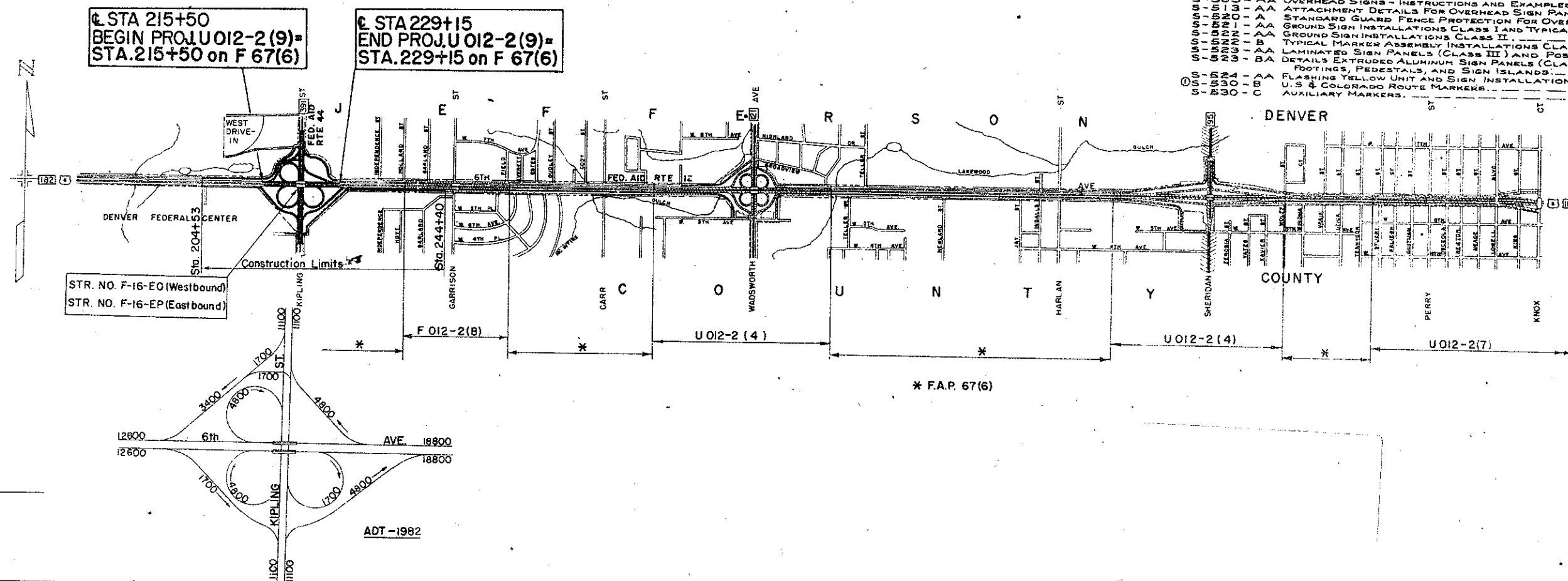
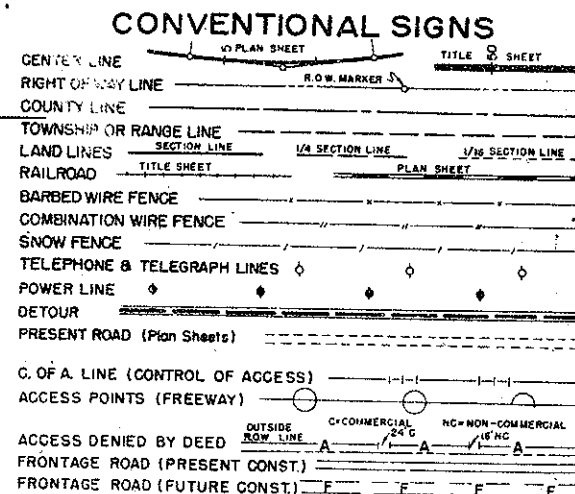


PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. U 012-2(9)
STATE HIGHWAY NO. 182
JEFFERSON COUNTY

SHEET No.		INDEX OF SHEETS	R.O.W. PURCHASED UNDER UF 012-2(2)	
2-	1	SKETCH MAP & TITLE PAGE.		
2-	4	TYPICAL CROSS SECTIONS OF IMPROVEMENT.		
5	5	TABULATION OF LENGTH & DESIGN DATA, SUMMARY OF EARTHWORK, TABULATION OF SECTIONS, GENERAL NOTES, & DETAIL OF TRANSITION CONCRETE GUTTER.		
6-	7	SUMMARY OF APPROXIMATE QUANTITIES.		
8	8	REMOVAL ITEMS.		
10-	11	LIST OF STRUCTURES.		
12-	13	TABULATION OF SURFACING.		
14	14	TABULATION OF CURBS & GUTTERS.		
15	15	TABULATION OF DRAINAGE (STORM SEWER).		
16	16	TABULATION OF DRAINAGE (CULVERTS).		
17	17	CONCRETE INLET NO. 3, GATE & FRAME NO. 13 & CAPPING DETAIL.		
18-	19	MANHOLE DETAILS.		
20-	27	DETAILS OF BRIDGES, STA. 221+.		
28	28	TYPICAL DRIVEWAY PLAN.		
29	29	TYPICAL ENTRANCE RAMP MERGING DETAIL.		
30	30	NE-1 EXIT RAMP DETAIL, DIVERSION BOX NO. 4 & NO. 36.		
31-	37	ROADWAY DRAINAGE PLANS.		
38	38	TYPICAL VIEW OF LIGHTING STANDARD, TYPICAL LIGHTING LAYOUT & FENCING DETAILS.		
39-	42	DELINATORS, LIGHTING & FENCING PLANS.		
43-	49	PLAN & PROFILE SHEETS.		
53	53	RAMP, FRONTAGE ROAD & CONNECTION GRADES.		
55-	58	SEQUENCE OF CONSTRUCTION.		
59	59	METHODS FOR SUPERELEVATION.		
60-	61	TABLES FOR SUPERELEVATION OF CURVES.		
62	62	CONCRETE PAVEMENT BRIDGE APPROACH SLAB, STANDARD M-37-B (SPECIAL).		
63	63	SUMMARY OF APPROXIMATE QUANTITIES (SIGNING), TABULATION OF CLASS III SIGNS & TABULATION OF OVERHEAD SIGNS.		
64	64	TABULATION OF SIGNS.		
65-	70	SIGN LOCATION PLAN SHEETS.		
71	71	STANDARD REGULATORY SIGNS.		
72	72	STANDARD WARNING SIGNS.		
73	73	STANDARD SIGN BRIDGES, STRUCTURAL FRAME, STANDARD S-501-A (SPECIAL).		
74	74	OVERHEAD SIGN POSTS - TYPES I-S THRU VII-3, STANDARD S-511-A (SPECIAL).		
75	75	STANDARD LIGHT BASES, STANDARD S-514-A (SPECIAL).		
76	76	FLUORESCENT SIGN LIGHTING EQUIPMENT, STANDARD S-515-A (SPECIAL).		
77	77	CROSS SECTION, FOOTING FOR OVERHEAD SIGNS.		
78-218	78-218	CROSS SECTION SHEETS.		
M-5-B-A		LETTERS AND FIGURES FOR STRUCTURE NUMBERS.		
M-6-B		CONSTRUCTION TRAFFIC SIGNS.		
M-6-CA		IDENTIFICATION SIGNS. (2 SHEETS)		
M-13-A		DITCH TYPES		
M-16-A		BACKFILL AROUND STRUCTURES.		
M-19-A		CONCRETE PAVEMENT JOINTS.		
M-45-A		CULVERT PIPE H-20 LOADING.		
M-46-B		CONCRETE MEDIAN INLETS.		
M-52-A		REINFORCED CONCRETE PIPE.		
M-71-A		METAL PIPE UNDERDRAIN.		
M-72-A		METAL PLATE GUARD FENCE.		
M-75-B		BARRIER FENCE.		
M-81-A		MARKER POSTS AND BENCH MARKS.		
M-84-A		CURBS AND GUTTERS.		
M-93-A		EMBANKMENT PROTECTORS.		
M-95-A		HEADWALLS AND APRONS FOR C.M.P. CULVERTS.		
-152-AA		CONCRETE END AND ANGLE SECTIONS.		
-192-AA		DELINATORS. (2 SHEETS)		
0				
009N-AA		STANDARD SIGN BRIDGES - MISCELLANEOUS DETAILS.		
103-AA		OVERHEAD SIGNS - INSTRUCTIONS AND EXAMPLES.		
113-AA		ATTACHMENT DETAILS FOR OVERHEAD SIGN PANELS.		
202N-1-AA		STANDARD GUARD FENCE PROTECTION FOR OVERHEAD SIGN SUPPORTS.		
202N-1-AA		GROUND SIGN INSTALLATIONS CLASS I AND TYPICAL GROUND SIGN PLACEMENT.		
202N-1-B		TYPICAL MARKER ASSEMBLY INSTALLATIONS CLASS II.		
202N-1-AA		LAMINATED SIGN PANELS (CLASS III) AND POST SPACING TABLE.		
202N-1-BA		DETAILS EXTRUDED ALUMINUM SIGN PANELS (CLASS III).		
204-AA		FLASHING YELLOW UNIT AND SIGN ISLANDS.		
304-B		U.S. & COLORADO ROUTE MARKERS.		
30-C		AUXILIARY MARKERS.		



