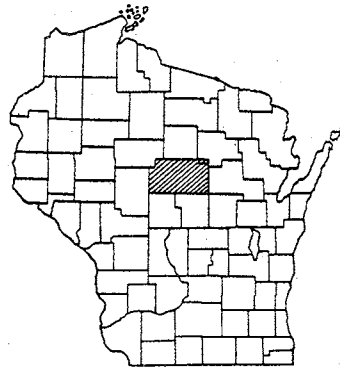


INDEX OF SHEETS

- SHEET NO. 1 TITLE
- SHEET NO. 2 TYPICAL CROSS SECTIONS
- SHEET NO. 2 ESTIMATE OF QUANTITIES
- SHEET NO. 2 MISCELLANEOUS QUANTITIES
- SHEET NO. - RIGHT OF WAY PLAT
- SHEET NO. 3-6 PLAN AND PROFILE STA. 638+34.0 TO STA. 729+34.0
- SHEET NO. 7-12 STANDARD DETAILS
- SHEET NO. 13-16 DRAINAGE STRUCTURES
- SHEET NO. 17-41 CROSS SECTIONS



STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED

C.T.H. "Y" — EAST CO. LINE ROAD

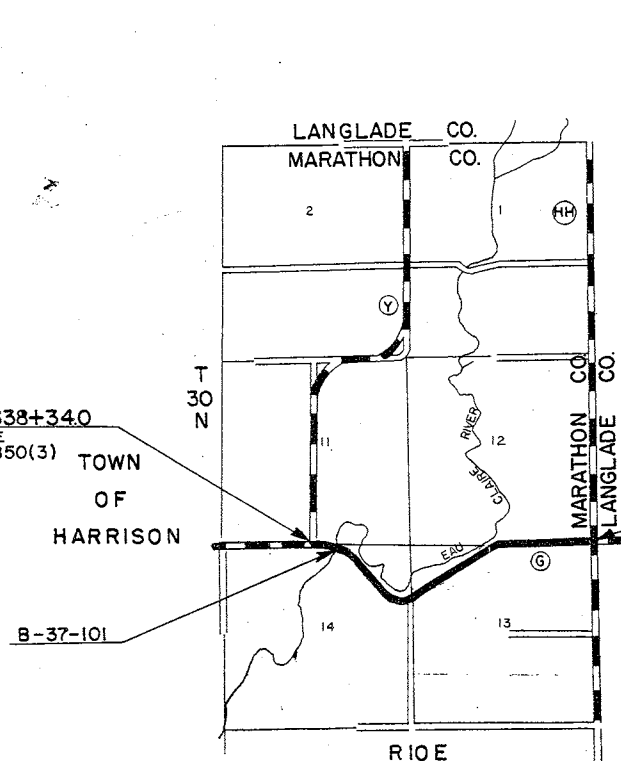
MARATHON COUNTY
PROJECT S1164(1)

C.T.H. "G"

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.

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		S.P.R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
37.6	1164.0		ILLI	4 WIS.	1	41

BEGINNING OF PROJECT S1164(1) STA. 638+34.0
12.5' N. OF S. 1/4 COR. SEC. 11, T. 30N, R. 10E
45.25' SO. STA. 0+00 BEG. OF PROJ. S 0850(3)



END OF PROJECT S1164(1) STA. 729+34.0
11' W. OF N.E. COR. SEC. 13, T. 30N, R. 10E

CONVENTIONAL SIGNS

- | | |
|--|---|
| <ul style="list-style-type: none"> STATE LINE..... COUNTY LINE..... TOWNSHIP OR RANGE LINE..... SECTION LINE..... NEW RIGHT OF WAY LINE..... PRESENT RIGHT OF WAY LINE..... WIRE FENCE { WOVEN..... <li style="padding-left: 20px;">BARBED..... LOT LINE..... CORPORATE OR CITY LIMITS..... PROPERTY LINE..... PL + 32.6 TRAVELED WAY OR P.E..... RAILROADS..... BASE OR SURVEY LINE..... 30 | <ul style="list-style-type: none"> CULVERTS IN PLACE..... CULVERTS REQUIRED..... DROP INLET..... POWER POLE..... TELEPHONE OR TELEGRAPH POLE..... RIGHT OF WAY MARKERS..... REFERENCE STAKE FOR HUBS ONLY..... 25.9 MARSH..... HEDGE..... TREES..... GRADE ELEVATION..... DATUM LINE 75.15 |
|--|---|

LAYOUT

SCALE 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 1.721 MI.

APPROVED FOR

Marathon County

6/19/63

[Signature]

County Highway Commissioner Title

STATE HIGHWAY COMMISSION OF WISCONSIN MADISON, WIS.	
SURVEYOR R.K.F.	NOTE BOOK L.L.
DIVISION COMPUTER K.R.V.	M. O. CHECKER R.L.C.
DISTRICT CHECKER C.P.A.	CORRECT
CORRECT:	
DATE 5/23/63	[Signature] DISTRICT ENGINEER
RECOMMENDED FOR APPROVAL:	
DATE 5-27-63	[Signature] ENGINEER OF DESIGN
APPROVED:	
DATE 5/29/63	[Signature] STATE HIGHWAY ENGINEER
DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
APPROVED:	

S1164(1)

ESTIMATE OF QUANTITIES

CONTRACT NO. 1

B.P.R. REGION	PROJECT	SHEET NO.	TOTAL SHEETS
4	S1164(I)	2	41

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, SUBMITTED FOR APPROVAL JAN 25 1963, AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

SEC. NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	GRUBBING	UNCLASSIFIED EXCAVATION	BORROW EXCAVATION	GRANULAR SUBBASE COURSE	FINISHING ROADWAY	GRAVEL OR CRUSHED STONE BASE COURSE	OBLITERATING OLD ROAD	CULVERT PIPE			CORRUGATED METAL PIPE ARCH 43" X 27"	RIPRAP	STEEL PLATE BEAM GUARD	MARKER POSTS	MARKER POSTS FOR RIGHT OF WAY	SALVAGED TOPSOIL	FERTILIZER	SEEDING	SODDING	
											18" CLASS III	24" CLASS III	36" CLASS III										
			20101	20104	20503	20801	21201	21301	30402	21401	52003	52005	52009	52140	60601	61410	61421	61422	62505	62901	63001	63101	
		UNIT	LIN. FT.	STA.	STA.	C.Y.	C.Y.	C.Y.	L.S.	TON	STA.	L.F.	L.F.	L.F.	L.F.	C.Y.	L.F.	EACH	EACH	S.Y.	CWT.	S.Y.	S.Y.
	638+34.0 - 729+34.0	9,087.5	25	26	7,359	22,945	9,810	1	10,796	40	158	136	58	84	12	162	44	39	16,306	15	16,306		
TOTALS		9,087.5	25	26	7,359	22,945	9,810	1	10,796	40	158	136	58	84	12	162	44	39	16,306	15	16,306		

STRUCTURES 20' SPAN AND OVER											
STRUCTURE NUMBER	REMOVING OLD BRIDGE STA. 645+00	EXCAVATION FOR STRUCTURE BRIDGES	CONCRETE MASONRY BRIDGES	BAR STEEL REINFORCEMENT BRIDGES	TREATED TIMBER TEST PILING 8-37-101	TREATED TIMBER PILING, DELIVERED	TREATED TIMBER PILING, DRIVEN	CAST-IN-PLACE CONCRETE TEST PILING 8-37-101	CAST-IN-PLACE CONCRETE PILING, DELIVERED	CAST-IN-PLACE CONCRETE PILING, DRIVEN	HEAVY RIPRAP
UNIT	L.S.	C.Y.	C.Y.	L.B.	L.S.	L.F.	L.F.	L.S.	L.F.	L.F.	C.Y.
B-37-101	1	10	247.4	54,910	1	270	270	1	450	255	370
TOTALS	1	10	247.4	54,910	1	270	270	1	450	255	370

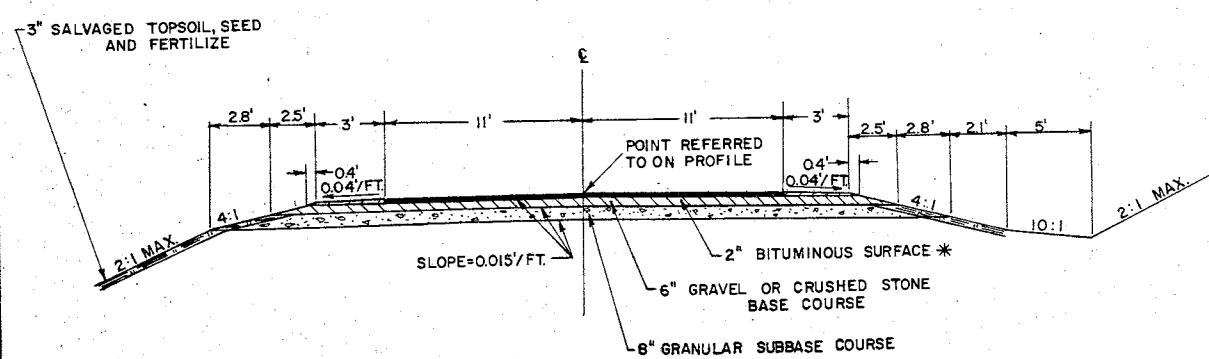
ENTRANCES & SIDE ROADS							
STATION	SIDE		CULVERT PIPE		BASE COURSE	GRANULAR SUBBASE	REMARKS
	LT.	RT.	DIA. IN.	LIN. FT.			
"A" LINE	S.R.				75	50	
641+10		PE.			18	14	
653+53		PE.	18	26	C.P.	18	14
668+55		PE.	18	28	C.P.	18	14
10"B" LINE	S.R.		43" X 27"	32	C.M.P.A.		
"B" LINE	S.R.				100	75	
672+66	PE.		18	26	C.P.	18	14
684+00		PE.	18	26	C.P.	18	14
711+75	PE.		18	26	C.P.	18	14
"C" LINE	S.R.	S.R.			75	50	
696+00	PE.				18	14	
715+65		PE.	18	26	C.P.	18	14
688+00		PE.			18	14	
641+73	PE.				18	14	

OBLITERATING OLD ROAD		
STATION TO STATION	NO.	STATION
643+40 - 644+60	1.3	
645+40 - 651+00	62	
657+00 - 661+40	44	
671+25 - 681+50	9.8	
687+25 - 704+90	18.3	

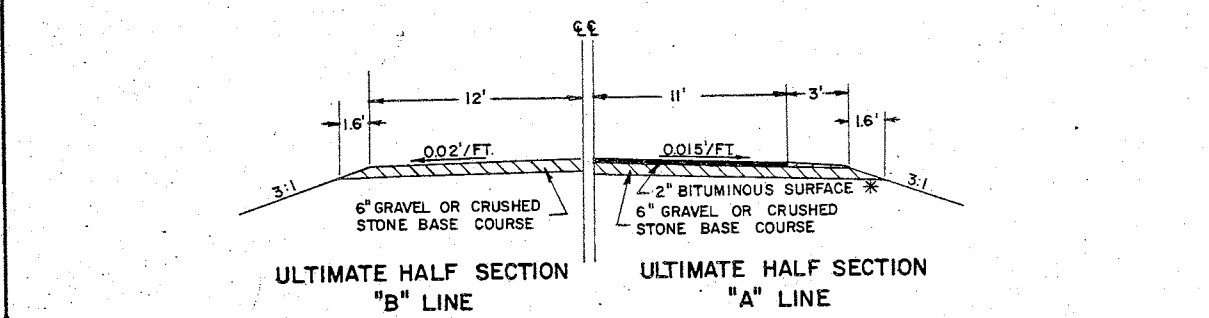
MARKER POSTS FOR SHOULDER DELINEATION		
STATION TO STATION	LOCATION	NUMBER
641+55 - 643+55	LT.	5
642+80 - 643+30	RT.	2
646+44 - 651+44	RT.	6
646+94 - 655+94	LT.	10
662+00 - 665+00	LT.	7
669+00 - 670+50	LT.	4

PIPE CULVERTS						
STATION	CULVERT PIPE		RIPRAP CULYD.	MARKERS	REMARKS	
	DIA. IN.	LIN. FT.				
672+20	43" X 27"	52	C.M.P.A.	3	2	
689+40	36"	58	C.P.	3	2	SKEW 20° R.H.F.
697+00	24"	46	C.P.	2	2	
700+86	24"	46	C.P.	2	2	
681+07	24"	44	C.P.	2	2	

STEEL PLATE BEAM GUARD			
STATION TO STATION	LOCATION	LIN. FT.	
644+05 - 644+46	LT.	41	
644+07 - 644+47	RT.	40	
645+78 - 646+19	LT.	41	
645+79 - 646+19	RT.	40	



NOTES:
 SALVAGED TOPSOIL SHALL BE PLACED WHERE REQUIRED TO AN APPROXIMATE DEPTH OF 3" AT TIME OF PLACING.
 WHEN THE QUANTITY OF THE ITEMS OF BASE, SUBBASE, 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 BY THE ENGINEER.



APPLICABLE STANDARD DETAIL DRAWINGS

- 6-2.4.3 MORTAR RUBBLE MASONRY OR RIPRAP FOR CULVERT AND CATTLE PASS ENDWALLS
- 6-5.3.2 STRUCTURAL PLATE PIPE ARCH & CORR METAL PIPE ARCH
- 7-1.3.4 MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY
- 7-2.4.10 STEEL PLATE BEAM GUARD & STEEL PLATE (MEDIAN) GUARD
- 7-4.1.4 CONSTRUCTION BARRICADE
- 9-1.1.4 DESIGN & LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS

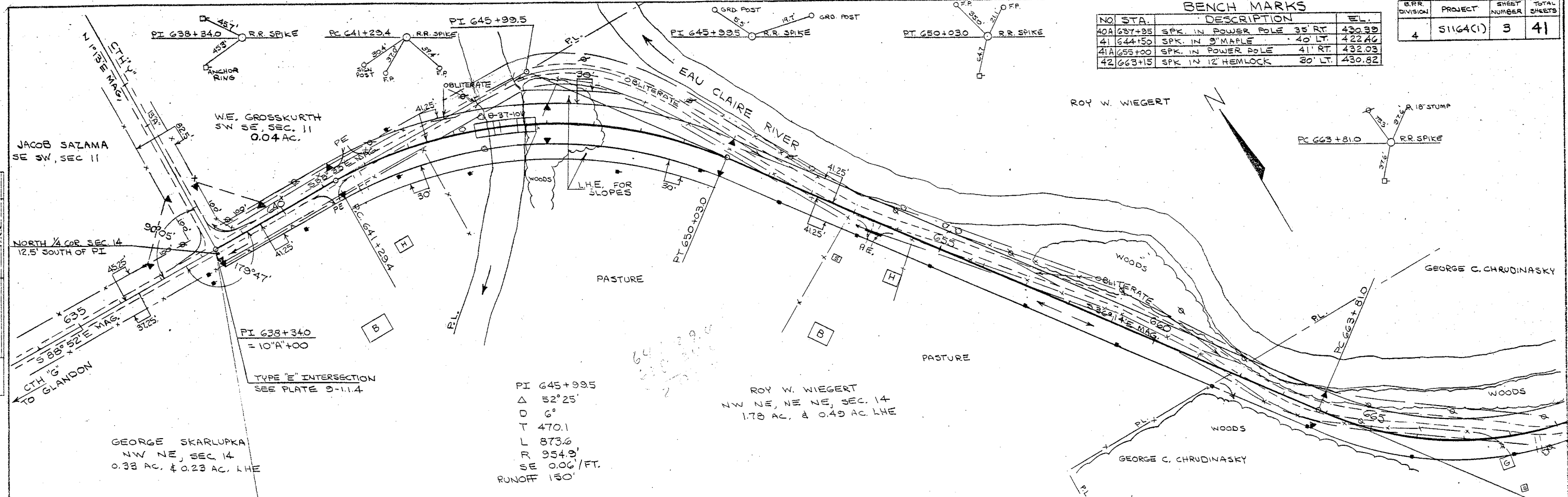
CLEARING & GRUBBING			
STATION TO STATION	STATIONS		
	CLEARING	GRUBBING	
644+00 - 648+00	4	4	
662+00 - 665+00	3	3	
667+00 - 668+00		1	
680+00 - 687+00	7	7	
688+00 - 690+00	2	2	
707+00 - 716+00	9	9	

* NOT PART OF THIS CONTRACT

BENCH MARKS

NO.	STA.	DESCRIPTION	EL.
40A	637+95	SPK. IN POWER POLE 35' RT.	430.39
41	644+50	SPK. IN 9' MAPLE 40' LT.	422.46
41A	655+00	SPK. IN POWER POLE 41' RT.	432.03
42	663+15	SPK. IN 12' HEMLOCK 30' LT.	430.82

B.R.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	51164(1)	3	41



PI 645+99.5
 Δ 52°25'
 D 6°
 T 470.1
 L 873.6
 R 954.9
 SE 0.06'/FT.
 RUNOFF 150'

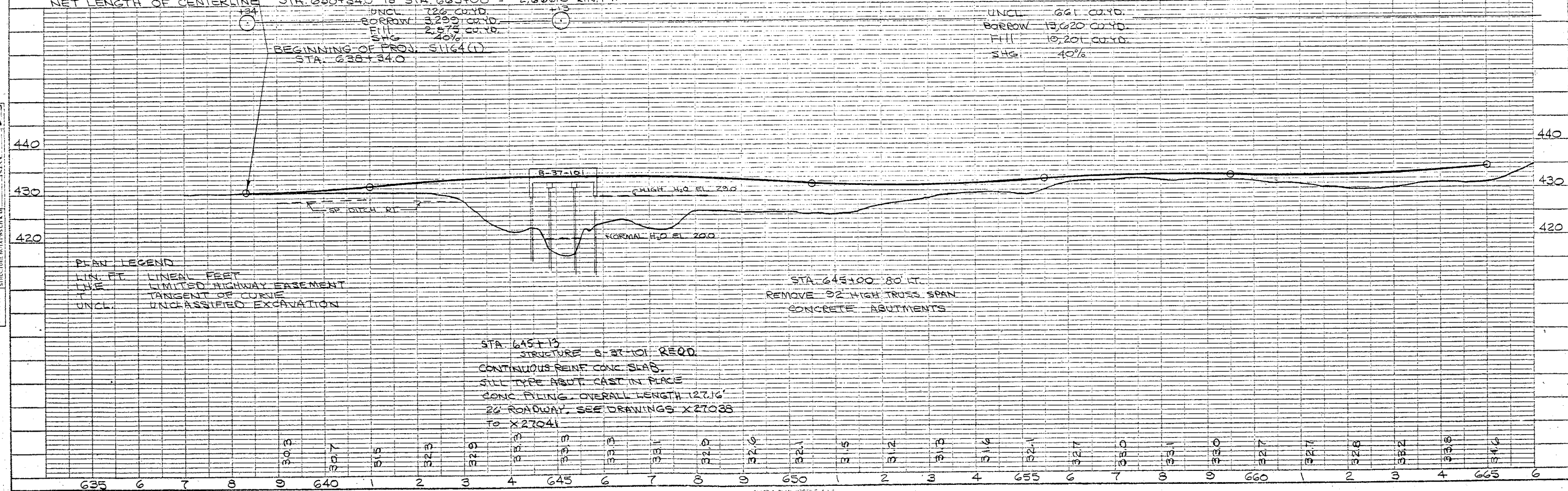
GEORGE SKARLUPKA
 NW NE, SEC 14
 0.38 AC. & 0.23 AC. L.H.E.

