

INDEX OF SHEETS

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- SHEET NO. — PLAN AND PROFILE
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STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED
LA CROSSE-SPARTA ROAD
U.S.H. 16
LA CROSSE COUNTY
PROJECT T018-1(13) & A.F.E. 32-1640

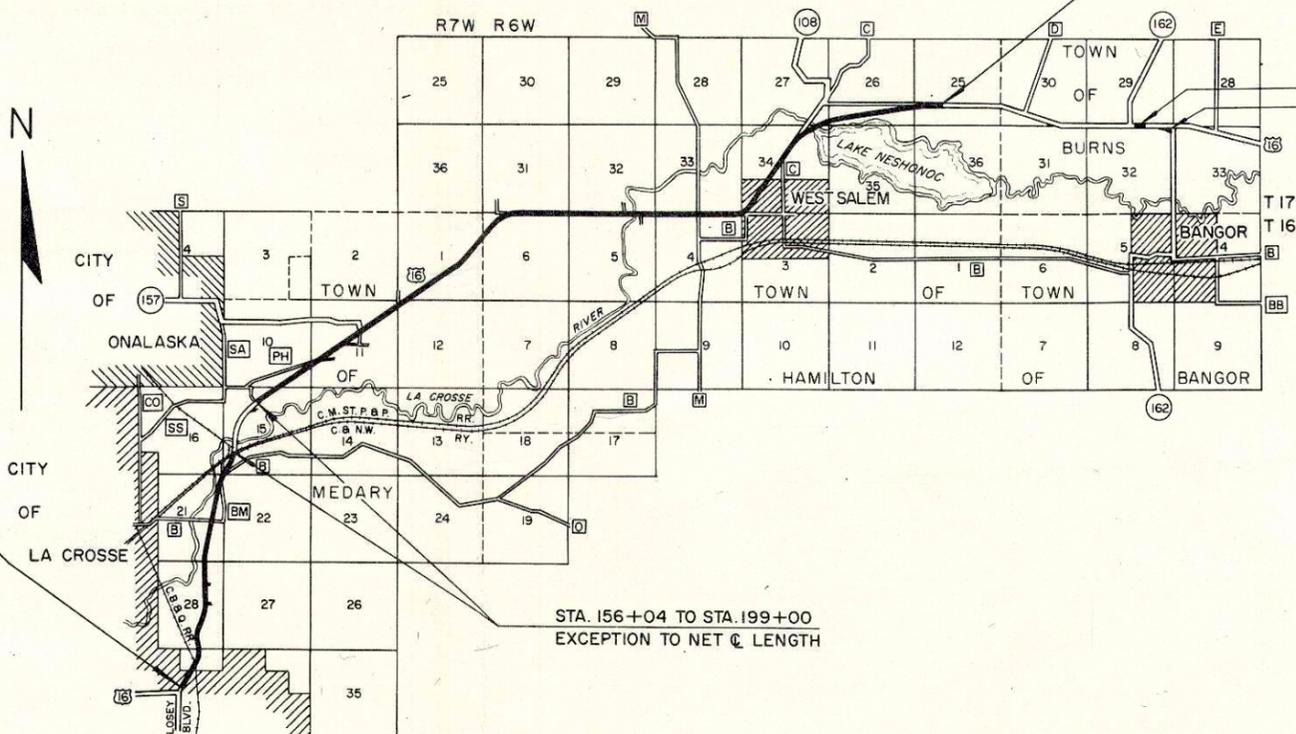
COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		S.P.R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
32.1	18.1	23.13		4 WIS.	1	8
32.0	—	31.1640				

PLAN 1 IN. = 100 FT.
PROFILE HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
CROSS SECTIONS HOR. 1 IN. = 5 FT. VERT. 1 IN. = 5 FT.

END OF PROJECT T018-1(13)
STA. 670+00 = STA. 670+00 PROJECT F.A.P. 397A(2)
1215' NORTH & 1259' EAST OF THE S.W. CORNER OF SECTION 25, T 17 N, R 6 W.

A.F.E. 32-1640
(STA. 797+50 TO 799+80)
(STA. 813+00 TO 818+66)

BEGINNING OF PROJECT T018-1(13)
STA. 3+73 = END OF PROJ. U08-3(37) STA. 164+92
280' NORTHEAST OF THE INTERSECTION OF LOSEY BLVD. & U.S.H. 16.



STA. 156+04 TO STA. 199+00
EXCEPTION TO NET C LENGTH

CONVENTIONAL SIGNS

- | | | | |
|---------------------------|-------|-------------------------------|------------------|
| STATE LINE | ----- | CULVERTS IN PLACE | ----- |
| COUNTY LINE | ----- | CULVERTS REQUIRED | ----- |
| TOWNSHIP OR RANGE LINE | ----- | DROP INLET | ----- |
| SECTION LINE | ----- | POWER POLE | ----- |
| NEW RIGHT OF WAY LINE | ----- | TELEPHONE OR TELEGRAPH POLE | ----- |
| PRESENT RIGHT OF WAY LINE | ----- | RIGHT OF WAY MARKERS | ----- |
| WIRE FENCE { WOVEN | ----- | REFERENCE STAKE FOR HUBS ONLY | ----- |
| { BARBED | ----- | MARSH | ----- |
| LOT LINE | ----- | HEDGE | ----- |
| CORPORATE OR CITY LIMITS | ----- | TREES | ----- |
| PROPERTY LINE | ----- | GROUND ELEVATION | DATUM LINE 73.9 |
| TRAVELED WAY OR P.E. | ----- | GRADE ELEVATION | DATUM LINE 75.16 |
| RAILROADS | ----- | | |
| BASE OR SURVEY LINE | ----- | | |

LAYOUT

SCALE 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.235 MI. URBAN
0.624 MI. MUNICIPAL
10.705 MI. RURAL
11.564 MI.

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYOR J.F.C. & J.E.L. NOTE BOOK L.L.
DIVISION COMPUTER E.J.H. M. O. CHECKER W.H.B.
DISTRICT CHECKER H.K.B. CORRECT

CORRECT:
DATE 12-7-65 *[Signature]* DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL:
DATE 12/13/65 *[Signature]* CHIEF DESIGN ENGINEER

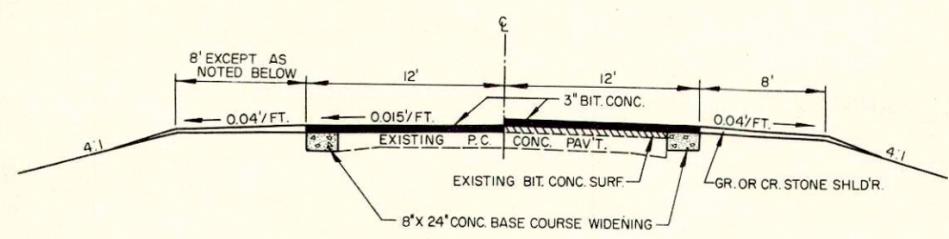
APPROVED:
DATE 12/16/65 *[Signature]* STATE HIGHWAY ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____ DATE _____

DIVISION ENGINEER

PROJECT	SHEET NUMBER	TOTAL SHEETS
T 018-1(13)	2	8

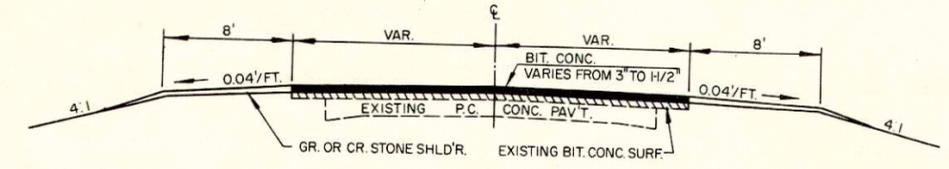


TYPICAL HALF SECTION

STA. TO STA.
3+73 - 17+16.6
25+28 - 104+00 LT.
20+23 - 104+00 RT. USE 10' SHOULDER
122+30 - 150+34
192+00 - 319+00
393+78 - 421+80
501+75 - 519+00
519+00 - 525+00 LT. USE 10' SHOULDER
523+75 - 564+00
590+00 - 594+05.7
597+10.2 - 670+00

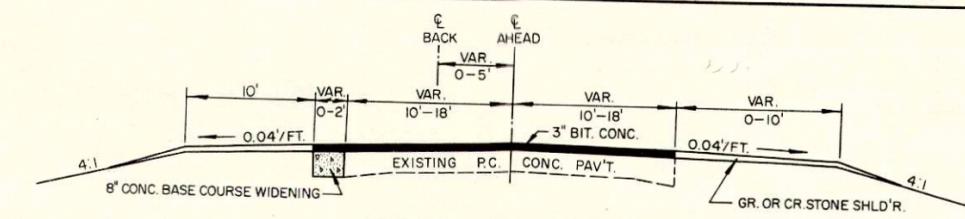
TYPICAL HALF SECTION

STA. TO STA.
319+00 - 327+80
327+80 - 342+00 LT.
391+20 - 393+78
388+27.4 - 391+20 LT.
421+80 - 460+36.25 RT.
465+32 - 471+00 RT.
471+00 - 487+00 LT.

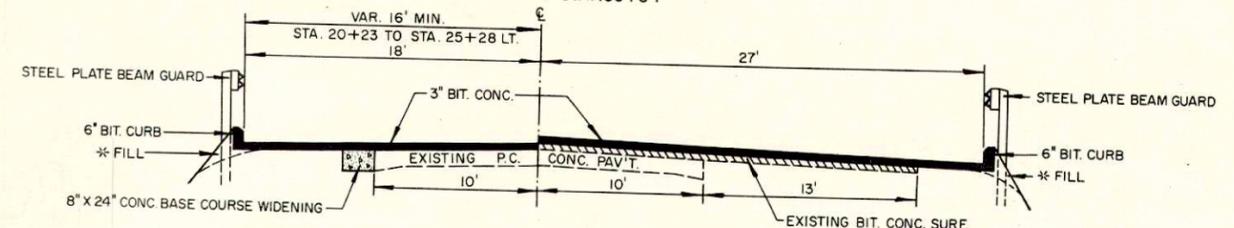


TYPICAL FULL SECTION

STA. TO STA.
104+00 - 108+15
118+15 - 122+30

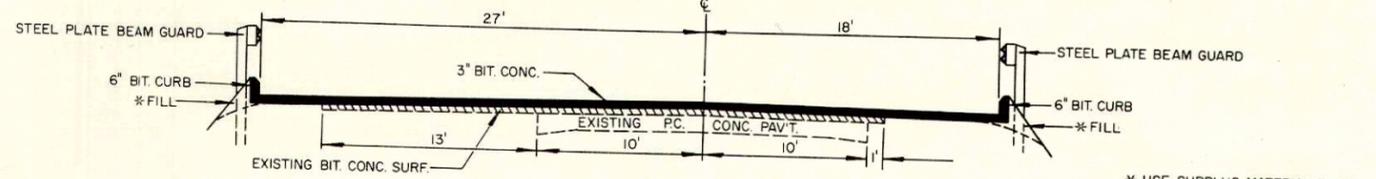


TYPICAL FULL SECTION
STA. 150+34 TO STA. 156+04



TYPICAL HALF SECTION
STA. 20+23 TO STA. 25+28
STA. 342+00 TO STA. 348+00 LT.
NOTE: UNIFORM TRANSITION FROM STA. 348+00 TO STA. 351+00

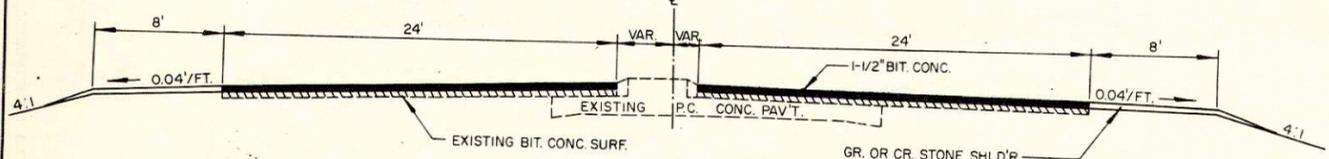
TYPICAL HALF SECTION
STA. 364+00 TO STA. 367+30 RT.
NOTE: UNIFORM TRANSITION FROM STA. 367+30 TO STA. 370+30



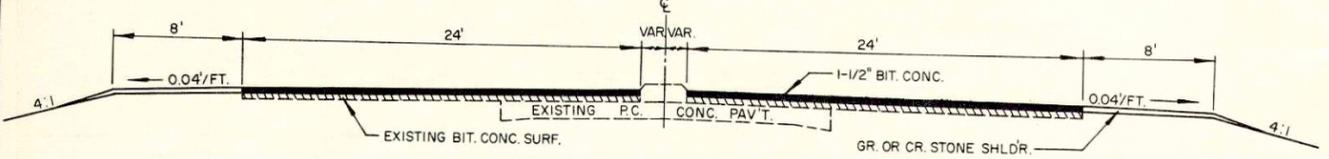
TYPICAL HALF SECTION
STA. 351+00 TO STA. 354+00 LT.

TYPICAL HALF SECTION
STA. 370+30 TO STA. 391+20 RT.

* USE SURPLUS MATERIAL FROM TRENCHING

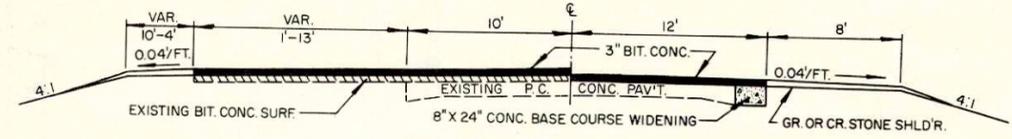


TYPICAL FULL SECTION
STA. 109+39 TO STA. 111+20



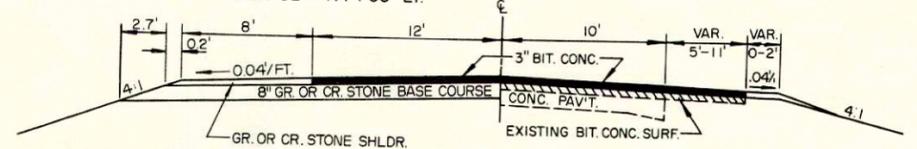
TYPICAL FULL SECTION

STA. TO STA.
108+15 - 109+15
111+20 - 111+96
112+20 - 112+79
113+50 - 114+75
114+99 - 118+15



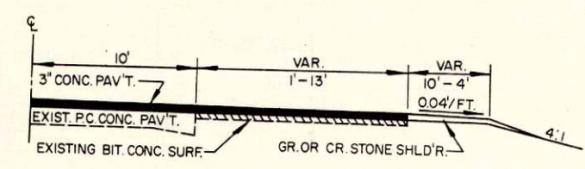
TYPICAL HALF SECTION
STA. 354+00 - 388+27.4 LT.
348+00 - 364+00 RT.
421+80 - 460+36.25 LT.
471+00 - 487+00 RT.
465+32 - 471+00 LT.

