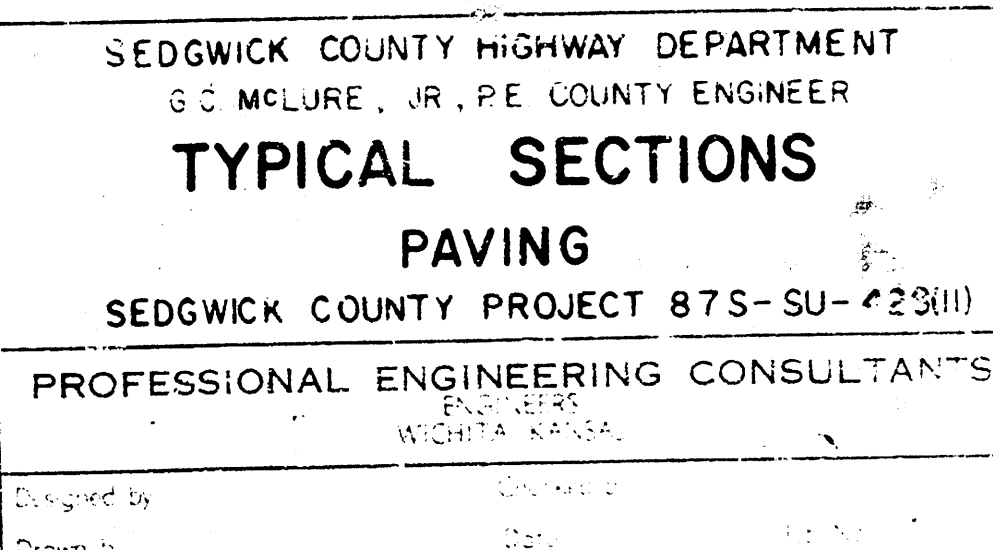
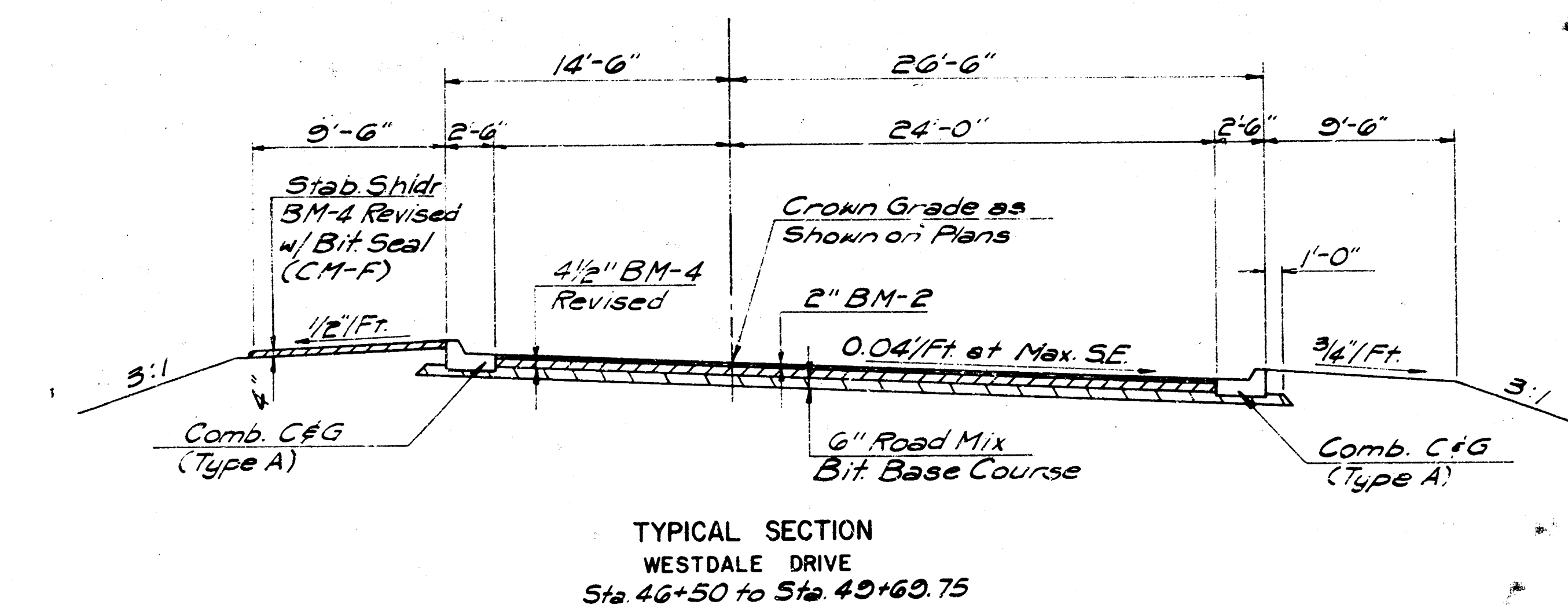
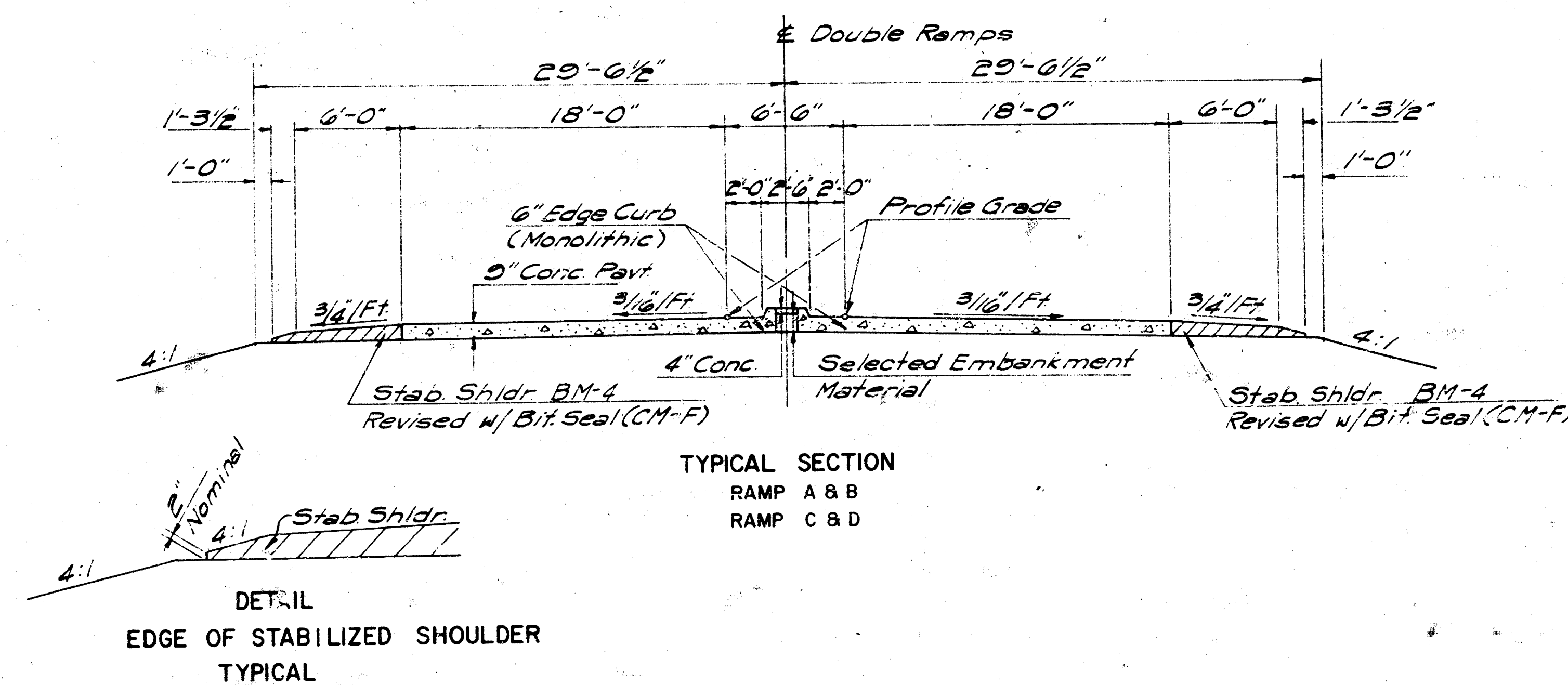
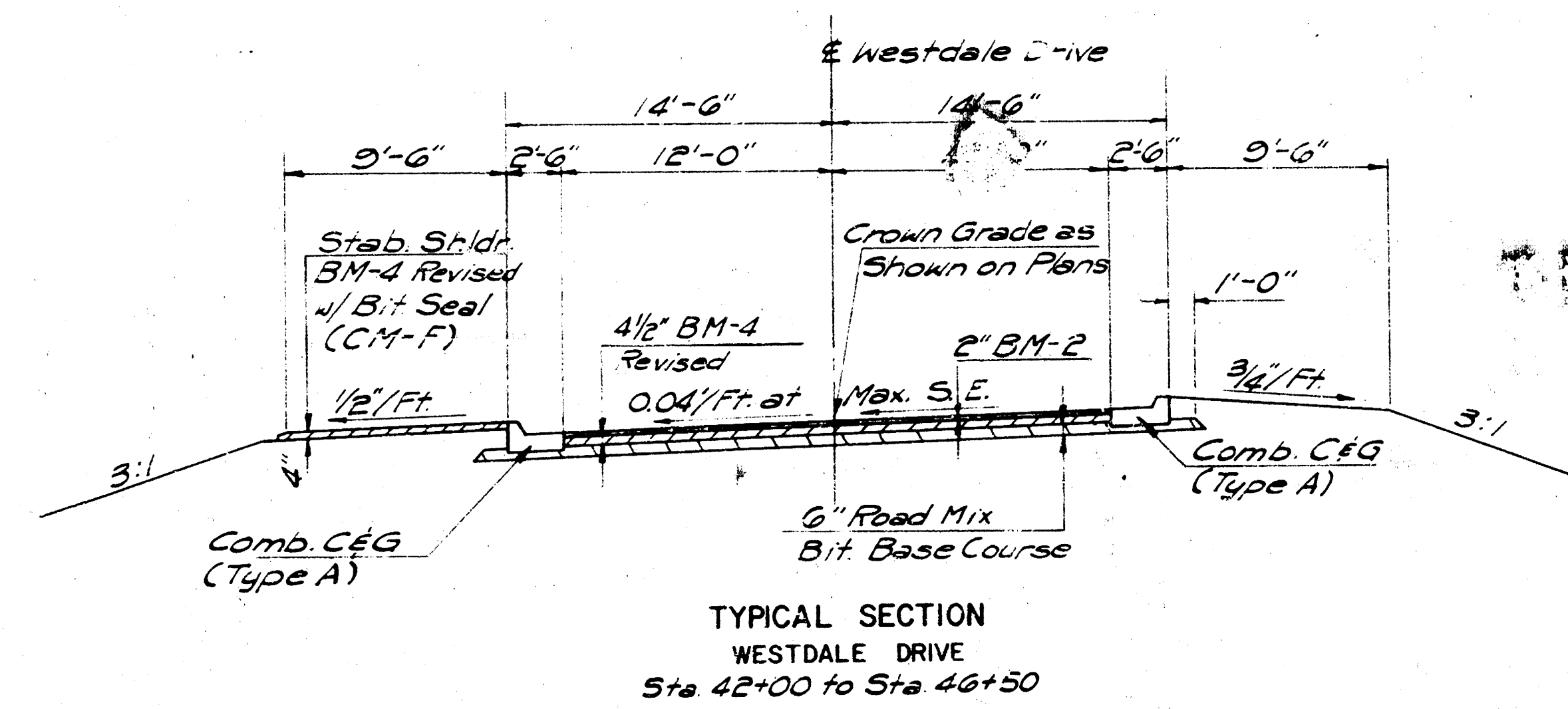
