

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA		1977	3	
PROJECT NUMBER				
L 77-9				
R.O.W. PROJECT NUMBER				

IOWA
DEPARTMENT OF TRANSPORTATION
Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE
SECONDARY ROAD SYSTEM
CRAWFORD COUNTY
PROJECT NO. L77-9

70'-2" x 24'-0" I-BEAM BRIDGE

SCALES: AS NOTED

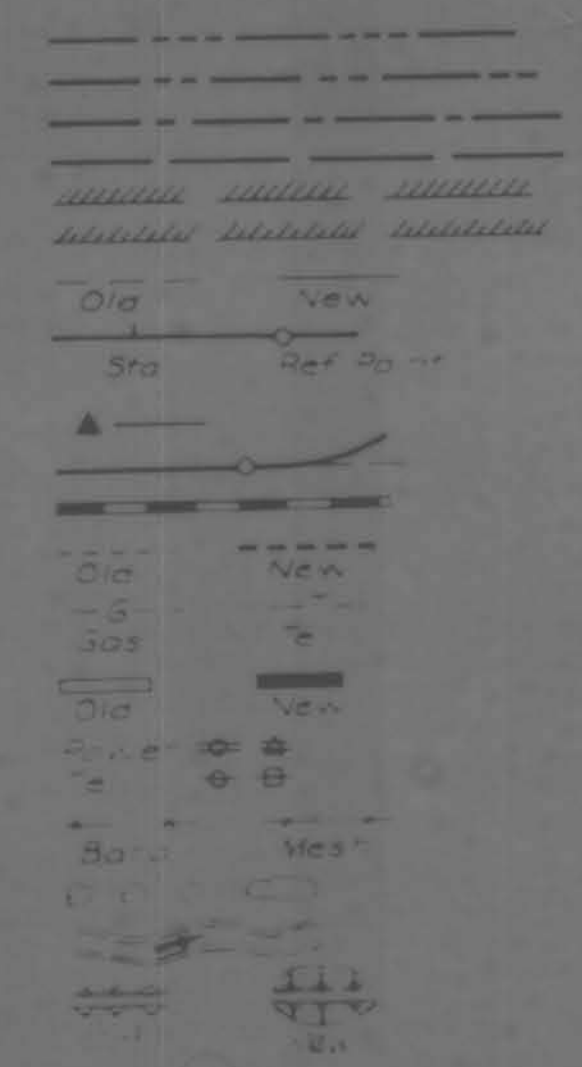
THE STANDARD SPECIFICATIONS, SERIES OF 1977,
OF THE IOWA DEPARTMENT OF TRANSPORTATION,
SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT

INDEX OF SHEETS

SHEET NO.	ITEM
1	TITLE PAGE, INCLUDING ESTIMATE OF QUANTITIES, CONVENTIONAL SIGNS, LOCATION MAP
2	DESIGN SHEET
3	DESIGN SHEET