See Special Provision for
Notice to Bidders

DEPARTMENT OF HIGHWAYS ✓
STATE OF COLORADO

APPROVED:

C. C. Shambaugh by R. R. Smith 27-64

CHIEF ENGINEER DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

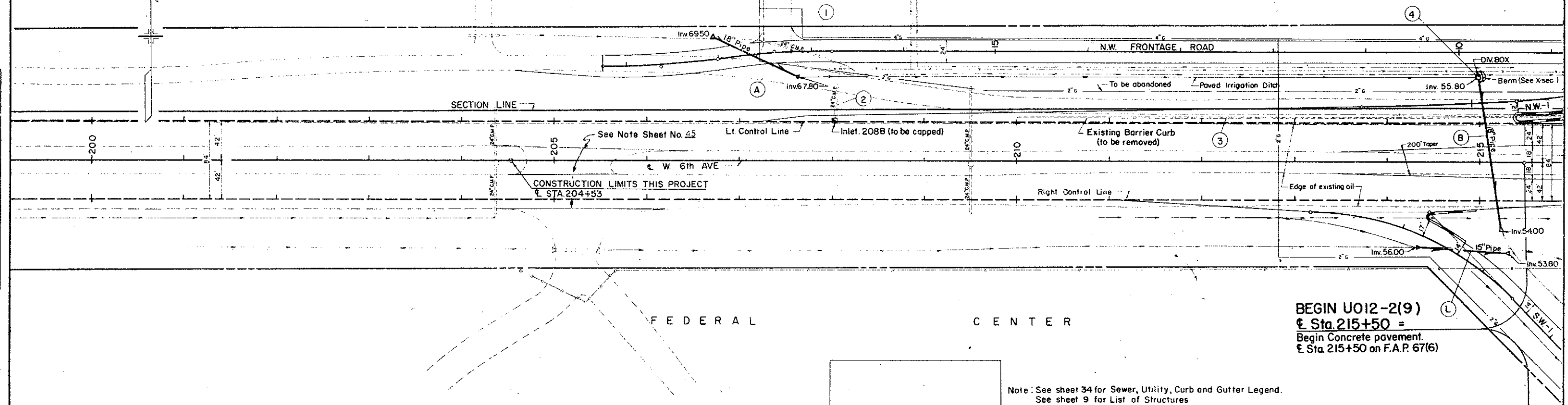
APPROVED: _____

DATE _____

DISTRICT ENGINEER

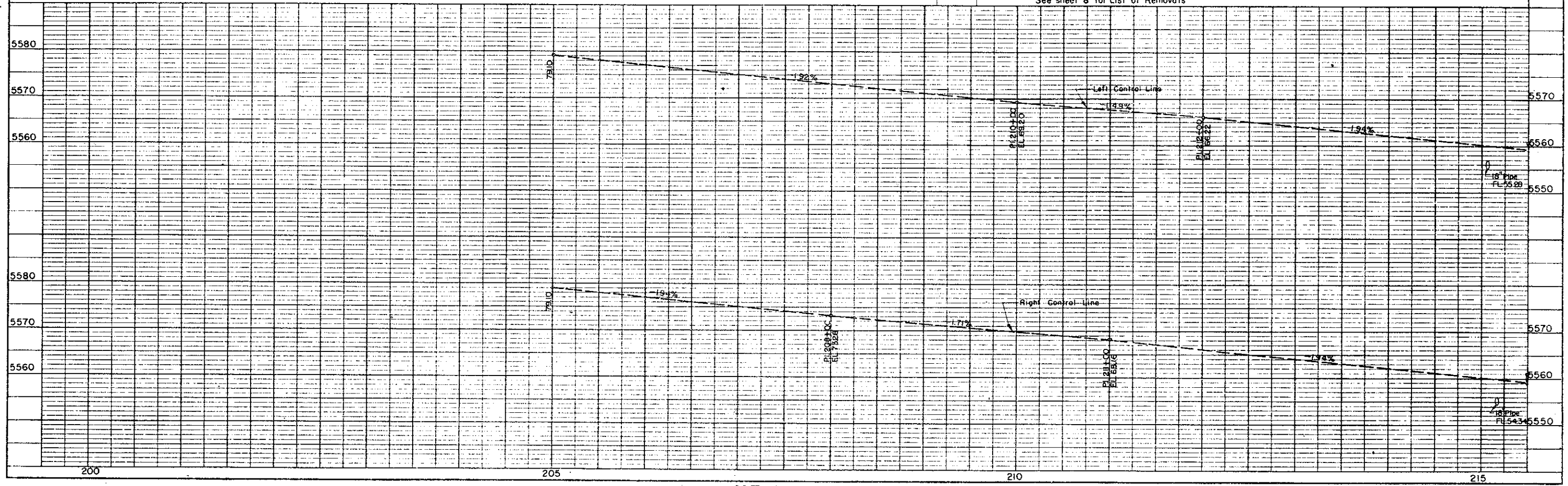
FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	U 012-2 (9)	31

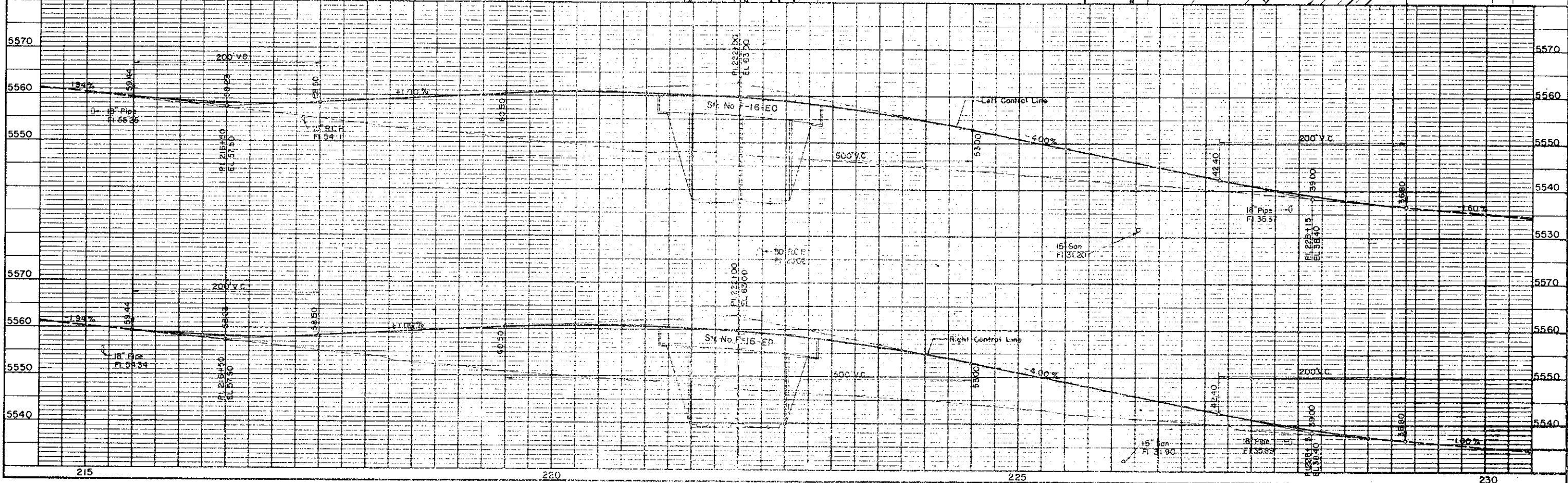
ROADWAY DRAINAGE PLANS



BEGIN U012-2(9)
Sta. 215+50 =
Begin Concrete pavement.
Sta. 215+50 on F.A.P. 67(6)

Note: See sheet 34 for Sewer, Utility, Curb and Gutter Legend.
See sheet 9 for List of Structures
See sheet 8 for List of Removals



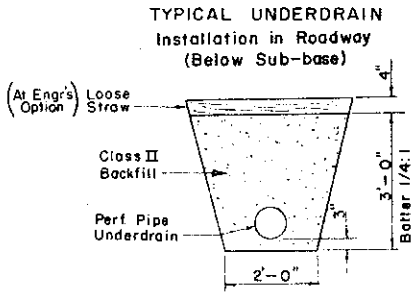
ROADWAY DRAINAGE PLANS

PLANT 1. PLANT PROTECTIVE
SERVICE & EQUIPMENT

FEDERAL ROAD DISTRICT NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U 012-2 (9)	34	

