

ESTIMATE OF QUANTITIES				
ITEM	DESCRIPTION	QUANTITY		UNIT
		S.B.	N.B.	
204-14	Structural Earth Excavation, Piers	125	156	Cu. Yds.
701-33	Portland Cement Concrete, Abutments & Retaining Walls	174	184	Cu. Yds.
701-33.1	Portland Cement Concrete, Piers (Oakfield-Smyrna Road)	133	134	Cu. Yds.
701-40	Portland Cem. Conc. Rdwy. & Sidewalk Slabs on Steel Bridges	186	196	Cu. Yds.
702-103.1	Structural Steel, Fabricated & Del. (Oakfield-Smyrna Road)	L.S.	L.S.	L.S.
702-104.1	Structural Steel, Erection (Oakfield-Smyrna Road)	L.S.	L.S.	L.S.
702-105.1	Structural Steel, Field Painting (Oakfield-Smyrna Road)	L.S.	L.S.	L.S.
705-13	Reinforcing Steel, Delivered	81,000	89,100	Lbs.
705-14	Reinforcing Steel, Placing	81,000	89,100	Lbs.
708-16	Steel H-Beam Piles 42 Lbs./Ft.	1,206	2,184	Lin. Ft.
805-8	Bridge Rail	305	322	Lin. Ft.
807-11	Epoxy Resin Surface Sealant	126	124	Sq. Yds.
808-6	Slope Paving	570	596	Sq. Yds.
901-24	Vertical Bridge Curb - Type I	313	330	Lin. Ft.
901-25	Vertical Bridge Curb Circular - Type I	12	12	Lin. Ft.
* 701-55	Curing Box For Concrete Cylinders		1	Each

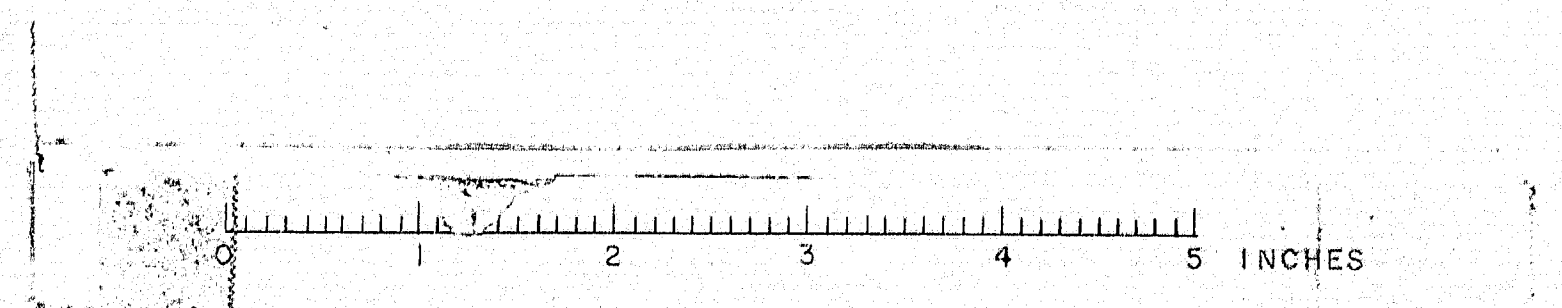
Estimated Weight of Structural Steel including Drains is 109,900 lbs. Southbound, 189,100 lbs. Northbound, for total of 299,000 lbs.
 * This curing box will also be used for the Mattawamkeag River Bridges in Oakfield

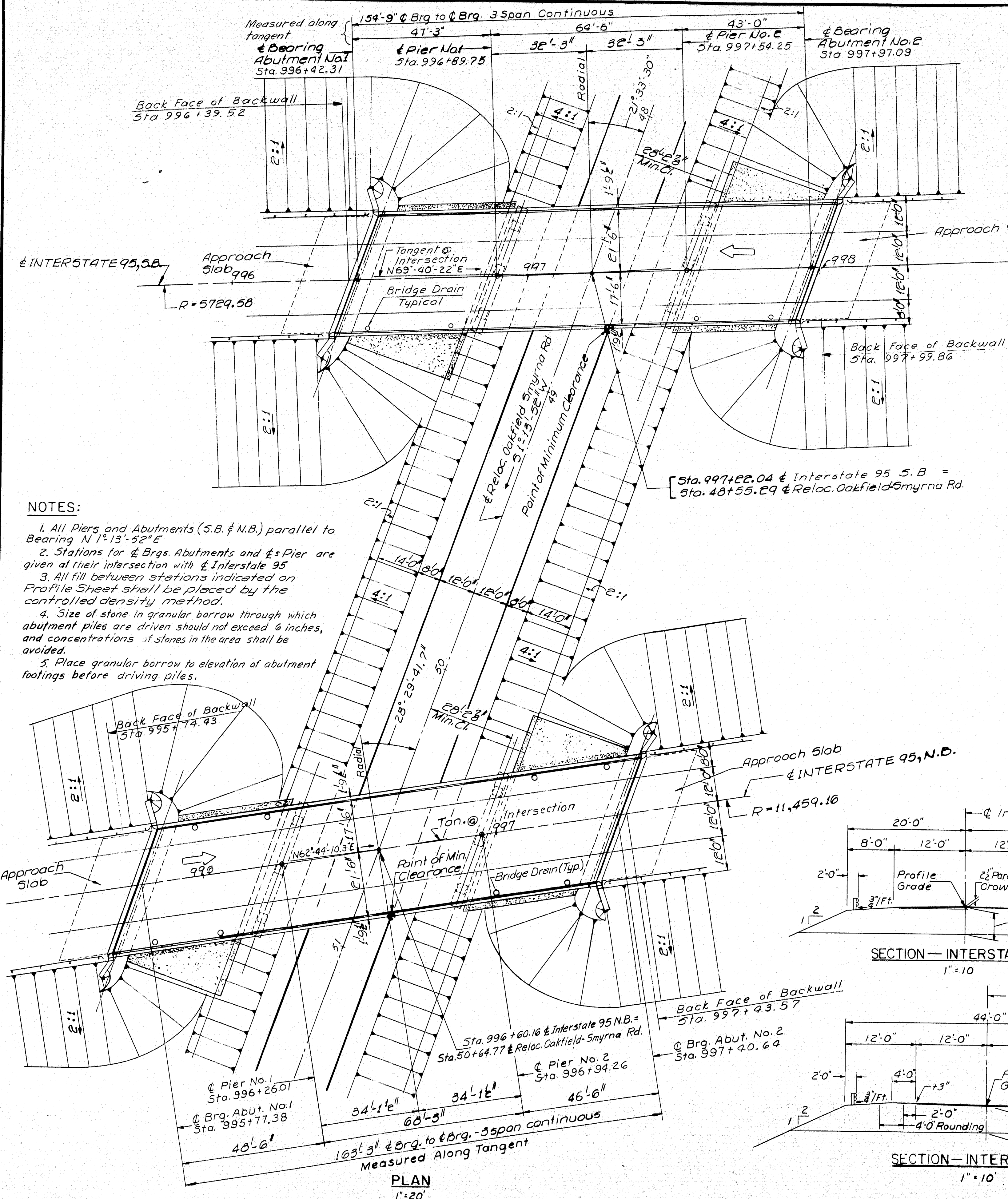
INDEX OF SHEETS	
1.	TITLE SHEET
2.	GENERAL PLAN
3.	FOUNDATION SURVEY S.B.
4.	FOUNDATION SURVEY N.B.
5.	ABUTMENT NO. 1 S.B.
6.	ABUTMENT NO. 2 S.B.-APPROACH SLAB
7.	ABUTMENT NO. 1 N.B.
8.	ABUTMENT NO. 2 N.B.-APPROACH SLAB
9.	PIERS S.B.
10.	PIERS N.B.
11.	STRUCTURAL STEEL & BLOCKING S.B.
12.	STRUCTURAL STEEL & BLOCKING N.B.
13.	SUPERSTRUCTURE S.B.
14.	SUPERSTRUCTURE N.B.
15.	SLOPE PAVING
16.	REINFORCING STEEL
17.	REINFORCING STEEL

STANDARD DETAIL SHEETS	
BD 101-64	BEARING PEDESTALS
BD 103-64	BEAM SPLICES
BD 104-64	DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN
BD 105-64	EXPANSION DAMS
BD 107-64	STEEL RAIL
BD 108-64	ALUMINUM RAIL

DESIGN-- TRACE-- CHECK--	DETAIL R. O. L. SURVEY-- PLOT--	BRIDGE NO. SURVEY-- PLOT--
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE 95 OVER		
OAKFIELD-SMYRNA ROAD		
IN THE TOWN OF OAKFIELD		
ARROOSTOOK COUNTY		
TITLE SHEET		
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS NEW YORK BOSTON KANSAS CITY		SHEET 1 OF 17 AUGUSTA, MAINE FEBRUARY 1961

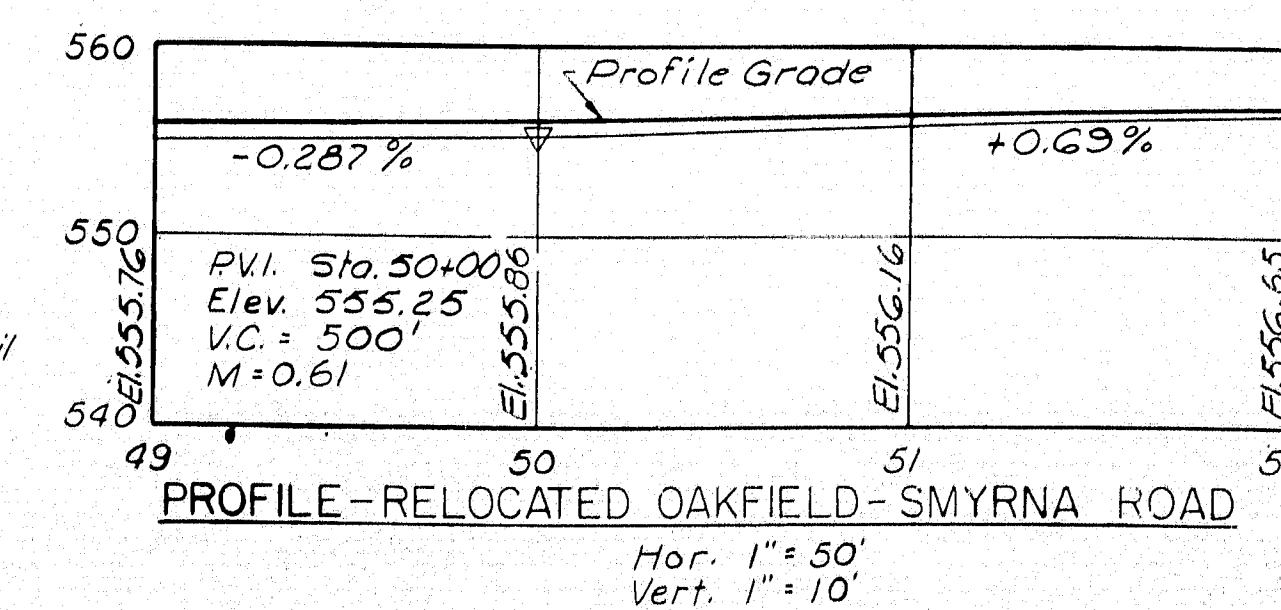
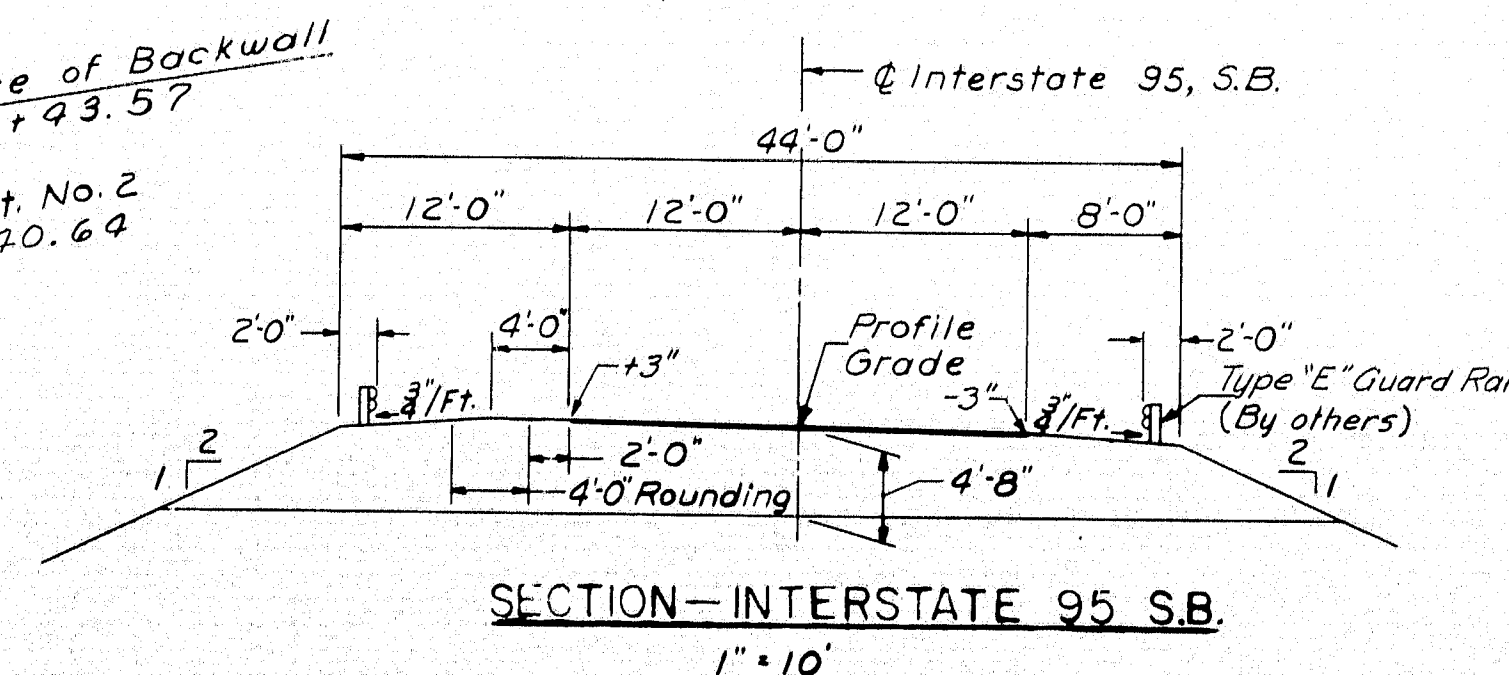
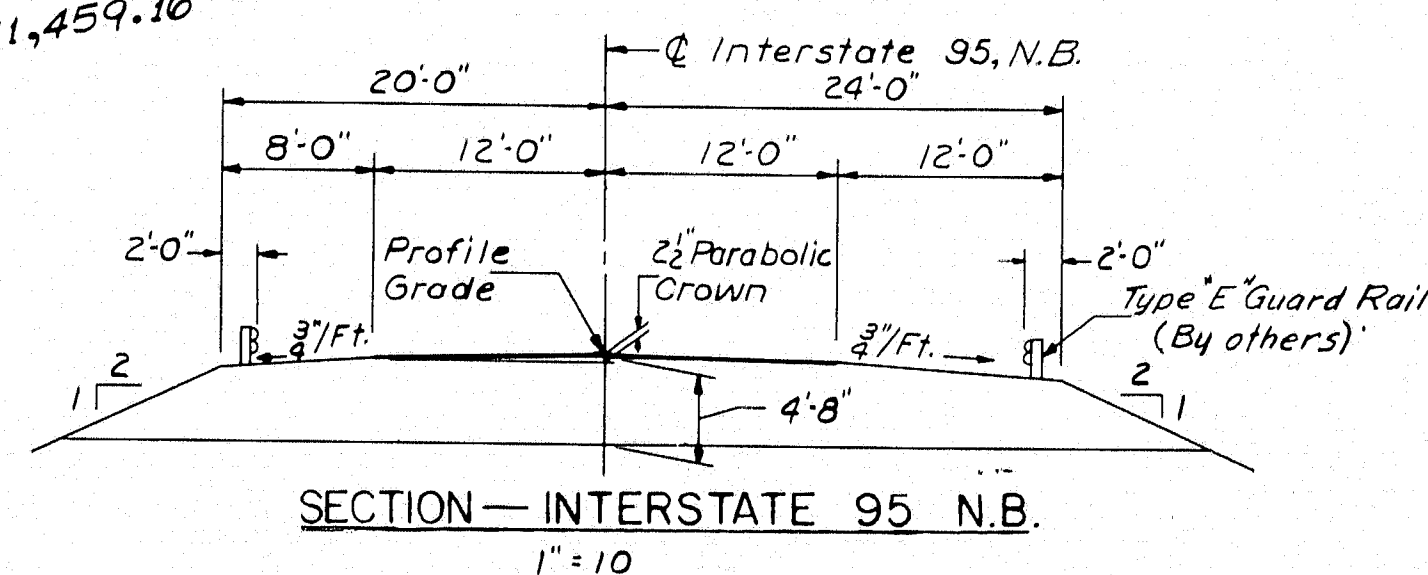
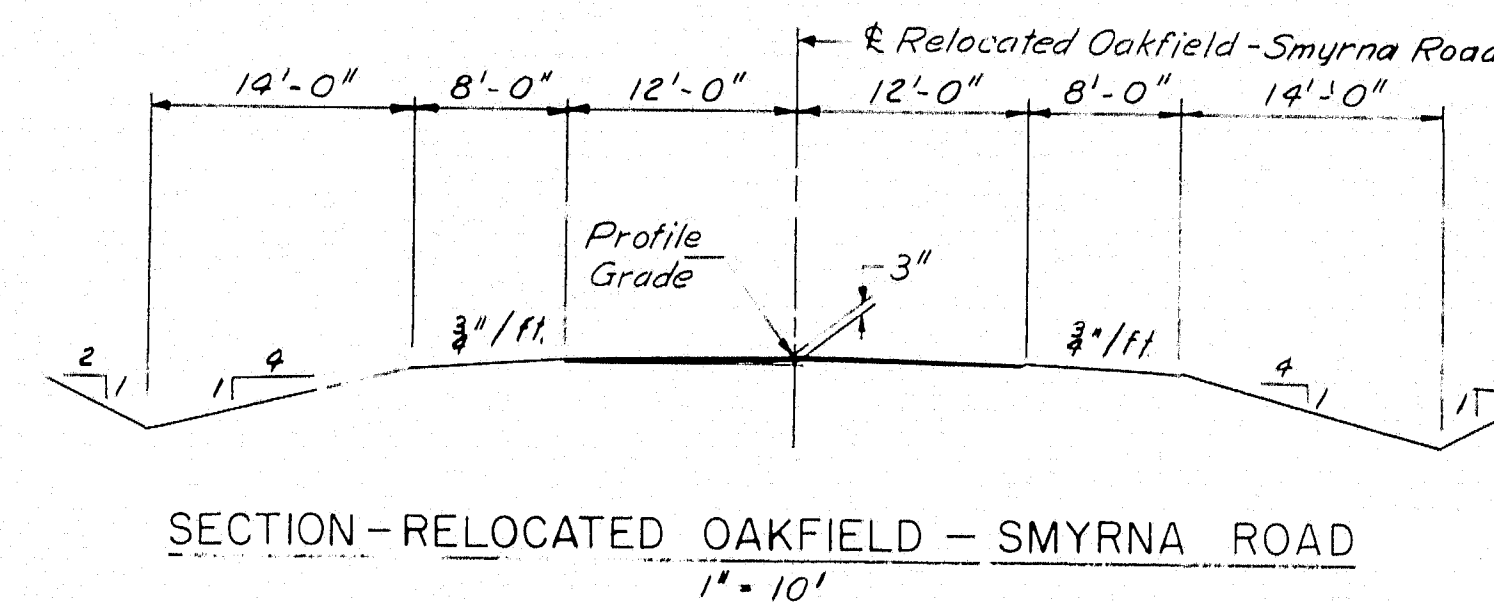
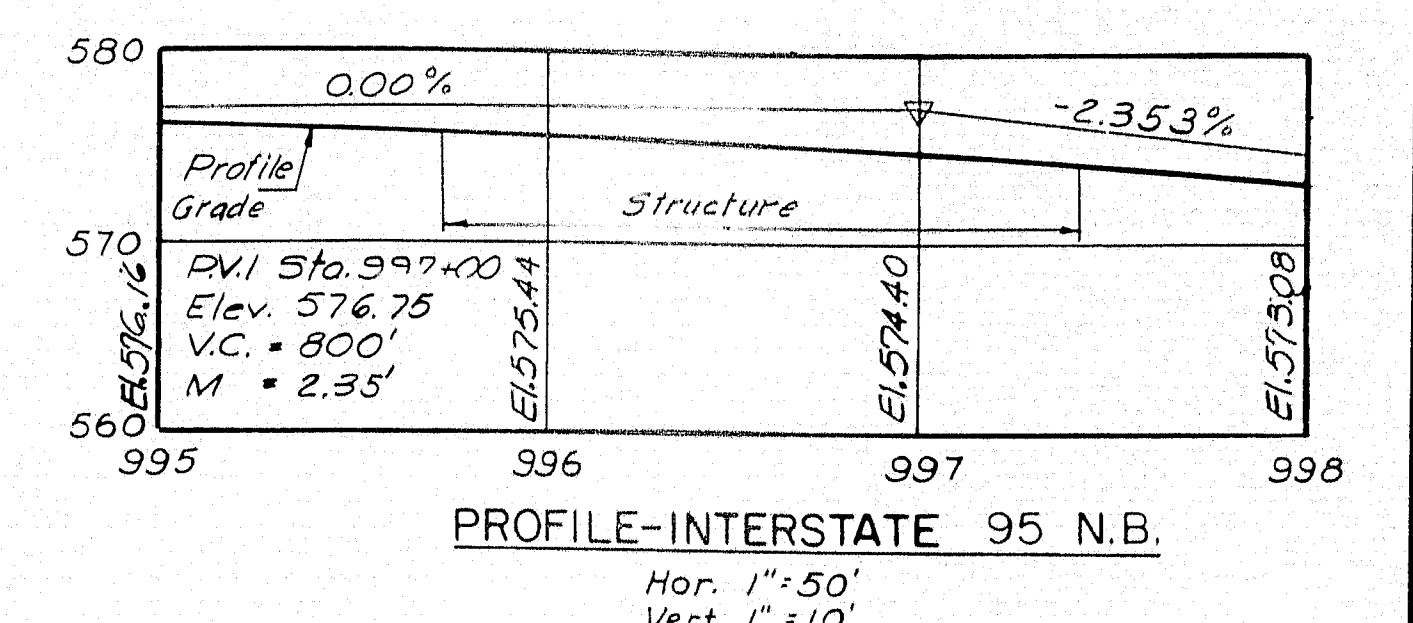
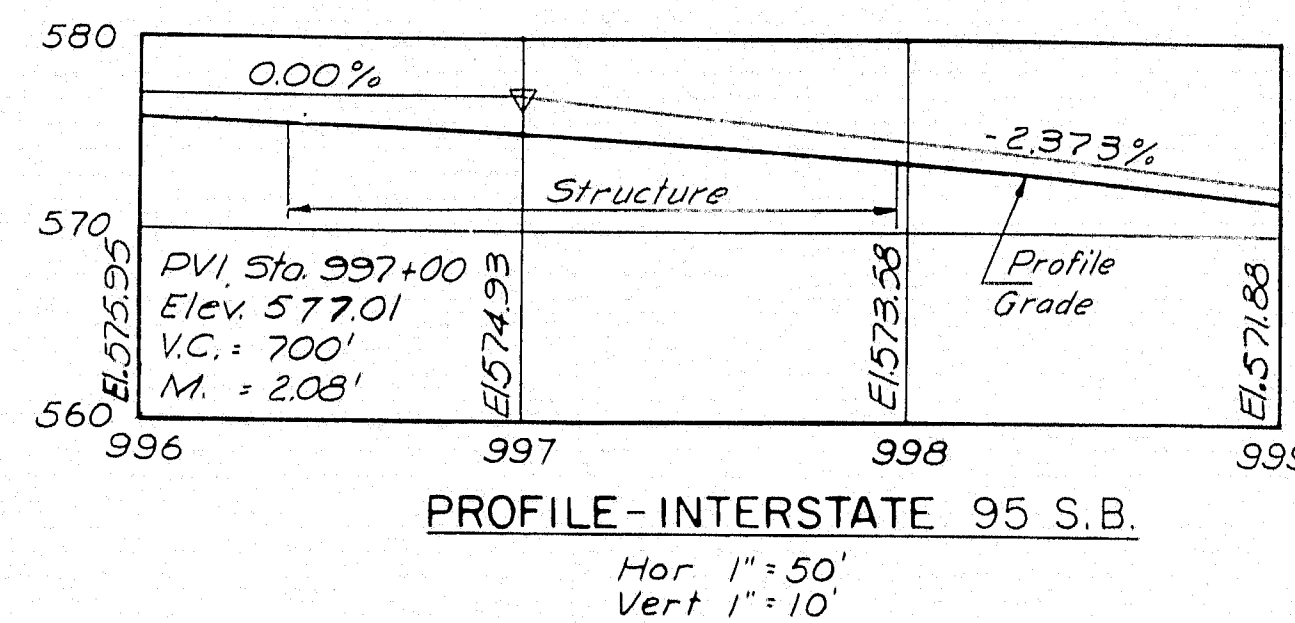
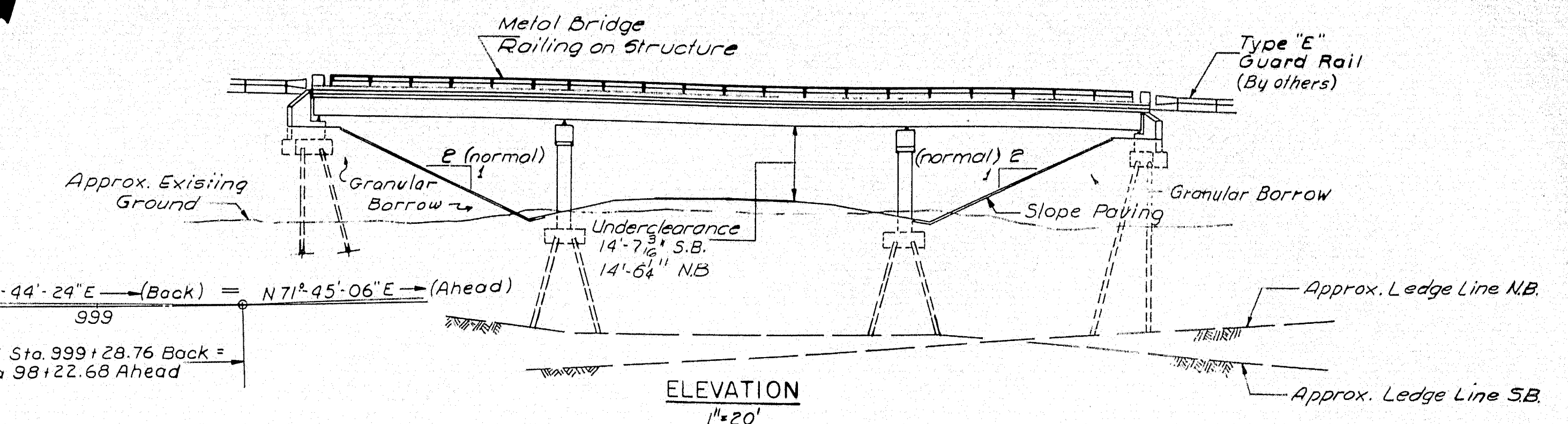
M-2271 OAKFIELD (12)





NOTES:

1. All Piers and Abutments (S.B. & N.B.) parallel to Bearing N 1° 13' 52" E
2. Stations for ± Brgs. Abutments and ± Pier are given at their intersection with ± Interstate 95
3. All fill between stations indicated on Profile Sheet shall be placed by the controlled density method.
4. Size of stone in granular borrow through which abutment piles are driven should not exceed 6 inches, and concentrations of stones in the area shall be avoided.
5. Place granular borrow to elevation of abutment footings before driving piles.



