COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		B.P.R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
44.6	1449.0		11.2	4 WIS.	1	43

INDEX OF SHEETS

STATE OF WISCONSIN

STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED

SO. CO. LINE – C.T.H. "TT" ROAD

C.T.H. "D"

OUTAGAMIE COUNTY

PROJECT S 1449 (2)

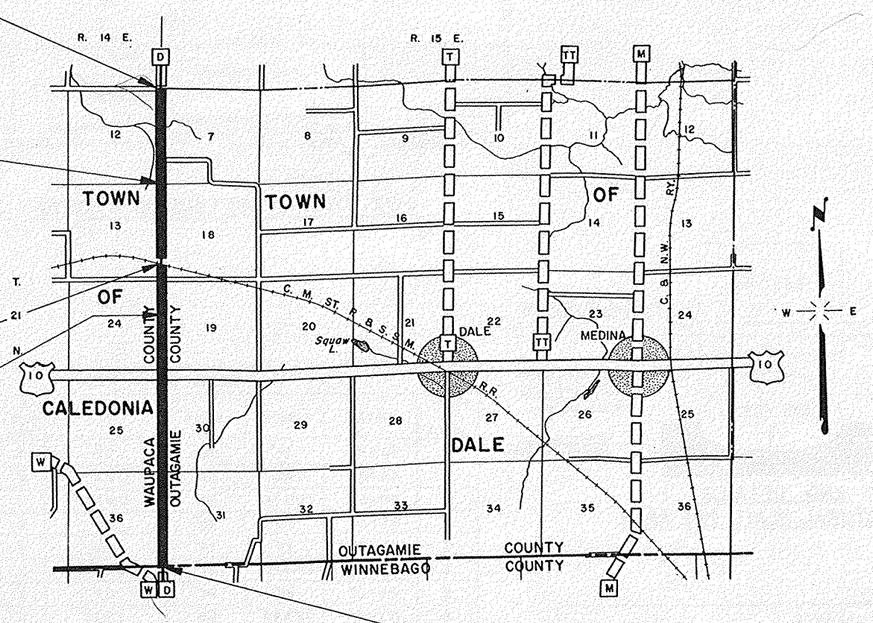
SCALES
PLAN 1 IN. 100 FT.
PROFILE HOR. 1 IN. — 100 FT. VERT. 1 IN. — 10 FT.
CROSS SECTIONS HOR. 1 IN. — 5 FT. VERT. 1 IN. — 5 FT.

STA. 285+04.65 END
PROJECT S 1449 (2)
NORTHWEST CORNER OF SECTION 7, T. 21 N., R. 15 E.

EQUATION:
STA. 232+13.12 BACK =
STA. 232+13.05 AHEAD

STA. 187+44.32 – 187+57.45
EXCEPTION TO NET ℄ LENGTH

EQUATION:
STA. 159+44.02 BACK =
STA. 159+44.87 AHEAD



STA. 20+00 BEGIN
PROJECT S 1449 (2)
SOUTHWEST CORNER OF SECTION 31, T. 21 N., R. 15 E.

LAYOUT

SCALE ONE MILE

TOTAL NET LENGTH OF CENTERLINE = 5.017 MI.

CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
NEW RIGHT OF WAY LINE
PRESENT RIGHT OF WAY LINE
WIRE FENCE { WOVEN / BARBED
LOT LINE
CORPORATE OR CITY LIMITS
PROPERTY LINE — P.L. + 32.6
TRAVELED WAY OR P.E.
RAILROADS
BASE OR SURVEY LINE — 30

CULVERTS IN PLACE
CULVERTS REQUIRED
DROP INLET
POWER POLE
TELEPHONE OR TELEGRAPH POLE
RIGHT OF WAY MARKERS
REFERENCE STAKE FOR HUBS ONLY — 18.17
MARSH
HEDGE
TREES
GROUND ELEVATION — DATUM LINE — 73.9
GRADE ELEVATION — DATUM LINE — 75.16

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYOR D. G. N. NOTE BOOK 614; 615
DISTRICT COMPUTER R. J. H. M. O. CHECKER W. H. B.
DISTRICT CHECKER C. W. M. CORRECT

CORRECT:
DATE 10-1-65 — DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL:
DATE 10/12/65 — CHIEF DESIGN ENGINEER

APPROVED:
DATE 10/12/65 — STATE HIGHWAY ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:
DATE

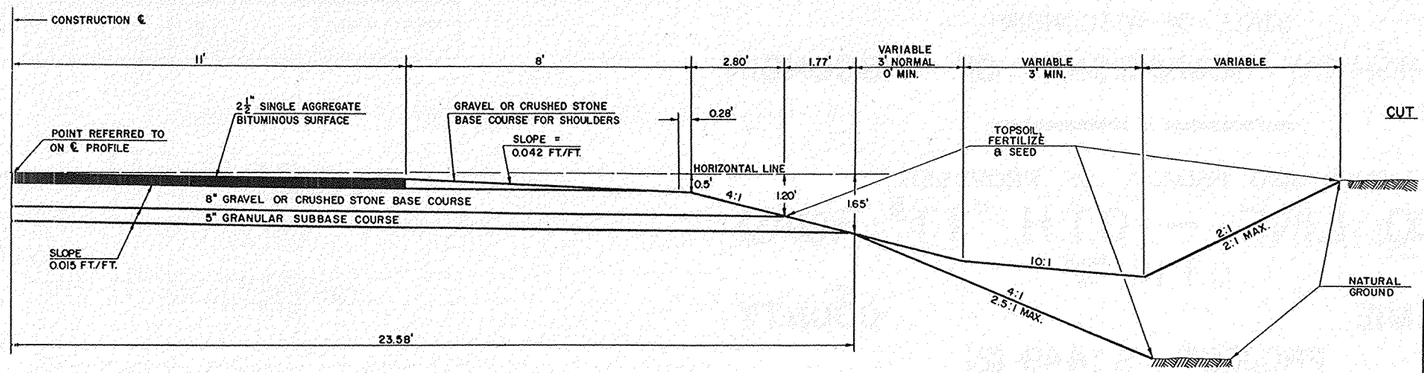
DIVISION ENGINEER

D-5

Project #128 "D" (1965)

D-5

PROJECT	SHEET NUMBER	TOTAL SHEETS
S 1449 (2)	2	43



1/2 TYPICAL FINISHED SECTION

SECTION CORNER

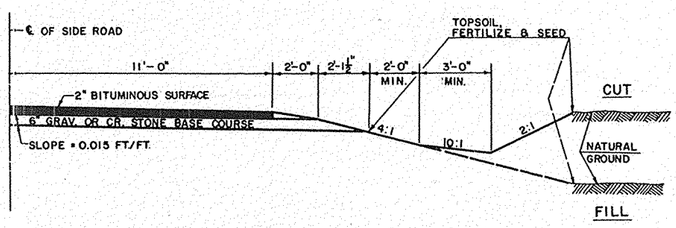
INDICATES LANDMARK TO BE PRESERVED

CLEARING AND GRUBBING				
STATION TO STATION	CLEARING		GRUBBING	
	STA.	I.D.	STA.	I.D.
20+00 - 99+00		1,413		1,653
99+00 - 105+00	6		6	
105+00 - 232+00		1,938		1,952
232+00 - 264+00	32		32	
264+00 - 265+00		*		*
265+00 - 270+00	5		5	
270+00 - 272+00		*		*
272+00 - 282+00	10		10	
282+00 - 285+04		*		*

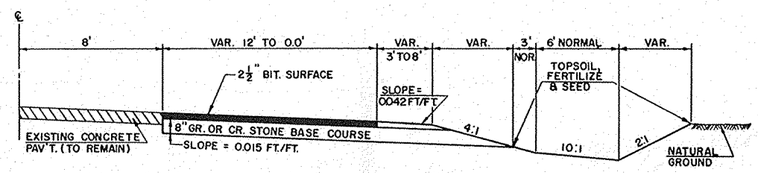
* INDICATES BASIS FOR PAYMENT

MARKER POSTS		
LOCATION	SPACING	NO.
CULVERT PIPES		32
TRAFFIC ISLANDS		6
SHOULDER DELINEATION		
± 210+00 — 213+00 LT.	50'	8
TOTAL		46

GRAVEL OR CRUSHED STONE BASE COURSE	
LOCATION	TONS
CENTERLINE	53,500
SHOULDERS	
PE'S. & SIDE ROADS	2,800
TOTAL	56,300



1/2 SECTION FOR SIDE RDS. WITH BITUMINOUS SURFACE



1/2 TYPICAL SECTION ON U.S.H. 10

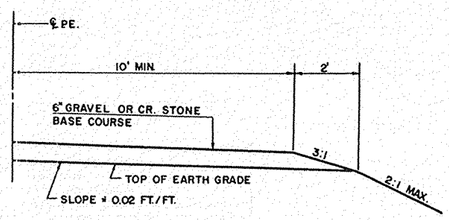
GENERAL NOTES

CONSTRUCTION DETAILS NOT SHOWN HERE SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

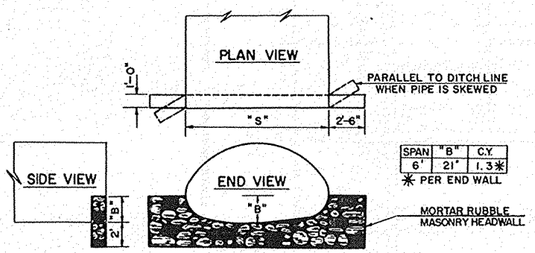
ON ALL SUPERELEVATED CURVES THE CROWN SHALL BE REMOVED AND THE PAVEMENT SURFACE, BASE COURSE AND EARTH GRADE SHALL RESULT IN A STRAIGHT LINE SLOPE ACROSS ENTIRE WIDTH OF ROADBED.

WHEN THE QUANITY OF THE ITEMS OF SUBBASE, BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD. THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL DIRECTED BY THE ENGINEER.

SALVAGED TOPSOIL TO BE PLACED AS SHOWN ON TYPICAL SECTIONS TO AN APPROXIMATE DEPTH OF 3" AT TIME OF PLACING.



1/2 TYPICAL SECTION FOR P.E'S.



SPAN	"B"	C.Y.
6'	21"	1.3*

* PER END WALL

END DETAILS STRUCTURAL PLATE PIPE ARCH

STANDARD DETAIL DRAWINGS

MARSH EXCAVATION	1-1.1.2
INLET COVERS	5-3.4.7
INLETS	5-3.5.2
APRON ENDWALLS	6-2.6.4
S.P.P.A. AND C.M.P.A.	6-5.3.2
MARKER POSTS	7-1.3.4
CONSTRUCTION BARRICADE	7-4.1.4
DITCH CHECKS	8-1.3.1
SIDE ROAD LAYOUT DETAILS	9-1.1.4
LANDMARK REFERENCE MONUMENTS	12-1.1.2

MINOR SIDE ROAD, PRIVATE ENTRANCE								
STATION	L.T. OR RT.	DIAMETER	LENGTH	TYPE	ENDWALLS			MARKERS
					APRON	M.R.M.	SOD	
61+25	L.T.	36"	32'	C.P.				
61+40	RT.	36"	32'	C.P.				
179+11	RT.	6' SPAN	54'	S.P.P.A.		3 C.Y.		2
245+31	RT.	24"	54'	C.P.	2			2
26 P.E'S. @ 18" X 32'	LT&RT	18"	832'	C.P.				

CROSS DRAIN PIPES									
APRON END WALLS	STATION	DIAMETER	LENGTH	TYPE	℄ ROAD-WAY	SIDE ROAD		RIPRAP	MARKERS
						LT.	RT.		
2	32+90	36"	72'	C.P.	X				2
2	48+85	24"	56'	C.P.	X				2
2	57+50	58"X36"	52'	C.M.P.A.	X				2
2	93+24	24"	86'	C.P.	X				2
2	110+21	24"	74'	C.P.	X				2
2	126+30	29"X18"	66'	C.M.P.A.	X				2
2	146+00	24"	64'	C.P.	X				2
2	177+40	72"X44"	68'	C.M.P.A.	X				2
2	186+38	65"X40"	70'	C.M.P.A.	X				2
2	186+51	65"X40"	68'	C.M.P.A.	X				—
2	187+60	24"	56'	C.P.	X				2
2	191+67	24"	68'	C.P.	X				2
2	237+75	58"X36"	50'	C.M.P.A.	X				2
2	237+85	58"X36"	50'	C.M.P.A.	X				—
2	263+50	65"X40"	58'	C.M.P.A.	X				2
2	267+45	30"	50'	C.P.	X				2

TYPICAL CROSS SECTION
FOR
38 FT. ROADBED — 22 FT. BITUMINOUS SURFACE
AND
MISCELANEOUS CONSTRUCTION DETAILS

SCALE VARIABLE

ESTIMATE OF QUANTITIES

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF WISCONSIN — EDITION OF 1963, APPROVED OCTOBER 16, 1963, FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED OCTOBER 29, 1963 AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO. 1-2

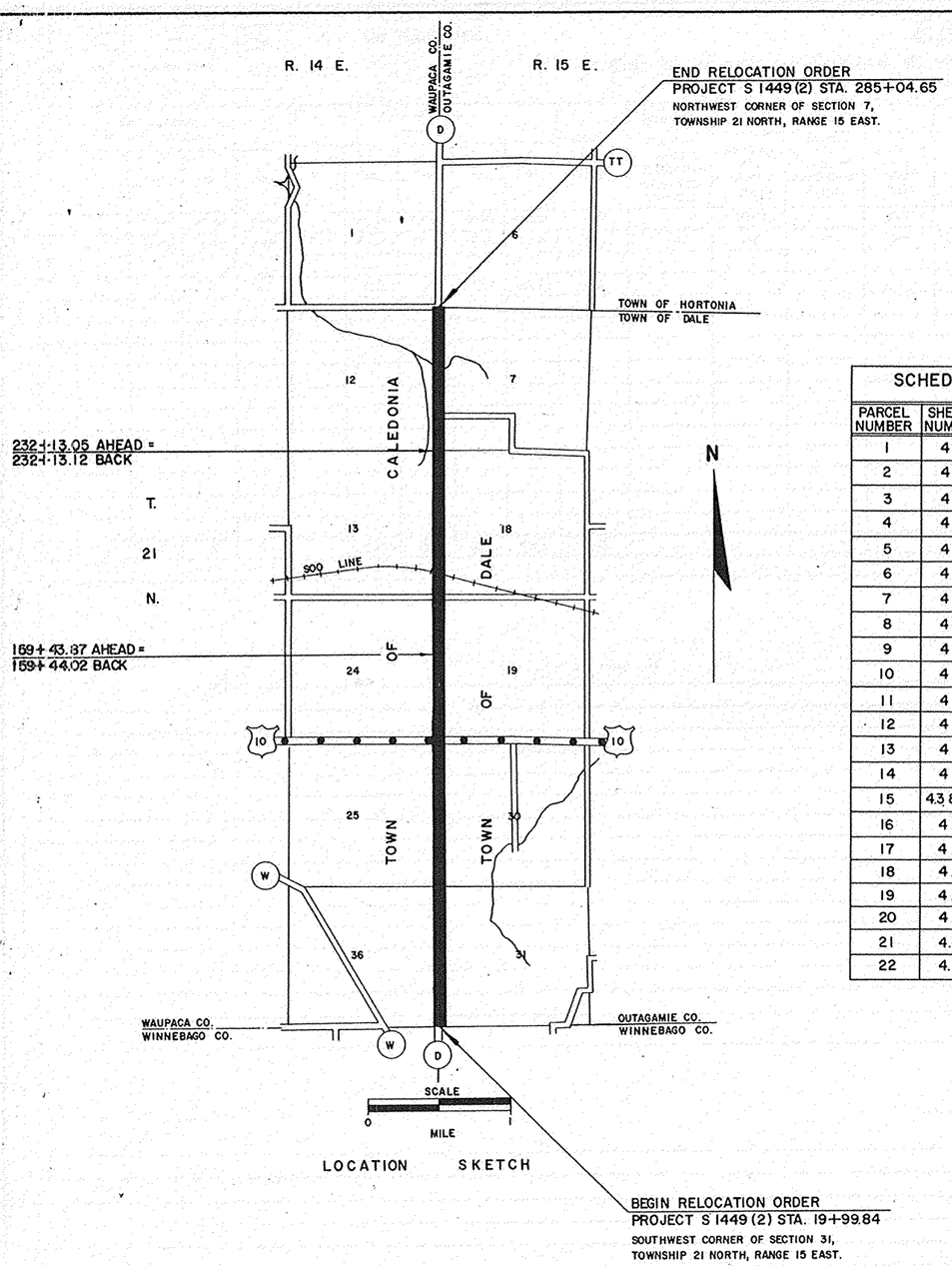
B.P.R. REGION	PROJECT	SHEET NO.	TOTAL SHEETS
4	S 1449 (2)	3	43

CONTRACT NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING		GRUBBING		EXCAVATION				GRANULAR SUBBASE COURSE	FINISHING ROADWAY	GRAVEL OR CRUSHED STONE BASE COURSE		FIELD OFFICE	FIELD OFFICE	BITUMINOUS			PRODUCING & HAULING SINGLE AGGREGATE BITUMINOUS SURFACE	MORTAR RUBBLE MASONRY	CULVERT PIPE CLASS III				APRON ENDWALLS FOR CULVERT PIPE			
							COMMON	ROCK	MARSH	BORROW				SHAPING & COMPACTING			MATERIAL FOR PRIME COAT	PLACING SINGLE AGGREGATE BITUMINOUS SURFACE	MATERIAL FOR SURFACE COURSE			18"	24"	30"	36"	24"	30"	36"	
	ITEM NO.		20101	20102	20104	20105	20501	20502	20505	20801	21201	21301	30402	90001	90003	90002	40202		40602		51801	52003	52005	52007	52009	52063	52065	52067	
	UNIT	LIN. FT.	STA.	I.D.	STA.	I.D.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	L.S.	TON	TON	L.S.	L.S.	GAL.	TON	TON	TON	C.Y.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	
1	20+00 - 285+04.65	26,491.74	53	3,351	53	3,605	90,185	3,209	34,000	53,217	21,500	1		56,300		1					3	832	458	50	136	14	2	2	
2	20+00 - 285+04.65	26,491.74											56,300		1														
1 & 2	TOTALS	26,491.74	53	3,351	53	3,605	90,185	3,209	34,000	53,217	21,500	1	56,300	56,300	1	1					3	832	458	50	136	14	2	2	

CONTRACT NO.	CORRUGATED METAL PIPE ARCH				METAL APRON ENDWALLS FOR PIPE ARCH				STRUCT. PLATE PIPE ARCH, 6' SPAN	CONCRETE CURB TYPE J	MORTAR RUBBLE DITCH CHECKS	MARKER POSTS	LANDMARK REFERENCE MONUMENTS	CALCIUM CHLORIDE SURFACE TREATMENT	SALVAGED TOPSOIL	FERTILIZER	SEEDING	INLETS, TYPE 8	INLET COVERS TYPE MS
	29"X 18"	58"X 36"	65"X 40"	72"X 44"	29"X 18"	58"X 36"	65"X 40"	72"X 44"											
	52138	52142	52143	52144	52164	52168	52169	52170	52721	60104	60503	61421	62101	62301	62505	62901	63001	61123	61171
	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	C.Y.	EACH	EACH	TON	S.Y.	CWT.	S.Y.	EACH	EACH
1	66	152	196	68	2	6	6	2	54	60	325	46	4	48	140,500	126	140,600	1	1
2																			
1 & 2	66	152	196	68	2	6	6	2	54	60	325	46	4	48	140,500	126	140,600	1	1

SEC. NO.

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	B. P. R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
44.6	1449.0	—	11.2	4 WIS.	4	
CONST. PROJECT		S 1449(2)			4	43



LOCATION SKETCH

OUTAGAMIE COUNTY

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	SHEET NUMBER	OWNER	INTERESTS REQUIRED	ACRES	RODS OF FENCING
1	4.1	JOSEPH NEUMAN	HIGHWAY EASEMENT	0.48	65
2	4.1	KAROLINE NIEMUTH	"	0.69	120
3	4.1	JOHN A. RIECKMANN JR.	"	0.25	38
4	4.1	FRED GRUNWALD JR.	"	1.48	141
5	4.2	WALLACE A. NYSSE	"	0.82	
6	4.2	HAROLD SPIEGELBERG	"	0.08	
7	4.2	WILMER A. PETIT	"	0.51	153
8	4.3	ELIZABETH DILEY ET. AL.	"	0.05	140
9	4.3	ELSIE HUEBNER	"	0.29	67
10	4.3	ZOA SAWALL	"	0.47	84
11	4.4	SOO LINE RAILROAD	AGREEMENT	—	
12	4.4	WILSON GRUNWALD	L.H.E. & HIGHWAY EASEMENT	0.70	80
13	4.4	MICHIGAN – WISCONSIN PIPE LINE CO.	RELEASE OF RIGHTS	—	
14	4.4	MERRITT GRISWOLD	HIGHWAY EASEMENT	0.27	64
15	4.3 & 4.4	WIS. TELEPHONE CO.	RELEASE OF RIGHTS	—	
16	4.4	WAYNE GRISWOLD	HIGHWAY EASEMENT	1.32	92
17	4.4	WILMER H. SCHULZ	"	0.59	65
18	4.5	ALVIN W. MUELLER	"	0.60	
19	4.5	WALTER NEUBAUER	"	0.51	80
20	4.5	CHARLES R. NAGEL	"	0.36	52
21	4.4	INDEPENDENCE TELEPHONE CO.	RELEASE OF RIGHTS	—	
22	4.5	WIS. MICHIGAN POWER CO.	"	—	

WAUPACA COUNTY

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	SHEET NUMBER	OWNER	INTERESTS REQUIRED	ACRES	RODS OF FENCING
1	4.1	KAROLINE NIEMUTH	HIGHWAY EASEMENT	1.24	158
2	4.1	JOHN RIECKMAN	"	0.21	826
3	4.1	FRED GRUNWALD JR.	"	0.11	57
4	4.2	WALLACE A. NYSSE	FEE	0.32	68
5	4.2	MC HUGH BROTHERS	HIGHWAY EASEMENT	2.22	183
6	4.3	WILMER PETTIT	"	2.32	161
7	4.3	CLYDE WALLENFANG	"	1.00	160
8	4.4	SOO LINE RAILROAD	AGREEMENT	—	
9	4.4	CLIFFORD KACZAR	HIGHWAY EASEMENT	1.41	137
10	4.4	MICHIGAN – WISCONSIN PIPE LINE CO.	RELEASE OF RIGHTS	—	
11	4.4	INDEPENDENCE TELEPHONE CO.	"	—	
12	4.4	LORENCE BREHMER	HIGHWAY EASEMENT	1.78	58
13	4.4	KARL BREHMER	"	0.22	
14	4.5	HAROLD EARL	"	0.15	
15	4.5	WALTER NEUBAUER	"	0.50	105
16	4.1	FRED GRUNWALD	"	0.05	79
17	4.1 & 4.3	WIS. TELEPHONE CO.	RELEASE OF RIGHTS	—	

NOTE:
BEARINGS SHOWN ON THIS PLAT ARE THE MAGNETIC BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

REVISION DATE	

STATE HIGHWAY COMMISSION OF WISCONSIN

PLAT OF RIGHT OF WAY REQUIRED

PROJECT S 1449 (2)

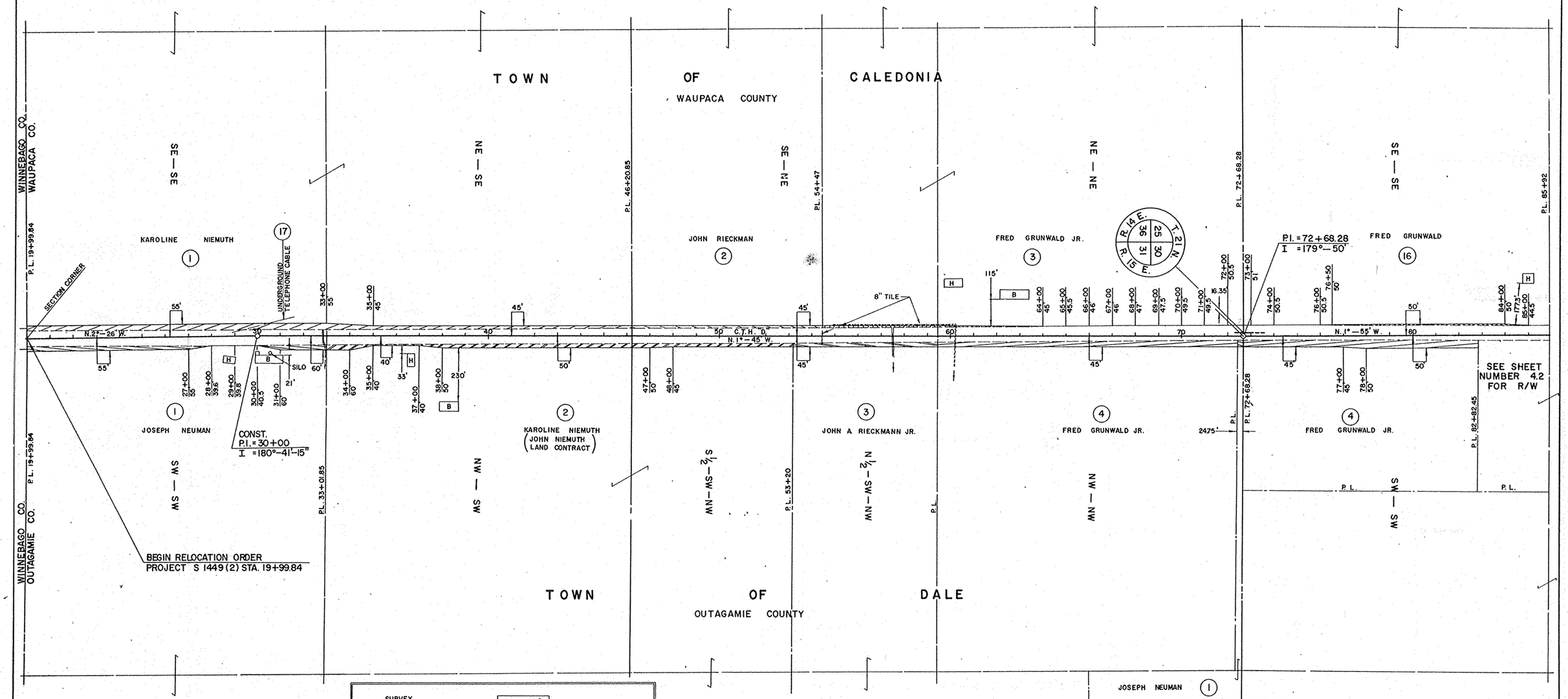
SOUTH COUNTY LINE — C.T.H. "TT" ROAD

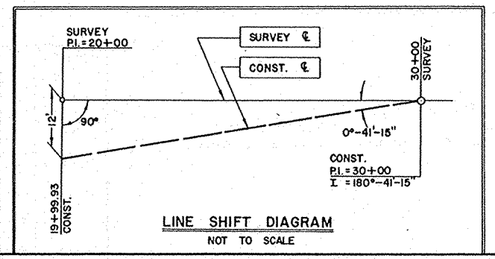
C.T.H. "D" OUTAGAMIE & WAUPACA COUNTYS

SCALE 0 200 400 FEET

LENGTH 5.020 MILES DATED 6-14-65

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	B. P. R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
44.6	1449.0	—	11.2	4 WIS.	4.1	
CONST. PROJECT S1449(2)					4.1	43





LINE SHIFT DIAGRAM
NOT TO SCALE

NOTE:
BEARINGS SHOWN ON THIS PLAT ARE THE MAGNETIC BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

REVISION	DATE

STATE HIGHWAY COMMISSION OF WISCONSIN

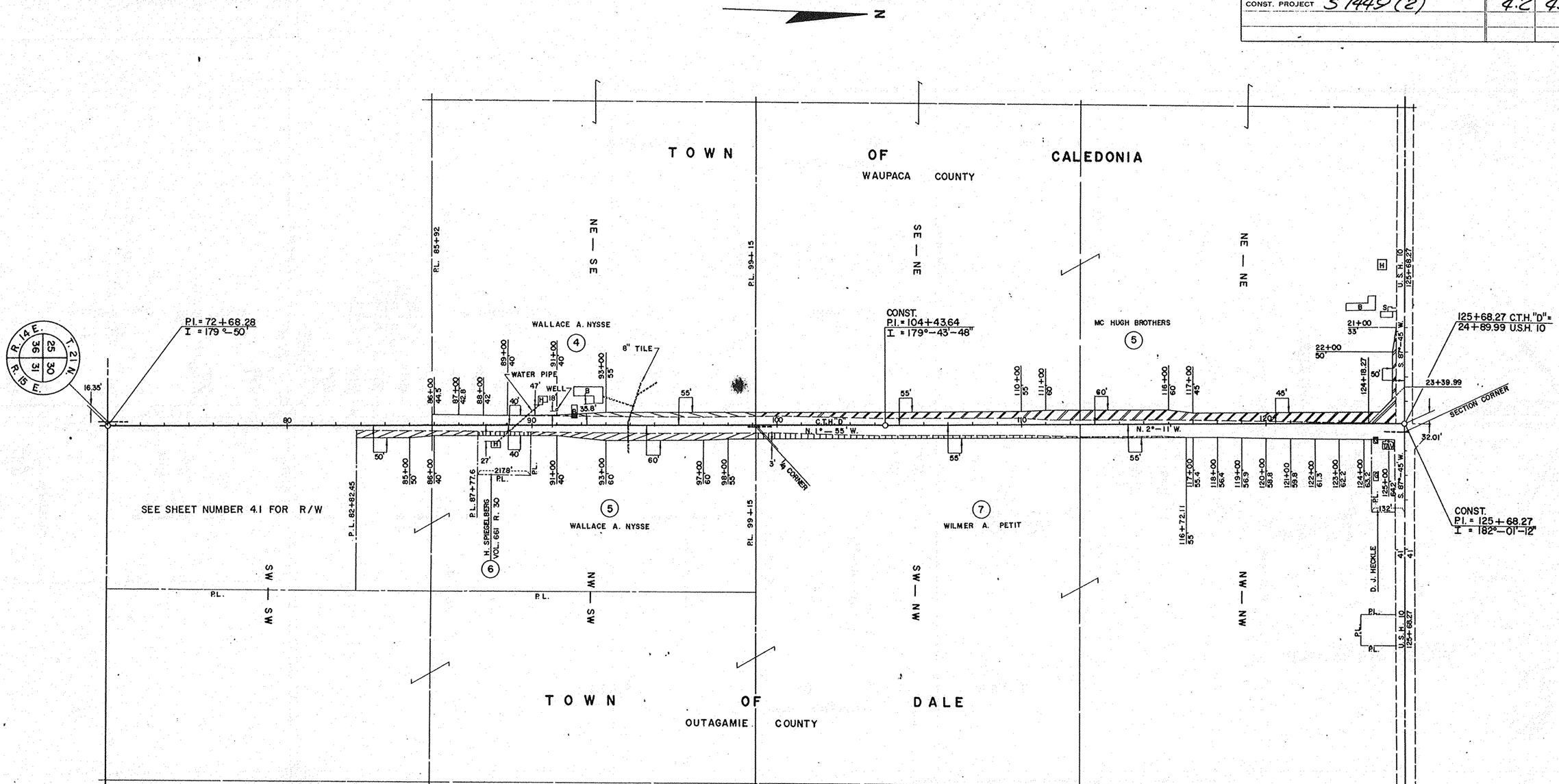
PLAT OF RIGHT OF WAY REQUIRED

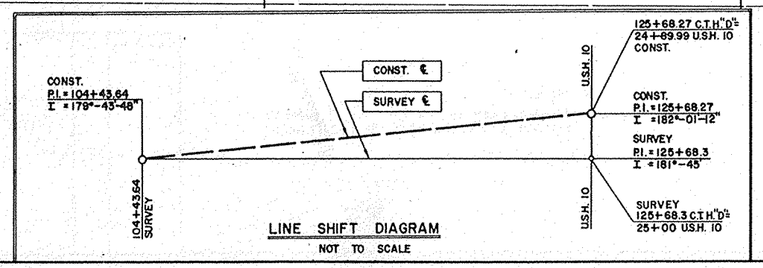
PROJECT S 1449 (2)

