bedding
606	500	Lin. Ft.	Guardrail, Type 5
606	4	Each	Anchor assembly, Type A
614	Lump Sum	Lump Sum	Maintaining traffic, AS PER PLAN
616	1	M-Gallons	Water
616	0.5	Tons	Calcium chloride
624	Lump Sum	Lump Sum	Mobilization, as per plan
659	0.26	Tons	Agricultural liming
659	577	Sq. Yds.	Seeding and mulching
659	0.05	Tons	Commercial fertilizer
607	210	Lin. ft.	Fence, Type 47RA, modified as per plan
Special	Lump Sum	Lump Sum	Filling inside existing structure as per plan
623	Lump Sum	Lump Sum	Construction Layout Stakes

PLAN & PROFILE, GUARDRAIL AND GENERAL SUMMARY

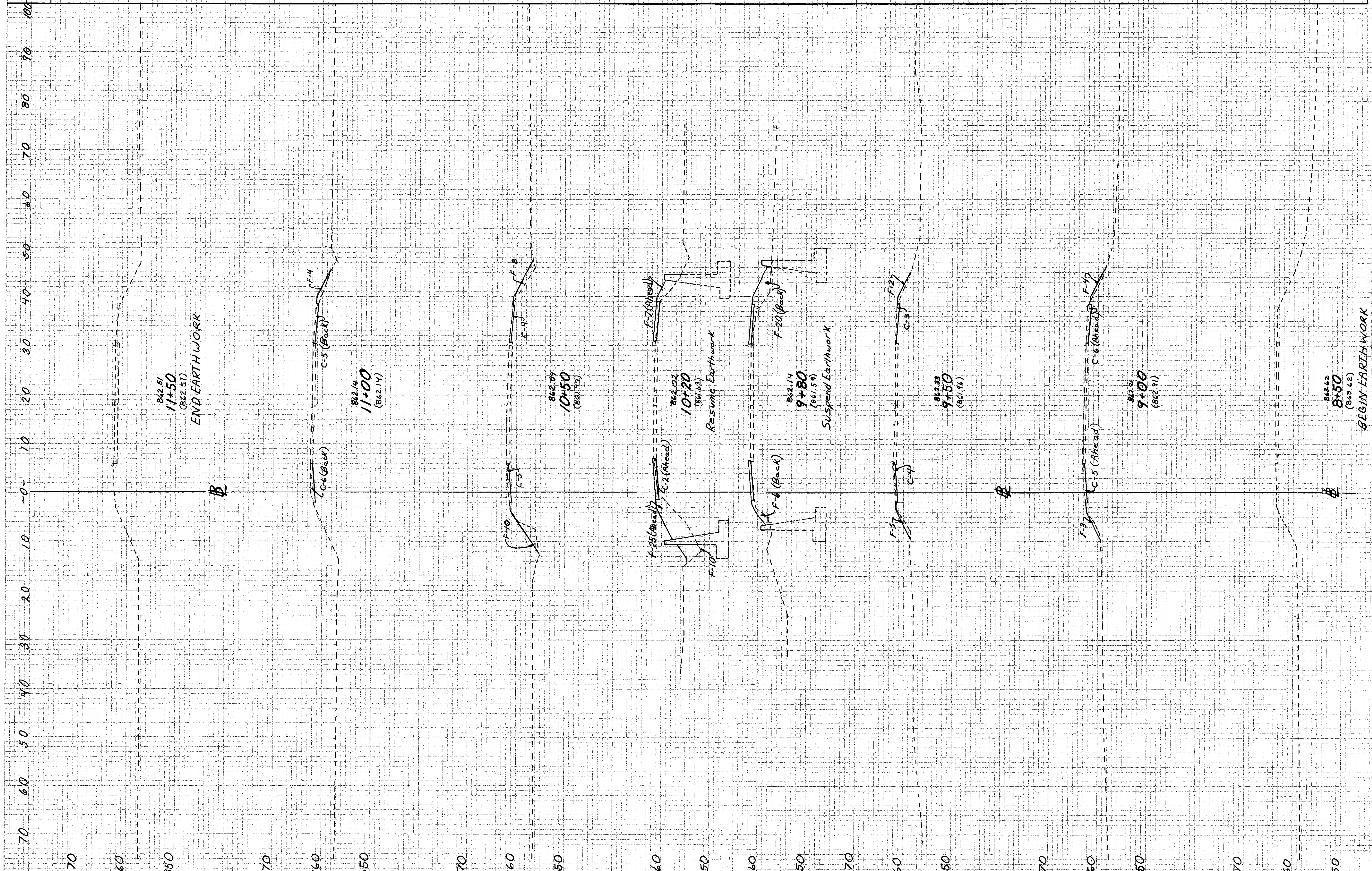
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		4 / 10

TUS-250-(26.03)