- #### SPECIFICATIONS
- DESIGN**
AASHTO Standard Specifications for Highway Bridges 1961 with Interim Specifications 1961, 1962, 1963 & 1964.
- CONTRACT**
State of Maine, State Highway Commission, Standard Specifications for Highways and Bridges, Revision of January 1956 and Supplemental Specifications February 1960
- LIVE LOADING**
HS 20-44 (Modified for Interstate)
- FOUNDATIONS**
Abutments - 10BP42 End Bearing Piles (37 Ton Capacity)
Piers - 10BP42 End Bearing Piles (50 Ton Capacity)
- ALLOWABLE STRESSES**
Concrete (n=10) ~ f_c = 1200 psi
Reinforcing Steel, Int. Grade ~ f_s = 20,000 psi
Structural Steel ~ f_s = 20,000 psi. (A.S.T.M. A36)
- CONCRETE CLASSIFICATION**
All concrete shall be Class 'A', except Slope Paving which shall be Class 'Y'.

DESIGN-TRACE-CHECK	DETAIL DATE	BRIDGE NO.
PRN		

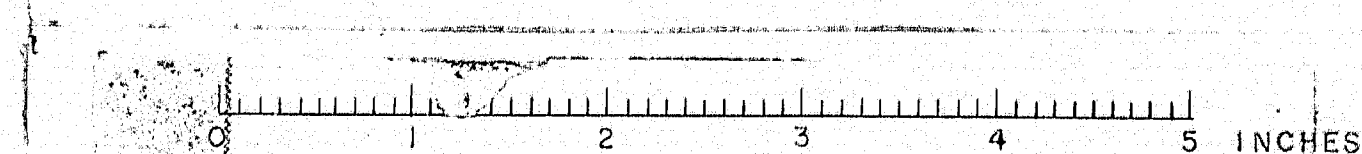
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

INTERSTATE 95
OVER
OAKFIELD-SMYRNA ROAD
IN THE TOWN OF
OAKFIELD
AROSTOOK COUNTY
GENERAL PLAN

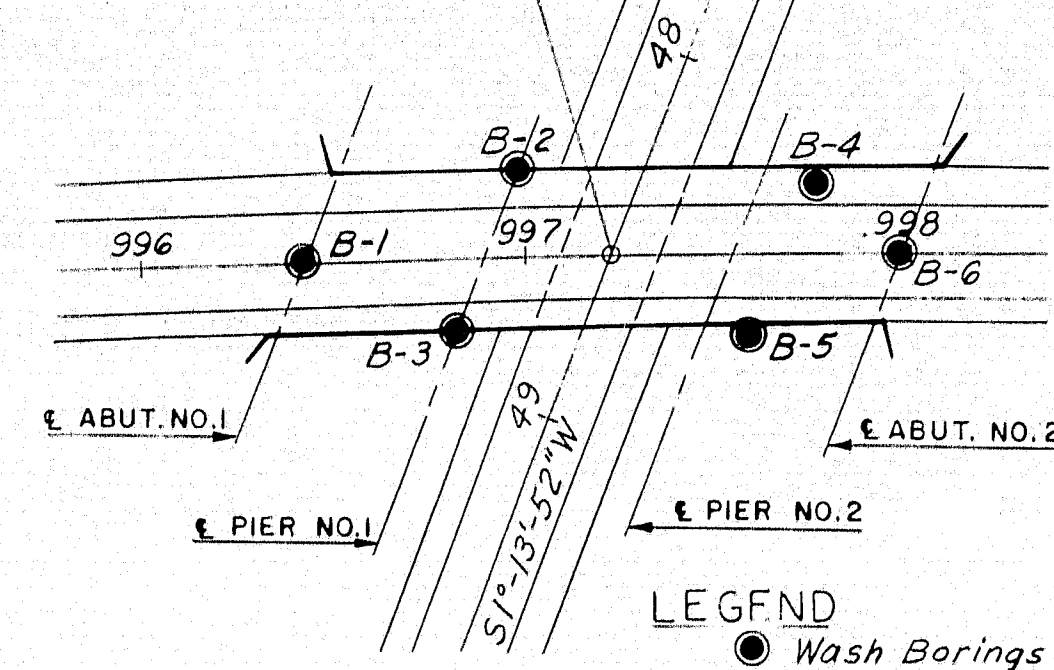
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

SHEET 2 OF 17 AUGUSTA, MAINE FEBRUARY 1965

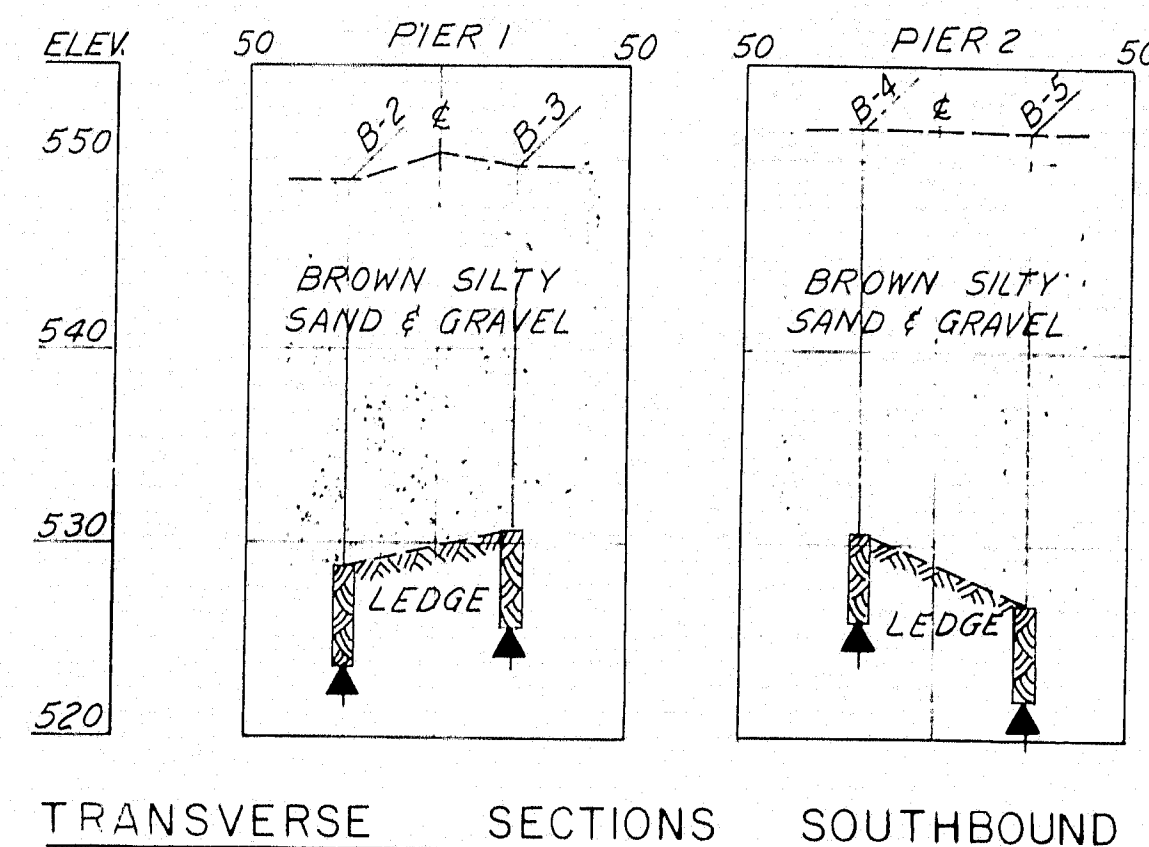
M-2272 OAKFIELD (12)



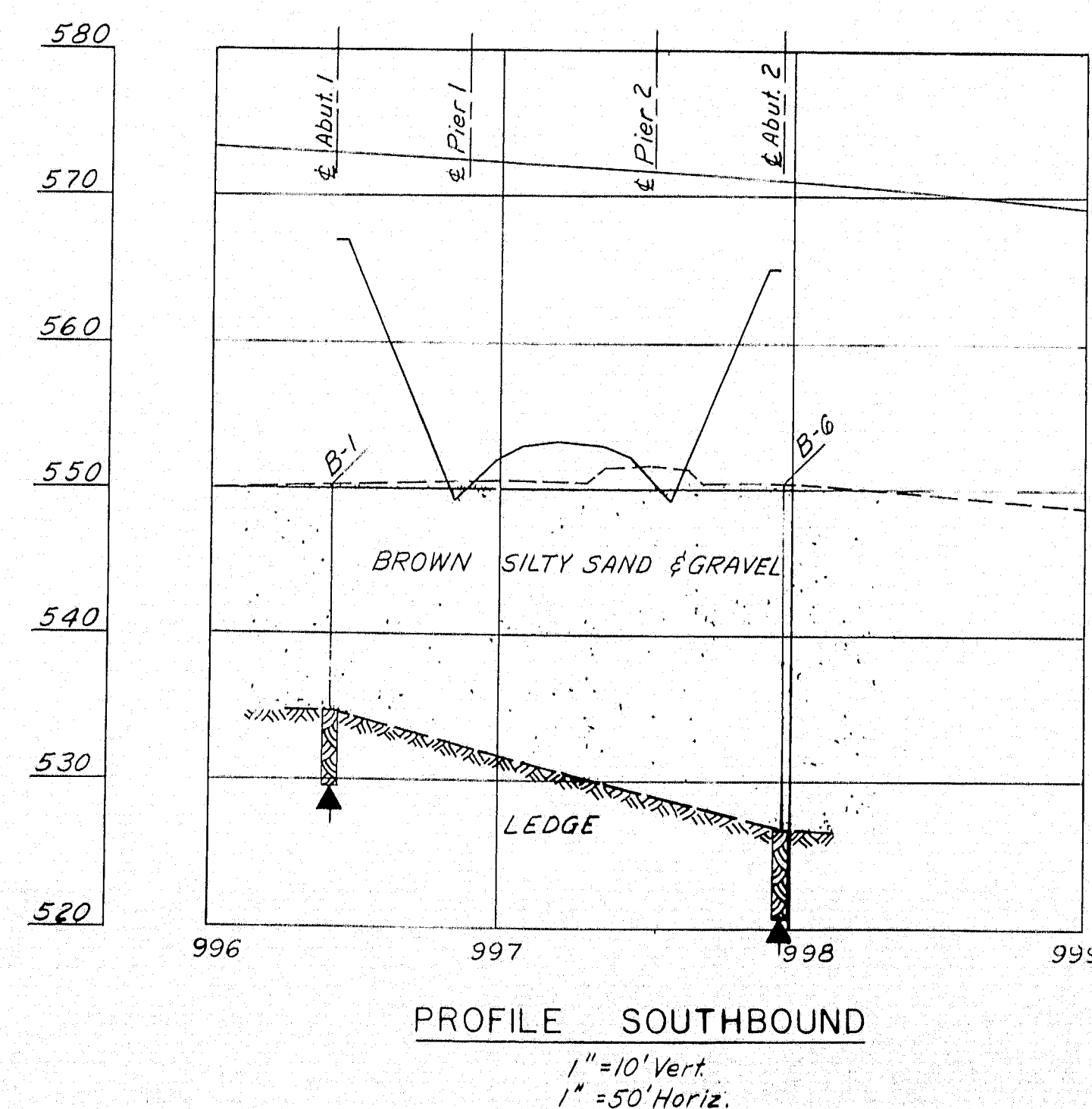
Sta. 997+22.04 & S.B. Rdwy. =
Sta. 48+55.29 & Reloc. Oakfield Rd.



PLAN
1" = 50'

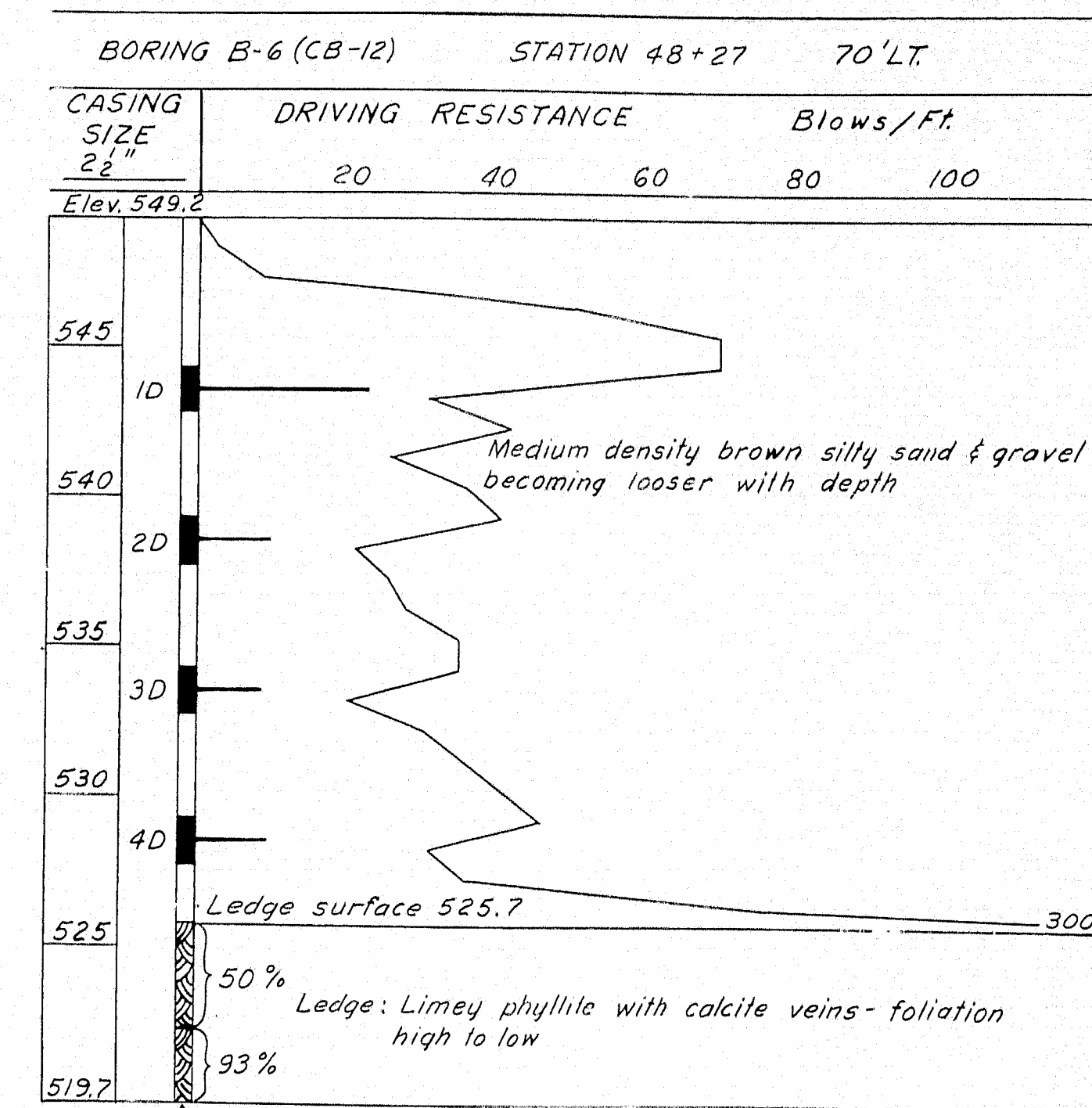
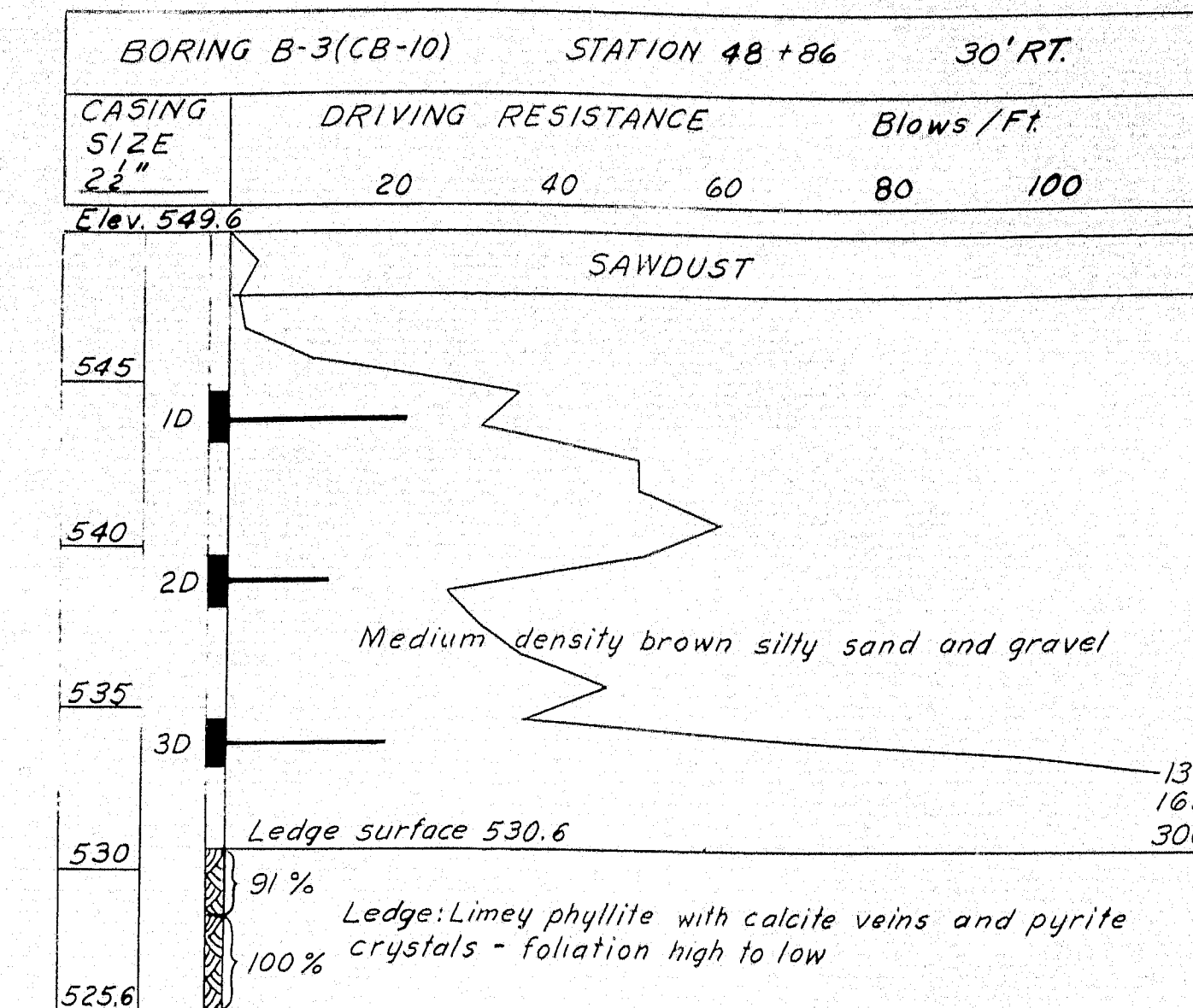
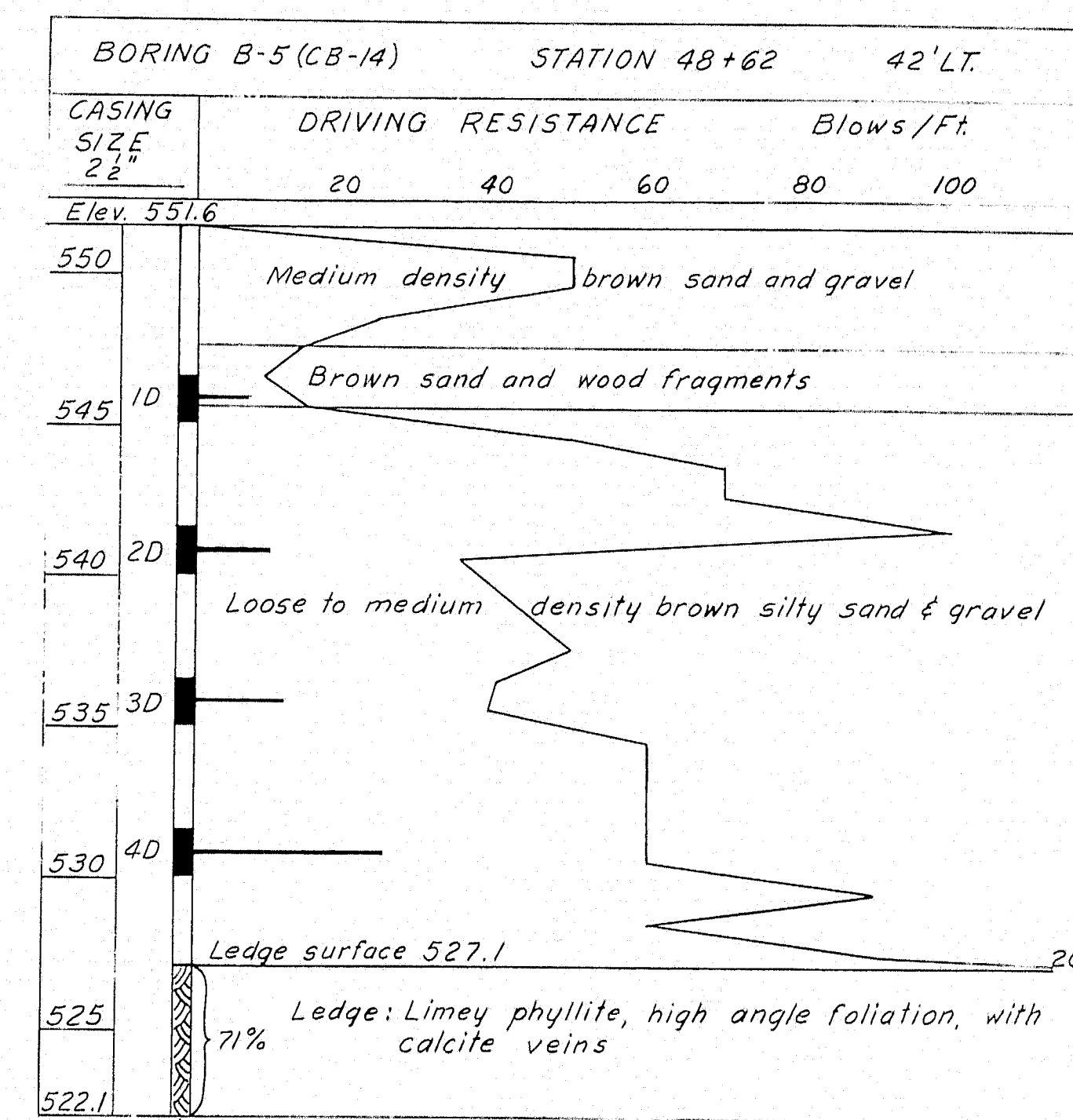
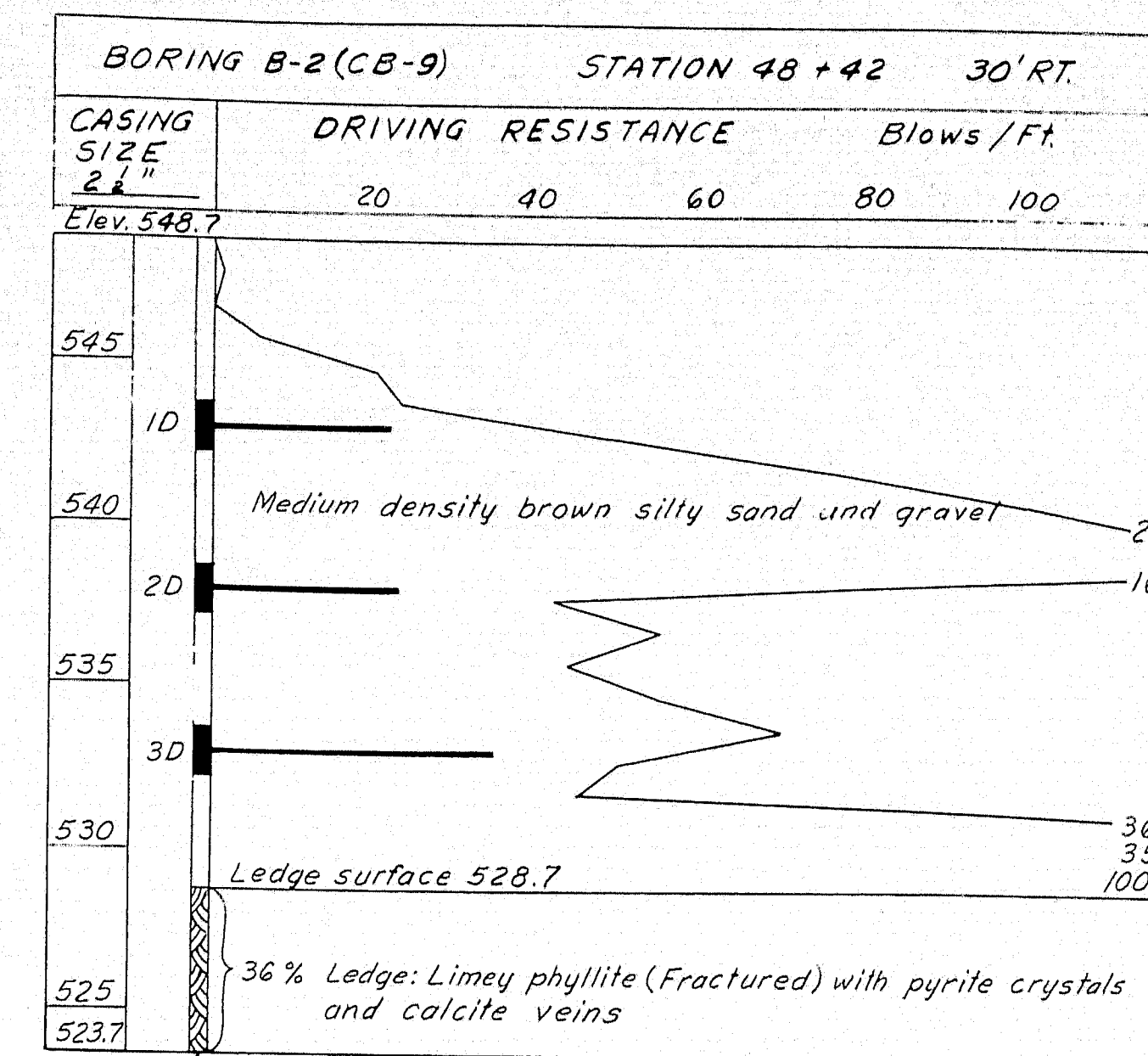
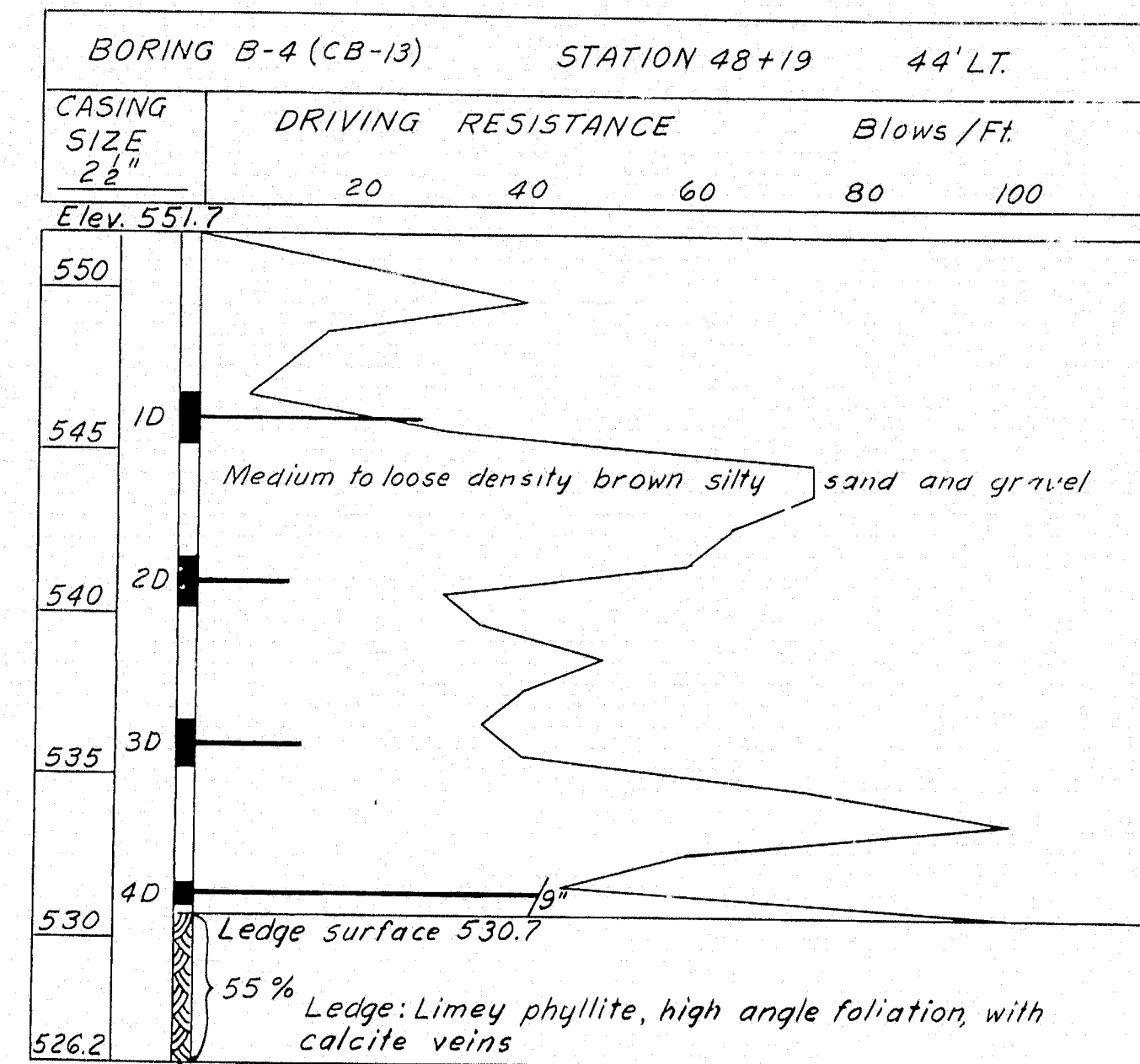
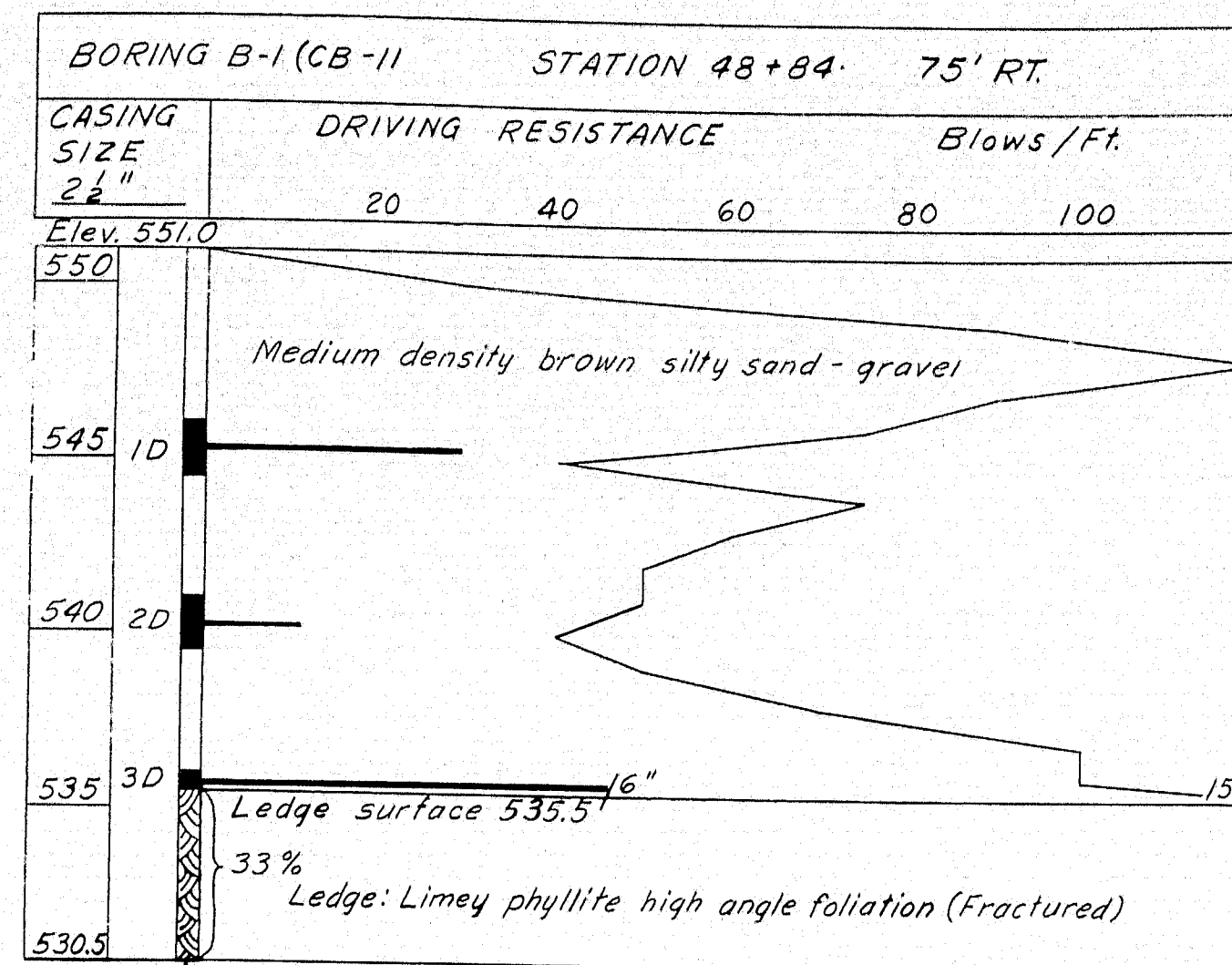


