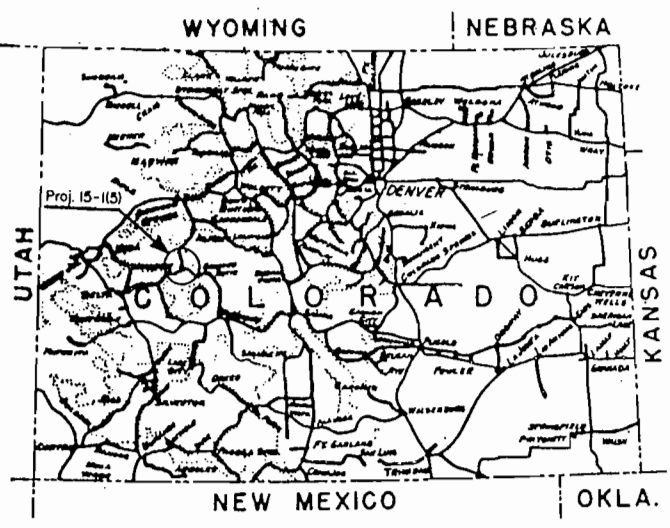


U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

AS CONSTRUCTED
COLORADO FOREST HIGHWAY PROJECT 15-1(5)
MCCLURE PASS
CLASS 2

GUNNISON COUNTY
ROADWAY 2.939 MILES
BRIDGES 0.054 MILES
TOTAL 2.993 MILES

S.H. 133

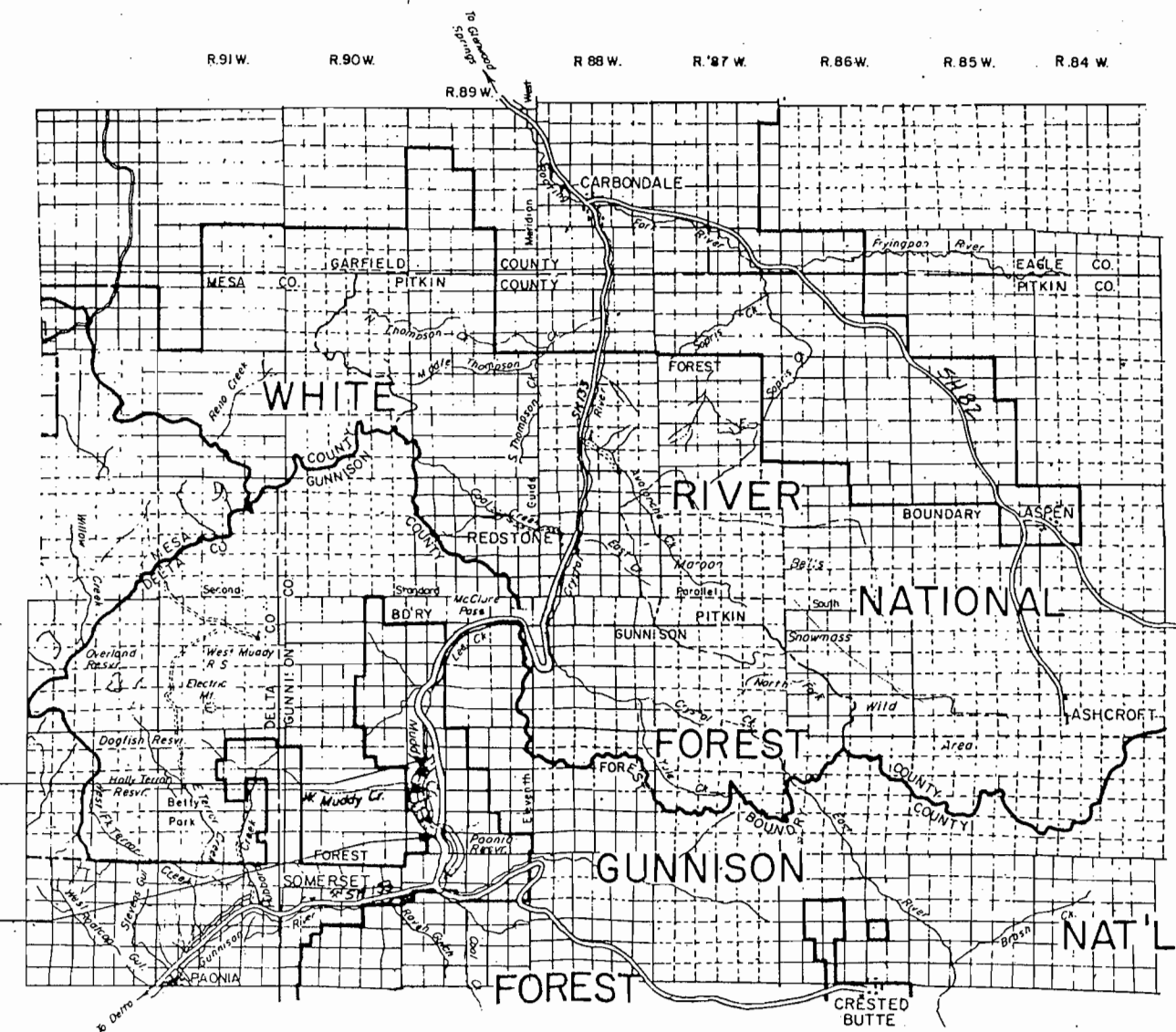


CONVENTIONAL SYMBOLS	
PROPOSED R/W LINE	---
PROJECTED CENTERLINE	---
STAKED CENTERLINE	---
PARCEL NUMBER	(2)
OWNERSHIP BOUNDARY	---
EXISTING FENCE	---
PROPOSED FENCE	---
R/W CALCULATION	5.45+3.64
SLOPE LIMIT - TOP OF CUT	+ 336.04
SLOPE LIMIT - TOE OF FILL	---
COUNTY LINE	---
PARK BOUNDARY	---
TOWNSHIP OR RANGE LINE	---
STATE BOUNDARY	---
FOREST BOUNDARY	---
CONSTRUCTION PERMIT	---
SECTION LINE	---
MANHOLE	---
1/4 SECTION LINE	---
NOT FOUND 1/16 CORNER	---
1/16 SECTION LINE	---
ROCK OUTCROP	---
MARSH OR SWAMP	---
EXISTING GUARD RAIL	---
TREES	---
FOUND SECTION CORNERS	---
NOT FOUND SECTION CORNERS	---
FOUND 1/16 CORNER	---
TRAIL OR TRACK	---
NOT FOUND 1/4 CORNER	---
MINE	---
FOUND 1/4 CORNER	---
PRESENT ROAD	---
FLOOD GATE	---
EXISTING POWER POLES	---
EXISTING TELEPHONE POLES	---
UNDER GROUND TELEPHONE LINE	---
EXISTING TOWER	---
EXISTING BOX CULVERT	---
NEW PIPE CULVERT	---
ROCK DROP STRUCTURE	---
CHANNEL CHANGES	---
IRRIGATION DITCH OR FURROW DITCH	---
MATERIALS TEST HOLE - B NUMBER	A-1-b #200-19%
RIVER WITH BRIDGE	---
INTERMITTENT STREAM	---
VERTICAL CONTROL POINT	6526.07
TRIANGULATION STATION	T-45 6526.07
GATE	---
ROCK BUTTRESS	---
CATTLE GUARD	---
PIPE LINE (Water, Gas, etc)	---
LOOSE RIPRAP EMBANKMENT PROTECTION	---



End Proj. 15-1(5)