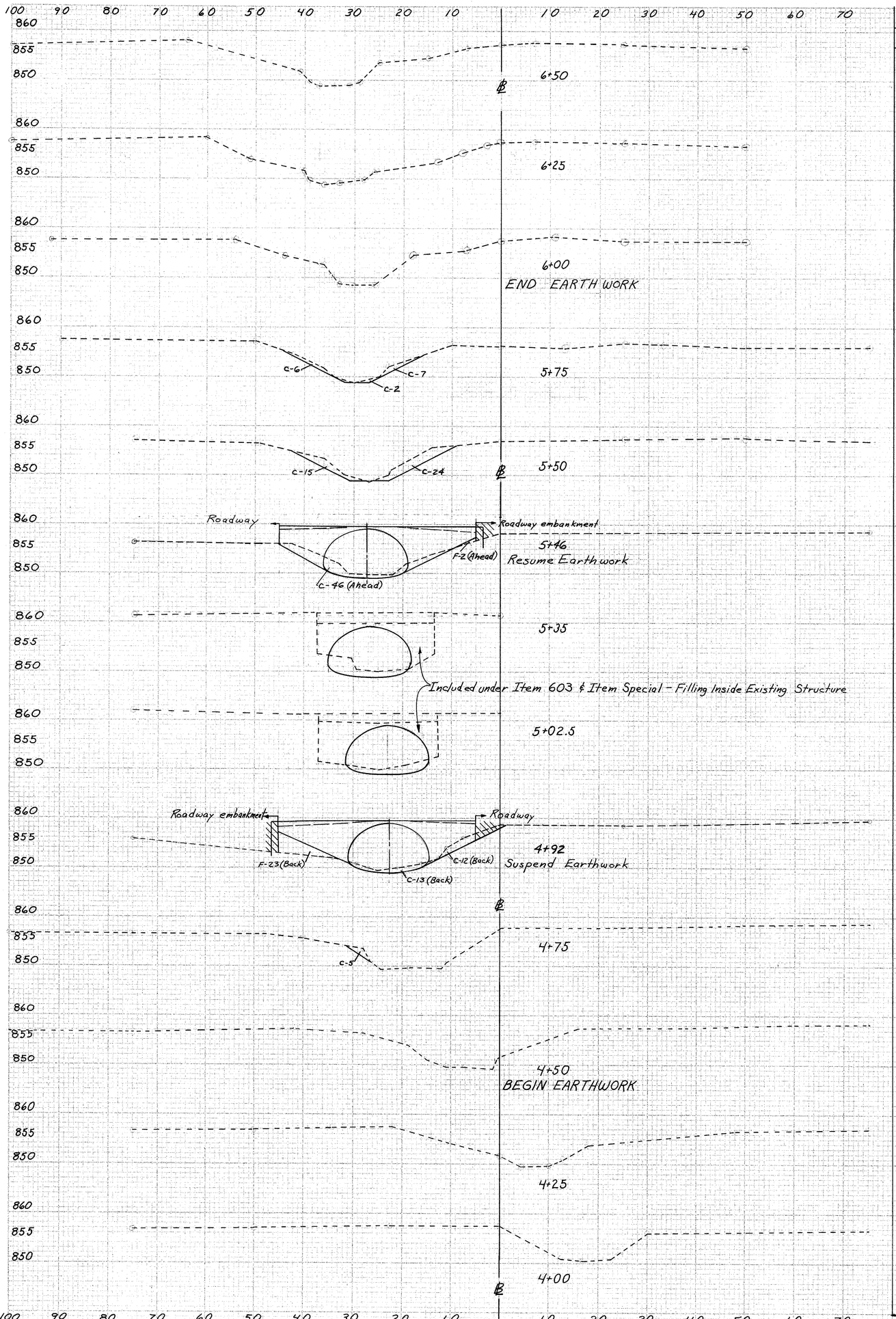
Calc. SLU Date 11-10-80
Chkd. JLO Date 11-10-80

PLAN NO. BR-67-80

Station	End Area Cut	End Area Fill	Cu. Yd. Exc.	Cu. Yd. Emb.	Seeding W.	Seeding S.Y.
11+50	0	0			0	
			0	4		19
11+00	11	4			7	
			19	20		86
10+50	9	18			24	
			6	34		50
10+20	2	44			14	
			0	0		64
9+80	0	26			15	
			4	18		52
9+50	7	7			16	
			17	13		92
9+00	11	7			17	
			0	6		47
8+50	0	0			0	



PAVM'T. CROSS-SECTIONS STATION 8+50 to 11+50



Seeding		End Area		Cu. Yd.	
W.	S.Y.	Cut	Fill	Exc.	Emb.
0		0	0		
	36			7	0
26		15	0		
	75			25	0
28		39	0		
	12			6	1
25		46	2		
	—				
				0	0
	—				
32		25	23		
	36			9	7
6		5	0		
	8			2	0
0		0	0		

Channel Cross-Sections Station 4+00 to 6+50

Calc. JLO Date 12-2-80
Ckkd. SLV Date 12-2-80

TUS-250-(26.03)

FED. ROAD PROJECT | STATE OHIO | PROJECT

PLAN NO. BR-67-80

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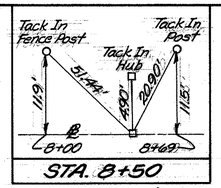
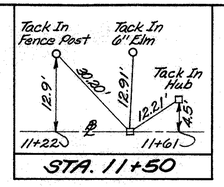


