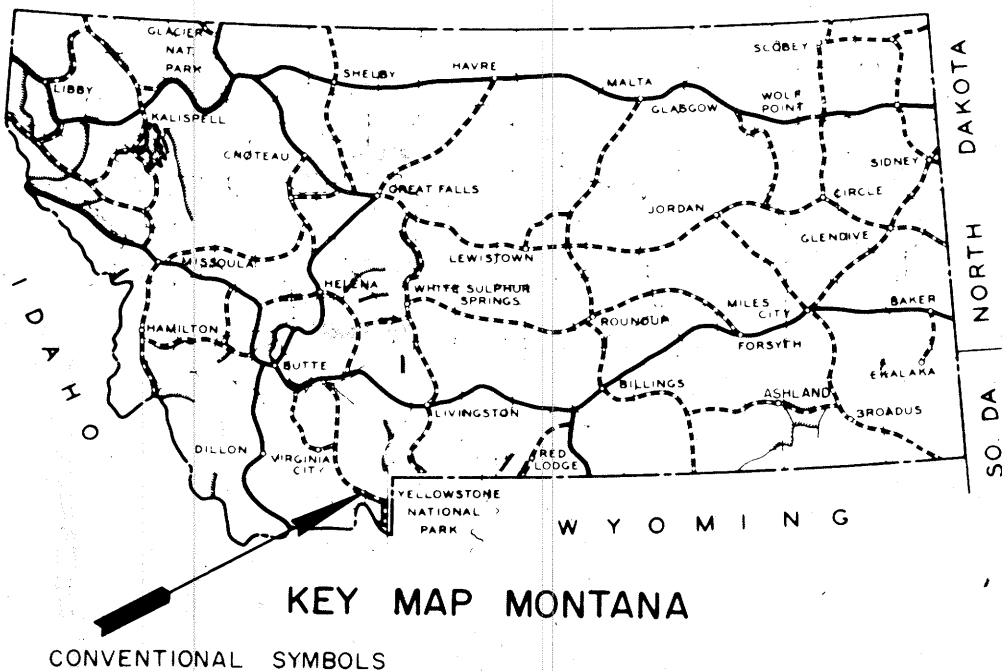


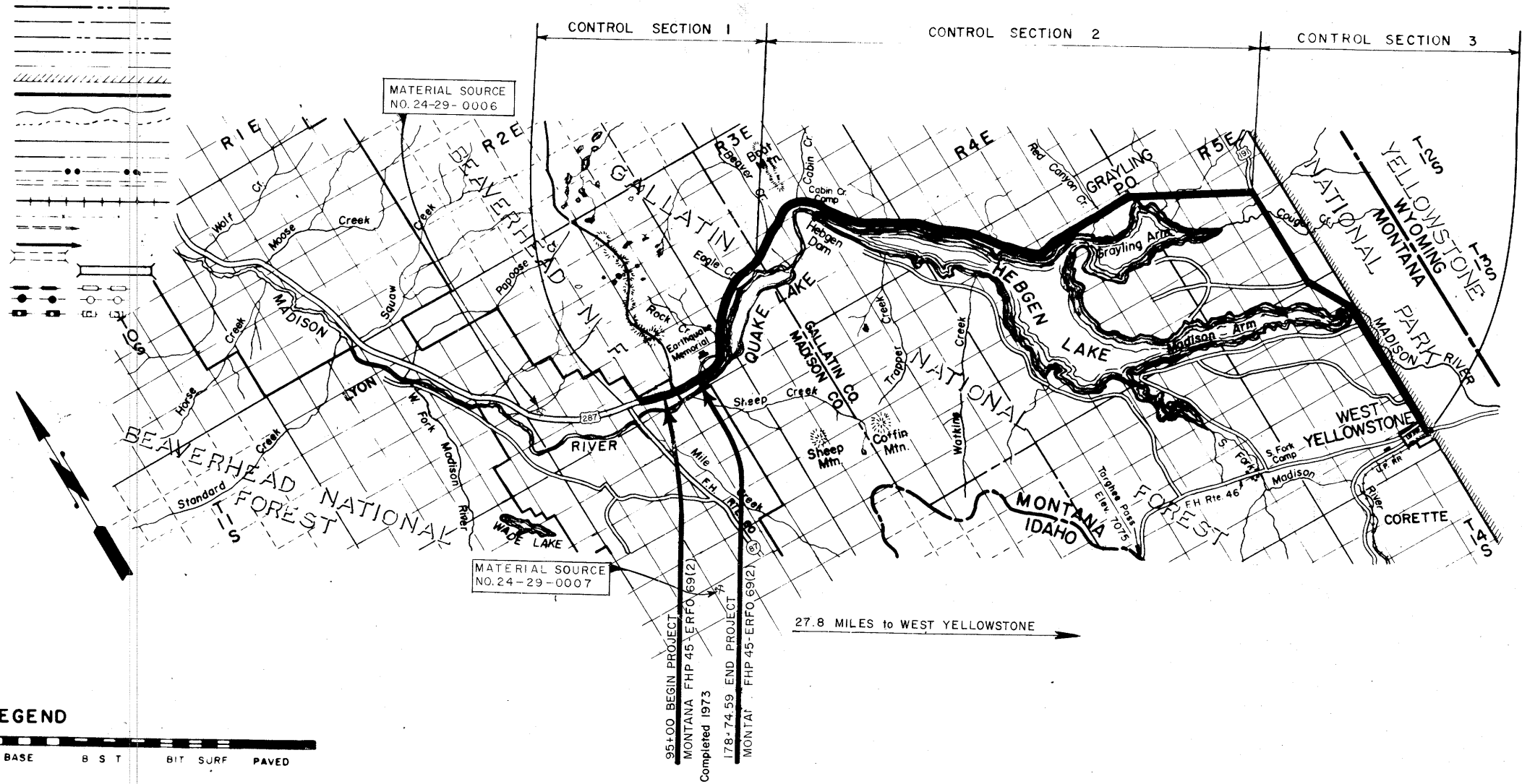
UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION EIGHT

AS CONSTRUCTED
MONTANA EMERGENCY RELIEF PROJECT ERFO 69(2)
MADISON RIVER HIGHWAY
LENGTH 1.586 MILES
CLASS I
GALLATIN NATIONAL FOREST
MADISON COUNTY



