

STATE OF INDIANA
INDIANA STATE HIGHWAY COMMISSION

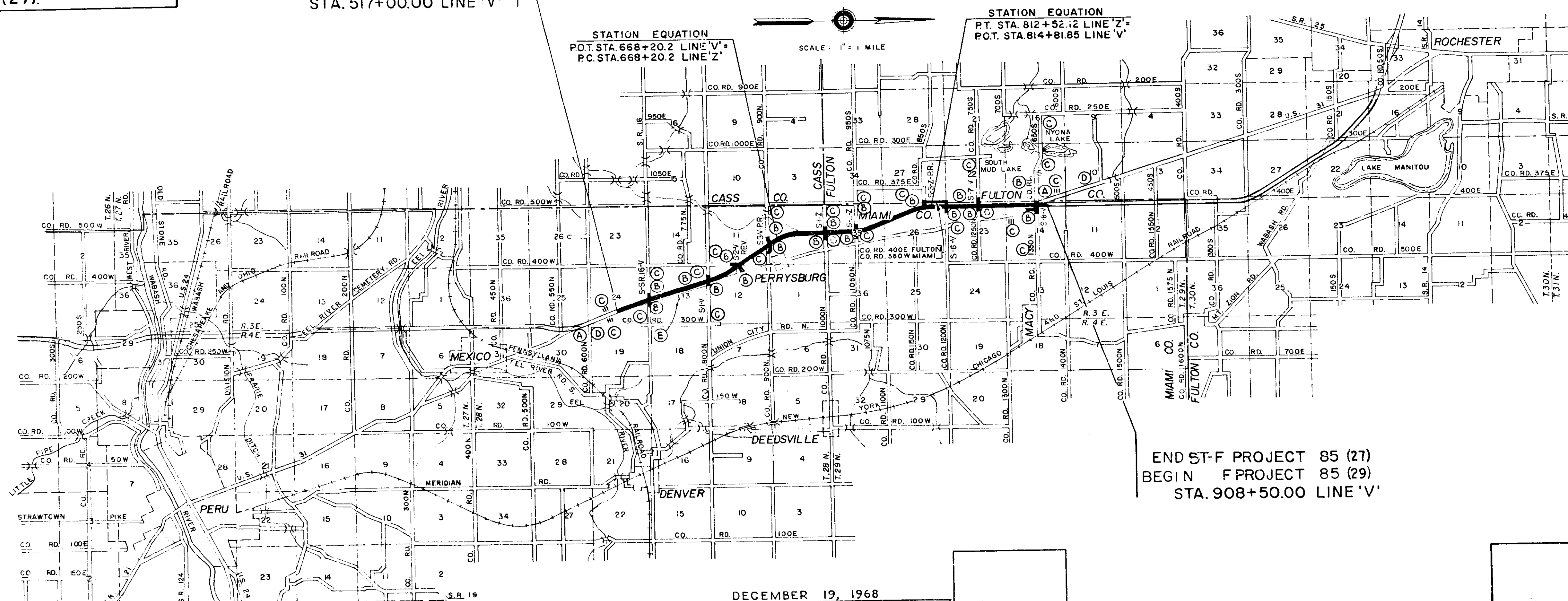
PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
ST-F-PROJECT NO. 85 (19) P.E.
ST-F PROJECT NO. 85 (19) R/W
(27) CONST.
ST-F-PROJECT NO. 85 (27) UTIL.

BEGINNING AT A POINT ON U.S.R. 31 APPROXIMATELY 3471.1 FEET NORTH OF THE SOUTH LINE OF SECTION 24, T.28N., R.3E. AND EXTENDING NORTHERLY 38,920.27 FEET TO A POINT APPROXIMATELY 165.67 FEET EAST AND 2471.18 FEET SOUTH OF THE N.W. CORNER OF SECTION 14, T.29N., R.3E. ALL IN MIAMI COUNTY, INDIANA.

GROSS LENGTH- 7.371 MI.
NET LENGTH- 7.371 MI.
SCALES-
PLAN (LONG.- 1"=100') (HORIZ.- 1"=100')
(TRANS.- 1"=100') (PROFILE (VERT.- 1"=10')
MAX. GRADE 1.52%

ALL PROJECT NOS APPEARING ON PLAN & PROFILE, DETAIL CROSS-SECTION SHEETS AND CONTRACT DOCUMENTS AS F-85(27) ARE TO BE CONSTRUED AS ST-F-85(27).

BEGIN ST-F-PROJECT 85 (27)
END F-PROJECT 875 (9)
STA. 517+00.00 LINE 'V'



STATION EQUATION
P.O.T. STA. 668+20.2 LINE 'V' +
P.C. STA. 668+20.2 LINE 'Z'

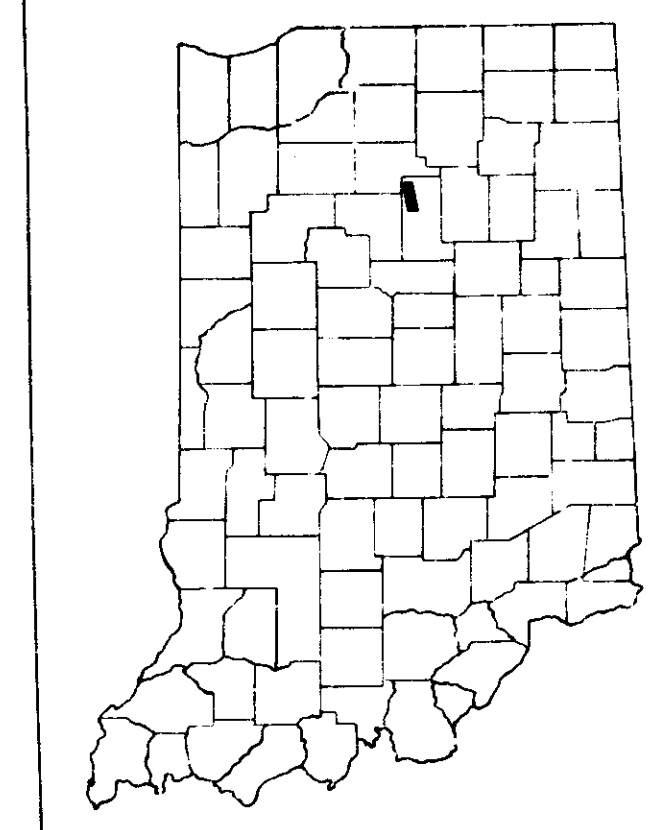
STATION EQUATION
P.T. STA. 812+52.12 LINE 'Z' +
P.O.T. STA. 814+81.85 LINE 'V'

SCALE: 1" = 1 MILE

END ST-F PROJECT 85 (27)
BEGIN F-PROJECT 85 (29)
STA. 908+50.00 LINE 'V'

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	ST-F-85(27)		1	127

DESIGN DATA	
ADT (1971)	6070 V.P.D.
ADT (1991) PROJECTED	11520 V.P.D.
DHV (1991)	1440 V.P.H.
DIRECTIONAL DISTRIBUTION	
TRUCKS	DHV - 8 % ADT 20 %
DESIGN SPEED	70 M.P.H.
ACCESS CONTROL	PARTIAL



- LEGEND
- (A) STANDARD BARRICADE TYPE "III"
 - (B) BARRICADE TYPE "I" (PERMANENT)
 - (C) STANDARD BARRICADE TYPE "II"
 - (D) CONSTRUCTION SIGN TYPE "A"
 - (E) CONSTRUCTION IDENTIFICATION SIGN
 - (F) STD. SIGN M-29 (PERMANENT)

THESE PLANS PREPARED BY
CHAS. W. COLE & SON
ENGINEERS
SOUTH BEND, INDIANA

RECOMMENDED FOR APPROVAL _____
ASSISTANT ENGINEER OF PLANS AND SPECIFICATIONS
RECOMMENDED FOR APPROVAL _____
ENGINEER OF PLANS AND SPECIFICATIONS - INDIANA STATE HIGHWAY COMMISSION
APPROVED 2-13-69
[Signature]
CHIEF ENGINEER - INDIANA STATE HIGHWAY COMMISSION

INDIANA STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS DATED 1971
TO BE USED WITH THESE PLANS.

DATE
DECEMBER 19, 1968
REGISTERED PROFESSIONAL ENGINEER
STATE OF INDIANA NO. 3653

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
APPROVED _____
DIVISION ENGINEER DATE _____

ROAD FILE

PROJECT NO.	LINE	SHEET	TOTAL SHEETS
ST-F-85(27)	V-2	1	127

UTILITIES

TELEPHONE
 United Telephone Co of Ind.
 P.O. Box 391
 Warsaw, Indiana 46580
 General Telephone Co of Ind.
 501 Tecumseh St
 P.O. Box 1201
 Fort Wayne, Indiana 46801

ELECTRIC
 Public Service Indiana
 1000 E. Main St.
 Plainfield, Indiana 46168
 Fulton County R.E.M.C.
 Box 230
 Rochester, Indiana 46975
 Miami - Cass County R.E.M.C.
 916 W. Main St.
 Peru, Indiana 46970

REVISIONS

NO.	DATE	DESCRIPTION
1	5-4-72	CLIF Added STA 47+60.1; S-SR-16-V to STA 545+27 Lt. "V"
2	5-4-72	L.A. R/W, A.C.L. & F.F.T.F. Sta. 556+20 to Sta. 580+00 Rt. "V" & Add CL. IV Drive @ Sta. 557+40 Rt. "V"
3	9-6-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
4	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
5	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
6	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
7	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
8	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
9	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
10	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
11	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
12	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
13	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
14	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
15	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
16	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
17	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
18	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
19	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82
20	9-8-72	Detail Added 12' CL. V Drive @ Sta. 47+82; B Lt. Line "S-2-V Rev." STR. N# 82

LEGEND

- R/W = RIGHT-OF-WAY
- L.A.R/W = LIMITED ACCESS RIGHT-OF-WAY
- A.C.L. = ACCESS CONTROL LINE
- F.F.T.F. = FARM FIELD TYPE FENCE
- [Hatched Box] = PAVEMENT REMOVAL
- [Diagonal Lines] = BREAKING PAVEMENT
- R = PROPERTY LINE
- CL.T.F. = CHAIN LINK TYPE FENCE

Primary Adopted May 1967 3

C.R.C.
 Standard C.R.C. Pavement Section as shown on Sheet Nos. 5, 6 & 7 to be used on this project.
 ** A Full Depth Bituminous Pavement shall be used, See Sheet N# 3

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**
 6"MP-1"
 **
 Underdrains
 **
 All County Roads
 **
 **
 1967
 **
 **

Accept plan quantity for Grade 'B' Special Borrow backfill for pipes.
 ** Maximum Depth of Peat in Disposal Areas shall be 3'
 ** All field measurements were corrected for temperature and tension.
 The quantity "Crown-Vetch Seeding", shown on the estimate of quantity sheet is to be used at those locations where the slopes are 2:1 or steeper or in an area requiring sand cut or sand fills or as directed by the Engineer.
 ** The quantity of "Peat Excavation" as shown on the plans has been estimated on the basis of theoretical cross-sections by using Method "A" where it applies and Method "B" where it applies.
 ** For Paved Side Ditch and sodding quantities, see table on sheet N# 48 & 49
 ** The Engineer may change the type of fence shown on the plans upon receipt of reasonable, written justification from the property owner.

INDIANA STATE HIGHWAY COMMISSION

3 FULL DEPTH BITUMINOUS - TYPICAL CROSS SECTION
 4

ST'D. CONT. REINF. CONC. PAV'T. SHEET "CRC-A"
 B
 C

5-10 AND R.O.W. PLAT. NO. 3
 11-33(33A) (Sheet 33A Profile of Class IV Drive)
 34-46 (Sheet 34 Main of Traffic & Sheet 46 Signs)
 47-49 UNDERDRAIN TABLE and R.S.D. & SODDING TABLES
 50-51 APPROACH TABLE
 52-53 TABLE OF QUANTITIES
 54-56 STRUCTURE DATA
 57-58 ESTIMATE OF QUANTITIES
 59

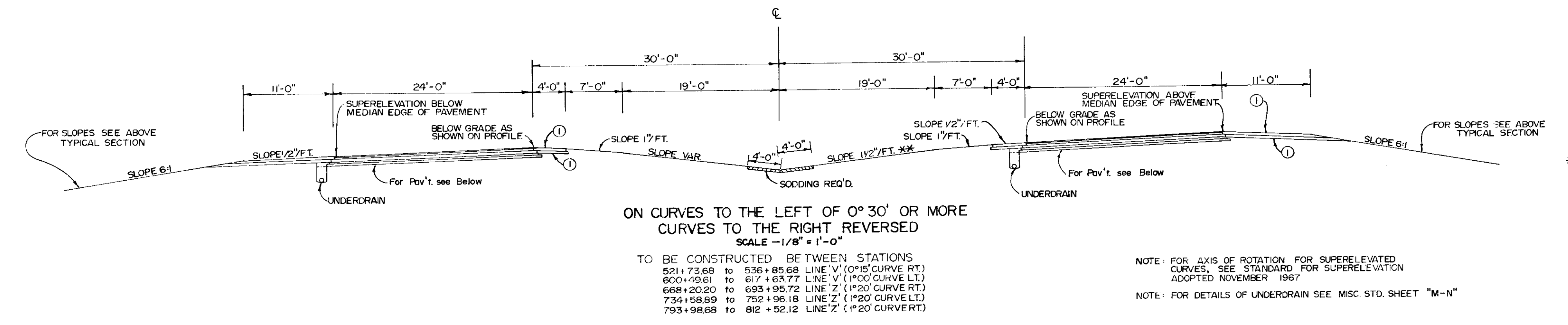
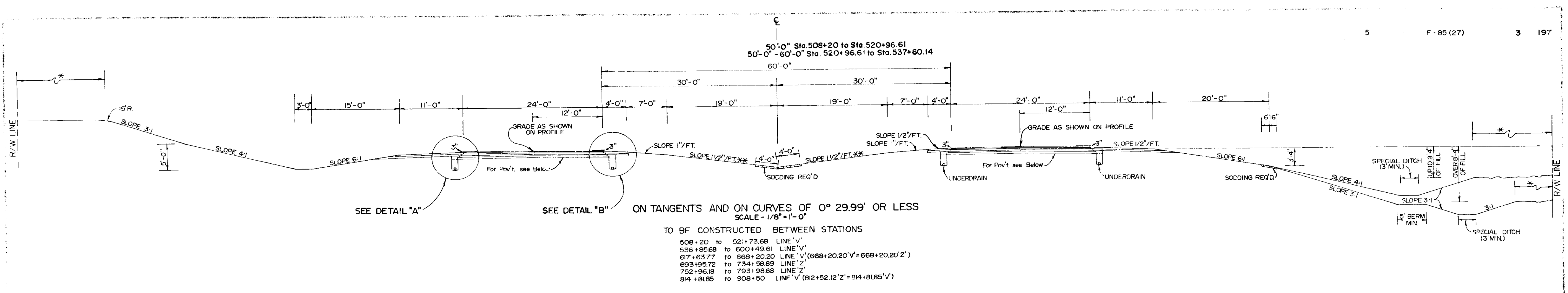
60
 60A
 61
 62
 62A
 63
 63A
 64
 64A
 65
 66
 66A
 67
 67A
 68
 68A
 69
 70
 71
 71A
 72
 72A
 72B
 72C

9-29-71 R 1-4-71
 * A - July 72
 3-7-72 R 1-3-72
 7-2-71 R 3-1-71
 7-2-71 R 3-1-71
 7-2-71 R 3-1-71
 6-11-69 R 4-1-69
 * A - July 72
 8-9-71 R 5-3-71
 8-9-71 R 5-3-71
 6-20-69 R 4-1-69
 3-23-70 R 12-1-69
 5-26-70 R 4-1-70
 3-16-72 R 1-3-72
 6-17-71 R 10-1-70
 4-9-70 R 2-2-70
 8-17-71 R 1-4-71
 8-17-71 R 1-4-71
 8-25-69 R 6-19-69
 12-1-68 R 10-3-68
 * R 12-1-71
 2-11-71 R 12-1-70
 * A - October 71
 * R 7-3-72

73 * R 3-1-71
 73A BURED END GR. ID * A - July 72
 74 NOV. 1967 11-5-69 R 8-1-69
 75 * A - April 72
 75A * A - April 72
 75B * A - April 72
 75C * A - April 72
 75D * R 7-1-71
 76 * R 7-1-71
 77 9-7-71 R 7-1-71

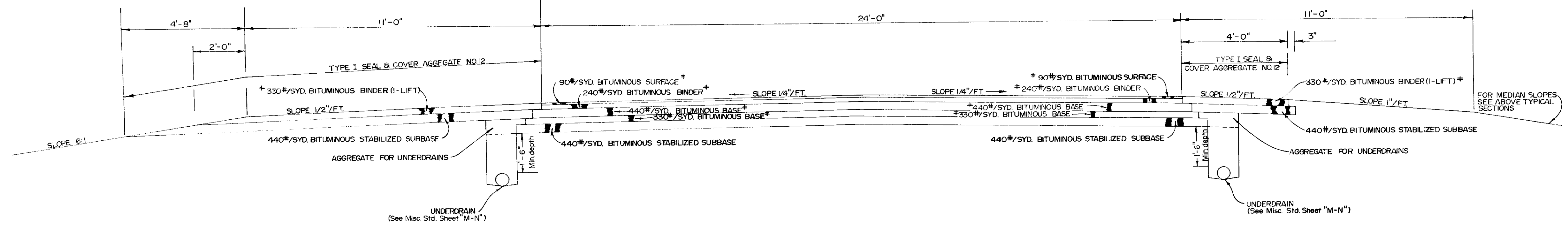
78-197 FH.W.A.

12/1/68 [Signature] F-75(27) 'V' 2 197



LEGEND

- * MINIMUM DESIRABLE DISTANCE 15' FOR 145' R/W (290' TOTAL)
- ** MINIMUM SLOPE 1" PER FOOT
MAXIMUM SLOPE 2" PER FOOT
- ① SLOPE 1/2"/FT. FOR 0°30' TO 1°29.99'
SLOPE 1/4"/FT. FOR 1°30' TO 1°59.99'
SLOPE 0"/FT. FOR 2°00' AND OVER



* BITUMINOUS SURFACE TO BE H.A.E. SURFACE TYPE III or H.A.C. SURFACE TYPE B
* BITUMINOUS BINDER TO BE #9 H.A.E. BINDER or H.A.C. BINDER
* BITUMINOUS BASE TO BE #4 OR #5 H.A.E. BASE or H.A.C. BASE

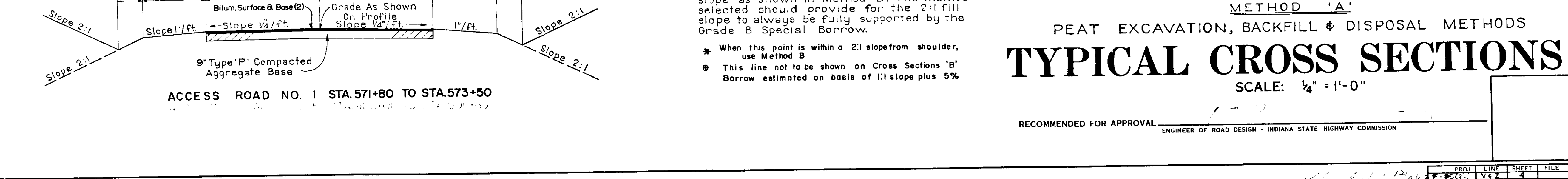
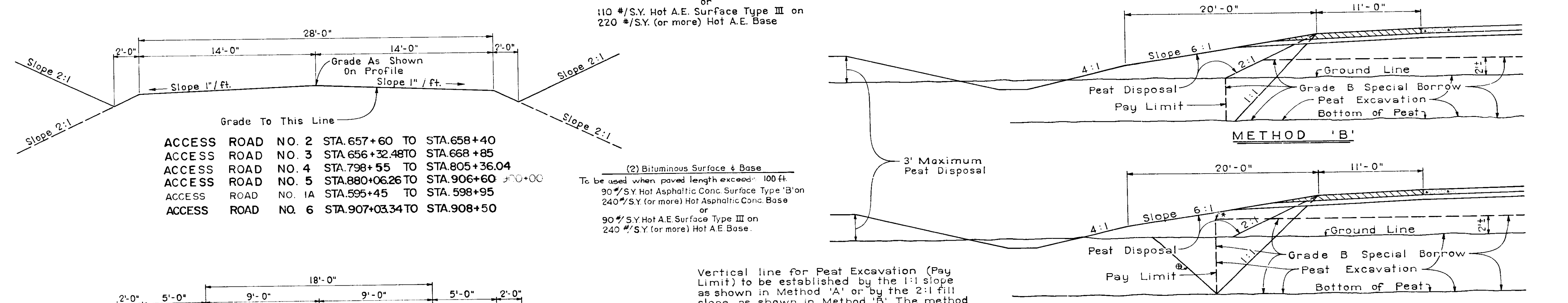
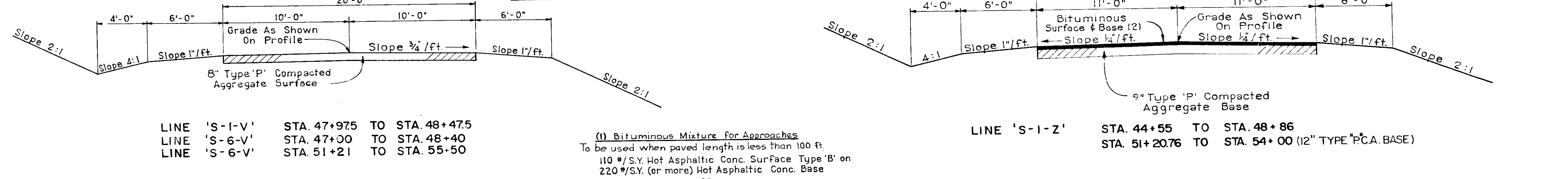
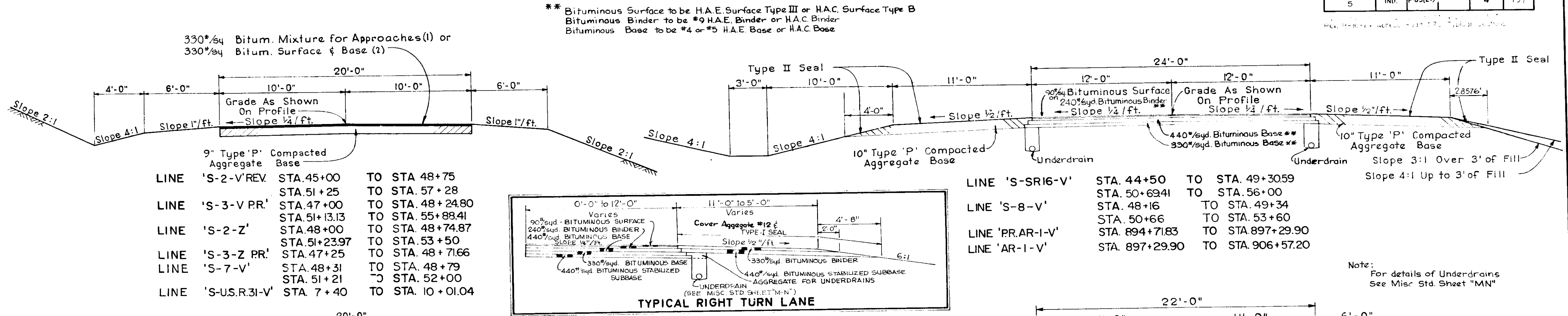
TYPICAL CROSS SECTIONS

AS SHOWN

8-76-71

Byron R. Burch

FED. ROAD REGION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		4	137

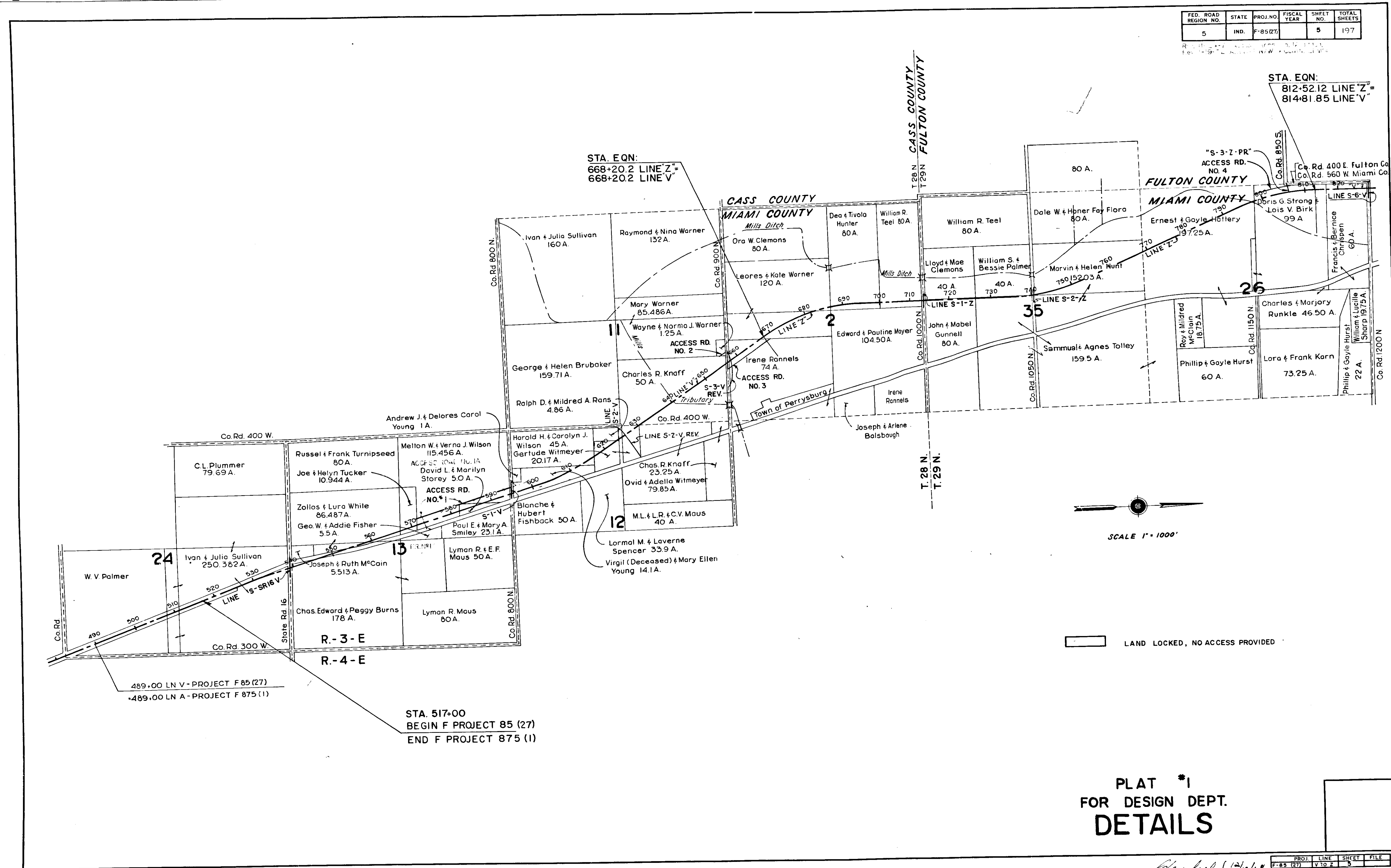


FED. ROAD REGION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		5	197

PLAT #1 FOR DESIGN DEPT. DETAILS

STA. EQN:
812+52.12 LINE Z' =
814+81.85 LINE V'

STA. EQN:
668+20.2 LINE Z' =
668+20.2 LINE V'



489+00 LN V - PROJECT F 85 (27)
489+00 LN A - PROJECT F 875 (1)

STA. 517+00
BEGIN F PROJECT 85 (27)
END F PROJECT 875 (1)

PLAT #1
FOR DESIGN DEPT.
DETAILS

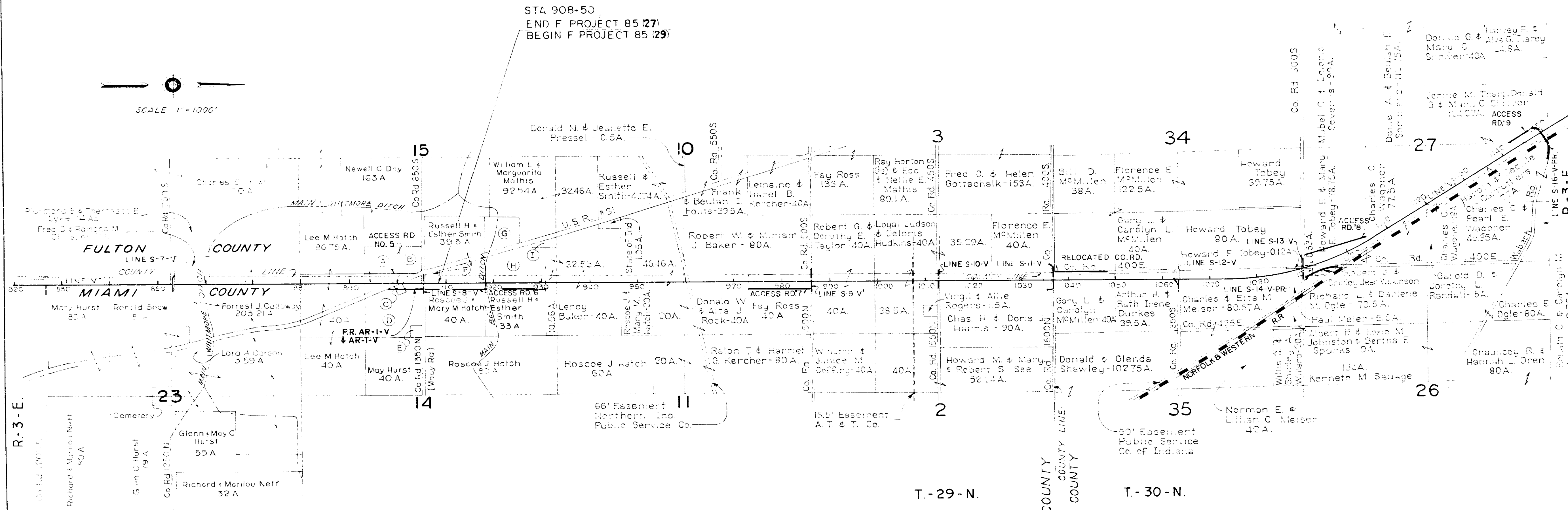
PROJ. LINE	SHEET	FILE
F-85 (27)	V-10-2	5

Handwritten signature and date: 12/19/68

5	180	27	6	197
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SCALE 1"=1000'

STA 908+50
END F PROJECT 85 (27)
BEGIN F PROJECT 85 (29)



- (A) J. C. Gleason, Administrator Veterans Affairs 1788 A.
- (B) Charles R. Burns 1.51 A.
- (C) Ralph & Judy Ousley 0.5 A.
- (D) Richard & Suzanne & Mickey E. Belcher 31.502 A.
- (E) Emily J. & Madie Oberg 0.998 A.
- (F) Harvey N. & Glenn H. Smith 0.5 A.
- (G) Blaine & Maude Reynolds 11.68 A.
- (H) Robert & Corn L. Burns 16.18 A.
- (I) Mud Creek Church & Cemetery - 1 A.

PLAT #1
FOR DESIGN DEPT.
DETAILS

Charles R. Burns



END PROJ. F-875 (1)
BEGIN PROJ. F-85 (19)
STATION 517 + 00.00 'V'

13/13

13/12

14/13

13/12

SECTION MIAMI 13-720N, R3E COUNTY MIAMI COUNTY

Russell Frank Turnipsed

VERA J. SHADWINGER

Hazel I. Brubaker Res. A

W. V. Palmer

W. J. SULLIVAN ET AL.

Joseph Ruth McCain

Luna E. White

Joe & Helyn Tucker

Harold H. Wilson
Carolyn J. Wilson
Mary Ellen Young
Delores Gann

Temp. R/W for Tile Const.

Temp. R/W for Pest Disposal and Other Const.

Temp. R/W for a/dg. Removal

George W. & Addie Fisher

Charles Edward & Peggy J. Burns

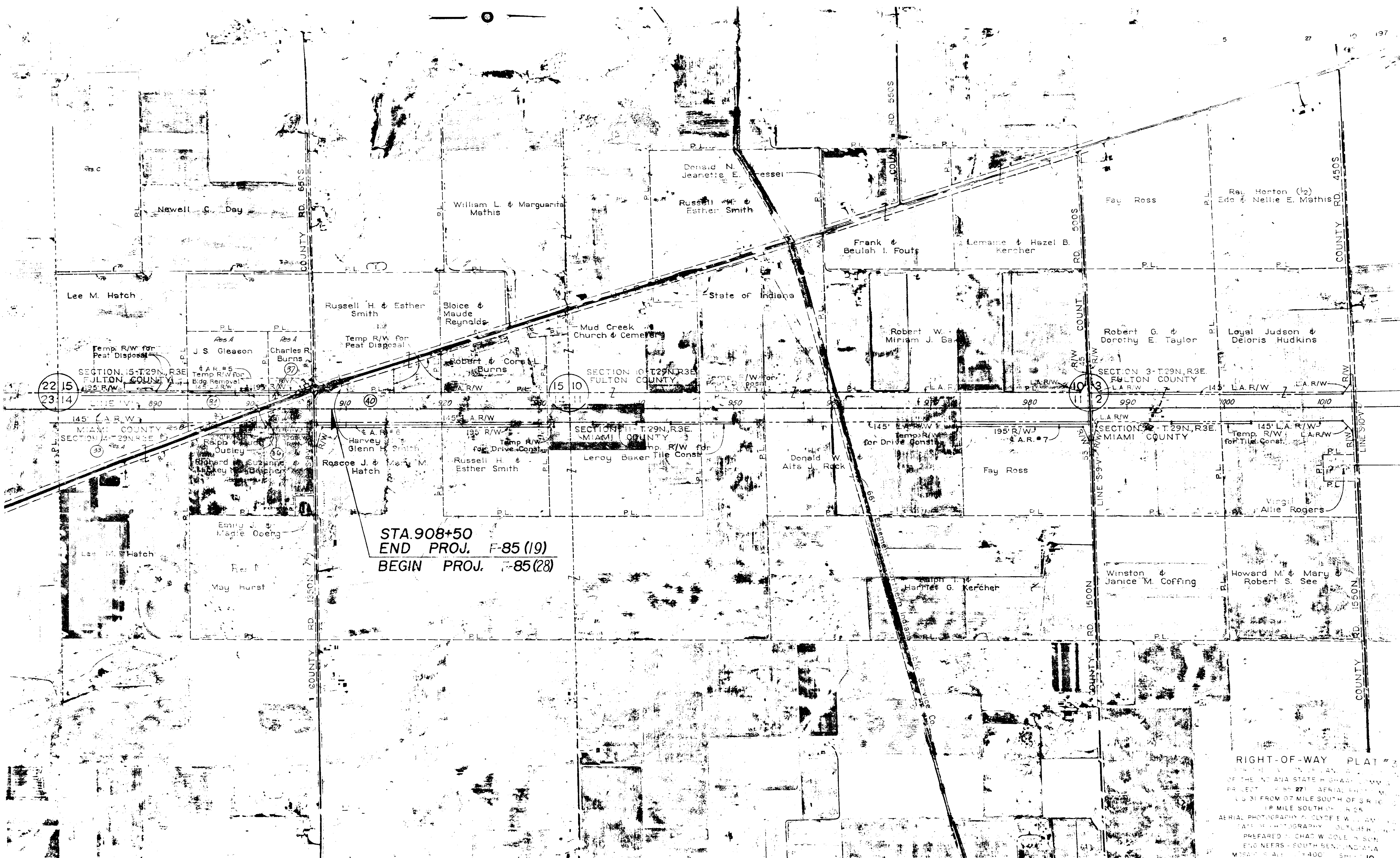
Paul E. & Mary Alice Smiley

Lyman R. E. F. Maus

BLANCHE & HUBERT E. FOUBACK

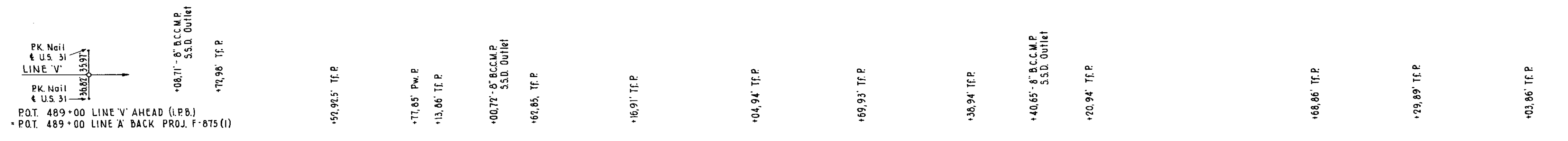
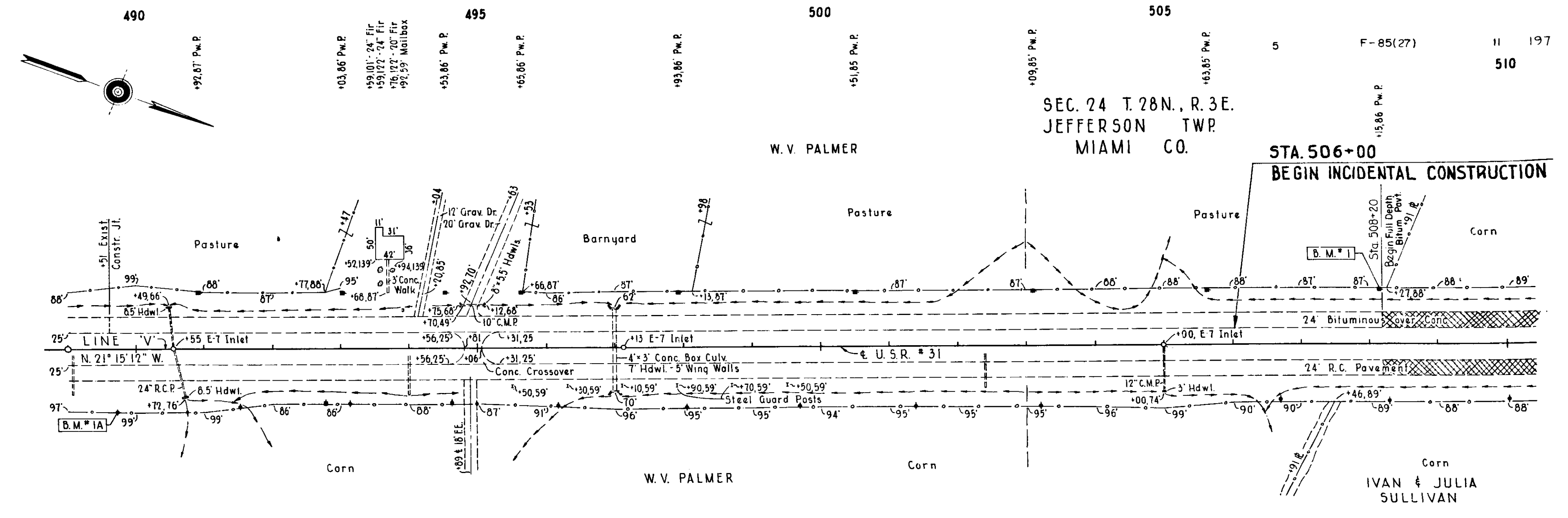


RIGHT-OF-WAY PLAT
 FOR THE L.A.R/W AND P.L. LINES
 OF THE INTERSTATE HIGHWAY
 PROJECT, I-75, IN THE
 TOWNSHIP OF PERRYSBURG,
 COUNTY OF MIAMI, STATE OF
 OHIO, WITH THE
 DATE OF RECORDING
 1971