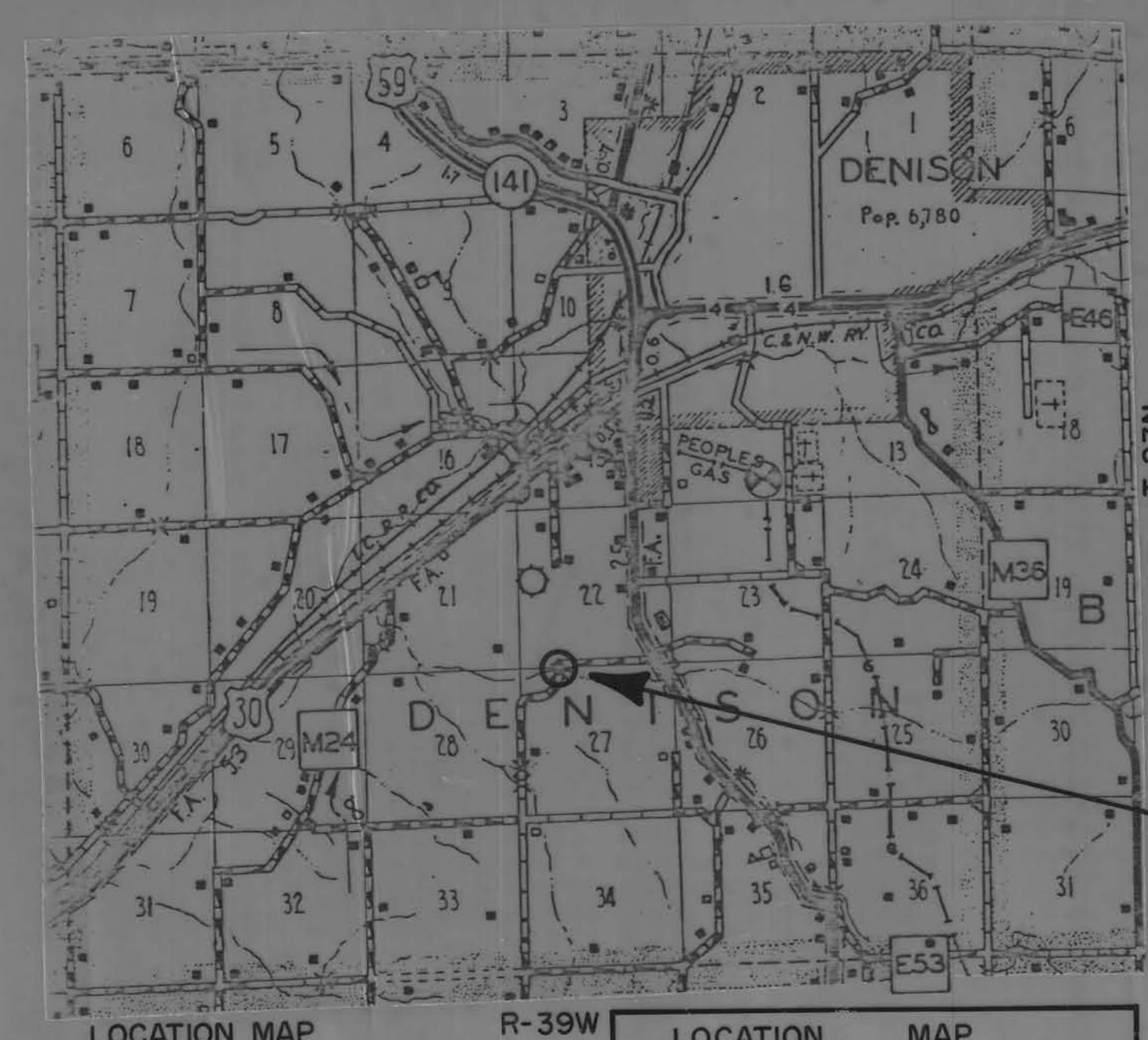
CONVENTIONAL SIGNS

- State Line
- Co. Line
- Twp. Line
- Sec. Line
- Corp. Line
- Urban Bdry
- R.O.W. Lines
- Survey Line
- Sec. Corner
- Profile Grade
- Railroad
- Field Tile
- Underground Lines
- Culverts
- Utility Poles
- Fence
- Trees Or Brush
- Stream
- Lake
- County Road No.
- State Road No.
- U.S. Road No.
- State Road No.



LETTING DATE

DESIGN FOR				70'-2" x 24'-0" I-BEAM BRIDGE	
ESTIMATE OF QUANTITIES				UNIT	TOTAL
ITEM NO.	ITEM				
1	STEEL, STRUCTURAL			LBS.	62,702
2	STEEL BEARING	FURNISH	12 @ 50'	LIN. FT.	600
	PILING HP10X42	DRIVE	12 @ 50'	LIN. FT.	600
3	STEEL BEARING	FURNISH	4 @ 60'	LIN. FT.	240
	PILING HP10X42	DRIVE	4 @ 60'	LIN. FT.	240
4	LUMBER, CREOSOTED			F.B.M.	9,636
5	HARDWARE			LUMP SUM	\$2000.00



