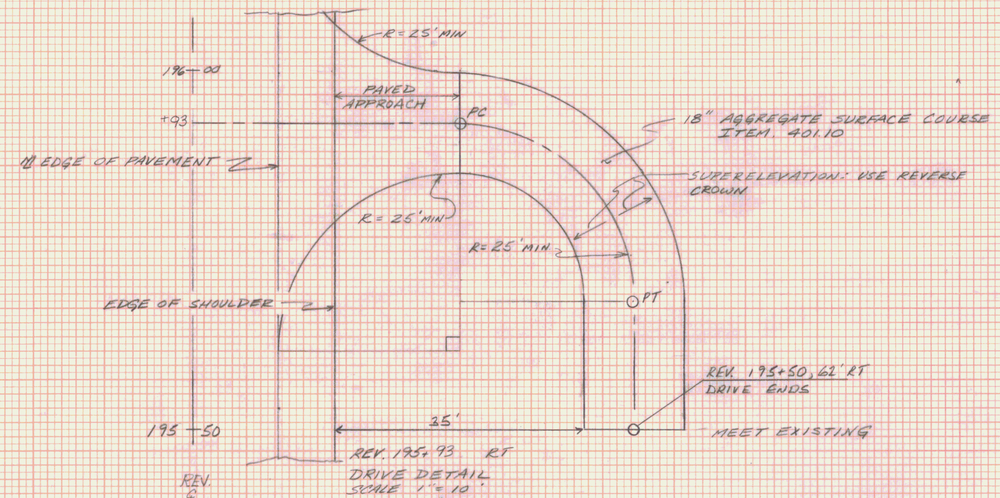
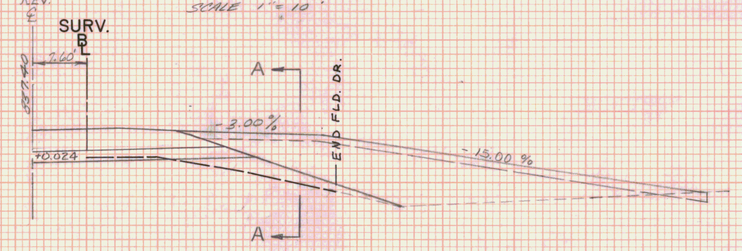
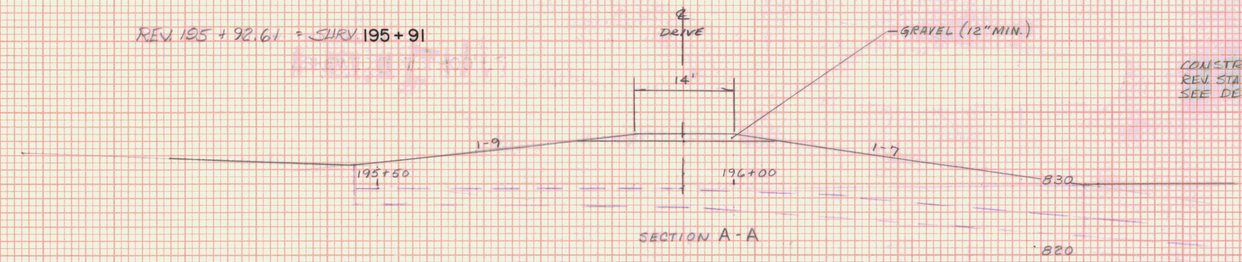
U.S. ROUTE 2
MARSHFIELD
F028-3(28)





840
830
820

REV 195+92.61 = SURV 195+91



SECTION A-A

CONSTRUCT DRIVE RT.
REV. STA. 195+92 (14' WIDE)
SEE DETAIL ABOVE, THIS SHT.

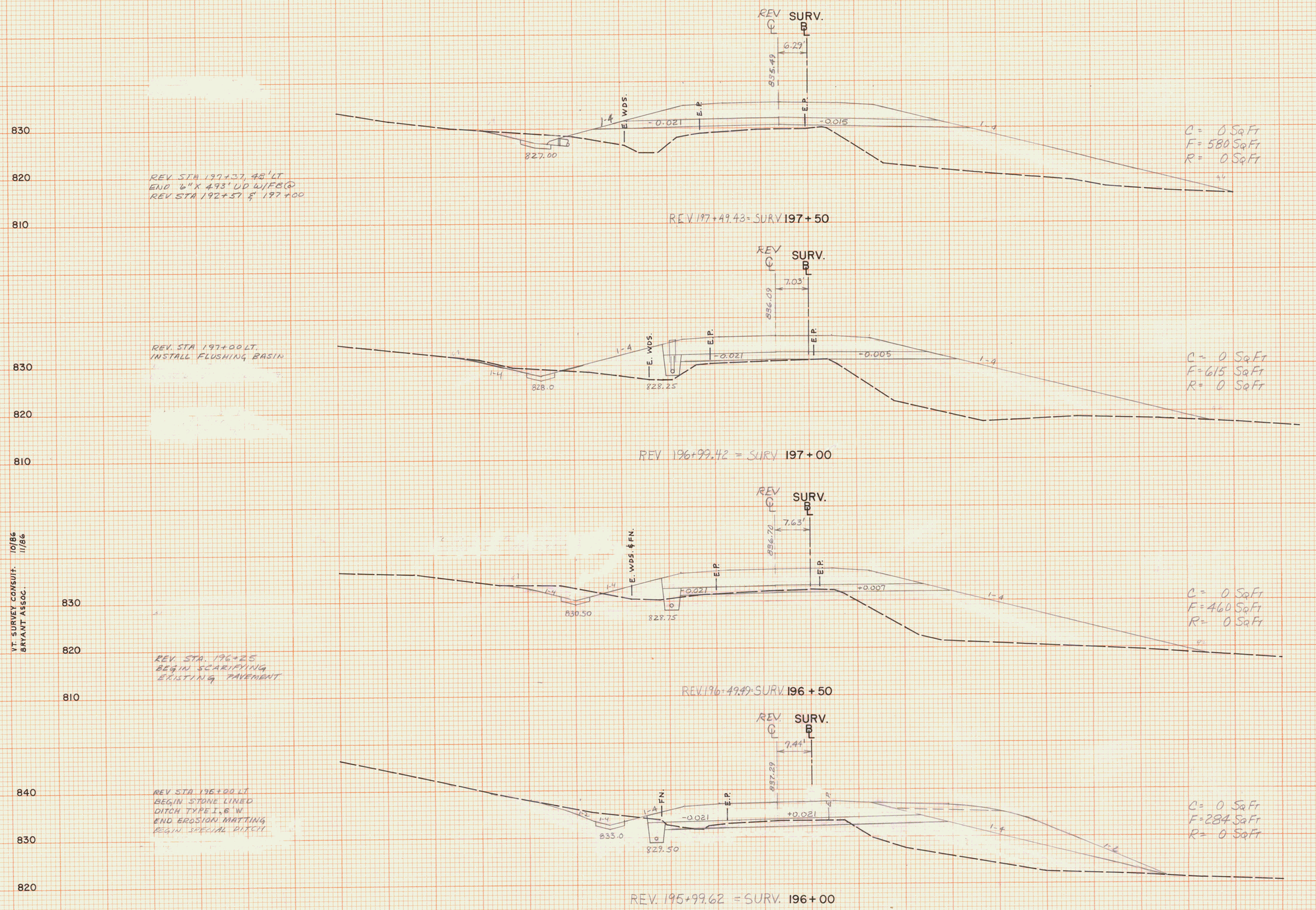
STA.	195+91 STA.
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	226 OF 352 SHEETS
HORIZ. AND VERT. SCALE:	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 4/87

FINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULTANTS 4/87 — DATE 4/87

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



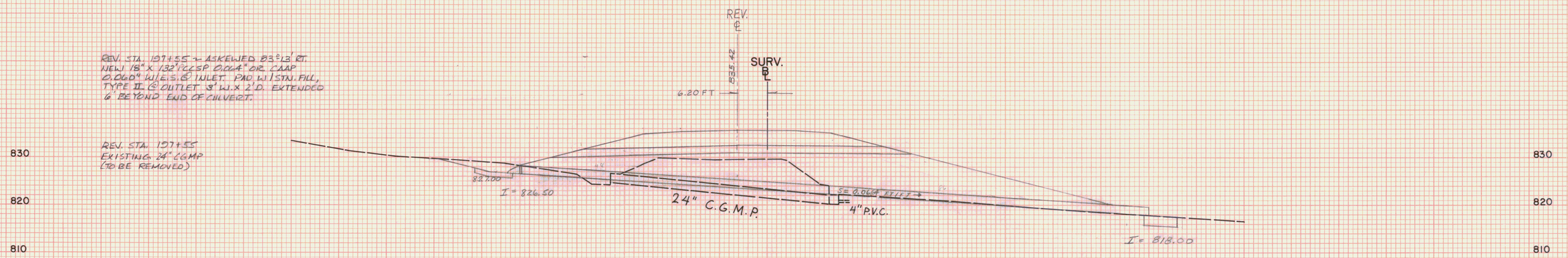
VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86

STA. 196+00	STA. 197+50
TOWN MARSHFIELD	
PROJECT F	NO. 028-3(28)
SHEET 227 OF 352 SHEETS	
HORIZ. AND VERT. SCALE 0 10 20	
SURVEYED BY: VT. SURVEY CONSULTANTS	DATE 10/86

SCALE: 1" = 10' H & V

PRINTED IN U.S.A.
"PERFECT" CROSS SECTION 10 X 10 — ONE INCH EUGENE DIETZGEN CO.
PRINTED IN U.S.A.

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



FINAL SURVEY	SURVEYED	BY
	PLOTTED	
NOTE BOOK	TEMPLATE	
No.	AREAS	
	AREAS CHECKED	

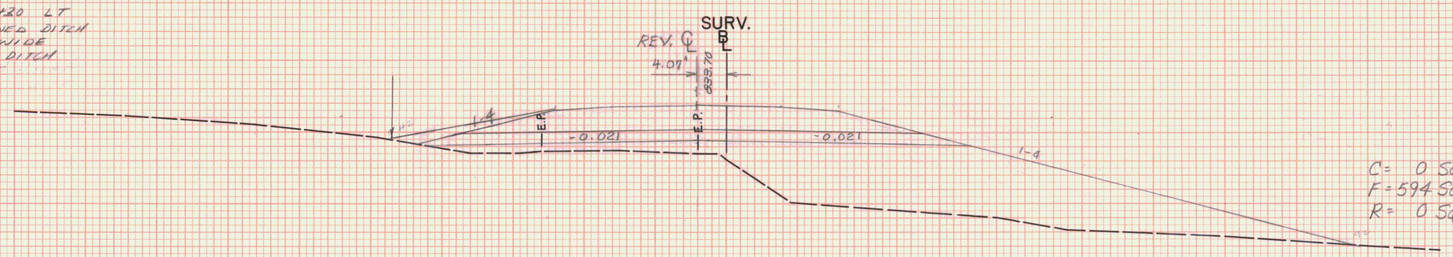
ORIGINAL SURVEY	SURVEYED	BY VT. SURVEY CONSULT. BRYANT ASSOC.
	PLOTTED	DATE 10/86 11/86
NOTE BOOK	TEMPLATE	
No.	AREAS	
	AREAS CHECKED	

STA. 197 + 56 STA.
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 228 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

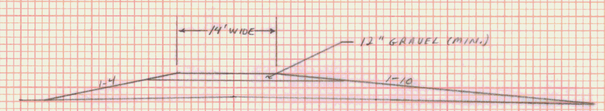
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

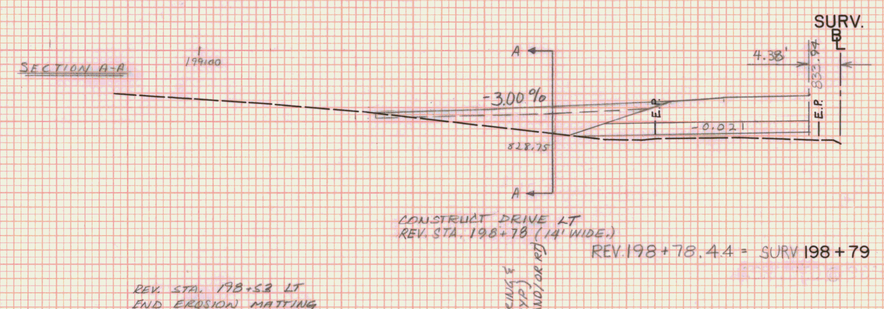
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 197+20 LT
BEGIN STONE LINED DITCH
TYPE I, 6' WIDE
BEGIN SPECIAL DITCH



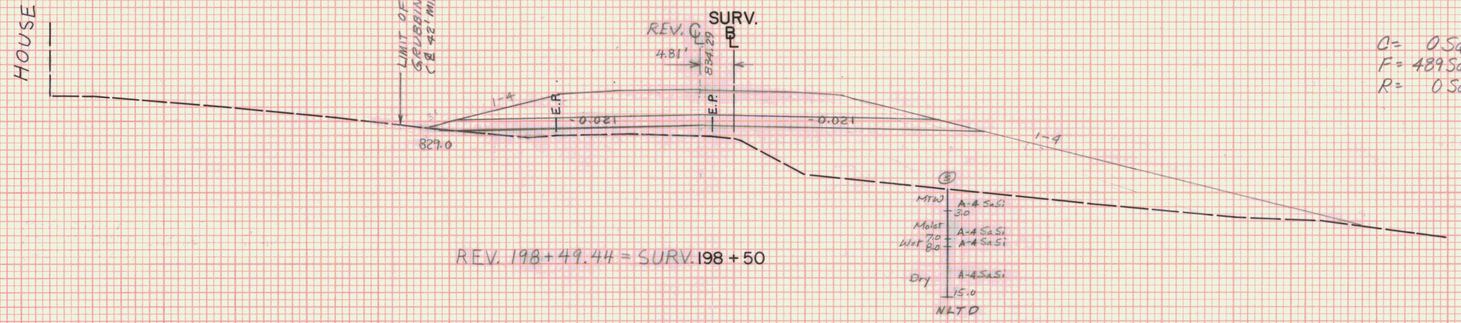
REV. 198+99.44 = SURV. 199+00



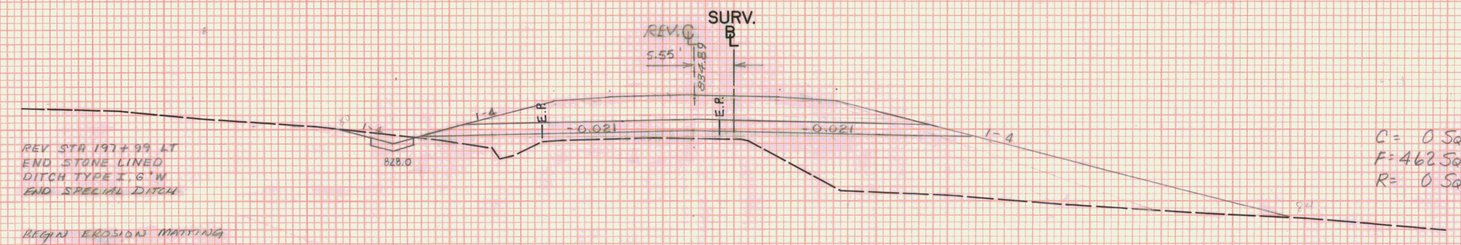


REV. 198+78.44 = SURV 198+79

REV. STA. 198+52 LT
END EROSION MATTING



REV. 198+49.44 = SURV. 198+50



REV. 197+99.43 = SURV. 198+00

C= 0 SqFt
F= 489 SqFt
R= 0 SqFt

C= 0 SqFt
F= 462 SqFt
R= 0 SqFt

STA. 198+00 STA. 199+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 229 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — DATE — BY — No.

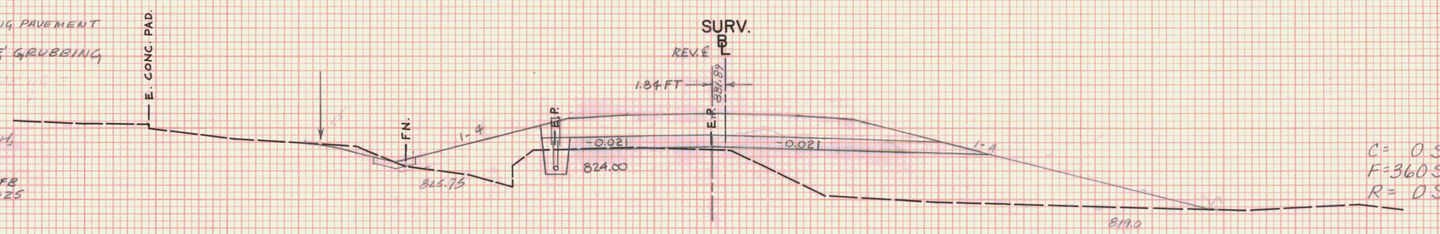
ORIGINAL SURVEY — NOTE BOOK — SURVEYED VT. SURVEY CONSULT. 10/86 — PLOTTED BRYANT ASSOC. 11/86 — TEMPLATE — AREAS — AREAS CHECKED — DATE — BY — No.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV STA. 200+75 LT.
END SCARIFYING EXISTING PAVEMENT
REV STA 200+65 LT
END LIMIT CLEARING & GRUBBING AT TOE OF SLOPE

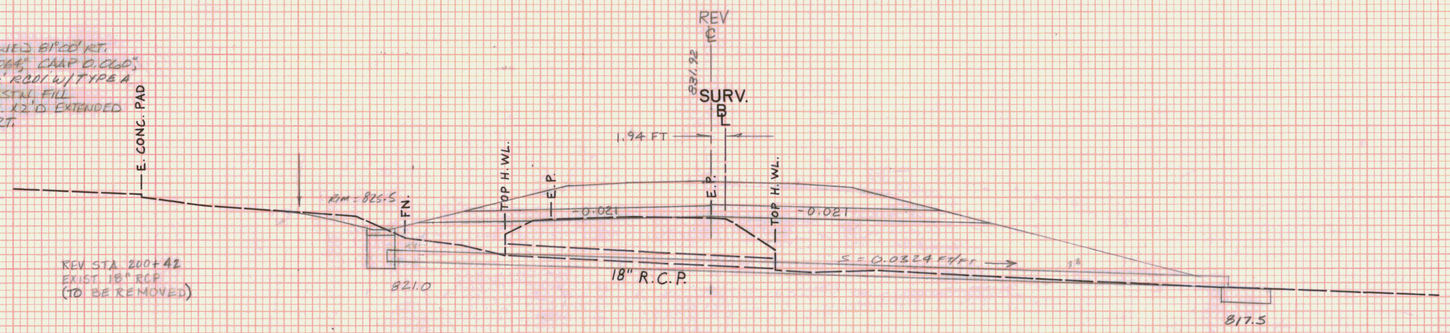
REV. STA. 200+50 LT.
END STONE LINED DITCH
TYPE 2, 2' WIDE
END SPECIAL DITCH
BEGIN 6"x406' U.D. W/FB @ STA 200+50 & 204+25
INSTALL FLUSHING BASIN



REV STA 200+62 LT.
EXIST. 8" CGMP
(TO BE REMOVED)

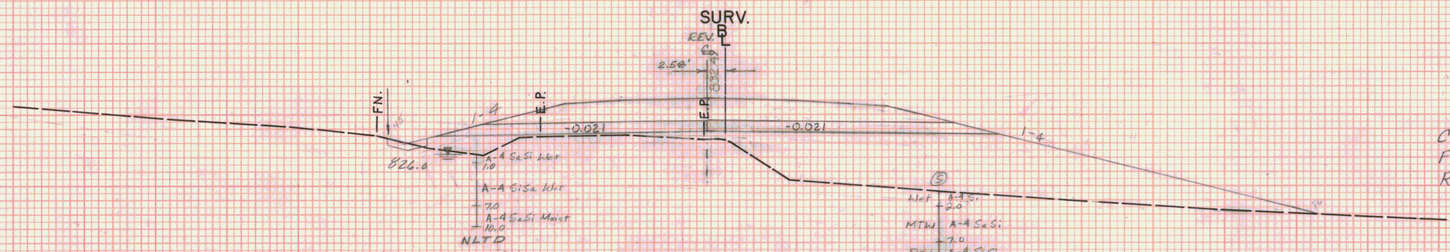
REV. 200+40.46 =
SURV. 200 + 50

REV STA. 200+42 - ASKEWED 81°00' RT.
NEW 18"x118' RCCP 0.064" CAAP 0.060"
OR RCP CL III. WELL 4'x4' R200 W/TYPE A GRATE @ INLET. PAD W/STAN FILL
TYPE II @ OUTLET 3' W. X2'D EXTENDED 6' BEYOND END OF CULVERT.



REV STA 200+42
EXIST 18" RCP
(TO BE REMOVED)

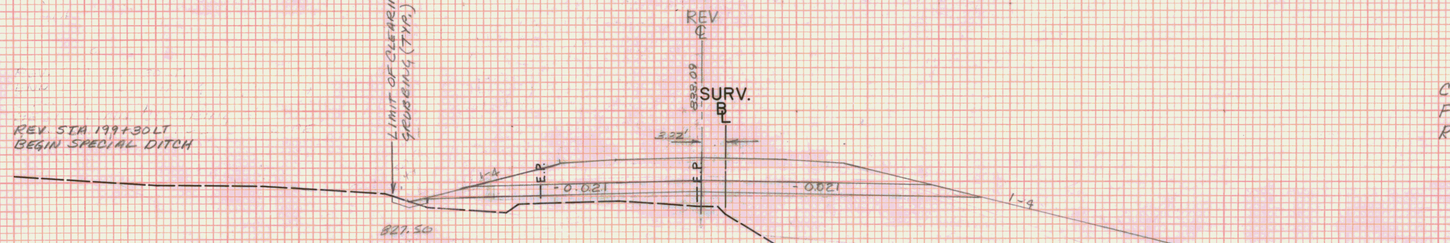
REV. 200+42.46 = SURV. 200 + 43
ASKEWED @ 81°-00' RT.



REV. 199+99.45 =
SURV. 200 + 00

REV STA. 199+30 LT
BEGIN SPECIAL DITCH

LIMIT OF CLEARING & GRUBBING (TYP.)



REV. 199+49.45 =
SURV. 199 + 50

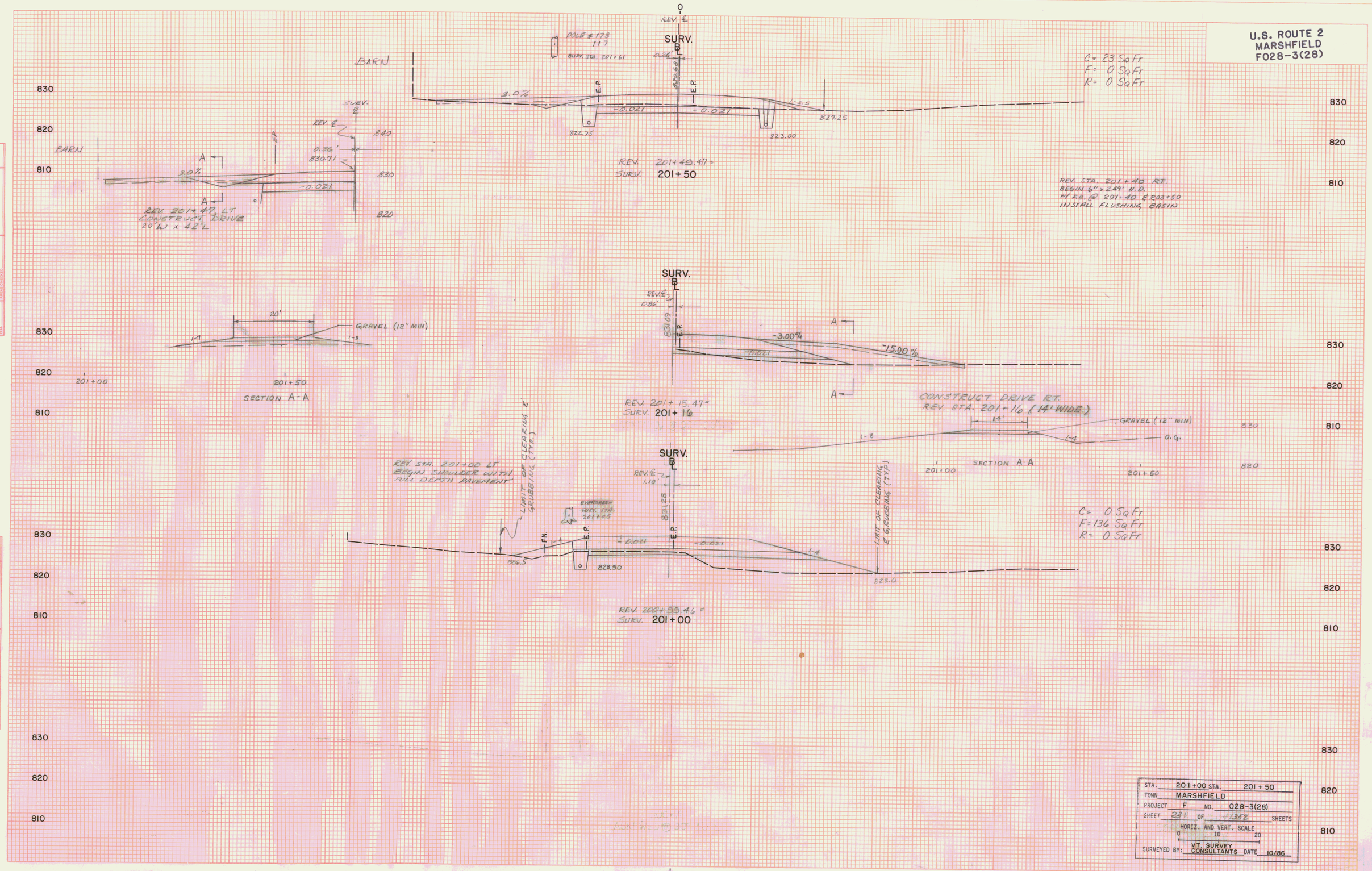
STA.	199+50 STA. 200+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	230 OF 352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

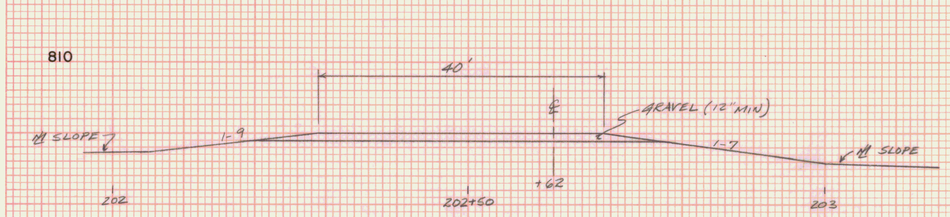
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DETROIT CORPORATION

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, No. — DATE, BY

ORIGINAL SURVEY — VT SURVEY CONSULT. 10/86, BRYANT ASSOC. 11/86 — DATE


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
C= 23 Sq Ft
F= 0 Sq Ft
R= 0 Sq Ft
REV. 201+49.47 =
SURV. 201+50
REV. STA. 201+40 RT.
BEGIN 6" x 249' U.D.
W/ F.B. @ 201+40 & 203+50
INSTALL FLUSHING BASIN
REV. 201+47, LT
CONSTRUCT DRIVE
20'W x 42'L
SECTION A-A
GRAVEL (12" MIN)
REV. 201+15.47 =
SURV. 201+16
CONSTRUCT DRIVE RT.
REV. STA. 201+16 (14' WIDE)
SECTION A-A
REV. STA. 201+00 LT
BEGIN SHOULDER WITH
FULL DEPTH PAVEMENT
LIMIT OF CLEARING & GRUBBING (TYP.)
EVERGREEN
SURV. STA. 201+05
C= 0 Sq Ft
F=136 Sq Ft
R= 0 Sq Ft
REV. 200+99.46 =
SURV. 201+00
STA. 201+00 STA. 201+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 231 OF 1352 SHEETS
HORIZ. AND VERT. SCALE
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86
FINAL SURVEY
ORIGINAL SURVEY

U.S. ROUTE 2
MARSHFIELD
F028-3(28)





DRIVE AT THIS STA. IS COMBINED WITH DRIVE AT STA. 202+83
(SEE PAGE 233 OF X-SECTIONS).

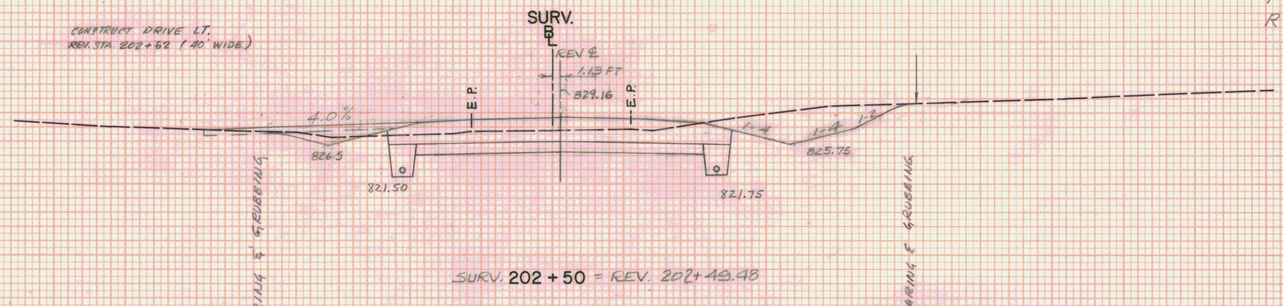
SURV. 202 + 76
ASKEWED @ 72°-30' RT.

POLE # 177
B
116
SURV. STA.
202+92

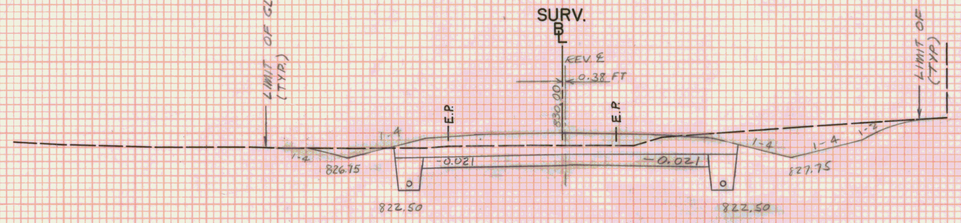
EVERGREEN
SURV. STA. 202+71

C = 162 SQ FT
F = 0 SQ FT
R = 0 SQ FT

CONSTRUCT DRIVE LT.
REV. STA. 202+62 (40' WIDE)

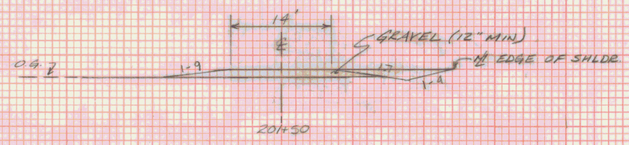


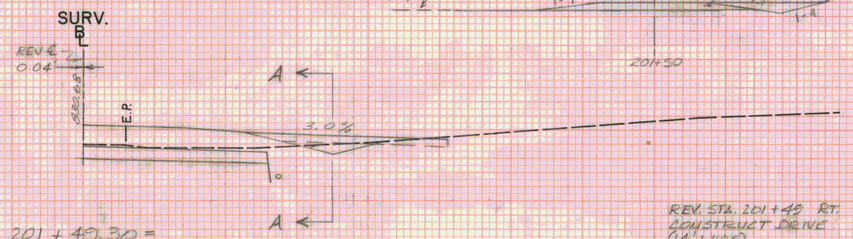
SURV. 202 + 50 = REV. 202+43.98



C = 164 SQ FT
F = 0 SQ FT
R = 0 SQ FT

SURV. 202 + 00 = REV. 201+99.47





REV. 201 + 49.30 =
SURV. 201 + 50
ASKEWED @ 64°-24' RT.

REV. STA. 201+49 RT.
CONSTRUCT DRIVE
(14' WIDE)

STA:	201+50	STA:	202 + 76
TOWN	MA		
PROJECT	F	NO.	028-3(28)
SHEET	232	OF	342 SHEETS

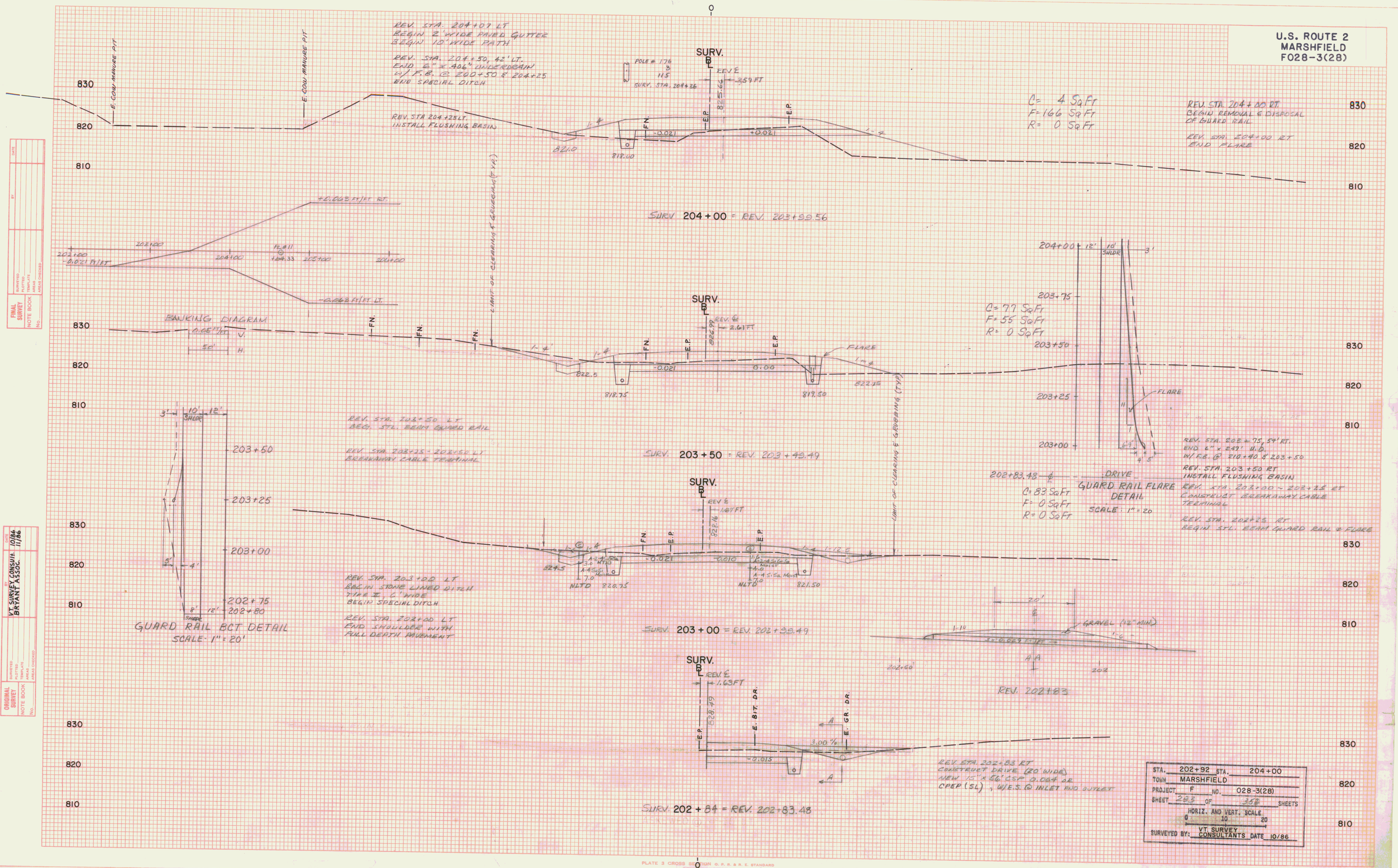
HORIZ. AND VERT. SCALE
0 10 20

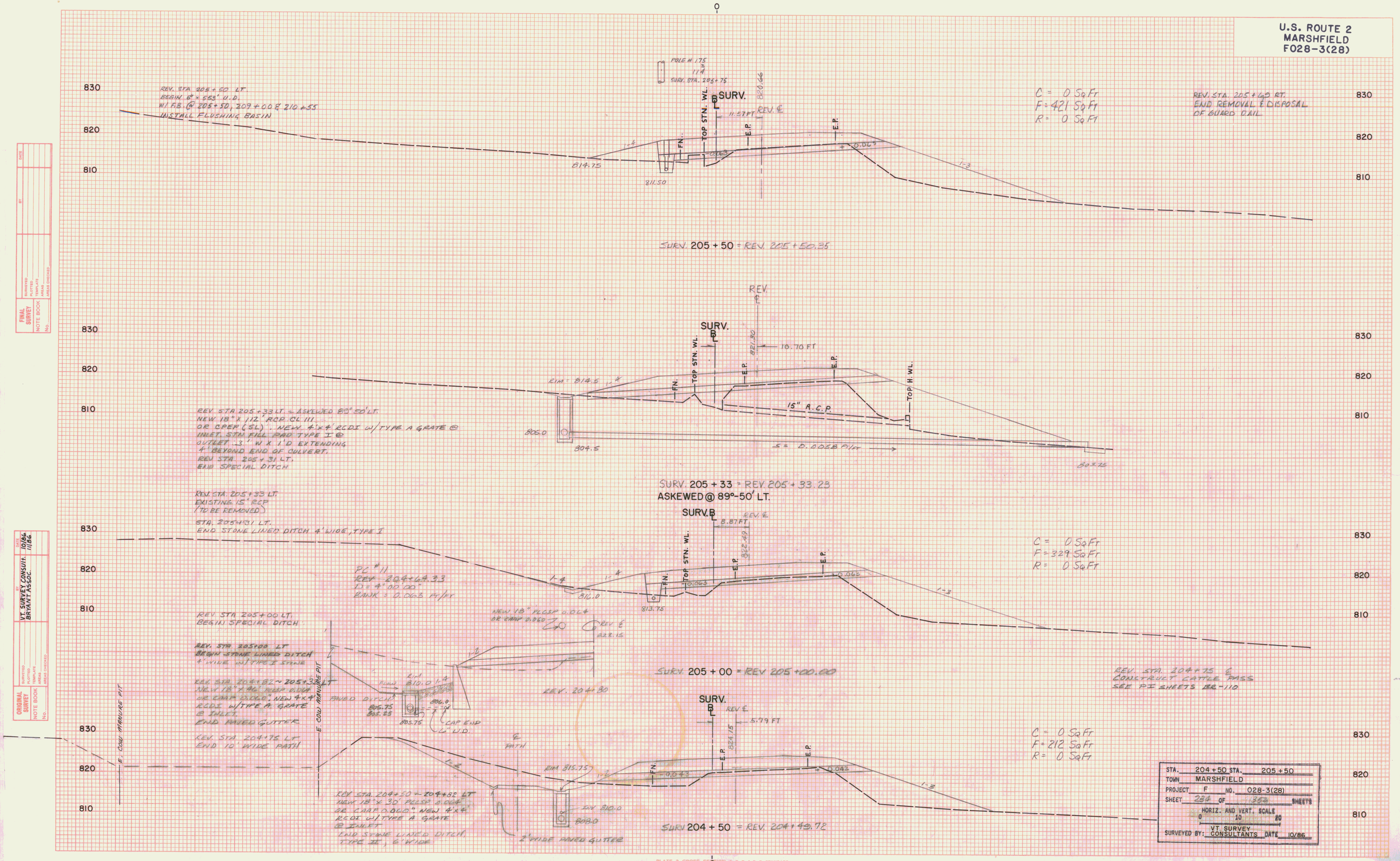
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — DATE — BY — SURVEYED — PLOTTED — TRAVERSE — AREA — AREAS CHECKED — NOTE BOOK — No.

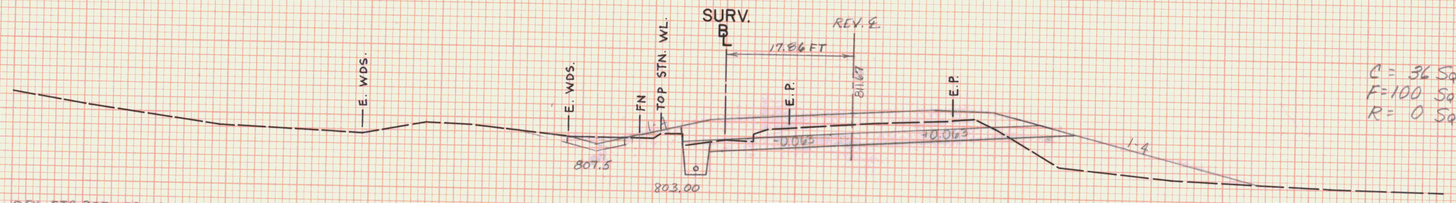
ORIGINAL SURVEY — DATE 10/86 11/86 — BY VT SURVEY CONSULT. BRYANT ASSOC. — SURVEYED — PLOTTED — TRAVERSE — AREA — AREAS CHECKED — NOTE BOOK — No.

PLATE 3 CROSS SECTION D. F. R. & R. E. STANDARD
DETZGEN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
REV. STA. 204+07 LT
BEGIN 2' WIDE PAVED GUTTER
BEGIN 10' WIDE PATH
REV. STA. 204+50, 42' LT.
END 6" x 406" UNDERDRAIN
W/ F.B. @ 200+50 & 204+25
END SPECIAL DITCH
REV. STA 204+25 LT.
INSTALL FLUSHING BASIN
E. COW MANURE PIT
SURV. STA. 204+36
C= 4 SQ FT
F= 166 SQ FT
R= 0 SQ FT
REV. STA. 204+00 RT.
BEGIN REMOVAL & DISPOSAL
OF GUARD RAIL
REV. STA. 204+00 RT
END FLARE
SURV 204+00 = REV. 203+99.56
+0.063 FT/FT RT.
-0.063 FT/FT LT.
BANKING DIAGRAM
LIMIT OF CLEARING & GRUBBING (TYP.)
C= 77 SQ FT
F= 55 SQ FT
R= 0 SQ FT
FLARE
REV. STA. 203+50 LT
BEG. STL. BEAM GUARD RAIL
REV. STA. 203+25 - 203+50 LT
BREAKAWAY CABLE TERMINAL
SURV. 203+50 = REV. 203+49.49
REV. STA. 203+75, 54' RT.
END 6" x 249' U.D.
W/ F.B. @ 210+40 & 203+50
REV. STA. 203+50 RT
INSTALL FLUSHING BASIN
REV. STA. 203+00 - 203+25 RT
CONSTRUCT BREAKAWAY CABLE
TERMINAL
REV. STA. 202+25 RT
BEGIN STL. BEAM GUARD RAIL & FLARE
202+83.48
DRIVE
C= 83 SQ FT
F= 0 SQ FT
R= 0 SQ FT
GUARD RAIL FLARE
DETAIL
SCALE: 1" = 20
GUARD RAIL BCT DETAIL
SCALE 1" = 20'
REV. STA. 203+00 LT
BEGIN STONE LINED DITCH
TYPE II, 6' WIDE
BEGIN SPECIAL DITCH
REV. STA. 203+00 LT
END SHOULDER WITH
FULL DEPTH PAVEMENT
SURV. 203+00 = REV. 202+99.49
GRAVEL (12" MIN)
REV. 202+83
REV. STA. 202+83 RT
CONSTRUCT DRIVE (20' WIDE)
NEW 15" x 56' CSP 0.064 OR
CPEP (SL), W/E.S. @ INLET AND OUTLET
SURV. 202+84 = REV. 202+83.48
STA. 202+92 STA. 204+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 283 OF 352 SHEETS
HORIZ. AND VERT. SCALE
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT. BRYANT ASSOC.
10/86
11/86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
REV. STA 205+50 LT.
BEGIN 6" x 553' U.D.
W/ F.B. @ 205+50, 209+00 & 210+55
INSTALL FLUSHING BASIN
POLE # 175
SURV. STA. 205+75
SURV.
TOP STN. WL.
11.57 FT
REV. ℄
E.P.
FN.
814.75
811.50
C = 0 Sq Ft
F = 421 Sq Ft
R = 0 Sq Ft
REV. STA. 205+69 RT.
END REMOVAL & DISPOSAL
OF GUARD RAIL
SURV. 205 + 50 = REV. 205 + 50.35
REV.
10.70 FT
TOP H. WL.
RIM = 814.5
15" R.C.P.
805.0
804.5
S = 0.0058 Ft/Ft
REV STA 205+33 LT. = ASKEWED 89° 50' LT.
NEW 18" X 112' RCP CL III
OR CPEP (SL). NEW 4'x4' RCDI W/TYPE A GRATE @
INLET. STN FILL PAD TYPE I @
OUTLET 3' W X 1'D EXTENDING
4' BEYOND END OF CULVERT.
REV STA. 205+31 LT.
END SPECIAL DITCH
REV. STA. 205+33 LT.
EXISTING 15" RCP
(TO BE REMOVED)
STA. 205+31 LT.
END STONE LINED DITCH 4' WIDE, TYPE I
SURV. 205 + 33 = REV. 205 + 33.23
ASKEWED @ 89°-50' LT.
8.87 FT
REV. ℄
C = 0 Sq Ft
F = 329 Sq Ft
R = 0 Sq Ft
PC # 11
REV. 204+64.33
D = 4° 00' 00"
BANK = 0.063 Ft/Ft
816.0
813.75
REV STA 205+00 LT.
BEGIN SPECIAL DITCH
REV. STA 205+00 LT
BEGIN STONE LINED DITCH
4' WIDE W/ TYPE I STONE
REV. STA. 204+82 ~ 205+33 LT
NEW 18" X 46' PCLSP 0.064
OR CAAP 0.060". NEW 4'x4'
RCDI W/TYPE A GRATE
@ INLET.
END PAVED GUTTER
REV. STA. 204+75 LT
END 10' WIDE PATH
NEW 18" PCLSP 0.064
OR CAAP 0.060
REV ℄
823.15
SURV. 205 + 00 = REV 205 + 00.00
REV. 204+80
REV. STA. 204+75 ℄
CONSTRUCT CATTLE PASS
SEE PI SHEETS BR-110
E. COW MANURE PIT
PAVED DITCH
805.75
805.25
806.0
CAP END
6" U.D.
℄ PATH
RIM 815.75
INV 810.0
808.0
2' WIDE PAVED GUTTER
REV STA. 204+50 ~ 204+82 LT
NEW 18" X 30' PCLSP 0.064
OR CAAP 0.060". NEW 4'x4'
RCDI W/TYPE A GRATE
@ INLET
END STONE LINED DITCH,
TYPE II, 6' WIDE
SURV. 204 + 50 = REV. 204 + 49.72
5.79 FT
C = 0 Sq Ft
F = 212 Sq Ft
R = 0 Sq Ft
STA. 204+50 STA. 205+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 234 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT. BRYANT ASSOC.
10/86
11/86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD

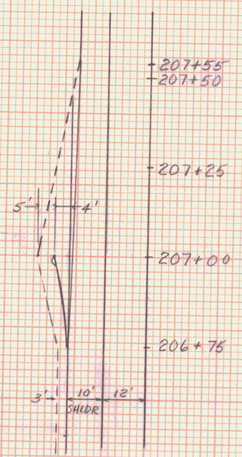
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



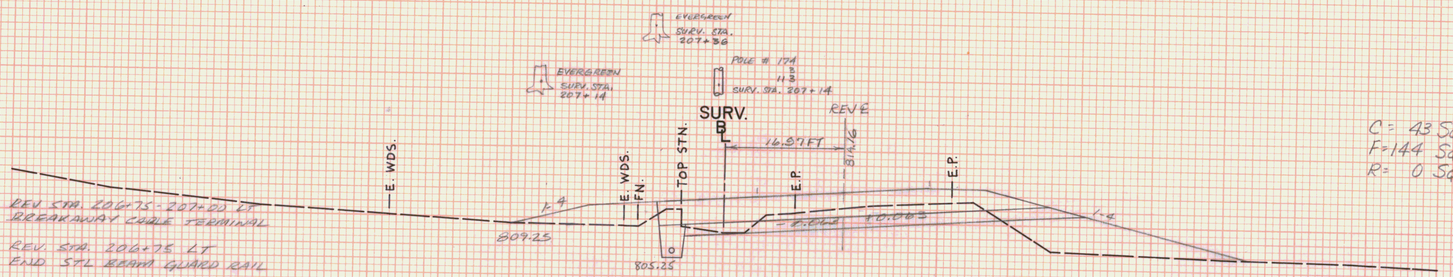
C = 36 Sq Ft
F = 100 Sq Ft
R = 0 Sq Ft

REV. STA 207+50 LT.
BEGIN STONE LINED
DITCH TYPE I, 6'W

SURV. 207 + 50 = REV. 207 + 52.66



GUARD RAIL BCT DETAIL
SCALE: 1"=20'

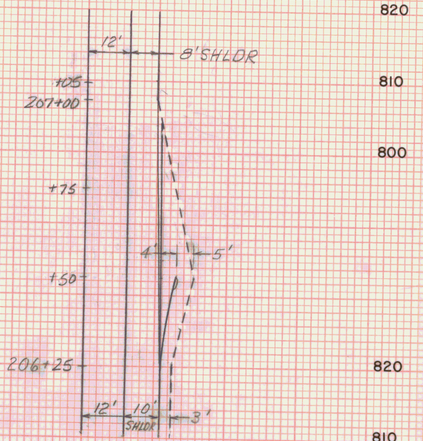


REV. STA. 206+75 - 207+20 ±
BREAKAWAY CABLE TERMINAL

REV. STA. 206+75 LT.
END STL BEAM GUARD RAIL

SURV. 207 + 00 = REV. 207 + 01.60

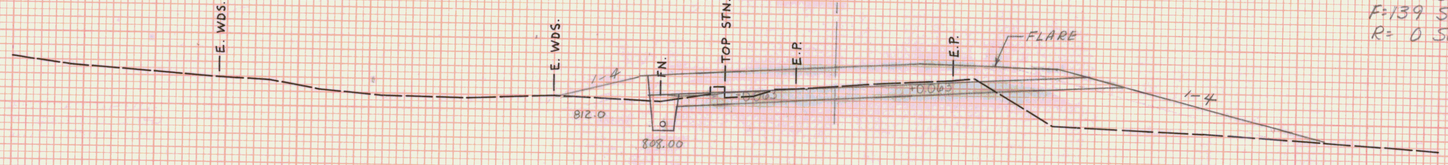
C = 43 Sq Ft
F = 144 Sq Ft
R = 0 Sq Ft



GUARD RAIL BCT DETAIL
SCALE 1"=20'

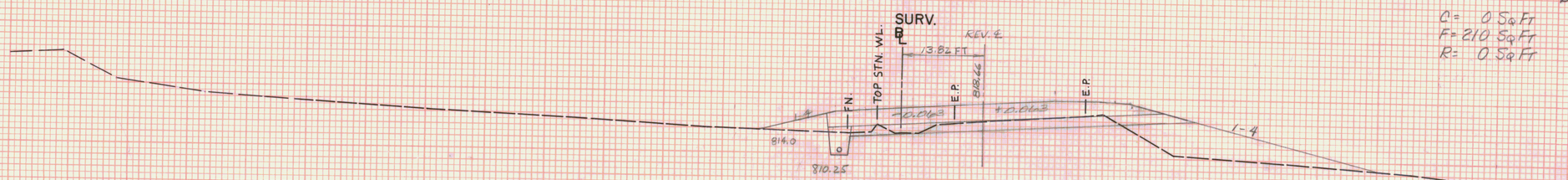
REV. STA. 206+25 RT
END STEEL BEAM GUARD RAIL

REV. STA. 206+25 ~ 206+50 RT
BREAKAWAY CABLE TERMINAL



C = 2 Sq Ft
F = 139 Sq Ft
R = 0 Sq Ft

SURV 206 + 50 = REV. 206 + 51.15



C = 0 Sq Ft
F = 210 Sq Ft
R = 0 Sq Ft

SURV. 206 + 00 = REV. 206 + 00.74

STA.	206+00 STA. 207+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	235 OF 352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

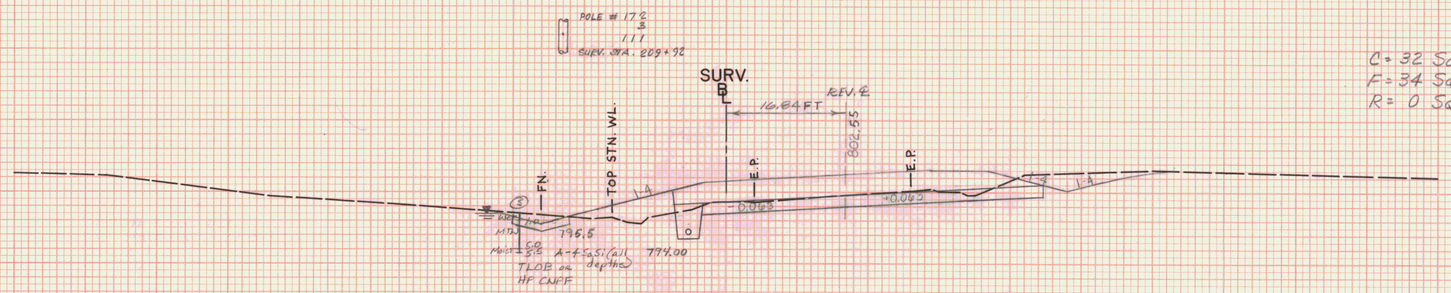
VT SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86
DATE

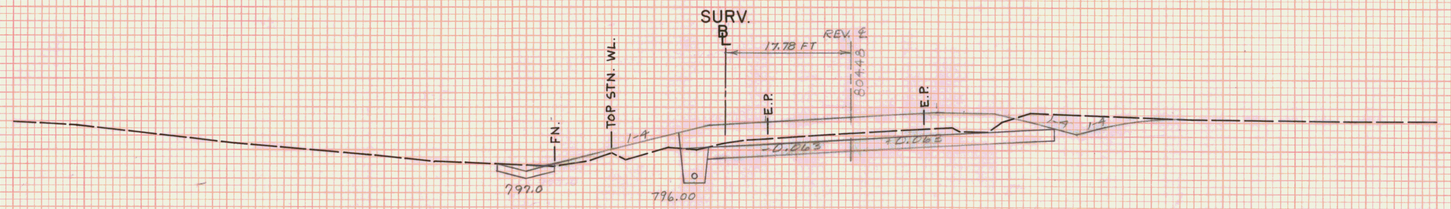
PLATE 3 CROSS SECTION G. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



C = 32 Sq Ft
F = 34 Sq Ft
R = 0 Sq Ft

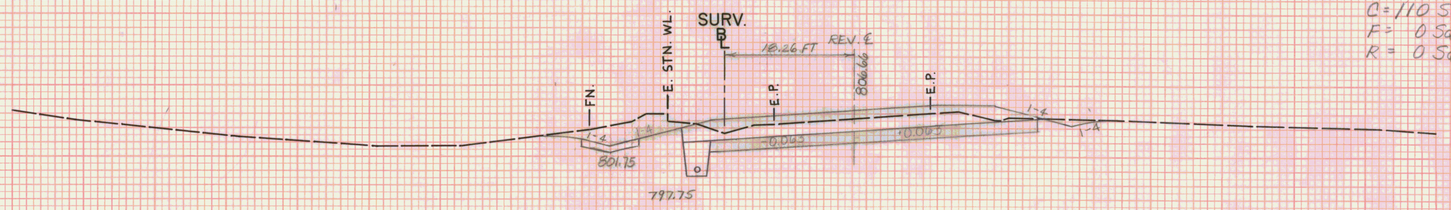
SURV. 209 + 50 = REV. 209 + 53.96



C = 65 Sq Ft
F = 23 Sq Ft
R = 0 Sq Ft

REV. STA. 209+00 LT.
INSTALL FLUSHING BASIN

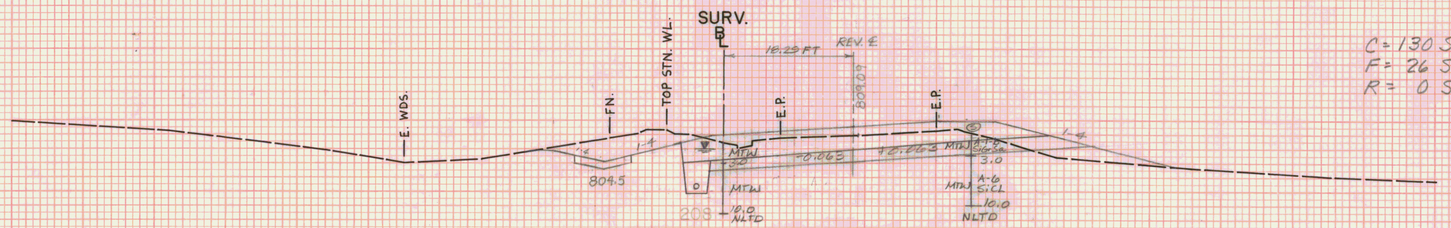
SURV. 209 + 00 = REV. 209 + 03.50



C = 110 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

POLE # 178
SURV. STA. 208 + 49

SURV. 208 + 50 = REV. 208 + 53.02



C = 130 Sq Ft
F = 26 Sq Ft
R = 0 Sq Ft

SURV. 208 + 00 = REV. 208 + 02.54

STA.	208 + 00 STA. 209 + 50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	236 OF 352 SHEETS

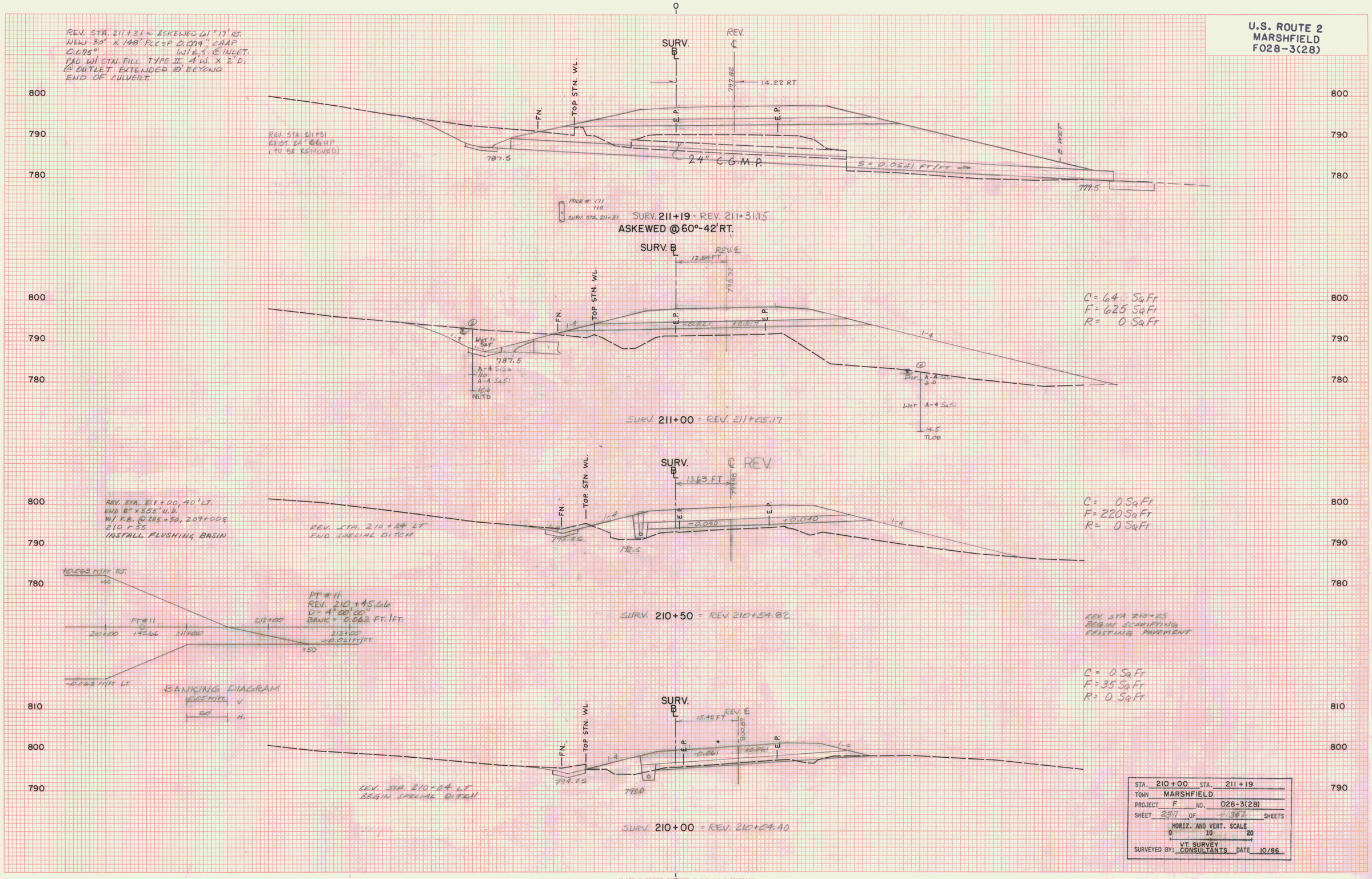
HORIZ. AND VERT. SCALE
0 10 20

VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

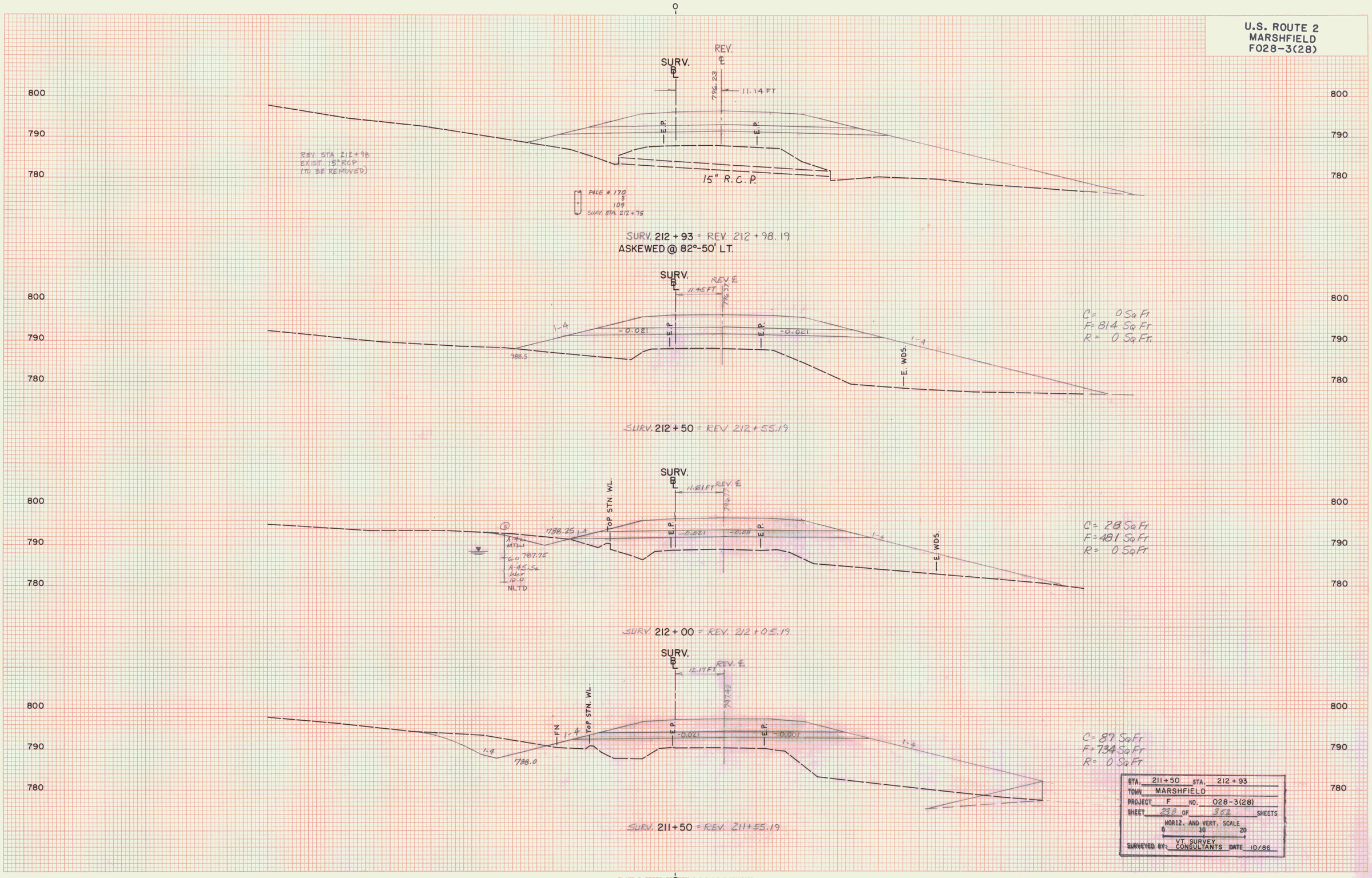
FINAL SURVEY
NOTE BOOK
No.
DATE
BY
SURVEYED
PLOTTED
TEMPLATE
AREA
AREAS CHECKED

ORIGINAL SURVEY
NOTE BOOK
No.
DATE 10/86 11/86
BY VT. SURVEY CONSULT. BRYANT ASSOC.
SURVEYED
PLOTTED
TEMPLATE
AREA
AREAS CHECKED

PLATE 3 CROSS SECTION C. P. S. A. A. E. STANDARD
DIETZGEN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
REV. STA. 211+31 ~ ASKEWED 61°17' RT.
NEW 30" X 148' PCCSP 0.079" CAAP
0.075" W/E.S. @ INLET.
PAD W/ STN. FILL TYPE II 4' W. X 2' D.
@ OUTLET EXTENDED 10' BEYOND
END OF CULVERT.
SURV. ℄
REV. ℄
14.22 RT
797.82
TOP STN. WL.
FN.
E.P.
REV. STA. 211+31
EXIST. 24" CGMP
(TO BE REMOVED)
787.5
24" C.G.M.P.
S = 0.0541 FT/FT
779.5
POLE # 171
110
SURV. STA. 211+31
SURV. 211+19 = REV. 211+31.15
ASKEWED @ 60°-42' RT.
SURV. ℄
REV. ℄
12.54 FT
798.32
-0.021
+0.019
1-4
787.5
A-4 SiSa
A-4 SaSi
NLTD
Wet A-4 SaSi
14.5
TLOB
C = 640 SqFt
F = 625 SqFt
R = 0 SqFt
SURV. 211+00 = REV. 211+05.17
SURV. ℄
REV. ℄
13.63 FT
799.48
REV. STA. 211+00, 40' LT.
END 6" x 553' U.D.
W/ F.B. @ 205+50, 209+00 &
210+55
INSTALL FLUSHING BASIN
REV. STA. 210+34 LT
END SPECIAL DITCH
-0.040
+0.040
793.25
792.5
C = 0 SqFt
F = 220 SqFt
R = 0 SqFt
+0.063 FT/FT RT.
PT #11
REV. 210+45.66
D = 4°00'00"
BANK = 0.063 FT./FT.
210+00
+45.66
211+00
212+00
213+00
-0.021 FT/FT.
+50
-0.063 FT/FT LT.
BANKING DIAGRAM
0.05 FT/FT. V.
50' H.
SURV. 210+50 = REV. 210+54.82
REV. STA. 210+25
BEGIN SCARIFYING
EXISTING PAVEMENT
C = 0 SqFt
F = 35 SqFt
R = 0 SqFt
SURV. ℄
REV. ℄
15.45 FT
800.87
-0.061
+0.061
794.25
793.0
REV. STA. 210+04 LT
BEGIN SPECIAL DITCH
SURV. 210+00 = REV. 210+04.40
800
790
780
810
STA. 210+00 STA. 211+19
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 237 OF 362 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
NOTE BOOK
ORIGINAL SURVEY
VT. SURVEY CONSULT.
BRYANT ASSOC.
10/86
11/86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



STA. 211+50	STA. 212 + 93
TOWN MARSHFIELD	
PROJECT F	NO. 028-3(28)
SHEET 238 OF 352 SHEETS	
HORIZ. AND VERT. SCALE 0 10 20	
SURVEYED BY: VT. SURVEY CONSULTANTS	DATE 10/86

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

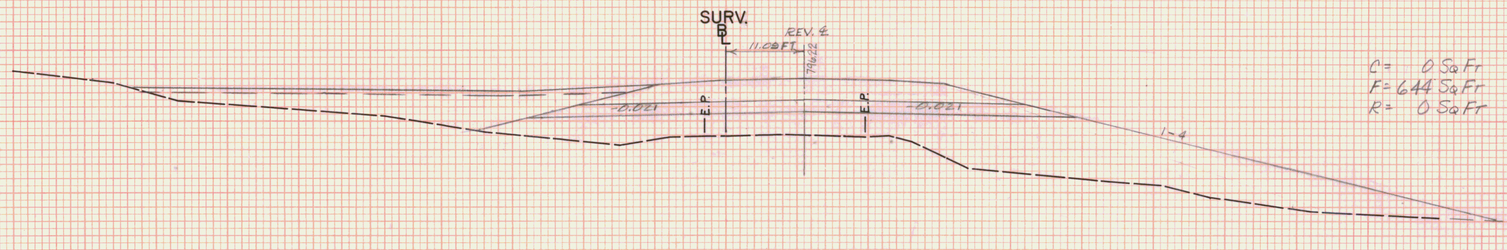
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULT. BRYANT ASSOC. — DATE 10/86 11/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY VT. SURVEY CONSULT. BRYANT ASSOC.
DATE 10/86 11/86



800
790
780

C = 0 Sq Ft
F = 644 Sq Ft
R = 0 Sq Ft

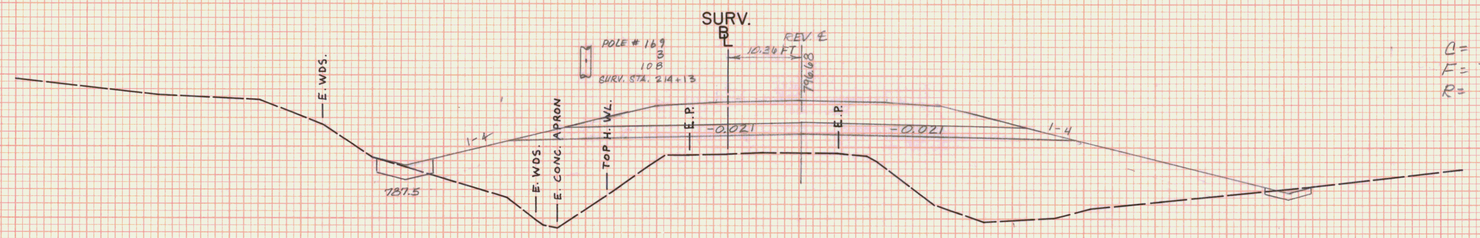
SURV. 213+00 = REV. 213+05.19

STA. 213+00 STA.
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 239 OF 362 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION, O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

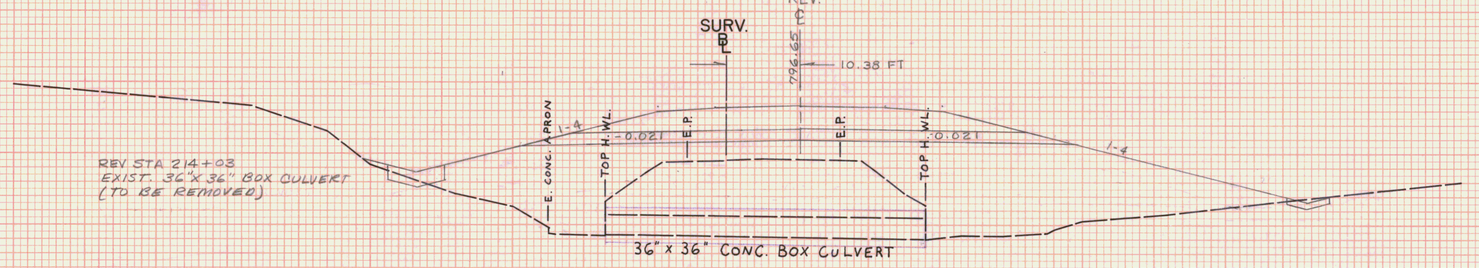
0

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

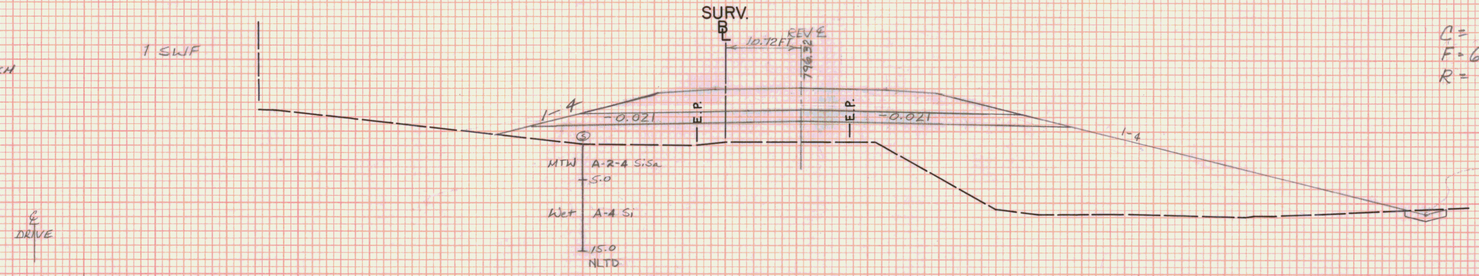


C = 0 Sq Ft
F = 741 Sq Ft
R = 0 Sq Ft

SURV. 214+00 = REV. 214+05.19



SURV. 213+98 = REV. 214+03.19

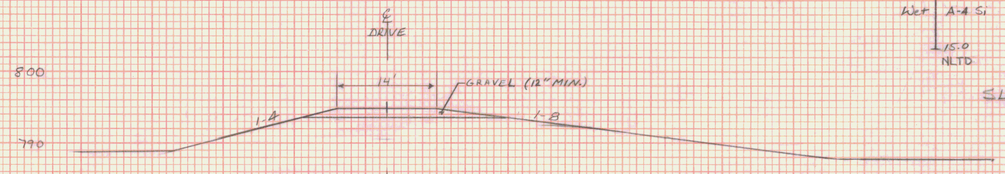


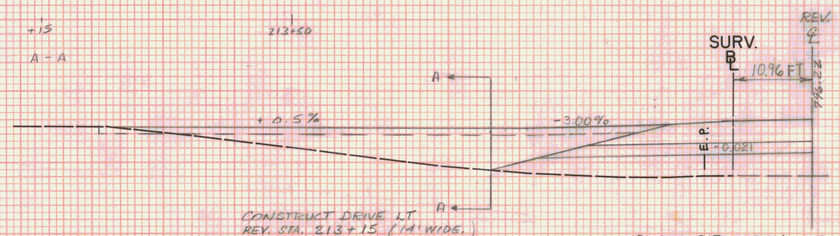
C = 0 Sq Ft
F = 692.5 Sq Ft
R = 0 Sq Ft

REV STA 213+55 LT
BEGIN STONE LINED DITCH
TYPE II, 8'W

SURV. 213+50 = REV. 213+55.19

REV STA 213+40 RT
BEGIN STONE LINED DITCH
TYPE I, 6'W
BEGIN SPECIAL DITCH





SURV. 213+09.81 REV. 213+15

STA.	213+22 STA. 214+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	240 OF 352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

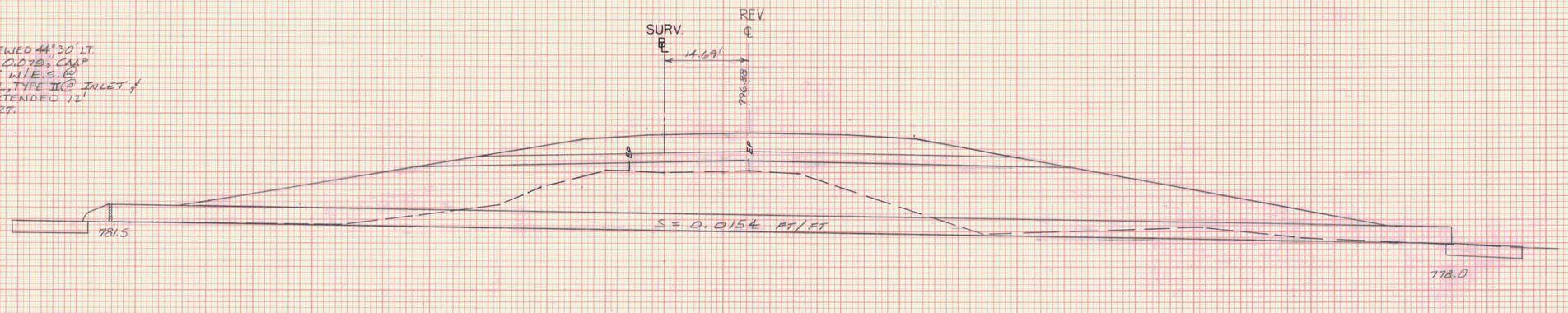
FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — CHECKED — BY VT SURVEY CONSULT. BRYANT ASSOC. — DATE 10/86 11/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DEITZ-RICH CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 214+25 ~ ASKEWED 44°30' LT.
NEW 36" x 228' PCCSP 0.079" CMP
0.075" OR RCP CL. III W/E. @
INLET. PAD W/ STN. FILL, TYPE II @ INLET &
OUTLET 45' W. x 7'0. EXTENDED 12'
BEYOND ENDS OF CULVERT.



SURV. 214+35 = REV. 214+24.71
ASKEWED @ 44° 30' LT.

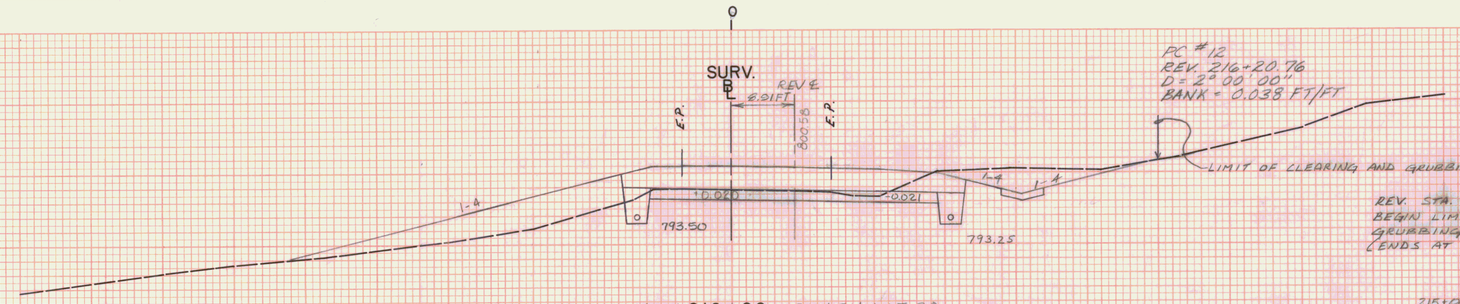
STA. 214+35 STA.
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 271 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

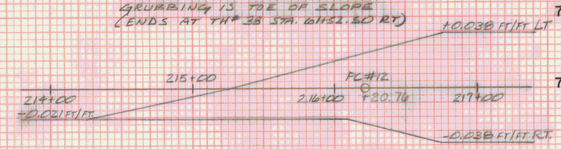


SURV. 216 + 00 = REV 216+05.20

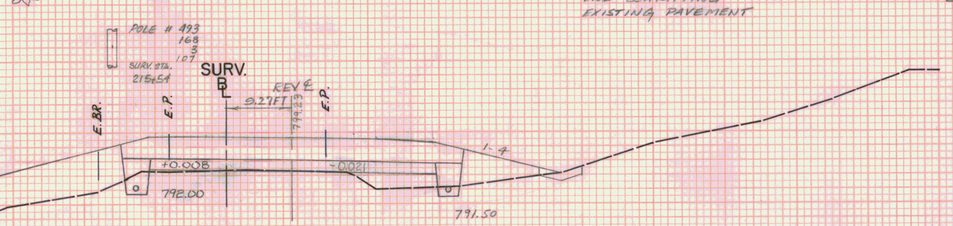
PC #12
REV. 216+20.76
D = 2° 00' 00"
BANK = 0.038 FT/FT

C = 66 Sq Ft
F = 117 Sq Ft
R = 0 Sq Ft

REV. STA. 216+00 RT
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE
ENDS AT TH# 38 STA. 0+52.50 RT)



BANKING DIAGRAM
0.038 FT/FT U.
50' H.



SURV. 215 + 50 = REV 215+55.20

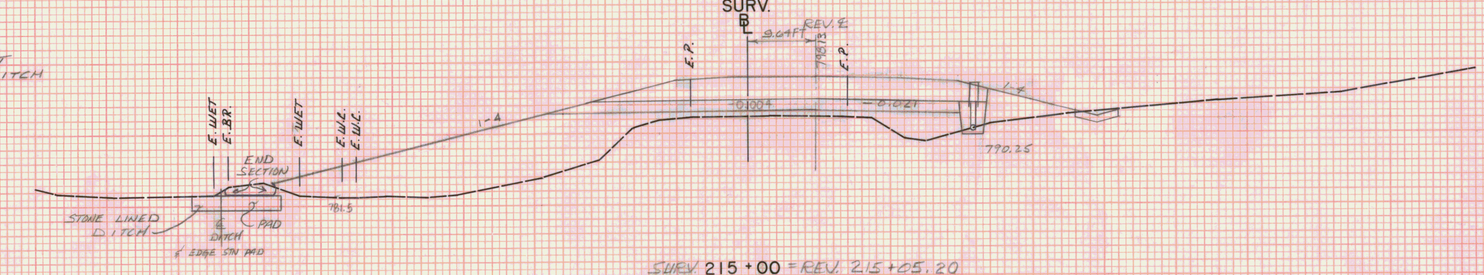
REV. STA. 215+75
END SCARIFYING
EXISTING PAVEMENT

C = 0 Sq Ft
F = 342 Sq Ft
R = 0 Sq Ft

REV. STA. 215+50 LT.
INSTALL FLUSHING BASIN

REV. STA. 215+25 LT.
BEGIN 6"X 542' U.D. W/FB @
REV.STA. 215+50 E' 220+32

REV. STA. 215+55 RT
END SPECIAL DITCH



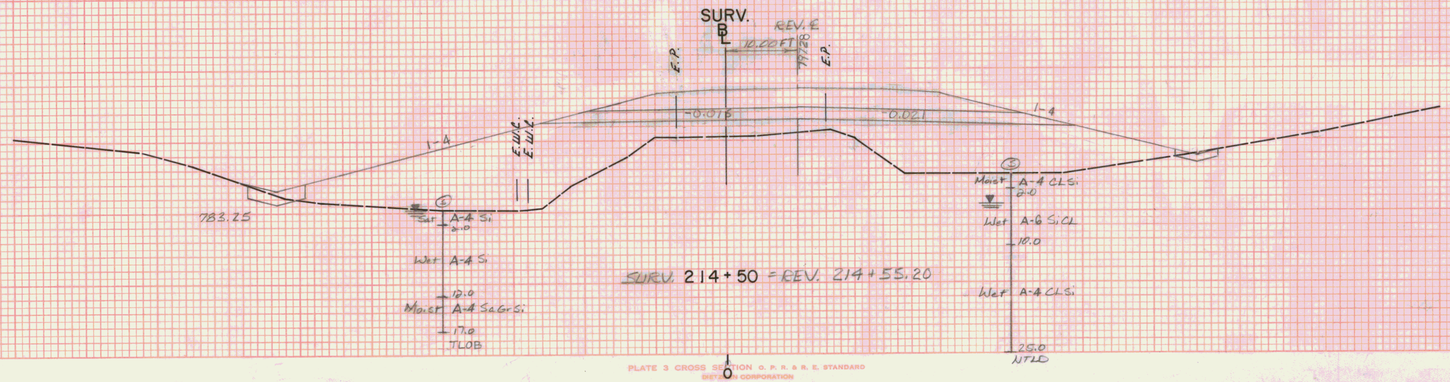
REV. STA. 215+05 LT
END STONE LINED DITCH
TYPE II, 8'W

SURV. 215 + 00 = REV. 215+05.20

C = 0 Sq Ft
F = 912 Sq Ft
R = 0 Sq Ft

REV STA 215+05 RT.
INSTALL FLUSHING BASIN

REV STA 214+65 RT
BEGIN 6"X 597' U.D W/FB @
REV. STA. 215+05, 218+00
E' 220+54



SURV. 214 + 50 = REV. 214+55.20

C = 0 Sq Ft
F = 692 Sq Ft
R = 0 Sq Ft

STA.	214+50	STA.	216+00
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	242	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

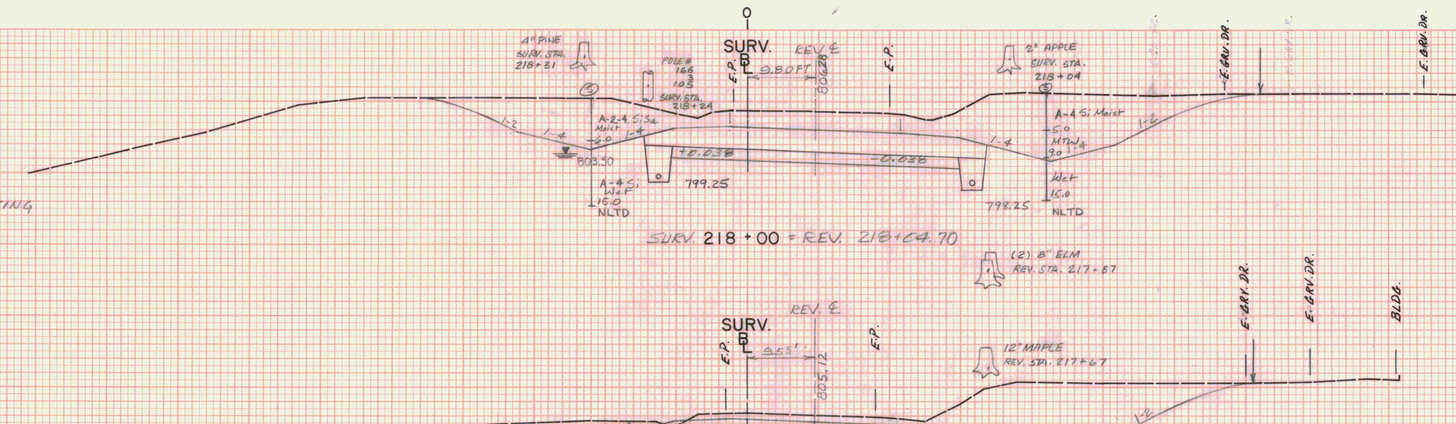
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — NOTE BOOK — AREAS CHECKED — No. — DATE — BY

ORIGINAL SURVEY — VT. SURVEY CONSULT BAPTANT ASSOC. — 10-86 11-86 — SURVEYED — PLOTTED — TEMPLATE — NOTE BOOK — AREAS CHECKED — No. — DATE — BY

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
REVISED CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

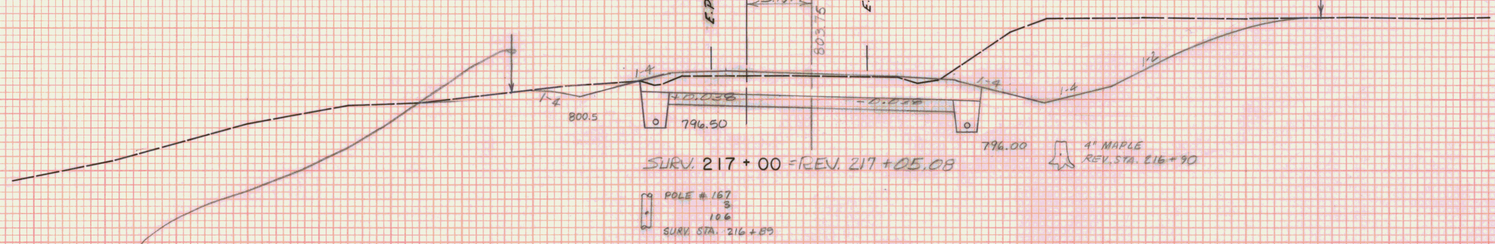


C = 612 SQ FT
F = 0 SQ FT
R = 0 SQ FT

REV. STA. 218+00 RT
BEGIN SHOULDER W/FULL
DEPTH PAVEMENT (10'-8" WIDE)
INSTALL FLUSHING BASIN

C = 449 SQ FT
F = 0 SQ FT
R = 0 SQ FT

C = 425 SQ FT
F = 0 SQ FT
R = 0 SQ FT



C = 350 SQ FT
F = 6 SQ FT
R = 0 SQ FT

REV. STA. 216+50 ET
END STONE LINED DITCH
TYPE I, 6' W
BEGIN EROSION MATTING

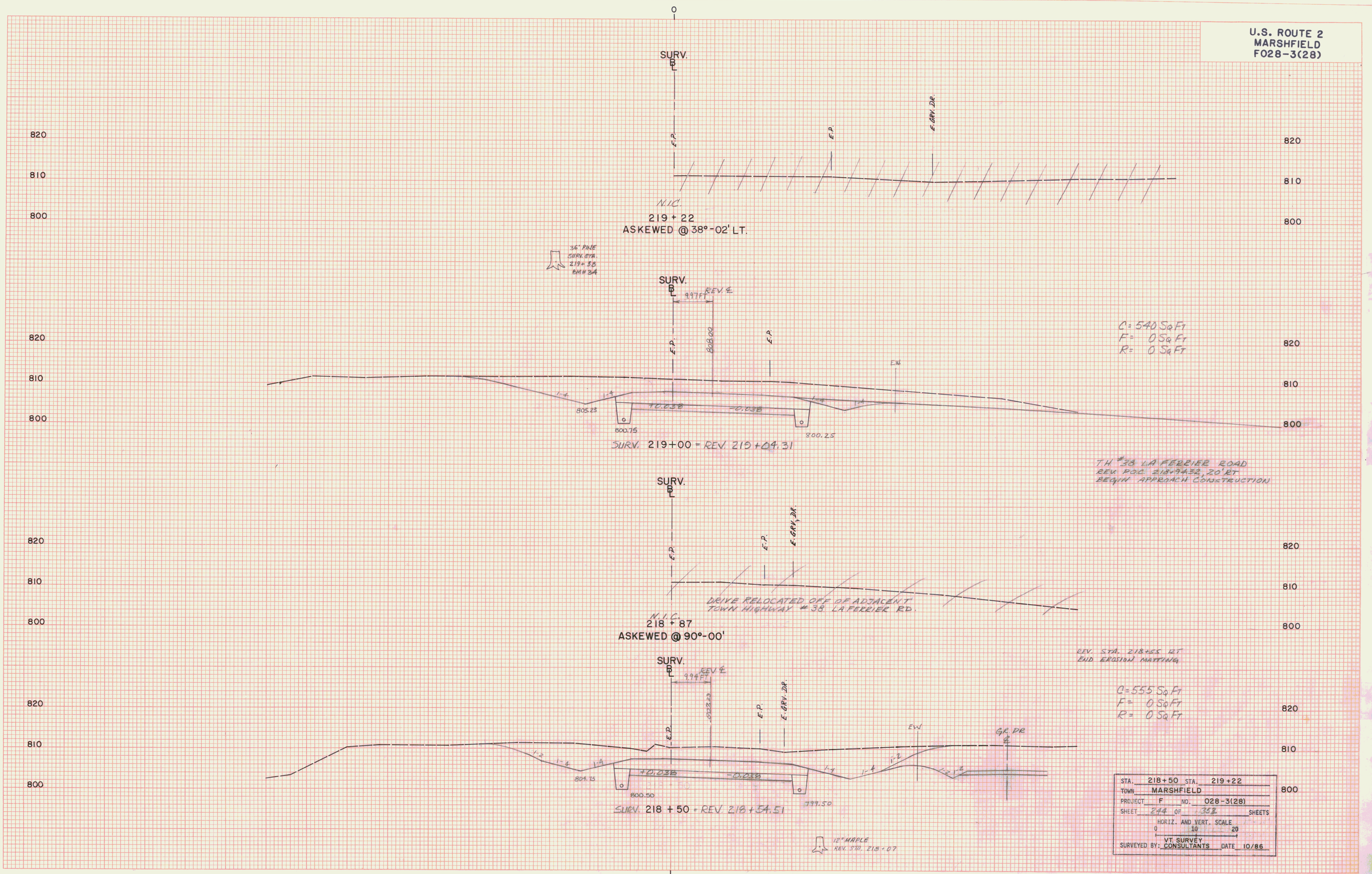
SURV. 216 + 50 = REV. 216+55.20

STA.	216+50 STA. 218+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	243 OF 362 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — SURVEYED, PLOTTED, TRACED, CHECKED, AREAS CHECKED, NOTE BOOK, No., DATE, BY

ORIGINAL SURVEY — DATE 10-86, BY VT. SURVEY CONSULT. & BRYANT ASSOC.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
SURV.
E.P.
E.GRV. DR.
N.I.C.
219 + 22
ASKEWED @ 38°-02' LT.
36" PINE
SURV. STA.
219+38
BM#34
9.97 FT
REV. ℄
808.00
E.W.
C= 540 SQ FT
F= 0 SQ FT
R= 0 SQ FT
805.25
+0.038
-0.038
800.75
800.25
SURV. 219+00 = REV. 219+04.31
TH #38 LA FERRIER ROAD
REV. P.O.C. 218+94.32, 20' RT
BEGIN APPROACH CONSTRUCTION
DRIVE RELOCATED OFF OF ADJACENT
TOWN HIGHWAY #38 LA FERRIER RD.
N.I.C.
218 + 87
ASKEWED @ 90°-00'
REV. STA. 218+55 RT
END EROSION MATTING
9.94 FT
REV. ℄
C= 555 SQ FT
F= 0 SQ FT
R= 0 SQ FT
GR. DR.
804.75
800.50
799.50
SURV. 218 + 50 = REV. 218+54.51
12" MAPLE
REV. STA. 218+07
STA. 218+50 STA. 219+22
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 244 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
NOTE BOOK
No.
ORIGINAL SURVEY
VT SURVEY CONSULT. 8/86
BRYANT ASSOC. 9/86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA 220+53 LT
BEGIN 6" x 295' U.D W/FB @
REV. STA. 220+53 & 223+03
INSTALL FLUSHING BASIN

REV. STA. 220+52 LT
END 6"x 542' U.D. W/FB
@ REV. STA. 215+50 & 220+52
INSTALL FLUSHING BASIN

REV. STA. 220+50 LT
BEGIN EROSION MATTING

REV STA 220+00 LT
END EROSION MATTING

CONSTRUCT DRIVE L.T. SURV. 220+26.17 = REV. 220+27
REV. STA. 220+27 (20' WIDE)

SURV. 220 + 50 = REV. 220+53.74

SURV. 220 + 00 = REV. 220+03.93

SURV. 219 + 50 = REV. 219+54.12

219 + 22
ASKEWED @ 41°-07' LT.

C = 290 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

REV. STA. 220+54 RT
END 6"x 597' U.D.
W/ F.B. @ 215+05, 218+00 &
220+54
INSTALL FLUSHING BASIN

C = 483 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

REV. STA. 220+00 RT
END SHOULDER W/FULL
DEPTH PAVEMENT (0'-8' WIDE)

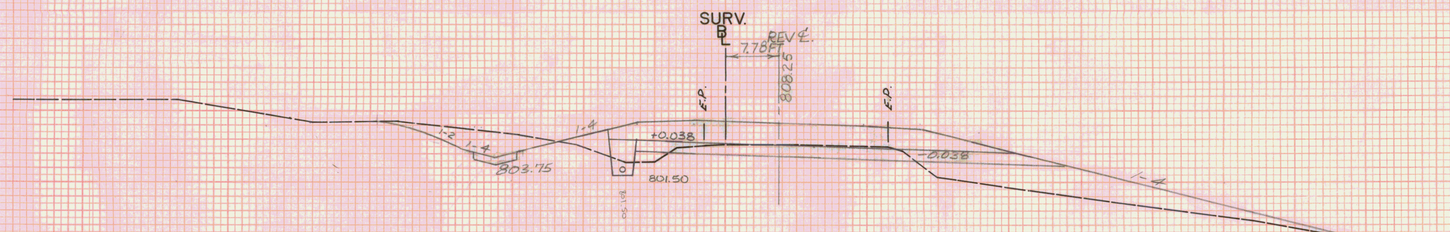
C = 550 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

STA. 219+22 STA. 220+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 215 OF 362 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

VT. SURVEY CONSULT 3/86
BRYANT ASSOC. 6/86

PLATE 3 CROSS SECTION O. P. R. S. R. E. STANDARD
DIETZGEN CORPORATION

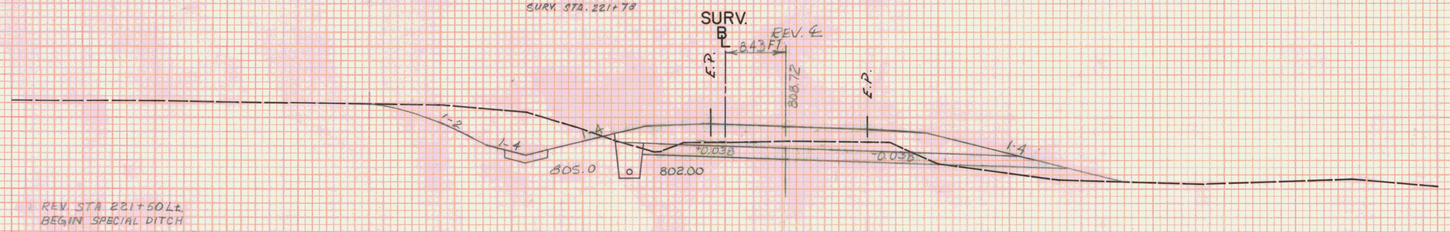
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



C = 48 Sq Ft
F = 151 Sq Ft
R = 0 Sq Ft

SURV. 222 + 00 = REV. 222 + 03.24

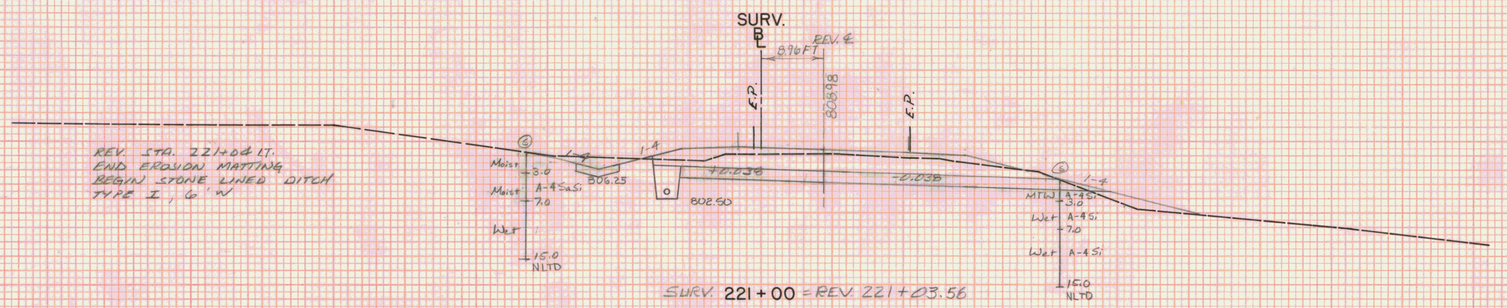
POLE #
163
W
102
SURV. STA. 221+79



C = 113 Sq Ft
F = 26 Sq Ft
R = 0 Sq Ft

REV. STA. 221+50 Lt.
BEGIN SPECIAL DITCH

SURV. 221 + 50 = REV. 221+53.39



C = 78 Sq Ft
F = 16 Sq Ft
R = 0 Sq Ft

SURV. 221 + 00 = REV. 221 + 03.56

STA. 220+55 STA. 222+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 246 OF 1352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE

VT. SURVEY CONSULT. 10-86
BRYANT A.S.S.O.C. 11-86

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
BRETHEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

MARSHFIELD, VT.
U.S. ROUTE 2
PROJ. F 028-3(28)
CROSS SECTIONS
SET 3 OF 3

STA. 222+39 **TO STA.** 312+00

(INCLUDES TOWN HIGHWAY CROSS SECTION SHTS.)

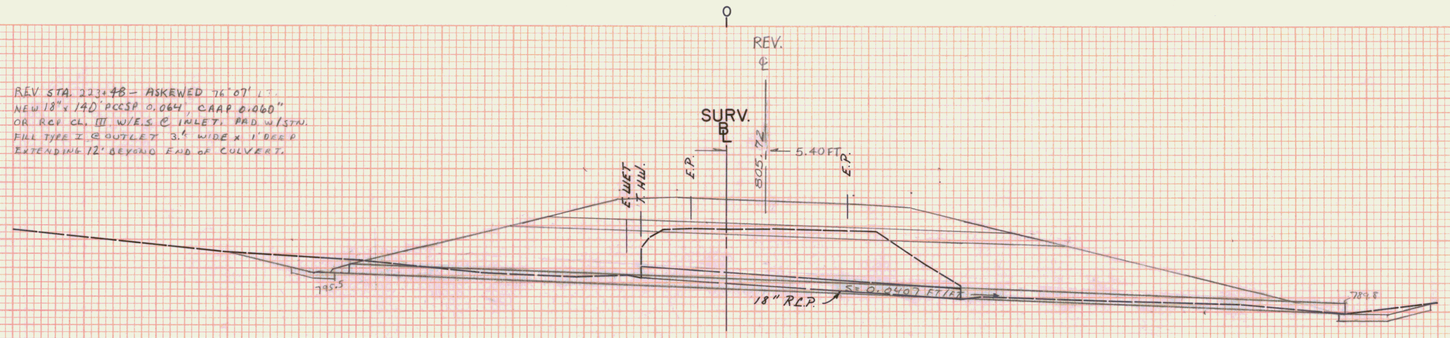
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 223+48 – ASKEWED 76°07' L.T.
NEW 18"x 140' PCCSP 0.064", CAAP 0.060"
OR RCP CL. III W/E.S.@ INLET. PAD W/STN.
FILL TYPE I @ OUTLET 3.1' WIDE x 1' DEEP
EXTENDING 12' BEYOND END OF CULVERT.

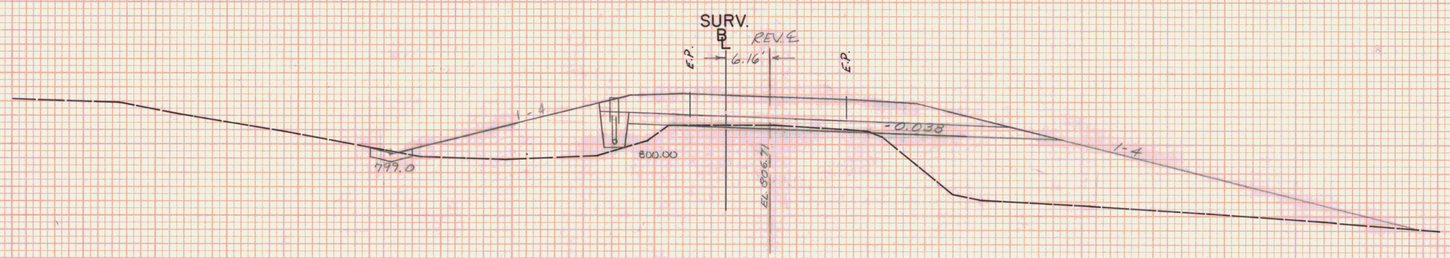
REV. STA. 223+48 – EXIST. 18" RCP
(TO BE REMOVED)

REV. STA. 223+35 LT.
END 6" x 295' U.D. W/F8 @
REV. STA. 220+53 & 223+03



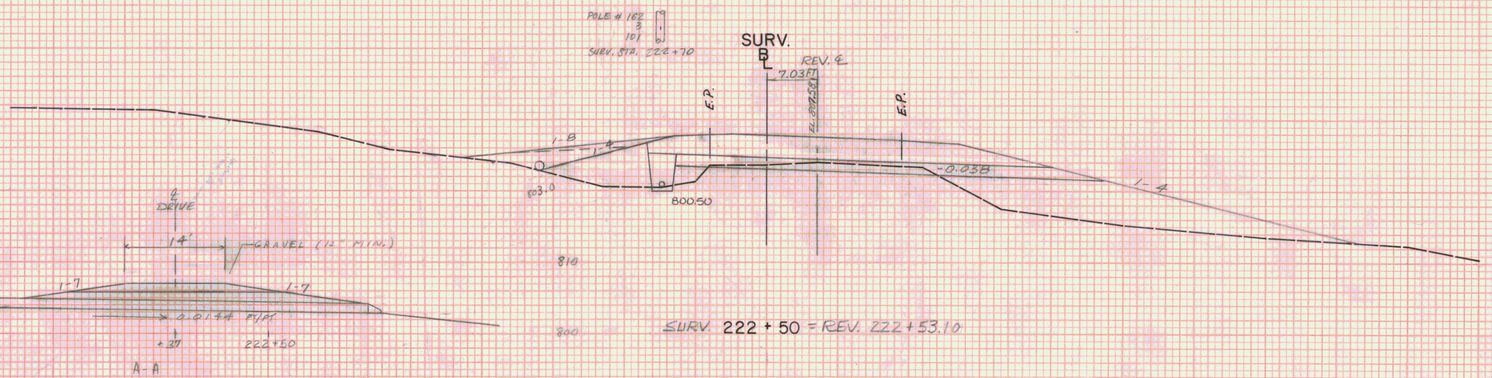
SURV. 223+46 = REV. 223+48.88
ASKEWED @ 77°-18' LT.