ROY W. WIEGERT
 NW NE, NE NE, SEC 14
 1.78 AC. & 0.49 AC. L.H.E.

NET LENGTH OF CENTERLINE STA. 638+340 TO STA. 665+00 = 2,666.0 LIN. FT.

UNCL 726 CU. YD.
 BORROW 3,299 CU. YD.
 FILL 2,875 CU. YD.
 SHG 40%

UNCL 661 CU. YD.
 BORROW 13,620 CU. YD.
 FILL 10,201 CU. YD.
 SHG 40%



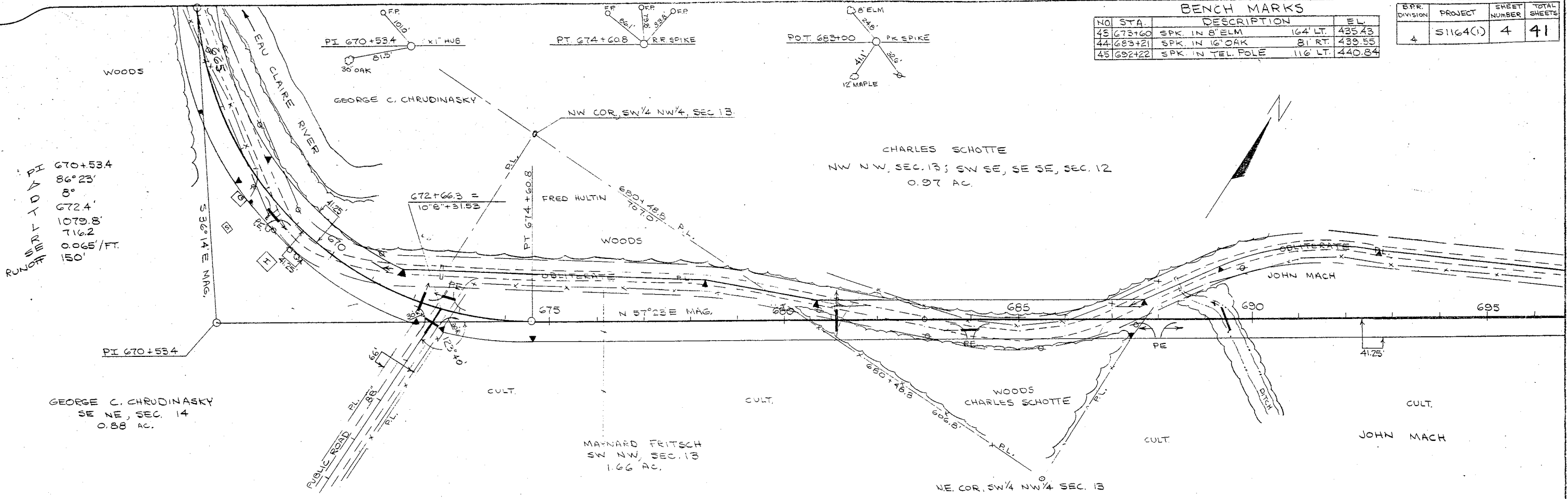
STA. 645+13
 STRUCTURE B-37-101, REQD.
 CONTINUOUS REINF. CONC. SLAB,
 STILL TYPE ABUT. CAST IN PLACE
 CONC. PILING, OVERALL LENGTH 127.16'
 26' ROADWAY, SEE DRAWINGS X27038
 TO X27041

DATE 1-25-59
 BY [Signature]
 CHECKED [Signature]
 PLAN NO. 111

DATE 1-25-59
 BY [Signature]
 CHECKED [Signature]
 PROFILE NO. 111

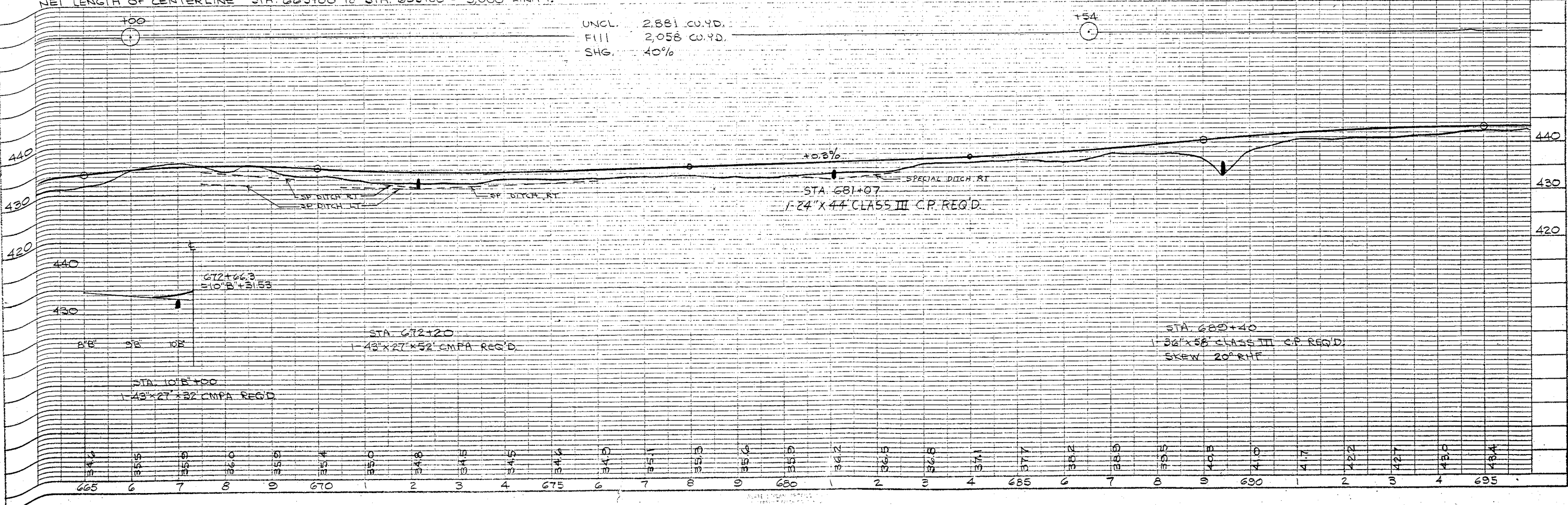
BENCH MARKS			
NO	STA.	DESCRIPTION	EL.
43	673+60	SPK. IN 8' ELM	164' LT. 435.43
44	683+21	SPK. IN 16' OAK	81' RT. 439.55
45	692+22	SPK. IN TEL. POLE	116' LT. 440.84

B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	51164(1)	4	41



NET LENGTH OF CENTERLINE STA. 665+00 TO STA. 695+00 = 3,000 LIN. FT.

UNCL. 2,881 CU. YD.
 FILL 2,058 CU. YD.
 SHG. 40%

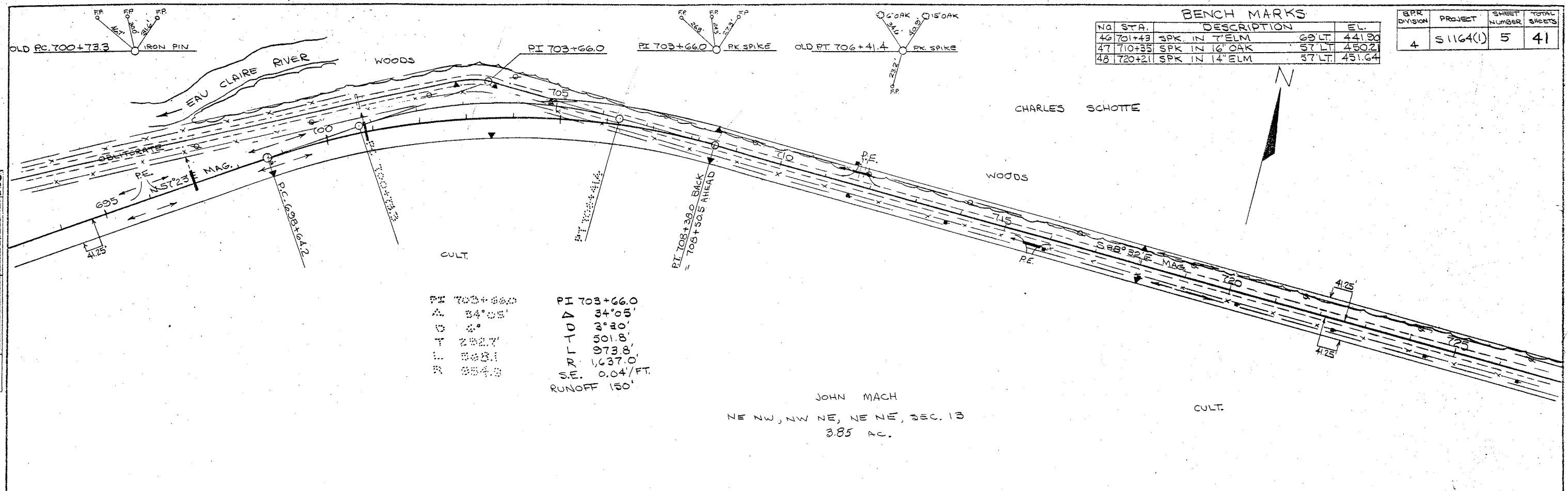


ROUTE BOOK ALPHABETICALLY CHECKED
 NO. L.L.

ROUTE BOOK ALPHABETICALLY CHECKED
 NO. L.L.

DATE: 11/15/50
 SURVEYED BY: J. J. L.
 PLOTTED BY: J. J. L.
 CHECKED BY: J. J. L.
 NO. L.L.L.

DATE: 11/15/50
 SURVEYED BY: J. J. L.
 PLOTTED BY: J. J. L.
 CHECKED BY: J. J. L.
 NO. L.L.L.



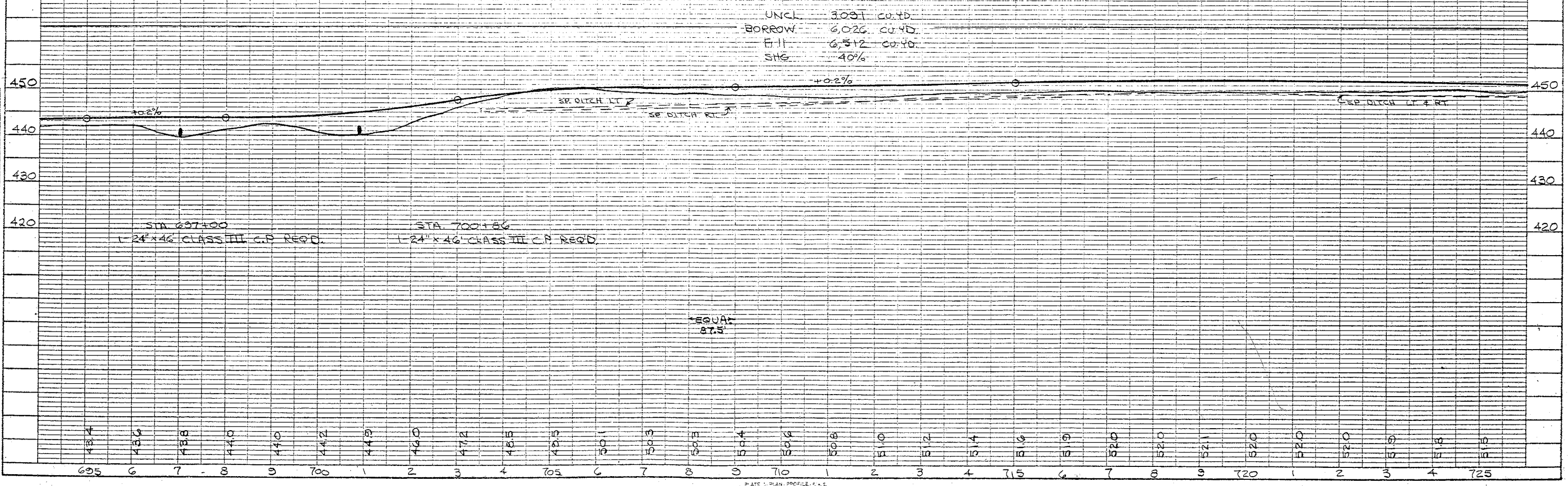
BENCH MARKS			
NO	STA.	DESCRIPTION	EL.
46	701+43	SPK IN 7" ELM	69' LT. 441.90
47	710+35	SPK IN 16" OAK	57' LT. 450.21
48	720+21	SPK IN 14" ELM	57' LT. 451.64

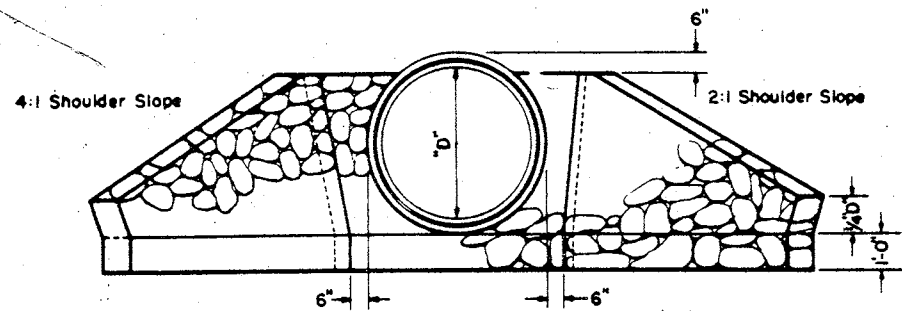
DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1164(1)	5	41

PI 703+66.0		PI 703+66.0	
Δ	34°05'	Δ	34°05'
θ	4°	θ	4°20'
T	282.7	T	501.8
L	888.1	R	973.8
R	884.8	R	1,637.0
		SE.	0.04'/FT.
		RUNOFF	150'

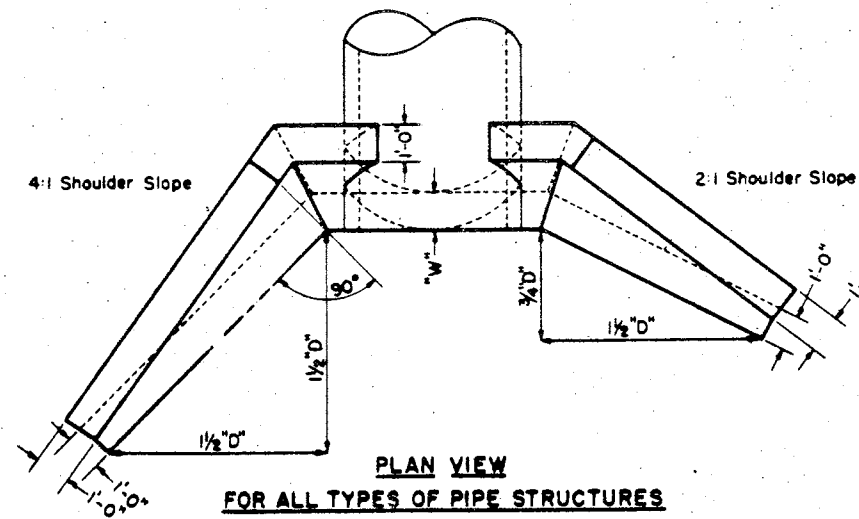
JOHN MACH
 NE NW, NW NE, NE NE, SEC. 13
 3.85 AC.

NET LENGTH OF CENTERLINE STA 695+00 TO STA. 725+00 = 2,987.5 LIN. FT.

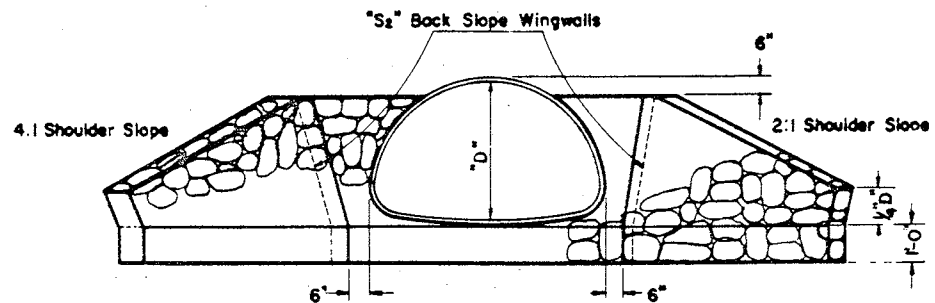




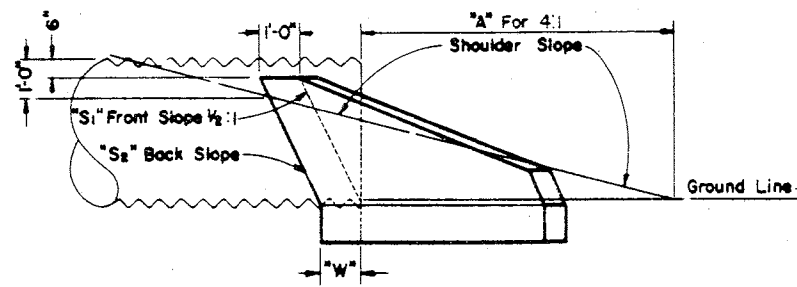
END ELEVATION
SHOWING CONCRETE CIRCULAR PIPE INCL. CATTLE PASS



PLAN VIEW
FOR ALL TYPES OF PIPE STRUCTURES



END ELEVATION
SHOWING CORRUGATED METAL PIPE ARCH



SIDE ELEVATION

CIRCULAR PIPE		Cu. Yds. Mortar Rubble Masonry or Riprap per Endwall		"A" (Feet)		"B" (Feet)		Front Slope "S1"	Back Slope "S2"	Width of Footing at "W" (Feet)
Size of Pipe	Type of Pipe	4:1 Slope	2:1 Slope	4:1 Slope	2:1 Slope	"S1"	"S2"			
24"	R.C.C.P.	1.2	1.0	3.4	0.8	1/2:1	1/2:1			1.0
	C.M.C.P.	1.0	0.8	2.8	0.6	"	"			"
30"	R.C.C.P.	1.5	1.3	5.1	1.5	"	"			"
	C.M.C.P.	1.3	1.0	4.6	1.3	"	"			"
36"	R.C.C.P.	2.0	1.6	6.9	2.3	"	"			"
	C.M.C.P.	1.7	1.3	6.3	2.1	"	"			"
42"	R.C.C.P.	2.6	2.1	8.9	3.1	"	"			"
	C.M.C.P.	2.2	1.7	8.1	2.9	"	"			"
48"	R.C.C.P.	3.2	2.6	10.7	3.9	"	"			"
	C.M.C.P.	2.8	2.2	9.8	3.6	"	"			"
60"	R.C.C.P.	8.4	6.9	14.5	5.5	"	1/4:1			2.38
	C.M.C.P.	6.9	5.9	13.3	5.2	"	"			2.20
72"	R.C.C.P.	12.4	9.9	18.3	7.1	"	"			2.68
	C.M.C.P.	10.0	8.0	16.8	6.2	"	"			2.40

PIPE ARCH

29" x 18"	C.M.C.P.	1.0	0.8	1.1	0.3	1/2:1	1/2:1	1.0
36" x 22"	"	1.3	1.0	2.2	0.5	"	"	"
43" x 27"	"	1.7	1.2	3.7	1.0	"	"	"
50" x 31"	"	1.9	1.4	4.9	1.5	"	"	"
58" x 36"	"	2.1	1.7	6.3	2.1	"	"	"
65" x 40"	"	2.5	2.0	7.5	2.6	"	"	"
72" x 44"	"	2.9	2.4	8.6	3.1	"	"	"

CATTLE PASS

72"	ALTERNATE	12.4	9.9	18.3	7.1	"	"	2.68
-----	-----------	------	-----	------	-----	---	---	------

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.

