FORM 100-A '65

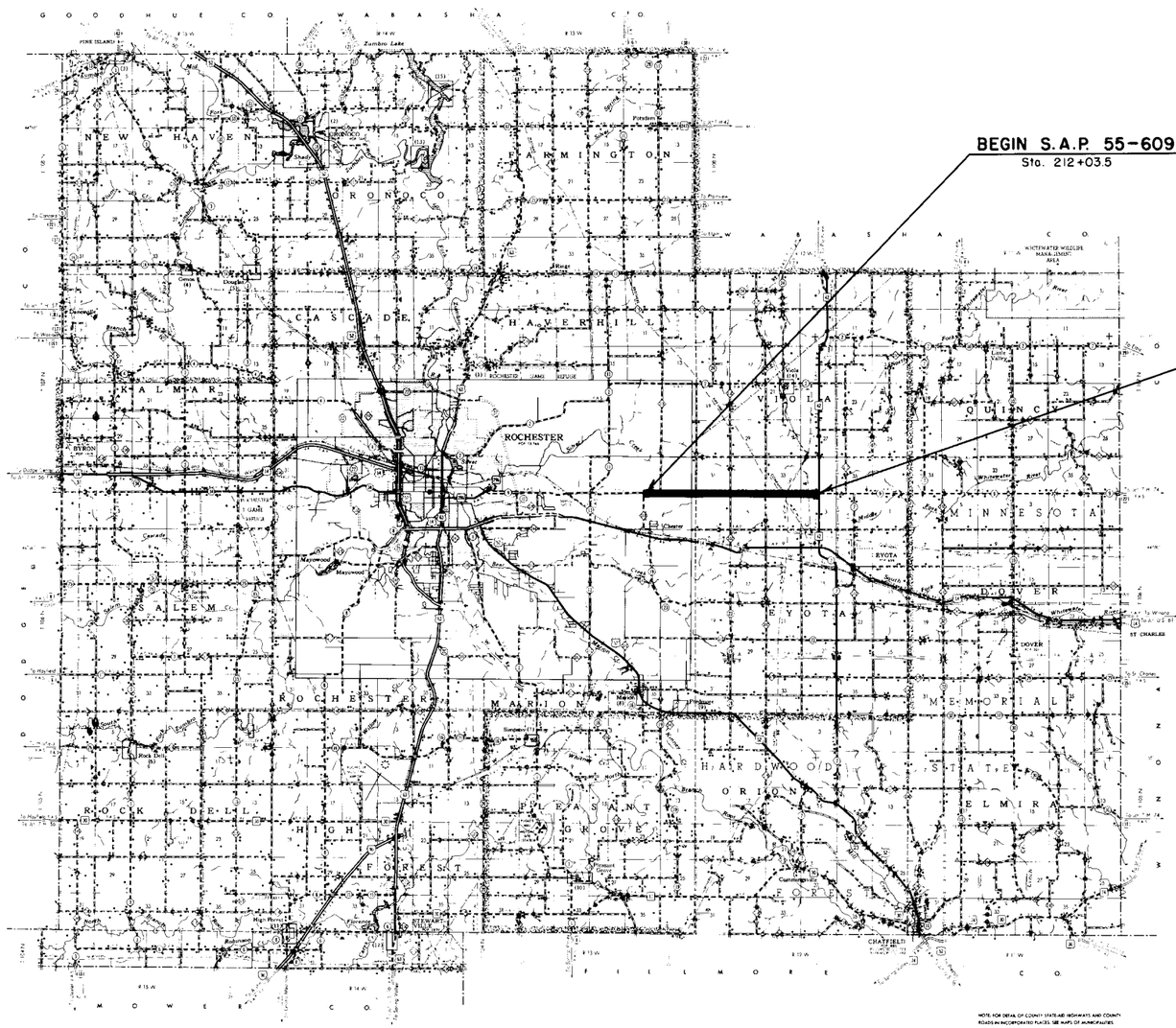
Fed. Proj. No.

PLANS SYMBOLS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT-OF-WAY LINE
PRESENT RIGHT-OF-WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT-OF-WAY LINE
RIVER OR CREEK (NAME)
DRY RUN
DRAINAGE DITCH (SIZE)
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
MEANDER CORNER
SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN C.B.
FIRE HYDRANT
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame) 1-S-F
F FRAME C CONCRETE
S STONE T TILE
B BRICK ST STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

UTILITIES SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH POLE LINE
JOINT TELEPHONE AND POWER ON POWER POLES
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (TELEPHONE CABLE TERMINAL)
GAS MAIN
WATER MAIN
CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE



NOTE: FOR DETAIL OF COUNTY STATE-AID HIGHWAYS AND COUNTY ROADS IN INCORPORATED PLACES, SEE MAPS OF MUNICIPALITIES.

*NOTE: ALL FEATURES, EXCEPT TOWNSHIP ROADS AND CEMETERIES, ARE CURRENT AS OF JAN. 1, 1971.

NOTE: ROUTES SHOWN FOR ALL MUNICIPALITIES UNLESS OTHERWISE STATED.

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR Grading and Aggregate Base

COUNTY STATE AID HIGHWAY NO. 9

BETWEEN C.R. 119 **AND** T.H. 42

From S 1/4 Corner Sec. 35 T107N-R13W
Give proper reference to Sections, Township and Range

To S 1/4 Corner Sec. 34 T107N-R12W

GROSS LENGTH	26,302.4	FEET	4.982 MILES
BRIDGES-LENGTH	0	FEET	0 MILES
EXCEPTIONS-LENGTH	0	FEET	0 MILES
NET LENGTH	26,302.4	FEET	4.982 MILES

INDEX OF SHEETS

Sheet No 1 Title Sheet & Layout Map
" No 2 Est. Quantities & Typical Sec
" No 3 To 11 Plan & Profile
" No 12 To 46 Cross Sections

DESIGN SPEED 55 M. P. H.

PROJECTED A. D. T. 2,990

9 TON DESIGN

SOIL FACTOR 130

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Ira Schellhammer DATE 9/5/72
COUNTY ENGINEER

Olmsted COUNTY REG. NO. 8284

RECOMMENDED FOR APPROVAL Ford H. Peterson 9/5 19 72
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL Irving J. Sobon 9-7 19 72

APPROVED 9/11 19 72 Lindsay M. Frazer
STATE AID ENGINEER

— SPECIFICATIONS —

STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1972, SHALL GOVERN.

Minn. Project No. _____ S.A.P. 55-609-07 State Project No. _____

Olmsted County, Minnesota. County Proj. No. _____ Plan No. _____ Sheet 1 of 46 Sheets

ALBINSON, INC.

