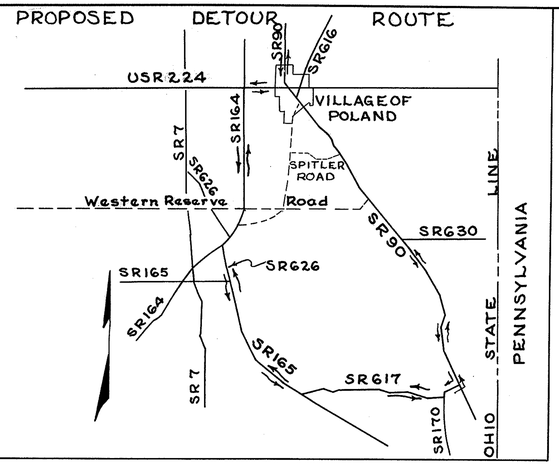


STATE OF OHIO
DEPARTMENT OF HIGHWAYS
MAH-90-7.87
MAHONING COUNTY
POLAND TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	STATE	

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CONVENTIONAL SIGNS

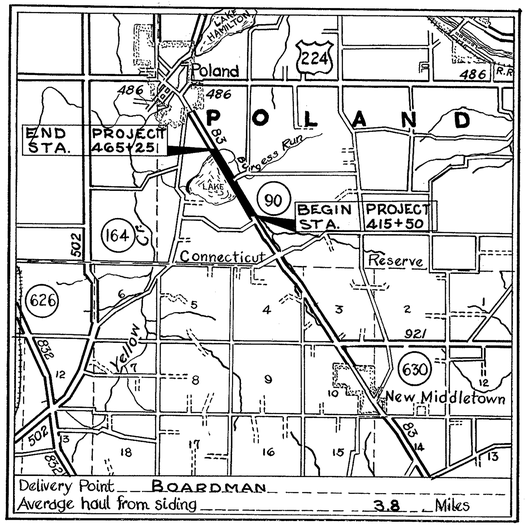
State Line
County Line
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail (existing)
Guard Rail (proposed)
Steam Railroad
Power Poles
Telephone Poles
Trees (existing)
Trees (to be removed)

INDEX OF SHEETS

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Right of Way	40-42

LINE DATA

Begin Project	Sta. 415+50
End Project	Sta. 465+25
Gross Length of Project	4975.00 L.F.
Net Length of Project	4975.00 L.F. or 0.942 Mi.
Begin Work	Sta. 415+00
End Work	Sta. 465+50
Gross Length of Work	5050.00 L.F.
Net Length of Work	5050.00 L.F. or 0.956 Mi.



LOCATION MAP

SCALE OF MILES

0 1/2 1 2 3 4

Portion to be improved
State Roads
Other Roads
Detour (See map at upper left)

SCALE

Plan	1" = 50'
Profile: Horizontal	1" = 50'
Profile: Vertical	1" = 5'
Cross Sections	1" = 5'

The standard specifications of the State of Ohio, Department of Highways, 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 require the closing to traffic of the highway, except as noted on sheet 3, and that detours will be provided as indicated on the plans.

Approved W D Moulton
Date 12-17-57 Division Deputy Director

Approved C. N. Makeever
Date 3-12-58 Deputy Director of Planning & Programming

Approved M Waterman
Date 3-12-58 Engineer of Bridges

Approved R.E. Shultz
Date 3-14-58 Engineer of Location & Design

Approved P.E. Masketes
Date 3-14-58 Deputy Director of Design & Construction

Approved _____
Date _____ First Assistant Director

Approved Burgess J. Simmons
Date 3/18/58 Acting Director of Highways

AUG 29 1961
GROUND PHOTOS

Supplemental Prints of Standard Construction Drawings					
T-35	1-2-56	G-7.07	6-1-56		
R1-1	1-3-55	L-1	4-1-50	AS-1-54	12-1-54
DR-1	1-3-55	L-3	4-1-50	SP-53	7-21-53
S-27 P.C.3	2-20-45	L-3A	4-1-50	I-15 No 1	8-1-55
S-27 P.C.4	1-4-54	I-15 No 2A	6-1-57	A-1-54	12-1-54
I-8 C.B.2-2A & B			8-1-56	P-1-54	12-1-54
I-8 C.B.2-3 & 2-4			5-1-52	CS-1-54 (Sheets 1 & 2)	7-16-56

Supplemental Specifications	
B-119	Rev. 8-11-57

File No.	MAHONING COUNTY MAH-90-7.87
	Date of Letting _____ 19
	Contract No. _____

TITLE SHEET

FIELD NOTES
Book No. 263

PUBLIC UTILITIES:
EAST OHIO GAS CO. - YOUNGSTOWN, OHIO
OHIO WATER SERVICE CO. - STRUTHERS, OHIO
AMERICAN TELEGRAPH & TELEPHONE CO. - CUYAHOGA FALLS, OHIO
OHIO BELL TELEPHONE CO. - YOUNGSTOWN, OHIO
OHIO EDISON CO. - YOUNGSTOWN, OHIO

TYPICAL SECTIONS

TYPE T-35

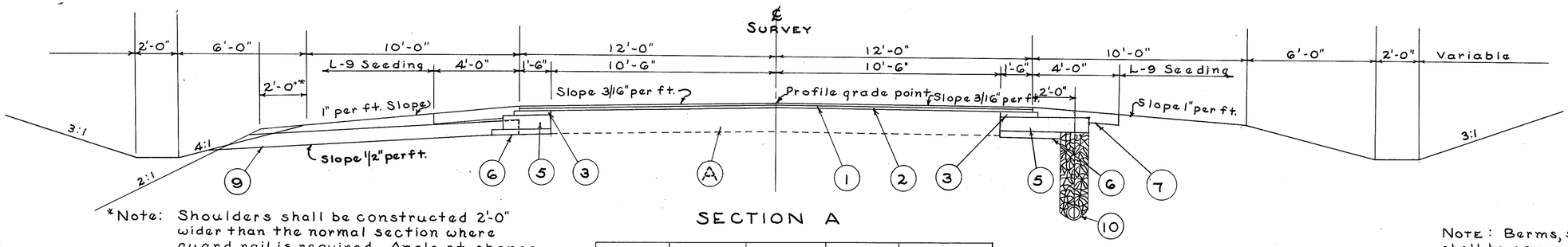
SCALE - 3/8" = 1'-0"

For details not Shown See STD. DWG. RI-1

FED. RD. DIVISION	STATE	PROJECT	
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DESIGN SPEED 60 M.P.H.



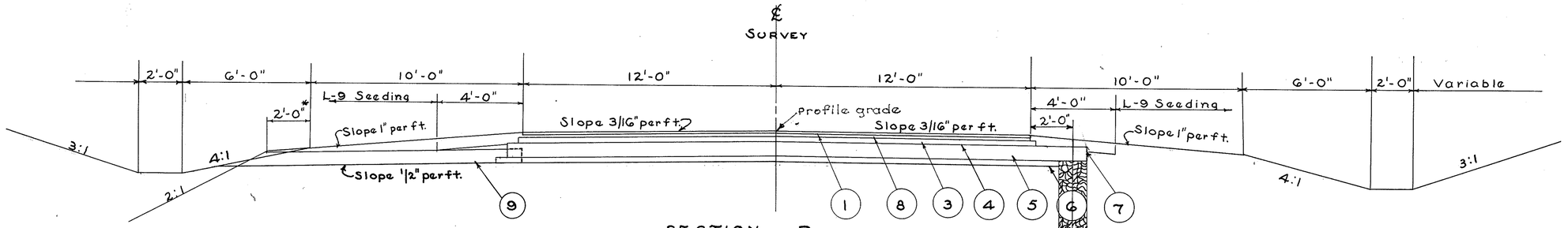
SECTION A

From	To	L.F.	L.F.	Description
415+00	415+50	50.0		Feathering
455+00	457+00		200.0	
465+25	465+50	25.0		Feathering
	TOTAL	75.0	200.0	

*Note: Shoulders shall be constructed 2'-0" wider than the normal section where guard rail is required. Angle at change of slope shall be rounded as shown on Std. Dwg. RI-1

NOTE: Aggregate surfaced shoulders shall be stabilized by admixture of 1 1/2 lbs. per Sq. Yd. of Calcium Chloride to the upper 3" of the compacted aggregate. The calcium Chloride shall be thoroughly mixed with the stabilized aggregate as described in Item B-11.13 of the General Specifications. After final shaping and compaction of the shoulders the surface shall be given an additional application of Calcium Chloride at the rate of 0.6 lbs. per Sq. Yd. as described in Item B-11.15 of the General Specifications. See note in proposal.

NOTE: Berms, slopes and ditches shall be as per Std. Drwg. # RI-1 unless modified by Cross Sections in the plan.

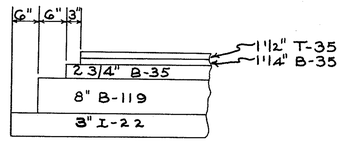


SECTION B

From	To	L.F.	L.F.	Description
415+50	424+91.87		941.87	
424+91.87	426+04.13	112.26		Bridge
426+04.13	455+00		2895.87	
457+00	465+25		825.00	
TOTAL		112.26	4662.74	

(1) T-35 1 1/2" Asphaltic Concrete Surface Course Type A (70-85)
(2) (3) B-35 1 1/4" Min. Asphaltic Concrete Leveling Course (70-85)
(4) B-35 2 3/4" Asphaltic Concrete Base Course (70-85)
T-30 Bituminous Prime Coat using Section M-5.3, MC-0 or MC-1 or Section M-5.7, RT-2 or RT-3 applied at the rate of 0.35 gallon per Square Yard
(5) B-119 8" Crushed Aggregate Base Course
(6) I-22 3" Subbase (Gran. Slag, Sec. M-3.13 may be used in this Course)
(7) I-18 6" Stabilized Crushed Aggregate Shoulder & Approaches
(8) B-35 1 1/4" Asphaltic Concrete Leveling Course (70-85)
(A) Existing Pavement 13" Waterbound Macadam with Bituminous Surface Treatment
(9) * I-9 Stone Underdrain, No. 2
(10) I-4 6" Pipe Underdrain

*** Note: I-9 Stone Underdrains may be placed at the direction of the Engineer.**
Estimated Quantity Carried to Gen. Sum. 1240 L.F.



EDGE COURSE DETAIL
Scale: 3/4" = 1'-0"

W.G.S. P.F. # 75. 2nd. Rev.

TYPICAL SECTIONS

GENERAL NOTES

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FIELD OFFICE

The contractor shall provide a suitable field office in accordance with Section S-0.01 having a minimum floor space of 300 Sq.Ft. The contractor shall have a telephone installed and maintained during the construction of this project.

UTILITIES

Any and all work required for removing, relocating and construction of new facilities for private or public utilities, will be done by and at the expense of the respective owners unless otherwise noted on the plans.

BERMS AND SLOPES

Berms and slopes shall be finished in accordance with the Standard Drawing RI-1 except where otherwise shown on the cross sections. All transitions from cut to fill slopes shall be blended with the surrounding terrain as directed by the Engineer.

PROPERTY MARKERS

All iron pins or markers within the limits of the project shall be saved and adjusted to the new grade as directed by the Engineer. Cost of adjusting or resetting markers shall be included in the price bid for Item E-1 Roadway Excavation.

SMALL DRAINS

Where drains from down spouts, field drains, etc. are encountered and not shown on the plans, they shall be given an unobstructed outlet at the direction of the Engineer. Estimated additions of pipe and specials will be provided in the General Summary. No drains carrying domestic waste shall be connected to any proposed drainage facility.

MAIL BOXES

The protection, moving, adjusting, etc. of all mail boxes to secure satisfactory delivery of United States Mail shall be considered a part of Item G-7.09 "Preservation and Restoration of property."

REMOVAL OF EXISTING HOUSE DRAINS

The removal of all existing house connections, which includes sanitary, yard, roof, basement or other similar pipe drains within the roadway construction limits shall be classified and paid for as Item E-1 Roadway Excavation, unless otherwise itemized in the plans.

SCALPING

Top soil from the scalping operation shall be salvaged and placed on all areas to be seeded or sodded as per E-1.03(a) and E-1.05(d).

ACCESS

Access to all properties abutting this project shall be provided and maintained at all times by the contractor.

TREE AND STUMP REMOVAL

All trees and stumps within the construction limits which are 12" or more as measured per Item E-9.01, shall be removed and paid for under E-9 Lump if marked for removal by the Engineer. This number may vary from those trees so marked on the plan.

ITEM L-9 SEEDING & PROTECTING, L-9 10-6-4 COMMERCIAL FERTILIZER, L-9 AGRICULTURAL LIMING MATERIAL

Quantities for these items are calculated for the soil areas between lines ten feet (10') outside the work limits as shown on the cross sections or to the R/W line if such line is less than ten feet from the work limits. Areas outside the work limits where the Engineer determines that the existing grass areas have been disturbed by construction operations shall be seeded in accordance with Sec. G-7.09 at the contractor's expense.

The following seed mixtures shall be used for the entire project.

20% Kentucky Blue Grass
45% Alta Fescue
20% Creeping Red Fescue
10% Red Top
5% Alsike Clover

TRENCH ROLLER

In narrow base widening areas inaccessible to standard width rollers the necessary compaction shall be obtained with a roller meeting the requirements of Sec. CE-1.08.

ITEM L-10 SODDING

Areas to be sodded shall be loosened to a depth of 2" just prior to laying the sod. This work shall be included for payment in the price bid per Sq.Yd. of sodding.

TRAFFIC

A detour, as shown on the Title Sheet, has been provided for this project.

The contractor shall so arrange his schedule of operations, that the detour for this project will be used for a minimum of time.

The existing road is not to be closed to traffic until after June 1, 1958 unless special permission is secured from the Director of Highways. The new facility shall be opened to traffic as soon as possible.

The following quantities are carried in the General Summary for the maintenance of traffic as directed by the Engineer.

T~10 500 C.Y.
M~10 10 Tons

ADDITIONAL QUANTITIES

The following estimated quantities are to be used as directed by the Engineer. Quantities are carried to the General Summary.

I-3 4" 100 L.F.
I-3 6" 100 L.F.

FILLING MAJOR DEPRESSIONS

Major depressions in existing pavement shall be filled and compacted with bituminous concrete leveling course, in advance of placing the regular bituminous leveling course. These depressions shall be filled in layers not to exceed three inches (3") in depth when compacted.

TREE TRIMMING

The attention of the contractor is directed to the Item E-1.03(b) requiring the removal of "tree branches overhanging the roadway, etc." This work shall be considered to apply to the limits of the project regardless of the location of the excavation.

UNSUITABLE FOUNDATION MATERIAL

In the reservoir area, Sta. 430+10 to 435+40, the lower portion of the fill shall be constructed of end dumped granular material as shown on the cross section sheets. The remaining fill shall be constructed in the normal manner with any suitable embankment material. No excavation of the unsuitable material from Sta. 430+10 to 435+40, in the reservoir area, is proposed.

E 1.02 Granular Material, modified to require 75% of the grains or particles to be retained on a No. 200 sieve shall be used for the above treatment.

To Calculations ~ Granular Borrow 3081 C.Y.

CALCULATION FOR M-10 IN STABILIZED SHOULDERS:

3461.44 x 1.5 ÷ 2000	=	2.59 Tons
3461.44 x 0.6 ÷ 2000	=	1.04 Tons
TOTAL (USE 4 Tons)		3.63 Tons Calc. Chloride

See note on Typical Section Sheet No 2

COMPACTED SUBGRADE UNDER B-119:

The subgrade for drives, using B-119 Crushed Aggregate Base, shall be compacted for a depth of six inches to the density requirements in Table III, Item E-1. Payment for subgrade compaction, as specified above, shall be included in the unit price bid for Item E-1, Roadway Excavation.

CHANNEL EXCAVATION:

Where channel excavation is carried through a proposed pipe structure site, additional excavation required to obtain a stable foundation for the structure shall be measured and paid for as Item E-3 Channel Excavation.

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CALCULATIONS

T-35 1½" ASPHALTIC CONCRETE SURFACE COURSE

FROM:	Typical Section "B" 4662.74 TOTAL 4662.74 x 24' ÷ 9 x 1½" ÷ 36 =	518.08 C.Y.
	Transition Typical Section "A" (Estimated)	19.30 C.Y.
	Feathering (Estimated)	26.26 C.Y.
	From Recap.	157.27 C.Y.
	TOTAL T-35 (1½") To Summary (721 C.Y.)	720.91 C.Y.

B-35 1¼" ASPHALTIC CONCRETE LEVELING COURSE

FROM:	Typical Section "B" 4662.74 x 24' ÷ 9 x 1¼" ÷ 36 =	431.74 C.Y.
	Transition Section "A" & Feathering (Estimated)	14.83 C.Y.
	Recap.	26.80 C.Y.
	TOTAL B-35 (1¼") To Summary (474)	473.37 C.Y.

B-35 EXTRA LEVELING COURSE (140 C.Y. PER. MI.)

FROM:	Typical Section "A" 200.00	
	Transition Typical Section "A" 75.00	
	275.00 ÷ 5280 x 140 =	7.29 C.Y.
	TOTAL B-35 Leveling	481.00 C.Y.

B-35 2¾" ASPHALTIC CONCRETE BASE COURSE

FROM:	Typical Section "A" (Estimated)	7.27 C.Y.
	Typical Section "B" 4662.74 x 24.5' ÷ 9 x 2¾" ÷ 36 =	969.61 C.Y.
	Transition Typical Section "A" (Estimated)	3.34 C.Y.
	Recap.	58.40 C.Y.
	TOTAL B-35 (2¾") To Summary (1039 C.Y.)	1038.62 C.Y.

B-119 8" CRUSHED AGGREGATE BASE COURSE

FROM:	Typical Section "B" 4662.74 x 25.5' ÷ 9 x 8" ÷ 36 =	2935.80 C.Y.
	Transition Typical Section "A" (Estimated)	12.50 C.Y.
	Typical Section "A" (Estimated)	25.36 C.Y.
	Add For I-4 (Estimated)	100.00 C.Y.
	Recap.	515.83 C.Y.
	TOTAL B-119 (8") To Summary (3590)	3589.49 C.Y.

E-1 COMPACTED SUBGRADE

FROM:	Typical Section "B" 4662.74 L.F. x 24' ÷ 9 =	12,434 S.Y.
	From Recap.	762
	TOTAL E-1 Compacted Subgrade To Summary	13,196 S.Y.

I-22 3" SUBBASE

FROM:	Typical Section "B" 4662.74 x 26.5' ÷ 9 x 3" ÷ 36	1144.10 C.Y.
	Transition Typical Section "A" (Estimated)	5.72 C.Y.
	Typical Section "A" (Estimated)	1.53 C.Y.
	Recap.	64.70 C.Y.
	TOTAL I-22 (3") To Summary (1217 C.Y.)	1216.05 C.Y.

I-18 6" STABILIZED CRUSHED AGGREGATE SHOULDERS & APPROACHES

FROM:	Typical Section A&B (Less Drives, Etc.) (Estimated)	577	C.Y.
	I-18 (6") To Summary (577 C.Y.)	577	C.Y.

E-11 WATER

Embankment	23,363 x 5 Gal. / C.Y. ÷ 1000 =	116.82 C.Y.
B-119	3490 x 5 Gal. / C.Y. ÷ 1000 =	17.45 C.Y.
I-18	577 x 10 Gal. / C.Y. ÷ 1000 =	5.77 C.Y.
I-22	1227 x 10 Gal. / C.Y. ÷ 1000 =	12.27 C.Y.
TOTAL E-11 To Summary 153 M.Gal.		152.31 C.Y.

T-30 BITUMINOUS PRIME COAT

FROM:	Typical Section "B" 4662.74 x 25.5' ÷ 9 = 13729.18 S.Y. x 0.35 =	4,805.15 Gal.
	From Recap.	262.00 Gal.
	TOTAL T-30 To Summary (5,068 Gal.)	5067.15 Gal.

L-9 SEEDING

Seeding from Recap.	34,744	S.Y.
Deduct Riprap from Recap	80	S.Y.
TOTAL L-9 To Summary	34,664	S.Y.

L-9 COMMERCIAL FERTILIZER

Fertilizer @ 20 Lbs. per sq. ft.
(L-9 & L-10) 36,191 S.Y. x 9 = 325,719 sq. ft.
325,719 x 20 ÷ 1000 ÷ 2000 = 3.26 Tons
To Summary (3.26 Tons).

L-9 AGRICULTURE LIMING MATERIAL

Lime @ 100 Lbs. per 1000 sq. ft.
325,719 x 100 ÷ 1000 ÷ 2000 = 16.29 Tons
To Summary (16.29 Tons.)

RECAPITULATION

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SHEET No.	EARTHWORK Exc. C.Y.	Emb. C.Y.	L-9 S.Y.	ROADWAY I-8 Mon. Assembly EA.	I-10 Riprap Type "A" S.Y.	I-13 Conc. Steps L.F.	I-13 4" Sidewalk S.F.	I-15 I-15.13 L.F.	I-15 Removed & Stored L.F.	I-15 Removed & Disposed L.F.	E-8 Sidewalk Removed & Disposed S.F.	E-12 15" & Under L.F.	E-12 Over 15" L.F.	E-1 Compacted Sub-Grade S.Y.	PAVEMENT I-7 Concrete Approach 25CT-13" S.Y.	E-8 Ex. W.S. Removed & Disposed S.Y.	T-30 Prime Coat Gal.	T-35 1½" C.Y.	T-35 2" C.Y.	B-35 1¼" Level. C.Y.	B-35 2¾" Base C.Y.	B-119 5" C.Y.	B-119 6" C.Y.	B-119 8" C.Y.	I-22 3" C.Y.	I-18 6" C.Y.	SHEET No.
3																											3
8	2450	1095	3845	1	80	76	60	42.97			80	384				35			26.36			65.88	8.80				8
9	7897	13,589	12244	2				1095.05	12.5	728.0					133.34				8.48			21.30					9
10	9003	390	10114	4								223							22.83			57.07	11.90				10
11	3193	595	4691	2								650	182						49.10			122.75	11.90				11
12	341	4613	3850	1				300.00	16.0	44.0		70							18.10			45.03					12
33														473			169.0	19.7		16.4	36.9			112.2	43.9		33
34														289			93.0	12.7		10.4	21.5			59.0	20.8		34
35																											35
36																											36
To Calc.																		32.4	124.87			312.03	32.60	171.2			To Calc.
To Calc.	22,884	20282	34,744											762													To Calc.
To Sum				10	80	76	60	1438.02	28.5	772.0	80	1327	182		133.34	35	262.0	157.27		26.8	58.4	515.83			64.7		To Sum.

SHEET No.	DRAINAGE I-1 12" L.F.	I-1 15" L.F.	I-2 CLASS "A" 12" S.C. L.F.	12" U.A. L.F.	15" L.F.	15" U.A. L.F.	I-5 for I-2 15"x12" Tee Each	I-4 6" Underdrain L.F.	I-4 8" Underdrain L.F.	I-5 for I-4 6"x45° Bend Each	6"x60° Bend Each	6"x60° WYE Each	I-8 №2-2A C.B. Each	№2-3 C.B. Each	№2-4 C.B. Each	I-16 Abandon Existing C.B. Each	L-10 SOD 5' Wide S.Y.	7' Wide S.Y.	9' Wide S.Y.	E-2 Struct. Exc. C.Y.	E-3 Chan. Exc. C.Y.	S-1 Class "E" Concrete C.Y.	S-24 Removal Existing Struct. Lump Sum	S-27 18"x11" M-6.4(d)(i) Rdwy. Culv. L.F.	S-28 14'-3"x8'-11" M-6.4(q) L.F.	SHEET No.
3																											3
8			252	60	239				1392	10	1			2	1			97									8
9		38	26						287	10		2	1			1		133		655		1279	0.23				9
10	33		94	384		141	24		1000					5			1										10
11	30		576		94	689	154							6			3		446								11
12			292		20	176	60	1						3				122	74				0.23				12
33																											33
34																											34
35																					14		0.62	Lump	74		35
36																					119	101	20.00	Lump		96	36
To Calc.																		352	520	655							To Calc.
To Sum.	63	38	1240	444	353	1006	238	1	2679	20	1	2	1	16	1	1	4	1527			133	1380	21.08	Lump	74	96	To Sum

GENERAL SUMMARY

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
			ROADWAY
E-1	22,884	C.Y.	Roadway Excavation, as per Plan
E-1	20,282	C.Y.	Roadway Embankment, as per Plan
E-1	13,196	S.Y.	Compacted Subgrade
E-4	3,081	C.Y.	Granular Borrow, as per Plan
E-8	80	S.F.	Removal & Disposal of Existing Sidewalk
E-8	35	S.Y.	Removal & Disposal of Existing Wearing Surface
E-9	LUMP	LUMP	Removal of Trees & Stumps
E-11	153	M. GAL.	Water
E-12	1327	L.F.	Pipe Removed, 15" & Under
E-12	182	L.F.	Pipe Removed, Over 15"
I-8	10	EACH	Monument Assemblies, Standard
I-13	76	L.F.	Concrete Steps
I-13	60	S.F.	4" Concrete Sidewalk
I-15	29	L.F.	Guard Rail, Removed & Stored
I-15	772.0	L.F.	Guard Rail, Removed & Disposed of
I-15	1438.02	L.F.	Guard Rail Steel Beam Standard Type (Deep) as per Standard Drawing I-15 No 2-A.
I-18	577	C.Y.	Stabilized Crushed Aggregate Shoulders and Approaches, as per plan.
L-9	34,664	S.Y.	Seeding & Protecting, as per plan.
L-9	3.26	TONS	Commercial Fertilizer (10-6-4)
L-9	16.29	TONS	Agricultural Liming Materials
L-10	1527	S.Y.	Sodding, as per Plan
M-10	14	TONS	Calcium Chloride Furnished and Applied.
T-10	500	C.Y.	Traffic Compacted Surface Course for Maintaining Traffic
SPECIAL	3462	S.Y.	Mixing Calcium Chloride and Crushed Aggregate.
			DRAINAGE
E-2	133	C.Y.	Excavation for Structures
E-3	1380	C.Y.	Channel Excavation
I-1	63	L.F.	12" Pipe for Driveways Sec. M-6.4 (a)
I-1	38	L.F.	15" Pipe for Driveways Sec. M-6.4 (a)
I-2	1240	L.F.	12" Class "A" Storm Sewers
I-2	444	L.F.	12" Class "A" Storm Sewers with Shallow Cover
I-2	353	L.F.	12" Class "A" Storm Sewers Under Pavement or Approaches
I-2	1006	L.F.	15" Class "A" Storm Sewers
I-2	238	L.F.	15" Class "A" Storm Sewers Under Pavement or Approaches
I-3	100	L.F.	4" Roadway Drainage
I-3	100	L.F.	6" Roadway Drainage
I-4	2679	L.F.	6" Underdrains
I-4	20	L.F.	8" Pipe Outlets for Underdrains. Sec. M-6.4(a)
I-5	1	EACH	15" Pipe Special for Class "A" Storm Sewer
I-5	4	EACH	6" Pipe Specials for Underdrains
I-8	16	EACH	Standard No. 2-2A Catch Basins.
I-8	1	EACH	Standard No. 2-3 Catch Basin
I-8	1	EACH	Standard No 2-4 Catch Basin
I-9	1240	L.F.	Stone Underdrains No. 2
I-10	80	S.Y.	Riprap, Type "A"
I-16	4	EACH	Catch Basins Abandoned
S-1	21.1	C.Y.	Concrete for Structures, Class "E"
S-24	LUMP	LUMP	Removal of Existing Structures
S-27	74	L.F.	18" x 11" Pipe Arch for Roadway Culvert, Sec. M-6.4 (d) (i).
S-28	96	L.F.	14'-3" x 8'-11" Sectional Corrugated Metal Structure, Sec. M-6.4 (g), 7-5 Gage
			PAVEMENT
B-35	481	C.Y.	Asphaltic Concrete Leveling Course (70-85)
B-35	1039	C.Y.	Asphaltic Concrete Base Course (70-85)
B-119	3590	C.Y.	Crushed Aggregate Base Course
T-30	5068	GAL.	Bituminous Prime Coat Sec. 5.3, MC-0 or MC-1 or Sec. M-5.1, RT-2 or RT-3.
T-35	721	C.Y.	Asphaltic Concrete Surface Course Type "A" (70-85)
I-7	134	S.Y.	Reinforced Concrete Approach Slabs (T-13)
I-22	1217	C.Y.	Subbase, as per plan.

