

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	6	1976	1	3
PROJECT NUMBER				
L77-1				
R.O.W. PROJECT NUMBER				

IOWA
DEPARTMENT OF TRANSPORTATION

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE
SECONDARY ROAD SYSTEM

CRAWFORD COUNTY

118'-4" x 24'-0" I-BEAM BRIDGE
(20° SKEW)

PROJECT NO. L77-1

SCALES, AS NOTED

IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS SERIES 1972 PLUS CURRENT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS OF THE IOWA DEPARTMENT OF TRANSPORTATION--HIGHWAY DIVISION SHALL APPLY TO WORK ON THIS PROJECT.

INDEX OF SHEETS

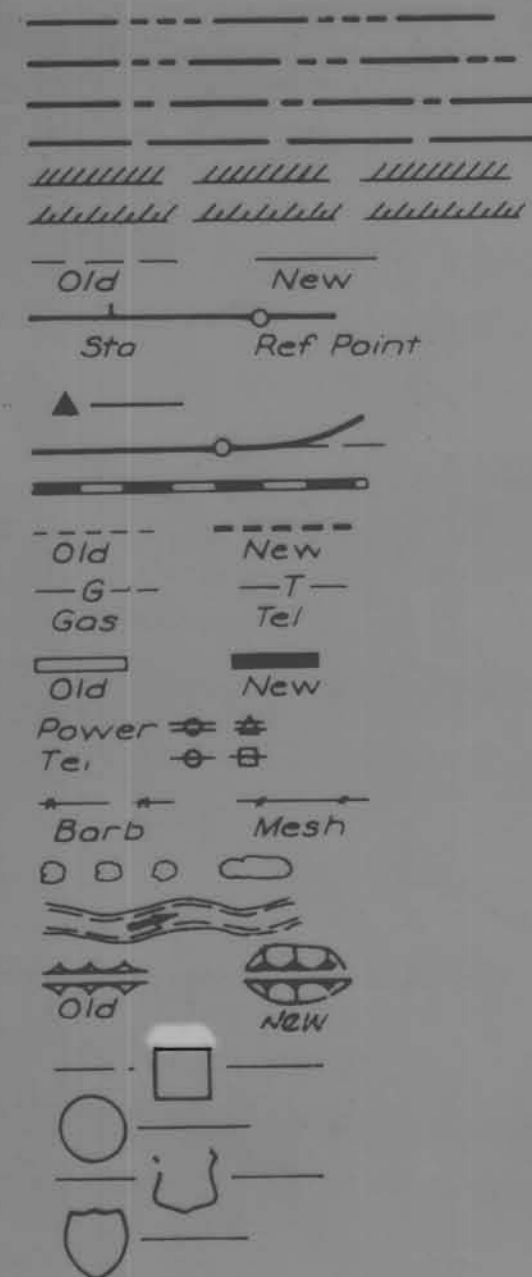
SHEET NO.	ITEM
1	TITLE SHEET, ESTIMATE OF QUANTITIES, MILEAGE SUMMARY, LOCATION MAP, AND CONVENTIONAL SIGNS.
2	PLAN AND PROFILE SHEET
3	DETAILS

MILEAGE SUMMARY

121'-0" = 0.02292 MILE

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
- Dike
- County Road No
- Primary Road No.
- U. S. Road No
- Interstate Road No