TYPICAL HALF SECTION
STA. TO STA.
487+00 - 498+20 LT.

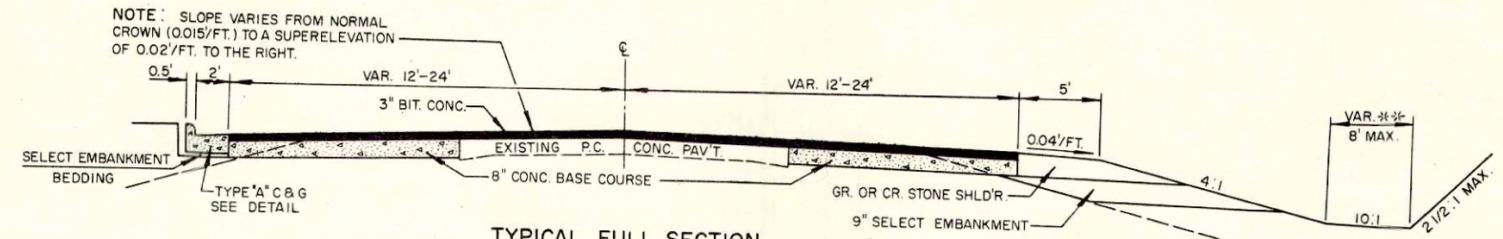


TYPICAL HALF SECTION
S.T.H. 108

TYPICAL HALF SECTION
STA. TO STA.
462+63.75 - 465+32



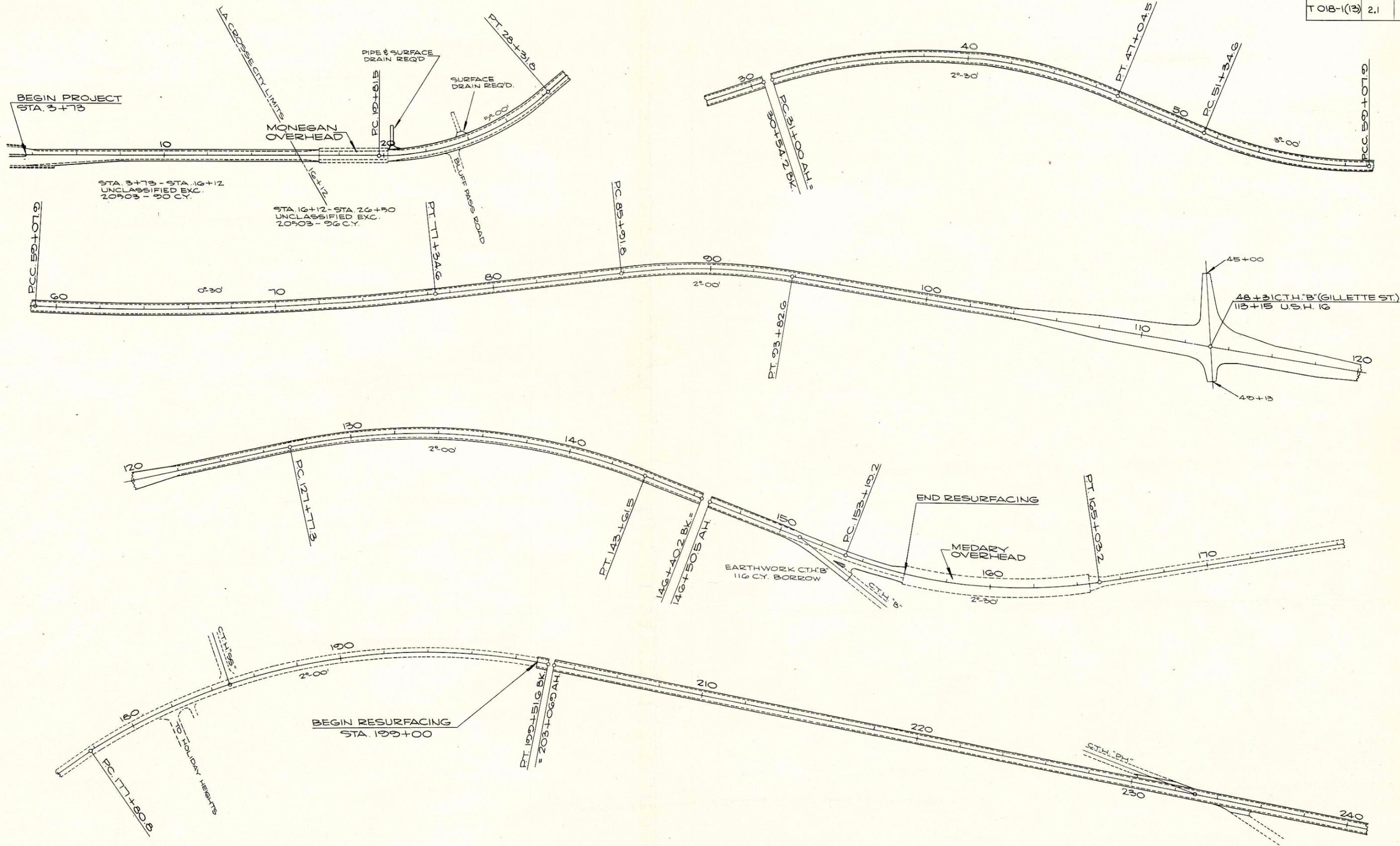
TYPICAL HALF SECTION
STA. TO STA.
327+80 - 348+00 RT.
487+00 - 498+20 RT.



TYPICAL FULL SECTION
STA. 564+00 TO STA. 590+00 LT.
STA. 568+00 TO STA. 590+00 RT. (TYPICAL HALF SECTION)
STA. 519+00 TO STA. 524+00 RT.

*** VARY DITCH WIDTH AND BACK SLOPE OR SHLD'R. SLOPE TO STAY WITHIN R/W LIMITS.

TYPICAL FINISHED RESURFACING SECTIONS



BEGIN PROJECT
STA. 3+73

STA. 3+73 - STA. 16+12
UNCLASSIFIED EXC.
20503 - 90 C.Y.

STA. 16+12 - STA. 26+30
UNCLASSIFIED EXC.
20503 - 96 C.Y.

MONEGAN
OVERHEAD

PIPE & SURFACE
DRAIN REQ'D

SURFACE
DRAIN REQ'D

BLUFF PASS ROAD

48+3 C.T.H.'B' (GILLETTE ST.)
113+15 U.S.H. 16

END RESURFACING

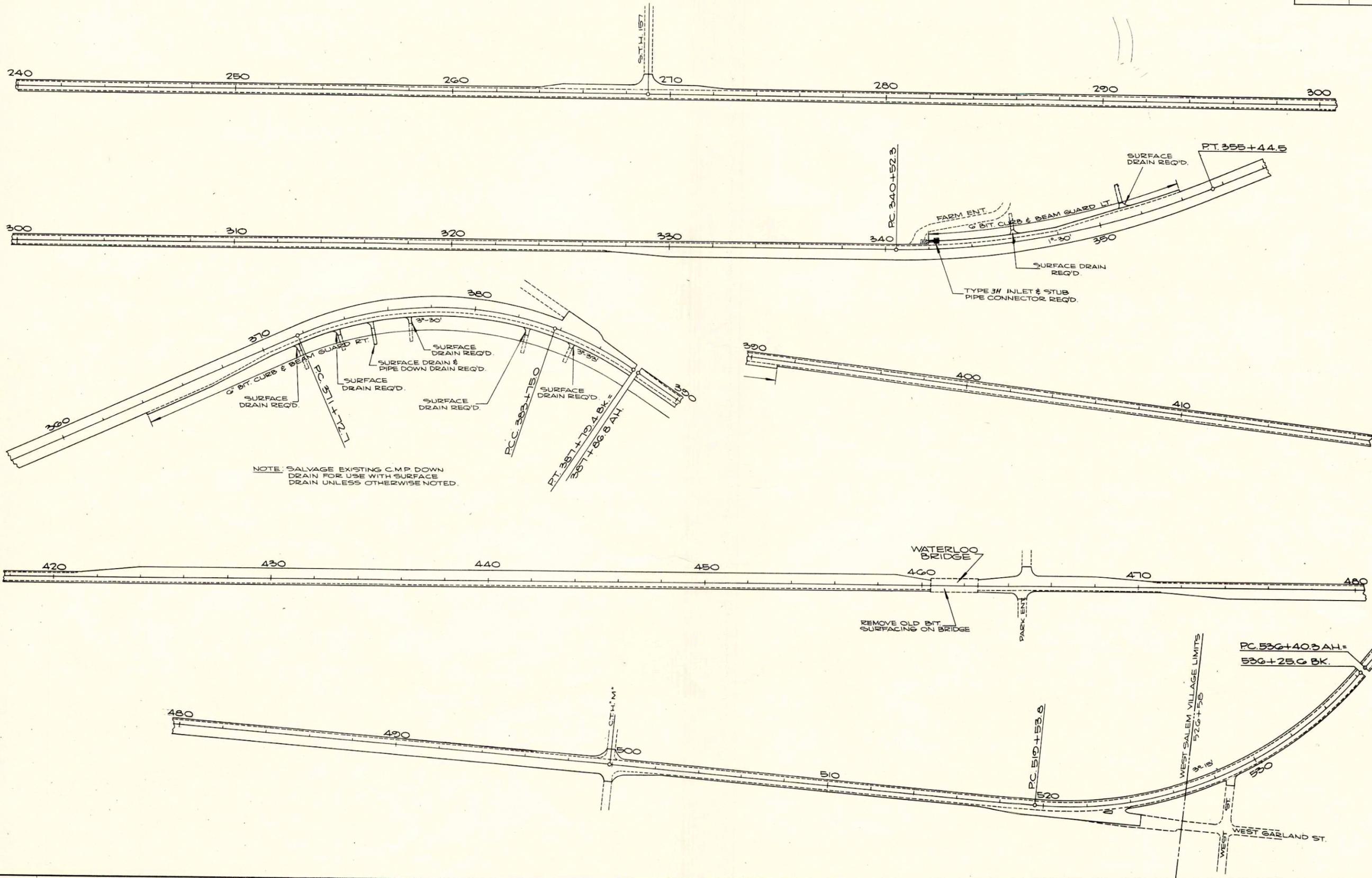
MEDARY
OVERHEAD

EARTHWORK C.T.H.'B'
116 C.Y. BORROW

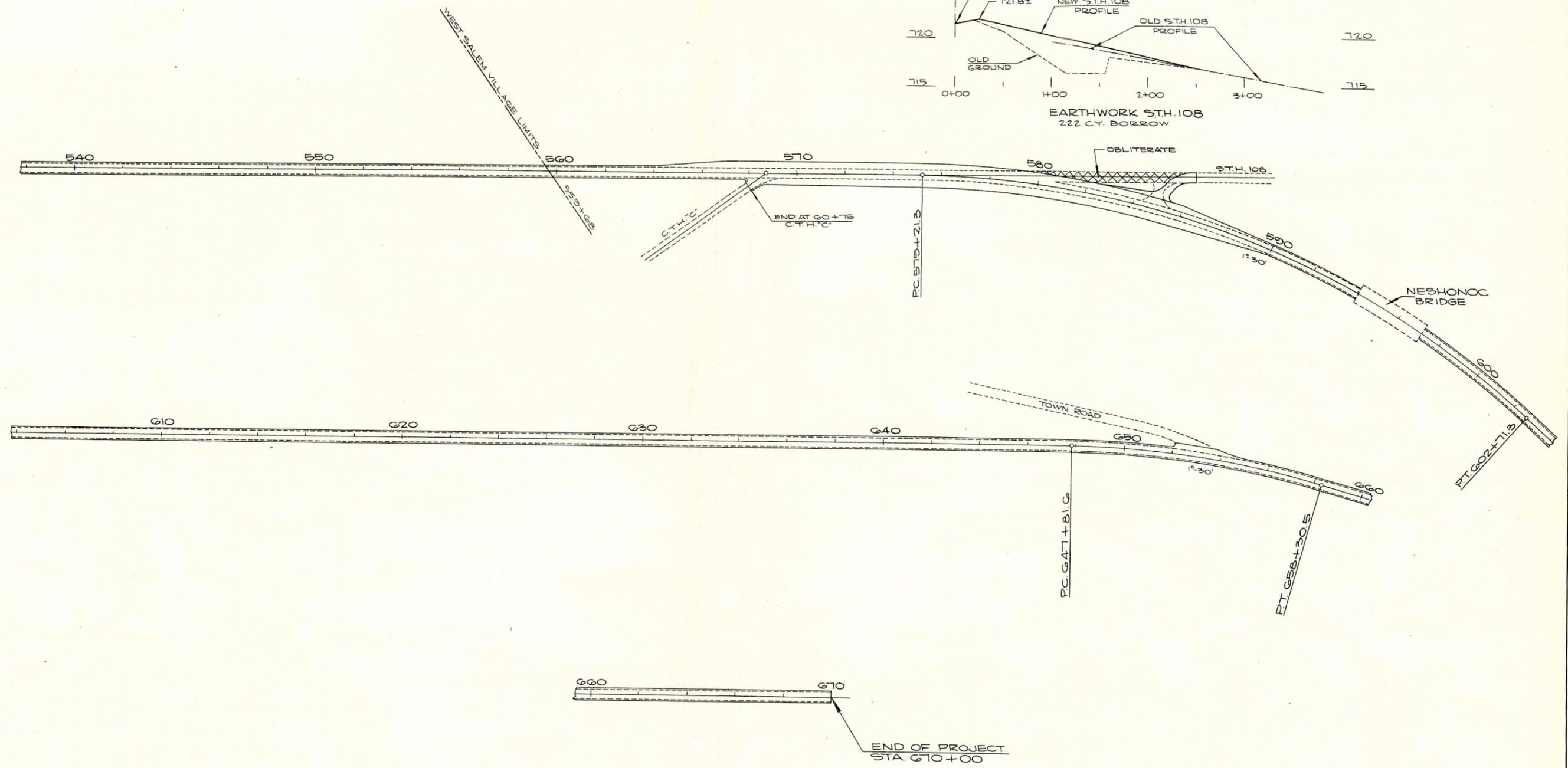
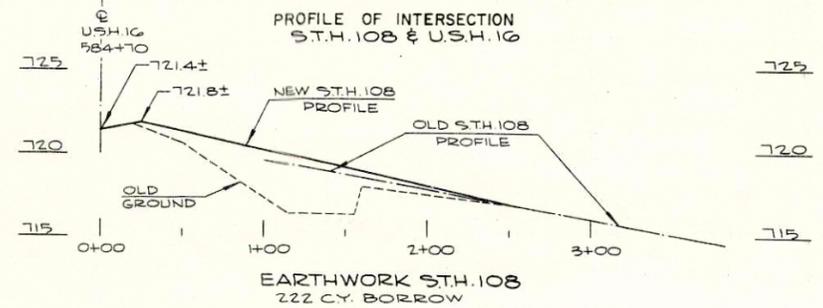
BEGIN RESURFACING
STA. 199+00

