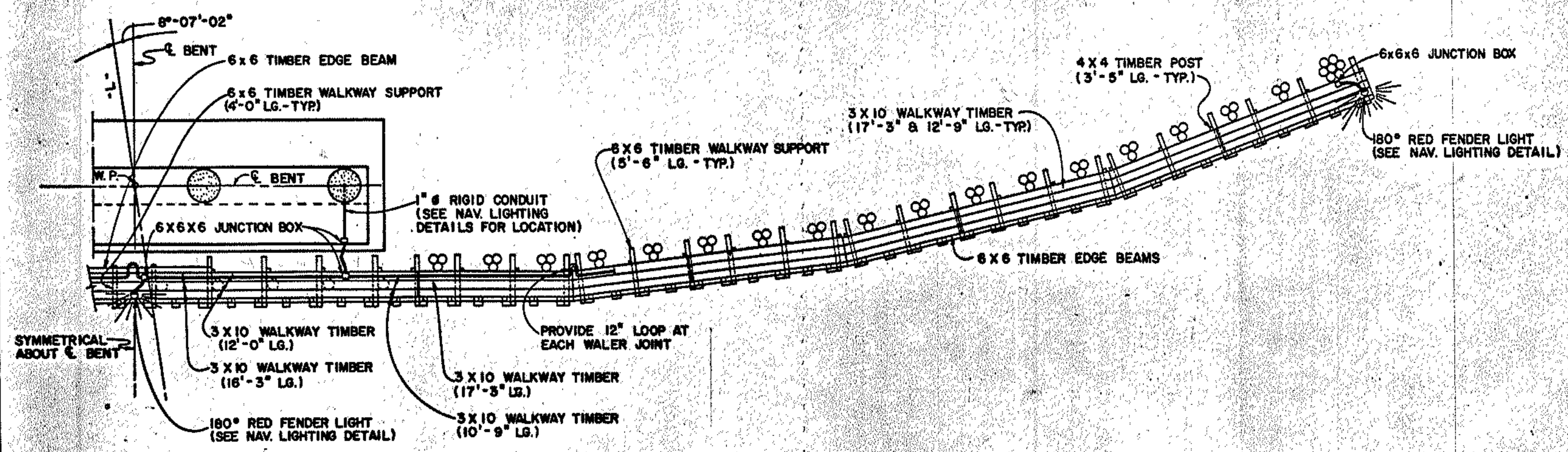
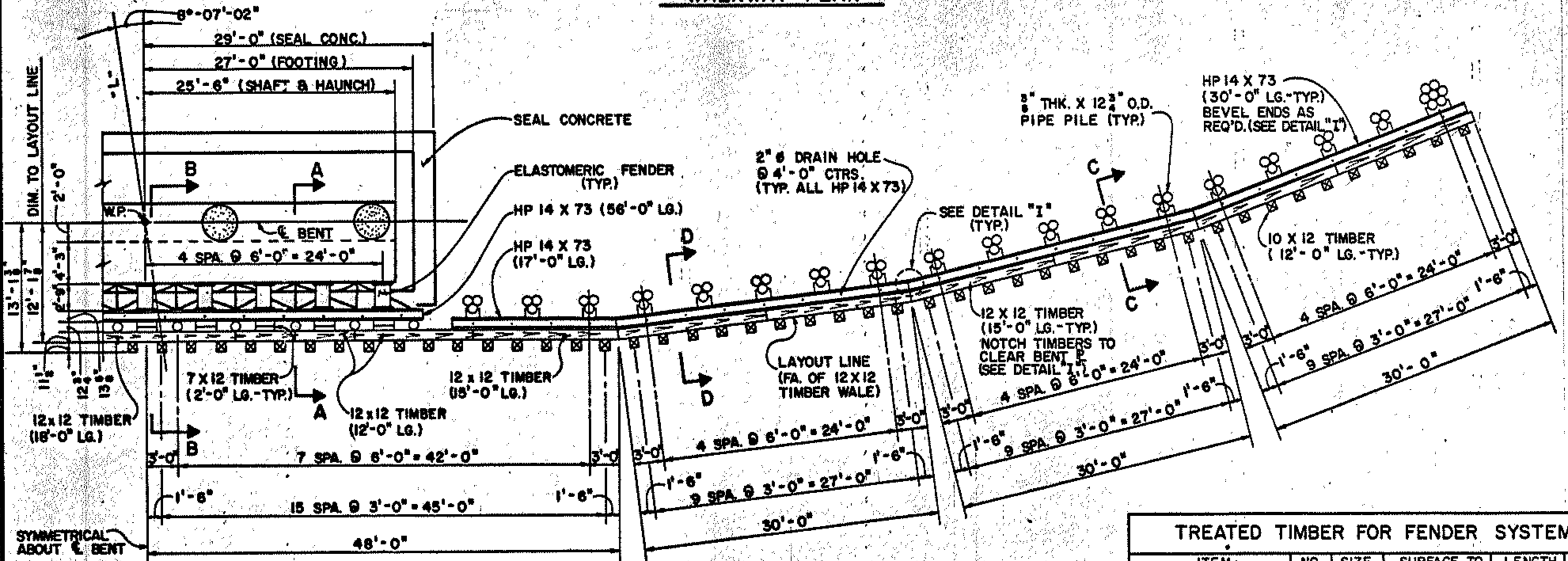


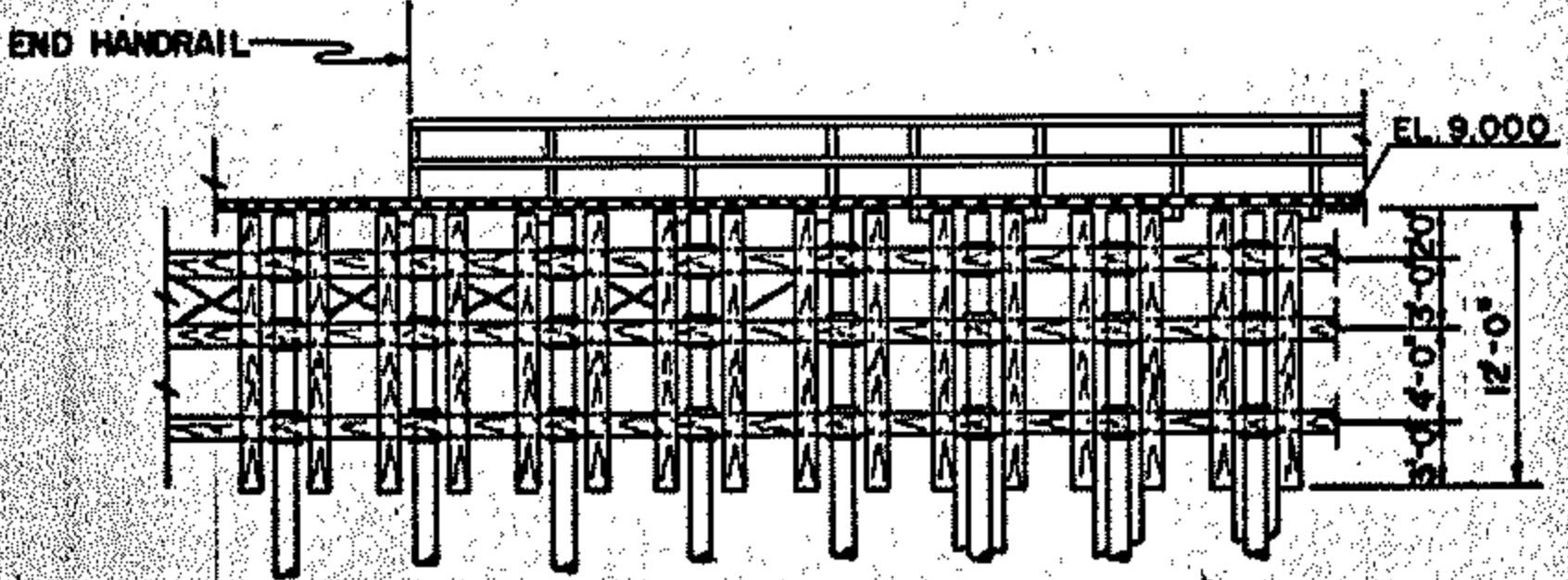
NOTE: HANDRAIL, MIDRAIL, & POST BRACE NOT SHOWN.



