

CONVENTIONAL SIGNS

STATE LINE	=====	TIMBER	
TOWNSHIP OR RANGE LINE	=====	BRUSH	
SECTION LINE	=====	ORCHARD	
QUARTER LINE	=====	ROCK LEDGE	
SIXTEENTH LINE	=====	BAND	
EIGHTH-OF-WAY LINE	=====	EDGE OF CUT	
PROPERTY LINE (Except Land Lines)	=====	EDGE OF EMBANKMENT	
UNEVENLY PLATTED PROPERTY	=====	CATCH BASIN	
CORPORATE OR CITY LIMITS	=====	MANHOLE	
TRUNK HIGHWAY CENTER LINE	=====	FIRE HYDRANT	
RETAINING WALL	=====	AIRC LAMP	
STEAM RAILROAD	=====	OTHER LAMPS (State Kind)	
ELECTRIC RAILROAD	=====	RAILROAD CROSSING SIGN	
RAILROAD RIGHT-OF-WAY LINE	=====	RAILROAD CROSSING BELL	
CREEK		ELECTRIC WARNING SIGN	
RAPIDS OR WATERFALL		CROSSING GATE	
DRY DITCH		CATTLE GUARD	
DRAINAGE DITCH		OVERHEAD (Highway Over)	
HIGH TENSION LINE		UNDERPASS (Highway Under)	
POWER POLE LINE		ABUTMENT, WALL & PIER	
TELEPHONE OR TELEGRAPH LINE		BRIDGE	
CULVERT		BUILDING (One Story Frame)	
DROP INLET		F-FRAME C-CONCRETE	
GUARD RAIL		G-STONE T-TILE	
WIRE FENCE		S-SKICK ST-STUCCO	
RAILROAD SNOW FENCE		IRON PIPE	
BOARD OR HIGHWAY SNOW FENCE		STONE MONUMENT	
STONE WALL OR FENCE		WOOD STAKE OR HUB	
HEDGE		MEANDER CORNER	
WATER PIPE			
SEWER PIPE			
DRAIN TILE			
GRAVEL PIT			
SAND PIT			
CLAY PIT			
ROCK QUARRY			
SPRINGS			
MARSH			
TRUNK HIGHWAY R/W			
RAILROAD R/W			
PRESENT ROAD R/W			

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
CONSTRUCTION PLAN FOR PAVING & GRADING
NATIONAL DEFENSE ACCESS ROAD

BETWEEN M. St. P. & S. T. M. UNDERPASS IN MINNEAPOLIS **AND** 2.5 MILES NO. OF THE NO. CITY LIMITS OF MINNEAPOLIS
ON MARSHALL ST. N.E.
From point 2025' S. and 385' E. of the N.W. Cor. of Sec. 3 Twp. 29 N. R. 24 W. **To** point 7233' N. and 250' E. of the S. 4 Cor. Sec. 22 Twp. 30 N. R. 24 W.
Give proper reference to Section, Township and Range.

MINNESOTA DA-1-1 NO.	SEC.	STATE PROJECT NO. 27-513-02
GROSS LENGTH 15493.3 Feet 2.954 Miles		GROSS LENGTH 20433 FEET 0.967 MILES
BRIDGES LENGTH 00 Feet 0.000 Miles		BRIDGES LENGTH 00 FEET 0.000 MILES
EXCEPTIONS LENGTH 00 Feet 0.000 Miles		EXCEPTIONS LENGTH 00 FEET 0.000 MILES
NET LENGTH 15493.3 Feet 2.954 Miles		NET LENGTH 20433 FEET 0.967 MILES

INDEX

Sheet No. 1	Title Sheet
Sheet No. 2	Estimate and Typical Sections & Details
Sheet No. 3	Typical Sections and Details
Sheet No. 4-4A	Panel layouts
Sheet No. 5 to 11 incl.	Plan Sheets
Sheet No. 12 to 15 incl.	Plan and Cross-Sections for M.A.B.C.R. Railroad Relocation
Sheet No. 16	Cross Sections for 37th Ave. Conn.
Sheet No. 17 to 41 incl.	Cross Sections

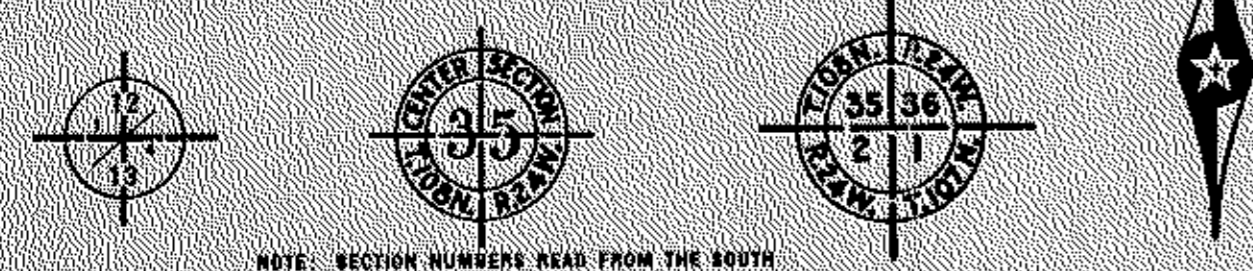
SCALES PLAN 1 inch = 100 Feet
PROFILE Horiz. 1 inch = 100 Feet. Vert. 1 inch = 10 Feet

LAYOUT
Scale 1 inch = 4000 Feet

SPECIFICATIONS

The Specifications for Highway Construction dated July 1, 1938 and Supplement No. 3 approved by the Public Roads Administration Nov. 16, 1938 as modified by Supplement No. 4 dated March 1, 1940 and approved by the Public Roads Administration April 28, 1941 shall govern.

Note:
The descriptions of the beginning and end of the project and the length of same is based on an imaginary median line.



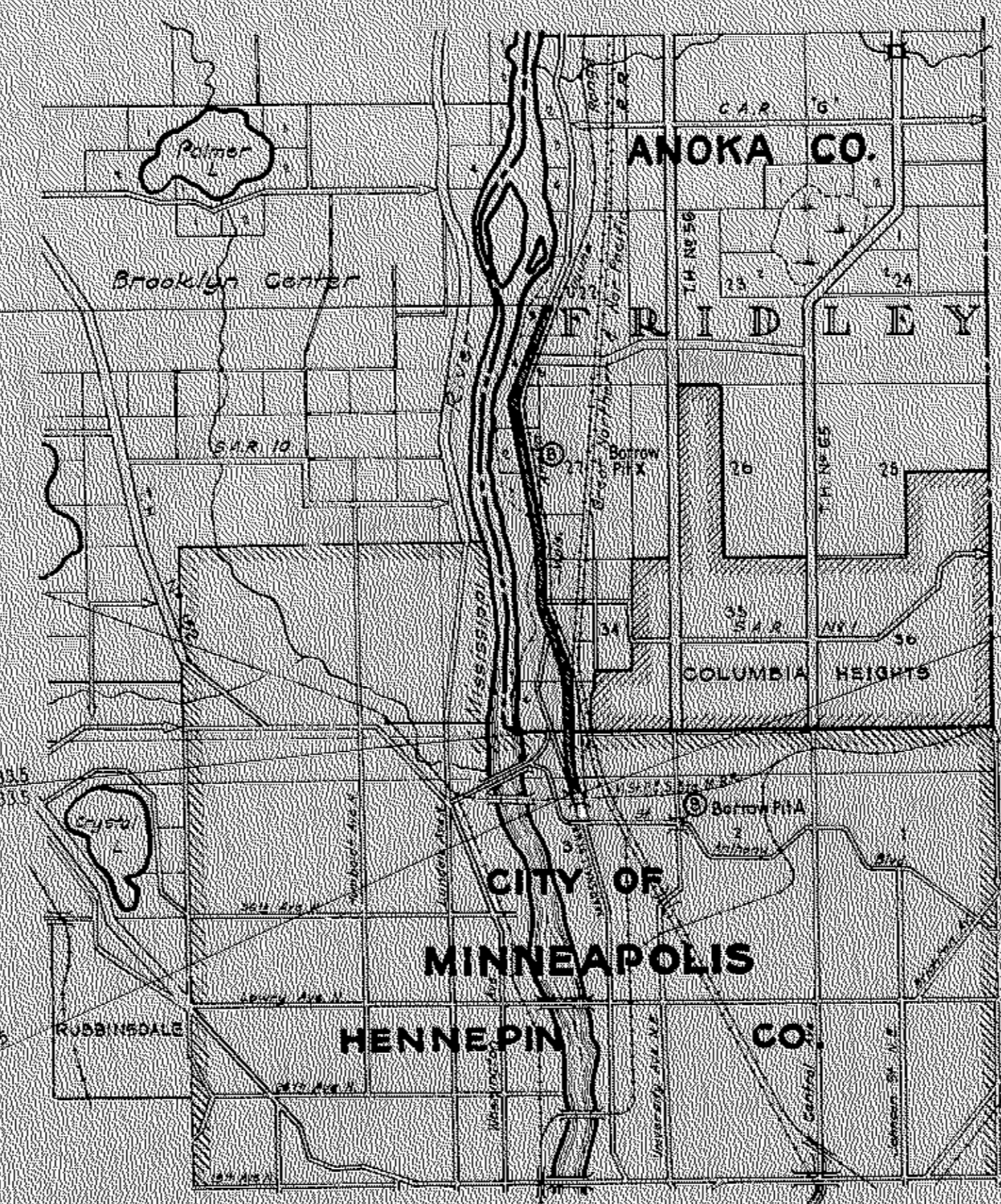
PIT DATA

BORROW PIT NO. A	Located in SW 1/4 S.E. 1/4 Sec. 2 Twp. 29 N. R. 24 W. Dead Haul to Sta. 10+36.5 = 4129' = 0.79 Miles
PIT NO.	Located in Dead Haul
PIT NO.	Located in Dead Haul
PIT NO.	Located in Dead Haul

END S.P. 02-502-03 Sta. 173+83.5

BEG. S.P. 02-502-03 Sta. 39+35.5
END S.P. 27-513-02 Sta. 59+73.5

BEG. S.P. 27-513-02 Sta. 12+8.95



T. 30 N.

T. 29 N.

R. 24 W.

M.S.D. & S.M. R.R. UNDERPASS STATION 16+62.8
BRIDGE NO. 5594 - 41' CLEAR SPAN

Approved B. H. Eubank 7-2-1941
LT COMMANDER - U.S. NAVY

Right of Way Approval J. H. Egan 3-2-1942
CHIEF ENGINEER

Planned By A. W. Lilly 7-4-1941
ENGINEER OF PLANS

Recommended for Approval H. E. Clark 7-8-1941
DISTRICT ENGINEER

Recommended for Approval J. H. Anderson 7-9-1941
CHIEF OF SURVEY & DESIGN

Recommended for Approval J. M. Wilson 7-14-1941
CONSTRUCTION ENGINEER

Approved O. L. Hayes 7-8-1941
CHIEF ENGINEER

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED

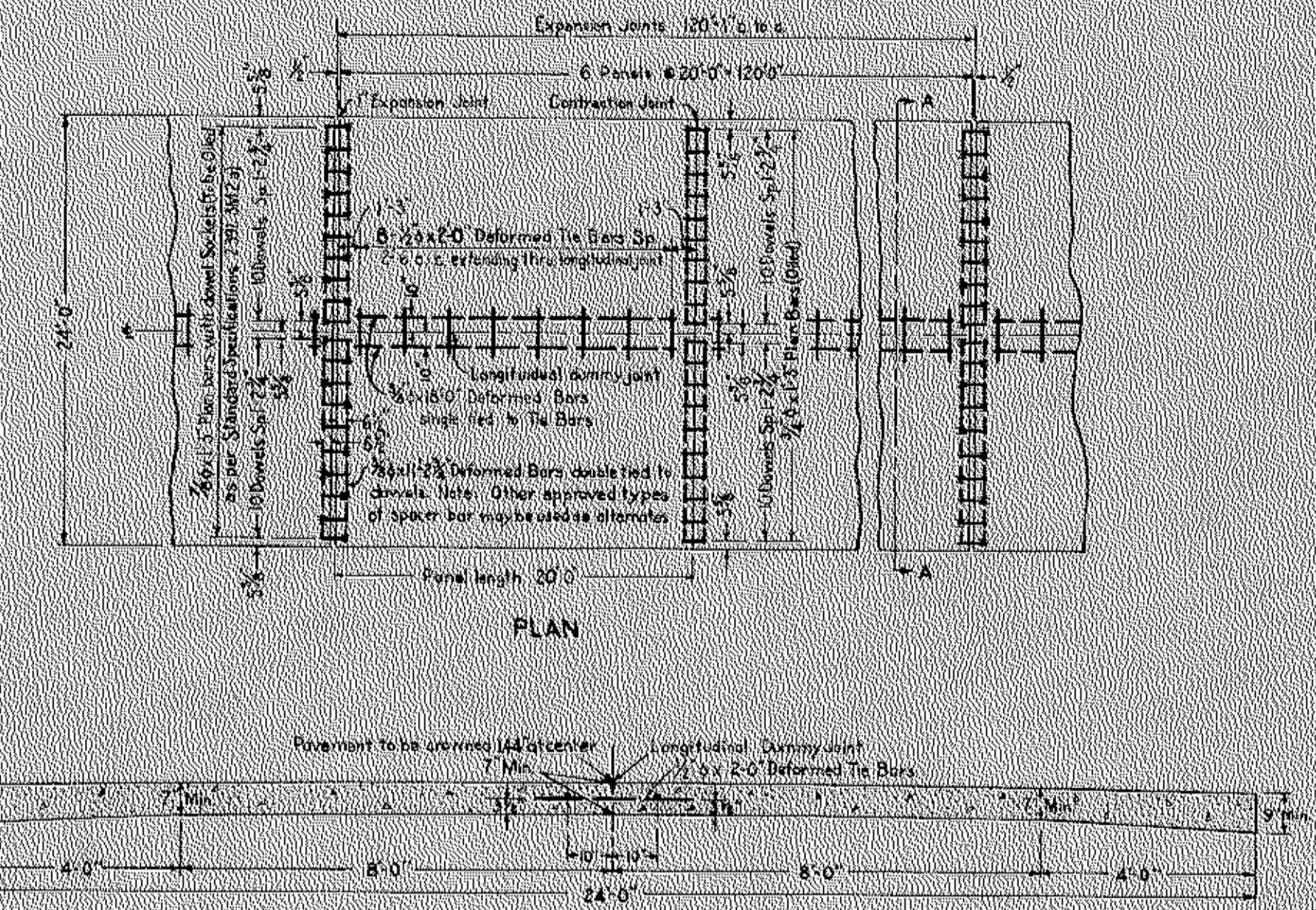
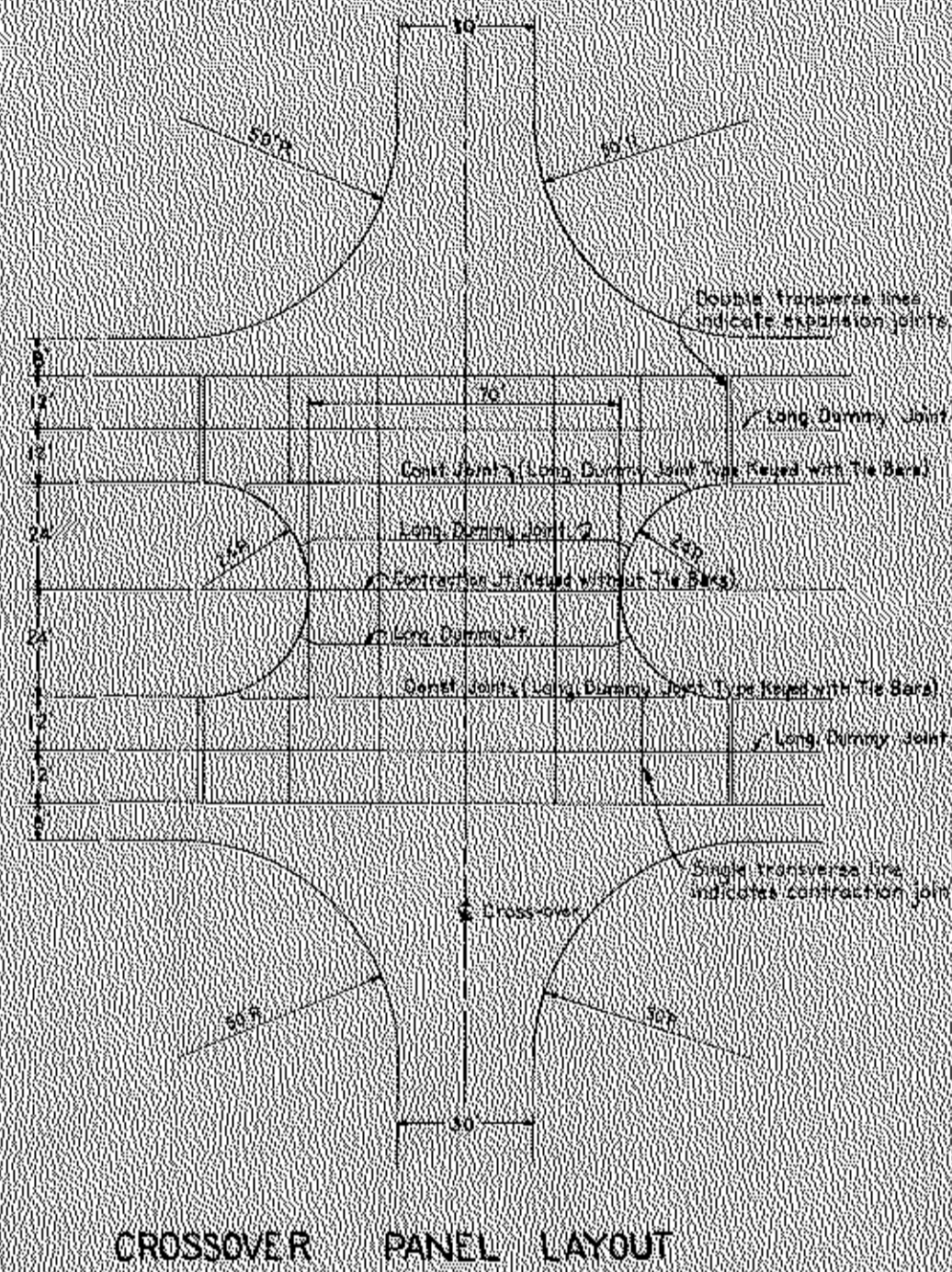
COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