SCALE
0 200 FEET 400

DATED 6-14-65

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	B. P. R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
44.6	1449.0	—	11.2	4 WIS.	4.2	
CONST. PROJECT S 1449 (2)					4.2	43





LINE SHIFT DIAGRAM
NOT TO SCALE

NOTE:
BEARINGS SHOWN ON THIS PLAT ARE THE MAGNETIC BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

REVISION	DATE

STATE HIGHWAY COMMISSION OF WISCONSIN

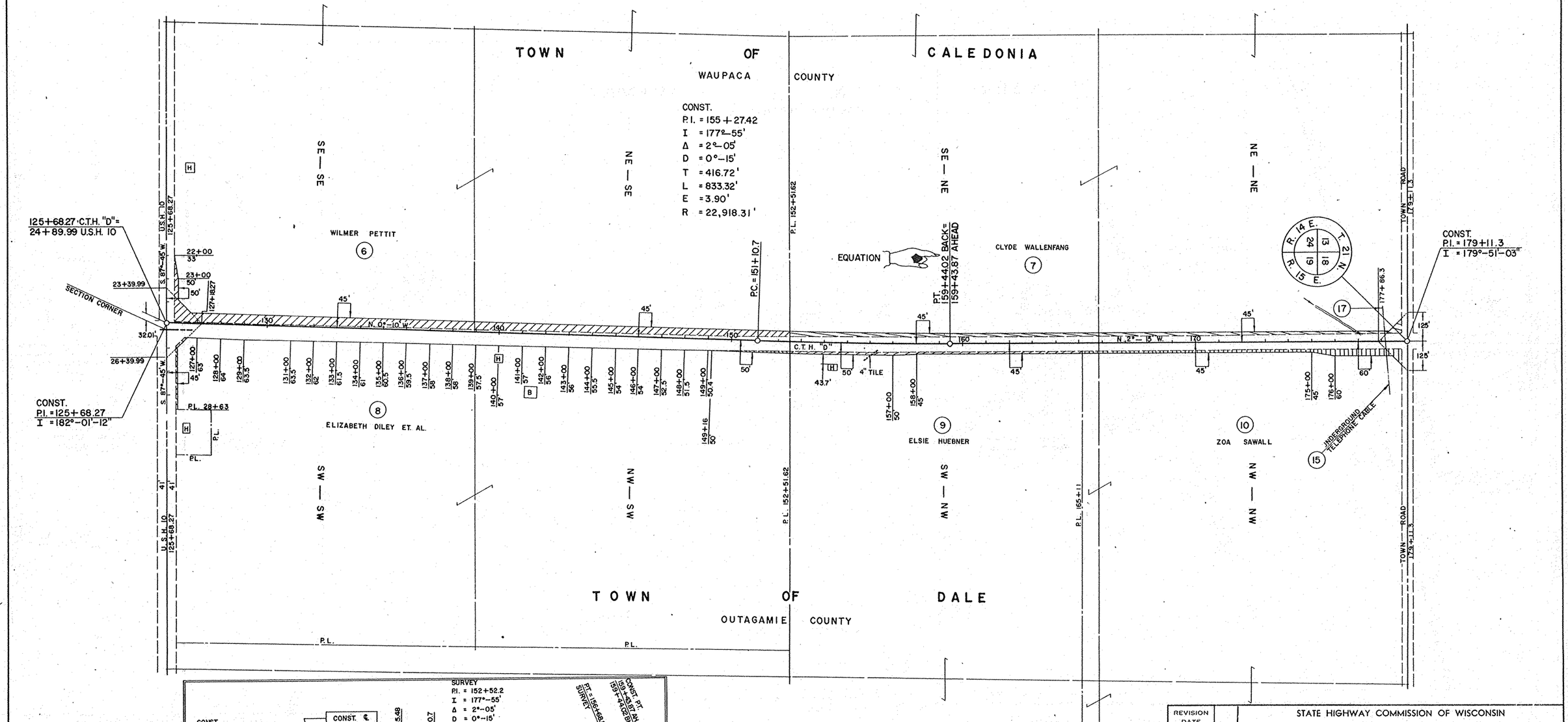
PLAT OF RIGHT OF WAY REQUIRED

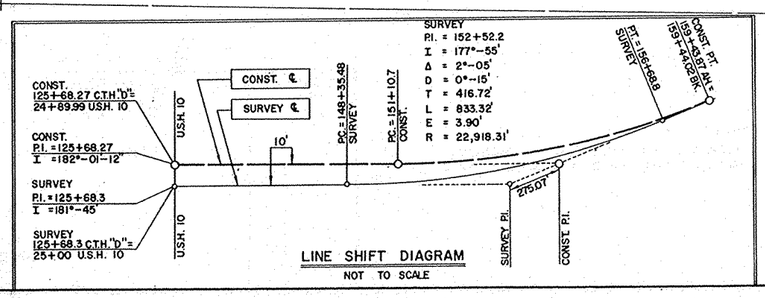
PROJECT S 1449 (2)

SCALE
0 200 400
FEET

DATED 6-14-65

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	B. P. R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
44.6	1449.0	–	11.2	4 WIS	4.3	
CONST. PROJECT	S 1449(2)				4.3	43





LINE SHIFT DIAGRAM
NOT TO SCALE

NOTE:
BEARINGS SHOWN ON THIS PLAT ARE THE MAGNETIC BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

REVISION DATE	

STATE HIGHWAY COMMISSION OF WISCONSIN

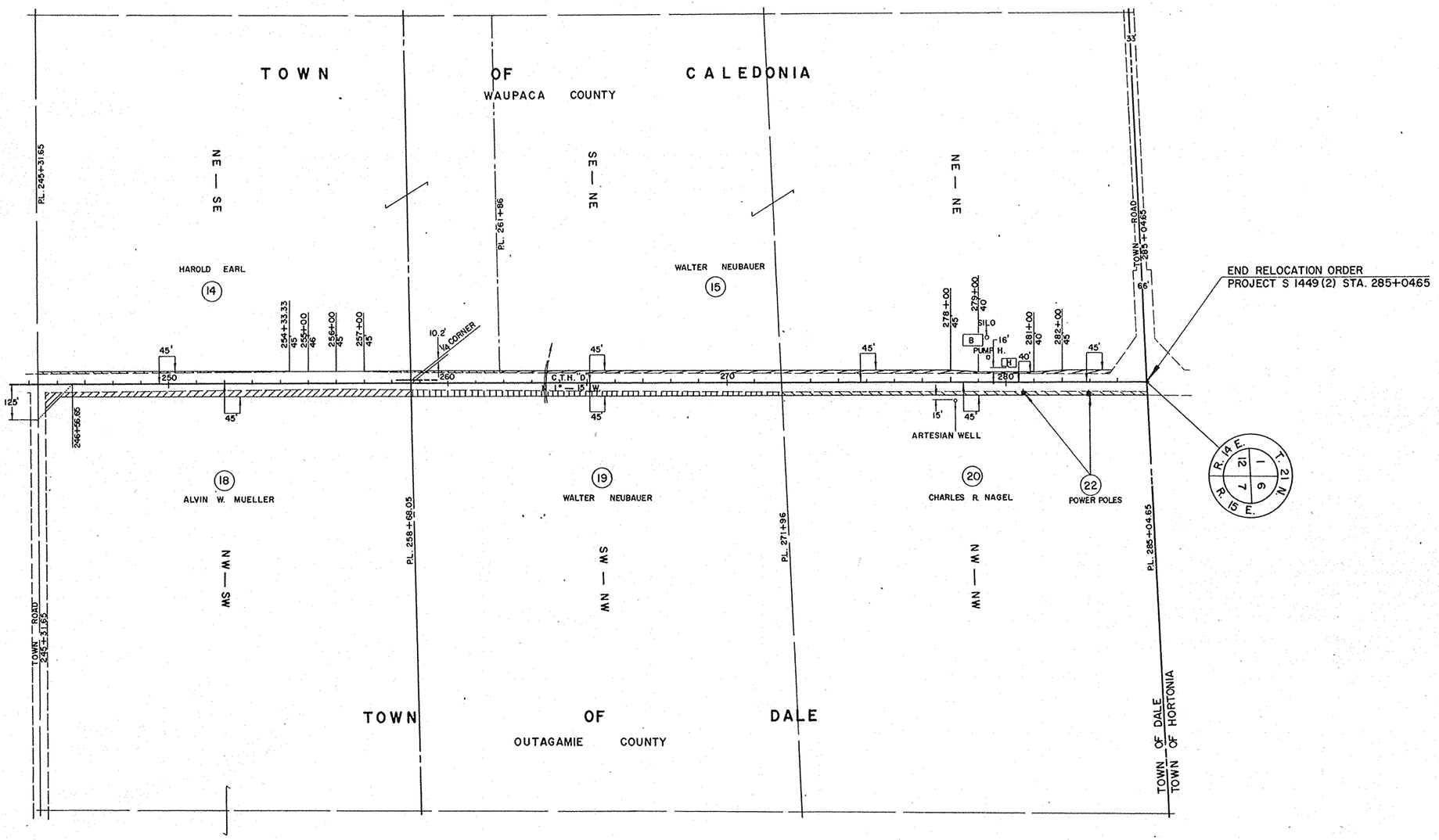
PLAT OF RIGHT OF WAY REQUIRED

PROJECT S 1449 (2)

SCALE
0 200 400 FEET

DATED 6-14-65

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	B. P. R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
44.6	1449.0	—	11.2	4 WIS.	4.5	
CONST. PROJECT S 1449(2)					4.5	43



NOTE:
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REVISION DATE	

STATE HIGHWAY COMMISSION OF WISCONSIN

PLAT OF RIGHT OF WAY REQUIRED

PROJECT S 1449 (2)

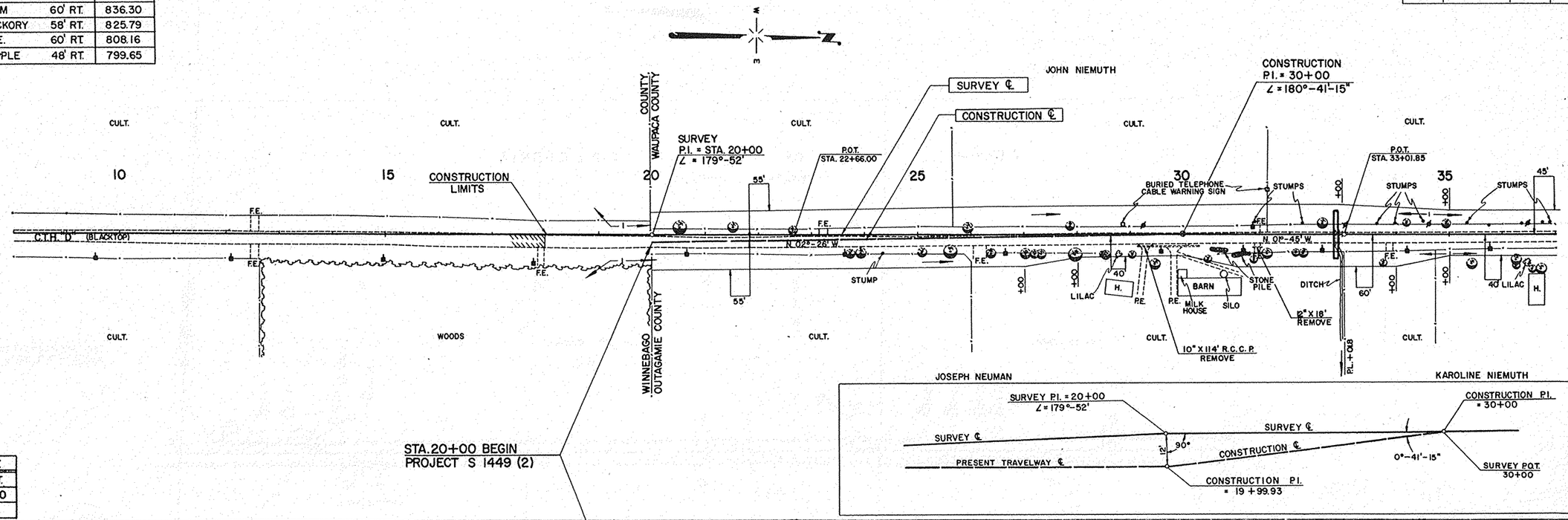
SCALE
0 200 400
FEET

DATED 6-14-65

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	5	43

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	12+80	PK. IN 30" ELM 70' RT.	828.23
2	19+50	" " 15" ELM 60' RT.	836.30
3	26+00	" " 18" HICKORY 58' RT.	825.79
4	29+78	" " 20" B.E. 60' RT.	808.16
5	35+50	" " 16" APPLE 48' RT.	799.65

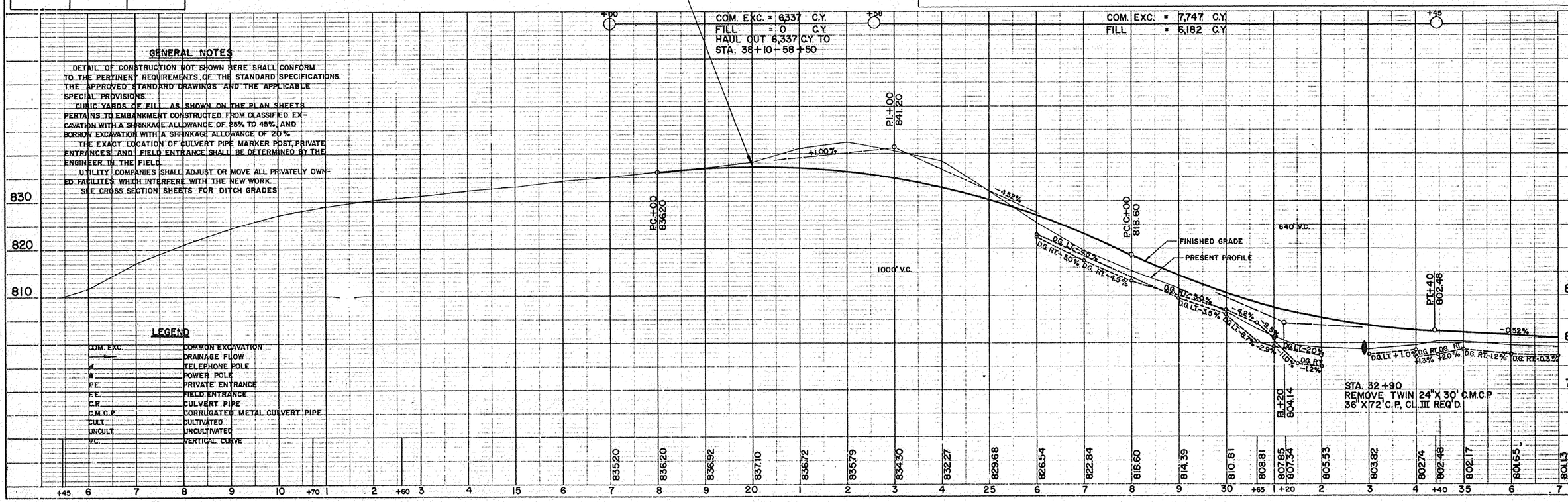


STA. 20+00 BEGIN
PROJECT S 1449 (2)

NET LENGTH OF CENTERLINE		
STATION	TO STATION	LIN. FT.
20+00	35+00	1,500.00

COM. EXC. = 6,337 C.Y.
FILL = 0 C.Y.
HAUL OUT 6,337 C.Y. TO STA. 38+10-58+50

COM. EXC. = 7,747 C.Y.
FILL = 6,182 C.Y.



GENERAL NOTES

DETAIL OF CONSTRUCTION NOT SHOWN HERE SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE APPROVED STANDARD DRAWINGS AND THE APPLICABLE SPECIAL PROVISIONS.

CUBIC YARDS OF FILL AS SHOWN ON THE PLAN SHEETS PERTAINS TO EMBANKMENT CONSTRUCTED FROM CLASSIFIED EXCAVATION WITH A SHRINKAGE ALLOWANCE OF 25% TO 45%, AND BORROW EXCAVATION WITH A SHRINKAGE ALLOWANCE OF 20%.

THE EXACT LOCATION OF CULVERT PIPE MARKER POST, PRIVATE ENTRANCES AND FIELD ENTRANCE SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

UTILITY COMPANIES SHALL ADJUST OR MOVE ALL PRIVATELY OWNED FACILITES WHICH INTERFERE WITH THE NEW WORK.

SEE CROSS SECTION SHEETS FOR DITCH GRADES.

LEGEND

COM. EXC.	COMMON EXCAVATION
	DRAINAGE FLOW
	TELEPHONE POLE
	POWER POLE
P.E.	PRIVATE ENTRANCE
F.E.	FIELD ENTRANCE
C.P.	CULVERT PIPE
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
CULT.	CULTIVATED
UNCULT.	UNCULTIVATED
V.C.	VERTICAL CURVE

BROWN NO. 42161

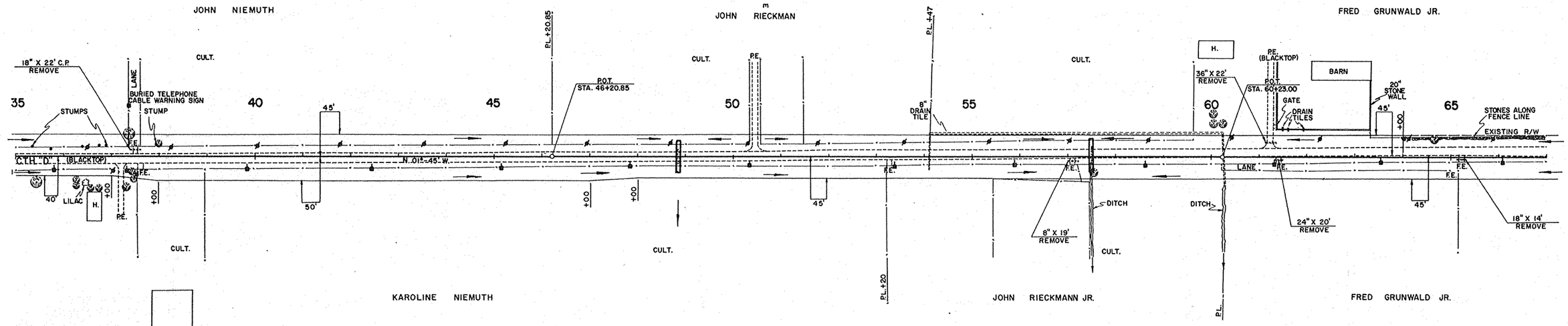
PLATE 1-PLAN-PROFILE © P. R. B. R. C.
MADE AND PRINTED IN U.S.A.
CHARLES BRUNE COMPANY, INC.

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	6	43

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
5	35+50	PK. IN 16" APPLE 48' RT.	799.65
6	46+21	" " 40" ELM 100' LT.	796.28
7	60+00	" " 12" APPLE 130' LT.	799.06

STA. 61+25 P.E. LT.
36" X 32' C.P., CL. III REQ'D.



STA. 61+40
36" X 32' C.P., CL. III REQ'D.

NET LENGTH OF CENTERLINE		
STATION	TO STATION	LIN. FT.
35+00	65+00	3,000.00

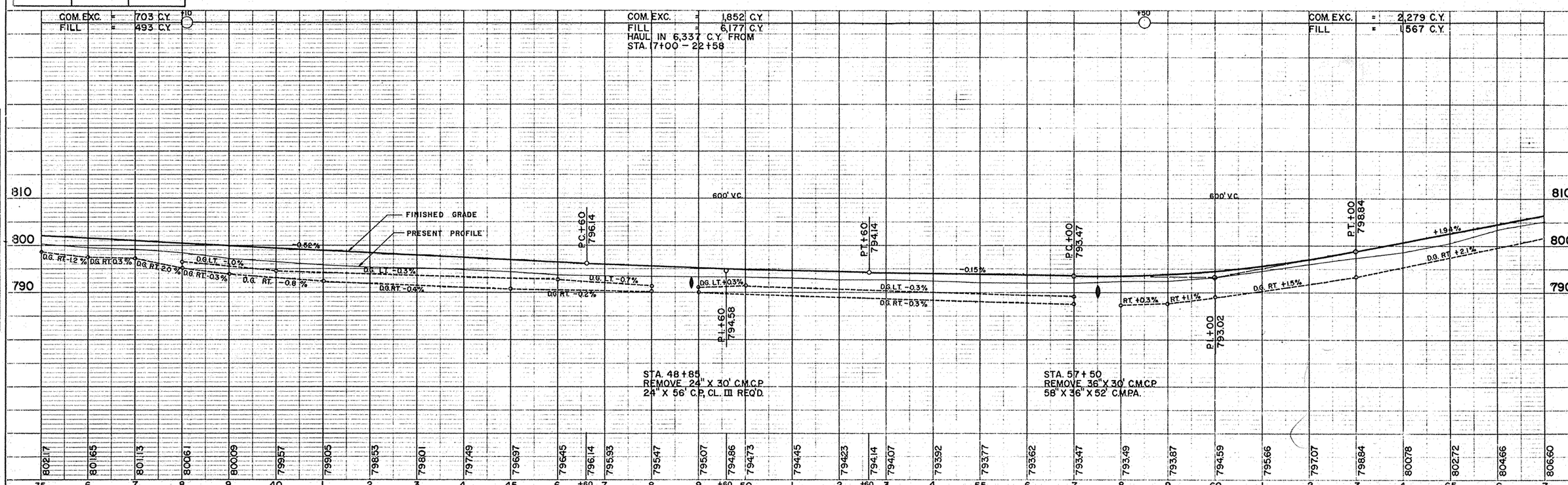
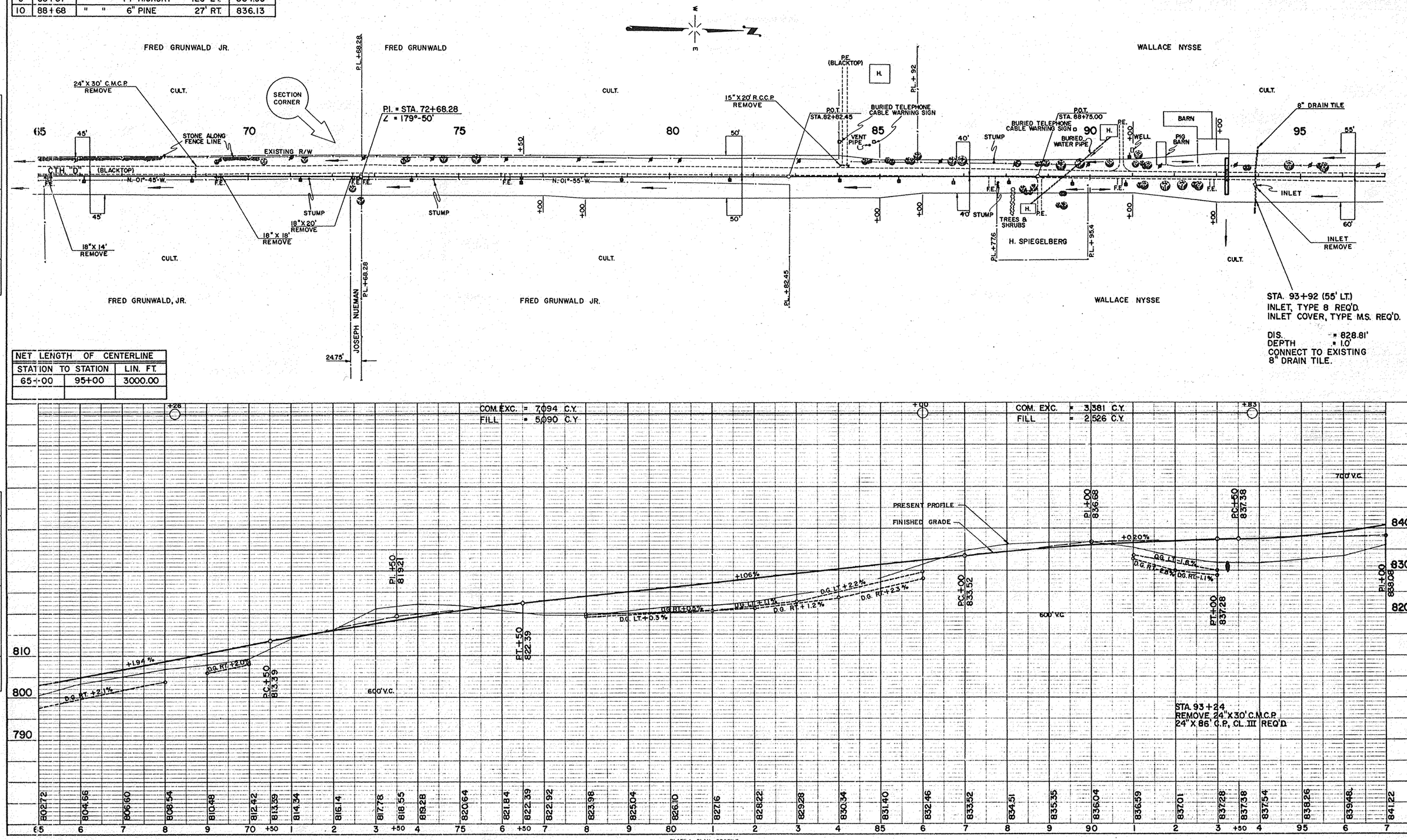


PLATE 1 - PLAN - PROFILE

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	7	43

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
8	71+65	P.K. IN 28" ELM 53' RT.	820.91
9	85+87	" " 14" HICKORY 126' LT.	834.95
10	88+68	" " 6" PINE 27' RT.	836.13



NET LENGTH OF CENTERLINE		
STATION	TO STATION	LIN. FT.
65+00	95+00	3000.00

PLATE 1—PLAN—PROFILE

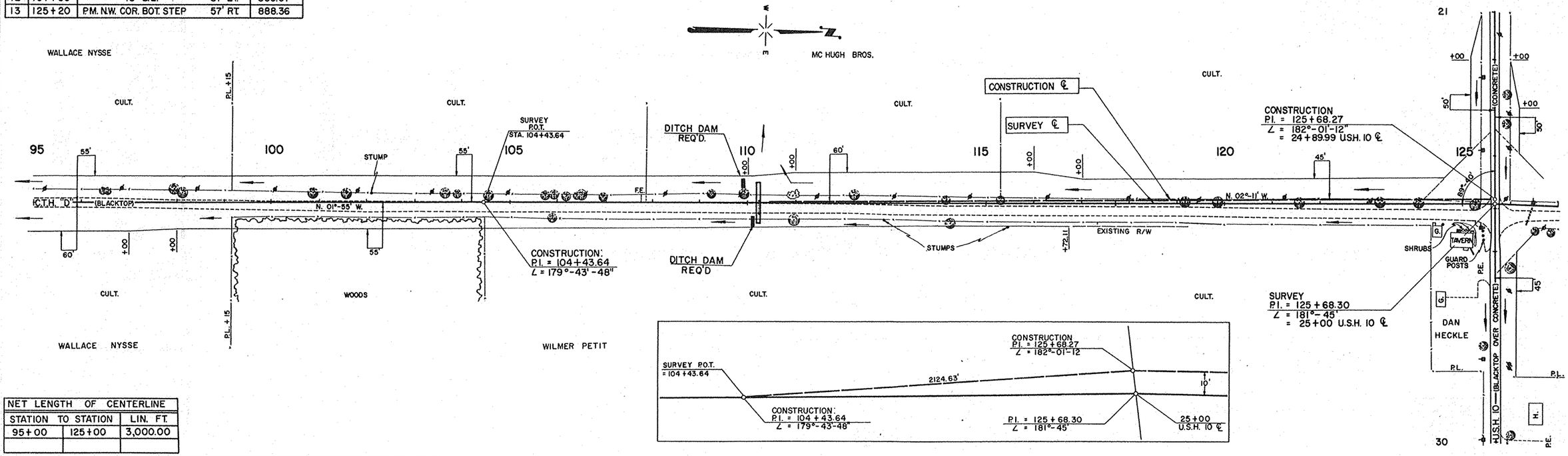
BRUNING NO. 42-183

BENCH MARKS

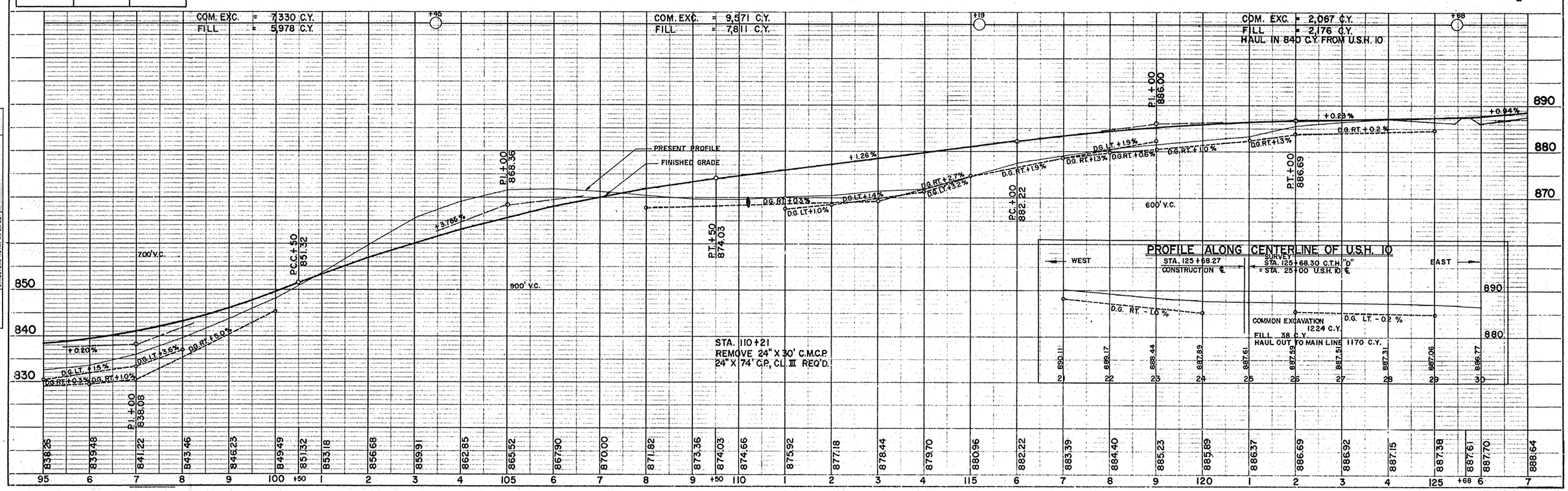
NO.	STATION	DESCRIPTION		ELEV.
11	100+75	P.K. IN 6" HICKORY	58' RT.	851.78
12	107+80	" " 18" B.E.	87' LT.	869.07
13	125+20	P.M. N.W. COR. BOT. STEP	57' RT.	888.36

STA. 125+68.3 C.T.H. "D"
DESIGN TYPE "B" INTERSECTION
SEE STANDARD DRAWING NO. 9-1.1.4

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	8	43



NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
95+00	125+00	3,000.00



NOTE BOOK NO. 615 — ALIGNMENT CHECKED — RT. OF WAY CHECKED — PLOTTED — GRADES CHECKED — R.W. NOTES — R.W. NOTES EQUAL TO U.S.A.M. — C. W. M. — 4-65

BRUNING NO. 42-161

PLATE 1 — PLAN — PROFILE

MADE IN U.S.A. CHARLES BRUNING COMPANY, INC.

