

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	423-B (I)	1	

Rev. as Const. W.H. 3-15-40.

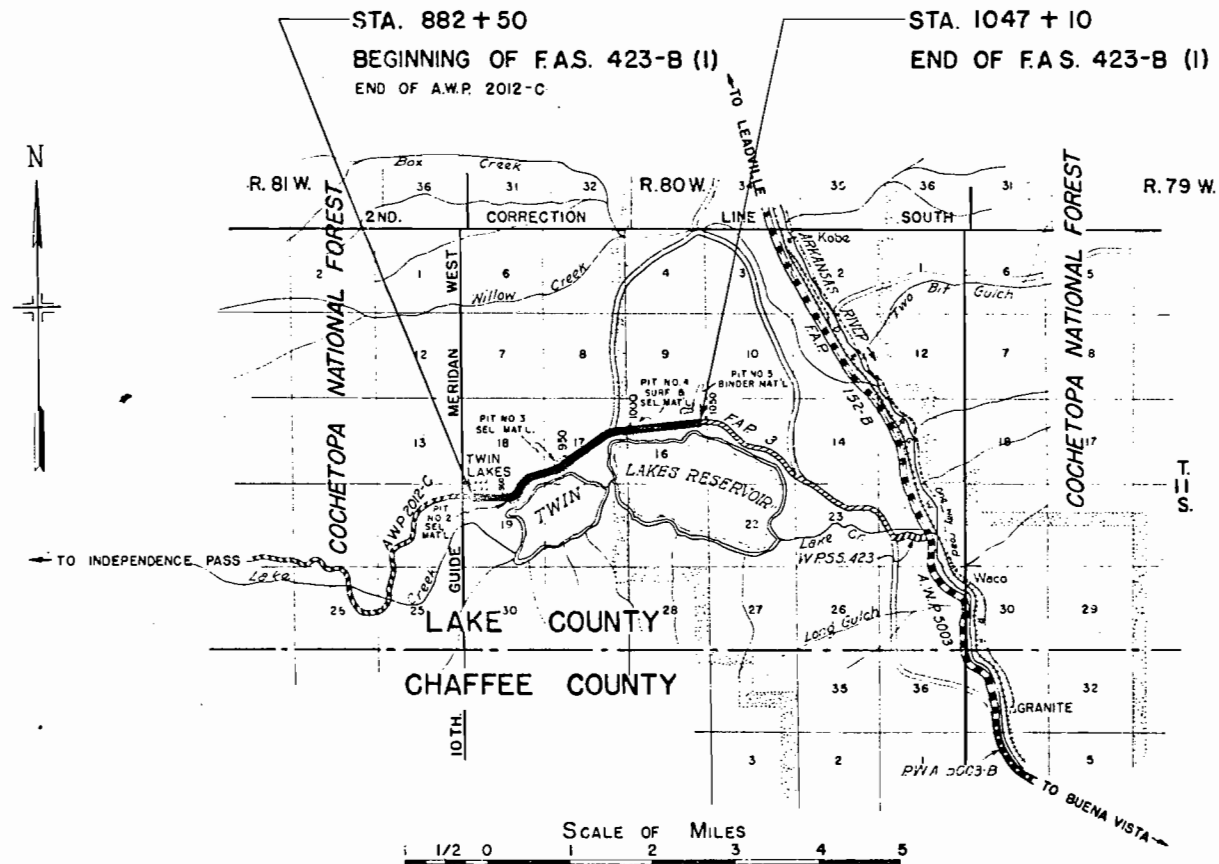
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COLORADO STATE HIGHWAY DEPARTMENT PLAN AND PROFILE OF CONSTRUCTED FEDERAL AID SECONDARY PROJECT NO. F.A.S. 423-B (I) STATE HIGHWAY NO. 82 LAKE COUNTY

SCALES OF ORIGINAL TRACINGS
ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT } 16207.6 FEET = 3.069 MILES.
NET LENGTH OF PROJECT }

CONVENTIONAL SIGNS		900
CENTER LINE OF SURVEY	---	
RIGHT OF WAY LINES	---	
TOWNSHIP OR RANGE LINES	---	
SECTION LINES	---	
ONE QUARTER SECTION LINES	---	
RAILROAD TRACKS	---	
BARBED WIRE FENCE	---	
POLE LINES	---	



NOTE

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

W.A. WHITNEY DIVISION ENGINEER
E.W. OVIATT RESIDENT ENGINEER
SALIDA LEADVILLE

RECOMMENDED FOR APPROVAL

[Signature]
ASSISTANT ENGINEER
DATE
Aug. 14, 1939

APPROVED

[Signature]
STATE HIGHWAY ENGINEER
DATE
Aug. 16, 1939

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

RECOMMENDED FOR APPROVAL

CHIEF, WESTERN REGION
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED

COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	423-B (1)	2	

Rev. Summary and Sel. Mat'l. note - E.V.B., Sept. 30, 1939

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 June 1, 1937.

All quantities on preliminary plans are to be considered approximate only.

All roadway excavation required to construct the project is to be obtained as indicated on the plans. Quantities involved beyond the limits of ditch as shown on the Typical Section, either noted on the profile as "Borrow" or on the Tabulation of Structures as "Excavation and Embankment" are to be classified and paid for as "Unclassified Excavation."

These quantities are to be stated as part of the original excavation at locations indicated on the plans. Slope stakes beyond the limits of the Typical Section are subject to change by the Engineer to fit embankment requirements actually encountered on construction.

If, after cut slopes are staked, it is found that the material will stand on a steeper slope, rights are reserved to change cut slopes after cuts have been opened up by the Contractor.