MINNESOTA AL-PCF-FAS NO. 174 (1942)

STATEMENT OF ESTIMATED QUANTITIES

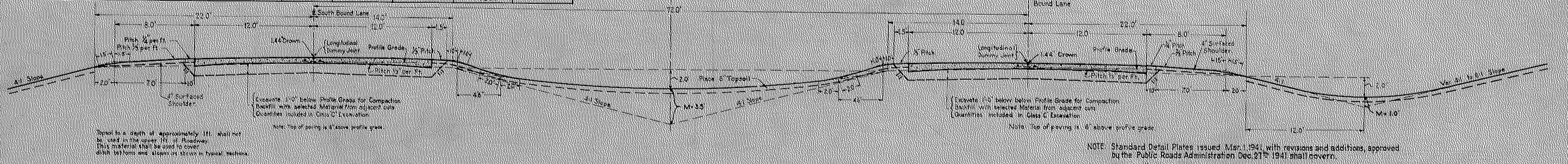
NO.	ITEM	UNIT	SP 27-513-02 Sta. 18+95.0 to Sta. 19+33.5	S.R. 02-502-03 Sta. 39+333.5 to Sta. 173+183.5	TOTAL ESTIMATED QUANTITIES	Performed by W.P.A. Sta. 0+00 to Sta. 118+00
2101.4A2	Clearing	Tree	10	59	69	342
2102.4B	Grubbing	Tree	10	50	60	357
2103.4	Removing Portable Culverts	Lin. Ft.				244
2104.4A	Removing Pavement	Sq. Yd.	3033		3033	
2104.4B	Removing Curb and Gutter	Lin. Ft.	1696		1696	
2104.4L	Removing Catch Basins	Structure	3		3	
2524.5A1b	Trench Excavation 0' to 10' Deep	Lin. Ft.		156	156	
2105.4C	Class C Excavation	Cu. Yd.	9277.3	3748.7	70260	45162
2105.4E	Topsoil Covering in Place	Cu. Yd.	167.5	1386.9	15538	
2106.4A	Special Swamp Excavation	Cu. Yd.	6305		6305	
2108.4	Hand Ditch Excavation	Cu. Yd.		50	50	50
2109.4A	Obiterating Old Roadway	Acre		3	3	1
2113.5F	Sand Gravel Fill in Place	Cu. Yd.		1054	1054	
2114.9B	Overhaul	Cu. Yd. Mile	30,276	1,297	31,573	3,018
2120.5D	Preparation of Earth Shoulders	Road Station		108	108	
2120.5M	Gravel or Sand Material in Place	Cu. Yd.	66.5	4,123	4,188	
2120.5N	Water	M. Gallon	13	82	95	
2203.5P	Stabilized Gravel Base in Place	Cu. Yd.	53	1360	1413	
2203.5L	Water	M. Gallon		27	28	
2239.5D	One Course Concrete Base	Sq. Yd.	47		47	
2231.5A	Bituminous Material for Prime Coat (MC-8 or RT-2)	Gallon	66	257.3	2839	
2231.5B	Bituminous Material for Wearing Course (MC-2 or RT-2)	Gallon	253	955.4	9807	
2231.5D	Mineral Aggregate for Wearing Course	Ton	17	623	640	
2231.5F	Wearing Course	Sq. Yd.	220	8308	8528	
2231.5A	Preparation of the Subgrade	Cu. Yd.		1100	1100	
2231.5B	One Course Concrete Pavement	Sq. Yd.	14,471	67050	81521	
2231.5I	Temporary Crossings	Crossing	1	2	3	
2231.5G	Foundation Headers	Header		8	8	
2417.5C12	Furnish and Install S.C. Pipe Culvert 12"	Lin. Ft.	90		90	
2417.5C15	Furnish and Install S.C. Pipe Culvert 15"	Lin. Ft.		514	514	220
2417.5C18	Furnish and Install S.C. Pipe Culvert 18"	Lin. Ft.				48
2417.5C24	Furnish and Install S.C. Pipe Culvert 24"	Lin. Ft.	104	564	668	90
2417.5F12	Furnish and Install 12" Flared S.C. Culvert Ends	End Section				1
2417.5F15	Furnish and Install 15" Flared S.C. Culvert Ends	End Section		24	24	12
2417.5F18	Furnish and Install 18" Flared S.C. Culvert Ends	End Section				3
2417.5F24	Furnish and Install 24" Flared S.C. Culvert Ends	End Section	4	6	10	4
2418.5C15	Furnish and Install C.M. Pipe Culvert 15"	Lin. Ft.				150
2524.5A1a	Trench Excavation 0' to 6' Deep	Lin. Ft.	120		120	
2524.5D2.24	Furnish and Install Reinforced Concrete Sewer Pipe 24"	Lin. Ft.		156	156	
2524.5D4.12	Furnish and Install Clay Sewer Pipe 12"	Lin. Ft.	120		120	
2530.5A	Excavation for Manholes and Catch Basins	Cu. Yd.	11	6	17	12
2530.5B	Constructing Manholes Design A	Cu. Yd.		4	4	2
2530.5C	Constructing Catch Basins Design B	Cu. Yd.	3		3	
2530.5D	Reconstructing Manholes	Cu. Yd.				1
2530.5F	Furnish and Install Casting Assemblies	Cast Assembly	5	2	7	1
2530.5G	Adjust Frame or Ring Casting	Casting	12	1	13	3
2531.5A	Concrete Curb Type D Design A6	Lin. Ft.	2035		2035	
2531.5	Precast Concrete Curb Design D and E in Place	Lin. Ft.	1061	205	1266	
2548.5N15	Furnish and Install Metal Aprons for 15" C.M. Pipe	Apron				10
2568.5	Project Markers	Marker				2
2576.5A	Area Soding	Sq. Yd.	54	472	526	218
226	Moving Railroad Track			Lump Sum	Lump Sum	
2112.4B1	Jetting Embankment - Depths from 0' to 8'	Lin. Ft. of Hole		1851	1851	
2116.5A	Excavation of Unsuitable Material	Cu. Yd.	1517		1517	
2118.5U	Sand Gravel Fill in Place	Cu. Yd.	1896		1896	

NOTE: The Unit for Clearing and Grubbing on this Project shall be the Tree.
 * See Special Provisions
 + This Item includes 1 Cast #035, 1 Cast #036, 3 Cast #707, 3 Cast #702, 5 Cast #731, 4 Cast #736, and 4 Cast #759
 # This Item includes 1 Bond
 SURFACED SHOULDERS
 Sand-Gravel Material estimated on the basis of 140 lbs. per Cu. Ft. in place for Surfaced Shoulders and 12 Cu. Yds. for Side Roads or Entrances. Water estimated on the basis of 20 gal. per Cu. Yd.
 STABILIZED BASE
 Sand-Gravel Material estimated on the basis of 140 lbs. per Cu. Ft. in place. Water estimated on the basis of 20 gal. per Cu. Yd.
 ROAD MIXER BITUMINOUS WEARING SURFACE
 Bituminous Material for Prime Coat estimated on the basis of 0.3 gal. per Sq. Yd. Bituminous Material for Wearing Course estimated on the basis of 1.10 gal. per Sq. Yd. Mineral Aggregate for Wearing Course estimated on the basis of 150 lbs. per Sq. Yd.
 + This Item includes 1178 Lin. Ft. Curb Design D, 75 Lin. Ft. Curb Design E 24 Ft. Radius, 18 Lin. Ft. Curb Design E 2 Ft. Radius.

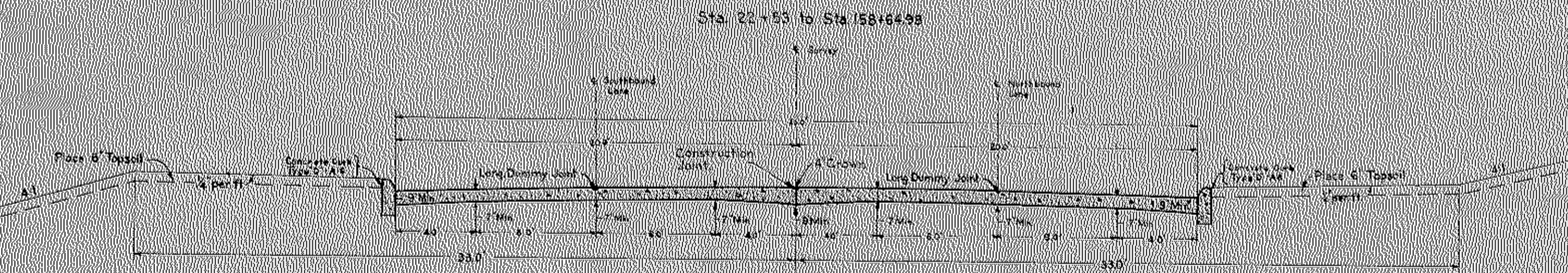


PANEL LAYOUT
9-7-9 Concrete Pavement 24' Width

NOTE: Joint Assemblies in variable widths of pavements where standard installation equipment cannot be used, and be supported and aligned by an approved method or device. Standard Spec. Ref. 1391.315b and 1391.3M3b.



TYPICAL GRADING & PAVING SECTION
Sta. 22+53 to Sta. 158+64.98

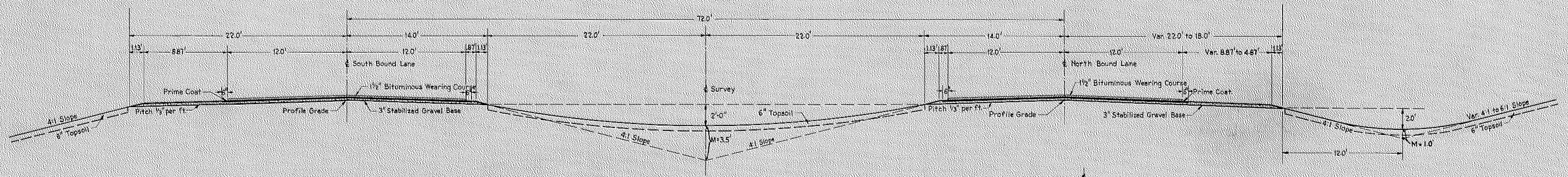


Typical Paving Section
Sta. 18+95.0 to Sta. 19+93.5
(See Panel Layout for Taper Sheet No. 3, Sta. 19+90.5 to Sta. 22+53)

NOTE: Standard Detail Plates issued March 1941 with revisions and additions, approved by the Public Roads Administration Dec. 27th 1941 shall govern.

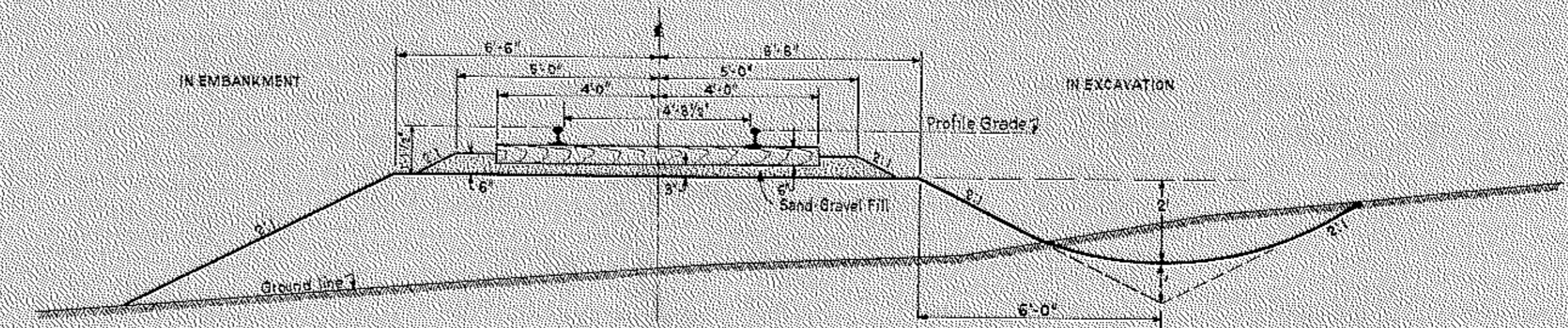
STANDARD DETAILS	PLATE NO.	STANDARD DETAILS	PLATE NO.
Grate Casting for Catch Basin	3046	Curb Box Casting for Catch Basin	3048
9-7-9 Concrete Pavement 20 and 22 width	1000	Method of Inst. Catch Basin Cast. in Pav. Const.	3007
Terminal Header	1021	Manhole Design A	3000
Expansion Joint Design No. 11 Class B1-E	1040	Metal Apron for Side Culverts	3016
Expansion Joint Design No. 12 Class B1-E	1041	Flared End Section for Rein. S.C. Pipe	3013
Expansion Joint Design No. 13 Class B2-E	1042	Concrete Curb Type D Design A6	3023
Expansion Joint Design No. 14 Class B2-E	1043	Beehive Grate Casting for Manhole	3039
Bar Support for Expansion Joint	1046	Catch Basin Frame Casting	3043
Expansion Joint End Closure	1051	Grate Casting for Catch Basin	3047
Contraction Joint Design No. 6 Class B1-C	1057	Standard Barricade	3077
Dowel Socket	1052	Standard Secondary Barricade	3078
Special Reinforcement M.H. and C.B. Box-outs	1059	Project Marker	3080
Precast Concrete Railway Crossing	1065/1068	Sodding of Metal Curb Aprons and Flared Conc. Curb Ends	3033
Paving Equipment	500 to 523	Curb Opening at Entrances	3094
Catch Basin Design B	3093	Precast Concrete Reflector Curb	3095
Method of Inst. Manhole Cast. in Pav. Const.	3005	Precast Concrete Radial Reflector Curb for Islands	3097
Method of Inst. Manhole Cast. of Exp. Joint in Pav. Const.	3006	Curb Box Casting for Catch Basin	3101
Method of Forming Traffic Markers at Long Const. Joints	1068	Manhole Ring Casting	3033
Temporary Crossing	1063	Manhole Ring Casting	3082
Reinforced Concrete Sewer Pipe	2011	Manhole Cover Casting	3034
Jetting Layout	4003	Keyed Joint	1059/1060

Note: Use B1-E or B2-E Expansion Joints and B1-C Contraction Joints on this project.



