FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	STATE	

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ASD-511-8.44

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
ASD-511-8.44
ASHLAND COUNTY
MONTGOMERY AND VERMILLION TOWNSHIPS

CONVENTIONAL SIGNS

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

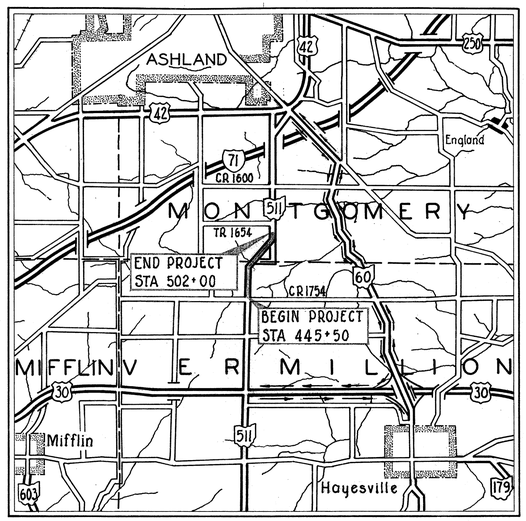
Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA&RW
Existing Right of Way
Property Line (in existing fence)
Railroad
Guardrail (existing) (proposed)

INDEX OF SHEETS

TITLE SHEET	1
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CULVERT DETAILS	34-38
CENTERLINE SURVEY PLAT	39
RIGHT-OF-WAY	40-47

LINE DATA

		PROJECT	WORK
BEGIN	STA	445 +50	STA 444+85
END	STA	502 +00	STA 503+00
NET LENGTH		5,650.00 LIN.FT. OR 1.070 MILES	5,815.00 LIN.FT. OR 1.101 MILES



LOCATION MAP

SCALE OF MILES 0 1 2 3 4

Portion to be Improved
Interstate Roads
State and Federal Roads
Other Roads
Detour

SCALES

Plan 0 50'
Profile: Horizontal 0 50'
Profile: Vertical 0 5'

1971 SPECIFICATIONS

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 and that detours will be provided as indicated on these plans.

Approved R. H. Reader
Date 2-2-71 Division Deputy Director

Approved C. H. Abbruzzese
Date 3-30-71 Engineer of Bridges

Approved E. J. Schaefer
Date 4-1-71 Engineer of Location & Design

Approved H L Kramer
Date 4-1-71 Deputy Director of Design & Construction

Approved R A Hastings
Date 4/8/71 Deputy Director of Right of Way

We RR HBV 3-30-71

Approved William Buntley
Date 4-8-71 Deputy Director of Planning & Programming

Approved William P McKenna
Date 4-8-71 First Assistant Director

Approved
Date 4/9/71 Director of Highways

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-5	1-1-71	L-1	6-1-65				
BP-6	6-1-65						
		MC-1	6-13-69				
CB-2-2-A&B	6-1-65	MC-3	6-20-69				
		MC-4	6-13-69				
GR-4	1-1-71	SP-53	6-30-61				
GR-2A	1-1-71						
GR-5	1-1-71						
HW-4	1-1-70						

SUPPLEMENTAL SPECIFICATIONS	
1001	1-1-69

Project: ASD-511-8.44
Date of Letting 19 , Contract No.

LD 0300
12-29-67

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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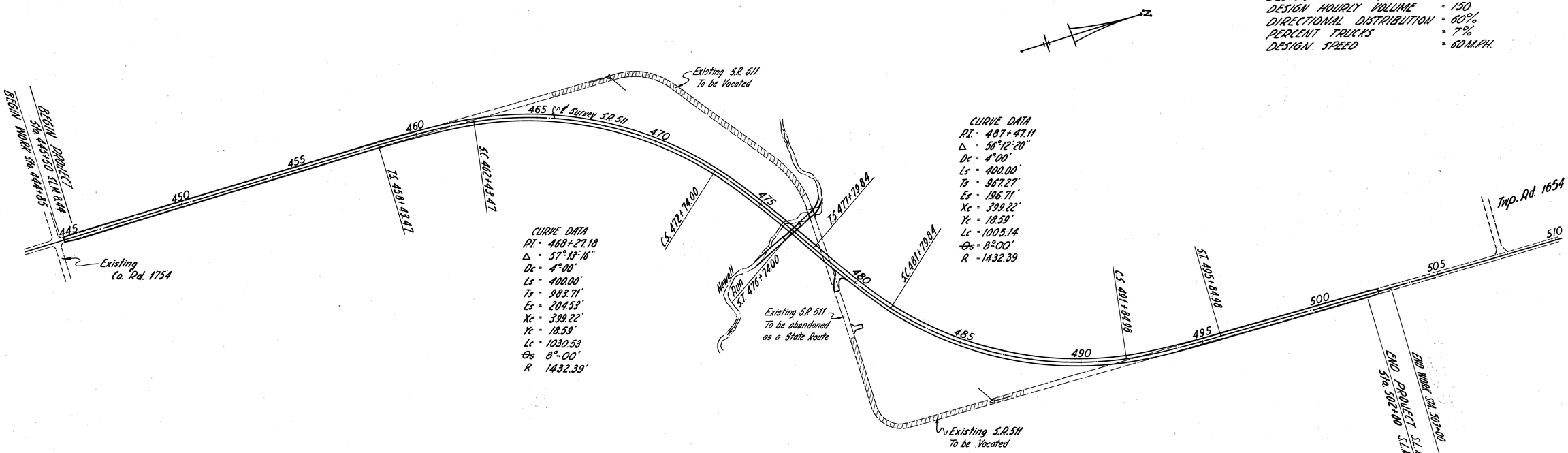
2
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SCHEMATIC PLAN

SCALE : 1" = 200'

DESIGN DESIGNATION

CURRENT (1971) ADT	= 525
DESIGN YEAR (1991) ADT	= 1230
DESIGN HOURLY VOLUME	= 150
DIRECTIONAL DISTRIBUTION	= 60%
PERCENT TRUCKS	= 7%
DESIGN SPEED	= 60 M.P.H.



CURVE DATA
P.I. = 468+27.18
Δ = 57°-13'-16"
Dc = 4°-00'
Ls = 400.00'
Ts = 983.71'
Es = 204.53'
Xc = 399.22'
Yc = 18.59'
Lc = 1030.53
Ds 8°-00'
R 1432.39'

CURVE DATA
P.I. = 487+47.11
Δ = 36°-12'-20"
Dc = 4°-00'
Ls = 400.00'
Ts = 967.27'
Es = 196.71'
Xc = 399.22'
Yc = 18.59'
Lc = 1005.14
Ds = 8°-00'
R = 1432.39

TYPICAL SECTIONS

CALC. BY: W.T. 9-70
CHKD. BY: P.D.G. 9-70

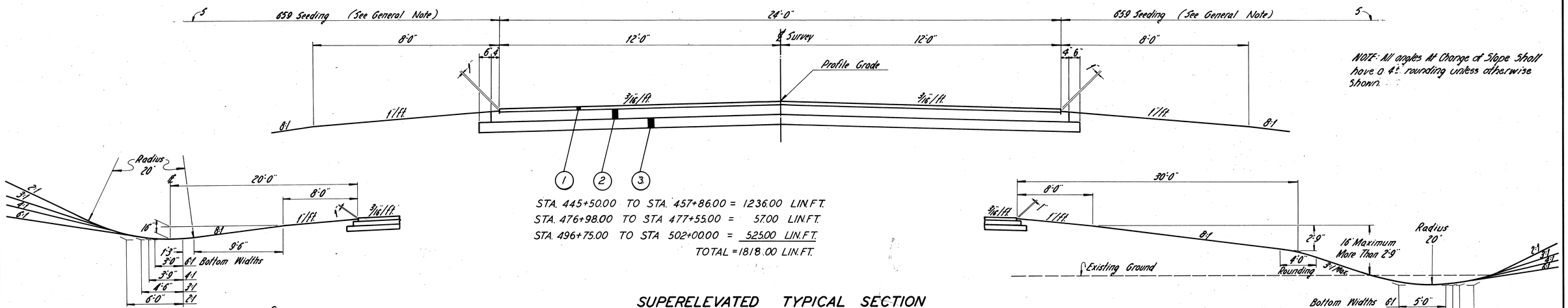
FED. RD. DIVISION	STATE	PROJECT	
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TYPE 404 ON 301

NORMAL TYPICAL SECTION

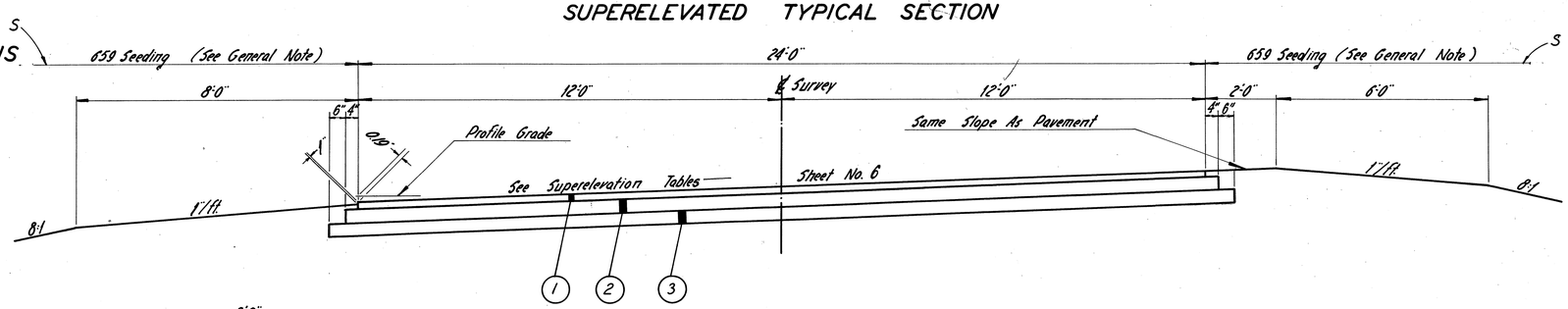


STA. 445+50.00 TO STA. 457+86.00 = 1236.00 LIN.FT.
STA. 476+98.00 TO STA 477+55.00 = 57.00 LIN.FT.
STA. 496+75.00 TO STA 502+00.00 = 525.00 LIN.FT.
TOTAL = 1818.00 LIN.FT.

NOTE: All angles At Change of Slope Shall have 0.4' rounding unless otherwise shown.

SUPERELEVATED TYPICAL SECTION

CUT SECTIONS

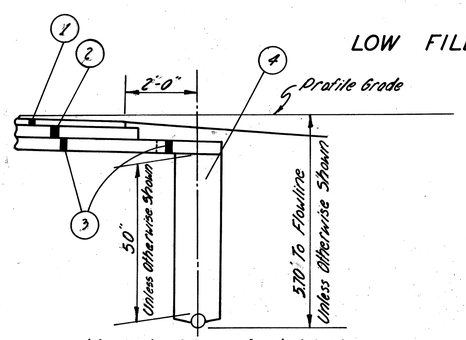


MEDIUM FILL

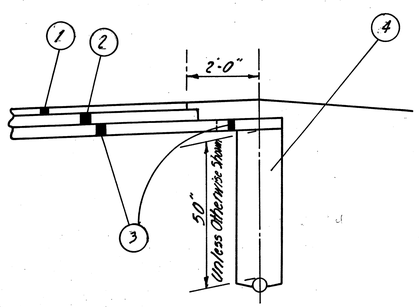
STA. 457+86.00 TO STA. 476+98.00 = 1912.00 LIN. FT.
STA. 477+55.00 TO STA. 496+75.00 = 1920.00 LIN. FT.
TOTAL = 3832.00 LIN. FT.

DEEP FILL OR WITH GUARD RAIL

LOW FILL



Normal low side of Superelevated Section



High Side of Superelevated Section

1. 1 1/4" 404 ASPHALT CONCRETE. (85-100)
2. 4" 301 BITUMINOUS AGGREGATE BASE: 702.01 (85-100) OR 702.09, RT-11 OR RT-12
3. 4" 304 AGGREGATE BASE.
4. 605 6" DEEP PIPE UNDERDRAIN.

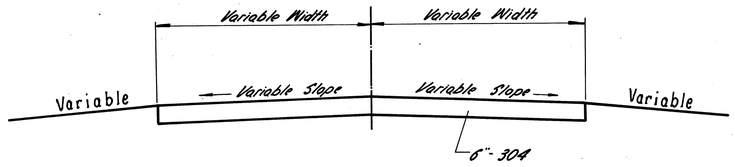
DETAIL OF 605 DEEP PIPE UNDERDRAINS
(To be used where called for on Plans)

Calc. By W.T. 9-70
Chkd. By P.D.G. 9-70

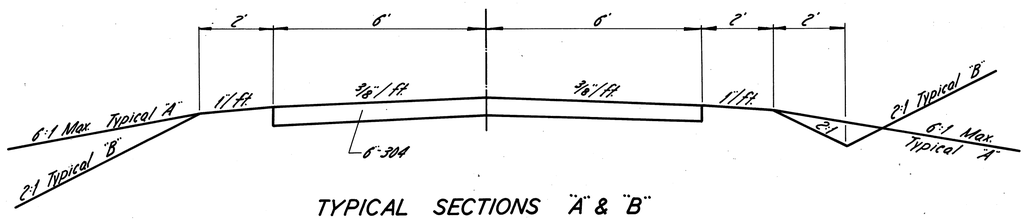
FED. RD. DIVISION	STATE	PROJECT	
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ASD - 511 - 8.44

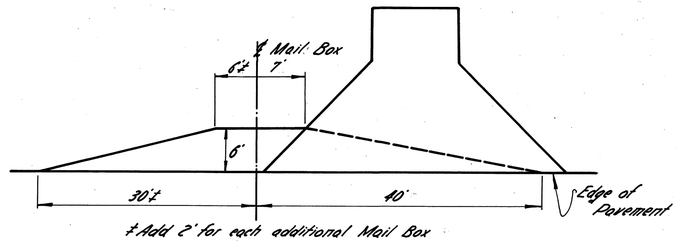


FLARED TYPICAL SECTION



TYPICAL SECTIONS "A" & "B"

FIELD DRIVE TYPICAL

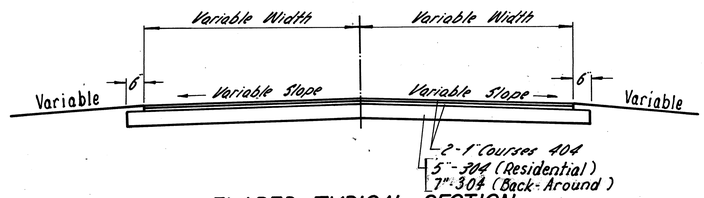


± Add 2' for each additional Mail Box

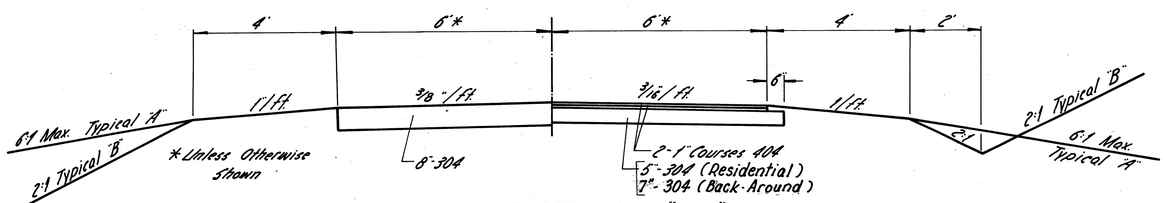
Where feasible, Mail Box Turnouts shall be combined with Drives as indicated. Quantities to be adjusted by the Engineer.

ESTIMATED QUANTITIES for Mail Box Turnouts
2"-404 (2-1" courses) Asphalt Concrete (85-100) - 6 Cu. Yds.
5"-304 Aggregate Base - 16 Cu. Yds.

TYPICAL MAILBOX TURNOUT

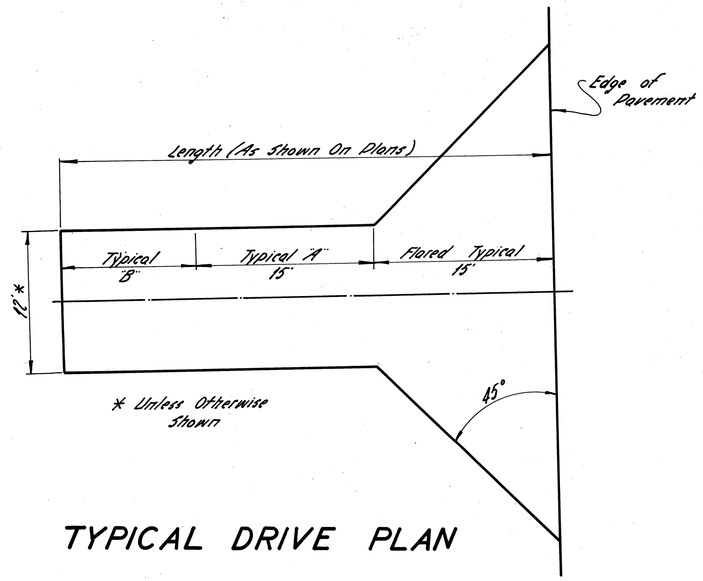


FLARED TYPICAL SECTION



TYPICAL HALF SECTIONS "A" & "B"
SYMMETRICAL ABOUT ℄

RESIDENCE TYPICAL



TYPICAL DRIVE PLAN

SPECIAL CONSTRUCTION DETAILS

CALCULATIONS

LINE	DESCRIPTION		QUANTITY
1	404 1½" Asphalt Concrete (Item 404)		
2	From Typical Sections: (1818.00+3832.00)×24÷9=15066.67 Sq. Yds.		
3	From Line 2: 15066.67×1.25÷36=523.15 Cu. Yds.	Use	524 Cu. Yds.
4			
5	301 4" Bituminous Aggregate Base		
6	From Typical Sections: (1818.00+3832.00)×24.67÷9=15487.28 Sq. Yds.		
7	From Line 6: 15487.28×4÷36=1720.81 Cu. Yds.	Use	1721 Cu. Yds.
8			
9	304 4" Aggregate Base		
10	From Typical Sections: (1818.00+3832.00)×25.67÷9=16115.01 Sq. Yds.		
11	From Line 10: 16115.01×4÷36=1790.56 Cu. Yds.		
12	Addition for Pipe Underdrains: 3705×0.597÷27=81.92 Cu. Yds.		
13	Total From Lines 11 & 12 = 1872.48 Cu. Yds.	Use	1873 Cu. Yds.
14			
15	203 Subgrade Compaction		
16	From Typical Sections: (1818.00+3832.00)×24÷9=15066.67 Sq. Yds.	Use	15067 Sq. Yds.
17			
18	659 Commercial Fertilizer (12-12-12)		
19	From Totals: (Item 659 Seeding + Item 667 Jute Matting)=80,723 Sq. Yds.		
20	From Line 19: 80,723×9×20÷1000×2000÷7.26 Tons	Use	7.26 Tons

EARTHWORK AND SEEDING TABLE

FROM SHEET NO.	EXCAVATION	EMBANKMENT	SEEDING
8	1598 Cu. Yds.	7935 Cu. Yds.	7485 Sq. Yds.
9	17003	7975	12652
10	4932	3875	11561
11	4546	10397	13965
12	7749	10799	13536
13	3817	6504	8559
30	2464	2173	14026
SUB TOTAL			81784
DEDUCT FOR DRIVES			- 1061
SUB TOTAL TO CALCULATIONS			80723
DEDUCT FOR 667 SEEDING AND JUTE MATTING			- 3318
NET TOTALS	42109 Cu. Yds.	49658 Cu. Yds.	77405 Sq. Yds.

TREATED SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEMS: TREATED SANITARY FLOW MAY BE DISCHARGED INTO THE HIGHWAY DRAINAGE SYSTEM PROVIDED THE OWNER HAS SECURED THE APPROVAL OF THE LOCAL HEALTH AUTHORITIES AND HAS ACQUIRED FROM THE STATE HIGHWAY DEPARTMENT, THE OFFICIAL PERMIT TO HAVE THE CONNECTION MADE.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY, FOR USE AS DIRECTED BY THE ENGINEER, IN MAKING SANITARY CONNECTIONS INTO THE HIGHWAY DRAINAGE SYSTEM WHERE A PERMIT HAS BEEN ISSUED FOR SUCH SANITARY CONNECTION:

ITEM 603 6" CONDUIT, TYPE C 50 LIN. FT.

NECESSARY BENDS AND BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEM.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.

GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT	
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ASD-511-8.44

CALC. BY: W.T. 9-70

CHK'D BY: P.D.G. 9-70

FIELD OFFICE:

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 300 SQ. FT. OF FLOOR SPACE AND IN ADDITION TO THE REQUIREMENTS OF ITEM 619, HE SHALL PROVIDE AND MAINTAIN SANITARY PROVISIONS AS PER 107.06. ALL THE ABOVE IS INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 619, FIELD OFFICE.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS:

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

UNDERGROUND UTILITIES:

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWNON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS.

SUPERELEVATION:

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

REMOVAL OF EXISTING PIPE:

THE REMOVAL OF ALL EXISTING PIPE DRAINS WHICH WOULD NORMALLY BE REMOVED IN VARIOUS EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

REMOVAL OF TREES AND STUMPS:

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS
18"	60	2
30"	29	3
48"	6	0
60"	0	0

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT OF WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING.

MONUMENTS:

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON STANDARD DRAWING MC-1. FOR LOCATIONS, SEE SHEET NO. 39.

SEEDING AS PER PLAN

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS BY THE SYMBOL: ✓ S.

AREAS TO BE SEEDED SHALL BE FERTILIZED USING A COMMERCIAL FERTILIZER HAVING A FORMULA OF 12-12-12.

ALL AREAS TO BE SEEDED WHICH ARE CONSIDERED TO BE IN FRONT OF A RESIDENCE OR CHURCH SHALL BE SEEDED WITH THE FOLLOWING MIXTURE:

40% KENTUCKY BLUEGRASS
50% CREEPING RED FESCUE
10% RED TOP

ALL OTHER AREAS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE:

30% KENTUCKY BLUEGRASS
70% KENTUCKY 31 FESCUE

SPECIAL SEEDING PREPARATION AREA:

THE REFERENCE IN THE FIRST PARAGRAPH OF 659.09 TO PREPARATION OF THE SEED BED IN FRONT OF RESIDENCES, ETC., SHALL ON THIS PROJECT BE CONSIDERED TO BE PARTICULARLY APPLICABLE TO ALL AREAS LISTED IN 659.09 IN ADDITION TO THE FOLLOWING AREAS:

STATION 444+90±TO STATION 447+00±RIGHT

UTILITY OWNERS:

FOLLOWING IS A LIST OF UTILITY OWNERS AFFECTED BY THIS PROJECT:

NORTHERN OHIO TELEPHONE COMPANY, 117 NORTH SANDUSKY STREET, BELLEVUE, OHIO 44811

OHIO EDISON COMPANY, 47 NORTH MAIN STREET, AKRON, OHIO 44308

COLUMBIA GAS OF OHIO, INC., 99 NORTH FRONT STREET, COLUMBUS, OHIO 43215

ELEVATION DATUM:

ALL ELEVATIONS ARE BASED ON U.S.C.& G.S. DATUM.

DUST CONTROL:

THE FOLLOWING QUANTITIES ARE PROVIDED FOR DUST CONTROL TO BE USED AS DIRECTED BY THE ENGINEER:

616	WATER	10 M-GAL.
616	CALCIUM CHLORIDE	1 TON

CONNECTIONS TO EXISTING PIPE:

WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

FARM DRAINS:

ALL FARM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603, TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH.

THE LOCATION, TYPE, SIZE AND GRADE OF REQUIRED REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 603	8" CONDUIT, TYPE B	100 LIN. FT.
ITEM 603	6" CONDUIT, TYPE F	30 LIN. FT.

NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEM.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL REQUESTED BY THE ENGINEER.

SPRING DRAINS:

REFERENCE IS MADE TO THE DETAILED DRAWING ON STANDARD DRAWING MC-1 SHOWING THE METHOD OF DRAINING ANY SPRING THAT MAY BE SHOWN ON THE PLAN OR ENCOUNTERED DURING CONSTRUCTION AS DETERMINED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE:

ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAIN, 707.01 TYPE III OR 707.12, AS PER PLAN	30 LIN. FT.
ITEM 605 - AGGREGATE DRAINS FOR SPRINGS, AS PER PLAN	6 LIN. FT.