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	9	43

BENCH MARKS

NO.	STATION	DESCRIPTION		ELEV.
13	125+20	P.M. N.W. COR. BOT. STEP	57' RT.	888.36
14	130+92	P.K. IN 16" HICKORY	45' RT.	891.09
15	139+88	" " 12" SPRUCE	70' RT.	901.54
16	153+75	" " 14" HICKORY	60' RT.	894.85

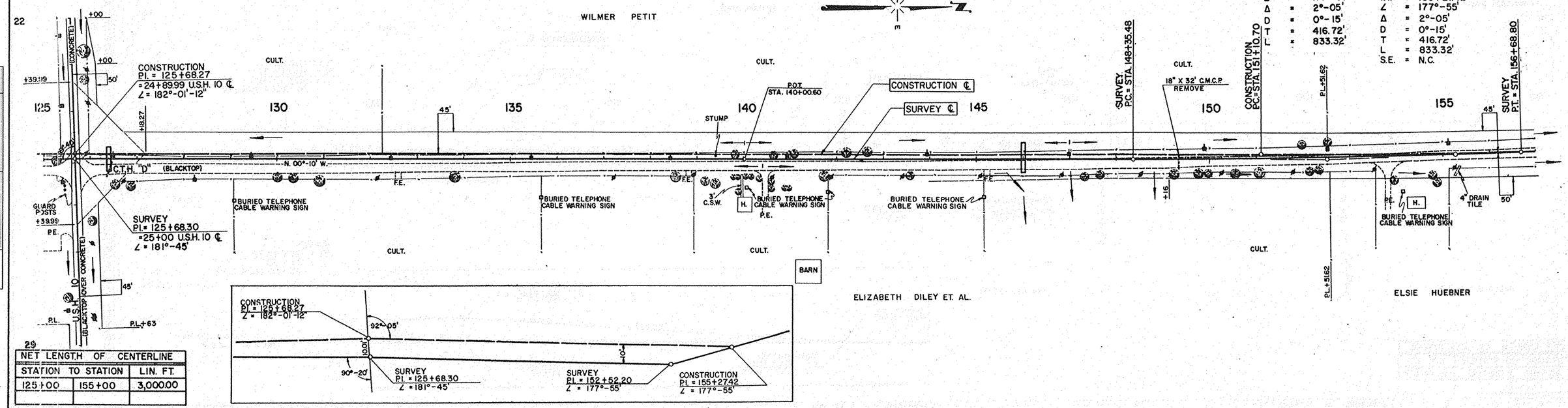
STA. 125 + 68.3 C.T.H. "D"
DESIGN TYPE "B" INTERSECTION REQ'D.
SEE STANDARD DRAWING NO. 9-1.1.4

SURVEY CURVE NOTES

P.I.	=	152 + 52.20
∠	=	177°-55'
Δ	=	2°-05'
D	=	0°-15'
T	=	416.72'
L	=	833.32'

CONSTRUCTION CURVE NOTES

P.I.	=	155+27.42
∠	=	177°-55'
Δ	=	2°-05'
D	=	0°-15'
T	=	416.72'
L	=	833.32'
S.E.	=	N.C.



NET LENGTH OF CENTERLINE		
STATION	TO STATION	LIN. FT.
125+00	155+00	3,000.00

COM. EXC. = 1,931 C.Y.
FILL = 1,608 C.Y.
HAUL IN 330 C.Y. FROM U.S.H. 10

COM. EXC. = 3,182 C.Y.
FILL = 2,388 C.Y.
USE 98 C.Y. ROCK EXC.

COM. EXC. = 1,631 C.Y.
FILL = 1,228 C.Y.

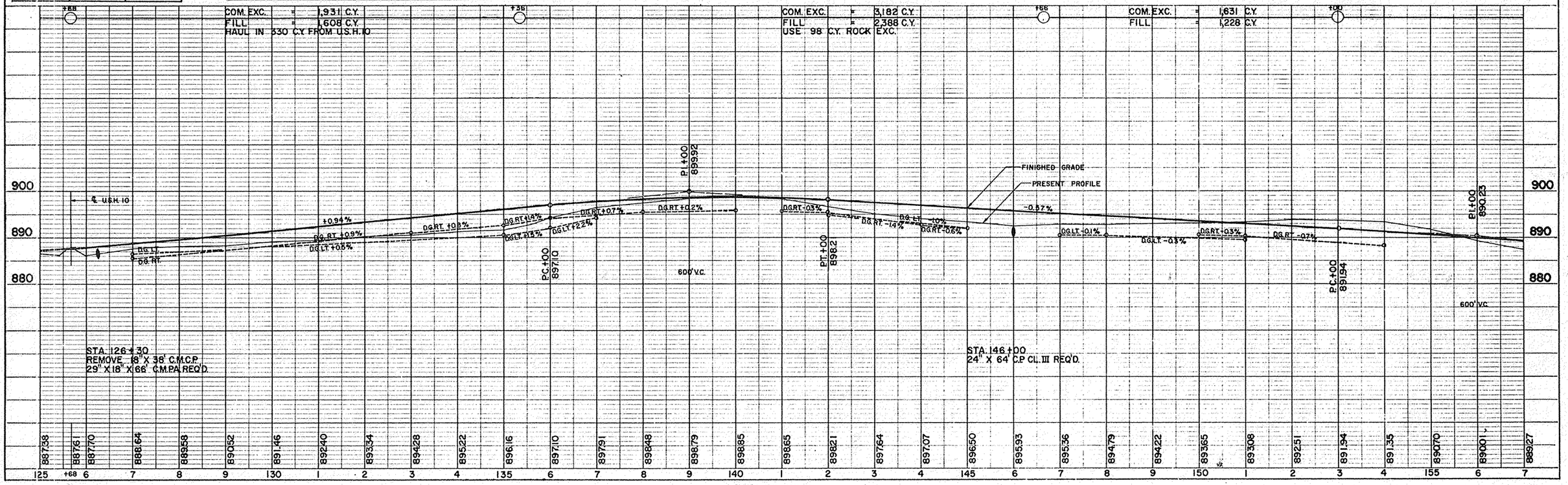
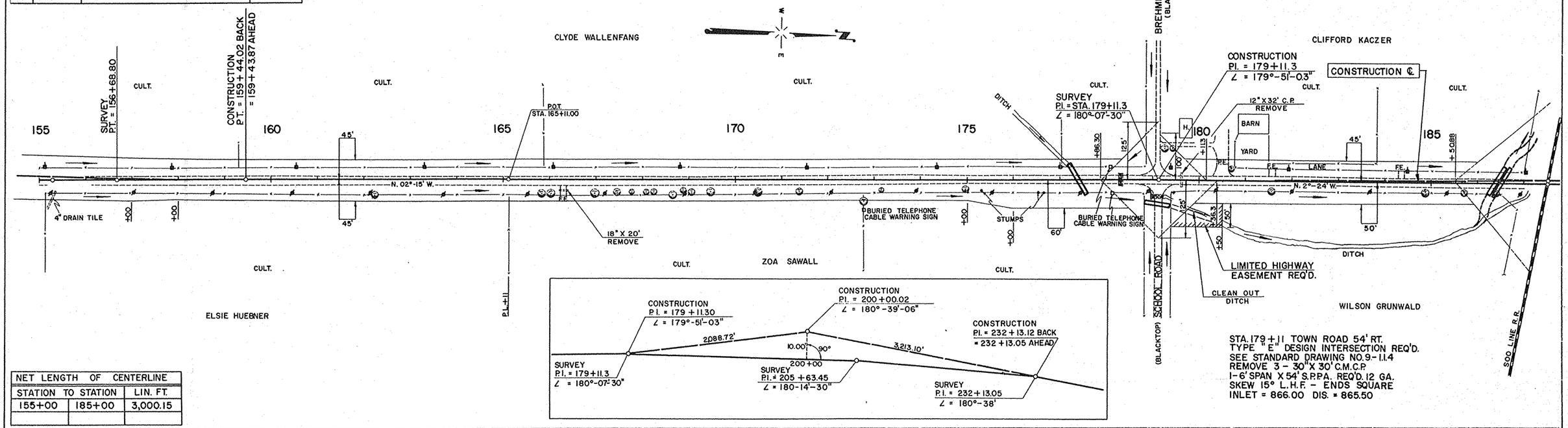


PLATE 1 — PLAN — PROFILE

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449(2)	10	43

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
17	165+11	P.K. IN 30" ELM 140' RT.	883.61
18	172+88	" " 18" ELM 61' RT.	877.17
19	179+44	" " 22" POPLAR 65' LT.	873.36



NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
155+00	185+00	3,000.15

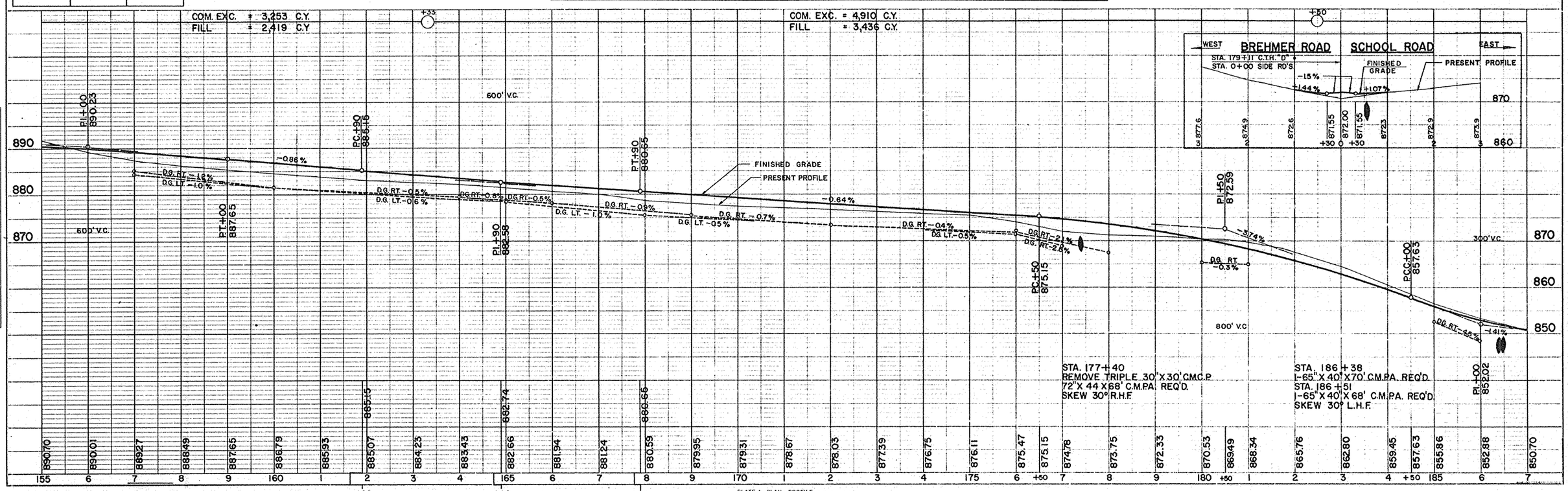


PLATE 1—PLAN—PROFILE

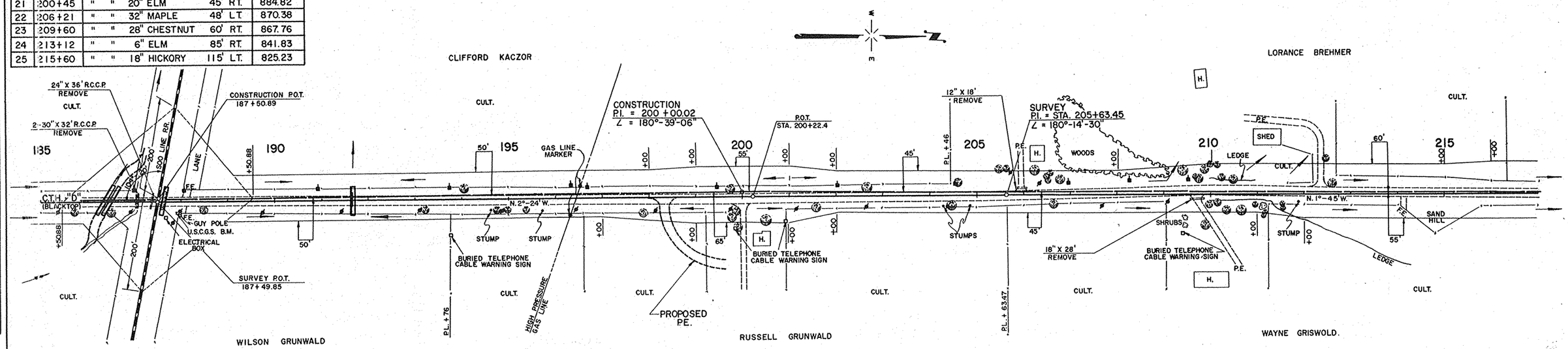
BRUNING NO. 42-151

CHARLES BRUNING COMPANY, INC.

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	11	43

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
20	193+75	PK. IN 8" ELM 75' RT.	851.01
21	200+45	" " 20" ELM 45' RT.	884.82
22	206+21	" " 32" MAPLE 48' LT.	870.38
23	209+60	" " 28" CHESTNUT 60' RT.	867.76
24	213+12	" " 6" ELM 85' RT.	841.83
25	215+60	" " 18" HICKORY 115' LT.	825.23



NET LENGTH OF CENTERLINE		
STATION	TO STATION	LIN. FT.
185+00	215+00	2,986.87

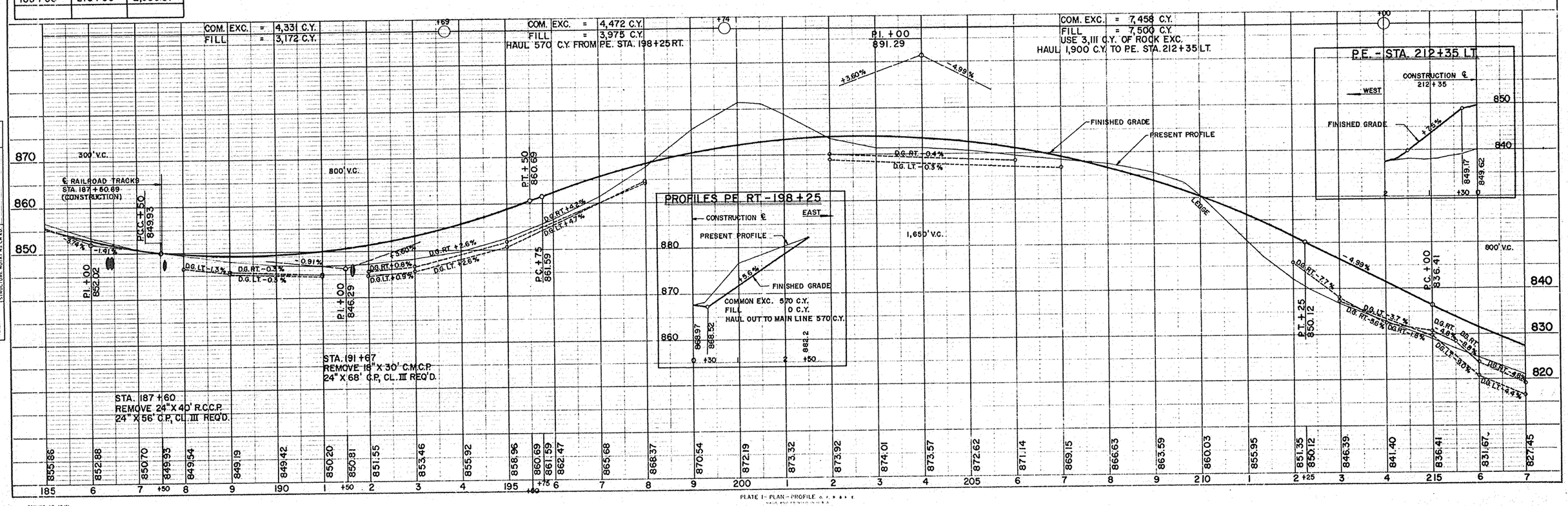


PLATE 1 - PLAN - PROFILE

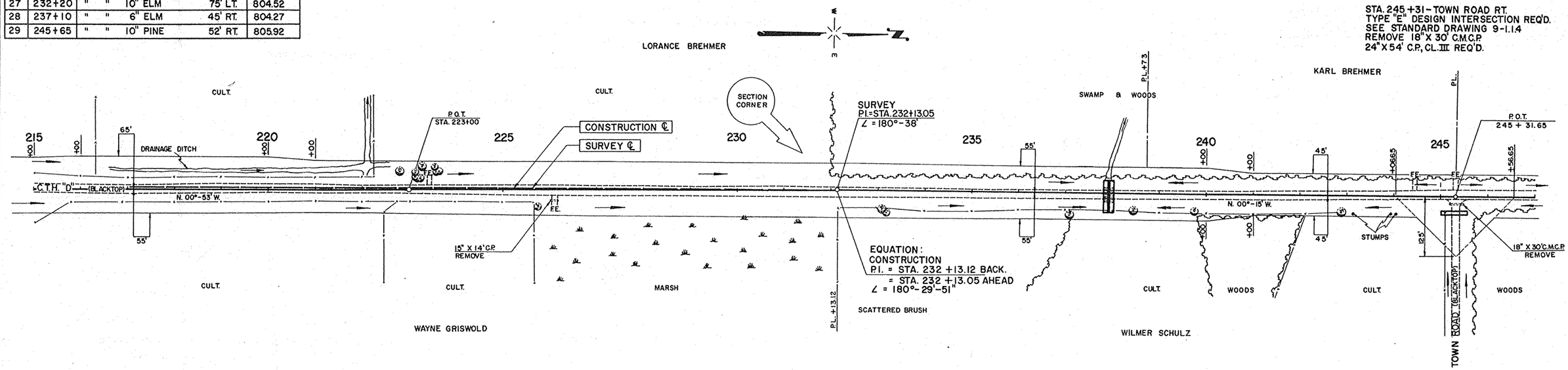
BRUHNS NO. 42-161

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449(2)	12	43

BENCH MARKS

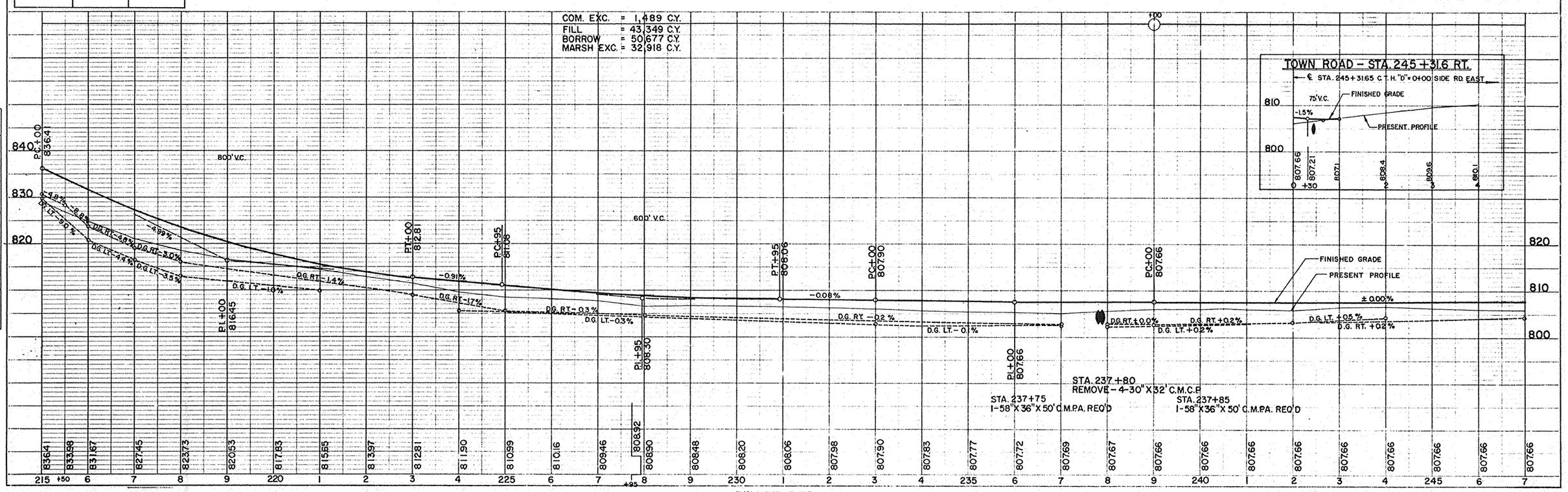
NO.	STATION	DESCRIPTION		ELEV.
25	215+60	P.K. IN 18" HICKORY	115' LT.	825.23
26	223+40	" " 26" PINE	48' LT.	811.11
27	232+20	" " 10" ELM	75' LT.	804.52
28	237+10	" " 6" ELM	45' RT.	804.27
29	245+65	" " 10" PINE	52' RT.	805.92

STA. 245+31 - TOWN ROAD RT.
TYPE "E" DESIGN INTERSECTION REQ'D.
SEE STANDARD DRAWING 9-1.1.4
REMOVE 18" X 30' C.M.C.P.
24" X 54' C.P., CL. III REQ'D.



NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
215+00	245+00	3000.07

COM. EXC. = 1,489 C.Y.
FILL = 43,349 C.Y.
BORROW = 50,677 C.Y.
MARSH EXC. = 32,918 C.Y.



NOTE BOOK NO. 614
PLOTTED
ALIGNMENT CHECKED
R. OF WAY CHECKED
C.W.M.
4-65

NOTE BOOK NO. 615
PLOTTED
GRADES CHECKED
B. M.s NOTED
STRUCTURE NOTAT'NS CH'K'D
C.W.M.
G.E.K.
4-65
1-65

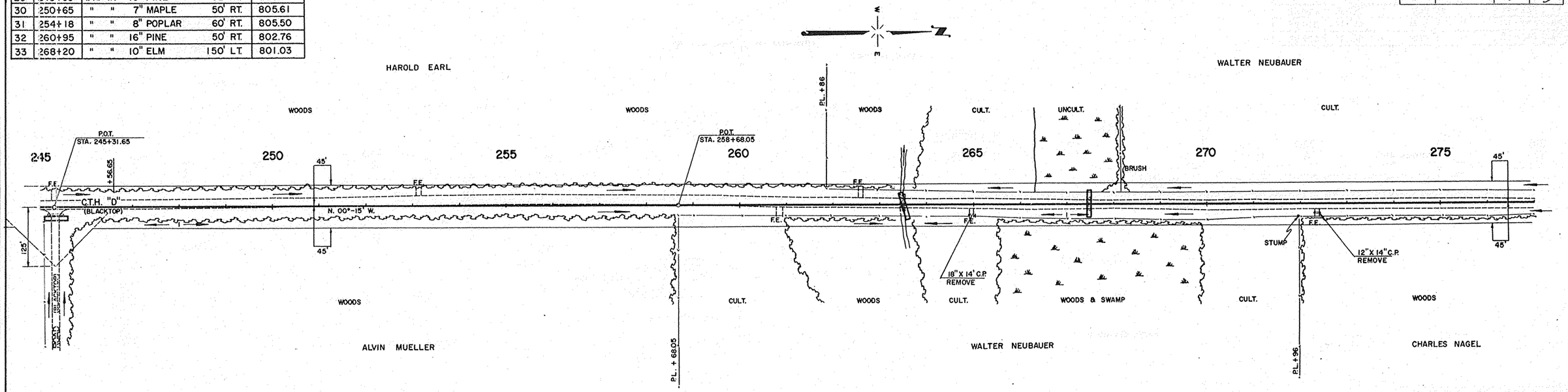
BRUNING NO. 42·161

PLATE 1- PLAN - PROFILE

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	13	43

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
29	245+65	PK. IN 10" PINE 52' RT.	805.92
30	250+65	" " 7" MAPLE 50' RT.	805.61
31	254+18	" " 8" POPLAR 60' RT.	805.50
32	260+95	" " 16" PINE 50' RT.	802.76
33	268+20	" " 10" ELM 150' LT.	801.03



NET LENGTH OF CENTERLINE		
STATION	TO STATION	LIN. FT.
245 + 00	275 + 00	3,000.00

COM. EXC. = 3,634 C.Y.
FILL = 4,707 C.Y.
BORROW = 2,540 C.Y.
MARSH EXC. = 408 C.Y.

COM. EXC. = 3,739 C.Y.
FILL = 2,811 C.Y.
MARSH EXC. = 674 C.Y.

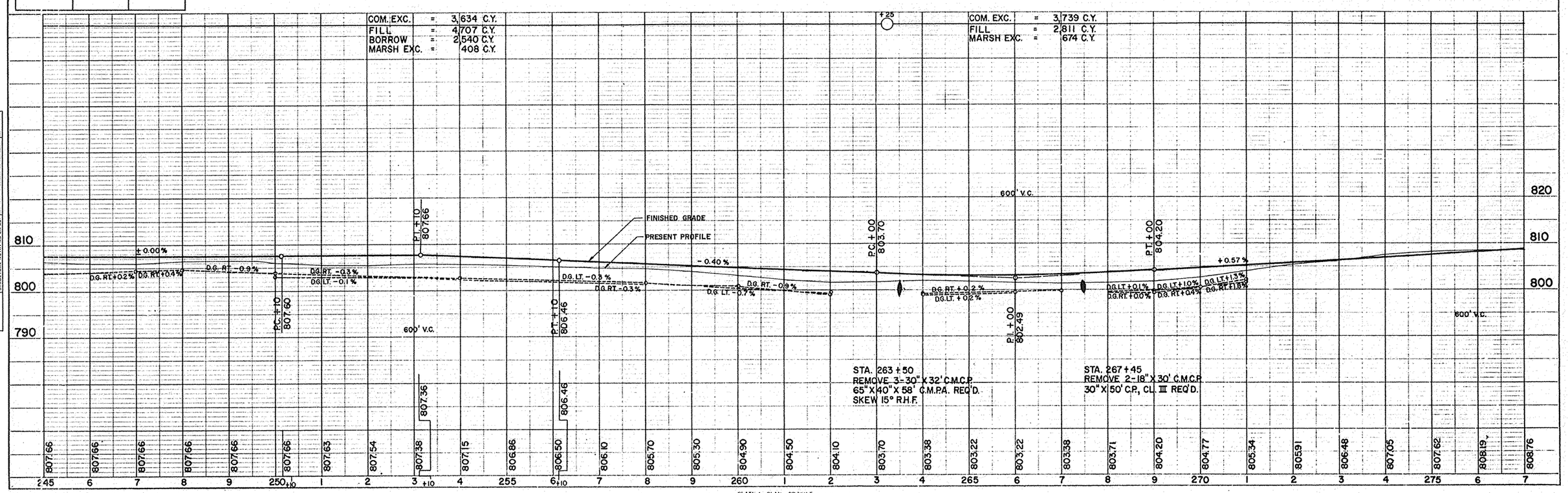


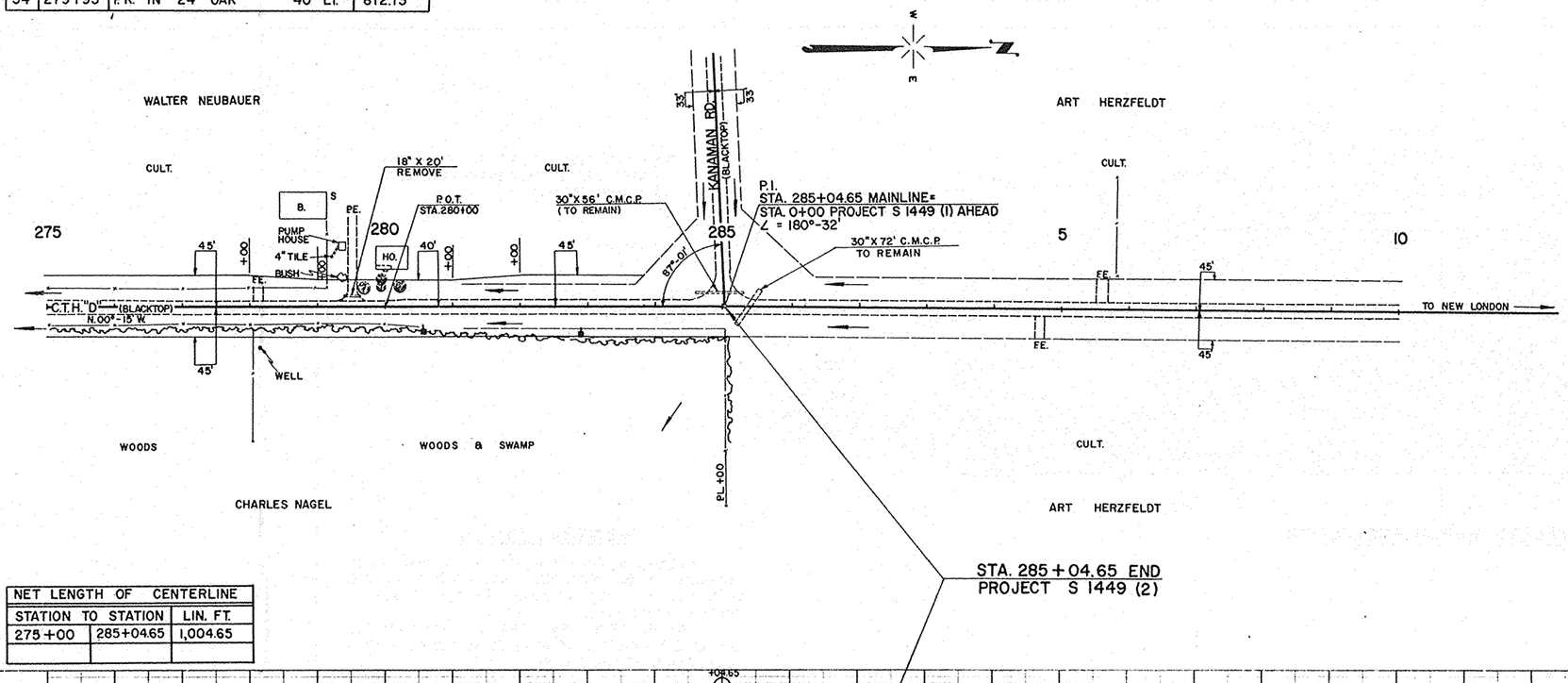
PLATE 1 - PLAN - PROFILE

BROWNE NO. 42.151

B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1449 (2)	14	43

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
34	279+95	P.K. IN 24" OAK 40' LT.	812.13



NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
275+00	285+04.65	1,004.65

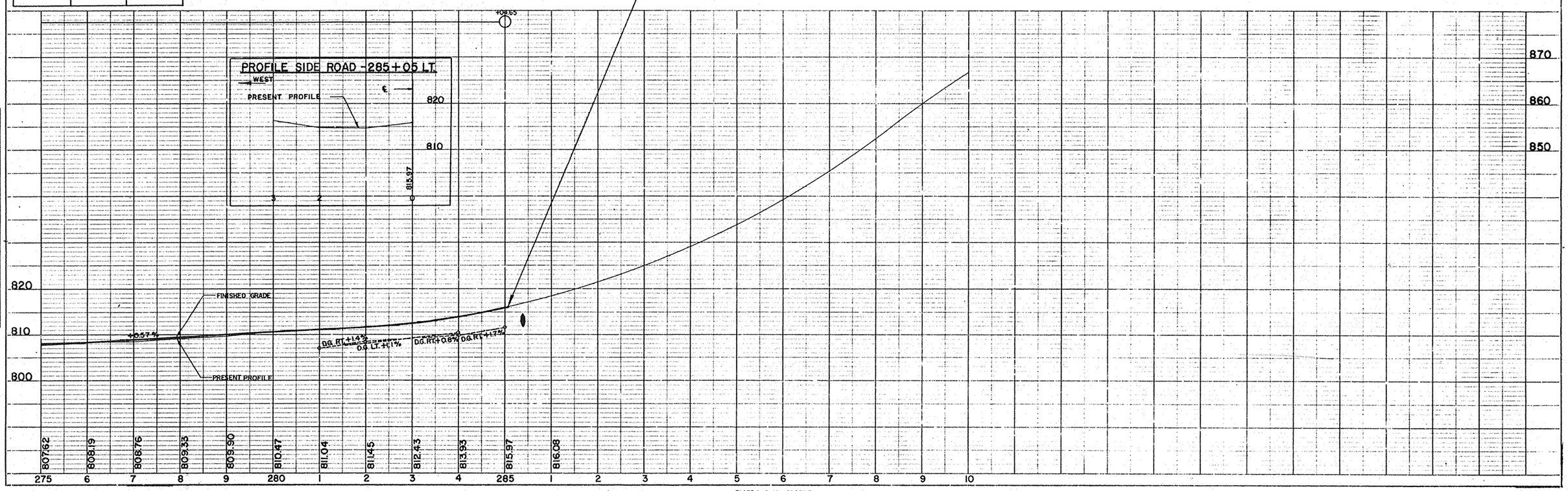
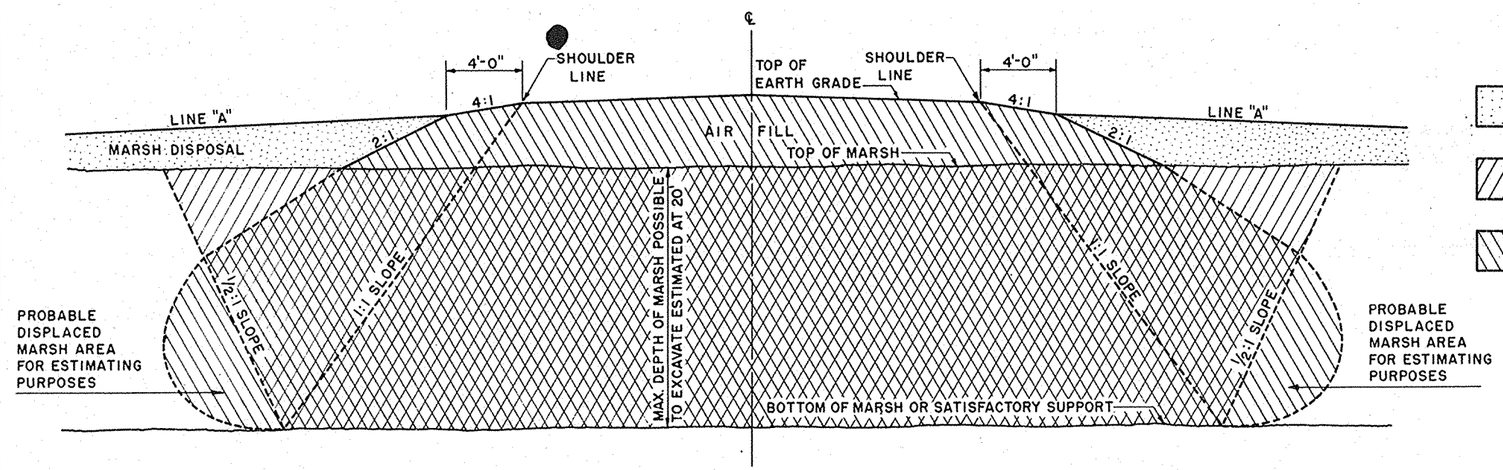


PLATE 1 — PLAN - PROFILE

BRUNING NO 42-161

15-43



COMPLETE MARSH EXCAVATION

MARSH DISPOSAL PERMITTED IN THIS AREA UNLESS OTHERWISE PROVIDED IN THE CONTRACT

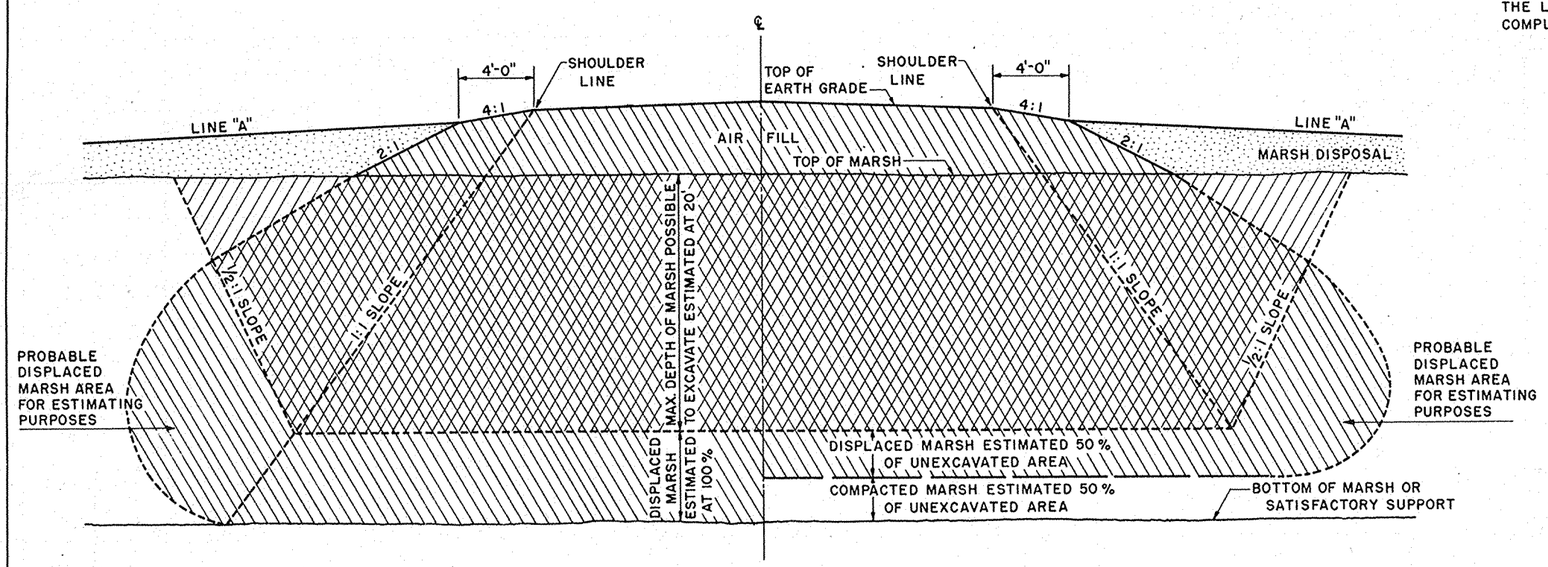
EXCAVATION

BACKFILL

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ANY MATERIAL TEMPORARILY PLACED ABOVE THE LINE MARKED "LINE A" IS TO BE REMOVED UPON COMPLETION OF THE AIR FILL.



