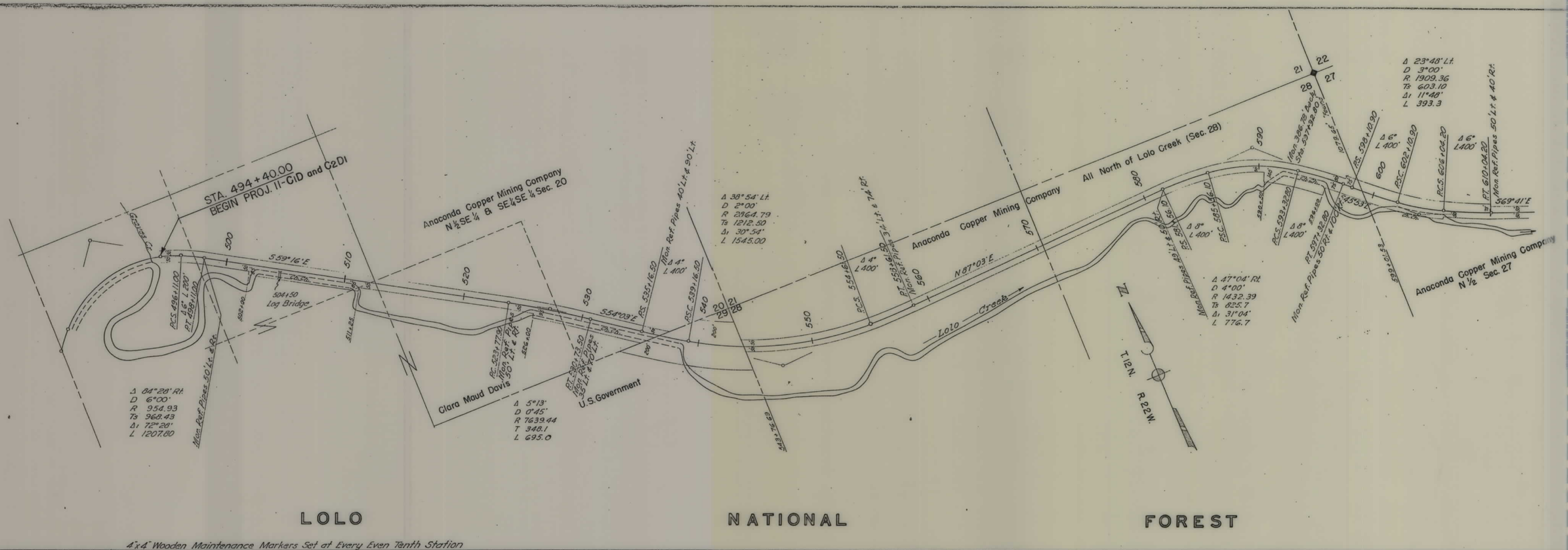
PLANS

NOT

TO

SCALE



LOLO NATIONAL FOREST

4"x4" Wooden Maintenance Markers Set at Every Even Tenth Station

CLEARING

Light Brush — Medium Brush and Trees — Medium to Light Trees — Light Brush and Second Growth — No Clearing — Brush with Scattered Trees

DRAINAGE STRUCTURES

STA. 494+40.00 BEGIN PROJECT II-CiD & PROJ. II-C2D

504+35 18" Reinf. Conc. Pipe
511+40 18" Reinf. Conc. Pipe
521+42 15" Reinf. Conc. Pipe 18" Pipe
538+75 36" Reinf. Conc. Pipe
545+00 18" Reinf. Conc. Pipe
547+34 24" Reinf. Conc. Pipe (Double Inlet)
562+04 12" Reinf. Conc. Pipe 18" Pipe
595+75 36" Reinf. Conc. Pipe
601+27 18" Reinf. Conc. Pipe