THE CONTRACTOR SHALL NOT ORDER MATERIALS FOR "SPRING DRAINS" UNTIL AUTHORIZED BY THE ENGINEER AND IN THE EVENT NO SPRINGS ARE ENCOUNTERED, THE ITEM SHALL BE NON-PERFORMED.

EROSION CONTROL:

ITEMS 601 AND 667 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

SCARIFICATION OF EXISTING FLEXIBLE PAVEMENT:

WITHIN THE NORMAL CONSTRUCTION LIMITS WHERE THE EXISTING FLEXIBLE PAVEMENT WILL HAVE LESS THAN TWO (2) FEET OF FILL PLACED ON IT, THE PAVEMENT SHALL BE THOROUGHLY SCARIFIED FOR ITS FULL DEPTH, MIXED WITH SUFFICIENT SOIL AND PROPERLY RECOMPACTED TO INSURE THE ELIMINATION OF ANY PLANES OF SEPARATION BETWEEN IT AND THE EMBANKMENT PLACED THEREON. PAYMENT FOR SCARIFICATION, AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION.

MAINTAINING TRAFFIC:

THROUGH TRAFFIC SHALL BE DETOURED AS INDICATED ON SHEET NO. 1.

LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE FOLLOWING ESTIMATED QUANTITIES ARE INCLUDED IN THE GENERAL SUMMARY TO BE USED FOR MAINTAINING LOCAL TRAFFIC AS DIRECTED BY THE ENGINEER:

410 TRAFFIC COMPACTED SURFACE, TYPE A OR B	50 CU. YDS.
616 CALCIUM CHLORIDE	1 TON

CALC BY W.T. 9-70
CHK'D. BY [illegible]

FED. RD. DIVISION	STATE	PROJECT	
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ASD-511-8.44

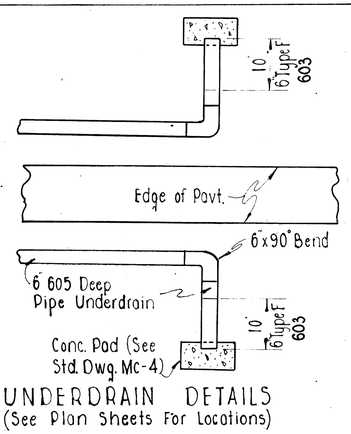
SUPERELEVATION TABLES

R.I. Sta. 468+27.18
Δ = 57°-13-16" Rt.
Dc = 4° Ls = 400'
Revolve About Right Edge

STATION	LEFT EDGE	℄	RIGHT EDGE
457+75	1188.43	1188.62	1188.43
458+00	1188.24	1188.42	1188.23
+25	1188.06	1188.20	1188.01
+50	1187.89	1187.97	1187.78
+75	1187.73	1187.73	1187.54
459+00	1187.58	1187.49	1187.30
+25	1187.44	1187.26	1187.04
+50	1187.29	1187.03	1186.77
+75	1187.14	1186.82	1186.49
460+00	1186.97	1186.59	1186.20
+25	1186.80	1186.35	1185.90
+50	1186.61	1186.10	1185.59
+75	1186.42	1185.85	1185.27
461+00	1186.21	1185.58	1184.94
+25	1186.00	1185.30	1184.60
+50	1185.77	1185.01	1184.25
+75	1185.54	1184.72	1183.89
462+00	1185.28	1184.41	1183.52
+25	1185.01	1184.07	1183.13
+50	1184.70	1183.72	1182.74
+75	1184.53	1183.34	1182.34
463+00	1183.92	1182.93	1181.93
+25	1183.49	1182.50	1181.50
+50	1183.06	1182.07	1181.07
+75	1182.62	1181.63	1180.63
464+00	1182.17	1181.18	1180.18
+25	1181.70	1180.71	1179.71
+50	1181.23	1180.24	1179.24
+75	1180.74	1179.75	1178.75
465+00	1180.25	1179.26	1178.26
+25	1179.74	1178.75	1177.75
+50	1179.23	1178.24	1177.24
+75	1178.71	1177.72	1176.72
466+00	1178.19	1177.20	1176.20
+25	1177.67	1176.68	1175.68
+50	1177.15	1176.16	1175.16
+75	1176.63	1175.64	1174.64
467+00	1176.11	1175.12	1174.12
+25	1175.59	1174.60	1173.60
+50	1175.07	1174.08	1173.08
+75	1174.55	1173.56	1172.56
468+00	1174.03	1173.04	1172.04
+25	1173.51	1172.52	1171.52
+50	1172.99	1172.00	1171.00
+75	1172.47	1171.48	1170.48
469+00	1171.95	1170.96	1169.96
+25	1171.43	1170.44	1169.44
+50	1170.91	1169.92	1168.92
+75	1170.39	1169.40	1168.40
470+00	1169.87	1168.88	1167.88
+25	1169.35	1168.36	1167.36
+50	1168.83	1167.84	1166.84
+75	1168.31	1167.32	1166.32
471+00	1167.79	1166.80	1165.80
+25	1167.27	1166.28	1165.28
+50	1166.75	1165.76	1164.76
+75	1166.23	1163.24	1164.24
472+00	1165.71	1164.72	1163.72
+25	1165.18	1164.20	1163.20
+50	1164.60	1163.64	1162.68
+75	1163.97	1163.07	1162.16
473+00	1163.32	1162.48	1161.64
+25	1162.68	1161.90	1161.12
+50	1162.03	1161.32	1160.60
+75	1161.41	1160.76	1160.10
474+00	1160.80	1160.21	1159.62
+25	1160.25	1159.72	1159.19
+50	1159.71	1159.25	1158.78
+75	1159.22	1158.82	1158.41
475+00	1158.75	1158.41	1158.07
+25	1158.33	1158.05	1157.77
+50	1157.92	1157.73	1157.49
+75	1157.56	1157.45	1157.25
476+00	1157.25	1157.24	1157.03
+25	1156.99	1157.06	1156.87
+50	1156.80	1156.92	1156.72
+75	1156.65	1156.81	1156.62
477+00	1156.55	1156.74	1156.55

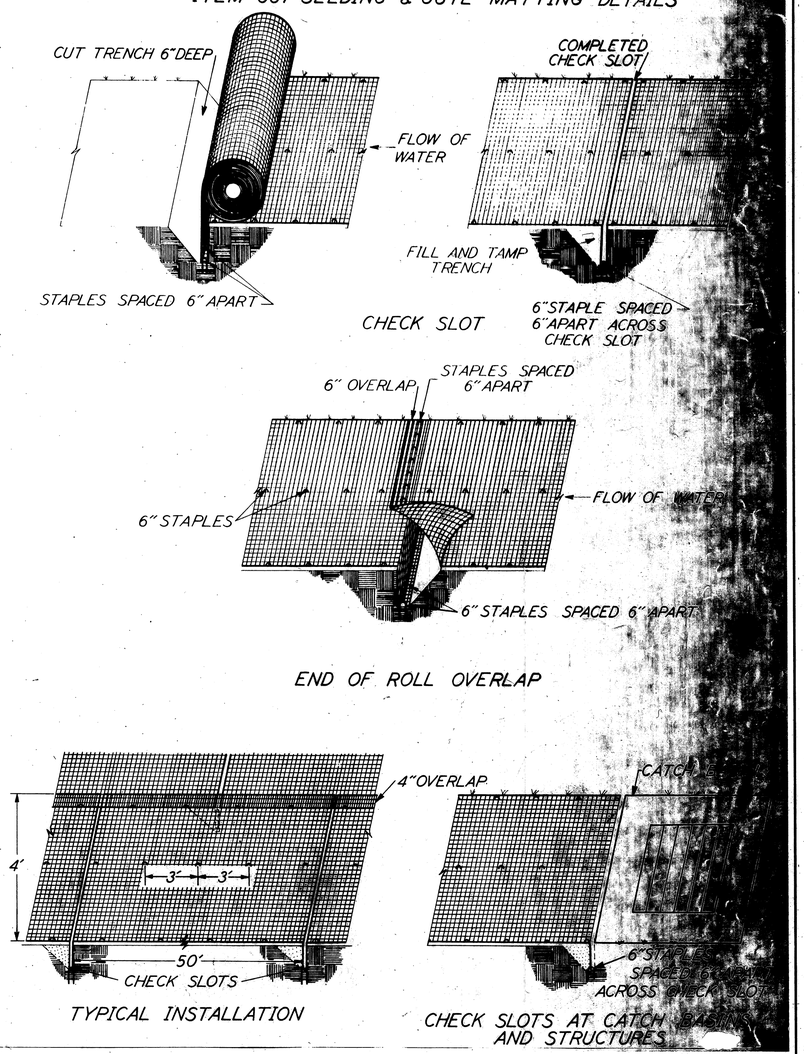
R.I. Sta. 487+47.11
Δ = 56°-12'-20"
Dc = 4° Ls = 400'
Revolve About Left Edge

STATION	LEFT EDGE	℄	RIGHT EDGE
477+50	1156.40	1156.68	1156.40
+75	1156.52	1156.71	1156.56
478+00	1156.57	1156.76	1156.64
+25	1156.66	1156.85	1156.77
+50	1156.78	1156.97	1156.97
+75	1156.94	1157.13	1157.23
479+00	1157.12	1157.34	1157.53
+25	1157.35	1157.62	1157.89
+50	1157.60	1157.93	1158.26
+75	1157.87	1158.26	1158.66
480+00	1158.14	1158.59	1159.05
+25	1158.41	1158.93	1159.45
+50	1158.68	1159.26	1159.84
+75	1158.95	1159.59	1160.24
481+00	1159.22	1159.92	1160.63
+25	1159.49	1160.26	1161.03
+50	1159.76	1160.59	1161.42
+75	1160.03	1160.92	1161.82
482+00	1160.30	1161.25	1162.20
+25	1160.57	1161.56	1162.54
+50	1160.84	1161.84	1162.83
+75	1161.11	1162.11	1163.10
483+00	1161.38	1162.38	1163.37
+25	1161.65	1162.65	1163.64
+50	1161.92	1162.92	1163.91
+75	1162.19	1163.19	1164.18
484+00	1162.46	1163.46	1164.45
+25	1162.73	1163.73	1164.72
+50	1163.00	1164.00	1164.99
+75	1163.27	1164.27	1165.26
485+00	1163.54	1164.54	1165.53
+25	1163.81	1164.81	1165.80
+50	1164.08	1165.08	1166.07
+75	1164.35	1165.35	1166.34
486+00	1164.62	1165.62	1166.61
+25	1164.89	1165.89	1166.88
+50	1165.16	1166.16	1167.15
+75	1165.43	1166.43	1167.42
487+00	1165.70	1166.70	1167.69
+25	1165.97	1166.97	1167.96
+50	1166.24	1167.24	1168.23
+75	1166.51	1167.51	1168.50
488+00	1166.78	1167.78	1168.77
+25	1167.05	1168.05	1169.04
+50	1167.32	1168.32	1169.31
+75	1167.59	1168.59	1169.58
489+00	1167.86	1168.86	1169.85
+25	1168.13	1169.13	1170.12
+50	1168.40	1169.40	1170.39
+75	1168.67	1169.67	1170.66
490+00	1168.94	1169.94	1170.93
+25	1169.21	1170.21	1171.20
+50	1169.48	1170.48	1171.47
+75	1169.75	1170.75	1171.74
491+00	1170.02	1171.02	1172.01
+25	1170.29	1171.29	1172.28
+50	1170.56	1171.56	1172.55
+75	1170.83	1171.83	1172.82
492+00	1171.10	1172.09	1173.08
+25	1171.37	1172.35	1173.32
+50	1171.64	1172.57	1173.50
+75	1171.91	1172.78	1173.65
493+00	1172.18	1172.98	1173.79
+25	1172.45	1173.20	1173.94
+50	1172.72	1173.40	1174.08
+75	1172.99	1173.61	1174.23
494+00	1173.26	1173.82	1174.37
+25	1173.53	1174.03	1174.52
+50	1173.80	1174.23	1174.26
+75	1174.07	1174.44	1174.81
495+00	1174.34	1174.65	1174.95
+25	1174.61	1174.86	1175.10
+50	1174.88	1175.09	1175.24
+75	1175.15	1175.34	1175.41
496+00	1175.42	1175.61	1175.58
+25	1175.68	1175.87	1175.77
+50	1175.91	1176.10	1175.95
+75	1176.12	1176.21	1176.12



UNDERDRAIN DETAILS
(See Plan Sheets For Locations)

ITEM 667 SEEDING & JUTE MATTING DETAILS



END OF ROLL OVERLAP

TYPICAL INSTALLATION

CHECK SLOTS AT CATCH BASINS AND STRUCTURES

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

7/47

ASD-511-8.44

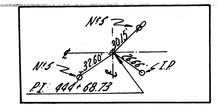
CALC.BY- W.T. 9-70
CHKD.BY- P.D.G. 9-70

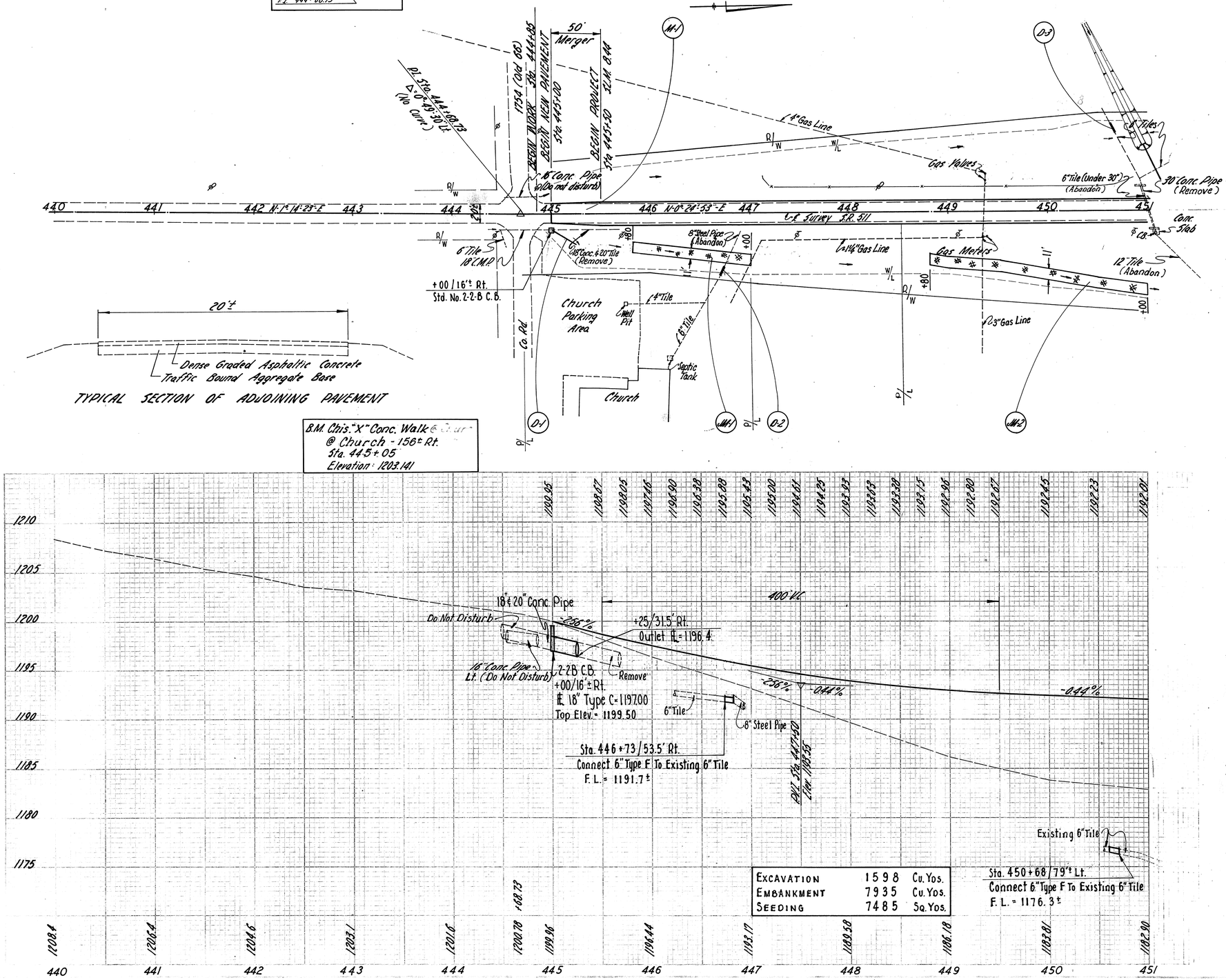
| ITEM | QUANT. | UNIT | DESCRIPTION | FROM SHEET NUMBER | | |

CALC. BY- W.T. 9-70
CHKD BY- P.D. 6-9-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

ASD-511-8.44





20'±

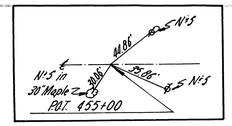
Dense Graded Asphaltic Concrete
Traffic Bound Aggregate Base

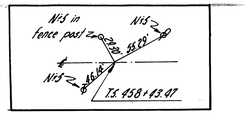
TYPICAL SECTION OF ADJOINING PAVEMENT

B.M. Chis. "X" Conc. Walk @ Church - 156'± Rt.
Sta. 445+05
Elevation: 1203.141

| | | |

S-1 Str. No. ASD-511-0855
Sta. 451+29 Skew = 25° R.F.
Existing: 30" Concrete (To Be Removed)
Proposed: 36" Conduit, Type A, 706.02, Class III
With HW-4 Headwalls Lt. & Rt.
D.A.= 37 Ac. Q25 = 76 c.f.s.
For Details & Quantities - See Sheet No. 34.



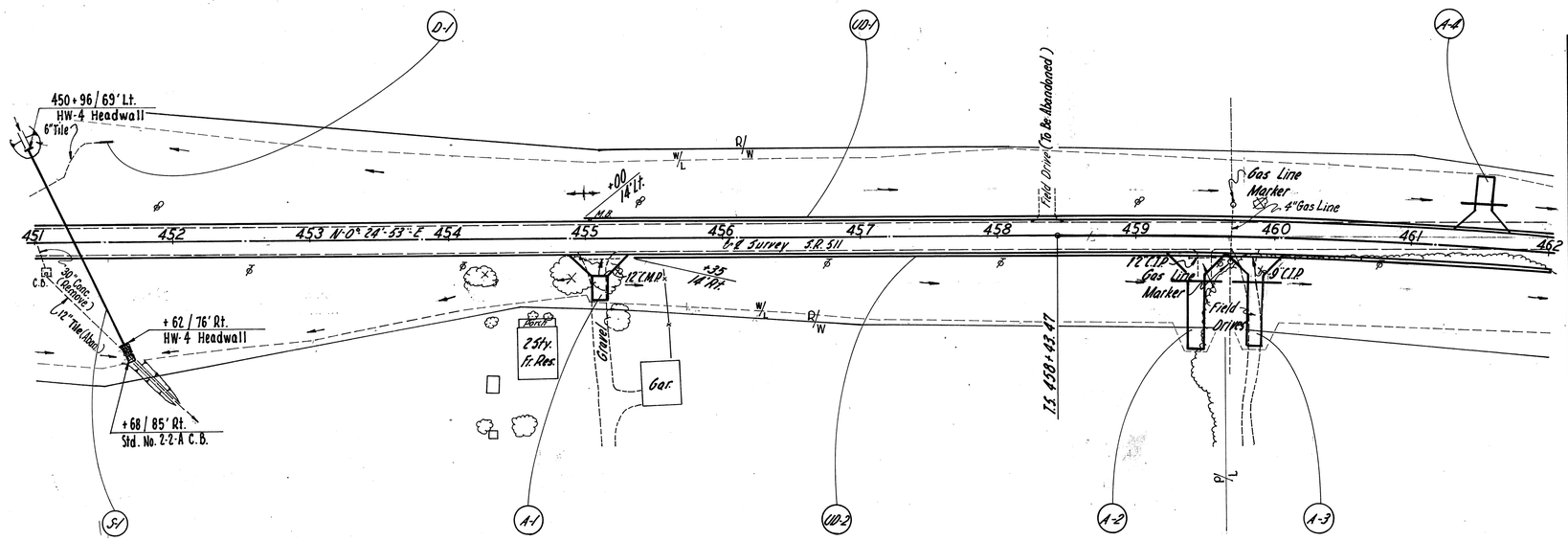


CALC. BY- W.T. 9-70
CHK'D. BY- P.D.G. 9-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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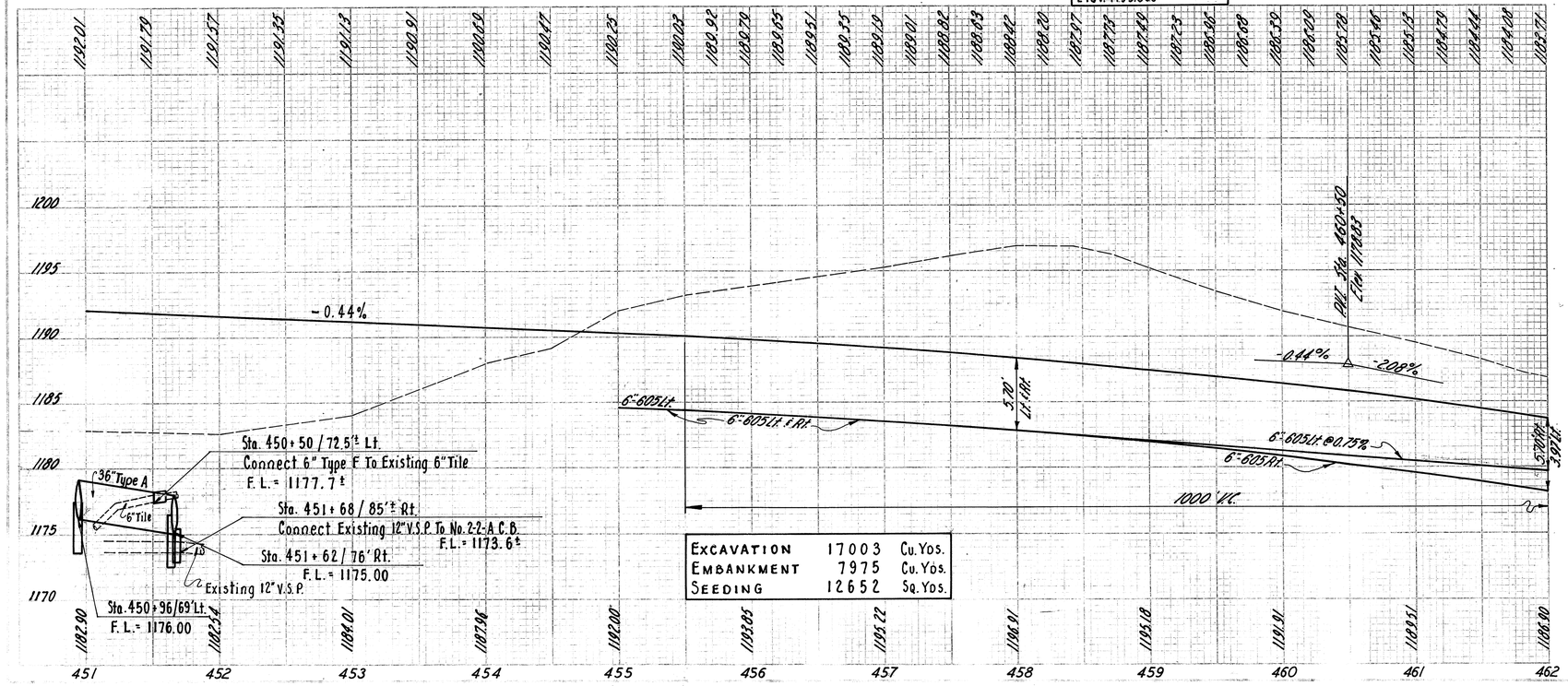
ASD-511-8.44



Ref. No.	Station		202 Pipe Removed 24" & Under Lin. Ft.	304 Aggregate Base Cu. Yds. 5"	6"	8"	404 Asphalt Concrete (65-100) Cu. Yds. 2"*	603 CONDUIT Type D Lin. Ft. 12"	Type F 6"		605 Pipe Underdrain Lin. Ft. 6"	
A-1	455+10 Rt.	L=33'	30	6.3		5.3	2.5					
A-2	459+44 Rt.	L=71'			19.7			38				
A-3	459+87 Rt.	L=68'			19.1			36				
A-4	461+50 Lt.	L=40'			12.9			34				
D-1	451+50 ±	72.5' ± Lt.							10			
WD-1	455+00 to 462+00 Lt.										700	
WD-2	455+35 to 462+00 Rt.										665	
	TOTALS		30		63.3		2.5	108	10		1365	

*2-1" Courses

B.M. Spike in 27" Maple
92' Rt. of Sta. 459+88
Elev. 1193.868



EXCAVATION	17003	Cu. Yds.
EMBANKMENT	7975	Cu. Yds.
SEEDING	12652	Sq. Yds.