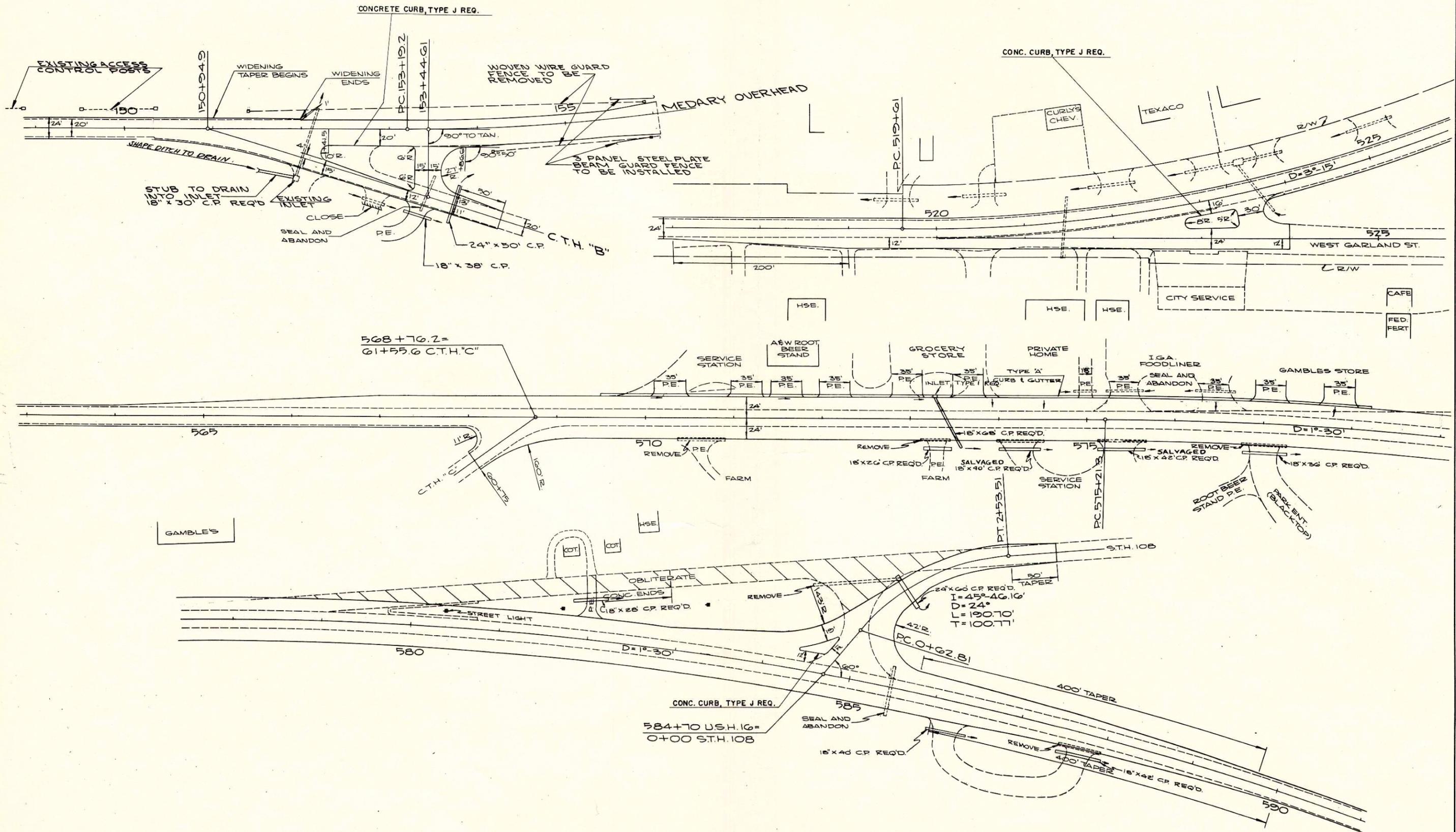
CITY ST.
HOLIDAY HEBERTS

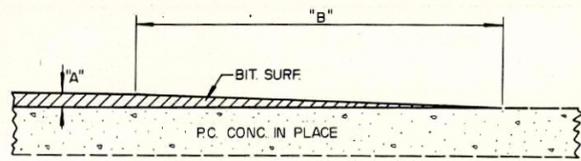
PROJECT	SHEET NUMBER	TOTAL SHEETS
T 018-1(13)	2.2	8



PROJECT	SHEET NUMBER	TOTAL SHEETS
T 018-1(13)	2.3	8

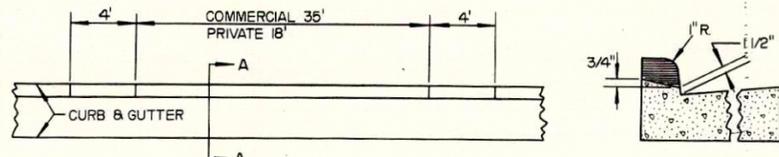




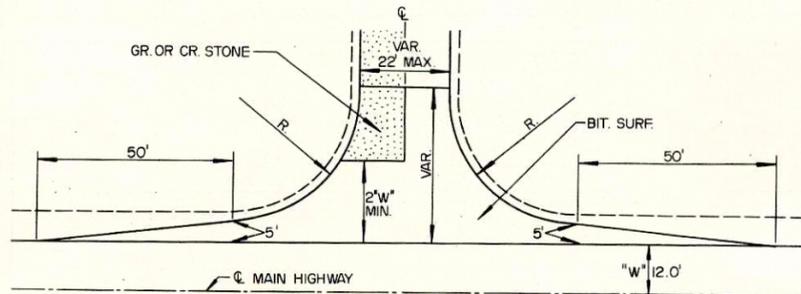


"A"	"B"
1 1/2"	75'
3"	125'

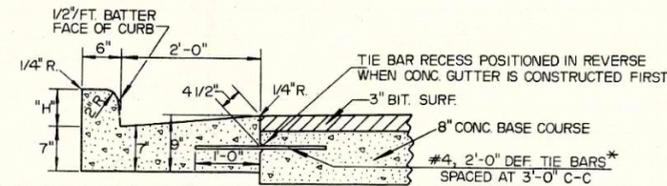
PROFILE OF RUNOUT OF BITUMINOUS SURFACE AT BRIDGES AND AT END OF JOB



DETAIL OF PRIVATE ENTRANCES



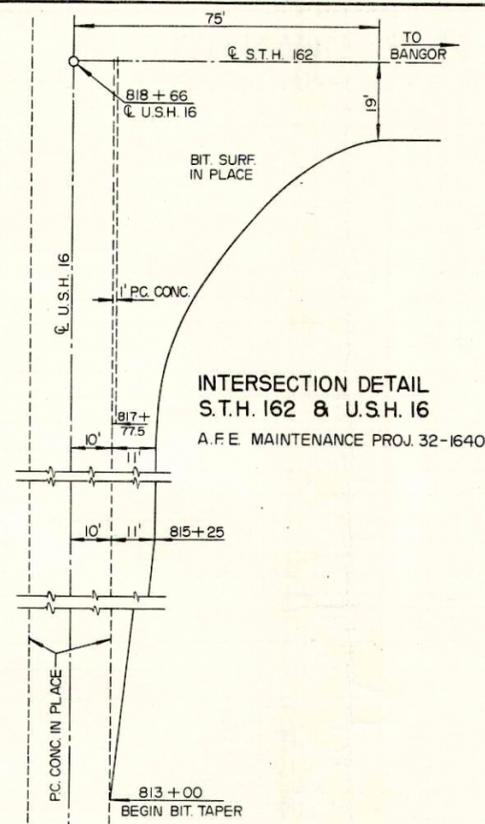
SIDE ROAD DETAIL



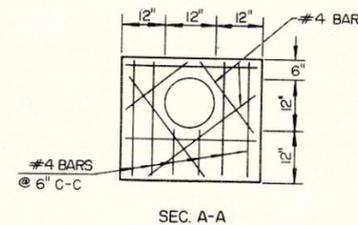
"H" = 9" MAX., 3 1/2" MIN., AND SHALL BE 6" UNLESS OTHERWISE SHOWN ON THE PLANS

*ALTERNATE TIE BARS OR BOLT TYPE INSTALLATIONS MAY BE USED AS SHOWN FOR LONGITUDINAL JOINTS

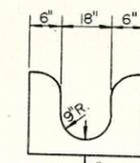
TYPE "A" CONCRETE CURB & GUTTER DETAIL



INTERSECTION DETAIL S.T.H. 162 & U.S.H. 16
A.F.E. MAINTENANCE PROJ. 32-1640



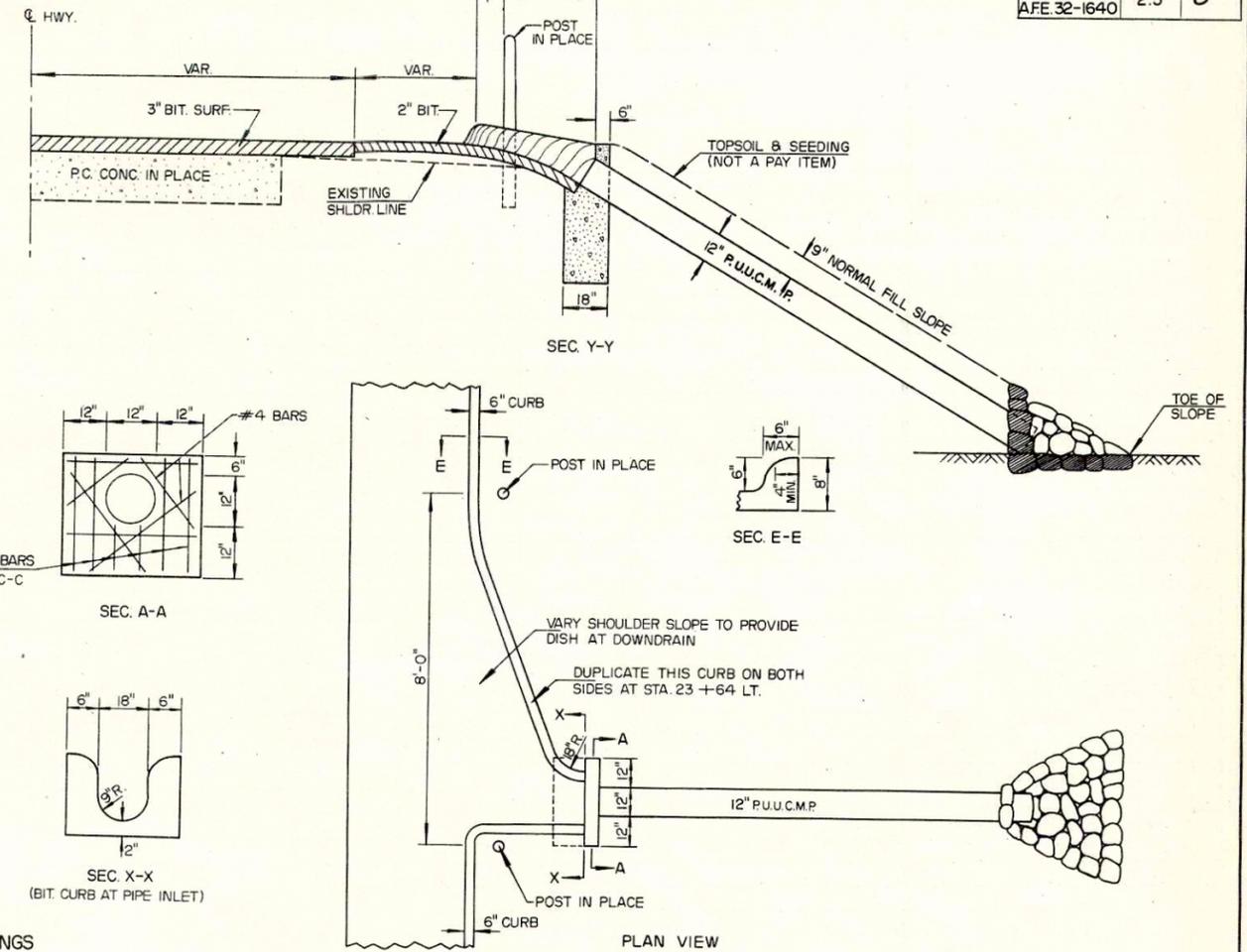
SEC. A-A



SEC. X-X
(BIT. CURB AT PIPE INLET)