PARTIAL EXCAVATION PLUS 100% DISPLACEMENT

PARTIAL EXCAVATION PLUS 50% DISPLACEMENT

MARSH EXCAVATION

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

DATE 2/11/52 — CONSTRUCTION ENGINEER

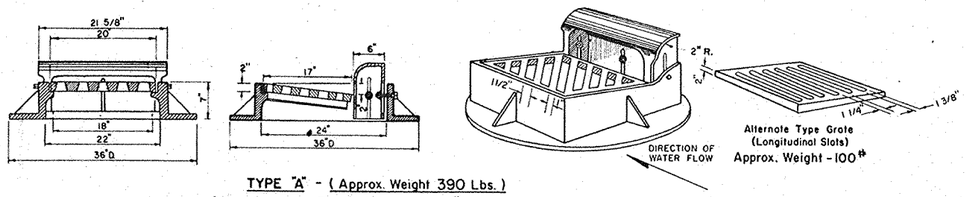
APPROVED:

DATE 2/11/52 — STATE HIGHWAY ENGINEER

DRAWN LJD
CHECKED

1-1.1.2

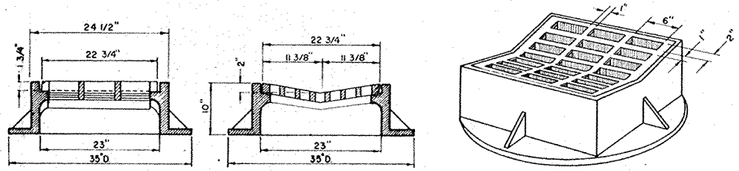
15.1-43



Alternate Type Grate (Longitudinal Slots) Approx. Weight - 100#

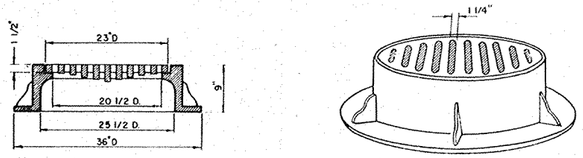
TYPE "A" - (Approx. Weight 390 Lbs.)

Frame Weight - 250#
Grate " - 90#
Box " - 50#



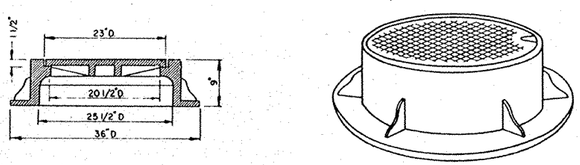
TYPE "B" - (Approx. Weight 414 Lbs.)

Frame Weight - 275#
Grate " - 139#

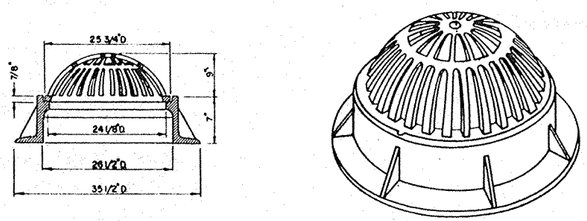


TYPE "C" - (Approx. Weight 370 Lbs.)

Frame Weight Type "C" & Type "D" - 255#
Slotted Grate Weight - 115#
Solid Cover Weight - 150#
(Note: Frame for Type "C" same as for Type "D")



TYPE "D" - (Approx. Weight 405 Lbs.)
(Note: Frame for Type "D" same as for Type "C")

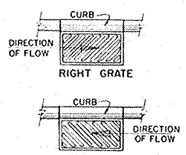


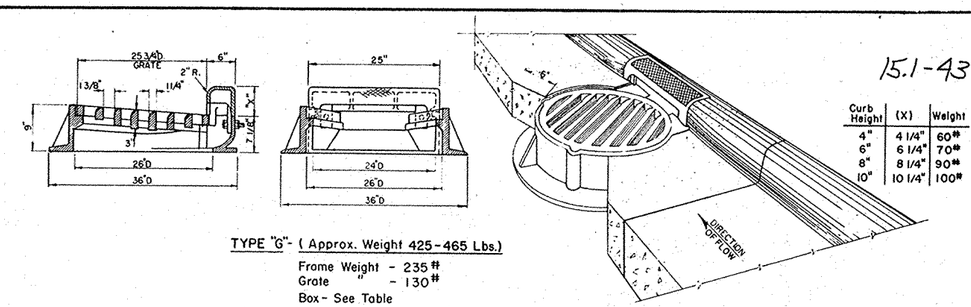
TYPE "E" - (Approx. Weight 325 Lbs.)

SPECIAL NOTE

Diagonal slots shall be oriented to the direction of flow as shown hereon. Hence RIGHT and LEFT grates shall be furnished depending on direction of flow. (See Sketch Below)

Longitudinal slot type grates may be used ONLY where bicycles are prohibited.

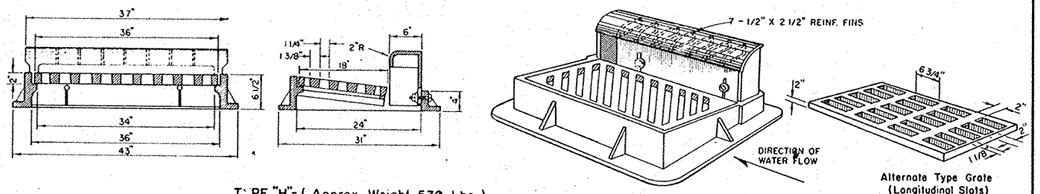




TYPE "G" - (Approx. Weight 425-465 Lbs.)

Frame Weight - 235#
Grate " - 130#
Box - See Table

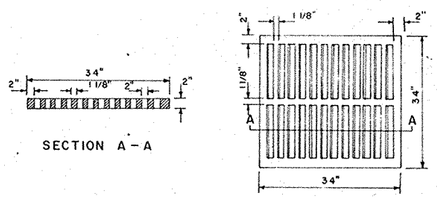
Curb Height	(X)	Weight
4"	4 1/4"	60#
6"	6 1/4"	70#
8"	8 1/4"	90#
10"	10 1/4"	100#



Alternate Type Grate (Longitudinal Slots) Approx. Weight - 200#

TYPE "H" - (Approx. Weight 530 Lbs.)

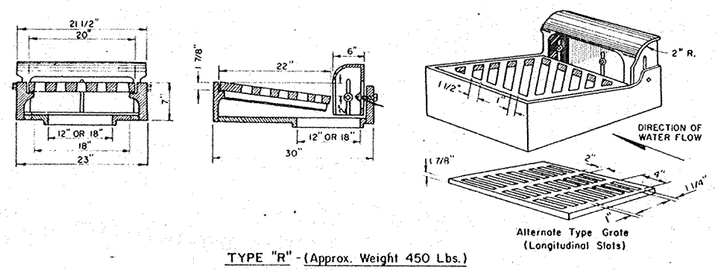
Frame Weight - 220#
Grate " - 200#
Box " - 110#



SECTION A - A

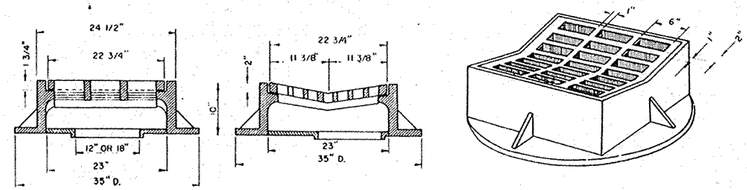
INLET COVER TYPE MS

GRATE WEIGHT 270#



Alternate Type Grate (Longitudinal Slots)

TYPE "R" - (Approx. Weight 450 Lbs.)



TYPE "S" - (Approx. Weight 450 Lbs.)

GENERAL NOTES:

Details of Construction, Materials and Workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

MATERIALS — All Iron Castings shown on this drawing shall conform to the requirements for "Class 30" of the "Standard Specifications for Gray Iron Castings, A.S.T.M. Designation A 48," and the Standard Specifications.

BEARING SURFACES — All Catch Basin and Inlet frames and grates which are placed in vehicular traffic areas shall be "Non-Rocking" type, or shall be "Bearing Surface" seated so as to prevent any or all cover noise under traffic.

NOMENCLATURE — All Catch Basin and Inlet units are designated on the Plans as "Catch Basins 1-A", 2-B etc., or "Inlets 1-A", 3-H etc. This designation is interpreted to mean that the number or first digit designates the Masonry portion of the structure, and the following letter or second digit designates the type of cover or Iron Casting (shown hereon) to be used therewith to comprise the complete Unit "Catch Basin" or "Inlet" in place.

ADJUSTMENTS — Curb Box height to be adjustable 4"-9" unless otherwise noted. Curb Box height to be adjusted after curb form is in place.

ALTERNATE DESIGNS — Detailed drawings for proposed Alternate Designs for "Catch Basin" or "Inlet" Covers may be submitted to the Engineer for approval providing that such Alternate Designs make provision for equivalent capacity and strength.

CATCH BASIN & INLET COVERS

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

11-23-63
DATE

J. S. Pilt
ENGINEER OF DESIGN

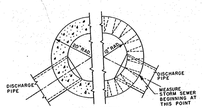
APPROVED:

12/3/63
DATE

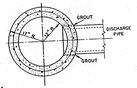
STATE HIGHWAY ENGINEER

PLATE NO. 5-3.4.7

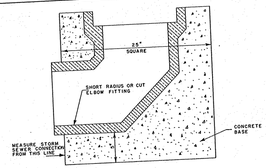
1152-43



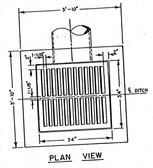
PLAN VIEW



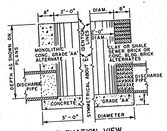
PLAN VIEW



INLET TYPE 2



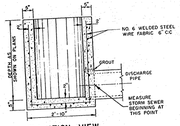
PLAN VIEW



ELEVATION VIEW

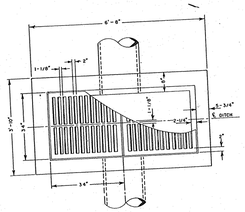
SHOWING DETAILS FOR MONOLITHIC CONCRETE, CLAY OR SHALE SEWER BRICK, OR CONCRETE BUILDING BRICK ALTERNATES FOR

INLET TYPE 1



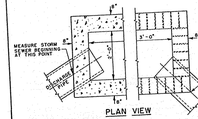
ELEVATION VIEW

SHOWING DETAILS FOR PRE-CAST CONCRETE ALTERNATE FOR

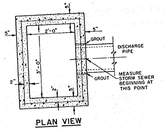


SIDE ELEVATION

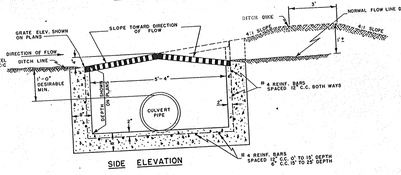
INLET TYPE 8



PLAN VIEW

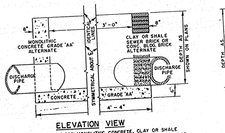


PLAN VIEW



SIDE ELEVATION

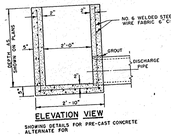
INLET TYPE 9



ELEVATION VIEW

SHOWING DETAILS FOR MONOLITHIC CONCRETE, CLAY OR SHALE SEWER BRICK, OR CONCRETE BUILDING BRICK ALTERNATES FOR

INLET TYPE 3



ELEVATION VIEW

SHOWING DETAILS FOR PRE-CAST CONCRETE ALTERNATE FOR

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ARRANGEMENT, SIZE AND NUMBER OF INLET AND DISCHARGE PIPES SHALL CONFORM TO THE NEEDS OF THE PERTINENT LOCATION.

INLETS ARE CALLED FOR ON THE PLANS AS "INLETS 1-A, "INLETS 2-B", ETC. THE NUMBER DESIGNATES THE MASONRY PORTION OF THE STRUCTURE AND THE LETTER DESIGNATES THE COVER TO BE USED THEREON.

INLETS

STATE HIGHWAY COMMISSION OF WISCONSIN

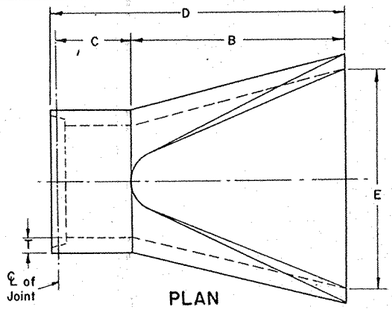
RECOMMENDED FOR APPROVAL

11-21-63 DATE — ENGINEER OF DESIGN

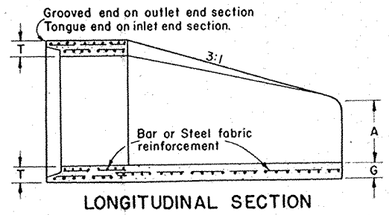
APPROVED: 12/9/63 DATE — ASS. STATE HIGHWAY ENGINEER

PLATE NO. 6-3.5.2

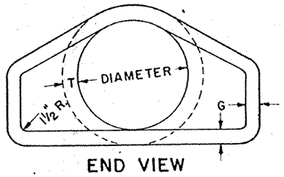
15.3-43



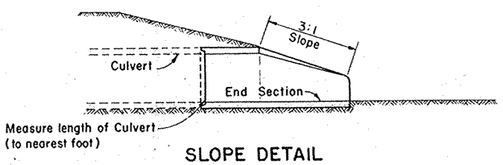
PLAN



LONGITUDINAL SECTION



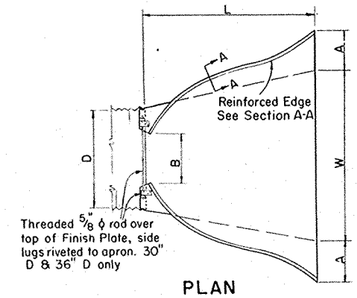
END VIEW



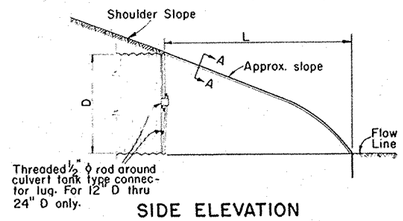
SLOPE DETAIL

DIA.	APPROX. WEIGHT/ SECTION	SLOPE	T	A	B	C	D	E	G
18"	990	3 to 1	2½"	9"	27"	46"	73"	36"	2½"
21"	1280	3 to 1	2¾"	9"	36"	37½"	73½"	42"	2¾"
24"	1520	3 to 1	3"	9½"	43½"	30"	73½"	48"	3"
27"	1930	3 to 1	3¼"	10½"	49½"	24"	73½"	54"	3¼"
30"	2190	3 to 1	3½"	12"	54"	19¾"	73¾"	60"	3½"
36"	4100	3 to 1	4"	15"	63"	34¾"	97¾"	72"	4"
42"	5380	3 to 1	4½"	21"	63"	35"	98"	78"	4½"
48"	6550	3 to 1	5"	24"	72"	26"	98"	84"	5"

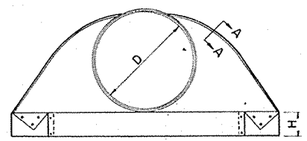
REINFORCED CONCRETE APRON ENDWALLS



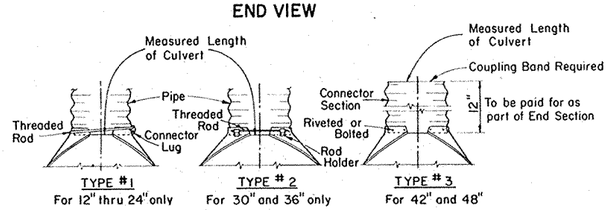
PLAN



SIDE ELEVATION



END VIEW



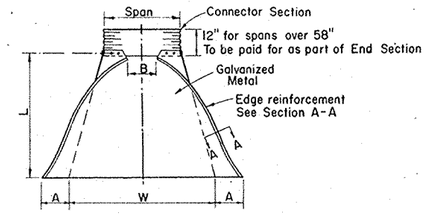
CONNECTION DETAILS

D Pipe Diam.	Gage Min.	Dimensions A ± 1"	B Max.	H ± 1"	L ± 1½"	W ± 2"	Approx. Slope	Fabrication Remarks
18"	16	8"	10"	6"	31"	36"	2½ to 1	1 Piece
21"	16	9"	12"	6"	36"	42"	"	"
24"	16	10"	13"	6"	41"	48"	"	"
30"	14	12"	16"	8"	51"	60"	"	"
36"	14	14"	19"	9"	60"	72"	"	2 Pieces, ℄ Splice
42"	12	16"	22"	11"	69"	84"	"	"
48"	12	18"	27"	12"	78"	90"	2¼ to 1	"

Note: All splices to be lap riveted or bolted.

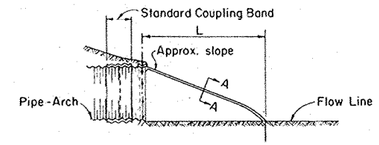
METAL AND ALUMINUM APRON ENDWALLS

APRON ENDWALLS FOR CULVERT PIPE

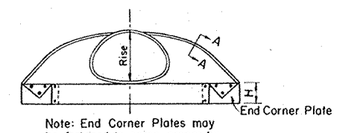


PLAN

showing alternate type with connector section

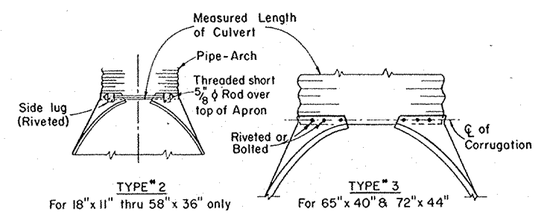


SIDE ELEVATION



Note: End Corner Plates may be fastened to apron proper by bolts or rivets which will hold the surfaces tightly together.

END VIEW

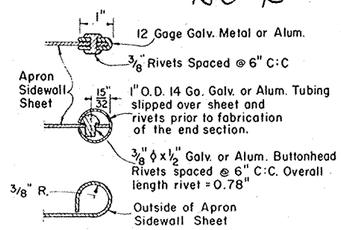


CONNECTION DETAILS

Pipe-Arch Dimensions Span	Rise	Gage Min.	Dimensions A ± 1"	B Max.	H ± 1"	L ± 1½"	W ± 2"	Approx. Slope	Fabrication Remarks
18"	11"	16	7"	9"	6"	19"	30"	2½ to 1	1 Piece
22"	13"	16	7"	10"	6"	23"	36"	"	"
25"	16"	16	8"	12"	6"	28"	42"	"	"
29"	18"	16	9"	14"	6"	32"	48"	"	"
36"	22"	14	10"	16"	6"	39"	60"	"	"
43"	27"	14	12"	18"	8"	46"	75"	"	"
50"	31"	12	13"	21"	9"	53"	85"	"	2 Pieces, ℄ Splice
58"	36"	12	18"	26"	12"	63"	90"	"	"
65"	40"	12	18"	30"	12"	70"	102"	2¼ to 1	"
72"	44"	12	18"	33"	12"	77"	114"	"	3 Pieces, 2 Splices equal distance from ℄

Note: All splices to be lap riveted or bolted.

APRON ENDWALLS FOR PIPE ARCH



SECTION A-A

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Reinforced concrete apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M170, Class II (Wall B).

Metal apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M36.

Aluminum apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M-196-62 I

NOTE:

Variations of the dimensions and designs shown hereon will be permitted providing equivalent capacity and structural integrity are attained, and prior approval of the Engineer is obtained.

Reinf. concrete apron endwalls shall be used with concrete pipe culvert installations, metal apron endwalls shall be used with corr. metal pipe culvert installations, and Aluminum endwalls shall be used with corr. aluminum culvert installations.

APRON ENDWALLS FOR CULVERT PIPE & PIPE ARCH

STATE HIGHWAY COMMISSION OF WISCONSIN

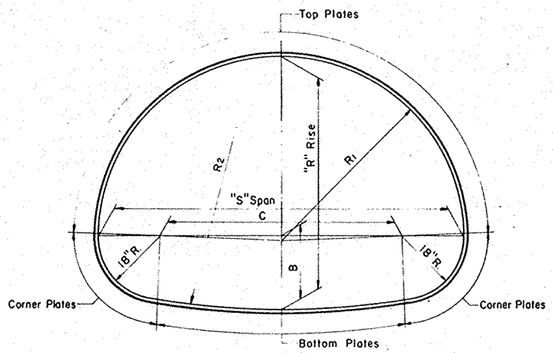
RECOMMENDED FOR APPROVAL:

4/9/65 DATE — E. J. Byskit CHIEF DESIGN ENGINEER

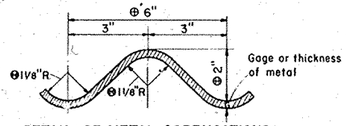
4/12/65 DATE — E. C. Rutlinger STATE HIGHWAY ENGINEER

PLATE NO. 6-2.6.4.

15.4-43



STRUCTURAL PLATE PIPE ARCH



DETAIL OF METAL CORRUGATIONS

CORRUGATION DIMENSION TOLERANCES

⊖-Tol. 1/4"
⊕-Tol. ± 1/8"
⊖-Min. 1 1/16"

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, and the applicable Special Provisions.

TOLERANCES

Pipe Arch size dimensions are subject to manufacturing tolerances and the ratio of rise (R) to span (S) shall not exceed a tolerance of 5% plus or minus.

Metal corrugation dimension tolerances shall not exceed pertinent dimensions shown elsewhere on this drawing.

EMBANKMENT—Minimum for ℄ Culverts

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S"/10 or 1'-0" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S"/14 or a minimum of 6" cushion between pipe and pavement.

EMBANKMENT—Maximum for ℄ Culverts

The maximum depth of embankment shall be 15 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

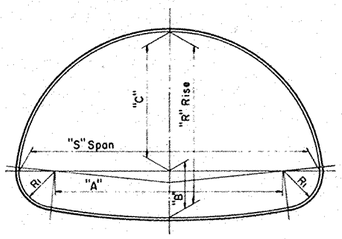
Strutting of Pipe Arches will not be required during construction unless specifically called for on the plans or the applicable Special Provisions.

TABLE OF PROPERTIES
STRUCTURAL PLATE PIPE ARCH

SPAN Nominal Size	Dimensions taken from inside crests of corrugations: Fabricators Size Min. Acceptable "S" Span — "R" Rise	R/S Ratio	Area Sq.Ft.	B In.	C In.	R1 In.	R2 In.	Table of Metal Gages — Minimum Acceptable, H-20 LOADING, Depth of Embankment in Feet: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
6 Feet	6'-1" x 4'-7"	.75	22	21.0	37.0	36.7	76.4	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
7 "	7'-0" x 5'-1"	.73	28	21.4	48.0	42.3	104.5	10	12	12	12	12	12	12	12	12	12	12	12	12	10	10
8 "	7'-11" x 5'-7"	.70	35	21.7	59.0	47.7	138.4	10	10	10	12	12	12	12	12	12	12	12	10	10	10	10
9 "	8'-10" x 6'-1"	.69	43	21.8	70.0	53.0	179.2	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8
10 "	9'-9" x 6'-7"	.67	52	21.9	81.0	58.3	228.0	8	8	10	10	10	10	10	10	10	10	10	8	8	8	7
11 "	10'-11" x 7'-1"	.65	61	25.1	95.0	65.8	180.8	8	8	8	10	10	10	10	10	10	8	8	8	7	7	5
12 "	11'-10" x 7'-7"	.64	71	25.2	106.0	71.1	217.0	7	8	8	8	8	8	8	8	8	8	8	7	5	5	3
13 "	12'-10" x 8'-4"	.65	85	24.0	118.0	77.2	315.2	5	7	8	8	8	8	8	8	7	7	5	5	3	1	
14 "	13'-11" x 8'-7"	.62	93	28.9	131.0	84.4	220.8	5	5	7	7	8	8	8	7	7	5	5	3	3	1	1
15 "	14'-10" x 9'-1"	.61	105	28.9	142.0	89.5	254.9	3	5	5	7	7	7	7	7	5	3	3	1	1	–	–
16 "	15'-10" x 9'-10"	.62	122	27.4	154.0	95.4	339.1	1	3	5	5	7	7	7	5	3	3	1	1	–	–	–
16.5 "	16'-7" x 10'-1"	.61	131	28.7	163.0	99.8	333.8	–	1	3	3	5	5	5	3	1	1	1	–	–	–	–

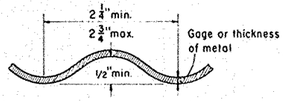
Note: For sizes of Structural Plate Pipe Arch between those shown in the table, the gage shall be interpolated (based on table data) where possible; otherwise the gage of the next larger size shown in the table shall be used.

STRUCTURAL PLATE PIPE ARCH



CORRUGATED METAL PIPE ARCH

(Riveted)



DETAIL OF METAL CORRUGATIONS

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, and the applicable Special Provisions.

TOLERANCES

Tolerance from the dimensions detailing size and shape will be permissable providing equivalent capacity and strength are attained.

EMBANKMENT—Minimum for ℄ Culverts

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S"/10 or 9" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S"/14 or a minimum of 3" cushion between pipe and pavement.

EMBANKMENT—Maximum for ℄ Culverts

The maximum depth of embankment shall be 10 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

TABLE OF DIMENSIONS
CORRUGATED METAL PIPE ARCH

CORRUGATED METAL PIPE ARCH: Gage (Min. Acceptable)	"S" Span Inches	"R" Rise Inches	"A" Inches	"B" Inches	"C" Inches	R1 Inches	R/S Ratio	Area Sq.Ft.	Round Pipe of Approx. Equal Periphery: Area Sq.Ft.	Diam. Inches
16	18	11	10	4 1/2	6 1/2	3 1/2	.61	1.1	1.23	15
16	22	13	14	4 3/4	8 1/4	4	.59	1.6	1.77	18
16	25	16	17	5 1/4	10 3/4	4	.64	2.2	2.41	21
14	29	18	20	5 1/2	12 1/2	4 1/2	.62	2.8	3.14	24
14	36	22	26	6 1/4	15 3/4	5	.61	4.4	4.91	30
12	43	27	32	7	20	5 1/2	.63	6.4	7.07	36
12	50	31	38	8	23	6	.62	8.7	9.62	42
12	58	36	44	9 1/4	26 3/4	7	.62	11.4	12.57	48
12	65	40	49	10 1/2	29 1/2	8	.62	14.3	15.90	54
10	72	44	54	11 3/4	32 1/4	9	.61	17.6	19.64	60

NOTE: All Dimensions measured from inside crest of corrugations.