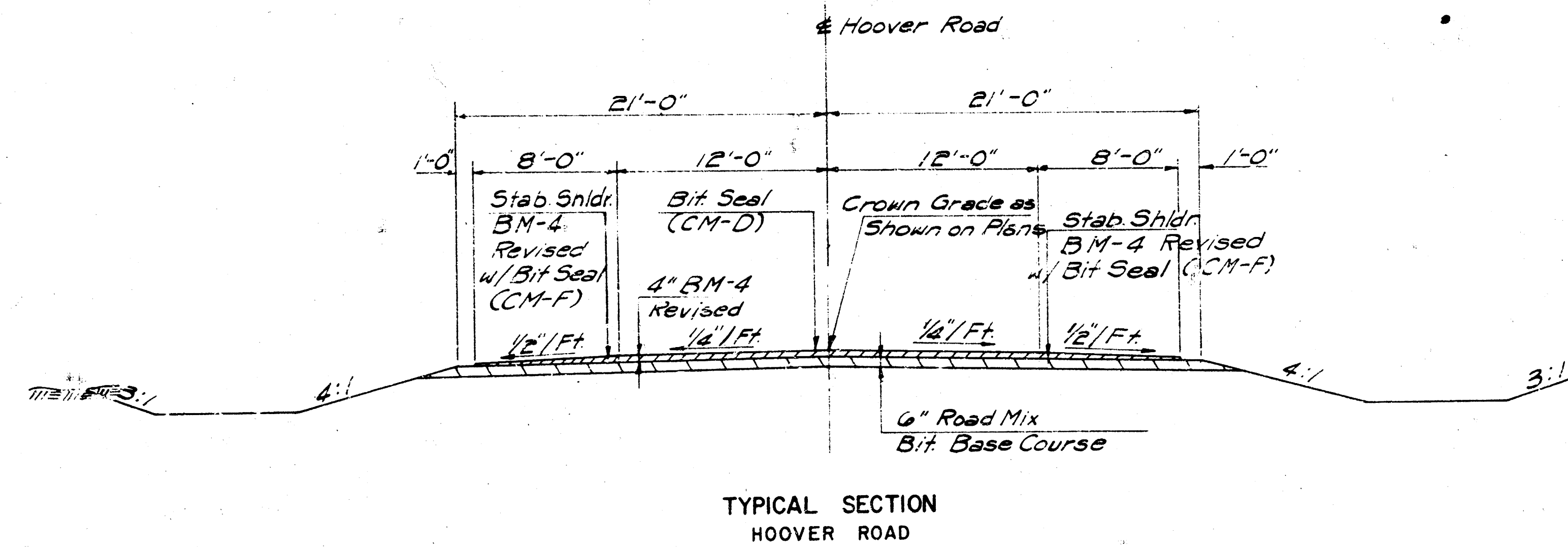
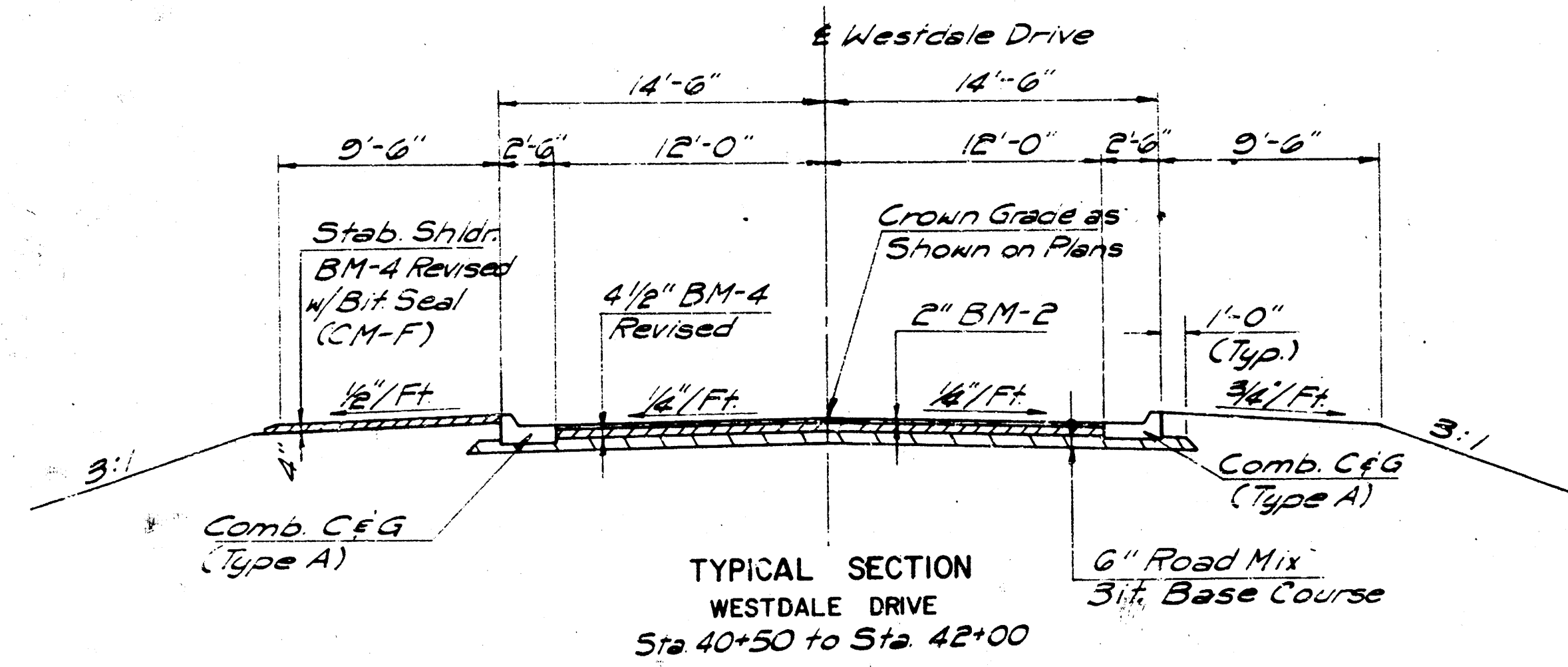
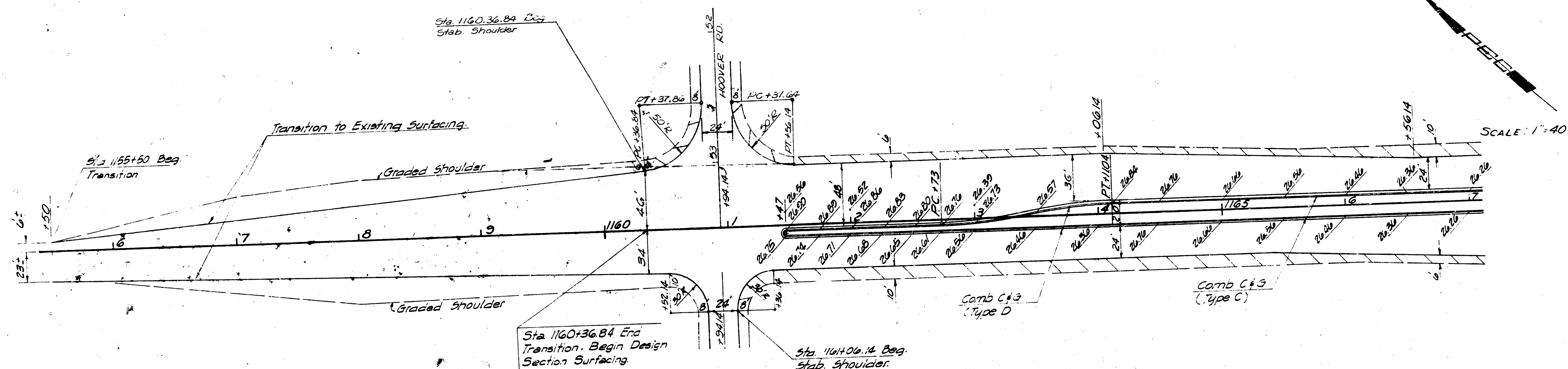