All curves are to be superelevated and widened as provided by the Standard Superelevation Sheet.

Except as noted on the plans, overhaul will be paid for as measured along center line of project.

All side approach roads to the project shall be gravel surfaced with a 4" thickness of "Gravel or Crushed Rock Surfacing" extending approximately 30 feet from edge of highway. Estimated tonnage of surfacing material required in this operation is shown in "Tabulation of Structures."

The ends of corrugated metal culvert pipes, which are not provided with headwalls, shall be covered with approximately 6" of material in such a manner that a minimum of metal shall be exposed in the completed work. This shall be accomplished by warping embankment slopes around and adjacent to the culvert. C.M.P. culverts on this project shall be installed without headwalls unless otherwise noted on plans.

At all places on the project where the new work lies along the present traveled road, the Contractor shall at his own expense, prosecute construction in such a manner that traffic may readily pass over the road. Also the Contractor shall at his own expense construct and maintain in safe condition all temporary approaches to and crossings of intersecting roads.

All poles encroaching on the construction are to be moved by the owners.

All wire fences including line posts shall be placed approximately six inches inside the boundary of the highway as shown on the plans.

CUT SLOPE TREATMENT IN EARTH CUTS

The intersection of cut slopes with the existing ground line shall be rounded in earth cuts, beginning 5 feet back of the slope stake and extending 5 feet down the cut slope.

Where the cut slope length is less than 5 feet, reduce both of the above lengths of slope treatment to the actual slope distance. Excavation quantities involved in rounded slopes shall be included in Unclassified Excavation.

Throughout the entire project, the 6" immediately underlying the subgrade as shown on the Typical Section is to be constructed of Selected Material, which is to be classified and paid for as Unclassified Excavation. Selected material is to be placed at the approx. rate of 58 cu yds. per 100' of roadway.

SELECTED MATERIAL

PLACE REQUIRED STATION TO STATION	QUANTITY REQUIRED CU. YDS.	OVERHAUL		SOURCE OF MATERIAL
		STATION YARDS	YARD MILES	
882+50 to 891+50	567	6237	49	Pit No. 2 Roadway Excavation, Sta. 906 to 910.
891+50 to 895+00	221	2045		
895+00 to 902+50	435	1631		
902+50 to 912+50	580			
912+50 to 923+50	638	3509		
923+50 to 927+50	232	2552	9	Pit No. 3 Widened Cuts, Sta. 940 to 952
927+50 to 931+50	232	2552	9	
931+50 to 942+50	638	3509		
942+50 to 952+50	580			
952+50 to 963+50	638	3509		
963+50 to 974+47.5	637	7007	67	Pit No. 4 Roadway Excavation, Sta. 1001 to 1008
974+47.5 to 985+44.9	637	7007	67	
985+44.9 to 999+00	638	3509		
999+00 to 1009+00	580			
1009+00 to 1020+00	638	3509		
1020+00 to 1047+10	1572	17292	298	
TOTALS	9463	65868	499	

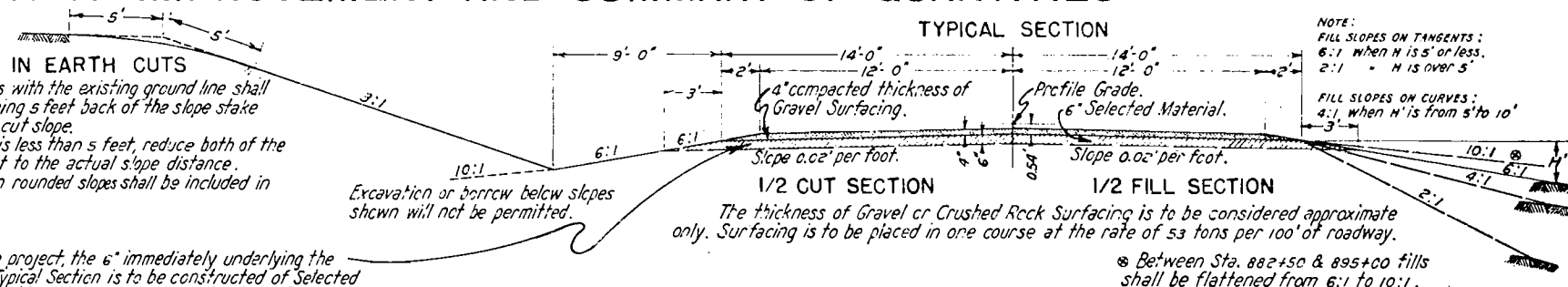
MATERIAL FROM PITS NO. 2, 3 & 4 AVAILABLE WITHOUT PURCHASE COST TO CONTRACTOR.

FINAL SURFACING PLAN

PLACE REQUIRED STATION TO STATION	QUANTITY REQUIRED TONS	OVERHAUL		SOURCE OF MATERIAL
		TON	MILES	
Appr. to Proj.	43.20	61.		Gravel Surfacing Pit #4, Rt. & Lt. Sta. 1003 to 1013.
882+50 to 933+40	3713.05	2494		
Binder Put on Road	82.90	66		NOTE: - Approximately 10% Binder Material from Pit #5, 910' Lt. Sta. 1033+00 required to be mixed at plant with material from gravel pit to produce surfacing material meeting specifications. Haul on 900 tons binder - Pit to plant.
933+40 to 1007+75	2800.50	F.H.		
Binder Hauled to Bin		706		
1007+75 to 1047+10	2127.40	F.H.		
Road Approaches	263.80	231		
Appr. off Proj.	63.00	F.H.		
TOTALS	9097.85	3558		

MATERIAL FROM PIT NO. 4 AVAILABLE WITHOUT PURCHASE COST TO CONTRACTOR.