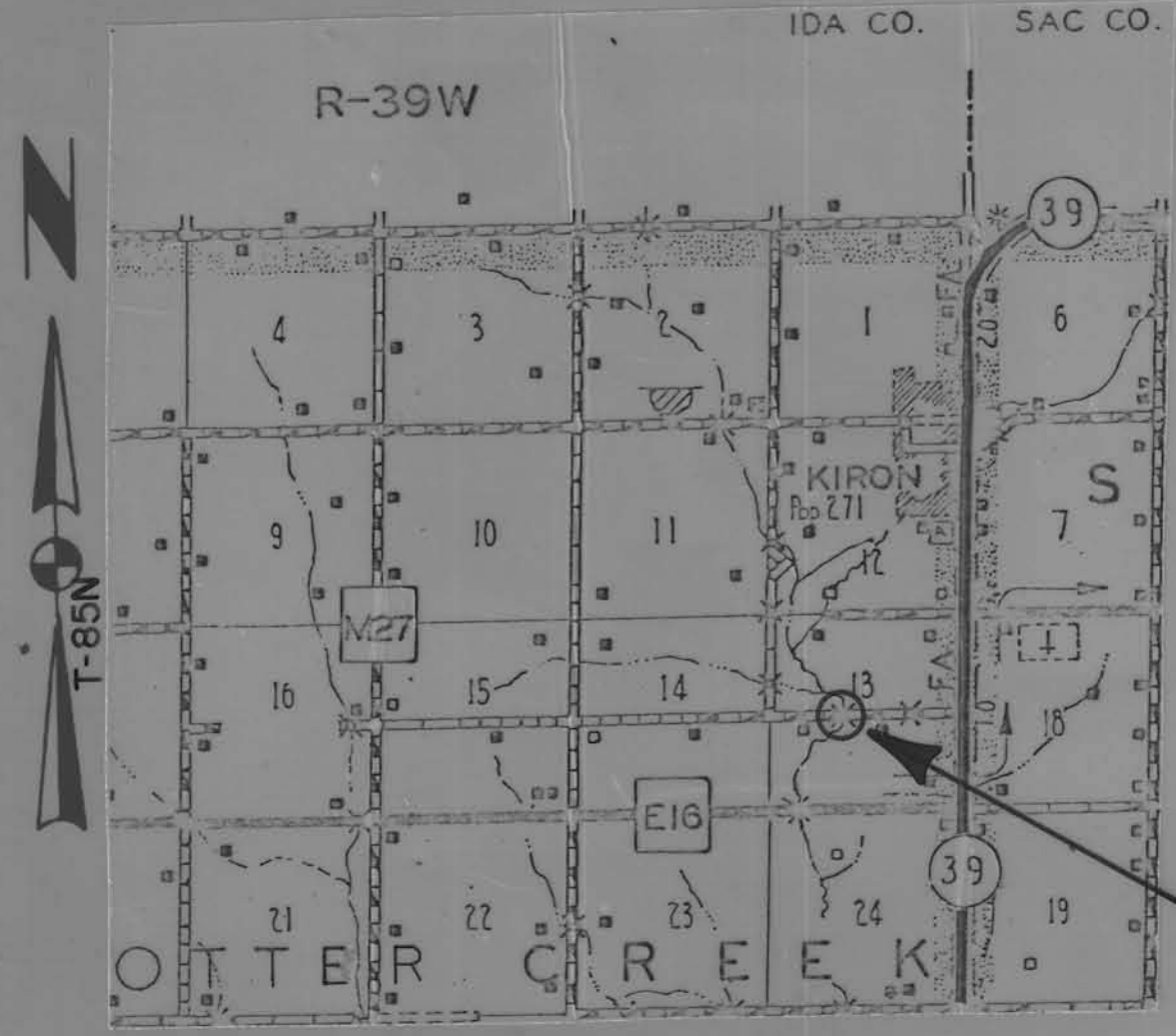
LETTING DATE

BRIDGE

PROJECT NO. L77-1		STA. 15+85.0			
SEC. 13		OTTER CREEK TOWNSHIP			
118'-4" x 24'-0" I-BEAM BRIDGE (20° SKEW)					
IN LETTING OF	ESTIMATE OF QUANTITIES				
	ITEM NO.	ITEM	ABUTMENTS	PIERS	TOTALS
	1	STRUCTURAL CONCRETE CLASS 'C'	20.0 CU. YDS.	14.1 CU. YDS.	34.1 CU. YDS.
	2	REINFORCING STEEL	2,560 LBS.	1,462 LBS.	4,022 LBS.
	3	CREOSOTED PILING 12 @ 35'	420 L.F.		420 L.F.
	4	STEEL H PILING 12 @ 60'		720 L.F.	720 L.F.
	5	CREOSOTED WING PILING 4 @ 20'	80 L.F.		80 L.F.
	6	CREOSOTED LUMBER	648 FBM		15,320 F.B.M.
	7	EXCAV. CLASS 10 CHANNEL			818 CU. YDS.
	8	EXCAV. CLASS 20	60 CU. YDS.		60 CU. YDS.
	9	STRUCTURAL STEEL			70,340 LBS.
	10	STEEL HANDRAIL			242 L.F.
11	REMOVALS			LUMP SUM	

*Done By Boyer Valley Constr. Co.
Denison, Iowa
and Crawford County Crews.
March-April 1977*

CRAWFORD COUNTY
PROJECT NO. L77-1



LOCATION MAP



NOTE: CRAWFORD COUNTY TO FURNISH ALL MATERIALS EXCEPT STRUCTURAL CONCRETE AND REINFORCING STEEL. STRUCTURAL STEEL DOES NOT INCLUDE HARDWARE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL WHICH IS NOT DESIRABLE TO BE INCORPORATED IN THE WORK INVOLVED ON THIS PROJECT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. USABLE MATERIAL SHALL BECOME THE PROPERTY OF CRAWFORD COUNTY.

STA. 15+85.0 $\frac{1}{2}$ BRIDGE
118'-4" x 24'-0" I-BEAM BRIDGE (20° SKEW)

(1971) TRAFFIC COUNT 62 V.RD.