REV. STA. 223+03 LT.
INSTALL FLUSHING BASIN



SURV. 223+00 = REV. 223+02.98

REV. STA. 222+65 LT.
BEGIN STONE LINED DITCH
TYPE I, 6'W.
BEGIN SPECIAL DITCH

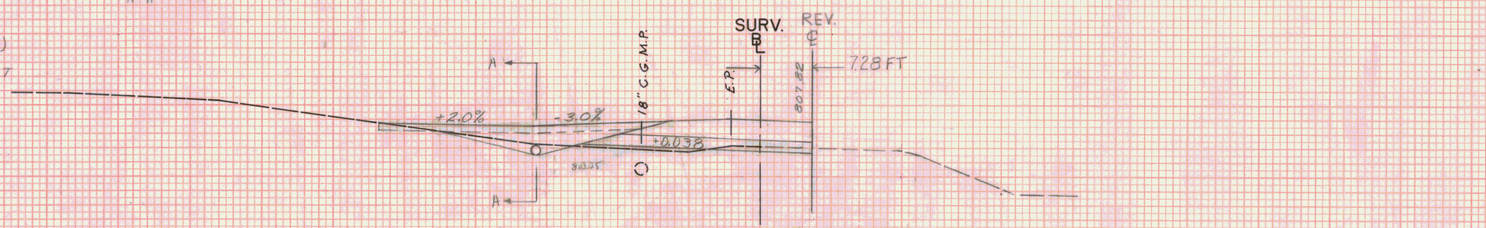


SURV. 222+50 = REV. 222+53.10

REV. STA. 222+37 LT.
CONSTRUCT DRIVE (14' WIDE)
NEW 15"x 52' CSP 0.064" OR
RCP CLASS III W/ES. @ OUTLET

REV. STA. 222+40 LT.
EXIST. 18" CGMP
(TO BE REMOVED)

REV STA 222+12 LT.
END SPECIAL DITCH
END STONE LINED DITCH
TYPE I, 6'W



SURV. 222+34 = REV 222+37.14

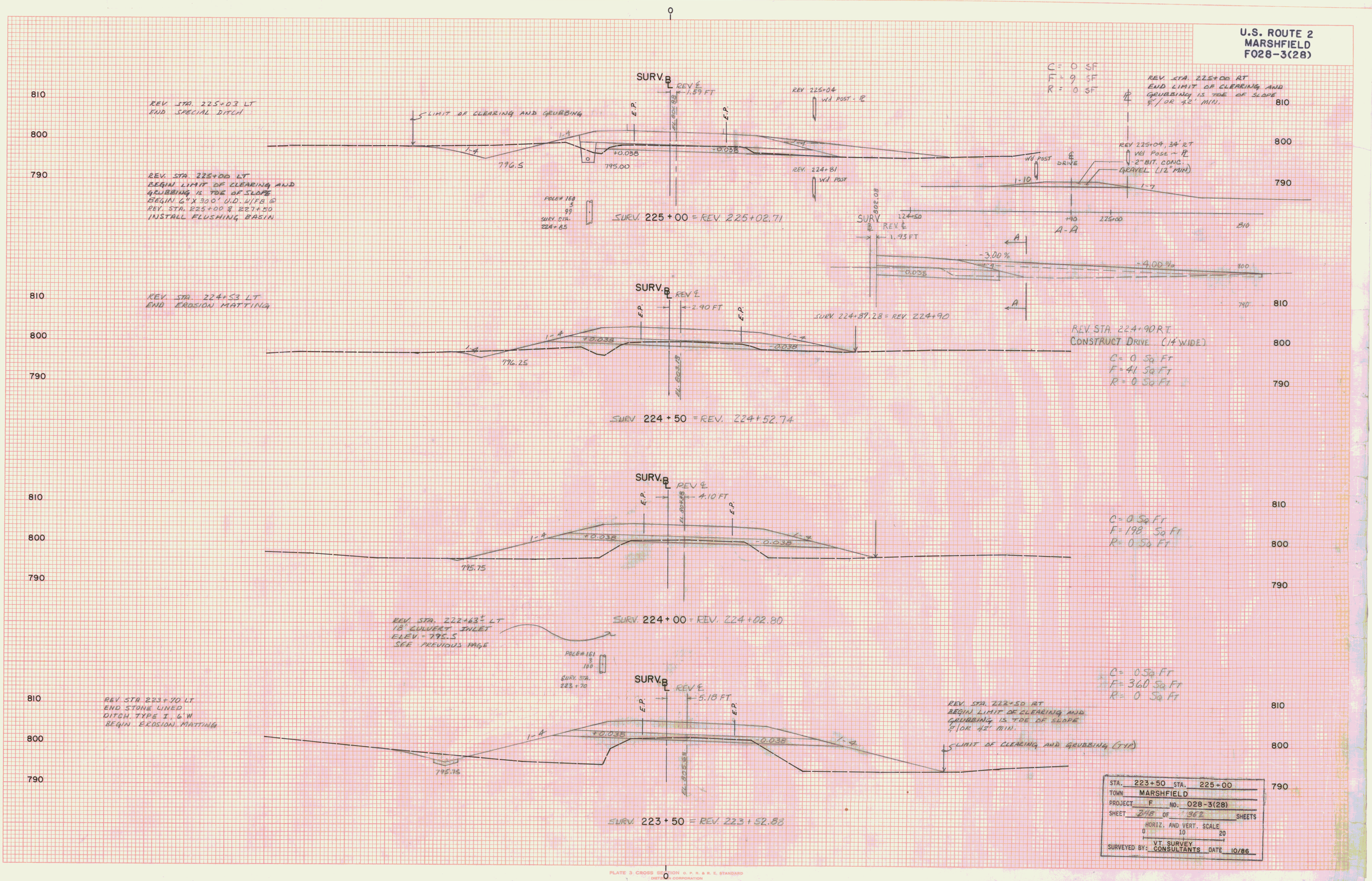
C = 0 Sq Ft
F = 533 Sq Ft
R = 0 Sq Ft

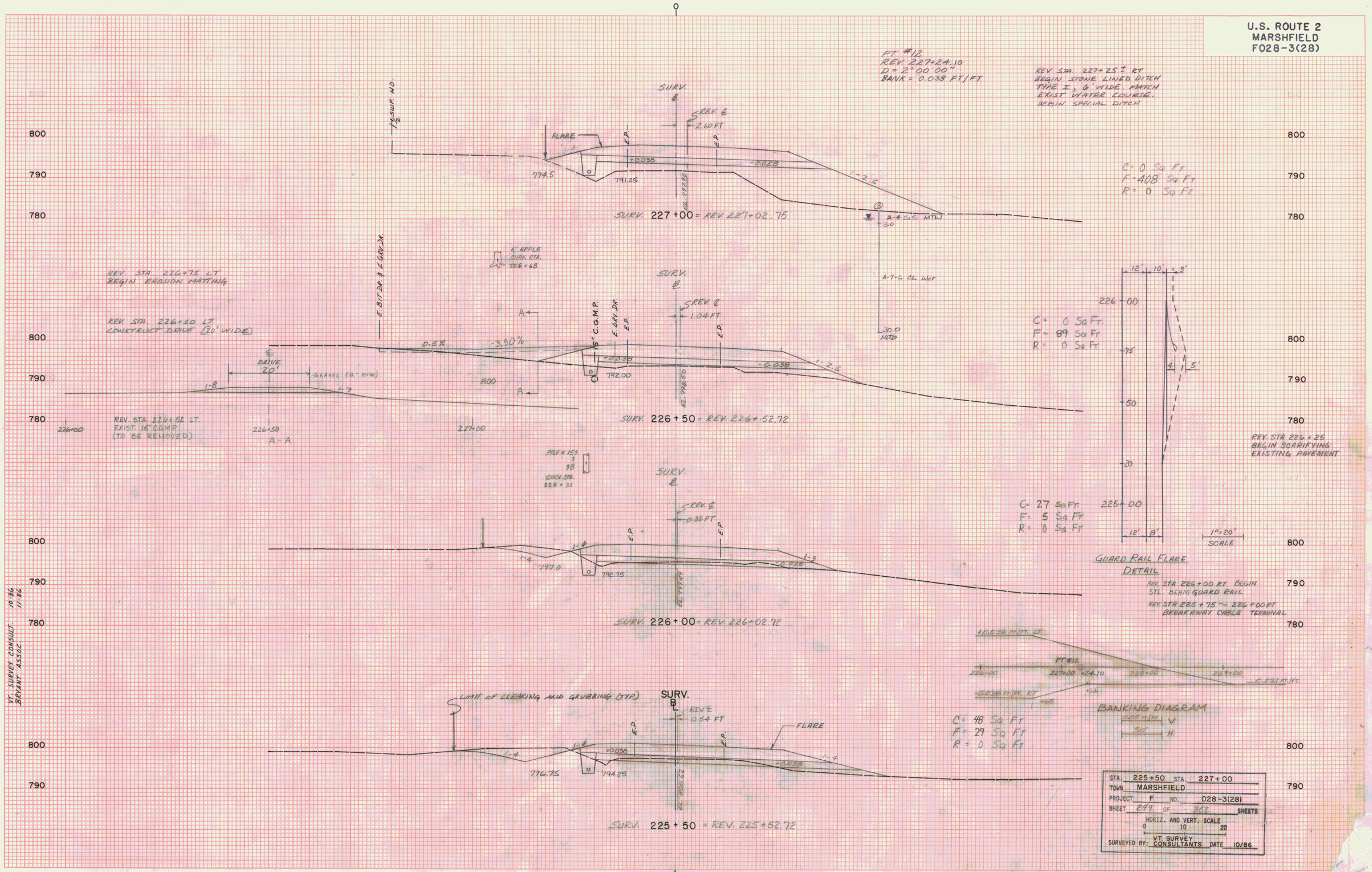
C = 0 Sq Ft
F = 263 Sq Ft
R = 0 Sq Ft

STA. 222+34 STA. 223+46
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 240 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

VT SURVEY CONSULT. 10-86
BRANT ASSOC. 11-86

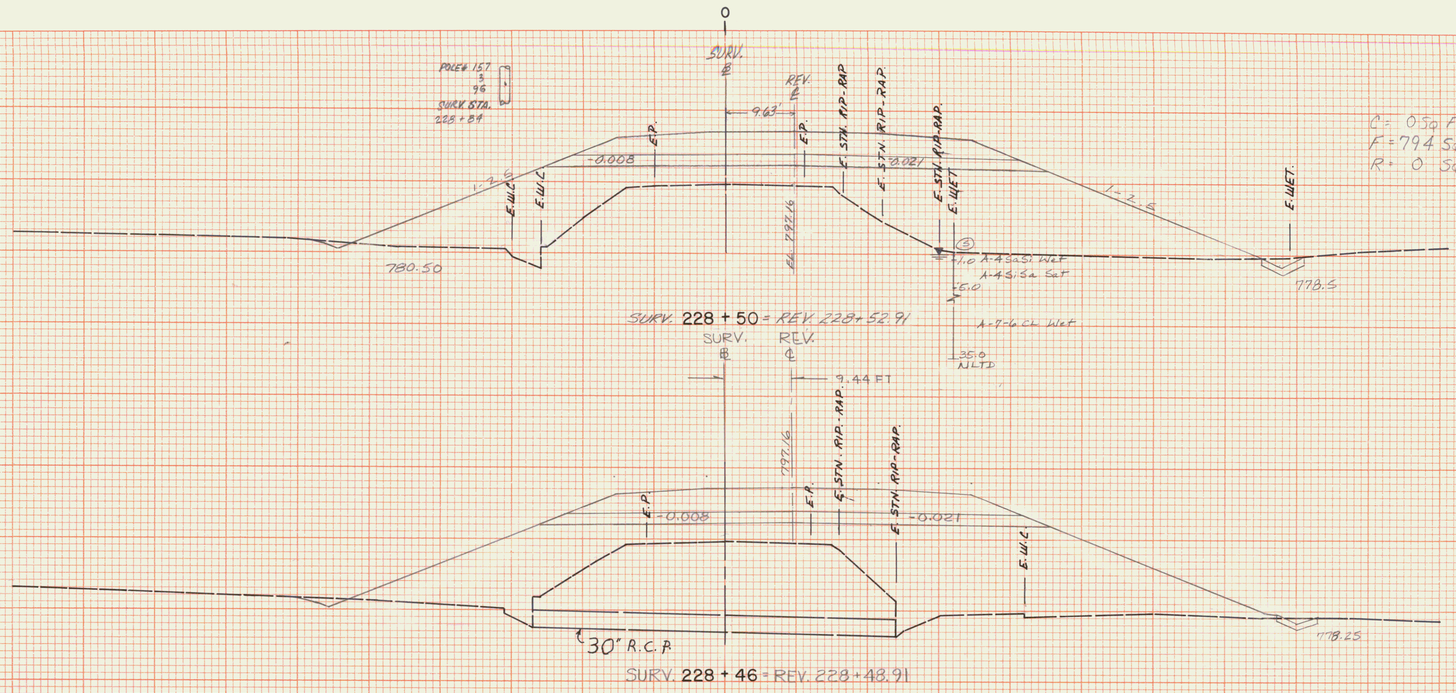
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DESIGN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
REV. STA. 225+03 LT
END SPECIAL DITCH
LIMIT OF CLEARING AND GRUBBING
REV. STA. 225+00 LT
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE
BEGIN 6" X 300' U.D. W/FB @ REV. STA. 225+00 & 227+50
INSTALL FLUSHING BASIN
SURV. 225 + 00 = REV. 225+02.71
C = 0 SF
F = 9 SF
R = 0 SF
REV. STA. 225+00 RT
END LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE &/OR 42' MIN.
REV 225+04, 34' RT
Wd Post ~ PL
2" BIT. CONC.
GRAVEL (12" MIN)
A-A
REV. STA. 224+53 LT
END EROSION MATTING
SURV. 224+87.28 = REV. 224+90
REV. STA. 224+90 RT
CONSTRUCT DRIVE (14' WIDE)
C = 0 SQ FT
F = 41 SQ FT
R = 0 SQ FT
SURV 224 + 50 = REV. 224+52.74
C = 0 SQ FT
F = 198 SQ FT
R = 0 SQ FT
SURV. 224 + 00 = REV. 224+02.80
REV. STA. 222+63± LT
18" CULVERT INLET
ELEV. = 795.5
SEE PREVIOUS PAGE
REV STA 223+70 LT
END STONE LINED
DITCH TYPE I, 6' W
BEGIN EROSION MATTING
REV. STA. 222+50 RT
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE &/OR 42' MIN.
LIMIT OF CLEARING AND GRUBBING (TYP)
C = 0 SQ FT
F = 360 SQ FT
R = 0 SQ FT
SURV. 223 + 50 = REV. 223+52.88
STA. 223+50 STA. 225+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 248 OF 362 SHEETS
HORIZ. AND VERT. SCALE
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT. BRYANT ASSOC.
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

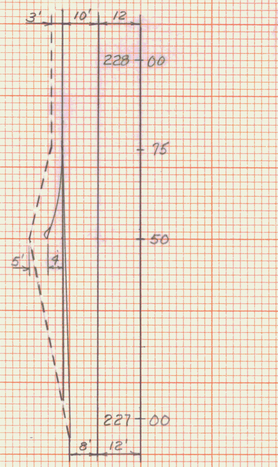

U.S. ROUTE 2
MARSHFIELD
F028-3(28)
PT #12
REV. 227+24.10
D = 2°00'00"
BANK = 0.038 FT/FT
REV STA. 227+25 ± RT
BEGIN STONE LINED DITCH
TYPE I, 6' WIDE. MATCH
EXIST WATER COURSE.
BEGIN SPECIAL DITCH
SURV. ℄
REV. ℄
2.60 FT
FLARE
E.P.
+0.038
-0.028
794.5
791.25
1-2.5
SURV. 227+00 = REV. 227+02.75
A-4 SaSi MTW
C = 0 Sq Ft
F = 408 Sq Ft
R = 0 Sq Ft
6" APPLE
SURV. STA.
226+68
REV. STA. 226+75 LT
BEGIN EROSION MATTING
REV. STA. 226+50 LT
CONSTRUCT DRIVE (20' WIDE)
E. BIT DR. & E. GRV. DR.
SURV. ℄
REV. ℄
1.04 FT
15" C.G.M.P.
E. GRV. DR.
0.5%
-3.50%
DRIVE
20'
GRAVEL (12" MIN.)
1-8
1-7
800
+0.038
-0.038
792.00
1-2.5
SURV. 226+50 = REV. 226+52.72
REV. STA. 226+52 LT.
EXIST. 15" CGMP
(TO BE REMOVED)
226+00
226+50
227+00
A-A
A-7-6 CL Wet
30.0
NITO
C = 0 Sq Ft
F = 89 Sq Ft
R = 0 Sq Ft
12'
10'
3'
226+00
75
50
20
225+00
4'
5'
12'
8'
1"=20'
SCALE
REV. STA 226+25
BEGIN SCARIFYING
EXISTING PAVEMENT
POLE # 159
3
98
SURV. STA.
226+31
SURV. ℄
REV. ℄
0.35 FT
1-4
1-3
797.0
792.75
-0.038
SURV. 226+00 = REV. 226+02.72
C = 27 Sq Ft
F = 5 Sq Ft
R = 0 Sq Ft
GUARD RAIL FLARE
DETAIL
REV. STA 226+00 RT BEGIN
STL. BEAM GUARD RAIL
REV. STA 225+75 ~ 226+00 RT
BREAKAWAY CABLE TERMINAL
+0.038 FT/FT. LT
PT #12
226+00
227+00
+24.10
228+00
229+00
-0.021 FT/FT.
-0.038 FT/FT. RT
+32
+65
BANKING DIAGRAM
0.05 FT/FT
V
50'
H
LIMIT OF CLEARING AND GRUBBING (TYP)
SURV. ℄
REV. ℄
0.54 FT
FLARE
1-4
+0.038
-0.038
796.75
794.25
SURV. 225+50 = REV. 225+52.72
C = 48 Sq Ft
F = 29 Sq Ft
R = 0 Sq Ft
800
790
780
STA. 225+50 STA. 227+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 249 OF 362 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIVISION CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

C= 0 Sq. Ft.
F= 794 Sq. Ft.
R= 0 Sq. Ft.

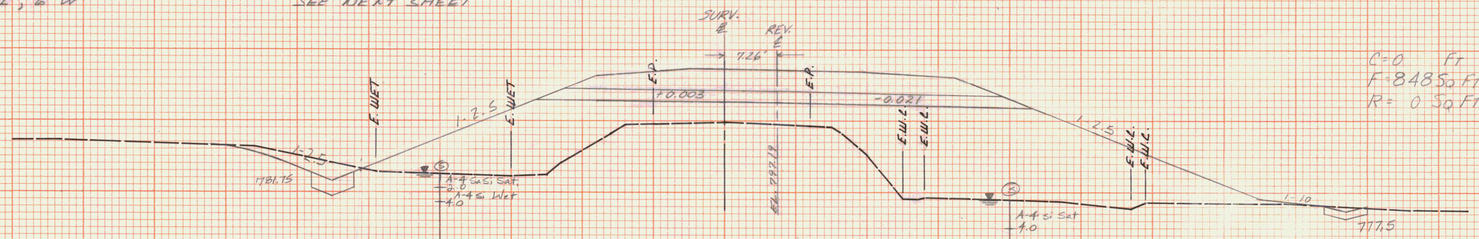


REV. STA. 228+49
EXIST. 30" RCP
(TO BE REMOVED)



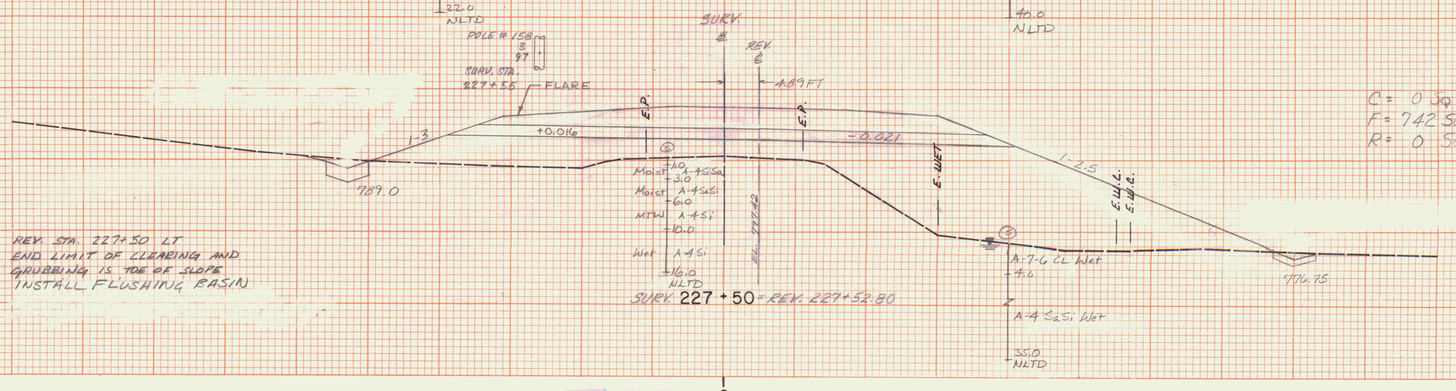
REV. STA. 228+20 LT
END STONE LINED DITCH
TYPE I, 6' W

REV. STA. 228+25
NEW 36" CULVERT
SEE NEXT SHEET



C= 0 Sq. Ft.
F= 848 Sq. Ft.
R= 0 Sq. Ft.

REV. STA. 227+81, 58' LT.
END 6" X 300' UD W/FB @
REV. STA. 225+00 ± 227+50



C= 0 Sq. Ft.
F= 742 Sq. Ft.
R= 0 Sq. Ft.

REV. STA. 227+75 LT.
BEGIN STEEL BEAM GUARD RAIL

REV. STA. 227+50 ~ 227+75 LT.
BREAKAWAY CABLE TERMINAL

REV. STA. 227+25 LT
END EROSION MATTING
BEGIN STONE LINED DITCH
TYPE II, 6' W
BEGIN SPECIAL DITCH

REV. STA. 227+50 LT
END LIMIT OF CLEARING AND
GRUBBING IS TOE OF SLOPE
INSTALL FLUSHING BASIN

STA.	227+50 STA. 228+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	250 OF 352 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

SCALE : 1"=10' H & V

VT. SURVEY CONSULT
BRYANT ASSOC.
10-86
11-86

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.

PRINTED IN U.S.A.

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
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TEMPLATE
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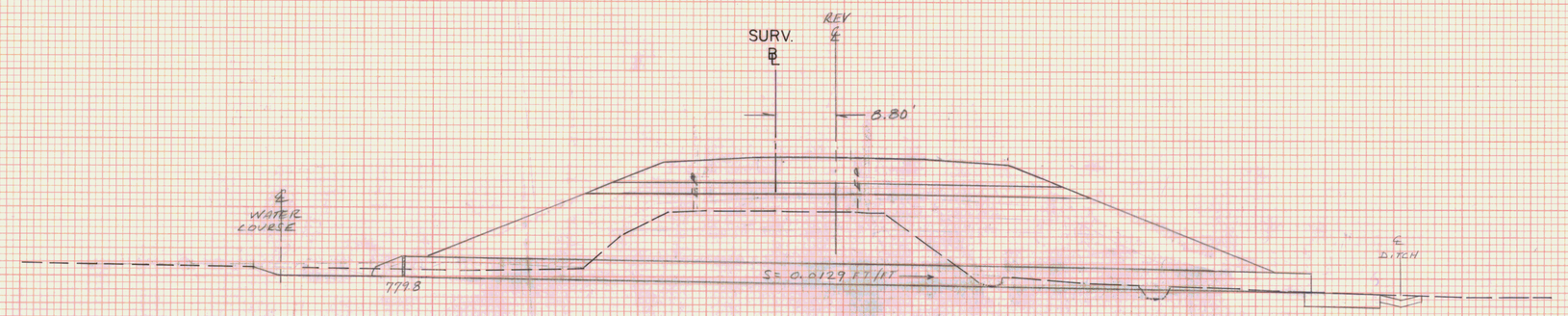
CROSS CHECKED
BY
DATE



REV STA 228+25
NEW 36 X 132' PCCSP 0.079", CMAP 0.105",
OR RAP CL III W/ES @ INLET. PAD
W/STONE FILL TYPE II @ OUTLET
5'W X 2'D EXTENDING 10' BEYOND END
OF CULVERT. MATCH EXIST WATER
COURSE @ INLET & OUTLET.

SURV. 228+22 = REV. 228+24.88

STA. 228+33 STA.
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 251 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

ORIGINAL SURVEY
NOTE BOOK
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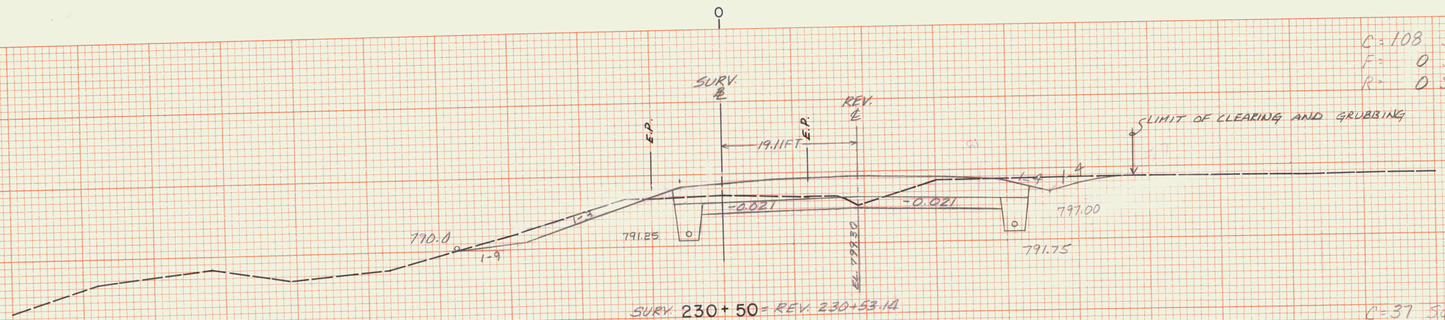
BY
DATE

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



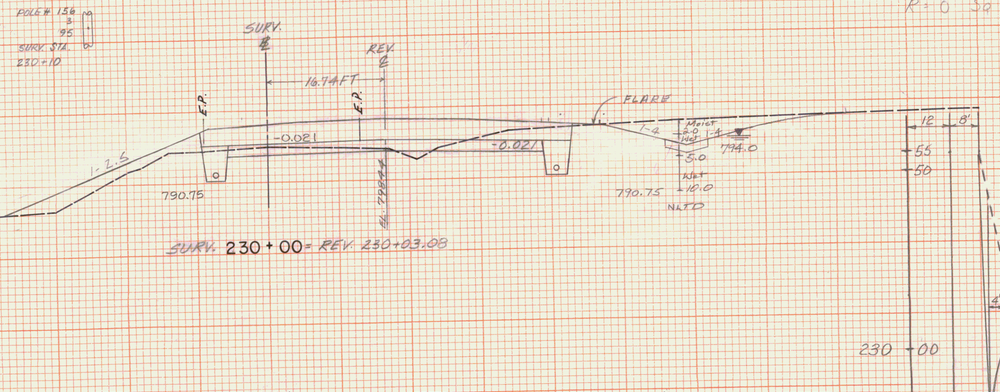
SURV. 230+50 = REV. 230+53.14

C=108 Sq Ft
F= 0 Sq Ft
R= 0 Sq Ft

REV. STA. 230+53 RT.
END STONE LINE DITCH
TYPE I, 6'W.
END SPECIAL DITCH

BEGIN EROSION MATTING

REV. STA. 230+50 RT
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE

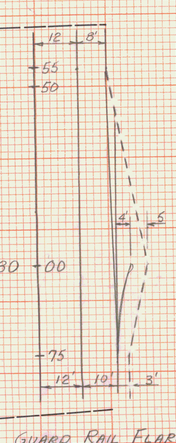


SURV. 230+00 = REV. 230+03.08

C=37 Sq Ft
F=45 Sq Ft
R=0 Sq Ft

REV STA 229+75 - 230+00 RT
BREAKAWAY CABLE TERMINAL

REV STA 229+75 RT END
STL. BEAM GUARD RAIL

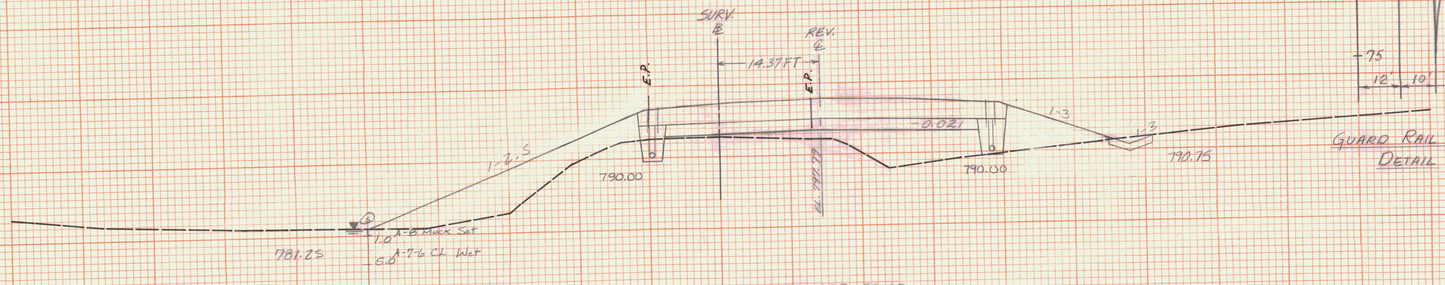


Guard Rail Flare Detail

C = 0 Sq. Ft.
F = 243 Sq Ft
R = 0 Sq Ft

REV STA 229+75
END SCARIFYING
EXISTING PAVEMENT

1"=20'
SCALE



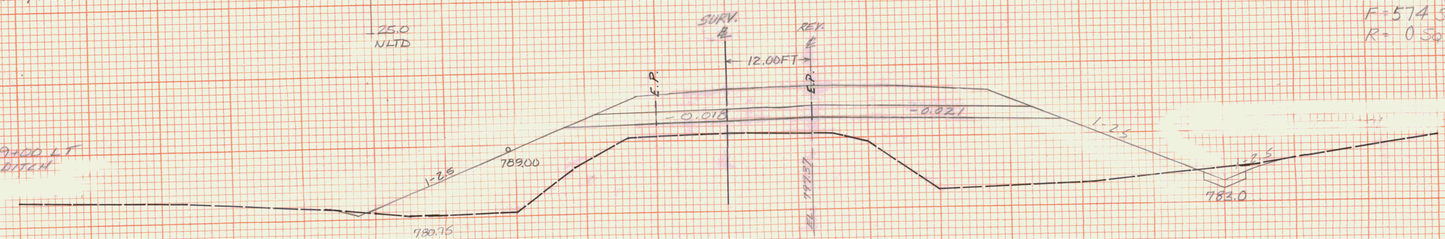
SURV. 229+50 = REV. 229+53.03

REV STA 229+30, 47' RT.
BEGIN 6"X 504' U.D. W/FB @
REV STA 229+53.3' 234+25
INSTALL FLUSHING BASIN

REV STA 229+53 LT
END 6"X 57' CARRIER PIPE
BEGIN 6"X 300' U.D. W/FB
@ STA. 229+53.5' 232+53 LT.
INSTALL FLUSHING BASIN

A-7-6 CL Wet

C= 0 Sq Ft
F=574 Sq Ft
R= 0 Sq Ft



REV STA 229+00 LT
END SPECIAL DITCH

SURV. 229+00 = REV. 229+02.97

STA.	229+00 STA. 230+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	252 OF 352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

SCALE: 1"=10' H & V

VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86

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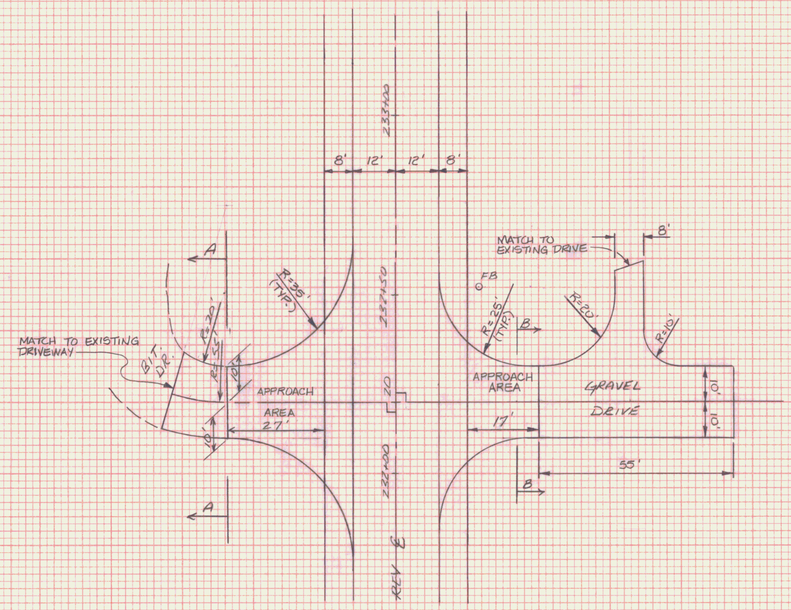
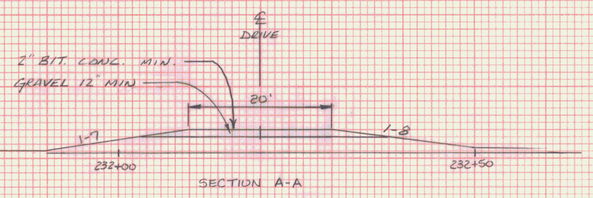
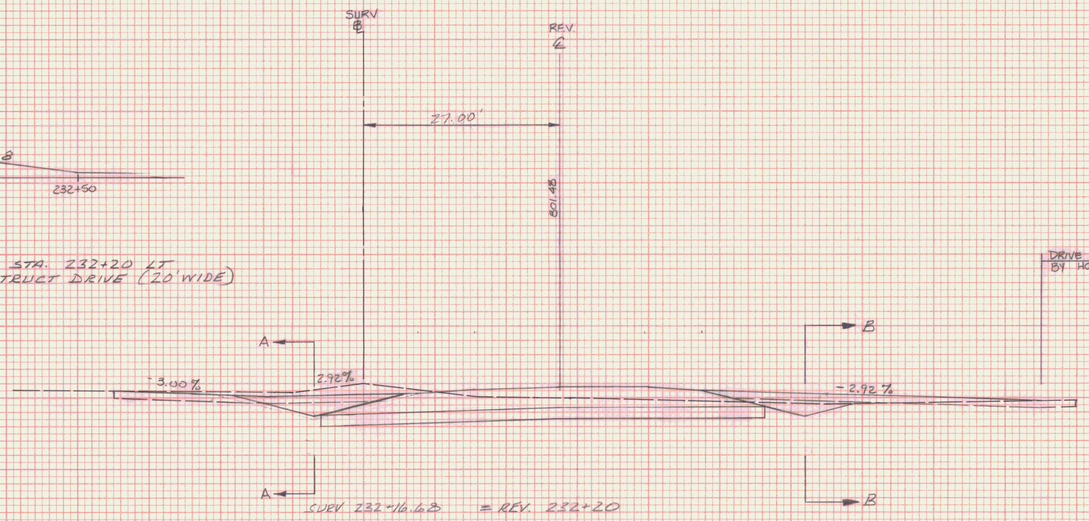
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

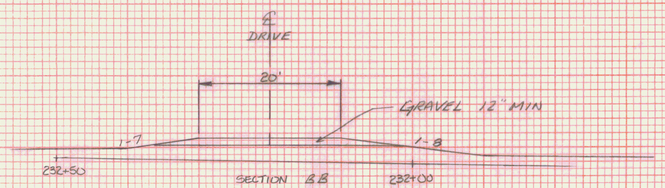


DRIVE @ REV. STA. 232+20 LT & RT.



SECTION A-A





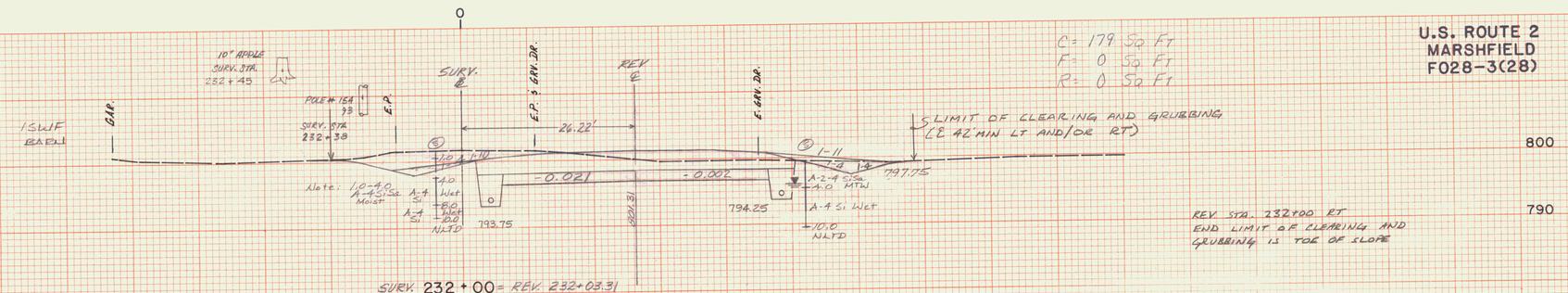
SECTION B-B

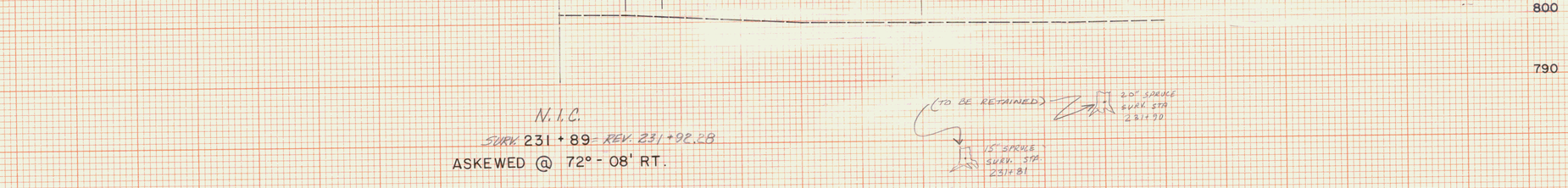
REV. STA. 232+20 RT
CONSTRUCT DRIVE (20' WIDE)

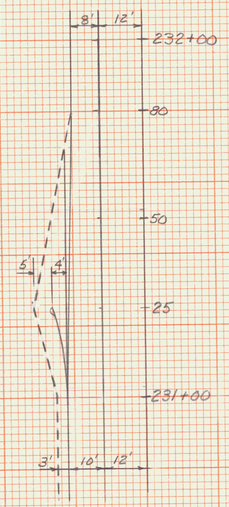
STA. 232+20 STA. ——
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 263 OF 332 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: DATE

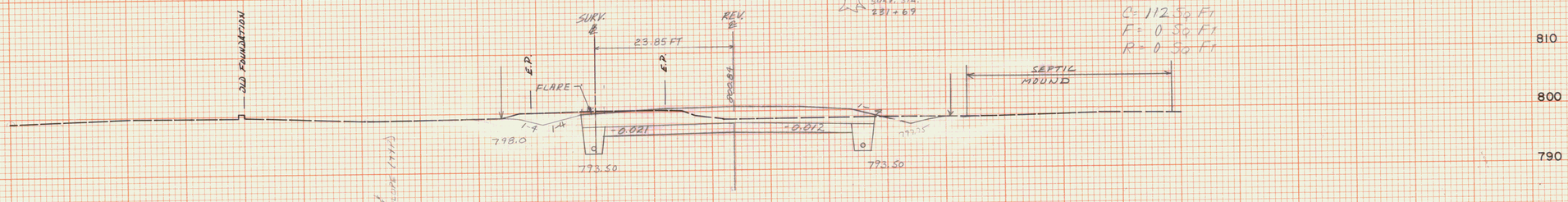
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)









REV. STA 231+00 ~ 231+25 LT.
BREAKAWAY CABLE TERMINAL
REV. STA 231+00 LT END
STL. BEAM GUARD RAIL

REV. STA. 231+00 LT
BEGIN LIMIT OF CLEARING AND
GRUBBING IS TOE OF SLOPE

REV. STA. 231+90 RT
END EROSION MATTING

STA.	231+00 STA. 232+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	254 OF 352 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/28

SCALE: 1" = 10' H & V

VT. SURVEY CONSULT.
BRYANT ASSOC.
10-86
11-86

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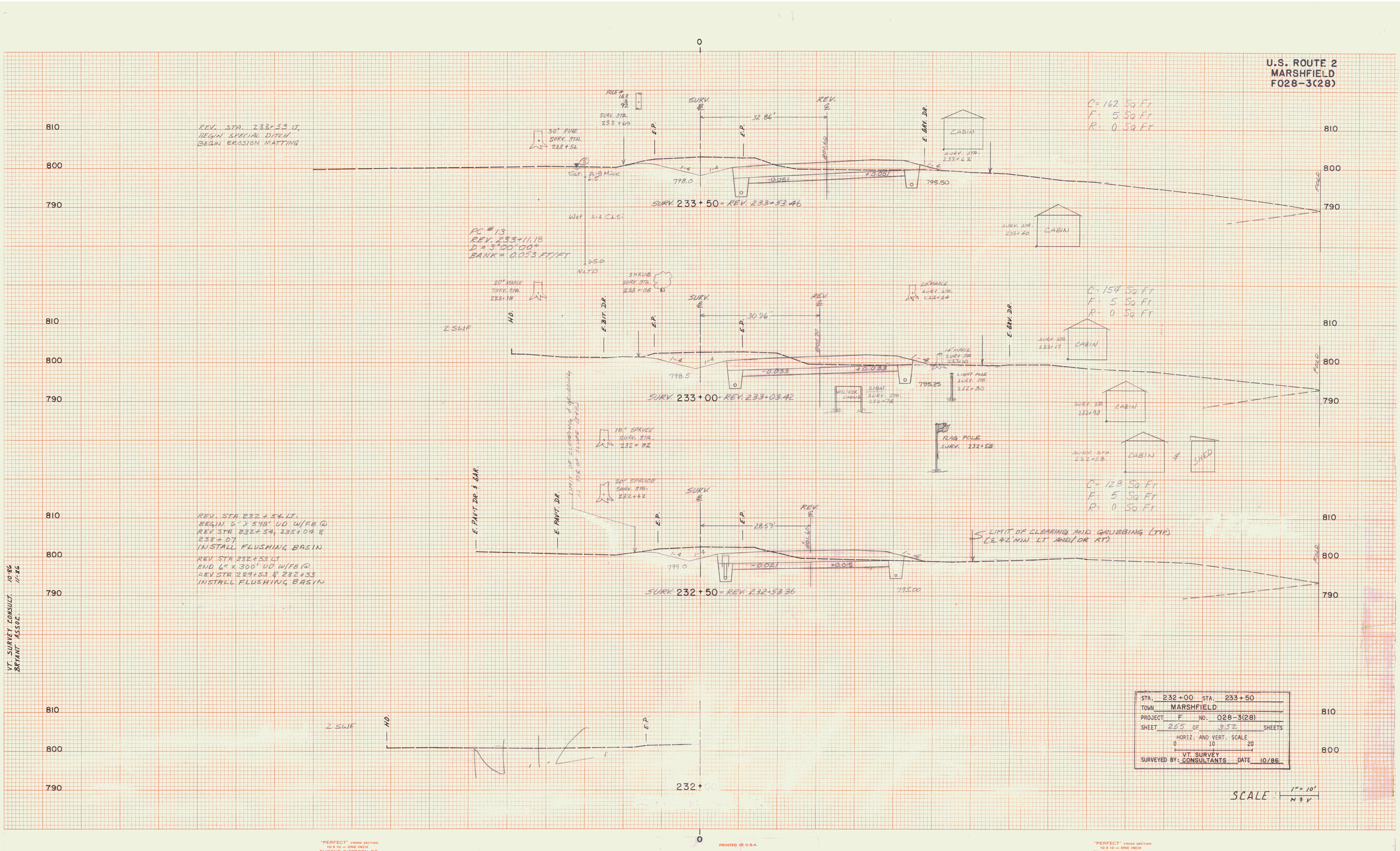
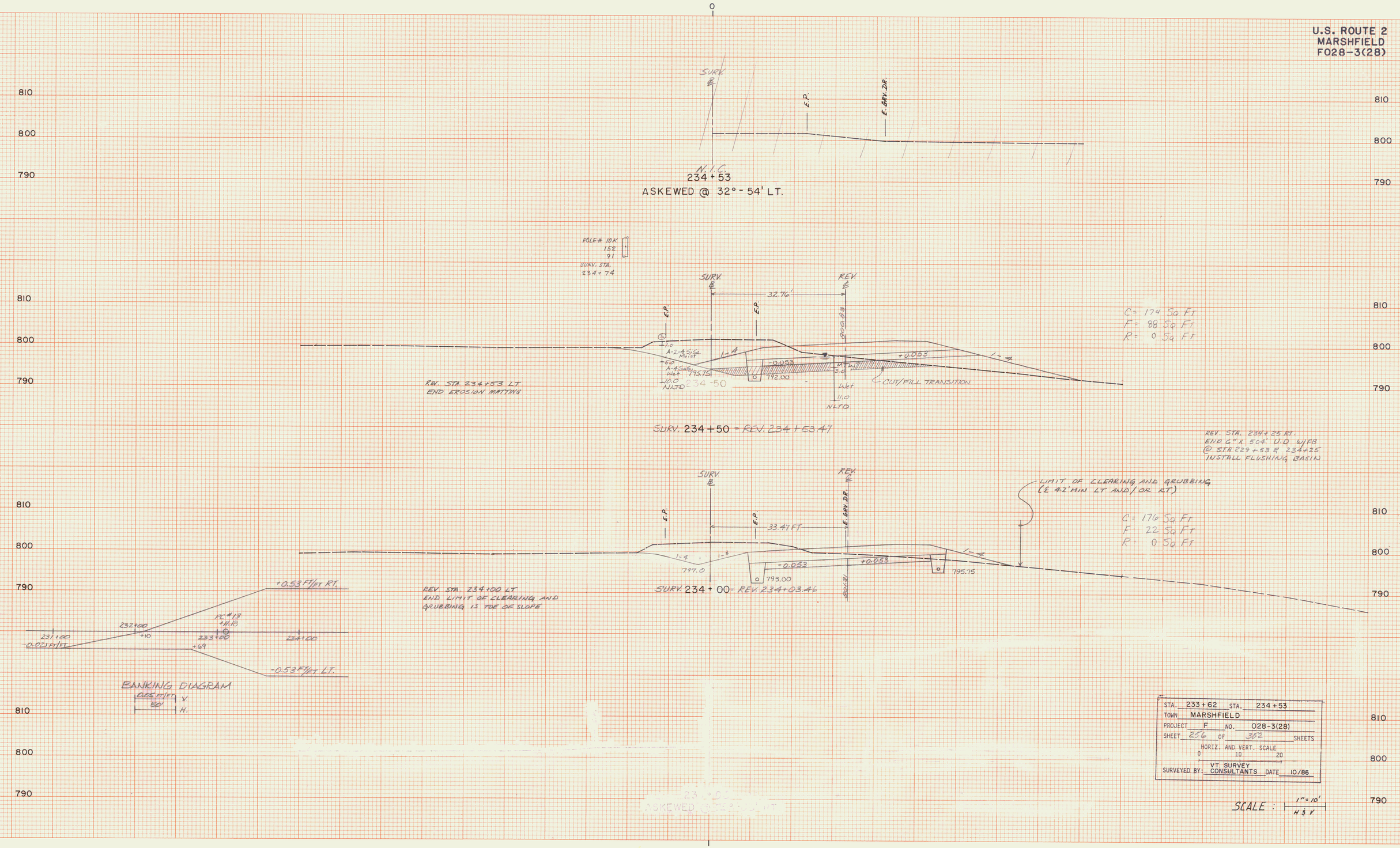

U.S. ROUTE 2
MARSHFIELD
F028-3(28)
REV. STA. 233+53 LT.
BEGIN SPECIAL DITCH
BEGIN EROSION MATTING
C= 162 Sq Ft
F= 5 Sq Ft
R= 0 Sq Ft
SURV. 233+50 = REV. 233+53.46
PC #13
REV. 233+11.18
D = 3°00'00"
BANK = 0.053 FT/FT
C= 154 Sq Ft
F= 5 Sq Ft
R= 0 Sq Ft
SURV. 233+00 = REV. 233+03.42
C= 128 Sq Ft
F= 5 Sq Ft
R= 0 Sq Ft
REV. STA 232+54 LT.
BEGIN 6" X 598' UD W/FB @
REV STA 232+54, 235+04 &
238+07
INSTALL FLUSHING BASIN
REV STA 232+53 LT
END 6" X 300' UD W/FB @
REV STA 229+53 & 232+53
INSTALL FLUSHING BASIN
LIMIT OF CLEARING AND GRUBBING (TYP)
(℄ 42' MIN LT AND/OR RT)
SURV. 232+50 = REV. 232+53.36
VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86
STA. 232+00 STA. 233+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 265 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
SCALE: 1" = 10' H & V
"PERFECT" CROSS SECTION 10 X 10 = ONE INCH EUGENE DIETZGEN CO.
PRINTED IN U.S.A.

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



STA.	233+62 STA. 234+53
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	256 OF 352 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

SCALE : 1"=10' H & V

"PERFECT" CROSS SECTION
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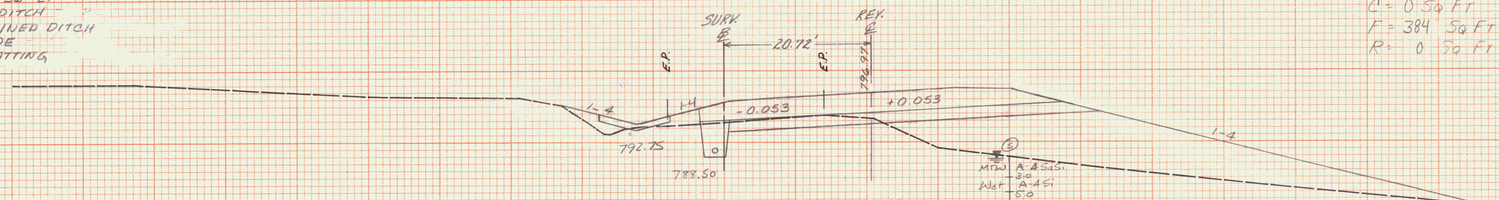
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

0

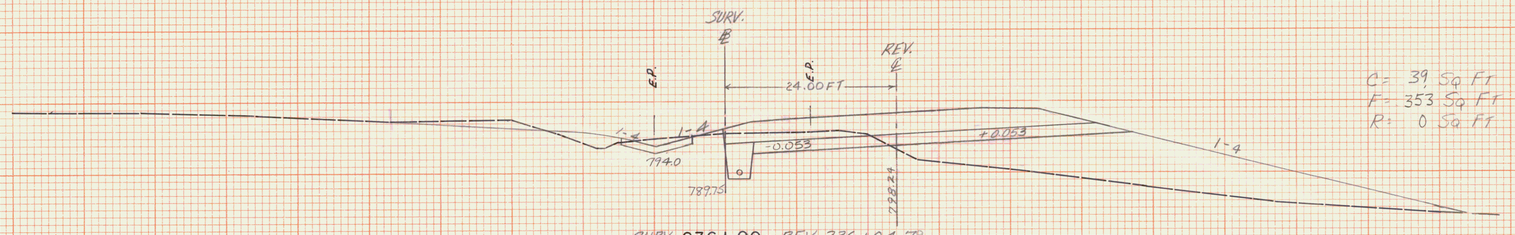
POLE # 150
3
89
SURV. STA.
236+86

REV. STA. 236+56 LT
BEGIN SPECIAL DITCH
BEGIN STONE LINED DITCH
TYPE I, 10' WIDE
END EROSION MATTING



SURV. 236+50 = REV. 236+55.57

C = 0 Sq Ft
F = 384 Sq Ft
R = 0 Sq Ft

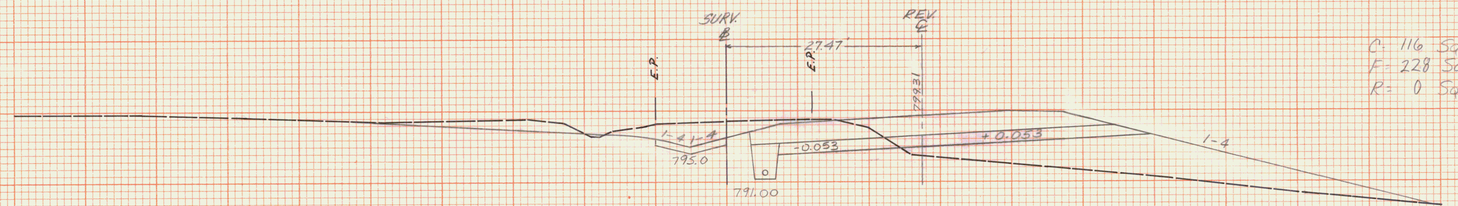


SURV. 236+00 = REV. 236+04.79

C = 39 Sq Ft
F = 353 Sq Ft
R = 0 Sq Ft

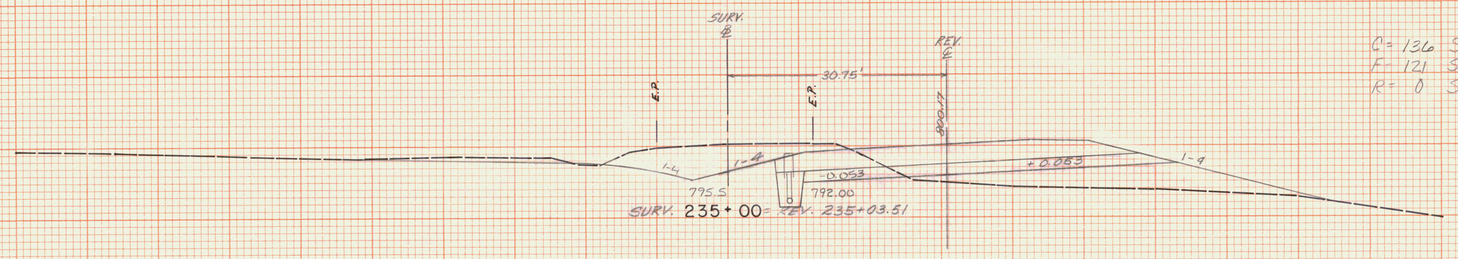
POLE # 151
3
90
SURV. STA.
235+73

REV. STA. 235+54 LT
BEGIN EROSION MATTING



SURV. 235+50 = REV. 235+53.88

C = 116 Sq Ft
F = 228 Sq Ft
R = 0 Sq Ft



SURV. 235+00 = REV. 235+03.51

C = 136 Sq Ft
F = 121 Sq Ft
R = 0 Sq Ft

STA.	235+00	STA.	236+50
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	257	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

SCALE: 1" = 10' H & V

VT. SURVEY CONSULT.
BRYANT ASSOC.
10-86
11-86

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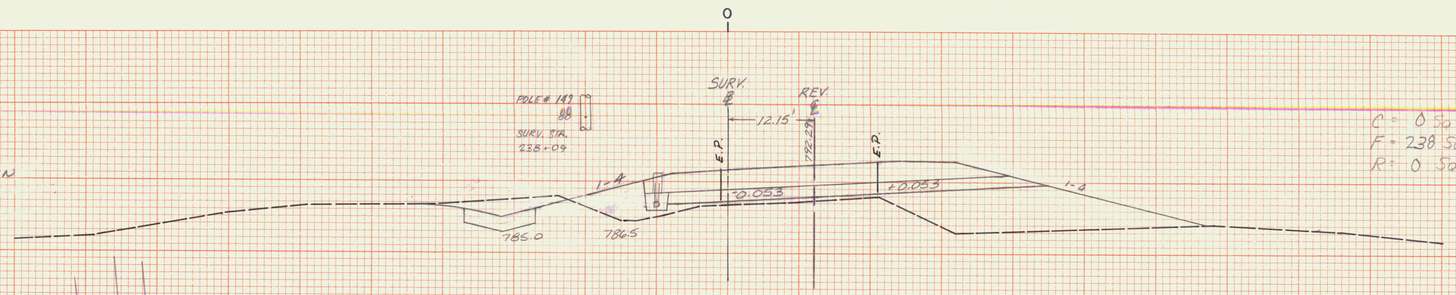
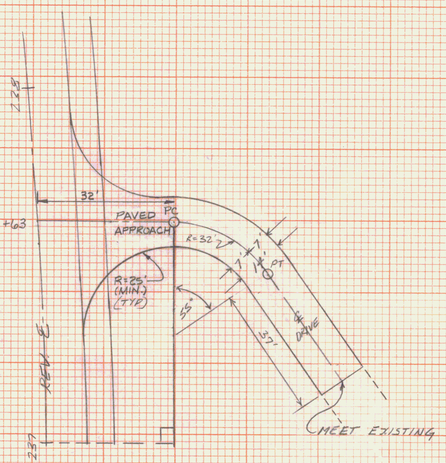
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA 238+07 LT.
INSTALL FLUSING BASIN



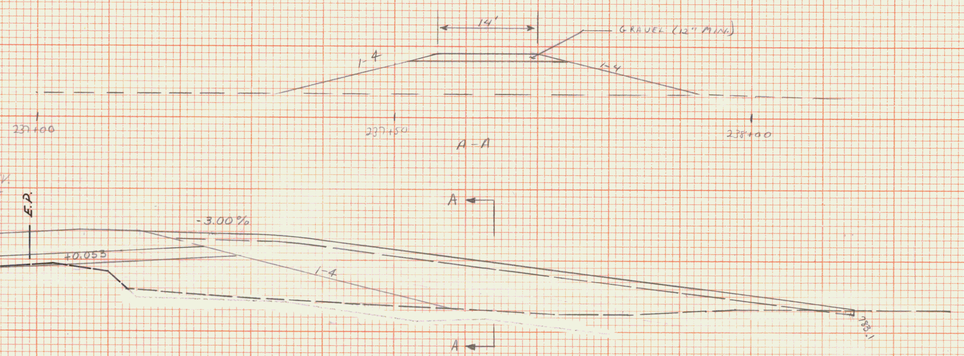
C = 0 Sq Ft
F = 238 Sq Ft
R = 0 Sq Ft

SURV. 238+00 = REV. 238+07.31



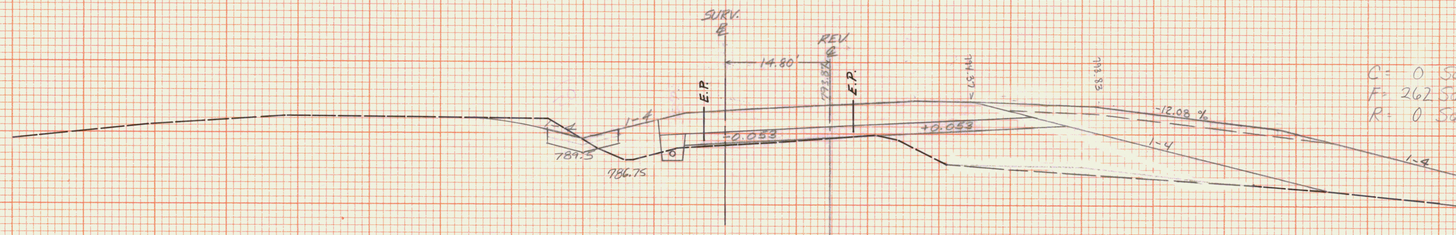
DRIVE DETAIL
REV. STA. 237+63 RT
SCALE: 1"=20'

REV. STA. 237+63 RT.
CONSTRUCT DRIVE (14' WIDE)



CONSTRUCT DRIVE RT
REV. STA. 237+63 (14' WIDE)

SURV. 237+56 = REV. 237+62.89

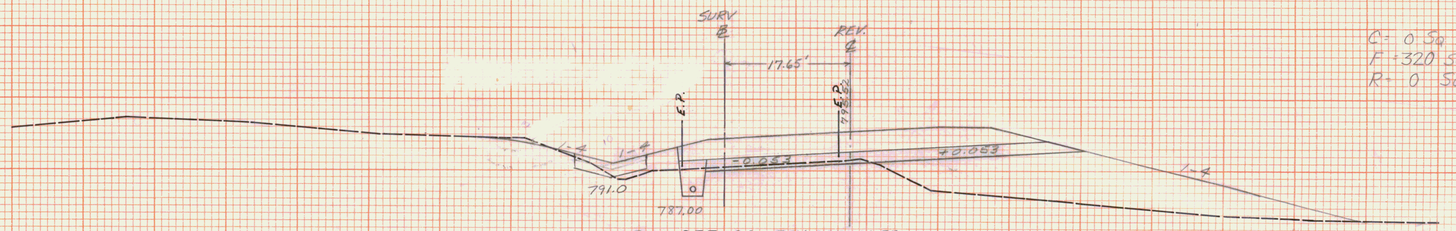


C = 0 Sq Ft
F = 262 Sq Ft
R = 0 Sq Ft

SURV. 237+50 = REV. 237+56.83

REV. STA. 237+25
BEGIN SCARIFYING
EXISTING PAVEMENT

REV. STA. 237+00 RT.
BEGIN SHOULDER W/ FULL
DEPTH PAVEMENT (8' WIDE)



C = 0 Sq Ft
F = 320 Sq Ft
R = 0 Sq Ft

SURV. 237+00 = REV. 237+06.25

REV STA 237+06 LT
END STONE LINED DITCH
TYPE I, 10' WIDE
BEGIN STONE LINED DITCH
TYPE II, 10' WIDE

STA.	237+00	STA.	238+00
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	258	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20
VT SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

SCALE: 1"=10' H & V

VT. SURVEY CONSULT 10-86
BRYANT ASSOC. 11-86

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"PERFECT" cross section
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EUGENE DIETZGEN CO.

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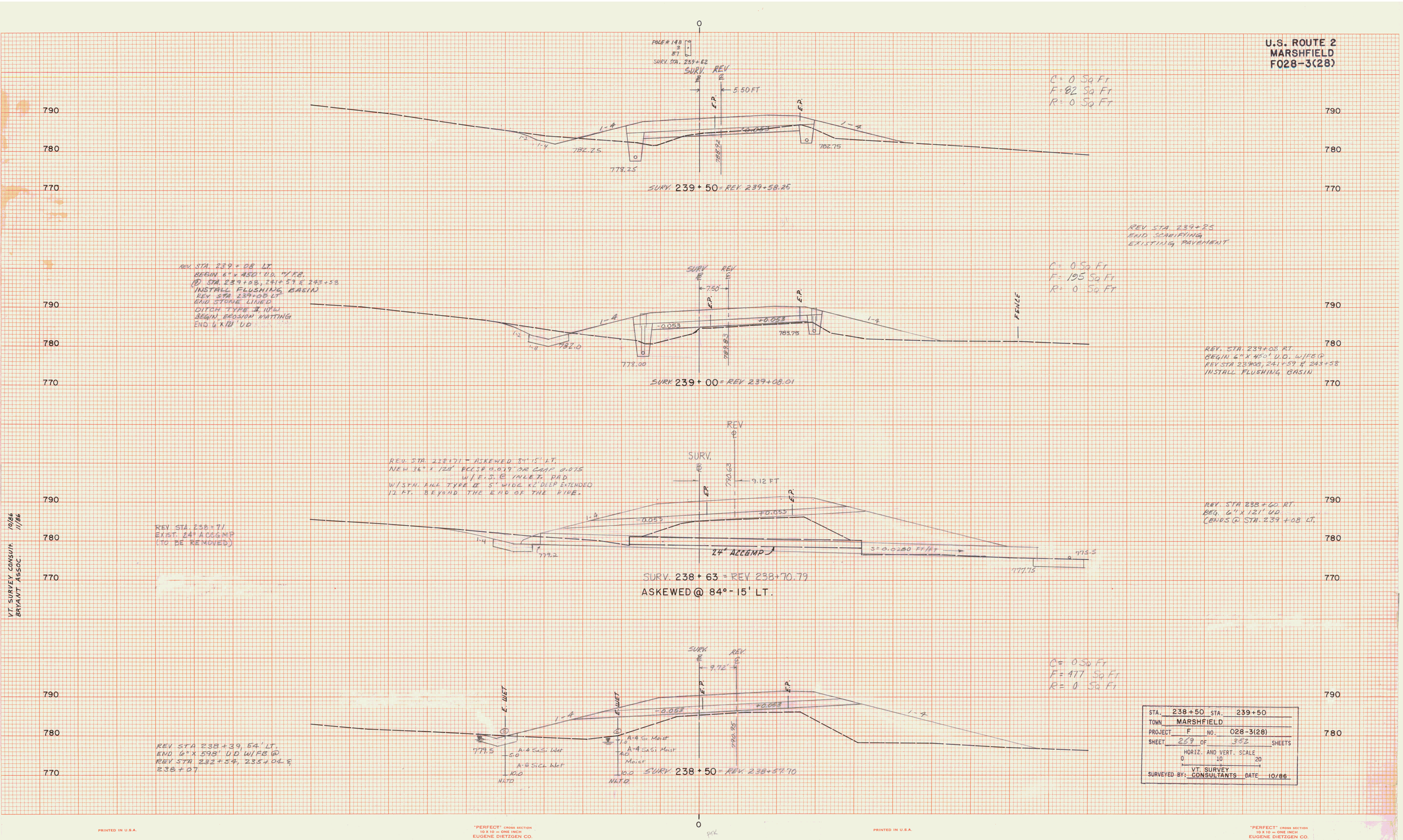
U.S. ROUTE 2
MARSHFIELD
F028-3(28)
POLE # 148
SURV. STA. 239+62
SURV. ℄
REV ℄
5.50 FT
E.P.
1-4
782.25
778.25
788.92
782.75
SURV. 239+50 = REV. 239+58.25
C = 0 Sq Ft
F = 82 Sq Ft
R = 0 Sq Ft
REV STA. 239+25
END SCARIFYING
EXISTING PAVEMENT
REV. STA. 239+08 LT.
BEGIN 6" x 450' U.D. W/F.B.
@ STA. 239+08, 241+59 & 243+58
INSTALL FLUSHING BASIN
REV STA 239+08 LT
END STONE LINED
DITCH TYPE II, 10' W
BEGIN EROSION MATTING
END 6' x 121' UD
7.50'
-0.053
+0.053
782.0
778.00
789.83
783.75
FENCE
SURV. 239+00 = REV. 239+08.01
C = 0 Sq Ft
F = 195 Sq Ft
R = 0 Sq Ft
REV. STA. 239+08 RT.
BEGIN 6" x 450' U.D. W/FB @
REV STA 239+08, 241+59 & 243+58
INSTALL FLUSHING BASIN
REV. STA. 238+71 - ASKEWED 84° 15' LT.
NEW 36" x 128' PCCSP 0.079" OR CAAP 0.075
W/E.S. @ INLET. PAD
W/STN. FILL TYPE II 5' WIDE x 2' DEEP EXTENDED
12 FT. BEYOND THE END OF THE PIPE.
REV STA. 238+71
EXIST. 24" ACCGMP
(TO BE REMOVED)
790.63
9.12 FT
24" ACCGMP
S = 0.0280 FT/FT
779.2
777.75
775.5
SURV. 238+63 = REV 238+70.79
ASKEWED @ 84° - 15' LT.
REV. STA 238+60 RT.
BEG. 6" x 121' UD
(ENDS @ STA. 239+08 LT.
VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86
9.72'
E. WET
A-4 SaSi Wet
A-8 SiCL Wet
A-4 Si Moist
A-4 SaSi Moist
Moist
NLTD
779.5
790.95
SURV. 238+50 = REV. 238+57.70
C = 0 Sq Ft
F = 477 Sq Ft
R = 0 Sq Ft
REV STA 238+39, 54' LT.
END 6" x 598' UD W/FB @
REV STA 232+54, 235+04 &
238+07
STA. 238+50 STA. 239+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 269 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
PRINTED IN U.S.A.
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U.S. ROUTE 2
MARSHFIELD
F028-3(28)

SURV. ℄ REV. ℄ 0.31 FT
787.52 E.P. E.P.
A A
+0.053 3:1 1-4 1-4
790 780 770
241+00
℄ DRIVE 20' GRAVEL (12" MIN.) 1-4 1-4
A-A +27 241+50

SURV. 241 + 20 = REV. 241+28.61

CONSTRUCT DRIVE RT.
REV. STA. 241+27 (20' WIDE)

C = 1/2 Sq Ft
F = 6 Sq Ft
R = 0 Sq Ft

SURV. ℄ REV. ℄ 0.79 FT
787.56 E.P. E.P.
1-4 1-4 1-6
-0.053 +0.053
783.25 781.50
773.00
LIMIT OF CLEARING AND GRUBBING

REV. STA. 241+00 RT.
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE

REV. STA. 241+09 LT.
END SPECIAL DITCH

℄ DRIVE 20' GRAVEL (12" MIN.) 1-5 1-2
330.00 SAYTEC
A-A 240+54

SURV. 241 + 00 = REV. 241+08.60

POLE # H7 86
SURV. STA. 240+69
SURV. ℄ REV. ℄ 2.14
782.72 E.P. E.P. E. GRAV. DR.
E. DR.'S BARN
+84 +24
A A
-0.053 +0.053
783.0 781.75
778.75

CONSTRUCT DRIVE LT. (20' WIDE)
REV. STA. 240+54
NEW 18"X48' QSP .064 OR
CDEP (SL) W/ES @ INLET

SURV. 240 + 50 = REV. 240+58.54

C = 30 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

℄ DRIVE 24' GRAVEL (12" MIN.) 1-9 1-7
A-A +22
240+00 240+50

SURV. ℄ REV. ℄ 3.27' RT
788.75 E.P. E.P.
A A
+0.053 10:1 1-2
780 770

CONSTRUCT DRIVE RT.
REV. 240+22 (24' WIDE)

SURV. 240+13.54 = REV. 240+22.00

C = 23 Sq Ft
F = 8 Sq Ft
R = 0 Sq Ft

SURV. ℄ REV. ℄ 2.71'
782.54 E.P. E.P.
1-4 1-4
-0.053 +0.053
782.75 782.00
778.50 785.25
+1.0 +4.0 Match Exist. dip 15.0 10.8 W.R.T.O.

SURV. 240 + 00 = REV. 240+08.60

STA.	240+00 STA. 241+20
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	260 OF 352 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

SCALE : 1" = 10' HOR. VERT.

VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86

"PERFECT" CROSS SECTION
10 X 10 — ONE INCH
EUGENE DIETZGEN CO.

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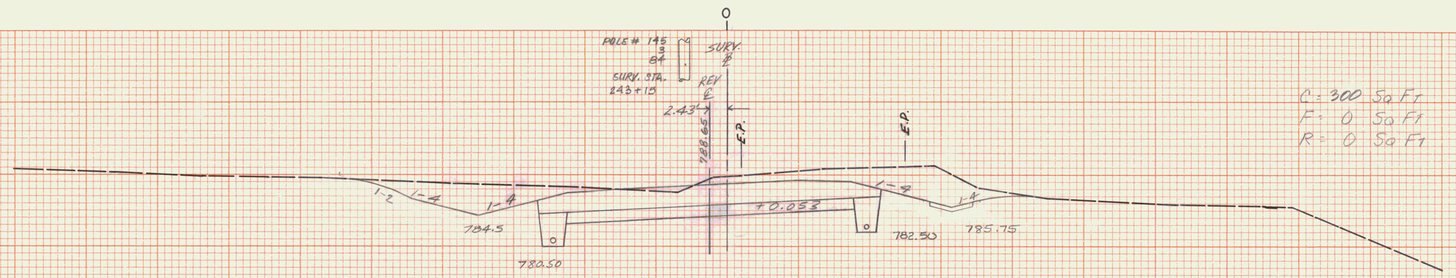
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

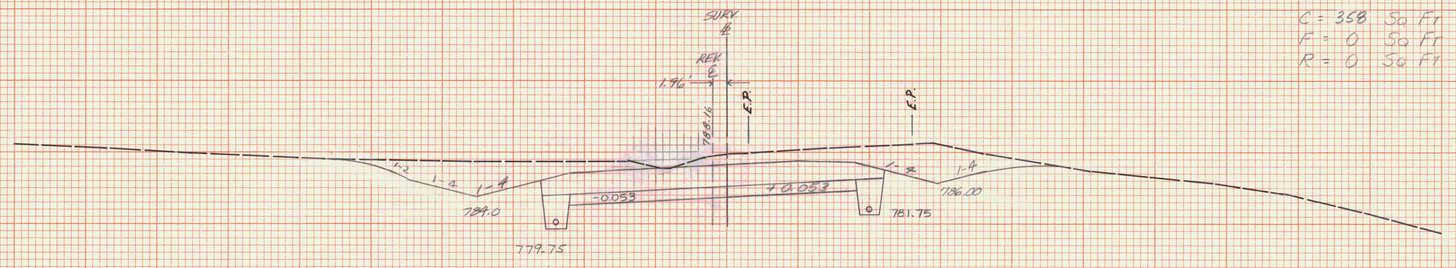


C = 300 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

REV. STA. 243+08. RT.
BEGIN STONE LINED DITCH
TYPE I, 6' WIDE

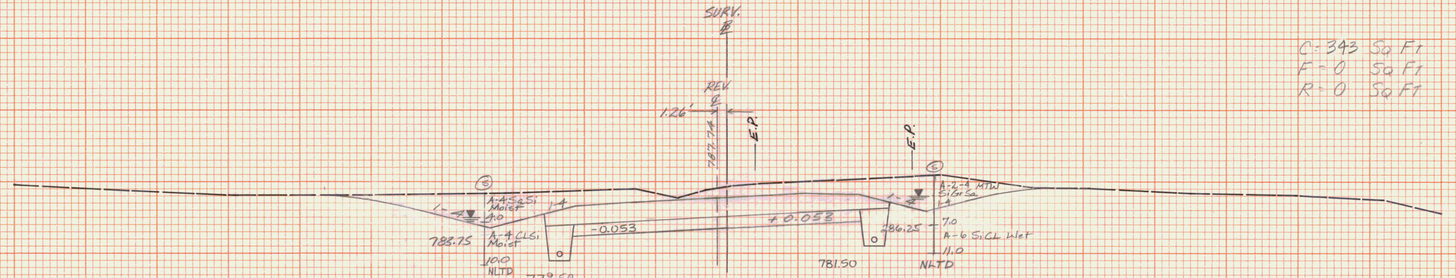
REV. 243+08.49 = SURV. 243 + 00

REV. STA. 242+59 LT
BEGIN EROSION MATTING



C = 358 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

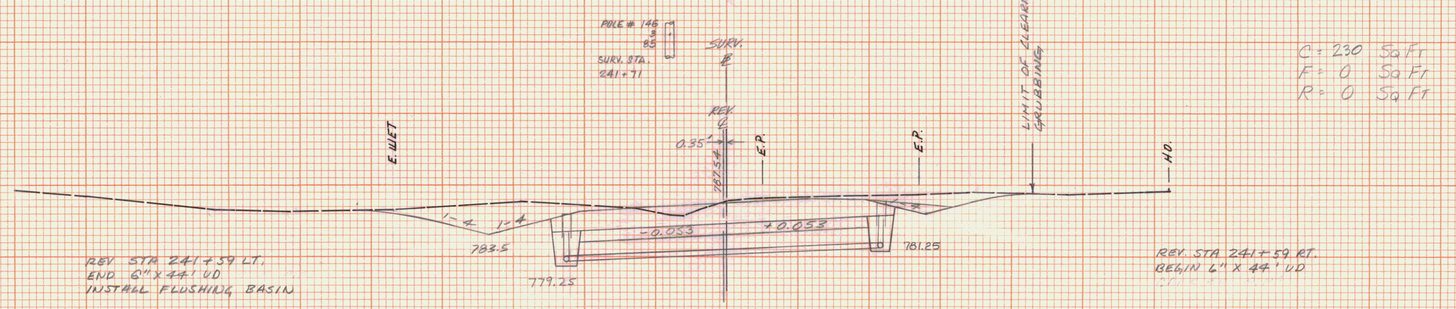
REV. 242+58.56 = SURV. 242 + 50



C = 343 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

REV. STA. 242+00 RT.
END LIMIT OF CLEARING AND
GRUBBING IS TOE OF SLOPE

REV. 242+08.60 = SURV. 242 + 00



C = 230 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

REV. STA 241+59 RT.
INSTALL FLUSHING BASIN

REV. STA. 241+15 RT.
BEGIN SPECIAL DITCH

REV. STA. 241+50 RT.
END SHOULDER W/ FULL
DEPTH PAVEMENT (8" WIDE)

REV. STA 241+59 LT.
END 6" X 44' UD
INSTALL FLUSHING BASIN

REV. STA. 241+59 RT.
BEGIN 6" X 44' UD

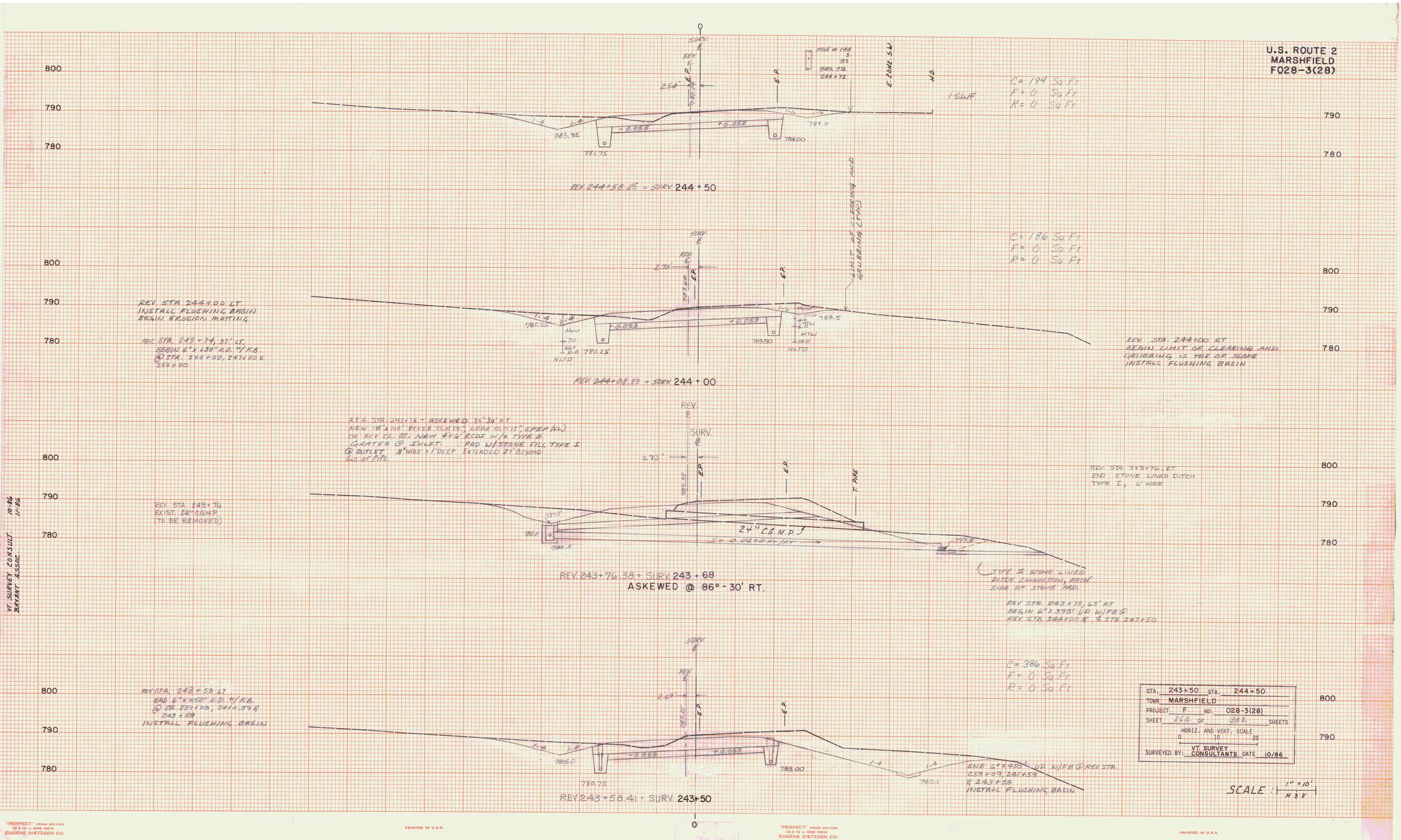
STA.	241+50	STA.	243+00
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	261	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20
V.T. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

SCALE : 1"=10' H & V

V.T. SURVEY CONSULTANTS 10/86
BRYANT ASSOC 11/86

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.
PRINTED IN U.S.A.


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
C= 194 Sq Ft
F= 0 Sq Ft
R= 0 Sq Ft
1 SWF
POLE # 144
SURV. STA. 244+72
E. CONC. S.W.
H.D.
REV. 244+58.25 = SURV. 244+50
C= 186 Sq Ft
F= 0 Sq Ft
R= 0 Sq Ft
LIMIT OF CLEARING AND GRUBBING (TYP)
REV STA 244+00 LT
INSTALL FLUSHING BASIN
BEGIN EROSION MATTING
REV. STA. 243+74, 37' LT.
BEGIN 6" x 630' U.D. W/ F.B.
@ STA. 244+00, 247+00 & 250+00
REV. STA. 244+00 RT
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE
INSTALL FLUSHING BASIN
REV. 244+08.33 = SURV. 244+00
REV. STA. 243+76 - ASKEWED 86°30' RT
NEW 18" x 100' PCCSP 0.079", CAAP 0.075", CPEP (SL)
OR RCP CL. III. NEW 4'x6' RCDI W/2 TYPE B
GRATES @ INLET. PAD W/STONE FILL TYPE I
@ OUTLET 3' WIDE x 1' DEEP EXTENDED 27' BEYOND
END OF PIPE.
REV. STA. 243+76
EXIST. 24" CGMP
(TO BE REMOVED)
REV. STA. 243+76, RT.
END STONE LINED DITCH
TYPE I, 6' WIDE
24" C.G.M.P.
S= 0.0270 FT/FT
TYPE II STONE LINED DITCH CONNECTION, EACH SIDE OF STONE PAD.
REV. 243+76.38 = SURV. 243+68
ASKEWED @ 86°-30' RT.
REV STA. 243+75, 63' RT
BEGIN 6" X 398' UD W/FB @
REV STA. 244+00 & STA 247+50
C= 386 Sq Ft
F= 0 Sq Ft
R= 0 Sq Ft
REV STA. 243+58 LT
END 6" x 450' U.D. W/F.B.
@ STA. 239+08, 241+59 & 243+58
INSTALL FLUSHING BASIN
END 6" X 450' UD W/FB @ REV STA. 238+09, 241+59 & 243+58
INSTALL FLUSHING BASIN
REV. 243+58.41 = SURV. 243+50
VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86
STA. 243+50 STA. 244+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 262 OF 382 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
SCALE: 1" = 10' H & V
"PERFECT" CROSS SECTION 10 X 10 = ONE INCH EUGENE DIETZGEN CO.
PRINTED IN U.S.A.

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

PT. #13
REV. 246+61.11
D = 3°00'00"
BANK = 0.053 FT/FT

POLE # 142
SURV. STA. 246+87

EQUALITY
REV. 246+61.11 (EK) =
SURV. 246+53.01 (AH)
EQ = +8.10

C = 162 Sq Ft
F = 16 Sq Ft
R = 0 Sq Ft

REV. 246+58.10 = SURV. 246+50

+0.053 FT/FT RT
REV. 246+61.11 (EK) =
SURV. 246+53.01 (AH)
EQ = +8.10
245+00 246+00 PT #13 +61.11 247+00 248+00 249+00
-0.053 FT/FT LT
+0.021 FT/FT

BANKING DIAGRAM
.005 Ft/Ft V.
50' H

C = 203 Sq Ft
F = 6 Sq Ft
R = 0 Sq Ft

REV. 246+08.10 = SURV. 246+00

POLE # 143
SURV. STA. 245+70

C = 165 Sq Ft
F = 8 Sq Ft
R = 0 Sq Ft

LIMIT OF CLEARING AND GRUBBING (TYP)
CE 42' MIN LT AND/OR RT

REV. 245+58.13 = SURV. 245+50

SECTION A-A

C = 201 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

REV. 245+08.18 = SURV. 245+00

CONSTRUCT DRIVE RT
REV. STA. 244+91 (14' WIDE)

REV. STA 245+00 RT
END LIMIT OF CLEARING AND
GRUBBING IS TOE OF SLOPE

REV. 244+91 = SURV. 244+82.80

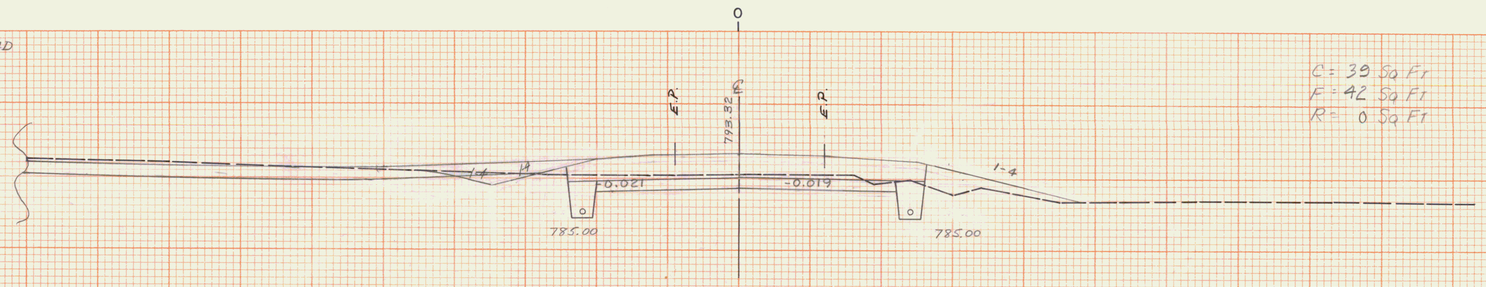
STA.	245+00 STA. 246+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	263 OF 352 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

SCALE : 1" = 10' H & V

VT. SURVEY CONSULT.
BRYANT ASSOC.
10-86
11-86

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.
PRINTED IN U.S.A.

TH #33 BEAVER MEADOWS ROAD
℄ P.O.T. 248+52.57, 20' LT
BEGIN APPROACH CONSTRUCTION



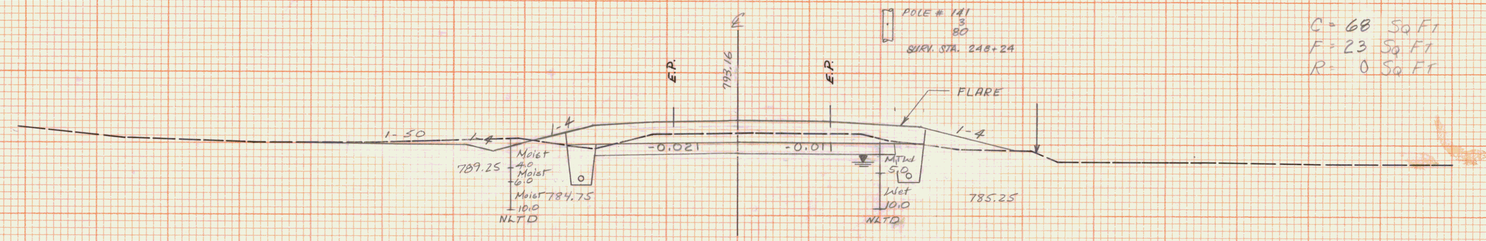
248+50

C = 39 Sq Ft
F = 42 Sq Ft
R = 0 Sq Ft

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

℄ STA. 248+50 RT.
BEGIN STL BEAM GUARD RAIL

℄ STA 248+25 ~ 248+50 RT.
BEGIN BREAKAWAY CABLE TERMINAL

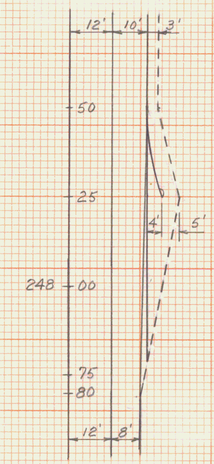


℄ STA 248+00 LT.
END EROSION MATTING

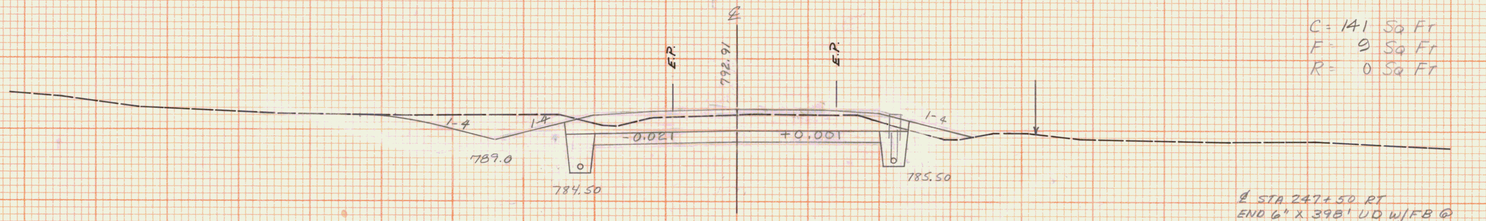
248+00

C = 68 Sq Ft
F = 23 Sq Ft
R = 0 Sq Ft

℄ STA 247+51 RT.
BEGIN 6" x 237' UD W/FB @
℄ STA 247+51.5 249+50
INSTALL FLUSHING BASIN



GUARD RAIL FLARE DETAIL
1" = 20'
SCALE

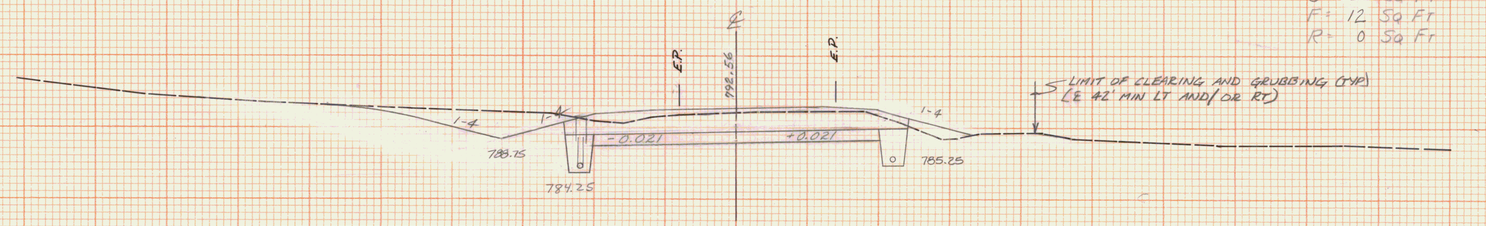


247+50

C = 141 Sq Ft
F = 9 Sq Ft
R = 0 Sq Ft

℄ STA 247+50 RT
END 6" x 398' UD W/FB @
REV STA 244+00 E ℄ STA 247+00
INSTALL FLUSHING BASIN

C = 170 Sq Ft
F = 12 Sq Ft
R = 0 Sq Ft



℄ STA 247+00 LT.
INSTALL FLUSHING BASIN

247+00

STA.	247+00	STA.	248+50
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	264	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

SCALE : 1"=10' H&V

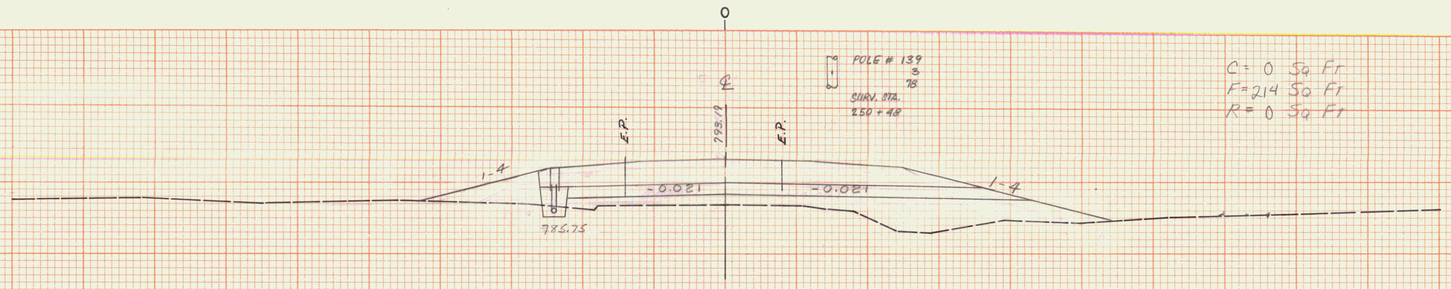
VT. SURVEY CONSULTANTS
BRYANT ASSOC.
10-86
M-86

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.
PRINTED IN U.S.A.

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

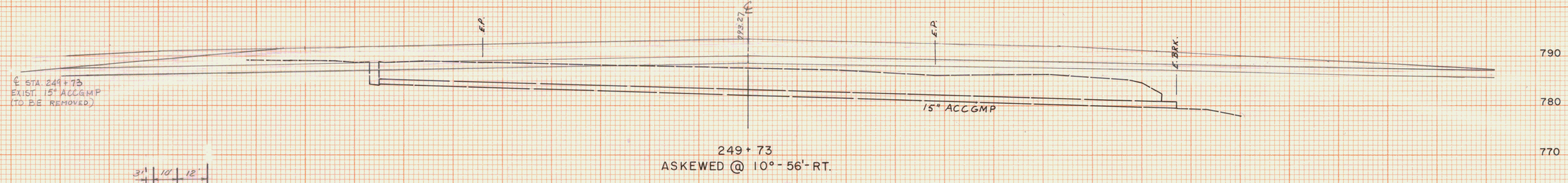
℄ STA. 250+01 LT.
BEGIN REMOVAL & DISPOSAL
OF GUARD RAIL.

℄ STA. 250+00 LT.
END 6"x6.30' U.D. W/ F.B.
@ STA. 244+00, 247+00 &
250+00
INSTALL FLUSHING BASIN

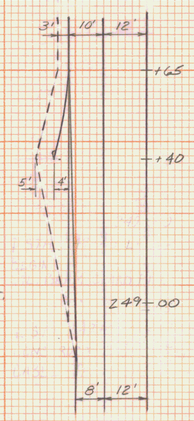


C = 0 Sq Ft
F = 214 Sq Ft
R = 0 Sq Ft

℄ STA. 250+10 RT.
BEGIN REMOVAL & DISPOSAL
OF GUARD RAIL.



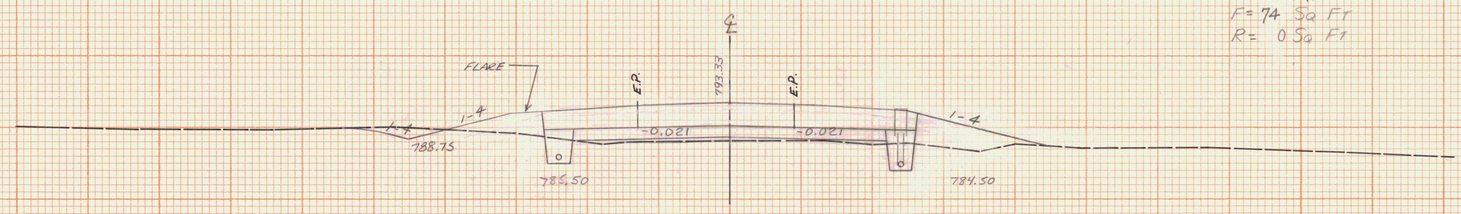
ASKEWED @ 10°-56'-RT.



GUARD RAIL FLARE DETAIL
1"=20'
SCALE

℄ STA. 249+65 LT.
BEGIN STL. BEAM GUARD
RAIL

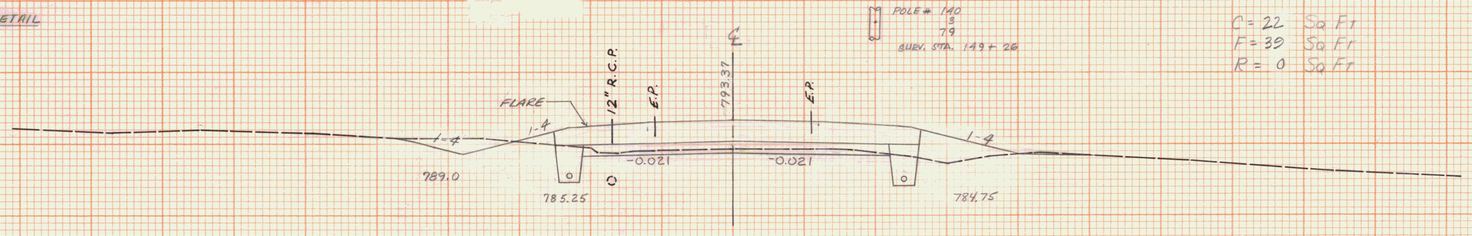
℄ STA. 249+40 - 249+65 LT.
BEGIN BREAKAWAY CABLE
TERMINAL



C = 12 Sq Ft
F = 74 Sq Ft
R = 0 Sq Ft

℄ STA. 249+75
BEGIN SCARIFYING
EXISTING PAVEMENT

VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86



℄ STA. 248+80 - 249+00 LT.
EXIST. 12" RCP
(TO BE REMOVED)

C = 22 Sq Ft
F = 39 Sq Ft
R = 0 Sq Ft

℄ STA. 249+75.27 RT.
END 6" X 237' UD W/FB@
℄ STA. 247+51 & 249+50

℄ STA. 249+50 RT.
INSTALL FLUSHING BASIN

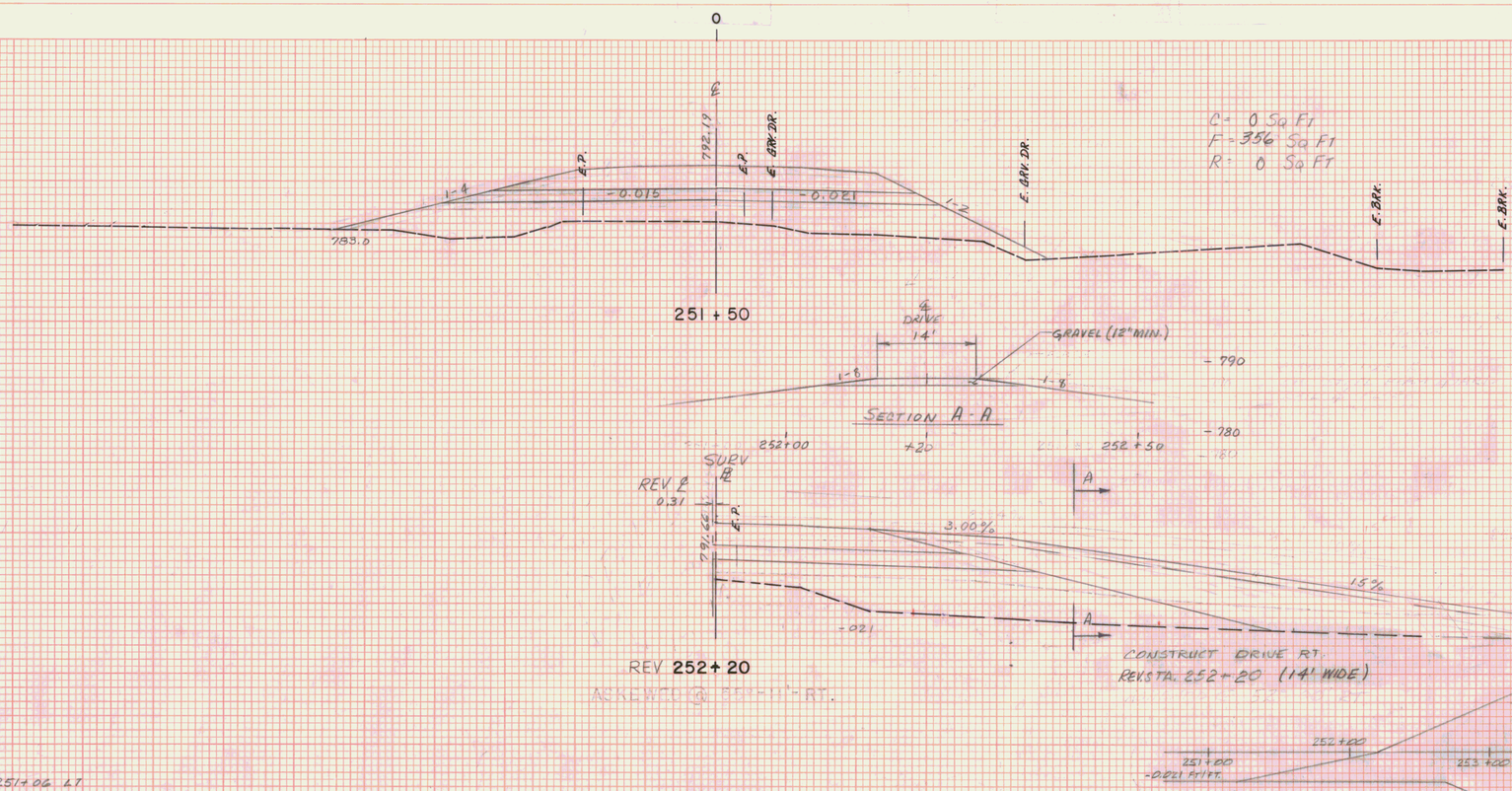
STA:	249+00	STA.	250+00
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	265	OF	352 SHEETS

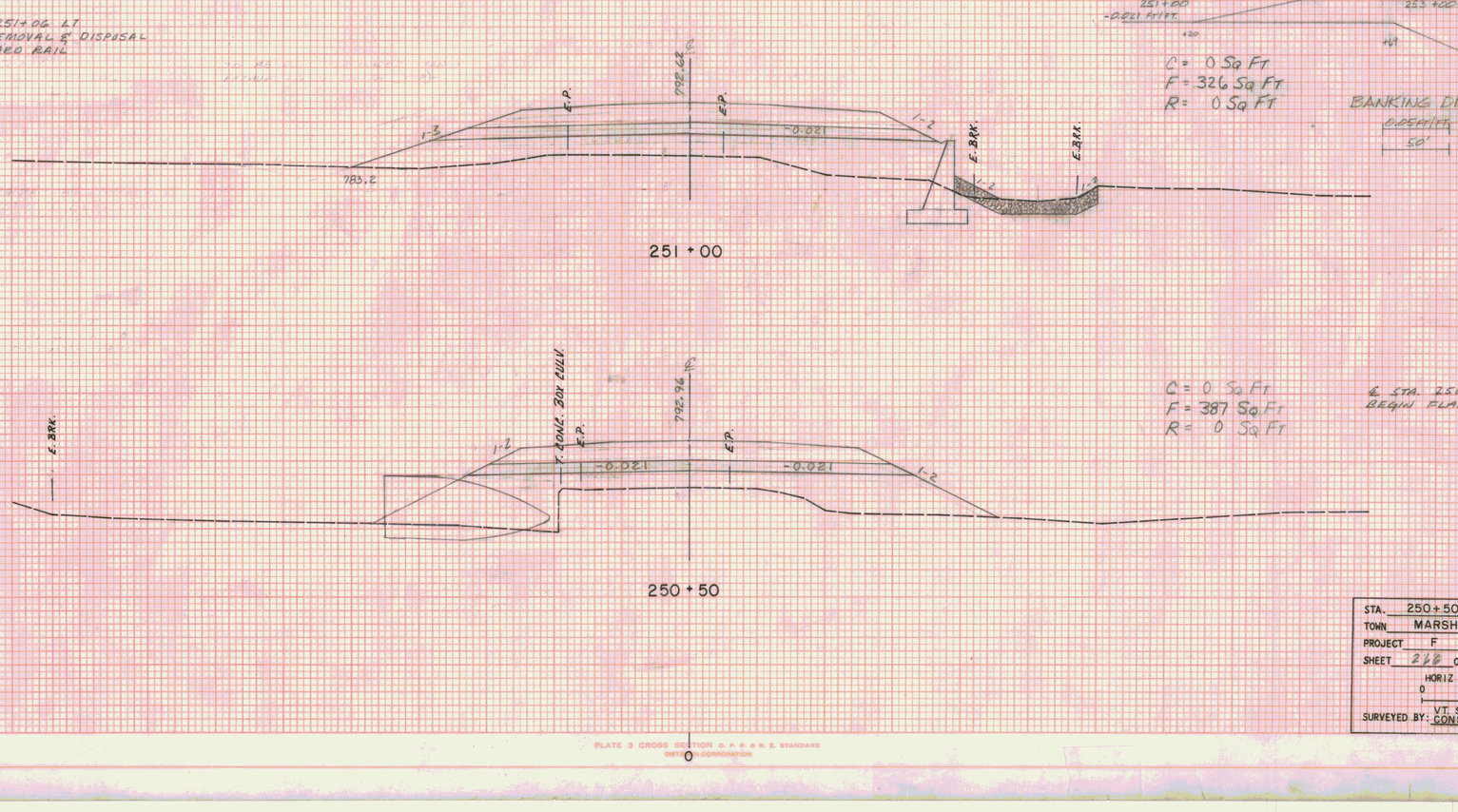
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

SCALE: 1"=10' H & V

PRINTED IN U.S.A.
"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.
PRINTED IN U.S.A.

U.S. ROUTE 2
MARSHFIELD
F028-3(28)





STA. 250+50 STA. 251+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 2&8 OF 3&8 SHEETS
HORIZ AND VERT SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREA — AREAS CHECKED — BY — DATE

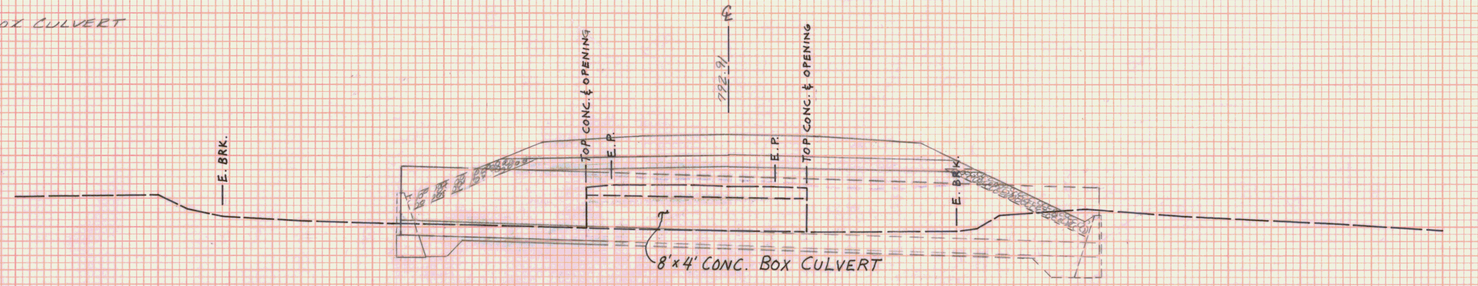
ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREA — AREAS CHECKED — BY VT. SURVEY CONSULT. BRYANT ASSOC. — DATE 10-86 11-86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

℄ STA. 250+08 ASKEWED 66°-00' RT
NEW 98' x 15'-6" x 9'-5" CGMPPA (0.109)
W/ CRADDLE HEADWALL @ INLET AND
OUTLET, STRUCTURAL STEEL BAFFLES @
INVERT SPACED ACCORDING TO LAYOUT AND
FILLED 2' DEPTH OF NATURAL STREAMBED
MATERIAL. SEE BR-130 PT AND DETAIL
SHEETS.

℄ STA. 250+57,
EXISTING 8'x4' BOX CULVERT
(TO BE REMOVED)



250 + 57
ASKEWED @ 74°-55'-30" RT.

STA. 250+57 STA. 251+20
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 266A OF 413 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DISTRIBUTION CORPORATION

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRIMLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRIMLATE
AREAS
AREAS CHECKED
BY VT. SURVEY CONSULT. BRYANT ASSOC.
DATE 12/86 1/87

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

POLE # 137
3
76
SURV. STA. 253+38

REV. STA. 253+00
BEGIN EROSION MATTING
END STONE LINED DITCH
TYPE I, 6' WIDE

REV. STA 252+85 LT
BEGIN SHEDIAL DITCH
BEGIN STONE LINED DITCH
TYPE I, 6' WIDE

REV. STA 252+50 LT.
CONSTRUCT DRIVE (14' WIDE)
NEW 15" x 80' 0.064 CSP
OR OPEN (SL) W/ E.S. @
INLET W/ STONE FILL 3.5' W
X 11'D EXTENDING
6' BEYOND END
OF CULVERT

REV. STA 252+15 - 252+20 LT.
BREAKAWAY CABLE TERMINAL

REV. STA. 252+15 LT.
END STEEL BEAM GUARD RAIL
& FLARE

℄ STA. 251+60
BEGIN STEEL BEAM GUARD RAIL FLARE

REV. 253+50.42 = SURV. 253+50

REV. 253+00.13 = SURV. 253+00

REV. 252+50.02 = SURV. 252+50

REV. 252+50.02 = SURV. 252+50

NOTE: PROFILE FOR DRIVE @ 252+20
SEE PREVIOUS SHEET

SECTION A-A

SECTION B-B

PC # 14
REV. 253+40.09
D = 6° 00' 00"
BANK = 0.077 FT/FT

C = 37 Sq Ft
F = 405 Sq Ft
R = 0 Sq Ft

C = 20 Sq Ft
F = 555 Sq Ft
R = 0 Sq Ft

C = 0 Sq Ft
F = 553 Sq Ft
R = 0 Sq Ft

C = 0 Sq Ft
F = 579 Sq Ft
R = 0 Sq Ft

REV. STA. 252+95 RT.
END GUARD RAIL FLARE
BEGIN GUARD RAIL

REV. STA. 252+62.5 RT.
BEGIN GUARD RAIL FLARE

REV. STA. 252+37.5 - 252+62.5 RT.
CONSTRUCT BREAKAWAY CABLE
TERMINAL

NOTE:
FOR DR. DETAIL
SEE PREVIOUS SHT.

