STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT

FEDERAL AID SECONDARY PROJECT

TOWN OF ELMORE
COUNTY OF LAMOILLE
MONTPELIER-MORRISVILLE STATE HIGHWAY

BEGINNING AT A POINT APPROXIMATELY 1.9 MILES NORTHERLY OF THE WORCESTER-ELMORE TOWN LINE AND EXTENDING NORTHERLY 2.777 MILES

LENGTH OF PROJECT 14661.6' ft. = 2.777 mi.

Pin# 99R 983

FED. ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT	S 0241(4)	ROW WAR	1	97

INDEX OF SHEETS

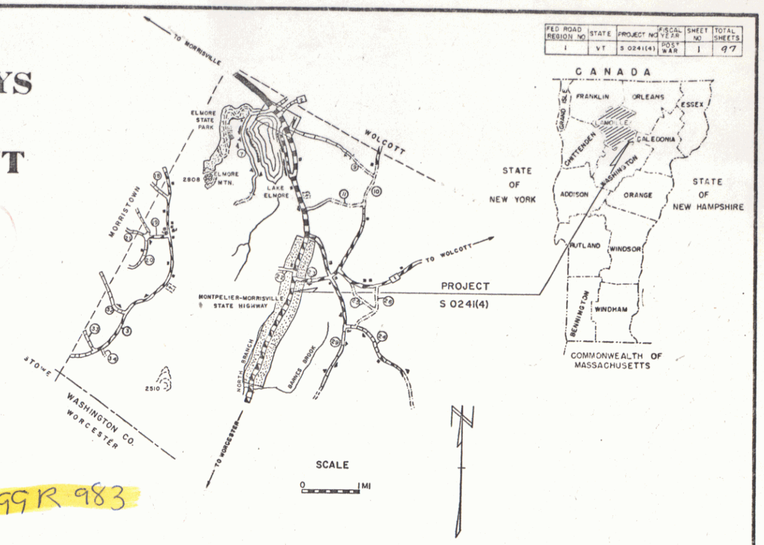
SHEET NO.
1. Title Sheet
2. Typical Sheet
3. Quantity Sheet
4. Item Detail and Drainage Sheet
5-8. Earthworks
9. A-61 Rock Cuts
10. B-1 Banking Tables
11. B-5 Typical Slope Grading
12. B-6 Muck Excavation
12a. B-10 Embankment on a Slope
12b. B-11 Slope Stabilization
13. C-1 Timber Curb
14. D-2 Headwalls and Underdrain
15. D-4 Underdrain Flushing Basin
16. D-16 Drop Inlet
17. E-1 Barricades, Signs and Lights
18. E-31 Federal Aid Construction Identification Sign
19. G-2a Two Cable Guard Rail
20. G-4 Marker Posts and Guide Posts
21. J-1 Project Markers and Boundary Markers
22. S.B. Plate Pipe #1
23. S.B. Plate Pipe #2
24-25. Right of Way Detail Sheet
26-37. Blank
38-49. Plan and Profile Sheets
50-91. Cross Sections
92-93. Channel Sections and Pipe Details
94-95. Approach Sections
96-97. Banking Transitions

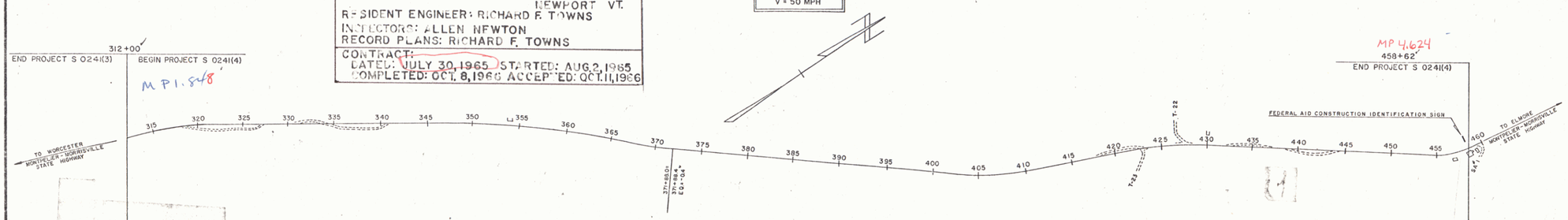
NOTE: For ROW Details, see ROW Plans for this project.
RECORD PLANS ADDITIONAL SHEETS:
1-31 DRAINAGE
1- 8 BBM BORROW
1-5 BBM GRANULAR BORROW
1-9 LEDGE
1-3 STRIPPING OF GRAVEL PITS
2 APPROACHES REVISED
19 SHEETS FROM R.O.W.
5 SHEETS REV. X SECTIONS 96-A-90-A

PROJECT NAME & NUMBER	TYPE OF PAV.
ELMORE S 0241(4)	BIT. CONC. 35,839 SY
RECORD PLANS	MATERIALS
SUB BASE OF GRAVEL	CAMPBELL PIT MORRISVILLE VT. BALONS PIT ELMORE VT.
SUB BASE OF SAND	BARROWS PIT WOLCOTT VT. CAMPBELL PIT MORRISVILLE VT.
GRAVEL BACKFILL	
CUTBACK ASPHALT	SHELL OIL CO. PORTLAND ME.
BIT CONC.	L. M. PIKE BURLINGTON VT.
METAL CULVERT PIPE	NORTHEAST CULVERT CORP. WESTMINSTER VT.
REINFORCED CONC. PIPE, TWO CABLE GUARD RAIL, WOOD GUIDE POSTS, WOOD MARKER POSTS, BOUNDARY MARKERS, PROJECT MARKERS, TREATED TIMBER CURB, & PRECAST RODS	S. T. GRISWOLD & CO. INC. WILLISTON, VT.

CONTRACTOR: GEORGE & VREDENBURGH NEWPORT VT.
RESIDENT ENGINEER: RICHARD F. TOWNS
INSPECTORS: ALLEN NEWTON
RECORD PLANS: RICHARD F. TOWNS
CONTRACT:
DATED: JULY 30, 1965 STARTED: AUG. 2, 1965
COMPLETED: OCT. 8, 1966 ACCEPTED: OCT. 11, 1966

1964	ADT	155
1965	ADT	280
1965	DHV	65
D = 70%		
T = 4%		
V = 50 MPH		





CONSTRUCTION AREA
STA 312+00 TO STA 458+62

BENCH MARK

CO
COUNTY LI
TOWN LINE
FENCE LIN
STONE WA
UNFENCED
GUARD RA
TRAVELED
RAILROAD
RETAINING
CENTER L
SURVEY L
CULVERT
DROP INL
TROLLEY
POWER P
TELEPHO
TREES
HEDGE

PROJECT ELMORE
NUMBER S 0241(4)
TYPE BIT. CONC 1½"
LENGTH 2.77 MI.
CONTRACTOR GEORGE & VREDENBURGH
YEAR 19 66
LOCATION BEGINNING AT A POINT 1.9 MILES NORTHERLY OF THE WORCESTER-ELMORE TOWN LINE EXTENDING NORTHERLY 2.77 MILES
CONTRACTOR GEORGE & VREDENBURGH
DATE STARTED AUG. 2, 1965
COMPLETED OCTOBER 8, 1966
RECORD PLANS: RICHARD F. TOWNS

3798
Box 293

RIGHT-OF-WAY
SLOPE RIGHTS — SR — SR
GROUND ELEVATION DATUM 100.0 LINE
GRADE ELEVATION DATUM 125 LINE

CURVE DATA
DEFLECTION OF ANGLE ..... Δ
DEGREE OF CURVE ..... D
RADIUS OF CURVE ..... R
TANGENT DISTANCE ..... T
LENGTH OF CURVE L
EXTERNAL DISTANCE ..... E
POINT OF INTERSECTION ..... P.I.
POINT OF CURVE ..... P.C.
POINT OF TANGENT ..... P.T.
POINT ON TANGENT ..... P.O.T.
POINT ON SUB-TANGENT ..... P.O.S.T.