SEDGWICK COUNTY HIGHWAY DEPARTMENT
G.C. MULLER, JR., P.E. COUNTY ENGINEER
TYPICAL SECTIONS
SIDE ROADS-PAVING & SURFACING
SEDGWICK COUNTY PROJECT 875-SU-428(II)
PROFESSIONAL ENGINEERING CONSULTANTS
Drawn by: [Signature]
Checked by: [Signature]

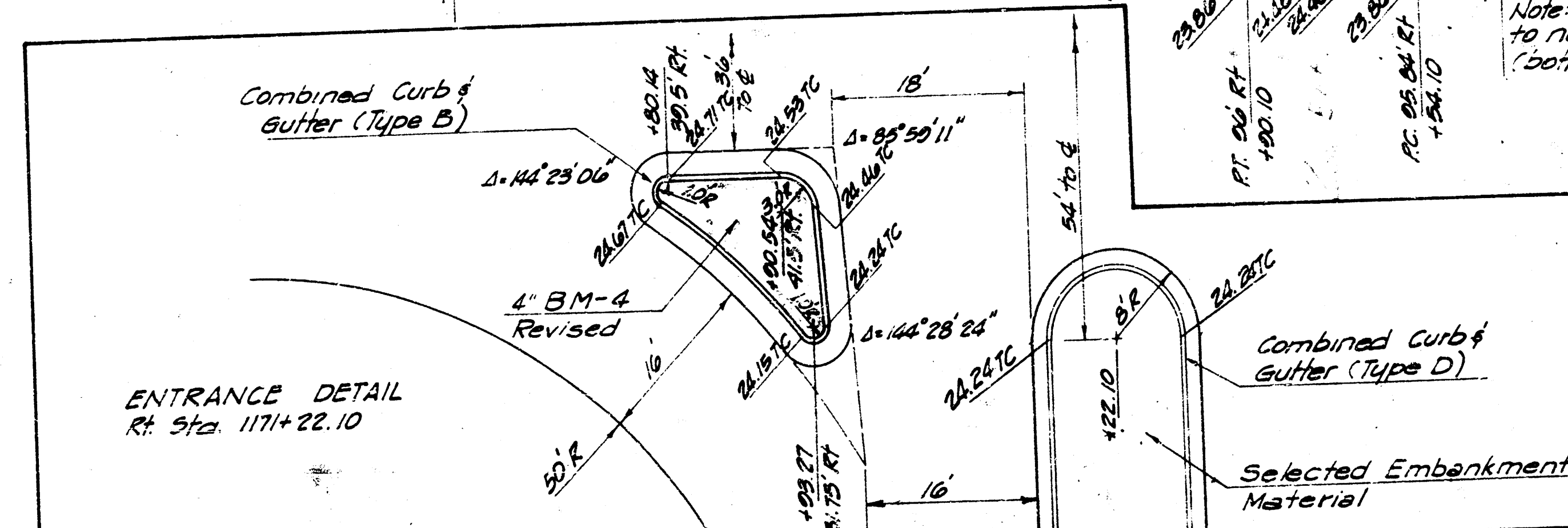
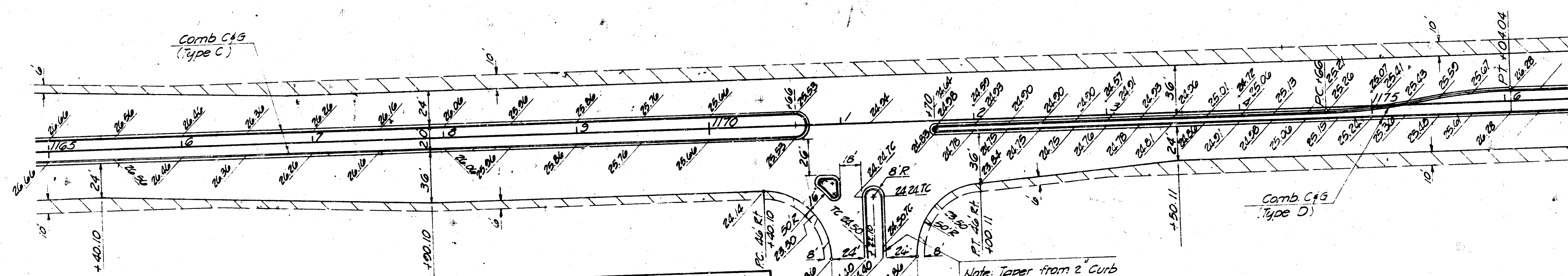
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	87S-SU-428(III)	72	21	72