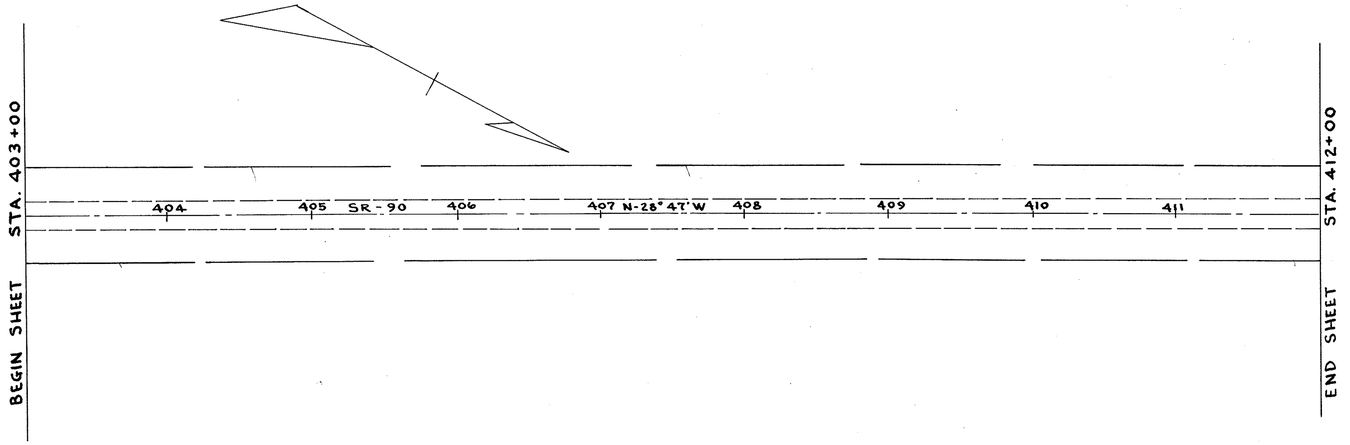
For Quantities on Structure MAH-90-0805, see Sheet No. 38

GENERAL SUMMARY

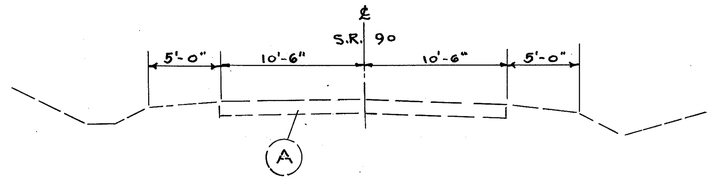
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	MAH. 90-7.87

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

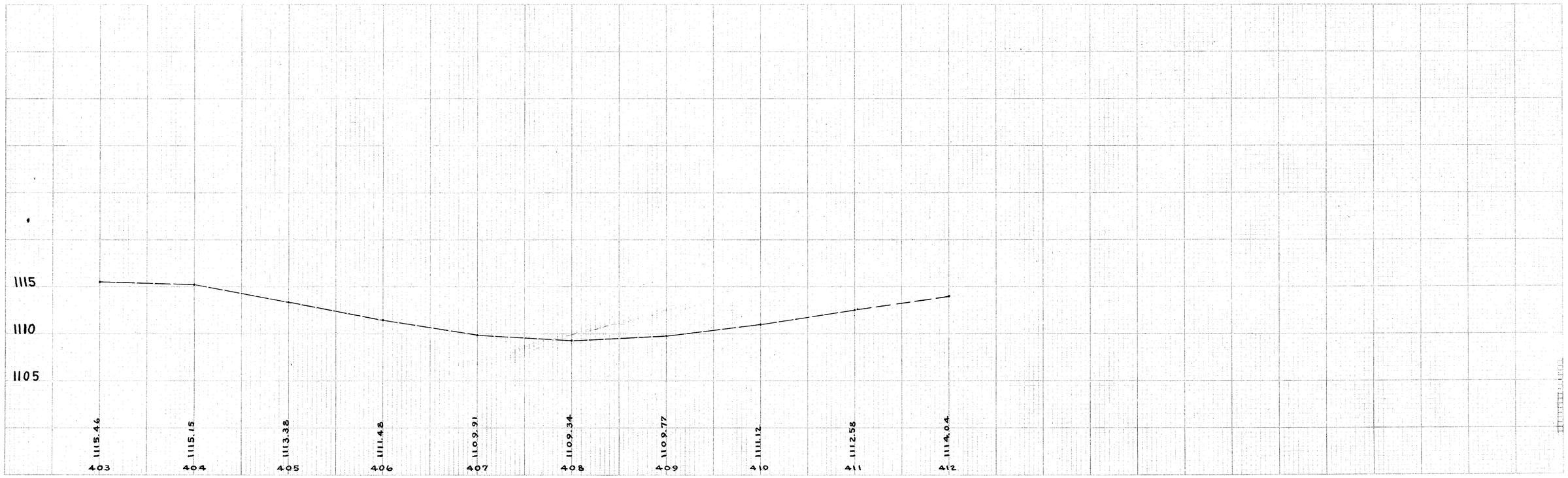
MA H. 90 - 7.87



TYPICAL SECTION OF ADJOINING PAVEMENT.
Scale 1" = 5'-0"



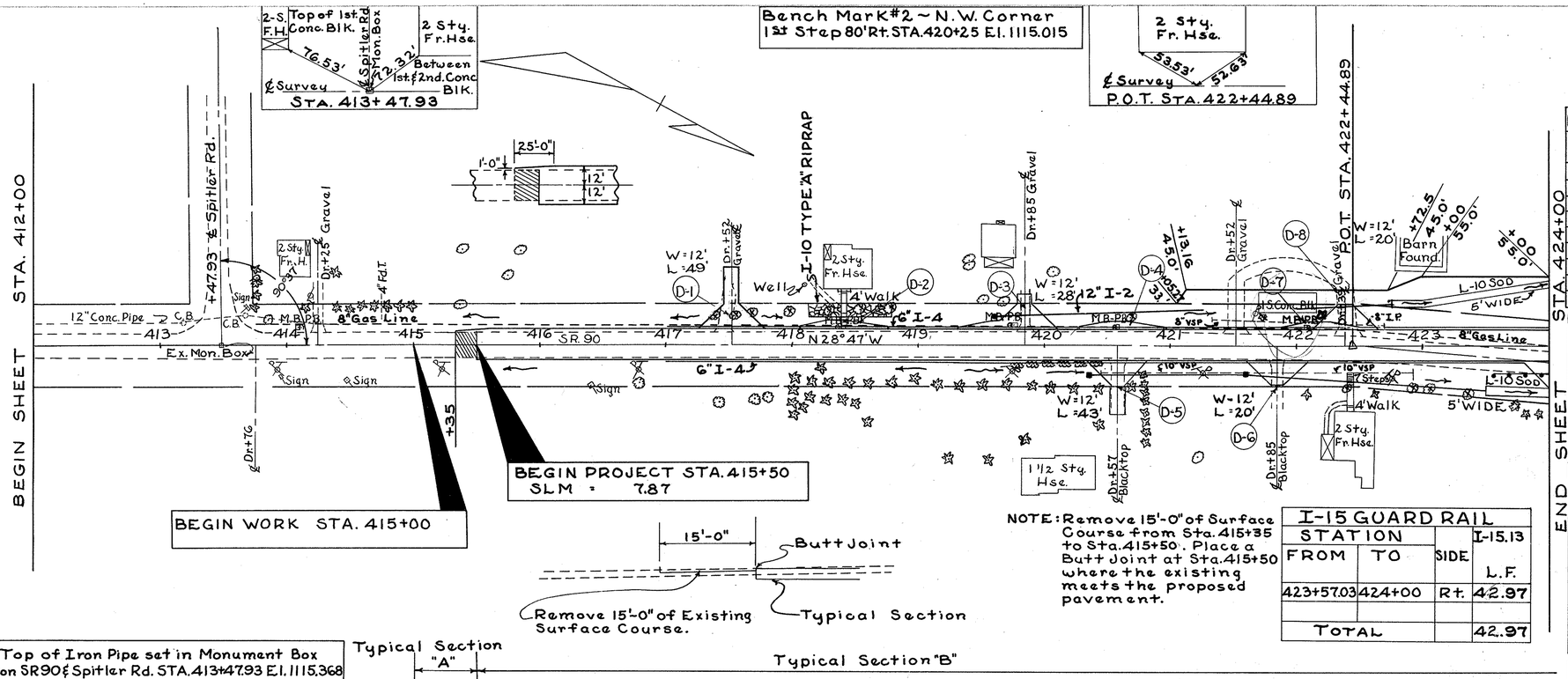
(A) Existing Pavement 13" Waterbound Macadam with Bituminous Surface Treatment.



LINE SHEET STA. 403+00 TO STA. 412 +00

FED. RD. DIVISION	STATE	PROJECT		8
2	OHIO			

MAH.- 90 - 7.87



DRIVE WAYS AND MAIL BOX APPROACHES

Mark No.	Station	Side	Type	T-35 2"-C.Y.	B-119 5"-C.Y.	B-119 6"-C.Y.	E-1 Exc. C.Y.	E-1 Emb. C.Y.
D-1	417+52	L	Res	6.10	15.25		28	0
D-2	418+35	L	M.B.	1.79	4.47			
D-3	419+85	L	Com.	5.28	13.20		20	0
D-4	420+55	L	M.B.	1.79	4.47			
D-5	420+57	R	Res	5.66	14.14		22	0
D-6	421+85	R	Res	3.95	9.88		14	0
D-7	422+18	L	M.B.	1.79	4.47			
D-8	422+39	L	Fld.			8.8	6	0
Total				26.36	65.88	8.8	90	0

NOTE: E-1 Exc. and Emb. carried to X-Section Sheets

DRAINAGE

Station From	Station To	Side	I-2 Class "A" 12" L.F.	12" U.A. L.F.	12" S.C. L.F.	15" U.A. L.F.	I-8 C.B. 2-2 A E.A.	I-8 C.B. #2-3 E.A.	E-12 15" & Under L.F.
419+60	421+25	Lt.			164		1		
420+35	423+50	Rt.	252	60			1	1	248
422+00	422+75	Lt.			75				
421+34	422+70	Lt.							136
Total			252	60	239		2	1	384

*NOTE: S.C. is Shallow Cover

I-15 GUARD RAIL

Station From	Station To	Side	I-15.13 L.F.
423+57.03	424+00	Rt.	42.97
Total			42.97

STEPS & SIDEWALK

Station	Side	Width	I-13 Conc. Steps L.F.	I-13 4' Sidewalk S.F.
418+42	Lt.		40	60
422+42	Rt.		36	
Total			76	60

L-10 SODDING

Station From	Station To	Side	5' Wide S.Y.
423+50	424+00	RT.	28
422+75	424+00	LT.	69
Total			97

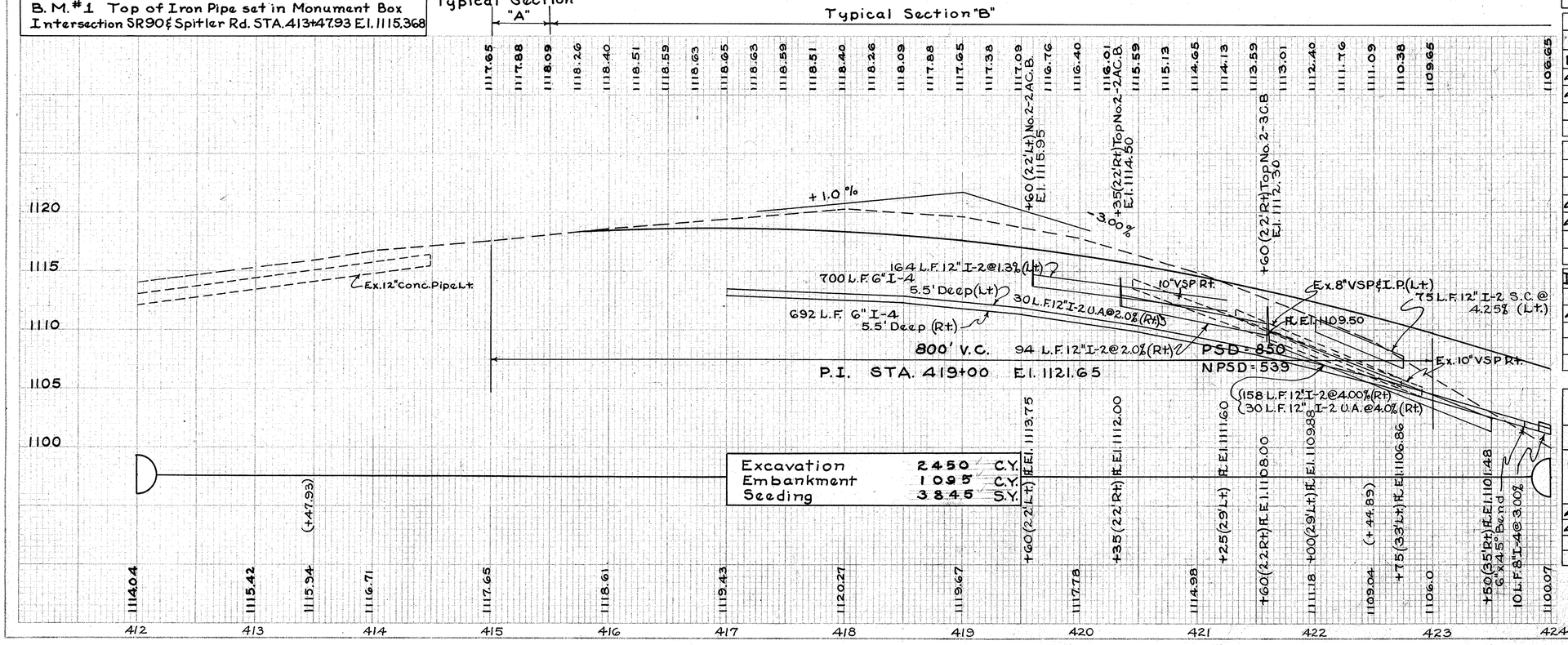
I-10 RIPRAP

Station From	Station To	Side	Type 'A' S.Y.
418+15	418+80	LT.	80
Total			80

B. M. #1 Top of Iron Pipe set in Monument Box Intersection SR 90 & Spitler Rd. STA. 413+47.93 El. 1115.368

Typical Section "A"

Typical Section "B"



I-4 UNDERDRAINS

Station From	Station To	Side	I-4 6" L.F.	I-4 8" L.F.	I-5 for I-4 6" x 45° Bend EACH
417+00	424+00	Lt.	700		
417+00	424+00	Rt.	692	10	1
Total			1392	10	1

I-8 MONUMENT ASSEMBLY

Station	Side		Each
422+44.89	℄		1
Total			1

REMOVAL OF EXISTING PAVEMENT WEARING COURSE & SIDEWALK

Station From	Station To	Side	Width	E-8 R & D Ex. Wearing Course S.Y.	E-8 R & D Sidewalk S.F.
415+85	416+00			35	
418+42		Lt.	4		80
Total				35	80

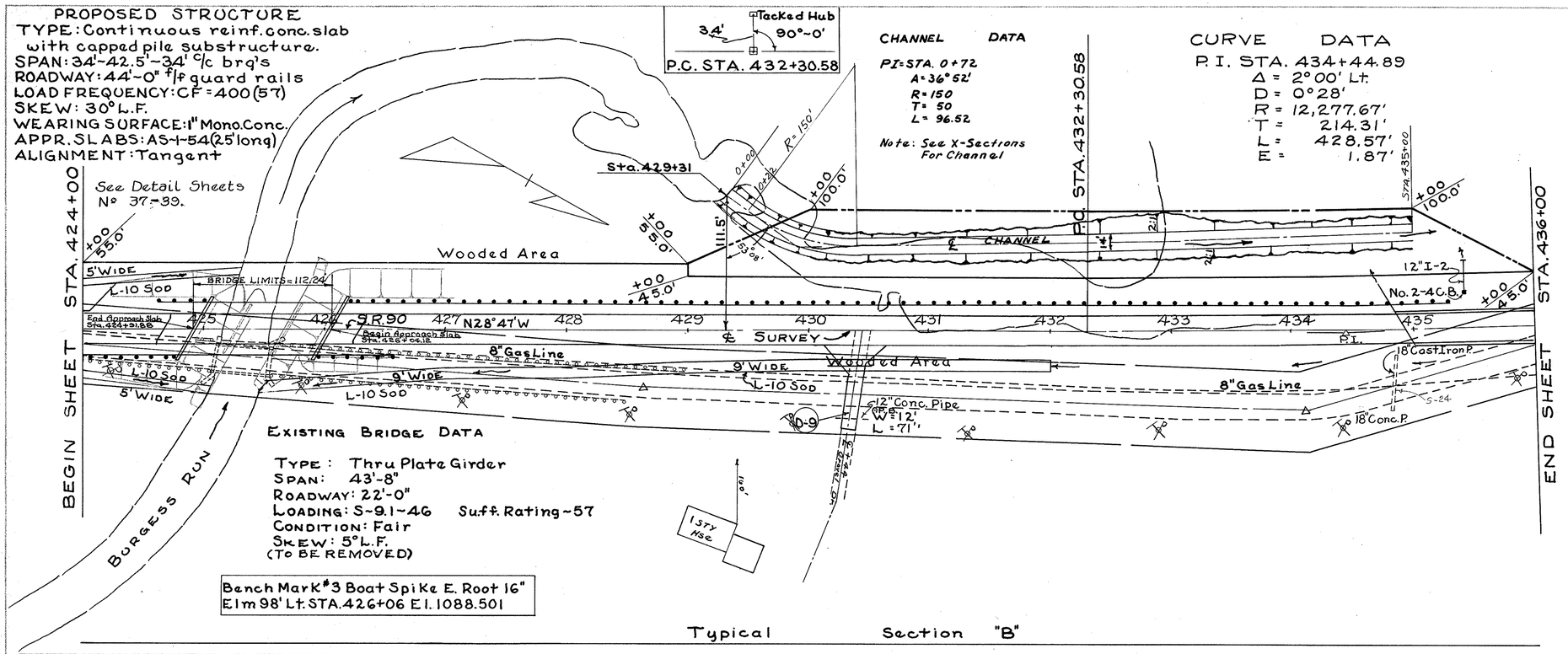
LINE SHEET STA. 412+00 TO STA. 424+00

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

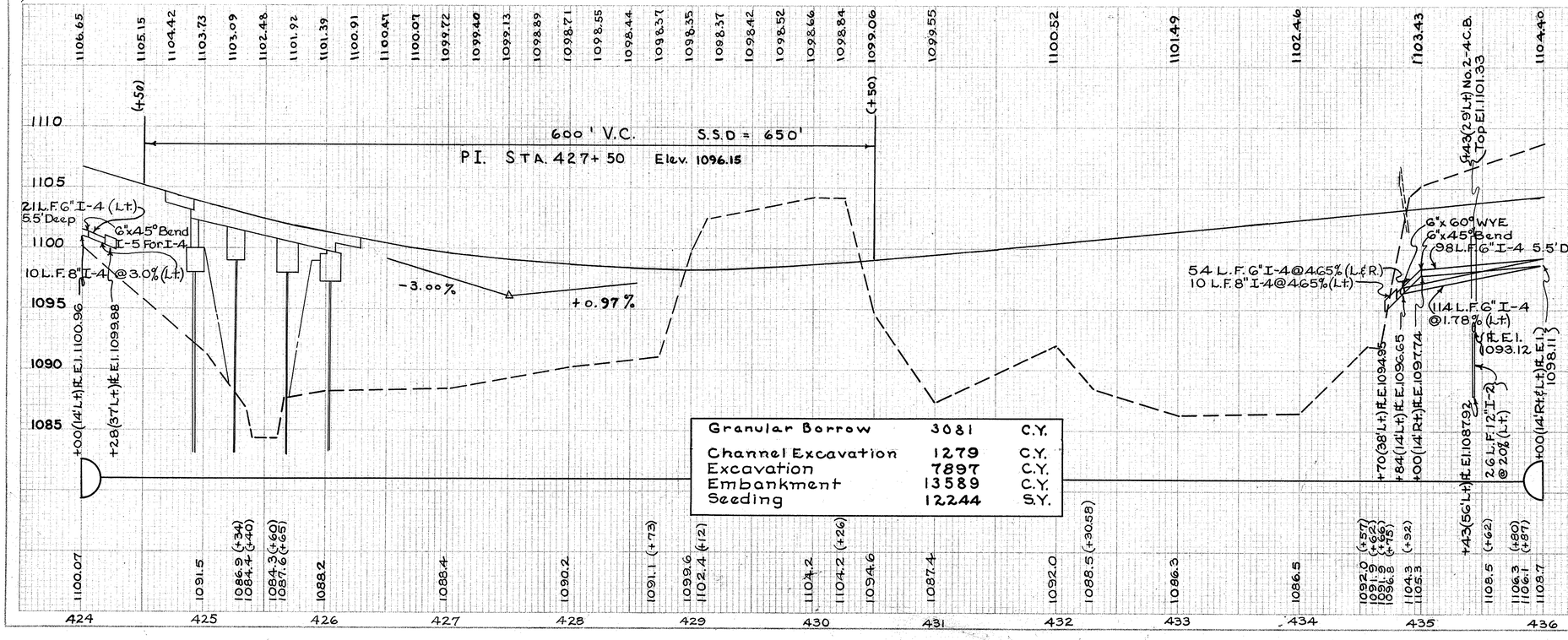
9

MAH.-90-7.87

PROPOSED STRUCTURE
TYPE: Continuous reinf. conc. slab with capped pile substructure.
SPAN: 34'-42.5'-34' c/c brg's
ROADWAY: 44'-0" f/f guard rails
LOAD FREQUENCY: CF = 400(57)
SKEW: 30° L.F.
WEARING SURFACE: 1" Mono. Conc.
APPR. SLABS: AS-1-54(25' long)
ALIGNMENT: Tangent



Typical Section "B"



Granular Borrow	3081	C.Y.
Channel Excavation	1279	C.Y.
Excavation	7897	C.Y.
Embankment	13589	C.Y.
Seeding	12244	S.Y.

DRIVEWAYS AND MAIL BOX APPROACHES

Mark No.	Station	Side	Type	T-35 2"-C.Y.	B-119 5"-C.Y.	E-1 Exc. C.Y.	E-1 Emb. C.Y.	I-1 12"-L.F.	I-1 15"-L.F.
D-9	430+44	R	Res.	8.48	21.30	32			38
Total				8.48	21.30	32			38

* Note: E-1 Exc. and Emb. carried to X-Section Sheet

L-10 SODDING

Station From	Station To	Side	5' Wide S.Y.	9' Wide S.Y.
424+00	425+30	Lt.	72	
424+00	425+10	Rt.	61	
425+45	432+00	Rt.		655
Total			133	655

I-8 MONUMENT ASSEMBLY

Station	Side		Each
432+30.58	℄		1
434+44.89	P.I.		1
Total			2

I-15 GUARD RAIL

Station From	Station To	Side	I-15.13 L.F.	Rem. & Stored L.F.	Rem. & Disp. L.F.
424+00	426+57.03	Rt.	144.79		400
424+63.97	435+26.47	Lt.	950.26	12.5	328
Total			1095.05	12.5	728

I-4 UNDERDRAINS

Station From	Station To	Side	I-4 6" L.F.	I-4 8" L.F.	I-5 For I-4 6"x60° Bend Each	I-5 For I-4 60° Wye Ea.
424+00	424+28	Lt.	21	10	1	
434+70	435+00	Lt. & Rt.	54			1
434+84	438+00	Lt.	114			
435+00	436+00	Rt.	98		1	
Total			287	10	2	1

DRAINAGE

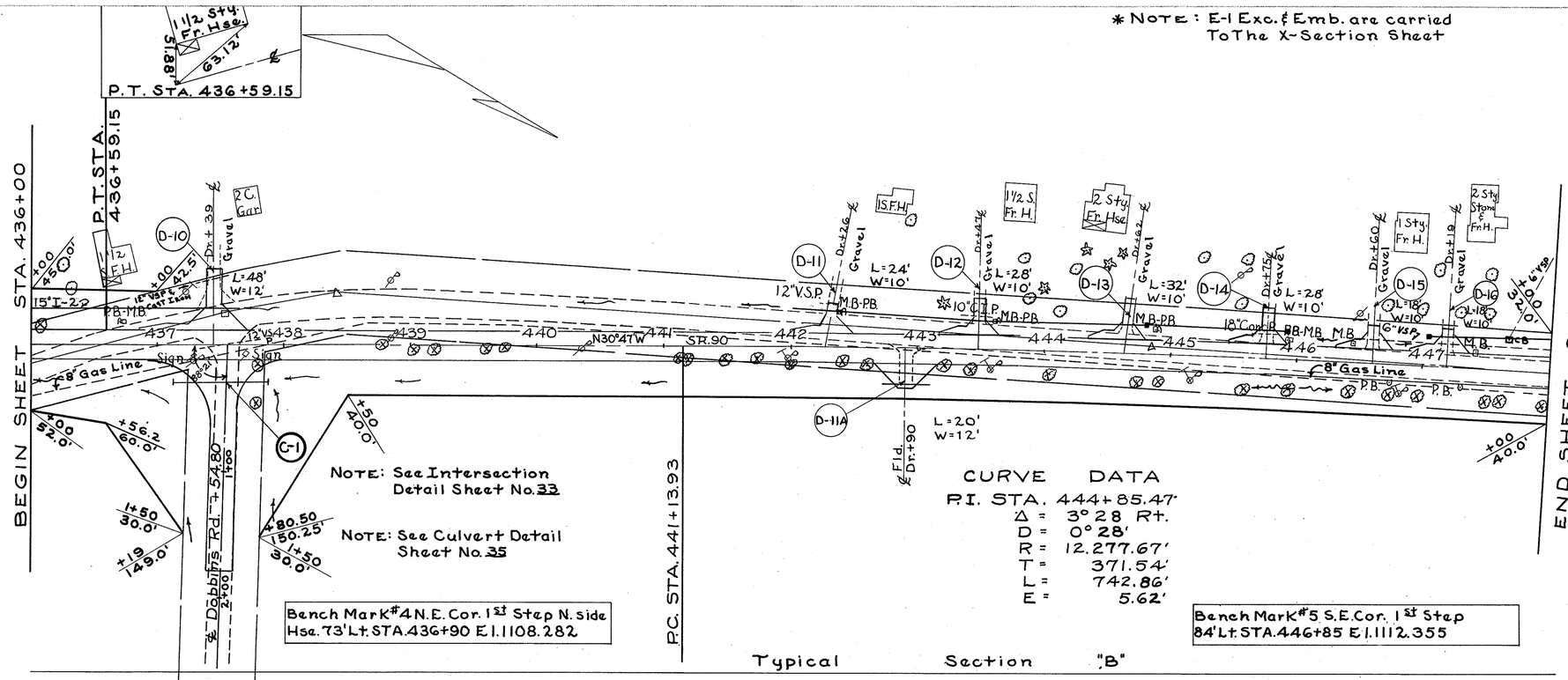
Station From	Station To	Side	I-2 Class "A" 12" L.F.		I-8 #2-4C.B. Ea.	S-1 Cl. "E" C.Y.	S-24 Rem. Ex. Sh. Lump Sum
435+43		Lt.	26		1	0.23	
434+86		Rt.					Lump Sum
Total			26		1	0.23	

