



Inspection Report

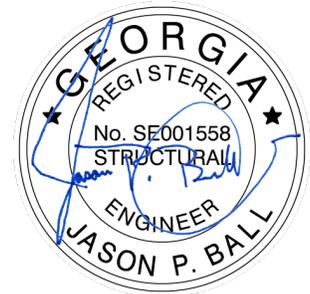
To: David Raffin
JLL
ProSiteSM Sr. Director, Business Development and Operations

Cc:

From: Jason P. Ball, PE, SE
Ball Maritime Group, LLC

Date: May 14, 2024

Project: PN 23-1035: Coronado Ferry Landing Level 1 Inspection
Coronado, California



From April 8th through April 12th, 2024, a site inspection was conducted by Ball Maritime Group (BMG) and Underwater Mechanix (UMX). Mr. Gabe Bell, Field Representative for BMG, was the primary representative during this inspection. The following information summarizes BMG's understanding of the condition of the Ferry Dock and Marketplace Dock located in Coronado, California. This Level I Special Purpose Inspection aims to identify any damage and record any defects to be repaired, including all relevant defect attributes, such that repair design documents may be generated. No previously recorded routine inspection performed by the Owner has been provided. The baseline for this inspection is design drawings provided by the Owner and supplemental tidal information obtained from NOAA for the area. These plans are included in Appendix A:

- 1) 1987 – Coronado Ferry and Fishing Pier
- 2) 1994 – Replacement of Coronado Ferry Landing Float
- 3) 1999 – Ferry Landing Marketplace Dock Replacement

The inspection included two objectives: 1) Document details of any defects or damaged items and components to be repaired and 2) Provide a summary of recommendations for repairs to extend the service life of the facilities. This inspection report is an opinion provided by a licensed professional engineer with expertise in marine engineering design in the coastal area. It is prepared in accordance with the *American Society of Civil Engineers Waterfront Facilities Inspection and Assessment Manual, 2015*.

BACKGROUND

Location: 32°41'59.31"N, 117°10'11.80"W

Facility Usage Description:

The Ferry and Fishing Pier comprises three elements – the access, the pierhead, and the floating dock (Figure 1). The access and pier head are approximately 37 years old, constructed

around 1987. The floating dock was replaced in 1994 and regularly accommodates ferries and other passenger vessels. The facility is fully operational and was used during the inspection.

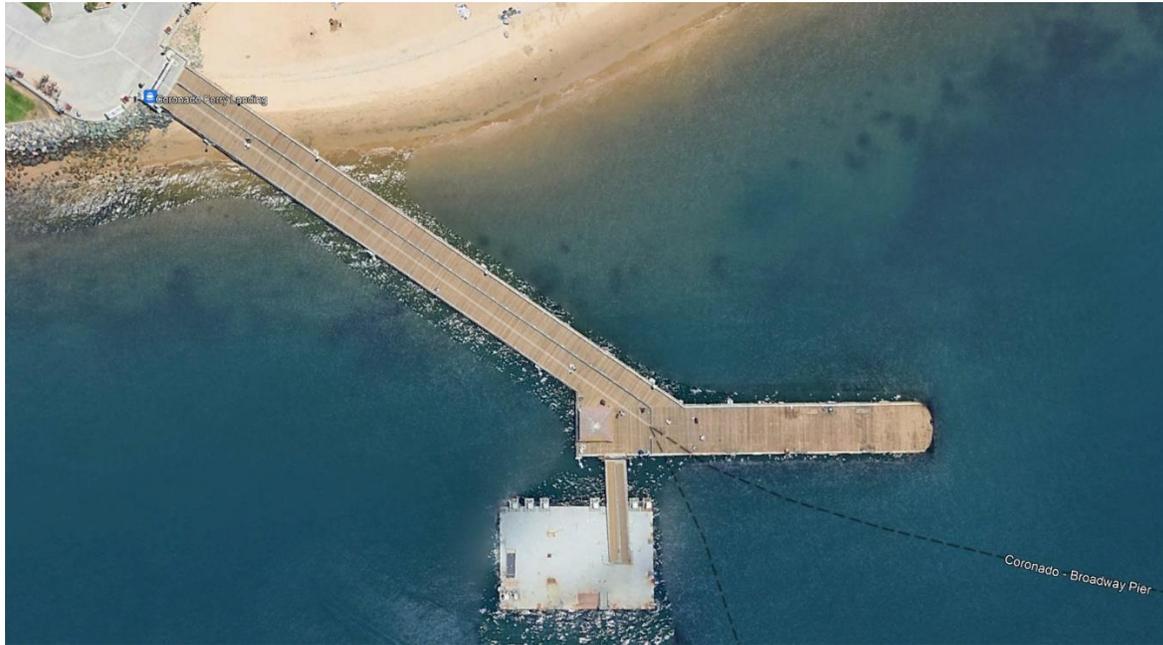


FIGURE 1 - Ferry and Fishing Pier

The Ferry Landing comprises three elements – the pierhead, the gangway, and the floating dock (Figure 2). The pierhead was not inspected. The floating docks appear to have been rebuilt in 2009. The docks accommodate small watercraft and personal watercraft. The facility is fully operational and was used during the inspection.

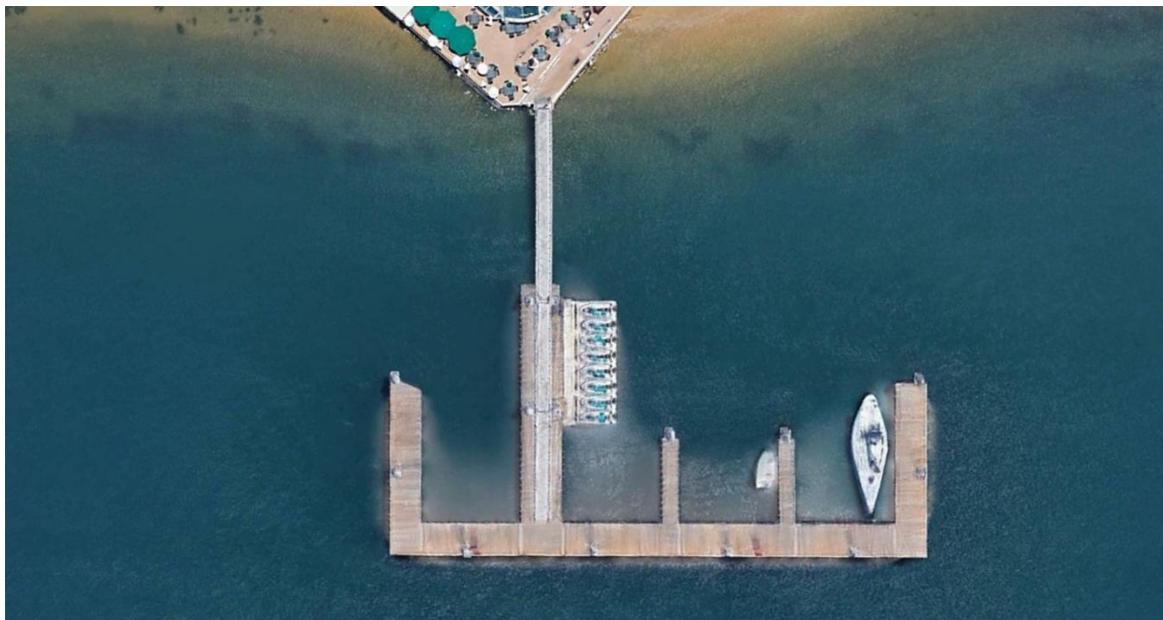


FIGURE 2 – Ferry Landing Docks

The diurnal tidal range is approximately 6.6 feet (See Appendix B for NOAA Datum). At mean low low water, the water depth is approximately 15 to 20 feet. The pierhead's deck elevation is EL 12.00. The ferry dock float has been modified by removing the face fenders and supplementing them with tires.

CONDITION ASSESSMENT

BMG conducted a visual inspection on foot and by boat. Above the waterline, the deck, underdeck, and mooring hardware were inspected. Vessels were present at various times during the inspection. Based on this visit, BMG could understand and confirm the conditions and record the details of any defects. The inspection notes and pictures are included in Appendix C.

As a result of this inspection, BMG has the opinion that the structure is in moderate condition. No major defects were found in the concrete structure, but numerous chemical deterioration cracks were predominantly located in the built-up section of the piles and the pile caps. However, additional damage was found on the floating dock. Specifically, the pile guides (or yokes) and the galvanized steel rolling plate are severe and rusted more than 50% through in some places. The concrete guide piles on both floating docks had no defects, but there was minor damage due to the degradation of the pile guides and missing rub pads. Some plastic pile caps were missing. The cathodic anode system was not present on the floating dock. The metal transition plates on the landing floating dock showed moderate to major damage. Finally, BMG did not complete a review of the gangway hinge on the ferry dock because we are unfamiliar with the design approach used, which is not in line with industry standards.

In addition to the above-water inspection conducted by BMG, an underwater inspection was simultaneously conducted by Underwater Mechanics Services (UMX). This inspection included partially removing marine growth from the piles supporting the wharf. Sections of marine growth were removed initially; if damage was identified, then additional growth was removed in the identified area. A detailed inspection of all defects on the pile supports was recorded. From this inspection, UMX identified 34 piles with moderate damage that need repair. The results of this inspection can be found in Appendix C (Pile Inspection Log). In addition to the pile inspection log, UMX also recorded their inspection from the point of view of the diver performing the inspection. A media file will accompany this report, including these videos.

The defects accounted for at this site are consistent with defects commonly found in concrete waterfront structures. These defects include concrete cracking, corrosion of reinforcing steel, corrosion cracking, corrosion spall, delamination, chemical attack, mechanical damage and general construction deficiencies. A complete list of the defects to be repaired can be seen in Appendix D.

RECOMMENDATIONS

Referencing the findings of the inspections completed by BMG and UMX, BMG recommends a robust preservation program to extend the lifecycle of the structures and improve the safety of aspects of both facilities. The recommended repairs include pile jackets, concrete reinforcement, epoxy coating, replacement/refurbishment of cathodic protection, mooring hardware, safety hardware, utility hardware, and transition plates. The program should include Level 2 non-destructive testing to determine the condition of the reinforcing steel in the concrete on the pierhead and access. All decking and railings should be rehabilitated to their original

condition to address the issues of board deterioration and missing hardware. BMG has prepared the following general repair scopes and cost estimates for each section of the project:

Ferry Landing & Fishing Pier

The age of the structure dictates the repair approach to extend the service life. The concrete pile system exhibits defects consistent with the structure's age. Since most defects occur in the pilings' upper 4 to 8 feet, the reinforcement steel appears compromised. The level at which the steel is degraded can only be determined by nondestructive testing. The following scope is typical for up to 10% of the piles that are considered defective:

The GPR survey will be performed using an integrated Structure Scan Mini (SS Mini) 1600 MHz antenna and display unit manufactured by Geophysical Survey Systems, Inc. (GSSI). Following testing to identify the best GPR signal frequency and equipment settings (i.e., gain, range, and frequency filters), the antenna range will be optimally set to obtain the maximum penetration depth given the concrete's dielectric constant.

The survey will incorporate numerous transects, the lines on the pilings along which the GPR antenna travels, and along which two-dimensional GPR profiles are collected. The transects will be oriented along the length and across the width of the exposed portion of each piling. The portions of the pilings to be scanned need to be free of barnacles or other marine growth, which would prevent good contact between the antenna and the piling.

This type of survey typically costs around \$1,000 per pile. For this structure, we recommend surveying ten piles at a total cost of \$15,000, which includes boat support and a summary of findings. The level at which the reinforcement steel is degraded will dictate the proposed repair and its estimated cost. Each option below is expected to extend the service life by up to 25-years.

Option 1 – Low Steel Degradation

<i>Description</i>	<i>No.</i>	<i>Unit Cost</i>	<i>Subtotal</i>
10' Nonstructural Jacket	53 each	\$40,000	\$2,120,000
Concrete Bent Cap Repairs	15 each	\$10,000	\$150,000
Replace Timber Decking	7,840 ft ²	\$100/ft ²	\$784,000
Replace Steel Hand Railing	950 ft	\$85/ft	\$80,750
Replace Steel Landing Plate	1 LS	\$14,000	\$14,000
Replace Steel Pile Guides	8 each	\$6,500	\$39,000
Contingency Allowance	30%		\$956,325
Total			<u>\$4,144,075</u>

Option 2 – High Steel Degradation

<i>Description</i>	<i>No.</i>	<i>Unit Cost</i>	<i>Subtotal</i>
10' Nonstructural Jacket	24	\$40,000 each	\$960,000
10' Structural Jacket	29	\$60,000 each	\$1,740,000
Concrete Bent Cap Repairs	15 each	\$10,000	\$150,000

Replace Timber Decking	7,840 ft ²	\$100/ft ²	\$784,000
Replace Steel Hand Railing	950 ft	\$85/ft	\$80,750
Replace Steel Landing Plate	job	Lump Sum	\$14,000
Replace Steel Pile Guides	8 each	\$6,500	\$39,000
Contingency Allowance	30%		\$1,130,325
Total			<u>\$4,898,075</u>

Ferry Landing Docks

The ferry landing docks are relatively new and only exhibit minor defects. However, the defects are of critical concern from a safety aspect. These include the pile guides, transition plates, and gangway connections. The proposed repairs are outlined below and would be sufficient for the next 20 years with proper maintenance.

<i>Description</i>	<i>No.</i>	<i>Unit Cost</i>	<i>Subtotal</i>
Replace Transition Plates	job	Allowance	\$20,000
Replace Steel Hinges	job	Allowance	\$26,000
Repair Gangway	job	Allowance	\$18,000
Replace Steel Pile Guides	14 each	\$6,500	\$91,000
Contingency Allowance	30%		\$46,500
Total			<u>\$201,500</u>



Appendix A

Original Design Drawings



Appendix B

NOAA Datum Information



Appendix C

Superstructure Visual Inspection Notes & Pictures



Appendix D

Underwater and Below Deck Inspection Notes & Observations



Appendix E

Underwater Inspection Videos

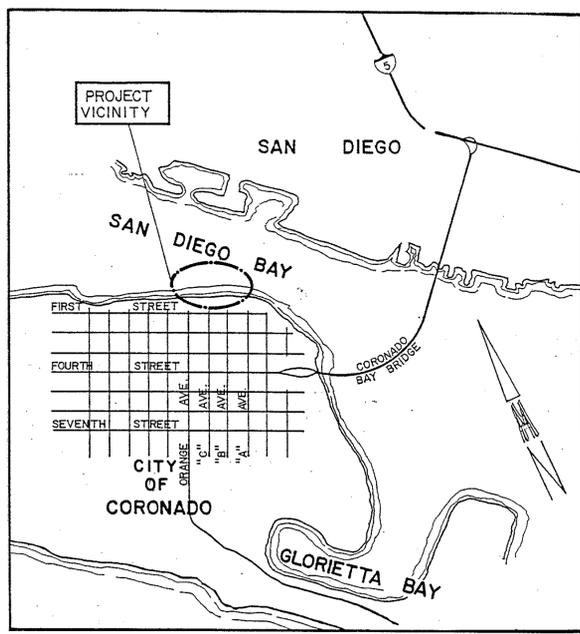
NOTIFICATION:

- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THESE ARE THE EXISTING UTILITIES ON SITE, HOWEVER:
 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES ON THE SITE. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE FOLLOWING OWNERS OF SAID UTILITIES OR STRUCTURES PRIOR TO ANY EXCAVATION FOR VERIFICATION AND LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK.
 A. SDG&E - UNDERGROUND SERVICE ALERT 1-800-422-4133
 B. SEWER - CITY OF CORONADO 522-7380
 C. WATER - CALAMERICAN 575-1105
 D. TELEPHONE - PACIFIC BELL 266-4651
 E. CABLE TV - AMERICAN CABLE TV 435-0157
- THE CONTRACTOR SHALL NOTIFY PACIFIC BELL A MINIMUM OF SIX (6) DAYS PRIOR TO THE COMMENCEMENT OF PILE DRIVING. PACIFIC BELL WILL HAVE DIVERS AVAILABLE TO LOCATE TELEPHONE CABLES IN THE VICINITY OF PILES. (SEE SHEET 2 FOR THE APPROXIMATE LOCATION OF TELEPHONE CABLES).

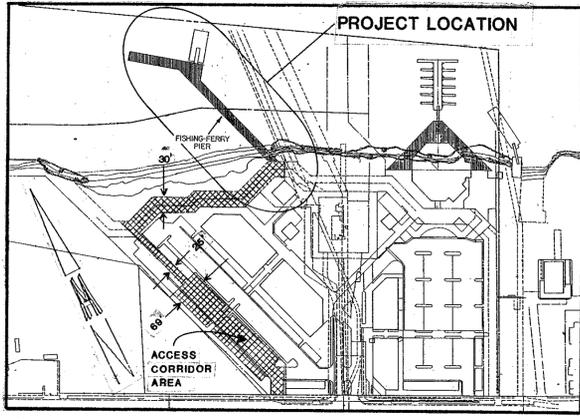
ABBREVIATIONS	
G.V.	GATE VALVE
P.V.C	POLYVINYLCHLORIDE
MFR	MANUFACTURER
N.I.C	NOT IN CONTRACT
I.D.	INSIDE DIAMETER
O.D.	OUTSIDE DIAMETER

SHEET NO.	INDEX DRAWING TITLE
1)	C-1 GENERAL PLAN, NOTES AND LOCATION MAPS
2)	C-2 PILE LAYOUT AND BORING LOG
3)	C-3 FRAMING PLAN
4)	C-4 ELEVATIONS
5)	C-5 ABUTMENT PLAN, SECTION AND DETAILS
6)	C-6 DETAILS
7)	C-7 DETAILS
8)	C-8 GANGWAY
9)	C-9 FLOATING DOCK - ALTERNATE 1
10)	C-10 FLOATING DOCK - ALTERNATE 2
11)	C-11 SHELTER PLAN, SECTION, ELEVATION, DETAILS
12)	C-12 CUTTING BOARD & BENCH DETAILS
13)	C-13 DETAILS
14)	E-1 ELECTRICAL SITE PLAN, SHEET NOTES, AND DETAILS

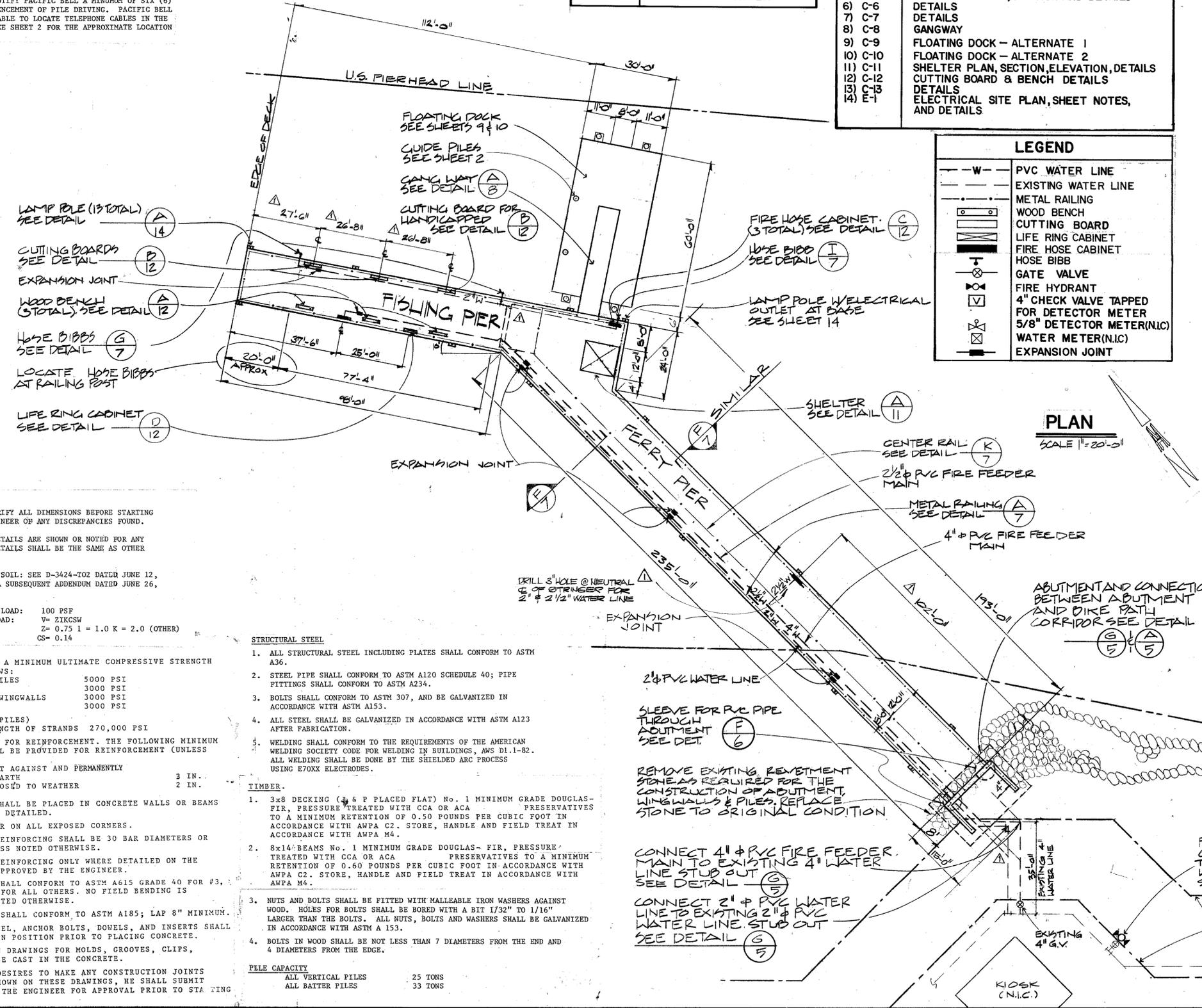
LEGEND	
---	PVC WATER LINE
---	EXISTING WATER LINE
---	METAL RAILING
---	WOOD BENCH
---	CUTTING BOARD
---	LIFE RING CABINET
---	FIRE HOSE CABINET
---	HOSE BIBB
---	GATE VALVE
---	FIRE HYDRANT
---	4" CHECK VALVE TAPPED FOR DETECTOR METER
---	5/8" DETECTOR METER (N.I.C)
---	WATER METER (N.I.C)
---	EXPANSION JOINT



VICINITY MAP
NO SCALE



PROJECT LOCATION MAP AND ACCESS CORRIDOR AREA
NO SCALE



- GENERAL**
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND.
 - WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAILS SHALL BE THE SAME AS OTHER SIMILAR WORK.
 - CHARACTER OF FOUNDATION SOIL: SEE D-3424-T02 DATED JUNE 12, 1985, GEOCON, INC. AND A SUBSEQUENT ADDENDUM DATED JUNE 26, 1986.
 - DESIGN LOADS: DECK LIVE LOAD: 100 PSF
SEISMIC LOAD: V= ZIKCSW
Z= 0.75 I = 1.0 K = 2.0 (OTHER)
G= 0.14

- REINFORCED CONCRETE**
- CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS:
 PRESTRESSED PILES 5000 PSI
 SLAB ON GRADE 3000 PSI
 ABUTMENT AND WINGWALLS 3000 PSI
 PILECAPS 3000 PSI
 - PRESTRESSING DATA (PILES)
 ULTIMATE STRENGTH OF STRANDS 270,000 PSI
 - CONCRETE PROTECTION FOR REINFORCEMENT. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT (UNLESS OTHERWISE NOTED):
 A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3 IN.
 B. CONCRETE EXPOSED TO WEATHER 2 IN.
 - NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE WALLS OR BEAMS UNLESS SPECIFICALLY DETAILED.
 - PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS.
 - MINIMUM SPLICE IN REINFORCING SHALL BE 30 BAR DIAMETERS OR 1'-6" MINIMUM, UNLESS NOTED OTHERWISE.
 - LOCATE SPLICES IN REINFORCING ONLY WHERE DETAILED ON THE DRAWINGS OR WHERE APPROVED BY THE ENGINEER.
 - REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 40 FOR #3, ASTM A615 GRADE 60 FOR ALL OTHERS. NO FIELD BENDING IS PERMITTED UNLESS NOTED OTHERWISE.
 - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185; LAP 8" MINIMUM.
 - ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE SECURED FIRMLY IN POSITION PRIOR TO PLACING CONCRETE.
 - REFER TO DETAILS ON DRAWINGS FOR MOLDS, GROOVES, CLIPS, GROUNDS, ETC., TO BE CAST IN THE CONCRETE.
 - IF THE CONTRACTOR DESIRES TO MAKE ANY CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THESE DRAWINGS, HE SHALL SUBMIT DETAILS OF SAME TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK.