APPLICABLE STANDARD DETAIL DRAWINGS

- 5-3.4.7 CATCH BASIN & INLET COVERS
- 5-3.5.2 INLETS
- 7-4.1.4 CONSTRUCTION BARRICADE
- 7-2.4.10 STEEL PLATE BEAM GUARD & STEEL BEAM MEDIAN GUARD
- 9-1.1.4 DESIGN AND LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS
- 6-2.6.4 APRON ENDWALLS

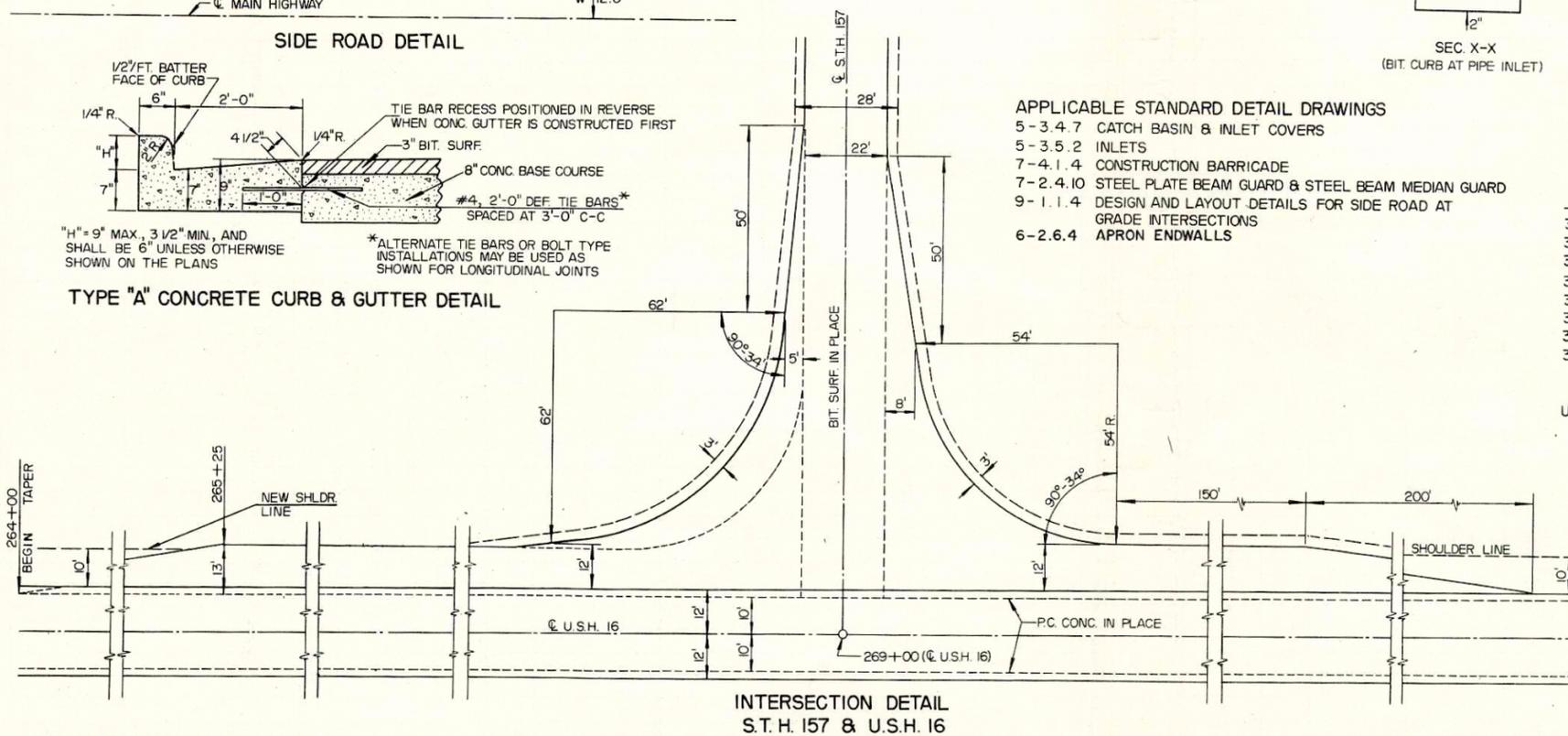


CONCRETE MASONRY AND PIPE FOR SHOULDER DRAINS

STA.	SURFACE DRAIN	CONC. MASONRY	BAR ST. REINF.	RIPRAP	PIPE
384+75 RT.	B.C.	0.3 CY.	INCLD.	-	USE EXIST.
382+40 RT.	"	0.3 CY.	"	-	"
376+90 RT.	"	0.3 CY.	"	-	"
375+22 RT.	"	0.3 CY.	"	1.0 CY.	12" X 40'
373+63 RT.	"	0.3 CY.	"	-	USE EXIST.
371+62 RT.	"	0.3 CY.	"	-	"
346+00±LT.	"	0.3 CY.	"	-	"
351+00±LT.	"	0.3 CY.	"	-	"
20+23 LT.	"	0.3 CY.	"	1.0 CY.	12" X 100'
23+64 LT.	"	0.3 CY.	"	-	USE EXIST.
UNDISTRIBUTED	-	1.0 CY.	-	1.0	-

GENERAL NOTES

1. WHEN THE QUANTITY OF THE ITEMS OF SUBBASE, BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL DIRECTED BY THE ENGINEER.
2. TOPSOIL TO BE PLACED AS DIRECTED ON TYPICAL SECTIONS TO AN APPROXIMATE DEPTH OF 3" AT TIME OF PLACING.
3. THE EXACT LOCATION OF PRIVATE ENTRANCES TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
4. CURVE DATA IS BASED ON ARC DEFINITION.



INTERSECTION DETAIL S.T.H. 157 & U.S.H. 16

MISCELLANEOUS DETAILS

DETAIL SUMMARY OF MISCELLANEOUS QUANTITIES

Sec.	GRAVEL OR CRUSHED STONE BASE COURSE & SHOULDERS	Ton	Curb & Gutter, Type A	Location	L.F.
1	Sta. - Sta. 3+73 - 16+12 Undistributed	70 1	Sta. - Sta. 569+50 - 578+20	Lt.	900
2	20+23 - 104+00 104+00 - 122+30 (CTH "B" Int.) 122+30 - 150+34 150+34 - 156+04. (CTH "B" Int.) 199+00 - 327+80 S.T.H. 157 Int. 327+80 - 391+20 391+20 - 421+80 421+80 - 460+36 462+64 - 466+00 466+00 - 513+00 513+00 - 526+58 559+68 - 564+00 564+00 - 590+00 S.T.H. 108 Int. 590+00 - 594+07 597+10 - 670+00 Undistributed	6,700 800 2,420 350 7,145 40 2,840 1,275 1,845 75 2,240 480 180 1,185 305 275 3,830 3,205	Sec. 2	Loc. Lt. Rt. Lt.	905 2,720 1,200
3	526+58 - 559+68 Undistributed	2,505	CONCRETE CURB, TYPE J AND SOD	Curb L.F.	Sod S.Y.
	REMOVING BITUMINOUS CONCRETE PAVEMENT		Sta. Location	L.F.	S.Y.
2	160+39 - 162+61 (Waterloo Bridge)	740	152+75 CTH "B" Int. 523+10 W. Garland St. Int. 584+70 STH 108 Int. Undistrib.	280 155 103	417 111 52
2	REMOVING PORTLAND CEMENT CONCRETE PAVEMENT		P.C. CONCRETE BASE COURSE WIDENING	Loc. Lt. Rt.	S.Y. Lt. Rt.
	576+00 - 583+00 - Lt. 573+40 South Approach to Medary Overhead Undistributed	1,172 14 220 194	Sta. - Sta. 4+00 - 16+12 7+00 - 16+12	Lt. & Rt.	270 203 27 1,845 1,845 650 624 220 1,439 2,783 1,216 315 67 663 1,485 131 1,241 339 63 96 185 67 61 3,240 1,560
2	REMOVING REFLECTORIZED CURB	200	REMOVING LIP CURB	Lt. & Rt.	1,465
	580 - Lt.		Sta. - Sta. 10+24 - 16+12 10+73 - 16+12	Loc. Lt. Rt.	588 539
2	OBLITERATING OLD ROAD		TOPSOIL AND SEEDING	Topsoil S.Y.	Seeding S.Y.
	583+00 - 586+00, Lt. (STH 108) 264+50 - 268+00, Lt. (STH 157)	300 200	Sta. - Sta. 3+73 - 10+24 365+00 - 391+00 569+00 - 590+00	Lt. & Rt.	435 1,720 5,710
1	REMOVING BEAM GUARD OR GUARD FENCE		STEEL PLATE BEAM GUARD	Station	L.F.
	16+66.5 - 17+16.5 20+23 - 25+28 151+38 - 155+94 153+97 - 155+94 342+20 - 353+95 364+85 - 386+25	100 505 456 197 1,175 2,142	Sta. - Sta. Monegan Overhead Approach Medary Overhead Approaches 342+00 - 354+00 - Lt. 364+00 - 391+20 - Rt.	342+00 + 573+30 +	627 81 1,218 2,718
2	REMOVING CONCRETE SURFACE DRAINS		INLETS	Loc. Lt.	Cover H A
	Station Location	Each	342+00 + 573+30 +	Type	
1	10+24 10+73	1 1		3 1	
2	20+23 23+64 308+78 313+55 407+19 412+08 417+02	1 1 2 2 2 2 2			
2	573+10	1			

PROJECT	SHEET NO.	TOTAL SHEETS
T 018-1 (13)	3A	8

DETAIL SUMMARY OF MISCELLANEOUS QUANTITIES

BITUMINOUS CONCRETE PAVEMENT

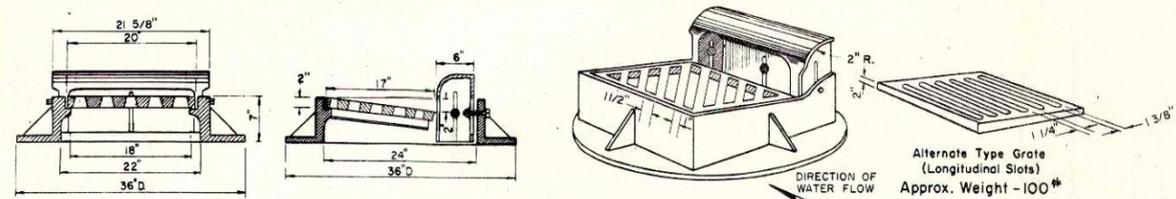
Sec.	Sta. - Sta. Undistributed	Location	Bit. Mat. for Prime		Bit. Pavt.		Bit. Mat. for Surf. Course	
			Gal.	8	Ton	60	Ton	4
1.	3+73 - 16+12 Undistributed	Mainline	165	8	603	60	36	4
		Mainline						
		Mainline	14		30		2	
		CTH "B" Int.	1,147		4,878		293	
		Mainline	557		1,725		103	
		Mainline	374		1,786		107	
		CTH "B" Int.	137		558		33	
		Mainline	1,666		6,540		392	
		-	56		170		10	
		Mainline	1,425		6,552		393	
		Mainline	374		1,556		93	
		Mainline	723		3,456		207	
		Mainline	88		347		21	
		Mainline	853		3,490		209	
		Mainline	200		753		45	
Mainline	58		221		13			
Mainline	637		2,329		140			
-	72		245		15			
Mainline	54		156		9			
Mainline	972		3,361		210			
Mainline	500		3,819		229			
3	526+58 - 559+68 Undistributed	Mainline	440		1,691		101	
			20		169		10	
4	797+50 - 799+80 813+00 - 818+66 Undistributed	Mainline	31		61		4	
		Deceleration Lane	39		130		8	
			5		9		1	

Sec.	Station	Location	Conc. Mas.		SURFACE DRAINS		Riprap C.Y.	Remarks
			C.Y.	0.3	Bar Stl. Reinf.	Lbs. Incid.		
2	20+23	Lt.	0.3				1.0	100' x 12"
	23+64	Lt.	0.3				-	Connect to Existing
	346+00	Lt.	0.3				-	Connect to Existing
	351+00	Lt.	0.3				-	Connect to Existing
	371+62	Rt.	0.3				-	Connect to Existing
	373+63	Rt.	0.3				-	Connect to Existing
	375+22	Rt.	0.3				1.0	40' x 12"
	376+90	Rt.	0.3				-	Connect to Existing
	382+40	Rt.	0.3				-	Connect to Existing
	384+75	Rt.	0.3				-	Connect to Existing
	Undistributed			1.0				

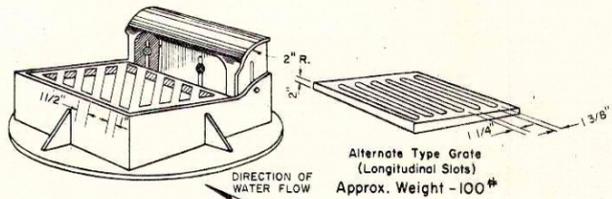
MINOR SIDE ROADS, PRIVATE ENTRANCES AND SLOPE DRAINS

Sec.	Sta.	Location	Length		Diameter		Type	Apron Endwalls
			L.F.	Inches	Inches			
2	20+23	Lt.	100		12		P.U.U.C.M.P.	0
	0+80	Rt. CTH "B"	30		18		C.P.	1
	2+50	Rt. CTH "B"	38		18		C.P.	2
	2+80	CTH "B"	50		24		C.P.	2
	375+22	Rt.	40	+	12		P.U.U.C.M.P.	0
	342+00	Inlet Stub	18	+	18		C.P.	0
	573+30	P.E., Rt.	26		18		C.P.	2
	574+23	P.E., Rt.	40		18		C.P. (SALVAGED)	2
	575+10	P.E., Rt.	42		18		C.P. (SALVAGED)	2
	577+02	P.E., Rt.	36		18		C.P.	2
	582+00	P.E., Lt.	28		18		C.P.	2
	586+25	P.E., Rt.	40		18		C.P.	2
	1+50	STH 108	60		24		C.P.	2
	587+64	P.E., Rt.	42		18		C.P.	2