I-7 REINFORCE CONCRETE APPROACH SLAB (T-15)

Station From	Station To	Length	S.Y.
424+66.87	424+91.87	25'-0"	66.67
426+04.13	426+29.13	25'-0"	66.67
Total			133.34

LINE SHEET STA. 424+00 TO STA. 436+00

* NOTE: E-1 Exc. & Emb. are carried To The X-Section Sheet



DRIVEWAYS AND MAIL BOX APPROACHES

MARK No.	STATION	SIDE	TYPE	T-35 2" C.Y.	B-119 5" C.Y.	B-119 6" C.Y.	E-1 * Exc. C.Y.	E-1 * Emb. C.Y.	I-1 12" L.F.
D-10	437+39	L	Comb.	6.02	15.06		30		
D-11	442+26	L	Comb.	2.65	6.64		12		
D-11A	442+90	R	Fld.			11.9	16		33
D-12	443+47	L	Comb.	3.01	7.53		12		
D-13	444+62	L	Comb.	3.30	8.24		13		
D-14	445+75	L	Comb.	3.05	7.62		12		
D-15	446+60	L	Comb.	2.40	5.99		8		
D-16	447+19	L	Comb.	2.40	5.99		3		
TOTAL				22.83	57.07	11.9	10.6		33

DRAINAGE

STATION FROM	STATION TO	SIDE	I-2 Class "A" 12" L.F.	12" S.C. L.F.	15" L.F.	15" U.A. L.F.	E-12 15"ϕ Under L.F.	I-8 #2-2A C.B. EA.	I-16 C.B. Abandon EA.
436+00	437+65	L.			141	24			
437+29	437+57	L.					28		
442+00	445+91	L.		384			45	4	
447+05	448+00	L.	94				150	1	1
TOTAL			94	384	141	24	223	5	1

I-4 UNDERDRAINS

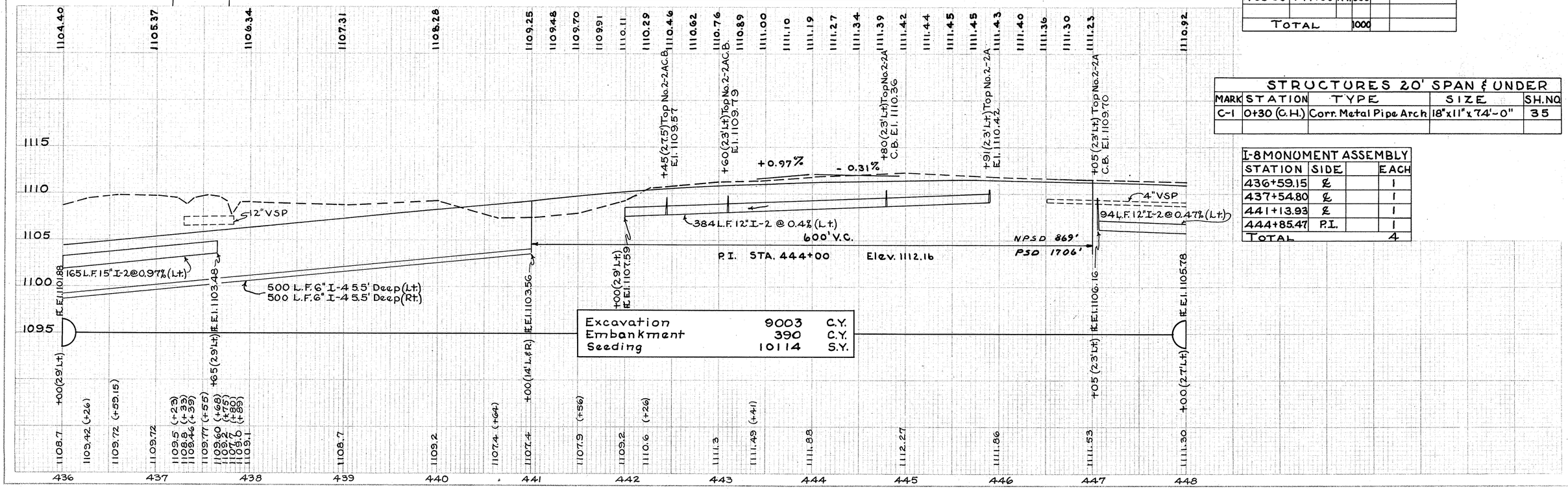
STATION FROM	STATION TO	SIDE	I-4 6" L.F.	I-4 8" L.F.	I-5 for I-4 6"x45° Bend-EACH
436+00	441+00	Lt.	500		
436+00	441+00	Rt.	500		
TOTAL			1000		

STRUCTURES 20' SPAN & UNDER

MARK	STATION	TYPE	SIZE	SH. NO.
C-1	0+30 (C.H.)	Corr. Metal Pipe Arch	18"x11"x 74'-0"	35

I-8 MONUMENT ASSEMBLY

STATION	SIDE		EACH
436+59.15	℄		1
437+54.80	℄		1
441+13.93	℄		1
444+85.47	P.I.		1
TOTAL			4



Excavation	9003	C.Y.
Embankment	390	C.Y.
Seeding	10114	S.Y.

LINE SHEET STA. 436+00 TO STA. 448+00

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

MAH.-90-7.87

1' From 3" Maple
1' From 3" Maple
I.P. 49.55'
41.65'
59.06'
P.C. STA. 448+56.79

Boat Spike N. root 23" Maple
77.55'
7.61'
2 Sty. Fr. Hse.
℄ Survey
Nail
P.O.T. STA. 452+67.57

BEGIN SHEET STA. 448+00
P.T. STA. 448+56.79
END SHEET STA. 460+00

American Tel. & Tele. Co. Underground Cable

℄ Locust Lane +29.40

NOTE: See Intersection Detail Sheet No. 34

Wooded Area

L-10 Sod 7' Wide

S.R. 90

N27°19'W

12" I-2
4" VSP
15" I-2
8" Gas Line
Water Line
4" Gas Line
12" Conc. P.
8" VSP
16" Conc. Pipe
Sign
Dr. ±13 Gravel
Dr. ±67 Blacktop
Dr. ±87 Gravel
Dr. ±50 Gravel
Dr. ±13 Gravel
Dr. ±27 Gravel
Dr. ±91 Gravel
Dr. ±90 Gravel
Dr. ±79.8 Blacktop
Fld. Dr. ±73.5
1 1/2 St. Fr. Hse.
2-St. F. H.
1 1/2-S. F. H.
1 1/2-S. Fr. H.
1 1/2-S. Fr. Hse.
1 1/2-S. Br. Hse.
1-Sty. Fr. Hse.
C.B.
P.B.
M.B.

D-17	L=18' W=10'	
D-18	L=20' W=12'	
D-19	L=33' W=12'	
D-20	L=43' W=12'	
D-21	L=38' W=12'	
D-22	L=48' W=10'	
D-23	L=43' W=10'	
D-24		
D-25	L=63' W=10'	
D-26		
D-27	L=63' W=10'	
D-28		
D-29	L=68' W=10'	
D-30		
D-31	L=40' W=10'	

Bench Mark #6 Boat Spike E. Root 16" Locust +49' Lt. STA. 451+74 El. 1109.397

Typical Section "B" | Typical Section "A" | Typical Section "B"

DRIVEWAYS AND MAIL BOX APPROACHES

MARK No.	STATION	SIDE	TYPE	T-35 2" C.Y.	B-119 5" C.Y.	B-119 6" C.Y.	E-1 * Exc. C.Y.	E-1 * Emb C.Y.	I-1 12" L.F.
D-17	449+13	L	Comb.	2.40	5.99		7		
D-18	449+73.5	R	Fld.			11.9	10		30
D-19	451+50	R	Res.	4.91	12.28		22		
D-20	451+67	L	Comb.	6.02	15.05		26		
D-21	451+87	L	Res.	4.91	12.27		18		
D-22	454+13	R	Res.	3.47	8.67		15		
D-23	454+25	L	M.B.	1.79	4.47				
D-24	454+37	R	Res.	3.16	7.90		16		
D-25	455+91	R	Res.	4.51	11.27		20		
D-26	456+00	L	M.B.	1.71	4.28				
D-27	456+90	R	Res.	4.51	11.27		18		
D-28	457+00	L	M.B.	1.71	4.28				
D-29	458+05	R	Res.	4.81	12.04		20		
D-30	458+25	L	M.B.	1.71	4.28				
D-31	0+79.80 (Locust Lane)	N.	Res.	3.48	8.70		16		
TOTAL				49.10	122.75	11.9	188		30

*NOTE: E-1 Exc. & Emb. ARE CARRIED TO THE X-SECTION SHEETS

L-10 SODDING

STATION FROM	STATION TO	SIDE	5' WIDE S.Y.	7' WIDE S.Y.
453+00	458+74	Lt.		446
TOTAL				446

1110.92 1110.61 (29.5' Lt.) Top No. 2-2 AC.B. El. 1108.00 1110.52 1110.41 1110.27 1110.11 1109.93 1109.72 1109.48 1109.22 1108.94 1108.64 1108.31 1107.95 1107.57 1107.17 1106.75 1106.30 1105.83 1105.33 1104.81 1104.26 1103.69 1103.10 1102.48 1101.84 1101.17 1100.48 1099.77 1099.03 1096.03 1094.53 1093.81 1093.14 1092.53 1091.98 1091.49 1091.05 1090.66 1090.33 1090.06 1089.85

1110 / 1105 / 1100 / 1095 / 1090 / 1085

+01 (29.5' Lt.) Top No. 2-2 AC.B. El. 1108.00
4" VSP
100 L.F. 12" I-2 @ 0.4% (Lt.)
332 L.F. 15" I-2 @ 0.40% (Lt.)
+50 (23' Lt.) Top No. 2-2 AC.B. El. 1107.80
- 0.31%
+50 (23' Lt.) El. 1104.38
C.A.
12" Conc. Pipe Rt.
64 L.F. 15" U.A. I-2
264 L.F. 12" I-2 @ 2.00% (Rt.)
30 L.F. I-2 U.A.
700' V.C.
+00 (2.3' Rt.) El. 1105.78
+00 (2.9' Rt.) El. 1106.70
+00 (2.9' Lt.) El. 1103.78
P.I. STA. 452+50 Elev. 1109.53
PSD = 1219
NPSD = 620
U.A.
8" VSP Rt.
+95 (2.2' Rt.) Top No. 2-2 AC.B. El. 1103.50
+95 (2.2' Rt.) El. 1100.80
+70 (2.2' Rt.) Top No. 2-2 AC.B. El. 1098.9
+70 (2.2' Rt.) El. 1098.55
212 L.F. 12" I-2 @ 3.00% (Rt.)
64 L.F. 12" I-2 U.A.
+75 (2.2' Rt.) Top No. 2-2 AC.B. El. 1095.80
+75 (2.2' Rt.) El. 1092.40
94 L.F. 15" I-2 @ 3.00% (Rt.)
20 L.F. 15" I-2 U.A.
+90 (2.2' Rt.) Top No. 2-2 AC.B. El. 1092.40
+90 (2.2' Rt.) El. 1088.95
S.S.D. = 500' 700' V.C.
P.I. STA. 461+00 El. 1084.03
No. 2-2 AC.B. Top El. 1088.37
+75 (2.9' Lt.)
+75 (2.9' Lt.) El. 1086.72
16" Conc. Pipe Rt.
75 L.F. 15" I-2 @ 2.50% (Lt.)
50 L.F. 15" I-2 U.A.
12" VSP
F.L. El. 1083.70 (Rt. & Lt.)
188 L.F. 15" I-2 @ 2.50% (Rt.)
20 L.F. 15" I-2 U.A.

Excavation	3193	C.Y.
Embankment	595	C.Y.
Seeding	4691	S.Y.

1111.30 1111.36 (+56.79) 1111.20 1110.73 1110.38 1109.56 1107.59 1104.80 1101.77 1098.94 1096.01 1093.28 1090.14 1086.88

448 449 450 451 452 453 454 455 456 457 458 459 460

DRAINAGE

STATION FROM	STATION TO	SIDE	I-2 CLASS "A" 12" U.A. L.F.	12" U.A. L.F.	15" U.A. L.F.	15" U.A. L.F.	I-8 No. 2-2A EA.	I-8 No. 3 EA.	E-12 15" & UNDER L.F.	E-12 Over 15" L.F.	I-16 C.B. Abandon EA.
448+00	449+00	Lt.	100				1				
449+01	453+00	Lt.			332	64	1				
450+78	452+76	Rt.							198		
451+00	460+00	Rt.	476	94	282	40	4				
458+75	460+00	Lt.			75	50					
453+60	460+00	Rt.							452	182	3
TOTAL			576	94	689	154	6		650	182	3

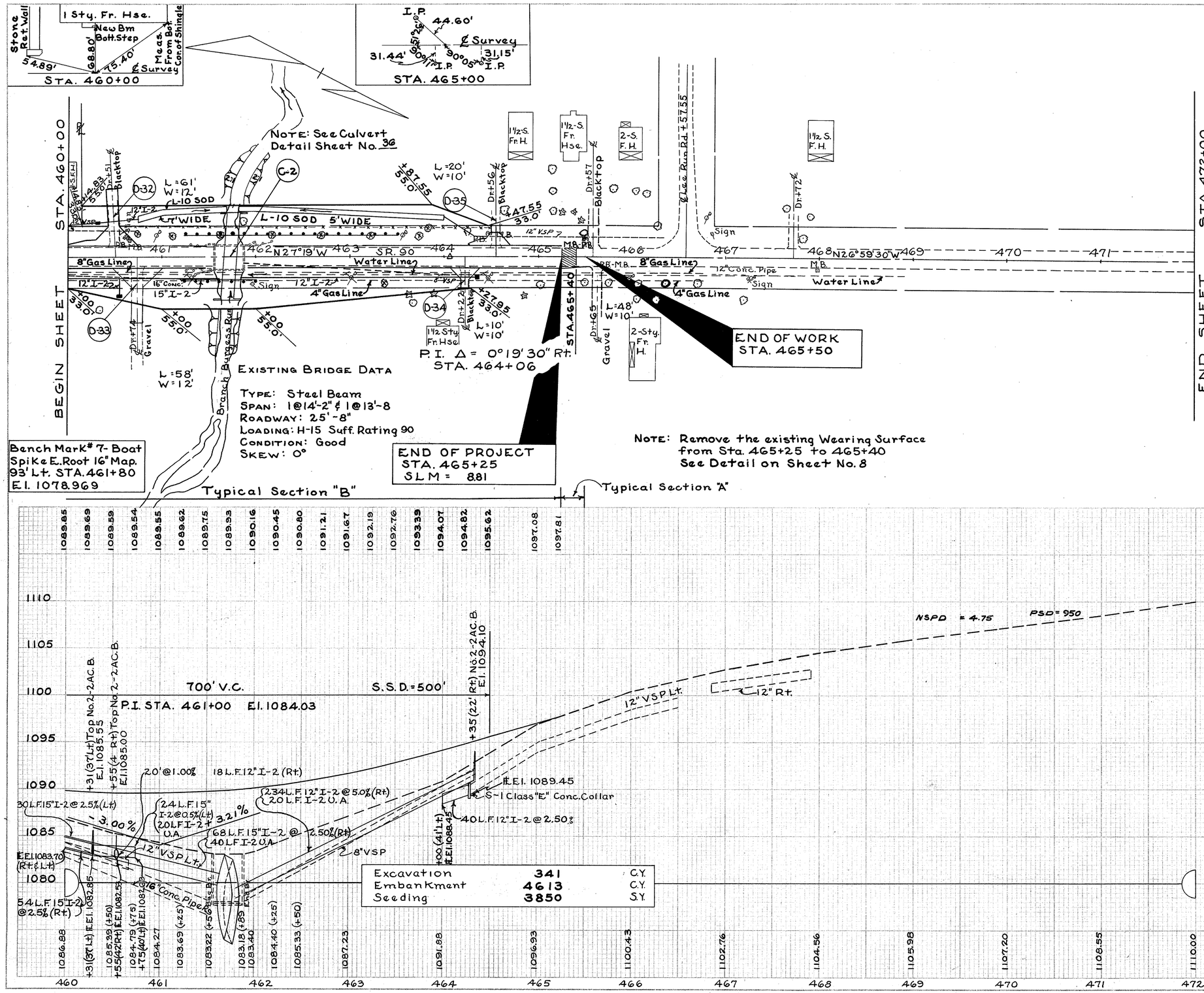
I-8 MONUMENT ASSEMBLY

STATION	SIDE		EACH
448+56.79	℄		1
459+29.40	℄		1
TOTAL			2

LINE SHEET STA. 448+00 TO STA. 460+00

FED. RD. DIVISION	STATE	PROJECT		12
2	OHIO			

MAH.-90-7.87



Excavation	341	C.Y.
Embankment	4613	C.Y.
Seeding	3850	S.Y.

DRIVEWAYS AND MAIL BOX APPROACHES

Mark No.	Station	Side	Type	T-35 2" C.Y.	B-119 5" C.Y.	B-119 6" C.Y.	E-1 Exc. C.Y.	E-1 Emb. C.Y.
D-32	460+51	L	Comb.	7.51	18.55			24
D-33	460+74	R	Res.	6.77	16.91			36
D-34	464+22	R	Res.	1.23	3.09		6	
D-35	464+56	L	Comb.	2.59	6.48			
Total				18.10	45.03		6	60

NOTE: E-1 Exc. & Emb. ARE CARRIED TO X-SECTION SHEETS

DRAINAGE

Station From	Station To	Side	I-2 CLASS "A" 12" O.A. L.F.	12" O.A. L.F.	15" L.F.	15" O.A. L.F.	I-8 No. 2-2A C.B. Ea.	I-5 For I-2 15"x12" Tee Ea.	S-1 Class "E" C.Y.	E-12 Over 15" Under 15" L.F.	L.F.
460+00	460+75	Lt.			54	20	1			70	
460+00	461+64	Rt.	18		122	40	1	1			
461+75	464+35	Rt.	234	20			1				
464+00	464+34	Lt.	40						0.23		
Total			292	20	176	60	3	1	0.23	70	

I-15 GUARD RAIL

Station From	Station To	Side	I 15 L.F.	Rem. & Store L.F.	Rem. Disp. L.F.
461+25	463+50	Lt.	225	16	20
461+25	462+00	Rt.	75		24
Total			300	16	44

I-8 MONUMENT ASSEMBLY

Station	Side		Each
464+06	℄		1
Total			1

L-10 SODDING

Station From	Station To	Side	5' Wide S.Y.	7' Wide S.Y.
461+80	464+00	Lt.	122	
460+75	461+70	Lt.		74
Total			122	74

STRUCTURES 20' SPAN & UNDER

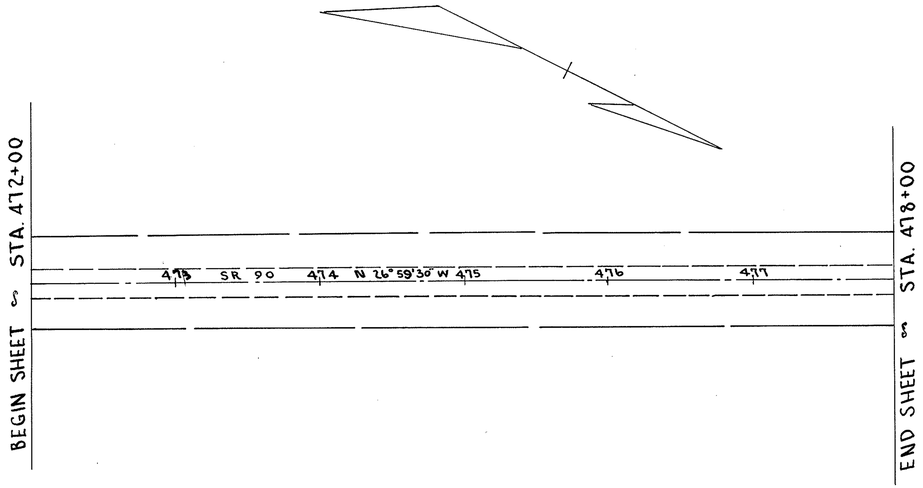
Mark	Station	Type	Size	Sh. No.
C-2	461+72.50	Sect. Plate Pipe Arch	14'-3"x8'-11"x96'-0"	36

LINE SHEET STA. 460+00 TO STA. 472+00

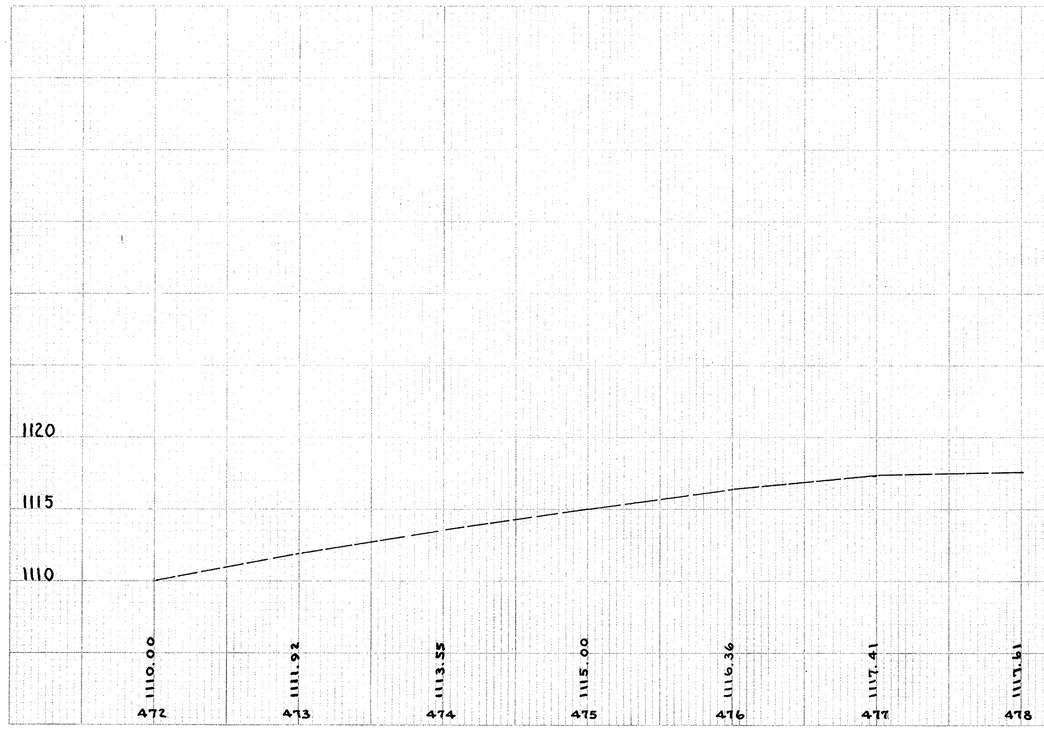
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

13

MAH. 90-7.87



NOTE: FOR TYPICAL SECTION SEE SHEET No. 7



LINE SHEET STA. 472+00 TO STA. 478+00

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

Ex. R/W

C-4

1117.35

F-6

C-40

F-12

1115.30

+79 32" Wild Cherry

Ex. R/W

1115

+85 12" Apple

+74 18" Apple

1118.40

416+00

1118.62

1120

1115

+37 12" Apple

1116.0

1115.10

BEGIN PROJECT STA. 415+50
BEGIN WORK STA. 415+00

415+00

1117.67

1120

1115

GRAVEL DRIVE

414+25

1117.02

1120

1115

HOUSE

1114.6

+86 21" Maple

414+00

1116.72

1120

+76 32" Stump

HOUSE

Ex. R/W

413+47.93

1115.96

Ex. R/W

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

Seeding		End Area		Cu. Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb.
35		44	18		
	194			81	33
0		0	0		

PLATE 4 CROSS SECTION
TAIT & COMPANY, CALIFORNIA 1963

CROSS SECTIONS STA. 413.+47.93 TO 416+00

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

R/W

GRAVEL DRIVE 10.0%

10.0%

1115.6

1116.62
419+85
1118.14

1120

2:1

1116.00

HSE.

69'
STA. 419+50

BEGIN 12" I-2 STA. 419+61
N92-2AC8 STA. 419+60

1116.95
419+62
1118.54

+68 18" Maple

+53 14" Maple

+40 17" Cherry

+40 15" Cherry

1120

2:1

C-137

C-47

1116.63

1116.67

1117.65
419+00
1119.71

HSE.

1120

C-98

1117.10

I-10 Type A Riprap

1118.12
418+43
1120.32

+28 31" Maple

1120

2:1

C-126

F-2

1117.38

+99 24" Catalpa

1118.40
418+00
1120.29

+55 18" Maple

1120

GRAVEL DRIVE +10.0%

+38 18" Elm

1118.62
417+41
1119.76

+82 17" Elm

+70 15" W. Cherry

+43 14" Elm

1120

C-56

F-4

F-8

1117.61

1116.96

R/W

1118.63
417+00
1119.46

R/W

Sta. 416+00

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

Seeding		End Area		Cu. Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb.
DRIVE STA. 419+85				(20)	(0)
35		141	0		
389		0	494	4	
35		126	2		
389			337	26	
DRIVE STA. 417+41				(28)	(0)
35		56	12		
389			185	56	
35		44	18		

2450 C.Y. Excavation
1095 C.Y. Embankment
3845 S.Y. Seeding

CROSS SECTIONS STA. 417+00 TO STA. 419+85

MAH. S.R. 90-7.87

70 60 50 40 30 20 10 0 ℄ 10 20 30 40 50 60

1110 1115 1110 1115 1110 1115 1120

R/W

+2.57%
GRAVEL DRIVE +2.5%

1111.31
422+42
1109.19

R/W ⊙ +39 18" Wild Cherry
422+31
51'
HOUSE

DRIVE STA. 422+42

Hse.
C-17
3:1
1109.88
F-4
C-3
C-3 F-1 F-2 C-14 3:1
1111.38

BEGIN 12" I-2 STA. 422+00

1112.40
422+00
1111.31

DRIVE STA. 421+85

+10.0%
BLACKTOP DRIVE

1112.85
421+85
1112.85

1111.97

1113.59
421+50
1113.30

END 12" I-2 STA. 421+25

C-17
1113.63
F-4
C-58
1113.63

1114.65
421+00
1115.10

+67 21" Elm

DRIVE STA. 420+57

+1.0%
BLACKTOP DRIVE +1.0%

BEGIN 12" I-2 STA. 420+36
N° 2-2 A O.B. STA. 420+35

1115.46
420+57
1116.35

4:1 1115.82
C-98
F-4
4:1 C-2 1114.13

1116.40
420+00
1113.81

R/W R/W

Seeding		End Area		Cu Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb
				(6)	(0)
38		37	7		
				(14)	(0)
	406			178	20
35		59	4		
				(22)	(0)
	383			294	15
34		100	4		
	383			446	7
Sta. 419+00 35		141	0		

CROSS SECTIONS STA. 420+00 To 422+42

PLATE A-CROSS SECTION
THEIS BOOK CO., COLUMBUS, OHIO

PROJ. NO. DIST. NO.	STATE	PROJECT	FISCAL YEAR	17

MAH. S.R. 90 - 7.87

Seeding		End Area		Cu. Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb.
78		5	630		
	850			37	1694
75		14	285		
	783			220	744
66		105	125		
	346			108	159
35		0	31		
	183			17	31
STA. 422+00	38	20	7		

70 60 50 40 30 20 10 0 ℄ 10 20 30 40 50 60

Prop. R/W

425+37
1086.28

Prop R/W

1090

END L-10 SOD STA. 425+30

END L-10 SOD STA. 425+10

1095

425+00
1091.38

BRIDGE LIMITS STA. 424+91.87

4:1

C-10

1101.63

F-285

2:1

1100

1099.63

C-4

L-10 SOD BEGIN STA. 423+50
12" I-2 OUTLET STA. 423+50
FL. EL. 1101.48

1106.65
424+00
1100.23

+36 - 21" Maple

BEGIN GUARD RAIL STA. 423+57.03

+04 18" Tulip Tree

Prop. R/W

2:1

C-96

1106.13

F-125

4:1

C-9

2:1

1107.13

Prop. R/W

1105

BEGIN L-10 SOD STA. 422+75

END 12" I-2 STA. 422+75

1109.65
423+00
1106.15

+91 21" Tulip Tree

1110

1110.20

F-31

2:1

1109.87

1111.22
422+44.89
1109.19

EX. R/W

EX. R/W

70 60 50 40 30 20 10 0 ℄ 10 20 30 40 50 60

PLATE 4 - CROSS SECTION
THE H. GOES CO., COLUMBUS, OHIO

CROSS SECTIONS STA. 422+44.89 To. STA. 425+37

MAH. S.R. 90-787

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

1090

1090

1090

1090

C-90 2:1 F-16 4:1 C-55 1" perf ft. F-18

1095.83

81.25' R/w

1098.35
429+00
1099.51

F-390 4:1 C-50 ½" perf ft.