- STRUCTURAL STEEL**
- ALL STRUCTURAL STEEL INCLUDING PLATES SHALL CONFORM TO ASTM A36.
 - STEEL PIPE SHALL CONFORM TO ASTM A120 SCHEDULE 40; PIPE FITTINGS SHALL CONFORM TO ASTM A234.
 - BOLTS SHALL CONFORM TO ASTM 307, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
 - ALL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION.
 - WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY CODE FOR WELDING IN BUILDINGS, AWS D1.1-82. ALL WELDING SHALL BE DONE BY THE SHIELDED ARC PROCESS USING E70XX ELECTRODES.

- TIMBER**
- 3x8 DECKING (4" P PLACED FLAT) No. 1 MINIMUM GRADE DOUGLAS-FIR, PRESSURE TREATED WITH CCA OR ACA PRESERVATIVES TO A MINIMUM RETENTION OF 0.50 POUNDS PER CUBIC FOOT IN ACCORDANCE WITH AWPA C2. STORE, HANDLE AND FIELD TREAT IN ACCORDANCE WITH AWPA M4.
 - 8x14 BEAMS No. 1 MINIMUM GRADE DOUGLAS-FIR, PRESSURE TREATED WITH CCA OR ACA PRESERVATIVES TO A MINIMUM RETENTION OF 0.60 POUNDS PER CUBIC FOOT IN ACCORDANCE WITH AWPA C2. STORE, HANDLE AND FIELD TREAT IN ACCORDANCE WITH AWPA M4.
 - NUTS AND BOLTS SHALL BE FITTED WITH MALLEABLE IRON WASHERS AGAINST WOOD. HOLES FOR BOLTS SHALL BE BORED WITH A BIT 1/32" TO 1/16" LARGER THAN THE BOLTS. ALL NUTS, BOLTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
 - BOLTS IN WOOD SHALL BE NOT LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE.

- PILE CAPACITY**
- ALL VERTICAL PILES 25 TONS
 - ALL BATTER PILES 33 TONS

SPEC. NO. B7-10	W.O. NO. 6070A
PROJECT ENGINEER	J.D. MALON
CONTRACTOR	MARATHON CONSTRUCTION CORP
CONSTRUCTION STARTED	3/16/87
CONSTRUCTION COMPLETED	6/30/87
COSTS	595,513.86
INSPECTOR	B.F. OBYDYS

San Diego Unified Port District
San Diego California

DESIGNED: C.R.E.B.V.
 DRAWN: S.P.H.E.M.E.
 CHECKED: J.H.M.
 APPROVAL RECOMMENDED: Manuel J. Garcia, ASST. CHIEF ENGINEER
 APPROVED: Joan Swickard, CHIEF ENGINEER

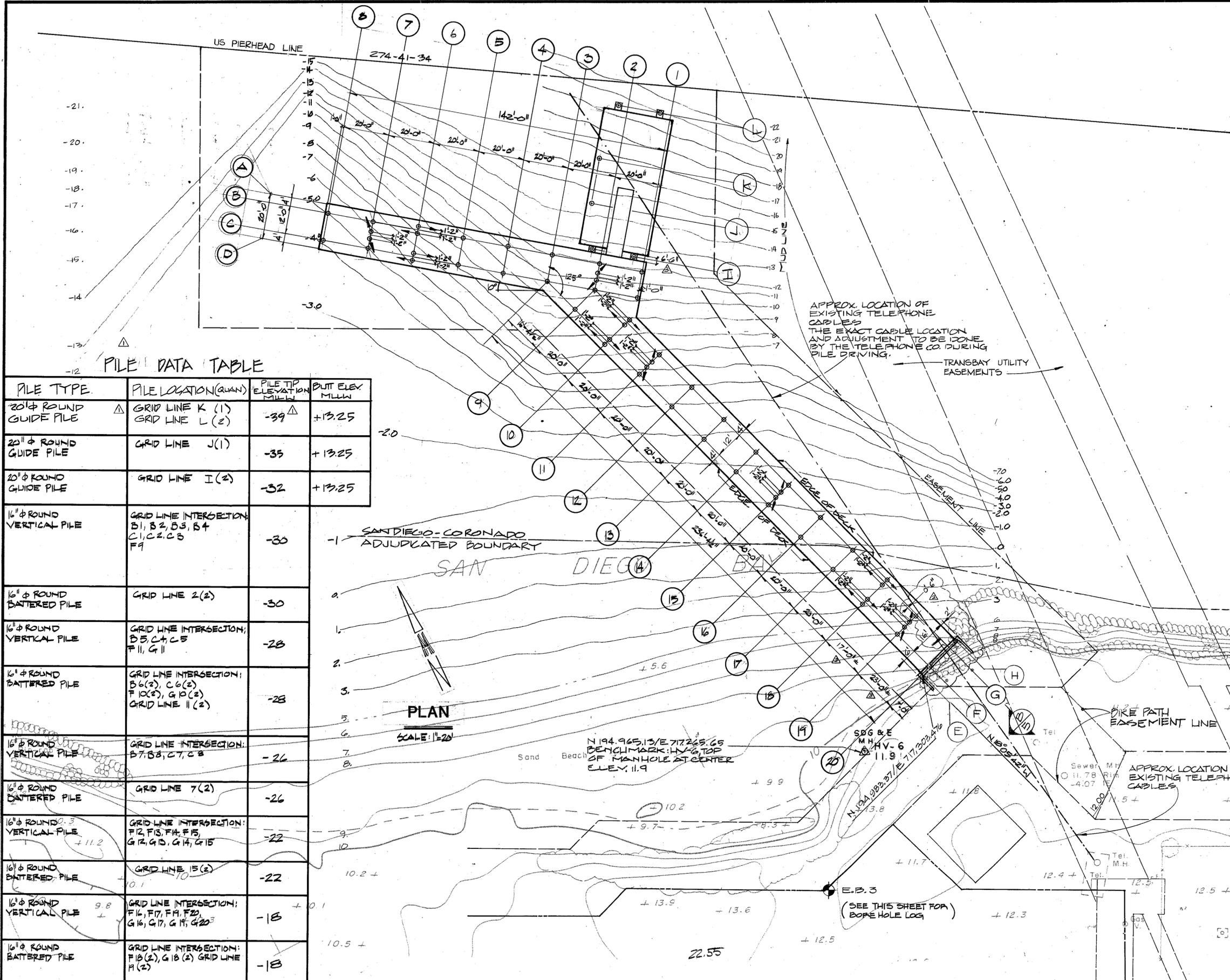
CITY OF CORONADO
CORONADO FERRY AND FISHING PIER
GENERAL PLAN, NOTES AND LOCATION MAPS

AS BUILT
 APPROVED: [Signature]
 DATE: Sept 6, 1988



C-1
 KERCHEVAL ENGINEERS
 CIVIL/STRUCTURAL ENGINEERING
 PLANNING AND SURVEYING
 4700 MURPHY CANYON RD., SUITE 310 SAN DIEGO, CA 92123-4371
 DRAWN BY: [Signature] CHECKED BY: [Signature]
 DESIGNER: [Signature] JOB NO. P-1116
 APPROVED: [Signature] DATE: 12/20/87

DATUM	MEAN LOWER LOW WATER
DATE	JAN 20 1987
SHEET	14 OF 14
DRAWING NO.	1299
REV.	1

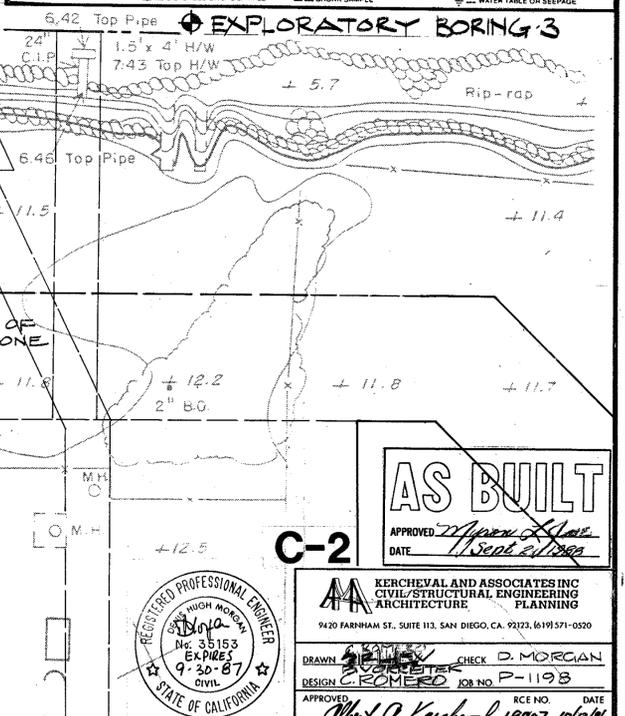


DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASSIFICATION	PERCENTAGE BLOW/FT.	DRY DENSITY P.C.F.	MOISTURE CONTENT%
0							
2							
3-1						89.3	23.3
3-2						96.4	20.3
4							
6							
8							
10						89.7	30.9
12							
14						115.5	16.9
16							
18							
20						111.7	18.4
22							
24							
26						90.9	28.5
28							
30							
32						95.2	25.2
34							
36						97.1	26.6
38							
40						100.3	23.8
42							
44							
46						99.6	24.7
48							
50						100.0	25.7

FILE DATA TABLE

PILE TYPE	PILE LOCATION (QUAN)	PILE TIP ELEVATION MLLW	BUTT ELEV MLLW
20" ROUND GUIDE PILE	GRID LINE K (1) GRID LINE L (2)	-39	+13.25
20" ROUND GUIDE PILE	GRID LINE J (1)	-35	+13.25
20" ROUND GUIDE PILE	GRID LINE I (2)	-32	+13.25
16" ROUND VERTICAL PILE	GRID LINE INTERSECTION: B1, B2, B3, B4 C1, C2, C3 F9	-30	
16" ROUND BATTERED PILE	GRID LINE 2 (2)	-30	
16" ROUND VERTICAL PILE	GRID LINE INTERSECTION: D5, C4, C5 F11, G11	-28	
16" ROUND BATTERED PILE	GRID LINE INTERSECTION: B6 (2), C6 (2) F10 (2), G10 (2) GRID LINE 11 (2)	-28	
16" ROUND VERTICAL PILE	GRID LINE INTERSECTION: B7, B8, C7, C8	-26	
16" ROUND BATTERED PILE	GRID LINE 7 (2)	-26	
16" ROUND VERTICAL PILE	GRID LINE INTERSECTION: F12, F13, F14, F15 G12, G13, G14, G15	-22	
16" ROUND BATTERED PILE	GRID LINE 15 (2)	-22	
16" ROUND VERTICAL PILE	GRID LINE INTERSECTION: F16, F17, F18, F19 G16, G17, G18, G19	-18	
16" ROUND BATTERED PILE	GRID LINE INTERSECTION: F13 (2), G13 (2) GRID LINE H (2)	-18	

PLAN
SCALE: 1"=20'



SPEC. NO. 87-10	W.O. NO. 60704
PROJECT ENGINEER	A.T.S. 12-30-87
CONTRACTOR	J.F.W./J.W.P. 2-3-87
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	

San Diego Unified Port District
San Diego California

DESIGNED: *CR*
DRAWN: *CR*
CHECKED: *CR*
APPROVAL: *Manuel F. Gomez*
ASST. CHIEF ENGINEER

CITY OF CORONADO
CORONADO FERRY AND FISHING PIER
PILE LAYOUT AND BORING LOG

DATUM	MEAN LOWER LOW WATER
DATE	JAN 20 87
SHEET	2 OF 14
DRAWING NO.	1299
REV.	3

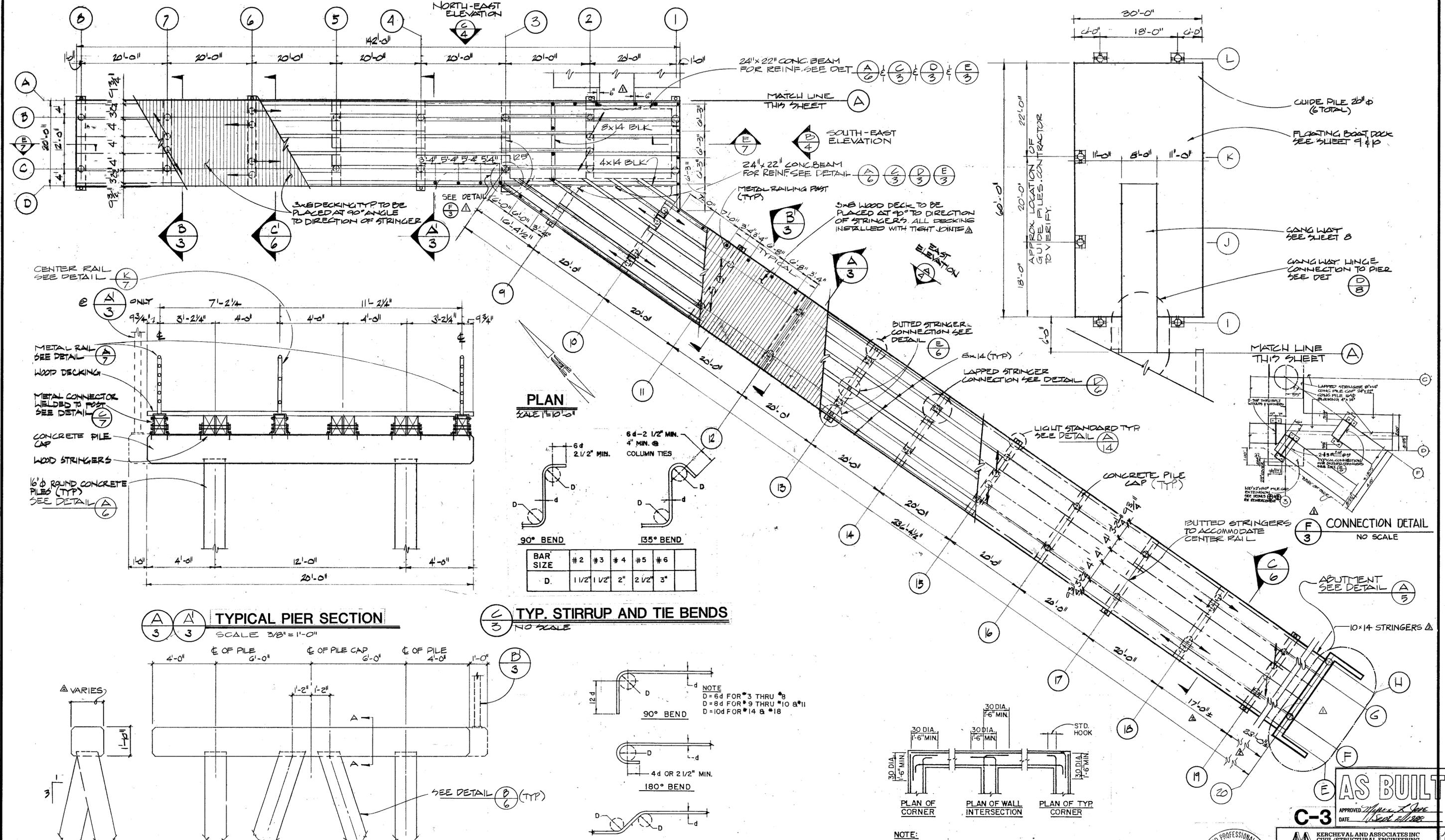
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APPROVED: *[Signature]*
DATE: 1/15/87

C-2

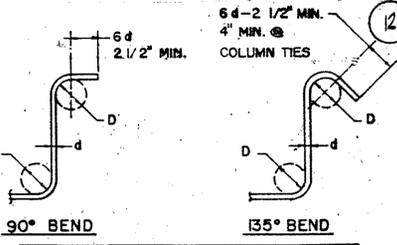
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
No. 35153
EXPIRES 9-30-87

KERCHEVAL AND ASSOCIATES INC.
CIVIL/STRUCTURAL ENGINEERING ARCHITECTURE PLANNING
9420 FARMHAM ST., SUITE 113, SAN DIEGO, CA. 92123, (619) 571-0250

DRAWN: *[Signature]* CHECK: D. MORGAN
DESIGN: *[Signature]* JOB NO. P-1198
APPROVED: *[Signature]* RCE NO. DATE

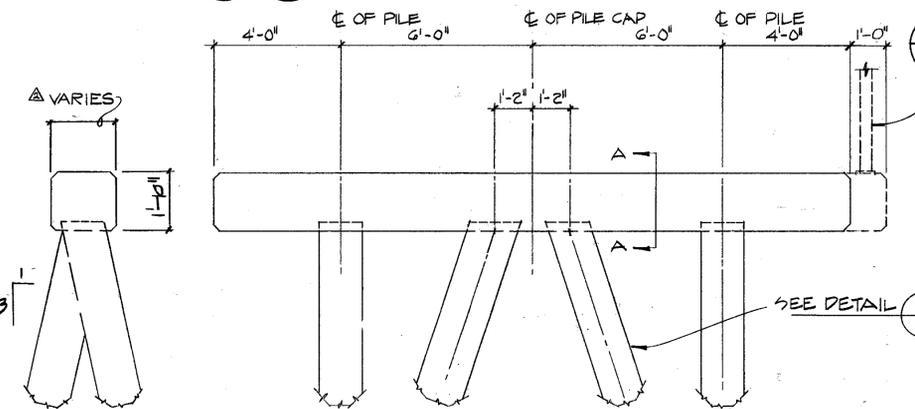


PLAN SCALE 1/8" = 1'-0"

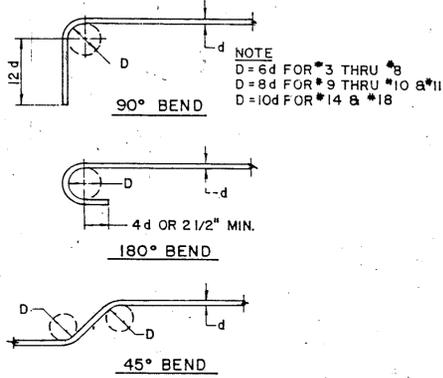


TYP. STIRRUP AND TIE BENDS NO SCALE

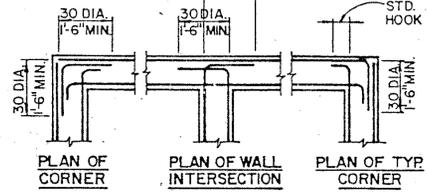
TYPICAL PIER SECTION SCALE 3/8" = 1'-0"



SECTION: PILE CAP & BATTERED PILES SCALE 3/8" = 1'-0"



TYPICAL REINFORCING BENDS NO SCALE



TYP. REINF. AT INTERSECTION OF BEAMS NO SCALE

AS BUILT

C-3 APPROVED DATE



KERCHEVAL AND ASSOCIATES INC.
 CIVIL/STRUCTURAL ENGINEERING
 ARCHITECTURE PLANNING
 9420 FARMHAM ST., SUITE 113, SAN DIEGO, CA. 92123, 619.571-0220
 No. 35153 EXPIRES 9-30-87
 DRAWN BY: J. HEVNER CHECKED BY: D. MORGAN
 DESIGN: J. HEVNER JOB NO. P-1198
 APPROVED: [Signature] DATE: 12/20/87

SPEC. NO. 87-10	W.O. NO. 60704
PROJECT ENGINEER	
CONTRACTOR	ATS
CONSTRUCTION STARTED	12-30-87
CONSTRUCTION COMPLETED	3-11-87
COST	
INSPECTOR B.F. OSUYLOS	

