

LOCATION MAP

SPECIFIC PURPOSE SURVEY & TOPOGRAPHIC SURVEY MAIN STREET PIER CITY OF DAYTONA BEACH VOLUSIA COUNTY, FL

DECEMBER 2018

PREPARED
FOR:



VICINITY MAP

SURVEY CONTROL				
CONTROL POINT	SPCS (NAD 83/90) US SURVEY FT		ELEVATION (NAVD 88)	DESCRIPTION
	NORTHING	EASTING		
REVILO	1775345.71	654616.97	12.87	NGS B/D C.MON "REVILO 1934"
TRAV 1	1778887.28	654035.81	17.15	PK NAIL SET
TRAV 2	1778959.69	654235.64	17.28	PK NAIL SET
TRAV 3	1779031.60	654447.50	17.21	PK NAIL SET
TRAV 4	1779120.68	654668.90	17.21	PK NAIL SET

ABBREVIATIONS	
FT	FEET
EL	ELEVATION
GPS	GLOBAL POSITIONING SYSTEM
NGS	NATIONAL GEODETIC SURVEY
NAD	NORTH AMERICAN DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
RTK	REAL TIME KINEMATIC
SPCS	STATE PLANE COORDINATE SYSTEM
TBM	TEMPORARY BENCH MARK
BD	BRASS DISK
C.MON	MONUMENT SET IN CONCRETE
CONC	CONCRETE
PK	SURVEYOR NAIL
TRAV	TRAVERSE POINT

PREPARED BY:



SEA DIVERSIFIED, INC.
SURVEYING & ENGINEERING APPLICATIONS



AERIAL MAP

SHEET INDEX		
NO.	SHEET	SHEET TITLE
1	C1	COVER
2	P1	PLAN VIEW DATA TOPSIDE DETAIL
3	P2	PLAN VIEW DATA SUBSTRUCTURE DETAIL
4 - 14	S1 - S11	CROSS SECTIONS
15 - 16	T1 - T2	TABULAR PILE DATA

SURVEY NOTES:

- REFER TO SEA DIVERSIFIED PROJECT NUMBER 18-2675.
- THIS TOPOGRAPHIC SURVEY WAS PERFORMED AT THE REQUEST OF THE CITY OF DAYTONA BEACH.
- THIS SURVEY WAS CONDUCTED, COMMENCING JUNE 22 AND ENDING OCTOBER 24 OF 2018.
- THE INFORMATION DEPICTED HEREIN REPRESENTS THE RESULTS OF THE SURVEY ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THE TIME.
- HORIZONTAL DATA ARE IN UNITED STATES SURVEY FEET AND RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR FLORIDA, EAST ZONE (0901), NORTH AMERICAN DATUM (NAD) OF 1983, 1990 ADJUSTMENT. VERTICAL DATA ARE IN FEET AND RELATIVE TO NAVD 88.
- TOPOGRAPHIC DATA WAS COLLECTED USING A COMBINATION OF THE FOLLOWING: CONVENTIONAL ROD, LEVEL AND CHAIN METHODOLOGIES, TRIMBLE REAL-TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (GPS), AND A TRIMBLE TOTAL STATION WITH BASE STATION.
- AERIAL IMAGE IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY, IMAGE OBTAINED FROM THE FLORIDA LAND AND BOUNDARY INFORMATION SYSTEM, WWW.LABINS.ORG. FLIGHT YEAR 2015.
- THIS SURVEY SHOULD BE CONSIDERED AN UPDATE OF THE 2010/11 SURVEY PERFORMED BY SDI, REFER TO PREVIOUS SDI PROJECT NUMBER 10-1743.
- THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

I HEREBY CERTIFY THAT THE TOPOGRAPHIC SURVEY SHOWN HEREON IS BASED ON A RECENT FIELD SURVEY CONDUCTED UNDER MY PERSONAL DIRECTION AND IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

WILLIAM T. SADLER JR., P.E., P.S.M.
FLORIDA PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION NO. 5859
FLORIDA AUTHORIZATION NO. LB-7432

DATE:

REVISIONS:

NO.:	DATE:	DESCRIPTION:

PROJECT:

SPECIFIC PURPOSE SURVEY
& TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL

SHEET TITLE:

COVER / PLAN VIEW

PREPARED FOR:

CITY OF DAYTONA BEACH
950 BELLVILLE AVENUE
DAYTONA BEACH, FL 32114

PREPARED BY:

SEA DIVERSIFIED, INC.
Surveying & Engineering Applications
451 NW 1ST AVENUE
DAYTONA BEACH, FLORIDA 32444
TEL: (561) 243-4920 FAX: (561) 243-4957
WWW.SEADIVERSIFIED.COM

DATE: DEC. 2018
DRAWN BY: B.N.W.
CHECKED BY: R.W.B.
SCALE: AS SHOWN
SHEET: C1
CADD ID:
TOTAL NUMBER OF SHEETS:

CITY OF DAYTONA BEACH MAIN STREET PIER SUBSTRUCTURE DETAIL

SCALE: 1" = 20'
THIS SCALE BASED ON
PLOT SIZE OF 24" x 36"

BENT PROFILE
BASELINE
RANGE 0.0
N: 1778856.99
E: 653992.10

OBSERVED PILE CONDITIONS:
GENERAL NOTE - TIMBER PILES ARE OVERALL IN GOOD CONDITION AND WEATHERING AS EXPECTED. HOWEVER, PILE AGE IS ULTIMATLEY UNKNOWN.
SPECIFIC PILES WITH NOTEWORTHY OBSERVATIONS ARE LISTED BELOW:

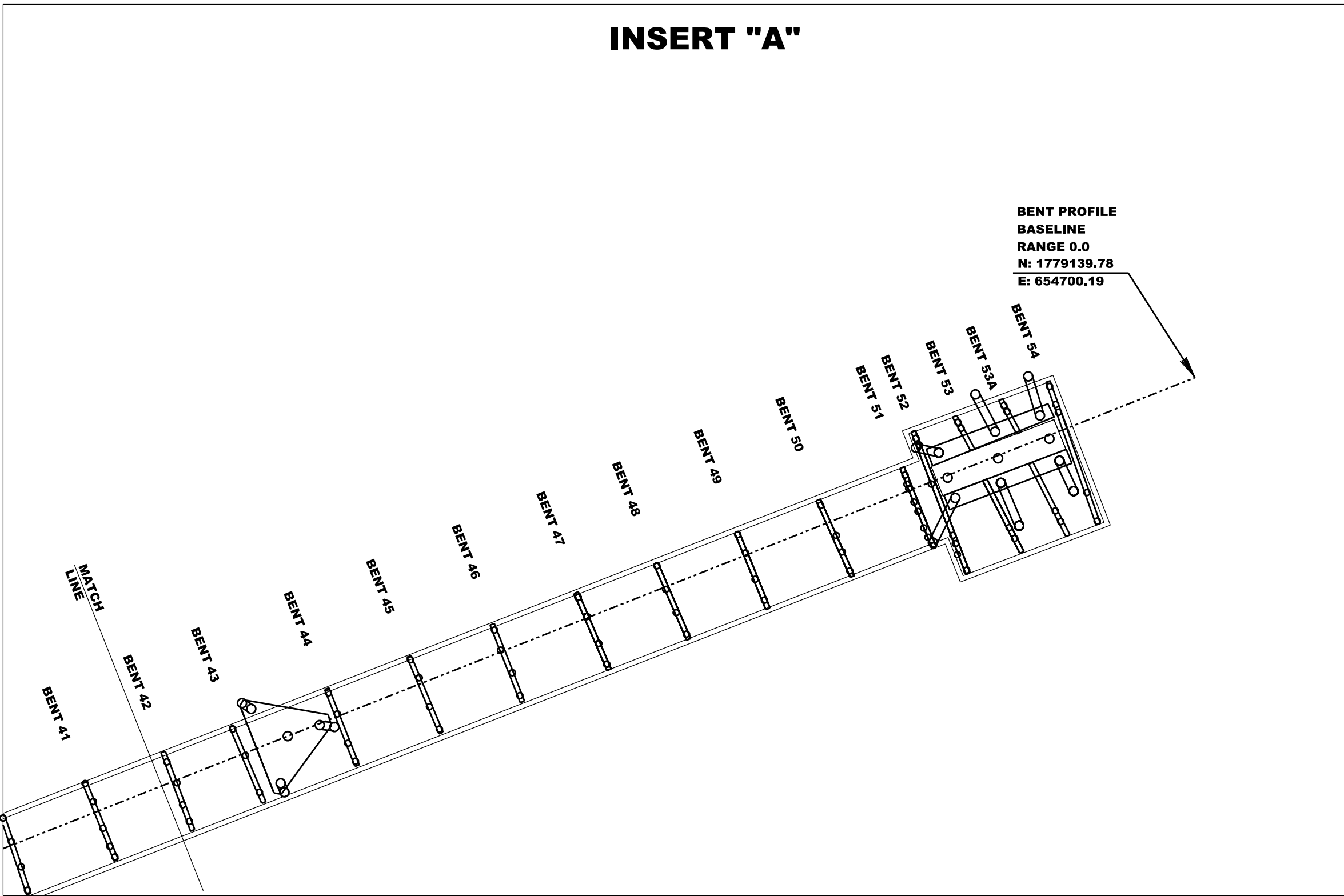
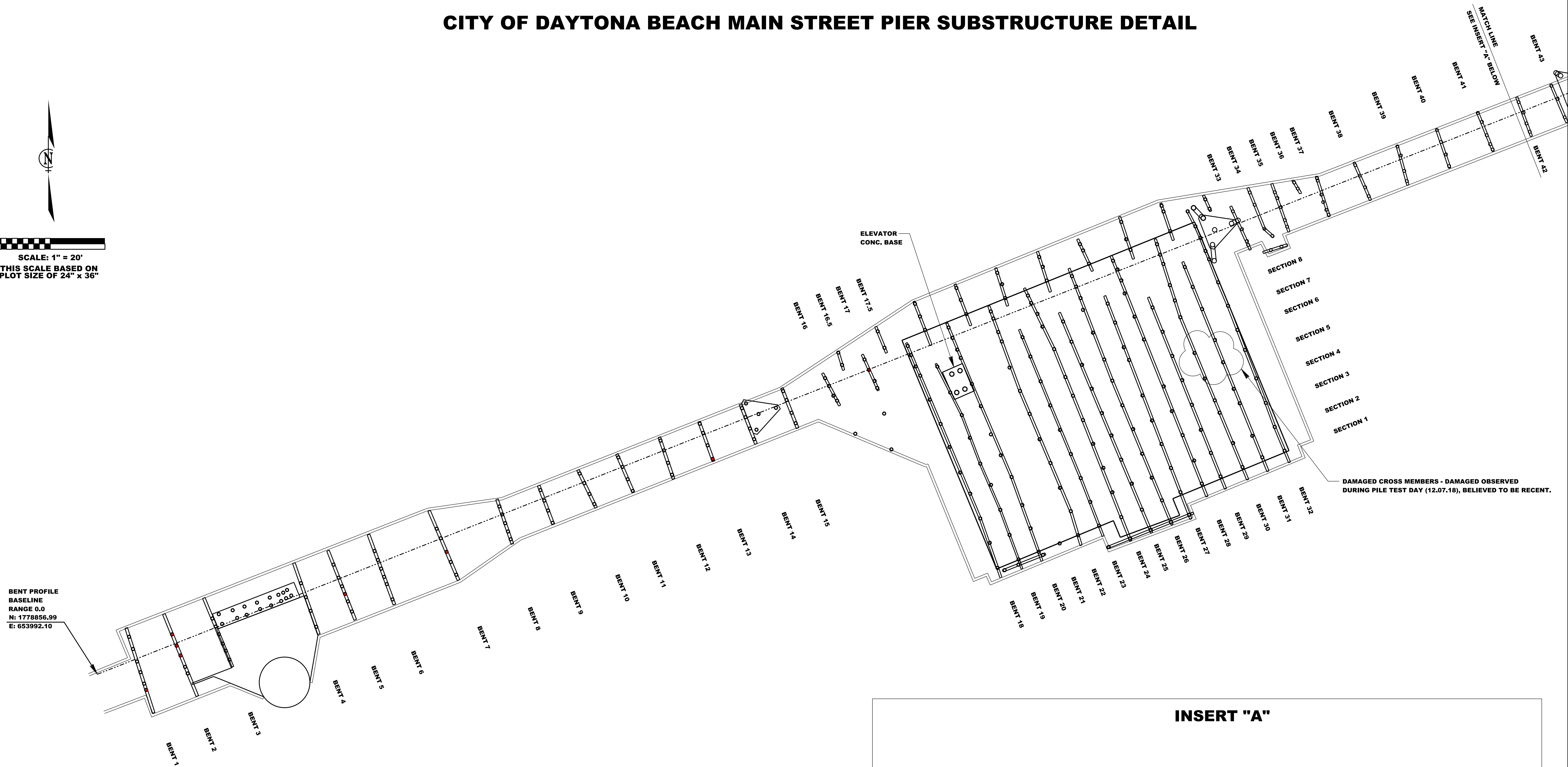
1. BENT 4 / PILE 4 (SOUTHERNMOST) HAS A GAP OF APPROXIMATELY 4-INCHES BETWEEN TOP OF PILE AND PILE CAP.
2. BENT 12 / PILE 3 HAS EXCESSIVE ROT AND IS IN NEED OF ATTENTION.
3. BENT 13 / PILE 3 HAS SEVERE CRACK APPROXIMATELY 3-FT ABOVE EXISTING SAND GRADE.
4. BENT 13 / PILE 4 HAS A GAP OF APPROXIMATELY 4-INCHES BETWEEN TOP OF PILE AND PILE BENT.
5. BENT 34 / PILE 2 DETACHED FROM BENT, APPEARS TO HAVE BEEN CUT.
6. BENT 43 / PILE 3 IS ENTIRELY MISSING.

OBSERVED CROSS MEMBER CONDITIONS:
MOST CROSS MEMBERS APPEAR TO HAVE BEEN RECENTLY REPLACED, BUT SOME OLDER CROSS MEMBERS ARE STILL PRESENT. CONNECTION POINTS OF ALL CROSS MEMBERS SHOULD BE INSPECTED / TIGHTENED OR REPLACE HARDWARE IF NEED BE, SOME HARDWARE WERE OBSERVED TO BE LOOSE AND OR MISSING, NOTE LOCKING WASHERS OR JAM NUTS WERE NOT OBSERVED, PERIODIC INSPECTION OF HARDWARE SHOULD BE ROUTINE.
BUBBLED AREA ILLUSTRATES DAMAGED CROSS MEMBERS THAT ARE IN NEED OF ATTENTION.

PILE INTEGRITY TEST (P.I.T.) - OVERALL LENGTH APPROXIMATIONS:
PILES TESTED DURING INITIAL P.I.T. EVALUATION, DATED 12.07.18, ARE DEPICTED WITH FILLED-IN RED, (●), REVIEW PILE TEST REPORT PREPARED BY GRL, DATED 12.12.18, FOR COMPLETE RESULTS. SUMMARIZATION IS PROVIDED HEREON:

1. BENT 1 / PILE 6 - 21 FT
2. BENT 2 / PILE 1 - 27 FT
3. BENT 2 / PILE 2 - 30 FT
4. BENT 2 / PILE 3 - 30 FT
5. BENT 5 / PILE 4 - 26 FT
6. BENT 7 / PILE 3 - 30 FT
7. BENT 13 / PILE 4 - 31 FT
8. BENT 17 / PILE 2 - 31 FT

PLEASE NOTE THE ABOVE VALUES ARE SUMMARIZED FROM GRL REPORT, WHICH SHOULD BE REVIEWED IN ENTIRETY.



REVISIONS:	
NO.:	DATE: DESCRIPTION:

PROJECT: SPECIFIC PURPOSE SURVEY & TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL
SHEET TITLE: PLAN VIEW
SUBSTRUCTURE DETAIL



