

Received 1/9/91

STATE DEPARTMENT OF HIGHWAYS DIVISION OF HIGHWAYS - STATE OF COLORADO

PE, R.O.W. and Utilities under
Proj. No. I 76-1(35) and
I 76-1(124)

FED. ROAD REGION	DIVISION	PROJECT NUMBER	SHEET NUMBER
VIII	COLO.	I 76-1(107) I 76-1(108)	1
AS CONSTRUCTED			
NO REVISIONS ☐ REVISED ☒ VOID ☐			
REVISIONS			
R-1 1/23/91 Revised Sheet Nos. 7653 E.B.			

PLAN AND PROFILE OF PROPOSED FINAL COMBINED FEDERAL AID PROJECT NOS. I76-1(107) & I76-1(108) ADAMS COUNTY

TABULATION OF LENGTH & DESIGN DATA

STATION	I76-1(107)		I76-1(108)	
	ROADWAY	MAJOR STR.	ROADWAY	MAJOR STR.
	LIN. FT.	MILES	LIN. FT.	MILES
STA. 314+40.91 BEGIN I76-1(107) = STA. 314+40.91 ON PROJ. I76-1(106) M.P. 4.39 STR. NOS. E-16-MP & E-16-MQ STA. 316+53.07			212.16	0.040
STA. 320+65.00 END PROJ. I76-1(107)	411.93	0.078		
STA. 107+00.00 BEGIN PROJ. I76-1(108) = STA. 107+00.00 PECOS ST.			2975.0	0.563
STA. 136+75.00 END PROJ. I76-1(108) = STA. 136+75.00 PECOS ST.				
TOTALS	411.93	0.078	212.16	0.040
	2975.0	0.563		
SUMMARY				
I 76-1(107)	LIN. FT.	MILES		
ROADWAY (NET LENGTH)	411.93	0.078		
MAJOR STRUCTURES	212.16	0.040		
PROJECT GROSS AND NET LENGTH	624.09	0.118		
I 76-1(108)				
ROADWAY (NET LENGTH)	2975.0	0.563		
PROJECT GROSS AND NET LENGTH	2975.0	0.563		
DESIGN DATA				
	I76-1(107)	I76-1(108)		
MAXIMUM DEGREE OF CURVE	0° 45'	N/A		
MAXIMUM GRADE	1.21%	0.73%		
MINIMUM S.S.D. HORIZONTAL	> 750'	N/A		
MINIMUM S.S.D. VERTICAL	> 750'	N/A		
MAXIMUM DESIGN SPEED	70 MPH	45 MPH		
2010 DESIGN TRAFFIC VOLUME	D.D.H.V. = 3850 A.D.T. = 63,800	1940 33,000		

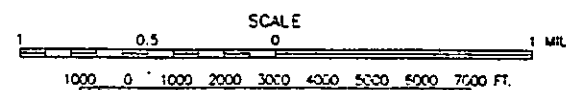
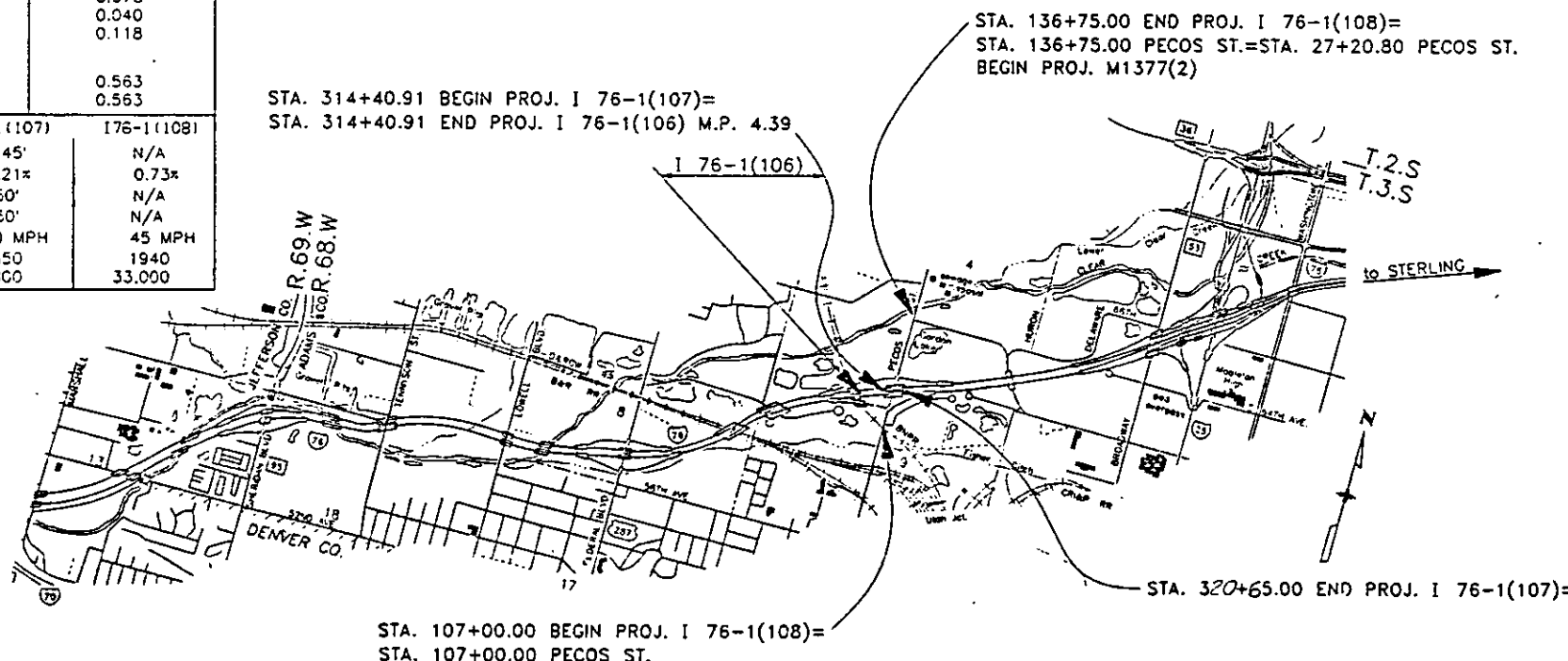
SCALES OF ORIGINAL DRAWINGS
ON PLAN, 1 IN. = 50 FT.
ON PROFILE { 1 IN. = 50 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL

Construction only

INDEX OF SHEETS

- TITLE SHEET
 - STANDARD PLANS LIST
 - SUMMARY OF APPROXIMATE QUANTITIES
 - SUMMARY OF EARTHWORK/GENERAL NOTES
 - FENCING, DELINEATOR, CONCRETE SIDEWALK, CURB RAMPS, CURB AND GUTTER AND GUARDRAIL TABS
 - STRUCTURAL QUANTITIES, SURFACING AND LIGHTING TABS
 - TYPICAL SECTIONS I 76 AND RAMPS
 - I 76 GEOMETRICS
 - PECOS ST. INTERCHANGE GEOMETRICS
 - SUBSURFACE GEOLOGY, GEOTEXTILE (REINFORCEMENT) LIMITS AND BORING LOGS
 - PLAN AND TOPOGRAPHY
 - I 76 PROFILE
 - BRIDGE PLANS; STRUCTURE E-16-MP AND E-16-M
 - TYPICAL SECTION PECOS ST.
 - TYPICAL SECTIONS PECOS ST. DETOURS
 - TYPICAL SECTION SERVICE ROAD (WESTERN PAVING CONSTR. CO.); TYPICAL SECTION 64TH AVENUE
 - PLAN SHEETS FOR PECOS, I 76 AND FR. RD.
 - DETAIL OF B.N.R.R. CROSSING AT PECOS ST.
 - DETAIL OF 84TH AVE. AT PECOS ST.
 - PECOS ST. PROFILE
 - PECOS FRONTAGE ROAD PROFILE/64TH AVE. PROFIL
 - DETOURS/PHASE CONSTRUCTION
 - DETOURS/DETAILS OF CONSTRUCTION PHASING
 - DETOURS/PECOS ST. DETOURS
 - DETOURS/B.N.R.R.
 - FRONTAGE RD. CONNECTION/RUMBLE STRIPS
 - IMPACT ATTENUATOR DETAILS
 - DETAIL OF RAMP ENTRANCE FROM CROSS STREET
 - DETAIL OF RAMP EXIT TO CROSS ST.
 - TABULATION OF STORM SEWER SYSTEM
 - STORM SEWER PROFILE W. OF PECOS
 - STORM SEWER PROFILE E. OF PECOS
 - 12" WATER LINE NORTH PECOS WATER & SANITATION DISTRICT
 - FIRE HYDRANT/WATER VALVE/MANHOLE/PLUG STRUCTURE
 - RAMP AND TURN PROFILE
 - PECOS ST. INTERCHANGE GRADING AND DRAINAGE
 - TRAFFIC SIGNAL PLANS AND DETAILS
 - LANDSCAPING PLANS
 - SIGNING AND STRIPING
 - SURVEY MONUMENT DETAILS
- REVISED STANDARD M-203-12 SUPERELEVATION OF CURVES, STREETS (8-16-84), 1 SHEET
REVISED STANDARD M-412-2 CONCRETE PAVEMENT, URBAN AREA (2-17-84), 1 SHEET
NEW AND REVISED STANDARDS M-606-12 GUARDRAIL TYPE 4, CONCRETE BARRIER (2-18-83), 9 SHEETS
REVISED STANDARD M-620-2 FIELD LABORATORY CLASS 2, (5-25-88), 1 SHEET

FOR INFORMATION ONLY:
I 76-1(108) PROJECT LENGTH FOR PAVING ARE:
ON PECOS ST. IS 2,975 LIN. FT. = 0.563 MILE
ON SE FRONTAGE RD. IS 1,400 LIN. FT. = 0.265 MILE



AS CONSTRUCTED INFORMATION

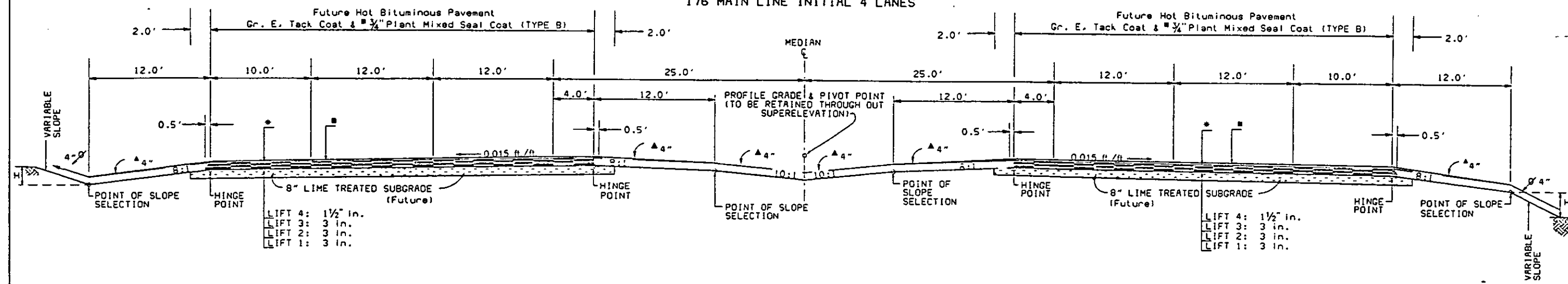
CONTRACTOR FLATIRON STRUCTURES
COMPANY ENGINEER A.P. (SKIP) HAD
(Resident or Resident)
PROJECT STARTED MARCH 6, 1999
PROJECT COMPLETED MARCH 9, 1999
E.B./D-6
DATE 1-3-91

DIVISION OF HIGHWAYS
APPROVED:
<u>K. J. ...</u> CHIEF ENGINEER DATE

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DATE
DIVISION ADMINISTRATOR

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS	03-09-90	REVISED		VOID		
			VII	COLO.	176-1(124)	11

TYPICAL SECTION
176 MAIN LINE INITIAL 4 LANES

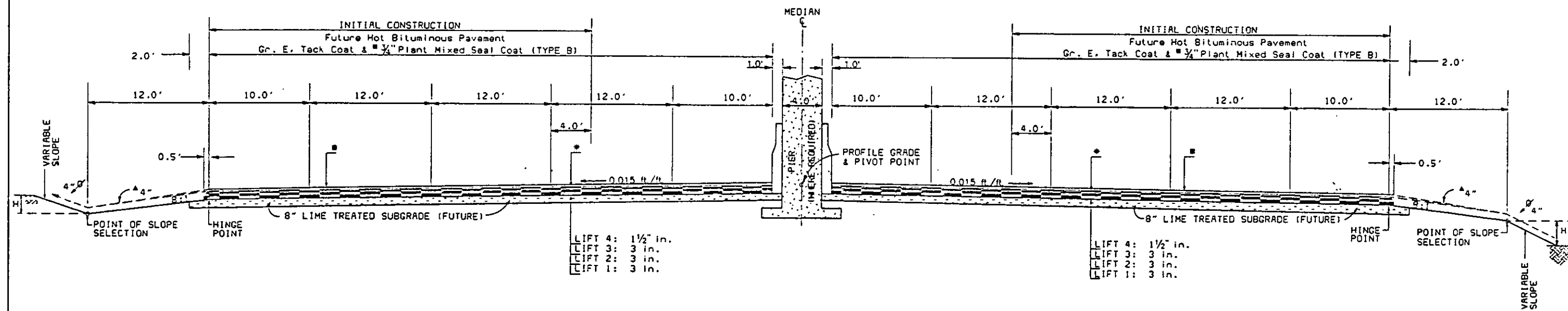


In super-elevated sections median low point is located as follows:
1. At intersection point of the 10:1 slopes.
2. If 10:1 slopes do not intersect, steepen one slope to intersect it at the point of slope selection.
The depth and width of the ditch shall be varied where necessary in order to provide proper drainage.