TYPICAL SECTION



FINAL TIMBER GUARD POSTS

STATION TO STATION	CENTERS	NO. SIDE	
		LEFT	RIGHT
899+50 TO 918+00	50'		38
912+50 TO 926+00	50'	28	
942+00 TO 944+50	50'		6
979+50 TO 984+50	50'	10	
990+75 TO 992+25	50'	4	
990+25 TO 993+75	50'		8
1046+70 TO 1047+50	40'	3	
998+50 TO 1002+00	50'	8	8
905+30		1	
921+50 TO 924+00	50'	6	
TOTAL		120	

SUMMARY OF CONSTRUCTED QUANTITIES

ITEM NO.	ITEM	UNIT	PROJECT TOTALS
10a	Clearing & Grubbing Entire Project	Lump Sum	
11b	Removal of 9 Structures.	Lump Sum	
11c	Removing & Resetting Mail Boxes.	Each	1
12b	Removing & Rebuilding Fence.	Lin. Ft.	465
13c	Unclassified Excavation.	Cu. Yd.	95,344
14a	Dry Rock Excavation (Structural).	Cu. Yd.	
14b	Dry Common Excavation (Structural).	Cu. Yd.	2693
14c	Wet Rock Excavation (Structural).	Cu. Yd.	
14d	Wet Common Excavation (Structural).	Cu. Yd.	1009
18a	Station Yard Overhaul.	Sta. Yd.	875,322
18b	Yard Mile Overhaul.	Yd. Mi.	11,262
26a	Gravel or Crushed Rock Surfacing.	Ton	9097.85
26c	Overhaul of Surfacing.	Yd. Mi.	3558
53b	18" Corrugated Metal Culvert Pipe.	Lin. Ft.	178
53c	24" Corrugated Metal Culvert Pipe.	Lin. Ft.	1,340
53d	30" Corrugated Metal Culvert Pipe.	Lin. Ft.	174
53e	36" Corrugated Metal Culvert Pipe.	Lin. Ft.	172
74x	Timber Guard Posts.	Each	120
76ax	Treated Wooden Line Posts.	Each	30
81a	Project Markers.	Each	2
81b	Right of Way Markers.	Each	56
135b	22" x 13" Cor. Met. Pipe Arch culvert	Lin. Ft.	184
	FORCE ACCOUNT		
	Remove Gas Pump & Tank, Lt. & Fire Box, Rt., Sta. 887+	Lump Sum	
	Obliterating Old Road.	Lump Sum	
	Relocating Telephone Line. (Work by Min. States Tel. & Tel. Co.)	Lump Sum	
	FORCE ACCOUNT - NO FEDERAL AID.		
	Reset Gas Pump & Tank off R.O.W., Lt., Sta. 887+	Lump Sum	

FINAL TABULATION OF STRUCTURES

STATION	DESCRIPTION	REMOVE STRUCT.		EXCAVATION		STRUCTURAL EXCAV.				GRAVEL		CORRUGATED MET. CULV. PIPE				COR. MET. PIPE ARCH CULVERT	MISCELLANEOUS
		NO.	EXCAV.	CU. YDS.	EMB.	ROCK	COM	WET	SURF.	TONS	18"	24"	30"	36"	22"x13"		
882+36 882+50	Walk Approach, Lt. Project Marker. Approach to Project. Remove and Rebuild Fence Lt. Road Approaches, Rt. & Lt. & Side Drain, Lt.		64	214	71		104	128		452						Project Marker. Rem. & Rebuild Fence, Lt. Also 12 Line Posts.	
884+61 884+62	Cross Culvert Remove Culvert.	1								699	74				50		
886+57 886+71	Road Approach & Side Drain, Lt. Cross Culvert				23		69	44.1		149	74				22		
887+	Remove Culvert. Remove Gas Pump & Tank, Lt. & Fire Box, Rt. Reset Gas Pump & Tank off R.O.W., Lt.	1															
882+86 888+15	Walk Approach, Lt. Road Approach, Rt.																
882+91 882+50 to 904+10	Road Approach, Rt. Excavate unsatisfactory material															10,000 sta yds. overhaul	
889+64 890+32	Road Approach & Side Drain, Lt. Road Approach & Side Drain, Rt.															22 30	
891+17	Cross Culvert																
891+82 894+00 to 906+30	Remove Culvert. Road Approach, Rt. Intercepting Ditch, Lt.	1															
893+55 896+05	Cross Culvert Cross Culvert (Skew 45°)																
907+50 to 912+05	Intercepting Ditch, Lt.																
901+95 905+25	Cross Culvert Cross Culvert																
912+ to 921+	Drain Ditches, Rt. & Lt. Cross Culvert & Inlet & Outlet Ditches.																
914+25	Cross Culvert & Inlet & Outlet Ditches.																
917+32 917+25	Remove Culvert, Rt. Cross Culvert & Outlet Ditch.	1															
918+45 918+20	Road Approach & Side Drain Rt. Remove Culvert Rt.																
920+00 to 923+05 921+72	Remove & Rebuild Fence Rt Cross Culvert & Inlet Ditch Remove Culvert	1														Rem. & Rebuild 300' Fence Rt. Also 18 Line Posts.	
923+35 924+90	Cross Culvert & Outlet Ditch. Remove Culvert, Rt.	1															
929+94 929+50 to 933+75	Road Approach, Rt. Road Approach, & Side Drain Lt. Grading Roadway Ditch, Lt.																
930+50 to 933+75 939+75	Intercepting Ditch, Lt. Cross Culvert & Outlet Ditch. Cross Culvert																
935+00 to 940+25 943+25	Intercepting Ditch, Lt. Cross Culvert (Skew 60°)																
943+30 946+50	Remove Culvert, Lt. Fill Hole, Lt.	1															
948+75	Cross Culvert (Skew 60°)																
948+90	Road Approach, Rt.																
959+00 978+50	Cross Culvert Remove Culvert	1															
968+25 978+90	Cross Culvert & Outlet Ditch Road Approach, & Side Drain Rt.																
978+51 977+40	Cross Culvert & Outlet Ditch Remove & Reset Mail Box, Rt.																
982+50 982+50 to 985+50	Cross Culvert & Outlet Ditch Intercepting Ditch, Lt. Intercepting Ditch, Lt.																
985+00 to 991+25 999+75 to 1002+75	Remove Culvert Intercepting Ditch, Lt.																
1000+00 1007+33 to 1022+00	Fill Hole, Rt. Intercepting Ditch, Lt.																
1009+70 to 1022+00 1022+60 to 1044+00	Intercepting Ditch, Rt. Intercepting Ditch, Lt.																
1044+00 to 1046+70 1022+00	Intercepting Ditch, Lt. Cross Culvert & Outlet Ditch																
1035+00 1044+00	Cross Culvert Cross Culvert																
1047+00 1047+10	Cross Culvert & Inlet Ditch & Dikes Approach to Project.																
976+35	Project Marker. Remove & Re-set USGS Bench Mark															Project Marker.	
TOTALS		9	1108	860		2693		1009	384	178	1340	174	172		84		