B.M. ELEV. 858.56
Mine Spike In
Telephone Pole
76.5' Rt. ℄ STA. 11+05



MICROFILMED
FEB 3 1986

FHWA REGION	STATE	PROJECT	
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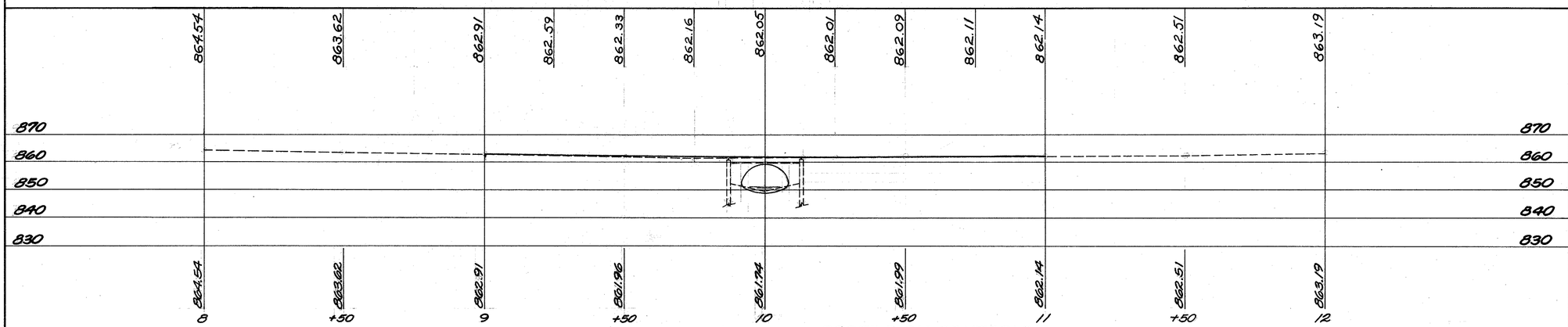
TUS-250-(26.03)

PLAN NO. BR-67-80



EXISTING STRUCTURE

TYPE : Concrete Slab
LENGTH : 1 Span 26'-5" % floor
ROADWAY : 29'-0" between curbs
LOADING : H-15
SKEW : 0°

DRAINAGE AREA = 6.95 SQ. MILES
Q_{25} = 1065 c.f.s. Q_{100} = 1493 c.f.s.
Q_{50} = 1276 c.f.s. HW_{100} = 11.7 ft.

PROPOSED STRUCTURE

TYPE : Sectional Plate Pipe-Arch Culvert with Headwalls
SIZE : 16'-7" x 10'-1" x 54'-0" Long
ROADWAY : 40'-0" f/f guardrail
LOADING : HS-20
SKEW : 5° Right Forward
WEARING SURFACE : Asphalt Concrete

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF BRIDGES

SITE PLAN
BRIDGE Nº. TUS-250-2603 OVER PLEASANT VALLEY STREAM TUSCARAWAS COUNTY-U.S.R. 250

SCALE : 1" = 20'

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
DIST. 11	DIST. 11	JLO	JLO	JJN	

MICROFILMED
FEB 3 1986

FHWA REGION	STATE	PROJECT	
5	OHIO		

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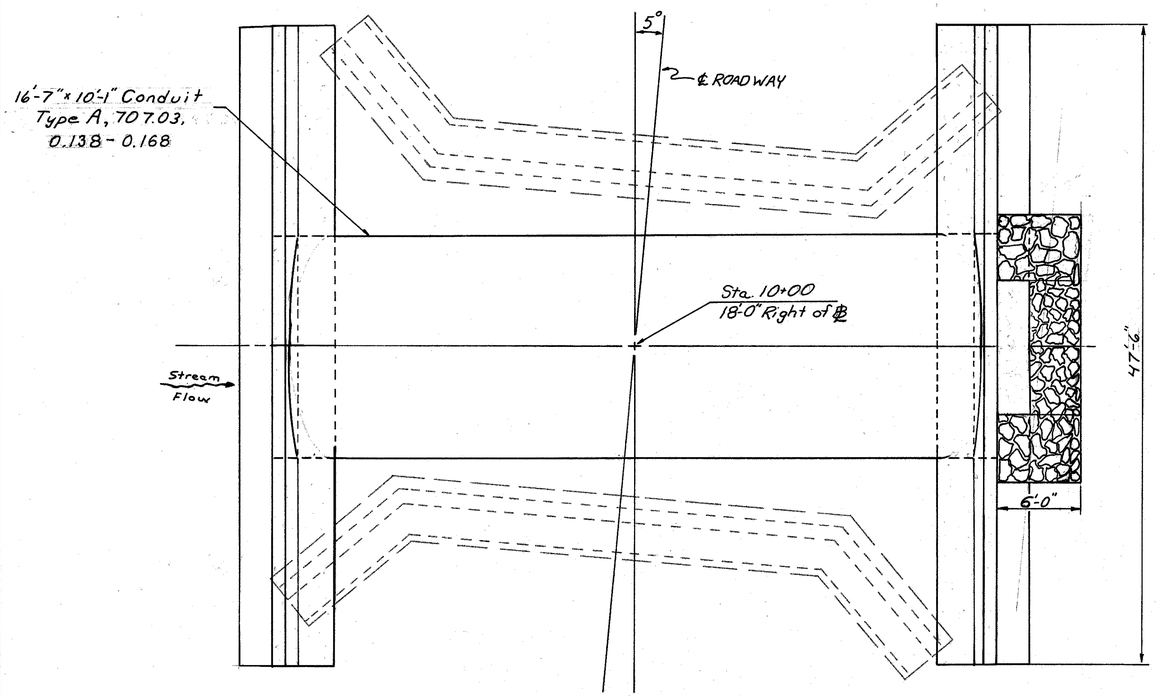
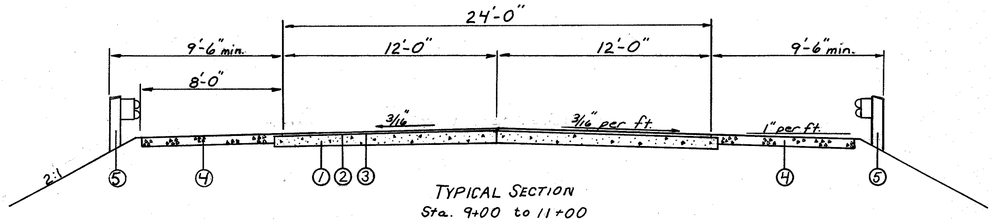
TUS-250-(26.03)