ESTIMATED QUANTITIES

SPECIFICATION NO.	ITEM	UNIT	MUNICIPAL	RURAL	TOTAL ESTIMATED QUANTITIES
2101.502	Clearing	Tree		290	290
2101.507	Grubbing	Tree		272	272
2104.501	Remove Pipe Culvert	Lin. Ft.		1,292	1,292
2104.521	Salvage Pipe Culvert	Lin. Ft.		615	615
2104.523	Salvage Concrete Aprons	Each		6	6
2105.501	Common Excavation (P)	Cu. Yd.		100,488	100,488
2105.503	Rock Excavation	Cu. Yd.		500	500
2105.507	Subgrade Excavation	Cu. Yd.		30,496	30,496
2105.523	Common Borrow (CV)	Cu. Yd.		13,256	13,256
② 2130.501	Water	M-Gal.		50	50
① 2211.501	Aggregate Base Class 2	Ton		25,861	25,861
2413.511	Timber Box Culvert 48" X 60"	Lin. Ft.		72	72
2413.512	Timber Box Culvert End Section 48" X 60"	Each		2	2
2501.511	18" C.S. Pipe Culvert	Lin. Ft.		944	944
2501.511	24" C.S. Pipe Culvert	Lin. Ft.		50	50
2501.511	24" R.C. Pipe Culvert Class II	Lin. Ft.		594	594
2501.511	24" R.C. Pipe Culvert Class III	Lin. Ft.		214	214
2501.511	30" R.C. Pipe Culvert Class II	Lin. Ft.		336	336
2501.521	29" Span R.C. Pipe-Arch Culv. Class IV	Lin. Ft.		66	66
2501.515	18" G.S. Pipe Aprons	Each		62	62
2501.515	24" G.S. Pipe Aprons	Each		2	2
2501.515	24" R.C. Pipe Aprons	Each		18	18
2501.515	30" R.C. Pipe Aprons	Each		8	8
2501.525	29" Span R.C. Pipe-Arch Aprons	Each		2	2
2501.571	Install Metal Culverts	Lin. Ft.		485	485
2501.571	Install Concrete Culverts	Lin. Ft.		36	36
2501.573	Install Concrete Aprons	Each		6	6
2413.531	Install Timber Box Culvert 48" X 60"	Lin. Ft.		82	82
2413.533	Install Timber Box Culvert End Section 48"X60"	Each		2	2

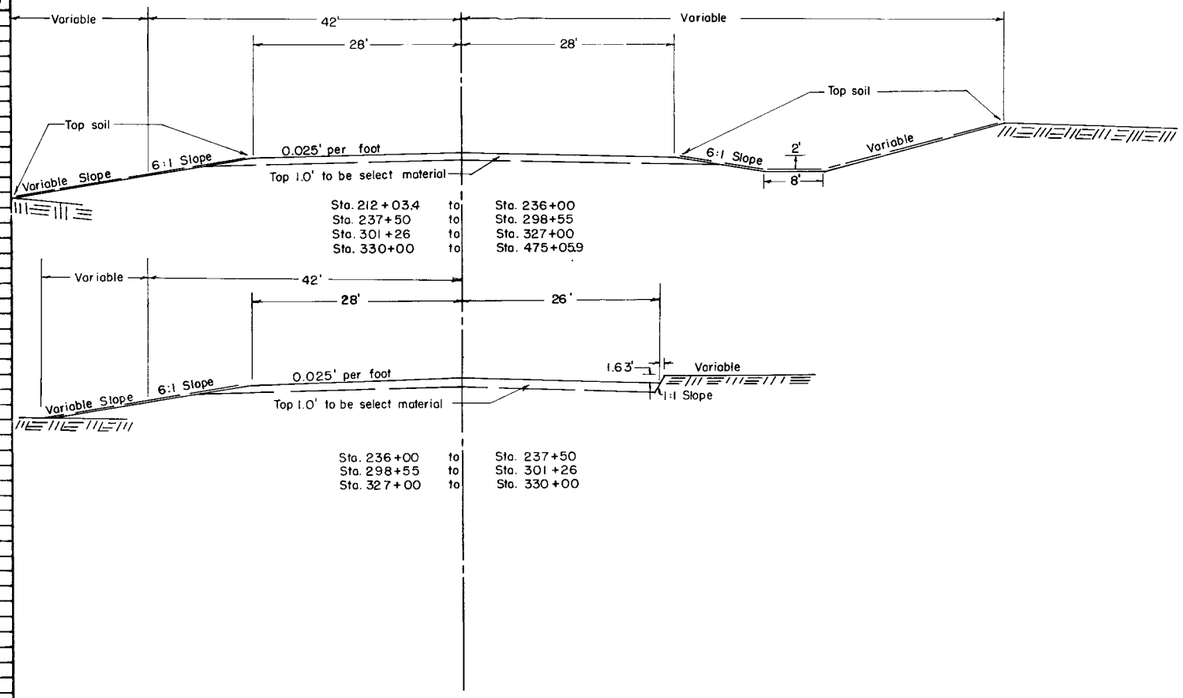
① Item No. 2211.501 Includes 315 Tons Drives, 480 Tons F. Ent. and 210 Tons for Public Road Approaches.
② To be used for dust preventative.

STANDARD DETAIL PLATES

THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT.

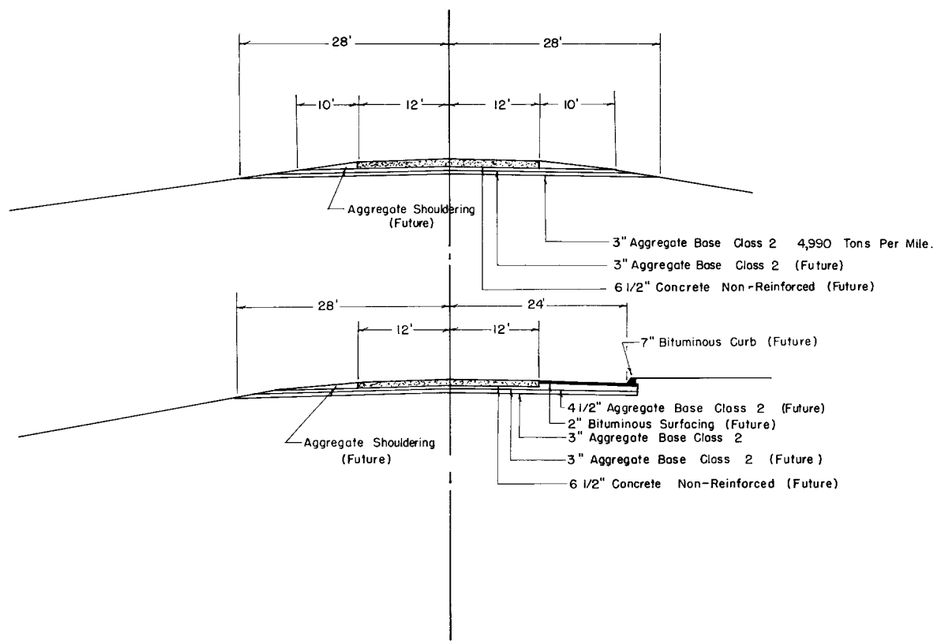
PLATE NO.	DESCRIPTION
0001 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 F	REINFORCED CONCRETE PIPE
3014 F	REINFORCED CONCRETE PIPE-ARCH DETAIL
3040 C	CORRUGATED METAL PIPE
3060 A	TIMBER BOX CULVERT
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110 C	CONCRETE APRON FOR REINFORCED
3123 F	METAL APRON FOR C.M.PIPE
3145 A	CONCRETE PIPE JOINT TIES
8000 C	STANDARD BARRICADES
8008 D	CONTRACTORS SIGN
9000 B	APPROACHES AND ENTRANCES