CUT OR FILL SLOPES
Slope 6:1 where 'H' is less than 10'
Slope 4:1 where 'H' is 10 to 25'
Slope 3:1 where 'H' is over 25'
In special cases, slope may be steepened
■ 3/4" Plant Mixed Seal Coat (TYPE B) (Future)
* Approximate thickness
▲ 4" Topsoil (This project)
▲ Future

Break points on slopes and in bottoms of ditches shall be rounded during construction for a pleasing appearance. See Standards for Details of Cut Slope Treatment, Flaring, and Widening.

TYPICAL SECTION
ULTIMATE 6 LANES

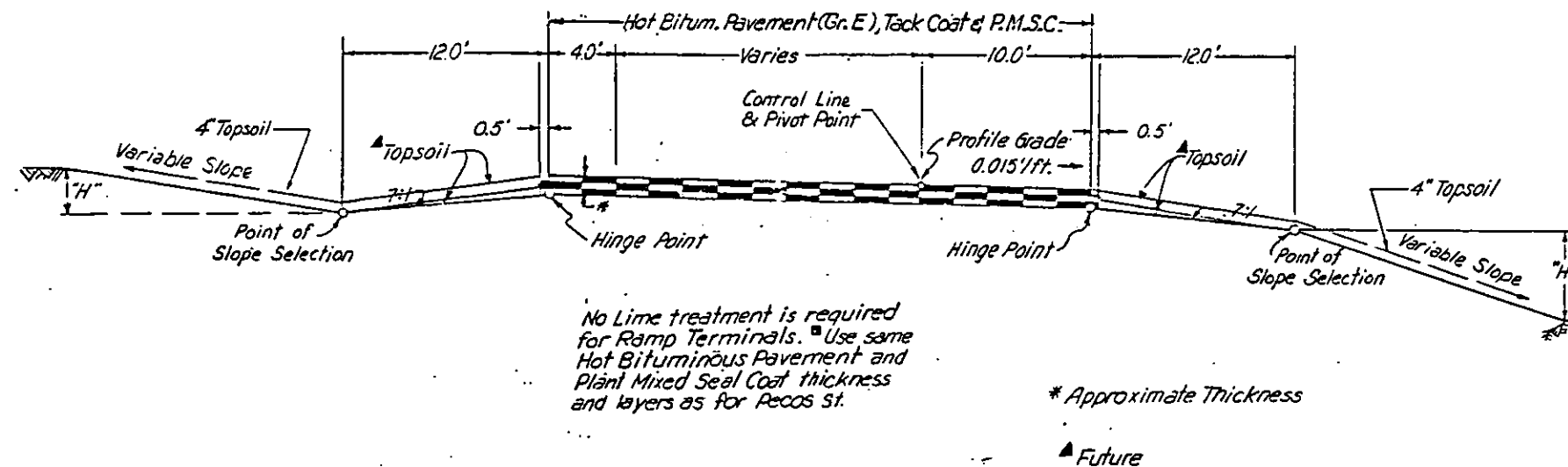


TYPICAL SECTIONS

PECOS ST. INTERCHANGE

RAMPS

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	I 76-1(107)	12	106
AS CONSTRUCTED				
NO REVISIONS 03-09-90 REVISED VOID				



CUT OR FILL SLOPES

"H"	Slope
10' or less	6:1
10' + to 25'	4:1
over 25'	3:1

In special cases slope may be steepened

FOR INFORMATION ONLY

FLEXIBLE PAVEMENT DESIGN CRITERIA

Pecos West Side Ramps

18k ESAL	985,000
Service Index	2.5
Regional Factor	1.0
Subgrade R Value	
Borrow top 2 feet 7 Min	
below top 2 feet 5	

W.S.N. = 3.80
W.S.N. (Lime treatment) = 0.80 Depth of 8 Inches
W.S.N. (HBP) = 2.86, thickness 6 1/2"
W.S.N. (PMSC) = 0.19, thickness 3/4"

Pecos East Side Ramps

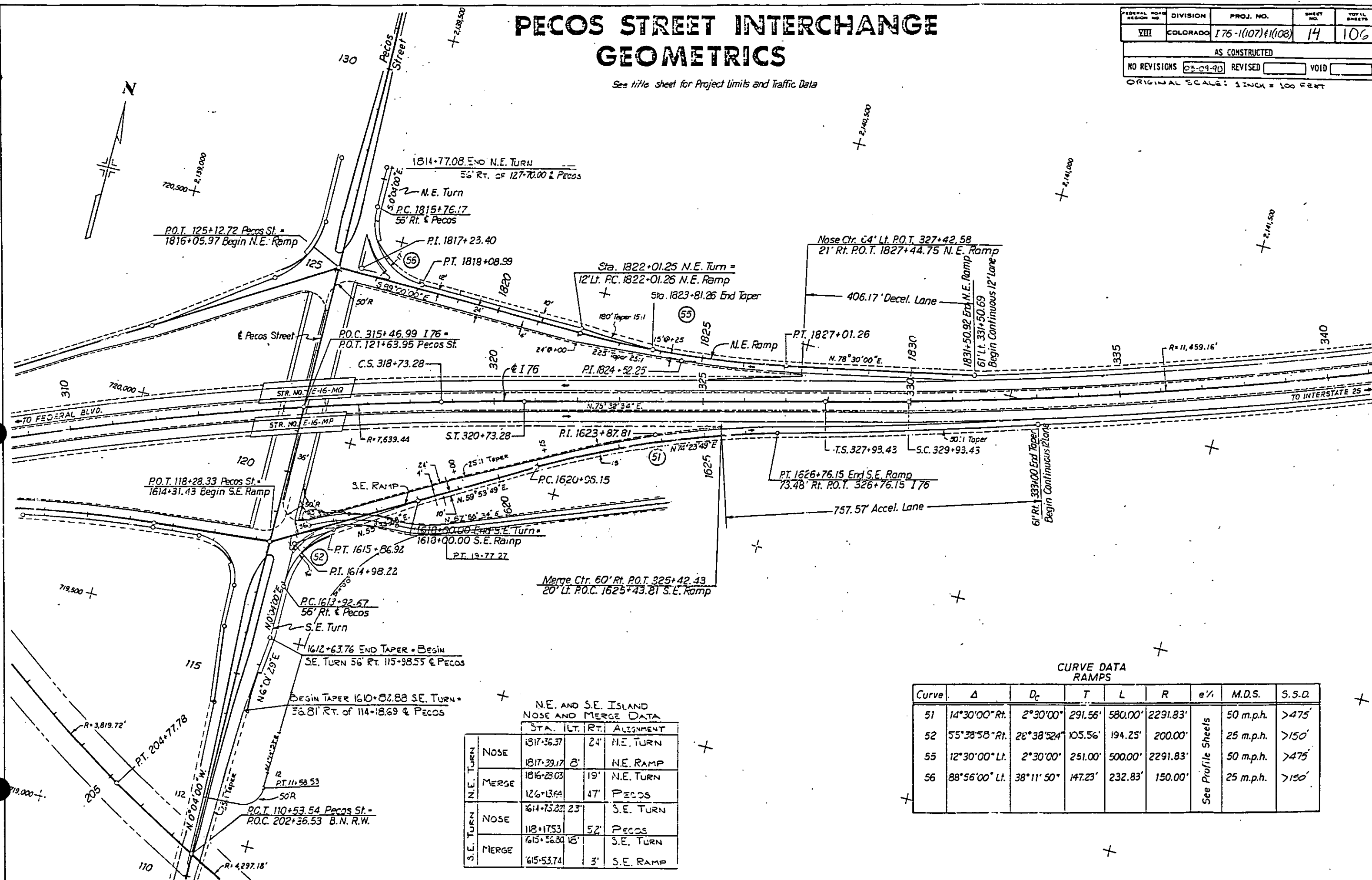
18k ESAL	590,000
Service Index	2.5
Regional Factor	1.0
Subgrade R Value	
Borrow top 2 feet 7 Min	
below top 2 feet 5	