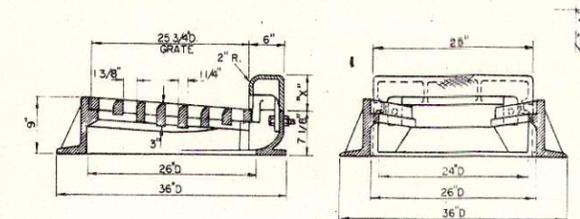
PROJECT	SHEET NO.	TOTAL SHEETS
T 018-1(13) A.F.E. 32-1640	3B	8



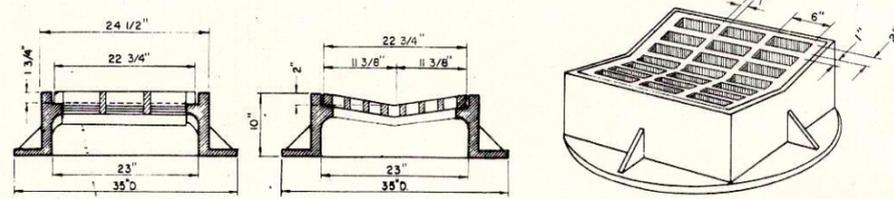
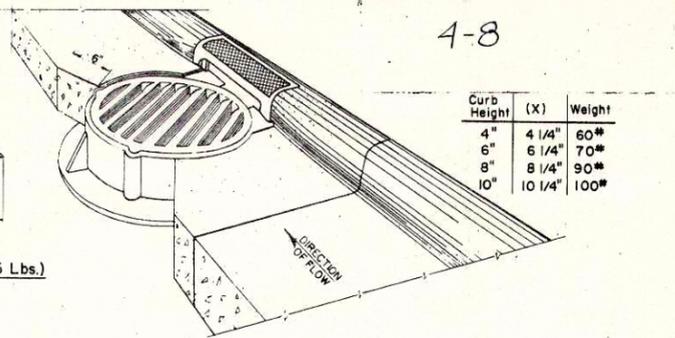
TYPE "A" - (Approx. Weight 390 Lbs.)
 Frame Weight - 250#
 Grate " - 90#
 Box " - 50#



Alternate Type Grate
 (Longitudinal Slots)
 Approx. Weight - 100#



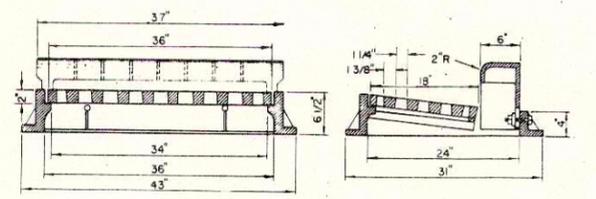
TYPE "G" - (Approx. Weight 425-465 Lbs.)
 Frame Weight - 235#
 Grate " - 130#
 Box - See Table



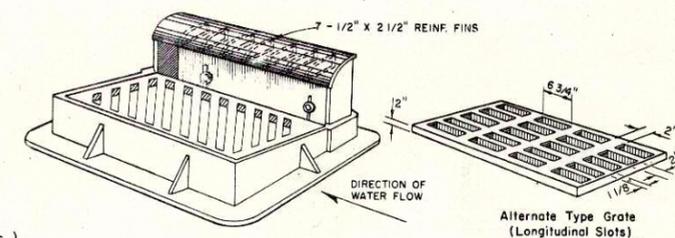
TYPE "B" - (Approx. Weight 414 Lbs.)
 Frame Weight - 275#
 Grate " - 139#

SPECIAL NOTE
 Diagonal slots shall be oriented to the direction of flow as shown hereon. Hence RIGHT and LEFT grates shall be furnished depending on direction of flow. (See Sketch Below)

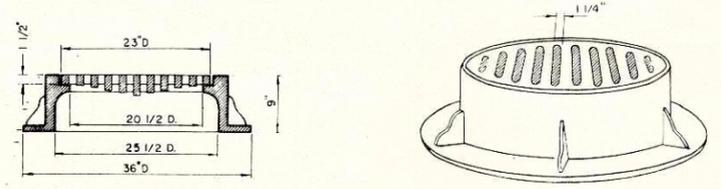
Longitudinal slot type grates may be used ONLY where bicycles are prohibited.



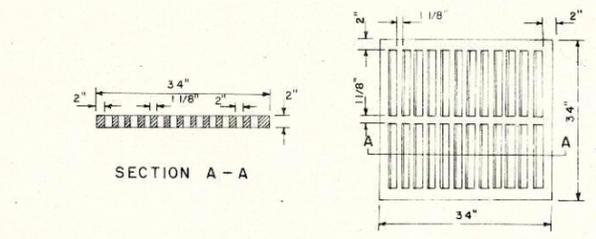
TYPE "H" - (Approx. Weight 530 Lbs.)
 Frame Weight - 220#
 Grate " - 200#
 Box " - 110#



Alternate Type Grate
 (Longitudinal Slots)
 Approx. Weight - 200#



TYPE "C" - (Approx. Weight 370 Lbs.)
 Frame Weight Type "C" & Type "D" - 255#
 Slotted Grate Weight - 115#
 Solid Cover Weight - 150#
 (Note: Frame for Type "C" same as for Type "D")



INLET COVER TYPE MS
 GRATE WEIGHT 270#

GENERAL NOTES:
 Details of Construction, Materials and Workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

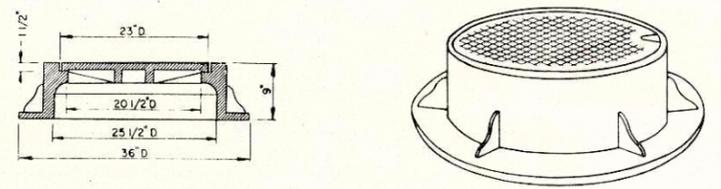
MATERIALS—
 All Iron Castings shown on this drawing shall conform to the requirements for Class 30 of the Standard Specifications for Gray Iron Castings, A.S.T.M. Designation A 48, and the Standard Specifications.

BEARING SURFACES—
 All Catch Basin and Inlet frames and grates which are placed in vehicular traffic areas shall be "Non-Rocking" type, or shall be "Bearing Surface" seated so as to prevent any or all cover noise under traffic.

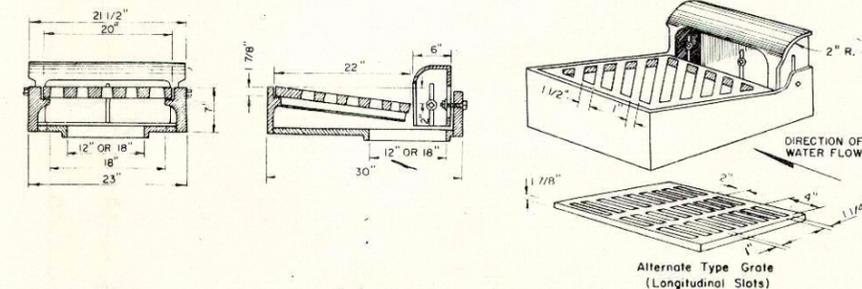
NOMENCLATURE—
 All Catch Basin and Inlet units are designated on the Plans as "Catch Basins 1-A, 2-B etc., or Inlets 1-A, 3-H etc. This designation is interpreted to mean that the number or first digit designates the Masonry portion of the structure, and the following letter or second digit designates the type of cover or Iron Casting (shown hereon) to be used therewith to comprise the complete Unit "Catch Basin" or "Inlet" in place.

ADJUSTMENTS—
 Curb Box height to be adjustable 4"-9" unless otherwise noted. Curb Box height to be adjusted after curb form is in place.

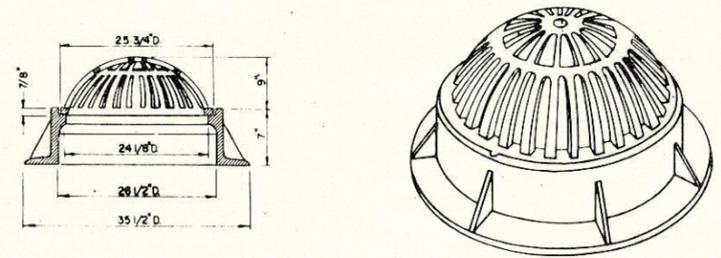
ALTERNATE DESIGNS—
 Detailed drawings for proposed Alternate Designs for "Catch Basin" or "Inlet" Covers may be submitted to the Engineer for approval providing that such Alternate Designs make provision for equivalent capacity and strength.



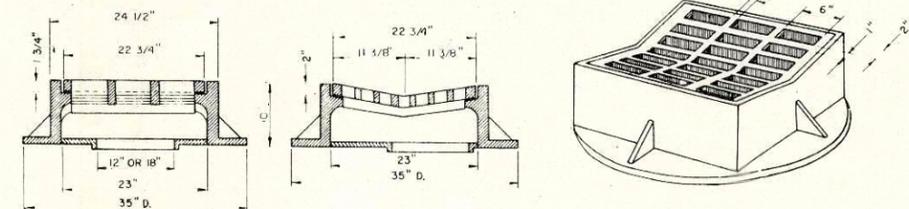
TYPE "D" - (Approx. Weight 405 Lbs.)
 (Note: Frame for Type "D" same as for Type "C")



TYPE "R" - (Approx. Weight 450 Lbs.)



TYPE "E" - (Approx. Weight 325 Lbs.)



TYPE "S" - (Approx. Weight 450 Lbs.)

CATCH BASIN & INLET COVERS

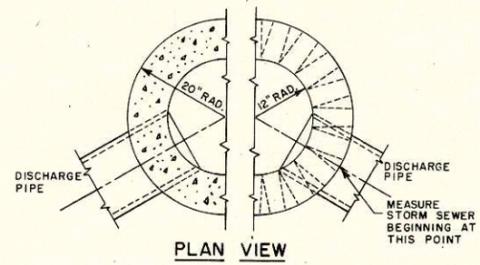
STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

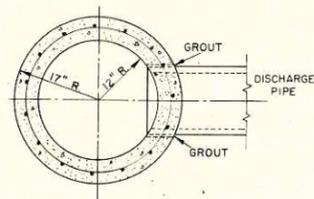
DATE: 11-23-63
 DATE: 12/3/63

ENGINEER OF DESIGN
 STATE HIGHWAY ENGINEER

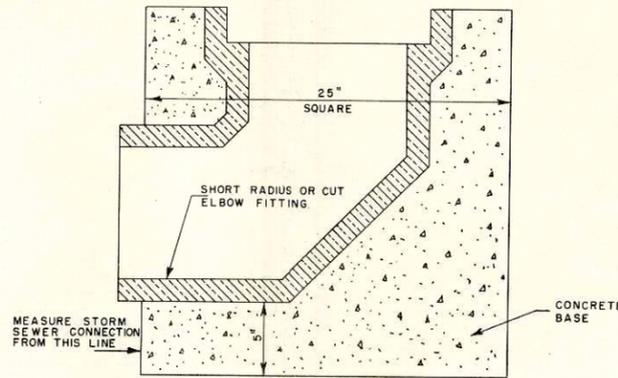
PLATE NO. 5-34.7



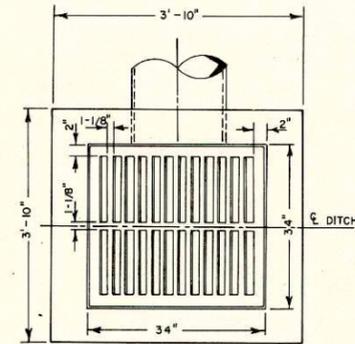
PLAN VIEW



PLAN VIEW

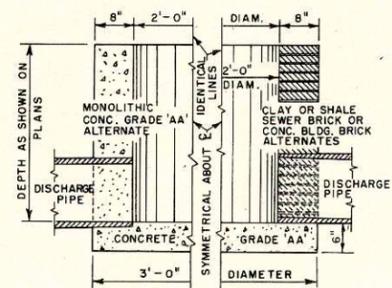


INLET TYPE 2



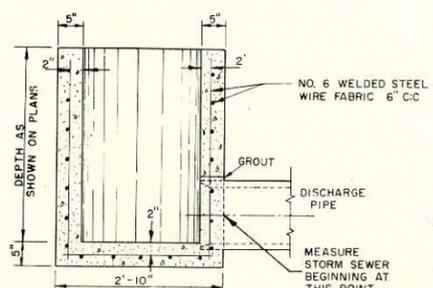
PLAN VIEW

4.1-8



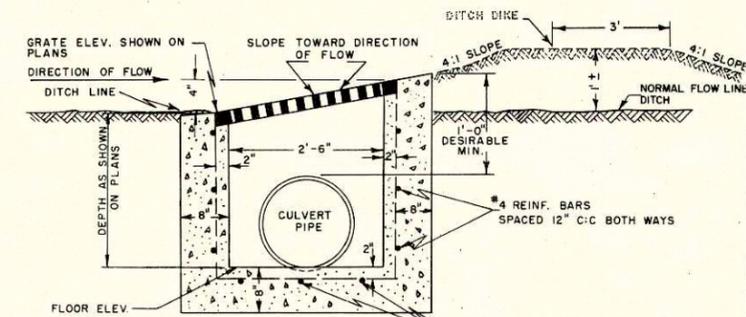
ELEVATION VIEW

SHOWING DETAILS FOR MONOLITHIC CONCRETE, CLAY OR SHALE SEWER BRICK, OR CONCRETE BUILDING BRICK ALTERNATES FOR



ELEVATION VIEW

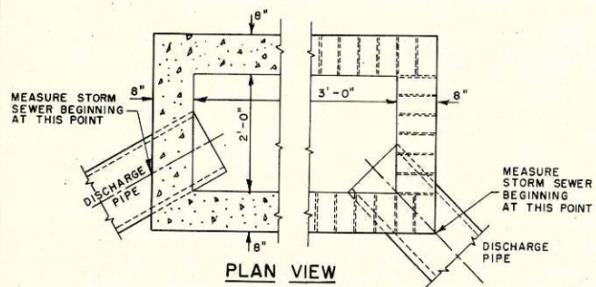
SHOWING DETAILS FOR PRE-CAST CONCRETE ALTERNATE FOR