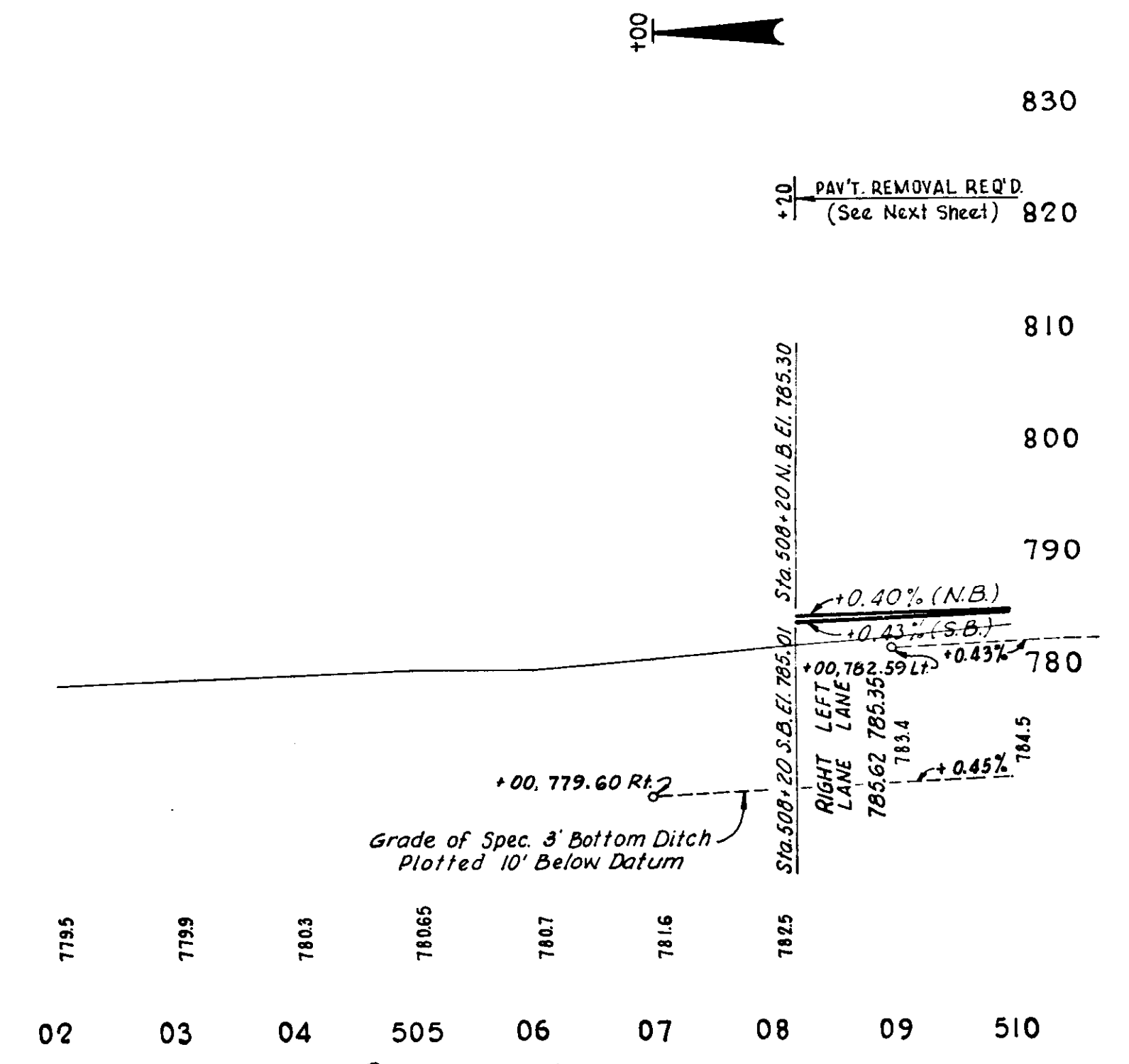
STA. 908+50
 END PROJ. F-85 (19)
 BEGIN PROJ. F-85 (28)

RIGHT-OF-WAY PLAT # 2
 OF THE STATE OF INDIANA
 PROJECT F-85 (27) AERIAL PHOTOGRAPHY
 1:25,000 SCALE FROM 07 MILE SOUTH OF SR 16
 1/4 MILE SOUTH OF R-25
 AERIAL PHOTOGRAPHY BY CLYDE E. WILSON
 DATE OF PHOTOGRAPHY OCTOBER 1954
 PREPARED BY CHAS. W. SOLE & SONS
 ENGINEERS - SOUTH BEND, INDIANA
 MSA 10-5-AL-1-400 SHEET 10 197



**CENTER LINE OFFSETS
FOR VARIABLE MEDIAN STA.520+96.61-STA.537+60.14 LINE 'V'**

STA. ON LINE 'V'	OFFSET IN FEET TO CL NB LANE (PR#1)	OFFSET IN FEET TO CL SB LANE (PR#2)	STA. ON LINE 'V'	OFFSET IN FEET TO CL NB LANE (PR#1)	OFFSET IN FEET TO CL SB LANE (PR#2)
520+00	37.00	37.00	529+00	39.55	39.50
+25	37.00	37.00	+25	39.63	39.58
+50	37.00	37.00	+50	39.71	39.46
+75	37.00	37.00	+75	39.80	39.54
521+00	37.00	37.00	530+00	39.88	39.63
+25	37.03	37.00	+25	39.96	39.71
+50	37.06	37.00	+50	40.04	39.79
+75	37.14	37.00	+75	40.12	39.87
522+00	37.22	37.02	531+00	40.21	39.94
+25	37.30	37.07	+25	40.29	40.04
+50	37.38	37.15	+50	40.37	40.12
+75	37.46	37.22	+75	40.46	40.20
523+00	37.55	37.30	532+00	40.54	40.29
+25	37.64	37.38	+25	40.62	40.37
+50	37.72	37.46	+50	40.70	40.45
+75	37.80	37.54	+75	40.78	40.53
524+00	37.89	37.63	533+00	40.86	40.62
+25	37.97	37.72	+25	40.94	40.70
+50	38.05	37.80	+50	41.02	40.78
+75	38.14	37.88	+75	41.10	40.86
525+00	38.22	37.97	534+00	41.19	40.95
+25	38.30	38.05	+25	41.27	41.03
+50	38.38	38.13	+50	41.35	41.11
+75	38.46	38.22	+75	41.43	41.19
526+00	38.55	38.30	535+00	41.52	41.27
+25	38.63	38.38	+25	41.60	41.35
+50	38.71	38.46	+50	41.68	41.43
+75	38.80	38.54	+75	41.76	41.51
527+00	38.88	38.63	536+00	41.84	41.60
+25	38.98	38.71	+25	41.92	41.68
+50	39.05	38.80	+50	42.00	41.76
+75	39.13	38.88	+75	42.00	41.84
528+00	39.22	38.97	537+00	42.00	41.92
+25	39.30	39.05	+25	42.00	42.00
+50	39.38	39.13	+50	42.00	42.00
+75	39.46	39.22	+75	42.00	42.00



Chris W. Cole & Son, Inc.
 Civil Engineers
 1727
 5-68
 10-68

9635T

Chris W. Cole & Son, Inc.
 Civil Engineers
 1727
 5-68
 10-68

9636L

820

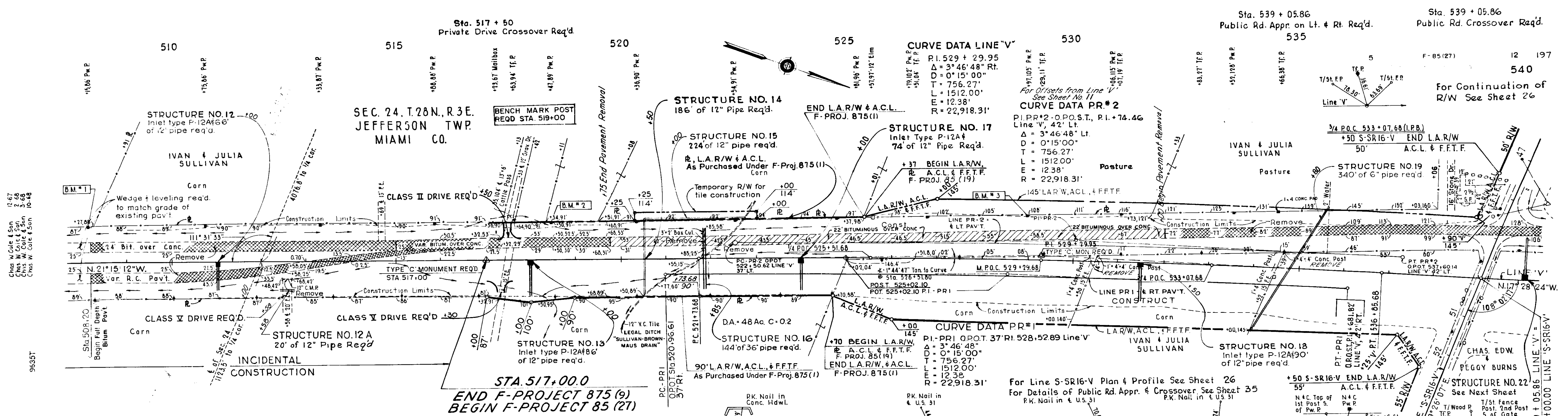
810

800

790

780

Chris W. Cole & Son, Inc.
 F-85(27) V II 127

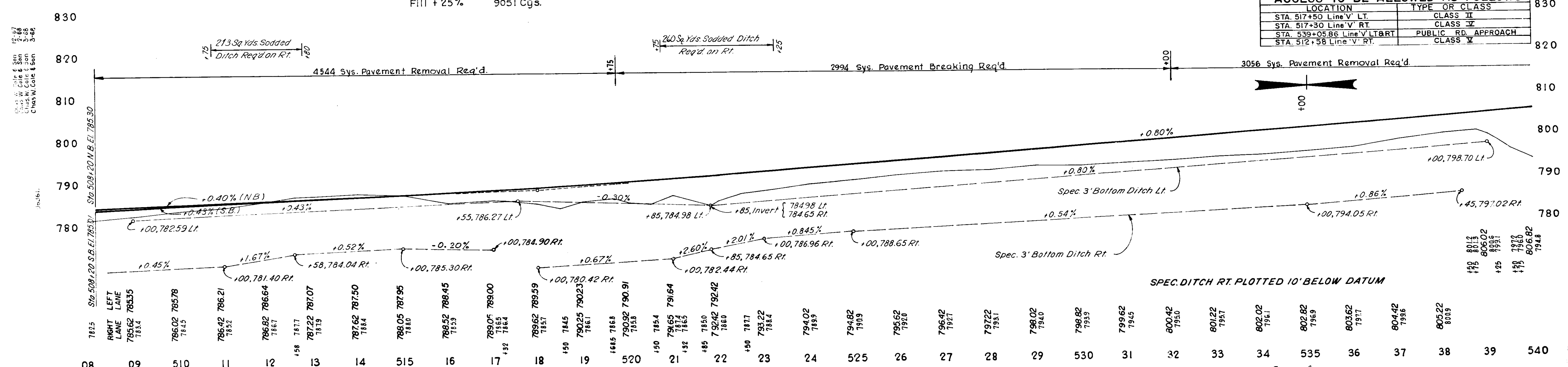


STA. 517+00.0
 END F-PROJECT 875 (9)
 BEGIN F-PROJECT 85 (27)

BALANCE NO. 2
 Cut 2,704 Cys.
 Fill + 25% 31,780 Cys.
 Borrow 29,076 Cys.

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL RIGHT OF WAY DESCRIBED FROM LINE 'V', EXCEPT AS SHOWN.

LOCATION	TYPE OR CLASS
STA. 517+50 Line 'V' LT.	CLASS II
STA. 517+30 Line 'V' RT.	CLASS IV
STA. 539+05.86 Line 'V' LT & RT	PUBLIC RD. APPROACH
STA. 512+58 Line 'V' RT.	CLASS V

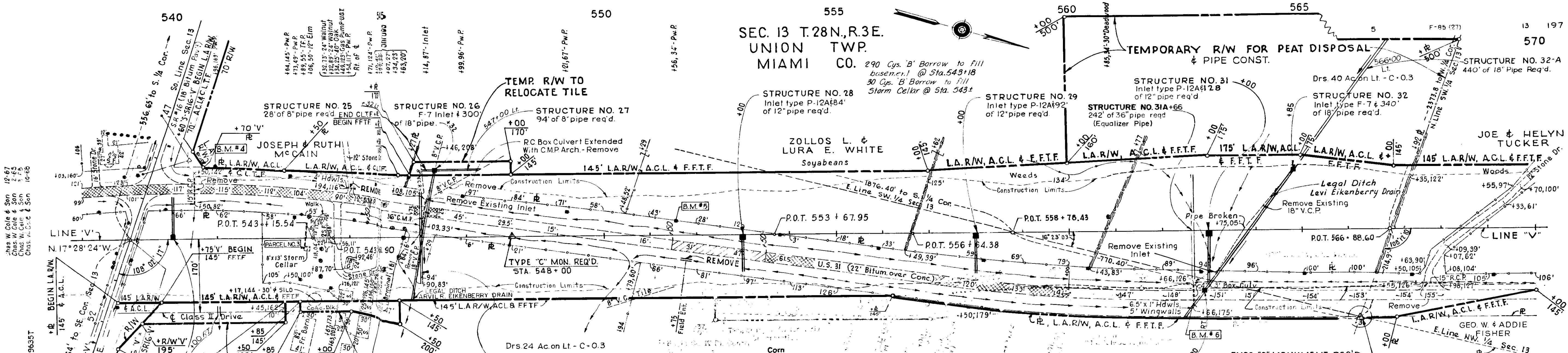


SPEC. DITCH RT. PLOTTED 10' BELOW DATUM

Chas. W. Cole & Son
 12-67
 12-68
 12-69
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 12-74
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 13-00

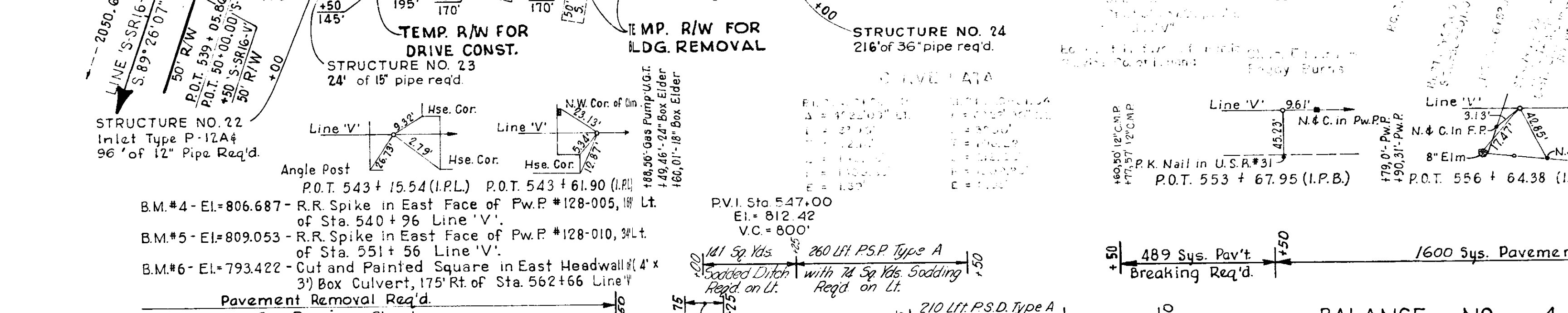
Shaw-Walker
 12-88
 F-85 (27)
 V 12 197

SEC. 13 T. 28N., R. 3E.
 UNION TWP.
 MIAMI CO.

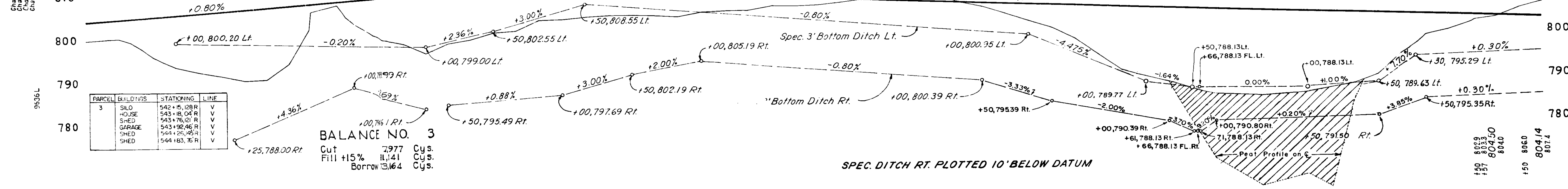


ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL RIGHT OF WAY DESCRIBED FROM LINE 'V', EXCEPT AS SHOWN.

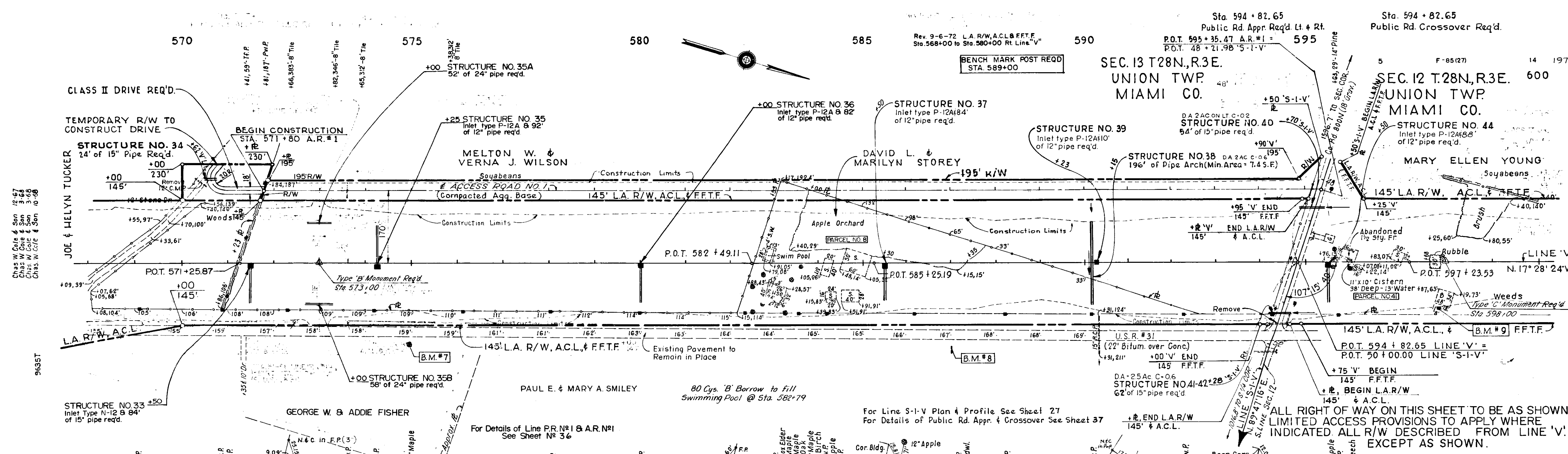
FOR LOCATION OF ACCESS ALLOWED, SEE TABLE ON PREVIOUS SHEET.



STATION	DESCRIPTION	REQUIREMENTS
Sta. 547+00	P.V.I. Sta. 547+00	El. = 812.42, V.C. = 800'
Sta. 543+15.54	P.O.T. 543 + 15.54 (I.P.B.)	
Sta. 543+61.90	P.O.T. 543 + 61.90 (I.P.B.)	
Sta. 543+96	R.R. Spike in East Face of Pw.P. #128-005, 1/2 Lt. of Sta. 540 + 96 Line 'V'	
Sta. 551+56	R.R. Spike in East Face of Pw.P. #128-010, 3/4 Lt. of Sta. 551 + 56 Line 'V'	
Sta. 562+66	Cut and Painted Square in East Headwall (4' x 3') Box Culvert, 175' Rt. of Sta. 562+66 Line 'V'	



STATION	LINE	LINE
805.22	8009	
150	8010	
175	8011	
175	8012	
175	8013	
175	8014	
175	8015	
175	8016	
175	8017	
175	8018	
175	8019	
175	8020	
175	8021	
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175	8100	

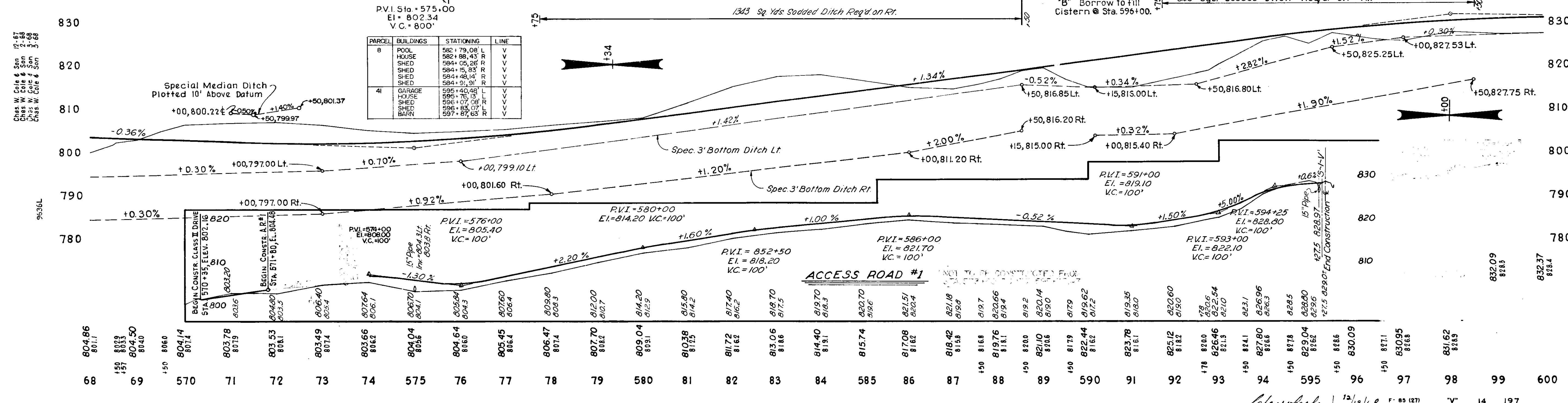


For Details of Line P.R. #81 & A.R. #81 See Sheet No. 36

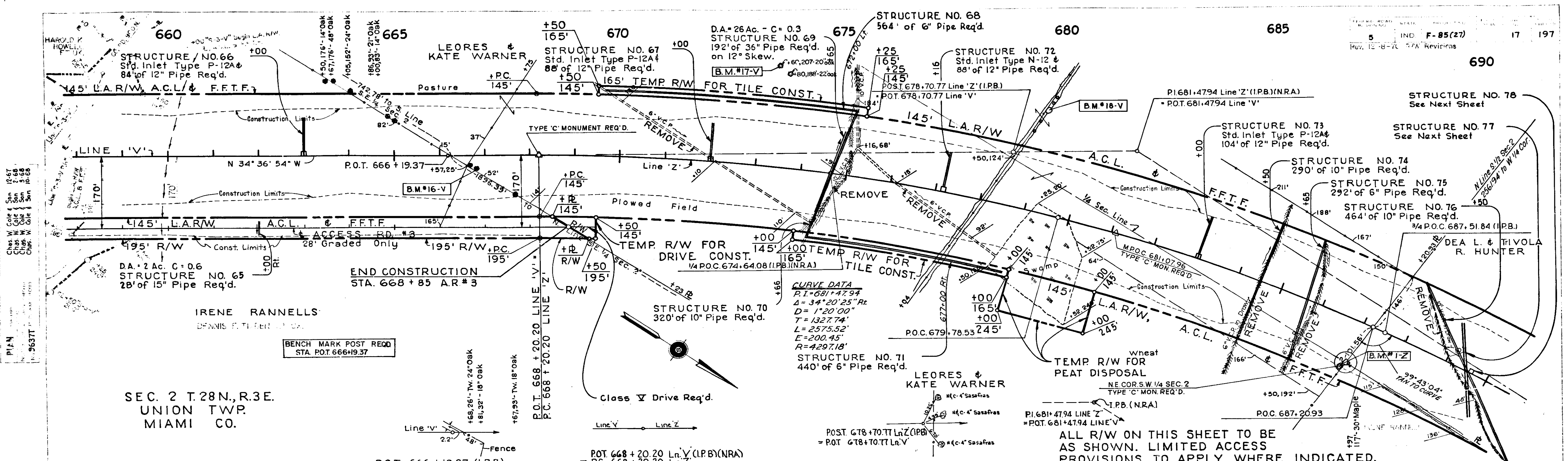
For Details of Line S-1-V Plan & Profile See Sheet 27
For Details of Public Rd. Appr. & Crossover See Sheet 37

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED ALL R/W DESCRIBED FROM LINE 'V' EXCEPT AS SHOWN.

ACCESS TO BE ALLOWED AS FOLLOWS	LOCATION	TYPE OR CLASS
	STA. 594+82.65 'V' LT & RT	PUBLIC RD. APPROACH



Station	Elevation	Station	Elevation	Station	Elevation	Station	Elevation
68	804.86	71	803.78	74	803.66	77	805.45
69	804.50	72	803.63	75	806.40	78	806.47
70	804.14	73	803.49	76	806.64	79	807.70
71	803.86	74	803.66	77	806.45	80	809.04
72	803.63	75	806.40	78	806.47	81	810.38
73	803.49	76	806.64	79	807.70	82	811.72
74	803.66	77	806.45	80	809.04	83	813.06
75	806.40	78	806.47	81	810.38	84	814.40
76	806.64	79	807.70	82	811.72	85	815.74
77	806.45	80	809.04	83	813.06	86	817.08
78	806.47	81	810.38	84	814.40	87	818.42
79	807.70	82	811.72	85	815.74	88	819.76
80	809.04	83	813.06	86	817.08	89	821.10
81	810.38	84	814.40	87	818.42	90	822.44
82	811.72	85	815.74	88	819.76	91	823.78
83	813.06	86	817.08	89	821.10	92	825.12
84	814.40	87	818.42	90	822.44	93	826.46
85	815.74	88	819.76	91	823.78	94	827.80
86	817.08	89	821.10	92	825.12	95	829.14
87	818.42	90	822.44	93	826.46	96	830.48
88	819.76	91	823.78	94	827.80	97	831.82
89	821.10	92	825.12	95	829.14	98	832.16
90	822.44	93	826.46	96	830.48	99	832.50
91	823.78	94	827.80	97	831.82	600	832.84



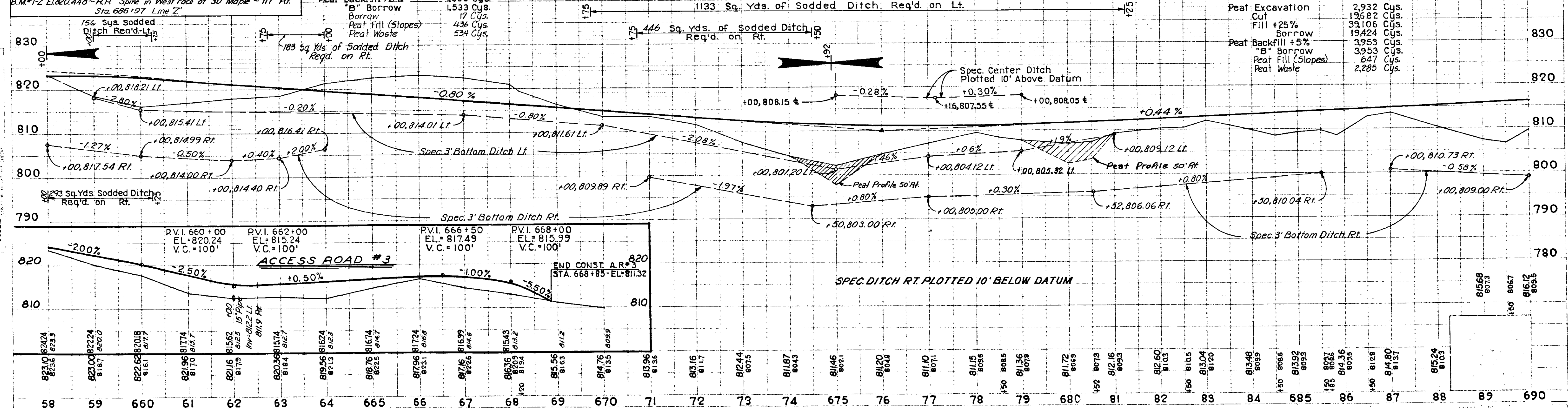
SEC. 2 T.28N., R.3E.
 UNION TWP.
 MIAMI CO.

CURVE DATA
 P.I. = 681+47.97
 Δ = 34°20'25" Rt.
 D = 1'20'00"
 T = 1327.74'
 L = 2575.52'
 E = 200.45'
 R = 429.718'

ALL R/W ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE 'V' BACK OF STA. 668+20.20 AND DESCRIBED FROM LINE 'Z' AHEAD OF STA. 668+20.20

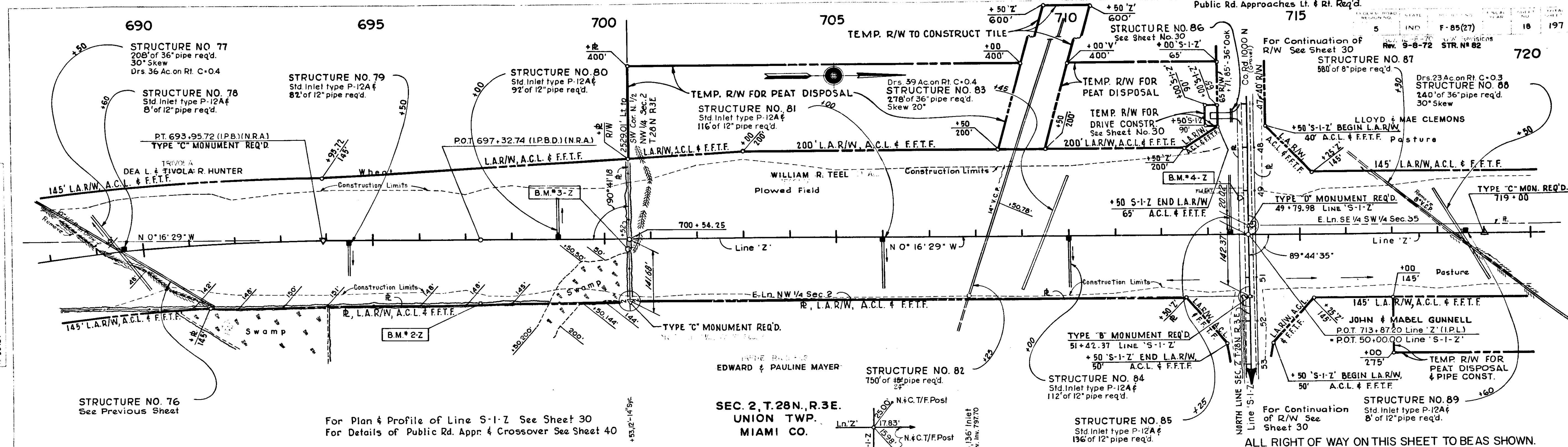
BALANCE NO. 10
 Peat Excavation 970 Cys.
 Cut 26,024 Cys.
 Fill +25% 26,041 Cys.
 Peat Backfill +5% 1,533 Cys.
 "B" Borrow 1,533 Cys.
 Peat Fill (Slopes) 436 Cys.
 Peat Waste 534 Cys.

BALANCE NO. 11
 Peat Excavation 2,932 Cys.
 Cut 19,682 Cys.
 Fill +25% 39,106 Cys.
 Borrow 19,424 Cys.
 Peat Backfill +5% 3,953 Cys.
 "B" Borrow 3,953 Cys.
 Peat Fill (Slopes) 647 Cys.
 Peat Waste 2,285 Cys.



PLAN
 9637T

Profile
 9638L

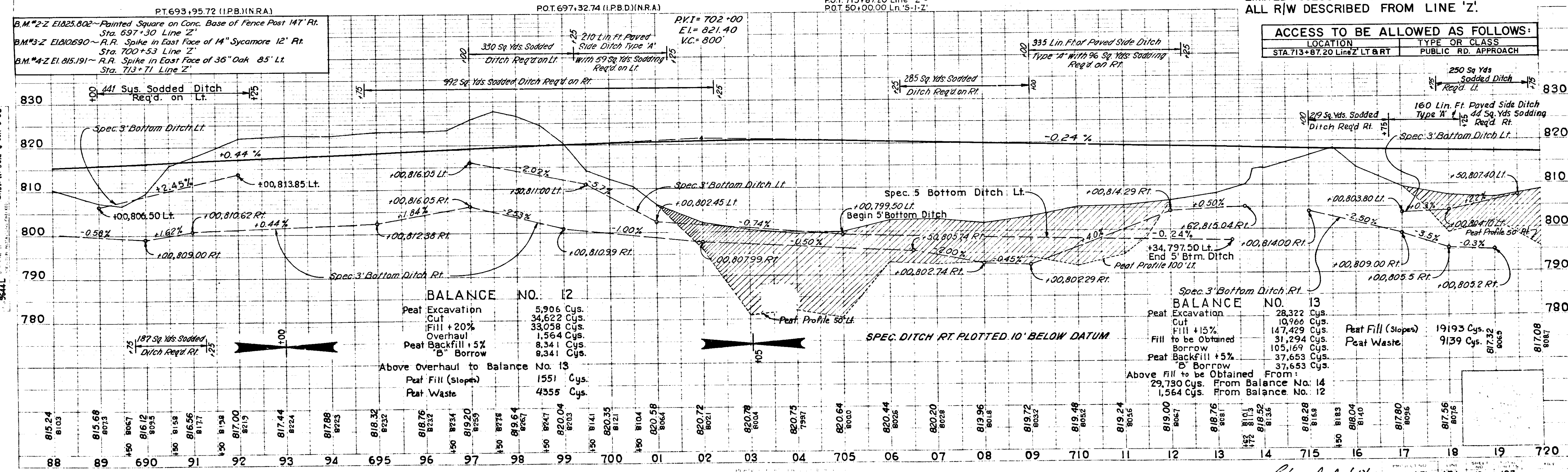


For Plan & Profile of Line S-1-Z See Sheet 30
For Details of Public Rd. Appr & Crossover See Sheet 40

SEC. 2, T. 28N, R. 3E.
UNION TWP.
MIAMI CO.

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN.
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE 'Z'.

ACCESS TO BE ALLOWED AS FOLLOWS:		
LOCATION	TYPE OR CLASS	
STA. 713 + 87.20 Line 'Z' LT & RT	PUBLIC RD. APPROACH	



BALANCE NO. 12

Peat Excavation	5,906 Cys.
Cut	34,622 Cys.
Fill + 20%	33,058 Cys.
Overhaul	1,564 Cys.
Peat Backfill + 5%	8,341 Cys.
Borrow	8,341 Cys.
Above Overhaul to Balance No. 13	
Peat Fill (Slopes)	1,551 Cys.
Peat Waste	4,355 Cys.

BALANCE NO. 13

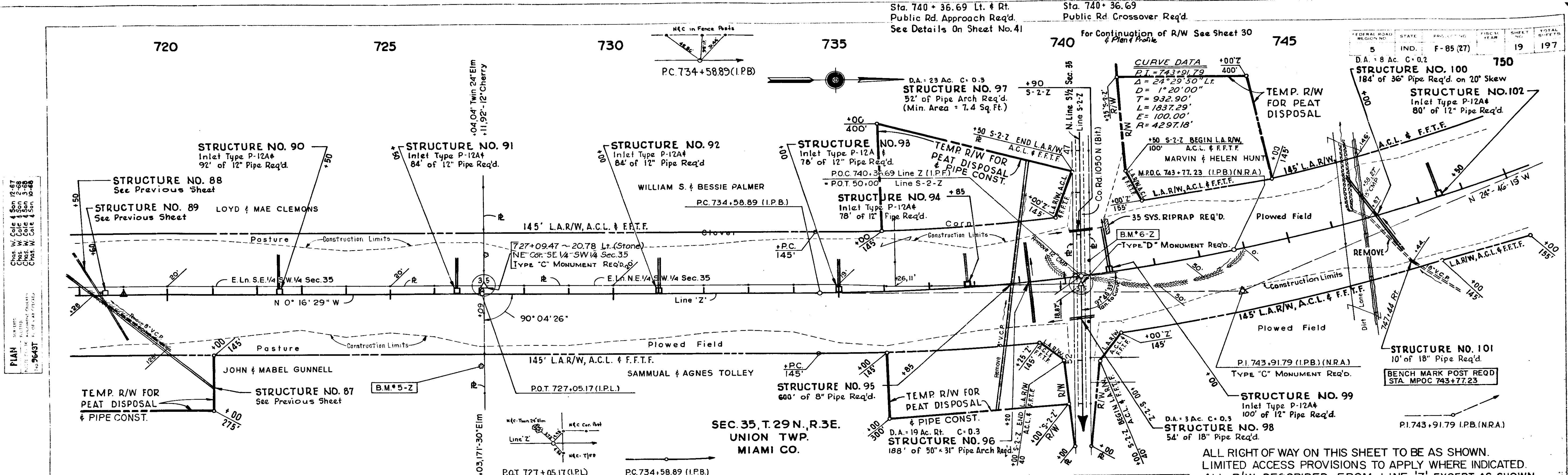
Peat Excavation	28,322 Cys.
Cut	10,966 Cys.
Fill + 15%	147,429 Cys.
Fill to be Obtained	31,294 Cys.
Borrow	105,169 Cys.
Peat Backfill + 5%	37,653 Cys.
Borrow	37,653 Cys.
Above fill to be Obtained From:	
29,730 Cys. From Balance No. 14	
1,564 Cys. From Balance No. 12	

Peat Fill (Slopes)
Peat Waste

19193 Cys.	81732
9139 Cys.	8065

PROFILE
-9444L

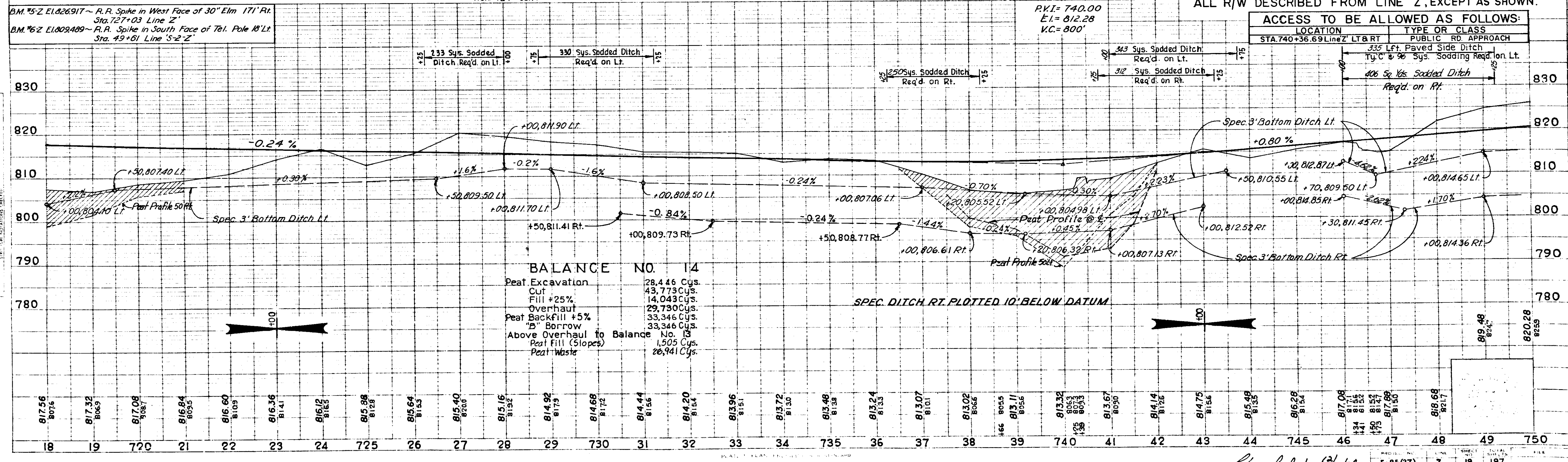
PLAN
-9437L



ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE 'Z', EXCEPT AS SHOWN.

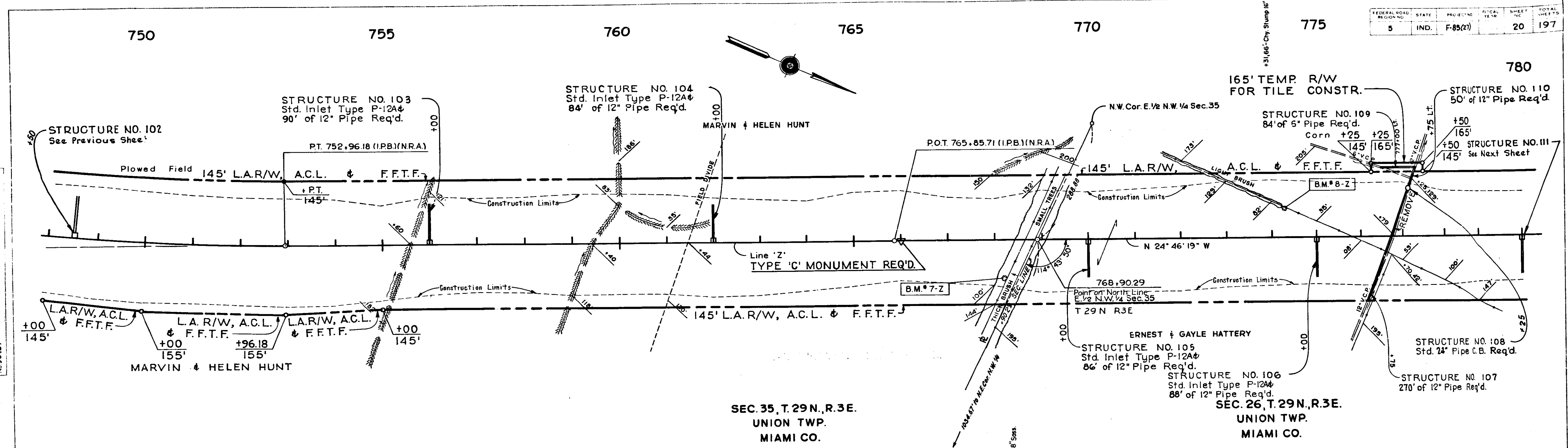
ACCESS TO BE ALLOWED AS FOLLOWS:

LOCATION	TYPE OR CLASS
STA. 740+36.69 Line Z LT & RT	PUBLIC RD. APPROACH
335 Lft. Paved Side Ditch	
35 Sys. Sodding Req'd. on Lt.	
406 Sq. Yds. Sodding Req'd. on Rt.	