W.S.N. = 3.62
Same as West Side
W.S.N. (HBP) = 2.64 thickness 6"
Same as West Side

PECOS STREET INTERCHANGE GEOMETRICS

See title sheet for Project limits and Traffic Data

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	176-1(107) & 1(108)	14	106
AS CONSTRUCTED				
NO REVISIONS 03-09-90 REVISED VOID				
ORIGINAL SCALE: 1 INCH = 100 FEET				



N.E. AND S.E. ISLAND NOSE AND MERGE DATA				
	STA.	LT.	RT.	ALIGNMENT
N.E. TURN	1817+36.37	24'		N.E. TURN
	1817+39.17	8'		N.E. RAMP
MERGE	1816+23.03	19'		N.E. TURN
	126+13.64	47'		PECOS
S.E. TURN	1614+75.82	23'		S.E. TURN
	118+17.53	52'		PECOS
MERGE	1615+56.80	18'		S.E. TURN
	1615+53.74	3'		S.E. RAMP

CURVE DATA RAMPS								
Curve	Δ	D _c	T	L	R	e/1	M.D.S.	S.S.D.
51	14°30'00" Rt.	2°30'00"	291.55'	580.00'	2291.83'		50 m.p.h.	>475'
52	55°38'58" Rt.	28°38'52"	105.56'	194.25'	200.00'		25 m.p.h.	>150'
55	12°30'00" Lt.	2°30'00"	251.00'	500.00'	2291.83'		50 m.p.h.	>475'
56	88°56'00" Lt.	38°11'50"	147.23'	232.83'	150.00'		25 m.p.h.	>150'

See Profile Sheets

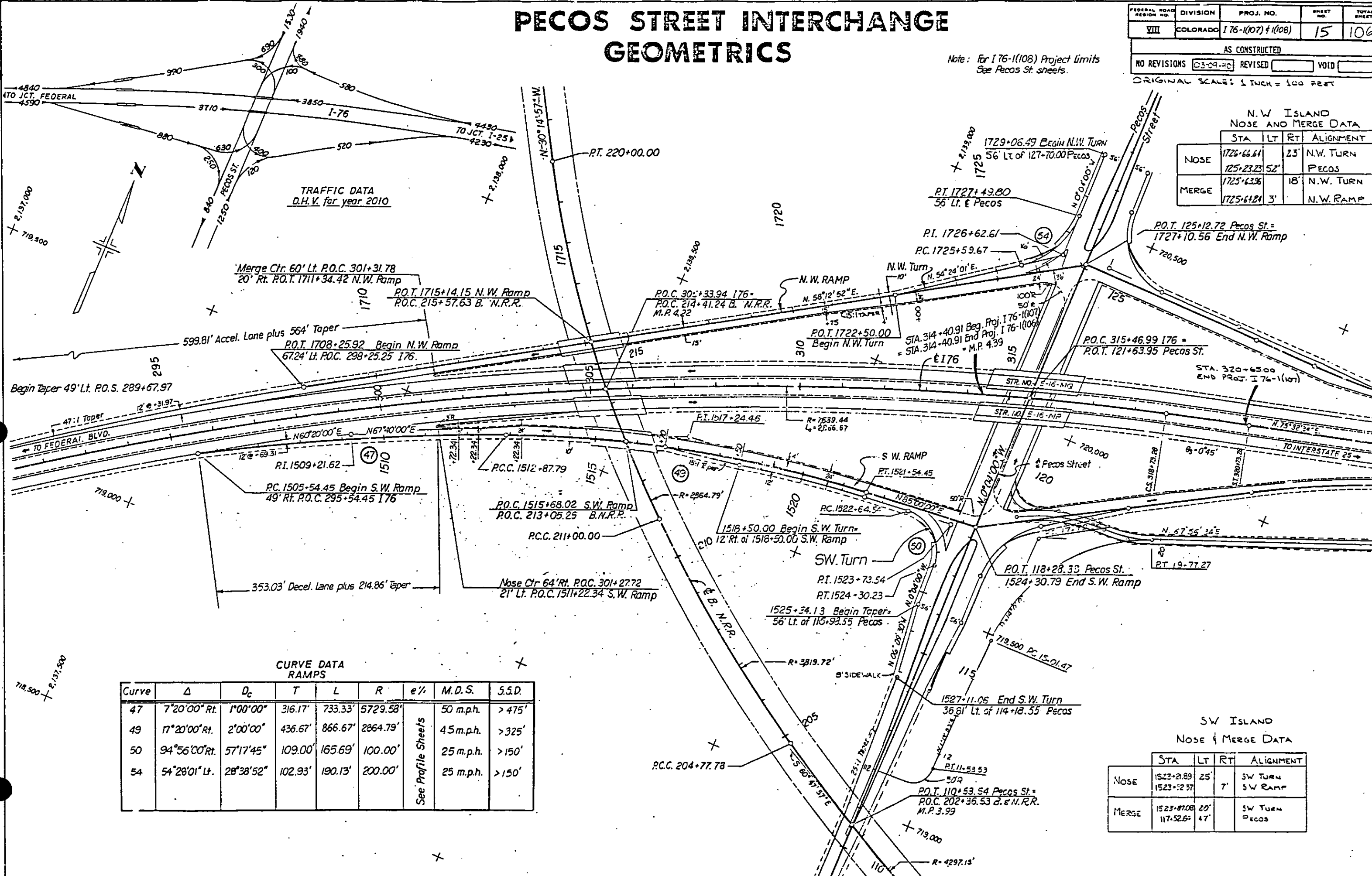
PECOS STREET INTERCHANGE GEOMETRICS

Note: For I 76-1(107) & I(108)
See Pecos St. sheets.