Sta. 576+00

Beg. Proj. 15-1(5)
Sta. 418+00



REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
8	COLO.	15-1(5)	1	68

INDEX TO SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
2	Typical Section
3-4	Summary of Quantities
5-6	Drainage Summary
7-13	Plan and Profile
14-22	Reinforced Earth Walls
23-28	RG2235 A Thru F Bridge Rt. of Sta. 428+00
29-35	RG2229 A Thru G Bridge Sta. 473+30
36-38	RG2242 A Thru C Bridge Rt. of Sta. 475+00
39-47	RG2230 A Thru I Bridge Sta. 571+00
48	Spec. Dwg. - 1 Structure Number - Bridges
49	Spec. Dwg. - 2 Channel Change and Rock Butress
50	Spec. Dwg. - 3 Approach Roads
51-52	Spec. Dwg. - 4 Materials Source
53	Spec. Dwg. - 5 Flood Gate
54	Spec. Dwg. - 6 Rock Structures
55	Spec. Dwg. - 7 Construction Signaling
56	Std. 203-1 Approach Roads
57	Std. 603-1 Metal End Sections
58	Std. 603-2 Concrete End Sections
59	Std. 606-1 Beam-Type Guardrail
60	Mod. Std. 606-2 Guardrail End Anchorage
61	Std. 607-2 Wire Fence
62-63	Mod. Std. 607-7 Cattle Guard
64	Std. 609-1 Bituminous Curbs & Waterways
65	Std. 619-1 Loose Riprap
66	Std. 621-2 Slotted Drain Spillway Assembly
67	Std. 623-2 CO Delineators
68	Std. 633-1 CO Traffic Control Devices

COMPLETED 11-14-80

Plans prepared by: F.H.W.A.
Date: May 1978

Type of Construction
Grading, Drainage, Bituminous Surfacing,
4 Bridges

Type Code: 4241

Design Designation
A.D.T. (1978) 310
A.D.T. (1998) 650
D.H.V. 217
D.L. 50 %
T.L. 15 %
V.L. 40 MPH

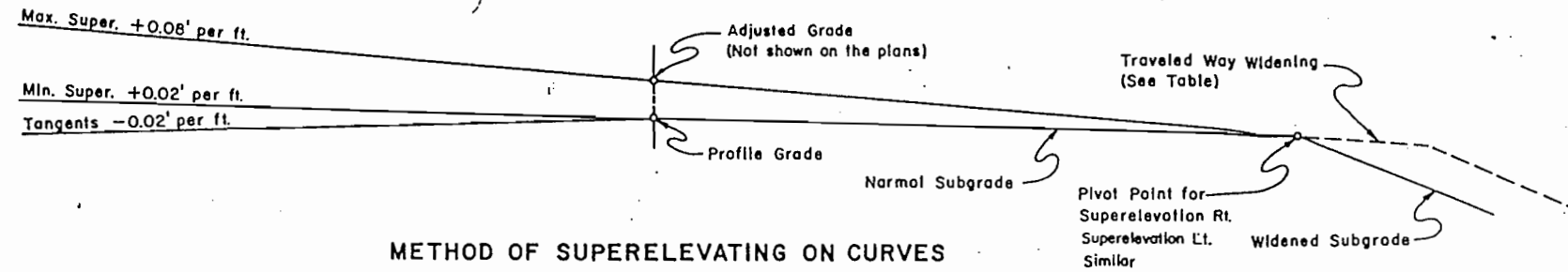
Bridge Type Codes	
Station	Code
428+00 Rt.	X021
473+30	X021
475+00 Rt.	X920
571+00	X021