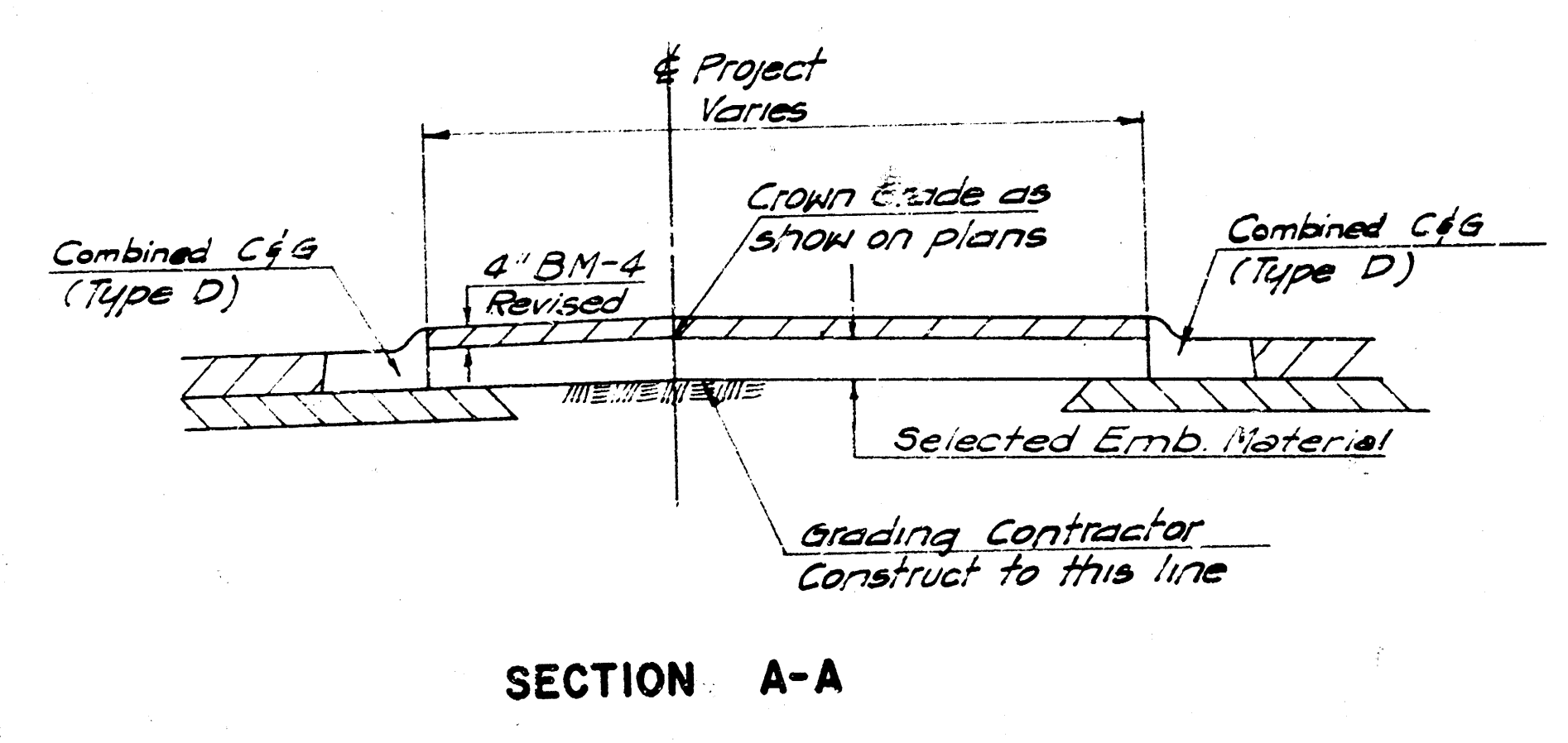
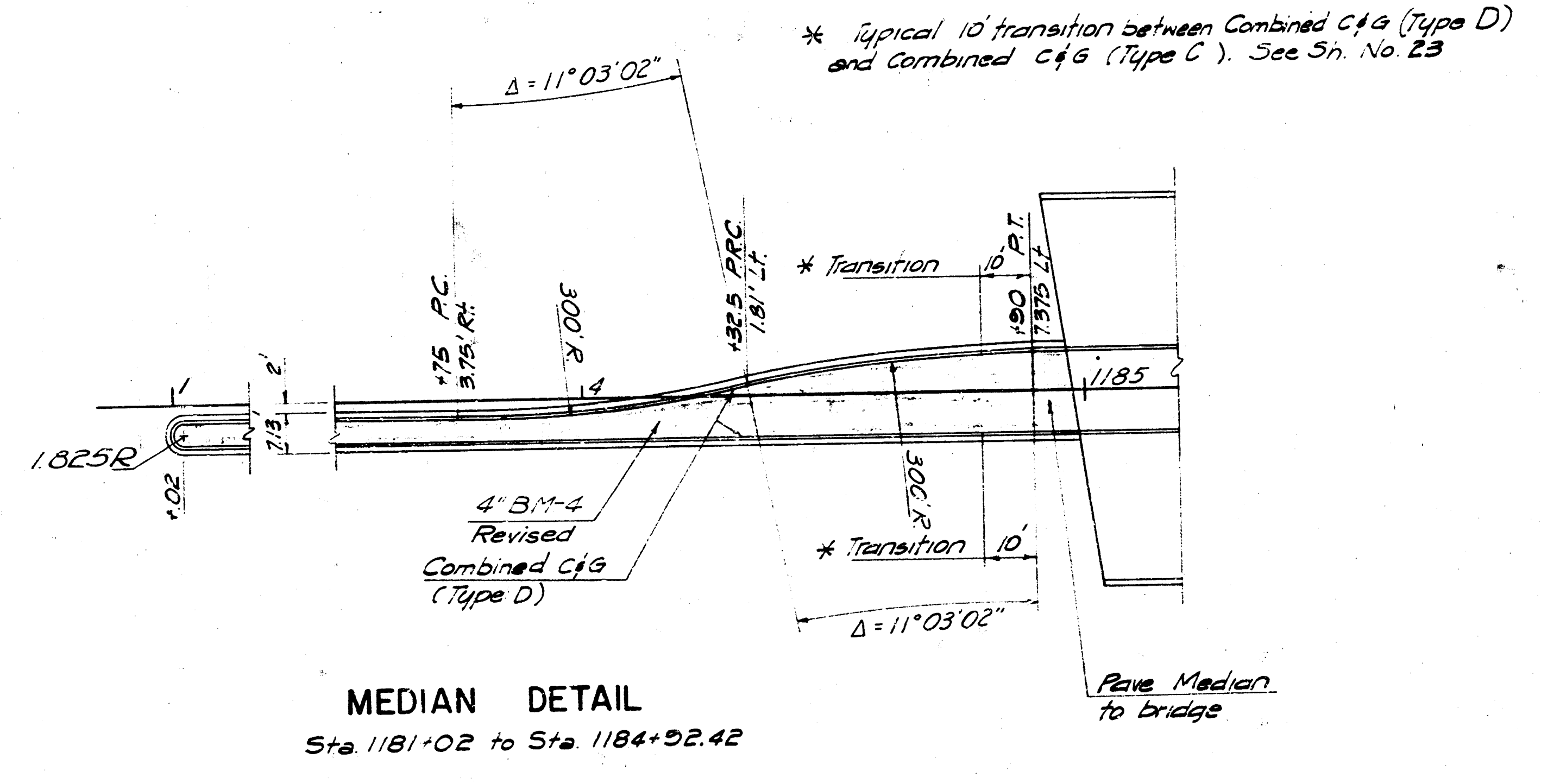
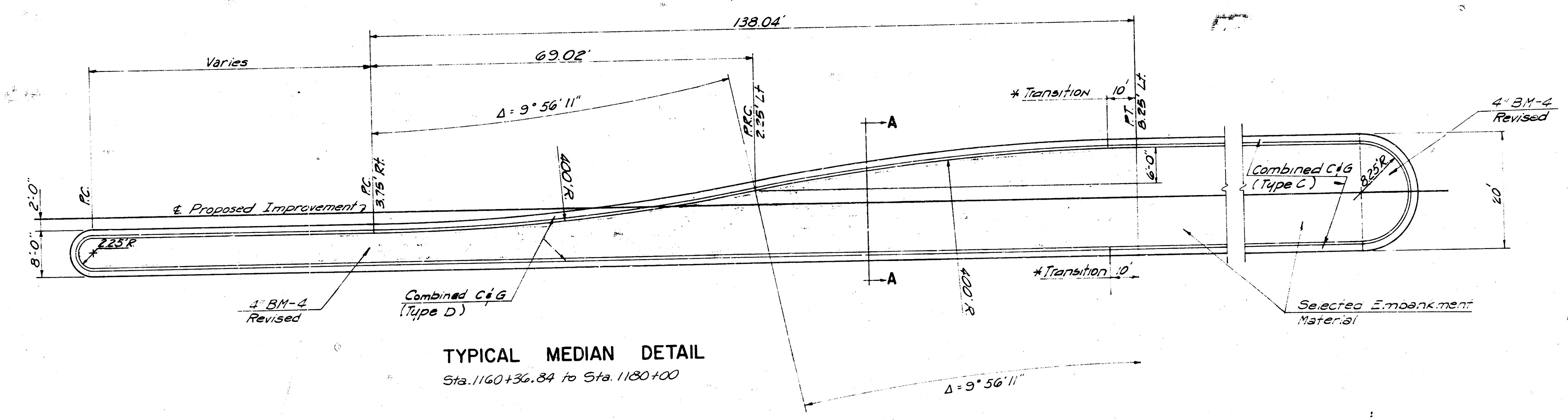
Note: Entrances are to be surfaced as shown on the plans with 6" B.M.-4 Revised and 2" B.-1-2. The subgrade is to be stabilized through the entrances on the shoulder line with 6" Road Mix Bituminous Base Course.