* Not included in Sheet Totals.

FINAL R.O.W. MARKERS

STATION	NUMBER		SIDE	LEFT	RIGHT
	LEFT	RIGHT			
882 + 00	1	1			
894 + 00	1	1			
894 + 50	1	1			
895 + 00	1	1			
896 + 50	1	1			
900 + 00	1	1			
902 + 43	1	1			
902 + 43	1	1			
909 + 00	1	1			
915 + 80.8	1	1			
917 + 07	2	2			
917 + 57	2	2			
918 + 38.7	1	1			
921 + 73.2	1	1			
923 + 16.3	1	1			
926 + 90.2	1	1			
930 + 00	1	1			
934 + 70	1	1			
TOTAL	56	56			

STATION	NUMBER		SIDE	LEFT	RIGHT
	LEFT	RIGHT			
1037 + 00	1	1			
1040 + 00	1	1			
1048 + 00	1	1			
1051 + 74.5	1	1			
1052 + 13.96	1	1			
1052 + 30.92	1	1			
TOTAL	56	56			

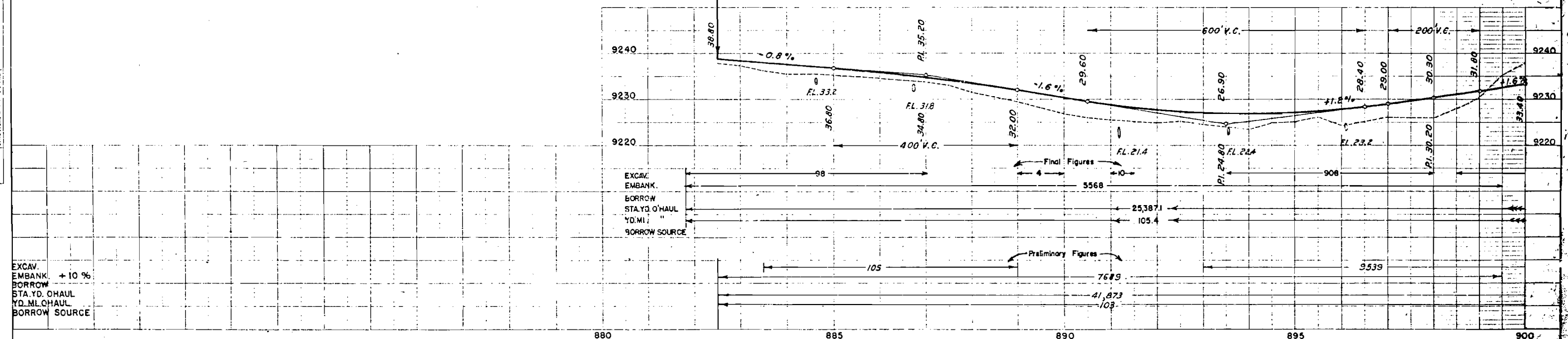
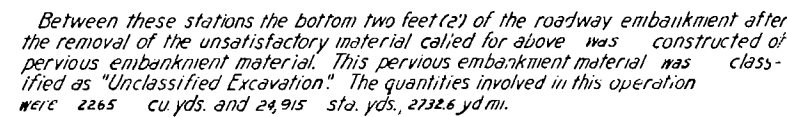
PLAN		BY	Date
SURFLO			
FULL			
NOTE BOOM			
L. DUNN CHS-60			
P. J. AND SONS INC.			
NC			

