

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOT. L. SHEETS
9	COLORADO	S 0020 (4)	1	

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COLORADO

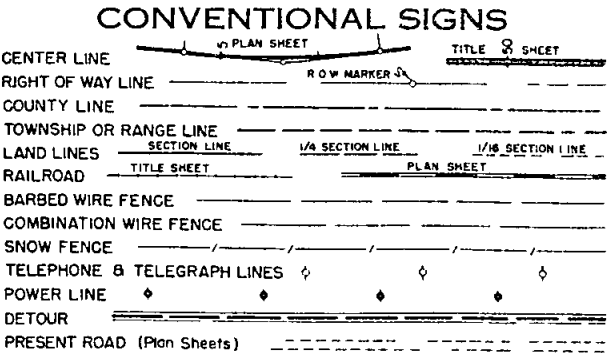
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED

FEDERAL AID PROJECT NO. S 0020(4)

STATE HIGHWAY NO 94

LINCOLN COUNTY



SCALES OF ORIGINAL DRAWINGS

ON PLAN 1 IN 100 FT

ON PROFILE 1 IN 100 FT HORIZONTAL

ON PROFILE 1 IN 10 FT VERTICAL

(RADE LINE ON PROFILE IS SHOWN AS (RADE OF FINISHE ROAD

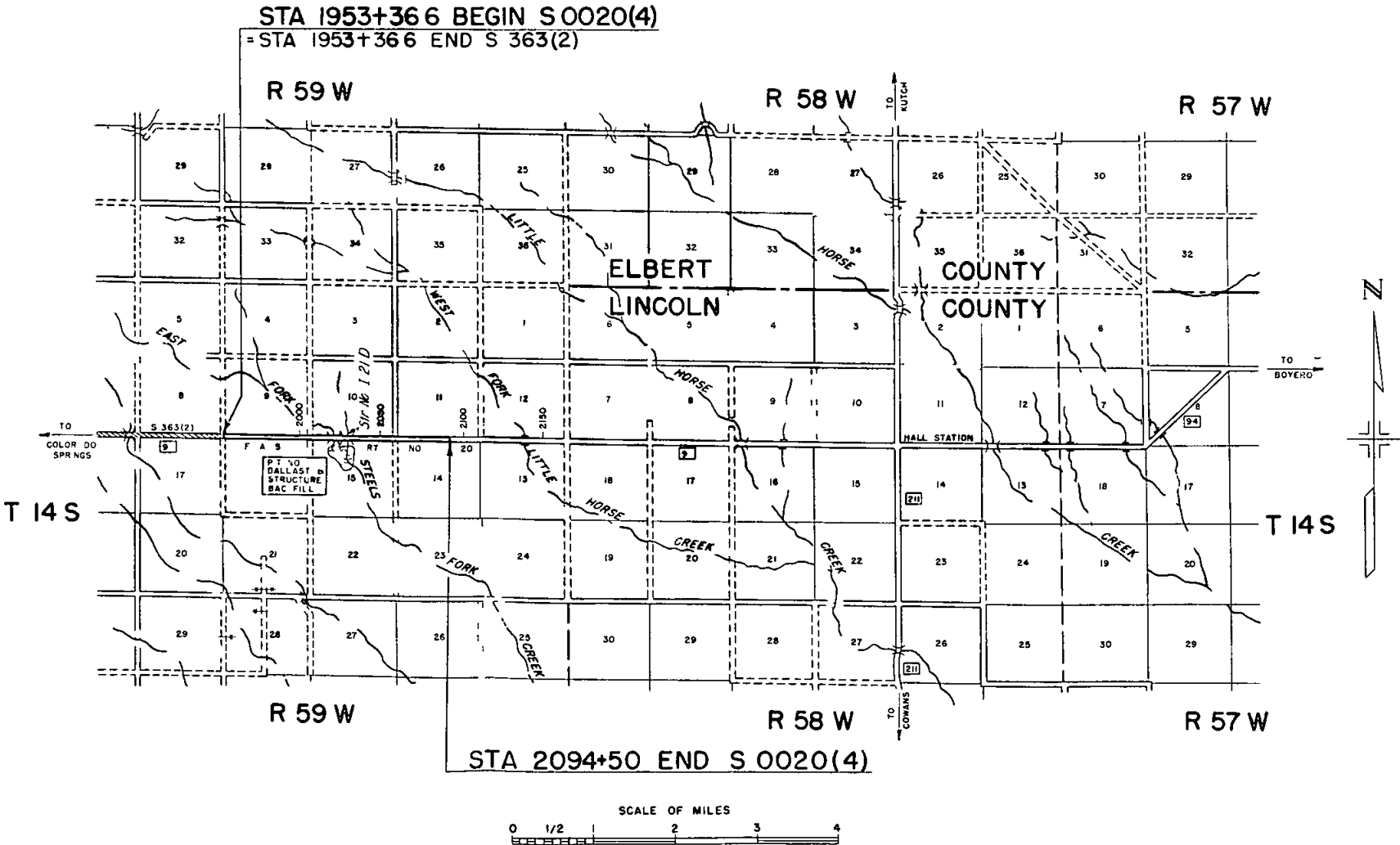
NET LENGTH OF PROJECT 14 043 0 FT 2 660 MI

NON FEDERAL AID LENGTH 70 4 FT 0 013 MI

GROSS LENGTH OF PROJECT 14 113 4 FT 2 673 MI

TABULATION OF LENGTH & DESIGN DATA

STATION	ROADWAY	BRIDGE	
	LIN FT	NON FED AID LIN FT	
1953+366 Begin S 0020(4) End S 363(2)	72714	704	
2026+08 Begin Bridge			
2026+784 End Bridge			
2094+50 End S 0020(4)	67716		
TOTALS	140430	704	
SUMMARY		FEET	MILES
Roadway		140430	2660
Bridge (Non Federal Aid)		704	0013
TOTALS S 0020(4)		141134	2673
DESIGN DATA			
Maximum Grade		160%	
Maximum Degree of Curve		0°00	
Minimum NPSD - Horizontal		>1300	
Minimum NPSD - Vertical		960	
Maximum Design Speed		70MPH	