INDEX TO SHEETS	
SHEET NO	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTION
3	TYPICAL SECTION PAVEMENT STRUCTURE
4-5	ROADWAY SUMMARY
6-12	PLAN-PROFILE 95+00 TO 178+75
13	MATERIAL SOURCE NO. 24-29-0006
14	MATERIAL SOURCE NO. 24-29-0007
15	FENCE, ROCK PROTECTION
STANDARD DRAWINGS	
15-2.22	CORRUGATED METAL PIPE
15-9.4	END SECTIONS
34-7A.3 & 34-7B.2	BEAM GUARDRAIL
35-22.6	GUIDE POSTS
60-7.7	ROAD APPROACHES
60-11.1	ROUNDING DETAILS
61-1	AGGREGATE SAMPLING DEVICE
70-1	SIGNING for PROJECT TERMINI

- COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER SECTION LINE
SIXTEENTH LINE
NATIONAL PARK OR FOREST BOUNDARY
LINE TO BE CONSTRUCTED
LIMIT OF SLOPE LINE TOP OF CUT
LIMIT OF SLOPE LINE TOE OF FILL
PROPOSED RIGHT OF WAY LINE
EXISTING RIGHT OF WAY LINE
LIMITED ACCESS RIGHT OF WAY
TRAVELED WAY
RAILROAD
EXISTING FENCE
EXISTING CULVERT
CULVERT TO BE CONSTRUCTED
EXISTING BRIDGE
PROPOSED BRIDGE
POWER POLES (EXISTING & PROPOSED)
TELEPHONE/TELEGRAPH POLES (EXIST. & PROP.)
JOINT USE POLES (EXISTING & PROPOSED)



Plans prepared by F.H.W.A.
Date: December 1971

Description of Project

Improvement Grading, Base & Bituminous Paving
Roadbed Width 30' at Profile Grade
Surface Plant Mix
Type Code 4251
Width 30'
Bridges None

Design Classification

A. D.T. 1970 - 240
A. D.T. 1992 - 700
D. H.V. 160
D 55 %
T 5 %
V 60 MPH

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION EIGHT

Approved

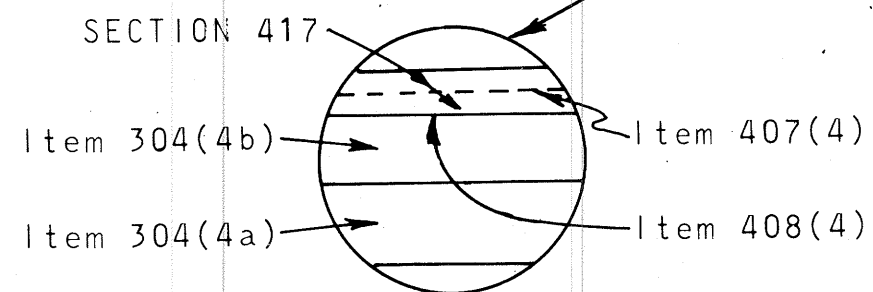
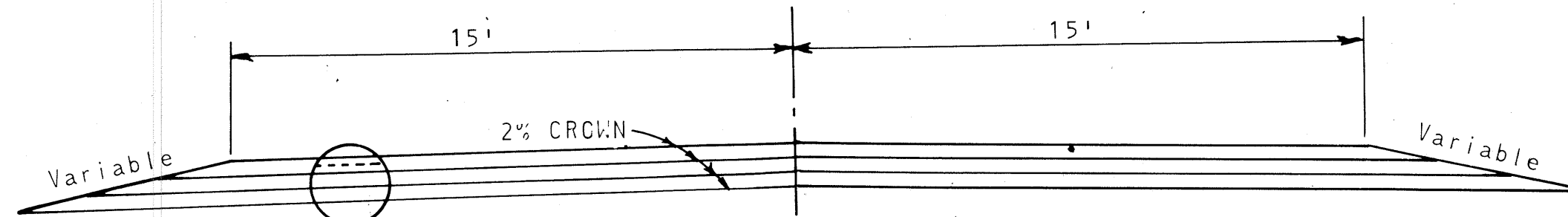
FOR REGIONAL ADMINISTRATOR Date

LEGEND



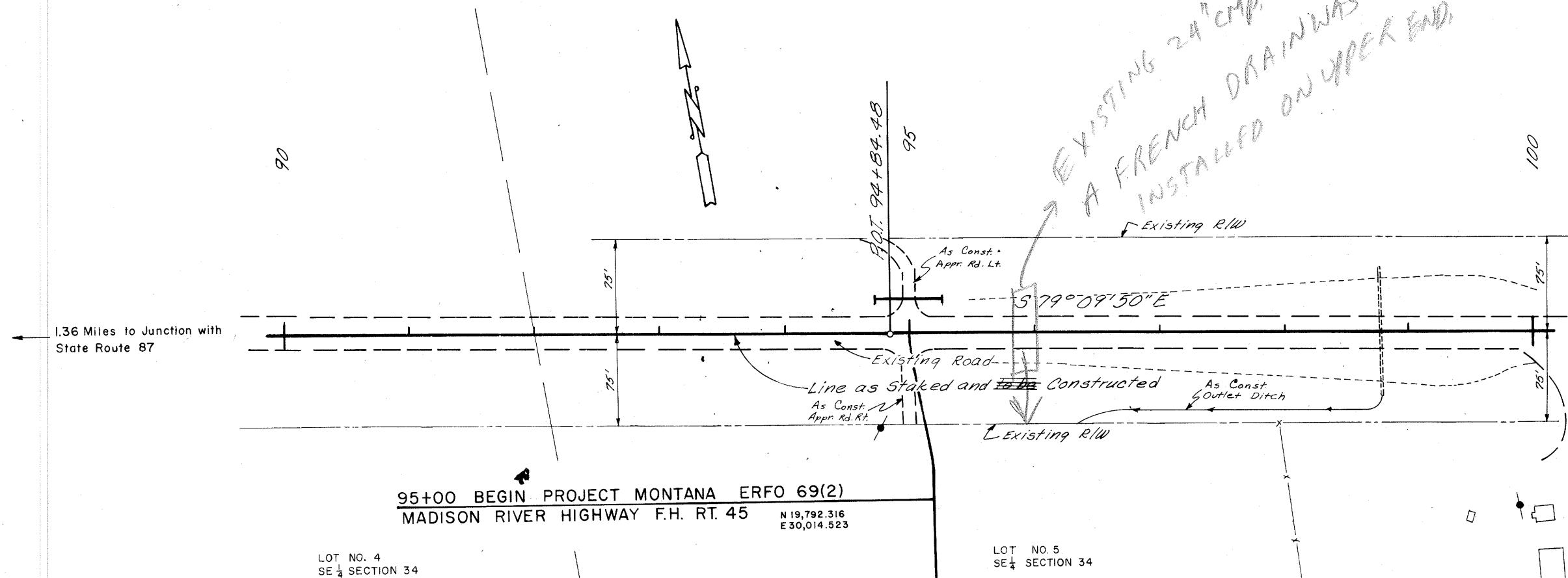
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(1) set to F.S.
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TYPICAL SECTION
PAVEMENT STRUCTURE