STA. 5+73.5 @ 70'-2" x 24'-0" I-BEAM BRIDGE

APPROVED

BOARD OF SUPERVISORS

IOWA DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

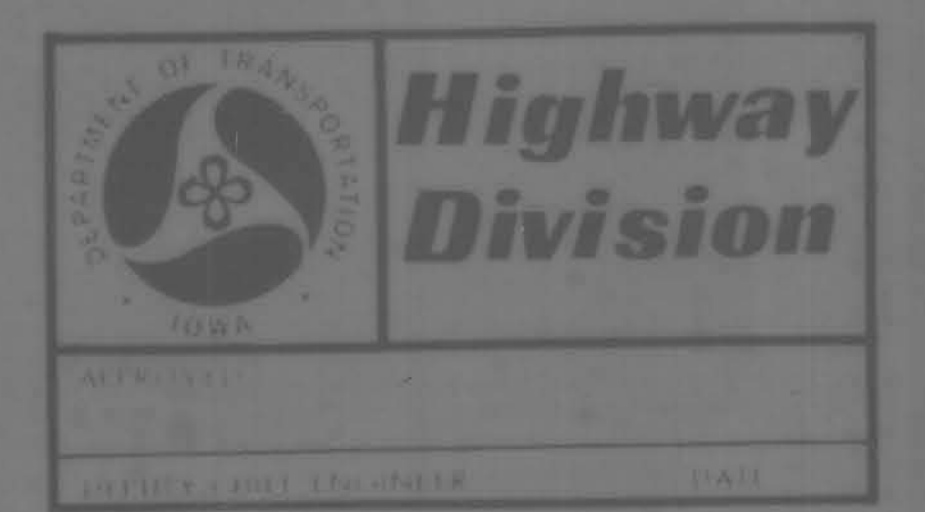
APPROVED

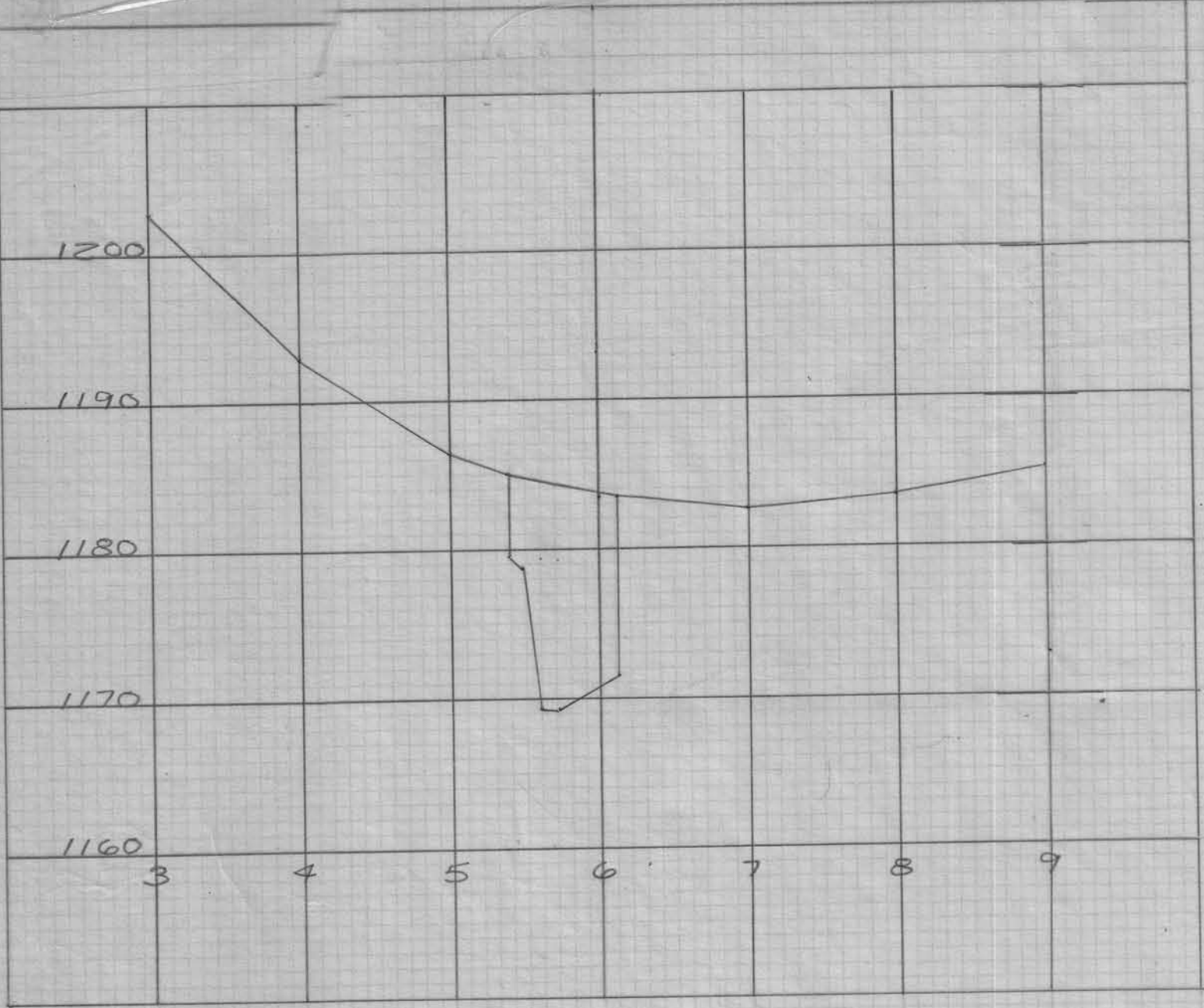
DISTRICT LOCAL SYSTEMS ENGINEER

DATE

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY SUPERVISION AND THAT ENGINEERING DECISIONS WITH REGARD TO THE DESIGN WERE MADE BY ME OR BY OTHER DULY REGISTERED PROFESSIONAL ENGINEERS UNDER THE LAWS OF THE STATE OF IOWA.