BENCH MARKS

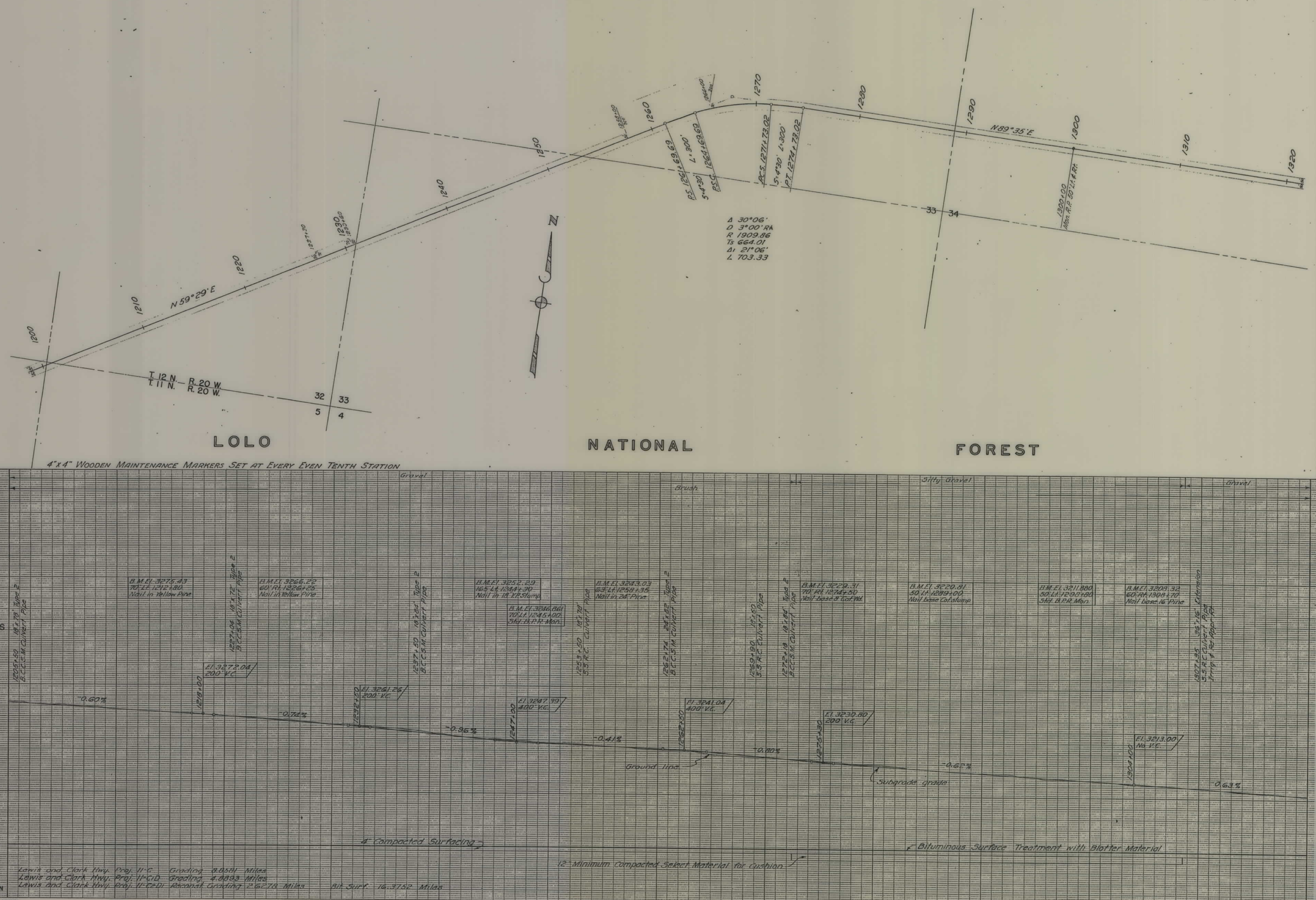
B.M. El. 3781.27 40' Lt. 494+65 Std. B.P.R. Mon.
B.M. El. 3783.28 110' Lt. 494+70 Nail 30" Fir.
B.M. El. 3766.43 75' Rt. 512+75 Nail 18" Pine
B.M. El. 3748.82 75' Rt. 541+15 Nail 14" Pine
B.M. El. 3739.934 60' Lt. 557+50 Std. B.P.R. Mon.
B.M. El. 3742.08 65' Lt. 552+00 Nail 10" Pine
B.M. El. 3734.96 200' Lt. 568+50 Nail 10" Pine
B.M. El. 3722.03 255' Lt. 579+00 Nail 30" Stump
B.M. El. 3716.00 40' Rt. 596+85 Nail 8" Spruce
B.M. El. 3712.65 95' Rt. 598+50 Nail 10" Pine
B.M. El. 3713.21 45' Lt. 601+44 Nail 12" Fir Stump

PROFILE HOR. 1" = 400' VERT. 1" = 40'

494+40 El. 3781.5 Rt. Grade
-0.60%
515+00 El. 3769.08 100' V.C.
-0.82%
525+00 El. 3760.00 200' V.C.
-0.56%
539+00 El. 3756.16 200' V.C.
-0.64%
554+00 El. 3751.04 200' V.C.
-0.34%
550+00 El. 3747.98 400' V.C.
0.73%
Subgrade Grade
590+78 El. 3718.25 300' V.C.
0.20%
607+00 El. 3715.00 200' V.C.
-0.70%

SURFACING

6" Compacted Surfacing
Bituminous Surface Treatment with Blotter Material
12" Minimum Compacted Select Material for Cushion