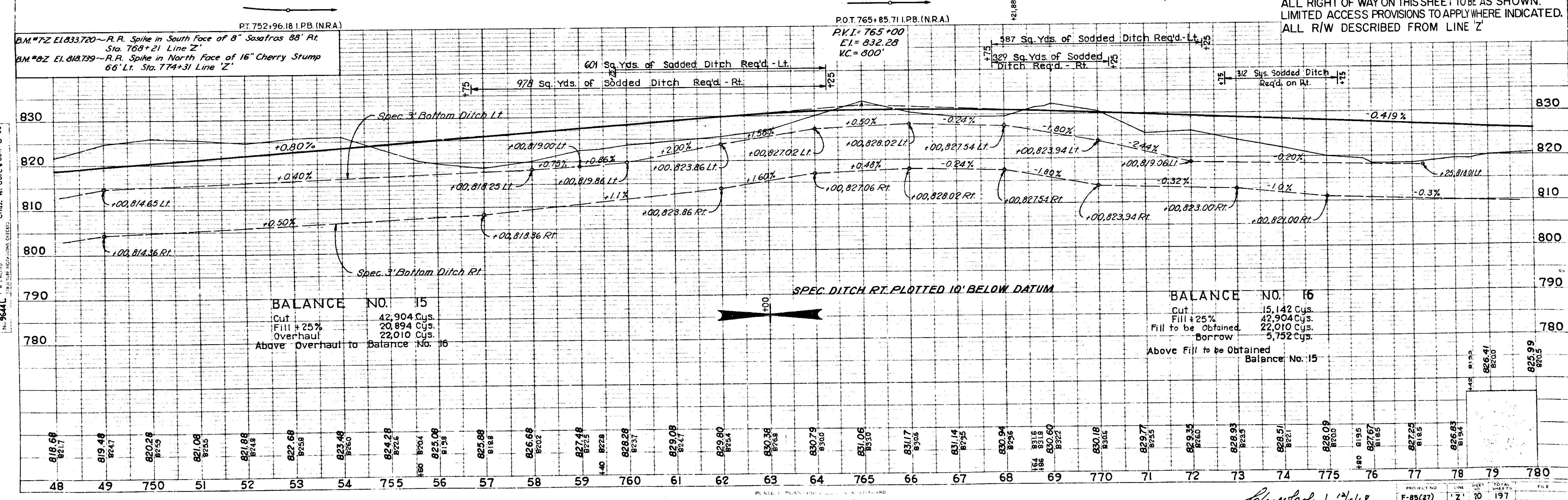
PLAN
 Check W. Cole & Son 12-67
 Check W. Cole & Son 1-68
 Check W. Cole & Son 3-68
 Check W. Cole & Son 5-68
 No. 56437

PROFILE
 Check W. Cole & Son 5-68
 Check W. Cole & Son 7-68
 Check W. Cole & Son 9-68
 Check W. Cole & Son 1-69
 No. 56444



PLAN
 NOT TO SCALE
 No. 9643T

PROFILE
 NOT TO SCALE
 No. 9644L



ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN.
 LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
 ALL R/W DESCRIBED FROM LINE 'Z'

Handwritten signature and date: *Handwritten* 12/1/61

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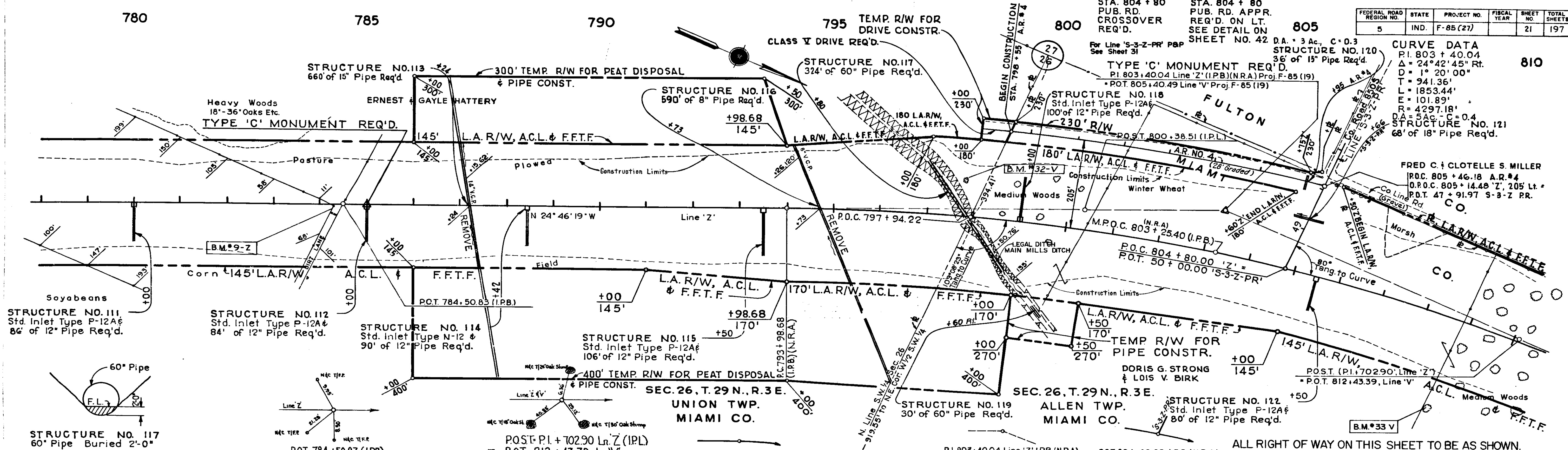
805

810

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		21	197

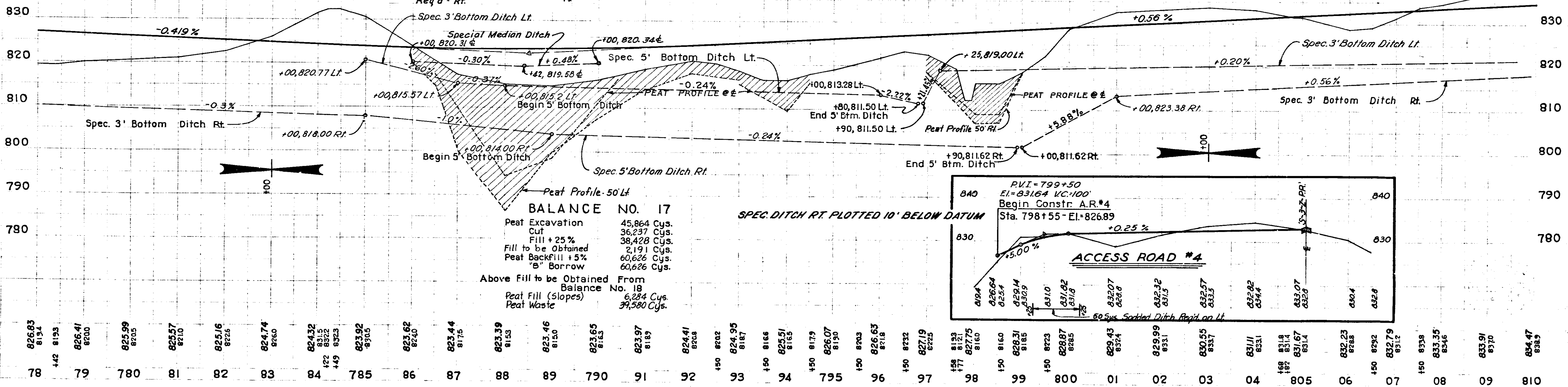
CURVE DATA
 P.I. 803 + 40.04
 STRUCTURE NO. 120
 Δ = 24° 42' 45" Rt.
 D = 1° 20' 00"
 T = 941.36'
 L = 1853.44'
 E = 101.89'
 R = 4297.18'
 D.A. = 3 AC., C.D. = 3
 STRUCTURE NO. 121
 68' of 18" Pipe Req'd.

FRED C. CLOTELLE S. MILLER
 P.O.C. 805 + 46.18 A.R.#4
 P.O.C. 805 + 14.48 'Z', 205 Lt.
 P.D.T. 47 + 91.97 S-3-Z-PR.



Chris W. Cole & Son 1256
 Chris W. Cole & Son 256
 Chris W. Cole & Son 556
 Chris W. Cole & Son 1056
 PLAN 9441

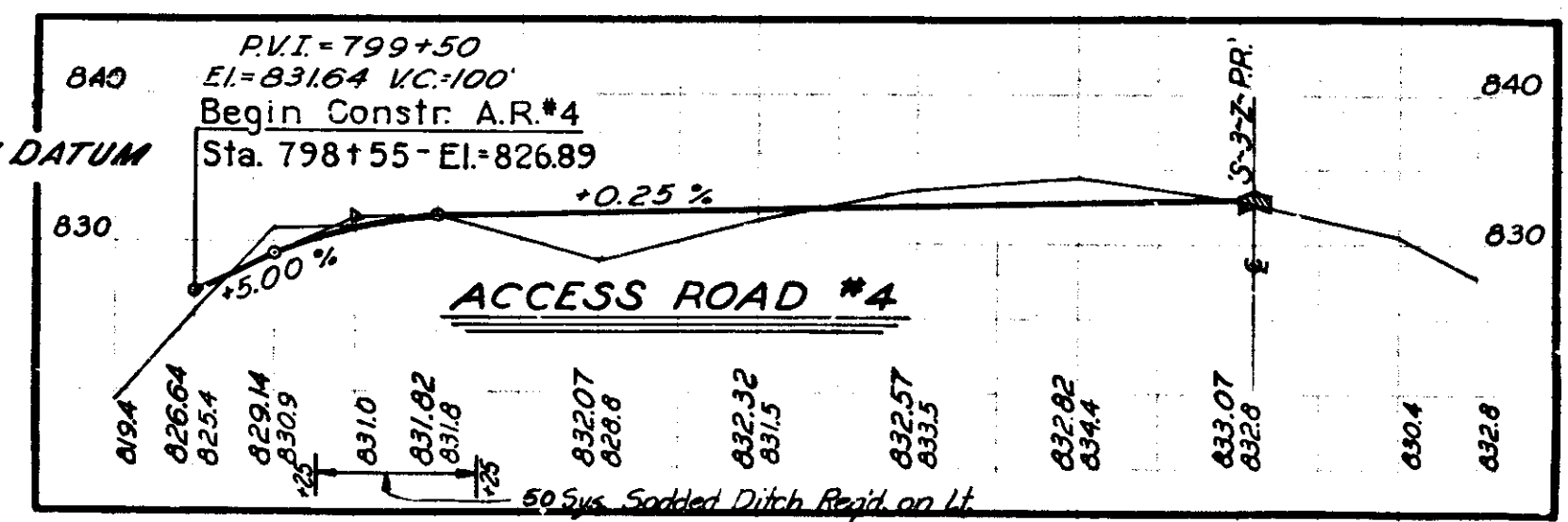
B.M. #92 El. 832.802 - A Square Cut in Conc. Brace Post 10' Rt. Sta. 784 + 30 Line 'Z'
 B.M. #30-V El. 815.032 - R.R. Spike in West Foot of 36" Oak 229' Rt. Sta. 783 + 4.8 Line 'V'
 B.M. #32-V El. 819.298 - R.R. Spike in Root West Face of 12" Hackberry 152' Rt. Sta. 800 + 15 Line 'V'



9441

BALANCE NO. 17

Peat Excavation	45,864 Cys.
Cut	36,237 Cys.
Fill + 25%	38,428 Cys.
Fill to be Obtained	2,191 Cys.
Peat Backfill + 5%	60,626 Cys.
"B" Borrow	60,626 Cys.
Above Fill to be Obtained From Balance No. 18	
Peat Fill (slopes)	6,284 Cys.
Peat Waste	39,580 Cys.



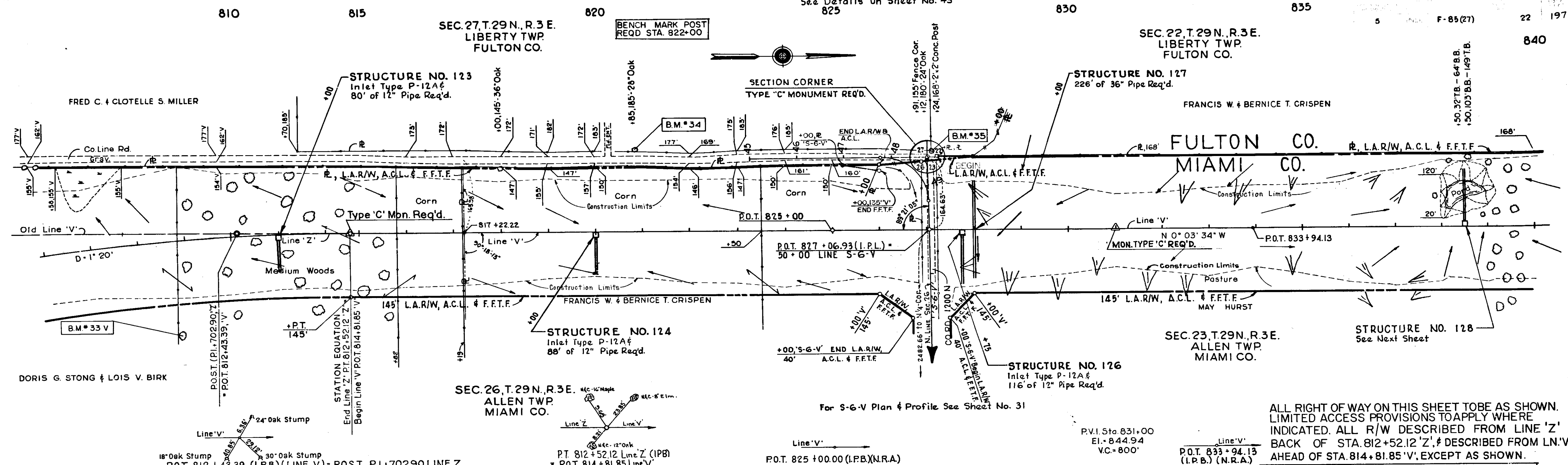
ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE 'Z'

LOCATION	TYPE OR CLASS
STA. 804 + 80.00 Line 'Z' LT.	PUBLIC RD. APPROACH

PROJECT NO.	LINE	SHEET	TOTAL SHEETS	FILE
F-85 (27)	Z	21	197	

Chas. Cole 1/10/68

Sta. 827 + 06.93
Public Rd. Appr. Req'd. on Rt. & Lt. Public Rd. Crossover Req'd.
See Details On Sheet No. 43
825

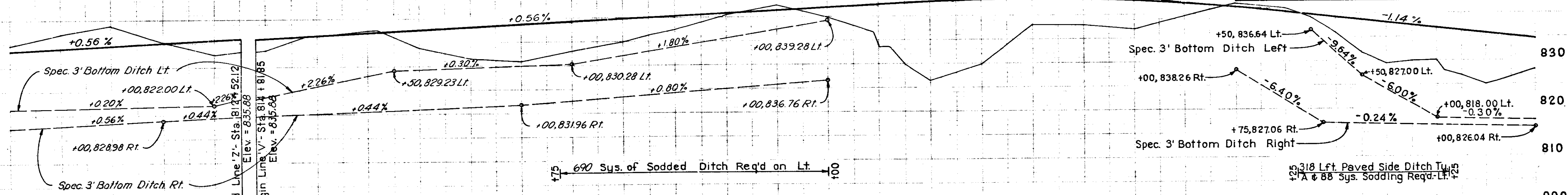


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Sta. 200-68

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN.
LIMITED ACCESS PROVISIONS TO APPLY WHERE
INDICATED. ALL R/W DESCRIBED FROM LINE 'Z'
BACK OF STA. 812 + 52.12 'Z'. DESCRIBED FROM LN. 'V'
AHEAD OF STA. 814 + 81.85 'V', EXCEPT AS SHOWN.

LOCATION	TYPE OR CLASS
STA. 827 + 06.93 Line 'V' Rt. & Lt.	PUBLIC RD. APPROACH



BALANCE NO. 18
Cut 33,615 Cys.
Fill + 25% 24,812 Cys.
Overhaul 8,803 Cys.
Above Overhaul To:
2191 Cys. to Balance No. 17
6612 Cys. to Balance No. 19

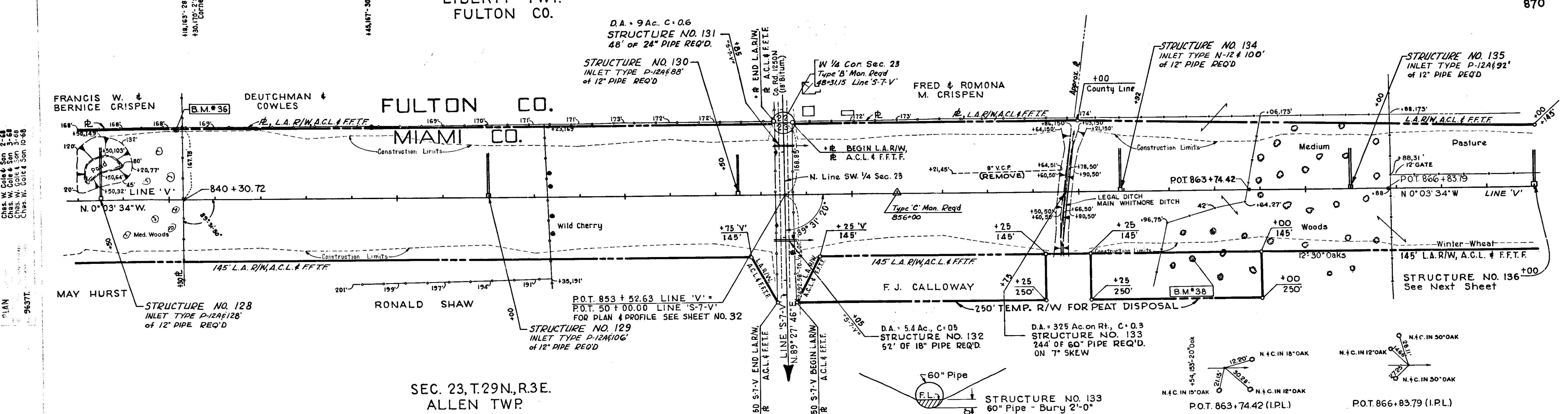
BALANCE NO. 19
Cut 13,919 Cys.
Fill + 20% 80,812 Cys.
Borrow 60,281 Cys.
Above Fill to be Obtained From
Balance No. 18

B.M.*33 - E1.835.936, R.R. Spike in top of stump 215' Rt of 808 + 76 Line 'Z'
B.M.*34 - E1.836.618, R.R. Spike in East face of 28' Oak 165' Lt. of 820 + 85, Line 'V'
B.M.*35 - E1.837.842, R.R. Spike in East face of 24' Oak 180' Lt. of 827.12, Line 'V'

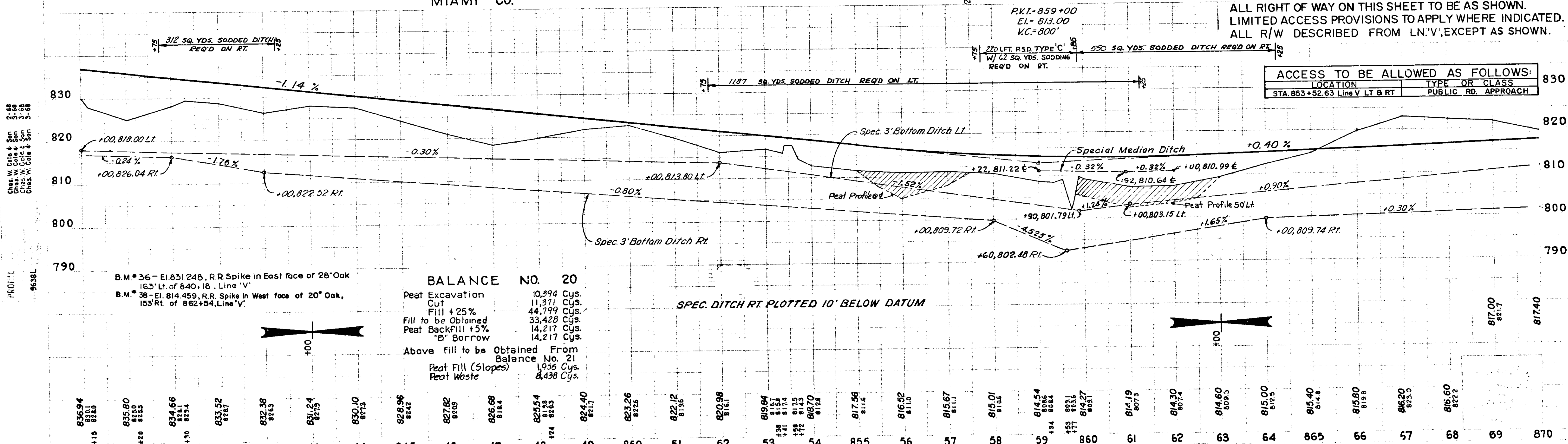
Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.																								
08	833.35	09	833.91	10	834.47	11	835.03	12	835.59	13	836.15	14	836.71	15	837.27	16	837.83	17	838.39	18	838.95	19	839.51	20	840.07	21	840.63	22	841.19	23	841.75	24	842.31	25	842.87	26	843.43	27	843.99	28	844.55	29	845.11	30	845.67	31	846.23	32	846.79	33	847.35	34	847.91	35	848.47	36	849.03	37	849.59	38	850.15	39	850.71	40	851.27

November 6, 1941

Signature and Date: *Shawbold* 12/1/41 F-85(27) Z-V 22 197



SEC. 23, T.29N, R.3E. ALLEN TWP. MIAMI CO.

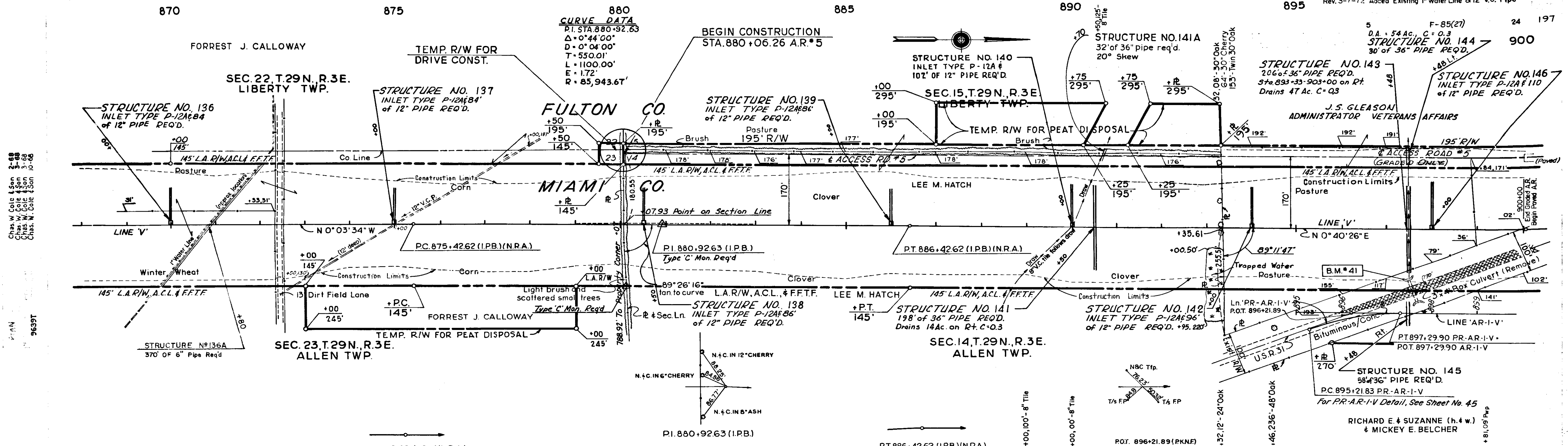


BALANCE NO. 20

Peat Excavation	10,394 Cys.
Cut	11,371 Cys.
Fill + 25%	44,799 Cys.
Fill to be Obtained	33,428 Cys.
Peat Backfill + 5%	14,217 Cys.
"B" Borrow	14,217 Cys.
Above Fill to be Obtained From Balance No. 21	
Peat Fill (Slopes)	1,956 Cys.
Peat Waste	8,438 Cys.

PRJ. 9637T
9638L
Chas. W. Cole & Son 2-68
Chas. W. Cole & Son 3-68
Chas. W. Cole & Son 4-68
Chas. W. Cole & Son 5-68

Shawbold 12/10/68 F-85(27) 23 197



B.M. #41 - El. 817.38. A square cut in south end of west headwall of 3'x4' box culvert 122' Rt. at Sta. 897+48

PC 875+42.62 (IPB)(N.R.A.)

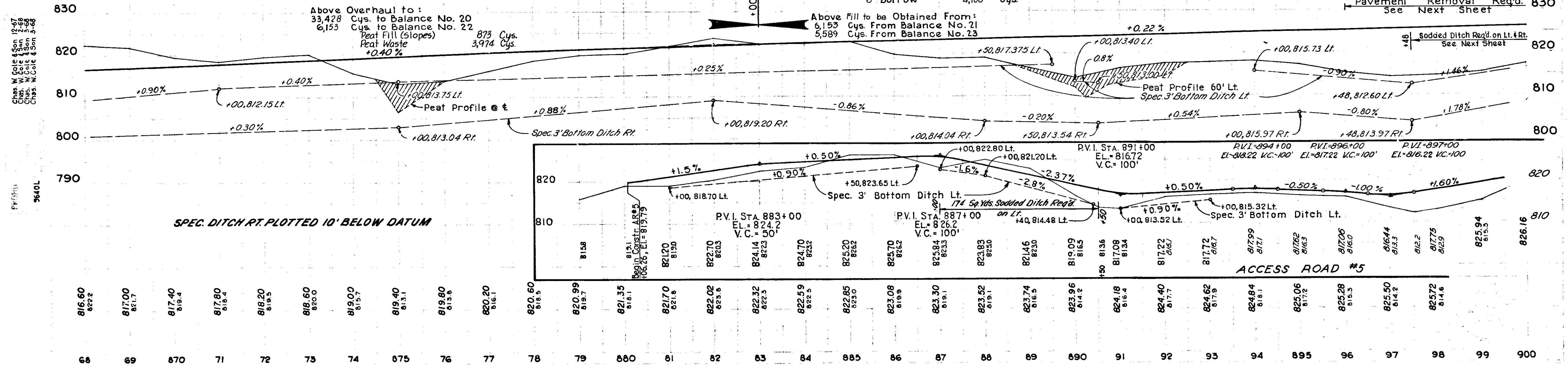
BALANCE NO. 21	
Peat Excavation	4,847 Cys.
Cut	49,895 Cys.
Fill + 25%	10,304 Cys.
Overhaul	39,581 Cys.
Peat Backfill + 5%	7,764 Cys.
"B" Borrow	7,764 Cys.

PVI = 882+00
 EL = 822.20
 V.C. = 800'

PT 886+42.62 (IPB)(N.R.A.)

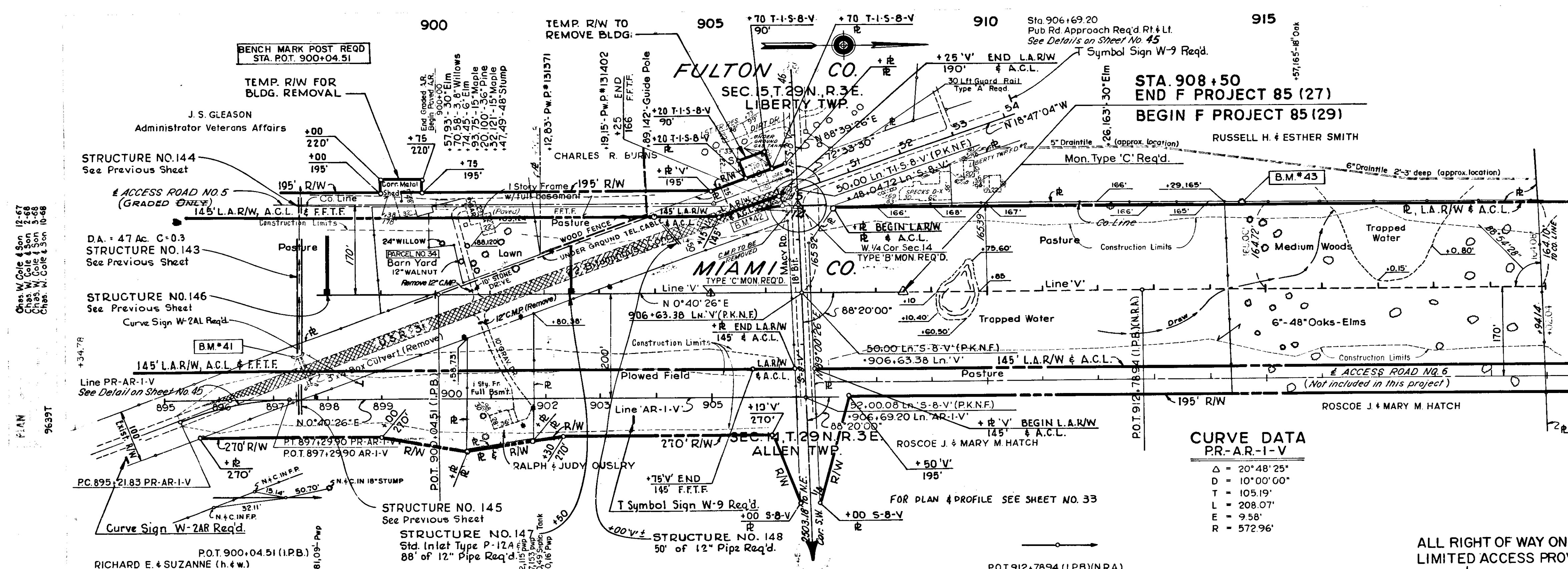
BALANCE NO. 22	
Peat Excavation	2,400 Cys.
Cut	20,995 Cys.
Fill + 20%	79,698 Cys.
Fill to be Obtained	11,742 Cys.
Borrow	46,961 Cys.
Peat Backfill + 5%	4,108 Cys.
"B" Borrow	4,108 Cys.

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE 'V' FOR LOCATION OF ACCESS ALLOWED SEE NEXT SHEET.



Chas. W. Cole 1247
 Chas. W. Cole 2268
 Chas. W. Cole 3268
 Chas. W. Cole 4268
 Chas. W. Cole 5268
 PVI 9640L

December 1, 1968
 F-85(27) 24 197



Chas. W. Cole & Son, Inc.
 1267
 Chas. W. Cole & Son, Inc.
 3-68
 Chas. W. Cole & Son, Inc.
 11-68
 F.I.N.
 9639T

Chas. W. Cole & Son, Inc.
 1267
 Chas. W. Cole & Son, Inc.
 3-68
 Chas. W. Cole & Son, Inc.
 11-68
 F.I.N.
 9640L

STA. 908+50
END F PROJECT 85 (27)
BEGIN F PROJECT 85 (29)

CURVE DATA
PR-AR-I-V

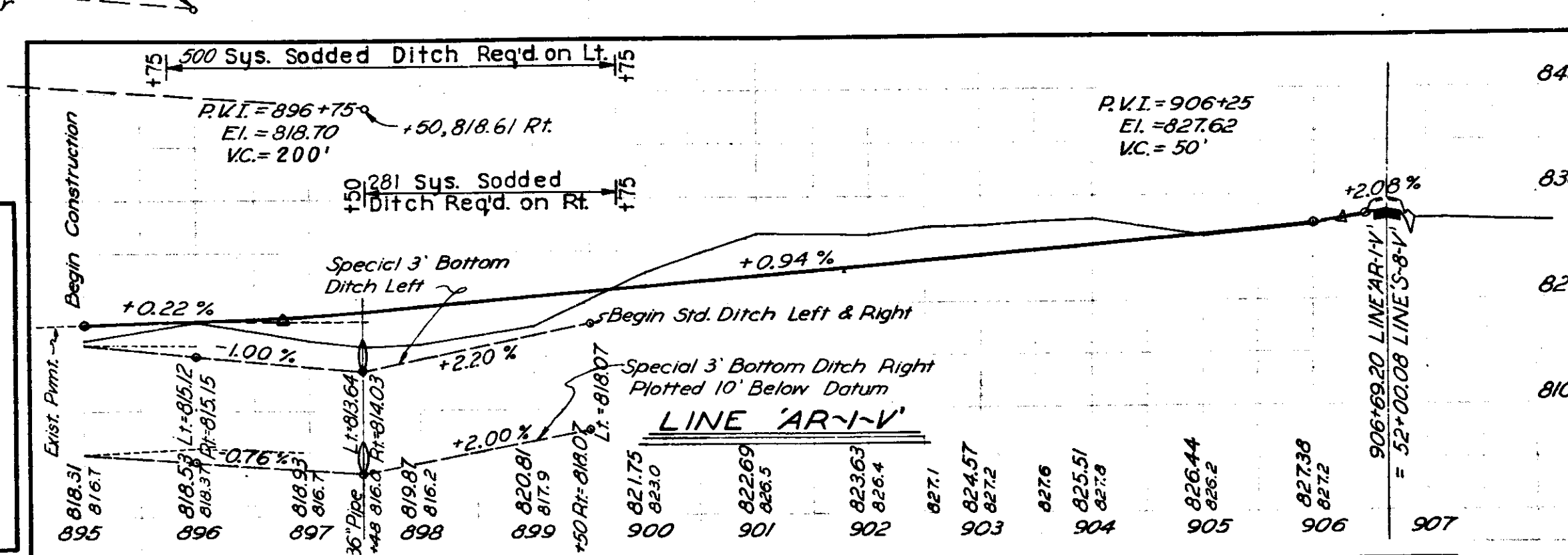
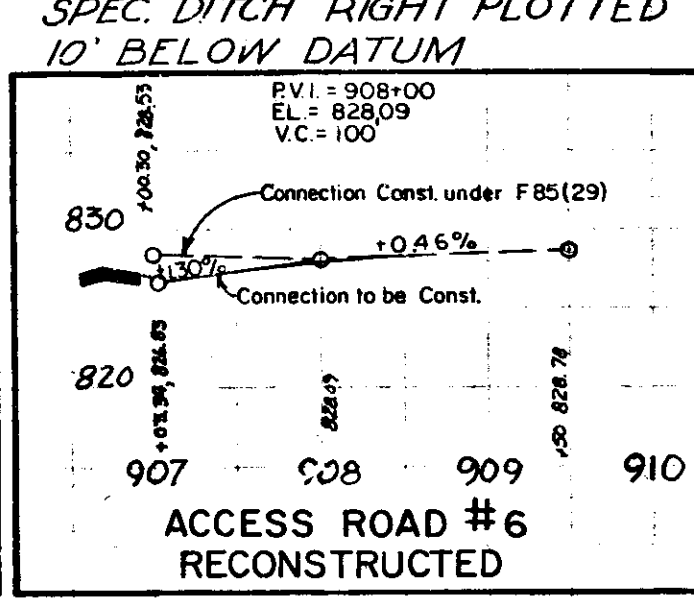
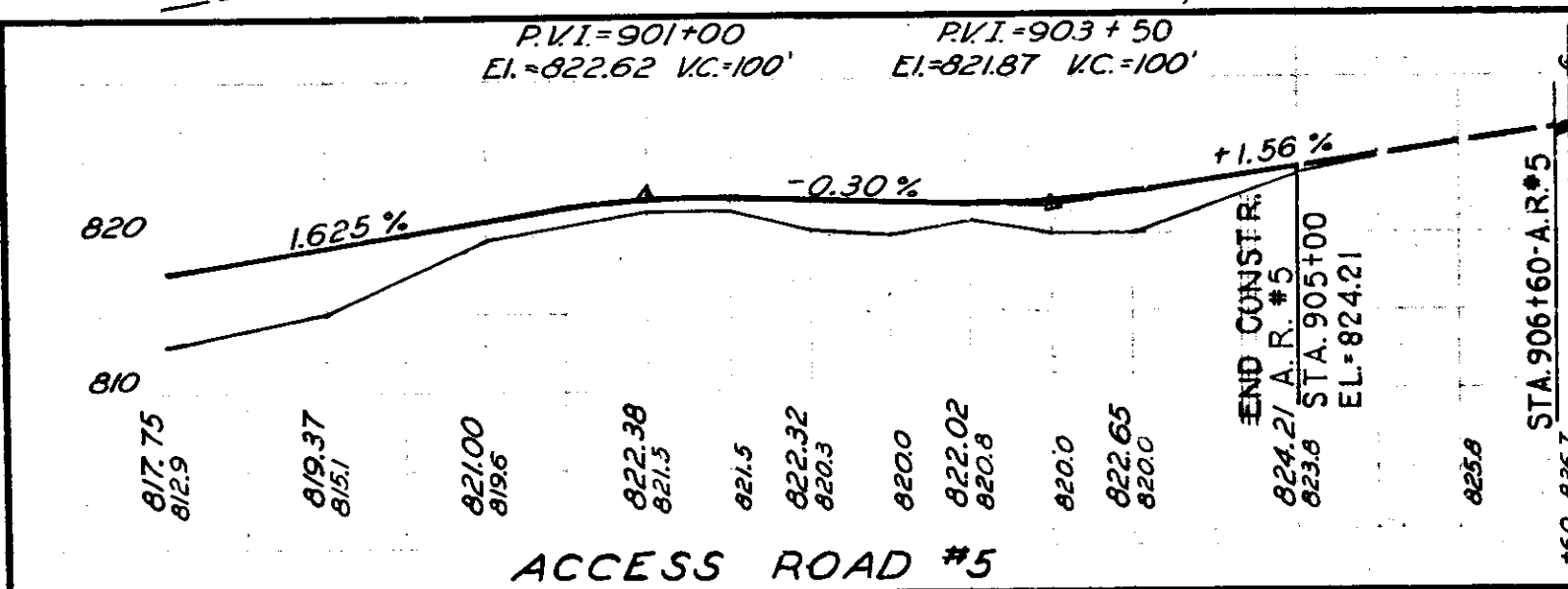
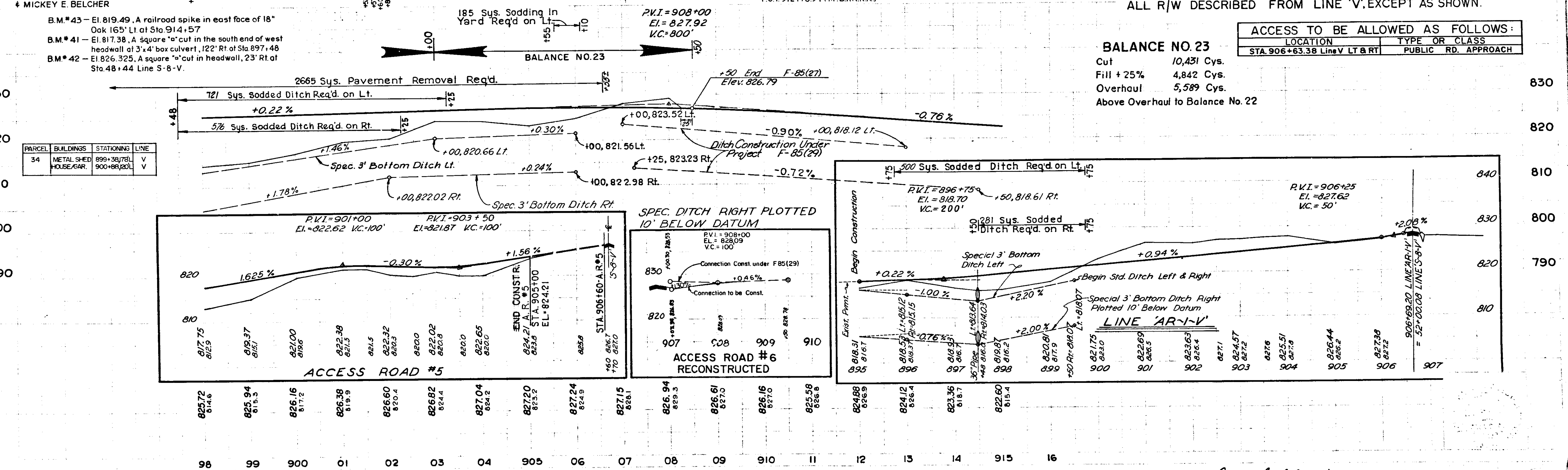
Δ	= 20° 48' 25"
D	= 10° 00' 00"
T	= 105.19'
L	= 208.07'
E	= 9.58'
R	= 572.96'

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN.
 LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
 ALL R/W DESCRIBED FROM LINE 'V', EXCEPT AS SHOWN.