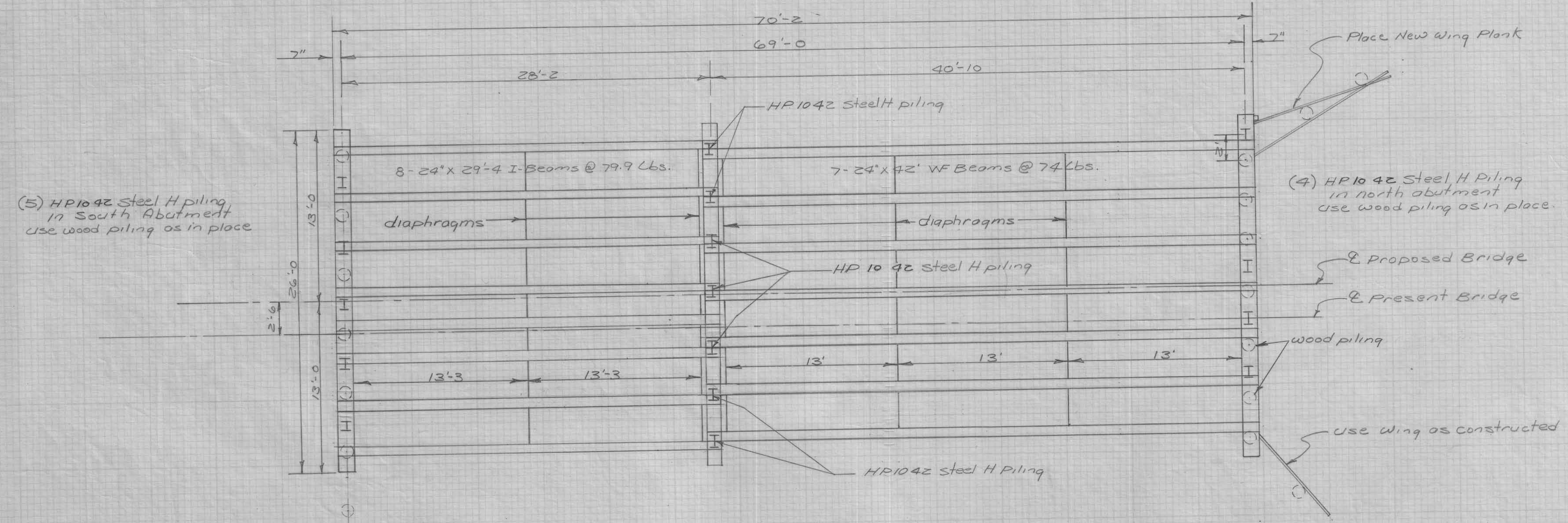
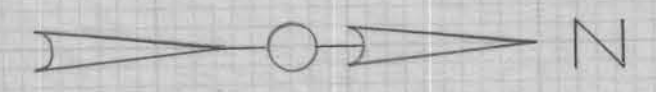
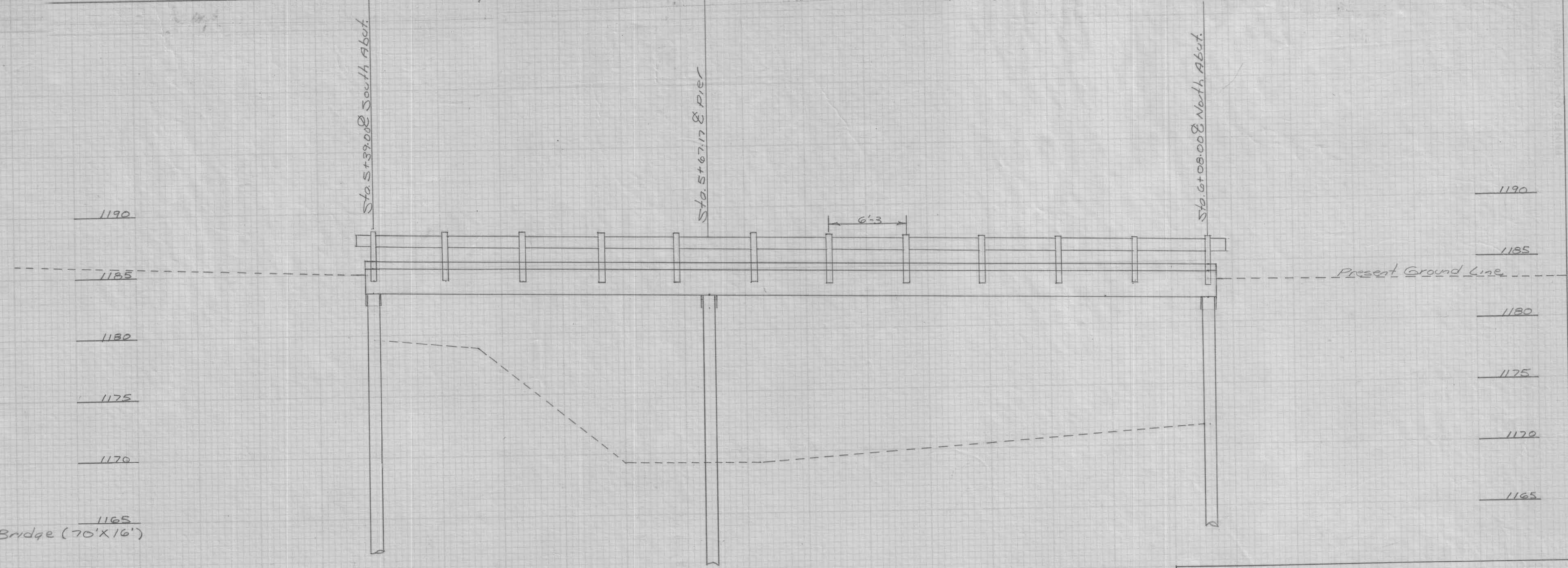
IOWA REGISTRATION NUMBER 5798 DATE