LOLO NATIONAL FOREST
4"x4" Wooden Maintenance Markers Set at Every Even Tenth Station
CLASSIFICATION
CLASSIFICATION
CLEARING
Gravel
Brush
Silty Gravel
Gravel
BENCH MARKS
B.M. El. 3275.43 70' Lt. 1212+80 Nail in Yellow Pine
B.M. El. 3266.22 60' Rt. 1226+25 Nail in Yellow Pine
B.M. El. 3252.29 165' Lt. 1244+30 Nail in 18" Yr. Stump
B.M. El. 3246.66 70' Lt. 1246+00 Sky: B.P.R. Mon.
B.M. El. 3243.03 65' Lt. 1258+35 Nail in 24" Pine
B.M. El. 3229.31 70' Rt. 1274+50 Nail base of Col. Yel.
B.M. El. 3220.81 50' Lt. 1289+00 Nail base Col. Stump
B.M. El. 3211.880 50' Lt. 1299+90 Sky: B.P.R. Mon.
B.M. El. 3209.32 60' Rt. 1304+70 Nail base 16" Pine
DRAINAGE STRUCTURES
1205+50 18"x28' Type 2 B.C.C.S.M. Culvert Pipe
1227+06 18"x72' Type 2 B.C.C.S.M. Culvert Pipe
1237+50 18"x24' Type 2 B.C.C.S.M. Culvert Pipe
1253+50 18"x72' S.S.R.C. Culvert Pipe
1262+74 24"x82' Type 2 B.C.C.S.M. Culvert Pipe
1269+90 18"x50' S.S.R.C. Culvert Pipe
1272+18 18"x84' Type 2 B.C.C.S.M. Culvert Pipe
1307+85 18"x16' S.S.R.C. Culvert Pipe Entry & Re-Apron Pipe
PROFILE HOR. 1" = 400' VERT. 1" = 40'
El. 3272.04 200' V.C.
El. 3261.26 200' V.C.
El. 3247.99 400' V.C.
El. 3241.04 400' V.C.
El. 3230.80 200' V.C.
El. 3213.00 No V.C.
-0.60%
-0.74%
-0.96%
-0.41%
-0.80%
-0.62%
-0.63%
Ground line
Subgrade grade
SURFACING
4" Compacted Surfacing
Bituminous Surface Treatment with Blotter Material
12" Minimum Compacted Select Material for Cushion
RES. ENGR. A. K. NEELY
PLOTTED BY H.D. HILL
CHECKED BY A. K. NEELY
TRACED BY G.M. ROBERTSON
APRIL 1949
Lewis and Clark Hwy. Proj. 11-C Grading 8.058 Miles
Lewis and Clark Hwy. Proj. 11-C1D Grading 4.0833 Miles
Lewis and Clark Hwy. Proj. 11-FED.D1 Roadbed Grading 2.6210 Miles
Bit. Surf. 16.3152 Miles
1200 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320
N 59°29' E
N 89°35' E
T. 12 N. R. 20 W.
T. 11 N. R. 20 W.
32 33
5 4
33 34
Δ 30°06'
D 3°00' RC
R 1909.86
Ts 664.01
Δ1 21°06'
L 703.33
PC Sta. 1271+73.02
Sta. 1274+73.02
PT
Sta. 1300+00
Mon. R.P. 59'22" R.R.
Sta. 1300+00
Sta. 1299+90
Sta. 1304+70
Sta. 1307+85
Sta. 1253+50
Sta. 1262+50
Sta. 1269+90
Sta. 1272+18
Sta. 1275+30
Sta. 1232+50
Sta. 1218+00
Sta. 1247+00
Sta. 1237+50
Sta. 1227+06
Sta. 1205+50
Sta. 1244+30
Sta. 1258+35
Sta. 1262+74
Sta. 1269+90
Sta. 1272+18
Sta. 1289+00
Sta. 1299+90
Sta. 1304+70
Sta. 1307+85
Sta. 1307+85
Sta. 1304+70
Sta. 1299+90
Sta. 1289+00
Sta. 1274+50
Sta. 1258+35
Sta. 1244+30
Sta. 1227+06
Sta. 1218+00
Sta. 1205+50
Sta. 1232+50
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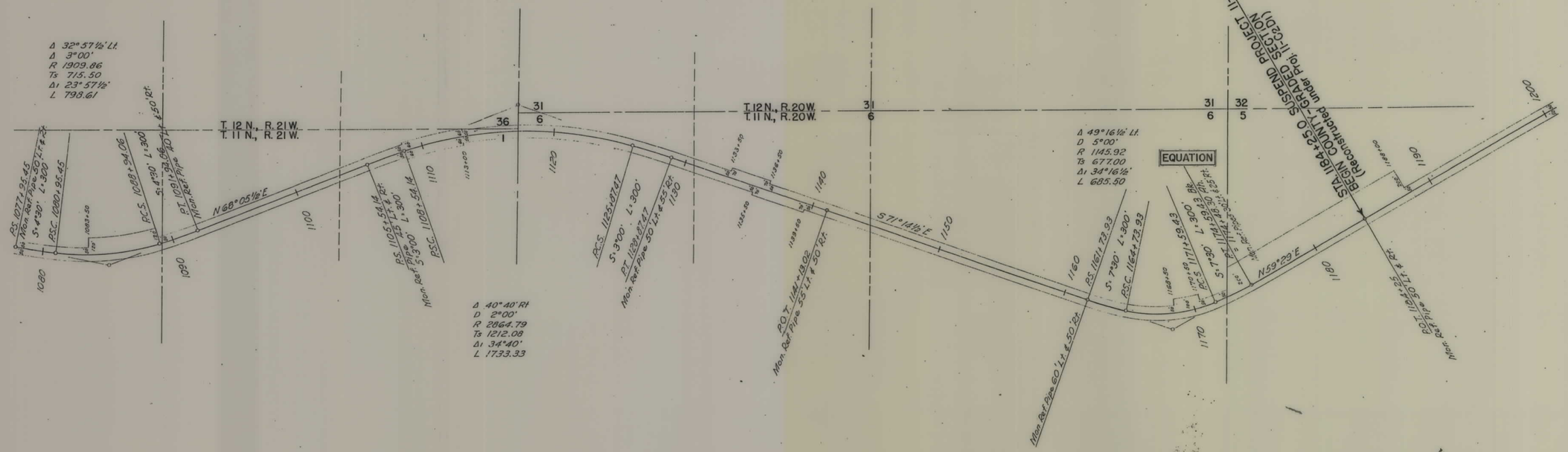
Sta. 1247+00
Sta. 1253+50
Sta. 1262+50
Sta. 1269+90
Sta. 1272+18
Sta. 1275+30



LOLO NATIONAL FOREST

4"x4" WOODEN MAINTENANCE MARKERS SET AT EVERY EVEN TENTH STATION

CLASSIFICATION: Silt, Talus, Sand Talus, Gravel, Silt, Talus, Silt, Sand, Gravel, Sand, Gravel, Silt, Talus, Sand, Gravel, Silt, Sand, Gravel, Talus, Sand, Gravel, Silt, Gravel, Sand, Gravel

CLEARING: Scattered Light Trees and Brush; No Clearing; Scattered Light Trees and Brush; No Clearing; Scattered Brush and Cottonwood Trees

DRAINAGE STRUCTURES: 1082.25 18" Conc. Pipe; 1100.50 18" Conc. Pipe; 1102.46 18" Conc. Pipe; 1114.00 18" Conc. Pipe, Rock Apron Lt.; 1118.75 18" Conc. Pipe; 1122.04 18" Conc. Pipe; 1132.42 18" Conc. Pipe; 1138.00 18" Conc. Pipe; 1142.30 18" Conc. Pipe, Rip Rap Lt.; 1146.65 18" Conc. Pipe, Rip Rap Lt.; 1149.00 18" Conc. Pipe; 1151.74 18" Conc. Pipe; 1167.75 18" Conc. Pipe, Rock Apron Lt.; 1168.00 Conc. Pipe Culvert; 1182.50 18" Conc. Pipe; 1186.68 B.C.M. 14 Culv. Pipe Type 2 Siphon; 1196.54 B.C.M. 14 Culv. Pipe Type 2 Siphon