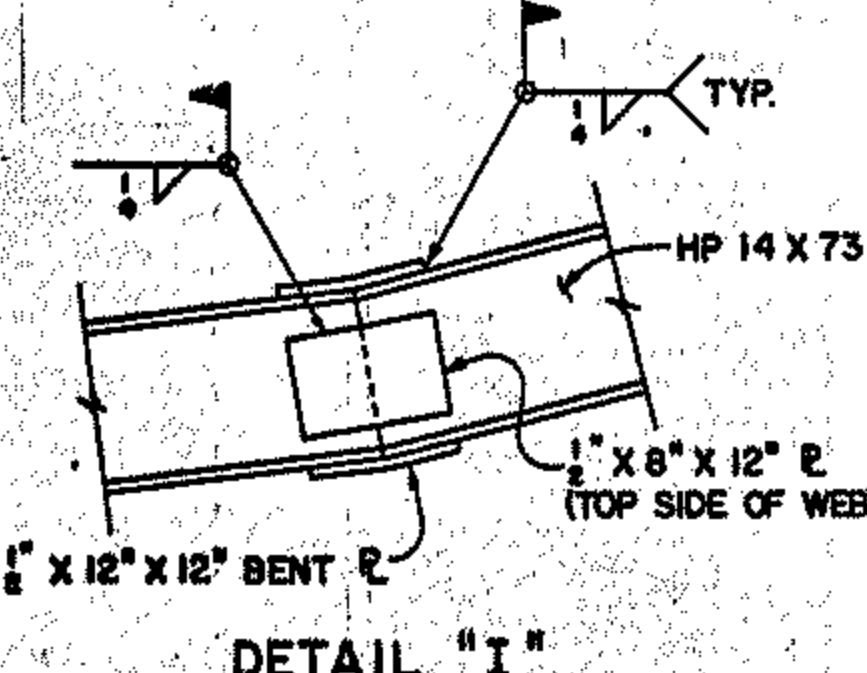
WALKWAY PLAN



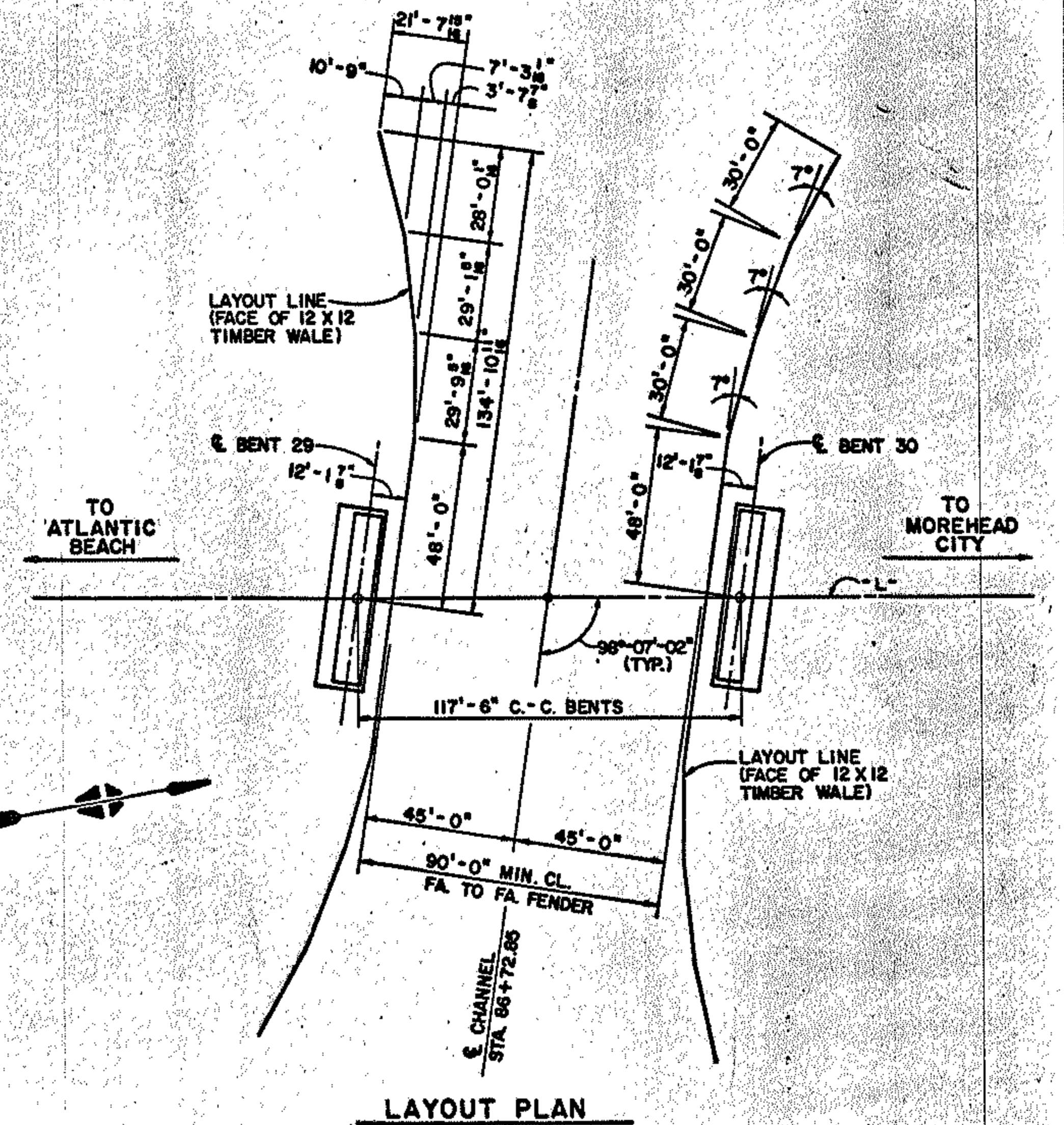
PLAN



PART ELEVATION



DETAIL "I"



LAYOUT PLAN

TREATED TIMBER FOR FENDER SYSTEM					
ITEM	NO.	SIZE	SURFACE TO	LENGTH	M.B.F.
WALES	24	12x12	S4S 1 1/2 x 1 1/2	12'-0"	3.46
"	84	12x12	S4S 1 1/2 x 1 1/2	15'-0"	15.12
"	6	12x12	S4S 1 1/2 x 1 1/2	18'-0"	1.30
VERTICALS	184	10x12	S4S 9/8 x 1 1/2	12'-0"	22.08
BLOCKING	72	7x12	S4S 5/8 x 1 1/2	2'-0"	1.01
STRUTS	108	4x6	S4S 3/4 x 5/8	2'-2"	0.48
WALKWAY SUPPORTS	4	6x6	S4S 5/8 x 5/8	4'-0"	0.05
"	104	6x6	S4S 5/8 x 5/8	5'-6"	1.72
WALKWAY PLANKS	12	3x10	S4S 2 1/2 x 9/8	12'-0"	.36
"	36	3x10	S4S 2 1/2 x 9/8	12'-9"	1.15
"	6	3x10	S4S 2 1/2 x 9/8	16'-3"	0.24
"	48	3x10	S4S 2 1/2 x 9/8	17'-3"	2.07
"	12	3x10	S4S 2 1/2 x 9/8	10'-9"	0.32
EDGE BEAMS	-	6x6	S4S 5/8 x 5/8	600 L.F.	1.80
POSTS	104	4x4	S4S 3/4 x 3/4	3'-11"	0.54
POST BRACES	104	2x4	S4S 1 1/2 x 3/4	4'-0"	0.28
HANDRAILS	-	4x4	S4S 3/4 x 3/4	520 L.F.	0.69
MIDRAILS	-	2x4	S4S 1 1/2 x 3/4	520 L.F.	0.35
TOTAL					53.02

TIMBER HARDWARE FOR FENDER SYSTEM			
ITEM	NO.	UNIT WT. (LBS.)	LBS.
60d NAILS	1296	.091	121
20d NAILS	416	.034	14
3/4 x 26" GALV. BOLT w/ NUT & WASHER	216	4.76	1028
3/4 x 24" " " " " " "	1104	4.43	4891
3/4 x 14" " " " " " "	216	2.78	600
3/4 x 17" " " " " " "	216	2.35	508
3/4 x 11" " " " " " "	208	1.62	337
3/4 x 5" " " " " " "	216	.96	207
3/4 x 7" GALV. BOLT w/ NUT & DBL. WASHER	640	.50	320
1/2 x 6" " " " " " "	104	.44	46
1/2 x 3" " " " " " "	104	.27	28
3/4 x 12" GALV. LAG SCREW	184	.59	109
1/2 x 10" " " " " " "	8	.50	4
1/2 x 8" " " " " " "	104	.41	43
3/4 x 3" MALLEABLE IRON WASHERS	424	.33	140
1/2 x 3" " " " " " "	1320	.52	686
3/4 x 3" x 9" GALV. P. FOR POST BRACE	104	2.87	298
3/4 x 3" x 11" GALV. P. FOR STRUT	216	4.09	884
TOTAL			10,264

QUANTITIES—FENDER SYSTEM	
TREATED STRUCTURAL TIMBER	53.02 M.B.F.
1 1/2" STEEL PIPE PILES	252 (NO.)
	19,708 LIN. FT.
CLASS "A" CONCRETE	216.2 C.Y.
STRUCTURAL STEEL*	139,500 LBS.
ELASTOMERIC FENDERS	LUMP SUM

*INCLUDES CONNECTIONS AND MISCELLANEOUS STEEL (CHAINS, TURNBUCKLES, WIRE ROPE, CLIPS AND KEEPER ANGLES.)