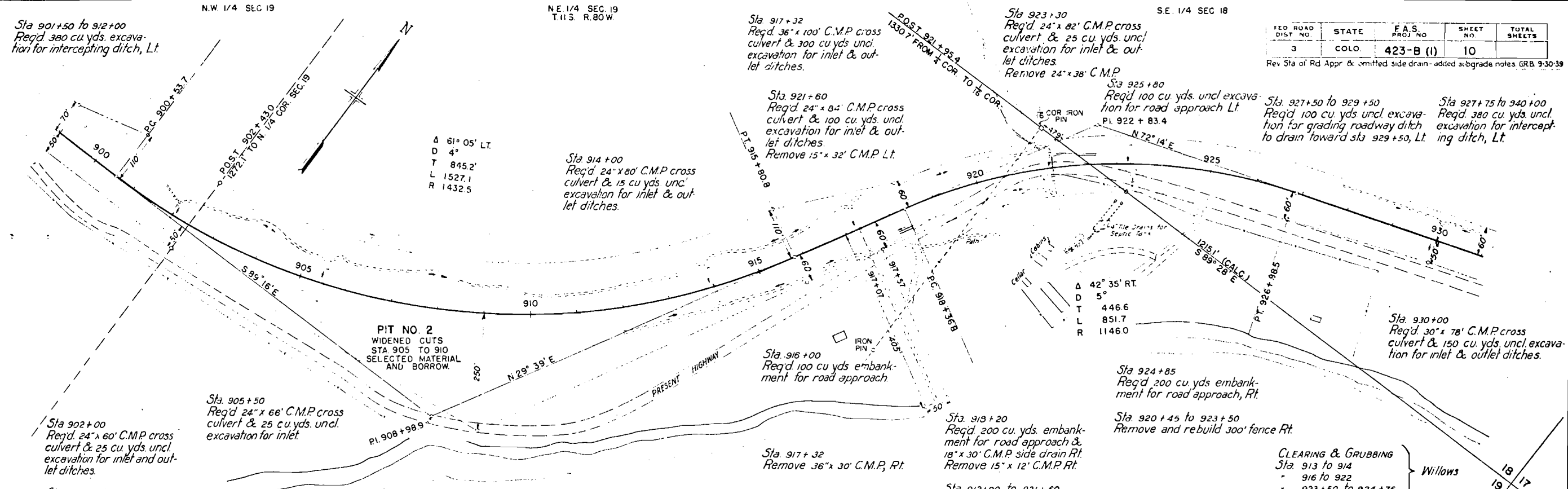
PROFILE	BY	DATE
1. NAME: J. R. HARRIS 2. ADDRESS: 1234 Main St., Springfield, Ill. 3. OCCUPATION: Teacher 4. EDUCATION: B.S. in Education, Springfield College, 1965 5. MARITAL STATUS: Married 6. CHILDREN: 2 7. RELIGION: Catholic 8. POLITICAL AFFILIATION: Republican 9. HOBBIES: Reading, Gardening 10. ACHIEVEMENTS: Member of National Education Association, 1970-1975	1. NAME: J. R. HARRIS 2. ADDRESS: 1234 Main St., Springfield, Ill. 3. OCCUPATION: Teacher 4. EDUCATION: B.S. in Education, Springfield College, 1965 5. MARITAL STATUS: Married 6. CHILDREN: 2 7. RELIGION: Catholic 8. POLITICAL AFFILIATION: Republican 9. HOBBIES: Reading, Gardening 10. ACHIEVEMENTS: Member of National Education Association, 1970-1975	1. NAME: J. R. HARRIS 2. ADDRESS: 1234 Main St., Springfield, Ill. 3. OCCUPATION: Teacher 4. EDUCATION: B.S. in Education, Springfield College, 1965 5. MARITAL STATUS: Married 6. CHILDREN: 2 7. RELIGION: Catholic 8. POLITICAL AFFILIATION: Republican 9. HOBBIES: Reading, Gardening 10. ACHIEVEMENTS: Member of National Education Association, 1970-1975

EXCAV.	
EMBANK.	+ 10 %
BORROW	
STA.YD. CHAUL	
YD. ML CHAUL	
BORROW SOURCE	

TWIN LAKES

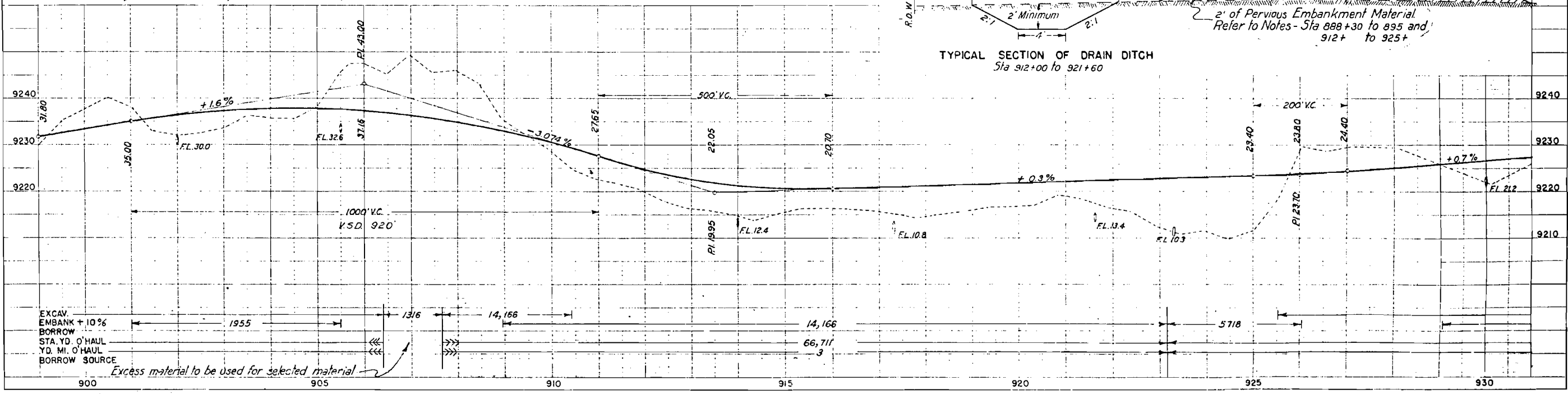
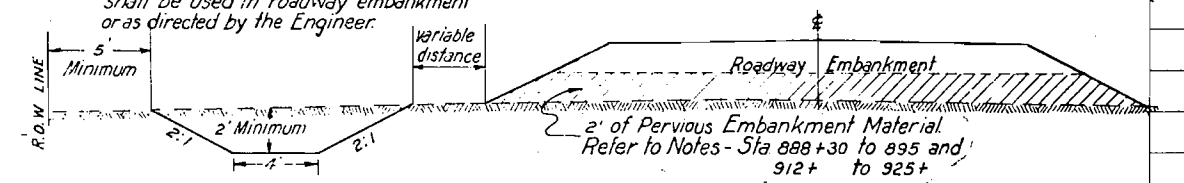
Rev. side drains, subgrade excav. note, and stone underdrain. - E.V.B., Sept. 30, 1939
Rev. in Const. - W.H. - 3 16-30