TRANSVERSE SECTIONS SOUTHBOUND



PROFILE SOUTHBOUND

1" = 10' Vert.
1" = 50' Horiz.



NOTES:

- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow.
- Location of sample or sample attempt.
- Number and type of dry sample
- ID 5 ft. H Sampler #1290's
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow.
- Bottom of boring (may not be bottom of soil strata)
- 71% Locations cored by diamond bit and per cent recovery of rock.

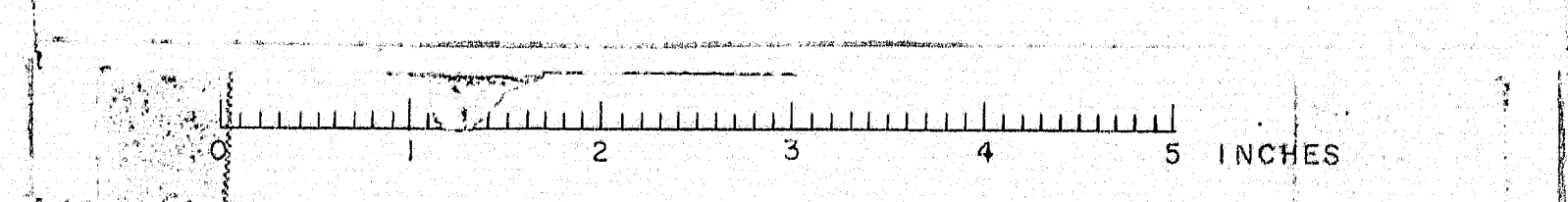
DESIGN- TRACE- CHECK- VAW.	DETAIL- N.K.	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE 95 S.B. OVER		
OAKFIELD - SMYRNA ROAD IN THE TOWN OF OAKFIELD		
AROOSTOOK COUNTY		
FOUNDATION SURVEY		

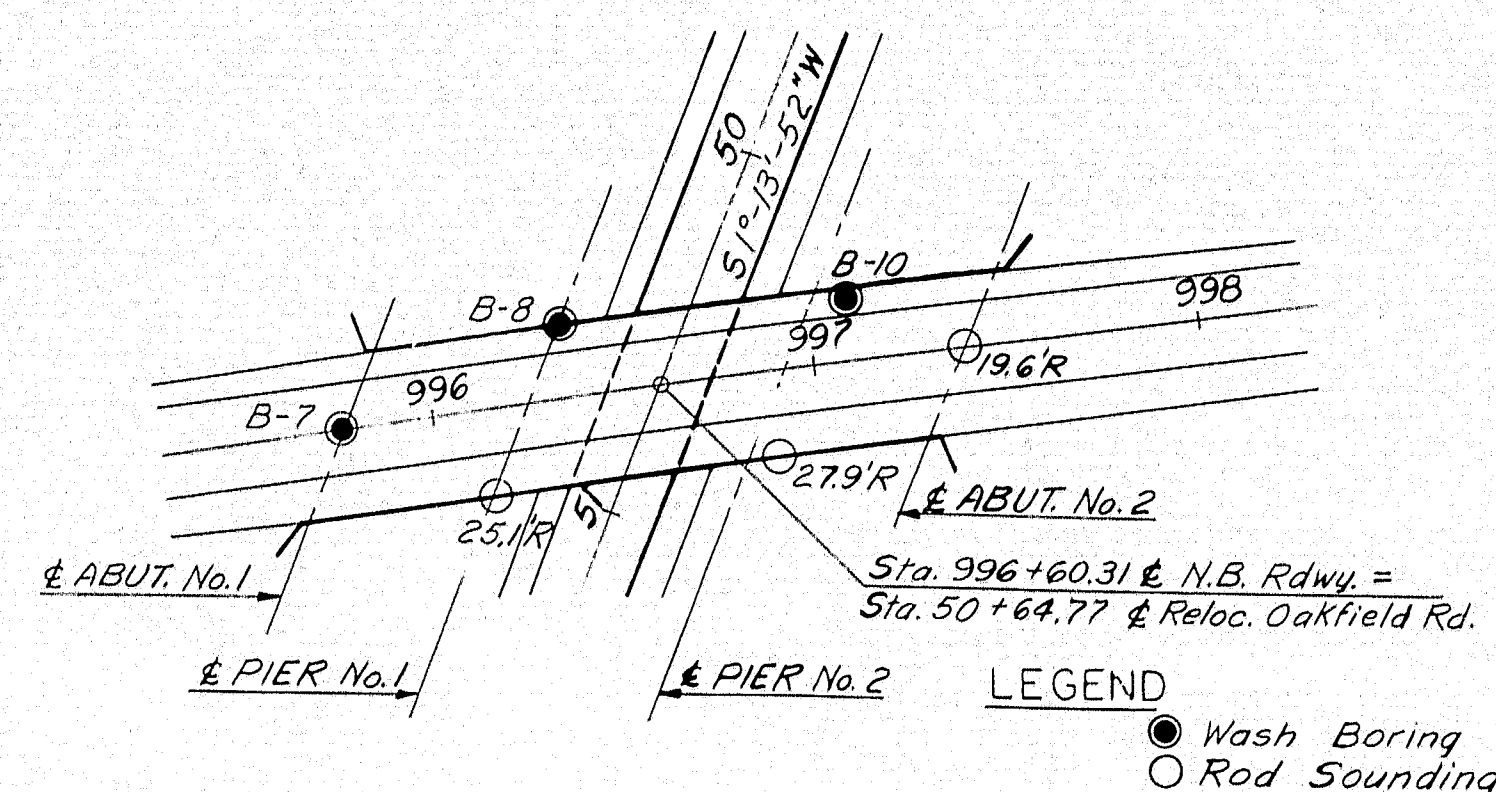
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

NEW YORK BOSTON KANSAS CITY

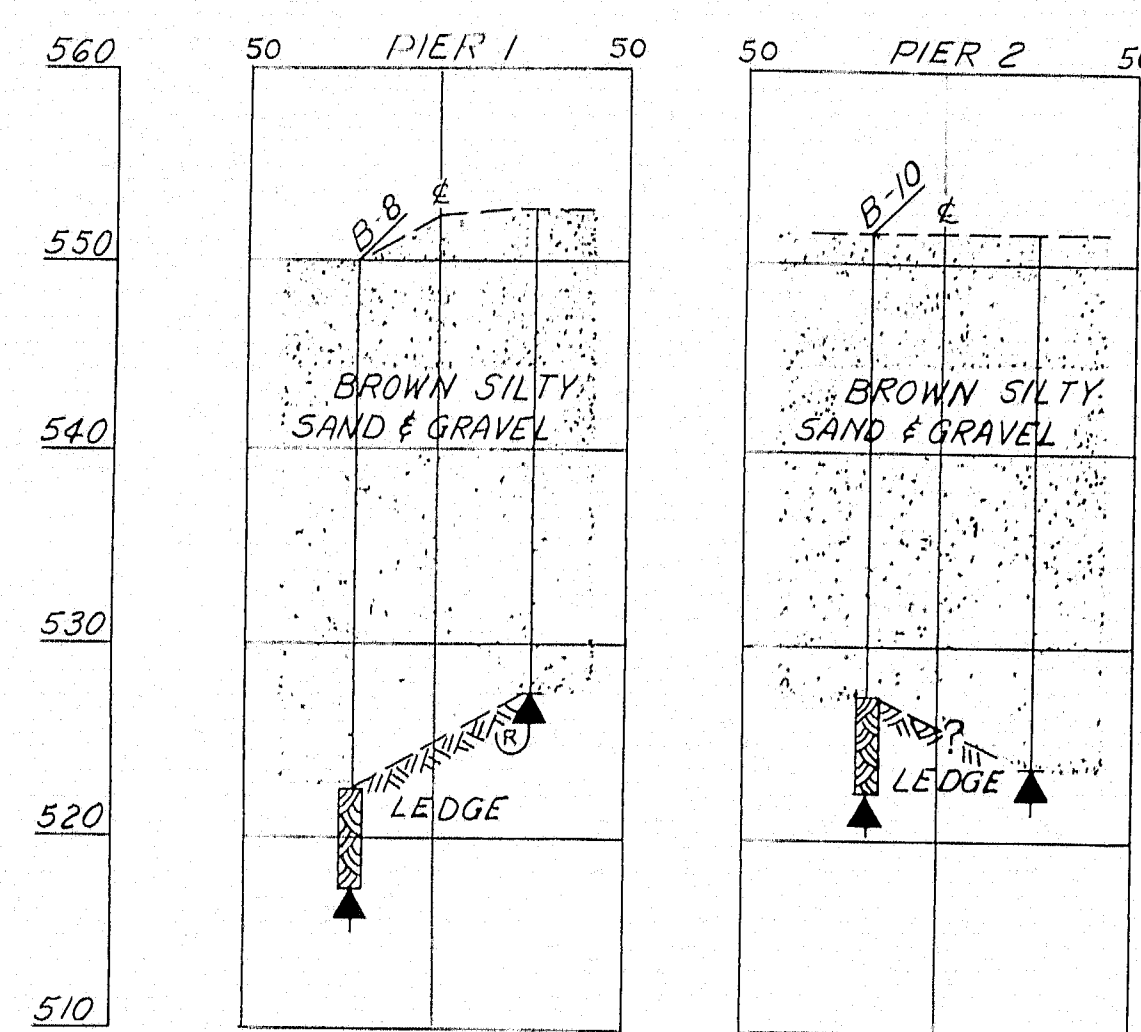
SHEET 3 OF 17 AUGUSTA, MAINE FEBRUARY 1965

M-2273 OAKFIELD (12)

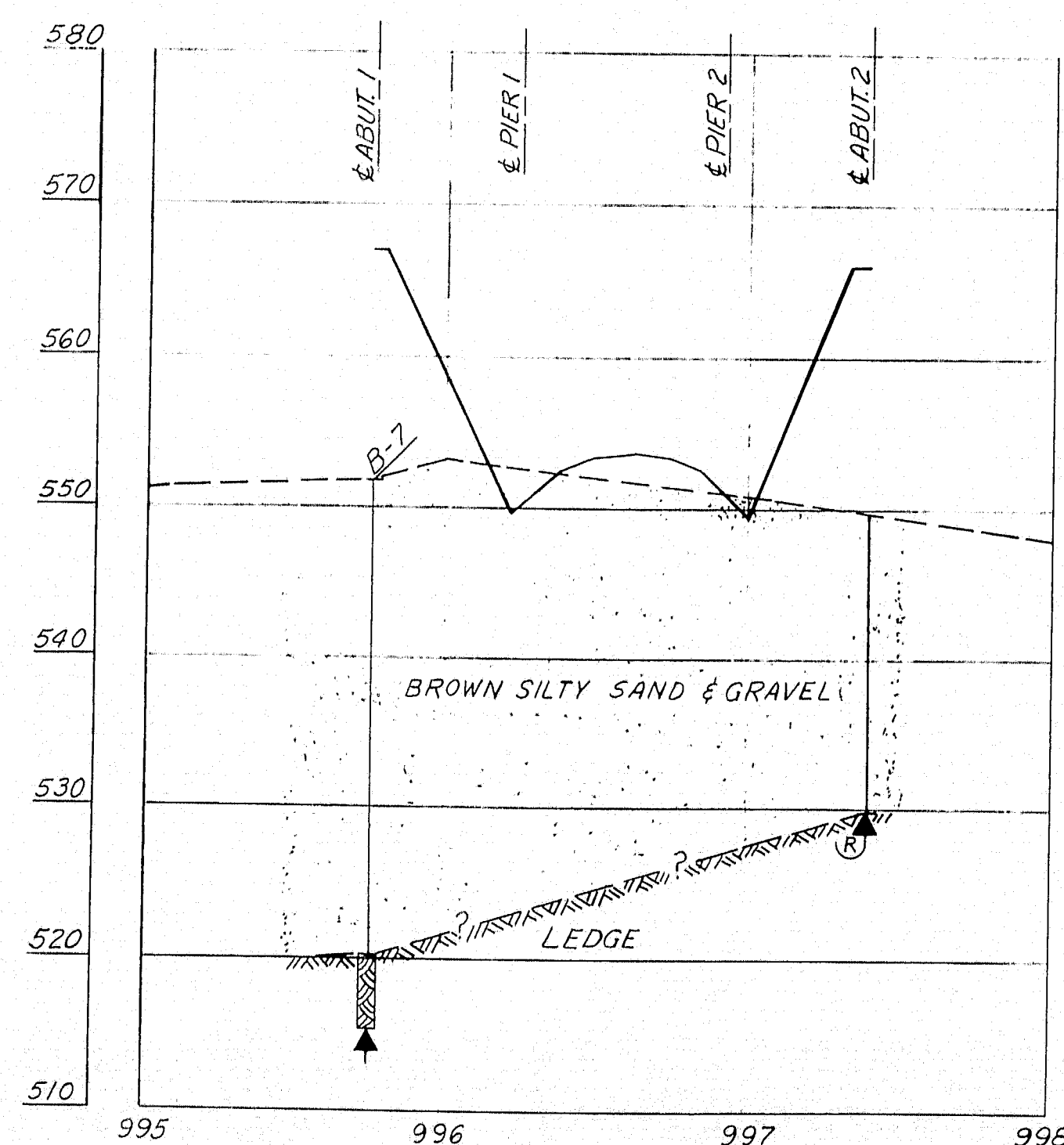




PLAN
1" = 50'

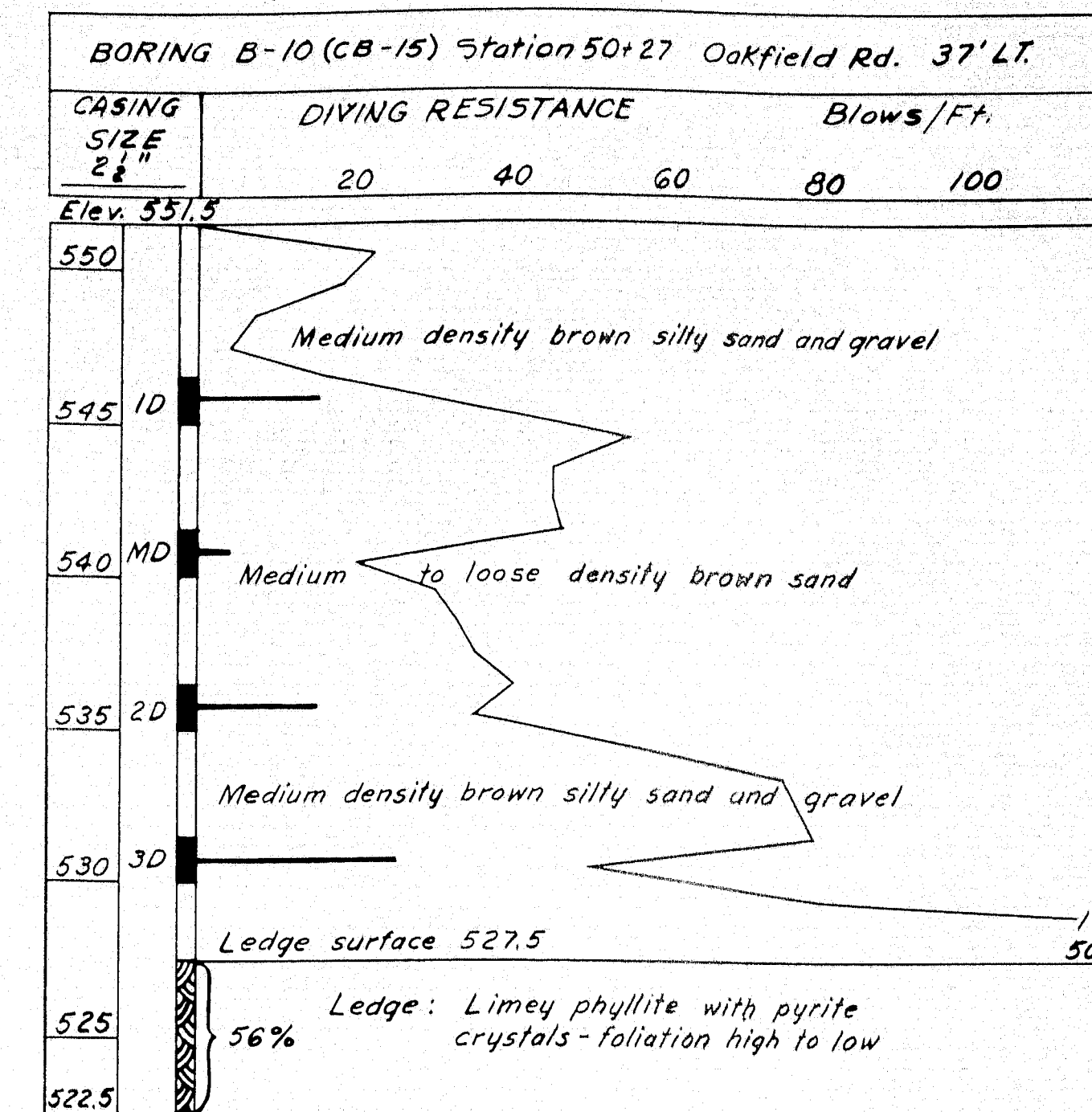
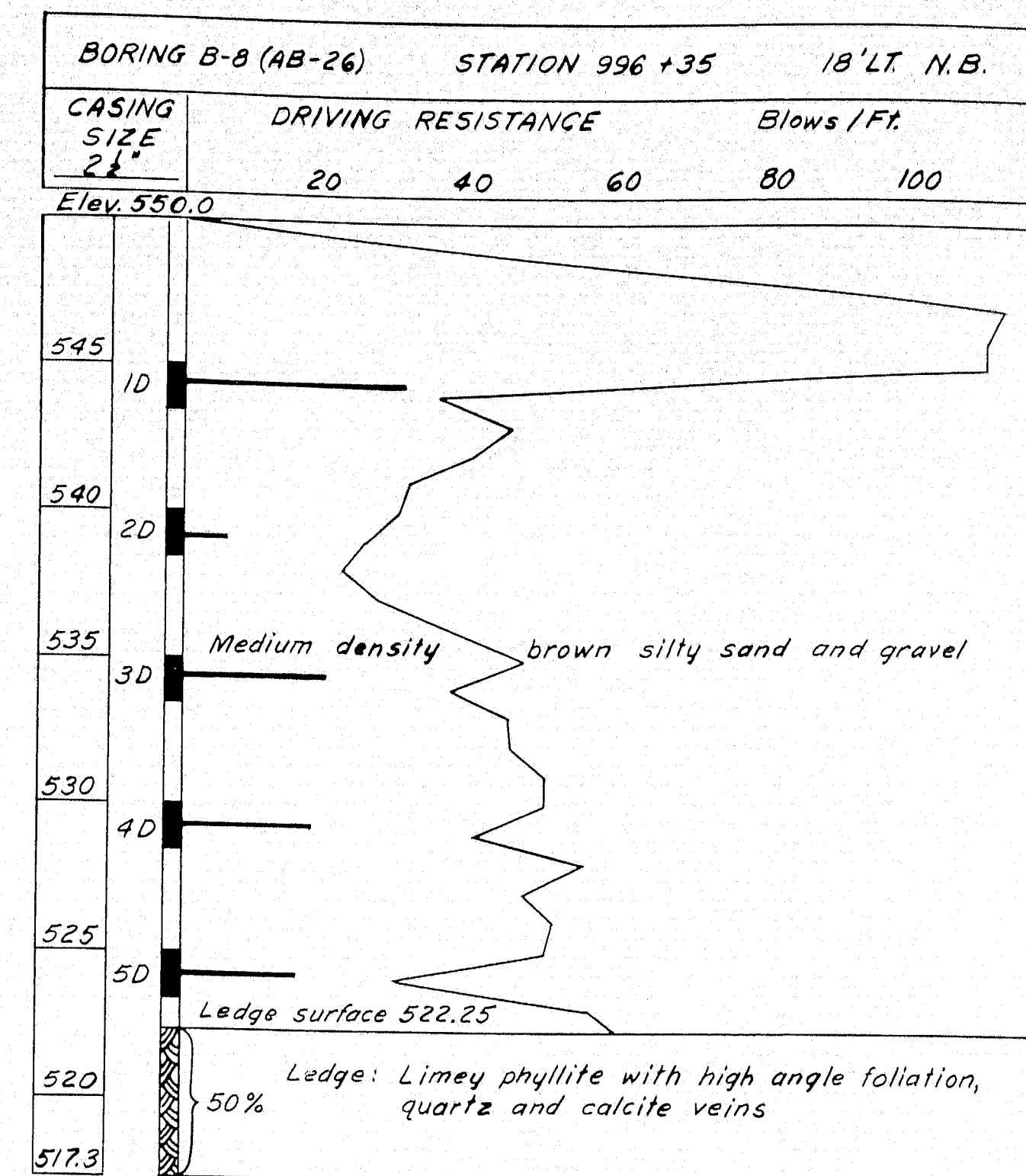
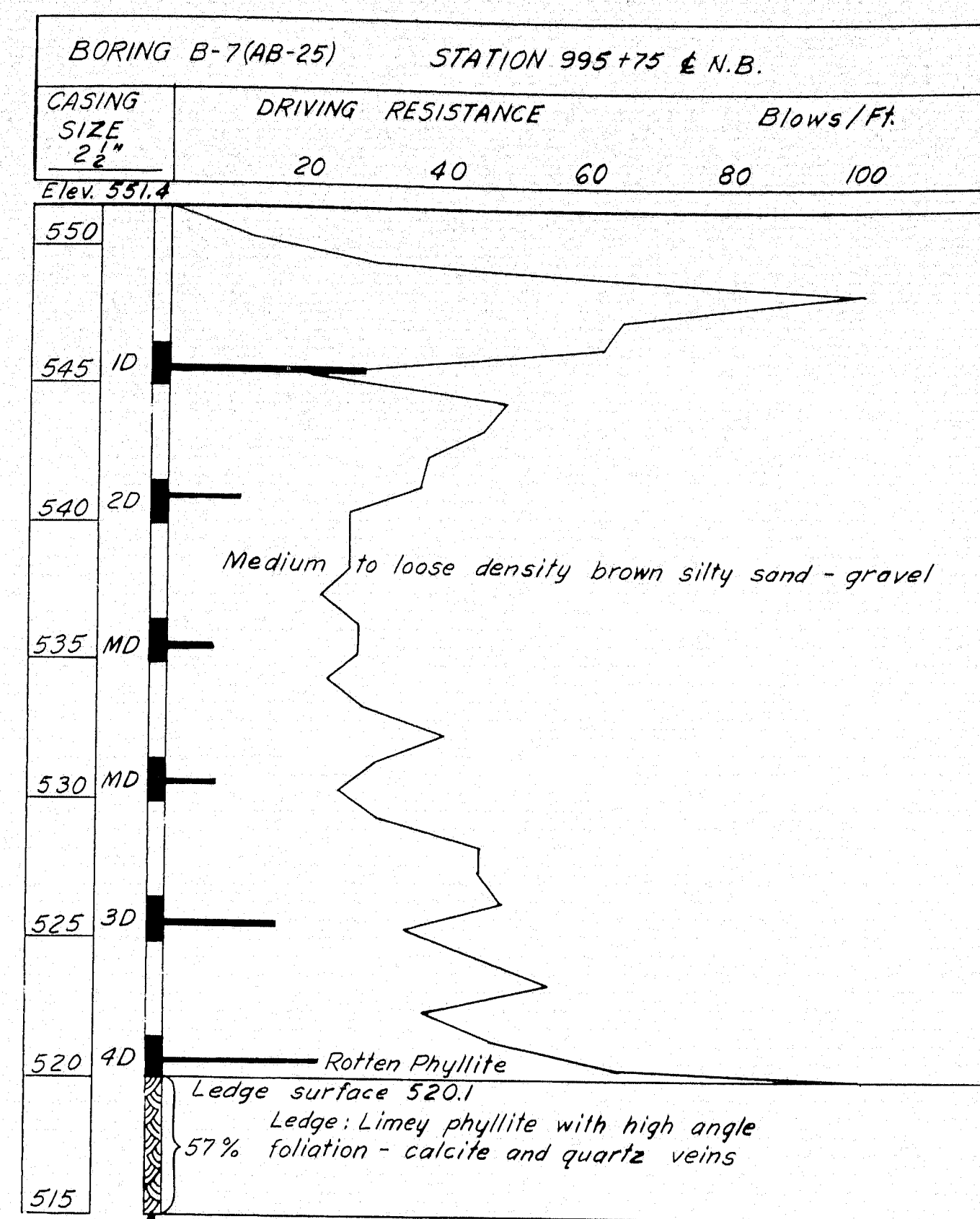


TRANSVERSE SECTIONS NORTHBOUND



PROFILE NORTHBOUND

1" = 10' Vert.
1" = 50' Horiz.



