

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9444-1-71	OS 3799 (I)	I

STATE OF WISCONSIN  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

PLAN AND PROFILE OF PROPOSED  
**C.T.H. "N" - C.T.H. "Z"**  
**C.T.H. "D"**  
**MARATHON COUNTY**

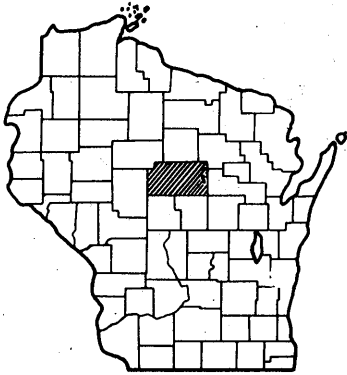
STATE PROJECT NUMBER  
**9444-1-71**

Scales  
 Plan 1 in = 100 ft  
 Profile Hor 1 in = 100 ft Vert 1 in = 10 ft  
 Cross Sections 1 in = 100 ft Vert 1 in = 10 ft

**Index of Sheets**

Sheet No. 1	Title
Sheet No. 3	Typical Cross Sections
Sheet No. 3	Estimate of Quantities
Sheet No. —	Miscellaneous Quantities
Sheet No. —	Right of Way Plat
Sheet No. 5-5.6	Plan and Profile Sta. 0+00 to Sta. 65+42.89 & Sta. 60+59 to Sta. 189+89.4
Sheet No. 6-6.1	Standard Details
Sheet No. —	Structure Plans
Sheet No. —	Computer Earthwork Data
Sheet No. —	Cross Sections

TOTAL SHEETS = 11



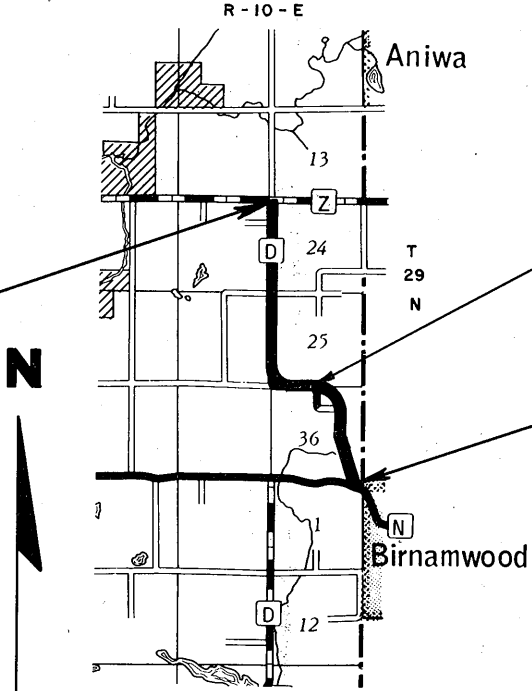
**Design Designation**

A.D.T. 1975	= 60
A.D.T. 1995	= 120
D.H.V.	= 18
D.	= 50-50
T.	= 5%
V.	= 50 M.P.H.

**END PROJECT 9444-1-71**  
**STA. 189+89.4**  
 N = 421,300 (± 200')  
 E = 2,195,800 (± 200')  
 N.W. Cor. Sec. 24, T29N, R10E

**STA. 65+42.89 Back =**  
**STA. 60+59.00 Ahead**

**BEGIN PROJECT 9444-1-71**  
**STA. 0+00**  
 N = 405,000 (± 200')  
 E = 2,200,800 (± 200')  
 ± 400' West & ± 500' South of N.E. Cor. Sec. 1,  
 T29N, R10E



Layout  
 Scale **One Mile**

Total Net Length of Centerline = 3.688 Mi.

**Conventional Signs**

County Line	-----	Culverts in Place	-----
Township or Range Line	-----	Culverts Required	-----
Section Line	-----	Drop Inlet	-----
New Right of Way Line	-----	Power Pole	-----
Present Right of Way Line	-----	Telephone or Telegraph Pole	-----
Wire Fence	-----	Right of Way Markers	-----
Corporate or City Limits	-----	Reference Stake for Hubs Only	-----
Property Line	-----	Marsh	-----
Traveled Way or P.E.	-----	Hedge	-----
Railroads	-----	Trees	-----
Base or Survey Line	-----	Ground Elevation	-----
Caution Symbol (combustible fluids under pressure)		Grade Elevation	-----

APPROVED FOR MARATHON COUNTY  
*Calvin R. Cook*  
 Date 7-10-75 Title HWY. COM. M.

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

Surveyor COUNTY District Checker L.G.H.  
 Designer COUNTY C.O. Checker LLH

Correct:  
 Date 7/11/75 *H. G. ...* District Engineer  
 Recommended for Approval:  
 Date 8/5/75 *J. C. ...* Chief of Facilities Development  
 Approved:  
 Date 8/16/75 *H. S. ...* State Highway Engineer

U.S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION  
 REGION 5 WISCONSIN DIVISION

Approved:  
 Date \_\_\_\_\_ Division Engineer

Coordinates are scaled from USGS Topographic Map  
 Wittenberg Wisconsin for identification only and are referenced  
 to the Wisconsin Coordinate System Central Zone.

9444-1-71

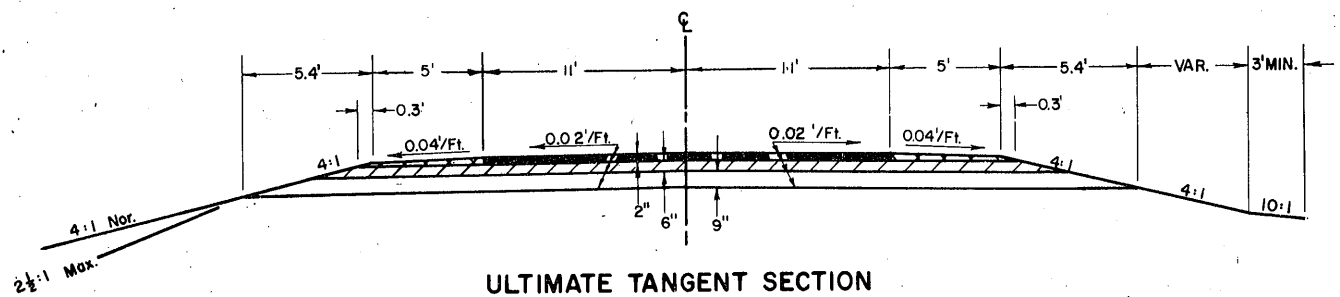
# ESTIMATE OF QUANTITIES

CONTRACT NO. 1 (Single Aggregate Bituminous Surface)

STATE PROJECT NUMBER	SHEET NO.
9444-1-71	3

STATION TO STATION	NET LENGTH OF CENTER LINE	PREPARATION OF FOUNDATION FOR BITUMINOUS PAVING	CRUSHED AGGREGATE BASE COURSE	SINGLE AGGREGATE BITUMINOUS SURFACE	BITUMINOUS MATERIAL FOR SURFACE COURSE	FIELD LABORATORY
	ITEM NO. UNIT	21101 L.S.	30403 C.Y.	90001 C.Y.	40603 GAL.	64210 L.S.
0+00-189+89.4	19,473.39	1	(a) 2400	(b) 3600	79,000	1

(a) Includes 560 C.Y. For S.R.'s & P.E.'s  
 (b) Includes 180 C.Y. For S.R.'s

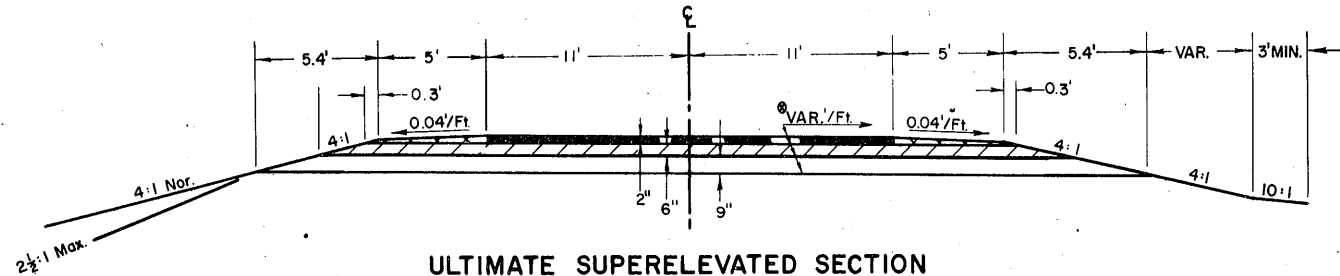


**ULTIMATE TANGENT SECTION**

**LEGEND**

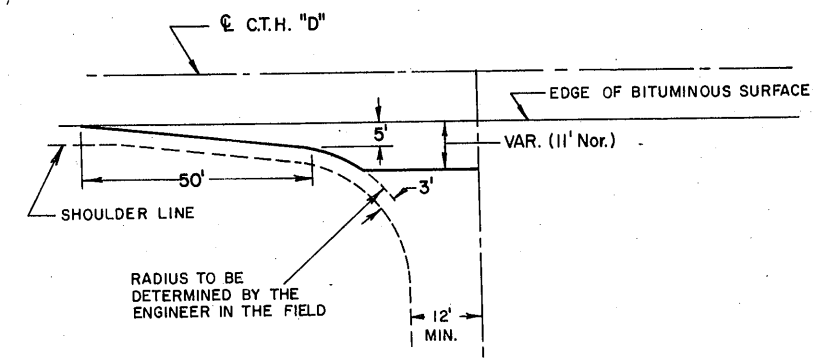
- BITUMINOUS SURFACE
- CRUSHED AGGREGATE BASE COURSE \*
- Crushed Aggregate Base Course (SHOULDER MATERIAL)
- GRANULAR SUBBASE COURSE \*