STA. 451+00 TO STA. 462+00

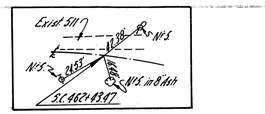
CALC. BY- W.T. 9-70
CHKD. BY- P.D.G. 9-70

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

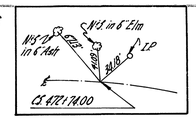
10
47

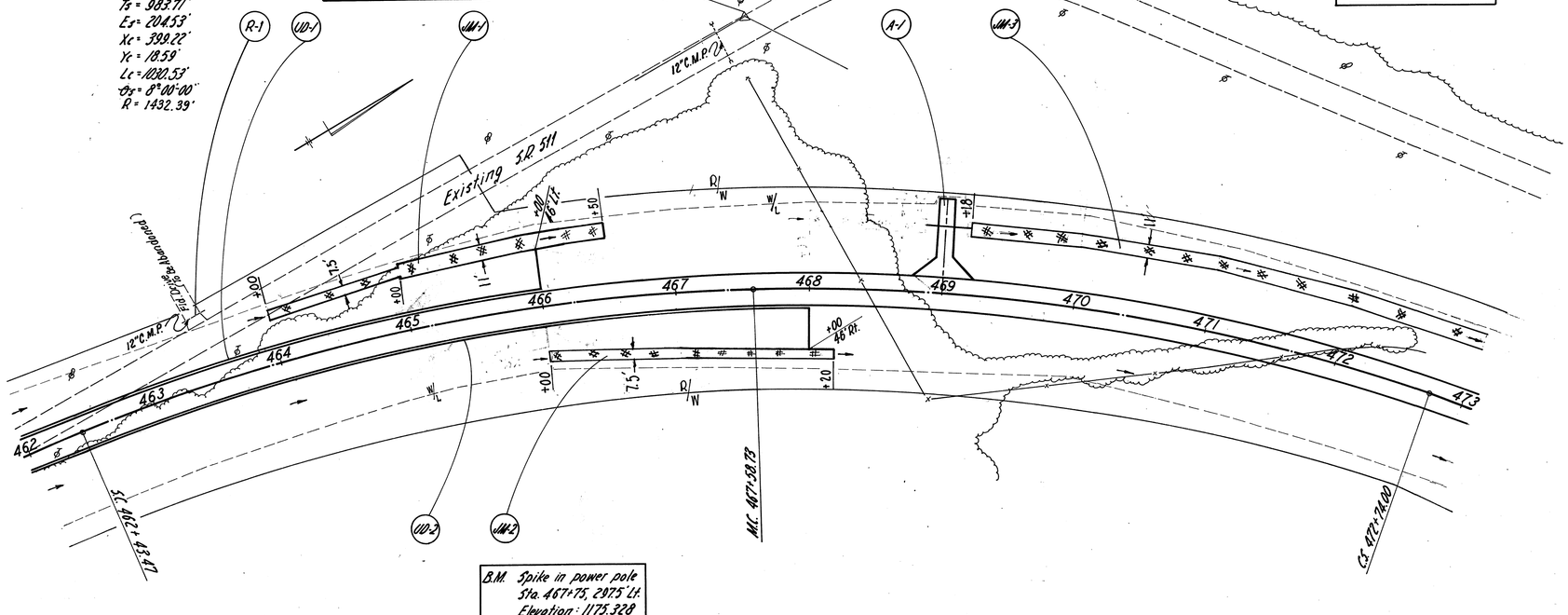
ASD-511-8.44

CURVE DATA
P.I. Sta. 468+27.18
Δ = 57°13'16" Rt.
Dc = 4°
Ls = 400.00'
Ts = 983.71'
Es = 204.53'
Xc = 399.22'
Yc = 18.59'
Lc = 1020.53'
Θs = 8°00'00"
R = 1432.39'

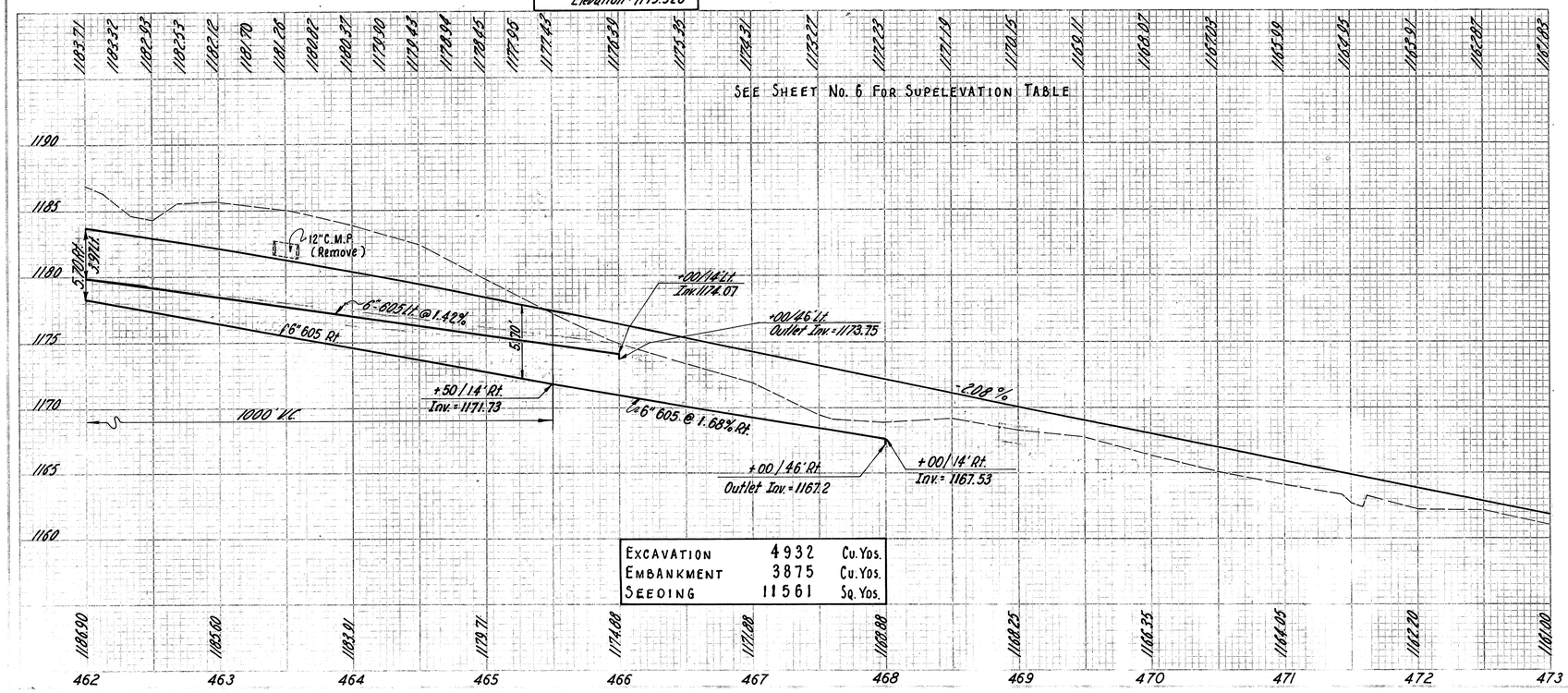


NOTE: See Sheet No's. 30 to 32 for Removal of Existing Roadway Outside Normal Construction Limits.





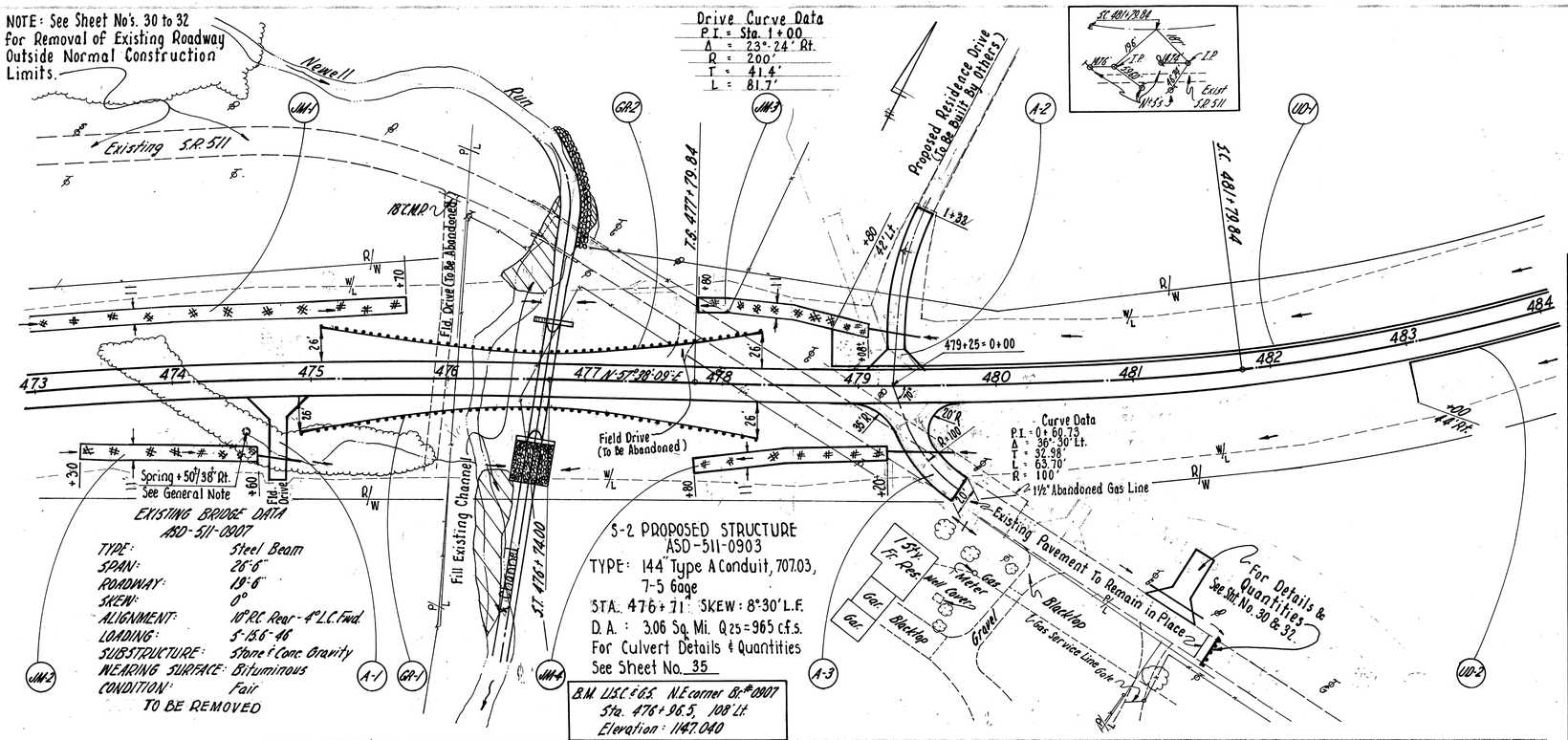
B.M. Spike in power pole
Sta. 467+75, 287.5' Lt.
Elevation: 1175.328

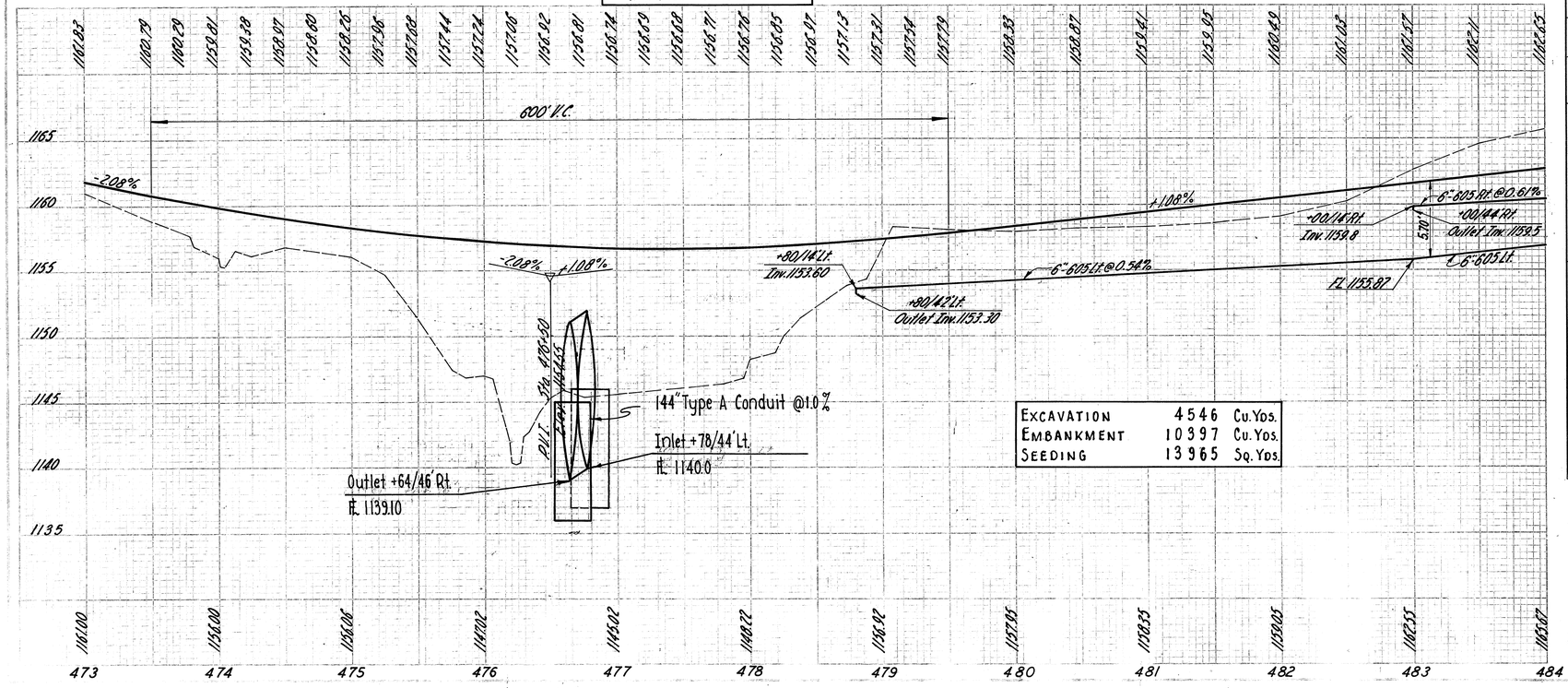


EXCAVATION	4932	Cu. Yds.
EMBANKMENT	3875	Cu. Yds.
SEEDING	11561	Sq. Yds.

| Ref. No. | Station | | |

NOTE: See Sheet No's. 30 to 32 for Removal of Existing Roadway Outside Normal Construction Limits.





EXCAVATION	4546	Cu. Yds.
EMBANKMENT	10397	Cu. Yds.
SEEDING	13965	Sq. Yds.

| Item | | | Ref. No. | Station | | |

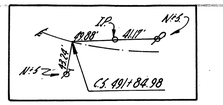
S-3 Structure No. ASD-511-0925
Sta. 488+40 Skew: 10° L.F.
Existing: 18" C.I.P. (To Be Removed)
Proposed: 48" Conduit, Type A, 706.02
D.A.= 64 Acres Q25 = 144 c.f.s.
For Details & Quantities - See Sheet No. 38.

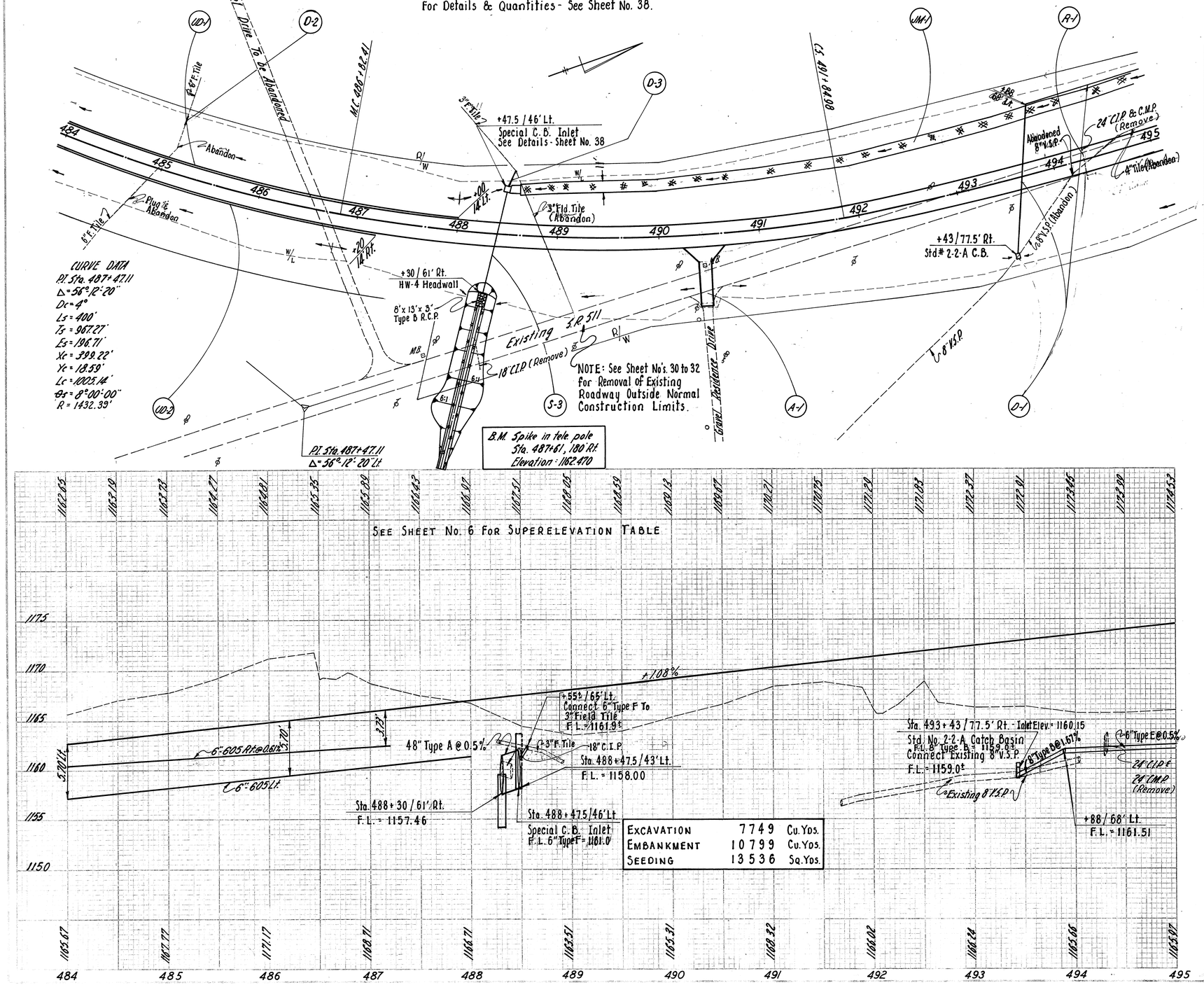
CALC. BY- W.T. 9-70
CHKD. BY- P.D.G. 9-70

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

ASD-511-8.44

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CURVE DATA
P.I. Sta. 487+47.11
Δ = 56°12'20"
Dc = 4°
Ls = 400'
Ts = 967.27'
Es = 196.71'
Xc = 399.22'
Yc = 18.59'
Lc = 1005.14'
θs = 8°00'00"
R = 1432.39'

B.M. Spike in tele pole
Sta. 487+61, 180' Rt.
Elevation - 162.470

Ref. No.	Station	202 Pipe Removed 24" & Under		304 Aggregate Base	404 Asphalt Concrete (Item 404)	604 Std. No. 2-2-A Catch Basin	605 Pipe Underdrain	667 Seeding And Mulching	603 Conduit Type B	603 Conduit Type E	603 Conduit Type F	603 Conduit Bends & Brans. 6"-60° Brans
		Lin.Ft.		Cu.Yds. 3"	Cu.Yds. 2"*	Each	Lin.Ft. 6"	Sq.Yds. 1" Mulch	Lin.Ft. 8"	Lin.Ft. 6"	Lin.Ft. 6"	
A-1	490+43 Rt. L=60'			15.3	5.8							
D-1	493+43 Rt. To 495+00 Lt.					1			150	110		1
D-2	485+09 Lt.										10	
JM-1	488+63 to 495+00 Lt.							779				
D-3	488+47.5 To 488+55 Lt.										18	1
P-1	494+30	34										
WD-1	484+00 to 488+00 Lt.						400					
WD-2	484+00 to 487+20 Rt.						320					
	TOTALS	34		15.3	5.8	1	720	779	150	110	28	

*2-1" Courses

SEE SHEET No. 6 FOR SUPERELEVATION TABLE

EXCAVATION	7749	Cu.Yds.
EMBANKMENT	10799	Cu.Yds.
SEEDING	13536	Sq.Yds.

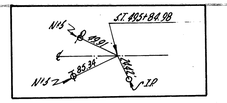
STA. 484+00 TO STA. 495+00

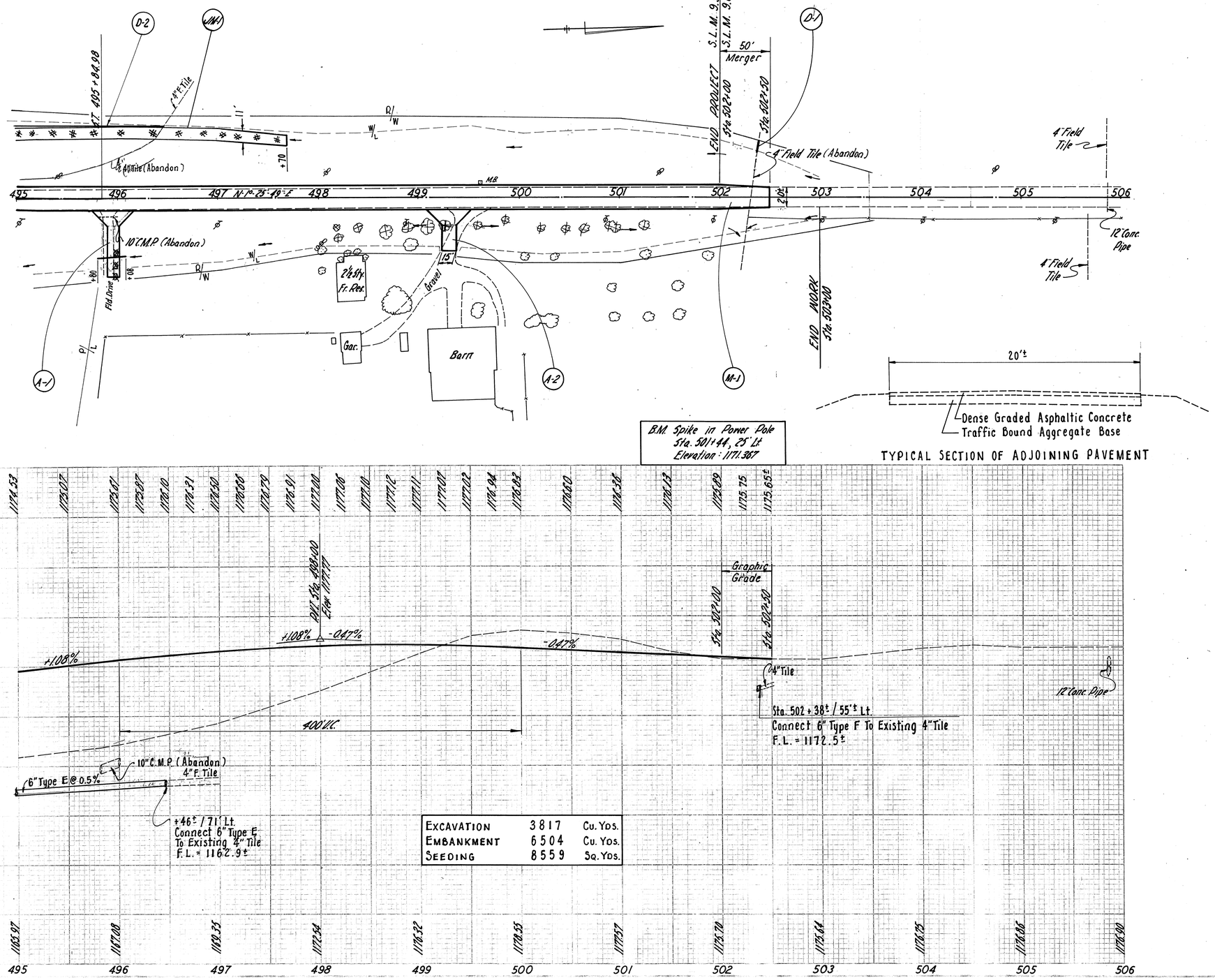
CALC. BY - W.T. 9-70
CHKD. BY - P.D.G. 9-70

FED. RD. DIVISION	STATE	PROJECT	
2.	OHIO		

ASD-511-844

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TYPICAL SECTION OF ADJOINING PAVEMENT

EXCAVATION	3817	CU. YDS.
EMBANKMENT	6504	CU. YDS.
SEEDING	8559	SQ. YDS.