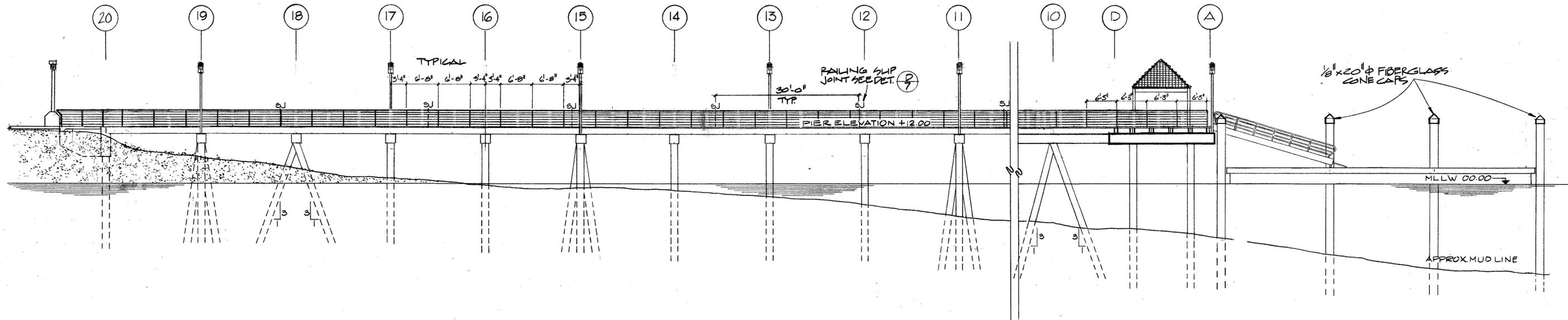
San Diego Unified Port District
 San Diego California



DESIGNED: L.R. [Signature]
 DRAWN: J.P. HEVNER
 CHECKED: D.L.M.
 APPROVAL RECOMMENDED: [Signature] ASST. CHIEF ENGINEER
 APPROVED: [Signature] CHIEF ENGINEER

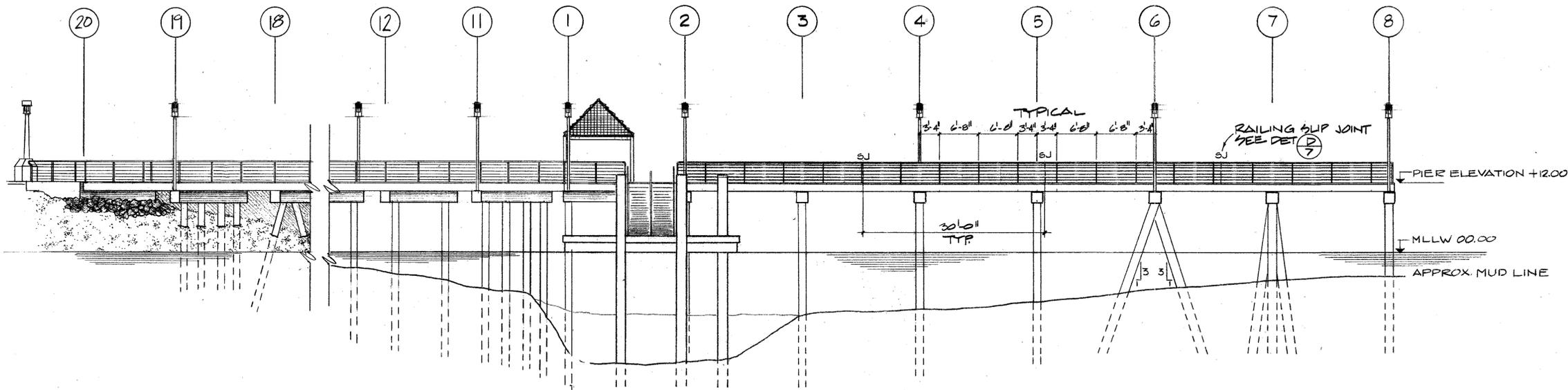
CITY OF CORONADO
 CORONADO FERRY AND FISHING PIER
 FRAMING PLAN

DATUM - MEAN LOWER LOW WATER
DATE JAN 20 1987
SHEET 3 OF 4
DRAWING NO. 1299
REV. 1



EAST ELEVATION
SCALE 1"=10'-0"

SOUTH-EAST ELEVATION
SCALE 1"=10'-0"



NORTH EAST ELEVATION
SCALE 1"=10'-0"



C-4

KERCHEVAL AND ASSOCIATES INC.
CIVIL/STRUCTURAL ENGINEERING
ARCHITECTURE
PLANNING
9420 FARNHAM ST., SUITE 113, SAN DIEGO, CA. 92123, 619/571-0520

AS BUILT
APPROVED: *[Signature]*
DATE: *Sept 2, 1987*

DRAWN: *[Signature]* CHECK: **D. MORGAN**
DESIGN: *[Signature]* JOB NO. **P-1198**
APPROVED: *[Signature]* RCE NO. **19807** DATE **10/1/87**

SPEC. NO. 37-10	W.O. NO. 60704
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	
INSPECTOR B.F. OSUTOS	

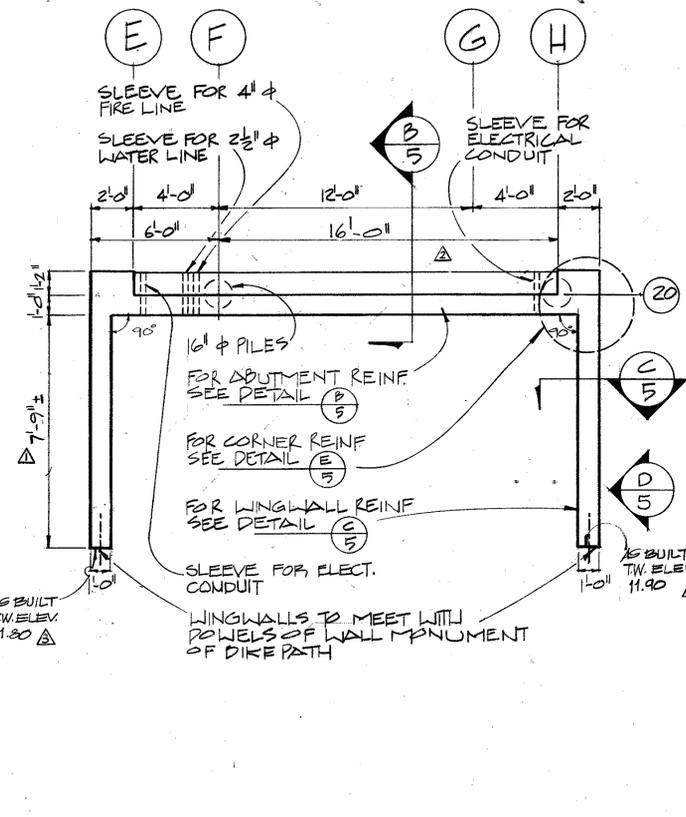
"AS BUILT"	ATS	12-30-87	<i>[Signature]</i>
REVISIONS	DATE	APPROVED	

San Diego Unified Port District
San Diego • California

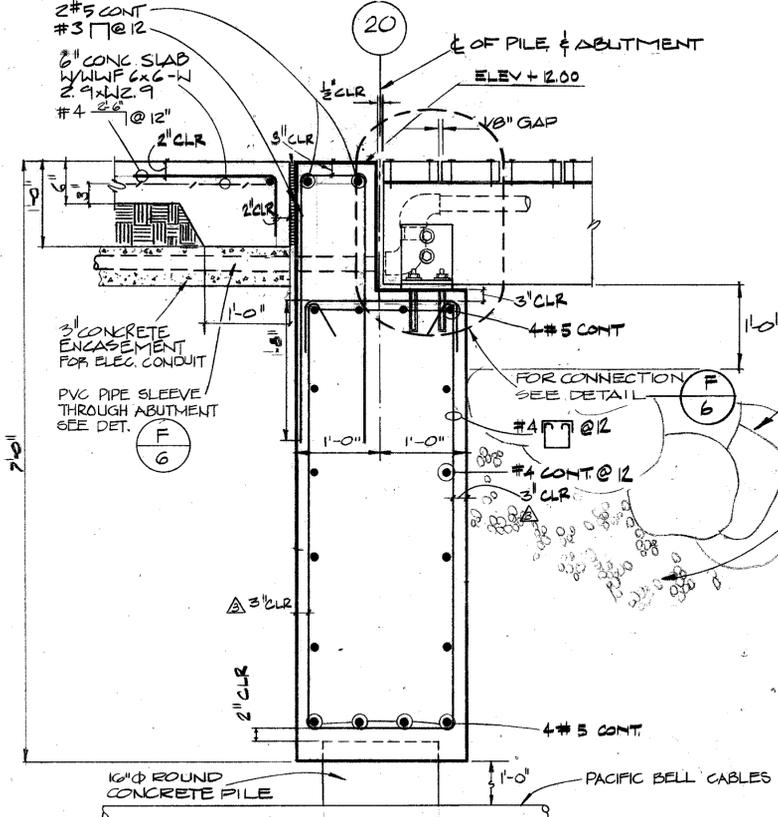


DESIGNED: <i>[Signature]</i>	APPROVAL RECOMMENDED: <i>[Signature]</i> ASST. CHIEF ENGINEER
DRAWN: <i>[Signature]</i>	APPROVED: <i>[Signature]</i> CHIEF ENGINEER
CHECKED: <i>[Signature]</i>	

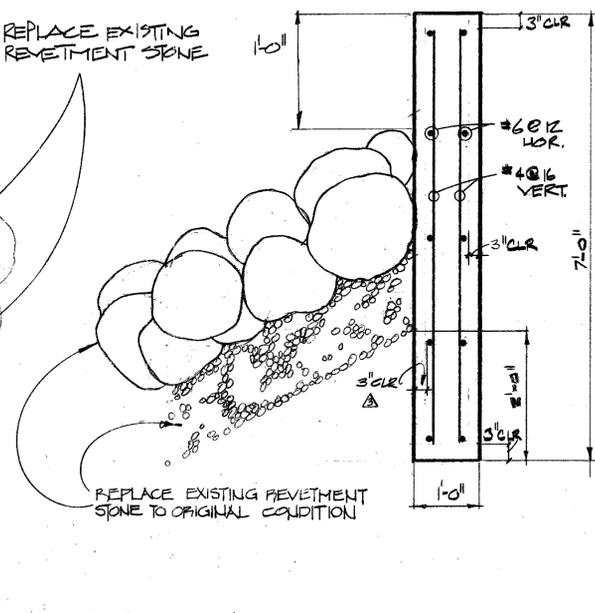
CITY OF CORONADO		DATUM: MEAN LOWER LOW WATER
CORONADO FERRY AND FISHING PIER		DATE JAN 30 1987
ELEVATIONS		SHEET 4 of 14
		DRAWING NO. 1299



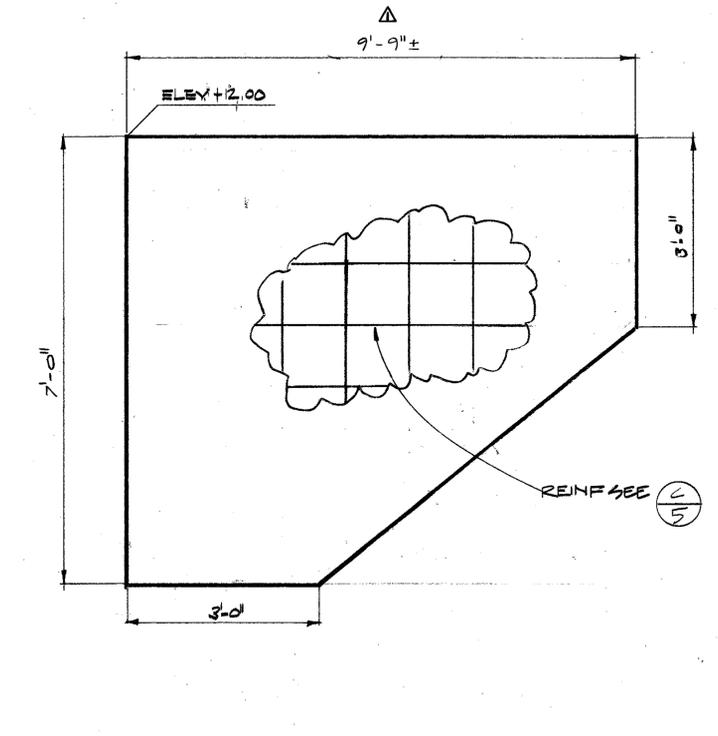
(A) ABUTMENT PLAN
 NO SCALE



(B) ABUTMENT SECTION
 SCALE 1" = 1'-0"

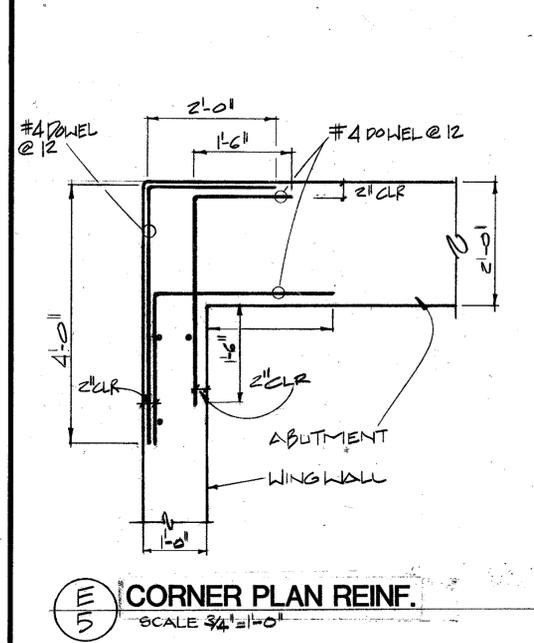


(C) WINGWALL SECTION
 SCALE 3/4" = 1'-0"

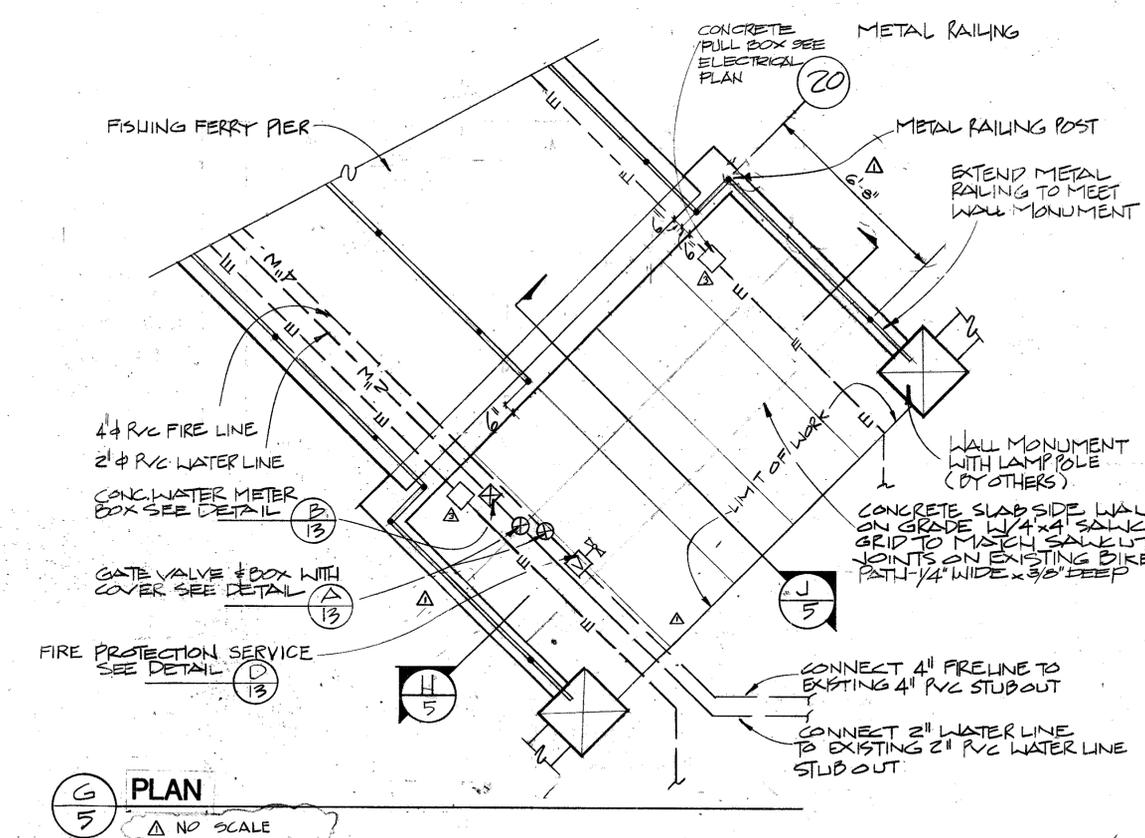


(D) WINGWALL ELEVATION
 NO SCALE

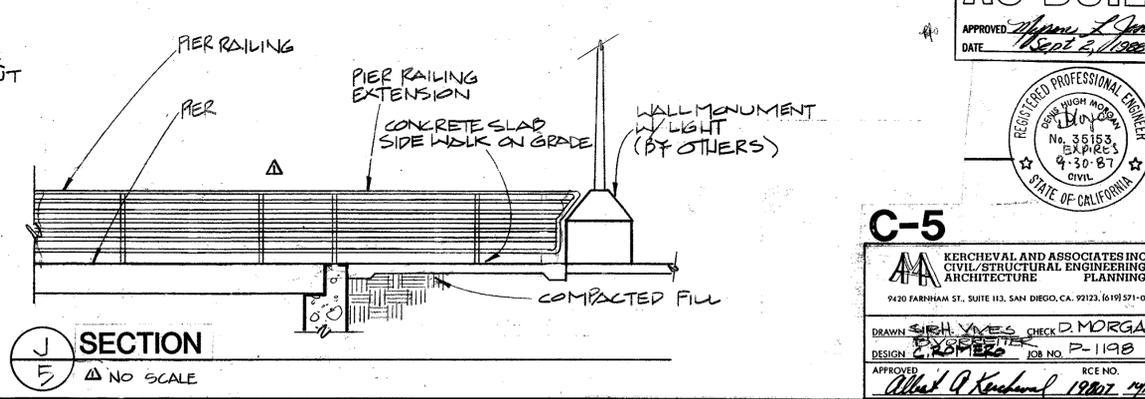
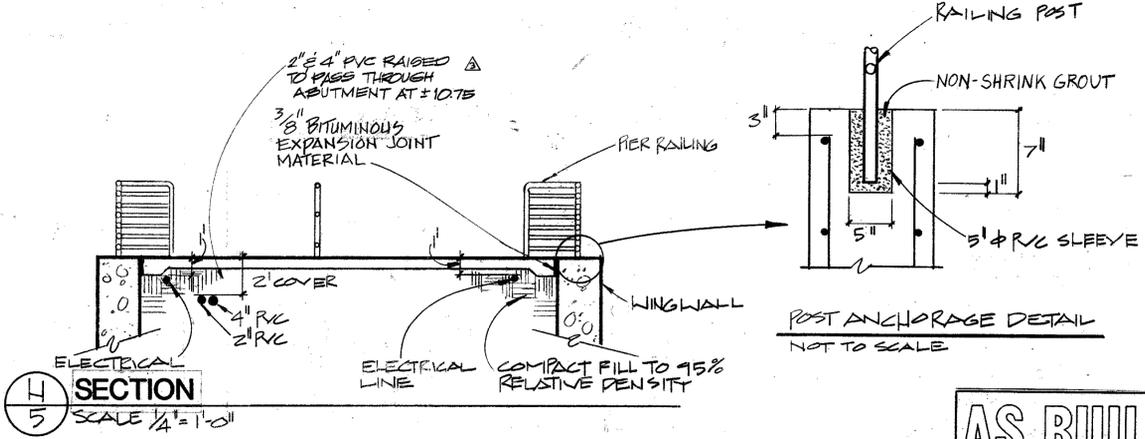
CONNECTION BETWEEN ABUTMENT & BIKE PATH CORRIDOR



(E) CORNER PLAN REINF.
 SCALE 3/4" = 1'-0"



(G) PLAN
 NO SCALE



(J) SECTION
 NO SCALE

AS BUILT
 APPROVED: *[Signature]*
 DATE: *12/2/2008*

REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 STATE OF CALIFORNIA
 No. 35153
 EXPIRES 4-30-07

C-5
 KERCHEVAL AND ASSOCIATES INC.
 CIVIL, STRUCTURAL, ENGINEERING, ARCHITECTURE, PLANNING
 9420 FARNHAM ST., SUITE 113, SAN DIEGO, CA. 92123, 619-571-0520
 DRAWN: *Sheh Vimes* CHECK: *D. Morgan*
 DESIGN: *C. Romero* JOB NO: *P-1198*
 APPROVED: *Walter A. Kercheval* 12/2/2008

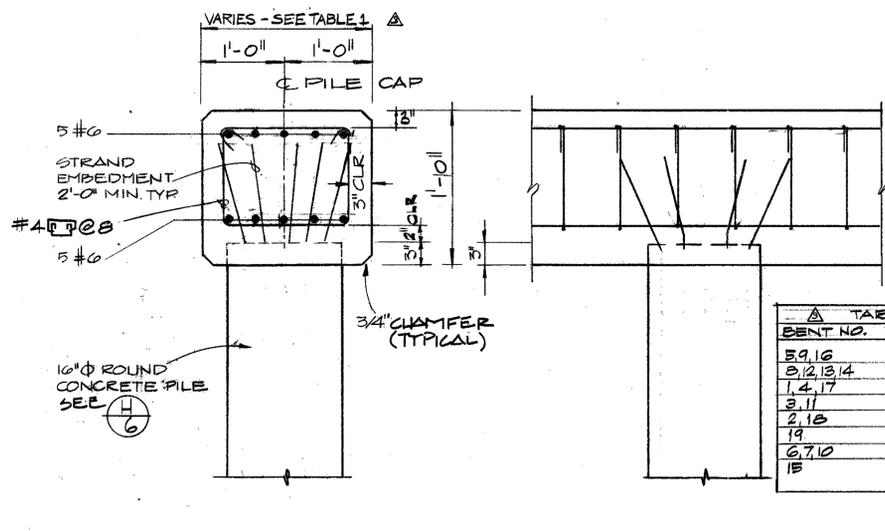
SPEC. NO. 87-10	W.O. NO. 60704
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	