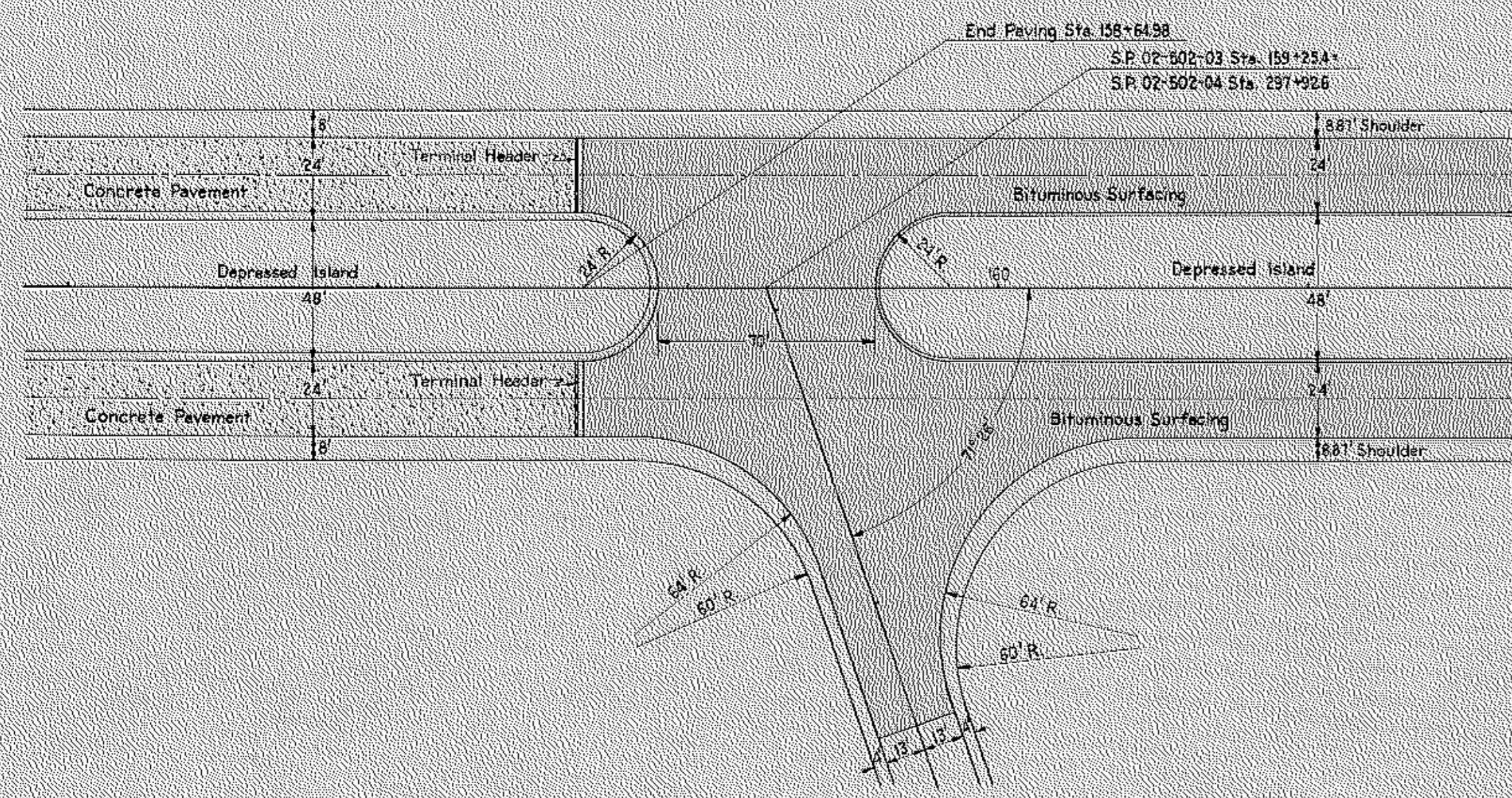
TYPICAL GRADING SECTION

Shown With Stabilized Base and Bituminous Surfacing

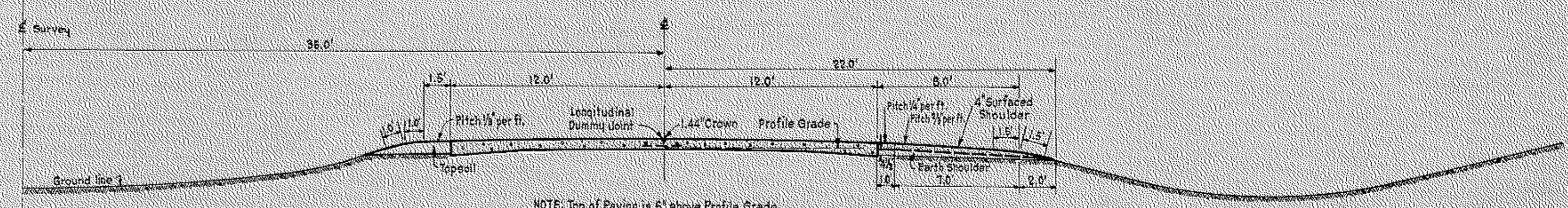


TYPICAL RAILROAD SECTION

Rt. Sta. 113+15.9 to Sta. 157+15.9

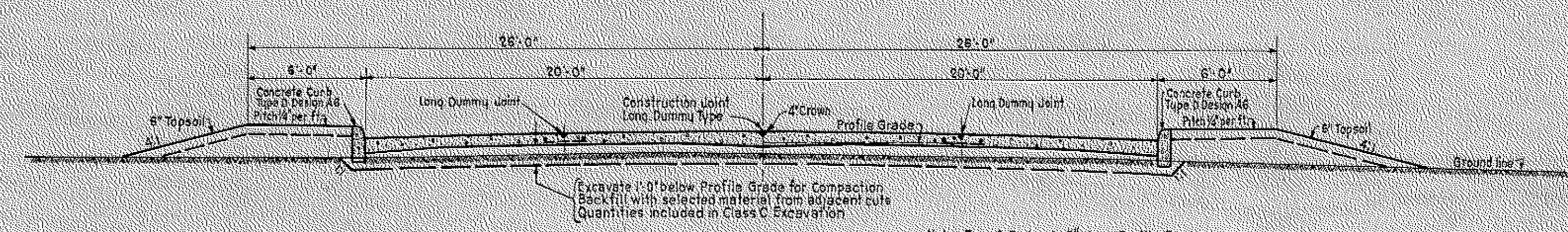


LAYOUT OF CONNECTION WITH S.P. 02-502-04



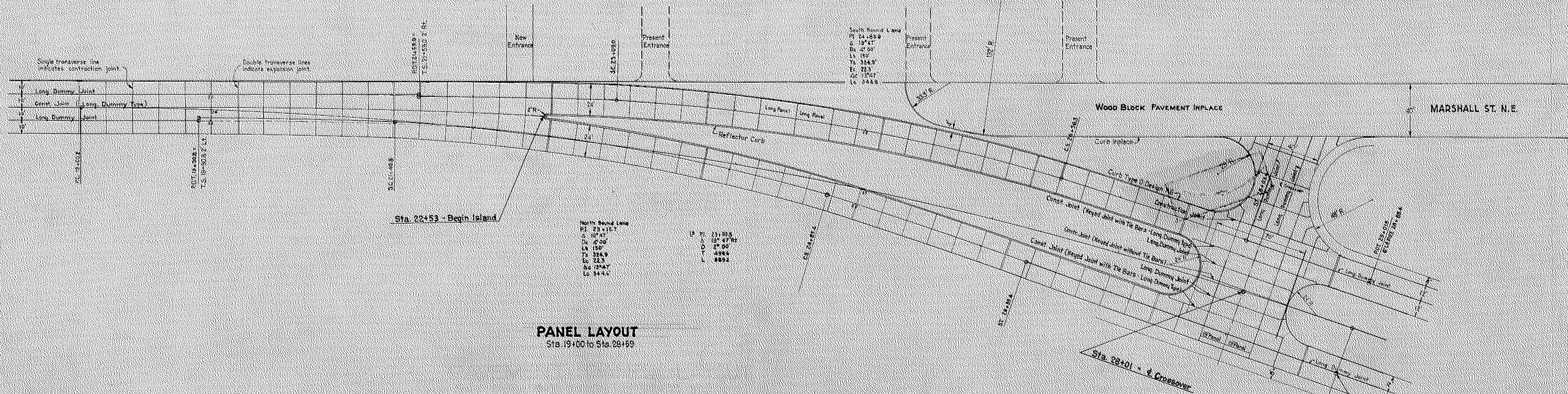
TYPICAL PAVING AND SHOULDERING SECTION

HALF SECTION
Sta. 61+49.2 to Sta. 115+0.1



TYPICAL GRADING AND PAVING SECTION

37TH AVE. CONNECTION

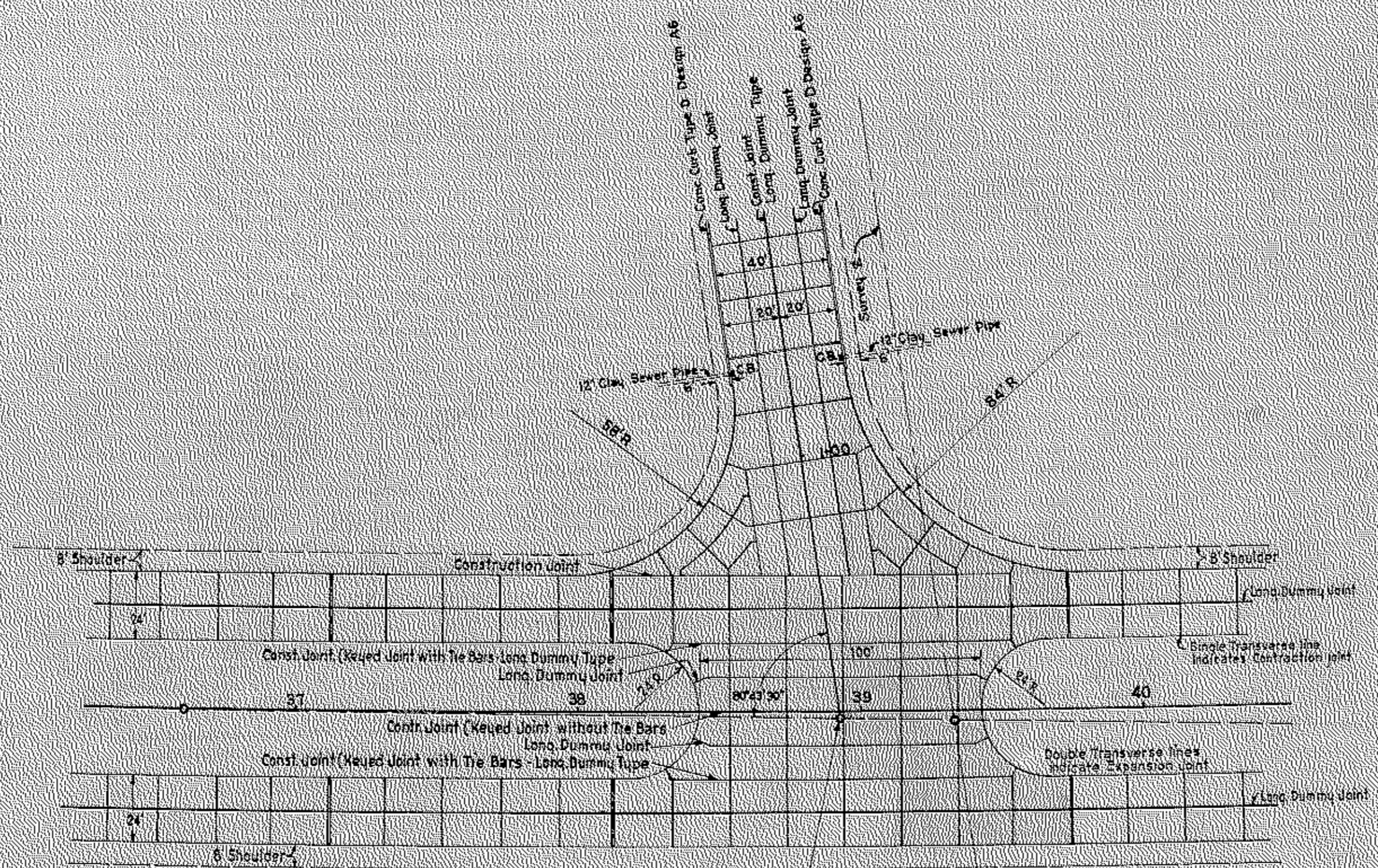


North Bound Lane

Pt.	22+18.7
Δ	19°47'
Ds	20.00'
Ls	100'
Ts	324.9'
Es	22.3'
Δs	19°47'
Lc	344.4'

Pt.	23+30.5
Δ	19°47'
Ds	20.00'
Ls	100'
Ts	324.9'
Es	22.3'
Δs	19°47'
Lc	344.4'

PANEL LAYOUT
Sta. 19+00 to Sta. 28+59



BEG. OF 37TH AVE. CONNECTION
STA. 0+06.54 - STA. 36+92.9 ON TAN L.P.

NOTE: Cross hatched portion indicates reinforced panels. See Sheet No. 4/A for Details.