TYPICAL GRADING SECTIONS



SPECIAL DETAILS

TYPICAL BASE-SURFACING SECTIONS



Note: Material from the upper 1.0' of the natural topsoil shall not be used in the upper 1.0' of the roadway. Part of this material shall be uniformly spread on slopes and ditch bottoms to a depth of 3". No payment in addition to the contract price for Common Excavation will be made for spreading the topsoil as above provided, nor will any undercutting made in excavation prior to placing the topsoil be measured for payment.

Note: Corrugated steel and Reinforced Concrete pipe culvert excavation will be considered incidental, and will be under unit price for "Pipe Culvert."

Note: Subgrade Treatment:
Excavate 1.0' below profile grade for compaction, as shown on the plan and profile sheets. Excavation has been computed and is listed as Subgrade excavation. Backfill with select material from R.O.W. Tapers shall be 50:1 in all cases.

Note: Place Sectional Concrete Pipe on Class "B" and Class "C" Bedding. All bedding to be considered as incidental and no direct compensation shall be made therefor.

Note: All dimensions and slopes shown on typical sections are approximate.

Minn. Proj. No. _____ S.A.P. 55-609-07
State Project No. _____

Olmsted County, Minn. Proj. No. _____ Plan No. _____ Sheet No. 2 of 46 Sheets

ALBINSON, INC. MINNEAPOLIS

Res. Drive Lt. 213+79
No Culv. Inpl.
18"X 32' CS Pipe Culvert
2-18" GS Pipe Aprons

℄ Culv. 217+07
Inpl. 18" X 38' CMP
Remove
24" X 76' RC Pipe Culvert Class II
2-24" RC Pipe Culvert Aprons
Place Culvert on "C" Bedding

℄ Culv. 226+04
Inpl. 24" X 40' CMP
Remove
Move Culvert to Sta. 227+00
24"X 76' RC Pipe Culvert Class II
2-24" RC Pipe Culvert Aprons
Place Culvert on "C" Bedding

℄ Culv. 233+08
Inpl. 18" X 38' CMP
Remove
No Culvert Req'd

FE Lt. 233+94
Inpl. 15" X 26' CMP
Remove
No Culvert Req'd

CR "119" Lt. 238+37
Inpl. 18" X 32' CMP
Remove
18"X36' CS Pipe Culvert
2-18"GS Pipe Aprons

35 36 2 1 — T.107 N. R.13 W. — T.106 N. R.13 W.

P.I. 212+03.46
1/2 Reinf. Road

P.I. 238+36.84
3/4 Reinf. Road
Δ Lt. 0°15'45"

Cable Marker

Cable Marker

Graner

Mobile Home

Corn Crib

CR "119" Rt. 212+04
Inpl. 24"X50' CMP
2-24" Aprons (8 Lin. Feet)
Remove
24" X 50' CS Pipe Culvert
2-24" GS Pipe Aprons

Res. Drive Rt. 221+97
No Culv. Inpl.
No Culvert Req'd

Res. Drive Rt. 234+84
No Culv. Inpl.
No Culvert Req'd

Res. Drive Rt. 237+48
Inpl. 15" X 56' CMP
Remove
18"X32' CS Pipe Culvert
2-18"GS Pipe Aprons

CL. 14 GR. 12

CL. 5 GR. 4

CL. 19 GR. 17

B.M. Elev. 1265.68
Spk. in P.P. S.W. of Intersection

B.M. Elev. 1268.17
Spk. in P.P. 32' Rt.
Sta. 225+43

B.M. Elev. 1266.91
Spk. in P.P. 30' Rt.
Sta. 237+97

℄ Subgrade Elev.

P.I. +00
Elev. 68.9
400' V.C.
M=0.375

P.V.C. +00
Elev. 66.9

P.V.T. +00
Elev. 69.4

P.I. +00
Elev. 70.65
400' V.C.
M=0.275

P.V.C. +00
Elev. 70.15

P.V.T. +00
Elev. 70.05

P.I. +00
Elev. 69.15
400' V.C.
M=0.5

P.V.C. +00
Elev. 69.75

P.V.T. +00
Elev. 70.55

P.V.C. +56.85185
Elev. 73.04796

P.V.T. +46.85185 Elev. 69.68149
P.V.C. +50 Elev. 69.15

+1.0%

+0.25%

-0.3%

+0.7%

-2.0%

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 212+03.5 to Sta. 214+50

Inlet Elev. 66.0
Outlet Elev. 63.0

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 219+35 to Sta. 237+44

SPECIAL DITCH LT:
-0.5%

Inlet Elev. 66.0
Outlet Elev. 63.8

Profile 75' Lt.
Profile 75' Rt.

P.I. +51.85185
Elev. 75.11296
590' V.C.
M=1.99125

COMMON EXC 1613
SUBGRADE EXC 374
EMB 1114

COMMON EXC 8860
SUBGRADE EXC 2606
EMB 6110

COMMON EXC 687
SUBGRADE EXC 116
EMB 472

Present ℄ Elev.