PROJECT NO. 8.2160203
 CARTERET COUNTY
 STATION: 86 + 72.85 -L-

SHEET 1 OF 3.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

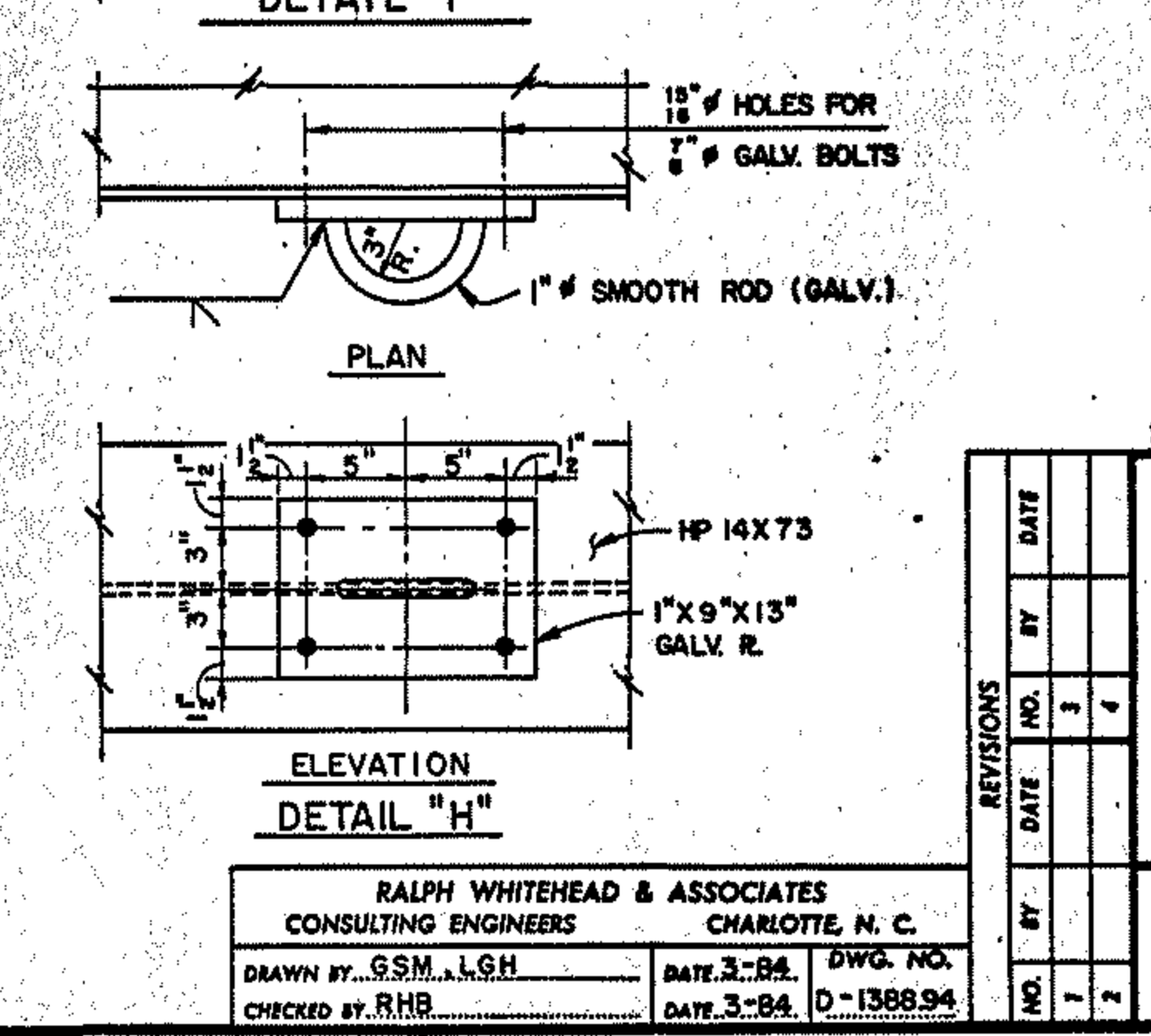