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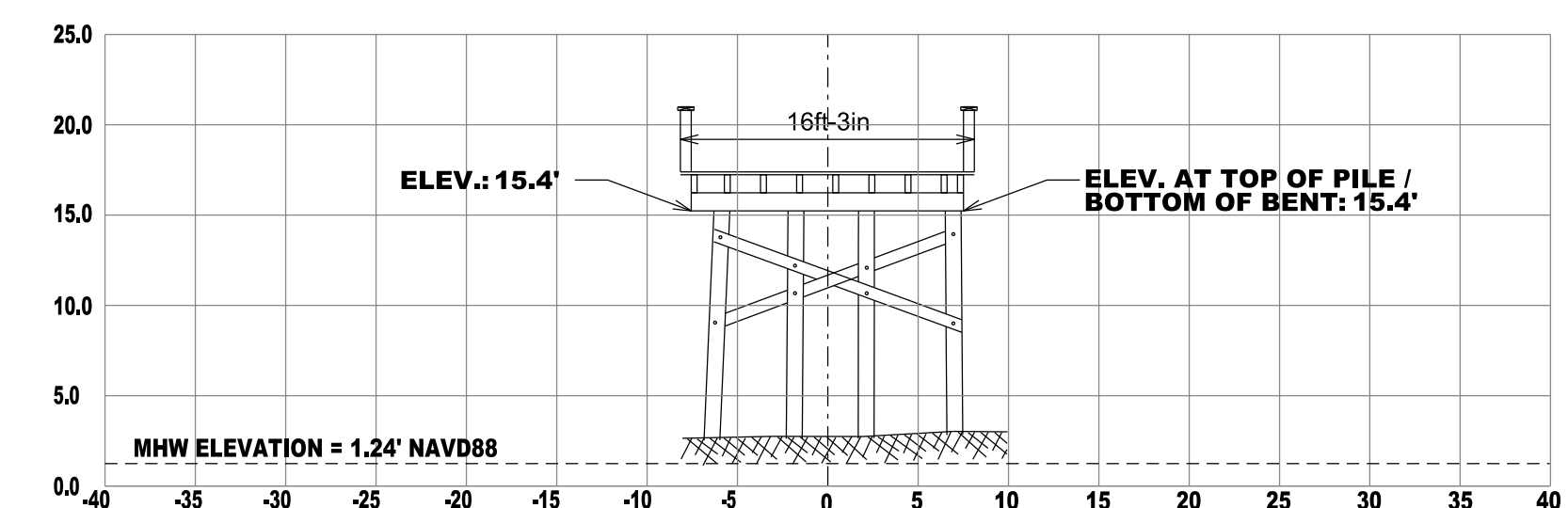
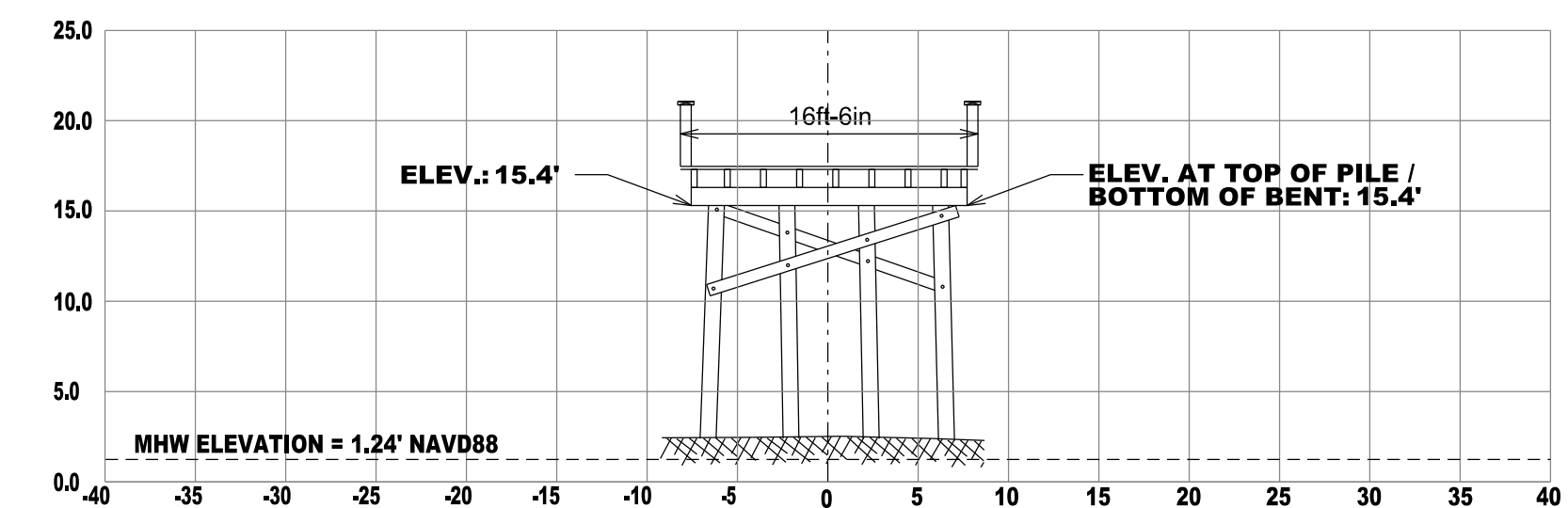
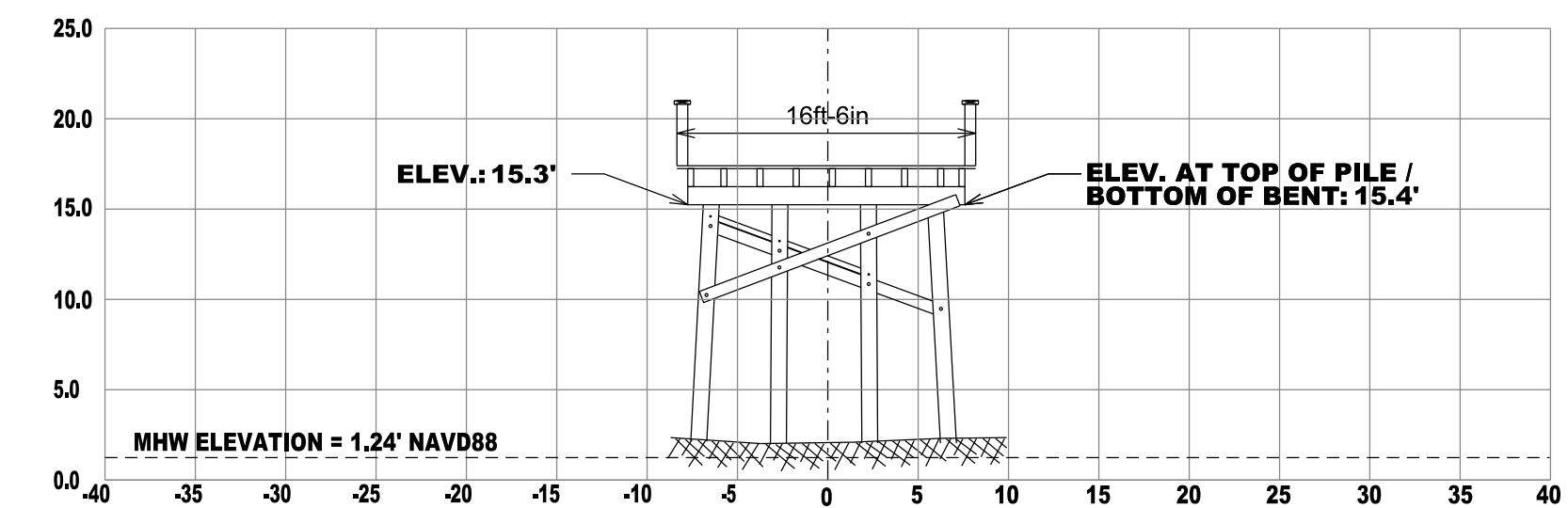
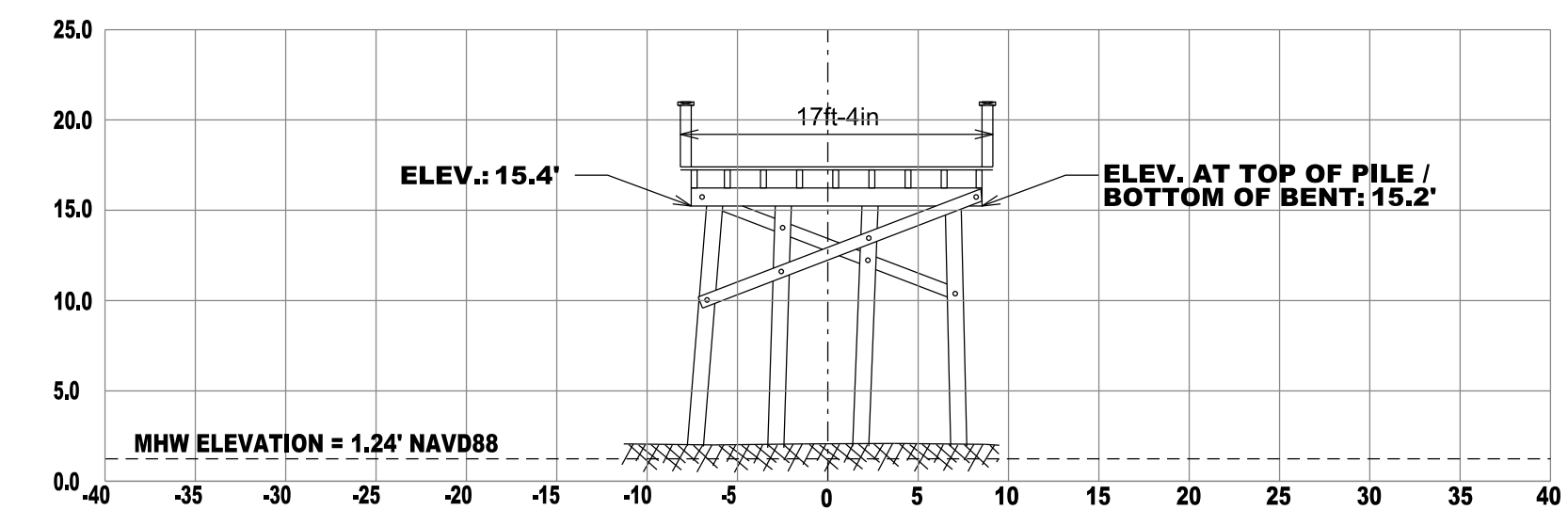
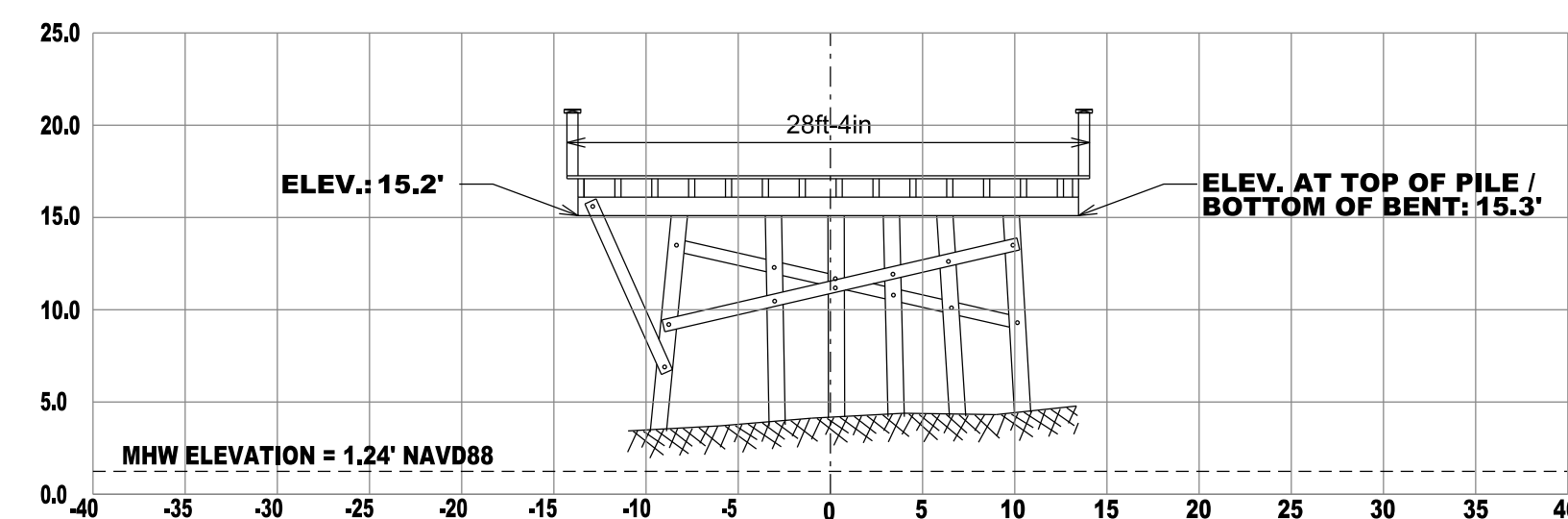
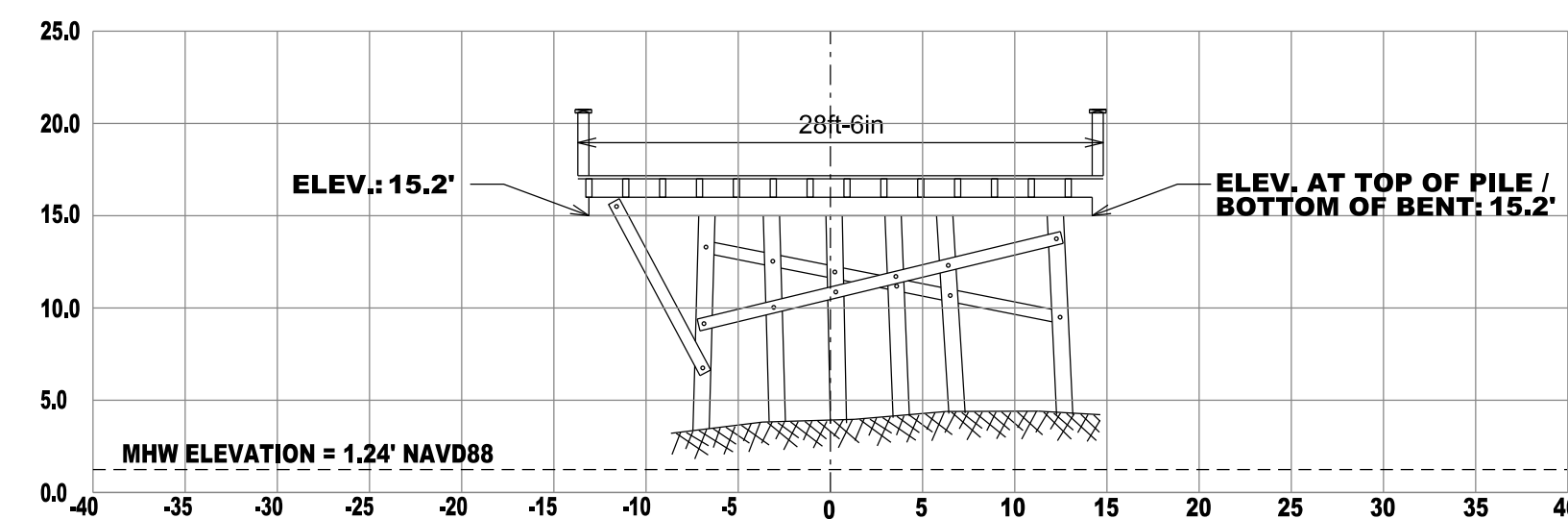
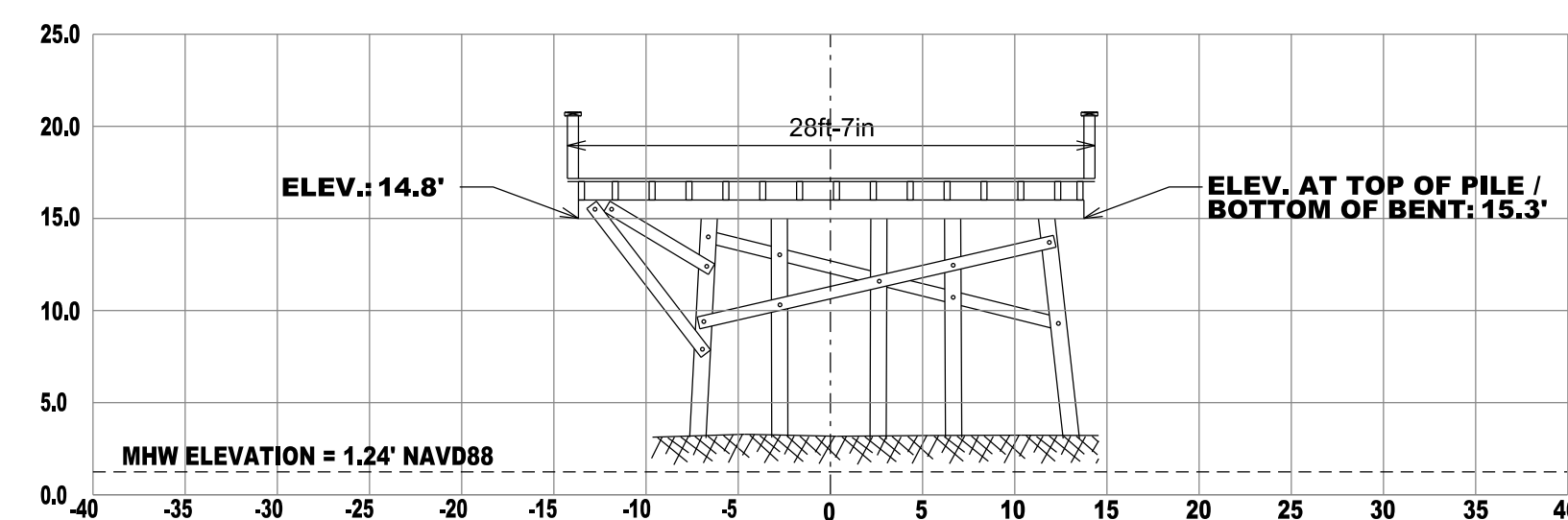
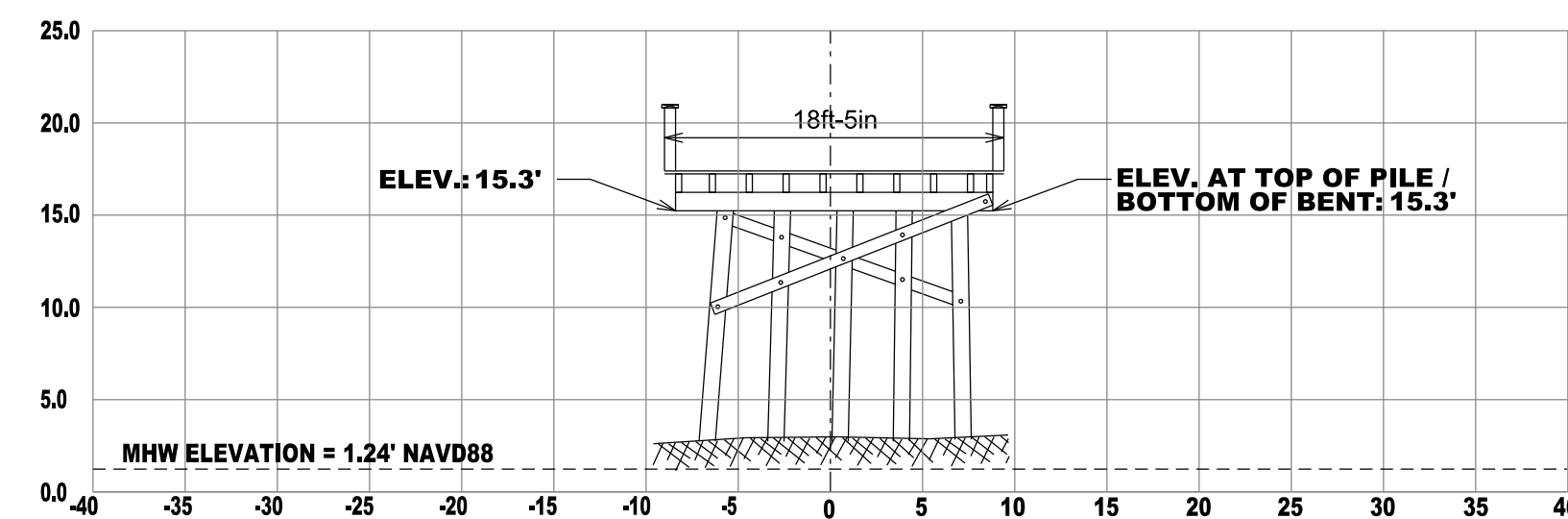
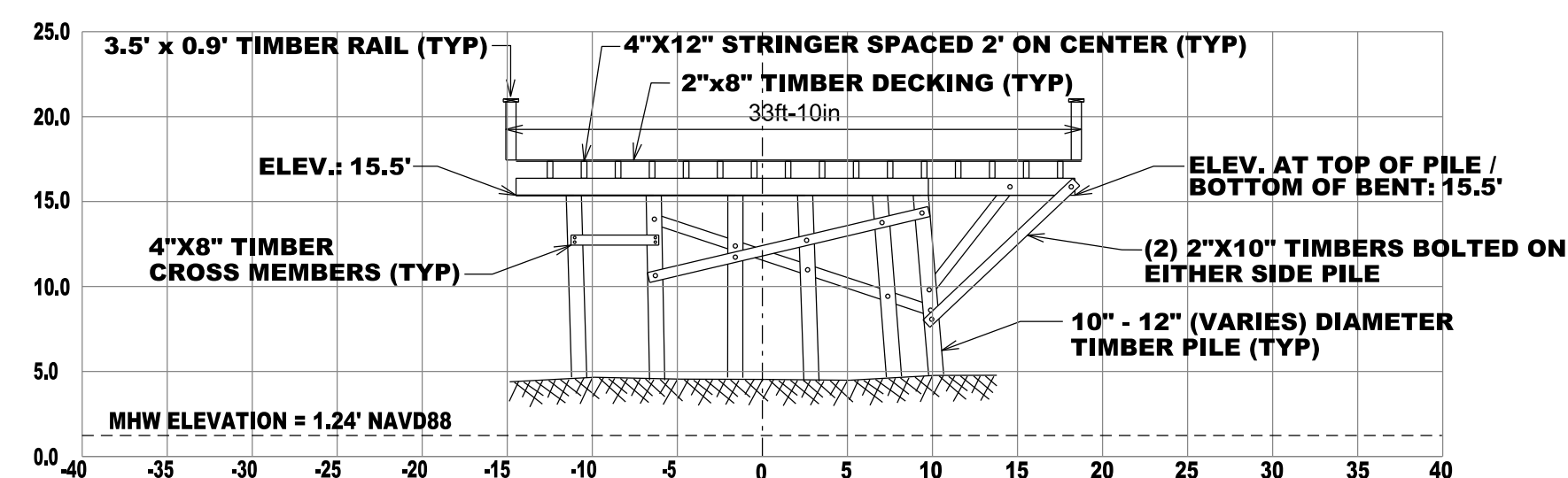
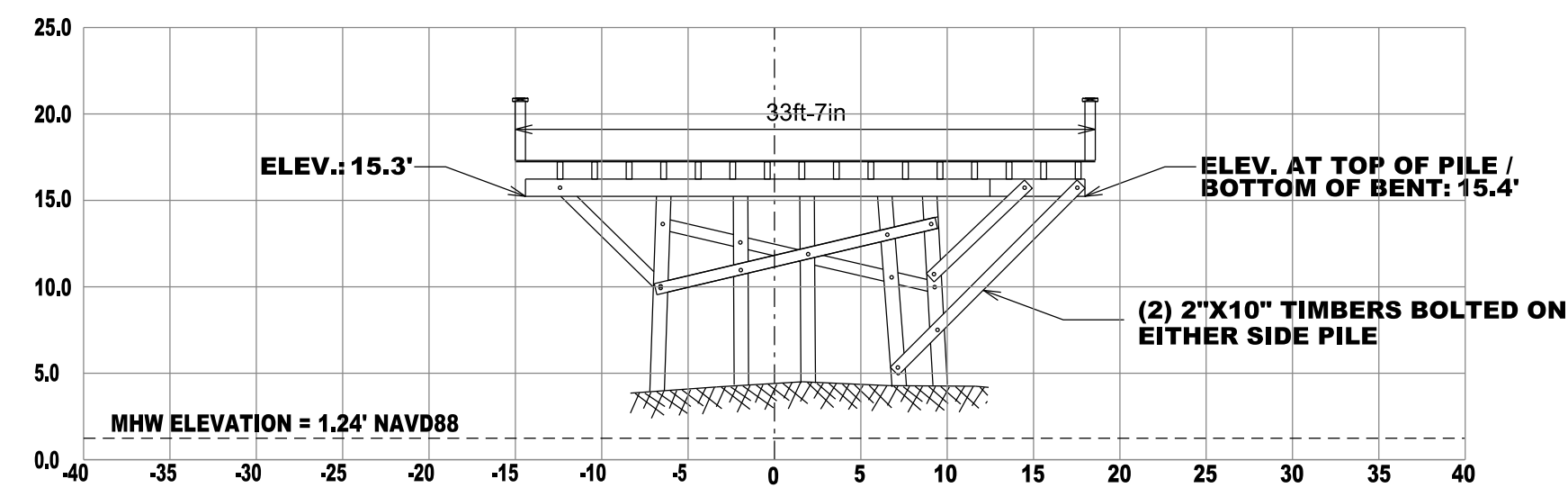
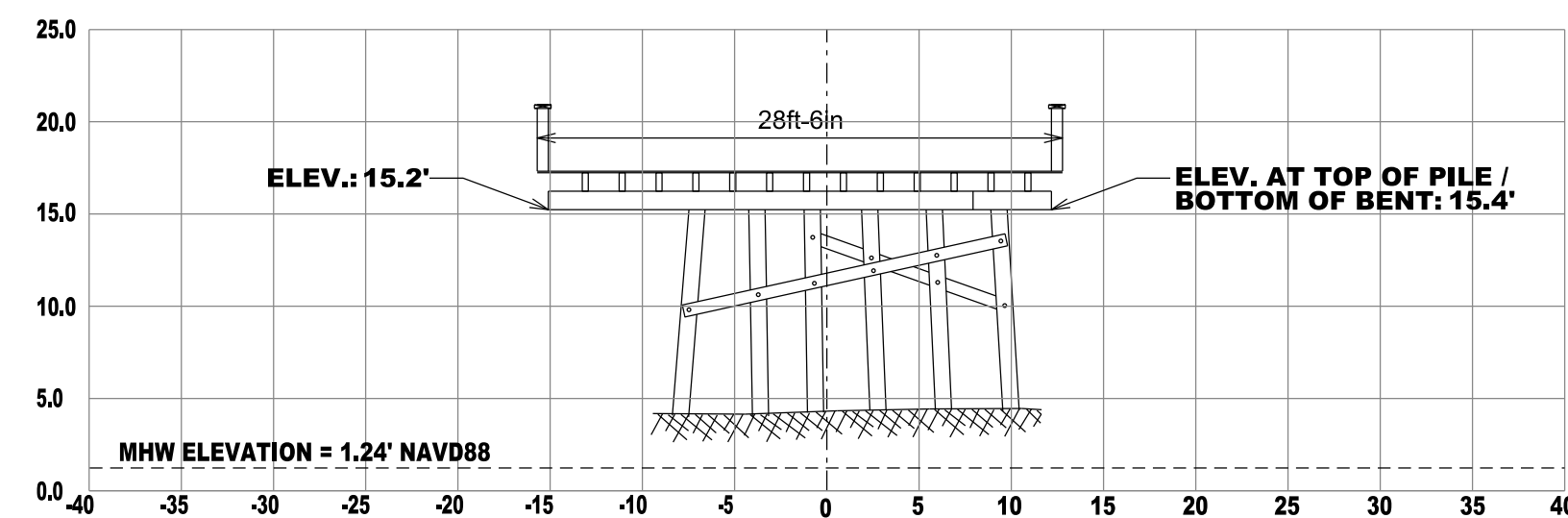
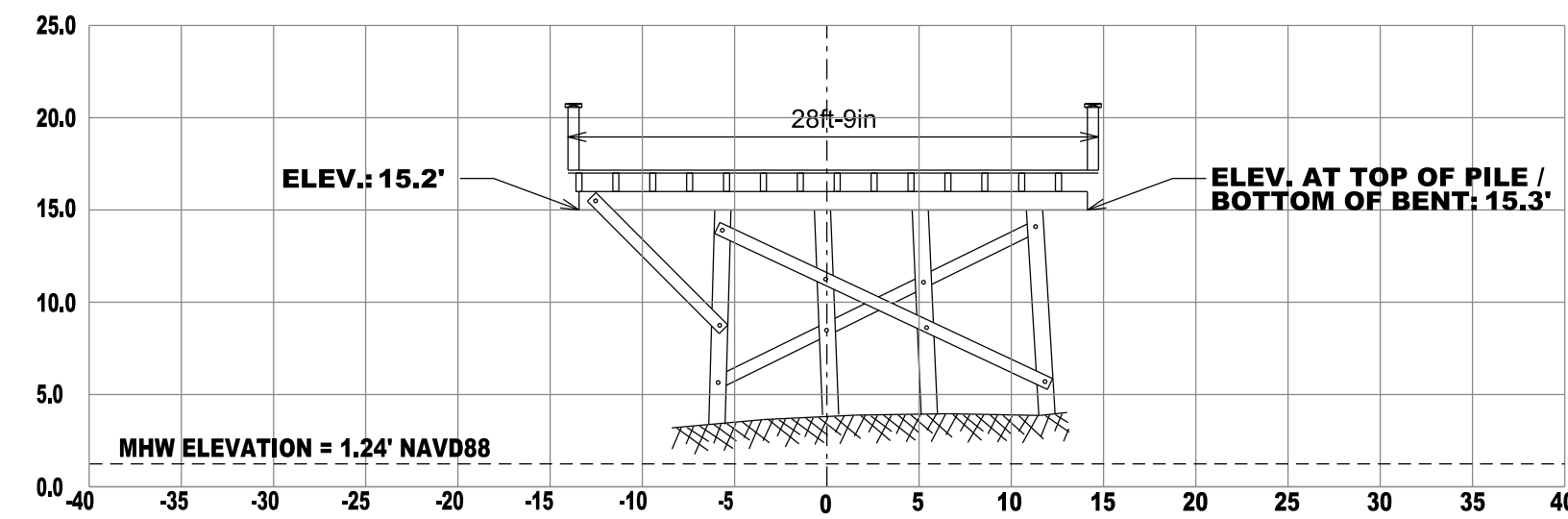


DATE:	DEC. 2018
DRAWN BY:	B.N.W.
CHECKED BY:	R.W.R.
SCALE:	AS SHOWN
SHEET:	


P2

CADD ID:
TOTAL NUMBER OF SHEETS:

SDI P.N. 18-2675



SCALE



VERTICAL: 1" = 10'
HORIZONTAL: 1" = 10'

[illegible]