\* Not Part Of This Contract



**ULTIMATE SUPERELEVATED SECTION**

PI. STA. 30 + 86.97      S.E. 0.053'/Ft. Ⓞ  
 PI. STA. 58 + 16.25    Rotate Section 180° About C    S.E. 0.067'/Ft. Ⓞ  
 PI. STA. 87 + 71.6      S.E. 0.079'/Ft. Ⓞ



**1/2 PLAN VIEW SIDE ROAD**

**APPLICABLE STANDARD DETAIL DRAWINGS**

- 9 A 1-2 Layout Details for At-Grade Side Road Intersections
- 15 C 1-4 Construction Barricade

**UTILITIES**

**GENERAL TELEPHONE COMPANY**  
 413 McCLELLAN STREET  
 WAUSAU, WISCONSIN 54401  
 Attn: Mr. Dick Erdman  
 Tel: 842-0771

**WISCONSIN POWER & LIGHT COMPANY**  
 122 West WASHINGTON STREET  
 MADISON, WISCONSIN 53703  
 Attn: Mr. Dana Higgins  
 Tel: 608-252-3059

**GENERAL NOTES**

When the quantity of the items of base or surface course is measured for payment by the ton or cubic yard, the depth or thickness of the course as shown on the plan is approximate and the actual thickness will depend on the distribution of the material as directed by the engineer.

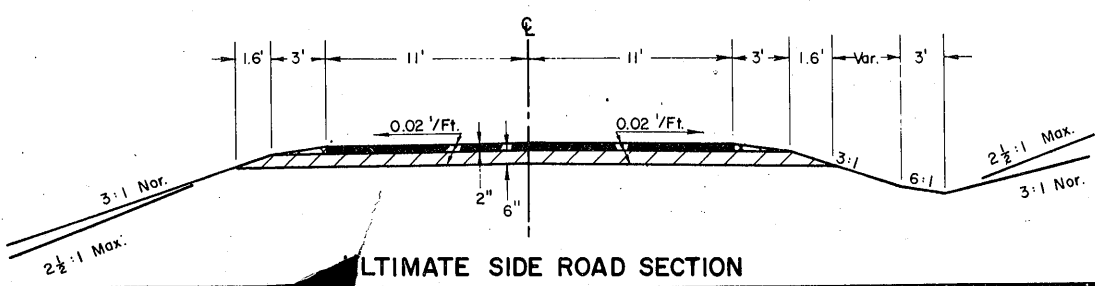
When placing new bituminous surfacing adjacent to existing bituminous surfacing, a sufficient amount of the existing surfacing shall be removed to allow the surfacing to form a butt joint, costs to be considered incidental to other bid items, and no further payments shall be made.

Items shown on the plans and not included in the estimate of quantities are not a part of this contract.

Bituminous waste material resulting from the various operations under this contract shall be entirely removed and properly disposed of at the time of occurrence.

**STANDARD ABBREVIATIONS**

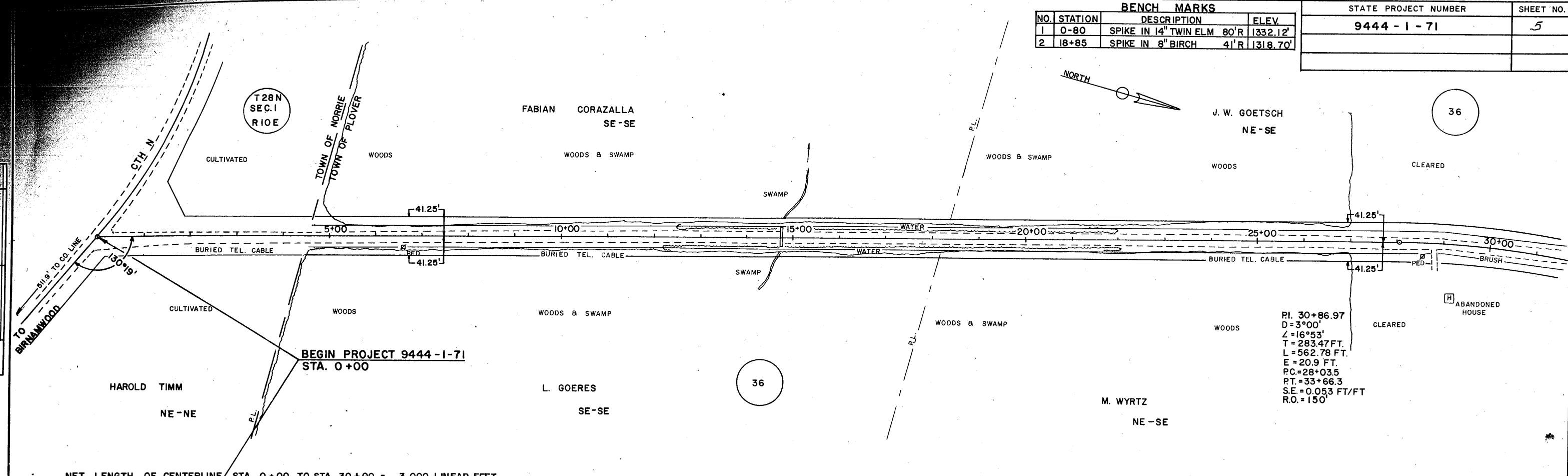
A.D.T. Average Daily Traffic	NOR. Normal	NO. Number
B Barn	P.C. Point of Curvature	P.I. Point of Intersection
C Centerline	P.T. Point of Tangency	P.E. Private Entrance
C.T.H. County Trunk Highway	P.L. Property Line	R Radius
CULT. Cultivated	R Right	RT. Right
D Degree	RD. Road	RO. Runout
Δ Delta Angle	S Shed	S.R. Side Road
D.H.V. Design Hour Volume	STA. Station	SE. Superelevation
ELEV. Elevation	T Tangent	VAR. Variable
1/FT. Foot per Foot	V.C. Vertical Curve	
H House		
I or ∠ Intersecting Angle		
LT. Left		
L Length		
Lin.Ft. Linear Feet		
L.S. Lump Sum		
MAX. Maximum		
Mi. Mile		



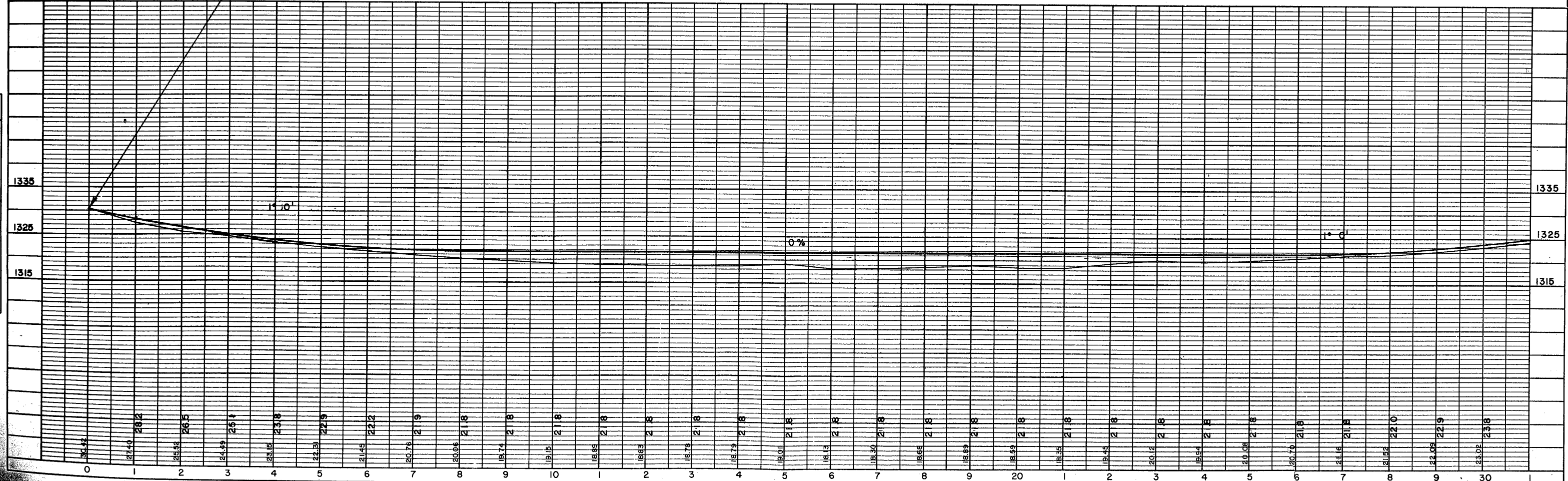
**ULTIMATE SIDE ROAD SECTION**

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	0+80	SPIKE IN 14" TWIN ELM 80'R	1332.12'
2	18+85	SPIKE IN 8" BIRCH 41'R	1318.70'