CONCRETE MASONRY SUBSTITUTE

All items shown hereon may be constructed of Class "A" Concrete in which case all sizes and dimensions shown shall obtain. Concrete masonry substitute work shall conform to the pertinent requirements of the Standard Specifications.

MORTAR RUBBLE MASONRY OR RIPRAP FOR CULVERT & CATTLE PASS ENDWALLS.

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

DATE 2-5-68

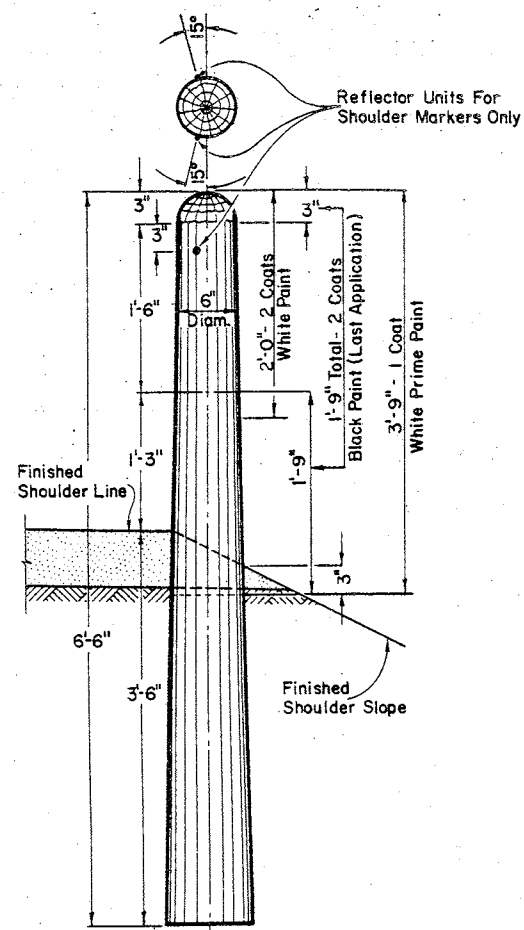
APPROVED:

DATE 2/6/68

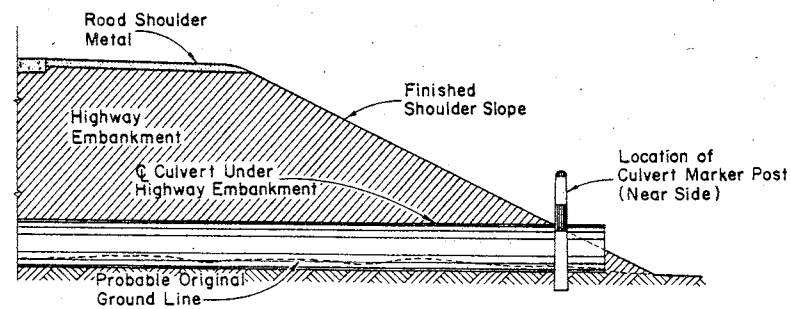
J. L. Pfl
ENGINEER OF DESIGN

E. L. Rosthiser
STATE HIGHWAY ENGINEER

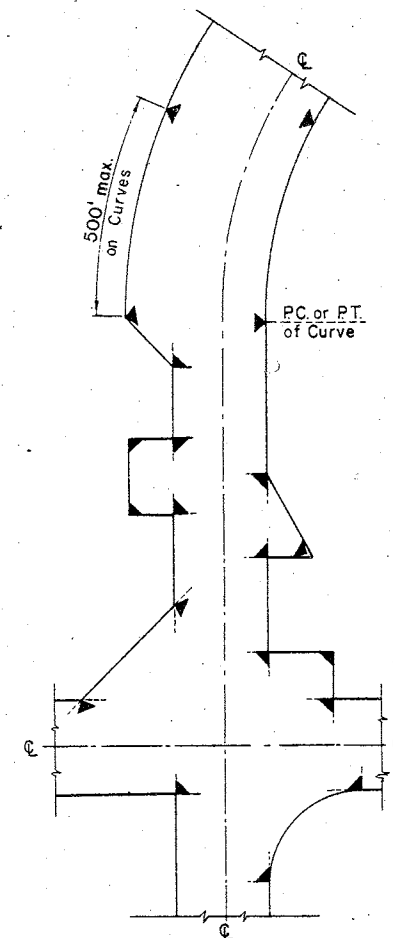
PLATE NO. 6-2.43



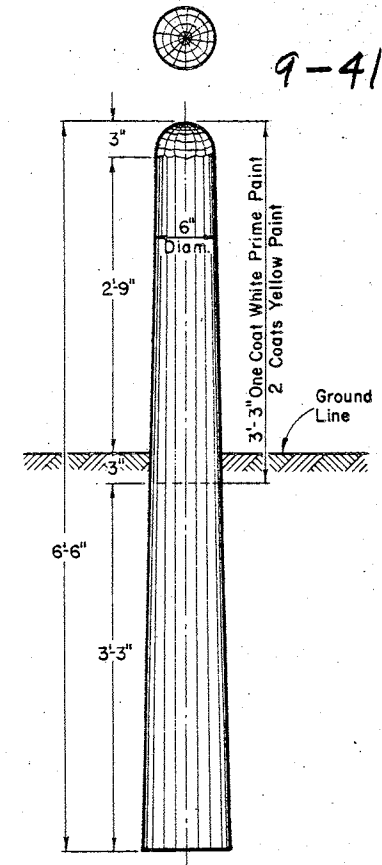
MARKER POST FOR ROAD SHOULDERS AND CULVERTS



SECTION SHOWING RELATIVE LOCATION OF MARKER POST FOR CULVERTS

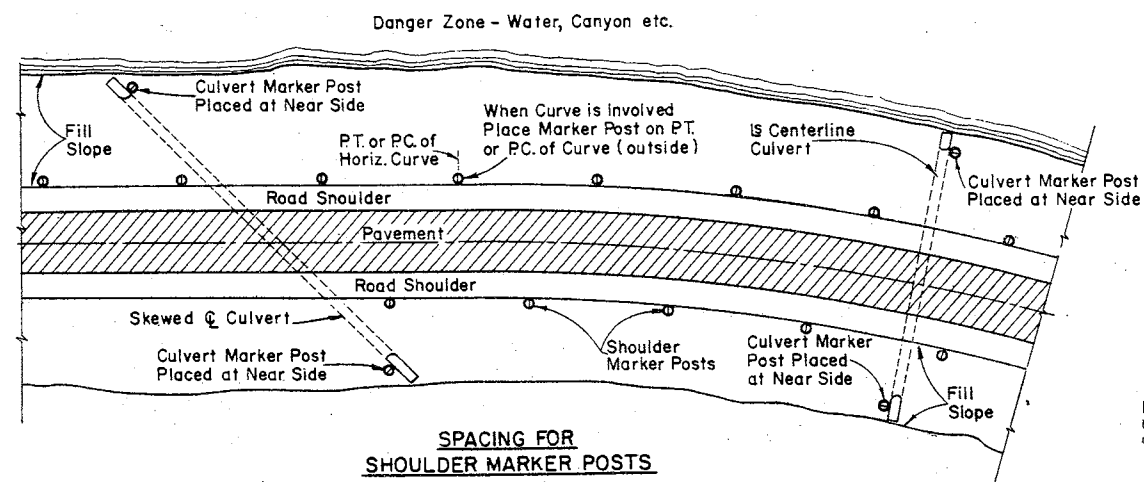


LOCATION DIAGRAM SHOWING TYPICAL LOCATIONS OF MARKER POSTS FOR RIGHT OF WAY



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.

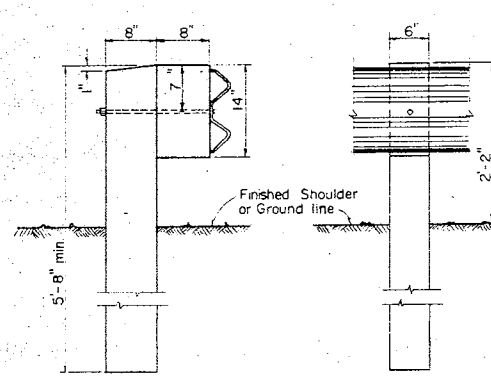
MARKER POSTS FOR RIGHT OF WAY

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.

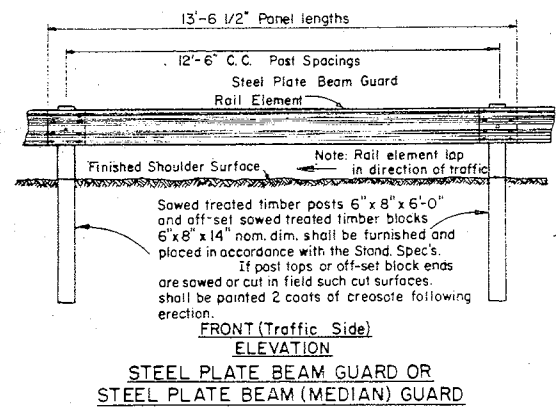
REFLECTOR UNITS

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.

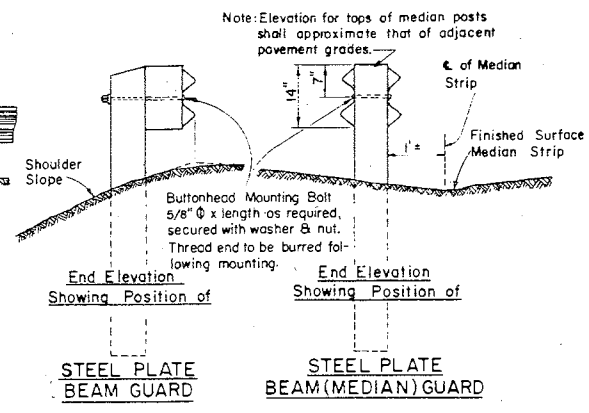
MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY	
STATE HIGHWAY COMMISSION OF WISCONSIN	
RECOMMENDED FOR APPROVAL	
DATE 2-5-63	J. Pelt ENGINEER OF DESIGN
APPROVED:	
DATE 2/6/63	E. L. Rottiers STATE HIGHWAY ENGINEER
PLATE NO. 7-1.3.4	



DETAIL OF POST & OFF-SET BLOCK



FRONT (Traffic Side) ELEVATION STEEL PLATE BEAM GUARD OR STEEL PLATE BEAM (MEDIAN) GUARD



End Elevation Showing Position of STEEL PLATE BEAM GUARD and STEEL PLATE BEAM (MEDIAN) GUARD

GENERAL NOTES 10-41

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions. The Steel Plate Beam Guard or (Median) Guard shall consist of steel plate made of open hearth or electric furnace steel. Plates shall be blanked to proper shape, fabricated and ready for assembly when received in the field. The plates shall be true to plan dimensions and of uniform section. Warped or deformed plates will be rejected. The edges of the plates shall be rolled or rounded so that they present no sharp edges. All connections and splices shall be formed with flat round headed bolts, or similar detail so that no appreciable projection will be presented on the road side of the guard. The rail element shall be spliced by lapping in the direction of traffic or by butt joint with splice plate. Plate ends in lap splices or plate ends and splice plate in butt splices shall make contact throughout the entire area of the splice.

TESTS The elongation of a 2 inch specimen of the steel plate used in the rail element shall be not less than 12 percent tested in tension. The minimum tensile strength of the rail element shall, when tested in conjunction with splices and end connections, be 80,000 lbs. The rail element when loaded as a simple beam, freely supported at each end on 12'-0 inch centers shall support a concentrated load at span center through a flat surface 3 inches long, in accord with the following -

BEAM ELEMENT

Load	Traffic Face up		Traffic Face Down	
	Maximum Deflection	Load	Maximum Deflection	Load
1500 lb.	2.0 in.	1200 lb.	2.0 in.	
2000 lb.	3.0 in.	1600 lb.	3.0 in.	

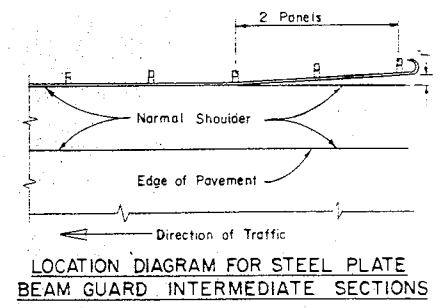
GALVANIZED The steel plate beam element and terminal sections shall be furnished galvanized. The spelter coating of the base metal sheets shall be in accordance with A.A.S.H.O. Designation: M 36. The beam element may be galvanized before or after fabrication. Bolts, nuts, and washers shall be furnished galvanized in accordance with A.S.T.M. Designation: A153, Class C.

CIRCULAR STEEL PLATE ELEMENT

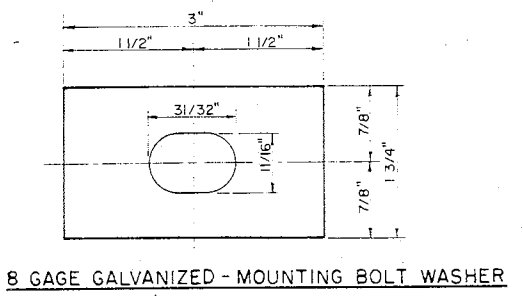
Steel plate beam elements for beam guard or (median) guard for radii of 20 ft. to 150 ft. shall be shop-curved. Steel plate beam elements shall be bent to true circular curvature, void of kinks. Kinks shall be cause for rejection. Steel plate beam elements shall have a minimum bending radius of 20 feet.

MEASUREMENT & PAYMENT

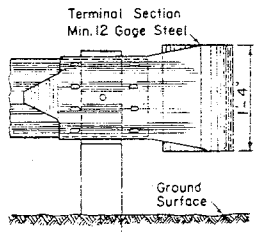
The items of Steel Plate Beam Guard and Steel Plate Beam (Median) Guard shall be measured and paid for at the contract unit price per linear foot, measured in place by length in linear feet from end to end - out to out of terminal sections, which price shall be full compensation for furnishing and placing all materials and performing all work to completion in accordance with the Stand. Spec's. the applicable Plans and Special Provisions.



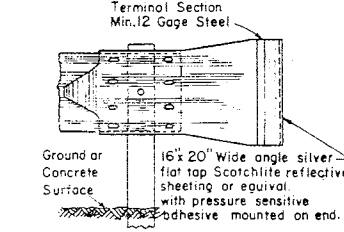
LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD INTERMEDIATE SECTIONS



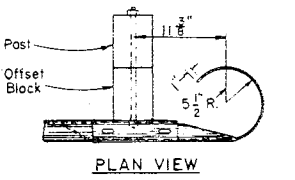
8 GAGE GALVANIZED - MOUNTING BOLT WASHER



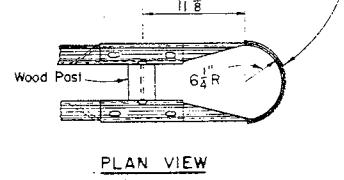
Terminal Section Min. 12 Gage Steel



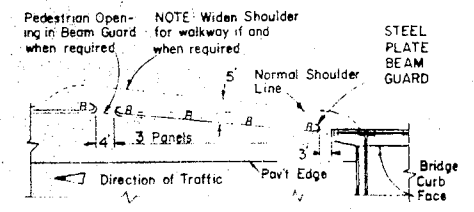
Terminal Section Min. 12 Gage Steel



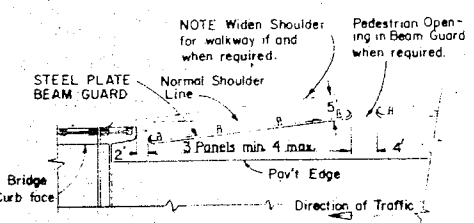
FRONT (Traffic Side) VIEW and PLAN VIEW of Terminal Section Details for Steel Plate Beam Guard



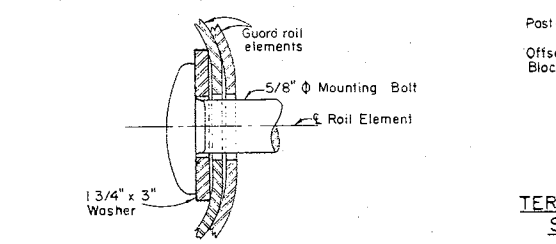
FRONT VIEW and PLAN VIEW of Terminal Section Details for Steel Plate Beam (Median) Guard



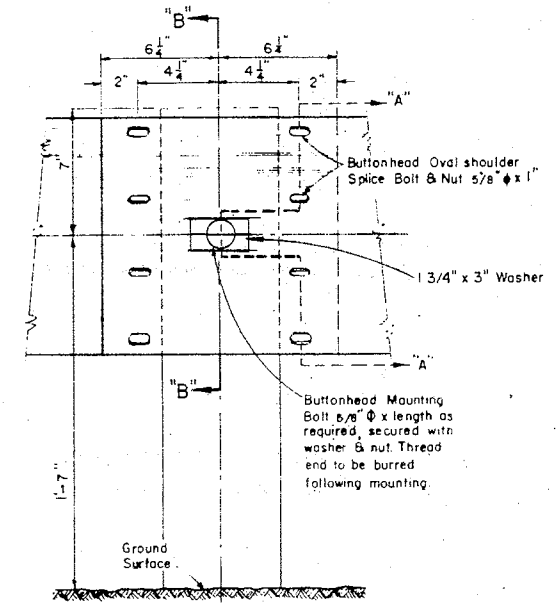
LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD AT BRIDGE EXITS



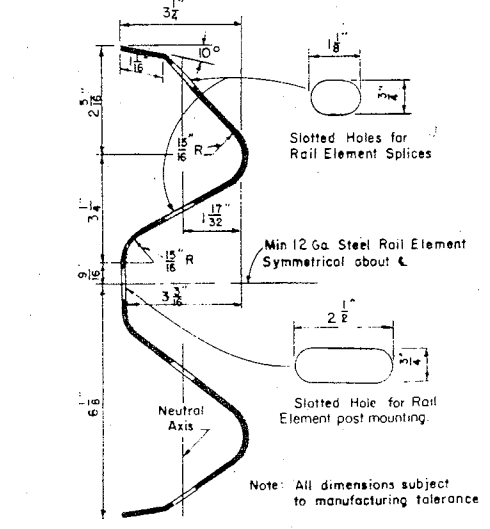
LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD AT BRIDGE APPROACHES



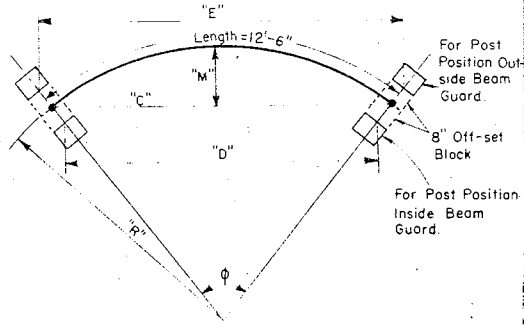
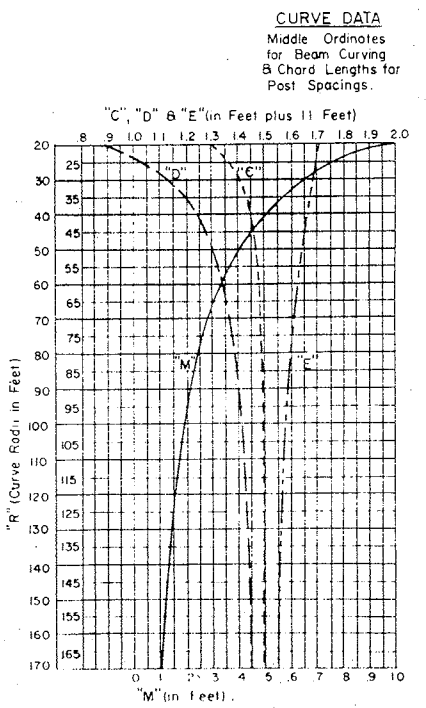
SECTION 'B-B' of RAIL ELEMENT SPLICING & POST MOUNTING DETAILS