CORRUGATED METAL PIPE ARCH

STRUCTURAL PLATE PIPE ARCH
CORRUGATED METAL PIPE ARCH

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

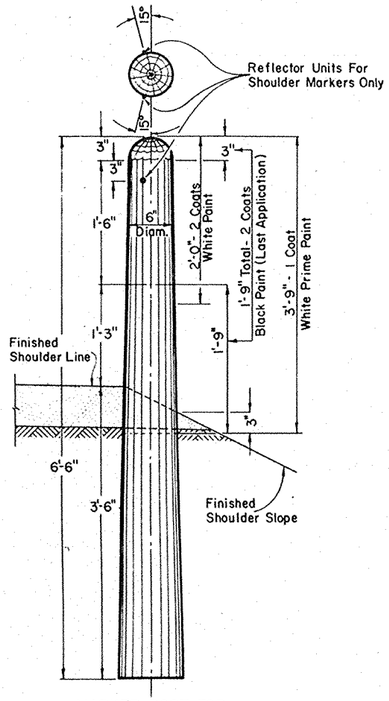
2-5-63 — DATE — J. S. Pelt — ENGINEER OF DESIGN

APPROVED:

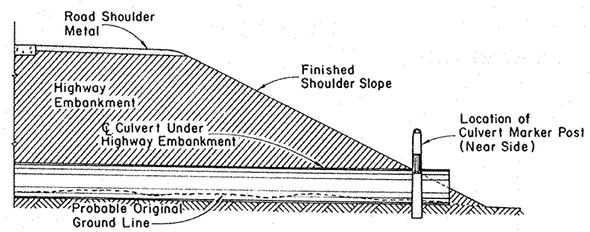
2/6/63 — DATE — E. L. Ruettiger — STATE HIGHWAY ENGINEER

PLATE NO. 6-5.3.2

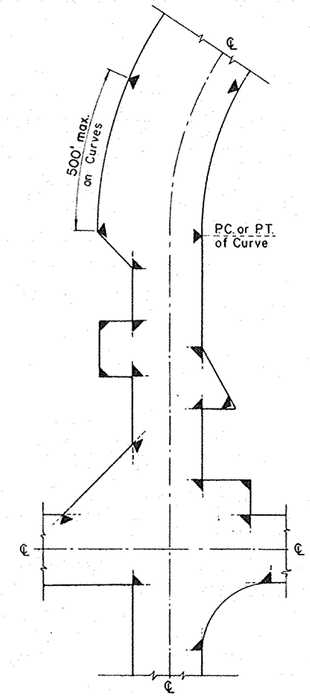
15.5-43



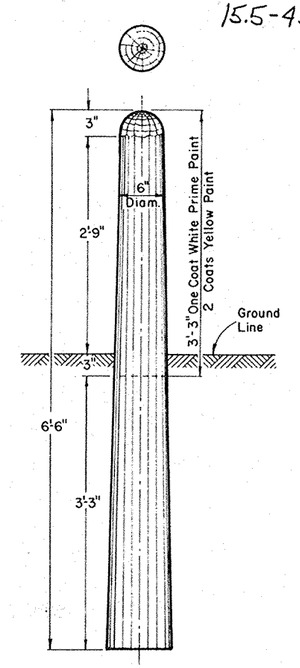
MARKER POST FOR ROAD SHOULDERS AND CULVERTS



SECTION
SHOWING RELATIVE LOCATION OF
MARKER POST FOR CULVERTS

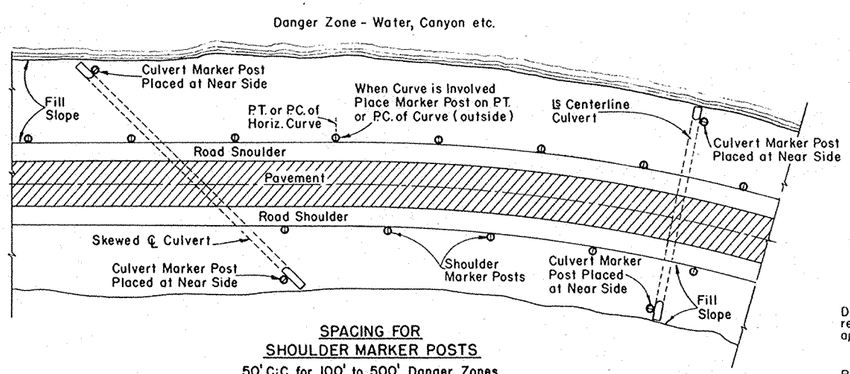


LOCATION DIAGRAM
SHOWING TYPICAL LOCATIONS OF
MARKER POSTS FOR RIGHT OF WAY



MARKER POST FOR RIGHT OF WAY

MARKER POST FOR RIGHT OF WAY



SPACING FOR
SHOULDER MARKER POSTS

50' C:C for 100' to 500' Danger Zones
100 C:C for Over 500' Danger Zones

LOCATION DIAGRAM
SHOWING RELATIVE LOCATIONS OF SHOULDER MARKER POSTS
AND CULVERT MARKER POSTS

MARKER POSTS FOR ROAD SHOULDERS AND CULVERTS

GENERAL NOTES

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

MARKER POSTS FOR RIGHT OF WAY

Right of Way Marker Posts shall be erected in advance of Grading Operations. Posts shall be placed at the outer limits of the Highway Right of Way, but entirely within the Right of Way, and shall be so placed that the outer edge of the posts shall be tangent to the Right of Way line or lines extended. The exact location of all Right of Way Posts will be staked in the field by the Engineer.

REFLECTOR UNITS

Reflector Units shall have plastic crystal lens 7/8" in diameter. Unit assembly shall be a minimum of 7/8" in length. Reflector Units shall be furnished with flared expanding metal clips for wood mounting. Units shall be mounted in tightest fit possible and securely stayed in posts. Reflector Units shall be installed in Road Shoulder Marker Posts only.

MARKER POSTS &
MARKER POSTS FOR RIGHT OF WAY

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

2-5-63 — J. J. Pitt — ENGINEER OF DESIGN

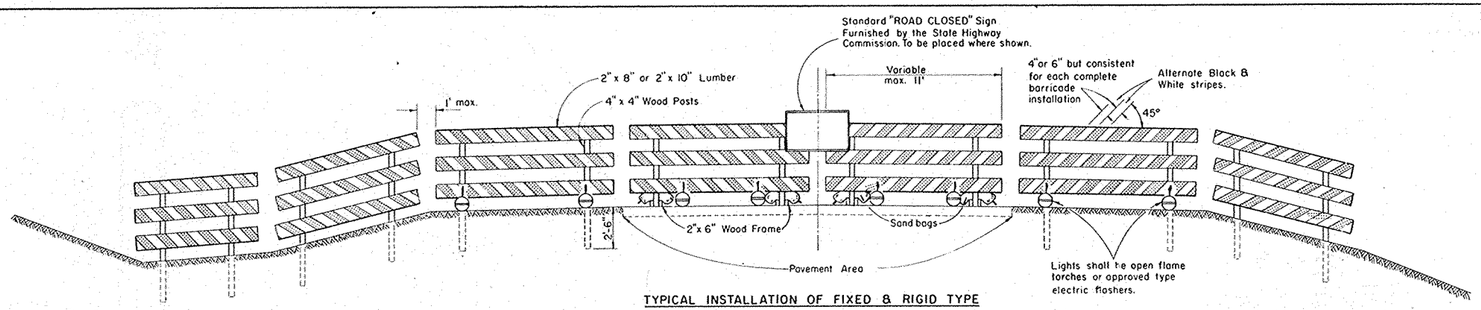
APPROVED:

2/6/63 — E. L. Rettiger — STATE HIGHWAY ENGINEER

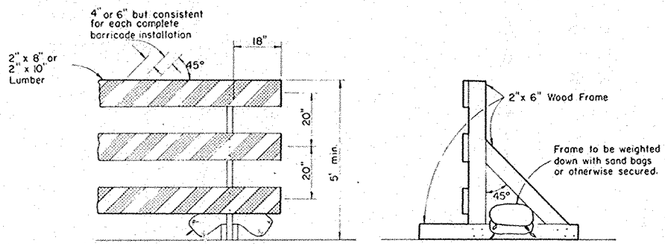
DATE

PLATE NO. 7-1.3.4

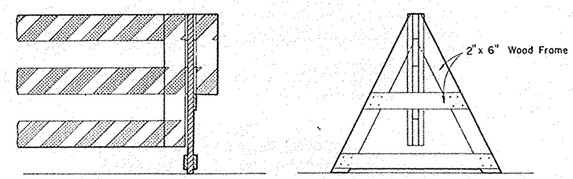
15.6-43



TYPICAL INSTALLATION OF FIXED & RIGID TYPE

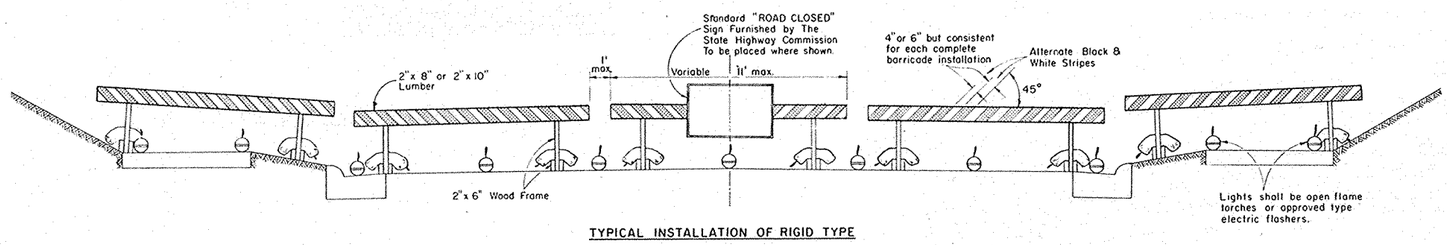


ALTERNATE TYPE INSTALLATION (RIGID)

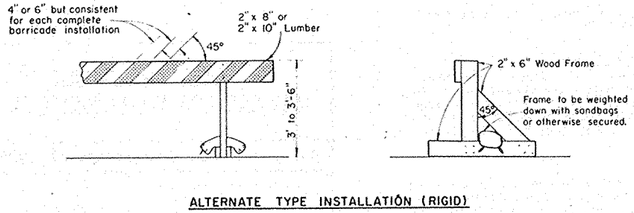


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

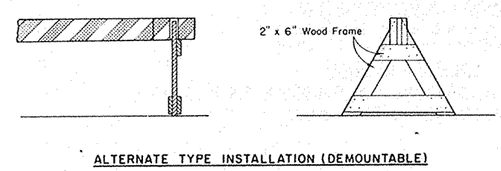
CLASS I BARRICADE



TYPICAL INSTALLATION OF RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADE

GENERAL NOTES:

The Contractor shall construct, place and maintain barricades as shown on this drawing and as required by the Standard Specifications for the duration of the project at all points of highway closure. Barricades shall be painted as shown hereon and structurally maintained for maximum visibility at all times, for the duration of the respective project.

CLASS I BARRICADE

Shall be used at points of closure where road is closed to traffic. Gates or movable sections of barricade shall be provided when necessary, for access of equipment or other authorized vehicles only.

CLASS II BARRICADE

May be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

LUMBER & FABRICATION

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. The fabrication of the barricade shall be in accord with good pertinent woodworking practices.

PAINTING

Barricades shall be painted as shown hereon in alternate black and white stripes. Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be painted a prime coat of good grade wood primer, followed by two coats of white "Codit Reflective Liquid" (Minnesota Mining Co.) or equivalent, or reflective sheeting wide angle, flat top "Scotchlite" brand material (Minnesota Mining Co.) or equivalent.

DIRECTION OF DIAGONAL STRIPES

Where a barricade extends entirely across the roadway and no vehicle access provision, the stripes shall slope downward toward the highway centerline.

Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.

Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.

MEASUREMENT & PAYMENT

All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

NOTE:

Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

NOTE:

All lumber or timber dimensions shown hereon are nominal.

CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

2-5-63 DATE — J. S. Pitt ENGINEER OF DESIGN

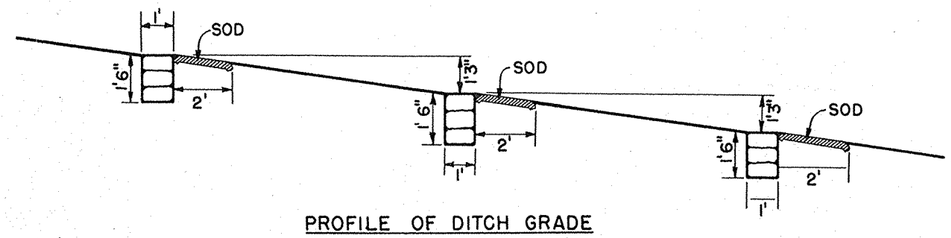
APPROVED:

2/14/63 DATE — E. C. Martin STATE HIGHWAY ENGINEER

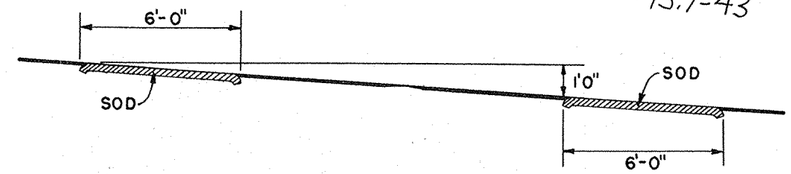
PLATE NO. 7-4.1.4

6

15.7-43

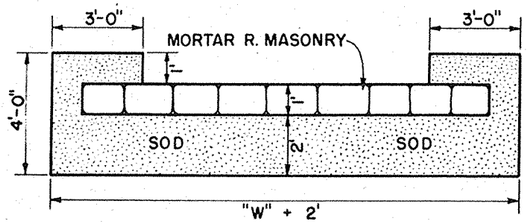


PROFILE OF DITCH GRADE

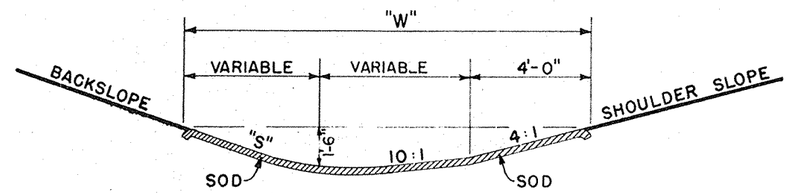


PROFILE OF DITCH GRADE

NOTE: NUMBER REQUIRED WILL BE DETERMINED BY VERTICAL SPACING.



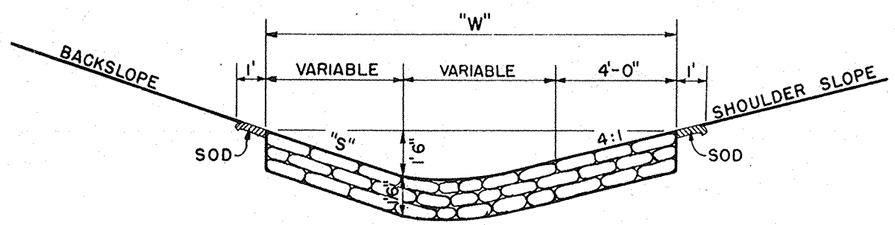
PLAN VIEW SHOWING SOD



SECTION

SOD DITCH CHECKS

QUANTITIES		
"S"	"W"	EACH SQ. YD.
2:1	12'	8
3:1	13.5'	9
4:1	15'	10



SECTION

MORTAR RUBBLE MASONRY

QUANTITIES			
"S"	"W"	SOD SQ. YD.	EACH CU. YD.
2:1	12'	4.0	0.67
3:1	13.5'	4.33	0.75
4:1	15'	4.67	0.83

CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DITCH CHECKS
MORTAR RUBBLE MASONRY & SOD

STATE HIGHWAY COMMISSION OF WISC.

RECOMMENDED FOR APPROVAL:

Frank Crane
DESIGN ENGINEER

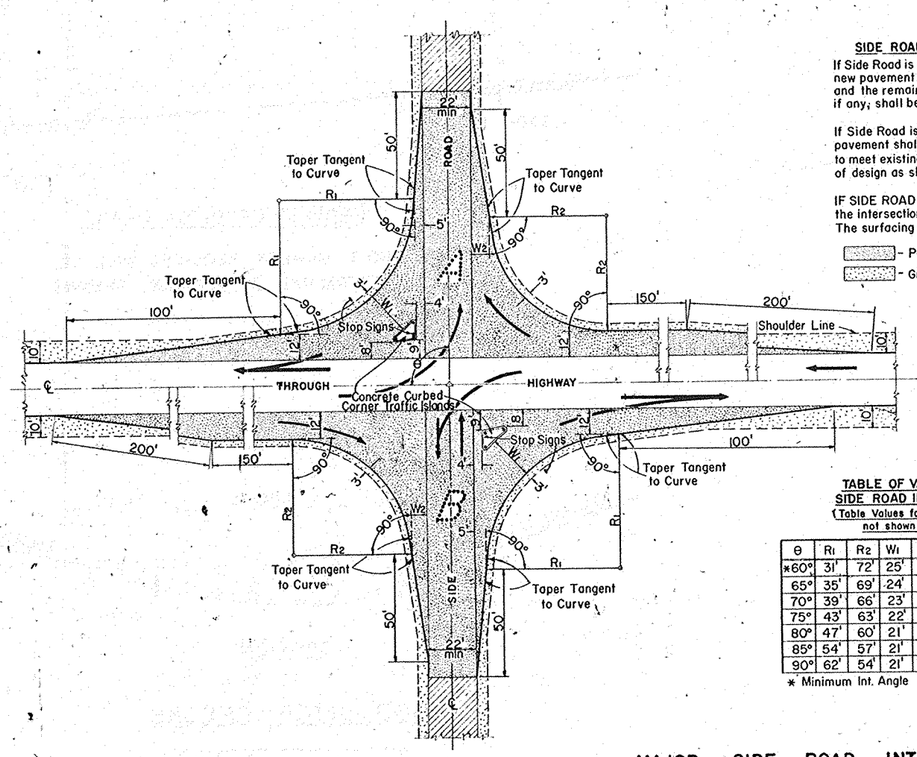
DATE:
CONSTRUCTION ENGINEER

APPROVED:

DRAWN DIV. 9
CHECKED

E. L. Roettger
STATE HIGHWAY ENGINEER 8-1.3.1

15.8-43



SIDE ROAD SURFACING NOTE

If Side Road is not presently surfaced, new pavement shall be placed as shown, and the remainder to construction limits, if any, shall be gravel or crushed stone surfaced.

If Side Road is presently paved, new pavement shall be placed only as necessay to meet existing pavement, and to limits of design as shown.

IF SIDE ROAD IS THE CONSTRUCTION PROJECT, the intersection geometrics remain as shown. The surfacing shall be same as for the project.

- Pavement
- Gravel or Crushed Stone

TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

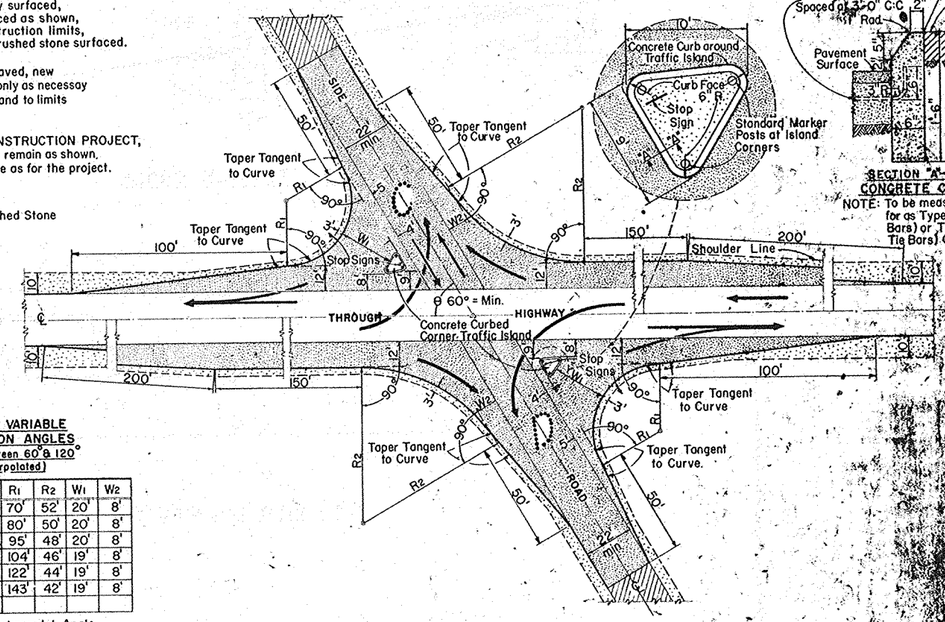
(Table Values for Angles between 60° & 120° not shown shall be interpolated)

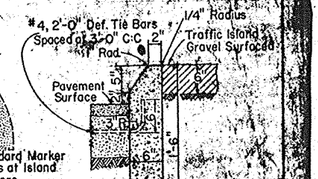
θ	R1	R2	W1	W2
*60°	31'	72'	25'	10'
65°	35'	69'	24'	9'
70°	39'	66'	23'	8'
75°	43'	63'	22'	8'
80°	47'	60'	21'	8'
85°	54'	57'	21'	8'
90°	62'	54'	21'	8'

θ	R1	R2	W1	W2
95°	70'	52'	20'	8'
100°	80'	50'	20'	8'
105°	95'	48'	20'	8'
110°	104'	46'	19'	8'
115°	122'	44'	19'	8'
**120°	143'	42'	19'	8'

* Minimum Int. Angle

** Maximum Int. Angle





SECTION "A"-"A"
CONCRETE CURB

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

MAJOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used only when current ADT on Through Highway is 1500 or over, and on Side Road is Over 200

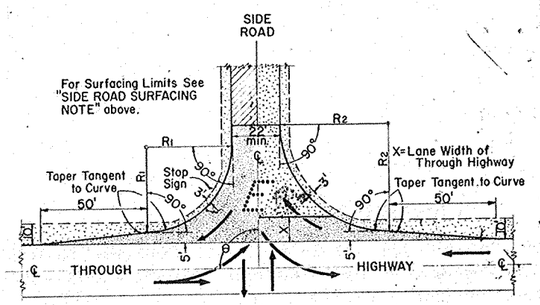


TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

(Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R1	R2
* 60°	40'	50'
65°	40'	50'
70°	40'	50'
75°	40'	50'
80°	40'	50'
85°	40'	50'
90°	40'	50'

θ	R1	R2
95°	45'	49'
100°	50'	48'
105°	55'	47'
110°	60'	46'
115°	65'	45'
**120°	70'	44'

* Minimum Int. Angle

** Maximum Int. Angle

MINOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used when current ADT on Through Highway is Less than 1500 or on Side Road is Less than 200

GENERAL NOTES

Designs "A" "B" "C" "D" or "E" may be used interchangeably in combination or separately for any one complete intersection depending upon Traffic Volume, 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.

DESIGN & LAYOUT [illegible] SIDE ROAD INTERSECTIONS (RURAL IN CHARACTER)

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

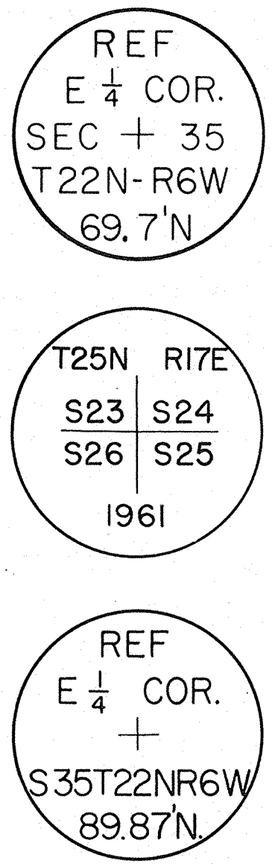
DATE: 8-5-43

APPROVED

DATE: 8/6/43

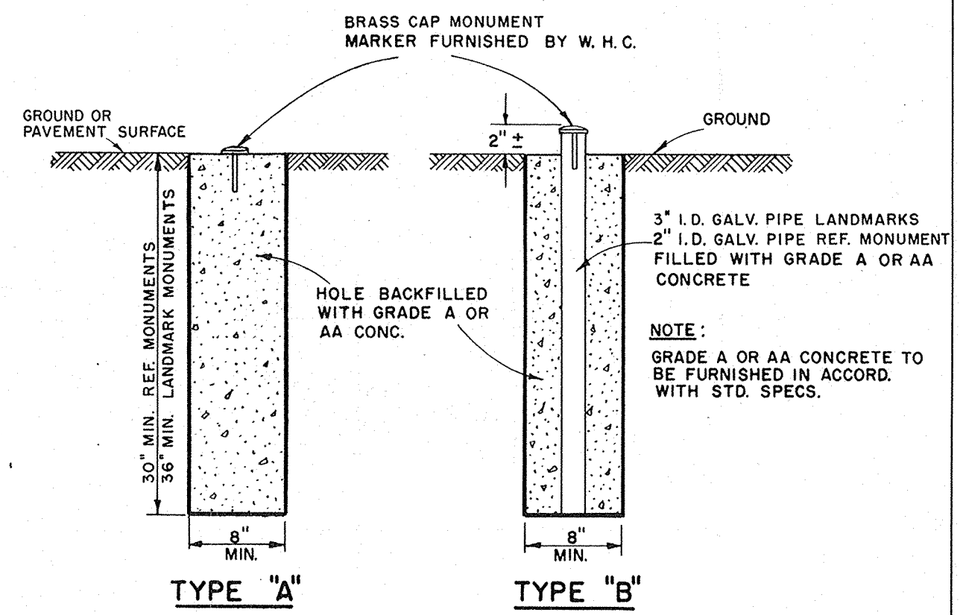
6

15.9-43



BRASS
MONUMENT MARKER

(FURNISHED TO CONTRACTOR WITHOUT COST.)



GENERAL NOTES

MONUMENT CONSTRUCTION SHOWN HEREON CONFORMS TO WISCONSIN STATUTES, SECTIONS 59.635 AND 60.37 BRASS MONUMENT MARKER TO BE FURNISHED AND PROPERLY STAMPED BY WIS. HIGHWAY COMM. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. MONUMENTS CONFORMING TO EITHER TYPE A OR TYPE B AS SHOWN HEREON TO BE PLACED WHERE AND AS DIRECTED BY THE ENGINEER.

MEASUREMENT AND PAYMENT-

LANDMARK REFERENCE MONUMENTS SHALL BE MEASURED AND PAID FOR AS COMPLETED UNITS IN PLACE, WHICH PRICE SHALL INCLUDE FURNISHING AND PLACING OF CONCRETE, PIPE, EXCAVATION AND DISPOSITION THEREOF, PLACEMENT OF BRASS MARKER AND SITE RESTORATION.

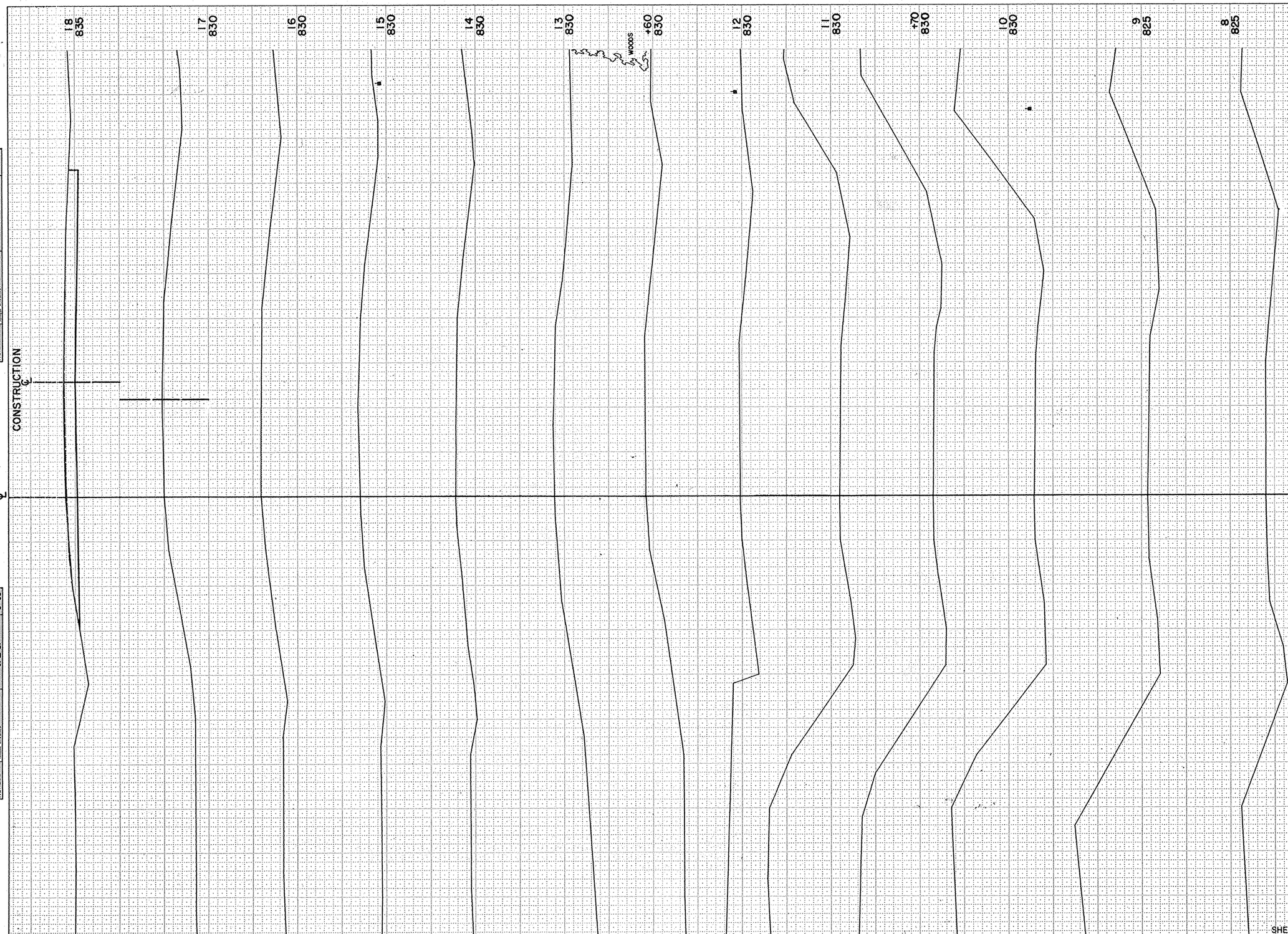
LANDMARK
REFERENCE MONUMENTS

STATE HIGHWAY COMMISSION OF WISCONSIN
RECOMMENDED FOR APPROVAL:

2-5-63 J. S. Pilf
DATE ENGINEER OF DESIGN

APPROVED:

2/6/63 E. L. Roettiger
DATE STATE HIGHWAY ENGINEER 12-1.1.2

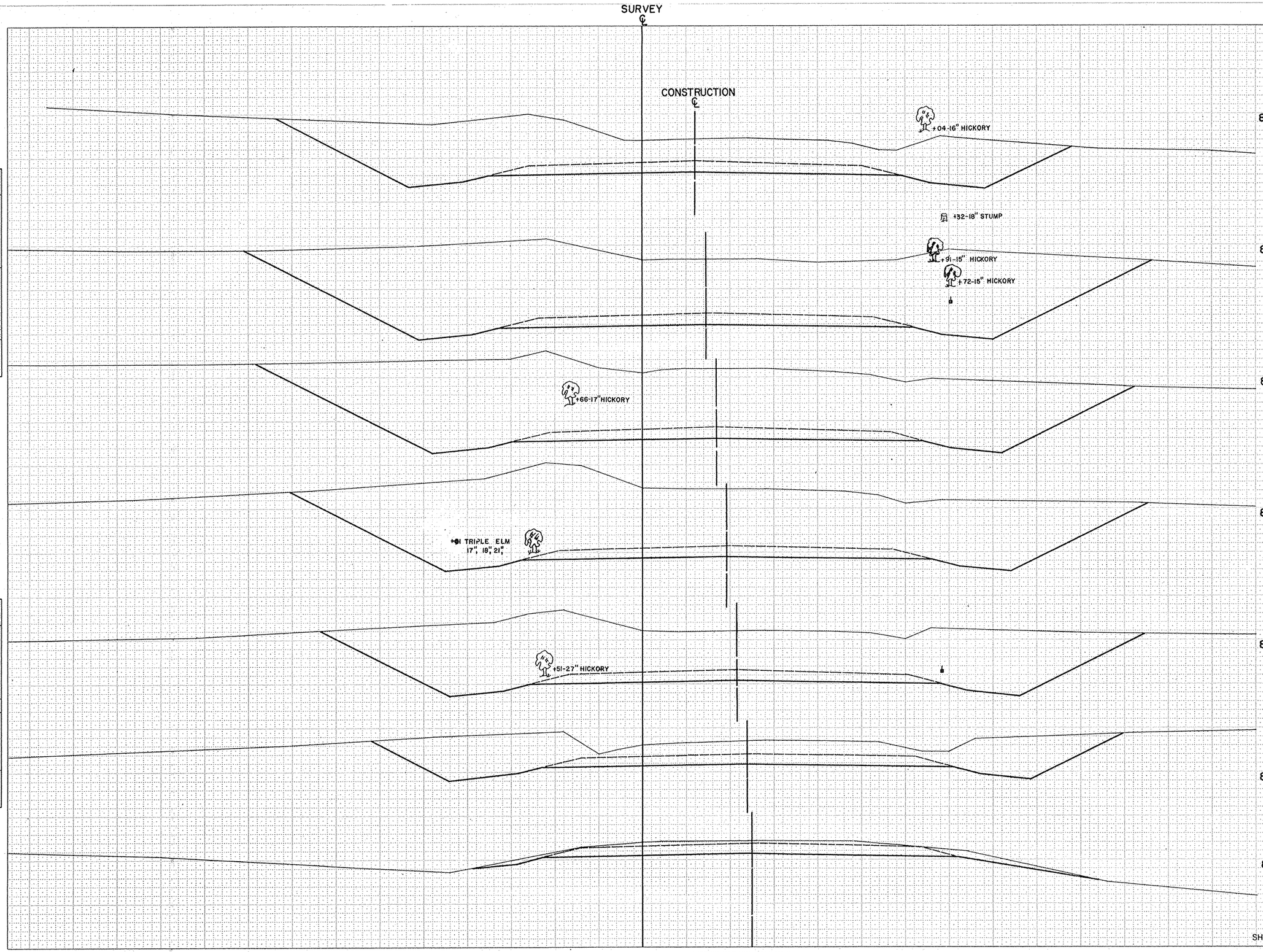


B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	16	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON				FILL
7						
		122				0
18						
SHEET TOTAL		122				0

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	17	43

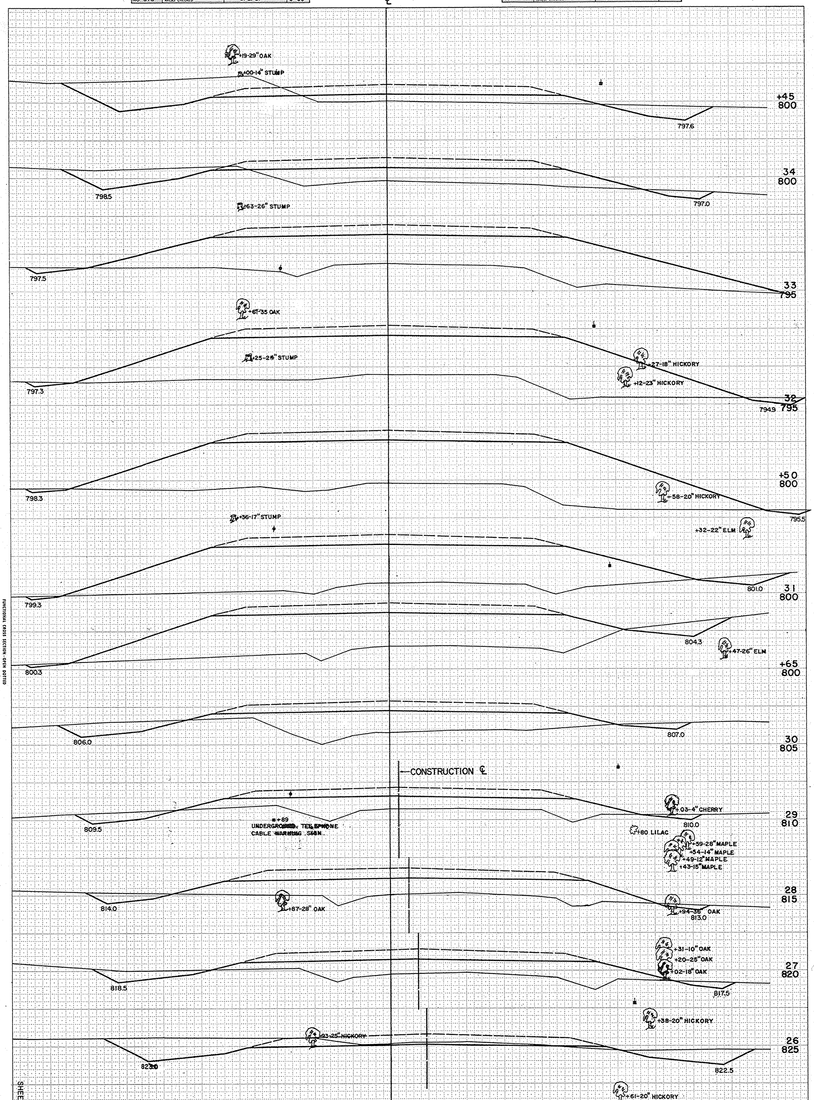


STATION	DISTANCE	YARDAGE EXCAVATION COMMON				YARDAGE FILL
18						
	267					0
19						
	624					0
20						
	1,489					0
21						
	2,313					0
22						
	2,635					0
23						
	2,752					0
24						
	2,178					0
25						
SHEET TOTAL		12,258				0

FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO.	