Item		Unit	Size	495+96 Rt. L=66'	499+31 Rt. L=41'	502+38 Lt.	495+00 to 496+46 Lt.	502+00 to 502+50	495+00 to 498+70 Lt. Totals	Total
	Bends And Branches		6"x 60° Bend						1	
667	Seeding And Jute Matting	Sq. Yds.	11' Wide						330	330
603 Conduit	Type E	Lin. Ft.	6"				146			146
	Type F		6"				10			10
	Type D		12"			28				28
404	Asphalt Concrete (E5-100)	Cu. Yds.	2"			5.2				
			1¼"				4.2			9.4
304	Aggregate Base	Cu. Yds.	6"			18.6				
			5"			13.3				46.5
			4"				14.6			
301	Bituminous Aggregate Base	Cu. Yds.	4"				14.0			14.0
203	Subgrade Compaction	Sq. Yds.					122			
									122	122
Station				495+96 Rt. L=66'	499+31 Rt. L=41'	502+38 Lt.	495+00 to 496+46 Lt.	502+00 to 502+50	495+00 to 498+70 Lt. Totals	
Ref. No.				A-1	A-2	D-1	D-2	M-1	M-1	

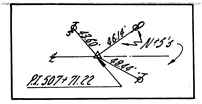
*2-1" courses

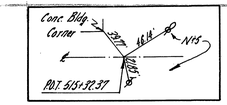
STA. 495+00 TO STA. 506+00

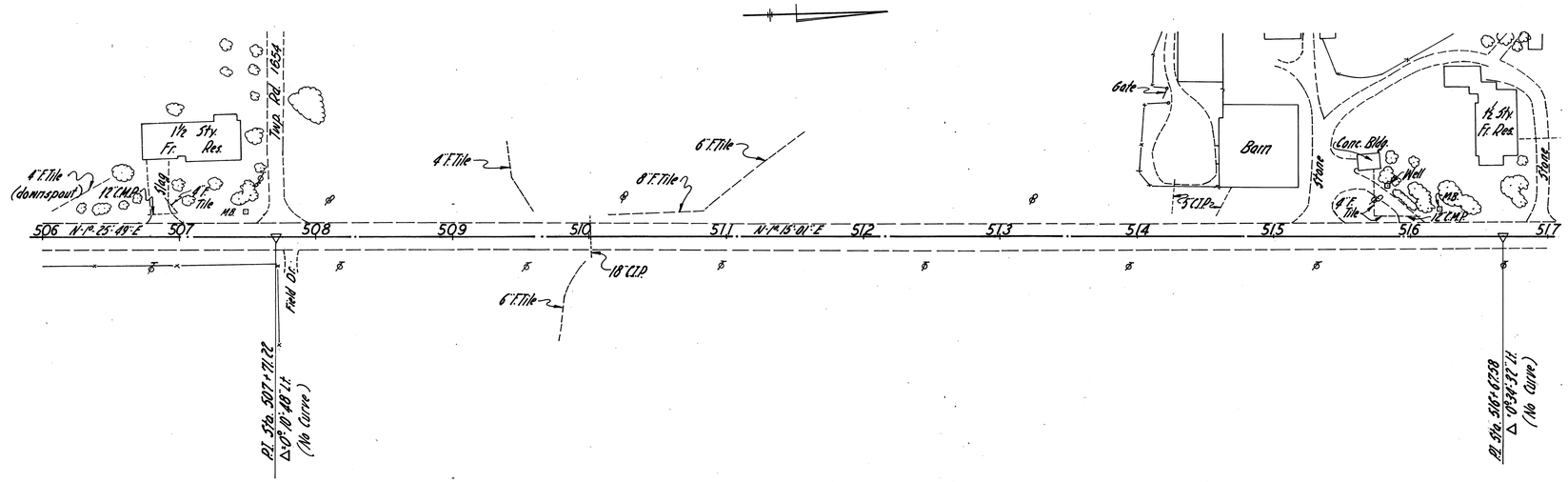
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

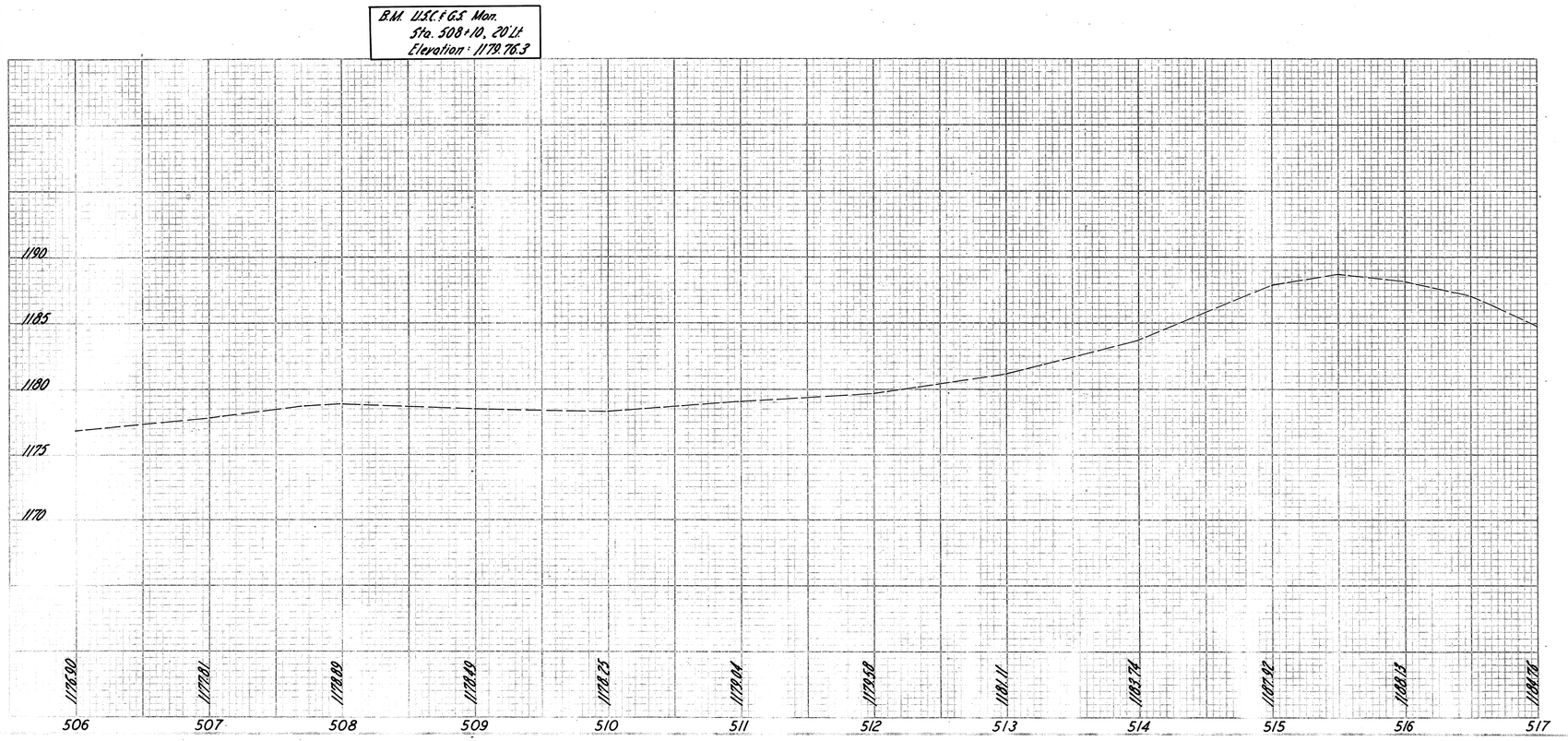
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ASD-511-8.44









STA. 506+00 TO STA. 517+00

PED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ASD- 511-8.44

CALC. BY DWM 9-70
CHKD. BY RBM 9-70

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS		CUT	FILL	CUT	FILL
68		Sta. 445+25				
	138		85	3		
		Back	55	3	35	2
31		Ahead	21	1		
		Sta. 445+00 Back	13	1		
	26				4	1
0		Sta. 444+85	0	0		

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

1200

Sta. 445+25

S

2:1

3:1

11975

6'

16" Conc. Pipe
444+85 Back
(Do not disturb)

Back

Ahead

1199.95

445+00

1199.9

BEGIN NEW PAVEMENT

+00 / 16'± Rt.
Std. No. 2-2-B C.B.

16:1

18"

18" Type C

N99.0

2:1

1196.4

3'

6:1

+25 Back

5:1

+25 Ahead

444+85 BEGIN WORK

18" C.M.P.

444+50
1200.9

444+00
1201.6

443+00
1203.1

442+00
1204.6

STA. 442+00 TO STA. 445+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ASD-511-8.44

CALC BY- Jum 8-70
CHKD BY- Jmm 9-70

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
126		1185	43	578		
		1192.67 449+50 1184.9			63	977
	670					
115		1185	25	477		
		1192.96 449+00 1186.2			202	1272
	1239					
108		1190	84	210		
		1193.93 448+00 1189.5			269	604
	1161					
101		1190	61	116		
		1193.43 447+00 1193.1			381	256
	1011					
81		1195	145	22		
		1197.16 446+00 1198.4			265	25
	436					
76		1200	141	5		
		1198.67 445+50 BEGIN PROJECT 1198.3			105	4
	200					
68		Sta. 445+25	Ahead-Sta. 445+25		85	3

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

STA. 445+50 TO STA. 449+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC BY - DMM 9-70
CHKD BY - RDM 9-70

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
119					
	1472	28	554		
				106	2739
146		29	925		
	859			54	1882
163		29	1107		
		54	1107		
914				95	2027
166		39	1082		
175				74	1912
	884				
152		41	982		
				69	1628
	809			60	0
139		33	776		
	736			71	1254
126		43	578		

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

S 4:1 1184.0 — 119.13 453+00 1183.9 — 1180.5 4:1 1180 — S

S 1180.0 — 119.57 452+00 1182.5 — S 4:1 1175.65 — 1180

90 85 80 M/L — S 1180 — Ahead 3:1 4:1 Back — 1180 Ahead 1179.0 — +50-10'-6" Type F Inv. 1177.7 ± — 1177.30 Back

119.79 451+50 1182.1 — +64/176 Rt. FL 1175.0 — Top Grate Elev. 1175.5 — 36" Type A — +67/83 Rt. W.O. 1176.0 — 12" V.S.P. — 1180 Ahead — Back — S — 4:1 1175.65 — 75 80 90

S 1180 3:1 10'-6" Type F 1177.0 — 90 80 — +29-160'-36" Conduit See Sheet No. 34 for Details

1180 1177.0 2:1 36" Type A — 6" Tile — 30" Conc. Pipe (Remove) 119.201 451+00 1182.8 — Conc. Slab — C.B. — 6" Tile (Abandon) — 12" Tile (Abandon) — 1180 — S — 4:1 1177.0 — 75 80 90

Add for Channel Work See Details Sht. #34

S 85 1180 80 M/L — 90 3:1 1177.0 — 119.23 450+50 1183.1 — S 1180 — 1179.5

Channel Quantity from Sheet No. 34

S 1180 — 1179.0 — Sta. 449+50 — 119.245 450+00 1183.7 — 4:1 — 1182.5 — 1180 — Sta. 449+50

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

STA. 450+00 TO STA. 453+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC. BY - DJM 9-70
CHKD. BY - JBM 9-70

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS	CUT	FILL	CUT	FILL
		984	0		
108					
1133	1190				
				3061	0
96					
1011	1190	669	0		
				2050	0
86					
810	1190	438	0		
				1135	0
76					
73					
81					
73					
1190					
436					
				85	0
				403	9
84	1190	205	9		
486					
				290	103
91					
1185		108	102		
1167					
				252	1215
119					
		28	554		

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

S

2:1

1188.42
458+00
1196.8

2½:1

1190

S

2:1

1189.19
457+00
1193.2

3:1

1190

S

2½:1

1189.79
456+00
1193.9

3½:1

1190

3—Add For Drive Sta. 455+10 Rt.

Ahead
Back Sta 455+10

Res. Drive Sta. 455+10 Rt. — 6 0

Res. Drive, +10
Gr. = ±3.8%, L=35'

S (+10 Back)

S (+10 Ahead)

S

3:1

1188.0

1190.25
455+00
1191.9

12" CMP
(Remove)

1188.4

4:1

4:1

+10 Back

+10 Ahead

Ahead 243 0
Sta 455+10
Back 230 0

1190

230 0

S

3:1

1187.5

1190.47
454+50
1191.1

1188.2

4:1

S

Res.

1190

S

3:1

1187.0

1190.89
454+00
1192.9

1187.2

4:1

S

1185

Sta. 453+00 28 554

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

STA. 454+00 TO STA. 458+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC. BY - DM 7-9-70
CHK'D. BY - T.H. 9-7-70

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		264	4		
85	928			1041	7
82	961	298	0	1400	0
				4	0
91	1022	458	0	1935	0
				67	0
93	525	587	0	1181	0
				86	0
96	550	688	0	1415	0
102	1167	840	0	3378	0
108		984	0		

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

1185 — S — 4% — 4:1 — 1182.12 — 463+00 — 1185.6 — 4:1 — S — 1185

1185 — S — 4:1 — 1183.71 — 462+00 — 1186.9 — 4:1 — S — 1185

Field Drive, 461+50
Gr.=+8%, L=40'

1190 — S — 2:1 — 12" Type D — 1185.12 — 461+00 — 1188.5 — 3:1 — S — 1190

27 — Add For Drive Sta. 459+87 Rt.

1190 — S — 2½:1 — 1186.29 — 460+00 — 1189.9 — 12" Type D — 2½:1 — S — 1190

Field Drive, +87
Gr.=+12%, L=68'

28 — Add For Drive Sta. 459+44 Rt.

1190 — S — 2:1 — 1186.96 — 459+50 — 1188.4 — 12" Type D — S — 1190

Field Drive, +44
Gr.=+12%, L=71'

1195 — S — 2:1 — 1187.49 — 459+00 — 1195.2 — 2½:1 — S — 1195

Sta. 458+00

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

STA. 459+00 TO STA. 463+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC. BY - DJM 9-70
CHKD. BY - JJK 9-70

SEEDING END WIDTH	SEEDING SQ. YDS.
5	
103	1128
100	1078
94	994
85	917
80	1022
104	1050
85	

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

Add For Drive Sta. 469+00 Lt.

Field Drive +00
Gr = -1.5%, L = 58'

S 1170 3:1 1167.1 15" Type D

1170.15
469+00
1168.3

S 1170 3:1 1168.6

1172.23
468+00
1168.9

6"-605 Deep Pipe Underdrain

10'-6" Type F

S 1170 1170.7

1174.31
467+00
1171.9

S 1170 1170.5

10'-6" Type F

S 1175 1173.5

6"-605 @ 1%

1176.89
466+00
1174.9

S 1175 1173.5

S 1180 4% (Normal) M/L 1177.2

1178.95
465+00
1179.7

S 4% (Normal) M/L Ahead

464+50

S 4% 4:1 1180.1

1180.37
464+00
1183.9

2 463+50± / 52'± Lt.
12" C.M.P. (Remove)

Sta. 463+00

4:1

Fld. Drive Sta. 469+00 Lt.

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
68	116		
		2	27
		174	643
26	231		
		91	763
23	181		
		100	522
31	101		
		339	196
152	5		
		830	33
296	13		
		1037	31
264	4		

Sta. 463+00

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

STA. 464 + 00 TO STA. 469 + 00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC BY - DWM 9-70
CHKD.BY - JJ 9-9-70

SEEDING END WIDTH	SEEDING SQ. YDS.	END. AREA CUT	END. AREA FILL	VOLUME CUT	VOLUME FILL
110	581	91	192	163	288
99	553	85	119	210	208
100	1111	142	105	459	444
100	1122	106	135	331	459
102	1100	73	113	269	372
96	1106	72	88	259	378
103	Sta. 469+00	68	116	Sta. 469+00	

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

1160 S 4:1 1156.2 — 1158.82 474+00 1156.0 — 1160 S 3:1 1154.4

1160 S 1157.2 — 1160.79 473+50 1158.8 — 1160 S 1157.5

1160 S 1158.5 — 1161.83 473+00 1161.0 — 1160 S 1158.3

S 4:1 1160.9 — 1163.91 472+00 1162.2 — S 3:1 1160.4 — 1160

1165 S 3:1 1163.0 — 1165.99 471+00 1164.1 — 1165 S 1162.5 — S 4:1

S 1165.1 — 1168.07 470+00 1166.4 — S 1164.5 — 1165

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

STA. 470+00 TO STA. 474+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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22
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CALC.BY - RJM 9-70
CHK'D.BY - DJM 9-70

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
76					
104					
	150				
104					
126					
	692				
123					
	1036				
	664				
116					
	647				
117					
	633				
111					
	614				
110					
Ahead 476+63 Back		0	804		
		0	887	0	427
Ahead 476+50 Back		0	887		
		9	887	32	1429
		S			
		25	656		
Add for Channel from Sheet No. 37				742	519
				77	1027
		58	453		
				115	584
		66	177		
Field Drive, Sta. 474+75 Gr. + 8.5%, L = 60'				3	27
				142	293
		87	139		
				165	307
Sta. 474+00		91	192		

1140
Ahead 476+63 Back
Match Line 14+31 Channel
+63 Ahead
2:1
2:1
-2%
1144.50
Match Line Ahead
2:1
1145
Ahead 476+50 Back
1150.92 476+50 1145.3
2:1
S(A)
1145
2:1
1141.2
S(B)
Back
2½:1
S
1146.4
2%
1145
Add for Channel from Sheet No. 37
2½:1
2½:1
2%
2½:1
2%
S
1144.5
1145
1157.24 476+00 1147.0
8:1
3:1
S
3:1
1150.5
1150
8:1
8:1
3:1
S
1150
3:1
1147.0
1157.68 475+50 1151.3
S
3:1
1153.7
1155
1155.5
S
4:1
1149.5
1158.26 475+00 1156.1
Field Drive, Sta. 474+75 Gr. + 8.5%, L = 60'
15" Type D
1150.75
5—Add For Drive Sta. 474+75 Rt.
S
4:1
1155.2
1155
1158.97 474+50 1158.8
S
1155
4:1
1152.0
Spring, +50± See General Note
Sta. 474+00

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

STA. 474+50 TO STA. 476+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC.BY - RMM 9-70
CHK'D.BY - LRM 9-70

SEEDING END WIDTH	SEEDING SQ. YDS.
16	91
195	
544	
	105
614	
	116
672	
126	
681	
119	
130	
811	
162	
360	
162	
136	
200	
76	

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

Add For Drive Sta. 479+25 Rt.

Add For Drive Sta. 479+25 Lt.

+25, Connection to Exist S.R. 511
Gr = -02%, L = 78.68'

Profile Existing S.R. 511

Res. Drive, +25
Gr = +28½% L = 120' (On ℄)

Res. Drive Sta. 479+25 Lt.

12" Type D 1153.8

10'-6" Type F
478+80

6"-605

15" Type D 1153.7

1155.79
479+50
1158.1

1157.32
479+00
1156.2

1156.97
478+50
1152.1

1156.78
478+00
1147.6

1156.68
477+50
1148.4

1156.74
477+00
1149.6

1150.8

1147.8

1147.0

1144.8

1153.0

1151.5

1148.5

1144.0

1143.0

Ahead
477+50
Back

Ahead
476+80
Back

STA 476+63 Ahead

Ditch
476+94 Ahead

Ditch
476+80 Ahead

	CUT	FILL	CUT	FILL
			4	19
	158	1		
			303	30
Res. Drive Sta. 479+25 Lt.			35	0
	169	31		
			349	256
	208	245		
			223	766
	33	582		
			60	1187
Ahead	32	700		
Back	39	700		
			85	1274
	52	676		
			24	548
Ahead STA 476+80	12	804		
Back	0	804		
STA. 476+63 Ahead	0	804	0	506

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

STA. 477+00 TO STA. 479+50

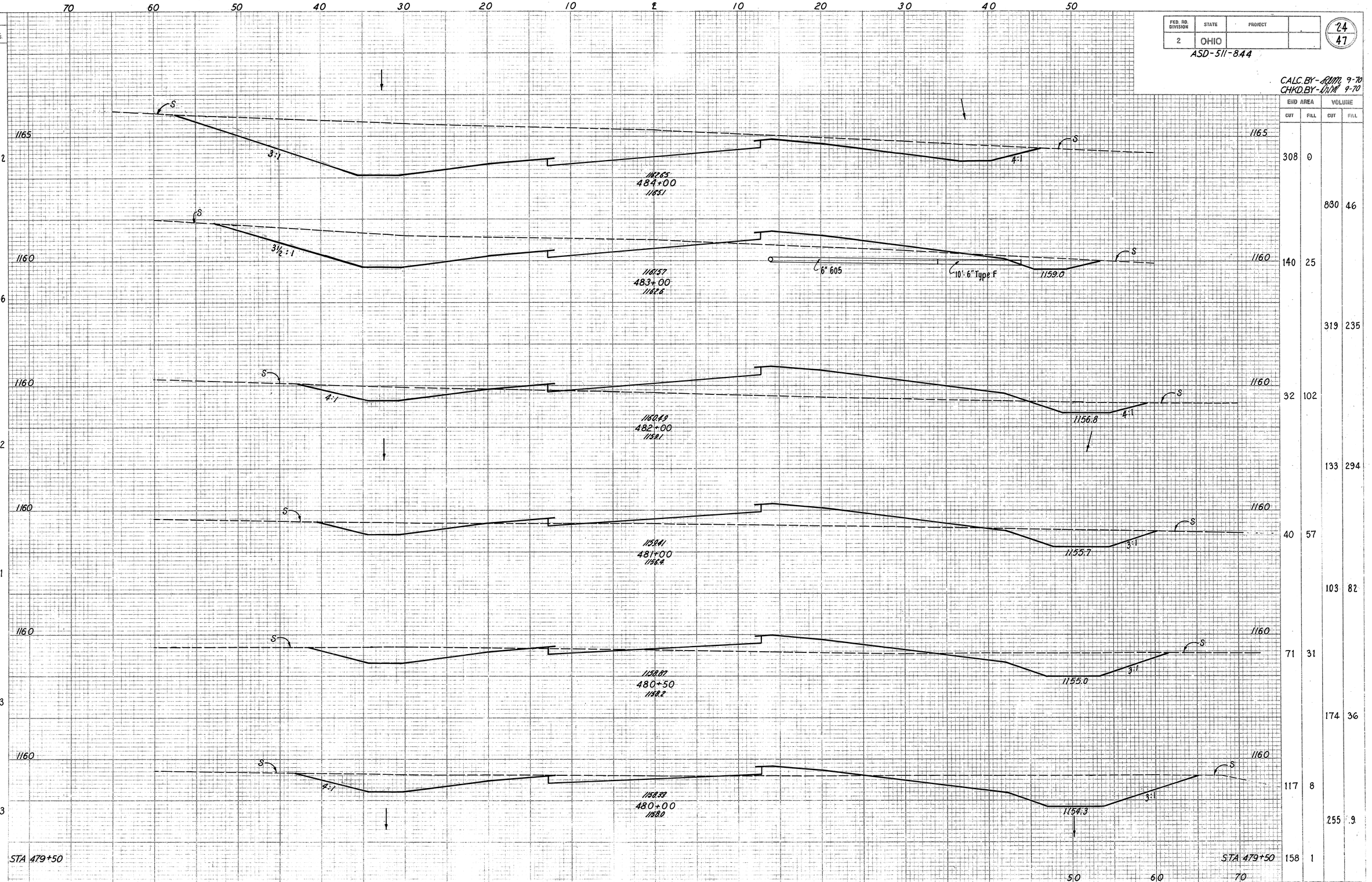
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC. BY - RMM 9-70
CHKD. BY - LHM 9-70

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
87	972	308	0	830	46
88	956	140	25	319	235
84	922	32	102	133	294
82	461	40	57	103	82
84	483	71	31	174	36
90	503	117	8	255	9
91	STA 479+50	158	1		



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC.BY- RWM 9-70
CHKD.BY- DWM 9-70

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

SEEDING

END WIDTH	SQ. YDS.
85	956
87	513
	939
82	470
87	492
90	967
84	950
87	

S

4:1

3:1

1162.90

1160

3" Field Tile

+55± / 65' Lt.
Connect 6" Type F
To Exist. 3" F. Tile
F.L. = 1161.9±

18'- 6" Type F. Conduit

8:1

48" Conduit
Type A 706.02
@ 0.5%

Special C.B. Inlet +47.5 / 46' Lt
Inlet E. 1158.0

Ditch Dike
1165.0

1164.50

1165

Channel Quantity from
Sheet No. 38

3" Field Tile (Abandon)

1168.05
489+00
1163.5

488+40 Culvert
See Sheet No. 38 for Details

W.L.