1094.19

76' R/w

1098.71
428+00
1090.20

F-532 4:1 C-25

1093.45

68.0' R/w

1099.72
427+00
1088.40

END GUARD RAIL STA. 426+57.03

BRIDGE LIMITS STA. 426+04.13

F-635 C-47 ½" per ft.

1090.70

1101.39
426+00
1088.68

425+67
1087.08

R/w R/w

BEGIN L-10 SOD STA. 425+45

Sta. 425+37

Seeding		End Area		Cu. Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb
83		145	34		
	949			361	785
87		50	390		
	972			139	1707
88		25	532		
	928			133	2161
79		47	635		

PLATE 4 CROSS SECTION
1916 N. GOLF RD., COLUMBUS, OHIO

CROSS SECTIONS STA 425+67 TO STA 429+00

MAH. 90 - 7.87

END L-10 SOD STA. 432+00

EX. R/W
Prop R/W
F-600
E-4
F-190
C-10
C-36
1082.83
100' C.E.
1100.52
432+00
1093.31
C-45
C-245
1098.00
91.5' R/W
C-57
C-210
1097.03
87.75 R/W
DRIVE STA. 430+44 (RH)
F-420
E-4
F-73
C-7
1082.93
1099.55
431+00
1096.96
1099.00
430+44
1093.6
C-372
85.75 R/W
1096.33
C-33
10'-0"
2:1
Slope 1" per ft.
F-320
E-4
F-166
C-8
1083.0
1098.85
430+26
1101.97
C-505
4:1
85'-R/W
1095.6
C-6
1098.66
430+00
1104.17
Ex. R/W
Prop. R/W

Seading		End Area		Cu. Yds.		Chan Exc	
L.F.	S.Y.	Cut	Fill	Exc.	Emb	Area	C.Y.
121		290	600			46	
	1306			1031	1889		111
114		267	420			14	
							47
	917			1058	1014		
				(32)	(0)		
109		405	320			20	
	263			441	154		
86		511	0				
	939			1274	30		
Sta. 429+00	83	177	16				

Granular Borrow	3081 C.Y.
Channel Excavation	1279 C.Y.
Excavation	7897 C.Y.
Embankment	13589 C.Y.
Seeding	12244 S.Y.

PAGE 4 - CROSS SECTION
THE H. COLE CO., COLUMBUS, OHIO

CROSS SECTIONS STA. 430+00 To STA. 432+00

MAH. 90-7.87

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

1090

C-25 — 1082.53 — D D — 100 90 80 70

Prop. R/W

E-850 (T)

E-4
F-242

1102.90
434+44.87
1091.61

1099.94

C-192 — P P — 1100.38

Ex. R/W

P P — C-49 — 60 70 80 90 100 — N N

C-80

1085

C-37 — C C — C-21 — 1082.63 — 100 90 80 70

E-1007 (T)

E-4
F-247

1102.46
434+00
1086.48

1098.97

C-135 — M M

1085

B B — C-76

E-800 (T)

E-4
F-142

1101.49
433+00
1086.27

M M — C-73 — 60 70 80 90 100 — L L

C-155

B B — C-138 — 2:1 — 1082.73 — 100 90 80 70

4:1

1098.30

1085

A A — C-40

E-746 (T)

E-4
F-182

1100.82
432+30.58
1088.21

Prop. R/W

2:1 C-77 — 1082.80 — 100 90 80 70

L L — C-54 — 60 70 80 90 100

Ex. R/W

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

Seeding		End Area		Cu. Yds.		Chan. Exc.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb	Area	C.Y.
134		241	850			28	
	693			279	822		43
136		116	1019			24	
	1400			561	1741		441
116		208	800			214	
	914			536	1987		426
121		209	746			117	
	411			283	762		92
Sta. 432+00 121		290	600			46	

CROSS SECTIONS STA. 432+30.58 To STA. 434+44.87

PLATE A CROSS SECTION
THE H. COLE CO. COLUMBUS, OHIO

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

21

MAH. 90-7.87

Seeding		End Area		Cu. Yds.		Chan. Exc.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb	Area	C.Y.
68		475	0				
	224			601	0		
76		491	0			0	
	679			515	490		33
118							
		326	420			29	
	332			232	545		33
121		174	756			42	
	194			94	415		25
128		187	844			53	
	56			28	117		8
126		197	741			59	0
	175			98	357		20
134		241	850			28	

Prop R/W

EX R/W

C-475

1101.79

1104.31
435+91
1105.95

1101.29

1105

C-491

3:1

4:1

1101.42

1101.15

No 2-4 C.B. STA. 435+43

END GUARD RAIL STA. 435+26.47

1104.04
435+63
1108.35

R/W 76'

C-28

D

100 90 80 70

C-326

1100

C-40

C

1082.96

C 10'-0

90 80 70

SLOPE 1" PER ft.

2:1

1103.43
435+00
1105.21

1100.91

T

C-150

F-420

T

1103.19
434+75
1096.81

C-24

T

60 70 80 90 100

F-11

S

C-160

1095

E-4
F-136

F-745

T

1100.83

C-23

1103.05
434+61
1088.11

C-27

S

60 70 80 90 100

F-9

R

C-50

B

1082.47

90 80 70

E-4
F-186

F-835

T

C-170

1100.49

C-37

E-4
F-177

C-55

A

1082.47

90 80 70

1103.01
434+57
1092.91

1095

R

C-27

60 70 80 90 100

F-11

EX. R/W

F-730

T

Prop R/W

E-4
F-168

C-A

Sta. 434+44.87

CROSS SECTIONS STA. 434+57 TO STA. 435+91

FED. RD. DIVISION	STATE	PROJECT	TYPE WORK	22
2	OHIO			

MAH. SR. 90-7.87

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

+75 12"Elm
+60 18"Elm

EX. R/W

1110

F-8

1104.79

+01 14"Maple

C-300

1107.31
439+00
1108.87

Prop. R/W

1104.79

+78 18"Elm

Ex. R/W

1110

F-62

1" Per Foot

3:1

2 Car Gar.

101'

437+64

END 15" I-2
STA. 437+65

1103.82

C-400 Ahead
C-285 Back

1106.34
438+00
1109.06

1103.82

1110

GRAVEL DRIVE

C-228

+79 19"Maple

+77 17"Maple

Graphical Grade Drive 12.0%

1105.75
437+39
1109.56

1110

F-67

C-396 Back
C-216 Ahead

1104.35

1105.37
437+00
1109.67

Ex. R/W

1101.73

1110

HSE.

45'
436+56

Ex R/W

C-387

1103.95

1104.97
436+59.15
1109.67

Ex. R/W

1101.45

1110

Prop. R/W

+45 19"Apple

+24 16"Apple

C-53

Back

AHEAD

1103.38

BEGIN 15" I-2
STA. 436+00

1101.88

+08 12"W. Cherry

1104.40
436+00
1108.55

C-458

4:1

3:1

1" per ft.

Sta. 436+00

Ex. R/W

1101.38

Sta. 435+91

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60

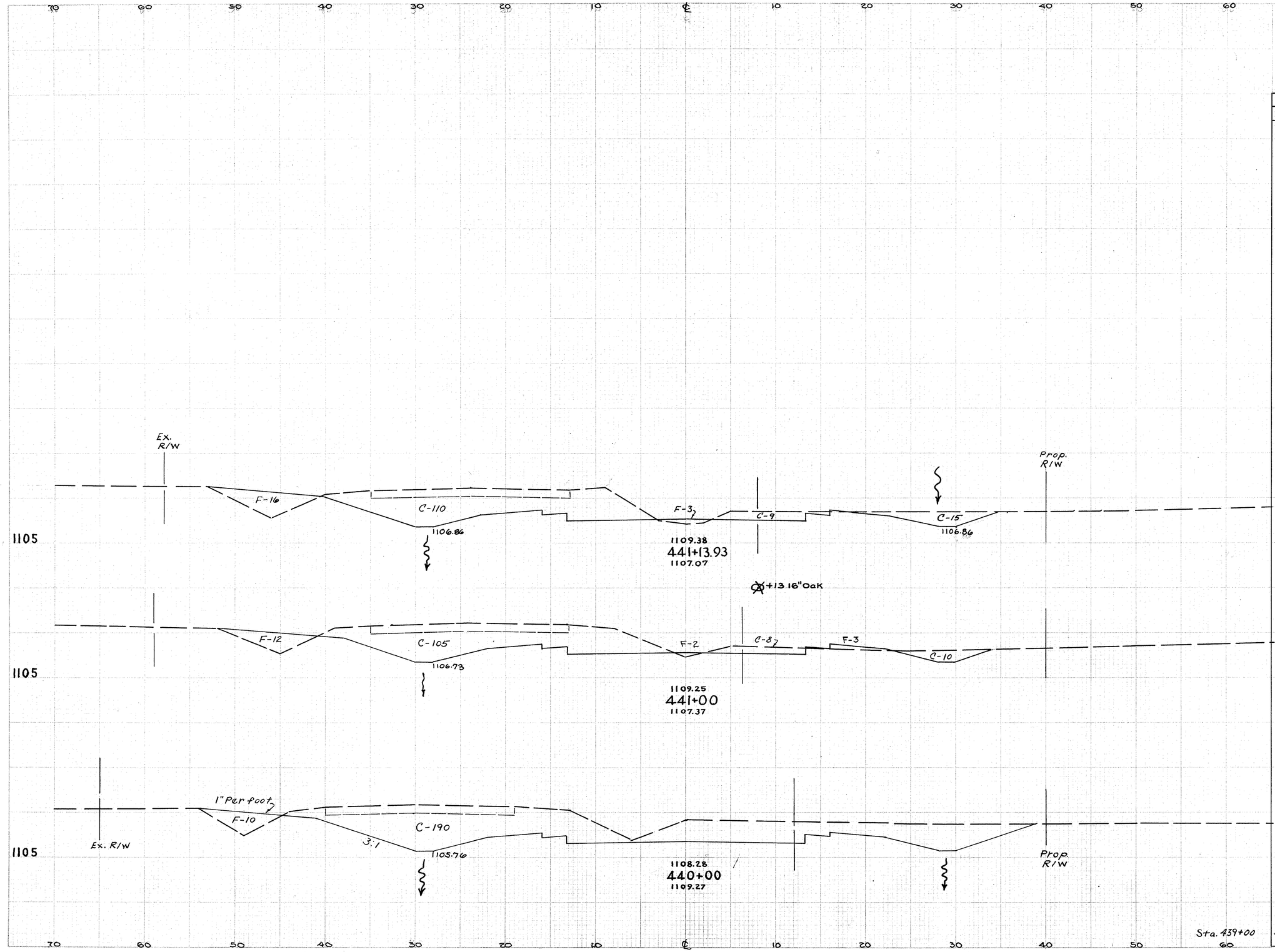
	Seeding		End Area		Cu. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb
	83		300	8		
		906			1296	26
Ahead } Sta. 438+00	80		400	6		
Back }	51		285	6		
SEE DETAIL SHEET No. 33						
Inter Section (Rt) STA. 437+54.80		(251)			(1312)	(14)
Culvert at Intersection		433			928	22
SEE DETAIL SHEET No. 35						
DRIVE (Lt) STA. 437+39					(30)	(0)
Ahead	27		216	6		
Back STA. 437+00 Back	56		396	6		
		248			552	4
	55		387	0		
		355			926	0
AHEAD	64		458	0		
BACK	66		511	0		
		67			169	0
Sta. 435+91	68		475	0		

CROSS SECTIONS STA. 436+00 TO STA. 439+00

FED. RD. DIVISION	STATE	PROJECT	TYPE WORK	SHEET NO.
2	OHIO			23

MAH. S.R. 90-7.87

Seeding		End Area		Cu. Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb.
68		134	19		
	105			66	9
68		123	17		
	800			580	50
76		190	10		
	883			907	33
83		300	8		



CROSS SECTIONS STA. 440+00 TO STA. 441+13.93

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	24
2	OHIO			

MAH.-90-7.87

70 60 50 40 30 20 10 0 ℄ SURVEY 10 20 30 40 50 60 70

+23 21" Buckeye
Ex. R/W
18" Apple
Prop. R/W
+04 16" Dead Elm
3/4" PER foot
F-4
1109.99
C-71
1111.19
444+00
1111.89
F-1½
C-1
F-1
C-55
1108.67

1110
House 101'
1/4" PER foot
1109.94
+84 19" Apple
+88 19" Walnut
1111.14
443+87
1111.75

1110
Drive 5.0%
5.0%
1109.79
1110.99
443+47
1111.55
+42 20" Maple
+22 15" Oak
+20 18" Pine

1110
3/4" PER foot
1109.56
C-58
1110.76
443+00
1111.27
F-17
C-2
C-1½
F-1
C-14
1108.24

1110
House 106'
1/4" PER foot
1109.40
1110.60
442+72
1110.97
+60 15" Maple
+40 14" Maple

1110
Drive 7.5%
1109.03
1110.23
442+26
1110.67

1105
Ex. R/W
1/4" PER foot
F-10
3:1
C-70
4:1
1107.59
E-4
F-7
C-5
1107.59
Prop. R/W
BEGIN 12" I-2
STA. 422+00
1110.11
442+00
1108.97
+99 16" Elm
+73 14" Dead Elm
+49 14" Elm
+15 16" Maple
℄ SURVEY

	Seeding L.F.	Seeding S.Y.	End Area Cut	End Area Fill	Co. Yds. Exc.	Co. Yds. Emb.
	53		127	6		
		594			374	15
DRIVE (Lt) STA. 443+47					(12)	(0)
	54		75	2	16	
FIELD DRIVE Rt. STA 442+90						
		667			278	43
DRIVE(Lt.) STA. 442+26					(12)	(0)
	66		75	21		
		640			333	64
Sta. 441+13.93	68		134	19		

9003 C.Y. Excavation
390 C.Y. Embankment
10114 S.Y. Seeding

CROSS SECTIONS STA. 442+00 TO STA. 444+00

FED. RD. DIVISION	STATE	PROJECT	FED. FUNDS
2	OHIO		

25

MAH.-90-7.87

TO +12 14" Apple - T6'

Ex. R/W

℄ SURVEY

Prop. R/W

℄ F-1 | C-46 | F-8 | C-16 1108.71

+0 20" Maple

1111.23
447+00
1111.55

+96 14" Maple

HOUSE ~89'

1111.27
446+88
1111.59

+71 15" Maple

+74 18" Locust

DRIVE 1.0%

1.0%

1111.33
446+60
1111.67

DRIVE(Lt) STA. 446+60

+42 24" Maple

℄ F-4 | C-55 | F-6 | C-21 1108.91

1111.43
446+00
1111.87

№ 2-2-A CB STA. 445+91
END 12" I-2 STA. 445+90

+94 16" Maple

DRIVE 5.0%

5.0%

1110.43

1111.45
445+75
1111.97

DRIVE(Lt) STA. 445+75

+57 12" Apple - 77'

+55 18" Apple

+57 12" Maple

+25 14" Apple - 77'

C-24 | ℄ C-1 | C-110 1110.40

1111.42
445+00
1112.26

Ex. R/W 1108.90

Prop R/W

+90 19" Elm

+73 21" Maple

DRIVE 7.50%

7.50%

1110.33

1111.35
444+62
1112.23

DRIVE(Lt) STA. 444+62

1" per foot

HOUSE ~96'

1110.30

Ex. R/W

1111.32
444+45
1112.11

℄ SURVEY

Sta. 444+0

	Seeding		End Area		Co. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
	41		62	9		
DRIVE(Lt) STA. 446+60					(8)	(0)
		450			256	35
	40		76	10		
DRIVE(Lt) STA. 445+75					(12)	(0)
		489			387	19
	48		135	0		
		561			485	4
DRIVE(Lt) STA. 444+62					(13)	(0)
	53		127	2		

CROSS SECTIONS STA. 445+00 TO STA. 447+00

FED. RD. DIVISION	STATE	PROJECT	SUPP. FUNDS	26
2	OHIO			

MAH.-90-7.87

70 60 50 40 30 20 10 0 ℄ SURVEY 10 20 30 40 50 60

1110

House 80'

Ex. R/W

+51 15" Maple

1108.58

1110.47
449+37
1110.99

+36 12" Locust

1110

GRAVEL DRIVE 1%

1.0%

1110.57
449+13
1111.09

+12 12" Locust

BEGIN 15"I-2 STA. 449+02
No. 2-2A C.B. STA. 449+01
END 12"I-2 STA. 449+00

1110

C-6 F-2 C-53 F-7 C-7

1107.72

+01 14" Locust

Prop. R/W

1108.09

1110.61
449+00
1111.20

+86 15" Locust

1110

C-4 F-6 C-48 F-6 C-8

1108.09

1108.22

1110.74
448+57
1111.36

+25 15" Maple

+07 14" Maple

1110

C-2 F-12 C-43 F-7 C-10

1108.28

1108.40

Prop. R/W

1110.92
448+00
1111.30

+97 14" Maple

+62 16" Maple

+52 15" Oak

1110

HOUSE 101'

1108.82

+50 12" Oak

+30 14" Oak

1111.09
447+44
1111.37

-5.0%

1110

GRAVEL DRIVE 5.0%

Ex. R/W

BEGIN 12"I-2 STA. 446+06

No. 2-2 A C.B. STA. 447+05

1111.17
447+19
1111.46
℄ SURVEY

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

	Seading		End Area		Co. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
DRIVE (Rt) STA. 449+73.5					(10)	(0)
DRIVE (Lt) STA. 449+13					(7)	(0)
	41		66	9		
		196			99	17
	41		60	12		
		266			121	32
	43		55	19		
		467			217	52
DRIVE (Lt) STA. 447+19					(3)	(0)
Sta. 447+00	41		62	9		

CROSS SECTIONS STA. 448+00 TO STA. 449+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

MAH.-90-7.87

BEGIN L-10 SOD STA. 453+00
END 15" I-2 STA. 453+00

+28 12" Locust
+14 14" Locust
+05 15" Maple
+63 12" Maple
+23 14" Maple
+94 15" Locust
+68 30" Elm
+28 12" Maple
+15 31" Elm
+41 12" Maple
+64 24" Maple
+21 20" Maple
+96 14" Maple
+76 16" Locust
+68 19" Maple
+68 27" Maple
+51 16" Locust
+20 14" Locust
+95 14" Maple

E Survey

Ex. R/W

C-30 F-2 C-87 1103.78 1106.30 1106.59

453+00 1107.61

C-136 1106.93 1106.93 8:1

452+00 1109.61

HOUSE

BEGIN BRICK 10.0% GRAVEL DRIVE

451+87 1109.93

DRIVE (Lt) STA. 451+87

BLACKTOP DRIVE 10.0% 1107.39

451+67 1110.09

DRIVE (Lt) STA. 451+67

BEGIN BLACKTOP

GRAVEL DRIVE 1107.62 +10%

451+50 1110.20

DRIVE (Rt) STA. 451+50

C-3 F-4 1107.70 C-100 Ahead C-20 Back 2:1 3:1 1106.70

451+00 1110.39

BEGIN 12" I-2 STA. 451+00

C-2 F-8 1108.21 C-54 1110.11 F-8 C-5 1107.59

450+00 1110.72

Ex. R/W

E Survey

Sta. 449+00

	Seeding L.F.	Seeding S.Y.	End Area Cut	End Area Fill	Co. Yds. Exc.	Co. Yds. Emb.
	40		117	2		
		417			469	4
	35		136	0		
DRIVE (Lt) STA. 451+87					(18)	(0)
		383			493	7
DRIVE (Lt) STA. 451+67					(26)	(0)
DRIVE (Rt) STA. 451+50					(22)	(0)
Ahead	34		103	4		
Back	38		123	4		
		400			341	37
	34		61	16		
		417			235	46
Sta. 449+00	41		66	9		

CROSS SECTIONS STA. 450+00 TO STA. 453+00

TRAFFIC DIVISION	STATE	PROJECT	FED. FUNDS	28
2	OHIO			

MAH.-90-787

70 60 50 40 30 20 10 0 10 20 30 Ex. R/W 40 50 60 70

℄ SURVEY

House

1100

1098.40
456+21
1098.27

Ex. R/W

C-13 1096.03 F-14 C-3 C-12 1097.81

1099.03
456+00
1098.92

+82 40" Elm

1098.28 GRAVEL DRIVE 10.0%

DRIVE (Rt) STA. 455+91

1099.30
455+91
1099.15

No. 2-2A C.B. STA. 455+70

+41 12" Locust
+33 30" Elm

+33 30" Elm

+24 12" Locust
+10 21" Locust

C-11 1099.32 F-13 C-4 C-16 1100.74

1101.84
455+00
1101.76

Ahead Sta. 455+0
Back Sta. 455+0

+90 18" Tree
+88 12" W. Cherry
+81 26" Elm

+65 23" Maple

1105

+61 14" Locust
+60 12" Locust

House

1101.86

DRIVE (Rt) STA. 454+37

1102.88
454+59
1103.00

+47 15" W. Cherry
+38 32" Elm

1102.36 GRAVEL DRIVE

1103.38
454+37
1103.62

1102.95 -10.0% GRAVEL DRIVE 10.0%

1103.97
454+13
1104.37

DRIVE (Rt) STA. 454+13

3193 C.Y. Excavation
595 C.Y. Embankment
4691 S.Y. Seeding

+0 28" Locust

C-40 1101.74 F-6 C-66 1103.24 3:1 Ex. R/W

+78 27" Elm
+66 29" Locust
+61 18" Elm
+37 18" Locust

Ex. R/W

1104.26
454+00
1104.80

+76 14" Maple

No. 2-2A C.B. STA. 453+95

℄ SURVEY

Sta. 453+00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

	Seeding L.F.	Seeding S.Y.	End Area Cut	End Area Fill	Co. Yds. Exc.	Co. Yds. Emb.
	28		28	14		
DRIVE (Rt) STA. 455+91					(20)	(0)
		328			109	50
Ahead Sta. 455+0	31		31	13		
Back Sta. 455+0	31		59	13		
DRIVE (Rt) STA. 454+37					(16)	(0)
		394			306	35
DRIVE (Rt) STA. 454+13					(15)	(0)
	40		106	6		
		444			413	15
	40		117	2		

CROSS SECTIONS STA. 454+00 TO STA. 456+00

FED. RD. DIVISION	STATE	PROJECT	TYPE WORK	29
2	OHIO			

MAH.-90-7.87

Seeding		End Area		Co. Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb.