℄ STA. 251+75 - REV. STA. 252+00
CONSTRUCT BREAKAWAY
CABLE TERMINAL

GUARD RAIL FLARE
DETAIL
1" = 20'
SCALE

℄ STA. 251+75 RT.
END GUARD RAIL FLARE

℄ STA. 251+43 RT.
BEGIN GUARD RAIL FLARE

STA. 252+00 STA. 253+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 267 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION O. P. S. & R. E. STANDARD
DISTRIBUTION CORPORATION

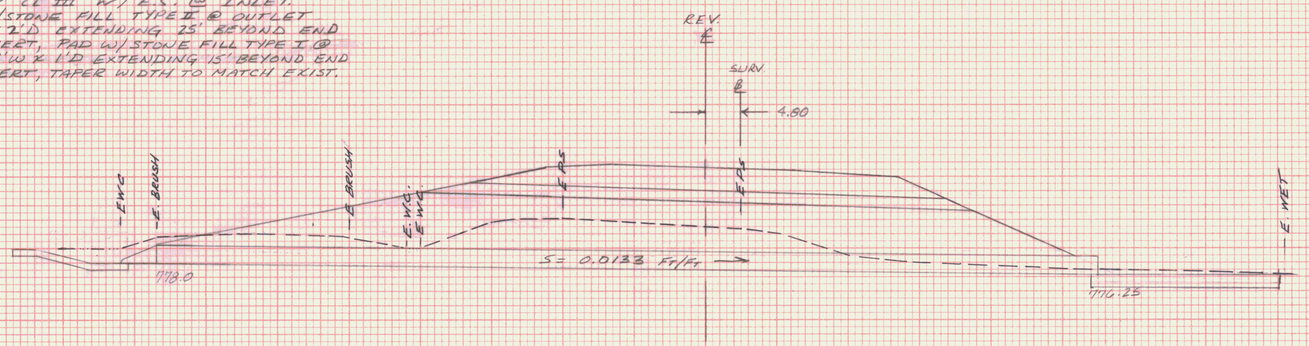
FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED VT. SURVEY CONSULT 10-86
PLOTTED BRYANT 252
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
CROSS CHECKED
DATE
BY

REV. STA. 253+25 - ASHEWED 62°00' RT
NEW 30" x 132' CPEP (SL)
OR RCP CL III W/ E.S. @ INLET.
PAD W/ STONE FILL TYPE II @ OUTLET
4' W x 2' D EXTENDING 25' BEYOND END
OF CULVERT, PAD W/ STONE FILL TYPE I @
INLET, 9' W x 1' D EXTENDING 15' BEYOND END
OF CULVERT, TAPER WIDTH TO MATCH EXIST.
BROOK.



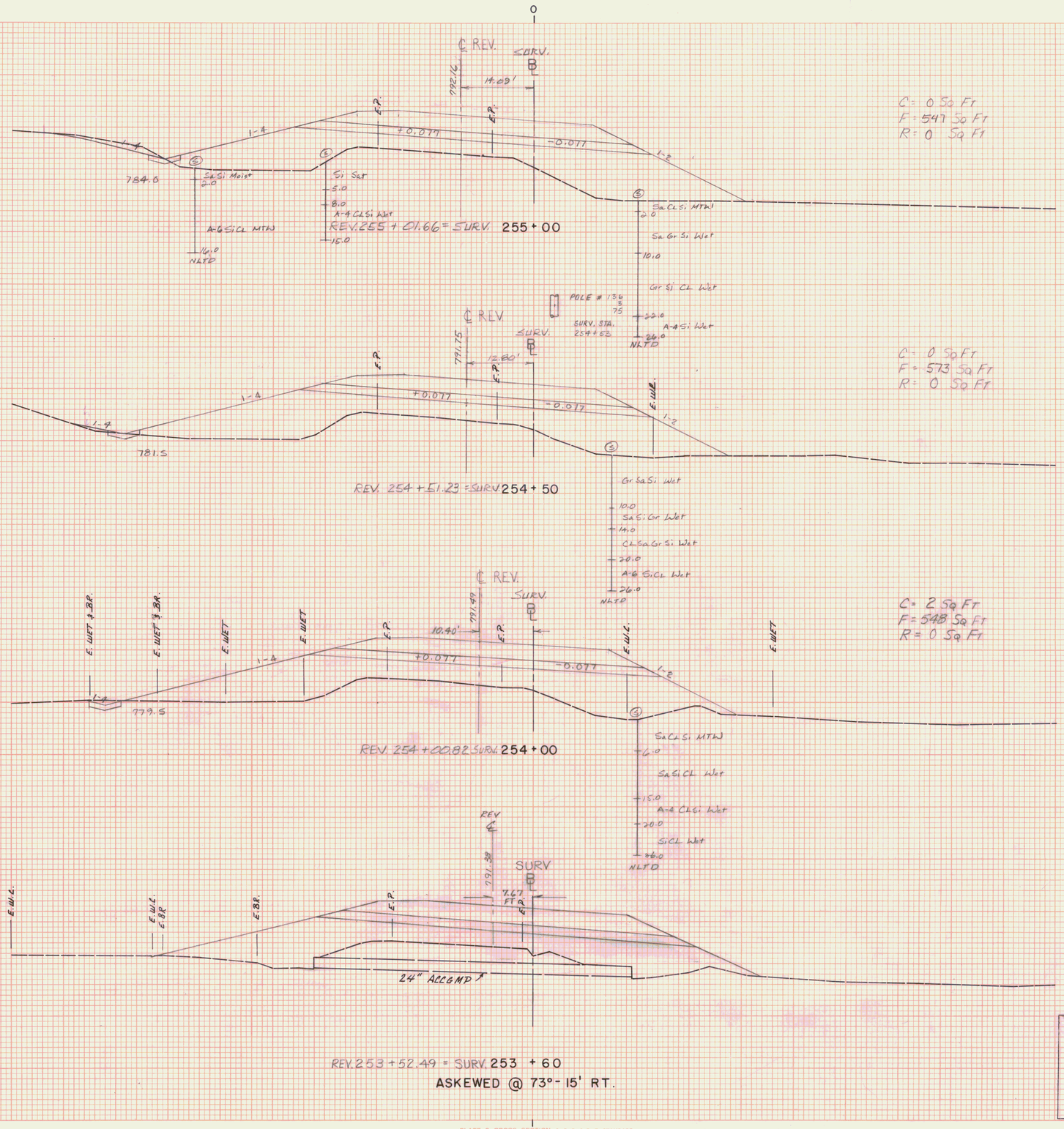
SURV. 253+24.76 = REV. 253+25
ASHEWED 62°00' RT

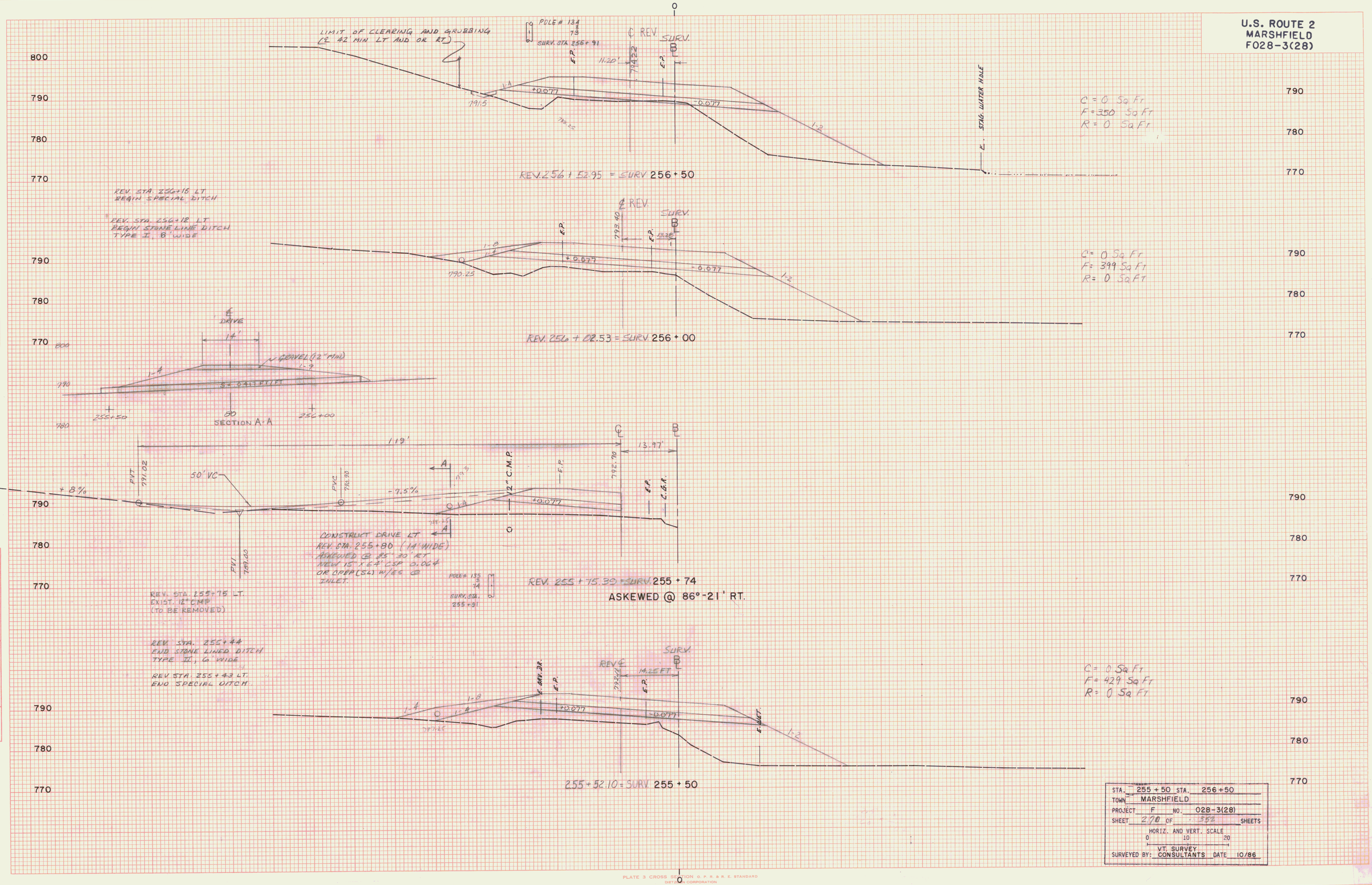
ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
CROSS CHECKED
DATE
BY

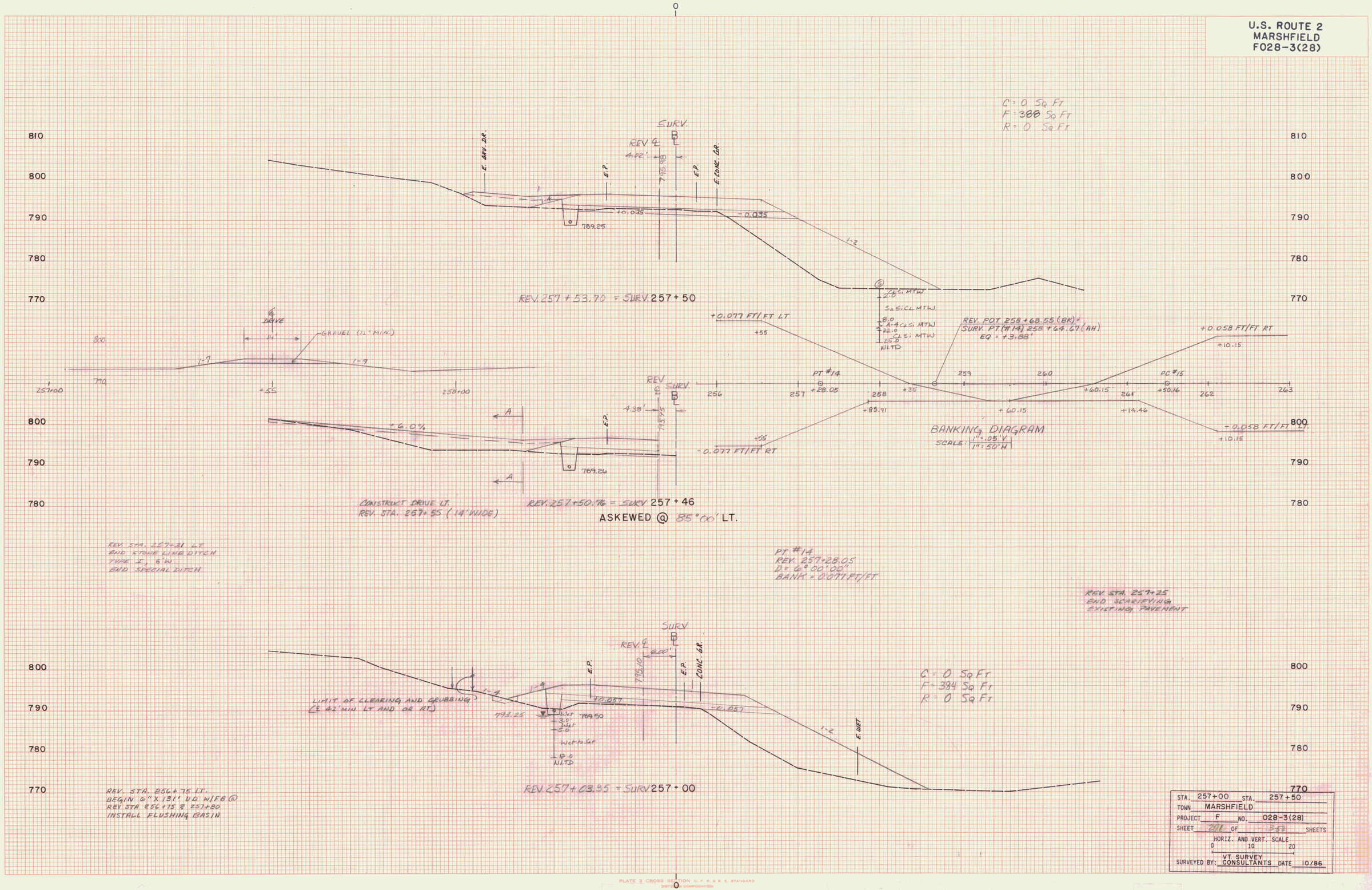
STA. 253+25 STA.
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 208 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY VT SURVEY CONSULTANTS DATE

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)


℄ REV.
SURV.
℄
14.69'
732.6
E.P.
E.P.
+0.077
-0.077
1-4
1-2
784.6
Sa Si Moist
2.0
Si Sat
5.0
8.0
A-4 Cl Si Wet
15.0
A-6 Si Cl Mtn
16.0
NLTD
REV. 255 + 01.66 = SURV. 255 + 00
Sa Cl Si Mtn
2.0
Sa Gr Si Wet
10.0
Gr Si Cl Wet
POLE # 136
S
75
22.0
A-4 Si Wet
26.0
NLTD
SURV. STA. 254 + 52
C = 0 Sq Ft
F = 547 Sq Ft
R = 0 Sq Ft
REV. STA. 255 + 28 RT
BEGIN REMOVAL & DISPOSAL
OF GUARD RAIL.
℄ REV.
SURV.
℄
12.80'
731.75
E.P.
E.P.
E.W.L.
+0.077
-0.077
1-4
1-2
781.5
REV. STA. 254+00 LT
BEG. STONE LINED DITCH
TYPE I, 6' WIDE
BEGIN SPECIAL DITCH
END EROSION MATTING
REV. 254 + 51.23 = SURV 254 + 50
Gr Sa Si Wet
10.0
Sa Si Gr Wet
14.0
Cl Sa Gr Si Wet
20.0
A-6 Si Cl Wet
26.0
NLTD
C = 0 Sq Ft
F = 573 Sq Ft
R = 0 Sq Ft
℄ REV.
SURV.
℄
10.40'
731.49
E.W.L.
E.W.L.
E.W.L.

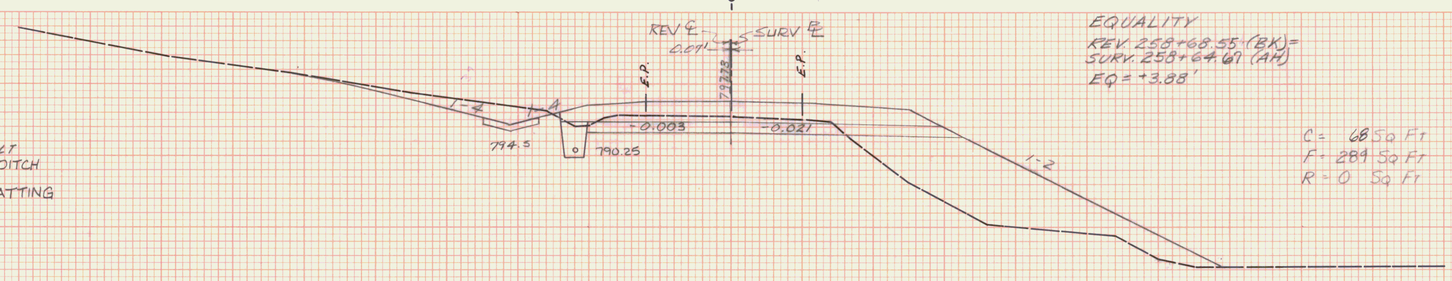

U.S. ROUTE 2
MARSHFIELD
F028-3(28)
LIMIT OF CLEARING AND GRUBBING (℄ 42' MIN LT AND OR RT)
POLE # 134 3 73
SURV. STA 256+91
℄ REV.
SURV.
11.20'
794.22
E.P.
+0.077
-0.077
791.5
1-4
1-2
STAG. WATER HOLE
C = 0 Sq Ft
F = 350 Sq Ft
R = 0 Sq Ft
REV. 256 + 52.95 = SURV 256 + 50
REV. STA. 256+15 LT BEGIN SPECIAL DITCH
REV. STA. 256+12 LT BEGIN STONE LINE DITCH TYPE I, 6' WIDE
793.40
13.28
790.25
C = 0 Sq Ft
F = 399 Sq Ft
R = 0 Sq Ft
REV. 256 + 02.53 = SURV. 256 + 00
℄ DRIVE
14'
GRAVEL (12" MIN)
1-9
255+50
80
256+00
SECTION A-A
119'
13.97'
PVT 791.02
50' VC
PVC 790.90
+8%
-7.5%
12" C.M.P.
792.70
C.G.R.
CONSTRUCT DRIVE LT
REV. STA. 255+80 (14' WIDE)
ASKEWED @ 85°30' RT
NEW 15" X 64' CSP 0.064
OR CPEP(SL) W/ES @ INLET.
PVI 789.00
REV. STA. 255+75 LT.
EXIST. 12" CMP
(TO BE REMOVED)
POLE # 135 3 74
SURV. STA. 255+91
REV. 255 + 75.39 = SURV. 255 + 74
ASKEWED @ 86°-21' RT.
REV. STA. 255+44
END STONE LINED DITCH
TYPE II, 6' WIDE
REV. STA. 255+43 LT.
END SPECIAL DITCH
SURV.
REV ℄
14.25 FT
E. DRV. DR.
E. LET.
C = 0 Sq Ft
F = 429 Sq Ft
R = 0 Sq Ft
255 + 52.10 = SURV. 255 + 50
800
790
780
770
STA. 255 + 50 STA. 256 + 50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 270 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
C = 0 Sq Ft
F = 388 Sq Ft
R = 0 Sq Ft
SURV.
REV ℄
4.02'
795.98
E. BRV. DR.
E.P.
E. CONC. GR.
+0.035
-0.035
789.25
1-2
REV. 257 + 53.70 = SURV. 257 + 50
℄ DRIVE
14'
GRAVEL (12" MIN.)
1-7
1-9
257+00
+55
258+00
+0.077 FT/FT LT
REV. POT 258 + 68.55 (BK) =
SURV. PT (#14) 258 + 64.67 (AH)
EQ = +3.88'
+0.058 FT/FT RT
+10.15
PT #14
+28.05
PC #15
+50.16
+60.15
+85.91
+14.46
-0.058 FT/FT LT
-0.077 FT/FT RT
BANKING DIAGRAM
SCALE: 1" = .05' V / 1" = 50' H
REV
4.38'
795.95
+6.0%
789.26
CONSTRUCT DRIVE LT.
REV. STA. 257+55 (14' WIDE)
REV. 257+50.76 = SURV 257 + 46
ASKEWED @ 85°00' LT.
REV. STA. 257+21 LT
END STONE LINE DITCH
TYPE I, 6' W
END SPECIAL DITCH
PT #14
REV. 257+28.05
D = 6°00'00"
BANK = 0.077 FT/FT
REV. STA. 257+25
END SCARIFYING
EXISTING PAVEMENT
SURV.
REV. ℄
8.00'
795.10
E.P.
CONC. GR.
C = 0 Sq Ft
F = 384 Sq Ft
R = 0 Sq Ft
LIMIT OF CLEARING AND GRUBBING
(℄ 42' MIN LT AND OR RT)
1-4
+0.057
-0.057
793.25
789.50
Wet
3.0'
5.0
Wet to Set
12.0
NLTD
1-2
E. WET
REV. 257 + 03.35 = SURV 257 + 00
REV. STA. 256+75 LT.
BEGIN 6" X 131' UD W/FB @
REV STA 256+75 & 257+80
INSTALL FLUSHING BASIN
STA. 257+00 STA. 257+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 291 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
NO.
VT. SURVEY CONSULT. 10-86
BRYANT ASSOC. 11-86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

EQUALITY
REV. 258+68.55 (BK) =
SURV. 258+64.67 (AH)
EQ = +3.88

REV. STA. 258+54 LT.
END STONE LINED DITCH
TYPE I 8' W.
BEGIN EROSION MATTING

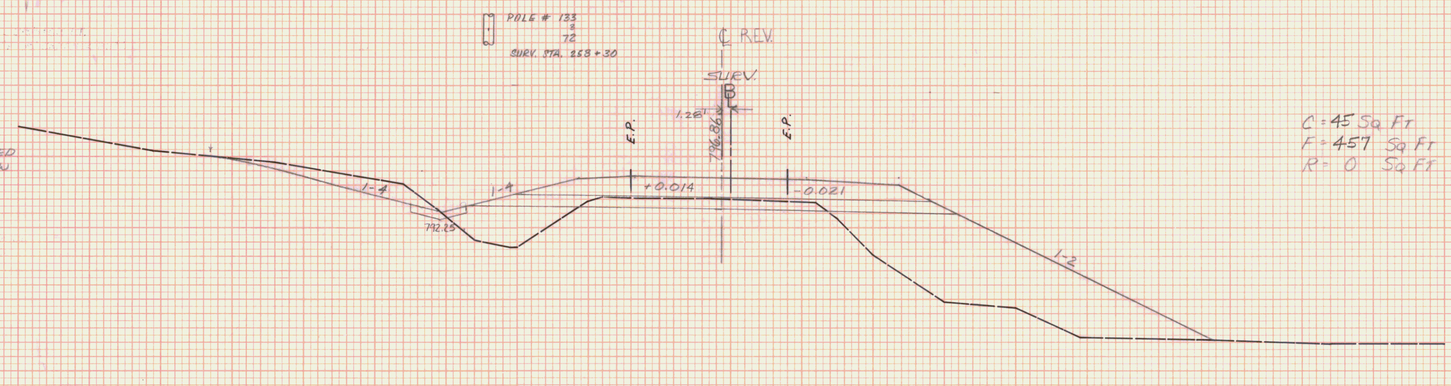


C = 68 Sq Ft
F = 284 Sq Ft
R = 0 Sq Ft

REV 258 + 53.88 = SURV 258 + 50

REV. STA. 258+20 LT.
INSTALL FLUSHING BASIN

REV. STA 257+94 LT
BEGIN STONE LINED
DITCH TYPE I, 6' W.

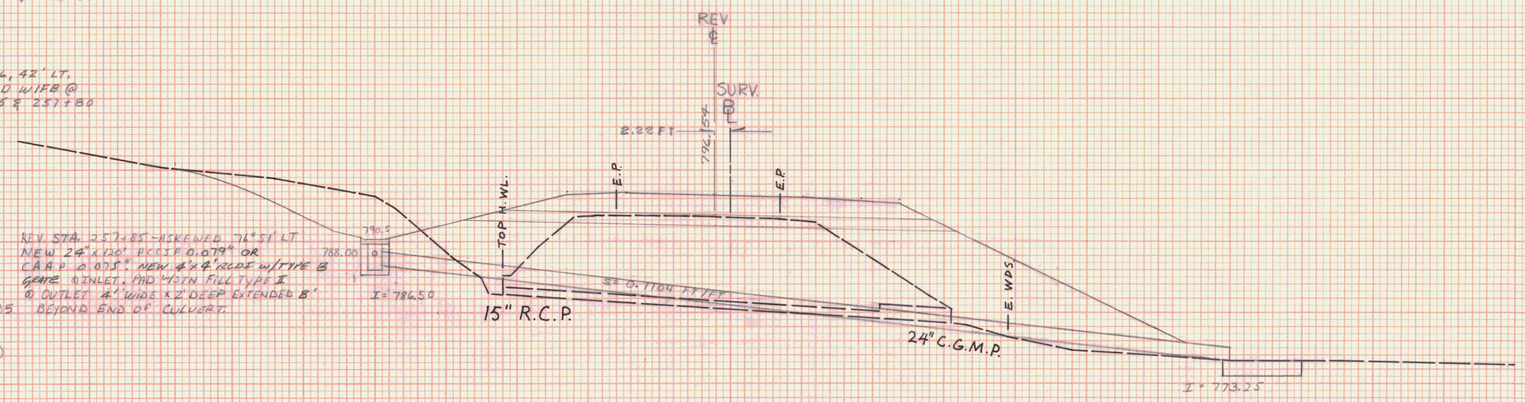


C = 45 Sq Ft
F = 457 Sq Ft
R = 0 Sq Ft

REV 258 + 03.85 = SURV 258 + 00

REV. STA. 257+98, 85' LT.
BEGIN 6" X 42' UD W/FB @
REV. STA. 258+20 & 262+50

REV STA 257+94, 42' LT.
END 6" X 131' UD W/FB @
REV STA 256+75 & 257+80



REV. STA. 257+85 - ASKEWED 76°51' LT.
NEW 24" x 120' PCCSP 0.079" OR
CAAP 0.075". NEW 4'x4' RCDF W/TYPE B
GRATE & INLET. AND 40'IN FILL TYPE I
& OUTLET 4' WIDE x 2' DEEP EXTENDED 8'

REV. STA. 257+85 BEYOND END OF CULVERT.
EXIST. 15" RCP
EXIST. 24" CGMP
(TO BE REMOVED)

REV STA 257+90 LT
INSTALL FLUSHING BASIN

REV. 257+85.43 = SURV 257 + 81
ASKEWED @ 73°-55' LT.

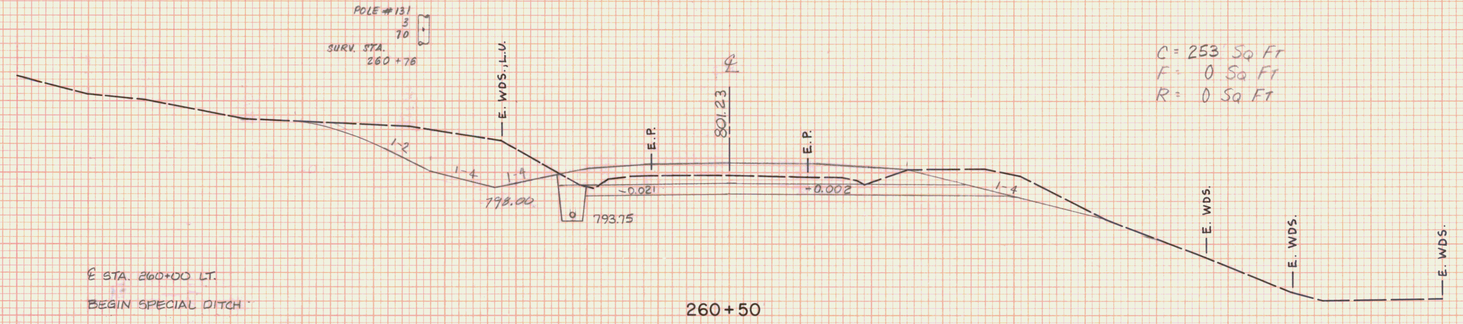
STA. 257+81 STA. 258+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 272 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — SURVEYED, PLOTTED, CHECKED, NOTE BOOK, AREAS, AREAS CHECKED, NO., BY, DATE

ORIGINAL SURVEY — BY VT. SURVEY CONSULT. 10/86 BRYANT ASSOC. 11/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

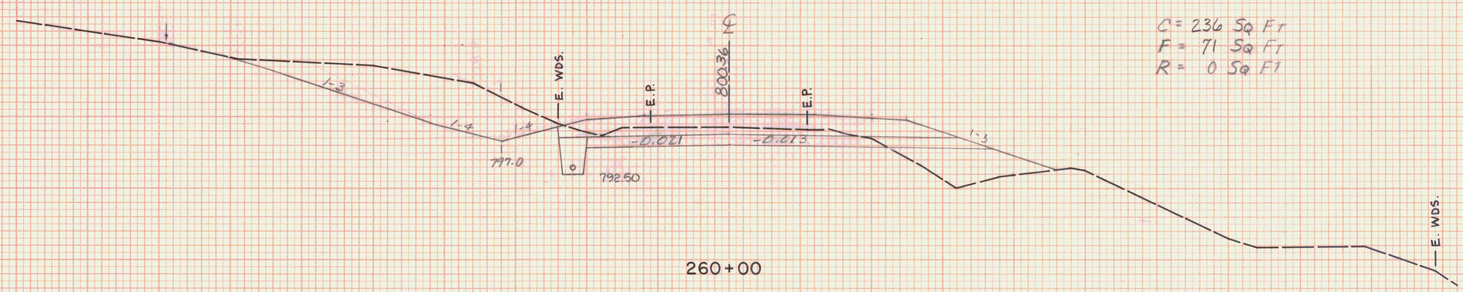
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



C = 253 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

℄ STA. 260+00 LT.
BEGIN SPECIAL DITCH

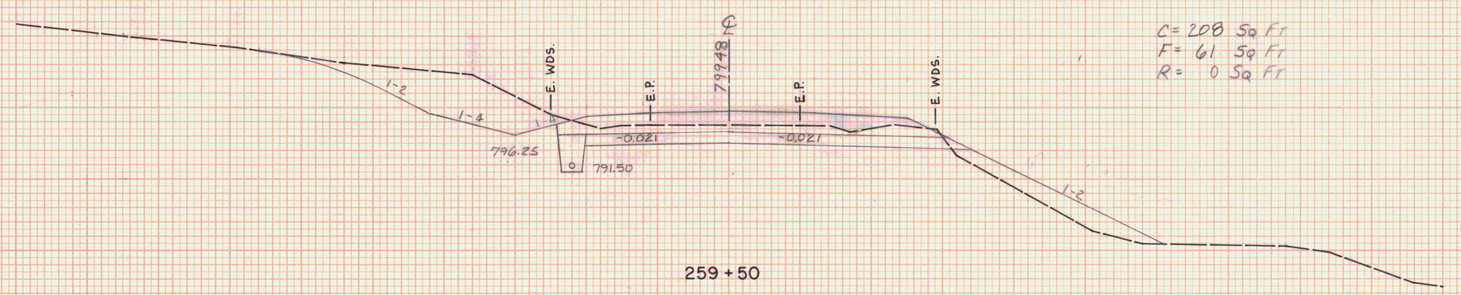
260+50



C = 236 Sq Ft
F = 71 Sq Ft
R = 0 Sq Ft

260+00

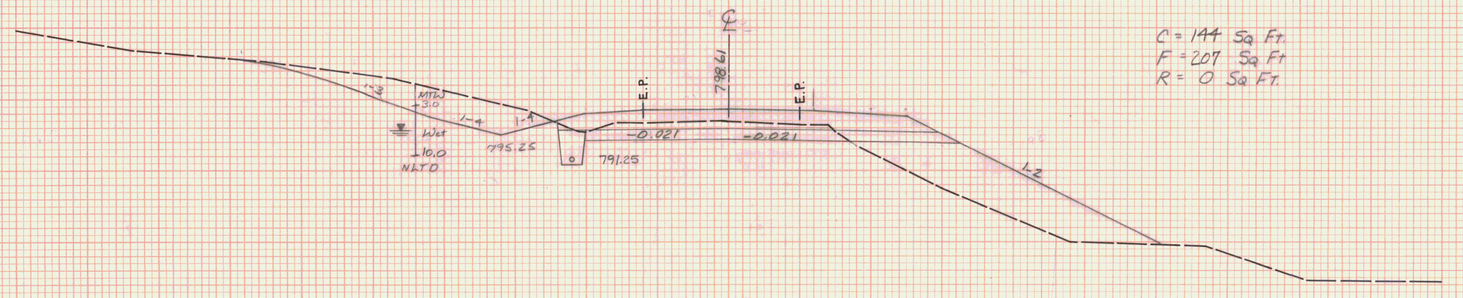
6" PINE
SURV. STA. 259+68



C = 208 Sq Ft
F = 61 Sq Ft
R = 0 Sq Ft

259+50

POLE # 132
3
71
SURV. STA. 259+27



C = 144 Sq Ft
F = 207 Sq Ft
R = 0 Sq Ft

℄ STA. 259+14 RT.
END REMOVAL & DISPOSAL
OF GUARD RAIL.

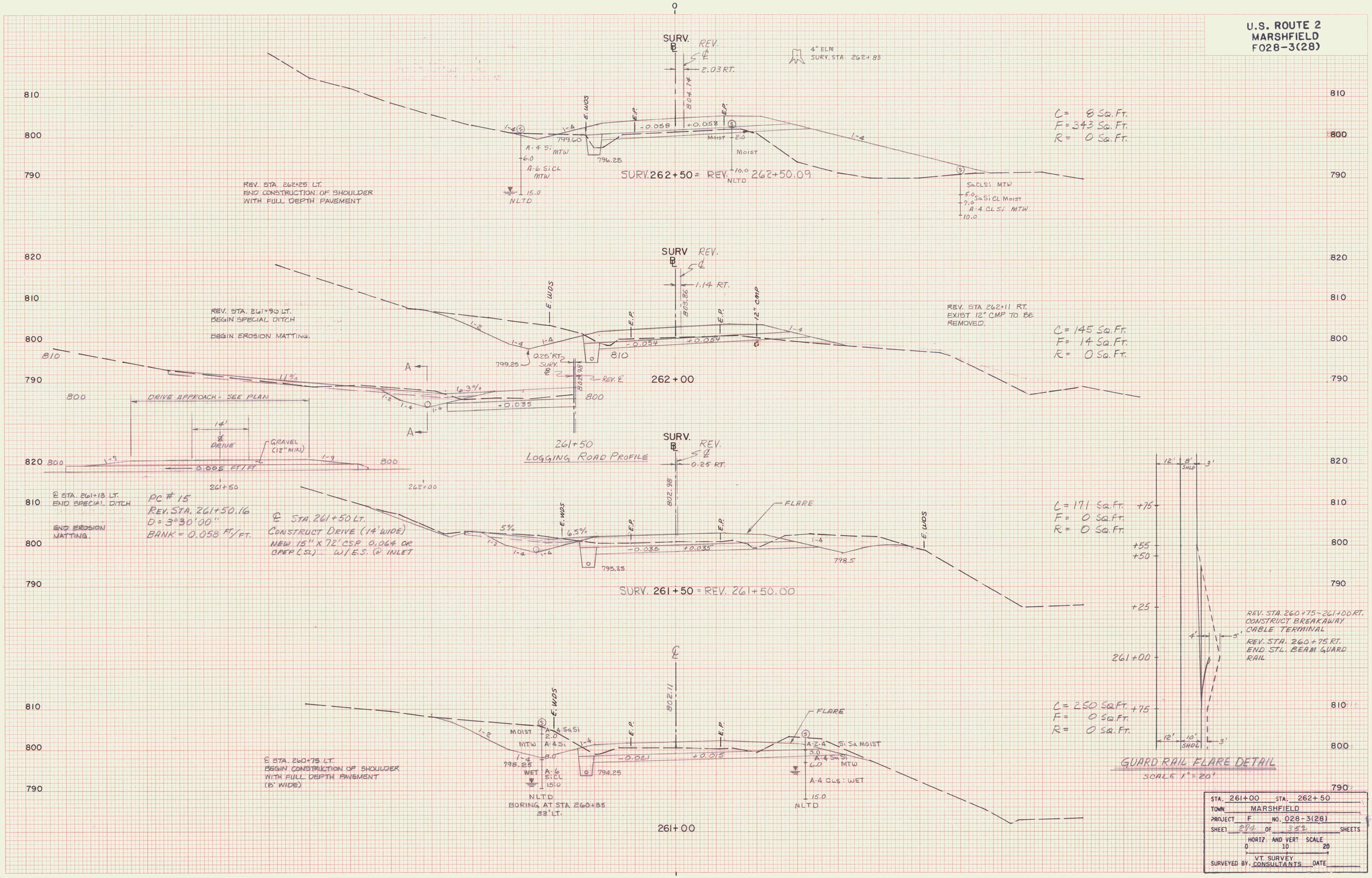
259+00

STA. 259+00 STA. 260+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 248 OF 362 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

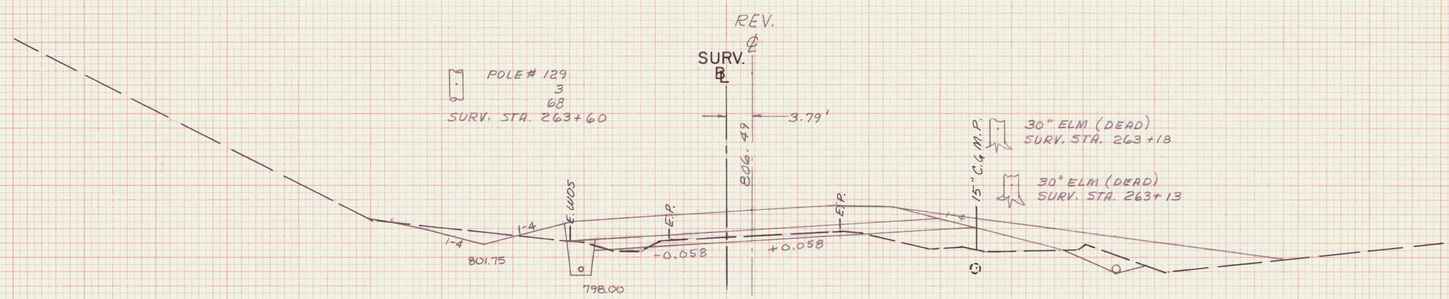
FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY VT. SURVEY CONSULT. BRYANT ASSOC.
DATE 10/86 11/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

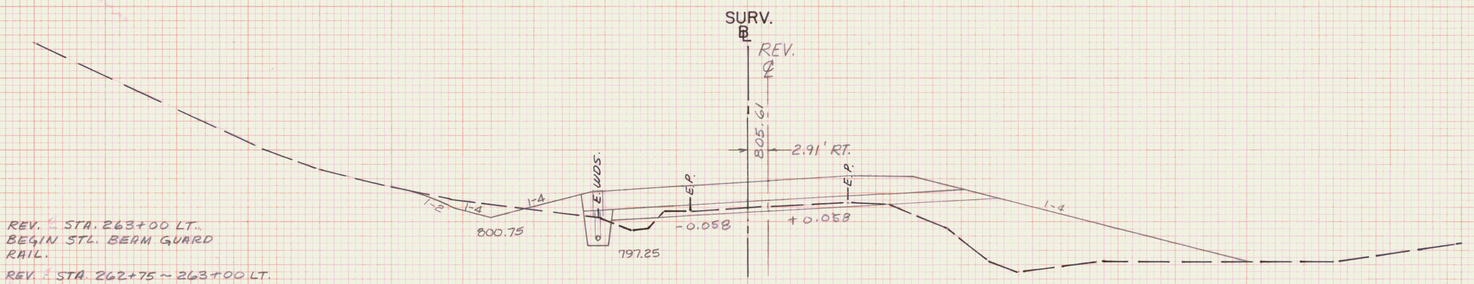

U.S. ROUTE 2
MARSHFIELD
F028-3(28)
SURV. ℄
REV. ℄
2.03 RT.
4" ELM
SURV. STA. 262+83
C= 8 Sq. Ft.
F= 343 Sq. Ft.
R= 0 Sq. Ft.
SURV. 262+50 = REV. 262+50.09
REV. STA. 262+25 LT.
END CONSTRUCTION OF SHOULDER
WITH FULL DEPTH PAVEMENT
SURV ℄
REV. ℄
1.14 RT.
REV. STA. 261+90 LT.
BEGIN SPECIAL DITCH
BEGIN EROSION MATTING.
REV. STA 262+11 RT.
EXIST 12" CMP TO BE
REMOVED.
C= 145 Sq. Ft.
F= 14 Sq. Ft.
R= 0 Sq. Ft.
262+00
DRIVE APPROACH - SEE PLAN
14'
℄ DRIVE
GRAVEL (12" MIN)
0.005 FT/FT
261+50
262+00
261+50
LOGGING ROAD PROFILE
SURV. ℄
REV. ℄
0.25 RT.
℄ STA. 261+13 LT.
END SPECIAL DITCH
END EROSION
MATTING.
PC # 15
REV. STA. 261+50.16
D = 3°30'00"
BANK = 0.058 FT/FT.
℄ STA. 261+50 LT.
CONSTRUCT DRIVE (14' WIDE)
NEW 15" X 72' CSP 0.064 OR
CPEP (SL) W/ E.S. @ INLET
FLARE
SURV. 261+50 = REV. 261+50.00
C= 171 Sq. Ft.
F= 0 Sq. Ft.
R= 0 Sq. Ft.
REV. STA. 260+75 - 261+00 RT.
CONSTRUCT BREAKAWAY
CABLE TERMINAL
REV. STA. 260+75 RT.
END STL. BEAM GUARD
RAIL
261+00
C= 250 Sq. Ft.
F= 0 Sq. Ft.
R= 0 Sq. Ft.
℄ STA. 260+75 LT.
BEGIN CONSTRUCTION OF SHOULDER
WITH FULL DEPTH PAVEMENT
(8' WIDE)
BORING AT STA 260+85
33' LT.
261+00
GUARD RAIL FLARE DETAIL
SCALE 1" = 20'
STA. 261+00 STA. 262+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 274 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY VT. SURVEY CONSULTANTS DATE
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



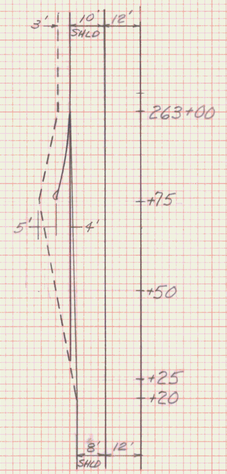
SURV. 263+50 = REV. 263+50.28

C = 19 SQ. FT.
F = 65 SQ. FT.
R = 0 SQ. FT.



SURV 263+00 = REV 263+00.17

C = 19 SQ. FT.
F = 254 SQ. FT.
R = 0 SQ. FT.

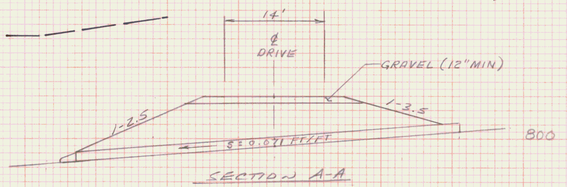


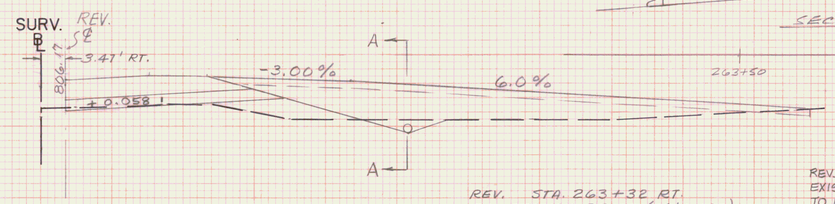
GUARD RAIL FLARE DETAIL
SCALE 1"=20'

REV. STA. 263+00 LT.
BEGIN STL. BEAM GUARD RAIL.

REV. STA. 262+75 ~ 263+00 LT.
CONSTRUCT BREAKAWAY CABLE TERMINAL.

REV. STA 263+00
INSTALL FLUSHING BASIN





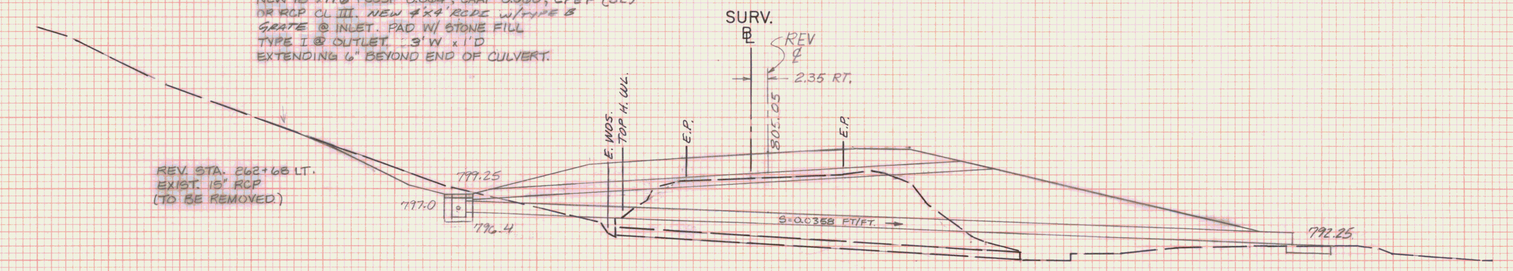
SURV. 263+32 = REV. 263+31.99
ASKEWED @ 60°-00' RT.

REV. STA. 263+32 RT.
CONSTRUCT DRIVE (14' WIDE)
NEW 15" X 64' CSP 0.064" OR APEP (SL)
W/ES @ OUTLET

REV. STA. 263+35 RT.
EXIST. 15" CGMP
TO BE REMOVED

REV. STA. 262+66, 38' LT.
BEGIN 8"x44' UNDERDRAIN
W/ FB @ STA. 263+00 &
267+12

REV. STA. 262+68 - ASKEWED 88°-36' RT.
NEW 18" x 116' PCCSP 0.064", CAAP 0.060", CPEP (SL)
OR RCP CL. III. NEW 4'x4' RCDI. W/ TYPE S
GRATE @ INLET. PAD W/ STONE FILL
TYPE I @ OUTLET. 3'W x 1'D
EXTENDING 6" BEYOND END OF CULVERT.



REV. STA. 262+68 LT.
EXIST. 15" RCP
(TO BE REMOVED)

SURV. 262+68 = REV. 262+68.11
ASKEWED @ 88°-36' RT.

STA.	262+68 STA. 263+50
TOWN	MARSFIELD
PROJECT	F NO. 028-3(28)
SHEET	345 OF 352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

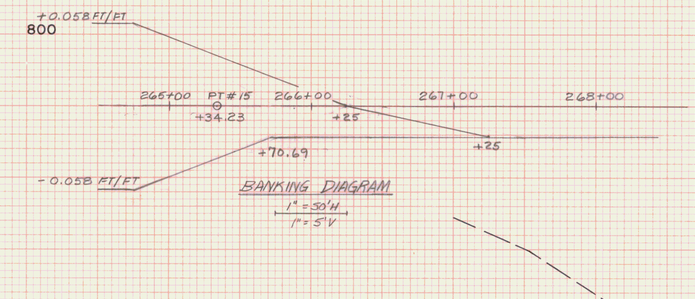
SURVEYED BY: VT. SURVEY CONSULTANTS DATE

FINAL SURVEY
ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
DATE
BY

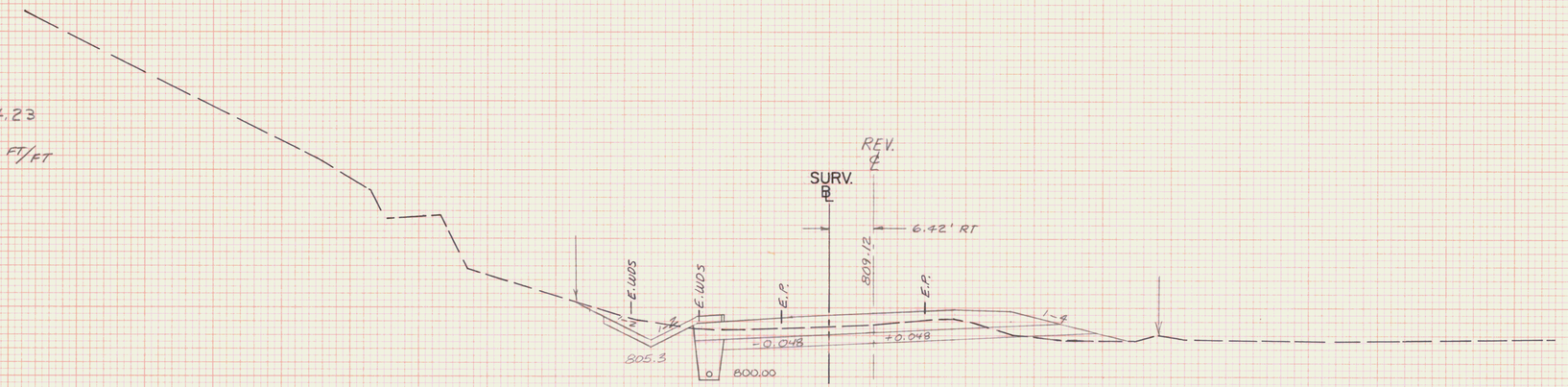
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

PT #15
STA. 265+34.23
D = 3° 30' 00"
BANK = 0.058 FT/FT



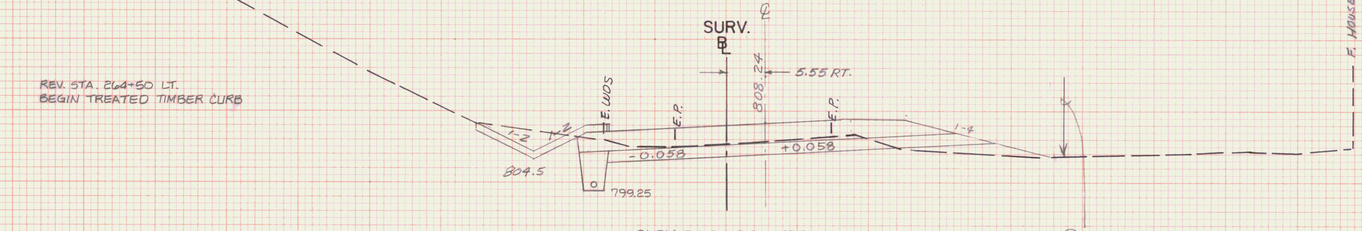
BANKING DIAGRAM
1" = 50' H
1" = 5' V



SURV. 265+00 = REV. 265+00.77

C = 64 Sq. Ft.
F = 9 Sq. Ft.
R = 0 Sq. Ft.

REV. STA. 264+50 LT.
BEGIN TREATED TIMBER CURB



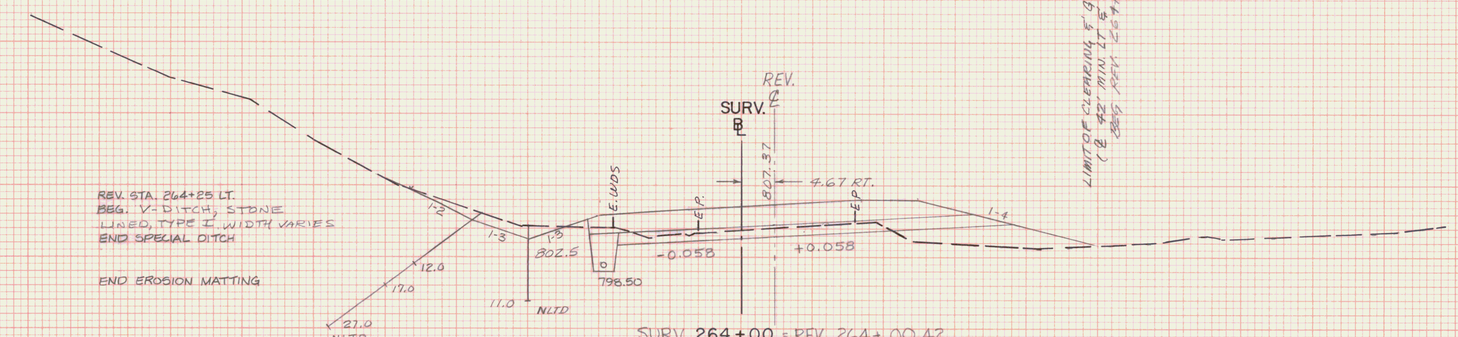
SURV. 264+50 = REV. 264+50.58

C = 41 Sq Ft
F = 22 Sq. Ft
R = 0 Sq Ft

LIMIT OF CLEARING 5' BEYOND R/W (TYP.)
(2' MIN. LT. & 15' RT.)
FROM APPX. 264+25

REV. STA. 264+25 LT.
BEG. V-DITCH, STONE
LINED, TYPE I, WIDTH VARIES
END SPECIAL DITCH

END EROSION MATTING



SURV. 264+00 = REV. 264+00.42

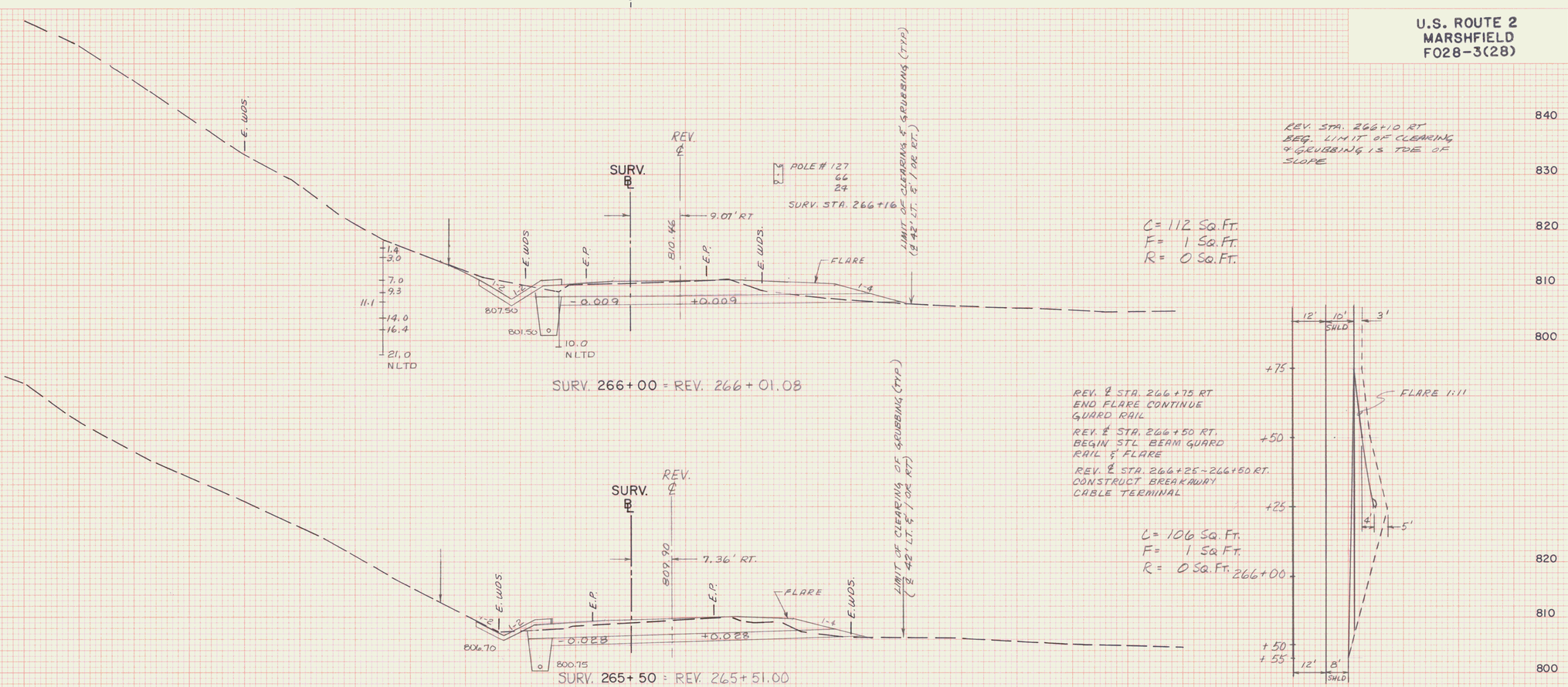
C = 31 Sq. Ft.
F = 61 Sq. Ft.
R = 0 Sq. Ft.

STA. 264+00 STA. 265+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 276 OF 352 SHEETS
HORIZ AND VERT SCALE
0 10 20
V.T. SURVEY
SURVEYED BY: CONSULTANTS DATE

FINAL SURVEY / ORIGINAL SURVEY
DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS CHECKED / NOTE BOOK / No.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

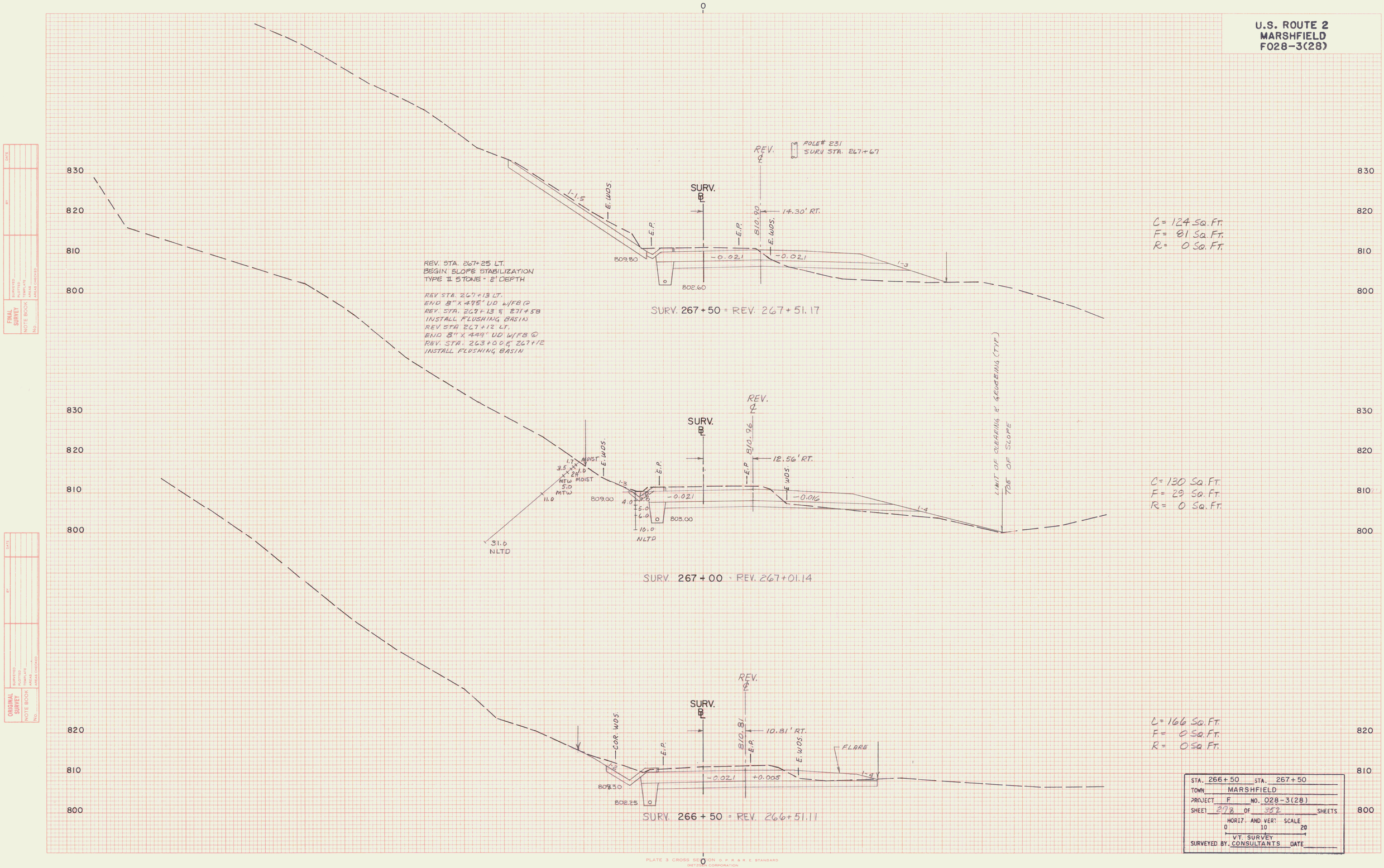


STA. 265+35 STA. 266+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 279 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT SURVEY
SURVEYED BY CONSULTANTS DATE

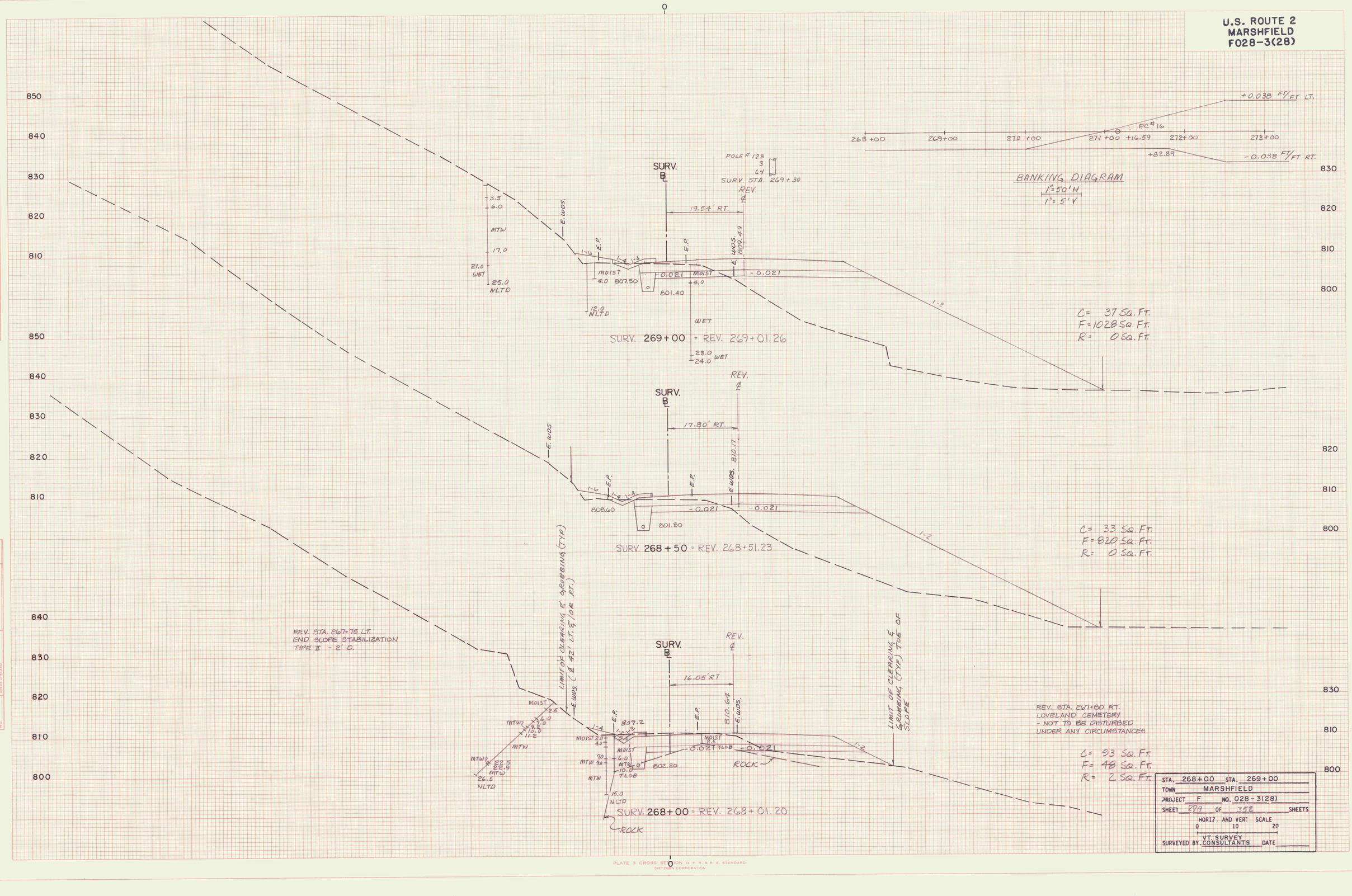
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
DATE
BY

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
POLE# 231
SURV STA. 267+67
REV. ℄
SURV. ℄
14.30' RT.
810.90
E.WDS.
E.P.
1-1.5
809.80
802.60
-0.021
-0.021
1-3
REV. STA. 267+25 LT.
BEGIN SLOPE STABILIZATION
TYPE II STONE - 2' DEPTH
REV STA. 267+13 LT.
END 8" X 475' UD W/FB @
REV. STA. 267+13 & 271+58
INSTALL FLUSHING BASIN
REV STA 267+12 LT.
END 8" X 449' UD W/FB @
REV. STA. 263+00 & 267+12
INSTALL FLUSHING BASIN
SURV. 267+50 = REV. 267+51.17
C= 124 SQ. FT.
F= 81 SQ. FT.
R= 0 SQ. FT.
REV. ℄
SURV. ℄
810.96
12.56' RT.
E.WDS.
E.P.
MOIST
MTW
MOIST
MTW
11.0
809.00
803.00
-0.021
-0.016
1-4
31.0
NLTD
10.0
NLTD
LIMIT OF CLEARING & GRUBBING (TYP)
TOE OF SLOPE
SURV. 267+00 = REV. 267+01.14
C= 130 SQ. FT.
F= 29 SQ. FT.
R= 0 SQ. FT.
REV. ℄
SURV. ℄
810.81
10.81' RT.
COR. WDS.
E.P.
E.WDS.
FLARE
1-2
809.30
802.25
-0.021
+0.005
1-4
SURV. 266+50 = REV. 266+51.11
C= 166 SQ. FT.
F= 0 SQ. FT.
R= 0 SQ. FT.
830
820
810
800
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
STA. 266+50 STA. 267+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 278 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY VT. SURVEY CONSULTANTS DATE
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

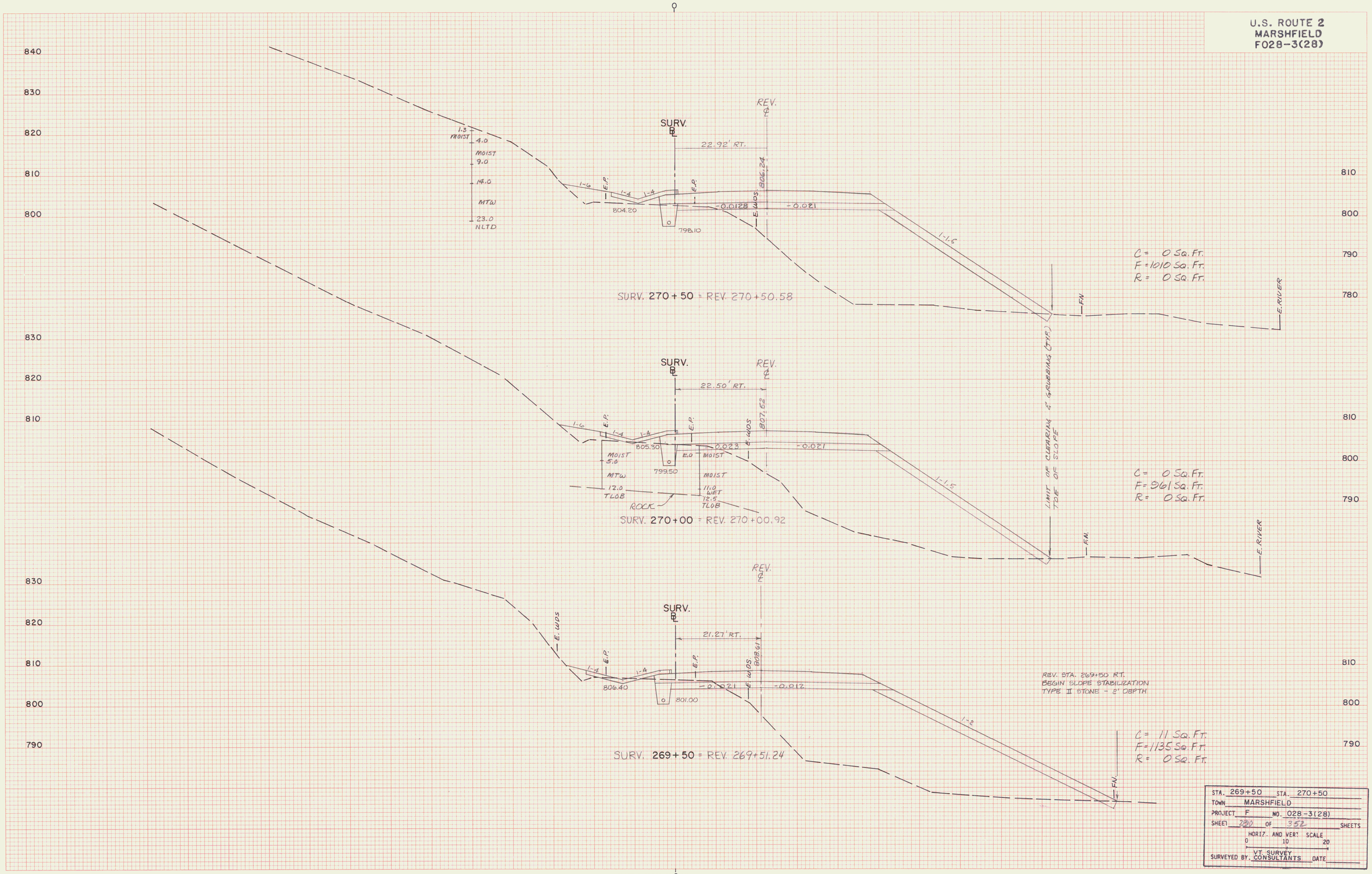
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



STA. 268+00 STA. 269+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 209 OF 382 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY CONSULTANTS DATE

FINAL SURVEY / ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

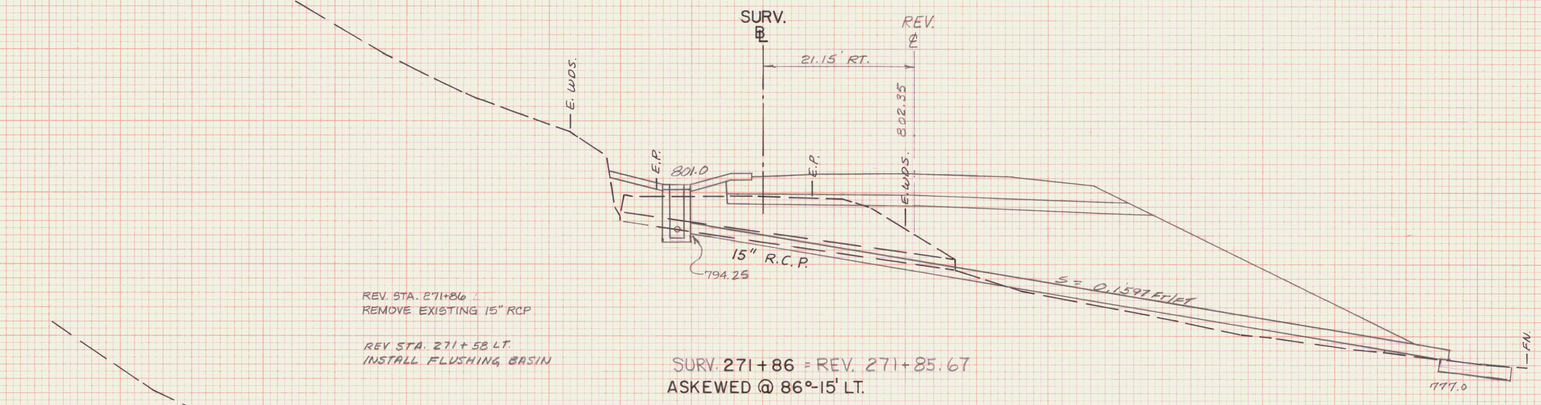
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
840
830
820
810
800
790
780
SURV. ℄
REV. ℄
22.92' RT.
806.24
1-6
E.P.
1-4
804.20
798.10
-0.0128
-0.021
E. WDS
1-1.5
1.3 MOIST
4.0 MOIST
9.0
14.0 MTW
23.0 NLTD
SURV. 270+50 = REV. 270+50.58
C = 0 SQ. FT.
F = 1010 SQ. FT.
R = 0 SQ. FT.
F.N.
E. RIVER
LIMIT OF CLEARING & GRUBBING (TYP.)
TOE OF SLOPE
22.50' RT.
807.52
805.30
799.50
-0.023
-0.021
MOIST 5.0
MTW
12.0 TLOB
2.0 MOIST
MOIST
11.0 WET
12.5 TLOB
ROCK
SURV. 270+00 = REV. 270+00.92
C = 0 SQ. FT.
F = 961 SQ. FT.
R = 0 SQ. FT.
21.27' RT.
808.61
806.40
801.00
-0.021
-0.012
REV. STA. 269+50 RT.
BEGIN SLOPE STABILIZATION
TYPE II STONE - 2' DEPTH
1-2
SURV. 269+50 = REV. 269+51.24
C = 11 SQ. FT.
F = 1135 SQ. FT.
R = 0 SQ. FT.
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
STA. 269+50 STA. 270+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 280 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY VT. SURVEY CONSULTANTS DATE
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 271+87, 30' LT.
END 8" X 47.5' U.D. W FB
@ REV. STA. 267+13 ℄ 271+58

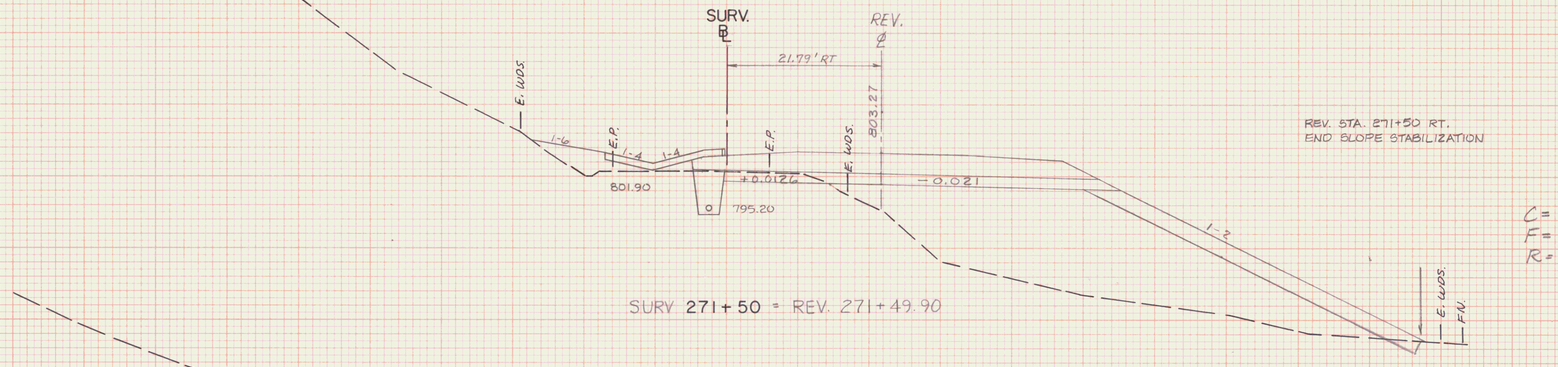
REV. STA. 271+86 ASKEWED 86°-15' LT.
NEW 18" x 108' PCCSP .064" OR CAAP .060"
NEW 4'-6' RCDI w/2 TYPE B GRATES @ INLET
PAD W/ STONE FILL TYPE II AT OUTLET
3' W x 2' D. EXTENDED 10' BEYOND
END OF CULVERT.



REV. STA. 271+86
REMOVE EXISTING 15" RCP

REV STA. 271+58 LT.
INSTALL FLUSHING BASIN

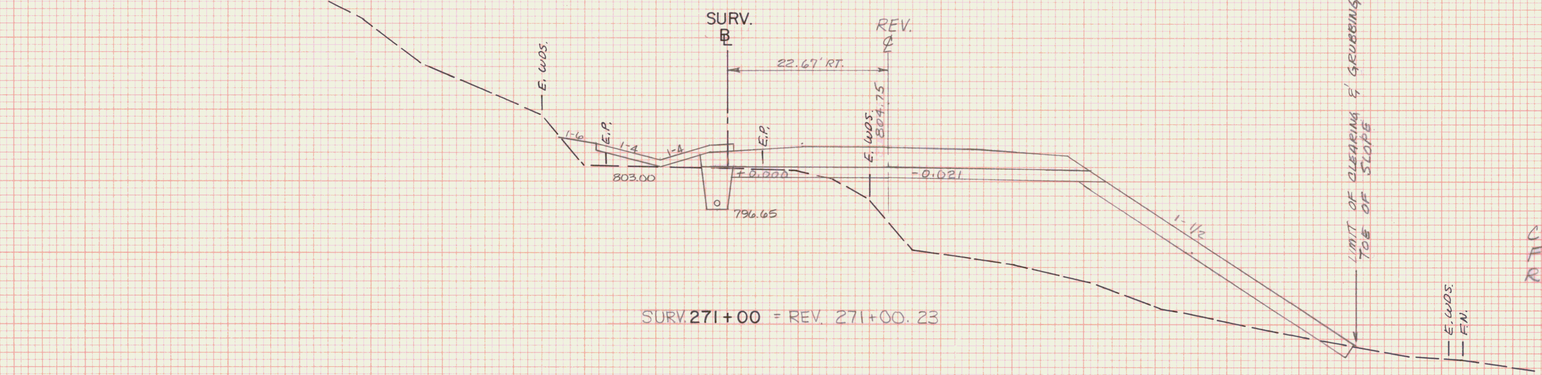
SURV. 271+86 = REV. 271+85.67
ASKEWED @ 86°-15' LT.



REV. STA. 271+50 RT.
END SLOPE STABILIZATION

C= 0 Sq. Ft.
F= 687 Sq. Ft.
R= 0 Sq. Ft.

SURV. 271+50 = REV. 271+49.90



PC # 16
STA. 271+16.59
D = 1°50'26"
BANK = 0.038 FT/FT.

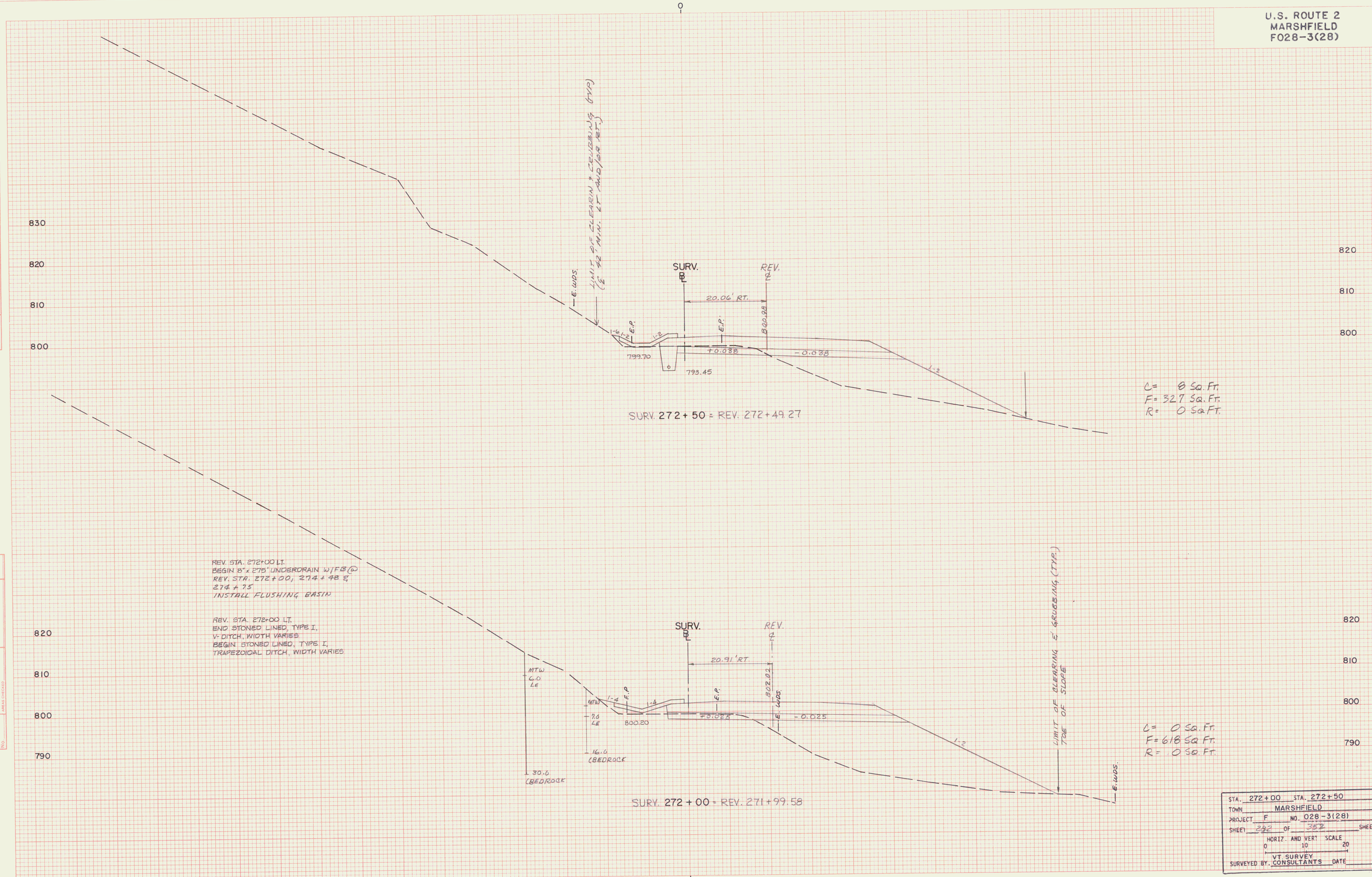
C= 0 Sq. Ft.
F= 606 Sq. Ft.
R= 0 Sq. Ft.

SURV. 271+00 = REV. 271+00.23

STA. 271+00 STA. 271+87
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 281 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY CONSULTANTS DATE

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

FINAL SURVEY / ORIGINAL SURVEY
DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO.


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
LIMIT OF CLEARING & GRUBBING (TYP)
(℄ 42' MIN. LT AND/OR RT.)
E. WDS.
SURV. ℄
REV. ℄
20.06' RT.
800.98
E.P.
1-6
1-2
799.70
793.45
+0.038
-0.038
SURV. 272+50 = REV. 272+49.27
C= 8 SQ. FT.
F= 327 SQ. FT.
R= 0 SQ. FT.
REV. STA. 272+00 LT.
BEGIN 8" x 275' UNDERDRAIN W/FB @
REV. STA. 272+00, 274+48 &
274+75
INSTALL FLUSHING BASIN
REV. STA. 272+00 LT.
END STONED LINED, TYPE I,
V-DITCH, WIDTH VARIES
BEGIN STONED LINED, TYPE I,
TRAPEZOIDAL DITCH, WIDTH VARIES
MTW
6.0
LE
30.0
(BEDROCK
MTW
7.0
LE
16.0
(BEDROCK
1-4
800.20
20.91' RT.
802.02
+0.025
-0.025
LIMIT OF CLEARING & GRUBBING (TYP.)
TOE OF SLOPE
SURV. 272+00 = REV. 271+99.58
C= 0 SQ. FT.
F= 618 SQ. FT.
R= 0 SQ. FT.
830
820
810
800
790
STA. 272+00 STA. 272+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 282 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY VT. SURVEY CONSULTANTS DATE
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
NO.
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PLOTTED
TEMPLATE
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AREAS CHECKED
BY
DATE
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 274+25 LT.
END STONE LINED V-DITCH
WIDTH VARIES, TYPE I, 1'-DEEP
BEGIN EROSION MATTING
BEGIN SPECIAL DITCH

REV. STA. 273+75 LT.
BEGIN SLOPE STABILIZATION
2' DEPTH, TYPE II STONE FILL

REV. STA. 274+00 LT.
END TREATED TIMBER CURB

SURV. 274 + 00 = REV. 273+ 98.43

POLE # 121
3
60
SURV. STA 274+41

SURV. ℄ REV. ℄
17.71' RT
799.21
E.P.
E.P.
E.WDS.
E.WDS.
E.WDS.
1:1.5
1:2
1:2
1:2
791.40
+0.038
-0.038
2.0
A-1-b Gr 5a
MOIST
2.6
TLOB
(MOIST)
791.80
ROCK
9.0
TLOB

C= 81 SQ FT
F= 407 SQ FT
R= 0 SQ. FT

℄ DRIVE

SURV. ℄ REV. ℄
18.46' RT.
792.58
E.WDS.
E.P.
E.P.
1:2
1:2
797.50
+0.038
-0.038
792.35
ROCK

SURV. 273+50 = REV. 273+48.70

LIMIT OF CLEARING & GRUBBING (TYP.)
TOE OF SLOPE

C= 3 SQ. FT.
F= 531 SQ. FT.
R= 0 SQ. FT.

REV. STA. 273+00
END STONE LINED
TRAPEZOIDAL DITCH
BEGIN STONE LINED, TYPE I,
V-DITCH, 1' DEPTH, WIDTH
VARIES.

LIMIT OF CLEARING & GRUBBING (2' FROM TOE OF SLOPE AND 12' FROM TOP OF SLOPE)

SURV. ℄ REV. ℄
19.24' RT.
800.17
E.WDS.
E.WDS.
E.P.
E.P.
1:2
1:2
MOIST
3.0
WET
15.9
N.L.D.T.
798.6
+0.038
-0.038
2.0
3.0
TLOB
792.90
(MOIST ALL DEPTHS)
ROCK

REV. STA. 273+05 RT.
BEGIN REMOVAL AND
DISPOSAL OF GUARDRAIL

POLE # 122
6
22
SURV. STA. 273+01

SURV. 273 + 00 = REV. 272+98+98

C= 4 SQ. FT.
F= 325 SQ. FT
R= 0 SQ. FT.

STA. 273+00 STA. 274+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 288 OF 352 SHEETS
HORIZ AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE

FINAL SURVEY / ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
No.
DATE
BY

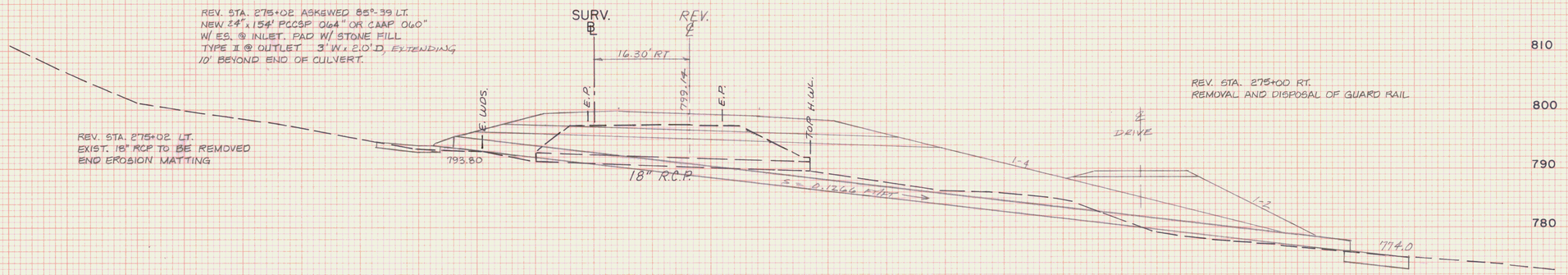
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 275+03 LT.
END SPECIAL DITCH

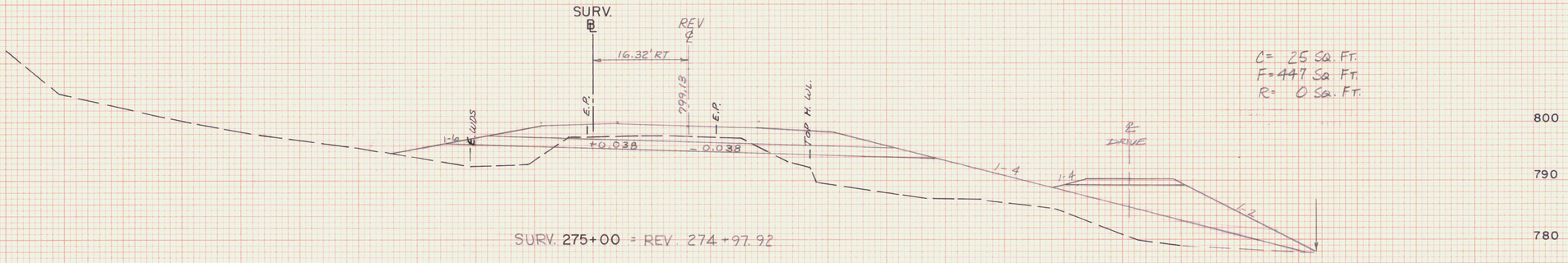
BEGIN TYPE I, STONE LINED DITCH
4' WIDE

REV. STA. 275+02 ASKEWED 85°-39 LT.
NEW 24"x 154' PCCSP .064" OR CMP .060"
W/ ES. @ INLET. PAD W/ STONE FILL
TYPE I @ OUTLET 3' W x 2.0' D, EXTENDING
10' BEYOND END OF CULVERT.



REV. STA. 275+00 RT.
REMOVAL AND DISPOSAL OF GUARD RAIL

SURV. 275 + 02 = REV. 274 + 99.91
ASKEWED @ 85°-39' LT.

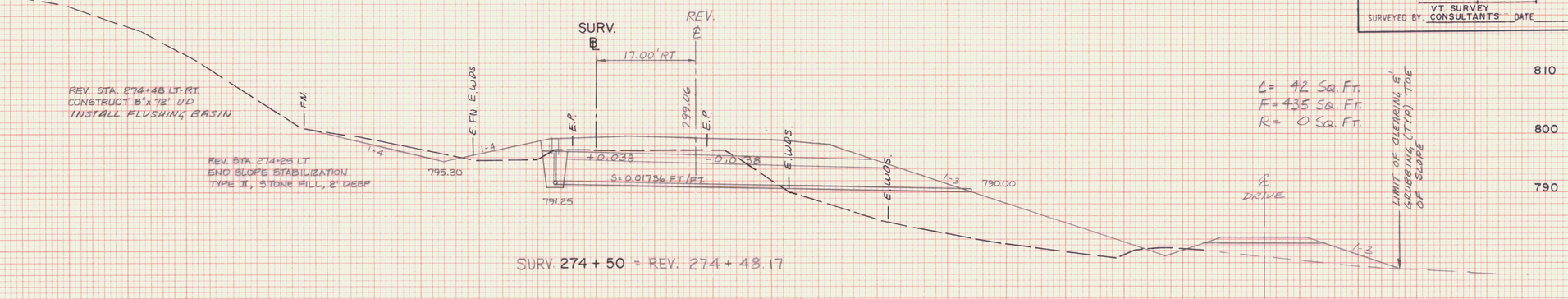


C= 25 SQ. FT.
F= 447 SQ. FT.
R= 0 SQ. FT.

SURV. 275+00 = REV. 274+97.92

REV. STA. 274+75 LT.
END 8" X 275' U.D. W/ F.B.@
REV. STA 272+00, 274+48 E
274+75
INSTALL FLUSHING BASIN

STA.	274+50 STA. 275+02
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	294 OF 382 SHEETS
	HORIZ. AND VERT. SCALE 0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE



REV. STA. 274+48 LT-RT.
CONSTRUCT 8"x 72' U/D
INSTALL FLUSHING BASIN

REV. STA. 274+25 LT
END SLOPE STABILIZATION
TYPE II, STONE FILL, 2' DEEP

C= 42 SQ. FT.
F= 435 SQ. FT.
R= 0 SQ. FT.

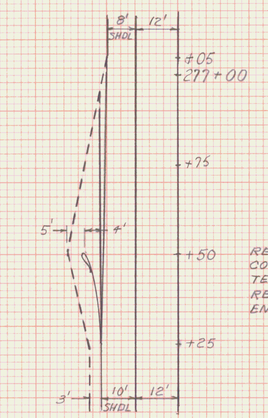
LIMIT OF CLEARING & GRUBBING (TYP.) TOE OF SLOPE

SURV. 274 + 50 = REV. 274 + 48.17

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

FINAL SURVEY / ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



GUARD RAIL FLARE DETAIL
SCALE: 1"=20'

REV. ℄ STA. 276+25 ~ 276+50 LT.
CONSTRUCT BREAKAWAY CABLE TERMINAL.
REV. ℄ STA. 276+25 LT.
END STL. BEAM GUARD RAIL.

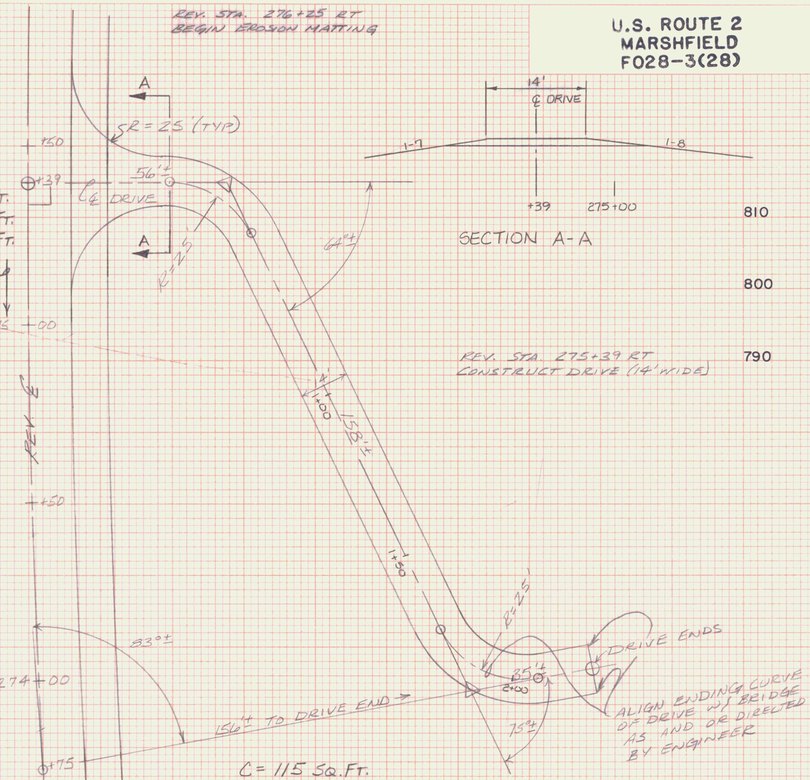


LIMIT OF CLEARING & GRUBBING (42' MIN. LT AND/OR RT.

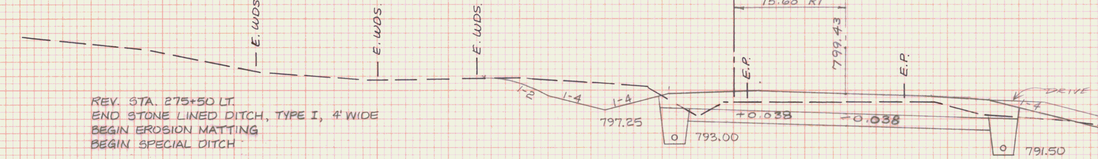
C = 153 SQ. FT.
F = 2 SQ. FT.
R = 0 SQ. FT.

SURV. 276 + 00 = REV. 275 + 97.45

REV. STA. 276+25 RT
BEGIN EROSION MATTING



POLE # 120
57
SURV. STA.
275+75



REV. STA. 275+50 LT.
END STONE LINED DITCH, TYPE I, 4' WIDE
BEGIN EROSION MATTING
BEGIN SPECIAL DITCH

REV. STA. 275+20 LT. - RT.
CONSTRUCT 8"x124' U/D

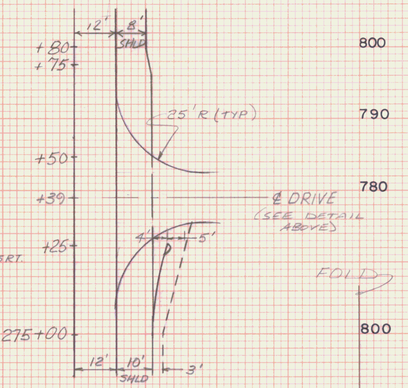
REV. STA 275+20 LT.
CONSTRUCT 8"x270' UNDERDRAIN W/F8@
REV STA. 275+20 & 277+90

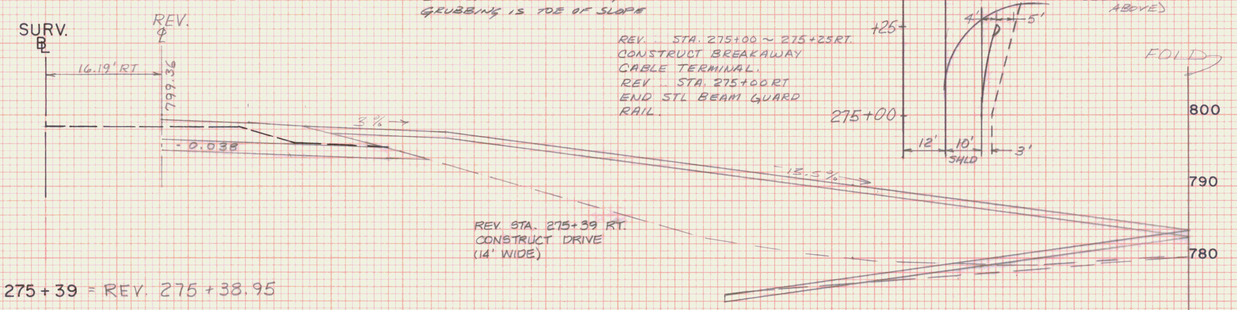
SURV. 275 + 50 = REV. 275+47.68

DRIVE &
GUARD RAIL FLARE
DETAILS
SCALE 1"=20'

REV. STA. 275+20 RT.
CONSTRUCT 8"x270' UNDERDRAIN W/F8@
REV. STA 275+20 & 277+90
REV. STA. 275+50 RT.
END LIMIT OF CLEARING & GRUBBING IS TOE OF SLOPE

LIMIT OF C.& G.
T.O.S.





REV. STA. 275+39 RT.
CONSTRUCT DRIVE
(14' WIDE)

REV. STA. 275+00 ~ 275+25 RT.
CONSTRUCT BREAKAWAY CABLE TERMINAL.
REV. STA. 275+00 RT.
END STL BEAM GUARD RAIL.

SURV. 275 + 39 = REV. 275 + 38.95

REV. STA. 275+20 RT.
INSTALL FLUSHING BASIN

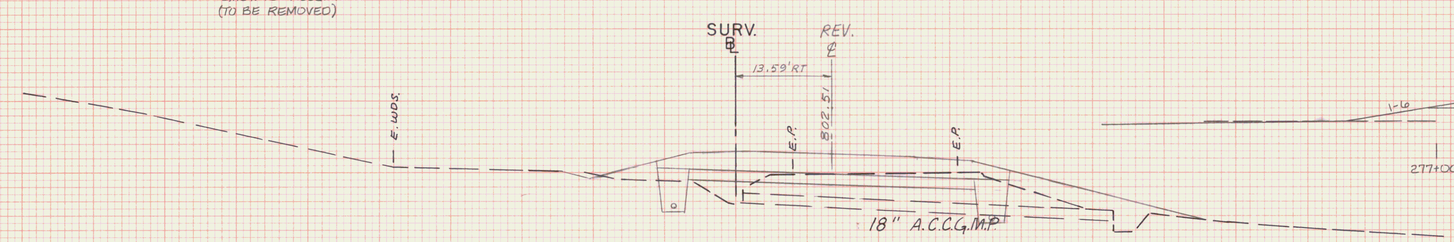
STA. 275+39 STA. 276+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 286 OF 332 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

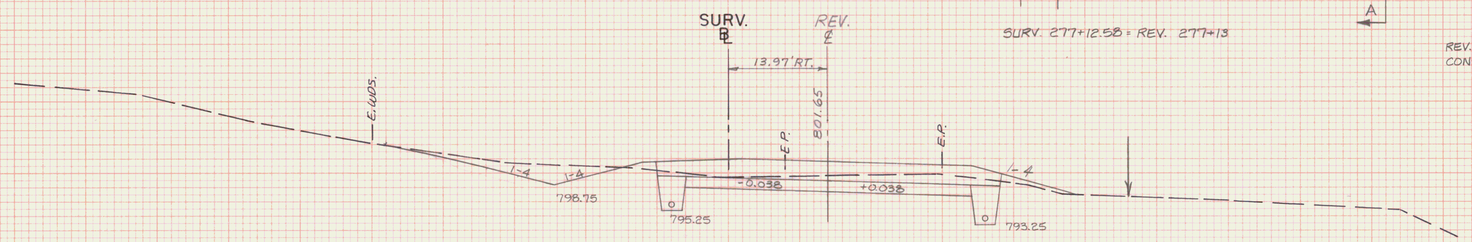
ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

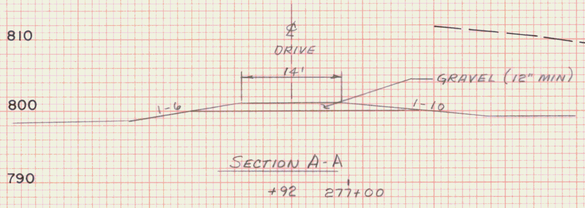
REV. STA. 277+37
EXIST. 18" ACCGMP
(TO BE REMOVED)

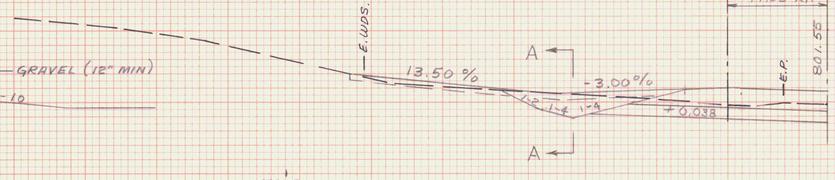


SURV. 277 + 37 = REV. 277+33.86
ASKEWED @ 80°-48' RT.



SURV. 277+00 = REV. 276+97.01

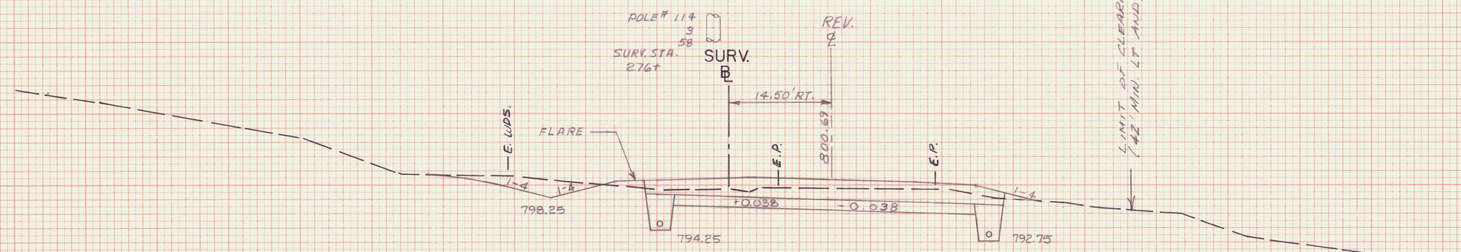




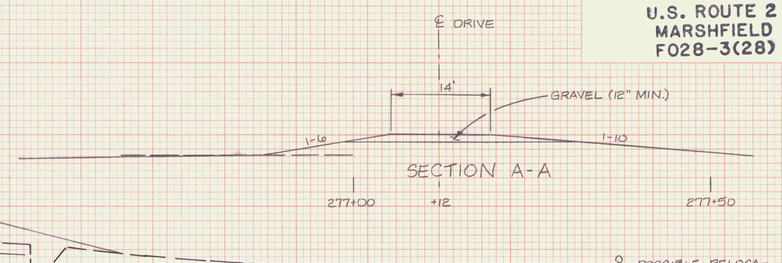
REV. STA. 276+67 LT.
END EROSION MATTING

CONSTRUCT DRIVE
REV. STA. 276+92
(14' WIDE)

SURV. 276 + 90 = REV. 276+92.33



SURV. 276 + 50 = REV. 276+47.22



SURV. 277+12.58 = REV. 277+13

REV. STA. 277+13 RT.
CONSTRUCT DRIVE (14' WIDE)

C = 79 SQ. FT.
F = 14 SQ. FT.
R = 0 SQ. FT.

REV. STA. 277+00 RT.
BEGIN LIMIT OF CLEARING AND GRUBBING & TOE OF SLOPE

REV. STA. 276+85 RT.
END EROSION MATTING

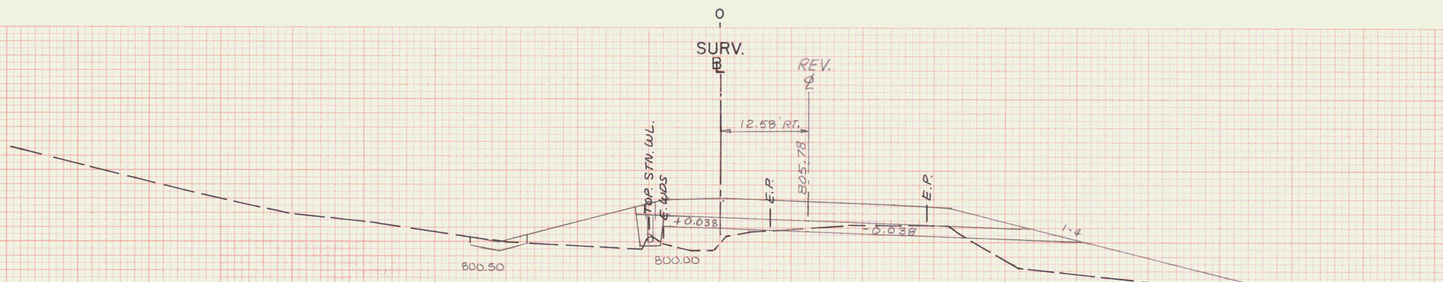
C = 102 SQ. FT.
F = 6 SQ. FT.
R = 0 SQ. FT.

STA. 276+50 STA. 277+37
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 284 OF 358 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE

FINAL SURVEY — SURVEYED, PLOTTED, TRAPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TRAPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



C = 0 SQ. FT.
F = 215 SQ. FT.
R = 0 SQ. FT.