ACCESS TO BE ALLOWED AS FOLLOWS:			
LOCATION	TYPE OR CLASS		
STA. 906+63.38 Line V LT & RT	PUBLIC RD. APPROACH		

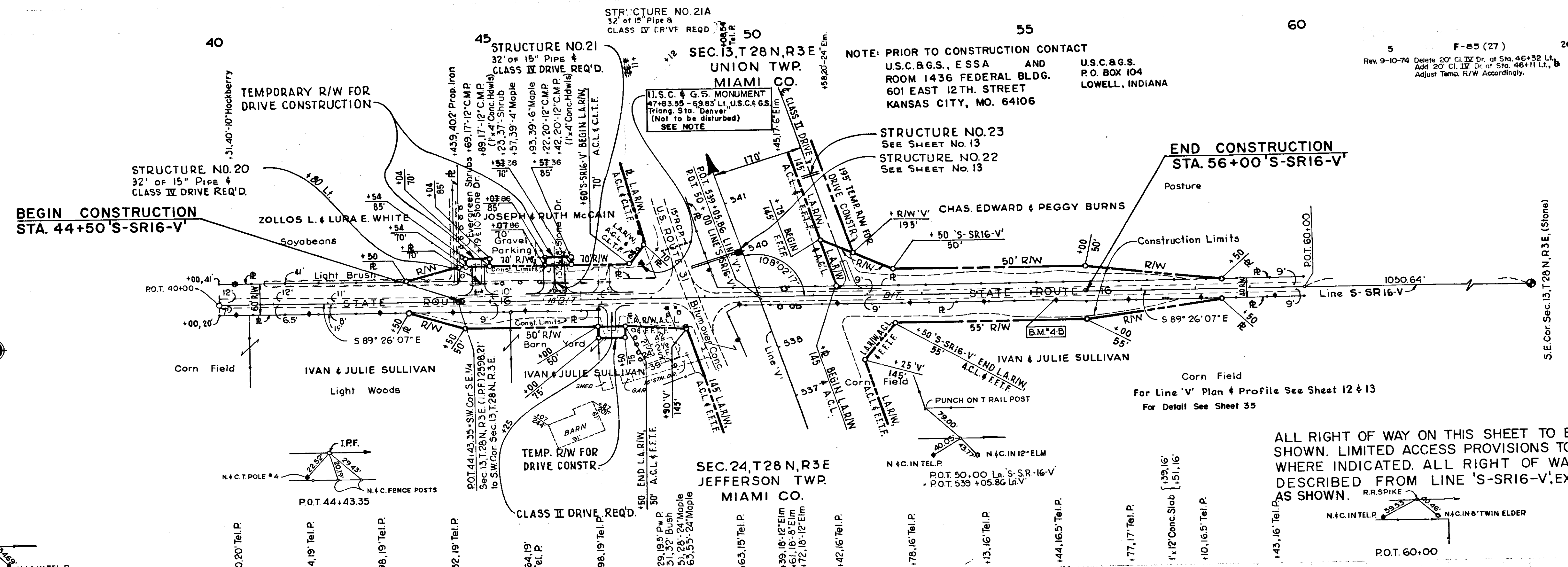
BALANCE NO. 23

Cut	10,431 Cys.
Fill + 25%	4,842 Cys.
Overhaul	5,589 Cys.
Above Overhaul to Balance No. 22	



November 9, 1961
 Kneebold 7/19/62 F-85 (27) 11AR-4 25 197

R-5-4-72 CLTF Added STA.47+60LI."S-SR-16-V" To STA.545+27LI."V"
 R-3-20-72 ADDED CLASS II DRIVE, STA.47+12 LT.

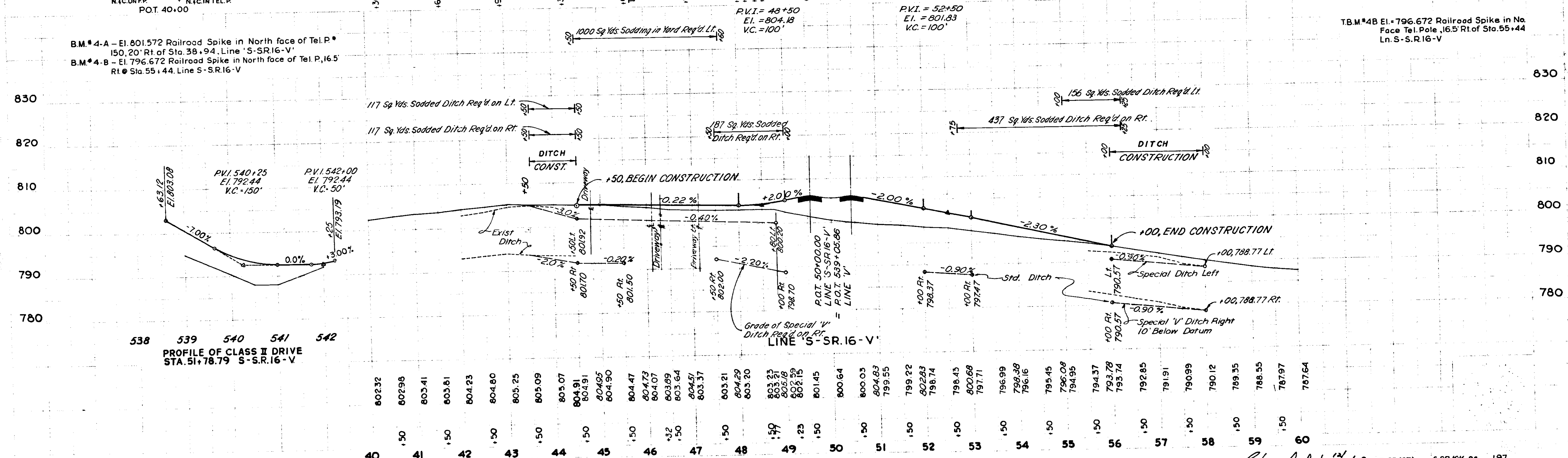


NOTE: PRIOR TO CONSTRUCTION CONTACT
 U.S.C.&G.S. E.S.S.A. AND
 ROOM 1436 FEDERAL BLDG.
 601 EAST 12TH STREET
 KANSAS CITY, MO. 64106
 U.S.C.&G.S.
 P.O. BOX 104
 LOWELL, INDIANA

END CONSTRUCTION
 STA. 56+00 S-SR16-V

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL RIGHT OF WAY DESCRIBED FROM LINE 'S-SR16-V', EXCEPT AS SHOWN.

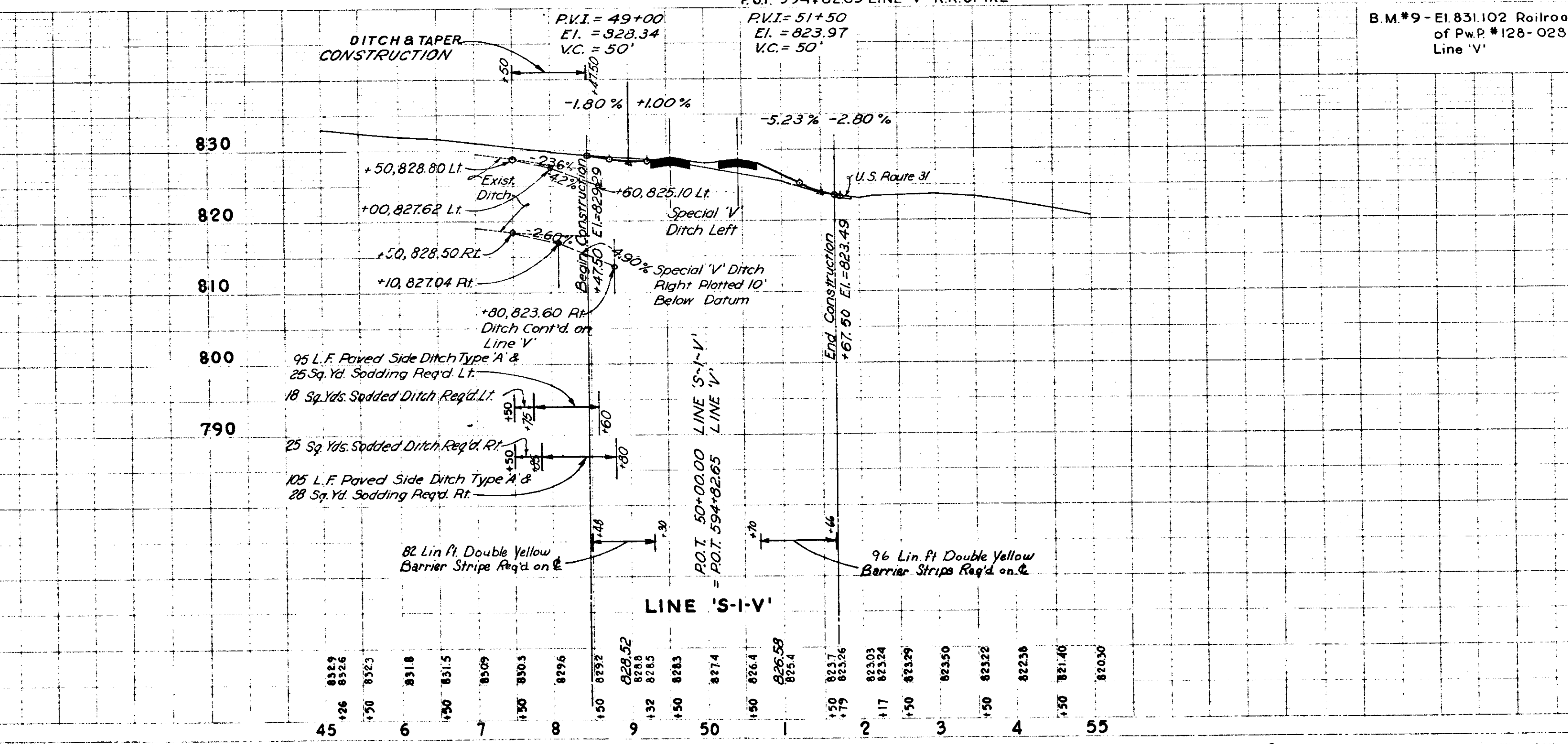
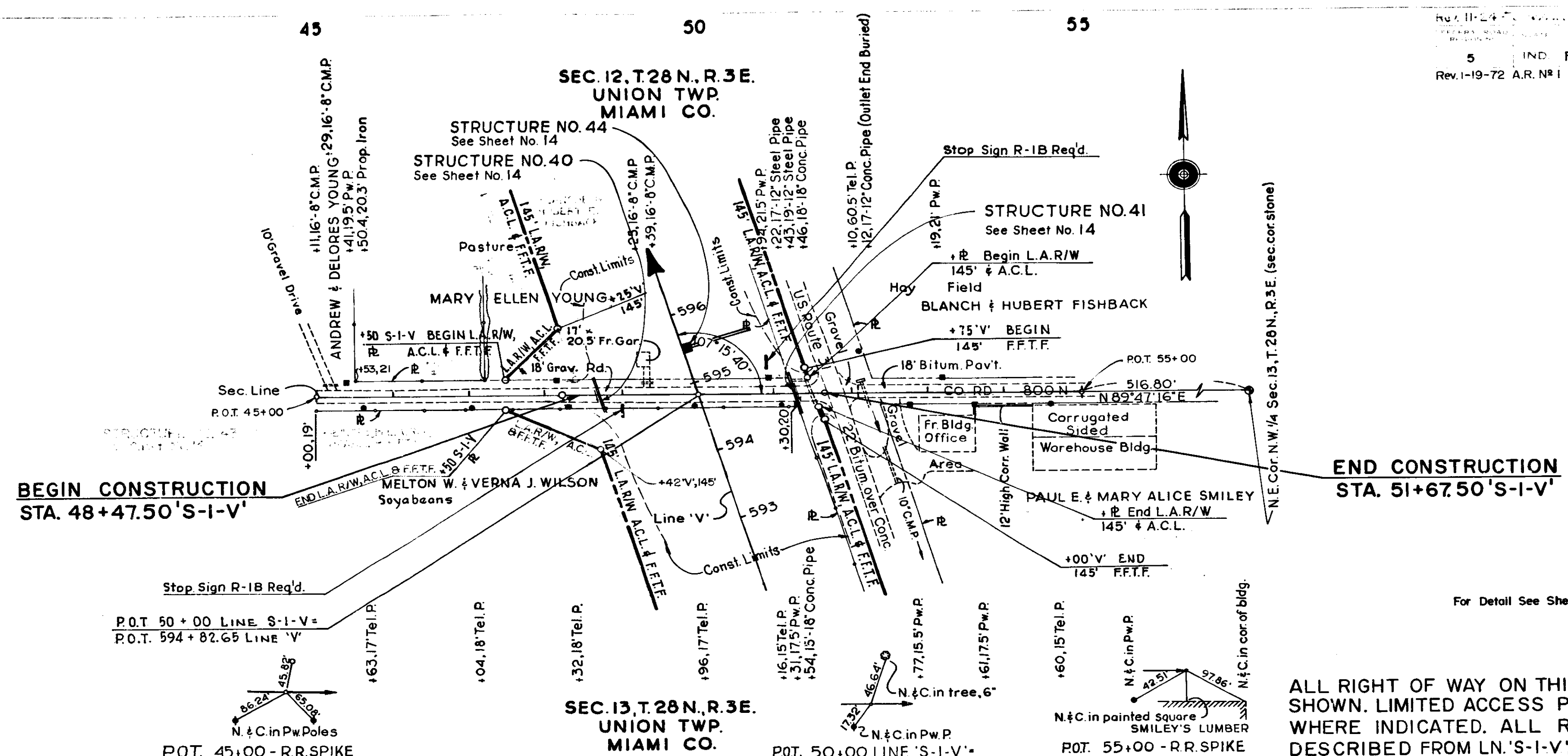
B.M.*4-A - El. 801.572 Railroad Spike in North face of Tel. P.*
 150.20' Rt of Sta. 38+94. Line 'S-SR16-V'
 B.M.*4-B - El. 796.672 Railroad Spike in North face of Tel. P. 16.5'
 Rt. Sta 55+44. Line S-SR16-V



538 539 540 541 542
 PROFILE OF CLASS II DRIVE
 STA. 51+78.79 S-SR16-V

80232	80298	80341	80381	80423	80480	80525	80509	80507	80491	80495	80490	80447	80473	80407	80389	80364	80441	80337	80321	80429	80407	80320	80323	80278	80275	80145	80064	80003	80483	79955	79922	80283	79674	79643	80068	79771	79699	79938	79616	79545	79508	79495	79437	79378	79374	79285	79191	79099	79012	78935	78855	78797	78764
40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																																	

Chas. W. Cole 7/14/68 F-85(27) S.S.R. 26 197

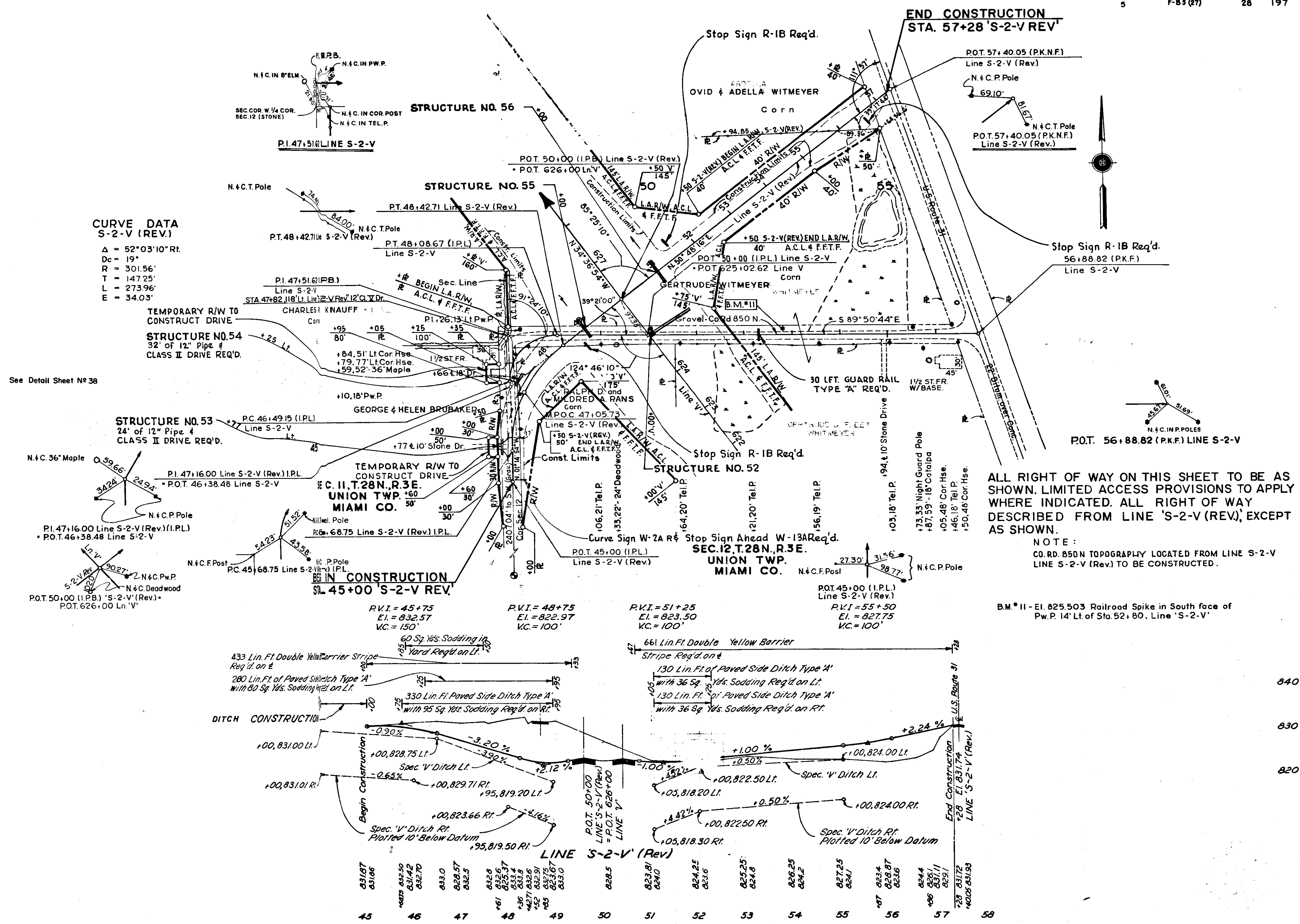


ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL RIGHT OF WAY DESCRIBED FROM LN. 'S-I-V', EXCEPT AS SHOWN.

B.M. #9 - El. 831.102 Railroad Spike in East face of Pw.P. #128-025, 110' Rt. of Sta. 597+90 Line 'V'

PLAN
 9635T
 N. 9635T

9636L



CURVE DATA
 S-2-V (REV.)
 $\Delta = 52^\circ 03' 10''$ Rt.
 $D_c = 19'$
 $R = 301.56'$
 $T = 147.25'$
 $L = 273.96'$
 $E = 34.03'$

See Detail Sheet N° 38

ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL RIGHT OF WAY DESCRIBED FROM LINE 'S-2-V (REV.)', EXCEPT AS SHOWN.

NOTE:
 CO. RD. 850N TOPOGRAPHY LOCATED FROM LINE S-2-V LINE S-2-V (Rev.) TO BE CONSTRUCTED.

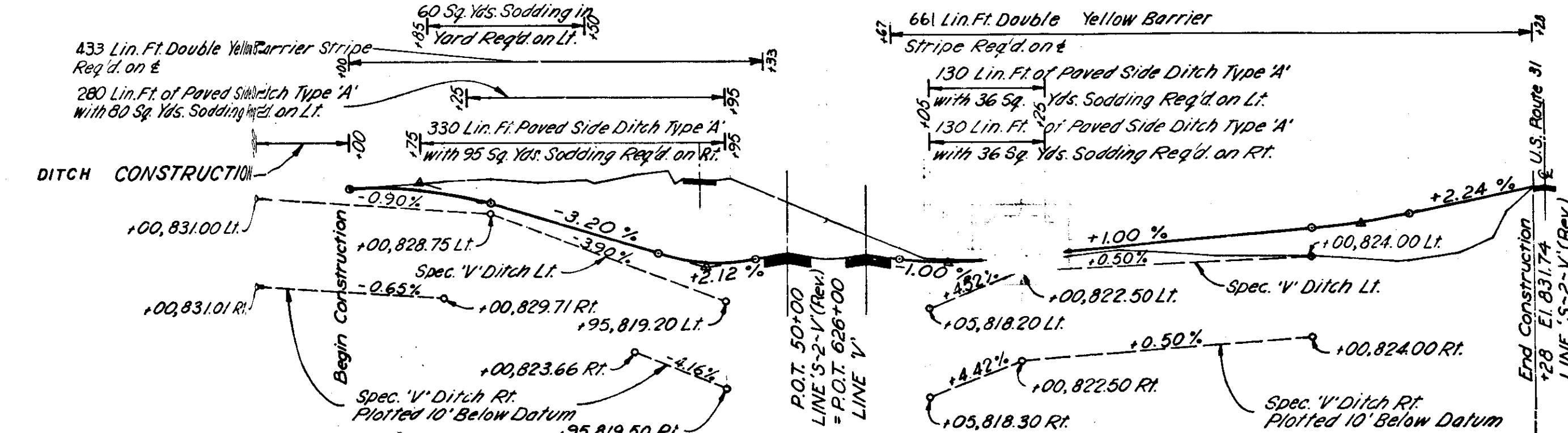
B.M. #11 - El. 825.503 Railroad Spike in South face of Pw. P. 14' Lt. of Sta. 52+80. Line 'S-2-V'

P.V.I. = 45+75
 E.I. = 832.57
 V.C. = 150'

P.V.I. = 48+75
 E.I. = 822.97
 V.C. = 100'

P.V.I. = 51+25
 E.I. = 823.50
 V.C. = 100'

P.V.I. = 55+50
 E.I. = 827.75
 V.C. = 100'



Station	Elevation
45	818.7
46	821.2
47	822.5
48	823.3
49	823.7
50	823.8
51	824.0
52	824.2
53	824.4
54	824.5
55	824.6
56	824.7
57	824.8
58	824.9

Handwritten signature F-83 (27) S-2-V 28 (Rev)

Chas. W. Cole 12-67
 Chas. W. Cole 13-68
 Chas. W. Cole 14-69
 Chas. W. Cole 15-70

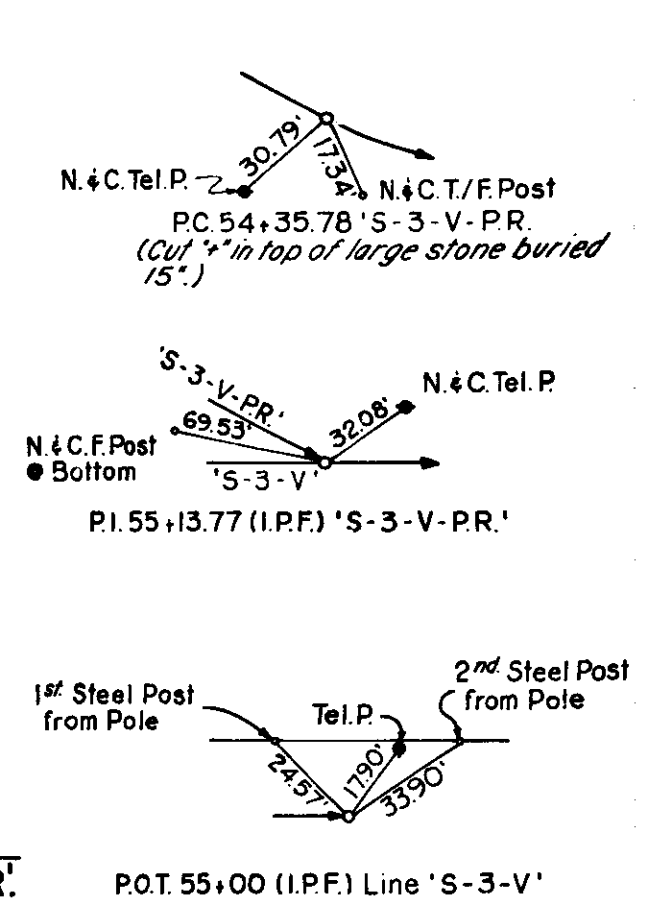
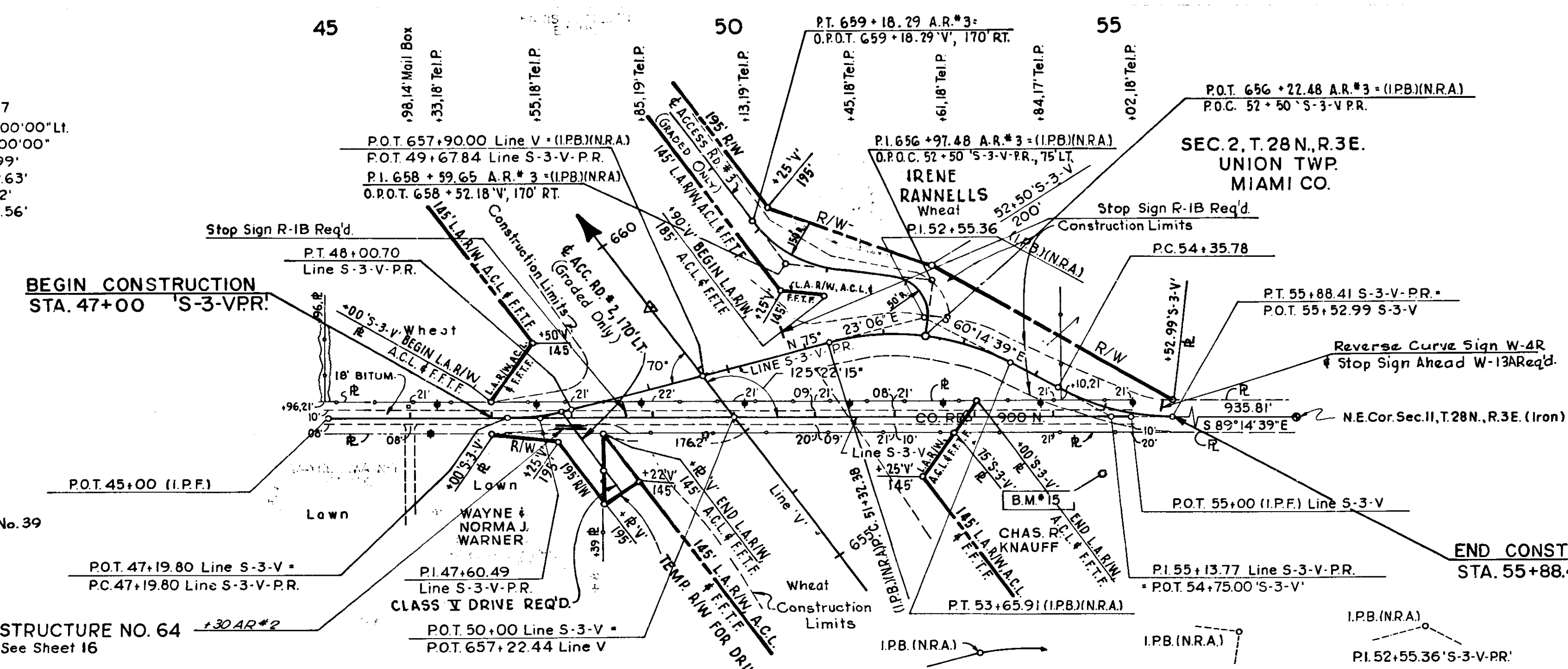
9635T

Chas. W. Cole 12-67
 Chas. W. Cole 13-68
 Chas. W. Cole 14-69
 Chas. W. Cole 15-70

9636L

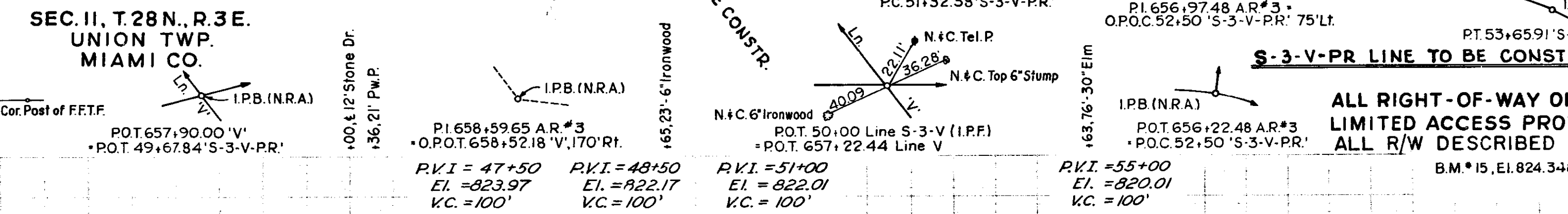
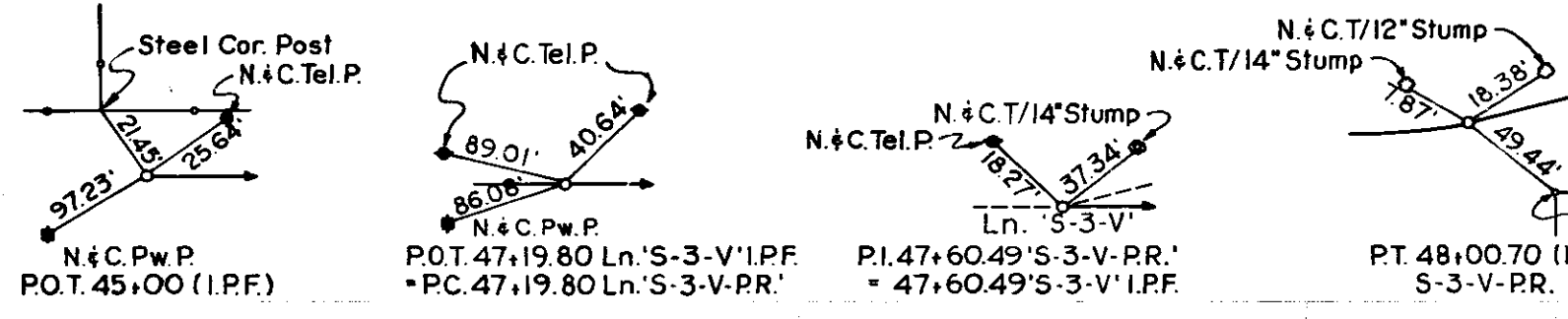
CURVE DATA S-3-V-PR

PI 47+60.49	PI 52+55.36	PI 55+13.77
Δ = 15°22'15" Lt.	Δ = 44°22'15" Rt.	Δ = 29°00'00" Lt.
D = 19°00'00"	D = 19°00'00"	D = 19°00'00"
T = 40.69'	T = 122.98'	T = 77.99'
L = 80.90'	L = 233.53'	L = 152.63'
E = 2.73'	E = 301.56'	E = 9.92'
R = 301.56'	R = 301.56'	R = 301.56'

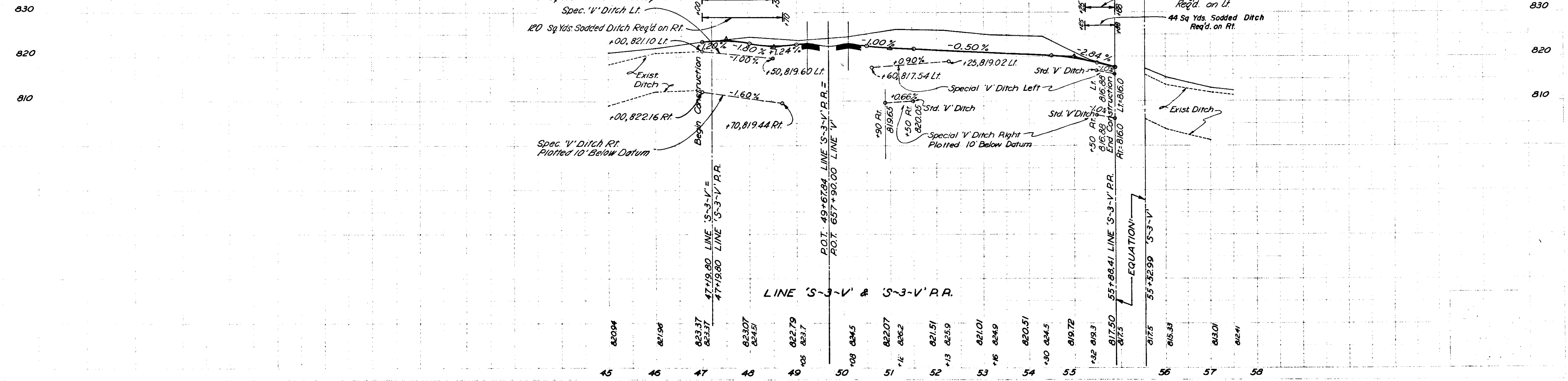


Chas. W. Cole & Son
 Civil Engrs.
 12-57
 12-58
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 13-00

9635T

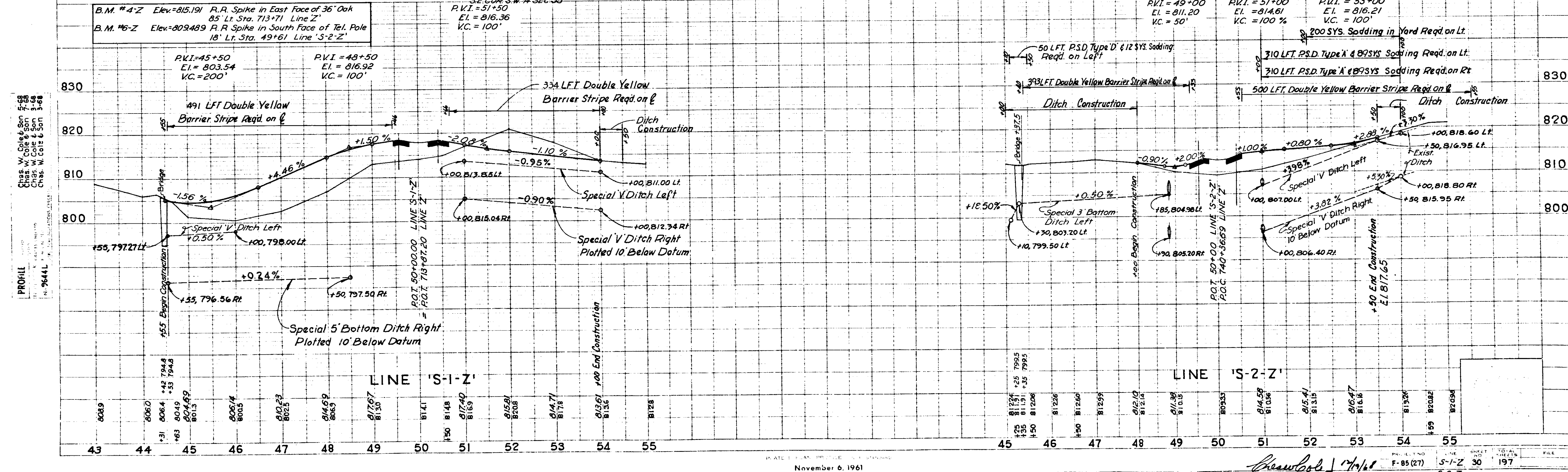
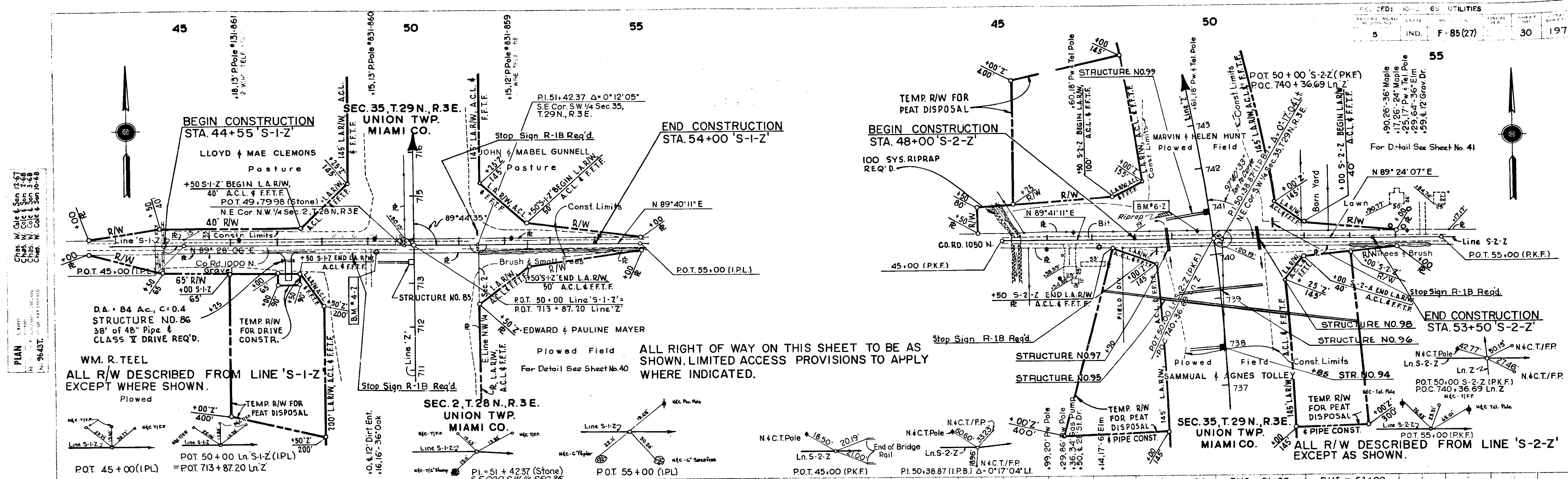


S-3-V-PR LINE TO BE CONSTRUCTED.
ALL RIGHT-OF-WAY ON THIS SHEET TO BE AS SHOWN.
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE 'S-3-V', EXCEPT AS SHOWN.