6:1

1161.4

1160

3:1

2:1

+30/61 Rt.
E. Outlet 1157.46

104-48" Conduit Type A 706.02
@ 0.5%

1166.97
488+00
1166.7

1163.0

4:1

1165

Channel Quantity
from Sheet No. 38

1170

3½:1

1165.89
487+00
1168.7

1165.75

180±

1170

3:1

1165.35
486+50
1169.9

2½:1

1164.81
486+00
1171.2

1170

6" Fld. Tile (Abandon)

Connect 6" Type F
To Existing 6" F. Tile
+09± / 60'± Lt.

1163.73
485+00
1167.8

Plug & Abandon
484+81±

STA 484+00

STA 484+00

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

STA. 485+00 TO STA. 489+00

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	15	361		
			152	817
	67	80		
			423	0
			667	148
	293	0		
			695	0
	457	0		
			955	0
	574	0		
			1787	0
	391	0		
			1294	0
	308	0		

FED. RD. DIVISION	STATE	PROJECT	
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CALC. BY-DWM 9-70
CHKD.BY-J.N.9-70

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

SEEDING END WIDTH	SEEDING SQ. YDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
S					
145		1165			
		78	678		
	797				
S					
142		1165			
		102	534		
	1528				
S					
133		1165			
		183	295		
	1400				
				528	1535
S					
119		1165			
		98	169		
	625				
11	Add For Drive Sta. 490+43 Rt.				
				129	367
				3	12
S					
106		1165			
		41	227		
	636				
				83	465
123	Ahead Sta 490+00 Back				
79		1165			
		48	275		
		18	250		
	911				
				61	1131
85	Sta. 489+00				
				15	361

1164.3
1172.91
493+50
1165.8
8" Type D @ 1.67%
8" V.S.P. (Abandon)
℄ 1159.0±
+43/77.5 Rt.
Std. #2-2-A C.B.
Connect 8" V.S.P. into C.B.
1160.4
1160.6
1164.1
1172.37
493+00
1165.8
1164.5
1163.8
1172.29
492+00
1166.0
1163.5
1170.21
491+00
1166.3
1165.5
Res. Drive+43
Gr = -8%, L=60'
1166.0
1163.4
1163.87
490+50
1166.5
M/L Back
1164.0
6:1 (Normal)
1163.2
1163.13
490+00
1166.3

STA. 490+00 TO STA. 493+50

FED. RD. DIVISION	STATE	PROJECT	
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CALC. BY- W.T. 9-70
CHKD. BY- DJM 9-70

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
103		27	302		
	603			44	749
114		20	507		
	11			76	2187
	1306			2	21
121		21	674		
	1417			106	2667
134		36	766		
	761			72	1436
140		42	785		
	783			90	1503
142		55	838		
	797			123	1404
145		78	678		

1170 S 4:1 1168.5 1172.5 S 1170

1174.79
497+50
1171.5

1170.0 S

1165 1166.5 1165

1174.50
497+00
1169.4

Add For Drive Sta. 495+96 Rt.

+46 / 7.1' Lt. Connect 6" Type E To 4" F Tile F.L. = 1162.9±

3:1 1165 1165.3 4" Tile (Aban.) 496+50

Field Drive, +96 6% - 12%, L = 66'

+08 - 12" Type D S

1165 S 4:1 1165.0 1167.5 +80 - 12" Type D 1165

4" Tile (Aban.)

1175.61
496+00
1169.1

10" C.M.P. (Abandon)

36 S 3:1 1165 1164.7 1165 S

6" Type E

4" Tile

1174.53
495+00
1168.0

1164.0

72

140 S 3:1 1165 1164.55 1165 42 S

+31 - 24" C.I.P. (Remove) 1172.99

C.M.P. +29

494+50
1165.7

1162.0

90

142 S 3:1 1165 1164.4 1165 55 S

8" Type B @ 1.67%

1173.45
494+00
1163.1

Abandoned 8" V.S.P.

8" V.S.P. (Abandon)

1161.6 4:1

123

+88 / 68' Lt. Connect 8" Type B To 6" Type E F.L. = 1161.51

145 Sta. 493+50 Sta. 493+50 78 678

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

STA. 494+00 TO STA. 497+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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CALC. BY - W.T. 9-70
CHKD. BY - D.M.M. 9-70

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		385	0		
				1269	0
		300	0		
				534	0
		273	0		
				391	17
				12	0
		149	18		
				224	93
		93	82		
				130	261
		47	200		
				69	465
		27	302		

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

101 1111 99 556 101 539 5 93 511 91 497 88 531 103

1175 S 1171.5 1176.36 501+00 1177.6 3:1 1175 S

1175 S 1171.2 1176.83 500+00 1176.6 1175 S

1175 S 1171.0 1177.02 499+50 1176.0 3:1 1178.3 S

Res. Drive, +31
Gr. = +10%, L = 41'

1175 S 1170.5 1177.11 499+00 1176.3 4:1 1175.6 S 1175

S Residence Porch +44 Back

1170 S 3:1 1170.2 1177.18 498+50 1176.8 1175.3 S 1170

1170 S 4:1 1170.0 1177.00 498+00 1175.5 4:1 S 1170

STA 497+50 Sta. 497+50

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

STA. 498+00 TO STA. 501+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

29/47

ASD-511-8.44

CALC. BY- W.T. 9-70
CHKD. BY- [illegible] 9-70

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
0		0	0		
	147			29	6
53		32	6		
	353	49	6	104	16
74		63	12		
	972			830	22
101		385	0		

70 60 50 40 30 20 10 ℄ 10 20 30 40 50

11.75

Sta 503+00

503+00 END WORK
1175.6

Sta. 503+00

11.75

506+00
1176.

12" Conc.

11.75

505+00
1176.9

11.75

504+00
1176.9

11.75

11.75

Ahead

Back

6:1

3:1

S

2" Tile

Connect 6" Type F to Exist. 4" Tile +38±/55'± Lt.

10'-6" Type F

1172.0

+33±/24'± Lt. Plug & Abandon

502+50
1176.6

4" Tile (Abandon)

1173.7

Sta. 502+50

11.75

11.75

3:1

1171.8

1175.89
502+00 END PROJECT
1176.1

11.75

STA 501+00

Sta. 501+00

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

STA. 502+00 TO STA. 506+00

Calc. By W.T. 9-70
Chkd. By T.H. 9-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

ASD-511-8.44

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NOTE:

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS:

THE EXISTING PAVEMENT AS INDICATED ON THE PLANS BY CROSS HATCHING SHALL BE REMOVED. THE OLD ROADWAY GRADED TO THE LEVEL OF THE SURROUNDING GROUND, THE OLD DITCHES FILLED, AND THE DISTURBED AREAS SLOPED TO DRAIN AND LEFT IN A NEAT CONDITION READY FOR SEEDING. SEEDING SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM 659 SEEDING AND MULCHING. PAYMENT FOR THE ABOVE WORK, EXCEPT SEEDING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203. SEE CROSS SECTIONS, SHEETS 31-33 FOR DETAILS.

Ref. No.	Station	202 Pipe Removed 24" & Under Lin. Ft.	404 Asphalt Concrete (385-100) Cu. Yds.	304 Aggregate Base Cu. Yds.	603 Conduit Type D 707.01, 14 Gage Lin. Ft.	606 Guard Rail Type 5 Lin. Ft.	606	603 Conduit Type F Lin. Ft.
			2"*	7"	12"			6"
A-1	484+20 Lt. L=48'		6.1	22.6	50			
R-1	468+02	32						
R-2	481+37	34						
R-3	478+09± To 478+27± Rt.	18						
GR-1	484+60					25		
D-1	485+90 Lt.							18
	TOTALS	84	6.1	22.6	50	25		18

* 2-1" Courses.

EXCAVATION	2464	CU. YDS.
EMBANKMENT	2173	CU. YDS.
SEEDING	14026	SQ. YDS.

PLAN - EXISTING S.R. 511

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

31
47

ASD-511-8.44

CALC. BY 12/9-70
CHKD. BY HM 9-70

	END AREA	CU. YDS.
	CUT / FILL	CUT / FILL
476+00	27 / 7	26 / 93
475+00	9 / 1	39 / 59
474+00	19 / 0	26 / 52
473+00	9 / 3	6 / 52
472+00	7 / 21	44 / 30
471+00	22 / 13	63 / 54
470+00	74 / 85	180 / 39
STA. 466+00	18 / 33	238 / 240
STA. 464+50 AHEAD	3 / 64	0 / 258
	62 / 0	0 / 31

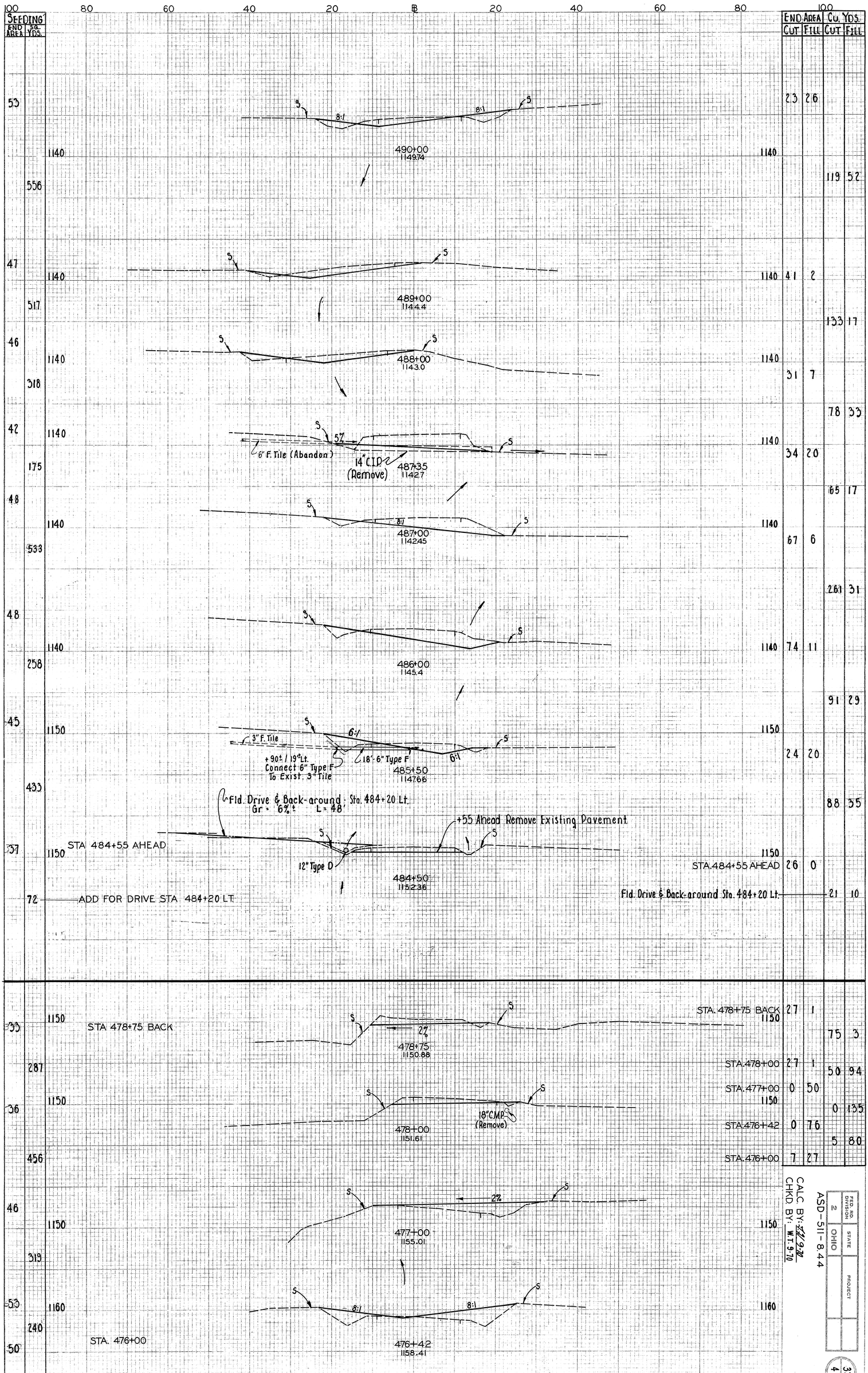
SEEDING	END	SQ. YDS.
	WIDTH	
476+00	50	578
475+00	54	567
474+00	48	511
473+00	44	483
472+00	43	472
471+00	42	483
470+00	45	528
469+00	50	544
468+00	48	1122
466+00	53	750
464+50 AHEAD	37	

Sta. 464+50 Ahead

476+00 1160.87
475+00 1165.29
474+00 1169.66
473+00 1171.89
472+00 1172.79
471+00 1173.19
470+00 1175.4
469+00 1175.39
468+00 1174.39
466+00 1177.12
464+50 AHEAD 1180.92

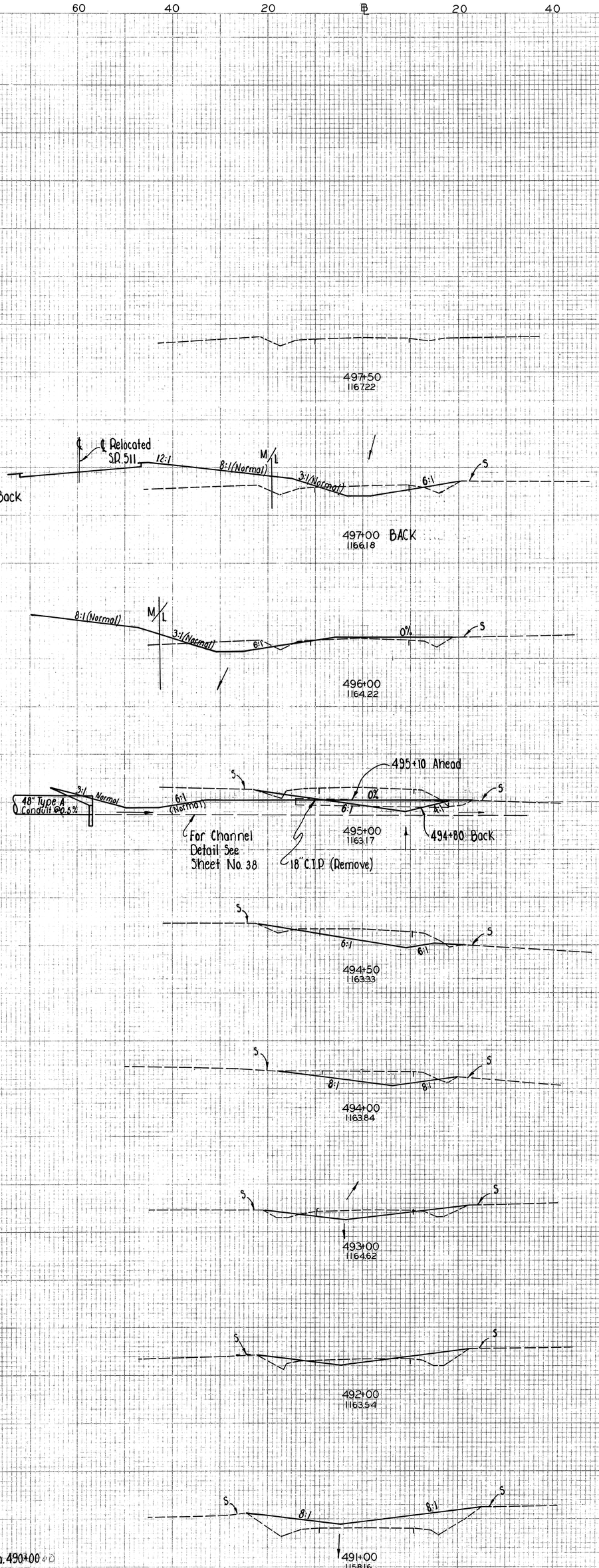
STA. 464+50 AHEAD BEGIN WORK

EXISTING S. R. 511 – STA. 464+50 TO STA. 476+00


SEEDING END AREA SQ. YDS.
END AREA CU. YDS. CUT FILL CUT FILL
100 80 60 40 20 B 20 40 60 80 100
490+00 1149.74
489+00 1144.4
488+00 1143.0
487+35 1142.7
6" F. Tile (Abandon)
14" CID (Remove)
487+00 1142.45
486+00 1145.4
485+50 1147.66
3" F. Tile
+90± / 19° Lt. Connect 6" Type F To Exist. 3" Tile
18"-6" Type F
Fld. Drive & Back-around Sta. 484+20 Lt. Gr = 6.7% ± L = 48'
+55 Ahead Remove Existing Pavement
STA 484+55 AHEAD
12" Type D
484+50 1152.36
ADD FOR DRIVE STA 484+20 LT
STA 478+75 BACK
478+75 1150.88
478+00 1151.61
18" CMP (Remove)
477+00 1155.01
476+42 1158.41
STA. 476+00
EXISTING S.R. 511 – STA. 476+42 TO STA. 490+00
STA. 484+55 AHEAD 26 0
Fld. Drive & Back-around Sta. 484+20 Lt. 21 10
STA. 478+75 BACK 27 1
STA. 478+00 27 1 50 94
STA. 477+00 0 50 0 135
STA. 476+42 0 76 5 80
STA. 476+00 7 27
CALC BY: [illegible] 9-70
CHK'D BY: W.T. 9-70
FED. RD. DIVISION 2 | STATE OHIO | PROJECT
ASD-511-8.44
32
47

SEEDING END AREA	SEEDING SQ. YDS.
42	589
64	640
64	
0	
0	
0	
50	163
48	253
43	506
48	539
49	556
51	578
53	

END AREA CUT	END AREA Fill	Cu. Yds. CUT	Cu. Yds. Fill
Sta. 497+00 Back	33	24	
		119	72
	31	15	
		160	33
Ahead	65	5	
Sta 495+10 Back	0	0	
		0	0
Ahead	0	0	
Sta. 494+80 Back	102	5	
		92	5
	63	3	
		111	4
	57	1	
		159	22
	29	11	
		70	72
Sta 492+00	9	28	
		17	241
Sta 491+00	0	102	
		43	237
Sta 490+00	23	26	



EXISTING SR. 511 STA. 491+00 TO STA. 497+00

CALC. BY: I.H. 9-70
CHKD. BY: W.T. 9-70

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

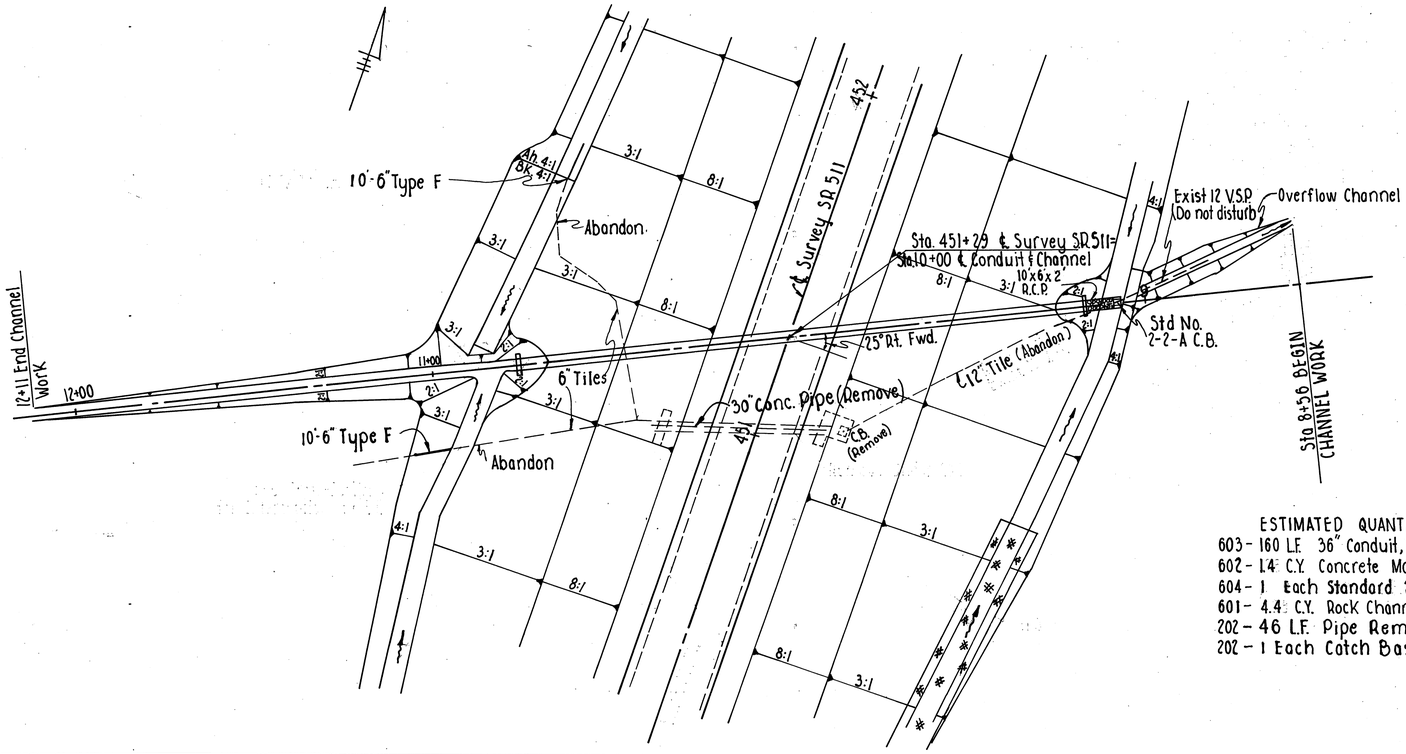
ASD-511-8.44

CALC. BY: BAL 4-1-70
CHKD. BY: W.T. 9-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

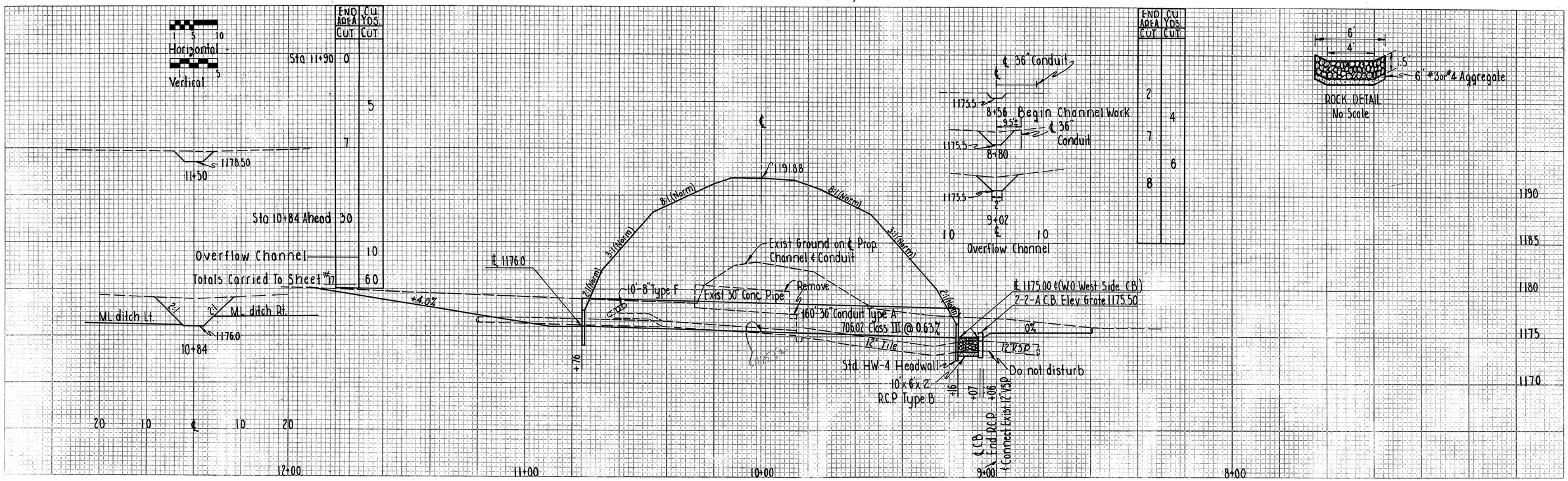
34
47

ASD-511-8.44



S-1 Structure N. ASD-511-0855
Sta. 451+29 Skew = 25° R.F.
Existing: 30" Concrete (To Be Removed)
Proposed: 36" Conduit, Type A, 706.02, Class III
With HW-4 Headwalls Lt. & Rt.
D.A.= 37 Ac Q25 = 76 c.f.s.