APPROVED

Don Hansen

LeRoy A. Hansohm

Louis J. Madlauer

Martin Spiegel

Charles J. Smith
BOARD OF SUPERVISORS

DISTRICT LOCAL SYSTEMS ENGINEER
IOWA DEPT. OF TRANSPORTATION
HIGHWAY DIVISION
APPROVED *Thomas E. De Witte* DATE 1-14-77

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.
H. Dale Wright Jan 4, 1977
IOWA REGISTRATION NUMBER 5798 DATE

DEPARTMENT OF TRANSPORTATION
IOWA
Highway Division
APPROVED
DEPUTY CHIEF ENGINEER DATE

LETTING DATE:

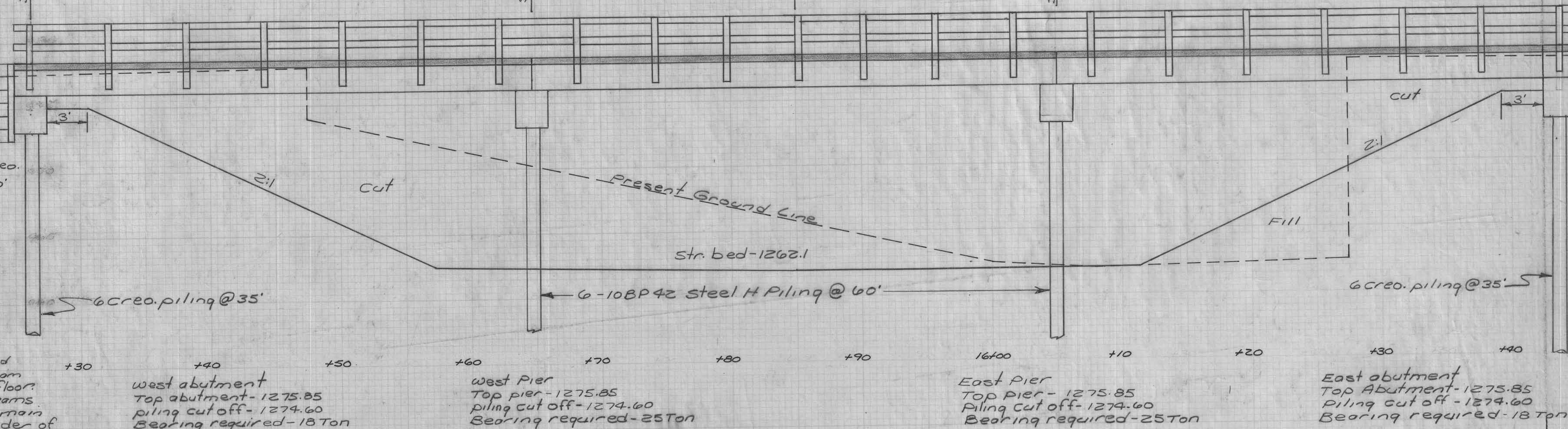
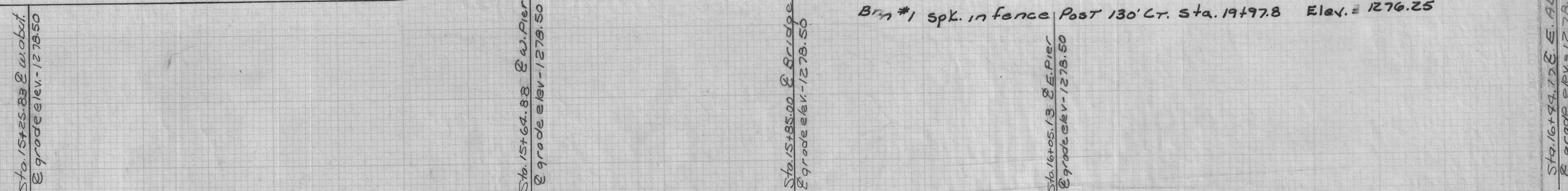
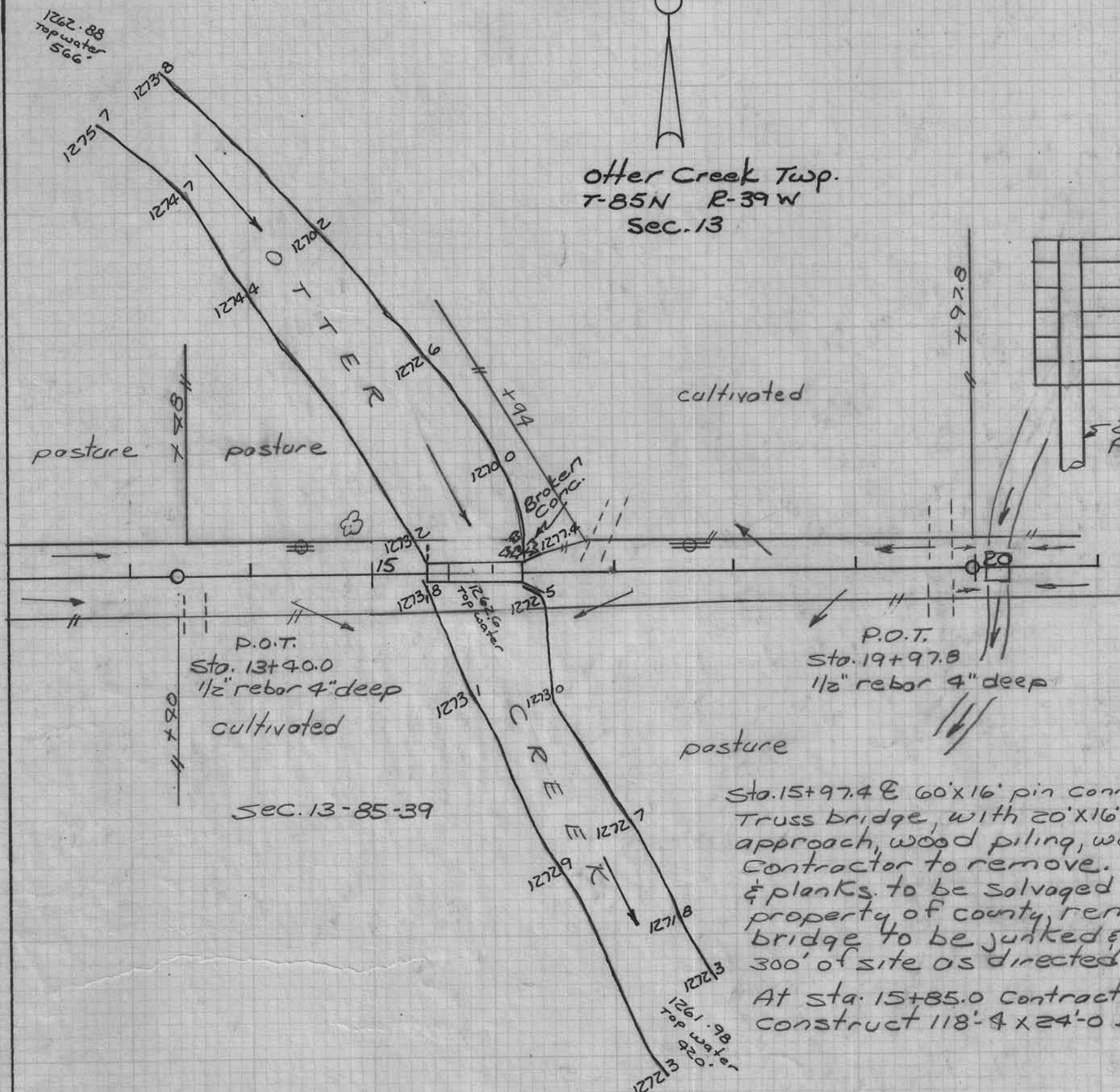
CRAWFORD COUNTY