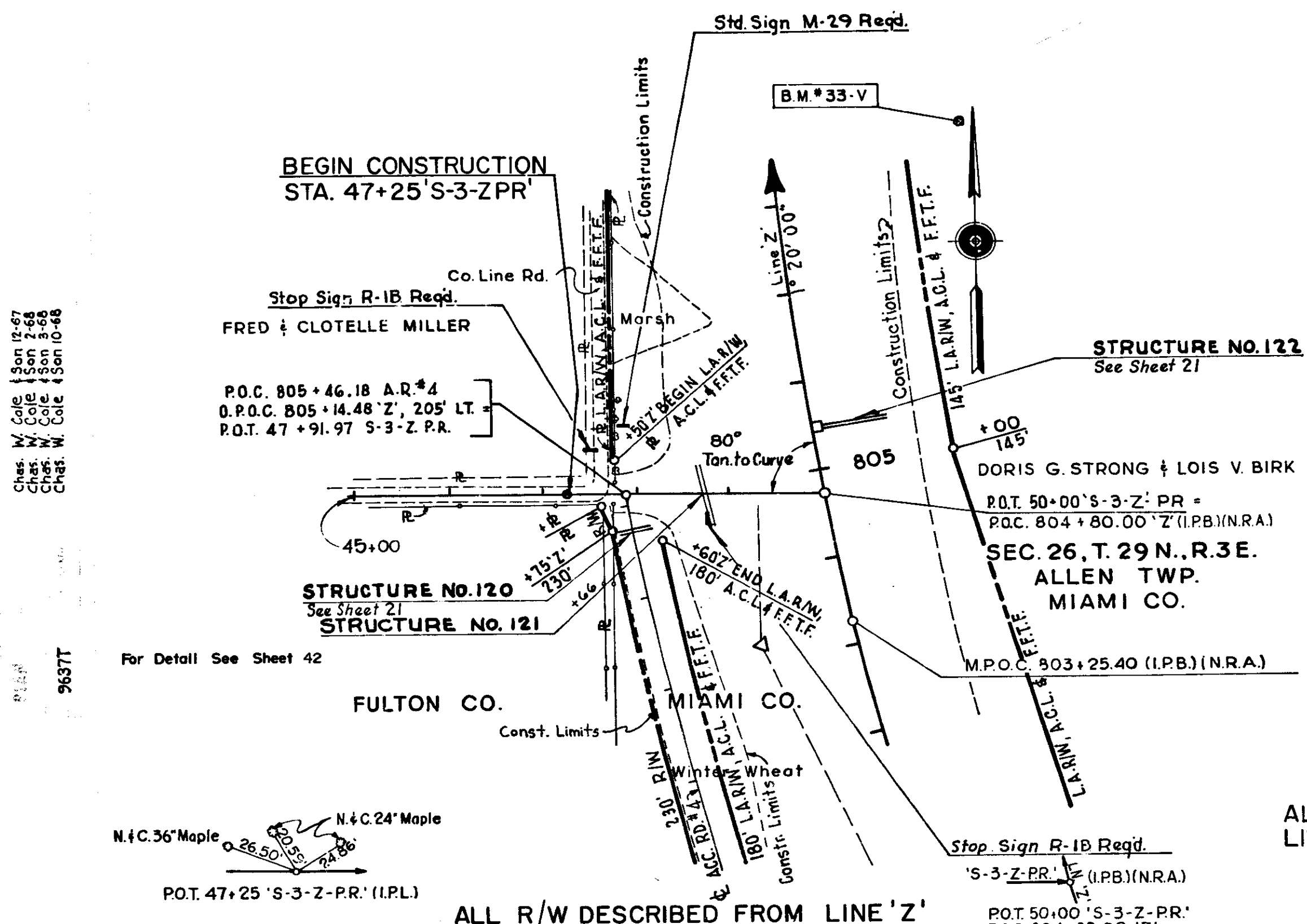
Chas. W. Cole & Son
 Civil Engrs.
 5-68
 5-69
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 6-00

9636L



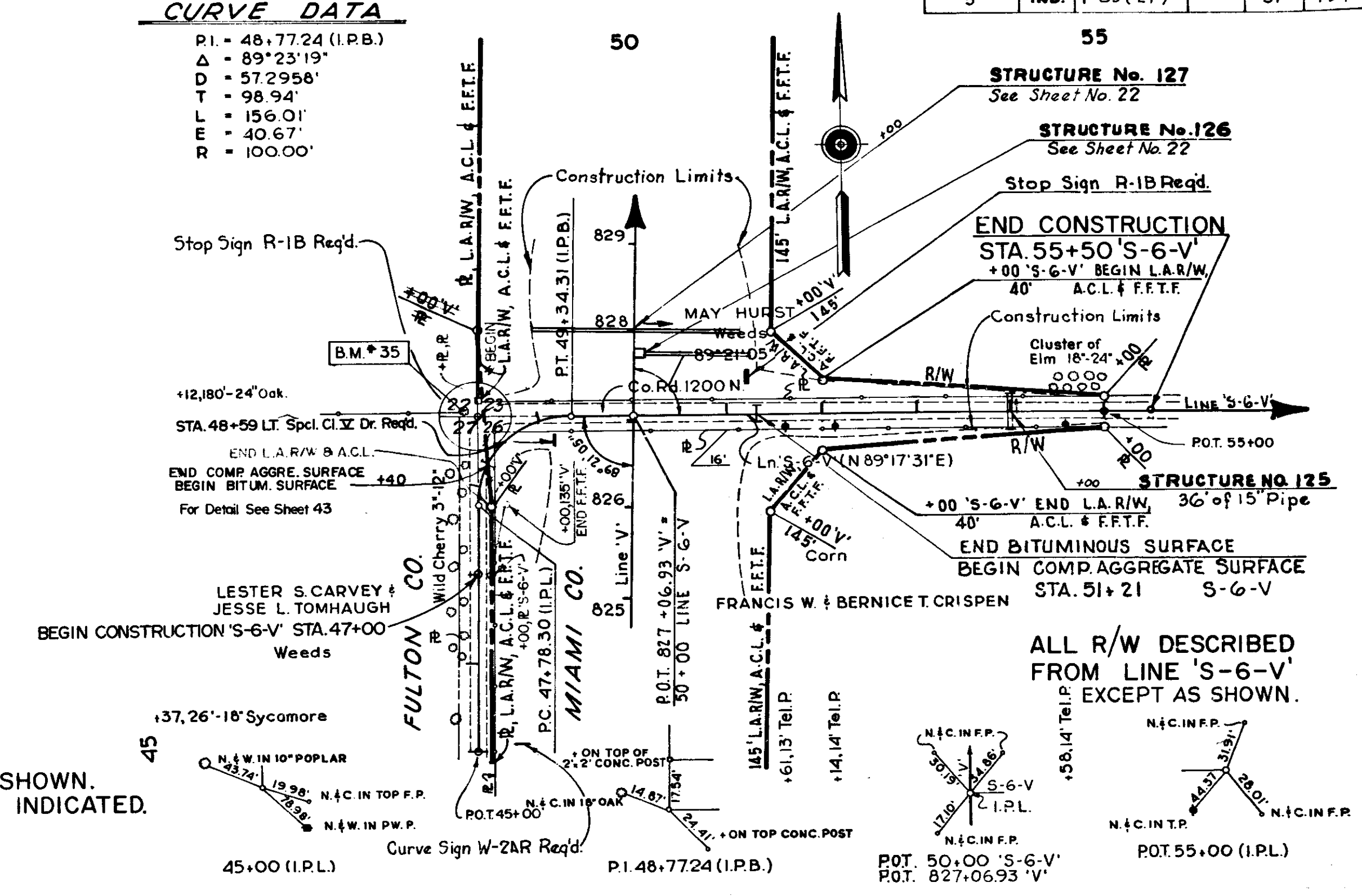
Handwritten signature and date: *Handwritten* 11/7/61

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		31	197



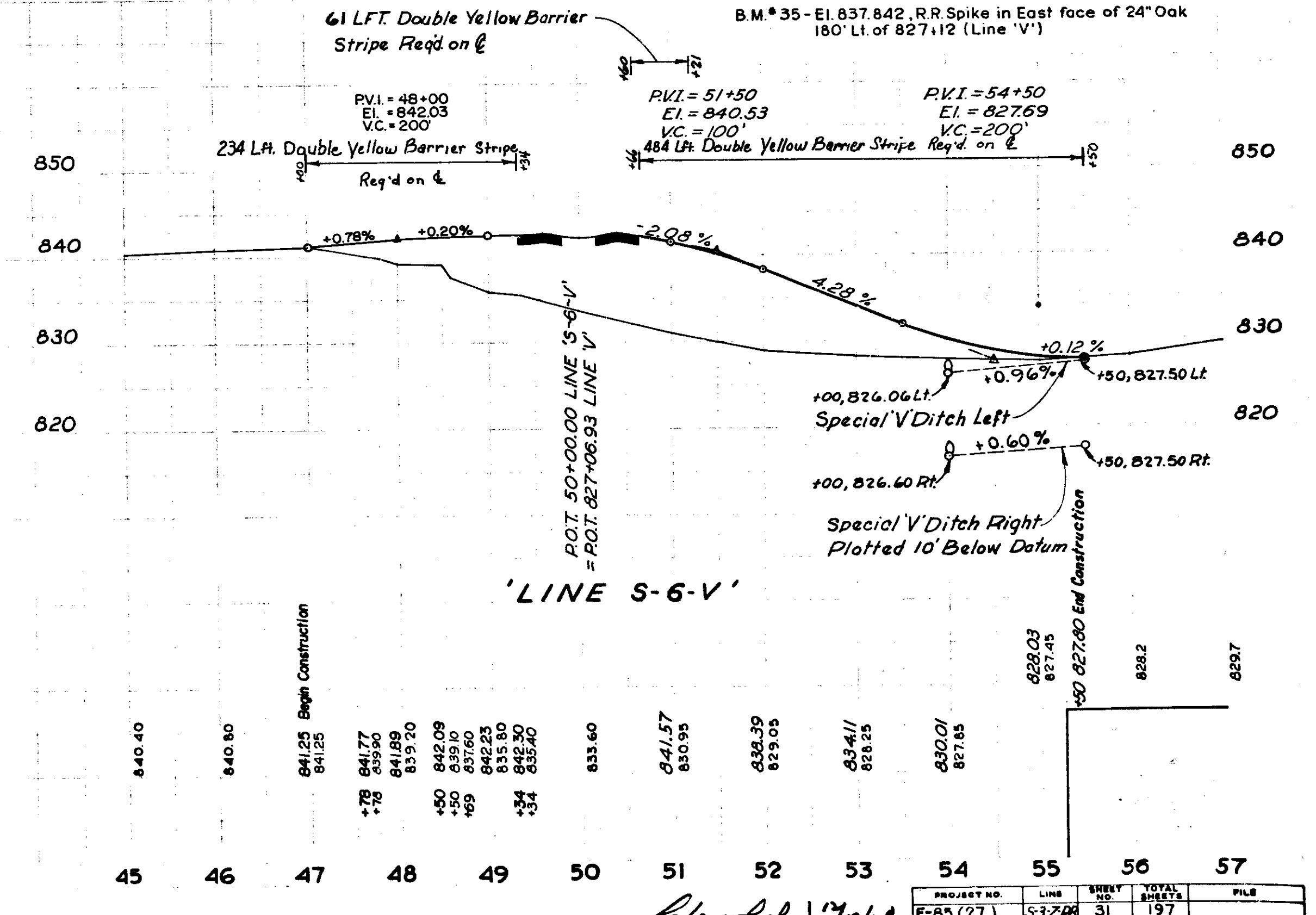
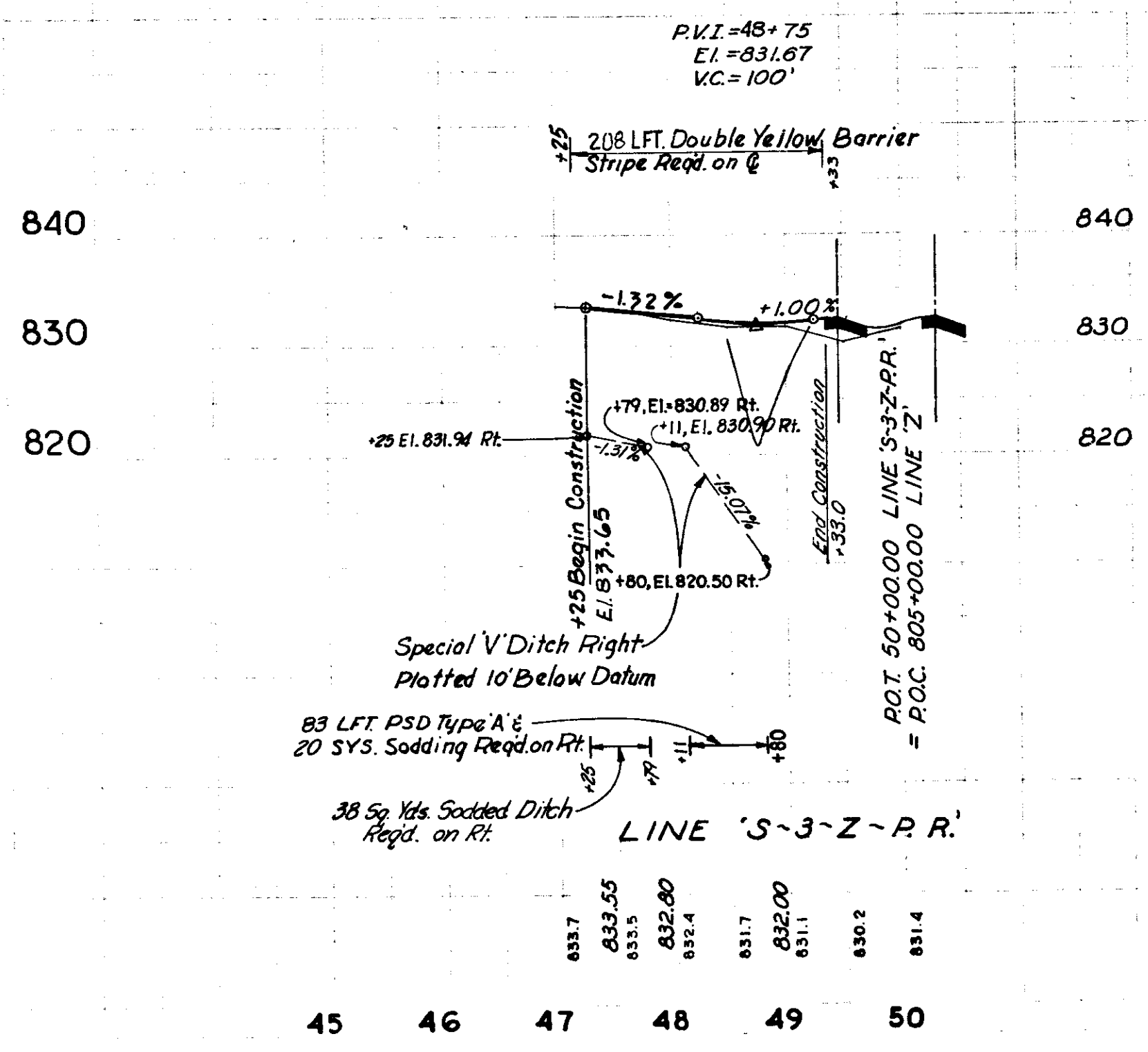
CURVE DATA

PI = 48,77.24 (I.P.B.)
Δ = 89°23'19"
D = 57.2956'
T = 98.94'
L = 156.01'
E = 40.67'
R = 100.00'



ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN.
 LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.

ALL R/W DESCRIBED FROM LINE 'Z'
 B.M.*33-V El. 835.936 R.R. Spike in top of Stump 215' Rt. of 808+77 (Line 'Z')



PROJECT NO.	LINE NO.	SHEET NO.	TOTAL SHEETS	FILE
F-85 (27)	S-3-Z-PR	31	197	
	S-6-V			

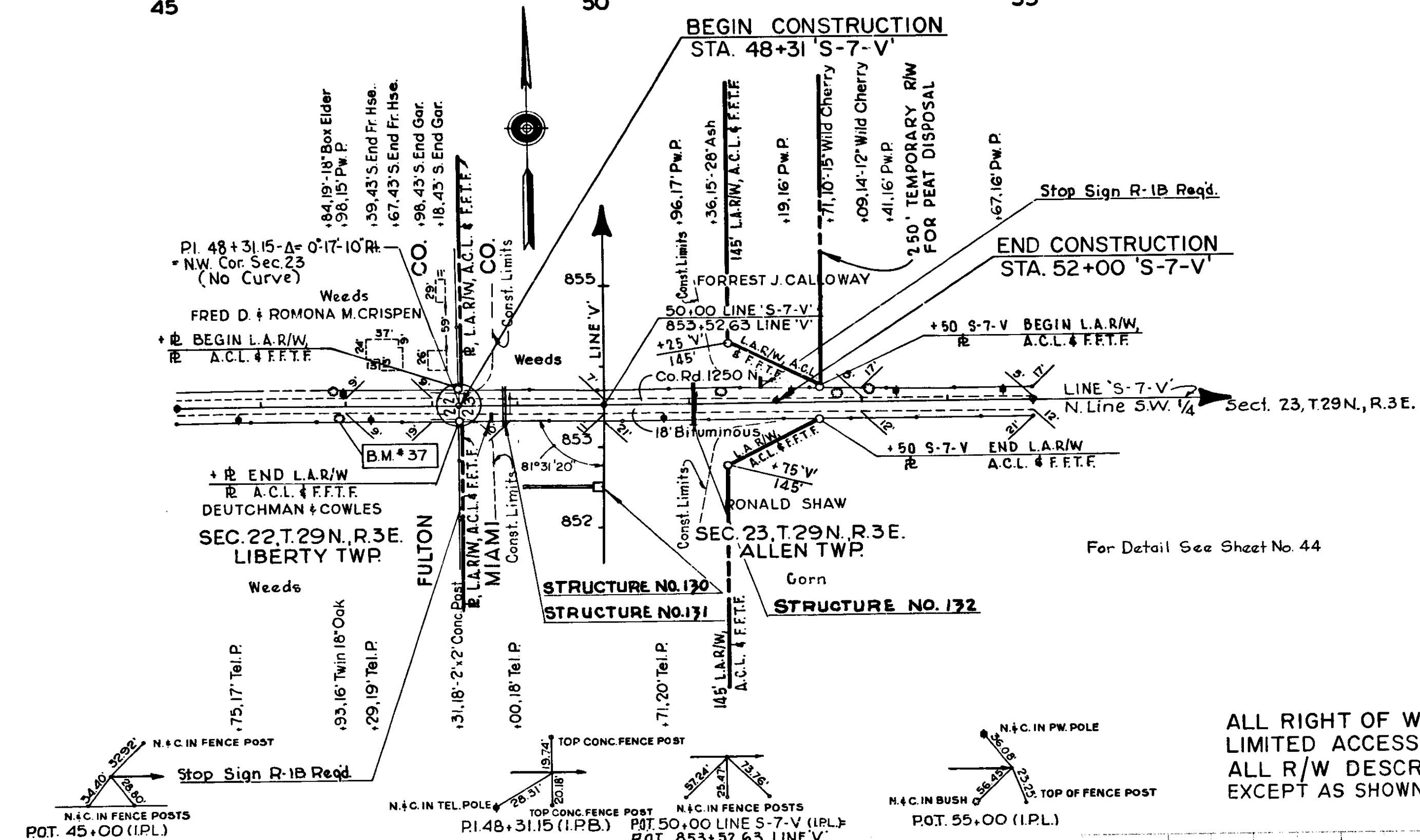
Chewbold 1/19/68

Chas. W. Cole & Son 12-67
Chas. W. Cole & Son 1-68
Chas. W. Cole & Son 3-68
Chas. W. Cole & Son 10-68

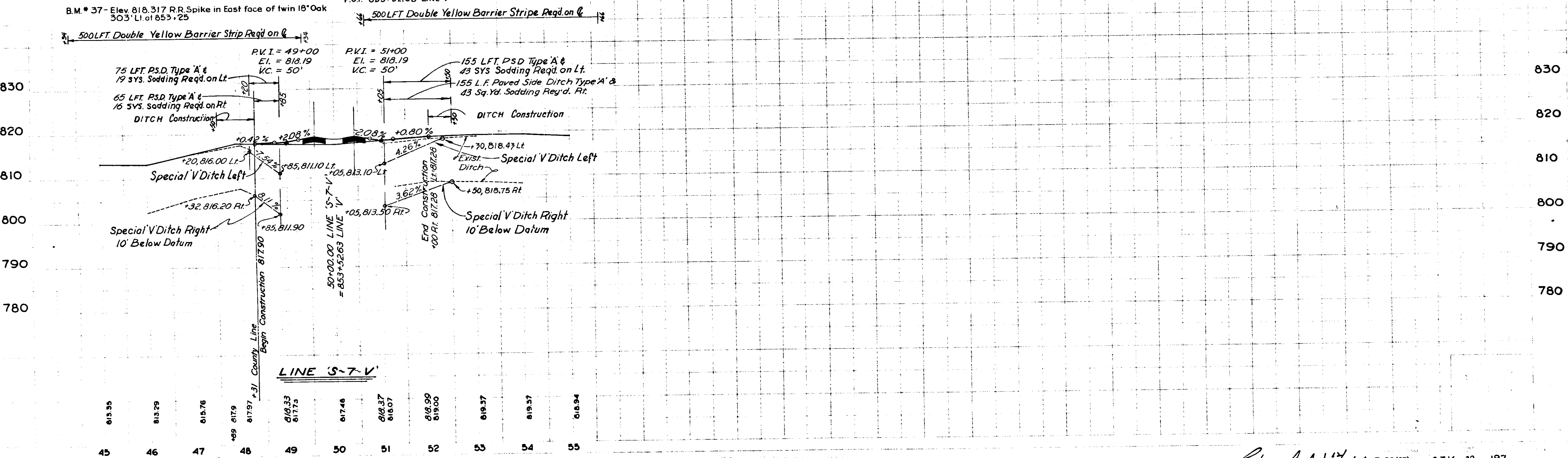
PLAN 9631T

Chas. W. Cole & Son 12-67
Chas. W. Cole & Son 1-68
Chas. W. Cole & Son 3-68
Chas. W. Cole & Son 10-68

PP-1111 9638L



ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN.
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE 'S-7-V'
EXCEPT AS SHOWN.

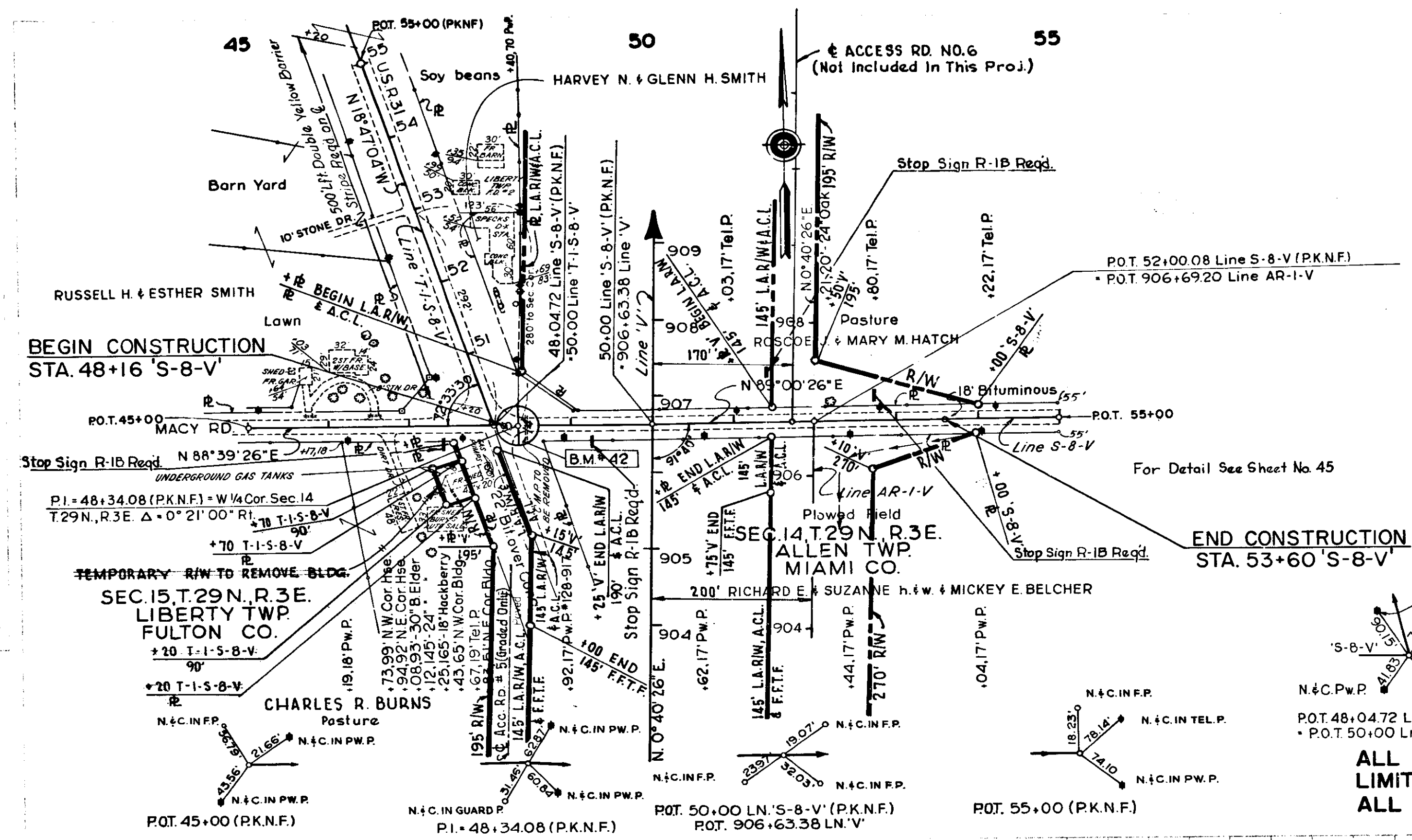


November 6, 1961

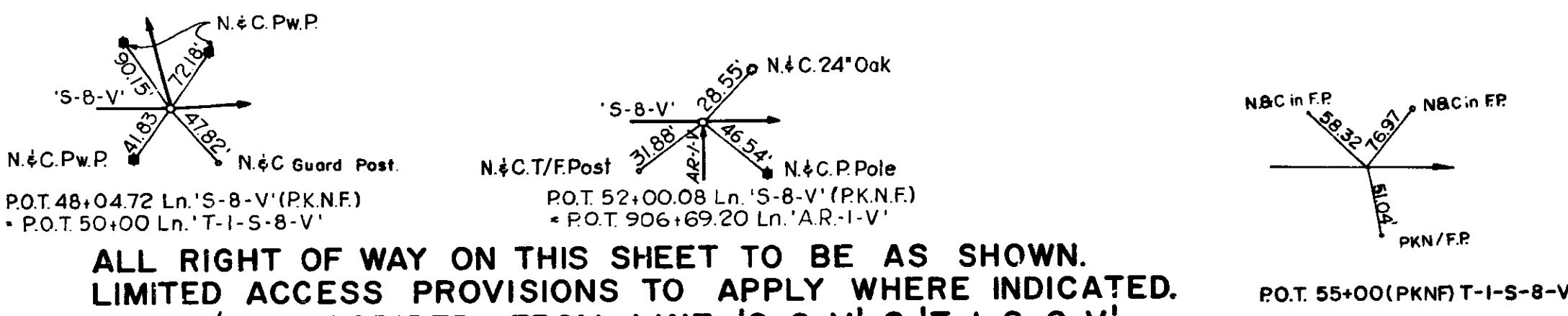
Chas. W. Cole & Son 12/67 F-85(27) S-7-V 32 197

PLAN 9639T

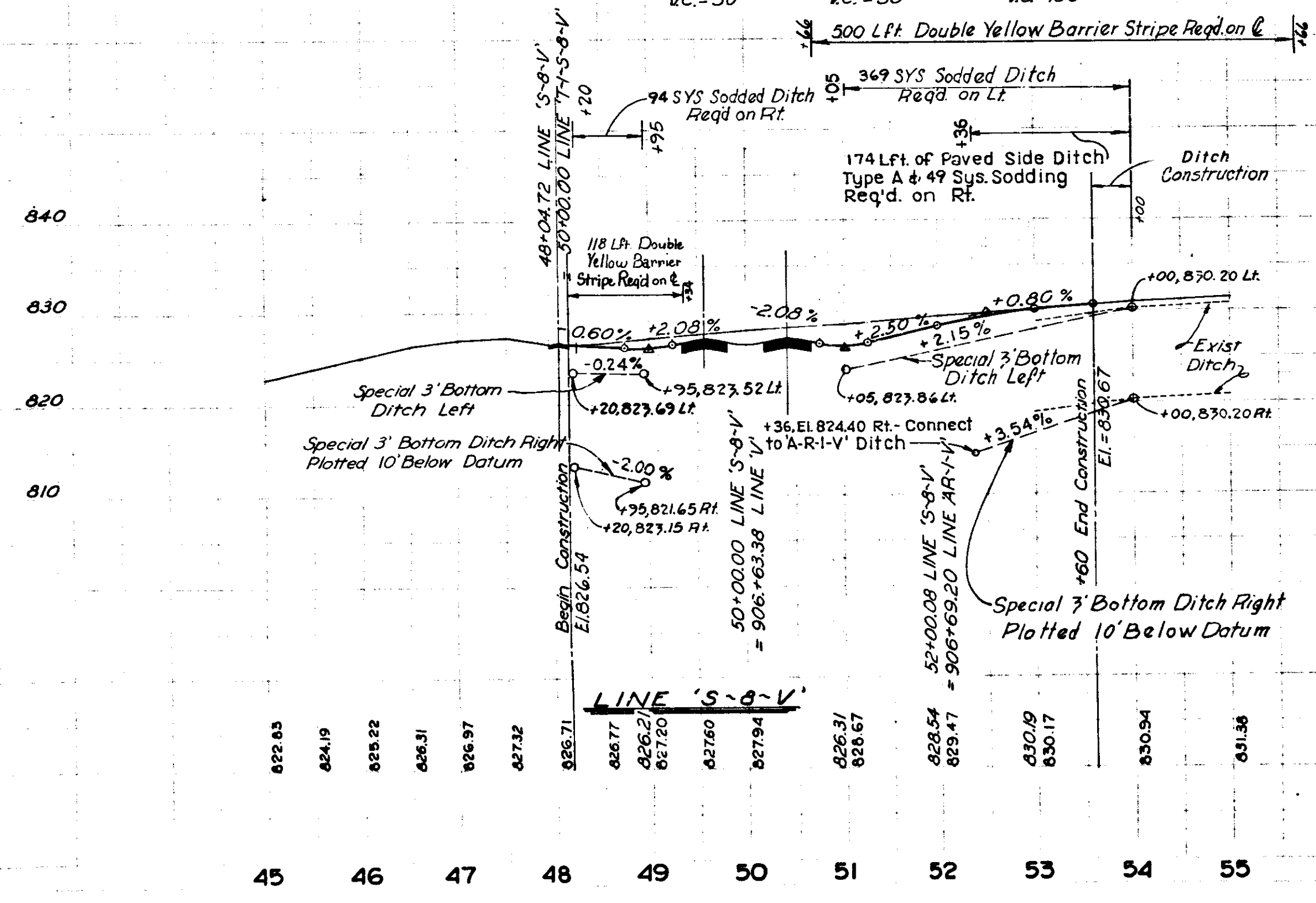
9440L



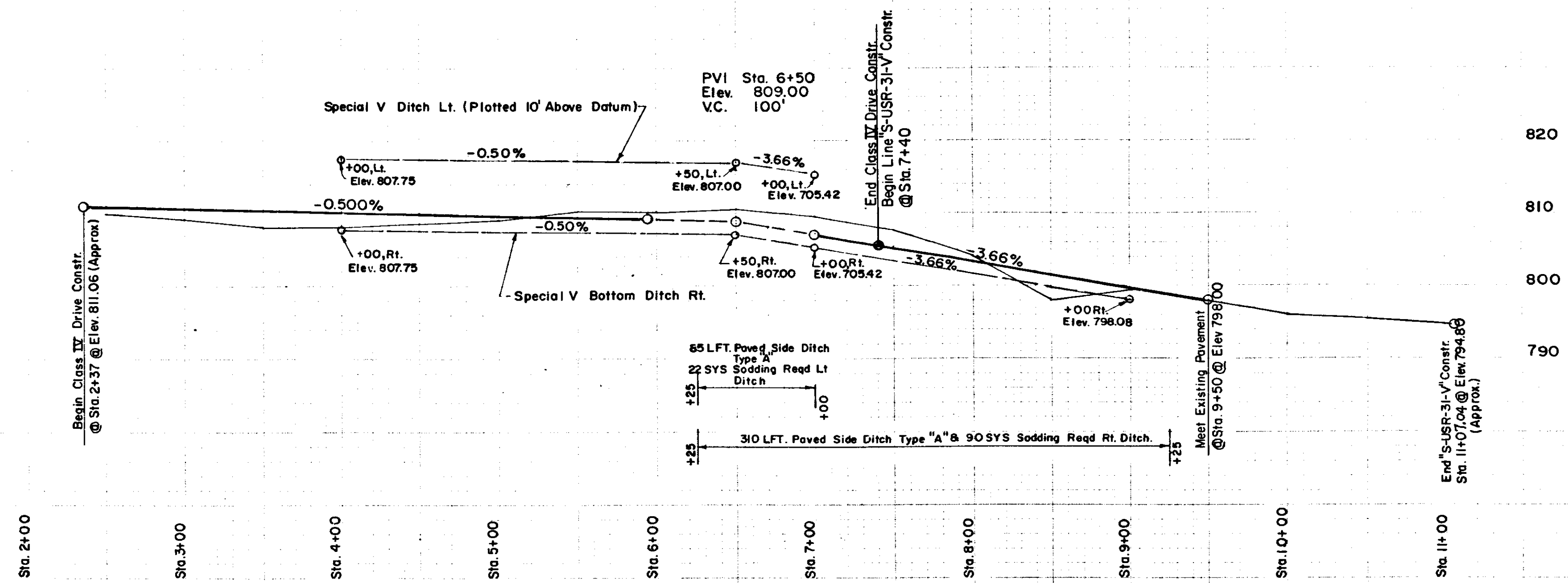
ALL RIGHT OF WAY ON THIS SHEET TO BE AS SHOWN.
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE 'S-8-V' & 'T-I-S-8-V'



B.M. #42 - E1.826.325, A Square 'a' Cut in Headwall, 23' Rt. @ Sta. 48+44, Line S-8-V.
 P.V.I. = 49+00 E1. = 826.04 V.C. = 50'
 P.V.I. = 51+00 E1. = 826.04 V.C. = 50'
 P.V.I. = 52+50 E1. = 829.79 V.C. = 100'



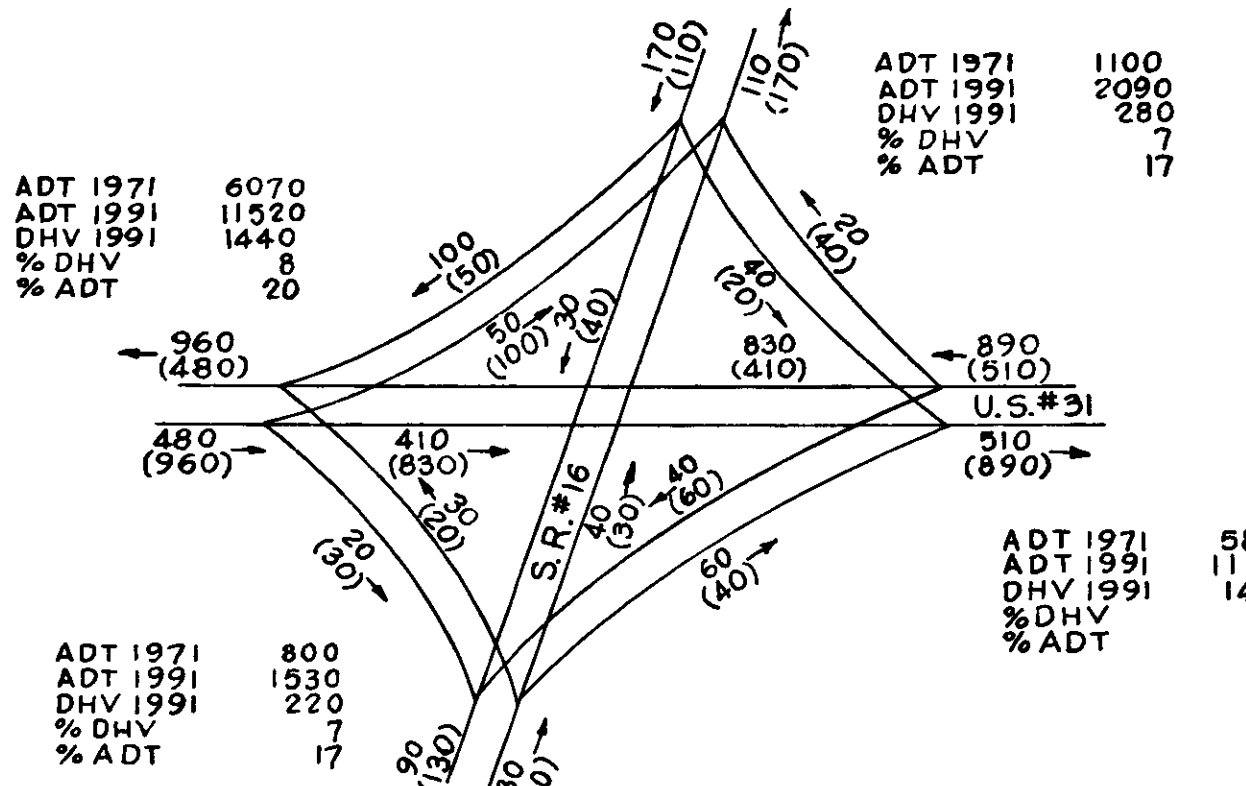
Handwritten signature 12/1/60 F-85(27) S-8-V 33 197



Ⓢ Class IV Drive Profile --Sta. 2+37 to Sta.7+40 &
 Ⓢ Line "S-USR-31-V" Profile--Sta. 7+40 to Sta.11+07.04.

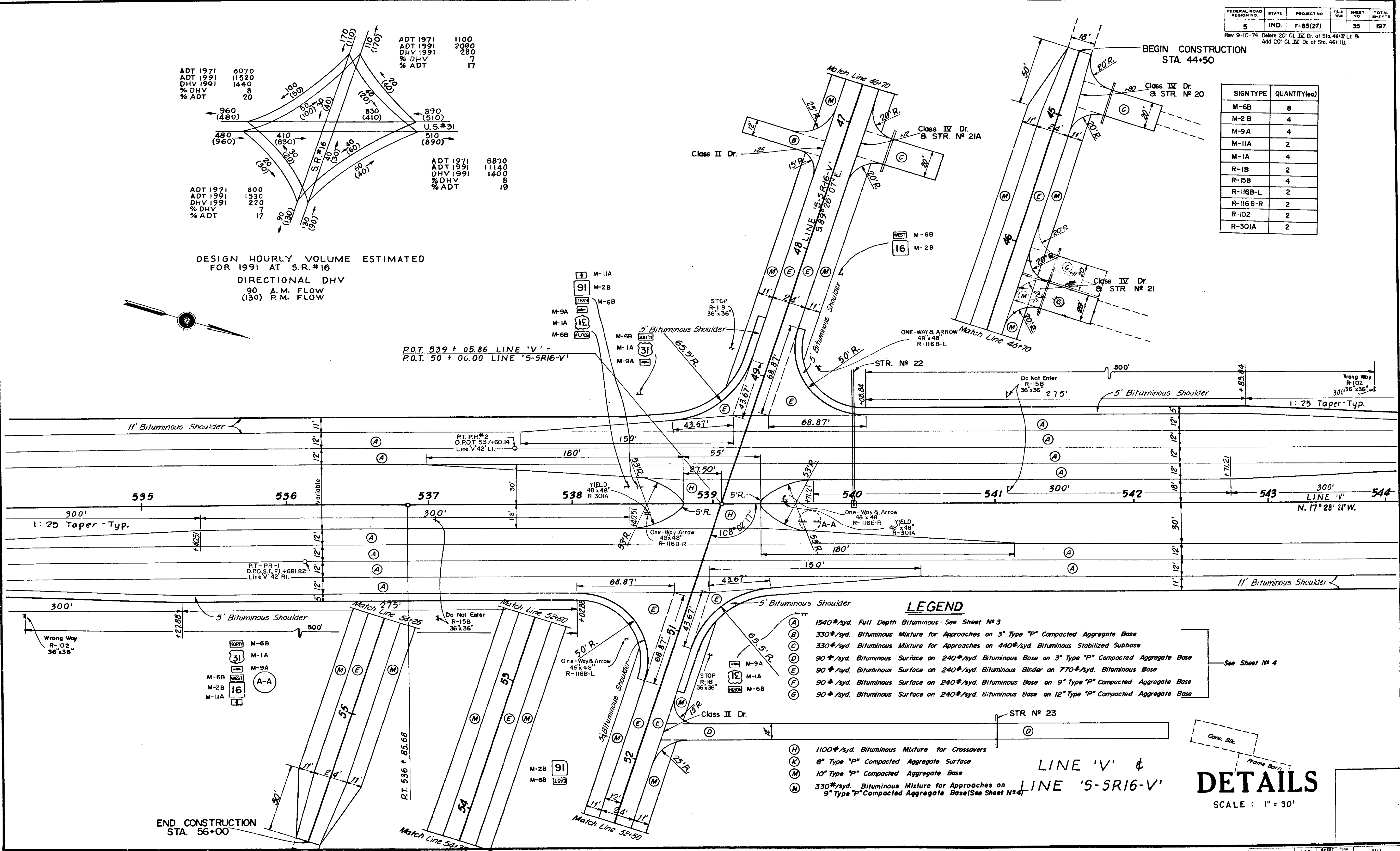
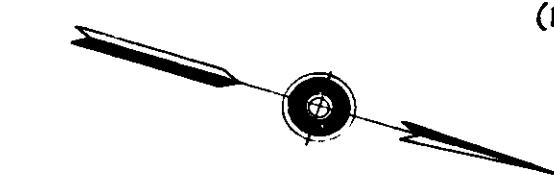
FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)	35	197

Rev. 9-10-74 Delete 20' CL. IV Dr. of Sta. 46+12 Lt. B
Add 20' CL. IV Dr. of Sta. 46+11 Lt.