SCALES
0 500 1000

THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY BE REQUIRED BY THE BUREAU OF PUBLIC ROADS OR THE COMMISSIONER OF HIGHWAYS.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, DATED APRIL 1964, AS APPROVED BY THE BUREAU OF PUBLIC ROADS ON OCTOBER 12, 1964, INCLUDING ALL SUBSEQUENT APPROVED REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED
ASST. CHIEF ENGINEER	SECONDARY ENGINEER	CONSTRUCTION ENGINEER	BRIDGE ENGINEER	DISTRICT ENGINEER	HIGHWAY ENGINEER	CHIEF ENGINEER
DATE 2/26/64	DATE 2/26/64	DATE 2/26/64	DATE 9/23/64	DATE 9/23/64	DATE 2/26/64	DATE 2/26/64

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER DATE

PROJECT S NO. 0241(4)
SHEET 1 OF 97 SHEETS

RIGHT-OF-WAY DIVISION
TOWN FILE
PERPETUAL
~~Town~~ Pkt of U-12
(To Be Returned To R.O.W. Division)

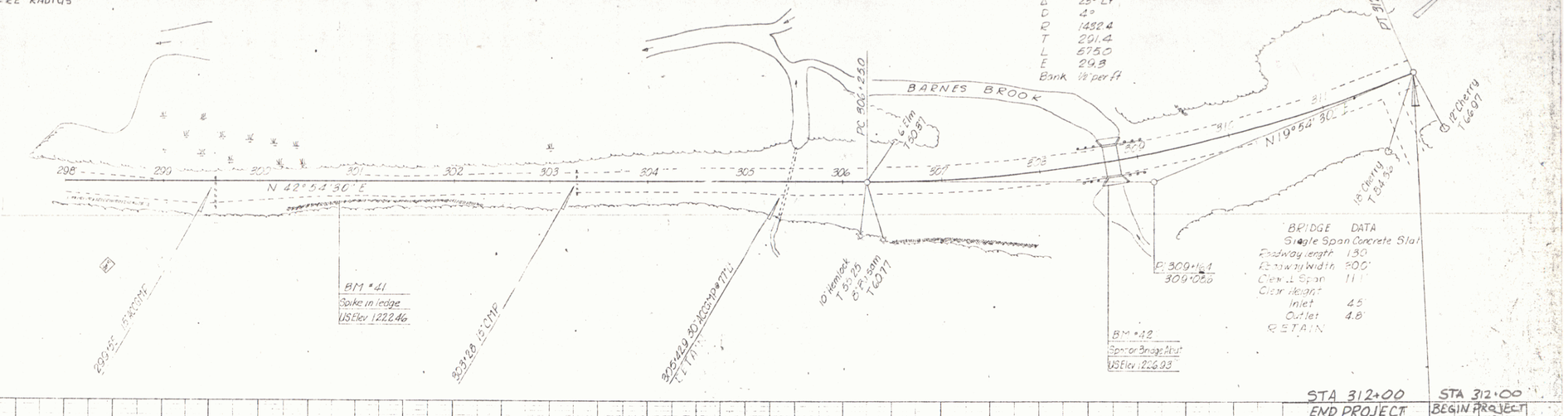
CONSTRUCT DRIVE
Pt

TWO CABLE GUIDE RAIL
LF

REMOVING AND RESETTING TWO CABLE GUARDRAIL WITH WOOD POSTS
LF

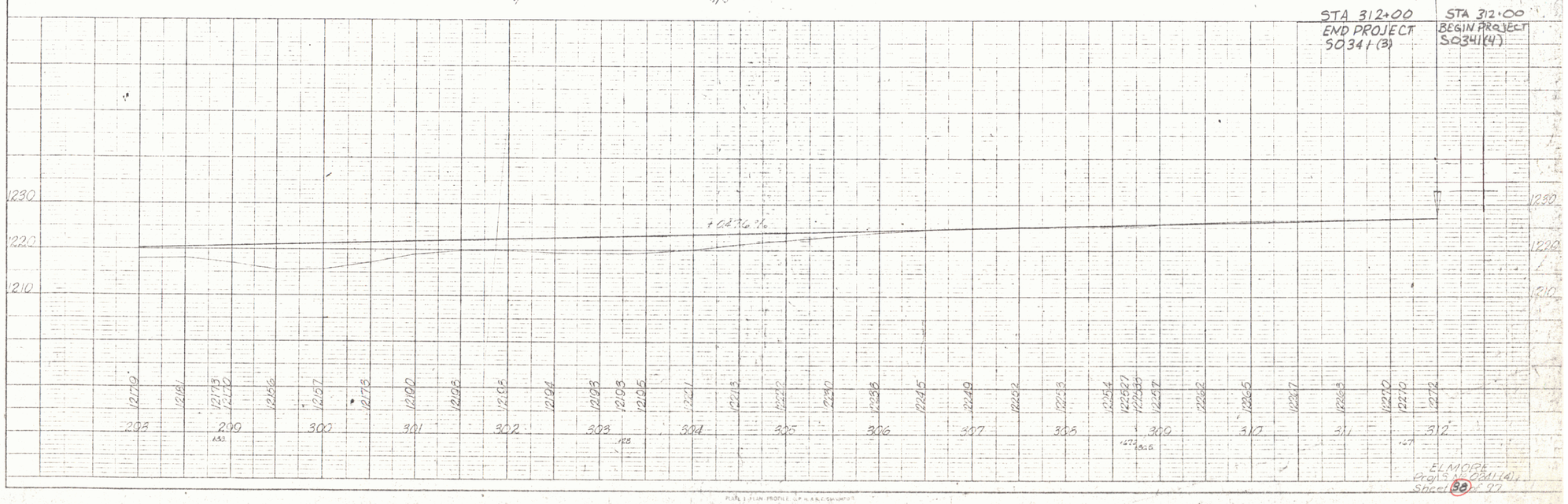
MUCK EXCAVATION
CY

NOTE
ALL DRIVES WILL HAVE A MINIMUM 12' WIDTH AND 15' FLARE RADIUS



STA 312+00
END PROJECT
S0341(3)

STA 312+00
BEGIN PROJECT
S0341(4)



PLAN

Drawn	W. Smith
Checked	W. Smith
Date	8/23/93
Scale	1" = 10'
Note Book	
No.	

PROFILE

Drawn	W. Smith
Checked	
Date	8/23/93
Scale	1" = 10'
Note Book	
No.	