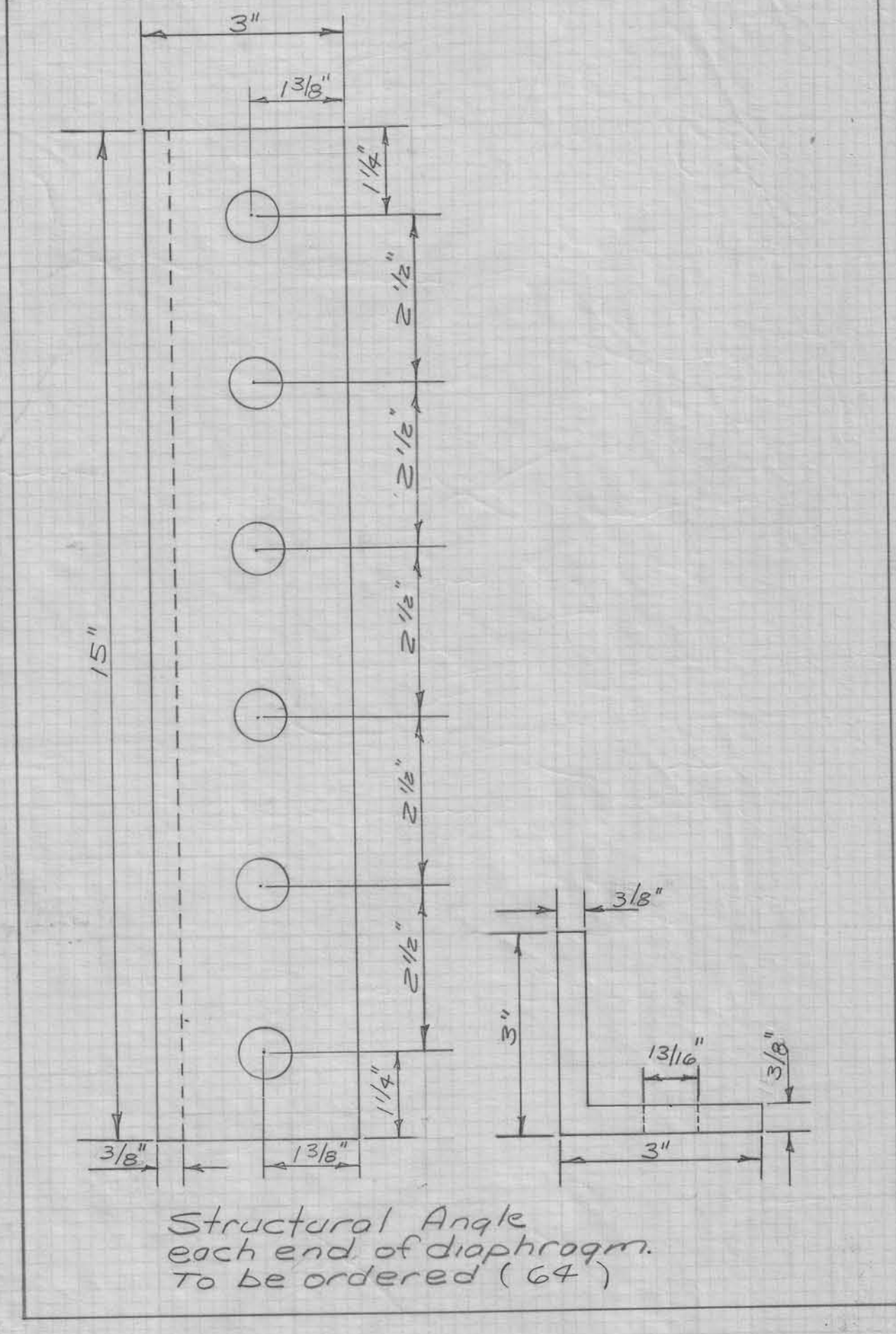
D.A. = 12.6 Sq. mi.
 Design Q_{50} = 4215 c.f.s.
 Design High Water = 1179.8
 V = 7.88 f.p.s.
 A = 508 sq. ft.
 Q = 4476 c.f.s. below Design H.W.

Sta. 6+03.5 @ Present Pin Connected Truss Bridge (70' x 16')
 Crawford County to remove.