PLAN NO. BR-67-80



PLAN



TYPICAL SECTION
Sta. 9+00 to 11+00

1. Item 402 Asphalt Concrete (AC-20) Variable thickness
2. Item 407 Tack Coat
   applied at the rate of 0.40 gallons per square yard
3. Item 404 Asphalt Concrete (1¼) AC-20
4. Item 411 Stabilized crushed aggregate (6")
5. Item 606 Guardrail Type 5

Item 402 Asphalt concrete
(Variable thickness) $\left[\left(\frac{0.167+0.37}{2}\right)(25') + \left(\frac{0.37+0.31}{2}\right)(50') + \left(\frac{0.31+0.10}{2}\right)(50') + \left(\frac{0.10+0.167}{2}\right)(25')\right](24')$ (width) = $895\ ft^3 - 374\ ft^3$ (Item 404) = $521\ ft^3 \div 27\ ft^3/cy = 19$ cy.

Item 404 Asphalt concrete
(Feather) $(25')(2)(24')(0.104') + (25'+50'+50'+25)(24')(0.104) = 499\ ft^3 \div 27\ ft^3/cy = 19$ cy.

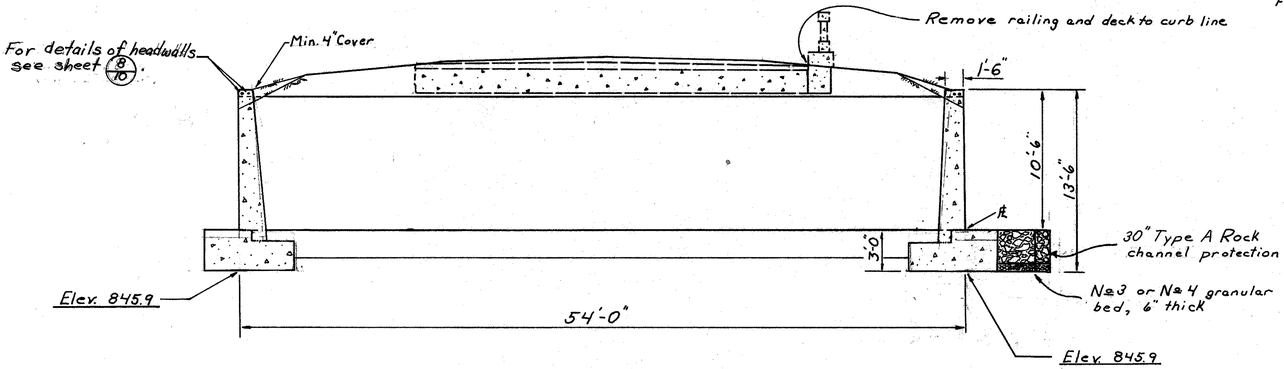
Item 407 Tack coat
$(200')(24') = 4800\ ft^2 \div 9\ ft^2/yd^2 = 533.3\ yd.^2 \times 1/10\ gal/yd.^2 = 53$ gal.

Item 407 Cover aggregate $(533.3\ yd^2)(7\#/yd^2) = 3733.1\# \div 2000\#/ton = 2$ Tons

Item 411 Stabalized crushed aggregate
$(8')(0.5')(200'\times 2) = 1600\ ft^3 = 59$ cy.

Item 659 Seeding and Mulching
Lime $577\ yd^2$ (Earthwork Calcs.) $\times 9\ ft^2/yd^2 = 5193\ ft^2 \times 100\#/1000\ ft^2 = 519\# \div 2000\#/ton = 0.26$ Tons
Fertilizer $5193\ ft^2 \times 20\#/1000\ ft^2 = 104\# \div 2000\#/ton = 0.05$ Tons

Calc. SLU	Date 12-2-80
Ch Kd. JLO	Date 12-2-80



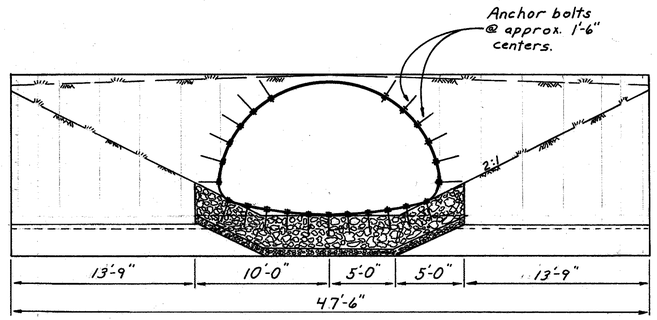
ELEVATION

Item 601 Rock Channel Protection $3'[(20')(6') - (10')(2.48')] = 286\ ft^3 \div 27\ ft^3/yd^3 = 11$ cy.