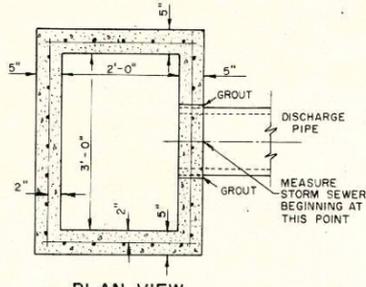
SIDE ELEVATION

INLET TYPE 8

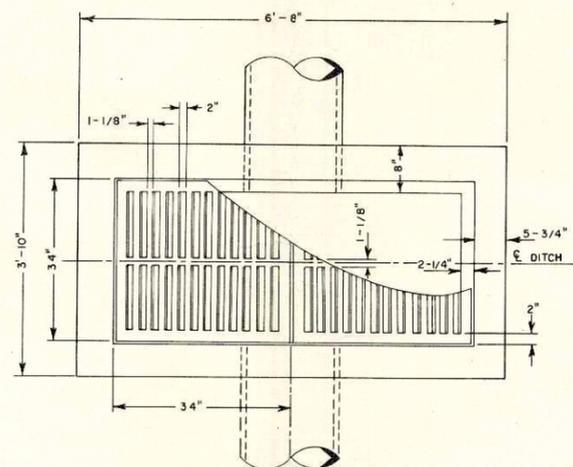
INLET TYPE 1



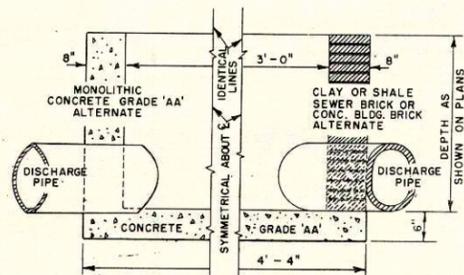
PLAN VIEW



PLAN VIEW

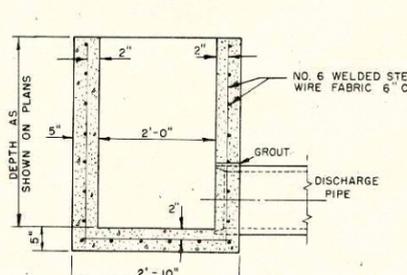


PLAN VIEW



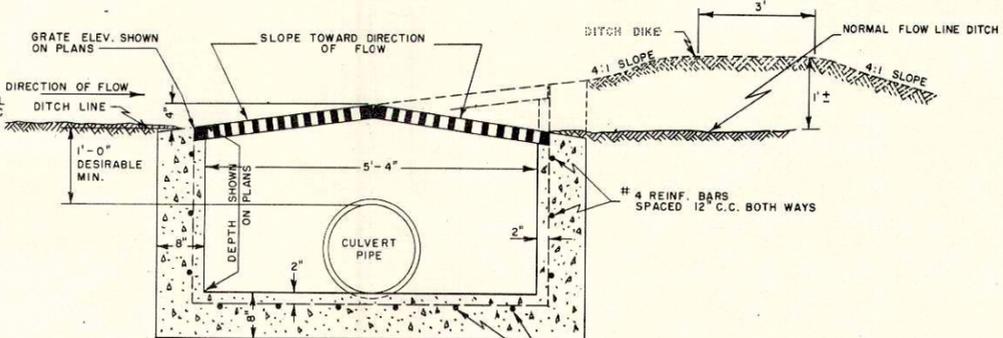
ELEVATION VIEW

SHOWING DETAILS FOR MONOLITHIC CONCRETE, CLAY OR SHALE SEWER BRICK, OR CONCRETE BUILDING BRICK ALTERNATES FOR



ELEVATION VIEW

SHOWING DETAILS FOR PRE-CAST CONCRETE ALTERNATE FOR



SIDE ELEVATION

INLET TYPE 9

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ARRANGEMENT, SIZE AND NUMBER OF INLET AND DISCHARGE PIPES SHALL CONFORM TO THE NEEDS OF THE PERTINENT LOCATION.

INLETS ARE CALLED FOR ON THE PLANS AS "INLETS 1-A", "INLETS 2-R", ETC., THE NUMBER DESIGNATES THE MASONRY PORTION OF THE STRUCTURE AND THE LETTER DESIGNATES THE COVER TO BE USED THEREON.

INLETS

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

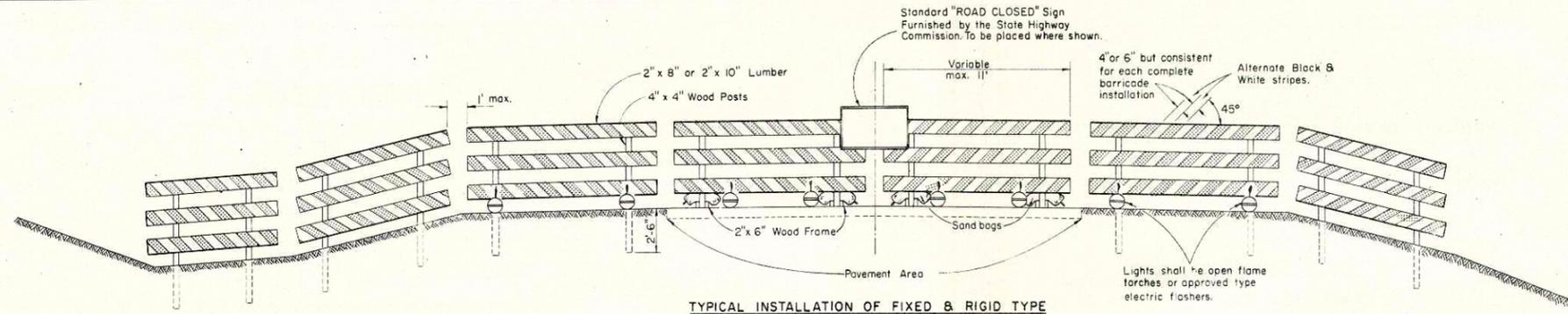
11-2-63
DATE

J. S. Pitt
ENGINEER OF DESIGN

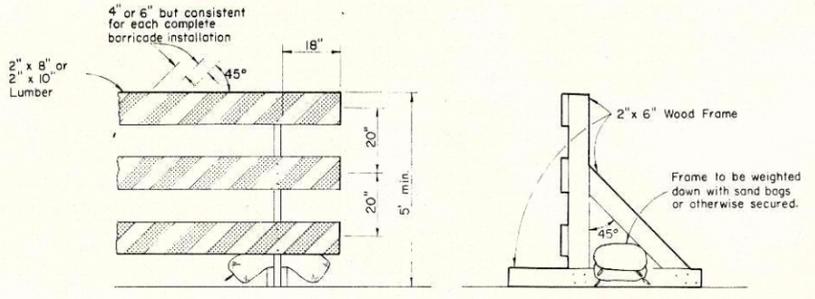
APPROVED:
12/3/63
DATE

V. L. F. ...
STATE HIGHWAY ENGINEER

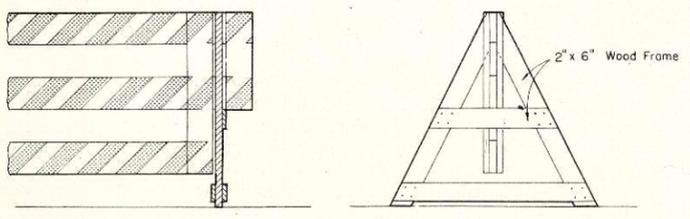
PLATE NO. 5-3.5.2



TYPICAL INSTALLATION OF FIXED & RIGID TYPE

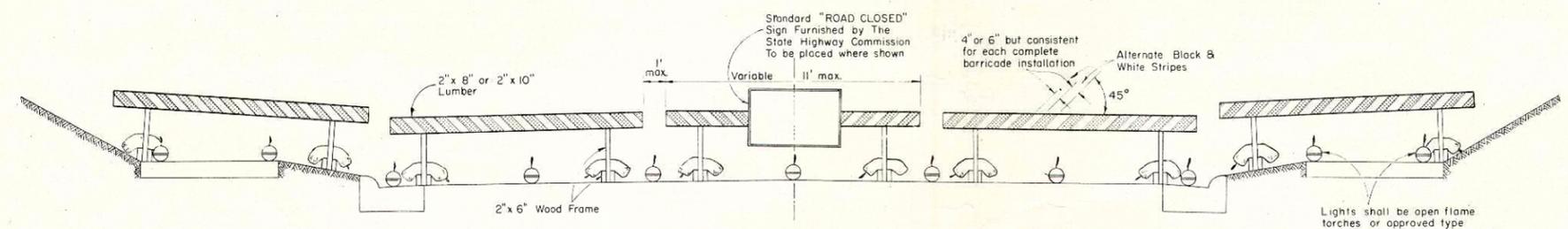


ALTERNATE TYPE INSTALLATION (RIGID)

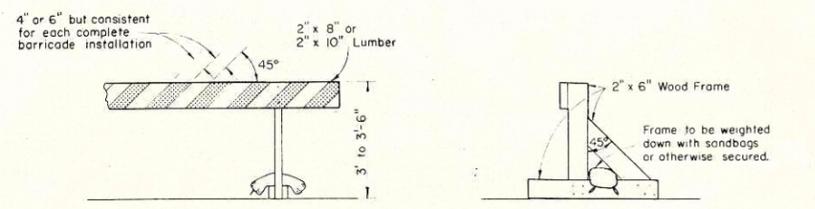


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

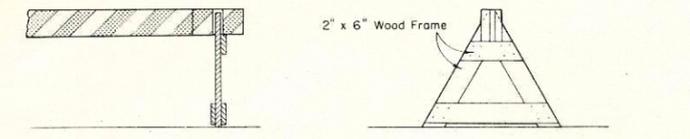
CLASS I BARRICADE



TYPICAL INSTALLATION OF RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADE

GENERAL NOTES:

The Contractor shall construct, place and maintain barricades as shown on this drawing and as required by the Standard Specifications for the duration of the project of all points of highway closure. Barricades shall be painted as shown herein and structurally maintained for maximum visibility at all times, for the duration of the respective project.

CLASS I BARRICADE

Shall be used at points of closure where road is closed to traffic. Gates or movable sections of barricade shall be provided when necessary, for access of equipment or other authorized vehicles only.

CLASS II BARRICADE

May be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

LUMBER & FABRICATION

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. The fabrication of the barricade shall be in accord with good pertinent wood-working practices.

PAINTING

Barricades shall be painted as shown herein in alternate black and white stripes. Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be painted a prime coat of good grade wood primer, followed by two coats of white 'Codi' Reflective Liquid (Minnesota Mining Co.) or equivalent, or reflective sheeting wide angle, flat top 'Scotchlite' brand material (Minnesota Mining Co.) or equivalent.

DIRECTION OF DIAGONAL STRIPES

Where a barricade extends entirely across the roadway and no vehicle access provision, the stripes shall slope downward toward the highway centerline. Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.

Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.

MEASUREMENT & PAYMENT

All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

NOTE:

Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

NOTE:

All lumber or timber dimensions shown herein are nominal.

CONSTRUCTION BARRICADE

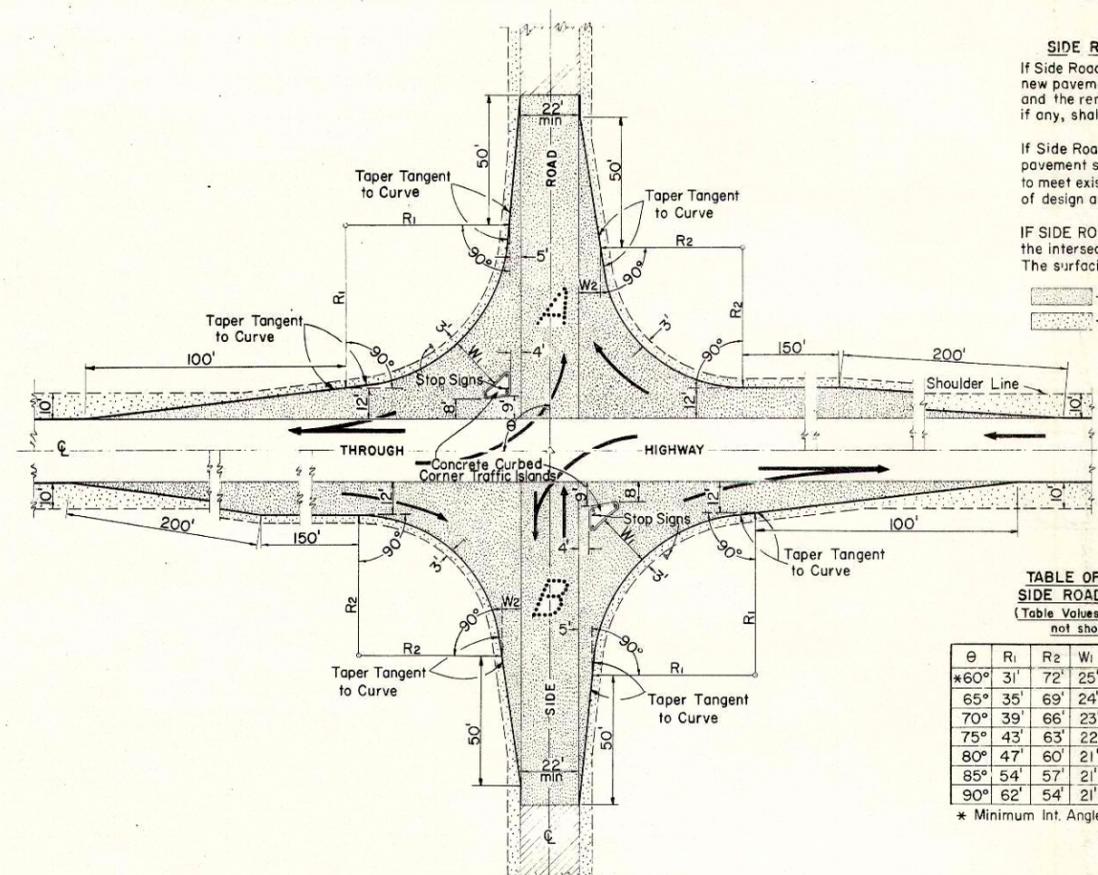
STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

DATE: 2-5-63 J. D. Pitt ENGINEER OF DESIGN

APPROVED: E. C. ... STATE HIGHWAY ENGINEER

DATE: 2/6/63 PLATE NO. 7-4.1.4



SIDE ROAD SURFACING NOTE
 If Side Road is not presently surfaced, new pavement shall be placed as shown, and the remainder to construction limits, if any, shall be gravel or crushed stone surfaced.
 If Side Road is presently paved, new pavement shall be placed only as necessary to meet existing pavement, and to limits of design as shown.
 IF SIDE ROAD IS THE CONSTRUCTION PROJECT, the intersection geometrics remain as shown. The surfacing shall be same as for the project.

