FORM 129 A

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
Plan and Profile of County Road No. "O"
OLMSTED COUNTY

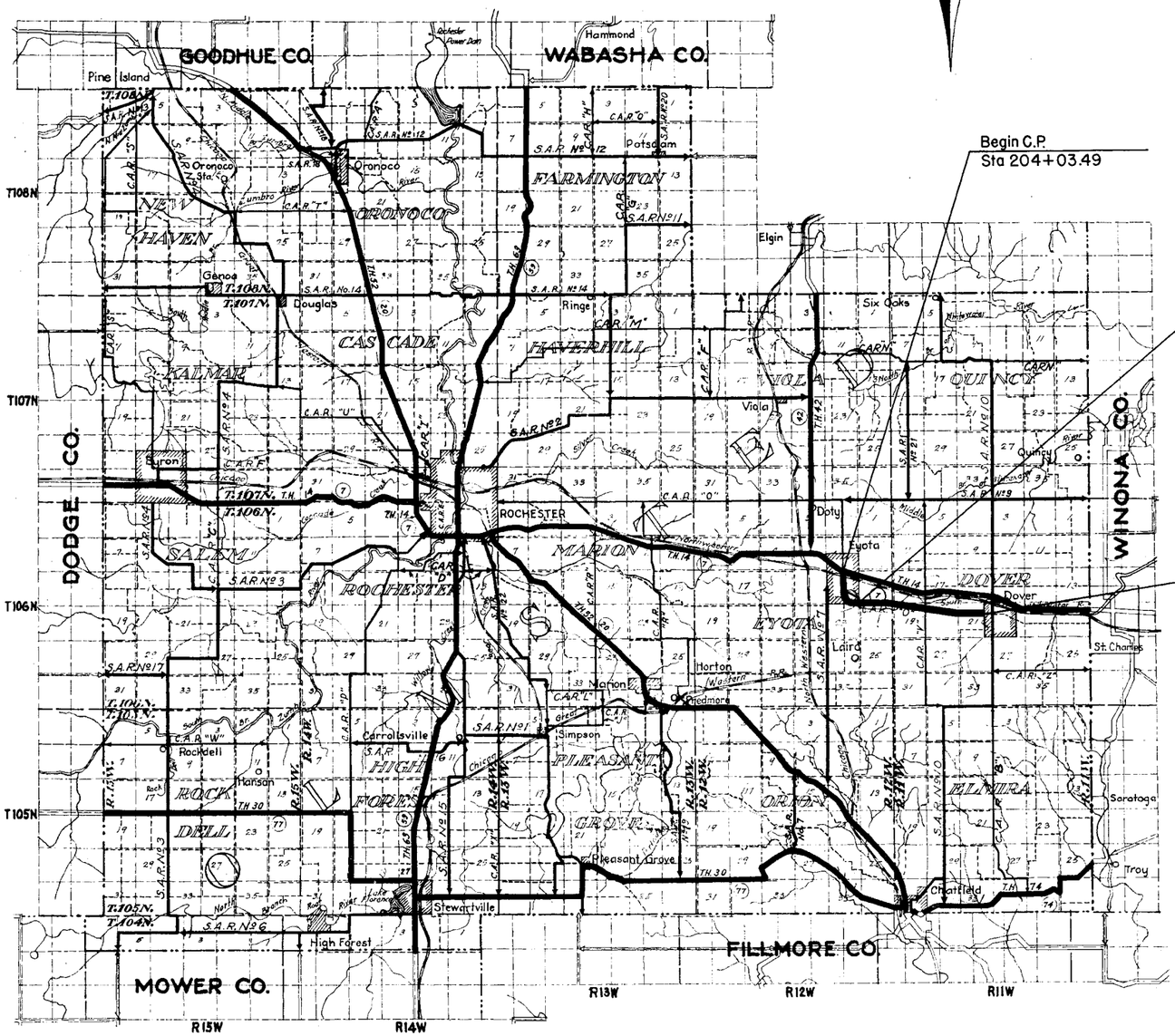
From Cent. Sec. 14 T106N-R12W To East 1/4 Cor. of the N.E.1/4 Sec. 21 T106N-R11W
Give proper reference to Sections, Township and Range

GROSS LENGTH- 26085 FEET 4.94 MILES
LENGTH OF EXCEPTIONS- 0 FEET 0 MILES
NET LENGTH 26,085 FEET 4.94 MILES

SCALES
- PLAN. 1 Inch = 200 Feet.
- PROFILE. Horz. 1 Inch = 200 Feet. Vert. 1 Inch = 20 Feet
- WORKING PLANS: Horz. 1 Inch = 100 Feet; Vert. 1 Inch = 10 Feet; Cross-Section. 1 Inch = 10 Feet

LAYOUT
Scale. 1 Inch = 10560 Feet

Design Speed 55 M.P.H.



INDEX OF SHEETS

Sheet No. 1. Title Sheet and Layout Map
" No. 2. Typical Cross-Sections and Statement
" No. 3. Plan and Profile, Sta. ..... to Sta. .....
" No. 4.

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

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

OLMSTED COUNTY HIGHWAY ENGINEER

—SPECIFICATIONS—

THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED MAY 1, 1959 AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON MARCH 26, 1959 SHALL GOVERN.

PLANNED BY _____ 19__
COUNTY ENGINEER FOR _____ COUNTY

RECOMMENDED FOR APPROVAL _____ 19__
DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL _____ 19__
ENGINEER OF COUNTY DIVISION

APPROVED _____ 19__
ENGINEER OF PLANS AND SURVEYS

RECOMMENDED FOR APPROVAL DATE _____

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED DATE _____

DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

PLAN

Pl. 423 + 84.33
Δ Lt. 7°45'
D 2°00'
T 194.05
L 387+50

P.C. 421+90.0

P.T. 425+77.78

97.29

65.29

43.33

+56 +77 +38 +53 +61 +19 Twp.Rd.+84 +40 +90 +90 +90 +07 +22 +59 +20 +44 +69

420 425 430 435 440 445

+22 F.E. Lt.
Inpl 2-22'S.C.P.
Remove
F & I 18"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

+99 F.E. Lt.
No Culv. Inpl.
F & I 18"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

℄ +88.5
Inpl. Bridge
24' Roadway
18' Span
8.5' Waterway
Remove
Pl. C 108 D +30°x 48'
Class A Conc. 157.0 Cu.Yds.
Reinf. Steel 21,192 lbs.
Class U Exc. 80 Cu.Yds.
Single Lane By-Pass

+54 Twp. Rd. Rt.
No Culv. Inpl.
No Culv. Req'd

℄ +79.6
Inpl. Bridge
24' Roadway
18' Span
9.0' Waterway
Remove
Pl. C 108 D +30° x 48'
Class A Conc. 157.0 Cu.Yds.
Reinf. Steel 21,192 lbs.
Class U Exc. 80 Cu.Yds.
Single Lane By-Pass

+20 F.E. Rt.
No Culv. Inpl.
F & I 18"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

+69 F.E. Rt.
No Culv. Inpl.
F & I 18"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