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	I 76-1(107) & I(108)	15	106
AS CONSTRUCTED				
NO REVISIONS 03-09-10 REVISED VOID				
ORIGINAL SCALE: 1 INCH = 100 FEET				

N.W. ISLAND
NOSE AND MERGE DATA

	STA	LT	RT	ALIGNMENT
NOSE	1726+66.61		23'	N.W. TURN
	1725+23.23	52'		PECOS
MERGE	1725+63.8		18'	N.W. TURN
	1725+64.81	3'		N.W. RAMP



CURVE DATA
RAMPS

Curve	Δ	D _c	T	L	R	e %	M.D.S.	S.S.D.
47	7°20'00" Rt.	1°00'00"	316.17'	733.33'	5729.58'		50 m.p.h.	> 475'
49	17°20'00" Rt.	2°00'00"	436.67'	866.67'	2864.79'		45 m.p.h.	> 325'
50	94°56'00" Rt.	57°17'45"	109.00'	165.69'	100.00'		25 m.p.h.	> 150'
54	54°28'01" Lt.	28°38'52"	102.93'	190.13'	200.00'		25 m.p.h.	> 150'

See Profile Sheets

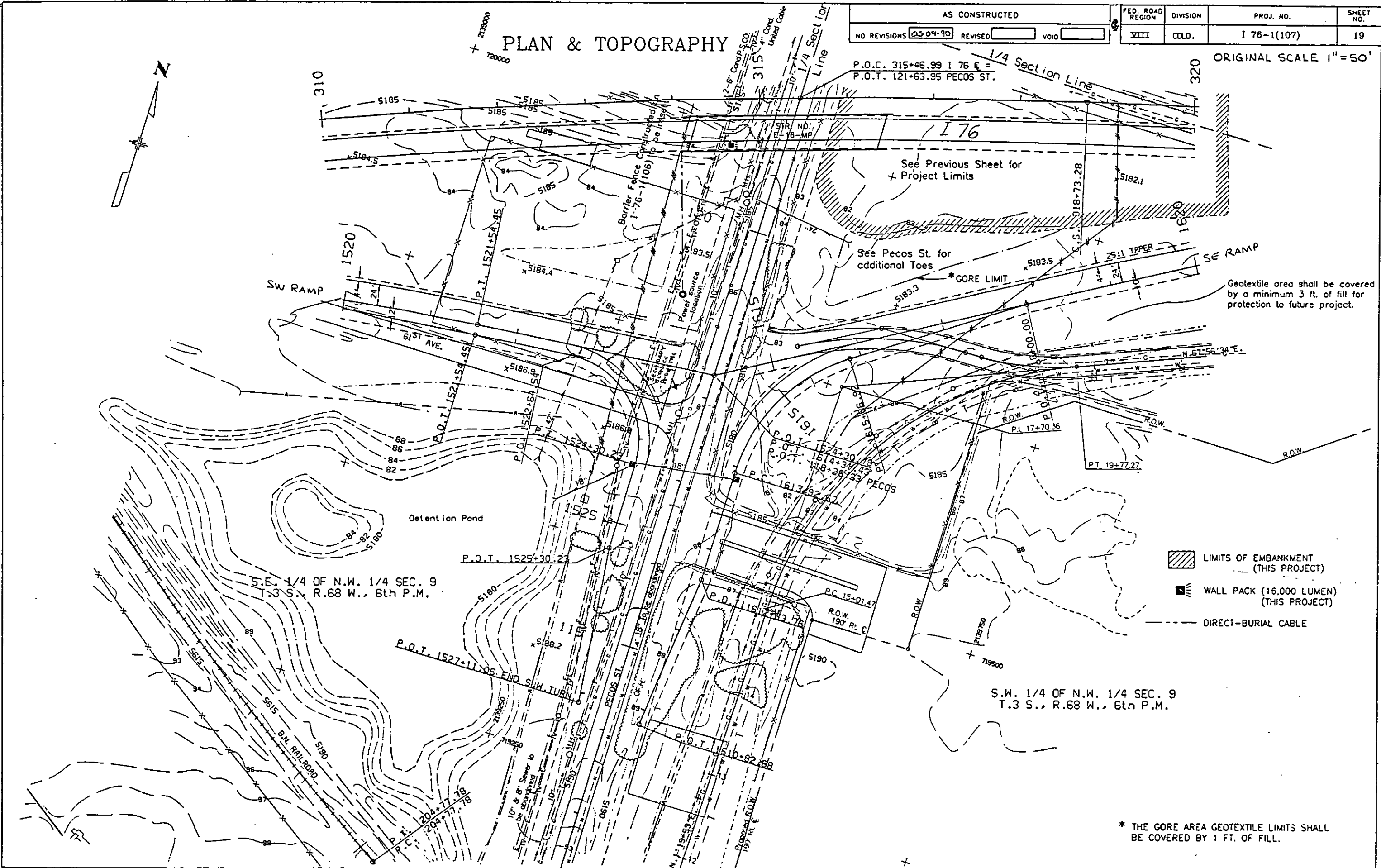
SW ISLAND
NOSE & MERGE DATA

	STA	LT	RT	ALIGNMENT
NOSE	1523+21.89		25'	SW TURN
	1523+32.37	7'		SW RAMP
MERGE	1523+87.08		20'	SW TURN
	117+52.6	47'		PECOS

PLAN & TOPOGRAPHY

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS	03-09-90	REVISED	VIII	COL.	I 76-1(107)	19

ORIGINAL SCALE 1"=50'