ESTIMATED QUANTITIES
603 - 160 L.F. 36" Conduit, Type A, 706.02, Class III
602 - 14 C.Y. Concrete Masonry.
604 - 1 Each Standard 2-2-A Catch Basin
601 - 4.4 C.Y. Rock Channel Protection, Type B.
202 - 46 L.F. Pipe Removed, Over 24"
202 - 1 Each Catch Basin Removed



CULVERT DETAIL STA. 451+29

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

35
47

ASD-511-8.44

Calc. By: B.H. 8/70
Chkd. By: REM 8/70

CHANNEL EMBANKMENTS:

PORTIONS OF THE EXISTING CHANNEL OUTSIDE THE ROADBED SHALL BE FILLED AND SLOPED TO DRAIN AS CALLED FOR ON THE PLANS AND INCLUDED FOR PAYMENT IN THE PRICE BID FOR ITEM 203 EMBANKMENT. THE CONTRACTOR SHALL USE EITHER SUITABLE OR UNSUITABLE MATERIAL TO THE EXTENT AVAILABLE FOR CHANNEL EMBANKMENTS.

AREAS WHERE CHANNEL EMBANKMENTS ARE TO BE PLACED SHALL BE CLEARED OF WEEDS AND BRUSH.

THE REQUIREMENTS FOR MOISTURE, DENISTY CONTROL, BENCHING, AND SUITABLE MATERIALS SHALL BE WAIVED.

THE DEPTH OF LAYERS IN WHICH THE EMBANKMENTS ARE PLACED AND THEIR COMPACTION SHALL, IN LIEU OF THE REQUIREMENTS OF ITEM 203, CONFORM WITH ACCEPTABLE CONSTRUCTION PRACTICES AS DETERMINED BY THE ENGINEER.

NO PROVISION OF THE SPECIFICATIONS SHALL BE WAIVED FOR EMBANKMENTS WHICH SUPPORT ANY PORTION OF THE NEW ROADBED OR STRUCTURAL MEMBERS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EMBANKMENT.

NOTE: See Standard Drawing SP-53 for additional details and notes. Concrete shall be Class 'C'. Cost of furnishing and placing Reinforcing Steel shall be included in the Unit price bid for Item 602 Concrete Masonry.

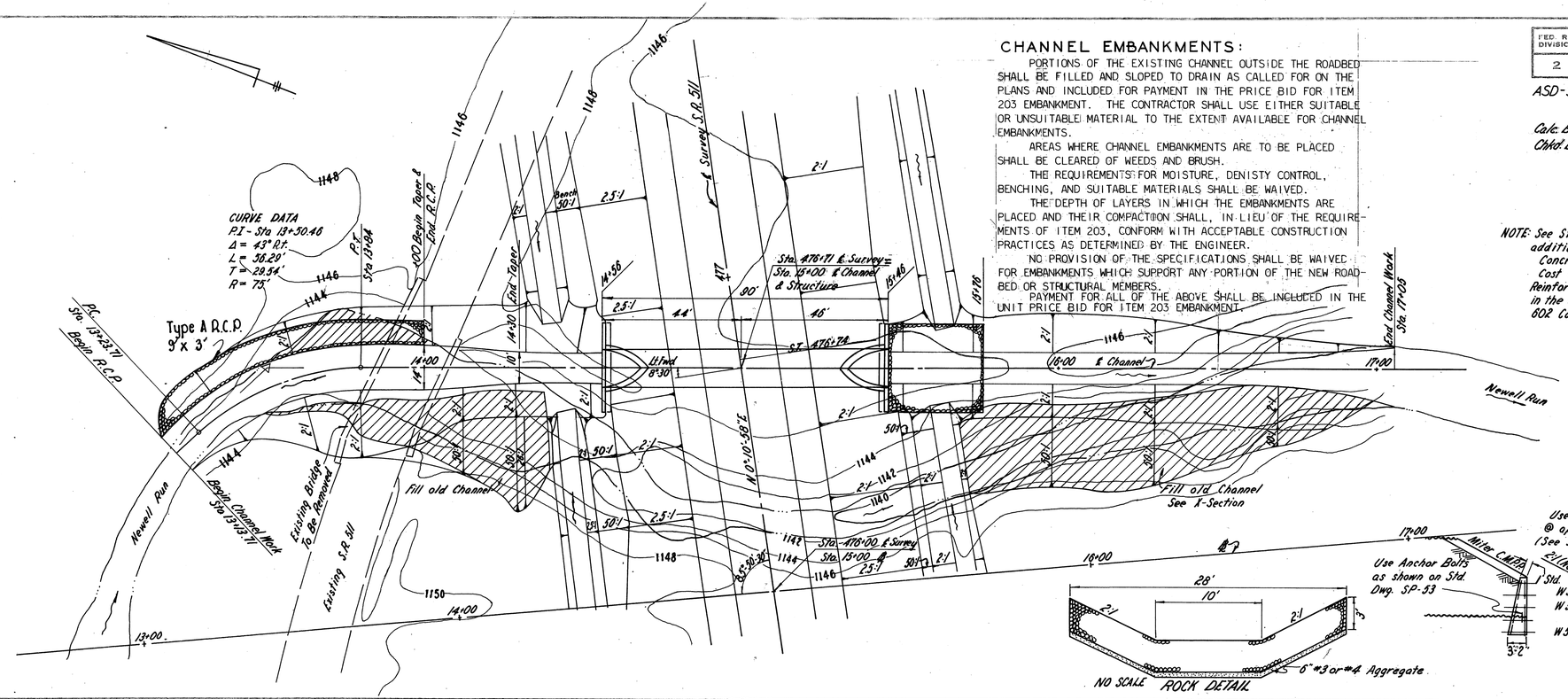
Existing Bridge Data
ASD-511-0907

Type:	Steel Beam
Span:	26'-6"
Roadway:	19'-6"
Skew:	0°
Alignment:	10° R.C. Rear - 4° L.C. Fwd.
Loading:	S-15.6-46
Substructure:	Stone & Conc. Gravity
Wearing Surface:	Bituminous
Condition:	Fair

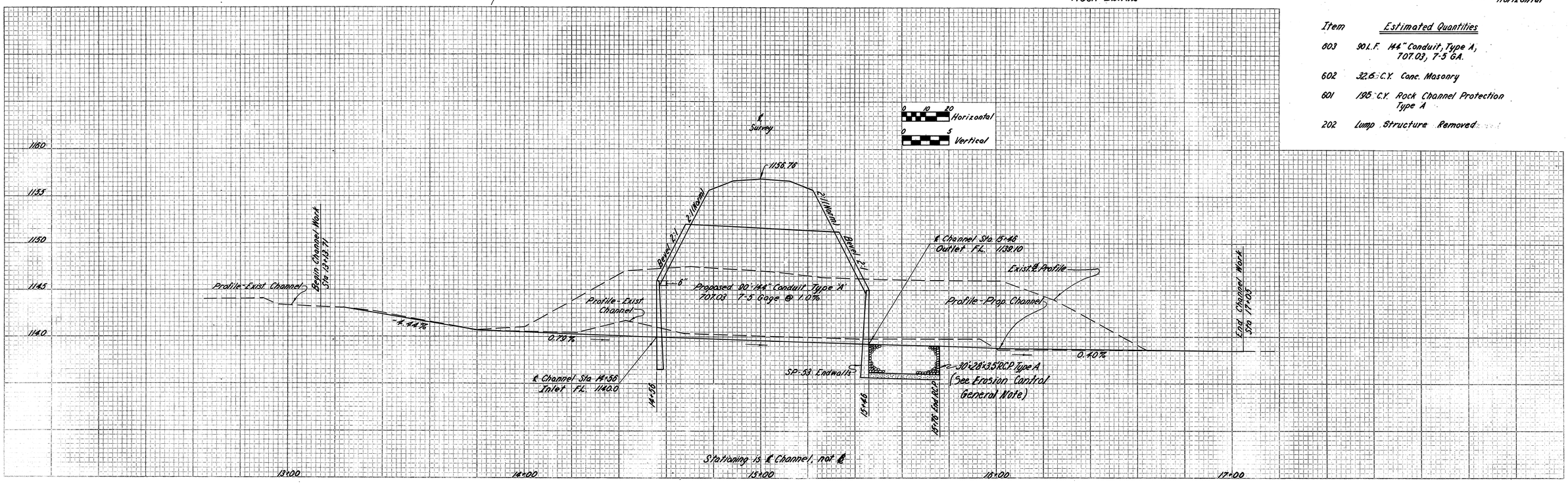
To be removed

Proposed Structure
ASD-511-0903

Sta 476+71
90'-144" Type 'A' Conduit, 707.03
7-5 Gage
Skew: 8°30' Lt. Fwd.
D.A. 3.06 Sq. Mi. Q25=965 C.F.S.



REINFORCING STEEL			
Mark	Number	Type	Length
W501	24	Str.	8'-8"
W502	8	Str.	3'-2"
W503	4	Str.	2'-8"
W504	16	Str.	7'-1"
W505	8	Str.	8'-10"
W506	8	Str.	27'-8"



Estimated Quantities

Item	
603	90 L.F. 144" Conduit, Type A, 707.03, 7-5 GA.
602	32.6 C.Y. Conc. Masonry
601	195 C.Y. Rock Channel Protection Type A
202	Lump Structure Removed

CULVERT DETAIL STA 476+71

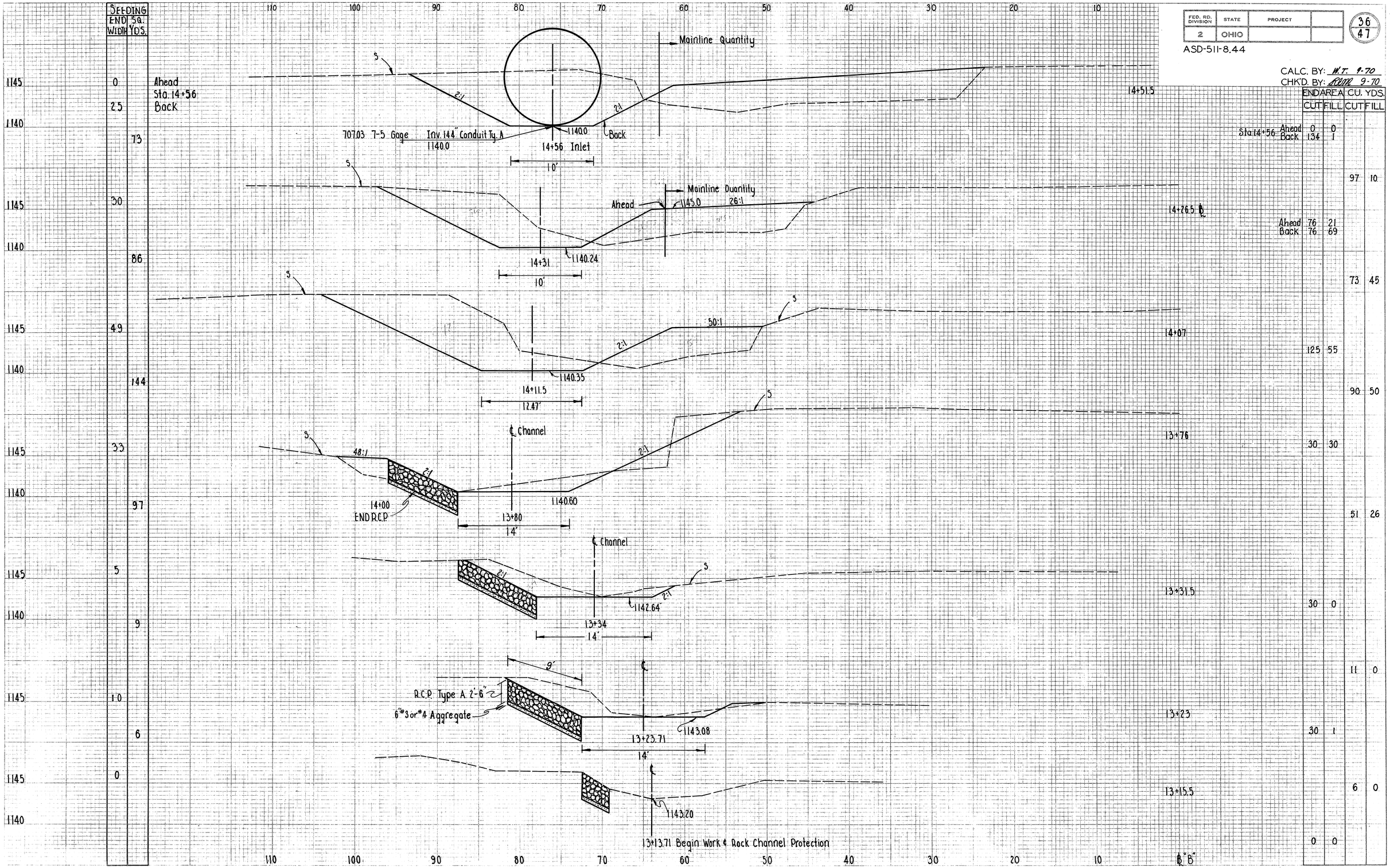
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ASD-511-8.44

CALC. BY: W.T. 9-70
CHK'D. BY: RMM 9-70

SEEDING END WIDTH	SQ. YDS.			END AREA CU. YDS. CUT	FILL	CUT	FILL
1145	0	Ahead Sta. 14+56 Back					
	25						
1140							
	73			Sta 14+56 Ahead	0	0	
				Back	134	1	
						97	10
1145	30						
1140				Ahead	76	21	
	86			Back	76	69	
						73	45
1145	49						
1140						125	55
	144						
						90	50
1145	33						
1140						30	30
	97						
						51	26
1145	5						
1140						30	0
	9						
						11	0
1145	10						
	6					30	1
1145	0						
						6	0
1140							
						0	0



CHANNEL CROSS SECTIONS - STA 13+13.71 TO STA 14+56

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

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47

ASD-511-8.44

CALC. BY: W.T. 9-70
CHK'D. BY: [illegible] 9-70

SEEDING END WIDTH	SEEDING SQ. YDS.
0	
	51
26	
	171
51	
	143
52	
	162
52	
	52
52	
28	42
6	
0	
	1036

Total Carried To Sheet No. 22.

END AREA CUT	END AREA FILL	CU. YDS. CUT	CU. YDS. FILL
0	0		
		3	26
5	40		
		63	122
80	124		
		85	106
104	105		
		116	102
120	91		
		40	30
		107	2
		0	0
		742	519

Sta. 15+68 Ahead 120 91
Back 120 6

Sta. 15+46 Ahead 142 0
Back 0 0

Sta. 14+56 Ahead 0 0

"B" Totals Carried To Sheet No. 22

17+00
17+05 End Channel Work
16+64.5
16+70 1138.60
16+25
16+30 1138.76
16+00
16+05 1138.86
15+72
15+77 1138.98
15+42
15+46 Outlet Begin R.C.P.
End R.C.P. +76
1139.10
See Sheet No. 35 for Details & Quantity
Mainline Quantity
℄ Channel
Back to +68
Ahead
Ahead Sta. 15+68 Back
Ahead Sta. 15+46 Back
S
S(A)
2:1
50:1
11.5
1145
1140
110 100 90 80 70 60 50 40 30 20 10

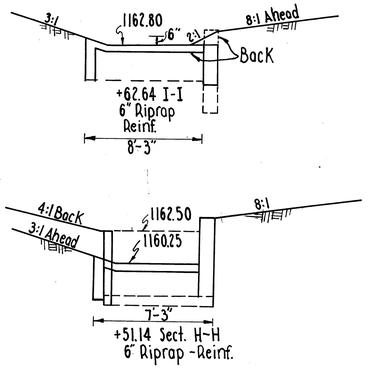
CHANNEL CROSS SECTIONS-STA 15+46 TO STA 17+05

Calc by: BJL
Chkd by: JJL

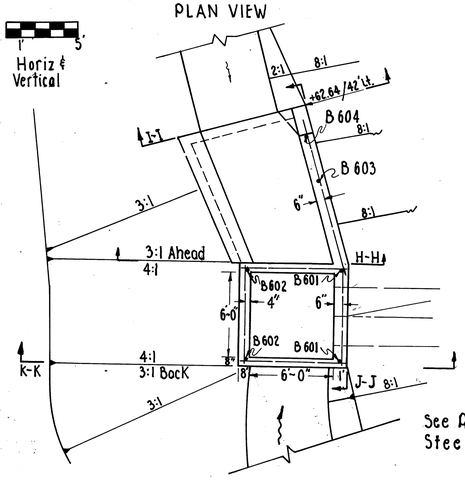
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

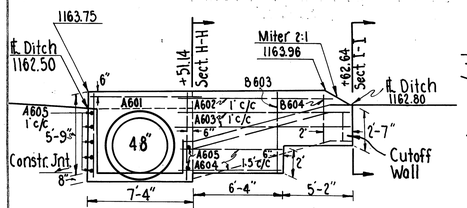
38
47

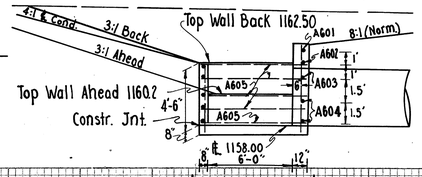
ASD 511 - 8.44

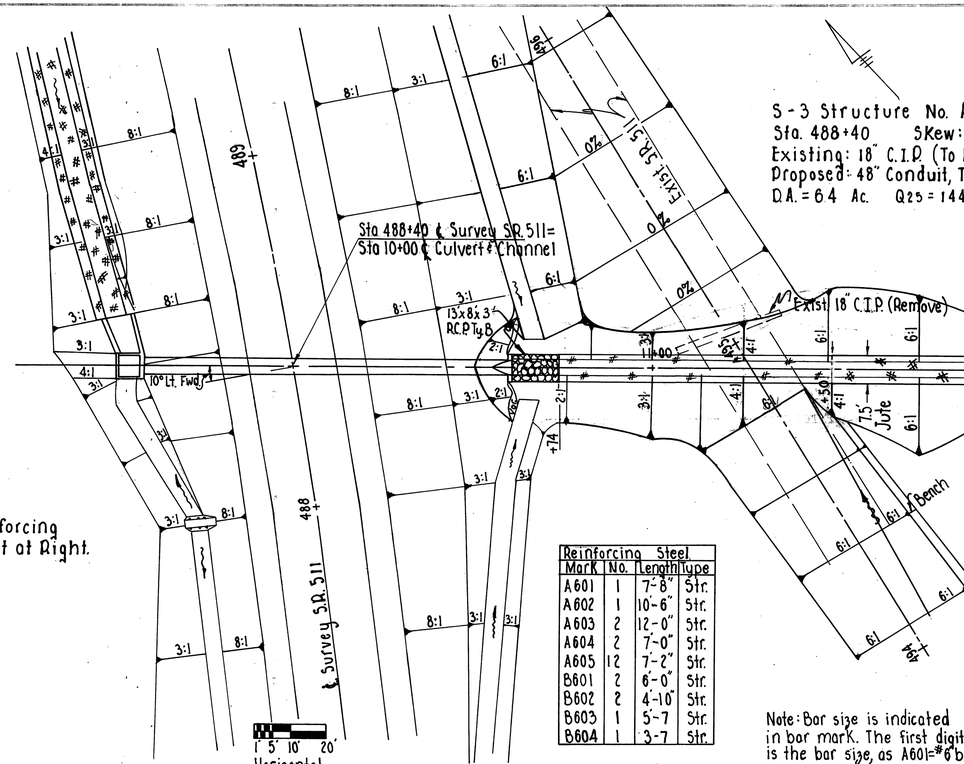


Details for Riprap & Special Catch Basin Inlet.









S-3 Structure No. ASD-511-0925
Sta. 488+40 Skew: 10° L.F.
Existing: 18" C.I.P. (To Be Removed)
Proposed: 48" Conduit, Type A, 706.02
D.A. = 6.4 Ac. Q25 = 144 c.f.s.

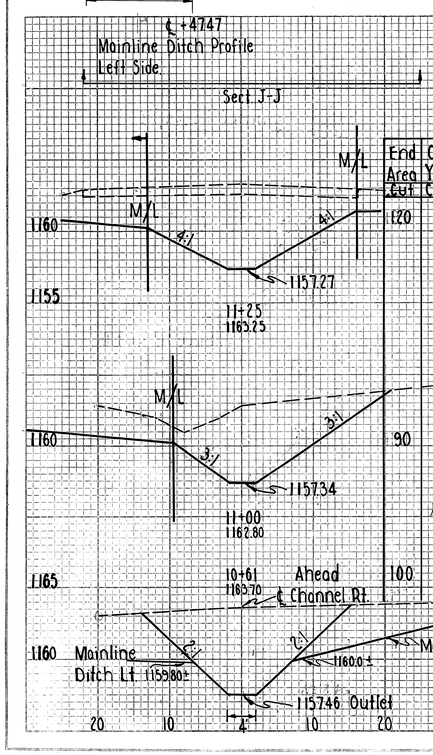
Reinforcing Steel			
Mark	No.	Length	Type
A601	1	7'-8"	Str.
A602	1	10'-6"	Str.
A603	2	12'-0"	Str.
A604	2	7'-0"	Str.
A605	12	7'-2"	Str.
B601	2	6'-0"	Str.
B602	2	4'-10"	Str.
B603	1	5'-7	Str.
B604	1	3'-7	Str.