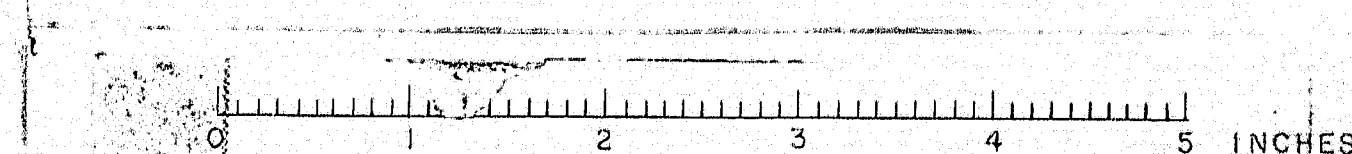
NOTES:

- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow.
- Location of sample or sample attempt.
- Number and type of dry sample
- 1D S & H Sampler #1290's
- MD Unsuccessful sample attempt and type of sampler.
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow.
- Bottom of boring (may not be bottom of soil strata).
- Refusal of drill rods or casing (may not be ledge).
- Locations cored by diamond bit and per cent recovery of rock.

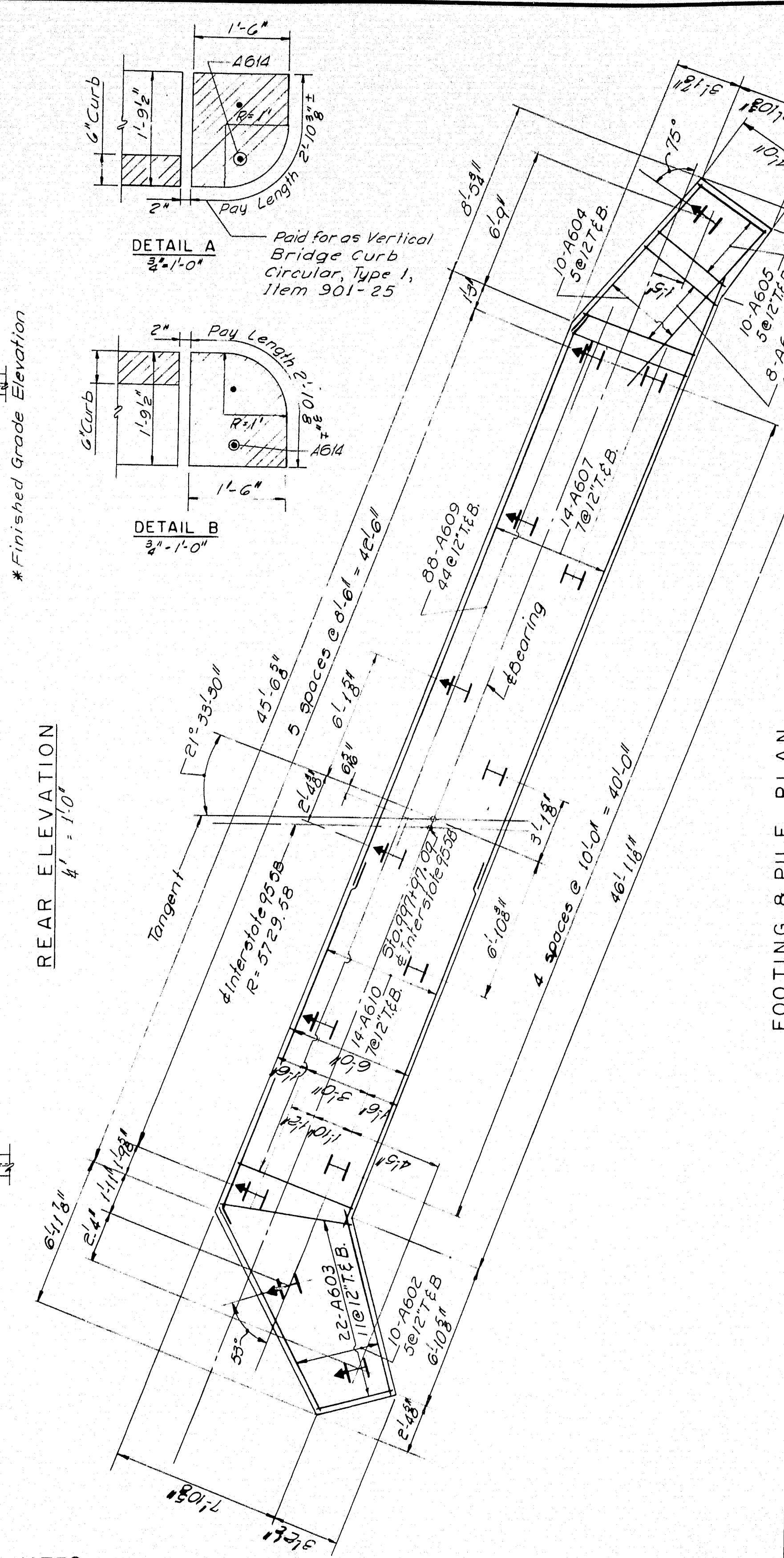
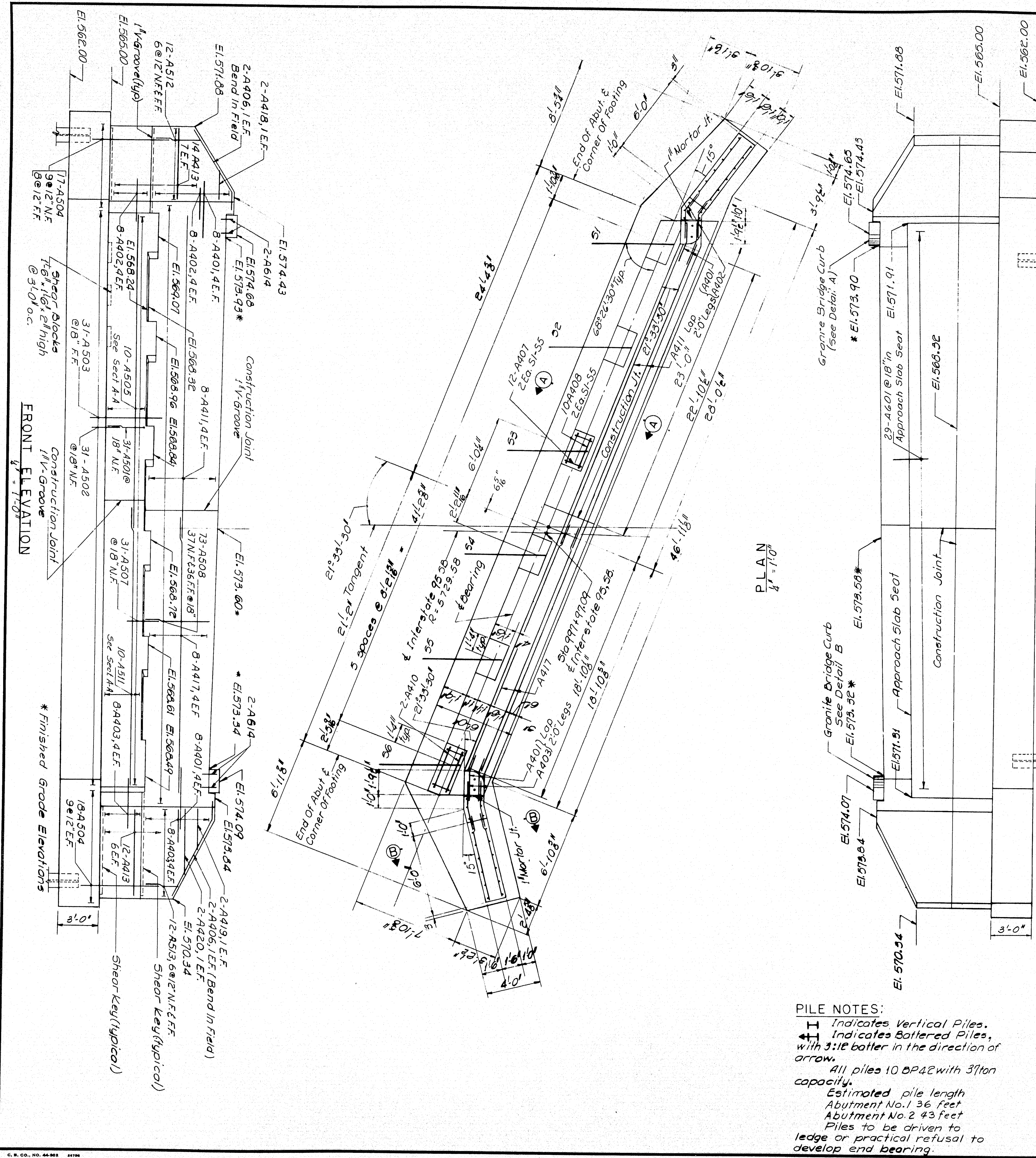
DESIGN-TRACE-CHECK-V.A.V.	DETAIL-N.K.	BRIDGE NO. SURVEY-PLOT
STATE HIGHWAY COMMISSION BRIDGE DIVISION		
INTERSTATE 95 N.B. OVER OAKFIELD - CMYRNA ROAD IN THE TOWN OF OAKFIELD AROOSTOOK COUNTY		
FOUNDATION SURVEY		
SHEET 4 OF 17 AUGUSTA, MAINE FEBRUARY 1965		

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

M-2274 OAKFIELD (12)

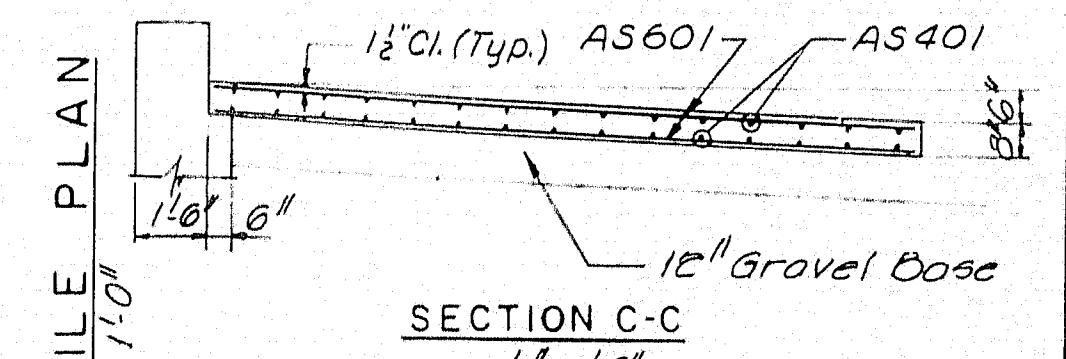


B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-9(12)	88	115



NOTE:
Approach Slab Concrete will be paid for under Item 701-55, Portland cement concrete Abutments and Retaining Walls.

PLAN
1" = 10'



SECTION C-C
1" = 10'

APPROACH SLAB DETAILS
Approach Slab @ Abutment No. 2 shown. Approach Slab @ Abutment No. 1 similar.

BRIDGE CURB NOTE
Grout A614 bars into 1 1/4" holes in stone prior to setting stone on backwall. Drill 1 1/4" holes in backwall to suit A614 bars.
Payment for drilling for and grouting of A614 bars to be included in the price for Item 705-14, Reinforcing Steel, Placing.
Granite blocks shall be placed in position after or at the same time as curb on bridge is positioned.

PILE NOTES:
Indicates Vertical Piles.
Indicates Battered Piles, with 3:12 batter in the direction of arrow.
All piles 10 @ 24" with 3' ton capacity.
Estimated pile length Abutment No. 1 36 feet. Abutment No. 2 43 feet.
Piles to be driven to ledge or practical refusal to develop end bearing.

NOTES:
1. For general notes see sheet no. 5.
2. For sections A-A and B-B see sheet no. 5.
3. Cover the vertical construction joint on the outside with 2 layers of heavy roofing 10" wide. Bond the layers together and to the concrete with a suitable grade of roofing cement. Recess the vertical areas to be covered 1/2 inch. Paint vertical construction joints with a suitable grade of asphalt paint to break bond.

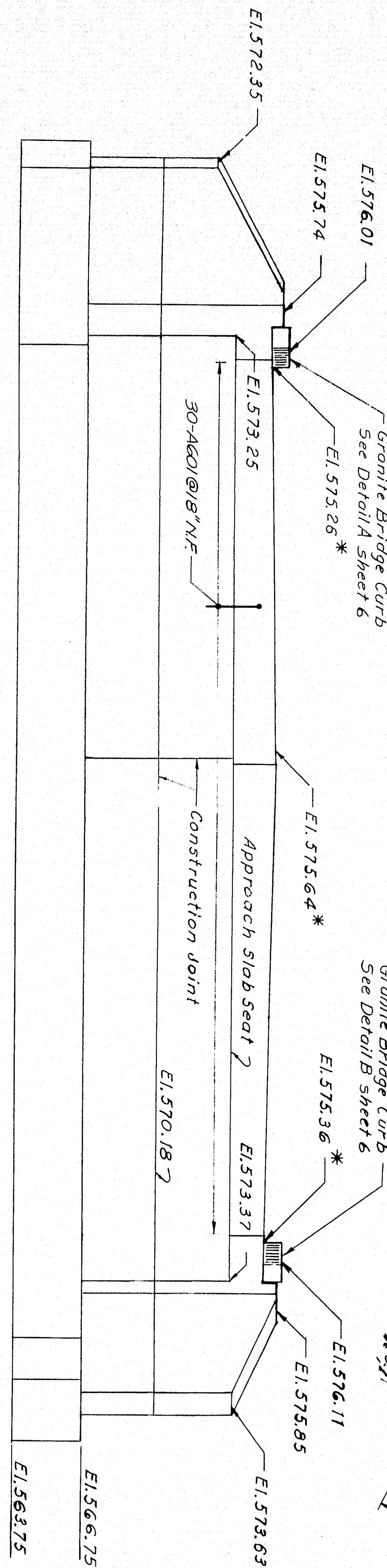
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

DESIGN - E.F.F.	DETAIL - D.A.T.	BRIDGE NO.
CHECK - R.R.S.		SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION INTERSTATE 95 SB OVER OAKFIELD - SMYRNA ROAD IN THE TOWN OF OAKFIELD AROSTOOK COUNTY ABUTMENT NO. 2 & APPROACH SLAB SHEET 8 OF 17 AUGUSTA, MAINE FEBRUARY 1965		

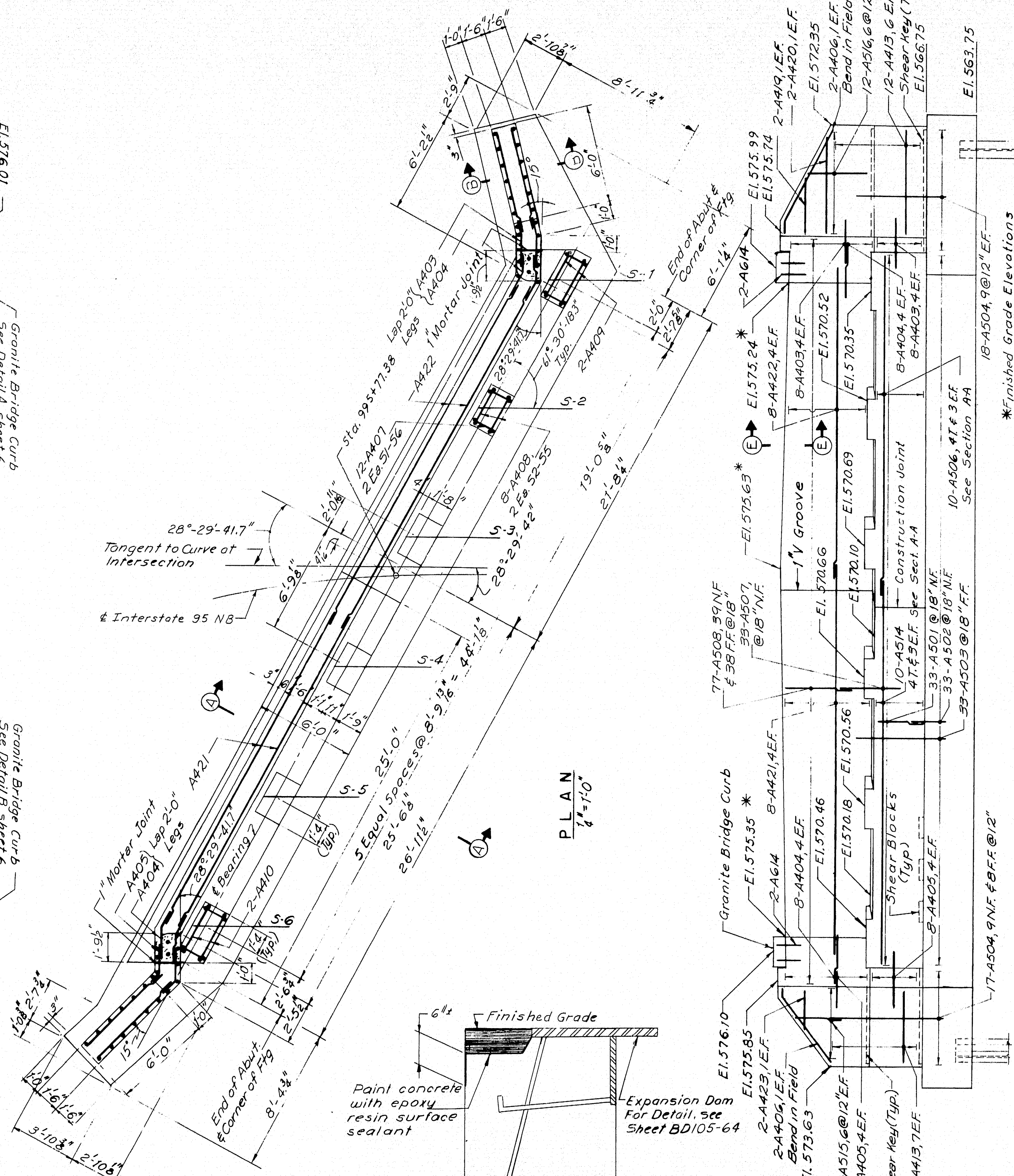
M-2276 OAKFIELD (12)

REAR ELEVATION
1/4" = 1'-0"

* Finished Grade Elevations

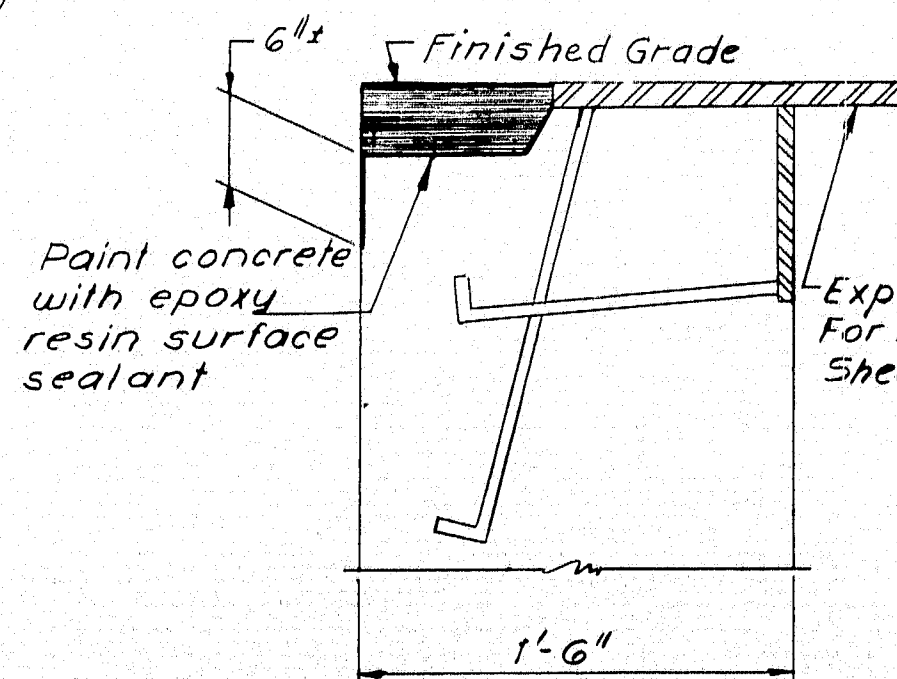


28'-29'-41.7"
Tangent to Curve at Intersection
Interstate 95 NB

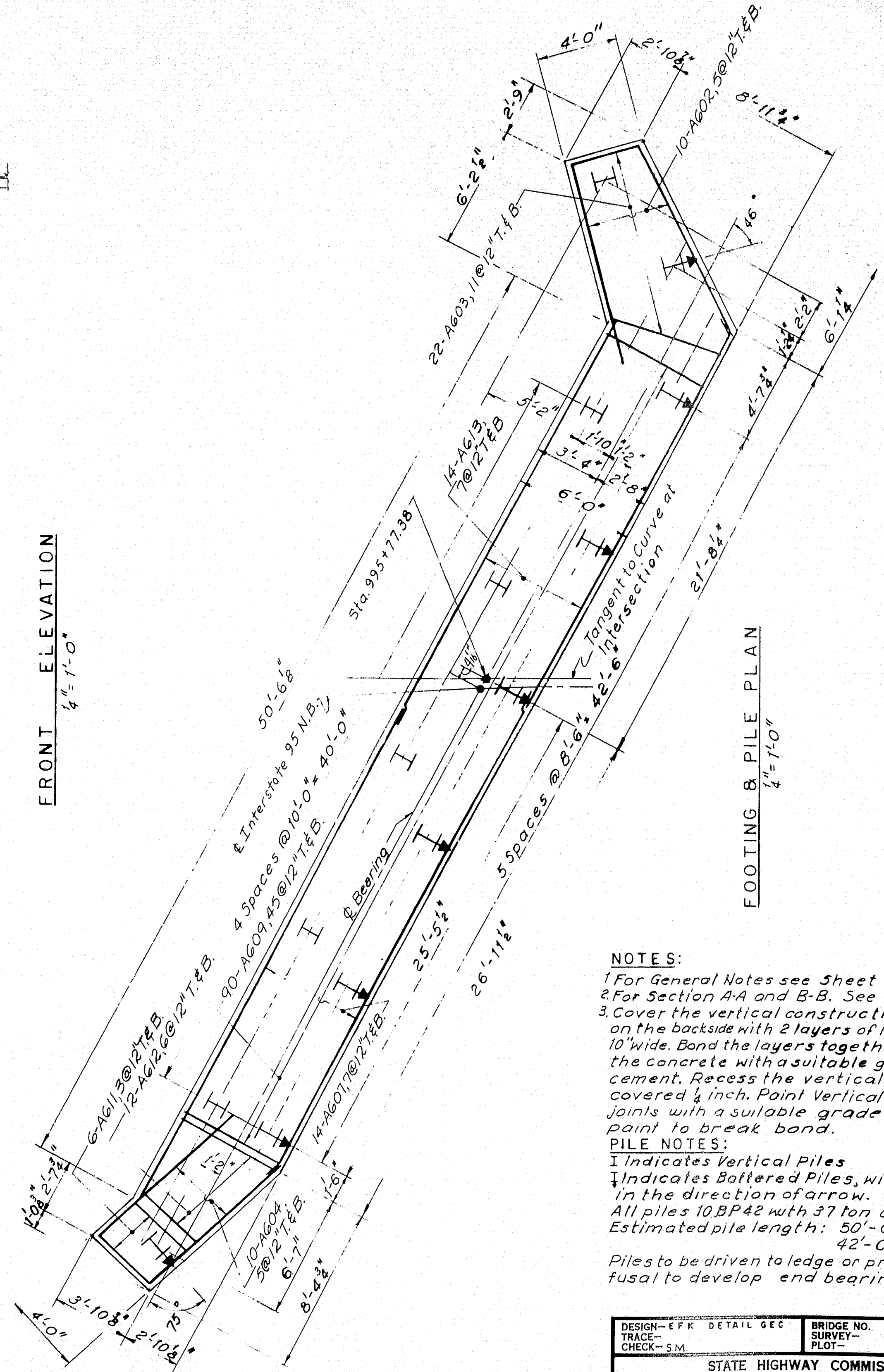


PLAN
1/4" = 1'-0"

SECTION E-E
1/2" = 1'-0"



FRONT ELEVATION
1/4" = 1'-0"



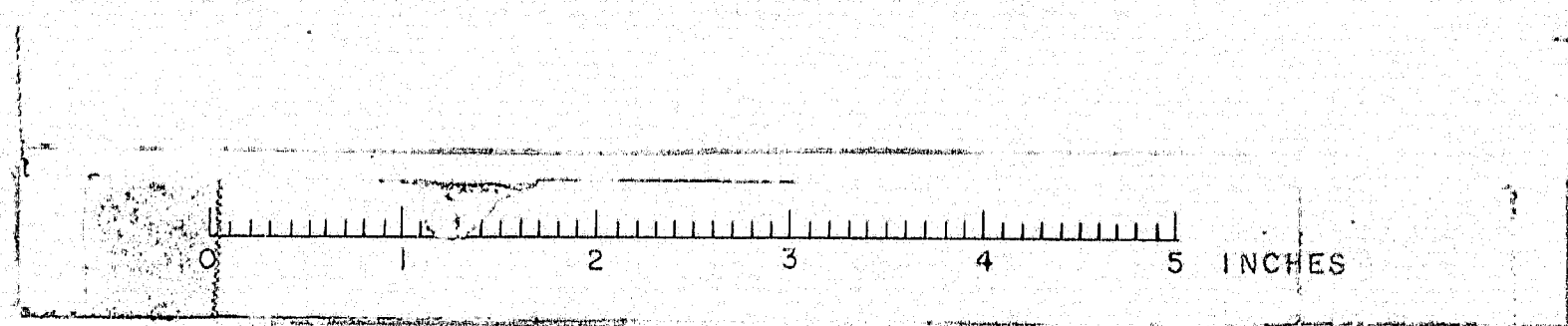
FOOTING & PILE PLAN
1/4" = 1'-0"