Sta.	Present ℄ Elev.	℄ Subgrade Elev.
212+03.46	67.4	65.9
+21	67.4	66.9
+31	67.6	67.8
+38	67.7	68.5
213	68.2	69.05
214	68.8	69.4
215	1269.0	69.65
216	68.6	69.9
+07	68.3	70.15
+15	68.3	70.3
+25	68.6	70.38
+45	68.6	70.25
217	69.5	70.05
218	1271.2	69.75
219	72.0	69.55
+45	72.1	69.65
220	71.7	69.95
+63	70.7	70.55
221	70.2	71.25
+34	70.1	71.95
222	70.2	72.65
+04	70.3	73.35
+43	70.2	73.55
+68	70.2	73.4
223	70.3	72.75
+60	70.7	71.65
224	70.9	70.15
+52	71.4	68.15
225	71.9	67.25
+30	1273.2	67.25
226	73.4	
227	73.9	
+43	74.1	
228	74.3	
+10	74.4	
229	74.5	
230	74.5	
231	1274.7	
232	74.3	
+44	72.3	
233	71.1	
+12	69.4	
+20	68.0	
+47	67.8	
+57	67.5	
234	66.4	
+55	65.5	
235	1265.2	
+61	65.1	
236	65.3	

1290 80 70 60 1250

210 215 220 225 230 235 240

FE Lt. 240+15
Inpl. 15" X 26' CMP
Remove
18"X 28' CS Pipe Culvert
2-18" GS Pipe Aprons

℄ Culv. 240+60
Inpl. 24" X 42' CMP
Remove
30"X 90' RC Pipe Culvert Class II
2-30" RC Pipe Aprons
Place Culvert on "C" Bedding
F&I Approved Joint Fasteners

FE Lt. 248+50
Inpl. 15" X 26'CMP
Remove
18"X 28' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Lt. 258+87
Inpl. 15" X 26' CMP
Remove
18"X 28' CS Pipe Culvert
2-18"GS Pipe Aprons

℄ Culv. 260+09
Inpl. 24" X 36' CMP
Remove
24"X 76' RC Pipe Culvert
Class II
2-24" RC Pipe Culvert Aprons
Place Culvert on "C" Bedding

Res. Drive Lt. 260+52
Inpl. 15" X 26' CMP
Remove
No Culvert Req'd

Res. Drive Lt. 261+83
No Culv. Inpl.
18"X 32' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Lt. 265+08
Inpl. 15" X 26'CMP
Remove
18"X 28' CS Pipe Culvert
2-18" GS Pipe Aprons

P.O.T. 253+99.06
60 D Spk.

P.I. 265+01.49
Assumed

Granery
Corn Crib
Tele. Cable Marker
Conc. Pan
Feed Bunk
Lilac Bush
Tele. Cable Marker

FE Rt. 247+20
No Culv. Inpl.
18"X28' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Rt. 251+45
Inpl. 15" X 28'CMP
Remove
18"X 28' CS Pipe Culvert
2-18" GS Pipe Aprons

Const. Timber Box Culv. Sta. 259+00
48"X 60"X 72' Timber Box Culvert
2-48"X60" Timber Box Culvert
End Sections
Place Culvert on "B" Bedding

FE Rt. 258+47
No Culv. Inpl.
No Culvert Req'd

FE Rt. 261+83
No Culv. Inpl.
18"X 28' CS Pipe Culvert
2-18"GS Pipe Aprons

FE Rt. 265+18
Inpl. 15" X 26'CMP
Remove
18"X 32' CS Pipe Culvert
2-18" GS Pipe Aprons

CL. 1 GR. 1 — CL. 9 GR. 9 — CL. 3 GR. 3

B.M. Elev. 1283.58
Spk. in P.P. 32' Rt.
Sta. 256+88

B.M. Elev. 1271.68
Spk. in T.P. 30' Lt.
Sta. 265+25

Subgrade Elev.

P.I. +00
Elev. 64.15
500' V.C.
M= 3.0625

P.V.T.+50 Elev. 71.40
P.V.C.+50 Elev. 71.40

+2.9%

P.I. +00
Elev. 78.65
500' V.C.
M=1.1875

Inlet Elev. 63.2
Outlet Elev. 54.8

P.V.T.+50 Elev. 81.15

P.V.C.+10 Elev. 84.75

+1.0%

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 243+30 to Sta. 257+85

P.I. +60
Elev. 87.25
500' V.C.
M= 1.25

P.V.T.+10 Elev. 84.75

-1.0%

Inlet Elev. 76.1
Outlet Elev. 75.2

P.V.C.+00 Elev.

Inlet Elev. 78.0
Outlet Elev. 75.2

P.I. +00
Elev. 77.85
600' V.C.
M= 2.25

P.V.T. +00 Elev. 65.85

-4.0%

P.V.C.+00 Elev. 61.85

P.I. +00
Elev. 53.85
400' V.C.
M=1.8

COMMON EXC. 10736 EMB 7404
SUBGRADE EXC. 2097
ROCK EXC. 500

COMMON EXC. 8278 EMB 5709
SUBGRADE EXC. 1828

Subgrade Treatment:
Excavate 1.0' Below Profile Grade
Sta. 260+30 to Sta. 266+50

Present ℄ Grades

| | | |

℄ Culv. 271+10
Inpl. 24"X 46' CMP
Remove
30"X90' RC Pipe Culvert Class III
2-30" RC Pipe Culvert Aprons
Place Culvert on "C" Bedding
F&I Approved Joint Fasteners

℄ Culv. 278+11
Inpl. 30" X 36' CMP
Remove
30"X78' RC Pipe Culvert Class III
2-30" RC Pipe Culvert Aprons
Place Culvert on "C" Bedding

Res. Drive Lt. 290+17
Inpl. 15" X 26' CMP
Remove
18"X32' CS Pipe Culvert
2-18" GS Pipe Aprons

Twp.Rd.Lt. 291+29
Inpl. 18" X 36' CMP
Remove
No Culvert Req'd

℄ Culv. 291+81
Inpl. 18" X 38' CMP
Remove
24"X86' RC Pipe Culv. Cl. II
2-24" RC Pipe Culv. Aprons
Place Culv. on "C" Bedding

FE Lt. 293+56
Inpl. 18" X 26' CMP
Remove
18"X28' CS Pipe Culvert
2-18" GS Pipe Aprons

Res. Drive Lt. 299+21
Inpl. 15" X 26' CMP
Remove
No Culvert Req'd

T.107N R.12W
T.107N R.13W
36 31 1 6

P.O.T. 285+81.02
80.0 Spk.

P.I. 291+28.82
Cast Iron Monk
Δ 1.10°-5760'

P.O.T. 300+00
50.0 Spk.