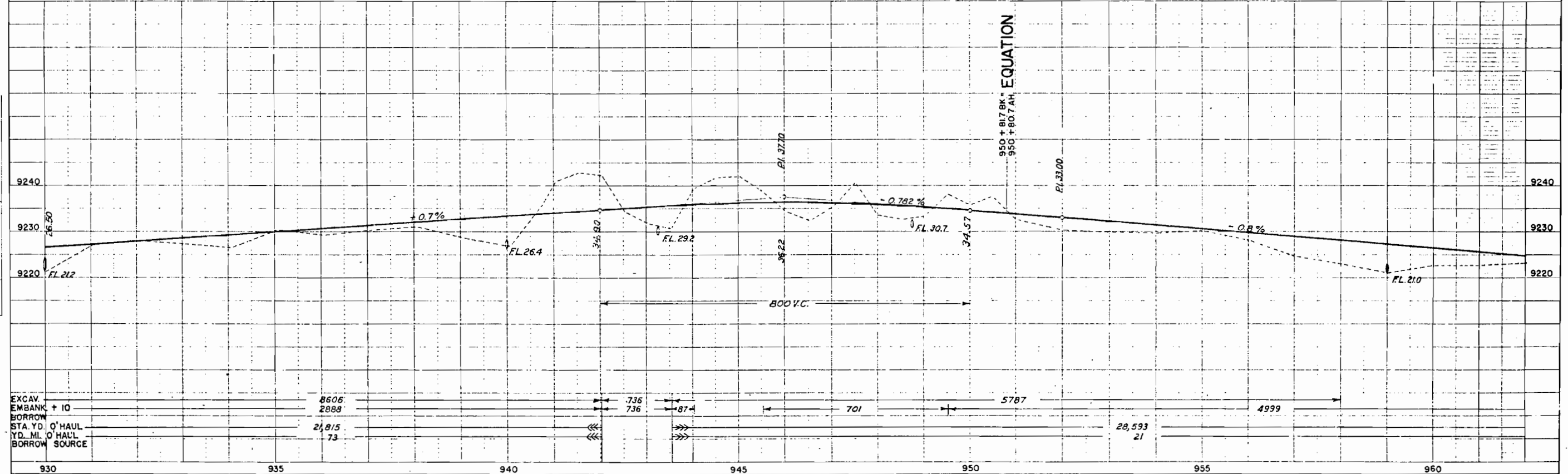




Sta. 912+00 to 925+
The bottom two feet (2') of the roadway embankment between the above named stations shall be constructed of pervious embankment material. This embankment material shall be approved by the Engineer before placement and shall be obtained from sources designated by the Engineer. This pervious embankment material shall be classified and paid for as "Unclassified Excavation." The quantities involved in this operation are approximately 6600 cu. yds. and 36,700 sta. yds. These quantities are included in the quantities shown on profile.

UPPER TWIN LAKE





S.W. 1/4 SEC. 17
T.11S., R.80W.