70 60 50 40 30 20 10 0 ℄ Survey 10 20 30 40 50 60

1095

HOUSE

1092.79

1093.81
457+75
1093.85

1095

HOUSE

1094.86

1095.88
457+15
1095.63

1095

C-10 1093.03 3:1 F-14 C-28 C-23 1095.01

1096.03
457+00
1095.99

Ahead Sta. 457+00 28 61 14
Back Sta. 457+00 28 33 14

1095

12.0%

GRAVEL DRIVE

1095.35

DRIVE (Rt.) STA. 456+90 311 113 52 (18) (0)

1096.36
456+90
1096.31

Begin 15"I-2 Sta. 456+76
No. 2-2A CB Sta. 456+75
End 12" I-2 Sta. 456+74

℄ Survey

Sta. 456+00 28 28 14

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

CROSS SECTIONS STA. 457+00 TO STA. 457+75

FED. AID DIVISION	STATE	PROJECT	TYPE PERMIT	30
2	OHIO			

MAH.-90 - 7.87

70 60 50 40 Ex. R/W 30 20 10 0 ℄ SURVEY 10 20 30 Ex. R/W 40 50 60

F-470

+18 36" Dead Elm

1090.16
462+00
1083.34

PROP. R/W 2:1 C-6 1076.69 +88 51" Willow

PROP. R/W 4:1 C-3 1081.89

1080

BEGIN L-10 SOD STA. 461+80
END L-10 SOD STA. 461+70

+63 30" Elm

STA. 461+72.5 SECT. PL. PIPE ARCH CULVERT SEE DETAIL / SHEET Nº. 36

BEGIN 12" I-2 STA. 461+78
END 15" I-2 STA. 461+64

4:1 +12 32" Elm F-300 C-4 1083.53

C-13 1082.53

1089.55
461+00
1084.21

1080

BEGIN L-10 SOD STA. 460+75

END 15" I-2 STA. 460+75

+74 15" Maple

-10.0%

DRIVE (R+) STA. 460+74

GRAVEL DRIVE

1089.54
460+74
1084.75

1080

+61 26" Elm

10.0%

1085

DRIVE

1084.82

1089.59
460+51
1085.28

Nº. 2-2 A C.B. STA. 460+55

DRIVE (L+) STA. 460+51

+34 27" Birch

Nº. 2-2 A C.B. STA. 460+31

4:1 Ahead F-37 Back 66 F-103

1085

1089.85
460+00
1086.79

Sta. 460+00 Ahead
Sta. 460+00 Back

INTERSECTION LOCUST LANE STA. 459+29.40
See Detail Sheet Nº 34

INTERSECTION (LT) STA. 459+29.4
See Detail Sheet Nº 34

1090

+11 40" Elm Ahead C-2 C-3 C-1 C-4 1090.03

F-12 Back

1091.05
459+00
1090.08

Sta. 458+75 Ahead
Sta. 458+75 Back

BACK STA. 458+78.45

BEGIN 15" I-2 STA. 458+76

Nº. 2-2 A C.B. STA. 458+75

END L-10 SOD STA. 458+74

+10.0% BLACKTOP DRIVE

1090

1092.93
458+05
1093.07

1091.97

DRIVE (R+) STA. 458+05

C-11 1090.62 F-12 C-4 C-20 1092.12

1093.14
458+00
1093.22

Ex. R/W

Ex. R/W

℄ SURVEY

Nº. 2-2 A C.B. STA. 457+90

Sta. 457+00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

	Seeding		End Area		Co. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
	76		9	470		
		828			48	1426
	73		17	300		
DRIVE (R+) STA. 460+74					(0)	(36)
		600			31	746
DRIVE (L+) STA. 460+51					(0)	(24)
Sta. 460+00 Ahead	35		0	103		
Sta. 460+00 Back	18		0	66		
INTERSECTION (LT) STA. 459+29.4		(286)			(58)	(67)
See Detail Sheet Nº 34		263			24	152
Sta. 458+75 Ahead	20		10	0		
Sta. 458+75 Back	38		10	12		
DRIVE (R+) STA. 458+05					(20)	(0)
		275			62	33
	28		35	12		
		311			178	48
Sta. 457+00	28		61	14		

CROSS SECTIONS STA. 458+00 TO STA. 462+00

FED. AID DIVISION	STATE	PROJECT	TYPE FUNDS	31
2	OHIO			

MAH.-90-7.87

70 60 50 40 30 20 10 0 ℄ SURVEY 10 20 30 40 50 60 70

Ex. R/W

HOUSE 102'

1095

HOUSE 112'

+15 16" Maple - 93'

+15 12" Maple

+15 18" Popular

1099.03
465+50
1098.42

+75 30" Maple

+49 48" Maple

Ex. R/W

+02 24" Elm

END WORK STA. 465+50

END PROJECT STA. 465+25

F-1 C-5 C-5 E-3

1097.23
465+00
1096.99

1095 HOUSE

1096.61
464+80
1096.02

HOUSE 103'

1.0%

BlackTop Drive

1095.82
464+56
1094.75

1090

END 12"I-2 STA. 464+34

+49 12" Locust

+25 12" Locust

BEGIN 12"I-2 STA. 464+00

NO. 2-2A C.B. STA. 464+35

12.0%

1094.82
464+22
1092.98

BlackTop Drive

House 67'

PROP. R/W

4:1

C-30

1088.45

F-7.0

1090

1094.07
464+00
1091.91

+74 28" Elm

+66 15" Maple

+36 26" Tree

END L-10 SOD STA. 464+00

+22 39" Dead Elm

F-2.99

4:1

PROP. R/W

1085

2:1

C-8

1079.98

1091.67
463+00
1087.31

C-5

1085.15

+70 55" Elm

PROP. R/W

Ex. R/W

Ex. R/W

℄ SURVEY

Sta. 462+00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

	Seeding		End Area		Cu. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
Excavation 341 C.Y. Embankment 4613 C.Y. Seeding 3850 S.Y.						
	30		10	4		
		472			74	137
DRIVE(Lt.) STA. 464+56					(0)	(0)
		500			61	137
DRIVE(Rt.) STA. 464+22					(6)	(0)
	55		30	70		
		667			80	683
	65		13	299		
		783			41	1424
	76		9	470		

CROSS SECTIONS STA. 463+00 TO STA. 465+57

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	32
2	OHIO			

MAH.90-787

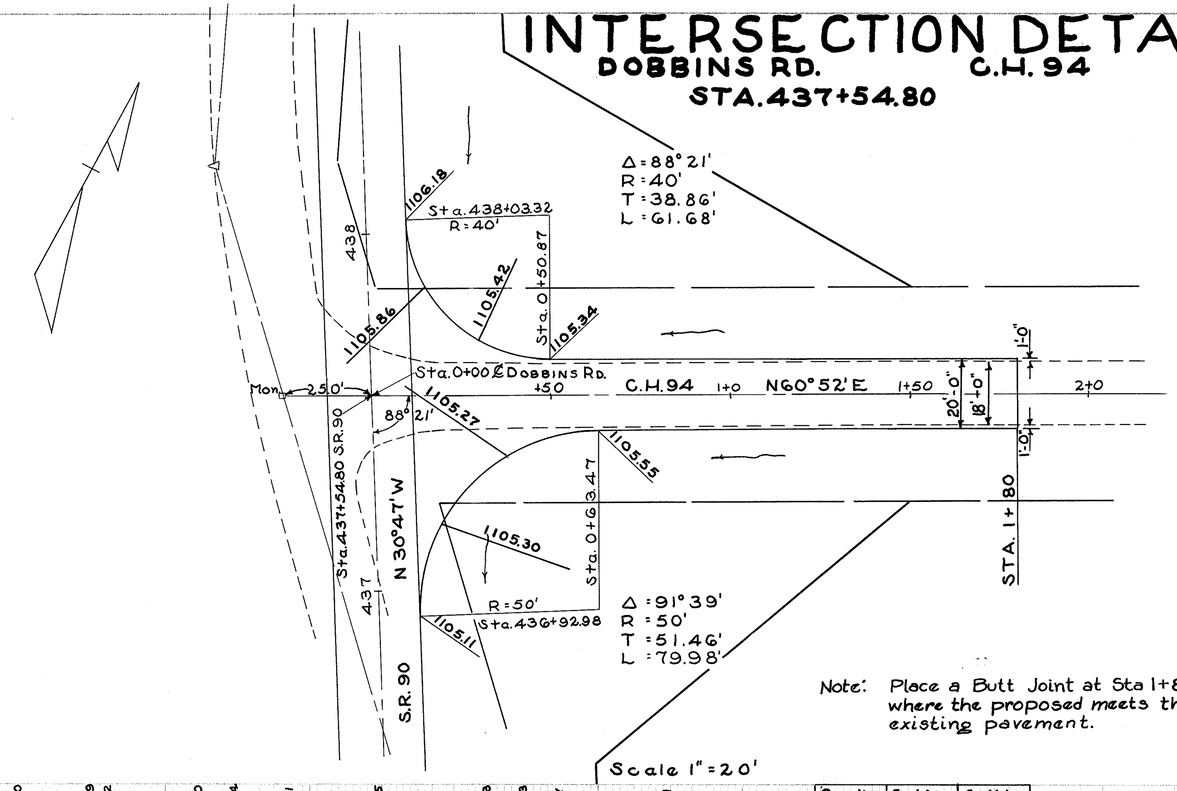
Seeding		End Area		Cu. Yds.	
L.F.	S.Y.	Cut	Fill	Exc.	Emb.

INTERSECTION DETAIL
DOBBINS RD. C.H. 94
STA. 437+54.80

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

35

MAH. 90-7.87



Note: Place a Butt Joint at Sta 1+80 where the proposed meets the existing pavement.

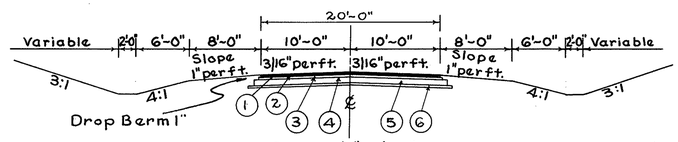
Scale 1" = 20'

ESTIMATED QUANTITIES

*	E-1	Roadway Excavation	1312 C.Y.
*	E-1	Roadway Embankment	14 C.Y.
	T-35	1 1/2" Asphaltic Concrete Surface Course	19.7 C.Y.
	B-35	1 1/4" Asphaltic Concrete Leveling Course	16.4 C.Y.
	B-35	2 3/4" Asphaltic Concrete Base Course	36.9 C.Y.
	B-119	8" Crushed Aggregate	112.2 C.Y.
	I-22	3" Subbase	43.9 C.Y.
	I-9	Stone Underdrain	100.0 L.F.
*	L-9	Seeding	2516 S.Y.
	T-30	Bituminous Prime Coat	169 Gal.
	E-1	Compacted Subgrade	473 S.Y.

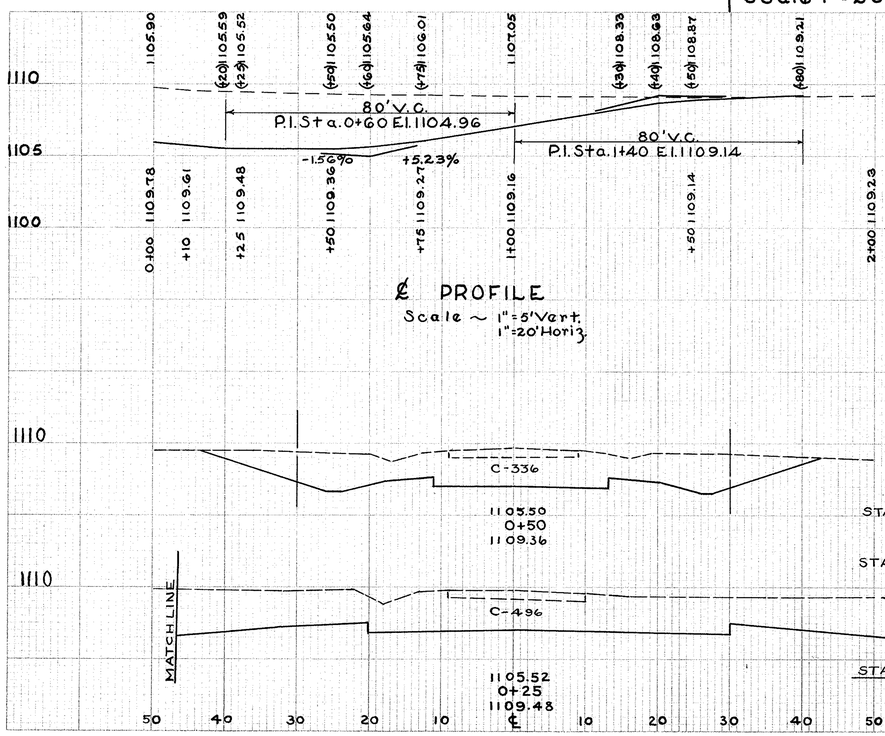
* NOTE: Earthwork and Seeding Quantities carried to Cross Sections.

TYPICAL SECTION



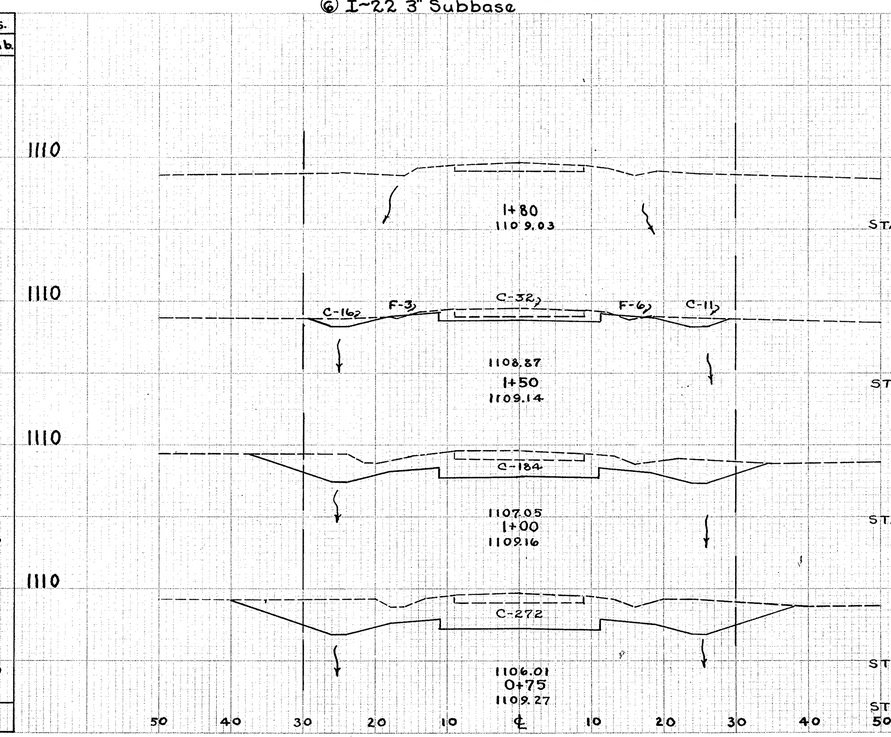
Scale 1/8" = 1'-0"

① T-35 1 1/2" Asphaltic Concrete Surface Course Type A (70-85)
② B-35 1 1/4" Asphaltic Concrete Leveling Course (70-85)
③ B-35 2 3/4" Asphaltic Concrete Base Course (70-85)
④ T-30 Bituminous Prime Coat
⑤ B-119 8" Crushed Aggregate Base Course
⑥ I-22 3" Subbase



℄ PROFILE
Scale ~ 1" = 5' Vert.
1" = 20' Horiz.

	Seeding		End Area		Cu. Yds.	
	L.F	S.Y.	Cut	Fill	Exc.	Emb.
STA. 0+50	63		336	0		
		62.8			385	0
STA. 0+25	50		496	0		
		78			176	
STA. 0+12	58		236	0		0
TOTAL		2516			1312	14



	Seeding		End Area		Cu. Yds.	
	L.F	S.Y.	Cut	Fill	Exc.	Emb.
STA. 1+80	0		0	0		
		55			33	5
STA. 1+50	33		59	9		
		461			225	9
STA. 1+00	50		184	0		
		611			211	0
STA. 0+75	60		272	0		
		683			282	0
STA. 0+50	63		336	0		

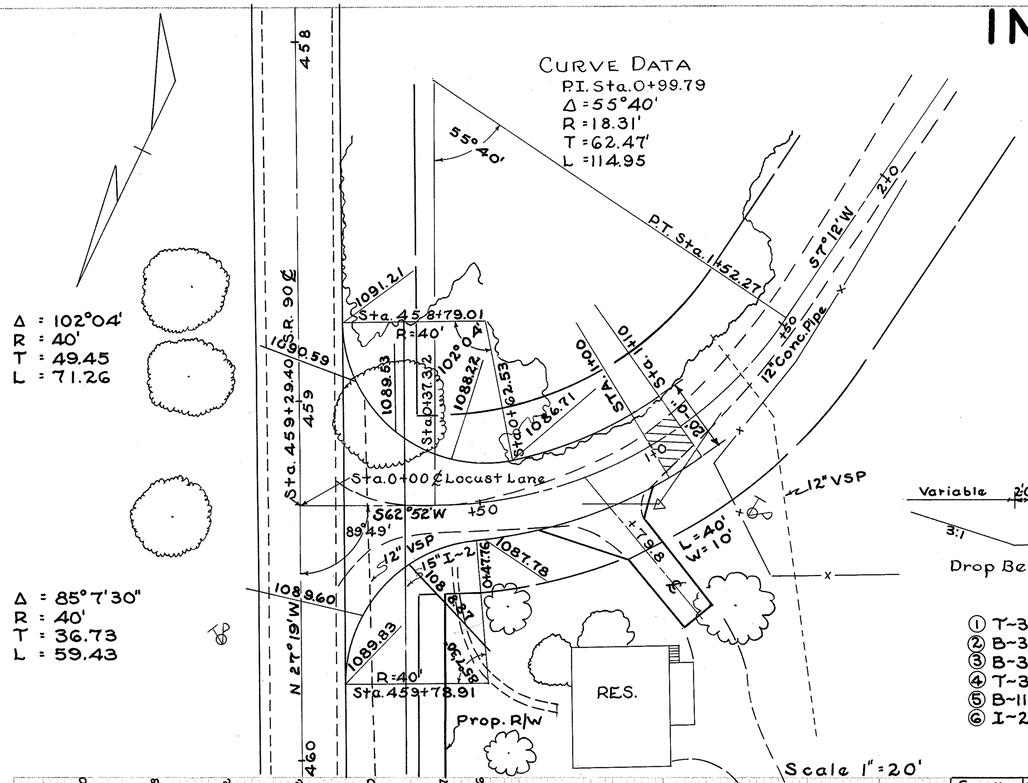
INTERSECTION DETAIL C.H. 94

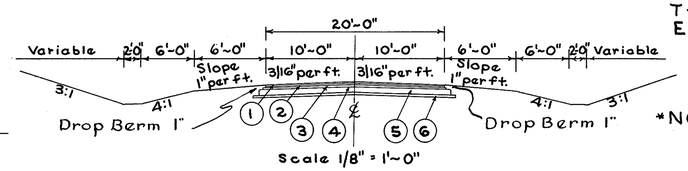
INTERSECTION DETAIL

STA. 459+29.40 LOCUST LANE

FED. NO. DIVISION	STATE	PROJECT		34
2	OHIO			

MAH. 90 - 7.87



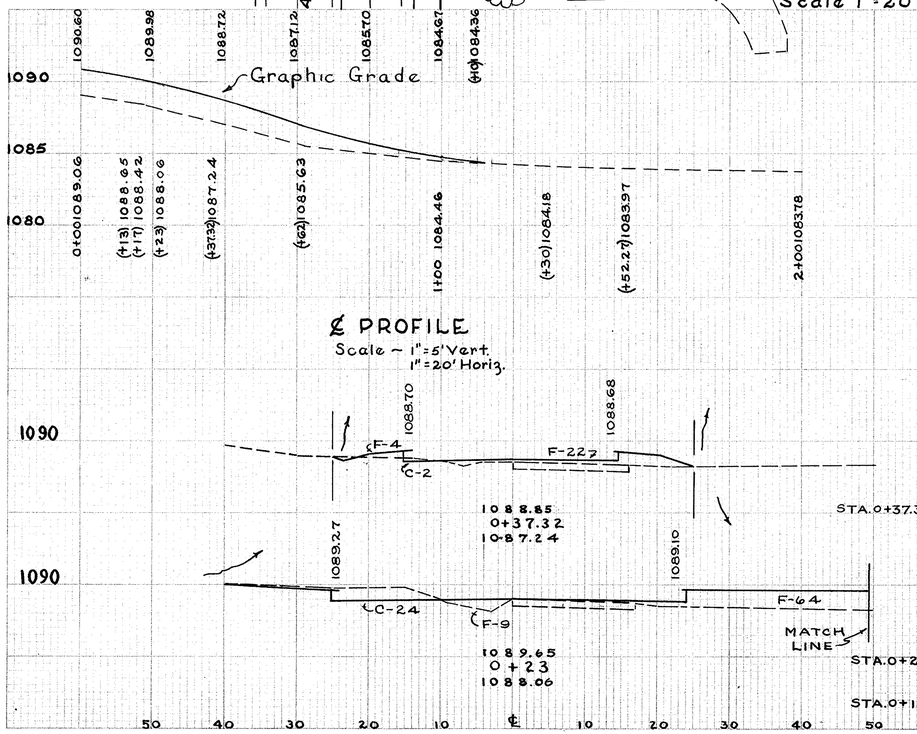


① T-35 1½" Asphaltic Concrete Surface Course Type A (70-85)
② B-35 1¼" Asphaltic Concrete Leveling Course (70-85)
③ B-35 2¾" Asphaltic Concrete Base Course (70-85)
④ T-30 Bituminous Prime Coat
⑤ B-119 8" Crushed Aggregate Base Course
⑥ I-22 3" Subbase

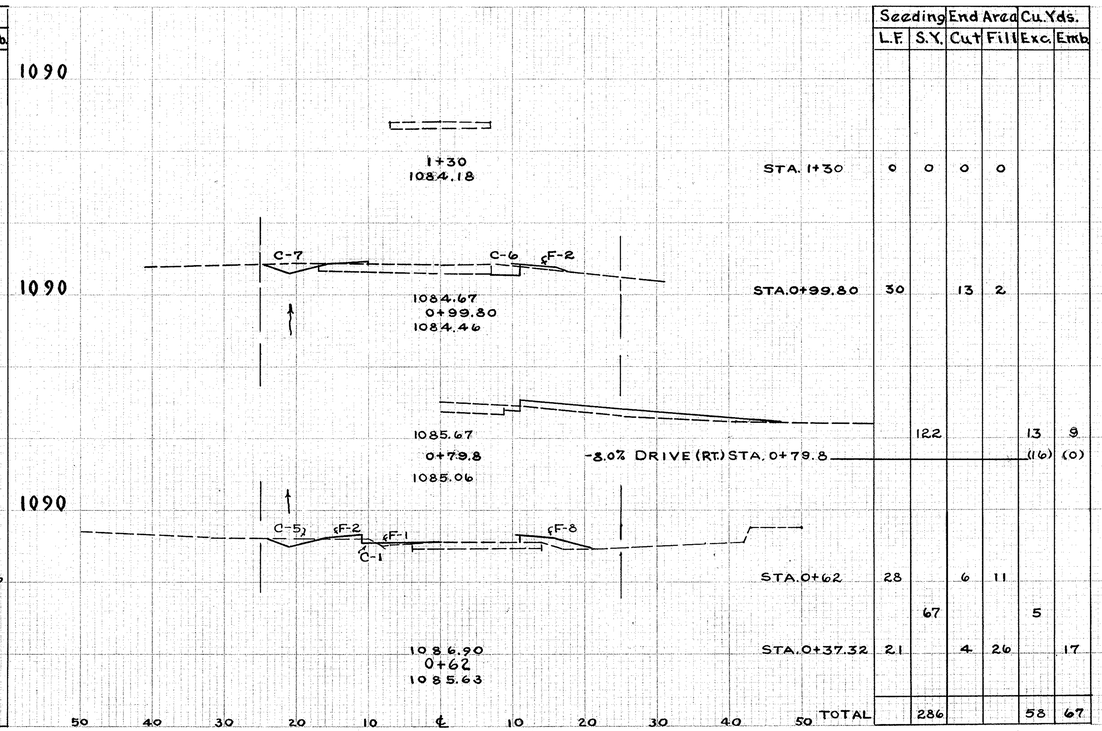
ESTIMATED QUANTITIES

*E-1	Roadway Excavation	58	C.Y.
*E-1	Roadway Embankment	67	C.Y.
T-35	1½" Asphaltic Concrete Surface Course	12.7	C.Y.
B-35	1¼" Asphaltic Concrete Leveling Course	10.4	C.Y.
B-35	2¾" Asphaltic Concrete Base Course	21.5	C.Y.
B-119	8" Crushed Aggregate Base Course	59.0	C.Y.
I-22	3" Subbase	20.8	C.Y.
I-9	Stone Underdrain	100.0	L.F.
*L-9	Seeding	2.86	S.Y.
T-30	Bituminous Prime Coat	93	Gal.
E-1	Compacted Subgrade	2.89	S.Y.

*NOTE: Earthwork and Seeding Quantities carried to Cross Sections.



	Seeding		End Area		Cu. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
STA. 0+37.32	21		4	26		
		49			7	26
STA. 0+23	40		24	73		
		48			17	15
STA. 0+12	38		57	2		



	Seeding		End Area		Cu. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
STA. 1+30	0	0	0	0		
STA. 0+99.80	30		13	2		
		122			13	9
-8.0% DRIVE (RT.) STA. 0+79.8					(16)	(0)
STA. 0+62	28		6	11		
		67			5	
STA. 0+37.32	21		4	26		17
TOTAL		286			58	67

INTERSECTION DETAIL ⇔ LOCUST LANE

DRAINAGE STRUCTURE C-1 BRIDGE NO. MAH.-90-0829

STA. 0+30 C.H. 94
SURVEYED BY C.K.

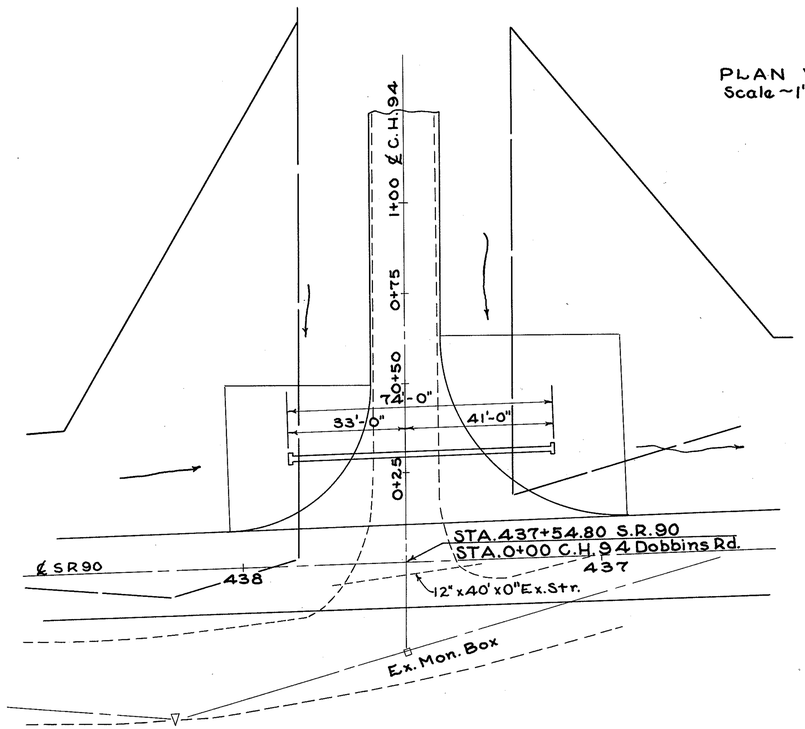
DRAINAGE AREA-1 ACRE
DRAWN BY W.G.S.-CHECKED BY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

35

MAH. 90 ~ 7.87

PLAN VIEW
Scale ~ 1" = 20'-0"



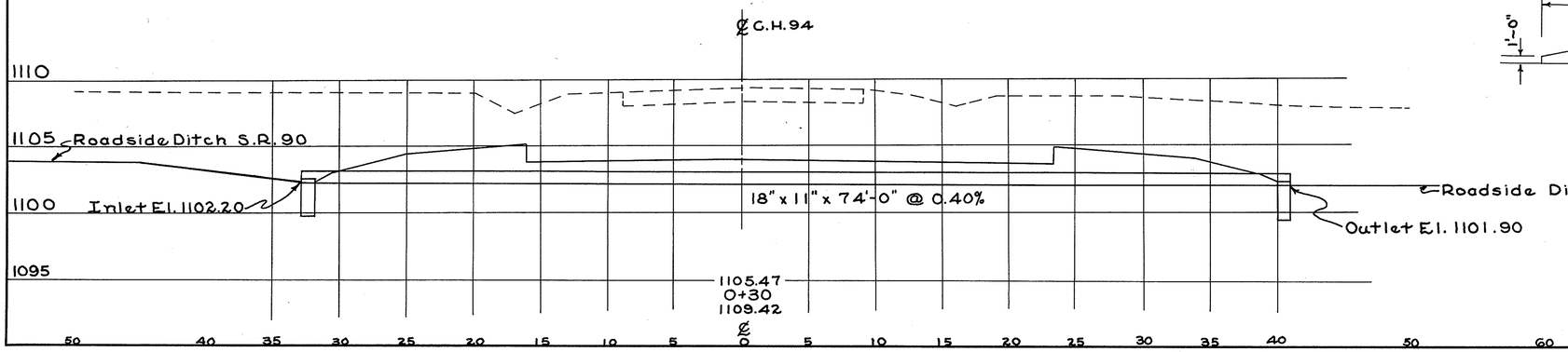
ESTIMATED QUANTITIES

E-2 Structure Excavation	14	C.Y.
S-1 Concrete End Walls (Class "E")	0.62	C.Y.
S-24 Removal Existing Structure		Lump Sum
S-27 18"x11" Corr. M.P. Arch M-6.4(d)	74	L.F.