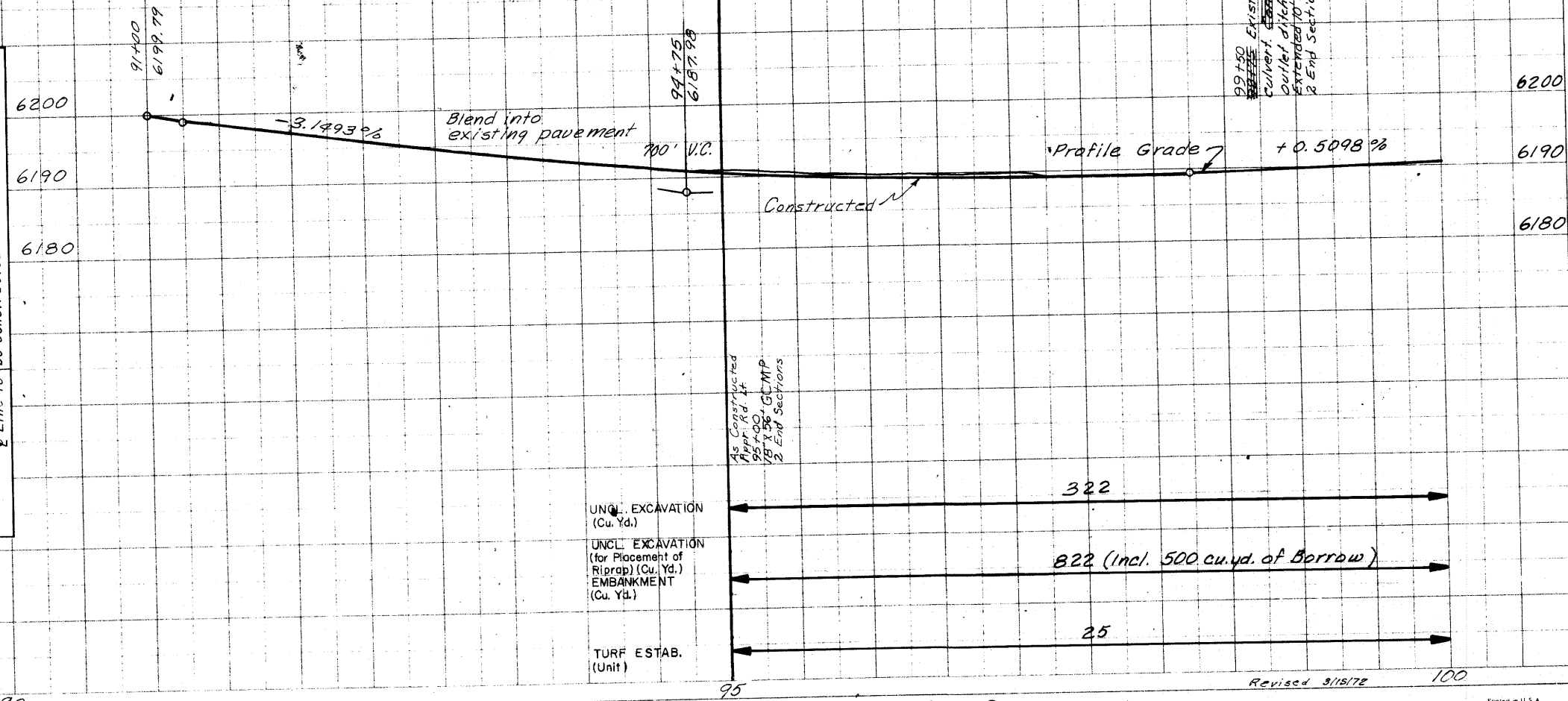
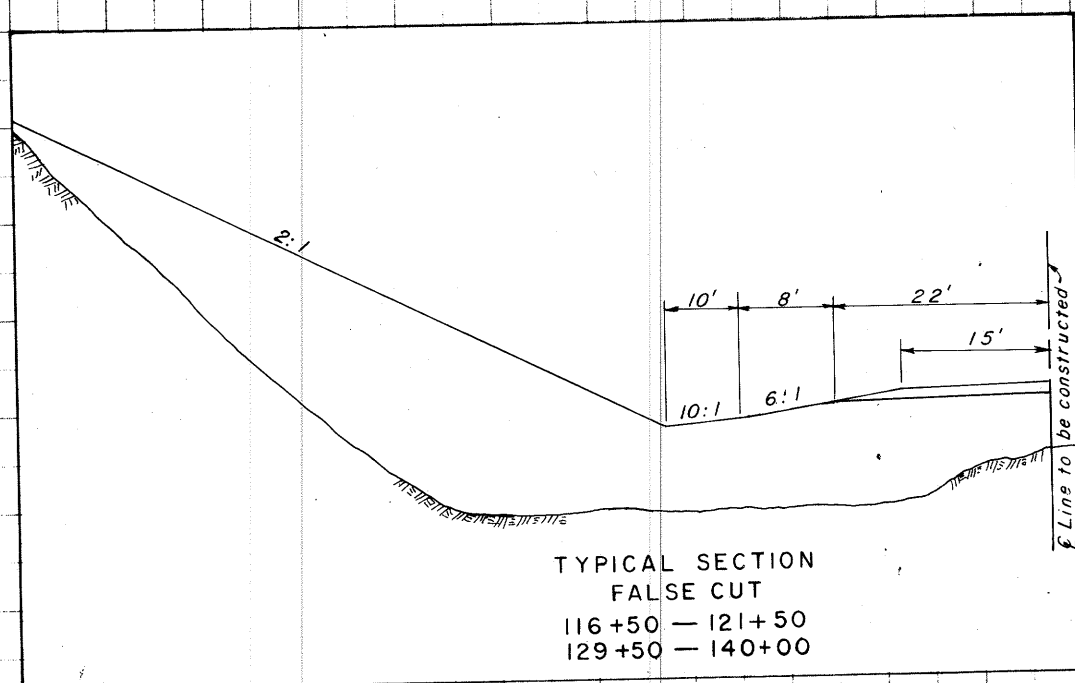