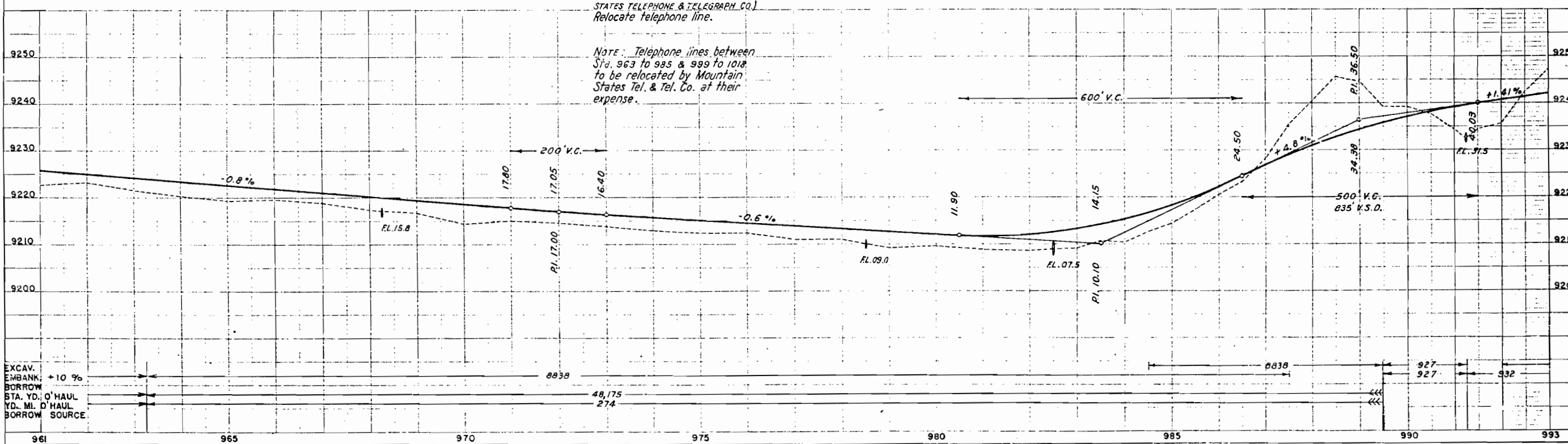
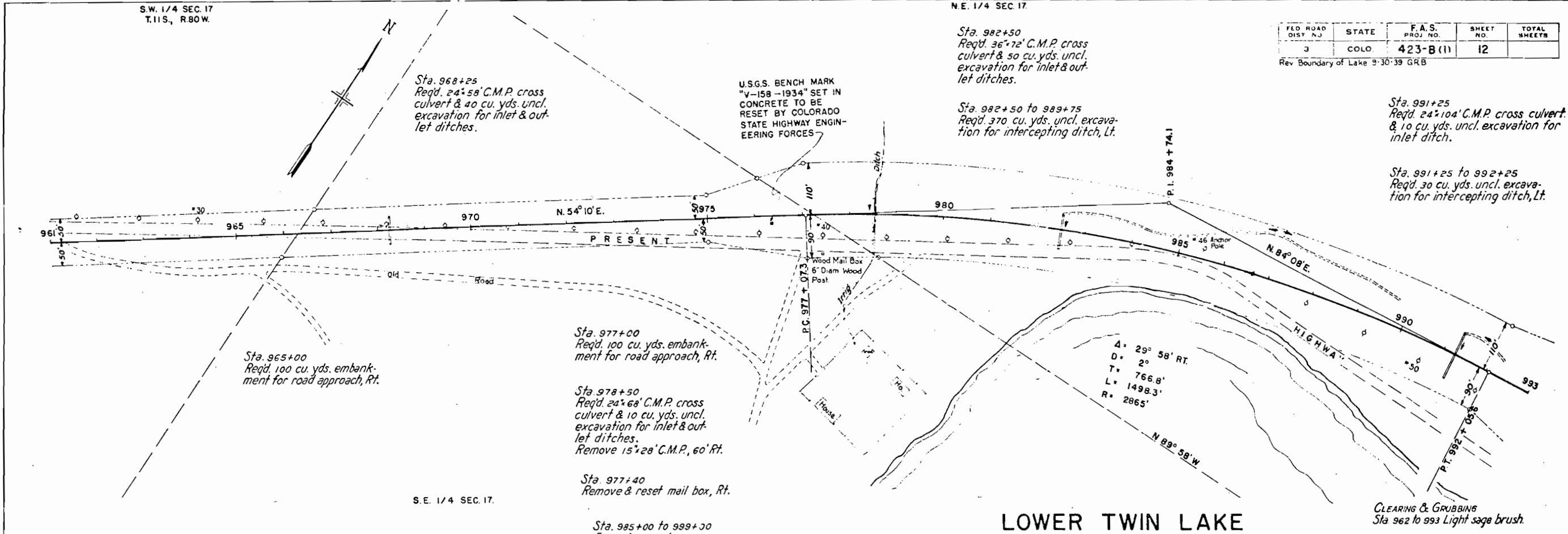
N.E. 1/4 SEC. 17.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	423-B (1)	12	

Rev. Boundary of Lake 9-30-39 GRB

PLAN	DATE
NOTE: ROAD DIST. NO. 3	

PROFILE	DATE
NOTE: ROAD DIST. NO. 3	



N.E. 1/4 SEC 17

N.W. 1/4 SEC. 16
T. 11 S. R. 80 W.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	423-B (1)	13	

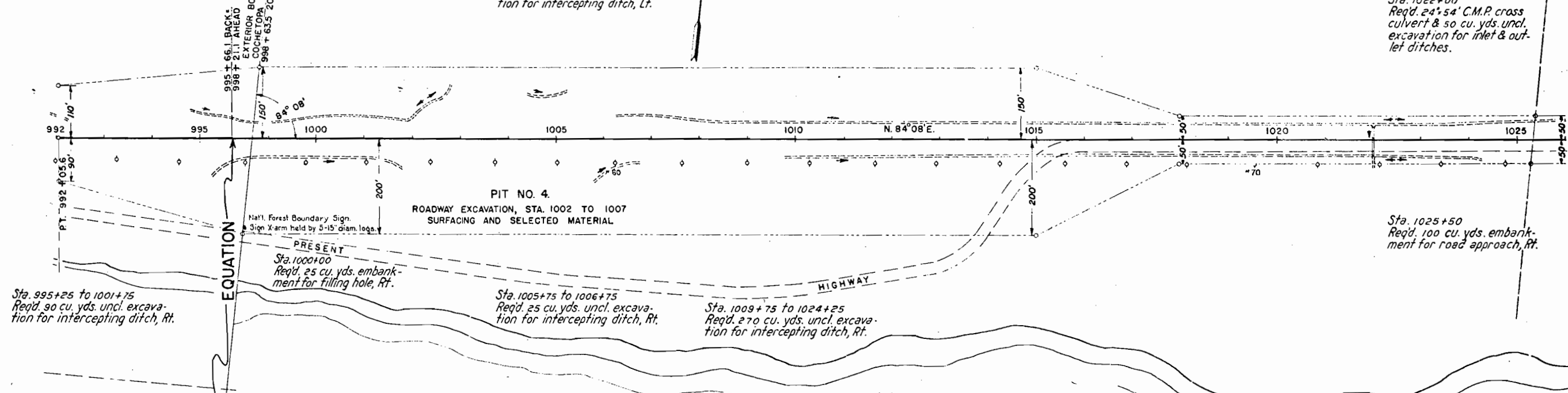
Sta. 994+75 to 1002+80
Req'd. 140 cu. yds. uncl. excavation for intercepting ditch, Lt.