NOTICE TO BIDDERS

IT IS RECOMMENDED THAT BIDDERS ON THIS PROJECT GO OVER THE PLAN DETAILS WITH ONE OF THE FOLLOWING FIELD REPRESENTATIVES OF THIS DEPARTMENT

R R WATTELETT

RESIDENT ENGINEER

LIMON COLORADO

G MCELDOWNEY

CONSTRUCTION ENGINEER

DENVER COLORADO

HIGHWAY DEPARTMENT

STATE OF COLORADO

RECOMMENDED FOR APPROVAL

Assistant Engineer

10-4-51

DATE

APPROVED

State Highway Engineer

10-8-51

DATE

DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER

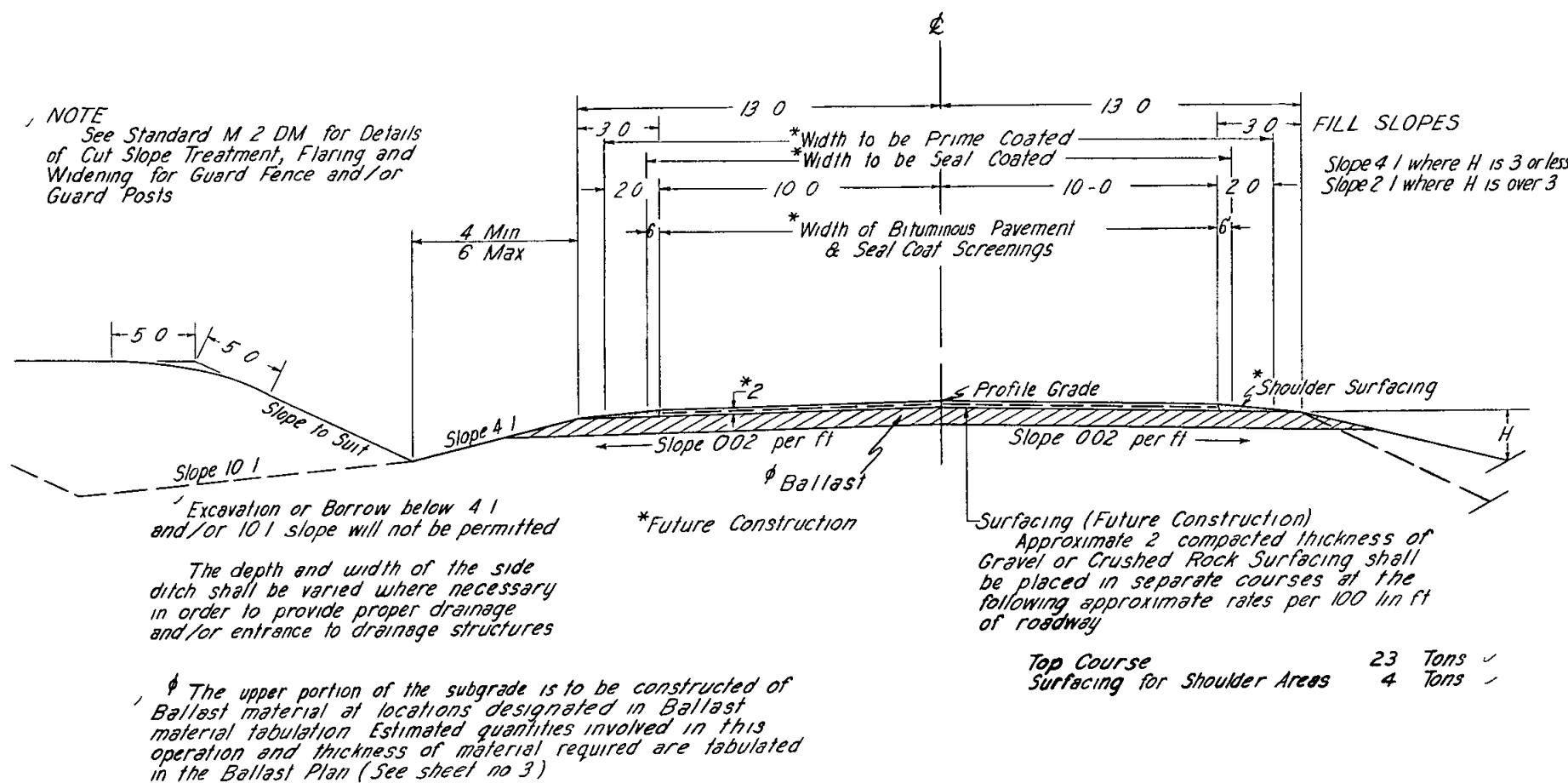
DATE

APPROVED

DIVISION ENGINEER

DATE

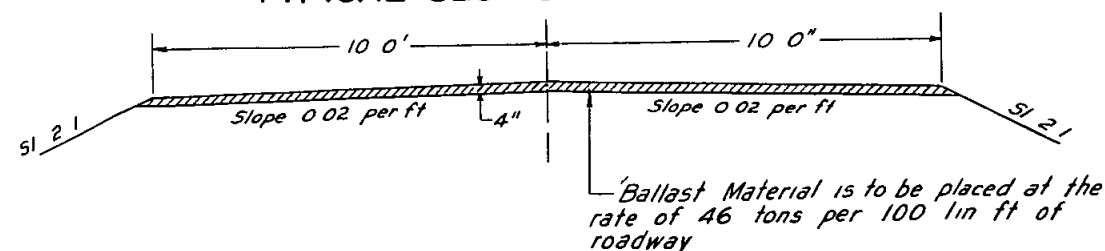
TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES



GENERAL NOTES

- This project is to be constructed in conformity with the Standard Specifications of the Colorado State Highway Department adopted January 1, 1948
- All quantities on preliminary plans are to be considered approximate only
- Culverts projecting from embankments shall be covered with approximately 6" of embankment material in such a manner that a minimum of pipe shall be exposed in the completed work. This shall be accomplished by warping embankment slopes around and adjacent to the culvert
- Payment for overhaul will be based on measurement along the centerline of the project
- All concrete used on this project shall be "Air Entrained Concrete"
- Approximate location and quantities involved in construction of intercepting ditches are tabulated on Summary of Earthwork Quantities sheet

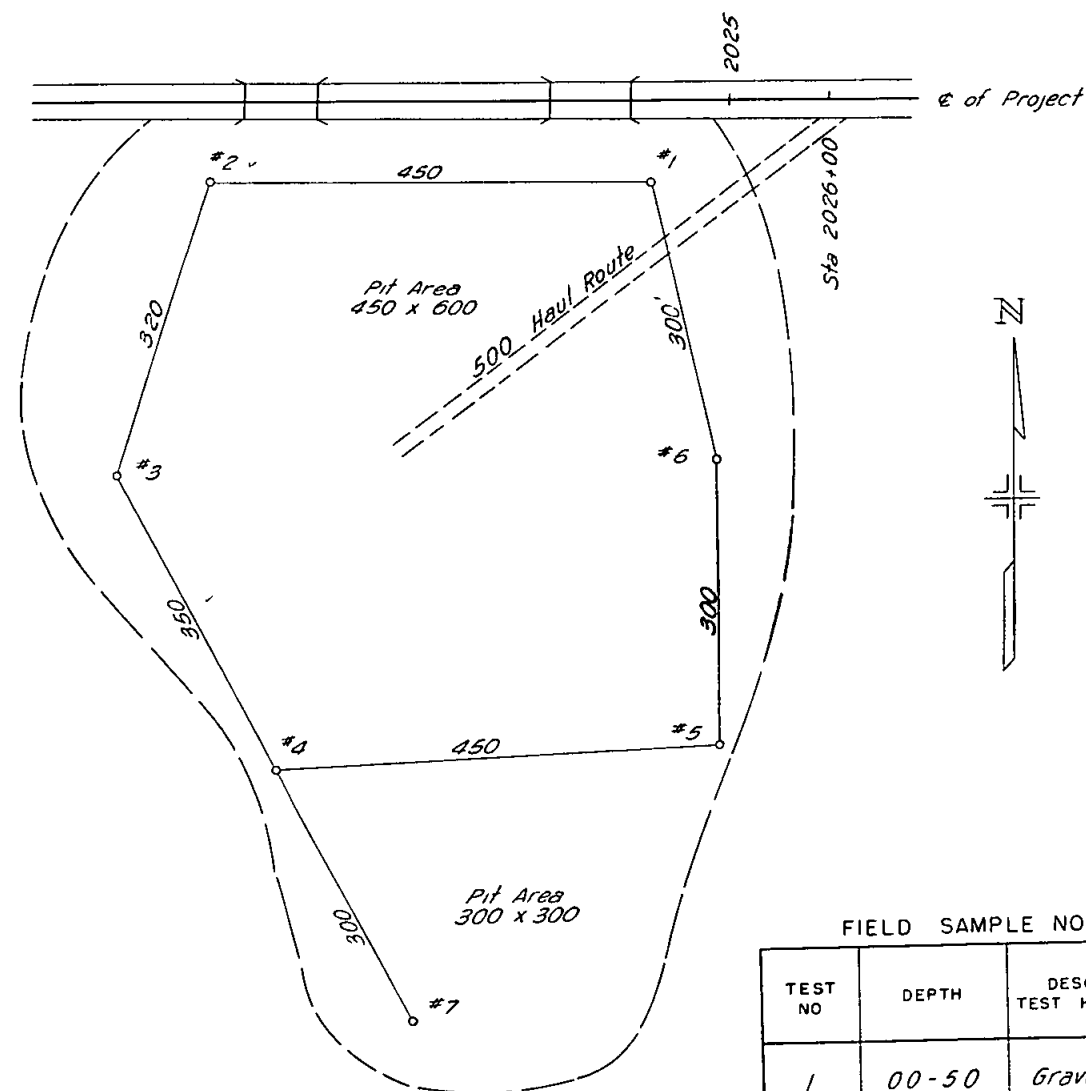
TYPICAL SECTION OF DETOUR



SUMMARY OF APPROXIMATE QUANTITIES

ITEM NO	ITEM	UNIT	ROADWAY	BRIDGE 2026+ NON FED AID				PROJECT TOTALS
11a	Removal of Bridge, Sta 2023+	L S	0					0
11b	Remove Bridge Deck & Handrails Sta 2026+	L S	0					0
11c	Repair of West Wing Walls Sta 2026+	L S	0					0
11d	Removal of 1 Structure	L S	0					0
13c	Unclassified Excavation	Cu Yd	30,000					30,000
13d	Unclassified Ditch Excavation	Cu Yd	500					500
14a	Dry Rock Excavation (Str)	Cu Yd	5					5
14b	Dry Common Excavation (Str)	Cu Yd	50					50
14c	Wet Rock Excavation (Str)	Cu Yd	5					5
14d	Wet Common Excavation (Str)	Cu Yd	5					5
16a	Structure Backfill (Class I)	Cu Yd	120					120
16d	Mechanical Tamping	Hr	20					20
17ax	Rolling with Tamping Roller (2 Unit)	Hr	80	✓				80
17ay	Rolling with Tamping Roller (4 Unit)	Hr	40	✓				40
17b	Rolling with Flat Wheeled Roller	Hr	80	✓				80
17c	Rolling with Rubber Tired Roller	Hr	30	✓				30
17dx	Furnishing Tamping Roller (2 Unit)	Ea	1	✓				1
17dy	Furnishing Tamping Roller (4 Unit)	Ea	1	✓				1
17e	Furnishing Flat Wheeled Roller	Ea	1	✓				1
17f	Furnishing Rubber Tired Roller	Ea	1	✓				1
17g	Wetting	M Gal	1,390	✓				1,390
18a	Station Yard Overhaul	Sta Yd	55,000					55,000
18b	Yard Mile Overhaul	Yd Mi	400					400
18c	Ton Mile Overhaul	Ton Mi	1800					1800
23b	Ballast (Class 2)	Ton	29,700					29,700
42a	Untreated Bridge Timber	M ft bm		16				16
42b	Treated Bridge Timber	M ft bm		81				81
48	Structural Steel	Lb		100				100
51c	Relaying 24" Pipe	Lin Ft	64					64
53b	18" Corrugated Metal Culvert Pipe	Lin Ft	126					126
53c	24" Corrugated Metal Culvert Pipe	Lin Ft	256					256
53d	30" Corrugated Metal Culvert Pipe	Lin Ft	52					52
76g	Barbed Wire Gates	Ea	3					3
78a	Chain Link Wire Mesh Fence	Lin Ft	400					400
78b	Double Driveway Gates	Ea	1					1
STATE FORCES								
81a	Project Markers	Ea	2					2