RAIL ELEMENT SPLICING & POST MOUNTING DETAILS



SECTION 'AA' RAIL ELEMENT SECTION (Min 12 GAGE STEEL)



STEEL PLATE BEAM GUARD & STEEL PLATE BEAM (MEDIAN) GUARD

STATE HIGHWAY COMMISSION OF WISCONSIN

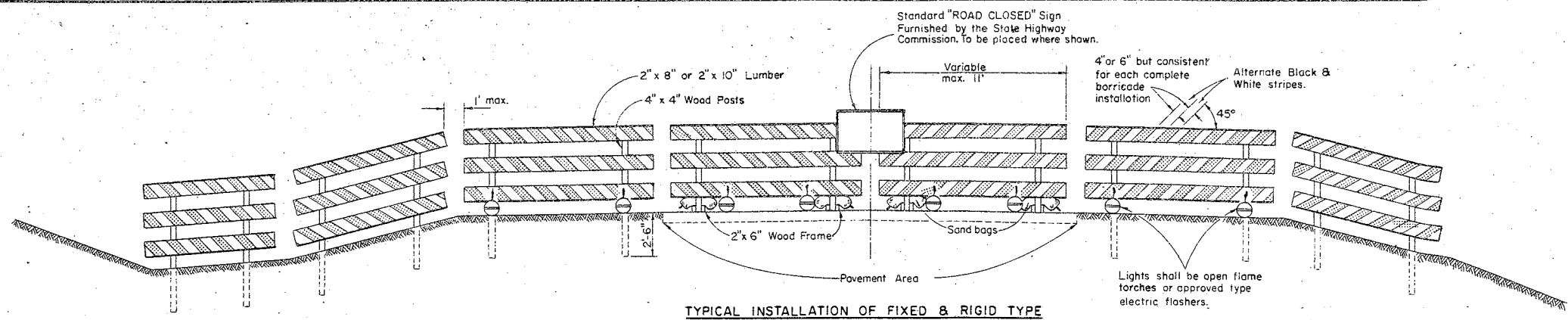
RECOMMENDED FOR APPROVAL: J. S. Pelt ENGINEER OF DESIGN

DATE: 2-5-63

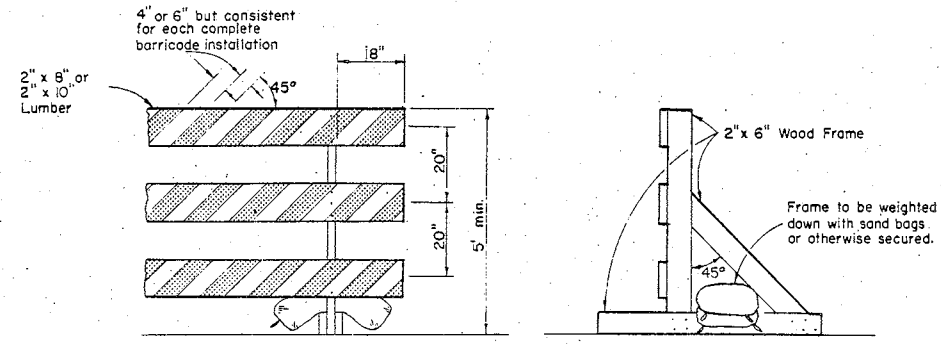
APPROVED: E. C. Rottman STATE HIGHWAY ENGINEER

DATE: 2/6/63

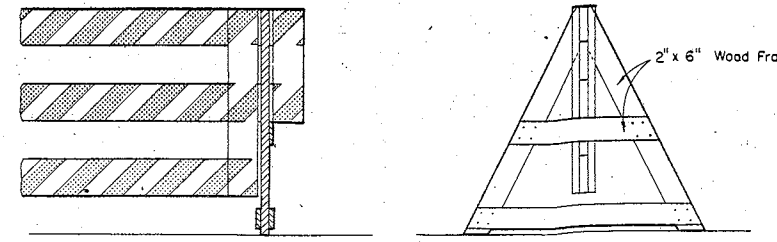
11-41



TYPICAL INSTALLATION OF FIXED & RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS I 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 wood-working 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 "Codic Reflective Liquid" (Minnesota Mining Co.) or equivalent, or reflective sheeting wide angle, flat top "Scatchlite" 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

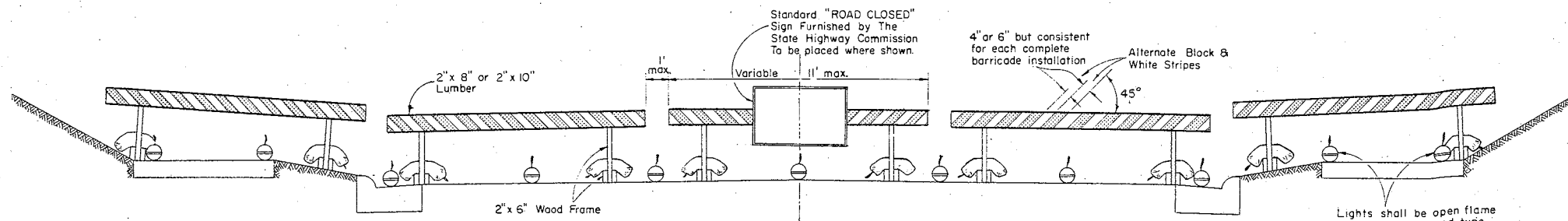
All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

NOTE:

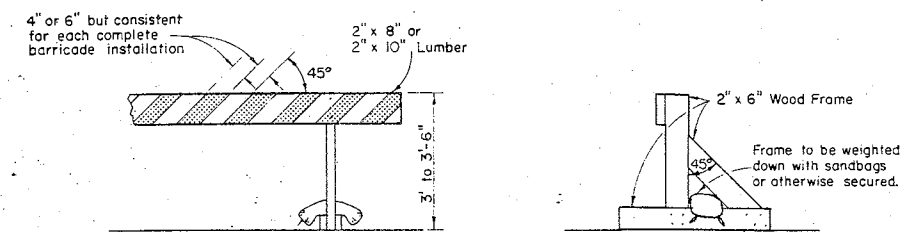
Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

NOTE:

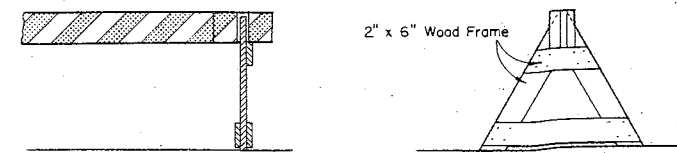
All lumber or timber dimensions shown hereon are nominal.



TYPICAL INSTALLATION OF RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADE

CONSTRUCTION BARRICADE

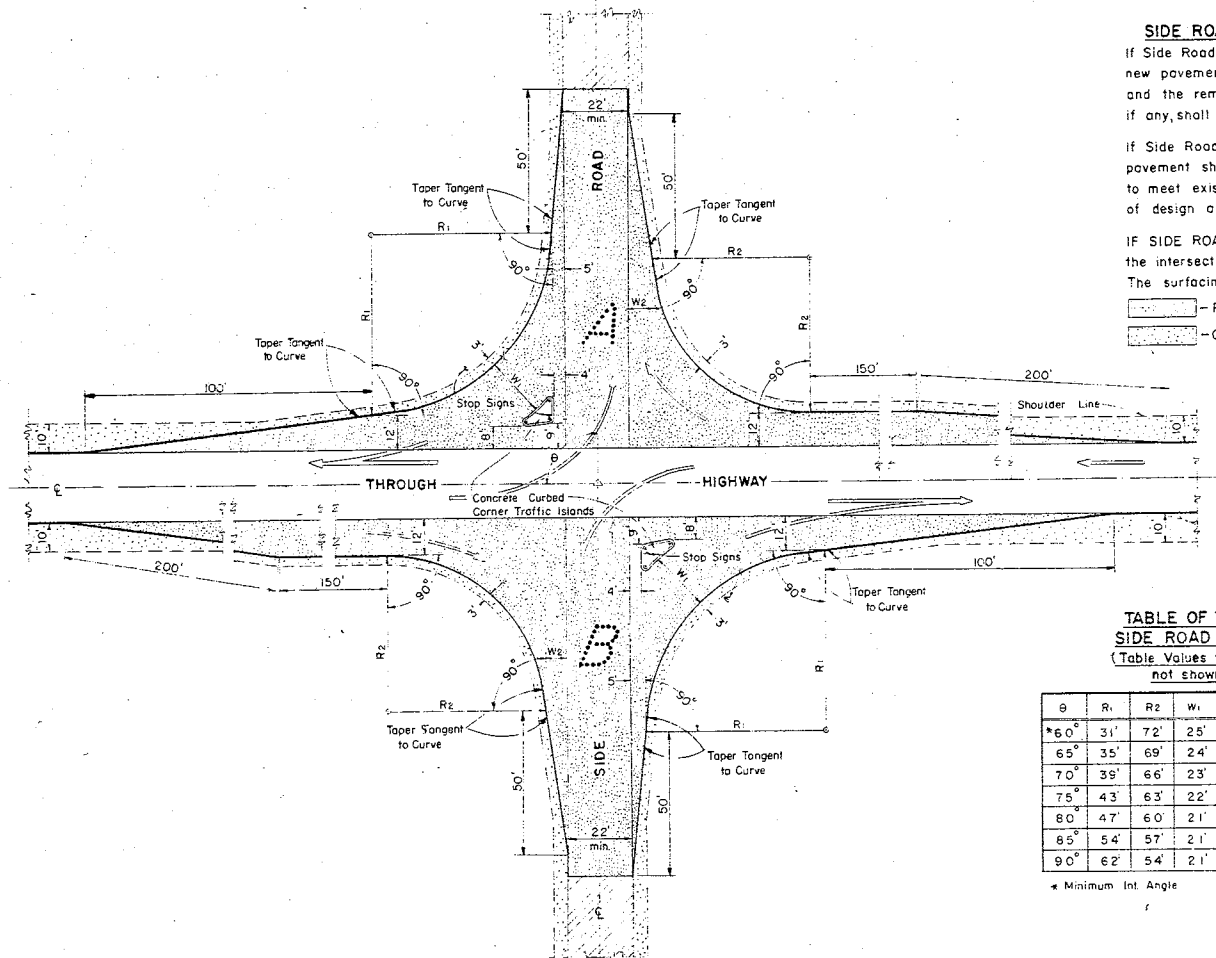
STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

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

APPROVED: DATE 2/10/63 STATE HIGHWAY ENGINEER

PLATE NO: 7-4.1.4



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 necessary 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.

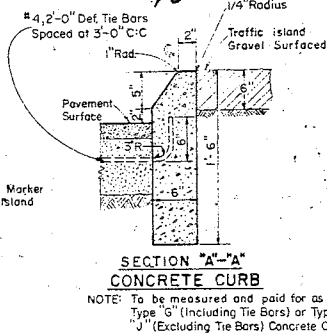
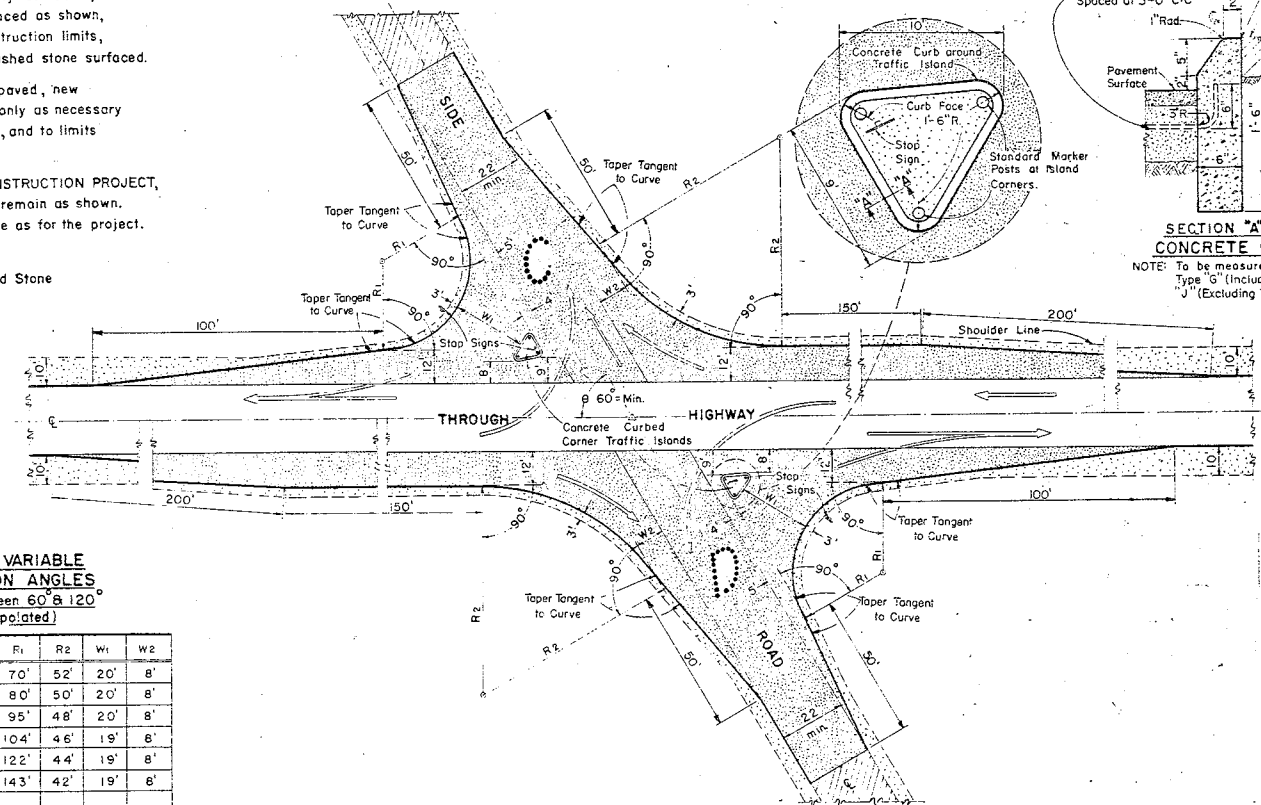
— Pavement
 — Gravel or Crushed Stone

TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	W ₁	W ₂	θ	R ₁	R ₂	W ₁	W ₂
*60°	31'	72'	25'	10'	95°	70'	52'	20'	8'
65°	35'	69'	24'	9'	100°	80'	50'	20'	8'
70°	39'	66'	23'	8'	105°	95'	48'	20'	8'
75°	43'	63'	22'	8'	110°	104'	46'	19'	8'
80°	47'	60'	21'	8'	115°	122'	44'	19'	8'
85°	54'	57'	21'	8'	**120°	143'	42'	19'	8'
90°	62'	54'	21'	8'					

* Minimum Int. Angle

** Maximum Int. Angle



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

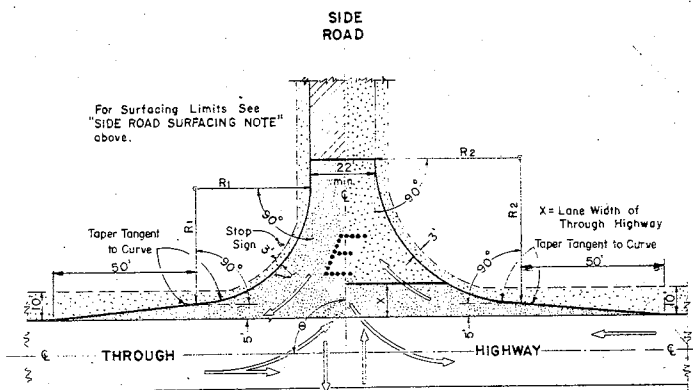


TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	θ	R ₁	R ₂
* 60°	40'	50'	95°	45'	49'
65°	40'	50'	100°	50'	48'
70°	40'	50'	105°	55'	47'
75°	40'	50'	110°	60'	46'
80°	40'	50'	115°	65'	45'
85°	40'	50'	**120°	70'	44'
90°	40'	50'			

* 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 DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS (RURAL IN CHARACTER)

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

DATE: 2-5-63 ENGINEER OF DESIGN

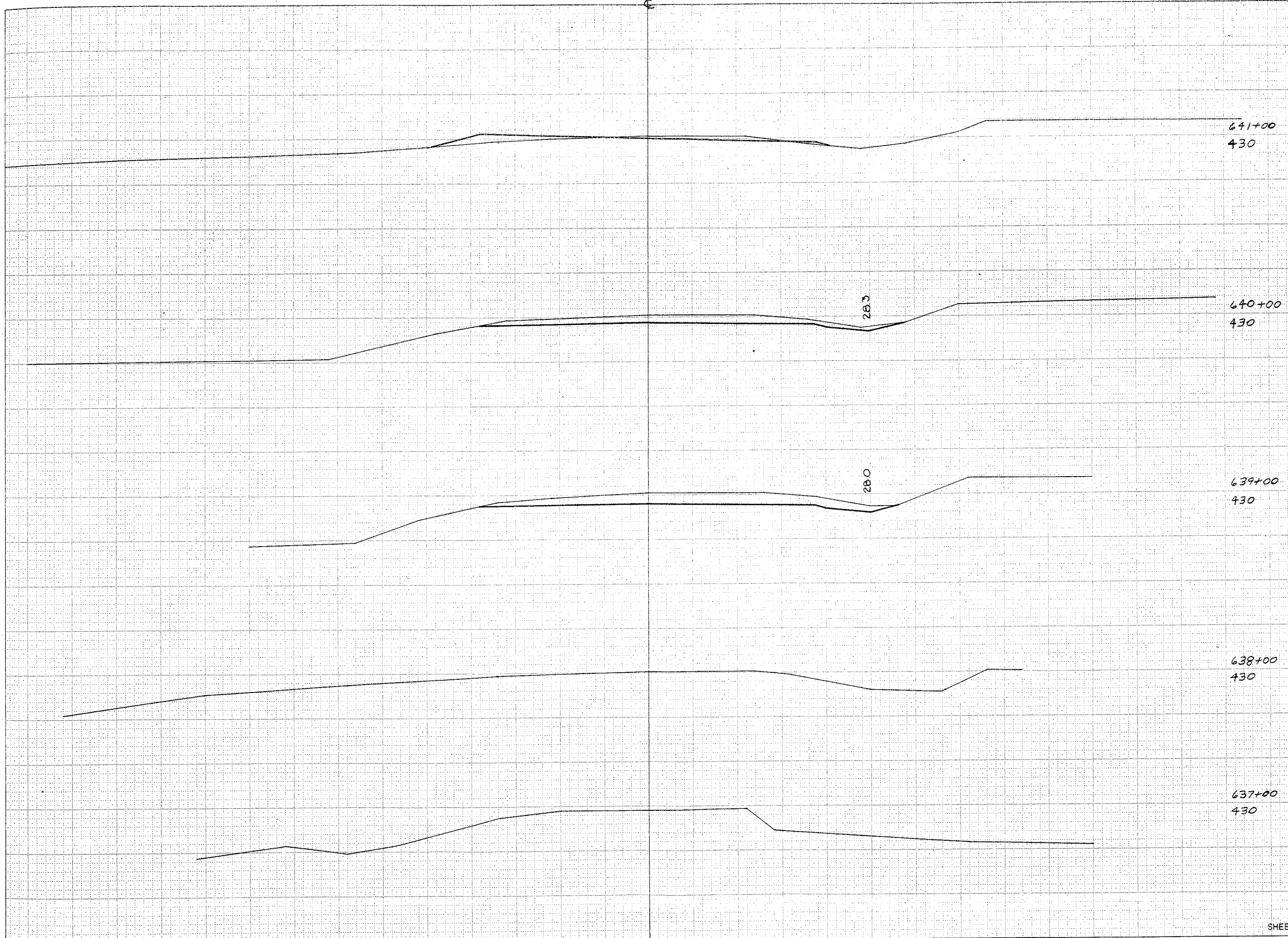
APPROVED

DATE: 2/6/63 STATE HIGHWAY ENGINEER

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S1164(1)	17	41
WIS.			