STATE PROJECT NUMBER	SHEET NO.
9444 - 1 - 71	5

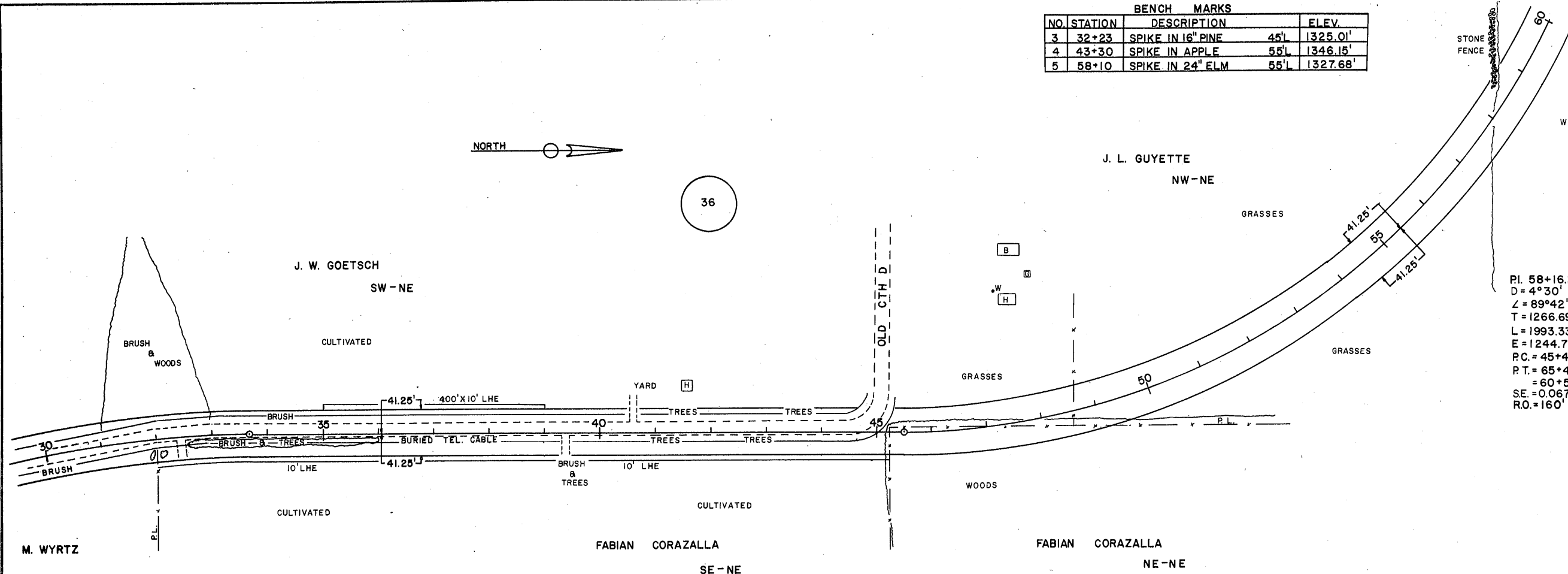


NET LENGTH OF CENTERLINE STA. 0+00 TO STA. 30+00 = 3,000 LINEAR FEET



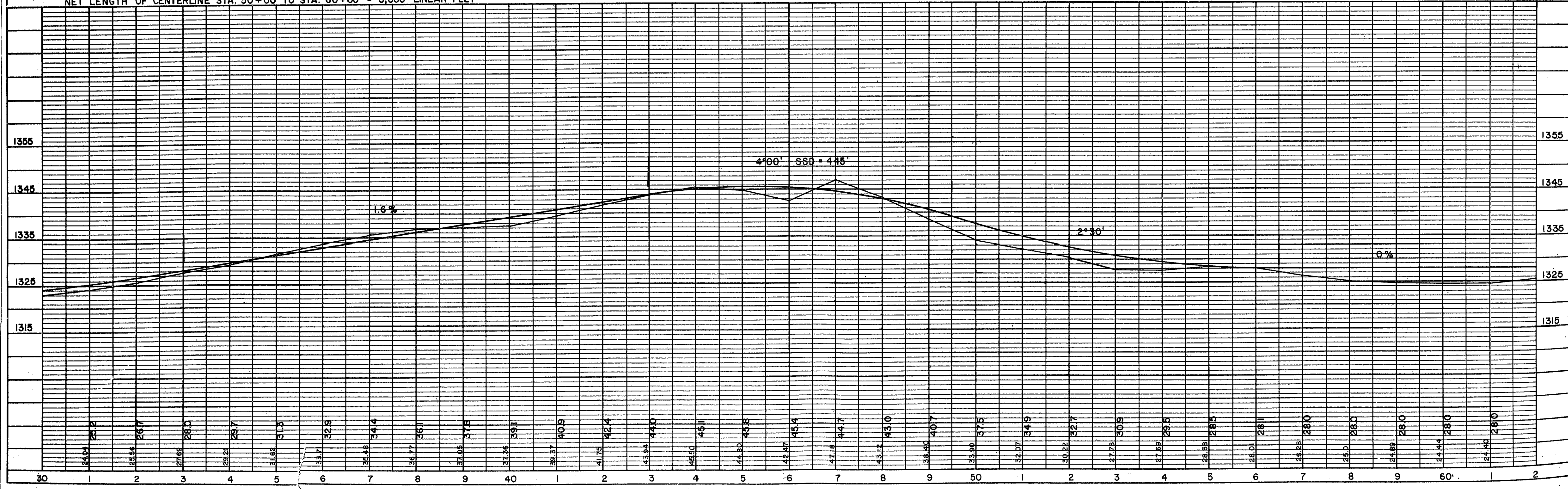
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
3	32+23	SPIKE IN 16" PINE	45'L 1325.01'
4	43+30	SPIKE IN APPLE	55'L 1346.15'
5	58+10	SPIKE IN 24" ELM	55'L 1327.68'

STATE PROJECT NUMBER	SHEET NO.
9444 - 1 - 71	51



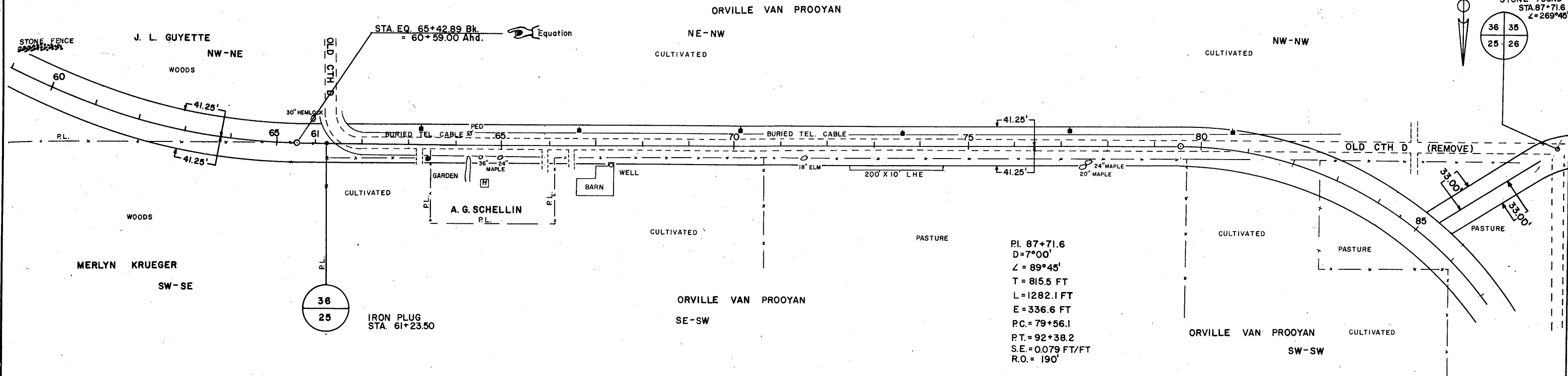
PI. 58+16.25  
 D = 4° 30'  
 L = 89° 42'  
 T = 1266.69 FT.  
 L = 1993.33 FT.  
 E = 1244.76 FT.  
 PC = 45+49.56  
 PT = 65+42.89 Bk.  
 = 60+59.00 Ahd.  
 SE = 0.067 FT./FT.  
 R.O. = 160