Cl. 3 Gr. 2

B.M. Elev. 1176.13
□ in S.E. Cor. Wing Br.
13' Rt. 418+99

B.M. Elev. 1169.99
□ in S.E. Cor. Wing Br.
12' Rt. 427 +69

3.0 +78.0 +1.6 = 79.6 +0.4 = 74.4 +0.4 = 73.8 +0.1 = 73.9 +0.0 =

Elev. 73.35883

P.V.T. +73.52941

P.V.C. +66.66666

Pl. +66.6666
Elev. 69.20
400' V.C.
M = 1.05

Elev. 70.40001

-0.6 %

Elev. 72.19999

P.V.T. +66.66666

Elev. 78.7

+1.5%

P.V.C. +00

Pl. +00
Elev. 83.2
600' V.C.
M = 3.4875

P.V.T. +00

Elev. 73.75

-3.15

Elev. 60.85284

P.V.C. +09.43396

Pl. +09.43396
Elev. 54.54552
400' V.C.
M = 1.325

Elev. 53.55284

P.V.T. +09.43396

-0.5 %

Profile 75' Lt. ----------
Profile 75' Rt. ——————

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 419+00 To Sta. 422+37

EXC. { A 2382 / B 107
EMB. 1573

EXC. 3273
EMB 2314

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 436+00 To Sta. 438+43

EXC. 7777
EMB. 4903

+00 +93 +79

1200 90 80 70 60 50 40

75.9 +30 75.9 +41 75.8 +65 76.1 75.9 +35 75.8 +54 75.8 +79 75.7 +90 75.6 +99 75.6 +08 75.8 +18 74.9 +32 74.9 +43 74.5 +65 74.2 +74 1174.0 73.7 +22 73.4 +54 73.0 72.9 +60 72.6 72.2 +37 72.0 +50 71.7 +71 71.5 70.8 70.3 +45 1169.7 69.2 +36 68.8 +70 68.7 +70 68.7 68.5 68.4 +56 68.3 69.1 +84 69.3 70.0 +56 1170.8 71.0 +30 72.2 74.1 75.2 +72 75.8 76.3 +46 77.0 77.8 +52 1178.6 79.4 +57 79.8 80.0 +60 79.9 79.4 +46 78.6 +86 78.2 77.1 +13 75.5 74.7 +17 73.6 +56 1172.4 70.5 +64 69.1 66.8 +72 65.1 65.4 +10 64.0 +41 63.0 +65 61.8 59.9 +73 59.2 1157.1 55.5 54.3 54.0 +57 53.7

420 425 430 435 440 445

C.A.R."O"

+ 34 F.E. Lt.
No Culv. Inpl.
No Culv. Req'd

+08 Dr. Lt.
No Culv. Inpl.

+09 St. Lt.
No Culv. Inpl.

+56 Dr. Lt.
No Culv. Inpl.

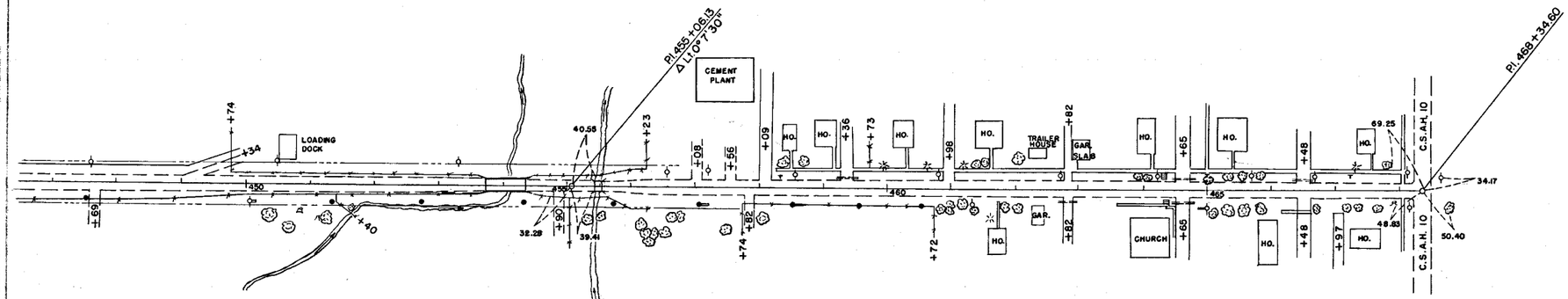
+36 Dr. Lt.
Inpl. 12"x 15' C.M.P.
Remove

+98 St. Lt.
Inpl. 12"x 37' S.C.P.
Remove

+82 Alley Lt.
No Culv. Inpl.

+65 St. Lt.
Inpl. 12"x 55' S.C.P.
Remove

+48 Alley Lt.
Inpl. 12"x 16' C.M.P.
Remove



℄ +04.85
Inpl. Bridge
18' Roadway
2-30' Spans
8' Waterway
Remove
Pl. C 128 D x 42'
Class A Conc. 169.0 Cu. Yds.
Reinf. Steel 22,498 lbs.
Class U Exc. 60 Cu. Yds.
Single Lane By-Pass.

℄ +52.5
Inpl. Bridge
18' Roadway
14' Span
7' Waterway
Remove
Pl. C 108 T x 42'
Class A Conc. 188.2 Cu. Yds.
Reinf. Steel 26779 lbs.
Class U Exc. 140 Cu. Yds.
Single Lane By-Pass

+90 F.E. Rt.
No Culv. Inpl.
No Culv. Req'd

+82 F.E. Rt.
No Culv. Inpl.

+82 Alley Rt.
Inpl. 12"x 45' S.C.P.
Remove

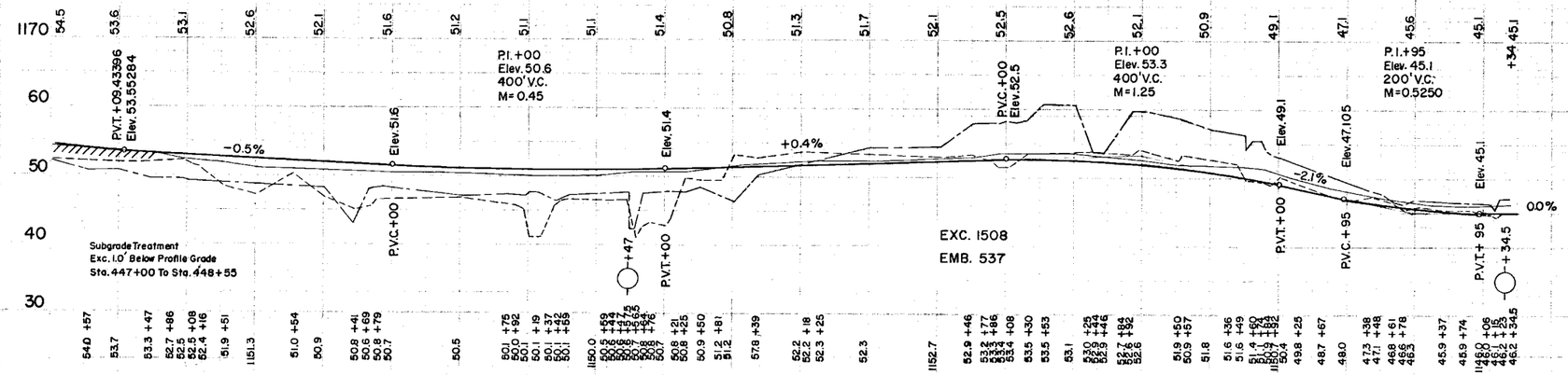
+65 St. Rt.
Inpl. 12"x 61' S.C.P.
No Change

+48 Alley Rt.
No Culv. Inpl.