ELMORE
Proj S0341(4)
Sheet 30 of 97

PLAN & PROFILE OF HARE SHUMPS
SHEET 1 OF 1

2

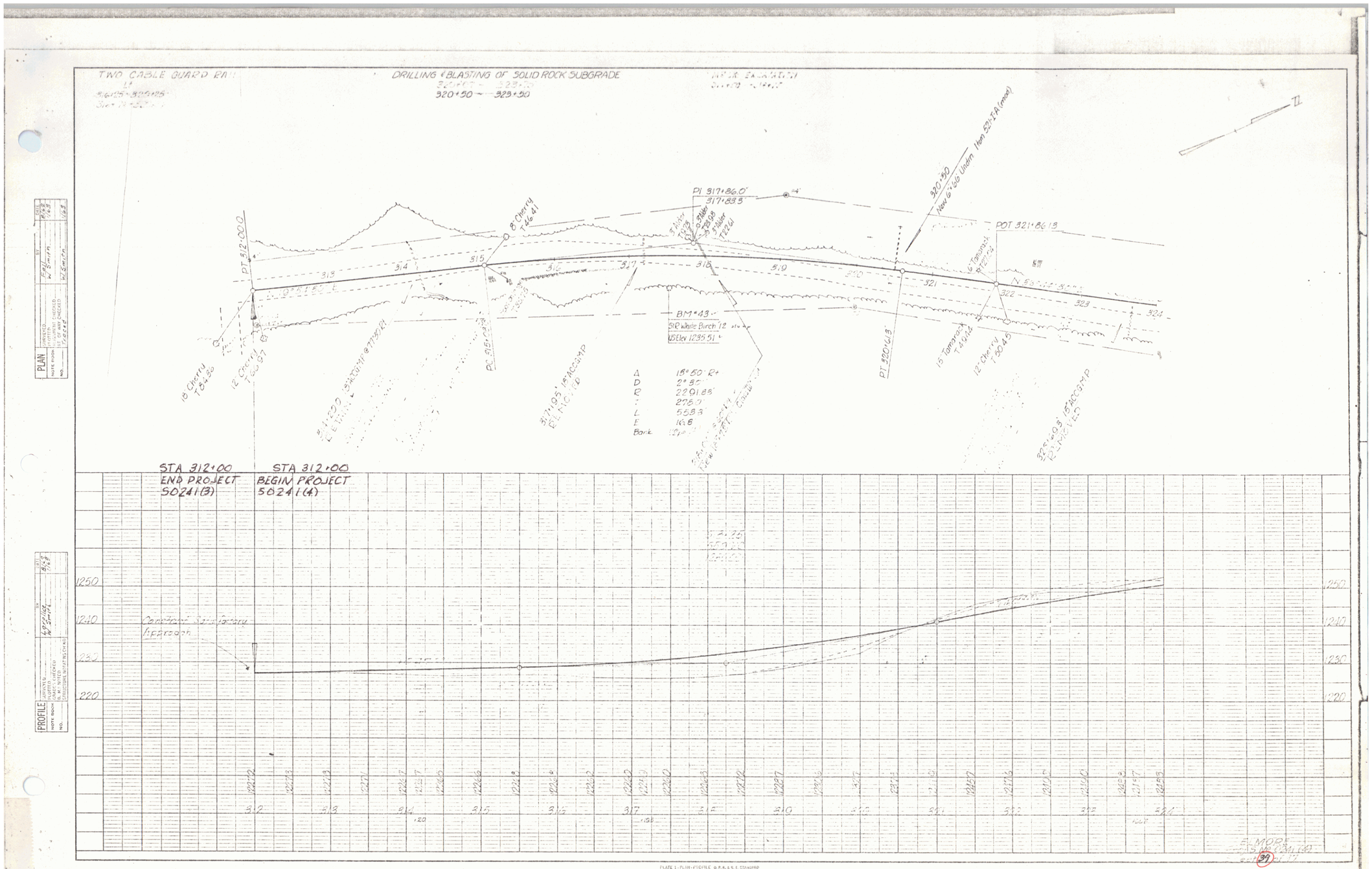
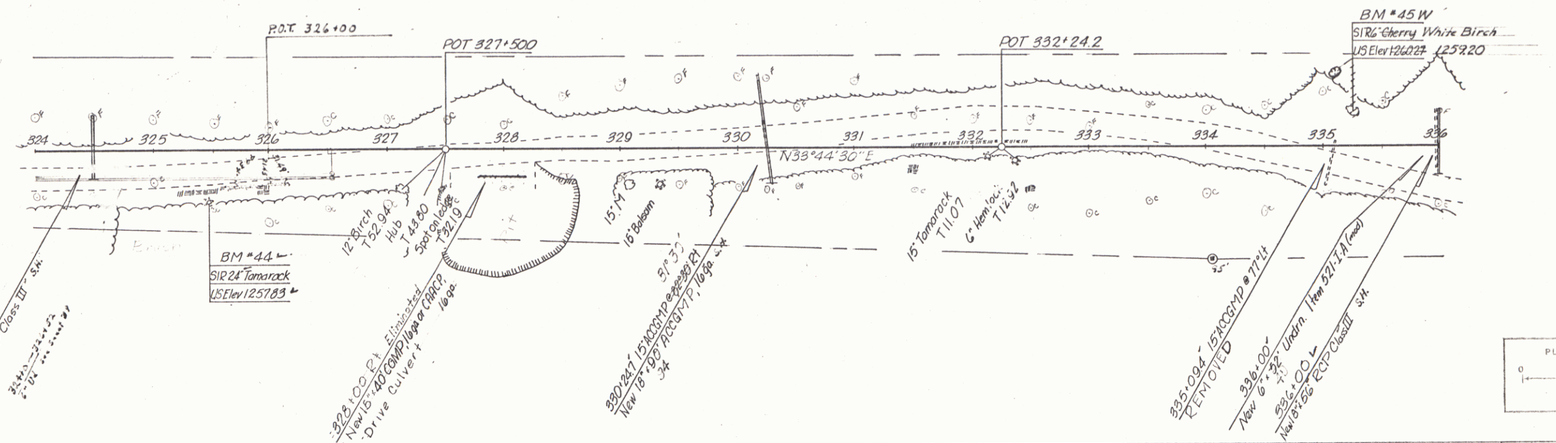


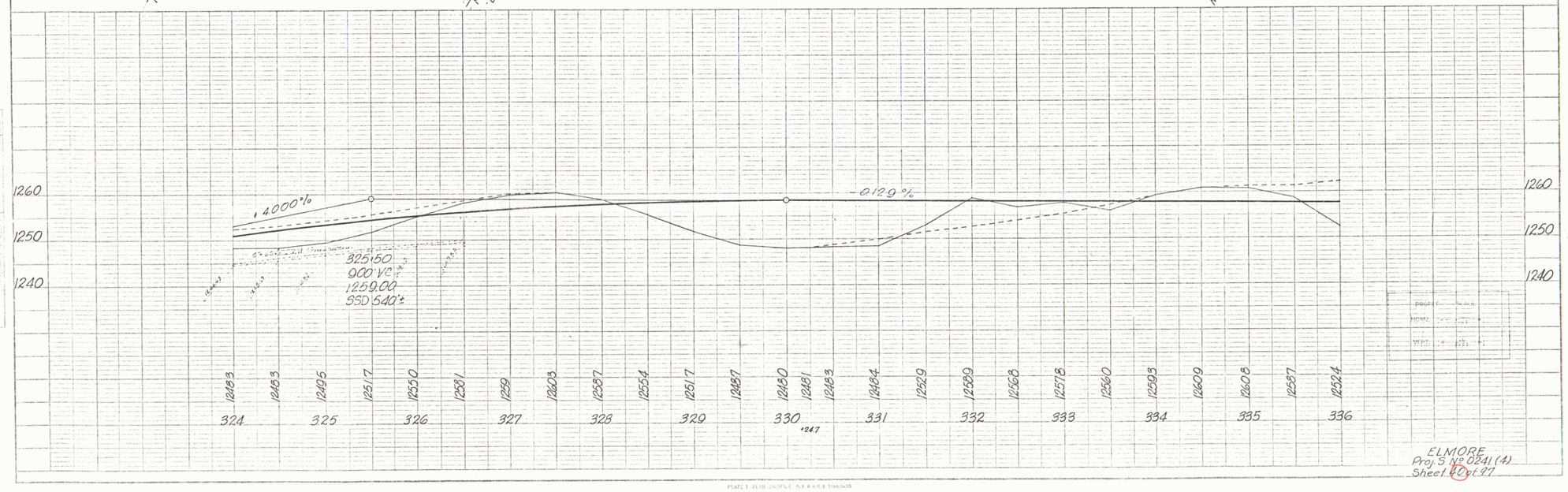
PLATE 1 - PLAN - PROFILE O.P.R. & R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

CONSTRUCT DRIVE
Rt
328+00

TWO CABLE GUARD RAIL
Lt
~~327+80 - 331+96~~
328+42 - 331+94

DRILLING & BLASTING OF SOLID ROCK SUBGRADE
~~331+50 - 336+00~~
324+75 - 324+75
331+25 - 335+00





ELMORE
Proj. S No. 0241 (4)
Sheet 40 of 97

PLATE 1 - PLAN - PROFILE - N.Y.S.R.R.R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