REVISIONS	DATE	APPROVED
"AS BUILT" REVISION	ATS 12-30-07	<i>[Signature]</i>
REVISED PILE LOCATION	J.F.W. 3-12-07	<i>[Signature]</i>
DECREASE WINGWALL & RAILING EXTENSION LENGTHS	3-5-07	<i>[Signature]</i>

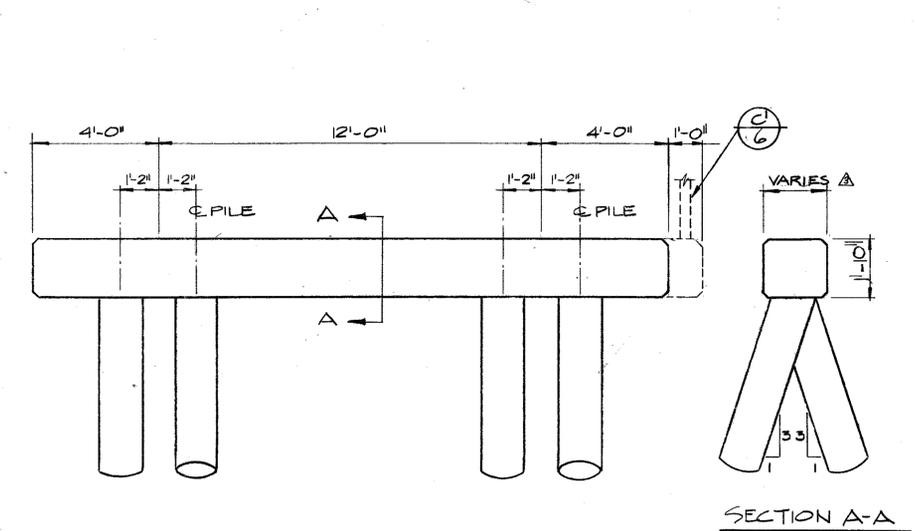
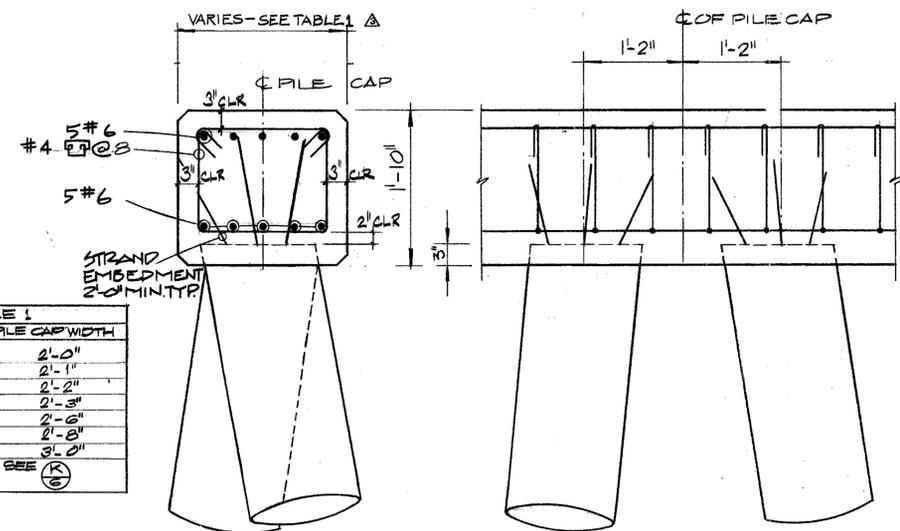
San Diego Unified Port District
 San Diego • California

DESIGNED BY: *[Signature]*
 DRAWN: *Sheh Vimes*
 CHECKED: *[Signature]*
 APPROVED: *[Signature]*
 ASST. CHIEF ENGINEER
 CHIEF ENGINEER

CITY OF CORONADO
 CORONADO FERRY AND FISHING PIER
 ABUTMENT: PLAN, SECTION AND DETAILS
 DATE: JAN 20 1987
 SHEET 5 OF 14
 DRAWING NO. 1299
 REV. 3



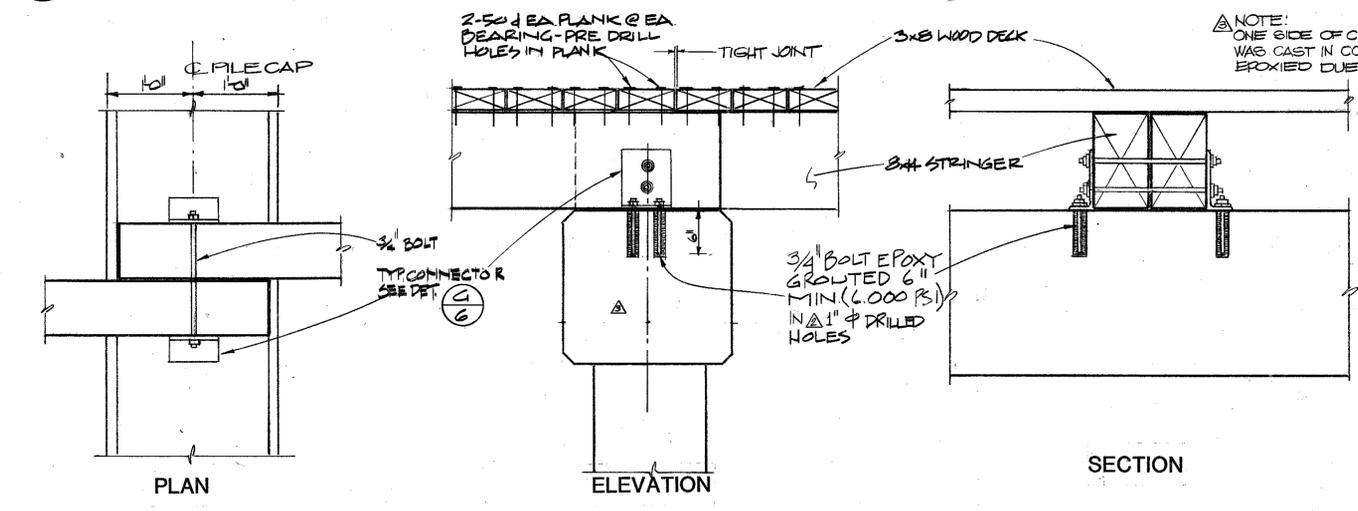
BENT NO.	PILE CAP WIDTH
5, 9, 16	2'-0"
8, 12, 13, 14	2'-1"
1, 4, 17	2'-2"
3, 11	2'-3"
2, 18	2'-3"
19	2'-3"
6, 7, 10	3'-0"
15	SEE (K)



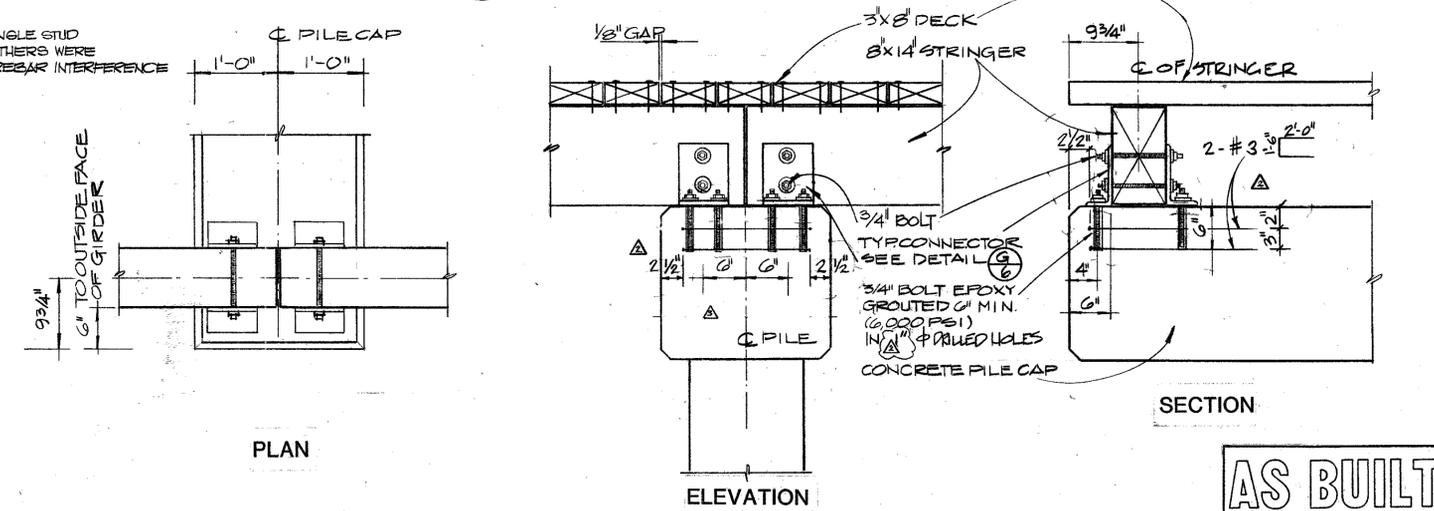
A PILE AND PILE CAP REINFORCEMENT (TYP.)
SCALE 1"=1'-0"

B BATTERED PILE AND PILE CAP REINFORCEMENT (TYP.)
SCALE 1"=1'-0"

C SECTION BATTERED PILES AND PILE CAP
SCALE 3/8"=1'-0"

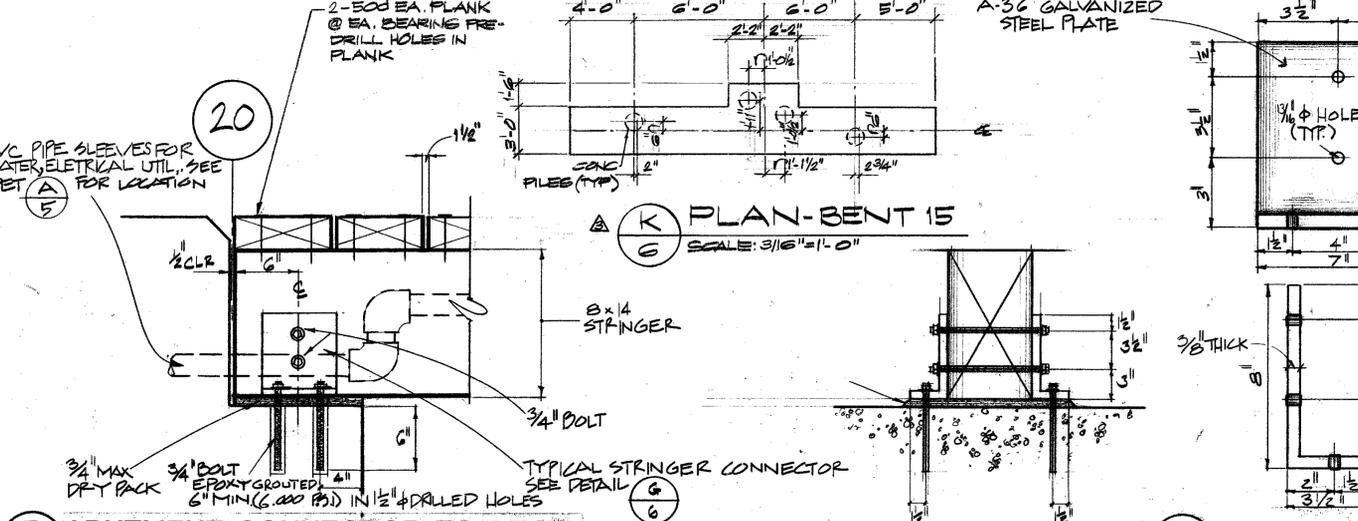


D LAPPED STRINGER CONNECTION TO PILE CAP
SCALE 1"=1'-0"

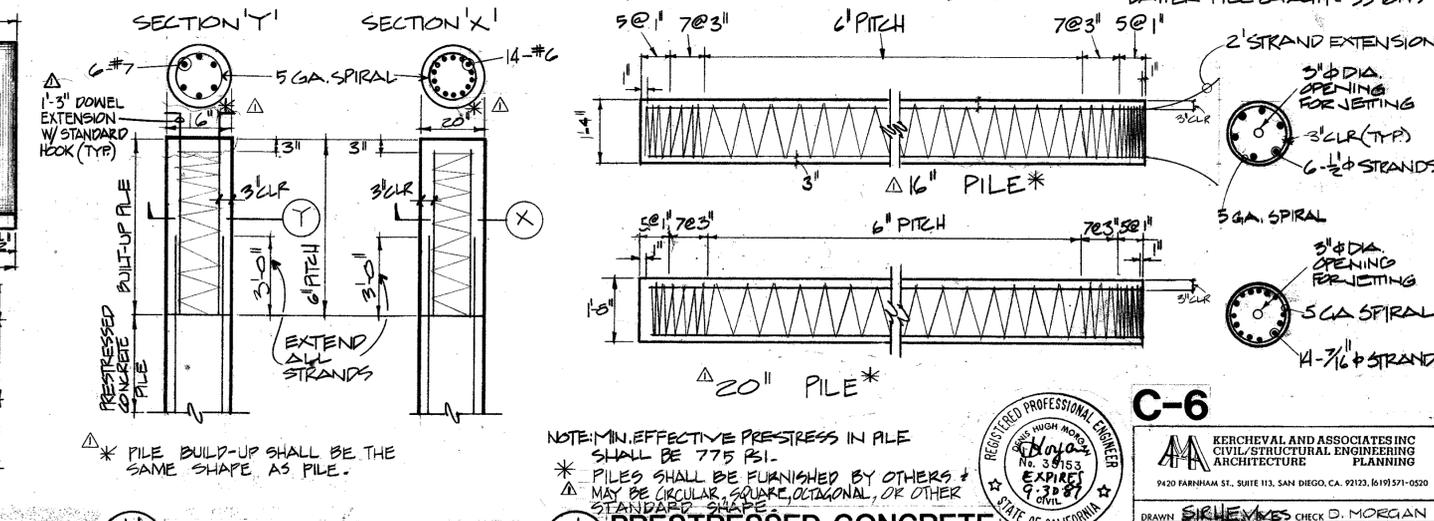


E BUTTED STRINGER CONNECTION TO PILE CAP
SCALE 1"=1'-0"

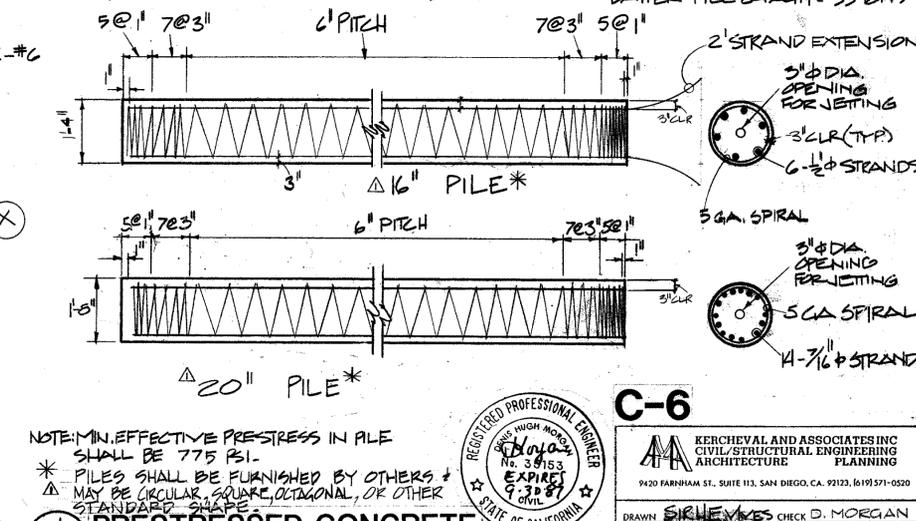
F ABUTMENT CONNECTOR TO DECK
SCALE 1 1/2"=1'-0"



F ABUTMENT CONNECTOR TO DECK
SCALE 1 1/2"=1'-0"



G STRINGER CONNECTOR TYPICAL
NO SCALE



H BUILT-UP CONCRETE PILE (TYP.)
NOT TO SCALE

J PRESTRESSED CONCRETE PILE
NOT TO SCALE

AS BUILT
APPROVED: *William J. Lee*
DATE: *Sept 21, 1988*

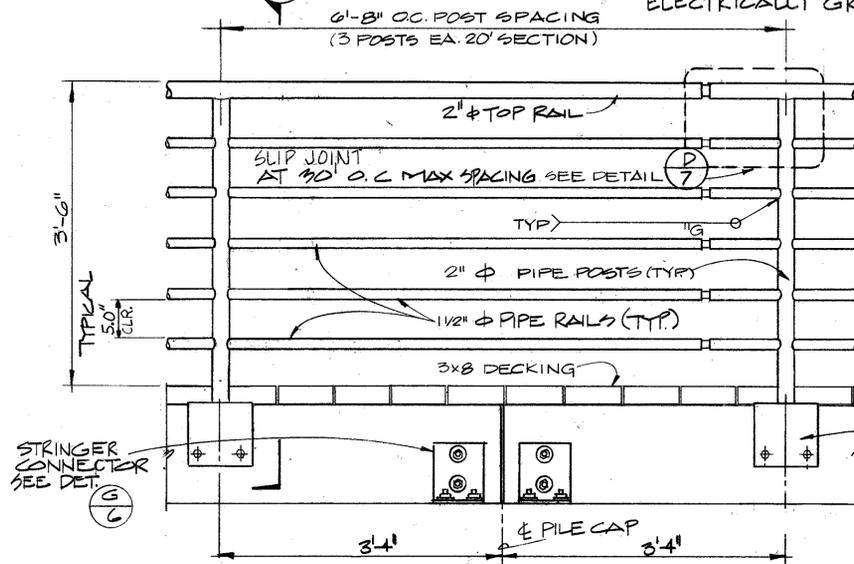
PROJECT ENGINEER	CONTRACTOR	CONSTRUCTION STARTED	CONSTRUCTION COMPLETED	COST
ATKINS	J.F.W./J.W.P.	3-11-87	2-3-87	INSPECTOR B.F. OSBY/CS

San Diego Unified Port District
San Diego California

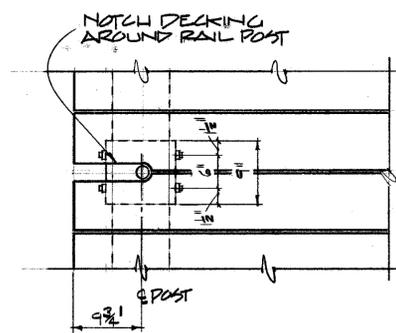
DESIGNED BY: *W. J. Lee*
DRAWN BY: *S. H. Vives*
CHECKED BY: *R. H. Morgan*

CITY OF CORONADO
CORONADO FERRY AND FISHING PIER
DATE: JAN 20 1987
SHEET 6 OF 14
DRAWING NO. 1299
REV. 3

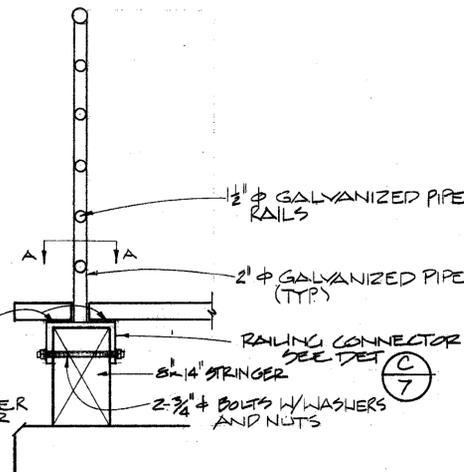
NOTE: 1. ALL PIPE DIAMETERS SHOWN ARE NOMINAL DIAMETERS
 2. UNLESS OTHERWISE NOTED
 3. ALL PIPE SHALL BE SCHEDULE 40 GALVANIZED
 STEEL PIPE UNLESS OTHERWISE NOTED AND SHALL BE
 ELECTRICALLY GROUNDING



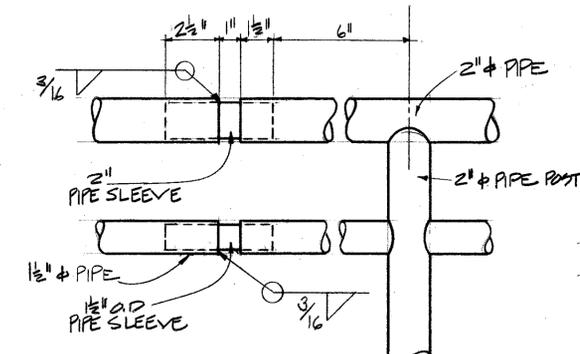
(A) RAILING ELEVATION
 SCALE: 1" = 1'-0"



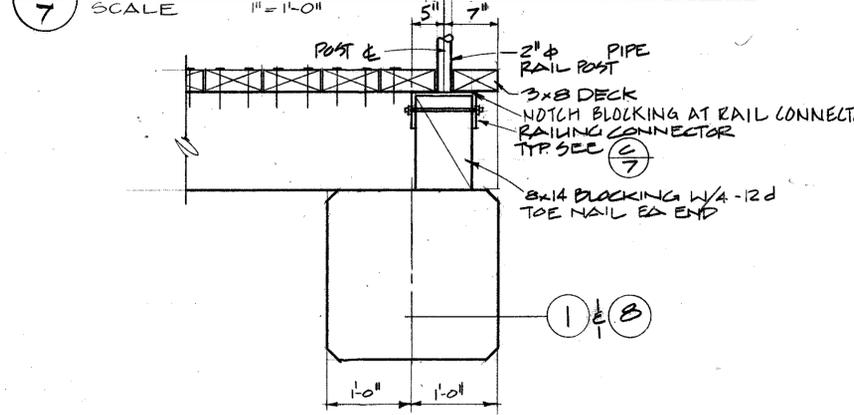
(B) RAILING PLAN AND SECTION
 SCALE: 1/4" = 1'-0"