NET LENGTH OF CENTERLINE STA. 30+00 TO STA. 60+00 = 3,000 LINEAR FEET

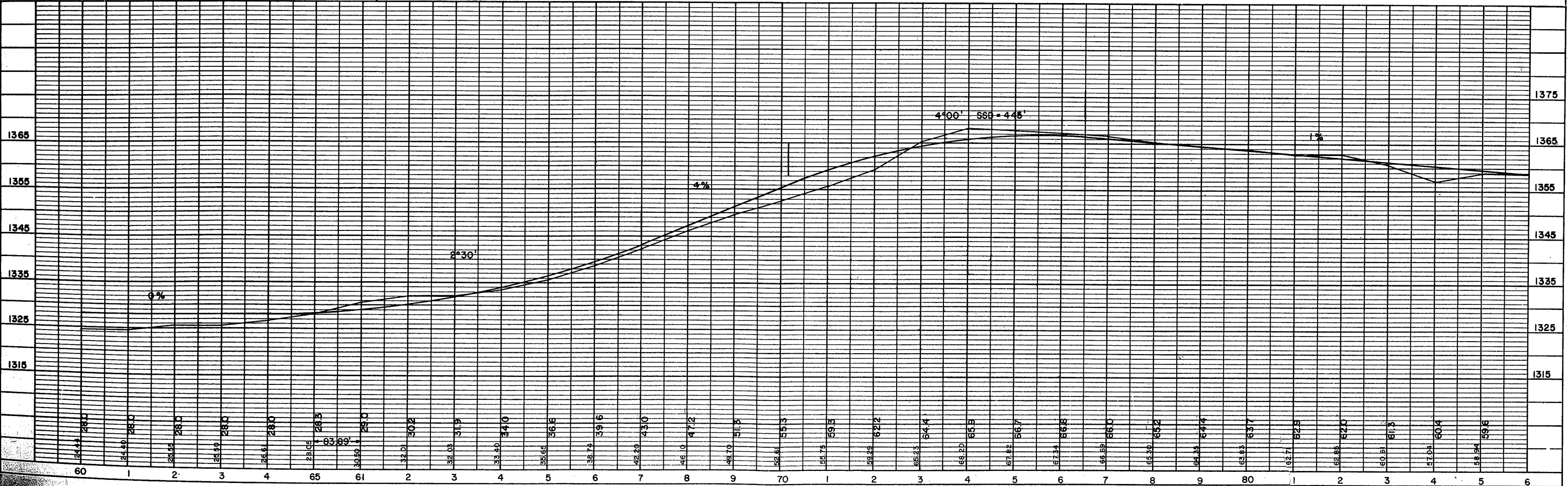


BENCH MARKS		
NO. STATION	DESCRIPTION	ELEV.
6 60(65)+80	SPIKE IN 30" HEMLOCK 55'L	1332.11'
7 77+47	SPIKE IN 20" MAPLE 44'R	1366.80'

STATE PROJECT NUMBER	SHEET NO.
9444-1-71	5.2

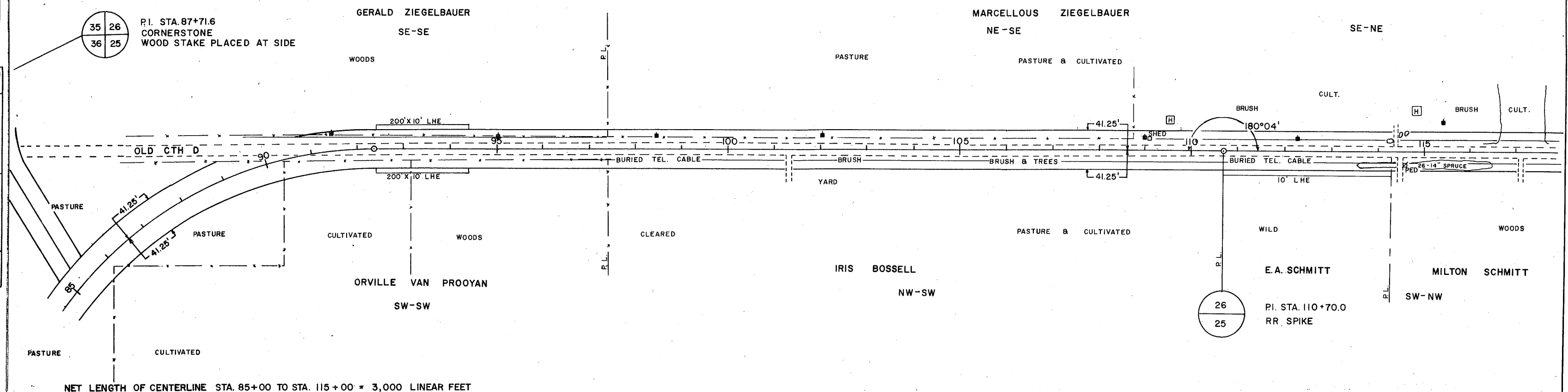
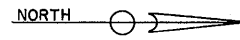


NET LENGTH OF CENTERLINE STA. 60+00 TO STA. 85+00 = 2,983.89 LINEAR FEET



BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
8	97+55	SPIKE IN 12" ELM 60'R	1362.87'
9	110+20	SPIKE IN 18" TAMRACK 45'L	1348.00'

STATE PROJECT NUMBER	SHEET NO.
9444 - 1 - 71	5.3



NET LENGTH OF CENTERLINE STA. 85+00 TO STA. 115+00 = 3,000 LINEAR FEET

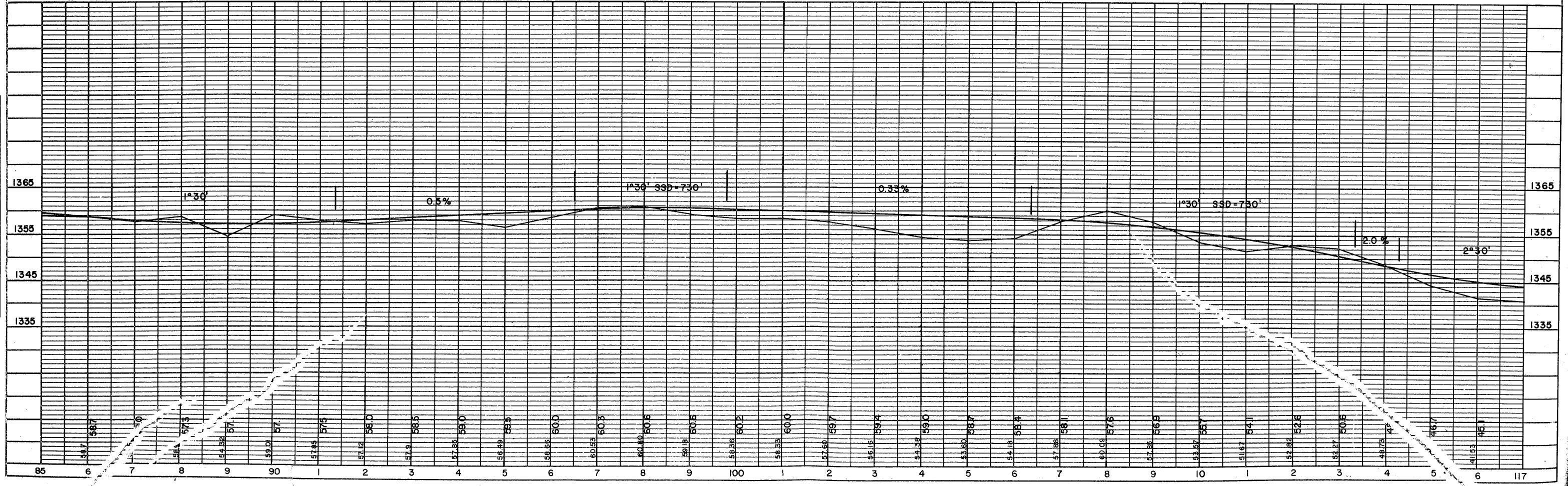
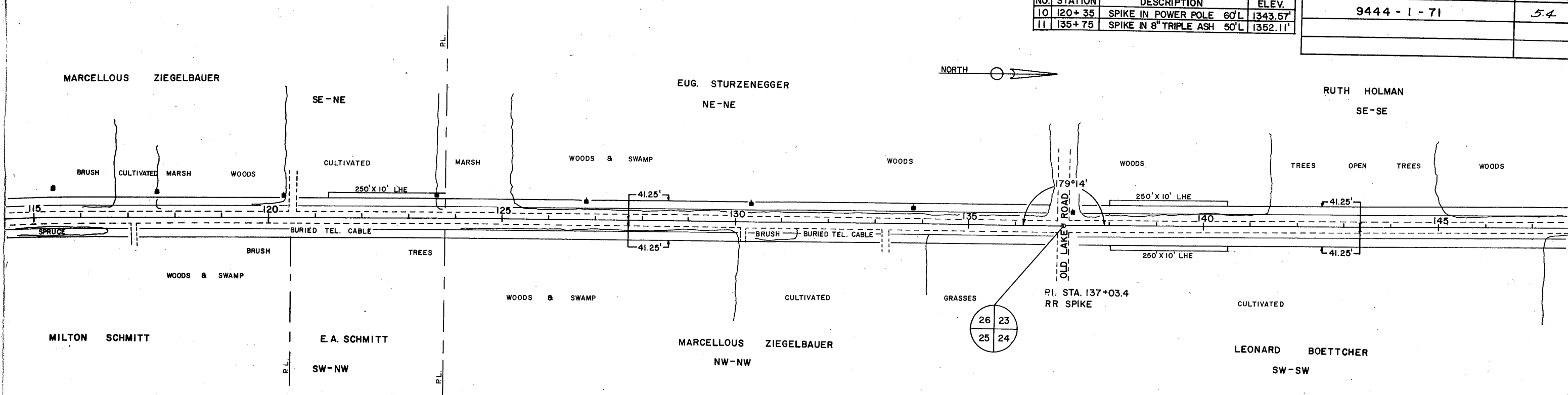