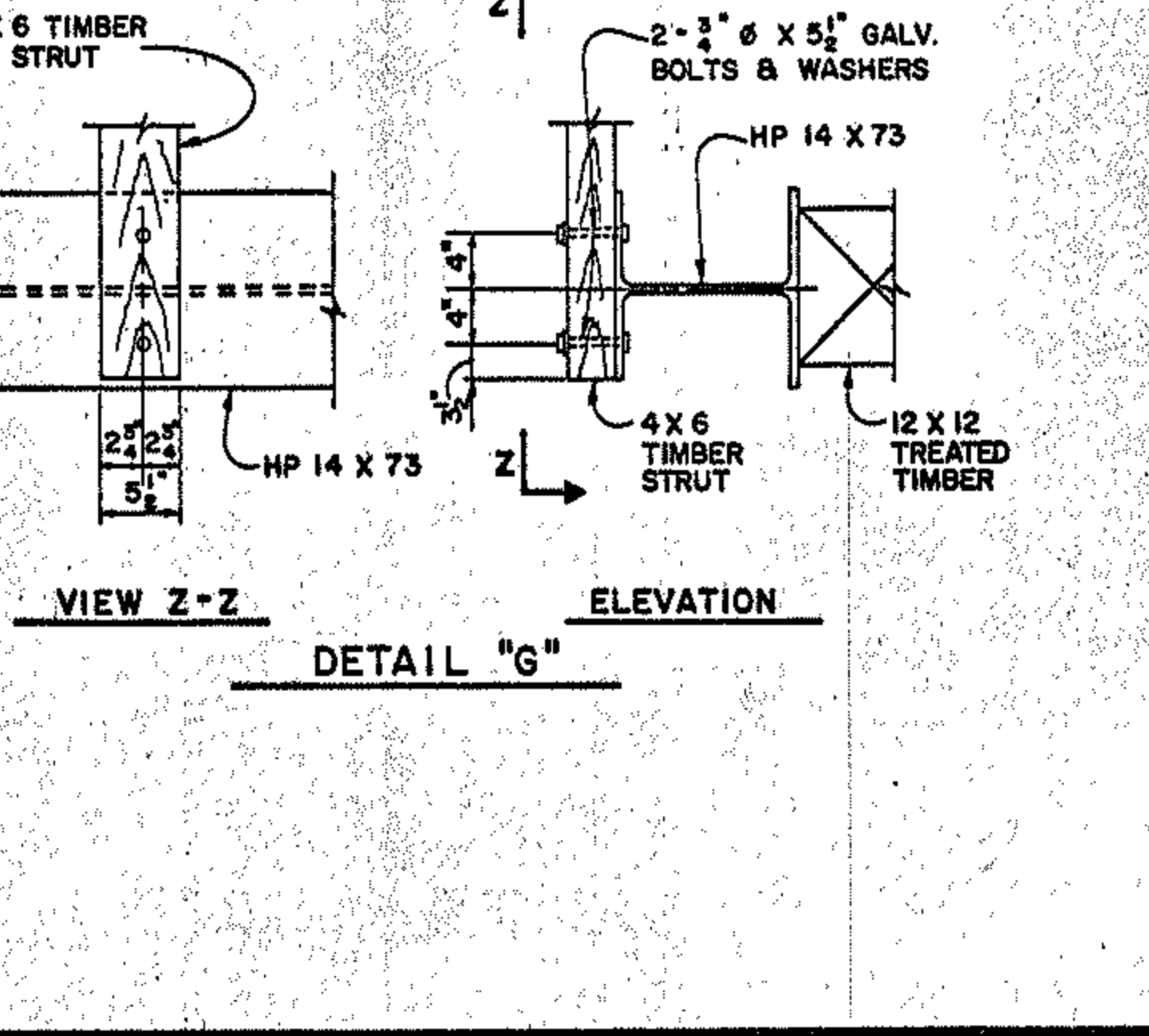
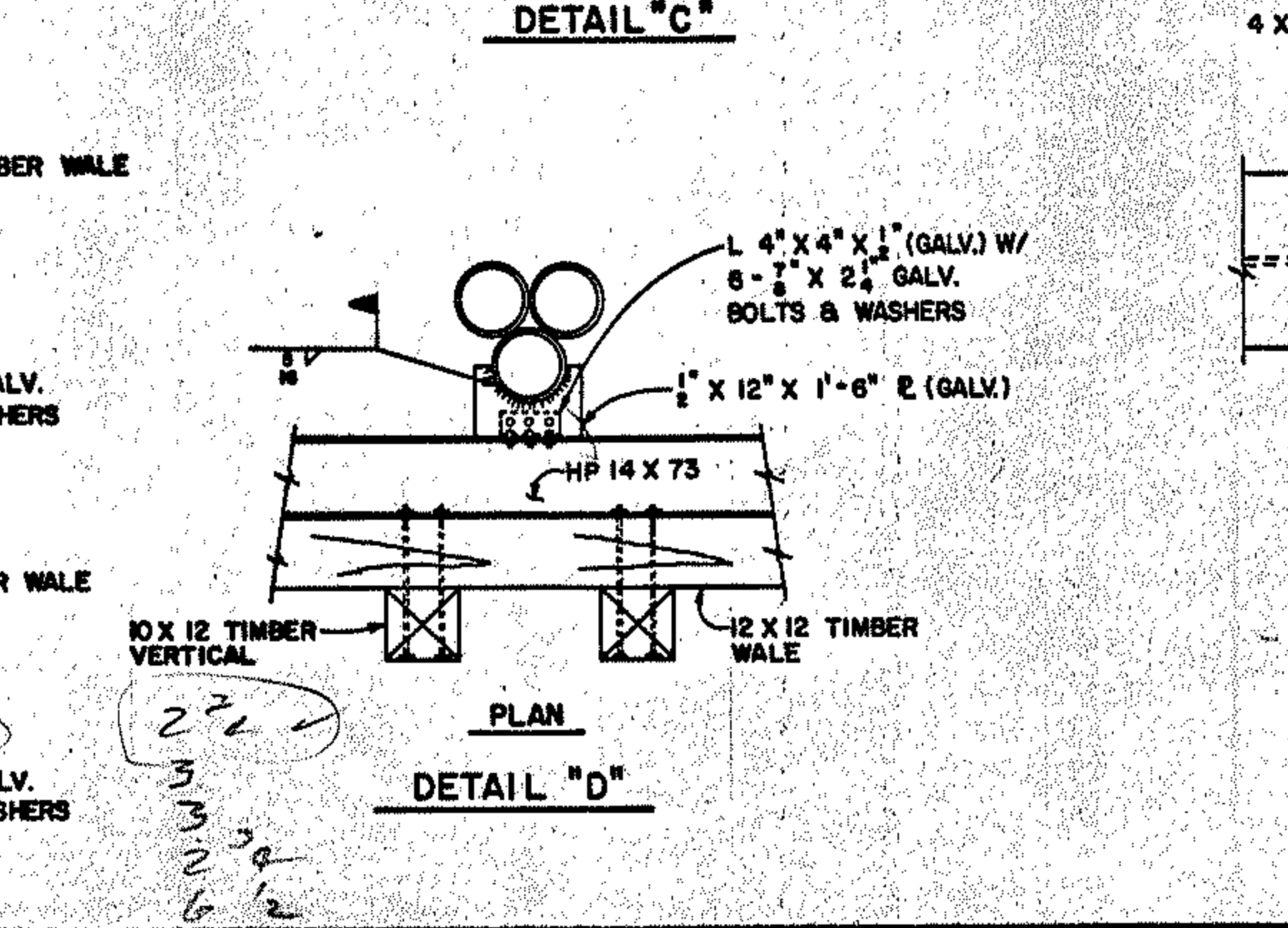
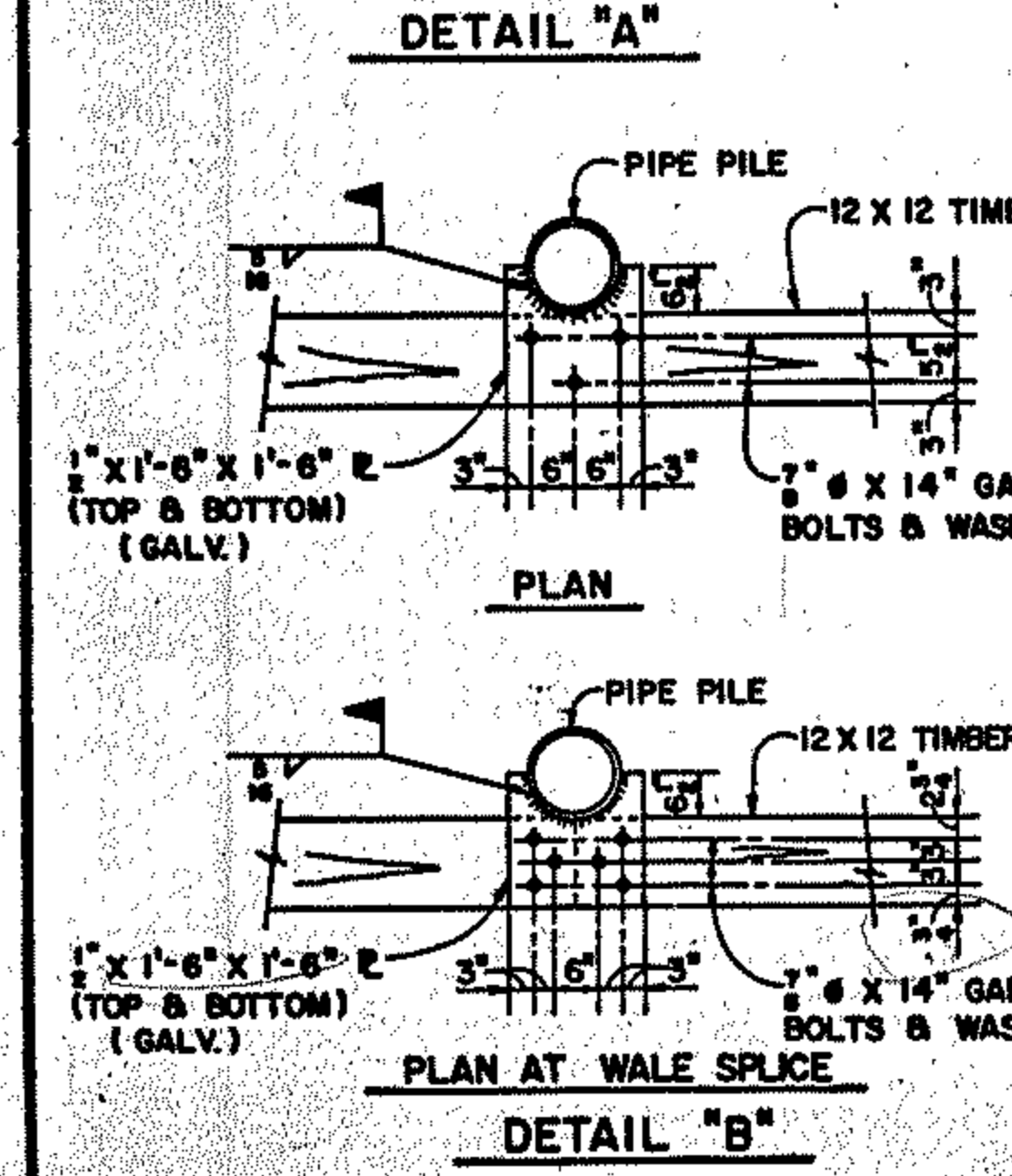
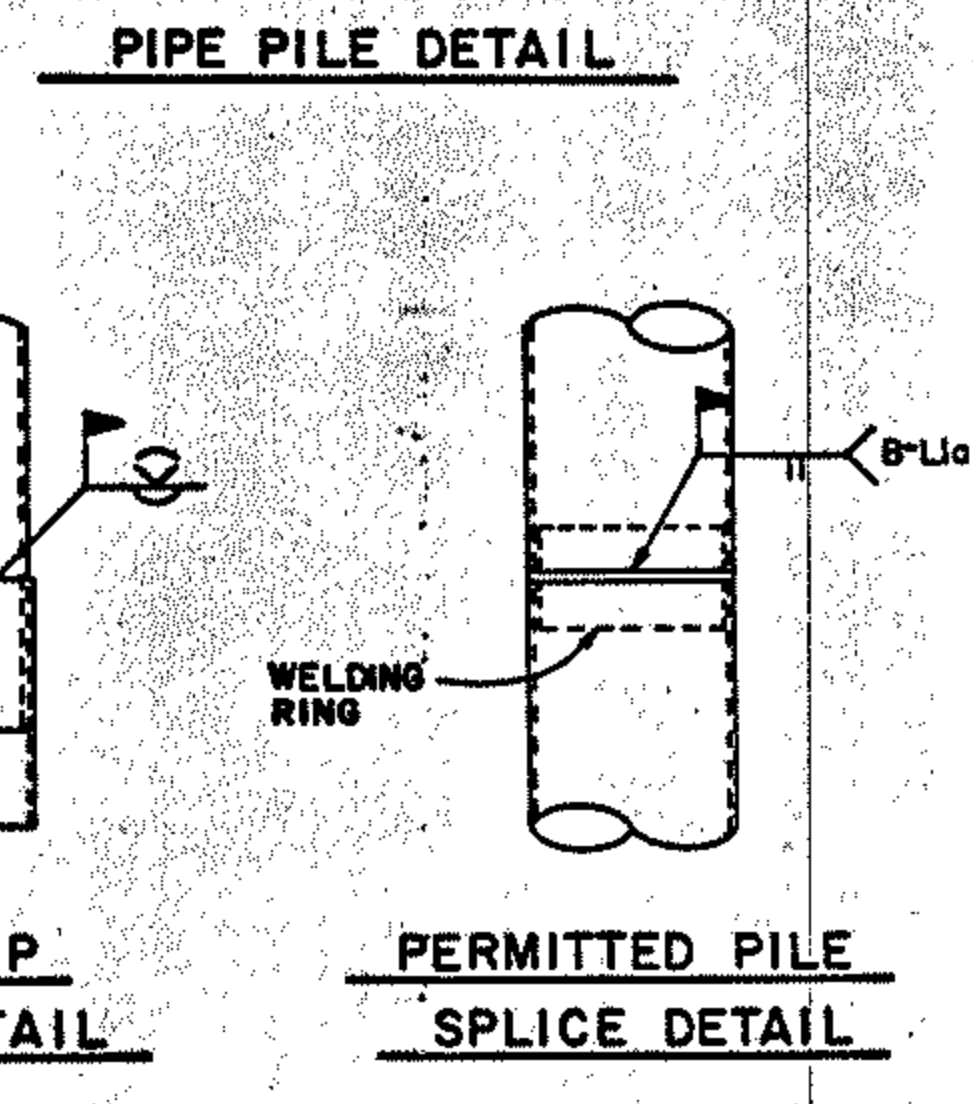
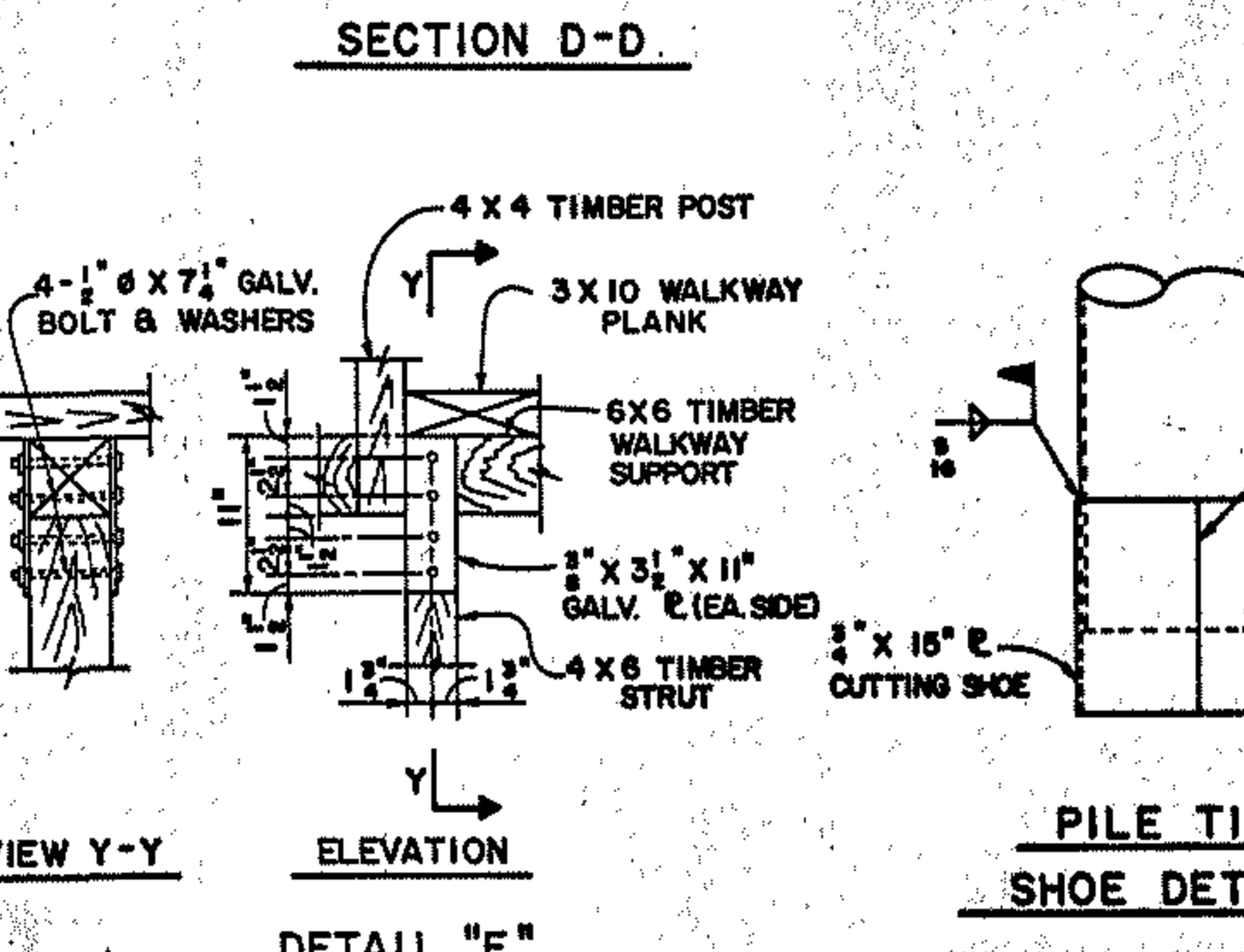