4

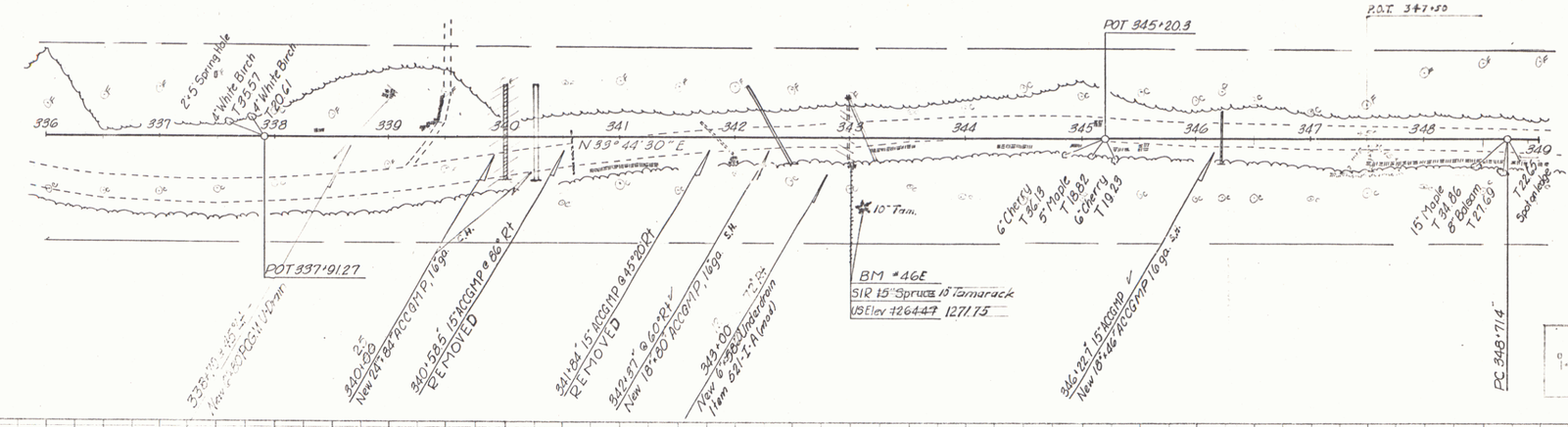
CONSTRUCT DRIVE
Lt
339+50

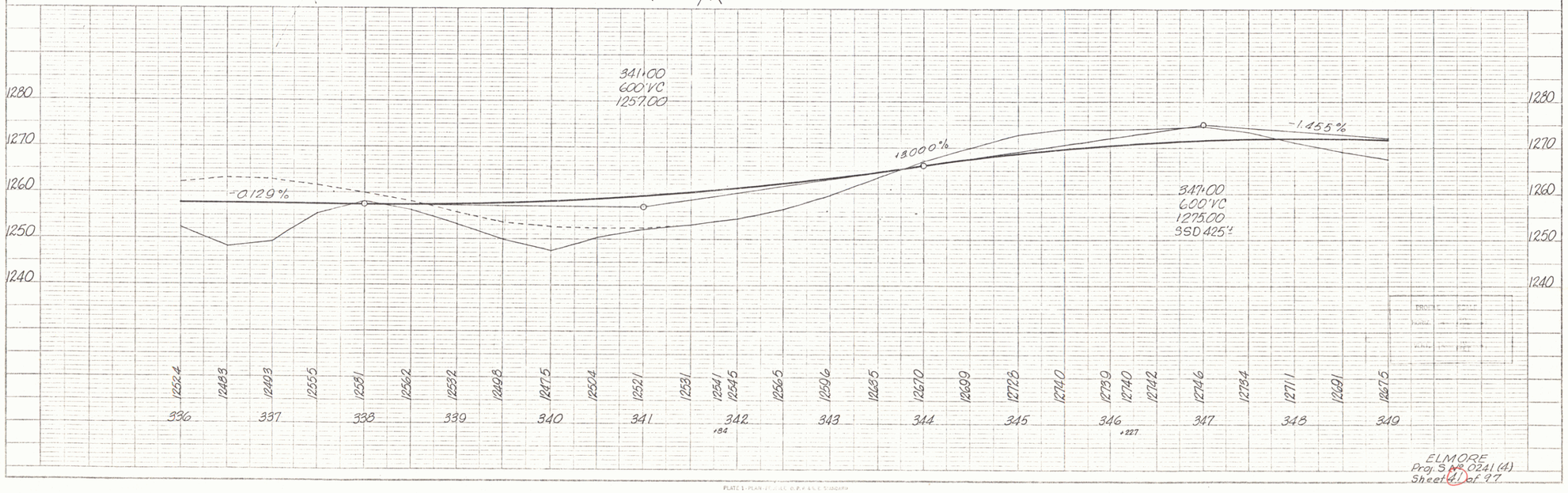
TWO CABLE GUARD RAIL
Lt -
~~336+00-339+86~~
~~339+68-343+76~~
~~347+00-349+00~~
336+20-339+12
339+60-343+36
343+24-352+48

MUCK EXCAVATION
339+50~343+00
347+85~347+50

WOOD GUIDE POSTS
347+84-348+10 Lt

DRILLING & BLASTING OF SOLID ROCK SUBGRADE
337+25 - 339+75
343+00 - 348+00
25





PLAN
Date 4/6/68
Drawn W. Smith
Checked 4/6/68
Note Book
No.
Traced W. Smith

PROFILE
Date 4/6/68
Drawn W. Smith
Checked 4/6/68
Note Book
No.

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Proj. S-M 0241 (4)
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PLATE 1 - PLAN OF U.S. O.P.R. & E. SUBGRADE
REVISED & ADJUSTED - ELMORE
R.B.&.Co. No. 34-110