PLATE 1—PLAN PROFILE N. P. R. STANDARD

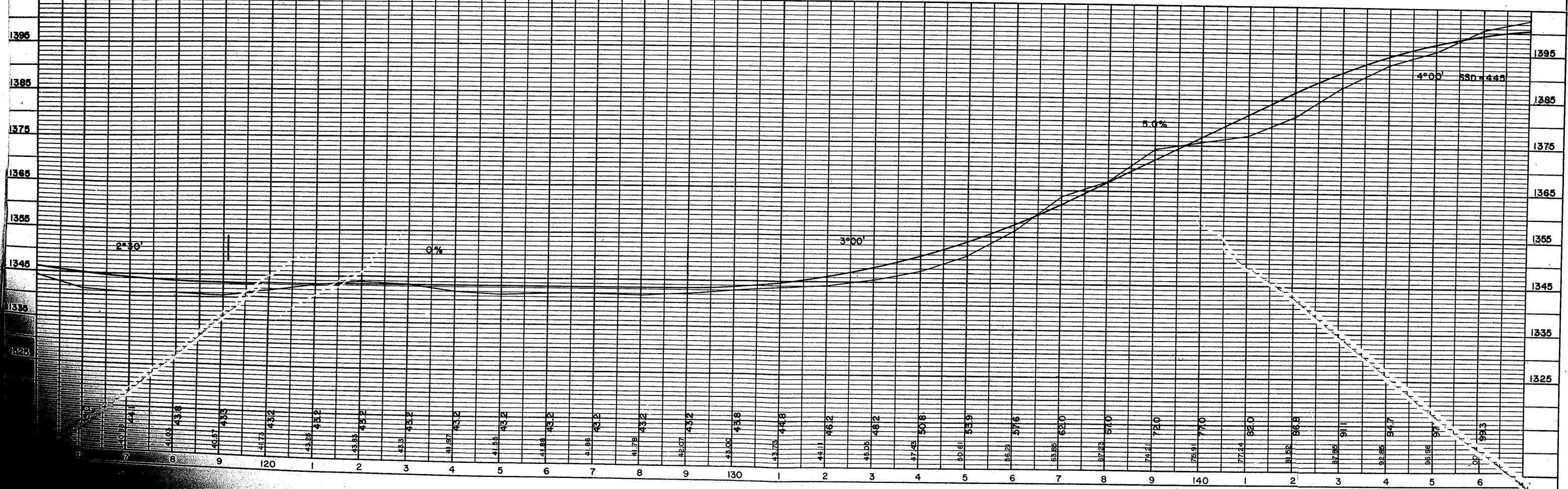
NET NO.  
5.3

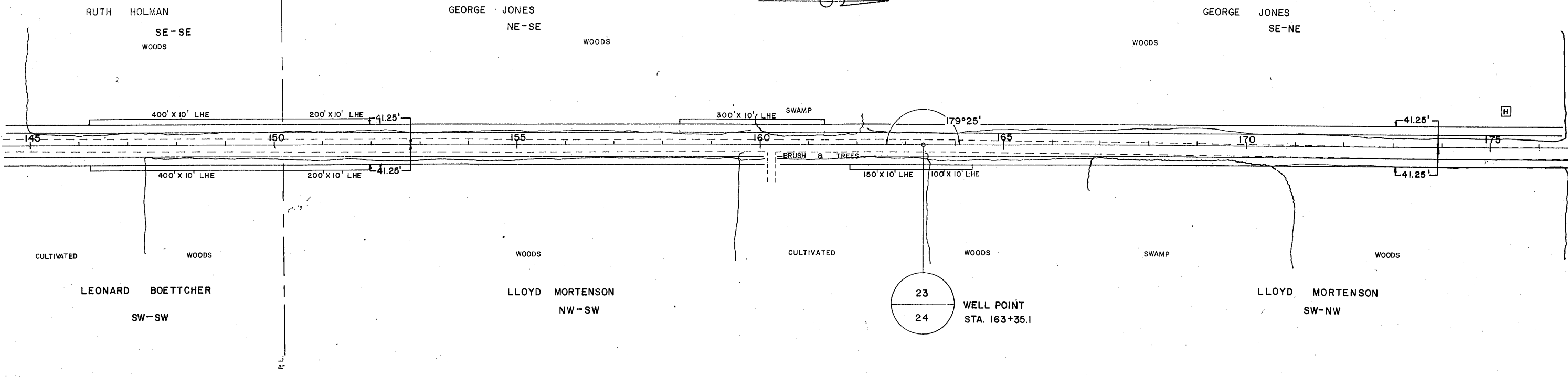
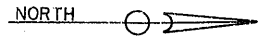
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
10	120+35	SPIKE IN POWER POLE 60'L	1343.57'
11	135+75	SPIKE IN 8" TRIPLE ASH 50'L	1352.11'