BALLAST AND STRUCTURE BACKFILL PIT NO 1
 LOCATION - NW 1/4, SEC 15, T 14 S, R 59 W
 OWNER - A C SUTLIFF
 QUANTITY AVAILABLE - 60,000 CU YDS



NOTE
 Distance from center of pit to Sta 2026+00
 of Project over route of haul is 500 ft

FIELD SAMPLE NO 844		
TEST NO	DEPTH	DESCRIPTION OF TEST HOLE MATERIAL
1	00-50	Gravel
2	00-50	Similar #1
3	00-50	Similar #1
4	00-50	Gravel
5	00-50	Similar #4
6	00-50	Similar #4
7	00-50	Similar #4
Binder from bank of creek adjacent to pit on west bank		

NOTE

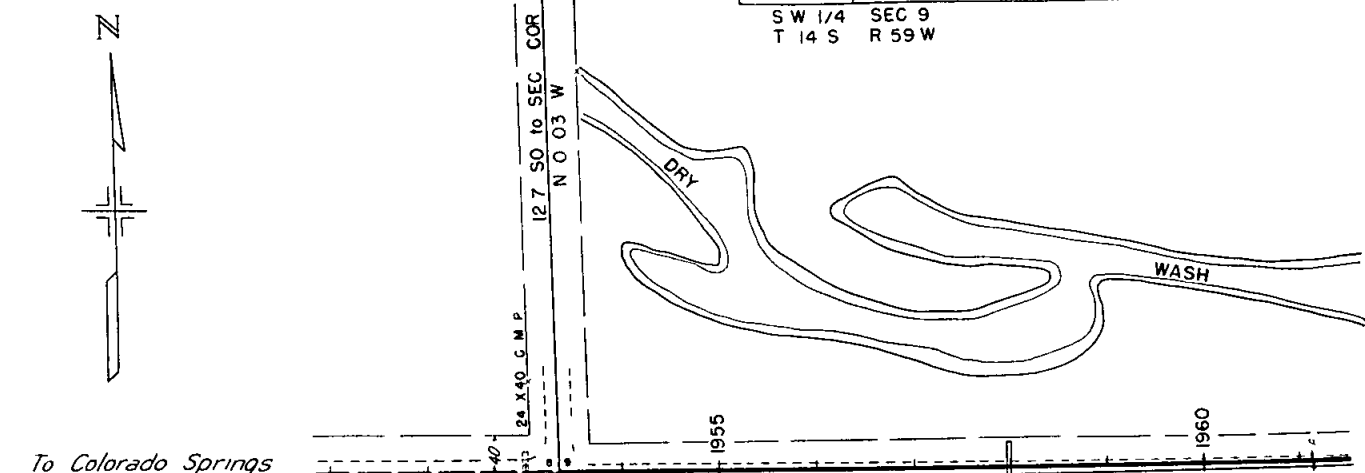
Alignment and Grades as shown are subject to modification during construction after approval by the Denver Office

Soil data shown on the plans is obtained from best available testing laboratory information. This information is shown for convenience of the Contractor and the Department does not guarantee the accuracy of these tests. If materials not conforming to the data on plans are encountered during construction the grading plan shown on plans will be modified where necessary to secure dense, stable embankments