Sta. 1004+40 to 1005+25
Req'd. 15 cu. yds. uncl. excavation for intercepting ditch, Lt.

Sta. 1006+25 to 1047+00
Req'd. 1100 cu. yds. uncl. excavation for intercepting ditch, Lt.

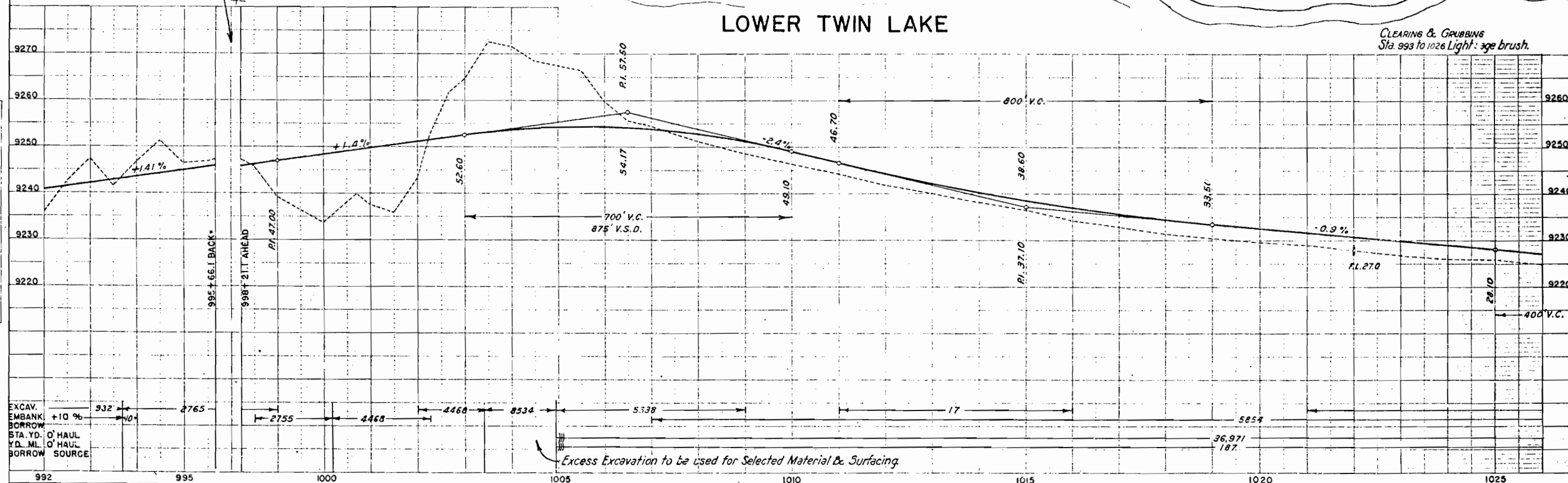
Sta. 1022+00
Req'd. 24'x54' C.M.P. cross culvert & 50 cu. yds. uncl. excavation for inlet & outlet ditches.

Sta. 1025+50
Req'd. 100 cu. yds. embankment for road approach, Rt.



LOWER TWIN LAKE

CLEARING & GRUBBING
Sta. 993 to 1026 Light: age brush.



EXCAV. +10 %
EMBANK. 0' HAUL
BORROW STA. YD. 0' HAUL
YD. ML. 0' HAUL
BORROW SOURCE

Excess Excavation to be used for Selected Material & Surfacing.

PIT NO. 5
700' LT. STA. 1035
BINDER MATERIAL

N.E. 1/4 SEC. 16
T. 11 S. R. 80 W.



FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
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Sta. 1035+00
Req'd. 24'x62' C.M.P. cross
culvert & 50 cu. yds. uncl.
excavation for inlet & out-
let ditches.

Sta. 1044+00
Req'd. 24'x68' C.M.P. cross
culvert & 10 cu. yds. uncl.
excavation for inlet.

Sta. 1047+10
Req'd. Project Marker.
Req'd. 700 cu. yds. uncl.
embankment & 100 tons
surfacing for approach
to project.

Sta. 1047+00
Req'd. 24'x60' C.M.P. cross
culvert & 10 cu. yds. uncl.
excavation for inlet.

STA. 1047+10
END OF F.A.S. 423-B (I)

CLEARING & GRUBBING
Sta. 1026 to 1055 Light sage brush.

NW 1/4 SEC. 15

Δ = 43° 26' R
D = 2°
T = 1141.1'
L = 2171.7'
R = 2865.0'

PC 1051+74.5
PT 1052+19.1
15800 TO NE COR. SEC. 16

TO BUENA VISTA AND
LEADVILLE

PLAN	DATE	BY	CHKD.
NOTED BY			
NOTED BY			
NOTED BY			

PROFILE	DATE	BY	CHKD.
NOTED BY			
NOTED BY			
NOTED BY			