ROADWAY DRAINAGE PLANS

Note: See sheet 9 for List of Structures
See sheet 8 for List of Removals



LEGEND

SANITARY SEWERS

- Existing sanitary sewer
- Existing sewers to be abandoned
- Existing sewer to be plugged
- Existing manhole requiring new work
- New sewers and manholes

STORM SEWERS

- Existing lines, manholes and inlets
- Existing lines to be used
- Existing lines to be plugged and/or inlets to be abandoned
- New lines, manholes and inlets (Type A&B)

UTILITY LINES

- Gas lines (Exist.)
- Gas lines (New)
- Water lines (Exist.)
- Water lines (New)

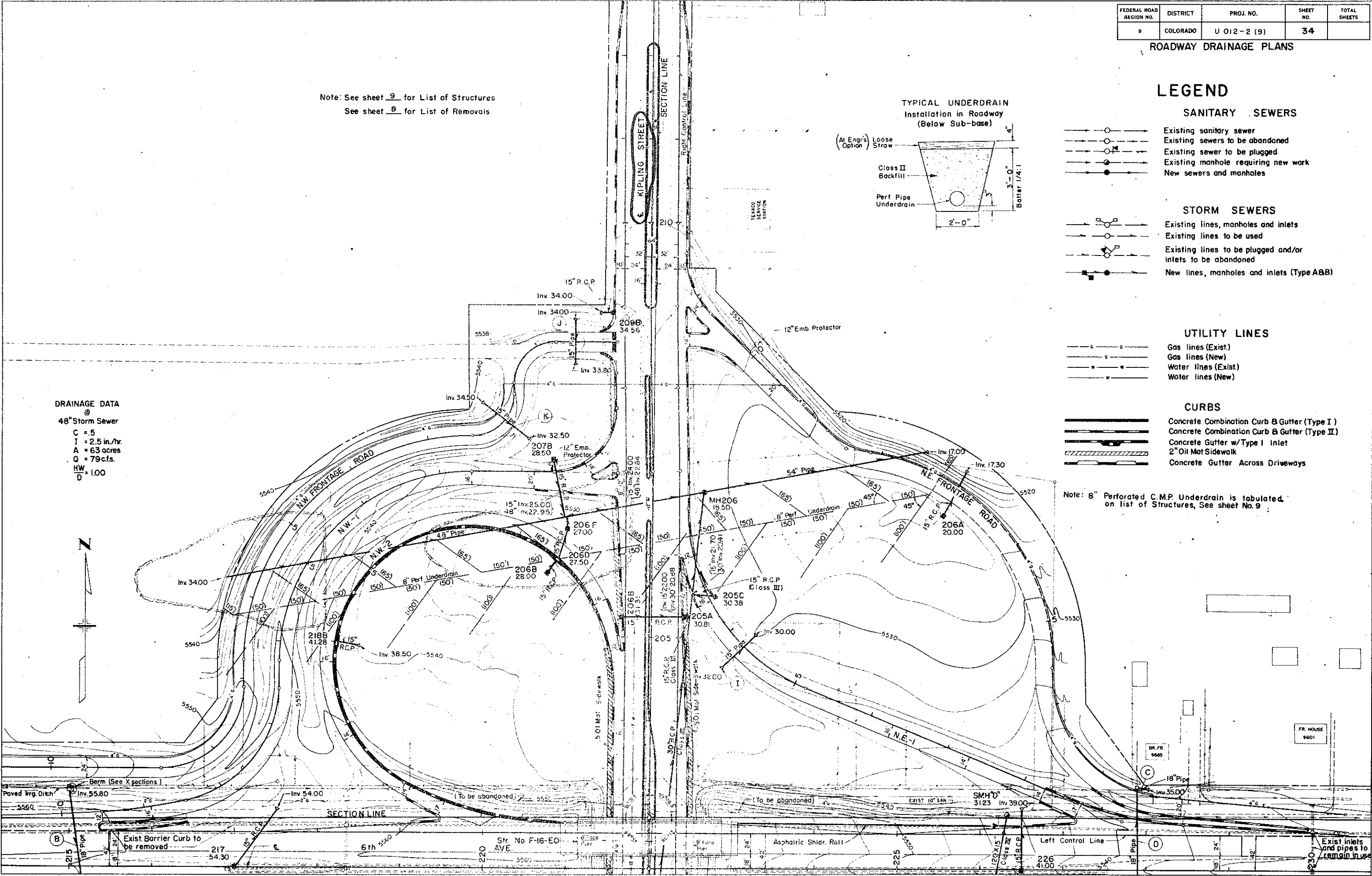
CURBS

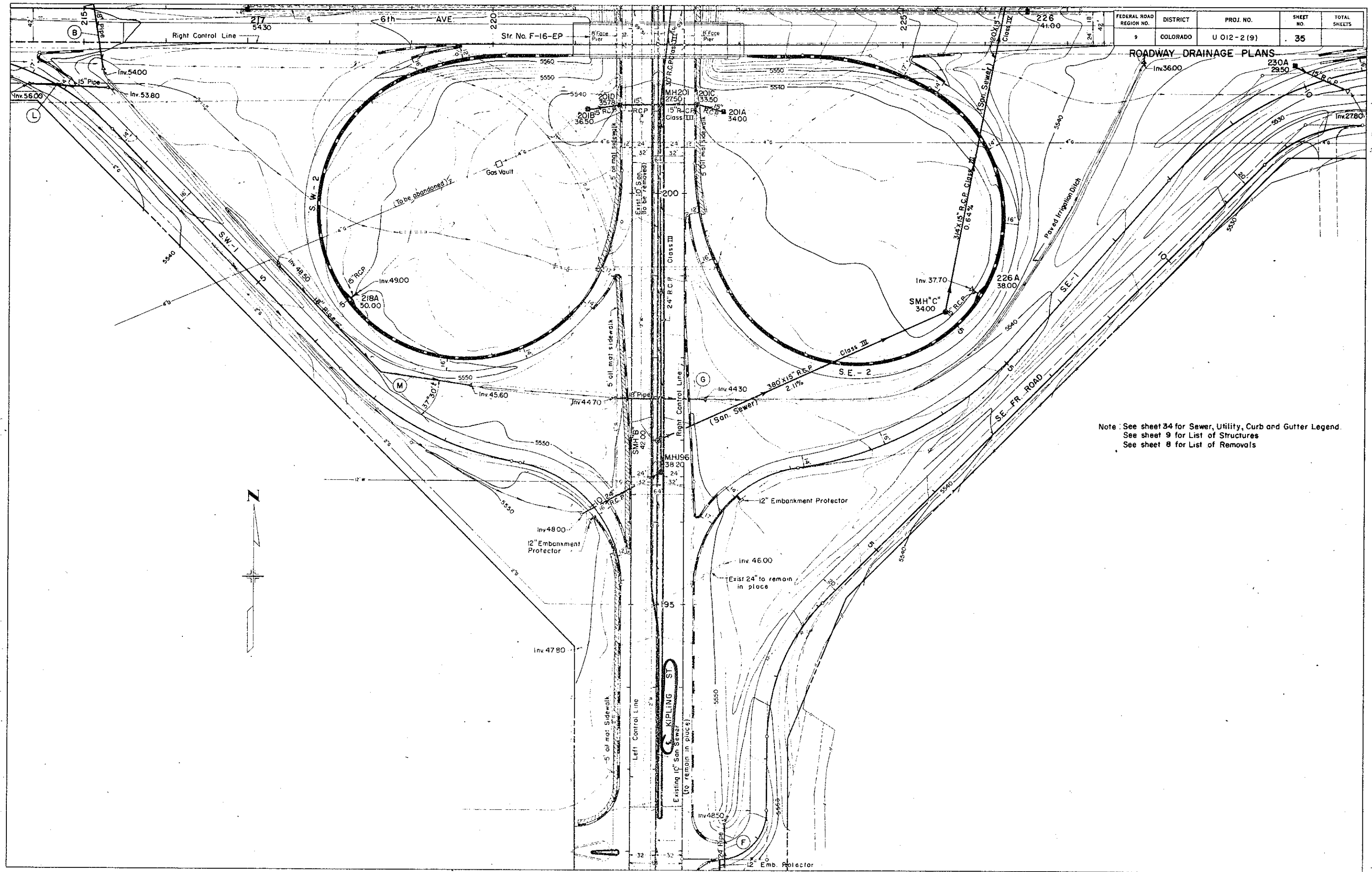
- Concrete Combination Curb & Gutter (Type I)
- Concrete Combination Curb & Gutter (Type II)
- Concrete Gutter w/Type I Inlet
- 2" Oil Mat Sidewalk
- Concrete Gutter Across Driveways