Cl. 4 Gr. 1
B.M. Elev. 1149.10
Spike in B.P.
34' Rt. 450+26

Cl. 3 Gr. 3
B.M. Elev. 1145.40
Spike in P.P.
24' Lt. 468+09

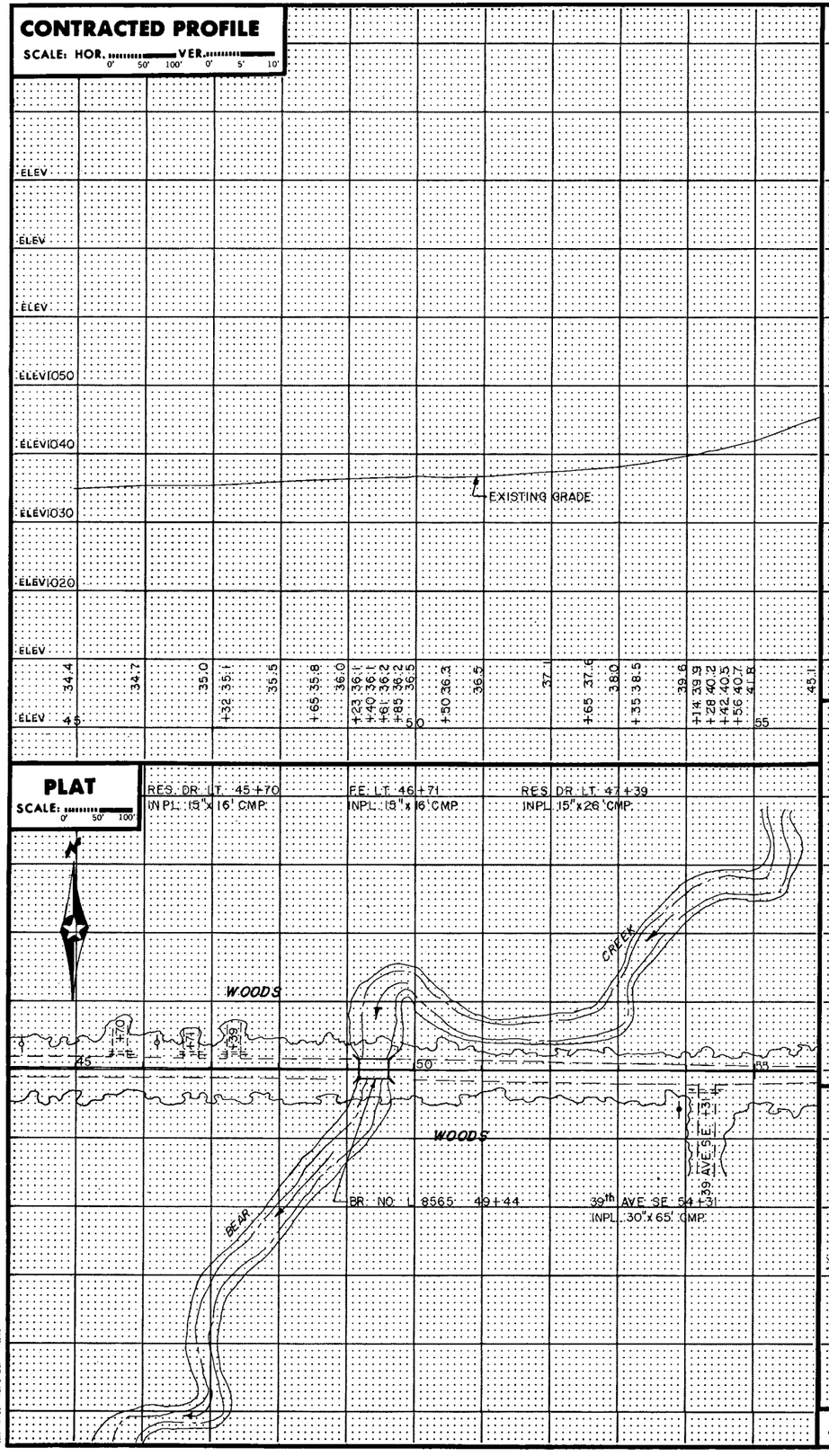
Profile 75' Lt.
Profile 75' Rt.



C.A.R "O"

CONTRACTED PROFILE

SCALE: HOR. 0' 50' 100' VER. 0' 5' 10'

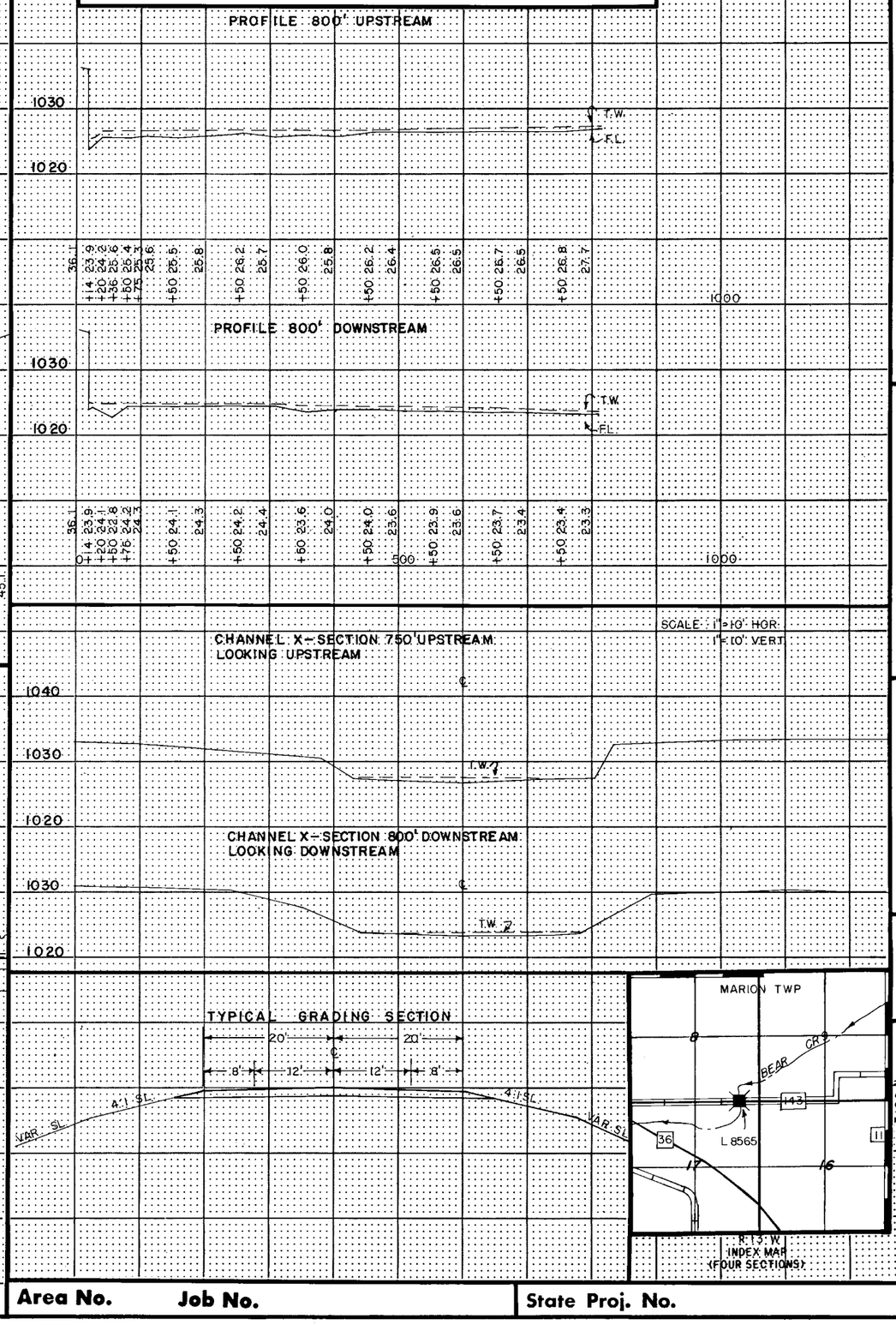


PLAT

SCALE: 0' 50' 100'

TYPICAL SECTIONS & PERTINENT DATA

SCALES AS SHOWN



Fed. Proj. No.

LOCATION ENGINEER'S OBSERVATIONS AT BRIDGE SITE

1. Special Features: Waterfalls, dams, floods, ice, debris, sliding banks, recreational boating.
HEAVILY WOODED UPSTREAM & DOWNSTREAM OF BRIDGE IN THE VICINITY OF THE STREAM.

2. Other bridges or culverts over the same stream (particularly structures which carry high water without overflow of roadway) :Given location, type, length, height above high water, cross-sectional area etc.

3. Apparent highwater elevation..... Obtained from.....

4. Other data: Approx. velocity of water at time of survey.....

HYDRAULIC ENGINEERS RECOMMENDATION

DATE .....

Stream or ditch designation .....
Drainage area .....
Max. flood on record.....Design flood (..... yr. freq.) .....C.F.S.
Max. observed highwater elevation .....Design highwater elevation.....
Design mean velocity through structure .....F.P.S.....
Low superstructure at or above elevation .....
Flowline elevation .....Skew angle.....
Waterway area req'd. below elevation..... = ...Sq. Ft. at Rt. angles to channel

In the interest of flood plain zoning the regional flood (100 yr. freq.) is.....C.F.S. at stage.....and mean velocity of.....F.P.S. with.....Ft. swellhead. The above recommendation will provide a structure of adequate waterway to pass the regional flood within criteria established by the Dept. of Natural Resources.

FOUNDATION ENGINEERS RECOMMENDATION

DATE .....

Bridge survey sheets made from: DATA OBTAINED MARCH 1980
BY OLMSTED COUNTY SURVEY PARTY.