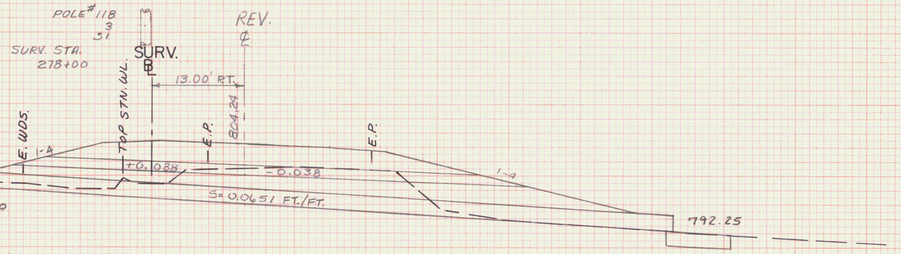
REV. STA. 278+46 LT.
INSTALL FLUSHING BASIN

SURV. 278+50 = REV. 278+46.41

REV. STA. 278+00, 37' LT.
BEGIN 6"X 453' UD W/FB @
REV. STA. 278+46 & 282+50

REV. STA. 277+95 LT.
BEGIN STONE LINED DITCH
TYPE I, 8' WIDE

REV. STA. 277+97
NEW 24"x 96' PCCSP 0.064,
CAAP 0.060 OR RCP CL III
W/ES @ INLET. STONE FILL PAD
W/ TYPE II STONE 4' W x 2' D
EXTENDING 8' BEYOND END OF
CULVERT.

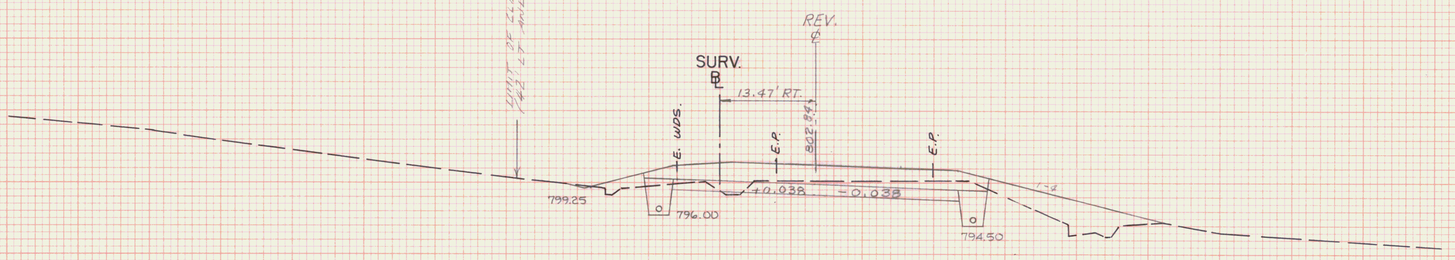


C = 0 SQ. FT.
F = 203 SQ. FT.
R = 0 SQ. FT.

REV. STA. 277+90 LT.
END 8"x 270' UNDERDRAIN W/FB @
REV. STA. 275+20 & 277+90
INSTALL FLUSHING BASIN

SURV. 278+00 = REV. 277+96.60

REV. STA. 277+90 RT.
END 8"x 270' UNDERDRAIN W/FB @
REV. STA. 275+20 & 277+90
INSTALL FLUSHING BASIN



C = 27 SQ. FT.
F = 79 SQ. FT.
R = 0 SQ. FT.

SURV. 277+50 = REV. 277+46.80

STA. 277+50 STA. 278+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 287 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE

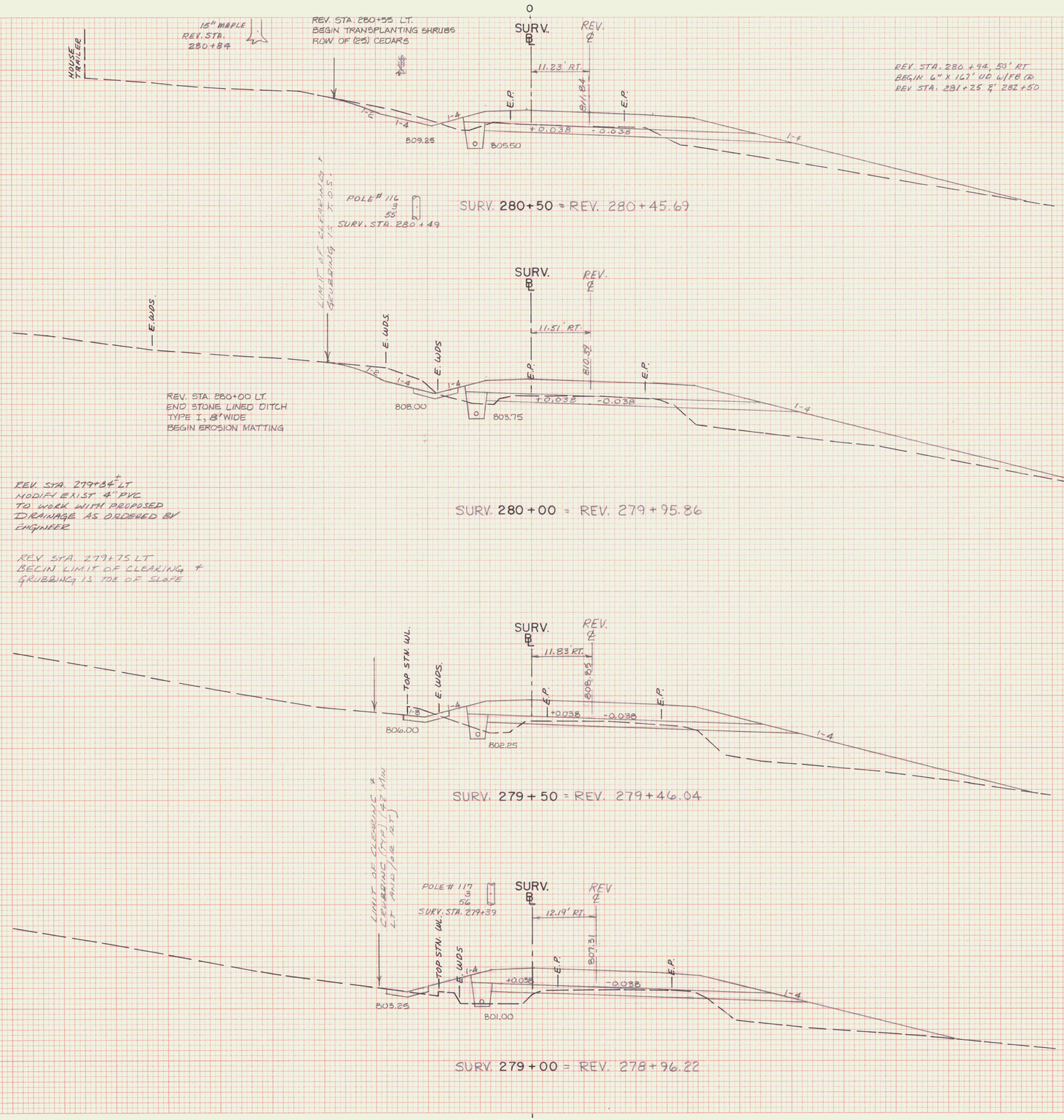
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
CROSS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
CROSS CHECKED
DATE
BY

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

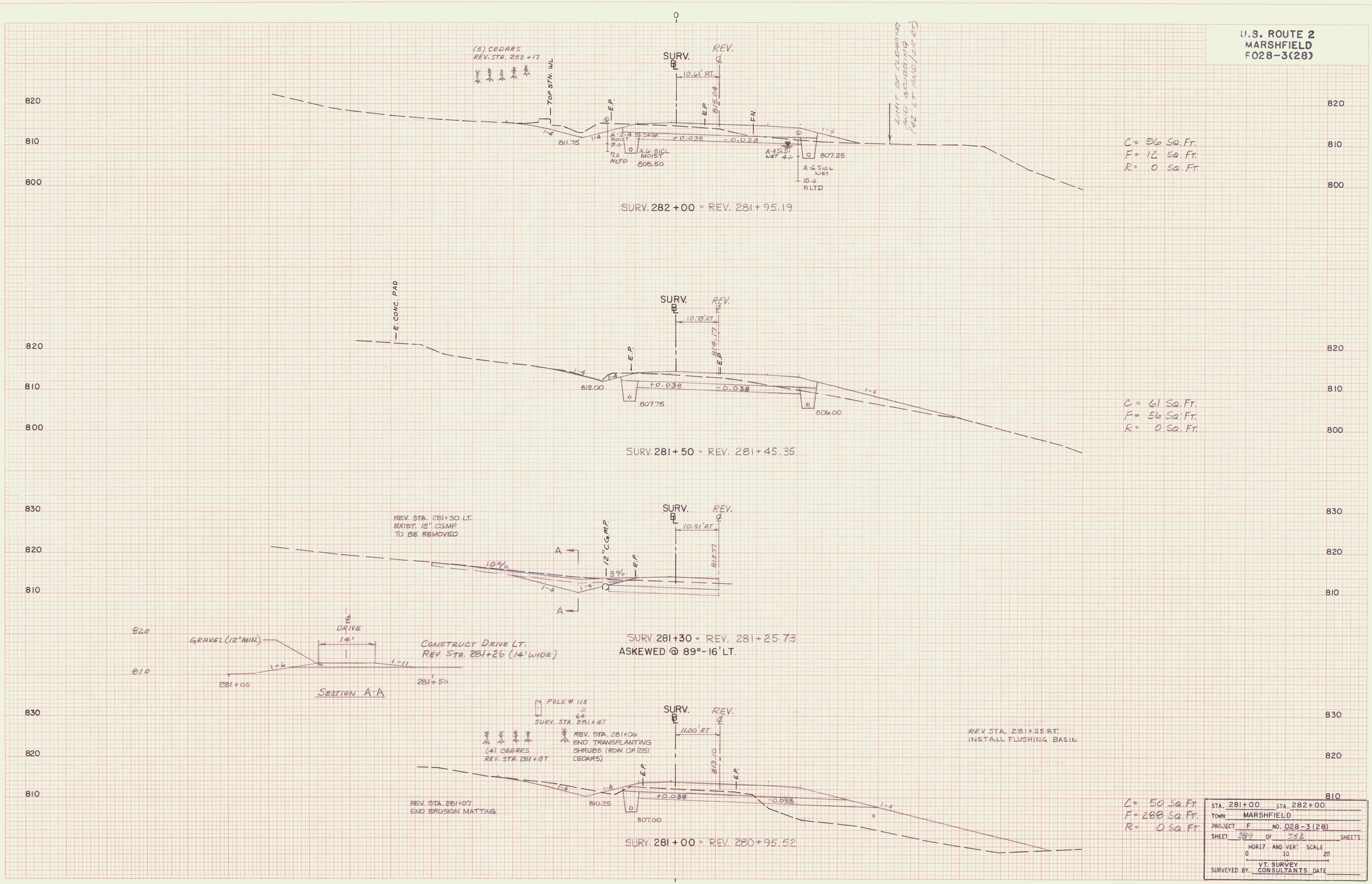
FINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / No.



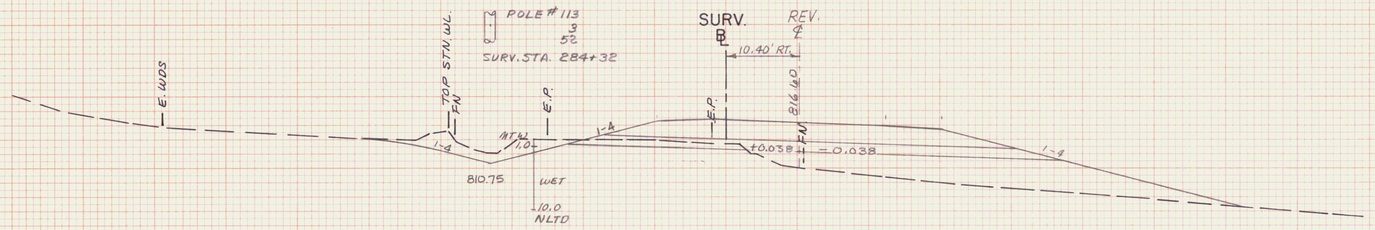
ORIGINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / No.

STA. 279+00 STA. 280+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 288 OF 388 SHEETS
HORIZ AND VERT SCALE
0 10 20
VT SURVEY
SURVEYED BY: CONSULTANT DATE

PLATE 3 CROSS SECTION O.P.R.&R.E. STANDARD
DIETZGEN CORPORATION

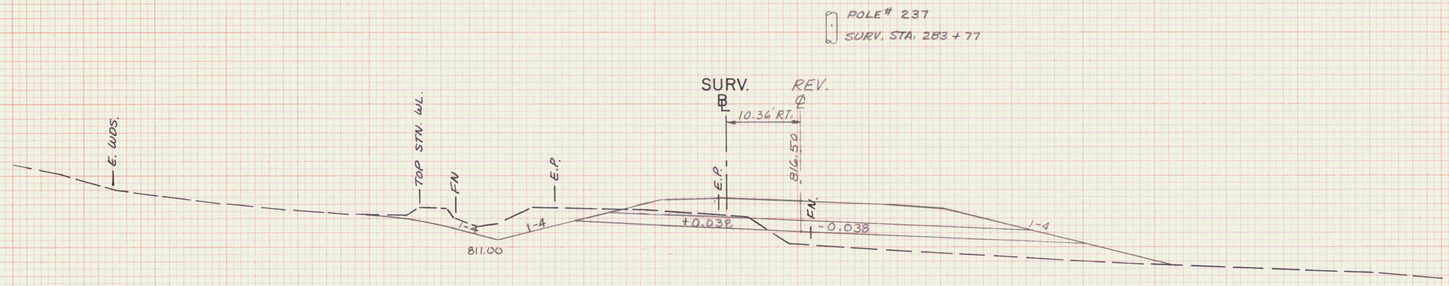

U.S. ROUTE 2
MARSHFIELD
F028-3(28)
(5) CEDARS
REV. STA. 282+17
TOP STN. WL
SURV.
REV.
10.61' RT.
815.04
E.P.
F.N.
LIMIT OF CLEARING AND GRUBBING (42' LT AND/OR RT)
811.75
A-2-4 SI. SAGR MOIST 5.0
7.0 NLTD
A-6 SICL MOIST
808.50
+0.038
-0.038
A-4 SI. WET 4.0
A-6 SICL WET
10.6 NLTD
807.25
C= 96 SQ. FT.
F= 12 SQ. FT.
R= 0 SQ. FT.
SURV. 282+00 = REV. 281+95.19
E. CONC. PAD
10.78' RT.
814.17
812.00
807.75
806.00
C= 61 SQ. FT.
F= 56 SQ. FT.
R= 0 SQ. FT.
SURV. 281+50 = REV. 281+45.35
REV. STA. 281+30 LT.
EXIST. 12" CGMP
TO BE REMOVED
10.91' RT.
813.77
12" C.G.M.P.
10%
3%
A
SURV. 281+30 = REV. 281+25.73
ASKEWED @ 89°-16' LT.
DRIVE
14'
GRAVEL (12" MIN.)
CONSTRUCT DRIVE LT.
REV. STA. 281+26 (14' WIDE)
281+00
281+50
SECTION A-A
POLE # 115
SURV. STA. 281+47
(4) CEDARS
REV. STA. 281+07
REV. STA. 281+06
END TRANSPLANTING
SHRUBS (ROW OF (25)
CEDARS)
11.00' RT.
813.10
REV. STA. 281+25 RT.
INSTALL FLUSHING BASIN
REV. STA. 281+07
END EROSION MATTING
810.25
807.00
C= 50 SQ. FT.
F= 288 SQ. FT.
R= 0 SQ. FT.
SURV. 281+00 = REV. 280+95.52
STA. 281+00 STA. 282+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 289 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY. CONSULTANTS DATE
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



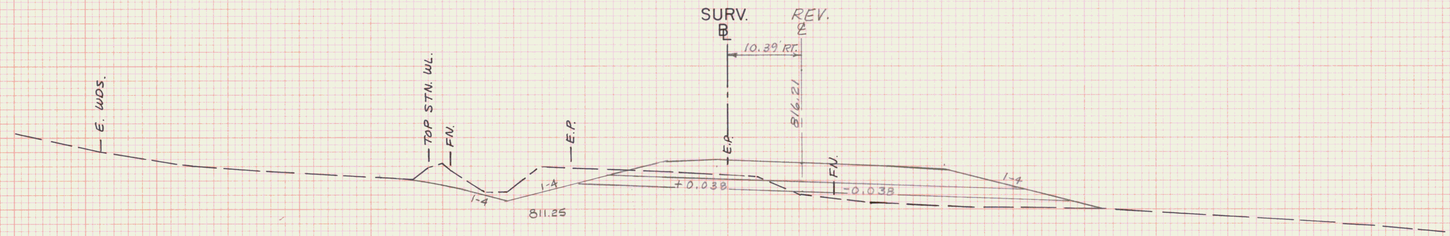
SURV. 284+00 = REV. 283+94.58

C = 43 SQ. FT.
F = 201 SQ. FT.
R = 0 SQ. FT.



SURV. 283+50 = REV. 283+44.73

C = 73 SQ. FT.
F = 113 SQ. FT.
R = 0 SQ. FT.

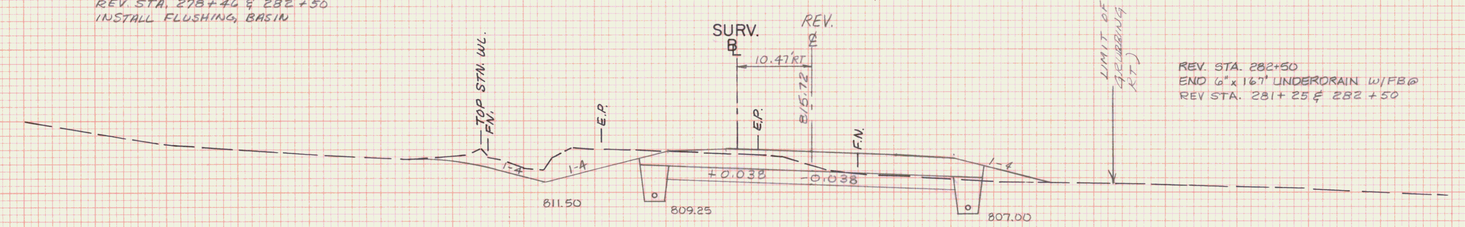


SURV. 283+00 = REV. 282+94.88

C = 73 SQ. FT.
F = 48 SQ. FT.
R = 0 SQ. FT.

POLE # 114
SURV. STA. 282+89

REV. STA. 282+50 LT.
END 6" X 453' UD W/FB @
REV. STA. 278+40 & 282+50
INSTALL FLUSHING BASIN



LIMIT OF CLEARING & GRUBBING (TYP.)

REV. STA. 282+50
END 6" x 167' UNDERDRAIN W/FB @
REV STA. 281+25 & 282+50

SURV. 282+50 = REV. 282+45.04

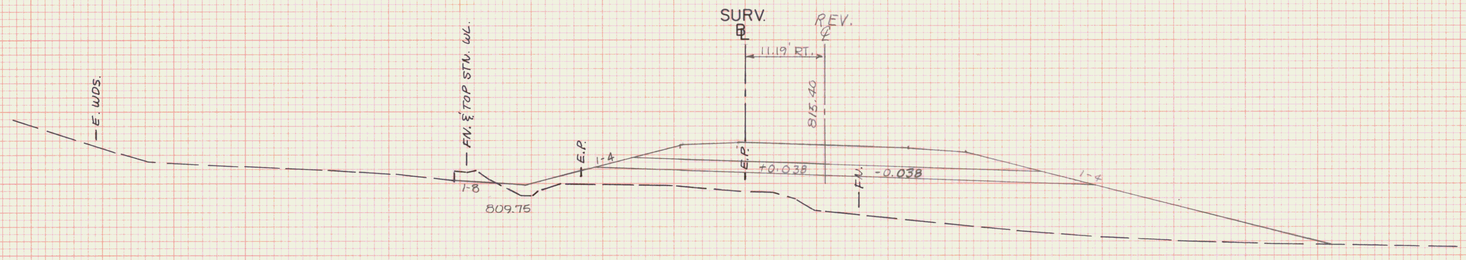
C = 105 SQ. FT.
F = 11 SQ. FT.
R = 0 SQ. FT.

STA. 282+50 STA. 284+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 290 OF 362 SHEETS
HORIZ AND VERT SCALE
0 10 20
VT. SURVEY
SURVEYED BY CONSULTANTS DATE

FINAL SURVEY
ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
No.
DATE
BY

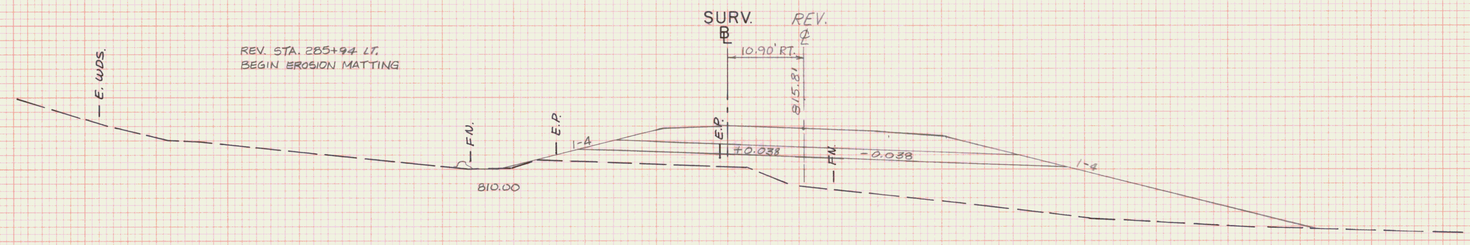
PLATE 1 CROSS SECTION C. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



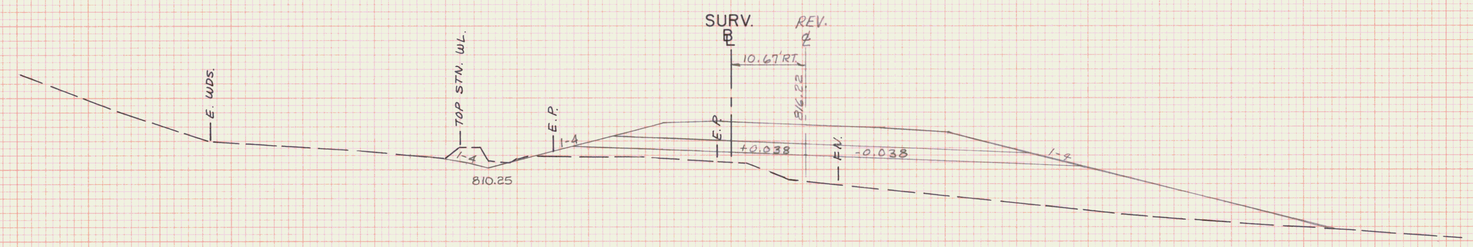
SURV. 286 + 00 = REV. 285 + 93.95

C = 6 SQ. FT.
F = 471 SQ. FT.
R = 0 SQ. FT.



SURV. 285 + 50 = REV. 285 + 44.11

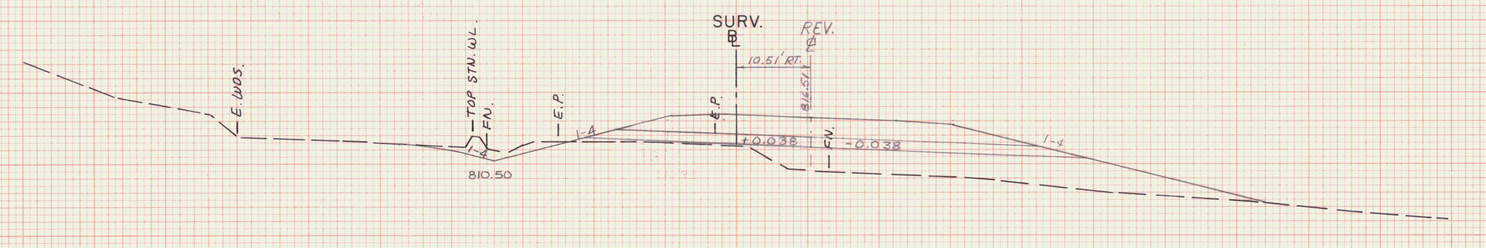
C = 0 SQ. FT.
F = 395 SQ. FT.
R = 0 SQ. FT.



REV. STA. 284+75
BEGIN SCARIFYING PAVEMENT

SURV. 285 + 00 = REV. 284 + 94.27

C = 13 SQ. FT.
F = 371 SQ. FT.
R = 0 SQ. FT.



SURV. 284 + 50 = REV. 284 + 44.42

C = 23 SQ. FT.
F = 236 SQ. FT.
R = 0 SQ. FT.

STA. 284+50 STA. 286+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 291 OF 356 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE

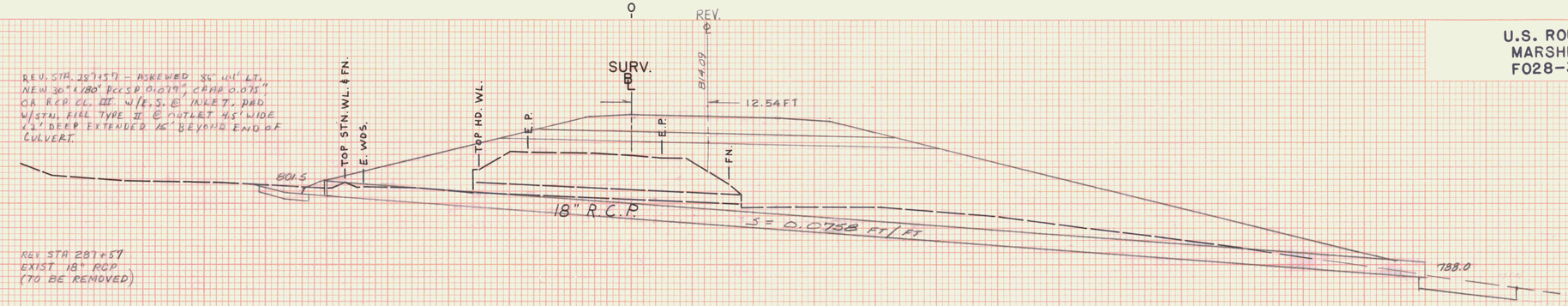
FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA 287+57 = ASKEWED 86° Lt. LT.
NEW 30"x180' RCCSP 0.079", CAMP 0.075"
OR RCP CL. III. W/E.S. & INLET. PAD
W/STN. FILL TYPE II & OUTLET 4½' WIDE
x 2' DEEP EXTENDED 15' BEYOND END OF
CULVERT.

REV STA 287+57
EXIST 18" RCP
(TO BE REMOVED)

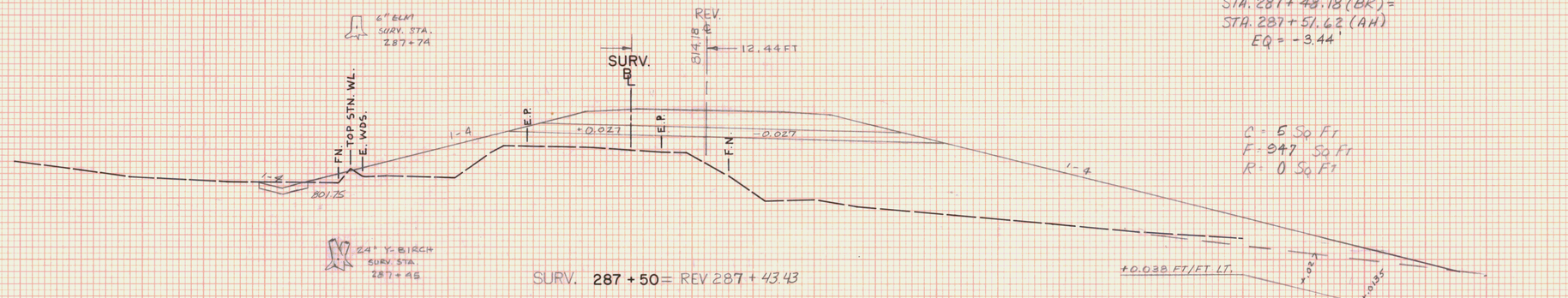


30" MAPLE
SURV. STA. 287+87

SURV. 287 + 60 = REV. 287+56.82
ASKEWED @ 86°-44' LT.

EQ:
STA. 287+48.18 (BK) =
STA. 287+51.62 (AH)
EQ = -3.44'

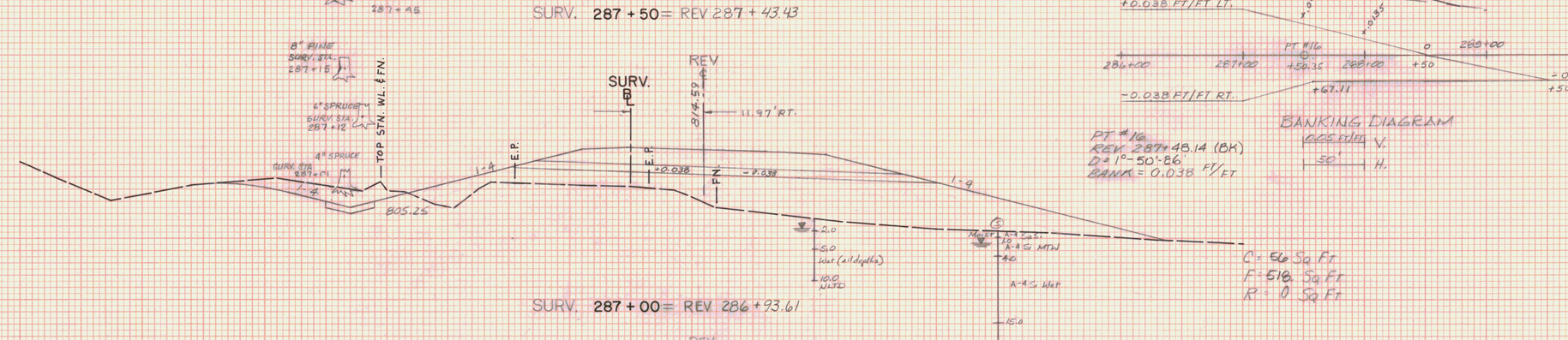
6" ELM
SURV. STA.
287+74



C = 5 Sq Ft
F = 947 Sq Ft
R = 0 Sq Ft

24" Y-BIRCH
SURV. STA.
287+45

SURV. 287 + 50 = REV 287 + 43.43

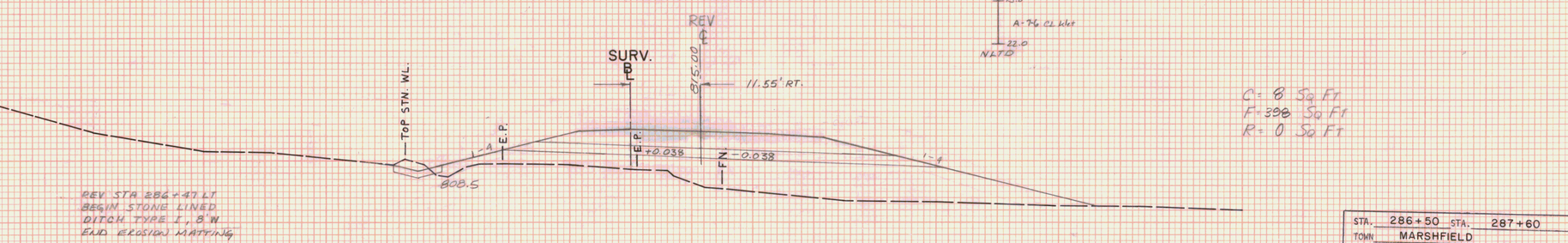


+0.038 FT/FT LT.
-0.038 FT/FT RT.
PT #16
286+00
287+00
+50.35
288+00
+50
289+00
+67.11
-0.021 FT/FT

PT #16
REV. 287+48.14 (BK)
D = 1°-50'-86"
BANK = 0.038 FT/FT

BANKING DIAGRAM
.025 FT/FT V.
50' H.

SURV. 287 + 00 = REV. 286 + 93.61



C = 56 Sq Ft
F = 518 Sq Ft
R = 0 Sq Ft

C = 8 Sq Ft
F = 398 Sq Ft
R = 0 Sq Ft

REV. STA 286+47 LT
BEGIN STONE LINED
DITCH TYPE I, 8' W
END EROSION MATTING

SURV. 286 + 50 = REV. 286 + 43.78

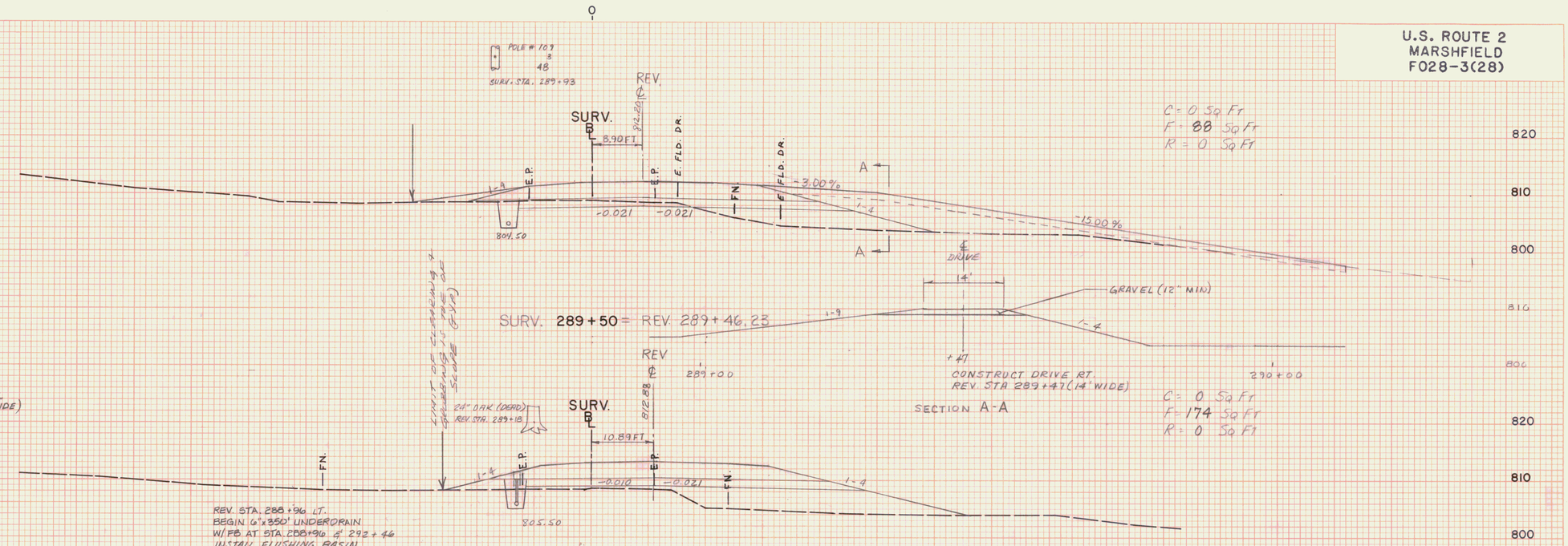
STA.	286+50 STA. 287+60
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	292 OF 352 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

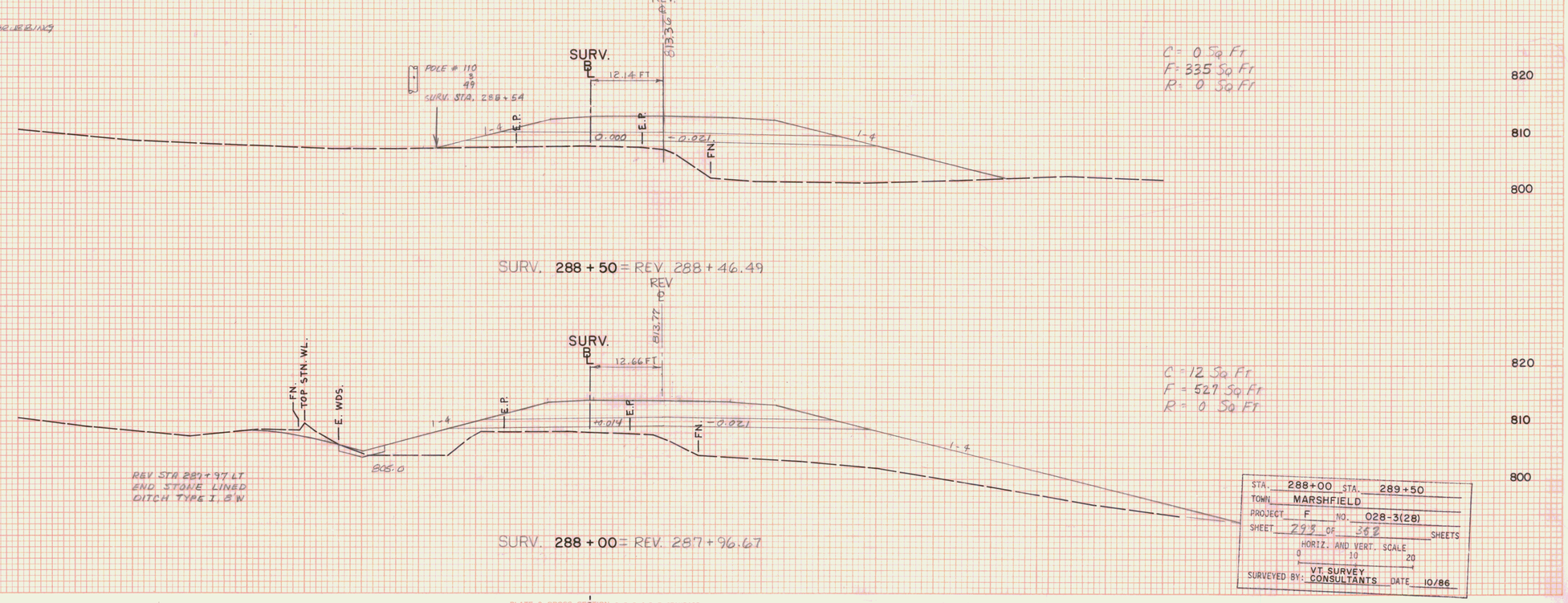
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY VT SURVEY CONSULT. BRYANT ASSOC
DATE 10/86

PLATE 3 CROSS SECTION © P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)





FINAL SURVEY — DATE — BY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — NO.

BY VT SURVEY CONSULT. 10/86
GRANT ASSOC. 11/86

ORIGINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — No.

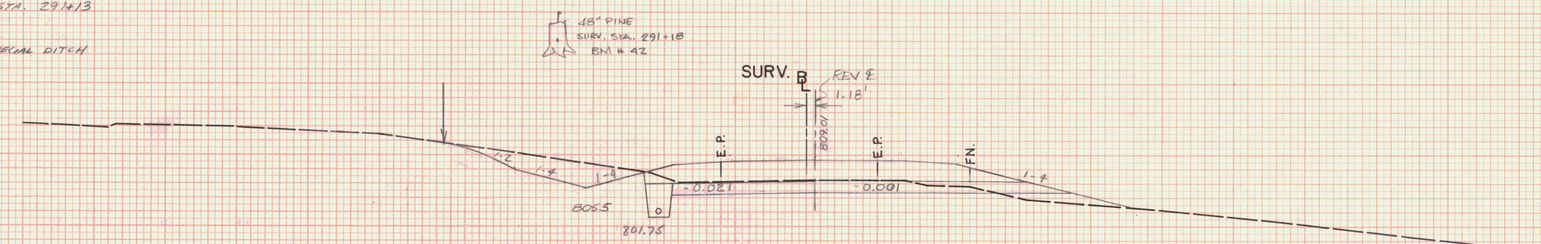
STA. 288+00 STA. 289+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 293 OF 368 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 291+13

END SPECIAL DITCH



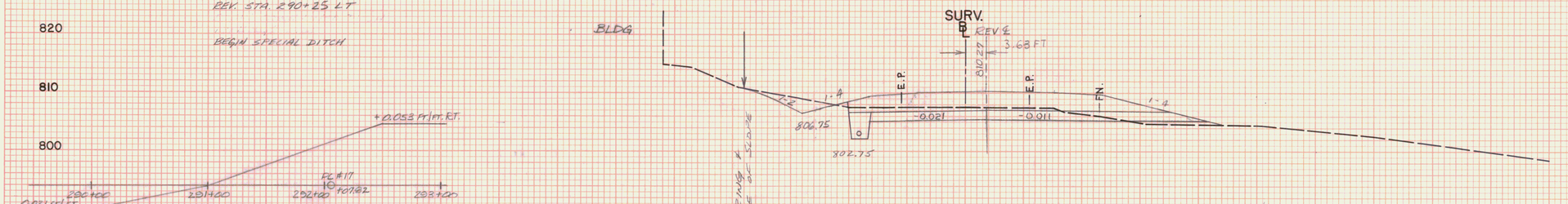
C = 60 Sq Ft
F = 19 Sq Ft
R = 0 Sq Ft

SURV. 291+00 = REV. 290+96.41

REV. STA. 290+25 LT

BEGIN SPECIAL DITCH

BLDG.

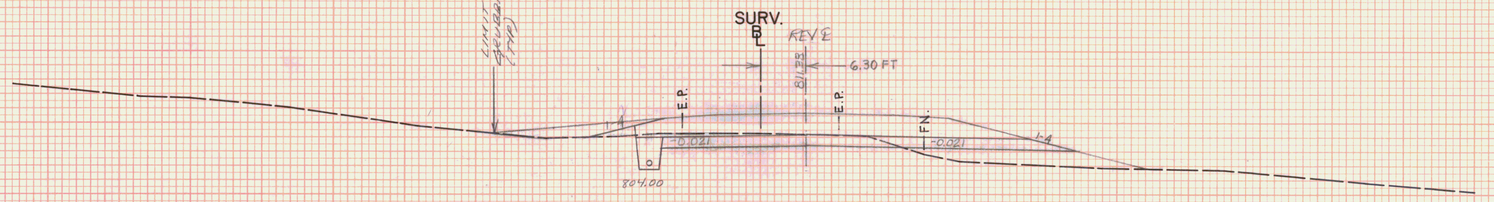


C = 19 Sq Ft
F = 37 Sq Ft
R = 0 Sq Ft

SURV. 290+50 = REV. 290+46.32

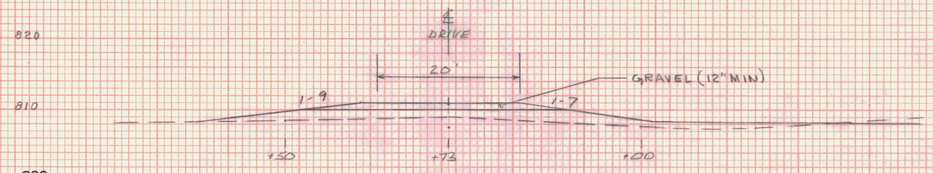
BANKING DIAGRAM
.005 ft/ft V.
50' H.

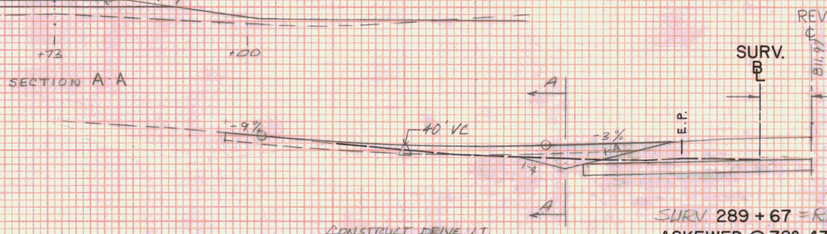
LIMIT OF CLEARING & GRUBBING (TYP.)



C = 9 Sq. Ft.
F = 59 Sq. Ft.
R = 0 Sq. Ft.

SURV. 290+00 = REV. 289+96.25





CONSTRUCT DRIVE LT.
REV. STA. 289+73 (20' WIDE)

SURV 289+67 = REV. 289+60.64
ASKEWED @ 72°-43' LT.

STA.	289+67 STA. 291+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	294 OF 352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
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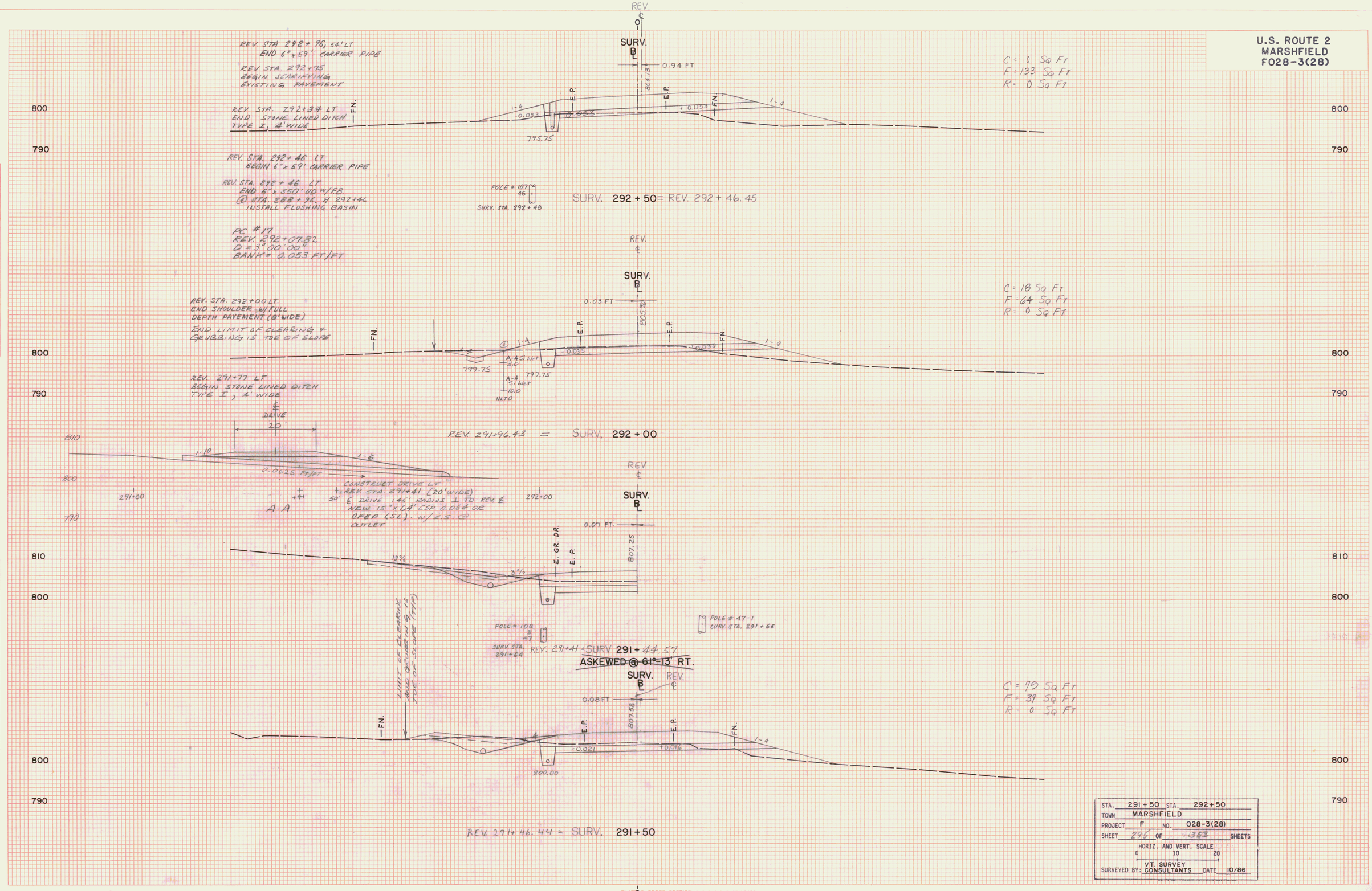
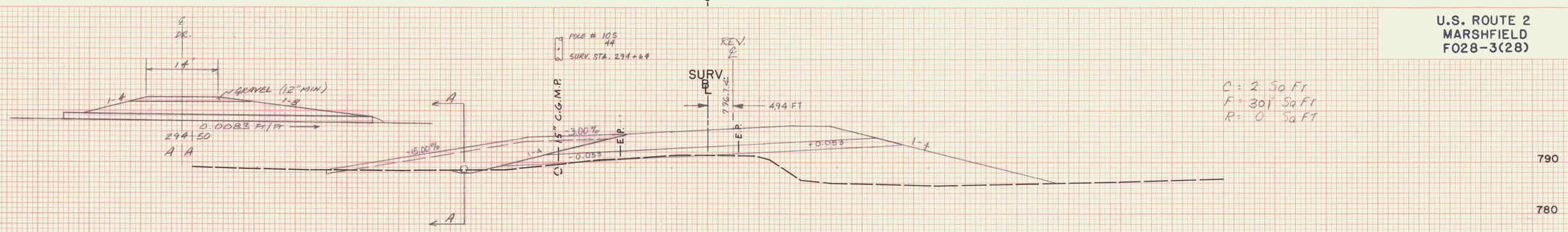
BY
VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86



U.S. ROUTE 2
MARSHFIELD
F028-3(28)
REV. STA 292+96, 54' LT
END 6"x59' CARRIER PIPE
REV. STA. 292+75
BEGIN SCARIFYING
EXISTING PAVEMENT
REV. STA. 292+34 LT
END STONE LINED DITCH
TYPE I, 4' WIDE
REV. STA. 292+46 LT
BEGIN 6"x59' CARRIER PIPE
REV. STA. 292+46 LT
END 6"x350' UD W/FB.
@ STA. 288+96, & 292+46
INSTALL FLUSHING BASIN
PC #17
REV. 292+07.82
D = 3°00'00"
BANK = 0.053 FT/FT
REV. STA. 292+00 LT.
END SHOULDER W/FULL
DEPTH PAVEMENT (8' WIDE)
END LIMIT OF CLEARING &
GRUBBING IS TOE OF SLOPE
REV. 291+77 LT
BEGIN STONE LINED DITCH
TYPE I, 4' WIDE
C = 0 Sq Ft
F = 133 Sq Ft
R = 0 Sq Ft
SURV. 292 + 50 = REV. 292 + 46.45
C = 18 Sq Ft
F = 64 Sq Ft
R = 0 Sq Ft
REV. 291+96.43 = SURV. 292 + 00
CONSTRUCT DRIVE LT
REV. STA. 291+41 (20' WIDE)
℄ DRIVE 145' RADIUS ⊥ TO REV. ℄
NEW 15"x64' CSP 0.064 OR
CPEP (SL). W/E.S. @
OUTLET
A-A
REV. 291+41 = SURV 291 + 44.57
ASKEWED @ 61°-13' RT.
C = 79 Sq Ft
F = 39 Sq Ft
R = 0 Sq Ft
REV. 291+46.44 = SURV. 291+50
STA. 291+50 STA. 292+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 295 OF 1352 SHEETS
HORIZ. AND VERT. SCALE
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

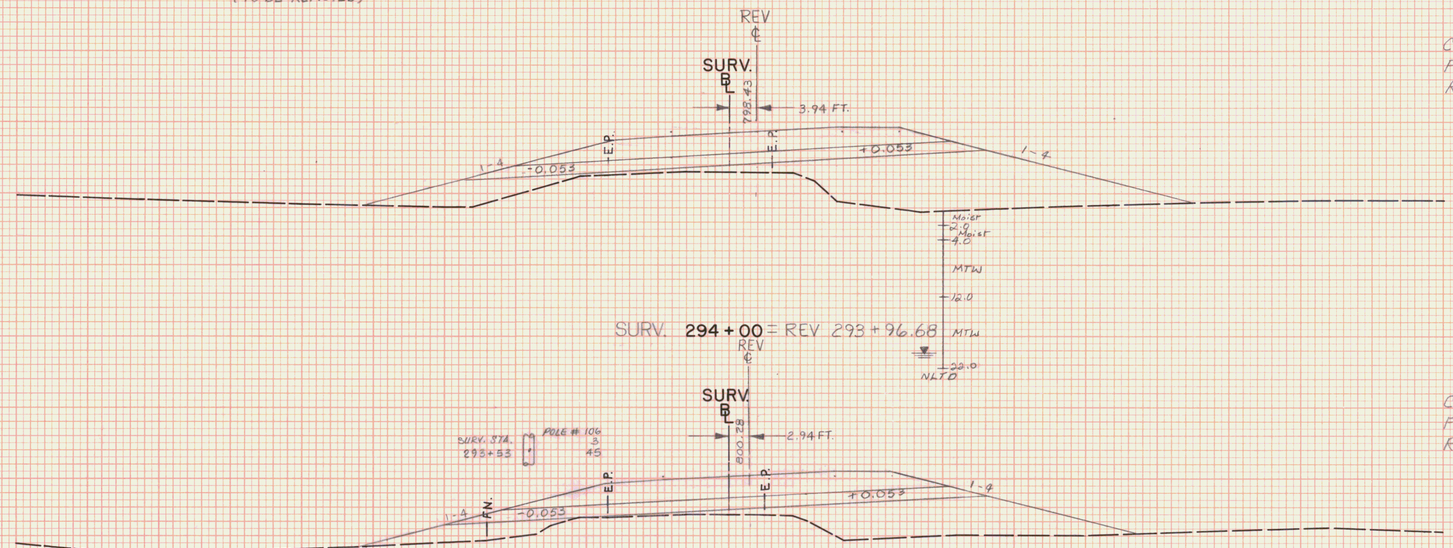


C = 2 Sq Ft
F = 301 Sq Ft
R = 0 Sq Ft

CONSTRUCT DRIVE LT
REV. STA. 294+48 (14' WIDE.)
NEW 15"x 60' CSP 0.064"
OR CPEP(SL) W/E.S. & OUTLET

REV. STA. 294+45 LT.
EXIST. 15" C.G.M.P.
(TO BE REMOVED)

SURV. 294 + 50 = REV. 294+46.80

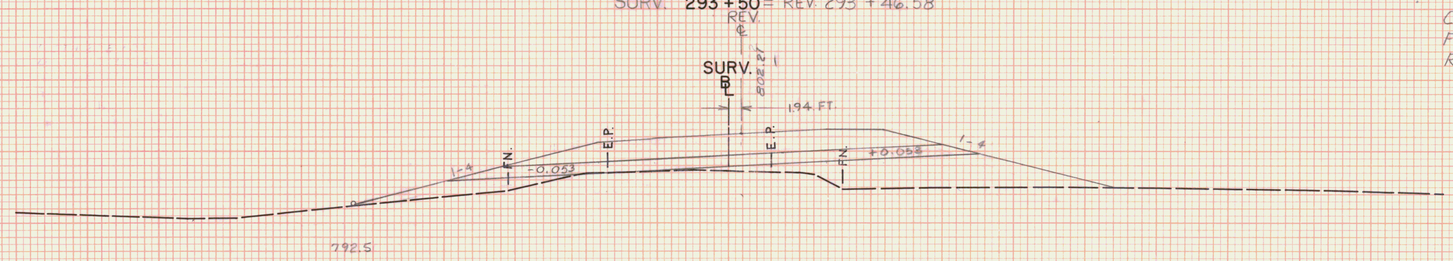


C = 0 Sq Ft
F = 386 Sq Ft
R = 0 Sq Ft

SURV. 294 + 00 = REV. 293 + 96.68

C = 0 Sq Ft
F = 259 Sq Ft
R = 0 Sq Ft

SURV. 293 + 50 = REV. 293 + 46.58



C = 0 Sq Ft
F = 203 Sq Ft
R = 0 Sq Ft

SURV. 293 + 00 = REV. 292 + 96.50

STA: 293+00 STA: 294+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 296 OF 1392 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION O P R & R E STANDARD
DIETZGEN CORPORATION

PTR

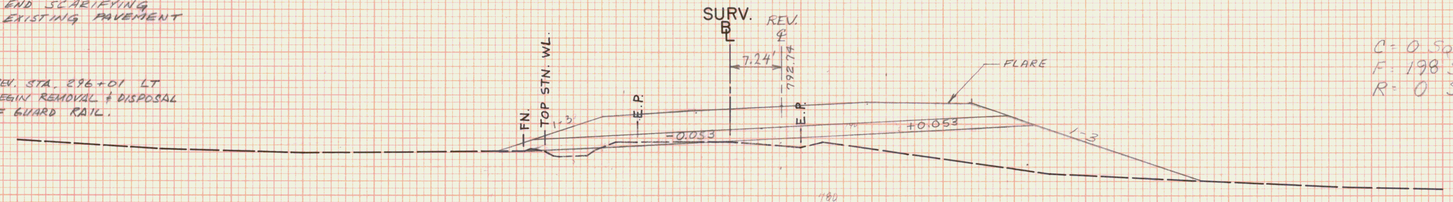
FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULT. BRYANT ASSOC. — DATE 10/86 11/86

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

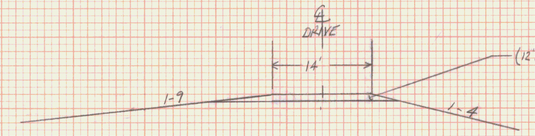
REV. STA. 296+25
END SCARIFYING
EXISTING PAVEMENT

REV. STA. 296+01 LT.
BEGIN REMOVAL & DISPOSAL
OF GUARD RAIL.

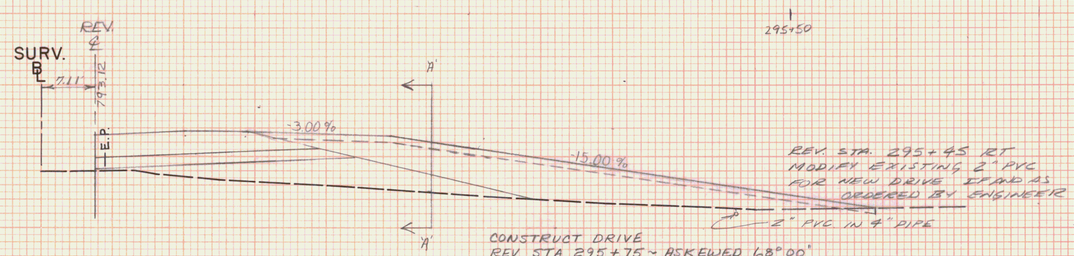


C = 0 Sq Ft
F = 198 Sq Ft
R = 0 Sq Ft

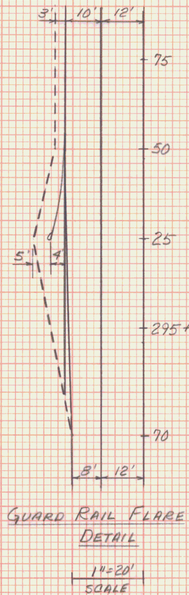
SURV. 296 + 00 = REV. 295 + 97.14



295+50 296+00



CONSTRUCT DRIVE
REV. STA 295+75 ~ ASKEWED 68°00'
(14' WIDE)

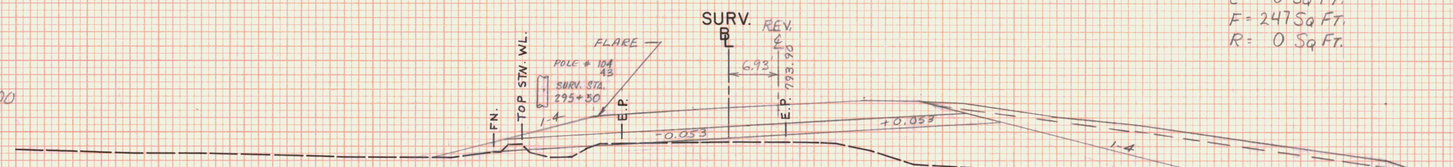


GUARD RAIL FLARE DETAIL

1"=20'
SCALE

6" ELM
SURV. STA.
295+77

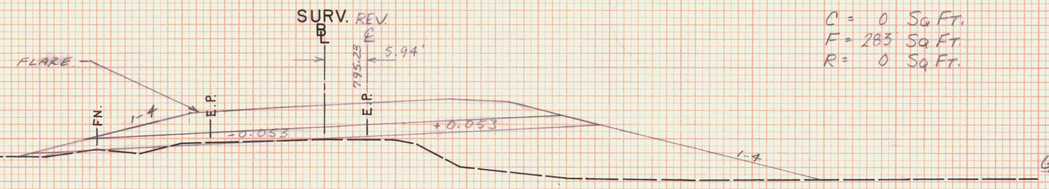
SURV. 295 + 80 = REV. 295 + 74.79
ASKEWED @ 72°-02' LT.



C = 0 Sq Ft.
F = 247 Sq Ft.
R = 0 Sq Ft.

REV. STA. 295+50 LT.
BEGIN STL. BEAM GUARD RAIL

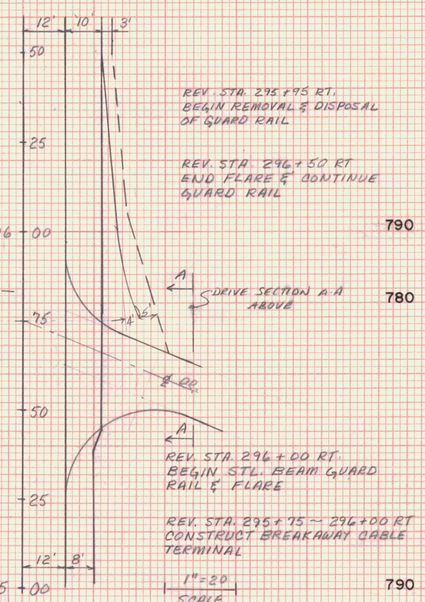
SURV. 295 + 50 = REV. 295 + 47.13



C = 0 Sq Ft.
F = 283 Sq Ft.
R = 0 Sq Ft.

REV. STA. 295+25 - 295+50 LT.
CONSTRUCT BREAKAWAY CABLE TERMINAL

SURV. 295 + 00 = REV. 294 + 96.95



GUARD RAIL FLARE DETAIL

STA.	295+00 STA. 296+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	299 OF 388 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

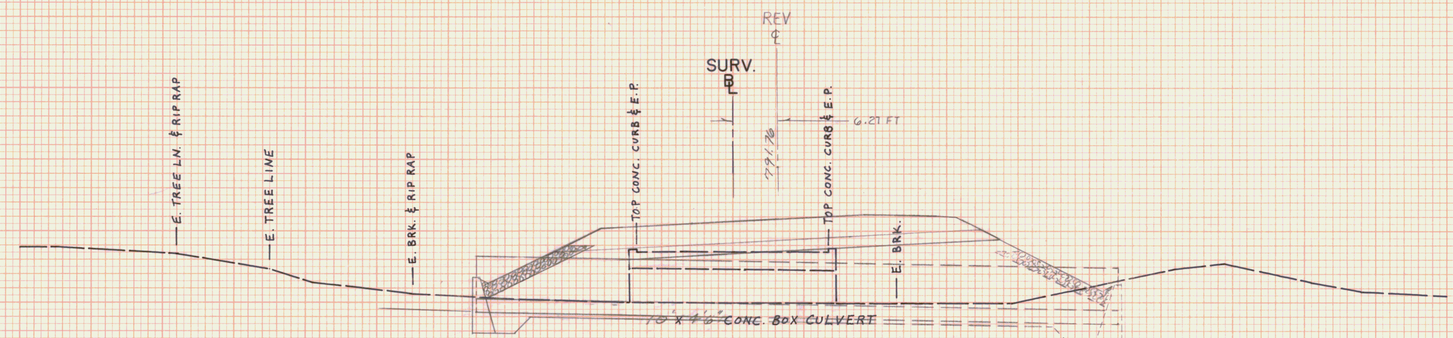
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE 10/86 11/86
BY VT. SURVEY CONSULT. BRYANT ASSOC.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 296+55 ASKEWED 79°-00' RT
NEW 90'x 12'-6"x 9'-11" CONPPA (0.109)
W/CRADDLE HEADWALL @ INLET AND OUTLET
STRUCTURAL STEEL BAFFLES @ INVERT SPACE
ACCORDING TO LAYOUT AND FILLED W/ NATURAL
STREAMBED MATERIAL. SEE BR-130 FE AND
DETAIL SHEETS.



REV. STA. 296+47
EXISTING 10' X 4'-6"
BOX CULVERT
(TO BE REMOVED)

SURV. 296 + 49.4 = REV 296 + 46.55
ASKEWED @ 89°-56'-30" LT.

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
PARTY
AREAS
AREAS CHECKED
DATE
BY

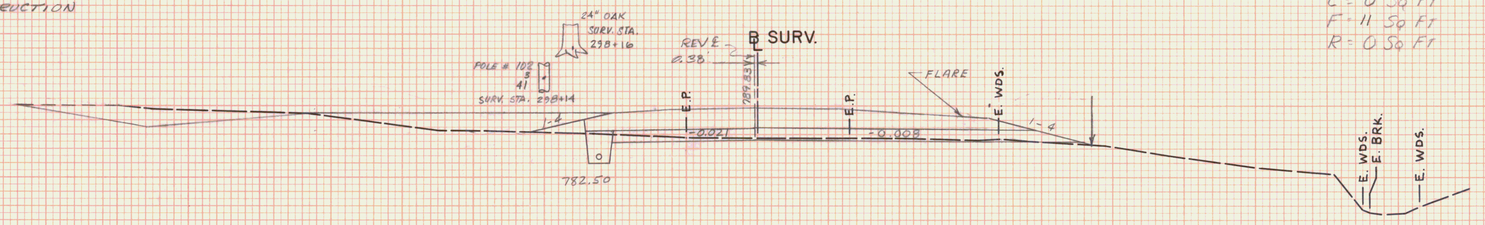
ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
PARTY
AREAS
AREAS CHECKED
DATE 12/86 1/87
BY VT. SURVEY CONSULT. BRYANT ASSOC.

STA. 296+49.4 STA.
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 29A OF 413 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

TH #34 CHET COLE ROAD
REV. POT. 298+01.80, 20' LT.
BEGIN APPROACH CONSTRUCTION



C = 0 Sq Ft
F = 11 Sq Ft
R = 0 Sq Ft

REV. STA 298+25 RT.
BEGIN STL BEAM GUARD RAIL

REV. STA. 298+00 ~ 298+25 RT.
BREAKAWAY CABLE TERMINAL

REV. 297+97.29 = SURV. 298+00

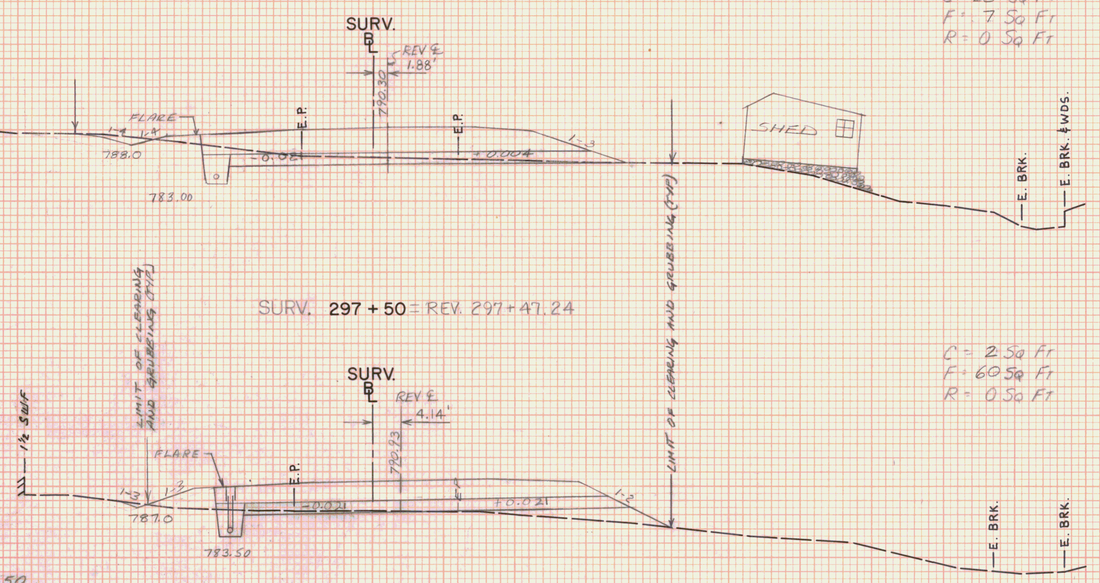
REV. STA. 297+55, LT.
BEGIN EROSION MATTING

REV. STA 297+50 ~ 297+75 LT.
CONSTRUCT BREAKAWAY CABLE TERMINAL
REV. STA 296+67 LT.
INSTALL FLUSHING BASIN

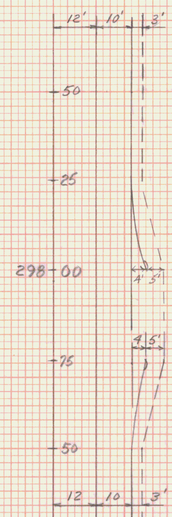
REV. STA. 297+67, 69 LT.
BEGIN 6" x 45' UNDERDRAIN W/FB @ 297+67, 69' LT.

REV. STA. 297+67, 24' LT.
CONNECT TO PROPOSED U.D.
(STA. 296+77 ~ STA. 299+46 LT)
INSTALL FLUSHING BASIN, 69' LT.
REV. STA 297+50 LT.
END
STL. BEAM GUARD RAIL & FLARE

REV. STA. 296+50 LT.
BEGIN GUARD RAIL FLARE



C = 23 Sq Ft
F = 7 Sq Ft
R = 0 Sq Ft



REV. STA 297+50 ~ 297+75 RT.
CONSTRUCT BREAKAWAY CABLE TERMINAL

REV. STA. 297+50 RT.
END STL BEAM GUARD RAIL

REV. STA. 297+00 RT.
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE.

SURV. 297 + 50 = REV. 297+47.24

REV. STA. 297+04 LT.
END REMOVAL & DISPOSAL OF GUARD RAIL.

REV. STA. 297+00 LT.
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE
(ENDS TH #34 STA. 81+35 LT)

C = 2.5 Sq Ft
F = 60.5 Sq Ft
R = 0.5 Sq Ft

Guard Rail Flare Detail
1"=20'
SCALE

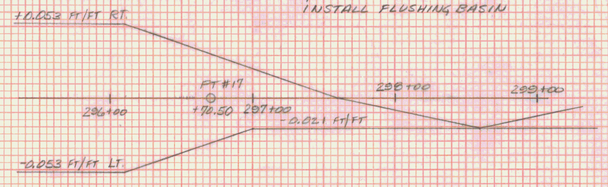
REV. STA. 296+97 LT.
BEGIN 6', 25:1 R.D.
W/ FB @ REV. STA. 296+97, 297+67
℄ 298+97
INSTALL FLUSHING BASIN

PT #19
REV. 296+70.50
D = 3°00'00"
BANK = 0.063 FT/FT

POLE # 103
42
SURV. STA. 296+72

SURV. 297 + 00 = REV. 296+97.19

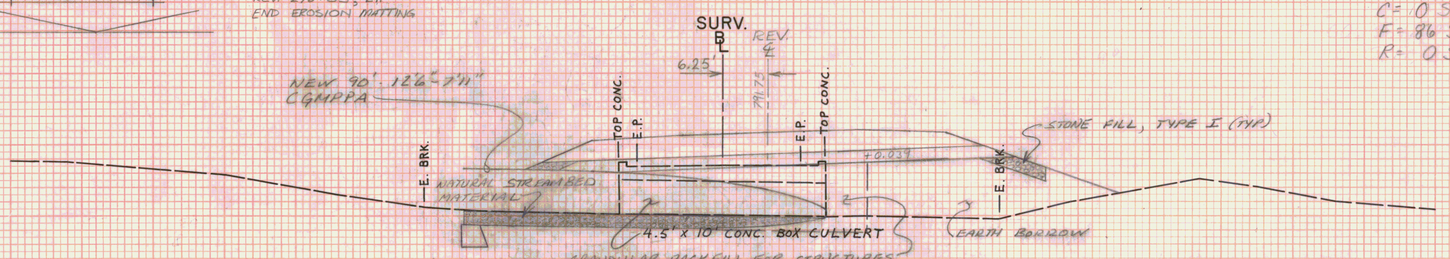
REV. STA. 296+93 RT.
END
REMOVAL AND DISPOSAL OF GUARD RAIL.



REV. 296+55, LT.
END EROSION MATTING

BANKING DIAGRAM
0.063 FT/FT
50'
V.
H.

C = 0 Sq Ft
F = 86 Sq Ft
R = 0 Sq Ft



SURV. 296 + 50 = REV. 296+47.15

STA.	296+50 STA. 298+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	298 OF 352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

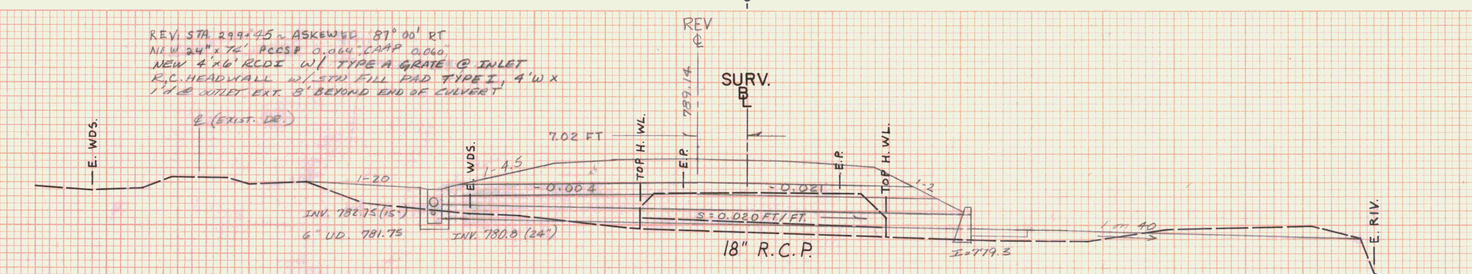
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86

PLATE 3 CROSS SECTION O. P. R. & R. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

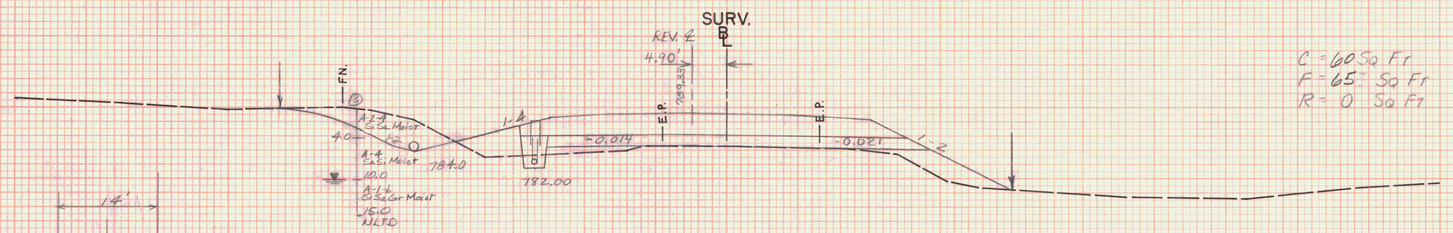
REV. STA 299+45 = ASKEWED 87° 00' RT
NEW 24"x76' RCCSP 0.064" CAMP 0.060
NEW 4'x6' RCDI W/ TYPE A GRATE @ INLET
R.C. HEADWALL W/ STN FILL PAD TYPE I, 4'W X 1'd @ OUTLET EXT. 8" BEYOND END OF CULVERT

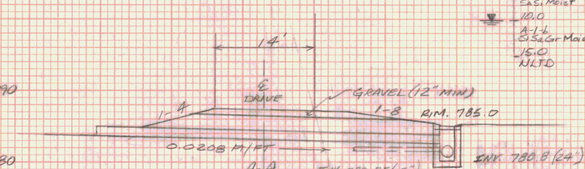


REV. STA. 299+46.37' LT.
END 6"x 25' U.D. W/ F.B.
@ STA. 296+97, 297+69 & 298+97

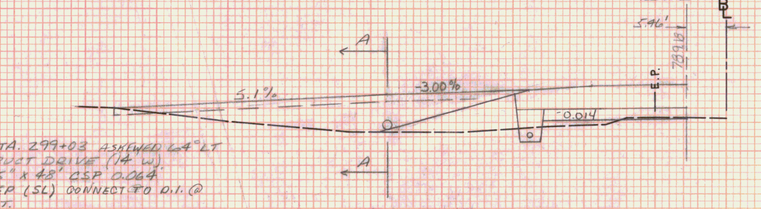
REV. STA. 299+44
EXIST. 18" R.C.P.
(TO BE REMOVED)

REV. 299+44.44 = SURV. 299 + 47





REV. 298+97.39 = SURV. 299 + 00



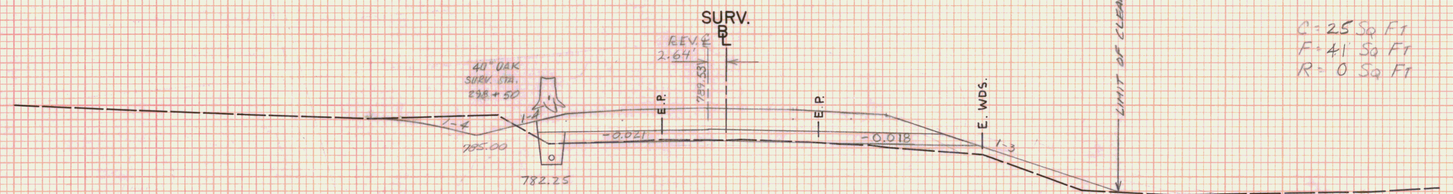
REV. STA. 299+03 ASKEWED 64° LT
CONSTRUCT DRIVE (14' W)
NEW 15" x 48' CSP 0.064
OR CPEP (SL) CONNECT TO D.I. @ OUTLET.

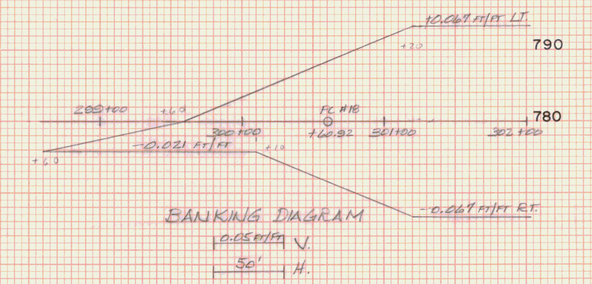
REV. STA. 298+75
BEGIN SCARIFYING
EXISTING PAVEMENT

REV. STA. 298+97 LT.
INSTALL FLUSHING BASIN

PROFILE @ ℄ OF DRIVE

REV. 299+02.96 = SURV. 298+98
ASKEWED @ 64°-08' LT.





BANKING DIAGRAM
0.05 FT/FT V.
50' H.

REV. 298+47.34 = SURV. 298 + 50

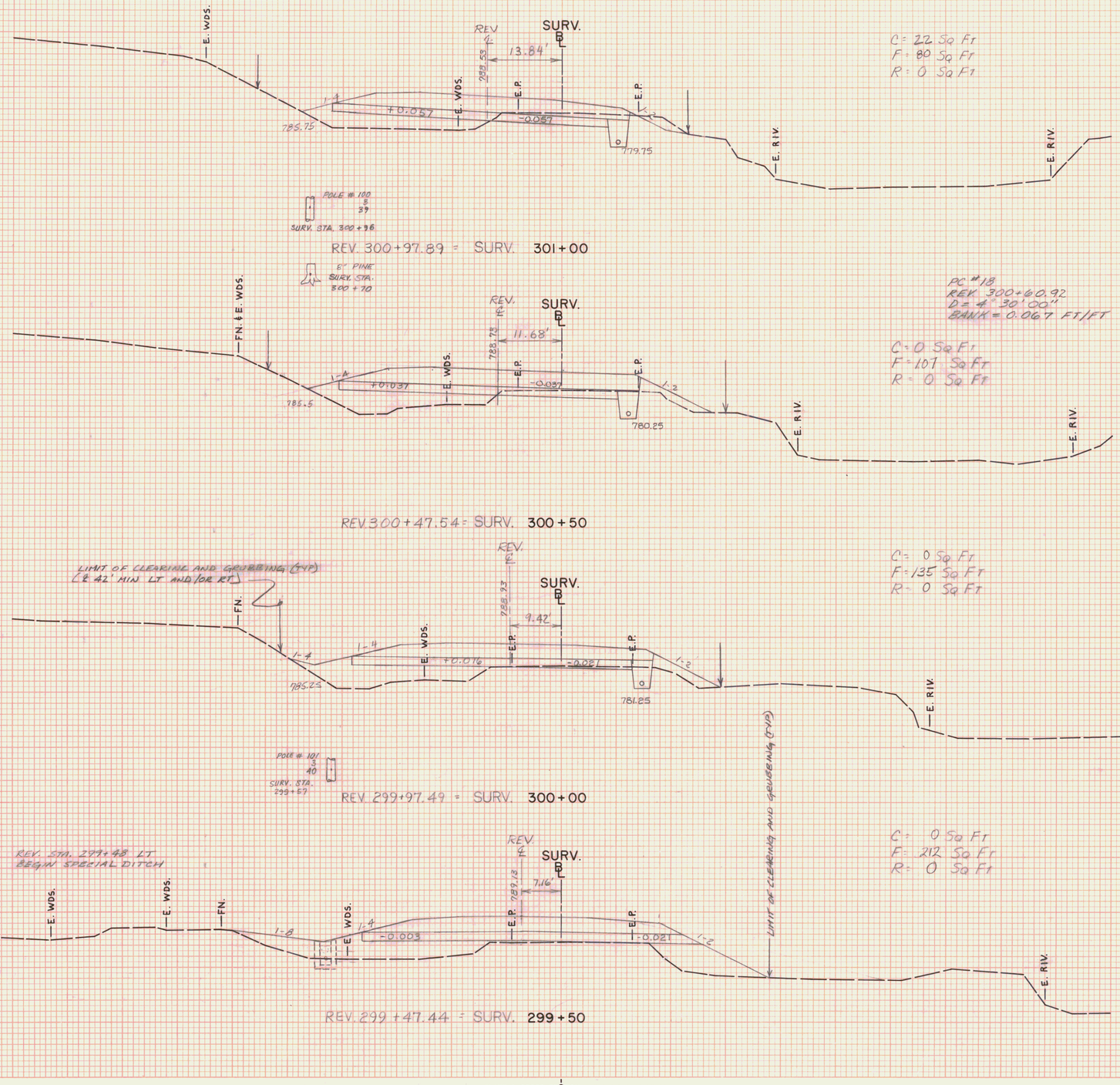
STA.	298+50 STA. 299+47
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	299 OF 352 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULT: BRAINTASSOC. — DATE 10/86 11/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



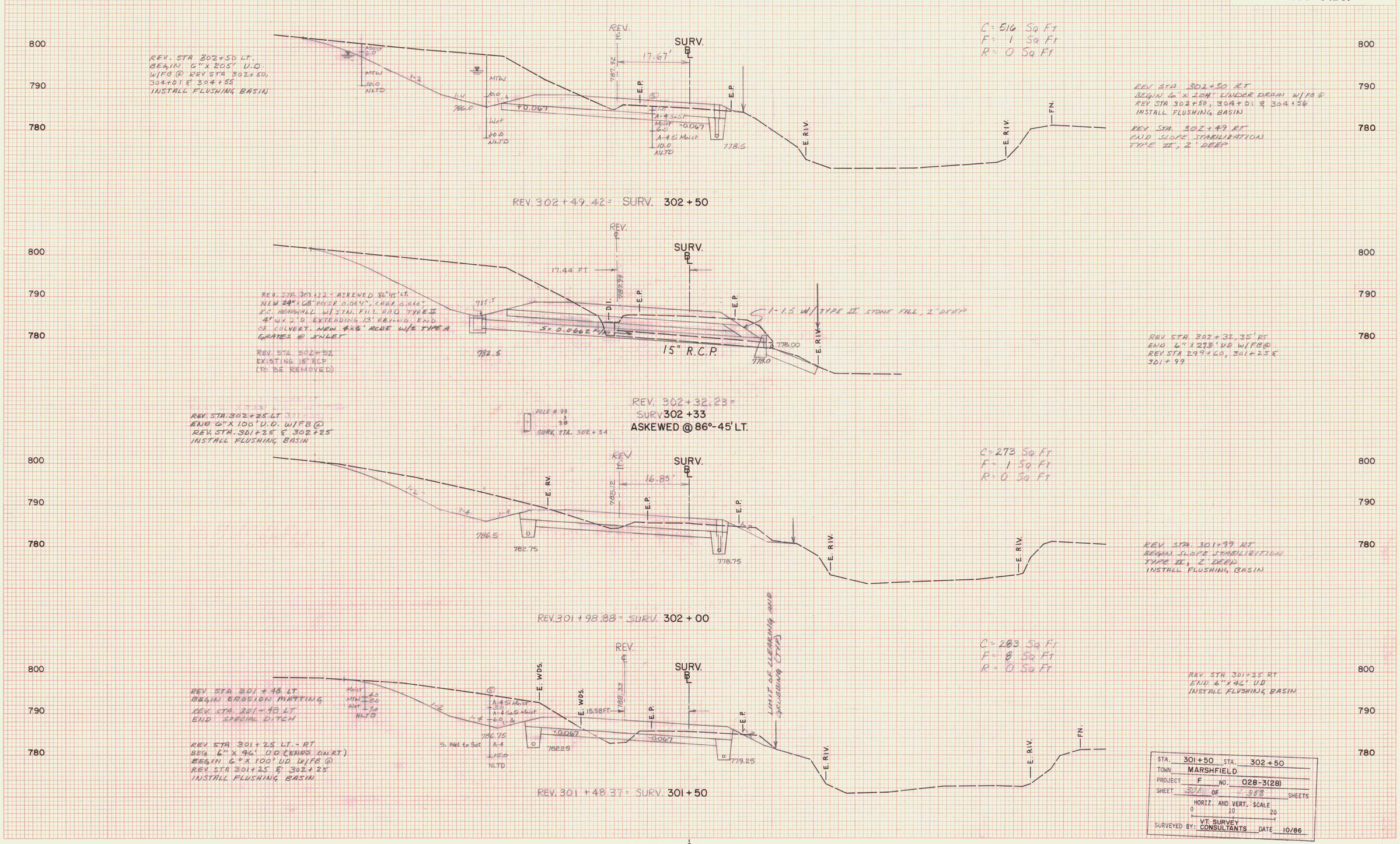
FINAL SURVEY
DATE
BY
SURVEYED
PLOTTED
TRAVERSE
AREAS
AREAS CHECKED
NOTE BOOK
NO.

ORIGINAL SURVEY
DATE 10/86 11/86
BY VT. SURVEY CONSULT. BRYANT ASSOC.
SURVEYED
PLOTTED
TRAVERSE
AREAS
AREAS CHECKED
NOTE BOOK
NO.

STA. 299+50 STA. 301+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 300 OF 1352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION C. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



STA. 301+50	STA. 302+50
TOWN MARSHFIELD	
PROJECT F	NO. 028-3(28)
SHEET 301 OF 352 SHEETS	
HORIZ. AND VERT. SCALE 0 10 20	
SURVEYED BY: VT. SURVEY CONSULTANTS	DATE 10/86

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PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 304+55 LT.
END 6" x 205' U.D. W/FC @
REV STA 302+50, 304+01.5', 304+55
INSTALL FLUSHING BASIN

C = 105 Sq Ft
F = 13 Sq Ft
R = 0 Sq Ft

REV. STA 304+67, 37' RT.
END 6" x 15' UD

REV. STA. 304+52 RT
BEGIN SLOPE STABILIZATION
TYPE II, 2' DEEP

REV. STA 304+56 RT
END 6" x 204' UNDERDRAIN W/FC @
REV. STA 302+50, 304+01.5', 304+56
BEGIN 6" x 15' UD
INSTALL FLUSHING BASIN

REV. STA. 304+25 LT
BEGIN CLEARING AND GRUBBING
@ TOE OF SLOPE

REV. 304+51.58 = SURV. 304+50

8" PINE
SURV. STA.
304+86

LIMIT OF CLEARING AND GRUBBING
@ 42' MIN LT AND/OR RT)

C = 82 Sq Ft
F = 2 Sq Ft
R = 0 Sq Ft

REV STA 304+01 LT.
BEGIN 6" x 46' UD (END ON LT.)
INSTALL FLUSHING BASIN
REV STA 304+00 LT
END EROSION MATTING
BEG. STONE LINED DITCH
TYPE I, 4' WIDE
BEGIN SPECIAL DITCH

REV. 304+01.06 = SURV. 304+00

POLE # 8
3
57
SURV. STA.
303+69

C = 101 Sq Ft
F = 1 Sq Ft
R = 0 Sq Ft

REV. 303+50.51 = SURV. 303+50

LIMIT OF CLEARING & GRUBBING (TYP.)

C = 352 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

REV. 302+99.96 = SURV. 303+00

STA.	303+00 STA. 304+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	303 OF 332 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

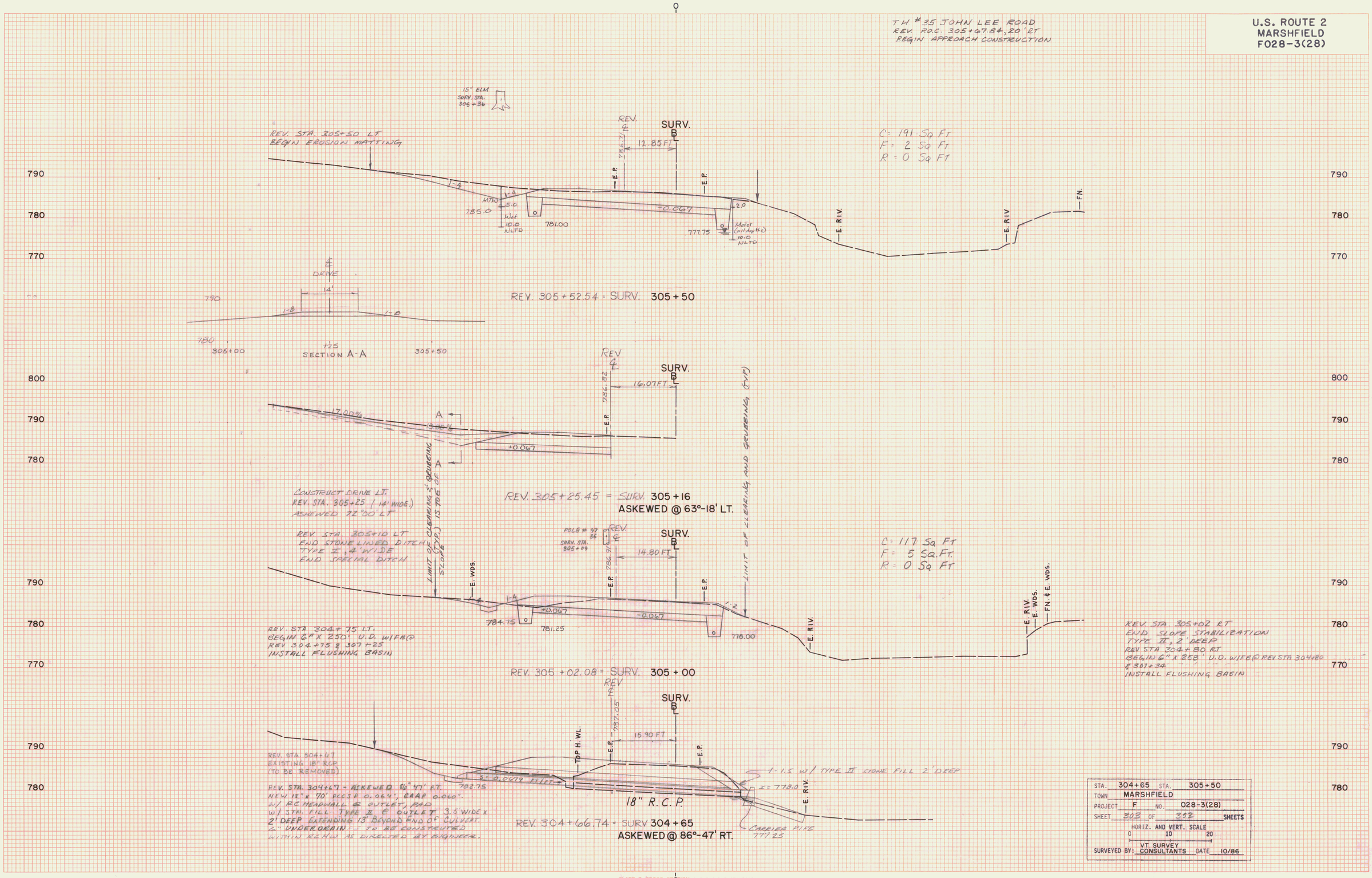
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

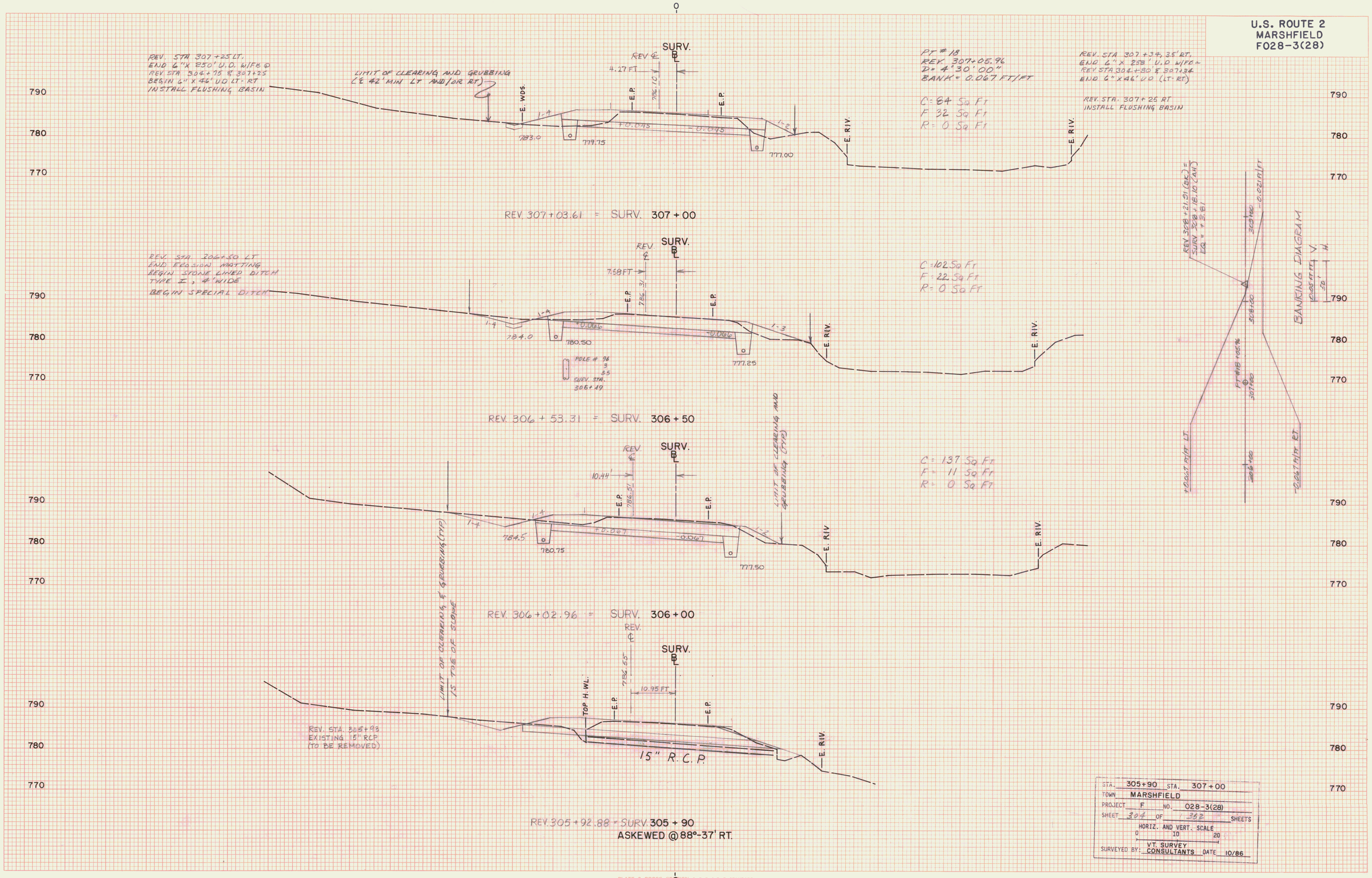
FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TOPO'D — AREAS — AREAS CHECKED — BY — DATE

VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86

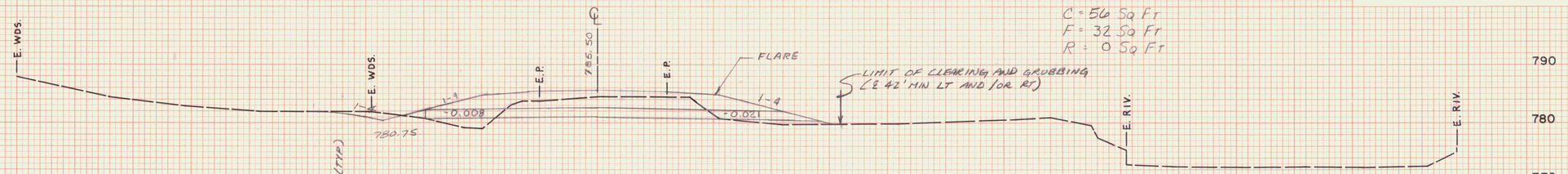
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TOPO'D — AREAS — AREAS CHECKED — BY — DATE



TH #35 JOHN LEE ROAD
REV. P.O.C. 305+67.84, 20' RT
BEGIN APPROACH CONSTRUCTION
U.S. ROUTE 2
MARSHFIELD
F028-3(28)
15" ELM
SURV. STA. 305+36
REV. STA. 305+50 LT
BEGIN EROSION MATTING
REV. ℄
SURV. ℄
12.85 FT
786.71
E.P.
C = 191 Sq Ft
F = 2 Sq Ft
R = 0 Sq Ft
785.0
781.00
-0.067
777.75
E. RIV.
FN.
790
780
770
℄ DRIVE
14'
1-8
REV. 305+52.54 = SURV. 305+50
305+00
SECTION A-A
305+50
REV ℄
SURV. ℄
786.82
16.07 FT
17.00%
13.00%
+0.067
A
LIMIT OF CLEARING & GRUBBING (TYP.) IS TOE OF SLOPE
LIMIT OF CLEARING AND GRUBBING (TYP)
800
CONSTRUCT DRIVE LT.
REV. STA. 305+25 (14' WIDE)
ASKEWED 72°00' LT
REV. 305+25.45 = SURV. 305+16
ASKEWED @ 63°-18' LT.
REV. STA. 305+10 LT
END STONE LINED DITCH
TYPE I, 4' WIDE
END SPECIAL DITCH
POLE # 97 36
SURV. STA. 305+09
786.91
14.80 FT
C = 117 Sq Ft
F = 5 Sq. Ft.
R = 0 Sq Ft
E. WDS.
1-4
+0.067
-0.067
784.75
781.25
778.00
E. RIV.
E. WDS.
FN. & E. WDS.
REV. STA. 304+75 LT.
BEGIN 6" x 250' U.D. W/FB @
REV 304+75 & 307+25
INSTALL FLUSHING BASIN
REV. STA. 305+02 RT
END SLOPE STABILIZATION
TYPE II, 2' DEEP
REV STA 304+80 RT
BEGIN 6" x 258' U.D. W/FB @ REV STA 304+80
& 307+34
INSTALL FLUSHING BASIN
REV. 305+02.08 = SURV. 305+00
REV ℄
SURV. ℄
787.05
15.90 FT
TOP H. WL.
REV. STA. 304+67
EXISTING 18" RCP
(TO BE REMOVED)
S = 0.0679 FT/FT
782.75
1-1.5 W/ TYPE II STONE FILL 2' DEEP
I = 778.0
18" R.C.P.
REV. STA. 304+67 - ASKEWED 86°47' RT.
NEW 18" x 70' PCCSP 0.064", CAAP 0.060".
W/ RC HEADWALL @ OUTLET, PAD
W/ STN. FILL TYPE II @ OUTLET 3.5' WIDE x
2' DEEP EXTENDING 13' BEYOND END OF CULVERT.
6" UNDERDRAIN TO BE CONSTRUCTED
WITHIN RCHW AS DIRECTED BY ENGINEER.
REV. 304+66.74 = SURV 304+65
ASKEWED @ 86°-47' RT.
CARRIER PIPE
777.25
STA. 304+65 STA. 305+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 303 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
NOTE BOOK
ORIGINAL SURVEY
VT. SURVEY CONSULT.
BRYANT ASSOC.
10/86
11/86


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
REV. STA 307+25 LT.
END 6" X 250' U.D. W/FB @
REV STA 304+75 & 307+25
BEGIN 6" X 46' UD LT-RT
INSTALL FLUSHING BASIN
LIMIT OF CLEARING AND GRUBBING
(℄ 42' MIN LT AND/OR RT)
SURV.
REV ℄
4.27 FT
786.10
E. WDS.
E.P.
E. RIV.
783.0
779.75
777.00
+0.045
-0.045
1-4
1-2
PT # 18
REV. 307+05.96
D = 4°30'00"
BANK = 0.067 FT/FT
C = 84 Sq Ft
F 32 Sq Ft
R = 0 Sq Ft
REV. STA 307+34, 35' RT.
END 6" X 258' U.D W/FB ~
REV STA 304+80 & 307+34
END 6" X 46' UD (LT-RT)
REV. STA. 307+25 RT
INSTALL FLUSHING BASIN
REV. 307+03.61 = SURV. 307+00
REV. STA 306+50 LT
END EROSION MATTING
BEGIN STONE LINED DITCH
TYPE I, 4' WIDE
BEGIN SPECIAL DITCH
7.58 FT
786.31
784.0
780.50
777.25
+0.066
-0.066
1-3
POLE # 96
3
55
SURV. STA.
306+19
C = 102 Sq Ft
F = 22 Sq Ft
R = 0 Sq Ft
REV. 306+53.31 = SURV. 306+50
10.44'
786.51
784.5
780.75
777.50
+0.067
-0.067
LIMIT OF CLEARING AND GRUBBING (TYP)
C = 137 Sq Ft
F = 11 Sq Ft
R = 0 Sq Ft
REV. 306+02.96 = SURV. 306+00
LIMIT OF CLEARING & GRUBBING (TYP)
1S TOE OF SLOPE
786.55
10.95 FT
TOP H. WL.
REV. STA. 305+93
EXISTING 15" RCP
(TO BE REMOVED)
15" R.C.P.
REV. 305+92.88 = SURV. 305+90
ASKEWED @ 88°-37' RT.
REV 308+21.91 (BK) =
SURV 308+18.10 (AH)
EQ = +3.81
-0.021 FT/FT
309+00
308+00
307+00
306+00
PT #18 +05.96
+0.067 FT/FT LT.
-0.067 FT/FT RT.
BANKING DIAGRAM
0.05 FT FT
50'
V.
H.
790
780
770
STA. 305+90 STA. 307+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 304 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
ORIGINAL SURVEY
VT. SURVEY CONSULT.
BRYANT ASSOC.
10/86
11/86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



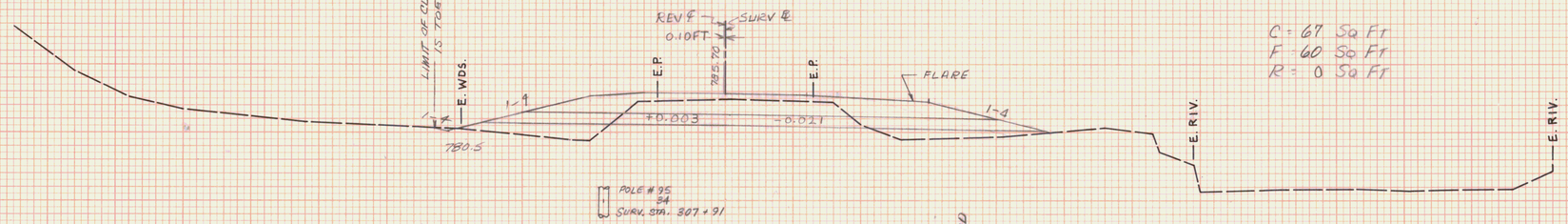
C = 56 Sq Ft
F = 32 Sq Ft
R = 0 Sq Ft

REV. STA. 308+00 LT.
END CLEARING & GRUBBING
IS TOE OF SLOPE

LIMIT OF CLEARING & GRUBBING (TYP.)
IS TOE OF SLOPE

308 + 50

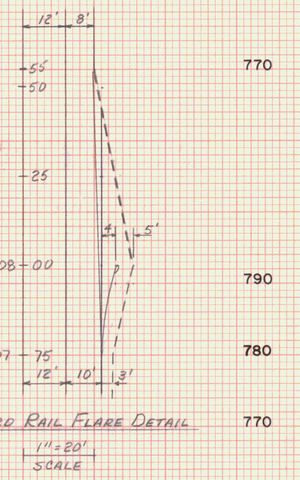
EQUALITY
REV 308+21.91 (BK) =
SURV. 308+18.10 (AH)
EQ = +3.81'



C = 67 Sq Ft
F = 60 Sq Ft
R = 0 Sq Ft

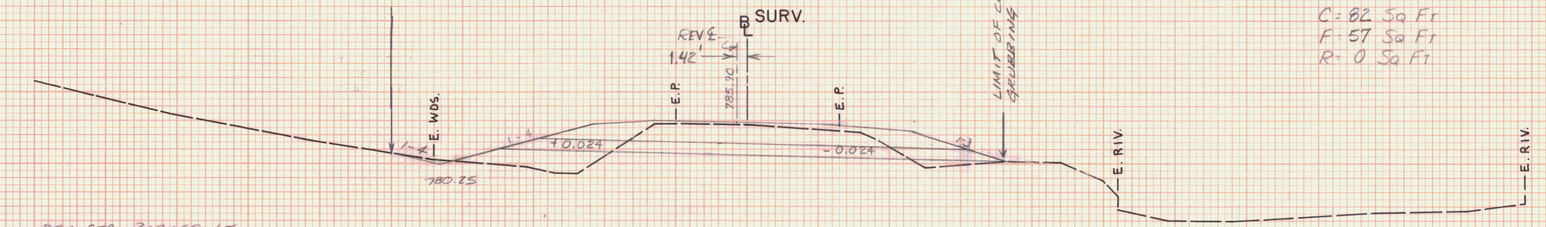
POLE # 95
34
SURV. STA. 307+91

REV. STA. 308+00 RT.
END CLEARING AND GRUBBING
IS TOE OF SLOPE



GUARD RAIL FLARE DETAIL
1" = 20'
SCALE

REV 308+03.81 = SURV. 308 + 00

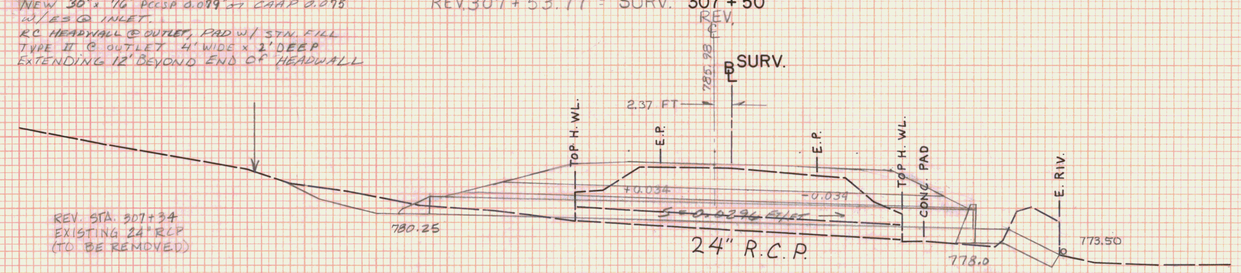


C = 82 Sq Ft
F = 57 Sq Ft
R = 0 Sq Ft

REV. STA. 307+50 LT
END STONE LINED DITCH
TYPE I, 4' WIDE

REV. STA. 307+34, ASKEWED 89°-37' LT.
NEW 30" x 76' PCCSP @ 0.079' ± CMAP @ 0.075'
W/ES @ INLET
RC HEADWALL @ OUTLET, PAD W/ STN. FILL
TYPE II @ OUTLET 4' WIDE x 1' DEEP
EXTENDING 12' BEYOND END OF HEADWALL

REV 307+53.77 = SURV. 307 + 50



REV. STA. 307+34
EXISTING 24" RCP
(TO BE REMOVED)

REV. STN 307+75 ~ 308+00 RT.
CONSTRUCT BREAKAWAY CABLE
TERMINAL

REV. STA. 307+75 RT.
END STL BEAM GUARD RAIL

REV. 307+33.72 = SURV. 307 + 30
ASKEWED @ 89°-37' LT.