PROJECT NO. L77-1

SHEET NO. 1 of 3

Hydraulic Data:
 D.A = 28.9 sq. mi.
 Q50 = 5255 c.f.s.
 A = 913 sq. ft.
 W.P. = 106 ft.
 V = 6.20 f.p.s.
 Design H.W. = 1275.0
 Q50 @ elev. 1275.0 = 5661 c.f.s.

Other Creek Twp.
 T-85N E-39W
 Sec. 13



Sta. 15+97.4 E 60'x16' pin connected Truss bridge, with 20'x16' I-beam approach, wood piling, wood floor. Contractor to remove I-beams & planks to be salvaged & remain property of county, remainder of bridge to be junked & pile within 300' of site as directed by Engineer. At Sta. 15+85.0 Contractor to partially construct 118'-4 x 24'-0 I-beam Bridge.

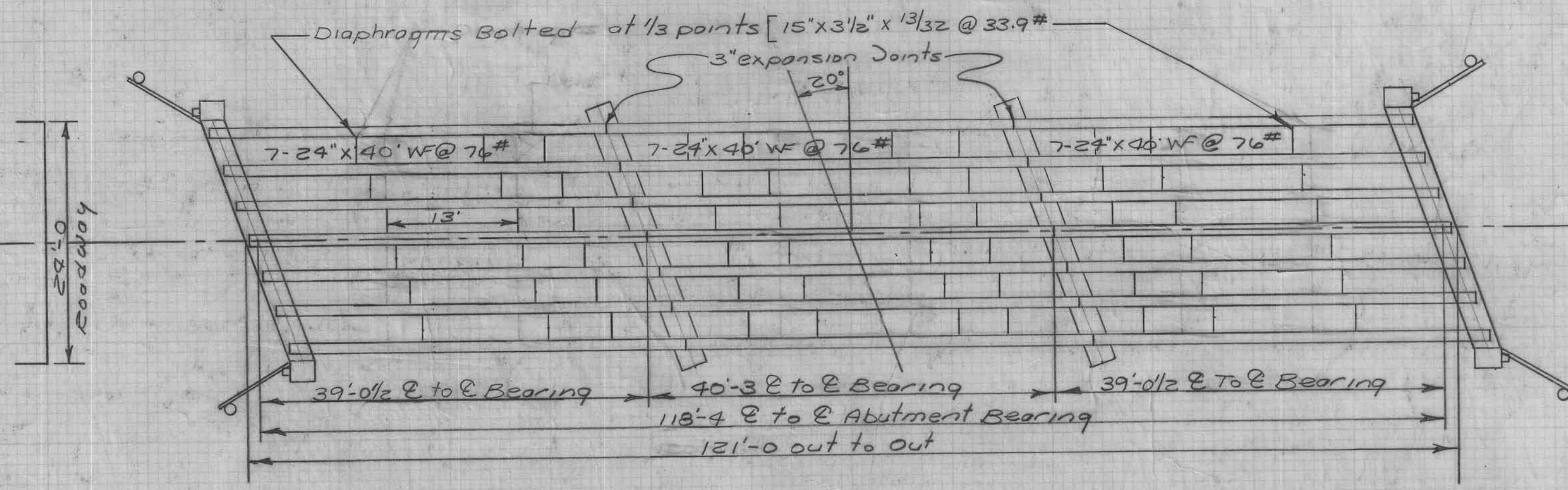
West abutment
 Top abutment - 1275.85
 Piling cut off - 1274.60
 Bearing required - 18 Ton