PANEL LAYOUT 37TH AVE. CONNECTION

DETAILS OF REINFORCED PANELS OVER WATER MAINS

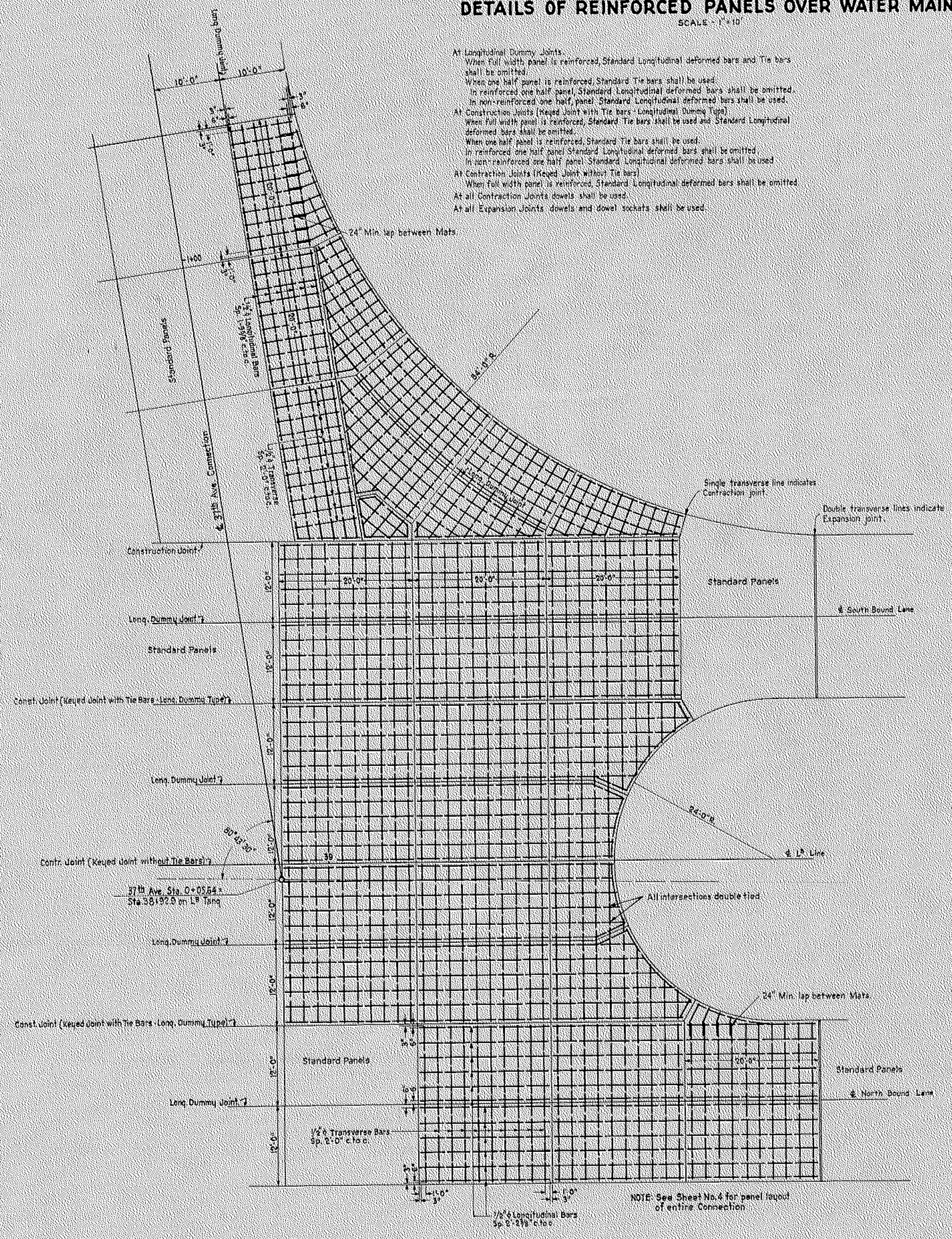
SCALE - 1"=10'

At Longitudinal Dummy Joints:
 When full width panel is reinforced, Standard Longitudinal deformed bars and Tie bars shall be omitted.
 When one half panel is reinforced, Standard Tie bars shall be used.
 In reinforced one half panel, Standard Longitudinal deformed bars shall be omitted.
 In non-reinforced one half panel, Standard Longitudinal deformed bars shall be used.

At Construction Joints (Keyed Joint with Tie Bars - Longitudinal Dummy Type):
 When full width panel is reinforced, Standard Tie bars shall be used and Standard Longitudinal deformed bars shall be omitted.
 When one half panel is reinforced, Standard Tie bars shall be used.
 In reinforced one half panel, Standard Longitudinal deformed bars shall be omitted.
 In non-reinforced one half panel, Standard Longitudinal deformed bars shall be used.

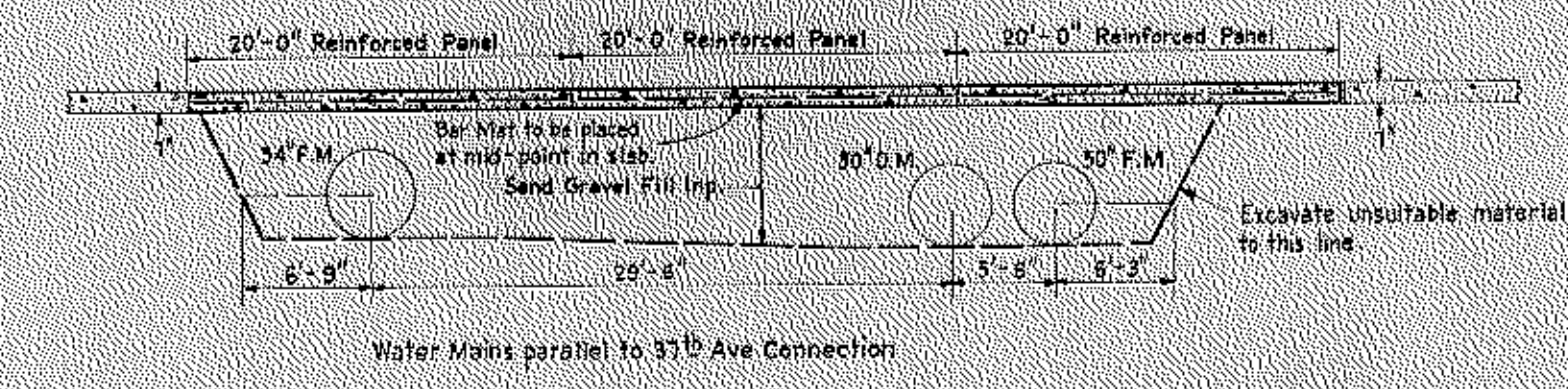
At Contraction Joints (Keyed Joint without Tie Bars):
 When full width panel is reinforced, Standard Longitudinal deformed bars shall be omitted.
 At all Contraction Joints dowels shall be used.

At all Expansion Joints: dowels and dowel sockets shall be used.

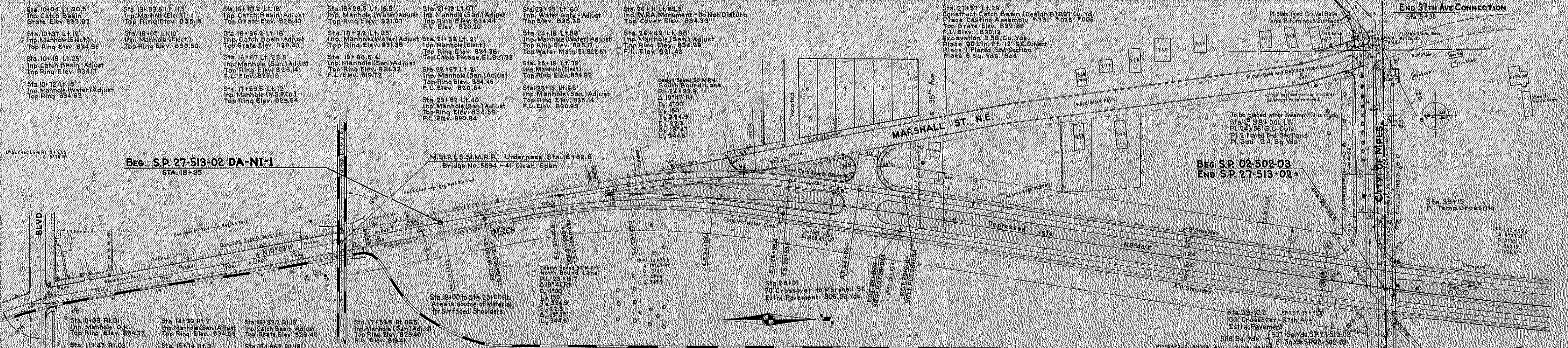


LONGITUDINAL PAVING SECTION

SHOWN WITH REINFORCED PANELS AND SUBGRADE CORRECTION
 SCALE - 1"=10'

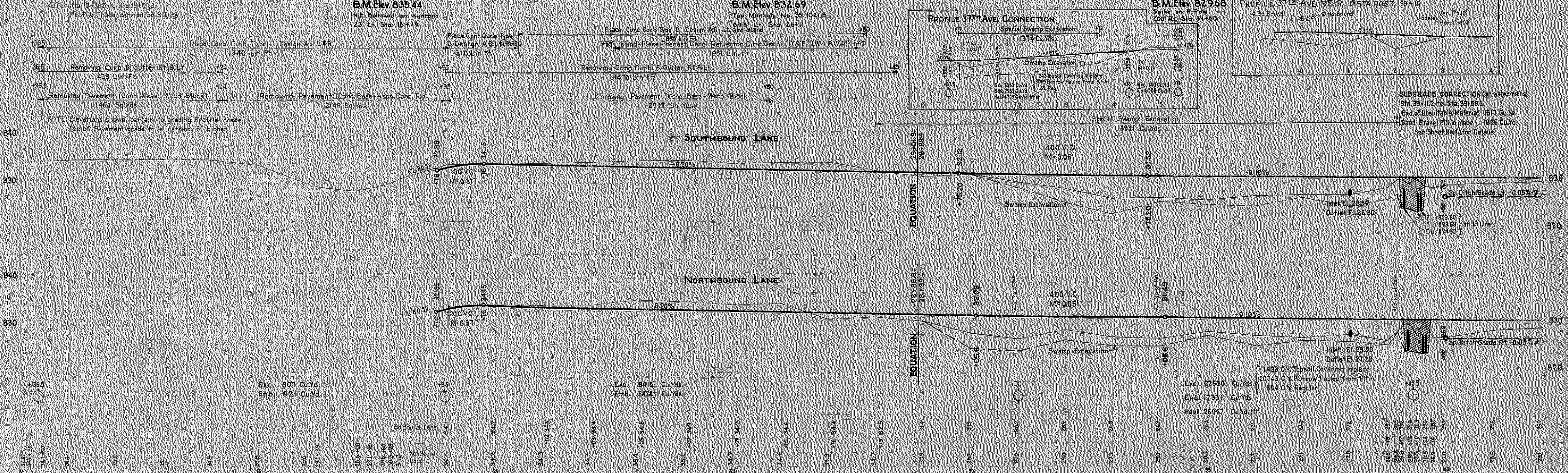


REV.	DATE	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MINN.	DA-NI-1		5	41

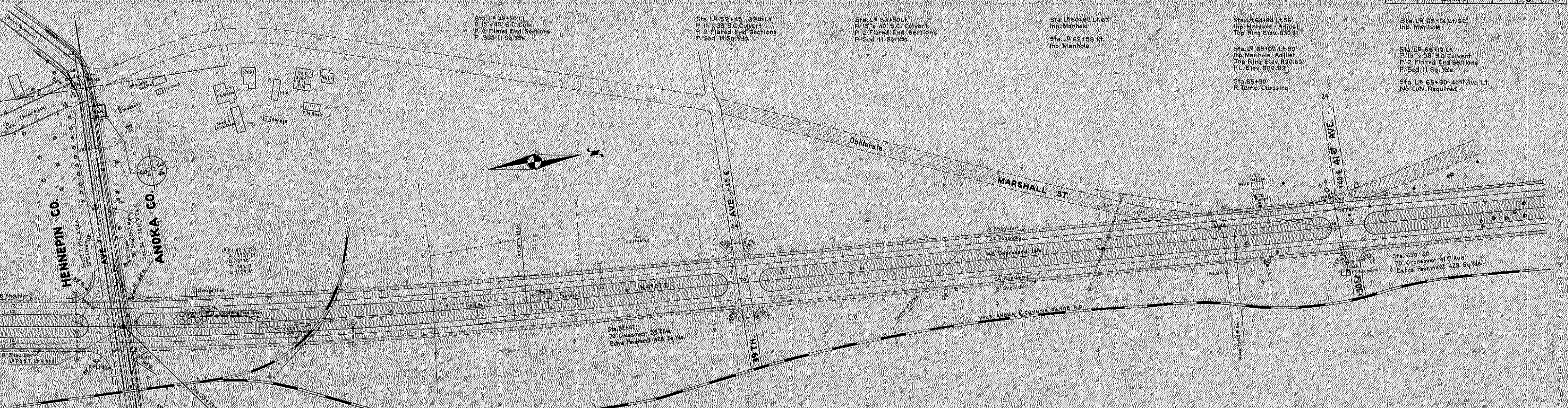


QUANTITIES ON 37TH AVE CONNECTION

MINNEAPOLIS			HENNEPIN CO.			ANOKA CO.		
Sta. 143+01.20 Const. Catch Basin Design B 0.5 Cu.Yd. P-Cast Assembly *731*735*736 Top Grate Elev. 893.1 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.	Sta. 143+01.22 Inp. Manhole Adjust Top Ring Elev. 893.27 F.L. Elev. 893.1 Exc. 2 Cu.Yds. Trench Exc. 8' to 8' x 10' Lin. Ft.



NO.	STATE	FED. AID PROJ. NO.	SEC.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MINN.	DA-NE-1			6	41



END S.P. 27-513-02 =
 BEG. S.P. 02-502-03

NOTE: Oil Tanks etc. to be removed by Others.

Sta. LP 44+20 RT
 P. 15' x 15' S.C. Culvert
 P. 2 Flared End Sections
 P. Sod II Sq. Yds.

B.M. Elev. 832.13
 W. Cor. East Burr Intake Pipe
 35' Lt. Sta. 43+00

Sta. LP 44+20 RT
 P. 15' x 15' S.C. Culvert
 P. 2 Flared End Sections
 P. Sod II Sq. Yds.

Sta. LP 45+39 Ave. Rt.
 P. 18' x 36' S.C. Culvert
 P. 2 Flared End Sections
 P. Sod III Sq. Yds.

B.M. Elev. 828.28
 Spike in P. Pole
 90' Rt. Sta. 51+00

Sta. LP 53+80 LT
 P. 18' x 40' S.C. Culvert
 P. 2 Flared End Sections
 P. Sod II Sq. Yds.

Sta. LP 53+80 LT
 Imp. Manhole

Sta. LP 62+88 Lt.
 Imp. Manhole

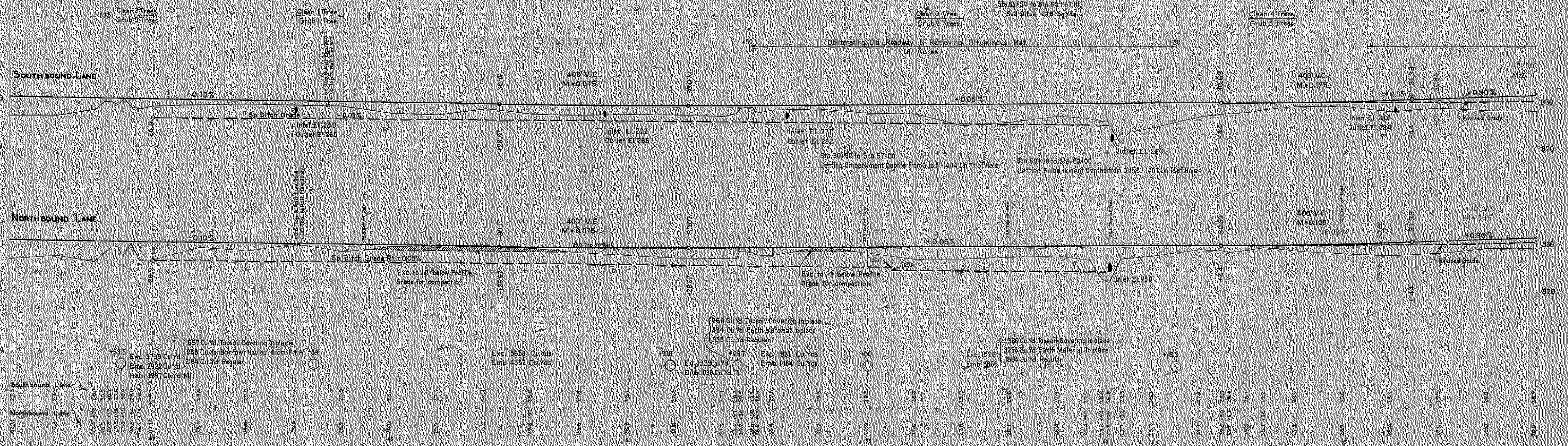
Sta. LP 60+15 L.
 Construct. Manhole Design A 18 Cu Yds
 Place cast assembly #707-722
 Top of Ring Elev. 828.0
 F.L. Elev. 823.7
 Exc. 2 Cu Yds.