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION NO. 8 DENVER, COLORADO

APPROVED: *Charles P. Hansen* DATE 3-15-79
Director, Office of Federal Highway Projects

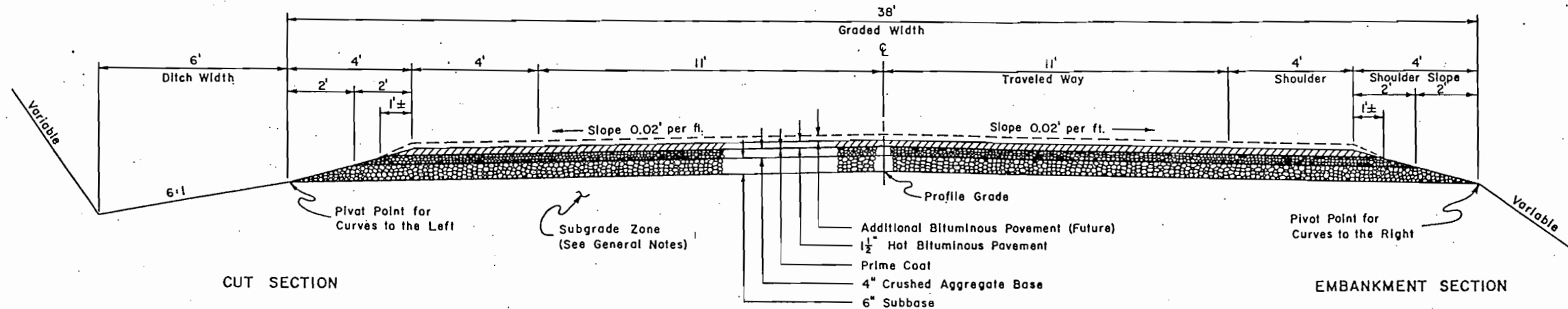
GENERAL NOTES

Sheet 2



METHOD OF SUPERELEVATING ON CURVES

- Excavation and embankment slope ratios may be adjusted by the engineer to assure adequate drainage and stability. Where wet or unstable conditions exist, the engineer may increase the ditch width.
- All earth slopes and all riprap slopes shall be rounded. For cut slope distances less than 12 feet, B & F dimensions are reduced to the actual cut slope distance.
- Curve widening shall be as shown in the table below. One half of the widening shall be added to the left lane and one half to the right lane.



CUT SECTION

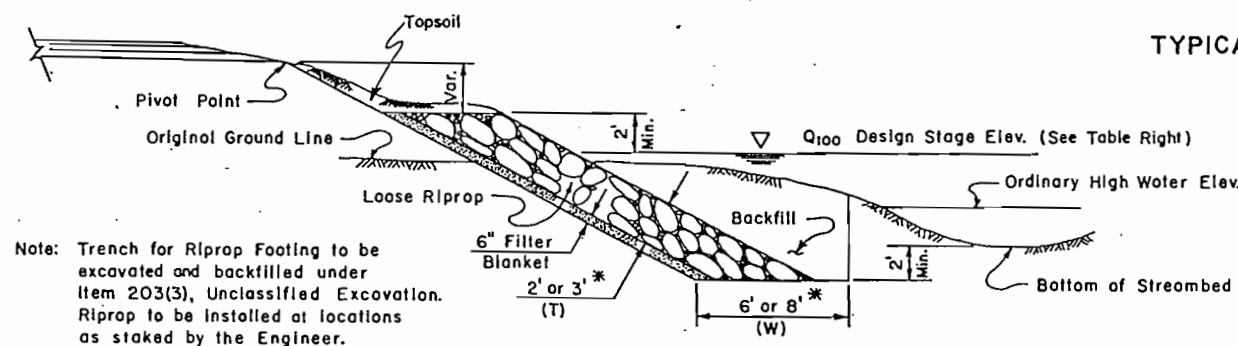
EMBANKMENT SECTION

LENGTH OF PROJECT				
Station to Station	Roadway Length		Bridge Length	
	Feet	Miles	Feet	Miles
418+00 - 454+51.34 BX	3,651.34	0.692		
454+44.79 AHD - 472+64.50	1,819.71	0.345		
472+64.50 - 474+09.50			145	0.027
474+09.50 - 570+27.50	9,618.00	1.821		
570+27.50 - 571+72.50			145	0.027
571+72.50 - 576+00	427.50	0.081		
TOTALS	15,516.55	2.939	290	0.054
Approach Road Bridges *				
428+00 Rt.			120	0.023
475+00 Rt.			47	0.009
* Total				0.032

* Note: Length of approach road bridges are not included in the length of project.