STA.	307+30 STA. 308+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	305 OF 362 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

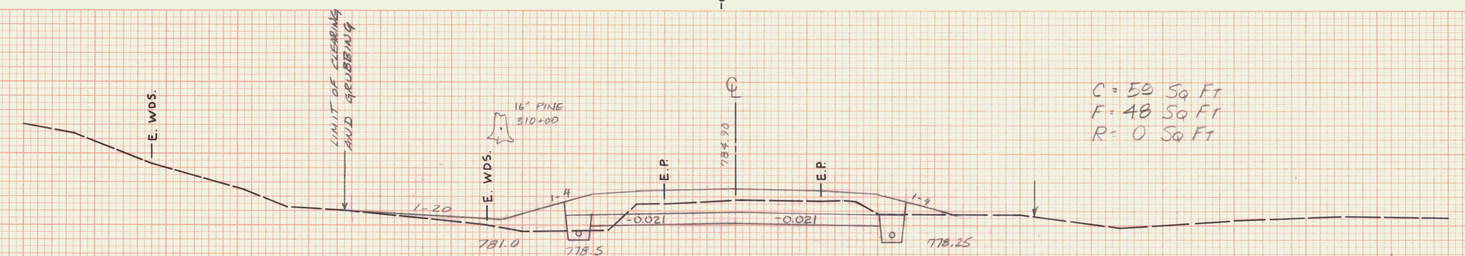
FINAL SURVEY
BY
DATE
SURVEYED
PLOTTED
TRACED
NOTE BOOK
AREAS
AREAS CHECKED
No.

VT. SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86

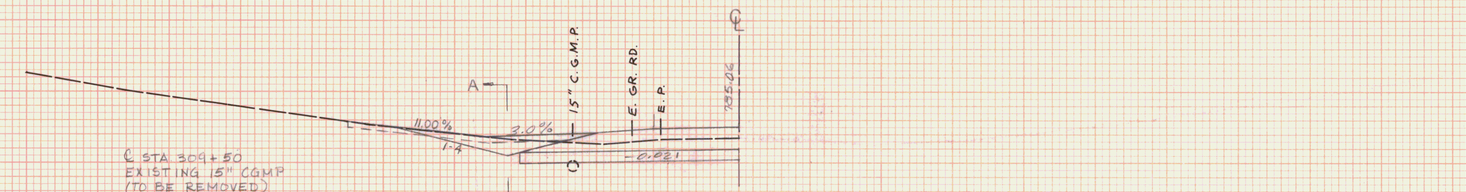
ORIGINAL SURVEY
SURVEYED
PLOTTED
TRACED
NOTE BOOK
AREAS
AREAS CHECKED
No.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

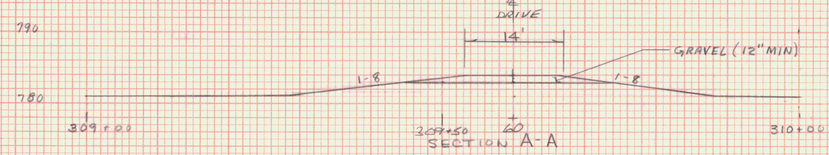


310+00.00
END PROJECT
BEGIN APPROACH CONSTRUCTION

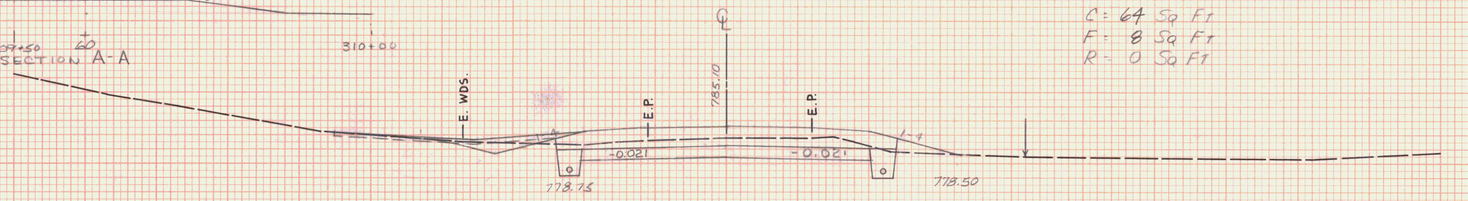


REV. STA. 309+62 LT.
BEGIN LIMIT OF CLEARING AND GRUBBING IS TOE OF SLOPE

CONSTRUCT DRIVE LT.
REV. STA. 309+60 (14' WIDE)



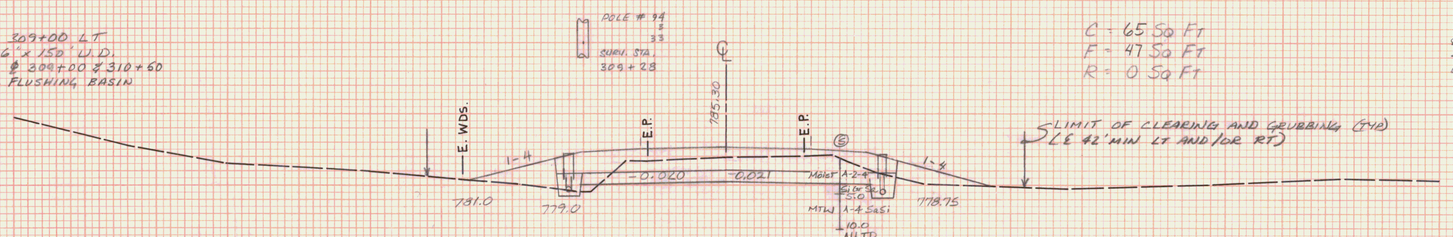
309+60
ASKEWED @ 90°-00'



C = 64 Sq Ft
F = 8 Sq Ft
R = 0 Sq Ft

309+50

℄ STA. 309+00 LT
BEGIN 6' x 150' W.D.
W/FB @ 309+00 & 310+60
INSTALL FLUSHING BASIN



C = 65 Sq Ft
F = 47 Sq Ft
R = 0 Sq Ft

℄ STA. 309+00 RT
BEGIN 6' x 150' W.D.
W/F.B. @ 309+00 & 310+50
INSTALL FLUSHING BASIN

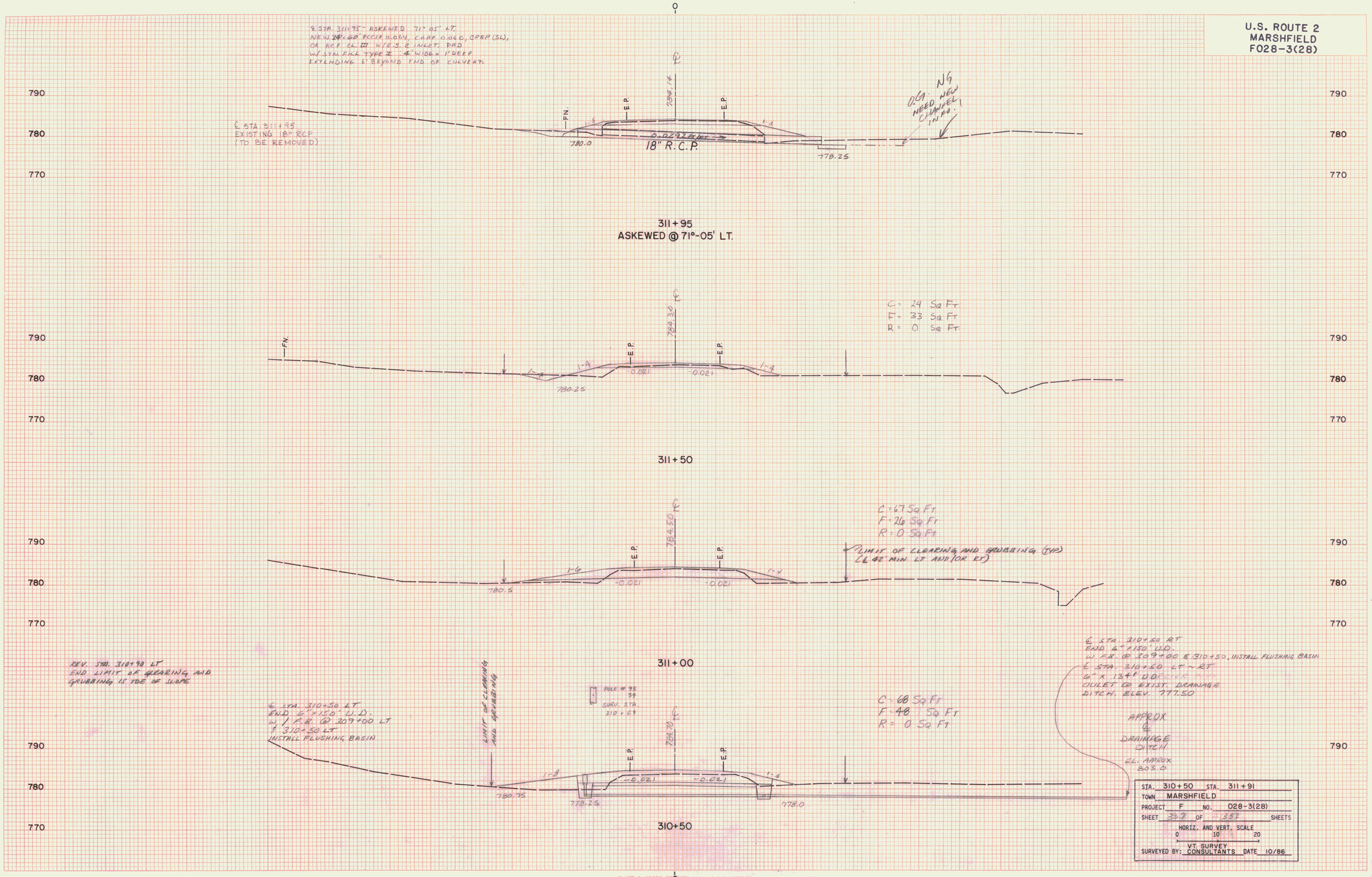
309+00

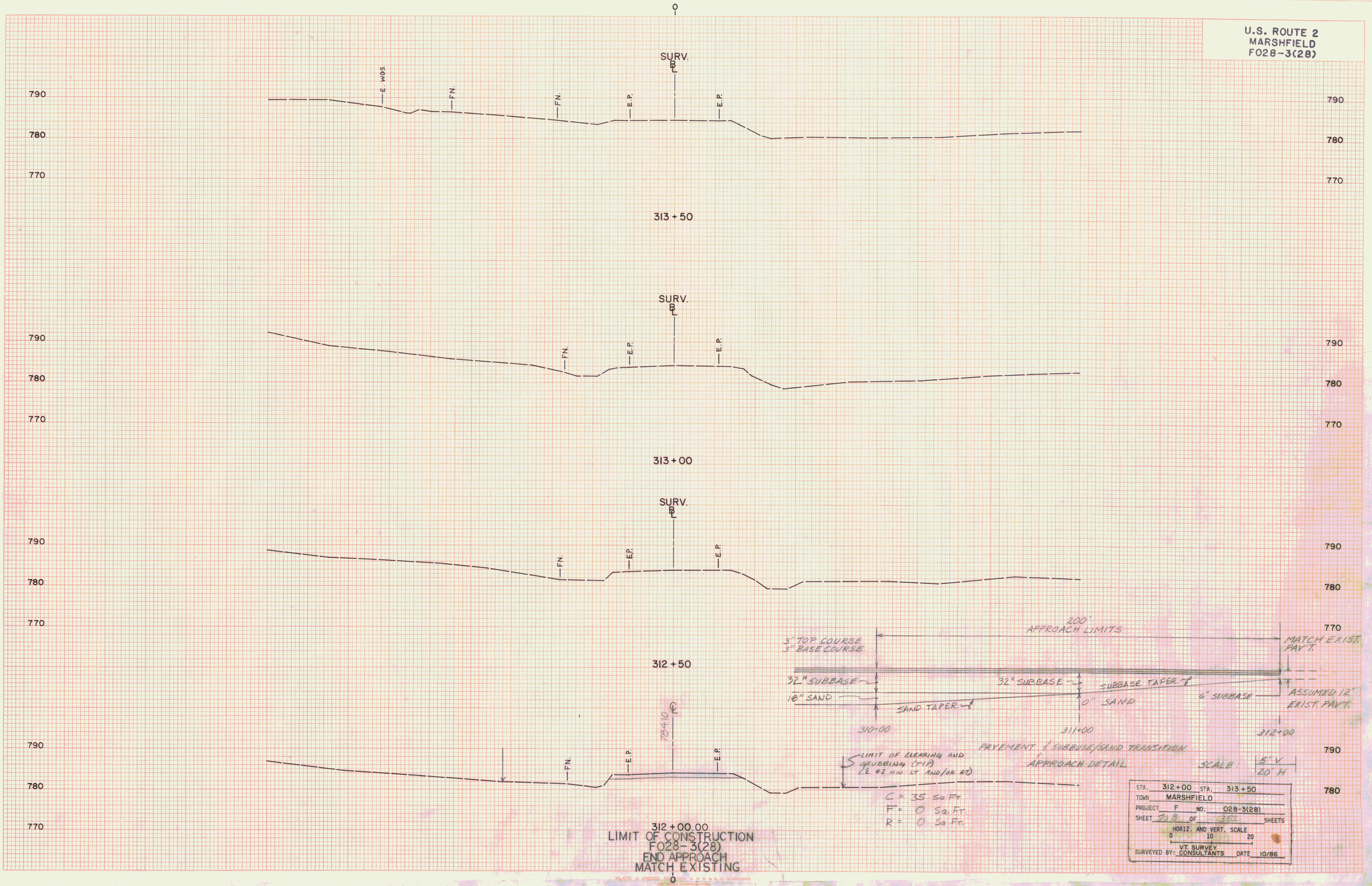
STA. 309+00 STA. 310+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 306 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO. / DATE / BY

ORIGINAL SURVEY — VT. SURVEY CONSULT. 10/86 / BRYANT ASSOC. 11/86 / DATE / BY

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
℄ STA. 311+95 - ASKEWED 71° 05' LT.
NEW 24"x60' PCCSP 0.064, CAAP 0.060, CPEP (SL),
OR RCP CL. III W/E.S. @ INLET. PAD
W/ STN. FILL TYPE I 4' WIDE x 1' DEEP
EXTENDING 6' BEYOND END OF CULVERT.
℄ STA. 311+95
EXISTING 18" RCP
(TO BE REMOVED)
784.14
F.N.
E.P.
E.P.
780.0
0.0292 FT/FT
18" R.C.P.
778.25
O.G. NG
NEED NEW
CHANNEL
INFO.!
311+95
ASKEWED @ 71°-05' LT.
784.30
C = 24 SQ FT
F = 33 SQ FT
R = 0 SQ FT
780.25
-0.021
-0.021
311+50
784.50
C = 67 SQ FT
F = 26 SQ FT
R = 0 SQ FT
LIMIT OF CLEARING AND GRUBBING (TYP)
(℄ 42' MIN LT AND/OR RT)
780.5
-0.021
-0.021
REV. STA. 310+90 LT
END LIMIT OF CLEARING AND
GRUBBING IS TOE OF SLOPE
311+00
℄ STA. 310+50 LT
END 6"x150' U.D.
W/ F.B. @ 309+00 LT
& 310+50 LT
INSTALL FLUSHING BASIN
LIMIT OF CLEARING
AND GRUBBING
POLE # 93
39
SURV. STA.
310+69
784.70
C = 68 SQ FT
F = 48 SQ FT
R = 0 SQ FT
780.75
778.25
778.0
-0.021
-0.021
℄ STA. 310+50 RT
END 6"x150' U.D.
W F.B. @ 309+00 & 310+50, INSTALL FLUSHING BASIN
℄ STA. 310+50 LT ~ RT
6" x 134' U.D.
OUTLET @ EXIST. DRAINAGE
DITCH. ELEV. 777.50
APPROX
℄
DRAINAGE
DITCH
EL. APPROX
803.0
310+50
STA. 310+50 STA. 311+91
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 307 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT. BRYANT ASSOC.
10/86
11/86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION



FINAL SURVEY
NOTE BOOK No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY VT. SURVEY CONSULT. BRYANT ASSOC.
DATE 10/86 11/86

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

TOWN HIGHWAY X-SECTIONS

MARSHFIELD

U.S. RTE 2

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

308a

T.H. 57
REV. P.O.T. 95 + 25.71 = T.H. 57 REV. P.O.T. 9 + 74.39

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

REV. STA. 10+40
END FULL WIDTH
BEGIN TAPER

SURV. ℄ REV. ℄ 3.33'

BUSH SURV. STA. 10+48

E.GR.RD. 762.71

-0.021 -0.021 1:4 1:4

757.0 (OUT)

760.00

RCDI @ 10+21 LT
SEE SECTION A-A
@ STA. 10+48 @
64°21' LT.

REV. 10+38.14 = SURV. 10 + 38

REV. STA. 10+42, RT
BEGIN STEEL BEAM
GUARD RAIL
END BREAKAWAY CABLE
TERMINAL

E.GR.RD.

C = 137 SF
F = 0
R = 0

REV ℄ 761.79

RIM 759.5

1:4 1:2

756.5 (IN) 756.0 (OUT) 155.0 0.0208

RCDI @ 10+77 LT
SEE SECTION A-A @ STA.
10+48, 64°21' LT.

REV. 10+75

NEW 15" X 56' CSP 0.064 OR
CPEP (SL) NEW 4'x4' RC01 W/C1
GRATE TYPE A @ INLET

REV. STA. 10+17 RT.
BEGIN BREAKAWAY CABLE
TERMINAL

REV. STA. 10+29 LT
BEGIN STONE LINED DITCH
TYPE I 4' WIDE
(END @ ℄ REV. STA. 96+00 RT.)

10-42

7' 7" 3' 4' 5'

10-17

GUARD RAIL FLARE DETAIL
1"=10'
SCALE

REV. STA. 10+21
END APPROACH CONSTRUCTION
END PAVEMENT

SURV. ℄ REV. ℄ 0.14'

E.P. 163.18

-0.021 -0.021 1:6

760.30

NOTE: THIS SECTION IS NOT TO BE USED IN EARTHWORK COMPUTATIONS

3'7"2" 7'

10+88

2 MIN

TH 57

10-69

GR. DR.

REV. 10+08.03 = SURV. 10 + 08

REV. STA. 10+79.41 LT
BEGIN REMOVAL &
DISPOSAL OF GUARD RAIL

SURV. ℄ REV. ℄ 4.48'

E.GR.RD. 761.66 E.GR.RD.

-0.021 -0.021

REV. STA. 10+89.41 RT.
BEGIN REMOVAL &
DISPOSAL OF GUARD RAIL

C = 37 SF
F = 2 SF
R = 0

REV. 10+78.20 = SURV. 10 + 78

M.B. SURV. STA 10+72

M.B. SURV. STA. 10+71

M.B. SURV. STA. 10+70

REV. STA. 10+88 LT.
BEGIN STEEL BEAM
GUARD RAIL
END BREAKAWAY CABLE
TERMINAL

REV. STA. 10+67 LT.
BEGIN BREAKAWAY CABLE
TERMINAL

SURV. ℄ REV. ℄ 4.25'

SIGN POST SURV. STA. 10+65

762.38

E.GR.DR. E.GR.RD. E.GR.DR.

REV. STA. 10+65 LT
NEW 15" X 52' CSP .064 OR
CPEP(SL) (SEE ℄ STA 96+07 RT)

-0.021 -0.021 1:3

E.GR.RD.

C = 117 SF
F = 0
R = 0

REV. 10+49.18 = SURV. 10 + 50

GUARD RAIL FLARE DETAIL

1" = 10'
SCALE

REV. STA. 10+48, LT
NEW 15"x 44' CSP 0.064
OR CPEP (SL) NEW 4'x4'
RC.DI W/ CI GRATE
TYPE A @ INLET

SURV. ℄ REV. ℄

14'

℄ DRIVE

GRAVEL (12" MIN.)

D.I. ℄ RIM = 759.5

1:6 1:6

RIM = 760.0

757.5 (IN) 757.0 (OUT) 756.5 (IN)

10+50 +48 +77

SECTION A-A

SURV. 10 + 00

CONSTRUCT DRIVE LT.
REV. STA. 10+42 LT. (14' WIDE)

SURV. ℄ REV. ℄ 4.71'

762.50

A A

E.GR.RD. E.GR.DR.

756.0 (OUT) 5.00%

SURV. 10 + 48 = REV. 10+50.23
ASKEWED @ 64°-21' LT.

T.H. #57 1 OF 2

STA.	10 + 00	STA.	10 + 78
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	309	OF	362 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY — SURVEYED BY: VT. SURVEY CONSULT. DATE: 12/86; DRAWN BY: BRIANT ASSOC. DATE: 12/86; TRACED; TEMPLATE; AREAS; AREAS CHECKED; NOTE BOOK; NO.

ORIGINAL SURVEY — SURVEYED; DRAWN; TRACED; TEMPLATE; AREAS; AREAS CHECKED; NOTE BOOK; NO.

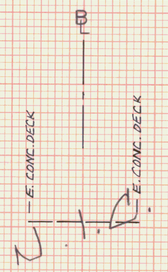
PLATE 3 CROSS SECTION O. P. R. & B. E. STANDARD
DIETZGEN CORPORATION

T.H. 57

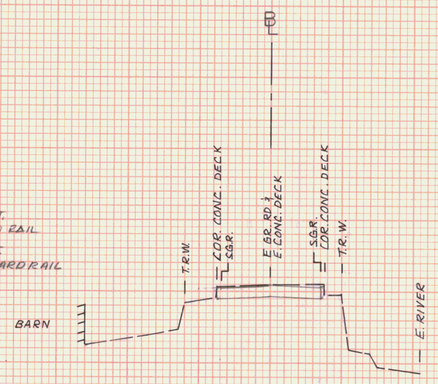
REV. P.O.T. 95 + 25.71 = T.H. 57 REV. P.O.T. 9 + 74.39

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

770
760
750



11 + 50

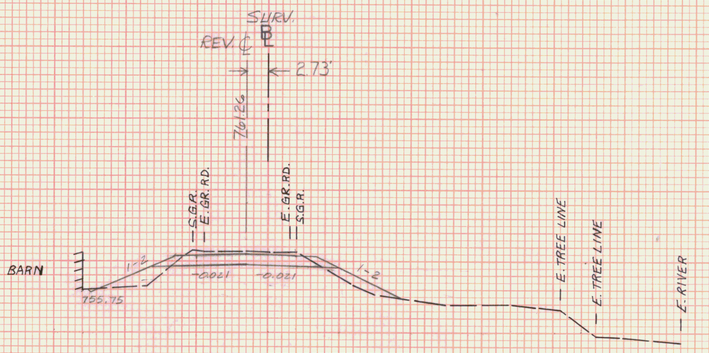


REV. STA. 11 + 17.59 LT.
END STEEL BEAM GUARD RAIL
REV. STA. 11 + 18.59 LT.
END REMOVAL OF GUARDRAIL
END TAPER

REV. STA. 11 + 17.09 RT.
END STEEL BEAM GUARD RAIL
REV. STA. 11 + 18.59 RT.
END REMOVAL OF GUARD RAIL

REC = 23 SF
REM = 0

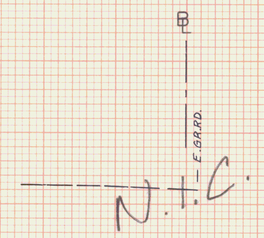
SURV. 11 + 18.11 = REV. 11 + 18.59
LIMIT OF CONSTRUCTION
MATCH EXIST.

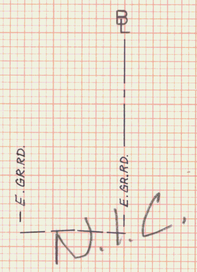


REC = 36 SF
REM = 24 SF

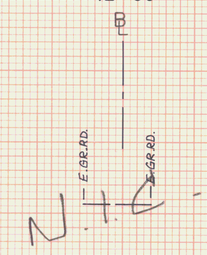
REV 11 + 00.27 = SURV. 11 + 00

13 + 00

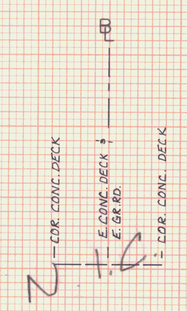




12 + 50



12 + 00



11 + 77.4

T.H. #57 2 OF 2

STA. 11 + 00 STA. 13 + 00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 310 OF 1382 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 12/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

T.H. 56
REV. P.O.T. 104+04.24 = T.H. 56 REV. P.O.T. 20+00.00

SURV. Ⓑ

780
770
760

N.T.C.

E.P.

20 + 14

SURV. Ⓑ

780
770
760

N.T.C.

20 + 04

SURV. Ⓑ

770
760
750

N.T.C.

20 + 00

SURV. Ⓑ

REV. STA. 20+68.00
END FULL WIDTH
BEGIN TAPER

E.GR.RD.

-0.02↓

-4.2

APPROX. 6' Ø DITCH

780
770
760

NOTE:
THIS SECTION IS NOT TO
BE USED FOR EARTHWORK

SURV. 20 + 58

SURV. Ⓑ

℄ REV.
100'

77403

REV. STA. 20+43 LT.
BEGIN STN. LINED
DITCH TYPE I,
4' WIDE

FN

E.WDS.

768.0

1-3

E.GR.RD.

-0.02↓

-0.02↓

E.GR.RD.

-6.5

4% SLOPE

764.3 (OUT)

764.8 (IN)

C = 12 SF
A = 262 SF
R = 0

780
770
760

SEE PAGE 312 (TOP RIGHT)
FOR SKEWED CULVERT @
STA 20+54

ND. GUARD POST
SURV. STA.
20+45

SURV. 20 + 50 = REV. 20+43.18

REV. STA. 20+48
END APPROACH CONST.
END PAVEMENT

REV. STA. 20+36
REMOVE 18" RCP
W/ HW Ø INLET

SURV. Ⓑ

77398

℄ REV.
0.77'

ND. GUARD POST
SURV. STA.
20+36

6'

E.GR.RD.

E.P. 1 GR.RD.

1-8

-0.02↓

-0.02↓

1-8

765.25

770
760
750

NOTE:
THIS SECTION IS NOT TO BE
USED FOR EARTHWORK
(BEGIN @ SURV. 20+50)

SURV. 20 + 35 =
REV. 20+26.81

T.H. #56 1 OF 2

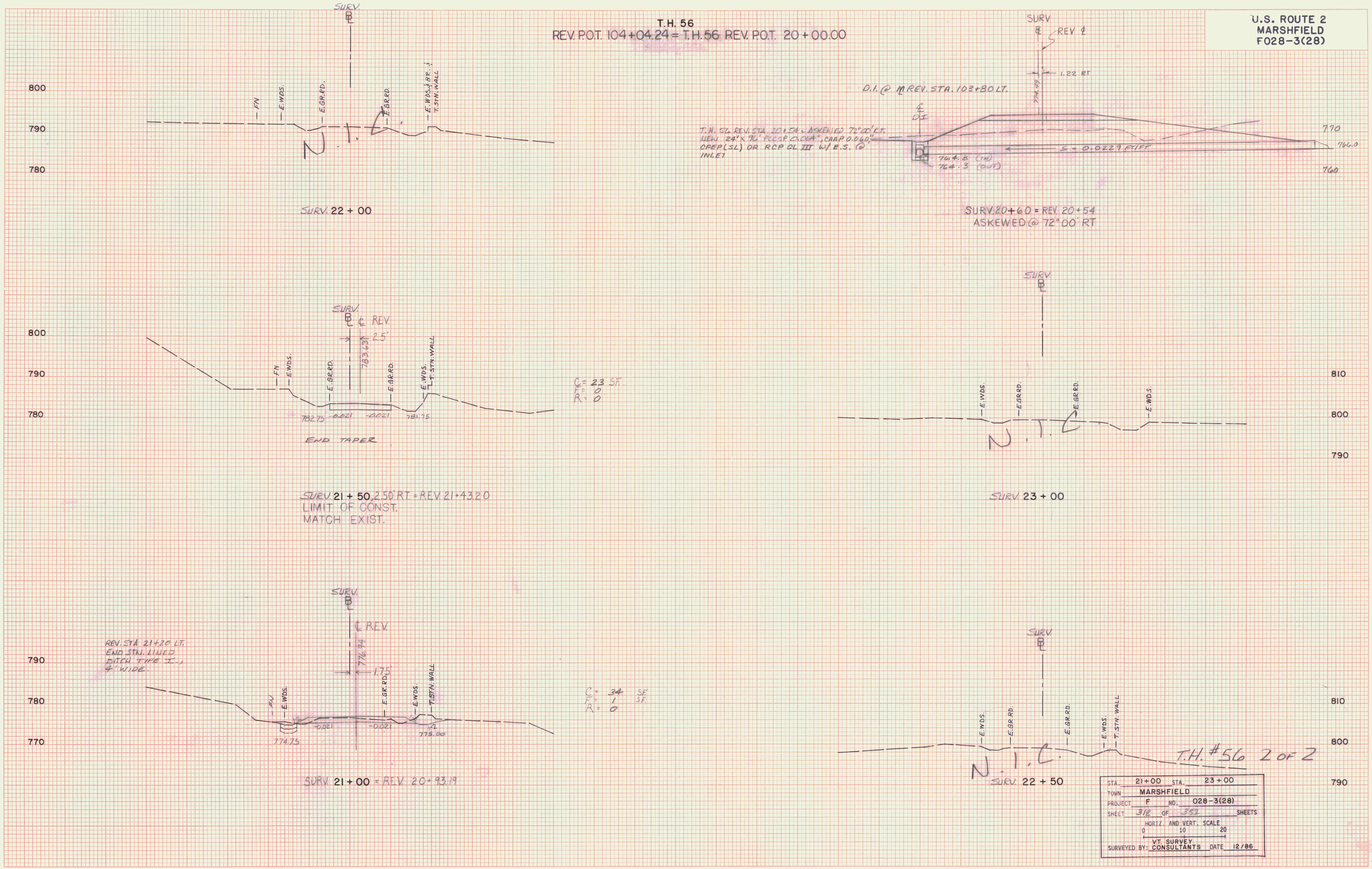
STA. 20+00 STA. 20+58
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 311 OF 392 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED VT. SURVEY CONSULTANTS 12/86
PLOTTED
TEMPLATE
AREAS BRYANT ASSOC. 12/86
AREAS CHECKED
DATE
BY

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

T.H. 56
REV. P.O.T. 104+04.24 = T.H. 56 REV. P.O.T. 20+00.00

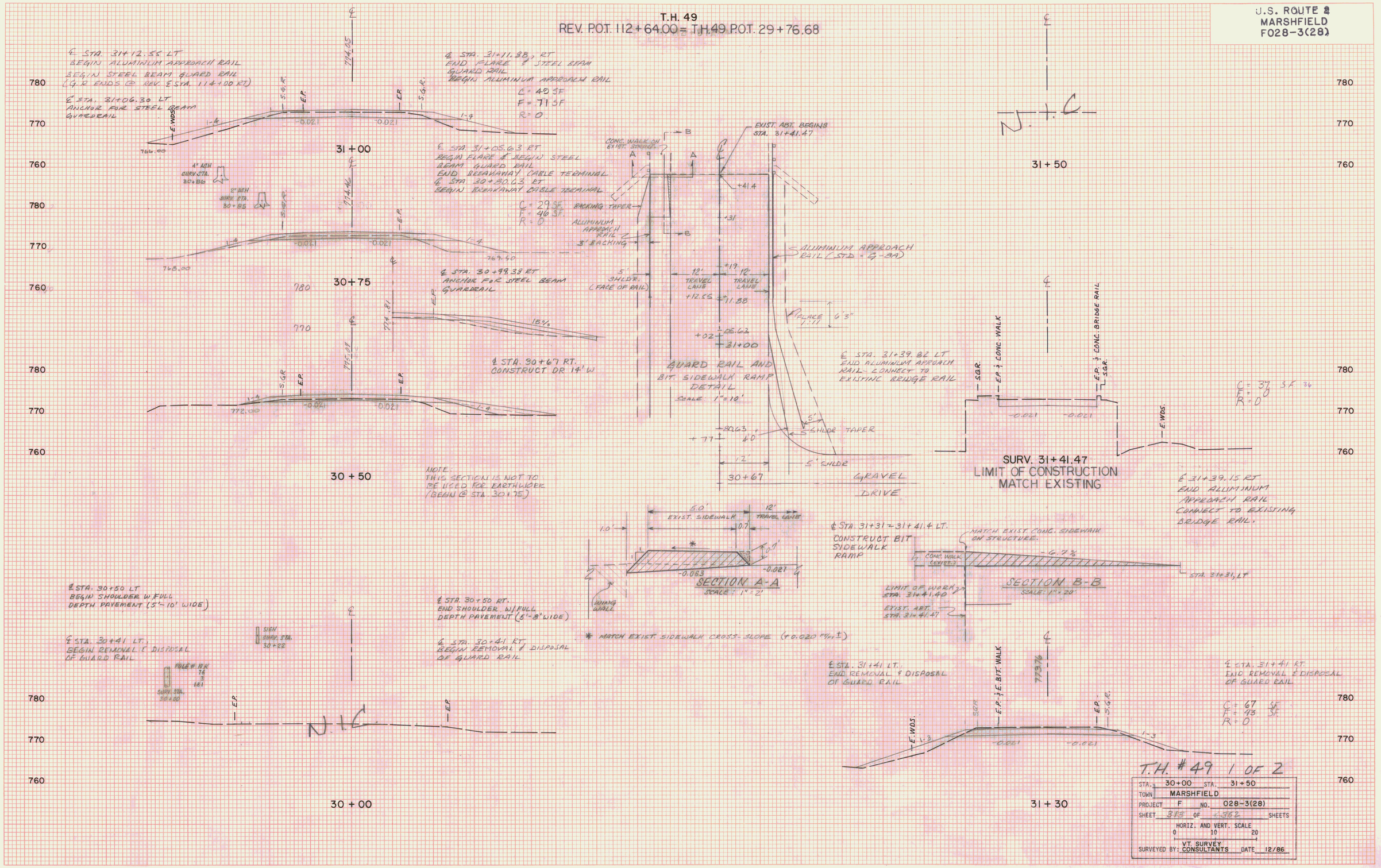


STA. 21+00	STA. 23+00
TOWN MARSHFIELD	
PROJECT F	NO. 028-3(28)
SHEET 312 OF 352 SHEETS	
HORIZ. AND VERT. SCALE 0 10 20	
SURVEYED BY: VT. SURVEY CONSULTANTS	DATE 12/86

FINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULT. BRYANT ASSOC. — DATE 12/86 12/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
T H #56 DIETZGEN CORPORATION

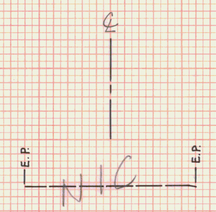


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
T.H. 49
REV. P.O.T. 112+64.00 = T.H.49 P.O.T. 29+76.68
℄ STA. 31+12.55 LT
BEGIN ALUMINUM APPROACH RAIL
BEGIN STEEL BEAM GUARD RAIL
(G.R ENDS @ REV. ℄ STA. 114+00 RT)
℄ STA. 31+06.30 LT
ANCHOR FOR STEEL BEAM GUARDRAIL
℄ STA. 31+11.88, RT
END FLARE & STEEL BEAM GUARD RAIL
BEGIN ALUMINUM APPROACH RAIL
C = 49 SF
F = 71 SF
R = 0
31+00
℄ STA. 31+05.63 RT
BEGIN FLARE & BEGIN STEEL BEAM GUARD RAIL
END BREAKAWAY CABLE TERMINAL
℄ STA. 30+80.63 RT
BEGIN BREAKAWAY CABLE TERMINAL
C = 29 SF
F = 46 SF
R = 0
4" ASH SURV. STA. 30+86
2" ASH SURV. STA. 30+85
30+75
℄ STA. 30+99.38 RT
ANCHOR FOR STEEL BEAM GUARDRAIL
℄ STA. 30+67 RT.
CONSTRUCT DR 14' W
30+50
NOTE:
THIS SECTION IS NOT TO BE USED FOR EARTHWORK
(BEGIN @ STA. 30+75)
℄ STA. 30+50 LT
BEGIN SHOULDER W/FULL DEPTH PAVEMENT (5'-10' WIDE)
℄ STA. 30+41 LT.
BEGIN REMOVAL & DISPOSAL OF GUARD RAIL
SIGN SURV. STA. 30+22
POLE # 10K
SURV. STA. 30+00
℄ STA. 30+50 RT.
END SHOULDER W/FULL DEPTH PAVEMENT (5'-8' WIDE)
℄ STA. 30+41 RT.
BEGIN REMOVAL & DISPOSAL OF GUARD RAIL
30+00
EXIST. ABT. BEGINS STA. 31+41.47
CONC. WALK ON EXIST. STRUCT.
BACKING TAPER
ALUMINUM APPROACH RAIL
3' BACKING
5' SHLDR. (FACE OF RAIL)
12' TRAVEL LANE
ALUMINUM APPROACH RAIL (STD - G-8A)
FLARE 1:11
6'3"
GUARD RAIL AND BIT. SIDEWALK RAMP DETAIL
SCALE: 1"=10'
℄ STA. 31+39.82 LT
END ALUMINUM APPROACH RAIL - CONNECT TO EXISTING BRIDGE RAIL
5' SHLDR TAPER
5' SHLDR
30+67
GRAVEL DRIVE
31+50
SURV. 31+41.47
LIMIT OF CONSTRUCTION
MATCH EXISTING
℄ 31+39.15 RT
END ALUMINUM APPROACH RAIL
CONNECT TO EXISTING BRIDGE RAIL.
C = 37 S.F. 36
F = 0
R = 0
5.0' EXIST. SIDEWALK
12' TRAVEL LANE
SECTION A-A
SCALE: 1" = 2'
WING WALL
* MATCH EXIST. SIDEWALK CROSS-SLOPE (+0.020 FT/FT ±)
℄ STA. 31+31 - 31+41.4 LT.
CONSTRUCT BIT SIDEWALK RAMP
MATCH EXIST. CONC. SIDEWALK ON STRUCTURE.
CONC. WALK (EXIST.)
-6.7%
STA. 31+31, LT
SECTION B-B
SCALE: 1" = 20'
LIMIT OF WORK STA. 31+41.40
EXIST. ABT. STA. 31+41.47
℄ STA. 31+41 LT.
END REMOVAL & DISPOSAL OF GUARD RAIL
℄ STA. 31+41 RT.
END REMOVAL & DISPOSAL OF GUARD RAIL
C = 67 SF
F = 43 SF
R = 0
31+30
T.H. #49 1 OF 2
STA. 30+00 STA. 31+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 313 OF 4362 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT. BRYANT ASSOC.
12/86

T.H. 49

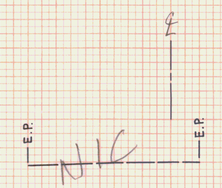
REV. P.O.T. 112+64.00 = T.H.49 P.O.T. 29+76.68

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



780
770
760

32 + 04.7



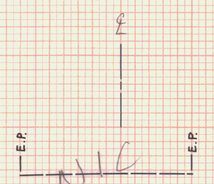
780
770
760

33 + 00



780
770
760

32 + 50



780
770
760

32 + 50

T.H. # 49 2 OF 2

STA. 32+50 STA. 33+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 314 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY
NOTE BOOK
No.
DATE
BY
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED

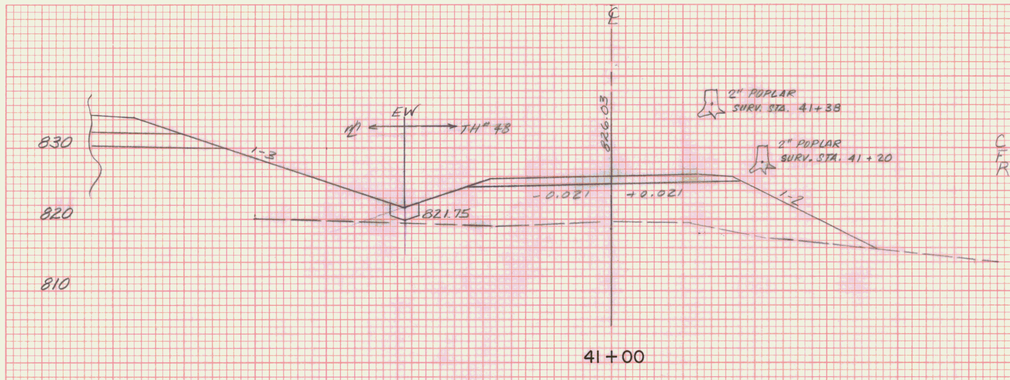
ORIGINAL SURVEY
NOTE BOOK
No.
BY VT SURVEY CONSULT. BRYANT ASSOC.
DATE 12/86 1/87
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

T.H. 48

REV. P.O.T. 124+25.54 = T.H.48 ℄ P.O.T. 39+81.49

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

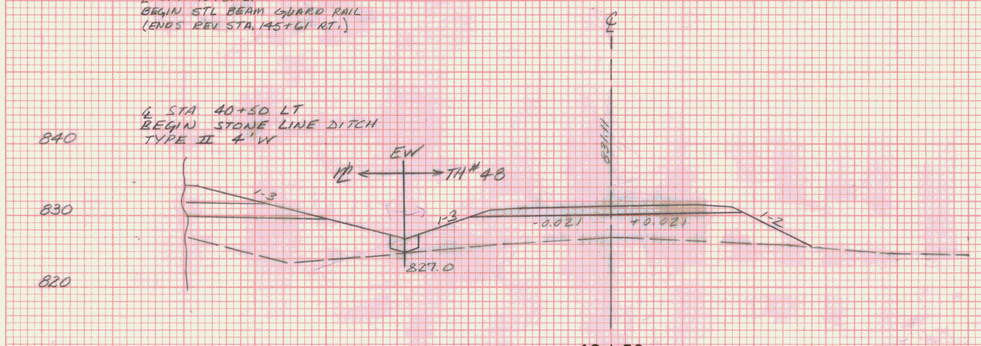


41+00

C = 0
F = 327 SF
R = 0

℄ STA 41+00 ~ 40+81 LT
BREAKAWAY CABLE TERMINAL
(SEE ℄ X-SECT FOR DETAIL)

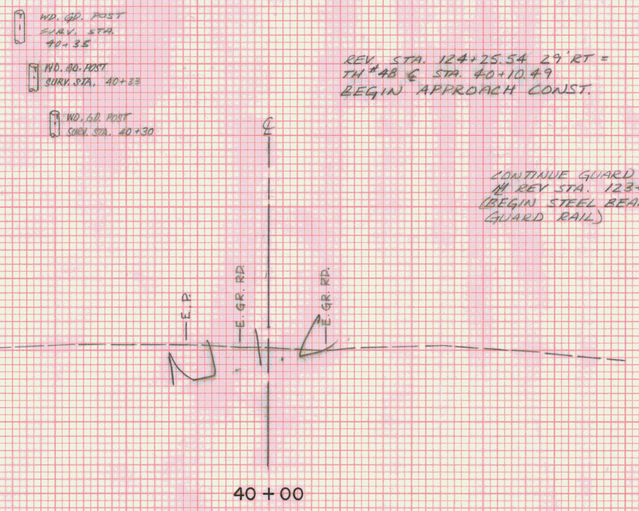
℄ STA. 40+81 LT.
BEGIN STL BEAM GUARD RAIL
(ENDS REV. STA. 145+61 RT.)



40+50

C = 0 Sq. Ft.
F = 192 Sq. Ft.
R = 0 Sq. Ft.

℄ STA 40+50 LT
BEGIN STONE LINE DITCH
TYPE II 4' W

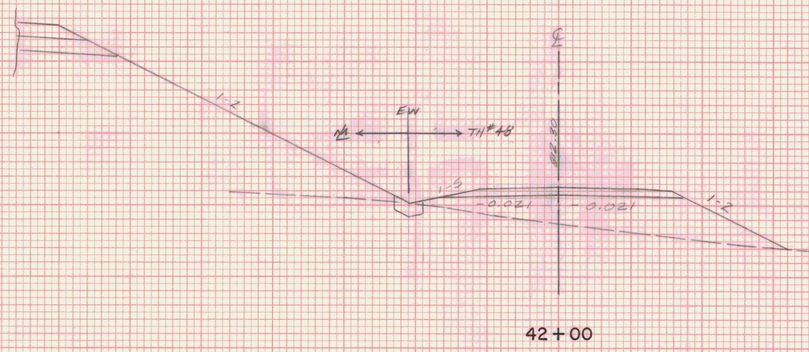


40+00

REV. STA. 124+25.54 29' RT =
TH #48 ℄ STA. 40+10.49
BEGIN APPROACH CONST.

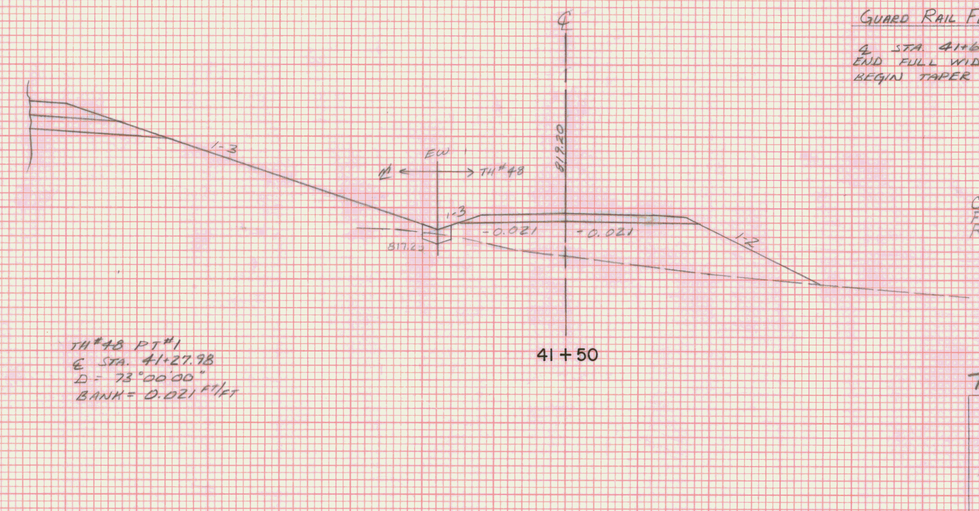
CONTINUE GUARD RAIL FROM
REV STA. 123+60
(BEGIN STEEL BEAM
GUARD RAIL)

TH #48 PC #1
℄ STA 40+04.69
D = 73°00'00"
BANK = 0.021 FT/FT



42+00

C = 0
F = 179 SF
R = 0



41+50

C = 0
F = 224 SF
R = 0

TH #48 PT #1
℄ STA. 41+27.98
D = 73°00'00"
BANK = 0.021 FT/FT

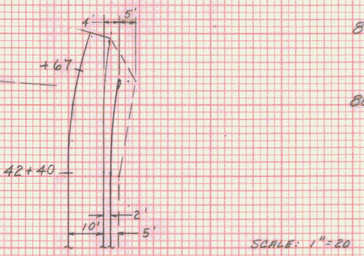
℄ STA. 42+67
END BREAKAWAY CABLE TERMINAL

C = 6 SF
F = 36 SF
R = 0

℄ STA. 42+44 EXIST. 30" RCP
(TO BE REMOVED)

TH #48 PC #2
℄ STA. 42+41.09
D = 45°00'00"
BANK = 0.021 FT/FT

℄ STA. 42+40 RT
END STEEL BEAM GUARD RAIL
BEGIN BREAKAWAY CABLE TERMINAL



SCALE: 1"=20

GUARD RAIL FLARE DETAIL

℄ STA 41+60
END FULL WIDTH CONST.
BEGIN TAPER

T.H. # 48 1 OF 2

STA.	40+00 STA. 42+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	315 OF 383 SHEETS

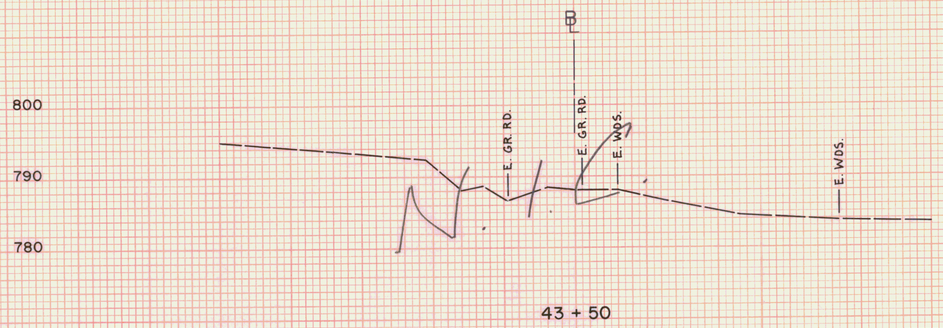
HORIZ. AND VERT. SCALE
0 10 20

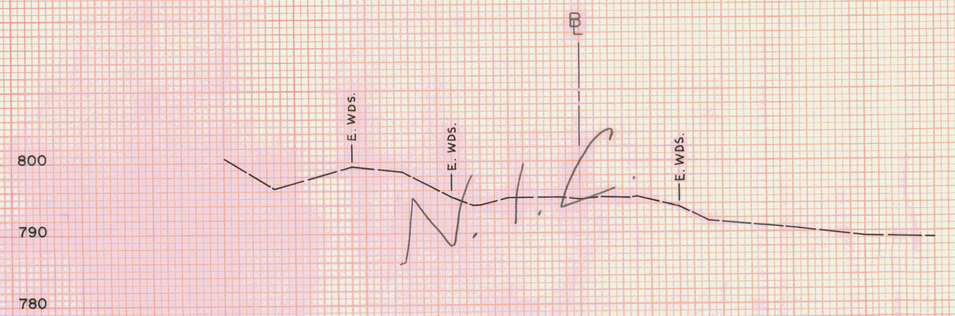
SURVEYED BY: _____ DATE _____

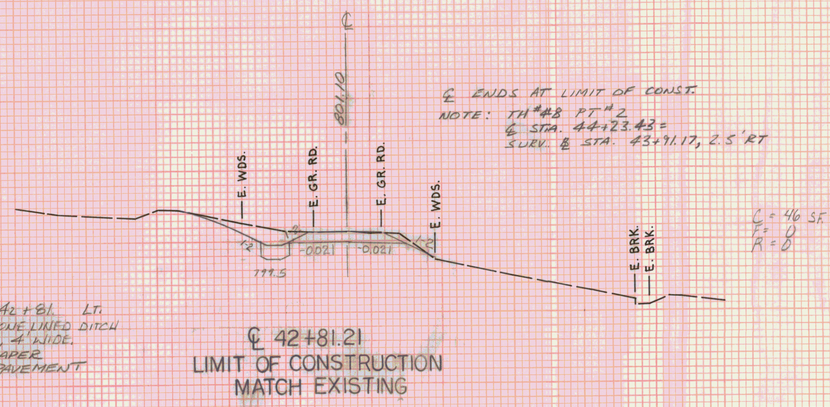
PLATE 3 CROSS SECTION O. F. R. & R. E. STANDARD
DIETZGEN CORPORATION

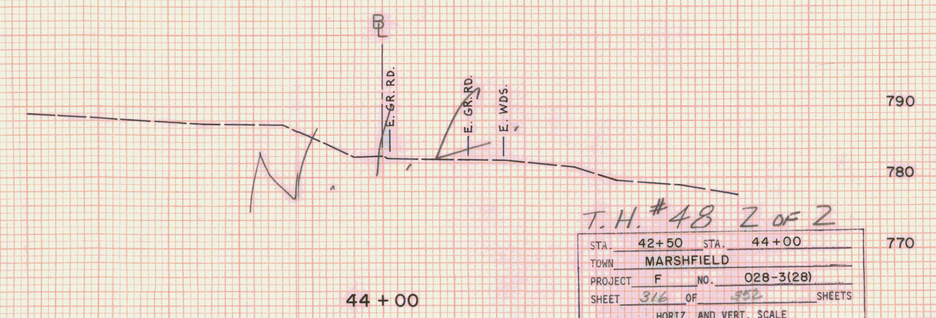
T.H. 48
REV. P.O.T. 125 + 25.54 = T.H. 48 ℄ P.O.T. 39 +81.49

U.S. ROUTE 2
MARSHFIELD
F028-3(28)









T.H. # 48 2 OF 2

STA. 42+50 STA. 44+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 316 OF 332 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

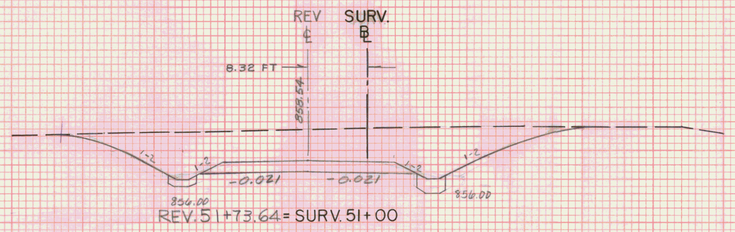
FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
BY VT. SURVEY CONSULT. BRYANT ASSOC.
DATE 12/86 1/87
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
No.

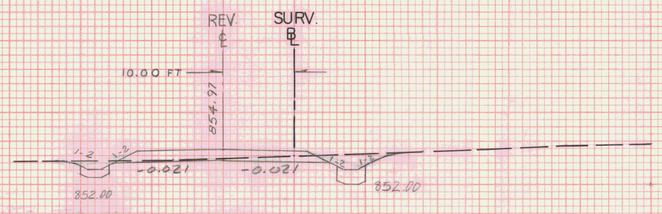
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

T.H. 55
REV. P.O.T. 141+25.00 = T.H. 55 REV. P.O.T. 50+00.00

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

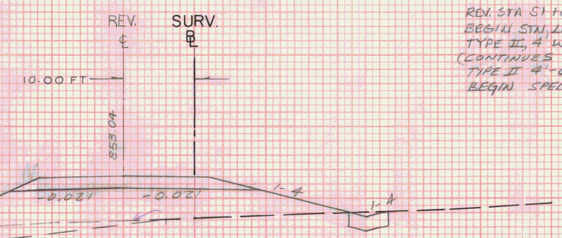


REV. 51+73.64 = SURV. 51+00

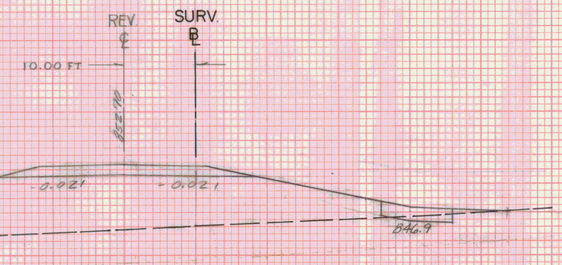


REV. 51+26.44 = SURV. 50+50

REV. STA. 51+01 LT.
BEGIN STN. LINED DITCH
TYPE I, 4' WIDE.
(CONTINUED FROM REV. STA. 140+70 STONE LINED TYPE II, 6'-4" W.).
END SPECIAL DITCH



REV. 50+76.44 = SURV. 50+00

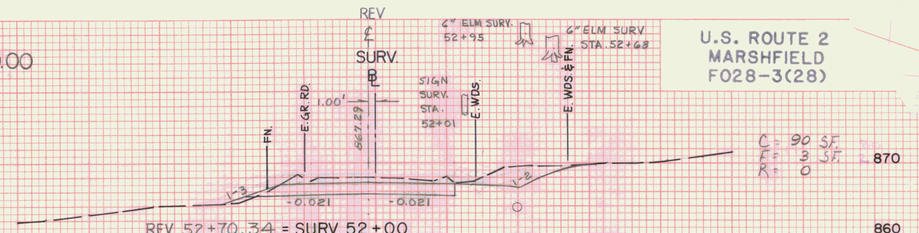


REV. 50+56.00 = SURV. 49+79.56

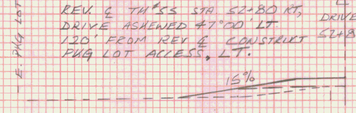
REV. STA. 50+47
END APPROACH CONST.
END PAVEMENT

REV. STA. 51+01 RT.
BEGIN STN. LINED DITCH
TYPE II, 4' WIDE
(CONTINUES ON M
TYPE II 4'-6" W,
BEGIN SPECIAL DITCH)

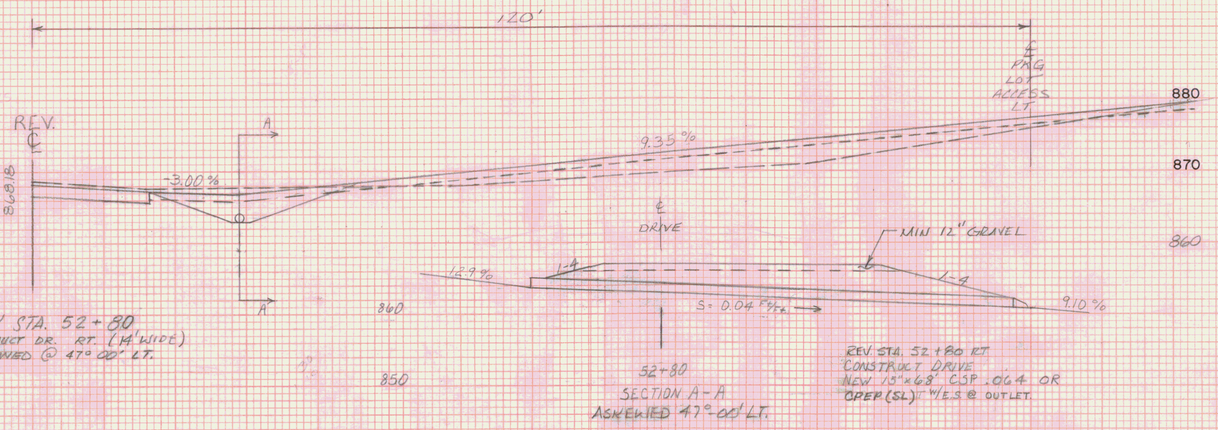
REV. STA. 52+80
CONSTRUCT DR. RT. (14' WIDE)
ASKEWED @ 47° 00' LT.



REV. 52+70.34 = SURV. 52+00
END FULL WIDTH ROAD
BEGIN TAPER

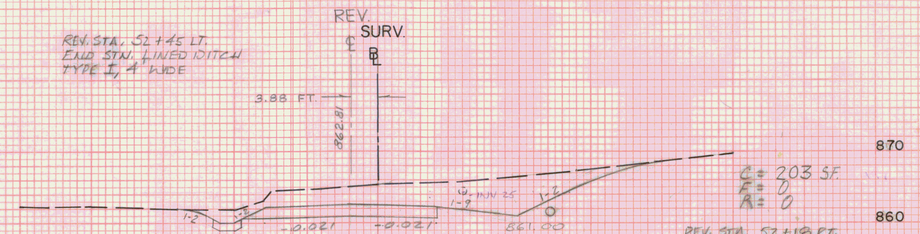


PKG LOT ACCESS PROFILE @ ℄



REV. STA. 52+80 RT.
CONSTRUCT DRIVE
NEW 15"x6.8" CSP .064 OR
OPEP (SL) W/ E.S. @ OUTLET.

REV. STA. 52+45 LT.
END STN. LINED DITCH
TYPE I, 4' WIDE



REV. 52+20.76 = SURV. 51+50

C = 203 SF.
F = 0
R = 0

REV. STA. 52+18 RT.
END STN. LINED DITCH, 4' WIDE

REV. STA. 52+18 RT.
EXIST. 15" CGP (REMOVE)

C = 334 SF.
F = 0
R = 0

C = 43 SF.
F = 0
R = 0

C = 32
F = 263 SF.
R = 0

C = 0
F = 549 SF.
R = 0

T.H. #55 1 OF 2

STA.	49+79.56 STA. 52+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	319 OF 1352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 12/86

FINAL SURVEY
NOTE BOOK
No.
SUBMITTED
ACCEPTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
No.
SUBMITTED
ACCEPTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

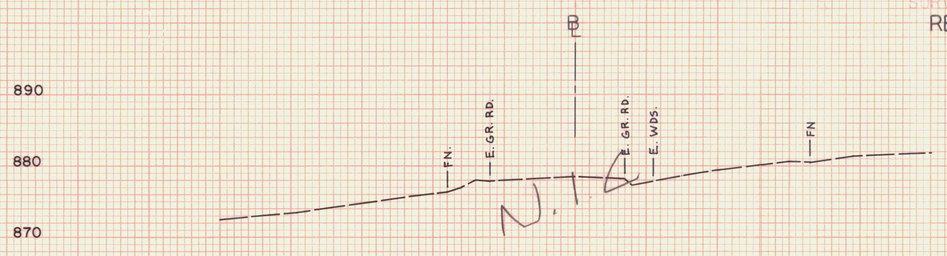
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

T.H. 55

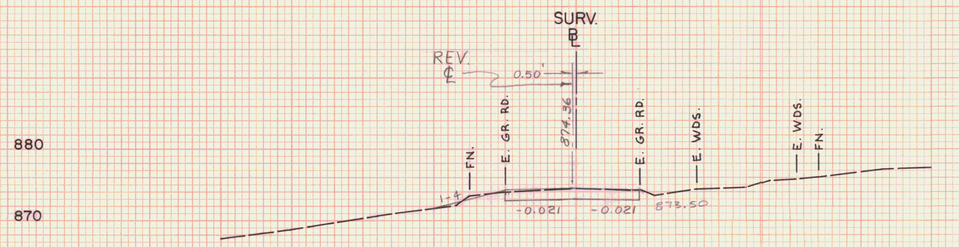
~~SURV. STA 141+59.84 = T.H. 55 REV. STA. 50+60.48~~

REV. P.O.T. 141+25.00 = T.H.55 REV. P.O.T. 50+00.00

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



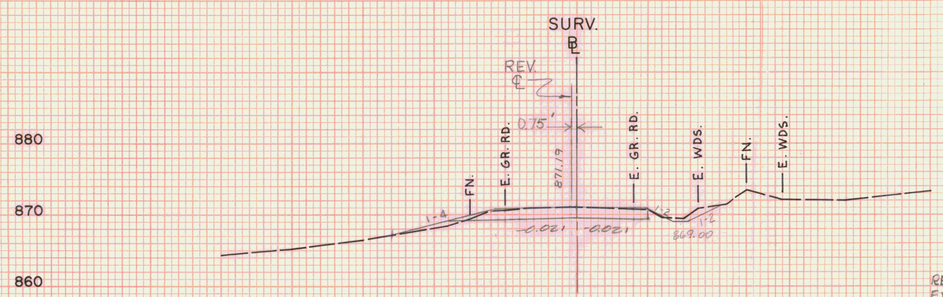
53 + 50



C = 26 Sq Ft.
F = 15 Sq Ft.
R = 0

860

REV. 53+70.34 = SURV 53 + 00
LIMIT OF CONSTRUCTION
MATCH EXISTING
END TAPER



C = 40 S.F.
F = 6 S.F.
R = 0

REV. STA. 52+82 RT.
EXIST. 18" ACC&MP (REMOVE)

REV. 53+20.34 = SURV 52 + 50

T.H. #55 2 of 2

STA.	52+50 STA. 53+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	~~248~~ OF 352 SHEETS

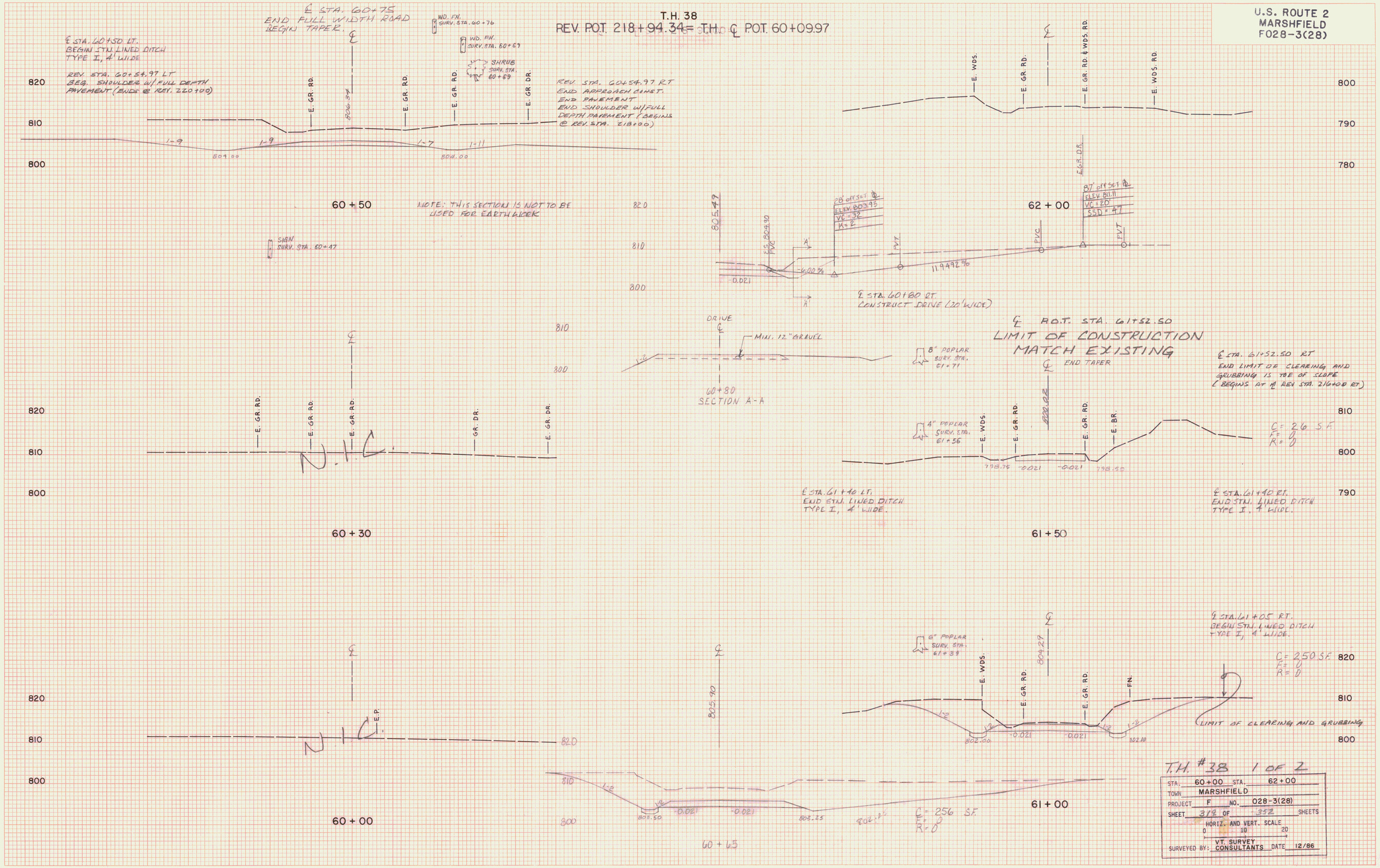
HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY — DATE — BY — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — NOTE BOOK — NO.

ORIGINAL SURVEY — DATE 12/86 1/87 — BY VT. SURVEY CONSULT. BRYANT ASSOC. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — NOTE BOOK — NO.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

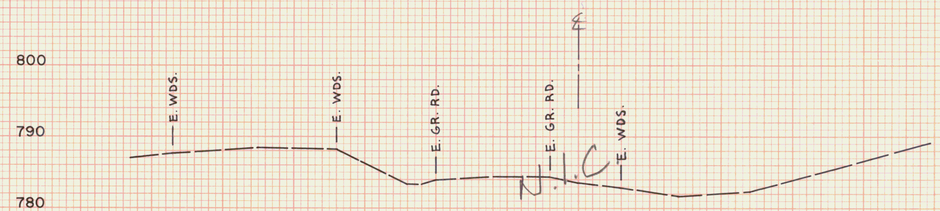


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
T.H. 38
REV. P.O.T. 218+94.34 = T.H. ℄ P.O.T. 60+09.97
℄ STA. 60+75
END FULL WIDTH ROAD
BEGIN TAPER.
℄ STA. 60+50 LT.
BEGIN STN. LINED DITCH
TYPE I, 4' WIDE
REV. STA. 60+54.97 LT
BEG. SHOULDER W/ FULL DEPTH
PAVEMENT (ENDS @ REV. 220+00)
REV. STA. 60+54.97 RT
END APPROACH CONST.
END PAVEMENT
END SHOULDER W/ FULL
DEPTH PAVEMENT (BEGINS
@ REV. STA. 218+00)
WD. FN.
SURV. STA. 60+76
WD. FN.
SURV. STA. 60+69
SHRUB
SURV. STA.
60+69
E. GR. RD.
E. GR. DR.
806.34
804.00
1-9
1-7
1-11
60+50
NOTE: THIS SECTION IS NOT TO BE
USED FOR EARTHWORK
SIGN
SURV. STA. 60+47
E. WDS.
E. GR. RD. & WDS. RD.
62+00
805.49
28' OFFSET ℄
ELEV. 803.95
VC = 32
K = 2
87' OFFSET ℄
ELEV. 811.11
VC = 20
SSD = 47
PVC
PVT
-0.021
-6.00%
11.9492%
℄ STA. 60+80 RT.
CONSTRUCT DRIVE (20' WIDE)
DRIVE
MIN. 12" GRAVEL
60+80
SECTION A-A
℄ P.O.T. STA. 61+52.50
LIMIT OF CONSTRUCTION
MATCH EXISTING
END TAPER
8" POPLAR
SURV. STA.
61+71
4" POPLAR
SURV. STA.
61+56
℄ STA. 61+52.50 RT
END LIMIT OF CLEARING AND
GRUBBING IS TOE OF SLOPE
(BEGINS AT ℄ REV STA. 216+00 RT)
800.02
798.75
-0.021
798.50
C = 26 S.F.
F = 0
R = 0
60+30
℄ STA. 61+40 LT.
END STN. LINED DITCH
TYPE I, 4' WIDE.
℄ STA. 61+40 RT.
END STN. LINED DITCH
TYPE I, 4' WIDE.
61+50
℄ STA. 61+05 RT.
BEGIN STN. LINED DITCH
TYPE I, 4' WIDE.
6" POPLAR
SURV. STA.
61+39
804.29
C = 250 S.F.
F = 0
R = 0
E. WDS.
E. GR. RD.
FN.
802.00
-0.021
LIMIT OF CLEARING AND GRUBBING
E.P.
805.90
60+00
803.50
-0.021
803.25
802.25
C = 256 S.F.
F = 0
R = 0
60+65
61+00
T.H. #38 1 OF 2
STA. 60+00 STA. 62+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 312 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86
FINAL SURVEY
NOTE BOOK
ORIGINAL SURVEY
VT. SURVEY CONSULT 12/86
BRYANT ASSOC. 1/87
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

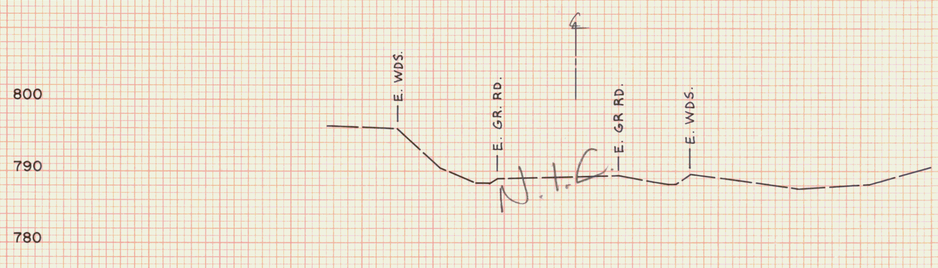
T.H. 38

REV. P.O.T. 218+94.34 = T.H. ℄ P.O.T. 60+09.97

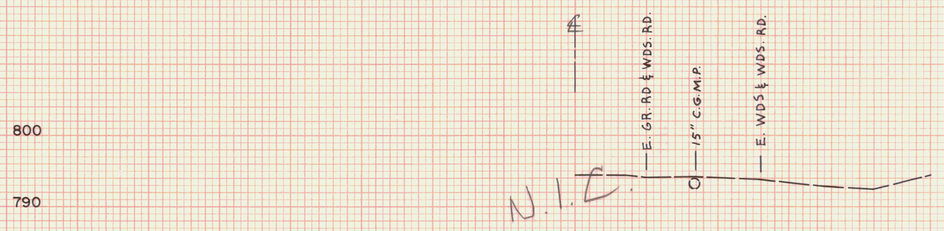
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



63 + 00



62 + 50



62 + 05

APPROVED FOR PUBLICATION

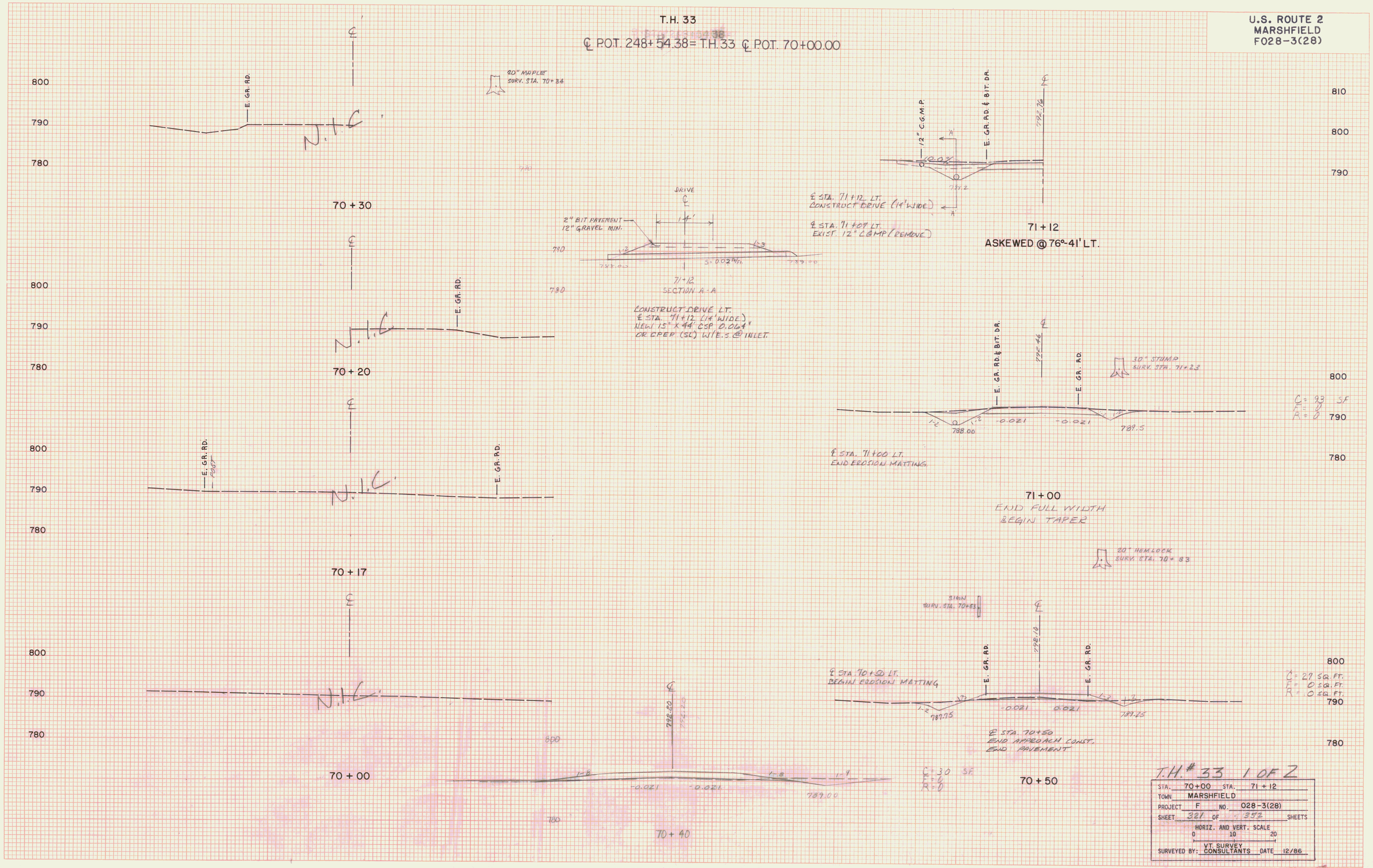
T.H. # 38 2 OF 2

STA. 62 + 05 STA. 63+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 320 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULT. BRYANT ASSOC. — DATE 12/86 1/87

PLATE 3 CROSS SECTION © P. R. & R. E. STANDARD
DIETZGEN CORPORATION



T.H. # 33 1 OF 2

STA. 70+00	STA. 71 + 12
TOWN MARSHFIELD	
PROJECT F	NO. 028-3(28)
SHEET 321 OF 352 SHEETS	
HORIZ. AND VERT. SCALE 0 10 20	
SURVEYED BY: VT. SURVEY CONSULTANTS	DATE 12/86

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

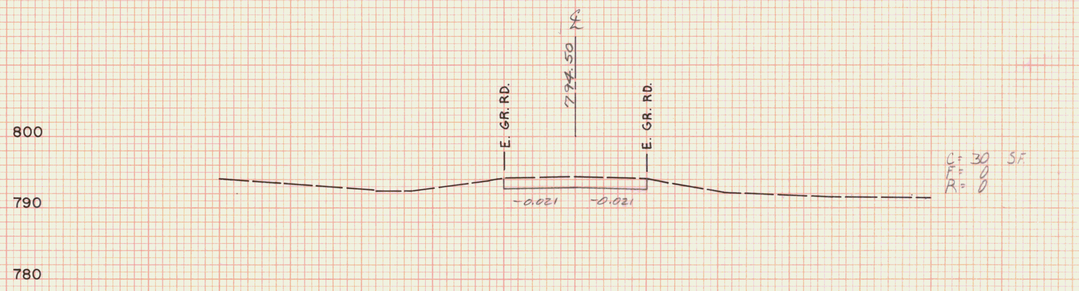
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

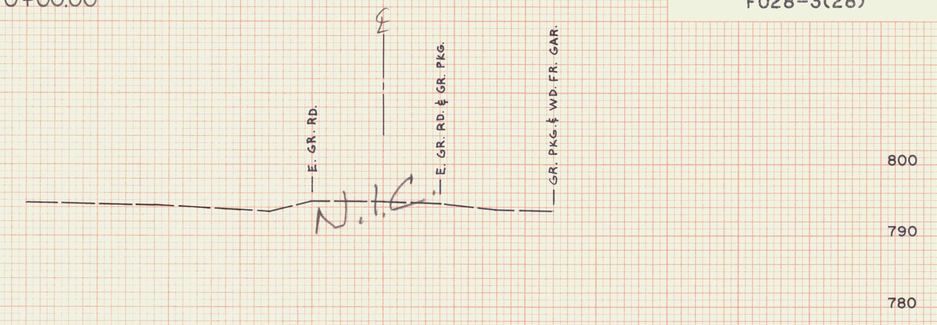
VT. SURVEY CONSULT. BRYANT ASSOC. 12/86 1/87

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

T.H. 33
℄ P.O.T. 248+54.38 = T.H. 33 ℄ P.O.T. 70+00.00

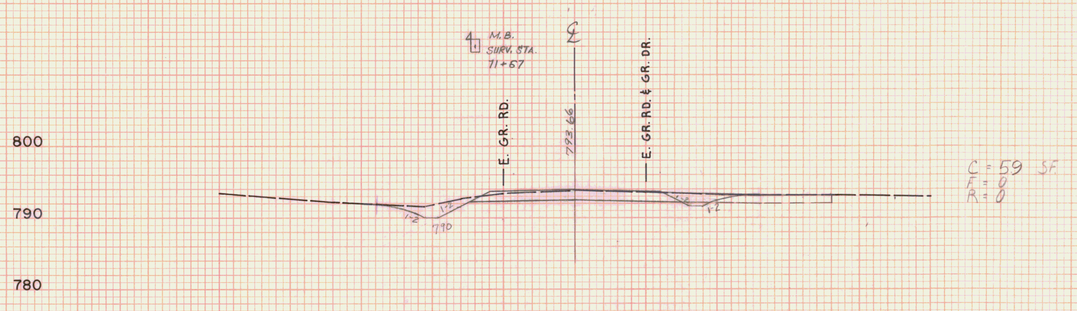




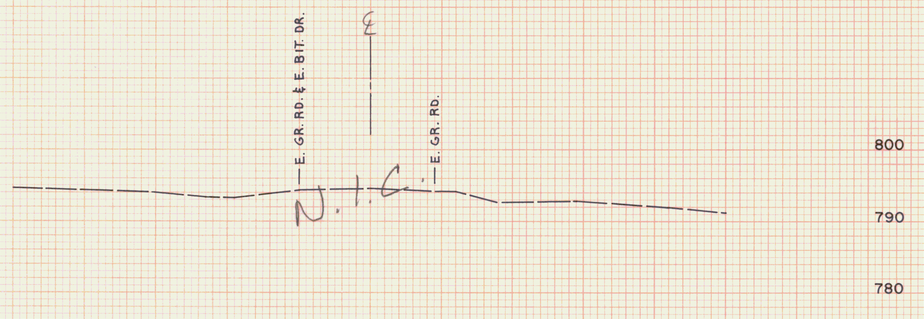
72 + 00
LIMIT OF CONSTRUCTION
MATCH EXISTING
END TAPER

POLE # 1-01
W/ UNDER ELEC.
SURV. STA. 71+69

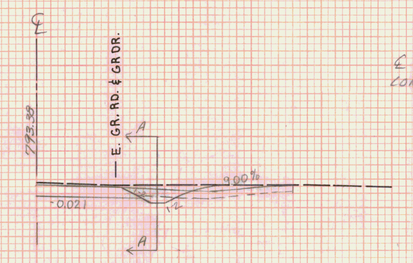
M.B.
SURV. STA.
71+67



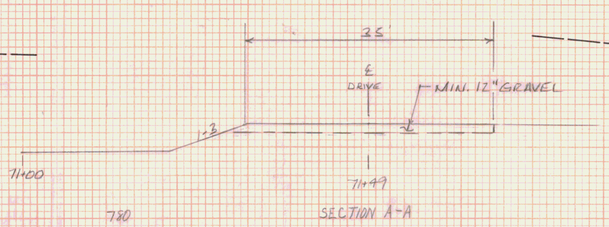
73 + 00



71 + 50



℄ STA. 71+49 RT
CONSTRUCT DRIVE (35' WIDE)



72 + 50



72 + 33
ASKEWED @ 78°-08' LT.

T.H. #33 2 OF 2

STA.	71+37 STA. 73+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	328 OF 332 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

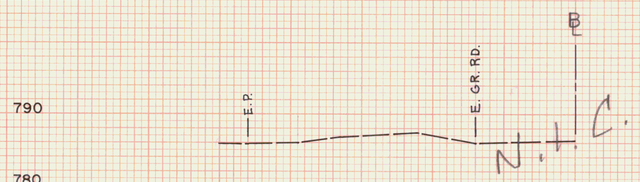
ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULT. BAYMAT ASSOC. — DATE 12/86 1/87

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

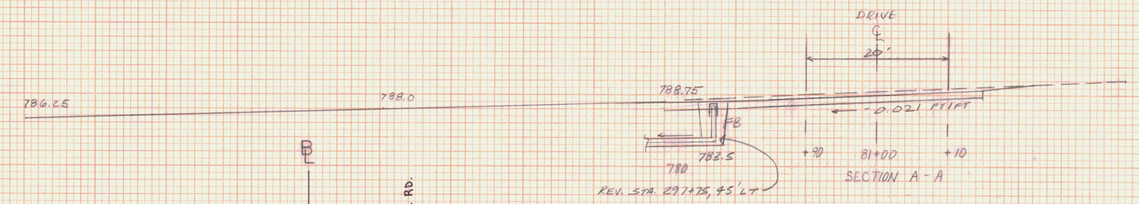
T.H. 34

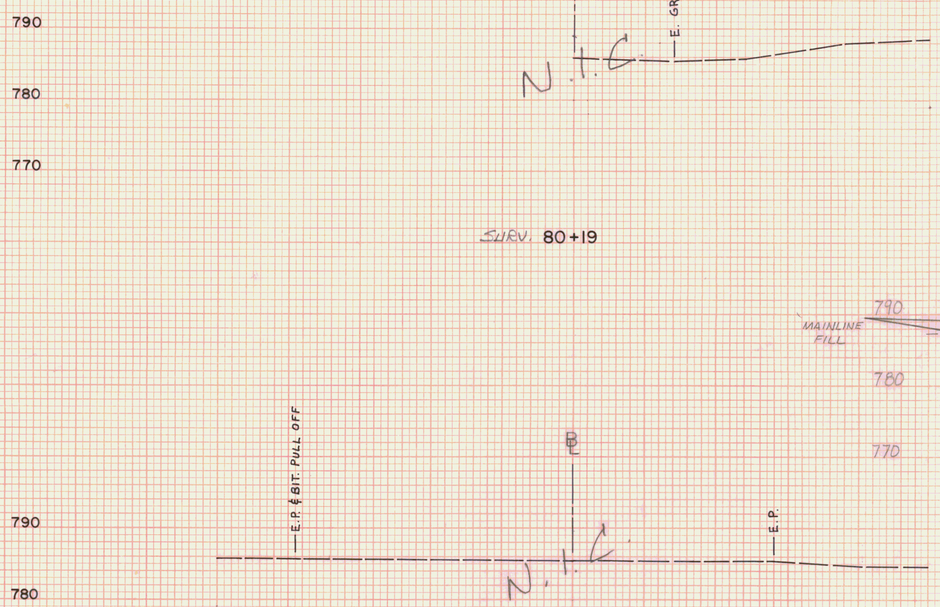
REV. P.O.T. 298+07.12 = T.H. 34 REV. P.O.T. 80+00.00

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

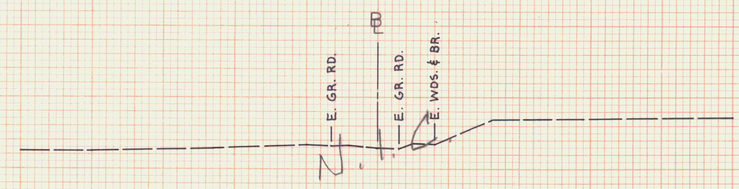


SURV. 80+26

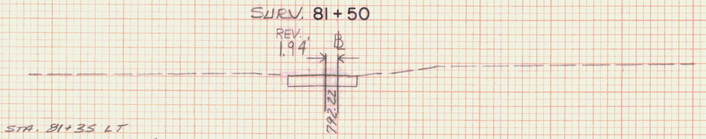




SURV. 80+00

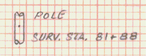


SURV. 81+50



REV. STA. 81+35 LT
END LIMIT OF CLEARING AND GRUBBING IS THE TOP OF SLOPE

REV. 81+35 = SURV. 81+37.05, 1.94' LT.
LIMIT OF CONSTRUCTION
MATCH EXISTING
END TAPER



REV. STA. 81+15 RT.
END STN. LINED DITCH
TYPE I, 4' WIDE.

REV. STA. 81+00 LT
CONSTRUCT DRIVE (20' WIDE)

C= 69 SF
F= 0
R= 0

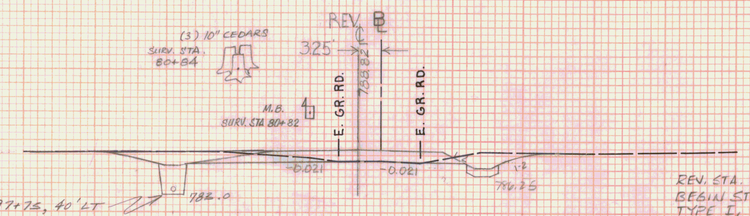


C= 34 SF
F= 42 SF
R= 0

REV 80+37.95 = SURV 81+00

REV. STA. 80+60
END APPROACH CONST.
END PAVEMENT
BEG. TAPER

REV. 80+32.95 = SURV. 80+35



C= 58 SF
F= 0
R= 0

REV. STA. 297+75, 40' LT

REV. STA. 80+49 RT.
BEGIN STN. LINED DITCH
TYPE I, 4' WIDE

REV. 80+47.95 = SURV. 80+50

TH # 34 1 OF 2

STA.	80+00 STA. 81+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	323 OF 1362 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY
DATE
BY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
No.

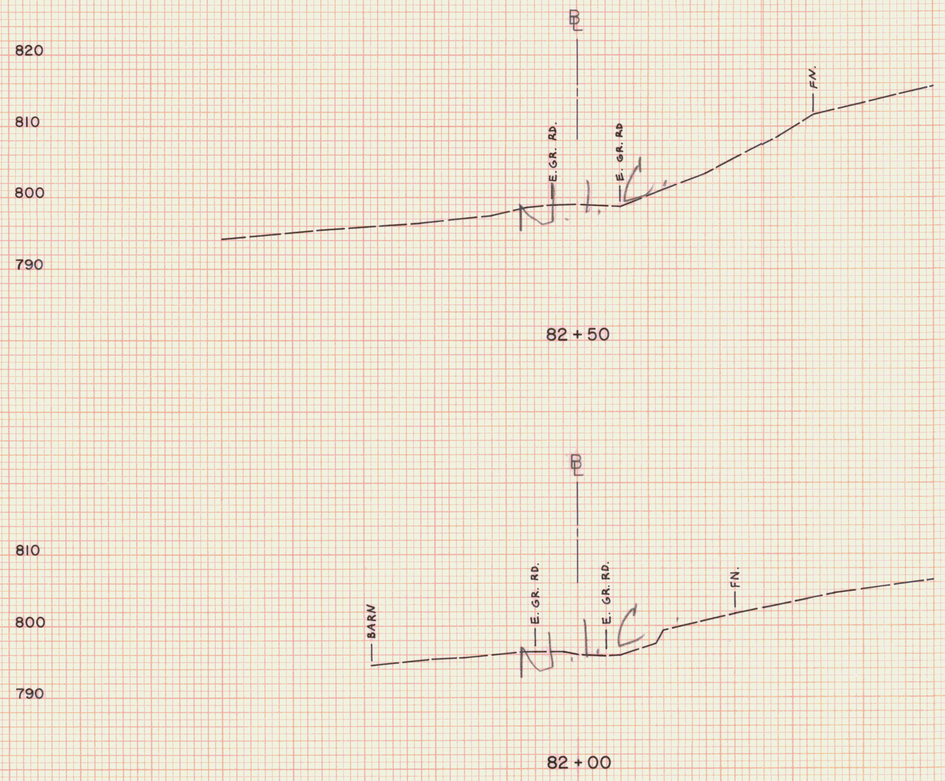
ORIGINAL SURVEY
DATE 12/86 1/87
BY VT. SURVEY CONSULT. BRYANT ASSOC.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
No.

PLATE 3 CROSS SECTION O. F. R. & R. E. STANDARD
DIETZGEN CORPORATION

T.H.W. # 34

T.H. 34
REV. P.O.T. 298 +07.12 = T.H.34 REV. POT 80 +00.00

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



TH #34 2 OF 2

STA.	81+86	STA.	83+00
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	324	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

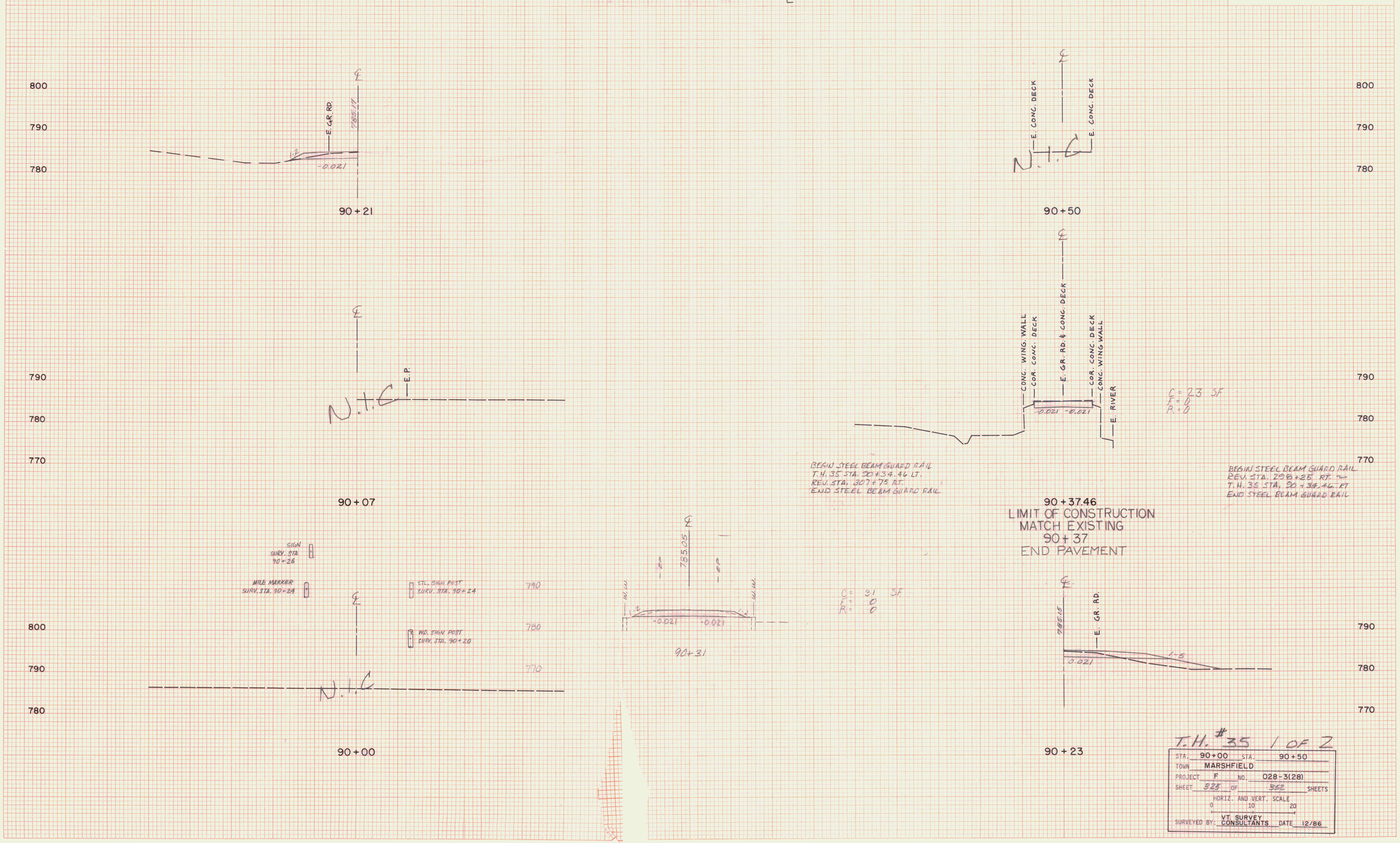
FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — DATE — BY

ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — DATE 12/86 1/87 — BY VT. SURVEY CONSULT. BRYANT ASSOC.

PLATE 3 CROSS SECTION U. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

T.H. 35
REV. P.O.C. 305+64.81 RT. = T.H. 35 ℄ P.O.T. 89+87.36



T.H. #35 1 OF 2

STA.	90+00	STA.	90+50
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	325	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

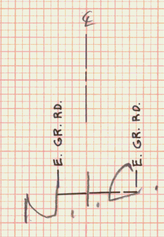
FINAL SURVEY NOTE BOOK No. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

ORIGINAL SURVEY NOTE BOOK No. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY VT. SURVEY Consult. BRYANT ASSOC. — DATE 12/86 1/87

3 CROSS SECTION C. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

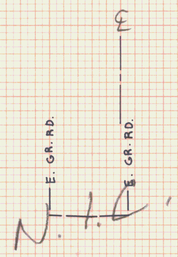
T.H. 35
REV. P.O.C. 305+64.81 RT. = T.H. 35 ℄ P.O.T. 89+87.36

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



790
780
770

91 + 50



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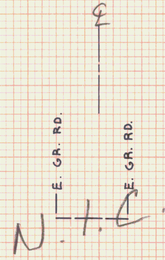
790
780

93 + 00



790
780
770

91+00



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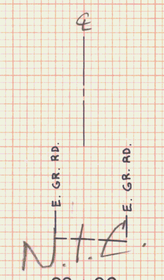
780

92+50



790
780
770

90+36.37



800
790
780

92 + 00

TH #35 2 OF 2

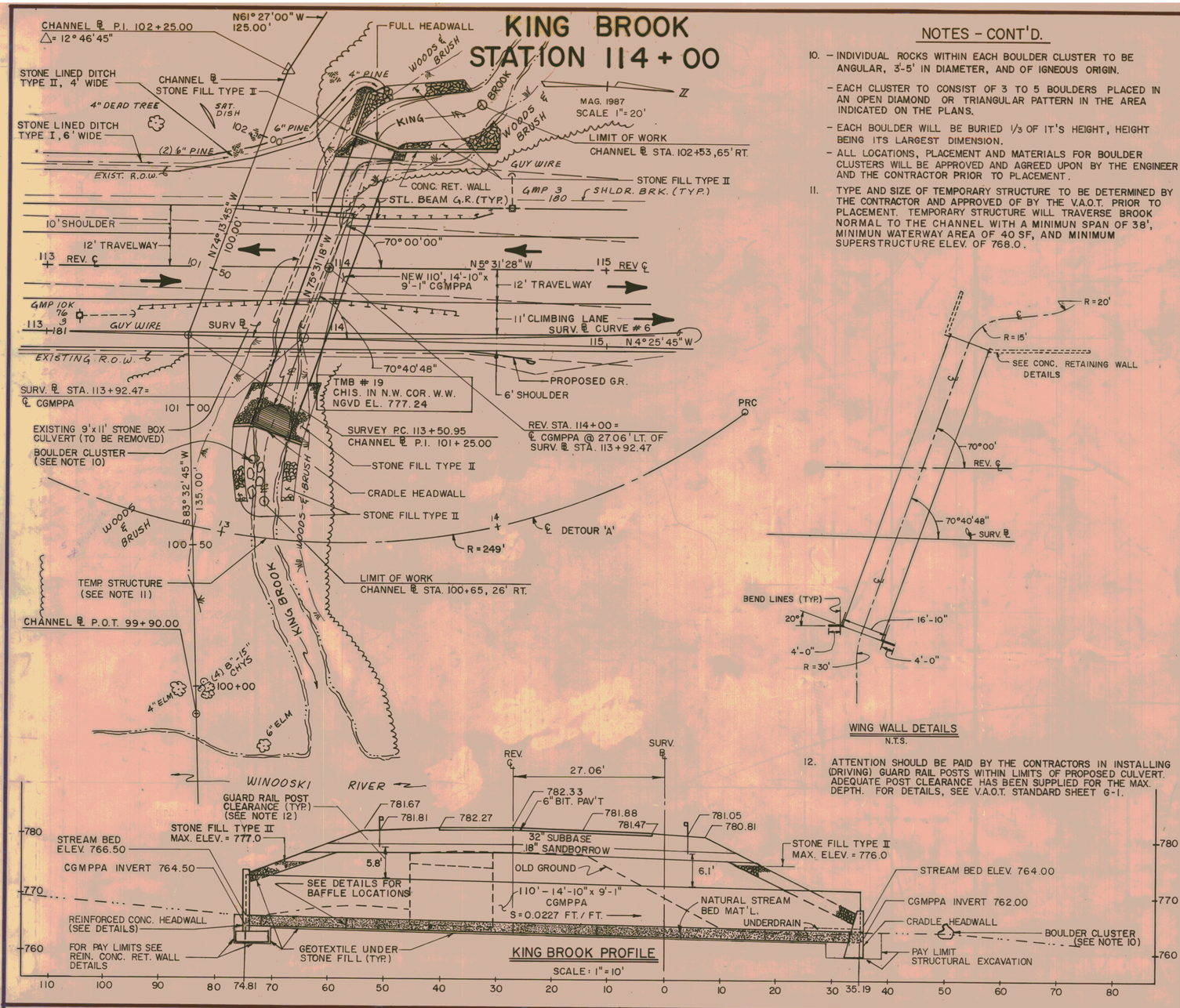
STA. 90+36.37 STA. 93+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 326 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY — NOTE BOOK No. — DATE — BY — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK No. — BY VT. SURVEY CONSULT. BRYANT ASSOC. — DATE 12/86 1/87 — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED

PLATE 3 CROSS SECTION © P. R. & R. E. STANDARD
DIETZGEN CORPORATION

KING BROOK
STATION 114 + 00



KING BROOK PROFILE
SCALE: 1"=10'

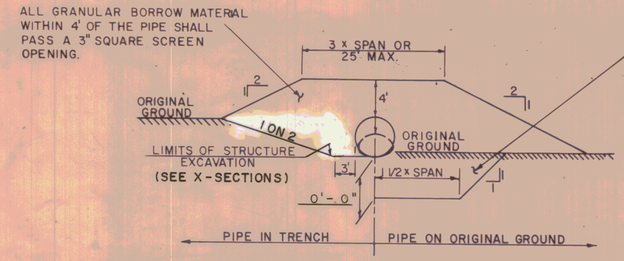
WING WALL DETAILS
N.T.S.

NOTES - CONT'D.

10. – INDIVIDUAL ROCKS WITHIN EACH BOULDER CLUSTER TO BE ANGULAR, 3'-5' IN DIAMETER, AND OF IGNEOUS ORIGIN.
    – EACH CLUSTER TO CONSIST OF 3 TO 5 BOULDERS PLACED IN AN OPEN DIAMOND OR TRIANGULAR PATTERN IN THE AREA INDICATED ON THE PLANS.
    – EACH BOULDER WILL BE BURIED 1/3 OF IT'S HEIGHT, HEIGHT BEING ITS LARGEST DIMENSION.
    – ALL LOCATIONS, PLACEMENT AND MATERIALS FOR BOULDER CLUSTERS WILL BE APPROVED AND AGREED UPON BY THE ENGINEER AND THE CONTRACTOR PRIOR TO PLACEMENT.
11. TYPE AND SIZE OF TEMPORARY STRUCTURE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED OF BY THE V.A.O.T. PRIOR TO PLACEMENT. TEMPORARY STRUCTURE WILL TRAVERSE BROOK NORMAL TO THE CHANNEL WITH A MINIMUM SPAN OF 38', MINIMUN WATERWAY AREA OF 40 SF, AND MINIMUM SUPERSTRUCTURE ELEV. OF 768.0.
12. ATTENTION SHOULD BE PAID BY THE CONTRACTORS IN INSTALLING (DRIVING) GUARD RAIL POSTS WITHIN LIMITS OF PROPOSED CULVERT. ADEQUATE POST CLEARANCE HAS BEEN SUPPLIED FOR THE MAX. DEPTH. FOR DETAILS, SEE V.A.O.T. STANDARD SHEET G-1.

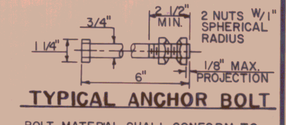
NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990, AND THE LATEST A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. DESIGN IS FOR HS-20 LIVE LOADING.
2. UNLESS OTHERWISE INDICATED FOUR (4) BOLTS PER LINEAR FOOT FOR STEEL PLATES AND FIVE AND ONE THIRD (5 1/3) BOLTS FOR ALUMINUM PLATES ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH GALVANIZED ASTM A-449 BOLTS.
3. WHEN NORMAL CONSTRUCTION OR REGULAR ROADWAY TRAFFIC IS MAINTAINED OVER THE PIPE THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET OF COMPACTED MATERIAL.
4. ALUMINUM PIPE THAT IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH ZINC CHROMATE, OR BITUMINOUS, OR ASPHALTIC PAINT.
5. PIPES SHALL BE FACTORY ELONGATED 5% (PIPE ARCHES SHALL NOT BE ELONGATED).
6. THE ENDS OF THE PIPE SHALL BE CUT SQUARE (NOT BEVELED TO MATCH SLOPES).
7. AT THE OUTLET END INCLUDE A 10 FOOT PIECE OF 6" UNDERDRAIN EACH SIDE ON SAME GRADIENT AS CULVERT CONFORMING TO SECTION 711.01. COST TO BE INCLUDED IN UNIT PRICE BID FOR THE CULVERT PIPE.
8. PIPE IS TO BE FILLED WITH 2'-0" OF NATURAL STREAM BED MATERIAL.
9. FILLED INVERT FOR C.G.M.P.P.A. TO BE NATURAL STREM BED MATERIAL APPROVED OF AND PLACED AS DIRECTED BY ENGINEER.



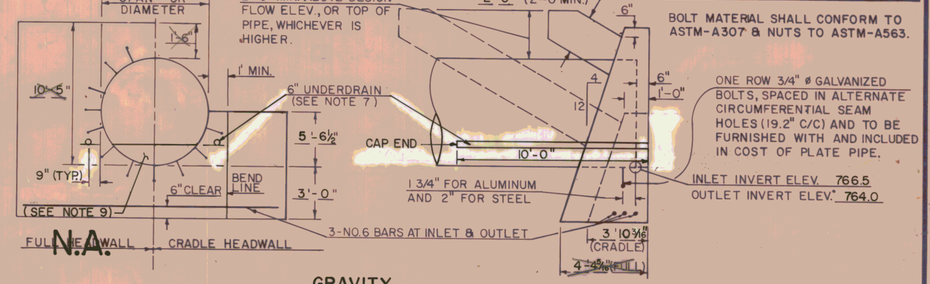
EXCAVATE POOR MATERIAL TO DEPTH SHOWN OR AS DIRECTED BY THE ENGINEER, AND REPLACE WITH GRANULAR BACKFILL FOR STRUCTURES OR SAND BORROW. IF LEDGE OR OTHER UNYIELDING MATERIAL IS ENCOUNTERED IT SHALL BE REMOVED TO A DEPTH OF TWELVE (12) INCHES BELOW BOTTOM OF PIPE AND REPLACED WITH SUITABLE MATERIAL AS DIRECTED BY ENGINEER.

TYPICAL BACKFILL SECTION



TYPICAL ANCHOR BOLT

BOLT MATERIAL SHALL CONFORM TO ASTM-A307 & NUTS TO ASTM-A563.



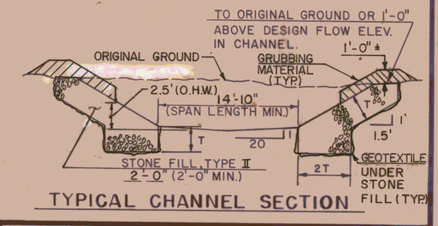
N.A.

GRAVITY HEADWALL DETAILS

CRADLE HEADWALL REINFORCING STEEL SCHEDULE

NO. PIECES	SIZE	LENGTH	MARK	TYPE		
3	6	26'-0"	4W601	STR.		