Note: 8" Perforated C.M.P. Underdrain is tabulated on list of Structures, See sheet No. 9

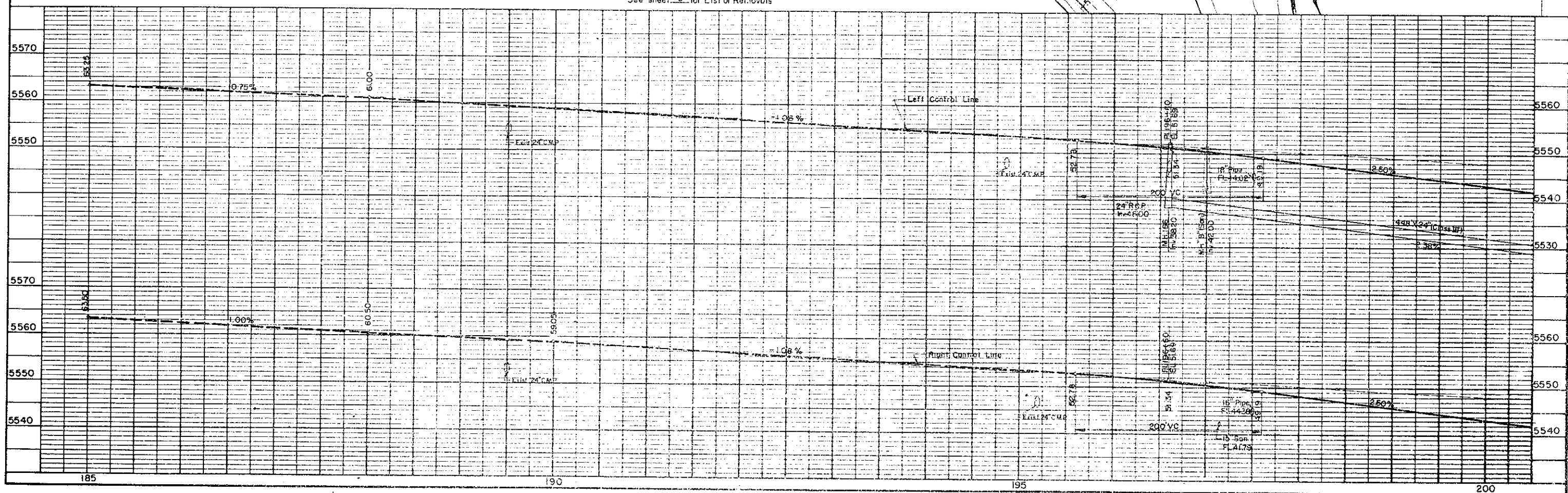
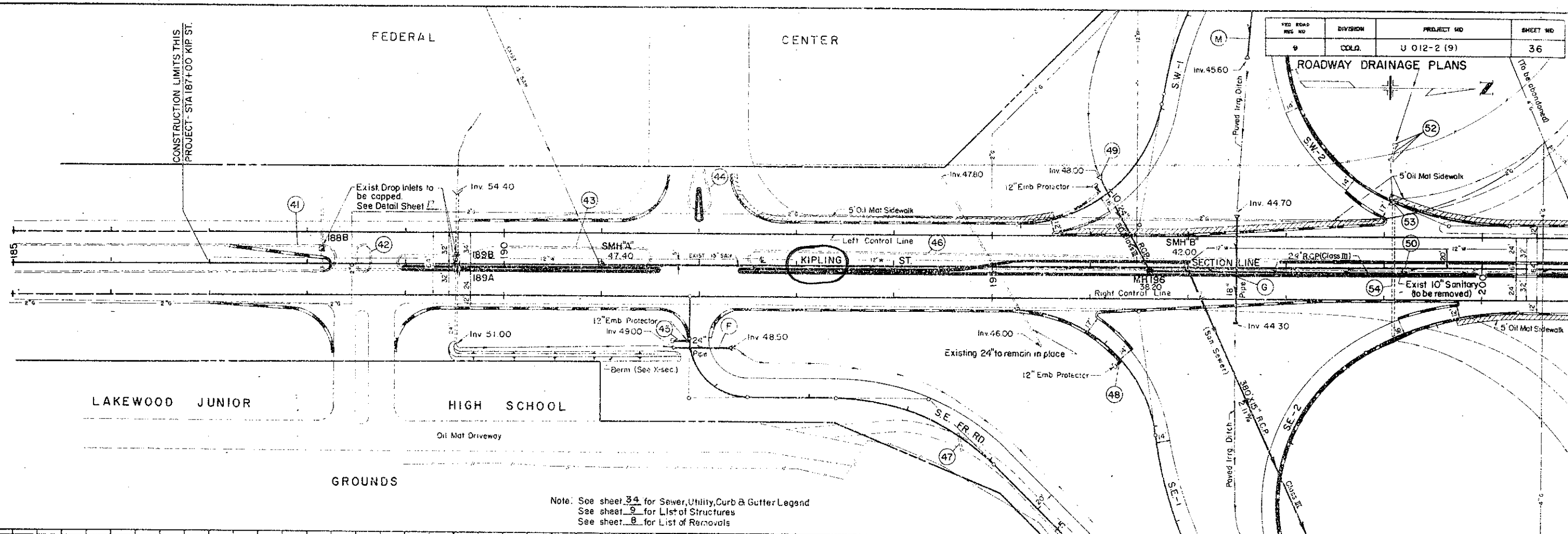
DRAINAGE DATA

- 48" Storm Sewer
- C = 5
- I = 2.5 in./hr.
- A = 63 acres
- Q = 79 cfs.
- HW/D = 1.00





Note: See sheet 34 for Sewer, Utility, Curb and Gutter Legend.
See sheet 9 for List of Structures
See sheet 8 for List of Removals