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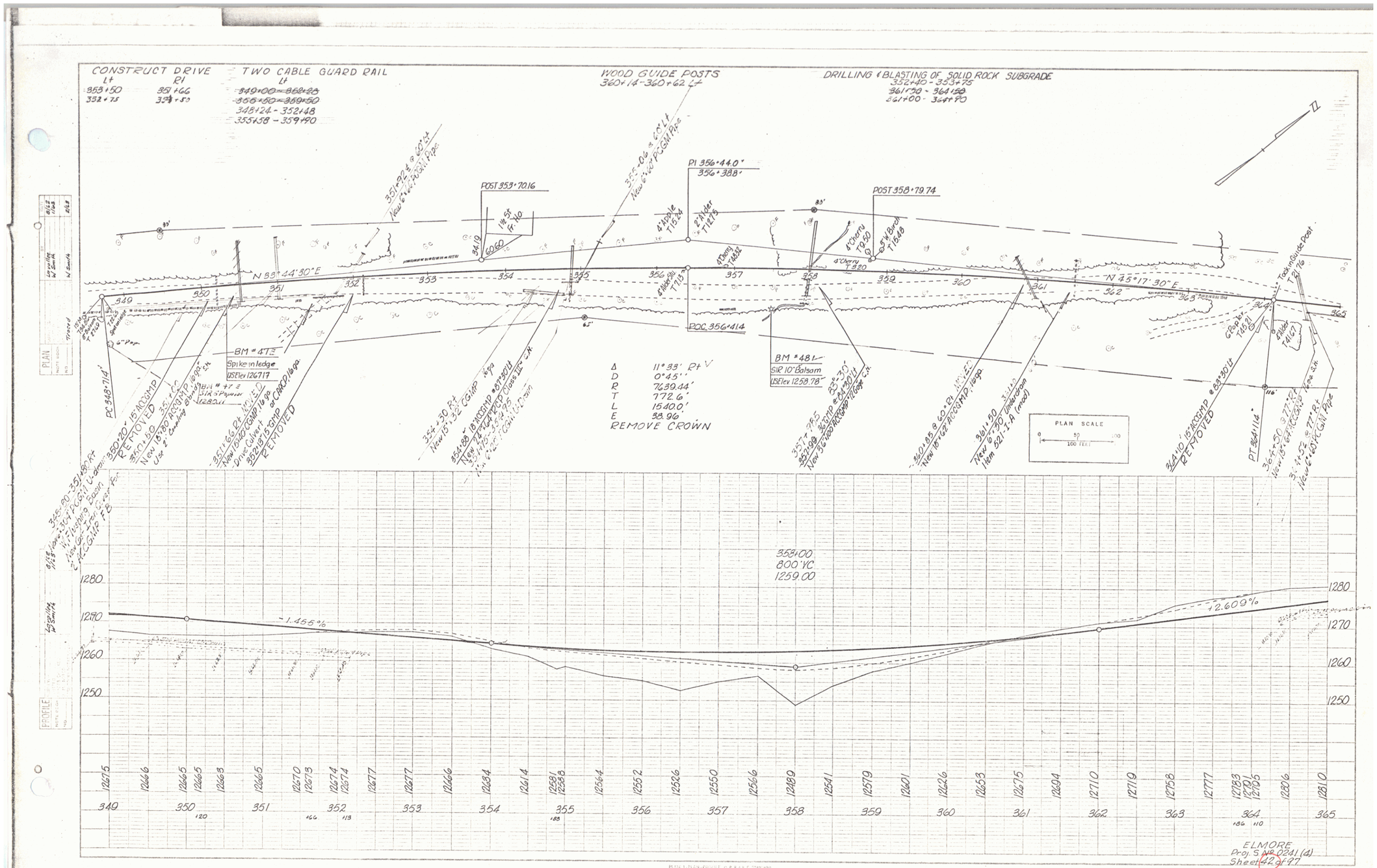
CONSTRUCT DRIVE
Lt
353+50
352+75
Rt
351+66
349+50
TWO CABLE GUARD RAIL
Lt
~~349+00 - 352+28~~
~~356+50 - 359+50~~
348+24 - 352+48
355+58 - 359+90
WOOD GUIDE POSTS
360+14 - 360+62 Lt
DRILLING & BLASTING OF SOLID ROCK SUBGRADE
352+40 - 353+75
361+50 - 364+50
361+00 - 364+90
POST 353+70.16
PI 356+44.0
356+38.8'
POST 358+79.74
N 33°44'30"E
N 45°17'30"E
POC 356+414
BM # 47 E
Spike in ledge
USElev 1267.17
BM # 48 L
SIR 10" Balsam
USElev 1258.78
Δ 11°33' Rt
D 0°45'
R 7639.44'
T 772.6'
L 1540.0'
E 38.96
REMOVE CROWN
PLAN SCALE
0 50 100
100 FEET
PC 348+71.4
REMOVED
Drive Culvert
REMOVED
REMOVED
REMOVED
PT 364+11.4
Tack in Guide Post
353+00
800' VC
1259.00
-1.455%
+2.609%
1280
1270
1260
1250
340
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
PLAN
PROFILE
ELMORE
Proj. S NR 0241 (4)
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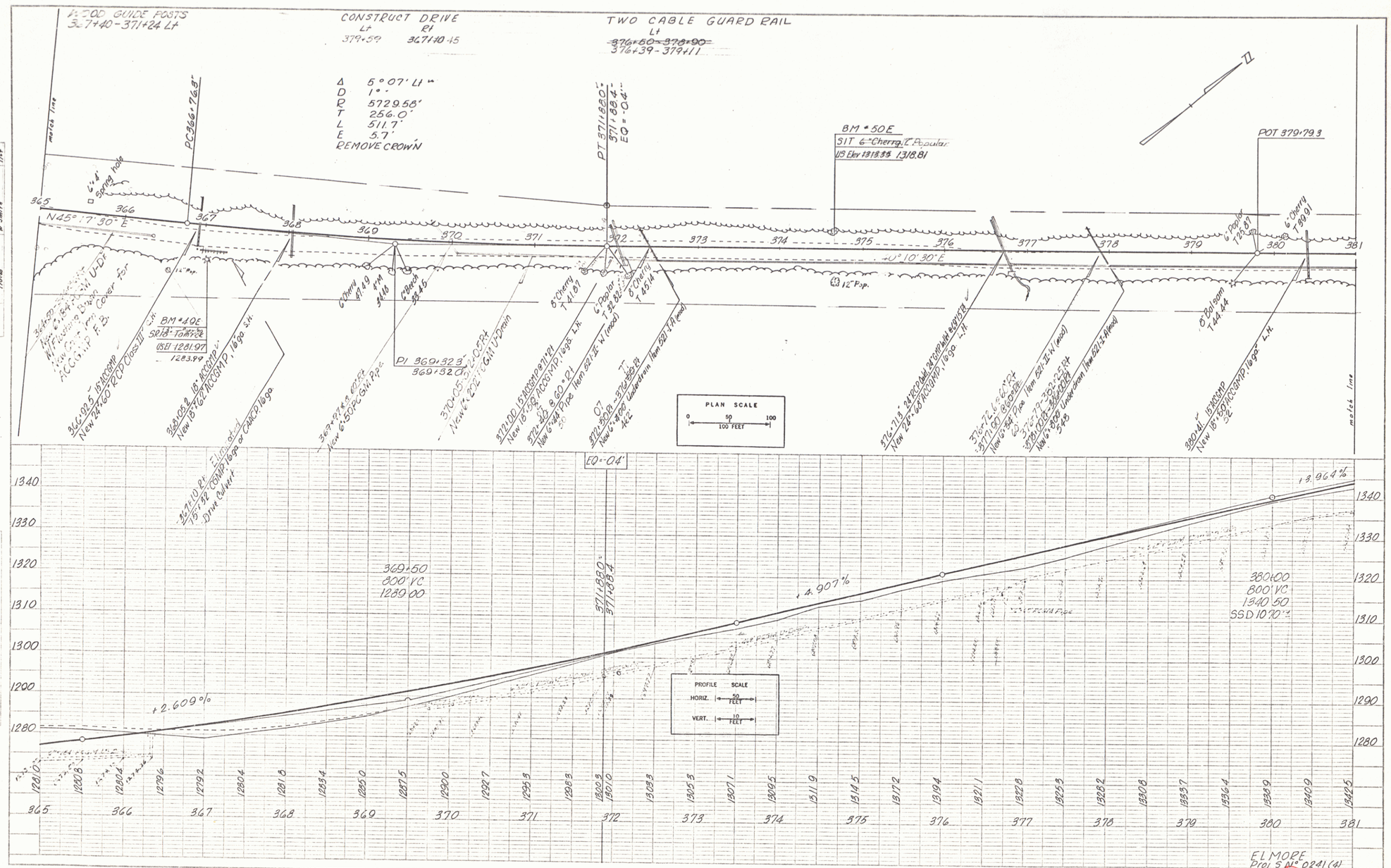
6 9