FINAL SURVEY	DATE
NO. L.L.	
NO. OF POINTS	
NO. OF TEMPERATURES	
NO. OF AREAS CHECKED	

ORIGINAL SURVEY	DATE
NO. L.L.	
NO. OF POINTS	
NO. OF TEMPERATURES	
NO. OF AREAS CHECKED	

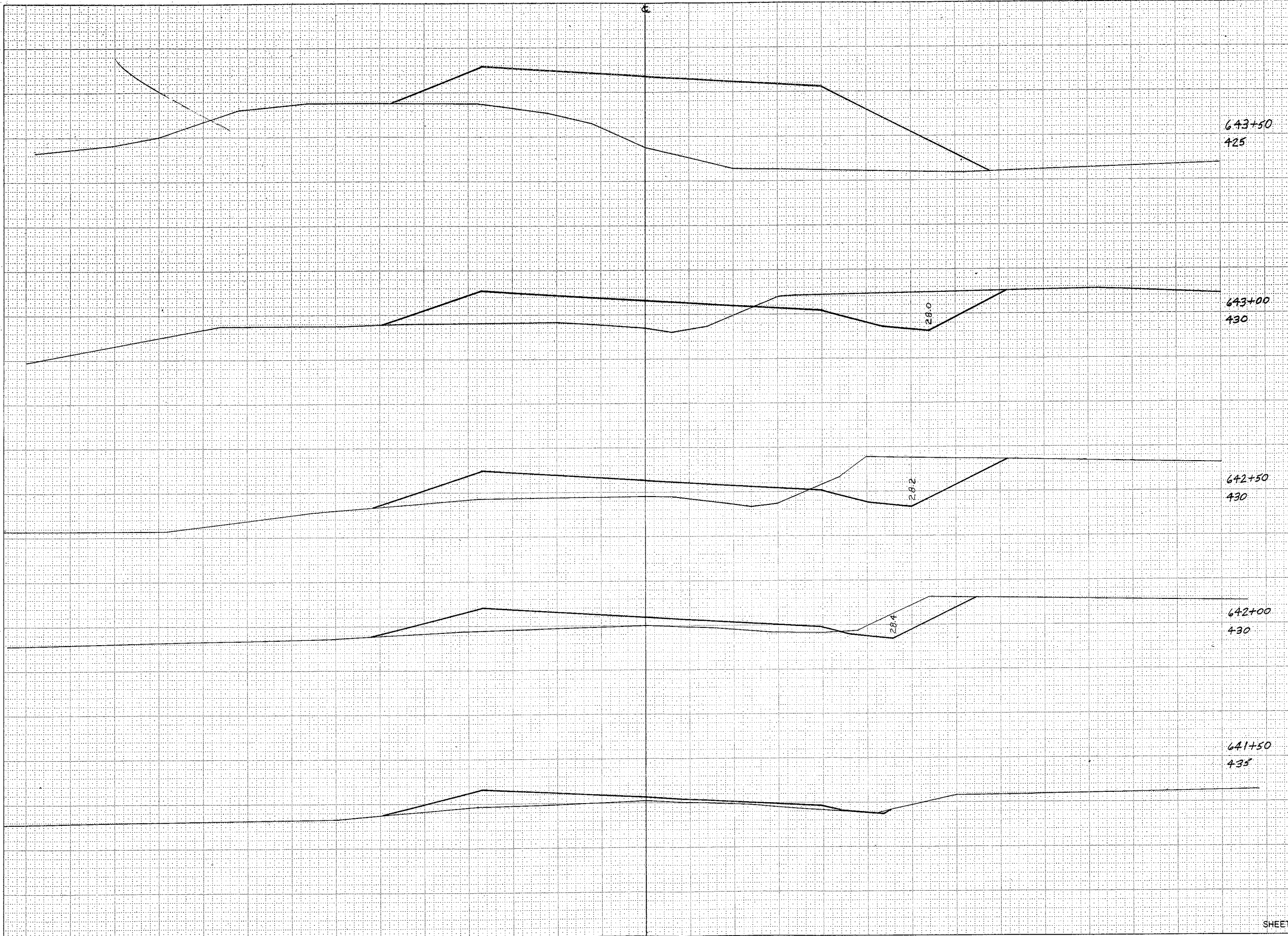


STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
641+00	430		
640+00	430		
639+00	430		
638+00	430		
637+00	430		
638	100	87	0
639	100	148	50
640	100	74	17
641	50	7	46
641+50			
SHEET TOTAL		416	113

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	SIIG4C1)	19	41

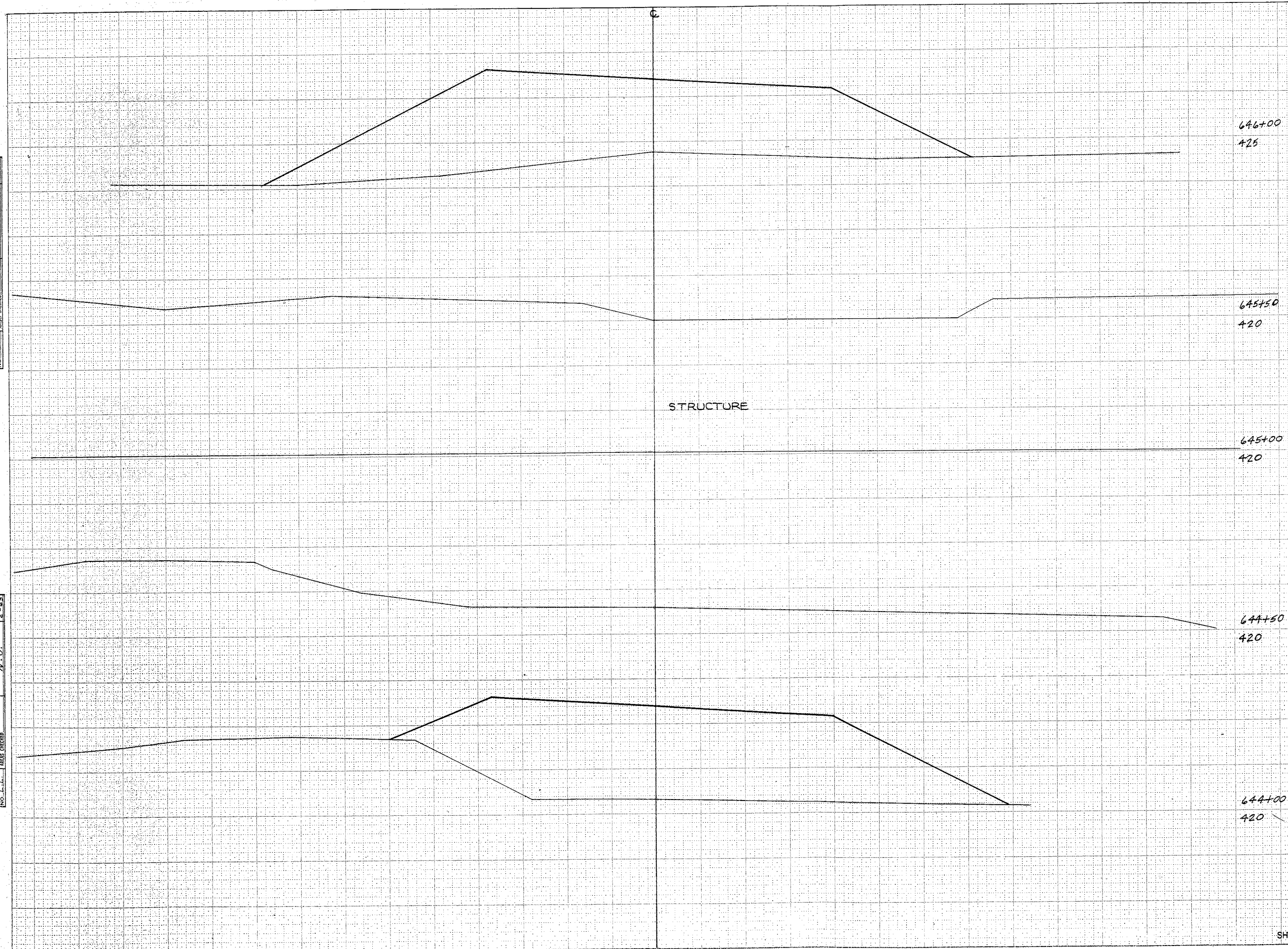
FINAL SURVEY	SURVEYED PLOTTED	DATE
NOTE BOOK NO.	REVISIONS NO.	

ORIGINAL SURVEY	SURVEYED PLOTTED	DATE
NOTE BOOK NO.	REVISIONS NO.	



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
	LINE		
644			
+50	0		863
643	65		467
+50	132		189
642	51		152
+50	22		100
SHEET TOTAL	310		1771

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	51164 (1)	20	41



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
646+00			
425			
645+50			
420			
645+00			
420			
+50	50	0	956
646	15	0	307
+85	20	0	204
+65	65	0	0
645	40	0	0
+60	20	0	198
+40	40	0	793
644			
644+00			
420			
SHEET TOTAL		0	2458

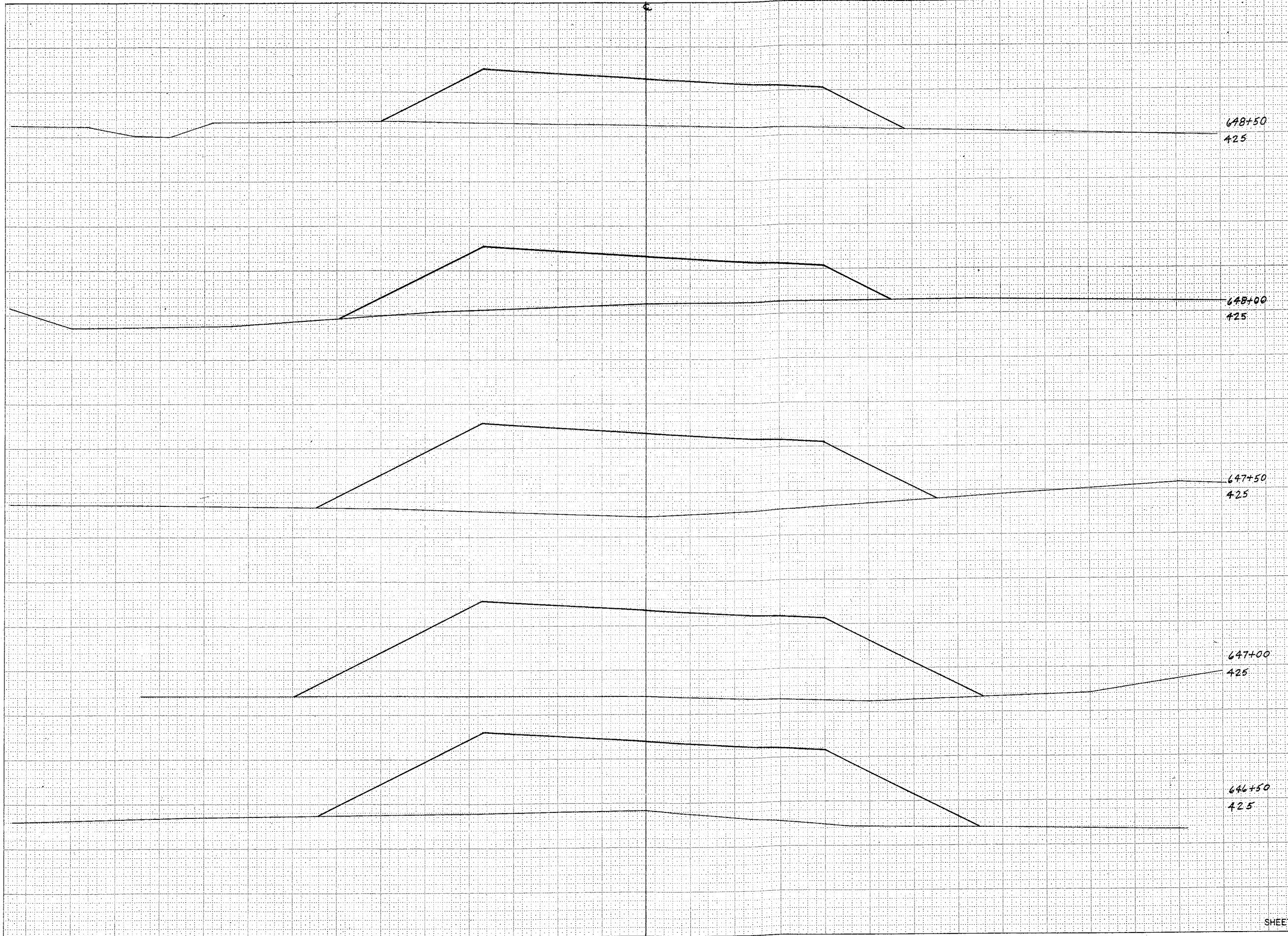
NO.	DATE	BY	REVISION

NO.	DATE	BY	REVISION

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	51164(1)	21	41

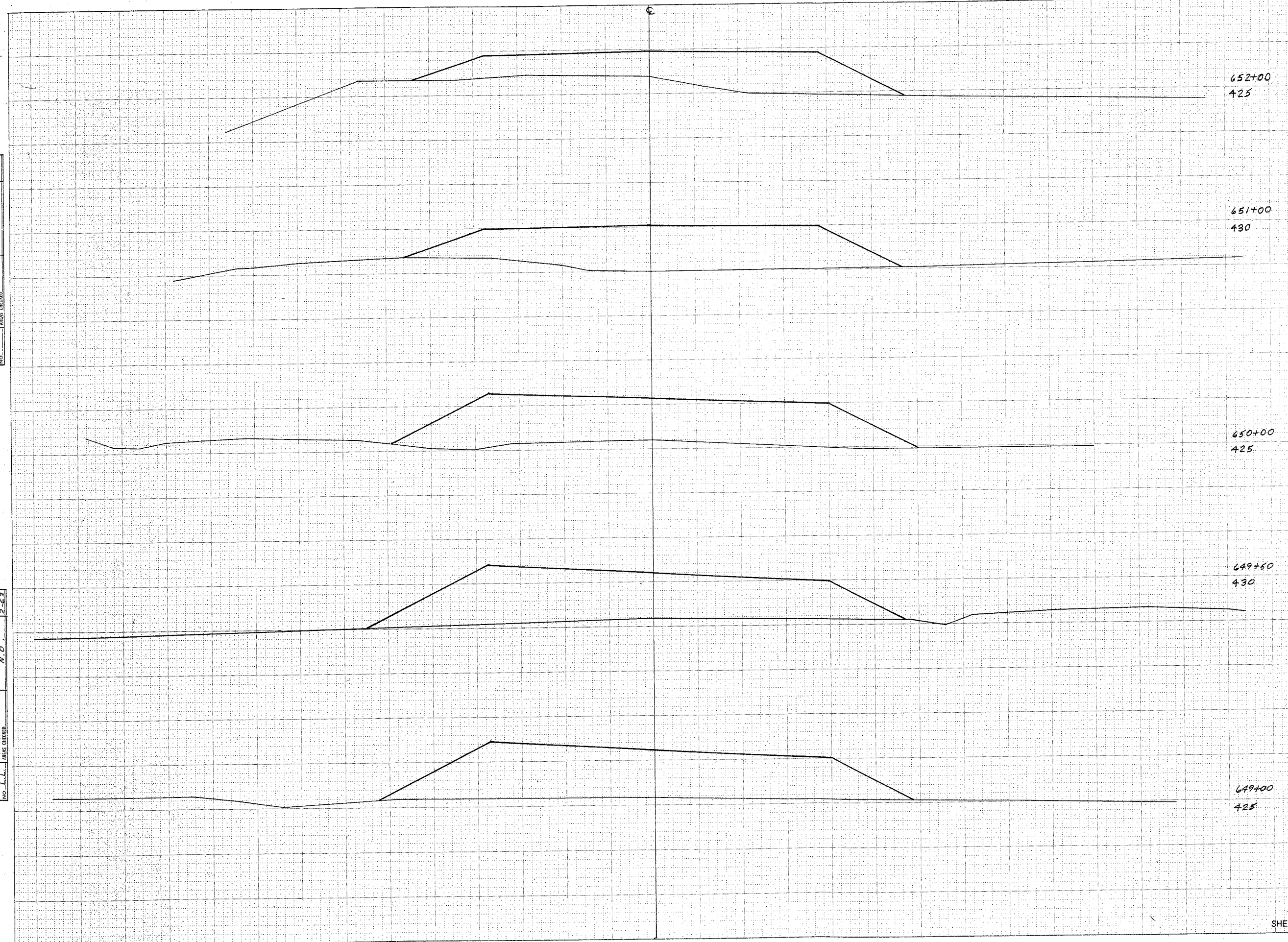
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SURVEYED	BY
PLOTTED	
REVISIONS	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
REVISIONS	
NO.	



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
648+50			
425			
648+00			
425			
647+50			
425			
647+00			
425			
649	+50	0	487
648	+50	0	496
647	+50	0	713
646+50	+50	0	987
647	+50	0	980
646+50			
425			
SHEET TOTAL		0	3663

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	51164(1)	22	41
WIS.			