STATE PROJECT NUMBER	SHEET NO.
9444 - 1 - 71	5.4



NET LENGTH OF CENTERLINE STA. 115+00 TO STA. 145+00 = 3,000 LINEAR FEET





NET LENGTH OF CENTERLINE STA. 145+00 TO STA. 175+00 = 3,000 LINEAR FEET

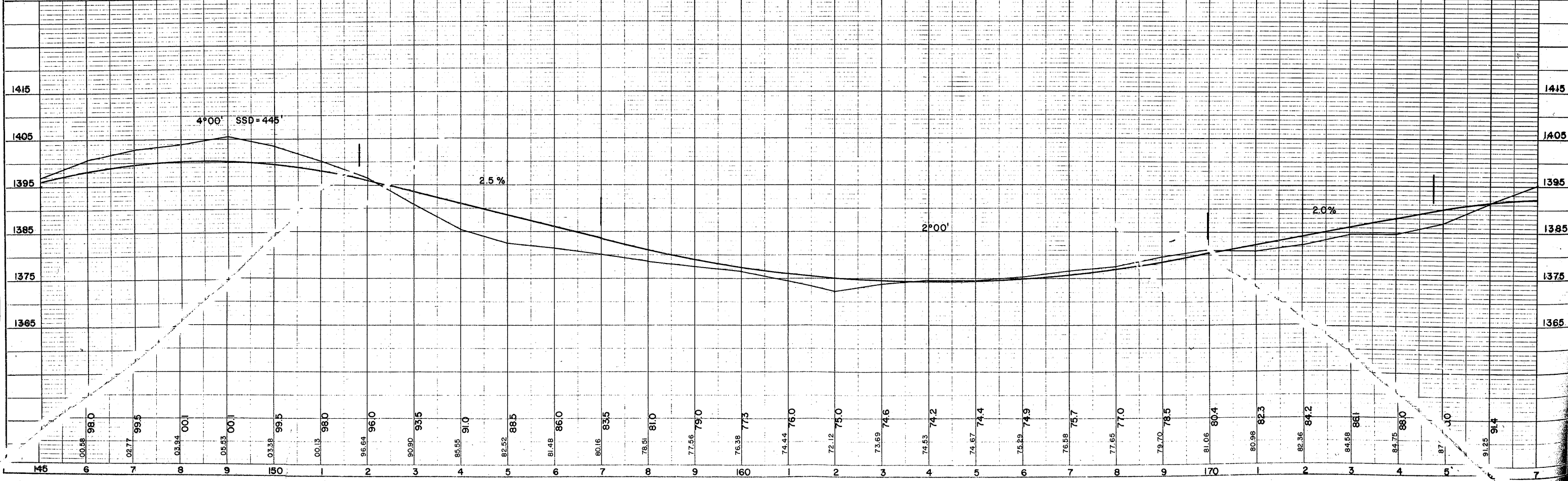
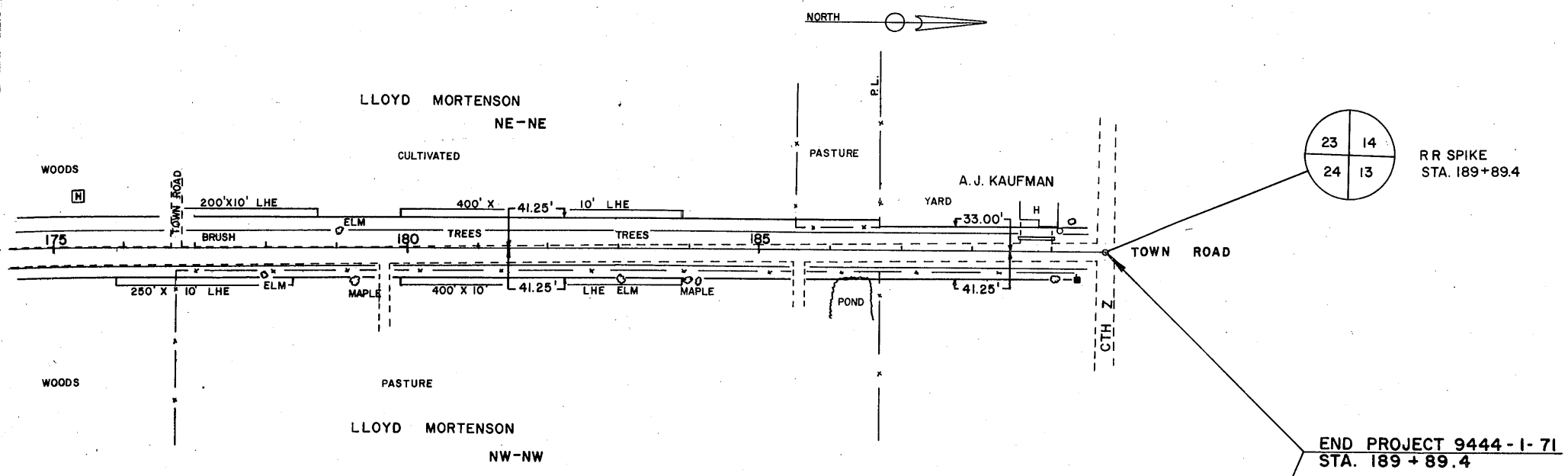


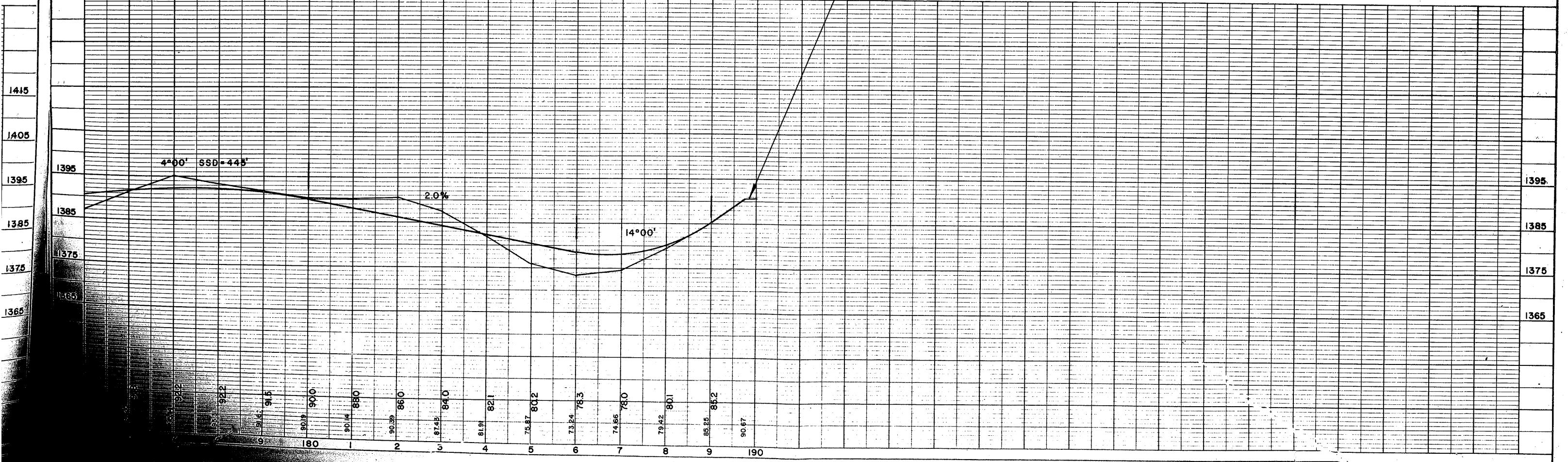
PLATE 1 - PLAN - PROFILE

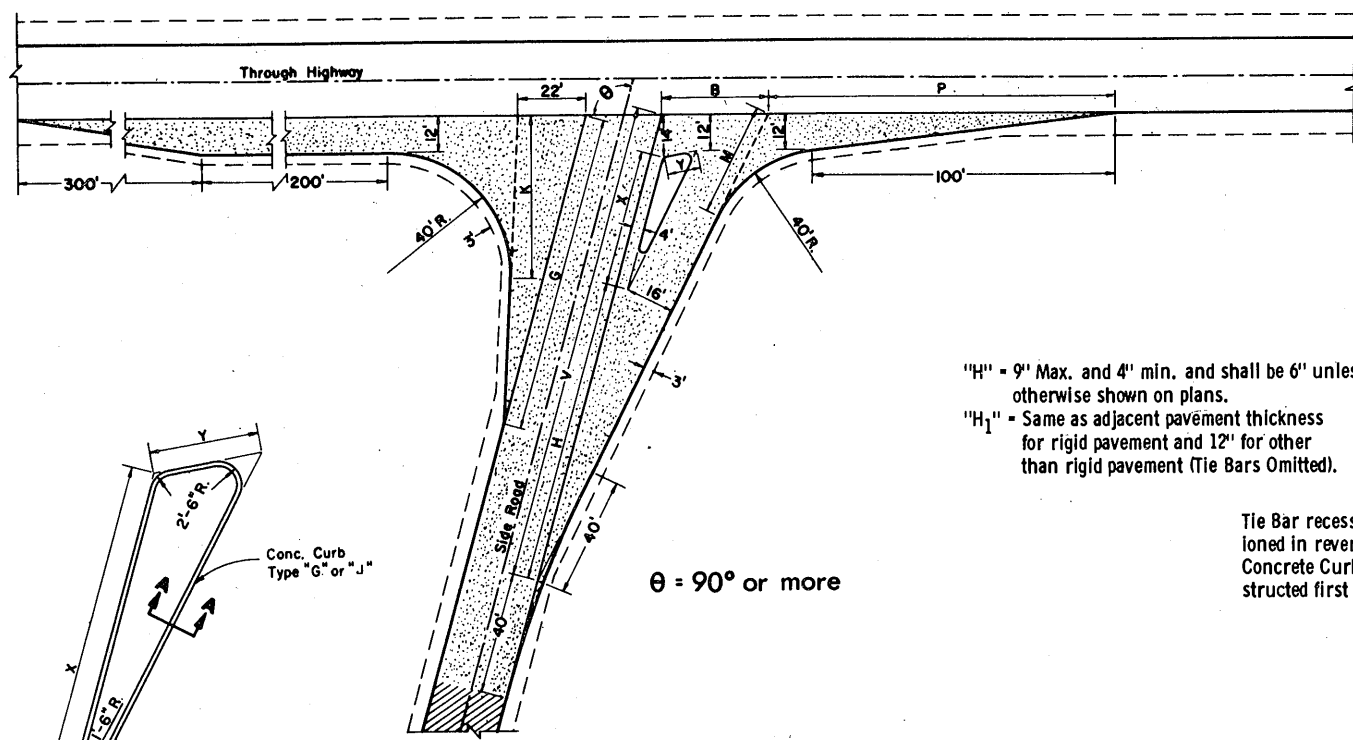
NO.	STATION	BENCH MARKS	ELEV.
15	189+15	N.END OF CULV. USGS-TBM 25'L	1384.21'