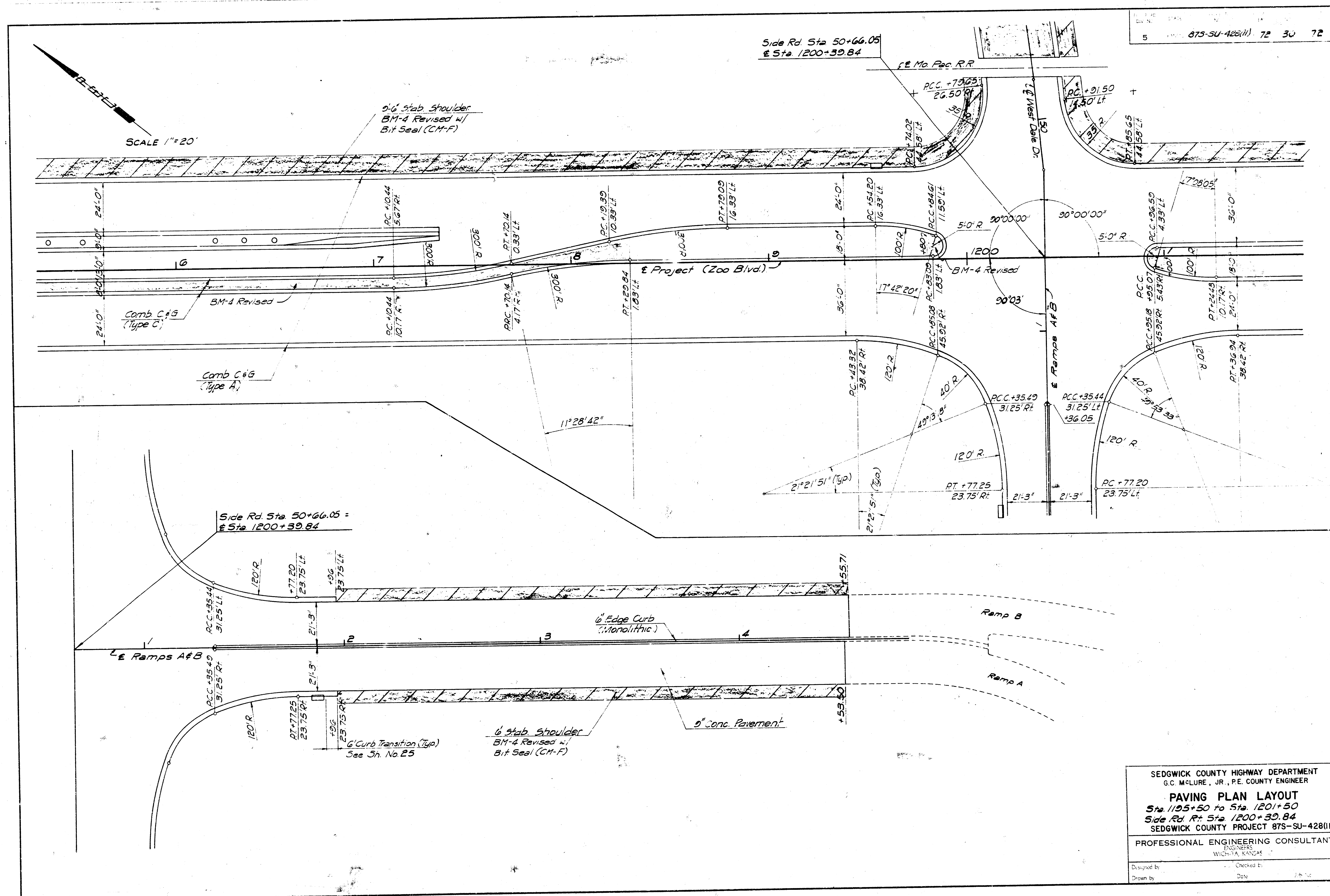
See Sheet No. 28 for Typical Median Details

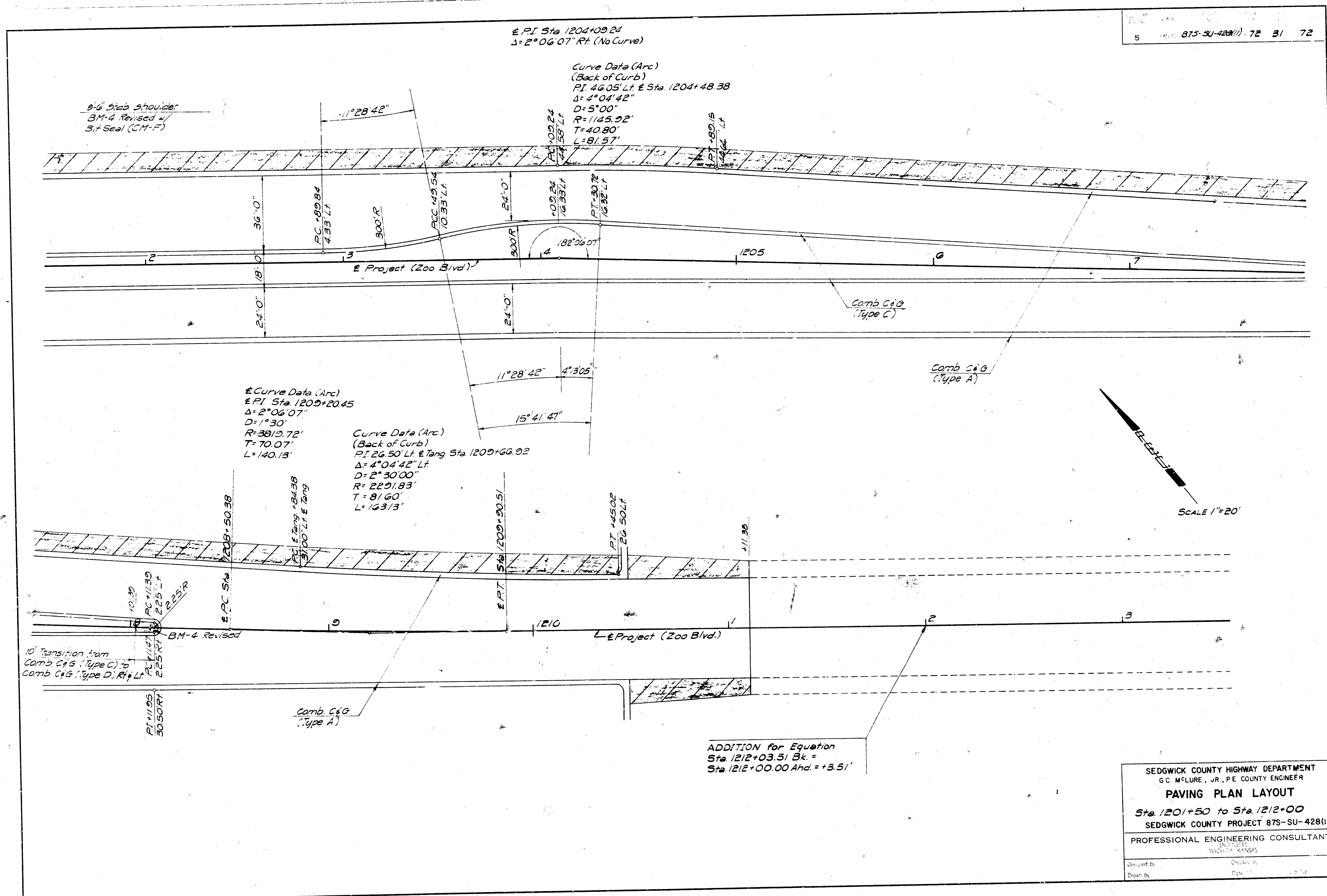
B.M. #34 Chis. D. on Schwik. @ southern most cor. of Blg. 173 Rt. @ Sta. 1162+80 El. 1325.70.