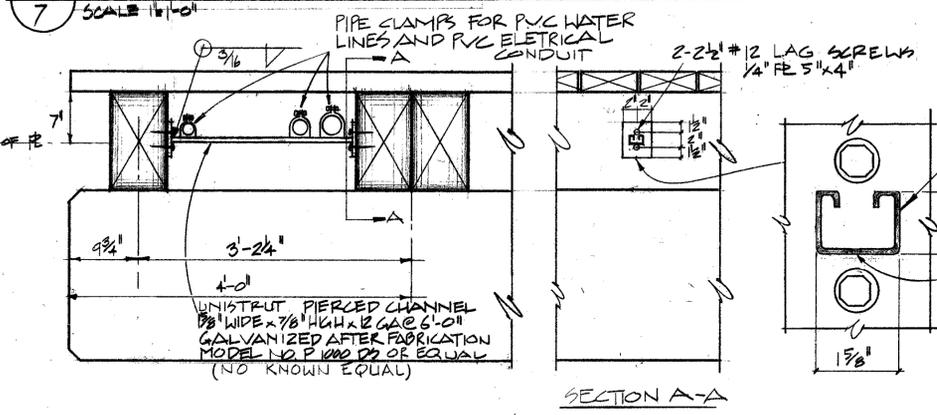
(C) RAILING CONNECTOR
 NO SCALE



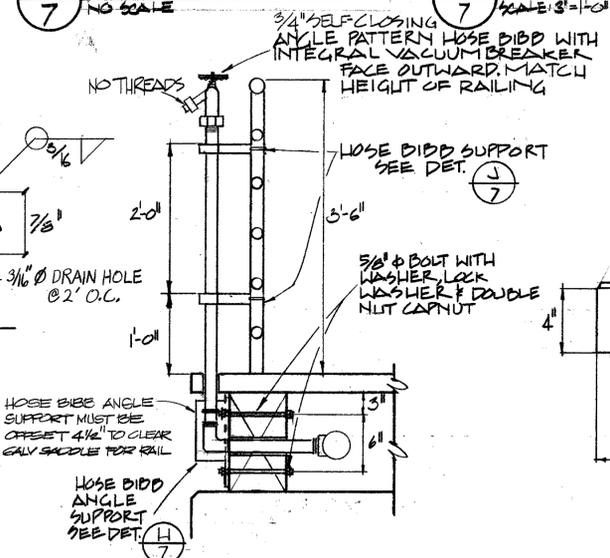
(D) RAILING SLIP JOINT DETAIL
 SCALE: 3/4" = 1'-0"



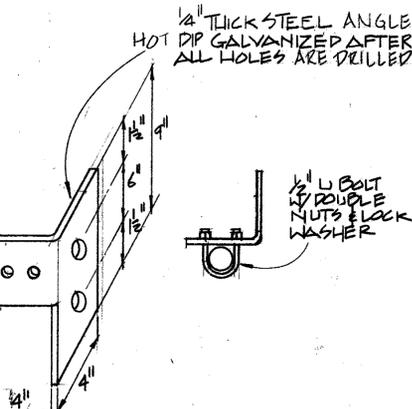
(E) RAILING AT PIER HEAD
 SCALE: 1" = 1'-0"



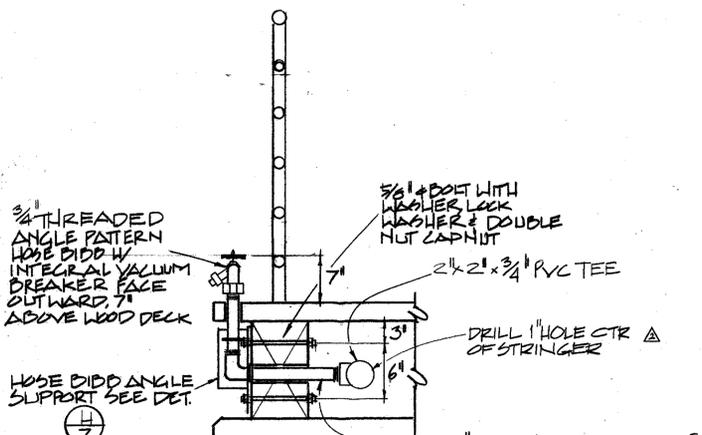
(F) ANCHOR SUPPORT FOR UTILITY CONDUITS
 SCALE: 1/4" = 1'-0"



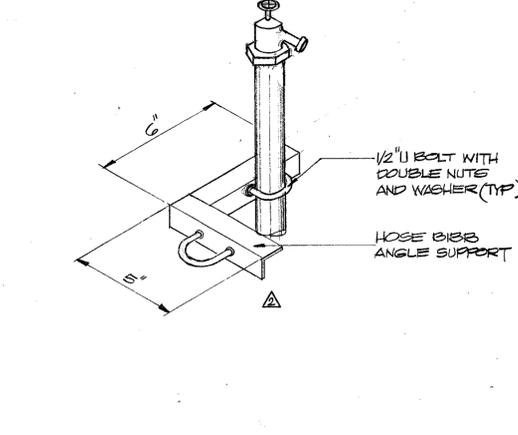
(G) HOSE BIBB SECTION
 SCALE: 1" = 1'-0"



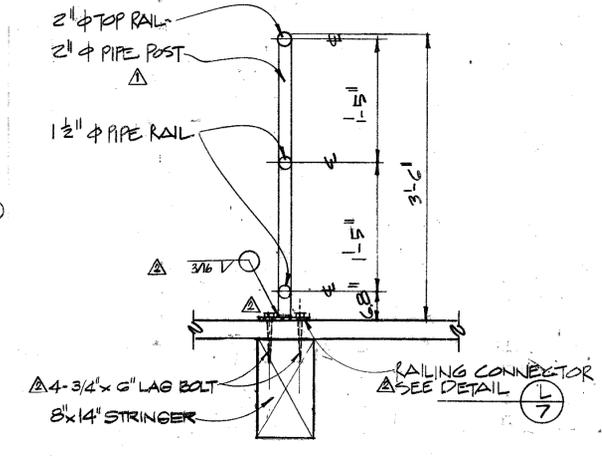
(H) HOSE BIBB ANGLE SUPPORT
 NOT TO SCALE



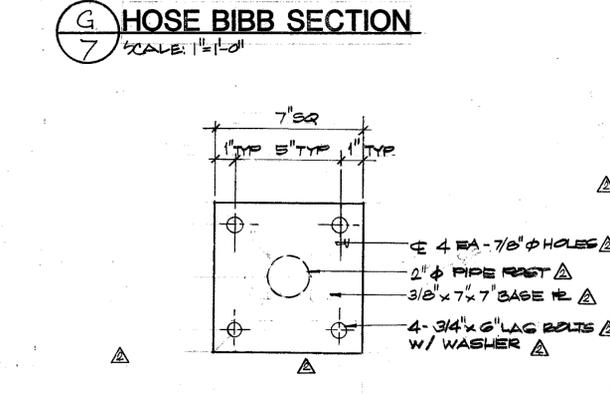
(I) HOSE BIBB SECTION
 SCALE: 1" = 1'-0"



(J) HOSE BIBB SUPPORT
 NO SCALE



(K) CENTER RAIL SECTION
 SCALE: 1" = 1'-0"



(L) CENTER RAILING CONNECTOR
 NOT TO SCALE

AS BUILT
 APPROVED: [Signature]
 DATE: Sept 21, 1988



C-7
 KERCHEVAL AND ASSOCIATES INC.
 CIVIL STRUCTURAL ENGINEERING
 ARCHITECTURE PLANNING
 9420 FARMHAM ST., SUITE 113, SAN DIEGO, CA. 92123, 619/571-0520
 DRAWN: S. RILEY CHECK: D. MORGAN
 DESIGN: C. ROSEBROOK JOB NO. P-1193
 APPROVED: [Signature] DATE: 12/13/87

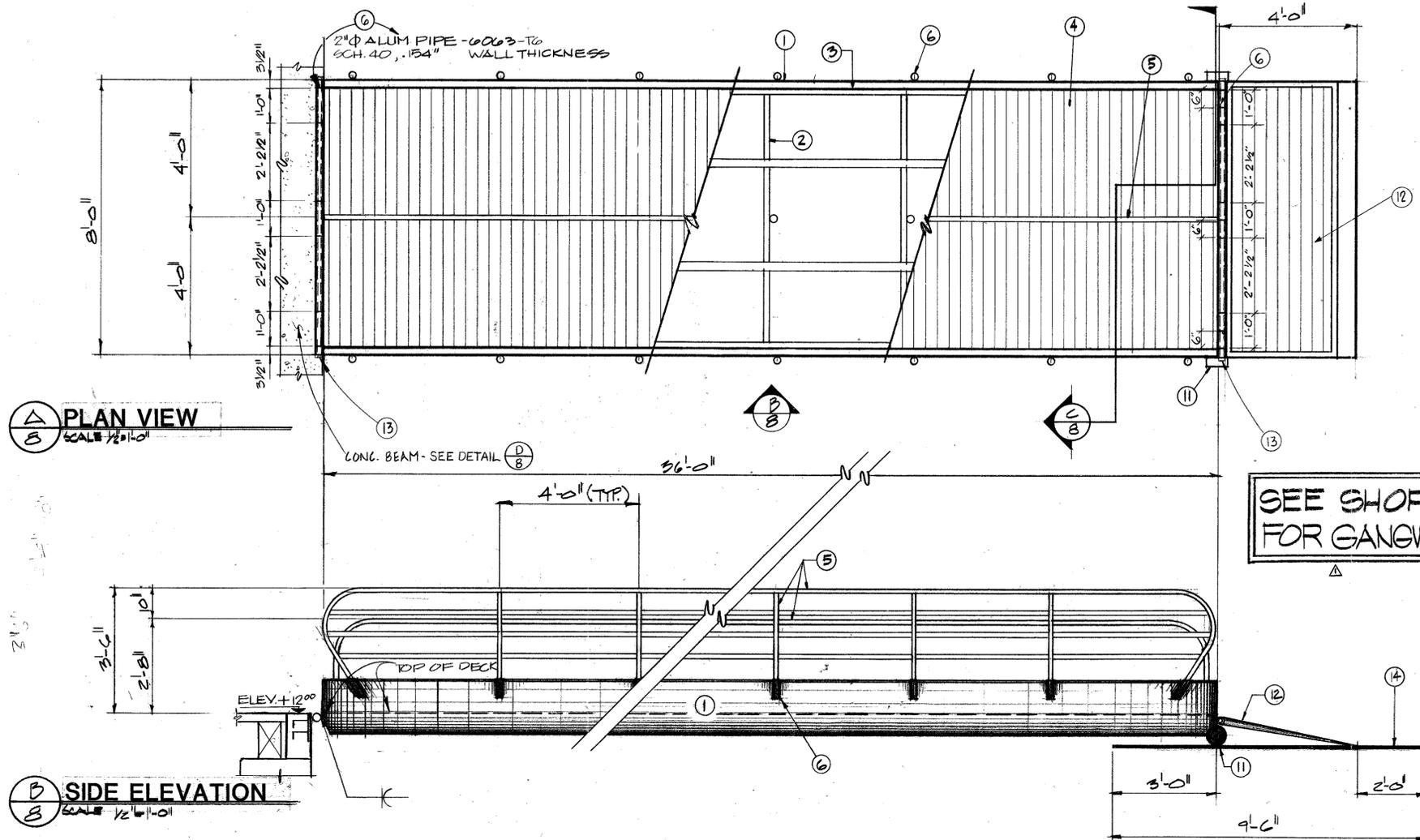
SPEC. NO. 37-10	W.O. NO. 6070A		
PROJECT ENGINEER			
CONTRACTOR	"AS BUILT" REVISION	ATS 12-30-87	[Signature]
CONSTRUCTION STARTED	RAILING REVISIONS	J.F.W. 2-3-87	[Signature]
CONSTRUCTION COMPLETED			
COST	INSPECTOR B.F. OBUYNOS	REVISIONS	DATE APPROVED

San Diego Unified Port District
 San Diego California



DESIGNED: G.R.E.O.V.
 DRAWN: S. RILEY
 CHECKED: D.H.M.
 APPROVAL RECOMMENDED: Manuel J. Kercheval ASST. CHIEF ENGINEER
 APPROVED: Joan S. Swiebur CHIEF ENGINEER

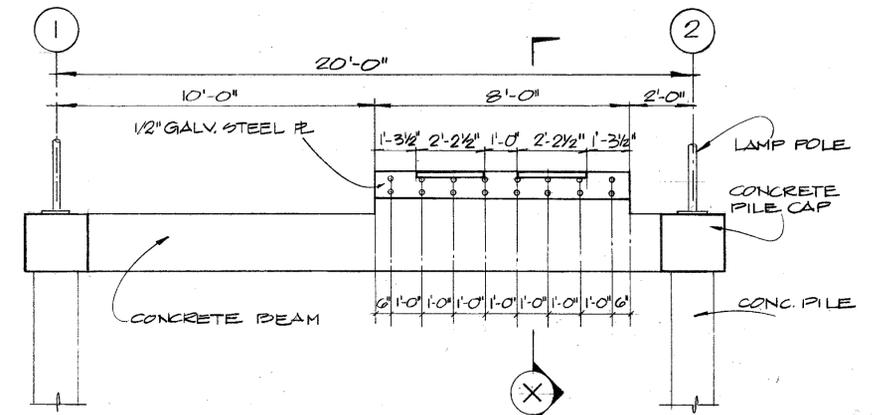
CITY OF CORONADO
 CORONADO FERRY AND FISHING PIER
 DETAILS
 DATUM: MEAN LOWER LOW WATER
 DATE: JAN 20 1987
 SHEET 7 OF 14
 DRAWING NO. 1299
 REV. 2



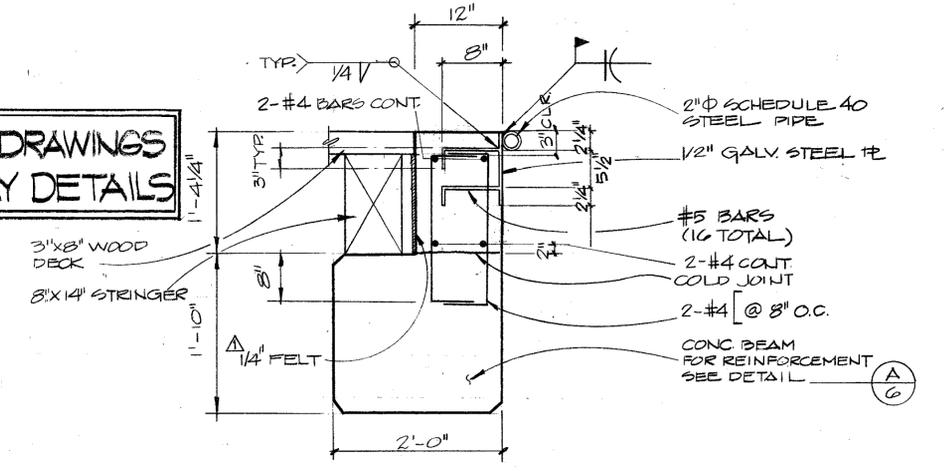
PLAN VIEW
SCALE 1/8"=1'-0"

SIDE ELEVATION
SCALE 1/2"=1'-0"

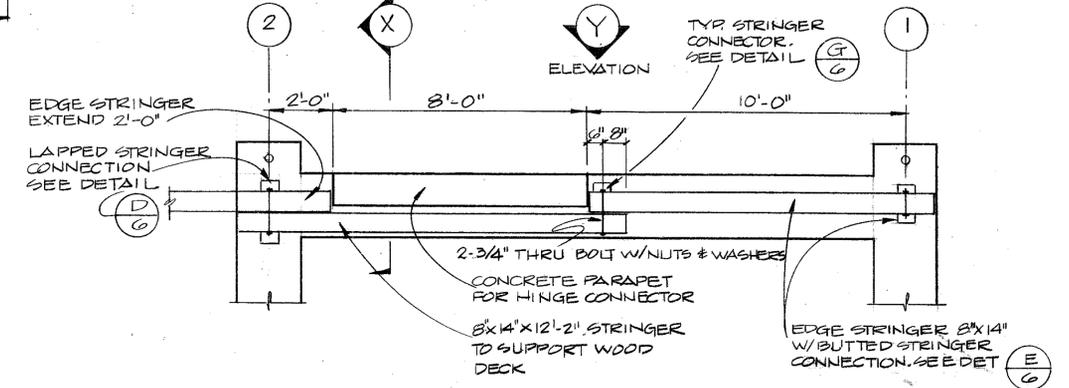
SEE SHOP DRAWINGS FOR GANGWAY DETAILS



ELEVATION Y
SCALE 3/8"=1'-0"



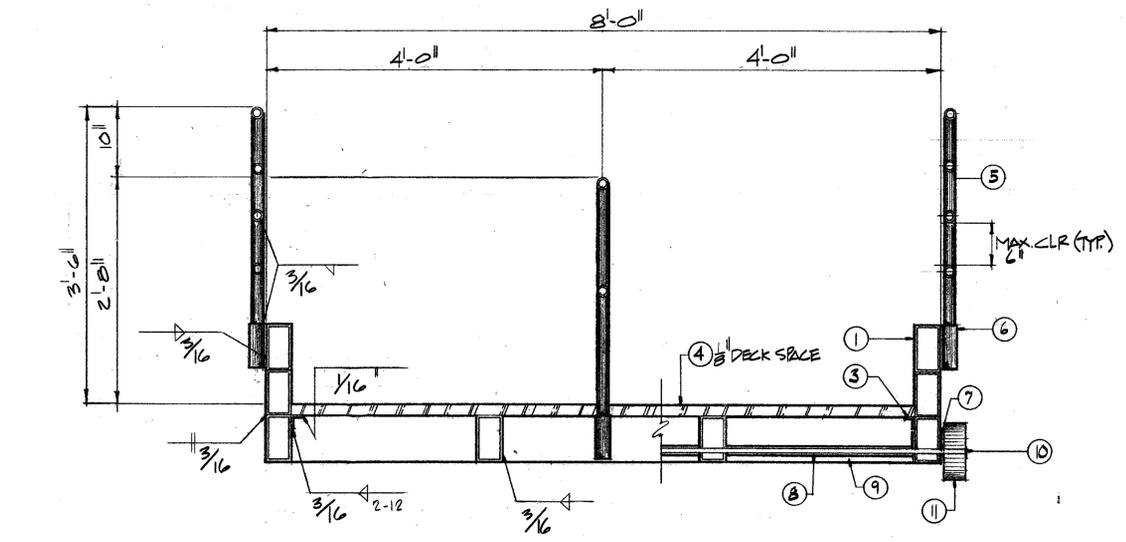
SECTION X
SCALE 1"=10'-0"



PLAN
SCALE 3/8"=1'-0"

GANGWAY HINGE CONNECTION
SCALE AS SHOWN

LIST OF MATERIALS	
NO	DESCRIPTION
ALL DIMENSIONS SHOWN ARE MINIMUM DIMENSIONS	
14	1/4" THICK X 10 X 4'-2" GALVANIZED STEEL PL
13	2" S.S. BOLT W/NUT AND WASHERS
12	4' X 8' TRANSITION PLATE
11	8" X 3" R/R WHEEL-RUBBER TREAD
10	1" S.S. FLAT WASHER 18-8
9	1" S.S. SCH. 40 STEEL PIPE A36
8	1" S.S. ROD 304
7	1/4" ALUMINUM PLATE 6061-T6
6	2" ALUMINUM PIPE 6063-T6
5	1 1/2" ALUMINUM TUBING (0.125" WALL) 6061-T6
4	4" ALUMINUM DECK SLAT 6061-T6
3	1 1/2" X 1 1/2" X 0.106" ALUMINUM ANGLE 6061-T6
2	1.75" X 6.344" X 0.156" ALUMINUM CHANNEL 6061-T6
1	4" X 8" X 1/4" ALUMINUM 6061-T6



SECTION C
SCALE 1"=1'-0"



C-8

AS BUILT
APPROVED: [Signature] DATE: [Date]
APPROVED: [Signature] DATE: [Date]