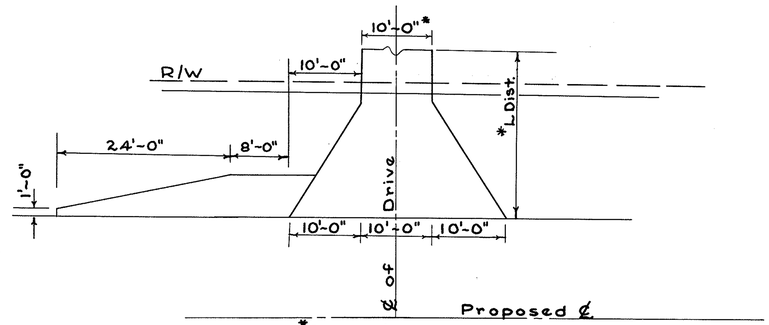
CULVERT DATA

DRAINAGE AREA ~ 1 Acre
TYPE: Standard Pipe Culvert
SIZE: 18"x11"x74'-0"
SKEW: 0°
STD. DWGS: S-27 P.C.3, S-27 P.C.4
WORK REQ. Remove the existing structure, 12" x 48'-0" VSP. Build 18"x11"x74'-0" Corr. M.P. Arch with end walls at both ends as shown.

CROSS SECTION VIEW
Scale ~ 1" = 5'-0"



DRIVEWAYS ~ TYPE 2 MODIFIED



*or as shown on plan

T-35 ~ 2" Asphaltic Concrete Surface Course
B-119 ~ 5" Crushed Aggregate Base Course

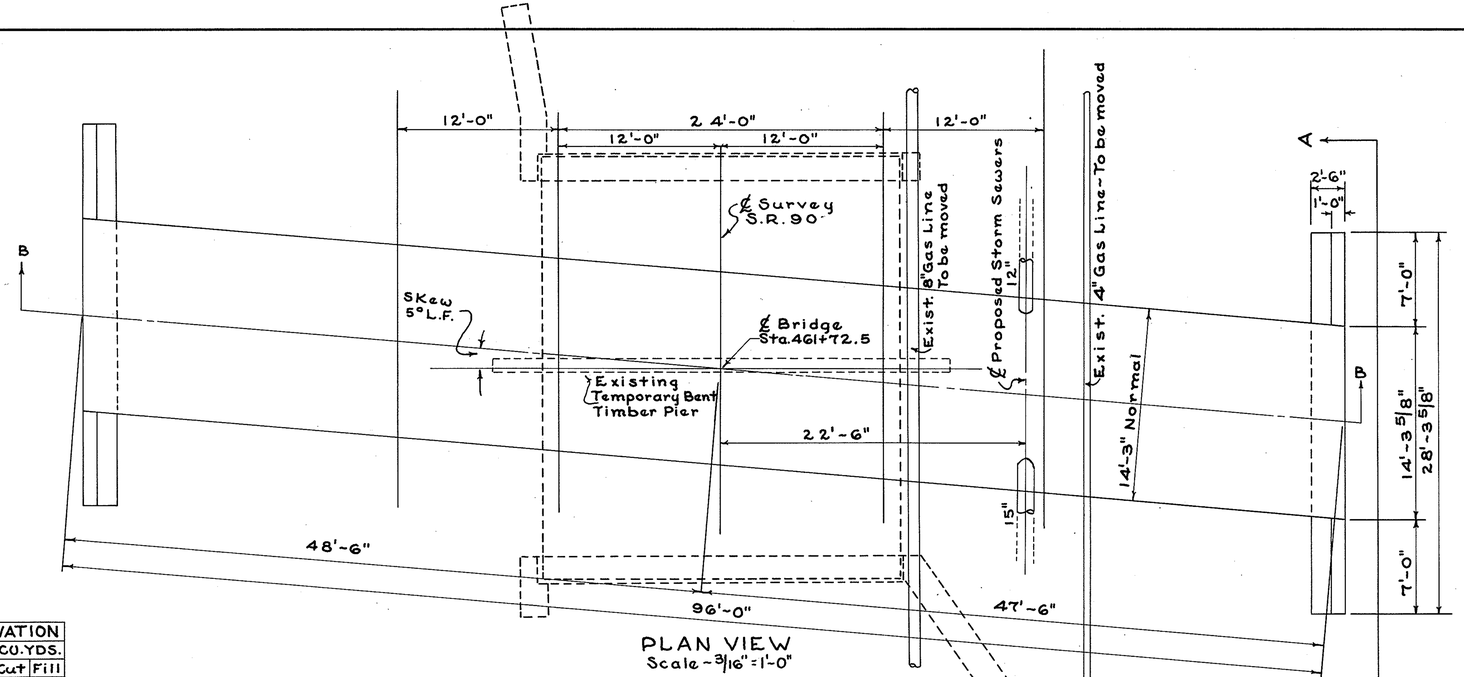
Note: All drives with a 12'-0" width as shown on the Plan are Standard Driveways. All the drives with a 10'-0" width as shown on the Plan are Type 2 Modified Driveways.

CULVERT C-1 & CONSTRUCTION DETAIL

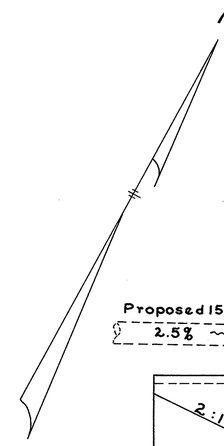
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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MAH.-90-7.87



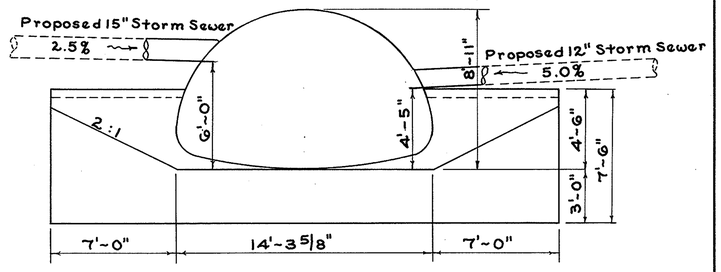
PLAN VIEW
Scale ~ 3/16" = 1'-0"



GENERAL NOTES (Cont'd)

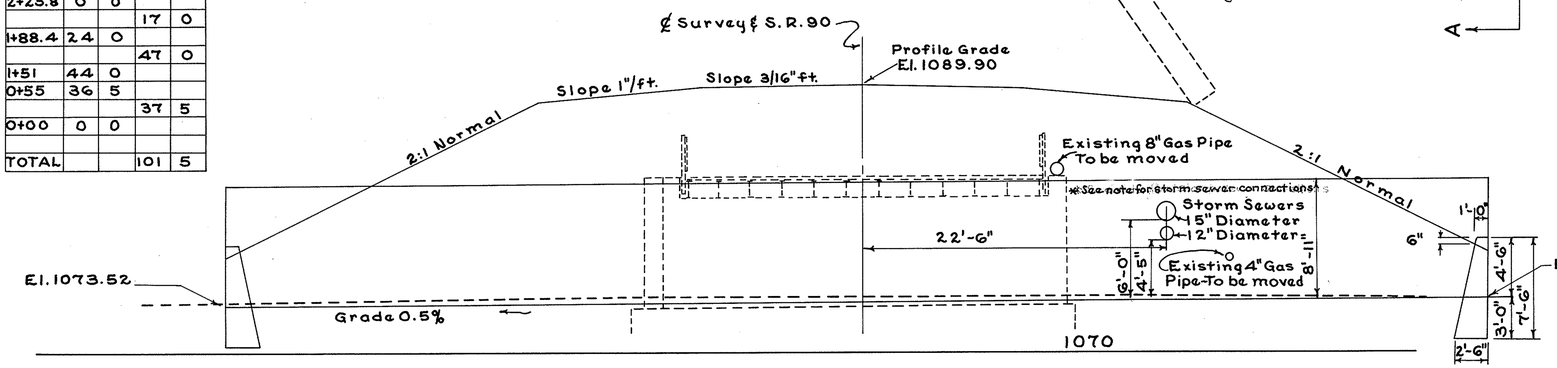
*SEWER PIPE CONNECTIONS: Connection of proposed 12" and 15" Storm Sewers to the S-28 structure shall be by means of a shop fabricated corrugated metal stub on the structure. The stubs shall have a minimum length of two feet. Payment for furnishing and placing the stubs is included in the unit price bid for the S-28 structure.

If concrete or vitrified pipe is furnished for the connecting storm sewers, connection to the stub shall be by means of a Class "E" concrete collar 12" long with a minimum thickness of 6". Payment for the collar is included in the unit price bid for the pertinent storm sewer items.

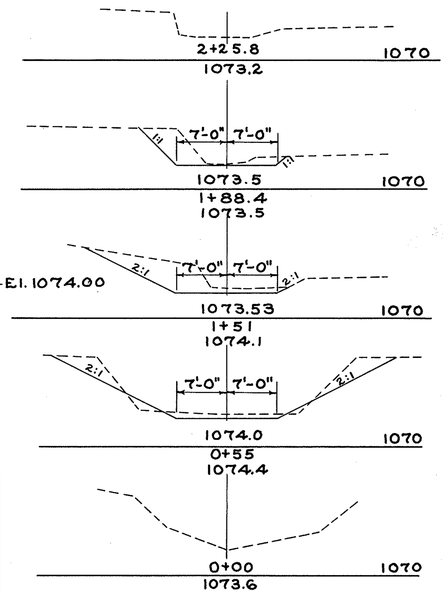


SECTION A-A
Scale ~ 1/4" = 1'-0"

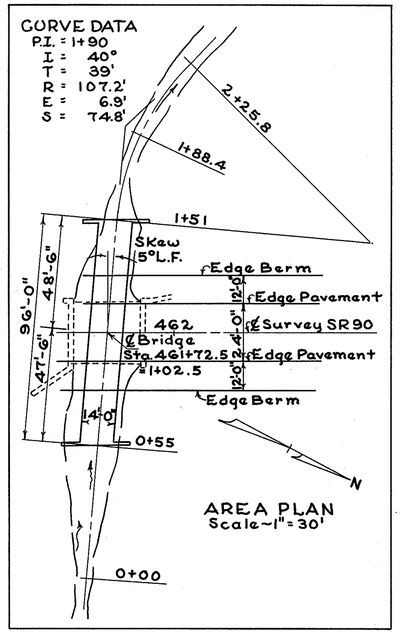
CHANNEL EXCAVATION				
	ENDAREA		CU.YDS.	
STA.	Cut	Fill	Cut	Fill
2+25.8	0	0		
			17	0
+88.4	24	0		
			47	0
1+51	44	0		
0+55	36	5		
			37	5
0+00	0	0		
TOTAL			101	5



SECTION B-B
Scale ~ 3/16" = 1'-0"



CHANNEL EXCAVATION



AREA PLAN
Scale ~ 1" = 30'

EXISTING BRIDGE DATA

TYPE : Steel Beam
SPAN : 1@14'-2" & 1@13'-8"
ROADWAY : 25'-8"
ALIGNMENT: Tangent
SKEW: None
LOADING: H-15
CONDITION: Good-To be removed

PROPOSED STRUCTURE

TYPE : Sectional Plate Pipe Arch
SIZE : 14'-3"(normal)x8'-11" x 96'-0"
ROADWAY: 44'-0" f/f Guard Rail
ALIGNMENT: Tangent
SKEW: 5° L.F.
LOADING : S-15
STD. DRWG: SP-53

GENERAL NOTES

SECTIONAL PLATES shall have 2" depth of corrugation. Bottom and corner plates shall be #5 gage, all other plates shall be #7 gage.

TOLERANCE: A tolerance of 1"± will be permitted in nominal span & height.

END WALLS: Pipe-arch shall be assembled and embankment over the top of the culvert placed to finished height before any work is done on end walls. Excavation shall then be made and the end walls constructed and backfilled.

REMOVAL OF EXISTING BRIDGE: Entire superstructure shall be removed. Masonry shall be removed to an extent that embankment can be placed and properly compacted in existing channel and to a minimum of 6" below finished ground line.

Existing 15" I-Beams, twelve in number, shall be carefully dismantled and placed along the right of way for disposal by State forces. Match marking will not be required.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	TOTAL	UNIT
E-2	Excavation for Structures	119	Cu.Yds.
E-3	Channel Excavation	101	Cu.Yds.
S-1	Concrete for Structures-Endwalls, Class "E"	20	Cu.Yds.
S-24	Removal of Existing Structure	Lump	Sum
S-28	14'-3" x 8'-11" Sectional Corrugated Metal Pipe-Arch Structure M-6.4(a)	96	Lin.Ft.

NOTE: Quantities Carried to Recapitulation Sheet No. 5.

DRAINAGE AREA ~ 1,013 ACRES
DESIGN DISCHARGE, Q25 = 570 c.f.s.

APPROVED

Dec. 17, 1951
DATE

COUNTY ENGINEER

By: Thomas Romanick
Deputy County Engineer.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES AND RAILROAD CROSSINGS

GENERAL PLAN, DETAILS, NOTES & QUANTITIES

BRIDGE NO. MAH-90-0874
OVER BRANCH OF BURGESS RUN
MAHONING COUNTY
STATE ROUTE 90 STA. 461 + 72.50

Designed	Drawn	Traced	Checked	Reviewed-Date	Revised-Date
J.H.B.	R.H.W.	B.P.B.	H.L.R.		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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MAH-90-7.87
1.3 Mi. ± S. of Poland

Foundation only
Building Collapsed

POT. STA. 422+44.89

800 Miles To Penna. State Line

8 mi. marker

Transition 2:1 to 4:1

End Appr. Slab
Sta. 424+91.88

+01.47

3'-6"

N 28° 47' W

3" Dia Pipe on Bridge

Elev. 1083.7±

30° Skew

Burgess Run

Begin Appr. Slab
Sta. 426+04.12

+20.22

6.23'

3'-6"

Proposed & Survey ℄

132 Miles to City of Poland South Corp. Line

34.33'

+15.78

6.84'

1095.17

Elev. 1083.7±

1087.31
1087.5
1087.3
1088.8
1088.7
1088.6
1088.5
1088.3
1087.6
1087.8
1089.6
1089.7
1089.0
1090.5
1095.17
1099.01

Res.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil / sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

℄ Survey ℄
Spike in Pav't El. 1109.04
52.63'
53.53'
2-Sty. Fr. Res.
P.O.T. Sta. 422+44.89

NOTE: SLM = 0805 at Sta. 425+00

B.M. S.W. Corner of S.E. Wingwall of Exist. Bridge MAH-90-0805 El. 1094.280

Sta. 424+91.88

Sta. 426+04.12

BRIDGE LIMITS

℄ Survey ℄
85.15'
31.75'
Hub
58.01'
Existing Bridge
Ground El. 1088.2
P.O.T. Sta. 426+00

Clears assumed 10-15 yr. H.W. 9.2' ±

DRAINAGE AREA - 6.2 Sq. Mi.

EXISTING BRIDGE DATA

TYPE: Thru Plate Girder
SPAN: 43'-8"
ROADWAY: 22'-0"
LOADING: S-9.1-46 Suff. Rating-57
CONDITION: Fair
SKEW: 5° L.F. Stream 30°
To be removed

PROPOSED STRUCTURE

TYPE: Continuous reinf. conc. slab with capped pile substructure.
SPAN: 34'-42.5'-34' % brgs.
ROADWAY: 44'-0" °/f guard rails.
LOAD FREQUENCY: CF = 400(57)
SKEW: 30° L.F.
WEARING SURFACE: 1" Mono. Conc.
APPR. SLABS: AS-1-54 (25' long)
ALIGNMENT: Tangent

	423			424		425	426	427	
1120	1111.09	1110.38	1109.65	1108.90	1108.15	1107.40	1106.65	1105.15	1104.42
1110	-50	-25						+50	+75
1100					-3.0%				
1090	800 V.C.								
1080	+1% – 3.0%		NP5D=539						
1070	P.I. Sta. 419+00 Elev. 1121.65		P5D=850						
			1106.0				1100.07	1091.5	1088.2

Estimated average pay length of 12 BP53:
Forward abutment 35'
Rear abutment 25'
Forward Pier 40'
Rear Pier 36'

Assumed 10-15 yr. H.W. Elev. 1090.0 ±

Excavate thru structure to Elev. 1083.7 ±

PROFILE ON PROPOSED CENTER LINE

	427								
1120	1103.73	1103.09	1102.45	1101.92	1101.39	1100.91	1100.47	1100.07	1099.72
1110	+25	-50	+75			+25	-50	+75	600' V.C. +25
1100									
1090									
1080									
1070									
									1088.4

Bench Elev. 1099.7 ±
Bench Elev. 1097.2 ±
PI Sta. 427+50
3.5 D 650
Elev. 1096.15
-3.00%
+0.97%
2:1 (Norm.)
1936 High Water El. 1091.67
Normal Water El. 1086.9
℄ El. 1083.7
℄ Sta. 425+47.5 Yr. to 10 Yr. High Water El. 1089.2

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. MAH-90-0805
OVER BURGESS RUN
MAHONING CO. S.R. 90
SEC. MAH-90-7.90 STA. 424 + 91.88
426 + 04.12
SCALE 1" = 20'

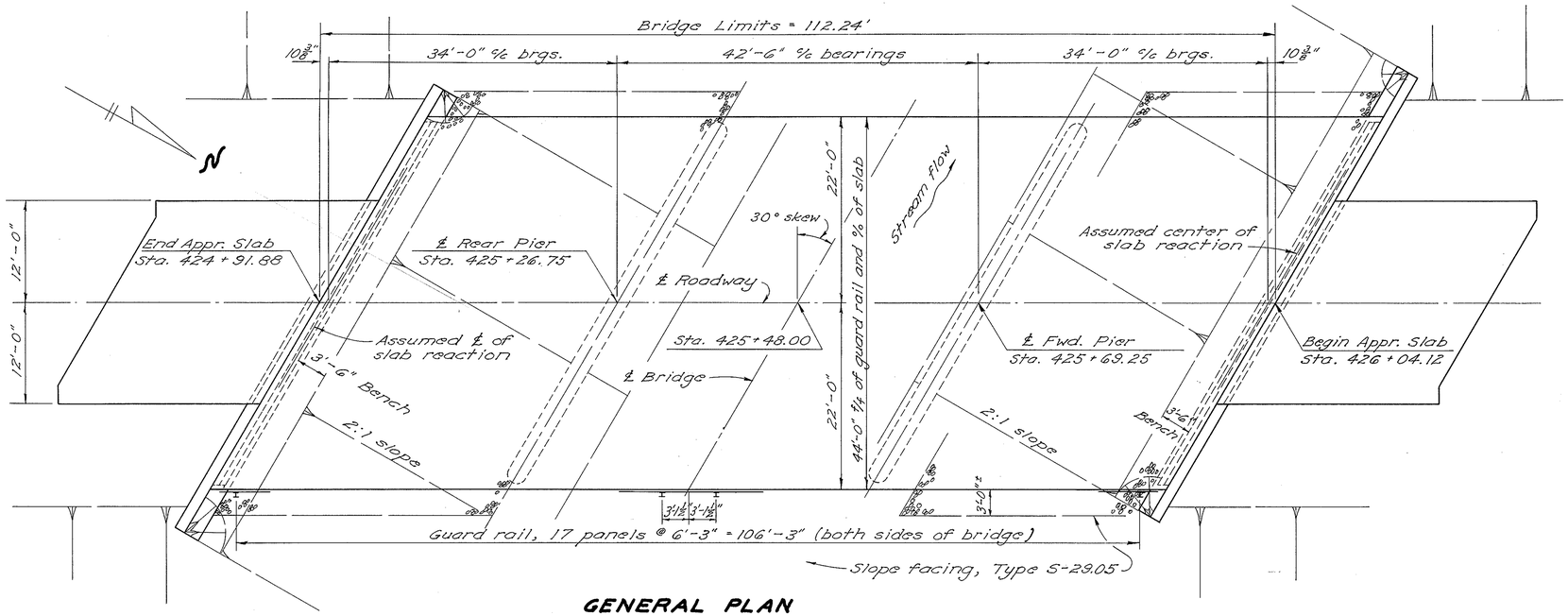
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Aerial Survey	Aerial Survey	B.D.H.	B.D.H.	J.W.B.	P.E.S.

BFG
2-25-58

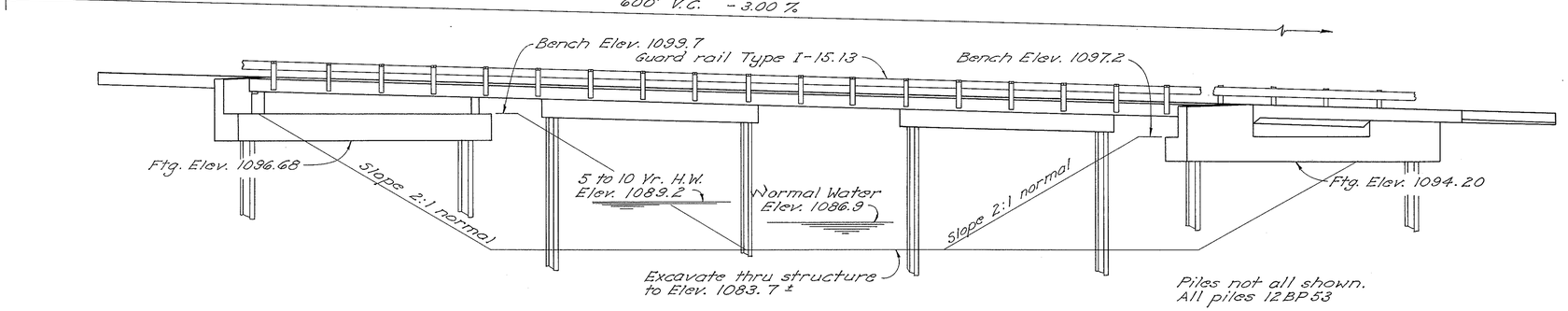
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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MAH-90-7.87



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Superstr.	Abuts.	Piers	General		
E-2	70	cu.yd.	Unclassified excavation		70				
E-3	360	cu.yd.	Channel excavation				360		
S-1	306	cu.yd.	Class "C" concrete, superstructure and pier caps	288		18			
S-1	66	cu.yd.	Class "E" concrete, abutments		66				
S-4	80,782	lb.	Reinforcing steel	70,127	6,507	4,148			
S-14	224.48	lin.ft.	Railing (Type I-15.13 with galvanized steel posts and bolts)	224.48					
S-16	lump	sum	First test pile				lump		
S-18	1160	lin.ft.	Steel piles, 12BP53		480	680			
S-24	lump	sum	Removal of existing structure				lump		
S-29	24	cu.yd.	Porous backfill		24				
S-29	125	cu.yd.	Slope facing (Type S-29.05)				125		

GENERAL NOTES

REFERENCE shall be made to Standard Drawings A-1-54 and P-1-54 revised 12-1-54 and to CS-1-54 Sheets 1 and 2 revised 7-16-56.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. Structural steel to be carefully dismantled and piled along the right-of-way for disposal by the State's forces, shall consist of three 20 in. I floor beams and the 8 in. I floor joists. Match marking is not required. The Contractor shall cooperate with the owner of the 9" pipe on the existing bridge in carrying out the removal or relocation of the pipe.

PILES shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

For the abutment piles:
35 tons per pile using a 7000 ft. lb. hammer
30 tons per pile using a 11000 ft. lb. hammer
30 tons per pile using a 15000 ft. lb. or greater hammer

For the pier piles:
50 tons per pile using a 11000 ft. lb. hammer
45 tons per pile using a 15000 ft. lb. or greater hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 30 tons per pile for the abutment piles and 42 tons per pile for the pier piles.

PIER PILE ENCASEMENT as shown on Std. Dwg. P-1-54 is not required. The painting of the piles shall extend to low water elevation, or if the proposed surface of the ground is above low water, it shall extend to at least one foot below the proposed surface of the ground.

SLOPE FACING (Type S-29.05) shall be provided under the structure at both abutments. The porous drain material shall be 12" thick and shall extend from the face of the abutment down to Elev. 1086.9 and transversely to 3 ft. outside the edge of the superstructure.