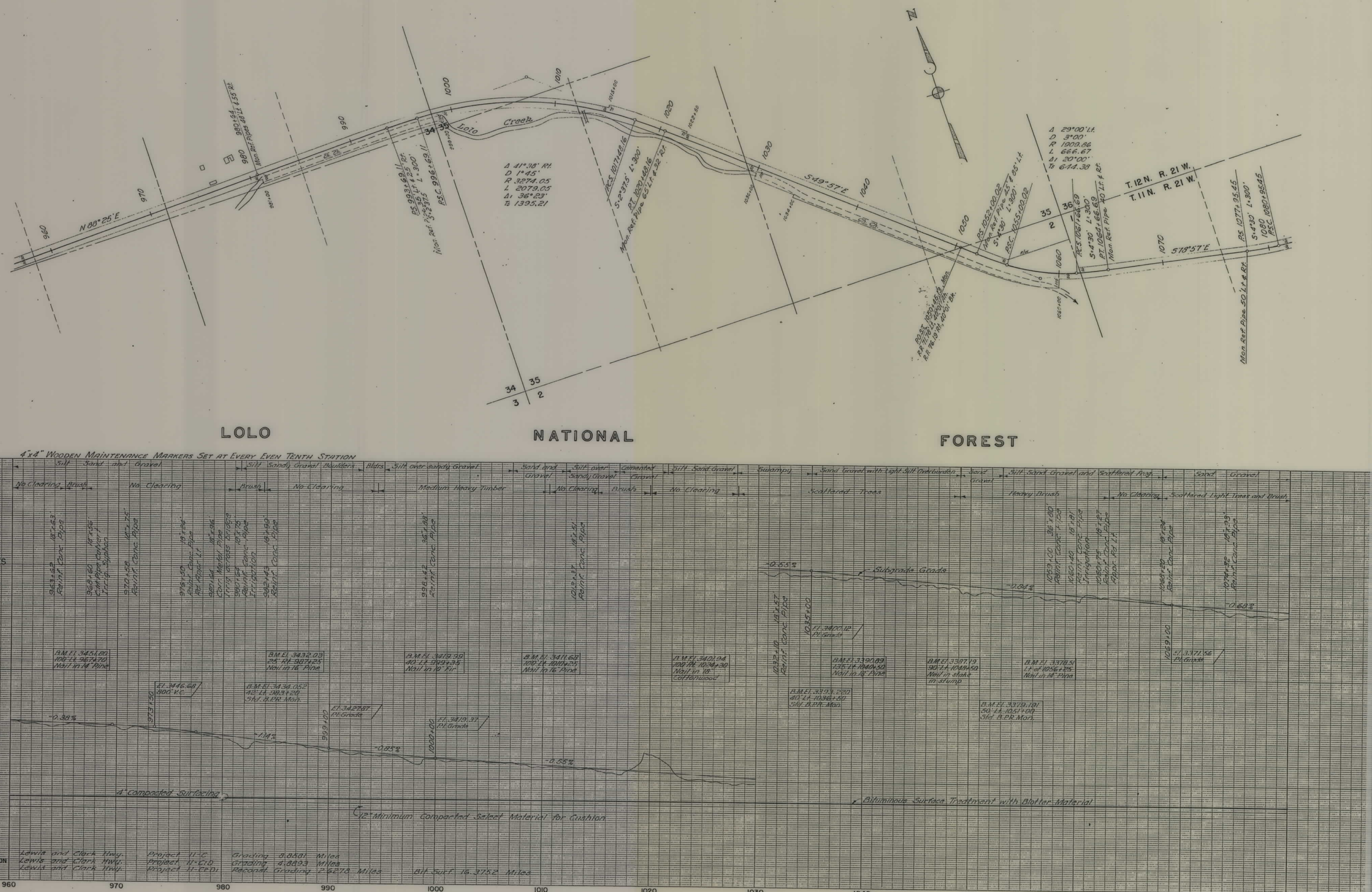
BENCH MARKS: B.M. El. 3350.92 120' Lt. 1094+60 Nail in 12" Pine; B.M. El. 3347.32 110' Lt. 1105+34 Nail in 18" Pine; B.M. El. 3337.27 100' Lt. 1117+66 Nail in 10" Pine; B.M. El. 3324.66 65' Rt. 1133+00 Nail in 16" Pine; B.M. El. 3322.02 65' Rt. 1144+00 Nail in 12" Fir; B.M. El. 3310.11 75' Lt. 1160+50 Nail in Stump; B.M. El. 3294.09 110' Lt. 1177+25 Nail in 10" Pine; B.M. El. 3288.96 70' Rt. 1184+45 Nail in 10" Pine; B.M. El. 3355.636 45' Lt. 1090+00 Std. B.P.R. Mon.; B.M. El. 3337.467 50' Lt. 1110+00 Std. B.P.R. Mon.; B.M. El. 3324.597 40' Lt. 1130+00 Std. B.P.R. Mon.; B.M. El. 3290.070 40' Rt. 1186+20 B.P.R. on Wing Siphon; B.M. El. 3279.703 50' Lt. 1198+60 Std. B.P.R. Mon.