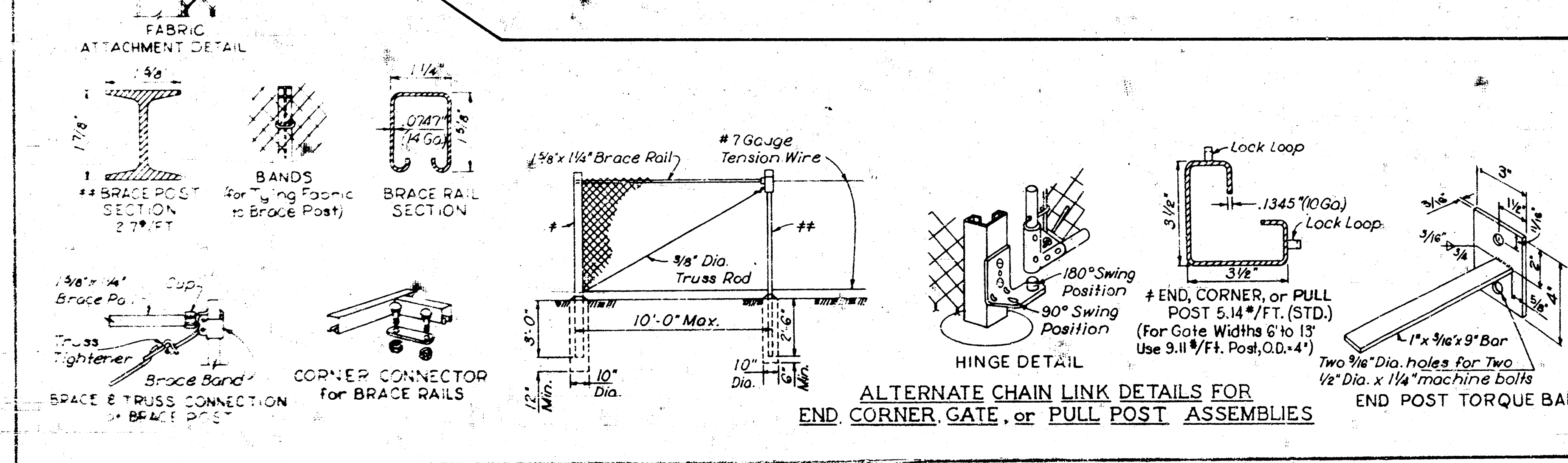
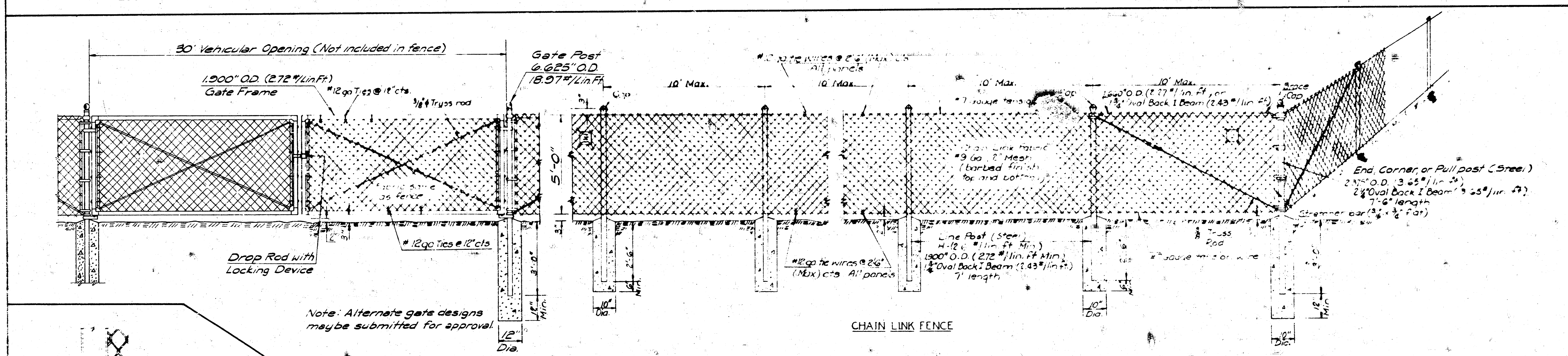
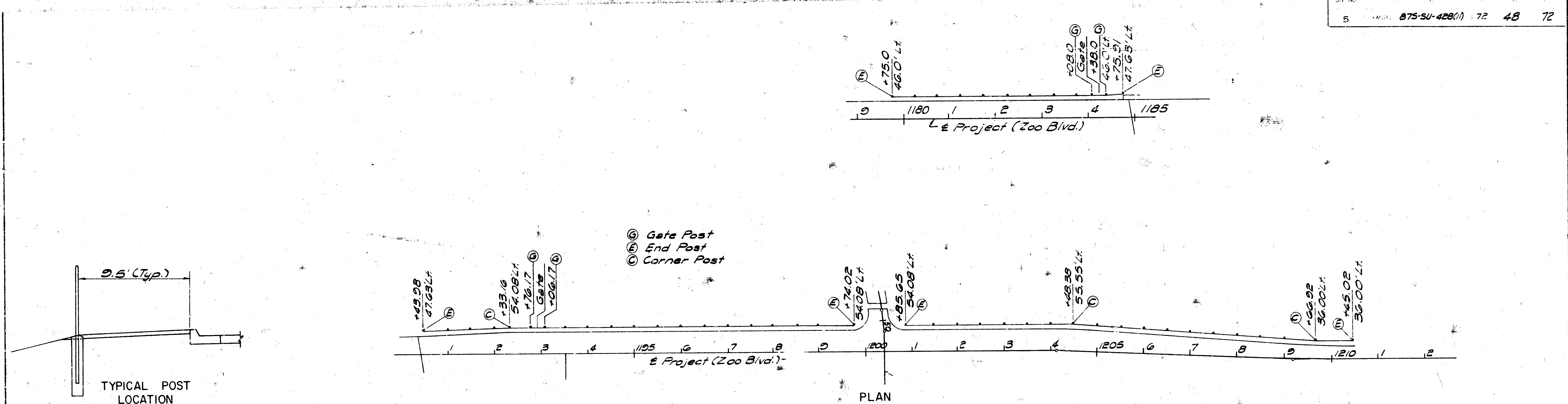


SEDGWICK COUNTY HIGHWAY DEPARTMENT
G.C. MCLURE, JR., P.E. COUNTY ENGINEER
SURFACING PLAN
Sta. 1155+50 to Sta. 1176+04.04
SEDGWICK COUNTY PROJECT 87S-SU-428(III)
PROFESSIONAL ENGINEERING CONSULTANTS
ENGINEERS
WICHITA, KANSAS









General Note
 Pull Posts shall be used at sharp breaks in vertical grade or at approximately 330' centers on straight runs or as directed by the Engineer.
 All concrete used in fence installation shall be Class B and shall conform to the requirements of the Specifications.
 All steel posts, braces, and gate frames shall be galvanized.
 Outside diameters shown for tubular steel posts, braces, and gate frames are nominal. Weight tolerances shall be as shown in the specifications.
 Tension wire, and chain link fabric shall be either zinc coated (galvanized) or aluminum coated.