STATE PROJECT NUMBER	SHEET NO.
9444 - 1 - 71	5.6

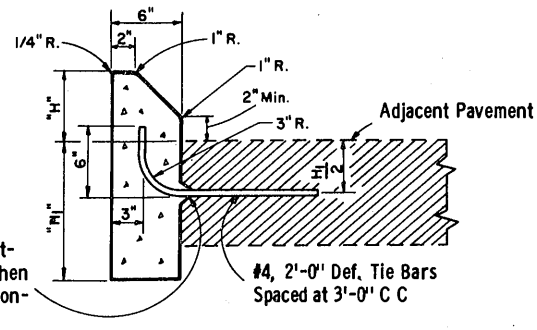


NET LENGTH OF CENTERLINE STA. 175+00 TO STA. 189+89.4 = 1,489.4 LINEAR FEET



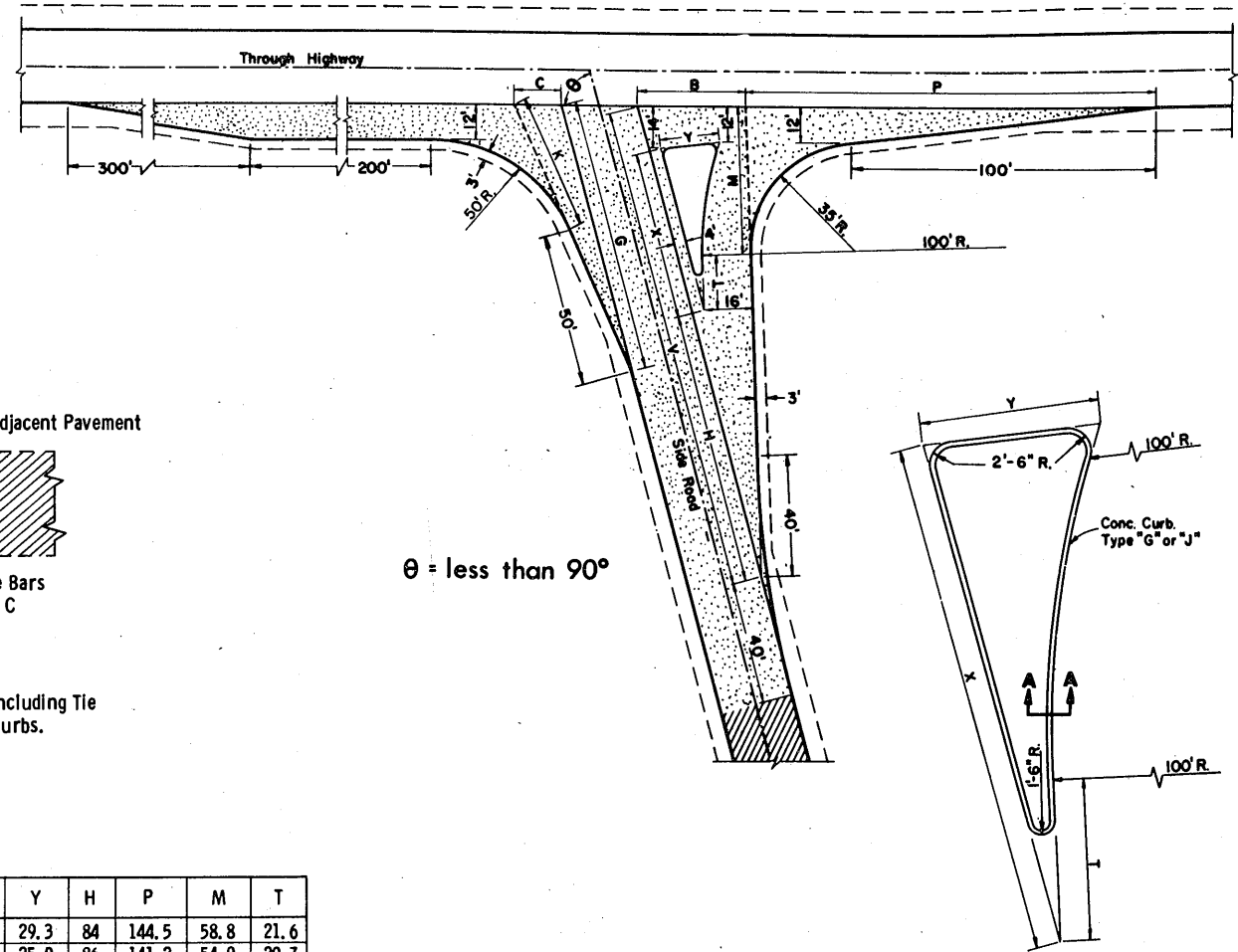


"H" = 9' Max. and 4' min. and shall be 6' unless otherwise shown on plans.  
 "H<sub>1</sub>" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted).



**SECTION A-A**

Note: To be measured and paid for as Type "G" (Including Tie Bars) or Type "J" (Excluding Tie Bars) Concrete Curbs.



$\theta = \text{less than } 90^\circ$

**TABLES OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES**  
 (Values for Angles not shown shall be interpolated)

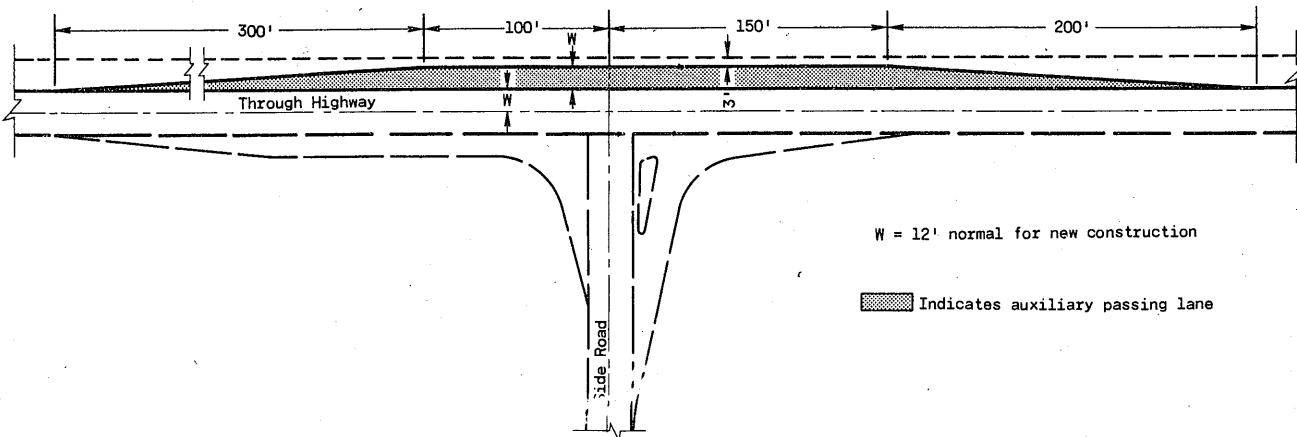
$\theta$	G	K	B	V	H	X	Y	P	M
90	90	43.8	33.9	156.0	94	48.0	11.0	125.0	44.2
95	94	46.7	34.0	156.7	96	47.0	11.0	121.3	41.9
100	98	50.0	34.4	157.4	98	45.9	11.0	117.7	39.7
105	102	53.8	35.2	158.3	100	44.9	11.2	114.2	37.8
110	106	58.2	36.4	159.2	102	43.7	11.4	110.6	36.2
115	110	63.4	38.4	161.8	104	42.6	11.7	107.1	34.8
*120	114	69.4	40.1	161.2	106	41.4	12.2	103.4	33.7

\*Maximum angle of intersection

$\theta$	C	G	K	B	V	X	Y	H	P	M	T
*60	19.7	76.3	38.6	41.5	169.9	67.4	29.3	84	144.5	58.8	21.6
65	17.8	82.6	40.6	39.4	166.9	63.6	25.0	86	141.2	54.9	20.7
70	15.8	87.2	43.1	37.4	164.1	59.7	21.9	88	136.8	51.4	19.2
75	15.7	90.9	45.6	35.7	161.4	55.9	19.3	90	132.7	48.2	17.4
80	15.9	94.9	48.3	34.4	158.9	51.9	17.0	92	128.8	45.3	14.9
85	16.2	99.3	51.4	33.4	156.4	48.0	15.0	94	125.2	42.7	10.4