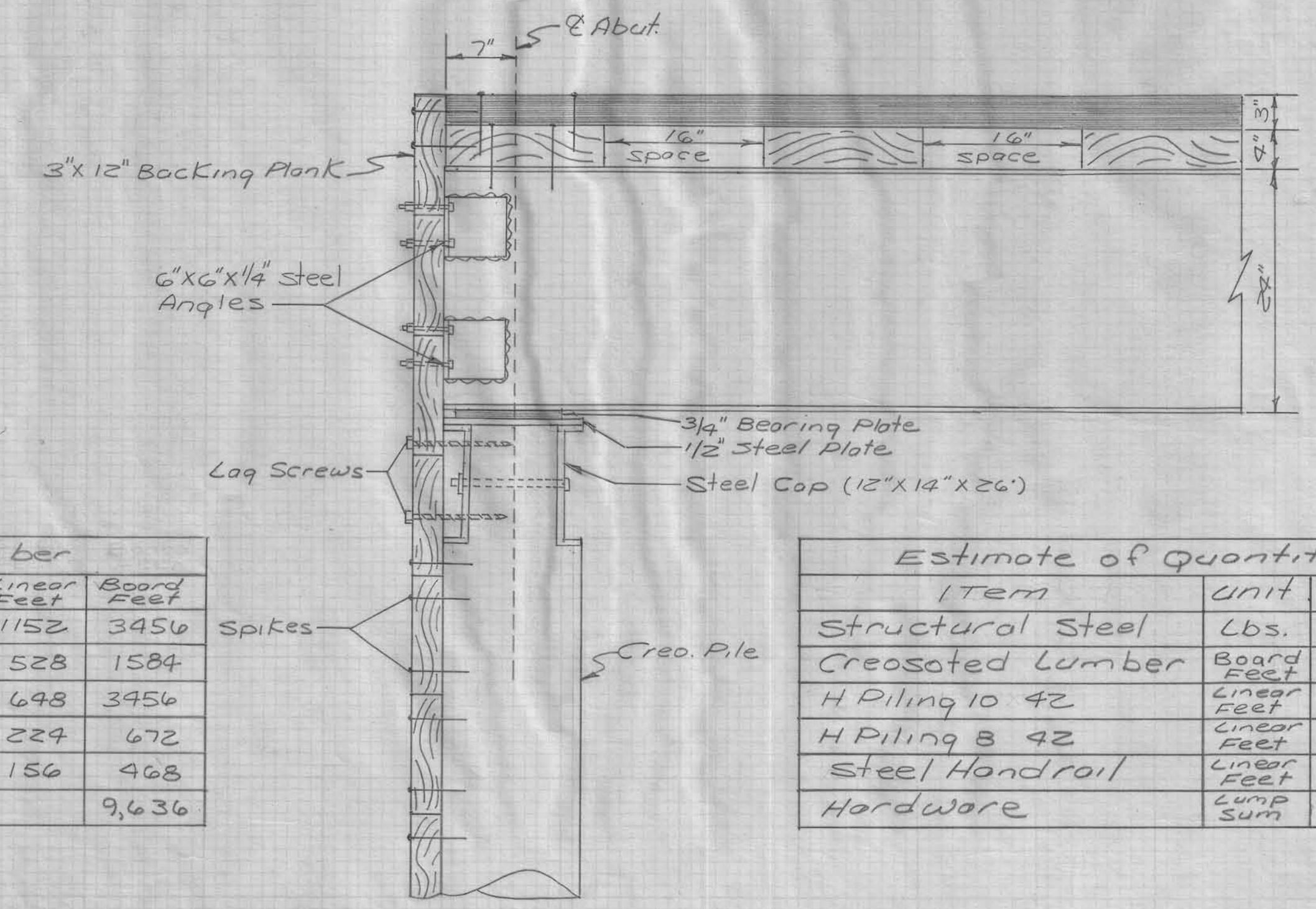
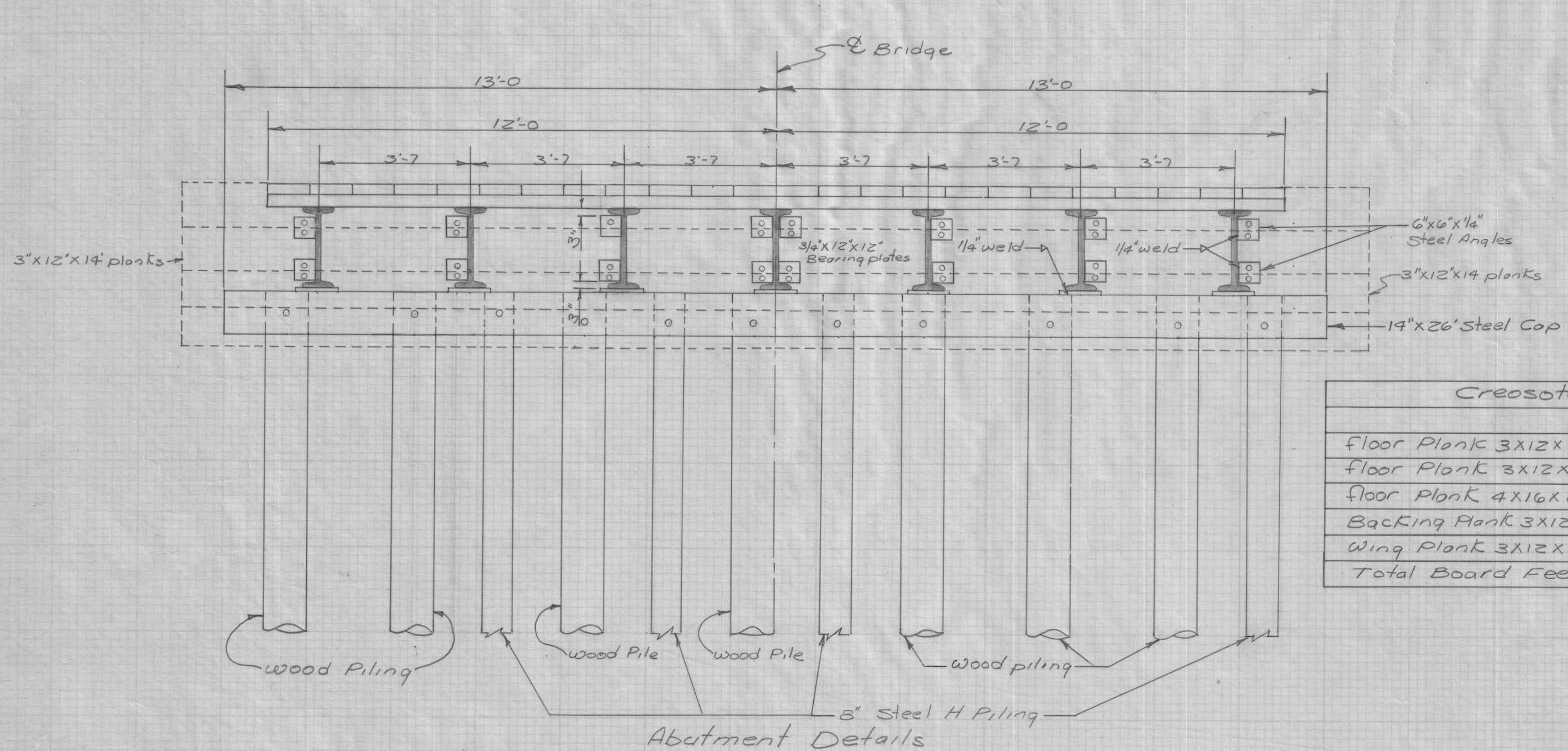