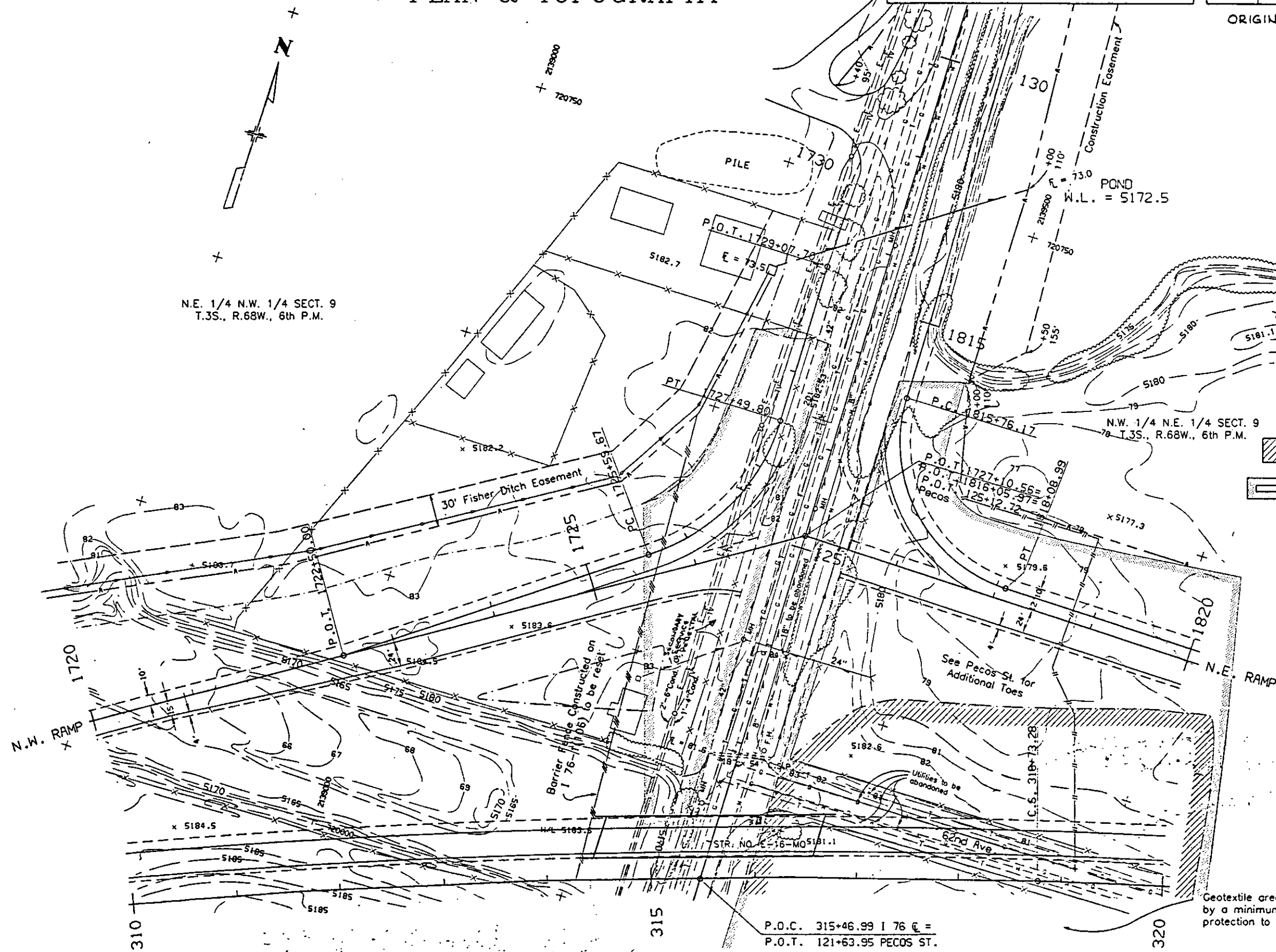


PLAN & TOPOGRAPHY

AS CONSTRUCTED		
NO REVISIONS	03-09-90	REVISED
		VOID

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	176-1(107)	20

ORIGINAL SCALE 1" = 50'



- LIMITS OF EMBANKMENT (THIS PROJECT)
- LIMITS OF GEOTEXTILE (REINFORCEMENT)(THIS PROJECT)

Geotextile area shall be covered by a minimum 3 ft. of fill for protection to future project

N.E. 1/4 N.W. 1/4 SECT. 9
T.3S., R.68W., 6th P.M.

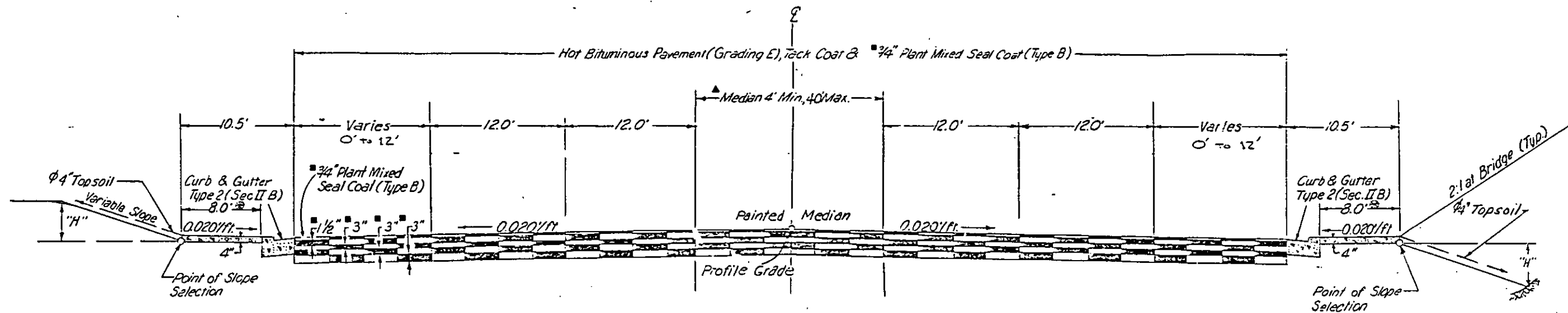
N.W. 1/4 N.E. 1/4 SECT. 9
T.3S., R.68W., 6th P.M.

P.O.C. 315+46.99 I 76 E =
P.O.T. 121+63.95 PECOS ST.

TYPICAL SECTION PECOS STREET

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	I 76-1(108)	46	106
AS CONSTRUCTED				
NO REVISIONS 03-09-90 REVISED VOID				

Sta. 114+18.55 to Sta. 136+75.00



Sta. 107+00.00 to Sta. 114+18.55

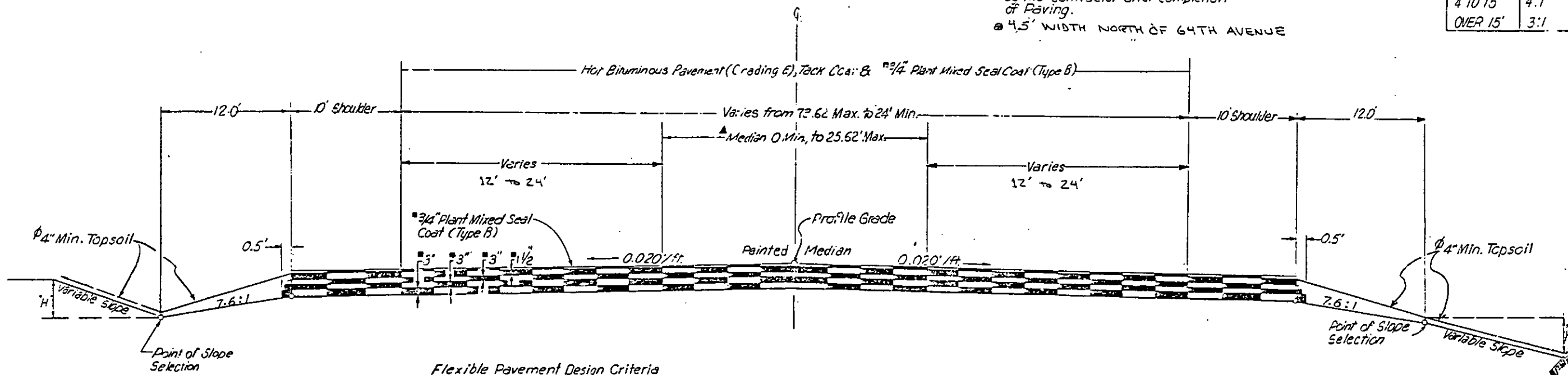
▲ For Details of left turn slots see plans.