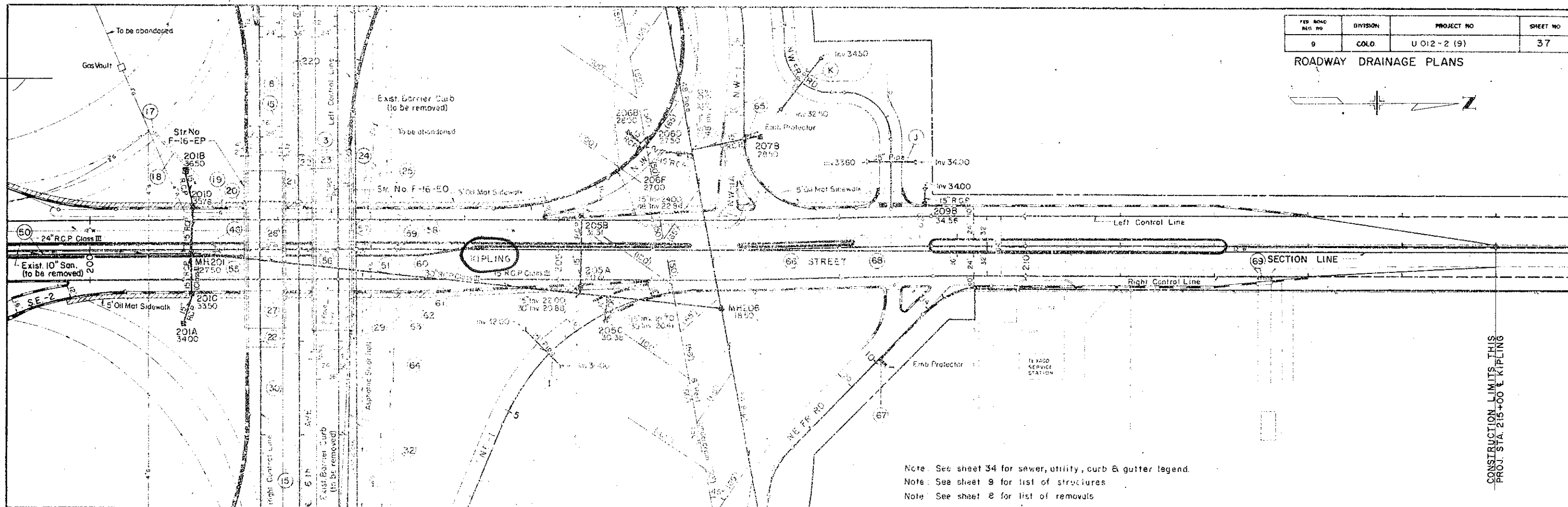


FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	U 012-2 (9)	37

ROADWAY DRAINAGE PLANS

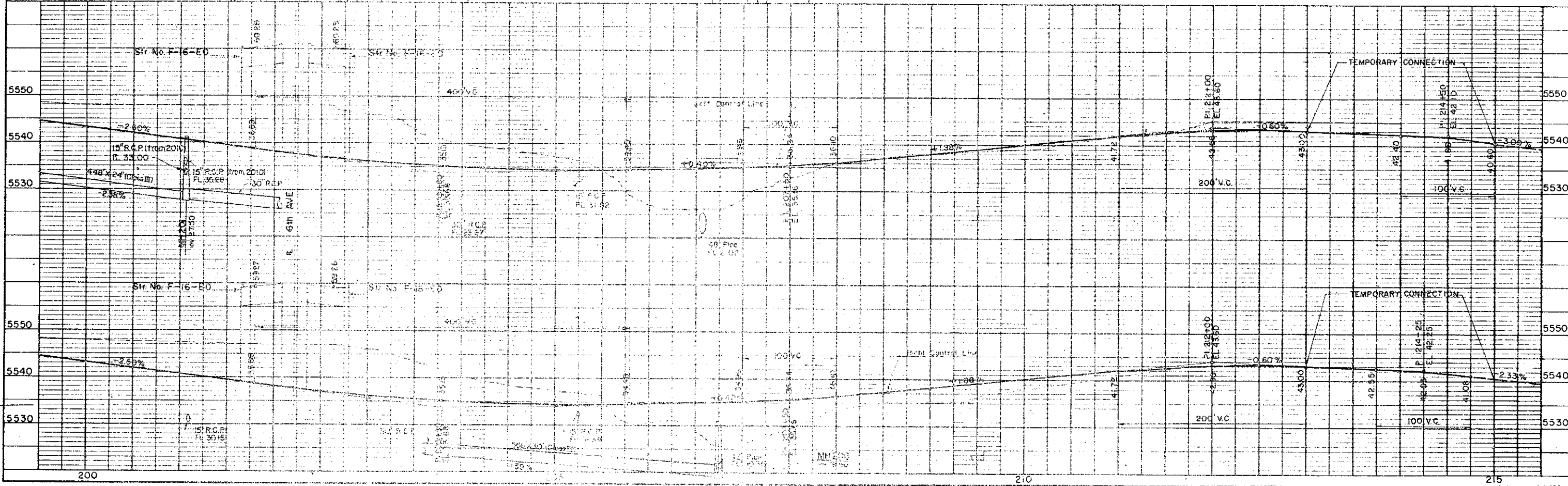


PLAN	BY	DATE
CHECKED		
DESIGNED		
NOTED		
REVISIONS		



CONSTRUCTION LIMITS THIS
PROJ. STA. 215+00 & KIPPLING

PROFILE	BY	DATE
CHECKED		
DESIGNED		
NOTED		
REVISIONS		



Note: Removal of existing Median Surfacing and Connections shall be as required by the Engineer to close Gate No.3 to the Federal Center.
(Removals to be paid for under Removal of Obstruction, Item No.11)

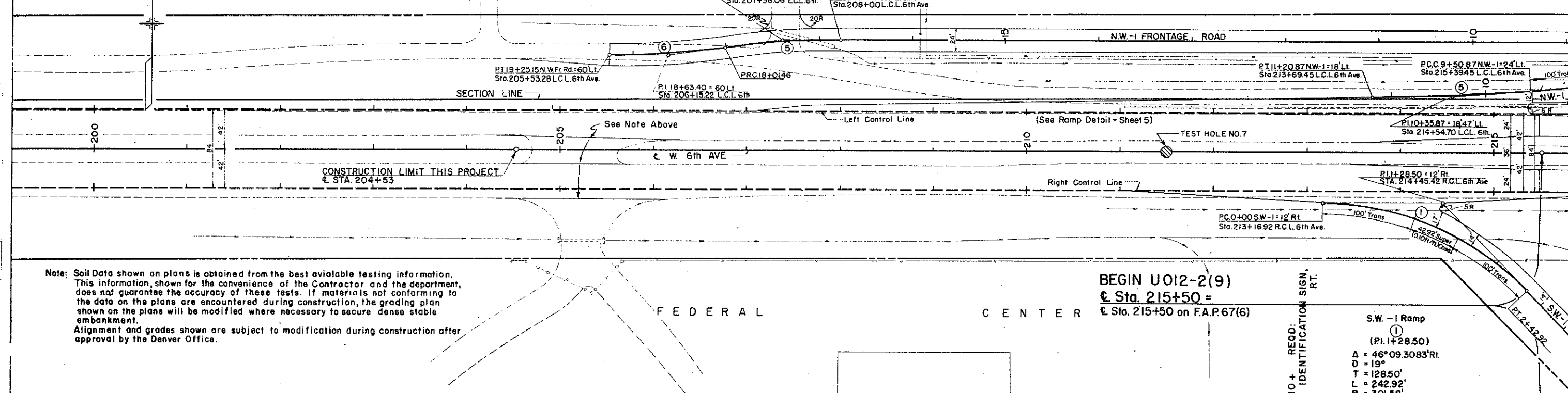
N.W. Frontage Road
(P.I. 17+39.71)
 $\Delta = 7^\circ 25.2846' \text{ Lt.}$
 $D = 6'$
 $T = 61.94'$
 $L = 123.69'$
 $R = 955'$

(P.I. 18+63.40)
 $\Delta = 7^\circ 25.2846' \text{ Rt.}$
 $D = 6'$
 $T = 61.94'$
 $L = 123.69'$
 $R = 955'$

N.W. - I Ramp
(P.I. 10+35.87)
 $\Delta = 3^\circ 14.8' \text{ Rt.}$
 $D = 1.91'$
 $T = 65.00'$
 $L = 170.00'$
 $R = 3000'$

FED. ROAD RES. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	U 012-2 (9)	43