West Pier
 Top pier - 1275.85
 Piling cut off - 1274.60
 Bearing required - 25 Ton

East Pier
 Top pier - 1275.85
 Piling cut off - 1274.60
 Bearing required - 25 Ton

East abutment
 Top Abutment - 1275.85
 Piling cut off - 1274.60
 Bearing required - 18 Ton

I-Beams are in County yard at Denison. furnished and delivered to site by County. Diaphragms delivered to site by County. I-Beams & Diaphragms to be erected by Contractor.

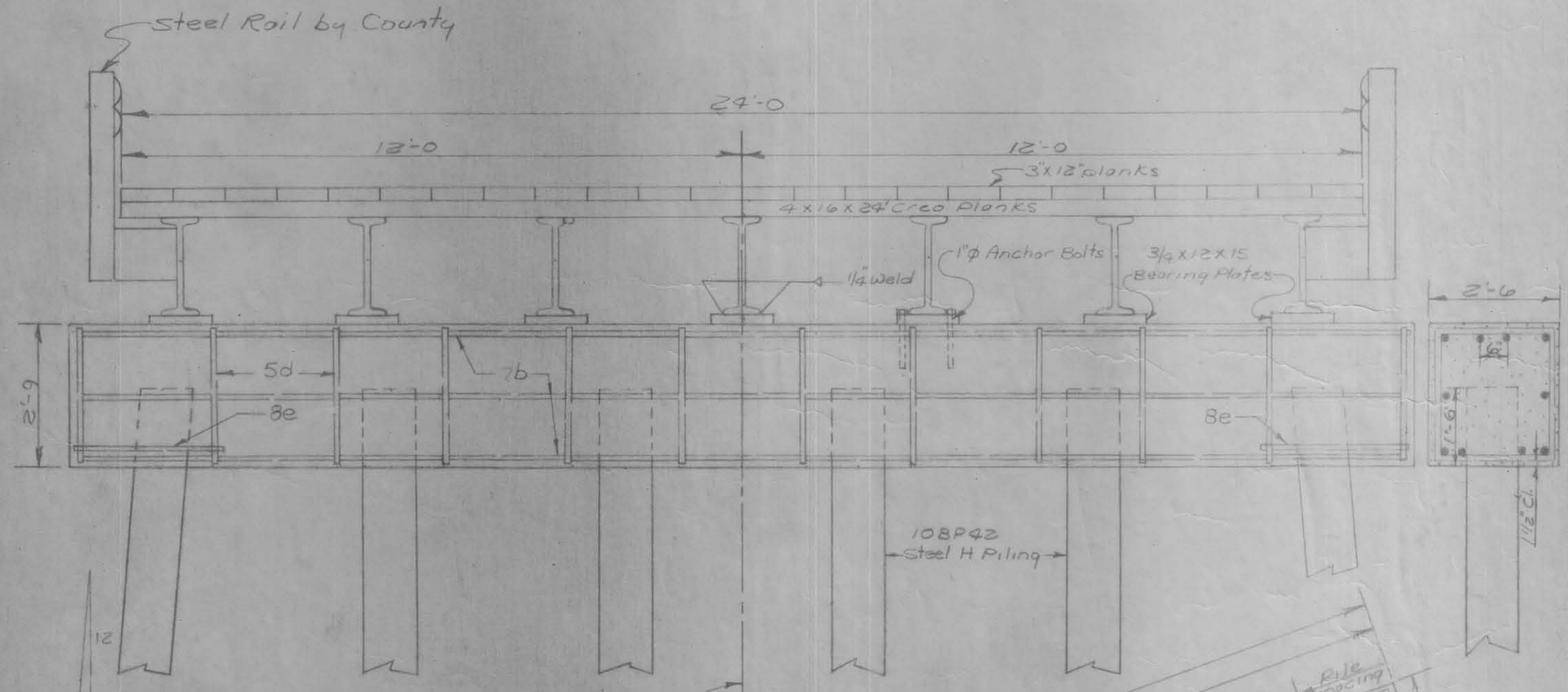
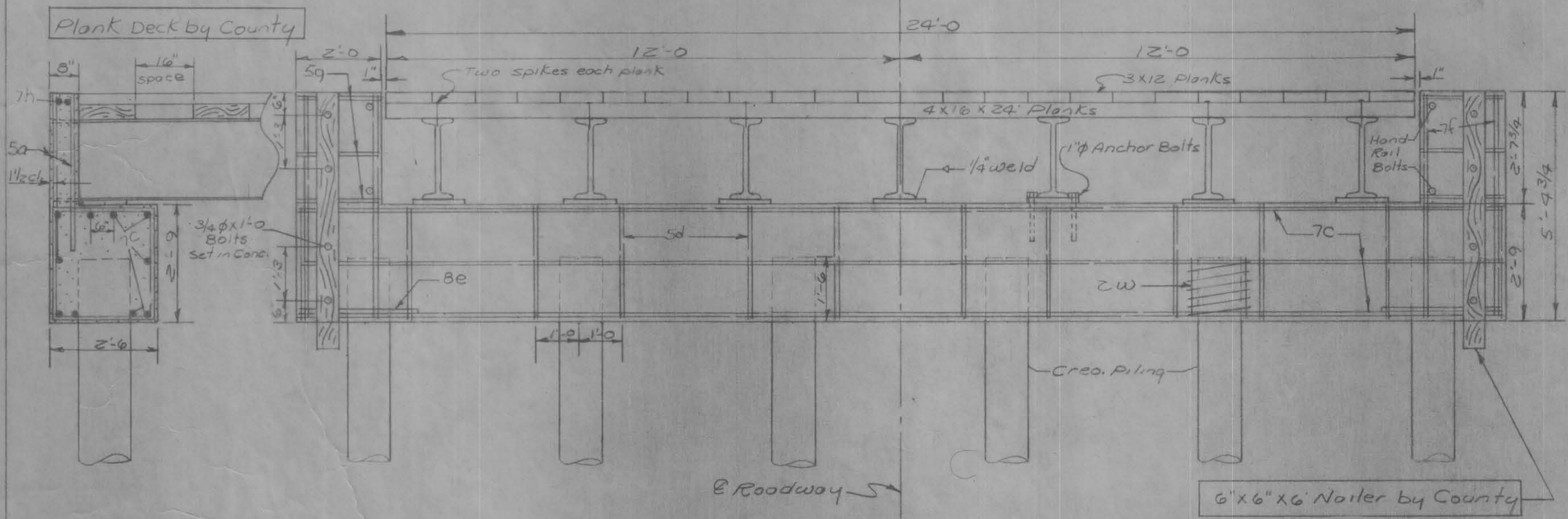