DESIGN HOURLY VOLUME ESTIMATED FOR 1991 AT S.R.#16
DIRECTIONAL DHV
90 A.M. FLOW
150 P.M. FLOW

SIGN TYPE	QUANTITY (ea)
M-6B	8
M-2B	4
M-9A	4
M-11A	2
M-1A	4
R-1B	2
R-15B	4
R-116B-L	2
R-116B-R	2
R-102	2
R-301A	2



LEGEND

- (A) 1540#/syd. Full Depth Bituminous - See Sheet #3
 - (B) 330#/syd. Bituminous Mixture for Approaches on 3" Type "P" Compacted Aggregate Base
 - (C) 330#/syd. Bituminous Mixture for Approaches on 440#/syd. Bituminous Stabilized Subbase
 - (D) 90#/syd. Bituminous Surface on 240#/syd. Bituminous Base on 3" Type "P" Compacted Aggregate Base
 - (E) 90#/syd. Bituminous Surface on 240#/syd. Bituminous Binder on 770#/syd. Bituminous Base
 - (F) 90#/syd. Bituminous Surface on 240#/syd. Bituminous Base on 9" Type "P" Compacted Aggregate Base
 - (G) 90#/syd. Bituminous Surface on 240#/syd. Bituminous Base on 12" Type "P" Compacted Aggregate Base
-
- (H) 1100#/syd. Bituminous Mixture for Crossovers
 - (I) 8" Type "P" Compacted Aggregate Surface
 - (J) 10" Type "P" Compacted Aggregate Base
 - (K) 330#/syd. Bituminous Mixture for Approaches on 9" Type "P" Compacted Aggregate Base (See Sheet #4)

See Sheet #4

Cone Blk.
Frame Barn

LINE 'V' & LINE 'S-SR16-V'

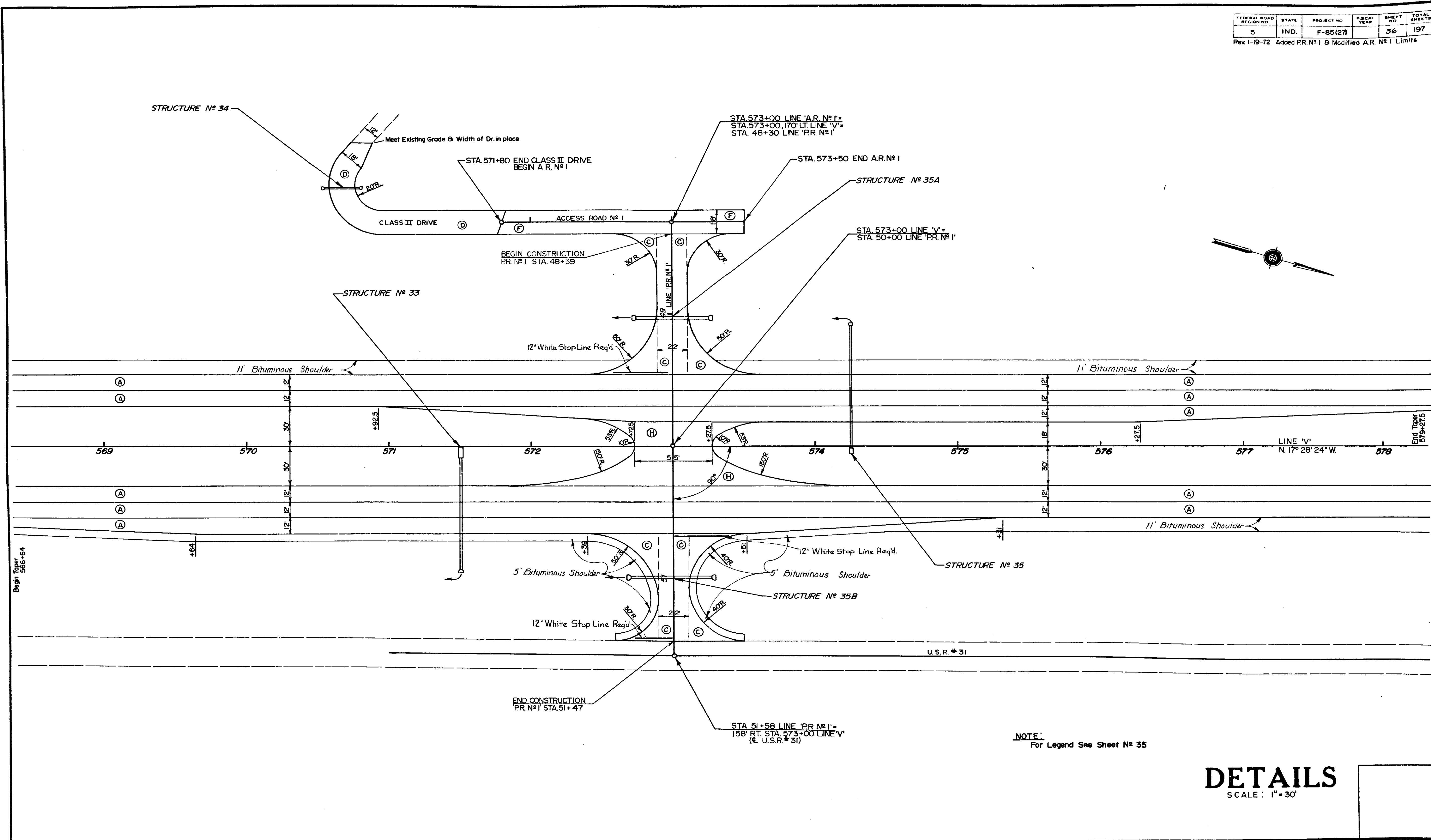
DETAILS

SCALE: 1" = 30'

PROJECT NO.	LINE	SHEET	TOTAL SHEETS	FILE
F-85(27)	S-SR16-V	35	117	

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-65(27)		36	197

Rev. 1-19-72 Added P.R. No. 1 & Modified A.R. No. 1 Limits



DETAILS

SCALE: 1" = 30'

November 6, 1964

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-65(27)	PR. 1	36	197	

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		37	197

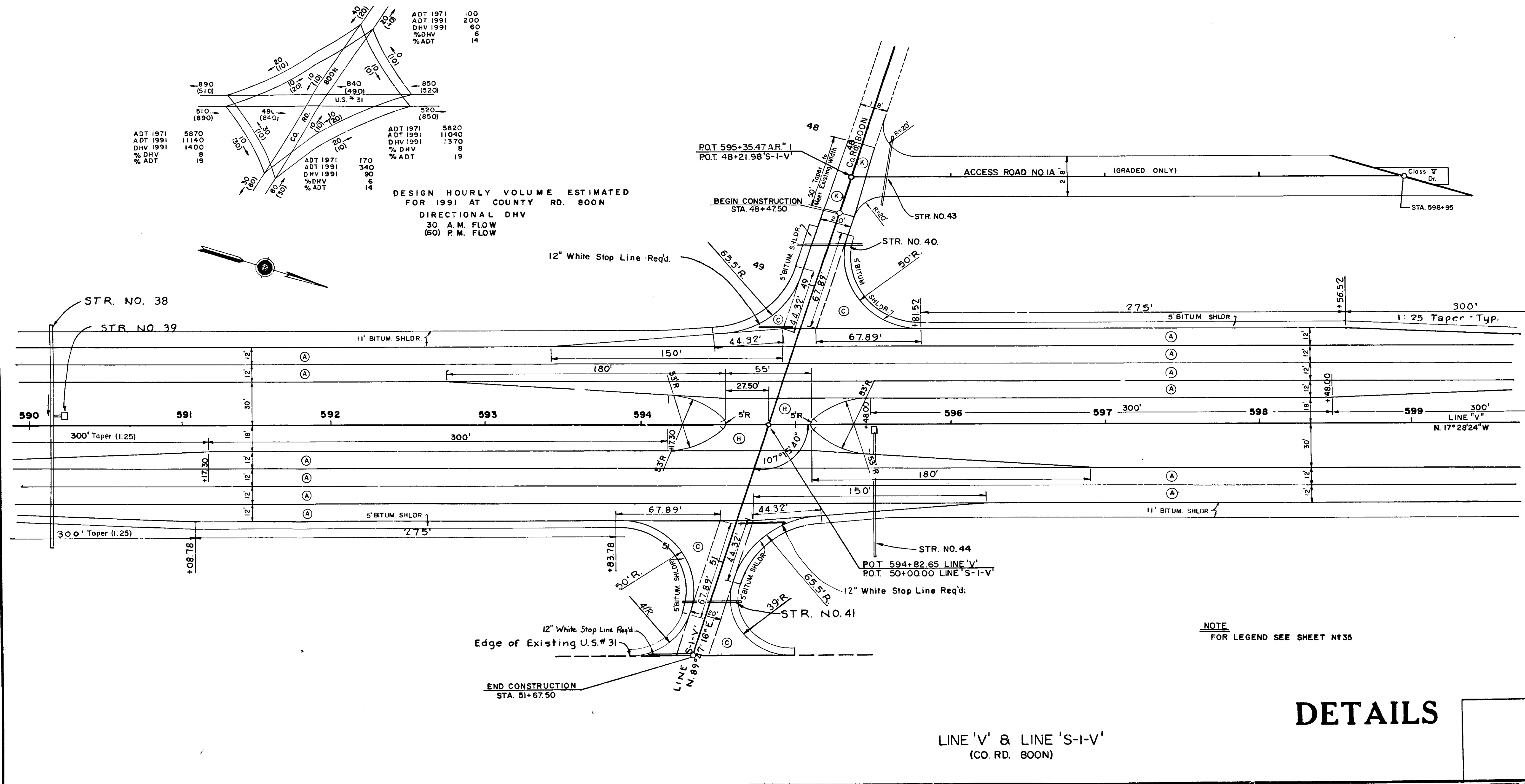
DESIGN HOURLY VOLUME ESTIMATED FOR 1991 AT COUNTY RD. 800N

DIRECTIONAL DHV
30 A.M. FLOW
(60) P.M. FLOW

ADT 1971	5870	ADT 1971	100
ADT 1991	11140	ADT 1991	200
% DHV	1400	% DHV	60
% ADT	8	% ADT	6

ADT 1971	5820	ADT 1971	100
ADT 1991	11040	ADT 1991	200
% DHV	1370	% DHV	60
% ADT	8	% ADT	6

ADT 1971	170	ADT 1971	100
ADT 1991	340	ADT 1991	200
% DHV	90	% DHV	60
% ADT	6	% ADT	6



NOTE
FOR LEGEND SEE SHEET N#35

DETAILS

LINE 'V' & LINE 'S-I-V'
(CO. RD. 800N)

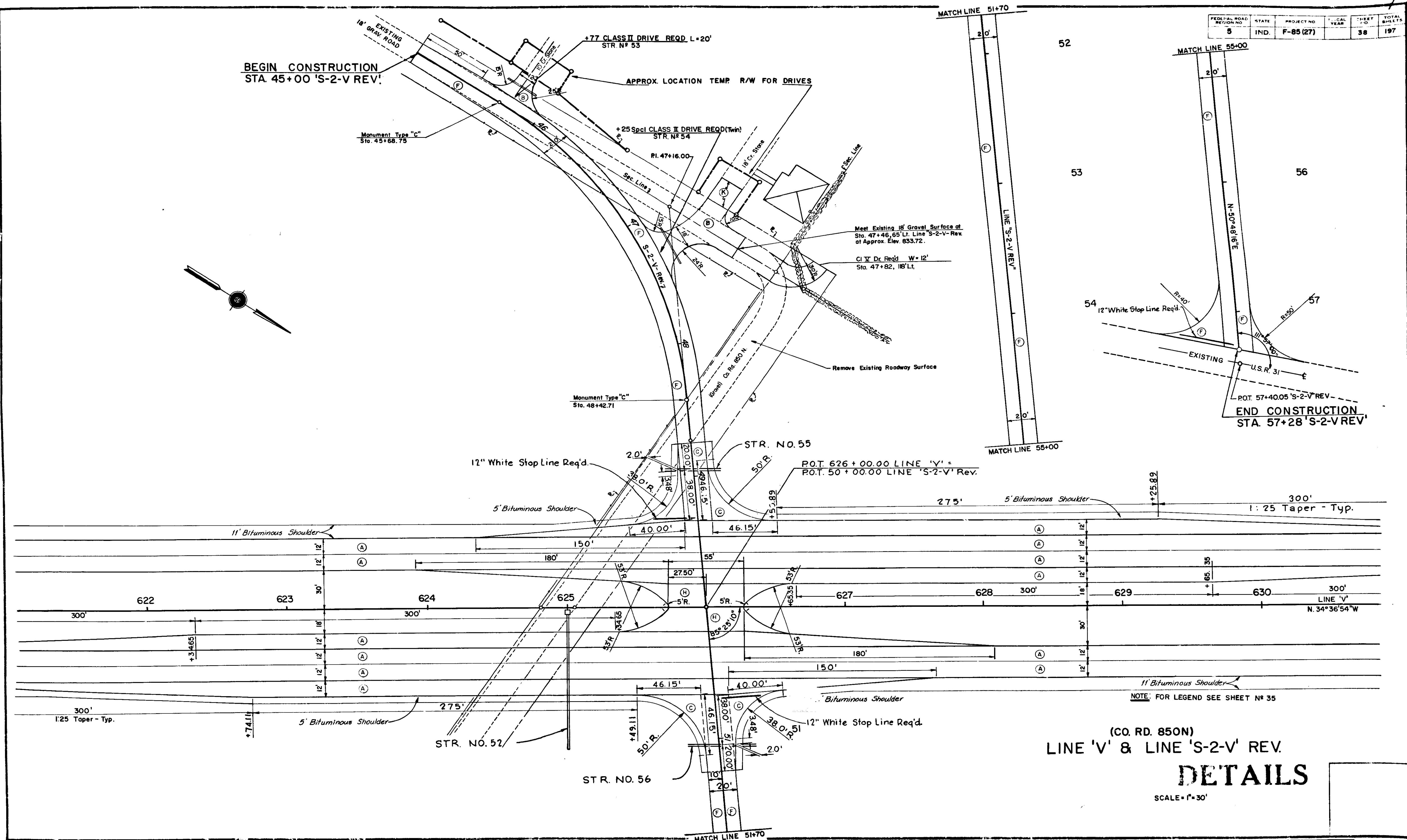
November 6, 1964

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS
F-85(27)	S-I-V	37	197

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	CAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		38	197

BEGIN CONSTRUCTION
STA. 45+00 'S-2-V REV'

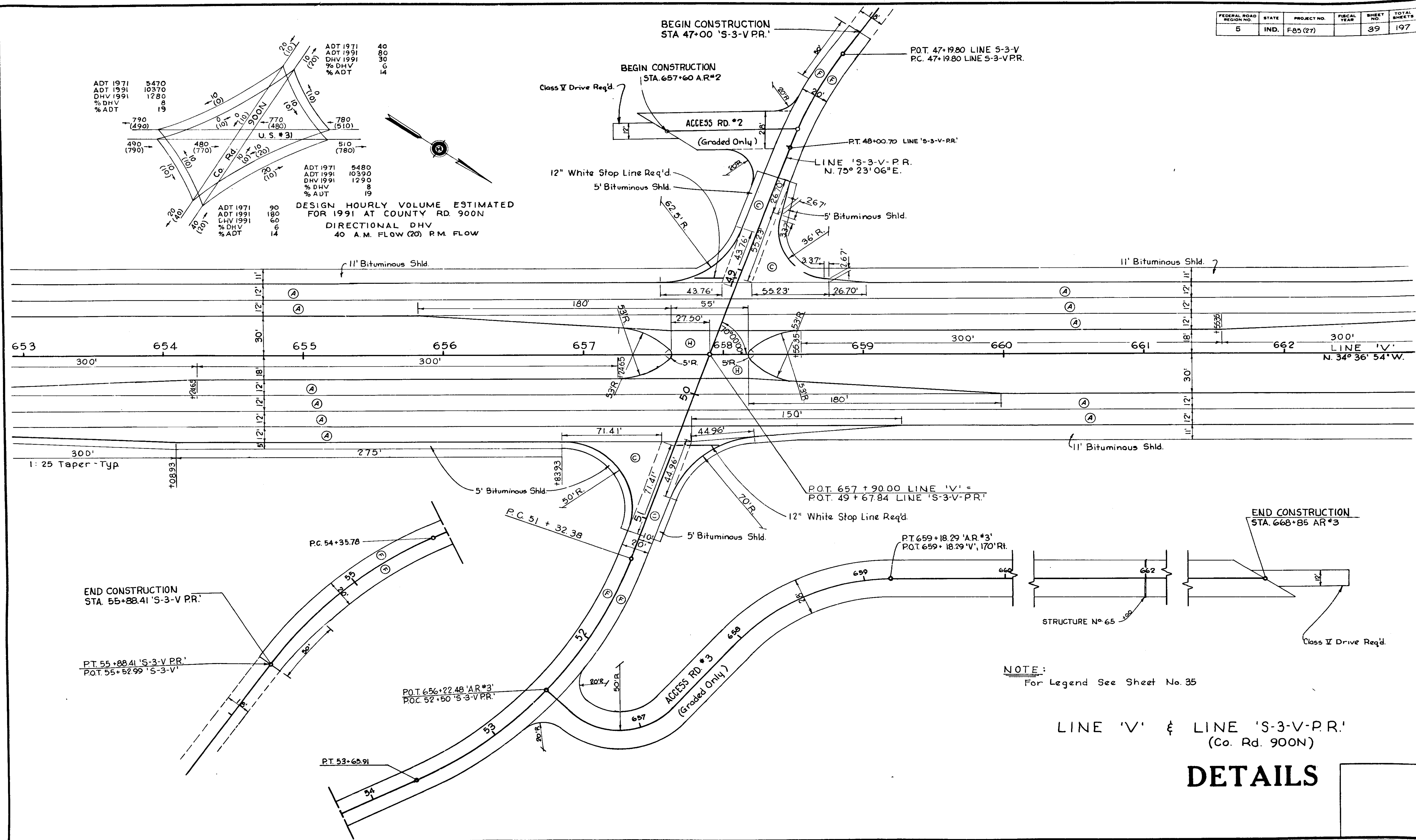
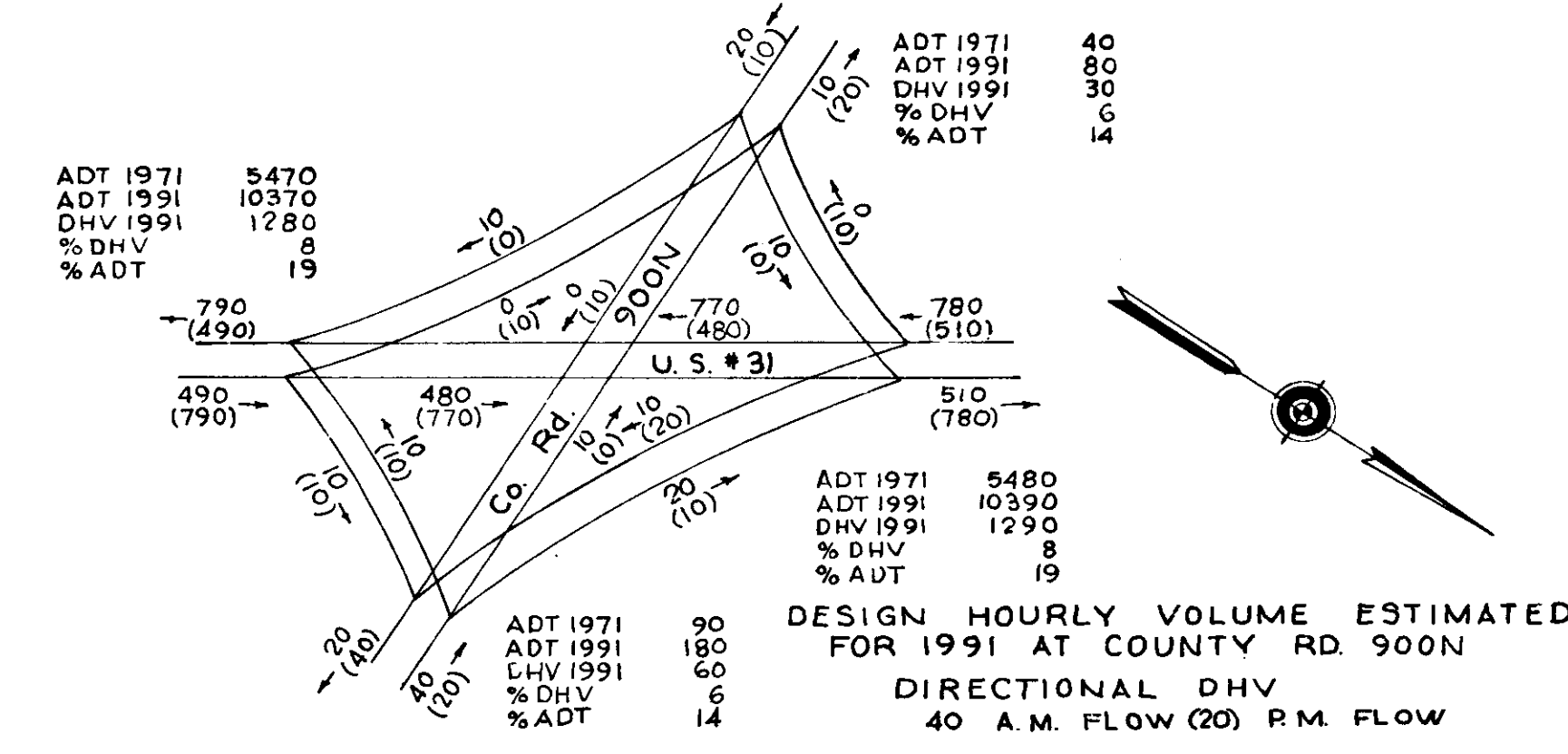
END CONSTRUCTION
STA. 57+28 'S-2-V REV'



(CO. RD. 850N)
LINE 'V' & LINE 'S-2-V' REV.
DETAILS
SCALE = 1" = 30'

PROJ.	LINE	SHEET	FILE	TOTAL SHEETS
F-85(27)	S-2-V Rev	38		197

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		39	197

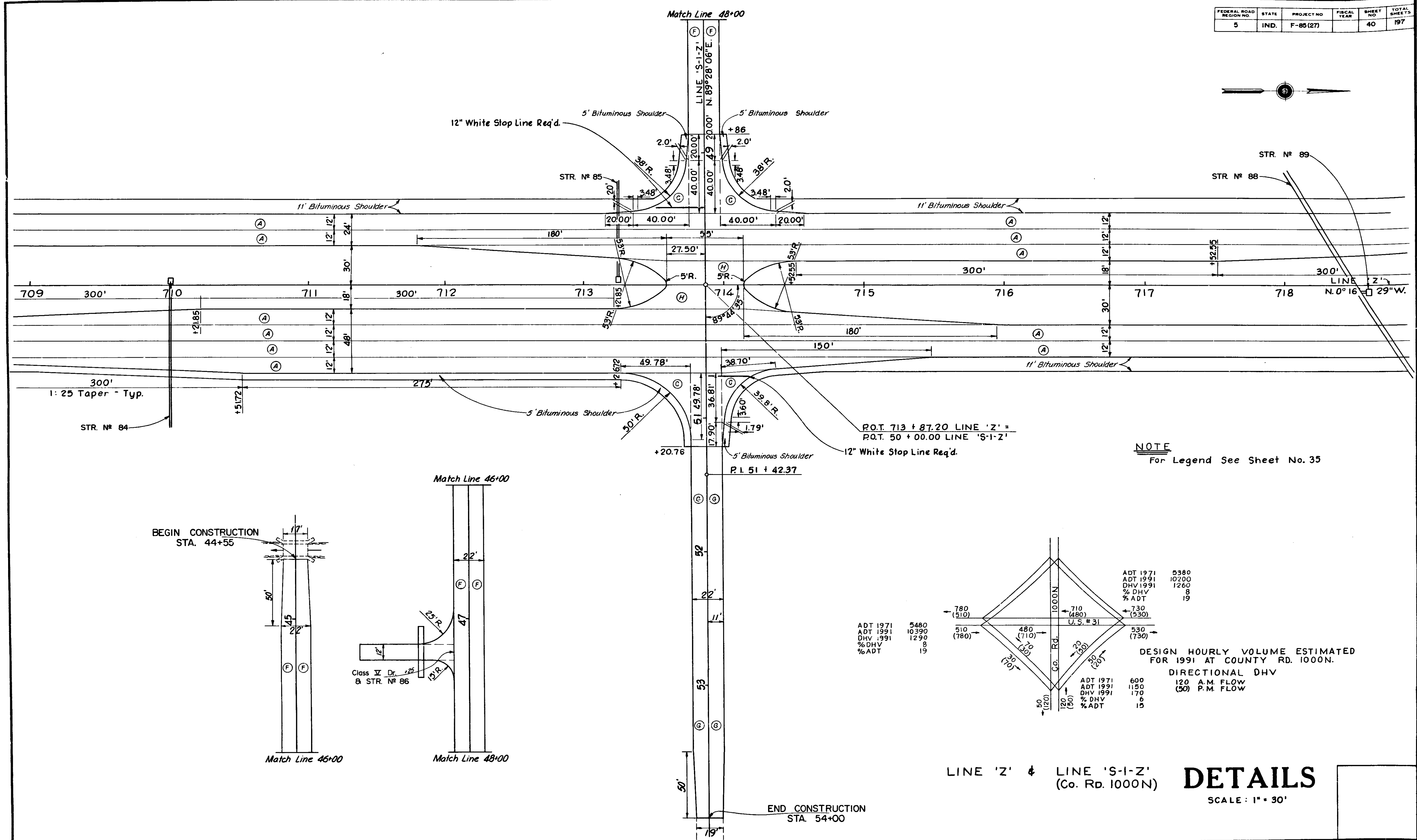
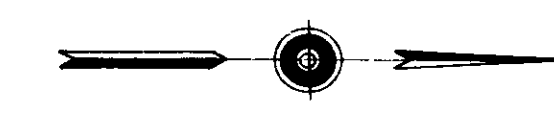


NOTE: For Legend See Sheet No. 35

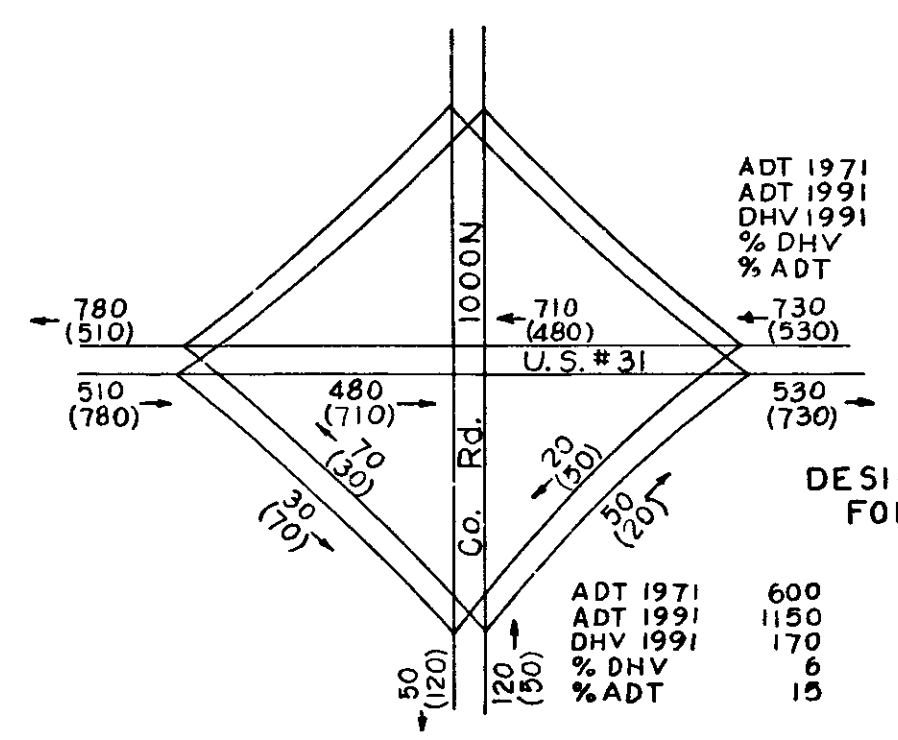
DETAILS

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-85 (27)	S-3-V P.R.	39	197	

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		40	197



NOTE
For Legend See Sheet No. 35

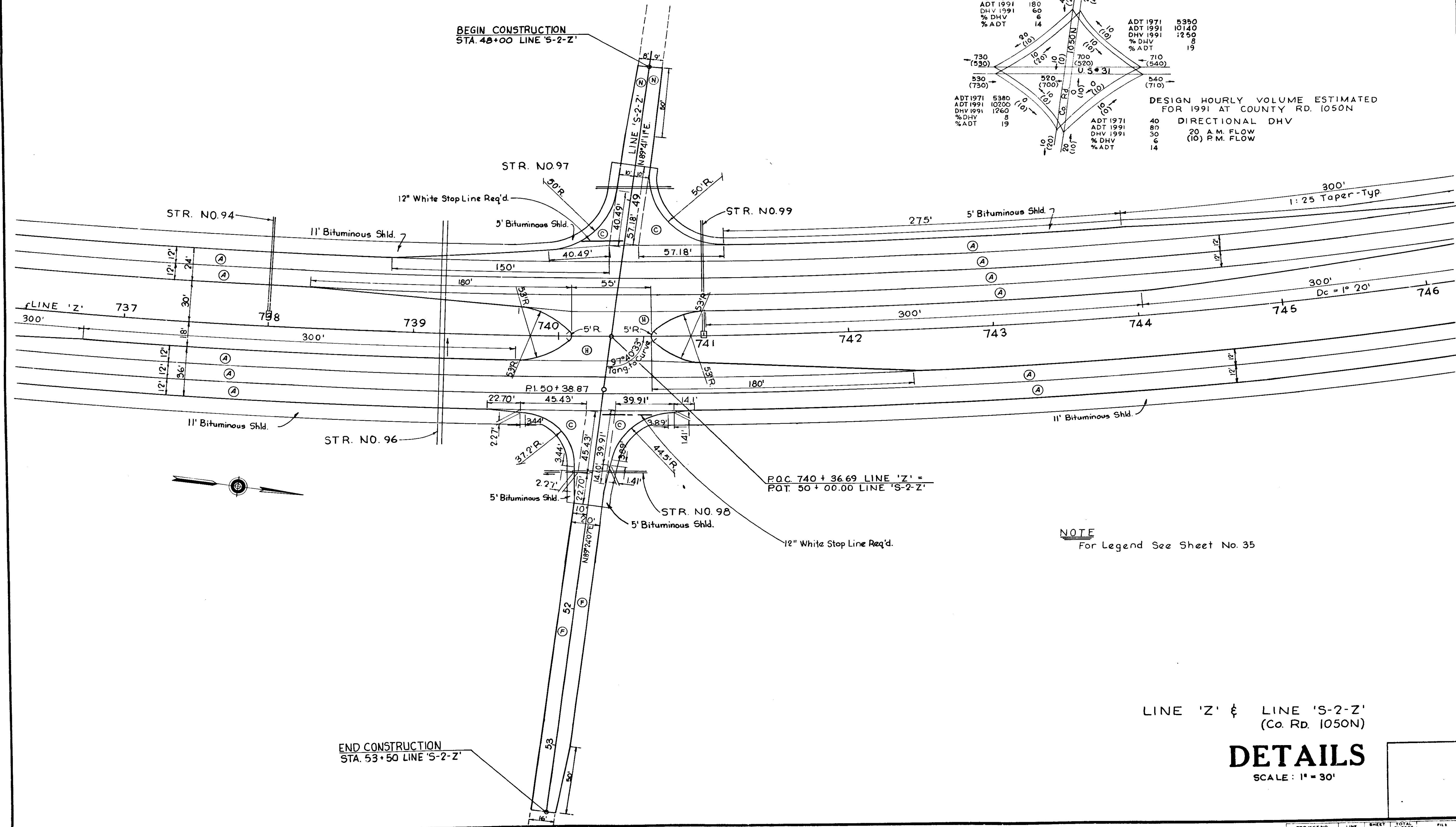
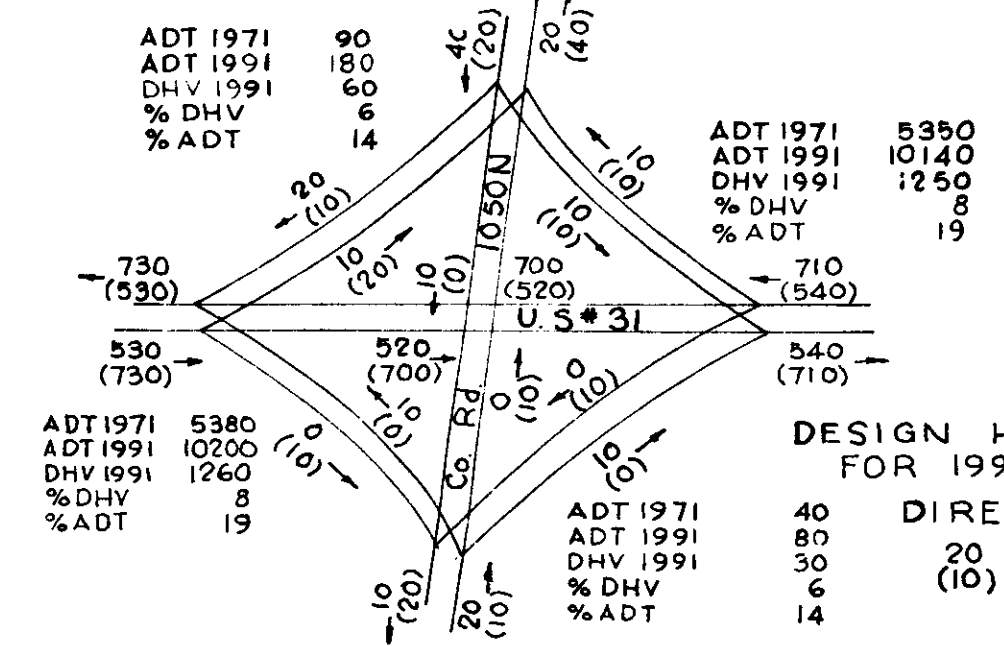


LINE 'Z' & LINE 'S-I-Z' (Co. Rd. 1000N) **DETAILS**
SCALE: 1" = 30'

November 6, 1964

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-85(27)	S-I-Z	40	197	

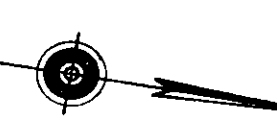
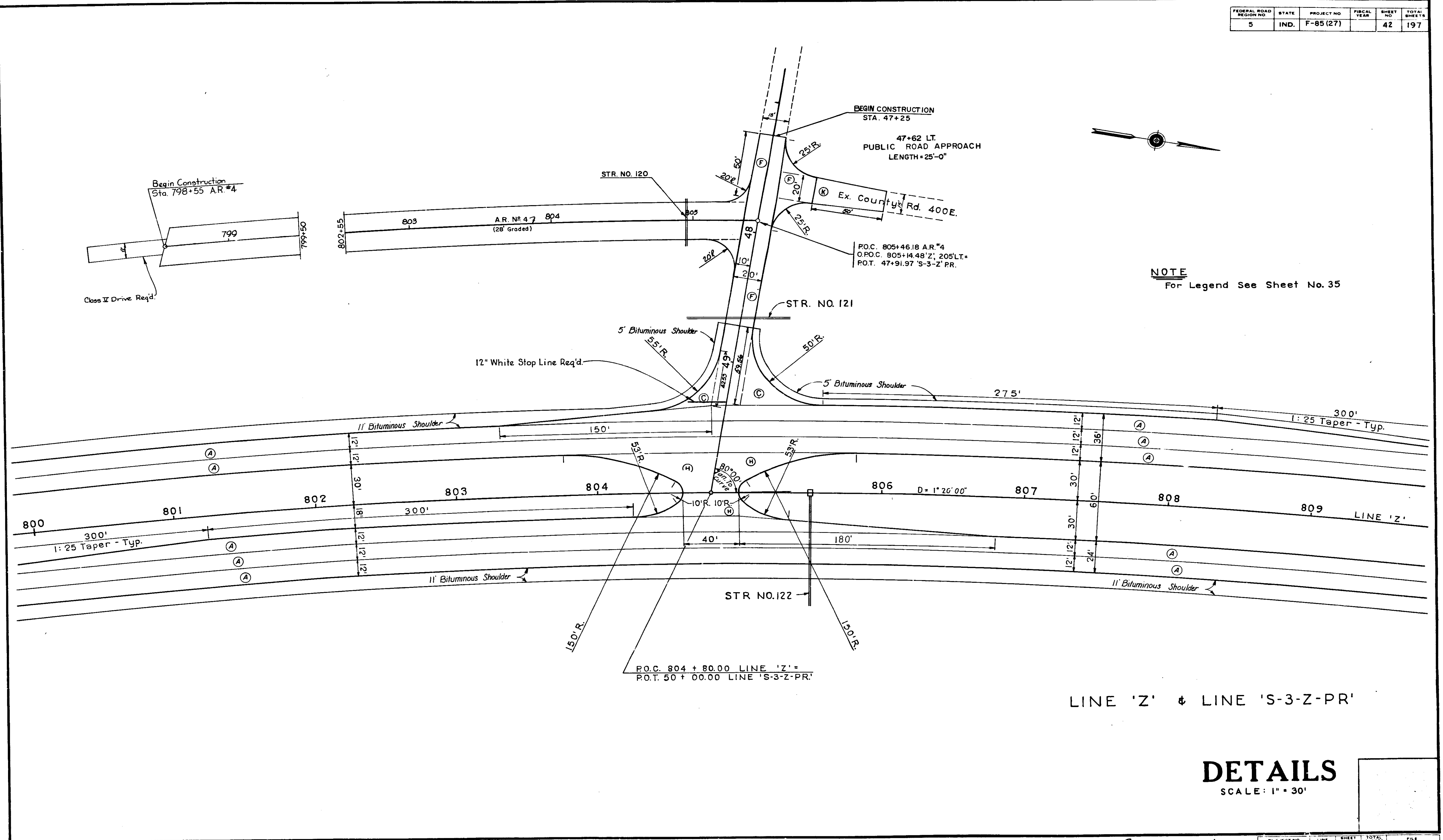
FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		41	197



November 6, 1964

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-85(27)	S-2-Z	41	197	

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		42	197



NOTE
For Legend See Sheet No. 35

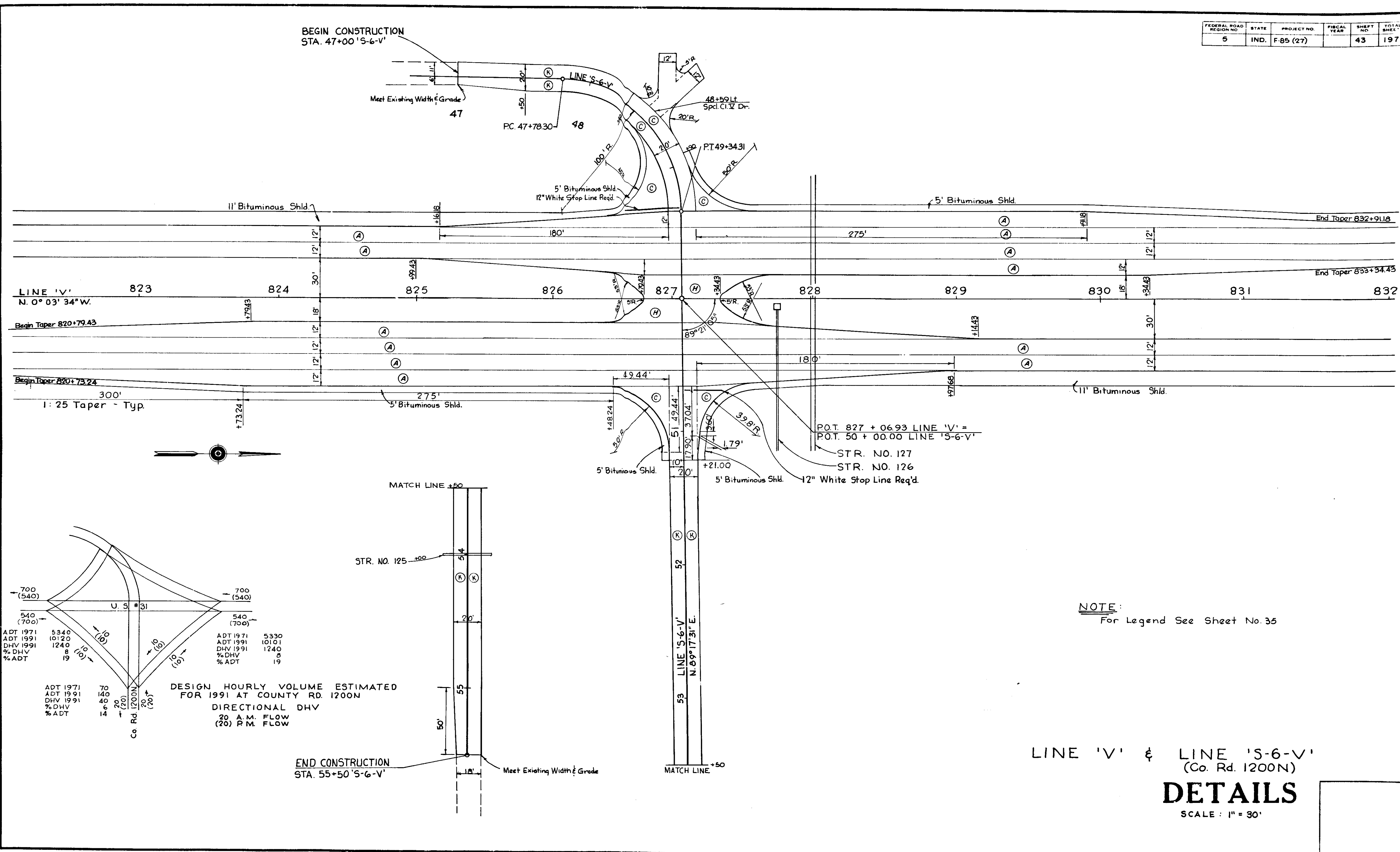
LINE 'Z' & LINE 'S-3-Z-PR'

DETAILS
SCALE: 1" = 30'