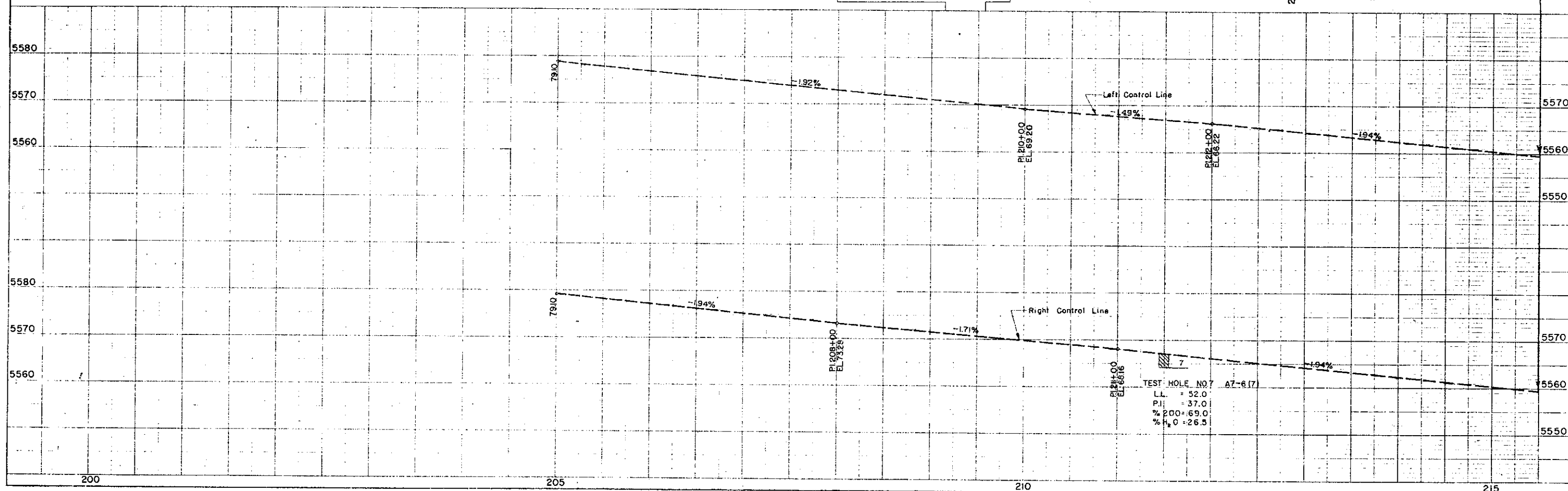
PLAN & PROFILE

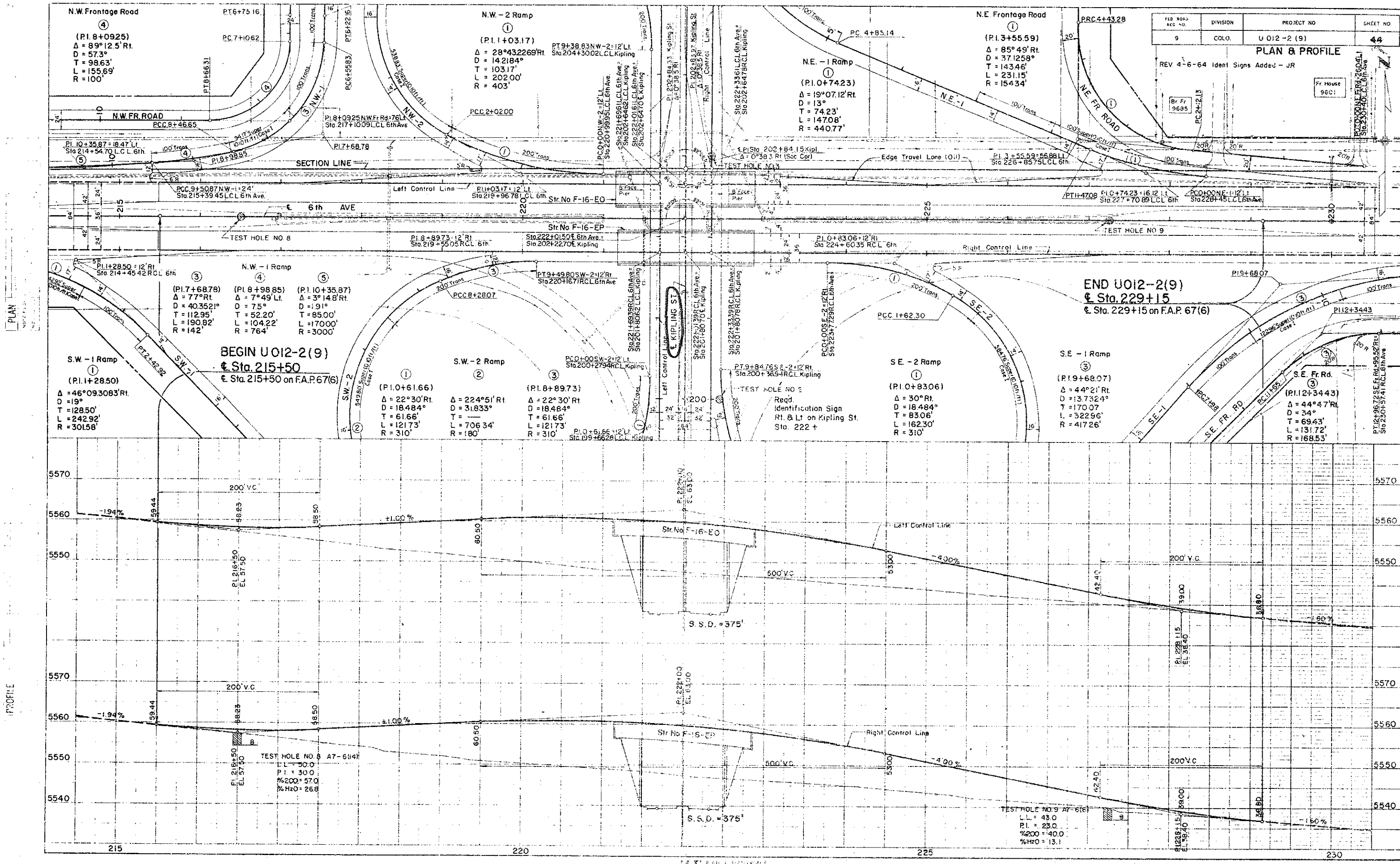


Note: Soil Data shown on plans is obtained from the best available testing information. This information, shown for the convenience of the Contractor and the department, does not guarantee the accuracy of these tests. If materials not conforming to the data on the plans are encountered during construction, the grading plan shown on the plans will be modified where necessary to secure dense stable embankment. Alignment and grades shown are subject to modification during construction after approval by the Denver Office.

BEGIN U012-2(9)
Sta. 215+50 =
Sta. 215+50 on F.A.P. 67(6)

S.W. - I Ramp
(P.I. 1+28.50)
 $\Delta = 46^\circ 09.3083' \text{ Rt.}$
 $D = 19'$
 $T = 128.50'$
 $L = 242.92'$
 $R = 301.58'$





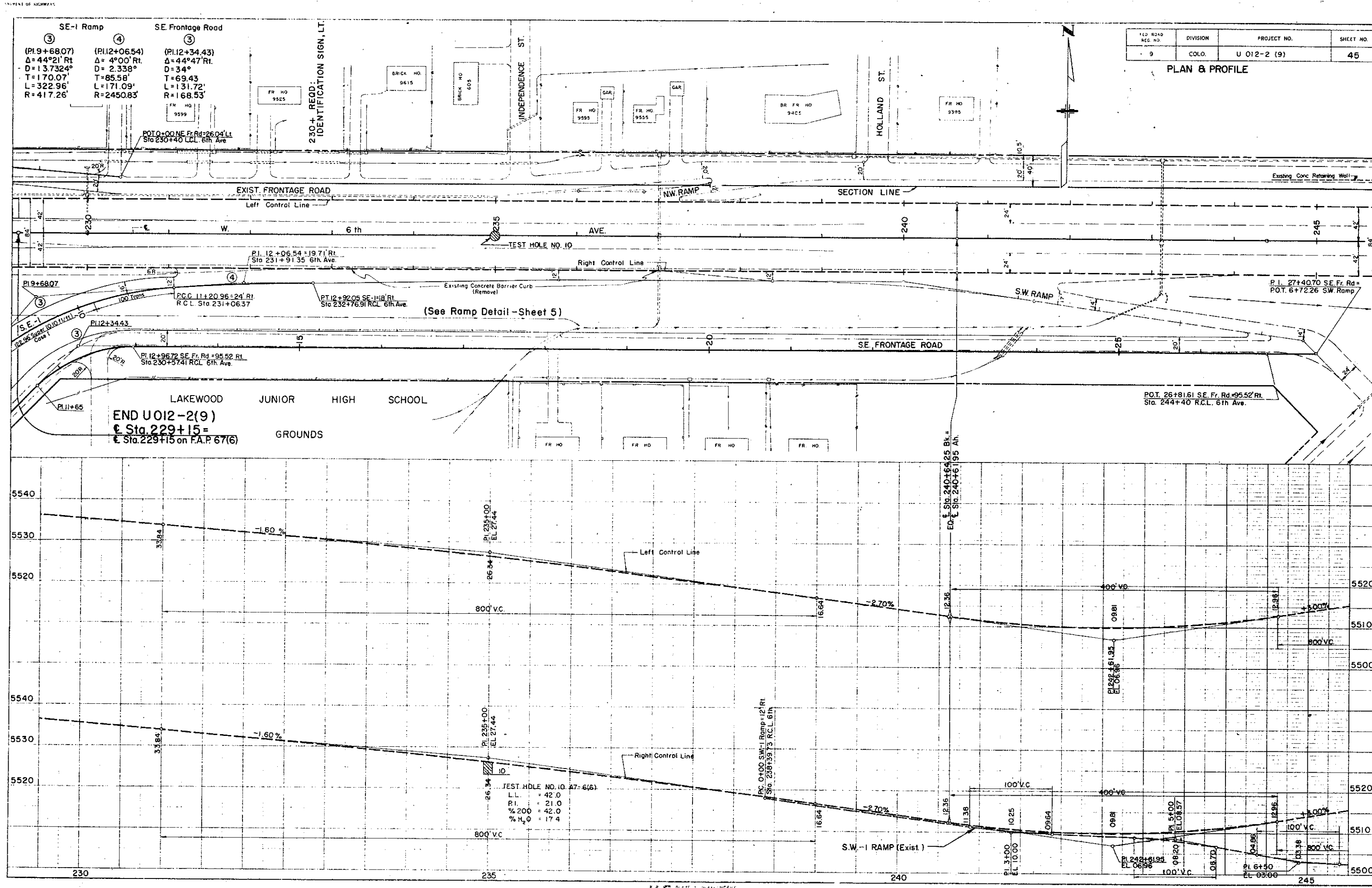
FED. ROAD DIST. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	U 012-2 (9)	44

REV 4-6-64 Ident Signs Added - JR

Fr. House 9601

END U012-2(9)
Sta. 229+15
Sta. 229+15 on F.A.P. 67(6)

BEGIN U012-2(9)
Sta. 215+50
Sta. 215+50 on F.A.P. 67(6)