SE 1/4 SEC 8

FED ROAD DIV NO	DISTRICT	PROJ NO	SHEET NO	TOTAL SHEETS
9	COLO	S0020(4)	13	

S W 1/4 SEC 9
T 14 S R 59 W

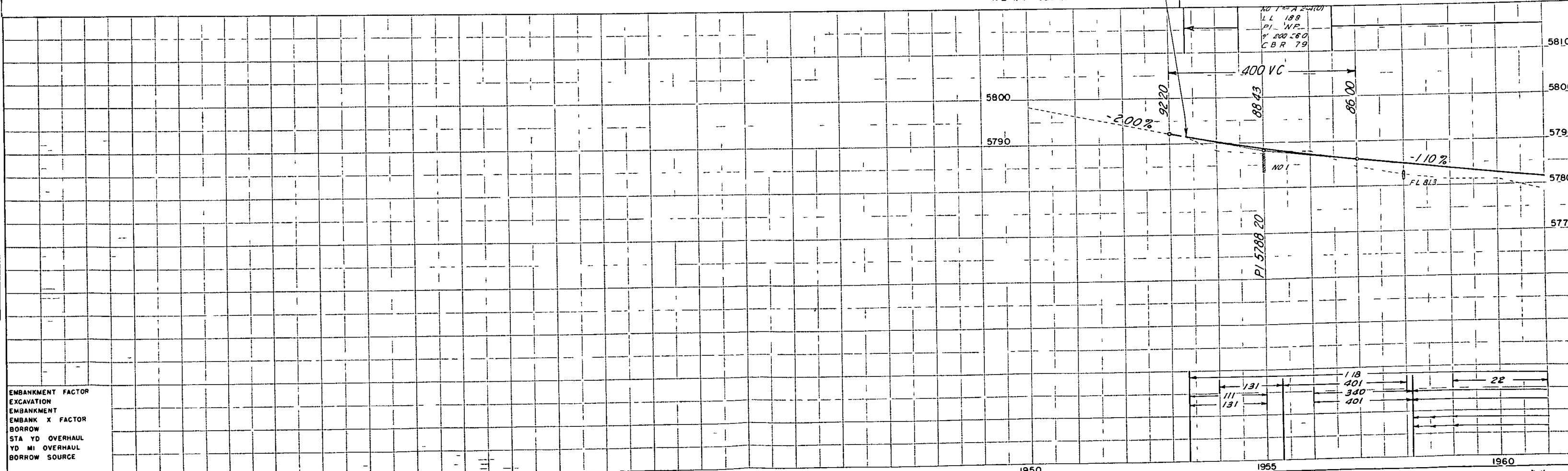


STA 1953+36.6 BEGIN S0020(4)=
END S 363(2)

NE 1/4 SEC 17

NW 1/4 SEC 16
T 14 S, R 59 W

NO 1
LL 188
PI WP
X 200 260
CBR 79



EMBANKMENT FACTOR
EXCAVATION
EMBANKMENT
EMBANK X FACTOR
BORROW
STA YD OVERHAUL
YD MI OVERHAUL
BORROW SOURCE

1950

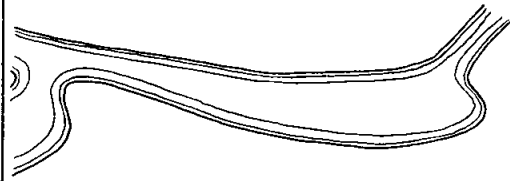
1955

1960

SW 1/4 SEC 9, T 14 S, R 59 W

SE 1/4 SEC 9

FED ROAD DIV NO	DISTRICT	PROJ NO	SHEET NO	TOTAL SHEETS
9	COLO	S0020(4)	14	



1967+00 - Req'd 24' x 52' Cross Culvert, Ditches

P.O.T. 1971+00.0



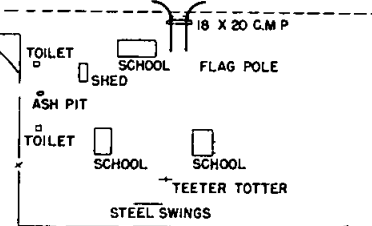
N 89° 50' E

P.I. 1980+00

Δ = 0 13 RT

P.O.T. 1990+00.0

1976+ to 1979+ - Req'd 360' Lin Ft Chain Link Wire Mesh Fence with Double Driveway Gate, Rt

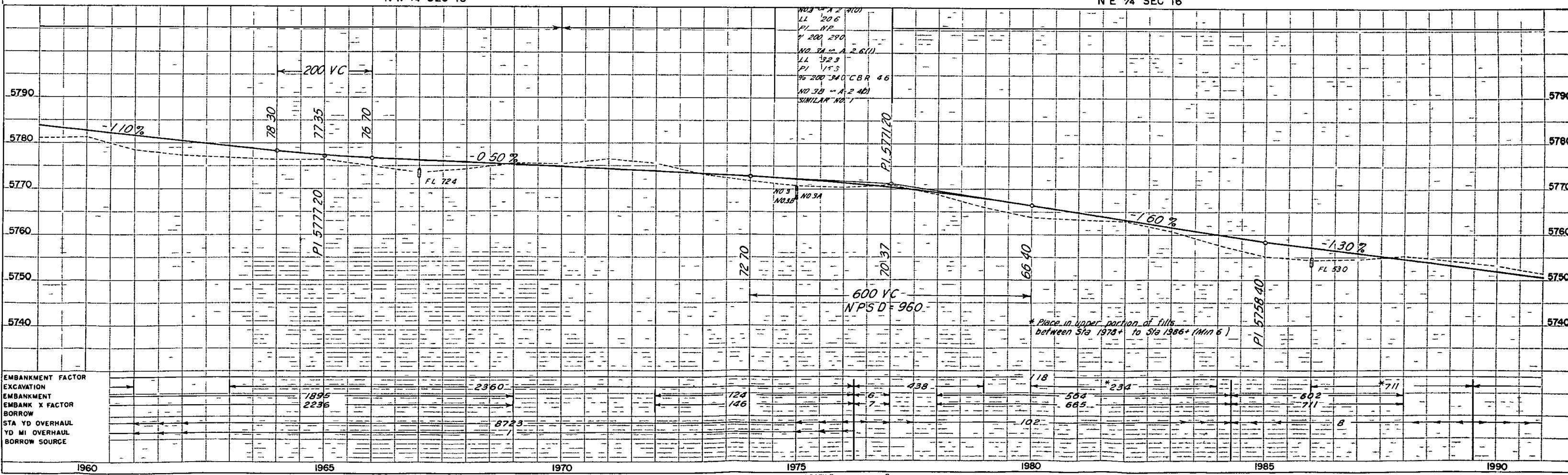


1977+70 - Req'd 18' x 24' Side Drain and Road Approach, Rt Remove 18 x 20 C.M.P., Rt