Handwritten signature/initials

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-85 (27)	S-3-Z-PR	42	197	

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		43	197



DESIGN HOURLY VOLUME ESTIMATED FOR 1991 AT COUNTY RD. 1200N

DIRECTIONAL DHV

20 A.M. FLOW

(20) P.M. FLOW

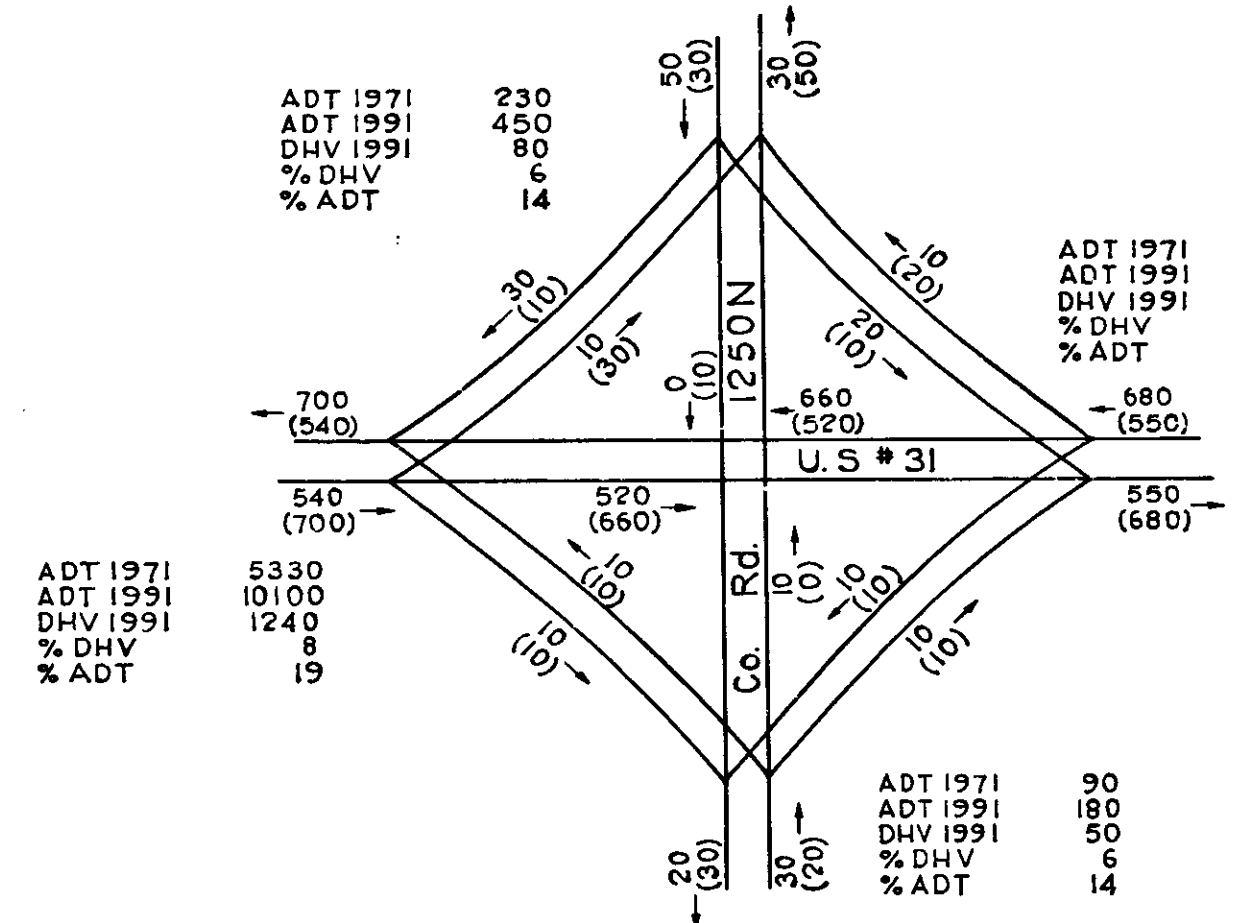
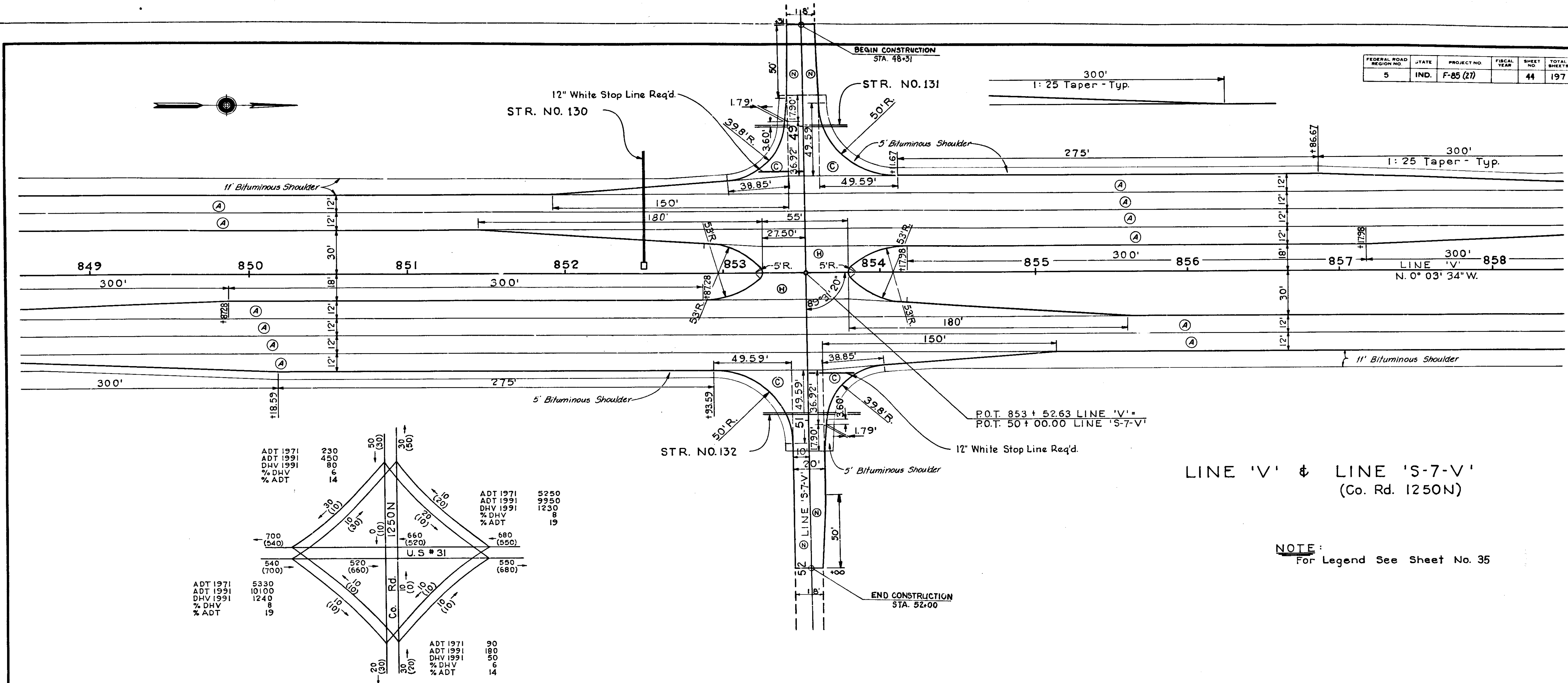
ADT 1971	ADT 1991	DHV 1991	% DHV	% ADT
5340	10120	1240	8	19
700	140	40	6	14
(540)	(20)	(20)	(10)	(20)

NOTE:
For Legend See Sheet No. 35

LINE 'V' & LINE 'S-6-V'
(Co. Rd. 1200N)
DETAILS
SCALE: 1" = 30'

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-85 (27)	S-6-V	43	197	

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		44	197



DESIGN HOURLY VOLUME ESTIMATED FOR 1991 AT COUNTY RD. 1250N.
DIRECTIONAL DHV
20 A.M. FLOW
(30) P.M. FLOW

LINE 'V' & LINE 'S-7-V'
(Co. Rd. 1250N)

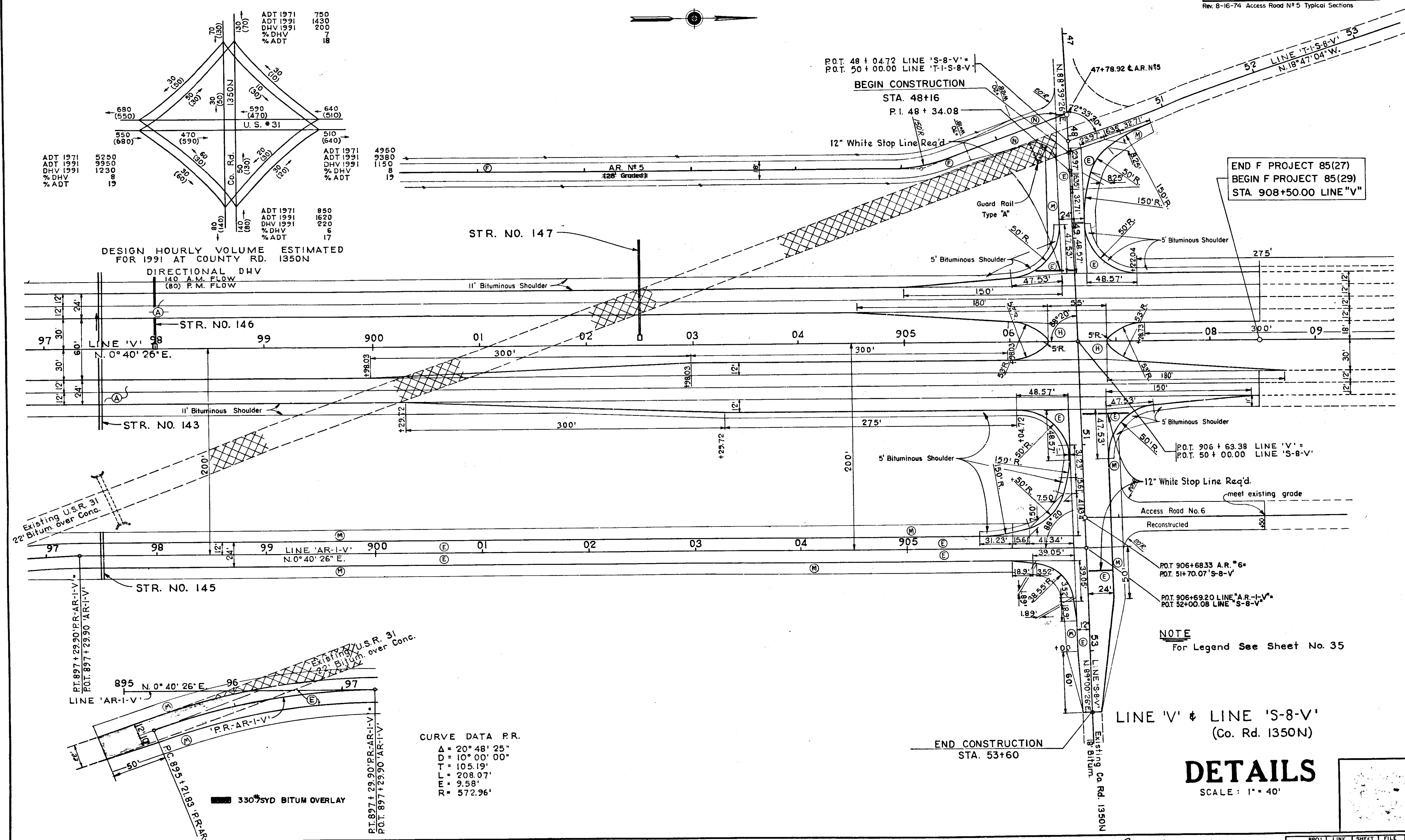
NOTE:
For Legend See Sheet No. 35

DETAILS
SCALE: 1" = 30'

Handwritten signature and date: 12/19/68

FED. ROAD REGION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		45	197

Rev. 8-16-74 Access Road N# 5 Typical Sections



DESIGN HOURLY VOLUME ESTIMATED FOR 1991 AT COUNTY RD. 1350N

DIRECTIONAL DHV
10 A.M. FLOW
(80) P.M. FLOW

ADT 1971	750	ADT 1971	850
ADT 1991	1430	ADT 1991	1620
DHV 1991	200	DHV 1991	220
% DHV	7	% DHV	6
% ADT	18	% ADT	17

CURVE DATA P.R.
 $\Delta = 20^\circ 48' 25''$
 $D = 10^\circ 00' 00''$
 $T = 105.19'$
 $L = 208.07'$
 $E = 9.58'$
 $R = 572.96'$

NOTE
For Legend See Sheet No. 35

LINE 'V' & LINE 'S-8-V'
(Co. Rd. 1350N)

DETAILS
SCALE: 1" = 40'

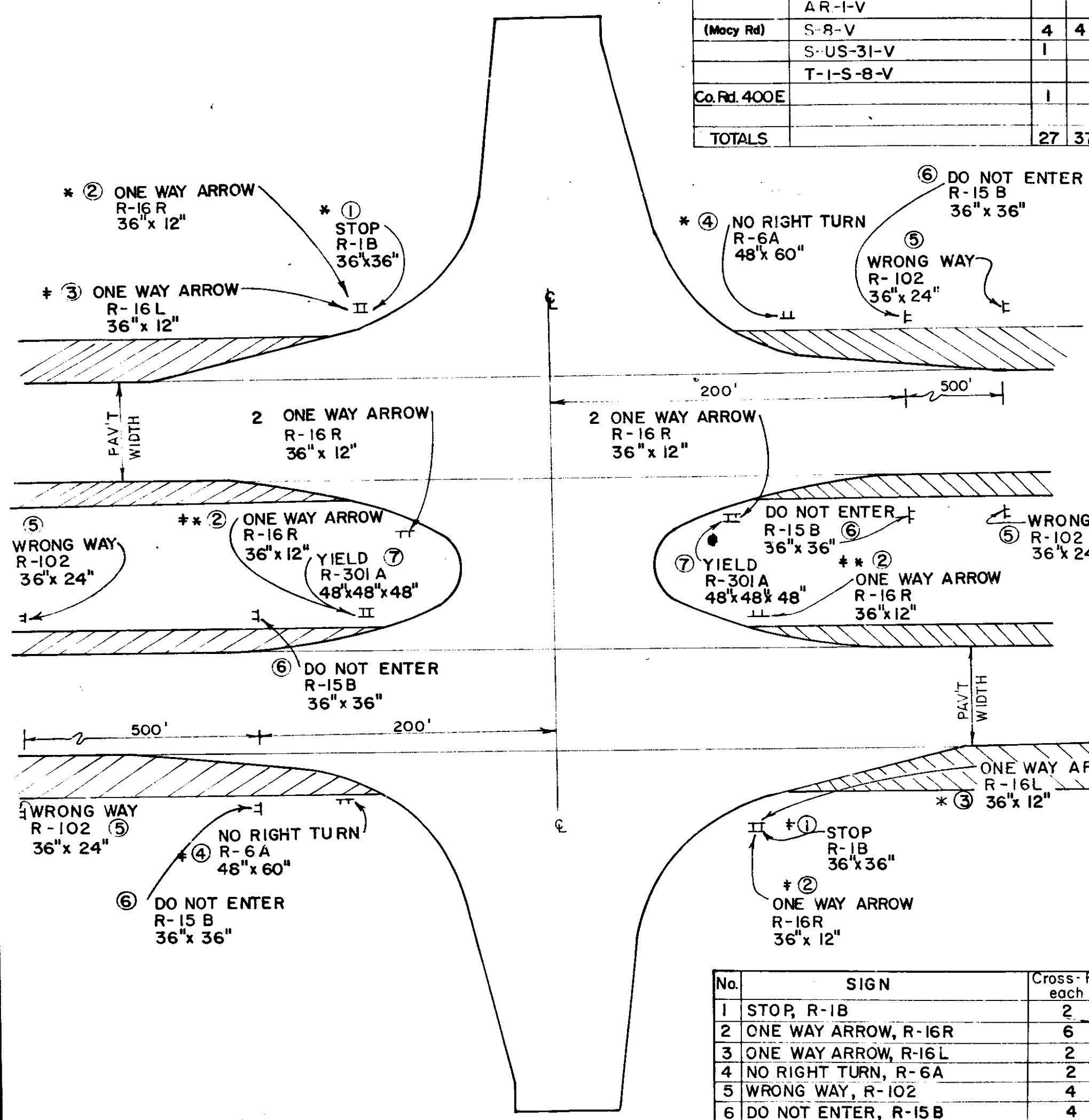
Chambers 12/10/85

PROJ.	LINE	SHEET	FILE	DATE
F-85(27)	S-8-V	45		197

ROAD	LINE	TYPE OF SIGNS							STOP AHEAD W-13A	CURVE W-2AL	CURVE W-2AR	CAUTION W-13B	ROUTE NUMBER M-2B	ARROW M-9A	ARROW M-11A	ROUTE NUMBER M-1A	ONE-WAY ARROW R-16B-L	ONE-WAY ARROW R-16B-R	NO-OUTLET DEAD-END M-29	REVERSE CURVE W-4R	'T' SYMBOL W-9
		1	2	3	4	5	6	7													
SR 16	S-SR 16-V	2	4	2	2	4	4	2													
Co Rd 800N	S-1-V	3	4	2	2	4	4	2													
Co Rd 850N	S-2-V Rev	3	4	4	2	4	4	2													
Co Rd 900N	S-3-V PR	2	4	4	2	4	4	2													
Co Rd 1000N	S-1-Z	2	4	4	2	4	4	2													
Co Rd 1050N	S-2-Z	2	4	4	2	4	4	2													
Co Rd 850S	S-3-Z-PR	1	1	1	1	4	4	2													
Co Rd 1200N	S-6-V	2	4	4	2	4	4	2													
Co Rd 1250N	S-7-V	2	4	4	2	4	4	2													
(Macy Rd)	AR-1-V								1	1											
	S-R-V	4	4	4	2	4	4	2													
	S-US-31-V	1																			
	T-1-S-8-V																				
Co Rd 400E		1																			
TOTALS		27	37	33	19	42	44	22	19	1	4	8	4	4	2	4	2	2	1	1	3

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	IND.	F-85(27)		46	197

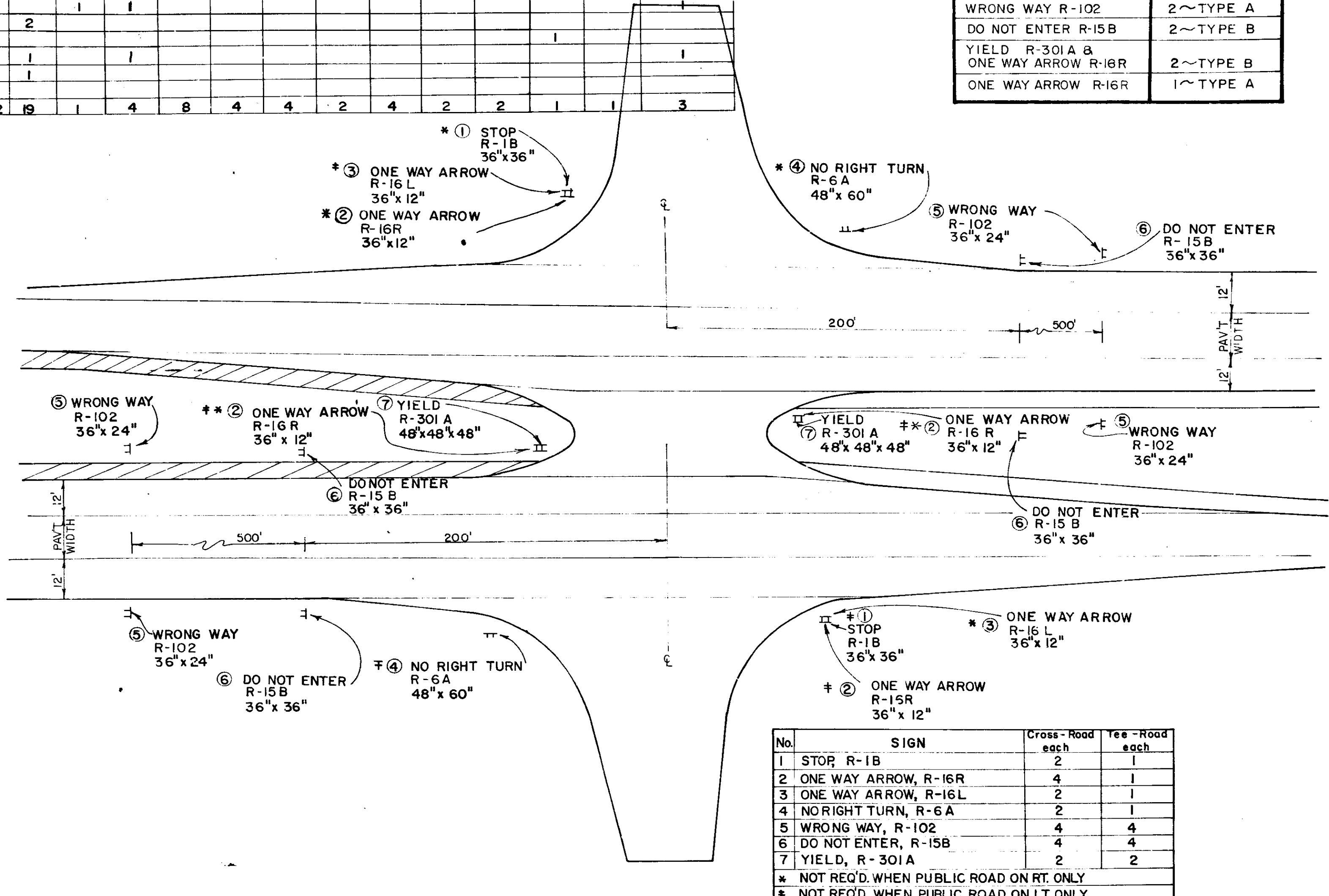
SIGN	POST SIZE
ONE WAY ARROW R-16R, STOP R-15B	2~TYPE B
ONE WAY ARROW R-16L	2~TYPE Bbb
NO RIGHT TURN R-6A	2~TYPE A
WRONG WAY R-102	2~TYPE B
DO NOT ENTER R-15B	2~TYPE B
YIELD R-301A	2~TYPE B
ONE WAY ARROW R-16R	1~TYPE A



No.	SIGN	Cross-Road each	Tee-Road each
1	STOP, R-15B	2	1
2	ONE WAY ARROW, R-16R	6	1
3	ONE WAY ARROW, R-16L	2	1
4	NO RIGHT TURN, R-6A	2	1
5	WRONG WAY, R-102	4	4
6	DO NOT ENTER, R-15B	4	4
7	YIELD, R-301A	2	2

* NOT REQ'D WHEN PUBLIC RD ON RT ONLY
 † NOT REQ'D WHEN PUBLIC RD ON LT ONLY

County Road and Crossover without Turn Lanes
(NOT APPLICABLE)



No.	SIGN	Cross-Road each	Tee-Road each
1	STOP R-15B	2	1
2	ONE WAY ARROW, R-16R	4	1
3	ONE WAY ARROW, R-16L	2	1
4	NO RIGHT TURN, R-6A	2	1
5	WRONG WAY, R-102	4	4
6	DO NOT ENTER, R-15B	4	4
7	YIELD, R-301A	2	2

* NOT REQ'D WHEN PUBLIC ROAD ON RT ONLY
 † NOT REQ'D WHEN PUBLIC ROAD ON LT ONLY

County Road and Crossover with Turn Lanes

DETAILS
SIGNS AT PUBLIC ROAD CROSSINGS

PAVED SIDE DITCH & SODDING SUMMARY TABLE

FROM STATION	TO STATION	LOCATION LEFT MEDIAN RIGHT	PAVED SIDE DITCH					SODDING					SEE SHEET #		
			ACTUAL LENGTH	CUT OFF WALLS (Equivalent Length ea.)	LUGS (Equivalent Length ea.)	TOTAL EQUIVALENT PAY LENGTHS				FOR PAVED SIDE DITCH	FOR DITCHES	FOR MEDIAN		FOR SHOULDER	FOR LAWN
						TYPE "A"	TYPE "B"	TYPE "C"	TYPE "D"						
LINE "V"															
508+20	538+75	X									2715			12	
510+75	512+80	X								213				13	
520+75	523+25	X								260					
526+00	539+00	X										385			
527+00	538+55	X										336			
539+20	551+50	X									4901		400		
539+38	594+52	X										364			
539+00	548+50	X							90			255			
541+00	544+00	X	300	2		310								.3	
544+00	546+00	X								207				13	
546+00	547+25	X								141				13	
547+25	549+50	X	250	2		260			74					13	
548+75	550+75	X	200	2		210			60					13	
550+75	552+00	X										622			
553+50	574+50	X										504			
555+00	572+00	X												13	
557+75	561+75	X	400	2		410			120					13	
558+75	562+25	X	350	2		360			104					13	
561+75	587+75	X	600	2	6	634			178					13	
562+25	566+25	X									452				
566+25	567+55	X	130	2		140			39					13	
575+75	588+50	X								1593				14	
577+75	588+50	X								1343				14	
591+75	598+50	X								843				14	
592+25	597+25	X								625				14	
595+15	624+72	X									2628				
596+00	600+50	X										133			
600+00	601+75	X										52			
603+00	624+20	X										628			
603+75	604+00	X	425	2		435			126					15	
605+00	609+25	X												15	
610+75	613+00	X								297				15	
617+00	619+75	X								382					
618+50	625+35	X										203			
624+70	627+00	X										68			
625+35	656+91	X									2804				
627+54	668+20	X									947				
628+25	631+75	X								514				16	
628+75	631+75	X								440				16	
631+75	637+50	X	575	2		585			170					16	
631+75	634+75	X	300	2		310			90					.5	
633+00	643+20	X										302			
633+00	655+50	X										667			
634+75	637+50	X								311				16	
637+50	646+25	X								1095				16	
637+50	640+50	X								375				16	
640+50	643+75	X	325	2		335			96					16	
646+50	652+50	X										178			
650+25	652+75	X	250	2		260			74					16	
650+75	656+25	X										687		16	
652+75	654+75	X										293		17	
658+00	660+25	X										156		17	
659+00	660+25	X											104		
659+50	663+00	X										89			
660+00	663+00	X													
662+75	664+00	X										187		17	
LINE "Z"															
668+20	713+56	X									4032			17	
669+75	681+25	X								1133				17	
670+75	674+50	X								446				17	
672+00	679+50	X										222			
673+00	677+50	X										133			
681+50	690+25	X										259			
688+00	690+75	X										81			

PAVED SIDE DITCH & SODDING SUMMARY TABLE

FROM STATION	TO STATION	LOCATION LEFT MEDIAN RIGHT	PAVED SIDE DITCH					SODDING					SEE SHEET #		
			ACTUAL LENGTH	CUT OFF WALLS (Equivalent Length ea.)	LUGS (Equivalent Length ea.)	TOTAL EQUIVALENT PAY LENGTHS				FOR PAVED SIDE DITCH	FOR DITCHES	FOR MEDIAN		FOR SHOULDER	FOR LAWN
						TYPE "A"	TYPE "B"	TYPE "C"	TYPE "D"						
CONT. LINE "Z"															
689+00	692+25	X											441	18	
689+75	691+25	X											187	18	
694+75	702+25	X											992	18	
697+00	699+25	X											330	18	
698+00	711+50	X											400		
698+00	713+65	X											464		
699+25	701+25	X	200	2		210			59					18	
706+25	709+00	X												18	
709+00	712+25	X	325	2		335			96					18	
714+00	718+50	X											370		
714+19	740+06	X									2299				
715+00	722+27	X											213		
715+00	716+75	X											219	18	
716+75	718+25	X	150	2		160			44					18	
717+75	719+75	X											233	19	
726+25	728+00	X											330	19	
728+75	731+25	X											250	19	
736+25	738+25	X												19	
736+50	740+05	X											105		
737+00	740+20	X											95		
740+45	741+60	X											34		
740+60	742+50	X											56		
740+75	743+25	X											312	19	
740+89	804+56	X											5677		
741+00	743+75	X											343	19	
746+00	749+25	X	325	2		335			96					19	
746+00	749+25	X											406	19	
756+60	747+40	X											24		
746+60	762+70	X											477		
756+00	763+00	X											504		
756+75	764+25	X											978	20	
759+75	764+25	X											601	20	
767+75	772+25	X											587	20	
767+75	770+25	X											329	20	
769+50	800+50	X													
769+50	780+50	X													
772+75	775+25	X											312		
784+75	787+25	X											329	21	
784+75	789+25	X											562	21	
786+00	804+80	X													
795+75	796+80	X	105	2					115			32		21	
796+90	797+50	X	60	2		6			94			18		21	
799+00	801+25	X	225	2		1			239			67		21	
805+04	812+52	X													
805+35	812+52	X											92	22	
811+75	812+52	X													
LINE "V"															
814+82	817+75	X											351	22	
814+82	823+50	X											25		
814+82	826+83	X											1067		
815+00	827+05	X											357	22	
820+75	826+00	X											690	22	
827+07	853+22	X											2324		
827+40	830+50	X											92		
827+40	830+50	X											44		
832+00	833+50	X													
833+75	836+00	X	225	2		1			239				67	22	
834+50	854+50	X													
835+25	838+25	X	300	2		2			318				88	22	
835+75	870+50	X													
839+75	842+25	X											312	23	
851+75	861+25	X											1187	23	
853+85	906+31	X											4663		
857+75	859+85	X	210	2					220				42	23	
858+50	863+50	X													
859+85	864+25	X											550	23	
866+80	876+50	X													

PAVED SIDE DITCH & SODDING SUMMARY TABLE

FROM STATION	TO STATION	LOCATION LEFT MEDIAN RIGHT	PAVED SIDE DITCH				SODDING					SEE SHEET #			
			ACTUAL LENGTH	CUT OFF WALLS (5' Equivalent Length ea.)	LUGS (4' Equivalent Length ea.)	TOTAL EQUIVALENT PAY LENGTHS				FOR PAVED SIDE DITCH	FOR DITCHES		FOR MEDIAN	FOR SHOULDER	FOR LAWN
						TYPE "A"	TYPE "B"	TYPE "C"	TYPE "D"						
LFT.	EACH	EACH	LFT.	LFT.	LFT.	LFT.	SYS.	SYS.	SYS.	SYS.	SYS.				
CONT. LINE "V"															
876+50	906+15	X									879	25			
885+00	901+60	X									721	25			
897+48	903+25	X									576				
897+48	902+25	X									139				
908+94	908+50	X									185	5			
905+55	926+10	X													
LINE "S-1-V"															
47+50	47+75	X									18	27			
47+50	47+85	X				95				25	25	27			
47+75	48+60	X	85	2		105				28		27			
47+85	48+80	X	95	2											
LINE "S-2-V"															
45+75	48+95	X	320	2		330						60			
45+85	47+50	X								80		28			
46+25	48+95	X	270	2		280				72		28			
51+05	52+25	X	240	4		260									
LINE "S-3-V" PR.															
47+00	46+50	X									106	29			
47+00	48+70	X									120	29			
55+25	55+88	X									88	29			
LINE "S-2-Z"															
45+10	45+50	X	40	2				50	12			30			
51+00	54+00	X	600	4		620			178			30			
52+00	54+00	X										200			
LINE "S-3-Z" PR.															
47+25	47+79	X									38	31			
48+11	48+80	X	69	2		85				20		31			
LINE "S-7-V"															
48+20	48+95	X	65	2		75				19		32			
48+31	48+85	X	54	2		65				16		32			
51+05	52+05	X	290	4		310				86		32			
LINE "S-8-V"															
49+20	48+95	X									94	33			
51+05	54+00	X								49	369	33			
52+36	54+00	X	164	2		174									
LINE "S-SR-16-V"															
43+50	44+50	X									117	26			
43+50	44+50	X									117	26			
44+50	47+60	X									187	26			
47+50	49+00	X									437	26			
52+75	56+25	X									156	26			
55+00	56+25	X													
LINE "AR-1-V"															
895+75	899+75	X									500	25			
897+50	899+75	X									281	25			
AR #5															
887+00	890+50	X									174	24			
AR #4															
799+20	800+25	X									50	2			

PAVED SIDE DITCH & SODDING SUMMARY TABLE

FROM STATION	TO STATION	LOCATION LEFT MEDIAN RIGHT	PAVED SIDE DITCH				SODDING					SEE SHEET #				
			ACTUAL LENGTH	CUT OFF WALLS (5' Equivalent Length ea.)	LUGS (4' Equivalent Length ea.)	TOTAL EQUIVALENT PAY LENGTHS					FOR PAVED SIDE DITCH		FOR DITCHES	FOR MEDIAN	FOR SHOULDER	FOR LAWN
						TYPE "A"	TYPE "B"	TYPE "C"	TYPE "D"	TYPE "H"						
LFT.	EACH	EACH	LFT.	LFT.	LFT.	LFT.	LFT.	SYS.	SYS.	SYS.	SYS.	SYS.				
From Underdrain Table																
UNDISTRIBUTED						800	600	400	200		593					
CLASS IV DRIVE																
6+25	7+00	X	75	2		85					22	33A				
6+25	9+25	X	300	2		310					90	33A				
TOTALS																
						6329	1370	2959	583	115	3235	26053	34861	15043	1445	
GRAND TOTAL OF SODDING											82,637					

FEDERAL ROAD REGION NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	IND.	F-85(27)		50	197

Rev. 9-10-74 Class IV Drive Adjustment Sta. 46+11 Lt.

* TEMPORARY R/W REQUIRED FOR CONSTRUCTION BEYOND R/W LINE.
 * APPROACHES REQUIRING GRADES OVER 10% WILL BE SPECIAL CASES.
 † Included in A.R. No. 1A.
 †† Mail Box Approach Road.

S-LINE UNDERDRAIN TABLE

LOCATION STATION TO STATION	LINE	6" "K" PIPE FEET	BENDS EACH	45° 90°	TEES EA.	6"	8"	10"	12"	15"	18"	24"	AT STATION	DELIN- IATOR POST EACH	REMARKS
44+50 Lt. 49+27 Lt.	S-SR 16-V	477						1	3			22	48+00 Lt.	1	Outlet thru. Shldr.
44+50 Rt. 49+35 Rt.		485						1	3			26	48+00 Rt.	1	Outlet thru. Shldr.
50+66 Lt. 56+00 Lt.		534						1	3			22	56+00 Lt.	1	Outlet thru. Shldr.
50+73 Rt. 56+00 Rt.		527						1	3			22	56+00 Rt.	1	Outlet thru. Shldr.
48+2 Lt. 49+34 Lt.	S-8-V	122						1	3			26	49+00 Lt.	1	Outlet thru. Shldr.
48+20 Rt. 49+34 Rt.		114						1	3			28	49+00 Rt.	1	Outlet thru. Shldr.
50+67 Lt. 53+60 Lt.		293						1	3			34	51+00 Lt.	1	Outlet thru. Shldr.
50+65 Rt. 53+60 Rt.		295						1	3			20	51+00 Rt.	1	Outlet thru. Shldr.
895+22 Lt. 897+48 Lt.	PR. A.R. #1 A.R. #1-V	226						1	3			22	895+21.83 Lt.	1	Outlet thru. Shldr.
895+22 Rt. 897+48 Rt.		226						1	3			22	895+21.83 Rt.	1	Outlet thru. Shldr.
897+48 Lt. 906+57 Lt.		909						1	3			45	897+48	1	CONNECT TO STR. NO. 145
897+48 Rt. 906+57 Rt.		910						1	3			45	897+48	1	CONNECT TO STR. NO. 145
TOTAL		5118	4	8	30	244								10	
			Bends 4x2 =			8									
			Tees 8x5 =			40									
						292									

APPROACH TABLE

LOCATION	DESCRIPTION	CUT	FILL	WIDTH	RADI	LENGTH	DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED **		BITUMINOUS MIXTURE FOR APPROACHES	TYPE "P" COMPACTED AGGREGATE BASE (Size No. 53)	BITUM. STABIL. SUBBASE	BITUM. MIXTURE FOR X-OVER	BITUM. SURFACE	BITUM. BASE	BITUM. PRIMER FOR PRIME COAT	BITUM. MATERIAL FOR TACK COAT	PURE CALCIUM CHLORIDE	SEE DETAIL SHEET NO.
							3' 9"	TON										
Line "V"																		
512+58 Rt.	Class V Dr.		55	12	20-5	25												12
517+30 Rt.	Class V Dr.		6	12	20-5	30		19.86										12
517+50	Priv. Dr. X-over			12	31-19	90					130	50						12
517+50 Lt.	Class II Dr. ††		13	12	5-20	31			51	8.4						0.07		12
Line "S-R 16-V"																		
44+80 Lt.	Class IV Dr.	35		20	20-20	58		10.00	148	24.4							0.02	35
46+82 Lt. †† Lt.	Class IV Dr.	36		20	20-20	58		10.00	148	24.4							0.02	35
47+12 Lt.	Class IV Dr.			20	20-20	58			148	24.4							0.02	35
47+25 Rt.	Class II Dr. ††		9	12	15-25	58		10.00	98	16.2							0.14	35
51+78.79 Lt.	Class II Dr. ††		1054	12	15-25	361.88			503	83.9			503	22.6	503	60.4	0.73	35
Access Road No. 1																		
571+80	Class II Dr. ††	85		9	18	20-38	162			324	54.0						324	36
Line "S-1-V"																		
48+21.98 Lt.	Rd. Appr. for A.R. No. 1A				A	20-20												37
Access Road No. 1A																		
598+95	Class V Dr.					12	29											37
Line "S-2-V" (Rev)																		
45+77 Lt.	Class II Dr. ††	3		12	15-25	20			47	7.8							0.07	38
47+25 Lt.	Spcl. Cl. II Dr. (Twin)	21		18	12	15-24	76	19	192	31.7			192	32.0			0.28	38
47+82 Lt.	Class V Dr.			12		28												38
Access Road No. 2																		
657+60	Class V Dr.		10	12		38												39
Line "S-3-V PR"																		
47+85 Rt.	Rd. Appr. for A.R. No. 2				A	20-20												39
52+50 Lt.	Rd. Appr. for A.R. No. 3				A	20-20												39
Access Road No. 3																		
668+85	Class V Dr.		10	12		60												39
Line "S-1-Z"																		
47+25 Rt.	Class V Dr.		152	12	15-25	70		15.00										40
Line "S-2-Z"																		
No Drives																		
Access Road No. 4																		
798+55	Class V Dr.		10	12		55		13.20										42

▲ See Table of Quantities Sheet No. 52 B.53 for Quantities

PROJECT NO	LINE	SHEET NO	TOTAL SHEETS	FILE
F-85(27)		50	197	

* TEMPORARY R/W REQUIRED FOR CONSTRUCTION BEYOND R/W LINE.
 ** APPROACHES REQUIRING GRADES OVER 10% WILL BE SPECIAL CASES.
 *** Included in Line S-6-V

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		51	197

MISCELLANEOUS QUANTITIES

PAVEMENT LINE	STRIPING (4" Lt. Strip)				BENCH MARK POST LOCATION	MONUMENTS		
	SOLID DOUBLE YELLOW BARRIER (L & R)	SOLID WHITE EDGE (L & R)	STOPPING BARS	DOUBLE YELLOW TEMP PRINT		LINE	TYPE "B" LOCATION	TYPE "C" LOCATION
Line 'V' Z'				90,000	519+00 Line 'V'	V		517+00
					598+00 Line 'V'	V		929+29.95 (P.I.)
PR. N#1					P.O.T. 666+ 19.37 Line 'V'	V		548+00
50+66-51+46	160	160	330		M.P.O.C. 743+77.23 Line 'Z'	V		566+22.5 (206' Rt.)
					822+00 Line 'V'	V	573+00	
S-1-V					P.O.T. 900+04.51 Line 'V'	V		598+00
48+48-49+30	164	164	90			V		609+13.14 (P.I.)
50+70-51+66	192	192	180		TOTAL 6 each	V		626+50.5 (2.56' Lt.)
						V		632+52.1 (145' Rt.)
S-2-V (Rev)						V		634+00
45+00-49+33	866	866	90		PAVEMENT REMOVAL			655+55.5 (235' Rt.)
50+67-57+28	1322	1322	210		Station to Station SYS	V		659+00
					508+20-519+75	Z		668+20.20 (P.C.)
S-3-V PR					532+00-544+50	Z		681+07.96 (M.P.O.C.)
44+10-49+10	1000	1000	90		545+75-546+25	Z		687+00.5 (101.5' Rt.)
50+38-55+38	1000	1000	90		553+50-560+00	Z		693+95.72 (P.T.)
					896+00-906+55	Z		700+54.25 (141.68' Rt.)
S-1-Z						S-1-Z	49+79.98	
44+55-49+46	982	982	120		TOTAL 11,987	S-1-Z	51+42.37	
50+66-54+00	668	668	90			Z		719+00
						Z		727+09.47 (20.78' Lt.)
S-2-Z					PAVEMENT BREAKING	S-2-Z	50+18.87	
45+40-49+33	786	786	90		Station to Station SYS	Z		743+91.79 (P.I.)
50+55-55+55	1000	1000	120		519+75-532+00	Z		766+00
					551+50-553+50	Z		785+00
S-3-Z-PR						Z		803+40.04 (P.I.)
47+25-49+33	416	416	90		TOTAL 3483	Z		812+52.12
						V		827+05.5 (165.5' Lt.)
S-6-V						V		831+00
47+00-49+34	468	468	120		RIP RAP	S-7-V	48+31.15	
50+66-55+50	968	968	90		Station to Station SYS	V		856+00
					638+10-638+80	V		880+08.5 (145' Rt.)
S-7-V					638+80-639+10	V		880+92.63 (P.I.)
44+34-49+34	1000	1000	90		741+00	V		905+00
50+66-55+66	1000	1000	90		TOTAL 300	S-8-V	48+34.08	
S-8-V								
48+16-49+34	236	236	120					
50+66-55+66	1000	1000	207		TOTAL 'B' 6 each			'C' 29 each
Sub-Total	13,228	13,228	2307					
Grand-Total		28,762 LFT.	90,000					

GUARD RAIL	
Stations	Type A Lft.
624+00	30
906+25	30
Total	60

APPROACH TABLE

LOCATION	DESCRIPTION	CUT	FILL	WIDTH	RADI	LENGTH	DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED **										SEE DETAIL SHEET NO.	
							DISTANCE FROM END OF APPROACH	GRADES	BITUMINOUS MIXTURE FOR APPROACHES	TYPE "P" COMPACTED AGGREGATE BASE (Size N#53)	BITUM. STABIL. SUBBASE	BITUM. MIXTURE FOR COVER	BITUM. SURFACE	BITUM. BASE	BITUM. MATERIAL FOR PRIME COAT	BITUM. MATERIAL FOR FOG SEAL		PURE CALCIUM CHLORIDE
		CYS	CYS	FT	FT	FT	FT	FT	FT	TON	TON	TON	TON	TON	TON	TON	TON	TON
Line "S-3-Z-PR"																		
47+60± Lt.	Public Rd. Appr. for Co. Rd. 400E A 25-25									330			3"	9"				42
47+91.97 Rt.	Road Appr. N# 4																	42
Line "S-6-V"																		
48+59 Lt.	Spcl. Class V Dr. ***					2412	10-20											31
Line "S-7-V"																		
No Drives																		
Access Road N#5																		
880+06.26	Class V Dr.	2	1															24
Line "AR-1-V"																		
No Drives																		
Line "S-8-V"																		
47+78.92 Rt.	Rd. Appr. for AR N#5						20-20											
48+04.72 Lt.	Rd. Appr. for "T-S-8-V"																	
51+70.07 Lt.	Rd. Appr. for A.R. N#6						20-20											
52+00.08	Public Rd. Appr. for AR+V						50-38											
7+40(160' Rt. V)	Class IV Dr.	929	240	20		503				1118	5590		1118	50.3	1118	1342	1.63	13
** Mail Box Approach		6 each					45sys x 6=			270	446		270	450			0.39	
TOTALS SHEETS 50/ 51																		
										806.5	97.8	50.1	87.5	233.5	3.78	0.06	16.9	0.08

* IF CONTRACTOR ELECTS TO USE METAL PIPES, GAGES AS SHOWN BELOW ARE TO BE USED

STRUCTURE DATA

Length Includes 5' for each Tee and 2' for each Bend as noted in the REMARKS column