WOOD GUIDE POSTS
367+40 - 371+24 Lt
CONSTRUCT DRIVE
Lt 379+59
Rt 367+10.45
TWO CABLE GUARD RAIL
Lt
~~376+50 - 378+90~~
376+39 - 379+11
Δ 5°07' Lt
D 1°
R 5729.58'
T 256.0'
L 511.7'
E 5.7'
REMOVE CROWN
PC 366+76.8
PT 371+82.0
371+88.4
EQ = 0.4'
BM #50E
SIT 6" Cherry, 2" Popular
Elev 1318.85 1318.81
POT 379+79.3
N45°17'30"E
+0°10'30"E
PI 369+32.3
369+32.0
BM #40E
SIT 18" Tamarack
USEI 1281.97
1283.99
EQ=0.4'
+2.609%
+4.907%
+3.964%
369+50
800' VC
1280.00
380+00
800' VC
1340.50
SSD 1070'
PLAN SCALE
0 50 100
100 FEET
PROFILE SCALE
HORIZ. 50 FEET
VERT. 10 FEET
ELMORE
Proj S No 0241(4)
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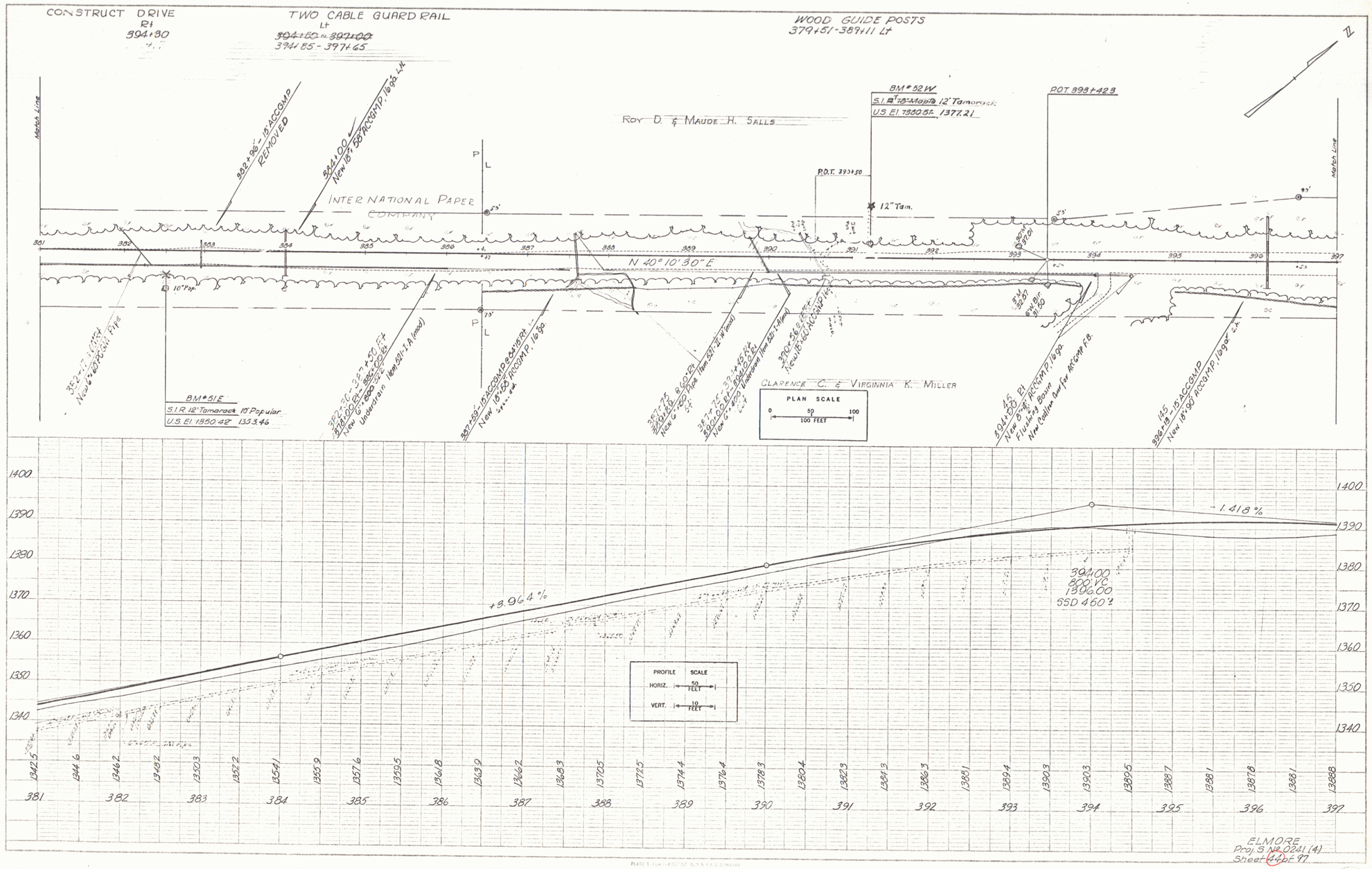
CONSTRUCT DRIVE
Rt
394+30
TWO CABLE GUARD RAIL
Lt
~~394+50 to 397+00~~
394+85 - 397+65
WOOD GUIDE POSTS
379+51-389+11 Lt
N
Match Line
392+96 - 18" ACCGMP REMOVED
394+00 New 18" 50' ACCGMP, 16 ga. Lt.
ROY D. & MAUDE H. SALLS
BM # 52 W
S.I. Rt 18" Maple 12" Tamarack
U.S. El. 1380.51 1377.21
P.O.T. 393+42.8
P.O.T. 393+50
12" Tam.
INTERNATIONAL PAPER COMPANY
P L
N 40° 10' 30" E
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
352+11.5 LT. New 24" ACCGMP, Pipe
BM # 51 E
S.I.R. 12" Tamarack 10" Popular
U.S. El. 1350.42 1353.46
362+30 - 32+50 Rt
372+00 Rt 380+00 Rt
New 6" x 200' SSD
Underdrain Item 521-1 A (wood)
397+59 - 15" ACCGMP & 24" ER Rt.
New 18" 50' ACCGMP, 16 ga.
367+73
380+50 Rt
New 6" x 50' Pipe Item 521-1 E (wood)
371+75 - 32+45 Rt
380+00 Rt 390+00 Rt
New 6" x 200' SSD Underdrain Item 521-1 A (wood)
380+56.2 Rt
New 18" 50' ACCGMP Pipe
CLARENCE C. & VIRGINNIA K. MILLER
PLAN SCALE
0 50 100
100 FEET
45
394+00 Rt
New 8" x 6' ACCGMP, 16 ga.
Flushed Basin
New Catch Bar for ACCGMP F.B.
145
398+8 - 15" ACCGMP
New 18" 90' ACCGMP, 16 ga. S.A.
1400
1390
1380
1370
1360
1350
1340
+8.964 %
-1.418 %
394+00
800 VC
1396.00
SSD 450'
PROFILE SCALE
HORIZ. 50 FEET
VERT. 10 FEET
1342.5
1344.6
1346.2
1348.2
1350.3
1352.2
1354.1
1355.9
1357.6
1359.5
1361.8
1363.9
1366.2
1368.3
1370.5
1372.5
1374.4
1376.4
1378.3
1380.4
1382.3
1384.3
1386.3
1388.1
1389.4
1390.3
1390.3
1389.5
1388.7
1388.1
1387.8
1388.1
1388.8
ELMORE
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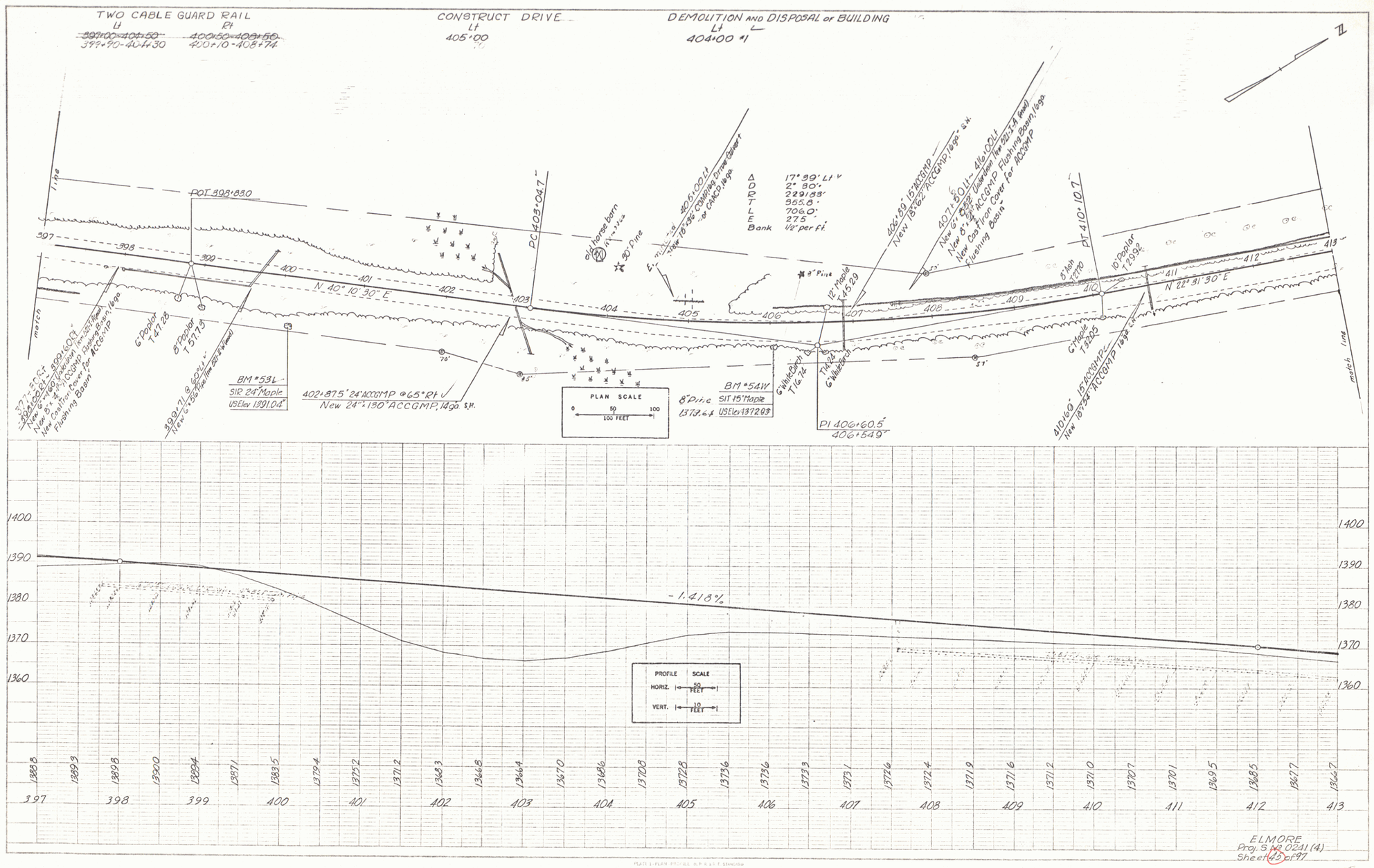