Sta. LP 65+30 RT
 P. 18' x 36' S.C. Culvert
 P. 2 Flared End Sections
 P. 2 Metal Aprons
 P. Sod II Sq. Yds.

Sta. LP 65+14 Lt. 36"
 Imp. Manhole

Sta. LP 65+10 Lt.
 P. 18' x 36' S.C. Culvert
 P. 2 Flared End Sections
 P. Sod II Sq. Yds.

Sta. LP 65+30-41st Ave. Lt.
 No. Culv. Required



Sta. 75+95 Lt. P 16' x 12' S.C. Culv. P 2 S.C. Flared End Sections P Sod 11 Sq. Yds.

Sta. 76+90 Lt. P 10' x 10' S.C. Culv. P 1 S.C. Flared End Section P Sod 11 Sq. Yds.

Sta. 78+92 - 43rd Ave. Lt. No Culvert Required

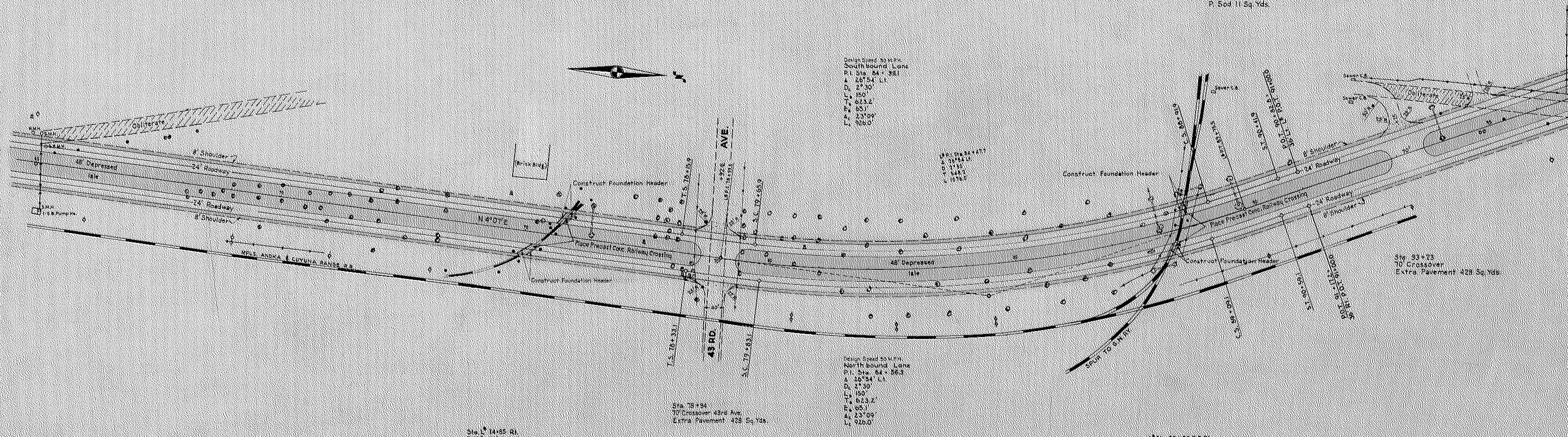
Sta. 80+00 Lm Lt. P 16' x 12' S.C. Culv. P 2 Flared End Sections P Sod 11 Sq. Yds.

Sta. 80+70 R.R. Pt. P 16' x 12' S.C. Culv. P 2 Flared End Sections P Sod 11 Sq. Yds.

Sta. 89+07 Lt. P 15' x 39' S.C. Culv. P 2 S.C. End Sections P Sod 11 Sq. Yds.

Sta. 93+28 Rd. Lt. No Culvert Required

Sta. 94+00 Lm Lt. P 15' x 34' S.C. Culv. P 2 S.C. Flared End Sections P Sod 11 Sq. Yds.

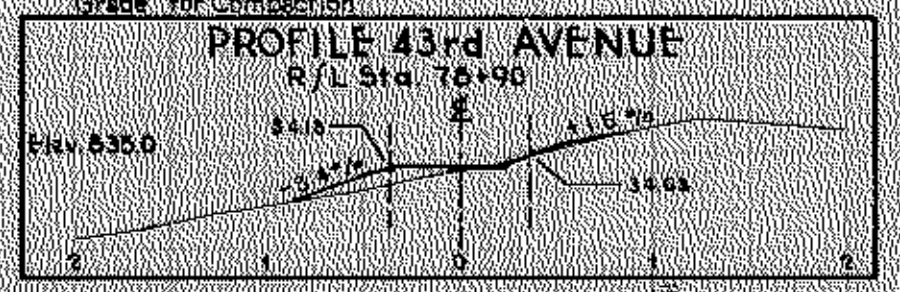
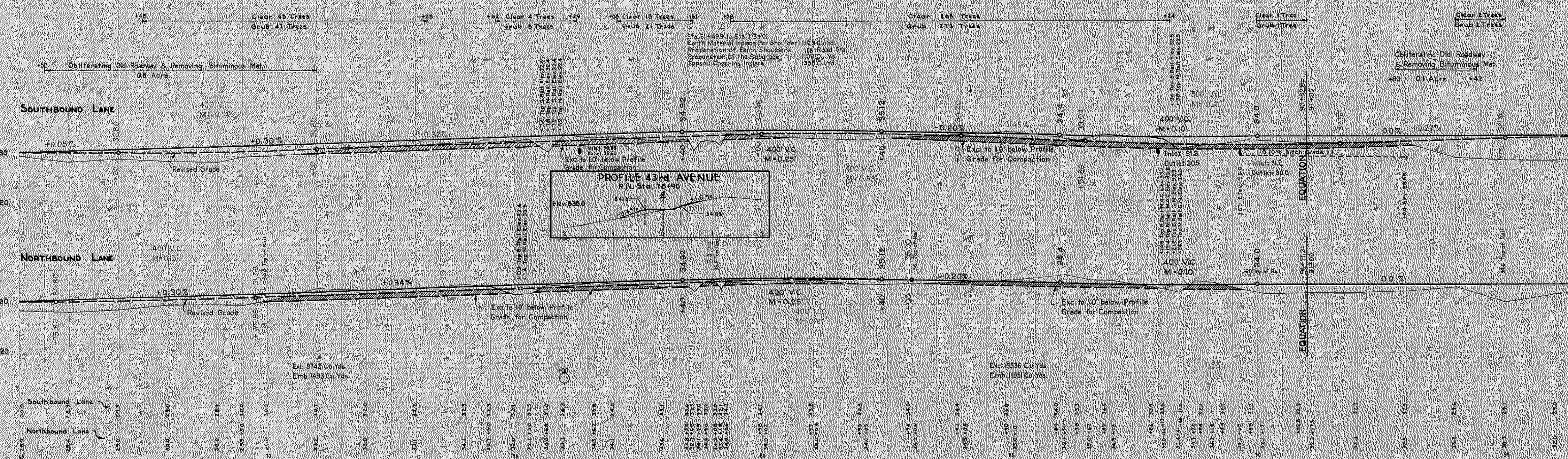


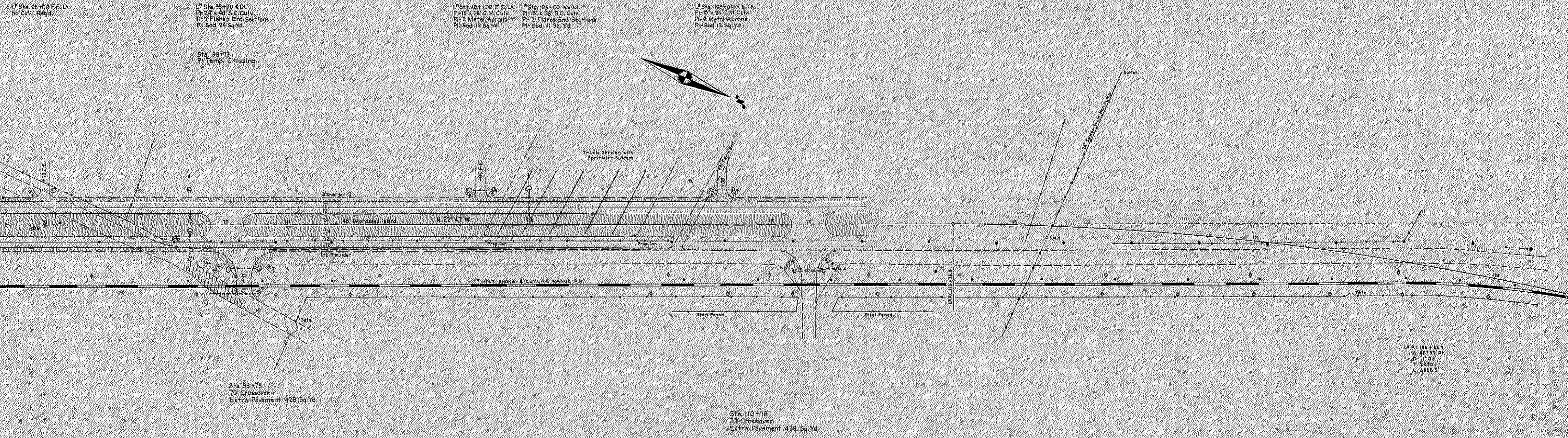
B.M. Elev. 832.47
Spike in Rose Double P. Pole
90' Rl. Sta. 69+13

B.M. Elev. 834.09
Spike in P. Pole
300' Rl. Sta. 75+15

B.M. Elev. 836.35
Spike in P. Pole
110' Rl. Sta. 54+13

B.M. Elev. 826.93
Top Manhole No. 1053
Left Sta. 92+62



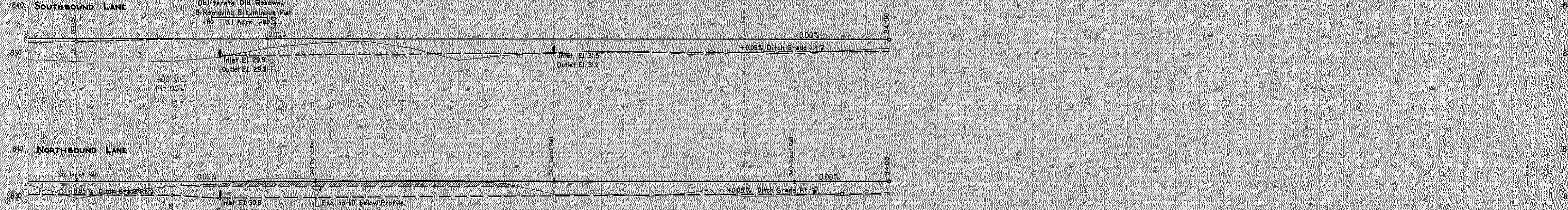
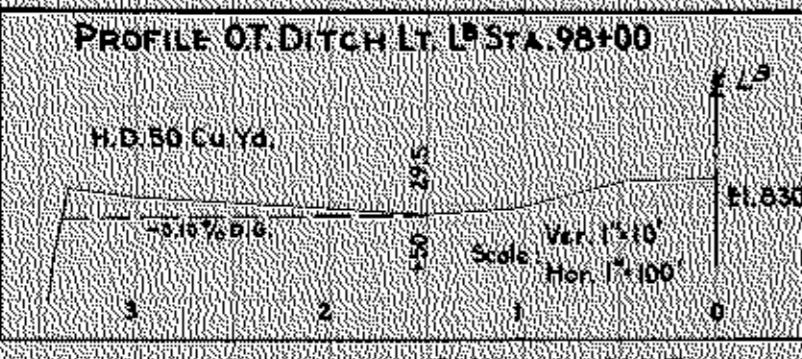


L Sta. 98+00 E.R., P=15' x 42' S.C. Curv., PI=3.14; L Sta. 98+88 Ent. Ho P.R., Imp. 36' x 33' C.M. Curv., PI=2.14; L Sta. 99+10 Ent. Ho P.R., Imp. 36' x 33' C.M. Curv., PI=2.14; L Sta. 100+90 Ent. Ho P.R., Imp. 36' x 33' C.M. Curv., PI=2.14.

B.M. Elev. 834.69
Spike in P. Pole
78' Rt. Sta. 95+95

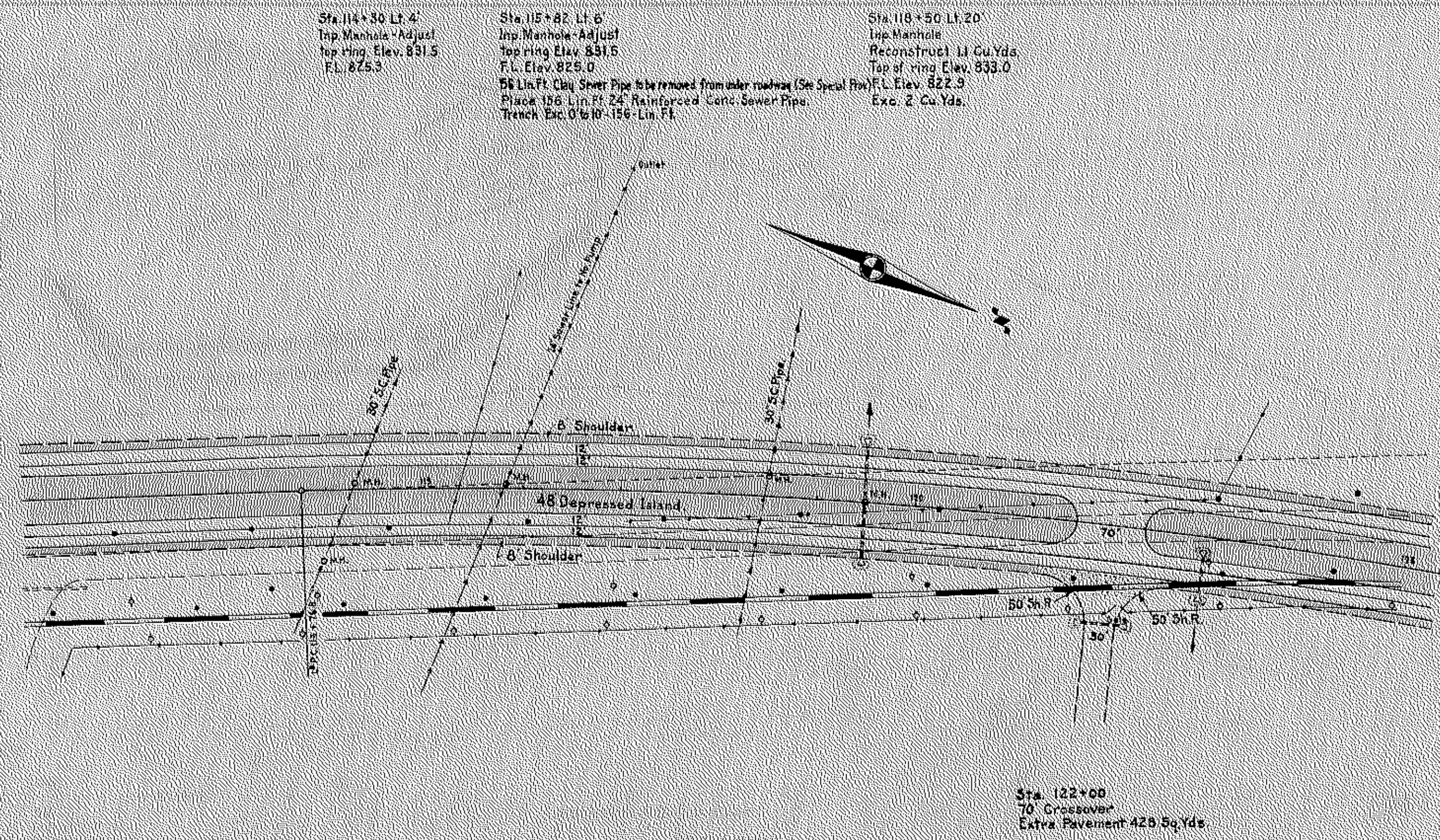
B.M. Elev. 834.93
Spike in P. Pole
110' Rt. Sta. 102+00

B.M. Elev. 836.01
Spike in P. Pole
106' Rt. Sta. 106+00



Exc. 4187 Cu. Yds. (2661 Cu. Yds. Borrow-Hauled from Pit X, 1526 Cu. Yds. Regular); Emb. 3221 Cu. Yds.; Haul 1011 Cu. Yd. Mi.
Exc. 1944 Cu. Yds. (11620 Cu. Yds. Borrow-Hauled from Pit X, 1495 Cu. Yds. Regular); Emb. 1495 Cu. Yds.; Haul 2007 Cu. Yd. Mi.