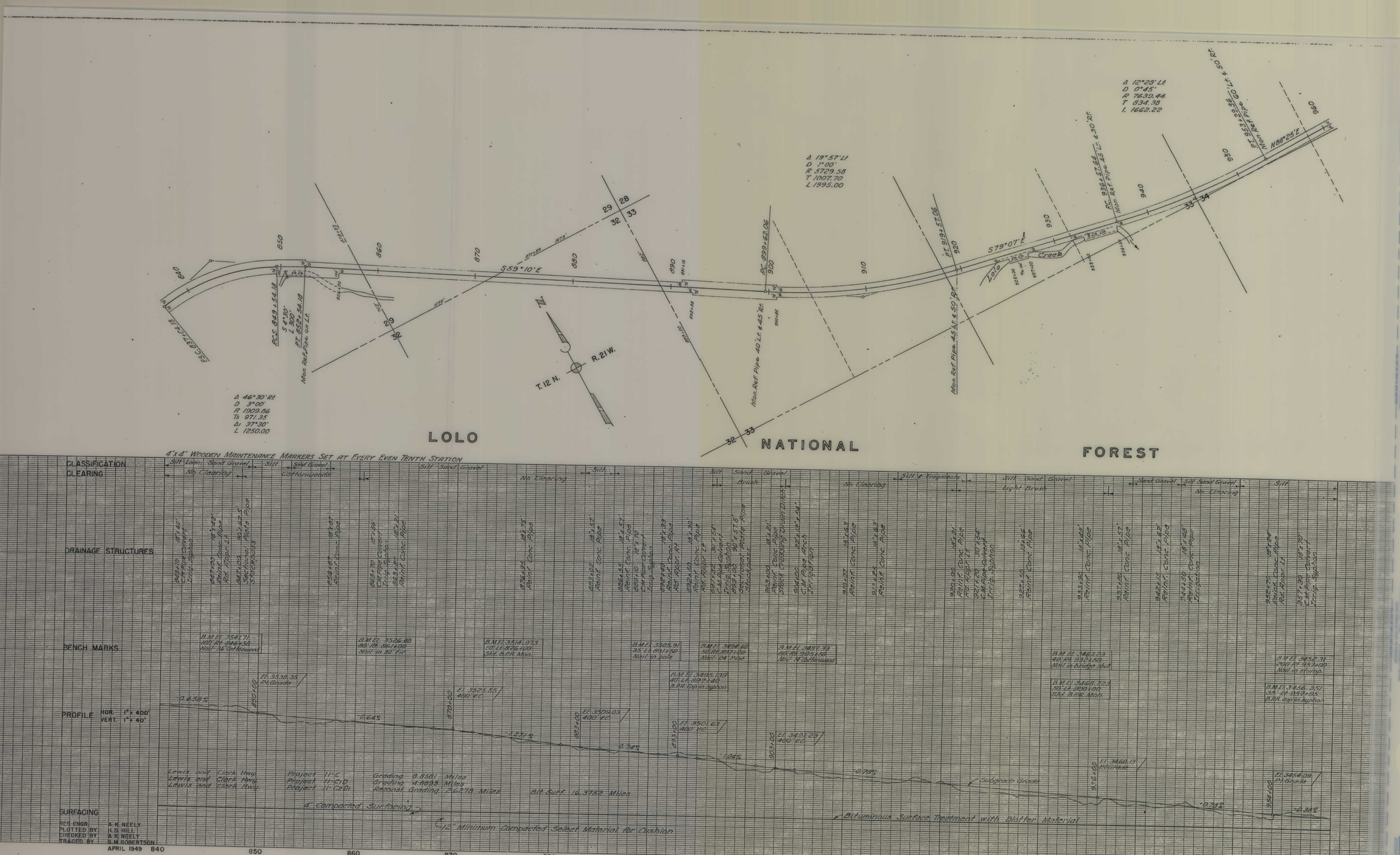
PROFILE HOR. 1" = 400' VERT. 1" = 40': Subgrade Grade; 0.65%; 0.457%; -1.40%; -1.34%; -1.20%; -0.68%; -1.33%; 0.25%; -0.60%; El. 3350.49 400' V.C.; El. 3344.09 500' V.C.; El. 3330.09 500' V.C.; El. 3327.80 400' V.C.; El. 3315.80 400' V.C.; El. 3302.20 400' V.C.; El. 3290.74 400' V.C.; El. 3288.24 400' V.C.

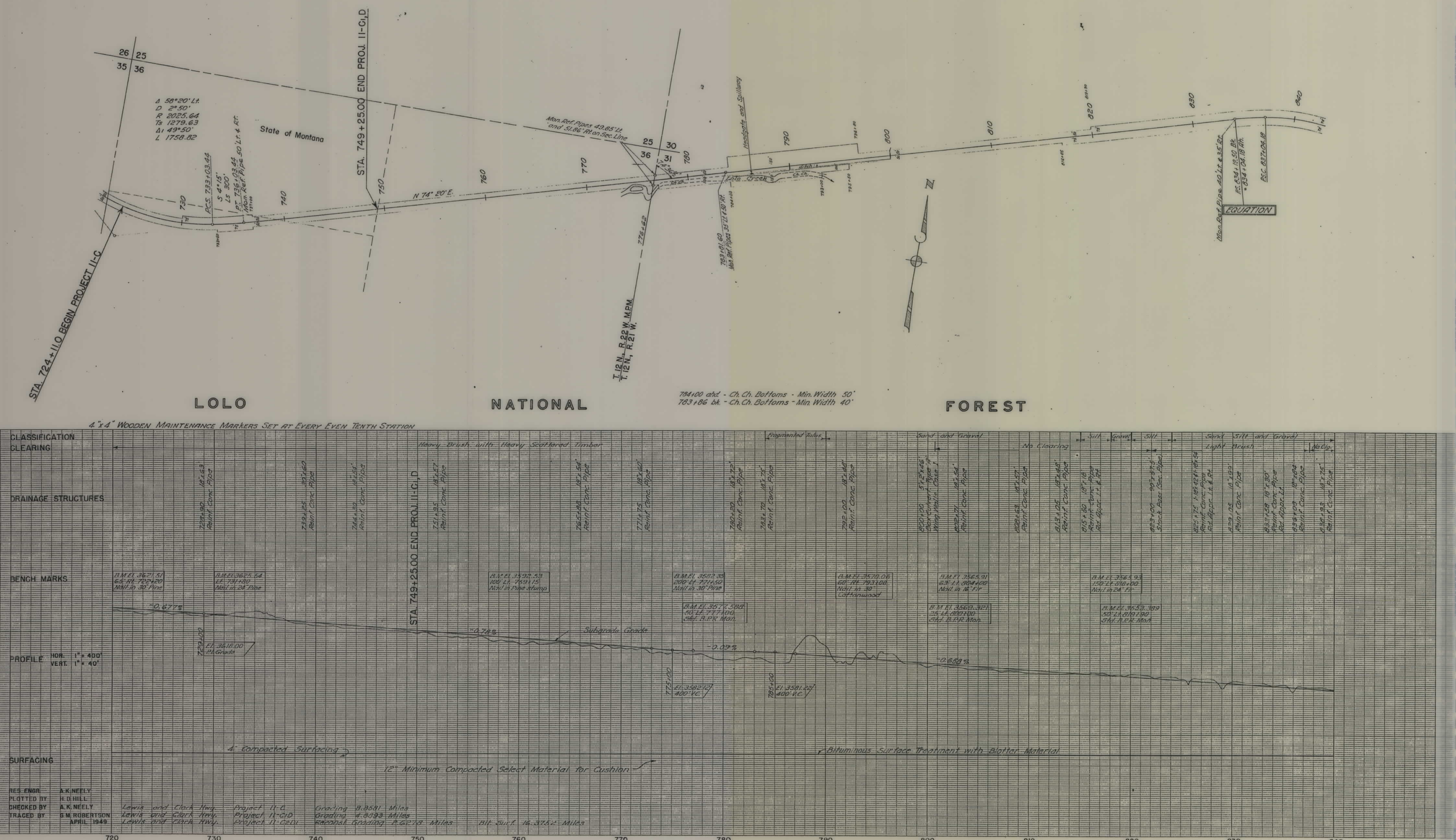
SURFACING: 4" Compacted Surfacing; 12" Minimum Compacted Select Material for Cushion; Bituminous Surface Treatment with Blotter Material