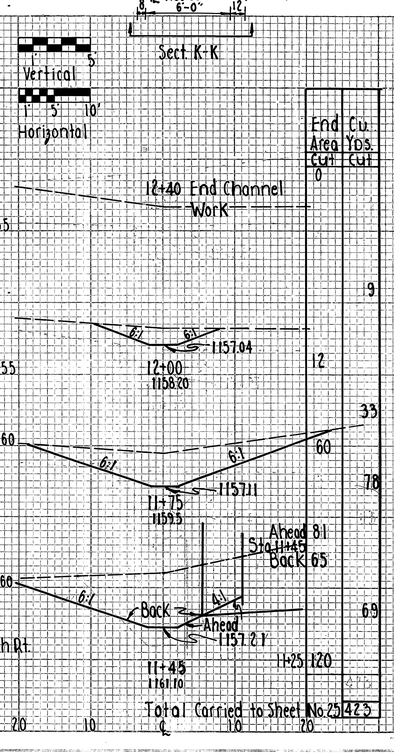
Note: Bar size is indicated in bar mark. The first digit is the bar size, as A601=#6 bar

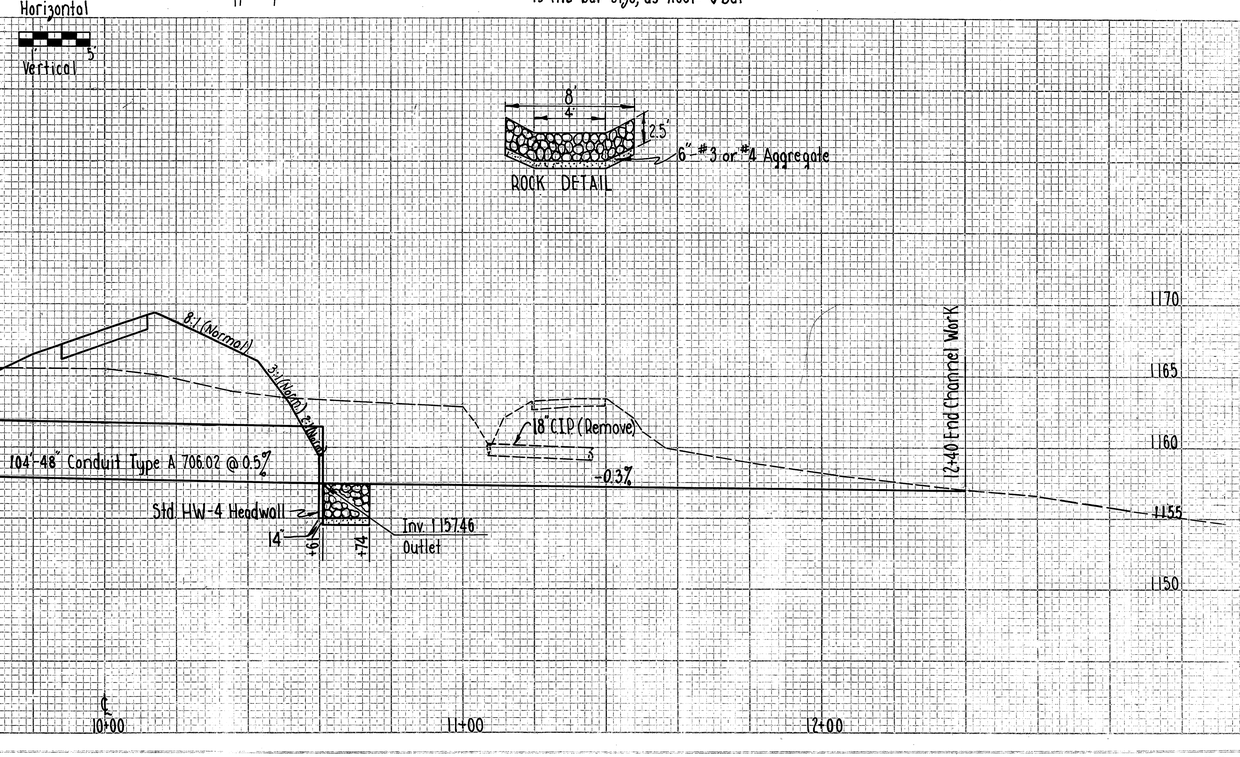
Note: Cost of furnishing and placing Reinforcing Steel shall be included in the Unit price bid for Item 604 Inlet. All concrete shall be class C

ESTIMATED QUANTITIES

603	104	L.F. 48" Conduit, Type A, 706.02
602	2.1	C.Y. Concrete Masonry
604	1	Each Special C.B. Inlet As Per Plan
601	12	S.Y. Riprap Using 6" Reinforced Concrete Slab.
601	11.6	C.Y. Rock Channel Protection Type B
667	138	S.Y. Seeding And Jute Matting, As Per Plan
202	30	L.F. Pipe Removed, 24" And Under







CULVERT DETAILS STA. 488+40

CENTERLINE SURVEY PLAT
ASD-511-8.56

VERMILLION TOWNSHIP SECTION-5 TOWN-2IN RANGE-16W
MONTGOMERY TOWNSHIP SECTION-32 & 33 TOWN-22N RANGE-16W
ASHLAND COUNTY, OHIO

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

39 / 47

1 / 9

ASD-511-8.56
CENTERLINE SURVEY PLAT
0 200 400 600
SCALE 1" = 200'

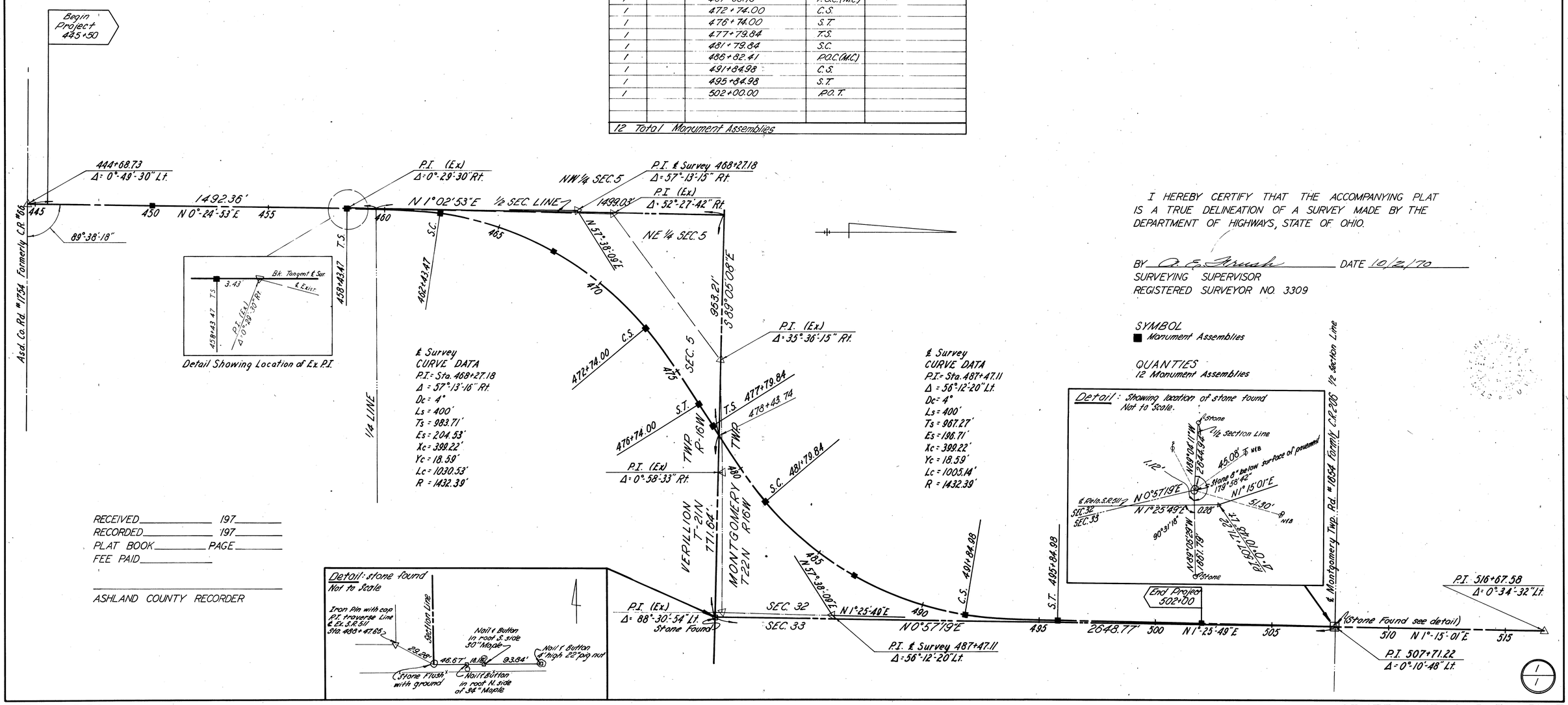
SOLD AS ASD. 511-8.44

NOTE

Monument assemblies as shown on standard Construction Drawing MC-1 (Res 6-13-69) of the Department of Highways, are to be placed after the base course and prior to placing the surface course on 404 pavement.

The placing of the monument shall be under the direction of the Engineer and any alternation shall be noted and the Right of Way Department of Division #3 shall be notified of the new location.

LOCATION OF R/W MONUMENTS				
ASSEM.	REFER.	℄ SURVEY STATION	LOCATION	REMARKS
1		450+00.00	P.O.T.	
1		458+43.47	T.S.	
1		462+43.47	S.C.	
1		467+58.73	P.O.C.(MC)	
1		472+74.00	C.S.	
1		476+74.00	S.T.	
1		477+79.84	T.S.	
1		481+79.84	S.C.	
1		486+82.41	P.O.C.(MC)	
1		491+84.98	C.S.	
1		495+84.98	S.T.	
1		502+00.00	P.O.T.	
12 Total Monument Assemblies				



I HEREBY CERTIFY THAT THE ACCOMPANYING PLAT IS A TRUE DELINEATION OF A SURVEY MADE BY THE DEPARTMENT OF HIGHWAYS, STATE OF OHIO.

BY A. E. Strunk DATE 10/2/70
SURVEYING SUPERVISOR
REGISTERED SURVEYOR NO. 3309

RECEIVED _____ 197_____
RECORDED _____ 197_____
PLAT BOOK _____ PAGE _____
FEE PAID _____

ASHLAND COUNTY RECORDER

1 / 1

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

STATE JOB NO.	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

ASD.-511-8.56

SOLD AS. ASD.511-8.44

40/47

2/9

TOTAL NO. OWNERS-8 TOTAL NO. COMPLETE TAKES-0 TOTAL OWNERS WITH STRUCTURES INVOLVED-0

PARCEL NO.	OWNER	DEED RECORD BOOK	PAGE	DATE	DEED AREA	TOTAL PRO	TOTAL TAKE	PRO IN TAKE	NET TAKE	NET RES. LT.	NET RES. RT.	BLDG'S TO BE ACQ'D	SHEET NO.	REMARKS	OTHER DESIGNATED AS AQUIRED	TYPE FUND
1A	Stone Evangelical Lutheran Church	288/257	241/609	1957/1955	2.00 Ac.	0.33 Ac.	0.33 Ac.	0.15 Ac.	0.18 Ac.	0	1.49 Ac.	No	5		VOL 361 Pg 44	
1	Rolph E. Stouffer	273	170	1958	40.17 Ac.	1.20 Ac.	2.15 Ac.	0.72 Ac.	1.43 Ac.	0	37.54 Ac.	No	5 & 6		VOL 359 Pg 435	
1X							0.04 Ac.	0	0.04 Ac.				5	Channel	" "	
1T									0.02 Ac.				6	Drive		
2	Clarence E. & Wilma E. Baker	212	78, 79 & 80	1944	78.02 Ac.	2.26 Ac.	3.15 Ac.	1.22 Ac.	1.93 Ac.	73.83 Ac.	0	No	5 & 6 & 7			
2X							0.15 Ac.	0	0.15 Ac.				5	Channel	VOL 362 Pg 270	
2T									0.10 Ac.				6	Work Area		
2SA														Vacation of existing S.R. 511 (0.62 Ac)	VOL 370 Pg 231	
3	Cleo A. & Mildred Fox	268	514	1958	85.06 Ac.	1.19 Ac.	5.09 Ac.	0.36 Ac.	4.73 Ac.	2.21 Ac.	76.93 Ac.	No	6 & 7		VOL 361 Pg 524	
3T									0.02 Ac.				6	Drive		
3SA-2														Vacation of existing S.R. 511 (0.76 Ac)	VOL 370 Pg 231	
3SA-1														Vacation of existing S.R. 511 (0.06 Ac)	" "	
4	Roger L. & Donna J. Sample	317	514	1966	3.32 Ac.	0.25 Ac.	1.03 Ac.	0.19 Ac.	0.84 Ac.	0	2.23 Ac.	No	7		VOL 361 Pg 40	
4X							0.24 Ac.	0	0.24 Ac.				7	Channel	" "	
5	William H. & Ruth E. Keets	259	899	1958	159.00 Ac.	4.21 Ac.	8.94 Ac.	1.51 Ac.	5.43 Ac.	146.04 Ac.	3.28 Ac.	NO	7, 8, 9		VOL 360 Pg 323	
5A							0.04 Ac.	0	0.04 Ac.				7	Drive & Back Around	" "	
5X							0.31 Ac.	0.08 Ac.	0.23 Ac.				7	Channel	" "	
5T									0.12 Ac.				7	Drive		
5SA														Vacation of existing S.R. 511 (0.94 Ac)	VOL 370 Pg 231	
6	Ronald D. & Suzanne Smith	294	379	1963	77.50 Ac	0.32 Ac.	0.92 Ac.	0.25 Ac.	0.67 Ac.	0	76.51 Ac.	No	8		VOL 360 Pg 201	
6X							0.19 Ac.	0	0.19 Ac.				8	Channel	" "	
6SA														Vacation of existing S.R. 511 (0.08 Ac)	VOL 370 Pg 231	
7	Edna M. Smith	335	378 & 348	1968	74.26 Ac.	0.55 Ac.	0.91 Ac.	0.33 Ac.	0.58 Ac.	0	73.13 Ac.	No	8 & 9		VOL 359 Pg 513	
8	Ruth McKinley	251	412	1955	1.00 Ac.		None	None	None				9	NO R/W REQUIRED		

STATE

UTILITIES

Northern Ohio Telephone Co.
117 North Sandusky Street
Bellevue, Ohio 44811

Columbia Gas of Ohio, Inc.
99 North Front Street
Columbus, Ohio 43215

Ohio Edison Company
47 North Main Street
Akron, Ohio 44308

CENTERLINE-REFERENCE-MONUMENTS

See Sheet 1 of 9

SYMBOLS

TYPE FENCE QUANTITIES

GENERAL NOTES

COMPLETION DATE 10/20/70

DATE	REVISION DESCRIPTION
1-25-71	Rev. Changed 3-5A to 3-5A-2
3-12-71	Rev. 5T

SURVEYED	DRAWN BY	DESIGN	CHECKED	SUPERVISED
S.H.D	W.D.F. T.A.	W.D.F. R.A.S.	W.D.F. R.A.S.	R.A.S.

1 / 1

R/W SUMMARY SHEET

ASHLAND COUNTY VERMILLION TOWNSHIP T-21N R-16W SEC.5

STATE JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

41/47

33/9

ASD-511-8.56
PROPERTY MAP
0 100' 200' 300'
SCALE 1"=100'

SOLD AS ASD 511-8.44

Begin Acquisition 444+68.13

Begin Project 445+50

P.I. 444+68.73
Δ = 0°49'30" Lt.

Co. Hwy. 1754 (Old #66)

Stone Evangelical Lutheran Church

1A

Ralph E. Stauffer

1

1X

2X

2

Clarence E. & Wilma E. Baker

2/7

3/7

1/7

℄ Survey S.R. 511

446 448 450 1492.36' 452 454 456 458 460 462 464 466 468 470 472 474

T.S. 458+43.47

S.C. 462+43.47

N0°24'53"E

N1°02'53"E 1499.03'

N57°38'09"E

T.O.

B.E.

3 SA-2

Vacated 3-3-72 Journal Entry V-57 P-169

Existing S.R. 511

VACATED

SEC. 5 VERMILLION TOWNSHIP Town 21 North Range 16 West

Town 22 North Range 16 West MONTGOMERY TOWNSHIP SEC. 32

S25°30'E 853.21'

4 SA-1

C.S. 472+74.00

S.T. 476+74.00

T.S. 477+79.84

478+43.74

180

777.84'

Occupation ℄

Roger L. & Donna J. Sample

Ex. R/W

℄ Twp. Rd. #1654 (Old #206)

Stone Found

Ex. R/W

8

Ruth McKinley

7

Edna M. Smith

Cleo. A. & Mildred Fox

3

5

William H. & Ruth E. Keets

Ex. R/W

Ex. R/W

Section Line

6 SA

6

Ronald D. & Suzanne Smith

℄ Survey Relocated S.R. 511

SEC. 32 SEC. 33 ℄ Ex. S.R. 511

5 SA

Stone Found

Section 32 Section 5

℄ Ex. S.R. 511

3 SA-1

Sec. 5 Sec. 6

Montgomery Township ℄ Township Line Vermillion Township

4

Roger L. & Donna J. Sample

3 SA

℄ Survey Relocated S.R. 511

11e Section Line

2 SA

Clarence E. & Wilma E. Baker

2

3

Cleo. A. & Mildred Fox

Ralph E. Stauffer

1

Ex. R/W

Ex. R/W

℄ Ex. S.R. 511

1 A

Stone Evangelical Lutheran Church

Section line

Ash. Co. Rd. #1754 (Formerly Old C.R. 66)

Ex. R/W

Ex. R/W

DETAIL: showing complete properties on Asd. 511-8.56

Scale 1"=400'

CURVE DATA

P.I. = 468+27.18
Δ = 57°13'16" Rt.
D_c = 4°00'00"
T_s = 983.71'
L_s = 400.00'
L_c = 1030.53'
R = 1432.39'
E_s = 204.53'

The Director of Highways on January 13, 1970 approved a relocation of a portion of S.R. 511, a hearing having been held in Ashland, Ohio on November 19, 1969. This was recorded on Page 39, Volume 55, of the Journal of the Director of Highways. Abandonment of the old highway not to be effective until improvement of the new location was accepted and entry made in the Journal of the Director of Transportation

Improvement of the above mentioned relocation has been accepted and entry was made on the Journal of the Director of Transportation Volume 57, Page 1097, October 30, 1972; S.R. 511 Abandonment Granted - Effective Date November 10, 1972 and that the former location reverts to the Ashland County Highway System.

Abandonment: Beginning at a point on the centerline of existing S.R. 511; said point being 0.1 mile more or less, northerly, northeasterly, and then easterly of the intersection of County Road 1754 (Old C.R. 66) with existing S.R. 511; thence in an easterly direction along existing S.R. 511 for a distance of 0.1 mile, more or less, and there terminate.

TYPE FUNDS - STATE

PLAN COMPLETED: 10/20/70

REV. DATE	DESCRIPTION
JBS 1-25-71	Changed 3-5A to 3-5A-2
BHP 3-9-72	Vacation Note Added

STATE JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

42
47

4
9

ASD 511 - 8.56
PROPERTY MAP
0 100 200 300
SCALE 1" = 100'

SOLD AS. ASD 511 - 8.44

T.S. 477+79.84

S.C. 481+79.84

Roger L. & Donna J. Sample
(4)

75 ft. Headquarters
Ohio State Hwy.

℄

5
1

5
A

480

482

484

486

488

490

492

494

496

498

500

502

504

506

508

510

512

S 88° 05' 08" E
771.64'

Existing S.R. 511

5
5A

3
5A-1

Section 32
S.E. 1/4

N 57° 38' 09" E

TO BE VACATED

N 1° 25' 49" E

Section 32
Section 33

N 0° 57' 19" E
1489.02'

Stone Found

6
5A

8
X

℄ Survey S.R. 511

2648.77'

1179.75'

Stone Found

Vacated 3-3-72
Journal Entry V-57 P-169

Section 33
S.W. 1/4

C.S. 491+84.98

S.T. 495+84.98

End Project
502+00

End
Acquisition
503+50

℄ Ruth
McKinley

8

P.I. 507+11.22
Δ 1° 10' 48" Lt.

Total Acq. 0.657 Ac. (28,622 Sq. Ft.)

William H. & Ruth E. Keets
(5)

CURVE DATA
P.I. = 487+47.11
Δ = 56° 12' 20" Lt.
D_c = 4° 00' 00"
T_s = 967.27'
L_s = 400.00'
L_c = 1005.14'
R = 1432.394'
E_s = 196.71'

Ronald D. & Suzanne Smith
(6)

Edna M. Smith
(7)

SEC. 5
Town 21 North Range 16 West
VERMILLION TOWNSHIP

MONTGOMERY TOWNSHIP
Town 22 North Range 16 West

TYPE FUNDS - STATE

PLAN COMPLETED: 10/20/70	
REV DATE	DESCRIPTION
BP 3-9-72	Vacation Note Added

ASHLAND COUNTY MONTGOMERY TOWNSHIP T-22N R-16W SEC. 33, 32

STATE JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

43/47

5/9

ASD-511 8.56
RIGHT OF WAY PLAN
0 50 100
SCALE 1" = 50'

SOLD AS ASD.511-8.44

Clarence E. & Wilma E. Baker

Ralph E. Stouffer

Stone Evangelical Lutheran Church

Church

Church Parking Area

Gas Meter

Gas Valves

Septic Tank

Cont. 1.43 Ac.
PRO. 0.72 Ac.
Total 2.15 Ac.

Cont. 1.93 Ac.
PRO. 1.22 Ac.
Total 3.15 Ac.

Cont. 0.18 Ac.
PRO. 0.15 Ac.
Total 0.33 Ac.

Cont. 0.15 Ac.

Cont. 0.04 Ac.

ASHLAND COUNTY VERMILLION TOWNSHIP SEC.5 T-21N R-16W

TYPE FUNDS - STATE

PLAN COMPLETED - 10/20/70	
REV. DATE	DESCRIPTION

R.O.W. STA. 440+00 TO STA. 455+00

STATE JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

44/47

ASD-511-8.56
RIGHT OF WAY PLAN
0 50 100
SCALE 1" = 50'

6/9

SOLD AS ASD.511-8.44

Clarence E. & Wilma E. Baker

Sheet-5 Line

Field Drive (To be abandoned)

Cont: 1.93 Ac.
PRO: 1.22 Ac.
Total: 3.15 Ac.

Cont: 1.43 Ac.
PRO. 0.72 Ac.
Total 2.15 Ac.

Cont 4.73 Ac.
PRO. 0.36 Ac.
Total 5.09 Ac.

Cont 0.10 Ac.

Gas Line Marker

4" Gas Line

12" C.M.P.

9" C.I.P.

12" C.I.P.

Ex. R/W

℄ Survey Reloc. S.R. 511

Area to be Vacated
2-5A 0.62 Ac.
3-5A-2 0.76 Ac.
Total 1.38 Ac.

Vacated 3-3-72 Journal Entry V. 57 P. 169

TO BE VACATED

½ Section Line

Ralph E. Stouffer

Gar.

Drive

See Match

Cleo A. & Mildred Fox

Match See Line Sheet 7

CURVE DATA ℄ Survey Reloc. S.R. 511
P.I. Sta. 468+27.18
Δ = 57°13'18" Rt.
D_c = 4°
L_s = 400.00'
T_s = 983.71'
E_s = 204.53'
X_c = 399.22'
Y_c = 18.59'
L_c = 1030.53'
θ_s = 8°
R = 1432.39'

TYPE FUNDS-STATE

PLAN COMPLETED- 10/20/70	
REV DATE	DESCRIPTION
JEB 1-25-71	Changed 3-5A to 3-5A-2
SP 3-9-72	Vacation Note Added

ASHLAND COUNTY VERMILLION TOWNSHIP SEC. 5 T-22N R-16W

R.O.W. STA. 455+00 TO STA. 470+00

STATE JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

45/47

7/9

ASD-511-8.56
RIGHT OF WAY PLAN
0 50 100
SCALE 1" = 50'
SOLD AS ASD.511-8.44

Area to be Vacated

2-5A	0.62 Ac.
3-5A-2	0.76 Ac.
Total	1.38 Ac

Vacated 3-3-72
Journal Entry V-57 P-169

Clarence E. & Wilma E. Baker

MONTGOMERY TWP.
SEC-32 T-22N R-16W

VERMILLION TWP.
SEC-5 T-21N R-16W

Township Line

S89°-05'-08"E
478+43.74

184.27'
475+65.56

152.17'
476+12.60

209.75'
476+43.49

Cont 0.23 Ac.
P.R.O. 0.08 Ac.
Total 0.31 Ac.

N60°43'50"E
84.88'

205.16'
477+28.07

90.83'
476+93.27

89.92'
477+39.77

T.S. 477+79.84

Cont 0.12 Ac.

N15°15'59"E

307.07'

N65°15'59"E

S.C. 481+79.84

Gravel Drive

RES.

William H. & Ruth E. Keets

proposed rem. Dr. (To be built by others)

30.00'
N45°15'59"E

55'

480+00

85'

544'40.12"

115'

N49°24'55"E R/W 174.17'

CURVE DATA & Survey S.R. 511 (Reloc.)
P.I. Sta. 487+47.11
Δ = 56°12'20"
D_c = 4°
L_s = 400.00'
T_s = 967.27'
E_s = 196.71'
X_c = 399.22'
Y_c = 18.59'
L_c = 1005.14'
θ_s = 8°
R = 1432.39'

Line 8

Sheet

18" F. Tile

Abandon

Cont 5.43 Ac.
P.R.O. 1.51 Ac.
Total 6.94 Ac.

R=1367.39'
L=592.01'
Chord 587.40'
N37°13'58"E

485

484

483

482

481

480

Plug & Abandon
8" F. Tile

L=547.40'
S39°13'57"W

Match See

R=1507.39'
Chord 729.13'
N35°38'24"E
L=736.44'

R=1507.39'
Chord 544.39'

R=1357.39'
Chord 955.64'
S29°01'31"W
L=976.57'

Cont 4.73 Ac.
P.R.O. 0.36 Ac.
Total 5.09 Ac.

S56°49'43"W R/W 313.91'

S56°49'43"W R/W 371.56'

N51°57'29"E R/W 346.10'

Spring

Ex. R/W-1
N53°21'53"E 542.02'

Ex. R/W-1
S53°21'53"W 542.02'

Existing R/W S.R. 511

TO BE VACATED

R=415.75' L=188.88'
Chord 187.26 S 66°22'50"W

90.93'
476+09.06

240.30'

477 N57°38'09"E
℄ Survey Reloc. S.R. 511
476+43.74

428.84'

N13°48'54"E
115.00'

N13°48'54"E
220.59'

Cont 0.04 Ac.