326	325	324	323	322	321	320	319	318	317	316	315	314	313	312	311	310	309	308	307	306	305	304	303	302	301	300	299	298	297	296	295	294	293	292	291	290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	272	271	270	269	268	267	266	265	264	263	262	261	260	259	258	257	256	255	254	253	252	251	250	249	248	247	246	245	244	243	242	241	240	239	238	237	236	235	234	233	232	231	230	229	228	227	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	210	209	208	207	206	205	204	203	202	201	200	199	198	197	196	195	194	193	192	191	190	189	188	187	186	185	184	183	182	181	180	179	178	177	176	175	174	173	172	171	170	169	168	167	166	165	164	163	162	161	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
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Note: See Sheet No. 12 for revised alignment of highway & railroad between Sta. 113+78.8 & Sta. 157+43.2 = Sta. 157+13.3

Sta. 114+00 Rt. 75'
Construct Manhole Design A- 2.3 Cu. Yds.
Place Casting Assembly # 707, 722.
Top Ring Elev. 831.0
F.L. Elev. 828.5
Exc. 12 Cu. Yds.

18" Sta. 118+50 C
Construct Manhole Design A- 2.46 Cu. Yds.
Place Casting Assembly # 707, 722.
Top Ring Elev. 831.00
F.L. Elev. 828.00
Exc. 1.9 Cu. Yds.
Rad. 10 Sq. Yds.

18" Sta. 119+50 C
P-24 x 150 S.C. Gully
P-2 x 30 Flared End Sections
P-5od 24 Sq. Yd.
H.D. 50 Cu. Yds.

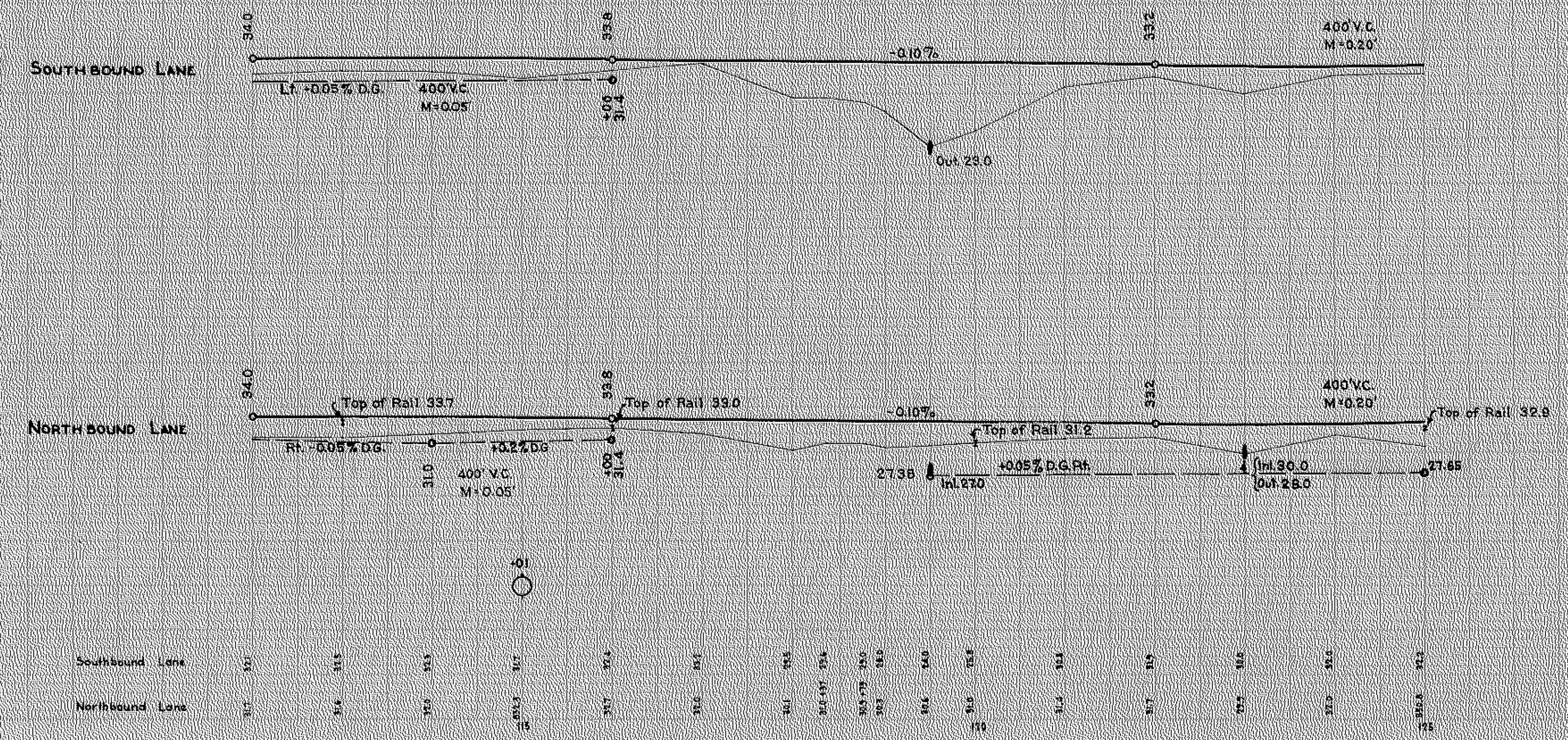
18" Sta. 122+00 Ent. Rt.
P-15 x 30 S.C. Gully
P-2 Flared End Sections
Sod 11 Sq. Yds.

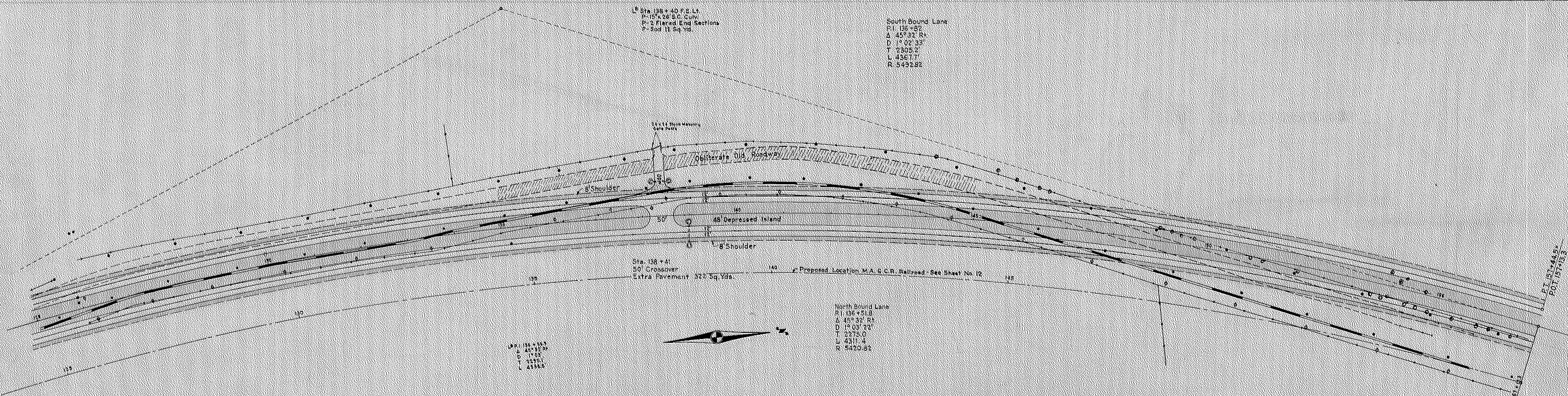
18" Sta. 123+00 Exit Rt.
P-15 x 30 S.C. Gully
P-2 Flared End Sections
Sod 11 Sq. Yds.

Note: From Rt. Sta. 115+76.5 to Sta. 157+13.3
Railroad tracks to be moved to new location
See Sheet No. 12

B.M. Elev. 834.59
Spike in P. Pole
140' Rt. Sta. 114+00

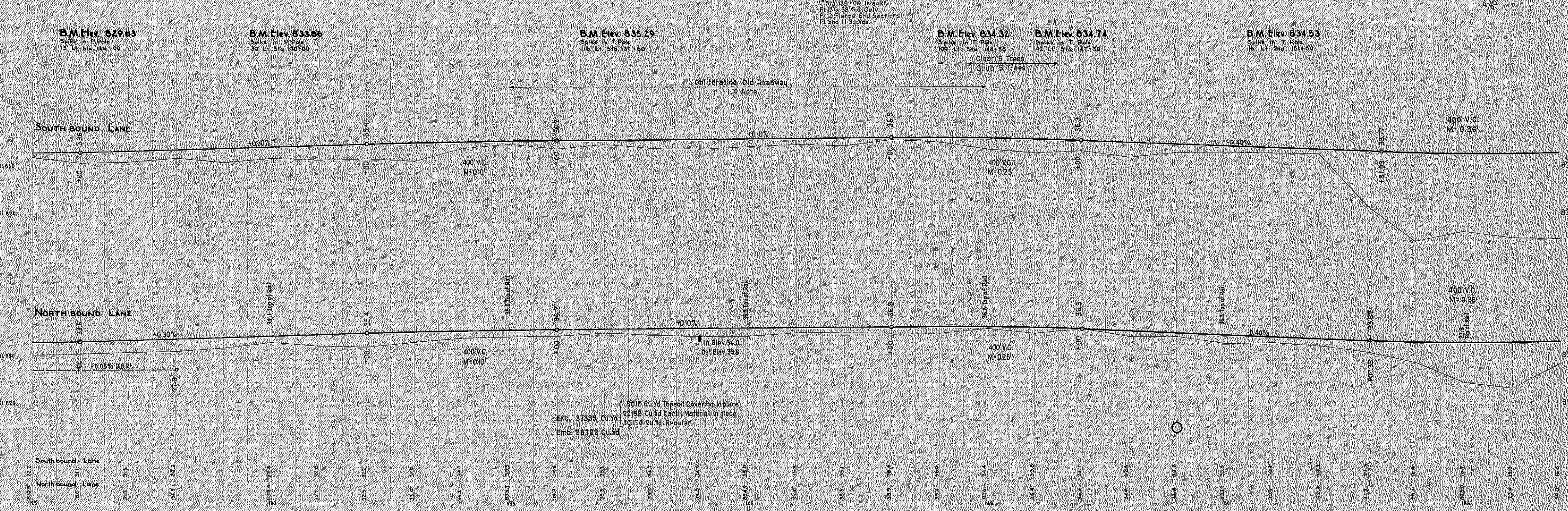
B.M. Elev. 833.52
Spike in P. Pole
90' Rt. Sta. 122+00



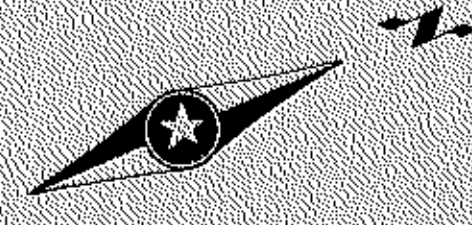


Note: See Sheet No. 12 for revised alignment of highway & railroad between Sta. 113+76.8 & Sta. 157+45.2 = Sta. 157+13.3

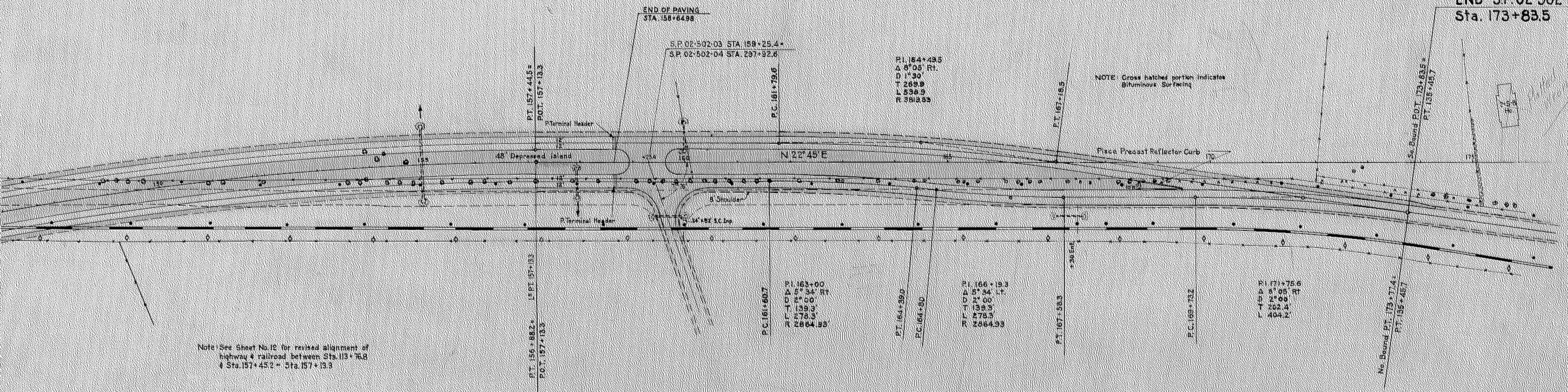
Note: From Rt. Sta. 13176.8 to Sta. 13713.3 Railway tracks to be moved to new location. See Sheet No. 12.



L² Sta. 160+00 Lt.
 P 15'x48' S.C. Culv.
 P 2 S.C. Flared End Sections
 P 5 Sq. Yds. Sod.