RES. ENGR.	A. K. NEELY			
PLOTTED BY	H. D. HILL			
CHECKED BY	A. K. NEELY	Lewis and Clark Hwy.	Project 11-C	Grading 8.9561 Miles
TRACED BY	G. M. ROBERTSON	Lewis and Clark Hwy.	Project 11-C2D	Grading 4.8093 Miles
	APRIL 1949	Lewis and Clark Hwy.	Project 11-C2D1	Reconst. Grading 2.6278 Miles; Bit. Surf. 16.3752 Miles

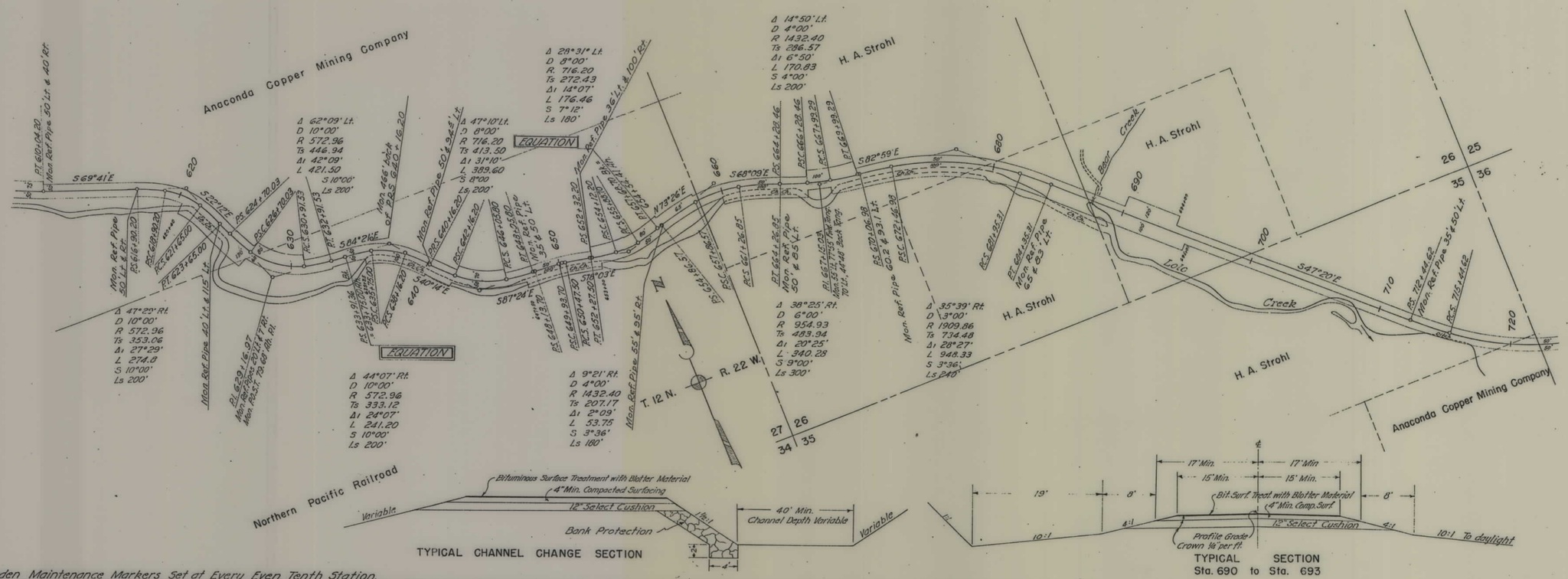
1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200