Tele. Cable Marker
Lilac Bush
Twp. Rd.
House

Res. Drive Rt. 286+32
No Culv. Inpl.
18"X 28' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Rt. 291+45
No Culv. Inpl.
No Culvert Req'd

℄ Sta. 290+75
County to Furnish 48"X60"X82' Timber Box Culvert
and 2-48"X60" End Sections
Install 48"X 60"X 82' Timber Box Culvert
Install 2-48"X60" Timber Box Culvert End Sections

CL. 21 GR. 19 — CL. 10 GR. 10 — CL. 33 GR. 30

B.M. Elev. 1247.12
Spk. in P.P. 31' Rt.
Sta. 278+99

B.M. Elev. 1264.30
Spk. in P.P. 29' Lt.
Sta. 290+36

Profile 75' Lt.
Profile 75' Rt.

P.I.+00
Elev. 53.85
400' V.C.
M=1.8

P.V.T.+00 Elev. 53.05
P.V.C.+45.83333 Elev. 50.86667
P.I.+45.83333
Elev. 50.06667
400' V.C.
M=1.80
P.V.T.+45.83333 Elev. 56.46666
P.V.C.+00 Elev. 58.2
+3.2%
-0.4%
-0.8%
+4.0%
P.V.T.+00 Elev.
P.V.C.+50 Elev. 66.6
P.I.+00
Elev. 64.6
500' V.C.
M=3.0
P.V.T.+50 Elev. 74.6
P.V.C.+50 Elev. 74.6
P.I.+00
Elev. 88.6
700' V.C.
M=3.85
P.I.+00
Elev. 71.0
800' V.C.
M=4.0

Inlet Elev. 49.5
Outlet Elev. 43.0

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 271+60 to Sta. 275+60

Inlet Elev. 46.8
Outlet Elev. 44.0

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 281+60 to Sta. 289+00

Inlet Elev. 59.5
Outlet Elev. 58.5

Inlet Elev. 60.6
Outlet Elev. 59.7

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 294+85 to Sta. 302+40

COMMON EXC 11877 EMB 8270
SUBGRADE EXC 1219

COMMON EXC 6030 EMB 4158
SUBGRADE EXC 620

Present ℄ Grades
℄ Subgrade Elev.

PROFILE

PLAN

Res. Drive Lt. 300 + 45
No Culv.Inpl.
No Culv. Req'd

℄ Culv. 304+81
Inpl. 24" X 34' CMP
Remove
24"X 90' RC Pipe Culvert Class II
2-24" RC Pipe Culvert Aprons
Place Culvert on "C" Bedding

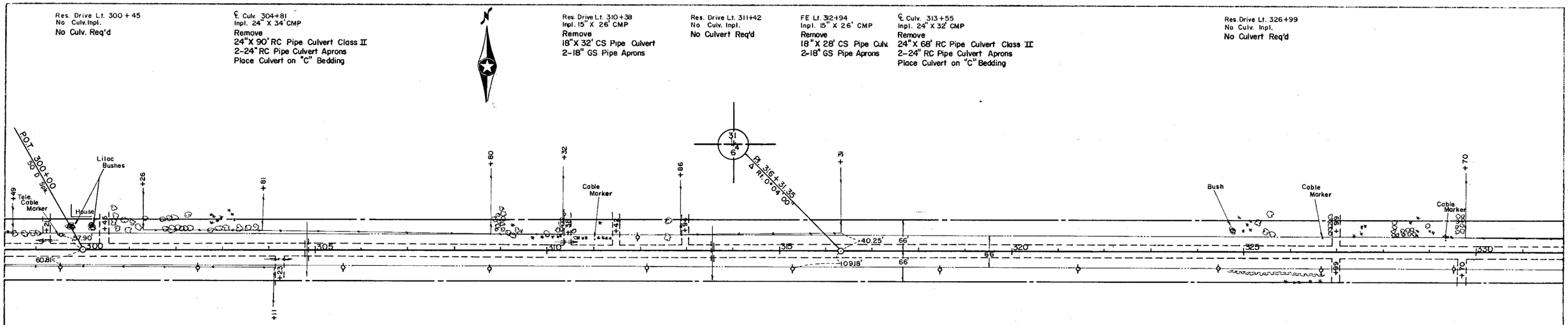
Res. Drive Lt. 310+38
Inpl. 15" X 26' CMP
Remove
18"X 32' CS Pipe Culvert
2-18" GS Pipe Aprons

Res. Drive Lt. 311+42
No Culv. Inpl.
No Culvert Req'd

FE Lt. 312+94
Inpl. 15" X 26' CMP
Remove
18"X 28' CS Pipe Culv.
2-18" GS Pipe Aprons

℄ Culv. 313+55
Inpl. 24" X 32' CMP
Remove
24"X 68' RC Pipe Culvert Class III
2-24" RC Pipe Culvert Aprons
Place Culvert on "C" Bedding

Res. Drive Lt. 326+99
No Culv. Inpl.
No Culvert Req'd



FE Rt. 304+23
Inpl. 15" X 26' CMP
Remove
No Culvert Req'd

FE Rt. 326+99
No Culv. Inpl.
18"X 28' CS Pipe Culvert
2-18"GS Pipe Aprons

FE Rt. 329+70
No Culv. Inpl.
18"X 28' CS Pipe Culvert
2-18"GS Pipe Aprons

CL. 18 GR. 16 — CL. 43 GR. 36 — CL. 20 GR. 20

B.M. Elev. 1287.27
Spk. in T.P. 23' Lt.
Sta. 311+08

B.M. Elev. 1299.50
Spk. in P.P. 31' Rt.
Sta. 326+73

℄ Subgrade Elev.: 82.6 84.7 86.2 87.1 87.3 87.0 86.6 86.3 86.2 86.2 86.4 86.7 87.0 87.3 87.6 88.0 88.6 89.4 90.4 91.5 92.6 93.7 94.8 95.9 97.0 98.1 99.2 00.3 01.4 02.5 03.4 03.8 03.8

Profile 75' Rt.
Profile 75' Lt.

1310
1300
90
80
1270

P.V.T.+50 Elev. 87.2
P.V.C.+00 Elev. 86.6
P.V.T.+00 Elev. 86.4
P.V.C.+00 Elev. 87.6
P.V.T.+00 Elev. 90.4
P.V.C.+00 Elev.