1986+00 - Req'd 24' x 48' Cross Culvert, Ditches, Dike, Rt

NW 1/4 SEC 16

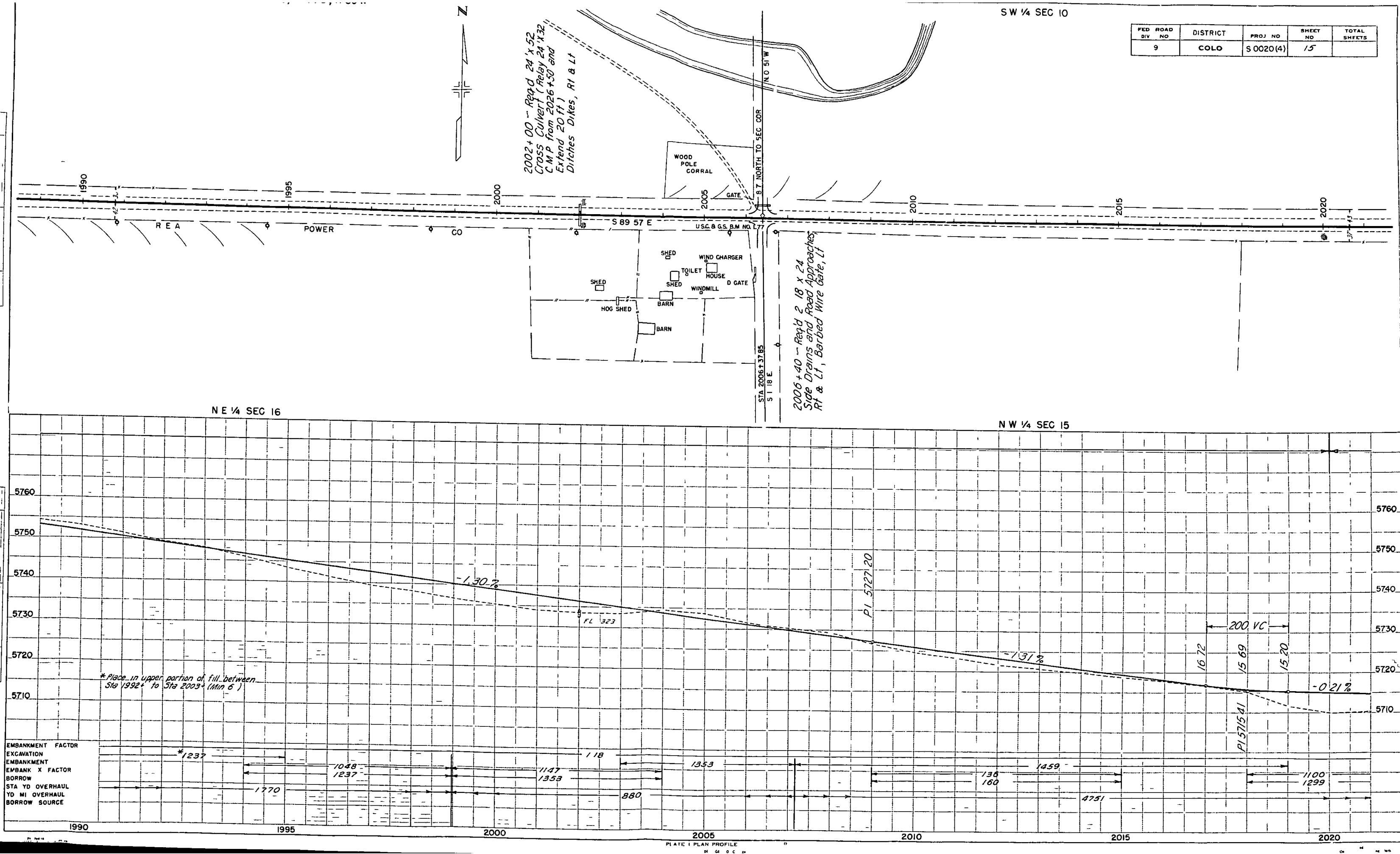
NE 1/4 SEC 16



EMBANKMENT FACTOR
EXCAVATION
EMBANK X FACTOR
BORROW
STA YD OVERHAUL
YD MI OVERHAUL
BORROW SOURCE

DATE BOOKED: 11/11/11
BY: J. T. CROED
NO. 16099

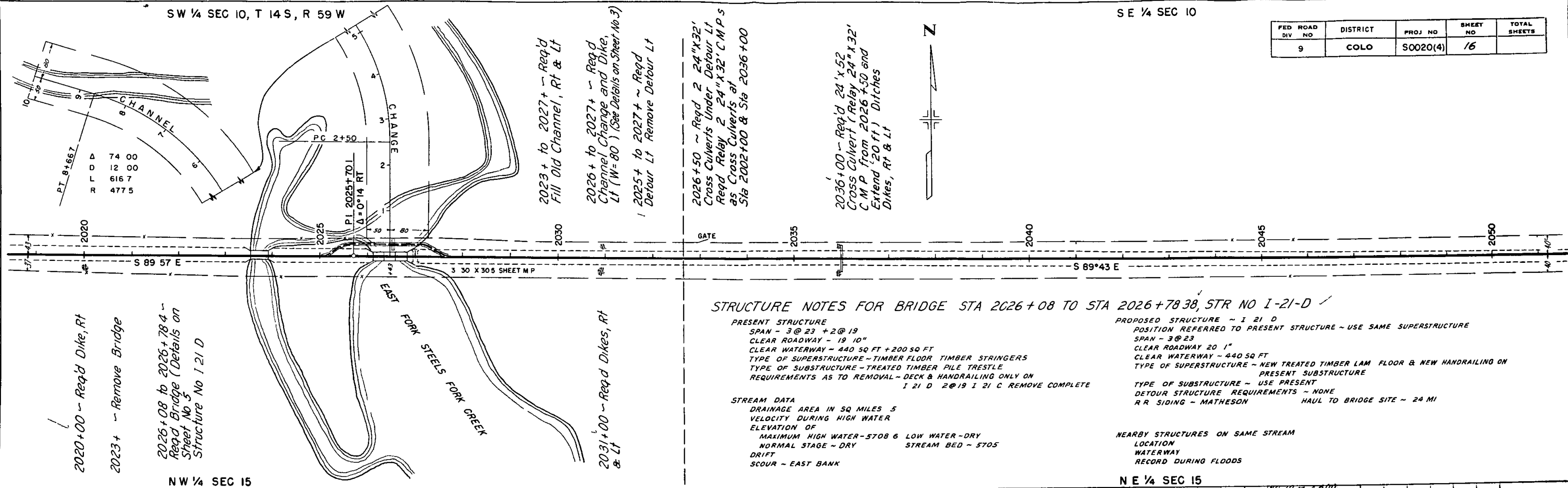
GRADES CHECKED: 11/11/11
BY: J. T. CROED
STRUCTURE NOTATION: CH 10