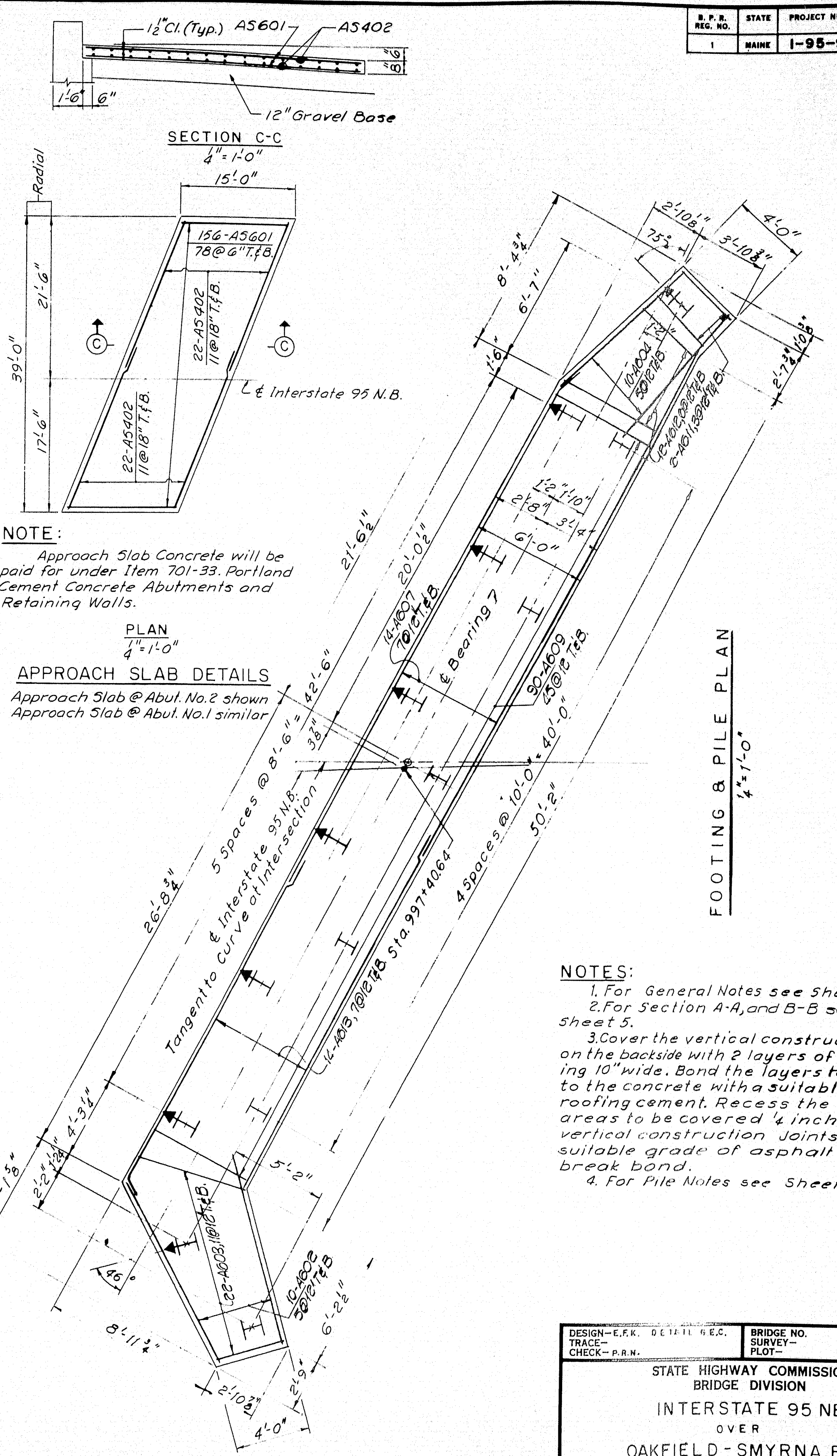
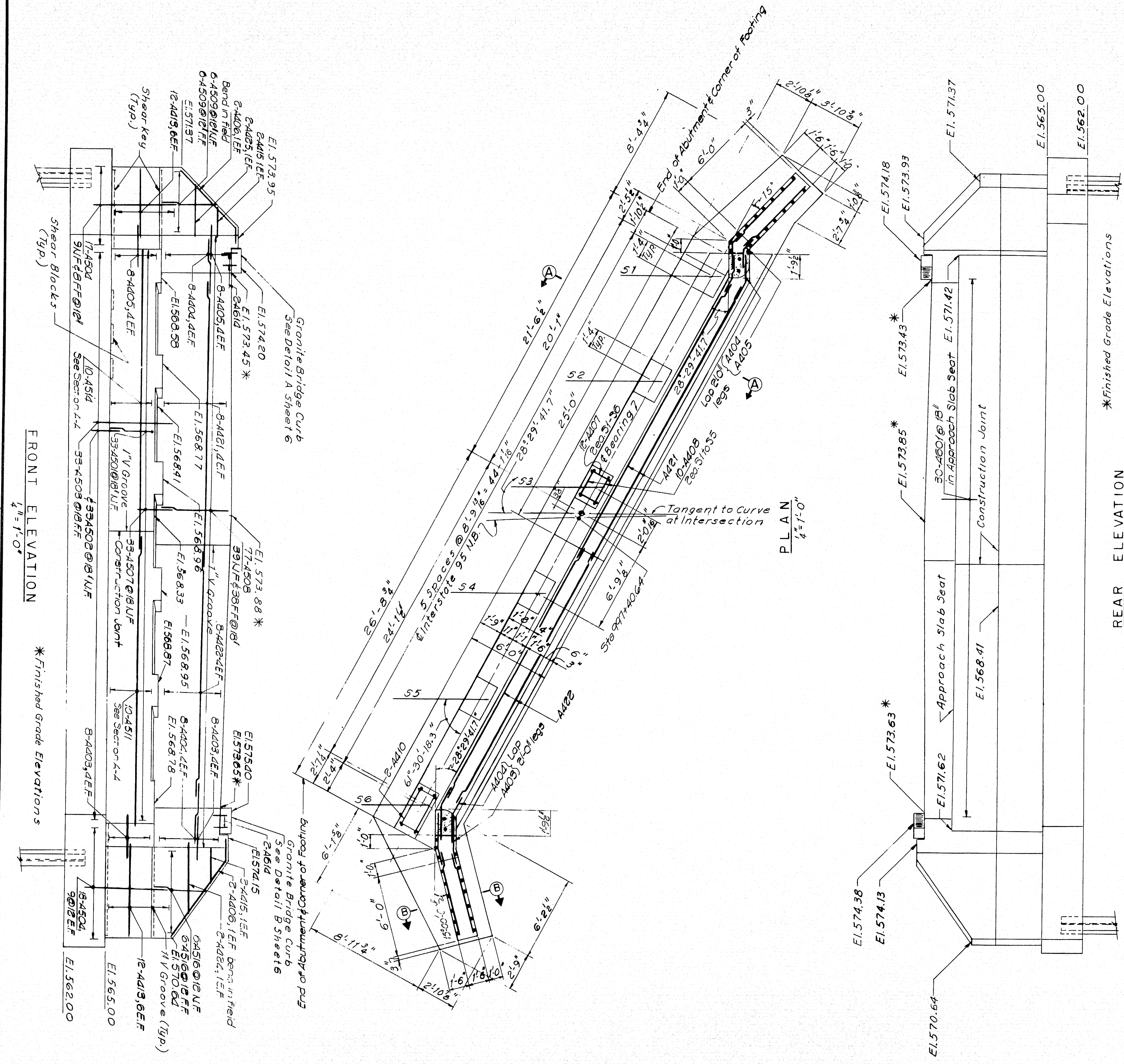
NOTES:
1. For General Notes see Sheet 5.
2. For Section AA and B-B. See Sheet 5.
3. Cover the vertical construction joints on the backsides with 2 layers of heavy roofing 10" wide. Bond the layers together and to the concrete with a suitable grade of roofing cement. Recess the vertical areas to be covered 1/2 inch. Paint vertical construction joints with a suitable grade of asphalt paint to break bond.
PILE NOTES:
I Indicates Vertical Piles
B Indicates Battered Piles with 3:12 batter in the direction of arrow.
All piles 10 BP42 with 37 ton capacity
Estimated pile length: 50'-0" Abut. 1
42'-0" Abut. 2
Piles to be driven to ledge or practical refusal to develop end bearing.

DESIGN - EFR DETAIL GEC
TRACE -
CHECK - SM
BRIDGE NO.
SURVEY -
PLOT -
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95 NB
OVER
OAKFIELD-SMYRNA ROAD
IN THE TOWN OF
OAKFIELD
ARROOSTOOK COUNTY
ABUTMENT NO. 1
SHEET 7 OF 17 AUGUSTA, MAINE FEBRUARY 1965

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

M-2277 OAKFIELD(12)





NOTE:
Approach Slab Concrete will be paid for under Item 701-33, Portland Cement Concrete Abutments and Retaining Walls.

APPROACH SLAB DETAILS
Approach Slab @ Abut. No. 2 shown
Approach Slab @ Abut. No. 1 similar

NOTES:

- For General Notes see Sheet 5.
- For Section A-A, and B-B see Sheet 5.
- Cover the vertical construction joints on the backside with 2 layers of heavy roofing 10" wide. Bond the layers together and to the concrete with a suitable grade of roofing cement. Recess the vertical areas to be covered 1/2 inch. Point vertical construction joints with a suitable grade of asphalt paint to break bond.
- For Pile Notes see Sheet 2.

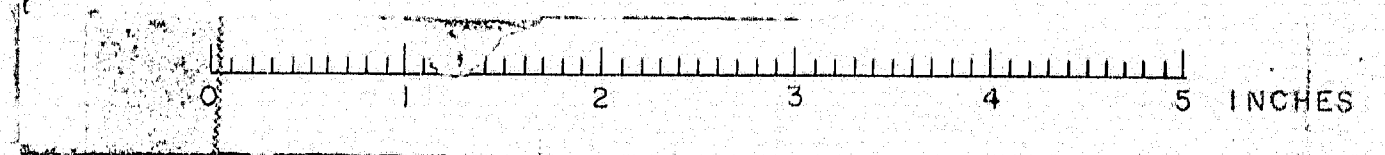
DESIGN - E.F.K. DETAIL REC.
TRACE - P.R.N.

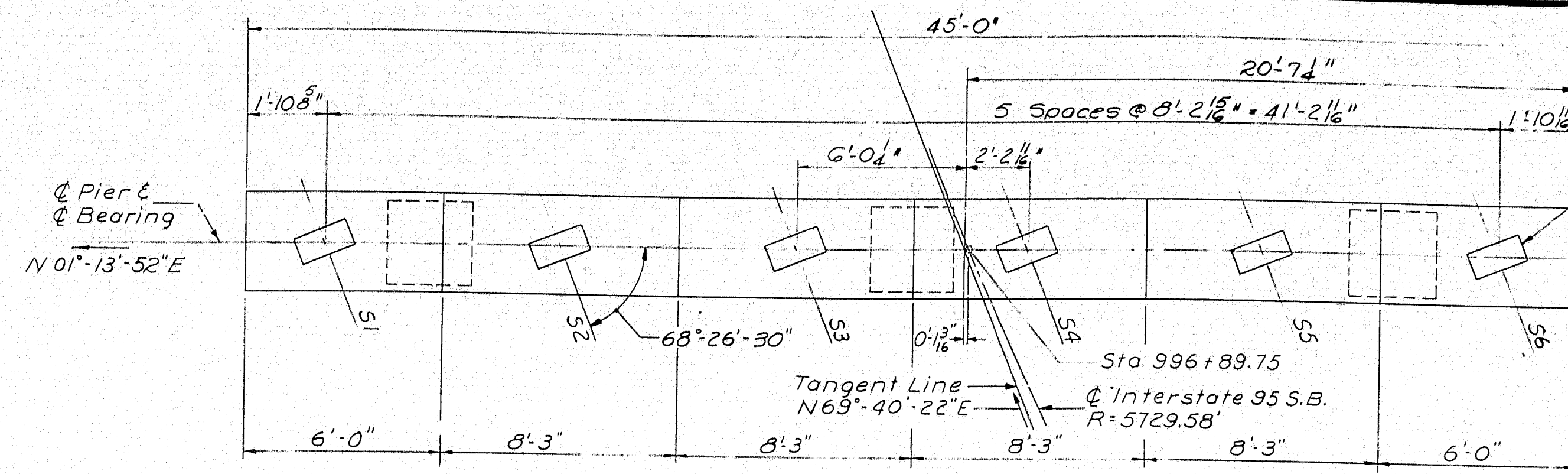
BRIDGE NO. SURVEY - PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95 NB
OVER
OAKFIELD - SMYRNA ROAD
IN THE TOWN OF
OAKFIELD
AROOSTOOK COUNTY
ABUTMENT NO. 2 & APPROACH SLAB

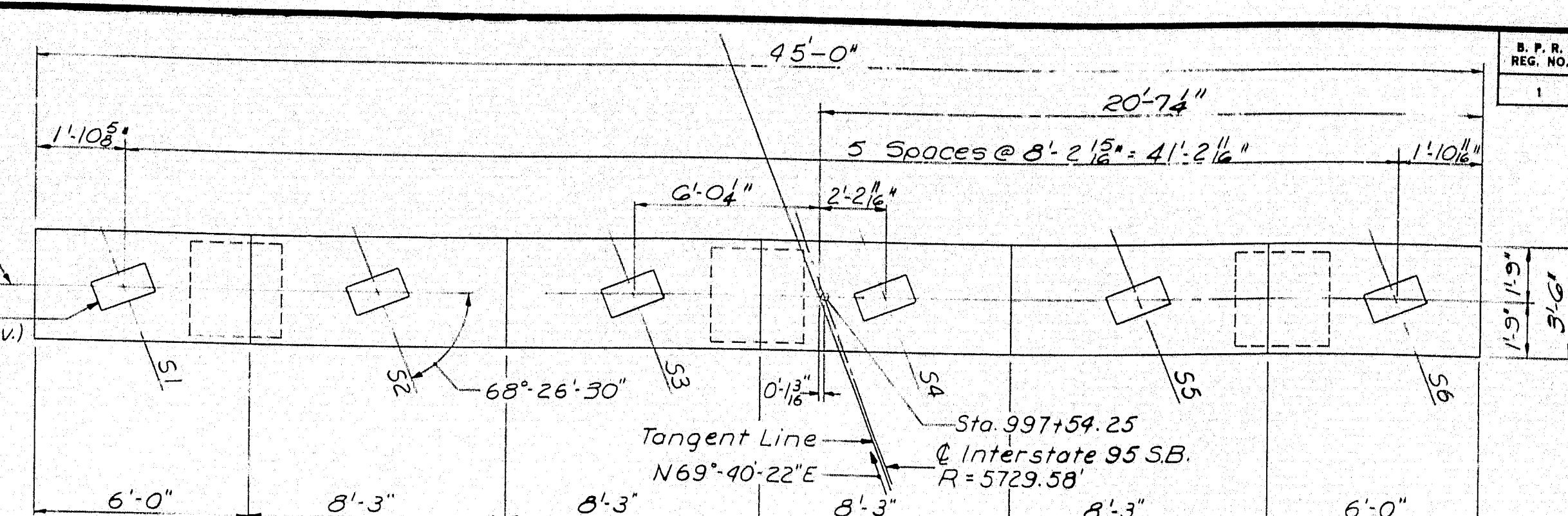
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

SHEET 8 OF 17 AUGUSTA, MAINE FEBRUARY 1965





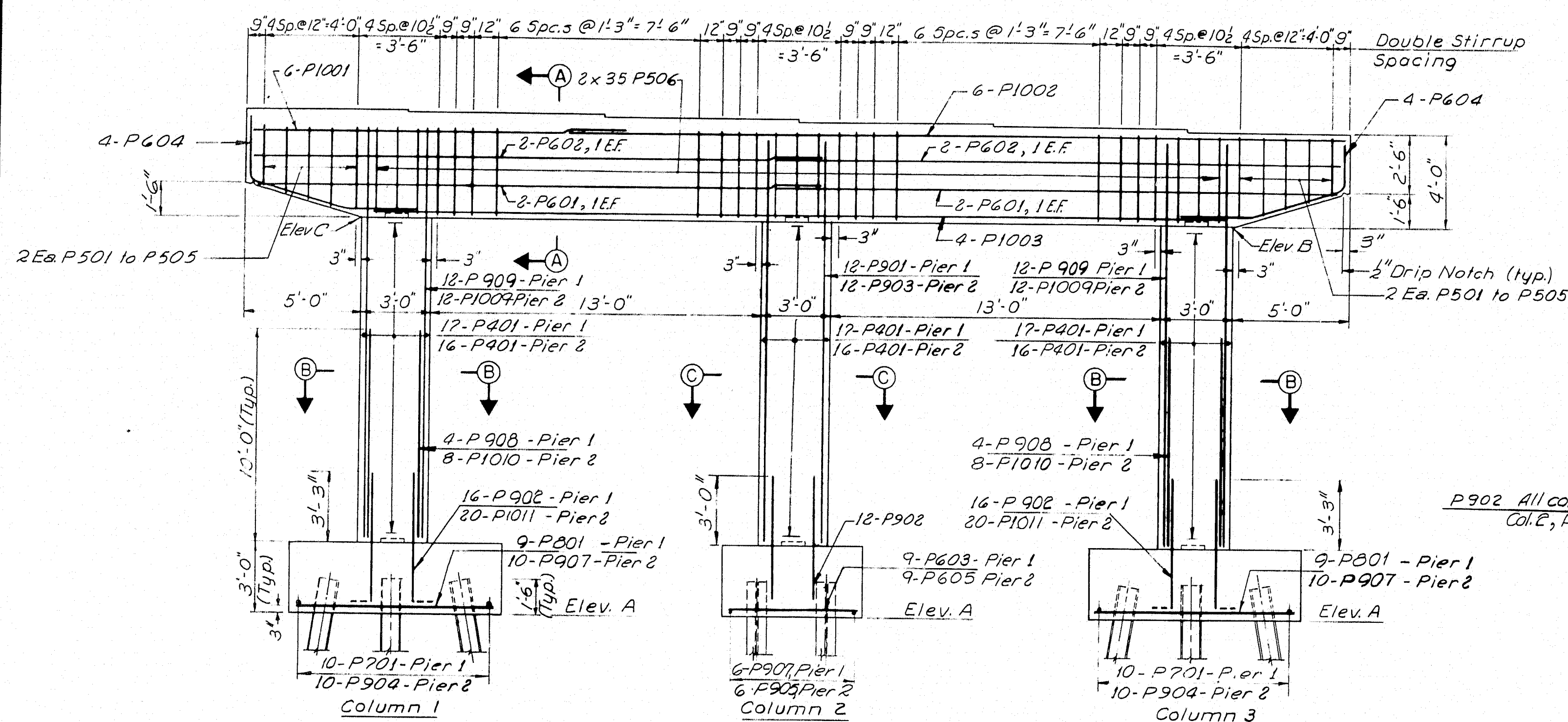
PLAN - PIER 1
1/4" = 1'-0"



PLAN - PIER 2
1/4" = 1'-0"

GENERAL NOTES:

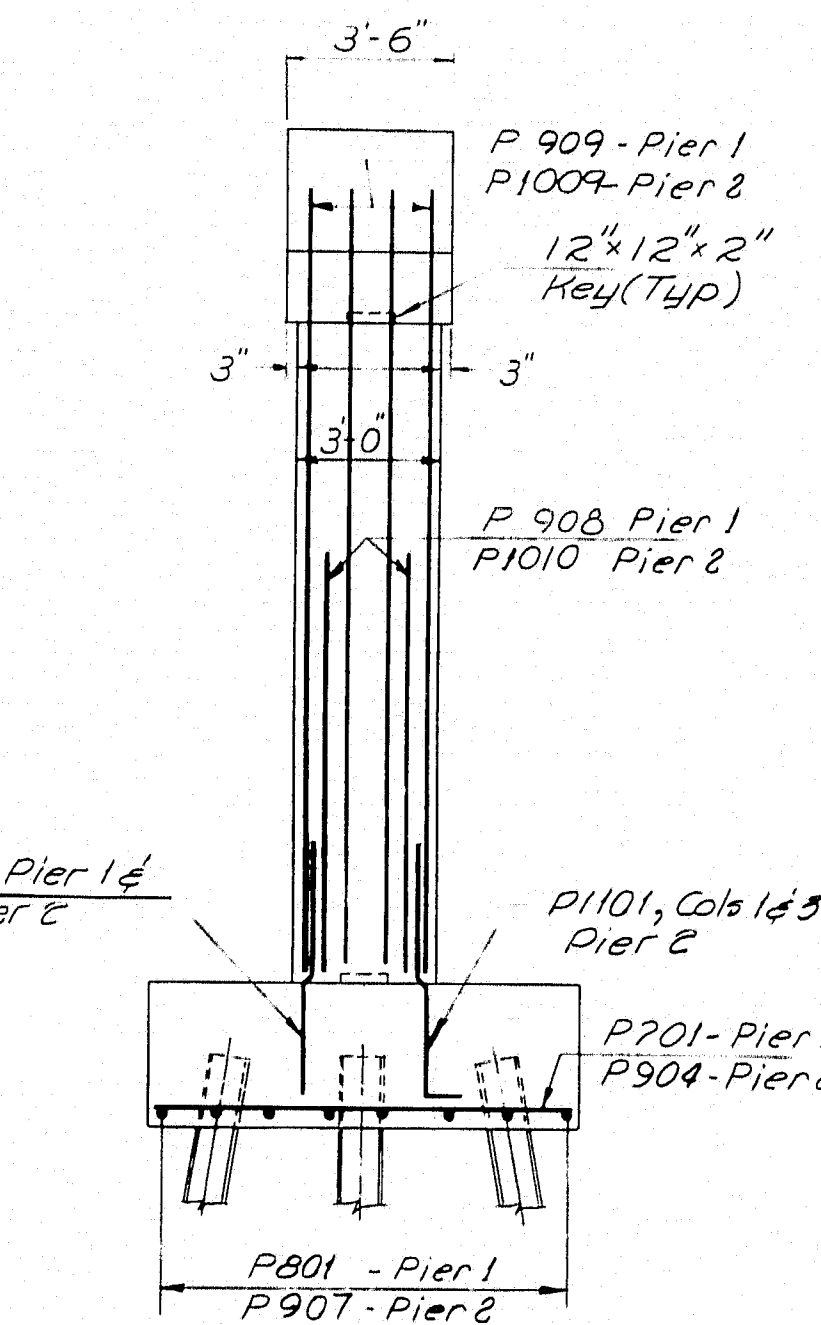
1. Reinforcing Steel to have 2" minimum cover unless otherwise shown.
2. All exposed corners to have 1" chamfer.
3. Dress bearing areas 1" larger all around than masonry plates to exact elevation shown.
4. Place reinforcing to clear anchor bolts.



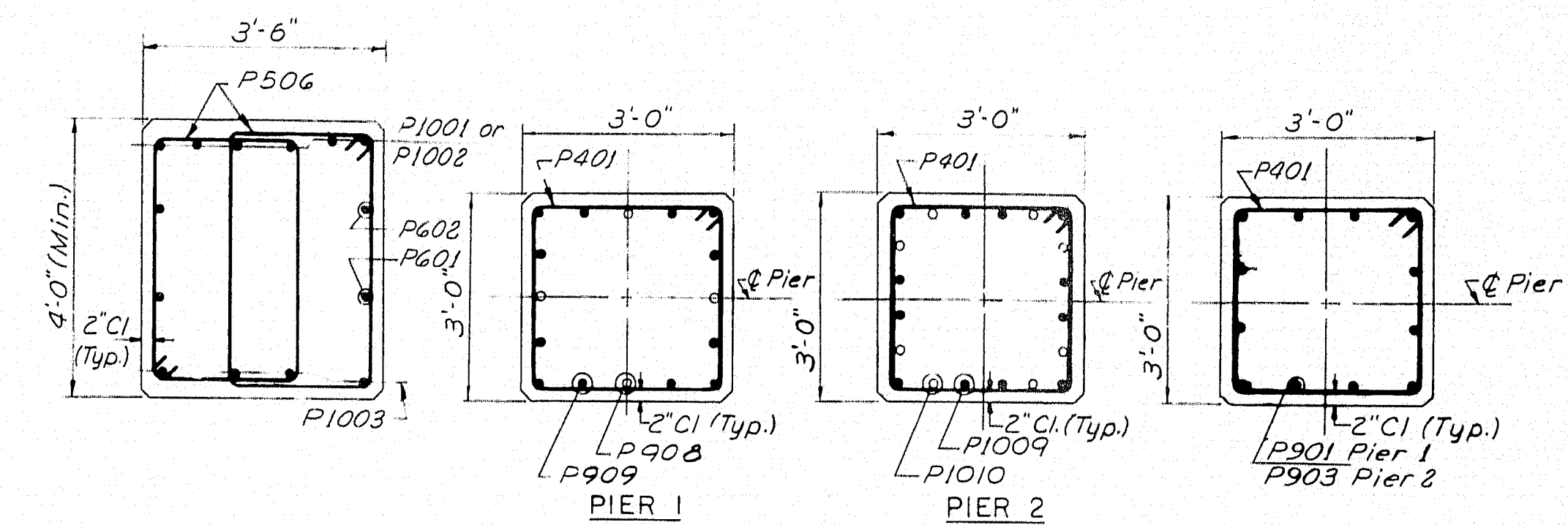
TYPICAL ELEVATION
1/4" = 1'-0"

NOTE:

Reinforcing for Pier 1 & Pier 2 same, unless noted otherwise.



TYPICAL END ELEVATION
1/4" = 1'-0"



SECTION A-A
1/2" = 1'-0"

SECTION B-B
1/2" = 1'-0"

SECTION C-C
1/2" = 1'-0"

BEARING ELEVATIONS		
BEAM	Pier 1	Pier 2
S1	570.32	569.81
S2	570.20	569.69
S3	570.08	569.57
S4	569.95	569.45
S5	569.83	569.33
S6	569.70	569.21

ELEVATIONS		
Elevation	Pier 1	Pier 2
Elev. A	545.70	545.50
Elev. B	563.70	563.21
Elev. C	566.32	565.81

LEGEND:

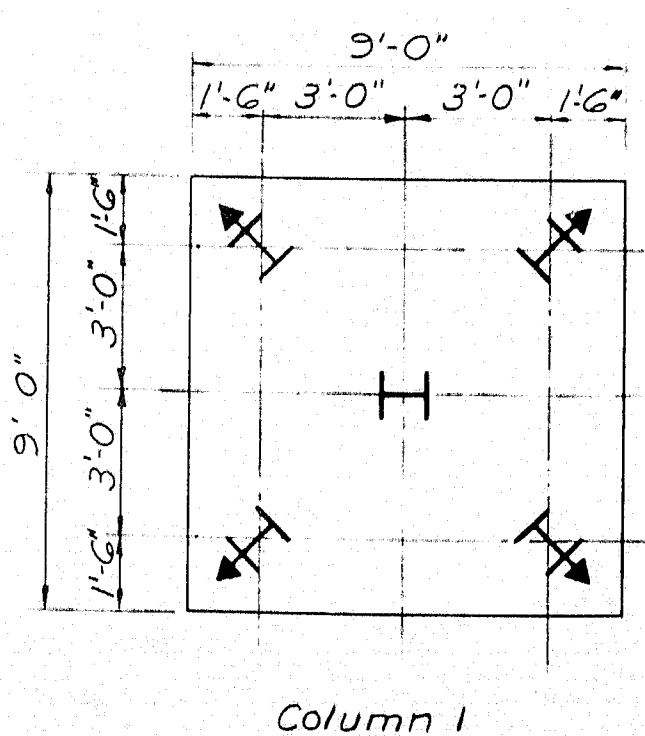
- Denotes full length bar.
- o Denotes partial length bar.