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		LNCL	
652+00	425		
651+00	430		
650+00	425		
649+00	430		
+75	75	0	339
652	100	0	696
651	100	0	872
650	50	0	485
+50	50	0	500
649			
SHEET TOTAL		0	2342

SURVEYED
 SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 NO. _____ AREAS CHECKED

SURVEYED
 SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 NO. _____ AREAS CHECKED

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	51164(1)	23	41

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL	
654+00			
430			
653+30			
430			
653+00			
425			
655			
100	87		94
654			
70	46		87
+30			
30	2		72
653			
25	0		94
652			
+75			
SHEET TOTAL		135	347

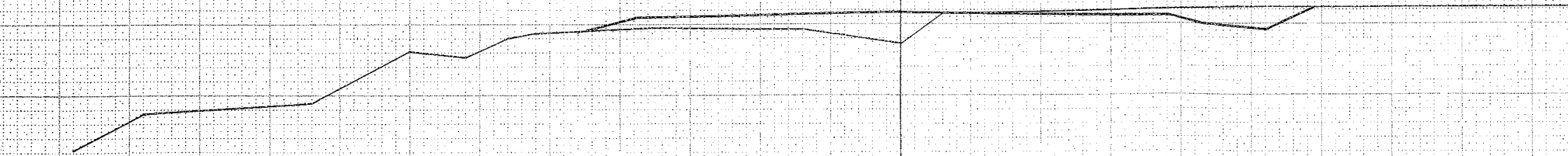
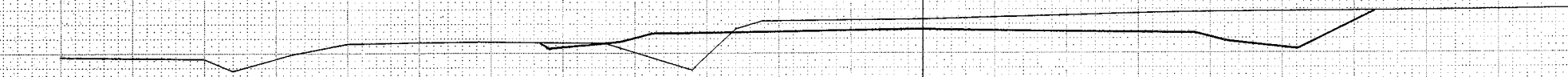
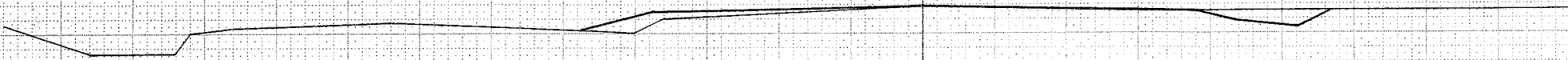
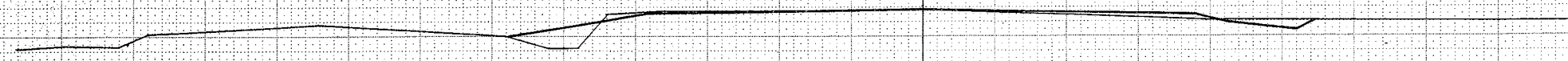


FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
NO.	AREAS CHECKED

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	51164(1)	24	41
WIS.			

STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		LIN CL	FILL
659+00			
430			
658+00			
430			
657+00			
430			
656+00			
430			
660	100		
	20		28
659	100	18	30
658	100	109	37
657	100	130	54
656	100	56	85
655			
SHEET TOTAL		333	234



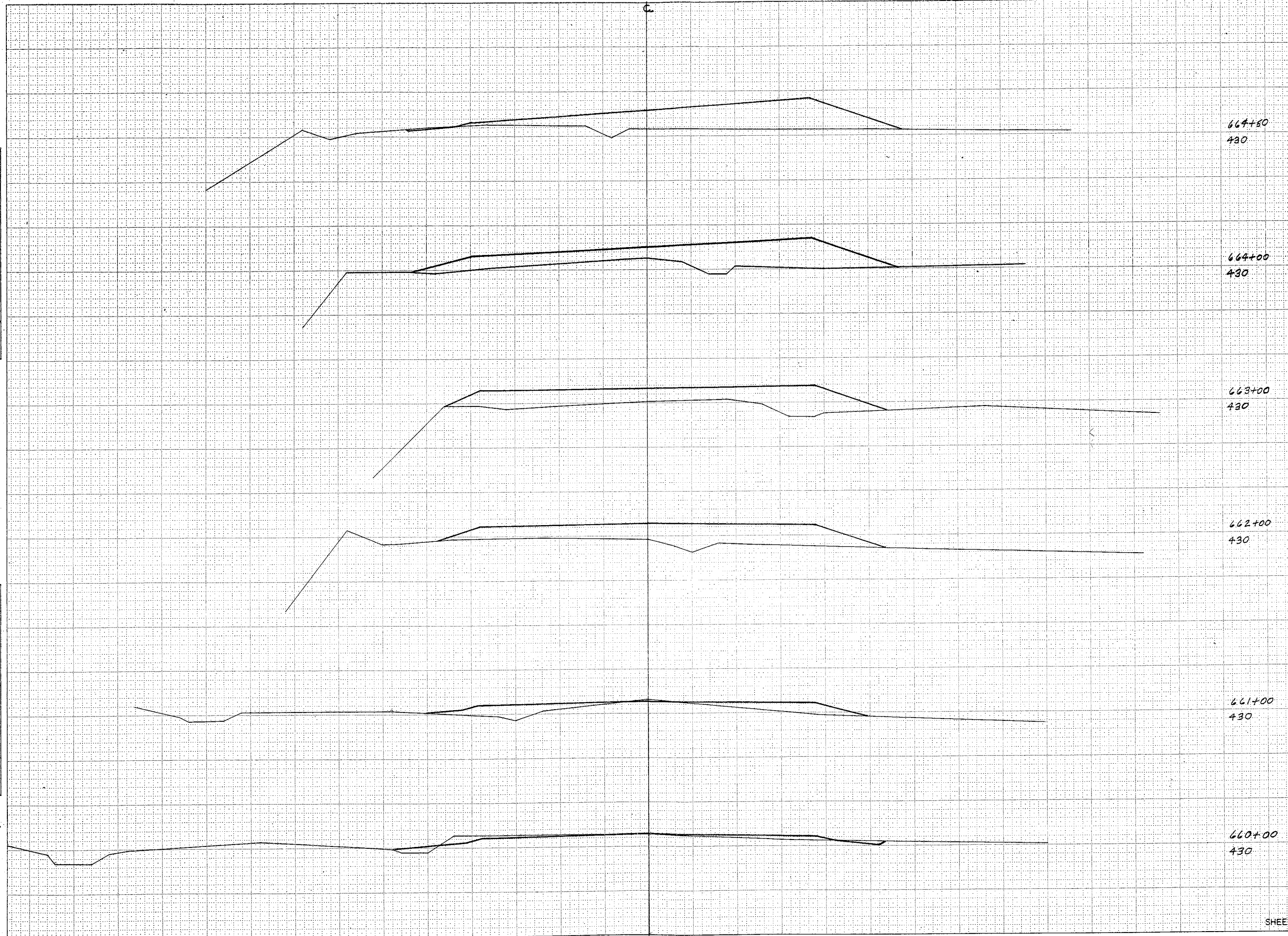
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 SURVEY PLATTER: _____
 NOTE BOOK: _____
 AREA: _____
 NO. _____
 CHECKED: _____

SURVEYED BY: _____
 SURVEY PLATTER: _____
 NOTE BOOK: _____
 AREA: _____
 NO. _____
 CHECKED: _____

B. R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	SIIG4(1)	25	41

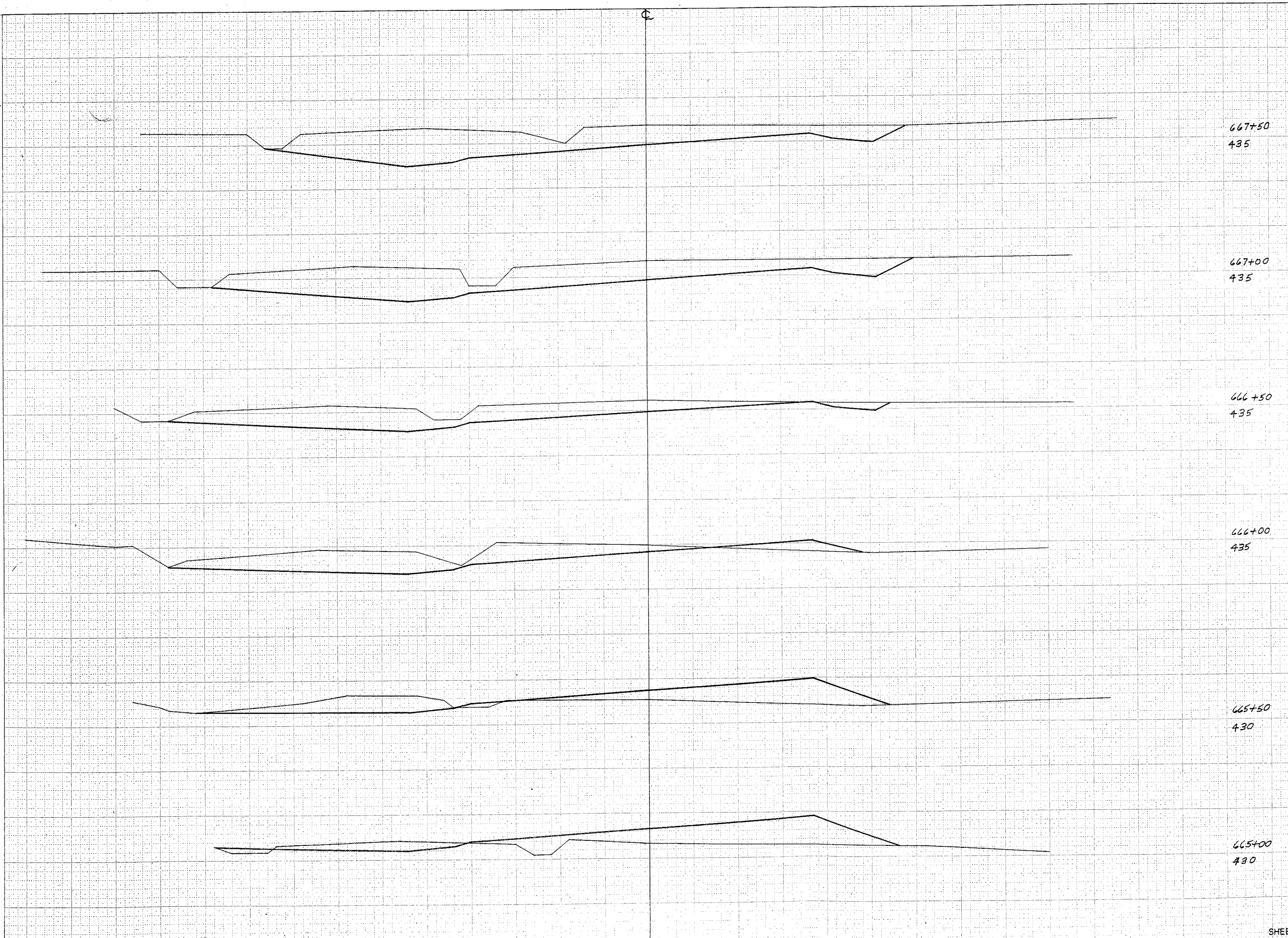
FINAL SURVEY	DATE
SURVEYED	
PLOTTED	
REMARKS	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	
PLOTTED	
REMARKS	
NO.	



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
665			
	17		172
+50			
	2		189
664			
	0		361
663			
	0		337
662			
	0		222
661			
	13		69
660			
SHEET TOTAL	32		1350

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	SH64(1)	26	41



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
667+50			
667+00			
666+50			
666+00			
668			
50	257		0
50			
50	302		0
667			
50	259		0
+50			
50	185		9
666			
50	115		65
+50			
50	46		133
665			
665+00			
665			
SHEET TOTAL		1164	207

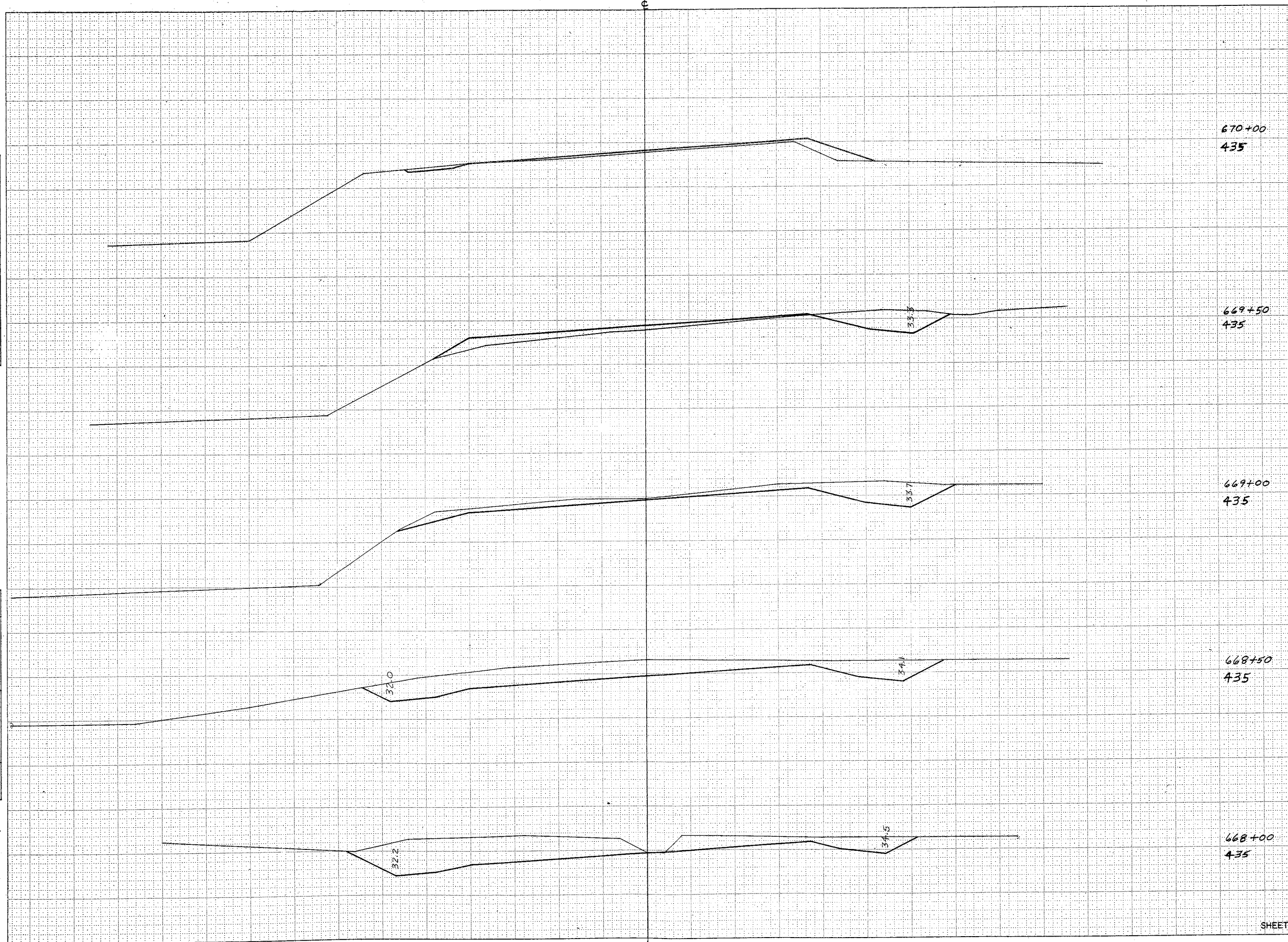
SURVEY ROUTE
 NOTE BOOK
 NO. L.L.

SURVEY ROUTE
 NOTE BOOK
 NO. L.L.

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	SIIG4(1)	27	41

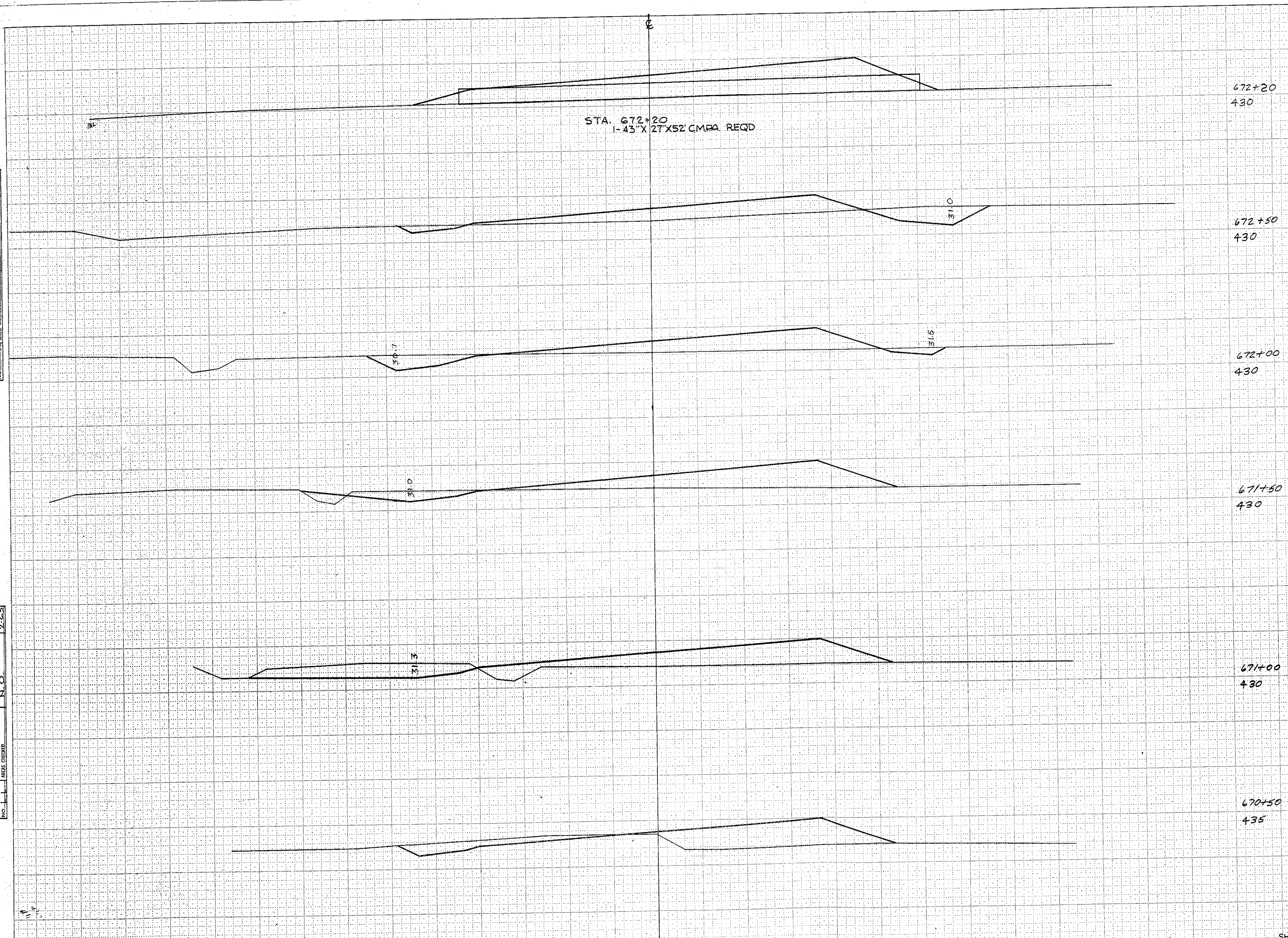
FINAL SURVEY	DATE
NO. _____	BY _____
NOTE BOOK	
NO. _____	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
NO. _____	BY _____
NOTE BOOK	
NO. _____	
AREAS CHECKED	



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
670+00			
435			
669+50			
435			
669+00			
435			
+50			
670	50	11	65
+50	50	28	35
669	50	83	22
+50	50	157	0
668	50	213	0
+50			
SHEET TOTAL		492	122