SW 1/4 SEC 10, T 14 S, R 59 W

SE 1/4 SEC 10

FED ROAD DIV NO	DISTRICT	PROJ NO	SHEET NO	TOTAL SHEETS
9	COLO	S0020(4)	16	



STRUCTURE NOTES FOR BRIDGE STA 2026+08 TO STA 2026+78.38, STR NO 1-21-D

PRESENT STRUCTURE
SPAN - 3 @ 23 + 2 @ 19
CLEAR ROADWAY - 19' 10"
CLEAR WATERWAY - 440 SQ FT + 200 SQ FT
TYPE OF SUPERSTRUCTURE - TIMBER FLOOR TIMBER STRINGERS
TYPE OF SUBSTRUCTURE - TREATED TIMBER PILE TRESTLE
REQUIREMENTS AS TO REMOVAL - DECK & HANDRAILING ONLY ON I 21 D 2 @ 19 I 21 C REMOVE COMPLETE

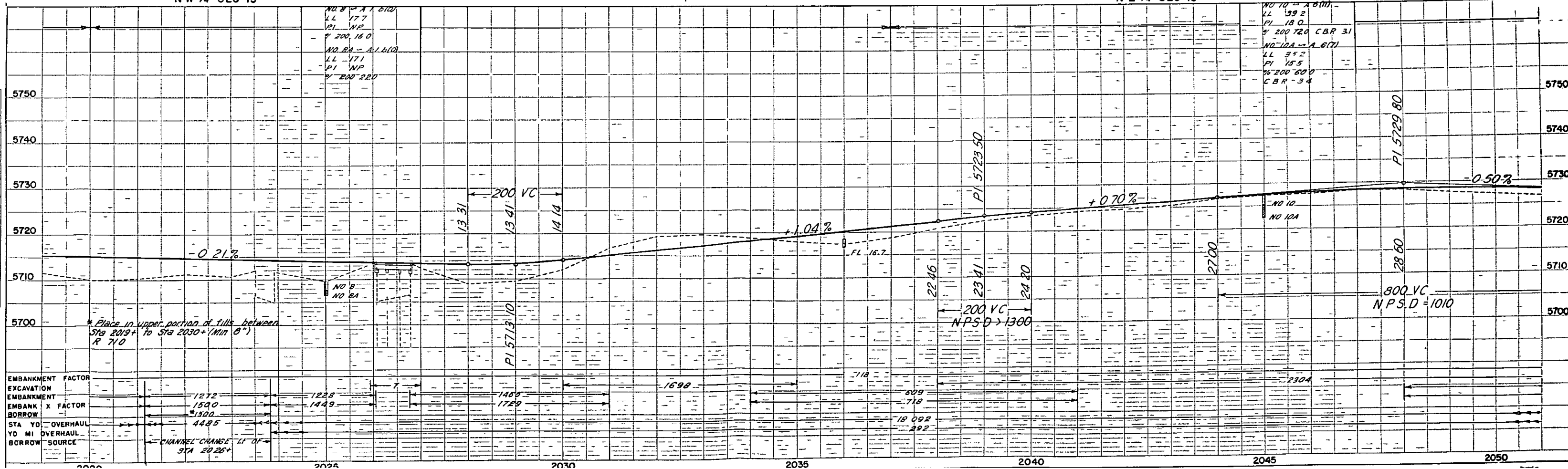
STREAM DATA
DRAINAGE AREA IN SQ MILES 5
VELOCITY DURING HIGH WATER
ELEVATION OF
MAXIMUM HIGH WATER - 5708.6 LOW WATER - DRY
NORMAL STAGE - DRY
DRIFT
SCOUR - EAST BANK

PROPOSED STRUCTURE ~ I 21 D
POSITION REFERRED TO PRESENT STRUCTURE ~ USE SAME SUPERSTRUCTURE
SPAN - 3 @ 23
CLEAR ROADWAY - 20' 1"
CLEAR WATERWAY - 440 SQ FT
TYPE OF SUPERSTRUCTURE - NEW TREATED TIMBER LAM FLOOR & NEW HANDRAILING ON PRESENT SUBSTRUCTURE
TYPE OF SUBSTRUCTURE - USE PRESENT
DETOUR STRUCTURE REQUIREMENTS - NONE
RR SIDING - MATHESON HAUL TO BRIDGE SITE - 24 MI