SEDGWICK COUNTY HIGHWAY DEPARTMENT
 G.C. McFLURE, JR., P.E. COUNTY ENGINEER

FENCING PLAN & DETAILS
 Sta. 1179+75.00 to Sta. 1210+45.02
 SEDGWICK COUNTY PROJECT 875-SU-428(III)

PROFESSIONAL ENGINEERING CONSULTANTS
 INC. 3000
 WICHITA, KANSAS

Drawn by: [blank]
 Checked by: [blank]
 Approved by: [blank]

COMBINED CURB & GUTTER (TYPE A) (AE)				EARTHWORK				DRAINAGE STRUCTURES										RECAPITULATION OF ROAD QUANTITIES					
STATION	TO STATION	SIDE	LIN. FT.	STA	TO STA	EXCAV CU YDS	COMPY CU YDS	STA	TO STA	TYPE	CONC	REINF	CL "A"	STEEL	24"	24"	25"	24"	24"	25"	REMARKS		
1178+00	1184+86.64	LT	685.7	1155+50	1184+92	111	41.475	31.904	1174+50	1174+50	2-2.5" X 106" CRP (CMMA)				54'	212'							
1178+00	1184+86.64	RT	541.9	1190+39	1212+00	4,084	54,000	15,474	1174+50	1174+50	2-2.5" X 106" CRP (CMMA)				54'	212'							
S.R. 1187+50	1184+86.64	RT	1,033.3																				
1190+35.52	1184+86.64	LT	346.4																				
1190+45.08	1184+86.64	RT	346.4																				
RAMP 120+51+09.43	1184+86.64	RT	768.6																				
SIDE RD. STA	1200+39.84	LT	78.7																				
S.R. 40+50	1200+39.84	LT	900.0																				
S.R. 40+67	1200+39.84	RT	867.4																				
S.R. 41+31.80	1200+39.84	LT	1,010.0																				
S.R. 49+80.8	1200+39.84	RT	1,034.7																				
RAMP 120+51+09.43	1200+39.84	RT	7,661.7																				
TOTAL				TOTAL				TOTAL				TOTAL				TOTAL				TOTAL			

SUMMARY OF QUANTITIES						
ITEM	SURFACING MAINLINE	SURFACING SIDE ROADS	SHOULDER MAINLINE	SHOULDER SIDE ROADS	NEEDLES & ISLANDS	TOTAL
SURFACE COURSE						
AGGREGATE FOR BITUMINOUS SURFACE COURSE (SM-2)	2,043.5	342.5				2,386.0 TONS
ASPHALT CEMENT (AC-5)	126.4	21.2				147.6 TONS
EMULSIFIED ASPHALT (SS-1H) FOR TACK	7.8	1.3				9.1 TONS
BASE COURSE						
AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	7,143.8	1,371.2	2,604.2	812.8	377.7	12,113.8 TONS
ASPHALT CEMENT (AC-5)	402.1	77.5	146.6	34.5	21.3	682.0 TONS
EMULSIFIED ASPHALT (SS-1H) FOR TACK	24.8	4.3	7.1	1.8		38.0 TONS
WATER (NO SIGN DILUTION)					1.0	1.0 M GALS.
ROAD MIX BITUMINOUS BASE COURSE						
EMULSIFIED ASPHALT	551.1	153.7				704.8 TONS
MINERAL FILLER	787.3	219.8				1,007.1 TONS
BITUMINOUS BASE (B-1)	27,026	7,538				34,564 SQ. YDS.
BITUMINOUS SEALING						
COVER MATERIAL (CM-A)**	78.6	21.4				100.0 CU. YDS.
COVER MATERIAL (CM-B)		19.7				19.7 CU. YDS.
COVER MATERIAL (CM-C)			51.8	18.5		70.3 TONS
CUTBACK ASPHALT (RC-3000)**	10.4	2.8				13.2 TONS
CUTBACK ASPHALT (RC-3000)		2.5	7.7	2.4		12.6 TONS
MANIPULATION (BITUMINOUS SEAL)	28.8	8.8				37.6 STA.
MANIPULATION (BITUMINOUS SEAL)		7.4				7.4 STA.
MANIPULATION (BITUMINOUS SEAL) SHOULDERS			73.4	27.2		100.6 STA.
ASPHALTIC PAVEMENT SAMPLING						
SELECTED EMBANKMENT MATERIAL (VEHICLE MEASUREMENT)	14	5				19 EACH

RATES OF APPLICATION (SHOULDER)				
RATE	UNITS	ITEM	SHOULDER WIDTH	REMARKS
BASE COURSE				
# 48.10	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	10'-0"	MAINLINE
2.736	TONS/STA.	ASPHALT CEMENT (AC-5)		
# 25.08	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-5 REVISED)	8'-0"	MAINLINE AT ACCELERATION OR DECELERATION LANES
1.074	TONS/STA.	ASPHALT CEMENT (AC-5)		
# 15.62	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8'-0"	SIDE ROAD LT.
0.533	TONS/STA.	ASPHALT CEMENT (AC-5)		STA. 1186+94.14
# 27.82	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8'-0"	SIDE ROAD LT.
1.571	TONS/STA.	ASPHALT CEMENT (AC-5)		STA. 1200+39.84
# 31.94	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8'-0"	SIDE ROAD RT.
1.792	TONS/STA.	ASPHALT CEMENT (AC-5)		STA. 1200+39.84
0.10	GALS./SQ. YD.	EMULSIFIED ASPHALT (SS-1H) FOR TACK		
BITUMINOUS SEALING				
0.007	CU. YDS./SQ. YD.	COVER MATERIAL (CM-A)	ALL	ALL STABILIZED SHOULDERS
0.25	GALS./SQ. YD.	CUTBACK ASPHALT (RC-3000)		
	STA.	MANIPULATION (BITUMINOUS SEAL) SHOULDERS		