(5) HP 1042 Steel H piling
 in South Abutment
 use wood piling as in place

(4) HP 1042 Steel H Piling
 in north abutment
 use wood piling as in place.

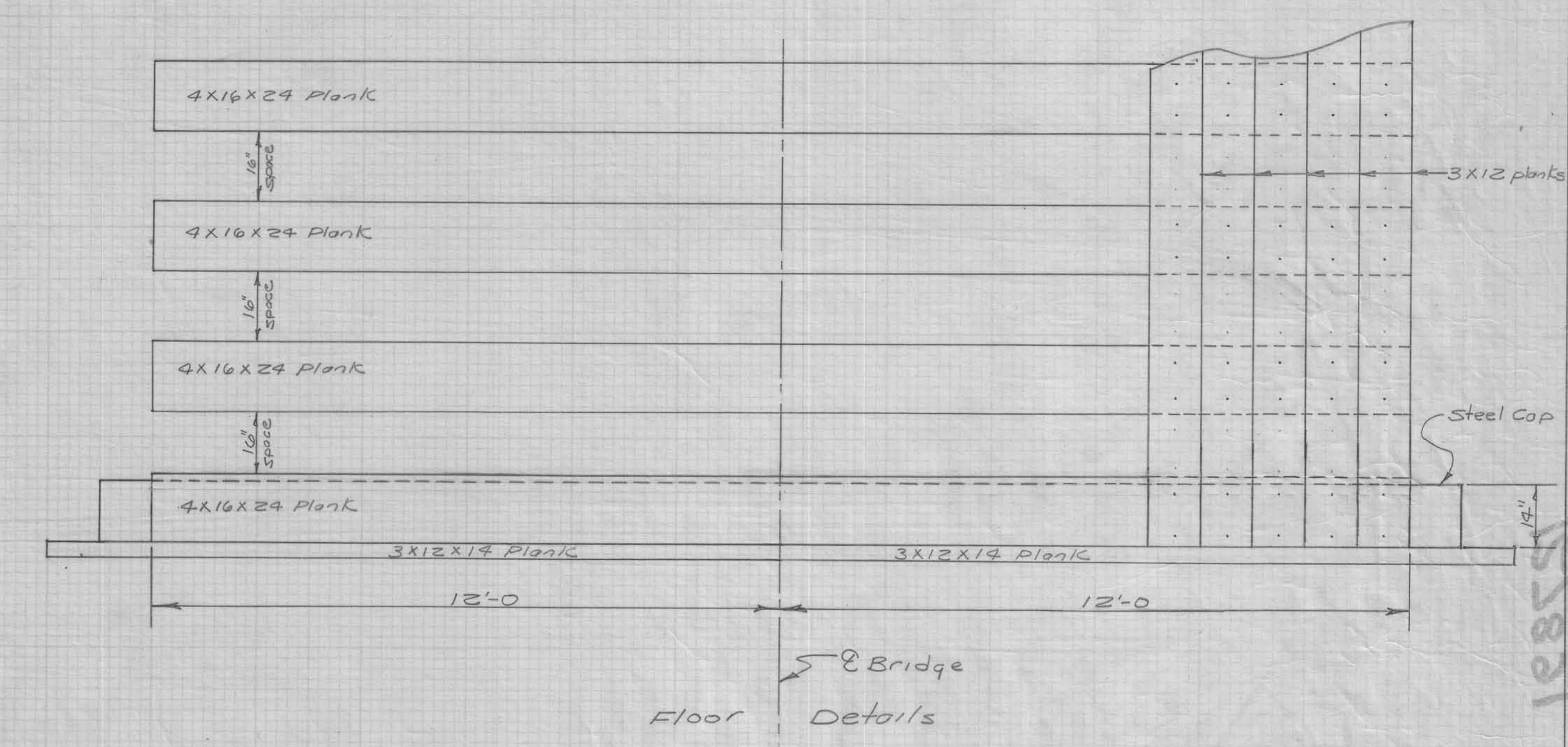
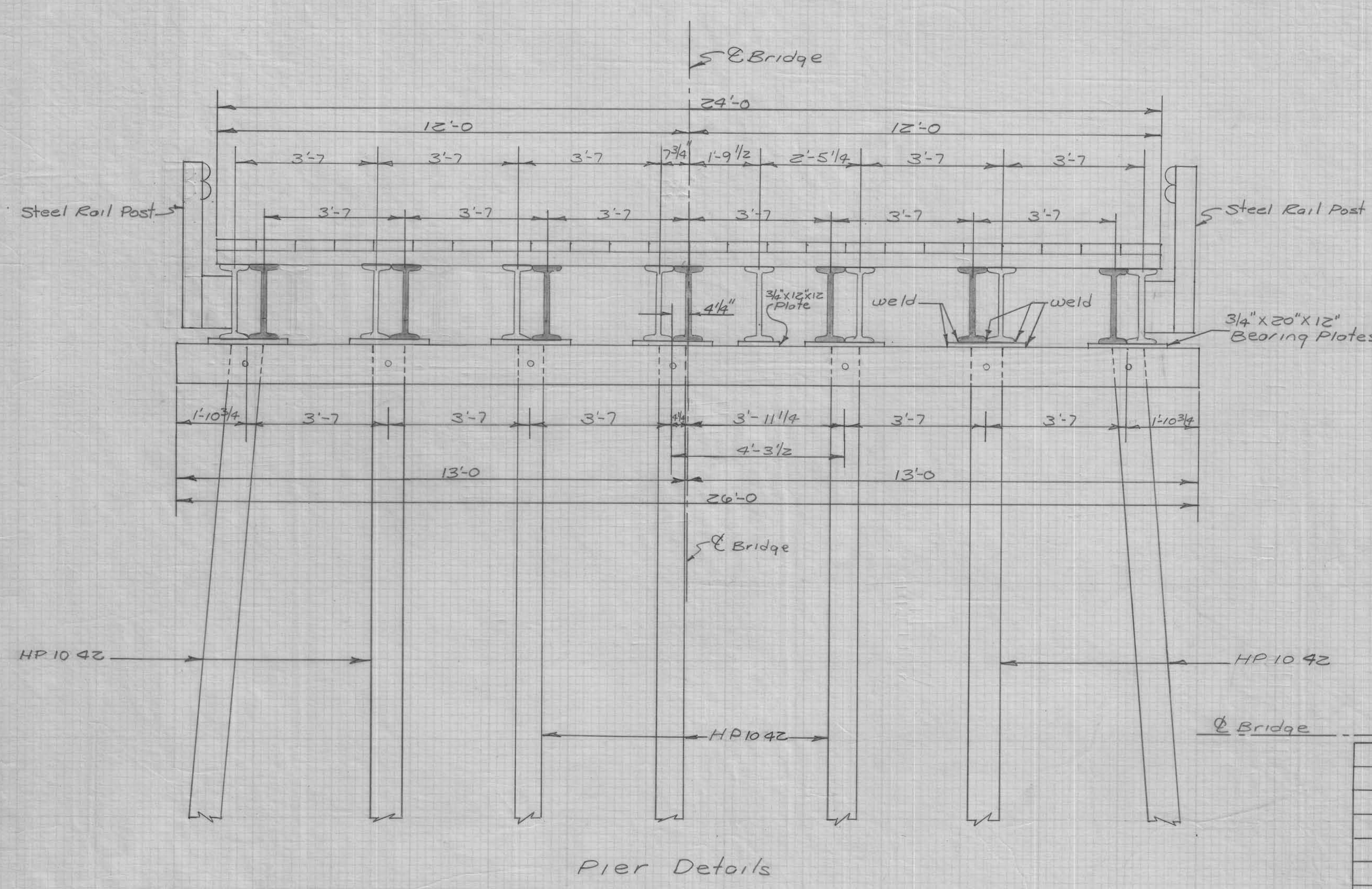