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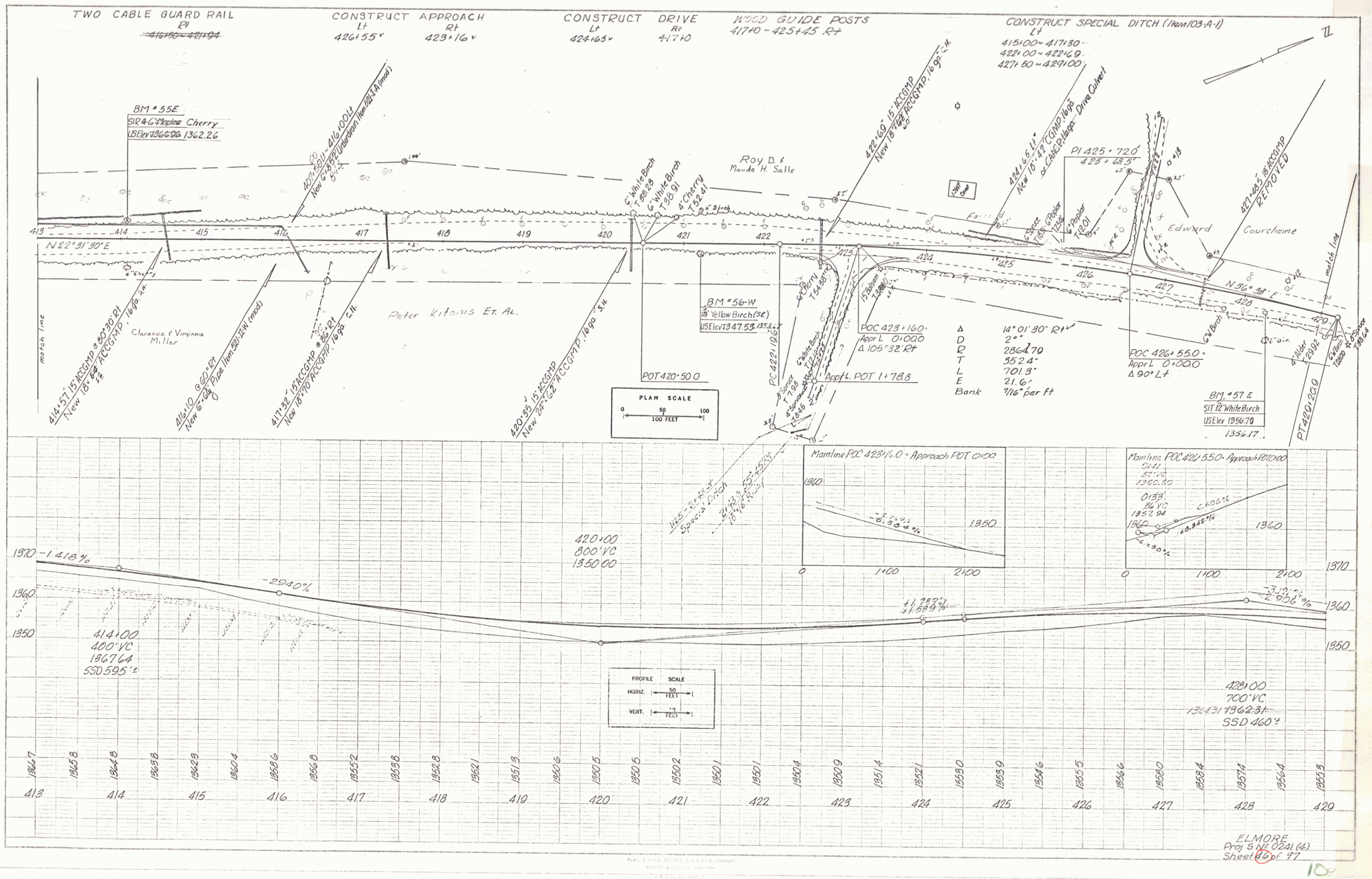
TWO CABLE GUARD RAIL
Pl
~~416+90 ~ 421+94~~
CONSTRUCT APPROACH
Lt
426+55
Rt
423+16
CONSTRUCT DRIVE
Lt
424+65
Rt
417+0
WOOD GUIDE POSTS
417+0 - 425+45 Rt
CONSTRUCT SPECIAL DITCH (Item 103-A-1)
Lt
415+00 ~ 417+30
422+00 ~ 422+69
427+50 ~ 429+00
BM #55E
SIR 46" Poplar Cherry
USElev 1366.96 1362.26
Roy D. & Maude H. Salls
Peter Kitonis Et. Al.
Clarance & Virginnia Miller
Edward Courchaine
BM #56-W
18" Yellow Birch (SE)
USElev 1347.53 1352.27
BM #57 E
SIR 12" White Birch
USElev 1356.70
1356.17
POT 420+50.0
PC 422+19.6
POC 423+160
Appr L 0+00.0
Δ 105°32' Rt
Appr L POT 1+78.8
POC 426+55.0
Appr L 0+00.0
Δ 90° Lt
PT 429+20.9
Δ 14°01'30" Rt
D 2°
R 2864.79
T 352.4'
L 701.3'
E 21.6'
Bank 7/16" per ft
PLAN SCALE
0 50 100
100 FEET
Mainline POC 423+16.0 - Approach POT 0+00
Mainline POC 426+55.0 - Approach POT 0+00
420+00
800' VC
1350.00
414+00
400' VC
1367.64
SSD 595'±
428+00
700' VC
1364.31 1362.31
SSD 460'±
PROFILE SCALE
HORIZ. 50 FEET
VERT. 10 FEET
ELMORE
Proj S № 0241 (4)
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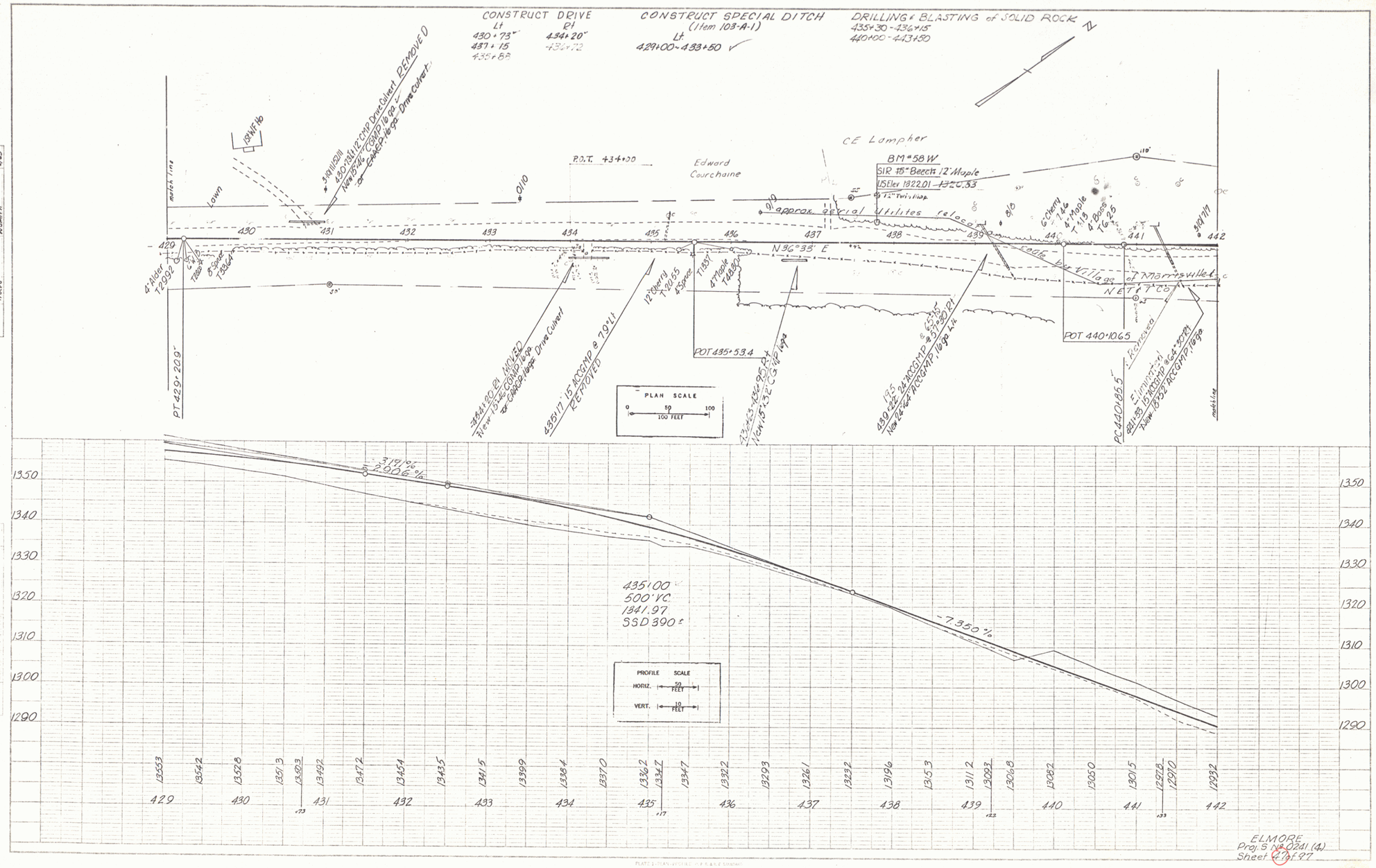