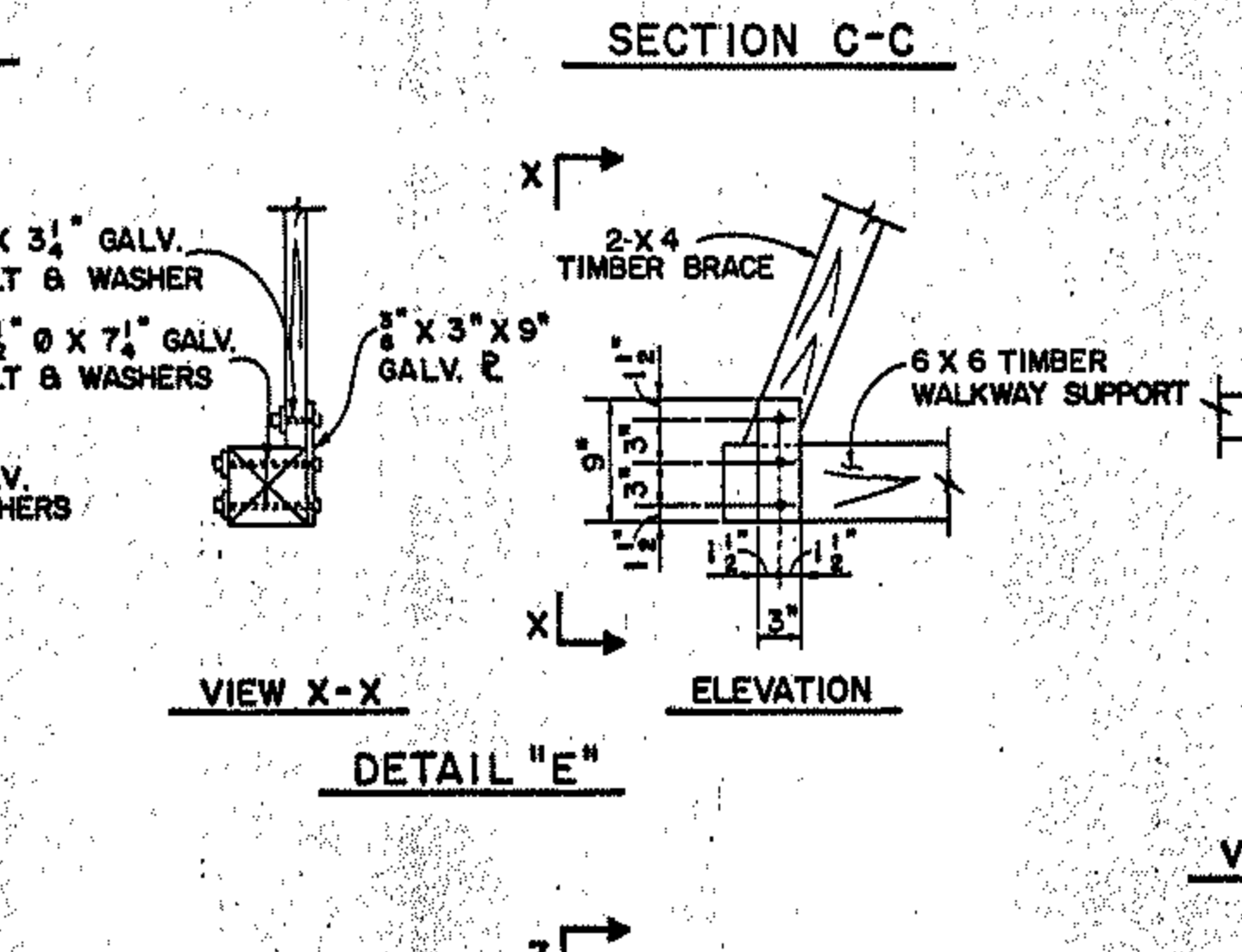
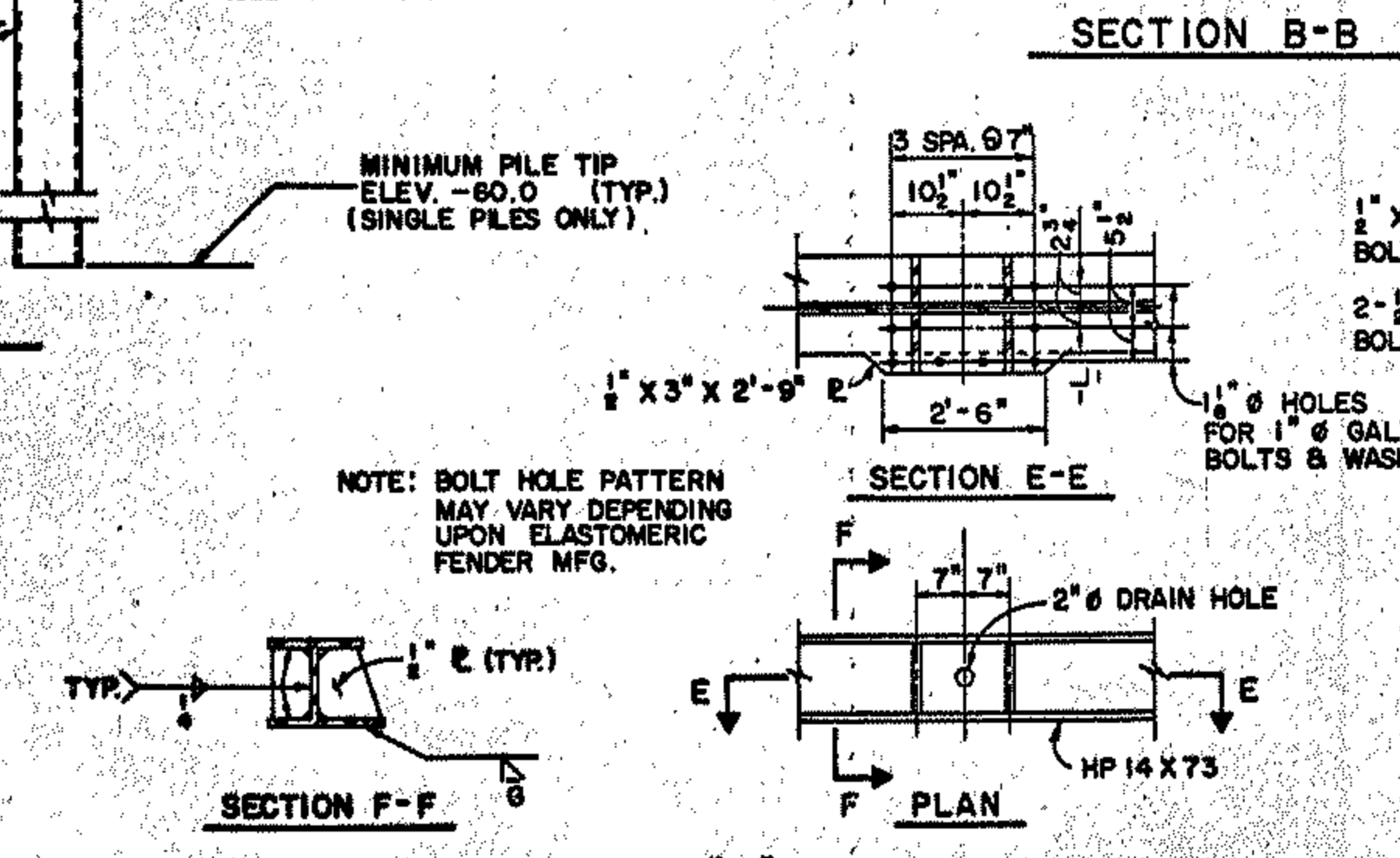
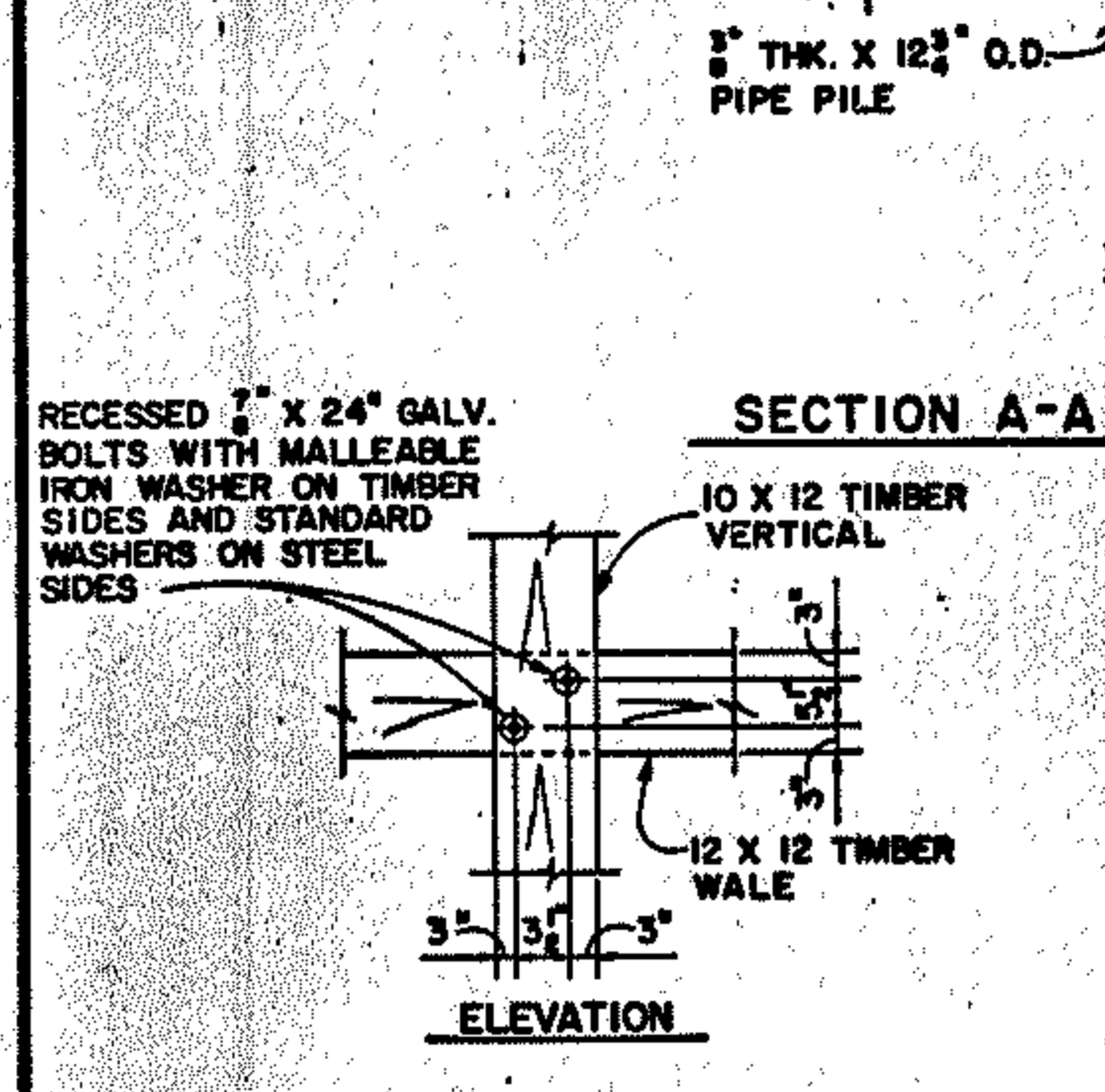
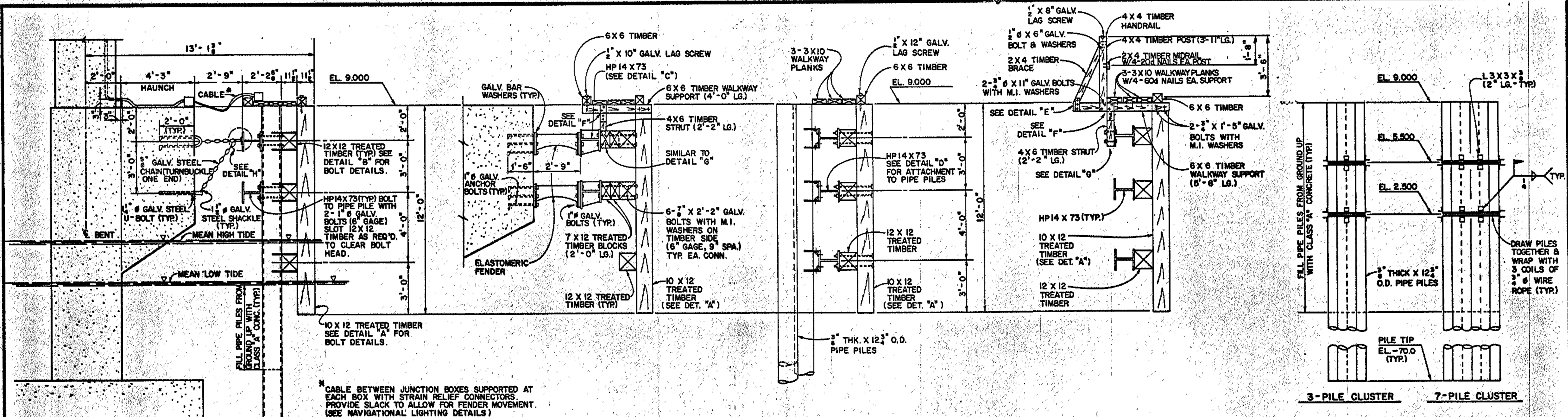
FENDER SYSTEM