TYPICAL SECTION

SURFACING QUANTITIES FOR MAIN ROADWAY ONLY					
Item No.	304(4) Cr. agg. base Tons	304(10) Subbase Tons	403(1) Hot. Bit. Pvc. Tons	403(2) Asp. Cement Tons	408(2) Asp. Prime Tons
Main Rdwy. Totals	11,998	20,298	4,484	291	72



TYPICAL EMBANKMENT PROTECTION

(Loose Riprap)

* Class A riprap, T=2', W=6'
Class B riprap, T=3', W=8'

STATION TO STATION	Q100 (Design)	
	DISCHARGE CFS	STAGE ELEVATION FEET
428+00 to 434+00		6477.0 - 6481.0
434+00 to 450+00		6481.0 - 6501.0
450+00 to 456+00		6501.0 - 6509.0
456+00 to 463+00		6509.0 - 6516.0
463+00 to 473+30 (West Muddy Cr. Bridge)	5800	6516.0 - 6529.0
473+30 to 488+50	3600	6529.0 - 6568.0
488+50 to 503+00		6568.0 - 6614.0
503+00 to 515+00		6614.0 - 6655.0
515+00 to 544+00	3500	6655.0 - 6671.0
544+00 to 564+00		6671.0 - 6685.0
564+00 to 571+00 (Muddy Creek Bridge)	3300	6685.0 - 6687.0
	3200	

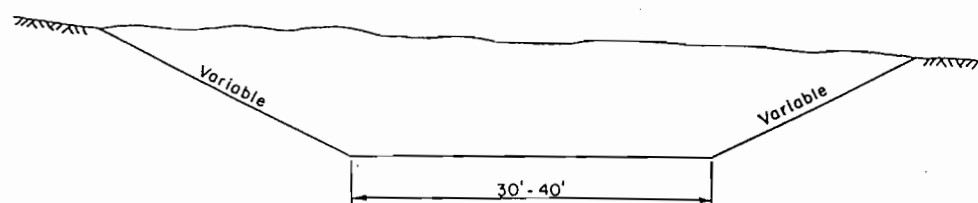
CUT SLOPE ROUNDING

SLOPE RATIOS

HEIGHT	EMBANKMENT SLOPE
0' to 2'	6:1
2' to 4'	4:1
4' to 6'	3:1
6' to 10'	2:1
10' to 20'	1.5:1
over 20'	1.25:1

HEIGHT	EXCAVATION SLOPE
0' to 1'	-50:1
1' to 3'	6:1
3' to 6'	4:1
6' to 20'	2:1
over 20'	1:1
Rock	0.10:1

MATERIAL DATA USED IN CALCULATION OF ESTIMATED QUANTITIES	
Subbase:	141 lb./ft. ³
Crushed Aggregate Base, Grade Special,	136 lb./ft. ³ at optimum moisture
Hot Bituminous Pavement, Grade Special,	144 lb./ft. ³
Asphalt Cement, 6.5% by weight of total mix	
Asphalt, Grade MC-30 or 70, Prime Coat,	0.3 gal./yd. ² @ 7.9 lb./gal.



TYPICAL CHANNEL CHANGE (See Table Right)

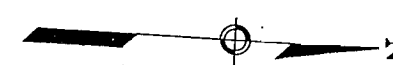
CHANNEL CHANGE STATION				
STATION	WIDTH	LT. SLOPE	RT. SLOPE	REMARKS
422 + 50 - 424 + 00	40'	As Roadway	Vertical	Riprap Lt.
430 + 50 - 439 + 50	40'	As Roadway	Vertical	Riprap Lt.
448 + 50 - 458 + 00	40'	As Roadway	1:1	Riprap Lt. & Rt.; Rock Butress Rt. 1/2:1 Slope
461 + 50 - 464 + 50	40'	As Roadway	1 1/2:1	Riprap Lt.
467 + 50 - 472 + 00	40'	Vertical	Vertical	
472 + 00 - 484 + 00	30'	Vertical	Vertical	
West Muddy 0+00-3+50	30'	Vertical	Vertical	
520 + 50 - 524 + 50	30'	As Roadway	Vertical	Riprap Lt.
532 + 50 - 534 + 50	30'	As Roadway	Vertical	Riprap Lt.
541 + 50 - 549 + 00	30'	Vertical	Vertical	