NOTE:

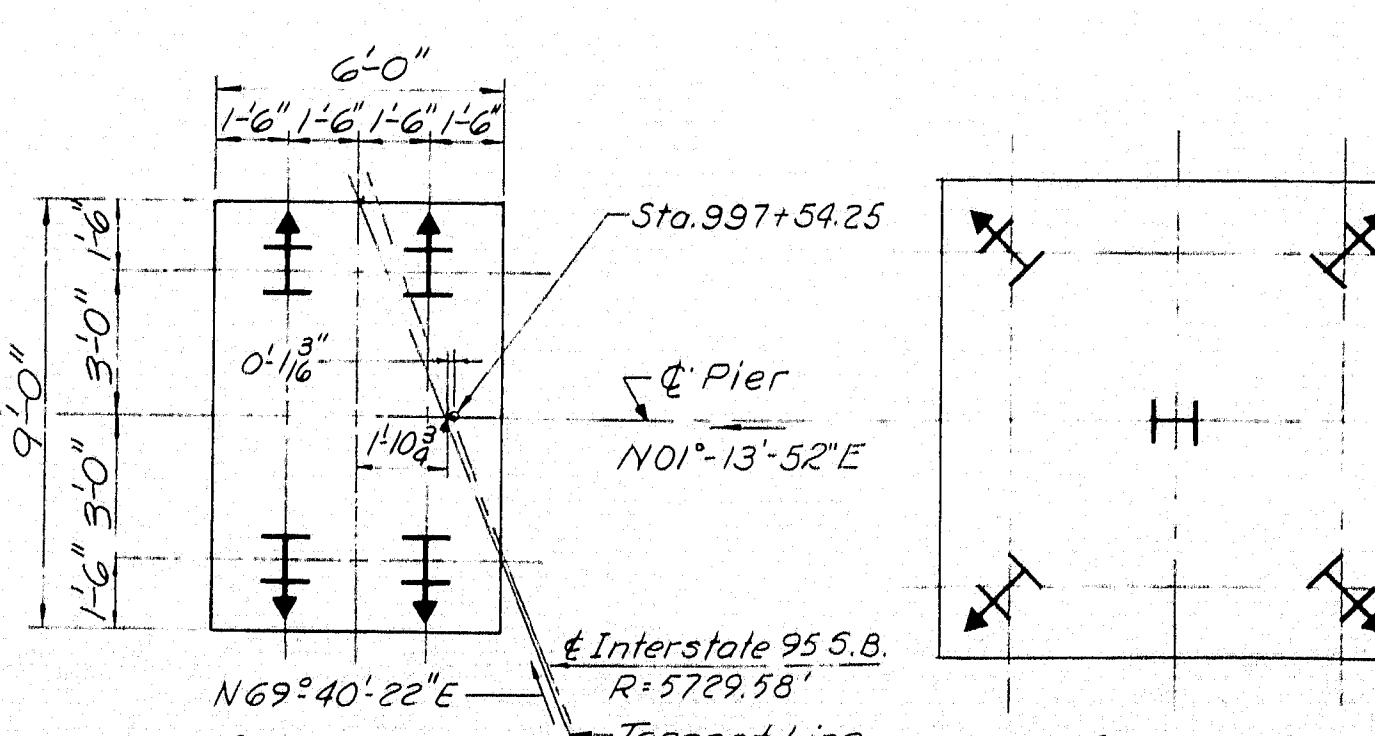
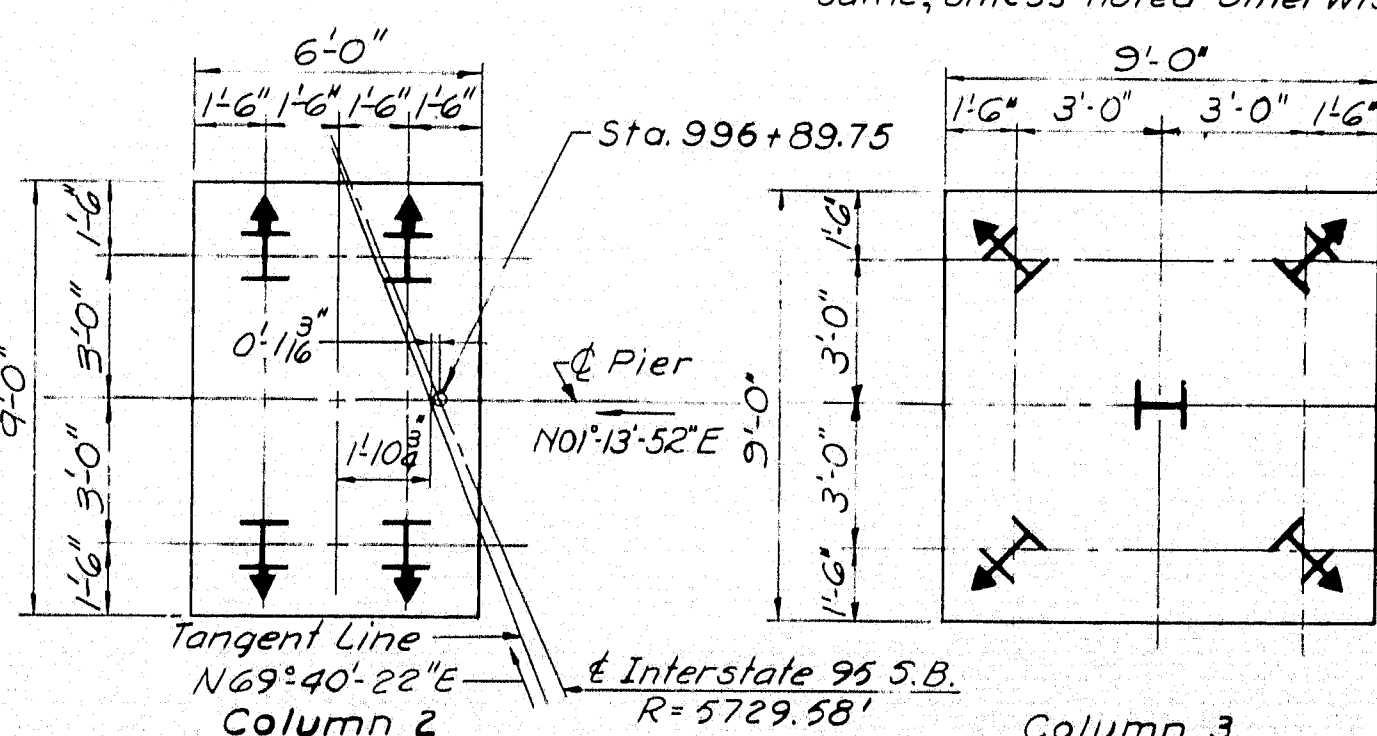
Soils information indicates that some water should be anticipated at the elevation of the pier footings. Payment for any unwatering of pier foundations shall not be made directly, but shall be considered incidental to the various contract items.

PILE NOTES:

1. Indicates Vertical Pile.
2. Indicates Batter Pile, with 3/12 Batter in Direction of Arrow.
3. All piles 10 BPA2, 50 Ton Capacity.
4. Estimated Pile Length: Pier No. 1-24 feet, Pier No. 2-26 feet.
5. Piles to be driven to ledge or practical refusal to develop end bearing.



FOOTING PLAN - PIER 1
1/4" = 1'-0"



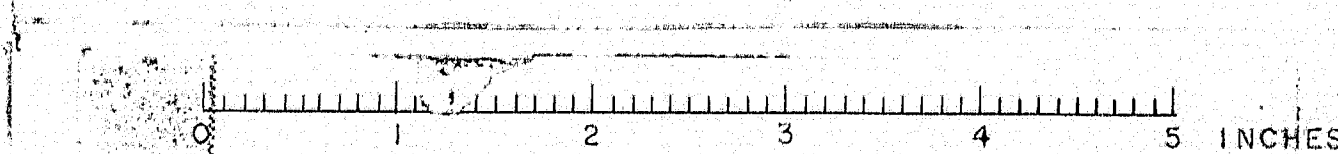
FOOTING PLAN - PIER 2
1/4" = 1'-0"

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95 S.B.
OVER
OAKFIELD-SMYRNA ROAD
IN THE TOWN OF
OAKFIELD
AROOSTOOK COUNTY
PIERS

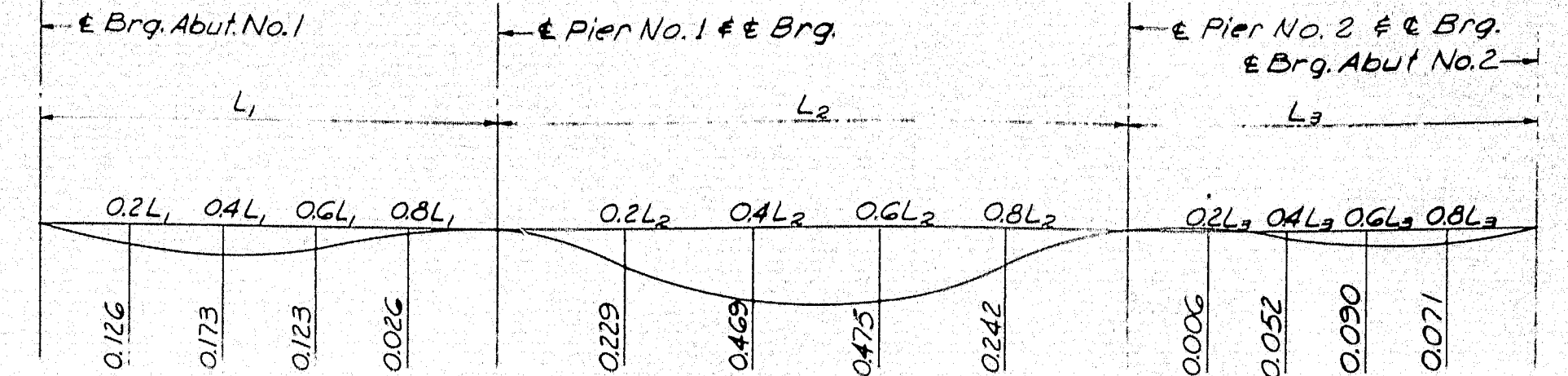
SHEET 9 OF 17 AUGUSTA, MAINE FEBRUARY 1965

M-2279 OAKFIELD (12)



NOTE:

No shop camber required - natural mill camber to be placed up.



DEAD LOAD DEFLECTION DIAGRAM
All deflections in inches

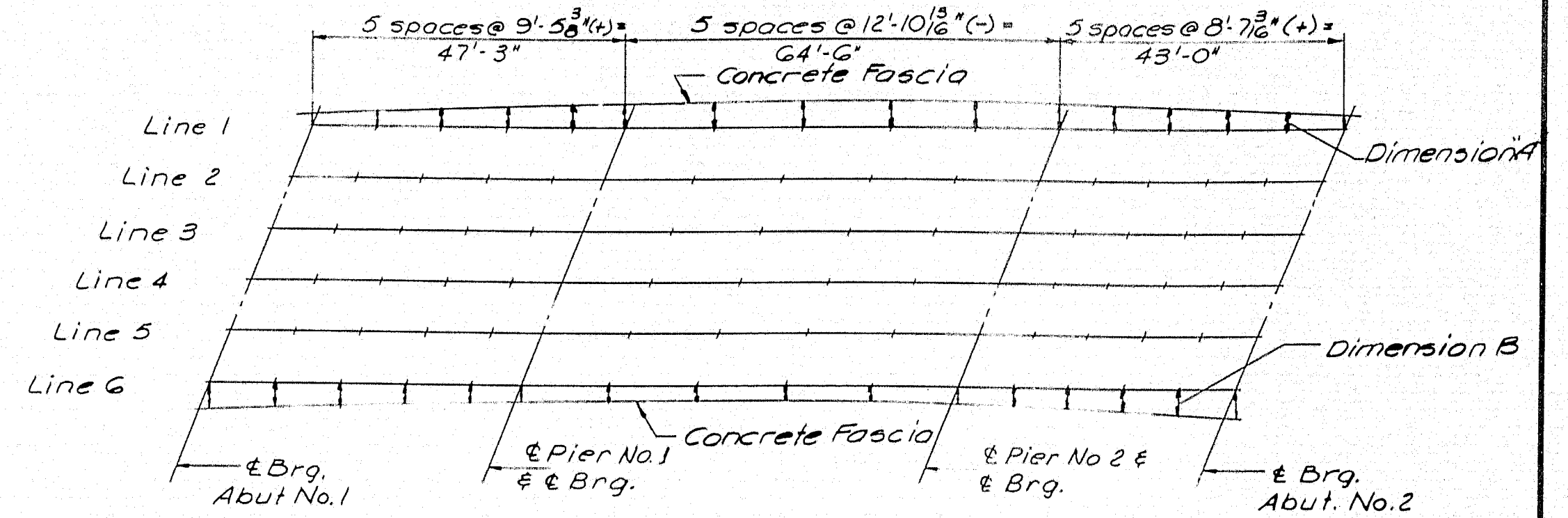
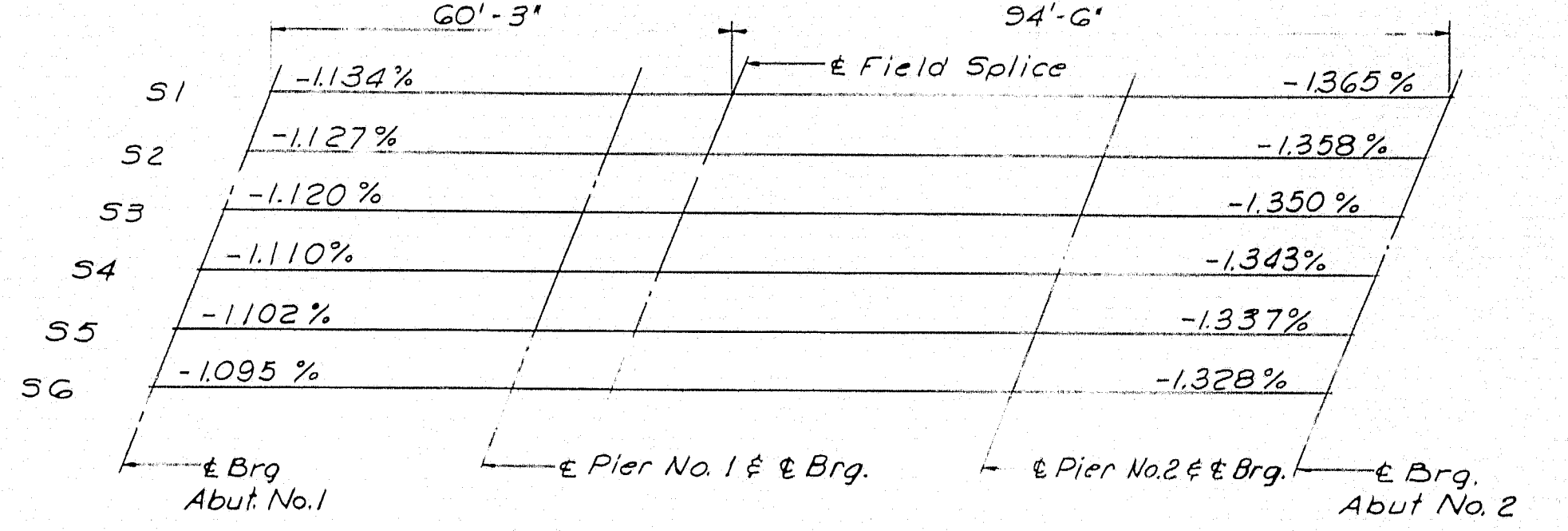


Diagram of blocking points

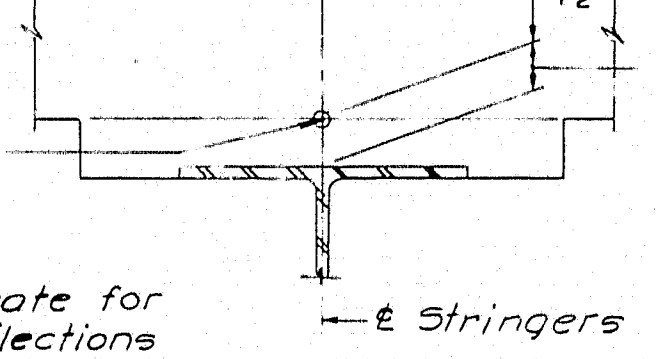


BEAM GRADES

REFERENCE

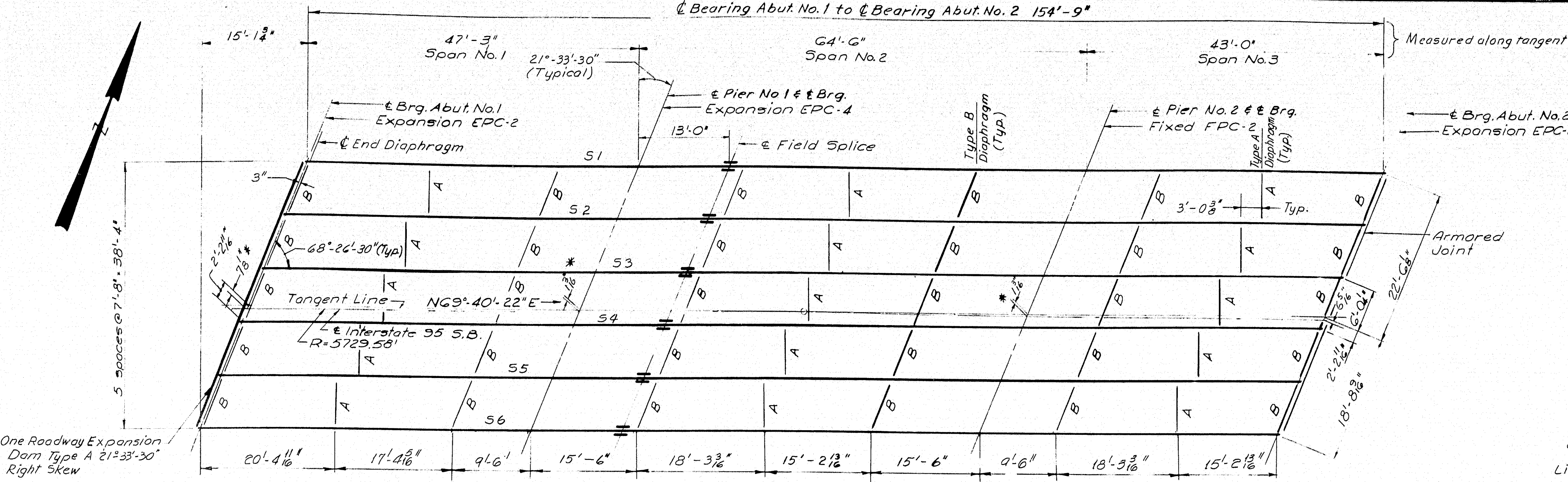
Splice - See Standard Details BD103-64
Diaphragms - See Standard Details BD104-64
Pedestals - See Standard Details BU101-64
Expansion Dam - See Standard Details BU105-64
Armored Joint - See Standard Details BD104-64
Fabrication and Erection: State of Maine Standard Specifications, Highways and Bridges, Revision of Jan. 1956 and Supplementary Specifications of Feb. 1960.
Design and Detail: A.A.S.H.O. Standard Specifications of 1961, and Interim Specifications 1961, 1962, 1963 & 1964.
Materials: Except as otherwise noted on the standard details, all materials shall conform to A.S.T.M. designation A-36.

SPECIFICATIONS

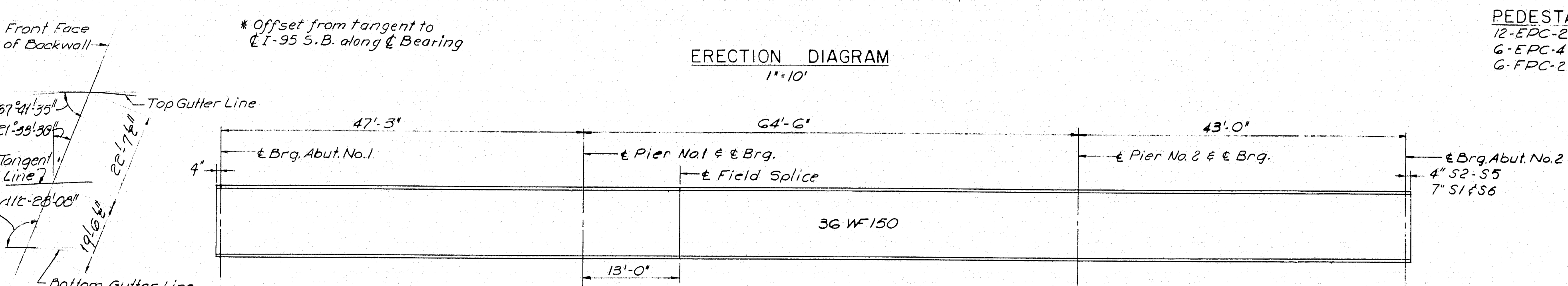


NOTE
To compensate for dead load deflections as well as possible irregularities in beams, set the bottom of slab elevations at the points indicated before any of the slab formwork is started.

BLOCKING DETAIL
No Scale



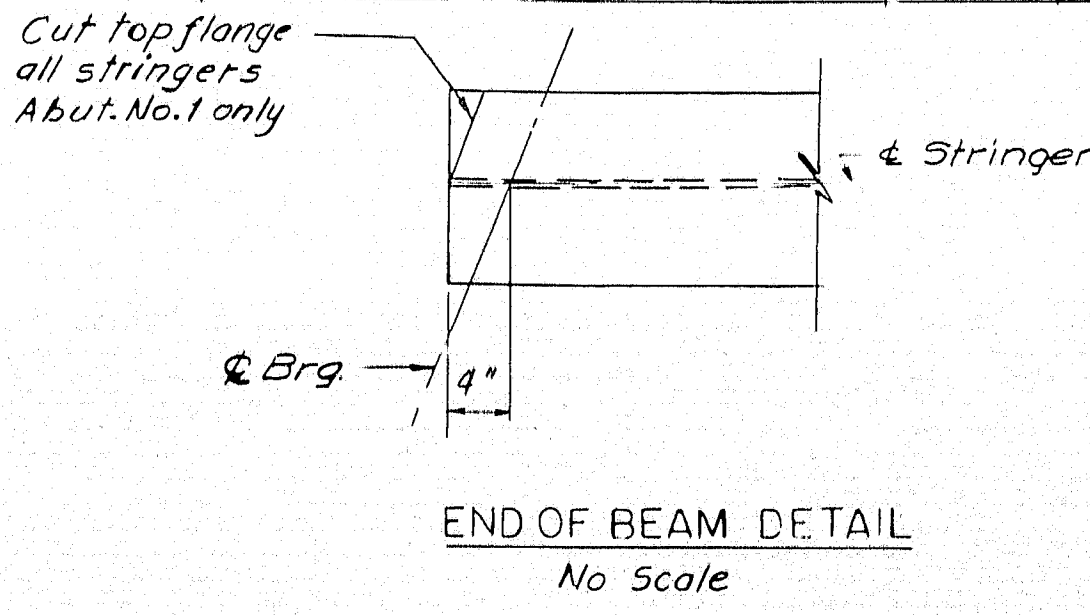
ERECTION DIAGRAM
1"=10'



TYPICAL STRINGER ELEVATION
All dimensions are horizontal

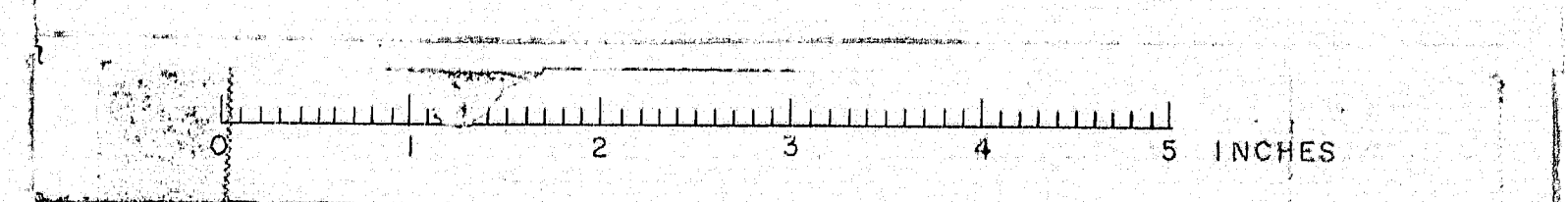
BOTTOM OF SLAB ELEVATIONS AT BLOCKING POINTS

	± Brg. Abut. No. 1	SPAN NO. 1				± Brg. Pier No. 1	SPAN NO. 2				± Brg. Pier No. 2	SPAN NO. 3				± Brg. Abut. No. 2
	9'-5 3/4"	18'-10 1/2"	28'-4 1/4"	37'-9 1/2"			12'-10 1/2"	25'-9 3/4"	38'-8 1/4"	51'-7 1/4"		8'-7 1/4"	17'-2 3/4"	25'-9 3/4"	34'-4 1/4"	
Line 1	575.10	575.02	574.92	574.81	574.69	574.58	574.44	574.30	574.14	573.95	573.75	573.63	573.52	573.40	573.27	573.14
Line 2	574.98	574.89	574.79	574.68	574.57	574.46	574.32	574.18	574.02	573.83	573.63	573.52	573.40	573.28	573.15	573.02
Line 3	574.85	574.76	574.66	574.56	574.44	574.33	574.20	574.06	573.90	573.71	573.52	573.40	573.28	573.16	573.03	572.90
Line 4	574.72	574.64	574.54	574.43	574.32	574.21	574.08	573.94	573.78	573.59	573.40	573.28	573.16	573.04	572.92	572.78
Line 5	574.60	574.51	574.41	574.31	574.19	574.08	573.95	573.82	573.66	573.47	573.28	573.16	573.04	572.93	572.80	572.67
Line 6	574.47	574.38	574.29	574.18	574.07	573.96	573.83	573.69	573.53	573.35	573.16	573.04	572.93	572.81	572.68	572.55
Point A	575.15	575.06	574.96	574.85	574.74	574.63	574.49	574.35	574.19	574.00	573.80	573.68	573.56	573.44	573.31	573.17
Point B	574.41	574.33	574.24	574.14	574.03	573.92	573.79	573.65	573.49	573.31	573.12	573.00	572.88	572.77	572.64	572.50



END OF BEAM DETAIL
No Scale

CONCRETE FASCIA TIES															
± Brg. Abut. No. 1	SPAN NO. 1				± Brg. Pier No. 1	SPAN NO. 2				± Brg. Pier No. 2	SPAN NO. 3				± Brg. Abut. No. 2
	0.2L	0.4L	0.6L	0.8L		0.2L	0.4L	0.6L	0.8L		0.2L	0.4L	0.6L	0.8L	
Dimension A	1'-11"	2'-0 3/8"	2'-1 1/2"	2'-2 3/8"	2'-3 1/8"	2'-3 1/2"	2'-4 1/8"	2'-4 3/8"	2'-4 1/2"	2'-5 1/8"	2'-5 1/2"	2'-6 1/8"	2'-6 3/8"	2'-6 1/2"	1'-9"
Dimension B	2'-6 3/8"	2'-4 1/8"	2'-3 1/2"	2'-2 3/8"	2'-1 1/2"	2'-0 3/8"	1'-11 1/8"	1'-10 3/8"	1'-10 1/8"	1'-10 3/8"	1'-11 1/8"	2'-0 3/8"	2'-1 1/2"	2'-2 3/8"	2'-3 1/8"

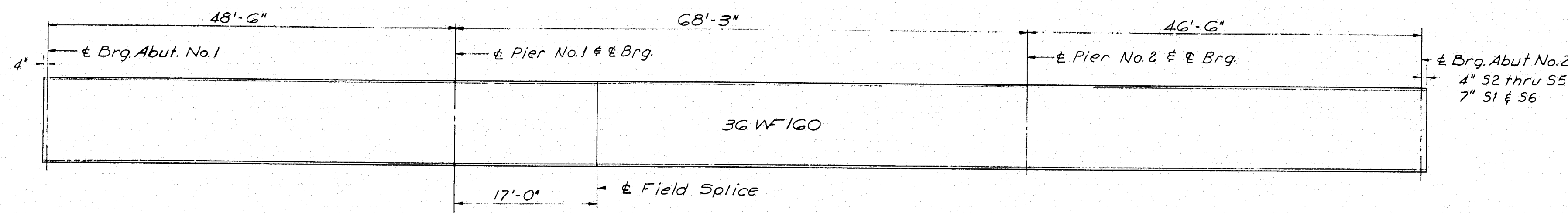
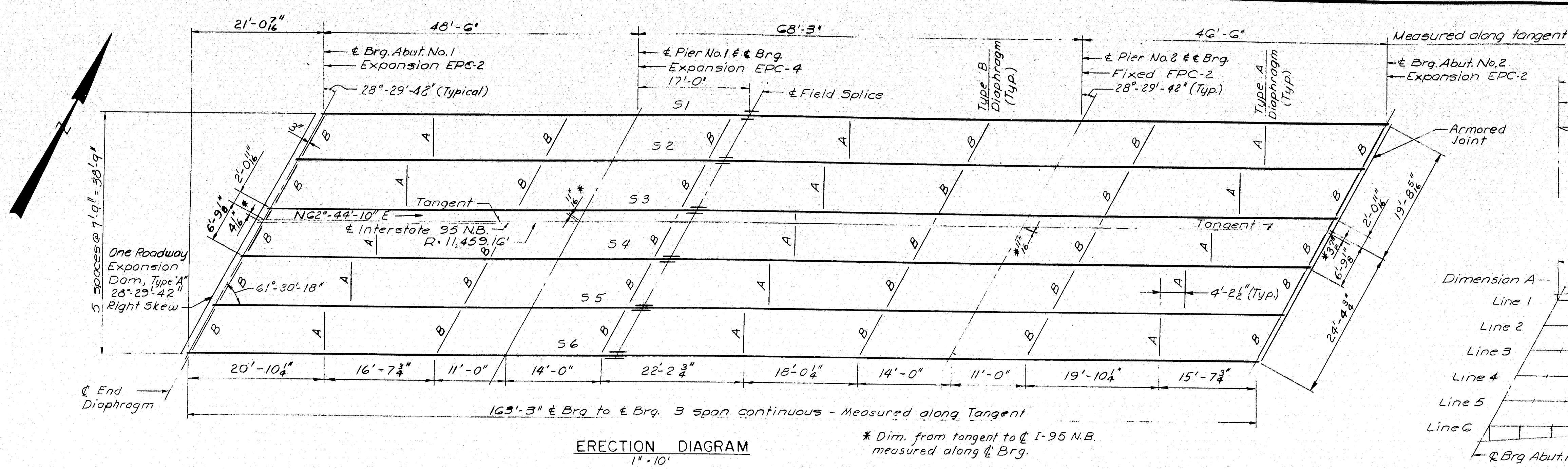