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S1164 (1)	28	41

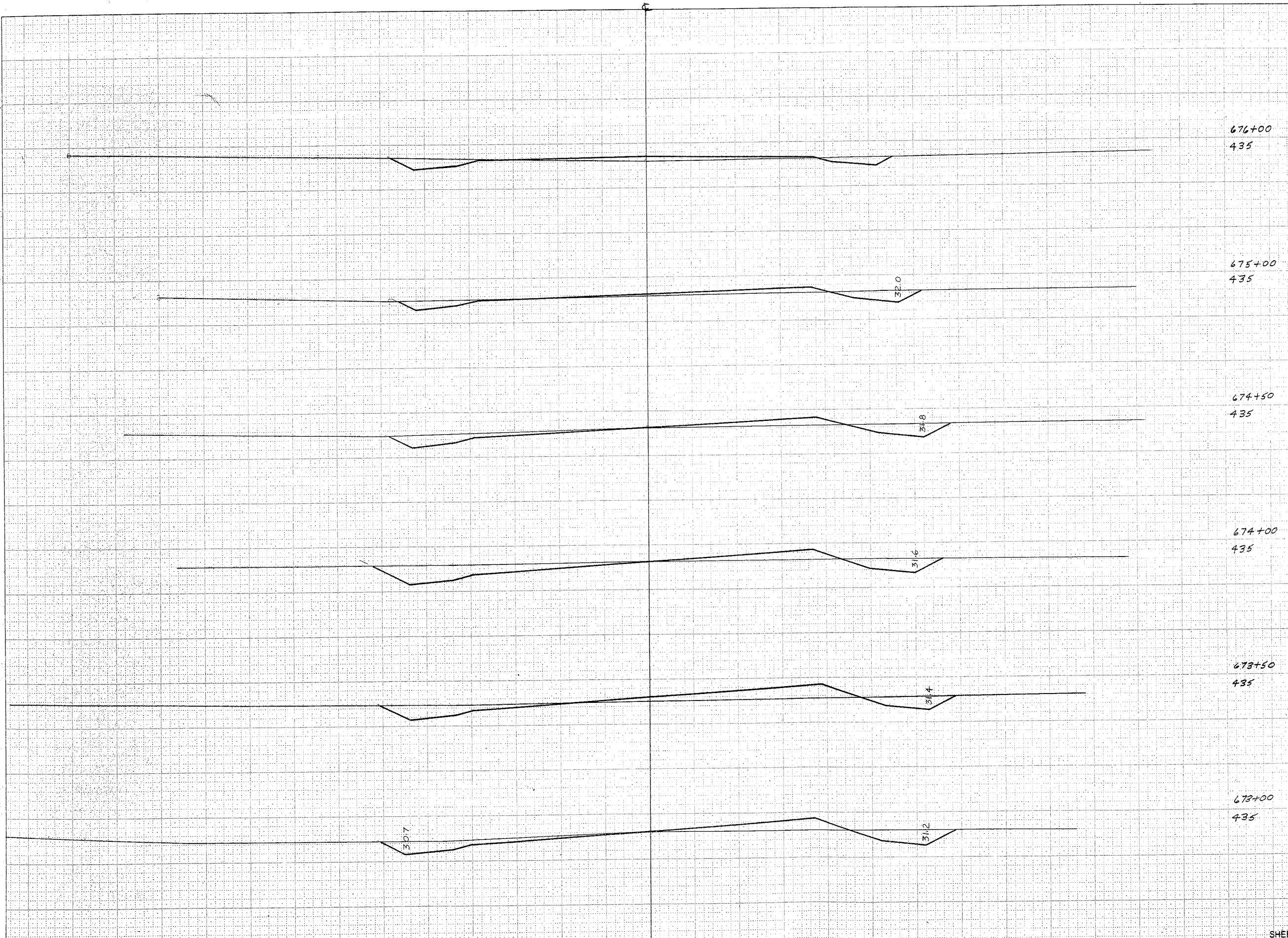


STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
672+20	430		
672+50	430		
672+00	430		
671+50	430		
671+00	430	50 43	63
672	+50	50 50B 33	96
671+50	+50	50 22	111 200 B
670+50	435	50 35	130
671	50	41	119
670	+50		
SHEET TOTAL		224	71

SURVEYED
 PLOTTED
 CHECKED
 NO.

SURVEYED
 PLOTTED
 CHECKED
 NO.

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 1164(1)	30	41
WIS.			



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL	FILL
676+00			
435			
675+00			
435			
674+50			
435			
674+00			
435			
677	100	65	24
676	100	48	35
675	50	33	17
+50	50	57	20
674	50	57	35
+50	50	44	37
673			
673+00			
435			
SHEET TOTAL		304	168

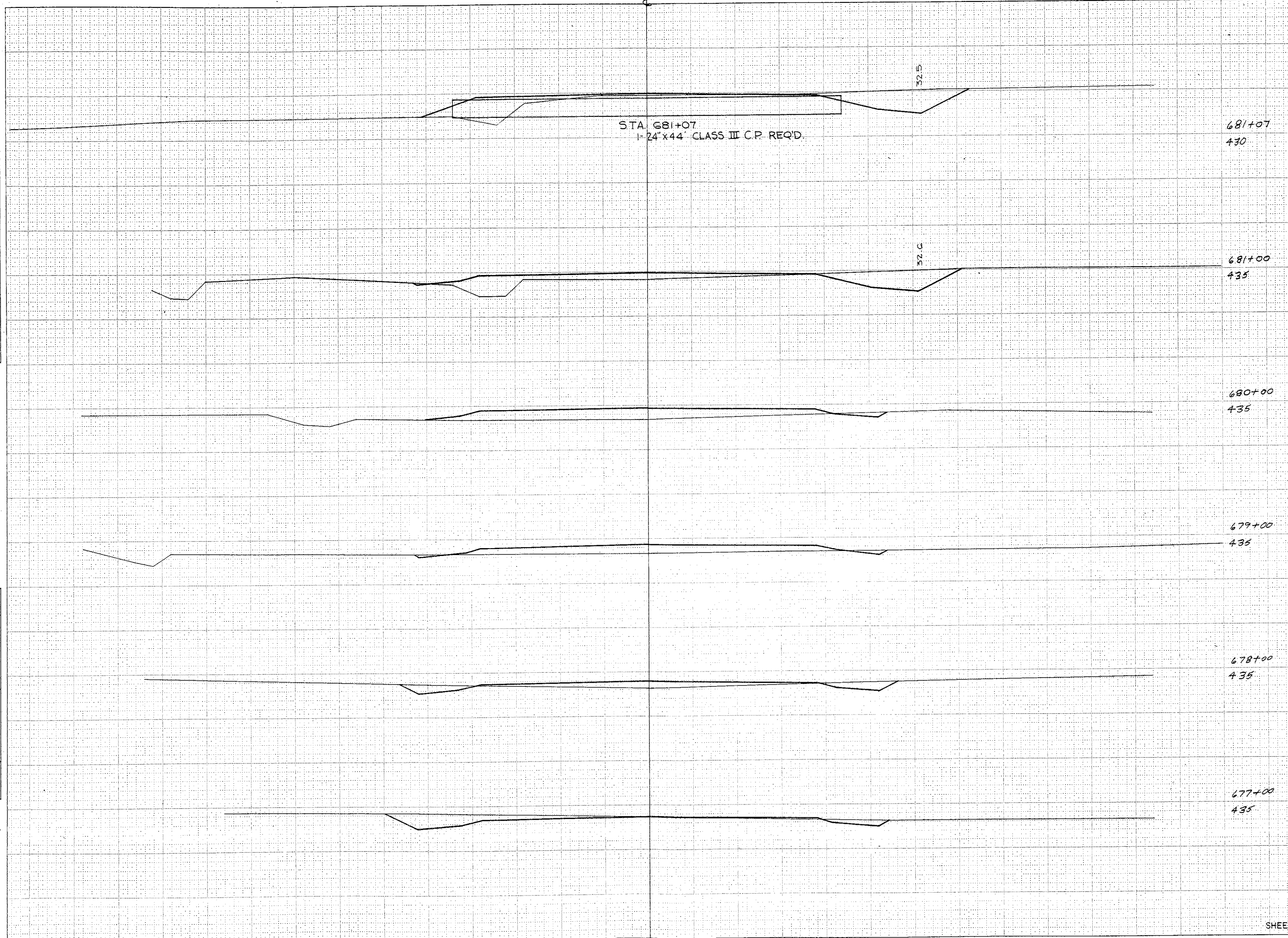
SURVEYED
 SURVEY FLOTTED
 NOTE BOOK
 NO. 1, 1

SURVEYED
 SURVEY FLOTTED
 NOTE BOOK
 NO. 1, 1

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	51164 C17	30	41

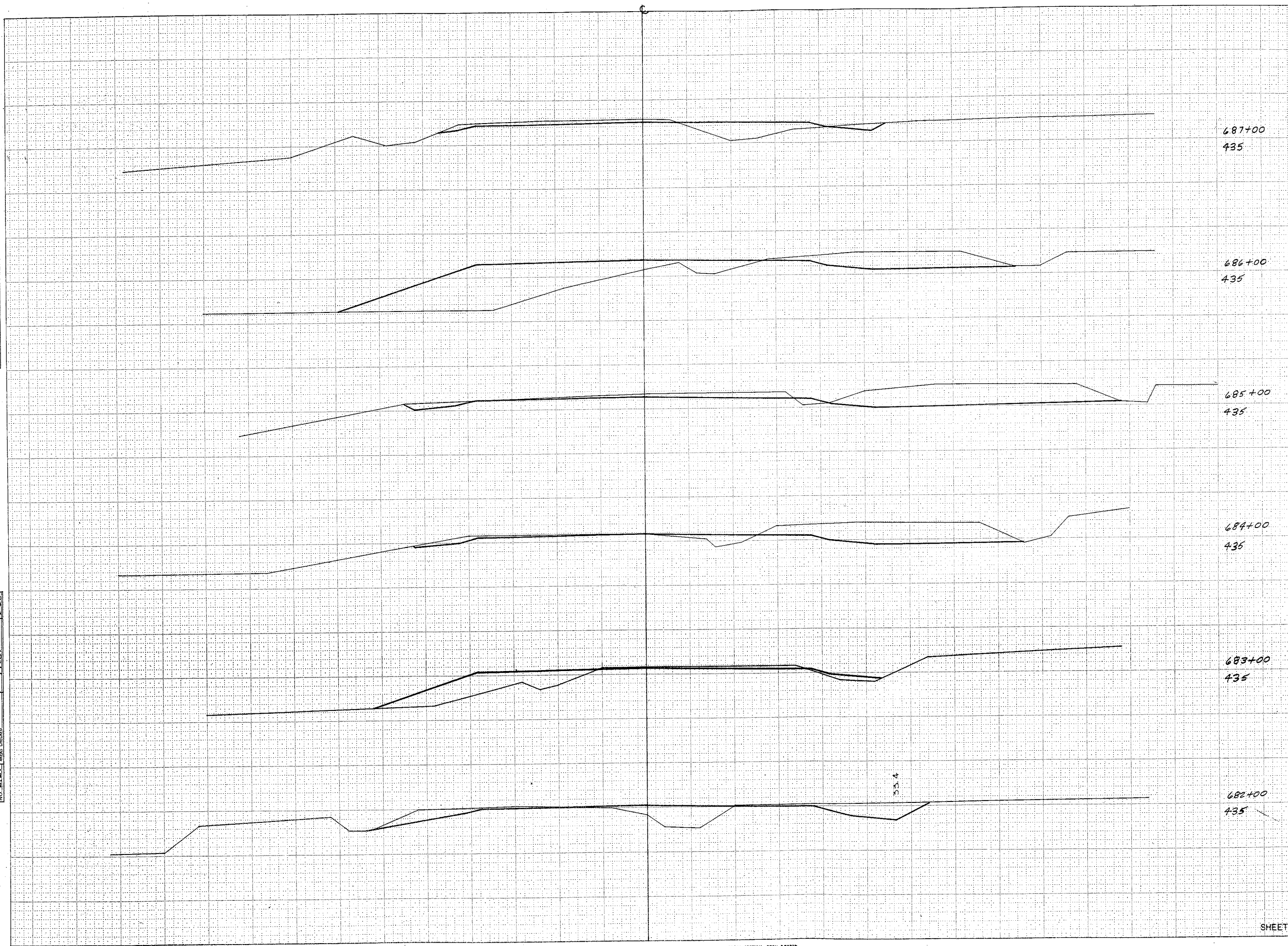
FINAL SURVEY	DATE
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	
NO. 21	
NO. 22	
NO. 23	
NO. 24	
NO. 25	
NO. 26	
NO. 27	
NO. 28	
NO. 29	
NO. 30	

ORIGINAL SURVEY	DATE
NO. 11	1-63
NO. 12	1-63
NO. 13	1-63
NO. 14	1-63
NO. 15	1-63
NO. 16	1-63
NO. 17	1-63
NO. 18	1-63
NO. 19	1-63
NO. 20	1-63
NO. 21	1-63
NO. 22	1-63
NO. 23	1-63
NO. 24	1-63
NO. 25	1-63
NO. 26	1-63
NO. 27	1-63
NO. 28	1-63
NO. 29	1-63
NO. 30	1-63



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
681+07	430		
681+00	435		
680+00	435		
679+00	435		
678+00	435	100 52	89
681	100 20		133
680	100 11		132
679	100 26		85
678	100 61		37
677			
SHEET TOTAL		170	476

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S1164(1)	32	41
WIS.			

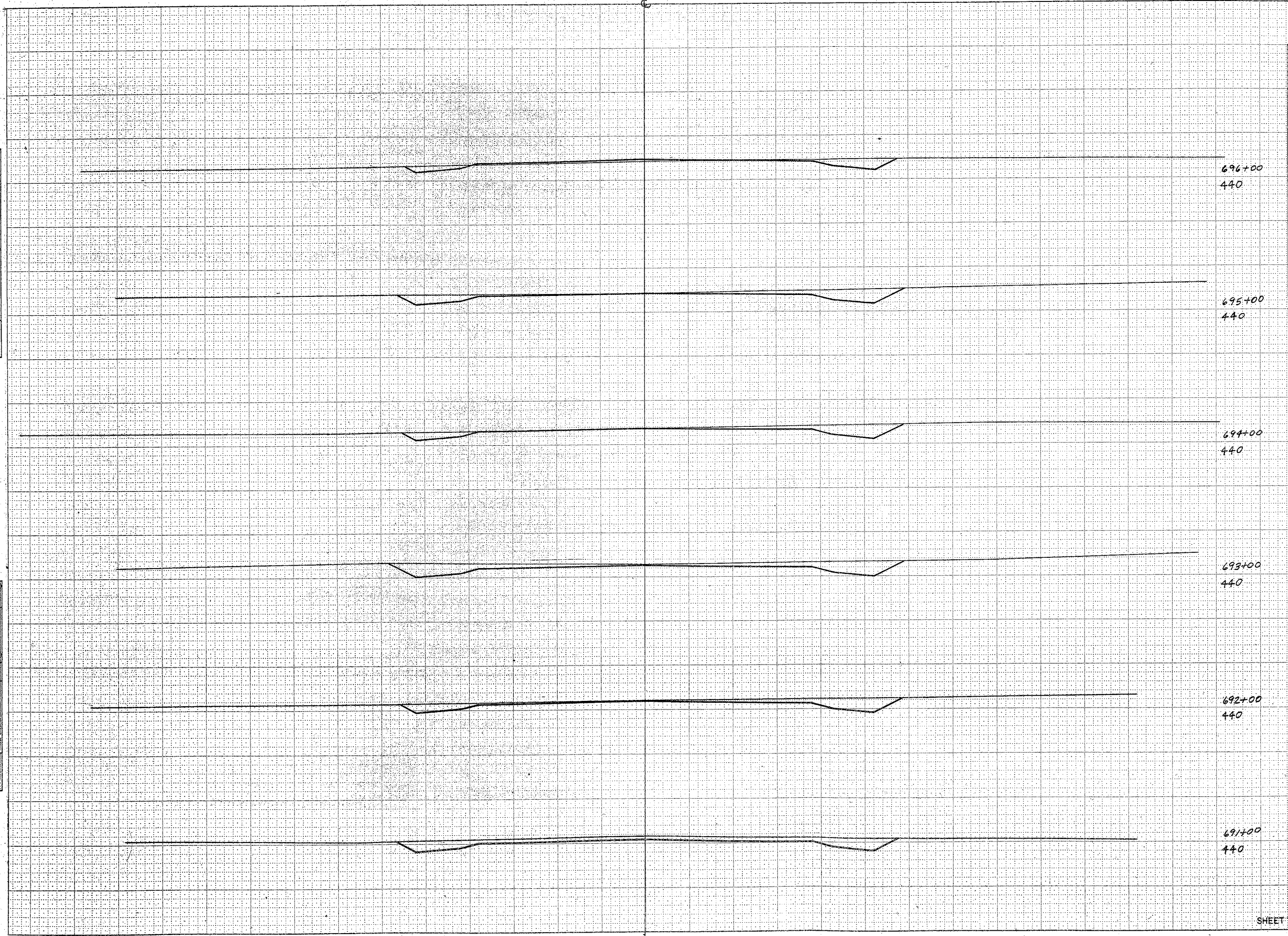


STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
	LINEL		
687+00			
435			
686+00			
435			
685+00			
435			
684+00			
435			
688			
100	31		85
687			
100	89		248
686			
100	211		211
685			
100	259		17
684			
100	124		91
683			
100	46		111
682			
SHEET TOTAL		760	763

SURVEY
 NO. 4-1
 DATE
 AREA CHECKED
 BY

SURVEY
 NO. 4-1
 DATE
 AREA CHECKED
 BY

B. R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	5164(1)	34	41



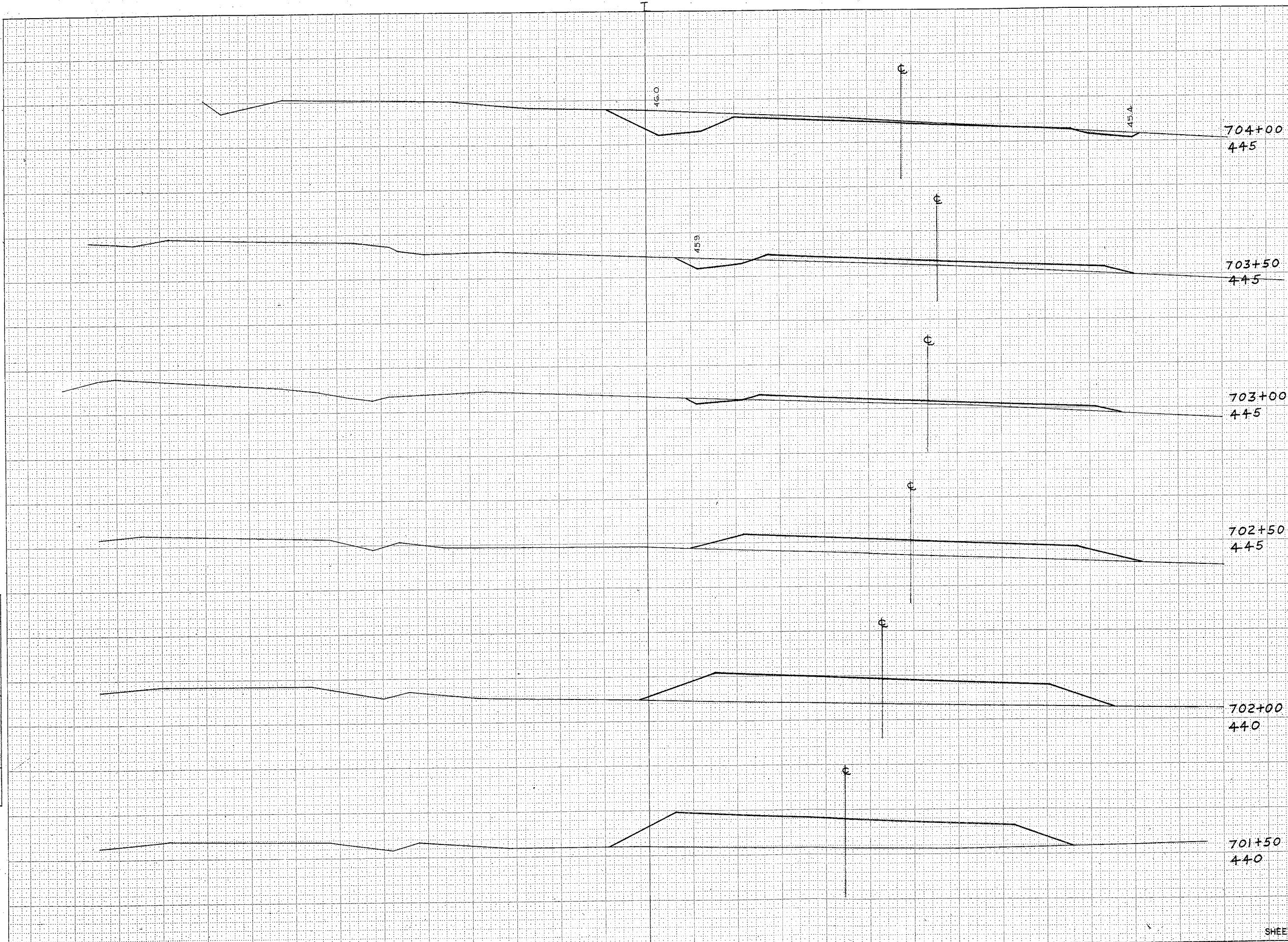
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
697			
696	100	22	256
695	100	67	4
694	100	83	0
693	100	106	0
692	100	117	0
691	100	119	0

SHEET TOTAL 514 250

SURVEY PLUMED
 NOTE BOOK NO. 11
 AREAS CHECKED
 NO. 11

SURVEY PLUMED
 NOTE BOOK NO. 11
 AREAS CHECKED
 NO. 11

B.P.R. REGION	PROJECT	SHEET	TOTAL
DIVISION	NUMBER	NUMBER	SHEETS
4.	51164(1)	36	41
WIS.			