CHANNEL EXCAVATION quantity shown is based on computations using contours appearing on site plan (Sht. 37). Final payment will be made on quantity computed from cross-sections taken before and after execution of this work item.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

GENERAL PLAN, ELEVATION, NOTES and ESTIMATED QUANTITIES

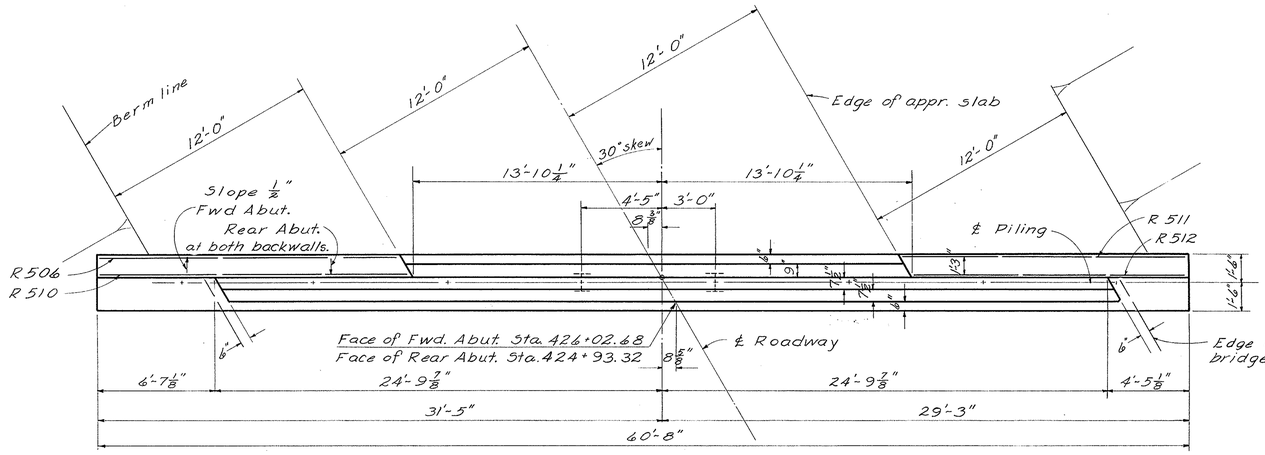
Bridge No. MAH-90-0805
over Burgess Run
Sta. 424+91.88
Sta. 426+04.12
Mahoning County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.	J.G.	Prose	E.B.L.	BFG	2-25-58	

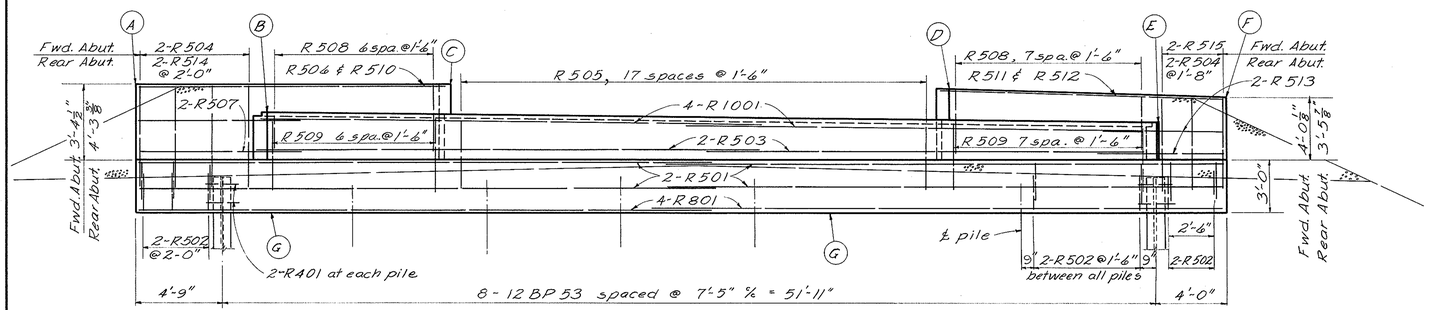
ON IMPERIAL TRACING CLOTH. FORM NO. BR-23

FED. RD. DIVISION	STATE	PROJECT		39
2	OHIO			

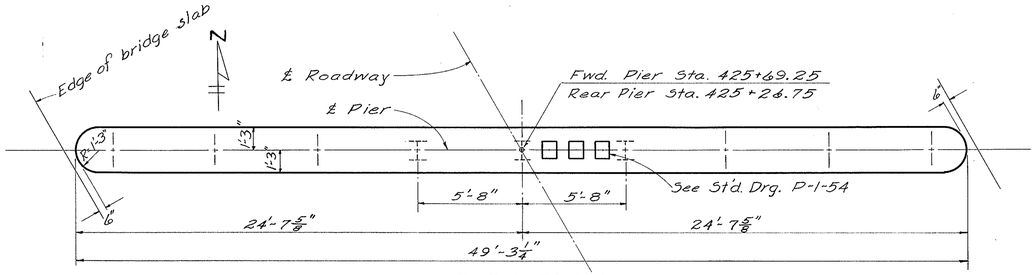
MAH-90-7.87



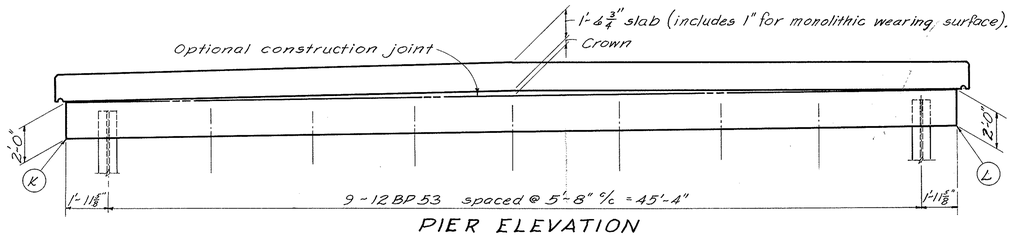
ABUTMENT PLAN



ABUTMENT ELEVATION



PIER PLAN

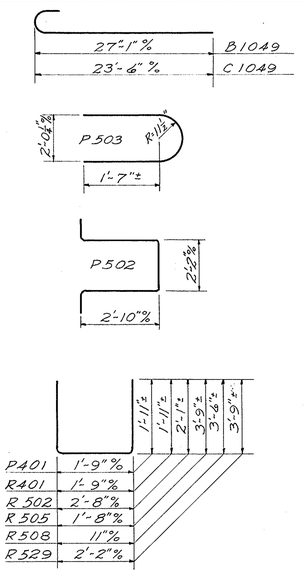


PIER ELEVATION

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp
Superstructure				
A1049	117	39'-4"	19,801	S
B1049	38	28'-6"	4,660	B
C1049	38	24'-11"	4,075	B
D1049	19	25'-10"	2,112	S
E1049	19	18'-4"	1,499	S
F1049	88	35'-6"	13,443	S
G1049	44	20'-5"	3,866	S
H1049	42	16'-0"	2,892	S
J 601	46	22'-1"	1,526	S
K 601	23	11'-4"	391	S
M 701	103	50'-3"	10,579	S
N 601	70	50'-3"	5,283	S
Pier Caps				
P401	72	5'-5"	260	B
P501	4	46'-9"	195	S
P502	68	9'-0"	638	B
P503	8	6'-4"	53	B
P901	8	46'-9"	1,272	S
P1001	8	50'-3"	1,730	S

Bending Diagram



Mark	No.	Length	Weight	Shp
Abutments				
R401	64	5'-5"	232	B
R501	16	31'-0"	517	S
R502	160	6'-7"	1098	B
R503	8	25'-6"	213	S
R504	14	4'-11"	72	S
R505	36	8'-11"	335	B
R506	2	16'-6"	34	S
R507	8	8'-6"	71	S
R508	30	7'-8"	240	B
R509	30	9'-5"	295	B
R510	2	17'-0"	35	S
R511	2	15'-8"	33	S
R512	2	15'-2"	32	S
R513	8	6'-3"	52	S
R514	8	5'-9"	48	S
R515	6	5'-5"	34	S
R801	16	31'-5"	1342	S
R1001	16	26'-6"	1824	S
Replacement Bars				
RE401	1	5'-5"	-	B
RE501	1	5'-7"	-	S
RE601	1	5'-11"	-	S
RE701	1	6'-2"	-	S
RE801	1	6'-8"	-	S
RE901	1	6'-10"	-	S
RE1001	3	7'-2"	-	S

REPLACEMENT BARS: If the bars are fabricated from stock that has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 3-4.02 need not be furnished and replacement bars will not be required.

ELEVATIONS

Point	A	B	C	D	E	F	G
Fwd. Abut.	1100.58	1099.20	1100.99	1101.26	1099.69	1101.21	1094.20
Rear Abut.	1103.96	1102.36	1103.96	1103.58	1101.68	1103.17	1096.68

	K	L
Fwd. Pier	1097.88	1098.42
Rear Pier	1098.84	1099.46

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

ABUTMENT AND PIER DETAILS REINFORCING STEEL LIST

BRIDGE No. MAH-90-0805 OVER BURGESS RUN

MAHONING COUNTY STA. 424+91.88 to 426+04.12

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVI
J.Y.	J.Y.	J.E.P.	E.B.L.	BFG	2-25-58	

MAH-180

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

1/4

MAH ~~90~~ - 7.87

~~180~~ 170

N A°12'E

W.B. SPITLER VOL. 21 No. 1 ALLOT. Pg. 96

POLAND TIN TOWNSHIP R1W

RUTH FLICKINGER

JOHN G. MARRIE AND MARY CATHERINE MARRIE

Note:- The purchase of property rights, including Lot #1, from the Marries by the State was in process, but incomplete when the sale of Lot #1 to the Watsons was made. Therefore a release from the Watsons must be had before the check for $600.00 can be delivered to the Marries.

Limitation of Access

J. & M. MARRIE PLAT No. 1 Vol. 45 P. 168

Lot No. 1

David G. Watson & Marian E. Watson 0.977 Ac.

EDWARD V. BURR AND JEANETTE H. BURR

JOHN G. MARRIE AND MARY CATHERINE MARRIE

VIRGINIA R. RITZLER ISABELLE G. ALLISON

0.23 Ac.

Lot No. 5 — Lot No. 6 — Lot No. 4

ERMA KARIHER — EVELINE FLICKINGER

Spitler Rd. — C.H. 258

G.L. #19 — G.L. #29

BEGIN SHEET STA. 412+00

END SHEET STA. 424+00

ANNA M. CONNER

VIRGINIA R. RITZLER ISABELLE G. ALLISON

M. F. DREYER AND KATHERINE DREYER

THERESA C. WILSON

G.L. #19 G.L. #29 Sta. 414+92.93

P.O.T. STA. 422+44.89

Limitation of Access

CURVE DATA
P.I. STA. 434+44.89
Δ = 2°00' LT.
D = 0°28'
R = 12,277.67'
T = 214.31'
L = 428.57'
E = 1.87'
1.63 Ac

POLAND TIN TOWNSHIP R1W

OHIO WATER SERVICE CO.

Wooded Area

PROPOSED ℄ S.R. 90

℄ SURVEY

BRIDGE No. MAH.-90-0805

BURGESS RUN

BEGIN SHEET STA. 424+00

END SHEET STA. 436+00

P.C. STA. 432+30.58

JOSEPH CHARNIGA JR. AND BETTY D. CHARNIGA

CHARLES A. BARTH AND EDNA J. BARTH AND EDWARD R. BARTH AND EDITH R. BARTH

0.65 Ac

0.14 Ac

Parcel 4, 5, 8	Revised	8-25-59
Parcels 4, 5, 8	Boundaries Corrected	6-25-59
Parcels 4 PR, 8 PR	Revised	2-26-59
Pcls. 3, 9 & 10, life este, removed.		10-17-58
Owner 11	Rs Revised	9-4-58

RIGHT OF WAY SHEET STA. 412+00 TO STA. 436+00

170-MAH-7.87

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

LOCATION PLAT

YOUNGSTOWN - PITTSBURG ROAD

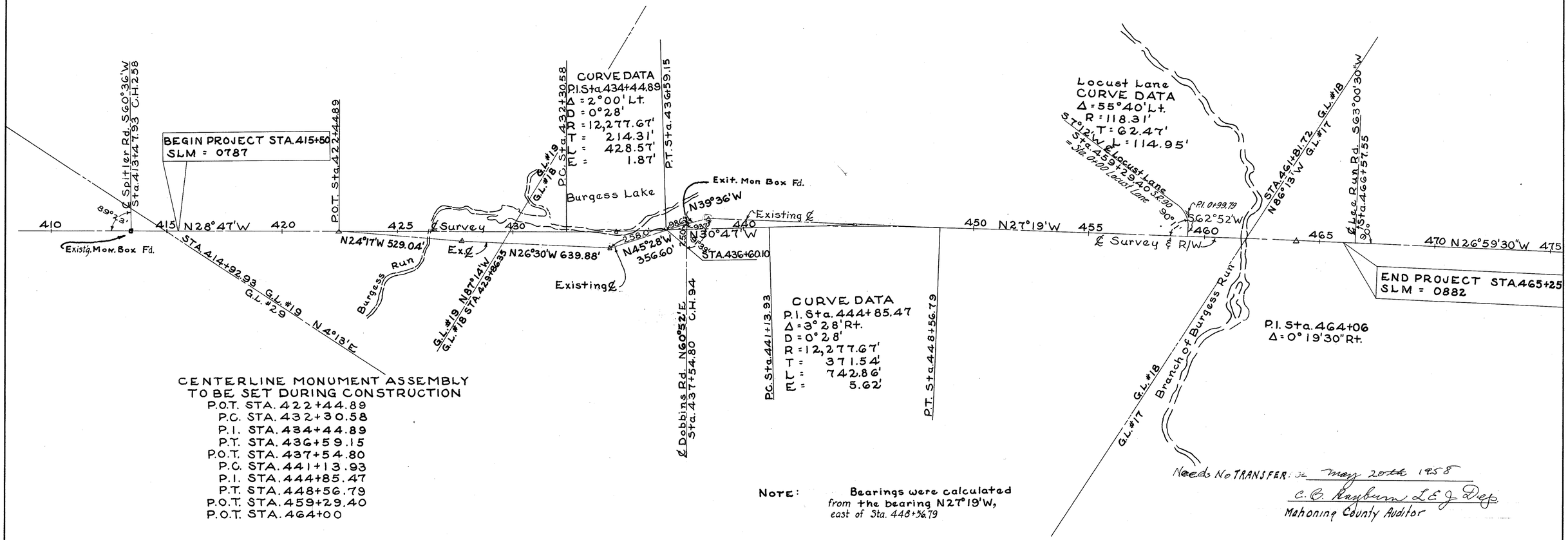
MAH - 90 - 7.87

MAHONING COUNTY

POLAND TOWNSHIP

SCALE 1" = 200'

I HEREBY CERTIFY THIS PLAT TO BE CORRECT
W R Mallow 5-15-58
DIVISION DEPUTY DIRECTOR
STATE OF OHIO DEPARTMENT OF HIGHWAYS
RECEIVED FOR RECORD May 20 1958 1958
RECORDED May 21 1958 VOL 44 PAGE 19 - 9.05 AM
MAHONING COUNTY RECORDS
William D. Holt
RECORDER



CENTERLINE MONUMENT ASSEMBLY
TO BE SET DURING CONSTRUCTION

P.O.T. STA. 422+44.89
P.C. STA. 432+30.58
P.I. STA. 434+44.89
P.T. STA. 436+59.15
P.O.T. STA. 437+54.80
P.C. STA. 441+13.93
P.I. STA. 444+85.47
P.T. STA. 448+56.79
P.O.T. STA. 459+29.40
P.O.T. STA. 464+00

NOTE: Bearings were calculated from the bearing N 27°19'W, east of Sta. 448+56.79

Needs No TRANSFER: May 20th 1958
C. B. Rayburn L.E.J. Dep.
Mahoning County Auditor

8/10.5

COMPARED
BY

LOCATION PLAT

MAH.-170

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2/4

MAH-90-7.87

POLAND TOWNSHIP T1N R1W

G.L.#18

OHIO WATER SERVICE CO. (13)

BEGIN SHEET STA. 436+00

P.T. STA. 436+59.15

P.C. STA. 441+13.93

END SHEET STA. 448+00

℄ Dobbins Rd. +54.80 N. 60°52' E. C.H. 94

8" Gas Line

12" V.S.P.

18" Conc. P.

SL-1 0.01 Ac.

SL-2 0.01 Ac.

CURVE DATA
P.I. STA. 444+85.47
Δ = 3°28' Rt.
D = 0°28'
R = 12,277.67'
T = 371.54'
L = 742.86'
E = 5.62'

AUGUST J. PUSNIK AND PAULINE J. PUSNIK — LOT No. 17

CARL D. BARGER AND BERTHA R. BARGER — LOT No. 16

LINDEN PLAT No. 2 & REPLAT OF LOT No. 13 OF LINDEN PLAT No. 1 VOL. 38 PG. 170 — BERTHA LINDEN BARGER — LOT No. 13

LINDEN PLAT No. 1 VOL. 22 PG. 21

HARRY L. DAUGHERTY AND MARGARET DAUGHERTY — LOT No. 12 — LOT No. 11

GERALDINE ANNA WISEMAN — LOT No. 10

DAVID TREHARNE AND EDNA M. TREHARNE — LOT No. 9 — LOT No. 8

BOARD OF EDUCATION OF POLAND LOCAL SCHOOL DISTRICT (14) 0.59 Ac.

HERBERT LINDEN AND MARGARET LINDEN — LOT No. 15

LINDEN VOL. 32 PG. 282 REPLAT LOT No. 14

KIRTLAND WOOD SUBDIV. No. 7 VOL. 25 PG. 30 — LOT No. 10

DEDICATED RD.

SL 0.01 Ac. JOSEPH OSTOVICH & MARY OSTOVICH

American Tel. & Tele. Co. Underground Cable

MARTIN S. GETTIG AND EDITH M. GETTIG — SL-0.08 Ac.

CURVE DATA
Δ = 55°40'
R = 18.31'
T = 62.47'
L = 114.95

S7°12'W ℄ Locust Lane

KIRTLAND WOOD SUBDIV. No. 7 VOL. 25 PG. 30 — WARREN C. HEGG — LOT No. 9

BENJAMIN K. BILLINGS AND EDITH H. BILLINGS — 0.01 Ac.

Blacktop Dr.

Wooded Area

CECIL U. SOWERS — 0.05 Ac.

CLINTON P. STRABALA AND ANNA M. STRABALA — SL 0.01 Ac.

JOSEPH R. STANISLAW AND MARY F. STANISLAW — SL-0.01 Ac.

ROBERT O. LEWIS — SL-0.01 Ac.

VIRGINIA M. HANSON — SL-0.01 Ac.

HENRY FITZGERALD PUSSER AND JANET PUSSER

ROBERT O. LEWIS — 0.07 Ac. + 0.04 Ac.

Parcel 27 Revised	12-5-58
Parcel 26, 27SL Revised	6-6-58
Parcel 14 Revised	5-29-58
Parcel 24 Name Revised	Apr. 9, 1958
Bearing of ℄ Dobbins Rd. Revised	Apr. 9, 1958

RIGHT OF WAY SHEET STA. 436+00 TO STA. 460+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3/4

MAH.-90-7.87

POLAND TOWNSHIP
T1N R1W

G.L.#17

BEGIN SHEET STA. 460+00

END SHEET STA. 472+00

WARREN C. HEGG

37 0.19 Ac.
0.08 Ac.

38 0.02 Ac

39 0.03 Ac

40 0.05 Ac

41 0.01 Ac

42 ELMER J. GUTERBA

43 DONALD E. RAYBUCK AND VIRGINIA M. RAYBUCK

44 CARL J. PHELAN AND NAOMI D. PHELAN

45 KATHERINE L. SIMMONS AND MARTHA S. HERKINS

KENNETH W. BARNES AND ELIZABETH H. BARNES

KENNETH W. BARNES LOT No. 8

LOT No. 7

LOT No. 6 OF SIMMONS REPLAT OF LOTS 4,5 & 6 MAPLE VIEW ACRES VOL. 26 Pg. 261

MAPLE VIEW ACRES No. 1 V. 22 P. 240

P.I. STA. 464+06
Δ = 0°19'30" RT.

G.L.#18 STA. 461+81.75 N86°13'W +42.96 115.0

G.L.#18 G.L.#17

Branch of Burgess Run

Bridge No. MAH.-90-08.40

8" Gas Line

12" Gas Line

12" Cono. Pipe Water Line

N27°19'W

M.B. N2 6°58'30"W

G.L. N3°00'30"W 563.55

Elder Run Rd. +57.55

Sign

Dead Elm

Willow

Locust

Maples

Pines

Twin Pine

Birch

Elm

Tree

Sty. Fr. Hse.

1½ S. F. H.

2 S. F. H.

1½ Sty. Fr. Hse.

Rev. Parcel Nos. 37, 39, & 40 12/12/57
Added Parcel Nos. 37X, 39X & 40X "

RIGHT OF WAY SHEET STA. 460+00 TO STA. 472+00

SUMMARY OF ADDITIONAL R/W REQUIRED

FED. RD. DIVISION	STATE	PROJECT	SEC.
2	OHIO	MAH. -90	7.87

4 / 4

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
1	RUTH FLICKINGER	NONE		1	
2	ANNA M. CONNER	NONE		1	
3	VIRGINIA R. RITZLER &				
	ISABELLE G. ALLISON &				
4 PR	JOHN G. MARRIE & MARY CATHERINE MARRIE	NONE		1	See Pcl. 8 PR
4 WA-1	JOHN G. MARRIE &				DRIVE
4 WA-2	MARY CATHERINE MARRIE	NONE		1	DRIVE
5 WA	EDWARD V. BURR &				
	JEANETTE H. BURR	NONE		1	DRIVE
6 WA	M. F. DREYER &				
	KATHERINE DREYER	NONE		1	DRIVE
7	THERESA C. WILSON	NONE		1	
8 PR	JOHN G. MARRIE & MARY CATHERINE MARRIE	NONE		1	See Pcl. 4 PR
9	SEE PARCEL #3	0.23	YES	1	
10	SEE PARCEL #3	NONE		1	
11	JOESPH CHARNIGA JR. &				
	BETTY D. CHARNIGA	NONE		1	
12	CHARLES A. BARTH & EDNA J. BARTH &				
	EDWARD R. BARTH & EDITH R. BARTH	0.14		1-2	
13	OHIO WATER SERVICE COMPANY	1.63		1-2	
13 X	OHIO WATER SERVICE COMPANY	0.65		1-2	
13 WA	OHIO WATER SERVICE COMPANY	NONE		2	DRIVE
14	BOARD OF EDUCATION OF	0.59		2	
14 SL-1	POLAND LOCAL SCHOOL DISTRICT	0.01		2	
14 SL-2	" " "	0.01		2	

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
15	AUGUST J. PUSNIK &				
	PAULINE J. PUSNIK	NONE		2	
16	CARL D. BARGER &				
	BERTHA R. BARGER	NONE		2	
17 WA	BERTHA LINDEN BARGER	NONE		2	DRIVE
18 WA	HARRY L. DAUGHERTY &				
	MARGARET DAUGHERTY	NONE		2	DRIVE
19	GERALDINE ANNA WISEMAN	NONE		2	
20	DAVID TREHARNE &				
	EDNA M. TREHARNE	NONE		2	
21	HERBERT LINDEN &				
	MARGARET LINDEN	NONE		2	
22	OSCAR G. LINDEN	NONE		2	
23	ELMER JOHN LINDEN	NONE		2	
25	CECIL U. SOWERS	0.05		2	
26 WA	CECIL U. SOWERS	NONE		2	DRIVE

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
27	CLINTON P. STRABALA & ANNA M. STRABALA	0.01		2	
28 WA	CLINTON P. STRABALA &				
	ANNA M. STRABALA	NONE		2	DRIVE
29 SL	JOESPH OSTOVICH &				
	MARY OSTOVICH	0.01		2	
30 SL	MARTIN S. GETTIG &				
	EDITH M. GETTIG	0.08		2	
31 SL	JOESPH R. STANISLAW &	0.01		2	
31 WA	MARY P. STANISLAW			2	DRIVE
32 SL	ROBERT O. LEWIS	0.01		2	
32 WA	ROBERT O. LEWIS			2	DRIVE
33 SL	VIRGINIA M. HANSON	0.01		2	
33 WA	VIRGINIA M. HANSON			2	DRIVE
34 WA	HENRY FITZGERALD PUSSER &				
	JANET PUSSER	NONE		2	DRIVE
35 WA	WARREN C. HEGG	NONE		2	DRIVE
36	BENJAMIN K. BILLINGS &	0.01			
36 WA	EDITH H. BILLINGS	NONE		2-3	DRIVE
37	WARREN C. HEGG	0.19		3	
37 WA	WARREN C. HEGG			3	DRIVE
37 X	WARREN C. HEGG	0.08		3	

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
38	WARREN C. HEGG	0.02		3	
39	ROBERT O. LEWIS	0.07		2-3	
39 WA-1	ROBERT O. LEWIS			2	DRIVE
39 WA-2	ROBERT O. LEWIS			2	DRIVE
39 X	ROBERT O. LEWIS	0.04		3	
40	KENNETH W. BARNES &	0.05		3	
40 X	ELIZABETH H. BARNES	0.03		3	
41	KENNETH W. BARNES	0.01		3	
42	ELMER J. GUTERBA	NONE		3	
43	DONALD E. RAYBUCK &				
	VIRGINIA M. RAYBUCK	NONE		3	
44	CARL J. PHELAN &				
	NAOMI D. PHELAN	NONE		3	
45	KATHERINE L. SIMMONS &				
	MARTHA S. HERKINS	NONE		3	

Parcels 4 PR, 8 PR Added 5-4-59
Parcel 27 Revised 12-5-58
Parcels 28 WA, 27 SL Revised 6-6-58
Parcel 14 SL-2, 14 SL-1 Revised 5-29-58
OK 4-11-58

3 1 7 4

MAH-180

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

1/4

MAH ~~90~~ - 7.87

~~180~~ 170

N A°12'E

W.B. SPITLER VOL. 21 No. 1 ALLOT. Pg. 96

POLAND TIN TOWNSHIP R1W

RUTH FLICKINGER

JOHN G. MARRIE AND MARY CATHERINE MARRIE

Note:- The purchase of property rights, including Lot #1, from the Marries by the State was in process, but incomplete when the sale of Lot #1 to the Watsons was made. Therefore a release from the Watsons must be had before the check for $600.00 can be delivered to the Marries.

Limitation of Access

J. & M. MARRIE PLAT No. 1 Vol. 45 P. 168

Lot No. 1

David G. Watson & Marian E. Watson 0.977 Ac.

EDWARD V. BURR AND JEANETTE H. BURR

JOHN G. MARRIE AND MARY CATHERINE MARRIE

VIRGINIA R. RITZLER ISABELLE G. ALLISON

0.23 Ac.

Lot No. 5 — Lot No. 6 — Lot No. 4

ERMA KARIHER — EVELINE FLICKINGER

Spitler Rd. — C.H. 258

G.L. #19 — G.L. #29

BEGIN SHEET STA. 412+00

END SHEET STA. 424+00

ANNA M. CONNER

VIRGINIA R. RITZLER ISABELLE G. ALLISON

M. F. DREYER AND KATHERINE DREYER

THERESA C. WILSON

G.L. #19 G.L. #29 Sta. 414+92.93

P.O.T. STA. 422+44.89

Limitation of Access

CURVE DATA
P.I. STA. 434+44.89
Δ = 2°00' LT.
D = 0°28'
R = 12,277.67'
T = 214.31'
L = 428.57'
E = 1.87'
1.63 Ac

POLAND TIN TOWNSHIP R1W

OHIO WATER SERVICE CO.

Wooded Area

PROPOSED ℄ S.R. 90

℄ SURVEY

BRIDGE No. MAH.-90-0805

BURGESS RUN

BEGIN SHEET STA. 424+00

END SHEET STA. 436+00

P.C. STA. 432+30.58

JOSEPH CHARNIGA JR. AND BETTY D. CHARNIGA

CHARLES A. BARTH AND EDNA J. BARTH AND EDWARD R. BARTH AND EDITH R. BARTH

0.65 Ac

0.14 Ac

Parcel 4, 5, 8	Revised	8-25-59
Parcels 4, 5, 8	Boundaries Corrected	6-25-59
Parcels 4 PR, 8 PR	Revised	2-26-59
Pcls. 3, 9 & 10, life este, removed.		10-17-58
Owner 11	Rs Revised	9-4-58

RIGHT OF WAY SHEET STA. 412+00 TO STA. 436+00

MAH.-170

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2/4

MAH-90-7.87

POLAND TOWNSHIP T1N R1W

G.L.#18

OHIO WATER SERVICE CO. (13)

BEGIN SHEET STA. 436+00

P.T. STA. 436+59.15

P.C. STA. 441+13.93

END SHEET STA. 448+00

℄ Dobbins Rd. +54.80 N. 60°52' E. C.H. 94

8" Gas Line

12" V.S.P.

18" Conc. P.

SL-1 0.01 Ac.

SL-2 0.01 Ac.

CURVE DATA
P.I. STA. 444+85.47
Δ = 3°28' Rt.
D = 0°28'
R = 12,277.67'
T = 371.54'
L = 742.86'
E = 5.62'

AUGUST J. PUSNIK AND PAULINE J. PUSNIK — LOT No. 17

CARL D. BARGER AND BERTHA R. BARGER — LOT No. 16

LINDEN PLAT No. 2 & REPLAT OF LOT No. 13 OF LINDEN PLAT No. 1 VOL. 38 PG. 170 — BERTHA LINDEN BARGER — LOT No. 13

LINDEN PLAT No. 1 VOL. 22 PG. 21

HARRY L. DAUGHERTY AND MARGARET DAUGHERTY — LOT No. 12 — LOT No. 11

GERALDINE ANNA WISEMAN — LOT No. 10

DAVID TREHARNE AND EDNA M. TREHARNE — LOT No. 9 — LOT No. 8

BOARD OF EDUCATION OF POLAND LOCAL SCHOOL DISTRICT (14) 0.59 Ac.

HERBERT LINDEN AND MARGARET LINDEN — LOT No. 15

LINDEN VOL. 32 PG. 282 REPLAT LOT No. 14

KIRTLAND WOOD SUBDIV. No. 7 VOL. 25 PG. 30 — LOT No. 10

DEDICATED RD.

SL 0.01 Ac. JOSEPH OSTOVICH & MARY OSTOVICH

American Tel. & Tele. Co. Underground Cable

MARTIN S. GETTIG AND EDITH M. GETTIG — SL-0.08 Ac.

CURVE DATA
Δ = 55°40'
R = 18.31'
T = 62.47'
L = 114.95

S7°12'W ℄ Locust Lane

KIRTLAND WOOD SUBDIV. No. 7 VOL. 25 PG. 30 — WARREN C. HEGG — LOT No. 9

BENJAMIN K. BILLINGS AND EDITH H. BILLINGS — 0.01 Ac.

Blacktop Dr.

Wooded Area

CECIL U. SOWERS — 0.05 Ac.

CLINTON P. STRABALA AND ANNA M. STRABALA — SL 0.01 Ac.

JOSEPH R. STANISLAW AND MARY F. STANISLAW — SL-0.01 Ac.

ROBERT O. LEWIS — SL-0.01 Ac.

VIRGINIA M. HANSON — SL-0.01 Ac.