P.I.+00
Elev. 85.8
400' V.C.
M=0.35

P.I.+00
Elev. 88.6
700' V.C.
M= 3.85

P.I.+00
Elev. 88.2
400' V.C.
M=0.4

P.I.+00
Elev. 047
400' V.C.
M= 0.9

-0.4%
+0.3%
-0.6%
+1.1%

Inlet Elev. 80.8
Outlet Elev. 77.8

Inlet Elev. 84.0
Outlet Elev. 83.5

SPECIAL DITCH LEFT
-0.6%
+50 85.3 85.0 84.7 84.4 84.1 +50

COMMON EXC 14165 EMB 9670
SUBGRADE EXC 4026

COMMON EXC 3746 EMB 2609
SUBGRADE EXC 1815

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 306+75 to Sta. 342+00

Present ℄ Grades: 84.9 86.3 88.8 89.0 89.0 87.9 85.9 84.5 84.3 84.3 84.3 85.2 86.6 87.3 87.9 88.9 88.6 98.4 88.3 88.2 88.1 88.1 88.2 88.3 88.4 89.3 89.7 91.1 92.9 94.6 97.0 97.6 98.4 99.3 99.9 00.3 01.6 02.4 02.5 02.7 03.5 04.1 04.7 05.0 04.9 04.7 04.4

+40 +54 +80 +80 +53 +81 +47 +67 +33 +71 +29 +54 +60 +58 +78 +22 +60 +50 +55

300 305 310 315 320 325 330

PROFILE SURVEYED NOTE BOOK NO. AUGMENT CHECKED AS-BUILT CLASS

PLAN

℄ Culv. 338+54
Inpl. 24" X 34' CMP
Remove
24"X 70' RC Pipe Culvert Class III
2-24" RC Pipe Culvert Aprons
Place Culvert on "B" Bedding

CR "102" Lt. 342+75
No. Culv. Inpl.
18"X 36' CS Pipe Culvert
2-18" GS Pipe Culvert Aprons

T.107 N. R. 13 W. / T.106 N. R. 12 W. — 31 32 6 5

P.I. 342+74.98
Δ Rt. 00°05'30"
1/2" Rod

Cor. of Bell Tele. Tower

Cable Marker

Cable Marker

+70

+35

+07

+75 ℄ C.R."102"

66'

70'

330 335 340 345 350 355 360

43.50

45.17

455.2

43.46

+39 +49 +76 +83

Bushes

CR."102" Rt. 342+75
Inpl. 15"X 32" CMP
Remove
No Culvert Req'd

Res. Drive Rt. 352+89
Inpl. 15" X 26' CMP
Remove
18"X 32' CS Pipe Culvert
2-18" GS Pipe Culvert Aprons

Sta. 355+00
28" Span X 66' RC Pipe Arch Culvert Class IV
2-28" Span RC Pipe Arch Culvert Aprons
Place Culvert on "C" Bedding

CL. 10 GR. 9 — CL. 6 GR. 7

B.M. Elev. 1300.35
Spk. in P.P. 34' Rt.
Sta. 342+55

B.M. Elev. 130855
Spk. in P.P. 30' Rt.
Sta. 353+10

℄ Subgrade Elevation: 03.4 03.8 03.8 03.8 03.3 02.6 01.9 01.2 00.5 99.8 99.3 99.3 99.75 00.65 02.05 03.65 05.25 06.85 08.4 09.6 10.4 10.8 10.8 10.45 10.05 09.65 09.25 08.85 08.5 08.33 08.32 08.5 08.8 09.1

1320 / 10 / 1300 / 1290

P.V.T. 1+00 Elev.

P.V.C. +00 Elev. 99.8

P.V.T. 1+00 Elev.

P.V.C. +50 Elev. 07.65

P.V.T. +50 Elev. 10.65

P.V.C. +21.42857 Elev. 08.76429

P.I. +21.42857 Elev. 07.96429 400 V.C. M= 0.35

P.V.T. +21.42857 Elev. 08.56428

-0.7%

+1.6%

-0.4 %

+0.3%

+0.2%

-0.2%

P.I. +00
Elev. 04.7
400' V.C.
M=0.9

Inlet Elev. 95.8
Outlet Elev. 94.8

P.I. +00
Elev. 11.65
500' V.C.
M= 1.25

Inlet Elev. 06.0
Outlet Elev. 05.7

Profile 75' Lt.
Profile 75' Rt.

P.I. +50
Elev. 98.05
500' V.C.
M=1.4375

COMMON EXC	3911	EMB	2766		
SUBGRADE EXC	1203				
COMMON EXC	2364	EMB	1628		
SUBGRADE EXC	685				

+0.2% SPECIAL DITCH LEFT & RIGHT -0.2%

+26 +50 +37

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 294+85 to Sta. 342+00

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 343+00 to Sta. 351+50

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 355+50 to Sta. 380+00

Present ℄ Grades: 04.7 05.0 +50 1304.9 04.7 +55 04.4 03.6 03.4 +35 03.0 02.4 02.1 +53 1301.7 01.3 +46 00.8 00.1 99.6 +56 99.4 99.2 +54 99.4 1300.0 00.7 01.8 02.8 +48 03.0 +56 03.2 +67 03.7 +87 03.9 04.1 +12 05.9 1308.7 11.3 13.4 13.9 +50 13.9 13.1 13.1.9 10.8 10.4 +33 09.9 09.5 +74 09.4 08.8 08.6 +61 1308.5 08.8 08.9 +47 08.9 09.1 09.5 1309.8 10.4

330 335 340 345 350 355 360

PLAN

NO.	NOTE BOOK	ADJUSTMENT CHECKED	R/W CHECKED
		COMPUTED	
		PLOTTED	

PROFILE

FE Lt. 369+05
Inpl. 18" X 26' CMP
Remove
18"X28' CS Pipe Culvert
2-18" GS Pipe Aprons

℄ Culv. 377+52
Inpl. 30" X 36' CMP
Remove
30"X78' RC Pipe Culvert Class II
2-30" RC Pipe Aprons
Place Culvert on "C" Bedding

FE Lt. 380+64
Inpl. 24" X 26' CMP
Remove
18"X28' CS Pipe Culvert
2-18"GS Pipe Aprons

Res. Drive Lt. 384+47
Inpl. 24" X 26' CMP
Remove
18" X 32' CS Pipe Culvert
2-18" GS Pipe Aprons

N

PI. 369+16.30
4 Rt. 0+05.00
Iron Pin

32.97'
41.28'
66'
Bushes
Bushes

FE Rt. 369+25
Inpl. 24" X 26' CMP
Remove
18"X28' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Rt. 373+49
Inpl. 24" X 26' CMP
Remove
18"X28' CS Pipe Culvert
2-18" GS Pipe Aprons

Res. Drive Rt. 376+34
Inpl. 24" X 26' CMP
Remove
18" X 32' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Rt. 382+82
Inpl. 15" X 26' CMP
Remove
No Culvert Req'd

CL. 3 GR. 5

CL. 62 GR 61

B.M. Elev. 1305.65
Spk. in P.P. 33' Rt.
Sta. 369 + 37

℄ Subgrade Elev.