DEGREE OF CURVES	TOTAL WIDENING IN FEET
6	2.0
7	2.0
8	2.0
9	2.5
10-11	2.5
12-14.5	3.0

TRAVELED WAY WIDENING

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION-8 DENVER, COLORADO

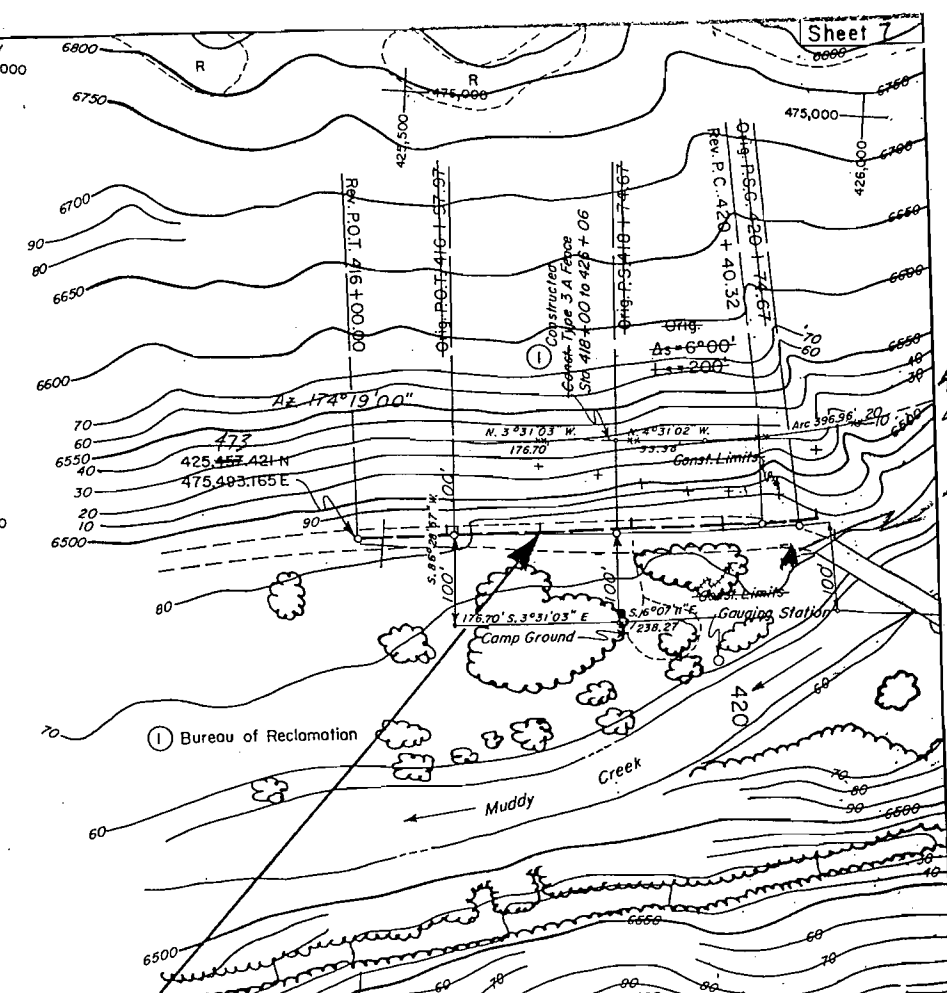
TYPICAL CROSS SECTION



Note:
All bearings shown are Grid bearings. To convert to geodetic bearings, add the mapping angle of 1° 07' 28" to all NW and SE Grid Bearings, and subtract 1° 07' 28" from all NE and SW Grid Bearings.

"The Alignment and Grade as Hereon Shown are Subject to Adjustment."

△ Ground Control Station
○ Vertical Control Station



R-1
425,945.14
484.54
475

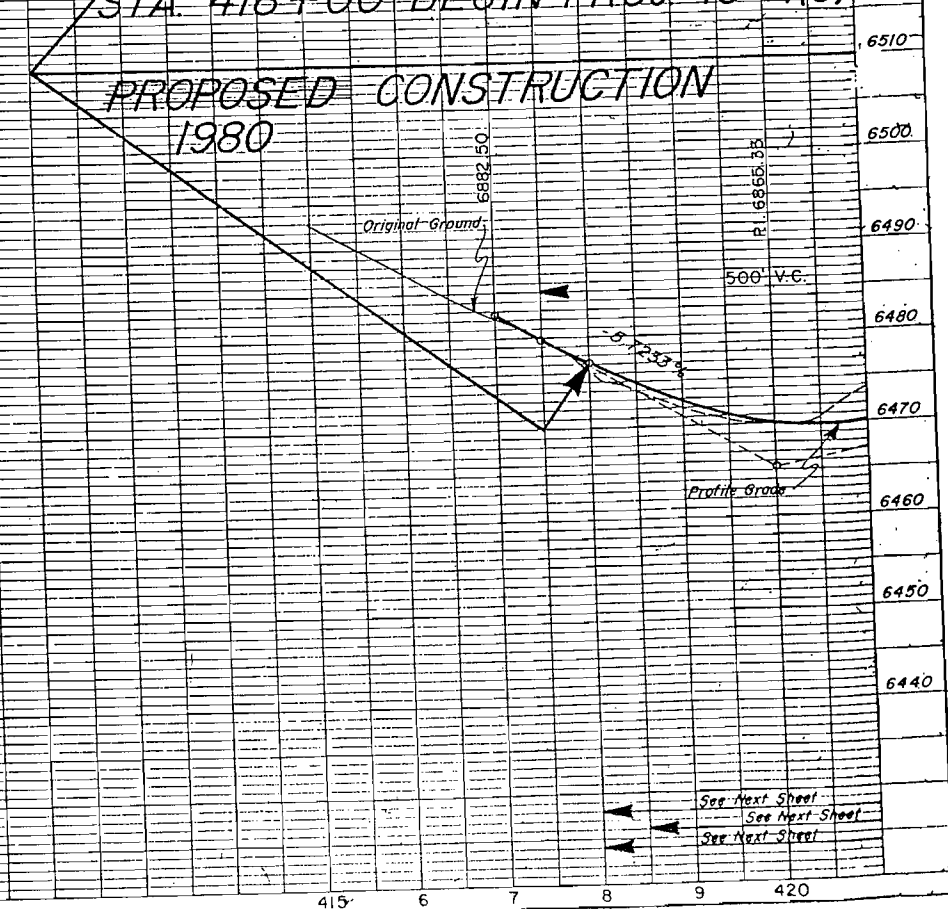
STA. 418+00 BEGIN PROJ 15-1(5)