(NOTE: FOR REINFORCED CONCRETE RETAINING WALL STEEL SCHEDULE SEE REINFORCED CONCRETE RETAINING WALL DETAILS)



TYPICAL CHANNEL SECTION

ESTIMATED QUANTITIES

NO.	ITEM	UNIT	TOTAL	FINAL
203.16	SOLID ROCK EXCAVATION	CY	60	
203.25	CHANNEL EXCAVATION OF EARTH	CY	62	
204.25	STRUCTURE EXCAVATION	CY	1943	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	100	
501.25	CONCRETE, CLASS B	CY	15	
506.60	STRUCTURAL STEEL	LBS.	7,126	
507.15	REINFORCING STEEL	LBS.	117	
511.16100	14'-10" x 9'-1" C.G.M.P.P.A. (0.109)	EACH	1	
613.11	STONE FILL, TYPE II	CY	135	
649.	GEOTEXTILE UNDER STONE FILL	SY	850	
651.26	HAY BALES FOR EROSION CONTROL	EACH	100	
203.32	GRANULAR BORROW (EST.)	CY	1350	
NOTE:	QUANITIES DO NOT INCLUDE ANY ITEM ESTIMATES FOR CONCRETE RETAINING WALLS (SEE DETAILS)			

HYDRAULIC DATA

DRAINAGE AREA = 2.28 SQ. MI. DESIGN FLOW Q 50

Q_{10} =	350 C.F.S.	Q_{10} HEADWATER ELEVATION =	772.0
Q_{25} =	425 C.F.S.	Q_{25} HEADWATER ELEVATION =	772.6
Q_{50} =	550 C.F.S.	Q_{50} HEADWATER ELEVATION =	773.7
Q_{100} =	675 C.F.S.	Q_{100} HEADWATER ELEVATION =	774.9

TAILWATER DEPTH AT Q 50 = 3.6 FEET, ELEVATION 767.6
OUTLET VELOCITY AT Q 50 = 11.1 FEET PER SECOND
ORDINARY HIGHWATER DEPTH 2.5 FEET
COMMENTS: OVERTOPPING FREQUENCY EXCEEDS Q100

DETAILS OF STRUCTURAL PLATE PIPE CULVERTS

	STEEL	STEEL	ALUMINUM
CORRUGATIONS	6"x 2"		
SIZE OF PIPE OR PIPE ARCH	14'-10" x 9'-1" CGMPPA		
WATERWAY AREA (S.F.)	81.87		
PLATE THICKNESS (COATED)	0.109		
BOLT SIZE	3/4" DIA.		
WEIGHT PER LINEAR FOOT	271		
TOTAL WEIGHT (LBS.)	29,810.		

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MARSHFIELD	Bridge No.
HIGHWAY NO. US RTE 2	Log Sta. Surv. Sta. 113+96
KING BROOK - BR-100	
REV. ℄ STA. 114+00	
Designed by SMB	Drawn by SJB
Checked by date	Bridge Design Supervisor date
PROJECT U.S. ROUTE 2 - MARSHFIELD	PROJECT NO. FEGC F028-3(28)
Bridge Sheet No.	Sheet 328 of 352

REV. 3/24/97

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
						NORTH WEST WINGWALL											
1																	
2	106	5	9-0	NWS01	STR.												
3	20	5	34-6	NWS02	STR.												
4	70	5	5-7	NWS03	17		1-6	4-1	-								
5	106	5	14-2	NWS04	STR.	▲											
6	23	5	34-6	NWS05	STR.	*											
7	6	5	31-7	NWS06	STR.	▲											
8	2	5	34-10	NWS07	STR.												
9	36	5	4-1	NWS08	S10		1-6	1-1	1-6								
10																	
11																	
12																	
13						HEADWALL											
14																	
15	16	5	6-5	2WS01	STR.												
16	34	5	5-6	2WS02	STR.												
17	10	5	26-3	2WS03	STR.	▲											
18	4	5	17-0	2WS04	STR.												
19	19	5	8-8	2WS05	17	▲	3-9	1-2	3-9								
20	10	5	10-9	2WS06	STR.												
21	8	5	18-6	2WS07	STR.												
22	16	5	9-10	2WS08	STR.	▲											
23	20	5	4-1	2WS09	S10	*	1-6	1-1	1-6								
24	24	5	9-4	2WS10	STR.												
25	24	5	4-4	2WS11	19		1-8	1-1	0				0-7		1-7		
26																	
27						SOUTH WEST WINGWALL											
28																	
29	32	5	7-0	SWS01	STR.												
30	16	5	14-6	SWS02	STR.												
31	16	5	5-7	SWS03	17		1-6	4-1	-								
32	32	5	10-9	SWS04	STR.	▲											
33	20	5	14-8	SWS05	STR.												
34	2	5	11-2	SWS06	STR.												
35	2	5	14-9	SWS07	STR.												
36	16	5	4-1	SWS08	S10		1-6	1-1	1-6								
37																	
38																	
39																	
40						CRADLE HEADWALL											
41																	
42	3	6	26-0	AM601	STR.												
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ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
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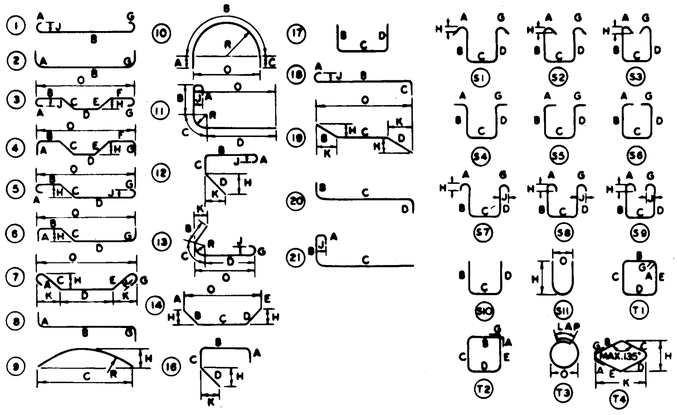
ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

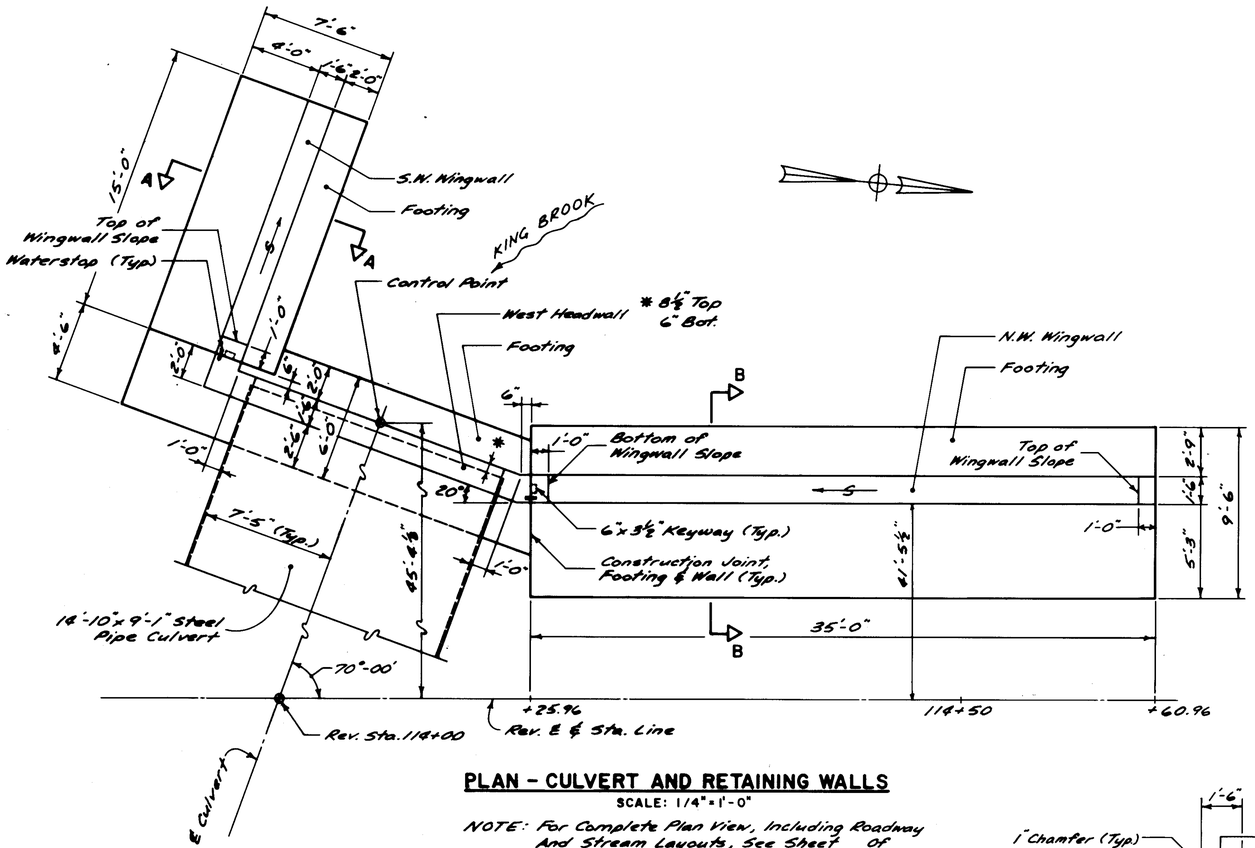
1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615-81). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

▲ DENOTES BARS TO BE CUT IN FIELD.
* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
△ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

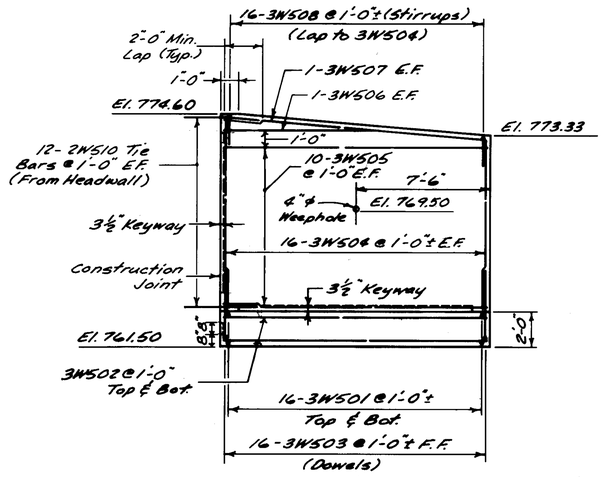
TOWN OF MARSHFIELD	BRIDGE NO. BR-100
	LOG STA.
HIGHWAY NO. U.S. RTE. 2	SURV. STA. 113+96
KING BROOK REIN. CONC. RETAINING WALLS	
REINFORCING STEEL SCHEDULE	
DESIGNED BY A.R.M.	DRAWN BY W.F.C.
CHECKED BY DATE	BRIDGE DESIGN SUPERVISOR DATE
PROJECT U.S. RTE. 2 - MARSHFIELD	PROJECT NO. FEGC F028-3(28)
BRIDGE SHEET NO.	SHEET 329 OF 352



PLAN - CULVERT AND RETAINING WALLS

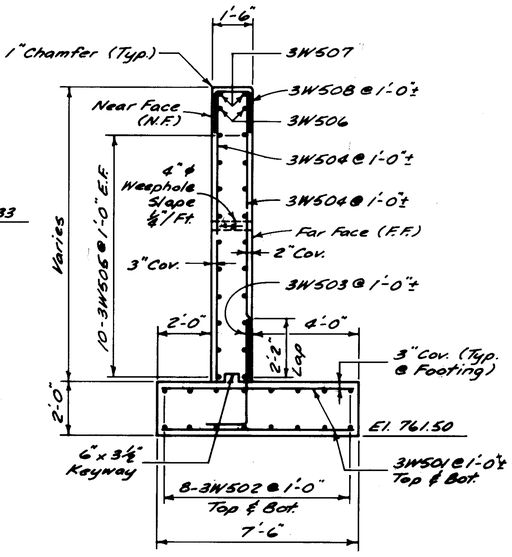
SCALE: 1/4" = 1'-0"

NOTE: For Complete Plan View, Including Roadway And Stream Layouts, See Sheet of



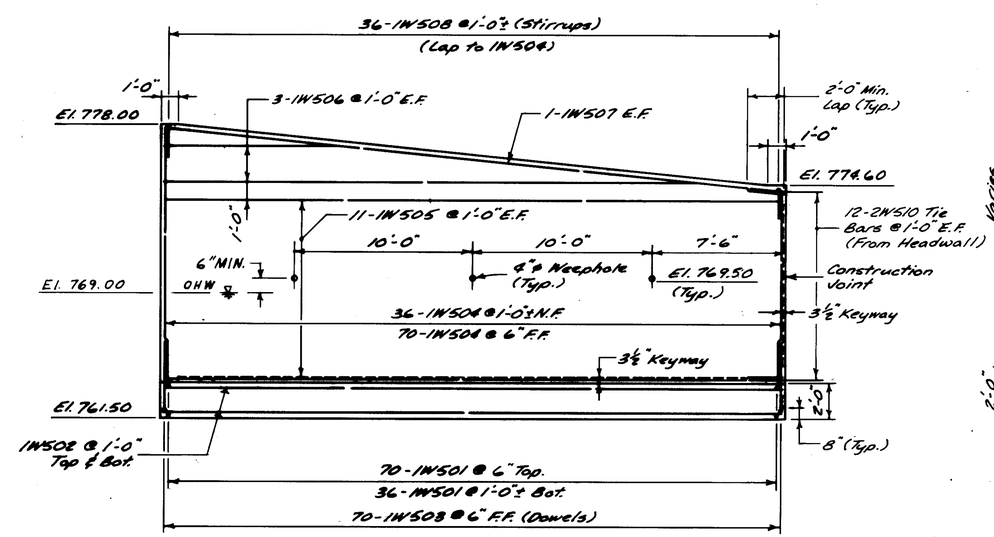
S.W. WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"



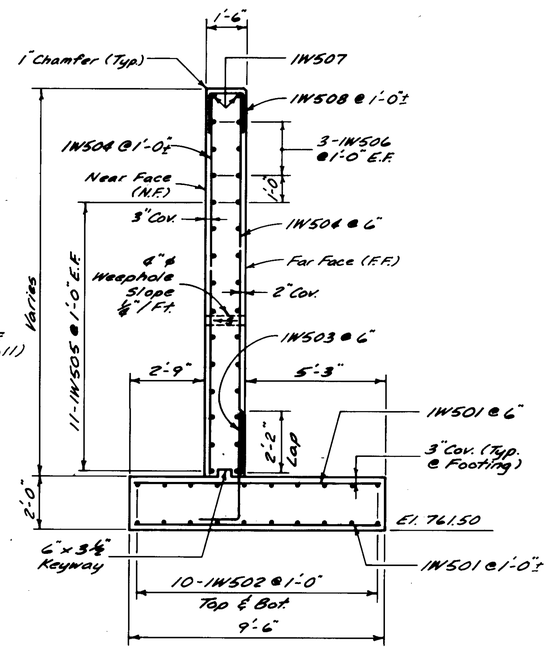
SECTION A-A

SCALE: 3/8" = 1'-0"



N.W. WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"



SECTION B-B

SCALE: 3/8" = 1'-0"

ESTIMATED QUANTITIES

NO.	ITEM	UNIT	TOTAL	FINAL
204.25	STRUCTURE EXCAVATION	CY	1,410	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	300	
501.25	CONCRETE, CLASS B	CY	83	
505.36	TEMPORARY STEEL SHEET PILING	SF	2,470	
507.15	REINFORCING STEEL	LBS	7,856	
649.10	GEOTEXTILE FABRIC FOR FILTERS	SY	354	

GENERAL NOTE:
All Keyways Shall Terminate 1'-0"± From Edges Of Pour, Unless Otherwise Indicated.

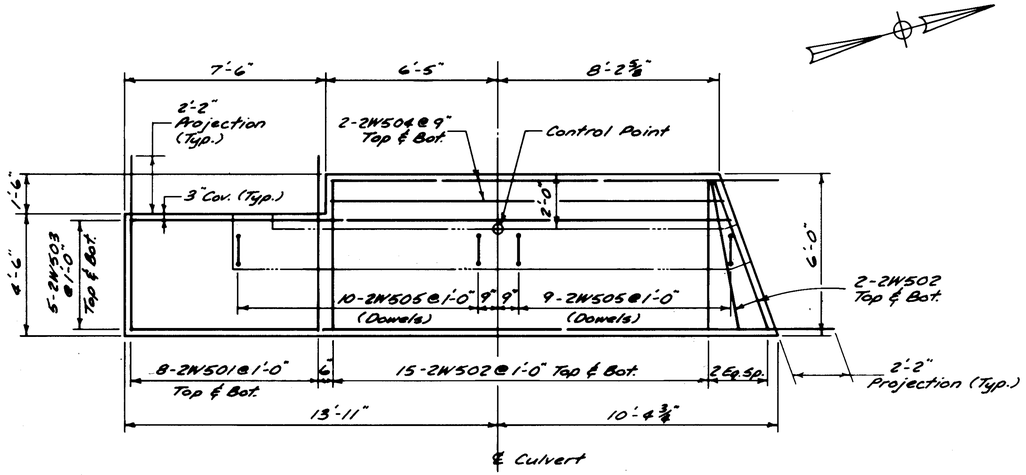
KING BROOK - BR-100

VT. SURVEY
SURVEYED BY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 11/90
TRACED BY _____ DATE _____

U.S. ROUTE 2 - MARSHFIELD

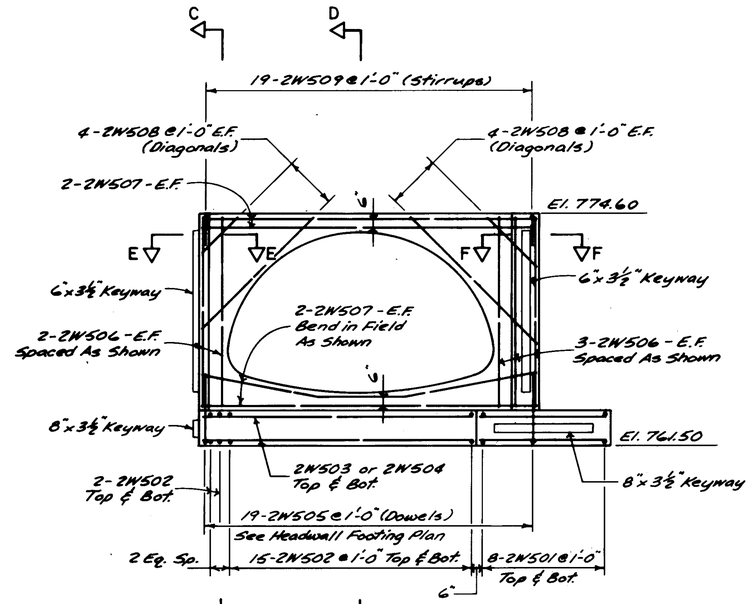
PROJ. NO. FEGC F028-3(28)

SHEET 330 OF 352



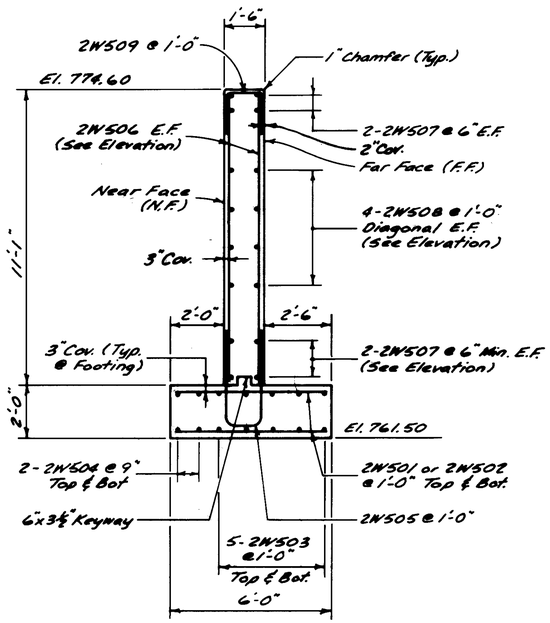
HEADWALL FOOTING PLAN

SCALE: 3/8" = 1'-0"



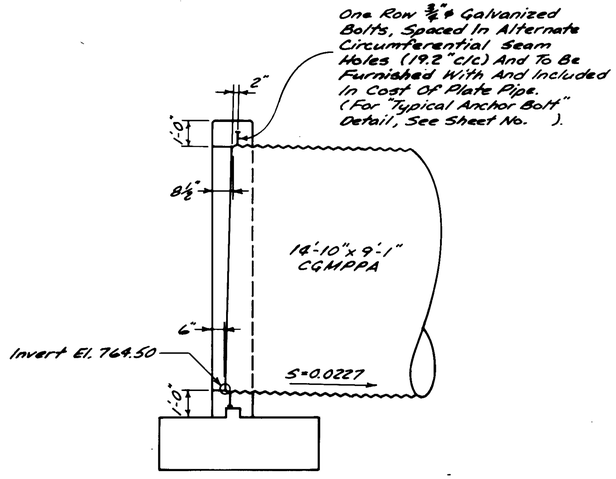
HEADWALL ELEVATION

SCALE: 1/4" = 1'-0"



SECTION C-C

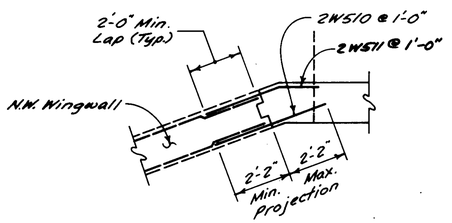
SCALE: 3/8" = 1'-0"



SECTION D-D (AT ℄ CULVERT)

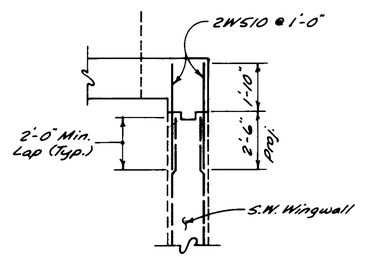
SCALE: 3/8" = 1'-0"

Note: Reinforcing Bars Are Not Shown



SECTION E-E

SCALE: 3/8" = 1'-0"



SECTION F-F

SCALE: 3/8" = 1'-0"

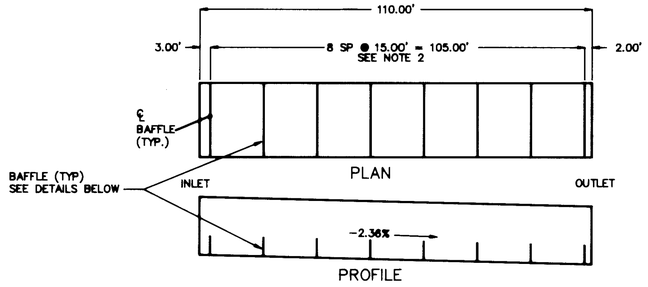
KING BROOK - BR-100

SURVEYED BY VT. SURVEY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 11/90
TRACED BY _____ DATE _____

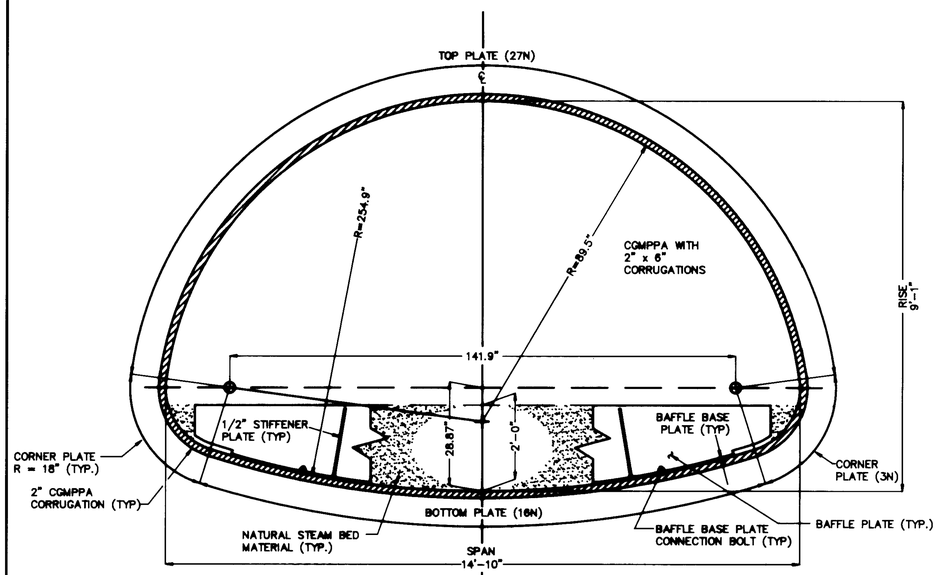
U.S. ROUTE 2 - MARSHFIELD

PROJ. NO. FEGC F028-3(28)

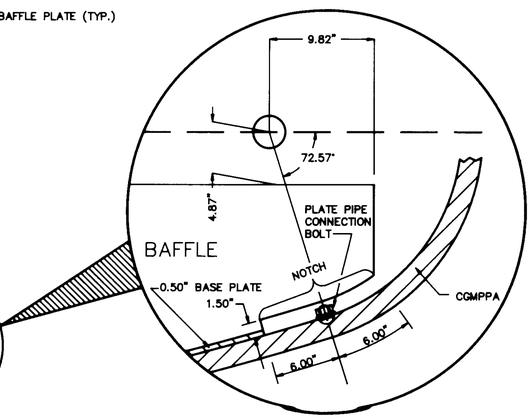
SHEET 331 OF 352



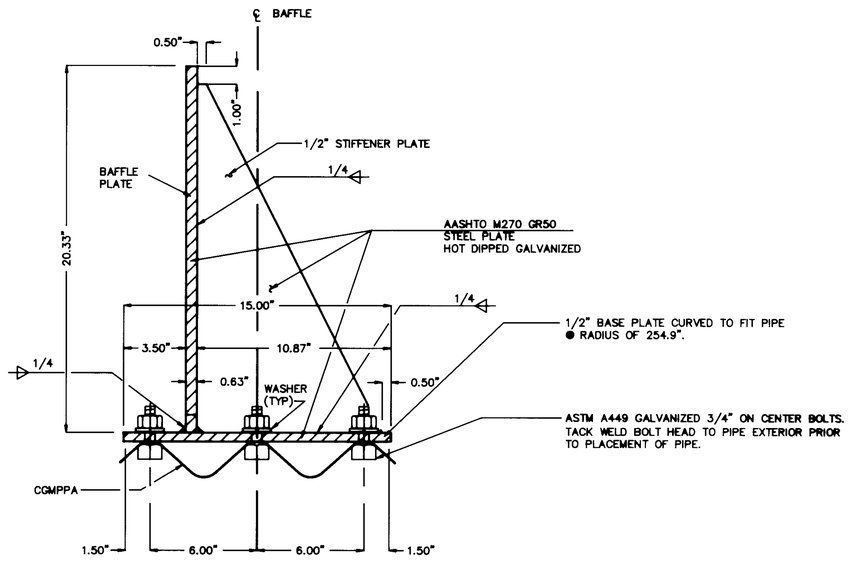
KING BROOK
REV. STA. 114+00
BAFFLE LOCATIONS
N.T.S.



BAFFLE DETAIL
N.T.S.



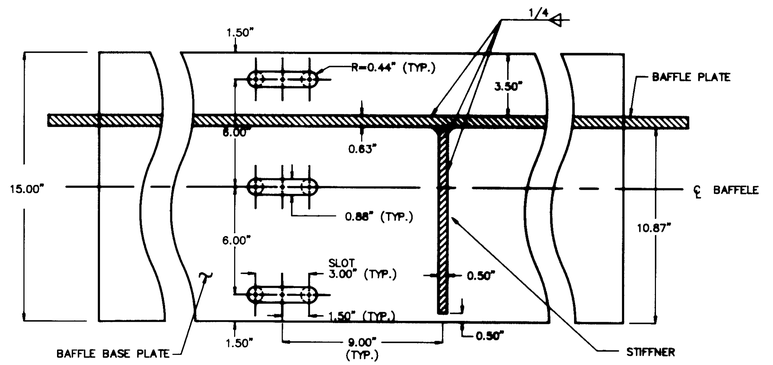
BAFFLE NOTCH ● CGMPPA PLATE CONNECTION
N.T.S.



STIFFNER PLATE AND BAFFLE CONNECTION DETAIL
N.T.S.

NOTES

1. MANUFACTURER'S SPECIFICATIONS FOR PLATE CONNECTIONS VARY UPON APPLICATION AND CGMPPA SIZE. (BOTTOM PLATES FOR CGMPPA VARY IN WIDTH BY THE FACTOR N=9 25/32", I. E. 8N = 91 1/8"). ATTENTION SHOULD BE PAID BY THE CONTRACTOR IN BAFFLE ASSEMBLY, SUCH THAT THE PLACEMENT OF THE NOTCH IS SUFFICIENT ENOUGH TO PREVENT THE BAFFLE FROM RESTING ON THE PLATE CONNECTION BOLTS.
2. CGMPPA BOTTOM PLATES ARE AVAILABLE IN STANDARD 10 AND 12 FOOT LENGTHS. THE SPACING, AS SUGGESTED, REQUIRES A 10 FOOT NOMINAL LENGTH OF PLATE IN ORDER TO OFFSET CGMPPA BOTTOM PLATE AND BAFFLE PLATE CONNECTIONS. IF FOR CONSTRUCTION PURPOSES THE PLATE LENGTHS NEED BE CHANGED, PLACEMENT OF THE BAFFLES WILL BE APPROVED BY THE V.A.O.T. PRIOR TO CGMPPA ASSEMBLY.



BAFFLE BASE PLATE SLOT DETAIL
N.T.S.

KING BROOK-BR-100
VT. SURVEY
SURVEYED BY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 11/90
TRACED BY SMB DATE 11/90
U.S. ROUTE 2 - MARSHFIELD
PROJ. PREFIX NO. PROJ.I.D.NO.
SHEET 352 OF 352

PUB. RD. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO	TOTAL SHEETS
I	VT		19		

STD. PENETRATION BORINGS			
BORING NO.	SURVEY STA.	OFFSET	SURFACE EL.
B-57	113+80	25' RT.	764.8
B-58	113+95	63' LT.	770.6

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B-57

ELEV. 764.8

ELEV. 762.0 (PROPOSED)
(C.&M.PPA. INVERT)
ELEV. 759.0 (PROPOSED)
(BOTTOM CRADLE HEADWALL)

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						Sandy Silt
		8		W	gr	A-1-a Sandy Gravel w=9.6%
10		12		W	brn	A-4 Sandy Silt w=9.5%
		R				Boulders
20		84		W	gr	A-4 Sandy Silt w=14.1%
		R		W	gr	A-4 Silt w=22.6% with Sandy Silt layers Boulders 27.0-28.0'
30		R		W	brn	A-2-4 SiGrSa w=10.0% Hole Stopped @ 31.3' NLTD Groundwater Elevation = 762.6' on 7/5/89
40						
50						

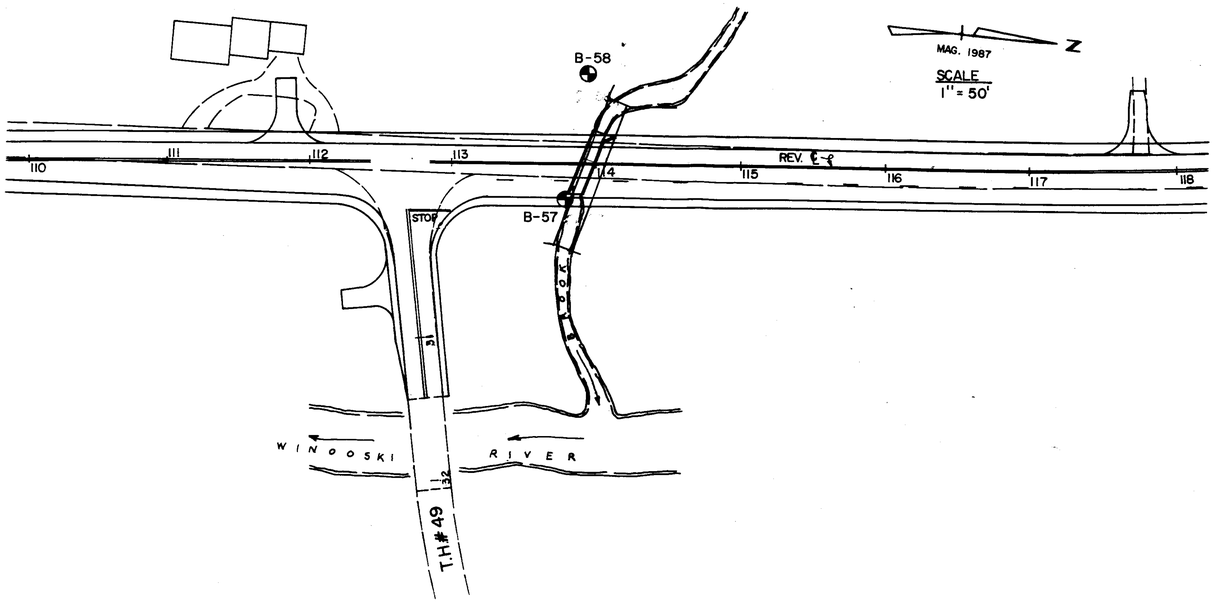
MARSHFIELD - FEGC F028-3(28)

BORING NO. B-58

ELEV. 770.6

ELEV. 764.5 (PROPOSED)
(C.&M.PPA. INVERT)
ELEV. 761.5 (PROPOSED)
(BOTTOM OF REINFORCED CONCRETE WALL FOOTING)

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						Sandy Silt
		34		W	brn	A-1-b SaGr w=7.8%
10		9		---	---	No Recovery Sandy Silt
		8		W	brn	A-4 Sandy Silt w=32.4%
20		36		---	---	No Recovery Sandy Gravel and Boulders
		R		W	gr	A-4 Gravelly Silt w=24.2%
30		R		W	gr	A-4 Gravelly Silt w=24.3%
		R		W	gr	A-2-4 Silty Sandy Gravel w=15.2% Hole Stopped @ 35.5' NLTD Groundwater Elevation = 763.6' on 7/6/89 .
40						
50						



SYMBOLS USED FOR SOIL SUBSURFACE IDENTIFICATION

Symbol	Description	Symbol	Description
MTW	Moist to Wet	HP	Hard Pan
Sat	Saturated	Le	Ledge
Blk	Black	NLTD	No Ledge to Depth
Brn	Brown	CNPF	Could Not Penetrate Further
Lt	Light	TLOB	To Ledge or Boulder
Dark	Dark	OC	Organic Content, %
(S)	Sample Taken	W	Moisture Content, %
Bo	Boulder	◕	Standard Penetration Borings Sampler outside diameter-2" Sampler inside diameter-1 3/8" Weight of Hammer-140 lbs.
NGW	No Ground Water		
TGW	To Ground Water	⊕	Auger Borings
GR	Gravel	⊙	Rod Soundings
Sa	Sand	UP	Undisturbed Piston Sample
Si	Silt	VS	Field Vane Shear Sample
Cl	Clay		

SOIL CLASSIFICATION

A1	Gravel & Sand	GW/GP	Clean Gravels (Few Fines)
A3	Fine Sand	GM/GC	Gravels (Appreciable Fines)
A2	Silty or Clayey Gravel & Sand	SW/SP	Clean Sands (Few Fines)
A4	Silty Soil-Low Compressibility	SM/SC	Sand (Appreciable Fines)
A5	Silty Soil-Highly Compressible	ML/CL	Low Plastic Silts & Clays
A6	Clayey Soil-Low Compressibility	OL	Low Plastic Organic Silt
A7	Clayey Soil-Highly Compressible	MH/CH	High Plastic Silts & Clays
A8	Muck, Peat, Organic	OH	High Plastioc Organic Silt
		Pt	Highly Organic Soils

GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE JULY 1989 BY THE VERMONT AGENCY OF TRANSPORTATION.

1. SOIL AND ROCK (WHERE ENCOUNTERED) CLASSIFICATION, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION OF AVAILABLE SUBSURFACE INFORMATION BY THE VERMONT AGENCY OF TRANSPORTATION AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.

2. OBSERVED WATER LEVELS AND/OR WATER CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.

3. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREON. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTENDED FOR AGENCY DESIGN AND ESTIMATE PURPOSES ONLY. PRESENTATION OF THE INFORMATION ON THE PLANS AND ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS, INDEPENDENT ANALYSIS OR JUDGEMENT OF THE CONTRACTOR.

4. PICTORIAL STRUCTURE DETAILS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN IN THE CONTRACT PLANS.

KING BROOK - BR-100

SURVEYED BY VT. SURVEY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 6/87
TRACED BY _____ DATE _____

U.S. ROUTE 2 - MARSHFIELD

PROJ. NO. FEGC F028 - 3(28)

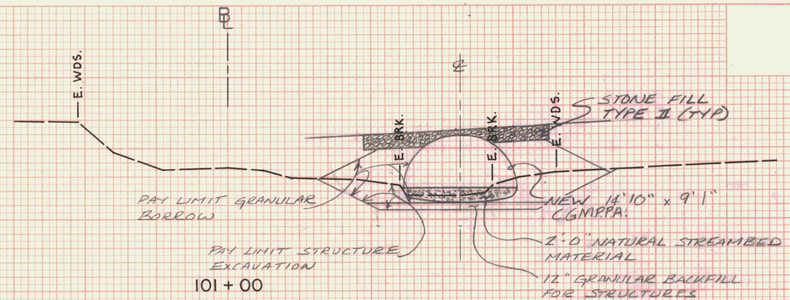
SHEET 333 OF 352

KING BROOK
CHANNEL SECTIONS
℄ STA. 113+85.00
(NEW 14'-10" x 9'-1" C.G.M.P.P.A.
REV. ℄ STA. 114+00
ASKEWED 70°00' LT.)

U.S. ROUTE 2
MARSHFIELD
FQ28-3(28)



100 + 25

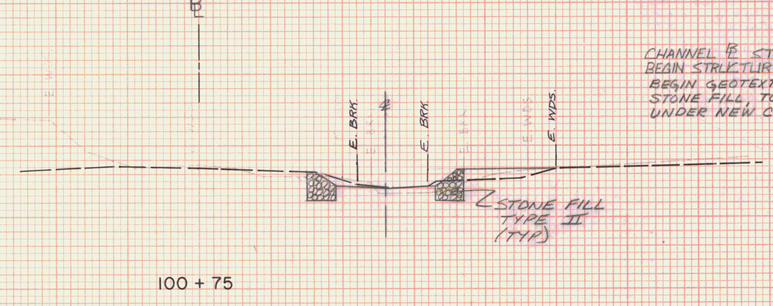


101 + 00

CHANNEL ℄ STA. 100+89 RT
CONSTRUCT CRADLE HEADWALL
BEGIN 14'-10" x 9'-1" CGMPPA
CONTINUE STONE FILL TYPE II
2' THICK ON ALL SLOPES



100 + 00



100 + 75

CHANNEL ℄ STA 100+82
BEGIN STRUCTURE EXCAVATION
BEGIN GEOTEXTILE UNDER STONE FILL, TO BE PLACED UNDER NEW CGMPPA



99 + 75



100 + 50

CHANNEL ℄ STA. 100+65 RT
BEGIN CHANNEL EXCAVATION OF EARTH
BEGIN STONE FILL TYPE II
BEGIN GEOTEXTILE UNDER STONE FILL

NOTE: ALL CONSTRUCTION NOTE STA'S SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

KING BROOK - BR-100

STA.	99+75	STA.	101+00
TOWN	MARSHFIELD		
PROJECT	FEGC NO.	F028-3(28)	
SHEET	334 OF	352	SHEETS

HORIZ. AND VERT. SCALE
0 10 20

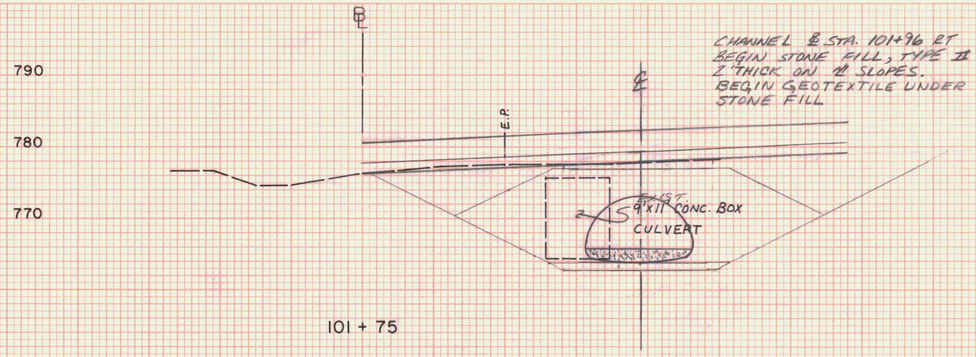
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY
SURVEYED
PLOTTED
TRACED
NOTE BOOK AREAS
No. AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
SURVEYED
PLOTTED
TRACED
NOTE BOOK AREAS
No. AREAS CHECKED
BY VT. SURVEY Consult. BRYANT ASSOC.
DATE 12/86 1/87

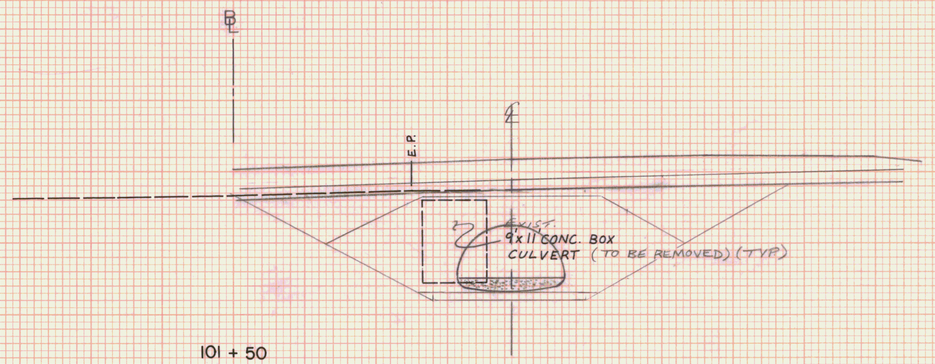
KING BROOK
CHANNEL SECTIONS
℄ STA. 113+85.00
(NEW 14'-10"x9'-1" CGMPPA.
REV. ℄ STA. 114+00
ASKEWED 70°00'00")

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

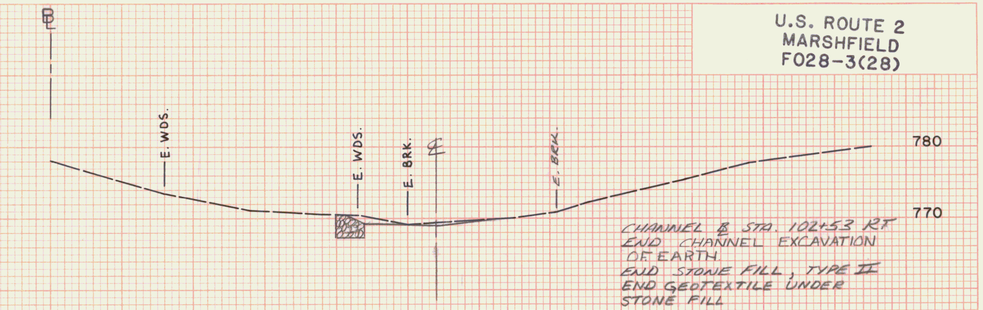


CHANNEL ℄ STA. 101+96 RT
BEGIN STONE FILL, TYPE II
2' THICK ON 2:1 SLOPES.
BEGIN GEOTEXTILE UNDER
STONE FILL

101 + 75



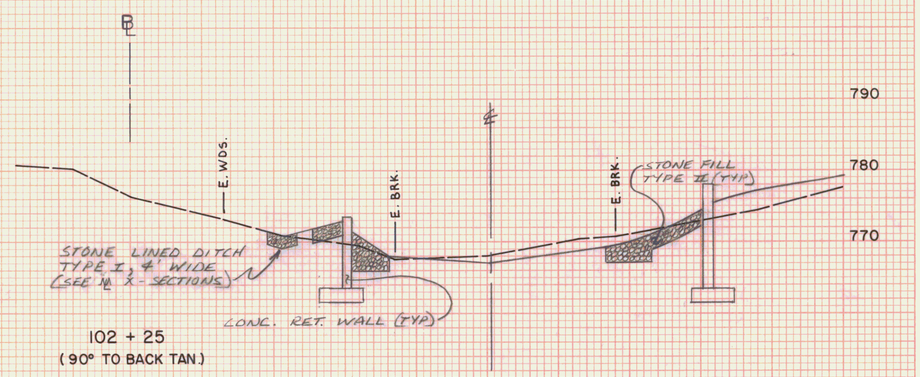
101 + 50



CHANNEL ℄ STA. 102+53 RT
END CHANNEL EXCAVATION
OF EARTH.
END STONE FILL, TYPE II
END GEOTEXTILE UNDER
STONE FILL

102 + 50

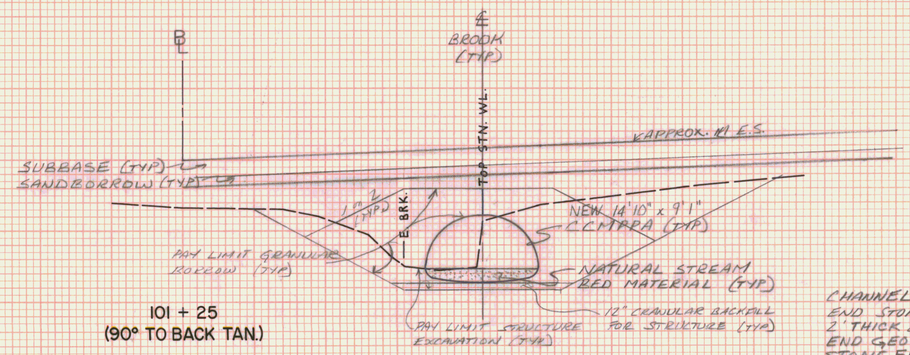
CHANNEL ℄ STA. 102+46 RT.
END STRUCTURE EXCAVATION
END GEOTEXTILE UNDER STONE FILL
TO BE PLACED UNDER NEW CGMPPA



102 + 25
(90° TO BACK TAN.)

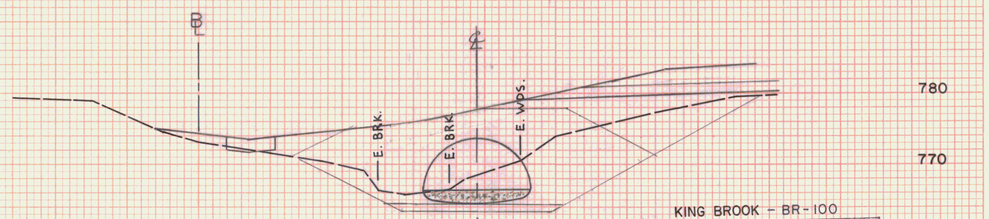
CHANNEL ℄ STA. 102+12 RT

CONSTRUCT REINFORCED
FULL HEIGHT CONC. HEADWALL
END 14'-10" x 9'-1" CGMPPA.



101 + 25
(90° TO BACK TAN.)

CHANNEL ℄ STA. 101+11 RT
END STONE FILL, TYPE II.
2' THICK ON 2:1 SLOPES
END GEOTEXTILE UNDER
STONE FILL



102 + 00

NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

KING BROOK - BR-100

STA.	101+25	STA.	102+50
TOWN	MARSHFIELD		
PROJECT	FEGC	NO.	F028-3(28)
SHEET	335	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

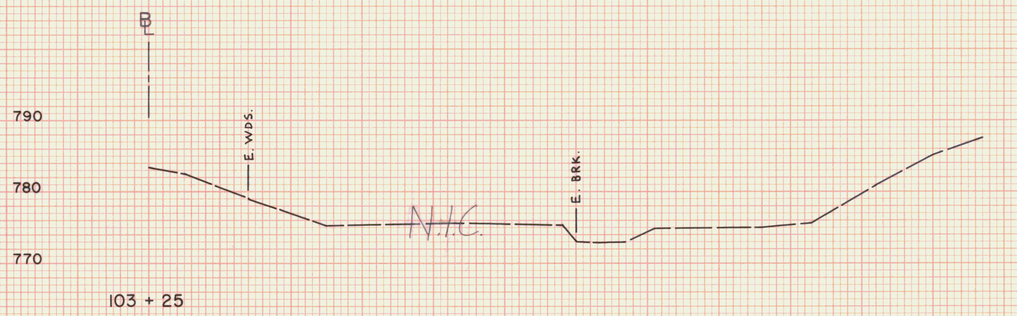
FINAL SURVEY — DATE — BY — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — NOTE BOOK — No.

ORIGINAL SURVEY — BY VT. SURVEY Consult. BRYANT ASSOC. — DATE 12/86 1/87 — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — NOTE BOOK — No.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

KING BROOK
CHANNEL SECTIONS
℄ STA. 113+85.00=
(NEW 14'-10" x 9'-1" C.G.M.P.P.A.
REV. ℄ STA. 114+00
ASKEWED 70°00' LT.)

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



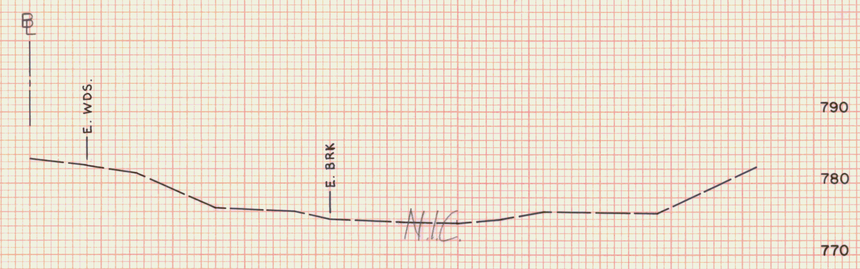
103 + 25



103 + 00



102 + 75



103 + 50

NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCE ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF THE BROOK FOR LIMITS.

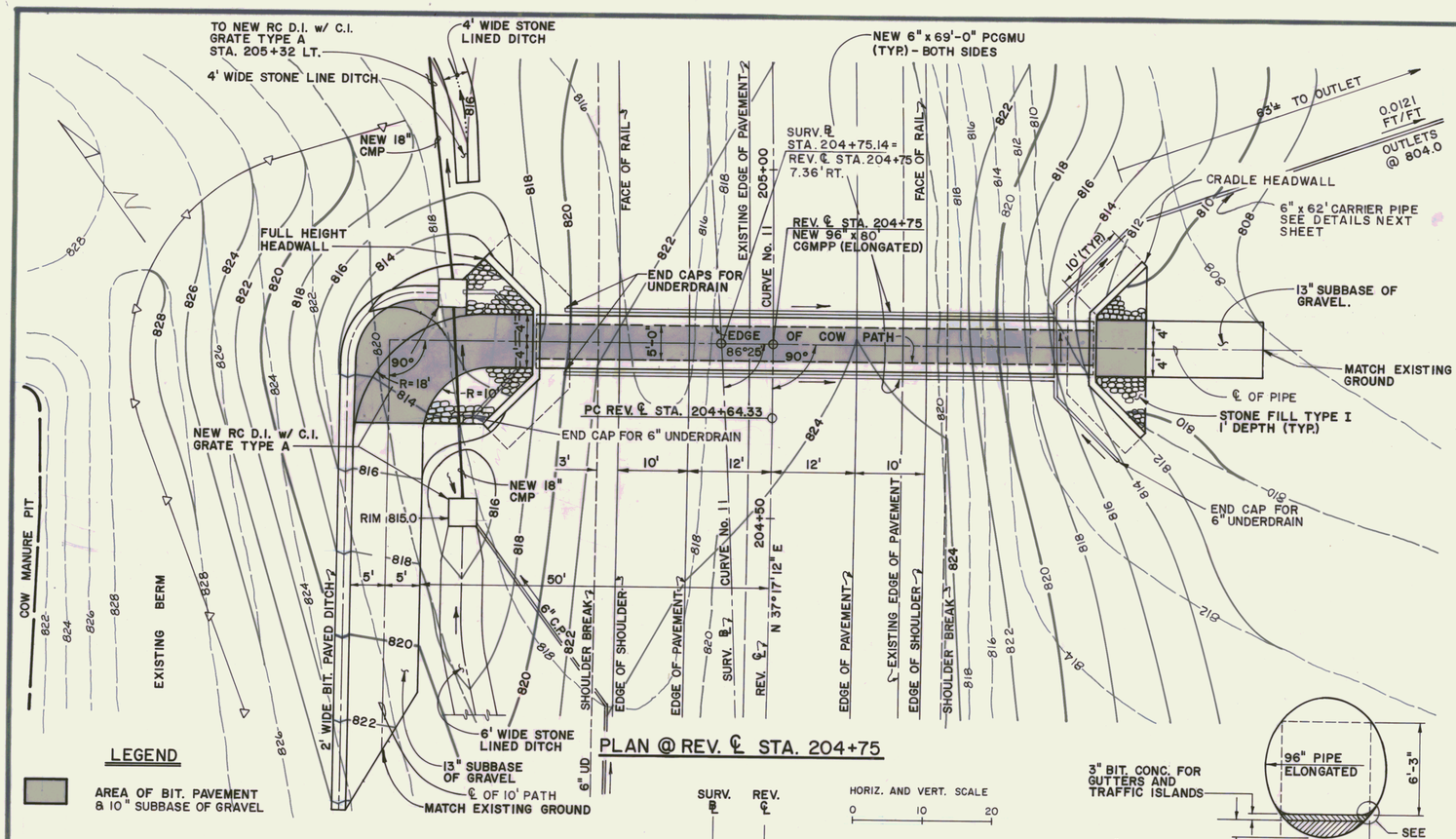
KING BROOK - BR-100

STA. 102+75 STA. 103+50
TOWN MARSHFIELD
PROJECT FEGC NO. F028-3(28)
SHEET 336 OF 382 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE 12/86 1/87
BY VT. SURVEY CONSULT. BRYANT ASSOC

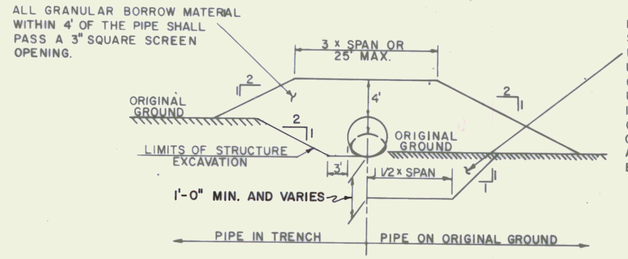
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION



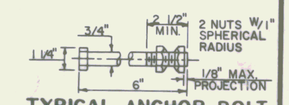
SECTION @ REV. ℄ STA. 204+75

NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1986, AND THE LATEST A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. DESIGN IS FOR HS-20 LIVE LOADING.
2. UNLESS OTHERWISE INDICATED FOUR (4) BOLTS PER LINEAR FOOT FOR STEEL PLATES AND FIVE AND ONE THIRD (5 1/3) BOLTS FOR ALUMINUM PLATES ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH GALVANIZED ASTM A-449 BOLTS.
3. WHEN NORMAL CONSTRUCTION OR REGULAR ROADWAY TRAFFIC IS MAINTAINED OVER THE PIPE THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET OF COMPACTED MATERIAL.
4. ALUMINUM PIPE THAT IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH ZINC CHROMATE, OR BITUMINOUS, OR ASPHALTIC PAINT.
5. PIPES SHALL BE FACTORY ELONGATED 5% (PIPE ARCHES SHALL NOT BE ELONGATED).
6. THE ENDS OF THE PIPE SHALL BE CUT SQUARE (NOT BEVELED TO MATCH SLOPES).
7. **ATTENTION SHOULD BE PAID BY THE CONTRACTOR IN INSTALLING (DRIVING) GUARD RAIL POSTS WITHIN LIMITS OF PROPOSED CULVERT. ADEQUATE POST CLEARANCE HAS BEEN SUPPLIED FOR THE MAX. DEPTH. FOR POST DETAILS, SEE V.A.O.T. STANDARD SHEET G-1.**
8. **PIPE IS TO BE BACKFILLED WITH 10" SUBBASE OF GRAVEL AND 3" OF BIT. CONCRETE FOR GUTTERS AND TRAFFIC ISLANDS.**

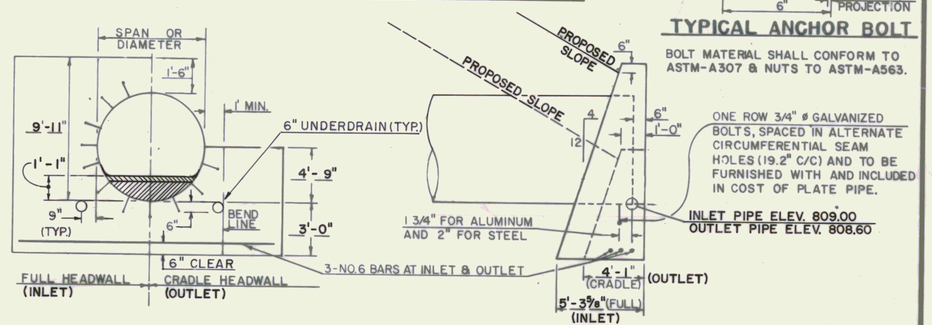


TYPICAL BACKFILL SECTION



TYPICAL ANCHOR BOLT

BOLT MATERIAL SHALL CONFORM TO ASTM-A307 & NUTS TO ASTM-A563.



HEADWALL DETAILS

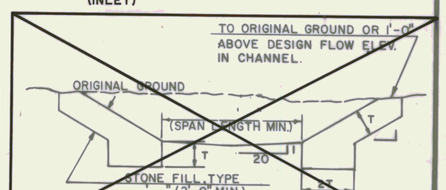
REINFORCING STEEL SCHEDULE

NO. PIECES	SIZE	LENGTH	MARK	TYPE		
6	6	30'-4"	7 W 601	STR.		

ESTIMATED QUANTITIES

NO.	ITEM	UNIT	TOTAL	FINAL
203.32	GRANULAR BORROW (EST.)	CY.	695	
204.25	STRUCTURE EXCAVATION	CY.	1135	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY.	550	
301.15	SUBBASE OF GRAVEL	CY.	35	
501.25	CONCRETE, CLASS B	CY.	70	
507.15	REINFORCING STEEL	LBS.	280	
511.1501	96" CGMPP(.109) - 80LF.	EA.	1	
605.10	6 INCH UNDERDRAIN	LF.	152	
613.10	STONE FILL, TYPE I	CY.	6	
616.47	BITUMINOUS CONCRETE GUTTERS & TRAFFIC ISLANDS (MOD.)	TON	20	
649.31	GEOTEXTILE UNDER STONE FILL	SY.	250	
651.26	HAYBALES FOR EROSION CONTROL	EA.	50	

TYPICAL CHANNEL SECTION



HYDRAULIC DATA

N.I.C.

DRAINAGE AREA = _____ SQ. MI. DESIGN FLOW Q _____
Q_{10} = _____ C.F.S. Q_{10} HEADWATER ELEVATION = _____
Q_{25} = _____ C.F.S. Q_{25} HEADWATER ELEVATION = _____
Q_{50} = _____ C.F.S. Q_{50} HEADWATER ELEVATION = _____
Q_{100} = _____ C.F.S. Q_{100} HEADWATER ELEVATION = _____
TAILWATER DEPTH AT Q _____ = _____ FEET, ELEVATION _____
OUTLET VELOCITY AT Q _____ = _____ FEET PER SECOND
ORDINARY HIGHWATER DEPTH _____ FEET
COMMENTS: _____

DETAILS OF STRUCTURAL PLATE PIPE CULVERTS

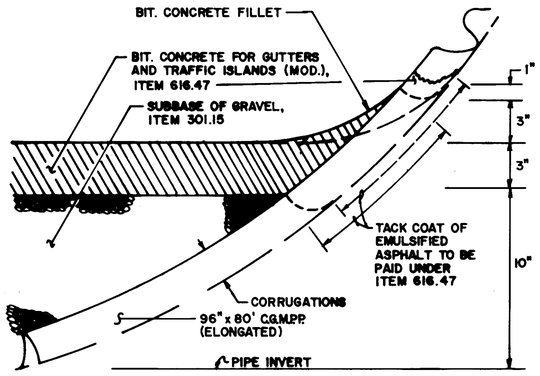
	STEEL	STEEL	ALUMINUM
CORRUGATIONS	6" x 2"		9" x 2-1/2"
SIZE OF PIPE OR PIPE ARCH	96" DIA.		96" DIA.
WATERWAY AREA (S.F.)	N/A		N/A
PLATE THICKNESS (COATED)	(0.109)		(0.125)
BOLT SIZE	3/4" DIA.		3/4" DIA.
WEIGHT PER LINEAR FOOT	165		58.5
TOTAL WEIGHT	13,200		4,520

STATE OF VERMONT
AGENCY OF TRANSPORTATION

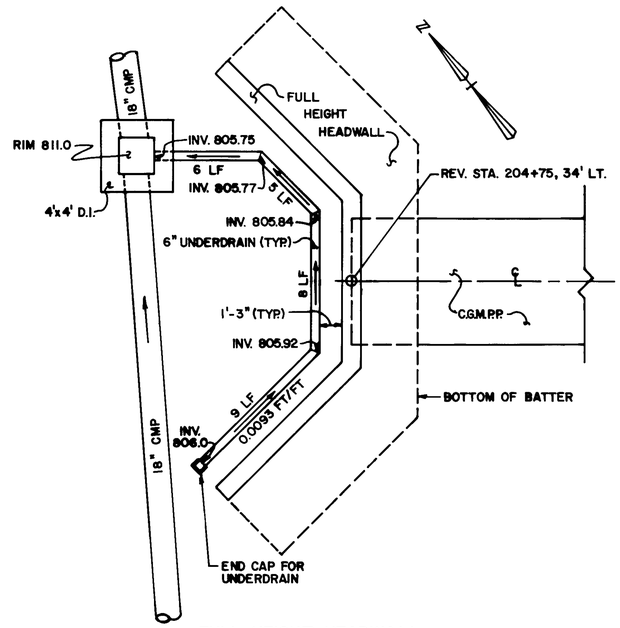
TOWN OF MARSHFIELD	Bridge No.
	Log Sta.
HIGHWAY NO. U.S. ROUTE 2	Surv. Sta. REV. 204+75
CATTLE PASS - BR-110	
Designed by SMB	Drawn by CDJ
Checked by TWB date	Bridge Design Supervisor date
PROJECT	PROJECT NO. FEGC F028-3(28)
Bridge Sheet No.	Sheet 337 of 352

REV. 3/24/87

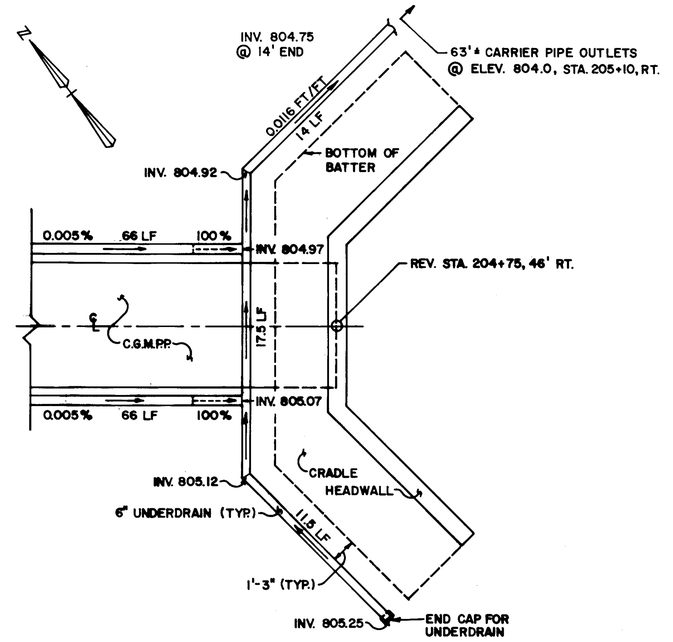
CATTLE PASS DETAIL SHEET



FILLET DETAIL
FOR PAVED C.G.M.P.P.
N.T.S.



FULL HEIGHT HEADWALL
UNDERDRAIN DETAIL
N.T.S.



CRADLE HEADWALL
UNDERDRAIN DETAIL
N.T.S.

CATTLE PASS - BR-110

SURVEYED BY _____ DATE _____
DRAWN BY BRYANT ASSOC. DATE 8/92
TRACED BY _____ DATE _____

MARSHFIELD

PROJ. FEGC NO. 028-3(28)
SHEET 338 OF 352

CONSTRUCT TEMPORARY DRIVE

SURV. ℄ STA. 202+62, LT. (40' WIDE)
SURV. ℄ STA. 202+80, RT. (20' WIDE)

BREAKAWAY CABLE TERMINAL

DETOUR ℄ STA. 111+25 – 111+50 LT.
DETOUR ℄ STA. 111+50 – 111+75 RT.
DETOUR ℄ STA. 114+25 – 114+50 RT.
DETOUR ℄ STA. 114+50 – 114+75 LT.

STEEL BEAM GUARD RAIL

DETOUR ℄ STA. 111+50 – 114+50 LT.
DETOUR ℄ STA. 111+75 – 114+25 RT.

REMOVAL OF EXISTING PAVEMENT MARKINGS

SURV. ℄ STA. 202+00 ~ 203+75 (℄)(EDGE LINES)
SURV. ℄ STA. 206+65 ~ 208+50 (℄)(EDGE LINES)

TEMPORARY 4" YELLOW LINE(℄)(SOLID DOUBLE)
DETOUR ℄ STA. 110+00 ~ 116+58

TEMPORARY 4" WHITE LINE (EDGE LINE)
DETOUR ℄ STA. 110+00 ~ 116+58

PUB. HT. DIV. N.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT		19		

MAG 1987

SURVEY CURVE DATA #11

Δ = 21°59'16" LT
D = 3°00'00"
R = 1909.86'
T = 371.03'
L = 732.93'
E = 35.71'

REV. CURVE DATA #11

Δ = 23°15'11" LT
D = 4°00'00"
R = 1432.39'
T = 294.72'
L = 581.33'
E = 30.01'
BANK = 0.063 FT/FT

SURV. ℄ STA. 216+50, LT.

DETOUR AHEAD (N)

SURV. ℄ STA. 211+25, LT.

30 MPH (N)

SURV. ℄ STA. 194+75, RT.

DETOUR AHEAD (N)

SURV. ℄ STA. 198+75, RT.

30 MPH (N)

SURV. ℄ STA. 192+65 RT ~ 201+42 LT.
ELEC. SERVICE TO CAUTION LIGHT TO BE MAINTAINED AT ALL TIMES BY CONTRACTOR

SURV. ℄ 201+42 ~ 208+50 LT.
ELEC. SERVICE TO CAUTION LIGHT TO BE MAINTAINED AT ALL TIMES BY CONTRACTOR

℄ CONSTRUCTION LIMIT (TYP.)
DETOUR CONSTRUCTION LIMIT (TYP.)
℄ DETOUR 'D'

SURV. PC #11 203+69.64
REV. PC #11 204+64.33
R = 380'
R = 350'
R = 350'

CONC PAD
BARN
3'-6" DIA MILK
HOLDING TANK FOR HOUSE
SILO 20' DIA
COW MANURE PIT
3/4" ELEC. CONDUIT
40' (4 TYP.)
CONC
SPRING AREA
SURV N 37°17'12" E
200 Pc
12" CMP
24" DIA C.B.
R=25'
BRUSH
WOODS
BRUSH
1 1/2 SWF
GMP 177 22 1165 W/GUY WR.
R=25' (TYP.)
C GR W/WD POSTS
1-6 CONC HD WL
WET
SURV. N 37°17'12" E
POB
POC
EXISTING R.O.W.
FIELD
116+58
4 STRD B WR FN
BUTLER SYS SIGN
6' CONC XING SIGN

SURV. ℄ STA 203+60, RT.

ROAD CLOSED DETOUR (N)

(MOUNTED ON TYPE III BARRICADE)

SURV. ℄ STA 206+75, LT.

ROAD CLOSED DETOUR (N)

(MOUNDED ON TYPE III BARRICADE)

DETOUR POT. STA. 110+00 =
SURV ℄ STA. 202+00, 45' LT.
BEGIN DETOUR CONSTRUCTION

SURV. ℄ STA. 208+50, 19' RT. =
DETOUR PCC 116+58
END DETOUR CONSTRUCTION

REVISED
PI #11 207+59.05 =
207+50.94
Δ = 23°15'11" LT

SURVEY
PI #11 207+40.67 =
207+31.54
Δ = 21°59'16" LT

REV STA 204+75
NEW 36" DIA ELONGATED C.S.P. CATTLE PASS (SEE P.I. SHEETS BR-110)

SURV. ℄ STA. 205+33
15" RCP (REMOVE)

TBM #32
CHIS. IN TOP OF BLDR.
NGVD EL. 815.80

LEGEND

TEMPORARY CONCRETE TRAFFIC BARRIER (OPTIONAL)
REFLECTORIZED PLASTIC DRUM (30' SPACING TYPICAL) (EXCEPT AT ENDS OF TEMPORARY TRAFFIC BARRIERS)
DELINEATORS (40' SPACING TYPICAL)
TYPE III BARRICADE
REFER TO STDS. E-101 AND E-102 FOR CONSTRUCTION SIGN DETAILS

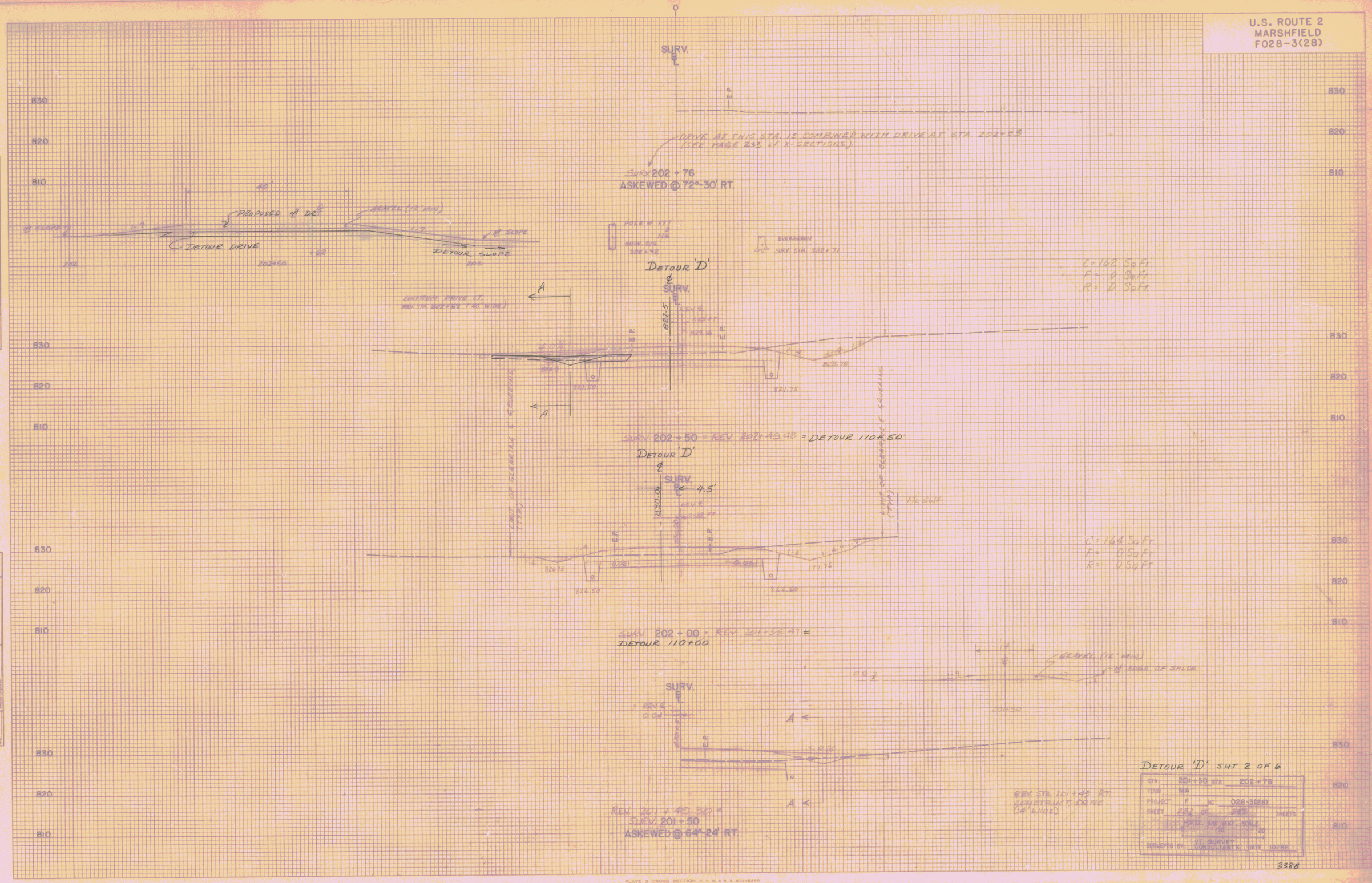
SCALE IN FEET
50 0 100

DETOUR 'D' CATTLE PASS

VT. SURVEY
SURVEYED BY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 6/87
TRACED BY _____ DATE _____

U.S. ROUTE 2 - MARSHFIELD
PROJ. FEGC NO. F 028-3(28)
SHEET 1 OF 6

338A


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
SURV.
DRIVE AT THIS STA. IS COMBINED WITH DRIVE AT STA. 202+83
(SEE PAGE 233 of X-SECTIONS).
SURV. 202 + 76
ASKEWED @ 72°-30' RT.
PROPOSED ℄ DR.
GRAVEL (12" MIN)
DETOUR DRIVE
DETOUR SLOPE
EVERGREEN
SURV. STA. 202+71
DETOUR 'D'
C = 162 SQ FT
F = 0 SQ FT
R = 0 SQ FT
CONSTRUCT DRIVE LT.
REV. STA. 202+62 (40' WIDE)
SURV. 202 + 50 = REV. 202+49.48 = DETOUR 110+50
DETOUR 'D'
4.5'
C = 164 SQ FT
F = 0 SQ FT
R = 0 SQ FT
SURV. 202 + 00 = REV. 201+95.47 =
DETOUR 110+00
GRAVEL (12" MIN)
℄ EDGE OF SHLDR
REV. STA. 201+49 RT.
CONSTRUCT DRIVE
(14' WIDE)
REV. 201 + 49.30 =
SURV. 201 + 50
ASKEWED @ 64°-24' RT.
DETOUR 'D' SHT 2 OF 6
STA. 201+50 STA. 202+76
TOWN MA
PROJECT F NO. 028-3(28)
SHEET 232 OF 242 SHEETS
HORIZ. MIN. VERT. SCALE
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
338B
FINAL SURVEY
NOTE BOOK
ORIGINAL SURVEY
VT. SURVEY CONSULT.
BRYANT ASSOC.
10/86
11/86
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

DETOUR 'D'

'D'
C = 26 S.F.
F = 54 S.F.

SURV. 204+00 = REV. 203+98.56 =
DETOUR 112+10

DETOUR 'D'

'D'
C = 45 S.F.
F = 0

SURV. 203+50 = REV. 203+48.19 = DETOUR 111+54

DETOUR 'D'

'D'
C = 45 S.F.
F = 0

SURV. 203+00 = REV. 202+98.47 =
DETOUR 111+03

SURV. 202+84 = REV. 202+83.48

C = 4 SQ FT
F = 166 SQ FT
R = 0 SQ FT

C = 77 SQ FT
F = 56 SQ FT
R = 0 SQ FT

C = 32 SQ FT
F = 0 SQ FT
R = 0 SQ FT

GUARD RAIL BCT DETAIL
SCALE 1" = 20'

GUARD RAIL FLARE DETAIL
SCALE 1" = 20'

REV. STA. 204+00 LT
BEGIN REMOVAL & DISPOSAL OF GUARD RAIL

REV. STA. 204+00 LT
END FLARE

REV. STA. 203+22 LT
ADD 2' SHOULDER WIDTH
USE 2' "WIDE TO BE PAID FOR UNDER NORMAL EXCAVATION OF EARTH
REV. STA. 202+50 LT
END SHOULDER WIDTH
FULL DEPTH PAVEMENT

REV. STA. 202+50 LT
END LIMIT CLEARING & GRUBBING (42' MIN. LT.)
BEGIN LIMIT CLEARING & GRUBBING AT TOE OF SLOPE

REV. STA. 202+75 LT
ADD 2' SHOULDER WIDTH
USE 2' "WIDE TO BE PAID FOR UNDER NORMAL EXCAVATION OF EARTH
END LIMIT OF CLEARING & GRUBBING AT TOE OF SLOPE

REV. STA. 202+75 LT
BEGIN REMOVAL & DISPOSAL OF GUARD RAIL & FLARE

REV. STA. 202+75 LT
END CLEARING & GRUBBING AT TOE OF SLOPE

REV. STA. 202+50 LT
CONTRACT DRIVE (20' WIDE)
USE 12" x 18" CSP & CAP AT ACC. CA TR. USE S.C. INLET DR. SURVEY

REV. STA. 202+50 - 202+25 LT
REMOVE EXISTING CABLE GUARD RAIL
TRANSITION

REV. STA. 202+50 LT
REMOVE EXIST. GUARD RAIL & FLARE

REV. STA. 202+75 LT
END CLEARING & GRUBBING AT TOE OF SLOPE

REV. 202+83

DETOUR 'D' SHT 3 OF 6
STA. 202+82 STA. 204+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 3 OF 6 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VTI SURVEY CONSULTANTS DATE 10/86

FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE
VTI SURVEY CONSULTANTS — BRYANT ASSOC. — 10/86 — 11/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DETOUR CORPORATION

338C

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TRAPS — AREAS — AREAS CHECKED — DATE — BY

ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — TRAPS — AREAS — AREAS CHECKED — BY VT SURVEY CONSULT. BRIAN J. ASSOC. — DATE 10/86, 11/86

'D'
C = 0
F = 166 S.F.

DETOUR 'D' ℄

REV. STA. 205+00 LT.
BEGIN 8" x 6'8" U.D.
W/ FES @ 205+50, 209+00 & 210+55

REV. STA. 205+00 RT.
END REMOVAL & DISPOSAL OF GUARD RAIL

C = 0 Sq Ft
F = 421 Sq Ft
R = 0 Sq Ft

SURV. 205+50 = REV. 205+50.25 =
DETOUR 113+60

+0.080 LT.
-0.080 RT.
RT. TRANSITION EXIST.
LT. TRANSITION EXIST.
202 203 PRC 204 205 206 PRC 207 208

BANKING DIAGRAM
SCALE 1" = 0.05V / 1" = 50' H

REV. STA. 205+33 LT. ASKEW TO 89°-50' LT.
NEW 18"x 30' POST & 0.064" OR CARP. 0.060", NEW 4'x4' ECDT w/TYPE A GRATE @ INLET, STN. FILL PAD TYPE I @ OUTLET 3' W x 10' EXTENDING 4' BEYOND END OF CULVERT.
REMOVE EXIST. DITCH & INSTALL NEW SPECIAL DITCH TYPE PAVE FOR UNDER TRENCH EXCAVATION.
ROUTE 2 EAST LT.
EXISTING 12" CPC (TO BE REMOVED)
STA. 205+00 LT.
END STONE LINED DITCH & WIRE TYPE

'D'
C = 38 S.F.
F = 112 S.F.

DETOUR 'D' ℄

SURV. 205+33 = REV. 205+33.28
ASKEWED @ 89°-50' LT.

C = 0 Sq Ft
F = 329 Sq Ft
R = 0 Sq Ft

REV. STA. 204+25 ℄ CENTERLINE CATTLE PASS
SEE PR SHEETS RE-110

SURV. 205+00 = REV. 205+00.69 =
DETOUR 113+11

'D'
C = 31.5 S.F.
F = 96 S.F.

REV. STA. 204+50 LT. TO BE ASKEW TO 89°-50' LT. REMOVE & DISPOSE OF EXIST. CPC & INSTALL NEW 4'x4' ECDT w/TYPE A GRATE @ INLET, STN. FILL PAD TYPE I @ OUTLET 3' W x 10' EXTENDING 4' BEYOND END OF CULVERT.

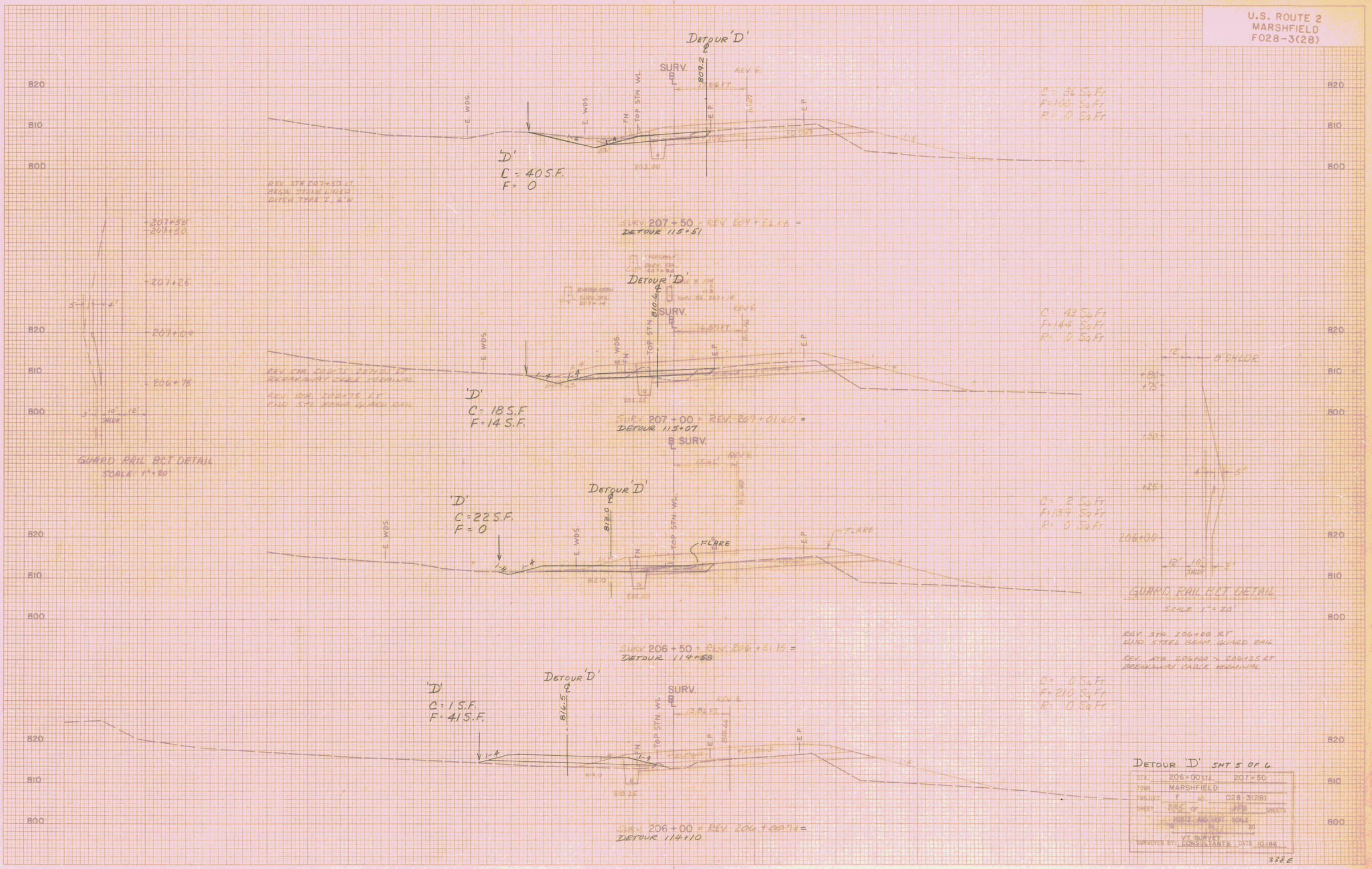
SURV. 204+50 = REV. 204+49.92 =
DETOUR 112+60

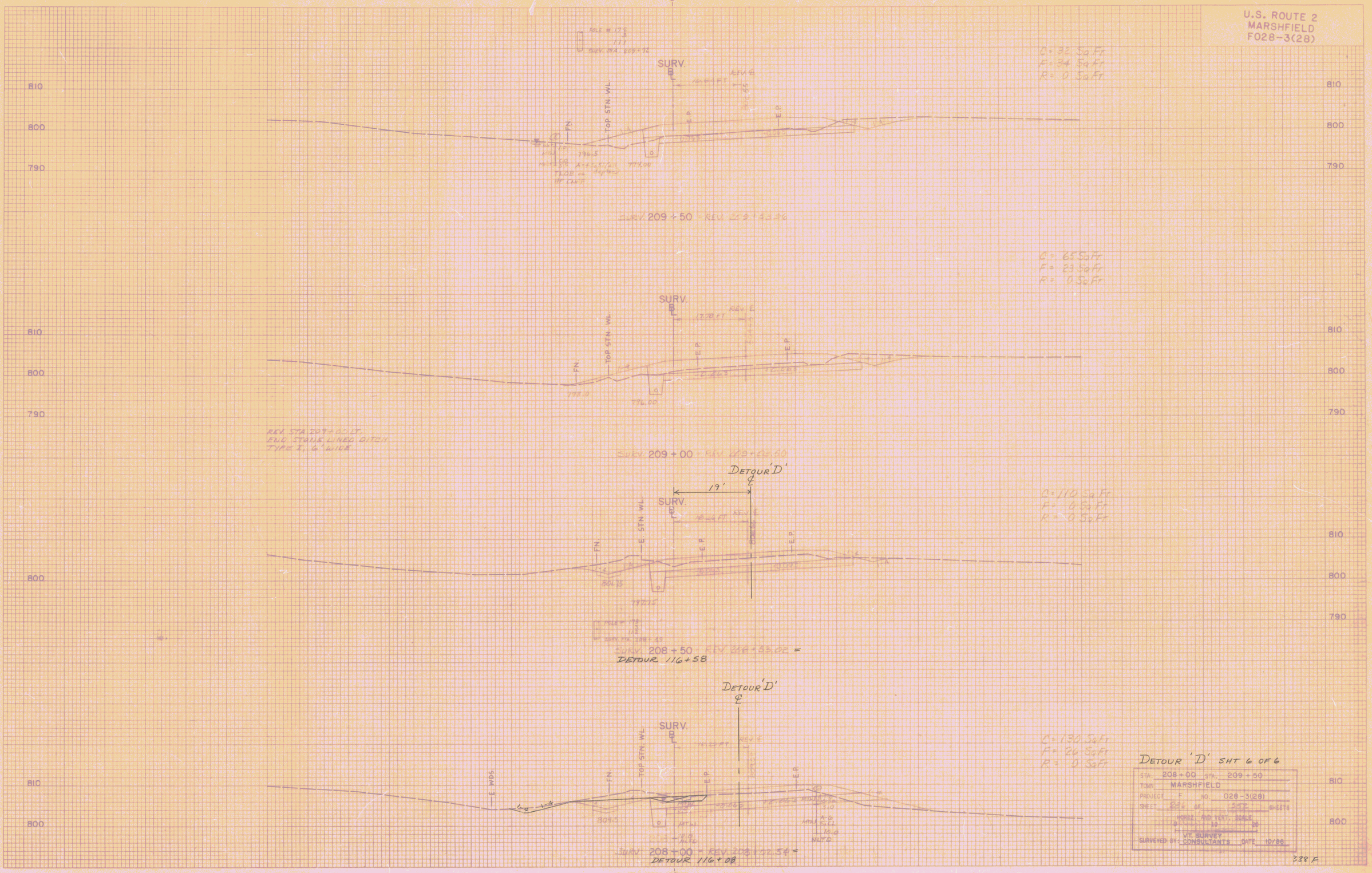
C = 0 Sq Ft
F = 212 Sq Ft
R = 0 Sq Ft

DETOUR 'D' SHT 4 OF 6
STA. 204+50 STA. 205+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 2nd OF FOUR SHEETS
HORIZ. AND VERT. SCALE 1" = 50'
V.T. SURVEY CONSULTANTS
SURVEYED BY: DATE 10/86

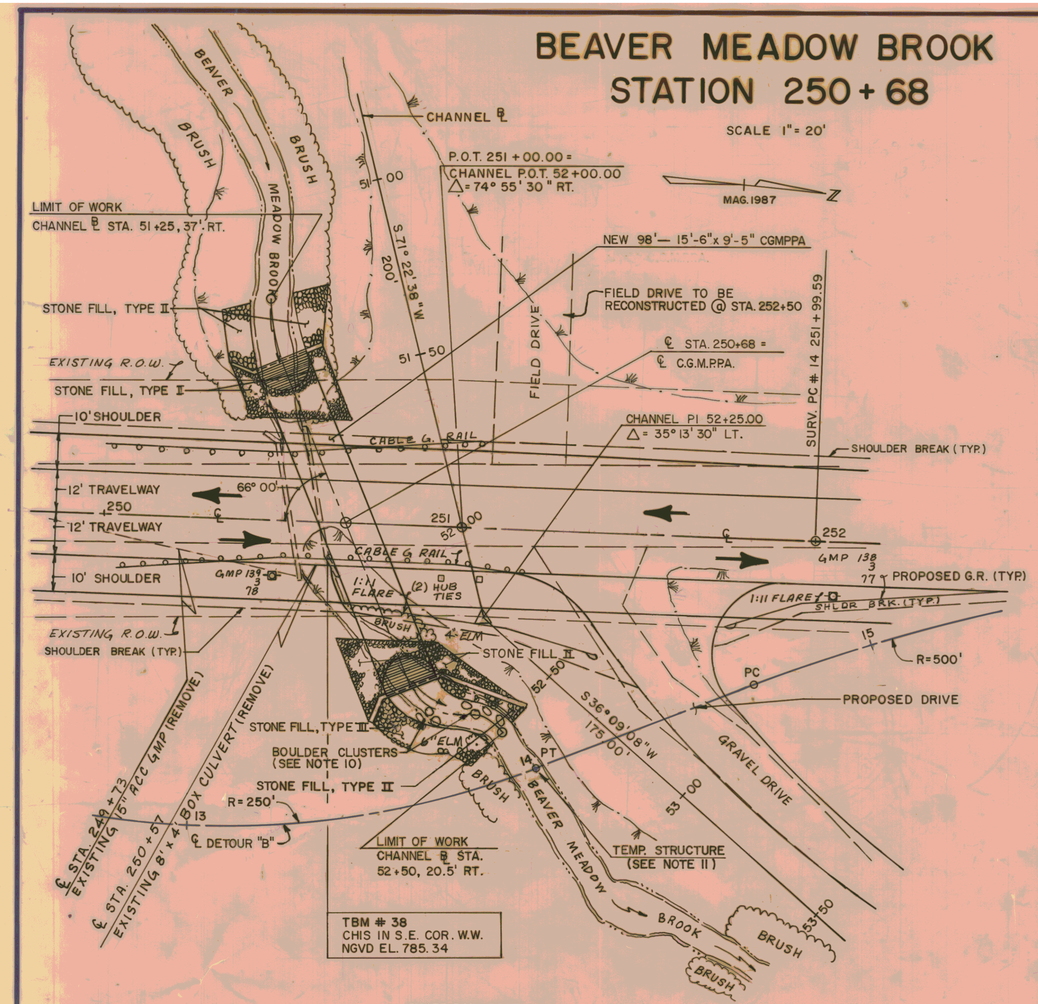
338D

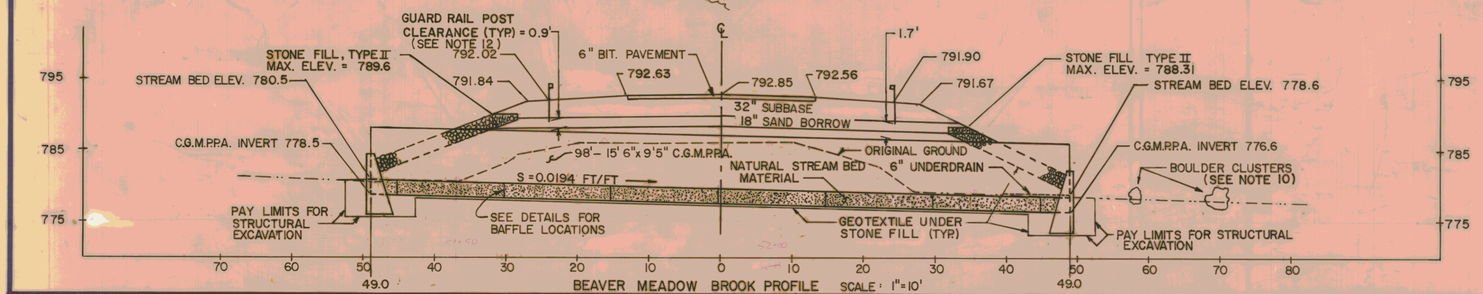
PLATE 3 CROSS SECTION © P. R. & R. S. STANDARD
GEYDON CORPORATION


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
DETOUR 'D'
SURV.
809.2
REV. ℄
E. WDS.
TOP STN. WL.
FN
E.P.
'D'
C = 40 S.F.
F = 0
C = 36 Sq Ft
F = 100 Sq Ft
R = 0 Sq Ft
REV. STA. 207+50 LT.
BEGIN STONE LINED
DITCH TYPE I, 6' W.
SURV. 207+50 = REV. 207+52.06 =
DETOUR 115+51
207+50
207+25
207+00
206+75
DETOUR 'D'
810.6
C = 43 Sq Ft
F = 144 Sq Ft
R = 0 Sq Ft
REV. STA. 206+75 LT.
END STL BEAM GUARD RAIL
'D'
C = 18 S.F.
F = 14 S.F.
SURV. 207+00 = REV. 207+01.60 =
DETOUR 115+07
GUARD RAIL BCT DETAIL
SCALE: 1" = 20'
8' SHLDR
'D'
C = 22 S.F.
F = 0
DETOUR 'D'
813.0
FLARE
C = 2 Sq Ft
F = 139 Sq Ft
R = 0 Sq Ft
206+00
GUARD RAIL BCT DETAIL
SCALE 1" = 20'
REV. STA. 206+00 RT
END STEEL BEAM GUARD RAIL
REV. STA. 206+00 ~ 206+25 RT
BREAKAWAY CABLE TERMINAL
SURV. 206+50 = REV. 206+51.15 =
DETOUR 114+58
'D'
C = 1 S.F.
F = 41 S.F.
DETOUR 'D'
816.5
C = 0 Sq Ft
F = 210 Sq Ft
R = 0 Sq Ft
SURV. 206+00 = REV. 206+00.74 =
DETOUR 114+10
DETOUR 'D' SHT 5 OF 6
STA. 206+00 STA. 207+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 235 OF 398 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86
338 E
FINAL SURVEY
NOTE BOOK
ORIGINAL SURVEY
VT. SURVEY CONSULT.
BRYANT ASSOC.
10/86
11/86


U.S. ROUTE 2
MARSHFIELD
F028-3(28)
C = 32 Sq Ft
F = 34 Sq Ft
R = 0 Sq Ft
SURV.
TOP STN. WL.
FN.
E.P.
SURV. 209 + 50 = REV. 209 + 53.96
C = 65 Sq Ft
F = 23 Sq Ft
R = 0 Sq Ft
SURV. 209 + 00 = REV. 209 + 03.60
REV. STA. 209 + 00 LT.
END STONE LINED DITCH
TYPE I, 6' WIDE
DETOUR 'D'
19'
E. STN. WL.
C = 110 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft
SURV. 208 + 50 = REV. 208 + 53.02 =
DETOUR 116 + 58
C = 130 Sq Ft
F = 26 Sq Ft
R = 0 Sq Ft
E. WDS.
SURV. 208 + 00 = REV. 208 + 02.54 =
DETOUR 116 + 08
DETOUR 'D' SHT 6 OF 6
STA. 208 + 00 STA. 209 + 50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 286 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86
338 F
FINAL SURVEY
ORIGINAL SURVEY
VT. SURVEY CONSULT.
BRYANT ASSOC.
PLATE 3 CROSS SECTION O.P.R.&R.E. STANDARD
DIETZGEN CORPORATION

BEAVER MEADOW BROOK
STATION 250+68



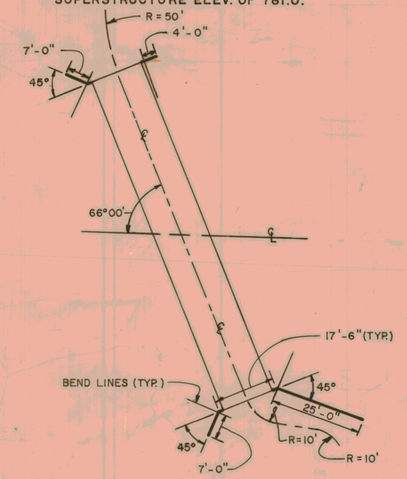


BEAVER MEADOW BROOK PROFILE SCALE: 1"=10'

NOTES CONT'D.

10.- INDIVIDUAL ROCKS WITHIN EACH BOULDER CLUSTER TO BE ANGULAR, 3-5' IN DIAMETER, AND OF IGNEOUS ORIGIN.
- EACH CLUSTER TO CONSIST OF 3 TO 5 BOULDERS PLACED IN AN OPEN DIAMOND OR TRIANGULAR PATTERN IN THE AREA INDICATED ON THE PLANS.
- EACH BOULDER WILL BE BURIED 1/3 OF THE HEIGHT, HEIGHT BEING ITS LARGEST DIMENSION.
- ALL LOCATIONS, PLACEMENT AND MATERIALS FOR BOULDER CLUSTERS WILL BE APPROVED AND AGREED UPON BY THE ENGINEER AND THE CONTRACTOR PRIOR TO PLACEMENT.

11. TYPE AND SIZE OF TEMPORARY STRUCTURE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED OF BY V.A.O.T. PRIOR TO PLACEMENT. TEMPORARY STRUCTURE WILL TRAVERSE BROOK NORMAL TO CHANNEL WITH A MINIMUM SPAN OF 30', MINIMUM WATERWAY AREA OF 45 SF, AND A MINIMUM SUPERSTRUCTURE ELEV. OF 781.0.

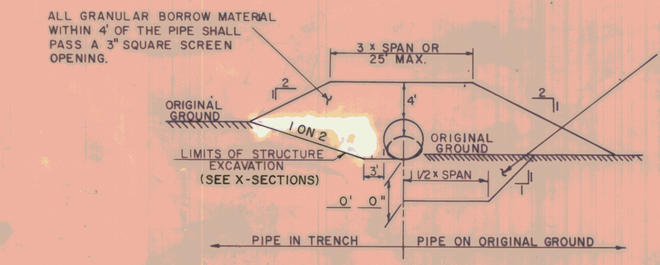


WING WALL DETAILS
N.T.S.

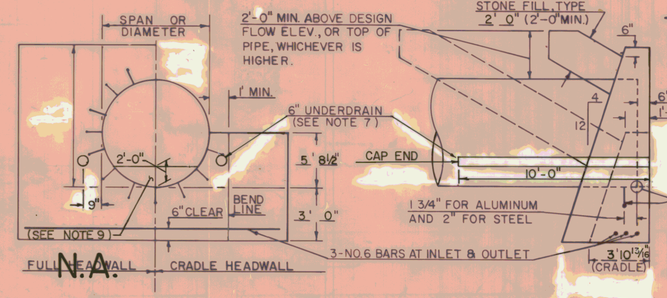
12. ATTENTION SHOULD BE PAID BY THE CONTRACTOR IN INSTALLING (DRIVING) GUARD RAIL POSTS WITHIN LIMITS OF PROPOSED CULVERT. ADEQUATE POST CLEARANCE HAS BEEN SUPPLIED FOR THE MAX. DEPTH. FOR POST DETAILS, SEE V.A.O.T. STANDARD SHEET G-1.

NOTES

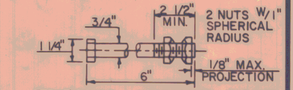
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990, AND THE LATEST A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. DESIGN IS FOR HS-20 LIVE LOADING.
2. UNLESS OTHERWISE INDICATED FOUR(4) BOLTS PER LINEAR FOOT FOR STEEL PLATES AND FIVE AND ONE THIRD (5 1/3) BOLTS FOR ALUMINUM PLATES ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH GALVANIZED ASTM A-449 BOLTS.
3. WHEN NORMAL CONSTRUCTION OR REGULAR ROADWAY TRAFFIC IS MAINTAINED OVER THE PIPE THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET OF COMPACTED MATERIAL.
4. ALUMINUM PIPE THAT IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH ZINC CHROMATE, OR BITUMINOUS, OR ASPHALTIC PAINT.
5. PIPES SHALL BE FACTORY ELONGATED 5% (PIPE ARCHES SHALL NOT BE ELONGATED).
6. THE ENDS OF THE PIPE SHALL BE CUT SQUARE (NOT BEVELED TO MATCH SLOPES).
7. AT THE OUTLET END INCLUDE A 10 FOOT PIECE OF 6" UNDERDRAIN EACH SIDE ON SAME GRADIENT AS CULVERT CONFORMING TO SECTION 711.01. COST TO BE INCLUDED IN UNIT PRICE BID FOR THE CULVERT PIPE.
8. PIPE IS TO BE FILLED WITH 2'-0" OF NATURAL STREAM BED MATERIAL.
9. FILLED INVERT FOR C.G.M.P.P.A. TO BE NATURAL STREAM BED MATERIAL APPROVED OF AND PLACED AS DIRECTED BY ENGINEER.



TYPICAL BACKFILL SECTION



HEADWALL DETAILS



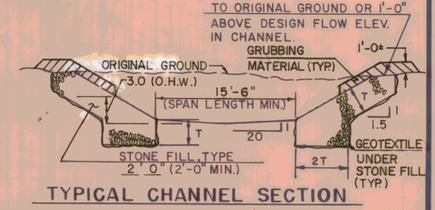
TYPICAL ANCHOR BOLT

BOLT MATERIAL SHALL CONFORM TO ASTM-A307 & NUTS TO ASTM-A563.

ONE ROW 3/4" ø GALVANIZED BOLTS, SPACED IN ALTERNATE CIRCUMFERENTIAL SEAM HOLES (19.2" C/C) AND TO BE FURNISHED WITH AND INCLUDED IN COST OF PLATE PIPE.

REINFORCING STEEL SCHEDULE

NO. PIECES	SIZE	LENGTH	MARK	TYPE		
3	6	28'-6"	5W601	STR.		
3	6	49'-6"	5W602	STR.		



TYPICAL CHANNEL SECTION

ESTIMATED QUANTITIES

NO.	ITEM	UNIT	TOTAL	FINAL
203.16	SOLID ROCK EXCAVATION	CY	36	
203.25	CHANNEL EXCAVATION OF EARTH	CY	61	
204.25	STRUCTURE EXCAVATION	CY	1233	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	80	
501.25	CONCRETE, CLASS B	CY	51	
506.60	STRUCTURAL STEEL (BAFFLES)	LBS.	6,556	
507.15	REINFORCING STEEL	LBS.	347	
511.16120	15'-6"x9'-5" C.G.M.P.P.A. (0.109)	EACH	1	
613.11	STONE FILL, TYPE II	CY	115	
613.12	STONE FILL, TYPE III	CY	40	
649.31	GEOTEXTILE UNDER STONE FILL	SY	850	
651.26	HAY BALES FOR EROSION CONTROL	EACH	120	
203.02	GRANULAR BORROW (EST.)	CY	395	

HYDRAULIC DATA

DRAINAGE AREA = 2.72 SQ. MI. DESIGN FLOW Q 50

Q_{10} =	400 C.F.S.	Q_{10} HEADWATER ELEVATION =	787.1
Q_{25} =	500 C.F.S.	Q_{25} HEADWATER ELEVATION =	788.1
Q_{50} =	650 C.F.S.	Q_{50} HEADWATER ELEVATION =	789.7
Q_{100} =	800 C.F.S.	Q_{100} HEADWATER ELEVATION =	791.7

TAILWATER DEPTH AT Q 50 = 3.5 FEET, ELEVATION 782.1
OUTLET VELOCITY AT Q 50 = 11.7 FEET PER SECOND
ORDINARY HIGHWATER DEPTH 3.0 FEET
COMMENTS: OVERTOPPING FREQUENCY EXCEEDS Q_{100}

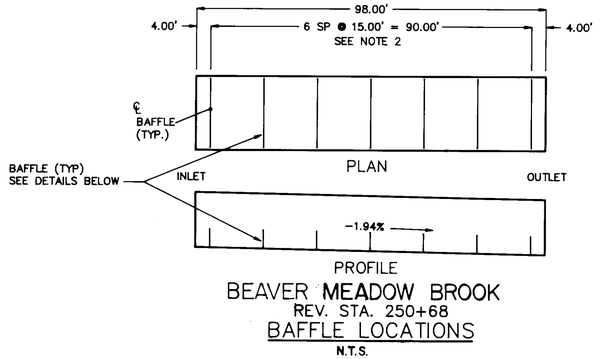
DETAILS OF STRUCTURAL PLATE PIPE CULVERTS

	STEEL	STEEL	ALUMINUM
CORRUGATIONS	6"x 2"		
SIZE OF PIPE OR PIPE ARCH	15'-6" x 9'-5" CGMPPA		
WATERWAY AREA (S.F.)	89.95		
PLATE THICKNESS (COATED)	0.109		
BOLT SIZE	3/4" DIA.		
WEIGHT PER LINEAR FOOT	280 lbs./ft.		
TOTAL WEIGHT	27,440 lbs.		