PROJECT: **SPECIFIC PURPOSE SURVEY
& TOPOGRAPHIC SURVEY
OF MAIN STREET PIER
CITY OF DAYTONA BEACH, FL**

SHEET TITLE: **CROSS SECTIONS**



950 BELLVUE AVENUE
DAYTONA BEACH, FL 32114

PREPARED BY:	PREPARED FOR:
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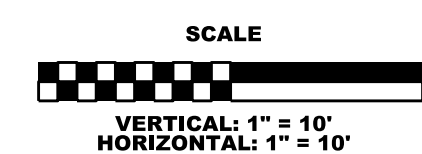
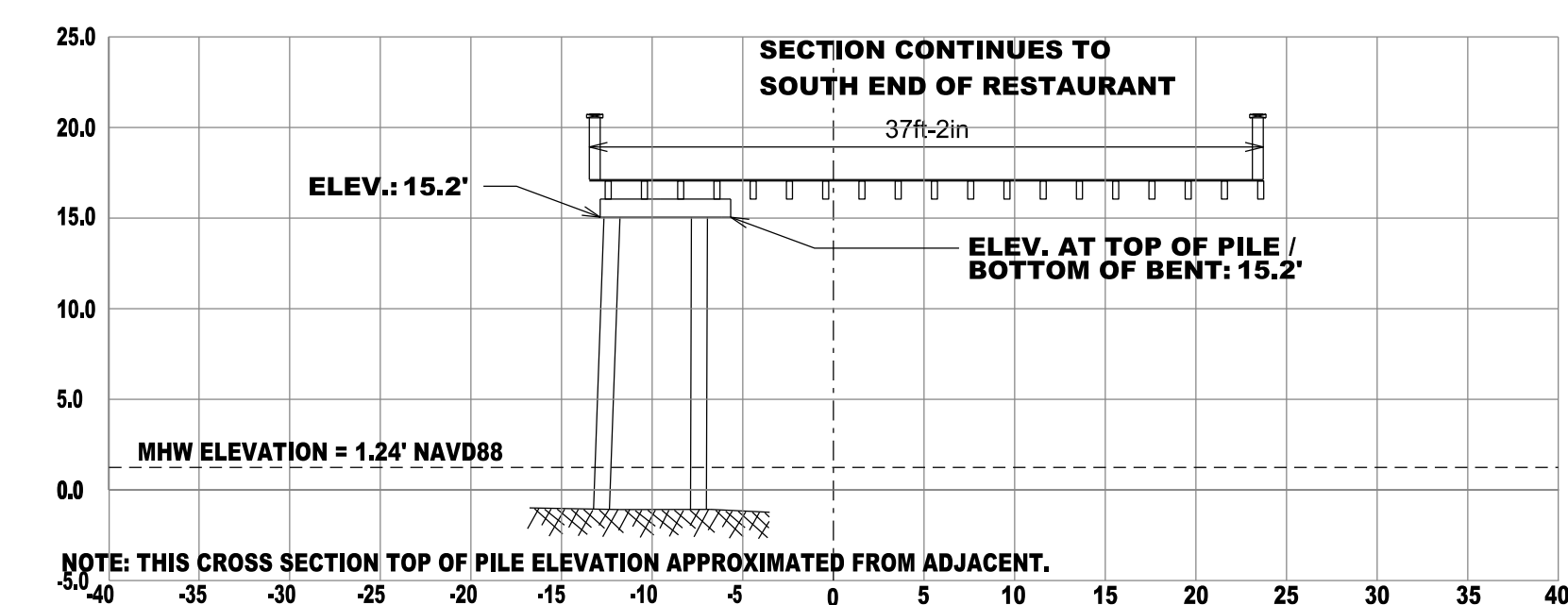
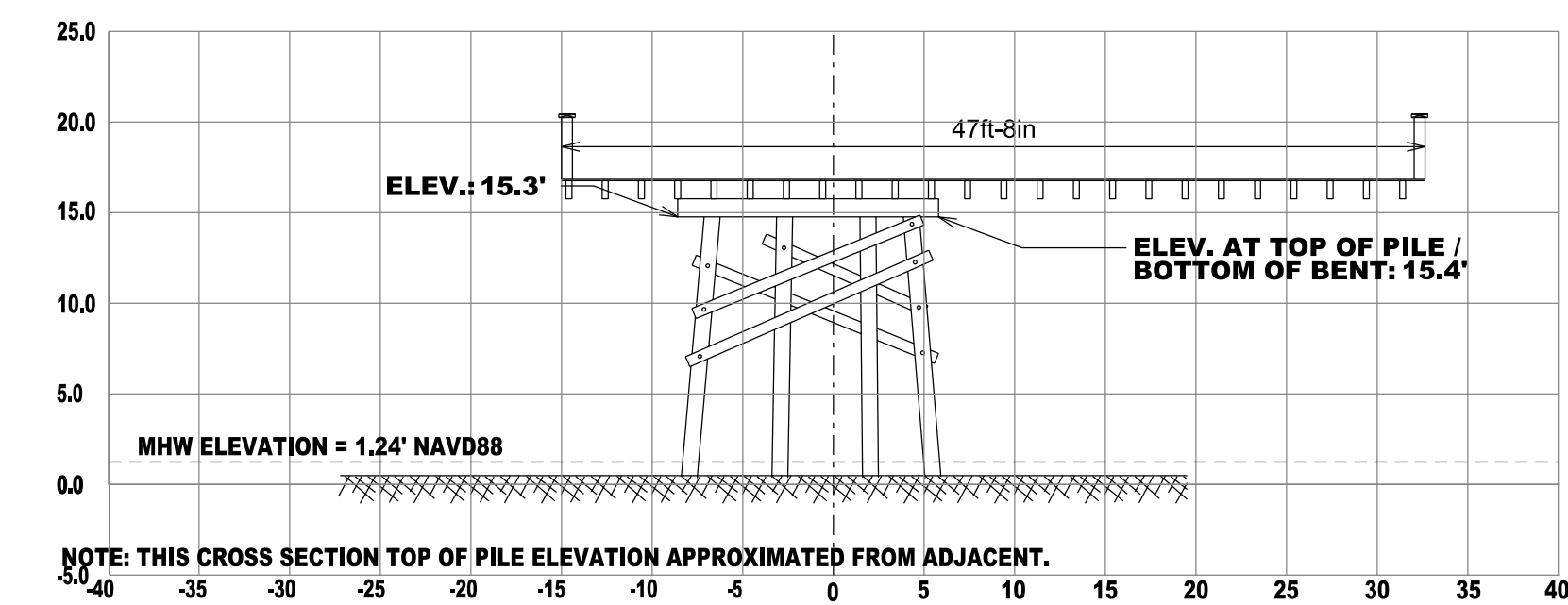
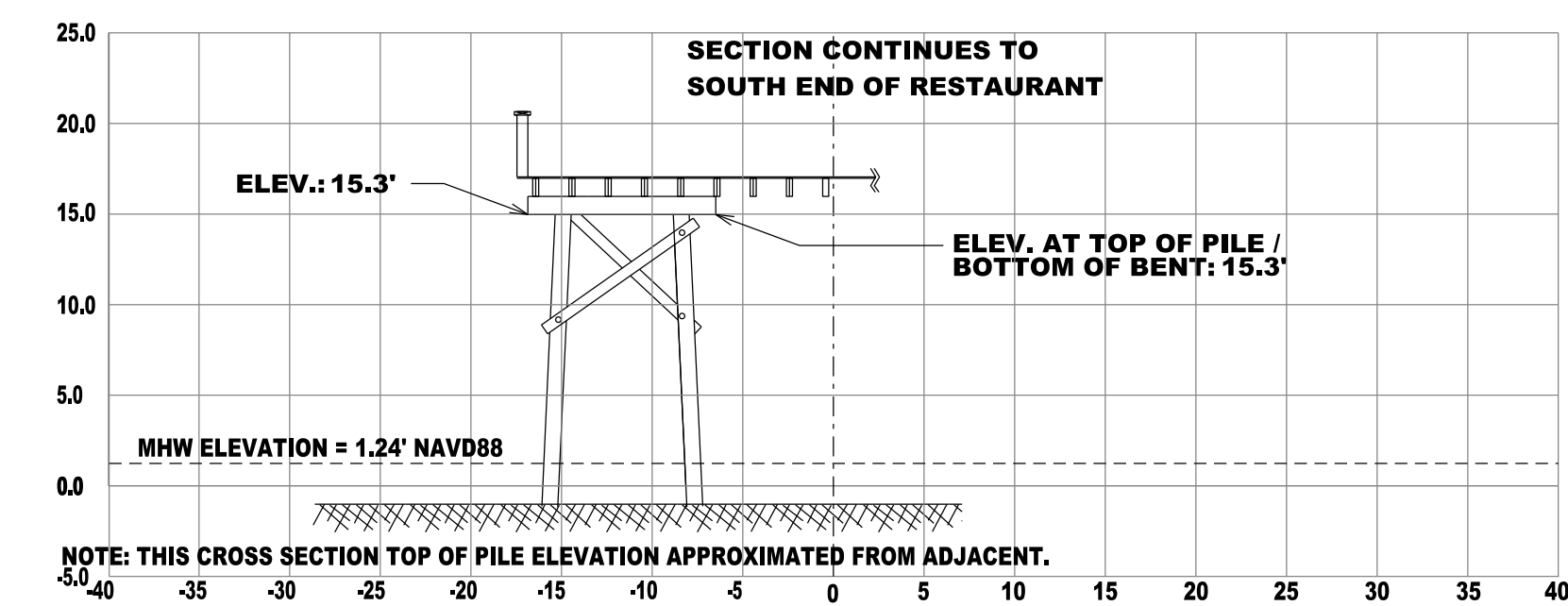
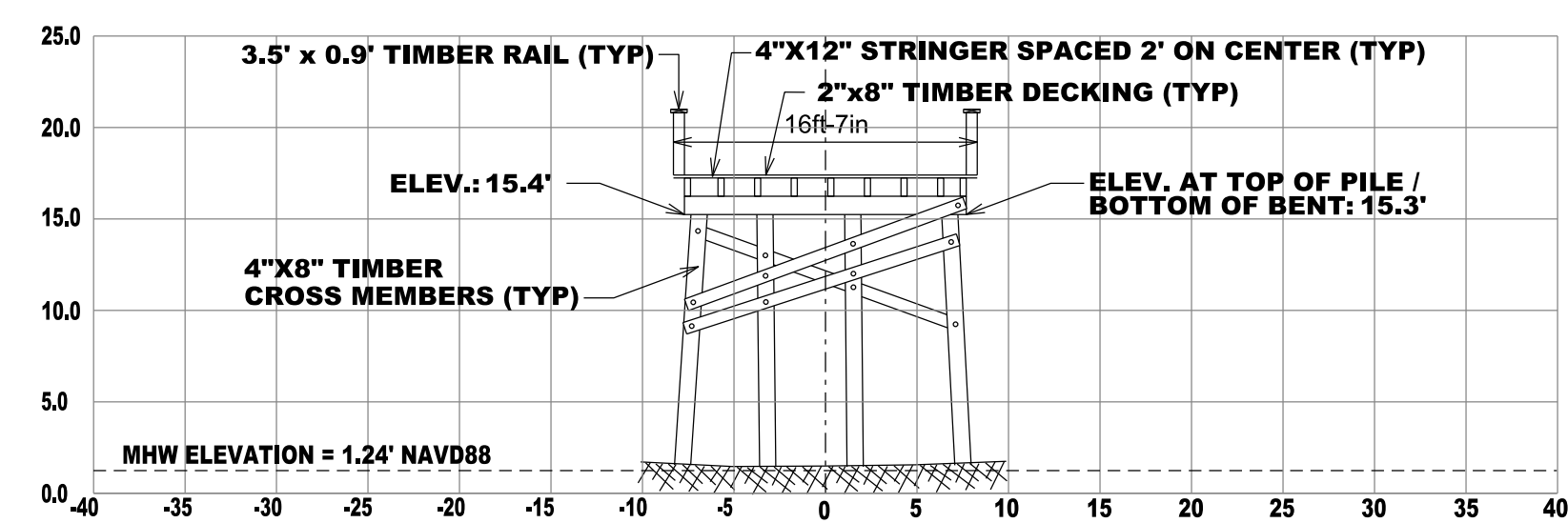
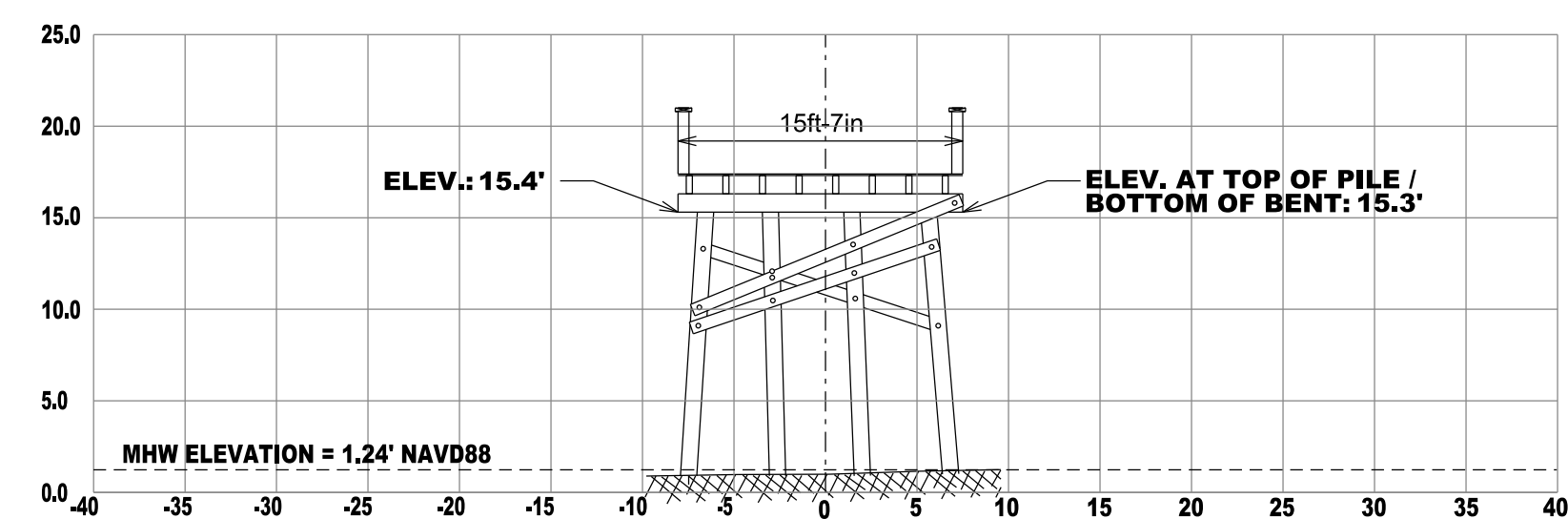
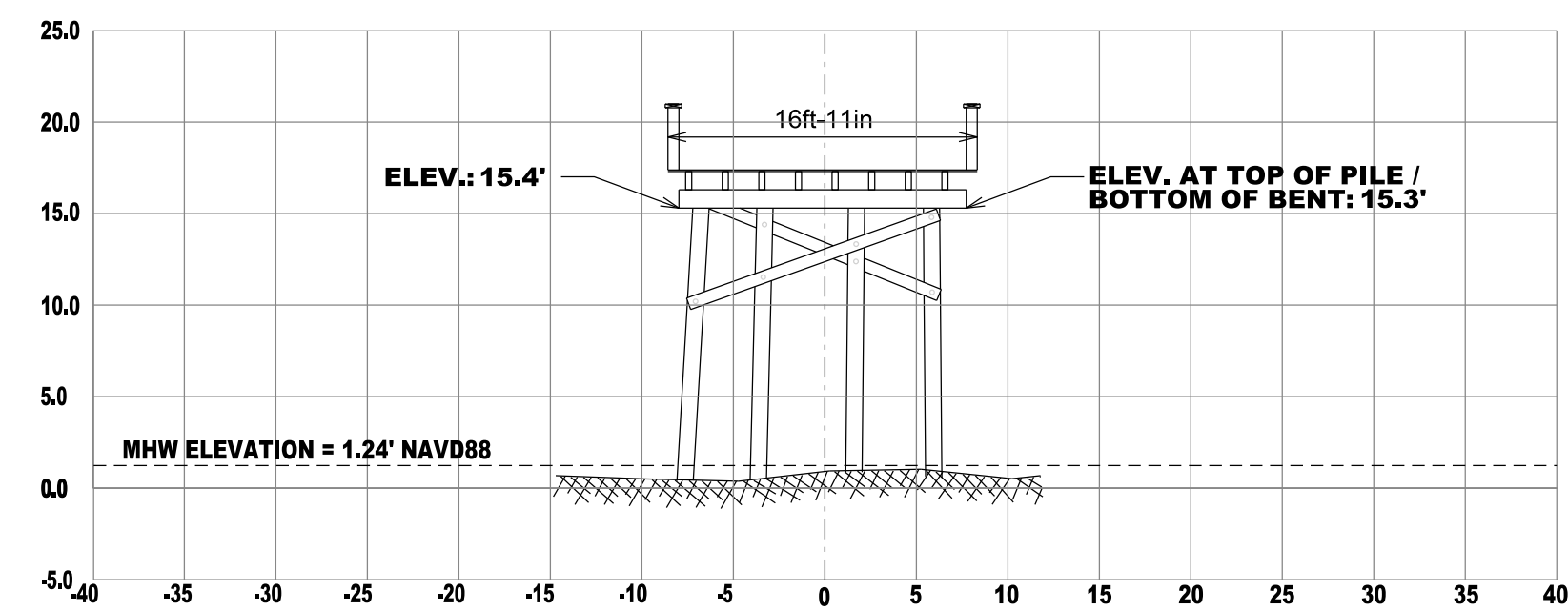
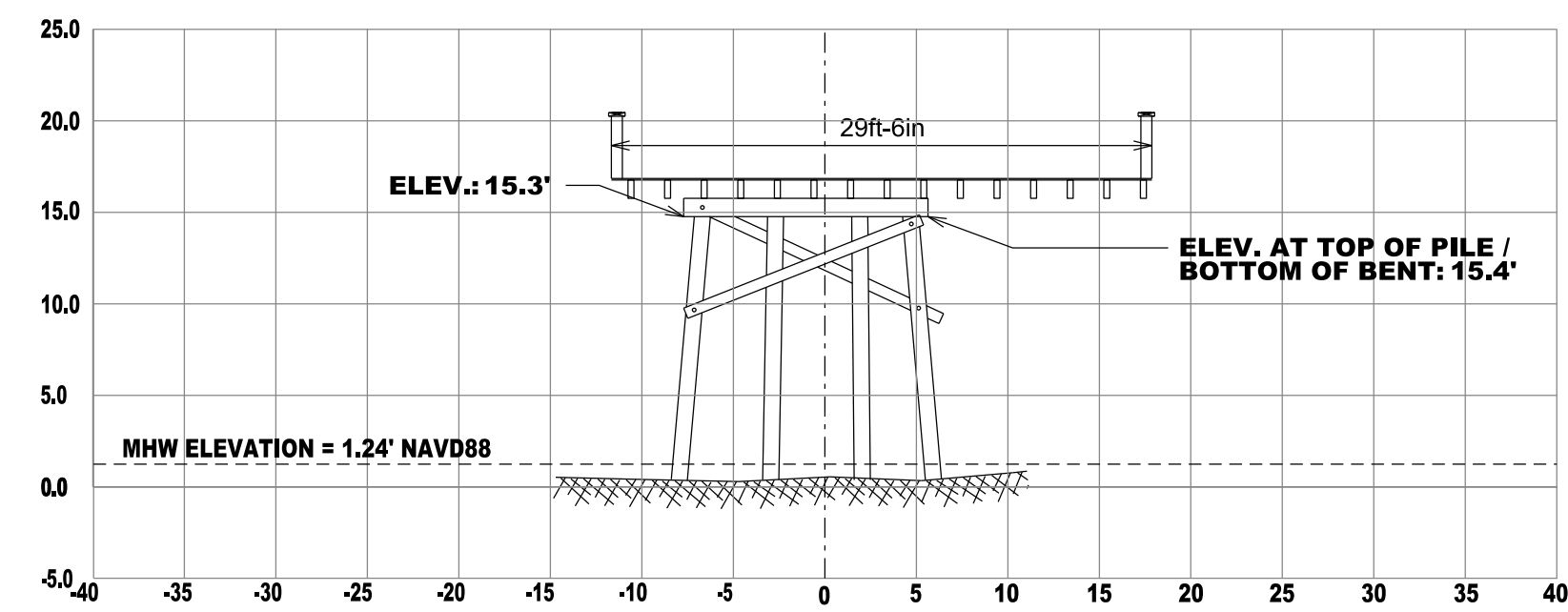


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SCALE:	AS SHOWN
SHEET:	

S1

CADD ID:
TOTAL NUMBER OF SHEETS:

SDI P.N. 18-2675

[illegible]

**PROJECT: SPECIFIC PURPOSE SURVEY & TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL**

CROSS SECTIONS

SHEET TITLE:



**CITY OF DAYTONA BEACH
950 BELLVUE AVENUE
DAYTONA BEACH, FL 32114**

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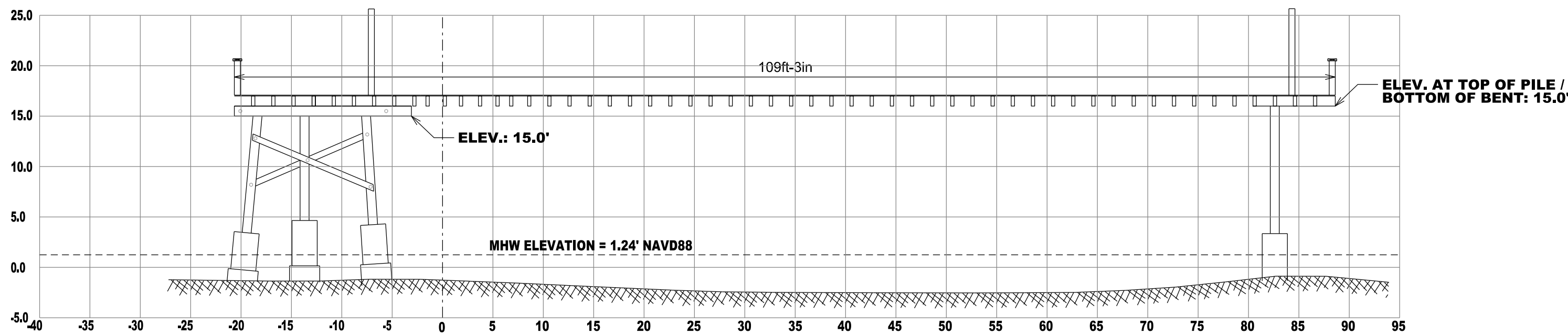


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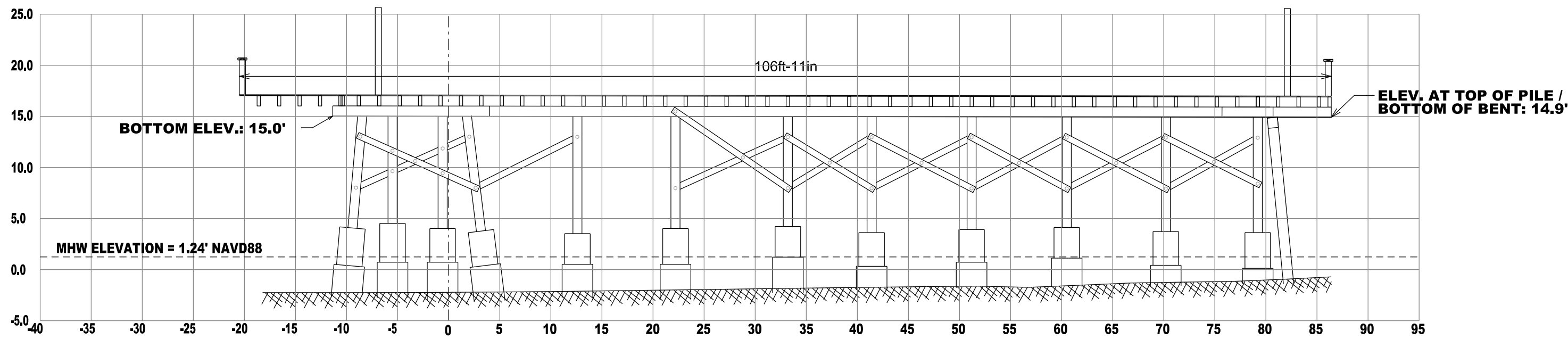
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TOTAL NUMBER OF SHEETS:

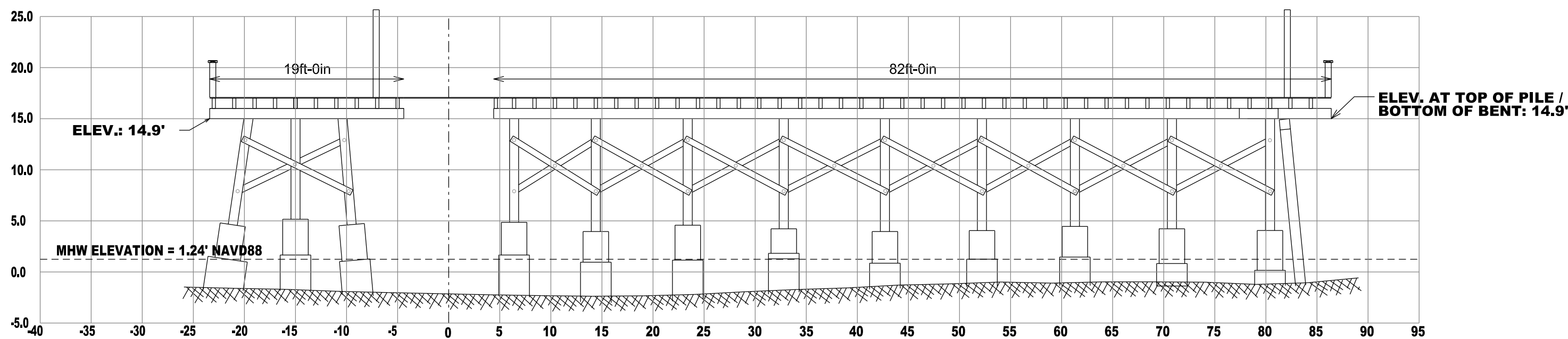
SDI P.N. 18-2675



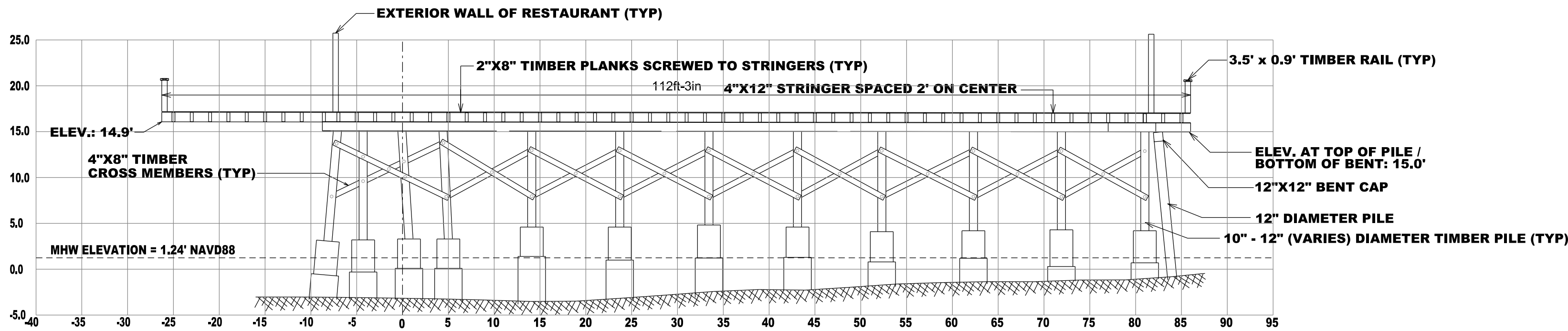
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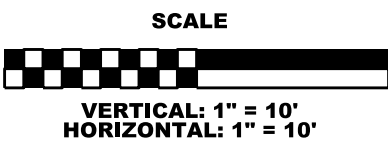
BENT 20



BENT 19



BENT 18



REVISIONS:	
NO.:	DATE: DESCRIPTION:

PROJECT:
**SPECIFIC PURPOSE SURVEY
& TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL**

SHEET TITLE:
CROSS SECTIONS

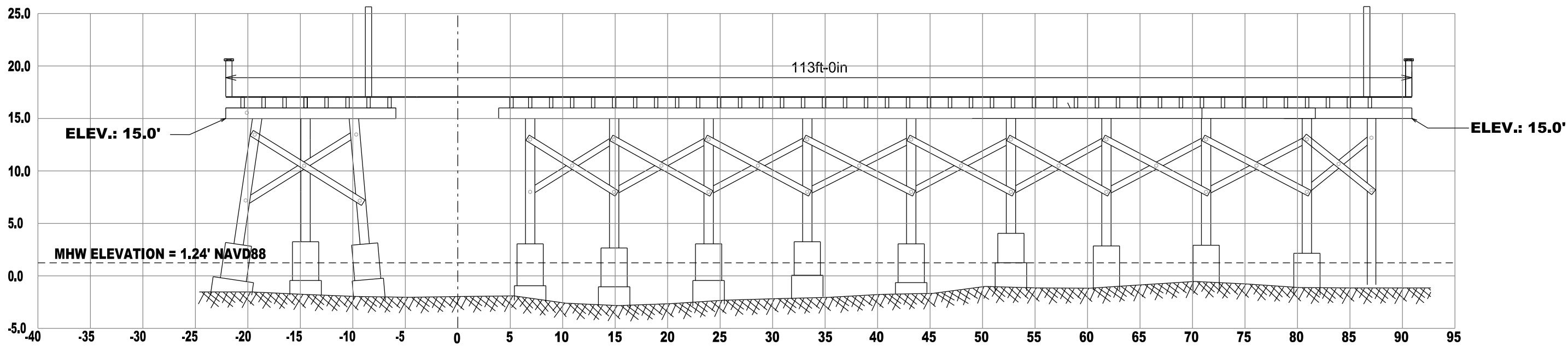
PREPARED FOR:

CITY OF DAYTONA BEACH
950 BELLUVE AVENUE
DAYTONA BEACH, FL 32114

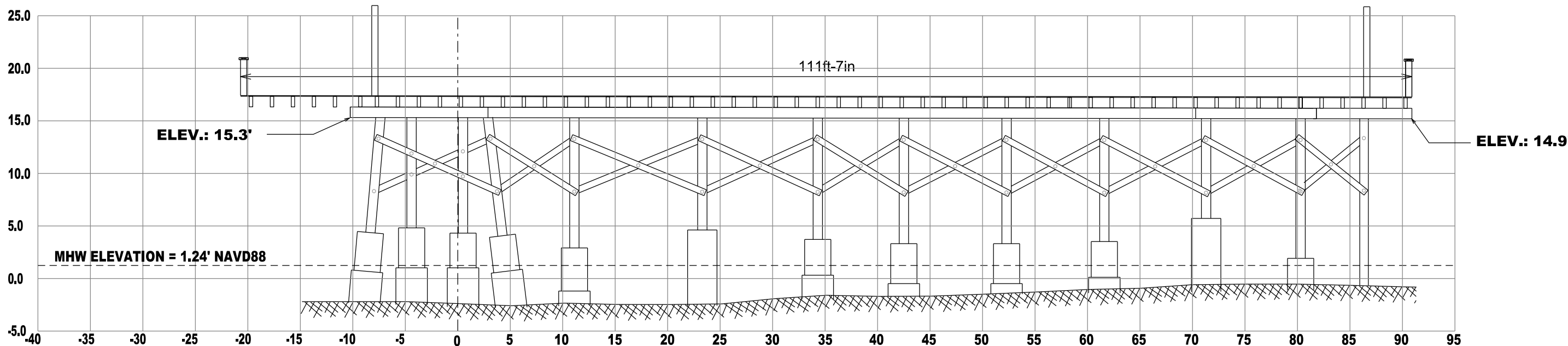
PREPARED BY:
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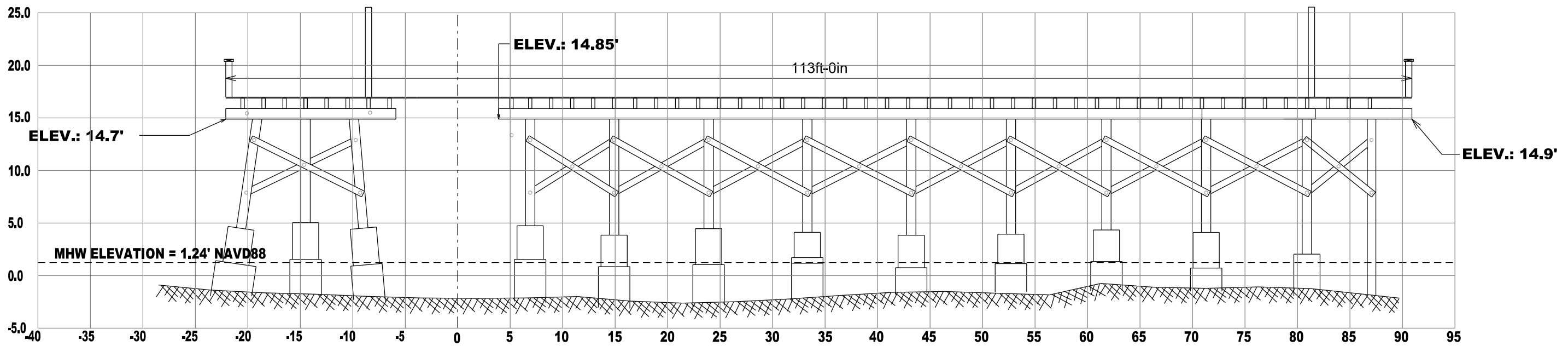
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SCALE:	AS SHOWN
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CADD ID:	TOTAL NUMBER OF SHEETS:



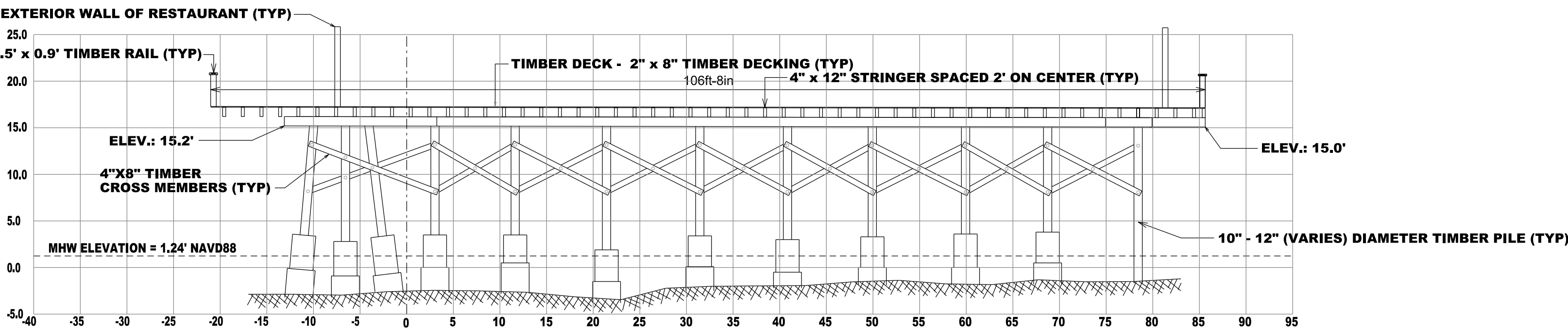
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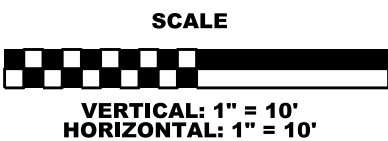
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BENT 23



BENT 22



REVISIONS:	
NO.:	DATE: DESCRIPTION:

PROJECT:
**SPECIFIC PURPOSE SURVEY
& TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL**

SHEET TITLE:
CROSS SECTIONS

PREPARED FOR:



CITY OF DAYTONA BEACH
950 BELLUVE AVENUE
DAYTONA BEACH, FL 32114

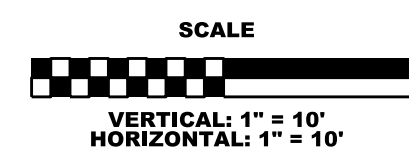
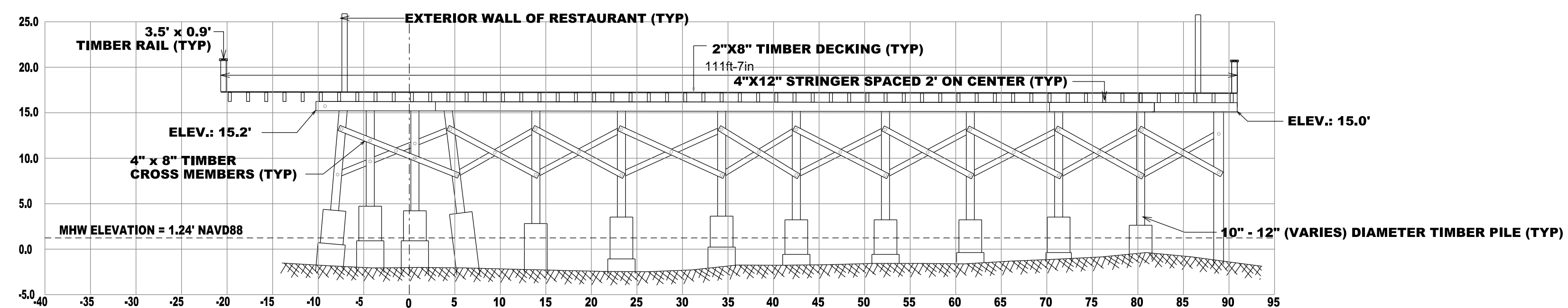
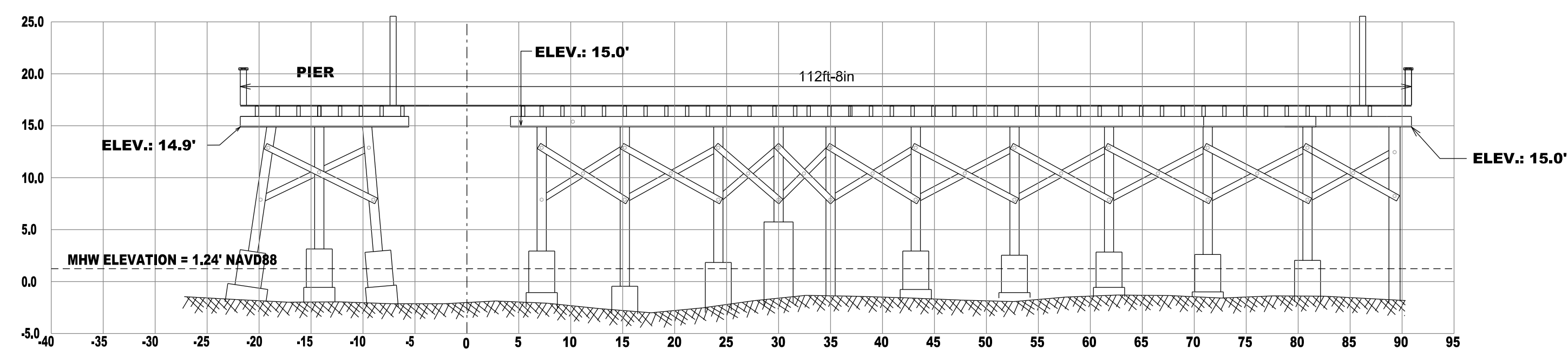
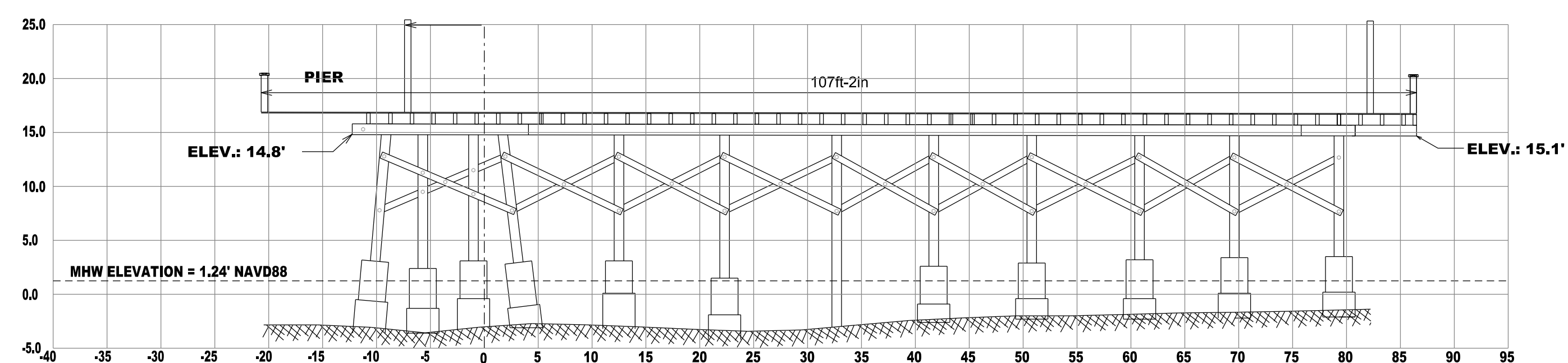
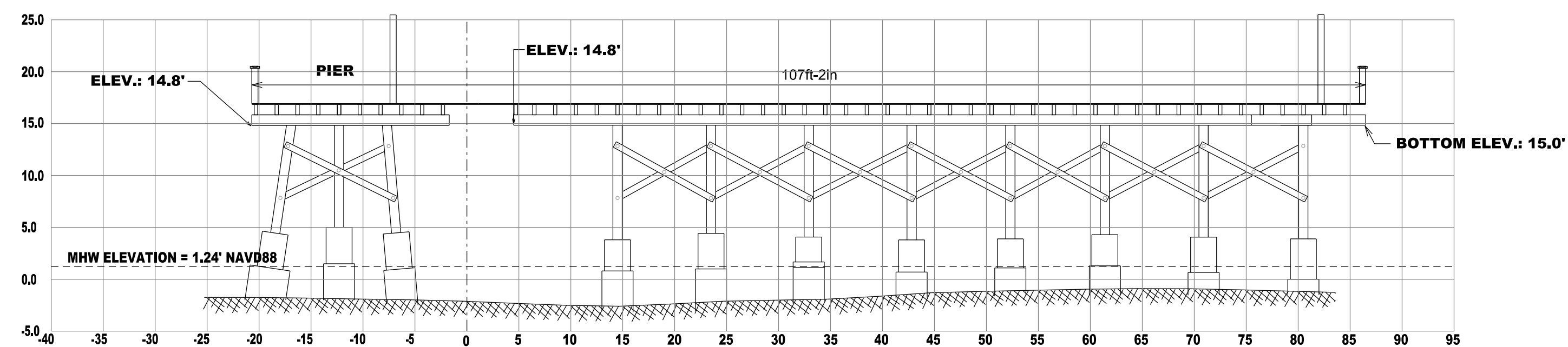
PREPARED BY:



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DATE:	DEC. 2018
DRAWN BY:	B.N.W.
CHECKED BY:	R.W.R.
SCALE:	AS SHOWN
SHEET:	S4
CADD ID:	TOTAL NUMBER OF SHEETS:

[illegible]

PROJECT: **SPECIFIC PURPOSE SURVEY & TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL**

SHEET TITLE: **CROSS SECTIONS**



**CITY OF DAYTONA BEACH
950 BELLVUE AVENUE
DAYTONA BEACH, FL 32114**

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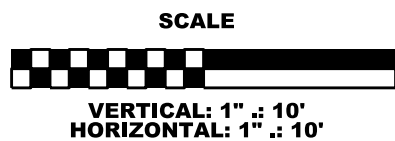
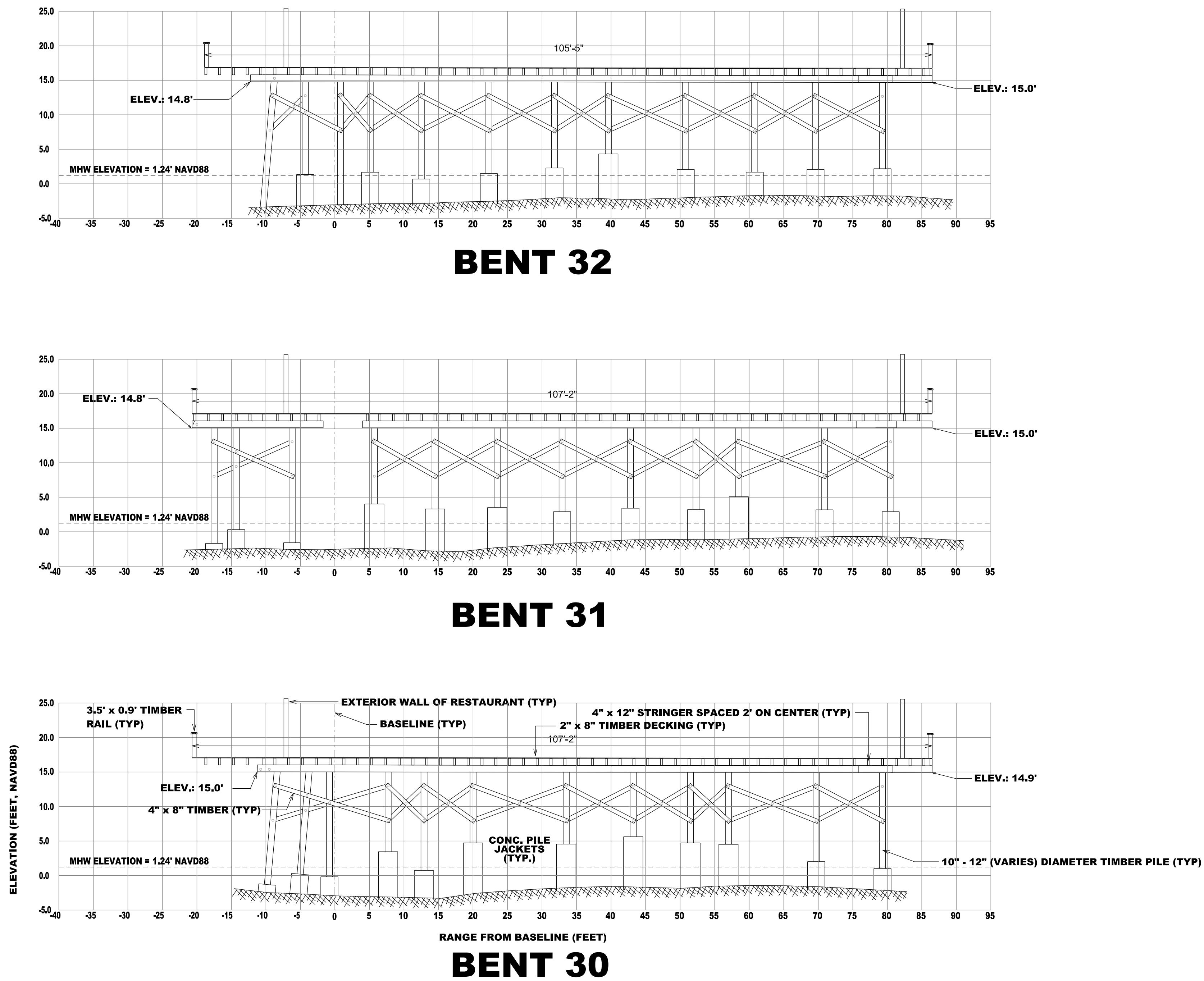


DATE:	DEC. 2018
DRAWN BY:	B.N.W.
CHECKED BY:	R.W.B.
SCALE:	AS SHOWN
SHEET:	

S5

CADD ID:
TOTAL NUMBER OF SHEETS:

SDI P.N. 18-2675



REVISIONS:

NO.:	DATE:	DESCRIPTION:

PROJECT:

SPECIFIC PURPOSE SURVEY
& TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL

SHEET TITLE:

CROSS SECTIONS

PREPARED FOR:



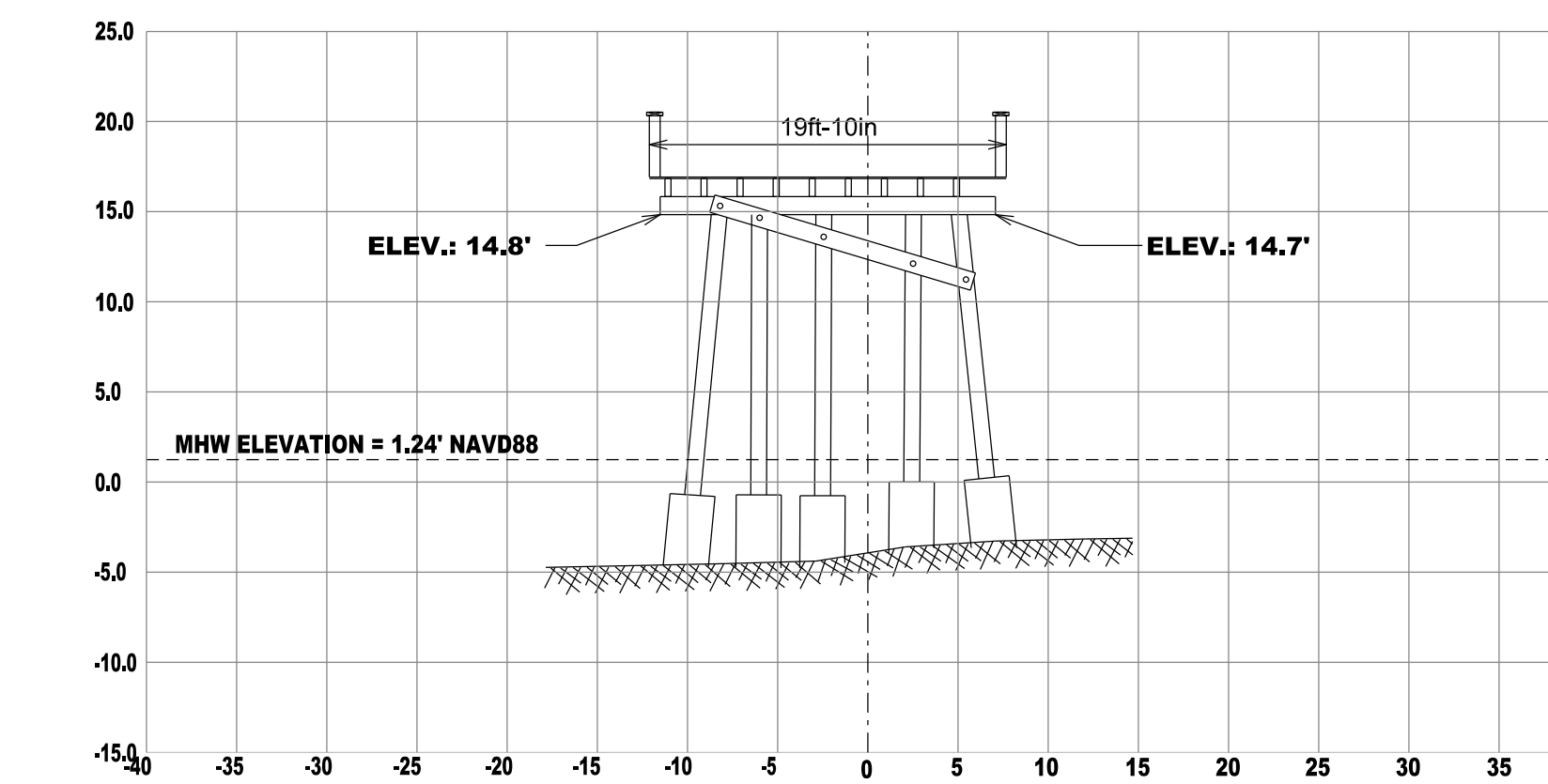
CITY OF DAYTONA BEACH
950 BELLUVE AVENUE
DAYTONA BEACH, FL 32114

PREPARED BY:

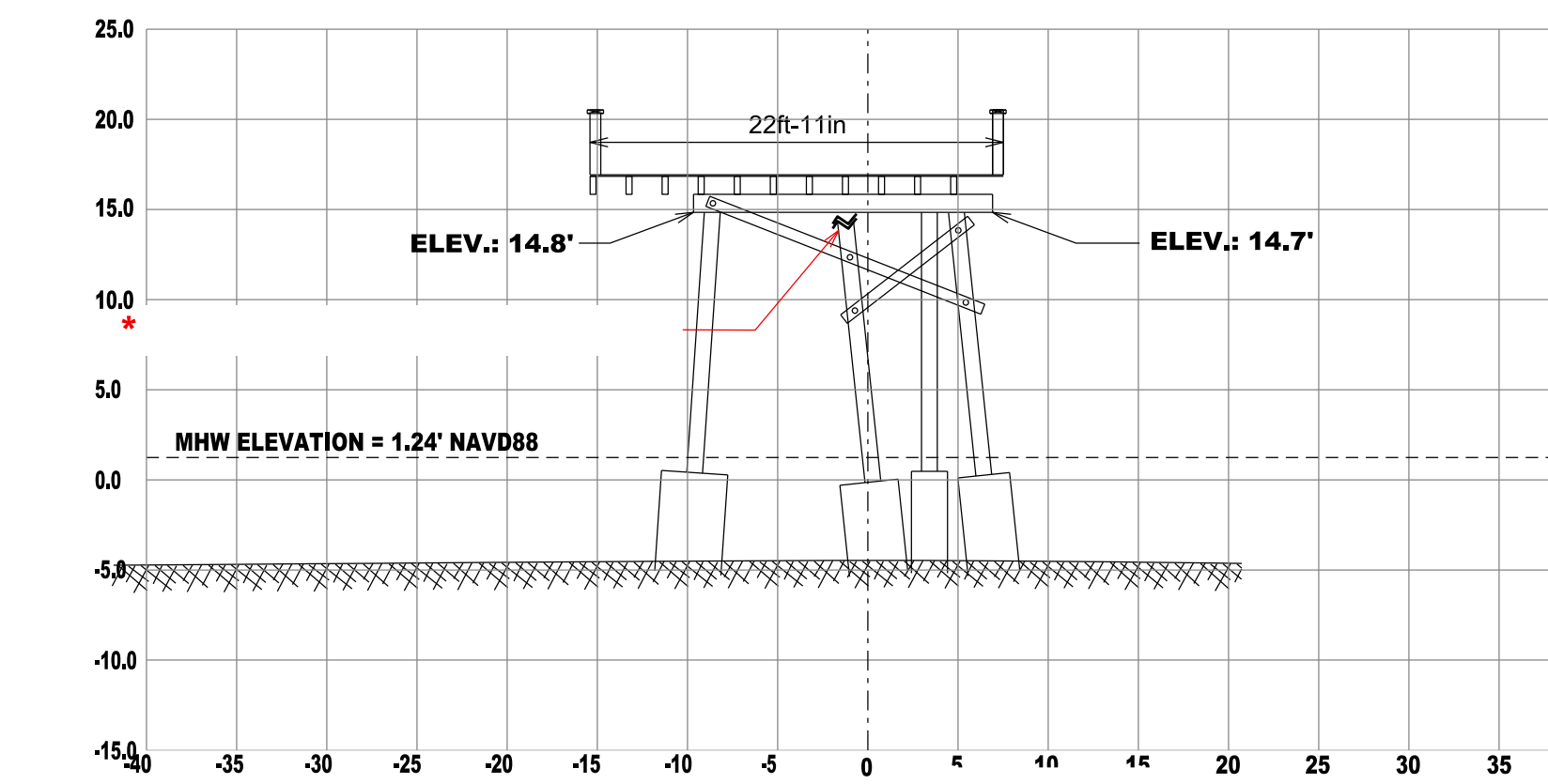
SEA DIVERSIFIED, INC.
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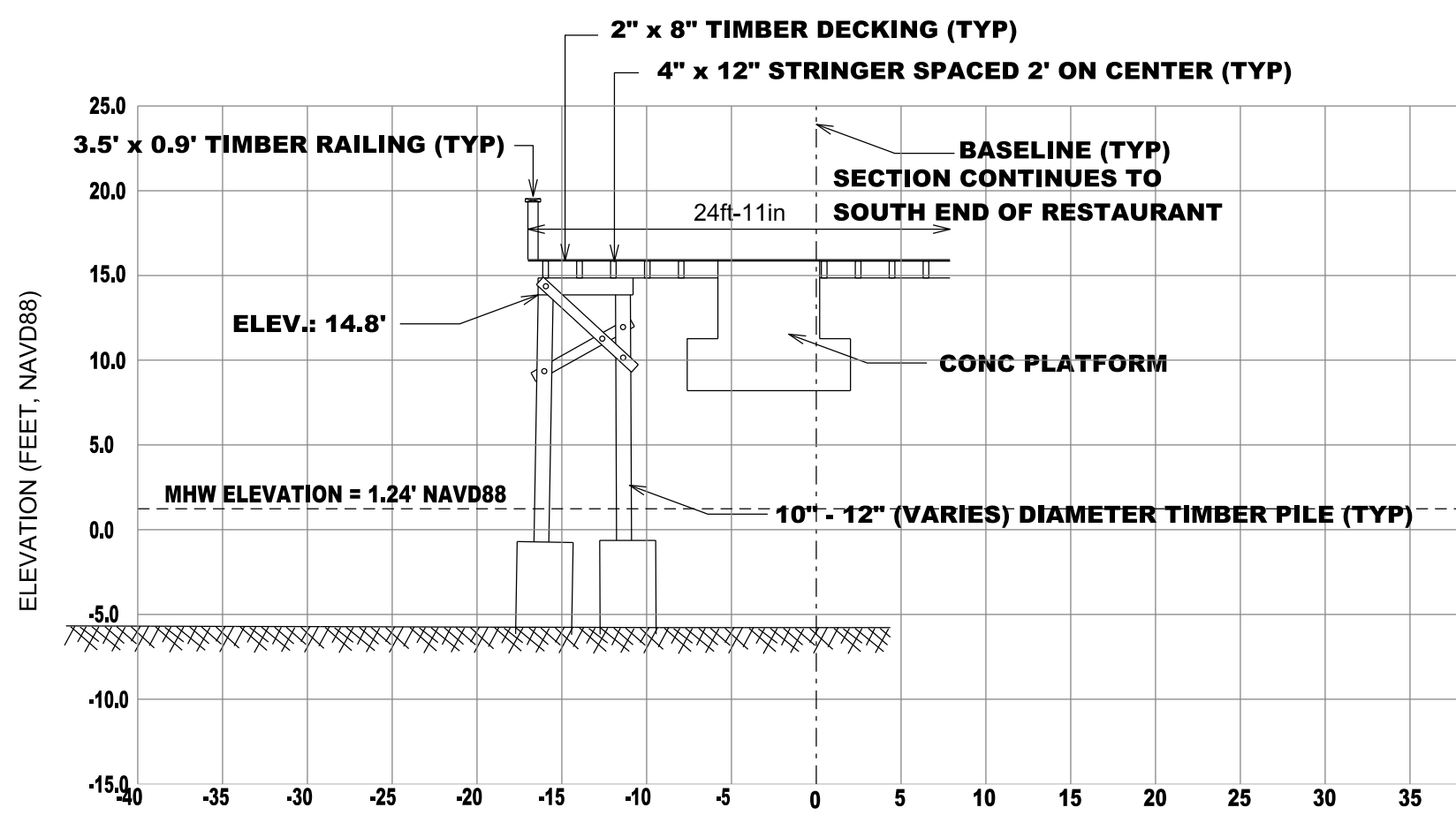
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DRAWN BY: B.N.W.
CHECKED BY: R.W.R.
SCALE: AS SHOWN
SHEET: S6
CADD ID:
TOTAL NUMBER OF SHEETS:



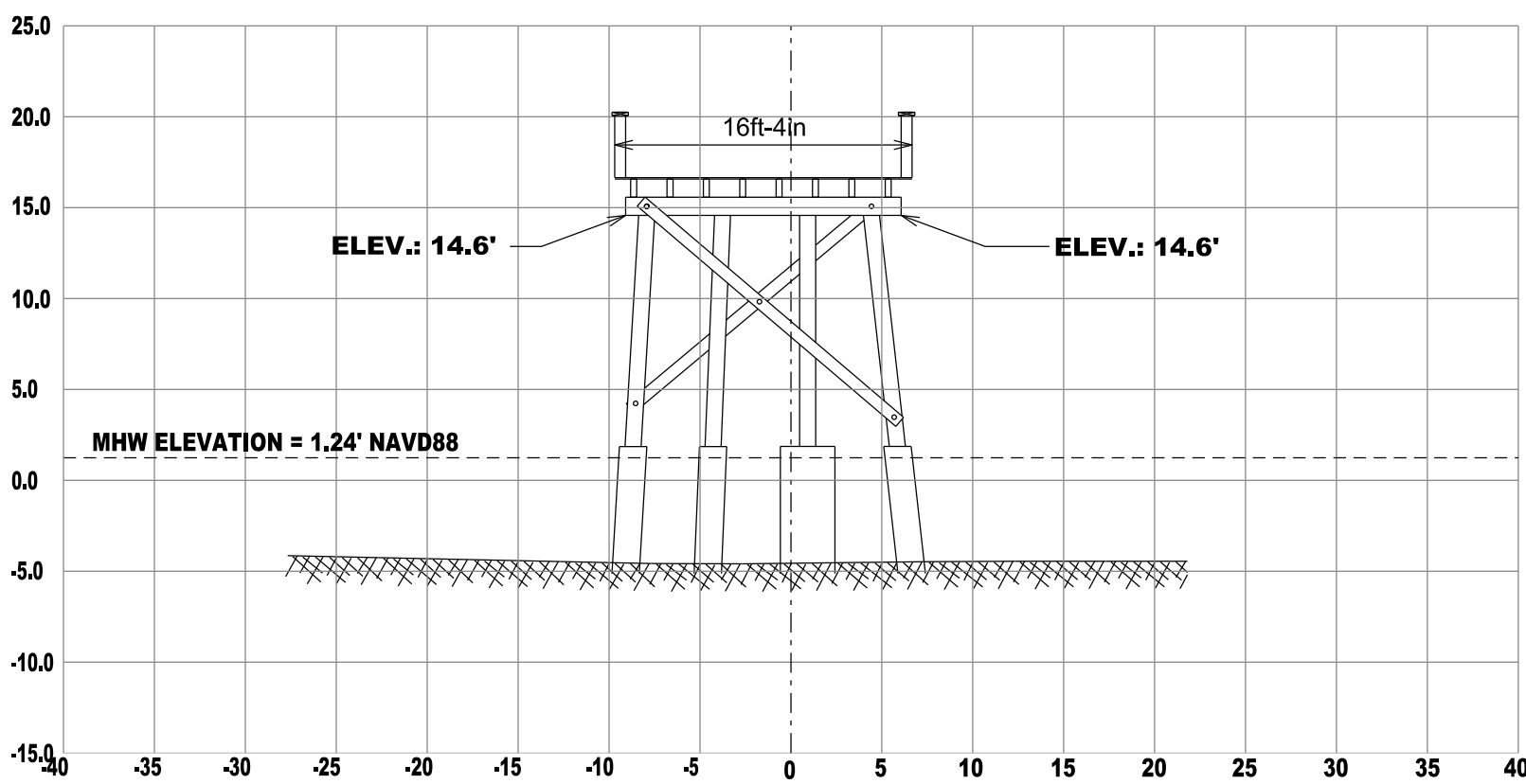
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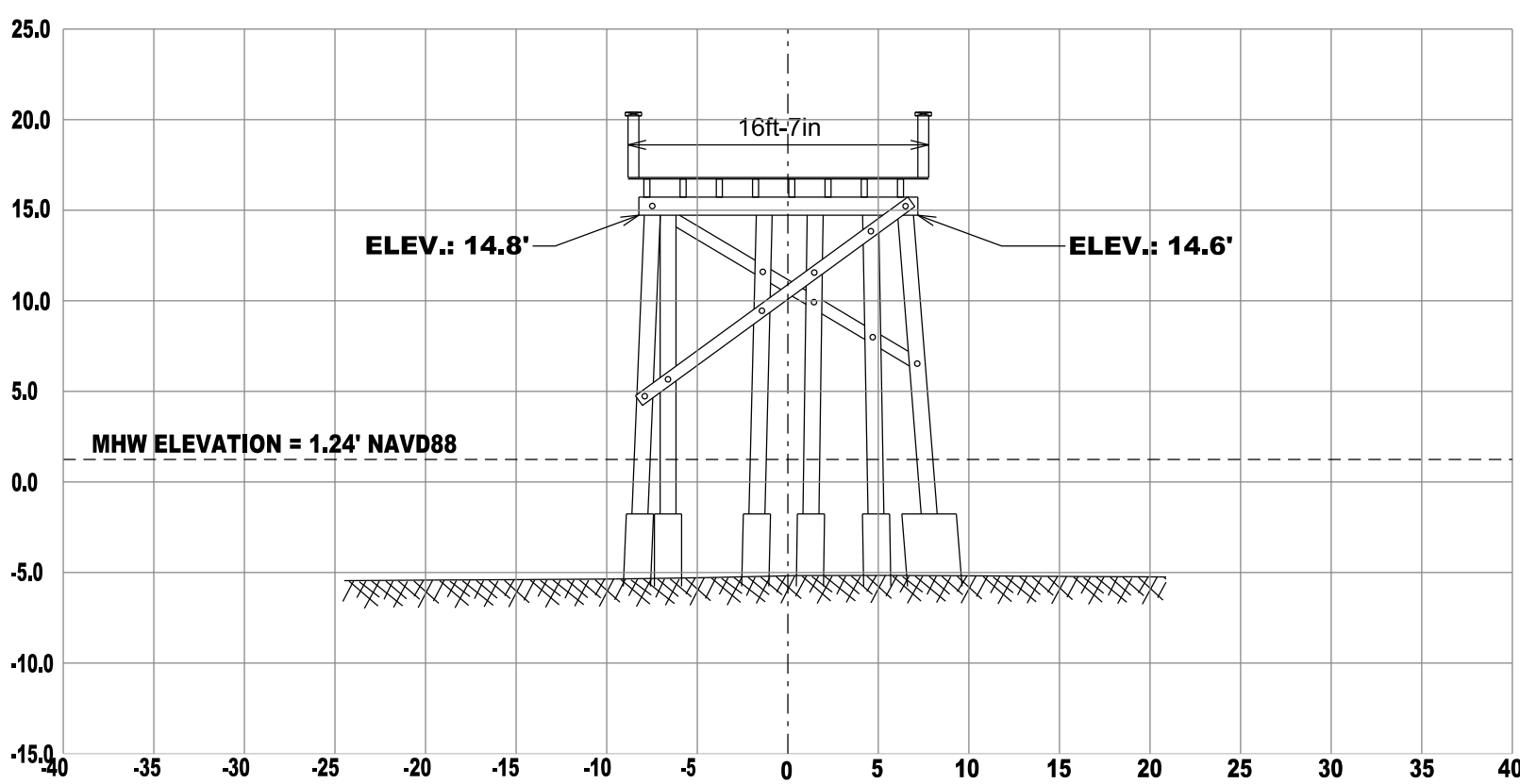
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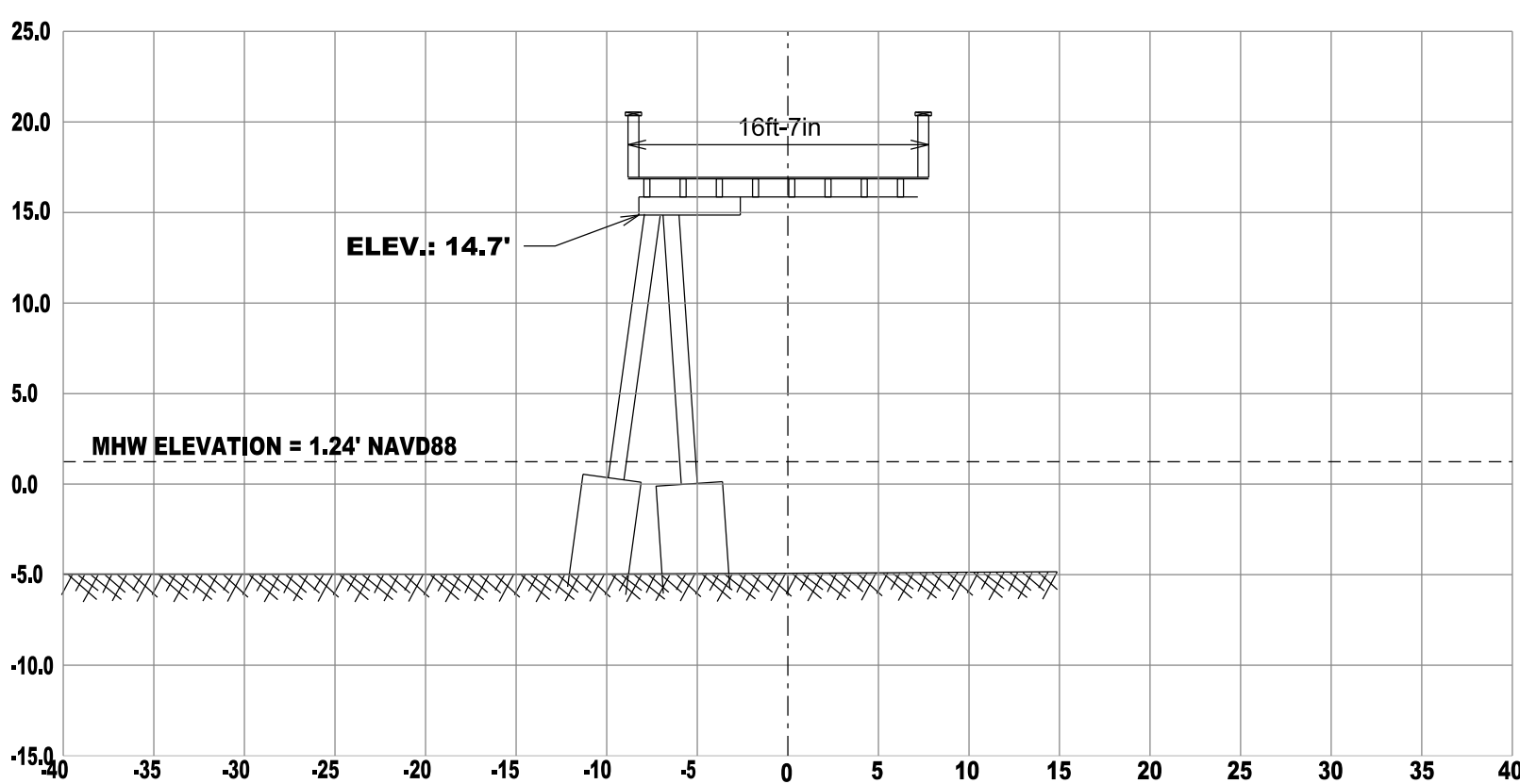
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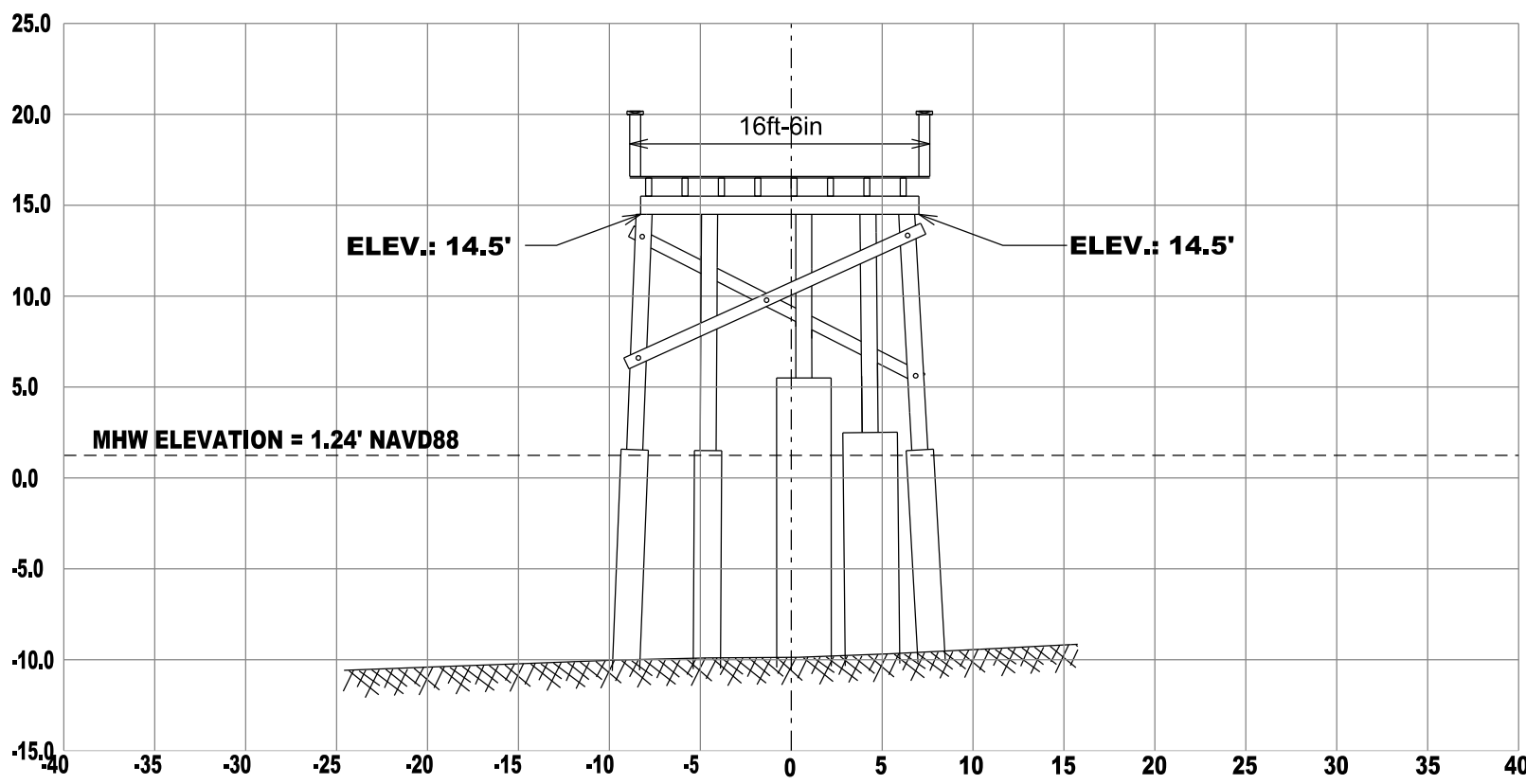
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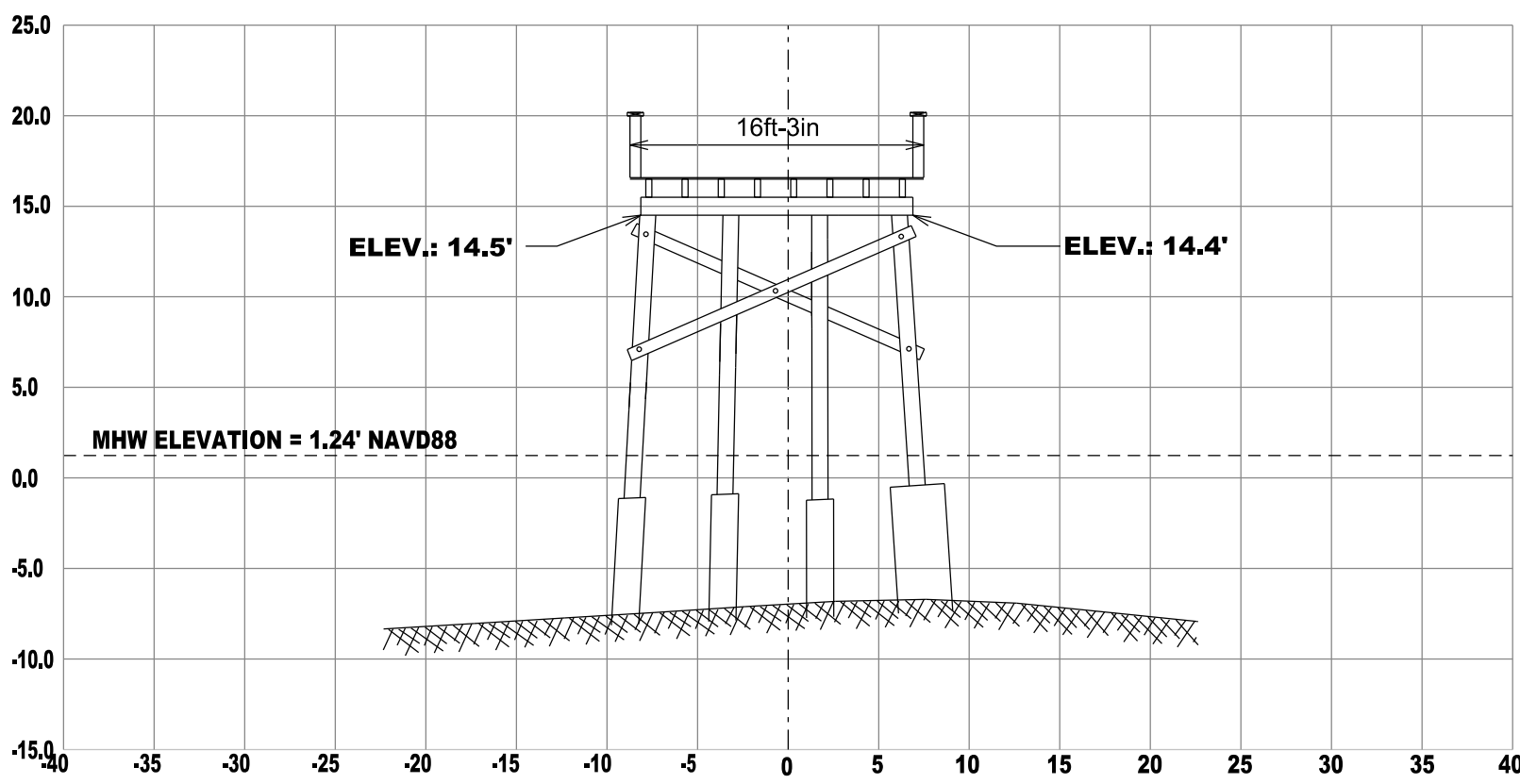
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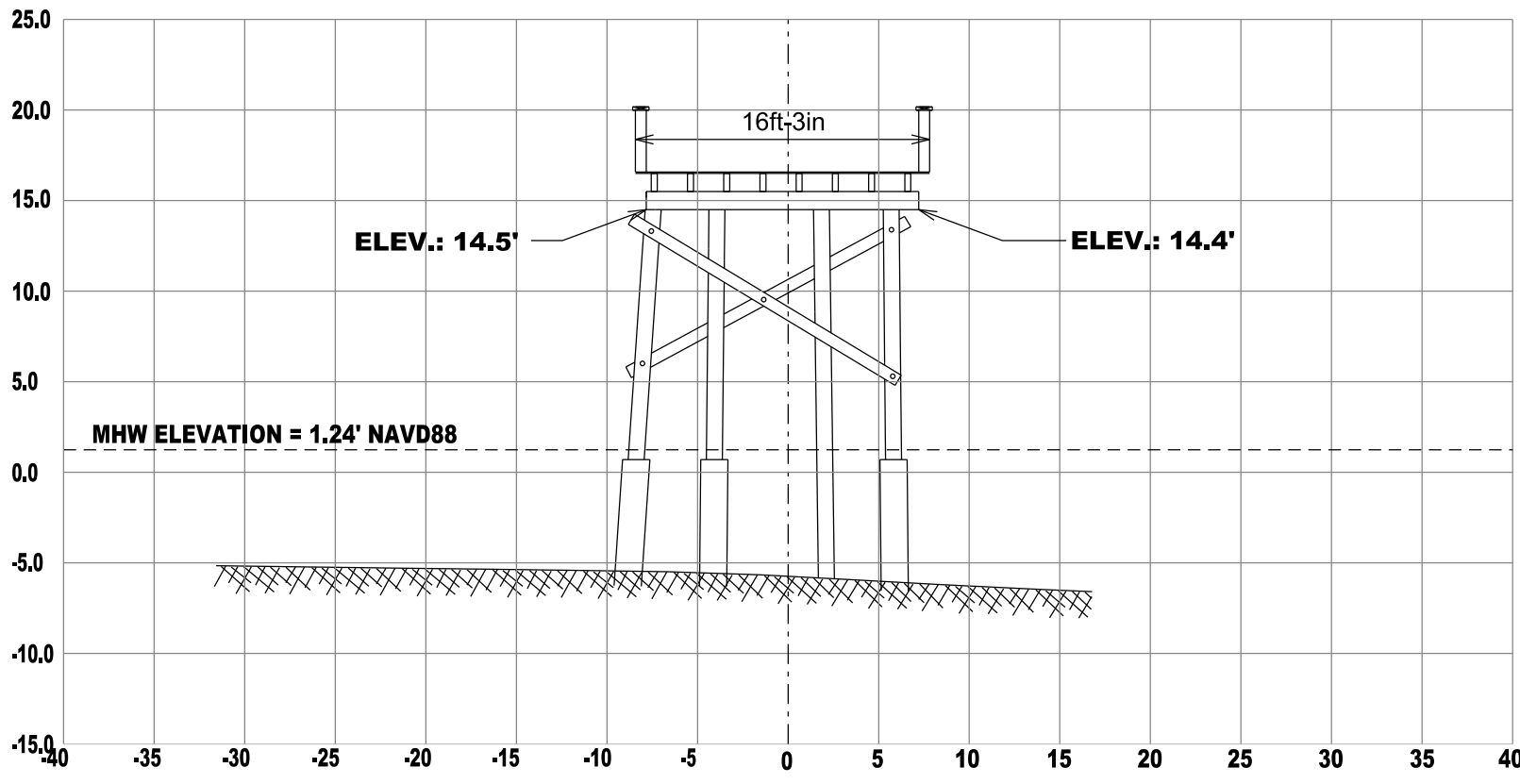
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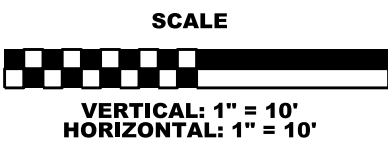
BENT 41