- | | |
|--------------|--|
| Item 304(4a) | Crushed aggregate base, Grading C,
5" compacted depth |
| Item 304(4b) | Crushed aggregate base, Grading D,
4" compacted depth |
| Item 407(4) | Emulsified asphalt, Grade CSS-1, tack coat |
| Item 408(4) | Asphalt, Grade MC-250, prime coat |
| SECTION 417 | Bituminous plant mix surfacing,
3" compacted depth, placed in 2 layers. |

As Constructed



THE ALIGNMENT AND GRADE
AS HEREON SHOWN ARE
SUBJECT TO ADJUSTMENT

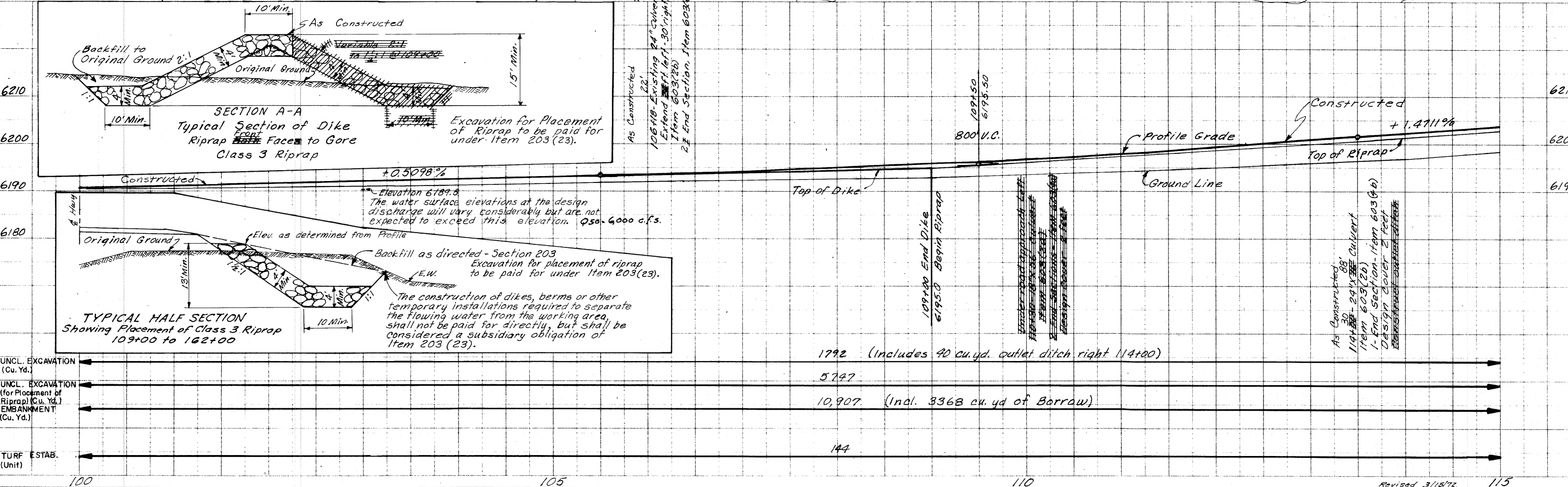
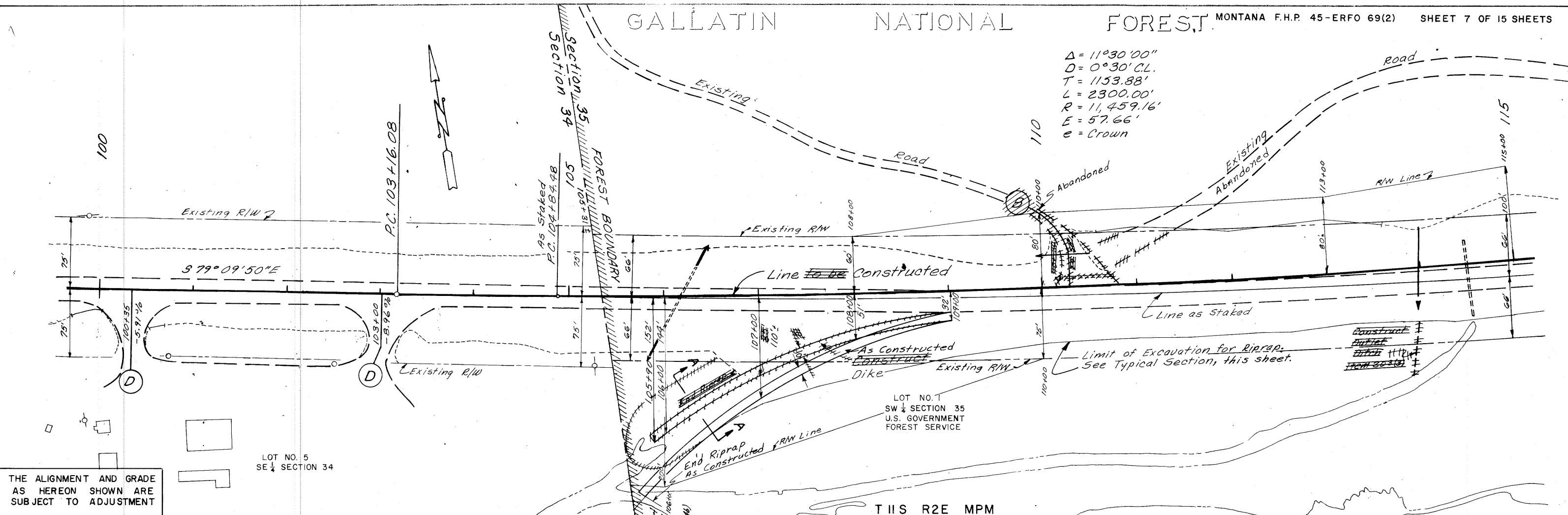