ORIGINAL SURVEY		
SURVEYED	D. G. N.	1-65
PLOTTED	A. J. K.	1-65
TEMPLATE	G. L. H.	2-65
AREAS	G. L. H.	2-65
AREAS CHECKED	G. L. B.	3-65
NOTE BOOK NO. 615		

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.



STATION	DISTANCE	COMMON	EXCAVATION	FILL
23				
25		969		4
26		204		200
27		68		492
28		67		430
29		109		400
30		69		504
31		30		428
195		13		763
150		7		600
32		13		1,343
33		74		756
34		111		102
+45				
SHEET TOTAL		1,704		6,182

YARDAGE

F.A.P. 6-42-2(3)	
WIS.	PROJECT
5 1449 03	
8	SHEET
23	TOTAL SHEETS

PROFILE, FIELD NOTES AND NOTES
CHARLES WILLIAMS ASSOCIATES, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	19	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	FILL
34 +45			
35	168		57
36	213		109
37	176		122
38	139		172
39	72		343
40	56		459
47	59		506
42	57		533
43	56		500
44	63		430
45	65		404
46	78		393
47	72		354
48	59		326
49	67		270
SHEET TOTAL	1,400		4,978

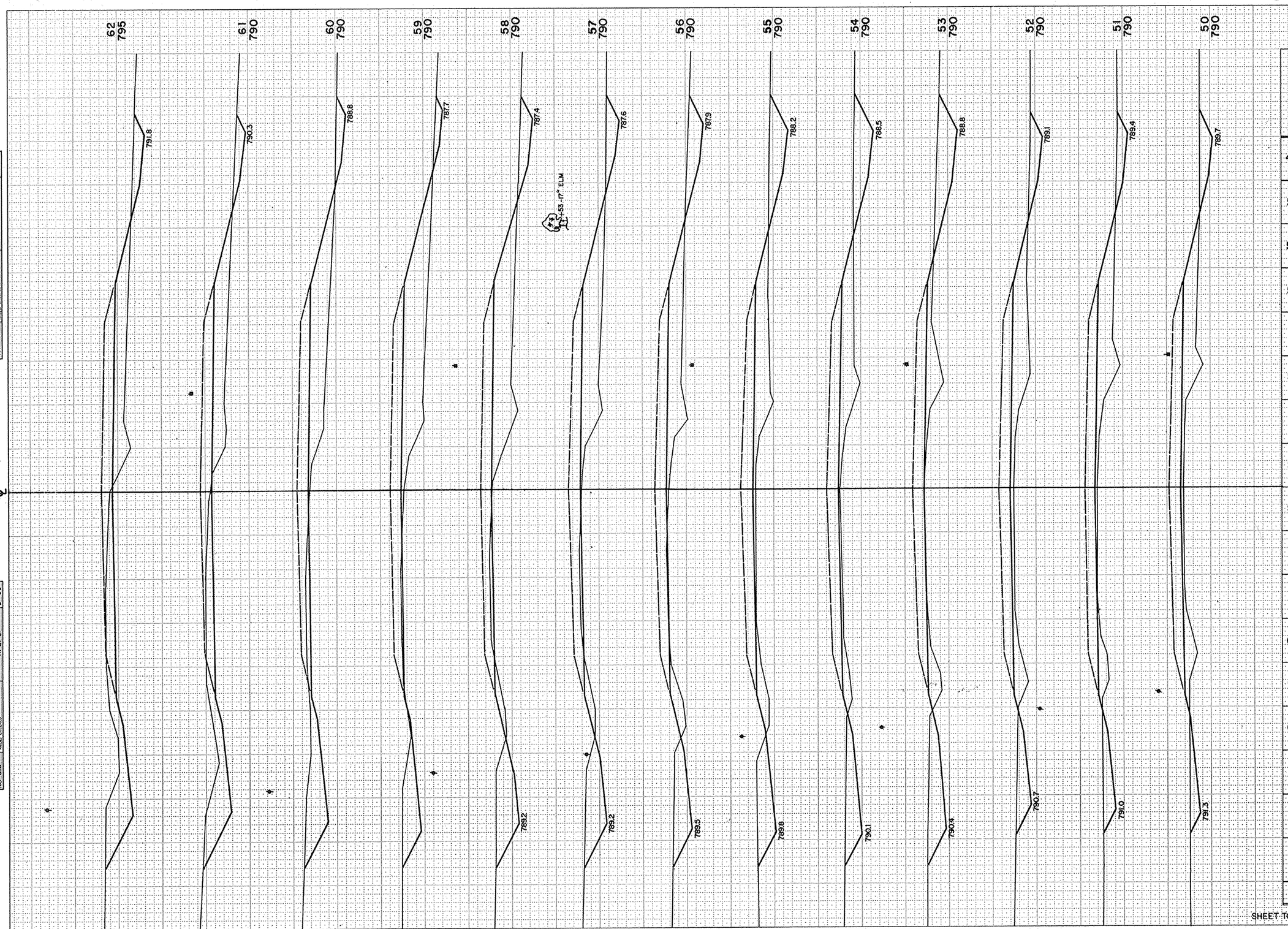
SURVEY	
NOTE BOOK	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

S. B. N.
A. J. N.
G. L. B.
R. E. B.

1"=50
1-65
2-65
3-65

SURVEY	
NOTE BOOK	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
NO. 615	AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

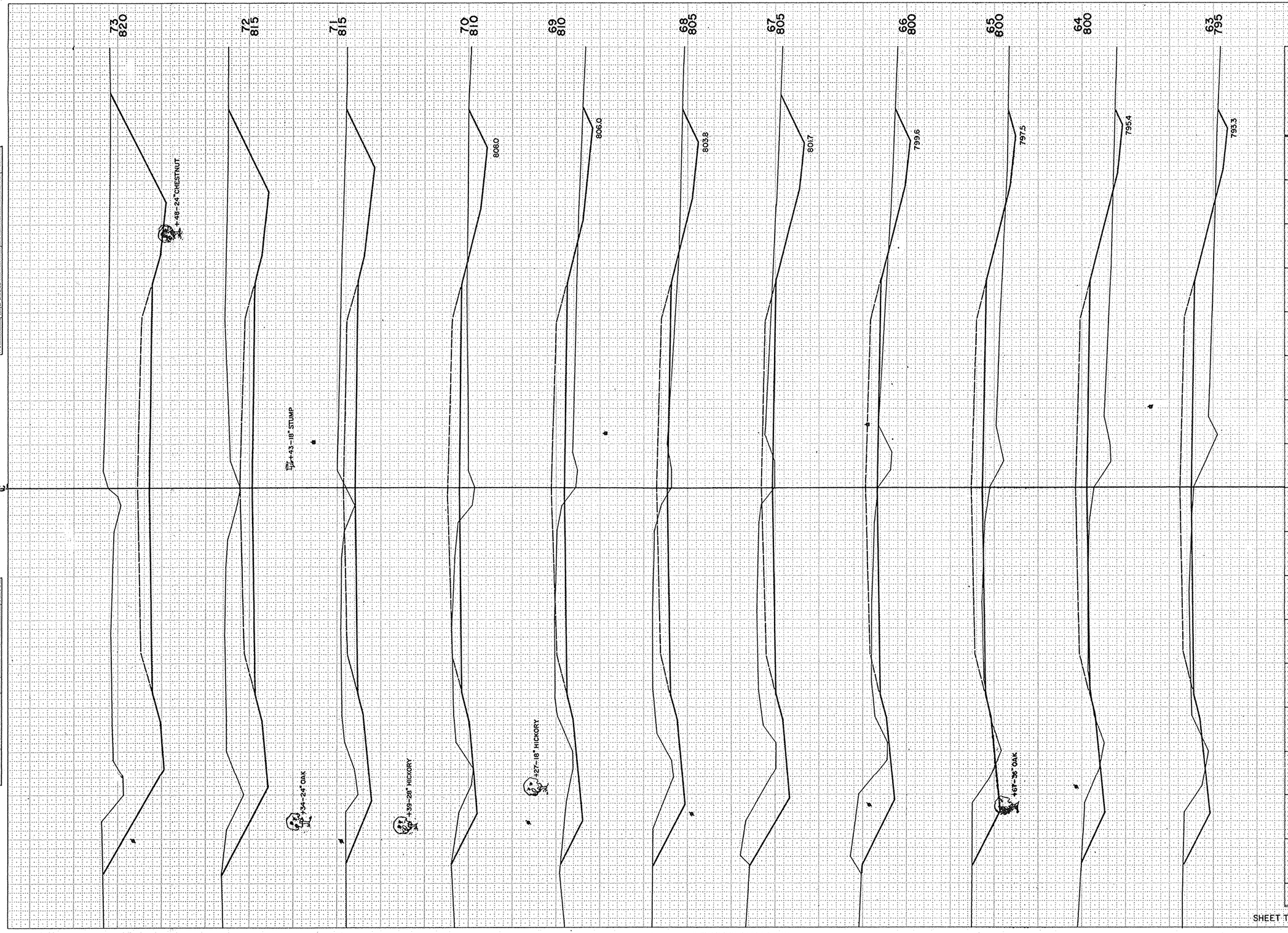


B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	20	48

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
49			
		65	194
50			
		70	157
51			
		83	168
52			
		137	141
53			
		165	126
54			
		152	176
55			
		143	189
56			
		132	196
57			
		143	222
58			
		130	246
59			
		137	226
60			
		185	174
61			
		217	150
62			
SHEET TOTAL		1,759	2,365

FUNCTIONAL CROSS SECTION • OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	21	43



STATION	DISTANCE	YARDAGE EXCAVATION COMMON				FILL
62						
	167					185
63						
	87					237
64						
	85					222
65						
	191					126
66						
	404					30
67						
	443					18
68						
	298					76
69						
	233					111
70						
	424					52
71						
	798					0
72						
	1,233					0
73						
SHEET TOTAL		4,363				1,057

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

SURVEY	SURVEYED	D. G. N.
	PLOTTED	A. J. K.
NOTE BOOK	TEMPLATE	G. L. B.
	AREAS	D. G. N.
NO. 615	AREAS CHECKED	G. L. B.

	1-65
	1-65
	2-65
	2-65
	3-65

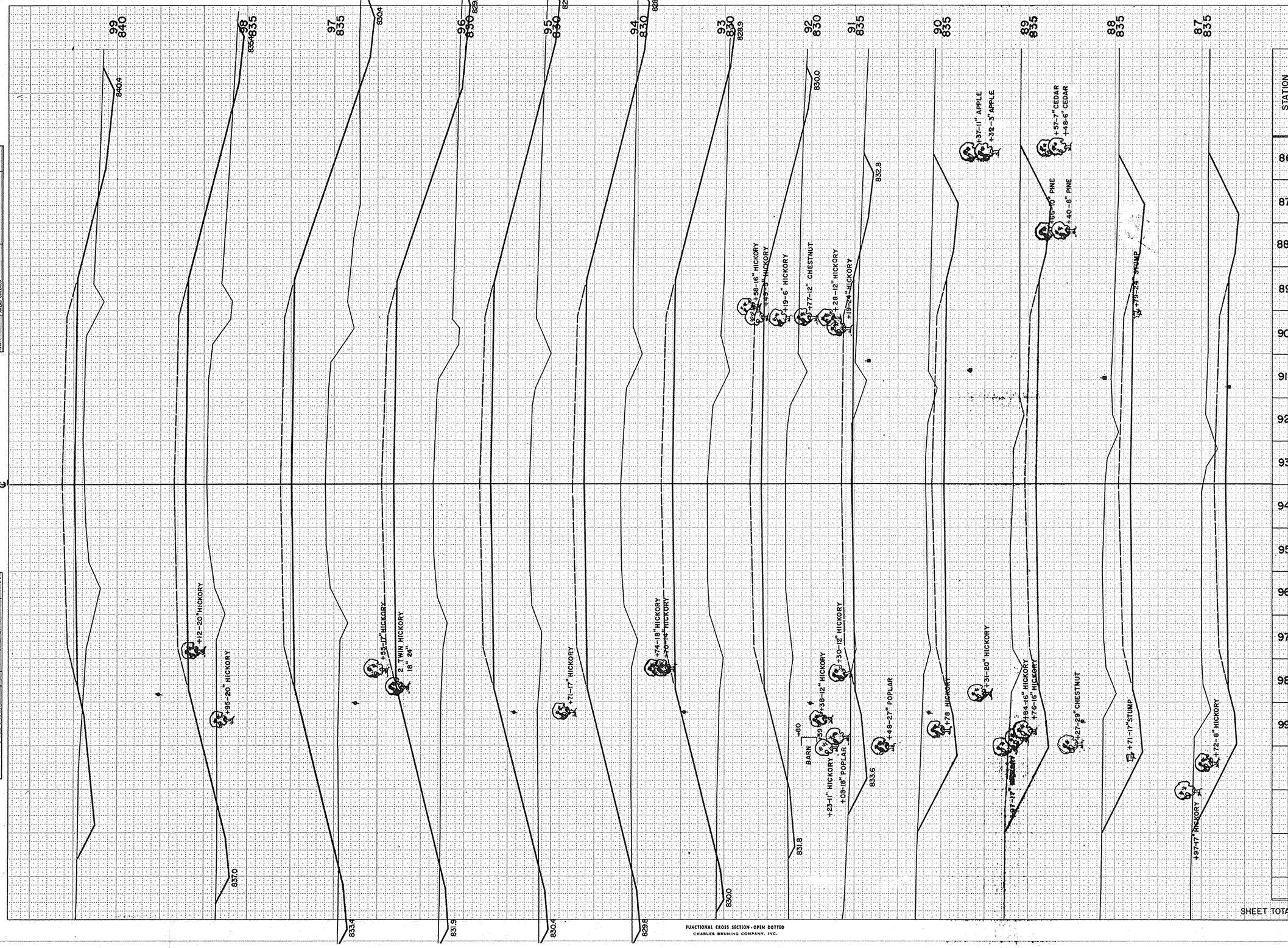
FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	22	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON					FILL
73							
	1,404						0
74							
	1,167						0
75							
	711						0
76							
	293						50
77							
	143						152
78							
	107						269
79							
	104						452
80							
	76						674
81							
	44						863
82							
	39						928
83							
	46						811
84							
	87						535
85							
	185						193
86							
SHEET TOTAL		4,406					4,927

FUNCTIONAL CROSS SECTION-OPEN BOTTOM
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	23	43

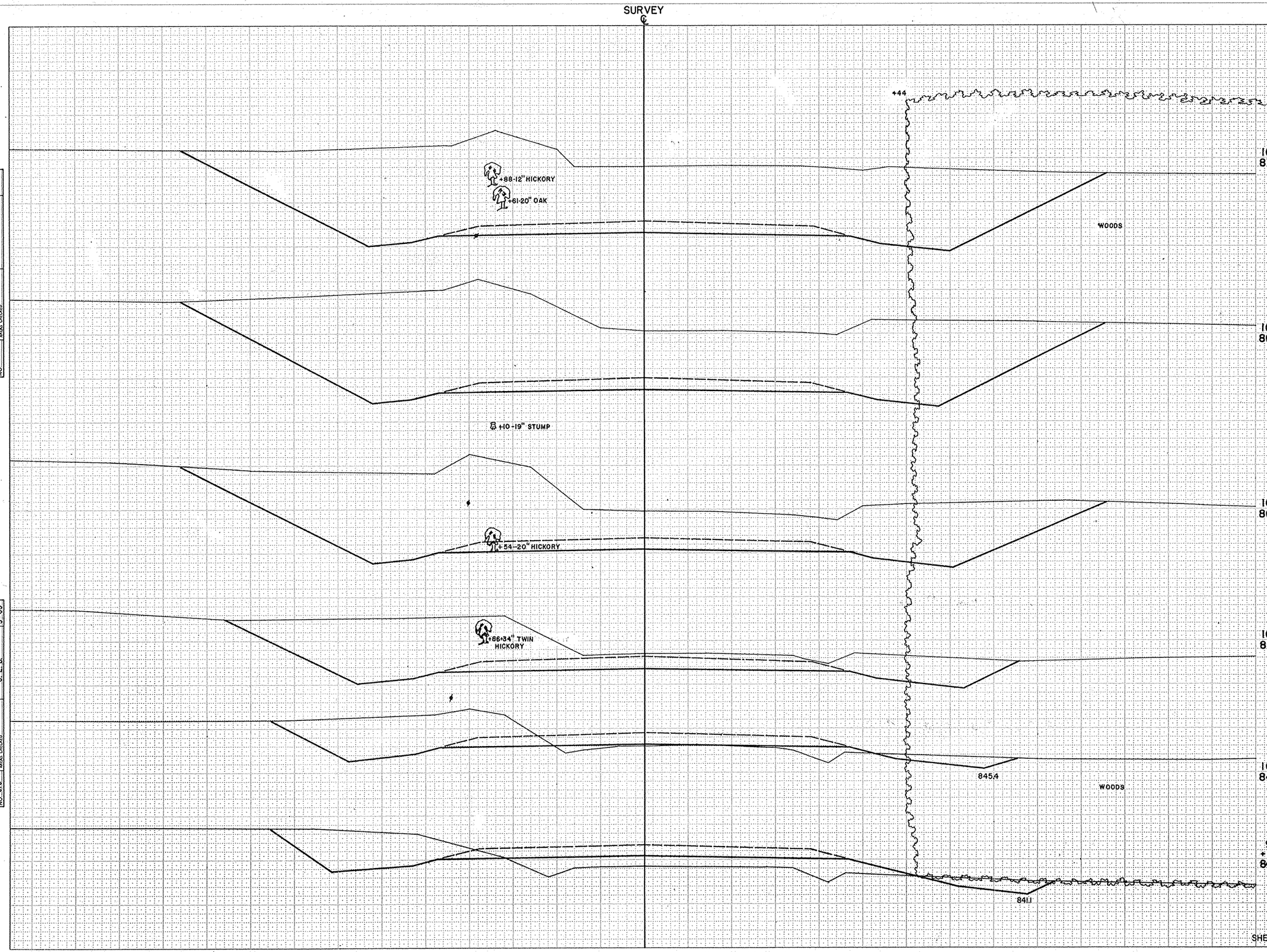


STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
86			
	515		15
87			
	791		0
88			
	809		0
89			
	735		0
90			
	387		22
91			
	80		409
92			
	32		1,020
93			
	39		1,276
94			
	61		1,278
95			
	65		1,328
96			
	67		1,356
97			
	67		1,063
98			
	96		544
99			
SHEET TOTAL	3,744		8,311

FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
DATE
BY

SURVEY	D. G. N.	1-60
	A. J. K.	2-65
NOTE BOOK	D. L. R.	3-63
NO. 615	G. L. B.	4-65

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

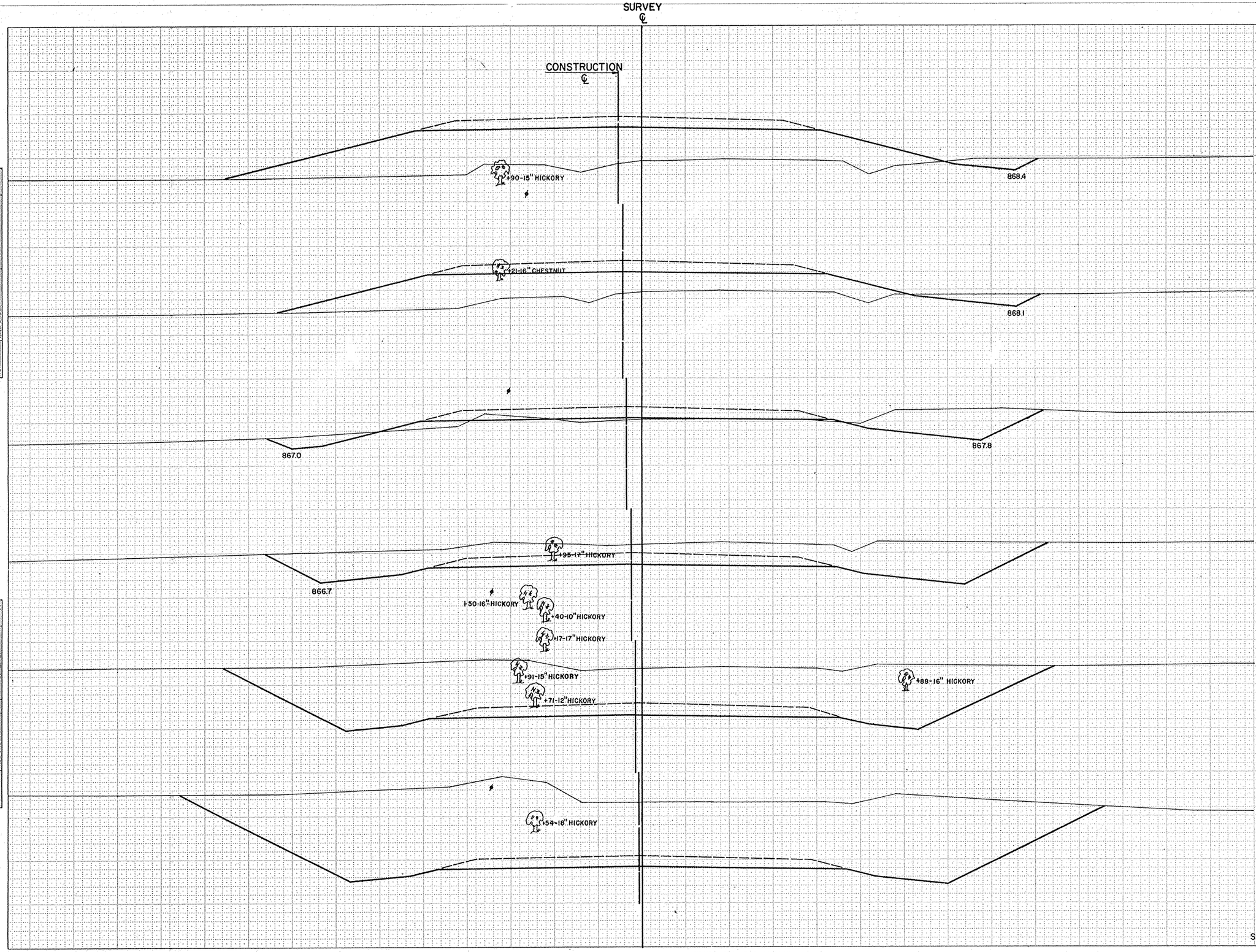


B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	24	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
99			
+15		35	39
100		348	124
101		815	30
102		1,730	0
103		2,674	0
104		3,017	0
SHEET TOTAL		8,619	193

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	25	43



STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
110 870			
104			
		2,968	0
105			
		2,448	0
106			
109 870		1,448	0
107			
		606	13
108			
		157	341
109			
108 870		43	861
110			
107 870			
106 870			
105 870			
SHEET TOTAL		7,670	1,215

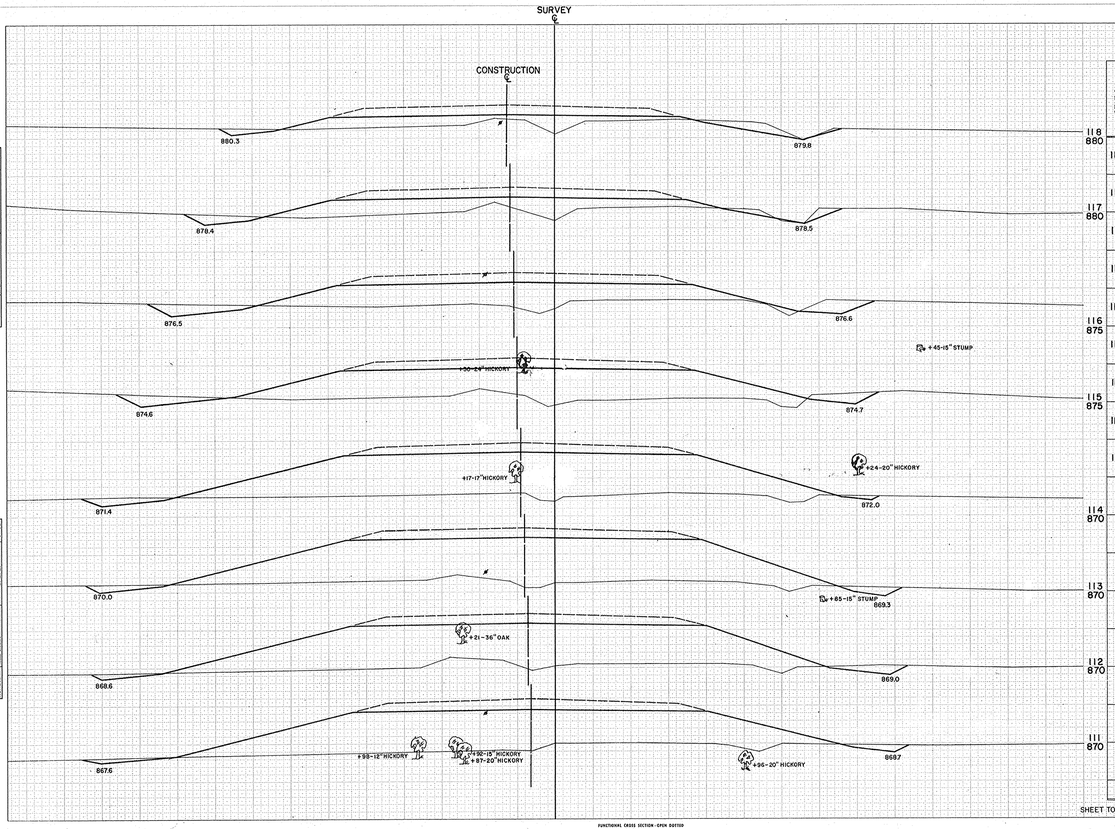
SURVEY	
NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS
NO.	AREAS CHECKED

A. J. K.	2-65
G. L. B.	3-65
G. H.	4-65
G. L. B.	4-65

SURVEY	
NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS
NO. 615	AREAS CHECKED

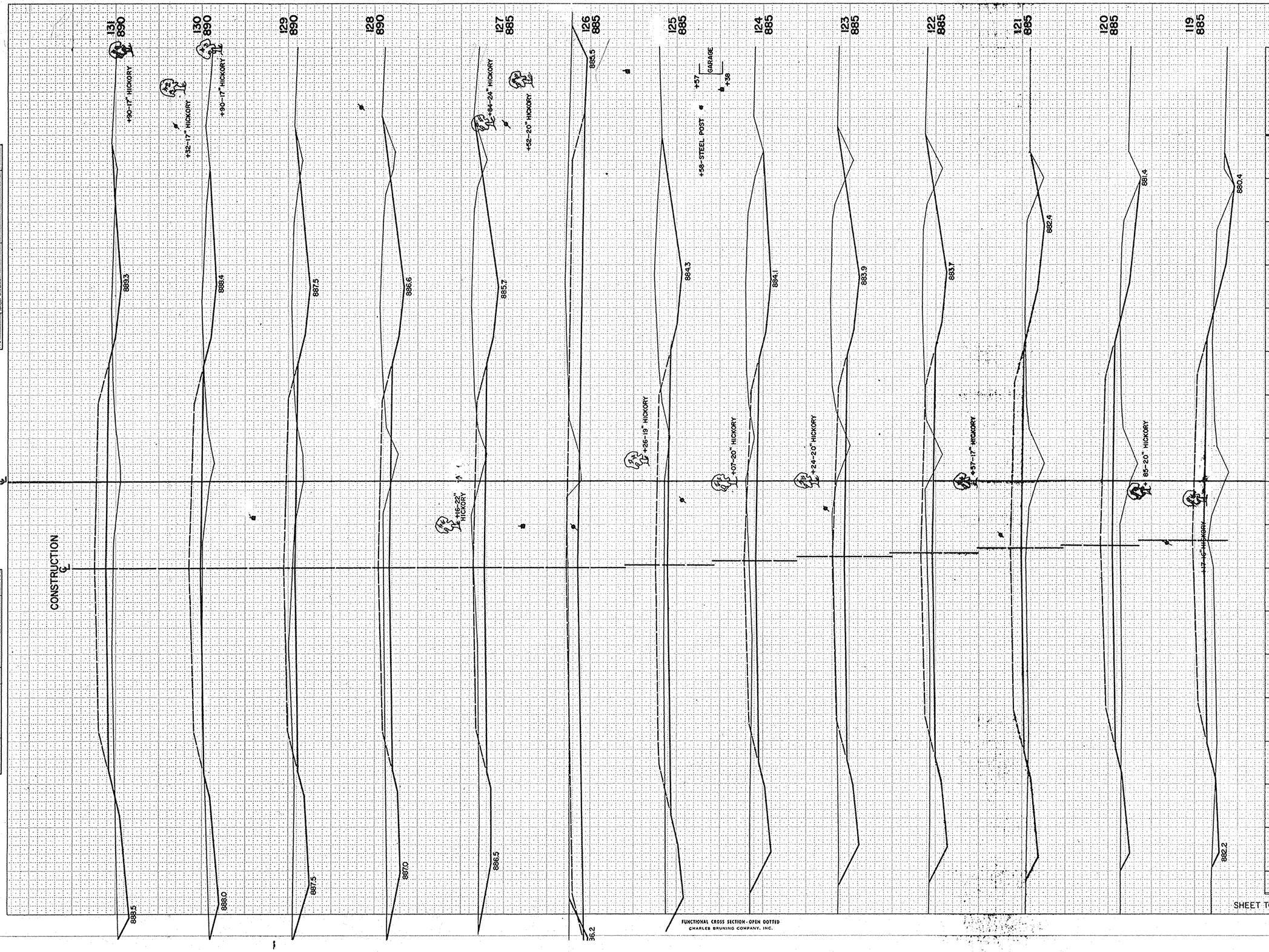
FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	26	43



STATION	DISTANCE	YARDAGE EXCAVATION COMMON				FILL
110						
		37				1,170
111						
		44				1322
112						
		50				1,400
113						
		43				1411
114						
		59				1150
115						
		87				759
116						
		76				491
117						
		63				300
118						
SHEET TOTAL		459				8,003

FUNCTIONAL CROSS SECTION - OPEN DITCH
CHARLES BRUNING COMPANY, INC.