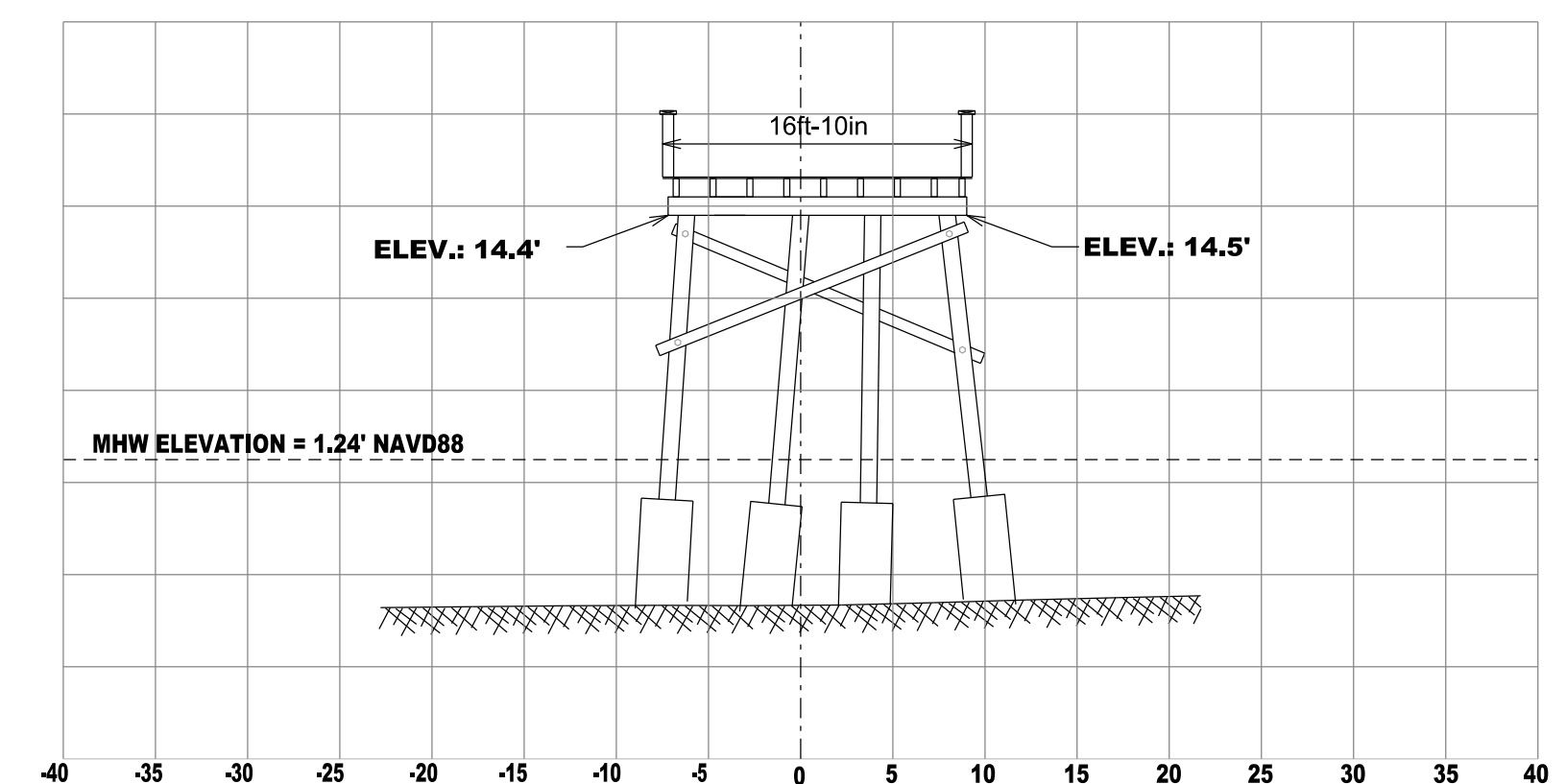
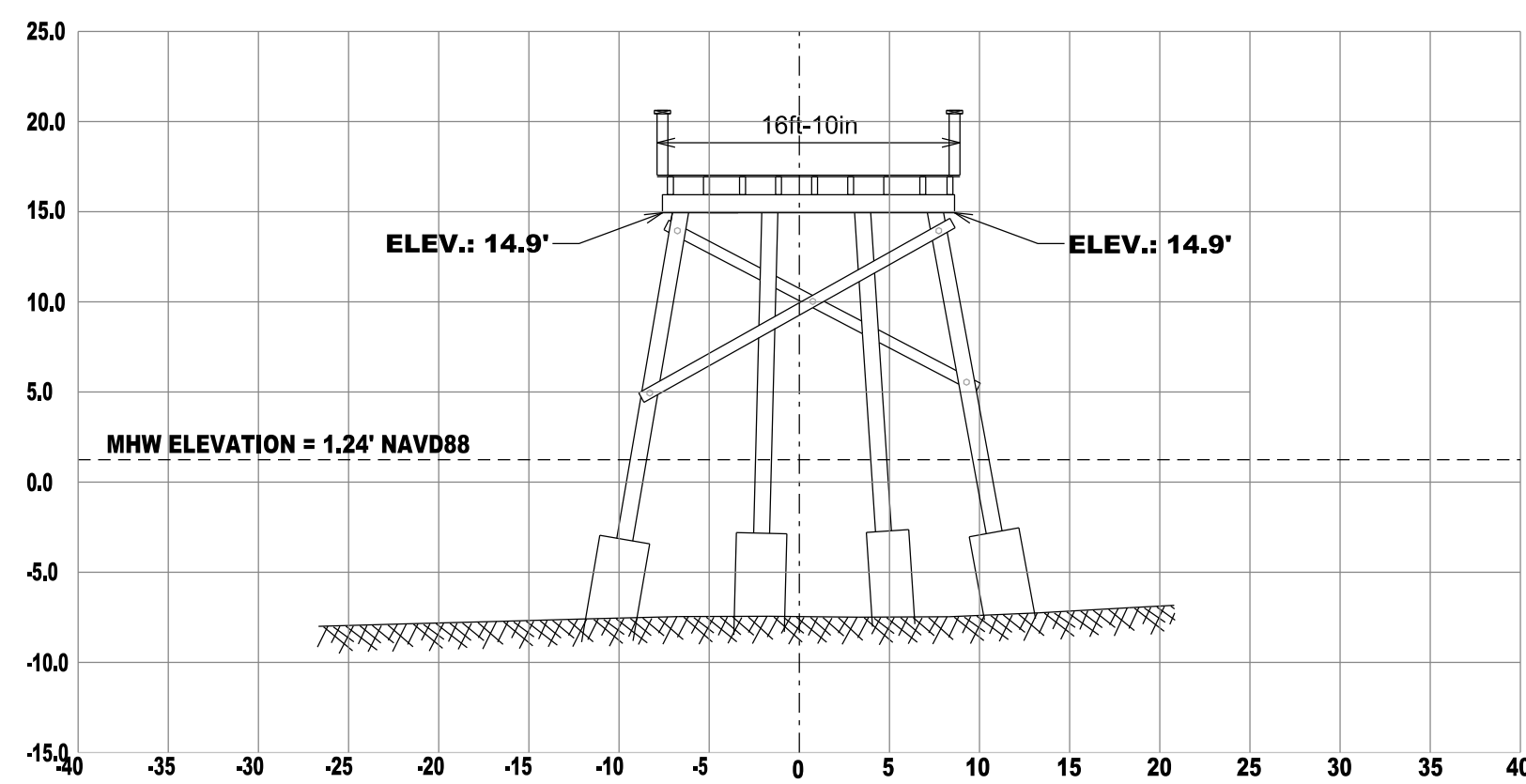
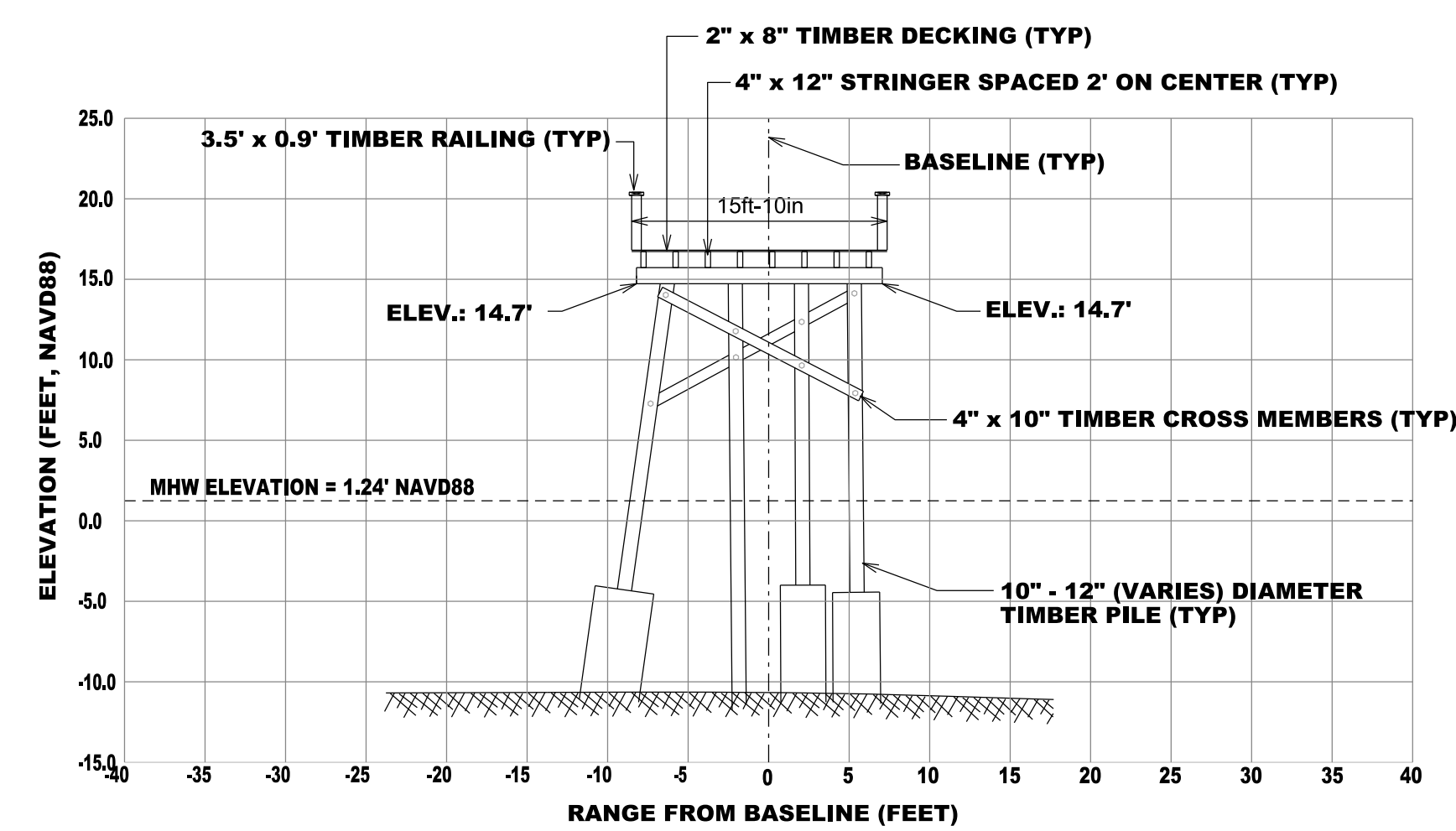
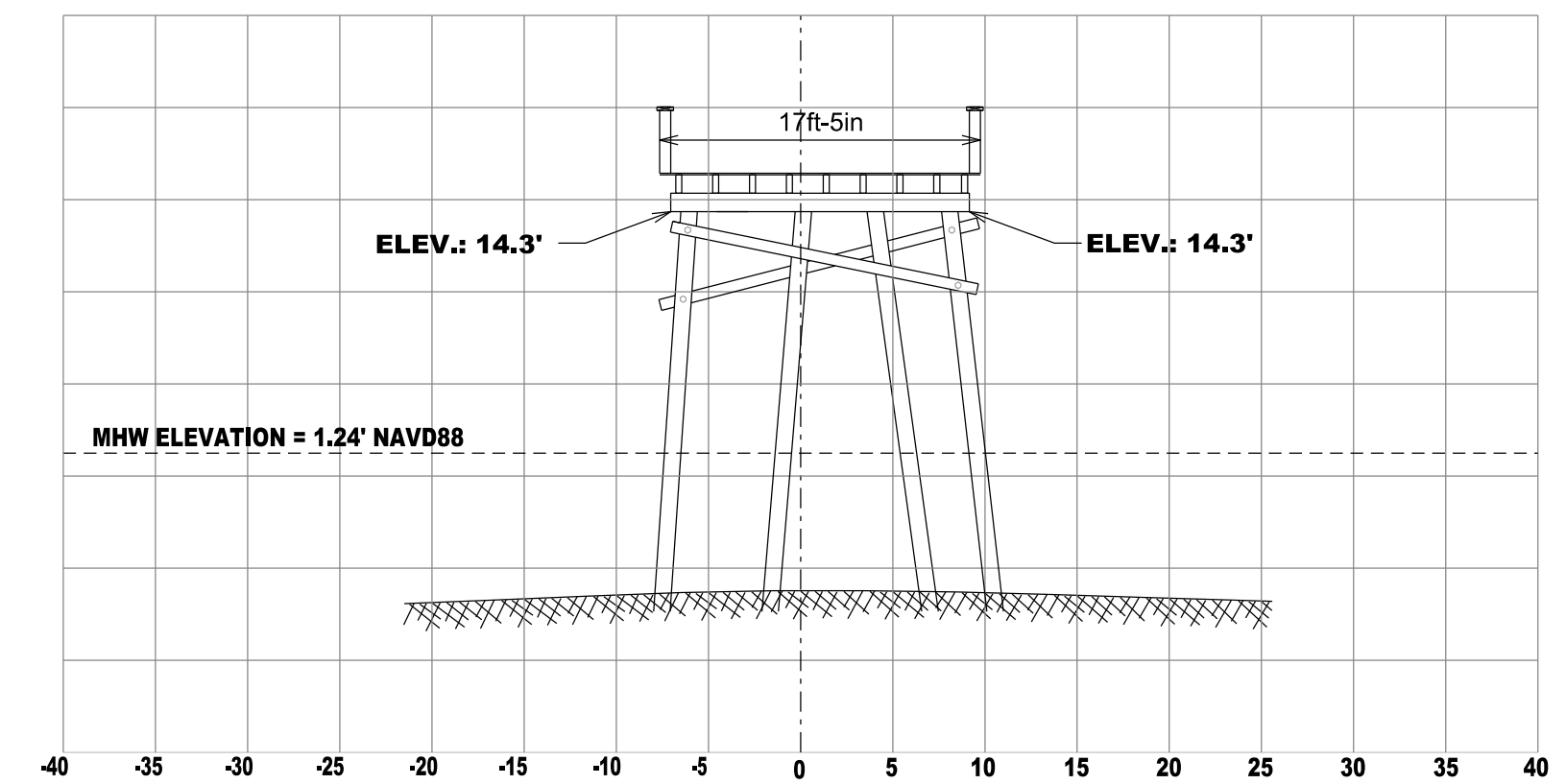
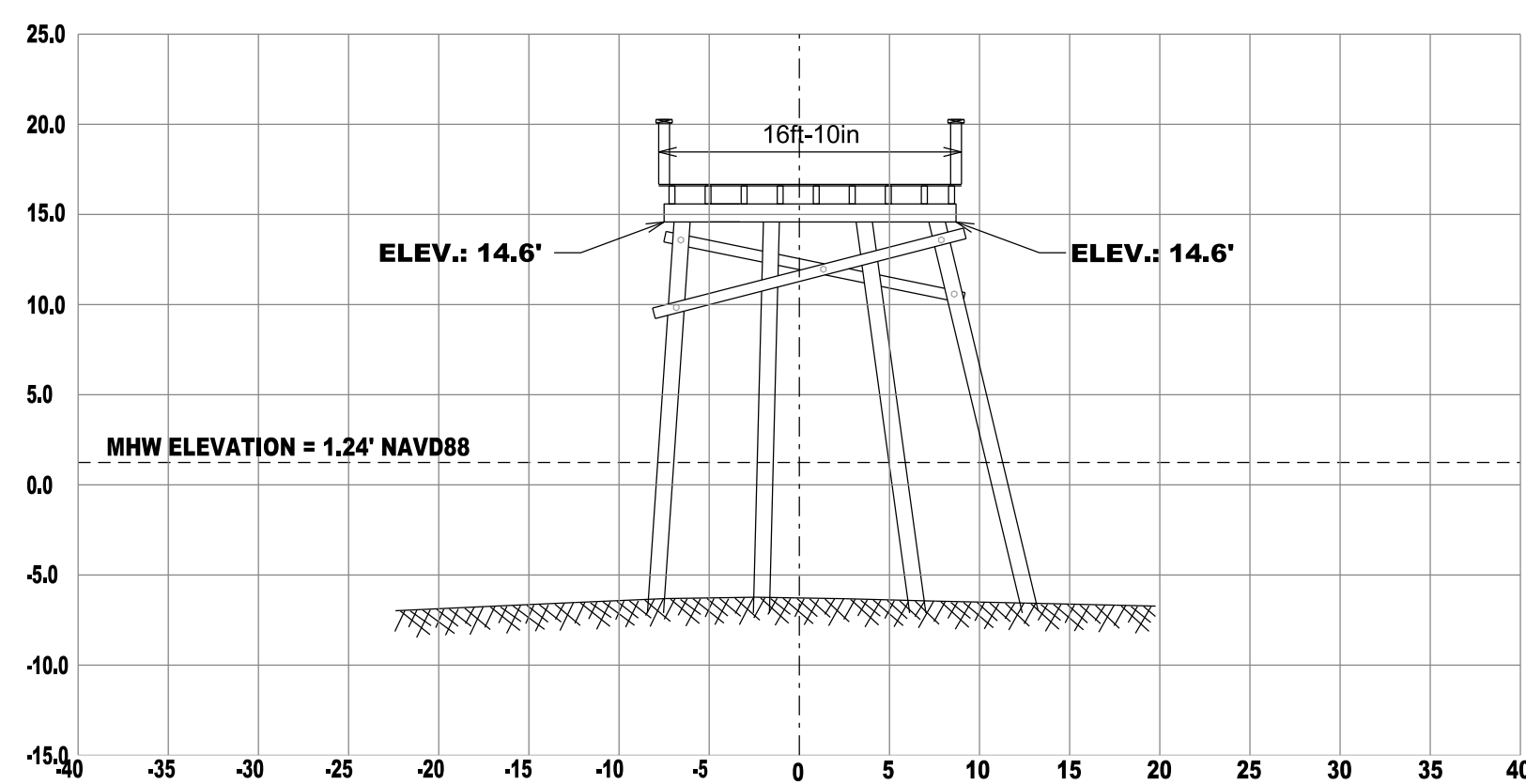
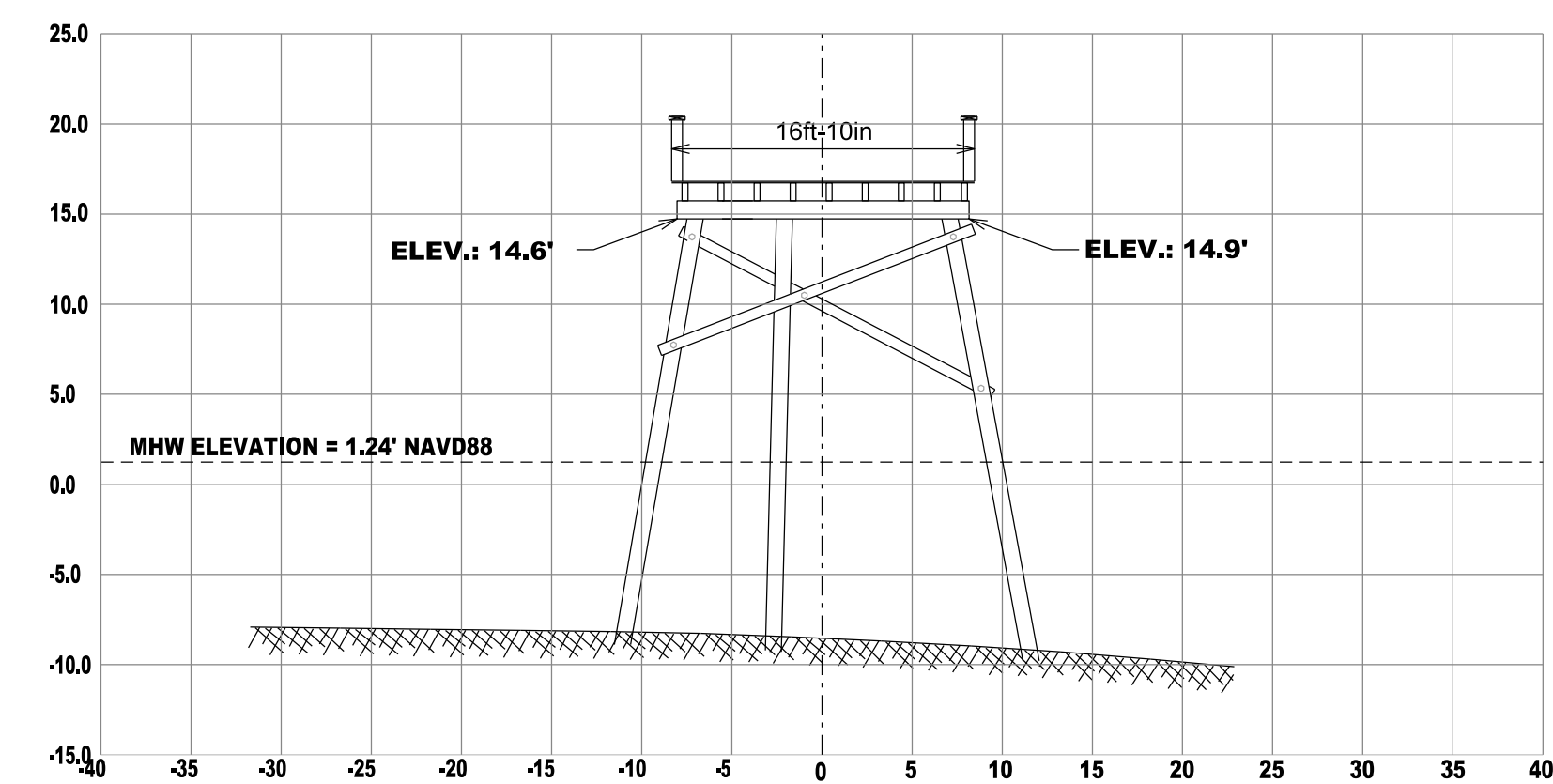
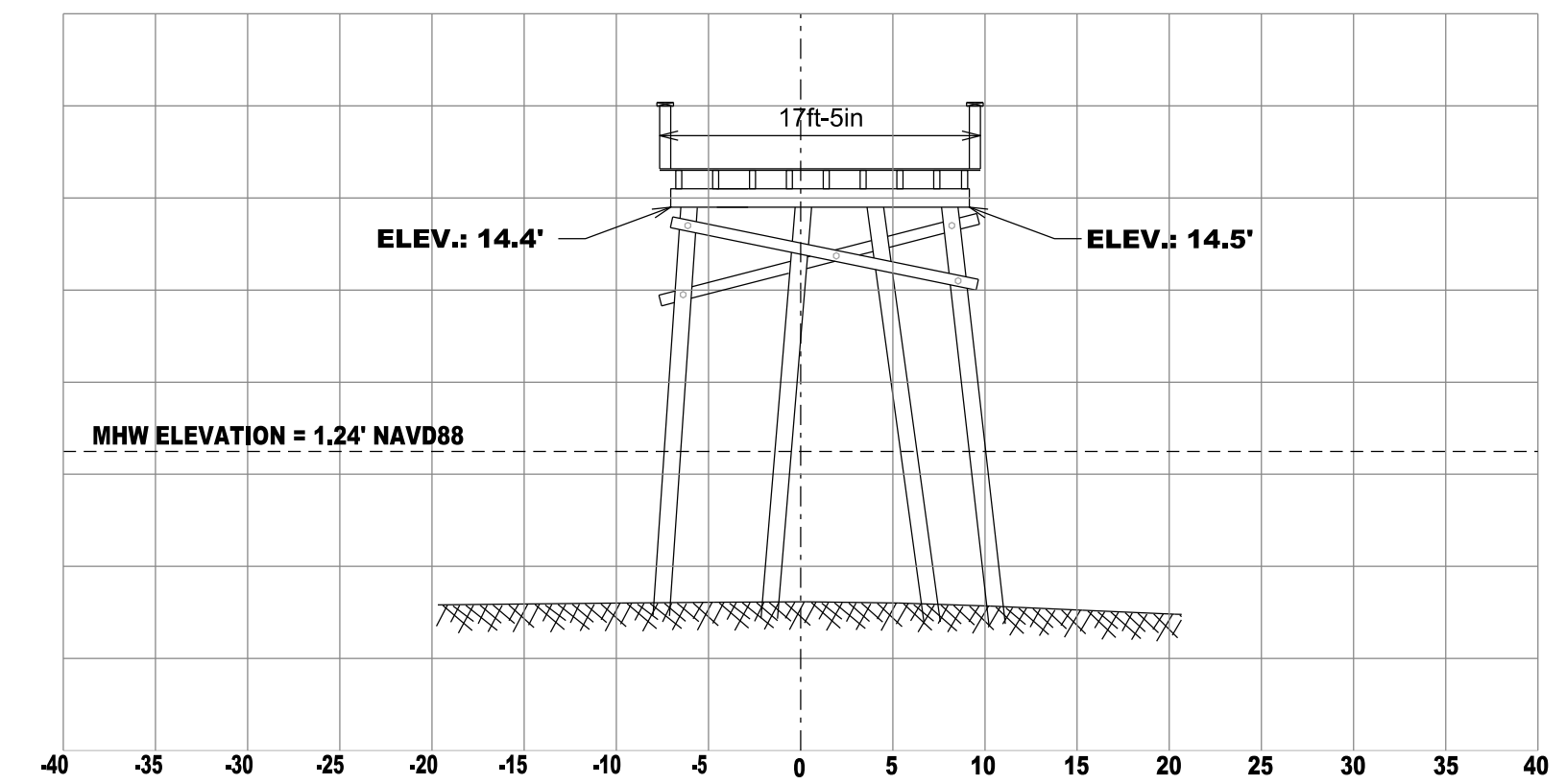
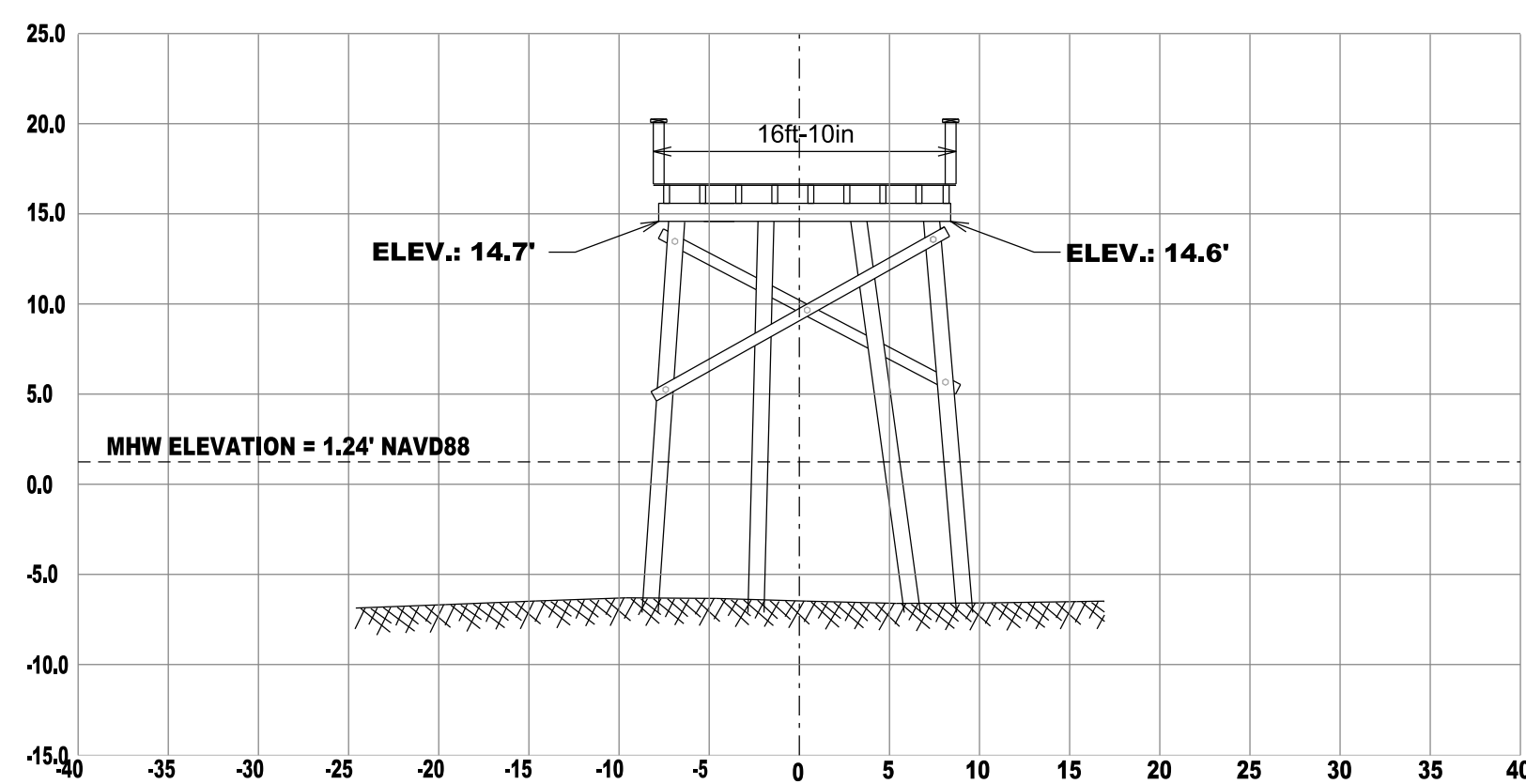
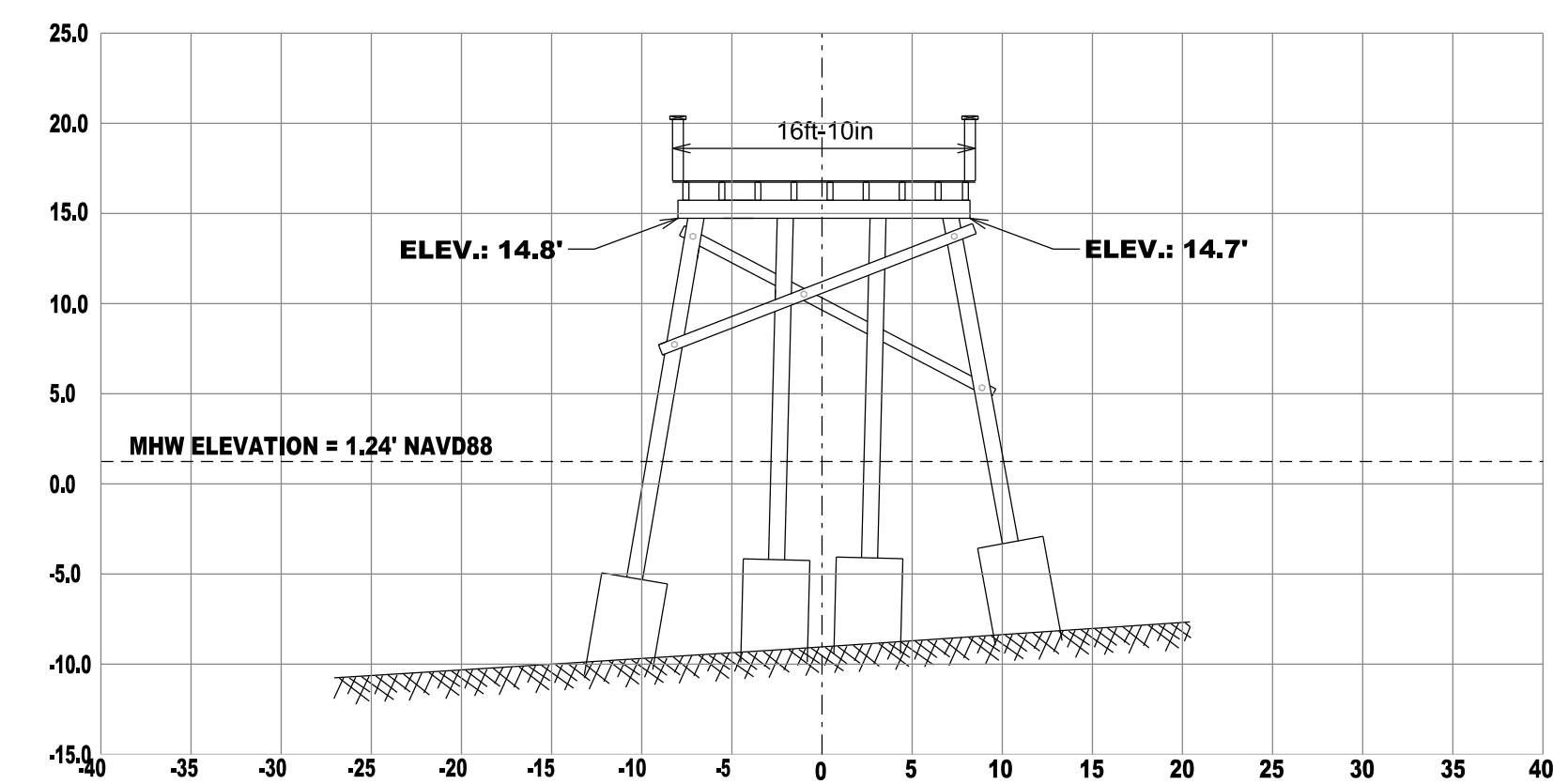
BENT 40




BENT 39



PROJECT:		NO.:		DATE:		DESCRIPTION:	
SPECIFIC PURPOSE SURVEY & TOPOGRAPHIC SURVEY							
MAIN STREET PIER							
CITY OF DAYTONA BEACH, FL							
SHEET TITLE:							
CROSS SECTIONS							
PREPARED FOR:		SEA DIVERSIFIED, INC.		CITY OF DAYTONA BEACH		950 BELLEVUE AVENUE	
Surveying & Engineering Applications		451 NW 1ST AVENUE		DAYTONA BEACH, FL 32114		DAYTONA BEACH, FL 32114	
TEL: (561) 243-4920		FAX: (561) 243-4957		WWW.SEADIVERSIFIED.COM			
DATE:		DEC. 2018		DRAWN BY:		B.N.W.	
CHECKED BY:		R.W.B.		SCALE:		AS SHOWN	
SHEET:		S7		CADD ID:		TOTAL NUMBER OF SHEETS:	



SCALE



VERTICAL: 1" = 10'
HORIZONTAL: 1" = 10'

[illegible]

**PROJECT: SPECIFIC PURPOSE SURVEY & TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL**

CROSS SECTIONS

SHEET TITLE:



**950 BELLVUE AVENUE
DAYTONA BEACH, FL 32114**

SEA DIVERSIFIED, INC.
Surveying & Engineering Applications
151 NW 1ST AVENUE
DELRAY BEACH, FLORIDA 33444
TEL: (561) 243-4920 FAX: (561) 243-4957
WWW.SEADIVERSIFIED.COM

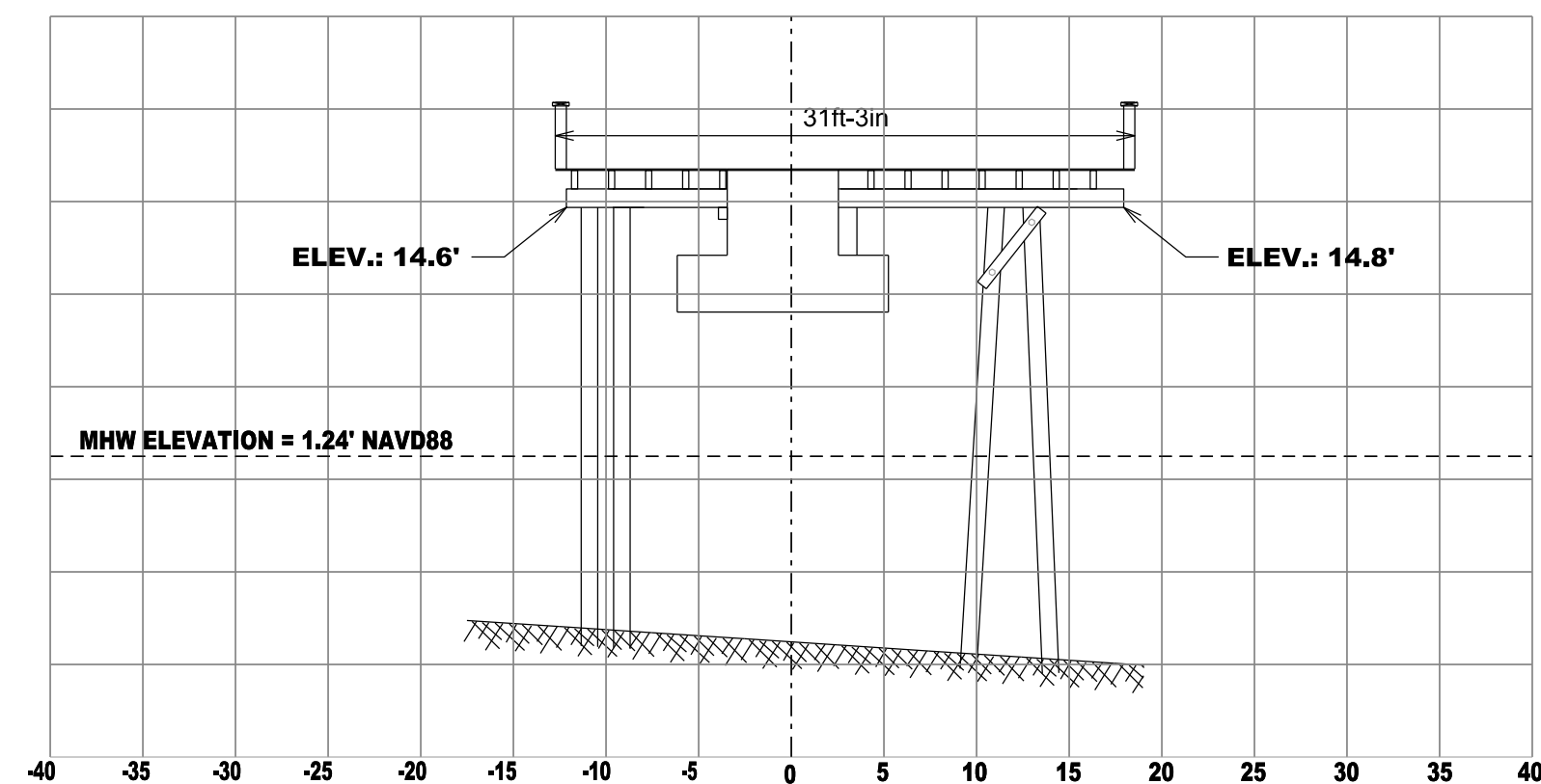


DATE:	DEC. 2018
DRAWN BY:	B.N.W.
CHECKED BY:	R.W.B.
SCALE:	AS SHOWN
SHEET:	