END SP.02-502-03 DA-NI-1
 Sta. 173+83.5



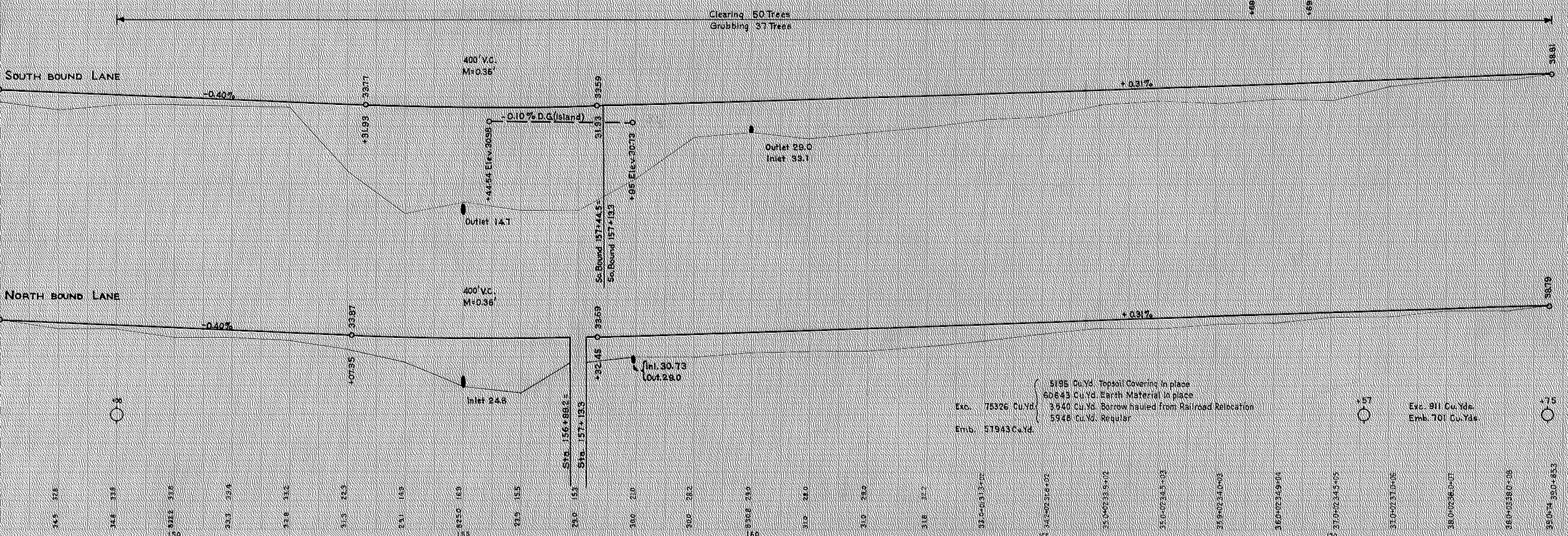
Note: See Sheet No. 10 for revised alignment of highway & railroad between Sta. 113+76.8 & Sta. 157+45.2 = Sta. 157+13.3

B.M. Elev. 834.53
 Spike in T. Pole
 16' Lt. Sta. 151+80

L³ Sta. 155+00 Lt.
 P 24'x198' S.C. Culvert
 P 2 Flared End Sections
 P 14 Sq. Yds. Sod.

L⁴ Sta. 157+95 Lt. & Rt.
 P 15'x50' S.C. Culvert
 P 2 Flared End Sections
 P 11 Sq. Yds. Sod.

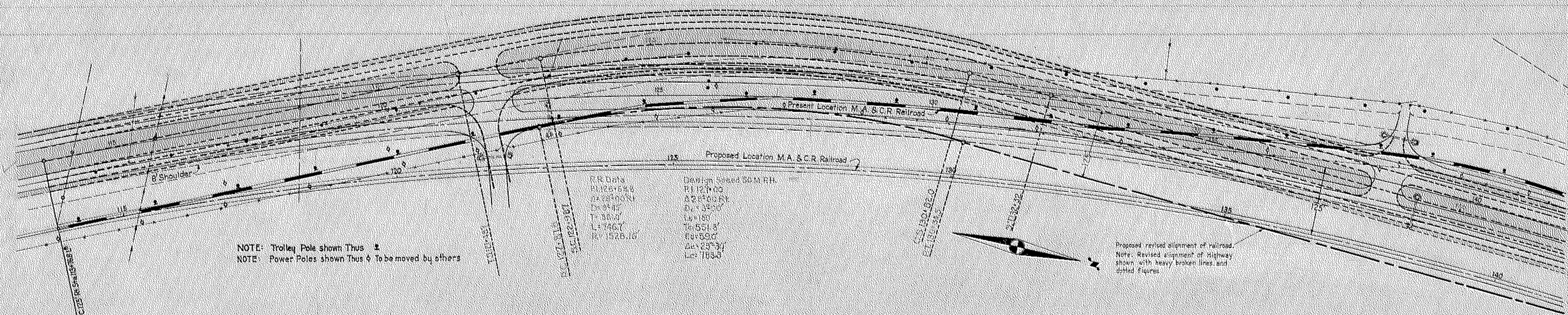
L¹ Sta. 167+50 Ent. Rt.
 P 15'x52' S.C. Culvert
 P 2 Flared End Sections
 P 5 Sq. Yds. Sod.



Island - Place Precast Reflector Curb Design 'D' & 'E' (W.4)
 205 Lin. Ft.

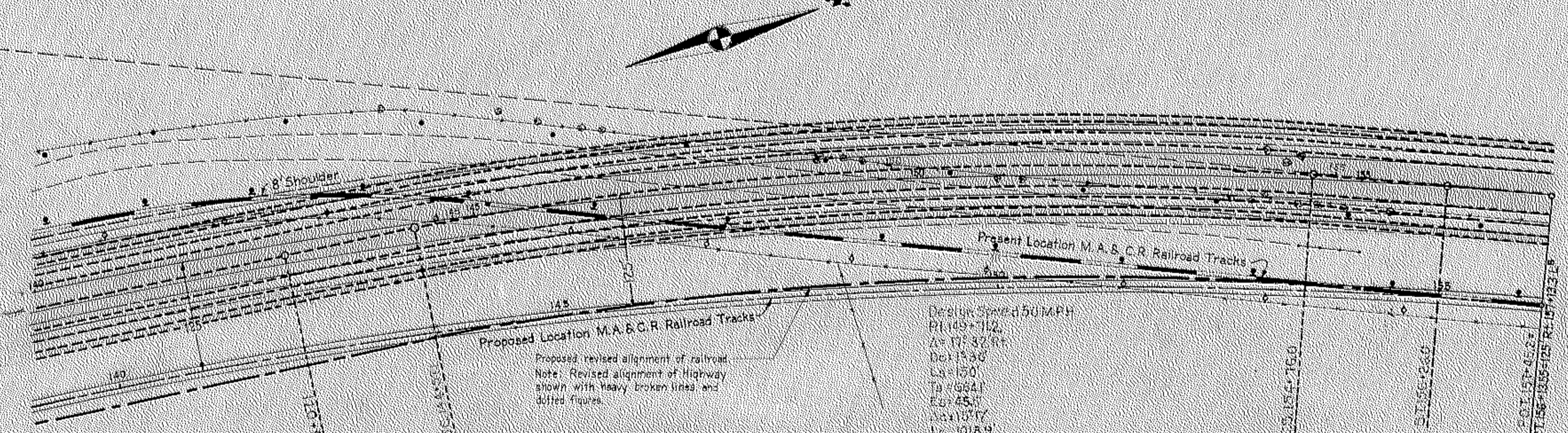
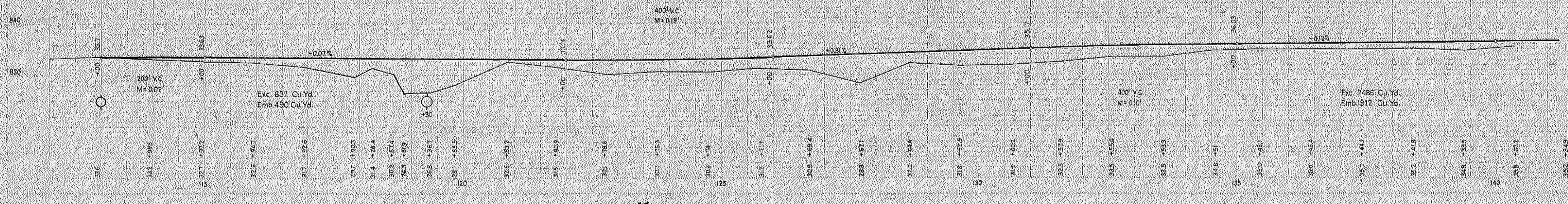
Emb. 57943 Cu. Yd.
 Exb. 75326 Cu. Yd.
 5195 Cu. Yd. Topsoil Covering in place
 60649 Cu. Yd. Earth Material in place
 3940 Cu. Yd. Borrow hauled from Railroad Relocation
 5948 Cu. Yd. Regular

Emb. 911 Cu. Yds.
 Emb. 701 Cu. Yds.

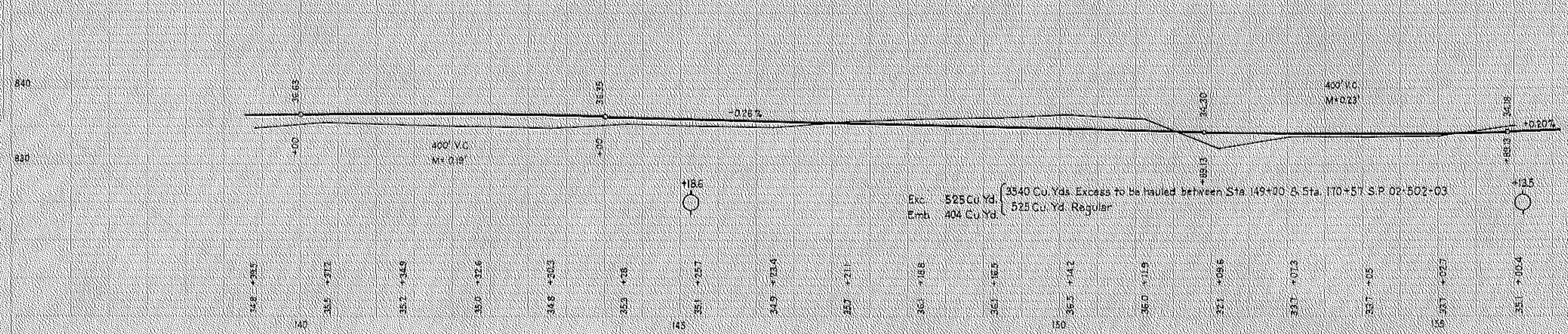


L^B B.M. Elev. 834.59 Spike in P Pole 140' Lt. Sta. 114+00
 L^B B.M. Elev. 833.52 Spike in P Pole 80' Rt. Sta. 122+00
 L^B B.M. Elev. 829.63 Spike in P Pole 15' Lt. Sta. 126+00
 L^B B.M. Elev. 833.86 Spike in P Pole 30' Lt. Sta. 130+00
 L^B B.M. Elev. 835.29 Spike in T Pole 116' Lt. Sta. 127+60

Note: Sand Gravel Fill in place 1054 Cu. Yd.
 Note: Elevations shown pertain to top of rail.



L^B B.M. Elev. 834.32 Spike in T Pole 109' Lt. Sta. 144+58
 L^B B.M. Elev. 834.74 Spike in T Pole 42' Lt. Sta. 147+50
 L^B B.M. Elev. 834.53 Spike in T Pole 16' Lt. Sta. 151+80

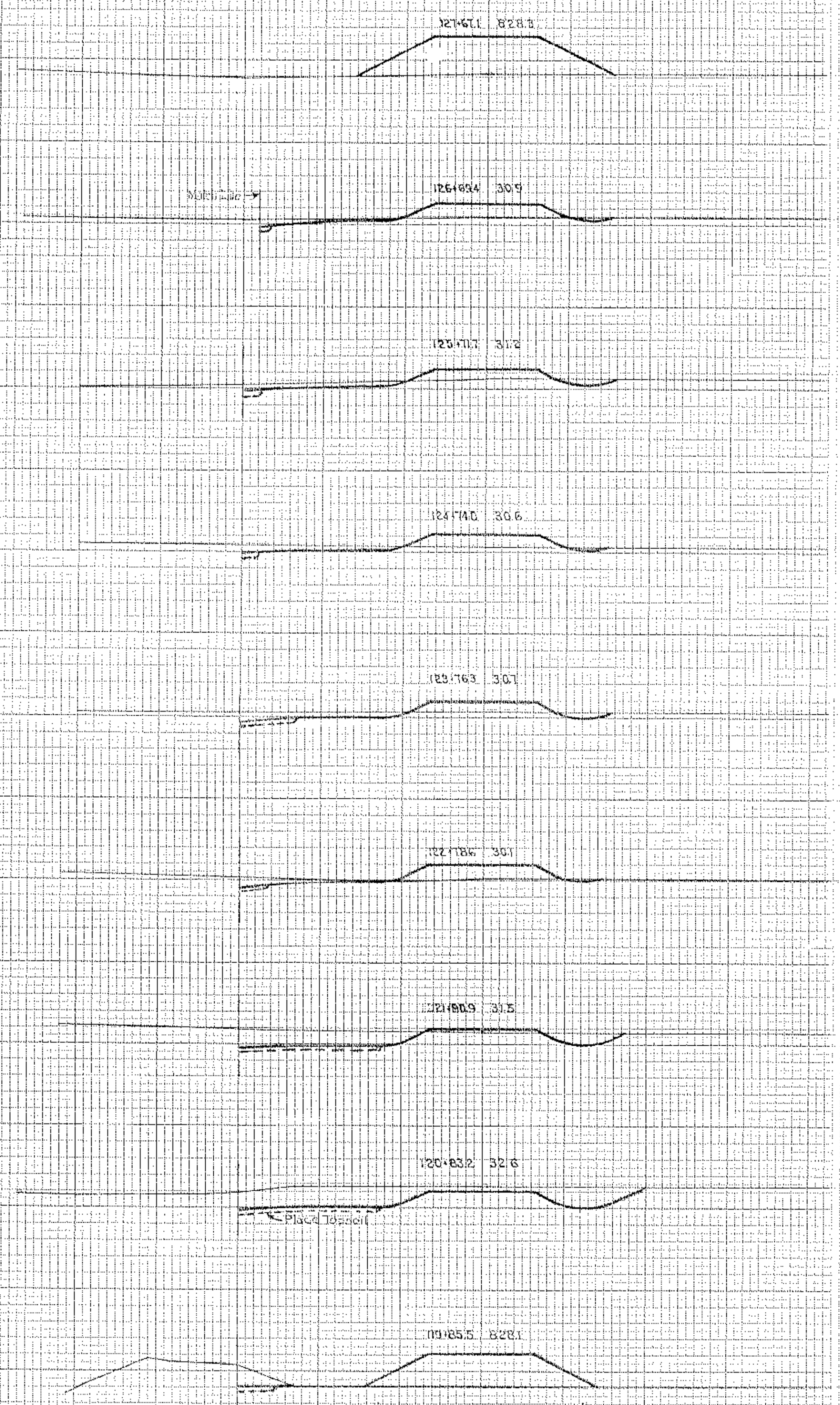
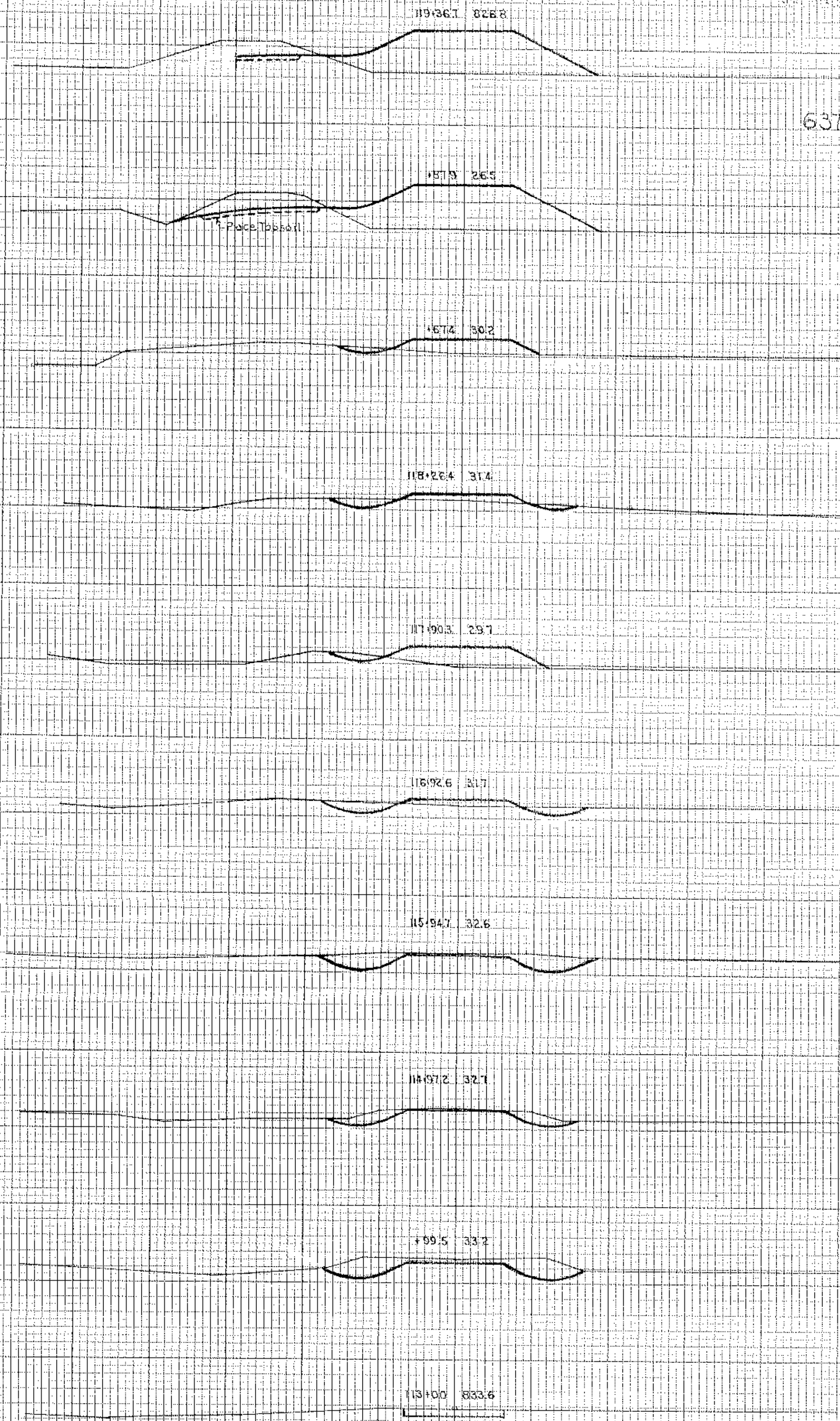