$\Delta = 11^\circ 30' 00''$
 $D = 0^\circ 30' CL.$
 $T = 1153.88'$
 $L = 2300.00'$
 $R = 11,459.16'$
 $E = 57.66'$
 $e = \text{Crown}$

PLAN	DATE
SURVEYED	BY
NOTED	BY
ALIGNED	BY
CHECKED	BY
NO	NO

PROFILE	DATE
SURVEYED	BY
NOTED	BY
ALIGNED	BY
CHECKED	BY
NO	NO

PROFILE	DATE
SURVEYED	BY
NOTED	BY
ALIGNED	BY
CHECKED	BY
NO	NO



UNCL. EXCAVATION (Cu. Yd.)	1792 (Includes 40 cu. yd. outlet ditch right 114+00)
UNCL. EXCAVATION (for Placement of Riprap) (Cu. Yd.)	5747
EMBANKMENT (Cu. Yd.)	10,907 (Incl. 3368 cu. yd of Borrow)
TURF ESTAB. (Unit)	144

As Constructed

Revised 3/18/72

115

PLAN	DATE
SURVEYED	
PLOTTED	
ALIGNED CHECKED	
RT. OF WAY CHECKED	
NOTE BOOK	
NO.	

DATE	BY
5-72	M.D. Bielecki
	Checked
	Approved

PROFILE	DATE
SURVEYED	
PLOTTED	
GRADES CHECKED	
B.M. NOTED	
STRUCTURE NOTING GIVEN	
NOTE BOOK	
NO.	

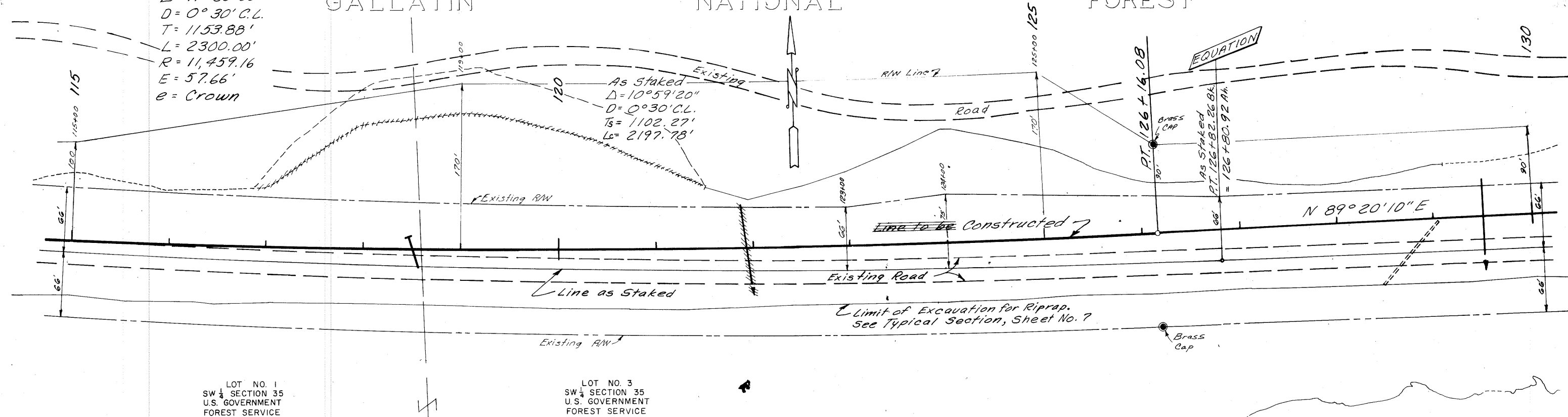
$\Delta = 11^{\circ}30'00''$
 $D = 0^{\circ}30' C.L.$
 $T = 1153.88'$
 $L = 2300.00'$
 $R = 11,459.16'$
 $E = 57.66'$
 $e = \text{Crown}$

GALLATIN

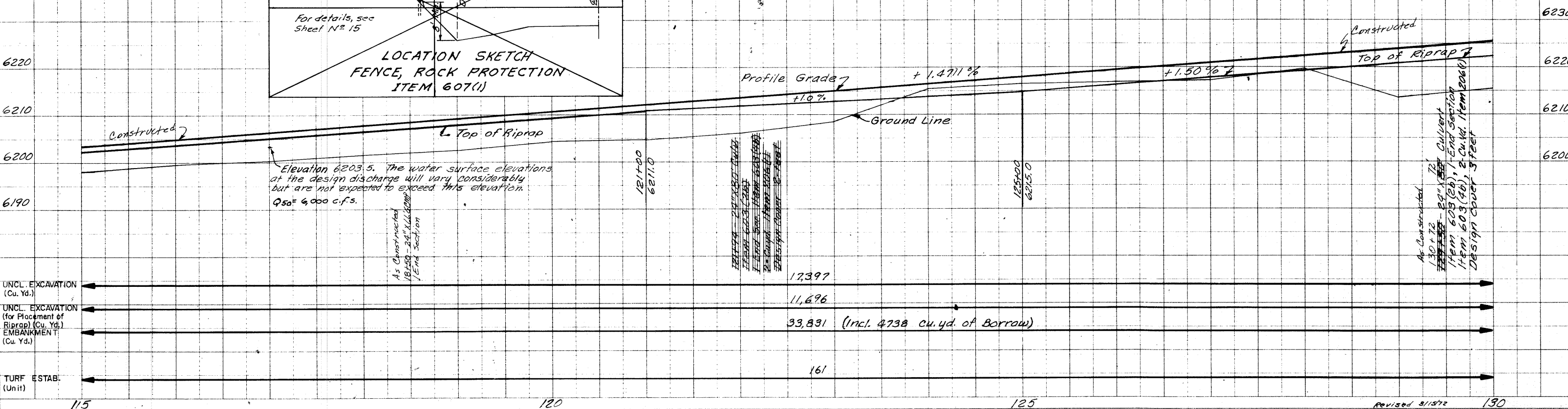
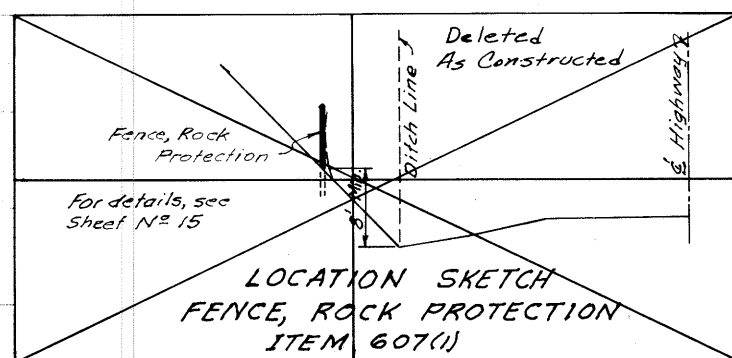
NATIONAL