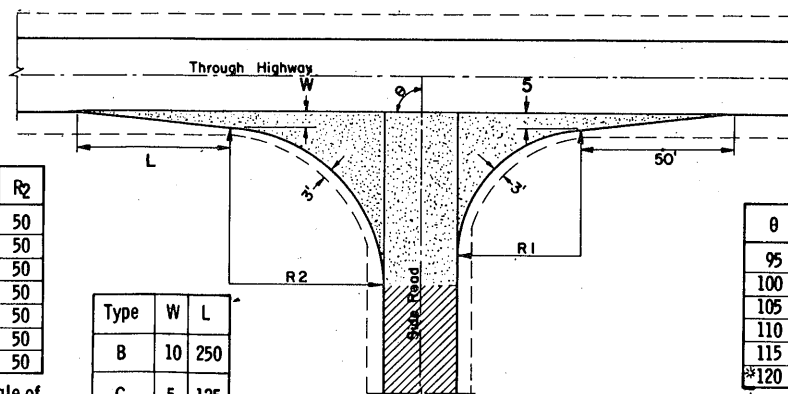
\*Desirable Minimum angle of intersection

**TYPE "A" SIDE ROAD INTERSECTION DETAILS**



W = 12' normal for new construction  
 Indicates auxiliary passing lane

**PASSING LANE DETAIL**



$\theta$	R <sub>1</sub>	R <sub>2</sub>
*60	40	50
65	40	50
70	40	50
75	40	50
80	40	50
85	40	50
90	40	50

\*Min. Angle of Intersection

Type	W	L
B	10	250
C	5	125

**TYPE "B" & "C" SIDE ROAD INTERSECTION DETAILS**

$\theta$	R <sub>1</sub>	R <sub>2</sub>
95	45	49
100	50	48
105	55	47
110	60	46
115	65	45
*120	70	44

\*Max. Angle of Intersection

**GENERAL NOTES**

Designs may be used interchangeably in combination or separately for any one complete intersection depending upon intersection angle and surfacing of each approach roadway.

Details on this drawing are for minimum design only, and not applicable to special conditions, as shown elsewhere on the plans.

**SIDE ROAD SURFACING NOTE**

If the side road is not presently paved, pavement shall be placed to the limits shown. In the case where the construction limits are beyond the paving limits, gravel or crushed stone surfacing shall be placed between the paving limits and construction limits.

If the side road is presently paved, new pavement shall be placed to the limits of design as shown and beyond, if necessary, to meet existing pavement.

If side road is the construction project, the intersection surfacing shall be the same as for the project.

- New Pavement
- Existing Surface

**LAYOUT DETAILS FOR AT-GRADE SIDE ROAD INTERSECTIONS**

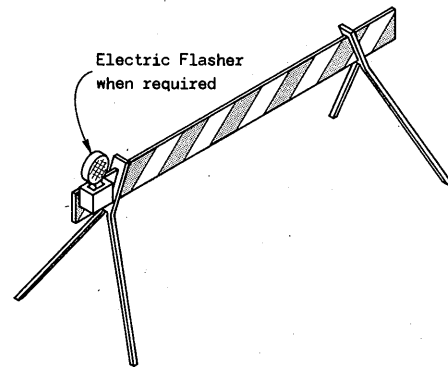
State of Wisconsin  
 Department of Transportation  
 Division of Highways

RECOMMENDED FOR APPROVAL:  
 DATE 4-11-73  
 APPROVAL: [Signature]  
 DATE 4-17-73  
 STATE HIGHWAY ENGINEER

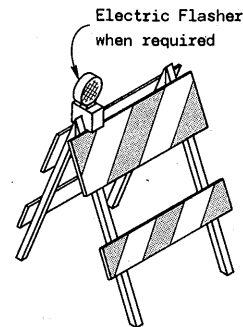
TABLE OF BARRICADE CHARACTERISTICS

BARRICADE TYPE	I	II	III
Height	3'(91.4 cm) Min.		5'(152.4 cm) Min.
* Rail Width	8"(20.3 cm) Min. to 12"(30.5 cm) Max.		
Rail Length	2'(61.0 cm) Min. to Variable Maximum		
** Stripe Width	6" (15.2 cm) at 45° Angle.		
Stripe Colors	Reflectorized Orange & White		

\* Nominal dimensions when barricade is constructed of lumber.  
 \*\* May be 4"(10.2 cm) for rail lengths less than 3'(91.4 cm).



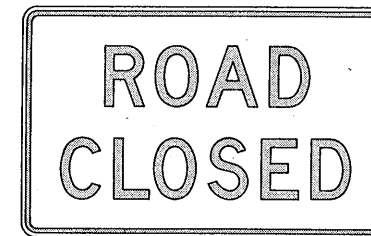
TYPICAL TYPE I BARRICADE



TYPICAL TYPE II BARRICADE

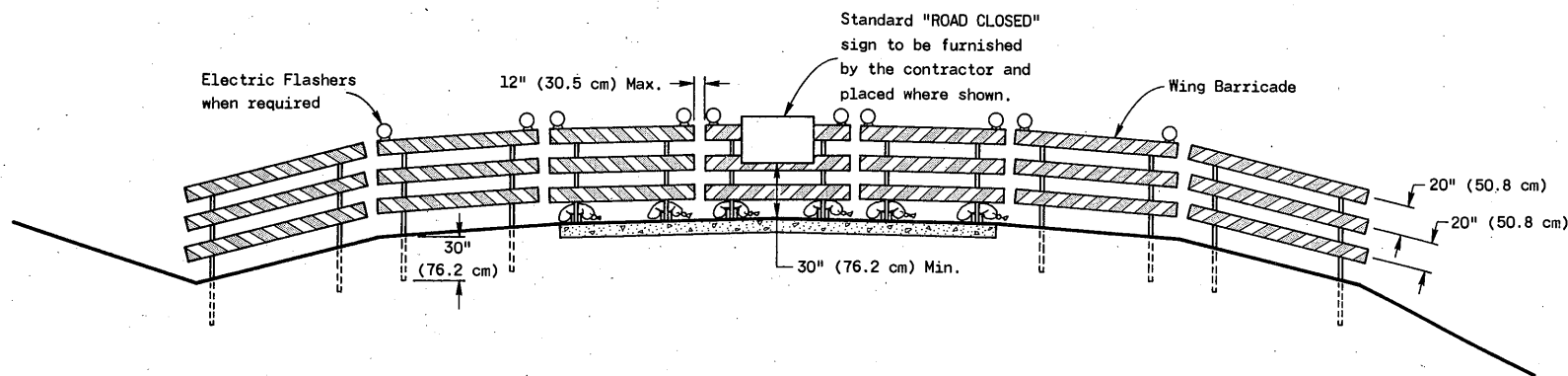


**W20-3**  
 48"(121.9 cm) x 48"(121.9 cm)  
 Black Lettering on Reflective Orange Background  
 Letter Series "D"  
 Letter height 7" (17.8 cm)



**R11-2**  
 48"(121.9 cm) x 30"(76.2 cm)  
 Black Lettering on Reflective White Background  
 Letter Series "D"  
 Letter height 8" (20.3 cm)

STANDARD SIGNS-TYPE II



TYPICAL INSTALLATION SHOWING TYPE III BARRICADE

CONSTRUCTION BARRICADES

**GENERAL NOTES**

The contractor shall furnish, erect and maintain Barricades and Signs. Details regarding location, spacing, dimensions, fabrication, material, sign lettering, lighting devices and color of Barricades and Signs shall conform to this drawing, the Wisconsin Manual on Uniform Traffic Control Devices, the Standard Specifications, Special Provisions and/or plans.

Type III Barricades and Signs shall be erected at the termini of projects and at other road or street locations where it is necessary to control or eliminate public access to the construction area.

Type I and II Barricades shall be used on projects when traffic is to be maintained through the construction area.

The actual field location of barricade installations and advance signs shall be as directed by the Engineer.

**CONSTRUCTION BARRICADES & STANDARD SIGNS**

State of Wisconsin  
 Department of Transportation  
 Division of Highways

RECOMMENDED FOR APPROVAL:

DATE 6-6-75

APPROVED

DATE 6-6-75

*J.C. Hennel*  
 CHIEF OF FACILITIES DEVELOPMENT

*W.J. Siedler*  
 STATE HIGHWAY ENGINEER