NEARBY STRUCTURES ON SAME STREAM
LOCATION
WATERWAY
RECORD DURING FLOODS

NW 1/4 SEC 15

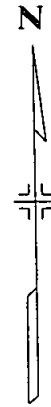
NE 1/4 SEC 15



SE 1/4 SEC 10, T 14 S, R 59 W

SW 1/4 SEC 11

FED ROAD DIV NO	DISTRICT	PROJ NO	SHEET NO	TOTAL SHEETS
9	COLO	S 0020(4)	17	



2058+90 ~ Req'd 18 x 30 Side Drain and Road Approach, Lt

P.L. 2058+90.6
0°11' LT

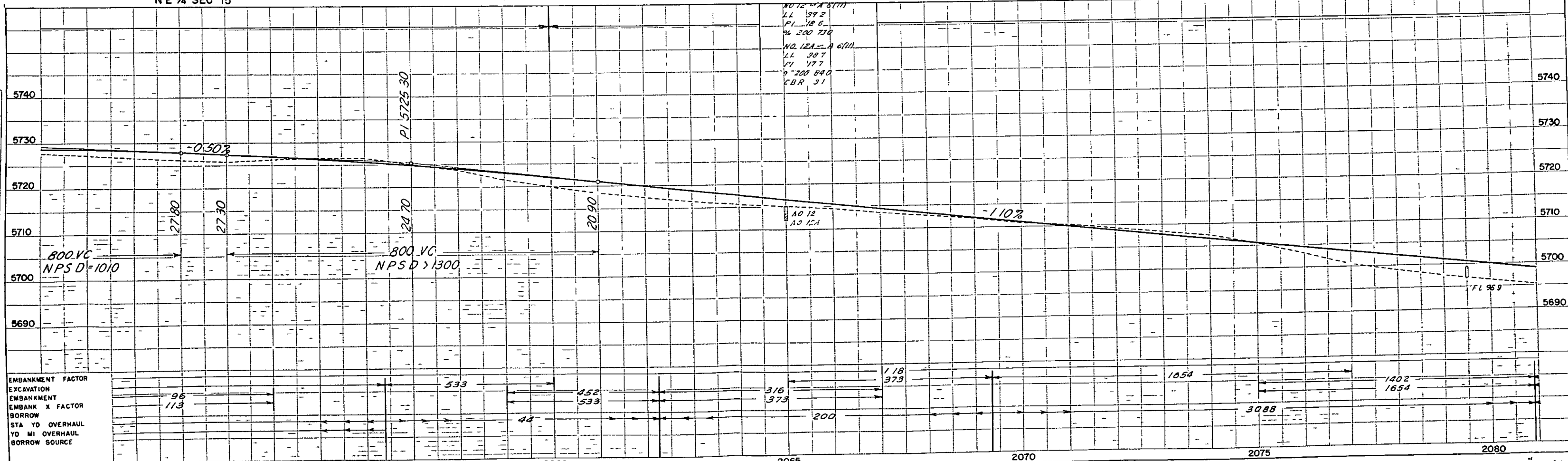
2059+20 ~ Req'd 18"x24 Side Drain and Road Approach, Rt 2 Barbed Wire Gates, Rt

2079+50 ~ Req'd 30 x 52 Cross Culvert, Ditches, Dikes, Rt & Lt

WINDMILL

NE 1/4 SEC 15

NW 1/4 SEC 14

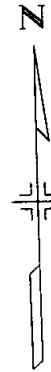


EMBANKMENT FACTOR
EXCAVATION
EMBANKMENT
EMBANK X FACTOR
BORROW
STA YD OVERHAUL
YD MI OVERHAUL
BORROW SOURCE

SW 1/4 SEC II, T 14 S, R 59 W

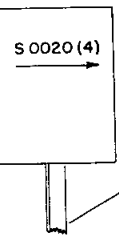
SE 1/4 SEC II

FED ROAD DIV NO	DISTRICT	PROJ NO	SHEET NO	TOTAL SHEETS
9	COLO	S0020(4)	18	



2094+50 ~ Reg'd Approach to Project

2094+50 ~ Reg'd Project Marker, Rt (State Forces)

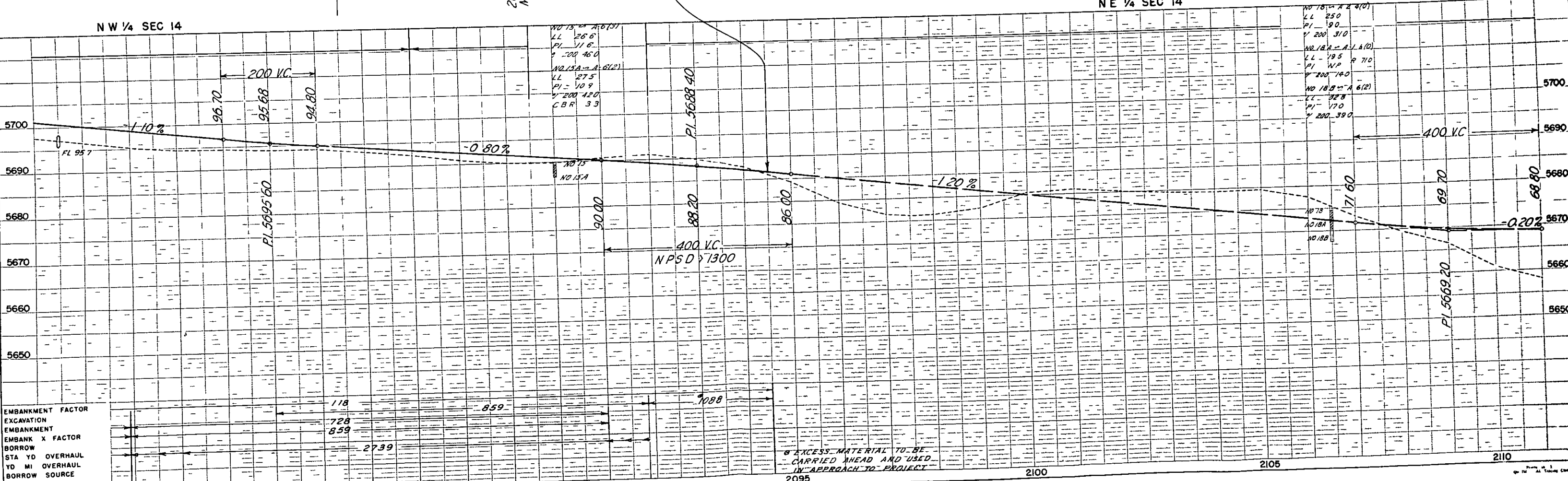


STA 2094+50 END S 0020(4)

To Hall Station

NW 1/4 SEC 14

NE 1/4 SEC 14



EMBANKMENT FACTOR
EXCAVATION
EMBANKMENT
EMBANK X FACTOR
BORROW
STA YD OVERHAUL
YD MI OVERHAUL
BORROW SOURCE

EXCESS MATERIAL TO BE
CARRIED AHEAD AND USED
IN APPROACH TO PROJECT