Bench mark elevation 1033.63 (M.S.L. 1929 Adj.)
Location: PT. ON SOUTH PIER TOP

MINNESOTA
DEPARTMENT OF TRANSPORTATION

BRIDGE SURVEY

AT MILE POINT..... ON CTY RD 143 (T.H., C.S.A.H., C.R. etc.)
PROPOSED BRIDGE LOCATED 1.0 MILES EAST OF JUNCTION C.S.A.H. 36
SEC. 8 & 17 TWP. 106 N R. 13 W
TOWNSHIP MARION COUNTY OLMSTED

BRIDGE NO. .....

Area No. | Job No. | State Proj. No. | Sheet No. of Sheets

TELEPHONE POST - 11MM-2 8/87 NSD178

FORM 129 C - # 1 Rev. '46

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.		FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5N	MINN.					

ESTIMATED QUANTITIES

	SPECIFICATION NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
	2101.501	Clearing	Acre	3.39
	2101.502	Clearing	Tree	284.
	2101.506	Grubbing	Acre	3.39
	2101.507	Grubbing	Tree	234.
	2104.501	Remove Portable Culverts	Lin. Foot	732.
	2105.501	Class A Excavation	Cubic Yard	93574
	2105.502	Class B Excavation	Cubic Yard	13,463
	2501.511 - 18"	F & I C.M.P. Culverts - 18"	Lin. Foot	992
	2501.511 - 36"	F & I C.M.P. Culverts - 36"	Lin. Foot	30
	2501.521 - 24"	F & I S.C.P. Culverts - 24" (Class 3)	Lin. Foot	180
	2501.521 - 30"	F & I S.C.P. Culverts - 30" (Class 3)	Lin. Foot	62
	2501.521 - 36"	F & I S.C.P. Culverts - 36" (Class 3)	Lin. Foot	100
	2501.521 - 48"	F & I S.C.P. Culverts - 48" (Class 3)	Lin. Foot	62
	2515.531 - 18"	F & I Metal Apron for C.M.P. - 18"	Apron	66
	2515.531 - 36"	F & I Metal Apron for C.M.P. - 36"	Apron	2
	2515.541 - 24"	F & I Conc. Aprons For S.C.P. - 24"	Apron	8
	2515.541 - 30"	F & I Conc. Aprons For S.C.P. - 30"	Apron	2
	2515.541 - 36"	F & I Conc. Aprons For S.C.P. - 36"	Apron	4
	2515.541 - 48"	F & I Conc. Apron For S.C.P. - 48"	Apron	2
	2413.501	Excavation For Timber Box Culv.	Cu. Yd.	65
	2413.511	Timber Box Culvert 48"x60"	Lin. Ft.	43
	2413.512	Timber Box Culvert End Sections 48"x60"	End Section	2
*	2104.520	Remove Concrete Box Culverts	Structure	3
	2411.501	Concrete	Cu. Yd.	866.3
	2411.525	Class U Excavation	Cu. Yd.	500
	2411.541	Reinforcement Bars	Pound	116,610
	2441.502	Single Lane By-Pass	By-Pass	5
**	2442.501	Remove Old Bridge	Bridge	5
	2252.527	Crushed Rock Wearing Course in Place	Cu. Yd. (V.M.)	12,055
	2109.501	Obliterate Old Road	Acre	4.8

NOTE: Item 2252.527 includes 545 Cubic Yards For Aproaches And 271 Cubic Yards For Twp. & County Rds.

** Sta. 327+61
418+88
427+79
454+04
455+52

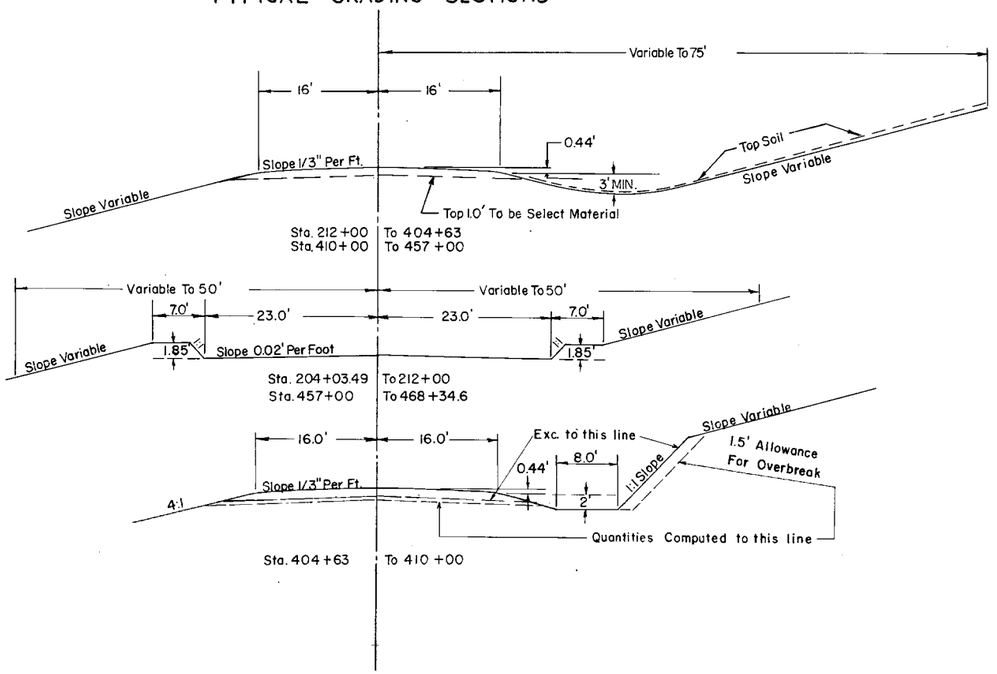
* Sta. 257+42
275+57
288+08

STANDARD DETAIL PLATES

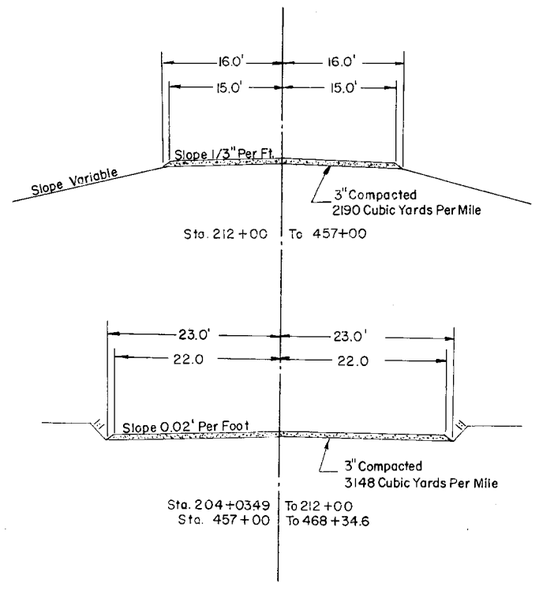
THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
3100 B	Concrete Aprons For Reinforced Concrete Pipes
312.3 A	Metal Aprons For C.M. Pipes
3060	Timber Box Culvert