Rev. 11-24-70 Access Road No. 1A 11'6d.
Rev. 3-20-72 ADDED STA. 21A.
STA. 47+12, CLASS II DRIVE LT.
Rev. 9-10-74 STA. 118.21 Adjustment

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(17)		54	197

STRUCTURE NUMBER	LOCATION	SIZE INCHES	DESCRIPTION SEE STD SHEET "MP" FOR ACCEPTABLE TYPES OF PIPE WITHIN EACH GROUP	LENGTH FEET	SKEW	FLOW LINE		CONCRETE CLASS 'A'	BORROW	METHOD OF BACKFILL	GAGES OR THICKNESS		REMARKS	CULV. PIPE EACH END SECT. PLANS ON SHEET NO.	
						UP STREAM ELEV.	DOWN STREAM ELEV.				STEEL	ALUMINUM			
LINE "V"															
12	511+00	12	A STD. INLET TYPE P-12A	66	3.0	781.51	781.40			A	16			1 12	
12A	512+98 RL	12	D	20	1.0	784.09	783.87			B	16	12		2 12	
13	518+00	12	A STD. INLET TYPE P-12A	86	4.0	784.89	780.67			A	16			1 12	
14	520+50	12	L	186	3.0				56.4				CONNECT TO EXIST. TILE ON RT. & TO STR. NO. 15 ON LT.		
15	520+522 LH	12	P	224					67.9				CONNECT TO STR. NO. 14 & TO EXIST. TILE		
16	521+85	36	A	144	4.3	784.98	784.65			A	16			2 12	
17	524+00	12	A STD. INLET TYPE P-12A	74	4.3	789.32	788.06			A	16			1 12	
18	531+50	12	A STD. INLET TYPE P-12A	90	5.0	794.94	792.41			A	16			1 12	
19	534+80	G	C.S.	340	2.0					A	10		Water-Line Casing Only, Water Line to be Relocated by Abutting User Owner.		
LINE S-SRIG-V															
20	44+79 LT	15	D	32	1.3	801.84	801.74			B	16	12		2 26	
21	46+98 LT	15	D	32	1.1	801.30	801.44			B	16	12		2 26	
21A	47+12	15	D	32	1.1	800.31	800.83			B	16	12		2 26	
LINE "V"															
22	540+00	12	A STD. INLET TYPE P-12A	96	3.7	801.50	800.45			A	16			1 13	
23	541+00 RT	15	D	24	3.4	788.00	787.75			B	16	16		2 13	
24	546+00	36	A	216	11.0	799.25	794.86			A	16			2 13	
25	546+32 LH	B	DRAIN TILE	28					7.5				CONNECT TO EXIST. TILE & TO STR. NO. 26		
26	546+32 LH	B	L INLET TYPE F-7	300	3.0				21.0				CONNECT TO STRUCTURE NOS. 25 & 27 & EXISTING TILE		
27	547+00 LH	B	DRAIN TILE	94					25.2				CONNECT TO EXIST. TILE & TO STR. NO. 26		
28	553+00	12	A STD. INLET TYPE P-12A	84	4.2	804.94	804.64			A	16			1 13	
29	558+00	12	A STD. INLET TYPE P-12A	92	5.2	803.14	800.64			A	16			1 13	
30	562+90 RT	18	P STD. INLET TYPE F-7	74					49.0				CONNECT TO STRUCTURE NO. 32		
31	563+00	12	F.B.C.C.S. STD INLET TYPE P-12A	132	5.0	801.34	786.41			A	16		2-11"15" BENDS REQ'D	1 13	
31A	563+66	36	F.B.C.C.S.	242	12.0	788.13	788.13			A	16		EQUALIZER PIPE - 4x3 BOX CULVERT ON RT. TO BE RETAINED	2 13	
32	563+85 LT	18	P STD. INLET TYPE F-7 & F.B.C.C.S.	340	22.0				23.8				CONNECT TO STRUCTURE NO. 30 & 32-A		
33A	564+00 LT	18	P	440					30.8				CONNECT TO STRUCTURE NO. 32	1 13	
33	571+50	15	A STD. INLET TYPE N-12	64	3.6	799.06	796.85			A	16			1 13	
34	570+62 LT	15	D	24		801.09	800.69			B	16	16		2 14	
35	574+25	12	A STD. INLET TYPE P-12A	92	3.0	799.60	797.88			A	16			1 14	
35A	573+00 LT	24	A	52	3.8	797.18	796.92			A	16			2 14	
35B	573+00 RT	24	A	58	4.3	797.26	796.91			A	16			2 14	
36	580+00	12	A STD. INLET TYPE P-12A	82	3.6	804.40	804.00			A	16			1 14	
37	585+50	12	A STD. INLET TYPE P-12A	84	3.7	811.09	810.60			A	16			1 14	
38	590+15	MIN. A = 7.6 S.F. 61	PIPE ARCH	190	3.2	816.25	815.25	2.15		A	16		CONNECT TO STRUCTURE NO. 39		
39	590+23	12	A STD. INLET TYPE P-12A	10		817.43				A	16		CONNECT TO STRUCTURE NO. 38 SHOP CONNECTION REQ'D.		
LINE S-1-V															
40	48+70	15	A	94	17°	3.5	815.15	813.70			A	16		2 14	
41-42	51+28	15	A	62	17°	5.5	810.60	819.30			A	16		2 14	
ACCESS RD. NO. 1A															
43	55+00	15	C	48	17°		802.00	802.00			B	16	12	DO NOT INLET TILE	2 14
LINE "V"															
44	595+50	12	A STD. INLET TYPE P-12A	88	3.3	813.89	812.30			A	16			1 14	
45	605+50	12	F.B.C.C.S. STD. INLET TYPE P-12A	132	5.5	816.34	811.70			A	16		2-11"15" BENDS REQ'D.	1 15	
46	606+75	36	A	266	30°	16.2	817.61	811.25			A	16		2 15	
47	610+00	12	A STD. INLET TYPE P-12A	100	3.7	825.44	821.90			A	16		CONNECT TO SUBSURFACE DRAIN	1 15	

STRUCTURE NUMBER	LOCATION	SIZE INCHES	DESCRIPTION SEE STD SHEET "MP" FOR ACCEPTABLE TYPES OF PIPES WITHIN EACH GROUP	LENGTH FEET	SKEW	FLOW LINE		CONCRETE CLASS 'A'	BORROW	METHOD OF BACKFILL	GAGES OR THICKNESS		REMARKS	CULV. PIPE EACH END SECT. PLANS ON SHEET NO.
						UP STREAM ELEV.	DOWN STREAM ELEV.				STEEL	ALUMINUM		
LINE "V" CONT'D.														
48	615+00	MIN. A = 7.6 S.F. 62	PIPE ARCH	202	7.1	822.25	820.75	2.15		A	16			1 15
49	614+50	12	A STD. INLET TYPE P-12A	96	6.1	824.54	821.95			A	16			1 15
50	619+00	12	A STD. INLET TYPE P-12A	92	5.3	823.64	821.15			A	16			1 15
51	622+00 LT	B	Drain tile	10								2.7	CONNECT TO EXIST. FIELD TILE	
52	625+00	12	A STD. INLET TYPE P-12A	96	6.2	820.38	818.81			A	16			1 15
LINE S-2-V (REV)														
53	45+77 LT	12	D	24	2.0	819.49	819.27			B	16	16		2 28
54	47+25 LT	12	D	32		826.79	825.35			B	16	16		2 28
55	49+00	18	A	46	3.0	819.75	819.45			A	16			2 15
56	51+00	18	A	58	4.0	818.85	818.45			A	16			2 15
LINE "V"														
57	636+00	12	F.B.C.C.S. STD. INLET TYPE P-12A	112	4.5	804.40	798.24			A	16		2-11"15" BENDS REQ'D.	1 16
58	636+00 RT	B	F.B.C. Perf. C.S.	280					75.0			16	CONNECT TO EXIST. FIELD TILE	
59	637+00 RT	B	F.B.C.C.S.	280					75.0			16	CONNECT TO EXIST. FIELD TILE	
60	638+80	150 OR 108	S.P.S. OR CONG. CULVERT PIPE	240	12°	5.0	788.20	787.80	8.34			12" x 8" 10' 50"	265 SYS. RIP-RAP REQ'D	
61	641+11	12	A STD. INLET TYPE N-12	100	7.2	800.00	794.13			A	16			1 16
62	640+00 LT	B	F.B.C. PERF. C.S.	630					168.7			16	CONNECT TO EXIST. FIELD TILE	
63	648+00	12	A STD. INLET TYPE P-12A	94	5.4	806.88	803.79			A	16			1 16
ACCESS RD. NO. 2														
64	658+30 LT	12	D	28	2.0	820.80	810.32			B	16	16		2 16
ACCESS RD. NO. 3														
65	662+00 RT	15	D	28	2.0	817.15	817.00			B	16	16		2 17
LINE "V"														
66	663+00	12	A STD. INLET TYPE P-12A	84	4.0	815.04	814.81			A	16			1 17
LINE "V"														
67	672+00	12	A STD. INLET TYPE P-12A	88	5.0	807.84	807.45			A	16			1 17
68	672+00 LH	G	DRAIN TILE	564					144.6				CONNECT TO EXIST. FIELD TILE & TO STR. NO. 70	
69	674+65	36	F.B.C.C.S.	192	12°	7.2	805.25	801.45			A	16		2 17
70	674+66	10	F.B.C.C.S.	320	2.5				88.5			18	CONNECT TO STRUCTURE NOS. 68 & 71	
71	677+00 RT	G	F.B.C. Perf. C.S.	440					112.8			18	CONNECT TO STRUCTURE NO. 70	
72	677+16	12	A STD. INLET TYPE N-12	88	4.7	805.93	804.27			A	16			1 17
73	683+00	12	A STD. INLET TYPE P-12A	104	6.2	807.72	803.30			A	16			1 17
74	684+50	10	L	290	3.0				80.3				CONNECT TO EXIST. FIELD TILE	
75	685+65	G	L	292	2.0				74.9				CONNECT TO EXIST. FIELD TILE	
76	689+50	10	L	464	3.0				128.4				CONNECT TO EXIST. FIELD TILE	
77	689+50	36	A	208	30°	4.2	809.00	806.25			A	16	CONNECT TO STRUCTURE NO. 78	
78	689+60	12	A STD. INLET TYPE P-12A	78		810.62	808.00			A	16		1-12" x 36" TEE REQ'D. CONNECT TO STR. NO. 77	
79	694+50	12	A STD. INLET TYPE P-12A	82	3.5	817.78	812.41			A	16			1 18

LEGEND FOR ABBREVIATIONS

F.B.C.C.S. FULLY BITUMINOUS COATED CORRUGATED STEEL.
 F.B.C.C.A.A. FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY.
 C.S. CORRUGATED STEEL.
 C.A.A. CORRUGATED ALUMINUM ALLOY.
 S.P.S. STRUCTURAL PLATE STEEL.
 F.B.C.C.S.A. FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH.
 F.B.C.C.A.A.A. FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY ARCH.
 C.S.A. CORRUGATED STEEL ARCH.
 C.A.A.A. CORRUGATED ALUMINUM ALLOY ARCH.
 S.P.S.A. STRUCTURAL PLATE STEEL ARCH.

Revised J 1/2/68

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-85(17)		54	197	

* IF CONTRACTOR ELECTS TO USE METAL PIPES, GAGES AS SHOWN BELOW ARE TO BE USED. **STRUCTURE DATA**

Length includes 5' for each Tee and 2' for each Bend as noted in the REMARKS column. REV 5-25-72 ST. N^o 136A Added. Rvw. 9-8-72 STR. N^o 82

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85 (27)		55	197

STRUCTURE NUMBER	LOCATION	SIZE INCHES	GROUP	DESCRIPTION	LENGTH FEET	SKEW	COVER	FLOW LINE		CONCRETE CLASS	BORROW	METHOD OF BACKFILL	GAGES OR THICKNESS		REMARKS	CULV PIPE EACH	PLAN SHEET NO.
								UP STREAM ELEV.	DOWN STREAM ELEV.				STEEL	ALUMINUM			
LINE "Z"																	
80	699+00	12	A	STD. INLET TYPE P-12A	92			5.2	814.72	812.26		A	16			1	18
81	706+00	12		F.B.C.C.S.	120			5.0	815.12	806.24		A	16		2-11" 15' BENDS REQ'D.		1
82	708+25	12	A	STD. INLET TYPE P-12A	750						375.00		16		CONNECT TO EXIST. INLET ON RT.		
83	709+45	36		F.B.C.C.S.	278	20°	15.0	802.54	798.55			A	16				2
84	710+00	12		F.B.C.C.S.	116			4.7	814.91	806.54		A	16		2-11" 15' BENDS REQ'D.		1
85	713+25	12	A	STD. INLET TYPE P-12A	140			5.6	814.07	797.75		A	16		2-11" 15' BENDS REQ'D.		1
LINE S-1-Z																	
86	47+25 RT.	48	D		38		2.0	797.26	797.14	2.83			16	12			
LINE "Z"																	
87	718+30	8		F.B.C.C.S.	580						153.3		16		CONNECT TO EXISTING TILE		
88	718+50	36		F.B.C.C.S.	240	30°	6.7	805.45	804.35			A	16		CONNECT TO STRUCTURE NO. 89		2
89	718+60	12	A	STD. INLET TYPE P-12A	13				812.12	806.90		A	16		1-12" to 36" TEE REQ'D. CONNECT TO STR. NO. 88		
90	722+50	12	A	STD. INLET TYPE P-12A	92			5.2	811.16	808.55		A	16				1
91	726+50	12	A	STD. INLET TYPE P-12A	84			4.2	810.20	809.75		A	16				1
92	731+00	12	A	STD. INLET TYPE P-12A	84			4.1	809.12	808.75		A	16				1
93	735+00	12	A	STD. INLET TYPE P-12A	78			3.2	808.02	807.79		A	16				1
94	737+85	12	A	STD. INLET TYPE P-12A	78			4.0	807.76	806.50		A	16				1
95	738+85	8		F.B.C.C.S.	600						160.6		16		CONNECT TO EXIST. FIELD TILE LT. & RT.		
96	739+20	50" x 31"		F.B.C.C.S. PIPE ARCH	108		5.1	806.57	805.77	2.13		A	16				
LINE S-2-Z																	
97	48+90	MIN. A. 7.4 SF		PIPE ARCH	52	7°	3.0	805.45	805.23	2.15		A	16				
98	51+00	18	A		54	7°	6.2	807.75	806.65			A	16				2
LINE "Z"																	
99	741+00	12	A	STD. INLET TYPE P-12A	100			3.9	809.82	809.21		A	16		35 SYS OF RIP-RAP REQ'D		1
100	747+00	36	A		184	20°	4.0	811.70	809.75			A	16				2
101	747+44 RT.	18		C.S.	10						70		16		CONNECT TO EXIST. FIELD TILE		
102	748+50	12	A	STD. INLET TYPE P-12A	80			4.0	813.76	813.53		A	16				1
103	756+00	12	A	STD. INLET TYPE P-12A	90			5.0	820.76	817.70		A	16				1
104	762+00	12	A	STD. INLET TYPE P-12A	84			4.1	824.88	824.11		A	16				1
105	770+00	12	A	STD. INLET TYPE P-12A	86			5.3	824.86	824.19		A	16				1
106	775+00	12	A	STD. INLET TYPE P-12A	88			4.8	822.77	821.25		A	16				1
107	776+75	12	L		270						81.8				CONNECT TO STRUCTURE NO. 108 & EXISTING PIPE		
108	777+250			STD. 24" PIPE C.B.											CONNECT TO STRUCTURE NOS. 107 & 110		
109	777+00 LT.	6		DRAIN TILE	84						21.6				CONNECT TO EXIST. FIELD TILE & TO STR. NO. 110		
110	777+35 LT.	12	P		50						15.2				CONNECT TO STRUCTURE NOS. 108 & 109 & EXISTING PIPE		
111	780+00	12	A	STD. INLET TYPE P-12A	86			4.5	820.67	819.75		A	16				1
112	785+00	12	A	STD. INLET TYPE P-12A	84			4.2	818.60	818.25		A	16				1
113	787+24	15		F.B.C.C.S.	300						150.0		16				
		15		F.B.C. Perf. C.S.	360						180.0		16		CONNECT TO EXIST. FIELD TILE LT. & RT.		
114	788+42	12	A	STD. INLET TYPE N-12	90			5.0	817.96	815.17		A	16				1
115	793+50	12	A	STD. INLET TYPE P-12A & F.B.C.C.S.	106			6.2	819.91	813.17		A	16				1

STRUCTURE NUMBER	LOCATION	SIZE INCHES	GROUP	DESCRIPTION	LENGTH FEET	SKEW	COVER	FLOW LINE		CONCRETE CLASS	BORROW	METHOD OF BACKFILL	GAGES OR THICKNESS		REMARKS	CULV PIPE EACH	PLAN SHEET NO.
								UP STREAM ELEV.	DOWN STREAM ELEV.				STEEL	ALUMINUM			
LINE "Z"																	
116	794+73	18		F.B.C.C.S.	340						91.0		16				
		18		F.B.C. PERF. C.S.	250						66.9		16		CONNECT TO EXIST. FIELD TILE LT. & RT.		
117	797+80	60		F.B.C.C.S.	324	40°	12.2	809.62	809.50	3.55		A	12				
118	799+00	12	A	STD. INLET TYPE P-12A	100			6.5	822.99	819.60			A	16			1
119	799+60 RT.	60		F.B.C.C.S.	30						3.55		A	12			
ACCESS RD. NO. 4																	
120	804+95	15	D		36		1.0	830.89	830.80				B	16	12		2
LINE S-3-Z P.R.																	
121	48+66	18	A		68	10°	9.4	820.95	820.75				A	16			2
LINE "Z"																	
122	805+50	12	A	STD. INLET TYPE P-12A	80			4.0	826.63	826.43			A	16			1
123	811+00	12	A	STD. INLET TYPE P-12A	80			4.2	829.71	829.23			A	16			1
LINE "V"																	
124	820+00	12	A	STD. INLET TYPE P-12A	88			4.7	833.44	832.21			A	16			1
LINE S-6-V																	
125	54+00	15	A		36		2.0	826.85	826.31				A	16			2
LINE "V"																	
126	827+75	12		F.B.C.C.S.	120			4.8	835.71	836.50			A	16		2-11" 15' BENDS REQ'D.	1
127	828+00	36	A	STD. INLET TYPE P-12A	226			10.7	830.00	826.00			A	16			2
128	836+50	12		F.B.C.C.S.	132			5.0	831.05	818.10			A	16		2-11" 15' BENDS REQ'D.	1
129	847+00	12	A	STD. INLET TYPE P-12A	106			6.5	821.36	815.55			A	16			1
130	852+90	12	A	STD. INLET TYPE P-12A	68			6.2	816.08	813.29			A	16			1
LINE S-7-V																	
131	48+85	24	A		48			4.7	812.15	811.35			A	16			2
132	51+05	18	A		52			3.5	813.75	813.35			A	16			2
LINE "V"																	
133	859+75	60		F.B.C.C.S.	244	7°	16.0	800.08	799.79	3.55			A	12			
134	860+92	12		STD. INLET TYPE N-12	100			5.9	809.02	803.33			A	16			1
135	866+00	12	A	STD. INLET TYPE P-12A	92			5.2	810.48	807.90			A	16			1
136	870+00	12	A	STD. INLET TYPE P-12A	84			4.4	812.08	811.50			A	16			1
136A	870+80	6		C.S.	370						94.9				Water-Line Casing Only, Water Line to be Relocated by Abutting User Owners.		2
137	875+00	12	A	STD. INLET TYPE P-12A	84			4.0	814.08	813.75			A	16			1
138	880+50	12	A	STD. INLET TYPE P-12A	86			4.5	816.21	815.38			A	16			1
139	886+00	12	A	STD. INLET TYPE P-12A	86			4.4	817.76	816.75			A	16			1
140	890+00	12	A	STD. INLET TYPE P-12A	102			6.1	818.64	813.65			A	16			1
141	890+50	36		F.B.C.C.S.	198			7.9	813.79	813.25			A	16			2
141A	890+70 LT.	36	D		32	20°	2.0	813.00	812.75				B	16	12		2
142	894+00	12	A	STD. INLET TYPE P-12A	96			5.3	819.52	815.98			A	16			1
143	897+48	36	A		206			10.0	814.22	812.85			A	16			2
ACCESS RD. NO. 5																	
144	897+48 LT.	36	D		30			1.5	812.65	812.45			B	12	8		2
LINE AR-1-V																	
145	897+48 RT.	36	D		58			2.0	814.28	813.89			B	16	12		2
LINE "V"																	
146	898+00	12	A	STD. INLET TYPE P-12A	110			6.7	820.00	813.61			A	16			1
147	902+50	12	A	STD. INLET TYPE P-12A	88			4.4	821.39	820.18			A	16			1

LEGEND FOR ABBREVIATIONS

F.B.C.C.S.----- FULLY BITUMINOUS COATED CORRUGATED STEEL.
 F.B.C.C.A.A.----- FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY.
 C.S.----- CORRUGATED STEEL.
 C.A.A.----- CORRUGATED ALUMINUM ALLOY.
 S.P.S.----- STRUCTURAL PLATE STEEL.

F.B.C.C.S.A.----- FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH.
 F.B.C.C.A.A.A.----- FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY ARCH.
 C.S.A.----- CORRUGATED STEEL ARCH.
 C.A.A.A.----- CORRUGATED ALUMINUM ALLOY ARCH.
 S.P.S.A.----- STRUCTURAL PLATE STEEL ARCH.

Shaw

ESTIMATE OF QUANTITIES

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		57	197

GRADING			
CODE NO.	DESCRIPTION	UNIT	QUANTITY
01001	MOBILIZATION	L.S.	1
01002	CLEARING RIGHT-OF-WAY	L.S.	1
01005	CLEARING	L.S.	
01010	GRUBBING	L.S.	
01015	CLEARING & GRUBBING	L.S.	
02245	TREE REMOVAL 6 INCH	EA.	
02250	TREE REMOVAL 10 INCH	EA.	
02255	TREE REMOVAL 18 INCH	EA.	
02260	TREE REMOVAL 30 INCH	EA.	
02265	TREE REMOVAL 48 INCH	EA.	
02270	TREE REMOVAL 60 INCH	EA.	
02285	REMOVAL OF PRESENT STRUCTURE	L.S.	
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (3)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (8)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (9)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (24)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (41)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL ()	L.S.	
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL ()	L.S.	
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL ()	L.S.	
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL ()	L.S.	
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL ()	L.S.	
02235	BREAKING PAVEMENT	SYS.	3483
02240	REMOVAL OF PAVEMENT	SYS.	11,987
02080	LINEAR GRADING	MILE	
02090	COMMON EXCAVATION	CYS.	563,482
02010	ROCK EXCAVATION	CYS.	
02020	UNCLASSIFIED EXCAVATION	CYS.	
02100	FLAT EXCAVATION	CYS.	202,457
02215	CASED TEST HOLE	LFT.	3079
02220	HOLE FOR TESTING OR FOR DYNAMITING 2 INCH	LFT.	
02225	HOLE FOR TESTING OR FOR DYNAMITING 4 INCH	LFT.	
02290	SETTLEMENT PLATES	EA.	
02295	PIEZOMETERS	EA.	
02300	SAND DRAINS	LFT.	
02070	BORROW	CYS.	435,744
04386	COVER AGGREGATE	TON	1714
02050	B. BORROW	CYS.	275,062

PAVEMENT			
CODE NO.	DESCRIPTION	UNIT	QUANTITY
04000	REPAIRING	MILE	
04010	PORTLAND CEMENT CONCRETE FOR PATCHING	SYS.	
04015	COMPACTED AGGREGATE FOR PATCHING	TON	
04020	BITUMINOUS MIXTURE FOR PATCHING	TON	
04025	WIDENING WITH BITUMINOUS MIXTURE	TON	
04030	WIDENING WITH CEMENT CONCRETE	SYS.	
04035	WIDENING WITH COMPACTED AGGREGATE	TON	
04040	PORTLAND CEMENT CONCRETE BASE	SYS.	
04045	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON	8115
04055	TYPE O COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON	
04065	TYPE P COMPACTED AGGREGATE FOR SURFACE (SIZE NO. 73)	TON	665
04075	TYPE O COMPACTED AGGREGATE FOR SURFACE (SIZE NO. 73)	TON	
04085	TYPE P COMPACTED AGGREGATE FOR SHOULDER (SIZE NO. 73)	TON	
04095	TYPE O COMPACTED AGGREGATE FOR SHOULDER (SIZE NO. 73)	TON	
04105	PURE CALCIUM CHLORIDE	TON	2
04115	PURE CALCIUM CHLORIDE (FOR SHOULDERS)	TON	
04125	HOT ASPHALT EMULSION (AE) BASE	TON	
04135	HOT ASPHALT EMULSION (AE) BINDER	TON	
04145	HOT ASPHALT EMULSION (AE) SURFACE	TON	
04155	HOT ASPHALT CONCRETE BASE	TON	
04165	HOT ASPHALT CONCRETE BINDER	TON	
04175	HOT ASPHALT CONCRETE SURFACE	TON	
04255	BITUMINOUS BASE	TON	100,100
04256	BITUMINOUS BASE NO. 5	TON	
04265	BITUMINOUS BINDER	TON	52,194
04275	BITUMINOUS SURFACE	TON	14,495
04285	BITUMINOUS MIXTURE FOR SHOULDERS	TON	
04295	BITUMINOUS MIXTURE FOR APPROACHES	TON	1108
04300	BITUMINOUS MIXTURE FOR CROSSOVERS	TON	1892
04335	FILLING CRACKS & JOINTS IN CONCRETE PAVEMENT OR BASE	TON	
04345	SEALING CRACKS & JOINTS IN BITUMINOUS PAVEMENT	TON	
04355	BITUMINOUS MATERIAL FOR SEAL COAT	TON	231
04365	BITUMINOUS MATERIAL FOR PRIME COAT	TON	402
04375	BITUMINOUS MATERIAL FOR TACK COAT	TON	134
04385	COVER AGGREGATE	TON	124
04386	COVER AGGREGATE NO. 12	TON	1714
04395	AGGREGATE FOR SHOULDER DRAINS	TON	

CODE NO.	DESCRIPTION	UNIT	QUANTITY
04405	SUBBASE	CYS.	9,227
04406	BITUMINOUS STABILIZED SUBBASE	TON	
05000	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT 6 IN	SYS.	
05010	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT 7 IN	SYS.	
05020	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT 8 IN	SYS.	
05030	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT 9 IN	SYS.	
05040	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT 10 IN	SYS.	
05050	CONCRETE PAVEMENT REINFORCED 6 IN	SYS.	
05060	CONCRETE PAVEMENT REINFORCED 7 IN	SYS.	
05070	CONCRETE PAVEMENT REINFORCED 8 IN	SYS.	
05080	CONCRETE PAVEMENT REINFORCED 9 IN	SYS.	
05090	CONCRETE PAVEMENT REINFORCED 10 IN	SYS.	
05100	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 7 IN	SYS.	
05110	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 8 IN	SYS.	
05120	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 9 IN	SYS.	
05130	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 10 IN	SYS.	
05140	CONCRETE PAVEMENT, PLAIN 6 IN	SYS.	
05150	CONCRETE PAVEMENT, PLAIN 7 IN	SYS.	
05160	CONCRETE PAVEMENT, PLAIN 8 IN	SYS.	
05170	CONCRETE PAVEMENT, PLAIN 9 IN	SYS.	
05180	CONCRETE PAVEMENT, PLAIN 10 IN	SYS.	
05210	CONCRETE PAVEMENT, PLAIN HIGH EARLY STRENGTH 8 IN	SYS.	
05220	CONCRETE PAVEMENT, PLAIN HIGH EARLY STRENGTH 9 IN	SYS.	
05230	CONCRETE PAVEMENT, PLAIN HIGH EARLY STRENGTH 10 IN	SYS.	
05240	CONTRACTION JOINT, TYPE D-1	LFT.	
05250	1/2 INCH PERFORMED JOINT MATERIAL	LFT.	
05260	1 INCH PERFORMED JOINT MATERIAL	LFT.	
05270	1 1/2 INCH PERFORMED JOINT MATERIAL	LFT.	
05280	EXPANSION JOINT, PREFORMED WITH LOAD TRANSFER 1 IN	LFT.	
05290	REINFORCING STEEL FOR PAVEMENT	LBS.	
05300	ANCHOR BOLTS	EACH	
05310	TERMINAL JOINTS	LFT.	
05320	CEMENT CONCRETE PAVEMENT FOR PRIVATE DRIVES	SYS.	
05330	CEMENT CONCRETE PAVEMENT FOR COMMERCIAL DRIVES	SYS.	
05340	CEMENT CONCRETE PAVEMENT FOR CROSSOVER	SYS.	
05390	SALVAGED ROAD MATERIAL	CYS.	

CODE NO.	DESCRIPTION	UNIT	QUANTITY
06000	GUARD RAIL, TYPE A	LFT.	60
06005	GUARD RAIL, TYPE B	LFT.	
06010	GUARD RAIL, TYPE C	LFT.	
06015	GUARD RAIL, TYPE D	LFT.	
06020	GUARD RAIL, TYPE E	LFT.	
06025	GUARD RAIL, TYPE F	LFT.	
06030	GUARD RAIL, TYPE G	LFT.	
06035	RESET GUARD RAIL	LFT.	
06040	47 IN FENCE, FARM FIELD	LFT.	74,028
06045	48 IN FENCE, CHAIN LINK	LFT.	551
06050	GATE, FARM FIELD	EACH	
06055	GATE, CHAIN LINK	EACH	
06060	RESETTING FENCE, FARM FIELD	LFT.	
06065	RESETTING FENCE, CHAIN LINK	LFT.	
06070	CONCRETE SIDEWALK	SYS.	
06075	BITUMINOUS SIDEWALK	TON	
06080	RECONSTRUCTED SIDEWALK	SYS.	
06085	RE-LAID SIDEWALK	SYS.	
06090	CURB, INTEGRAL	LFT.	
06095	CURB, INTEGRAL CONCRETE, TYPE B	LFT.	
06100	CURB, INTEGRAL CONCRETE, TYPE C	LFT.	
06120	CURB, CONCRETE	LFT.	
06121	CURB, CONCRETE, TYPE B	LFT.	
06130	CURB, BITUMINOUS	LFT.	
06140	CURB & GUTTER, COMBINED	LFT.	
06145	CURB & GUTTER, COMBINED, TYPE B	LFT.	
06150	CURB & GUTTER, COMBINED, TYPE C	LFT.	
06170	GUTTER, STANDARD LIP	LFT.	
06175	CONCRETE GUTTER	LFT.	
06176	CONCRETE GUTTER	CYS.	
06185	CONCRETE GUTTER, REINFORCED	LFT.	
06195	RESET CURB	LFT.	
06200	CENTER CURB, CONCRETE, TYPE A	LFT.	
06205	CENTER CURB, CONCRETE, TYPE B	LFT.	
06210	CENTER CURB, CONCRETE, TYPE C	LFT.	
06215	CENTER CURB, CONCRETE, TYPE D	LFT.	
06240	CENTER CURB, CONCRETE, TYPE A	SYS.	
06245	CENTER CURB, CONCRETE, TYPE B	SYS.	
06250	CENTER CURB, CONCRETE, TYPE C	SYS.	
06255	CENTER CURB, CONCRETE, TYPE D	SYS.	
06280	CENTER CURB, BITUMINOUS, TYPE A	LFT.	
06285	CENTER CURB, BITUMINOUS, TYPE B	LFT.	
06290	SPECIAL CENTER CURB, BITUMINOUS TYPE A	LFT.	
06295	SPECIAL CENTER CURB, BITUMINOUS TYPE B	LFT.	
06300	CENTER CURB, BITUMINOUS, TYPE A	SYS.	
06305	CENTER CURB, BITUMINOUS, TYPE B	SYS.	
06310	SPECIAL CENTER CURB, BITUMINOUS TYPE A	SYS.	
06315	SPECIAL CENTER CURB, BITUMINOUS TYPE B	SYS.	
06320	CURB REMOVAL	LFT.	
06335	PAVED SIDE DITCH, TYPE A	LFT.	6329
06340	PAVED SIDE DITCH, TYPE B	LFT.	1370
06345	PAVED SIDE DITCH, TYPE C	LFT.	2959
06350	PAVED SIDE DITCH, TYPE D	LFT.	583
06355	PAVED SIDE DITCH, TYPE E	LFT.	
06360	PAVED SIDE DITCH, TYPE F	LFT.	
06365	PAVED SIDE DITCH, TYPE G	LFT.	
06370	PAVED SIDE DITCH, TYPE H	LFT.	115
06375	PAVED SIDE DITCH, TYPE J	LFT.	
06380	PAVED SIDE DITCH, TYPE K	LFT.	
06385	PAVED SIDE DITCH, TYPE L	LFT.	
06390	PAVED SIDE DITCH, TYPE M	LFT.	

CODE NO.	DESCRIPTION	UNIT	QUANTITY
06395	RIPRAP	SYS.	300
06400	DUMPED RIPRAP	TON	
06405	REVEMENT RIPRAP	TON	
06410	HAND-LAID RIPRAP 6 IN	SYS.	
06415	HAND-LAID RIPRAP 12 IN	SYS.	
06420	GROUTED RIPRAP 6 IN	SYS.	
06425	GROUTED RIPRAP 12 IN	SYS.	
06430	PLACING HAND-LAID RIPRAP 6 IN	SYS.	
06435	PLACING HAND-LAID RIPRAP 12 IN	SYS.	
06440	PLACING GROUTED RIPRAP 6 IN	SYS.	
06445	PLACING GROUTED RIPRAP 12 IN	SYS.	
06455	SLOPPY	SYS.	
06460	CONCRETE SLOPPY	TON	
06465	CONCRETE SLOPPY	SYS.	
06470	CONCRETE HEADER, TYPE A	LFT.	
06475	CONCRETE HEADER, TYPE B	LFT.	
06480	CONCRETE HEADER, TYPE C	LFT.	
06485	CEMENT CONCRETE HEADER	LFT.	
06490	RECONSTRUCTED CONCRETE HEADER	LFT.	
06495	RIGHT-OF-WAY MARKER	EACH	66
06500	MONUMENT, TYPE A	EACH	6
06510	MONUMENT, TYPE B	EACH	29
06515	MONUMENT, TYPE C	EACH	
06520	RE-ESTABLISHED MONUMENT	EACH	
06525	CONSTANT ADJUSTED TO GRADE, MONUMENT	EACH	
06530	BENCH-MARK POST	EACH	6
06535	RESET BENCH-MARK POST	EACH	
06540	AGRICULTURAL LIMESTONE (1)	TON	150
06545	FERTILIZER (2)	TON	121
06549	MULCHING MATERIAL (URBAN)	TON	
06550	MULCHING MATERIAL (3)	TON	600
06551	MULCHING MATERIAL (WOOD CELLULOSE FIBER)	TON	
06552	PLAIN SEEDING	LBS.	
06554	SEED MIXTURES (URBAN)	LBS.	
06555	SEED MIXTURES (187.11 AC)	LBS.	20,582
06556	TEMPORARY SEED MIXTURES (URBAN)	LBS.	
06557	TEMPORARY SEED MIXTURES (113AC)	LBS.	12,430
06560	CROWN VETCH SEEDING (3.14 AC)	LBS.	32
06565	MULCHED SEEDING	SYS.	
06567	MATK	MC.	2026
06570	TOP SOIL	CYS.	
06574	SODDING (URBAN)	SYS.	
06575	SODDING	SYS.	82,637
06580	STEEL PIPE (CONDUIT) 2 IN	LFT.	
06585	STEEL PIPE (CONDUIT) 3 IN	LFT.	
06595	NON-METALLIC PIPE (CONDUIT) 2 IN	LFT.	
06600	NON-METALLIC PIPE (CONDUIT) 3 IN	LFT.	
06610	HANDHOLE FOR STREET OR ALLEY	EACH	
06615	HANDHOLE FOR SIDEWALK	EACH	
06618	RUNNER STRIP	LFT.	

CODE NO.	DESCRIPTION	UNIT	QUANTITY
06620	STANDARD BARRICADE, TYPE III	EACH	20
06625	STANDARD BARRICADE, TYPE B	EACH	
06630	PERMANENT BARRICADE, TYPE A	EACH	
06635	PERMANENT BARRICADE, TYPE B	EACH	
06640	CONSTRUCTION SIGN, TYPE A	EACH	30
06645	CONSTRUCTION SIGN, TYPE B	EACH	30
06650	STOP SIGN, TYPE R-1A	EACH	
06652	DO NOT PASS SIGN, TYPE R-11-A	EACH	
06655	YIELD SIGN, TYPE R-301	EACH	
06657	PASS WITH CARE SIGN, TYPE R-12A	EACH	
06660	CURVE SIGN, TYPE W-2AR	EACH	4
06665	CURVE SIGN, TYPE W-2AL	EACH	1
06670	REVERSE CURVE SIGN, TYPE W-4AR	EACH	
06675	REVERSE CURVE SIGN, TYPE W-4AL	EACH	
06680	LARGE ARROW SIGN, TYPE W-11A	EACH	19
06685	STOP AHEAD SIGN, TYPE W-13A	EACH	
06690	FRONTAGE ROAD SIGN, TYPE W-26	EACH	
06695	NO OUTLET DEAD END SIGN, TYPE W-29	EACH	1
06700	RAILROAD ADVANCE WARNING SIGN, TYPE W-32A	EACH	
06705	RAILROAD CROSSBUCK SIGN, TYPE W-33	EACH	

ESTIMATE OF QUANTITIES (CON'T.)

STRUCTURE SUMMARY

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F-85(27)		58	197

KIND	SIZE	CIRCULAR PIPE: LINEAL FEET																50' S 108' R
		4"	6"	6"	8"	8"	10"	10"	12"	12"	15"	15"	18"	18"	24"	36"	36"	
GAGE	STEEL			18	16	16	16	16	16	16	16	16	16	12	16	16	12	
GAGE STRUCT. PLATES	STEEL																	
	TOP & SIDES																	
	BOTTOM																	
	TOP & SIDES																	
	BOTTOM																	
GROUP - "A"										4787	236	278	188	1450				
GROUP - "D"										104	256			30	90	38		
GROUP - "L"				3292	2000	1354	1056	600	600									
GROUP - "P"										274		514						
REINFORCED CONCRETE																		
EXTRA STRENGTH REINF. CONC.																		
HEAVY DUTY REINF. CONC.																		
VITRIFIED CLAY CULVERT				710									10					
CORR. STEEL																		
FULLY BITUM. COATED CORR. STEEL						1800	320	1483	500	540	750	1150	598					
STRUCT. PLATE STEEL OR REINF. CONCRETE CULVERT																		240
FULLY BITUM. COATED CORR. STEEL WITH PAVED INVERT																		
DRAINTILE, CLASS STANDARD				2148	932	400												
FULLY BITUMINOUS COATED PERFORATED CORR. STEEL					440	1160				360								

* STRUTTED

STRUCTURE SUMMARY (CON'T.)

KIND	MIN AREA SQ. FT. #	PIPE ARCHES: LINEAL FEET															
		STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	
GAGE STRUCT. PLATES	STEEL	7.4															
	TOP & SIDES																
	BOTTOM																
	TOP & SIDES																
	BOTTOM																
GROUP G-1			242														
GROUP G-2			202														
GROUP H-																	
GROUP H-																	
CORR. STEEL																	
STRUCT. PLATE STEEL																	
BIT. COAT. CORR. STEEL PIPE ARCH					188												
BIT. COAT. CORR. STEEL PIPE ARCH																	
REINF. ELLIPTICAL CONCRETE																	
BIT. COAT. CORR. STEEL PIPE ARCH WITH PAVED INVERT																	

(*) "SPAN" AND "RISE" WHEN OTHER THAN GROUP "G" OR "H" IS SPECIFIED.

PIPE: GROUP "K" FOR UNDERDRAINS	6"	149,370	LIN. FT.
PIPE: FULLY BIT. COATED NON PERFORATED CORR. STEEL FOR UNDERDRAINS	6"	6942	LIN. FT.
AGGREGATE FOR UNDERDRAINS		17,925	CYS

ITEM	UNIT	QUANTITY
CONCRETE CLASS "A" IN STRUCTURES	CYS	31
REINFORCING STEEL FOR STRUCTURES	LB	
CONCRETE CLASS "F" FOR STRUCTURES	CYS	
CONCRETE CLASS "F" FOR INTEGRAL CURB WALK	CYS	

INLETS				CATCH BASINS	
TYPE	EACH	TYPE	EACH	TYPE	EACH
F-7	3				
N-12	5				
P-12 A	61				

MANHOLES		PIPE CATCH BASINS		RECONSTRUCTED	
TYPE	EACH	SIZE	EACH	MANHOLE	UN. FT.
		24"	1	CATCH BASIN	
				INLET	

AUTO DRAINAGE GATES		
SIZE	HEAD	EACH

CASTINGS ADJUSTED TO GRADE			REINF. CONCRETE SPRING BOXES		
TYPE	"	EACH	TYPE	"	EACH

CASTINGS FURNISHED AND ADJUSTED TO GRADE		
TYPE	"	EACH

PIPE END SECTION			
SIZE	EACH	SIZE	EACH
12"	70		
15"	23		
18"	12		
24"	6		
36"	30		

END STR