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
	LINEL		
704+00			
445			
703+50			
445			
703+00			
445			
702+50			
445			
+50			
50	159		0
704			
50	37		22
+50			
50	7		41
703			
50	2		85
+50			
50	0		191
702			
50	0		256
701			
+50			
701+50			
440			
SHEET TOTAL	205		595

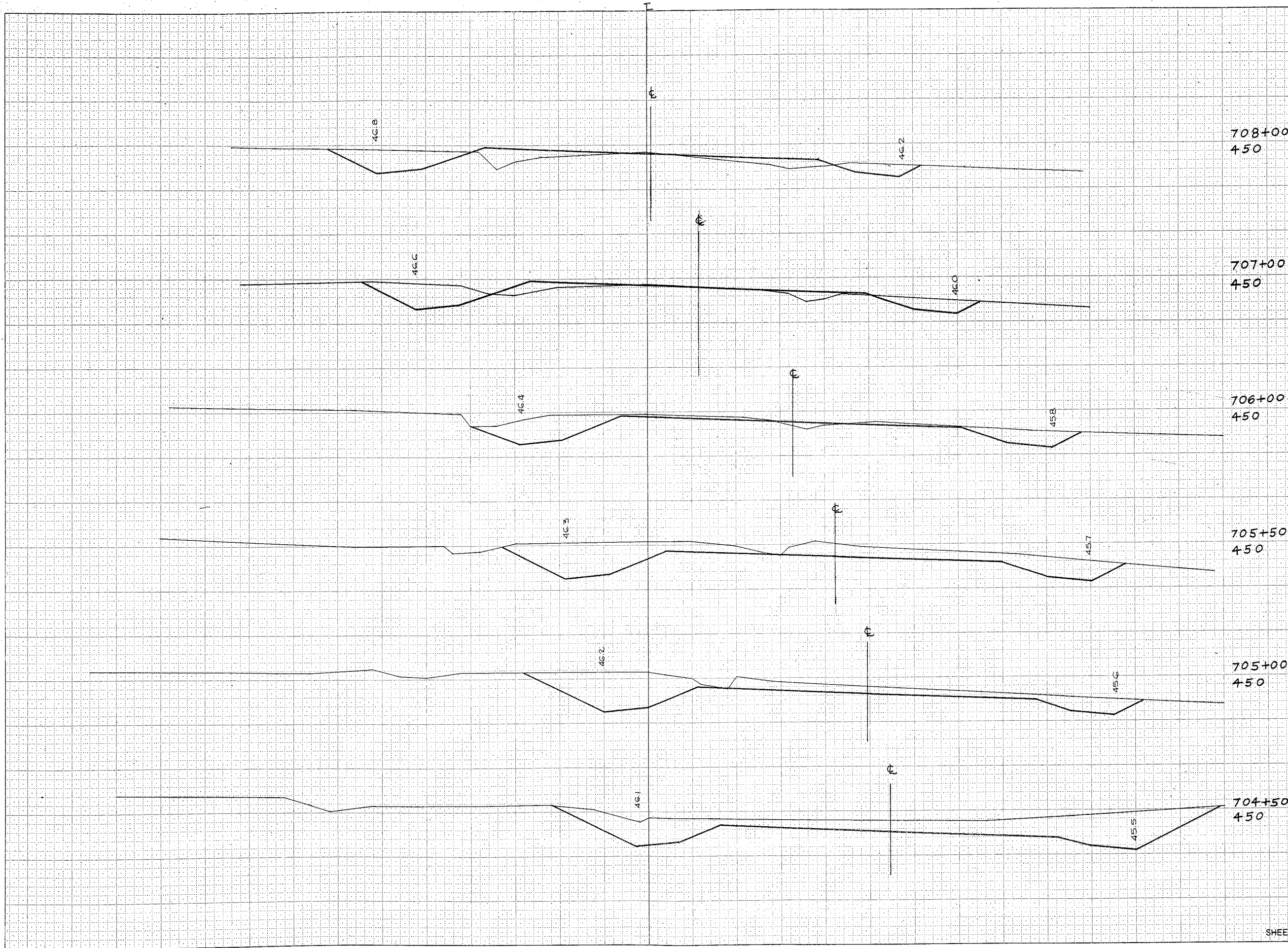
SURVEY NUMBER
 SURVEY DATE
 SURVEY METHOD
 SURVEY INSTRUMENT
 SURVEY AREA
 SURVEY CHECKED
 SURVEY NO.

SURVEY NUMBER
 SURVEY DATE
 SURVEY METHOD
 SURVEY INSTRUMENT
 SURVEY AREA
 SURVEY CHECKED
 SURVEY NO.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	51164(1)	37	41

FINAL SURVEY	DATE
NO. _____	BY _____
NOTE BOOK	
NO. _____	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
NO. _____	BY _____
NOTE BOOK	
NO. _____	
AREAS CHECKED	

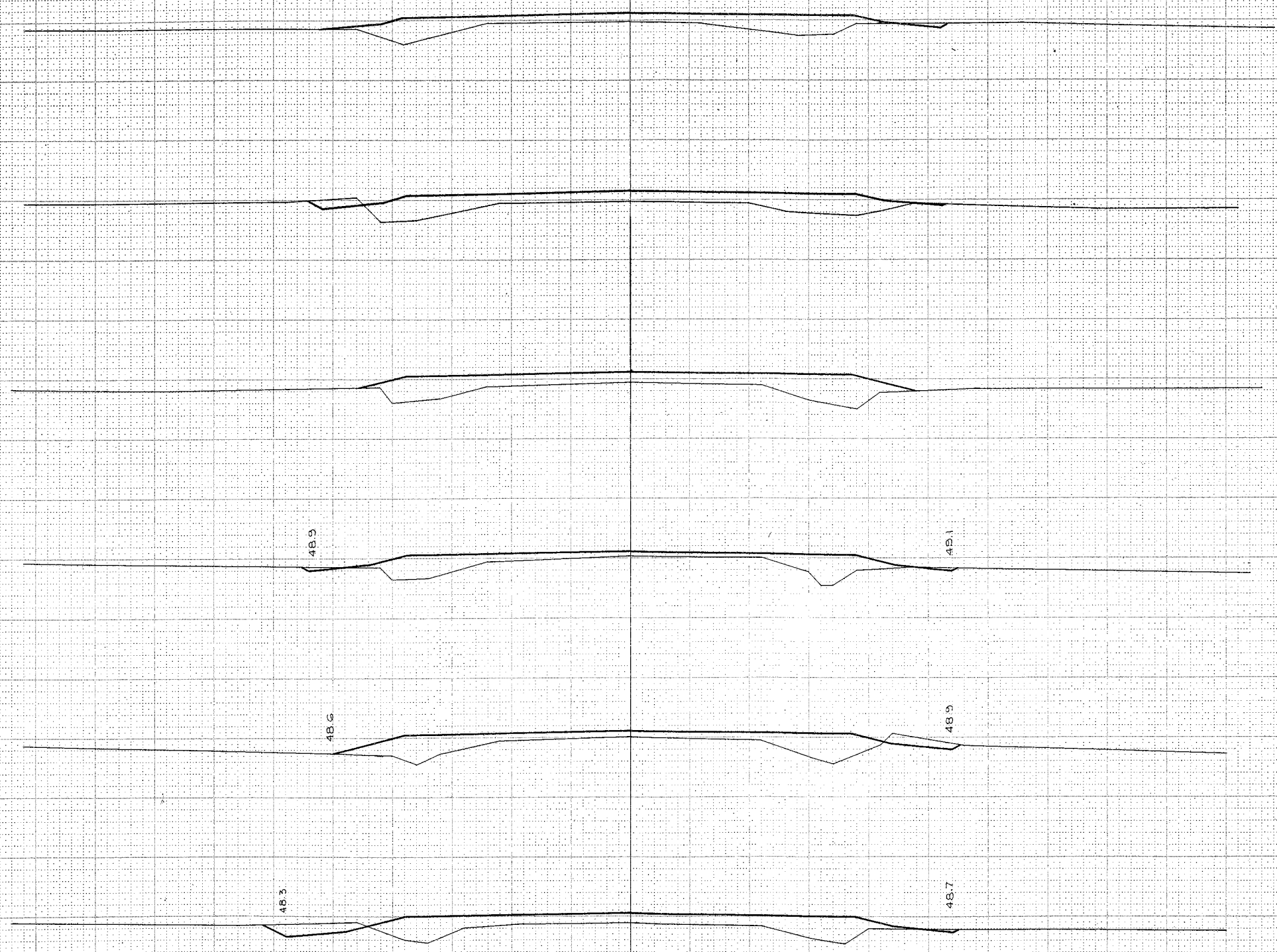


STATION	YARDAGE			
	DISTANCE	EXCAVATION		FILL
		UNCL		
708+00				
450				
707+00				
450				
706+00				
450				
705+50				
450				
709				
100	104			115
708				
100	135			70
707				
100	176			31
706				
50	156			2
+50				
705				
50	200			0
705				
50	222			0
705				
+50				
SHEET TOTAL	993			218

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S1164 (1)	39	41
WIS.			

FINAL SURVEY	DATE
SURVEY	BY
NOTE BOOK	
NO.	
DESIGNED	
CHECKED	
APPROVED	

ORIGINAL SURVEY	DATE
SURVEY	BY
NOTE BOOK	
NO.	
DESIGNED	
CHECKED	
APPROVED	



720+00
450

719+00
450

718+00
450

717+00
450

716+00
450

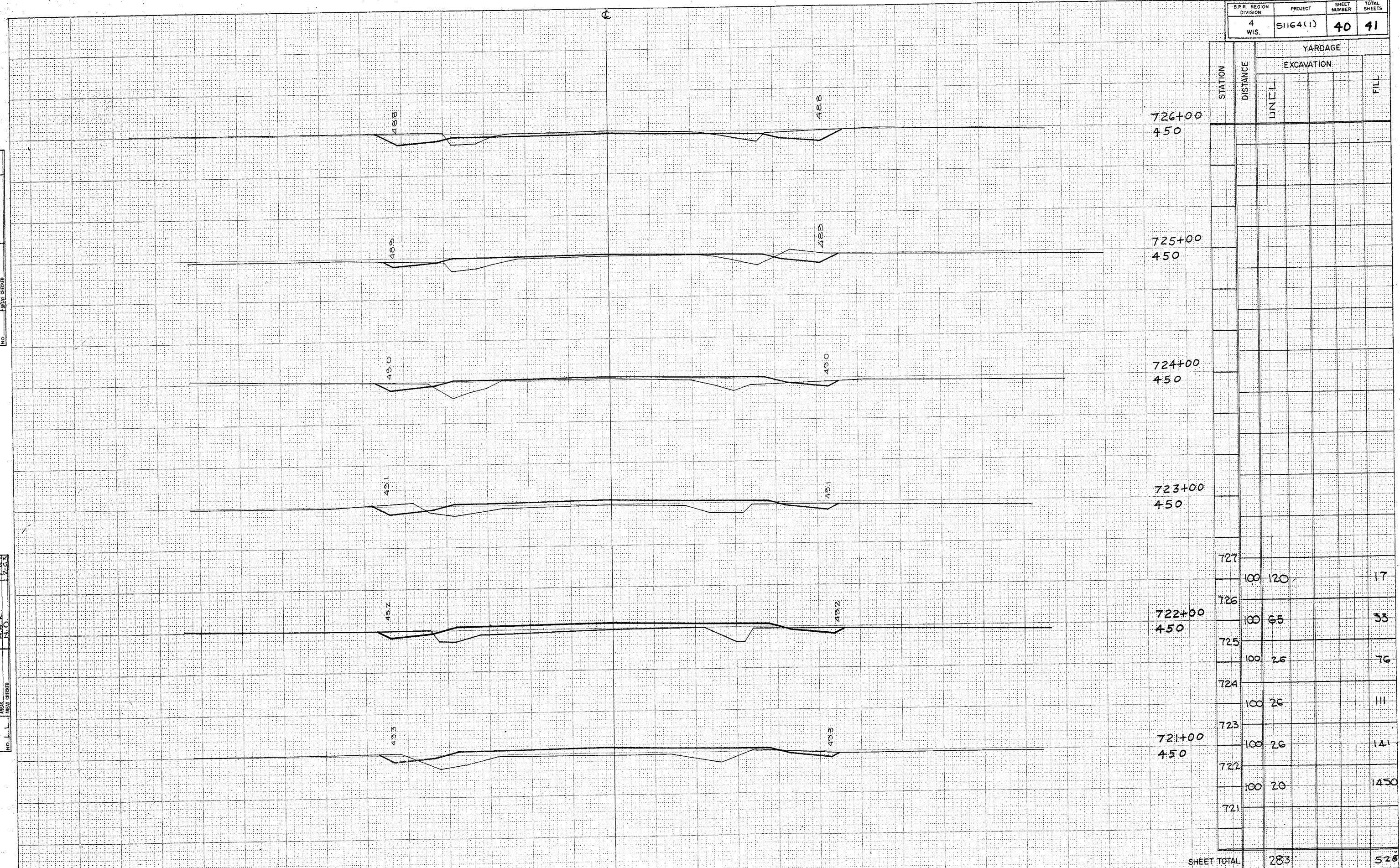
715+00
450

STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		INCL	FILL
721	100	9	156
720	100	6	182
719	100	6	208
718	100	2	181
717	100	109	150
716	100	19	167
715			
SHEET TOTAL		51	1044

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	51164(1)	40	41

NOTE BOOK
NO. 101
DATE 1/25/50
CHECKED

SURVEY PLOTTED
NOTE BOOK
NO. 101
DATE 1/25/50
CHECKED

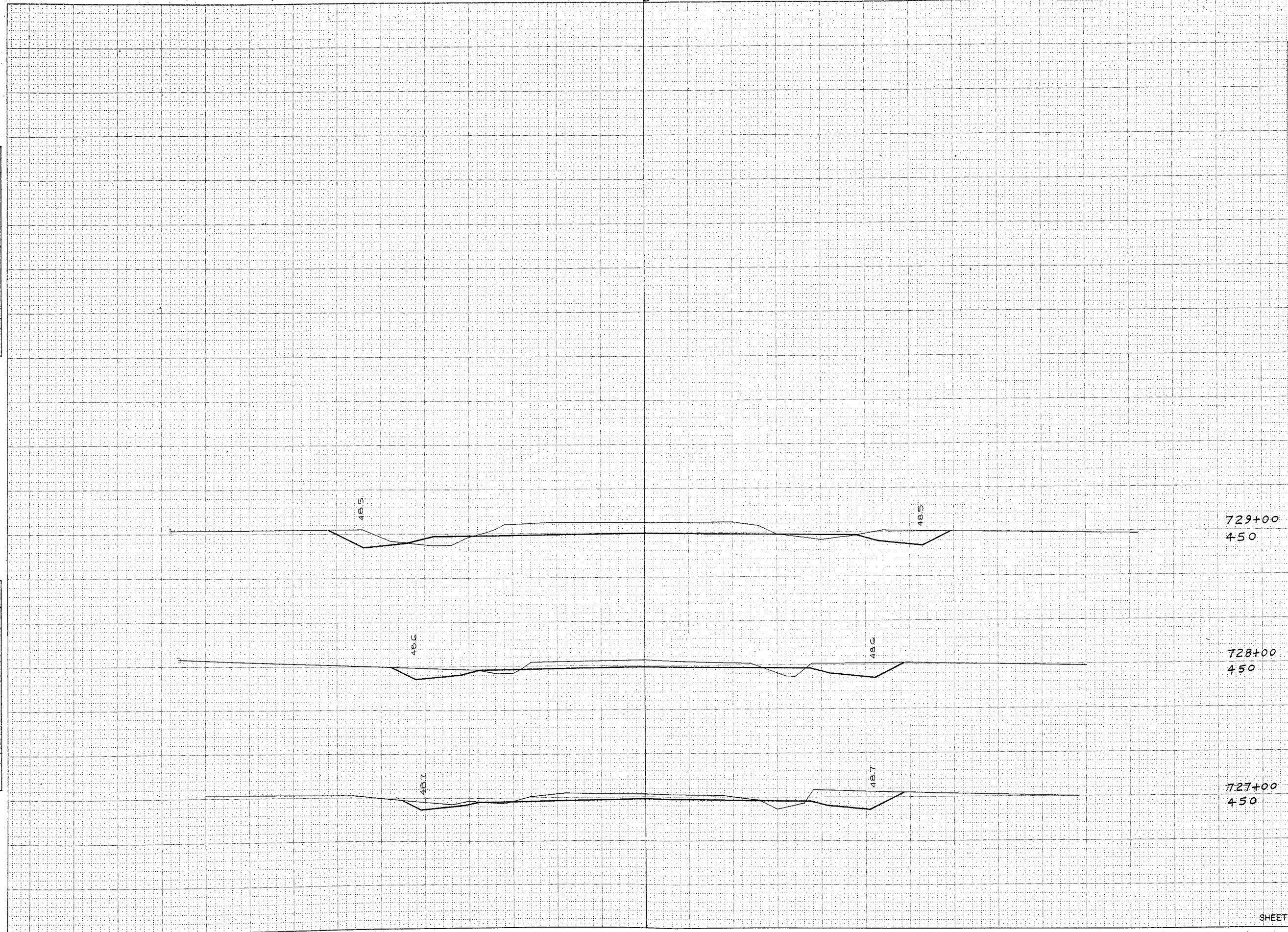


STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
726+00	450		
725+00	450		
724+00	450		
723+00	450		
722	100	120	17
722+00	450	100	65
725	100	26	76
724	100	26	111
723	100	26	141
721+00	450	100	20
722	100	20	1450
721			
SHEET TOTAL		283	528

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	511G4(1)	41	41

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLANS		
	AREAS		
	BEARS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLANS		
	AREAS		
	BEARS CHECKED		



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL	
729+00	450		
728+00	450		
+30			
729	30	59	15
727+00	450		
728	100	169	22
727	100	137	19
SHEET TOTAL		365	56