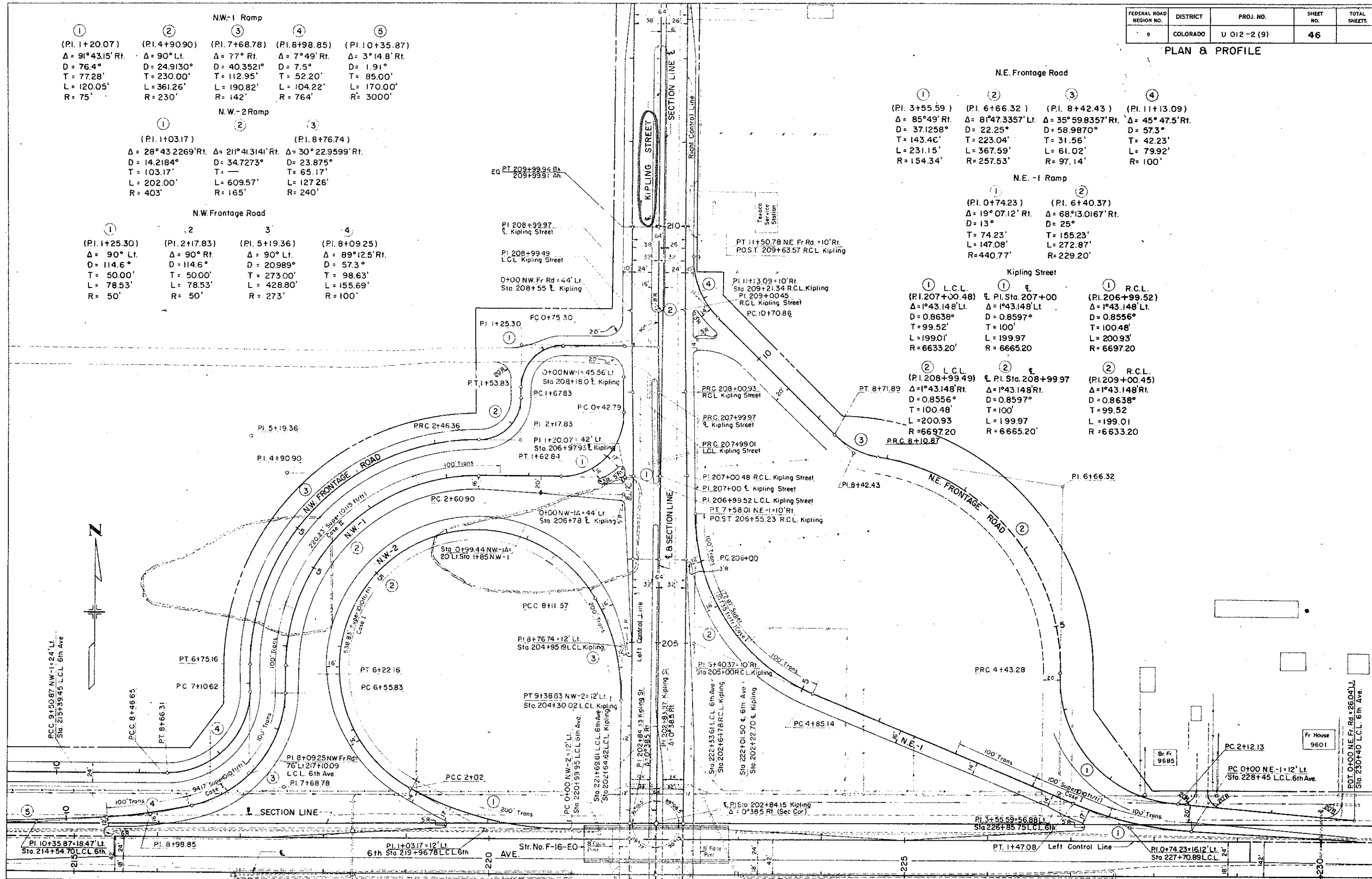
FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	U 012-2 (9)	45

PLAN & PROFILE

END U012-2(9)
Sta. 229+15 =
Sta. 229+15 on F.A.P. 67(6)

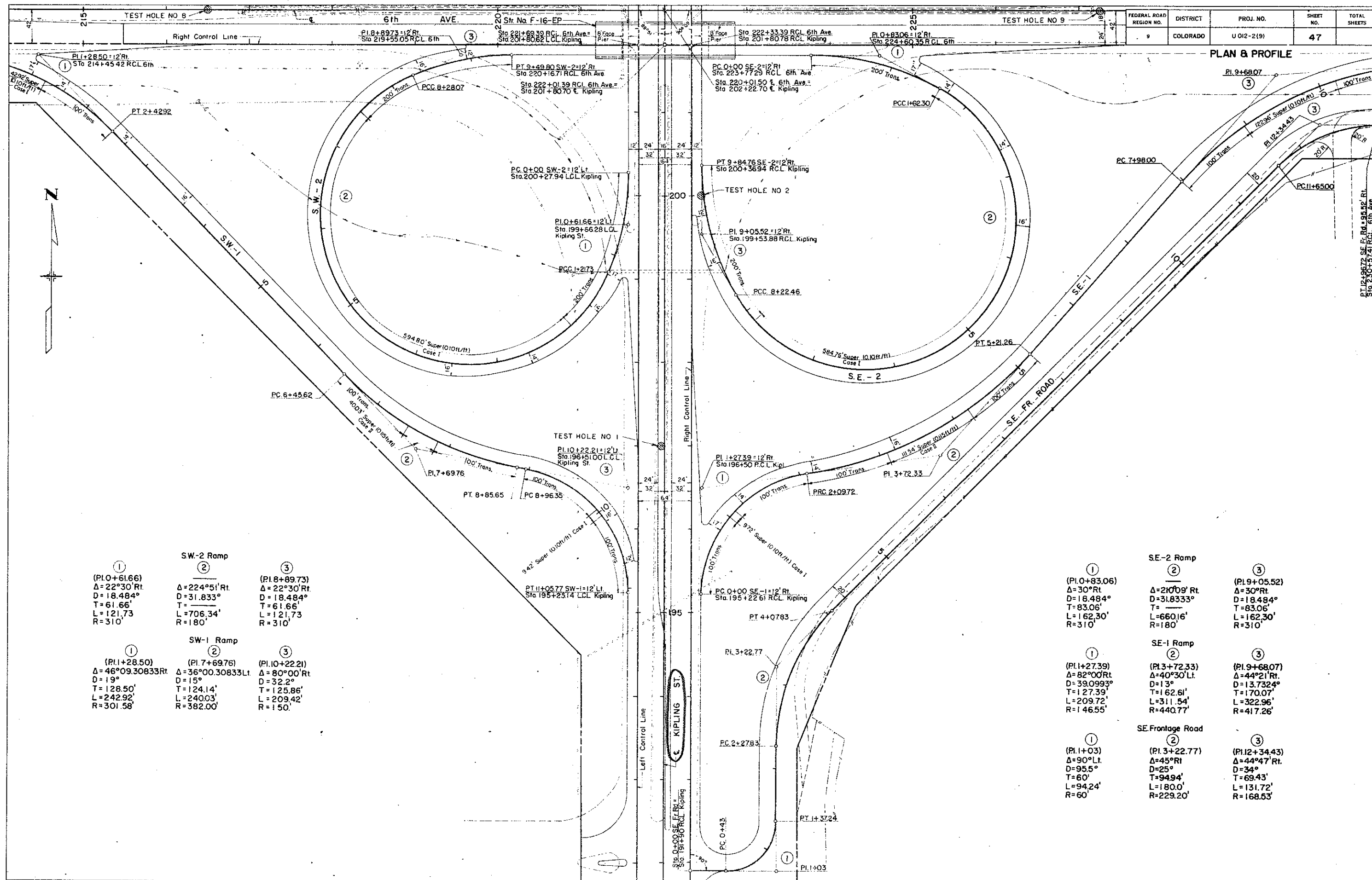
FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U 012-2 (9)	46	

PLAN & PROFILE



FEDERAL ROAD REGION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	U 012-2(9)	47	

PLAN & PROFILE



①
(P.I. 0+61.66)
Δ=22°30' Rt.
D=18.484'
T=61.66'
L=121.73'
R=310'

②
SW-2 Ramp
Δ=224°51' Rt.
D=31.833°
T=706.34'
L=180'

③
(P.I. 8+89.73)
Δ=22°30' Rt.
D=18.484'
T=61.66'
L=121.73'
R=310'

①
(P.I. 1+28.50)
Δ=46°09'30.833 Rt.
D=19°
T=128.50'
L=242.92'
R=301.58'

②
SW-1 Ramp
(P.I. 7+69.76)
Δ=36°00'30.833 Lt.
D=15°
T=124.14'
L=240.03'
R=382.00'

③
(P.I. 10+22.21)
Δ=80°00' Rt.
D=32.2°
T=125.86'
L=209.42'
R=150'

①
(P.I. 0+83.06)
Δ=30° Rt.
D=18.484'
T=83.06'
L=162.30'
R=310'

②
SE-2 Ramp
Δ=210°09' Rt.
D=31.8333°
T=660.16'
L=180'

③
(P.I. 9+05.52)
Δ=30° Rt.
D=18.484'
T=83.06'
L=162.30'
R=310'

①
(P.I. 1+27.39)
Δ=82°00' Rt.
D=39.0993°
T=127.39'
L=209.72'
R=146.55'