Item 602 Masonry $\left(\left[\left(\frac{15+22.2'}{2}\right)11' + (22.5'\times 7') + (0.25'\times 32.3')\right] 47.5' + [16'\times 0.5'\times 2.48']\right)(2) = 3536\ ft^3$

Deduct pipe $\left(131\ sq.ft. \times \frac{15.3+22.2'}{2}\right)(2) = \underline{-490}$

$3046\ ft^3 \div 27\ ft^3/yd^3 = 113$ cy.



OUTLET END VIEW
(TYPICAL HEADWALL)

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF BRIDGES

DRAINAGE DETAILS AND TYPICAL SECTION
BRIDGE №TUS-250-2603
Over
PLEASANT VALLEY STREAM

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JLO	SLU		JJN			

MICROFILMED
FEB 3 1986

FHWA REGION	STATE	PROJECT		
5	OHIO			

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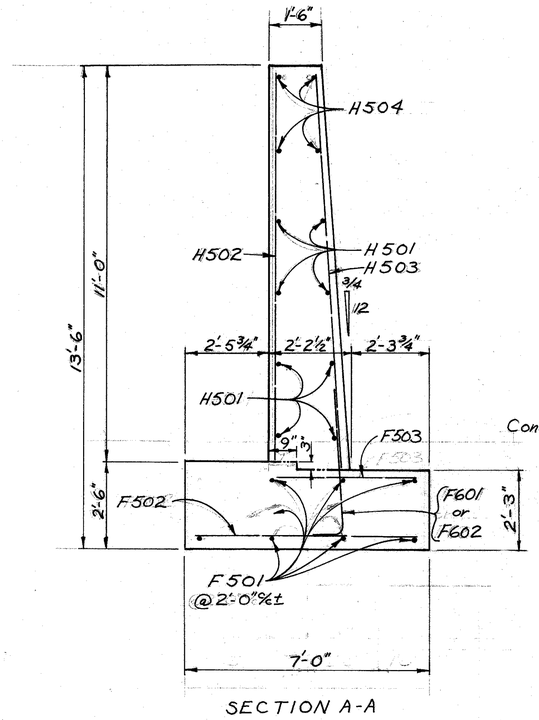
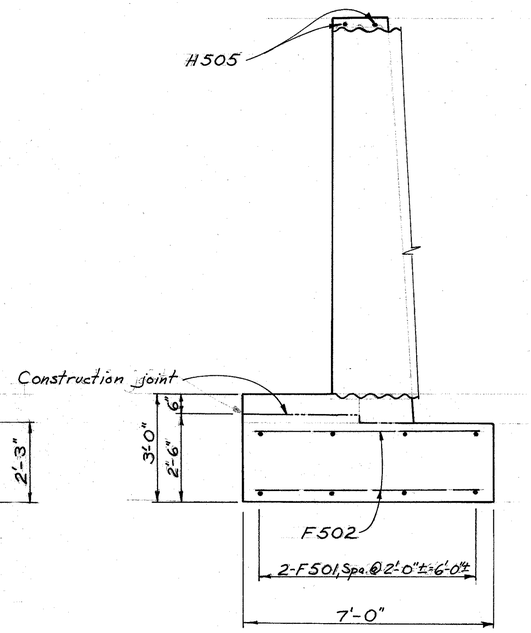
TUS-250-(26.03)