PROPOSED CONSTRUCTION
1980

EARTHWORK SUMMARY			
Excavation:	Symbol	Total	Unit
Prism	-	348,194	Cu. Yd.
Channel Change Exc.	OCE	11,855	Cu. Yd.
* Excavation for Riprap	ER	1,371	Cu. Yd.
Excavation for Reinforced earth wall	W	10,833	Cu. Yd.
** Approach Road	-	9,930	Cu. Yd.
* Vase	-	48,000	Cu. Yd.
* Topsoil Stripping, Cuts	-	3,207	Cu. Yd.
Topsoil Stripping, Fills	-	13,706	Cu. Yd.
Rock Buttress	-	18,924	Cu. Yd.
Total	-	402,712	Cu. Yds.
Embankment:			
Prism	-	246,723	Cu. Yd.
Existing Channel backfill	ECB	2,294	Cu. Yd.
Dike and Berm	DL	6,658	Cu. Yd.
Riprap Backfill	RB	3,138	Cu. Yd.
Replace Topsoil Stripping under fills	-	8,151	Cu. Yd.
** Approach Roads	-	4,536	Cu. Yd.
Total	-	266,974	Cu. Yds.
* Included in Prism Quantity			
** Included in Other Summary			

SUMMARY OF CLEARING AND GRUBBING	
Location	Quantity (Acres)
Main Roadway	18.2
Appr. Roads	1.7
Channel Changes	5.0
Borrow Pit	3.7
Storage Area	3.4
Total	52.0

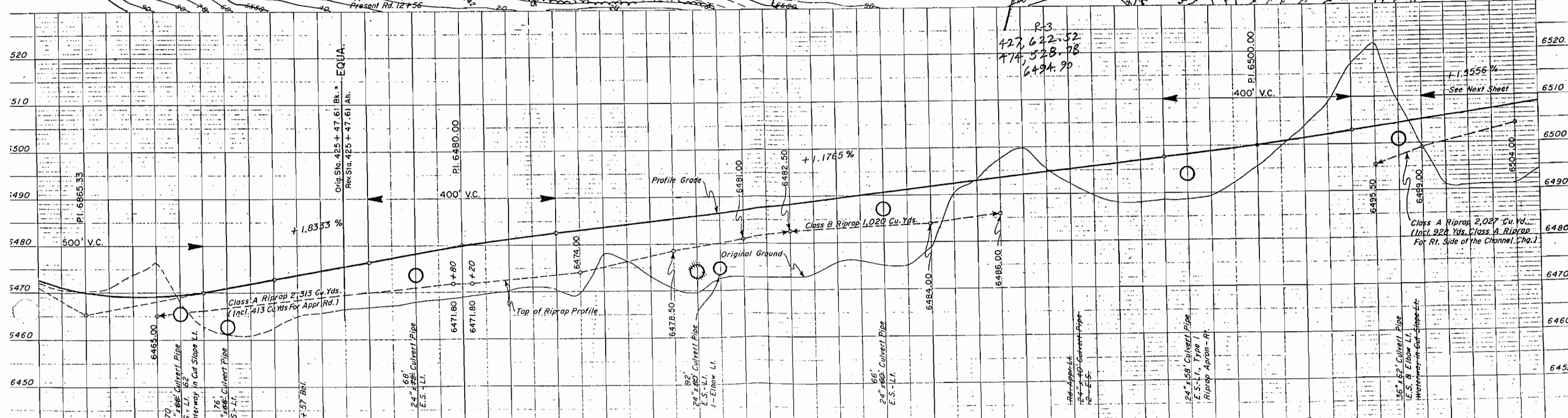
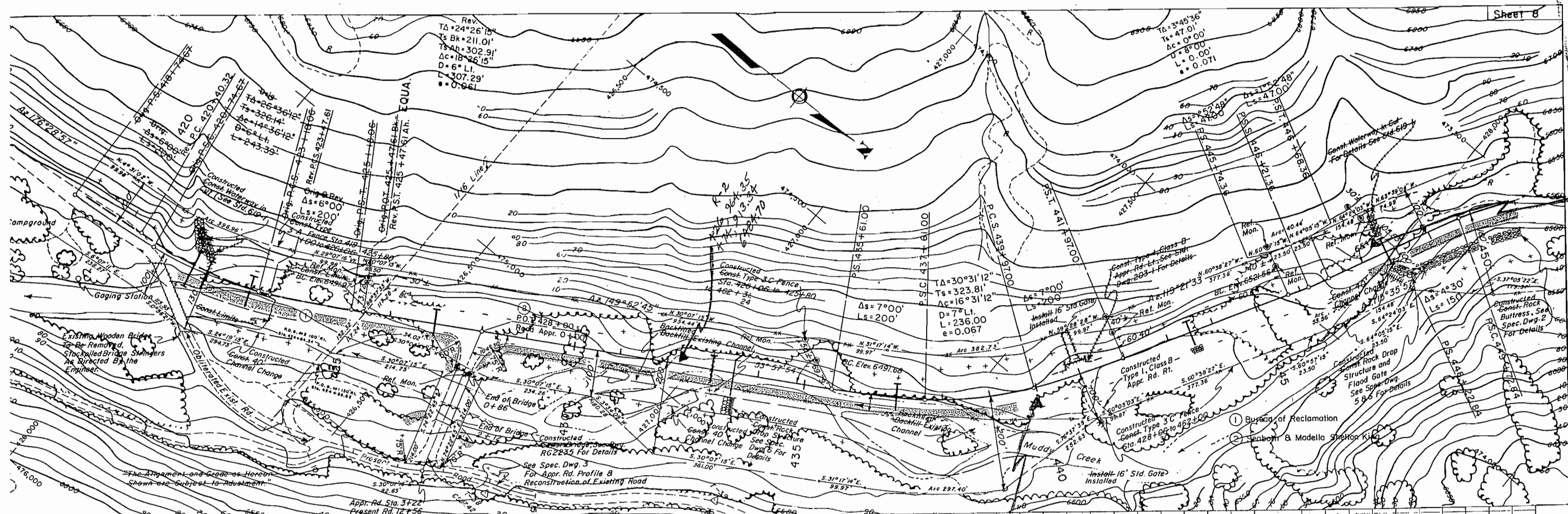
OBLITERATION OF OLD ROADWAYS			
Station to Station	Side	Units	
420+00 428+00	RT	24	
5+3+00 576+00	RT	9	
Total		33	