TYPICAL GRADING SECTIONS



TYPICAL BASE & SURFACE SECTIONS



SPECIAL DETAILS

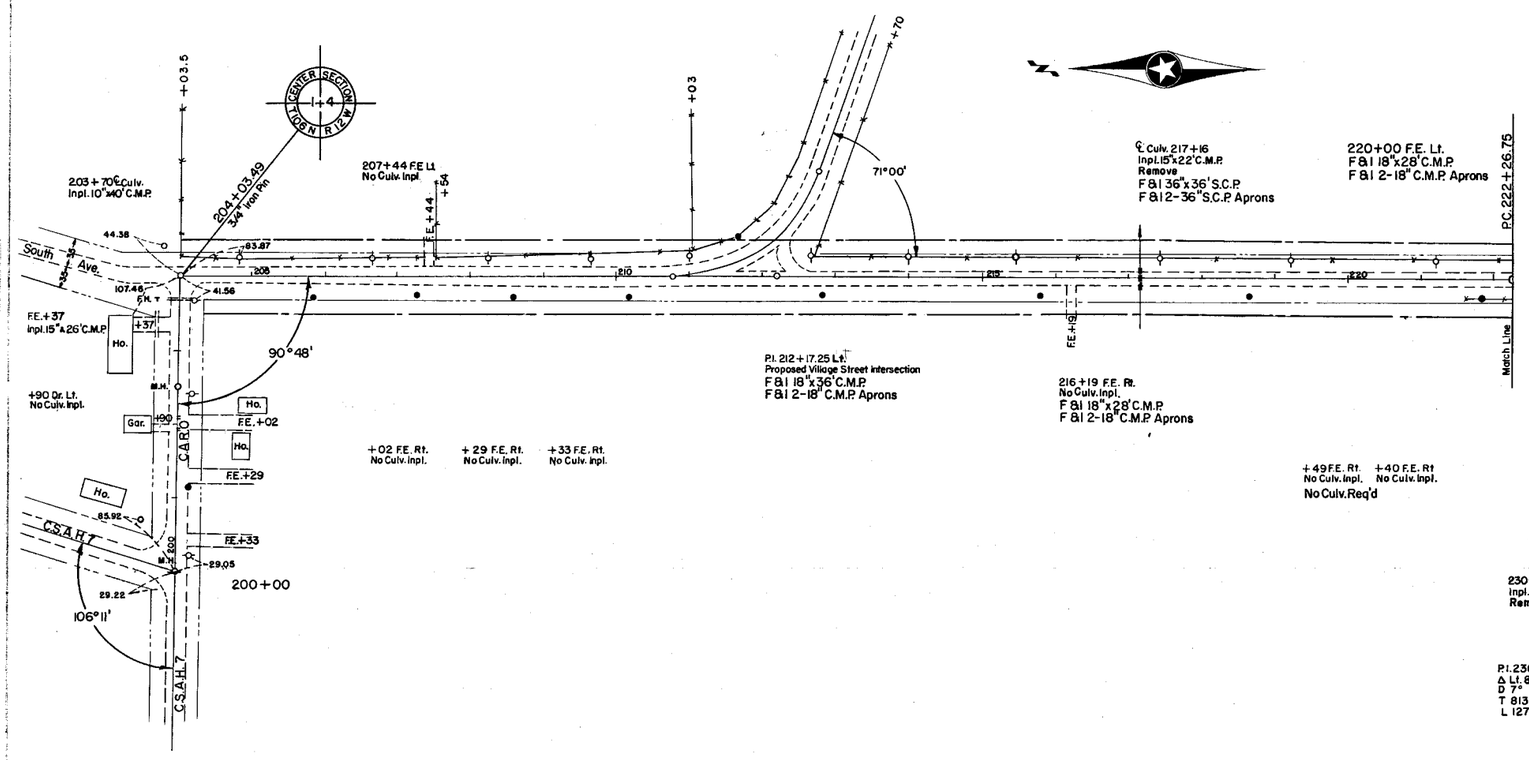
NOTE: Material from the 1.0' of the Natural Topsoil shall not be used in the upper 1.0' of the Roadway. Part of this material shall be spread uniformily on the slope and ditch bottom to a depth of 3". No payment in addition to the Contract Price for Class "A" Excavation will be made for spreading the topsoil as provided above, nor will any undercutting be made in excavation prior to placing the topsoil be measured for payment.

NOTE: Corrugated Metal and Sectional Concrete Pipe Culvert excavation will be Considered incidental and will be under unit price for Furnish and Install Culv. Pipe

NOTE: Subgrade Treatment
Excavation 1.0' Below Profile Grade for Compaction as Shown on Plan and Profile sheets. Excavation has been computed and is included in Balanced Quantities. Backfill with Select Material from R.O.W. Tapers Shall be 50:1 in all cases.

NOTE: Place Sectional Concrete Pipe on Class "C" Bedding.

DAHMS PHOTO PRINT CO.
MPLS. L. MINN.

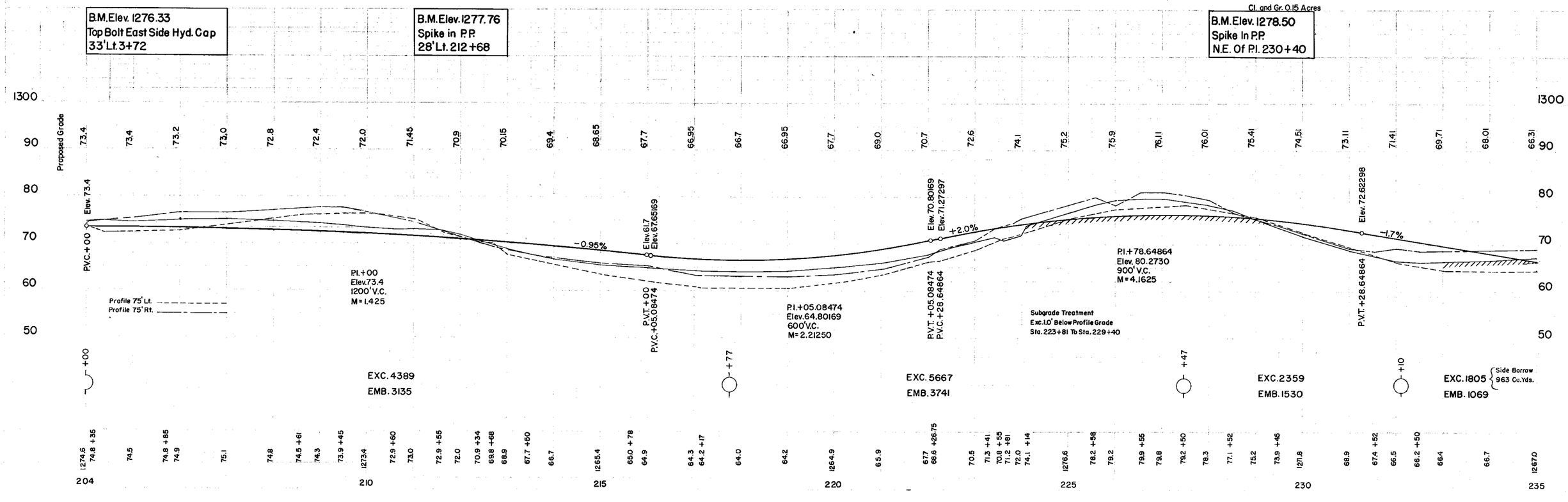


B.M. Elev. 1276.33
Top Bolt East Side Hyd. Cap
33' Lt. 3+72

B.M. Elev. 1277.76
Spike in P.P.
28' Lt. 212+68

Cl. and Gr. 0.15 Acres

B.M. Elev. 1278.50
Spike In P.P.
N.E. Of P.I. 230+40



Fed. Proj. No.

PLAN SCALE 1" = 50'

STREET LT. 457+95
NO CULV. INPL.

SHEEK ST. LT. 460+97
NO CULV. INPL.

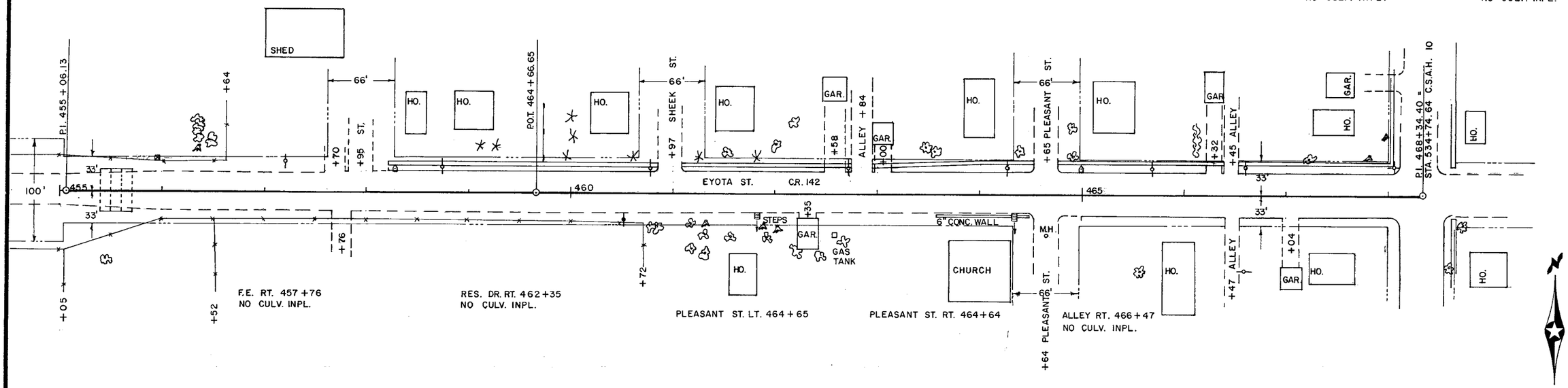
RES. DR. LT. 462+58
NO CULV. INPL.