S50°28'05"W

Abandoned 8" F. Tile

Stone 30 & Sta. 511 485+77.84

Blacktop 5.1% Up

Blacktop

Gravel

Drive

Gas Line

Gas Meter

Wall Copings

Gas Service Manhole

4 Story Brick

1 Story Frt. Pres.

Barn

Block Hse.

Cont 0.24 Ac.
P.R.O. 0.19 Ac.
Total 1.03 Ac.

Cont 0.84 Ac.

Cleo A. & Mildred Fox

Roger L. & Donna J. Sample

S29°16'10"E
144.62'

S.T. 476+74.00

476+03.87

88.31'
475+98.65

179.44'
475+83.14

S88°28'07"W
101.65'

231.58'
476+61.27

N0°08'25"E
482+55.92

85.18'
479+68.01

50.00'
N0°54'52"E

N0°54'52"E
287.35'

Ex. R/W-1

Ex. R/W-1

Ex. R/W-1

S89°48'54"W

TO BE VACATED

441.30'
268.32'

S08°08'08"E

14" C.I.P. (Abandon)

18" F. Tile (Abandon)

R=89.59'
L=88.24'
Chord 124.83'
N45°38'37"E

N41°24'21"E 50.85'

Section 32
Section 83
Section 84
470.11
S1°24'21"W

Township Line

N0°51'19"E

Section Line

Stone Found (See Detail)

R=159.39'
L=215.39'
Chord 199.03
S46°36'37"W

DETAIL: stone found.
Not to Scale
Sec. 32
Sec. 33
Section Line
29.28'
Iron Pin with cap R.I. Inverse Line & Cr. S.R. 511 Sta. 488+47.85
Stone Flush with ground
44.67'
N16°
93.84'
Nail & Button in Post N. Side 34" Maple
Nail & Button in Post E. Side 30" Maple
Nail & Button 4" high -22° pig out
Sec 5

CURVE DATA & Survey S.R. 511
P.I. Sta. 468+27.18
Δ = 57°13'16" Rt
D_c = 4°
L_s = 400.00'
T_s = 983.71'
E_s = 204.53'
X_c = 399.22'
Y_c = 18.59'
L_c = 1030.53'
θ_s = 8°
R = 1432.39'

TYPE FUNDS - STATE

PLAN COMPLETED: 10/20/70	
REV DATE	DESCRIPTION
J.E.Z. 1-25-71	Changed 3-5A to 3-5A-2
W.D.F. 3-2-71	Changed location ST & location of strip at ST
W.D.F. 3-5-71	Added 5"F.T. Approx sta 485+90 Ex 511, Added 6"CI Approx 486+00 Reloc 511
SAP 3-9-72	Vacation Note Added

Area to be Vacated

3-5A-1	0.06 Ac.
5-5A	0.94 Ac.
6-5A	0.08 Ac.
Total	1.08 Ac.

ASHLAND COUNTY MONTGOMERY TOWNSHIP T-22N R-16W SEC. 32
VERMILLION TOWNSHIP T-21N R-16W SEC. 5

STATE JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

46/47

8/9

ASD-511 8.56
RIGHT OF WAY PLAN
0 50 100
SCALE 1" = 50'

SOLD AS ASD.511 - 8.44

CURVE DATA & Survey Reloc. S.R.511
P.I. Sta. 487+47.11
Δ = 56°12'20"
D_c = 4°
L_s = 400.00'
T_s = 967.27'
E_s = 196.71'
X_c = 399.22'
Y_c = 18.59'
L_t = 1005.14'
θ_s = 8°
R = 1432.39'

William H. & Ruth E. Keets

Sheet 7 Line

Sheet 9 Line

R=1387.39' L=592.01'
Chord 387.40' N 37°13'58"E

Centerline of Reloc.

W/L R/W

65' 488+00

N17°49'30"E 190.33'

75' 490+00

90' 491+84.98

N8°13'07"E 174.84'

C.S. 491+84.98

N 4°47'31"E 387.36'

35' 495+84.98

4" F. Tile

N 1°59'11"E 515.05'

485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500

Chord 544.59' S 39°13'57"W R=1507.39' L=547.40'

5" F. Tile (Abandon)

5 Cont 5.43 Ac. P.R.O. 1.51 Ac. Total 6.94 Ac.

4" F. Tile (Abandon)

Abandoned 8" V.S.P.

Sec. 32

Sec. 33

M.B.

Section Line

Ex. R/W

497 ℄ Survey Reloc. SR 511

499 ℄ Ex. R/W ℄

See Match

N 57°38'09"E 93.36'

S 28°52'02"W

75' 487+00

487+68.60 77.95

R/W

N1°24'21"E 501.85'

N1°25'49"E 494.00'

N0°57'19"E

Section 32

Section Line TO BE VACATED

S 37°24'21"W

5 5A

6 5A

Section 33

Vacated 3-3-72 Journal Entry V-57 P-169

10.53' N 50°46'14"W

171.79' 487+76.91

N 50°46'14"W 80.09'

80.00' S 39°13'46"W

130.61' S 50°46'14"E

238.69' S1°24'21"W

135.32' 488+55.32

89.01' 489+82.35

181.35' 487+78.14

251.23 487+88.04

PT Sta. 487+47.11
Δ = 56°12'20" Lt

26°30'

488+35.14

6 X

Cont 0.19 Ac.

Ronald D. & Suzanne Smith

Gravel Residence Drive

M.B.

Section Line 1620.12'

Ex. R/W 861.32'

Cont 0.67 Ac. P.R.O. 0.25 Ac. Total 0.92 Ac.

6

24" C.M.P. C.I.P. (Remove)

10" V.S.P. (Abandon)

336.37' S 12°17'29"W

R/W

155.20' S 3°44'06"W

8" V.S.P.

95' 493+00

95' 494+50

S 4°04'56"E 132.08'

86' 495+91.22

81.55' 495+79.97

N 0°57'19"E

10" C.M.P. (Abandon)

7

Cont 0.58 Ac. P.R.O. 0.33 Ac. Total 0.91 Ac.

2-4" Peach

5" Peach

1" Peach

S 4°04'56"E 120.60'

S 7°08'02"E 101.12'

Save

Stone

S 7°26'49"W

100.00'

2½ Sty Fr. Res.

Gar

Barn

S 7°09'27"W

100.50'

15

65' 500+00

70' 489+00

55' 488+00

55' 489+00

Match See

Edna M. Smith

Area to be Vacated

3SA1	0.06 Ac.
5SA	0.94 Ac.
6SA	0.08 Ac.
Total	1.08 Ac.

TYPE FUNDS - STATE

PLAN COMPLETED: 10/20/70

REV	DATE	DESCRIPTION
S	3-5-71	Added 3"&4" Tile (Abandon) Show New Connections, Par. 5
SP	3-9-72	Vacation Note Added
	7/5/71	Outlet for 4" F.T. to 496+50 Lt
	"	Outlet for 3" F. Tile Crossing 486+85 Rt

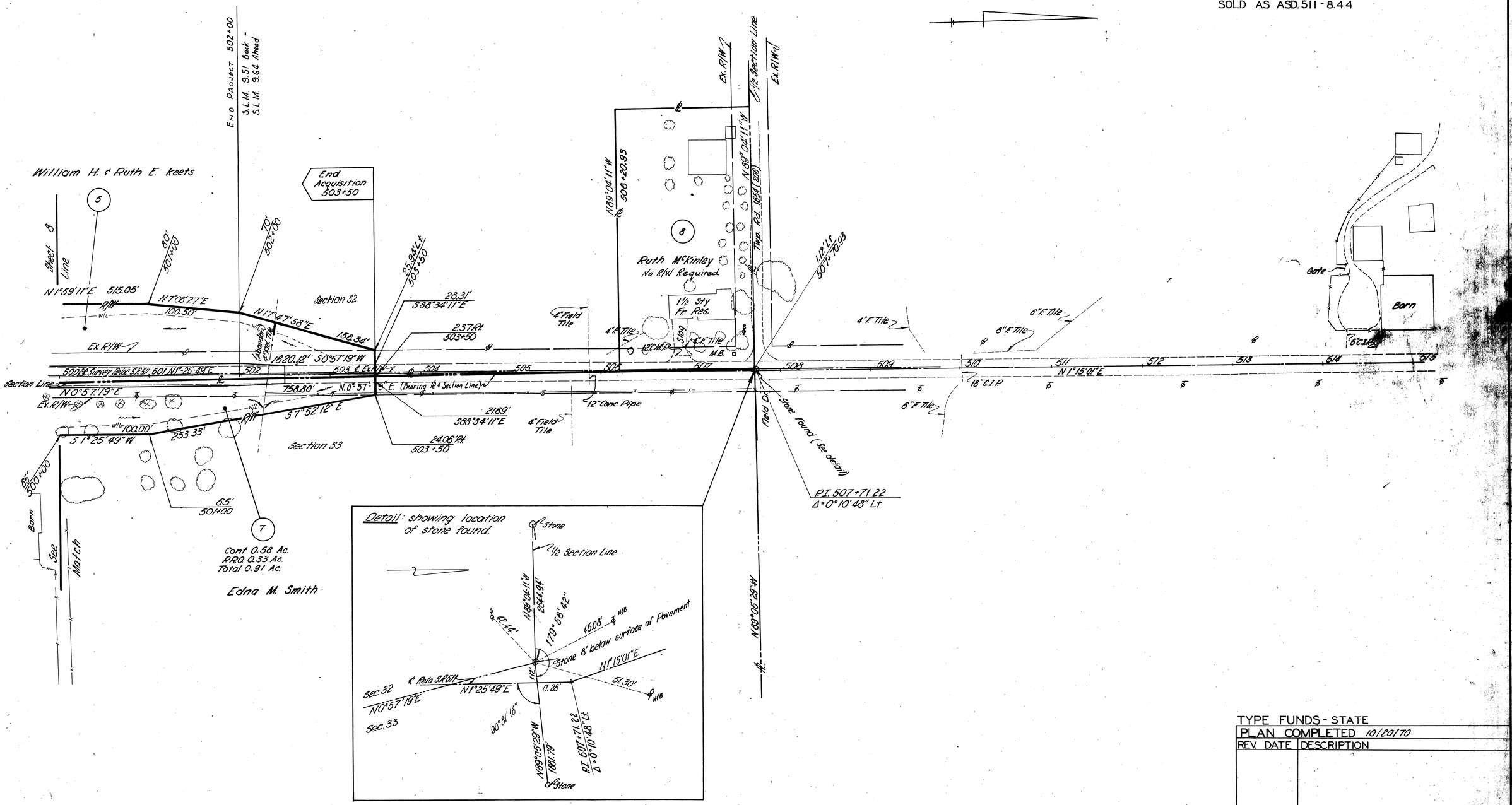
ASHLAND COUNTY MONTGOMERY TOWNSHIP SEC. 32 & 33 T-22N R-16W

STATE JOB NUMBER	FED. RD. DIVISION	STATE	PROJECT	
03971	2	OHIO		

47
47

9
9

ASD-511 8.56
RIGHT OF WAY PLAN
0 50 100
SCALE 1" = 50
SOLD AS ASD.511-8.44



ASHLAND COUNTY MONTGOMERY TWP. SEC. 32 & 33 T-22N R-16W

TYPE FUNDS - STATE
PLAN COMPLETED 10/20/70

REV. DATE	DESCRIPTION

R.O.W. STA. 500+00 TO STA. 515+00

TE-95
500-7-68

GENERAL INFORMATION

INTRODUCTION

THE PROJECT CONSISTS OF THE SOILS INVESTIGATION OF 1.09 MILES OF RELOCATED SR 511, BEGINNING IMMEDIATELY NORTH OF THE EXISTING SR 511-COUNTY ROAD 66 INTERSECTION, EXTENDING NORTHWARD AND TERMINATING 500 FEET SOUTH OF THE EXISTING SR 511-TOWNSHIP ROAD 206 INTERSECTION, APPROXIMATELY 1.8 MILES SOUTH OF ASHLAND.

PROPOSED GRADE INDICATES MAXIMUM PROPOSED 10-FOOT CUTS AND 12-FOOT FILL EMBANKMENTS.

GEOLOGY OF THE PROJECT

THE PROJECT IS LOCATED ON A MODERATELY ROLLING PORTION OF THE GLACIATED ALLEGHENY PLATEAU, IN AN AREA WHERE THIN TO MODERATELY THICK GLACIAL DRIFT OVERLIES SHALE AND SANDSTONE BEDROCK, OF MISSISSIPPIAN AGE.

EXPLORATION

EXPLORATORY BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER AND HAND AUGER (IN DIFFICULT ACCESS AREAS), BETWEEN JULY 15 AND 17, 1970.

INVESTIGATIONAL FINDINGS

MATERIALS ENCOUNTERED ON THE PROJECT WERE PREDOMINANTLY COMPRISED OF SANDY SILTS (A-4a AND A-4b) AND SILT CLAYS (A-6a AND A-6b), GENERALLY HAVING LOW MOISTURE CONTENTS AND MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE.

FROST SUSCEPTIBLE SILT WAS ENCOUNTERED WITHIN THREE FEET BELOW PROPOSED GRADE AT STATION 465+50.

WET MATERIALS WERE ENCOUNTERED AT STATIONS 468+00, 473+00 AND 478+25.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 57 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL WITH SAND	A-1-b(0)	A-1-b	49	12	17	9	13	NP	NP	21	1
COARSE AND FINE SAND	-----	A-3a	0	1	75	7	17	NP	NP	21	1*
STONE FRAGMENTS WITH SAND AND SILT	A-2-4(0)	A-2-4	40	4	23	17	16	19	5	19	1
STONE FRAGMENTS WITH SAND, SILT AND CLAY	A-2-6(0)	A-2-6	56	3	7	15	19	29	13	22	1
SANDY SILT	A-4(4)	A-4a	20	5	20	27	28	23	6	15	16
SILT	A-4(8)	A-4b	0	1	5	57	37	26	7	18	2
SILT AND CLAY	A-6(8)	A-6a	9	3	15	34	39	27	12	16	30
SILTY CLAY	A-6(11)	A-6b	0	2	6	39	53	38	17	24	4
WEATHERED SHALE				VISUAL CLASSIFICATION							1
COBBLY ZONE				VISUAL CLASSIFICATION							-
VARIOUS OTHER MATERIALS				VISUAL CLASSIFICATION							-

SOD OR TOPSOIL=X'=APPROXIMATE DEPTH.

BERM MATERIAL.

AUGER BORING-PLAN VIEW.

AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.

WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT.

INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT.

W FREE WATER.

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT.E.G.15

SOIL PROFILE

ASHLAND COUNTY

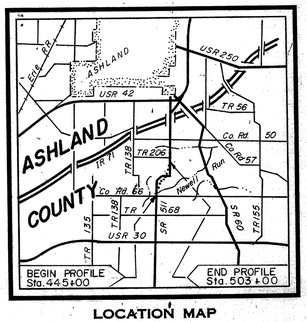
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NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.



LOCATION MAP

Recon- J.S.M. 7/14/70
Drilling-Auger- J.A.G. 7/15/70 to 7/17/70
Drafting- A.F. 8/19/70

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC.
*DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
445+00 12'Lt	0.3-3.0		0	7	18	39	36	27	11	16	A-6a *
	3.0-8.0		51	5	8	18	18	25	9	12	A-4a
	8.0-10.0		26	7	14	31	22	21	7	14	A-4a
451+25 12'Lt	0.3-5.0		0	5	18	34	43	27	11	18	A-6a
	5.0-6.0		0	3	9	31	57	40	20	28	A-6b
	6.0-11.0		13	2	11	36	38	29	15	14	A-6a
	11.0-12.0		0	0	8	46	46	32	15	13	A-6a
	12.0-13.0		56	3	7	15	19	29	13	22	A-2-6
454+75 12'Lt	0.3-5.0		0	7	21	30	42	25	11	16	A-6a *
	5.0-8.0		30	5	12	28	25	24	7	14	A-4a
	8.0-10.0		18	5	13	35	29	23	11	16	A-6a
458+25 12'Rt	0.2-5.0		14	3	21	25	37	23	8	16	A-4a
	5.0-8.0		0	2	18	40	40	25	11	13	A-6a
	8.0-13.0		13	4	18	34	31	22	11	14	A-6a *
	13.0-18.0		12	2	8	31	47	25	11	19	A-6a
	18.0-20.0	BROWN GRAVEL AND SAND						21	6	18	VISUAL
462+00 CL	0.3-5.0		9	1	13	28	49	30	13	14	A-6a *
	5.0-6.0		0	0	55	18	27	NP	NP	18	A-4a *
	6.0-8.0		26	3	14	29	28	23	7	14	A-4a
	8.0-13.0		34	2	14	24	26	19	5	13	A-4a
465+50 CL	0.5-3.0		0	2	9	63	26	26	7	15	A-4b *

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
468+00 CL	0.5-2.0		0	3	21	32	44	25	11	23	A-6a
	2.0-4.0		0	4	22	34	40	34	14	17	A-6a
	4.0-7.0		13	2	20	29	36	22	7	15	A-4c
	7.0-9.0		0	0	1	50	49	25	7	20	A-4b
	9.0-10.0		0	1	75	7	17	NP	NP	21	A-3a
473+00 CL	0.5-3.0		0	3	25	33	39	26	12	10	A-6a *
	3.0-4.5		0	3	21	37	39	24	9	14	A-4a
	4.5-10.0		49	12	17	9	13	NP	NP	21	A-1-b
476+00 CL	0.5-3.0		17	3	15	36	29	29	11	13	A-6a
	3.0-5.0		0	9	34	28	29	24	9	20	A-4a
	5.0-6.0		0	1	1	43	55	38	16	17	A-6b
	6.0-9.0		(38	2	24	16	20	23	7	10)	
		GRAY WEATHERED SANDY SHALE									VISUAL
478+25 CL	0.3-3.0		17	8	21	33	21	NP	NP	18	A-4a
	3.0-7.5		20	1	15	32	32	30	11	24	A-6a
	7.5-13.0		44	3	17	17	19	21	5	16	A-4a
	13.0-14.0		40	4	23	17	16	19	5	19	A-2-4
480+00 CL	0.5-3.0		9	8	16	32	35	24	8	12	A-4a *
	3.0-6.0		28	14	20	16	22	27	13	16	A-6a
	6.0-7.0		14	4	13	35	34	26	11	14	A-6a
	7.0-10.0		0	4	14	41	41	23	11	13	A-6a

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
484+00 CL	0.0-5.0		0	3	16	34	47	28	12	16	A-6a
	5.0-10.0		0	3	15	40	42	25	11	14	A-6a
	10.0-13.0		0	3	8	41	48	26	11	17	A-6a
489+00 CL	0.0-3.0		0	2	14	44	40	29	11	21	A-6a
	3.0-4.0		20	4	12	24	40	40	14	32	A-6a
493+00 5'Lt	0.3-5.0		9	3	16	29	43	28	12	15	A-6a
	5.0-10.0		18	4	13	31	34	23	7	14	A-4a
496+00 12'Rt	0.3-5.0		0	2	15	34	49	31	15	20	A-6a
	5.0-10.0		18	3	12	36	31	25	11	13	A-6a
	10.0-11.0		26	10	17	21	26	NP	NP	17	A-4a
	11.0-15.0		22	5	12	32	29	23	11	12	A-6a
500+00 12'Rt	0.3-5.0		9	2	16	30	43	29	12	17	A-6a *
	5.0-9.0		17	4	13	33	33	26	11	14	A-6a
	9.0-11.0		19	3	20	41	17	NP	NP	18	A-4a
502+00 12'Rt	0.3-2.0		0	2	10	44	44	35	16	23	A-6b*
	2.0-7.0		0	1	5	38	56	39	17	29	A-6b
	7.0-10.0		18	3	12	31	36	28	11	17	A-6a

ASHLAND COUNTY MONTGOMERY TWP SEC 32 T20 R19W

TE - 127
1900-12-66

SOIL PROFILE

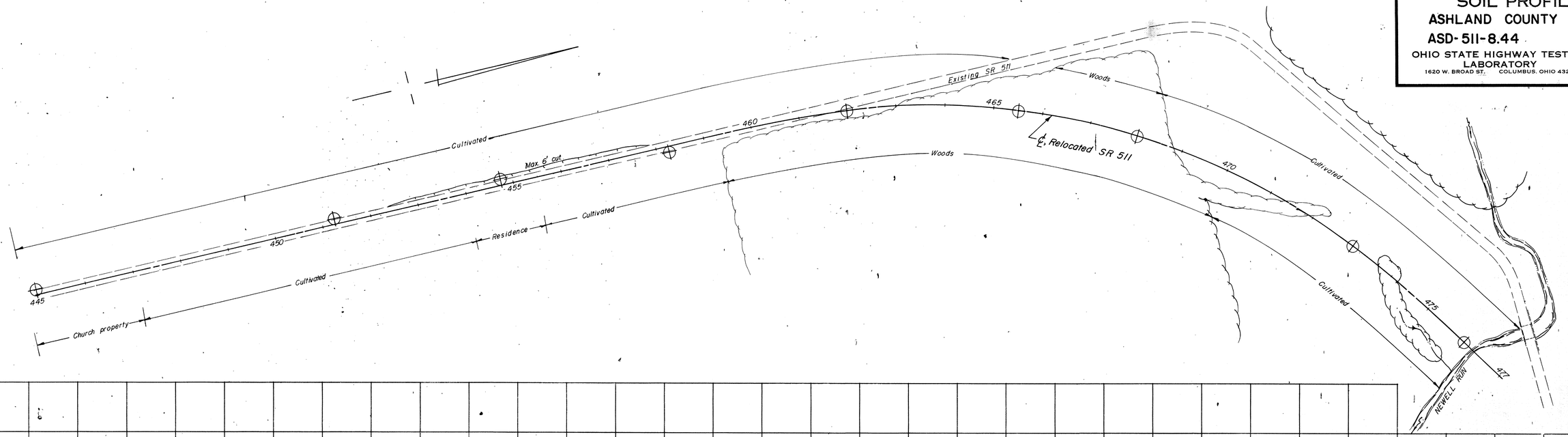
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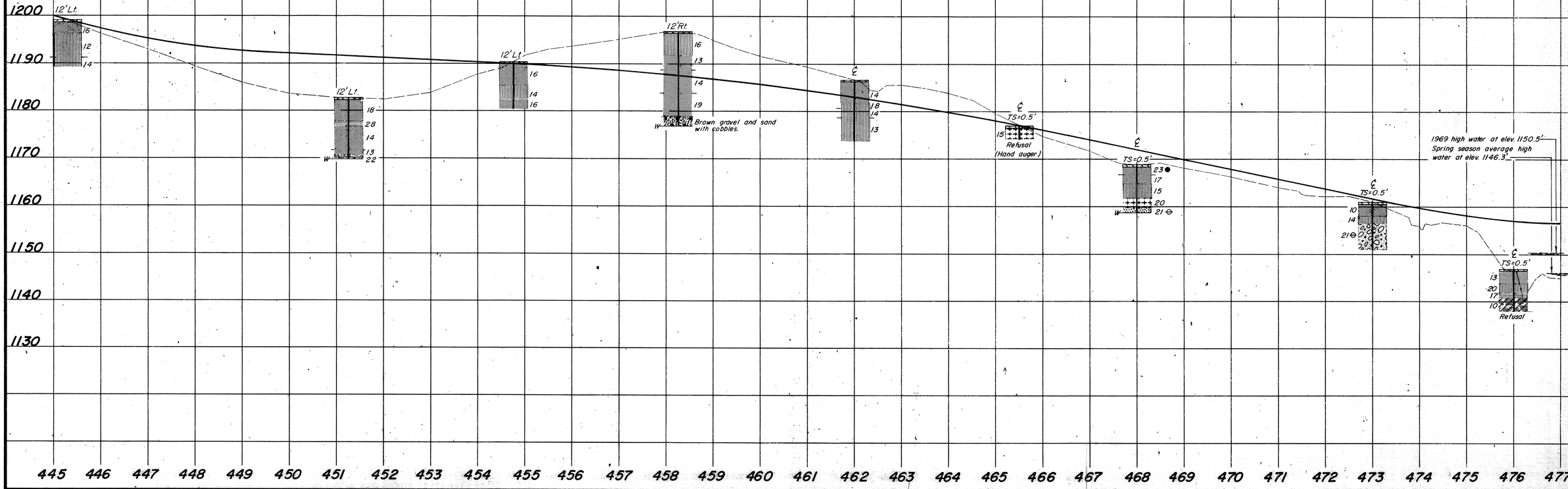
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1500-12-66

SOIL PROFILE

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