M-2281 OAKFIELD (12)

SHEET 11 OF 17 AUGUSTA, MAINE FEBRUARY 1965

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

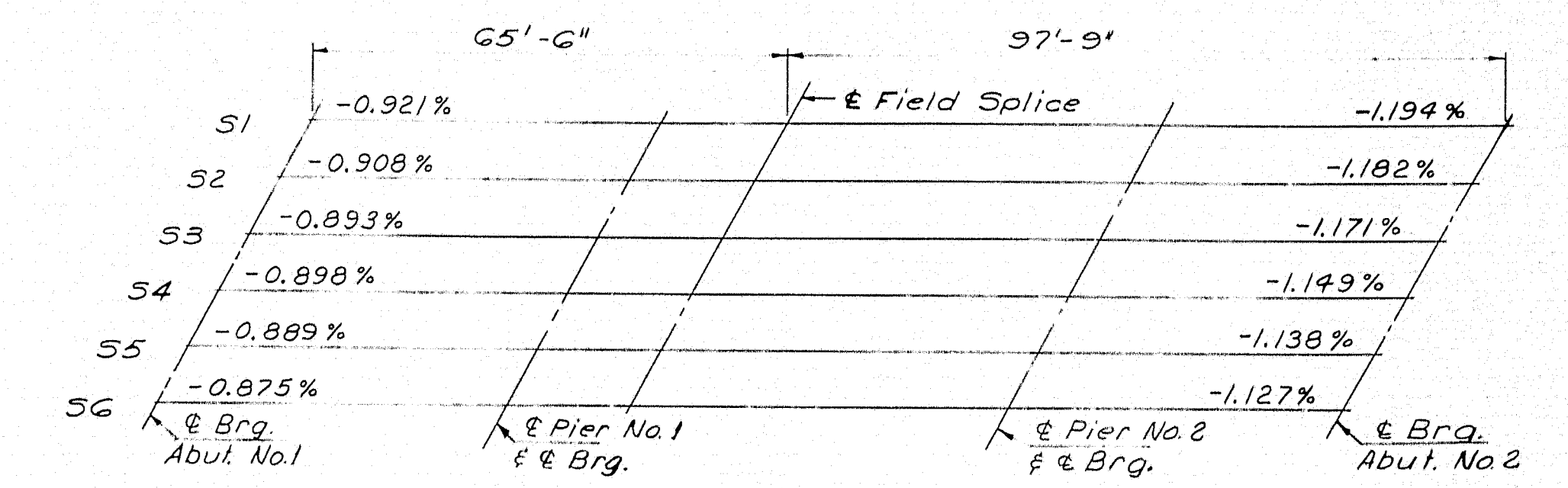
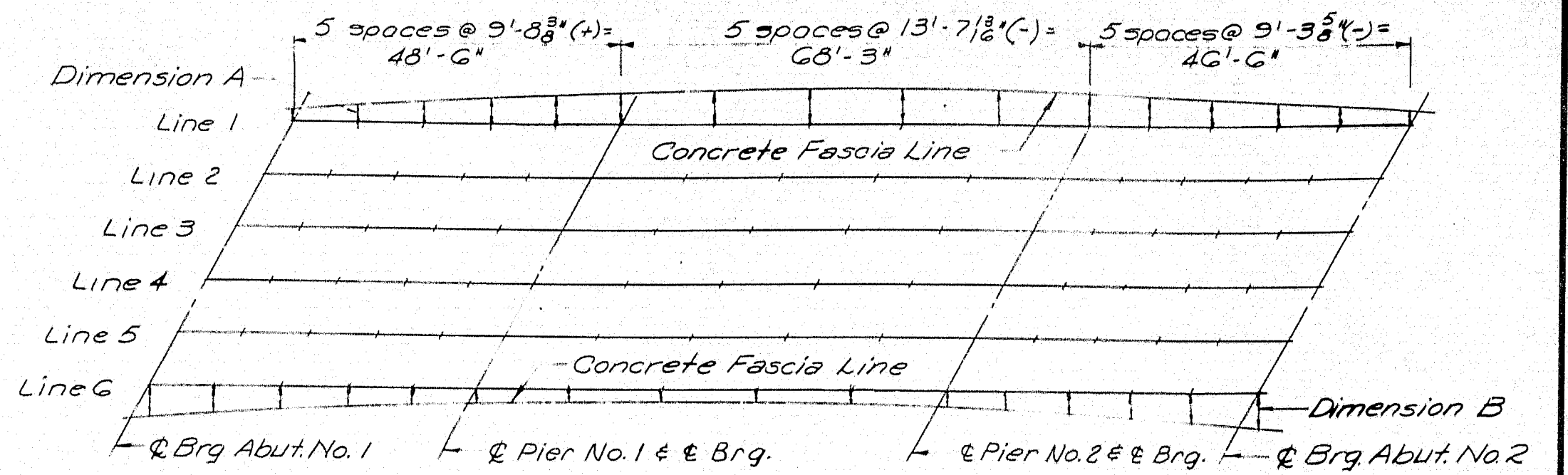
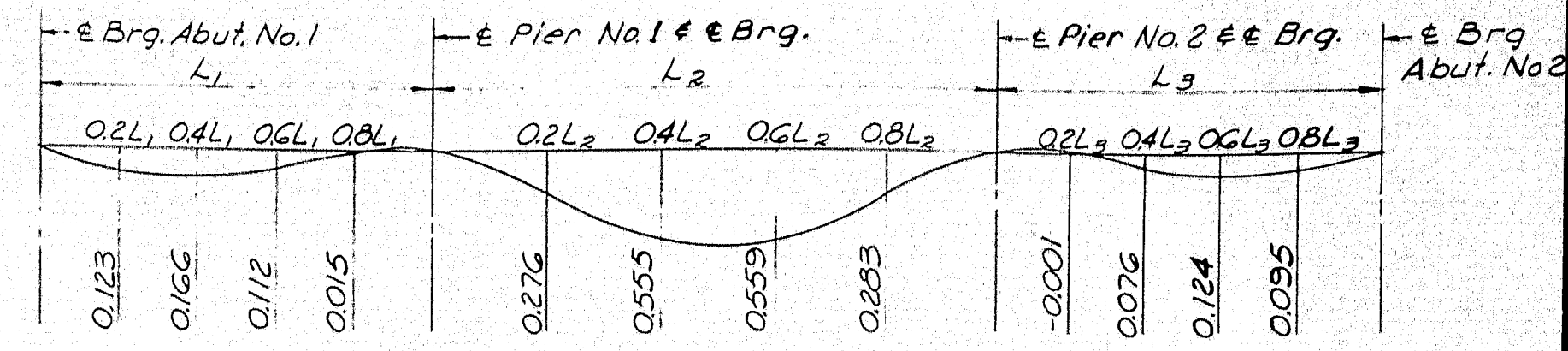
DESIGN - G.H. TRACE - P.R.M. DETAIL - A.A.L. BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
INTERSTATE 95 S.B.
OVER
OAKFIELD-SMYRNA ROAD
IN THE TOWN OF
OAKFIELD
AROOSTOOK COUNTY
STRUCTURAL STEEL & BLOCKING



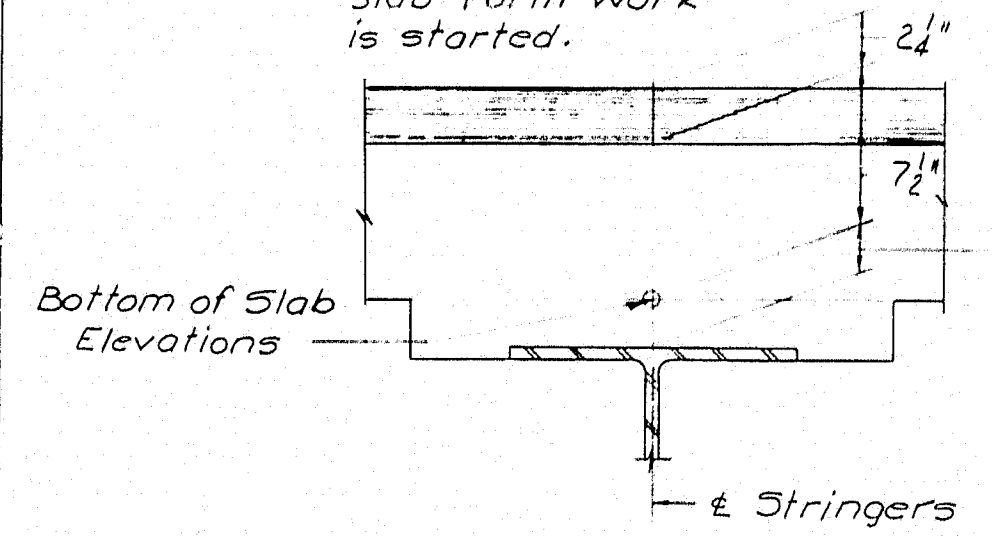
PEDESTALS
12-EPC-2 required
6-EPC-4 required
6-FPC-2 required

NOTE:
No shop camber required. Natural camber to be placed up.

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-9(12)	94	115



NOTE:
To compensate for dead load deflections as well as possible irregularities in beams, set the bottom of slab elevations at the points indicated before any of the slab form work is started.



NOTES:
1. For Reference and Specification Notes, see Sheet 11.
2. For End of Beam Detail, see Sheet 11.

BOTTOM OF SLAB ELEVATIONS AT BLOCKING POINTS																				
	± Brg. Abut. No.1	SPAN NO. 1				± Brg. Pier No.1	SPAN NO. 2					± Brg. Pier No.2	SPAN NO. 3				± Brg. Abut. No.2			
		9'-8 3/4"	19'-4 1/2"	29'-1 1/2"	38'-9 1/2"		13'-7 1/2"	Splice	27'-3 3/4"	40'-11 1/2"	54'-7 1/4"		9'-3 3/4"	18'-7 1/4"	27'-10 3/4"	37'-2 1/2"				
Line 1	574.42	574.35	574.27	574.17	574.07	573.98	573.87	573.84	573.75	573.60	573.42	573.24	573.13	573.02	572.90	572.78	572.65			
Line 2	574.59	574.52	574.44	574.35	574.25	574.16	574.04	574.02	573.93	573.78	573.60	573.42	573.31	573.20	573.09	572.97	572.84			
Line 3	574.76	574.69	574.61	574.52	574.42	574.33	574.22	574.19	574.10	573.96	573.79	573.61	573.50	573.39	573.28	573.16	573.03			
Line 4	574.93	574.66	574.58	574.49	574.39	574.30	574.19	574.16	574.08	573.93	573.76	573.58	573.48	573.37	573.26	573.15	573.02			
Line 5	574.63	574.56	574.48	574.39	574.30	574.21	574.10	574.07	573.98	573.84	573.67	573.50	573.39	573.29	573.18	572.88	572.94			
Line 6	574.53	574.46	574.39	574.30	574.20	574.11	574.01	573.98	573.89	573.75	573.58	573.41	573.30	573.20	573.10	572.98	572.86			
Point A	574.39	574.32	574.23	574.14	574.04	573.95	573.83	573.80	573.71	573.56	573.39	573.20	573.09	572.99	572.87	572.75	572.62			
Point B	574.49	574.49	574.35	574.26	574.17	574.08	573.97	573.94	573.86	573.72	573.55	573.38	573.27	573.17	573.06	572.95	572.82			

CONCRETE FASCIA TIES																		
	℄ Brg. Abut No.1	SPAN NO.1				℄ Brg. Pier No.1	SPAN NO.2					℄ Brg. Pier No.2	SPAN NO.3				℄ Brg. Abut No.2	
		0.2L ₁	0.4L ₁	0.6L ₁	0.8L ₁		0.2L ₂	Splice	0.4L ₂	0.6L ₂	0.8L ₂		0.2L ₃	0.4L ₃	0.6L ₃	0.8L ₃		
Dim. A	1'-9"	1'-9 1/2"	1'-10 1/4"	1'-10 3/4"	1'-11 1/8"	1'-11 1/2"	1'-11 1/2"	1'-11 1/2"	1'-11 3/8"	1'-11 3/8"	1'-11 3/8"	1'-10 3/4"	1'-10 3/8"	1'-9 3/4"	1'-9 3/8"	1'-8 3/4"	1'-7 3/4"	
Dim. B	2'-2 3/8"	2'-2"	2'-1 5/8"	2'-0 7/8"	1'-11 1/2"	1'-11 1/4"	1'-10 3/4"	1'-10 3/8"	1'-10 3/8"	1'-10 1/4"	1'-10 1/4"	1'-10 1/2"	1'-10 3/4"	1'-11 1/8"	1'-11 1/2"	2'-0 1/8"	2'-0 1/16"	

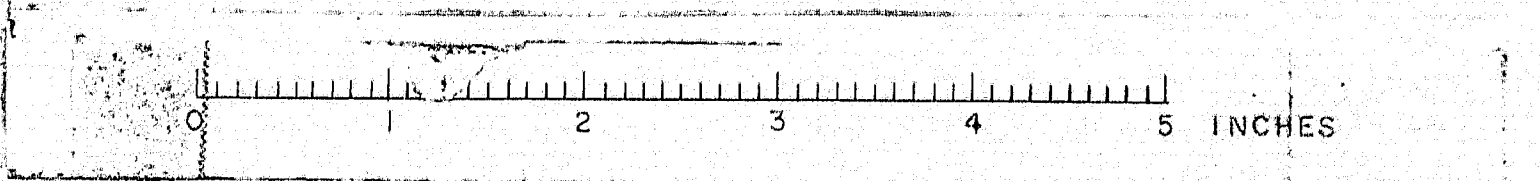
EXPANSION DAM LAYOUT
No Scale

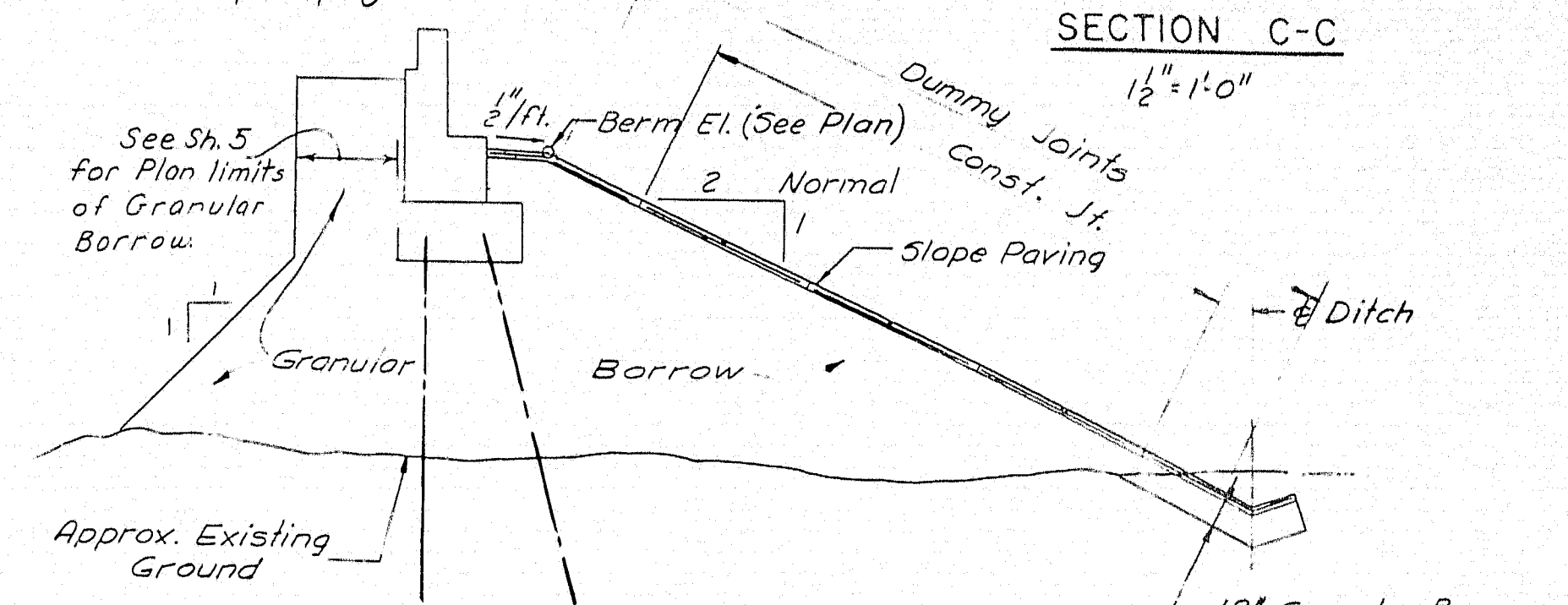
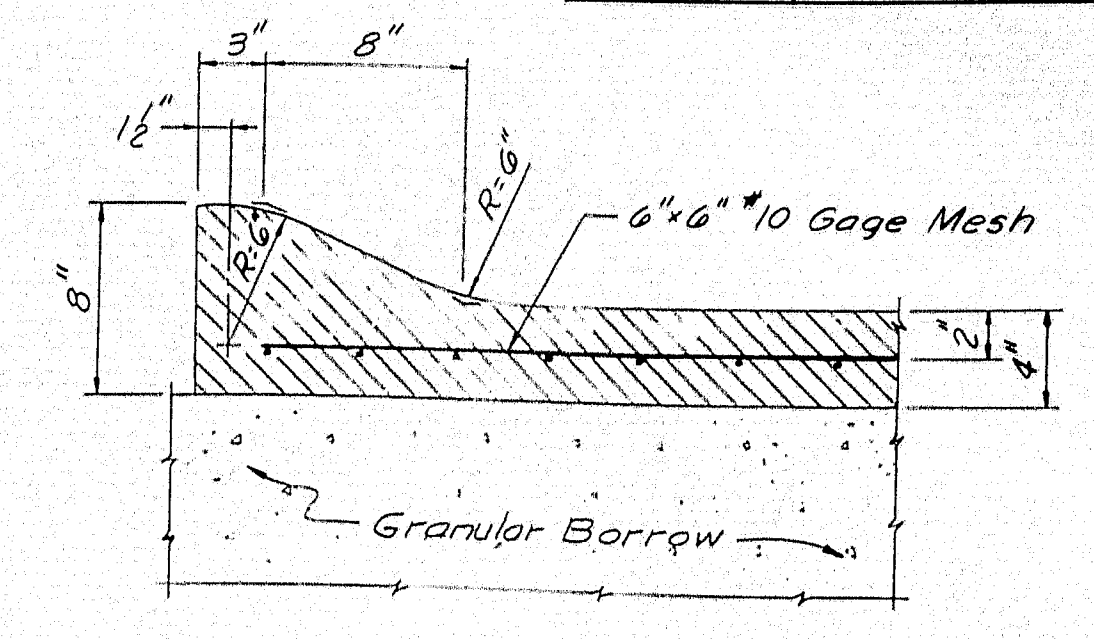
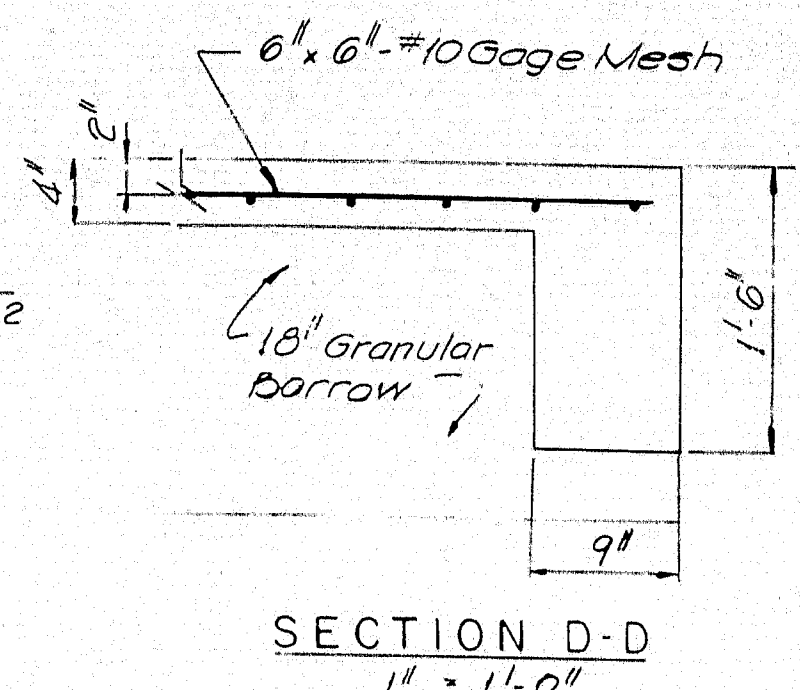
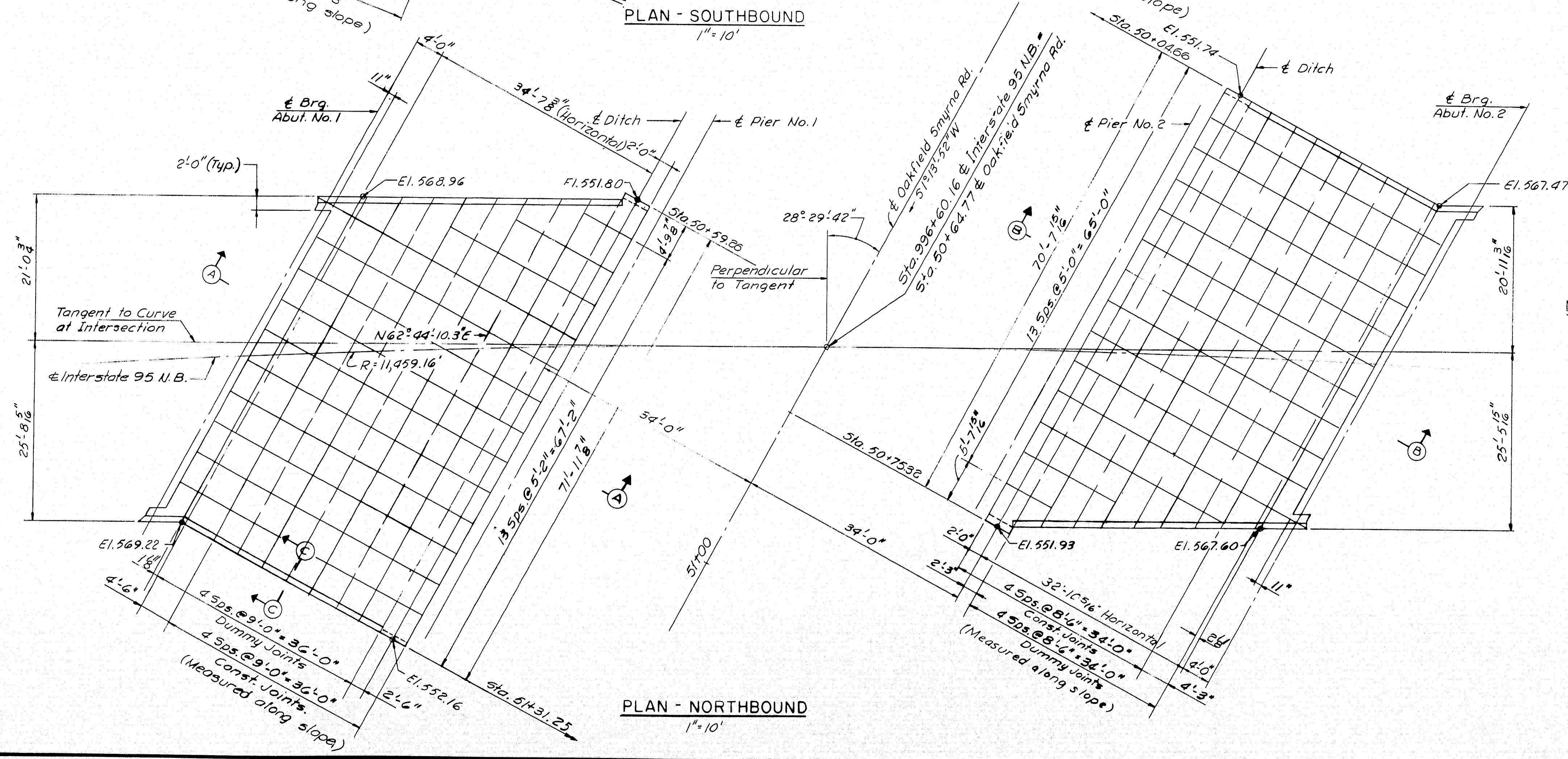
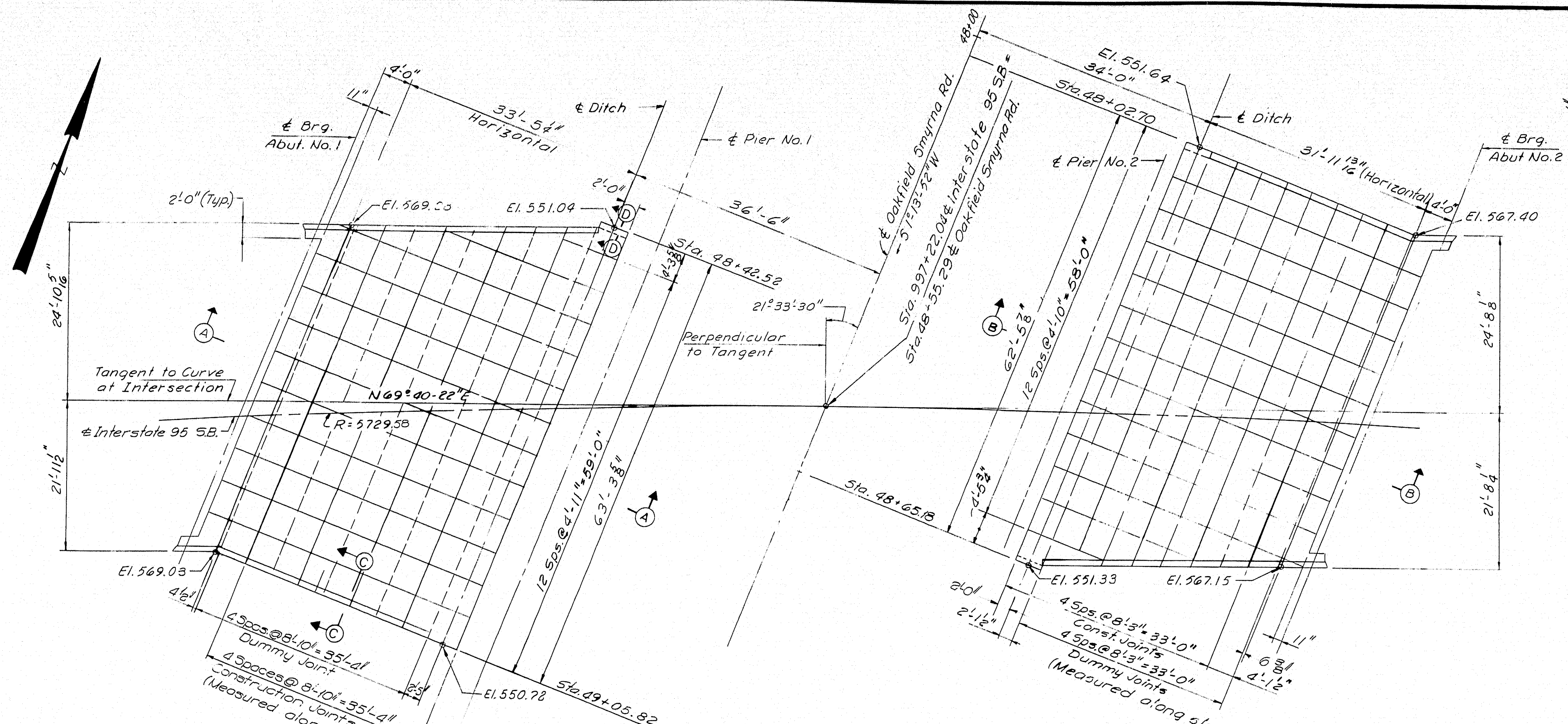
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