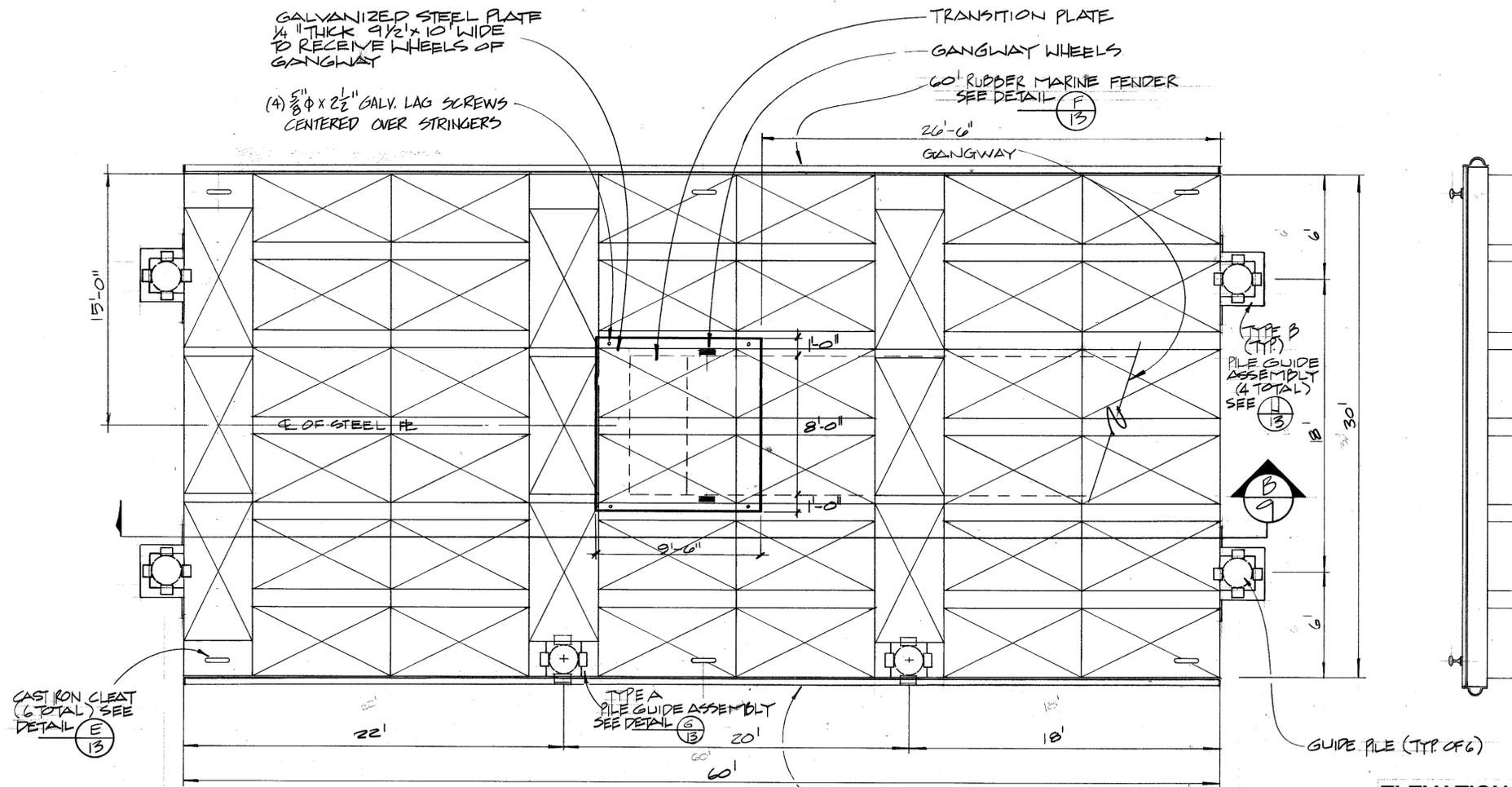
KERCHEVAL AND ASSOCIATES INC.
CIVIL/STRUCTURAL/ENGINEERING/ARCHITECTURE/PLANNING
9420 FARMHAM ST., SUITE 113, SAN DIEGO, CA. 92123, 619/571-0520
DRAWN BY: [Signature] CHECKED BY: [Signature]
DESIGN BY: [Signature] JOB NO: P-1198
APPROVED BY: [Signature] DATE: [Date]

SPEC. NO. 87-10	W.O. NO. 607A		
PROJECT ENGINEER			
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST			
INSPECTOR B.F. OSUYOS			

San Diego Unified Port District
San Diego, California

DESIGNED BY: B.H.M.
DRAWN BY: [Signature]
CHECKED BY: [Signature]
APPROVAL RECOMMENDED BY: [Signature]
APPROVED BY: [Signature]

CITY OF CORONADO
CORONADO FERRY AND FISHING PIER
GANGWAY
DATE: JAN 20 1987
SHEET 3 OF 14
DRAWING NO. 1299



SEE SHOP DRAWINGS
FOR FLOATING DOCK
DETAILS

A PLAN VIEW
SCALE 1/4" = 1'-0"

ELEVATION VIEW

B SECTION
SCALE 1/4" = 1'-0"

PROFILE SECTION
SCALE 1/2" = 1'-0"

NOTE:
1). DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR FLOATING DOCK

- 3 1/2" x 9" GLULAM TRANSVERSE
- 3 1/2" x 4 1/2" GLULAM CENTER JOIST
- 1/2" THICK TOP DECK OF MINERAL REINFORCED CEMENT
- 1" PLY WOOD SUB DECK
- 3 1/2" x 13.5" EXTERNAL GLULAM TIMBER



AS BUILT

C-9

KERCHEVAL AND ASSOCIATES INC.
CIVIL/STRUCTURAL ENGINEERING
ARCHITECTURE
PLANNING
9420 FAIRHAM ST., SUITE 113, SAN DIEGO, CA. 92123, (619) 571-0320

DRAWN: *SILVER* CHECK: *D. MORGAN*
DESIGN: *James Wick* JOB NO. *P-1198*
APPROVED: *Blair A. Kercheval* R.C.E. NO. *19807* DATE *10/2/87*

SPEC. NO. <i>27-10</i>	W.O. NO. <i>600A</i>		
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST			
INSPECTOR <i>B.F. OSUYOS</i>	REVISIONS	DATE	APPROVED

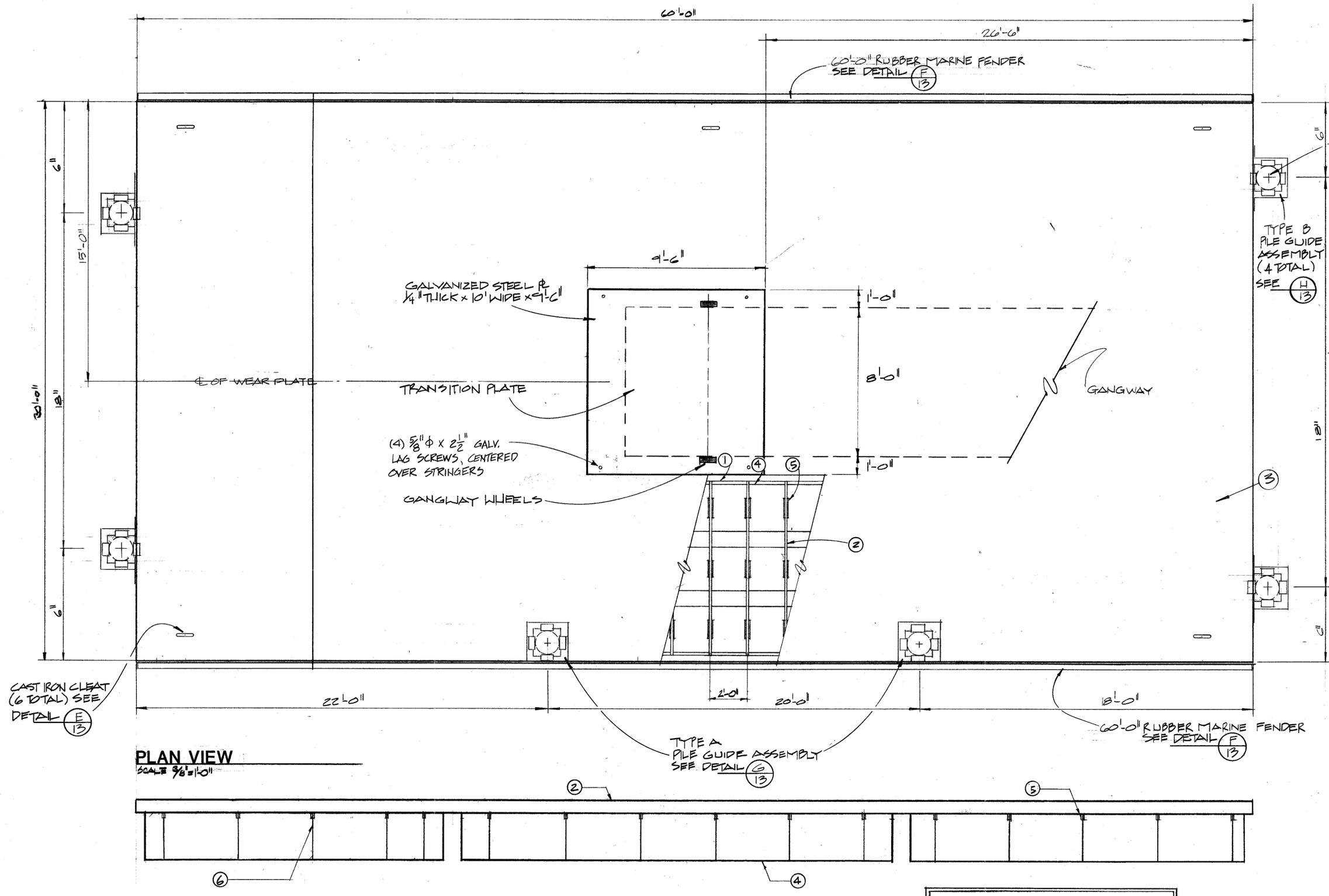
**San Diego Unified
Port District
San Diego California**



DESIGNED	APPROVAL RECOMMENDED
DRAWN <i>SILVER</i>	<i>Blair A. Kercheval</i> ASST. CHIEF ENGINEER
CHECKED <i>D.L. MORGAN</i>	APPROVED <i>James Wick</i> CHIEF ENGINEER

CITY OF CORONADO
CORONADO FERRY AND FISHING PIER
FLOATING DOCK-ALTERNATE 1

DATUM	MEAN LOWER LOW WATER
DATE	<i>JAN 20, 1987</i>
SHEET	<i>9</i> OF <i>14</i>
DRAWING NO.	<i>1299</i>
REV.	<i>1</i>



GUIDE PILE (TYP. 6 TOTAL)

TYPE B PILE GUIDE ASSEMBLY (4 TOTAL) SEE DETAIL (H) 13

- NOTE:
- 1) THE DECK SHALL BE 1/8" TONGUE & GROOVE EXTERIOR PLYWOOD. THE UPPER SURFACE SHALL BE PLUGGED AND SANDED FOR A SMOOTH SURFACE.
 - 2) ALL STEEL PARTS SHALL BE HOT-DIPPED GALV. AFTER FABRICATION.
 - 3) DRAWING IS DIAGRAMMATIC. ONLY CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR FLOATING DOCK.

NO.	LIST OF MATERIALS DESCRIPTION
6	1" NYLON STRAP
5	24" x 24" POLYETHYLENE SADDLE
4	24" x 24" POLYETHYLENE PIPE F&G
3	1 1/2" EXTERIOR GRADE T&G AC PLYWOOD
2	2" x 12" PT. (C.C.A.) DOUG. FIR NO. 2
1	4" x 12" PT. (C.C.A.) DOUG. FIR NO. 2

PLAN VIEW
SCALE 3/8" = 1'-0"

FRONT VIEW
SCALE 3/8" = 1'-0"

ALTERNATE 2
NOT USED



C-10

KERCHEVAL AND ASSOCIATES INC.
CIVIL STRUCTURAL ENGINEERING
ARCHITECTURE PLANNING
9420 FARNHAM ST., SUITE 113, SAN DIEGO, CA. 92123, (619) 571-0320

AS BUILT
APPROVED: *Manuel Z. Leon*
DATE: *Sept 2, 1988*

DRAWN: *S.R. HENKES* CHECKED: *D. MORGAN*
DESIGN: *Manuel Z. Leon* RCE NO.: *P-1198* DATE: *12/20/87*

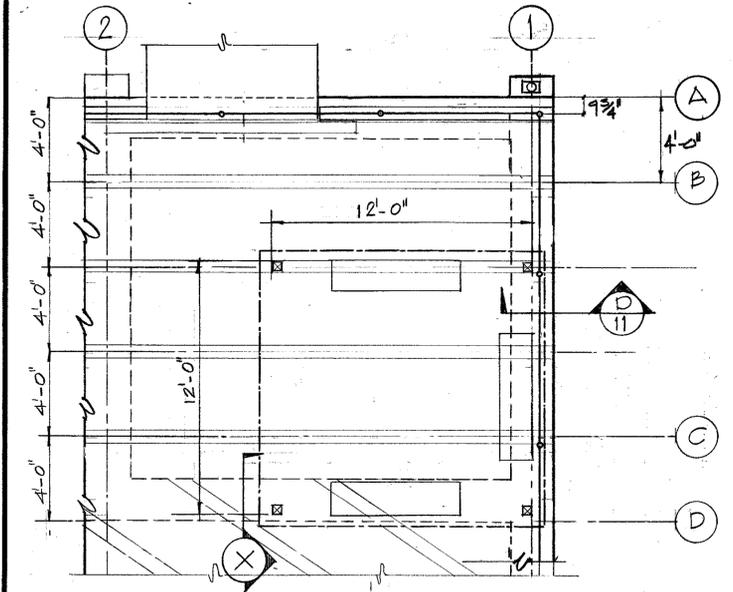
SPEC. NO. <i>B7-10</i> W.O. NO. <i>60704</i>			
PROJECT ENGINEER			
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST			
INSPECTOR <i>B.F. OSUND'S</i>	REVISIONS	DATE	APPROVED

San Diego Unified
Port District
San Diego California

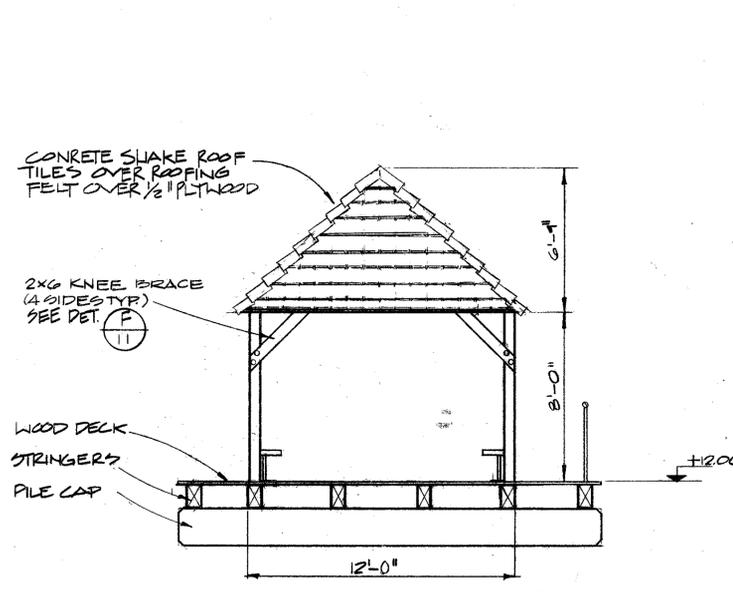


DESIGNED	APPROVAL RECOMMENDED
DRAWN <i>S.R. HENKES</i>	<i>Manuel Z. Leon</i> ASST. CHIEF ENGINEER
CHECKED <i>D.H. MORGAN</i>	APPROVED <i>John E. Swickard</i> CHIEF ENGINEER

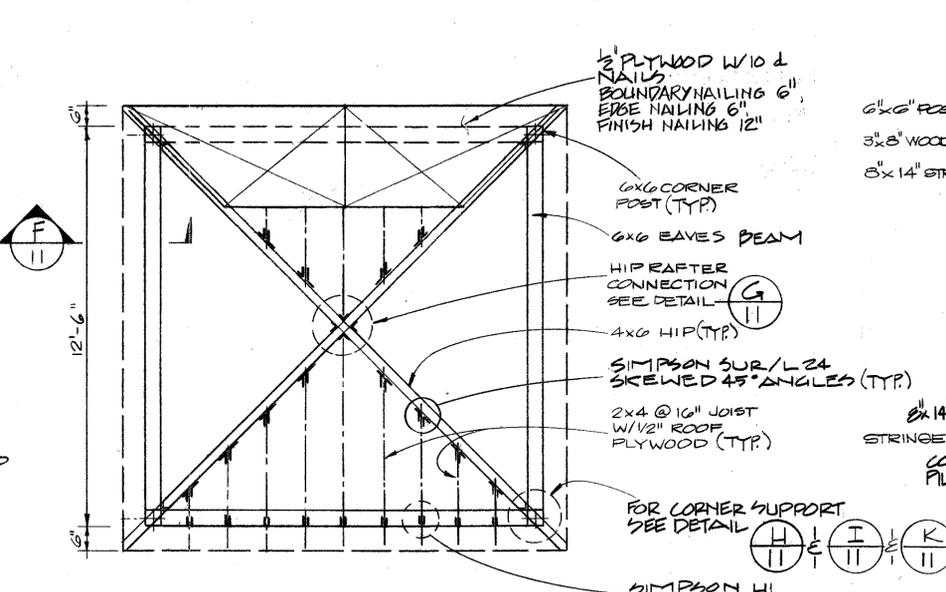
CITY OF CORONADO	
CORONADO FERRY AND FISHING PIER	
FLOATING DOCK - ALTERNATE 2	
DATUM MEAN LOWER LOW WATER	DATE <i>JAN 20 1987</i>
SHEET <i>10</i> OF <i>14</i>	DRAWING NO. <i>1299</i>



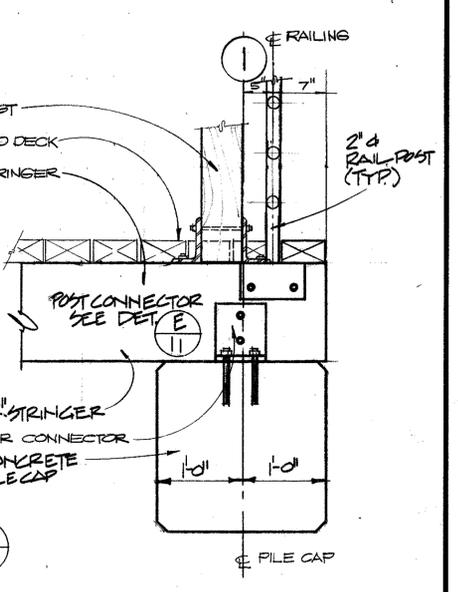
A SHELTER FLOOR PLAN
SCALE: 1/4" = 1'-0"



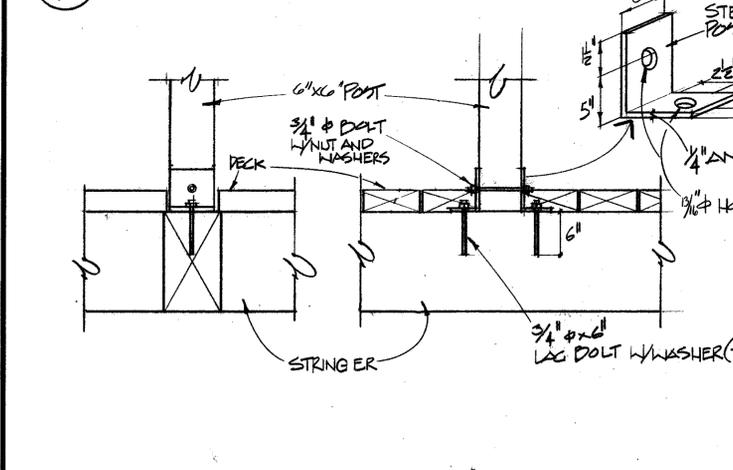
B SECTION OF SHELTER
SCALE: 1/4" = 1'-0"



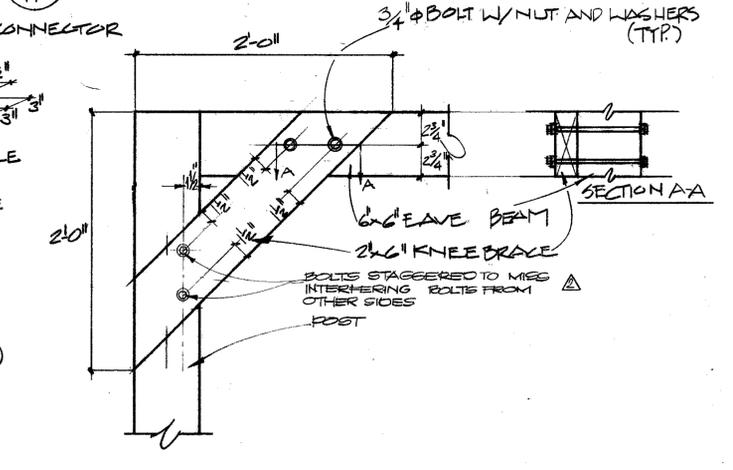
C ROOF PLAN
SCALE: 3/8" = 1'-0"



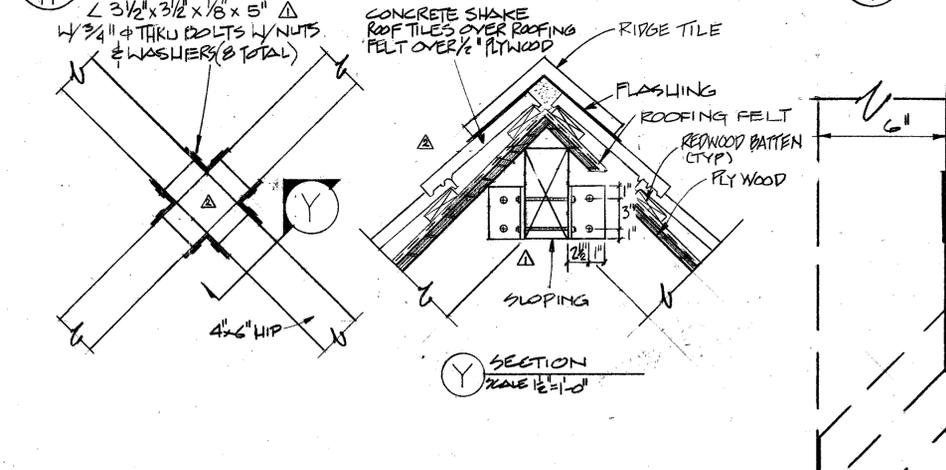
D SHELTER POST SECTION
SCALE: 1" = 1'-0"



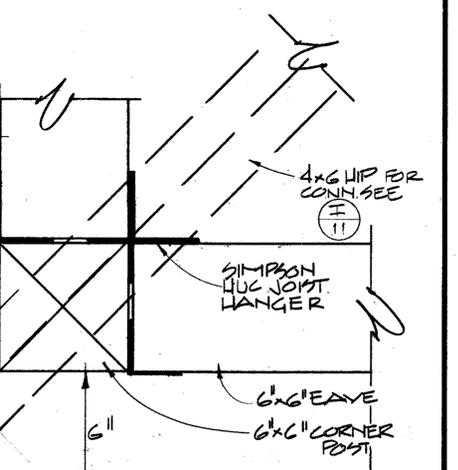
E COLUMN SUPPORT
SCALE: 1" = 1'-0"