Done by Boyer Valley and County

H-15 Two lane Loading
 Analyzed by H. Gene McKeown & Associates
 Nov. 2, 1976

Design For
 118'-4 x 24'-0 I-beam Bridge (20' Skew)
 Stub Abutments and Steel H Piling Bents
 Steel Handrails
 Sta. 15+85.00 Project No. L77-1

Location
 Crawford County T-85N, E-39W
 Sec. 13 Other Creek Township
 over Other Creek



Reinforcing Steel - Two Abutments

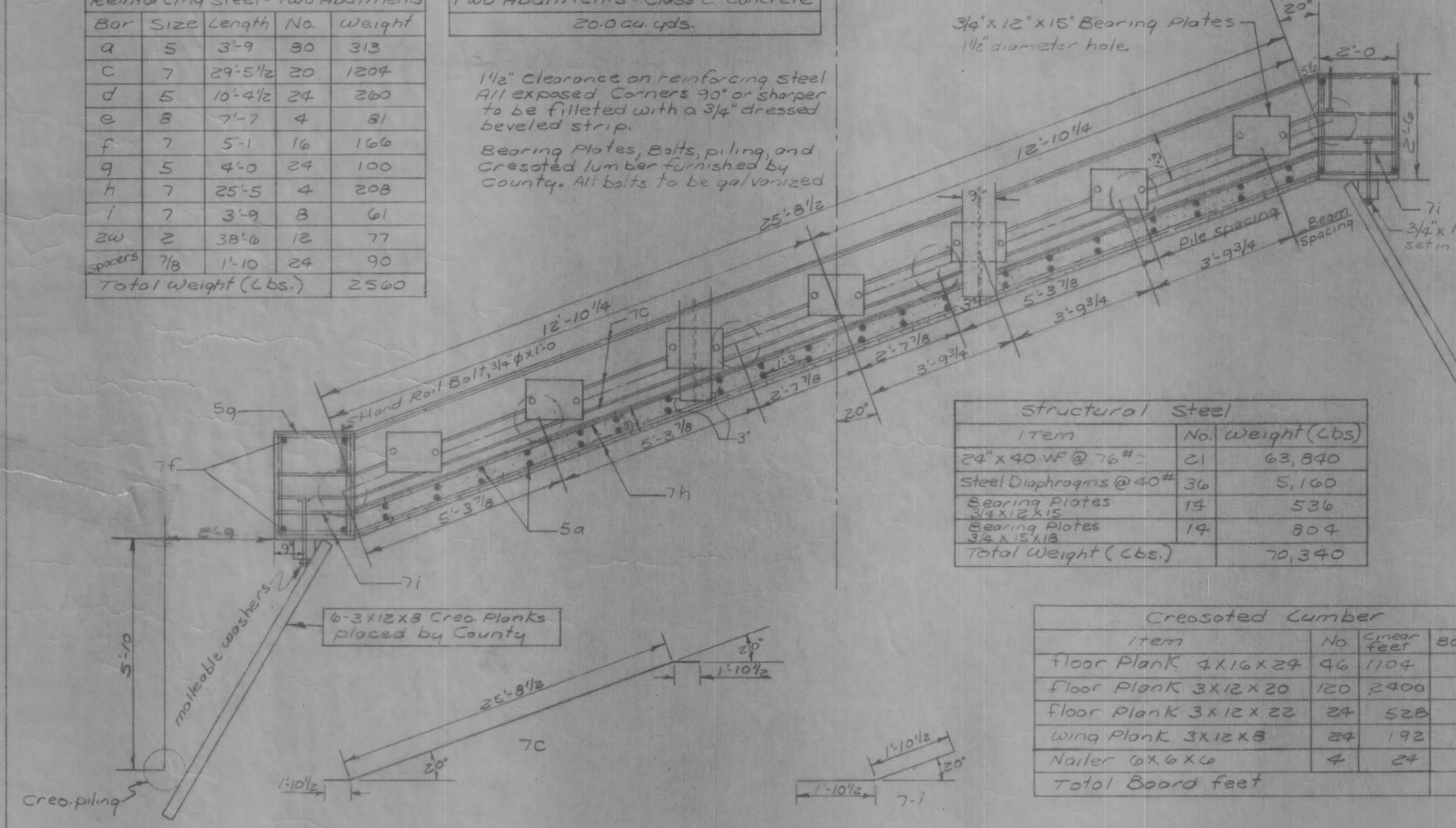
Bar Size	Length	No.	Weight
a	5'-3.9	80	313
c	7'-29.5 1/2	20	1209
d	5'-10.4 1/2	24	260
e	8'-7.7	4	81
f	7'-5.1	16	166
g	5'-4.0	24	100
h	7'-25.5	4	208
i	7'-3.9	8	61
zw	2'-38.6	12	77
spacers	7/8'-1.10	24	90
Total Weight (Lbs.)			2560