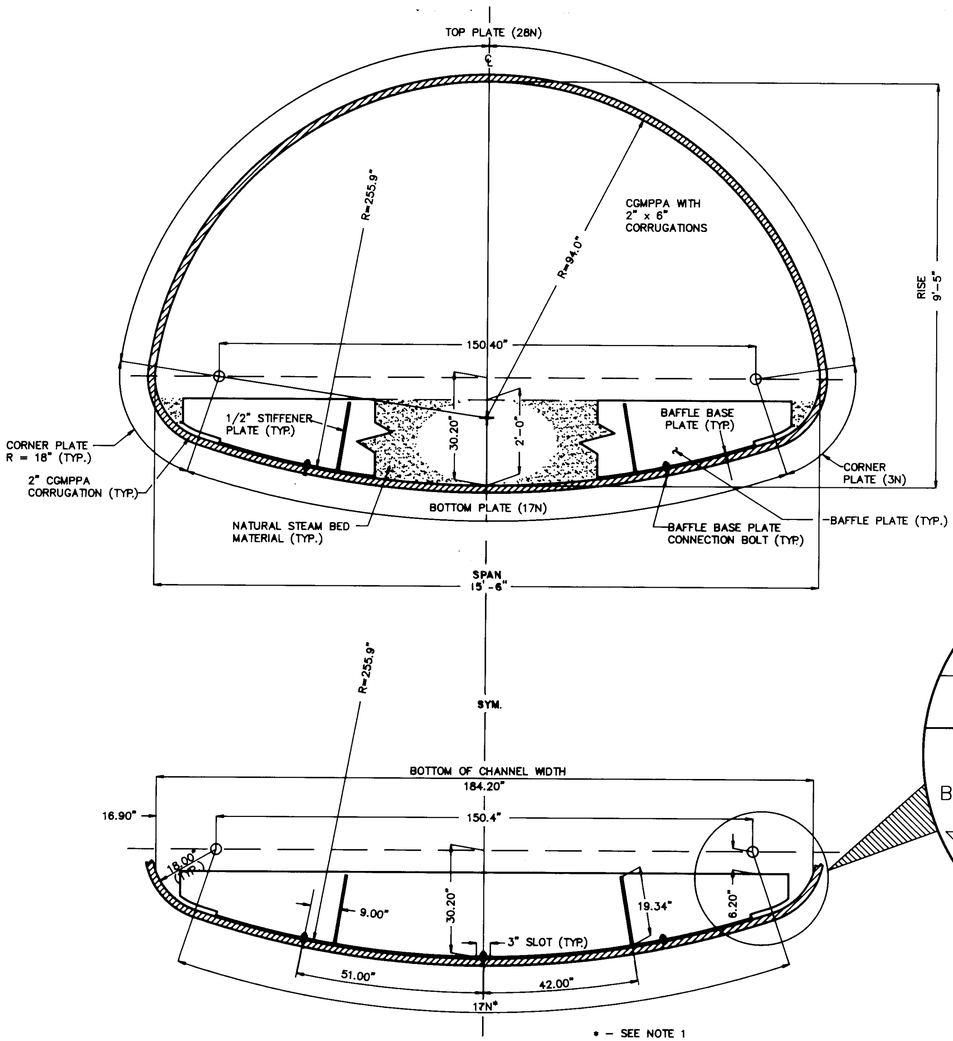
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MARSHFIELD	Bridge No.
HIGHWAY NO. U.S. RTE. 2	Log Sta.
BEAVER MEADOW BROOK - BR-120	Surv. Sta. ℄ 250+68
REV. ℄ STA. 250+68	
Designed by SMB	Drawn by SJB
Checked by date	Bridge Design Supervisor date
PROJECT U.S. ROUTE 2 - MARSHFIELD	PROJECT NO. FEGC F028-3(28)
Bridge Sheet No. 2	Sheet 359 of 352

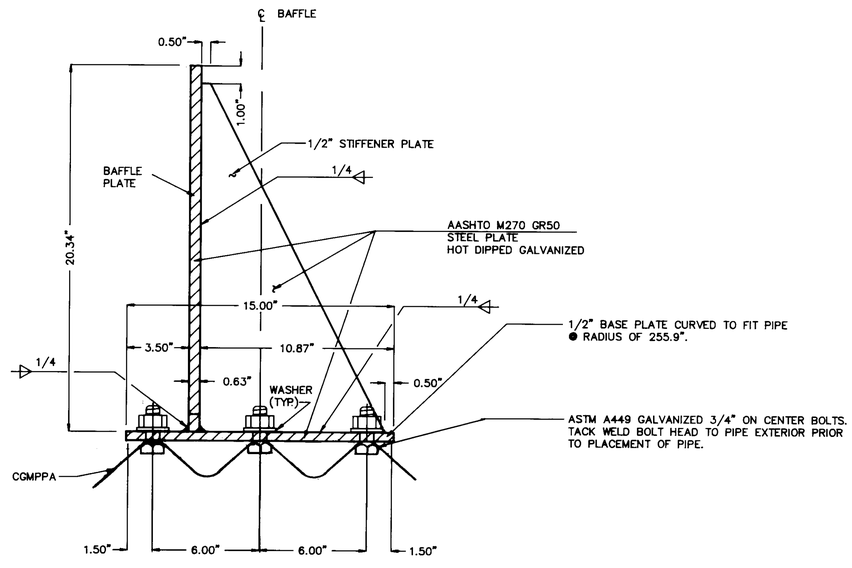
REV. 3/24/87



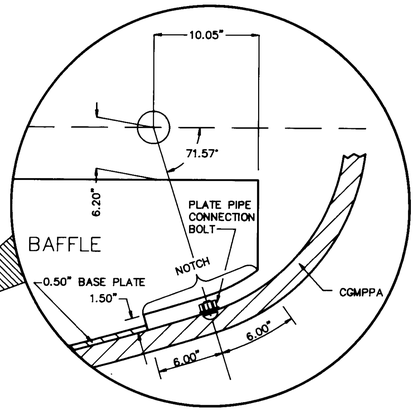
BEAVER MEADOW BROOK
REV. STA. 250+68
BAFFLE LOCATIONS
N.T.S.



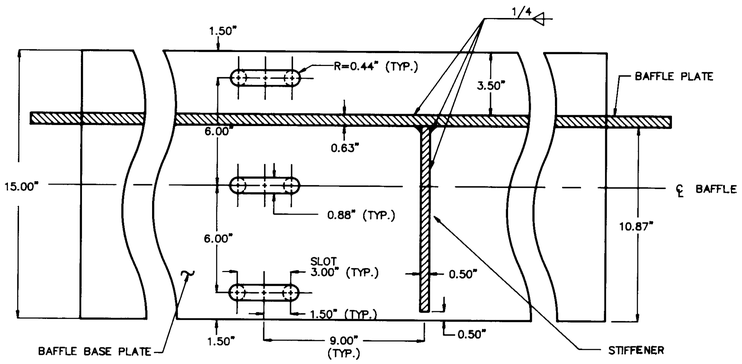
BAFFLE DETAIL
N.T.S.



STIFFENER PLATE AND BAFFLE CONNECTION DETAIL
N.T.S.



BAFFLE NOTCH @ CGMPPA PLATE CONNECTION
N.T.S.



BAFFLE BASE PLATE SLOT DETAIL
N.T.S.

NOTES

1. MANUFACTURER'S SPECIFICATIONS FOR PLATE CONNECTIONS VARY UPON APPLICATION AND CGMPPA SIZE. (BOTTOM PLATES FOR CGMPPA VARY IN WIDTH BY THE FACTOR N=9 25/32", I. E. 9N = 91 1/8"). ATTENTION SHOULD BE PAID BY THE CONTRACTOR IN BAFFLE ASSEMBLY, SUCH THAT THE PLACEMENT OF THE NOTCH IS SUFFICIENT ENOUGH TO PREVENT THE BAFFLE FROM RESTING ON THE PLATE CONNECTION BOLTS.
2. CGMPPA BOTTOM PLATES ARE AVAILABLE IN STANDARD 10 AND 12 FOOT LENGTHS. THE SPACING, AS SUGGESTED, REQUIRES A 10 FOOT NOMINAL LENGTH OF PLATE IN ORDER TO OFFSET CGMPPA BOTTOM PLATE AND BAFFLE PLATE CONNECTIONS. IF FOR CONSTRUCTION PURPOSES THE PLATE LENGTHS NEED BE CHANGED, PLACEMENT OF THE BAFFLES WILL BE APPROVED BY THE V.A.O.T. PRIOR TO CGMPPA ASSEMBLY.

BR-120 "1
BEAVER MEADOW BROOK

VT. SURVEY		
SURVEYED BY	CONSULTANTS	DATE 3/87
DRAWN BY	BRYANT ASSOC.	DATE 11/90
TRACED BY	SMB	DATE 11/90

U.S. ROUTE 2 - MARSHFIELD

PROJ. NO. FEGC F028-3(28)

SHEET 346 OF 352 SHEETS

PUBL. RD. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT		19		

STD. PENETRATION BORINGS			
BORING NO.	SURVEY STA.	OFFSET	SURFACE EL.
B-123	260+60	30' LT.	783.4
B-124	250+55	30' RT.	779.8

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B - 123

ELEV. 783.4

ELEV. 778.5 (PROPOSED) CGMPPA INVERT
ELEV. 775.5 (PROPOSED) BOTTOM CRADLE HEADWALL

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						Sandy Silt
	56			W	gr	A-1-a Sandy Gravel w=17.6%
10	3			W	gr	A-6 Silty Clay w=56.4%
	3			W	gr	A-6 Silty Clay w=30.1%
20	3			W	gr	A-6 Silty Clay with Fine Sand Layers w=27.6%
	4			W	gr	A-4 Sandy Silt w=29.2%
30	5			W	gr	A-7-6 Clay w=37.8%
	4			W	gr	A-7-6 Clay w=58.9%
40	6			W	gr	A-7-6 Clay w=48.9%
	7			W	gr	A-4 Clayey Silt w=41.3%
50	17			W	gr	A-4 Clayey Silt w=38.0%
	23			W	gr	A-4 Clayey Silt w=34.4%
60	22			W	gr	A-4 Silt w=30.9%
	17			W	gr	A-4 Silt w=31.9%
70	10			W	gr	A-4 Silt w=26.2%
	38			MTW	gr	A-4 Silty Sand w=22.8%
80	R					Boulders, No Recovery
	R			M	gr	A-4 SaSi w=14.7% Top of Bedrock @ 87.0'
90	Rec					Rec Casing into Bedrock 87-90
	Run 1					AXMDC 88.0-93.0' Rec4.9'
	Run 2					AXMDC 93.0-95.8' Rec2.5'
	Run 3					AXMDC 95.8-98.0' Rec2.2
	SEE GEOLOGIST'S REPORT					
	Hole Stopped @ 98.0' Bedrock					
100	Groundwater Elevation = 779.4' on 7/12/89					

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B - 124

ELEV. 779.8

ELEV. 776.6 (PROPOSED) CGMPPA INVERT
ELEV. 773.6 (PROPOSED) BOTTOM CRADLE HEADWALL

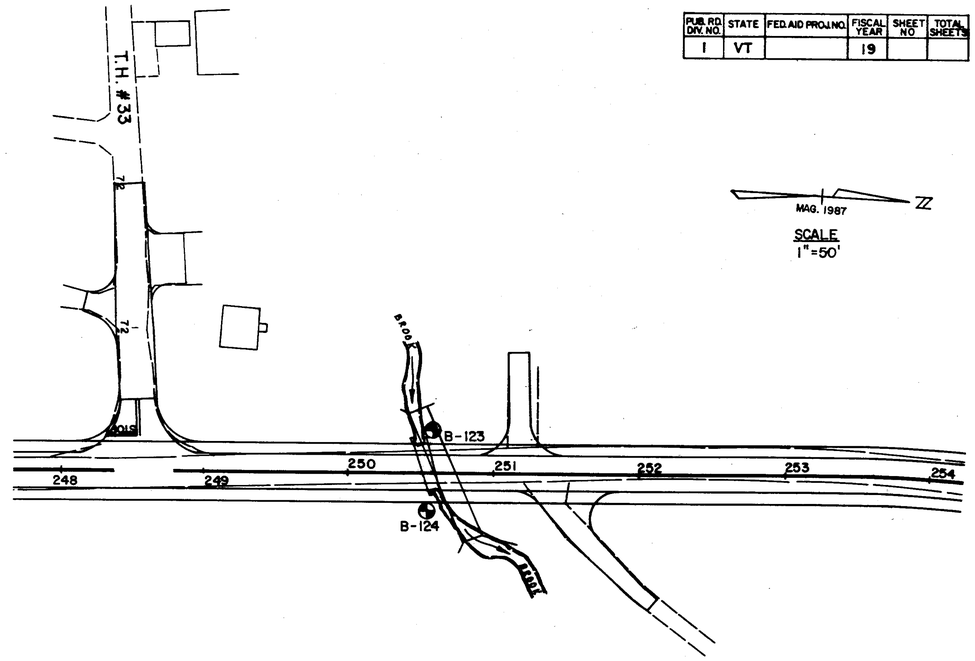
DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						Sandy Silt
	13			W	gr	A-1-a Sandy Gravel No Moisture Taken
10	5					No Recovery
	2			W	gr	A-4 Sandy Silt w=28.1%
20	1			W	gr	A-4 Silt 2=21.3%
	3			W	gr	A-7-6 Clay w=61.7%
30	4			W	gr	A-4 Clayey Silt w=57.7%
	10			W	gr	A-6 Silty Clay w/Sand Layers w=30.7%
40	15			W	gr	A-4 Silt No Moisture Taken
	18			W	gr	A-3 Sand w=23.0%
50	18			W	gr	A-1-b Gravelly Sand w=17.8%
	19					No Recovery, Sand
60	18					No Recovery, Sand
	Hole Stopped @ 62.0' NLTD					
70	Groundwater Elevation = 776.8' on 7/1/89					
80						

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B - 123 CONT'D.

ELEV.

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						GEOLOGIST'S REPORT
			Run #	Core Interval		% Recovery
			1	88.0-93.0		98
			2	93.0-95.8		89
			3	95.8-98.0		100
10						Core consists of quartz-biotite garnet schist cross-cut by 1 foot thick layers of granite. The schist is very coarse grained and was altered by the intrusion of the granite. The rock is moderately hard, slightly weathered at the schist/granite contacts and competent overall.
20						



SYMBOLS USED FOR SOIL SUBSURFACE IDENTIFICATION

Symbol	Description	Symbol	Description
MTW	Moist to Wet	HP	Hard Pan
Sat	Saturated	Le	Ledge
Blk	Black	NLTD	No Ledge to Depth
Brn	Brown	CNPF	Could Not Penetrate Further
Lt	Light	TLOB	To Ledge or Boulder
Dark	Dark	OC	Organic Content, %
(S)	Sample Taken	W	Moisture Content, %
Bo	Boulder	◕	Standard Penetration Borings Sampler outside diameter-2" Sampler inside diameter-1 3/8" Weight of Hammer-140 lbs.
NGW	No Ground Water		
TGW	To Ground Water		
GR	Gravel	⊕	Auger Borings
Sa	Sand	⊙	Rod Soundings
Si	Silt	UP	Undisturbed Piston Sample
Cl	Clay	VS	Field Vane Shear Sample

SOIL CLASSIFICATION

A1	Gravel & Sand	GW/GP	Clean Gravels (Few Fines)
A3	Fine Sand	GM/GC	Gravels (Appreciable Fines)
A2	Silty or Clayey Gravel & Sand	SW/SP	Clean Sands (Few Fines)
A4	Silty Soil-Low Compressibility	SM/SC	Sand (Appreciable Fines)
A5	Silty Soil-Highly Compressible	ML/CL	Low Plastic Silts & Clays
A6	Clayey Soil-Low Compressibility	OL	Low Plastic Organic Silt
A7	Clayey Soil-Highly Compressible	MH/CH	High Plastic Silts & Clays
A8	Muck, Peat, Organic	OH	High Plastioc Organic Silt
		Pt	Highly Organic Soils

GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE DURING JULY 1989 BY THE VERMONT AGENCY OF TRANSPORTATION.

1. SOIL AND ROCK (WHERE ENCOUNTERED) CLASSIFICATION, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION OF AVAILABLE SUBSURFACE INFORMATION BY THE VERMONT AGENCY OF TRANSPORTATION AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.
2. OBSERVED WATER LEVELS AND/OR WATER CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.
3. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREON. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTENDED FOR AGENCY DESIGN AND ESTIMATE PURPOSES ONLY. PRESENTATION OF THE INFORMATION ON THE PLANS AND ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS, INDEPENDENT ANALYSIS OR JUDGEMENT OF THE CONTRACTOR.
4. PICTORIAL STRUCTURE DETAILS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN IN THE CONTRACT PLANS.

BR-120
BEAVER MEADOW BROOK

VT. SURVEY CONSULTANTS
SURVEYED BY _____ DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 6/87
TRACED BY _____ DATE _____

U.S. ROUTE 2 - MARSHFIELD

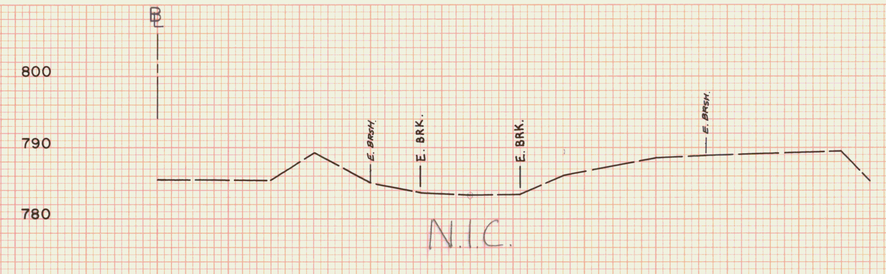
PROJ. NO. FEGC F028 - 3(28)

SHEET 341 OF 352 SHEETS

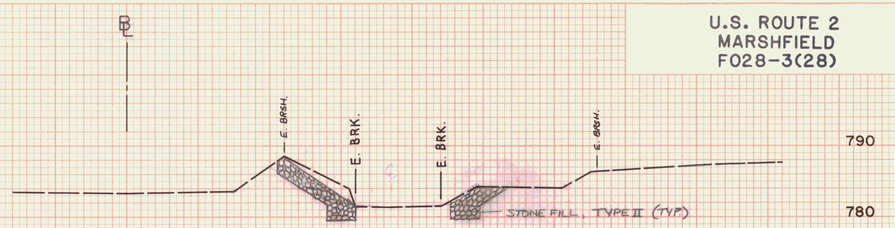
144853

BEAVER MEADOW BROOK
CHANNEL SECTIONS
℄ STA. 250+57.00
(NEW 15'-6"x 9'-5" CGMPPA.
STA. 250+68, ASKEWED 66° 00' RT.)

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

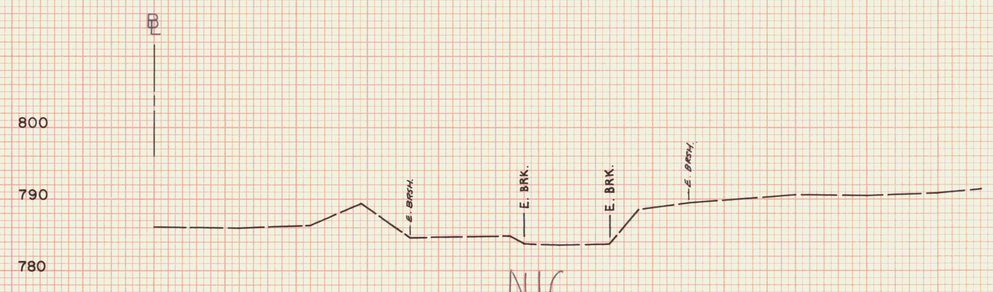


50 + 50



51 + 25

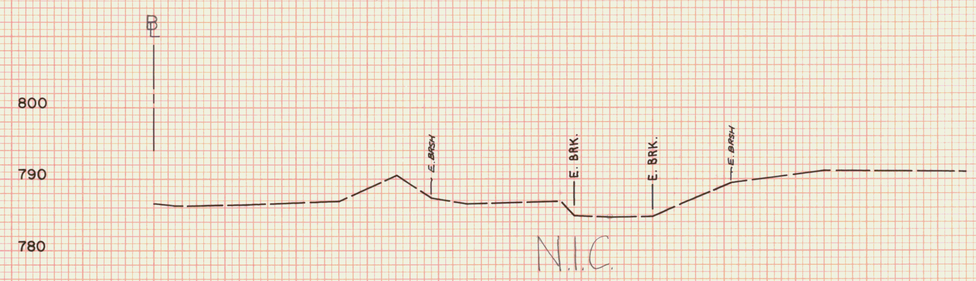
CHANNEL ℄ STA. 51+25 RT.
BEGIN STONE FILL, TYPE II
BEGIN GEOTEXTILE UNDER STONE FILL
BEGIN CHANNEL EXCAVATION



50 + 25



51 + 00



50 + 00



50 + 75

NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

BR-120
BEAVER MEADOW BROOK
STA. 50+00 STA. 51+25
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 342 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

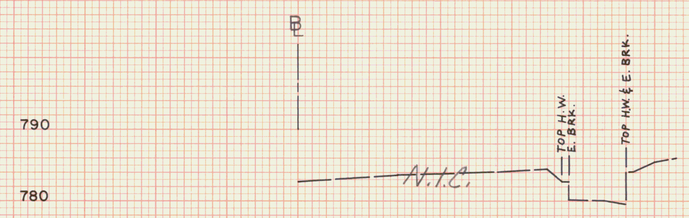
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY VT SURVEY CONSULT. BRYANT ASSOC.
DATE 12/86 1/87

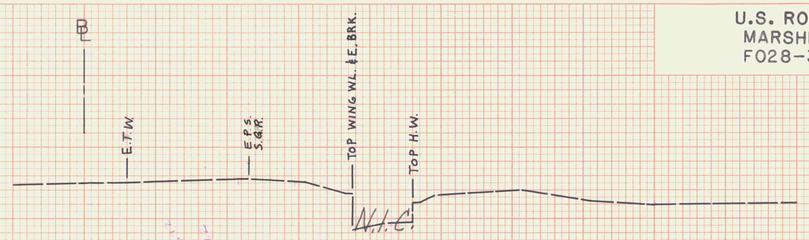
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

BEAVER MEADOW BROOK
CHANNEL SECTIONS
℄ STA. 250+57.00
(NEW 15'-6" x 9'-5" C.G.M.P.P.A.
STA. 250+68, ASKEWED 66° 00' RT.)

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

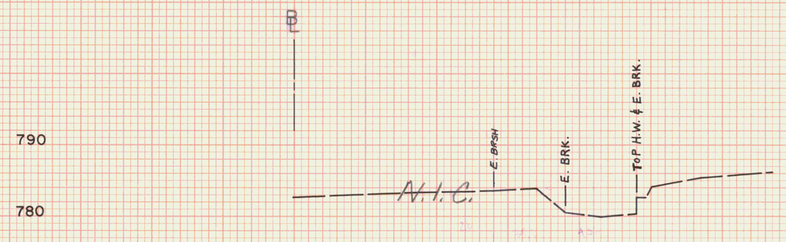


51 + 63



52 + 04

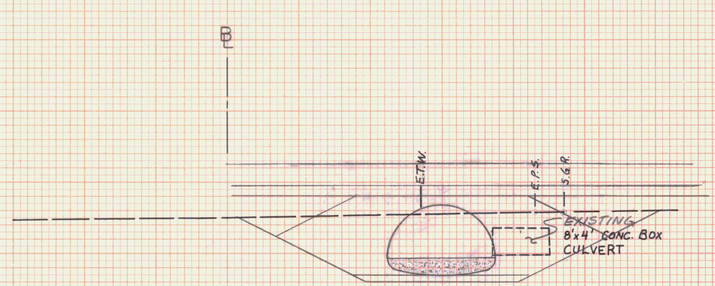
CHANNEL ℄ STA. 52+04
END REMOVAL OF EXIST.
8'X4' CONCRETE BOX CULVERT
TO BE PAID FOR UNDER
SOLID ROCK EXCAVATION



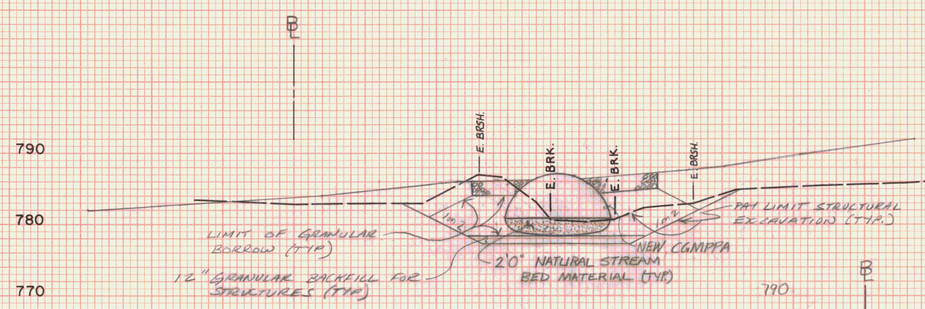
51 + 61

CHANNEL ℄ STA. 51+61
BEGIN REMOVAL OF EXIST.
8'X4' CONC. BOX CULVERT
TO BE PAID FOR UNDER
SOLID ROCK EXCAVATION

CHANNEL ℄ STA. 51+60
END STONE FILL, TYPE II
END GEOTEXTILE UNDER
STONE FILL



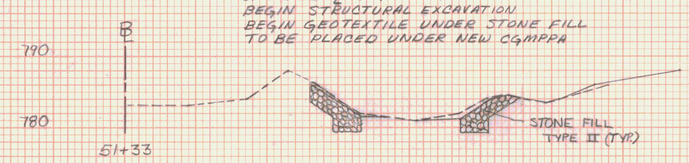
52 + 00

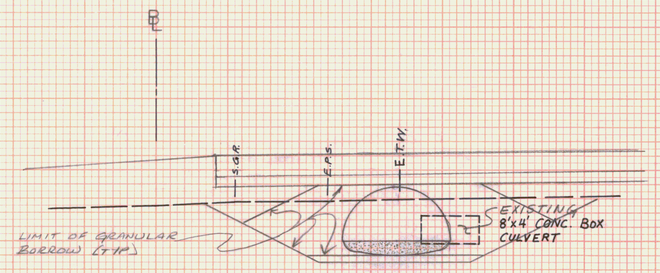


51 + 50

CHANNEL ℄ STA. 51+42 RT.
CONSTRUCT CRADDLE HEADWALL
BEGIN NEW 15'-6" X 9'-5" C.G.M.P.P.A.
CONTINUE STONE FILL TYPE II,
2' THICK ON ALL SLOPES
END STONE FILL, TYPE III

CHANNEL ℄ STA. 51+39 RT.
BEGIN STRUCTURAL EXCAVATION
BEGIN GEOTEXTILE UNDER STONE FILL
TO BE PLACED UNDER NEW C.G.M.P.P.A.





51 + 75

NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

BR-120
BEAVER MEADOW BROOK

STA.	51+50	STA.	52+04
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	343 OF	342	SHEETS

HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 12/86

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

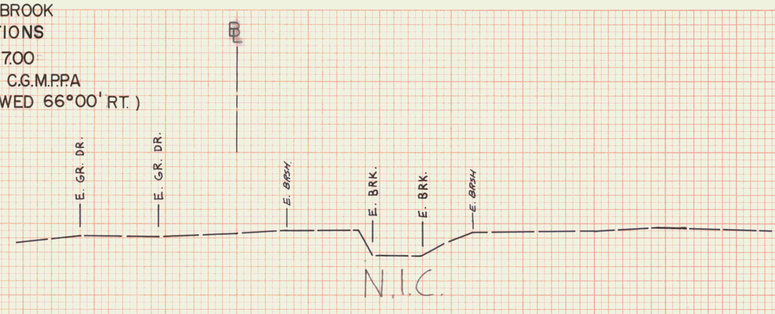
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY: VT. SURVEY CONSULT. BRYANT ASSOC. — DATE: 12/86 1/87

BEAVER MEADOW BROOK
CHANNEL SECTIONS
℄ STA. 250+57.00
(NEW 15'-6"x9'-5" C.G.M.P.P.A
STA. 250+68, ASKEWED 66°00' RT.)

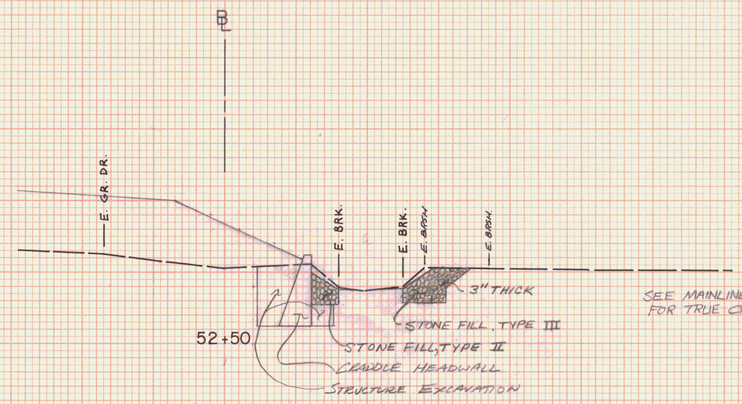
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



52 + 75



53 + 50



52+50

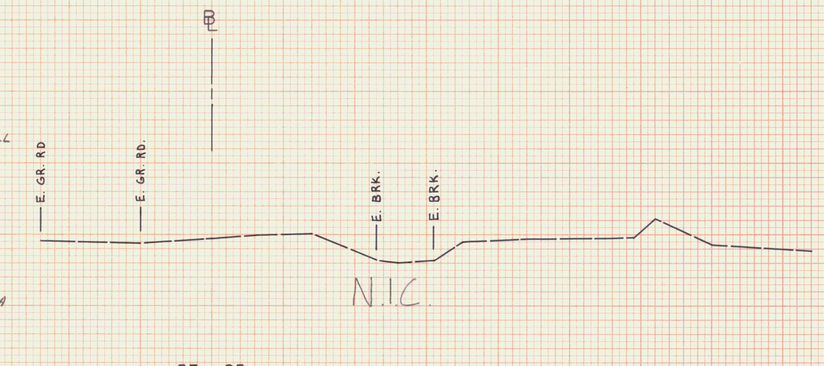
SEE MAINLINE 250+50
FOR TRUE CROSS SECTION

℄ CHANNEL ℄ STA. 52+52
END STRUCTURAL EXCAVATION
END GEOTEXTILE UNDER STONE FILL
TO BE PLACED UNDER NEW CGMPPA

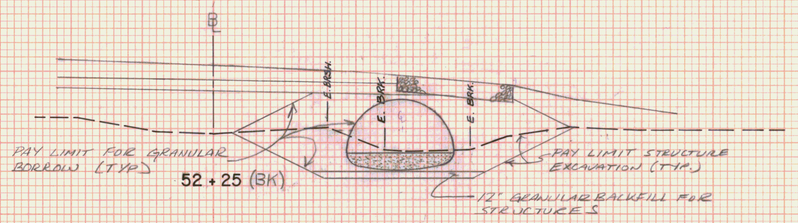
℄ CHANNEL ℄ STA. 52+50 LT.
END STONE FILL, TYPE II
END GEOTEXTILE UNDER
STONE FILL
END STONE FILL, TYPE III

℄ CHANNEL ℄ STA. 52+31. (LOCATED
ON EXTENDED BACK TANGENT).
END NEW 15'-6" X 9'-5" CGMPPA
BEGIN STONE FILL, TYPE III
3' THICK.

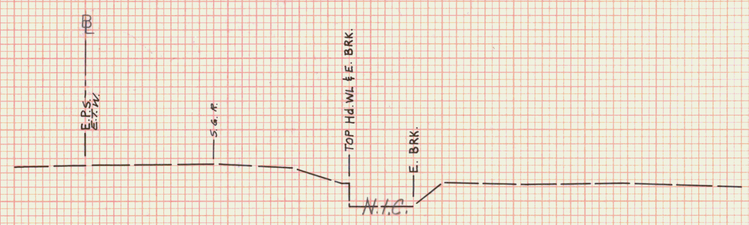
℄ CHANNEL ℄ STA. 52+25 (BK) RT.
BEGIN STONE FILL, TYPE II
BEGIN GEOTEXTILE UNDER STONE FILL
2' THICK ON ℳ SLOPES



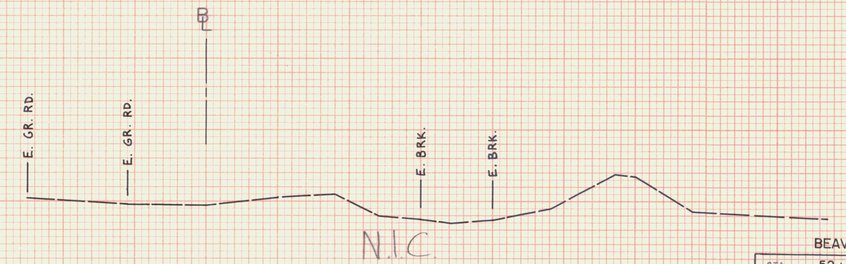
53 + 25



52 + 25 (BK)



52 + 05



53 + 00

NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

BR-120
BEAVER MEADOW BROOK

STA.	52+05	STA.	53+50
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	344	OF	362 SHEETS

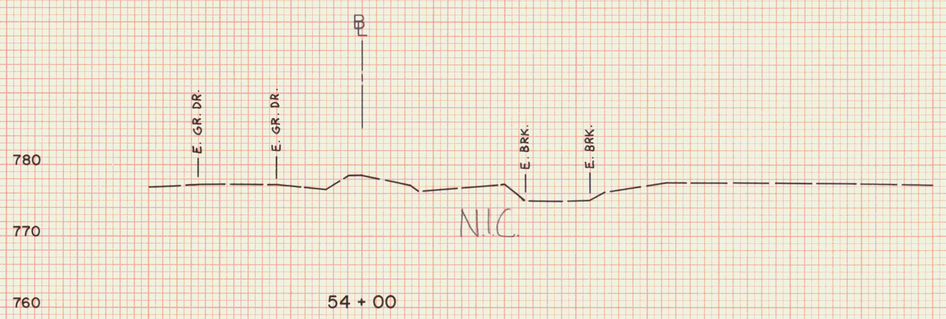
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

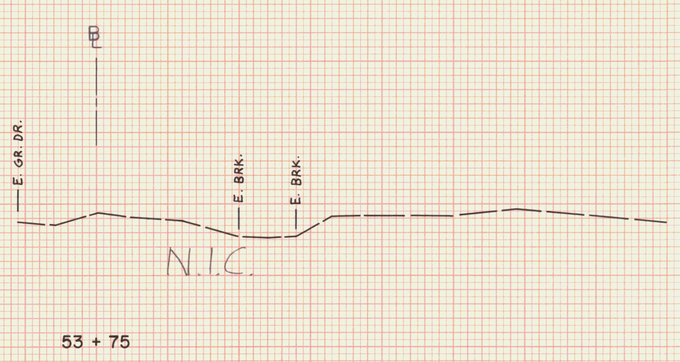
FINAL SURVEY NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, BY, DATE

ORIGINAL SURVEY NOTE BOOK NO. — BY VT. SURVEY CONSULT. BRYANT ASSOC., DATE 12/86, 1/87

BEAVER MEADOW BROOK
CHANNEL SECTIONS
℄ STA. 250+57.00
(NEW 15'-6"x9'-5" CGM.PPA.
STA. 250+68., ASKEWED 66° 00' RT.)

U.S. ROUTE 2
MARSHFIELD
F028-3(28)





NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

BR-120
BEAVER MEADOW BROOK
STA. 53+75 STA. 54+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 345 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT SURVEY CONSULTANTS DATE 12/86

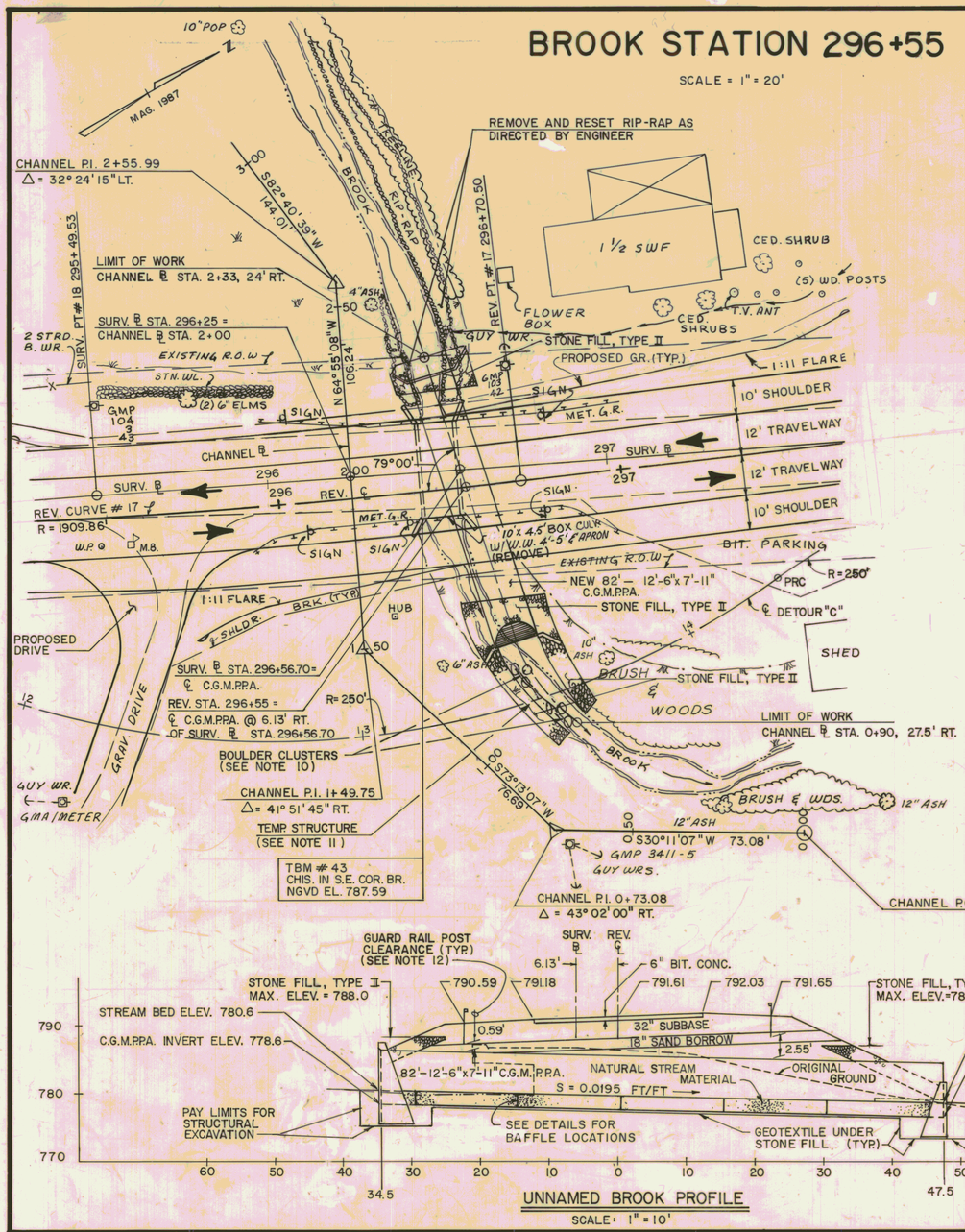
FINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK No. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY VT. SURVEY CONSULT. BRYANT ASSOC. — DATE 12/86 1/87

PLATE 3 CROSS SECTION C. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

BROOK STATION 296+55

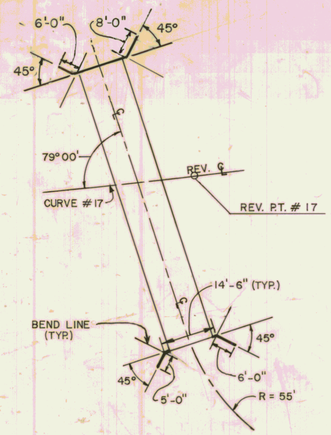
SCALE = 1" = 20'



NOTES (CONT'D.)

10. – INDIVIDUAL ROCKS WITHIN EACH BOULDER CLUSTER TO BE ANGULAR, 3-5' IN DIAMETER, AND OF IGNEOUS ORIGIN.
– EACH CLUSTER TO CONSIST OF 3 TO 5 BOULDERS IN AN OPEN DIAMOND OR TRIANGULAR PATTERN IN THE AREA INDICATED ON THE PLANS.
– EACH BOULDER WILL BE BURIED 1/3 OF ITS HEIGHT, HEIGHT BEING ITS LARGEST DIMENSION.
– ALL LOCATIONS, PLACEMENT AND MATERIALS FOR BOULDER CLUSTERS WILL BE APPROVED AND AGREED UPON BY THE ENGINEER AND THE CONTRACTOR PRIOR TO PLACEMENT.

11. TYPE AND SIZE OF TEMPORARY STRUCTURE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE V.A.O.T. PRIOR TO PLACEMENT. TEMPORARY STRUCTURE WILL TRAVERSE BROOK NORMAL TO CHANNEL WITH A MINIMUM SPAN OF 25', MINIMUM WATERWAY AREA OF 30' SF, AND MIMIMUM SUPERSTRUCTURE ELEV. OF 783.0.



WING WALL DETAILS

N.T.S.

12. ATTENTION SHOULD BE PAID BY THE CONTRACTOR IN INSTALLING (DRIVING) GUARD RAIL POST WITHIN LIMITS OF PROPOSED CULVERT. ADEQUATE POST CLEARANCE HAS BEEN SUPPLIED FOR MAXIMUM DEPTH. FOR POST DETAILS, SEE V.A.O.T. STANDARD SHEET G-1.

UNNAMED BROOK PROFILE

SCALE: 1" = 10'

HYDRAULIC DATA

DRAINAGE AREA = 1.17 SQ. MI. DESIGN FLOW Q 50

Q_{10} =	200 C.F.S.	Q_{10} HEADWATER ELEVATION =	784.7
Q_{25} =	275 C.F.S.	Q_{25} HEADWATER ELEVATION =	785.5
Q_{50} =	350 C.F.S.	Q_{50} HEADWATER ELEVATION =	786.2
Q_{100} =	425 C.F.S.	Q_{100} HEADWATER ELEVATION =	786.9

TAILWATER DEPTH AT Q 50 = 3.0 FEET, ELEVATION 782.0

OUTLET VELOCITY AT Q 50 = 10.0 FEET PER SECOND

ORDINARY HIGHWATER DEPTH 2.0 FEET

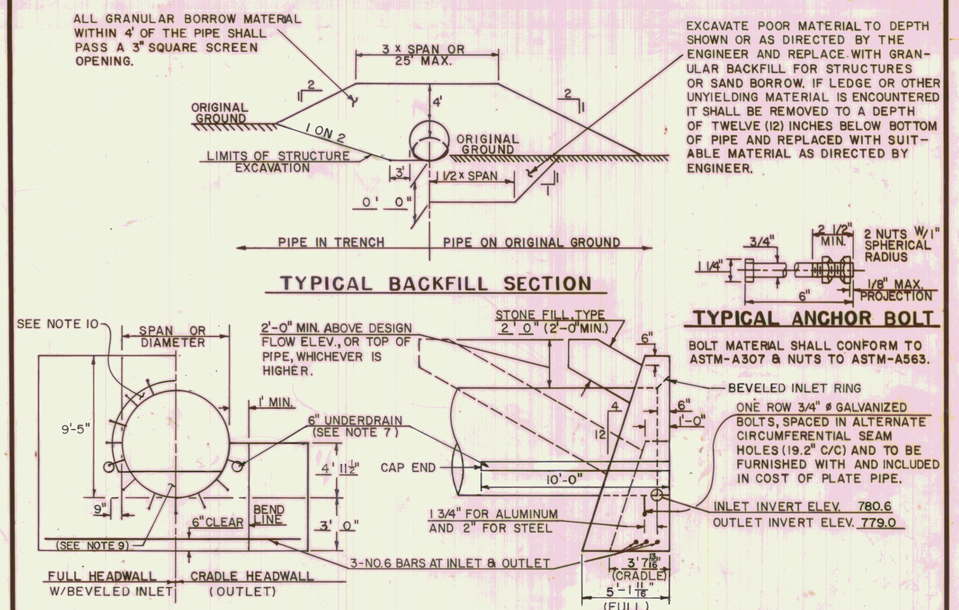
COMMENTS: OVERTOPPING FREQUENCY EXCEEDS Q_{100}

DETAILS OF STRUCTURAL PLATE PIPE CULVERTS

	STEEL	STEEL	ALUMINUM
CORRUGATIONS	6" x 2"		
SIZE OF PIPE OR PIPE ARCH	12'-6" x 7'-11"		
WATERWAY AREA (S.F.)	57.52		
PLATE THICKNESS (COATED)	0.109		
BOLT SIZE	3/4" DIA.		
WEIGHT PER LINEAR FOOT	233 lbs./ft.		
TOTAL WEIGHT	19,106 lbs.		

NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990, AND THE LATEST A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. DESIGN IS FOR HS-20 LIVE LOADING.
2. UNLESS OTHERWISE INDICATED FOUR (4) BOLTS PER LINEAR FOOT FOR STEEL PLATES AND FIVE AND ONE THIRD (5 1/3) BOLTS FOR ALUMINUM PLATES ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH GALVANIZED ASTM A-449 BOLTS.
3. WHEN NORMAL CONSTRUCTION OR REGULAR ROADWAY TRAFFIC IS MAINTAINED OVER THE PIPE THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET OF COMPACTED MATERIAL.
4. ALUMINUM PIPE THAT IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH ZINC CHROMATE, OR BITUMINOUS, OR ASPHALTIC PAINT.
5. PIPES SHALL BE FACTORY ELONGATED 5% (PIPE ARCHES SHALL NOT BE ELONGATED).
6. THE ENDS OF THE PIPE SHALL BE CUT SQUARE (NOT BEVELED TO MATCH SLOPES).
7. AT THE OUTLET END INCLUDE A 10 FOOT PIECE OF 6" UNDERDRAIN EACH SIDE ON SAME GRADIENT AS CULVERT CONFORMING TO SECTION 711.01. COST TO BE INCLUDED IN UNIT PRICE BID FOR THE CULVERT PIPE.
8. PIPE IS TO BE FILLED WITH 2'-0" OF NATURAL STREAM BED MATERIAL.
9. FILLED INVERT FOR C.G.M.P.P.A. TO BE NATURL STREAM BED MATERIAL APPROVED OF AND PLACED AS DIRECTED BY ENGINEER.
10. BEVELED INLET RING. BEVEL NOT REQUIRED BELOW FILLED INVERT.



TYPICAL BACKFILL SECTION

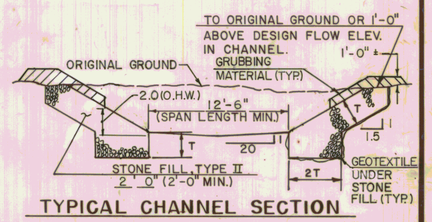
TYPICAL ANCHOR BOLT

BOLT MATERIAL SHALL CONFORM TO ASTM-A307 & NUTS TO ASTM-A563.

HEADWALL DETAILS

REINFORCING STEEL SCHEDULE

NO. PIECES	SIZE	LENGTH	MARK	TYPE		
3	6	30'-0"	6W601	STR.		
3	6	27'-0"	6W602	STR.		



TYPICAL CHANNEL SECTION

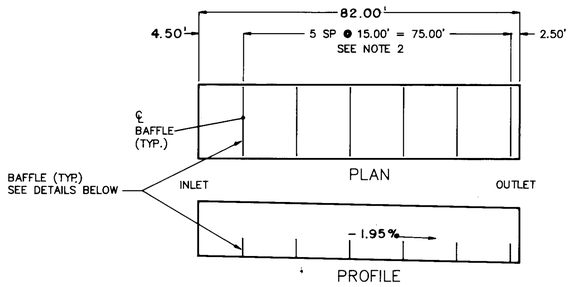
ESTIMATED QUANTITIES

NO.	ITEM	UNIT	TOTAL	FINAL
203.16	SOLID ROCK EXCAVATION	CY	43	
203.25	CHANNEL EXCAVATION OF EARTH	CY	38	
204.25	STRUCTURE EXCAVATION	CY	1065	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	80	
501.25	CONCRETE, CLASS B	CY	31	
506.60	STRUCTURAL STEEL (BAFFLES)	LBS.	4,604	
507.15	REINFORCING STEEL	LBS.	260	
511.16130	12'-6" x 7'-11" C.G.M.P.P.A. (0.109)	EACH	1	
613.11	STONE FILL, TYPE II	CY	101	
649.31	GEOTEXTILE UNDER STONE FILL	SY	670	
651.26	HAY BALES FOR EROSION CONTROL	EACH	85	
203.32	GRANULAR BORROW (EST.)	CY	567	

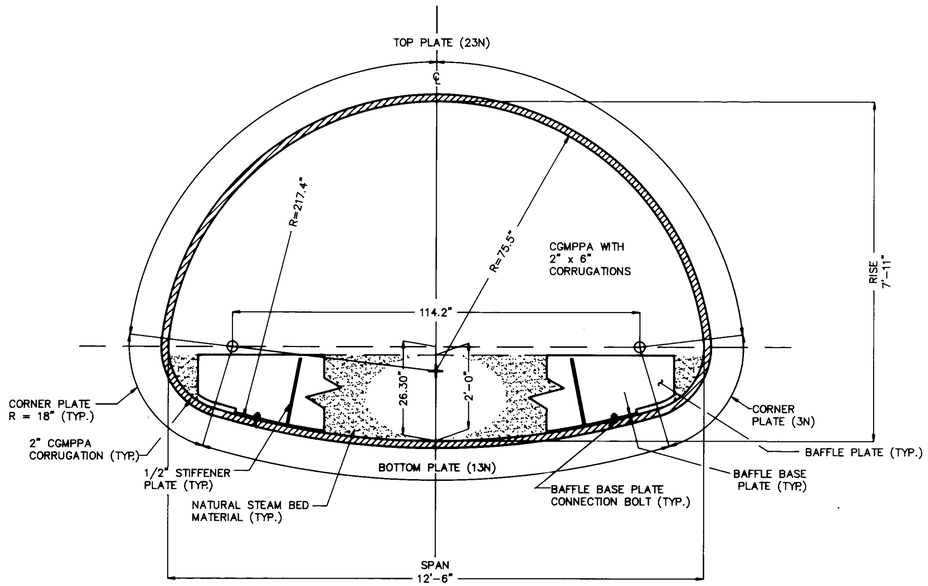
STATE OF VERMONT
AGENCY OF TRANSPORTATION

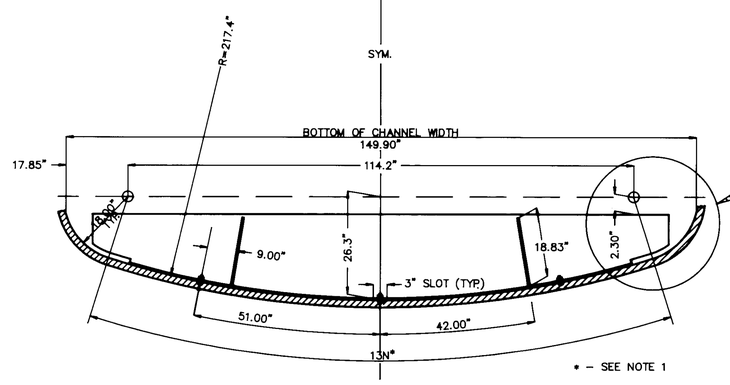
TOWN OF MARSHFIELD	Bridge No.
HIGHWAY NO. U.S. RTE. 2	Log Sta.
UNNAMED BROOK - BR-130	Surv. Sta. 296+24.29
REV. ℄ STA. 296+55	
Designed by SMB	Drawn by SJB
Checked by date	Bridge Design Supervisor date
PROJECT U.S. RTE. 2 - MARSHFIELD	PROJECT NO. FEGC F028-3-(28)
Bridge Sheet No. 1	Sheet 346 of 352

REV. 3/24/87

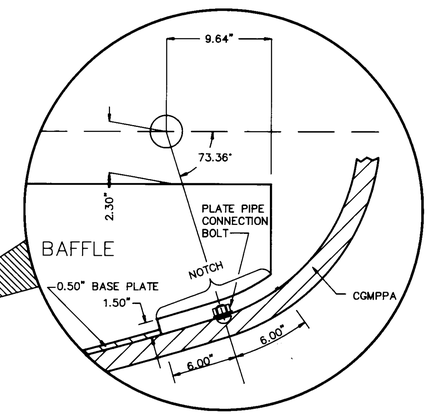


UNNAMED BROOK
REV. STA. 296+55
BAFFLE LOCATIONS
N.T.S.

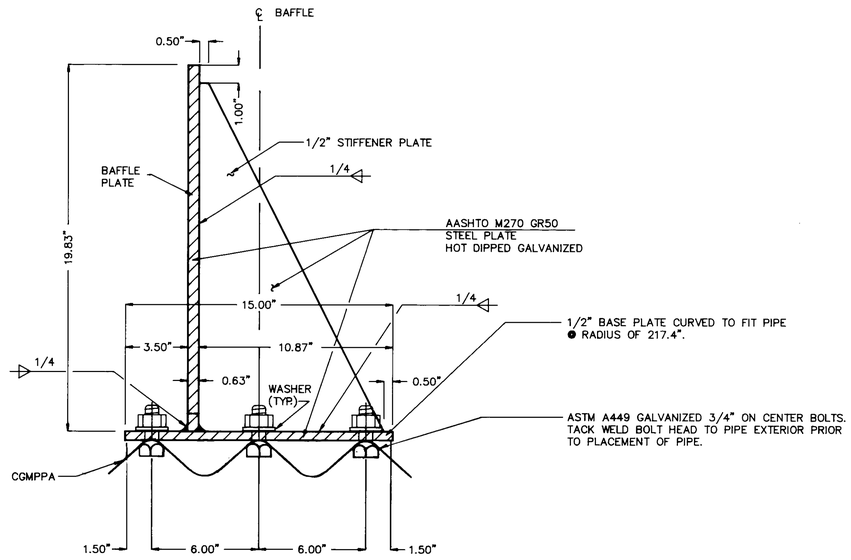




BAFFLE DETAIL
N.T.S.



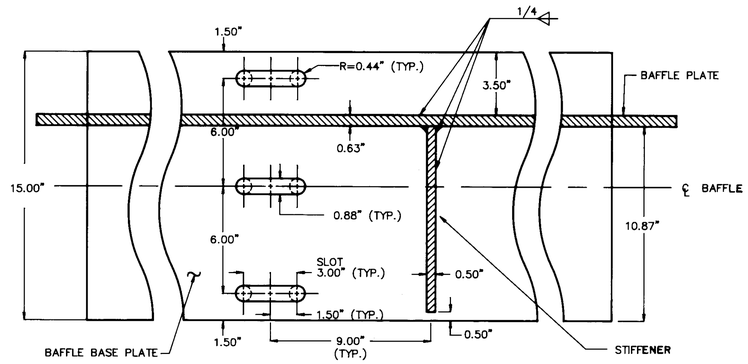
BAFFLE NOTCH
@ CGMPPA PLATE
CONNECTION
N.T.S.



STIFFENER PLATE AND BAFFLE CONNECTION
DETAIL
N.T.S.

NOTES

1. MANUFACTURER'S SPECIFICATIONS FOR PLATE CONNECTIONS VARY UPON APPLICATION AND CGMPPA SIZE. (BOTTOM PLATES FOR CGMPPA VARY IN WIDTH BY THE FACTOR N=9 25/32", I. E. 9N = 91 1/8"). ATTENTION SHOULD BE PAID BY THE CONTRACTOR IN BAFFLE ASSEMBLY, SUCH THAT THE PLACEMENT OF THE NOTCH IS SUFFICIENT ENOUGH TO PREVENT THE BAFFLE FROM RESTING ON THE PLATE CONNECTION BOLTS.
2. CGMPPA BOTTOM PLATES ARE AVAILABLE IN STANDARD 10 AND 12 FOOT LENGTHS. THE SPACING, AS SUGGESTED, REQUIRES A 10 FOOT NOMINAL LENGTH OF PLATE IN ORDER TO OFFSET CGMPPA BOTTOM PLATE AND BAFFLE PLATE CONNECTIONS. IF FOR CONSTRUCTION PURPOSES THE PLATE LENGTHS NEED BE CHANGED, PLACEMENT OF THE BAFFLES WILL BE APPROVED BY THE V.A.O.T. PRIOR TO CGMPPA ASSEMBLY.



BAFFLE BASE PLATE SLOT
DETAIL
N.T.S.

UNNAMED BROOK - BR-130

VT. SURVEY		
SURVEYED BY CONSULTANTS	DATE	3/87
DRAWN BY BRYANT ASSOC.	DATE	11/90
TRACED BY SMB	DATE	11/90

U.S. ROUTE 2 - MARSHFIELD
PROJ. NO. FEGC 028 - 3(28)
SHEET 347 OF 352

PUB. RD. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT		19		

STD. PENETRATION BORINGS			
BORING NO.	SURVEY STA.	OFFSET	SURFACE EL.
B-146	296+28	37' LT.	785.7
B-147	296+66	38' RT.	782.0

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B-146

ELEV. 785.7'

ELEV. 778.8 (PROPOSED) (C.G.M.P.P.A. INVERT)
ELEV. 775.8 (PROPOSED) (BOTTOM CRADLE HEADWALL)

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						▼
	2					No Recovery, Stones on Top of Clay
10	--			M	gr	A-4 Clayey Silt with fine Sand Layers w=49.5%
	13			M	gr	A-4 Silt with fine Sand Layers w=41.2%
				M	gr	A-4 Silt w=26.3%
20	27			M	gr	A-4 Sandy Silt w=25.9%
	29			M	brn	A-4 Silty Sand w=23.2%
30	20			MTW	brn	A-4 Silty Sand w=23.7%
	R			MTW	brn	A-2-4 Silty Sand w=20.4%
40	43			M	brn	A-2-4 SiSaGr w=13.8%

Top of Becrock @ 42.0'

Run 1 BXMDC 42.0-47.0' Rec4.5'
Run 2 BXMDC 47.0-52.0' Rec5.0'

SEE GEOLOGIST'S REPORT

Hole Stopped @ 52.0' in Bedrock

Groundwater Elevation = 782.7' on 7/19/89

GEOLOGIST'S REPORT

Run #	Core Interval	% Rec
1	42.0-47.0	90
2	47.0-52.0	100

Core consists of a quarts-biotite-garnet schist. The rock is moderately hard, slightly weathered on widely spaced fracture planes and competent overall.

50 60 70 80

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B-147

ELEV. 782.0'

ELEV. 777.0 (PROPOSED) (C.G.M.P.P.A. INVERT)
ELEV. 774.0 (PROPOSED) (BOTTOM CRADLE HEADWALL)

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						Sandy Gravel ▼
	5			W	gr	A-7-6 Clay with Fine Sand Layers w=55.4%
10	5			W	gr	A-7-6 Clay w=44.7%
	2			W	gr	A-6 Silty Clay w=42.9%
20	3			W	gr	A-6 Silty Clay w=40.1%
	9			W	gr	A-4 Clayey Silt with Sand Layers w=41.2%
	17			W	gr	A-4 Silt with Sand & Silt Layers w=34.8%
30	25			W	brn	A-4 Silt w=30.8%
40	R					No Sample

Top of Bedrock @ 43.0'
Reamed Casing 1.0' in Bedrock
Run 1 AXMDC 44.0-46.8 Rec-2.7'
Run 2 AXMDC 46.8-49.0 Rec-0.9'
Rock from Run 2 probably ground up.
Run 3 AXMDC 49.0-54.0 Rec-2.6'
Rock from Run 3 probably ground up.

SEE GEOLOGIST'S REPORT

Hole Stopped @ 54.0' in Bedrock

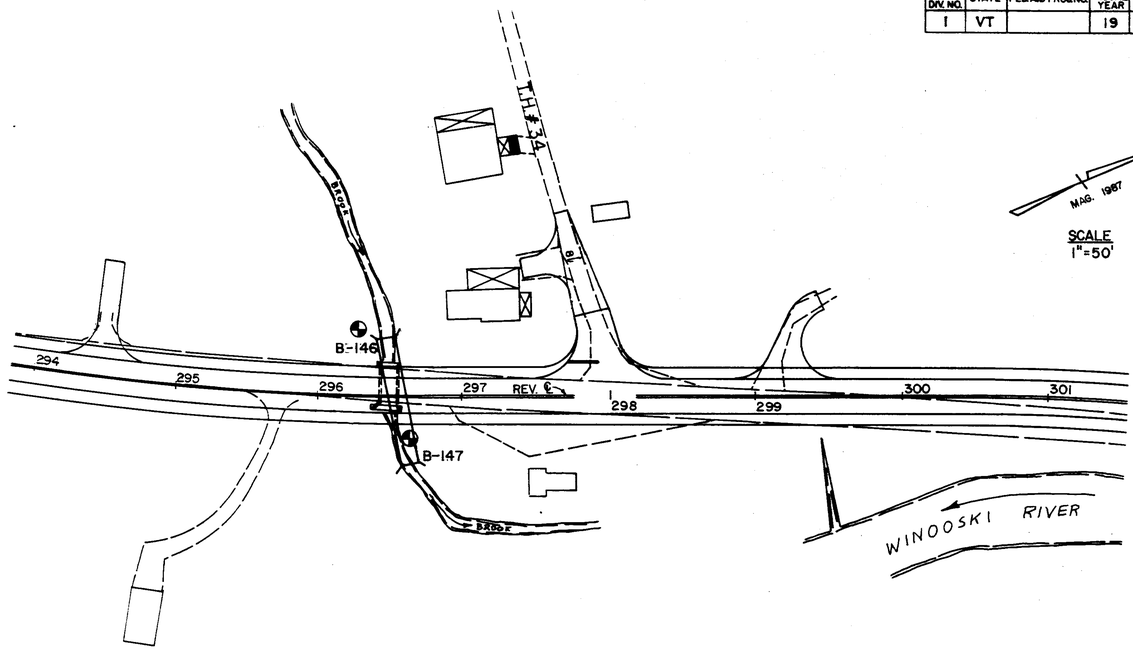
Groundwater Elevation on 7/18/89 779.5'

GEOLOGIST'S REPORT

Run #	Core Interval	% Rec
1	44.0-46.8	96
2	46.8-49.0	41
3	49.0-54.0	52

Core consists of quarts-biotite-garnet viens. The rock is moderately hard to hard and very competent.

50 60 70 80



SYMBOLS USED FOR SOIL SUBSURFACE IDENTIFICATION

Symbol	Description	Symbol	Description
MTW	Moist to Wet	HP	Hard Pan
Sat	Saturated	Le	Ledge
Blk	Black	NLTD	No Ledge to Depth
Brn	Brown	CNPF	Could Not Penetrate Further
Lt	Light	TLOB	To Ledge or Boulder
Dark	Dark	OC	Organic Content, %
(S)	Sample Taken	W	Moisture Content, %
Bo	Boulder		Standard Penetration Borings Sampler outside diameter-2" Sampler inside diameter-1 3/8" Weight of Hammer-140 lbs.
NGW	No Ground Water		
TGW	To Ground Water		
GR	Gravel		Auger Borings
Sa	Sand		Rod Soundings
Si	Silt	UP	Undisturbed Piston Sample
Cl	Clay	VS	Field Vane Shear Sample

SOIL CLASSIFICATION

A1	Gravel & Sand	GW/GP	Clean Gravels (Few Fines)
A3	Fine Sand	GM/GC	Gravels (Appreciable Fines)
A2	Silty or Clayey Gravel & Sand	SW/SP	Clean Sands (Few Fines)
A4	Silty Soil-Low Compressibility	SM/SC	Sand (Appreciable Fines)
A5	Silty Soil-Highly Compressible	ML/CL	Low Plastic Silts & Clays
A6	Clayey Soil-Low Compressibility	OL	Low Plastic Organic Silt
A7	Clayey Soil-Highly Compressible	MH/CH	High Plastic Silts & Clays
A8	Muck, Peat, Organic	OH	High Plastioc Organic Silt
		Pt	Highly Organic Soils

GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE JULY 1989 BY THE VERMONT AGENCY OF TRANSPORTATION.

1. SOIL AND ROCK (WHERE ENCOUNTERED) CLASSIFICATION, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION OF AVAILABLE SUBSURFACE INFORMATION BY THE VERMONT AGENCY OF TRANSPORTATION AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.
2. OBSERVED WATER LEVELS AND/OR WATER CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.
3. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREON. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTENDED FOR AGENCY DESIGN AND ESTIMATE PURPOSES ONLY. PRESENTATION OF THE INFORMATION ON THE PLANS AND ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS, INDEPENDENT ANALYSIS OR JUDGEMENT OF THE CONTRACTOR.
4. PICTORIAL STRUCTURE DETAILS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN IN THE CONTRACT PLANS.

BR-130
UNNAMED BROOK

SURVEYED BY VT. SURVEY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 6/87
TRACED BY _____ DATE _____

U.S. ROUTE 2 - MARSHFIELD

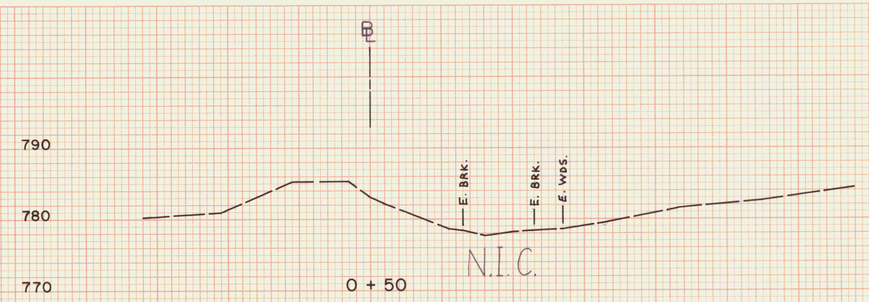
PROJ. NO. FEGC F028 - 3(28)

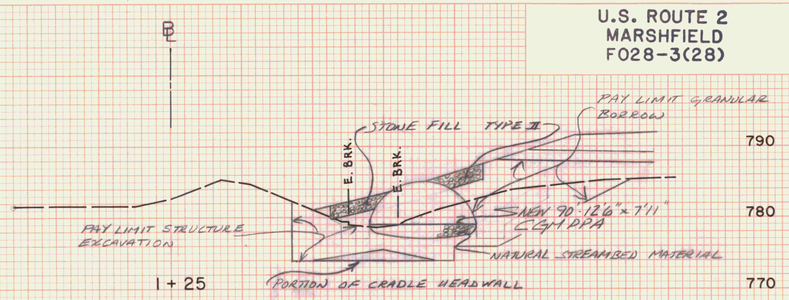
SHEET 348 OF 352

144853

UNNAMED BROOK
CHANNEL SECTIONS
℄ STA. 296+49.40
(NEW 12'-6" x 7'-11" C.G.M.P.P.A.
STA. 296+55, ASKEWED 79° 00' RT.)

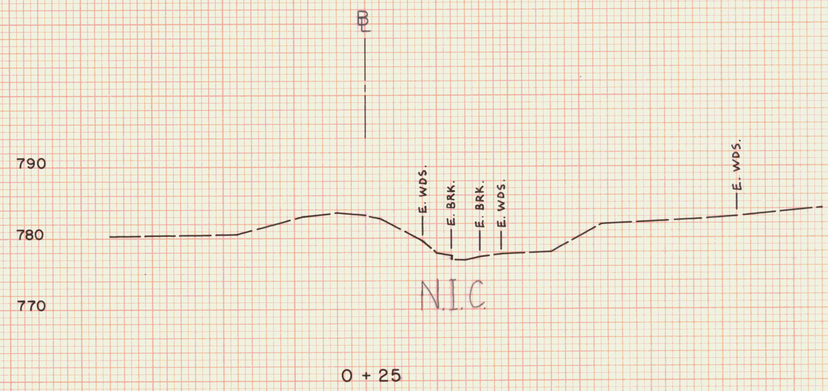
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

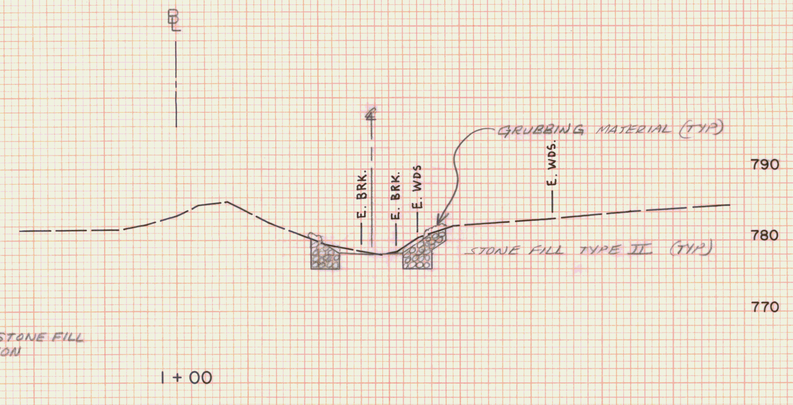




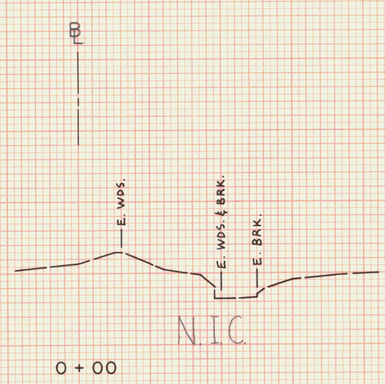
CHANNEL ℄ STA. 1+19 RT.
CONTINUE STONE FILL, TYPE II
2' THICK UNDER ℄ SLOPES
CONSTRUCT CRADLE HEADWALL
BEGIN NEW 12'-6" x 7'X11" CGMPPA
END CHANNEL EXCAVATION

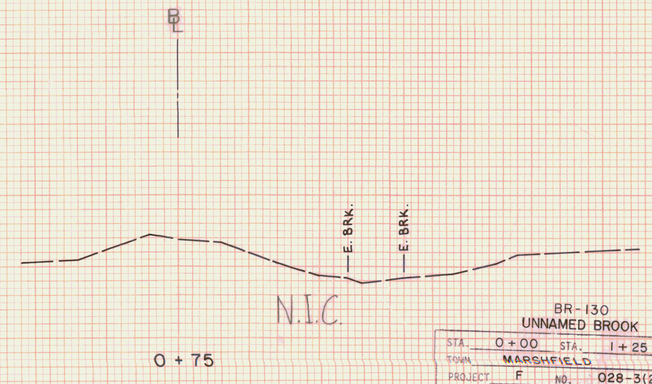
CHANNEL ℄ STA. 1+15 RT.
BEGIN GEOTEXTILE UNDER STONE
FILL TO BE PLACED UNDER NEW CGMPPA
BEGIN STRUCTURAL EXCAVATION





CHANNEL ℄ STA. 0+90 RT.
BEGIN STONE FILL TYPE II
BEGIN GEOTEXTILE UNDER STONE FILL
BEGIN CHANNEL EXCAVATION





NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

BR-130
UNNAMED BROOK
STA. 0+00 STA. 1+25
TOWN MARSHFIELD
PROJECT F NO. 028-3(28
SHEET 349 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

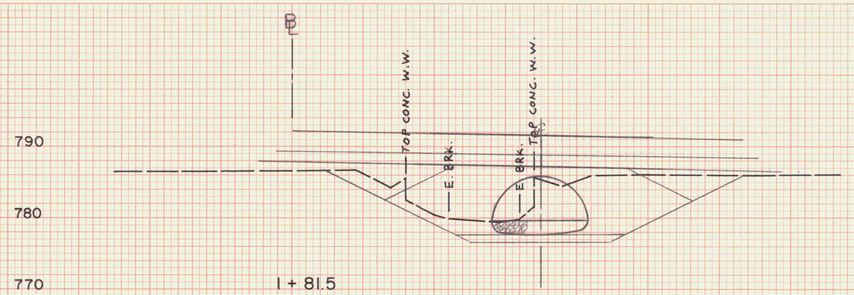
FINAL SURVEY — NOTE BOOK — No. — DATE — BY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

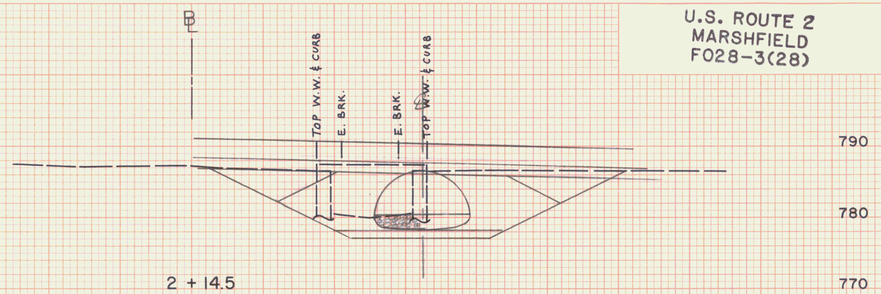
ORIGINAL SURVEY — NOTE BOOK — No. — DATE — BY VT. SURVEY CONSULT. BRYANT ASSOC. 12/86 1/87 — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

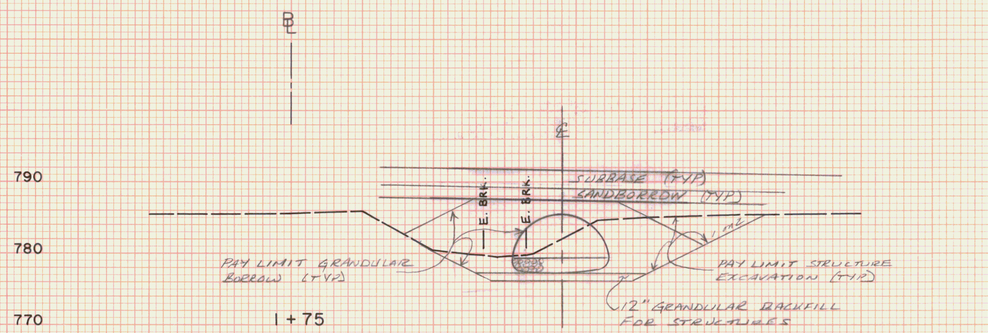
PLATE 3 CROSS SECTION O. F. R. & R. E. STANDARD
DIETZGEN CORPORATION

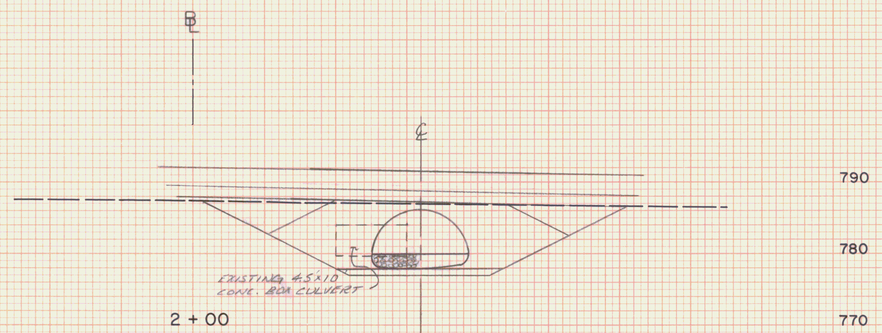
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

UNNAMED BROOK
CHANNEL SECTIONS
℄ STA. 296+49.40 =
(NEW 12'-6"x7'-11" C.G.M.P.P.A.
STA. 296+55, ASKEWED 79° 00' RT.)

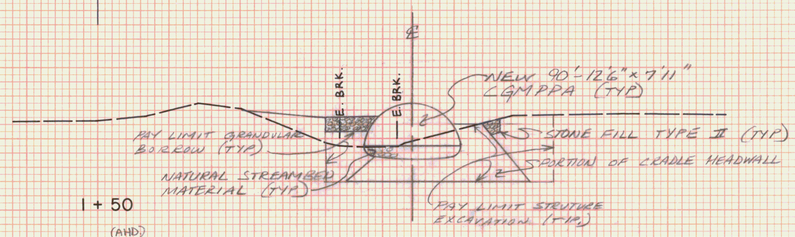


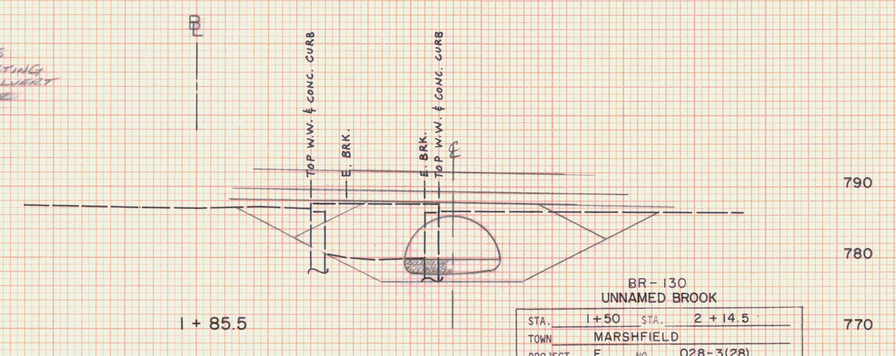






CHANNEL ℄ STA. 1+85
BEGIN REMOVAL OF EXISTING 4.5'x10' CONC. BOX CULVERT TO BE PAID FOR UNDER SOLID ROCK EXCAVATION.





NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

BR-130
UNNAMED BROOK

STA.	1+50	STA.	2+14.5
TOWN	MARSHFIELD		
PROJECT	F	NO.	028-3(28)
SHEET	350	OF	352 SHEETS

HORIZ. AND VERT. SCALE
0 10 20
VT SURVEY
SURVEYED BY: CONSULTANTS DATE 12/86

FINAL SURVEY — DATE — BY — SURVEYED — PLOTTED — TRACED — AREAS — NOTE BOOK — AREAS CHECKED — NO.

ORIGINAL SURVEY — DATE 12/86 1/87 — BY VT. SURVEY CONSULT. BRYANT ASSOC. — SURVEYED — PLOTTED — TRACED — AREAS — NOTE BOOK — AREAS CHECKED — NO.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

UNNAMED BROOK
CHANNEL SECTIONS
℄ STA. 296+49.40=
(NEW 12'-6"x 7'-11" C.G.M.P.P.A.
STA. 296+55, ASKEWED 79°00' RT.)

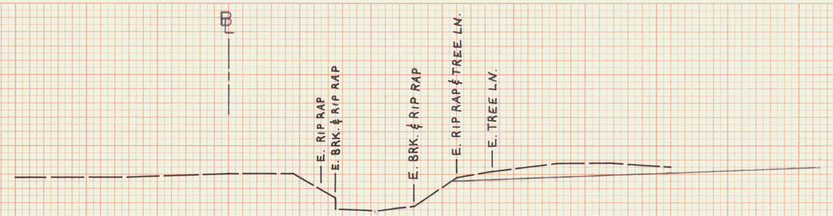
U.S. ROUTE 2
MARSHFIELD
F028-3(28)

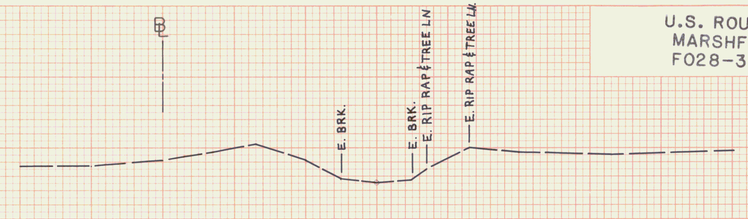
CHANNEL ℄ STA. 2+40 RT.
SPECIAL DITCH EXCAVATION

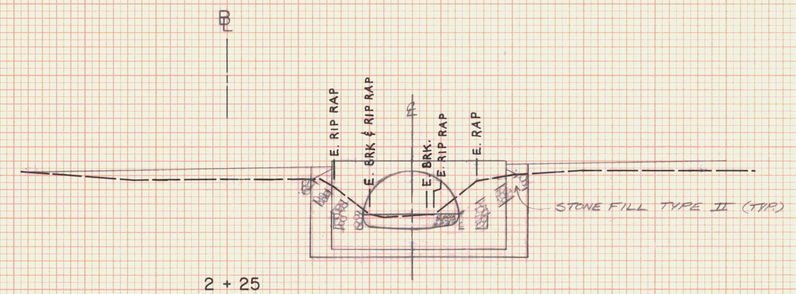
CHANNEL ℄ STA. 2+33 RT.
END REMOVE & RESET RIP-RAP
AS DIRECTED BY ENGINEER.
END CHANNEL EXCAVATION
END STRUCTURAL EXCAVATION
END GEOTEXTILE UNDER STONE FILL
TO BE PLACED UNDER NEW CGMPPA.

CHANNEL ℄ STA. 2+24 RT.
END NEW 12'-6" x 7'-11" CGMPPA
END STONE FILL, TYPE II
2' THICK ON M SLOPES
BEGIN REMOVE & RESET RIP-RAP
AS SPECIFIED BY ENGINEER.
CONSTRUCT FULL HEADWALL
BEGIN CHANNEL EXCAVATION

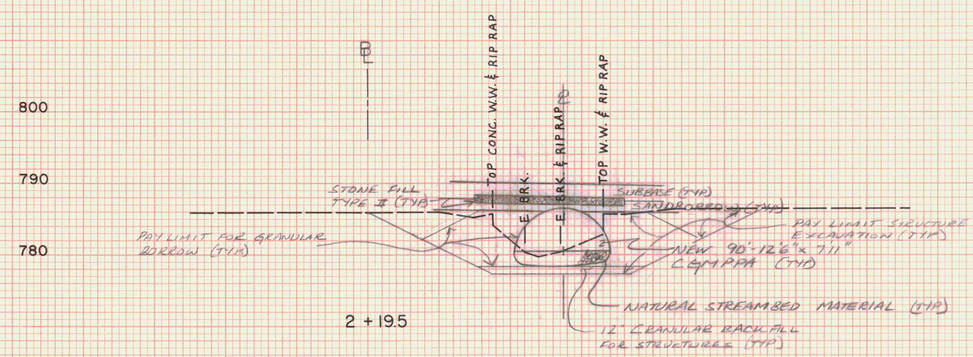
CHANNEL ℄ STA 2+23 RT.
BEGIN STONE FILL, TYPE II
2' THICK ON M SLOPES
BEGIN GEOTEXTILE UNDER
STONE FILL.

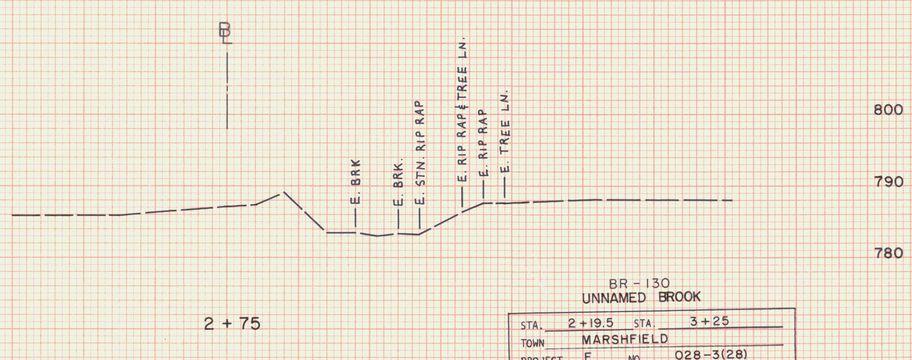












NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ BROOK FOR LIMITS.

BR-130
UNNAMED BROOK

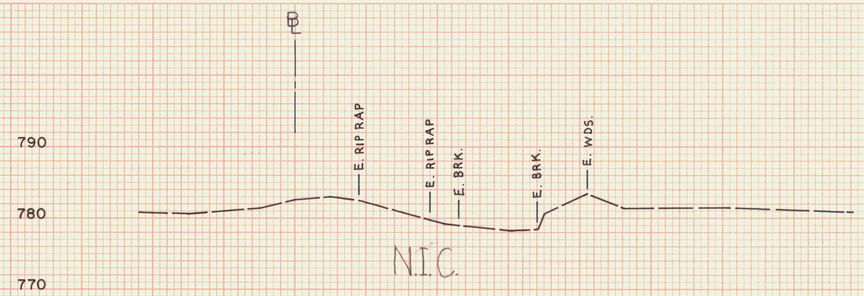
STA. 2+19.5 STA. 3+25
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 351 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY — NOTE BOOK NO. — DATE — BY — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED

ORIGINAL SURVEY — BY VT. SURVEY CONSULTS. BRYANT ASSOC. — DATE 12/86 1/87 — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED

UNNAMED BROOK
CHANNEL SECTIONS
℄ STA. 296+49.40
(NEW 12'-6" x 7'-11" C.G.M.P.P.A.
STA. 296+55, ASKEWED 79°00' RT.)

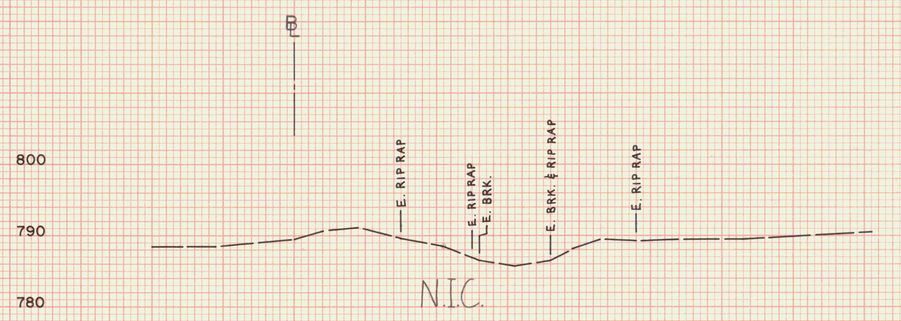
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



4 + 00



3 + 75



3 + 50

NOTE: ALL CONSTRUCTION NOTE STA. SHOULD BE REFERENCED ⊥ TO CHANNEL ℄, THEN PLOTTED ⊥ TO ℄ OF BROOK FOR LIMITS.

BR - 130
UNNAMED BROOK

STA. 3+50 STA. 4+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 352 OF 352 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 12/86

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY VT. SURVEY CONSULT. BRYANT ASSOC
DATE 12/86 1/87

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

INDEX

1- TITLE SHEET
2- TYPICAL SECTION
3-4 - QUANTITY SHEETS
5- ITEM DETAIL AND DRAINAGE SHEET
6- EARTHWORKS SHEET
7- PLAN SHEET
8- PROFILE SHEET
9-10 - CATTLEPASS PRELIMINARY INFORMATION SHEETS
11-16 U.S. ROUTE 2 CROSS SECTIONS
17-22 DETOUR DETAIL AND CROSS SECTIONS

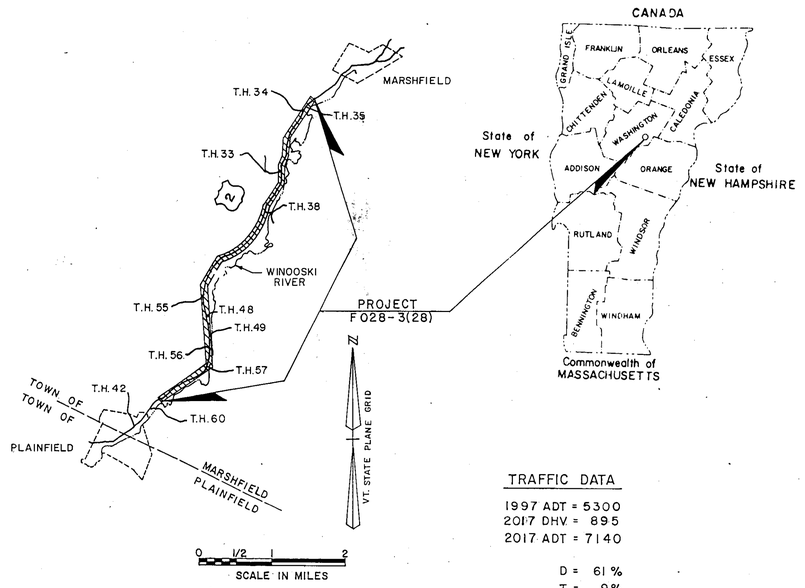
STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROPOSED IMPROVEMENT
TOWN OF MARSHFIELD
COUNTY OF WASHINGTON
U.S. ROUTE 2 (F.A.P.)
PRINCIPAL ARTERIAL HIGHWAY

BEGINNING AT A POINT ON U.S ROUTE 2 APPROXIMATELY 0.64 MILES NORTHEAST OF THE PLAINFIELD — MARSHFIELD TOWN LINE AND EXTENDING IN AN NORTHEASTERLY DIRECTION APPROXIMATELY 4.943 MILES.

LENGTH OF ROADWAY	26,101.02	FEET OR	4.943	MILES
LENGTH OF PROJECT	26,101.02	FEET OR	4.943	MILES

PROJECT INVOLVES RECONSTRUCTION AND WIDENING OF A PORTION OF U.S. ROUTE 2, INCLUDING GRADING, DRAINAGE, SUBBASE, PAVEMENT AND RELATED WORK.

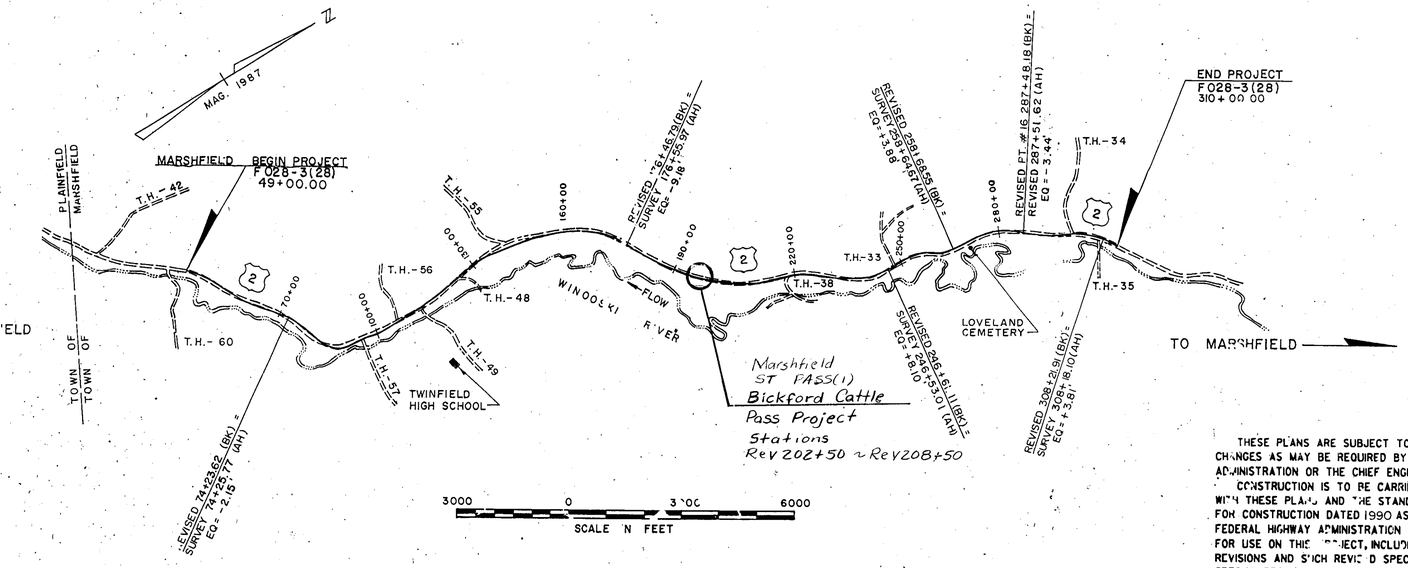


TRAFFIC DATA

1997 ADT = 5300
2017 DHV = 895
2017 ADT = 7140

D = 61 %
T = 9%
V = 50 mph.

ESAL
(1997-2017) 7,060,000



CONVENTIONAL SIGNS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
CONTROL OF ACCESS
PROPERTY LINE
R.O.W TAKING LINE
SLOPE RIGHTS SR
TOP OF CUT
TOE OF SLOPE

DATUM
VERTICAL NGVD-1929
HORIZONTAL N/A

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE CHIEF ENGINEER.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990 AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON MARCH 15, 1990 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED _____ DATE _____
DIRECTOR OF ENGINEERING

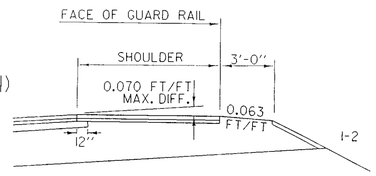
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

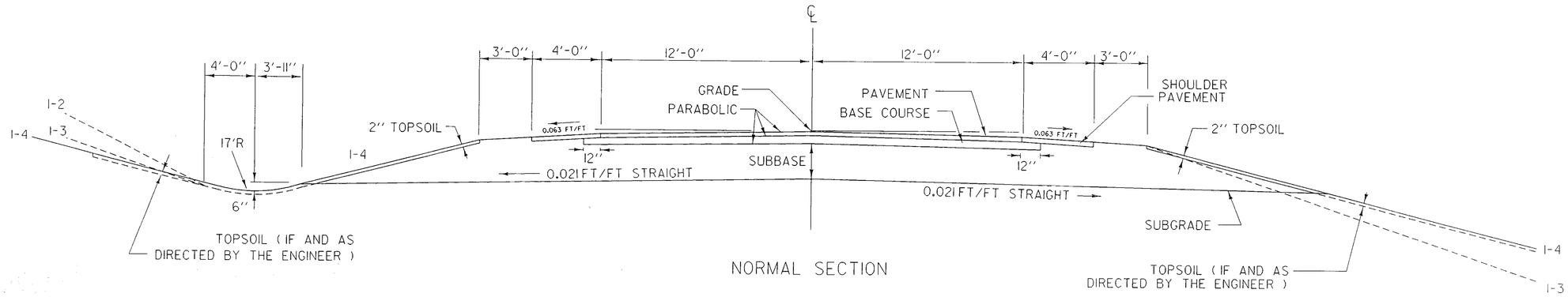
PROJECT NO. Millenfield ST PASS(1) Cattlepass Project
SHEET 1 OF 22 SHEETS

TYPICAL SECTIONS

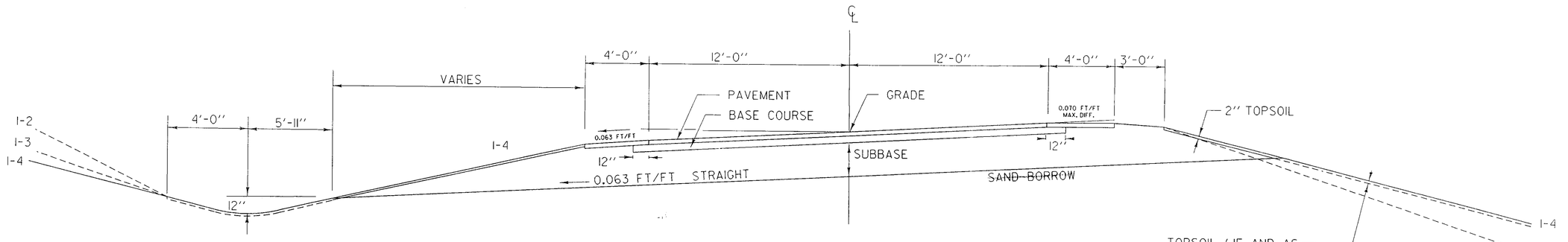
$3\frac{1}{2}$'' BITUMINOUS CONCRETE PAVEMENT, TYPE III ($1\frac{1}{2}$" TYPE III OVER 2" TYPE II)
5'' BASE COURSE OF BITUMINOUS CONCRETE PAVEMENT, TYPE I
(TWO EQUAL LIFTS OF TYPE I)
24'' SUBBASE OF DENSE GRADED CRUSHED STONE
SHOULDERS : $3\frac{1}{2}$'' BITUMINOUS CONCRETE PAVEMENT



DETAIL OF GUARD RAIL ON HIGH SIDE OF BANKED SECTION



NORMAL SECTION



MAXIMUM BANKED SECTION 0.063 FT/FT

N.T.S.

TYPICAL SECTION

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
SQUAD LEADER _____
DESIGN FILE NO. /CMU/LARRY/BIKFORD.DGN
IPARM FILE BIKFORD.i DATE PLOTTED 1-JUL-1996
Marshfield ST PASS(1)
PROJ. NAME BICKFORD
PROJ. NO. CATTLE PASS
SHEET 2 OF 22 SHEETS

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES

Roadway	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
~~2100~~	~~2100~~	~~CY~~	~~Common Excavation~~	~~203.15~~	~~3~~
2000	2000	SY	Fine Grading-Subgrade	203.40	
~~335~~	~~335~~	~~CY~~	~~Trench Excavation of Earth~~	~~204.20~~	~~3~~
~~5~~	~~5~~	~~CY~~	~~Trench Excavation of Rock~~	~~204.21~~	
~~1135~~	~~1135~~	~~CY~~	~~Structure Excavation~~	~~204.25~~	
1245	1245	CY	Granular Backfill for Structures	204.30	
85	85	CY	Subbase of Gravel	301.15	2
3000	3000	CY	Subbase of Dense Graded Crushed Stone	301.35	21
1057	1057	TON	Bituminous Concrete Pavement	406.25	0.8
83	83	CY	Concrete Class B	501.25	0.5
1400	1400	LB	Reinforcing Steel	507.15	2
1	1	EACH	Corr. Galv. Metal Plate Pipe (0.109) X 96" X 80' (Elongated)	511.15	
			Begin Option Items		
210	210	LF	18" CAAP .060 (2-2/3 X 1/2)	601.0215	
210	210	LF	18" PCCSP .064 (2-2/3 X 1/2)	601.0415	
210	210	LF	18" RCP CLASS III	601.0815	
210	210	LF	18" CPEP (SL)	601.2615	
			End Option Items		
3	3	EACH	Cast Iron Grate w/ Frame, Type A	604.45	
210	210	LF	6" Underdrain	605.10	1
62	62	LF	6" Underdrain Carrier Pipe	605.20	
48	48	HR	Bulldozer Rental, Type I	608.10	Est.
160	160	HR	All Purpose Excavator Rental, Type I	608.25	Est.
445	445	HR	Truck Rental	608.37	Est.
5	5	CY	Stone Fill, Type I	613.10	4
4	4	EACH	Wood Marker Posts	619.15	
550	550	LF	Removing and Resetting Fence	620.50	
400	400	LF	Steel Beam Guard Rail (w/ Steel Posts)	621.20	
4	4	EACH	Modified Eccentric Loader Terminal	621.52	
170	170	LF	Removal and Disposal of Guard Rail	621.80	
500	500	HR	Flaggers	630.15	Est.
~~1~~	~~1~~	~~LS~~	~~Mobilization~~	~~635.10~~	~~Est.~~ *
1200	1200	LF	Durable 4" White Line	646.40	
1200	1200	LF	Durable 4" Yellow Line	646.41	
20	20	EACH	Line Striping Targets	646.73	5
330	330	SY	Geotextile for Silt Fence	649.51	2.3
80	80	LB	Seed	651.15	Est.
500	500	LB	Fertilizer	651.18	Est.
2	2	TON	Agricultural Limestone	651.20	Est.
2	2	TON	Hay Mulch	651.25	Est.

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		~~Trench Excavation of Earth~~
~~220~~	~~CY~~	~~Drainage~~
~~46~~	~~CY~~	~~Underdrain~~
~~3~~	~~CY~~	~~Rounding~~
~~335~~	~~CY~~	~~Total~~
		Bituminous Concrete Pavement
441.4	TON	Base Course (Type I)
414.8	TON	Wearing Course (Types II and III)
7.4	TON	Cattle Pass
182.6	TON	Detour
0.8	TON	Rounding
1057	TON	Total
		Concrete, Class B
12.5	CY	Drainage (Drop Inlets)
70.0	CY	Cattlepass (Headwalls/Wingwalls)
0.5	CY	Rounding
83.0	CY	Total
		Reinforcing Steel
1118	CY	Drainage (Drop Inlets)
280	CY	Cattlepass (Headwalls/Wingwalls)
2	CY	Rounding
1400	CY	Total
		Subbase of Dense Graded Crushed Stone
2112	CY	U.S. Route 2 (See Earthworks Sheet)
861	CY	Detour
21	CY	Rounding
3000	CY	Total

* ~~This Item will be set at 3% of the Contract cost to cover the expenses of moving the rental equipment on and off the project and the day to day moving of district equipment.~~

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
SQUAD LEADER _____
DESIGN FILE NO. _____
IPARM FILE _____ DATE PLOTTED 10-JUL-1996
PROJ. NAME Marshfield ST PASS(1)
PROJ. NO. Bickford Cattlepass Project
SHEET 3 OF 22 SHEETS

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES

						Roadway	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
						20	20	EACH	Hay Bales for Erosion Control	651.26	2
						235	235	CY	Topsoil	651.35	4
						2	2	EACH	Removing Signs(and Flashing Beacons)	675.50	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
SQUAD LEADER _____
DESIGN FILE NO. _____
IPARM FILE _____ DATE PLOTTED 18-JUL-1996
PROJ. NAME Marshfield ST PASS(1)
Bickford
PROJ. NO. Cattlepass Project
SHEET 4 OF 22 SHEETS

ITEM DETAIL AND DRAINAGE SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAINAGE STRUCTURES

Rev. STA.	Rev. STA.	POSITION	ASKEW	TYPE	DITCH		PIPE ARCH			PIPE		ALLOWABLE OPTIONS						PIPE ELBOW	ES	CB	PRCCSP	DEPTH DI	CONC CL B	REIN STEEL	DI GRATE	CHAN ELEV	CRM	TR EXCAV		COMM EXC	UNC CHAN EXC	STRUC EXCAV	GRAN BKF STRUC	GRAN BORR	EROS MATT	STONE FILL		MRKR POSTS		REMARKS
				IN/OUT	IN	OUT	S IN	R IN	L FT	D IN	L FT	PCCSP TH	CAAP TH	RCP CL	CSP TH	CPEP SL	PCCSP PI TH	NO-DEG	EA			FT.	CY	LBS	TYPE		CY	EARTH CY	ROCK CY	CY	CY	CY	CY	CY	CY	SY	CY	TYPE	LT	RT	
203+50	204+50	Lt.																																				Construct Ditch to DI@ 204+50; Excavation Included w/Common
203+50	204+80	Lt.																																				Construct Ditch to DI@ 204+80; Excavation Included w/Common
204+50	204+80	Lt.		DI/DI						18	30	.064	.060	III		X					8.5	4.1	378	A			55										1		
204+80	205+33	Lt.		DI/DI						18	50	.064	.060	III		X					5.5	2.8	239	A			87										1		
205+00	205+33	Lt.																																				Construct Ditch to DI@ 205+33; Excavation Included w/Common
205+33		Lt/Rt.		DI/Flume						18	130	.064	.060	III		X					11.0	5.6	301	A			146	5							1	I	1	1	Remove Existing 15" RCP and Headwalls; Stone fill @ outlet
206+50	208+50	Lt.																																				Construct Ditch; Excavation Included w/Common
208+50	209+00	Rt.																																				Construct Ditch; Excavation Included w/Common
TOTALS										18	210	.064	.060	III		X					12.5	1118	3	A			286	5							1	I	3	1 4	

GUARD RAIL (w/Steel Posts)

Rev. STA.	Rev. STA.	LT.	RT.	END TREATMENT
				MELT
203+50	203+75		X	1
203+50	203+75	X		1
203+75	205+75		200'	
203+75	205+75	200'		
205+75	206+00		X	1
205+75	206+00	X		1
TOTALS		200'	200' 400'	4

U = Underdrain
C = Carrier

UNDERDRAIN

Rev. STA.	Rev. STA.	TYPE	POS.	D	L	TRENCH E	TRENCH R	GRAN BKF	FB		MKR PST
204+64	204+80	U	Lt.	6"	22'	*	*	-	-	-	-
204+70	-	U	Lt/Rt	6"	69'	*	*	-	-	-	-
204+80	-	U	Lt/Rt	6"	69'	*	*	-	-	-	-
204+64	204+88	U	Rt.	6"	43'	*	*	-	-	-	-
204+88	205+10	C	Rt.	6"	62'	46	-	-	-	-	-
TOTALS		U		6"	209'	46	-	-	-	-	-
		C		6"	62'	6 CY					

* No Trench Excavation Quantity Required; Within the Structure Excavation Limits

PROJECT NAME Bickford Cattlepass Project
PROJECT NUMBER Marshfield ST PASS(1)

EARTHWORKS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Rev. STATION	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE OF D.G.C.S. AREA	SUBBASE OF D.G.C.S. CU. YDS.
202+50	BUTT	0				0		0	
	50		48				2		59
203+00		52				2		64	
	50		182				24		163
+50		145				24		112	
	50		162				154		193
204+00		30				142		96	
	50		161				224		178
+50		144				100		96	
	50		138				229		196
205+00		5				148		116	
	50		31				391		211
+50		28				274		112	
	50		93				365		207
206+00		72				120		112	
	50		163				224		193
+50		104				122		96	
	50		219				217		178
207+00		132				112		96	
	50		250				187		178
+50		138				90		96	
	50		278				106		178
208+00		162				25		96	
	50		372				23		178
+50	BUTT	240				0		96	
TOTALS			2097				2146		2112

C	2097
F	2146
F FAC	0.15
EX. F	371

STATION	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.		

STATION	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.		

STATION	DIST	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.		

SUMMARY AND BALANCES

STATION TO STATION	TOTAL EXCAV EARTH & ROCK	ROCK EXCAV CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL

REMARKS

EARTH AND ROCK EXCAVATION	2097
SOLID ROCK EXCAVATION	0
EARTH EXCAVATION	2097
PLANIMETERED FILL	2146
LESS FACTORED SOLID ROCK	0
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	0
NET PLANIMETERED FILL	2146
FACTOR (0.15)	322
PLANIMETERED FILL INCLUDING FACTOR	2468
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	2097
CHANNEL EXCAVATION	0
UNDERDRAIN EXCAVATION	46
STRUCTURE EXCAVATION	1135
TOTAL MATERIAL AVAILABLE FOR FILL	3278
TOTAL FILL INCLUDING FACTOR	2468
TOTAL MATERIAL FOR FILL	3278
BORROW	—
EXCESS EXCAVATION	810

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
SQUAD LEADER _____
DESIGN FILE NO. _____
IPARM FILE _____ DATE PLOTTED 10-JUL-1996
PROJ. NAME Marshfield ST PASS(1) Bickford Cattlepass Project
PROJ. NO.
SHEET 6 OF 22 SHEETS

PUB. RD. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO	TOTAL SHEETS
1	VT		19		

REMOVAL & DISPOSAL OF GUARD RAIL
REV. STA. 204+00 – 205+69 RT. (170')

Steel Beam Guard Rail (w/Steel Posts)
Rev 203+75 – 205+75 Rt. (200')
Rev 203+75 – 205+75 Lt (200')
Total = 400'

~~SCARIFYING PAVEMENT~~
~~REV. STA. 197+00 – 200+75~~
~~REV. STA. 210+25 – 213+00~~

~~LT. BREAKAWAY CABLE TERMINAL RT.~~
~~REV. STA. 203+25 – 203+50 REV. STA. 203+00 – 203+25~~
~~REV. STA. 206+75 – 207+00 REV. STA. 206+25 – 206+50~~

~~LT. CONSTRUCT DRIVE RT.~~
~~REV. STA. 198+78 (14' WIDE, BIT.) REV. STA. 201+16 (14' WIDE, GRAV.)~~
~~REV. STA. 201+47 (20' WIDE, GRAV.) REV. STA. 201+49 (14' WIDE, GRAV.)~~
~~REV. STA. 202+62 (40' WIDE, GRAV.) REV. STA. 202+83 (20' WIDE, GRAV.)~~

~~STEEL BEAM GUARD RAIL (W/ STEEL POSTS)~~
~~LT. RT.~~
~~REV. STA. 203+50 – 206+75 REV. STA. 203+25 – 206+25~~

~~SHOULDER W/FULL DEPTH PAVEMENT~~
~~LT. RT.~~
~~REV. STA. 201+00 – 203+00 (8' WIDE.)~~

~~LT. EROSION MATTING RT.~~
~~REV. STA. 197+99 – 198+53~~

Modified Eccentric Load Terminal (MELT)
Rev 203+50 – 203+75 Rt Rev 203+50 – 203+75 Lt.
Rev 205+75 – 206+00 Rt Rev 205+75 – 206+00 Lt.
Total = 4

~~LIMIT OF CLEARING & GRUBBING (TYP.)~~
~~(℄ 42' MIN. LT. AND/OR RT.)~~

~~REV. STA. 199+30 – 200+65 LT.~~
~~LIMIT OF CLEARING & GRUBBING IS TOE OF SLOPE~~

~~REV. STA. 202+00 – 203+50 LT.~~
~~LIMIT OF CLEARING & GRUBBING IS TOE OF SLOPE.~~

SURVEY CURVE DATA #11
Δ = 21°59'16" LT.
D = 3°00'00"
R = 1909.86'
T = 371.03'
L = 732.93'
E = 35.71'

REV. CURVE DATA #11
Δ = 23°15'11" LT.
D = 4°00'00"
R = 1432.39'
T = 294.72'
L = 581.33'
E = 30.01'
BANK = 0.03 FT./FT.