ALLEY LT. 462+84
NO CULV. INPL.

RES. DR. LT. 463+00
NO CULV. INPL.

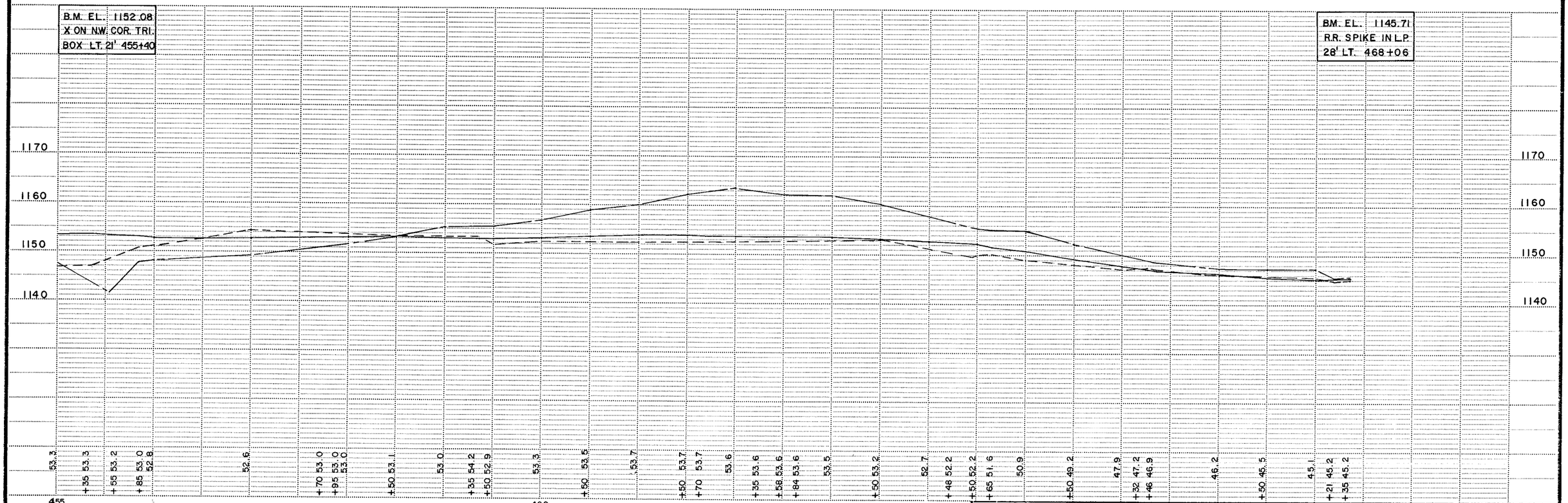
RES. DR. LT. 466+32
NO CULV. INPL.

ALLEY LT. 466+45
NO CULV. INPL.



B.M. EL. 1152.08
X ON NW. COR. TRI.
BOX LT. 21' 455+40

B.M. EL. 1145.71
RR. SPIKE IN L.P.
28' LT. 468+06



State Proj. No. Sheet No. of Sheets

P.T. 235+06.5

Equation 235+06.5=238+52.99

P.O.T. 238+52.99

+07

+65

+00

+85 C.A.R."O" Lt
No Culv. Inpl.
Obliterate 4.8 Acres

+42 ℄ Box Culv.
Inpl 2'x 2'x 22.5'
Remove
No Culv. Req'd

+24 ℄ Culv.
Inpl. 24"x 32' S.C.P.
Remove
F&I 24"x36' S.C.P.
F&I 2-24" S.C.P. Aprons

260+00 F.E. Lt.
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

+41

+85 C.A.R."O"

+46

37.88

61.33

34.5

+85

+77 FE.

FE. 5.5

240 245 250 255 260 265

TILE OUT. →

Pt. 256+80.70 Ind. Bdy
Δ Lt. 0°16'30"

+85 Twp. Rd.

+13

T.16N. R.1W. 14 13 23 24 R.1W. T.15N.

250+89 ℄
F&I 48"x 62' S.C.P.
F&I 2-48" S.C.P. Aprons

+85 Twp. Rd. Rt.
No Culv. Inpl.
No Culv. Req'd

+77 FE. Rt.
No Culv. Inpl.
No Culv. Req'd

Cl. and Gr. 3.2 Acres

B.M. Elev. 1252.09
Spike in P.P.
28' Lt. 247+20

Cl. and Gr. 0.04 Acres

B.M. Elev. 1249.93
Spike in P.P.
24' Lt. 256+48

66.19917

70 60 50 1240

65.4 63.7 62.0 60.3 58.6 57.0 55.5 54.2 53.0 52.0 51.2 50.5 50.0 49.6 49.4 49.3 49.4 49.6 50.0 50.6 51.3 52.2 53.2 54.3 55.4 56.5 57.6 58.5 59.0 59.0 58.7

Elev. 58.6

P.V.C. +00

-1%

P.I. +00
Elev. 43.3
1800' V.C.
M = 6.30

Elev. 53.2

+1.1%

Elev. 57.6

P.V.C. +00

P.V.T. +00

P.I. +00
Elev. 60.9
600' V.C.
M = 1.875

Profile 75' Lt.
Profile 75' Rt.

NOTE: Sta. 233+50 To Sta. 258+20
Remove Upper 1.0' of Topsoil
Either Side of ℄.
Use Material For Shoulder Slopes.
Excavation Quantities Included in Subgrade Excavation.

EXC. 9572 (Side Borrow 246 Cu. Yds. From Twp. Rd. Borrow)
EMB. 5007

EXC. 4041
EMB. 2791

+90

+70

235+06.5 EQUATION 235+06.5 = 238+52.99 238+52.99

676 676 67.0 1265.3 62.4 60.3 59.4 59.2 +52 58.0 1255.4 52.6 50.2 48.5 47.5 1247.4 46.8 +32 46.5 +84 47.2 +89 46.9 46.8 +27 47.0 +82 44.6 47.7 +10 46.6 47.1 1247.3 47.2 46.3 +45 46.4 +65 46.4 +85 49.2 +92 49.1 49.4 +08 50.1 +43 50.0 +70 50.4 50.5 +23 50.3 +50 50.3 1251.0 51.6 +82 51.8 51.9 +58 52.1 53.4 54.1 +41 55.1 55.8 +46 1256.6 57.6 58.1 +62 58.3 58.8 58.4 +22 57.9 +80 57.7

235 240 245 250 255 260 265

+95 F.E. Lt.
No Culv. Inpl.
F & I 18"x 32' C.M.P.
F & I 2-18" C.M.P. Aprons

+57 ℄ Culv.
Inpl. 2'x 2'x 30.4'
Conc. Box Culv.
Remove
F & I 24"x 44' S.C.P.
F & I 2-24" S.C.P. Aprons
Pl. Ditch Block

+48 F.E. Lt.
No Culv. Inpl.
F & I 18"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

+87 F.E. Lt.
Inpl. 15"x 26' C.M.P.
Remove
F & I 18"x 32' C.M.P.
F & I 2-18" C.M.P. Aprons

+82 F.E. Lt.
Inpl. 15"x 26' C.M.P.
Remove
F & I 18"x 32' C.M.P.
F & I 2-18" C.M.P. Aprons

P.C. 280 + 71.41
P.T. 286 + 06.41
36.60
44.55
54.90
BALLROOM
Ho.
Barn
Pl. 283+39.1
Δ Rt 5°21'
D 1°00'
T 267.69
L 535.0