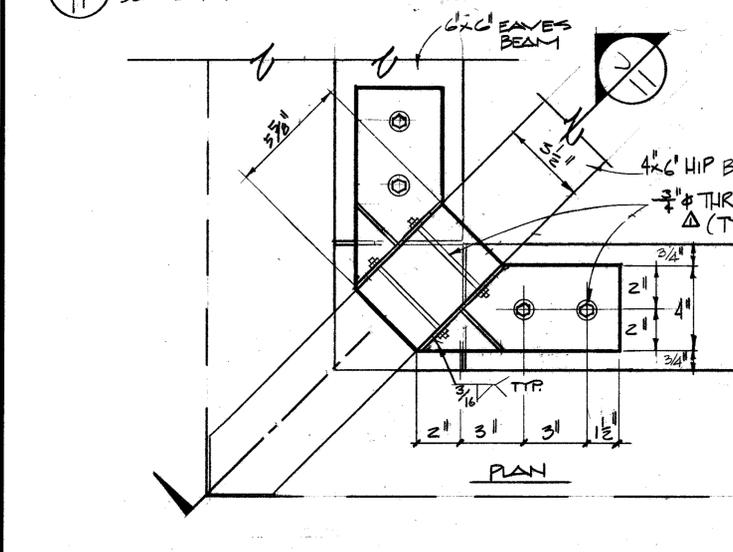
F KNEE BRACE CONN.
SCALE: 1/2" = 1'-0"



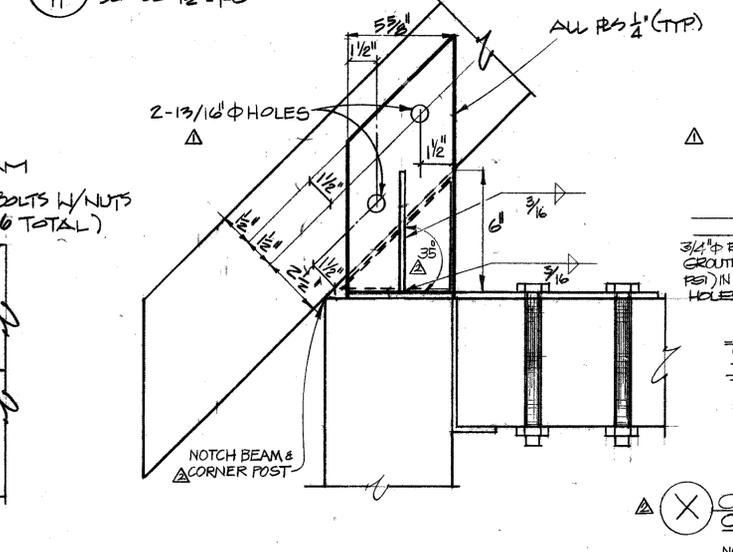
G HIP RAFTER CONNECTION
SCALE: 1/2" = 1'-0"



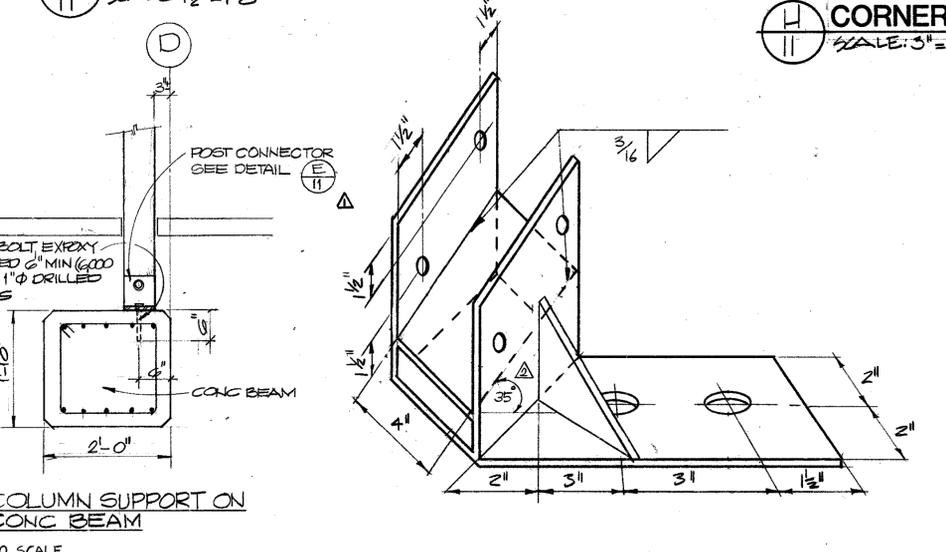
H CORNER POST TO EAVE CONNECTION
SCALE: 3/8" = 1'-0"



I HIP SUPPORT AT CORNER
SCALE: 3/4" = 1'-0"



J SECTION
SCALE: 1/3" = 1'-0"



K ISOMETRIC OF SUPPORT
NO SCALE

AS BUILT
APPROVED: *Manuel J. Garcia*
DATE: *Sept 2, 1987*

C-11

KERCHEVAL AND ASSOCIATES INC.
REGISTERED PROFESSIONAL ENGINEER
CIVIL/STRUCTURAL ENGINEERING ARCHITECTURE
9420 FARMHAM ST., SUITE 113, SAN DIEGO, CA. 92123, (619) 571-0270

DESIGNED BY: *Manuel J. Garcia*
DRAWN BY: *Sirley Vives*
CHECKED BY: *D. Morgan*
APPROVED BY: *Manuel J. Garcia*
DATE: *Sept 2, 1987*

SPEC. NO. 87-10	W.O. NO. 6704		
PROJECT ENGINEER			
CONTRACTOR			
CONSTRUCTION STARTED	"AS BUILT" REVISION	ATS	12-30-87
CONSTRUCTION COMPLETED	REVISED ROOF CONNECTIONS	J.F.W./J.N.P.	3-11-87
COST	INSPECTOR B.F. OSUYOS	REVISIONS	DATE APPROVED

San Diego Unified Port District
San Diego California

DESIGNED BY: *Manuel J. Garcia*
DRAWN BY: *Sirley Vives*
CHECKED BY: *D.H. Morgan*

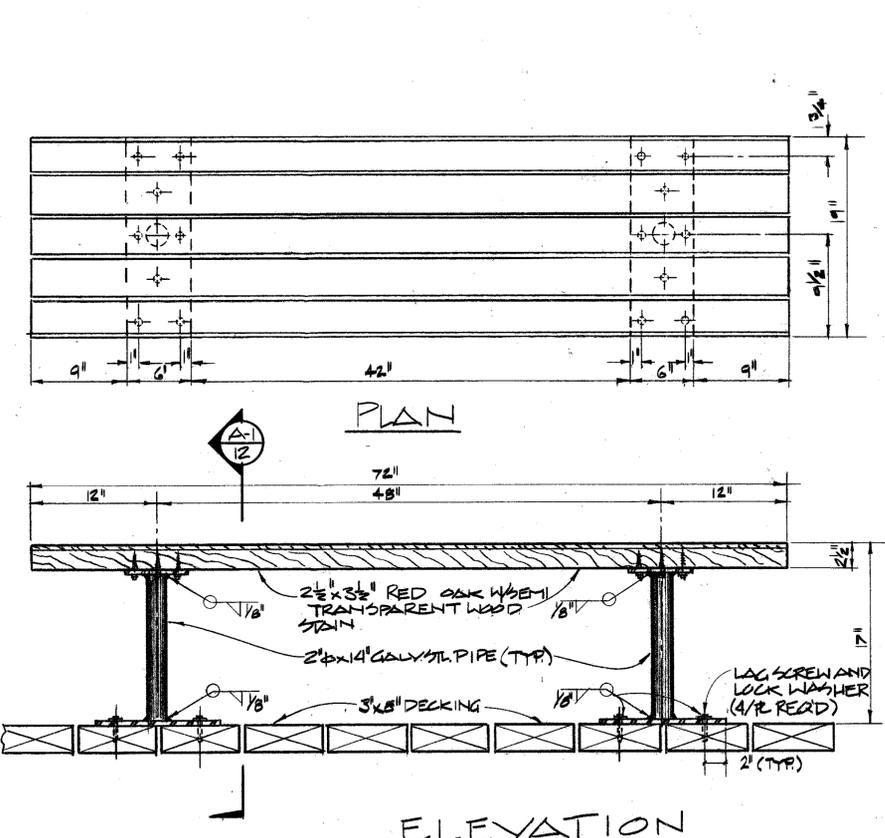
APPROVAL RECOMMENDED: *Manuel J. Garcia*
ASST. CHIEF ENGINEER

APPROVED: *James E. Swickler*
CHIEF ENGINEER

CITY OF CORONADO
CORONADO FERRY AND FISHING PIER

DATUM: MEAN LOWER LOW WATER
DATE: JAN 20 1987
SHEET 11 OF 14
DRAWING NO. 1299
REV. 2

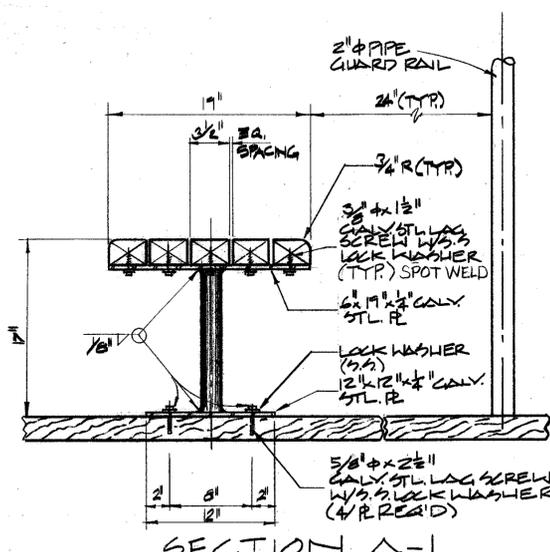
SHELTER PLAN, SECTION, ELEVATION AND DETAILS



PLAN

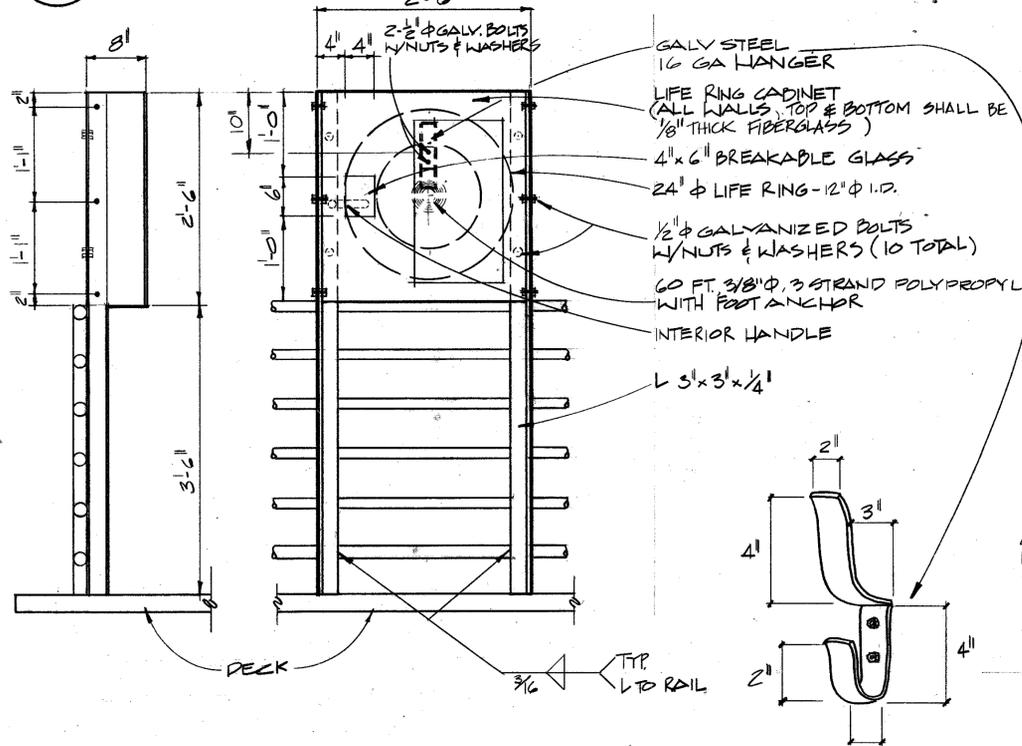
ELEVATION

NOTES:
 1. ALL STEEL INCLUDING ALL WELDS SHALL BE GALVANIZED AFTER FABRICATION.
 2. CONTRACTOR TO ASSURE MAXIMUM DISTANCE BETWEEN DECK SPACE AND LAG SCREW FOR BENCH SUPPORT

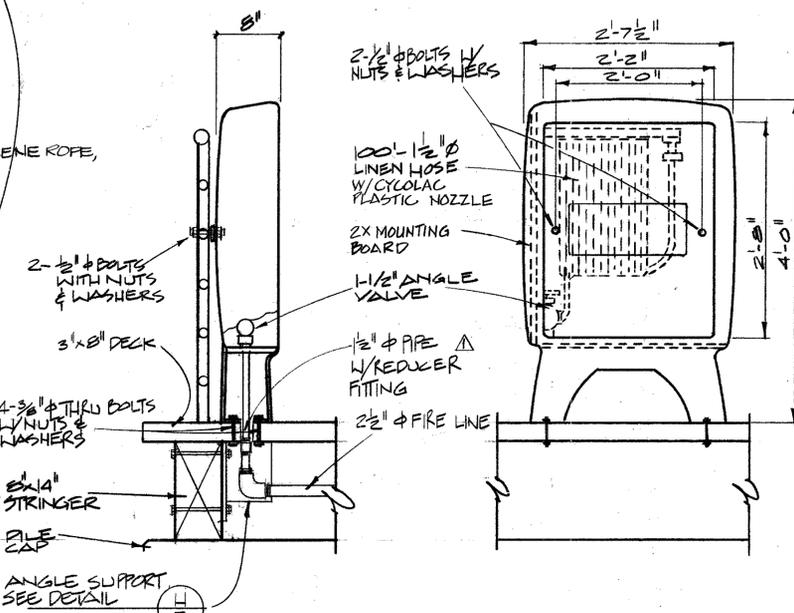


SECTION A-1

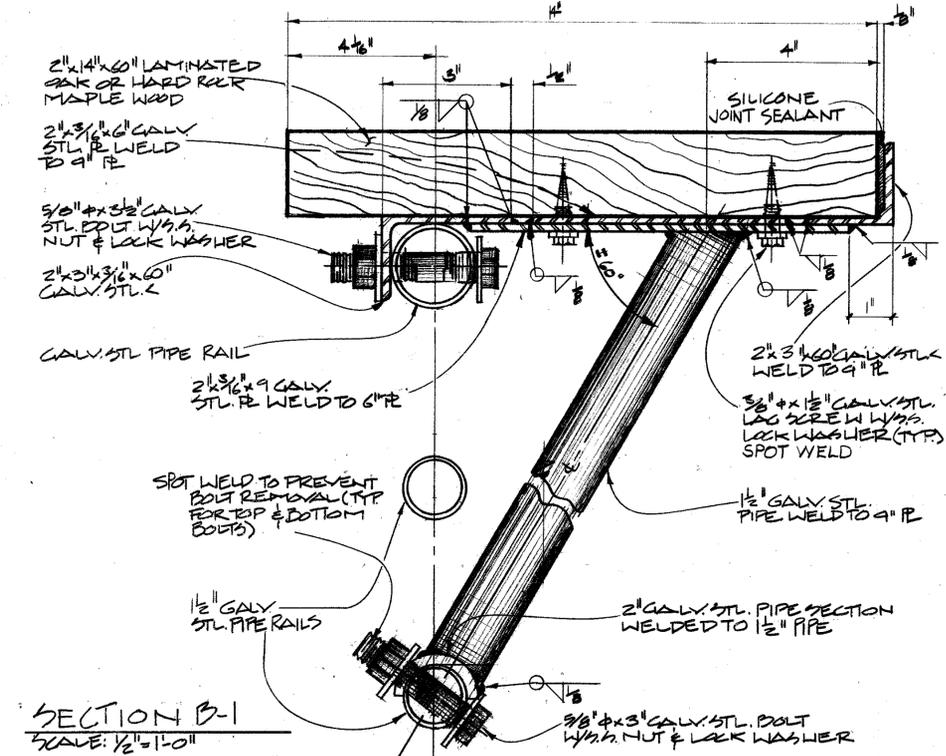
BENCH DETAILS
SCALE: 1/2" = 1'-0"



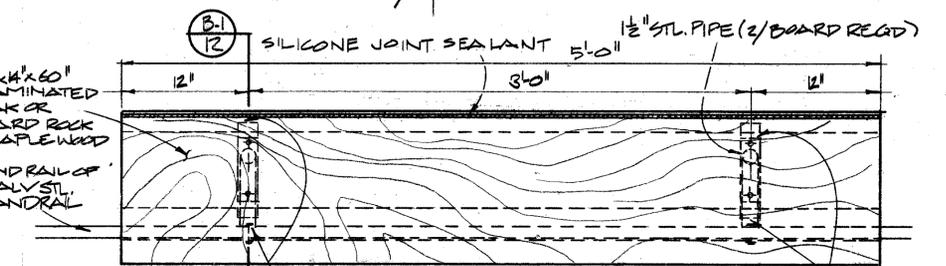
D LIFE RING CABINET
SCALE: 1" = 1'-0"



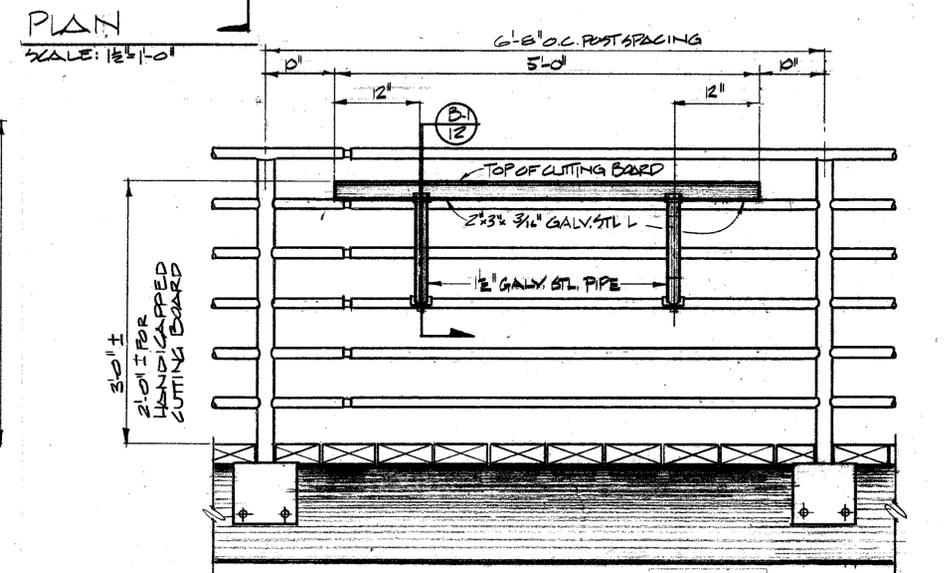
C FIRE HOSE CABINET
NO SCALE



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



PLAN
SCALE: 1/2" = 1'-0"



ELEVATION
SCALE: 1" = 1'-0"

B CUTTING BOARDS
SCALE: 1/6" = 1'-0"

AS BUILT
 APPROVED: *[Signature]*
 DATE: *[Date]*

REGISTERED PROFESSIONAL ENGINEER
 No. 36153
 EXPIRES 9-30-87
 CIVIL
 STATE OF CALIFORNIA

C-12
 KERCHEVAL AND ASSOCIATES INC.
 CIVIL/STRUCTURAL ENGINEERING
 ARCHITECTURE/PLANNING
 9420 FAIRHAM ST., SUITE 113, SAN DIEGO, CA. 92123, 619/571-0570
 DRAWN: *[Signature]* CHECKED: *[Signature]*
 DESIGN: *[Signature]* FOR NO. P-1198
 APPROVED: *[Signature]* DATE: *[Date]*

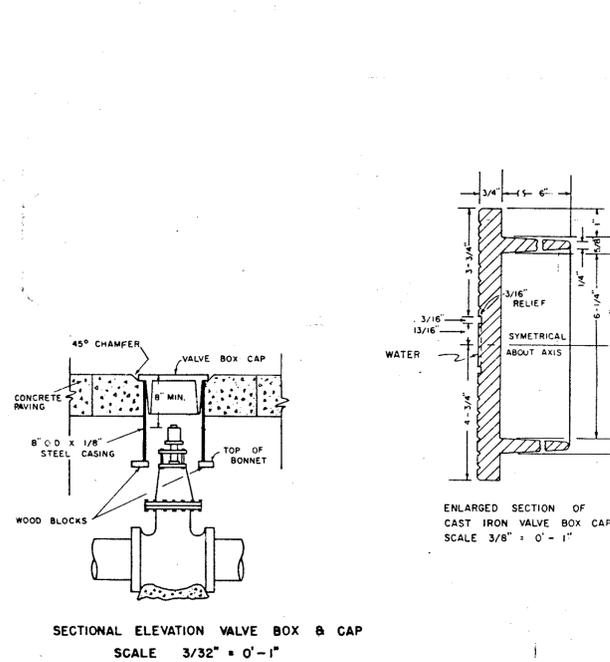
SPEC. NO. BT-10 W.O. NO. 60704			
PROJECT ENGINEER			
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST			
INSPECTOR B.F. OSUNO			

San Diego Unified Port District
 San Diego California

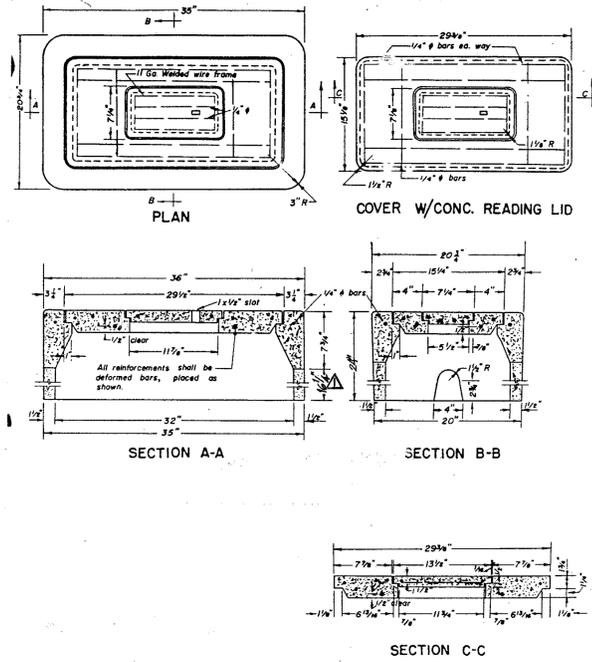
DESIGNED BY: *[Signature]*
 APPROVAL RECOMMENDED: *[Signature]*
 ASST. CHIEF ENGINEER
 DRAWN: *[Signature]*
 CHECKED: *[Signature]*
 CHIEF ENGINEER