LOLO NATIONAL FOREST
N
N 88° 25' E
S 49° 57' E
S 19° 57' E
Lolo Creek
Δ 41°38' Rt.
D 1°45'
R 3274.05
L 2079.05
Δ1 36°22'
Ts 1395.21
Δ 29°00' Lt.
D 3°00'
R 1909.86
L 666.67
Δ1 20°00'
Ts 644.38
T. 12 N. R. 21 W.
T. 11 N. R. 21 W.
4"x4" Wooden Maintenance Markers Set at Every Even Tenth Station
CLASSIFICATION
Silt Sand and Gravel
Silt Sandy Gravel Boulders
Silt over Sandy Gravel
Sand and Gravel
Silt over Sandy Gravel
Cemented Gravel
Silt Sand Gravel
Swampy
Sand Gravel with Light Silt Overburden
Sand Gravel
Silt Sand Gravel and Scattered Rock
Sand Gravel
CLEARING
No Clearing Brush
No Clearing
Brush
No Clearing
Medium Heavy Timber
No Clearing Brush
No Clearing
Scattered Trees
Heavy Brush
No Clearing
Scattered Light Trees and Brush
DRAINAGE STRUCTURES
BENCH MARKS
B.M. El. 3451.00 100'-Lt. 9674.70 Nail in 14" Pine
B.M. El. 3432.09 25'-Rt. 9871.25 Nail in 16" Pine
B.M. El. 3419.39 40'-Lt. 9989.35 Nail in 10" Fir
B.M. El. 3411.60 100'-Lt. 10119.25 Nail in 16" Pine
B.M. El. 3401.94 100 Rt. 10234.30 Nail in 18" Cottonwood
B.M. El. 3390.89 135'-Lt. 10460.50 Nail in 18" Pine
B.M. El. 3387.19 90'-Lt. 10549.50 Nail in stake in stump
B.M. El. 3378.51 1' Lt. of 10556.25 Nail in 14" Pine
B.M. El. 3371.56 Pl. Grade
El. 3446.68 900'-VC.
B.M. El. 3434.052 42'-Lt. 9893.20 Std. B.P.R. Mon.
El. 3422.87 Pl. Grade
El. 3419.37 Pl. Grade
B.M. El. 3393.290 40'-Lt. 10386.00 Std. B.P.R. Mon.
B.M. El. 3379.191 50'-Lt. 10517.00 Std. B.P.R. Mon.
PROFILE HOR. 1" = 400' VERT. 1" = 40'
-0.38%
-1.14%
-0.85%
-0.55%
-0.55%
-0.84%
-0.60%
Subgrade Grade
4" Compacted Surfacing
Bituminous Surface Treatment with Blotter Material
12" Minimum Compacted Select Material for Cushion
SURFACING
RES. ENGR. A. K. NEELY
PLOTTED BY H. D. HILL
CHECKED BY A. K. NEELY
TRACED BY G. M. ROBERTSON
APRIL 1949
Lewis and Clark Hwy. Project 11-C Grading 8.8881 Miles
Lewis and Clark Hwy. Project 11-C1D Grading 4.8893 Miles
Lewis and Clark Hwy. Project 11-C2D1 Recond. Grading 2.6278 Miles Bit. Surf. 16.3752 Miles
960
970
980
990
1000
1010
1020
1030
1040
1050
1060
1070

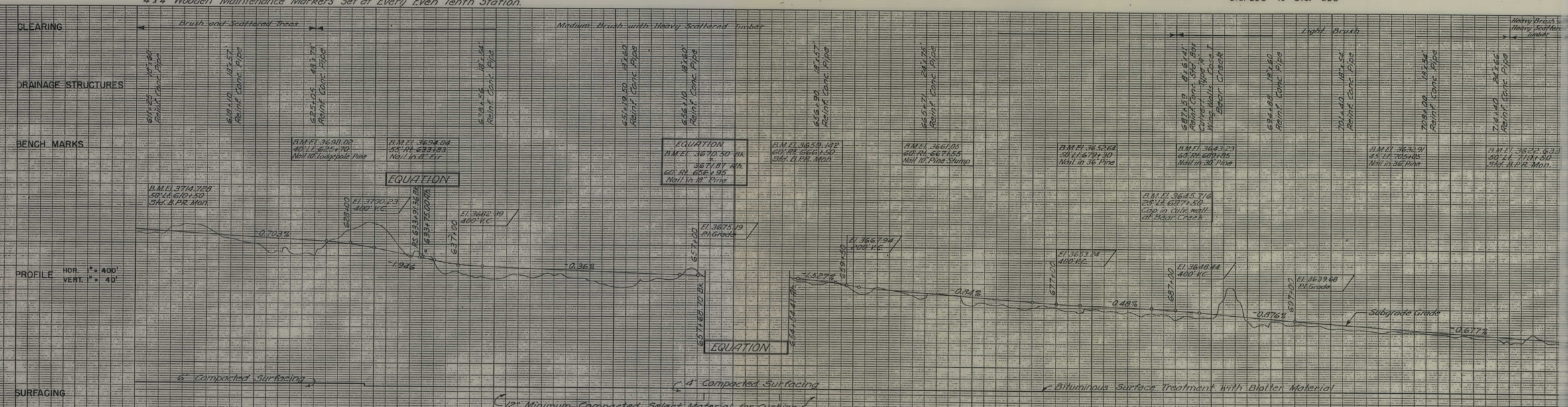

LOLO
NATIONAL
FOREST
T. 12 N.
R. 21 W.
N
Δ 46°30' Rt.
D 3°00'
R 1909.86
Ts 971.35'
Δ1 37°30'
L 1250.00
Δ 19°57' Lt.
D 1°00'
R 5729.58
T 1007.70
L 1995.00
Δ 12°29' Lt.
D 0°45'
R 7639.44
T 834.38
L 1662.22
S 59°10' E
S 79°07' E
N 88°25' E
Lolo Creek
Non Ref. Pipe 40' Lt. & 45' Rt.
Non Ref. Pipe 45' Lt. & 50' Rt.
Non Ref. Pipe 45' Lt. & 30' Rt.
Non Ref. Pipe 60' Lt. & 30' Rt.
4"x4" Wooden Maintenance Markers Set at Every Even Tenth Station
CLASSIFICATION
CLEARING
DRAINAGE STRUCTURES
BENCH MARKS
PROFILE HOR. 1" = 400'
VERT. 1" = 40'
SURFACING
Lewis and Clark Hwy.
Project II-C
Project II-C1D
Project II-C2D1
Grading 8.8581 Miles
Grading 4.8895 Miles
Reconst. Grading 2.6219 Miles
Bit. Surf. 16.3752 Miles
4" Compacted Surfacing
12" Minimum Compacted Select Material for Cushion
Subgrade Grade
Bituminous Surface Treatment with Blotter Material
RES. ENGR. A. K. NEELY
PLOTTED BY H. D. HILL
CHECKED BY A. K. NEELY
TRACED BY G. M. ROBERTSON
APRIL 1949