■ Approximate thickness. Use same thickness for Ramp Terminals.

Φ Topsoil shall be placed to this line by the Contractor after completion of Paving.

● 4.5' WIDTH NORTH OF 64TH AVENUE

"H"	SLOPE
4' OR LESS	6:1
4' TO 15'	4:1
OVER 15'	3:1



Flexible Pavement Design Criteria Pecos St.

18K E.S.A.L.	2,866,500
Serviceability Index	2.50
Regional Factor	1.50
Subgrade "R" Value	5 below Top 2 Ft. and 7 for the Top 2 Ft.
WSN = 4.80	
WSN (HBP)	4.62 Thickness, 10 1/2 Inches
WSN (PMS Coat)	0.19 Thickness 3/4 Inches

Strength Coefficients

H.B.P. (Grading E)	0.44
P.M.S. Coat (Type B)	0.25

Break points on slopes and in bottoms of ditches shall be rounded during construction for a pleasing appearance. See Standard for details of Cut Slope Treatment, Flaring and Widening.

STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
H.M. FORM NO. 125
FEB. 1964

TYPICAL SECTIONS

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS	22-03-92	REVISED					
		VOID					
			VIII	COLO.	I76-1(108)	47	104

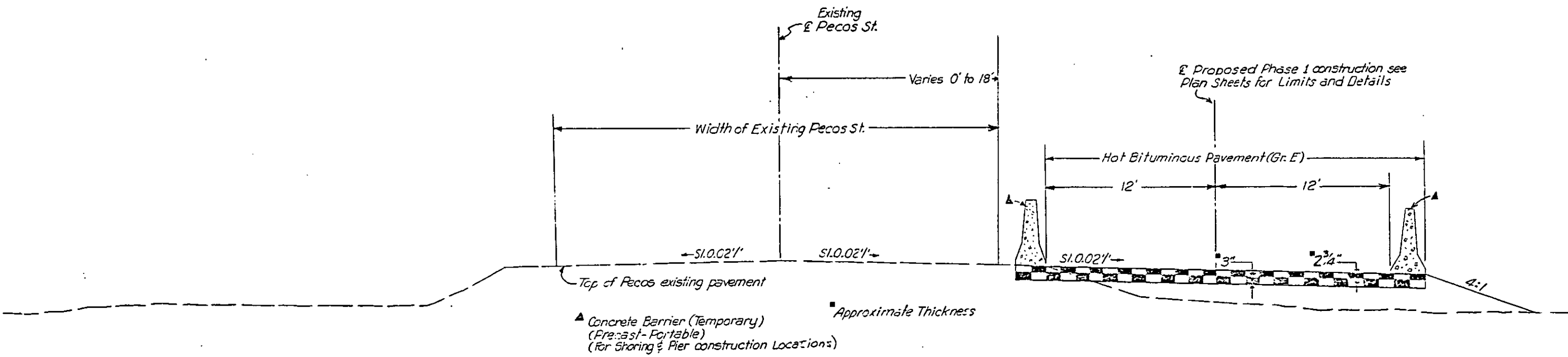
PECOS ST. DETOUR
(PHASE 1 CONSTRUCTION ONLY)

Flexible Pavement Design Criteria
Pecos St. Detours

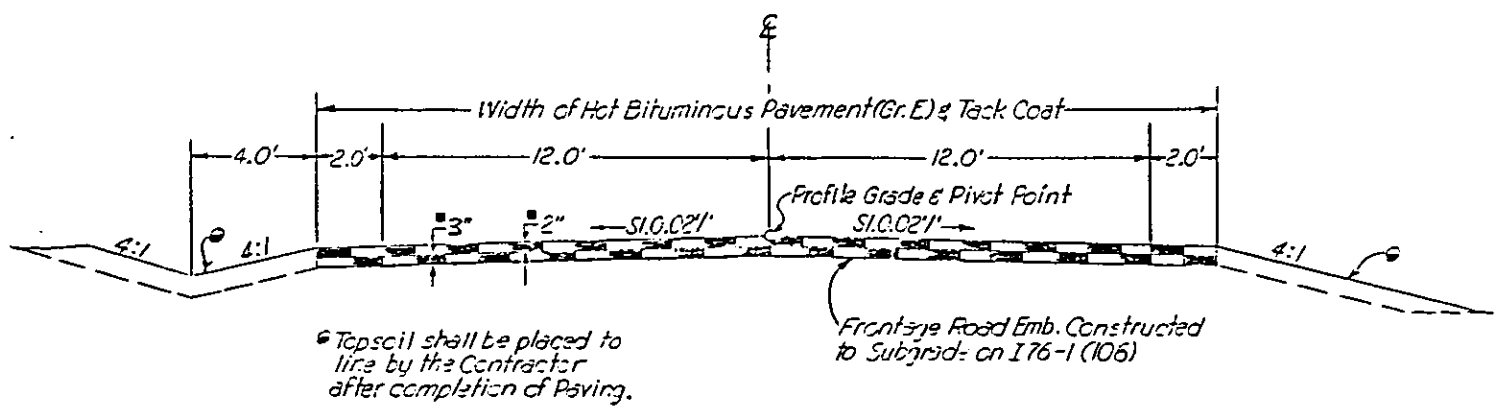
18k E.S.A.L.	67,100
Serviceability Index	2.50
Regional Factor	1.00
Subgrade "R" Value, See Earthwork Summary	
WSN (HBP)	2.53 Thickness, 5 3/4 Inches

Strength Coefficient

H.B.P. (Grading E)	0.44
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TEMPORARY FRONTAGE RD. CONNECTION
&
FRONTAGE RD.