B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	27	43

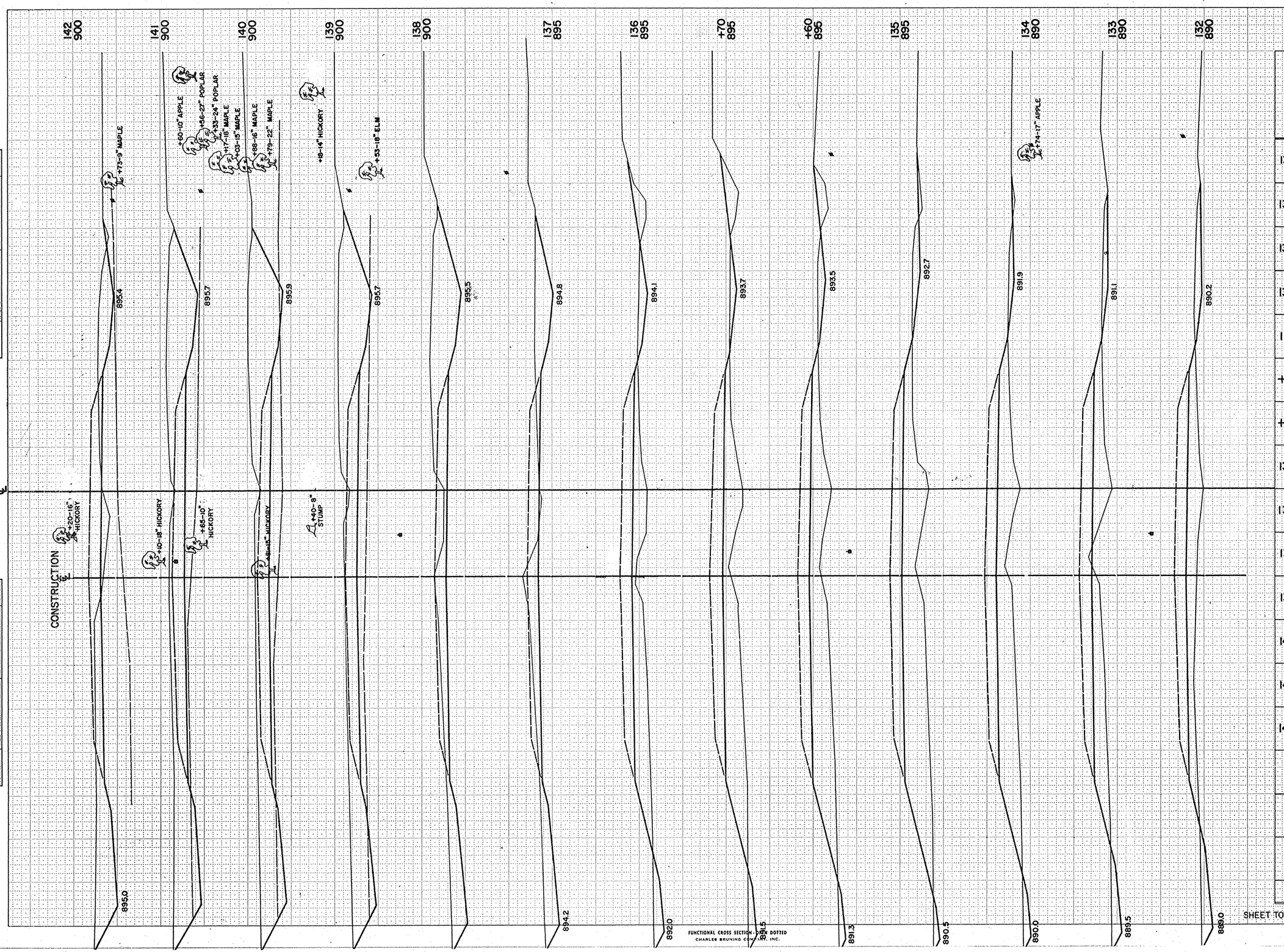
STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
118			
	70		231
119			
	83		222
120			
	109		189
121			
	241		96
122			
	428		22
123			
	489		9
124			
	437		0
125			
	U.S.H. 10		
126			
	550		6
127			
	417		11
128			
	335		26
129			
	228		43
130			
	128		113
131			
SHEET TOTAL	3,515		968

SURVEY	
NOTE BOOK	SURVEYED A. J. K. 2-65
	PLOTTED G. L. B. 3-65
	TEMPLATE G. L. B. 3-65
	AREAS D. R. 4-65
NO.	AREAS CHECKED G. L. B. 4-65

SURVEY	
NOTE BOOK	SURVEYED A. J. K.
	PLOTTED G. L. B.
	TEMPLATE G. L. B.
	AREAS D. R.
NO. 615	AREAS CHECKED G. L. B.

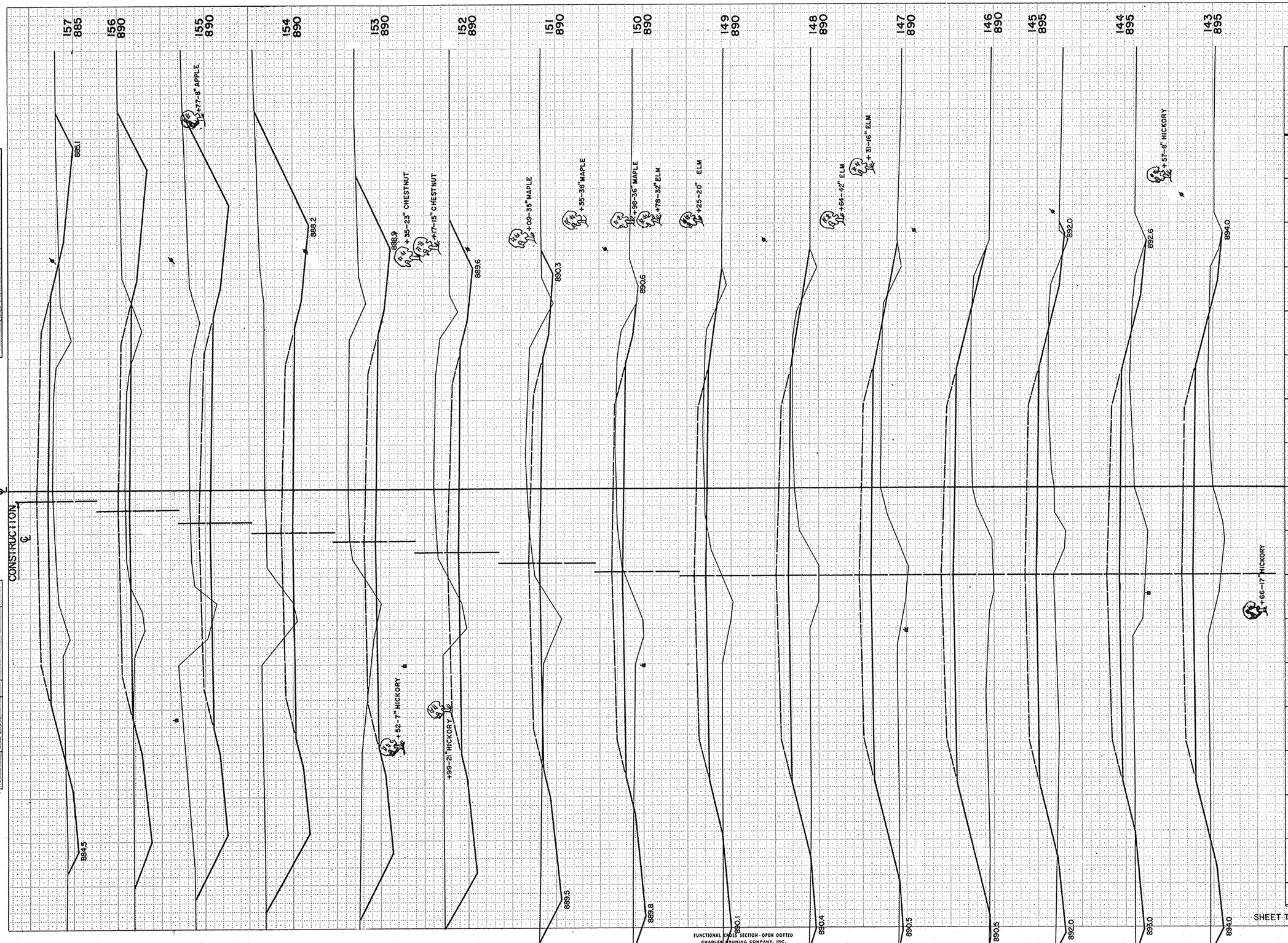
FUNCTIONAL CROSS SECTION-OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	28	43



FUNCTIONAL CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY, INC.

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE EXCAVATION ROCK			YARDAGE FILL
131						
	93					200
132						
	76					248
133						
	50					335
134						
	39					457
135						
	26					283
+60						
	4					41
+70						
	17					100
136						
	187					146
137						
	391					2
138						
	548	11				0
139						
	626	30				0
140						
	624	39				0
141						
	454	18				15
142						
SHEET TOTAL		3,135	98			1,827



FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

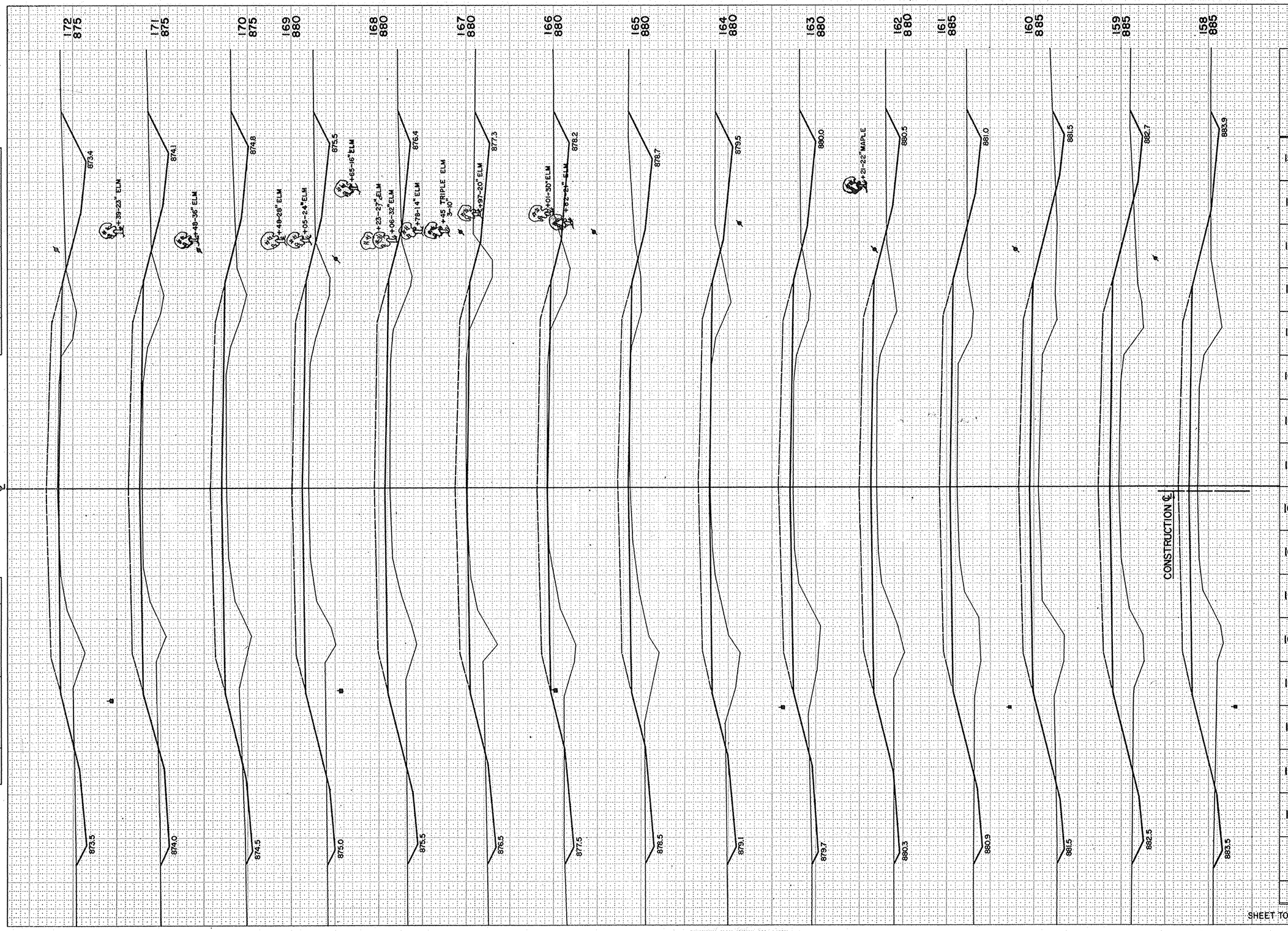
B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	29	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE EXCAVATION ROCK	YARDAGE EXCAVATION	YARDAGE EXCAVATION	YARDAGE FILL
142						
	176	0				224
143						
	59					394
144						
	50					393
145						
	28					557
146						
	11					607
147						
	19					437
148						
	48					289
149						
	117					174
150						
	237					89
151						
	491					28
152						
	715					6
153						
	970					4
154						
	1,074					4
155						
	628					28
156						
	202					135
157						
SHEET TOTAL		4,825				3,369

FINAL SURVEY	
NOTE BOOK	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED
NO.	

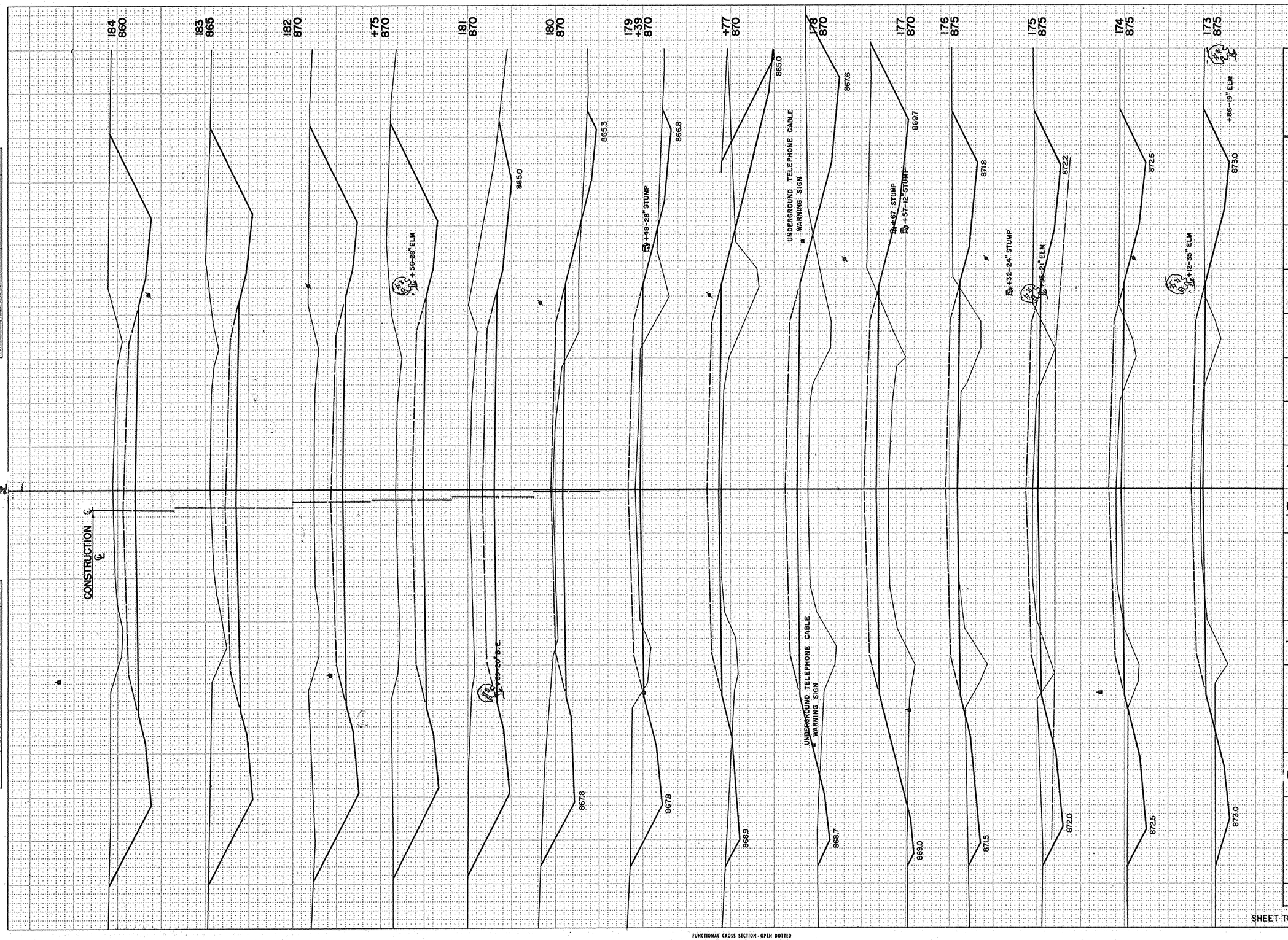
SURVEY	
NOTE BOOK	SURVEYED D. G. N. 1-65
	PLOTTED G. J. K. 2-65
	TEMPLATE D. L. B. 3-65
	AREAS G. J. K. 4-65
NO. 615	AREAS CHECKED G. L. B. 4-65

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	30	43



STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
157			
		74	313
158			
		48	422
159			
		54	424
160			
		56	383
161			
		61	344
162			
		61	291
163			
		76	219
164			
		94	183
165			
		106	176
166			
		111	161
167			
		91	220
168			
		74	306
169			
		82	285
170			
		98	220
171			
		135	163
172			
SHEET TOTAL		1,221	4,110

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.



B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	31	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
172			
	182		115
173			
	254		80
174			
	324		57
175			
	272		106
176			
	183		300
177			
	143		456
178			
	132		280
+77			
	156		106
179 +39			
	202		44
180			
	631		30
181			
	756		0
+75			
	287		0
182			
	1,083		0
183			
	967		0
184			
SHEET TOTAL		5,572	1,574

FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO.	

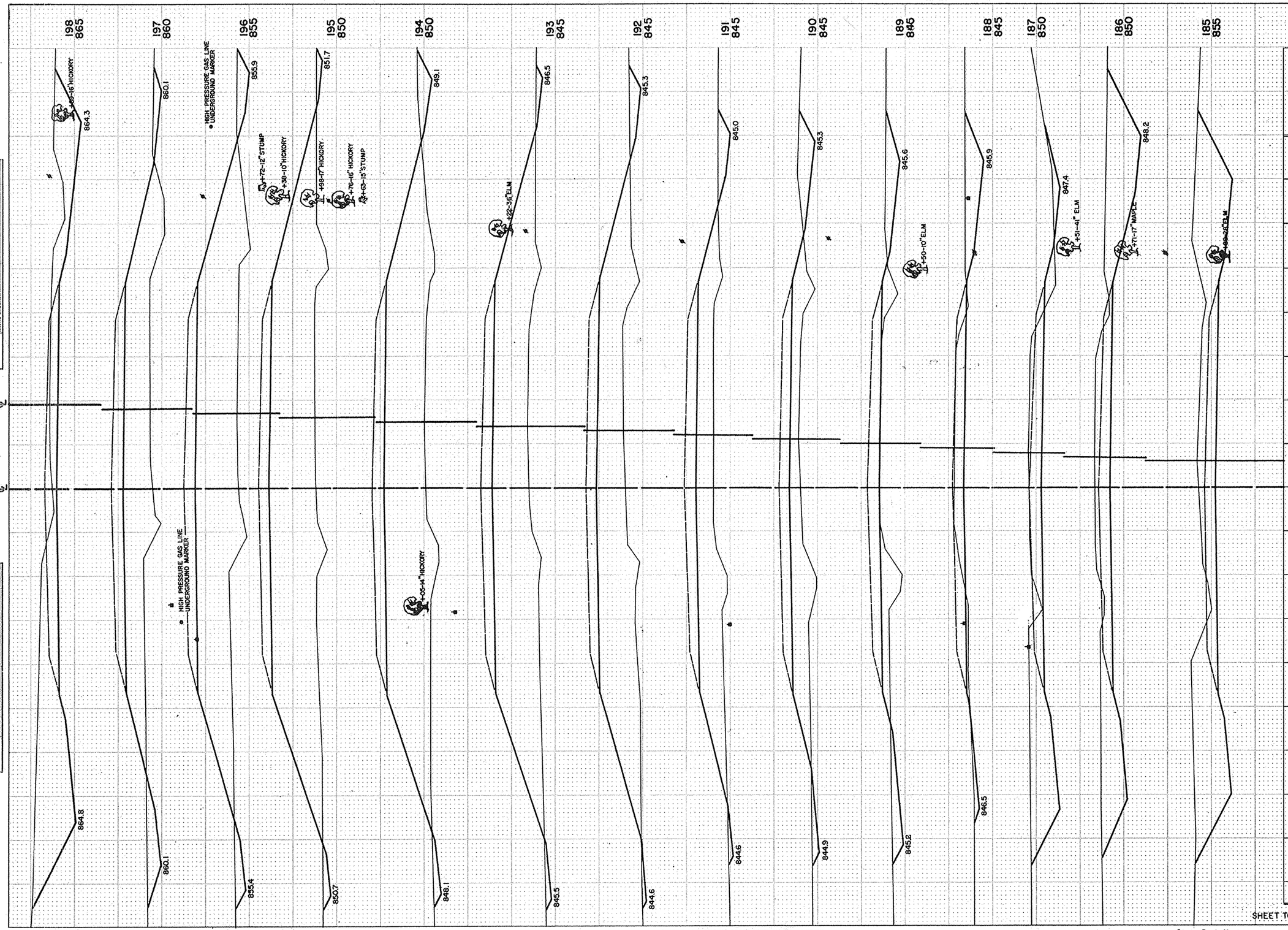
DATE	
BY	

SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO. 615	

D.G.N.	1-65
A.J.K.	2-65
G.L.K.	2-65
R.L.K.	2-65
R.E.G.	3-65

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S-(449 (2)	32	43

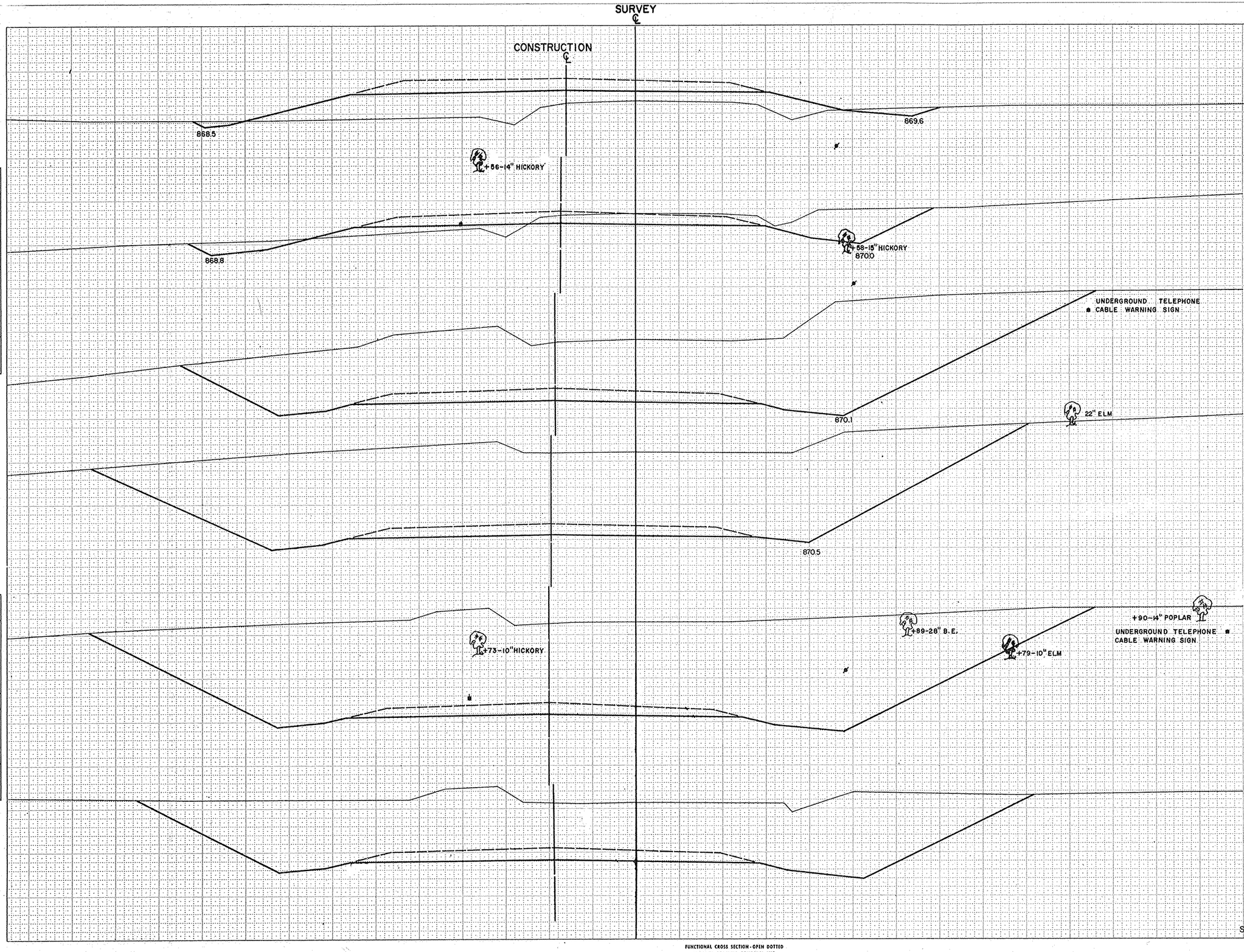


STATION	DISTANCE	YARDAGE EXCAVATION	YARDAGE FILL
184			
	859		0
185			
	683		0
186			
	493		7
187			
	361		13
188			
	206		57
189			
	83		213
190			
	56		413
191			
	37		693
192			
	26		989
193			
	33		1,139
194			
	35		1,244
195			
	39		1,194
196			
	63		863
197			
	369		322
198			
SHEET TOTAL		3,343	7,147

PLATE 3 . FUNCTIONAL CROSS SECTION . OPEN DOTTED

State Proj. No.....Sheet No.....of.....Sheets

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	33	43

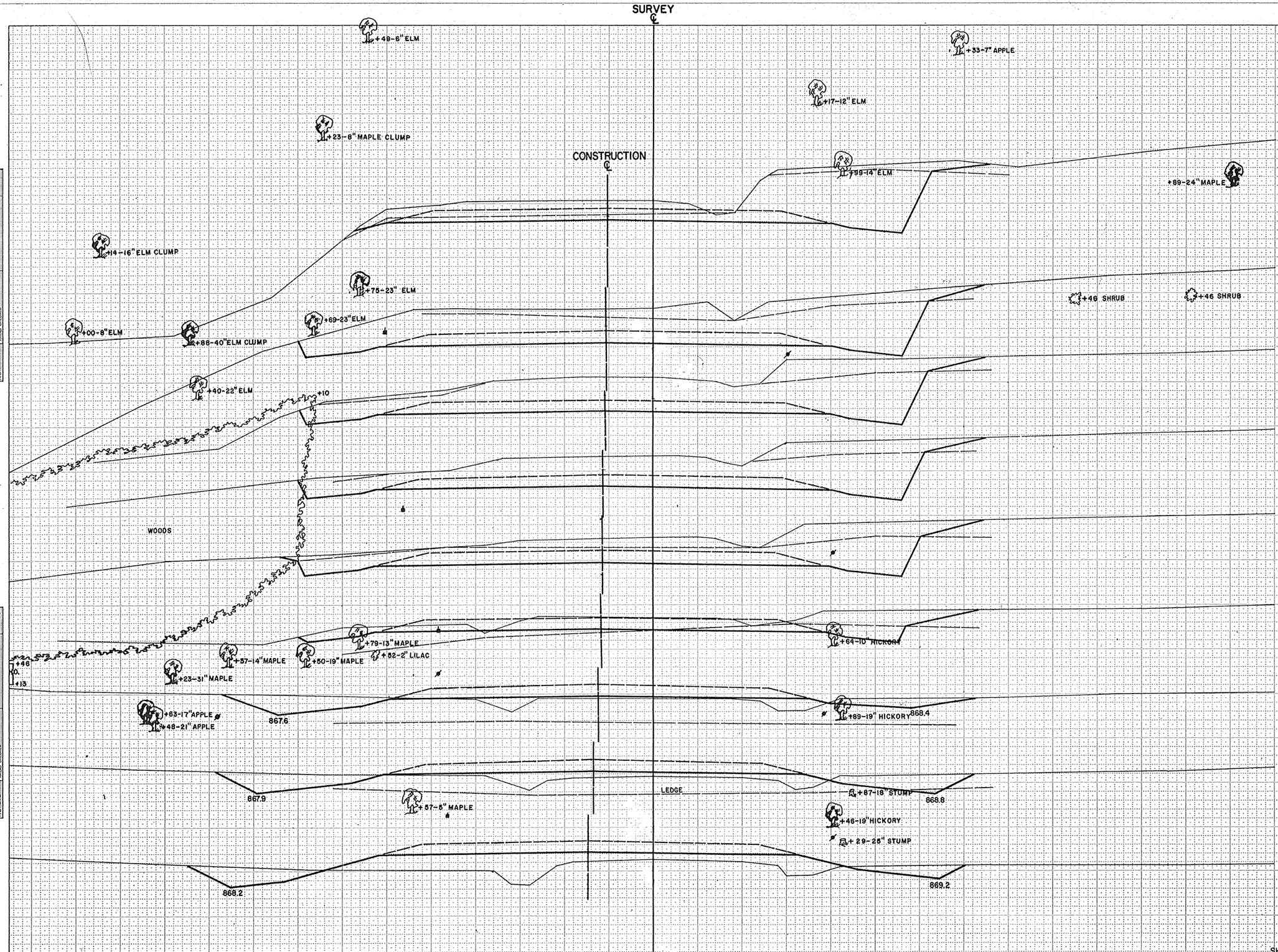


STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE FILL
198			
		1,576	0
199			
		3,219	0
200			
		1,822	0
+50			
		1,522	0
201			
		1,541	39
202			
		183	270
203			
SHEET TOTAL		9,863	309