DESIGN - G. H. TRACE - P. R. N.	DETAIL - A. A. L. SURVEY - P. R. N.	BRIDGE NO. BRIDGE DIVISION INTERSTATE 95 N.B. OVER OAKFIELD-SMYRNA ROAD IN THE TOWN OF OAKFIELD ARROOSTOOK COUNTY STRUCTURAL STEEL & BLOCKING
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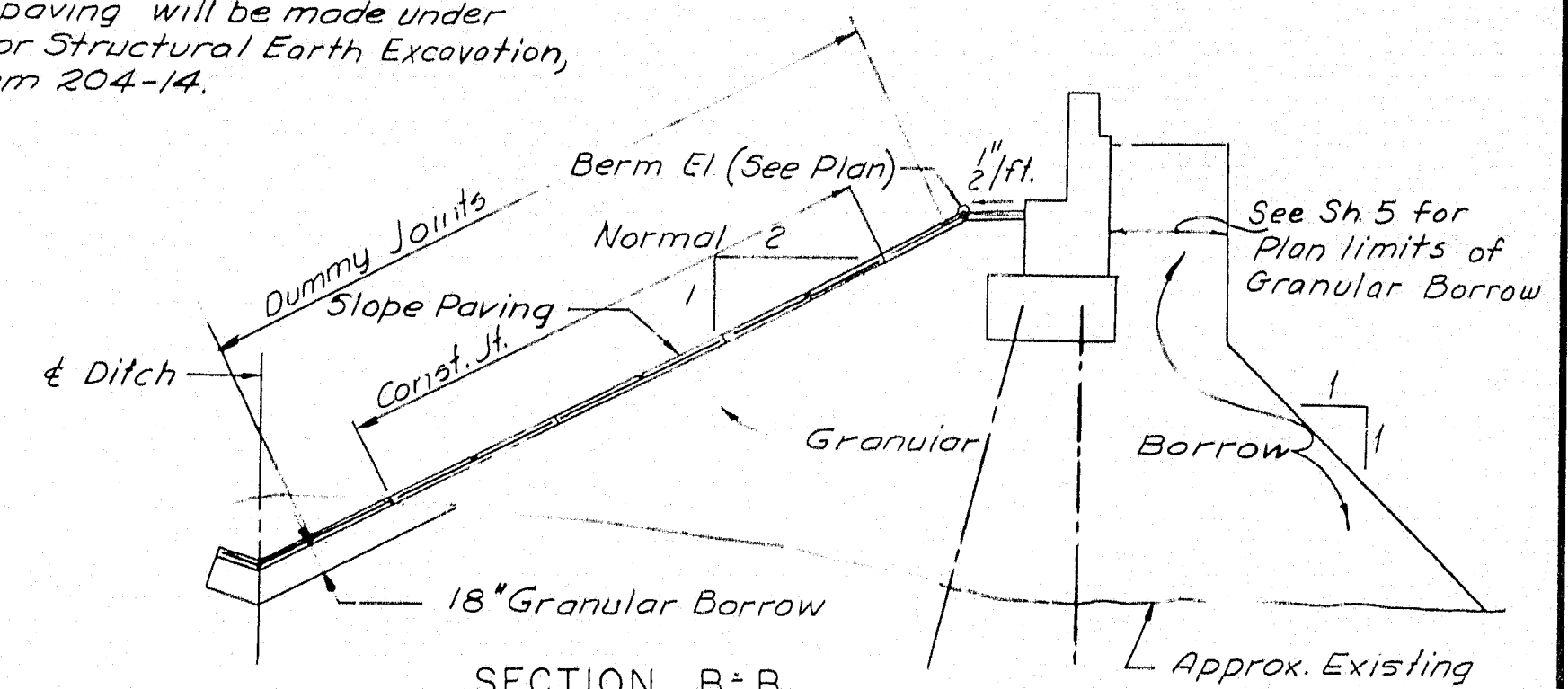
SHEET 12 OF 17 AUGUSTA, MAINE FEBRUARY 1965

M-2282 OAKFIELD(12)





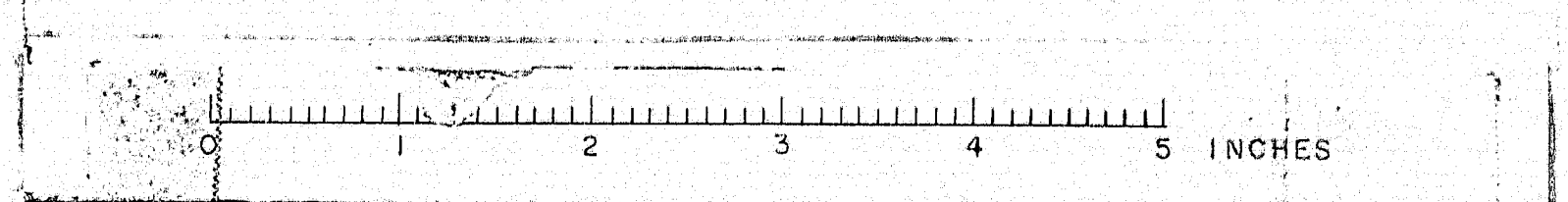
- NOTES
1. Provide 18" of Granular Borrow under slope paving in excavation areas.
 2. The 18" Granular Borrow under slope paving may be reduced or omitted, if in the opinion of the Engineer the existing material is suitable.
 3. Payment for any excavation required for slope paving will be made under the item for Structural Earth Excavation, Piers, Item 204-14.



- NOTES:
1. Slope paving shall conform to section 808 of the Supplemental Specifications dated February 1960 and as modified in October 1964.
 2. Break bond at construction joints with a coat of Asphalt Paint.
 3. Reinforce with #10 gage 6" x 6" steel mesh, not to pass through construction joints.
 4. Dummy joints shall be made with a sidewalk edging tool to a depth of 4."

DESIGN - TRACE - CHECK - P.R.N.	DETAIL J.M.M.	BRIDGE NO. SURVEY - PLOT -
STATE HIGHWAY COMMISSION BRIDGE DIVISION INTERSTATE 95 OVER OAKFIELD-SMYRNA ROAD IN THE TOWN OF OAKFIELD AROSTOOK COUNTY SLOPE PAVING		
HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS NEW YORK BOSTON KANSAS CITY		
SHEET 15 OF 17 AUGUSTA, MAINE FEBRUARY 1965		

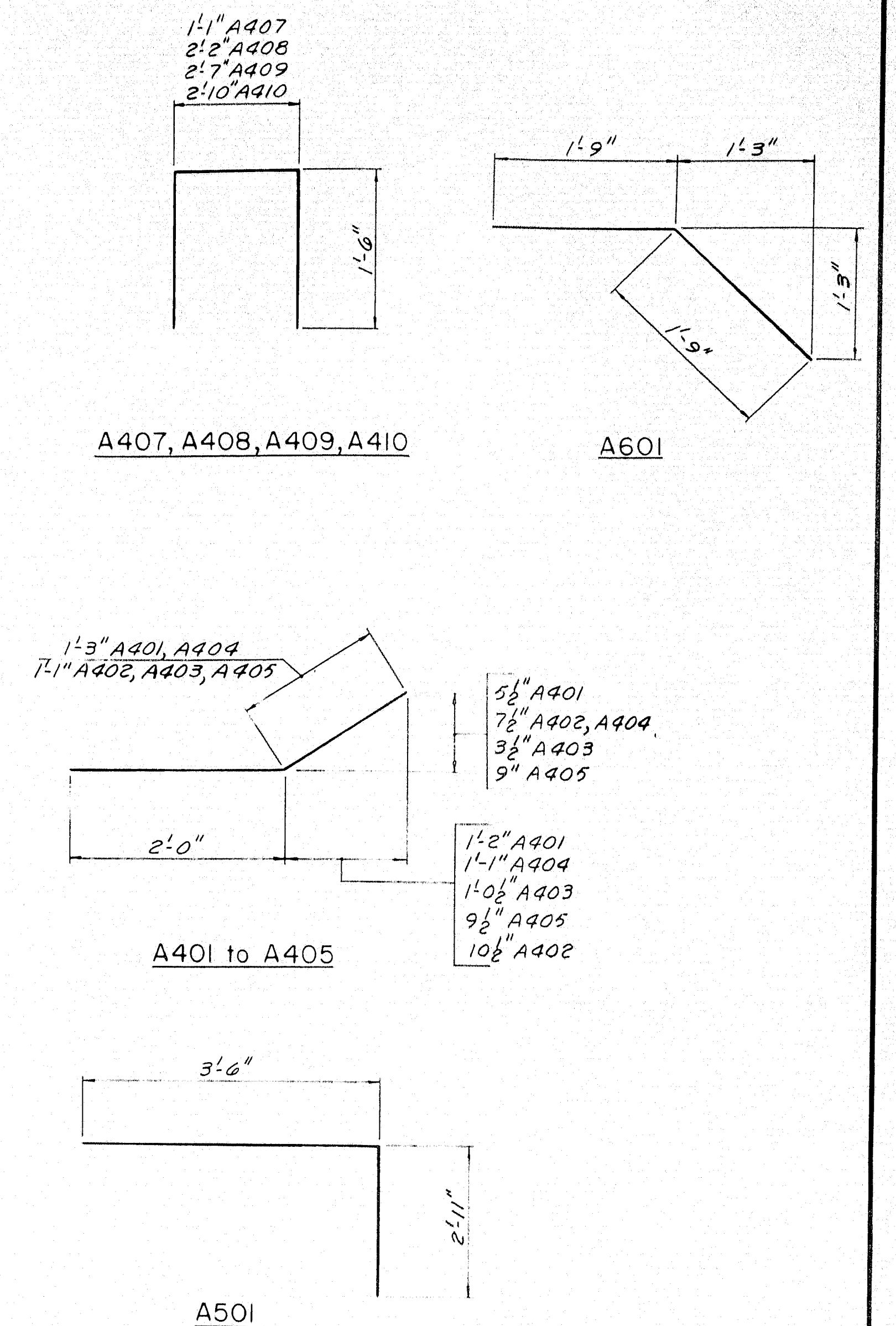
M-2285 OAKFIELD (12)



MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
ABUTMENT NO. 1 S.B.					
STRAIGHT BARS					
A411	4	8	23'0"		Backwall
A412	4	8	20'4"		Backwall
A413	4	24	6'9"		Wingwall
A414	4	4	5'5"		"
A415	4	2	1'11"		"
A416	4	2	2'8"		Wingwall
BENT BARS					
A502	5	32	2'7"		Footling
A503	5	32	6'4"		"
A504	5	35	5'11"		Footling
A505	5	10	25'3"		Stem
A506	5	10	21'5"		"
A507	5	32	3'3"		Stem
A508	5	75	4'7"		Backwall
A509	5	12	2'11" to 5"		Wingwall (2 Groups of 6)
A510	5	12	2'9" to 5'8"		Wingwall (2 Groups of 6)
BENT BARS					
A602	6	10	10'6"		Footling
A603	6	22	3'6" to 6'0"	3"	" (2 Groups of 11)
A604	6	10	8'9"		"
A605	6	10	3'6" to 4'0"	1 1/2"	" (2 Groups of 5)
A606	6	8	4'3" to 5'6"	5"	" (2 Groups of 4)
A607	6	14	30'0"		"
A608	6	14	18'9"		"
A609	6	88	5'6"		Footling
A614	6	4	1'0"		Curb dowel
BENT BARS					
A401	4	16	3'3"		Stem
A402	4	16	3'1"		"
A403	4	16	3'1"		Stem
A404	4	4	7'8"		Top wingwall (Field bend)
A407	4	12	4'1"		Pads
A408	4	8	5'2"		"
A409	4	2	5'7"		"
A410	4	2	5'10"		Pads
BENT BARS					
A501	5	32	6'5"		Stem
BENT BARS					
A601	6	29	3'6"		Approach Slab dowels
APPROACH SLAB					
A5401	4	44	21'5"		Approach Slab
APPROACH SLAB					
A5401	4	44	21'5"		Approach Slab
A5401	6	156	14'6"		Approach Slab
ABUTMENT NO. 2 S.B.					
STRAIGHT BARS					
A411	4	8	23'0"		Backwall
A413	4	24	6'9"		Wingwall
A417	4	8	19'11"		Backwall
A418	4	2	3'2"		Wingwall
A419	4	2	1'7"		"
A420	4	2	4'3"		Wingwall
A421	4	8	25'5"		Backwall
A422	4	8	20'6"		Backwall
A423	4	2	2'5"		Wingwall
BENT BARS					
A502	5	33	2'7"		Footling
A503	5	33	6'4"		"
A504	5	35	5'11"		Footling
A505	5	10	21'5"		Stem
A507	5	33	3'3"		Stem
A508	5	77	4'7"		Backwall
A514	5	10	27'11"		Stem
A515	5	12	3'3" to 5'4"	5"	Wingwall (2 Groups of 6)
A516	5	12	2'2" to 5'1"	7"	Wingwall (2 Groups of 6)
BENT BARS					
A602	6	10	10'6"		Footling
A603	6	22	3'6" to 6'0"	3"	" (2 Groups of 11)
A604	6	10	8'9"		"
A607	6	14	30'0"		"
A609	6	90	5'6"		Footling

MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
ABUTMENT NO. 2 S.B. (CONTINUED)					
STRAIGHT BARS					
A508	5	73	4'7"		Backwall
A511	5	10	21'0"		Stem
A512	5	12	3'6" to 5'7"	5"	Wingwall (2 Groups of 6)
A513	5	12	2'0" to 4'11"	7"	Wingwall (2 Groups of 6)
BENT BARS					
A602	6	10	10'6"		Footling
A603	6	22	3'6" to 6'0"	3"	" (2 Groups of 11)
A604	6	10	8'9"		"
A605	6	10	3'6" to 4'0"	1 1/2"	" (2 Groups of 5)
A606	6	8	4'3" to 5'6"	5"	" (2 Groups of 4)
A607	6	14	30'0"		"
A609	6	88	5'6"		"
A610	6	14	18'2"		Footling
A614	6	4	1'0"		Curb Dowels
BENT BARS					
A401	4	16	3'3"		Stem
A402	4	16	3'1"		"
A403	4	16	3'1"		Stem
A406	4	4	7'8"		Top wingwall (Field bend)
A407	4	12	4'1"		Pads
A408	4	10	5'2"		"
A410	4	2	5'10"		Pads
BENT BARS					
A501	5	31	6'5"		Stem
BENT BARS					
A601	6	29	3'6"		Approach Slab dowels
APPROACH SLAB					
A5401	4	44	21'5"		Approach Slab
APPROACH SLAB					
A5401	6	156	14'6"		Approach Slab
ABUTMENT NO. 1 N.B.					
STRAIGHT BARS					
A413	4	24	6'9"		Wingwall
A419	4	2	1'7"		"
A420	4	2	4'3"		Wingwall
A421	4	8	25'5"		Backwall
A422	4	8	20'6"		Backwall
A423	4	2	2'5"		Wingwall
BENT BARS					
A502	5	33	2'7"		Footling
A503	5	33	6'4"		"
A504	5	35	5'11"		Footling
A505	5	10	21'5"		Stem
A507	5	33	3'3"		Stem
A508	5	77	4'7"		Backwall
A514	5	10	27'11"		Stem
A515	5	12	3'3" to 5'4"	5"	Wingwall (2 Groups of 6)
A516	5	12	2'2" to 5'1"	7"	Wingwall (2 Groups of 6)
BENT BARS					
A602	6	10	10'6"		Footling
A603	6	22	3'6" to 6'0"	3"	" (2 Groups of 11)
A604	6	10	8'9"		"
A607	6	14	30'0"		"
A609	6	90	5'6"		Footling

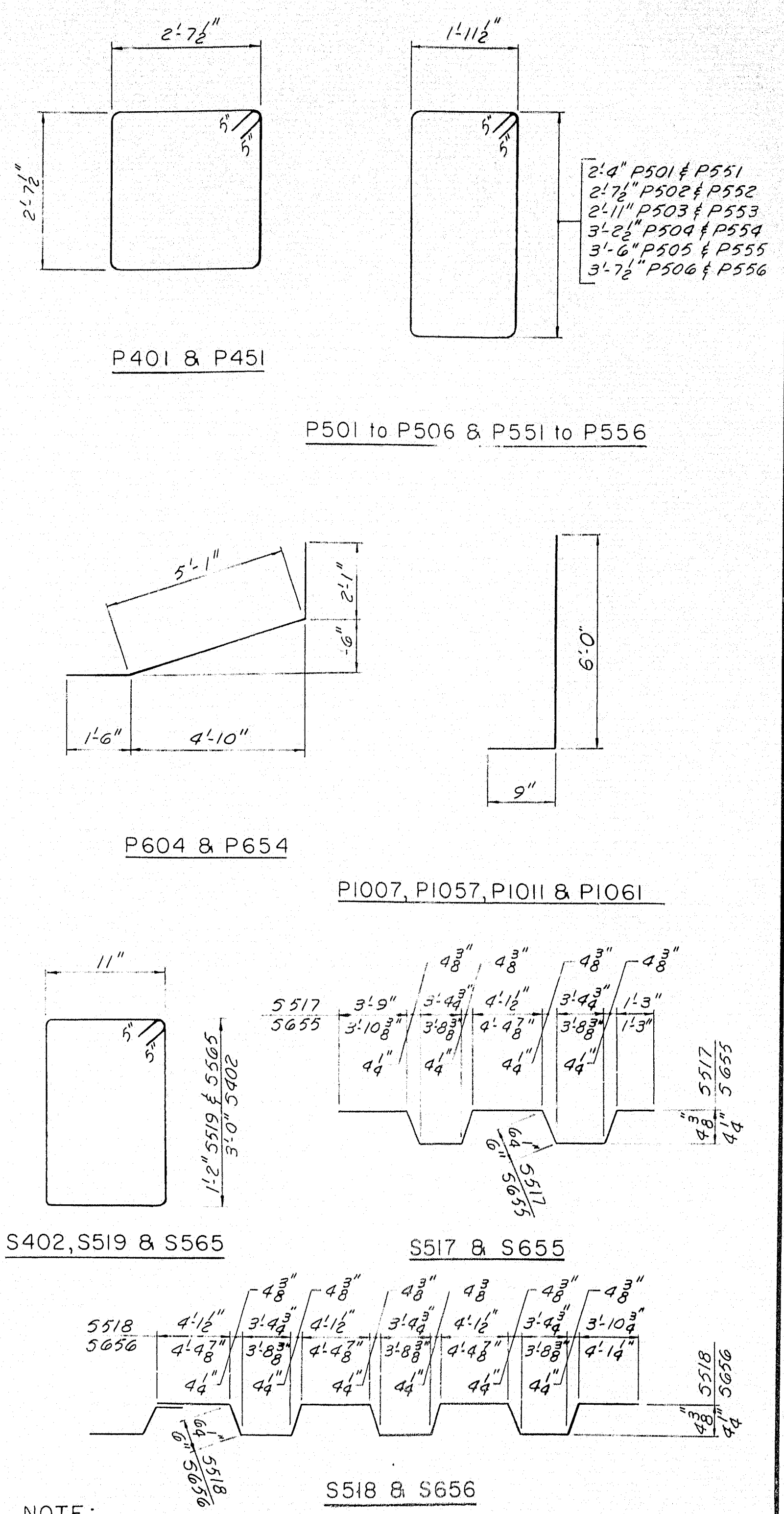
MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
ABUTMENT NO. 1 N.B. (CONTINUED)					
STRAIGHT BARS					
A611	6	6	3'6"		Footling
A612	6	12	3'10" to 5'6"	4"	" (2 Groups of 6)
A613	6	14	21'9"		Footling
A614	6	4	1'0"		Curb dowels
BENT BARS					
A403	4	16	3'1"		Stem
A404	4	16	3'3"		"
A405	4	16	3'1"		Stem
A406	4	4	7'8"		Top wingwall (Field Bend)
A407	4	12	4'1"		Pads
A408	4	8	5'2"		"
A409	4	2	5'7"		"
A410	4	2	5'10"		Pads
BENT BARS					
A501	5	33	6'5"		Stem
BENT BARS					
A601	6	30	3'6"		Approach Slab dowels
APPROACH SLAB					
A5402	4	44	22'8"		Approach Slab
APPROACH SLAB					
A5401	6	156	14'6"		Approach Slab
ABUTMENT NO. 2 N.B.					
STRAIGHT BARS					
A413	4	24	6'9"		Wingwall
A415	4	4	1'11"		Wingwall
A421	4	8	25'5"		Backwall
A422	4	8	20'6"		Backwall
A424	4	2	4'3"		Wingwall
A425	4	2	5'0"		Wingwall
BENT BARS					
A502	5	33	2'7"		Footling
A503	5	33	6'4"		"
A504	5	35	5'11"		Footling
A507	5	33	3'3"		Stem
A508	5	77	4'7"		Backwall
A509	5	12	2'11" to 5'10"	5"	Wingwall (2 Groups of 6)
A511	5	10	21'0"		Stem
A514	5	10	27'11"		Stem
A516	5	12	2'2" to 5'1"	7"	Wingwall (2 Groups of 6)
BENT BARS					
A602	6	10	10'6"		Footling
A603	6	22	3'6" to 6'0"	3"	" (2 Groups of 11)
A604	6	10	8'9"		"
A607	6	14	30'0"		"
A609	6	90	5'6"		Footling
A611	6	6	3'6"		"
A612	6	12	3'10" to 5'6"	4"	" (2 Groups of 6)
A613	6	14	21'9"		Footling
A614	6	4	1'0"		Curb dowels
BENT BARS					
A403	4	16	3'1"		Stem
A404	4	16	3'3"		"
A405	4	16	3'1"		Stem



MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
ABUTMENT NO. 2 N.B. (CONTINUED)					
A406	4	4	7'-8"		Top wingwall (Field Bend)
A407	4	12	4'-1"		Pads
A408	4	10	5'-2"		"
A410	4	2	5'-10"		Pads
A501	5	33	6'-5"		Stem
A601	6	30	3'-6"		Approach Slab dowels
APPROACH SLAB					
A5402	4	44	22'-8"		Approach Slab
A5601	6	156	14'-6"		Approach Slab
PIER NO. 1 S.B.					
STRAIGHT BARS					
P601	6	4	22'-3"		Cap
P602	6	4	23'-0"		Cap
P603	6	9	5'-6"		Footings
P701	7	20	8'-6"		Footings
P801	8	18	8'-6"		"
P901	9	12	20'-0"		Columns
P902	9	44	5'-9"		Footings
P907	9	6	8'-6"		"
P908	9	8	10'-0"		Columns
P909	9	24	20'-9"		Columns
P1001	10	6	16'-3"		Cap
P1002	10	6	32'-3"		Cap
P1003	10	4	35'-0"		Cap
BENT BARS					
P401	4	51	11'-4"		Columns
P501	5	4	9'-5"		Cap
P502	5	4	10'-0"		"
P503	5	4	10'-7"		"
P504	5	4	11'-2"		"
P505	5	4	11'-9"		"
P506	5	70	12'-0"		Cap
P604	6	8	8'-8"		Cap
PIER NO. 2 S.B.					
STRAIGHT BARS					
P601	6	4	22'-3"		Cap
P602	6	4	23'-0"		Cap
P603	6	9	5'-6"		Footings
P902	9	12	5'-9"		Footings
P903	9	12	18'-9"		Columns
P904	9	20	9'-6"		Footings
P905	9	6	8'-6"		Footings
P907	9	20	9'-6"		Footings
P1001	10	6	16'-3"		Cap
P1002	10	6	32'-3"		"
P1003	10	4	35'-0"		Cap
P1009	10	24	19'-3"		Columns
P1010	10	16	10'-0"		Columns
BENT BARS					
P401	4	48	11'-4"		Columns
P501	5	4	9'-5"		Cap
P502	5	4	10'-0"		"
P503	5	4	10'-7"		"
P504	5	4	11'-2"		"
P505	5	4	11'-9"		"
P506	5	70	12'-0"		Cap

MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
PIER NO. 2 S.B. (CONTINUED)					
BENT BARS					
P604	6	8	8'-8"		Cap
P1011	10	40	6'-9"		Footings
PIER NO. 1 N.B.					
STRAIGHT BARS					
P651	6	4	22'-9"		Cap
P652	6	4	24'-0"		Cap
P653	6	9	5'-6"		Footings
P751	7	20	8'-6"		Footings
P851	8	18	8'-6"		Footings
P951	9	12	19'-0"		Columns
P952	9	44	5'-9"		Footings
P957	9	6	8'-6"		Footings
P958	9	8	10'-0"		Column
P959	9	24	19'-3"		Column
P1051	10	6	16'-9"		Cap
P1052	10	6	33'-9"		Cap
P1053	10	4	37'-0"		Cap
BENT BARS					
P451	4	48	11'-4"		Columns
P551	5	4	9'-5"		Cap
P552	5	4	10'-0"		"
P553	5	4	10'-7"		"
P554	5	4	11'-2"		"
P555	5	4	11'-9"		"
P556	5	70	12'-0"		Cap
P654	6	8	8'-8"		Cap
PIER NO. 2 N.B.					
STRAIGHT BARS					
P651	6	4	22'-9"		Cap
P652	6	4	24'-0"		Cap
P655	6	9	5'-6"		Footings
P952	9	12	5'-9"		Footings
P953	9	12	18'-9"		Columns
P954	9	20	9'-6"		Footings
P955	9	20	9'-6"		"
P957	9	6	8'-6"		Footings
P1051	10	6	16'-9"		Cap
P1052	10	6	33'-9"		"
P1053	10	4	37'-0"		Cap
P1059	10	24	19'-3"		Columns
P1060	10	16	10'-0"		Columns
BENT BARS					
P451	4	48	11'-4"		Columns
P551	5	4	9'-5"		Cap
P552	5	4	10'-0"		"
P553	5	4	10'-7"		"
P554	5	4	11'-2"		"
P555	5	4	11'-9"		"
P556	5	70	12'-0"		Cap
P654	6	8	8'-8"		Cap
P1061	10	40	6'-9"		Footings

MARK	SIZE	NUMBER	LENGTH	INCR.	LOCATION
SUPERSTRUCTURE S.B.					
STRAIGHT BARS					
S401	4	40	1'-8"		End Post
S501	5	172	15'-1"		Slab Transverse
S502	5	172	31'-5"		"
S503	5	172	19'-3"		"
S504	5	172	27'-3"		Slab Transverse
S505	5	91	37'-7"		Slab Longitudinal
S506	5	6	38'-6"		"
S507	5	194	24'-8"		"
S508	5	89	18'-6"		"
S509	5	97	32'-8"		"
S510	5	97	34'-2"		Slab Longitudinal
S511	5	4	19'-9"		Safety Walk Longitudinal
S512	5	4	18'-8"		"
S513	5	8	9'-2"		"
S514	5	8	15'-2"		"
S515	5	4	15'-8"		"
S516	5	4	18'-1"		"
S520	4	8	16'-4"		Safety Walk Longitudinal
BENT BARS					
S402	4	16	8'-8"		End Post
S517	5	171	18'-0"		Slab Transverse (Truss Rod)
S518	5	171	29'-7"		Slab Transverse (Truss Rod)
S519	5	344	5'-0"		Safety Walk
SUPERSTRUCTURE N.B.					
STRAIGHT BARS					
S401	4	40	1'-8"		End Post
S551	5	91	37'-6"		Slab Longitudinal
S552	5	194	24'-8"		"
S553	5	97	39'-11"		"
S554	5	97	35'-11"		"
S555	5	84	21'-0"		"
S556	5	6	38'-4"		Slab Longitudinal
S557	5	4	19'-3"		Safety Walk Longitudinal
S558	5	4	18'-8"		"
S559	5	8	10'-8"		"
S560	5	8	13'-8"		"
S561	5	4	19'-8"		"
S562	5	4	19'-11"		"
S563	5	4	17'-8"		"
S564	5	4	18'-3"		Safety Walk Longitudinal
S651	6	144	16'-3"		Slab Transverse
S652	6	144	33'-3"		"
S653	6	144	20'-9"		"
S654	6	144	28'-9"		Slab Transverse
BENT BARS					
S402	4	16	8'-8"		End Post
S565	5	286	5'-0"		Safety Walk
S655	6	143	18'-11"		Slab Transverse (Truss Rod)
S656	6	143	30'-2"		Slab Transverse (Truss Rod)



NOTE:
For Notes and
Abutment Reinforcing
see Sheet 16.

DESIGN- TRACE- CHECK-P.R.N.	DETAIL - J.M.M. SURVEY- PLOT-	BRIDGE NO. SURVEY- PLOT-
STATE HIGHWAY COMMISSION BRIDGE DIVISION INTERSTATE 95 OVER OAKFIELD - SMYRNA ROAD IN THE TOWN OF OAKFIELD AROSTOOK COUNTY REINFORCING STEEL		
SHEET 17 OF 17 AUGUSTA, MAINE FEBRUARY 1965		

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK BOSTON KANSAS CITY

M-2287 OAKFIELD(12)