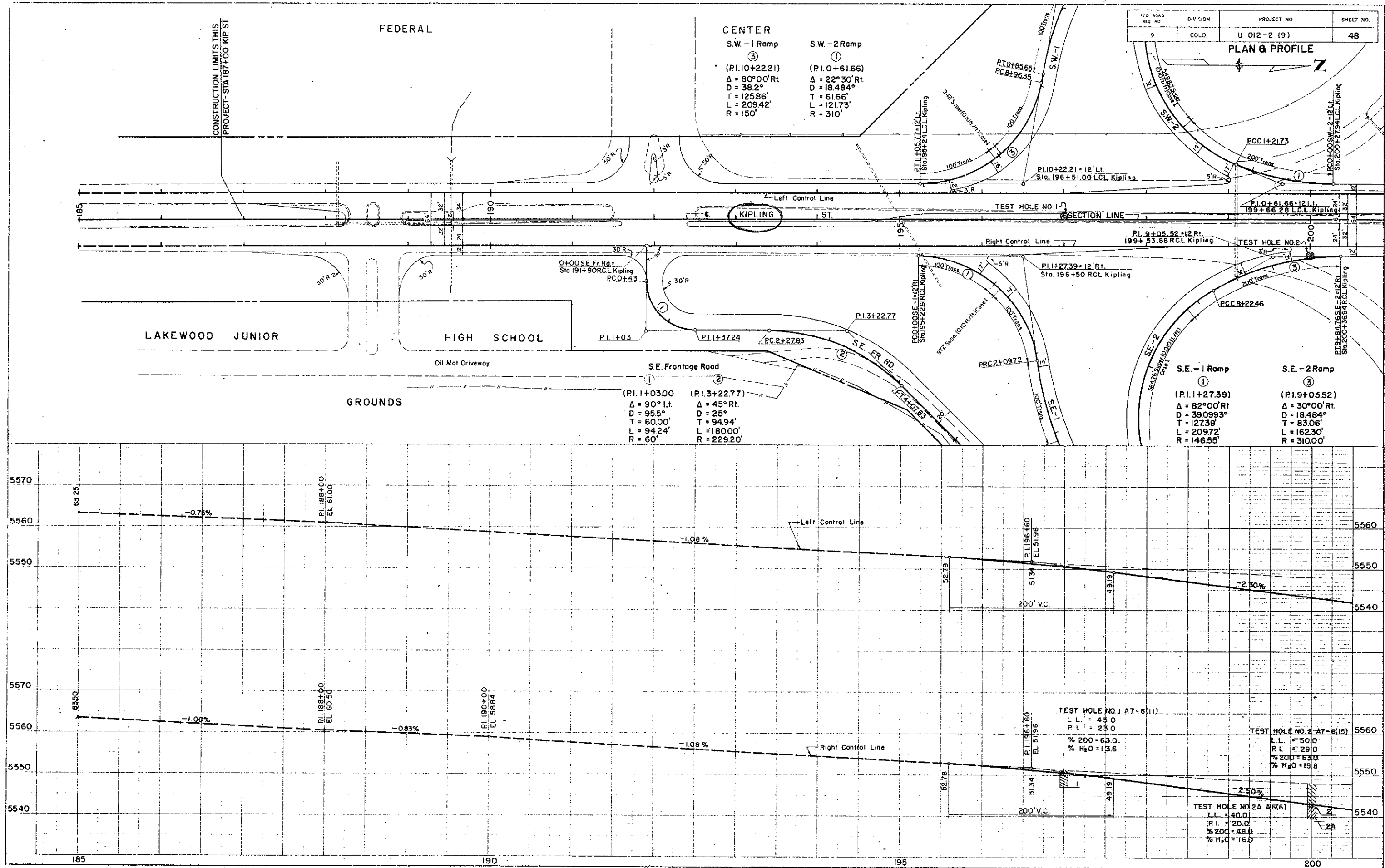
②
SE-1 Ramp
(P.I. 3+72.33)
Δ=40°30' Lt.
D=13°
T=162.61'
L=311.54'
R=440.77'

③
(P.I. 9+68.07)
Δ=44°21' Rt.
D=13.7324°
T=170.07'
L=322.96'
R=417.26'

①
(P.I. 1+03)
Δ=90° Lt.
D=95.5°
T=60'
L=94.24'
R=60'

②
SE Frontage Road
(P.I. 3+22.77)
Δ=45° Rt.
D=25°
T=94.94'
L=180.0'
R=229.20'

③
(P.I. 12+34.43)
Δ=44°47' Rt.
D=34°
T=69.43'
L=131.72'
R=168.53'



S.W. - 2 Ramp
(P.I. 0+61.66)
 $\Delta = 22^\circ 30' \text{ Rt}$
 $D = 18.484'$
 $T = 61.66'$
 $L = 121.73'$
 $R = 310'$

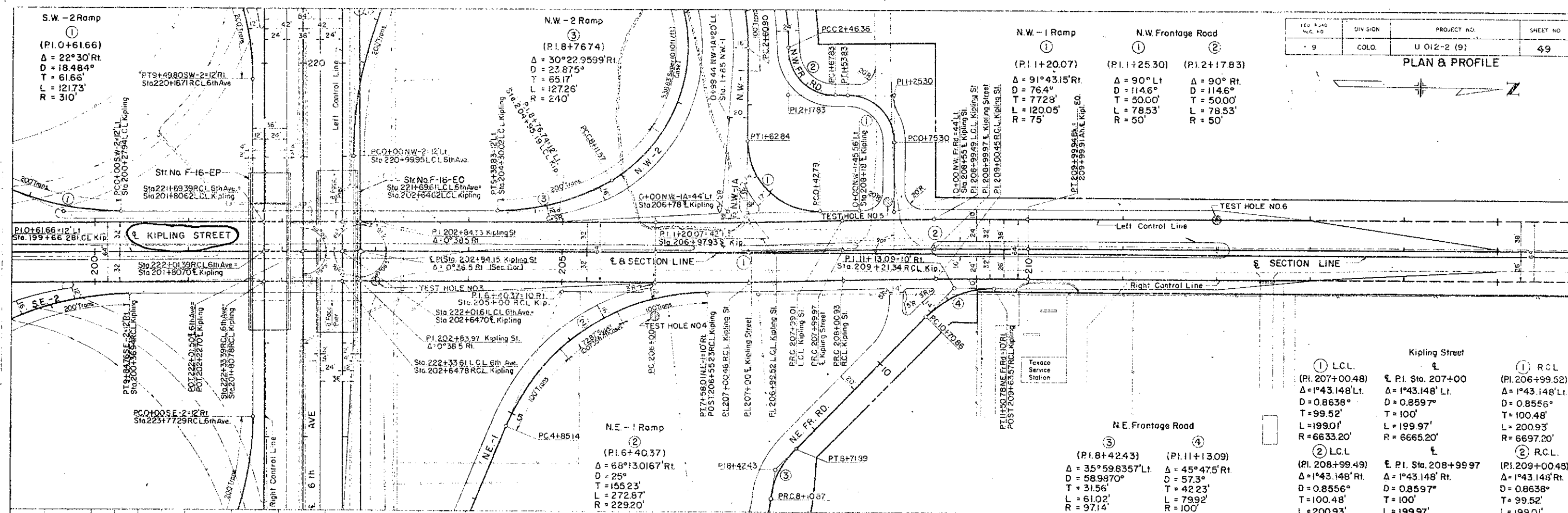
N.W. - 2 Ramp
(P.I. 8+76.74)
 $\Delta = 30^\circ 22' 59.99'' \text{ Rt}$
 $D = 23.875'$
 $T = 65.17'$
 $L = 127.26'$
 $R = 240'$

N.W. - 1 Ramp
(P.I. 1+20.07)
 $\Delta = 91^\circ 43' 15'' \text{ Rt}$
 $D = 76.4'$
 $T = 77.28'$
 $L = 120.05'$
 $R = 75'$

N.W. Frontage Road
(P.I. 1+25.30) (P.I. 2+17.83)
 $\Delta = 90^\circ \text{ Lt}$
 $D = 114.6'$
 $T = 50.00'$
 $L = 78.53'$
 $R = 50'$

FEED ROAD NO. 49	DIVISION	PROJECT NO.	SHEET NO.
9	COLO.	U 012-2 (9)	49

PLAN & PROFILE



Kipling Street		
① L.C.L. (P.I. 207+00.48) $\Delta = 1^\circ 43' 14.8'' \text{ Lt}$ $D = 0.8638^\circ$ $T = 99.52'$ $L = 199.01'$ $R = 6633.20'$	② L.C.L. (P.I. 208+99.49) $\Delta = 1^\circ 43' 14.8'' \text{ Rt}$ $D = 0.8556^\circ$ $T = 100.48'$ $L = 200.93'$ $R = 6697.20'$	③ R.C.L. (P.I. 206+99.52) $\Delta = 1^\circ 43' 14.8'' \text{ Lt}$ $D = 0.8556^\circ$ $T = 100.48'$ $L = 200.93'$ $R = 6697.20'$