HENRY FITZGERALD PUSSER AND JANET PUSSER

ROBERT O. LEWIS — 0.07 Ac. + 0.04 Ac.

Parcel 27 Revised	12-5-58
Parcel 26, 27SL Revised	6-6-58
Parcel 14 Revised	5-29-58
Parcel 24 Name Revised	Apr. 9, 1958
Bearing of ℄ Dobbins Rd. Revised	Apr. 9, 1958

RIGHT OF WAY SHEET STA. 436+00 TO STA. 460+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3/4

MAH.-90-7.87

POLAND TOWNSHIP
T1N R1W

G.L.#17

BEGIN SHEET STA. 460+00

END SHEET STA. 472+00

WARREN C. HEGG

37 0.19 Ac.
0.08 Ac.

38 0.02 Ac

39 0.03 Ac

40 0.05 Ac

41 0.01 Ac

42 ELMER J. GUTERBA

43 DONALD E. RAYBUCK AND VIRGINIA M. RAYBUCK

44 CARL J. PHELAN AND NAOMI D. PHELAN

45 KATHERINE L. SIMMONS AND MARTHA S. HERKINS

KENNETH W. BARNES AND ELIZABETH H. BARNES

KENNETH W. BARNES LOT No. 8

LOT No. 7

LOT No. 6 OF SIMMONS REPLAT OF LOTS 4,5 & 6 MAPLE VIEW ACRES VOL. 26 Pg. 261

MAPLE VIEW ACRES No. 1 V. 22 P. 240

P.I. STA. 464+06
Δ = 0°19'30" RT.

G.L.#18 STA. 461+81.75 N86°13'W +42.96 115.0

G.L.#18 G.L.#17

Branch of Burgess Run

Bridge No. MAH.-90-08.40

8" Gas Line

12" Gas Line

12" Cono. Pipe Water Line

N27°19'W

M.B. N2 6°58'30"W

G.L. N3°00'30"W 563.55

Elder Run Rd. +57.55

Sign

Dead Elm

Willow

Locust

Maples

Pines

Twin Pine

Birch

Elm

Tree

Sty. Fr. Hse.

1½ S. F. H.

2 S. F. H.

1½ Sty. Fr. Hse.

Rev. Parcel Nos. 37, 39, & 40 12/12/57
Added Parcel Nos. 37X, 39X & 40X "

RIGHT OF WAY SHEET STA. 460+00 TO STA. 472+00

SUMMARY OF ADDITIONAL R/W REQUIRED

FED. RD. DIVISION	STATE	PROJECT	SEC.
2	OHIO	MAH. -90	7.87

4 / 4

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
1	RUTH FLICKINGER	NONE		1	
2	ANNA M. CONNER	NONE		1	
3	VIRGINIA R. RITZLER &				
	ISABELLE G. ALLISON &				
4 PR	JOHN G. MARRIE & MARY CATHERINE MARRIE	NONE		1	See Pcl. 8 PR
4 WA-1	JOHN G. MARRIE &				DRIVE
4 WA-2	MARY CATHERINE MARRIE	NONE		1	DRIVE
5 WA	EDWARD V. BURR &				
	JEANETTE H. BURR	NONE		1	DRIVE
6 WA	M. F. DREYER &				
	KATHERINE DREYER	NONE		1	DRIVE
7	THERESA C. WILSON	NONE		1	
8 PR	JOHN G. MARRIE & MARY CATHERINE MARRIE	NONE		1	See Pcl. 4 PR
9	SEE PARCEL #3	0.23	YES	1	
10	SEE PARCEL #3	NONE		1	
11	JOESPH CHARNIGA JR. &				
	BETTY D. CHARNIGA	NONE		1	
12	CHARLES A. BARTH & EDNA J. BARTH &				
	EDWARD R. BARTH & EDITH R. BARTH	0.14		1-2	
13	OHIO WATER SERVICE COMPANY	1.63		1-2	
13 X	OHIO WATER SERVICE COMPANY	0.65		1-2	
13 WA	OHIO WATER SERVICE COMPANY	NONE		2	DRIVE
14	BOARD OF EDUCATION OF	0.59		2	
14 SL-1	POLAND LOCAL SCHOOL DISTRICT	0.01		2	
14 SL-2	" " "	0.01		2	

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
15	AUGUST J. PUSNIK &				
	PAULINE J. PUSNIK	NONE		2	
16	CARL D. BARGER &				
	BERTHA R. BARGER	NONE		2	
17 WA	BERTHA LINDEN BARGER	NONE		2	DRIVE
18 WA	HARRY L. DAUGHERTY &				
	MARGARET DAUGHERTY	NONE		2	DRIVE
19	GERALDINE ANNA WISEMAN	NONE		2	
20	DAVID TREHARNE &				
	EDNA M. TREHARNE	NONE		2	
21	HERBERT LINDEN &				
	MARGARET LINDEN	NONE		2	
22	OSCAR G. LINDEN	NONE		2	
23	ELMER JOHN LINDEN	NONE		2	
25	CECIL U. SOWERS	0.05		2	
26 WA	CECIL U. SOWERS	NONE		2	DRIVE

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
27	CLINTON P. STRABALA & ANNA M. STRABALA	0.01		2	
28 WA	CLINTON P. STRABALA &				
	ANNA M. STRABALA	NONE		2	DRIVE
29 SL	JOESPH OSTOVICH &				
	MARY OSTOVICH	0.01		2	
30 SL	MARTIN S. GETTIG &				
	EDITH M. GETTIG	0.08		2	
31 SL	JOESPH R. STANISLAW &	0.01		2	
31 WA	MARY P. STANISLAW			2	DRIVE
32 SL	ROBERT O. LEWIS	0.01		2	
32 WA	ROBERT O. LEWIS			2	DRIVE
33 SL	VIRGINIA M. HANSON	0.01		2	
33 WA	VIRGINIA M. HANSON			2	DRIVE
34 WA	HENRY FITZGERALD PUSSER &				
	JANET PUSSER	NONE		2	DRIVE
35 WA	WARREN C. HEGG	NONE		2	DRIVE
36	BENJAMIN K. BILLINGS &	0.01			
36 WA	EDITH H. BILLINGS	NONE		2-3	DRIVE
37	WARREN C. HEGG	0.19		3	
37 WA	WARREN C. HEGG			3	DRIVE
37 X	WARREN C. HEGG	0.08		3	

PARCEL NO.	OWNER	AREA ACRES	EXIST BLDGS	SHEET NO'S.	REMARKS
38	WARREN C. HEGG	0.02		3	
39	ROBERT O. LEWIS	0.07		2-3	
39 WA-1	ROBERT O. LEWIS			2	DRIVE
39 WA-2	ROBERT O. LEWIS			2	DRIVE
39 X	ROBERT O. LEWIS	0.04		3	
40	KENNETH W. BARNES &	0.05		3	
40 X	ELIZABETH H. BARNES	0.03		3	
41	KENNETH W. BARNES	0.01		3	
42	ELMER J. GUTERBA	NONE		3	
43	DONALD E. RAYBUCK &				
	VIRGINIA M. RAYBUCK	NONE		3	
44	CARL J. PHELAN &				
	NAOMI D. PHELAN	NONE		3	
45	KATHERINE L. SIMMONS &				
	MARTHA S. HERKINS	NONE		3	

Parcels 4 PR, 8 PR Added 5-4-59
Parcel 27 Revised 12-5-58
Parcels 28 WA, 27 SL Revised 6-6-58
Parcel 14 SL-2, 14 SL-1 Revised 5-29-58
OK 4-11-58

3 1 7 4

170-MAH-7.87

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

LOCATION PLAT

YOUNGSTOWN - PITTSBURG ROAD

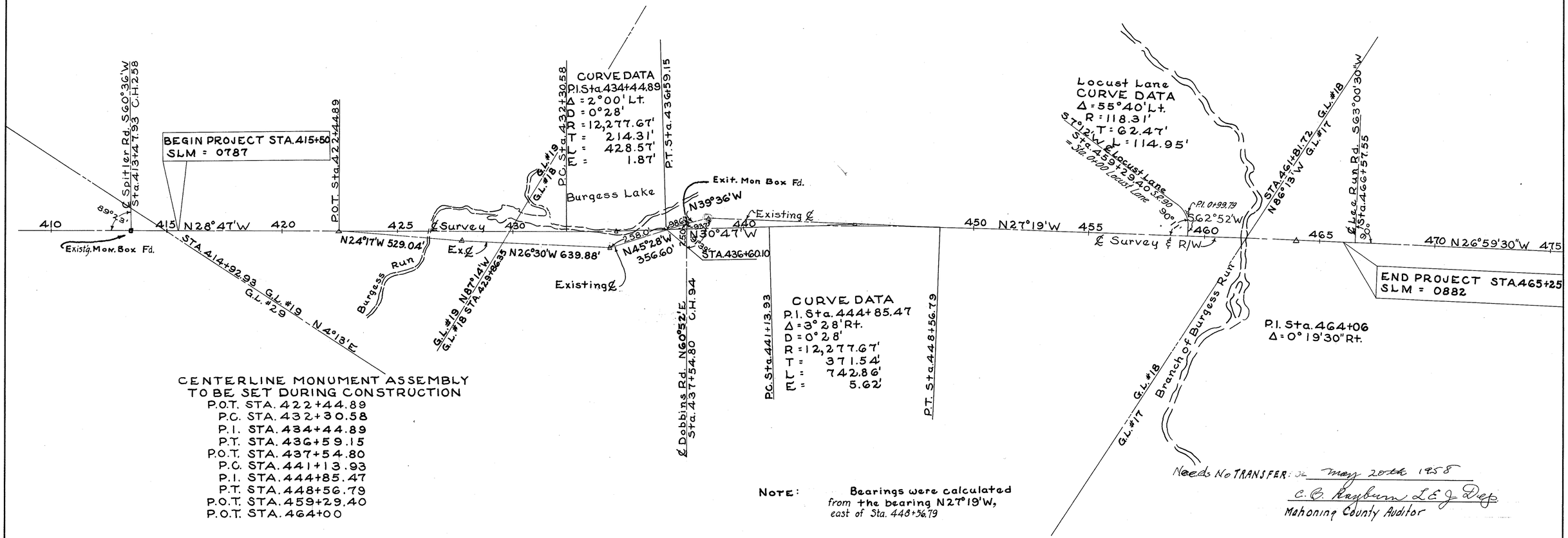
MAH - 90 - 7.87

MAHONING COUNTY

POLAND TOWNSHIP

SCALE 1" = 200'

I HEREBY CERTIFY THIS PLAT TO BE CORRECT
W R Mallott 5-15-58
DIVISION DEPUTY DIRECTOR
STATE OF OHIO DEPARTMENT OF HIGHWAYS
RECEIVED FOR RECORD May 20 1958 1958
RECORDED May 21 1958 VOL 44 PAGE 19 - 9.05 AM
MAHONING COUNTY RECORDS
William D. Holt
RECORDER



Needs No TRANSFER: May 20th 1958
C. B. Rayburn Ll & J Dep.
Mahoning County Auditor

8/10/58

COMPARED
BY

LOCATION PLAT

TE-84-A
10-5-56

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 63 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Coarse and fine sand	—	A-3a	8	12	47	28	5	NP	NP	19	2
Sandy silt	A-4 (4)	A-4a	15	8	21	37	19	20	5	14	52
Silt	A-4 (8)	A-4b	4	4	14	64	14	NP	NP	20	7
Elastic silt and clay with organic material	A-5 (8)	A-5	0	1	12	61	26	42	4	74	1
Silt and clay	A-6 (8)	A-6a	5	6	17	43	29	25	11	16	1

Sod & Topsoil = X'=Approximate depth.

Berm material

W Free water

Auger boring-plan view.

Auger boring plotted to vertical scale only.

● Water content nearly equal to or greater than liquid limit.

◉ This A-4a soil will be rubbery and unstable at water contents which exceed the optimum.

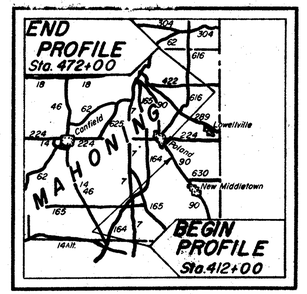
NOTE: Figures beside borings indicate water content in percent.

Samples Tested
Lab. Nos. So.
74138-74190 Incl.
68520-68531 Incl.

SOIL PROFILE
MAHONING COUNTY
MAH-90-7.87

STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.



LOCATION MAP

Recon - L.O.T. - 9-13-57
Drilling - R.W.W., D.J.H. - 9-24-57
Drafting - R.V.S. - 10-14-57

SUMMARY OF SOIL TEST DATA

Station & Offset	Depth From-To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class.
414+15 12'Lt.	0.2-2.0'	18	9	19	36	18	21	3	15	A-4a
	2.0-3.0'	5	6	17	43	29	25	11	16	A-6a
	3.0-6.0'	7	7	19	44	23	21	5	15	A-4a
	6.0-8.0'	17	8	18	35	22	21	8	15	A-4a
419+00 15'Lt.	7.0-9.0'	20	9	18	36	17	22	6	12	A-4a
	9.0-10.0'	6	10	30	35	19	19	5	13	A-4a
	10.0-11.0'	8	12	47	28	5	NP	NP	19	A-3a
424+80 CL	8.0-10.0'	7	9	18	39	27	18	5	12	A-4a
	10.0-12.0'	2	1	18	63	16	NP	NP	23	A-4b
	12.0-14.0'	11	11	16	42	16	18	3	17	A-4a
	14.0-16.0'	7	7	12	59	15	NP	NP	19	A-4b
	16.0-22.0'	11	10	23	34	22	19	6	12	A-4a
	22.0-27.0'	16	7	18	29	30	21	6	11	A-4a
430+00 CL	0.4-6.0'	9	8	18	38	27	24	8	10	A-4a
	6.0-10.0'	40	7	15	26	12	20	7	9	A-4a
	10.0-15.0'	13	9	19	37	22	19	7	12	A-4a
430+00 50'Lt.	0.0-0.5'	0	1	12	61	26	42	4	74	A-5
	0.5-1.5'	26	10	17	31	16	22	5	17	A-4a
	1.5-6.0'	24	10	16	30	20	21	2	20	A-4a
430+00 75'Lt.	0.0-0.3'	2	1	8	63	26	40	8	64	A-4b
432+00 18'Lt.	0.3-2.0'	0	2	70	22	6	NP	NP	26	A-3a
	2.0-5.5'	3	10	36	38	13	20	1	30	A-4a
432+00 50'Lt.	0.0-2.0'	0	3	16	65	16	38	10	61	A-4b
433+00 CL	0.4-3.0'	36	5	16	26	17	25	8	25	A-4a
	3.0-3.5'	24	8	17	33	18	19	5	19	A-4a
	3.5-4.0'	26	8	18	32	16	19	4	19	A-4a
433+00 45'Rt.	0.3-3.0'	8	5	21	46	20	20	4	11	A-4a
	3.0-7.0'	13	9	19	44	15	20	4	14	A-4a
	7.0-9.0'	22	6	19	37	19	19	2	38	A-4a
	9.0-12.0'	15	10	21	36	18	18	7	10	A-4a
	12.0-15.0'	18	12	24	35	11	15	1	13	A-4a
	15.0-20.0'	10	10	20	39	21	20	7	15	A-4a
	20.0-25.0'	16	9	20	36	19	17	3	13	A-4a

Station & Offset	Depth From-To.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class.
434+00 35'Lt.	0.3-2.5'	5	5	28	42	20	22	3	28	A-4a
	2.5-5.0'	9	2	26	43	20	25	4	32	A-4a
434+00 40'Lt.	0.0-1.0'	0	1	19	61	19	34	4	87	A-4b
437+00 CL	0.5-4.0'	16	8	19	36	21	23	6	19	A-4a
	4.0-6.0'	9	9	21	42	19	21	7	16	A-4a
	6.0-8.0'	0	1	11	78	10	NP	NP	23	A-4b
	8.0-9.0'	13	11	21	41	14	NP	NP	15	A-4a
	12.0-13.0	6	5	24	57	18	NP	NP	15	A-4b
	13.0-15.0	10	8	29	47	15	17	3	13	A-4a
440+00 16'Lt.	0.2-3.0'	9	7	21	37	26	24	6	15	A-4a
	3.0-8.0'	12	10	21	38	19	20	4	13	A-4a
	8.0-10.0'	34	9	13	29	15	23	8	12	A-4a
445+00 5'Rt.	0.4-5.0'	9	5	18	39	28	24	8	14	A-4a
	5.0-10.0'	14	9	20	37	20	21	6	13	A-4a
450+00 16'Rt.	0.5-3.0'	23	9	30	46	12	NP	NP	13	A-4a
	3.0-6.0'	5	6	16	46	27	24	8	24	A-4a
	6.0-8.0'	11	8	21	35	25	21	7	15	A-4a
455+00 30'Lt.	0.4-5.0'	13	9	21	37	20	21	6	9	A-4a
	5.0-8.0'	30	9	18	27	16	21	5	12	A-4a
460+00 25'Lt.	4.0-5.0'	15	10	24	36	15	19	2	10	A-4a
	5.0-7.0'	15	10	21	36	18	20	6	12	A-4a
	7.0-8.0'	22	12	20	33	13	17	3	10	A-4a
462+00 25'Lt.	0.8-3.0'	6	6	21	44	23	22	7	13	A-4a
	3.0-6.0'	10	11	28	42	9	NP	NP	9	A-4a
	6.0-7.0'	8	14	36	37	5	NP	NP	12	A-4a
	7.0-8.0'	2	3	39	45	11	NP	NP	22	A-4a
467+0 10'Lt.	0.4-4.0'	11	8	21	37	23	23	8	18	A-4a
	4.0-8.0'	13	9	23	33	18	20	5	14	A-4a
472+00 10'Lt.	3.0-6.0'	15	8	20	40	17	21	7	11	A-4a
	6.0-8.0'	14	9	20	37	20	20	4	14	A-4a

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.

TE-54-A
75-8-58

SOIL PROFILE
MAHONING COUNTY
MAH-90-7.87
STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

2/3

Existing Bituminous concrete pavement in good condition, no settlement nor cracking observed.

Stiller Road

Swampy area

Burgess Run

Old Reservoir

For cross sections see sheet 3

Wooded

Corn

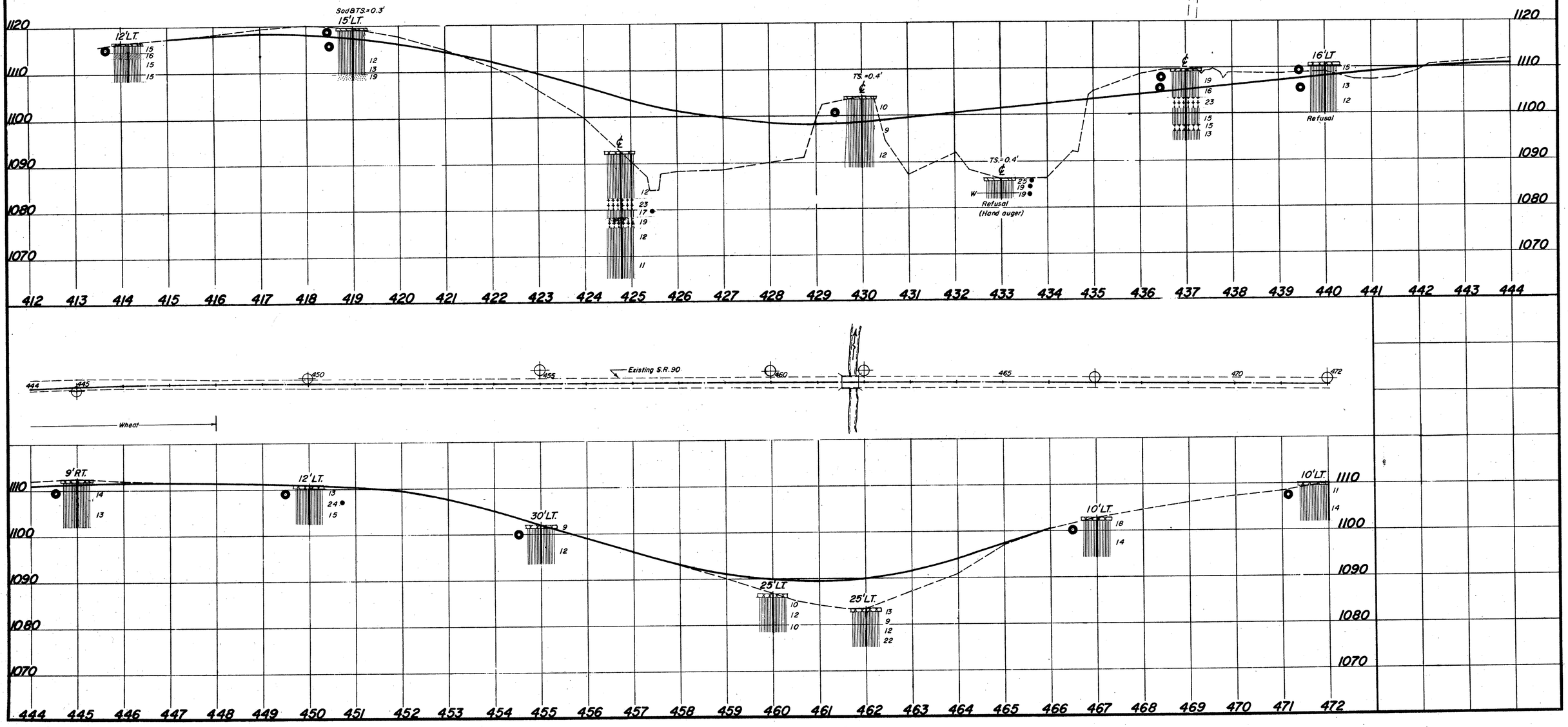
Existing S.R. 90

Weeds

Wheat

Dobbins Road

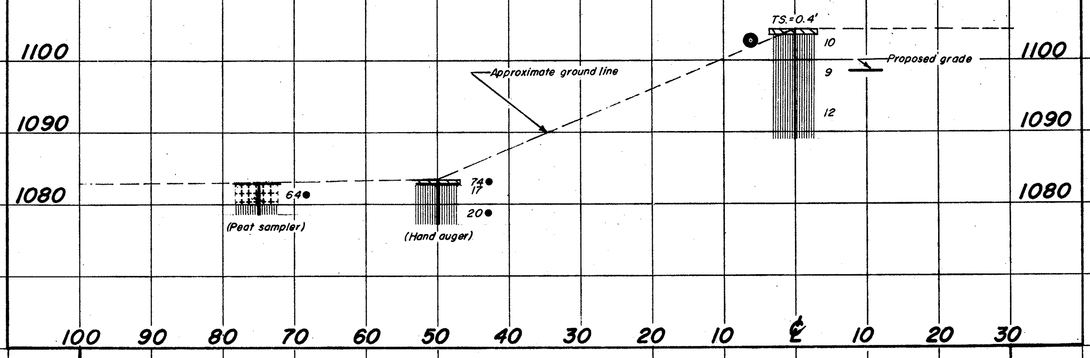
412 415 420 425 430 435 440 444



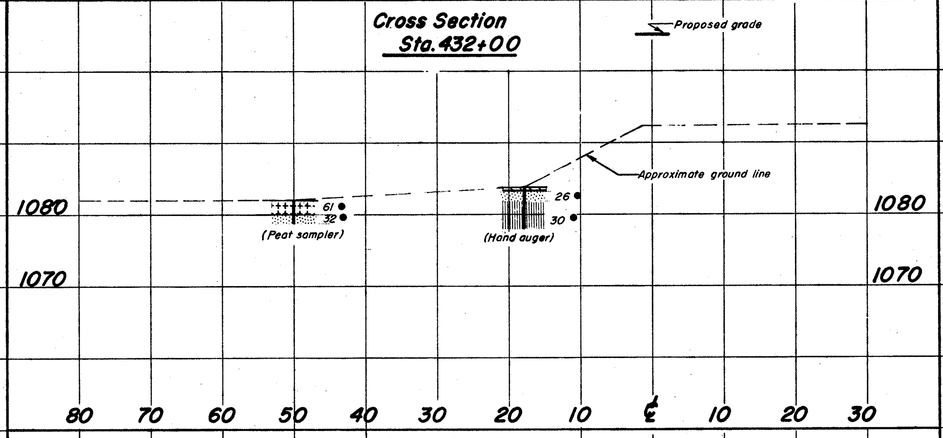
444 445 450 455 Existing S.R. 90 460 465 470 472

Wheat

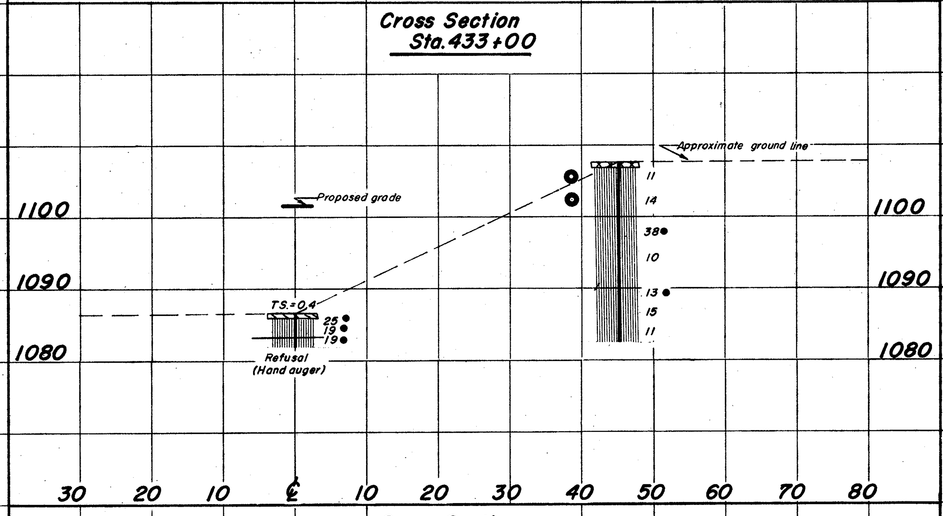
Cross Section Sta. 430+00



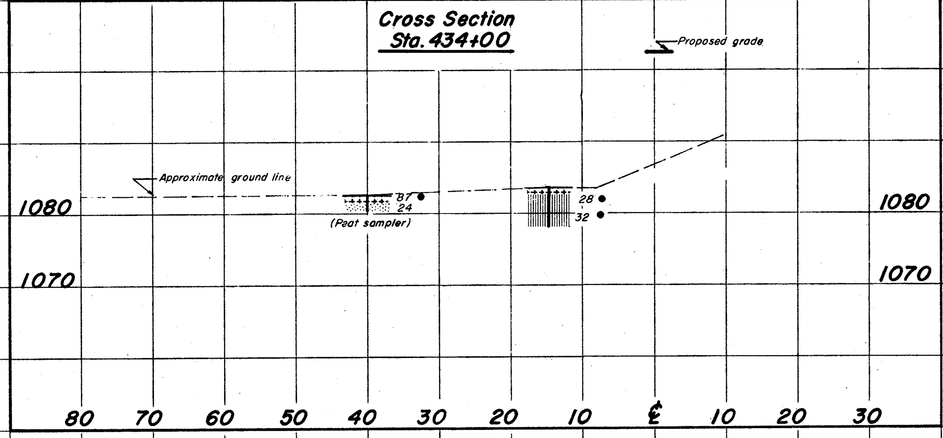
Cross Section Sta. 432+00



Cross Section Sta. 433+00



Cross Section Sta. 434+00



SOIL PROFILE
MAHONING COUNTY
MAH-90-7.87

STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

3
3