- Pavement
 - Gravel or Crushed Stone

TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	W ₁	W ₂	θ	R ₁	R ₂	W ₁	W ₂
*60°	31'	72'	25'	10'	95°	70'	52'	20'	8'
65°	35'	69'	24'	9'	100°	80'	50'	20'	8'
70°	39'	66'	23'	8'	105°	95'	48'	20'	8'
75°	43'	63'	22'	8'	110°	104'	46'	19'	8'
80°	47'	60'	21'	8'	115°	122'	44'	19'	8'
85°	54'	57'	21'	8'	**120°	143'	42'	19'	8'
90°	62'	54'	21'	8'					

* Minimum Int. Angle ** Maximum Int. Angle

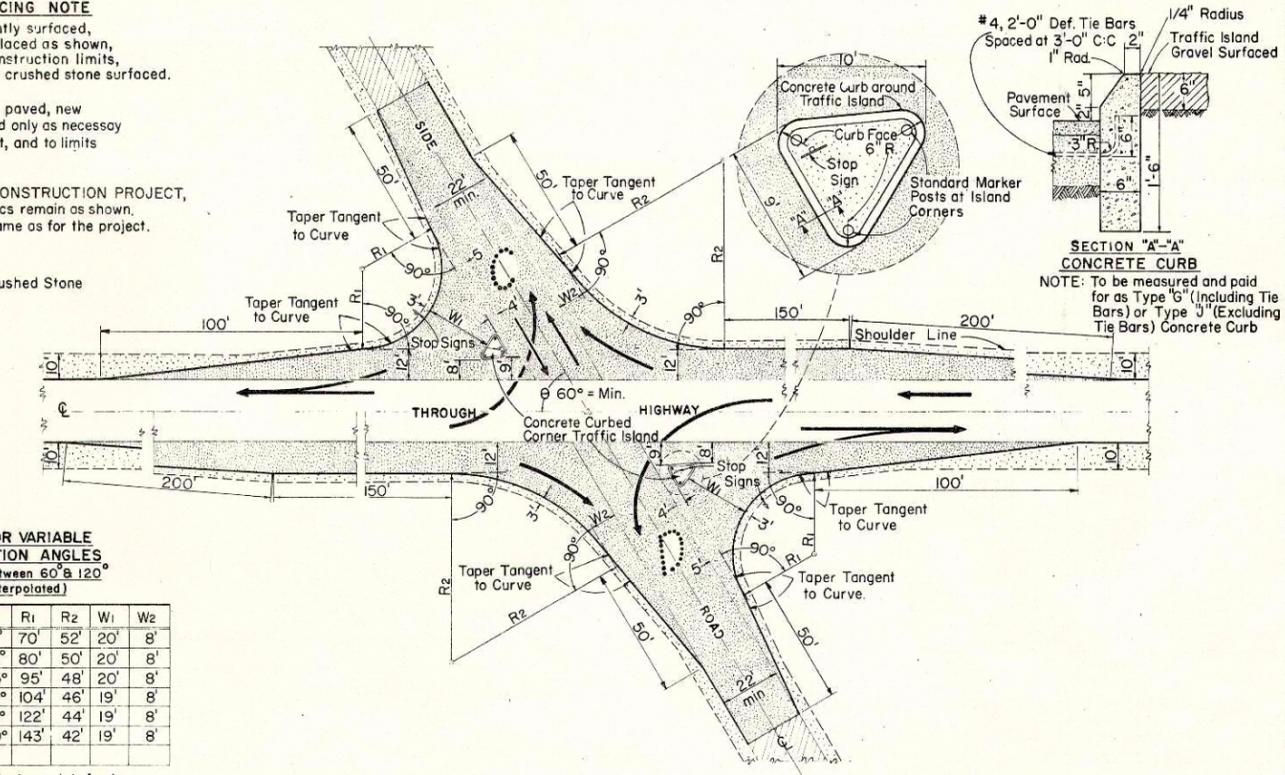


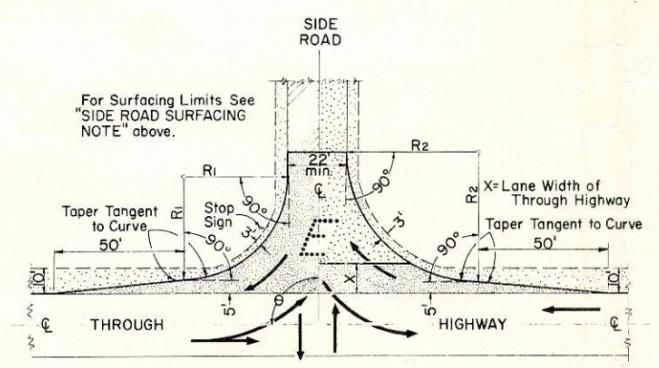
TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	θ	R ₁	R ₂
* 60°	40'	50'	95°	45'	49'
65°	40'	50'	100°	50'	48'
70°	40'	50'	105°	55'	47'
75°	40'	50'	110°	60'	46'
80°	40'	50'	115°	65'	45'
85°	40'	50'	**120°	70'	44'
90°	40'	50'			

* Minimum Int. Angle ** Maximum Int. Angle

MAJOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used only when current ADT on Through Highway is 1500 or over, and on Side Road is Over 200



MINOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used when current ADT on Through Highway is Less than 1500 or on Side Road is Less than 200

GENERAL NOTES
 Designs "A", "B", "C", "D", or "E" may be used interchangeably in combination or separately for any one complete intersection depending upon Traffic Volume, Intersection angle and Surfacing of each approach roadway.

Details on this drawing are for Minimum Design Only, and not applicable to Special Conditions, as shown elsewhere on the plans.

DESIGN & LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS (RURAL IN CHARACTER)

STATE HIGHWAY COMMISSION OF WISCONSIN

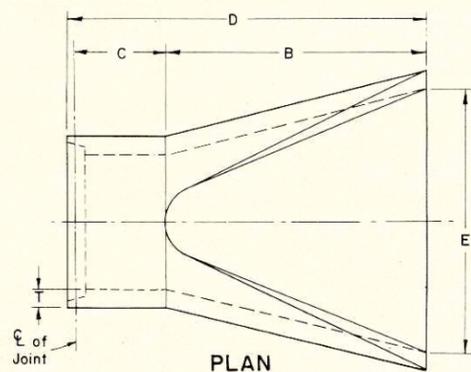
RECOMMENDED FOR APPROVAL

DATE: 8-5-63 J. J. Pelt ENGINEER OF DESIGN

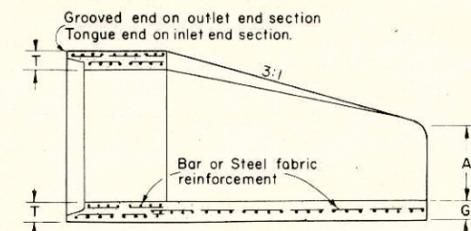
APPROVED

DATE: 2/4/63 E. C. Rostigan STATE HIGHWAY ENGINEER

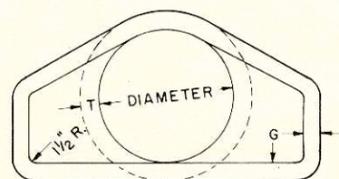
P.L.A.T.E NO. 9-1.1.4



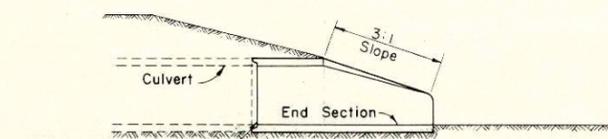
PLAN



LONGITUDINAL SECTION



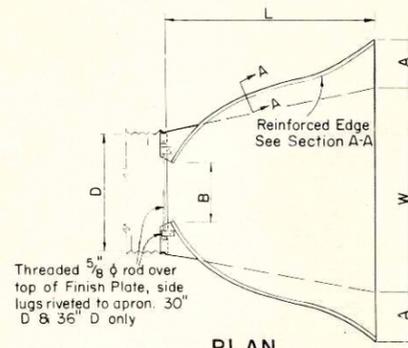
END VIEW



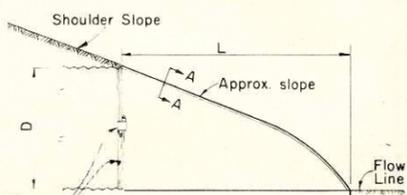
SLOPE DETAIL

DIA.	APPROX WEIGHT/SECTION	SLOPE	T	A	B	C	D	E	G
18"	990	3 to 1	2 1/2"	9"	27"	46"	73"	36"	2 1/2"
21"	1280	3 to 1	2 3/4"	9"	36"	37 1/2"	73 1/2"	42"	2 3/4"
24"	1520	3 to 1	3"	9 1/2"	43 1/2"	30"	73 1/2"	48"	3"
27"	1930	3 to 1	3 1/4"	10 1/2"	49 1/2"	24"	73 1/2"	54"	3 1/4"
30"	2190	3 to 1	3 1/2"	12"	54"	19 3/4"	73 3/4"	60"	3 1/2"
36"	4100	3 to 1	4"	15"	63"	34 3/4"	97 3/4"	72"	4"
42"	5380	3 to 1	4 1/2"	21"	63"	35"	98"	78"	4 1/2"
48"	6550	3 to 1	5"	24"	72"	26"	98"	84"	5"

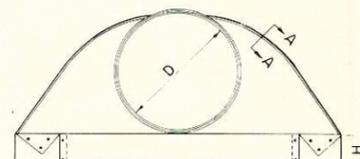
REINFORCED CONCRETE APRON ENDWALLS



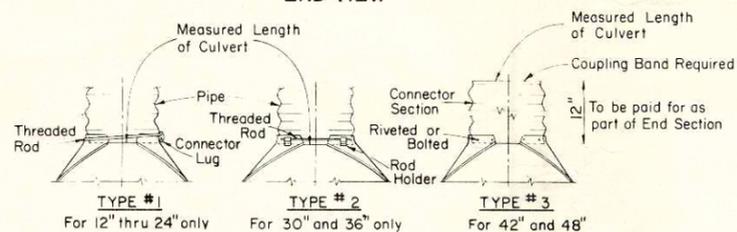
PLAN



SIDE ELEVATION



END VIEW

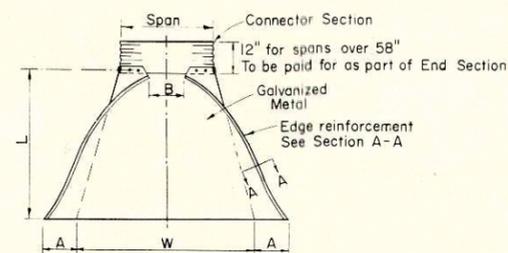


CONNECTION DETAILS

D Pipe Diam.	Gage Min.	Dimensions					Approx. Slope	Fabrication Remarks
		A ± 1"	B Max.	H ± 1"	L ± 1/2"	W ± 2"		
18"	16	8"	10"	6"	31"	36"	2 1/2 to 1	1 Piece
21"	16	9"	12"	6"	36"	42"	"	"
24"	16	10"	13"	6"	41"	48"	"	"
30"	14	12"	16"	8"	51"	60"	"	"
36"	14	14"	19"	9"	60"	72"	"	2 Pieces, C Splice
42"	12	16"	22"	11"	69"	84"	"	"
48"	12	18"	27"	12"	78"	90"	2 1/4 to 1	"

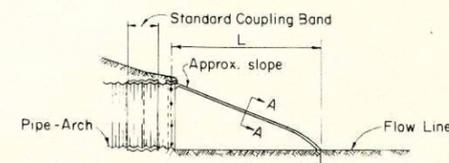
Note: All splices to be lap riveted or bolted.

METAL AND ALUMINUM APRON ENDWALLS

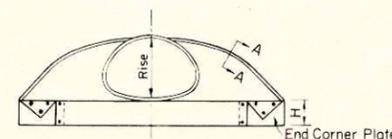


PLAN

showing alternate type with connector section

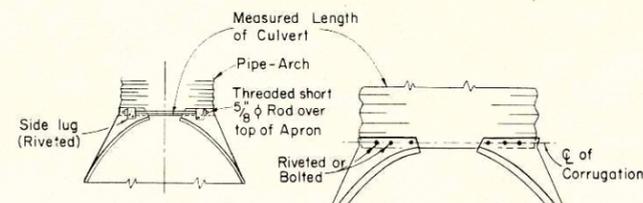


SIDE ELEVATION



END VIEW

Note: End Corner Plates may be fastened to apron proper by bolts or rivets which will hold the surfaces tightly together.

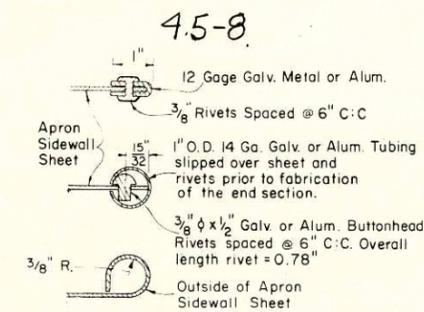


CONNECTION DETAILS

Pipe - Arch Dimensions	Gage Min.	Dimensions					Approx. Slope	Fabrication Remarks
		A ± 1"	B Max.	H ± 1"	L ± 1/2"	W ± 2"		
18" x 11"	16	7"	9"	6"	19"	30"	2 1/2 to 1	1 Piece
22" x 13"	16	7"	10"	6"	23"	36"	"	"
25" x 16"	16	8"	12"	6"	28"	42"	"	"
29" x 18"	16	9"	14"	6"	32"	48"	"	"
36" x 22"	14	10"	16"	6"	39"	60"	"	"
43" x 27"	14	12"	18"	8"	46"	75"	"	"
50" x 31"	12	13"	21"	9"	53"	85"	"	2 Pieces, C Splice
58" x 36"	12	18"	26"	12"	63"	90"	"	"
65" x 40"	12	18"	30"	12"	70"	102"	2 1/4 to 1	"
72" x 44"	12	18"	33"	12"	77"	114"	"	3 Pieces, 2 Splices equal distance from C

Note: All splices to be lap riveted or bolted.