+86 F.E. Rt.
No Culv. Inpl.
F & I 18"x 32' C.M.P.
F & I 2-18" C.M.P. Aprons

+16 F.E. Rt.
No Culv. Inpl.
F & I 18"x 32' C.M.P.
F & I 2-18" C.M.P. Aprons

+50 F.E. Rt.
No Culv. Inpl.
F & I 18"x 28' C.M.P.
F & I 2-18" C.M.P. Aprons

+08 ℄ Box Culv.
Inpl. 3'x 3'x 34.4
Remove
F & I 24"x 54' S.C.P.
F & I 2-24" S.C.P. Aprons

+63 F.E. Rt.
No Culv. Inpl.
No Culv. Req'd

Cl. 4 Gr. 4
B.M. Elev. 1254.75
Spike in P.P.
28' Rt. 272+70

Cl. 38 Gr. 31
B.M. Elev. 1251.00
Spike in T.P.
25' Lt. 295+73

Elev. 56.7
P.V.T. +00
-1.4%
Elev. 53.06
P.V.C. +60
Pl. +60
Elev. 48.86
600 V.C.
M = 1.125
Elev. 49.16
P.V.T. +60
+0.1%
Elev. 50.44090
P.V.C. +40.90909
Pl. +40.90909
Elev. 50.74090
600 V.C.
M = 1.650
+2.3%
Elev. 57.64091
P.V.T. +40.90909

Profile 75' Lt.
Profile 75' Rt.

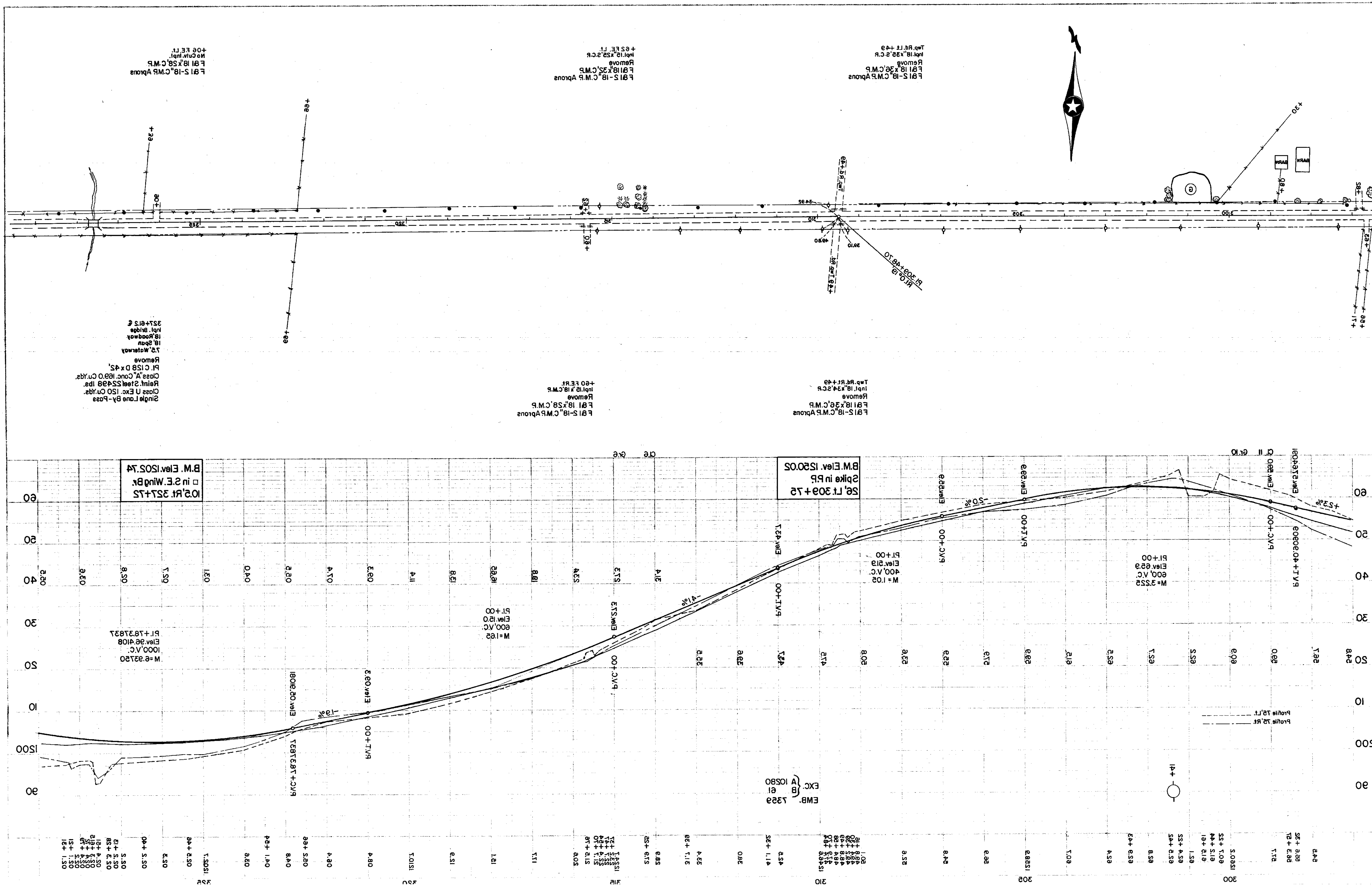
Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 282 +00 To Sta. 284 +54

EXC. 2768
EMB. 2002

EXC. 1793
EMB. 1240

EXC. 4976
EMB. 3498

EXC. 2843
EMB. 2025


+06 F.E. Lt.
No Culv. Inpl.
F&I 18"x28' C.M.P
F&I 2-18" C.M.P Aprons
+62 F.E. Lt.
Inpl. 15"x25' S.C.P
Remove
F&I 18"x32' C.M.P
F&I 2-18" C.M.P Aprons
Twp. Rd. Lt. +49
Inpl. 18"x35' S.C.P
Remove
F&I 18"x36' C.M.P
F&I 2-18" C.M.P Aprons
327+61.2 ℄
Inpl. Bridge
18' Roadway
18' Span
7.5' Waterway
Remove
Pl. C128 D x 42'
Class "A" Conc. 169.0 Cu.Yds.
Reinf. Steel 22498 lbs.
Class U Exc. 120 Cu.Yds.
Single Lane By-Pass
+60 F.E. Rt.
Inpl. 15"x18' C.M.P
Remove
F&I 18"x28' C.M.P
F&I 2-18" C.M.P Aprons
Twp. Rd. Rt. +49
Inpl. 18"x34' S.C.P
Remove
F&I 18"x36' C.M.P
F&I 2-18" C.M.P Aprons
P.I. 309+48.70
Rt. 0° 19'
BARN
BARN
B.M. Elev. 1202.74
□ in S.E. Wing Br.
10.5' Rt. 327+72
B.M. Elev. 1250.02
Spike in P.P.
26' Lt. 309+75
Cl. 6 Gr. 6
Cl. 11 Gr. 10
P.I. +78.37837
Elev. 96.4108
1000' V.C.
M=6.93750
P.I. +00
Elev. 15.0
600' V.C.
M=1.65
P.I. +00
Elev. 51.9
400' V.C.
M=1.05
P.I. +00
Elev. 65.9
600' V.C.
M=3.225
EXC. A 10280
B 61
EMB. 7359
Profile 75' Lt.
Profile 75' Rt.
PLAN

+50 F.E. Lt.
No Culv. Inpl.
No Culv. Req'd

+92 F.E. Lt.
Inpl. 12"x 15' S.C.P.
Remove
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

+70 F.E. Lt.
Inpl. 15"x 29' S.C.P.
Remove
F&I 18"x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

+50 F.E. Lt.
No Culv. Inpl.
No Culv. Req'd

+38 F.E. Rt.
No Culv. Inpl.
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

+36 F.E. Rt.
Inpl. 12"x 42' S.C.P.
Remove
F&I 18"x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

+22 F.E. Rt.
No Culv. Inpl.
F&I 18"x 32' C.M.P.
F&I 2-18" C.M.P. Aprons

℄ +35
Inpl. 24"x 30' S.C.P.
Remove
F&I 24"x 46' S.C.P.
F&I 2-24" S.C.P. Aprons
Pl. Ditch Block

+77 F.E. Rt.
Inpl. 12"x 25' S.C.P.
Remove
F&I 18"x 28' C.M.P.
F&I 2-18" C.M.P. Aprons

B.M. Elev. 1240.39
Spike in T.P.
16' Lt. 341+47

Cl. 143 Gr. 118
Cl. 9 Gr. 9
Cl. 25 Gr. 25

Pl. +84.4912
Elev. 47.7341
1000' V.C.
M = 8.0625

Elev. 14.66080
Elev. 29.48410
Elev. 33.73411
Elev. 06.46667

+3.65%
-2.8%

P.V.C. +84.49612
P.V.T. +78.37837
P.V.T. +84.49612
P.V.C. +58.33333

Profile 75' Lt.
Profile 75' Rt.