RALPH WHITEHEAD & ASSOCIATES
 CONSULTING ENGINEERS
 CHARLOTTE, N. C.

DRAWN BY: GSM, LGH, RWR DATE: 3-84 DWG. NO.
 CHECKED BY: RHR DATE: 3-84 D-1388.93

SHEET NO. 5-43
 TOTAL SHEETS 112

NOTE: FOR FENDER SYSTEM, SEE SPECIAL PROVISIONS.



PROJECT No. 8.2160203
 CARTERET COUNTY
 STATION: 86 + 72.85 -L-
 SHEET 2 OF 3.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

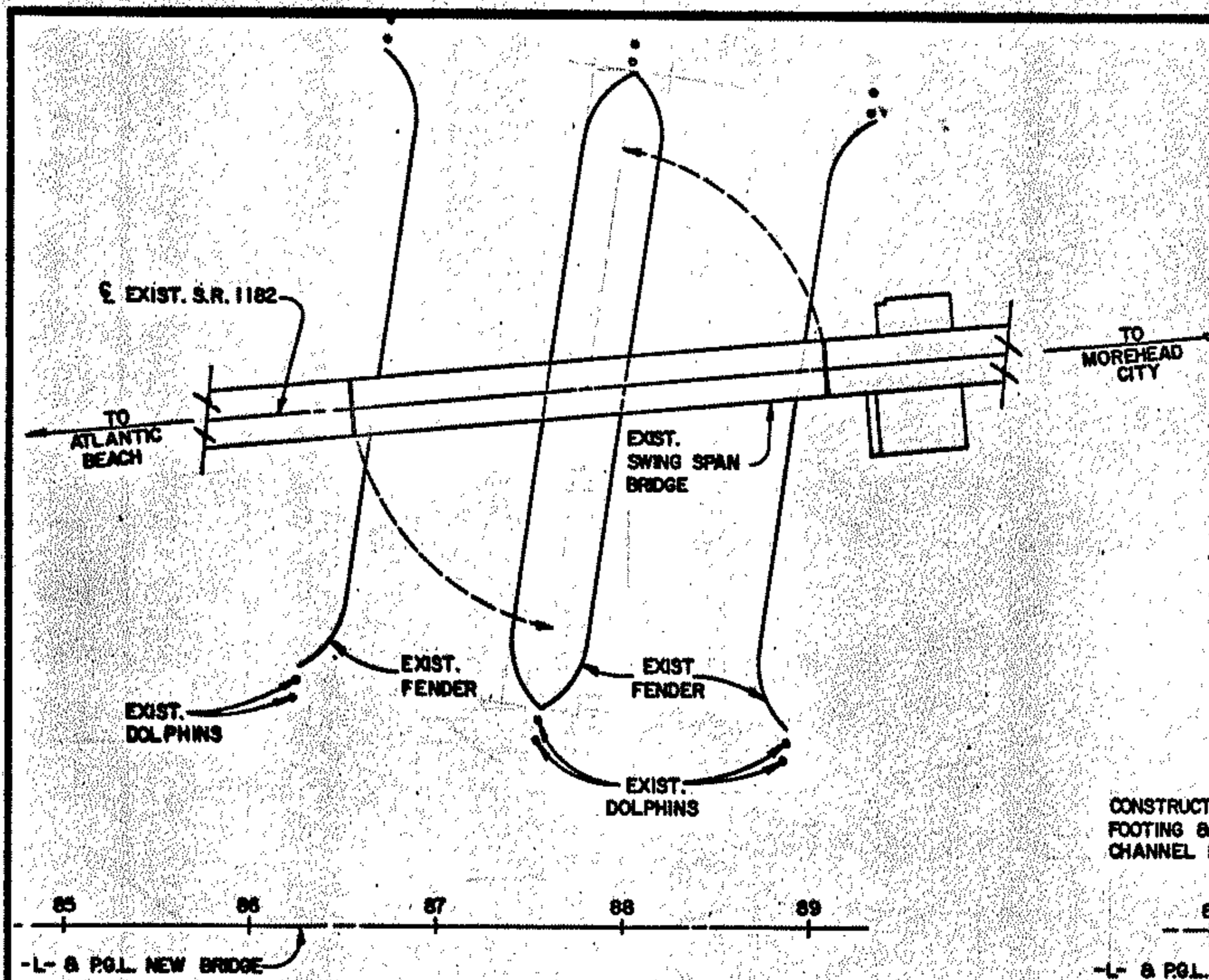
FENDER SYSTEM

RALPH WHITEHEAD & ASSOCIATES
 CONSULTING ENGINEERS
 CHARLOTTE, N. C.