STA. 724+11.0 BEGIN PROJECT 11-C
STA. 749+25.00 END PROJ. 11-C,D
STA. 749+25.00 END PROJ. 11-C,D
26 25
35 36
Δ 58°20' Lt.
D 2°50'
R 2025.64
Ts 1279.63
Δ1 49°50'
L 1758.82
State of Montana
P.C.S. 733+03.44
S 4°15'
Ls 300'
P.T. 736+03.44
Mon. Ref. Pipe 20' Lt. & Rt.
N 74° 20' E.
Mon. Ref. Pipes 49.85' Lt. and 51.86' Rt. on Sec. Line
25 30
36 31
Headgate and Spillway
Pete Creek
Ditch
Ch. Ch.
T. 12 N., R. 22 W. M.P.M.
T. 12 N., R. 21 W.
Mon. Ref. Pipe 40' Lt. & 35' Rt.
P.C. 834+19.50 Bk.
= 834+04.18 Ah.
P.C.C. 837+04.18
EQUATION
N
LOLO NATIONAL FOREST
784+00 ahd. - Ch. Ch. Bottoms - Min. Width 50'
783+86 bk. - Ch. Ch. Bottoms - Min. Width 40'
4"x4" WOODEN MAINTENANCE MARKERS SET AT EVERY EVEN TENTH STATION
CLASSIFICATION
CLEARING
Heavy Brush with Heavy Scattered Timber
Fragmented Talus
Sand and Gravel
No Clearing
Silt
Gravel
Silt
Sand Silt and Gravel
Light Brush
No Clg.
DRAINAGE STRUCTURES
BENCH MARKS
B.M. El. 3621.51 65' Rt. 722+20 Nail in 30" Pine
B.M. El. 3625.64 Lt. 731+30 Nail in 24" Pine
B.M. El. 3592.53 106' Lt. 749+15 Nail in Pine stump
B.M. El. 3582.35 200' Lt. 771+50 Nail in 30" Pine
B.M. El. 3577.580 80' Lt. 777+00 Std. B.P.R. Mon.
B.M. El. 3570.06 60' Rt. 793+00 Nail in 30" Cottonwood
B.M. El. 3565.91 63' Lt. 804+00 Nail in 18" Fir
B.M. El. 3563.321 25' Lt. 809+00 Std. B.P.R. Mon.
B.M. El. 3562.93 150' Lt. 816+00 Nail in 24" Fir
B.M. El. 3553.389 50' Lt. 819+90 Std. B.P.R. Mon.
PROFILE HOR. 1" = 400' VERT. 1" = 40'
-0.677%
-0.78%
-0.09%
-0.659%
Subgrade Grade
El. 3618.00 P.I. Grade
El. 3582.17 400' V.C.
El. 3581.28 400' V.C.
SURFACING
4" Compacted Surfacing
12" Minimum Compacted Select Material for Cushion
Bituminous Surface Treatment with Blotter Material
RES. ENGR. A.K. NEELY
PLOTTED BY H.D. HILL
CHECKED BY A.K. NEELY
TRACED BY G.M. ROBERTSON
APRIL 1949
Lewis and Clark Hwy. Project 11-C Grading 9.8581 Miles
Lewis and Clark Hwy. Project 11-C,D Grading 4.8093 Miles
Lewis and Clark Hwy. Project 11-C,D,I Secondary Grading 2.6273 Miles
Bit. Surf. 16.3782 Miles
720
730
740
750
760
770
780
790
800
810
820
830
840

LOLO NATIONAL FOREST



4"x4" Wooden Maintenance Markers Set at Every Even Tenth Station.



LOLO NATIONAL FOREST

4"x4" Wooden Maintenance Markers Set at Every Even Tenth Station

CLASSIFICATION: Silt Sand and Gravel

CLEARING: Brush and Trees — No Clearing — Scattered Trees — No Clg.

DRAINAGE STRUCTURES:
- 1320+40 18" Conc. Pipe
- 1324+00 Point Conc. Pipe
- 1327+00 16" CO (double line) Point Conc. Pipe
- 1336+55 22"x13" CO Corr. Metal Pipe Arch
- 1347+20 18" Conc. Pipe
- 1349+50 22"x13" CO Corr. Metal Pipe Arch
- 1357+55 18" Conc. Pipe

BENCH MARKS:
- B.M. El. 3196.97, 60' Lt. 13+25.75, Nail in 4-in. Cottonwood
- B.M. El. 3293.61, 100' Rt. 1330+60, Nail in 12" Cot wd.
- B.M. El. 3197.48, Nail in pole in front of Hughes Store

PROFILE HOR. 1" = 400' VERT. 1" = 40'
- -0.63%
- Subgrade Grade
- 0.00%
- +1.24%
- 1349+00
- El. 3198.43, 400' V.C.
- Approx. 1355+00, B.M. El. 3198.949, S.E. Cor. Headwall Box Culvert Bread Cap.

SURFACING:
- 4" Compacted Surfacing
- Bituminous Surface Treatment with Blotter Material
- 12" Minimum Compacted Select Material for Cushion

STA. 1355+11.71 END PROJ. 11-C & 11-Ce, D1

RES. ENGR.	A. K. NEELY
PLOTTED BY	H. D. HILL
CHECKED BY	A. K. NEELY
TRACED BY	G. M. ROBERTSON
	APRIL 1949

Lewis and Clark Hwy. Proj. 11-C — Grading 8.8591 Miles
Lewis and Clark Hwy. Proj. 11-C1D — Grading 4.0893 Miles
Lewis and Clark Hwy. Proj. 11-Ce, D1 — Reconst. Grading 2.6278 Miles — Bit. Surf. 16.3752 Mi.

1320 1330 1340 1350 1360

MONTANA FOREST HIGHWAY PROJECT 11-C, C1D and C2D
LEWIS and CLARK H. 1323+00 to 1355+11.71
Sta. 1324+00 to 1355+11.71
A.K. Neely