* RATES INCREASED BY
RATES INCREASED 15%

RATES OF APPLICATION (SURFACING)						
RATE	UNITS	ITEM	THICKNESS	TOP WIDTH	BOTTOM WIDTH	REMARKS
SURFACE COURSE						
# 28.07	TONS/STA.	AGGREGATE FOR BITUMINOUS SURFACE COURSE (SM-2)	2"	24'-0"	23'-11 1/2"	MAINLINE - MEDIAN TO CURB & GUTTER
1.882	TONS/STA.	ASPHALT CEMENT (AC-5)				
	TONS/STA.	AGGREGATE FOR BITUMINOUS SURFACE COURSE (SM-2)	2"	24'-0"	24'-0"	MAINLINE - MEDIAN TO SHOULDER
	TONS/STA.	ASPHALT CEMENT (AC-5)				
14.50	TONS/STA.	AGGREGATE FOR BITUMINOUS SURFACE COURSE (SM-2)	2"	12'-0"	12'-0"	ACCELERATION/DECELERATION OR LEFT TURN LANE
8.097	TONS/STA.	ASPHALT CEMENT (AC-5)				
0.10	GALS./SQ. YD.	EMULSIFIED ASPHALT (SS-1H) FOR TACK				
BASE COURSE						
# 93.55	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8"	23'-11 1/2"	23'-10"	MAINLINE - MEDIAN TO CURB & GUTTER
5.285	TONS/STA.	ASPHALT CEMENT (AC-5)				
# 94.16	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8"	24'-0"	24'-1"	MAINLINE - MEDIAN TO SHOULDER
5.300	TONS/STA.	ASPHALT CEMENT (AC-5)				
48.99	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8"	12'-0"	12'-0"	ACCELERATION/DECELERATION OR LEFT TURN LANE
2.844	TONS/STA.	ASPHALT CEMENT (AC-5)				
74.78	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8"	23'-11 1/2"	23'-10 3/4"	SIDE RD. LT. STA. 1200+39.84
4.208	TONS/STA.	ASPHALT CEMENT (AC-5)				
27.52	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8"	12'-0"	12'-0"	RT. TURN LANE SIDE RD.
2.112	TONS/STA.	ASPHALT CEMENT (AC-5)				LT. STA. 1200+39.84
# 68.93	TONS/STA.	AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED)	8"	24'-0"	24'-1"	SIDE ROAD LT.
3.787	TONS/STA.	ASPHALT CEMENT (AC-5)				STA. 1186+94.14
0.10	GALS./SQ. YD.	EMULSIFIED ASPHALT (SS-1H) FOR TACK				
ROAD MIX BITUMINOUS BASE COURSE						
# 6.974	TONS/STA.	EMULSIFIED ASPHALT	8"	30'-3"	31'-0"	MAINLINE - MEDIAN TO CURB & GUTTER
8.98	TONS/STA.	MINERAL FILLER				
341.67	SQ. YDS/STA.	BITUMINOUS BASE (B-1)				
9.348	TONS/STA.	EMULSIFIED ASPHALT	8"	30'-9-5/8"	42'-11-5/8"	MAINLINE - MEDIAN TO SHOULDER
13.24	TONS/STA.	MINERAL FILLER				
457.99	SQ. YDS/STA.	BITUMINOUS BASE (B-1)				
2.721	TONS/STA.	EMULSIFIED ASPHALT	8"	12'-0"	12'-0"	LEFT TURN LANE & ACCELERATION OR DECELERATION LANE
3.89	TONS/STA.	MINERAL FILLER				
133.23	SQ. YDS/STA.	BITUMINOUS BASE (B-1)				MAIN CURB & GUTTER
2.022	TONS/STA.	EMULSIFIED ASPHALT	8"	9'-1-5/8"	9'-1-5/8"	ACCELERATION/DECELERATION LANE ALIGNED WITH A SHUTTER
2.96	TONS/STA.	MINERAL FILLER				
101.58	SQ. YDS/STA.	BITUMINOUS BASE (B-1)				
9.978	TONS/STA.	EMULSIFIED ASPHALT	8"	42'-0"	45'-0"	SIDE ROAD LT.
14.26	TONS/STA.	MINERAL FILLER				STA. 1186+94.14
488.88	SQ. YDS/STA.	BITUMINOUS BASE (B-1)				
BITUMINOUS SEALING						
2.67	CU. YDS/STA.	COVER MATERIAL (CM-A)**		30'-0"		TEMP. SURFACE - SEE CONSTRUCTION - TRACK NO. 6
83.34	GALS./STA.	CUTBACK ASPHALT (RC-3000)**				
	STA.	MANIPULATION (BITUMINOUS SEAL)				
2.67	CU. YDS/STA.	COVER MATERIAL (CM-B)		24'-0"		SIDE ROAD LT.
83.33	GALS./STA.	CUTBACK ASPHALT (RC-3000)				STA. 1186+94.14
	STA.	MANIPULATION (BITUMINOUS SEAL)				

NOTES

ROAD MIX BITUMINOUS BASE COURSE:

THE TOP 6" OF IN-PLACE MATERIAL SHALL BE USED FOR THE ROAD MIX BITUMINOUS BASE COURSE WITH THE CONDITION THAT THIS MATERIAL CONTAIN A MINIMUM OF 10% BY DRY WEIGHT OF MINUS 200 MATERIAL. THE SUITABILITY OF THE IN-PLACE MATERIAL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

* MINERAL FILLER:

MINERAL FILLER HAS BEEN INCLUDED IN THE BID QUANTITIES WITH THE STIPULATION THAT IT BE SUBJECT TO AN UNDERDRUM UP TO 100%. NO ADJUSTMENT IN BID PRICE WILL BE MADE FOR UNDERDRUM OF THE BID ITEM MINERAL FILLER.

MINERAL FILLER FOR ROAD MIX BITUMINOUS BASE COURSE SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 607.01Z OF THE STANDARD SPECIFICATIONS.

** TEMPORARY SURFACE:

A BITUMINOUS SEAL (CM-A) HAS BEEN INCLUDED IN THE BID QUANTITIES WITH THE STIPULATION THAT IT BE SUBJECT TO AN UNDERDRUM UP TO 100%. NO ADJUSTMENT IN BID PRICE WILL BE MADE FOR AN UNDERDRUM OF THE BID ITEM FOR THIS SEAL.

ADDITIONAL TACK COATS:

AN ADDITIONAL TACK COAT OF EMULSIFIED ASPHALT (SS-1H) SHALL BE PROVIDED BETWEEN EACH LIFT OF THE SURFACE OR BASE WHEN SO ORDERED BY THE ENGINEER AND AT THE RATE DESIGNATED BY HIM. QUANTITIES FOR THESE TACKS HAVE BEEN COMPUTED AT 0.000418 TON PER SQ. YD.

AGGREGATE FOR BITUMINOUS SURFACE COURSE (SM-2) HAS BEEN COMPUTED AT THE RATE OF 145 LBS./CU. FT. (TOTAL MIX - AGGREGATE & ASPHALT). ASPHALT CEMENT (AC-5) HAS BEEN COMPUTED AT THE RATE OF 9.59 BY DRY WEIGHT OF AGGREGATE.

AGGREGATE FOR BITUMINOUS BASE COURSE (BM-4 REVISED) HAS BEEN COMPUTED AT THE RATE OF 145 LBS./CU. FT. (TOTAL MIX - AGGREGATE & ASPHALT). ASPHALT CEMENT (AC-5) HAS BEEN COMPUTED AT THE RATE OF 8.5 BY DRY WEIGHT OF AGGREGATE.

DENSITY OF THE ROAD MIX BITUMINOUS BASE COURSE HAS BEEN ASSUMED AT 120 LBS./CU. FT. (DRY WEIGHT - AGGREGATE & MINERAL FILLER). THE MIXED MATERIAL IN PLACE IS TO BE USED FOR AGGREGATE. MINERAL FILLER HAS BEEN COMPUTED AT THE RATE OF 10% BY DRY WEIGHT.

DENSITY OF THE LIME TREATED SUBGRADE HAS BEEN ASSUMED AT 110 LBS./CU. FT. (DRY WEIGHT - AGGREGATE & LIME). HYDRATED LIME HAS BEEN COMPUTED AT THE RATE OF 3% BY DRY WEIGHT.

COVER MATERIAL (CM-A) HAS BEEN COMPUTED AT THE RATE OF 0.008 CU. YDS./SQ. YD. CUTBACK ASPHALT (RC-3000) HAS BEEN COMPUTED AT THE RATE OF 0.25 GALS./SQ. YD.

COVER MATERIAL (CM-B) HAS BEEN COMPUTED AT THE RATE OF 0.013 CU. YDS./SQ. YD. CUTBACK ASPHALT (RC-3000) HAS BEEN COMPUTED AT THE RATE OF 0.25 GALS./SQ. YD.

COVER MATERIAL (CM-C) HAS BEEN COMPUTED AT THE RATE OF 0.007 CU. YDS./SQ. YD. CUTBACK ASPHALT (RC-3000) HAS BEEN COMPUTED AT THE RATE OF 0.25 GALS./SQ. YD.

SELECTED EMBANKMENT MATERIAL SHALL BE OBTAINED FROM THE HOMOGENEOUS AREAS AS NOTED ON SHEET NO. 10 AS APPROVED BY THE ENGINEER.

RATES AND QUANTITIES FOR BITUMINOUS BASE COURSES HAVE BEEN INCREASED FOR CONTINGENCIES (8% FOR BASE, 15% FOR 4" BASE).

SEDGWICK COUNTY HIGHWAY DEPARTMENT
G.C. MCLEURE, JR., COUNTY ENGINEER

**SURFACING RATES
AND QUANTITIES**

SEDGWICK COUNTY PROJECT 875-SU-42800

PROFESSIONAL ENGINEERING CONSULTANTS