FOREST

MONTANA F.H.P. 45-ERFO 69(2) SHEET 8 OF 15 SHEETS



THE ALIGNMENT AND GRADE
 AS HEREON SHOWN ARE
 SUBJECT TO ADJUSTMENT



GALLATIN

NATIONAL

FOREST

MONTANA F.H.P. 45-ERFO 69(2) SHEET 9 OF 15 SHEETS

SW 1/4 SECTION 35
U.S. GOVERNMENT
FOREST SERVICESW 1/4 SECTION 35
U.S. GOVERNMENT
FOREST SERVICEAs Staked
 $\Delta = 16^{\circ}28'$
 $D = 2^{\circ}00' \text{ C.L.}$
 $TS = 564.70'$
 $LC = 525.33'$ $\Delta = 20^{\circ}27'20''$
 $D = 4^{\circ}00' \text{ C.L.}$
 $TS = 358.64'$
 $L = 311.39'$
 $R = 1432.39'$
 $e = 0.077$ $S = 4^{\circ}00'$
 $LS = 200'$ EQUATION
 $P.T. 145+11.00 \text{ R/L}$
 $= 145+07.75 \text{ B/L}$
As Staked
 $P.C.S. 144+38.54$ $S = 4^{\circ}00'$
 $LS = 200'$ $P.S. 139+96.36$ As Staked
 $P.S.C. 139+35.21$ $P.S.C. 139+96.36$

130

135

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145

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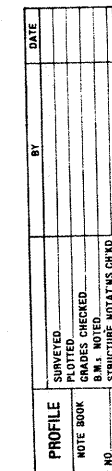
1810

1815

1820

NATIONAL

MONTANA F.H.P. 45-ERFO 69(2) SHEET 10 OF 15 SHEETS

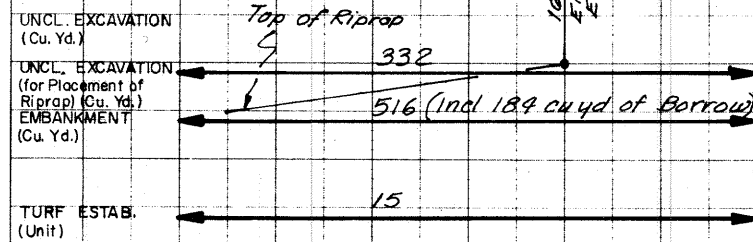
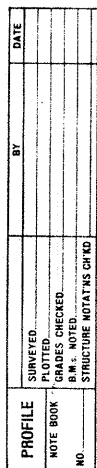


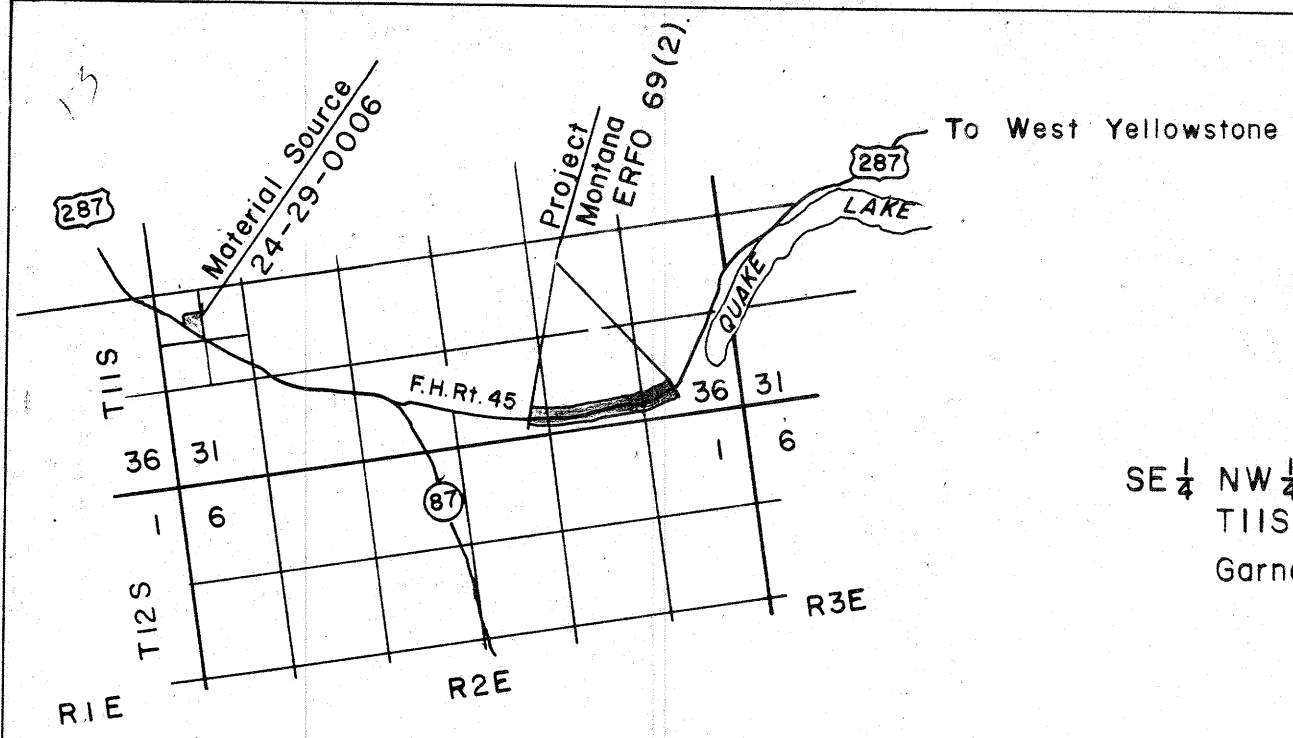
Galvanized Steel Beam-type Guardrail, Class A on right - Item 606(5)