Design For
 70'-2 x 24'-0 I-Beam Bridge
 Located in Sec. 27 Denison Township
 over Coon Creek



Creosoted Lumber			
	No.	Linear Feet	Board Feet
Floor Plank 3x12x24	48	1152	3456
floor Plank 3x12x22	24	528	1584
floor Plank 4x16x24	27	648	3456
Backing Plank 3x12x14	16	224	672
Wing Plank 3x12x12	13	156	468
Total Board Feet			9,636

Estimate of Quantities		
Item	unit	Total
Structural Steel	Lbs.	62,702
Creosoted Lumber	Board Feet	9,636
H Piling 10 42	Linear Feet	240
H Piling 8 42	Linear Feet	720
Steel Handrail	Linear Feet	148
Hardware	Lump Sum	\$200.00



Structural Steel			
Item	No.	Weight (Lbs.)	
3x12x24 Plank			3x12x22 Plank
3x12x22 Plank			3x12x24 Plank
3x12x24 Plank			3x12x22 Plank
3x12x22 "			3x12x24 "
3x12x24 "			3x12x22 "
3x12x22 "			3x12x24 "
3x12x24 "			3x12x22 "
3x12x22 "			3x12x24 "
3x12x24 "			3x12x22 "
3x12x22 "			3x12x24 "
3x12x24 "			3x12x22 "
3x12x22 "			3x12x24 "

Structural Steel		
Item	No.	Weight (Lbs.)
24' x 42 WF Beams @ 74 Lbs	7	21,756
24' x 29' 4 I-Beams @ 79.9 Lbs.	8	16,406
steel caps	3	18,750
Steel Diaphragms	32	4,974
Bearing Plates	22	816
Total Weight (Lbs.)		62,702

Design For
70'-2 x 29'-0 I-Beam Bridge
located in Sec. 27 Denison Township
over Coon Creek