Two Abutments - Class C Concrete
20.0 cu. yds.

1 1/2" clearance on reinforcing steel
All exposed corners 90° or sharper to be filleted with a 3/4" dressed beveled strip.
Bearing Plates, Bolts, piling, and Creosoted lumber furnished by County. All bolts to be galvanized.

Abutment Details

3/4" x 12" x 15" Bearing Plates
1 1/2" diameter hole

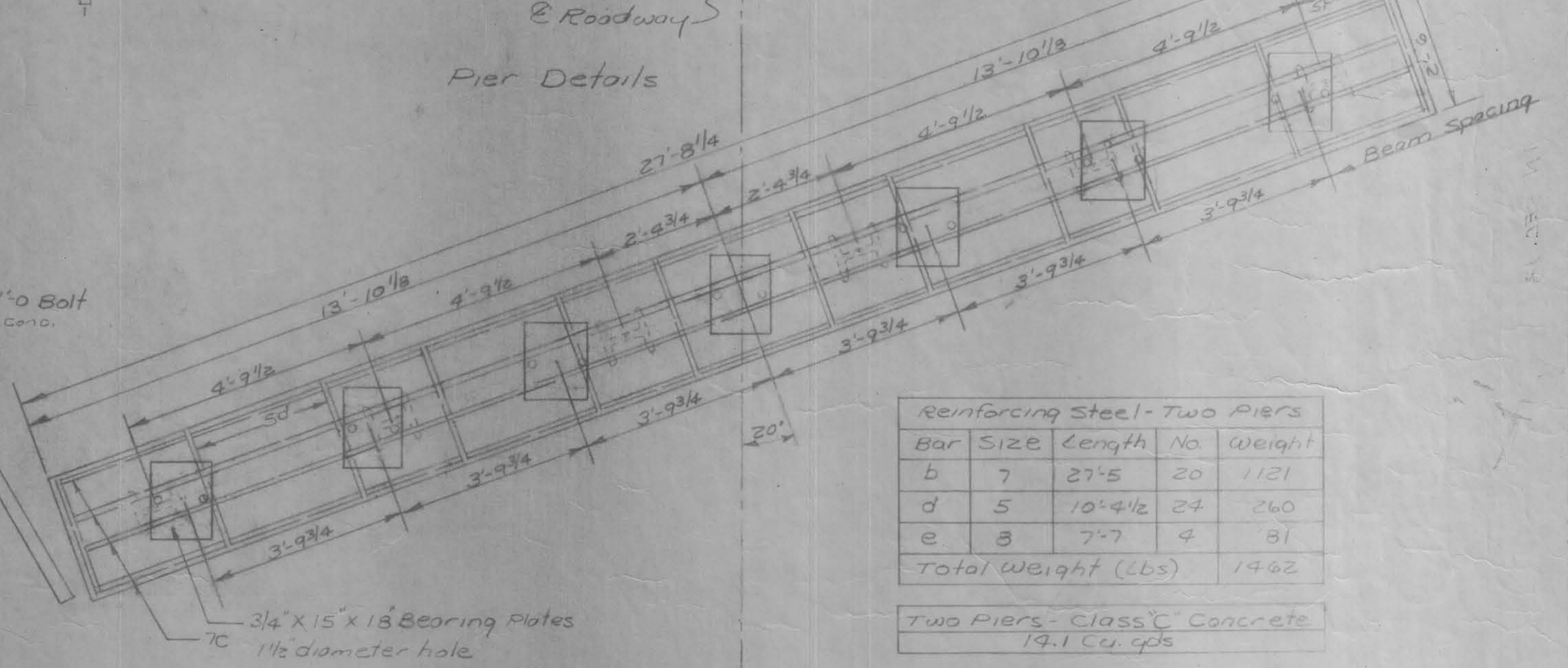


Structural Steel

Item	No.	Weight (Lbs)
24" x 40" WF @ 76#	21	63,840
Steel Diaphragms @ 40#	36	5,100
Bearing Plates 3/4 x 12 x 15	14	536
Bearing Plates 3/4 x 15 x 18	14	804
Total Weight (Lbs.)		70,340

Creosoted Lumber

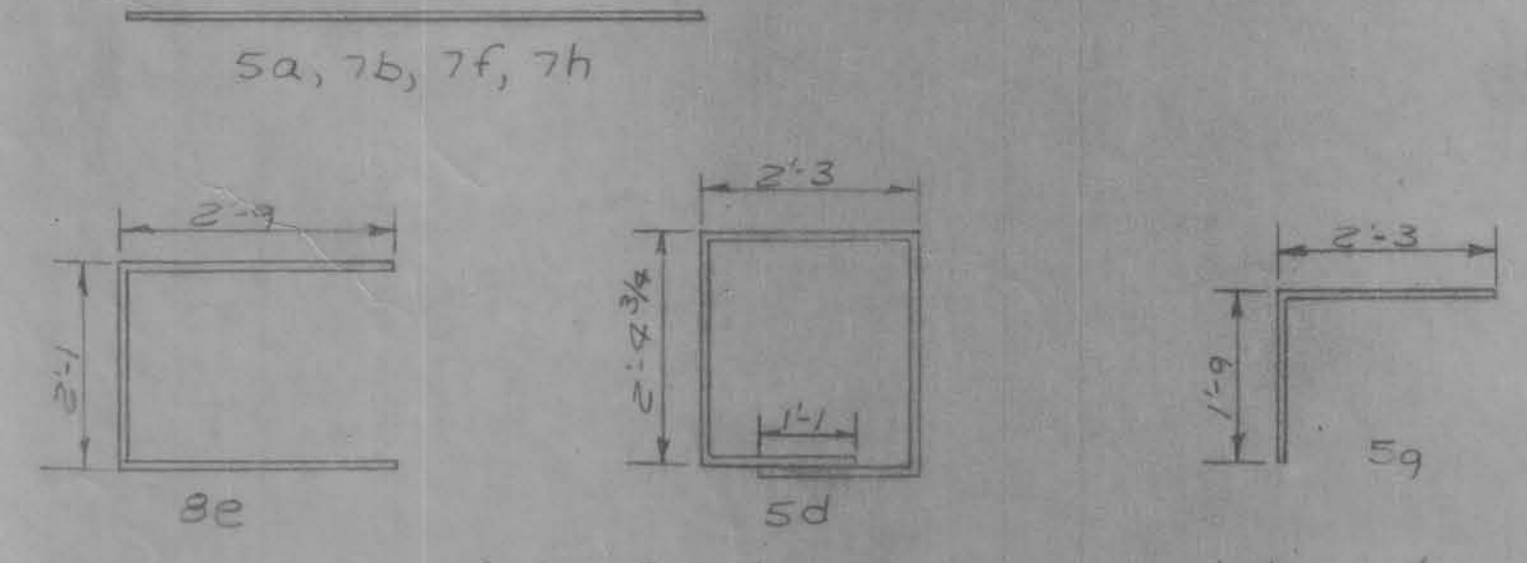
Item	No.	Linear feet	Board Feet
floor Plank 4x16x24	46	1104	5,888
floor Plank 3x12x20	120	2400	7,200
floor Plank 3x12x22	24	528	1,584
wing Plank 3x12x8	24	192	576
Nailer 6x6x6	4	24	72
Total Board feet			15,320



Reinforcing Steel - Two Piers

Bar Size	Length	No.	Weight
b	7'-27.5	20	1121
d	5'-10.4 1/2	24	260
e	8'-7.7	4	81
Total Weight (Lbs)			1462

Two Piers - Class C Concrete
14.1 Cu. yds.



Bar Details - All dimensions are out to out

H-15 Two lane loading
Analyzed by H. Gene Weckert & Associates
November 2, 1976

Design For
118'-4" x 24'-0" I-Beam Bridge (20' skew)
Stub Abutments and Steel H Piling Bents
Steel Handrail
Sta. 15+85.00 Project No. 477-1

Location
Crawford County T-25N R-13W
Sec. 13 Otter Creek Township
over Otter Creek