$Q_{50} = 6000 \text{ c.f.s.}$
The water surface elevations
at the design discharge will vary
considerably but are not
expected to exceed this elevation.
Elevation 6252.0

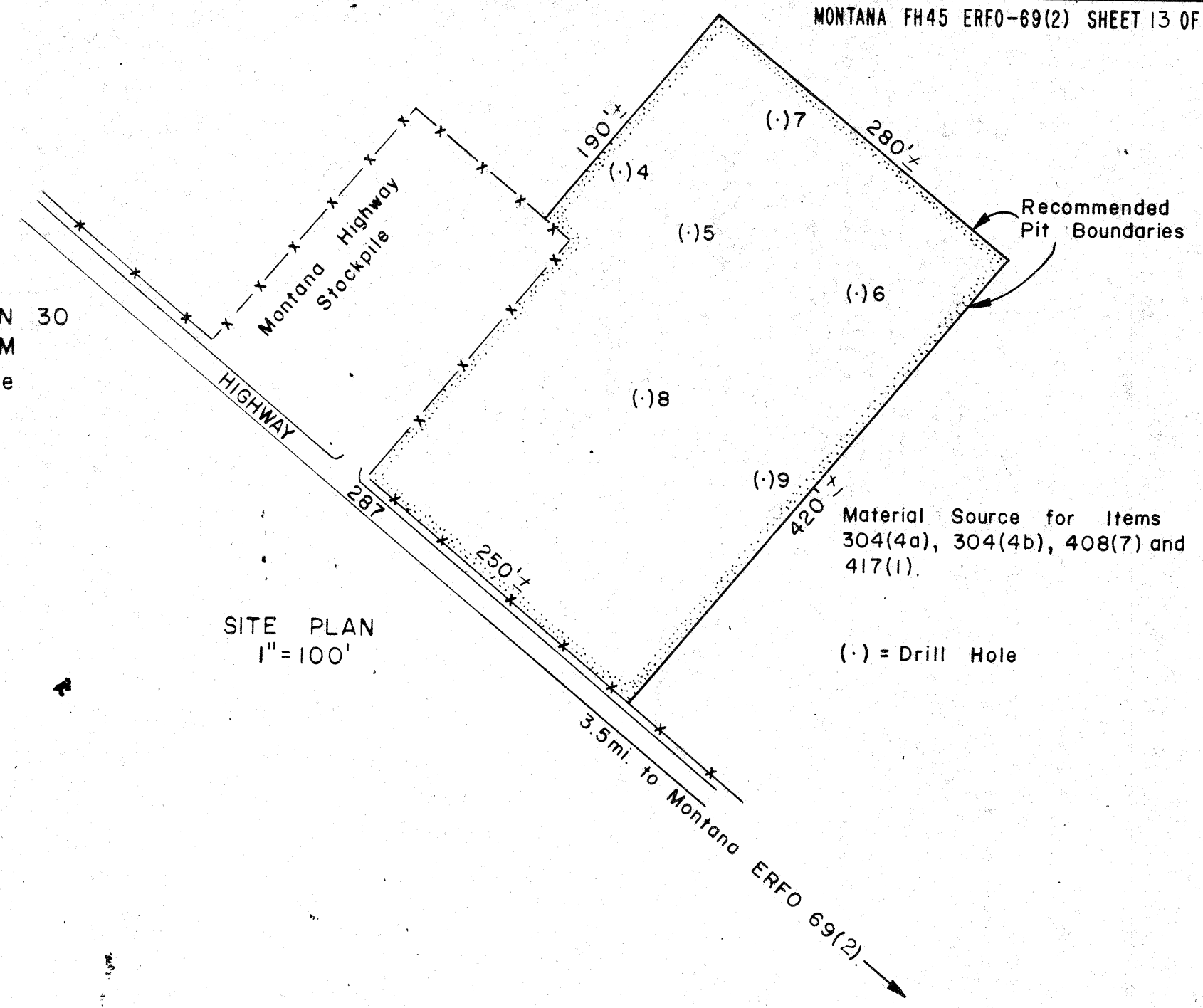
As Constructed ^{Revised 3/15/72}





LOCATION MAP
1/2" = 1 Mile

SE 1/4 NW 1/4 SECTION 30
T11S, R2E MPM
Garnet Oilliffe

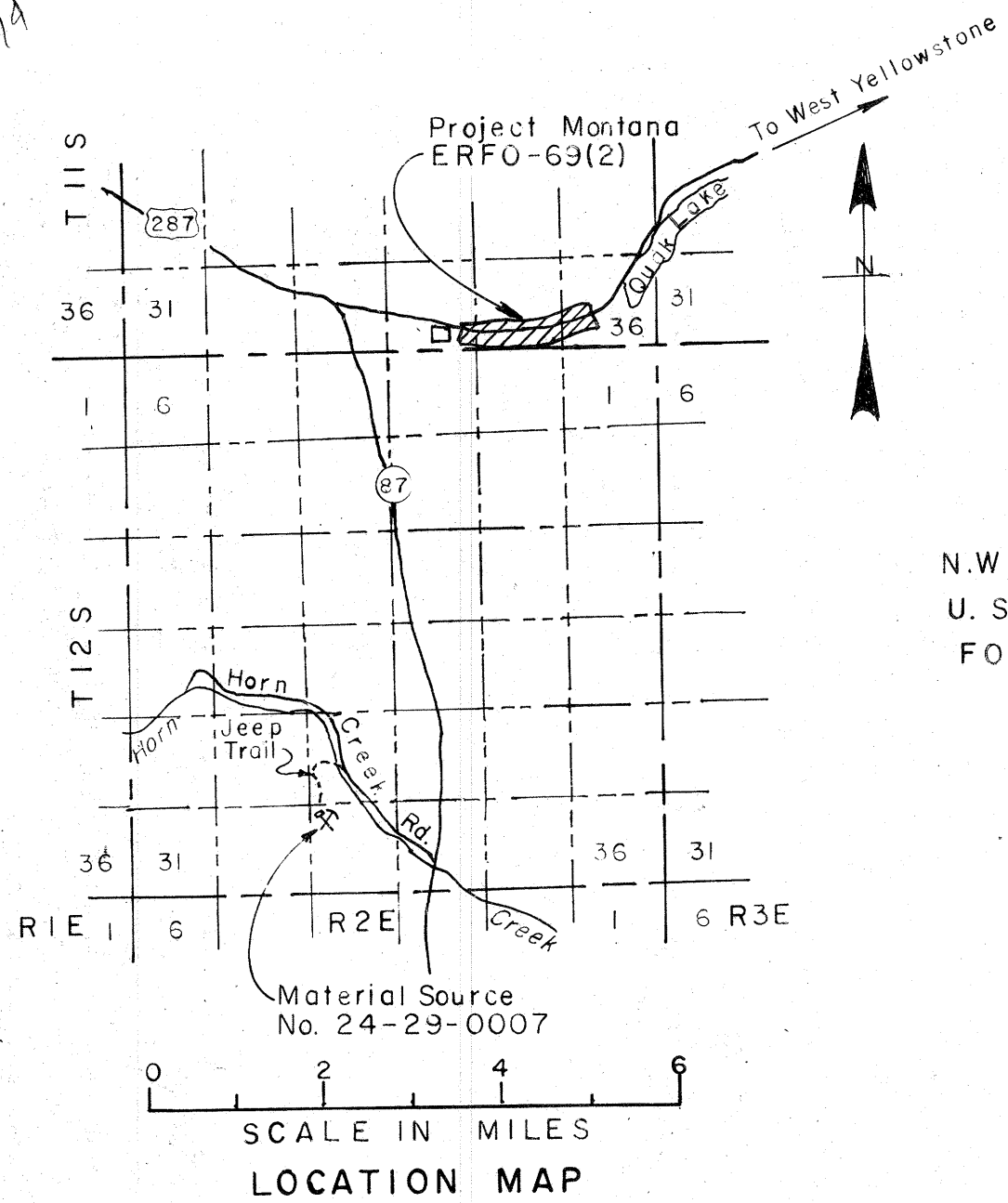