PI. +93.75
Elev. 09.98125
600' V.C.
M=1.20

P.V.T. +93.75
Elev. 09.98125

P.V.T. +93.75
Elev. 06.08125

+0.3%

-0.2%

-1.3%

P.V.C. +00 Elev. 98.2

PI. +00
Elev. 95.6
400' V.C.
M= 0.8

P.V.T. +00 Elev. 96.2

+0.3%

P.V.C. +00 Elev. 98.3

PI. +00
Elev. 98.9
400' V.C.
M= 0.4

P.V.T. +00 Elev. 01.1

+1.1%

Profile 75' Lt.
Profile 75' Rt.

COMMON EXC. 3897
SUBGRADE EXC. 1785

EMB. 2681

COMMON EXC. 3381
SUBGRADE EXC. 1374

EMB 2359

COMMON EXC. 4090
SUBGRADE EXC. 1017

EMB 2835

Inlet Elev. 92.1
Outlet Elev. 91.1

-0.2% SPECIAL DITCH LEFT & RIGHT

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 355+50 to Sta. 380+00

SPECIAL DITCH LT.
-0.8%

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 386+50 to Sta. 414+00

℄ Present Grades

1320
10
1300
1290

360 365 370 375 380 385 390

Twp.Rd. Lt. 395+59
No Culv. Inpl.
18"X 36' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Lt. 401+99
Inpl. 18"X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X 31' Metal Culvert
(Aprons Included)

℄ Culv. 404+15
Inpl. 24" X 34' RCP
2 Aprons
Salvage 2 Concrete Aprons
Extend 24"X 18' Left
Extend 24"X 20' Right
RC Pipe Culvert Class III
Install 2-24" Concrete Aprons
Place Culvert on "C" Bedding

Res. Drive Lt. 407+25
Inpl. 18" X 30' CMP
2 Aprons
Salvage 35 Lin. Feet
Install 18"X 35' Metal Culvert
(Aprons Included)

℄ Culv. 415+20
Inpl. 24" X 36' RCP
2 Aprons
Salvage 2 Concrete Aprons
Salvage 24"X 36' RC Pipe
Install 24"X 36' RC Pipe
Extend 24"X 24' Left
Extend 24"X 24' Right
RC Pipe Culvert Class III
Install 2-24" Concrete Aprons
Place Culvert on "C" Bedding

FE Lt. 418+91
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X 31' Metal Culvert
(Aprons Included)

T.107N R.13W
T.106N R.13W
32 33 5 4
Pt. 395+56.18
Rt. 01°03'00"
Iron Pin

Williams Bros. Pipeline Sign

House

Twp.Rd. Rt. 395+56
No Culv. Inpl.
18"X 36' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Rt. 397+02
Inpl. 15" X 30' CMP
Remove
No Culvert Req'd

FE Rt. 401+99
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X 31' Metal Culvert
(Aprons Included)

FE Rt. 408+63
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X 31' Metal Culvert
(Aprons Included)

B.M. Elev. 1309.26
Spk. in PP 28' Rt.
Sta. 395+27

B.M. Elev. 1310.01
Spk. in PP 32' Rt.
Sta. 416+03

P.V.C. +00 Elev.
P.V.T. +00 Elev.
P.I. +00
Elev. 06.2
400' V.C.
M = 0.6
+1.1%
-0.8%
+0.4%
P.I. +00
Elev. 11.0
400' V.C.
M = 0.95
Inlet Elev. 03.6
Outlet Elev. 02.5
Inlet Elev. 06.0
Outlet Elev. 04.7

Profile 75' Lt.
Profile 75' Rt.

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 386+50 to Sta. 414+00

COMMON EXC 9484
SUBGRADE EXC 3714
EMB 6543

PLAN
PROFILE

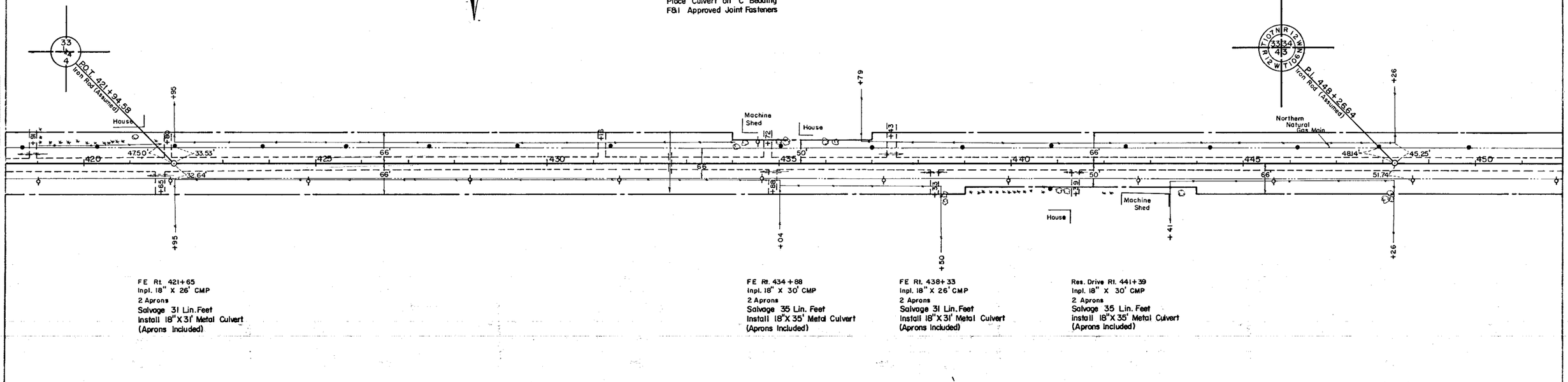
Res Drive Lt. 421+80
No Culv. Inpl.
18"X32' CS Pipe Culvert
2-18" GS Pipe Aprons

FE Lt. 431+19
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X31' Metal Culvert
(Aprons Included)

℄ Culv. 432+63
Inpl. 24"X 40' RCP
2 Aprons
Salvage 2 Concrete Aprons
Extend 24"X16' Left
Extend 24"X20' Right
RC Pipe Culvert Class II
Install 2-24' Concrete Aprons
Place Culvert on "C" Bedding
F&I Approved Joint Fasteners

Res. Drive Lt. 434+72
Inpl. 18"X 30' CMP
2 Aprons
Salvage 35 Lin. Feet
Install 18"X35' Metal Culvert
(Aprons Included)

FE Lt. 437+43
Inpl. 18" X 30' CMP
2 Aprons
Salvage 35 Lin. Feet
Install 18"X35' Metal Culvert
(Aprons Included)