APRON ENDWALLS FOR PIPE ARCH



SECTION A-A

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.
 Reinforced concrete apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M170, Class II (Wall B).
 Metal apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M36.
 Aluminum apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M-196-62 I.

NOTE:

Variations of the dimensions and designs shown hereon will be permitted providing equivalent capacity and structural integrity are attained, and prior approval of the Engineer is obtained.
 Reinf. concrete apron endwalls shall be used with concrete pipe culvert installations, metal apron endwalls shall be used with corr. metal pipe culvert installations, and Aluminum endwalls shall be used with corr. aluminum culvert installations.

APRON ENDWALLS FOR CULVERT PIPE & PIPE ARCH

STATE HIGHWAY COMMISSION OF WISCONSIN

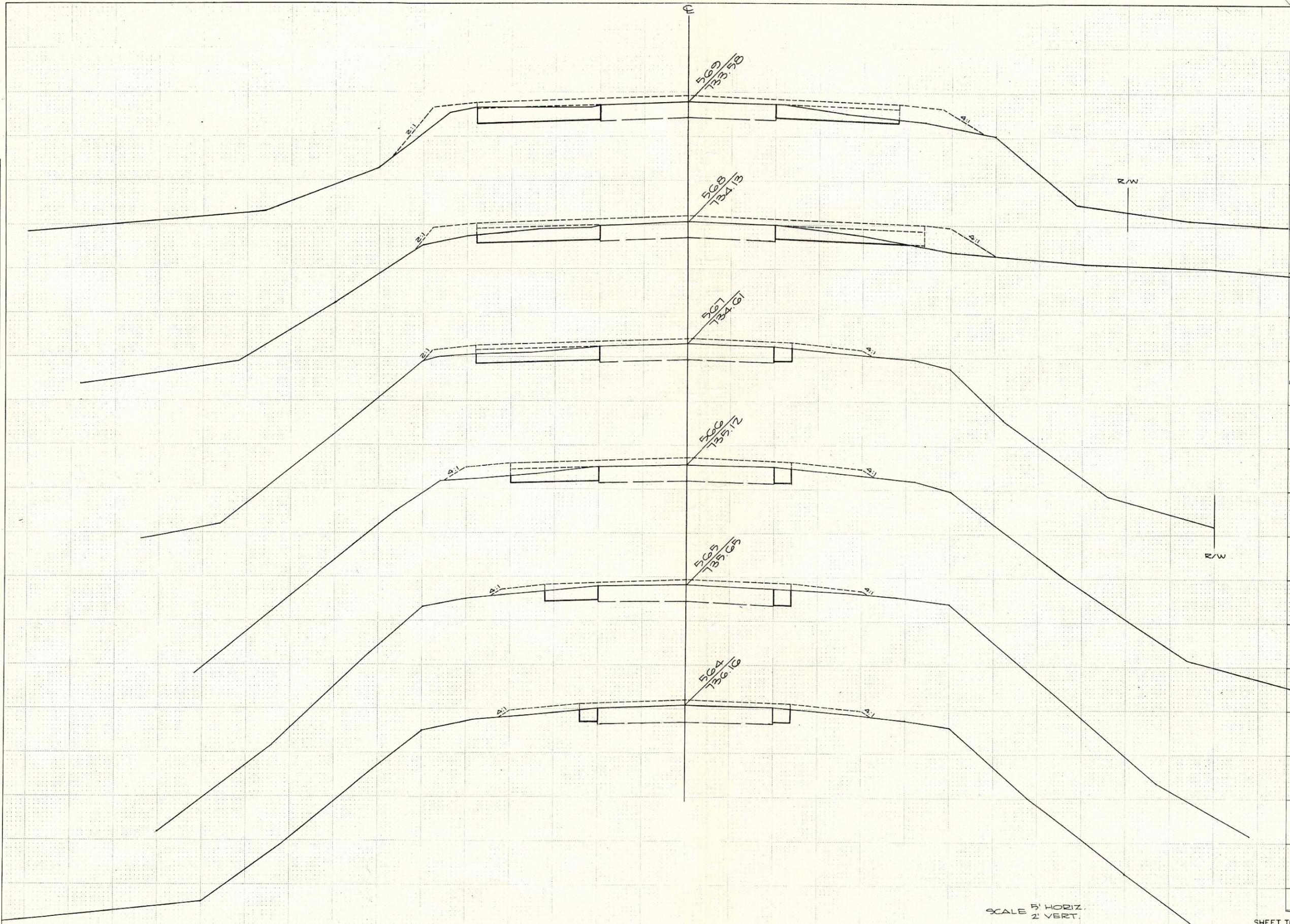
RECOMMENDED FOR APPROVAL
 DATE 4/9/65
 E. J. Rydick
 CHIEF DESIGN ENGINEER

DATE 4/12/65
 E. C. Ruston
 STATE HIGHWAY ENGINEER

PLATE NO. 6-2.64.

APRON ENDWALLS FOR CULVERT PIPE

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	TO12-1(13)	5	8



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
564		0	0
565	6		
566	16		
567	24		
568	41		
569	54		
SHEET TOTAL		141	0

SURVEYED
 SURVEY
 NOTE BOOK
 TEMPLATE
 AREAS
 NO.
 CHECKED

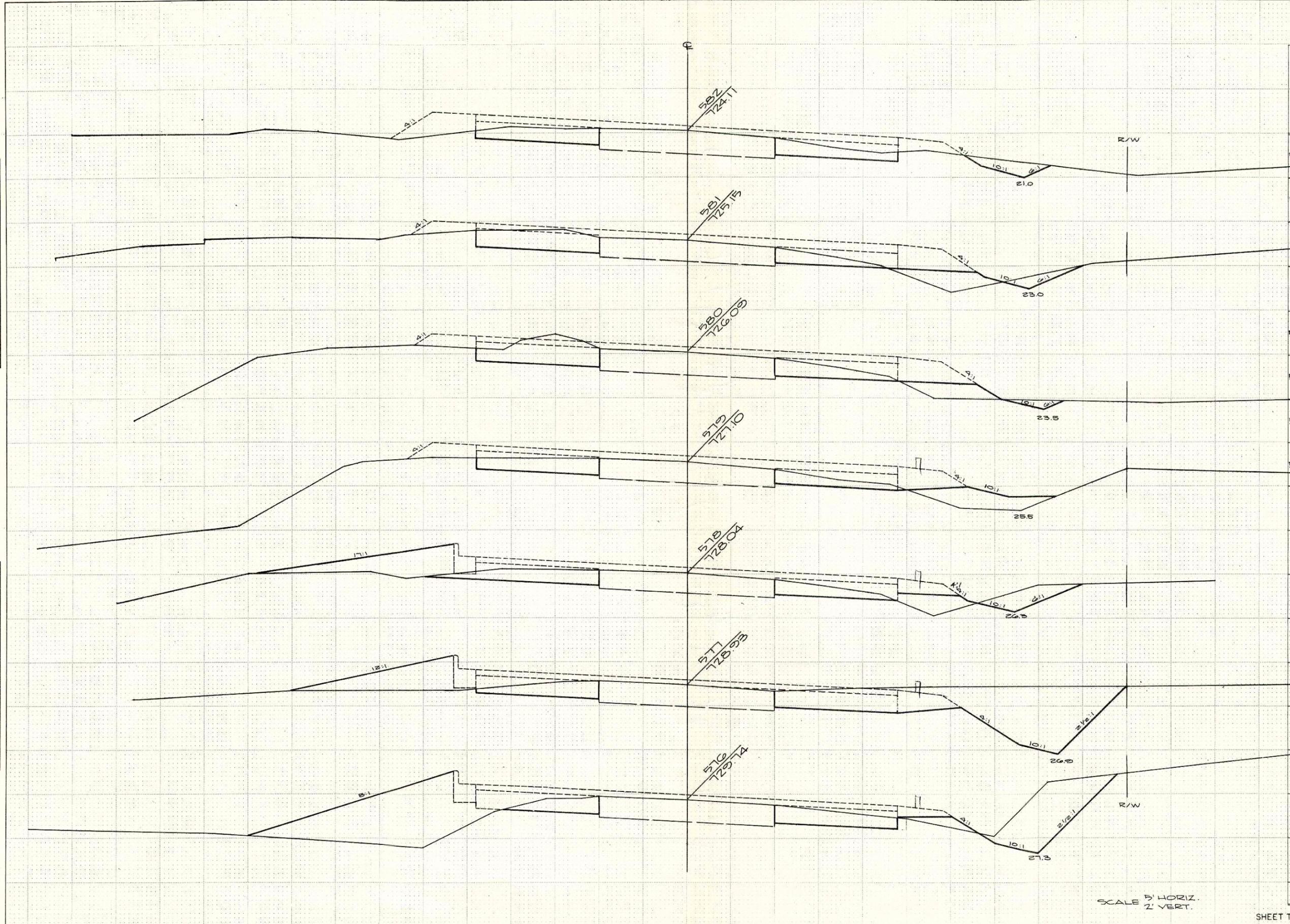
SURVEY
 PLOTTED
 NOTE BOOK
 TEMPLATE
 AREAS
 NO.
 CHECKED

SCALE 5' HORIZ.
2' VERT.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	TO18-1(13)	7	8

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

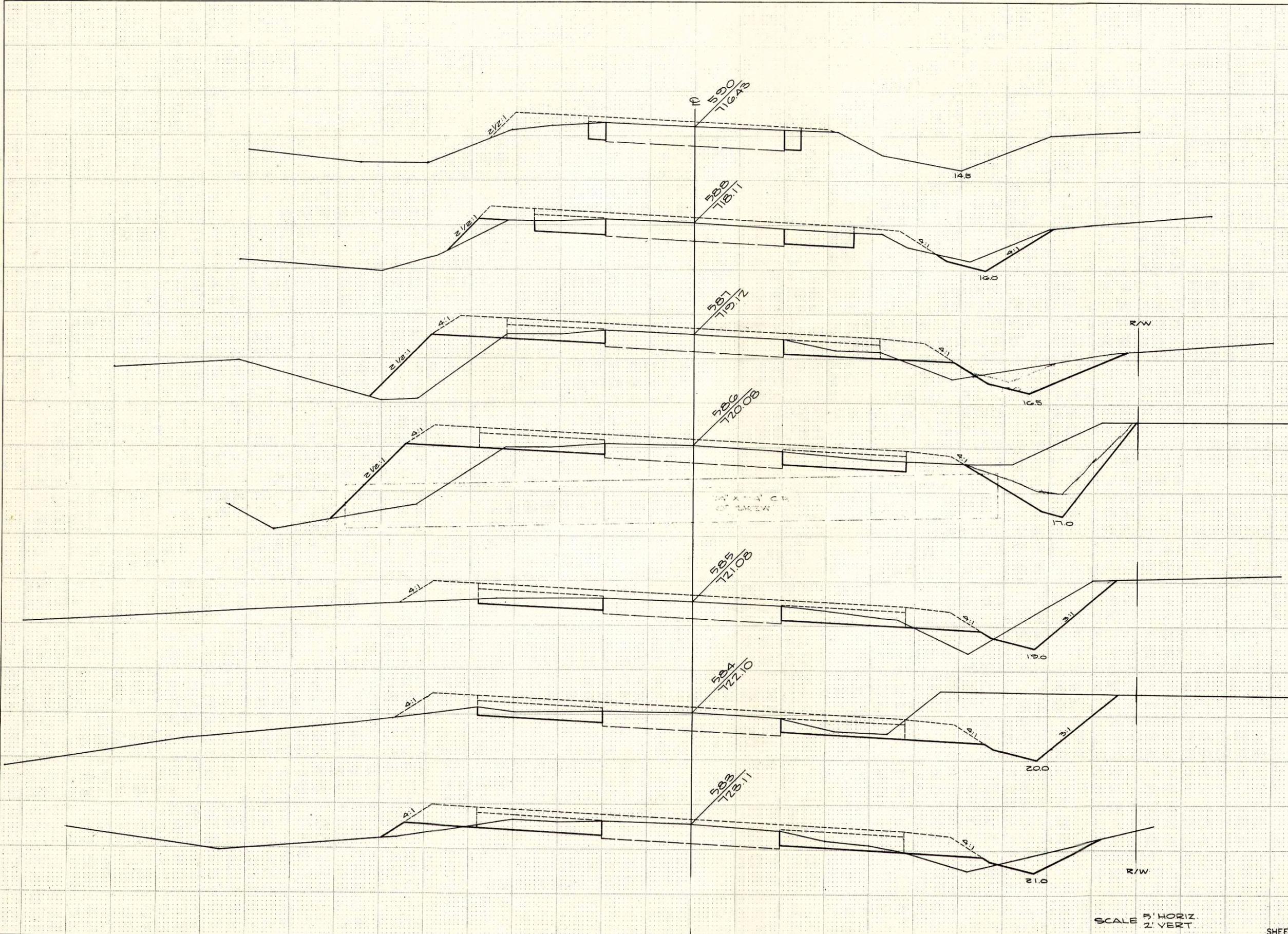
ORIGINAL SURVEY
 SURVEYED BY _____ DATE _____
 NOTE BOOK NO. _____
 TEMPLATE AREAS CHECKED _____



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
575		140	119
576		196	118
577		164	69
578		68	66
579		69	34
580		81	21
581		70	12
582			
SHEET TOTAL		788	436

SCALE 5' HORIZ.
2' VERT.

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	1018-1(13)	8	8
WIS.			



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
582			
583	59		10
584	136		10
585	157		8
586	100		34
587	73		65
588	38		44
590	33		11
SHEET TOTAL		596	182

SCALE 5' HORIZ
2' VERT