ELMORE
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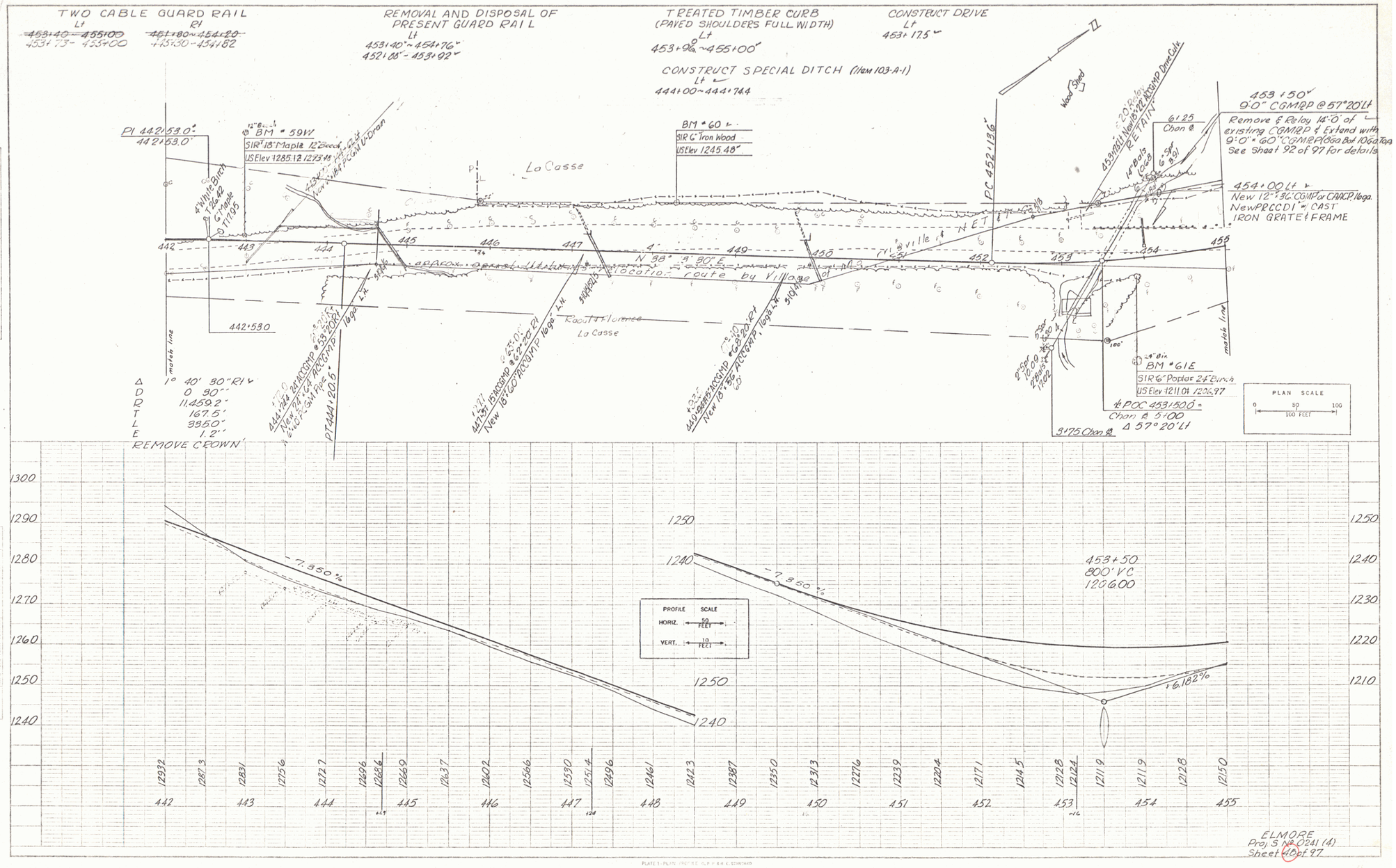

ELMORE
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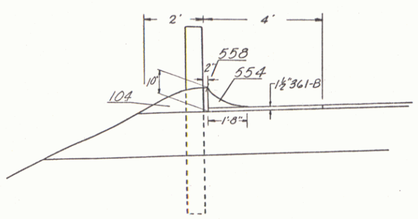
TREATED TIMBER CURB
(PAVED SHOULDER FULL WIDTH)
Lt
455+00 ~ 456+84

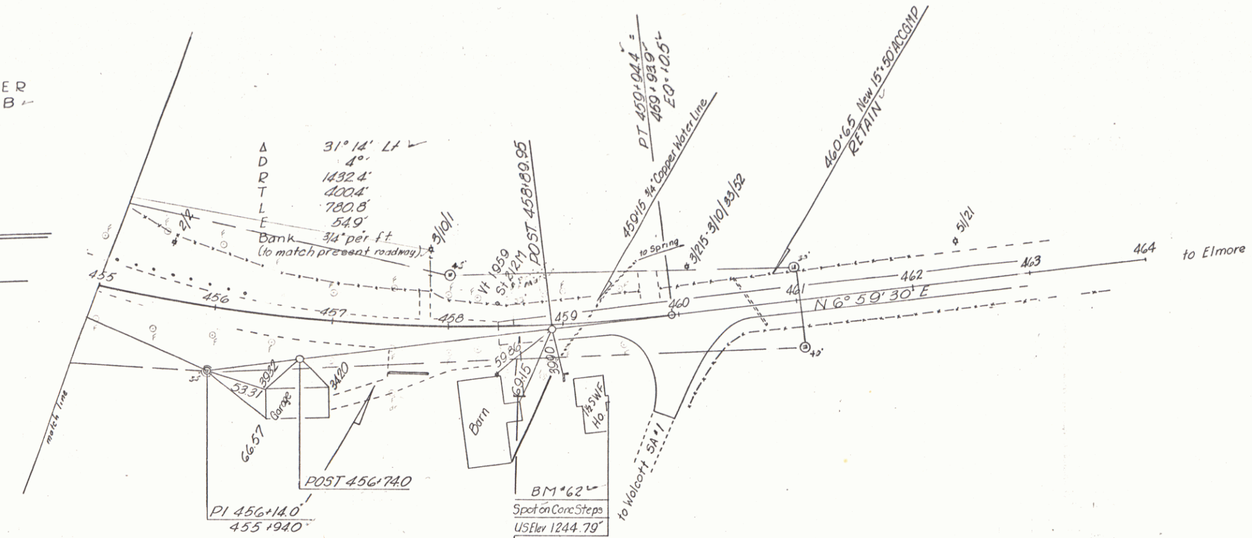
CONSTRUCT DRIVE
Lt
458+00

PI
457+62
458+72

TWO CABLE GUARD RAIL
Lt 457+25
455+00 ~~456+87~~

DETAIL OF PAVED SHOULDER
AND TREATED TIMBER CURB
455+96 ~ 456+84 Lt





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