FE Rt. 421+65
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X31' Metal Culvert
(Aprons Included)

FE Rt. 434+88
Inpl. 18" X 30' CMP
2 Aprons
Salvage 35 Lin. Feet
Install 18"X35' Metal Culvert
(Aprons Included)

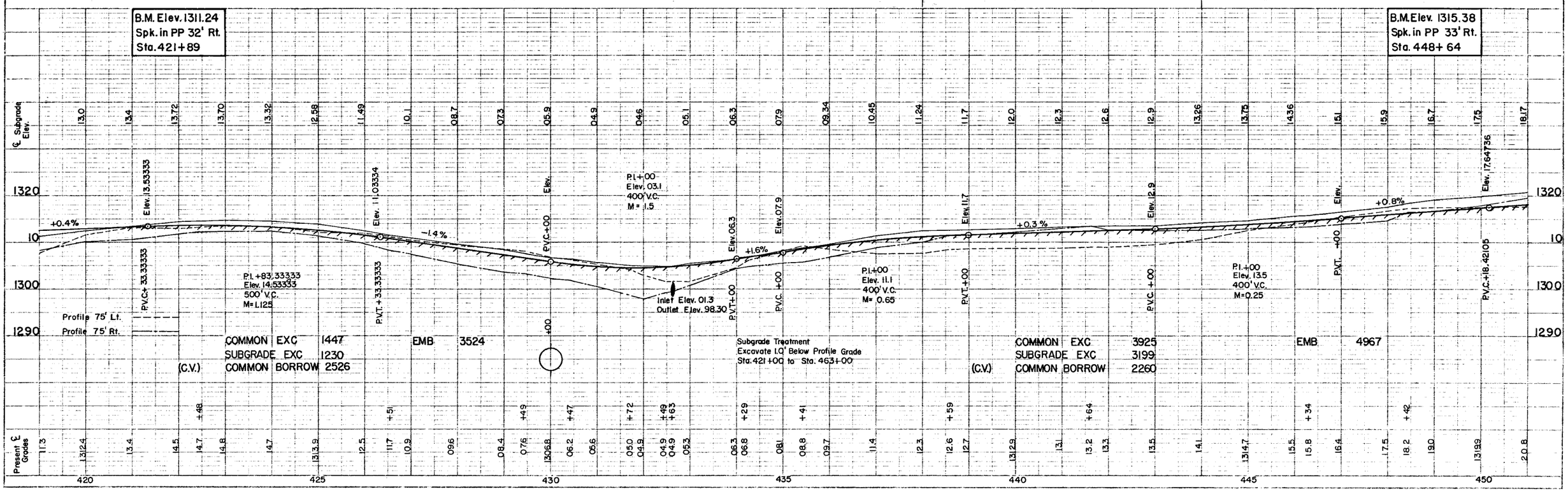
FE Rt. 438+33
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X31' Metal Culvert
(Aprons Included)

Res. Drive Rt. 441+39
Inpl. 18" X 30' CMP
2 Aprons
Salvage 35 Lin. Feet
Install 18"X35' Metal Culvert
(Aprons Included)

B.M. Elev. 1311.24
Spk. in PP 32' Rt.
Sta. 421+89

B.M. Elev. 1315.38
Spk. in PP 33' Rt.
Sta. 448+64

CL. 1 GR. 1



COMMON EXC 1447 EMB 3524
SUBGRADE EXC 1230
(C.V.) COMMON BORROW 2526

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 421+00 to Sta. 463+00

COMMON EXC 3925 EMB 4967
SUBGRADE EXC 3199
(C.V.) COMMON BORROW 2260

PLAN
PROFILE

PLATE 1 - PLAN - PROFILE

FE Lt. 457+87
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Ft.
Install 18"X 31'
Metal Culvert
(Aprons Included)

℄ Culv. 458+24
Inpl. 18"X 42' CMP
2 Aprons
Salvage 47 Lin. Feet
24"X 72' RC Pipe Culvert Class III.
2-24" RC Pipe Aprons
Place Culvert on "B" Bedding

℄ Culv. 458+79
Inpl. 18"X 42' CMP
2 Aprons
Salvage 47 Lin. Feet
24" X 72' RC Pipe Culv.
Class III
2-24" RC Pipe Aprons
Place Culvert on "B"
Bedding

RAILROAD

NORTHWESTERN

AND

CHICAGO

P.O.T. 473+31.17
60.0 Spk.

P.O.T. 473+09.84
P.K. Nail

R.O.W. Marker

R.O.W. Marker

P.I. 474+75.27

C.S.A.H. 9

T. H. 42

FE Rt. 457+92
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X 31' Metal Culvert
(Aprons Included)

FE Rt. 469+72
Inpl. 18" X 26' CMP
2 Aprons
Salvage 31 Lin. Feet
Install 18"X 31' Metal Culverts
(Aprons Included)

Res. Drive Rt. 473+09
Inpl. 18" X 24' CMP
Remove
18"X 32' CS Pipe Culvert
2-18"GS Pipe Aprons

B.M. Elev. 1312.46
Spk. in T.P. 39' Lt.
Sta. 459+01

B.M. Elev. 1321.23
RR Spk. in P.P. 33'
Rt. Sta. 474+39

CL. 12 GR. 12

℄ Subgrade Elev.

Elev. 17.64736
Elev. 16.89737
Elev. 16.44
Elev. 14.9
Elev. 14.9
Elev. 15.74
Elev. 22.4
Elev. 23.0

+0.8%
-1.1%
0.0%
+0.6%
0.0%

P.I. +68.42105
Elev. 19.64736
500' V.C.
M= 1.1875

P.V.C. +18.42105
P.V.T. +18.42105
P.V.C. +60.0

Inlet Elev. 11.4
Outlet Elev. 10.7

P.I. +00
Elev. 14.9
280' V.C.
M= 0.385

P.V.T. +40.0
P.V.C. +60.0

Inlet Elev. 11.1
Outlet Elev. 10.5

P.I. +00
Elev. 14.9
280' V.C.
M= 0.21

P.V.T. +40

P.V.C. +50

P.V.T. +50

P.I. +50
Elev. 23.0
200' V.C.
M= 0.15

Present ℄ Grades

Profile 75' Lt.
Profile 75' Rt.

COMMON EXC. 1925 EMB 1263
SUBGRADE EXC 1346

COMMON EXC 72 EMB 8470
SUBGRADE EXC ~~242~~ 412
(C.V.) COMMON BORROW 8470

Subgrade Treatment
Excavate 1.0' Below Profile Grade
Sta. 421+00 to Sta. 463+00

PLAN

PROFILE