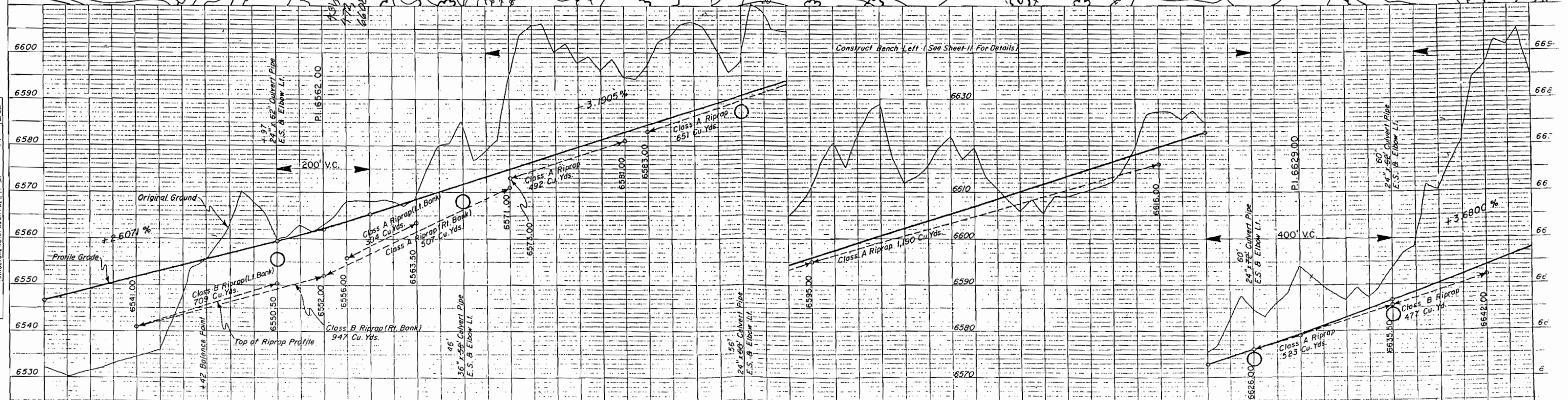
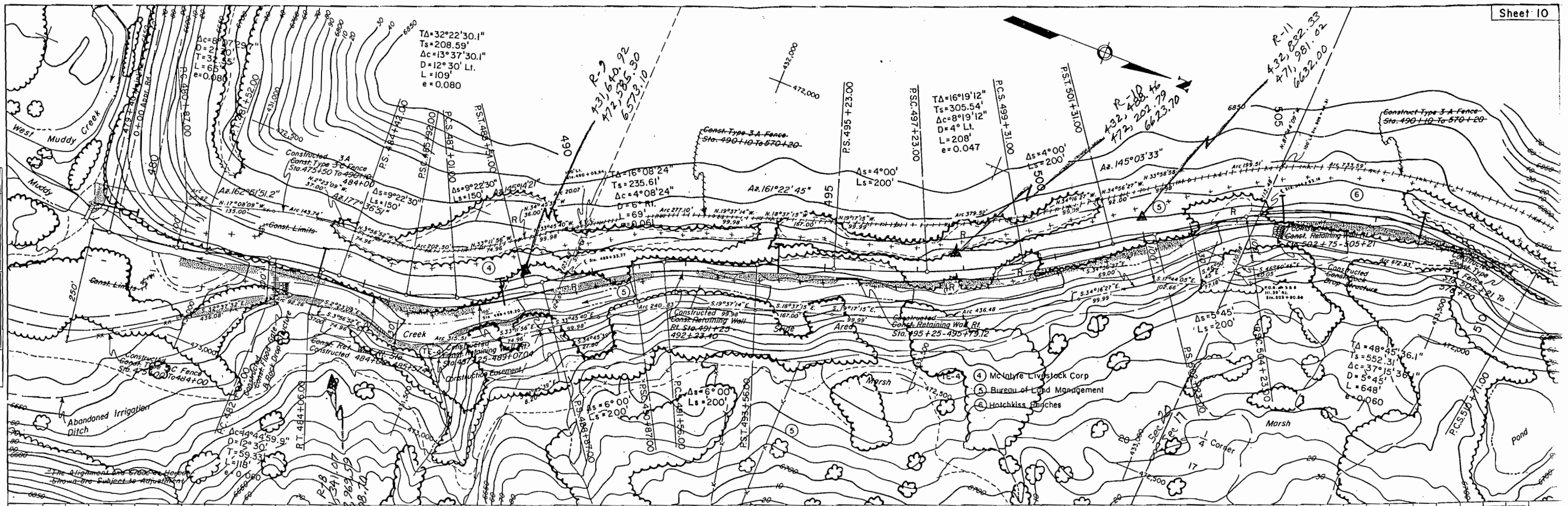