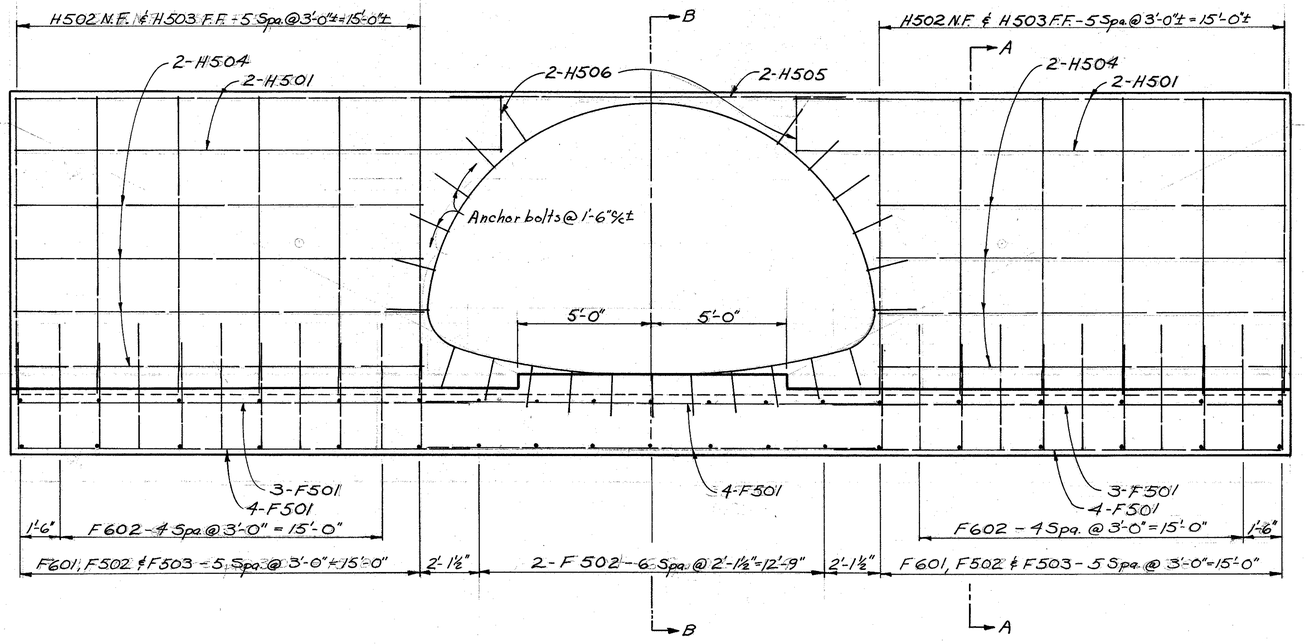
PLAN NO. BR-67-80



SECTION A-A



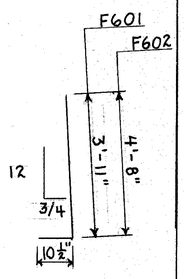
SECTION B-B



REINFORCING STEEL LIST

HEADWALLS

MARK	NUMBER LEFT	NUMBER RIGHT	NUMBER TOTAL	LENGTH	WEIGHT	SHP.
F501	22	22	44	16'-9"	769	Str.
F502	26	26	52	6'-6"	353	Str.
F503	12	12	24	4'-0"	100	Str.
F601	12	12	24	5'-8"	204	17
F602	10	10	20	6'-5"	193	17
H501	16	16	32	15'-0"	501	Str.
H502	12	12	24	10'-0"	271	Str.
H503	12	12	24	11'-1"	277	Str.
H504	8	8	16	18'-0"	300	Str.
H505	2	2	4	14'-0"	60	Str.
H506	4	4	8	2'-0"	17	Str.



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF MAINTENANCE

HEADWALL DETAILS AND REINFORCING STEEL LIST

BRIDGE NO. TUS-250-2603
OVER PLEASANT VALLEY STREAM

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Dist. 11						

TE - 118
600 - 6 - 73

9/10 (1/2)

TUSCARAWAS COUNTY
TUS-250-26.03

PLAN NO. BR-67-80

GEOLOGY OF THE SITE

THE PROPOSED CULVERT SITE IS LOCATED IN THE HIGHLY DISSECTED, UNGLACIATED PORTION OF THE ALLEGHENY PLATEAU REGION NEAR THE CONFLUENCE OF PLEASANT VALLEY STREAM AND LITTLE STILLWATER CREEK AND ON THE BROAD FLOODPLAIN OF LITTLE STILLWATER CREEK, IN AN AREA WHERE EXTREMELY DEEP VALLEY AND STREAM DEPOSITS OVERLIE BEDROCK OF PENNSYLVANIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE-PRESS SAMPLE BORINGS MADE BY MEANS OF A MECHANICALLY-POWERED HOLLOW STEM AUGER MOUNTED ON A MOBILE PLATFORM, PERFORMED ON AUGUST 6 AND 10, 1981.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE BORINGS ENCOUNTERED INTERVALS OF EXTREMELY LOOSE TO MEDIUM DENSE STRATIFIED SILTS AND CLAYS MODIFIED WITH SAND AND GRAVEL THAT GRADUALLY INCREASE IN DENSITY WITH INCREASE IN DEPTH. BORING B-1 (IN THE VICINITY OF THE CULVERT INLET) WAS TERMINATED AT 36.5-FOOT DEPTH, ELEVATION 824.5 FEET, AFTER PENETRATING IN EXCESS OF 6 FEET OF MATERIAL, REQUIRING IN EXCESS OF 13 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST. BORING B-2 (IN THE GENERAL VICINITY OF THE CULVERT OUTLET) WAS TERMINATED AT 31.5-FOOT DEPTH, ELEVATION 830.5 FEET, AFTER PENETRATING IN EXCESS OF 8 FEET OF MATERIAL REQUIRING IN EXCESS OF 13 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST.

BEDROCK SURFACE WAS NOT ENCOUNTERED IN EITHER OF THE TEST BORINGS PERFORMED.