*One of the following other option pipes may be used: RCP(CL III) CAAP(.060) CPEP(SL)

MAG. 1987

TBM #31
CHIS. IN TOP OF BLDR.
NGVD EL. 829.76

Centerline of Detour
See Detour Sheets for Details

Detour Constr. Limits

Hay Bales (Staked in Ditch for Erosion/Sediment Control)

Blend New Ditch into the Existing Ditch

Construct Ditch

New Ditch into the East Ditch

Rev 202+50 Begin ST PASS(1) Project (See Cross Sections for Roadway/Shoulder Transition Widths)

Rev 208+50 End ST PASS(1) Project (See Cross Sections for Roadway/Shoulder Transition Widths)

Rev 204+00 Begin Silt Fence (10' From Toe of Slope)

SILT FENCE (10' FROM TOE OF SLOPE)

Avoid Disturbance to adjacent wetland

10' Path @ Outlet (12" Gravel)

Remove Existing Headwalls

Note: See the Cattlepass P.I. Sheets for Dimensions of Headwalls and the location of Underdrain.

Note: Upon completion of the Cattlepass Project, the cattle crossing signs and flashing beacons at Rev 208+40 Lt. and Rev 172+75 Rt. shall be removed and become the property of the State. The cost of removing the flashing beacon shall be subsidiary to the removal of the sign.

REVISED P.I. #11 207+59.05 = 207+50.94
Δ = 23°15'11" LT.

SURVEY P.I. #11 207+ 67 = 207+31.54
Δ = 21°59'16" LT.

TBM #32
CHIS. IN TOP OF BLDR.
NGVD EL. 813.80

Remove and Reset Fence (4 Strand Barb Wire)
Rev 203+50 ~ 208+50 Lt. (550')

Match Existing Driveway Grades at:
Rev 202+50 Lt.
Rev 202+76 Rt
Rev 202+84 Rt.

EROSION/SEDIMENT CONTROL

HAY BALES (Per VAOT Std. T-1 and T-2)

Lt.	Rt.
Rev 208+50(3)	
Rev 209+00 (3)	209+00(3)
Rev 209+50(3)	209+50(3)
	210+00(3)

Total = 18 Hay Bales

SILT FENCE (Per VAOT Std. T-1 and T-2)
Rev 204+00 ~ 208+50 Rt.
(Place Snow Fence 10' from the Toe of Slope) (Clean and/or repair as necessary).

SCALE IN FEET
50 0 50

VT. SURVEY CONSULTANTS
SURVEYED BY ____ DATE 3/87
DRAWN BY BF... VT ASSOC. DATE 6/87
TRACED BY ____ DATE ____

Mainline ST PASS(1)
Bickford Cattlepass Project
PROJ. NO. FEGC F 028 - 3(28)

SHEET 7 OF 22

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
PLAN AND CHECKED
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
ALIGNMENT CHECKED
P. I. & P. C. NOTED
NOTE BOOK
NO.
STRUCTURE NOTATIONS CHECKED
BY
DATE

GRADE

Rev 202+50
Begin ST PASS(1) Project
Elev. 827.60

PVC Rev 202+50
Elev. 827.60

-1.2024 %

OLD GROUND

PVC 201+50

-1.0667%

=1.2024%

=5.0994 %

Existing Ground

Cattle Pass Project
PVI 204+00 (REV℄)
Elev. 826.00
360'VC
SSD 337*
K 84*
℄ 1.31

*Sight Distance and K meet the requirements for 45 MPH

STA. 204+50
EL. 827.07
VC = 600'
SSD = 452'

PVT Rev 205+50
Elev 819.07

Proposed Finish Grade of the Marshfield FEGC 028-3(28) Project

55' cover

Rev 204+42

Rev 205+08

14'

BR±110
CATTLE-PASS

Limits of Structure Excav. and Granular Backfill

Proposed Finish Grade of the Cattle Pass Project

Rev 204+75
New 96" X 80' CGMPP (Elongated)
Invert Elev (At ℄) 808.83

-4.6222 %

PVC 208+00

-5.0994%

Rev 208+50
End ST PASS(1) Project
Elev 805.20

207+50 PVT

-5.0994% +3.4000%

STA. 212+25
EL. 787.55
VC = 850'
K = 100

** Finish Grade Elevation of Cattle Pass Project

827.60**	826.92**	825.94**	824.67**	823.60**	821.23**	819.07**	816.76**	814.44**	812.13**	809.82**	807.51**	805.20**

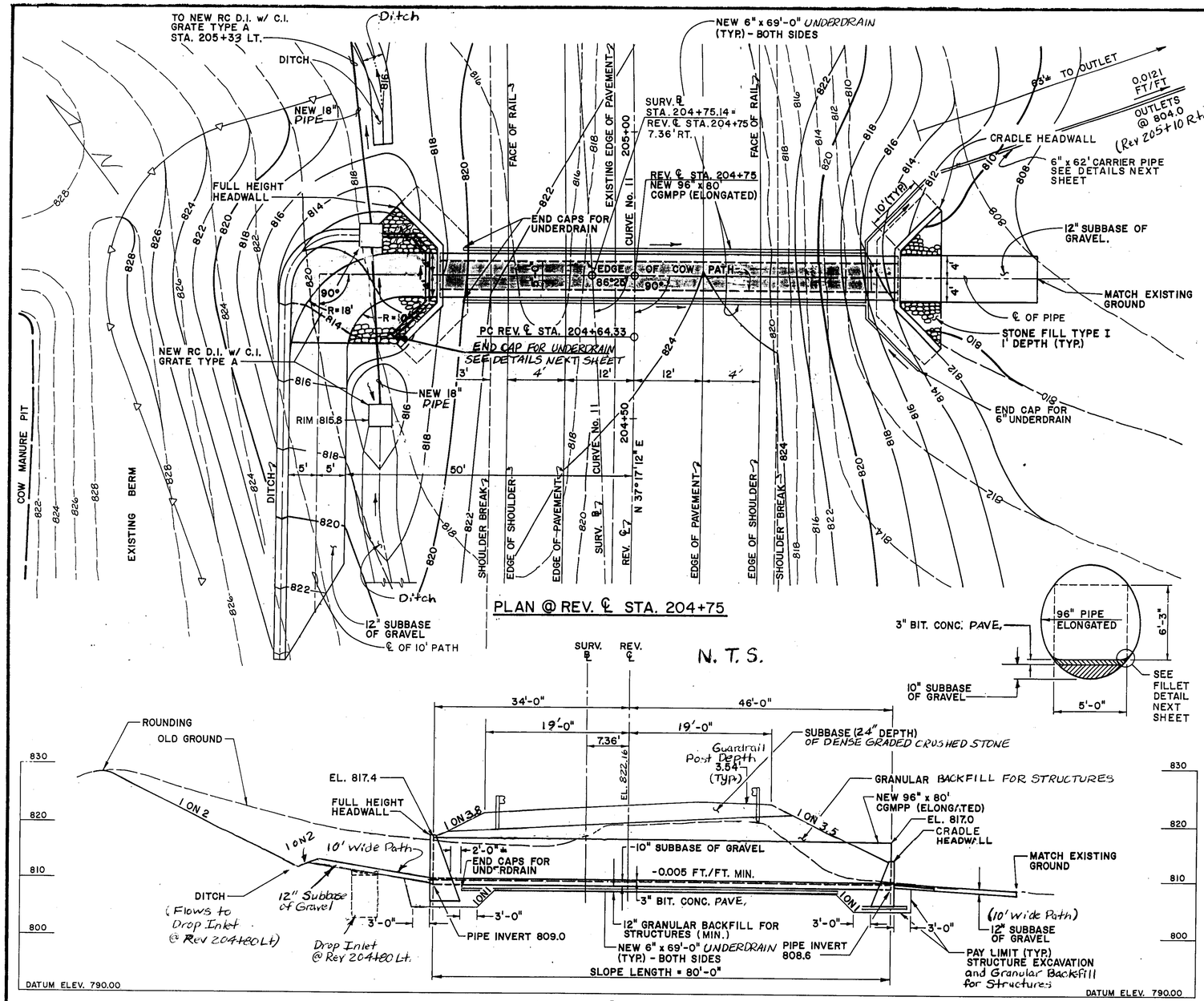
840 830 820 810 800 790 780

197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213

SCALE FEET
H 0 25 50 100
V 0 10 20

Marshfield ST. PASS(1)-Bickford
Cattlepass Project
U.S. RTE. 2 - MARSHFIELD
FEGC-F028-3(28)
SHT. 8 of 22 SHTS.

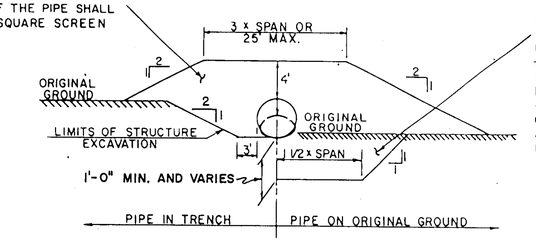
PLATE 1 PLAN-PROFILE O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION
PRINTED IN U.S.A.



NOTES

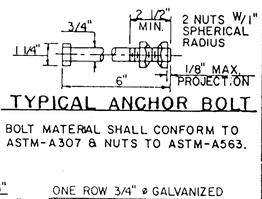
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED *1990*, AND THE LATEST A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. DESIGN IS FOR HS-20 LIVE LOADING.
2. UNLESS OTHERWISE INDICATED FOUR (4) BOLTS PER LINEAR FOOT FOR STEEL PLATES AND FIVE AND ONE THIRD (5 1/3) BOLTS FOR ALUMINUM PLATES ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH GALVANIZED ASTM A-449 BOLTS.
3. WHEN NORMAL CONSTRUCTION OR REGULAR ROADWAY TRAFFIC IS MAINTAINED OVER THE PIPE THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET OF COMPACTED MATERIAL.
4. ~~ALUMINUM PIPE THAT IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH ZINC CHROMATE, OR BITUMINOUS, OR ASPHALTIC PAINT.~~
5. PIPES SHALL BE FACTORY ELONGATED 5% (PIPE ARCHES SHALL NOT BE ELONGATED).
6. THE ENDS OF THE PIPE SHALL BE CUT SQUARE (NOT BEVELED TO MATCH SLOPES).
7. ATTENTION SHOULD BE PAID BY THE CONTRACTOR IN INSTALLING (DRIVING) GUARD RAIL POSTS WITHIN LIMITS OF PROPOSED CULVERT. ADEQUATE POST CLEARANCE HAS BEEN SUPPLIED FOR THE MAX. DEPTH. FOR POST DETAILS, SEE V.A.O.T. STANDARD SHEET G-1.
8. PIPE IS TO BE BACKFILLED WITH 10" SUBBASE OF GRAVEL AND 3" OF BIT. CONCRETE *PAVEMENT*.

ALL GRANULAR BORROW MATERIAL WITHIN 4' OF THE PIPE SHALL PASS A 3" SQUARE SCREEN OPENING.



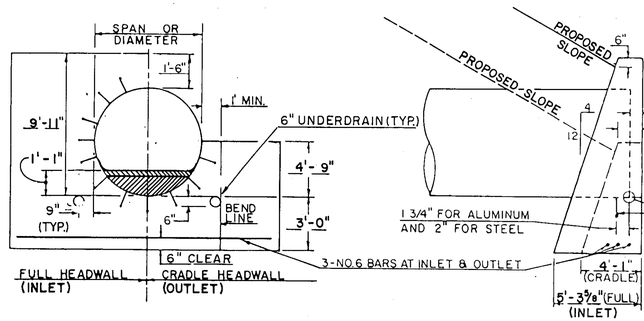
EXCAVATE POOR MATERIAL TO DEPTH SHOWN OR AS DIRECTED BY THE ENGINEER AND REPLACE WITH GRANULAR BACKFILL FOR STRUCTURES. ~~OR SAND BORROW~~. IF LEDGE OR OTHER UNYIELDING MATERIAL IS ENCOUNTERED IT SHALL BE REMOVED TO A DEPTH OF TWELVE (12) INCHES BELOW BOTTOM OF PIPE AND REPLACED WITH SUITABLE MATERIAL. ~~AS DIRECTED BY ENGINEER~~.

TYPICAL BACKFILL SECTION



TYPICAL ANCHOR BOLT

BOLT MATERIAL SHALL CONFORM TO ASTM-A307 & NUTS TO ASTM-A563.



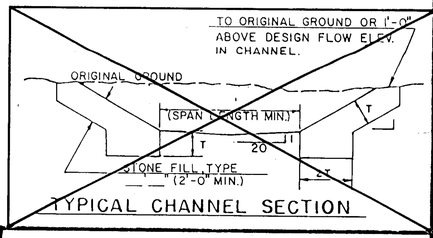
HEADWALL DETAILS

REINFORCING STEEL SCHEDULE

NO. PIECES	SIZE	LENGTH	MARK	TYPE		
6	6	30'-4"	7 W 601	STR.		

~~ESTIMATED QUANTITIES~~

NO.	ITEM	UNIT	TOTAL	FINAL
~~203.30~~	~~GRANULAR BORROW (EST.)~~	~~CY.~~	~~695~~	
~~204.25~~	~~STRUCTURE EXCAVATION~~	~~CY.~~	~~1135~~	
~~204.30~~	~~GRANULAR BACKFILL FOR STRUCTURES~~	~~CY.~~	~~550~~	
~~301.15~~	~~SUBBASE OF GRAVEL~~	~~CY.~~	~~35~~	
~~501.25~~	~~CONCRETE, CLASS B~~	~~CY.~~	~~70~~	
~~507.15~~	~~REINFORCING STEEL~~	~~LBS.~~	~~280~~	
~~511.1501~~	~~96" CGMPP (.109) - BOLT.~~	~~EA.~~	~~1~~	
~~605.13~~	~~6 INCH UNDERDRAIN~~	~~L.F.~~	~~152~~	
~~613.10~~	~~STONE FILL, TYPE I~~	~~CY.~~	~~6~~	
~~616.47~~	~~BIT. H'NOUS CONCRETE SURFERS & TRAF. ID ISLANDS (MOD.)~~	~~TON~~	~~20~~	
~~649.31~~	~~GEOTEXTILE UNDER STONE FILL~~	~~SY.~~	~~250~~	
~~651.20~~	~~HAYBALES FOR EROSION CONTROL~~	~~EA.~~	~~50~~	



TYPICAL CHANNEL SECTION

HYDRAULIC DATA

N.I.C.

DRAINAGE AREA = _____ SQ. MI.
Q_{10} = _____ C.F.S.
Q_{25} = _____ C.F.S.
Q_{50} = _____ C.F.S.
Q_{100} = _____ C.F.S.
TAILWATER DEPTH AT Q _____ = _____ FEET, ELEVATION _____
OUTLET VELOCITY AT Q _____ = _____ FEET PER SECOND
ORDINARY HIGHWATER DEPTH _____ FEET
COMMENTS: _____

DESIGN FLOW Q _____
Q_{10} HEADWATER ELEVATION = _____
Q_{25} HEADWATER ELEVATION = _____
Q_{50} HEADWATER ELEVATION = _____
Q_{100} HEADWATER ELEVATION = _____

DETAILS OF STRUCTURAL PLATE PIPE CULVERTS

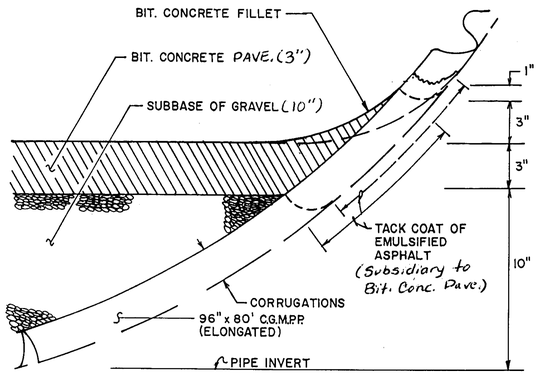
	STEEL	STEEL	~~ALUMINUM~~
CORRUGATIONS	6" x 2"		~~3" x 2-1/2"~~
SIZE OF PIPE OR PIPE ARCH	96" DIA.		~~96" DIA.~~
WATERWAY AREA (S.F.)	N/A		~~N/A~~
PLATE THICKNESS (COATED)	(0.109)		~~(0.105)~~
BOLT SIZE	3/4" DIA.		~~3/4" DIA.~~
WEIGHT PER LINEAR FOOT	165		~~58.5~~
TOTAL WEIGHT	13,200		~~4,520~~

STATE OF VERMONT
AGENCY OF TRANSPORTATION

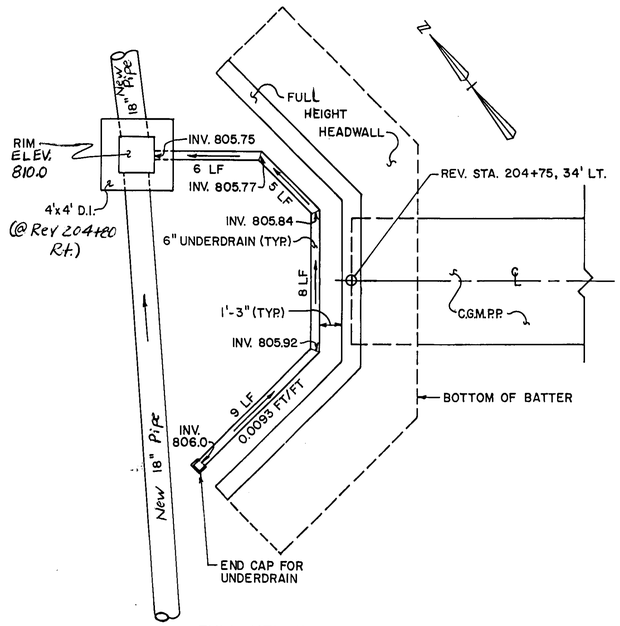
TOWN OF MARSHFIELD	Bridge No.
	Log Sta.
HIGHWAY NO. U.S. ROUTE 2	Surv. Sta. REV. 204+75
CATTLE PASS - BR-110	
Designed by SMB	Drawn by CDJ
~~MARSHFIELD ST PASS(1)~~	Bridge Design Supervisor
	date
PROJECT Bickford Cattle Pass P.I. Sheet 1 of 2	PROJECT NO. FEGC F028-3(28)
Bridge Sheet No.	Sheet 9 of 22

REV. 3/24/87

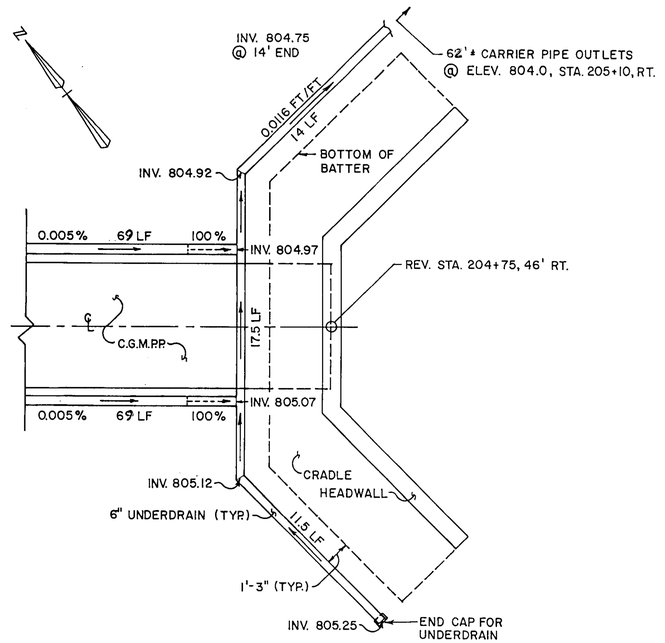
CATTLE PASS DETAIL SHEET



FILLET DETAIL
FOR PAVED C.G.M.P.P.
N.T.S.



FULL HEIGHT HEADWALL
UNDERDRAIN DETAIL
N.T.S.



CRADLE HEADWALL
UNDERDRAIN DETAIL
N.T.S.

Marshfield ST PASS(1)-Bickford
Cattlepass P.I. Sheet
CATTLE PASS - BR-110 2 of 2

SURVEYED BY _____ DATE _____
DRAWN BY BRYANT ASSOC. DATE 8/92
TRACED BY _____ DATE _____

MARSHFIELD
PROJ. FEGC NO. 028-3(28)
SHEET 10 OF 22

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

Rev
0+00
160'
SURV. 827.26
11.5'
3'
E.P.
.017
.063
Match Existing Driveway
Rev 202+76
Box Cut Subbase @ the Edge of Shoulder Limit of Excavation (14.5' Rt.)
SURV 202+76
ASKEWED @ 72°-30' RT.

40'
GRAVEL (12" MIN)
¼" SLOPE
1:9
1:7
¼" SLOPE
202
202+60
62
203
CONTRACT DRIVE #7
REF. STA. 202+62 (40' WIDE)

POLE # 177
118
SURV. STA. 202+92
EVERGREEN
SURV. STA. 202+71

Match Existing Driveway
Rev SURV. 827.60
Rev 4
C=.18'
R=.225.76
E.P.
13'
E.P.
Overlay Only
4.0%
822.5
821.50
821.75
1:4
1:6
225.76
Rev 202+50

LIMIT OF CLEARING 5' GRUBBING (TYP.)
LIMIT OF CLEARING 5' GRUBBING (TYP.)

SURV. 202+50 = REV. 202+49.98
Rev 202+50 Begin Cattle Pass Project

SURV.
Rev E
-0.38-FT.
E.P.
E.P.
1½ SLOPE
826.75
-0.02'
-0.02'
827.75
822.50
822.50

C = 162 Sq Ft.
F = 0 Sq Ft.
R = 0 Sq Ft.

C = 164 Sq Ft.
F = 0 Sq Ft
R = 0 Sq Ft

Edge Shoulder
Rev
4'
Rev 203+00
12'
12'
4'
Edge Road
Edge Road
Edge Shoulder
Rev 202+50
2'
11'
11'
2'

Shoulder/Roadway Transition Detail
10 = 0 10
Scale in Feet
0

SURV. 202+00 = REV. 201+99.97

SURV.
Rev E
0.04
E.P.
A
A
3.0%

14'
6"
GravEL (12" MIN)
¼" EDGE OF SHLDR.
0.6
1:9
1:7
1:4
201+50

REV. STA. 201+49.30 RT.
CONSTRUCT DRIVE
(14' WIDE)

REV. 201+49.30 =
SURV. 201+50
ASKEWED @ 64°-24' RT.

ST. PASS(1)
Marshfield - Bickford
Cattlepass Project

STA.	201+50 STA. 202+76
TOWN	MA
PROJECT	F NO. 028-3(28)
SHEET	11 OF 22 SHEETS
HORIZ. AND VERT. SCALE	0 10 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

VT SURVEY CONSULT. 10/86
BRYANT ASSOC. 11/86

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

PLATE 3 CROSS SECTION O.F.P.R.R.N.E. STANDARD
DETZOFN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

Rev 204+00 ~ Rev 205+69 Rt.
Removal and Disposal of Existing Guard Rail (170')

Limit of Excavation (53' Lt.)
3' Behind Guard Rail
10' Wide Path
Finish Ditch Elev. 821.0) (Flows toward drop inlet @ 204+80 Lt.)
Remove Exist. Pavement
Rev 204+00
Finish Ditch Elev. (821.0) (Flows towards drop inlet @ Rev. 204+50 Lt.)
SURV. 204+00 = REV. 203+99.56
Toe of Fill Slope (61' Rt.)
C= 4 Sq Ft
F= 166 Sq Ft
R= 0 Sq Ft
3' Behind Guard Rail
SURV. STA 204+36
824.67
-359 FT.
E.C.O. MANURE PIT
E.C.O. MANURE PIT
+0.063 ft/ft Gr.
202+00
0.021 ft/ft
204+00
205+00
206+00
Fill
-0.063 ft/ft Gr.
BANKING DIAGRAM
0.05 ft/ft
5.0'
1
V.
11
H.
Rev 203+75 Lt.
Begin Steel Beam Guard Rail
Limit of Excavation (62' Lt.)
Finish Ditch Elev. (822.5) (Flows towards drop inlet @ Rev 204+80 Lt.)
Rev 203+50 ~ 203+75 Lt.
Guard Rail End Treatment (Mod. End Eccentric Load Terminal)
Rev 203+50
SURV. 203+50 = REV. 203+49.49
Rev 203+50 Lt.
Begin 10' wide Path Constructed w/ 12" of Gravel
Flare For End Treat
Rev 203+75
SURV. 823.04
2.0 FT.
Flare for End Treat
FLARE
1-5.5
Toe of Fill Slope (44' Rt.)
C= 7.7 Sq Ft
F= 55 Sq Ft
R= 0 Sq Ft
Rev 203+75 Rt.
Begin Steel Beam Guard Rail
Rev 203+50 ~ 203+75 Rt.
Guard Rail End Treatment (Modified Eccentric Load Terminal)
204+00
203+75
203+50
202+83.48 ℄
DRIVE
GUARD RAIL FLARE DETAIL
SCALE: 1" = 20'
C: 83 Sq Ft
F: 0 Sq Ft
R: 0 Sq Ft
GUARD RAIL BCT DETAIL
SCALE: 1" = 20'
203+60
203+25
203+00
202+75
202+50
Toe of Fill Slope (18' Lt.)
Limit of Excavation (16' Rt.)
Box Cut Subbase @ the Edge of Shoulder
826.92
Rev 202+00
3' Behind Guard Rail
Edge of Shld. and Face of Rail
SURV. 203+00 = REV. 202+99.49
Rev 202+00
Edge of Shld. and Face of Rail
SURV.
827.20
9' Wide Flare for Guard Rail End Treat
Rev 203+75 Lt. and Rt. End Flare for End Treatment Begin 3' Behind Rail
Box Cut Subbase @ the Edge of Shoulder
Limit of Excavation (15.3' Rt.)
REV. 202+83
Rev 202+84
Rev 203+00 Lt. and Rt. Begin Flare for Guard Rail End Treatment
SURV. 202+84 = REV. 202+83.48
Match Existing Driveway
Guard Rail Detail
scale in feet
GRAVEL (12" MIN.)
202.60
202
N.A.
ST PASS(1)
Marshfield - Bickford
Cattlepass Project
STA. 202+92 STA. 204+00
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 12 OF 22 SHEETS
HORIZ. AND VERT. SCALE
0 10 20
SURVEYED BY: VT SURVEY CONSULTANTS DATE 10/86
VT SURVEY CONSULTANTS 10/86
BRYANT ASSOC. 11/86
ORIGINAL SURVEY
FINAL SURVEY
NOTE BOOK
NO.
CONTROL
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
PLATE 3 CROSS SECTION O. P. R. & R. C. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

3' Behind Guard Rail
16'
Rev ℄
16'
3' Behind Guard Rail
Toe of Fill Slope (4.8' Lt.) (Elev 814.7)
(Flows towards ditch @ Rev 206+50 Lt. and towards Drop Inlet @ Rev 205+33 Lt.)
SURV. ℄
819.07
Rev. ℄
814.75
1-7
Remove Exist. Culv.
Rev 205+50
1-3.7
Toe of Fill Slope (76' Rt.)
C = 0 Sq. Ft.
F = 421 Sq. Ft.
R = 0 Sq. Ft.

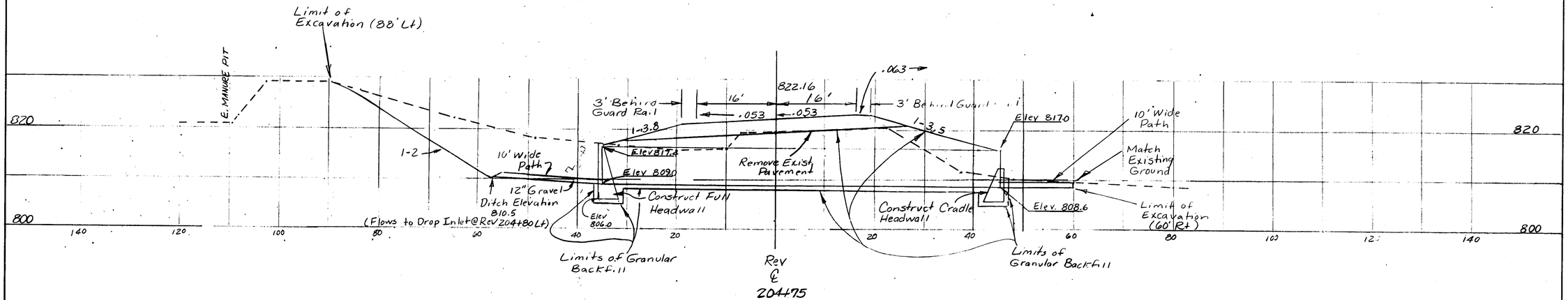
SURV. 205+50 = REV. 225+50.25

Limit of Excavation (54' Lt.)
3' Behind Guard Rail
Elev. of Drop Inlet Top (814.5)
1-4 Ditch Backslope
819.83
Remove Existing 15" RCP and Headwalls
Stone Fill Pad (5' long x 4' wide x 1' deep)
Depth of Drop Inlet 10.5'
Outlet Elev. of New Culvert Beginning @ 204+80 Lt (805.5)
804.5 (Inlet Elev.)
15" R.C.P.
Toe of Fill Slope (Extend 1 to Existing Ground from the top of pipe) (87' Rt.)
S = 0.0058 ft/ft
Rev 205+33 @ 90°
Rev 205+33 Lt/Rt
New 18" x 130' Culvert
Use one of the following options:
1) RCP (CL III)
2) CPEP (SL)
3) PCCSP (.064)
4) CMAP (.060)
803.75 (Outlet Elev.)
Finish Ditch Elev. 816.0 (Flows to Drop Inlet @ Rev 205+33 Lt)
Construct Drop Inlet (4'X4') W/ Type A Grate
SURV. 205+33 = REV. 205+33.23
ASKE. -U @ 89°-50' Lt.
Type "A" Grate
New 18" Culvert Crossing @ Rev 205+33
Rev ℄
822.23
3' Behind Guard Rail
Limits of Granular Backfill
Elev 815.0
C = 0 Sq. Ft.
F = 329 Sq. Ft.
R = 0 Sq. Ft.
Toe of Fill Slope (75' Rt.)
Rev 204+80
Limit of Excavation (88' Lt.)
New 18" Culvert Beginning @ Rev 204+80 Lt.
Limit of Excavation (53' Lt.)
New 18" Culv.
822.01
Rev 205+00
Rev 204+80 Lt = Rev 205+33 Lt
New 18" x 50' Culvert (Same Options as listed for the new culvert @ Rev 205+33 Lt/Rt)
Elev. of Drop Inlet Top (810.0)
Depth of D.I.
Invert Elev. of New Culv. Beginning @ Rev 204+80 Lt (805.8)
Elev. of Drop Inlet Top (815.8)
Surv. 205+00 = Rev. 205+00.00
Rev ℄
SURV. ℄
823.10
3' Behind Guard Rail
Remove Exist. Pavement
Toe of Fill Slope (65' Rt.)
Limits of Granular Backfill
Elev. 816.5
1-3.5
FOR CROSS SECTION AT REV 204+75, SEE THE NEXT SHEET
Note: See the Cattlepass P.I. Sheets for the dimensioning of Headwalls and the location of underdrain.
New 18" Culvert Rev 204+50 = Rev 204+80 Lt
New 18" x 30' Culvert (Same Options as listed for New Culvert @ Rev 205+33 Lt/Rt)
Limit of Excavation (88' Lt.)
12" Gravel Depth of D.I.
Construct Drop Inlet (4'X4') W/ Type A Grate
Invert Elev. of New Culvert Ending @ 205+33 Lt (805.3)
Elev. of Drop Inlet Top (815.8)
Rev 204+50
Invert Elev. of New Culvert Ending @ 204+80 Lt (805.0)
Surv 204+50 = Rev 204+49.72
Rev 204+50
E. Main St. Path
E. Southmayd St. Path
Type A Grate
1-3.9
1-3.7
1-3.8
1-3.9
1-3.7
1-3

ST PASS(1)
Marshfield - Bickford Cattlepass Project
STA. 204+50 STA. 205+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 13 OF 22 SHEETS
HORIZ. AND VERT. SCALE 0 10 20
SURVEYED BY: VT SURVEY CONSULTANTS DATE 10/86

PLATE 3 CROSS SECTION O. P. R. & R. C. STANDARD
DETZON CORPORATION

8165



Rev 204+75
New 96" Elongated CGMPP for Cattle Pass (80' long) w/ Full Height Headwall Lt. and A Cradle Headwall Rt.

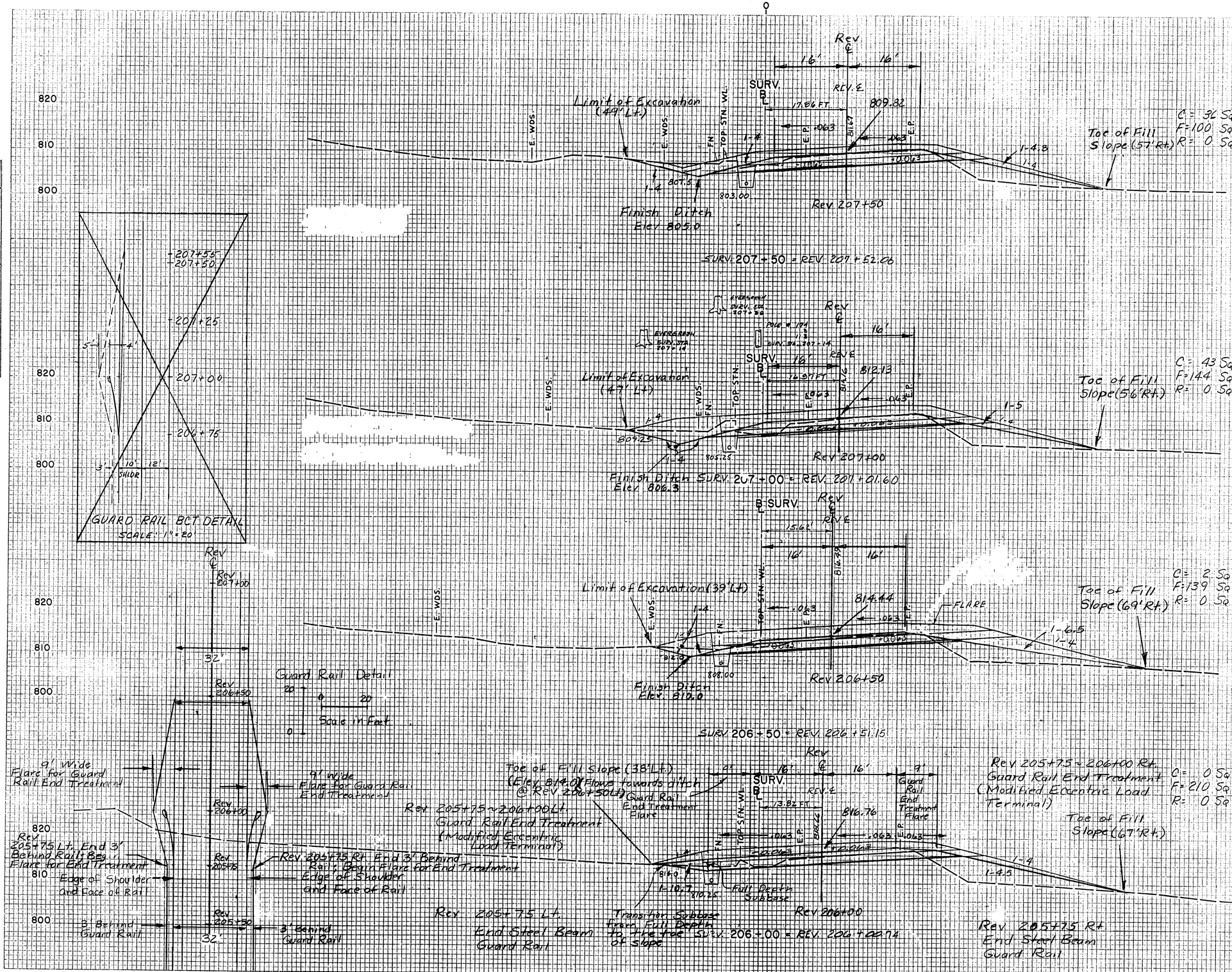
Note: See the Cattle Pass P.I. Sheets for the dimensions of headwalls and the location of underdrain.

DATUM
VERTICAL _____
HORIZONTAL _____

Cross Section @ Rev 204+75

SURVEYED BY _____ DATE _____
DRAWN BY Wheeler DATE 7/96
SQUAD LEADER _____
DESIGN FILE NO. _____
IPARM FILE _____ DATE PLOTTED _____
PROJ. NAME Marshfield ST PASS(1)
PROJ. NO. Bickford Cattle Pass Project
SHEET 14 OF 22 SHEETS

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



ST PASS(1)
Marshfield - Bickford
Cattlepass - Project

STA.	206+00	STA.	207+50
TOWN	MARSHFIELD		
PROJECT	F NO.	028-3(28)	
SHEET	15 OF	22	SHEETS

HORIZ. AND VERT. SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 10/86

VT. SURV. Y CONSULT. 10/86
BRYANT SSOC. 11/86

ORIGINAL SURVEY
NOTE BOOK
NO.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

C = 32 Sq Ft
F = 34 Sq Ft
R = 0 Sq Ft

ROLE W 17.2
SURV. STA. 209+92

SURV. B
16.84 FT
REV. ℄
802.55
TOP STN. WL.
E.P.
E.P.
FN.
-0.063
+0.063
1-A
1-A
796.8
794.00
SURV. 209+50 = REV. 209+53.96

C = 65 Sq Ft
F = 23 Sq Ft
R = 0 Sq Ft

SURV. B
17.70 FT
REV. ℄
806.48 ℄
Existing Ditch
Elev. 798.0
Existing Ditch
Elev. 802.5
TOP STN. WL.
E.P.
E.P.
FN.
1-A
1-A
-0.063
+0.063
797.0
796.00

Rev ℄
Rev 208+50
End Cattle Pass Project
2'
12'
12'
2'
Rev 208+50
Rev 208+00
Shoulder/Roadway
Transition Detail
Scale in Feet
0
10
4'
12'
12'
4'
Edge Shoulder
Edge Travel Lane
Edge Travel Lane
Edge Shoulder

SURV. 209+00 = REV. 209+03.50
Rev ℄
SURV. B
18.26 FT
REV. ℄
805.20
806.66
14'
14'
E.P.
E.P.
E. STN. WL.
FN.
Limit of Excavation (45' Lt.)
Match Existing Roadway Bank
(-0.063)
Limit of Excavation (35' Rt.)
1-A
1-A
1-4
1-4
-0.063
+0.063
Finish Ditch
Elev. 800.0
Finish Ditch
Elev. 803.1
797.75
Rev 208+50
SURV. 208+50 = REV. 208+53.02
Rev 208+50 End Cattle Pass Project

C = 110 Sq Ft
F = 0 Sq Ft
R = 0 Sq Ft

C = 130 Sq Ft
F = 26 Sq Ft
R = 0 Sq Ft

Rev ℄
SURV. B
16'
16.29 FT
REV. ℄
807.51
806.0
E.E. WDS.
TOP STN. WL.
E.P.
E.P.
Limit of Excavation
(45' Lt.)
Toe of Fill
Slope (45' Rt.)
1-4
1-4
1-5.5
-0.063
+0.063
3.0
4-6
5:1
10:0
NLTO
MIN.
MAX.
Finish Ditch
Elev 803.0
Rev 208+00
SURV. 208+00 = REV. 208+02.54

ST. PASS (1)
Marshfield - Bickford
Cattlepass Project

STA.	208+00 — STA. 209+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	16 OF 22 SHEETS
HORIZ. AND VERT. SCALE	0 — 10 — 20
SURVEYED BY:	VT. SURVEY CONSULTANTS DATE 10/86

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY VT. SURVEY CONSULT. BRYANT ASSOC.
DATE 10/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

CONSTRUCT TEMPORARY DRIVE
SURV. ℄ STA. 202+62, LT. (40' WIDE)
SURV. ℄ STA. 202+80, RT. (20' WIDE)

~~BREAKAWAY CABLE TERMINAL~~
~~DETOUR ℄ STA. 111+28 — 111+80 LT.~~
~~DETOUR ℄ STA. 111+50 — 111+75 RT.~~
~~DETOUR ℄ STA. 114+28 — 114+80 RT.~~
~~DETOUR ℄ STA. 114+50 — 114+76 LT.~~

~~STEEL BEAM GUARD RAIL~~
~~DETOUR ℄ STA. 111+50 — 114+80 LT.~~
~~DETOUR ℄ STA. 111+75 — 114+25 RT.~~

REMOVAL OF EXISTING PAVEMENT MARKINGS
SURV. ℄ STA. 202+00 ~ 203+75 (℄)(EDGE LINES)
SURV. ℄ STA. 206+65 ~ 208+50 (℄)(EDGE LINES)

TEMPORARY 4" YELLOW LINE (℄)(SOLID DOUBLE)
DETOUR ℄ STA. 110+00 ~ 116+58

TEMPORARY 4" WHITE LINE (EDGE LINE)
DETOUR ℄ STA. 110+00 ~ 116+58

PUB. RE. DIV. N.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT.		19		

N
MAG. 1987

SURVEY CURVE DATA #11
Δ = 21°59'16" LT.
D = 3°00'00"
R = 1909.86'
T = 371.03'
L = 732.93'
E = 35.71'

REV. CURVE DATA #11
Δ = 23°15'11" LT.
D = 4°00'00"
R = 1432.39'
T = 294.72'
L = 581.33'
E = 30.01'
BANK = 0.063 FT./FT.

24' Wide Paved Detour
(18" Subbase Dense Graded Crushed Stone w/2" Bit. Conc. Pave.)

REV. STA. 192+65 RT. ~ 201+42 LT.
ELEC. SERVICE TO CAUTION LIGHT TO BE MAINTAINED AT ALL TIMES BY CONTRACTOR

STA. 194+75, RT.
DETOUR AHEAD
(N)

STA. 198+75, RT.
30 MPH
(N)

DETOUR POT. STA. 110+00 = REV. STA. 202+00, 5.1' LT.
BEGIN DETOUR CONSTRUCTION

SURV. ℄ STA. 203+40, RT.
ROAD CLOSED
DETOUR
(MOUNTED ON TYPE III BARRICADE)
(N)

SURV. ℄ STA. 206+75, LT.
ROAD CLOSED
DETOUR
(MOUNTED ON TYPE III BARRICADE)
(N)

CONSTRUCTION LIMIT (TYP.)
DETOUR CONSTRUCTION LIMIT (TYP.)
℄ DETOUR 'D'
SURV. PC #11 203+69.64
REV. PC #11 204+64.33
R=380'
R=350'
R=350'
COW MANURE PIT
3/4" ELEC. CONDUIT
CONC PAD
BARN
3'-6" DIA MILK HOLDING TANK FOR HOUSE
SILO 20' DIA.
BARN
SURV. N 37°17'12" E
SURV. N 37°17'12" E
POB
POC
PVC OUTLET 24" DIA. C.B. R=25'
FLD. DR.
BRUSH
WOODS
1½ SWF
GMP 177 23 1165 W/GUY WR.
C.GR W/WO POSTS
1'-6" CONC HD. WL.
WET
BRUSH
STRD. B. WR FN.
CAUTION SIGN
℄ COW-XING SIGN
EXISTING R.O.W.
FIELD
REMOVE EXISTING GUIDE POST
REMOVE EXISTING GUIDE POST
REMOVE EXISTING GUIDE POST

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

VT. SURVEY CONSULT.
BRYANT ASSOC.
10/86
11/86

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
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3" Bit. Conc. Pave
over
18" Subbase
Dense Graded Crushed Stone (Typ.)

SURV. ℄

E.P.

DRIVE AT THIS STA. IS CONSIDERED MAIN ENTRANCE AT STA. 202+93
(REF. PLAN P. 232 & X-SECTIONS)

SURV 202+76
ASKEWED @ 72°-30' RT.

40'

PROPOSED 11 DGE

GRAVEL (TYP. MIN.)

11 SLOPE

1:3

1:2

DETOUR DRIVE

DETOUR SLOPE

202+50

202

203

POLE # 11.1

11.3 Rev ℄

BLDG. STA. 202+92

EVERGREEN
℄ SURV. STA. 202+71

DETOUR 'D'

SURV. ℄

Rev ℄

3.0'

LINESTREET DRIVE ℄
REV. STA. 202+82 (40' WIDE)

E.P.

E.P.

822.6

822.50

822.75

110+00

Rev 202+50

SURV. 202+50 = REV. 201+42.16 = DETOUR 110+50

DETOUR 'D'
℄ Rev ℄

SURV.

5.1'

Rev ℄

E.P.

E.P.

E.P.

E.P.

822.15

822.50

822.75

110+00

Rev 202+00 = Detour ℄ 110+00

SURV. 202+00 = REV. 201+57.37 =
DETOUR 110+00

Rev. ℄

SURV.

Rev ℄
Grade

E.P.

A

A

REV. 201+42.20 =
SURV. 201+50
ASKEWED @ 64°-24' RT.

Marshfield ST. PASS(1)

Note: This Sheet is for Detour Construction Only

DETOUR 'D' SHT 2 OF 6

STA. 201+50 STA. 202+76
DWG. MA
PROJECT F NO. 028-3(28)
SHEET 32 OF 34 SHEETS
NORTH AS SURVEY SCALE
0 10 20
SURVEYED BY: VT. SURVEY CONSULTANTS DATE 10/86

2386

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DETZOEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
FO28-3(28)

FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TOTALS — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — TOTALS — TEMPLATE — AREAS — AREAS CHECKED — VT SURVEY CONSULT. BRYANT ASSOC. — DATE 10/86

Rev. Sta. 204+00 Rt.
Begin Clearing & Grubbing Limit
Beg. Clearing Limit
Rev. Sta. 204+00 Rt.
End Clearing Limit
End Grubbing Limit
Rev. Sta. 204+25

Detour 'D'
Rev. ℄
Surv. ℄
Pole # 1176
Surv. Sta. 204+25
39.7'
Rev. 204+00
Surv. 204+00 = Rev. 204+50.56 - Detour 112+10

'D' 112+10
C = 26 S.F.
F = 54 S.F.

Detour 'D'
Rev. ℄
Surv. ℄
23.0'
Rev. 203+50

'D'
C = 45 S.F.
F = 10

Rev. Sta. 203+50 Rt.
Beg. Clearing Limit
End Grubbing Limit
Clearing at Toe of Slope
Rev. Sta. 203+50 Lt.
End Clearing Limit

Surv. 203+50 - Rev. 203+72.44 = Detour 111+54
Detour 'D' Rev.
Surv. ℄
10.0'
Rev. 203+00

'D'
C = 45 S.F.
F = 0

Rev. Sta. 203+00 Rt.
Beg. Clearing Limit
End Grubbing Limit
Clearing at Toe of Slope
Rev. Sta. 203+00 Lt.
End Clearing Limit

Surv. 203+00 = Rev. 203+33.41 = Detour 111+03
Surv.
℄ Rev. ℄
Rev. 202+84.65
E.P.
E. Gr. Dr.

Rev. Sta. 202+84 Rt.
End Clearing Limit
Grubbing (at min. Lt.)
Begin Limit Clearing & Grubbing at Toe of Slope

Surv. 202+84 = Rev. 202+67.48

C = 4 S.F.
F = 146 S.F.
S = 0 S.F.

C = 77 S.F.
F = 55 S.F.
M = 0 S.F.

202+23.15 — Drive
A = 83 S.F.
F = 0 S.F.
S = 0 S.F.

Guard Rail Clinic
Detail
Scale 1" = 20'

Guard Rail Det'l
Scale 1" = 20'

Marshfield ST PASS(1)
Note: This Sheet is for Detour Construction Only

Detour 'D' sht 3 of 6
Sta. 202+92 to 204+00
Town MARSHFIELD
Project F 028-3(28)
Horiz. and Vert. Scale 0 10 20
Surveyed by: VT Survey Consultants Date 10/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DETROIT CORPORATION

3386

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — CHECKED — AREA — AREA CHECKED — DATE

ORIGINAL SURVEY — NOTE BOOK — No. — SURVEYED — PLOTTED — CHECKED — AREA — AREA CHECKED — DATE — VT. SURVEY CONSULT. BRYANT ASSOC. — 10/86, 11/86

Rev
℄
Detour 'D'
℄
FILE # 175
SURV STA. 293+75
SURV.
45.7'
TOP STN. WL.
E.P.
E.P.
10.080 LT.
8192.9
8197.72
113+60
3111.50
RT. TRANSITION
EXIST.
Rev 205+50
+0.080 LT.
RT. TRANSITION
EXIST.
LT. TRANSITION
EXIST.
202
203
PRC
204
205
206
PRC
207
208
-0.080 RT.
SURV. 205+50 = REV. 204+45.15 =
DETOUR 113+60
BANKING DIAGRAM
SCALE 1" = 0.05V
1" = 50' H
REV.
SURV.
TOP STN. WL.
E.P.
E.P.
10.770 FT.
E.P.
TOP H. WL.
15" R.C.P.
LT. TRANSITION
EXIST.
8214.6
8209.30
804.5
5050
-5 = 5.0 USE PLAN

REV. STA 205+50 SKEW ANGLE 20° RT.
NEW 18"X 30" RCCP & ENDW.
OR CHAP. 0060 NEW 4'x4' RCDI w/TYPE A GRATE &
INLET STA FALL PAY TYPE I &
OUTLET 3' W X 1.0 EXTENDING
4' BEYOND END OF CULVERT.
EXCAVATION
REV STA 204+50 LT.
EXISTING TO BE
REMOVED
STA 203+50 LT.
END EXIST. DITCH & LIVE FLOW

D
C = 38 S.F.
F = 112 S.F.
Detour 'D'
℄
SURV. 205+33 = REV. 205+33.25
ASKEWED @ 89°-50' LT.
Rev
SURV.
50.7'
TOP STN. WL.
E.P.
E.P.
8222
113+11
Rev 205+00
Note: Wingwall Construction
@ Rev 204+75 Lt. will have
to be done after traffic has been
shifted back onto U.S. Route 2 and
the detour has been removed.
SURV. 205+00 = REV. 204+95.15 =
DETOUR 113+11
REV.
SURV.
49.5'
5.77 FT.
E.P.
E.P.
8223.8
112+60
Rev 204+50
SURV. 204+50 = REV. 204+45.15 =
DETOUR 112+60

REV. STA 204+50 SKEW ANGLE 20° RT.
NEW 18"X 30" RCCP & ENDW.
OR CHAP. 0060 NEW 4'x4' RCDI w/TYPE A GRATE &
INLET STA FALL PAY TYPE I &
OUTLET 3' W X 1.0 EXTENDING
4' BEYOND END OF CULVERT.
EXCAVATION
REV STA 205+33 LT.
EXISTING TO BE
REMOVED
STA 203+33 LT.
END EXIST. DITCH & LIVE FLOW

REV. STA. 204+75 LT. SKEW ANGLE 20° RT.
CULV REMOVAL & REPLACE W/ 18" RCCP
OF GUARD RAIL

D
C = 31.5 S.F.
F = 96.5 S.F.

Marshfield ST PASS(1)
Note: This Sheet is for
Detour Construction Only

DETOUR 'D' SHT 4 OF 6
STA. 204+50 STA. 205+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET NO. OF SHEETS
HORIZ. AND VERT. SCALE 1" = 10'
DRAWN BY: VT. SURVEY CONSULTANTS DATE 10/86
338D

PLATE 3 CROSS SECTION O.P.R.R.&R.S. STANDARD
DIETZGEN CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY	SUBMITTED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	SUBMITTED	VT. SURVEY CONSULT.	DATE 10/86
NOTE BOOK	PLOTTED	BRYANT ASSOC.	11/86
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

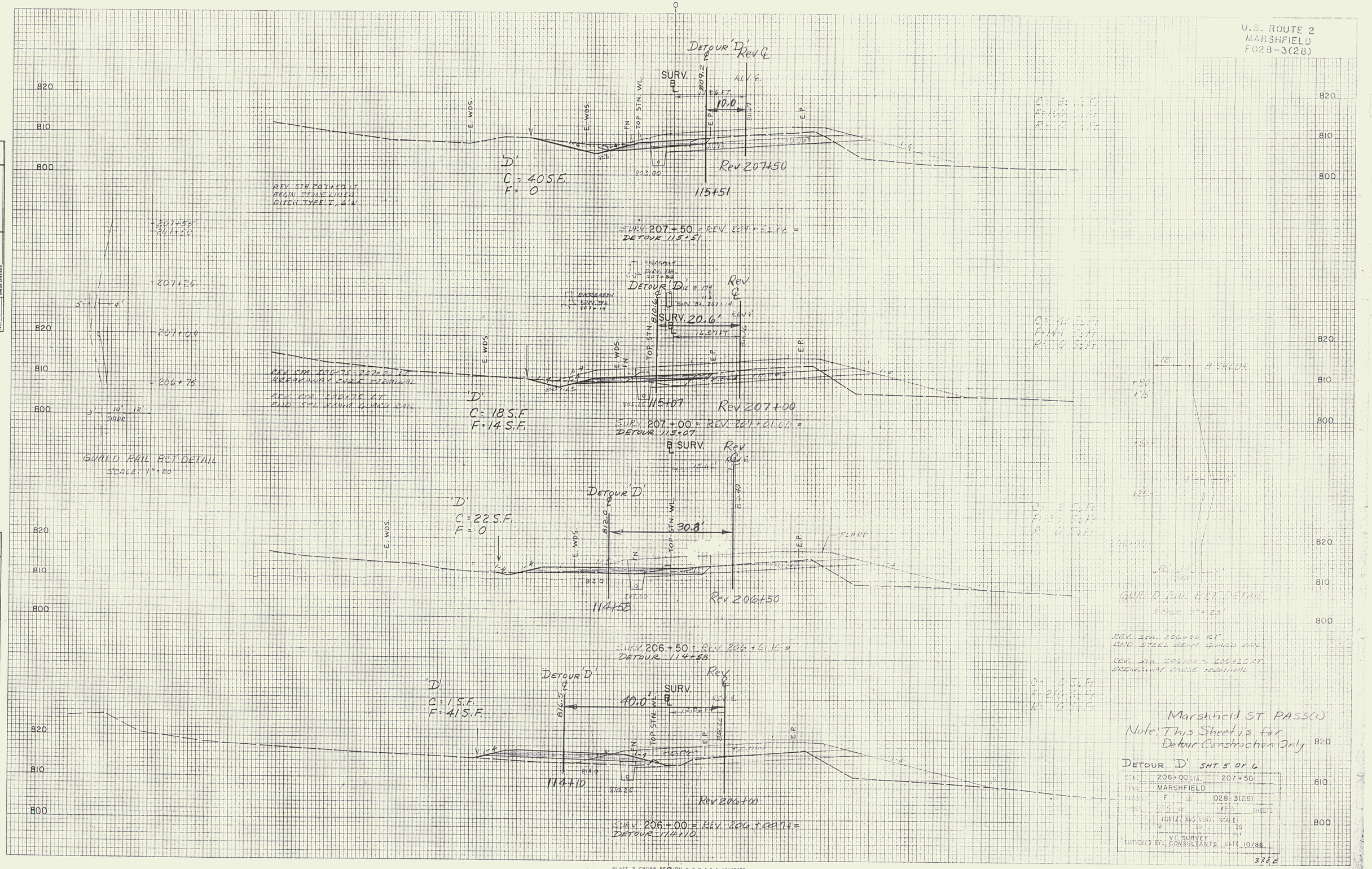
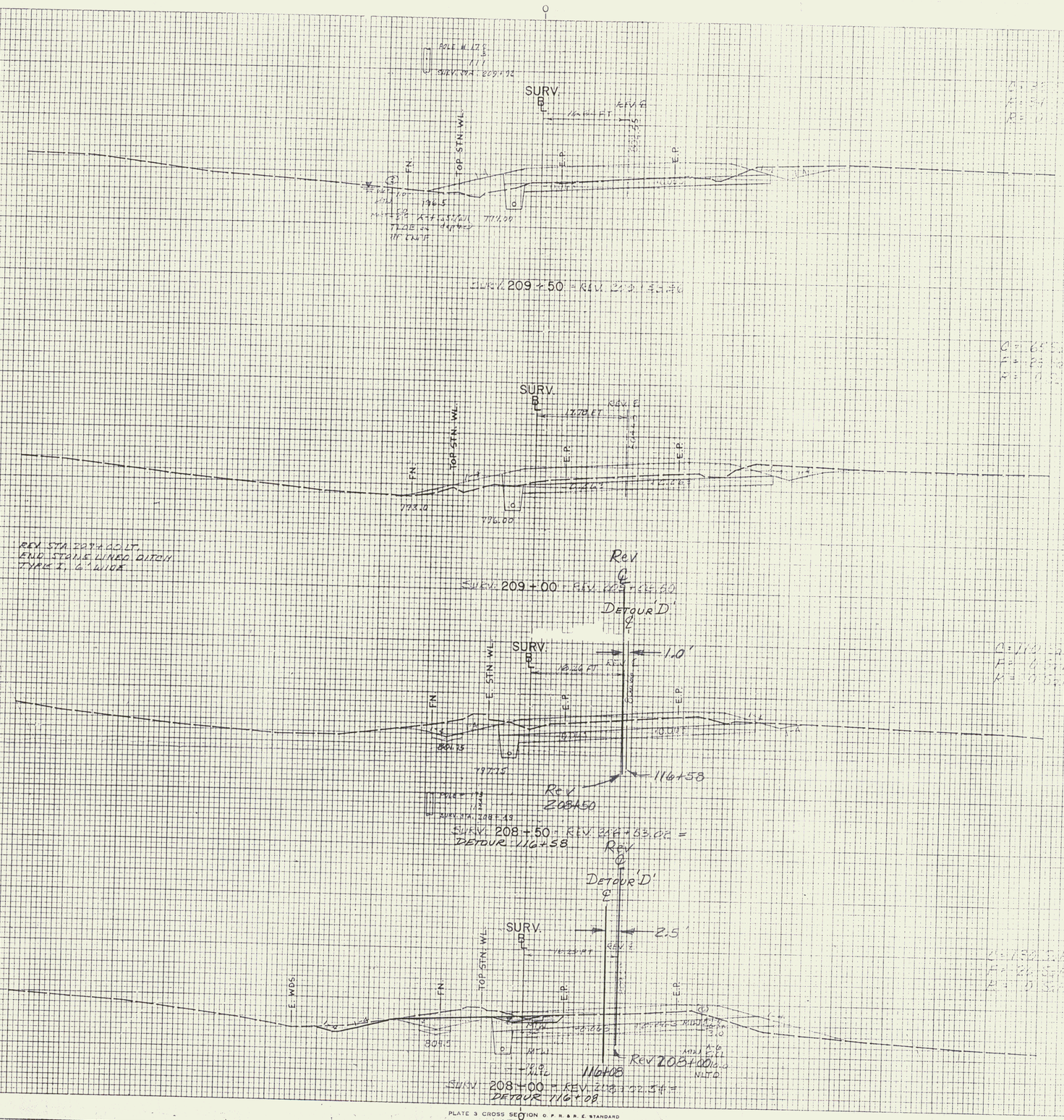


PLATE 3 CROSS SECTION © P. R. & R. E. STANDARD
METRON CORPORATION

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY	SURVEYED:	DATE
	PLOTTED:	
NOTE BOOK	TRACED:	
NO.	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED: VT. SURVEY CONSUL.	DATE 10/86
	PLOTTED: BRYANT ASSOC.	11/86
NOTE BOOK	TRACED:	
NO.	AREAS CHECKED	



Marshfield ST PASS(1)

Note: This Sheet is for Detour Construction Only

DETOUR 'D' SHT 6 OF 6

STA.	208+00 — 209+50
TOWN	MARSHFIELD
PROJ. NO.	F 028-3(28)
SHEETS	
SURVEYED BY:	VT. SURVEY CONSULTANTS
DATE	10/86

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DETZEN CORPORATION

338 F

Sheet 22 of 22

TEMPORARY 4" YELLOW LINE - (SOLID DOUBLE)

DETOUR ℄ STA. 100+00 - 101+90 ℄
DETOUR ℄ STA. 102+55 - 106+60 ℄
T.H. 49 ℄ STA. 30+65, 12' LT. - 31+00 ℄
T.H. 49 ℄ STA. 31+00 - 31+41 ℄

TEMPORARY 4" WHITE LINE - (SOLID SINGLE)

DETOUR ℄ STA. 100+00 RT. - T.H. 49 ℄ STA. 31+41 RT.
T.H. 49 ℄ STA. 31+41 LT. - DETOUR ℄ STA. 106+60 RT.
DETOUR ℄ STA. 100+00 - 106+60 LT.

CONSTRUCT TEMPORARY DRIVE

SURV. ℄ STA. 110+86 LT. (ASKEWED 52°30' LT.) (14' WIDE)

CONSTRUCT TEMPORARY T.H. 49 APPROACH

DETOUR ℄ STA. 102+17, 11' RT. = T.H. 49 ℄ STA. 30+51

REMOVAL OF EXISTING PAVEMENT MARKINGS

SURV. ℄ STA. 110+85 - 112+30 (℄)
SURV. ℄ STA. 110+85 - 112+70 (EDGE LINES)
SURV. ℄ STA. 115+60 - 117+00 (℄)
SURV. ℄ STA. 115+50 - 117+00 (EDGE LINES)
T.H. 49 ℄ STA. 30+40 - 31+41 (℄)(EDGE LINES)

STEEL BEAM GUARD RAIL

DETOUR ℄ STA. 102+50 - 104+75 LT.
T.H. 49 ℄ STA. 31+15 LT. - DETOUR ℄ STA. 104+25 RT.
(CONNECT TO EXISTING GUARD RAIL)
T.H. 49 ℄ STA. 30+90 - 31+15 RT.
(CONNECT TO EXISTING GUARD RAIL)

BREAKAWAY CABLE TERMINAL

DETOUR ℄ STA. 102+25 - 102+50 LT.
DETOUR ℄ STA. 104+75 - 105+00 LT.
DETOUR ℄ STA. 104+25 - 104+50 RT.
T.H. 49 ℄ STA. 30+65 - 30+90 RT.

TEMPORARY 24" STOP BAR

DETOUR ℄ STA. 102+40 - 102+68, 16' RT. (MIN.)

TEMPORARY LETTER OR SYMBOL

DETOUR ℄ STA. 102+54, 25' RT. "STOP"

PUB. RD DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT		19		

MAG. 1987

DETOUR ℄ STA. 101+30, LT.
ROAD CLOSED
DETOUR
(MOUNT ON TYPE III BARRICADE)
(N)

CHANNEL ℄ POT 103+50.00

REV. CURVE DATA # 7
Δ = 8°52'04"
D = 1°45'00"
R = 3274.04'
T = 253.87'
L = 506.73'
E = 9.83'
BANK = 0.034 FT./FT.

SURV. ℄ STA. 115+75, LT.
ROAD CLOSED
DETOUR
(MOUNT ON TYPE III BARRICADE)
(N)

SURV. ℄ STA. 120+25, LT.
30 M.P.H.
(N)

SURV. ℄ STA. 127+00, LT.
DETOUR AHEAD
(N)

REV. STA. 111+90 LT. TRANSPLANT LILAC

CHANNEL ℄ P.I. 102+25.00
Δ = 12° 46' 45" RT.

REV. STA. 113+60 LT. DO NOT DISTURB SATILLITE DISH.

SURV. PC # 6 113+50.95

DETOUR P.O.T. 100+00.00 =
U.S. RTE. 2 SURV. ℄ STA. 110+85, 31' LT.
BEGIN DETOUR CONSTRUCTION

SURV. POT. 112+67.97
TH. 49 POT. 30+00.00
Δ = 83° 19' 45" RT.

REV. POT. 112+64.00 =
T.H. 49 POT. 29+76.68
Δ = 84° 25' 28" RT.

TBM # 19
CHIS. IN N.W. COR. W.W.
NGVD EL. 777.24

REV. POT. 114+00, 22' LT.
END 10' WIDE SHLDR.

REV. POT. 115+00, 20' LT.
BEGIN 8' WIDE SHLDR.

REV. PC # 7 116+90.82

SURV. ℄ STA. 101+00, RT.
DETOUR AHEAD
(N)

SURV. ℄ STA. 104+95±, RT.
SPEED LIMIT 50
(R)

REV. POT. 111+60, 22' LT.
BEGIN 10' WIDE SHLDR.

REV. POT. 110+60, 20' LT.
END 8' WIDE SHLDR.

MAINTAIN ACCESS AT ALL TIMES

30' (TYP.)

EXISTING R.O.W.

REV. ℄
SURV. ℄

U.S. RTE. 2 SURV. ℄ STA. 117+00, 20' LT. =
DETOUR PT. STA. 106+60
END DETOUR CONSTRUCTION

℄ DETOUR 'A'

MAINLINE CONSTRUCTION LIMIT

40' (TYP.)

DETOUR CONSTRUCTION LIMIT

DETOUR ℄ STA. 104+00, RT.
30 M.P.H.
(N)

REV. STA. 112+20 RT.
BEGIN FULL WIDTH E.B. CLIMBING LANE END TAPER.

T.H. 49 POT. 30+05.82 =
REV. POT. 112+66.83, 29 RT.
BEGIN APPROACH CONSTR.

T.H. 49 POT. 30+77.00
END FULL WIDTH SHLDR.
BEGIN TAPER.

SURV. ℄ STA. 107+75, RT.
30 M.P.H.
(N)

DETOUR ℄ STA. 102+10, RT.
SPEED LIMIT 35
LEGAL LOAD LIMIT 24,000 POUNDS
(S)

SPEED LIMIT 35
(R & SALV.)

REV. 109+45 RT.
BEGIN E.B. CLIMBING LANE TAPER.

MAINLINE AND DETOUR LIMIT OF CONSTRUCTION
T.H. 49 P.O.T. 31+41.47
MATCH EXISTING

DETOUR ℄ STA. 102+72, RT.
STOP
(S)

BR-100 KING BROOK
REV. STA. 114+00 - ASKEW 70°00' LT.
NEW 14'-10" x 9'-1" CMPPA (0.109)
(SEE P.I. SHEETS BR-100)

SURV. PC. 113+50.95
CHANNEL ℄ P.I. 101+25.00

CHANNEL ℄ POT. 99+90.00

T.H. 49, LT.
(325' FROM T.H. 49 & DETOUR INTERSECTION)

T.H. 49 POT. 33+00.00

T.H. # 49 LAIRD POND RD.

DETOUR AHEAD
(N)

STOP
(R & SALV.)

LEGAL LOAD LIMIT 24,000 POUNDS
(R & SALV.)

LEGEND

- TEMPORARY CONCRETE TRAFFIC BARRIER (OPTIONAL)
- REFLECTORIZED PLASTIC DRUM (30' SPACING TYPICAL) (EXCEPT AT ENDS OF TEMPORARY TRAFFIC BARRIERS)
- DELINEATORS (40' SPACING TYPICAL)
- TYPE III BARRACADE

REFER TO STDS. E-101 AND E-102 FOR CONSTRUCTION SIGN DETAILS

SCALE IN FEET
50 0 100

KING BROOK
DETOUR 'A'

VT. SURVEY
SURVEYED BY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 6/87
TRACED BY _____ DATE _____

U.S. ROUTE 2 - MARSHFIELD
PROJ. FEGC NO. F028-3(28)
SHEET 1 OF 6 336A

144883

PLAN
SURVEYED
PLOTTED
NOTE BOOK
ALIGNMENT CHECKED
BY
DATE
BY OF WAY CHECKED
No.

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
GRADES CHECKED
B. M.'s NOTED
STRUCTURE NOTATIONS CHECKED
No.
BY
DATE

DETOUR "A" PROFILE BEGINS
STA. 100+92 , ELEV.= 775.5
CONTINUED FROM EXISTING

DETOUR "A" BEGIN STA 100+00
SURV. 110+85.31' LT.
EL. 775.0
MATCH EXIST.

DETOUR "A"
STA 101+00
EL. 774.00
VC= 100'
K= 29

TH #49 STA 102+17.11 LT
BEG. TEMP APPROACH
CONSTRUCTION

DETOUR "A"
STA 103+25
EL. 770.55
VC= 350'
K= 49

C.E. KING BROOK

PVT
105+00

DETOUR "A" PROFILE ENDS
STA. 105+90 , ELEV.= 790.4
CONTINUES ON EXISTING

DETOUR "A" ENDS STA 106+60
SURV. STA. 117+00±, 20' LT.
EL. 795.7
MATCH EXISTING

+1.0000%
-1.5233%
-1.5233%
+7.5000%
+7.5000%

PVC
100+50

PVRC
101+50

810
800
790
780
770
760
750

910
900
890
880
870
850
750

100 101 102 103 104 105 106 107

H 0 25 50 100
V 0 5 10 20

NOTE:
FOR REFERENCE ONLY
DO NOT INCLUDE IN
CONTRACT PLANS.

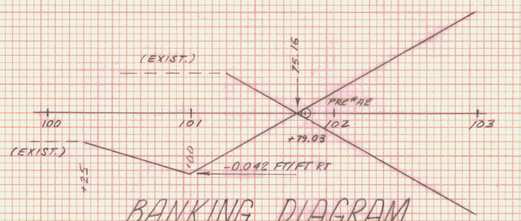
DETOUR "A"
FOR CULVERT @ 114+00 ±

DETOUR 'A'
U.S. RTE. 2-MARSHFIELD
PROJ. NO. FEGC 022-3(22)
SHT OF

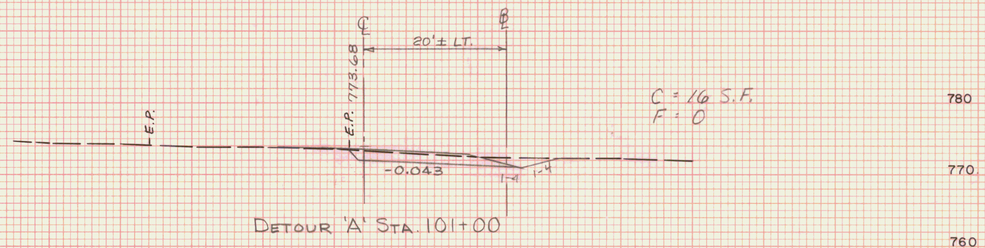
PLATE PLAN-PROFILE O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION
PRINTED IN U.S.A.

336 B

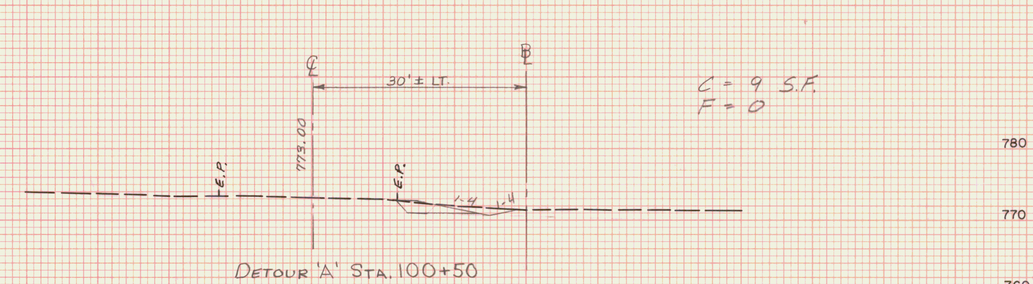
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



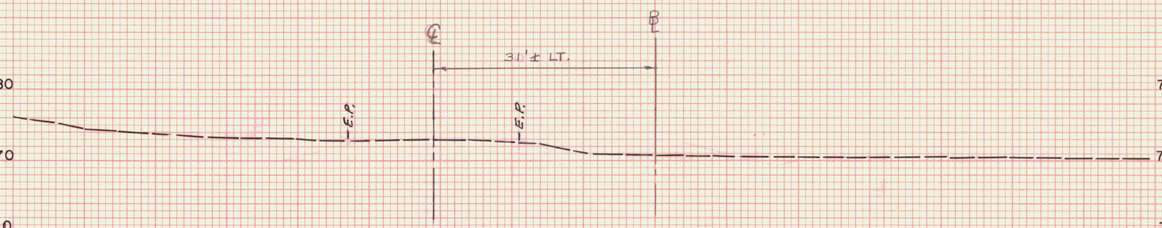
BANKING DIAGRAM
SCALE 1" = 0.05' V / 1" = 50' H



DETOUR 'A' STA. 101+00

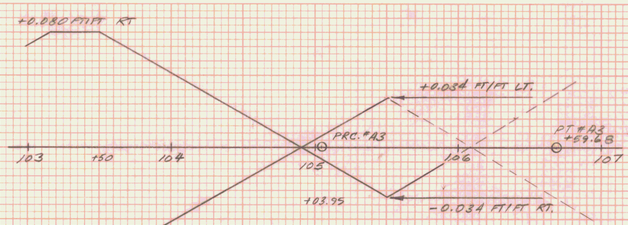


DETOUR 'A' STA. 100+50

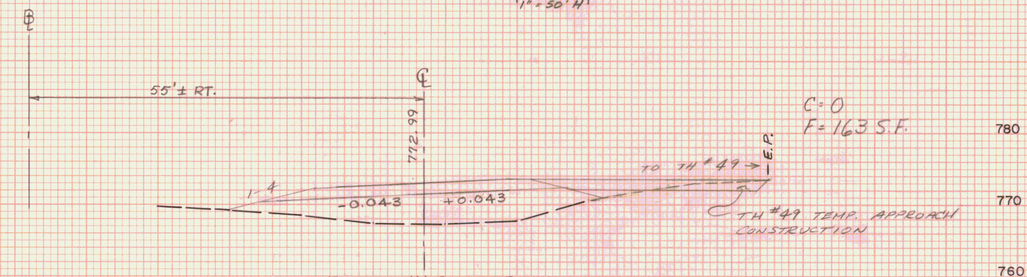


DETOUR 'A' STA. 100+00

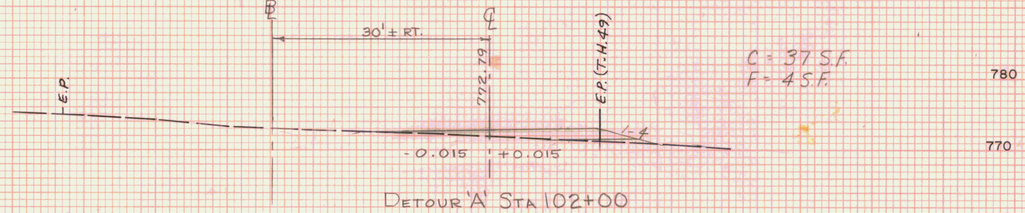
DETOUR P.O.T. 100+00.00 =
U.S RTE 2 SURV. ℄ STA. 110+85.31' LT.
BEGIN DETOUR CONSTRUCTION



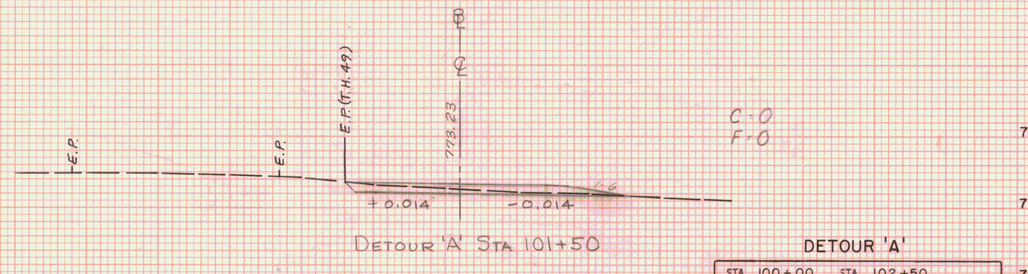
BANKING DIAGRAM
SCALE 1" = 0.05' V / 1" = 50' H



DETOUR 'A' STA. 102+50



DETOUR 'A' STA. 102+00



DETOUR 'A' STA. 101+50

NOTE:
℄ OFFSETS TO DETOUR ℄ ARE SCALED DISTANCES FROM AND PERPENDICULAR TO SURV. ℄

DETOUR 'A'

STA.	100+00 STA. 102+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	2 OF 4 SHEETS

HORIZ AND VERT. SCALE
0 10 20

VT SURVEY
SURVEYED BY CONSULTANTS DATE 3/87

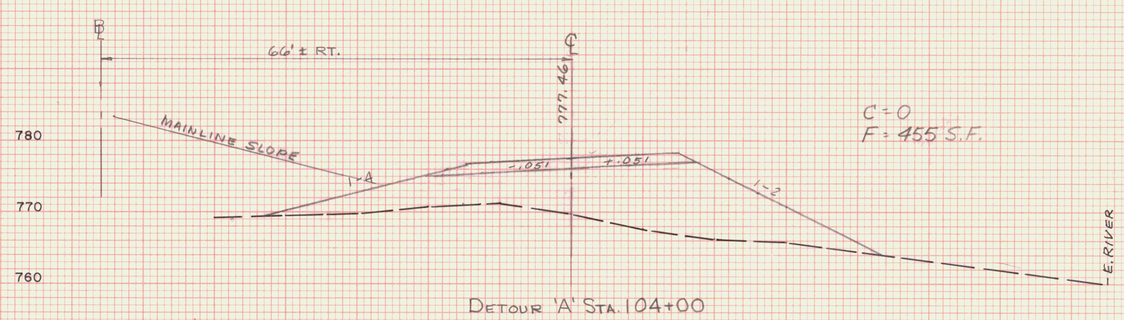
FINAL SURVEY
NOTE BOOK
No.
DATE
BY
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

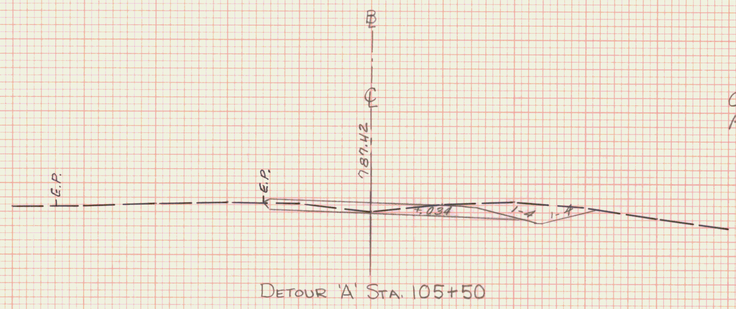
336C

U.S. ROUTE 2
MARSHFIELD
F028-3(28)



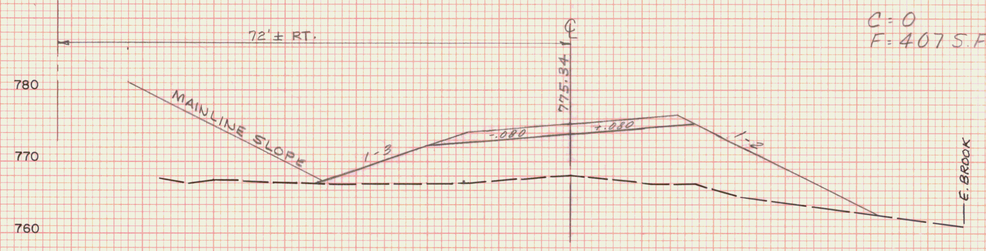
C = 0
F = 455 S.F.

DETOUR 'A' STA. 104+00



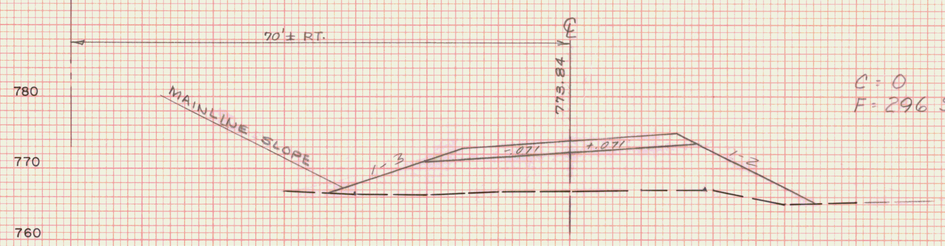
C = 26 S.F.
F = 0

DETOUR 'A' STA. 105+50



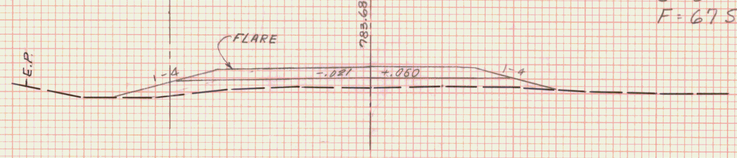
C = 0
F = 407 S.F.

DETOUR 'A' STA. 103+50



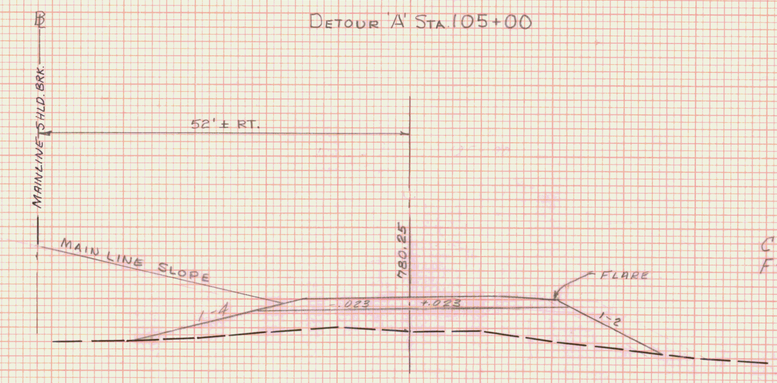
C = 0
F = 296 S.F.

DETOUR 'A' STA. 103+00



C = 0
F = 67 S.F.

DETOUR 'A' STA. 105+00



C = 0
F = 242 S.F.

DETOUR 'A' STA. 104+50

DETOUR 'A'

STA. 103+00 STA. 105+50
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 3 OF 4 SHEETS
HORIZ AND VERT SCALE
0 10 20
VT SURVEY
SURVEYED BY: CONSULTANTS DATE 3/87

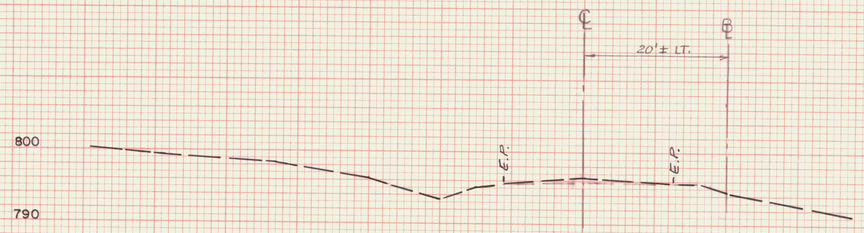
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

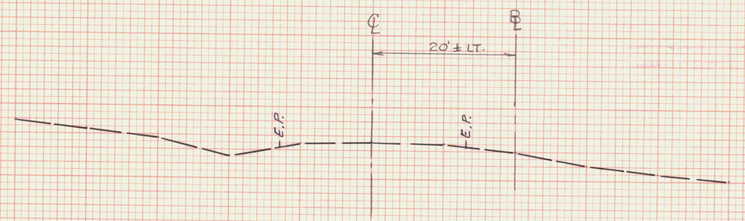
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

3360

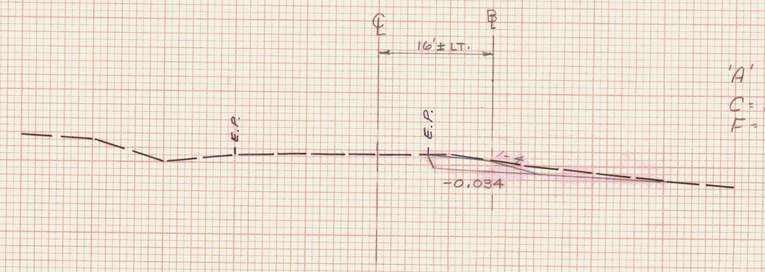
U.S. ROUTE 2
MARSHFIELD
F028-3(28)



DETOUR 'A' STA 106+60
US RTE 2 SURV. ℄ STA. 117+00, 20' LT. =
DETOUR P.T. STA. 106+60
END DETOUR CONSTRUCTION



DETOUR 'A' STA. 106+50



'A'
C = 23.5 F
F = 0

DETOUR 'A' STA 106+00

DETOUR 'A'

STA. 106+00 STA. 106+60
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 4 OF 4 SHEETS
HORIZ AND VERT SCALE
0 10 20
VT. SURVEY
SURVEYED BY: CONSULTANTS DATE 3/87

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

336E

TEMPORARY 4" YELLOW LINE – (SOLID DOUBLE)

DETOUR ℄ STA. 120+00 – 127+18 ℄

TEMPORARY 4" WHITE LINE – (SOLID SINGLE)

DETOUR ℄ STA. 120+00, 11' LT. – 120+67, 16' LT.
DETOUR ℄ STA. 121+06, 31' LT. – 127+18, 11' LT.
DETOUR ℄ STA. 120+00 – 127+18 RT.

CONSTRUCT TEMPORARY DRIVE

SURV. ℄ STA. 252+20 RT. (14' WIDE)
SURV. ℄ STA. 252+50 LT. (14' WIDE)

BREAKAWAY CABLE TERMINAL

DETOUR ℄ STA. 120+75 – 121+00 RT.
DETOUR ℄ STA. 122+50 – 122+75 LT.
DETOUR ℄ STA. 124+50 – 124+75 RT.
DETOUR ℄ STA. 124+75 – 125+00 LT.

STEEL BEAM GUARD RAIL

DETOUR ℄ STA. 121+00 – 124+50 RT.
DETOUR ℄ STA. 122+75 – 124+75 LT.

REMOVAL OF EXISTING PAVEMENT MARKINGS

℄ STA. 247+50 – 249+00 (℄) (EDGE LINES)
SURV. ℄ STA. 252+25 – 254+35

TEMPORARY 24" STOP BAR

DETOUR ℄ STA. 120+67 – 120+95, 16' LT. (MIN.)

CONSTRUCT TEMPORARY T.H. 33 APPROACH

DETOUR ℄ STA. 120+98, 11' RT. = T.H. 33 ℄ (EXTENSION) STA. 64+94

PUB. RE. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT		19		

MAG 1987

T.H. 33 ℄ STA. 73+25, LT.

DETOUR AHEAD

T.H. 33 ℄ P.O.T. 72+36.28

T.H. #33 BEAVER MEADOWS RD.

(N)

LIMIT OF WORK
T.H. 33 ℄ P.O.T. 72+00.00
MATCH EXISTING
END TAPER

T.H. 33 ℄ P.O.T. 71+00.00
BEGIN TAPER

T.H. 33 ℄ P.O.T. 70+50.00
END PAVEMENT

CHANNEL POT 50+00.00

SURV. ℄ STA. 252+20, LT.

ROAD CLOSED
DETOUR

(MOUNT ON TYPE III BARRICADE)

(N)

POT 251+00.00 =
CHANNEL POT 52+00.00
Δ = 74° 55' 30" RT

DRIVE LIMIT FOR MAINLINE CONSTRUCTION

DRIVE LIMIT FOR DETOUR CONSTRUCTION. MAINTAIN ACCESS AT ALL TIMES.

T.H. 33 ℄ STA. 71+07 LT.
EXISTING 12" CGMP (REMOVE)

T.H. 33 ℄ STA. 71+12 LT.
NEW 15"x44 CSPO.064
W.E.S. @ INLET

STOP

LEGAL LOAD LIMIT 24,000 POUNDS

(R & SALV.)

℄ STA. 237+50, RT.

DETOUR AHEAD

(N)

℄ STA. 244+25, RT.

30 MPH

(N)

DETOUR ℄ STA. 120+70, LT.

STOP

(S)

SURV. ℄ STA. 257+60, LT.

30 MPH

(N)

SURV. ℄ STA. 264+50, LT.

DETOUR AHEAD

(N)

BRUSH
WET
GUY POLE 30' (TYP)
REV ℄
SURV. ℄
U.S. RTE. 2 SURV. ℄ STA. 254+38, 17' LT. =
DETOUR PCC STA. 127+18
END DETOUR CONSTRUCTION

REV. PC# 14 253+40.09

MAINLINE CONSTRUCTION LIMITS (TYP.)

DRIVE LIMIT FOR DETOUR CONSTRUCTION MAINTAIN ACCESS AT ALL TIMES

CHANNEL POT 54+00.00

SURV. PC# 14 251+99.59

CHANNEL PI 52+25.00
Δ = 35° 13' 30" LT.

TBM# 38
CHIS IN S.E. COR. W.W.
NGVD EL. 785.34

℄ DETOUR 'B'

40' (TYP.)

DETOUR P.O.T. 120+00 =
U.S. RTE. 2 ℄ STA. 247+50, 2.5' RT.
BEGIN DETOUR CONSTRUCTION

DETOUR ℄ STA. 121+00, LT.

LEGAL LOAD LIMIT 24,000 POUNDS

(S)

℄ POT 248+53.57, 20' LT. =
T.H. 33 ℄ POT. 70+20.02
BEGIN APPROACH CONSTRUCTION

DETOUR CONSTRUCTION LIMITS (TYP.)

℄ P.O.T. 248+54.38 =
T.H. 33 ℄ POT. 70+00.00
Δ = 92° 20' 00" LT.
BR-120 BEAVER MEADOW BROOK
℄ STA. 250+68 - ASKEW 66° 00' RT.
NEW - 15'-6" x 9'-5" CGMPPA (0.109)
(SEE P.I. SHEETS BR-120)

℄ STA. 248+80

ROAD CLOSED
DETOUR

(MOUNT ON TYPE III BARRICADE)

(N)

DETOUR ℄ STA. 122+75, LT.

(N)

SCALE IN FEET
50 0 100

SURVEY CURVE DATA # 14

Δ = 23°16'40" RT
D = 3°30'00"
R = 1637.02'
T = 337.19'
L = 665.08'
E = 34.37'

REV. CURVE DATA # 14

Δ = 23°16'40" RT.
D = 6°00'00"
R = 954.93'
T = 196.69'
L = 387.96'
E = 20.05'
BANK = 0.077 FT/FT

LEGEND

- TEMPORARY CONCRETE TRAFFIC BARRIER (OPTIONAL)
- REFLECTORIZED PLASTIC DRUM (30' SPACING TYPICAL) (EXCEPT AT ENDS OF TEMPORARY TRAFFIC BARRIERS)
- DELINEATORS (40' SPACING TYPICAL)
- TYPE III BARRACADE

REFER TO STDS. E-101 AND E-102 FOR CONSTRUCTION SIGN DETAILS

BEAVER MEADOWS BROOK
DETOUR 'B'

VT. SURVEY
SURVEYED BY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 6/87
TRACED BY _____ DATE _____

U.S. ROUTE 2 – MARSHFIELD

PROJ. FEGC NO. F028-3(28)

SHEET 1 OF 5

345A

144853

PROFILE DETOUR "B"

SCALE: 1" = 50' HORZ.
1" = 10' VERT.



NOTE:
FOR REFERENCE ONLY
DO NOT INCLUDE IN
CONTRACT PLANS.

DETOUR 'B'
U.S RTE. 2 - MARSHFIELD
PROJ NO - FEGC 028-3 (28)
SHT. 2 OF 5

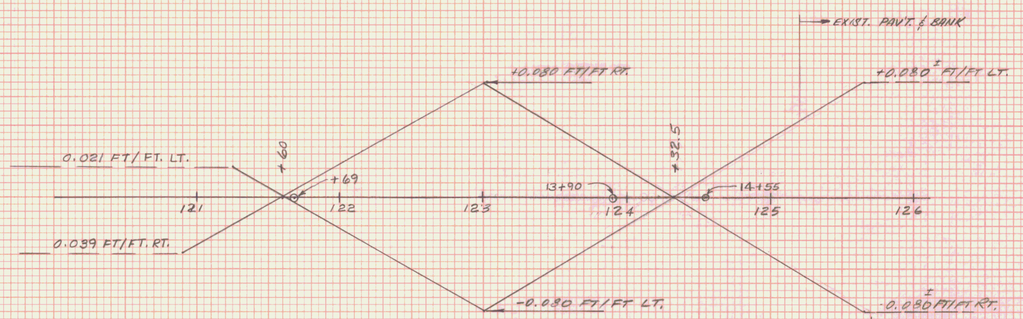
PLAN
NOTE BOOK
No.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

PROFILE
NOTE BOOK
No.
SURVEYED
PLOTTED
GRADES CHECKED
B. M. & NOTED
STRUCTURE NOTATIONS CHECKED
BY
DATE

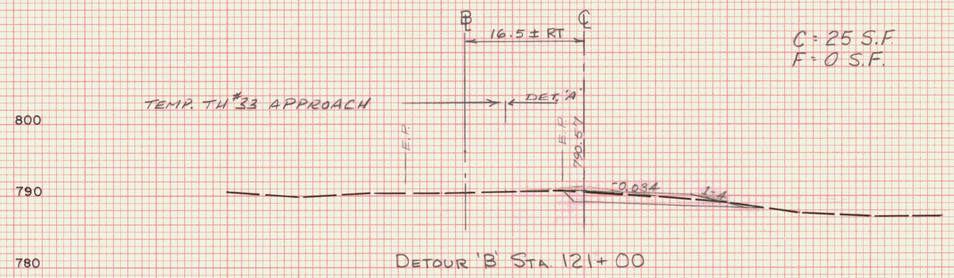
PLATE 1 PLAN-PROFILE C. P. R. & R. E. STANDARD
DIETZGEN CORPORATION
PRINTED IN U.S.A.

345B

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

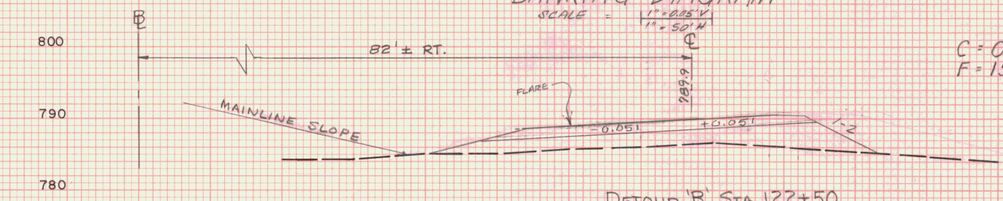


BANKING DIAGRAM
SCALE = 1" = 0.05' V, 1" = 50' H



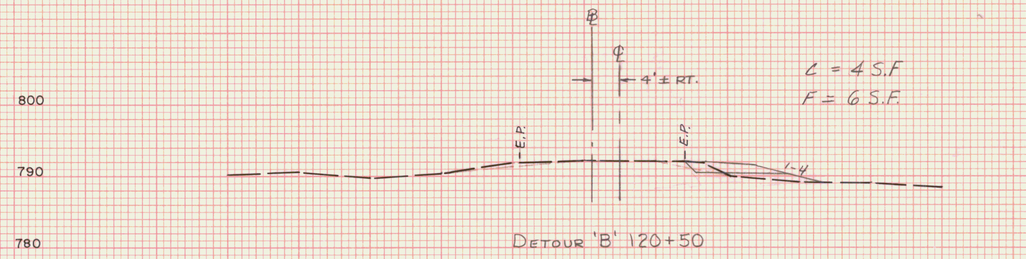
DETOUR 'B' STA. 121+00

C = 25 S.F
F = 0 S.F.



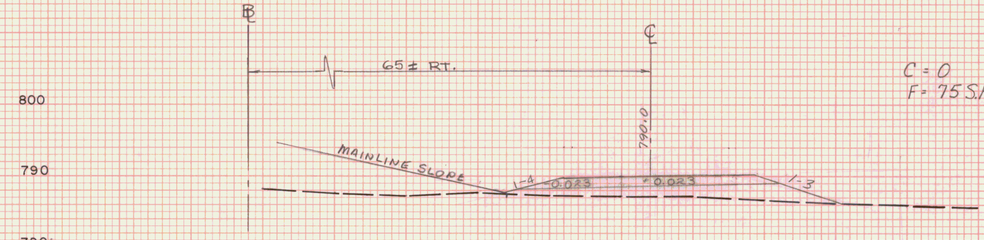
DETOUR 'B' STA. 122+50

C = 0
F = 152 S.F.



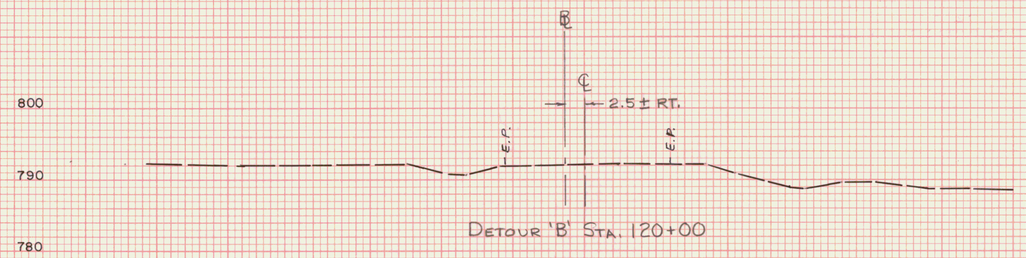
DETOUR 'B' 120+50

C = 4 S.F
F = 6 S.F.



DETOUR 'B' STA. 122+00

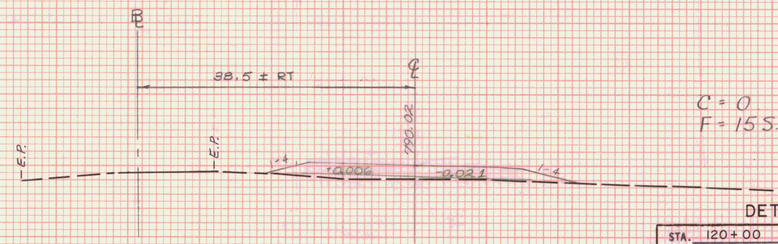
C = 0
F = 75 S.F.



DETOUR 'B' STA. 120+00

DETOUR P.O.T. 120+00 =
US RTE 2 ℄ STA. 247+50, 2.5' RT.
BEGIN DETOUR CONSTRUCTION

NOTE:
℄ OFFSETS TO DETOUR ℄ ARE
SCALED DISTANCES FROM AND
PERPENDICULAR TO SURV. ℄



DETOUR 'B' STA. 121+50

C = 0
F = 15 S.F.

DETOUR 'B'

STA.	120+00 STA. 122+50
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	22 OF 45 SHEETS

HORIZ AND VERT SCALE
0 10 20
VT SURVEY
SURVEYED BY: CONSULTANTS DATE 3/87

FINAL SURVEY
NOTE BOOK
No.
DATE
BY
SURVEYED
PLOTTED
TRACED
AREA
AREAS CHECKED

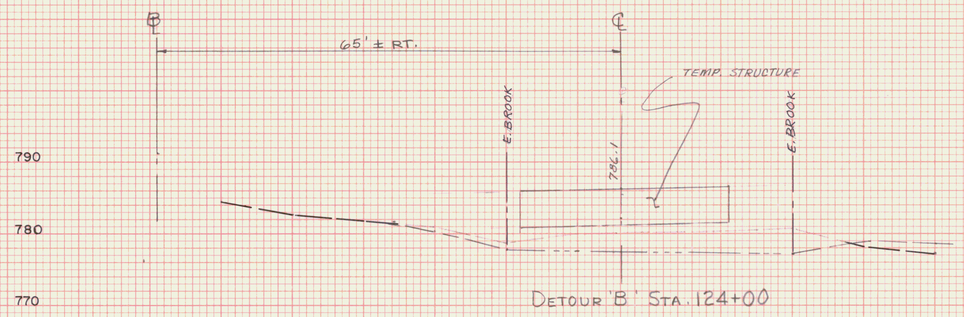
ORIGINAL SURVEY
NOTE BOOK
No.
DATE
BY
SURVEYED
PLOTTED
TRACED
AREA
AREAS CHECKED

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

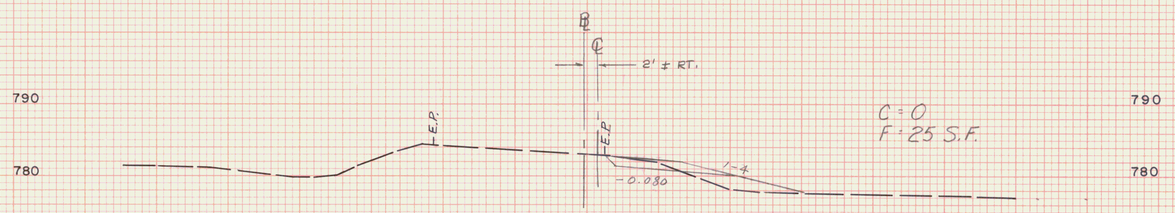
345C

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY
DATE
BY
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
NOTE BOOK
NO.

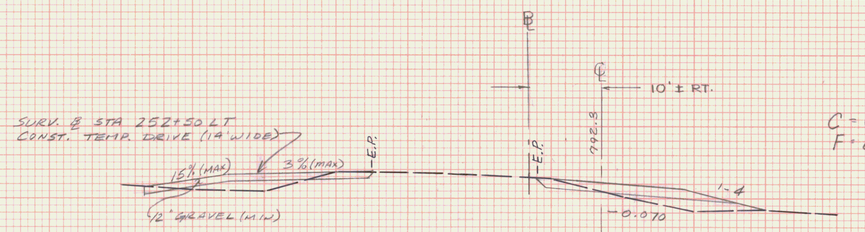


DETOUR 'B' STA. 124+00



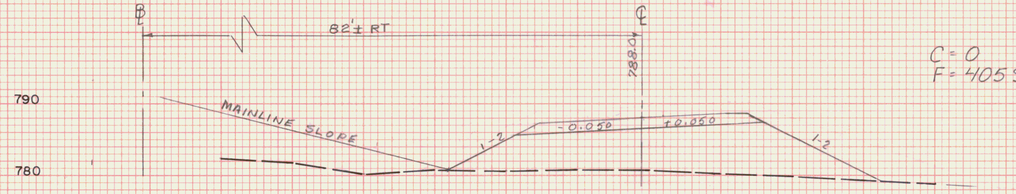
C = 0
F = 25 S.F.

DETOUR 'B' STA. 126+00



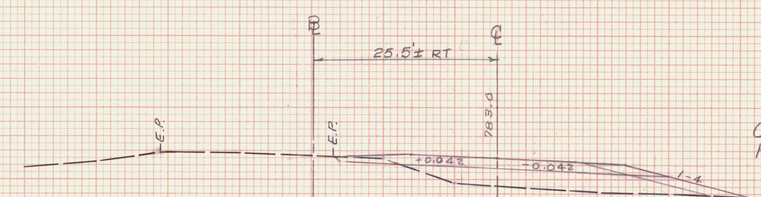
C = 0
F = 24 S.F.

DETOUR 'B' STA. 125+50



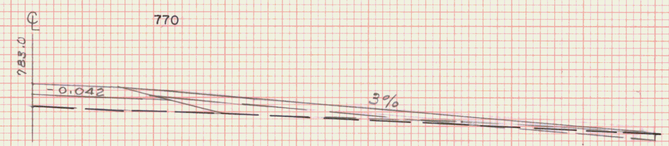
C = 0
F = 405 S.F.

DETOUR 'B' STA. 123+50

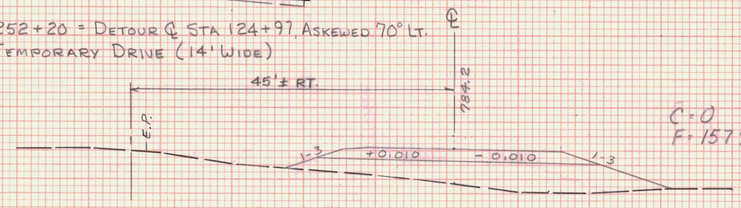


C = 0
F = 1025 S.F.

DETOUR 'B' STA. 125+00



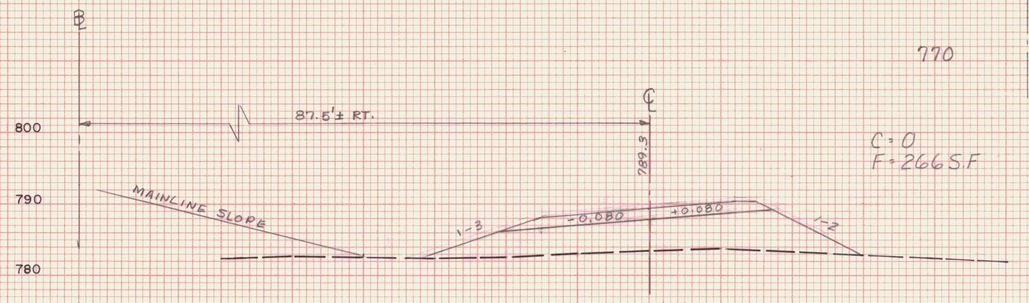
SURV. ℄ STA. 252+20 = DETOUR ℄ STA 124+97, ASKEWED 70° LT.
CONSTRUCT TEMPORARY DRIVE (14' WIDE)



C = 0
F = 157 S.F.

DETOUR 'B' STA. 124+50

ORIGINAL SURVEY
DATE
BY
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
NOTE BOOK
NO.



DETOUR 'B' STA 123+00

DETOUR 'B'

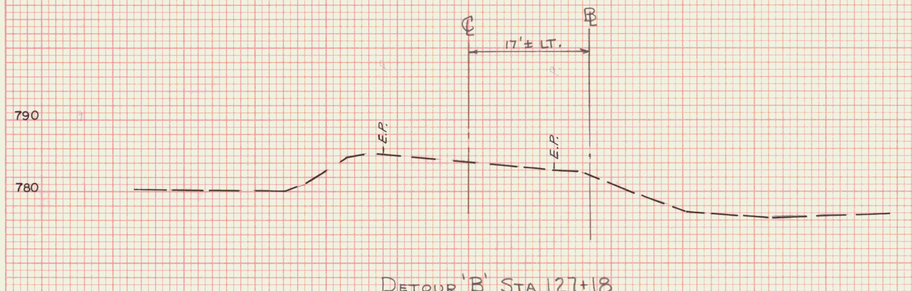
STA.	123+00 STA. 126+00
TOWN	MARSHFIELD
PROJECT	F NO. 028-3(28)
SHEET	24 OF 45 SHEETS
HORIZ AND VERT SCALE	0 10 20
SURVEYED BY	VT SURVEY CONSULTANTS DATE 3/87

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

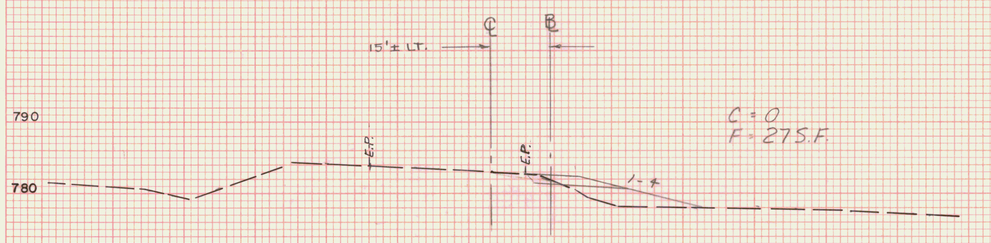
345D

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY NOTE BOOK No. ____
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE



DETOUR 'B' STA 127+18
U.S. RTE 2 SURV. ℄ STA 254+38, 17' LT. =
DETOUR PCC STA. 127+18
END DETOUR CONSTRUCTION



DETOUR 'B' STA 126+50

ORIGINAL SURVEY NOTE BOOK No. ____
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

DETOUR 'B'

STA. 126+50 STA. 127+18
TOWN MARSHFIELD
PROJECT F NO. 028-3(28)
SHEET 45 OF 45 SHEETS
HORIZ AND VERT SCALE
0 10 20
VT SURVEY
SURVEYED BY CONSULTANTS DATE 3/87

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

345E

U.S. ROUTE 2
MARSHFIELD
F028-3(28)

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

MARSHFIELD, VT.
U.S. ROUTE 2
PROJ. F028 - 3(28)
MAJOR STRUCTURES
BR - 100, BR - 110, BR - 120, & BR - 130

DETOURS 'A', 'B' & 'D'

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

117B