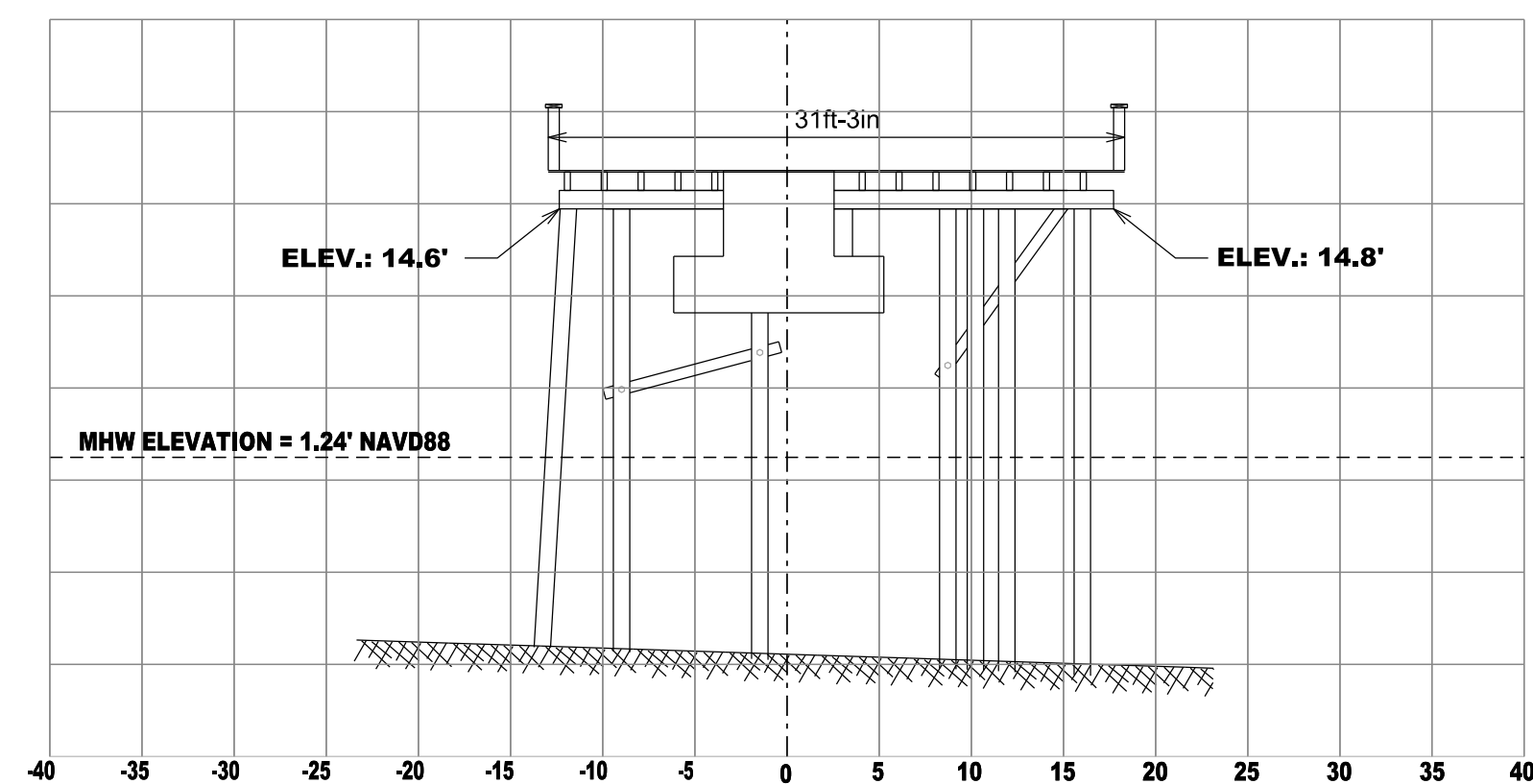
S8

CADD ID: TOTAL NUMBER OF SHEETS:

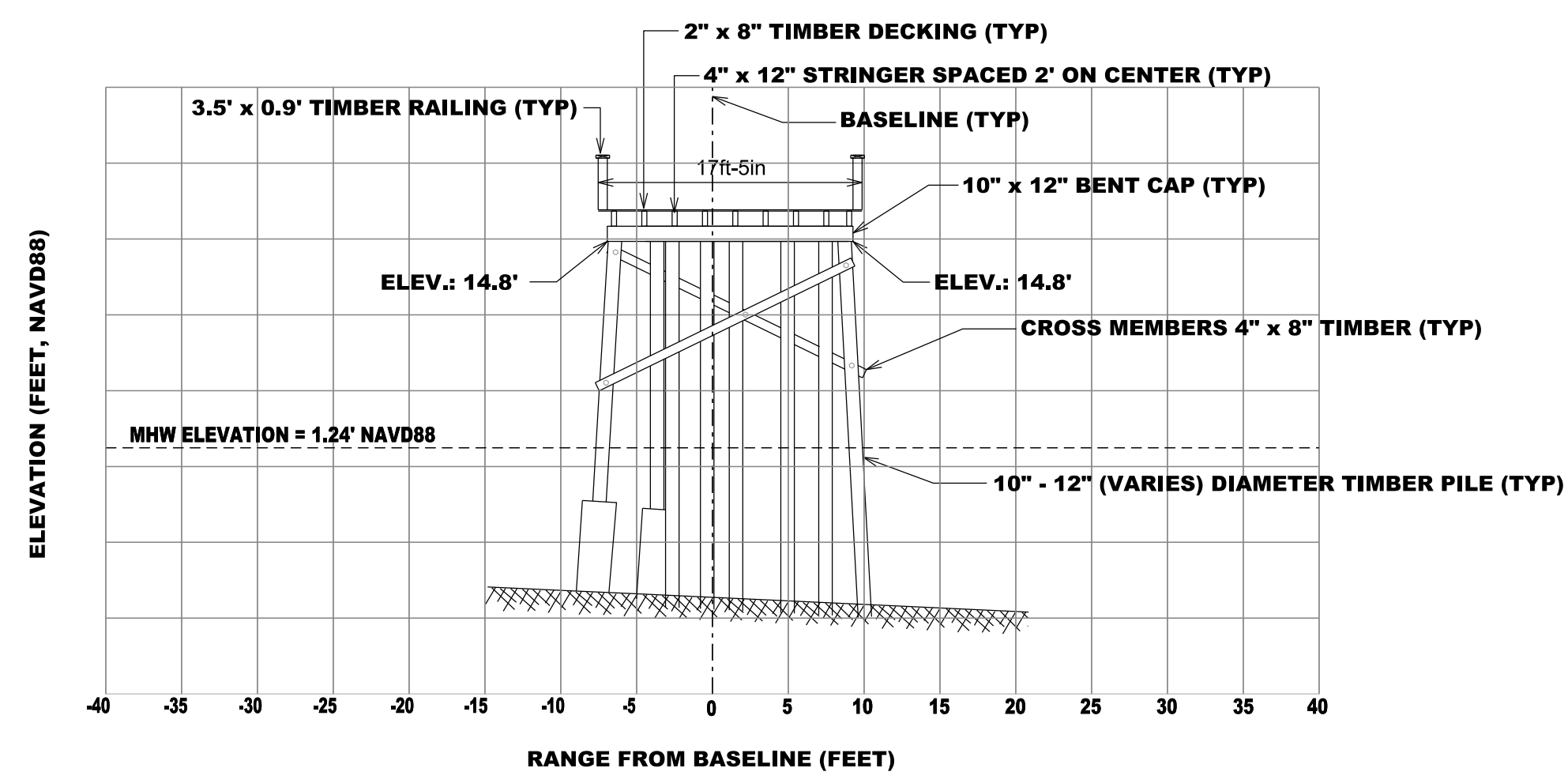
SDI P.N. 18-2675



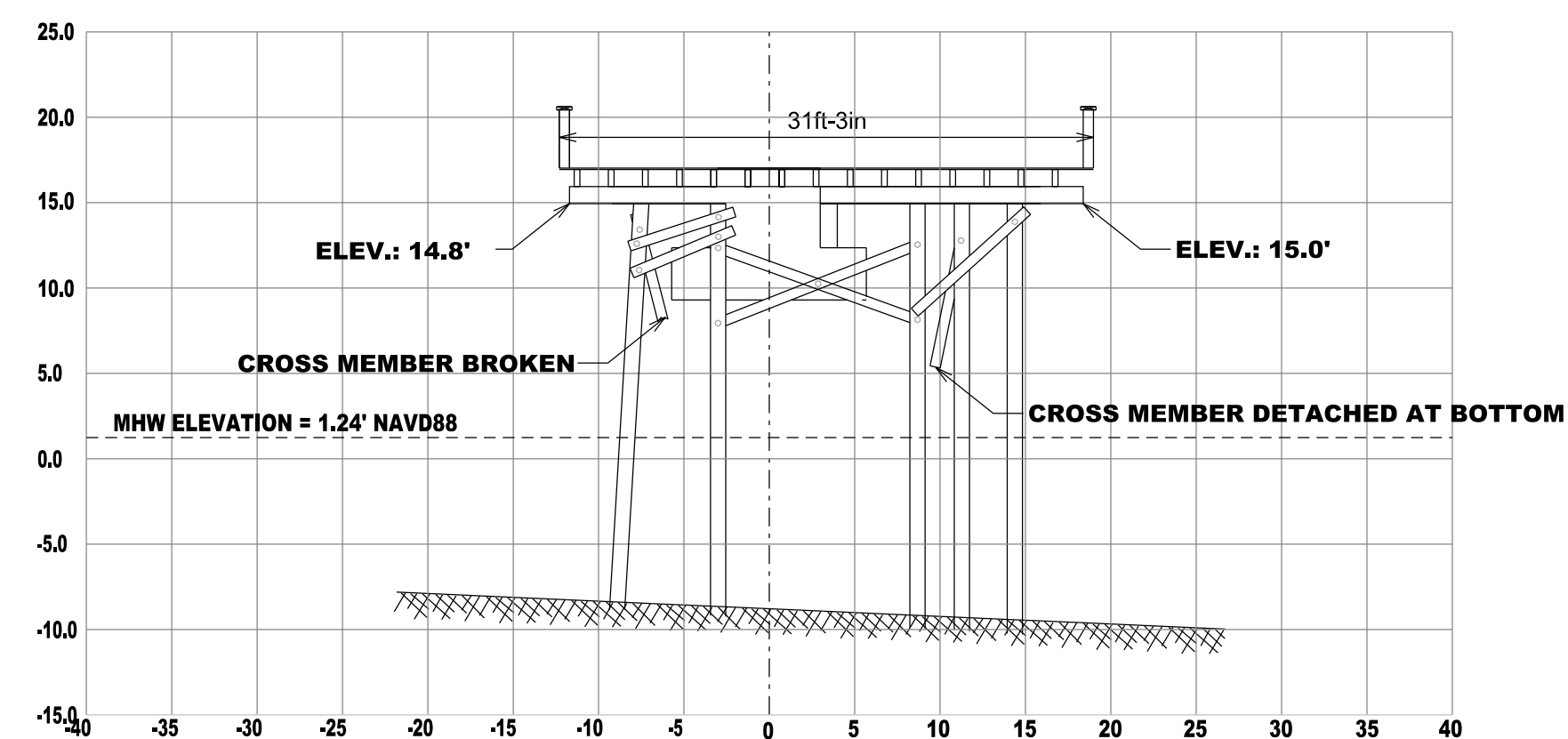
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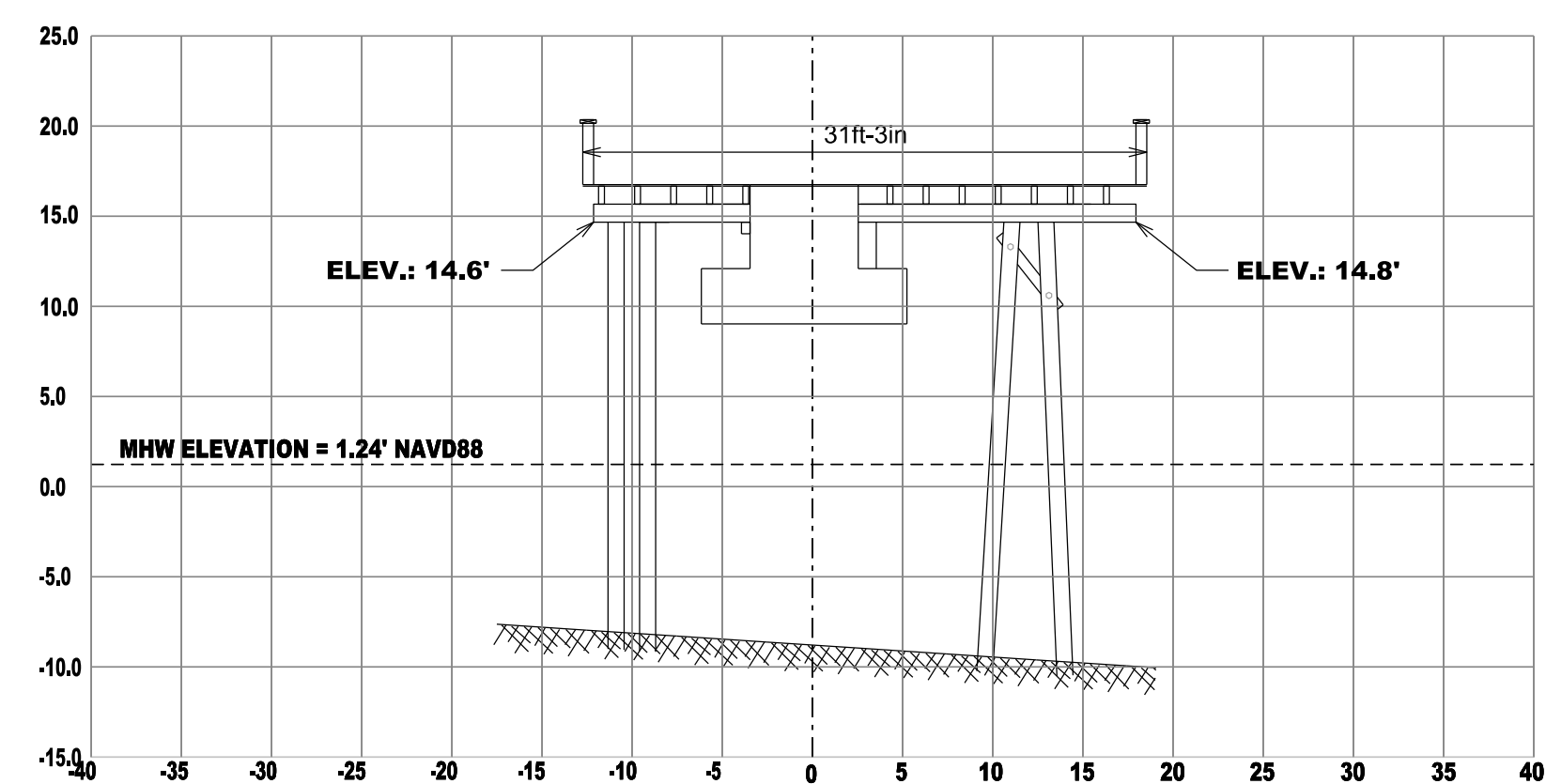
BENT 52



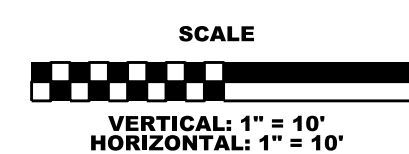
BENT 51



BENT 54



BENT 53A

[illegible]

PROJECT:
SPECIFIC PURPOSE SURVEY
& TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL

SHEET TITLE:
CROSS SECTIONS



SEA DIVERSIFIED, INC.
Surveying & Engineering Applications
151 NW 1ST AVENUE
DELRAY BEACH, FLORIDA 33444
TEL: (561) 243-4920 FAX: (561) 243-4957
WWW.SEADIVERSIFIED.COM

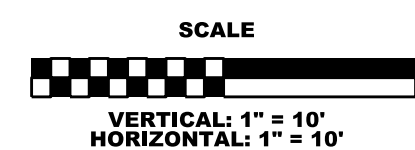
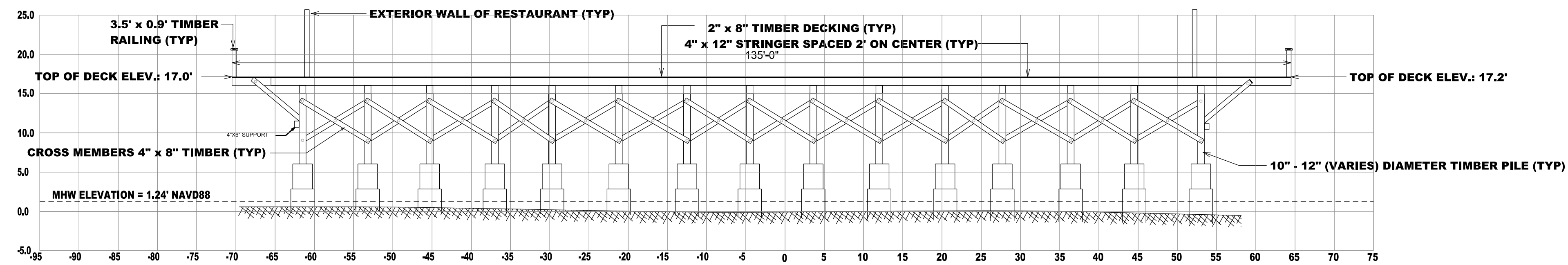
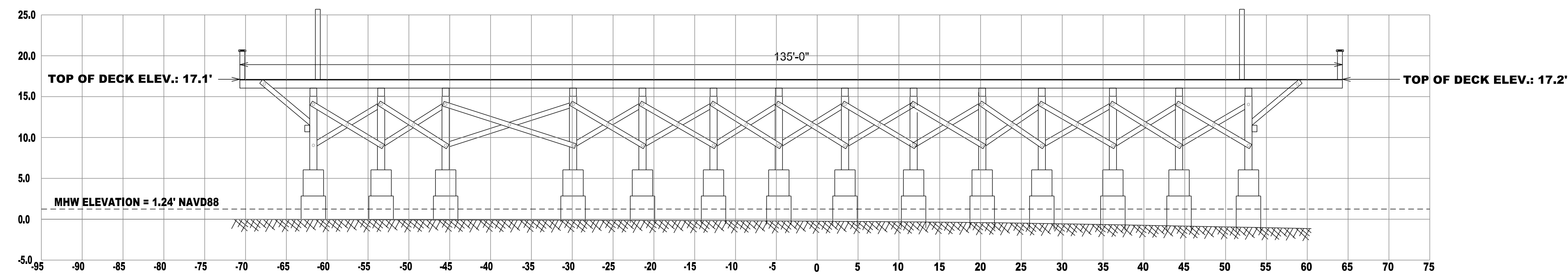
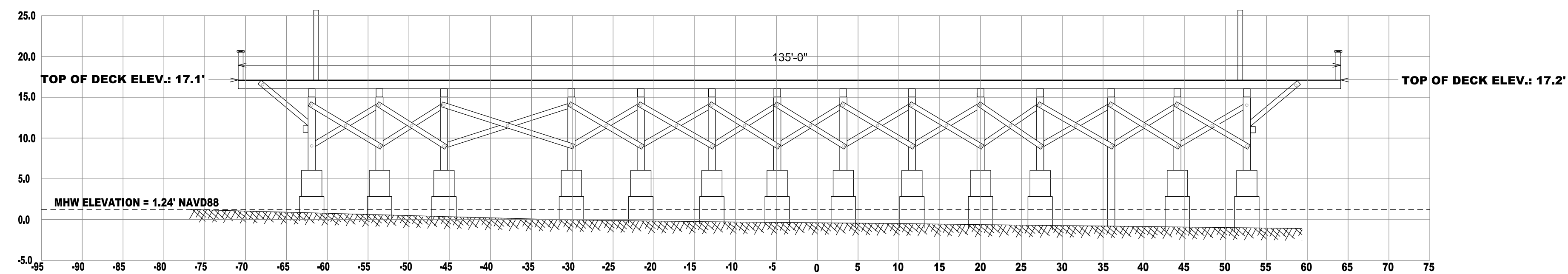
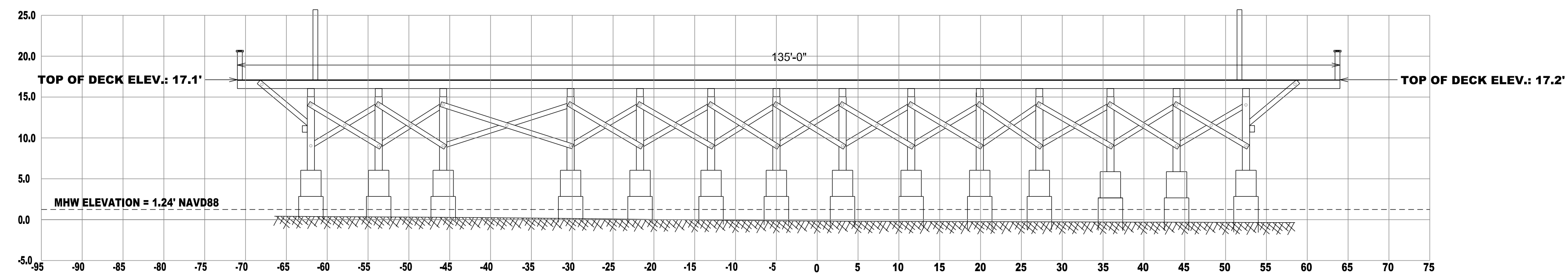


DATE:	DEC. 2018
DRAWN BY:	B.N.W.
CHECKED BY:	R.W.B.
SCALE:	AS SHOWN
SHEET:	

S9

CADD ID:
TOTAL NUMBER OF SHEETS:

SDI P.N. 18-2675

[illegible]

PROJECT: **SPECIFIC PURPOSE SURVEY & TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL**

SHEET TITLE: **CROSS SECTIONS**



SEA DIVERSIFIED, INC.
Surveying & Engineering Applications
151 NW 1ST AVENUE
DELRAY BEACH, FLORIDA 33444
TEL: (561) 243-4920 FAX: (561) 243-4957
WWW.SEADIVERSIFIED.COM

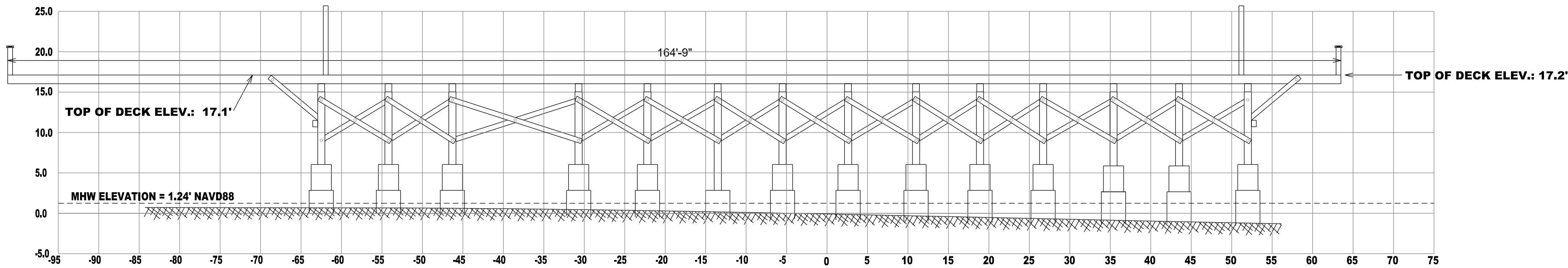


DATE:	DEC. 2018
DRAWN BY:	B.N.W.
CHECKED BY:	R.W.B.
SCALE:	AS SHOWN
SHEET:	

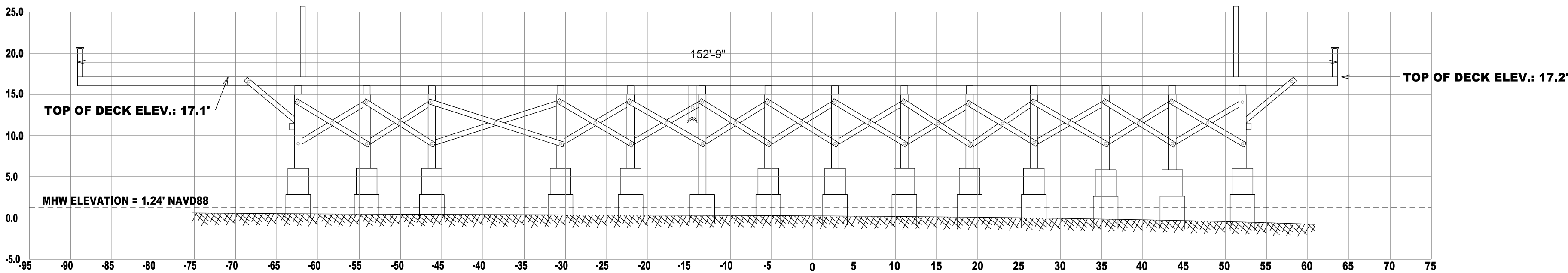
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TOTAL NUMBER OF SHEETS:

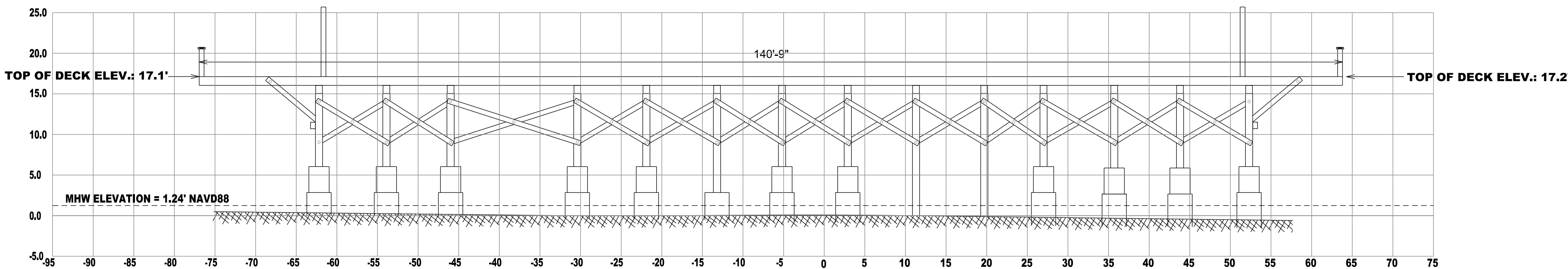
SDI P.N. 18-2675



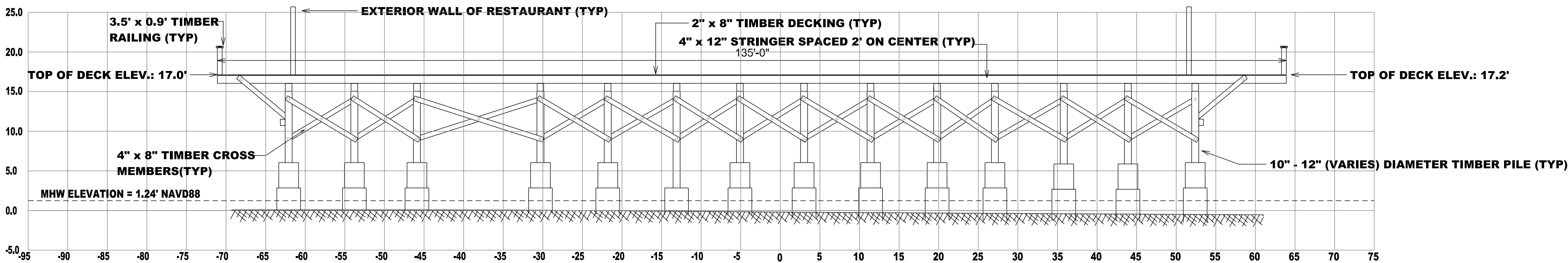
SECTION 8



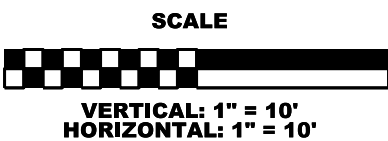
SECTION 7



SECTION 6



SECTION 5



REVISIONS:

NO.:	DATE:	DESCRIPTION:

PROJECT:

SPECIFIC PURPOSE SURVEY
& TOPOGRAPHIC SURVEY
MAIN STREET PIER
CITY OF DAYTONA BEACH, FL

SHEET TITLE:
CROSS SECTIONS

PREPARED FOR:



CITY OF DAYTONA BEACH
950 BELLVUE AVENUE
DAYTONA BEACH, FL 32114

PREPARED BY:

SEA DIVERSIFIED, INC.
Surveying & Engineering Applications
451 NW 1ST AVENUE
DELRAY BEACH, FLORIDA 33444
TEL: (561) 243-4920 FAX: (561) 243-4957
WWW.SEADIVERSIFIED.COM



DATE:	DEC. 2018
DRAWN BY:	B.N.W.
CHECKED BY:	R.W.B.
SCALE:	AS SHOWN

SHEET:
S11

CADD ID:
TOTAL NUMBER OF SHEETS:

SDI P.N. 18-2675

CITY OF DAYTONA BEACH MAIN STREET PIER PILE BATTER DETAIL														
BENT	PILE	TOP (Y)	TOP (X)	TOP ELEV	BOT (Y)	BOT (X)	BOT ELEV	DELTA (Y)	DELTA (X)	DELTA Z	LENGTH	DEGREE OF PILE BATTER	QUAD	AZIMUTH
1	1	1778874.6	654005.3	15.5	1778874.3	654005.5	4.7	-0.3	0.3	10.8	11.8	2.07	180	139.21
1	2	1778870.1	654006.7	15.5	1778869.9	654006.8	4.5	-0.2	0.1	11.0	11.9	1.03	180	155.55
1	3	1778865.5	654008.2	15.5	1778865.2	654008.2	4.7	-0.3	0.0	10.8	11.8	1.54	180	172.49
1	4	1778861.6	654009.4	15.5	1778861.3	654009.6	4.4	-0.3	0.1	11.1	11.9	1.62	180	157.13
1	5	1778857.4	654010.8	15.5	1778856.5	654011.0	4.7	-0.9	0.2	10.8	11.8	4.84	180	165.98
1	6	1778855.1	654011.5	15.5	1778854.1	654011.8	4.8	-1.0	0.3	10.7	11.7	5.56	180	164.55
2	1	1778875.4	654021.0	15.3	1778875.8	654020.8	3.9	0.3	-0.2	11.4	12.0	1.90	360	329.69
2	2	1778871.3	654022.6	15.3	1778871.3	654022.8	4.3	0.0	0.2	11.0	11.8	0.79	180	90.38
2	3	1778867.7	654024.1	15.3	1778867.6	654024.0	4.4	-0.1	-0.1	10.9	11.8	0.82	180	216.32
2	4	1778863.6	654025.7	15.3	1778862.8	654026.1	4.2	-0.8	0.4	11.1	11.9	4.42	180	152.05
2	5	1778861.2	654026.7	15.3	1778860.6	654027.1	4.3	-0.5	0.4	11.0	11.8	3.33	180	143.25
3	1	1778881.3	654035.7	15.1	1778882.4	654035.9	3.9	1.1	0.2	11.2	11.9	5.75	0	11.07
3	2	1778878.3	654036.9	15.1	1778878.2	654037.3	3.9	-0.1	0.4	11.1	11.8	1.99	180	99.06
3	3	1778875.5	654038.1	15.1	1778875.5	654038.4	4.1	-0.1	0.3	11.0	11.7	1.58	180	105.32
3	4	1778872.0	654039.5	15.1	1778872.3	654039.5	4.5	0.2	0.0	10.6	11.5	1.33	0	1.99
3	5	1778869.4	654040.6	15.1	1778869.0	654040.8	4.3	-0.5	0.2	10.7	11.6	2.80	180	159.07
3	6	1778866.2	654042.0	15.1	1778865.6	654042.3	4.2	-0.6	0.4	10.9	11.7	3.64	180	149.13
4	1	1778894.2	654068.1	14.9	1778894.5	654068.0	3.3	0.3	-0.1	11.6	12.0	1.58	360	339.30
4	2	1778889.1	654069.9	14.9	1778888.7	654070.1	3.8	-0.4	0.2	11.1	11.7	2.32	180	152.25
4	3	1778884.1	654071.6	14.9	1778883.6	654071.8	3.8	-0.5	0.2	11.1	11.8	2.55	180	160.96
4	4	1778878.2	654073.7	14.9	1778877.6	654073.9	3.8	-0.6	0.3	11.1	11.7	3.49	180	156.92
5	1	1778901.0	654080.0	15.1	1778901.8	654079.1	3.4	0.9	-0.9	11.7	12.2	6.03	360	313.69
5	2	1778896.2	654081.9	15.1	1778895.8	654081.4	3.7	-0.4	-0.5	11.4	12.0	3.12	180	229.64
5	3	1778893.0	654083.1	15.1	1778892.9	654082.7	4.2	-0.2	-0.4	10.9	11.7	2.14	180	244.87
5	4	1778890.2	654084.2	15.1	1778890.0	654084.2	4.2	-0.2	0.0	10.9	11.7	1.01	180	173.75
5	5	1778887.5	654085.3	15.1	1778886.8	654085.4	4.2	-0.7	0.1	10.9	11.7	3.69	180	168.75
5	6	1778883.8	654086.7	15.1	1778883.6	654086.8	4.4	-0.2	0.0	10.8	11.6	1.17	180	167.51
6	1	1778906.0	654095.0	15.1	1778906.2	654094.7	3.5	0.2	-0.4	11.6	12.1	2.07	360	299.25
6	2	1778902.7	654096.2	15.1	1778902.3	654096.0	4.0	-0.4	-0.2	11.1	11.8	2.38	180	207.29
6	3	1778899.5	654097.4	15.1	1778899.2	654097.3	3.8	-0.3	-0.2	11.3	12.0	1.76	180	206.68
6	4	1778896.5	654098.5	15.1	1778896.0	654098.6	4.2	-0.5	0.1	10.9	11.7	2.39	180	173.13
6	5	1778893.9	654099.5	15.1	1778893.2	654099.8	4.4	-0.6	0.3	10.7	11.6	3.57	180	155.53
6	6	1778888.2	654101.6	15.1	1778887.8	654101.9	4.3	-0.4	0.3	10.8	11.6	2.83	180	146.35
7	1	1778914.1	654117.7	14.6	1778914.8	654117.8	3.2	0.7	0.1	11.5	11.9	3.56	0	6.15
7	2	1778910.6	654119.2	14.6	1778910.7	654119.4	3.2	0.1	0.2	11.4	11.8	0.95	0	74.36
7	3	1778905.6	654121.3	14.6	1778905.8	654121.5	3.1	0.1	0.2	11.5	11.9	1.30	0	57.95
7	4	1778901.9	654122.9	14.6	1778901.9	654123.0	3.2	0.0	0.1	11.4	11.8	0.61	180	92.84
7	5	1778897.3	654124.9	14.6	1778896.1	654125.5	3.2	-1.2	0.6	11.4	11.9	6.74	180	152.66
8	1	1778922.3	654140.6	15.2	1778923.0	654139.9	2.8	0.8	-0.7	12.3	12.7	4.91	360	317.97
8	2	1778919.3	654141.6	15.2	1778919.6	654141.2	2.7	0.2	-0.4	12.4	12.7	2.22	360	298.87
8	3	1778916.1	654142.7	15.2	1778916.3	654142.5	2.7	0.2	-0.3	12.4	12.7	1.53	360	306.79
8	4	1778913.1	654143.8	15.2	1778913.1	654143.3	2.7	0.0	-0.5	12.4	12.7	2.21	180	268.93
8	5	1778910.3	654144.8	15.2	1778910.0	654144.7	2.8	-0.2	0.0	12.4	12.7	1.08	180	191.43
9	1	1778928.2	654155.6	15.2	1778928.5	654154.8	2.5	0.3	-0.8	12.7	12.9	3.96	360	288.49
9	2	1778924.4	654157.1	15.2	1778924.3	654156.4	2.6	-0.1	-0.6	12.6	12.9	2.86	180	258.55
9	3	1778920.7	654158.4	15.2	1778920.6	654158.0	2.6	-0.1	-0.4	12.6	12.8	2.06	180	251.60
9	4	1778916.3	654160.1	15.2	1778916.0	654159.7	2.8	-0.2	-0.4	12.5	12.8	2.16	180	238.33
10	1	1778934.3	654170.0	15.2	1778934.7	654169.8	2.4	0.4	-0.2	12.8	13.1	2.06	360	332.33
10	2	1778930.8	654171.7	15.2	1778930.5	654171.6	2.4	-0.3	-0.1	12.9	13.1	1.25	180	191.45
10	3	1778926.8	654173.6	15.2	1778926.4	654173.4	2.4	-0.4	-0.2	12.9	13.1	1.80	180	204.09
10	4	1778923.1	654175.3	15.3	1778922.6	654175.1	2.3	-0.5	-0.2	13.0	13.3	2.31	180	205.21
11	1	1778940.2	654184.1	15.2	1778940.9	654184.0	2.2	0.7	-0.1	13.0	13.2	3.12	360	351.24
11	2	1778936.7	654185.6	15.2	1778936.8	654185.7	2.1	0.1	0.1	13.1	13.3	0.83	0	41.09
11	3	1778932.2	654187.5	15.3	1778932.3	654187.9	2.1	0.1	0.3	13.2	13.3	1.53	0	78.36
11	4	1778927.9	654189.4	15.3	1778928.2	654189.4	2.1	0.3	0.0	13.2	13.4	1.30	0	1.07
12	1	1778946.3	654199.5	15.2	1778947.3	654199.0	1.9	0.9	-0.6	13.4	13.5	4.73	360	328.58
12	2	1778942.7	654200.7	15.2	1778943.1	654200.6	1.8	0.4	-0.2	13.4	13.5	1.82	360	333.59
12	3	1778938.2	654202.3	15.2	1778938.7	654202.1	1.9	0.5	-0.2	13.3	13.5	2.22	360	340.07
12	4	1778933.8	654203.8	15.2	1778933.5	654203.7	1.9	-0.3	0.0	13.3	13.5	1.50	180	187.37
13	1	1778952.5	654213.9	15.2	1778953.1	654213.0	1.5	0.6	-0.9	13.7	13.8	4.54	360	306.03
13	2	1778949.1	654215.1	15.2	1778948.9	654215.0	1.4	-0.2	-0.2	13.8	13.8	1.12	180	217.88
13	3	1778944.6	654216.8	15.2	1778944.4	654216.5	1.4	-0.2	-0.3	13.8	13.9	1.41	180	227.78
13	4	1778939.6	654218.6	15.2	1778939.0	654218.9	1.5	-0.6	0.3	13.7	13.8	3.03	180	152.39
14	1	1778958.2	654229.3	15.3	1778958.9	654228.5	0.9	0.7	-0.8	14.4	14.4	4.20	360	309.09
14	2	1778954.9	654230.6	15.3	1778954.5	654230.6	0.9	-0.4	0.0	14.5	14.5	1.61	180	174.13
14	3	1778950.8	654232.2	15.3	1778950.1	654232.2	0.9	-0.6	-0.1	14.4	14.4	2.50	180	184.94
14	4	1778946.8	654233.8	15.3	1778945.6	654233.8	1.0	-1.3	0.0	14.3	14.4	5.14	180	179.55
15	1	1778964.4	654244.3	15.3	1778965.0	654243.4	0.4	0.6	-0.9	14.9	14.9	4.15	360	303.39
15	2	1778961.2	654245.6	15.3	1778961.4	654245.2	0.5	0.2	-0.4	14.9	14.9	1.79	360	301.61
15	3	1778956.5	654247.4	15.3	1778956.6	654247.3	0.9	0.1	-0.2	14.4	14.5	0.67	360	292.57
15	4	1778952.7	654248.9	15.3	1778952.5	654248.9	0.6	-0.1	0.0	14.8	14.8	0.58	180	194.41
16	1	1778969.2	654259.7	14.8	1778970.6	654259.9	0.3	1.5	0.2	14.5	14.5	5.83	0	7.64
16	2	1778966.3	654261.1	15.2	1778967.5	654261.9	0.3	1.2	0.8	14.9	14.9	5.60	0	32.34
16	3	1778962.8	654262.7	15.0	1778963.6	654262.8	0.4	0.8	0.1	14.6	14.7	3.31	0	7.13
16	4	1778960.9	654264.1	15.0	1778960.7	654265.4	0.4	-0.3	1.3	14.6	14.6	5.08	180	101.59
16.5	1	1778978.5	654264.5	14.4	1778979.7	654265.5	0.1	1.2	0.9	14.2	14.3	6.01	0	39.17
16.2	2	1778974.0	654265.9	15.2	1778974.6	654267.1	0.1	0.6	1.2	15.0	15.1	5.10	0	63.00
17	1	1778976.0	654274.1	14.8	1778978.0	654274.2	-0.1	2.1	0.1	14.9	15.1	7.89	0	2.13
17	2	1778972.3	654275.9	14.7	1778973.3	654275.8	-0.1	0.9	-0.1	14.7	14.7	3.57	360	353.18
17	3	1778968.2	654277.8	14.6	1778969.7	654277.3	0.0	1.5	-0.5	14.6	14.7	6.20	360	340.49
17	4	1778965.6	654278.8	14.6	1778964.3	654278.6	0.1	-1.3	-0.1	14.6	14.6	5.19	180	185.97
17.5	1	1778986.3												

CITY OF DAYTONA BEACH MAIN STREET PIER PILE BATTER DETAIL														
BENT	PILE	TOP (Y)	TOP (X)	TOP ELEV	BOT (Y)	BOT (X)	BOT ELEV	DELTA (Y)	DELTA (X)	DELTA Z	LENGTH	DEGREE OF PILE BATTER	QUAD	AZIMUTH
26	1	1779002.6	654351.5	15.0	1779002.4	654350.5	-2.1	-0.2	-1.0	17.1	17.2	3.3674	180	257.0011
26	2	1778998.5	654353.1	14.8	1778998.0	654352.3	-2.0	-0.4	-0.8	16.8	16.9	2.9695	180	240.1980
26	3	1778994.2	654354.0	14.9	1778992.8	654354.8	-2.2	-1.4	0.8	17.1	17.3	5.3170	180	150.8894
26	4	1778985.8	654357.6	14.8	1778985.1	654357.3	-2.5	-0.7	-0.3	17.3	17.5	2.3849	180	203.0109
26	5	1778976.0	654361.7	14.7	1778976.2	654360.4	-2.9	0.2	-1.3	17.6	17.9	4.3578	360	278.7267
26	6	1778968.2	654364.7	14.8	1778967.3	654364.2	-2.3	-0.9	-0.5	17.0	17.2	3.5570	180	208.5500
26	7	1778959.2	654368.4	14.8	1778959.2	654367.0	-2.0	0.0	-1.3	16.8	17.0	4.5764	180	269.7025
26	8	1778950.6	654372.3	15.0	1778951.3	654371.3	-2.0	0.7	-1.0	16.9	17.1	4.1774	360	305.1695
26	9	1778941.5	654375.6	15.0	1778940.7	654375.0	-1.8	-0.8	-0.6	16.7	16.9	3.4172	180	215.9873
26	10	1778932.8	654379.1	15.0	1778932.1	654379.1	-1.7	-0.6	0.0	16.7	16.8	2.0753	180	176.6891
26	11	1778924.5	654382.9	15.0	1778923.3	654382.3	-1.5	-1.1	-0.6	16.5	16.6	4.4330	180	207.2855
26	12	1779006.5	654349.9	14.8	1779006.9	654348.6	-2.1	0.5	-1.4	16.9	17.0	4.8992	360	288.7454
27	-1	1779018.2	654352.9	15.0	1779022.0	654352.2	-2.0	3.8	-0.7	17.0	17.5	12.9894	360	349.5197
27	0	1779015.9	654354.0	15.0	1779015.6	654354.6	-2.1	-0.3	0.6	17.1	17.2	2.2144	180	120.2939
27	1	1779011.0	654356.2	15.0	1779010.1	654356.8	-2.5	-1.0	0.6	17.5	17.7	3.7587	180	147.7355
27	4	1778996.4	654363.0	14.9	1778996.0	654362.7	-2.2	-0.5	-0.3	17.1	17.3	1.8738	180	212.2984
27	5	1778989.5	654365.7	14.8	1778988.7	654365.5	-3.3	-0.8	-0.2	18.0	18.3	2.6195	180	194.9807
27	6	1778980.5	654368.9	15.0	1778980.0	654368.4	-3.6	-0.4	-0.5	18.6	19.0	2.0133	180	226.7357
27	7	1778975.8	654370.8	14.8	1778975.6	654370.6	-2.7	-0.2	-0.3	17.5	17.7	1.0491	180	233.1301
27	8	1778962.8	654375.7	14.9	1778961.7	654374.9	-1.8	-1.1	-0.8	16.7	16.8	4.6690	180	214.5994
27	9	1778953.7	654379.2	14.7	1778953.8	654378.2	-2.0	0.1	-0.9	16.7	16.8	3.2328	360	276.3201
27	10	1778945.1	654382.7	15.1	1778945.1	654382.2	-1.8	0.1	-0.5	16.9	17.0	1.6498	360	276.4698
27	11	1778936.3	654386.1	15.1	1778936.4	654386.0	-1.8	0.1	-0.2	16.9	17.0	0.6607	360	296.8279
27	12	1778927.4	654389.6	15.0	1778927.5	654389.5	-2.0	0.0	-0.1	17.0	17.1	0.4686	360	283.3351
28	1	1779012.1	654365.0	15.0	1779012.9	654364.1	-2.1	0.8	-0.9	17.1	17.3	3.8447	360	311.0500
28	2	1779008.9	654366.6	15.0	1779008.3	654365.6	-2.2	-0.6	-1.0	17.2	17.4	3.8146	180	235.8536
28	3	1779005.0	654368.0	14.8	1779004.9	654367.7	-2.2	-0.1	-0.3	17.0	17.1	1.1832	180	257.8254
28	4	1779000.2	654369.2	14.7	1778998.4	654369.5	-2.4	-1.8	0.3	17.1	17.4	5.9853	180	170.3958
28	5	1778991.7	654372.8	15.0	1778991.5	654372.0	-3.8	-0.2	-0.9	18.8	19.2	2.6792	180	259.3803
28	6	1778983.3	654376.3	14.7	1778982.9	654376.2	-3.2	-0.4	-0.1	17.9	18.2	1.2629	180	192.1353
28	8	1778966.2	654383.5	14.8	1778965.4	654382.6	-2.2	-0.8	-0.9	16.9	17.1	3.9406	180	228.3379
28	9	1778957.1	654386.4	14.6	1778956.1	654386.4	-1.8	-1.0	-0.1	16.4	16.6	3.5234	180	184.3640
28	10	1778948.3	654390.4	14.9	1778947.2	654390.2	-2.2	-1.2	-0.2	17.1	17.3	3.9227	180	188.9320
28	11	1778939.0	654394.6	15.1	1778939.5	654393.9	-2.0	0.5	-0.7	17.0	17.2	2.7752	360	305.3442
28	12	1778930.6	654397.4	15.1	1778929.4	654397.0	-1.0	-1.2	-0.4	16.0	16.1	4.5823	180	198.7873
29	-1	1779026.3	654368.0	15.3	1779025.3	654367.4	-2.1	-1.0	-0.6	17.4	17.6	3.8241	180	209.0115
29	0	1779020.0	654369.8	15.0	1779020.3	654369.9	-2.2	0.3	0.1	17.2	17.4	1.2000	0	15.5750
29	1	1779016.1	654371.3	15.0	1779015.4	654371.5	-2.3	-0.7	0.2	17.3	17.4	2.4827	180	166.7244
29	5	1778995.0	654379.4	15.0	1778994.2	654379.1	-3.4	-0.8	-0.3	18.4	18.7	2.6704	180	197.8007
29	6	1778986.2	654383.3	15.0	1778985.7	654382.7	-2.9	-0.5	-0.6	18.0	18.2	2.4672	180	233.0857
29	7	1778977.3	654386.6	15.0	1778977.0	654386.2	-2.4	-0.3	-0.5	17.4	17.5	1.8647	180	234.1441
29	8	1778968.5	654390.3	14.9	1778968.1	654388.9	-2.3	-0.3	-1.3	17.2	17.3	4.5257	180	255.5244
29	9	1778959.4	654393.8	15.1	1778959.0	654393.3	-2.2	-0.5	-0.5	17.2	17.4	2.3374	180	228.7451
29	10	1778950.2	654397.0	14.9	1778950.2	654396.4	-2.3	-0.1	-0.6	17.1	17.3	2.0057	180	264.7451
29	11	1778941.8	654400.7	14.8	1778941.3	654400.2	-2.2	-0.5	-0.6	17.0	17.2	2.5895	180	227.1601
29	12	1778933.2	654404.3	15.0	1778933.8	654403.3	-2.0	-1.4	-0.9	17.0	17.2	5.7310	180	213.1407
30	1	1779018.2	654381.0	14.4	1779018.8	654379.3	-2.4	0.6	-1.8	16.8	16.9	6.3246	360	288.7664
30	2	1779014.3	654381.9	15.0	1779014.6	654380.6	-2.5	0.2	-1.3	17.5	17.6	4.3348	360	280.8430
30	3	1779010.8	654382.9	15.0	1779010.4	654382.9	-2.6	-0.4	0.0	17.6	17.8	1.3130	180	177.0171
30	4	1779003.2	654385.4	14.8	1779002.1	654384.6	-3.4	-1.1	-0.8	18.2	18.5	4.2749	180	218.4557
30	5	1778997.6	654387.1	14.6	1778997.2	654387.0	-3.2	-0.4	-0.1	17.9	18.2	1.2665	180	193.4732
30	6	1778991.5	654389.6	14.9	1778990.7	654389.1	-2.9	-0.8	-0.5	17.8	18.0	2.9697	180	209.7603
30	7	1778978.4	654394.7	15.0	1778978.4	654394.2	-2.4	0.1	-0.5	17.4	17.6	1.6941	360	276.1313
30	8	1778969.0	654398.5	14.8	1778968.9	654397.7	-2.2	-0.1	-0.7	17.0	17.1	2.4973	180	262.0013
30	9	1778961.1	654402.2	14.8	1778961.4	654401.7	-2.2	0.4	-0.5	17.0	17.2	2.0909	360	306.7593
30	10	1778956.5	654403.9	14.8	1778955.9	654403.4	-2.4	-0.6	-0.5	17.2	17.4	2.6064	180	218.3627
30	11	1778945.5	654408.8	15.0	1778944.5	654407.9	-2.2	-0.9	-0.9	17.2	17.4	4.4103	180	224.3288
30	12	1778936.6	654412.3	14.9	1778935.9	654411.4	-2.6	-0.7	-0.9	17.5	17.7	3.6590	180	230.1222
31	-1	1779032.2	654382.7	15.0	1779033.1	654382.4	-3.1	0.8	-0.3	18.1	18.4	2.7866	360	341.9758
31	0	1779030.1	654383.2	14.7	1779030.1	654383.0	-3.0	0.0	-0.2	17.6	17.9	0.6374	180	256.7428
31	1	1779022.9	654385.9	14.7	1779023.1	654385.4	-2.8	0.2	-0.5	17.5	17.7	1.6636	360	296.1616
31	4	1779009.8	654391.2	14.7	1779010.2	654391.0	-3.5	0.4	-0.2	18.2	18.5	1.3361	360	330.4730
31	5	1779002.5	654394.1	14.7	1779002.0	654394.8	-2.7	-0.5	0.7	17.3	17.6	2.9418	180	126.0983
31	6	1778994.4	654397.5	14.5	1778994.2	654396.4	-3.1	-0.2	-1.1	17.6	17.9	3.7126	180	259.1618
31	7	1778983.1	654402.2	15.0	1778982.7	654401.7	-2.2	-0.4	-0.5	17.2	17.4	2.2367	180	231.6325
31	8	1778975.0	654405.2	14.8	1778973.8	654405.3	-3.1	-1.2	0.2	17.0	17.1	3.9943	180	171.8904
31	9	1778965.2	654409.0	15.0	1778965.8	654408.8	-2.1	0.6	-0.2	17.1	17.2	2.0076	360	337.3801
31	10	1778960.0	654411.2	14.7	1778960.3	654411.2	-2.2	0.4	0.0	16.9	17.1	1.2716	360	357.5569
31	11	1778948.1	654415.8	14.9	1778948.3	654416.0	-2.4	0.3	0.1	17.3	17.5	1.0039	0	29.0179
31	12	1778940.2	654419.5	15.0	1778939.9	654419.3	-2.4	-0.3	-0.3	17.4	17.6	1.2049	180	223.2308
32	1	1779024.7	654395.1	14.7	1779025.1	654392.4	-2.7	0.4	-2.7	17.4	17.6	8.8876	360	278.8404
32	2	1779020.5	654396.9	15.0	1779019.5	654396.1	-3.2	-1.0	-0.8	18.1	18.4	4.0216	180	219.3907
32	3	1779015.7	654398.8	14.7	1779013.0	654398.1	-2.8	-2.7	-0.7	17.5	17.9	9.0395	180	194.0262
32	4	1779012.6	654400.1	15.0	1779010.7	654399.1	-3.4	-2.0	-1.0	18.4	18.8	6.8555	180	207.0531
32	5	1779004.2	654403.4	14.8	1779004.4	654403.8	-2.9	0.1	0.4	17.7	18.0	1.2983	0	68.4102
32	6	1778995.7	654407.0	15.1	1778994.9	654406.6	-2.8	-0.7	-0.4	17.9	18.1	2.6571	180	210.1819
32	7	1778986.8	654410.4	15.0	1778986.4	654410.0	-2.6	-0.4	-0.4	17.6	17.8	1.8628	180	227.3359
32	8	1778979.5	654413.2	14.9	1778977.5	654412.0	-2.5	-2.0	-1.2	17.4	17.7	7.5486	180	211.2751
32	9	1778969.1	654417.3	15.0	1778969.3									