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 340+15 To Sta. 343+75

EXC. A 4266 B 75
EMB. 2994

EXC. 6217
EMB. 4279

EXC. 1719
EMB. 1241

SHED
BARN
HO.
TRAILER
CORN CRIB

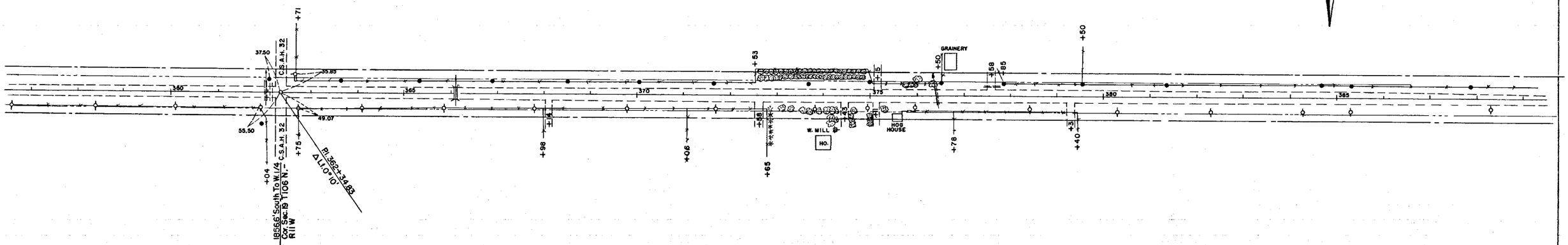
+04 ℄ Culv.
Inpl. 36"x 36' C.M.P.
Remove
F&I 36"x64' S.C.P.
F&I 2-36" Conc. Aprons

+36 ℄ C.S.A.H. No. 32 Lt.
No Culv. Inpl.
No Culv. Req'd

+16 ℄ Box Culv.
Inpl. 5'x5'x30.5'
Extend 13' Lt. & 13' Rt.
Class "A" Conc. 26.1 Cu.Yd.
Reinf. Steel 2451 lbs.
Class "U" Excavation 20 Cu.Yds.

+15 F.E. Lt.
No Culv. Inpl.
No Culv. Req'd

+58 F.E. Lt.
Inpl. 15"x 20' S.C.P.
Remove
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons



+36 ℄ C.S.A.H. No. 32 Rt.
No Culv. Inpl.
No Culv. Req'd

19 1/420

+14 F.E. Rt.
No Culv. Inpl.
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

+58 F.E. Rt.
No Culv. Inpl.
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

+43 F.E. Rt.
No Culv. Inpl.
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P. Aprons

+11 F.E. Rt.
No Culv. Inpl.
F&I 18"x32' C.M.P.
F&I 2-18" C.M.P. Aprons

+41 ℄ Culv.
Inpl. 30"x 39' S.C.P.
Remove
F&I 48"x 60"x 43' Timber Box Culv.
F&I 2 Timber Box Culvert End Sections
For 48"x60" Timber Box Culverts
Class 'U' Exc. 65 Cu.Yds.

+31 F.E. Rt.
No Culv. Inpl.
F&I 18"x28' C.M.P.
F&I 2-18" C.M.P. Aprons

Cl. 27 Gr. 23

B.M. Elev. 1192.67
Spike in Cor. F.P.
26' Lt. Sta. 362+71

B.M. Elev. 1224.33
Spike in P.P.
28' Rt. 374+92

75' Lt. _ _ _ _ _
75' Rt. _ _ _ _ _

Pl. +58.3333
Elev. 0.86667
400' V.C.
M = 0.60

Subgrade Treatment
Exc. 1.0' Below Profile Grade
Sta. 360+00 To 362+05

Pl. +94.8276
Elev. 89.08276
600' V.C.
M = 4.35

Pl. +00
Elev. 18.7
400' V.C.
M = 0.65

-2.8%
-1.6%
+4.2%
+2.9%

Elev. 97.66667
Elev. 93.88276
Elev. 01.68275
Elev. 10.3
Elev. 24.5
Elev. 56.04606
P.V.C. +87.79527

+98
+73
+00

P.V.T. +58.3333
P.V.C. +94.8276
P.V.T. +94.8276
P.V.C. +00
P.V.T. +00

EXC. 1625
EMB. 1041

EXC { A 8360 / B 1929
EMB. 8342

60 50 40 30 20 10 1200 90 80

05.3 02.8 00.6 98.7 97.0 95.4 93.8 92.7 92.6 93.5 95.3 98.1 01.9 06.1 10.3 14.3 18.0 21.4 24.5 27.4 30.3 33.2 36.1 39.0 41.9 44.8 47.7 50.6 53.5 56.4 59.9 60.9 62.3

03.5 +33 02.0 00.1 198.6 97.2 96.2 +65 95.9 +89 95.6 +05 95.3 +17 95.2 +35 95.1 +50 94.7 +56 94.6 +74 93.8 91.9 1190.8 90.6 +62 90.7 90.8 +16 91.0 +36 91.3 +57 91.9 93.5 +66 94.4 95.7 +38 96.6 +64 98.0 1202.4 02.3 10.6 +69 11.9 13.7 +44 14.6 +63 16.0 17.2 +31 17.6 +40 20.0 21.9 +65 1223.2 24.0 +30 24.8 +69 25.4 26.5 +48 26.9 +64 28.3 29.5 +32 31.8 33.2 +43 34.9 36.4 +51 1237.7 38.8 +36 41.1 43.2 +64 43.5 45.6 +31 47.4 49.9 1252.6 53.2 +25 54.8 57.0 59.1

360 365 370 375 380 385

PLAN

+14 C.Culv.
Inpl. 36"x38' S.C.P.
Remove
F & I 30"x62' S.C.P.
F & I 2-30" S.C.P. Aprons

+53 F.E. Lt.
Inpl. 18"x26' S.C.P.
Remove
F & I 36"x30' C.M.P.
F & I 2-36" C.M.P. Aprons

P.I. 391+43.96
Δ Rt. 2°08'
D 0°30
T 213.36
L 426.60

+80 F.E. Rt.
No Culv. Inpl.
F & I 18"x28' C.M.P.
F & I 2-18" C.M.P. Aprons

+77 F.E. Rt.
No Culv. Inpl.
No Culv. Req'd

+47 F.E. Rt.
No Culv. Inpl.
No Culv. Req'd

B.M. Elev. 1267.62
Spike in P.P.
33' Rt. 392+26

B.M. Elev. 1227.12
Spike in P.P.
33' Rt. 404+54

P.I. +37.79527
Elev. 71.99606
1100' V.C.
M = 8.73125

Elev. 53.02107

P.V.T. + 87.79527

-3.45%

Elev. 28.45

P.V.C. +00

P.I. +00
Elev. 18.1
600' V.C.
M = 0.41250

Elev. 0.61

P.V.T. + 00

-4.0%

-4.0%

+73.52941

Elev. 87.15993

P.V.C. + 73.52941

P.I. + 73.52941
Elev. 75.15883
800, 600' V.C.
M = 2.55 3.40

Profile 75' Rt
Profile 75' Lt

EXC. { A 3239 / B 1941
EMB. 4434

EXC. { A 1038 / B 3170
EMB. 3950

EXC. { A 1677 / B 6180
EMB. 6223