See Next Sheet
See Next Sheet
See Next Sheet

Topsoil - Cu. Yd.
Uncl. Excon - Cu. Yd.
Embankment - Cu. Yd.
Overhaul - Cu. Yd. - Mile

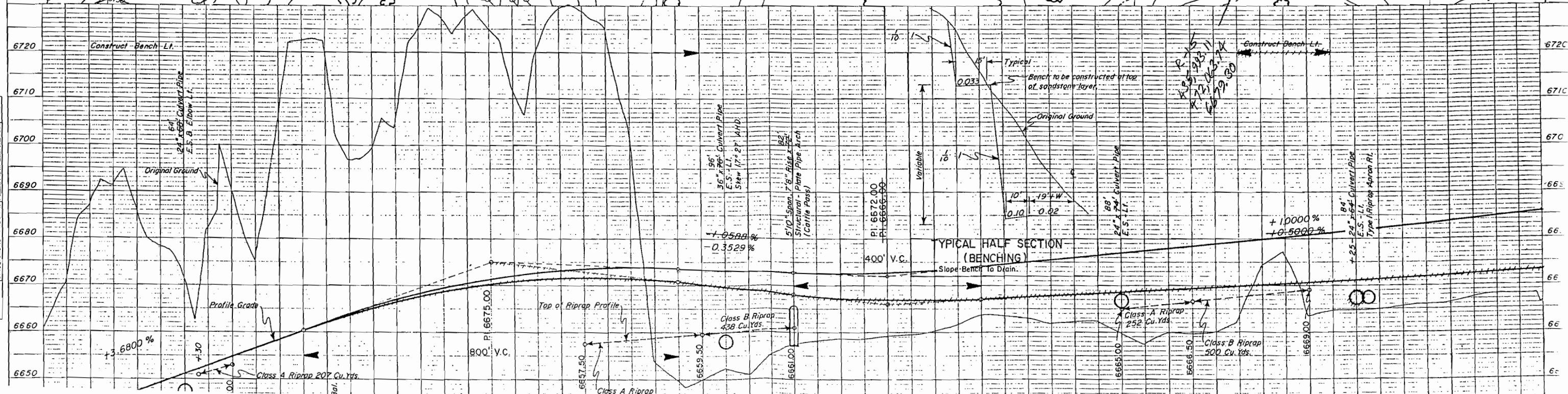
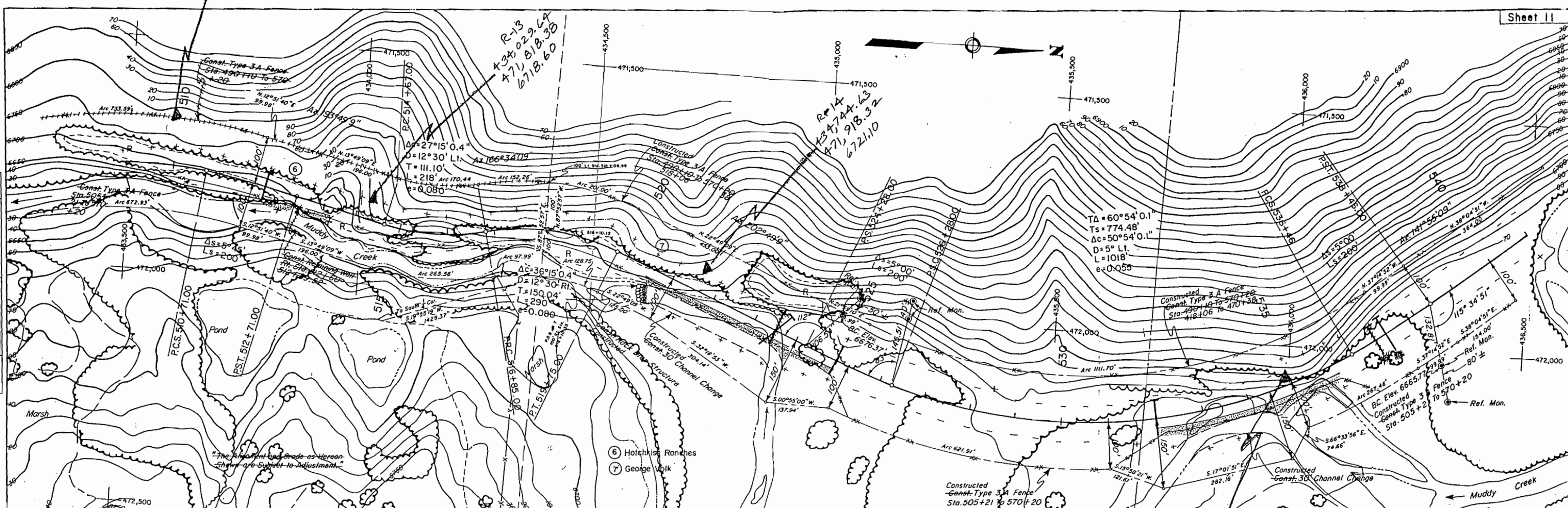
R-4
427,957.74
473,789.48
4506.0





PLAN
SURVEYED
PLOTTER
NOTE BOOK
RT. OF WAY CHECKED
NO.

PROF
BY
DATE
CHECKED
NOTE BOOK
RT. OF WAY CHECKED
STRUCTURE NOT IN CHARGE



~~Sheet 12~~