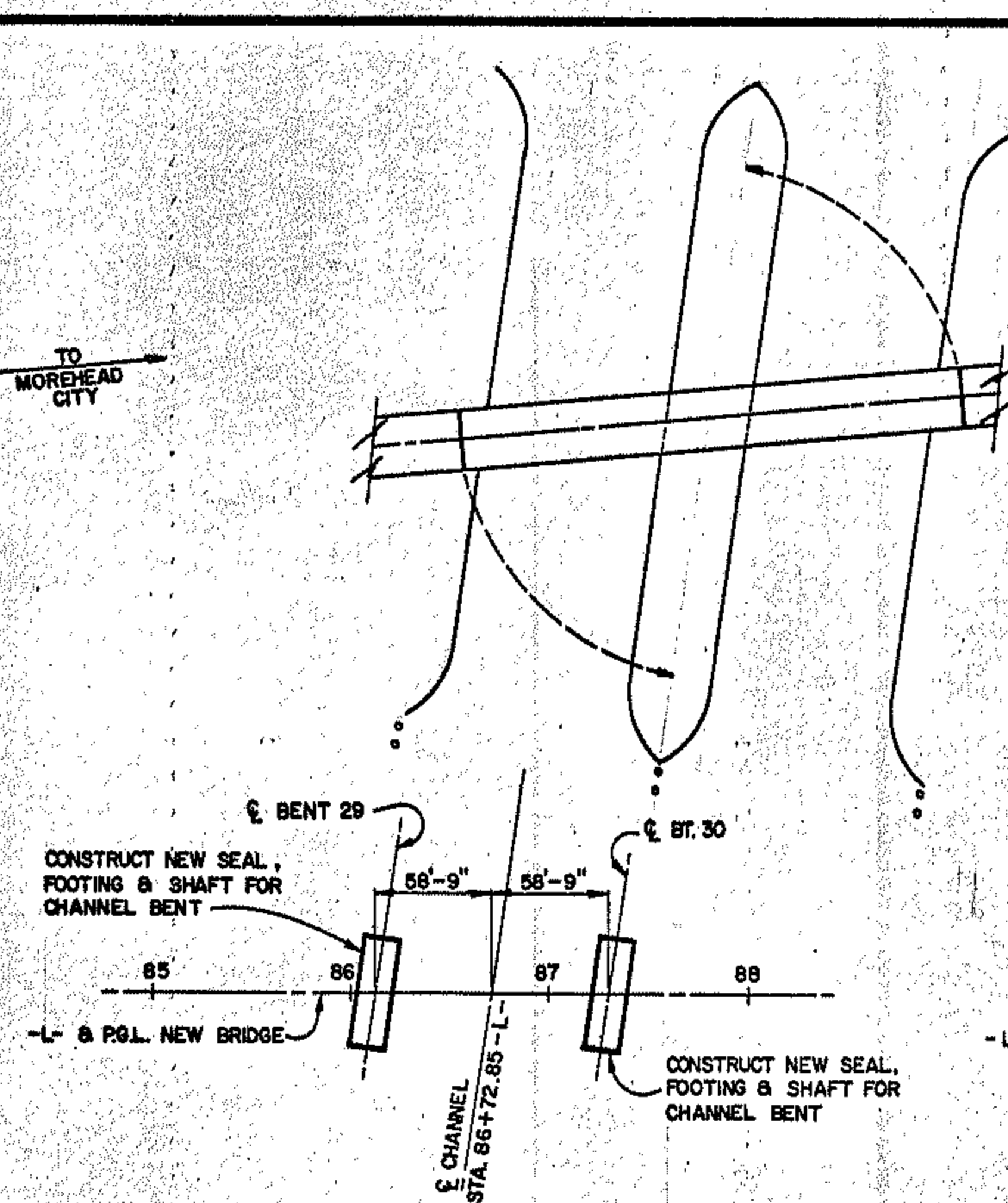
DRAWN BY: GSM, LGH DATE: 3-84 DWG. NO.:
 CHECKED BY: RHR DATE: 3-84 D-138894