NO FREE WATER OBSERVATIONS WERE MADE DURING OR AT THE CONCLUSION OF DRILLING OPERATIONS, HOWEVER BORING B-1 ENCOUNTERED WET ZONES AT 5.0, 10.0 AND 22.5-FOOT DEPTHS, ELEVATIONS 856.0, 851.0 AND 838.5 FEET, RESPECTIVELY.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y/Z — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
  Z = Number of Blows for Third 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Mudstone or Claystone
- Mudstone or Claystone
- Weathered Shale
- Shale
- Weathered Siltstone
- Siltstone
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone
- Boulders or Cobbles

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 18 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in three 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
	12"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm

LOG OF BORING

Date Started 8/10/81 — Sampler Type SS — Dia 1 3/8"
Date Completed 8/10/81 — Casing: Length — Dia
Boring No. B-1 — Station & Offset 9+75 - BL (CULVERT INLET)

WET ZONE ELEVS 856.0; 851.0; 838.5
Water Elev —
Surface Elev 861.0'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
861.0	0														
	2														
856.0	4														
	6	1/2/2			BROWN CLAYEY SILT	1	0	0	9	56	35	32	10	30	A-5b
	8														
851.0	10														
	12	2/2/3			GRAY-BROWN SILT AND CLAY	2	0	0	3	46	51	36	14	30	A-6a
	14														
846.0															
	16	PRESS			GRAY-BROWN ORGANIC CLAYEY SILT (AVERAGE)	3	0	1	11	56	32	29	6	27	A-4b
843.5	18				GRAY-BROWN CLAYEY SILT, SLIGHTLY ORGANIC	3A	0	0	12	55	33	28	6	28	A-4b
		2/2/3			GRAY ORGANIC SANDY CLAY	4	0	3	27	43	28	34	11	32	A-6a
841.0	20														
		1/2/2			GRAY ORGANIC SANDY SILT	5	0	1	36	37	26	33	8	30	A-4a
838.5	22														
	24	2/2/3			GRAY-BROWN CLAYEY SILT, SLIGHTLY ORGANIC	6	0	6	14	36	44	32	10	31	A-4a
836.0	26														
		1/3/4			GRAY-BROWN CLAYEY SILT	7	0	0	1	51	48	30	7	32	A-4b
	28														
831.0	30														
		3/6/8			GRAY-BROWN CLAYEY SILT	8	0	0	1	50	49	30	8	27	A-4b
	32														
	34														
826.0															
824.5	36	4/7/10			GRAY-BROWN CLAYEY SILT	9	0	0	1	59	40	28	7	26	A-4b

BOTTOM OF BORING

LOG OF BORING

Date Started 8/6/81 — Sampler Type SS — Dia 1 3/8"
Date Completed 8/6/81 — Casing: Length — Dia
Boring No. B-2 — Station & Offset 10+20 - 20' RT. (CULVERT OUTLET)

Water Elev —
Surface Elev 862.0'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
862.0	0														
	2														
857.0	4														
	6	1/1/2			BROWN-GRAY SANDY SILT	1	0	1	29	42	28	27	7	28	A-4a
	8														
852.0	10														
	12	1/2/2			GRAY-BROWN CLAYEY SILT	2	0	0	14	53	33	28	7	27	A-4b
	14														
847.0															
	16	PRESS (REC 2.4')			GRAY SANDY SILT AND CLAY	3	0	1	8	41	50	33	11	31	A-6a
844.5	18				GRAY SILT AND CLAY, TRACE OF ORGANIC (AVERAGE)	3A	0	0	0	44	56	35	11	28	A-6a
		3/5/8			GRAY-BROWN SILT AND CLAY	4	0	0	0	43	57	35	11	27	A-6a
842.0	20														
		2/6/7			GRAY-BROWN SILT AND CLAY	5	0	0	0	31	69	38	15	30	A-6a
839.5	22														
	24	3/7/10			GRAY-BROWN SILT AND CLAY	6	0	0	0	38	62	35	11	29	A-6a
837.0	26														
		3/9/11			GRAY-BROWN SILT AND CLAY	7	0	0	0	41	59	36	13	28	A-6a
	28														
832.0	30														
830.5	32	3/5/9			GRAY-BROWN CLAYEY SILT	8	0	0	0	53	47	31	9	27	A-4b

BOTTOM OF BORING

NOTE - ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1600 WEST BROAD STREET, THE PAVEMENT AND SOILS SECTION OF THE BUREAU OF LOCATION AND DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS — TESTING LABORATORY
1600 WEST BROAD STREET, COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. TUS-250-2603
OVER PLEASANT VALLEY STREAM
SEC. TUS-250-26.03