SURVEY	
NOTE BOOK	PLOTTED A.J.K. 2-65
	TEMPLATE G.L.B. 3-65
	AREAS A.J.K. 3-65
NO. 615	AREAS CHECKED D.H. 4-65

SURVEY	
NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS
NO.	AREAS CHECKED

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

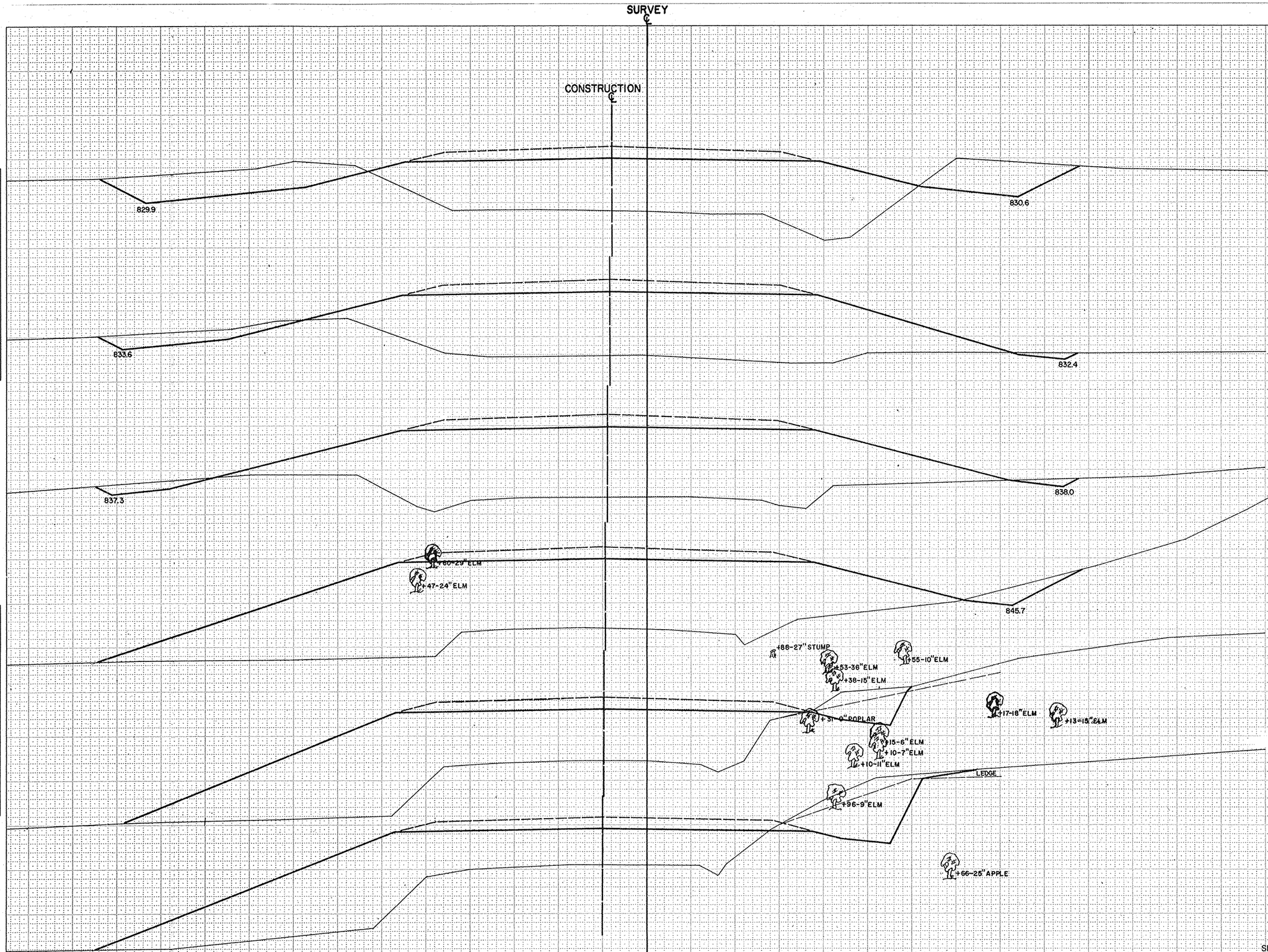


B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	34	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE EXCAVATION ROCK			YARDAGE FILL
203						
210 860		70	0			389
204						
		130	7			219
205						
+65 865		144	7			96
206						
		208	46			35
207						
209 865		261	317			0
208						
		93	661			0
+50						
+50 865		72	796			0
209						
208 870		128	556			0
+65						
		87	252			0
210						
207 870						
206 870						
205 870						
204 870						
SHEET TOTAL		1,193	2,642			739

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	35	43



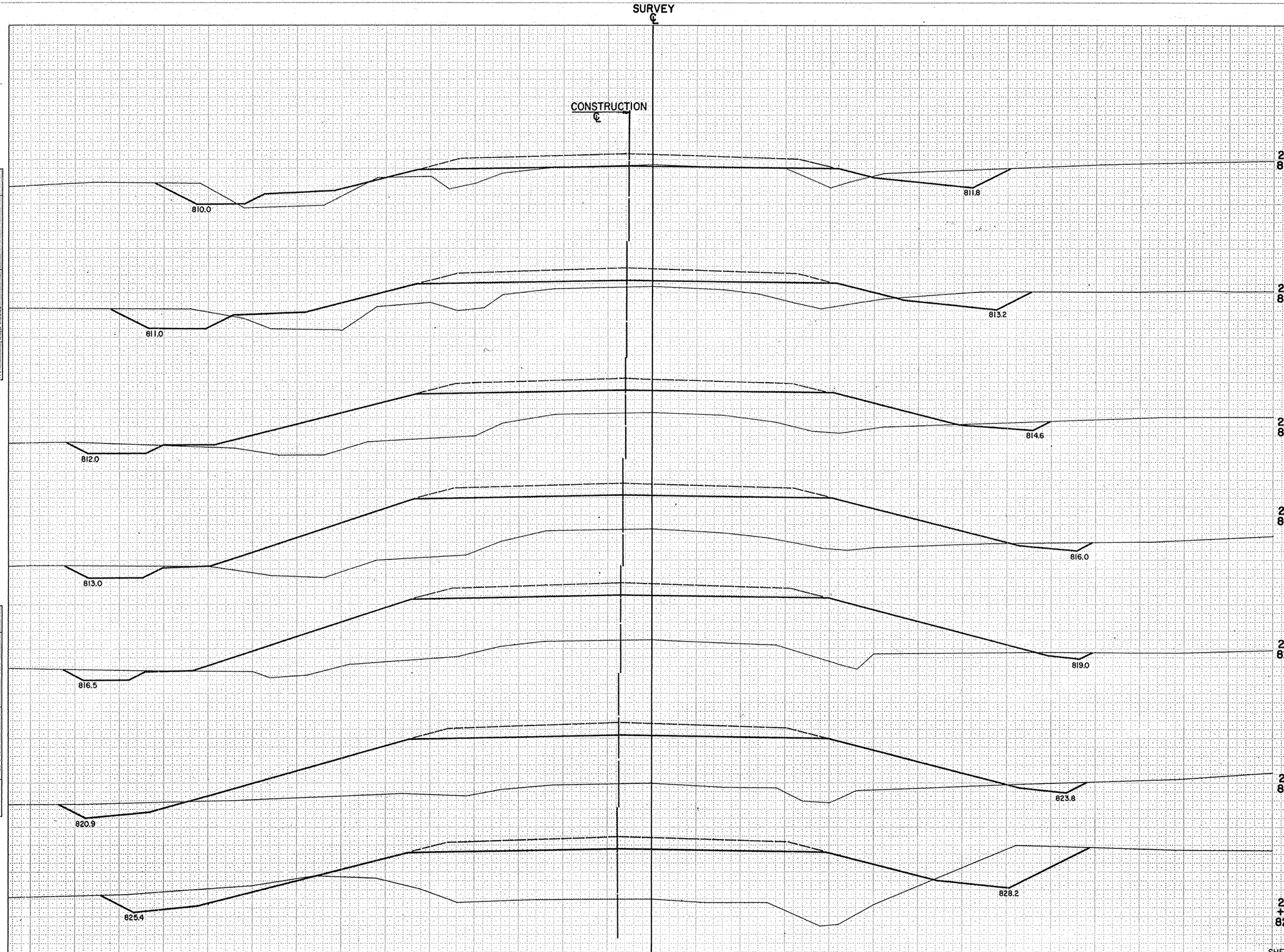
STATION	DISTANCE	YARDAGE EXCAVATION COMMON	ROCK			FILL
210						
211		165	389			689
+35		18	54			541
212		32	26			1,324
213		56	0			2135
214		87				1,763
215		291				1,456
SHEET TOTAL		649	469			7,904

SURVEY			
NOTE BOOK	PLOTTED	A.J.K.	2-65
	TEMPLATE	D.L.B.	2-65
	AREAS	D.L.B.	4-65
NO.	AREAS CHECKED	G.L.B.	4-65

SURVEY			
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
NO. 615	AREAS CHECKED		

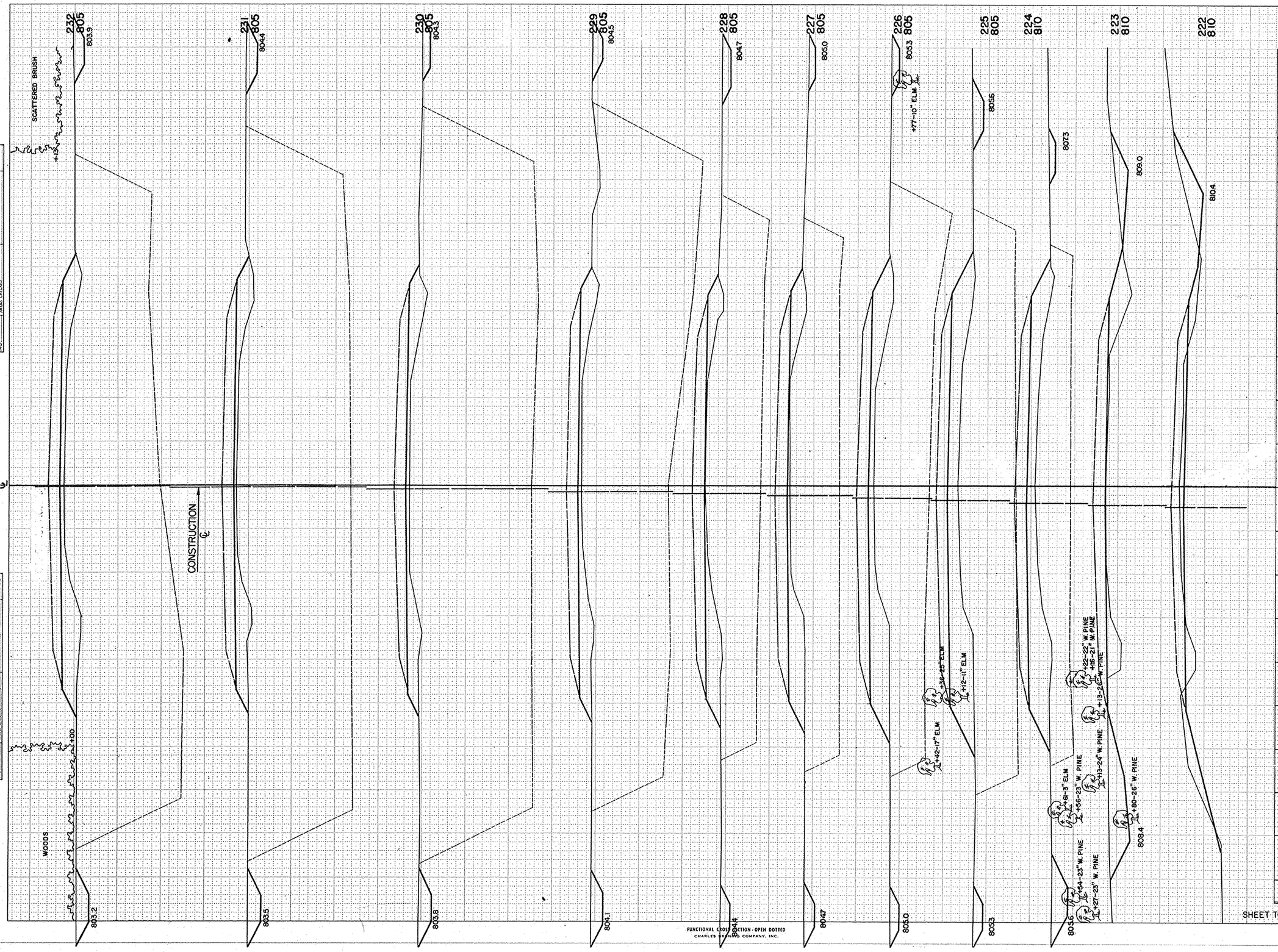
FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	36	43



STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE EXCAVATION FILL
221 815			
215			
		183	643
+50			
		87	713
216			
220 815		61	1,617
217			
		57	1,533
218			
		65	1,211
219			
219 815		104	743
220			
		135	317
221			
218 820			
217 820			
216 825			
215 +50 825			
SHEET TOTAL		692	6,777

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.



B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	37	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON		MARSH		FILL
221						
		130				107
222						
		144				85
223						
		76		363		576
224						
		0		1,057		1,383
225						
		0		1,376		1,648
226						
		0		1,248		1,417
227						
		0		1,200		1,319
228						
		0		2,089		2,093
229						
		0		3,456		3,304
230						
		0		3,815		3,578
231						
		0		3,222		3,168
232						
SHEET TOTAL		350		17,826		18,678

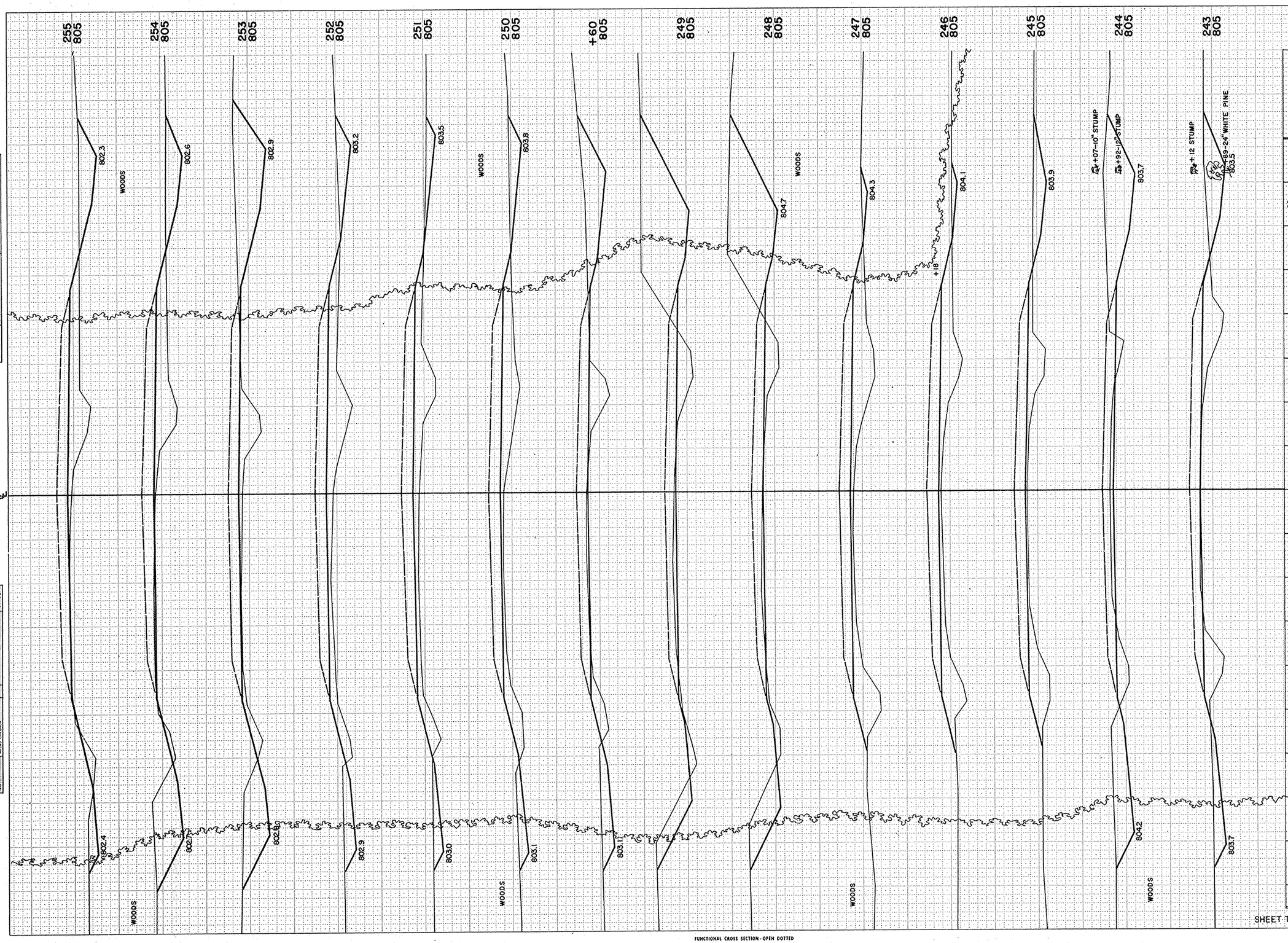
FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY			
NOTE BOOK	SURVEYED	D. S. N.	1-65
	PLOTTED	A. J. K.	2-65
	TEMPLATE	G. L. B.	2-65
	AREAS	G. L. B.	4-65
NO. 615	AREAS CHECKED	G. L. B.	4-65

R.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WVS.	S 1449 (2)	38	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	MARSH	FILL
232				
		0	2,806	2,891
233				
		0	2,691	2,765
234				
		0	2,756	2,891
235				
		0	2,554	2,741
236				
		0	2,078	2,361
237				
		0	1,598	1,928
238				
		156	611	865
239				
		452	0	224
240				
		239	0	98
+50				
		107	0	96
241				
		46	0	226
242				
SHEET TOTAL		1,000	15,094	17,086

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	39	43



STATION	DISTANCE	YARDAGE EXCAVATION COMMON	FILL
242			
	74		187
243			
	220		96
244			
	185		96
245			
	41		185
246			
	41		230
247			
	54		311
248			
	185		222
249			
	152		43
+60			
	57		56
250			
	76		204
251			
	78		219
252			
	191		167
253			
	237		120
254			
	143		152
255			
SHEET TOTAL		1,734	2,288

SURVEY	
NOTE BOOK	
NO. 615	

PLOTTED	A.J.K. 2-65
TEMPLATE	C.L.R. 2-65
AREAS	D.L.R. 2-65
AREAS CHECKED	H.E.G. 3-65

SURVEY	
NOTE BOOK	
NO.	

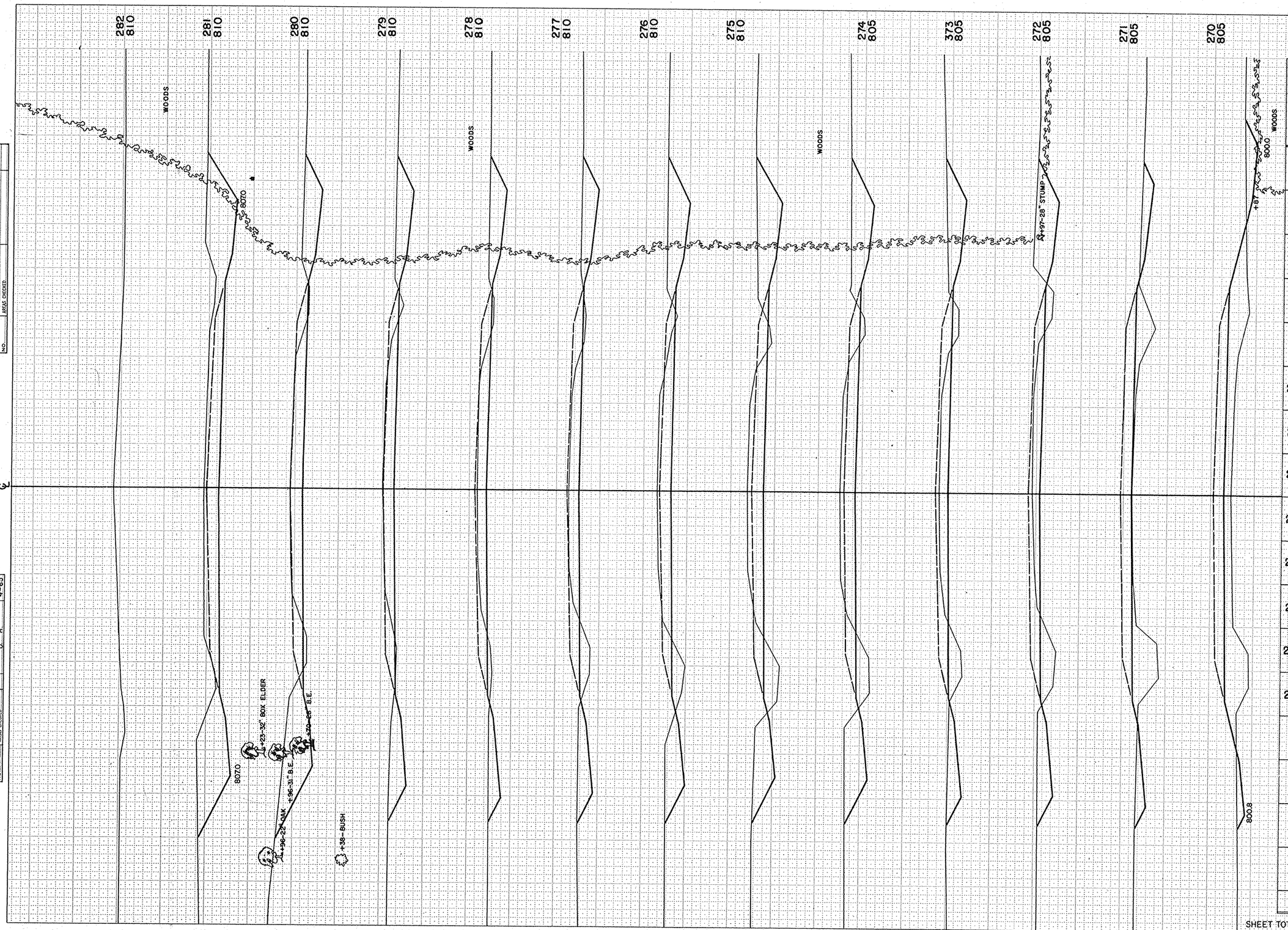
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.R.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	40	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	MARSH	FILL
255				
		130	0	130
256				
		172	0	89
257				
		168	0	78
258				
		193	0	82
259				
		230	0	104
260				
		139	0	215
261				
		24	139	456
262				
		0	233	528
263				
		0	143	376
264				
		68	48	224
265				
		98	0	174
266				
		30	44	261
267				
		0	182	424
260				
		0	215	500
269				
SHEET TOTAL		1,252	1,004	3,641

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.



B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	41	43

STATION	DISTANCE	YARDAGE EXCAVATION COMMON	YARDAGE EXCAVATION MARSH	YARDAGE FILL
269				
		24	78	380
270				
		57	0	209
271				
		161		98
272				
		241		54
273				
		298		41
274				
		374		41
275				
		357		37
276				
		235		30
277				
		233		20
278				
		257		7
279				
		330		6
280				
		469		4
281				
SHEET TOTAL		3,086	78	927

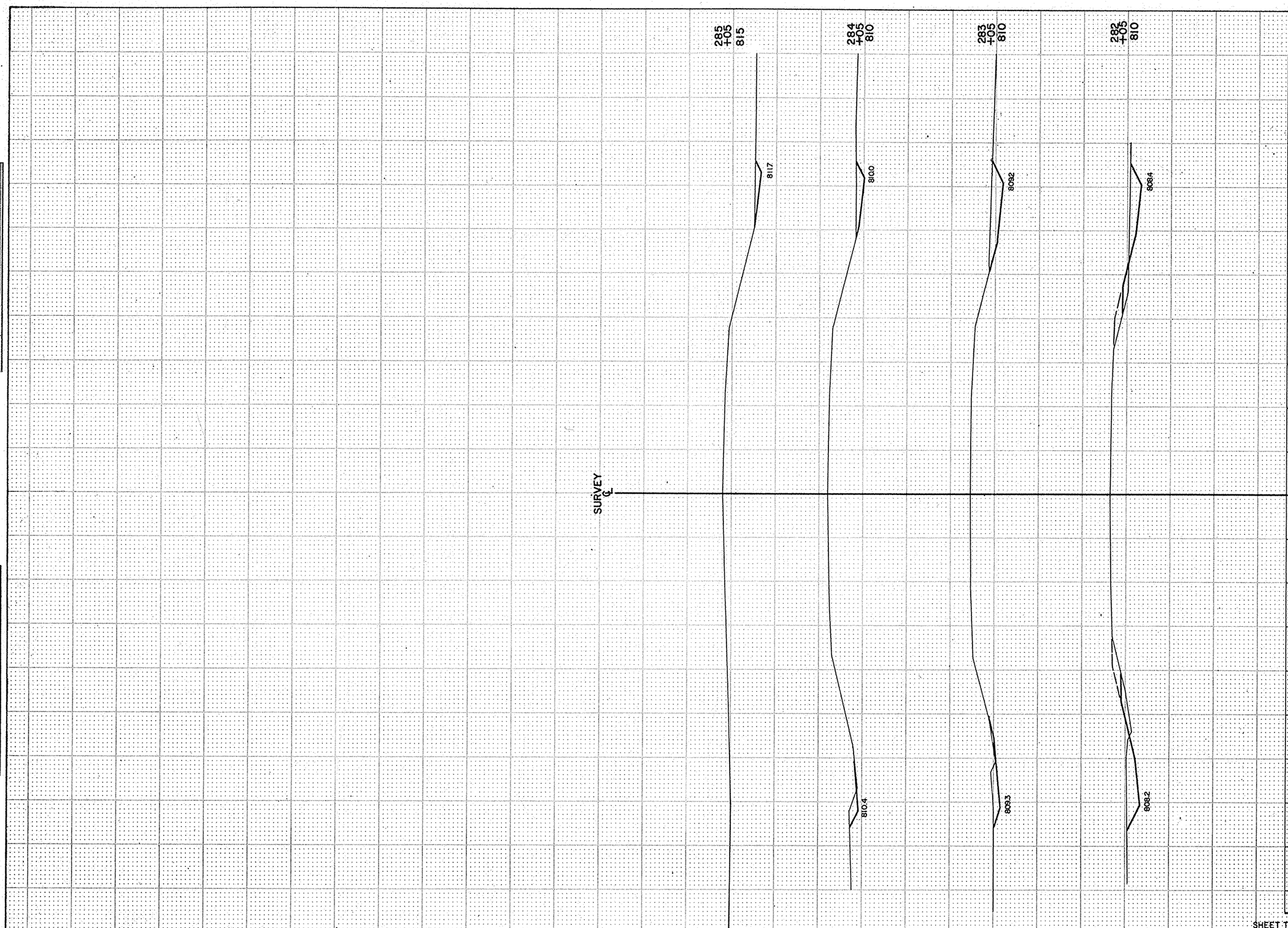
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO.	

D.G.N.		1-65
A.J.K.		2-65
G.L.B.		3-65
G.L.B.		4-65
D.H.		4-65

SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO. 615	

FUNCTIONAL CROSS SECTION-OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	42	43



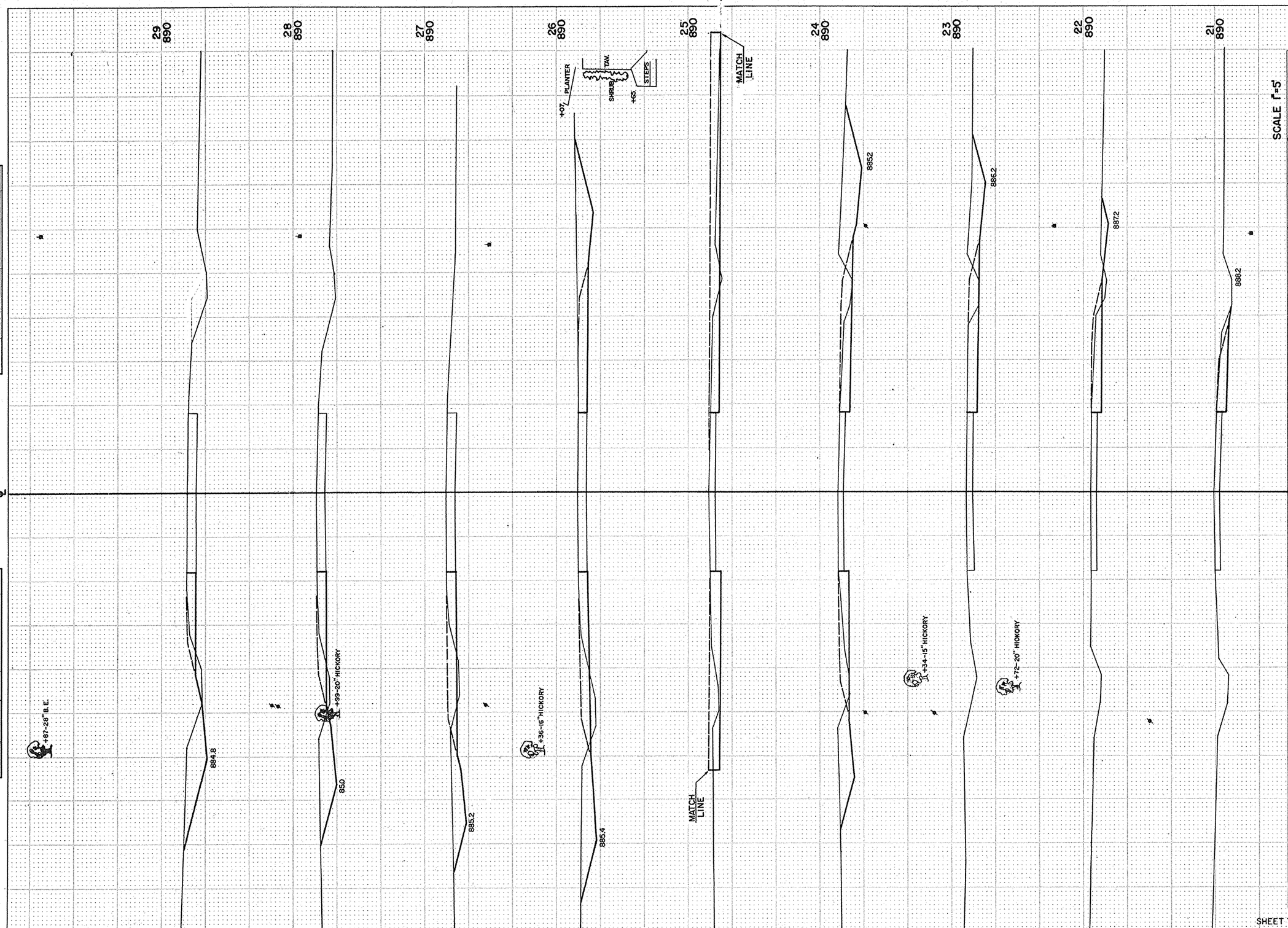
STATION	DISTANCE	YARDAGE EXCAVATION COMMON	FILL
281			
		330	9
82 +05			
		65	9
83 +05			
		43	0
84 +05			
		19	0
85 +05			
SHEET TOTAL		457	18

PLATE 3 . FUNCTIONAL CROSS SECTION . OPEN DOTTED
NATIONAL TRACING PAPER DIVISION
I. B. P. & L. CO. INC. INDIANAPOLIS, INDIANA

State Proj. No.....Sheet No.....of.....Sheets

STUB LINE "A" (U.S.H. "10")

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S 1449 (2)	43	43



STATION	DISTANCE	YARDAGE EXCAVATION COMMON	FILL
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
	20		0
	52		2
	87		2
	185		0
	202		0
	202		6
	176		7
	100		6
	126		9
	74		6
SHEET TOTAL		1,224	38

SURVEY		
NOTE BOOK	PLOTTED	D. H. 3-65
NO.	TEMPLATE	G. L. B. 3-65
	AREAS	G. L. B. 4-65
	AREAS CHECKED	D. H. 4-65

SURVEY		
NOTE BOOK	PLOTTED	
NO. 613	TEMPLATE	
	AREAS	
	AREAS CHECKED	

State Proj. No.....Sheet No.....of.....Sheets