PLAN AND PROFILE FOR RELOCATION OF M.A. & C.R. RAILROAD TRACKS

STATION ELEVATION

STATION ELEVATION

637 5/29 254 490



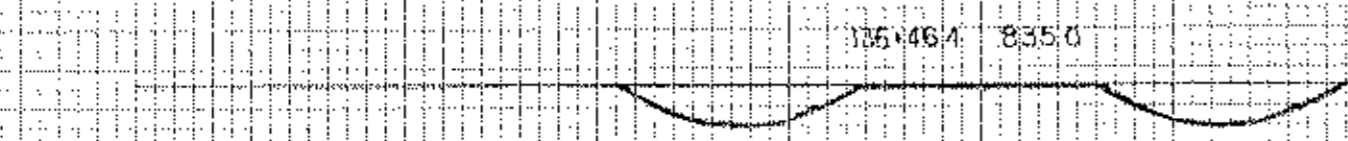
M.A. & C.R. RAILROAD RELOCATION

STATION-ELEVATION

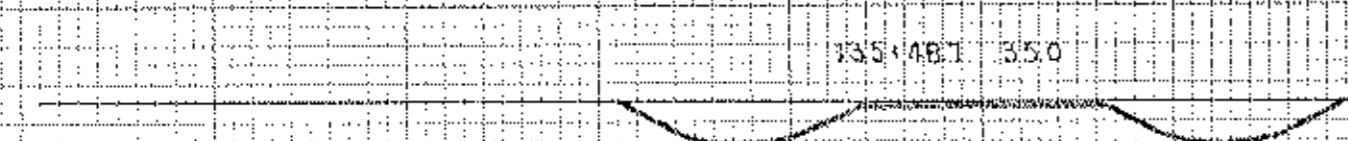
EXCAVATION EMBANKMENT

STATION-ELEVATION

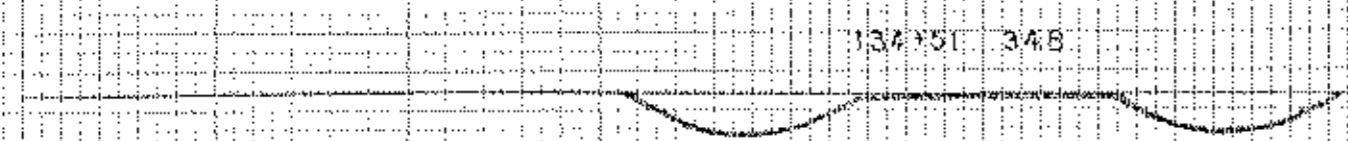
EXCAVATION EMBANKMENT



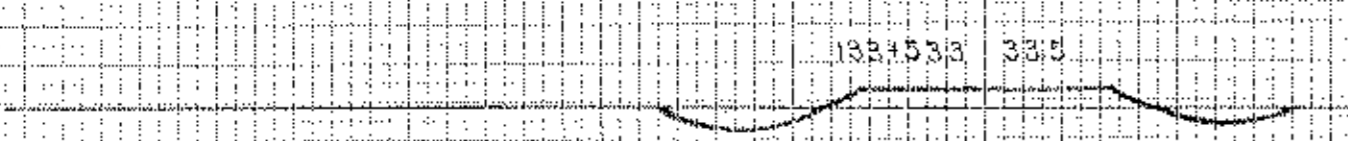
133.0



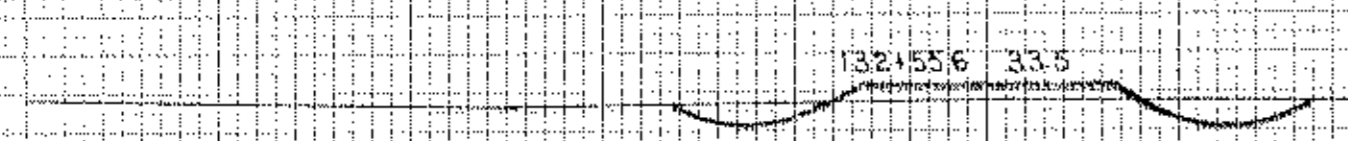
125.0



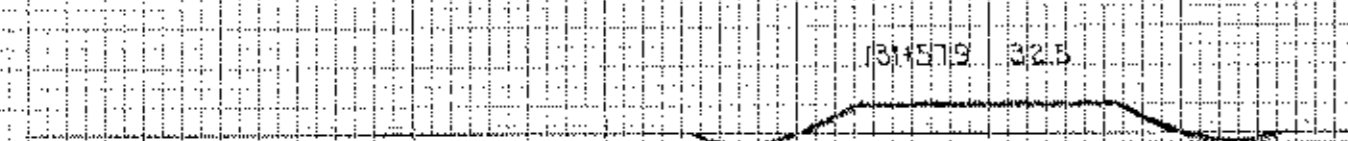
82.33



52.62



31.87



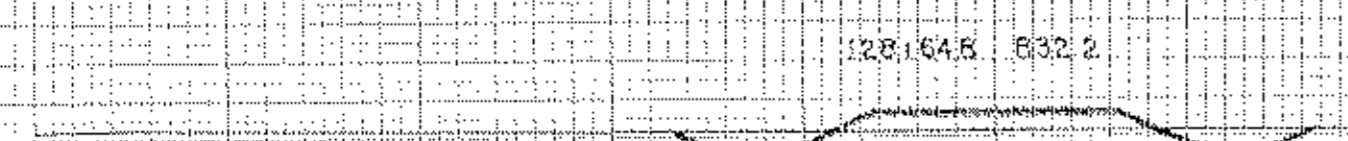
1.116



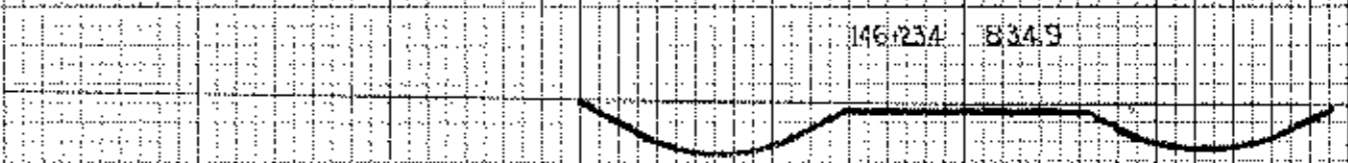
9.114



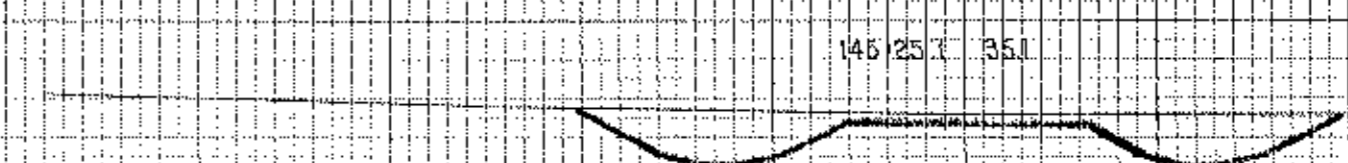
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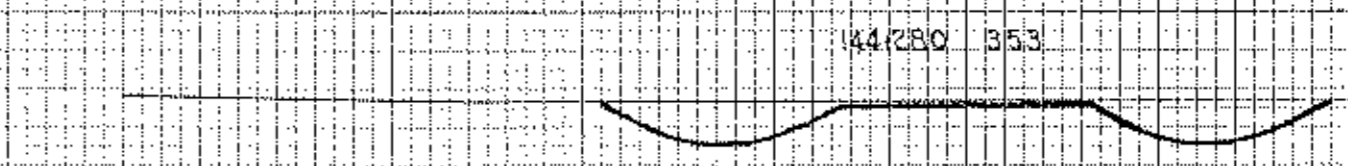
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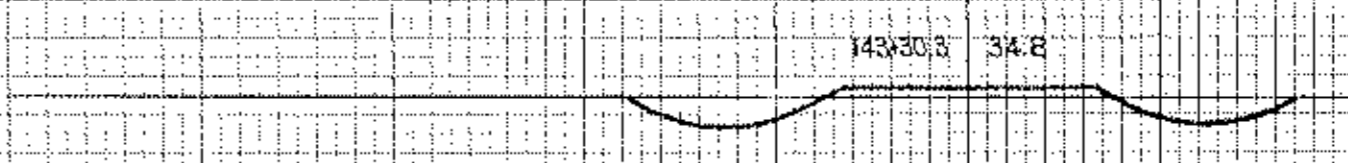
188.0



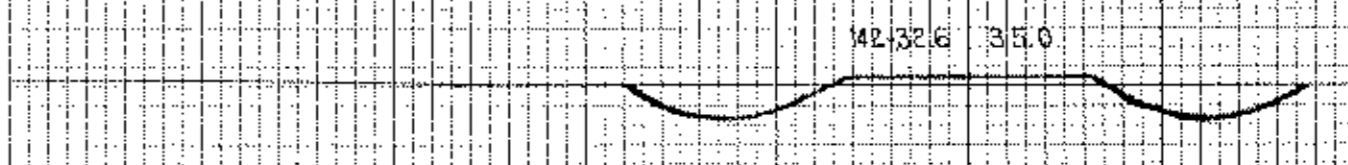
248.6



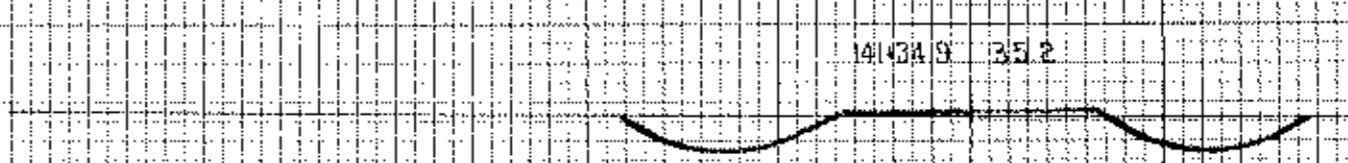
134.11



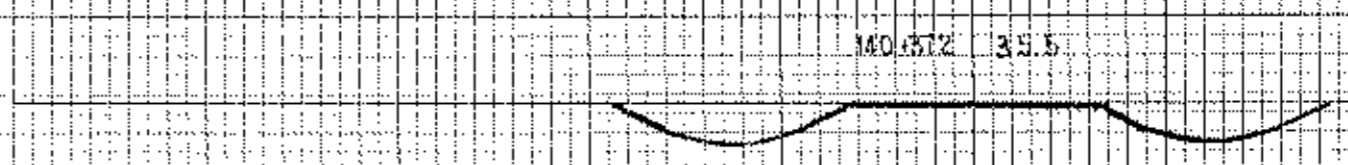
98.24



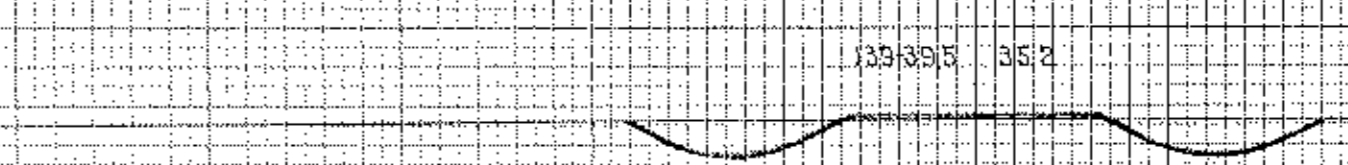
98.24



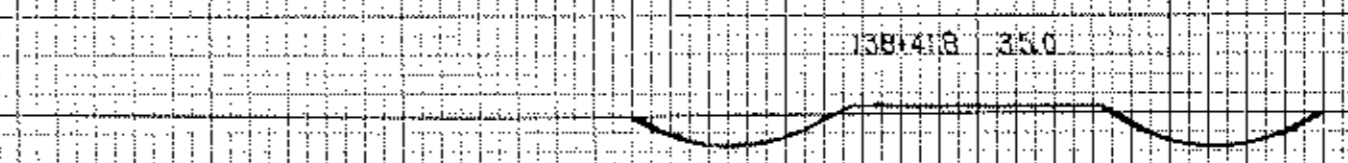
105.11



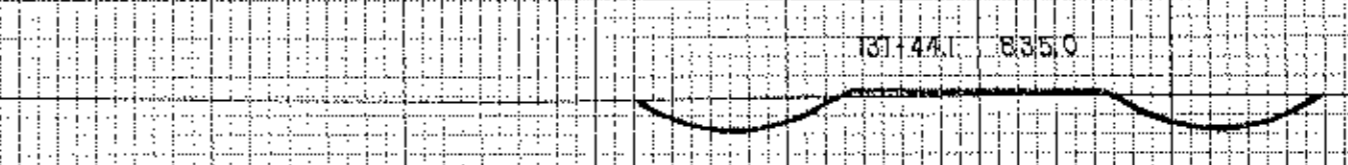
105.5



101.15



101.13



115.2

M. A. & C. R. RAILROAD RELOCATION

STATION-ELEVATION

EXCAVATION EMBANKMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SEC.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MINN.	DA-NI-1			15	41

Sub-TOTALS
 Excess to be hauled between Sta. 149+00 to 170+47.3 354.0
 525

451



Place Topsoil

M.A. & C.R. RAILROAD RELOCATION

STATION-ELEVATION

EXCAVATION (MBANKMENT)

STATION-ELEVATION

EXCAVATION (MBANKMENT)

4+68 835.1

37 56

4+46 834

Topsoil Covering Inplace
Hauled from Pit A-Borrow
Regular

242
3069
52 } 3863

16 117 } 41 29 } 2587

Place Topsoil

4+32 826

SWAMP EXC.
1374

39 231

3+15 822

247

8 41

3+00 816

417

2 54

2+00 814

42

8 978

1+00 806

105

0 240

0+77 804

Match Line (Swamp Exc. of Unsuitable Material)

32

0 70

Provide 5' Band Lane

0+61 801

0 3

END 37th AVE CONNECTION
Sta. 5+38

140 26 0 105

5+125 823.6

40 0

4+80 833.3

21 13

37th AVE CONNECTION