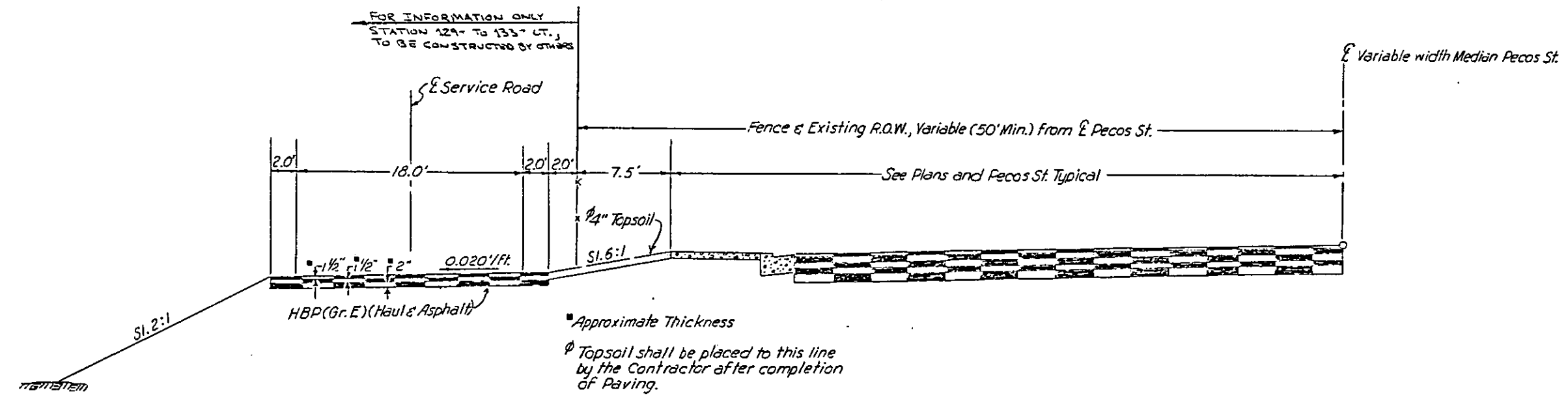


Note: Required 1 1/2" HBP (Gr. E) overlay on existing pavement on Frontage Rd. from Sta. 30+ to 31+.

Break points on slopes and in bottoms of ditches shall be rounded during construction for a pleasing appearance. See Standard for details of Cut Slope Treatment, Flaring and Widening.

TYPICAL SECTION SERVICE ROAD WESTERN PAVING CONSTR. CO.

AS CONSTRUCTED			FED. ROAD DISTRICT	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTAL
NO REVISIONS 03-09-90 REVISED VOID			VIII	COLO.	I 76-1(108)	48	106



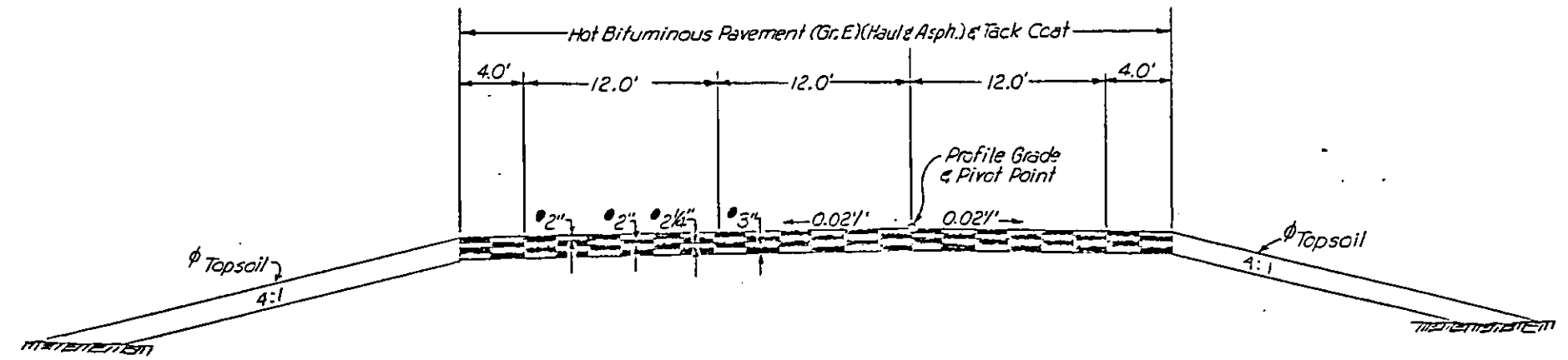
TYPICAL SECTION 64th AVE.

Flexible Pavement Design Criteria

18k E.S.A.L.	1,331,213
Serviceability Index	2.50
Regional Factor	1.50
Subgrade "R" Value	7
WSN = 4.26	
WSN (HBP)	4.07 Thickness, 9 1/4 Inches
WSN (PMS Coat)	0.19 Thickness, 3/4 Inches

Strength Coefficients

H. B. P. (Grading E)	0.44
P. M. S. Coat (Type B)	0.25



Break points on slopes and in bottoms of ditches shall be rounded during construction for a pleasing appearance. See Standard for details of Cut Slope Treatment, Flaring and Widening.

FEDERAL ROAD SECTION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	I 76-1 (123)	49	106
AS CONSTRUCTED				
NO REVISIONS	23-33-20	REVISED		VOID

PECOS ST.

S.E. 1/4 of N.W. 1/4 Sec. 9
T.3S., R.68W. 6th P.M.

GEIRD


 Existing Chain Link Fence
 Proposed Chain Link Fence
 Limits of Embankment

▲ Existing R.O.W. shown
is from 1/4 Section Line

See Utilities note and Utilities
on the following sheet.

• 38' of 20" Steel Casing, 12-4" P.V.C.
and Buried Cable continuous
along Fecos St (Mountain Bell)
(Existing)

S.W. 1/4 of N.E. 1/4 Sec. 9
T.3S., R.68W. 6th P.M.

NOTES

Detention Pond constructed
on I 76-1(106)

S.E. 1/4 of N.W. 1/4 Sec. 9
T. 3S., R. 68W. 6th P.M.

Approximate Limits of
Faving on this project.

Carrier fence to the Reset
See Fencing Tabulation -

~~Approximate limits of
Paving on this project~~

N.E. 1/4 of N.W. 1/4 Sec. 9
T.3S., R.68W. 6th P.M.

DETAIL OF ACCESS
from Frontage Rd.

S.W. 1/4 of N.E. 1/4 Sec 9
T. 3S., R. 68 W. 6th P.M.

NOTE: Existing Utilities (Gas, Telephone, Water & Sewer lines) on 62nd. to be abandoned

N.W. 1/4 of N.E. 1/4 Sec. 9
T. 3 S., R. 68 W. 6th P.M.

LEGEND

-  Concrete barrier (Temp.)
 Limits of Embankment
 Proposed Chainlink fence
 Proposed Barbed wire fence
 Direct Burial Cable (To be constructed on 176-1(167)
 Limits of paving on Frontage Rd.

PECOS ST.

See Previous sheet for utility notes

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS	03-09-70	REVISED	VOID	VIII	COLO.	I 76-1(108)	51 106