SITE PLAN
1" = 100'

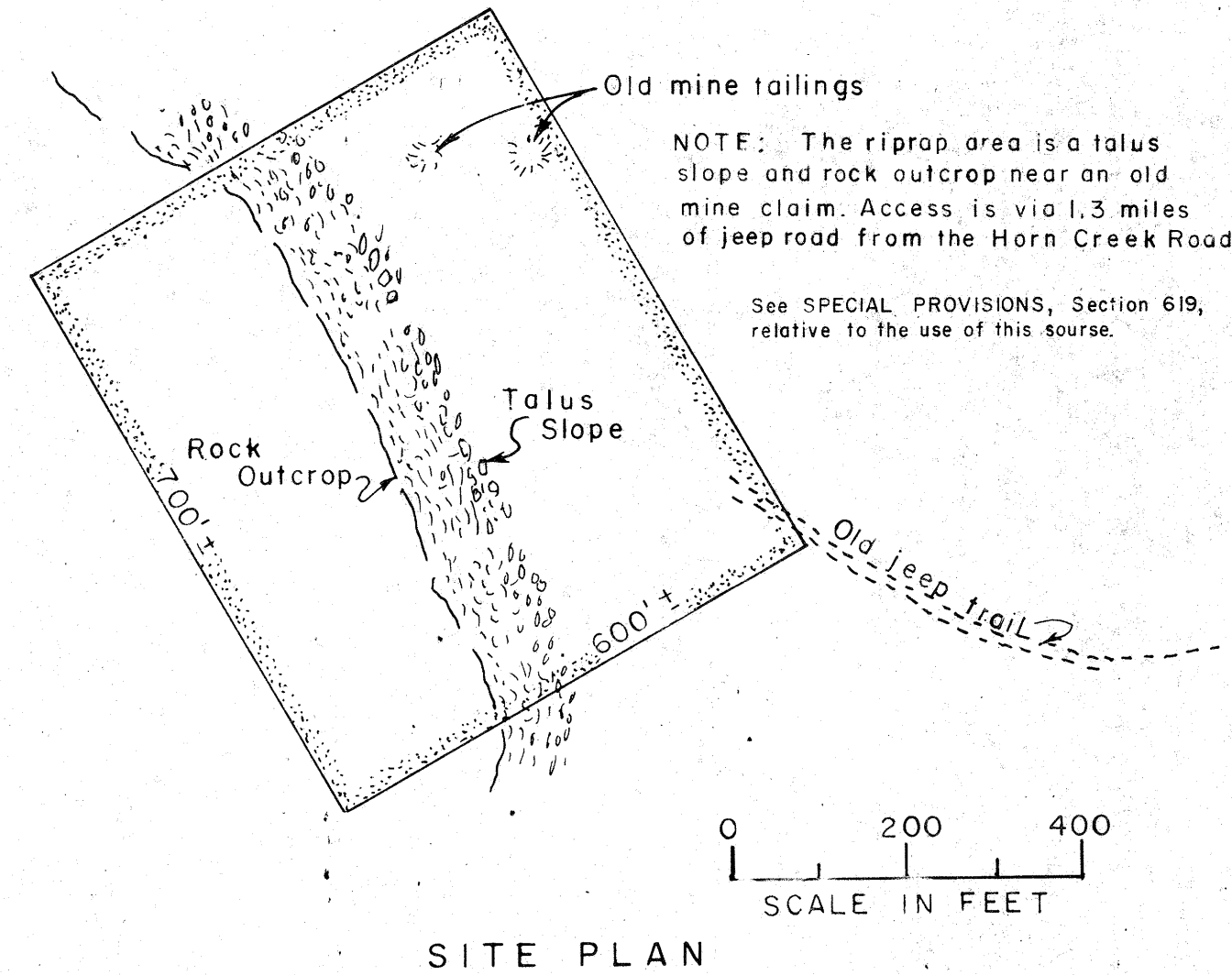
SKETCH MAP
MATERIAL SOURCE
NO. 24-29-0006
MONTANA F.H. Rt. 45
PROJECT, ERFO-69(2)

Design: M.D. Replogle 3-72
Traced:
Checked:
Approved:

19



N.W. 1/4 SECTION 33
U. S. GOVERNMENT
FOREST SERVICE



NOT USED

SKETCH MAP
MATERIAL SOURCE
NO. 24-29-0007

M. D. Replogle 12/71
H. Repworth 12/71