NO.	BY	DATE
1		
2		
3		
4		

SHEET NO. 5-94
 TOTAL SHEETS 114

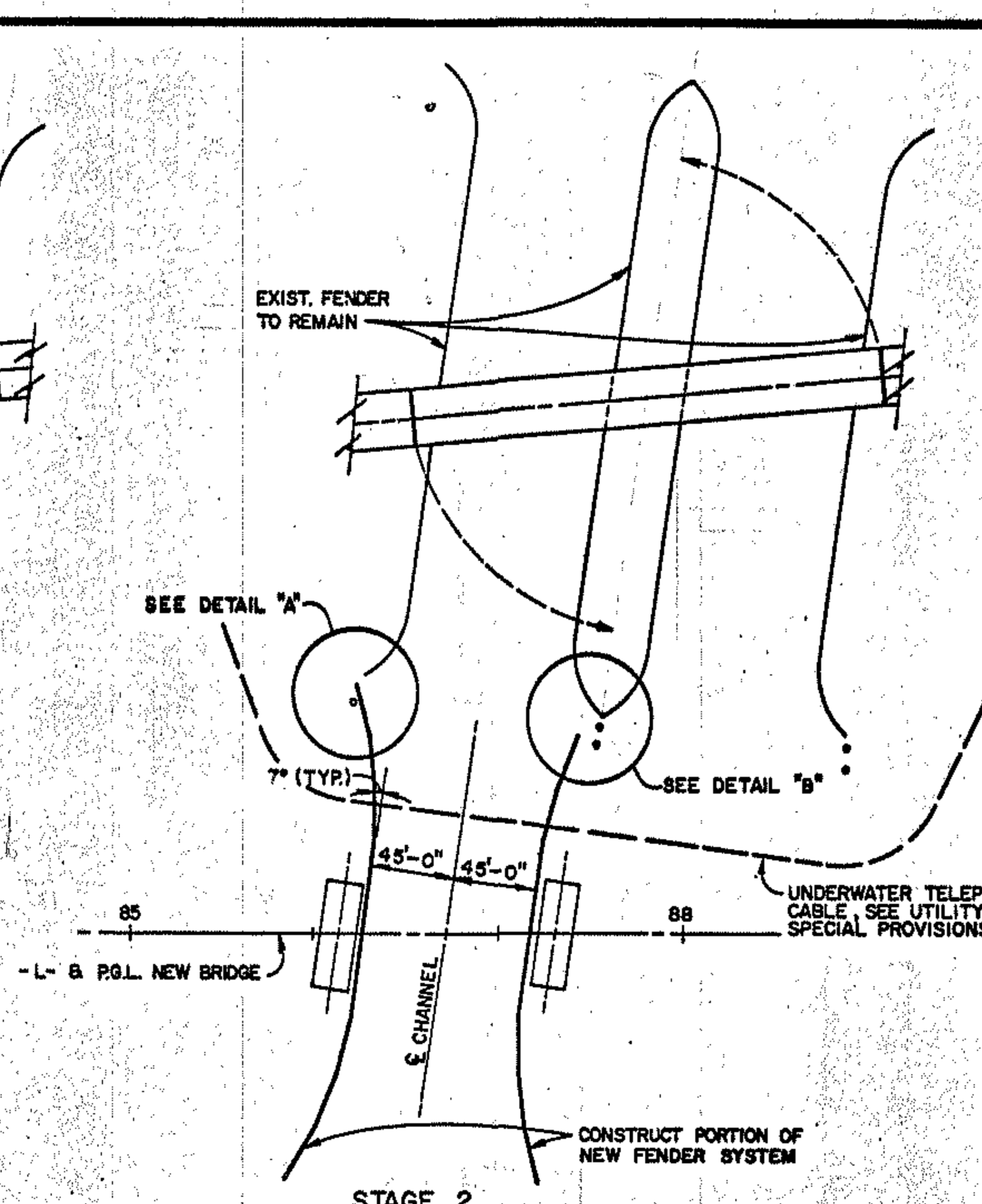


EXISTING CONDITIONS



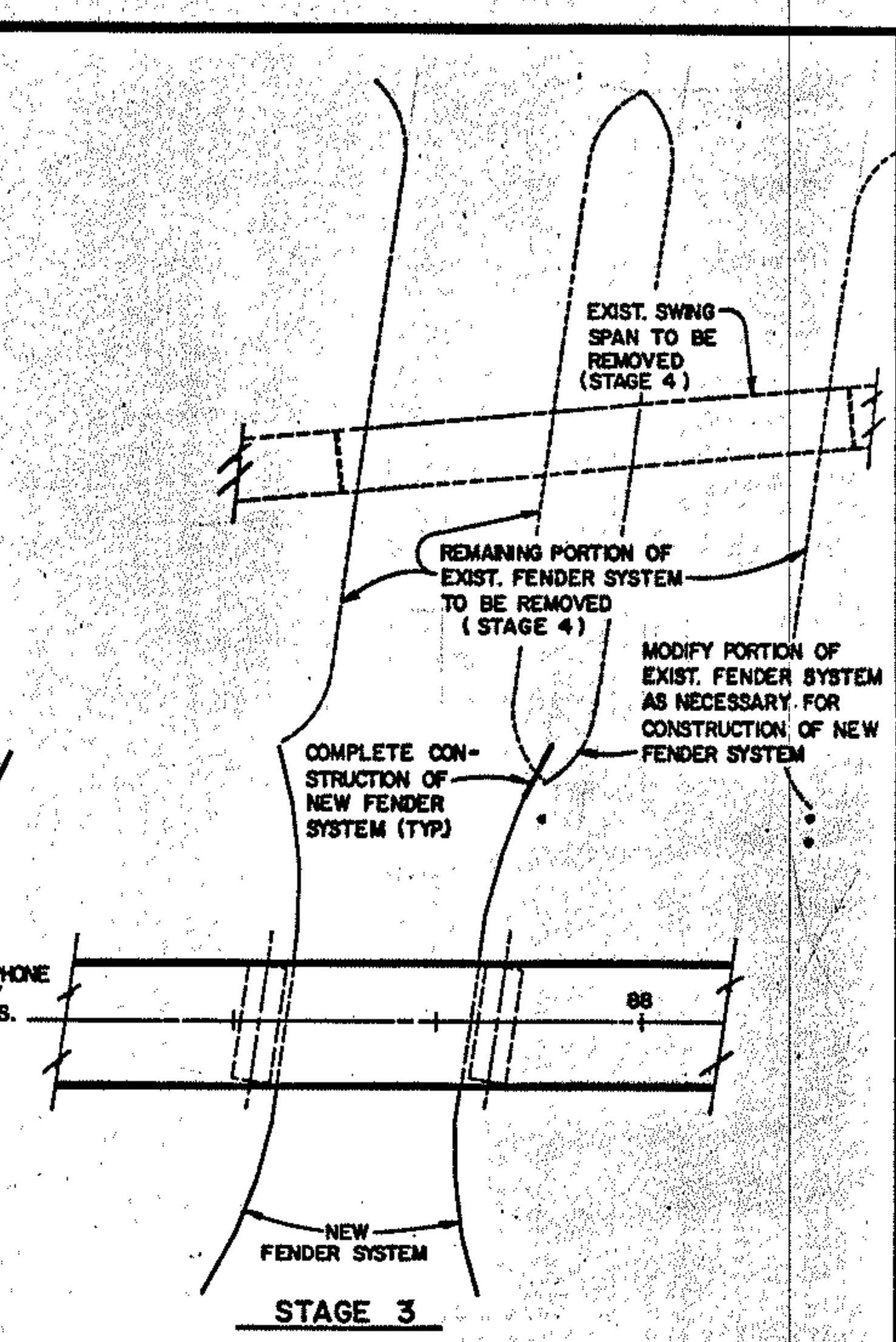
STAGE 1

1. CONSTRUCT SEAL, FOOTING & SHAFT FOR BENTS 29 AND 30 UP TO CONSTRUCTION JOINT AT ELEVATION 9.0.



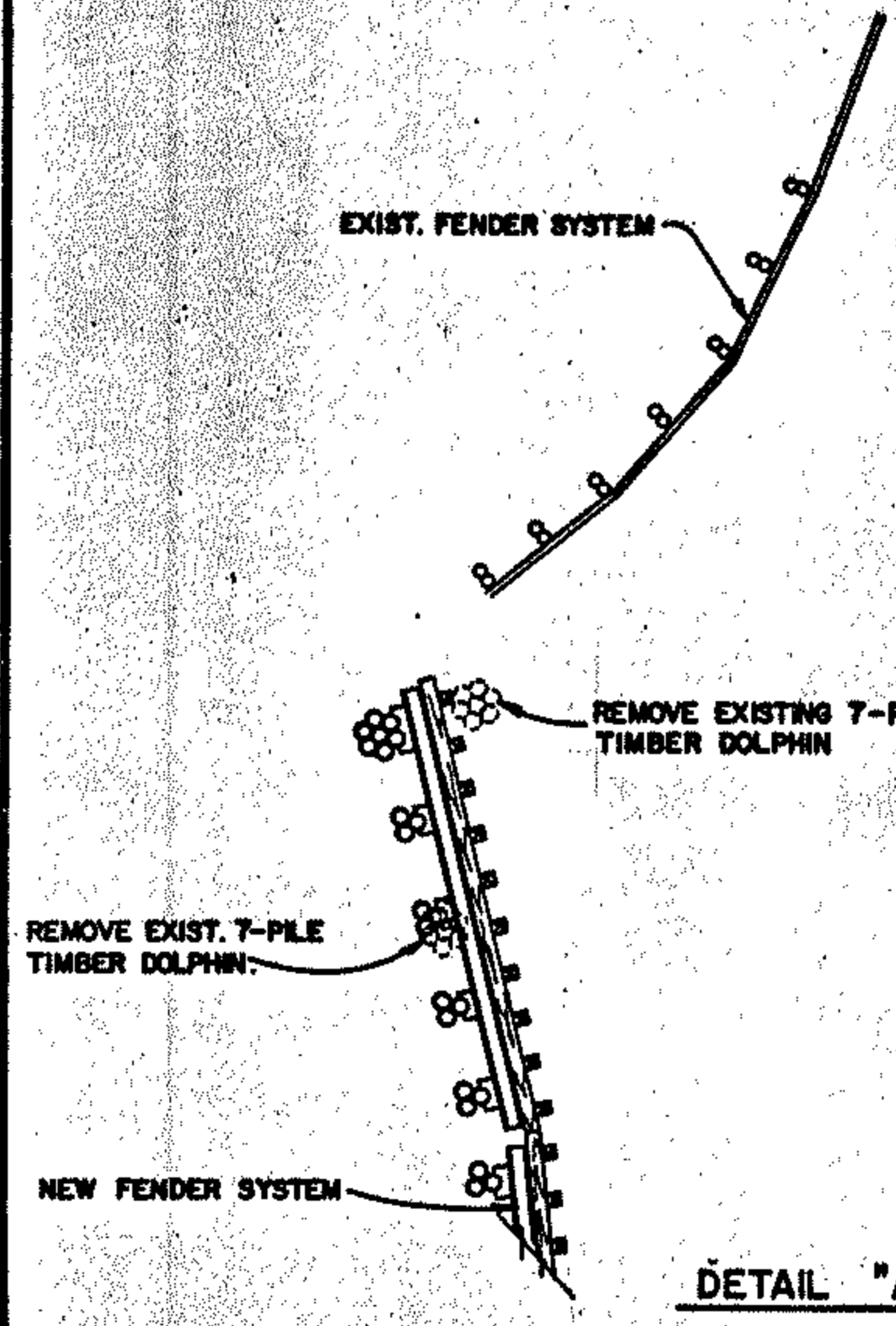
STAGE 2

1. CONSTRUCT PORTION OF NEW FENDER SYSTEM (SEE DETAILS "A" & "B").

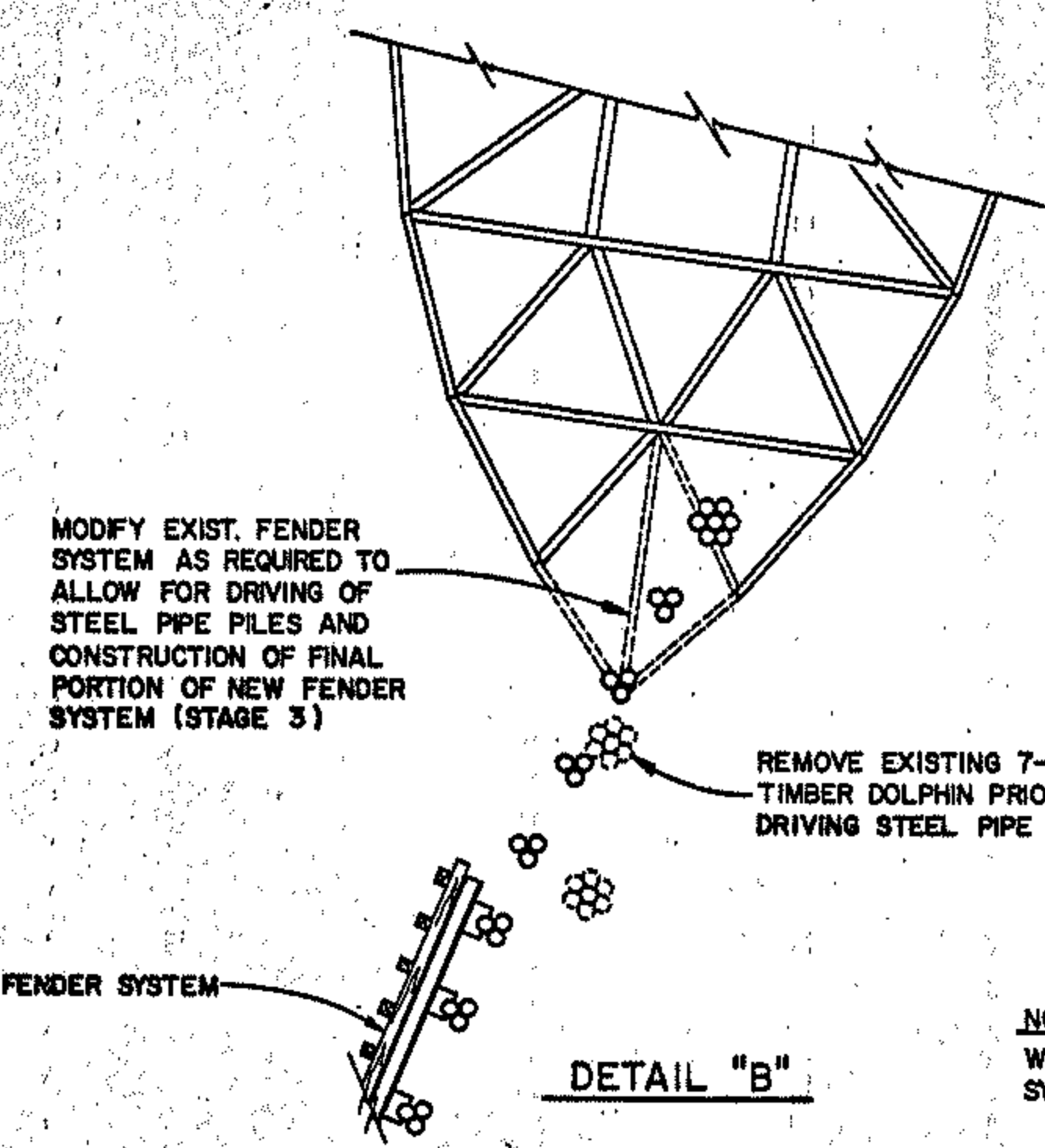


STAGE 3

1. REMOVE PORTION OF EXIST. FENDER SYSTEM AS REQUIRED TO COMPLETE CONSTRUCTION OF NEW FENDER SYSTEM.
2. COMPLETE REMAINDER OF NEW FENDER SYSTEM (INCLUDING NAVIGATIONAL LIGHTING).
3. COMPLETE CONSTRUCTION OF NEW BRIDGE.



DETAIL "A"



DETAIL "B"

NOTE
WALKWAYS ON FENDER SYSTEMS NOT SHOWN

STAGE 4

- AFTER ROADWAY TRAFFIC HAS BEEN PLACED ON NEW BRIDGE:
1. REMOVE EXIST. SWING SPAN.
 2. REMOVE EXIST. REST PIERS AND PIVOT PIERS.
 3. REMOVE REMAINDER OF EXIST. FENDER SYSTEM.
 4. COMPLETE REMOVAL OF EXIST. BRIDGE.

PROJECT No. 8.2160203
CARTERET COUNTY
STATION: 86+72.85 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA		SHEET NO. 595	
DEPARTMENT OF TRANSPORTATION		TOTAL SHEETS 117	
RALEIGH			
FENDER SYSTEM			
REVISIONS	NO.	BY	DATE
	1		
	2		
RALPH WHITEHEAD & ASSOCIATES CONSULTING ENGINEERS CHARLOTTE, N. C.		DWG. NO. D-1355.95	
DRAWN BY: G.S.M., RON W.		DATE: 3-84	
CHECKED BY: RHB		DATE: 3-84	