CHECKED BY	REVIEWED BY	DATE
L. N. L.	R. D. R.	9/17/81

TE - 119
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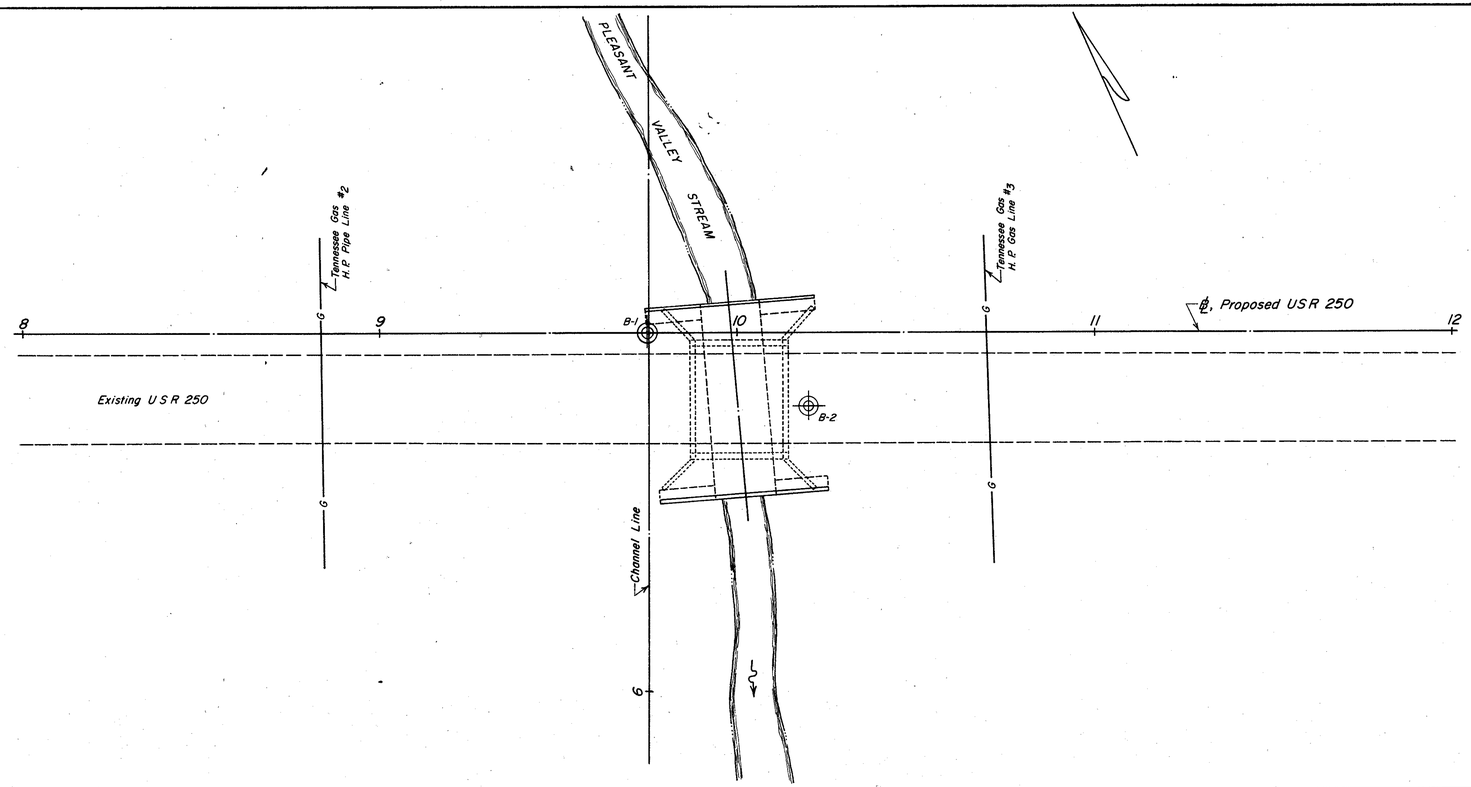
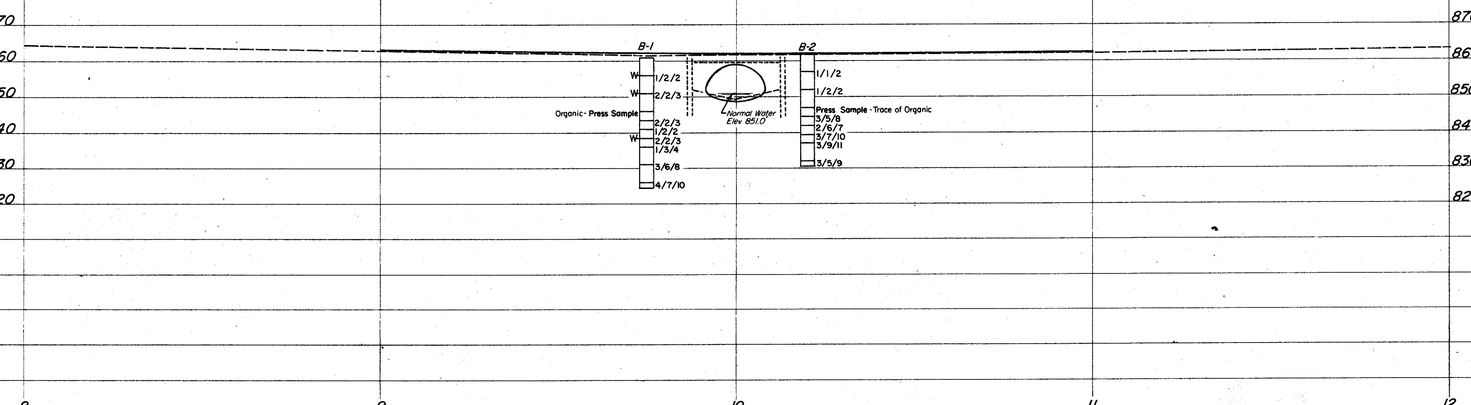
MICROFILMED
FEB 3 1986

10/10

TUS-250-26.03 2/2

PLAN NO. BR-67-80





SCALE: 1" = 20'

OHIO DEPARTMENT OF TRANSPORTATION
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1600 WEST BROAD STREET, COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. TUS-250-2603
OVER PLEASANT VALLEY STREAM
SEC. TUS-250-26.03

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
L. N. L.	L. N. L.	R. D. R.	9/17/81