CITY OF CORONADO
 CORONADO FERRY AND FISHING PIER
 CUTTING BOARD & BENCH DETAILS

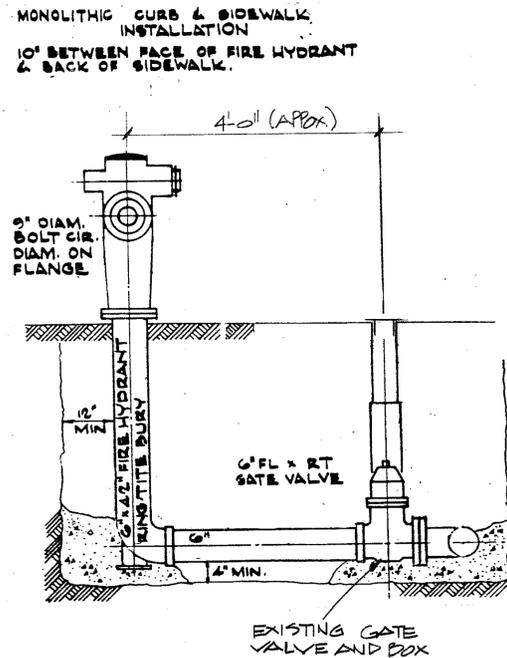
DATUM: MEAN LOWER LOW WATER	DATE: JAN 20 1987
SHEET: 12 OF 14	REV. 1
DRAWING NO. 1299	



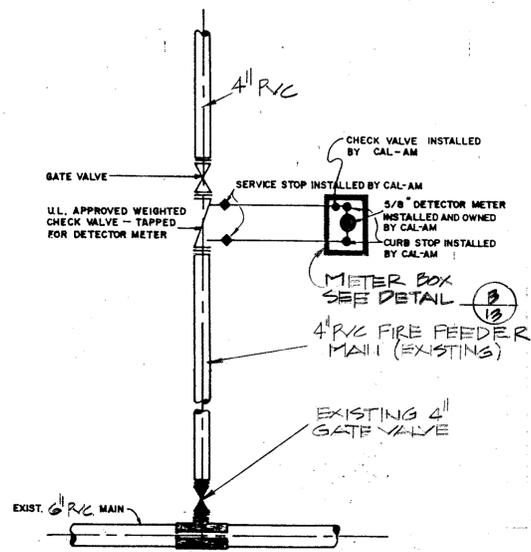
A VALVE BOX AND COVER
13 NOT TO SCALE



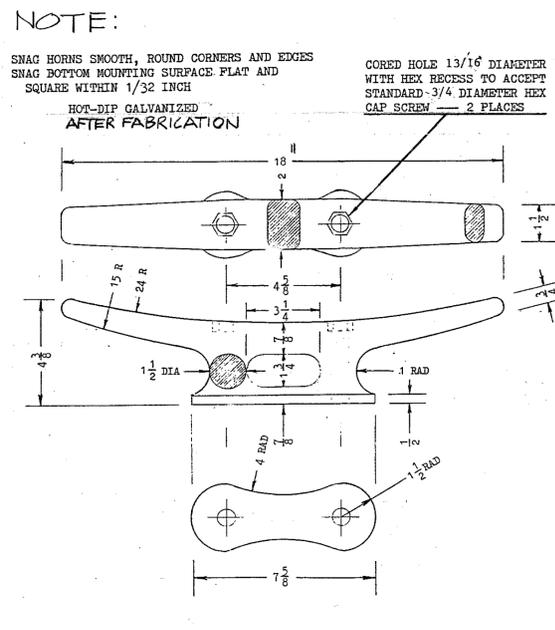
B CONCRETE WATER METER BOX
13 NOT TO SCALE



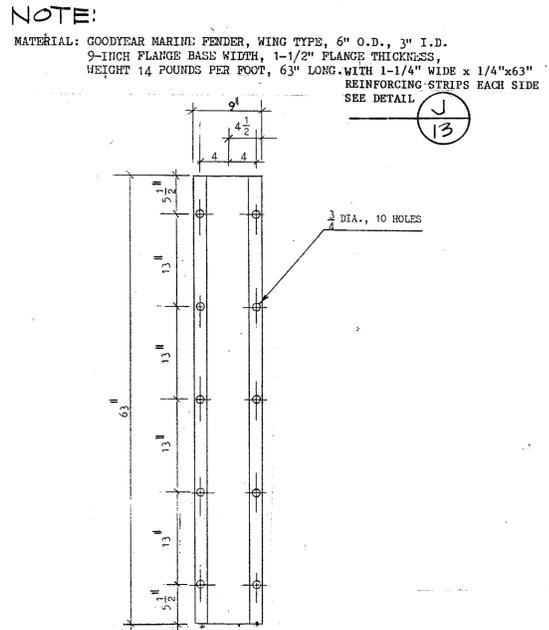
C FIRE HYDRANT INSTALLATION
13 NOT TO SCALE



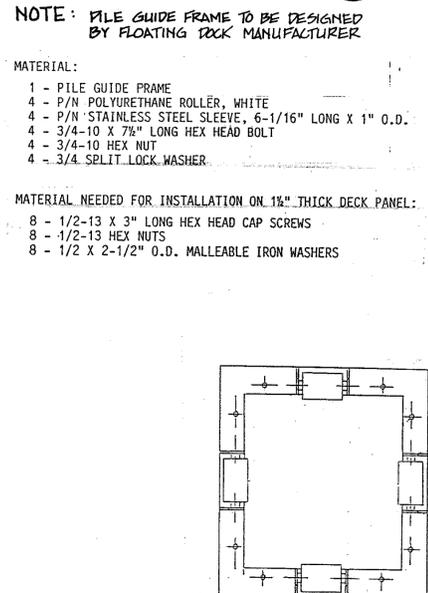
D FIRE PROTECTION SERVICE
13 NOT TO SCALE



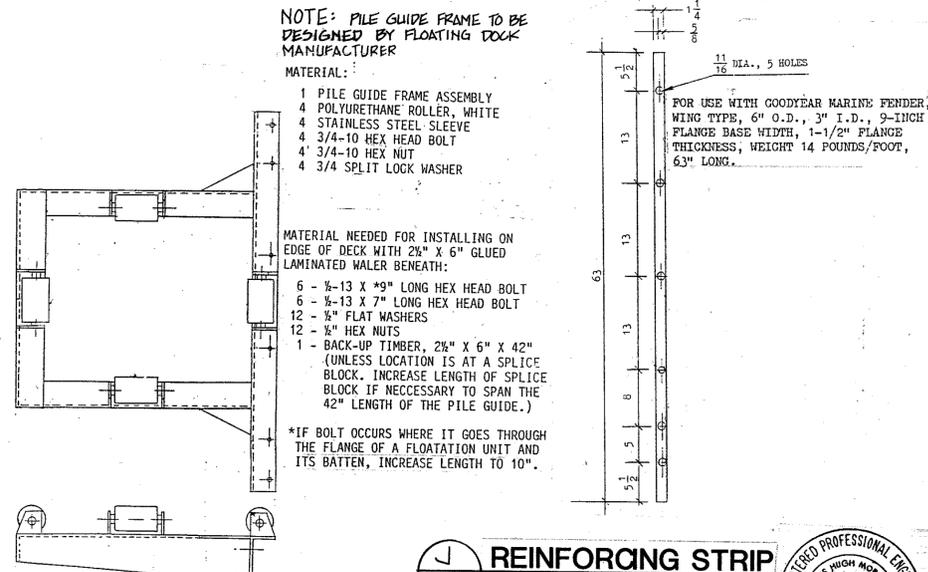
E 18-INCH CAST IRON CLEAT
13 NOT TO SCALE



F RUBBER MARINE FENDER
13 NOT TO SCALE



G PILE GUIDE FRAME AND ROLLER ASSEMBLY (TYPE A)
13 NOT TO SCALE



H PILE GUIDE FRAME AND ROLLER ASSEMBLY (TYPE B)
13 NOT TO SCALE

J REINFORCING STRIP
13 NOT TO SCALE

SPEC. NO.	57-10	W.O. NO.	6070A
CONTRACTOR	San Diego Unified Port District		
CONSTRUCTION STARTED	ATP	DATE	12-30-87
CONSTRUCTION COMPLETED	INSPECTOR B.F. OSUNOS		

San Diego Unified Port District
San Diego, California

DESIGNED	C.C.R.	APPROVAL	M. Morgan
DRAWN	S.R.H.E.V.	ASST. CHIEF ENGINEER	
CHECKED	P.M. Morgan	CHIEF ENGINEER	

CITY OF CORONADO	
CORONADO FERRY AND FISHING PIER	
DATE	JAN 20 1987
SHEET	13 OF 14
DRAWING NO.	1299
REV.	1

C-13

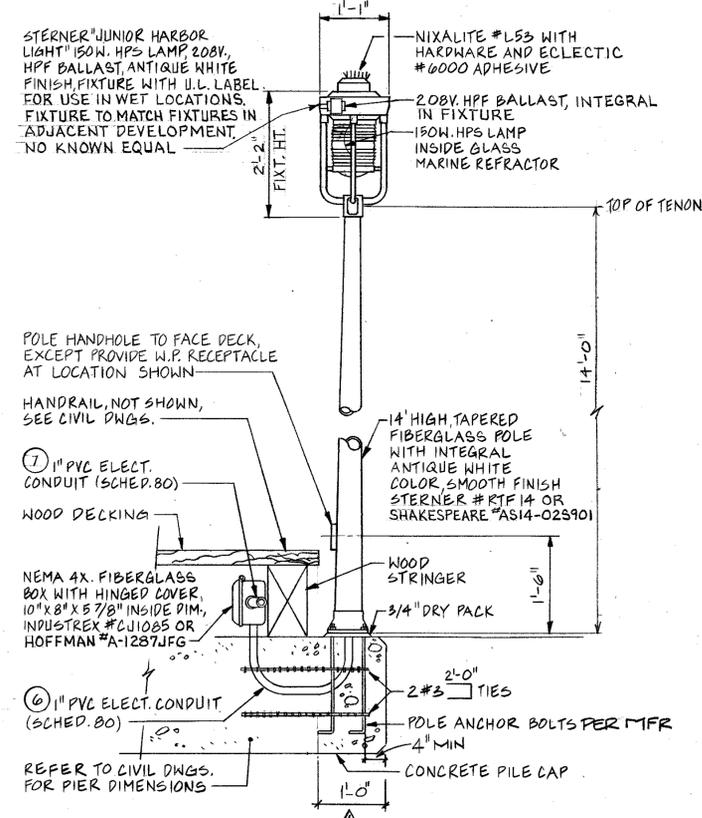
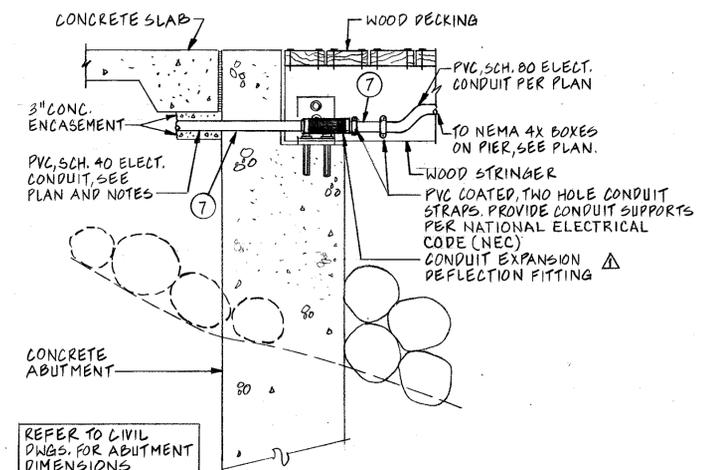
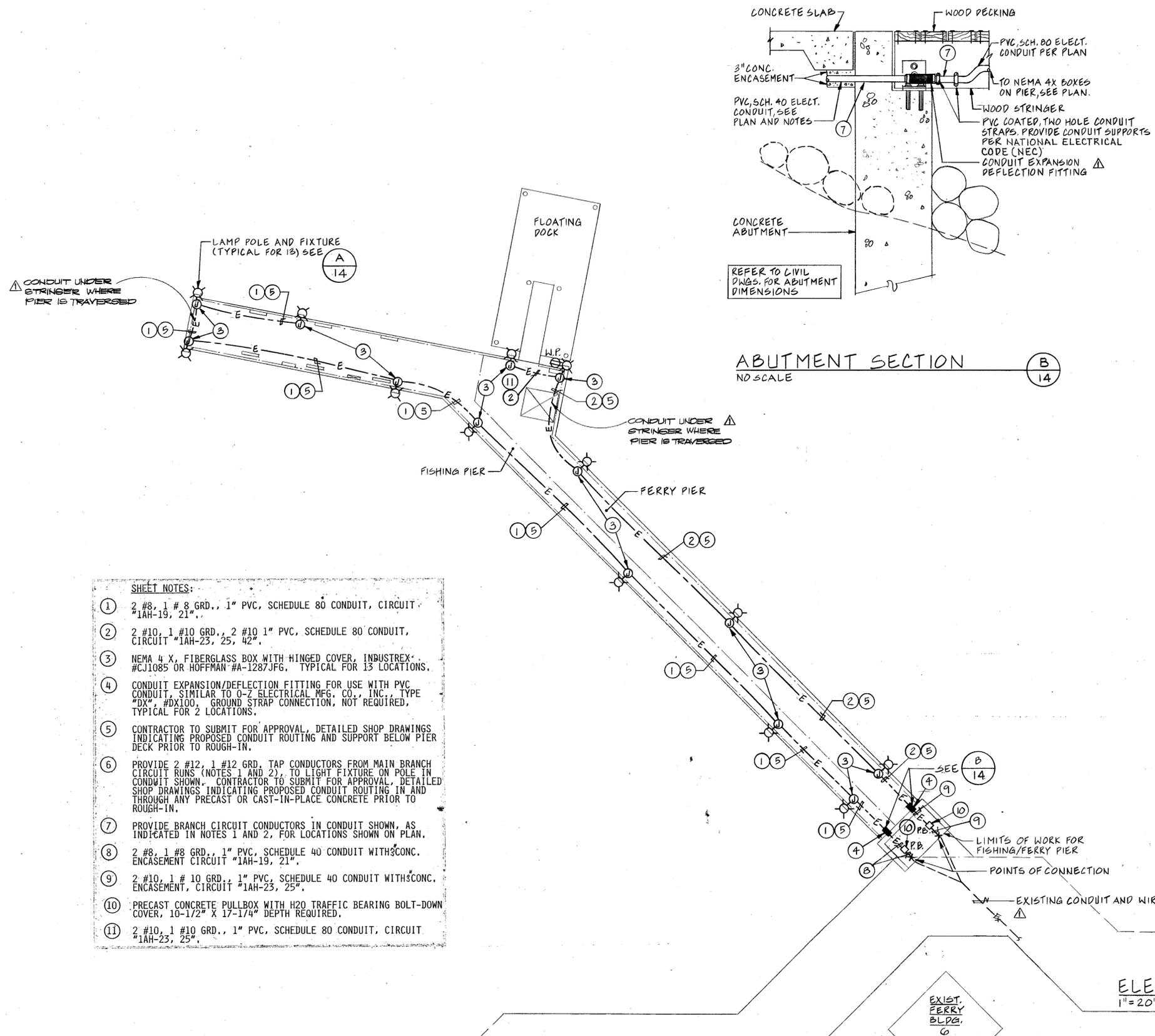
KERCHEVAL AND ASSOCIATES INC
CIVIL/STRUCTURAL ENGINEERING
ARCHITECTURE PLANNING
9420 FARNHAM ST., SUITE 113, SAN DIEGO, CA. 92123, (619) 571-0520

AS BUILT

DRAWN	S.R.H.E.V.	CHECK	D. MORGAN
DESIGN	C.C.R.	JOB NO.	P-1198
APPROVED	Albert A. Kercheval	DATE	12/30/87



BRUNING 44-232 45203



- SHEET NOTES:**
- 1 2 #8, 1 #8 GRD., 1" PVC, SCHEDULE 80 CONDUIT, CIRCUIT #1AH-19, 21".
 - 2 2 #10, 1 #10 GRD., 2 #10 1" PVC, SCHEDULE 80 CONDUIT, CIRCUIT #1AH-23, 25, 42".
 - 3 NEMA 4 X, FIBERGLASS BOX WITH HINGED COVER, INDUSTREX #CJ1085 OR HOFFMAN #A-1287JFG. TYPICAL FOR 13 LOCATIONS.
 - 4 CONDUIT EXPANSION/DEFLECTION FITTING FOR USE WITH PVC CONDUIT, SIMILAR TO O-Z ELECTRICAL MFG. CO., INC., TYPE "DX", #DX100, GROUND STRAP CONNECTION, NOT REQUIRED, TYPICAL FOR 2 LOCATIONS.
 - 5 CONTRACTOR TO SUBMIT FOR APPROVAL, DETAILED SHOP DRAWINGS INDICATING PROPOSED CONDUIT ROUTING AND SUPPORT BELOW PIER DECK PRIOR TO ROUGH-IN.
 - 6 PROVIDE 2 #12, 1 #12 GRD, TAP CONDUCTORS FROM MAIN BRANCH CIRCUIT RUNS (NOTES 1 AND 2), TO LIGHT FIXTURE ON POLE IN CONDUIT SHOWN. CONTRACTOR TO SUBMIT FOR APPROVAL, DETAILED SHOP DRAWINGS INDICATING PROPOSED CONDUIT ROUTING IN AND THROUGH ANY PRECAST OR CAST-IN-PLACE CONCRETE PRIOR TO ROUGH-IN.
 - 7 PROVIDE BRANCH CIRCUIT CONDUCTORS IN CONDUIT SHOWN, AS INDICATED IN NOTES 1 AND 2, FOR LOCATIONS SHOWN ON PLAN.
 - 8 2 #8, 1 #8 GRD., 1" PVC, SCHEDULE 40 CONDUIT WITH 3" CONC. ENCASEMENT, CIRCUIT #1AH-19, 21".
 - 9 2 #10, 1 #10 GRD., 1" PVC, SCHEDULE 40 CONDUIT WITH 3" CONC. ENCASEMENT, CIRCUIT #1AH-23, 25".
 - 10 PRECAST CONCRETE PULLBOX WITH H20 TRAFFIC BEARING BOLT-DOWN COVER, 10-1/2" X 17-1/4" DEPTH REQUIRED.
 - 11 2 #10, 1 #10 GRD., 1" PVC, SCHEDULE 80 CONDUIT, CIRCUIT #1AH-23, 25".

- SYMBOLS:**
- ⊙ POST TOP LIGHTING FIXTURE ON FIBERGLASS POLE, SEE SHEET
 - ⊙ NEMA 4X, FIBERGLASS BOX WITH HINGED COVER, SEE SHEET 14.
 - PB □ PRECAST CONCRETE PULLBOX, AS NOTED.
 - E--- ELECTRICAL CONDUIT AND BRANCH CIRCUIT WIRING, AS NOTED, RUN EXPOSED UNDER PIER.
 - EX--- EXISTING CONCRETE ENCASED ELECTRICAL CONDUITS RUN UNDERGROUND AND BRANCH CIRCUIT WIRING.
 - GRD "GROUND"

AS BUILT
 APPROVED: *Manuel T. Gend*
 DATE: *Sept 2, 1987*



ELECTRICAL PLAN
 1" = 20'-0"

KERCHEVAL ENGINEERS
 CIVIL/STRUCTURAL ENGINEERING
 PLANNING AND SURVEYING
 4747 MORENA BLVD., SUITE 100 SAN DIEGO, CA 92117
 TELEPHONE 619-483-7700

CITY OF CORONADO		DATE JAN. 20 1987	
CORONADO FERRY AND FISHING PIER		SHEET 14 OF 14	
ELECTRICAL SITE PLAN, SHEET NOTES, AND DETAILS		DRAWING NO.	REV.
		1299	1

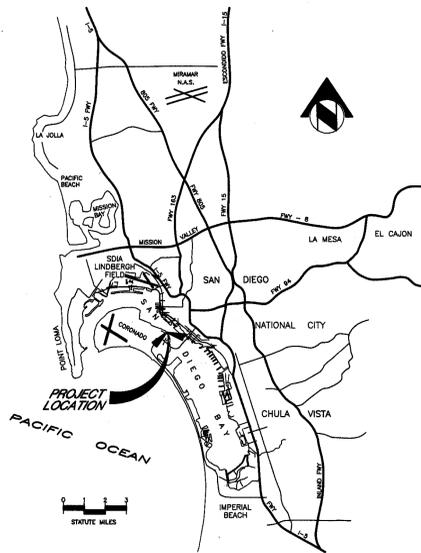
DESIGNED <i>G. HEINRICHS</i>	APPROVAL RECOMMENDED <i>Manuel T. Gend</i>	DUNN-LEE-SMITH-KLEIN AND ASSOCIATES PROFESSIONAL ENGINEERS 4747 MORENA BLVD., SUITE 100 SAN DIEGO, CA 92117 TELEPHONE 619-483-7700	
DRAWN <i>E. PALMA</i>	ASST. CHIEF ENGINEER	DATE JAN. 20 1987	
CHECKED <i>S. FROBERG</i>	CHIEF ENGINEER	SHEET 14 OF 14	
PROJECT ENGINEER		DRAWING NO. 1299	
CONTRACTOR		REV. 1	
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST			

San Diego Unified Port District
 San Diego California

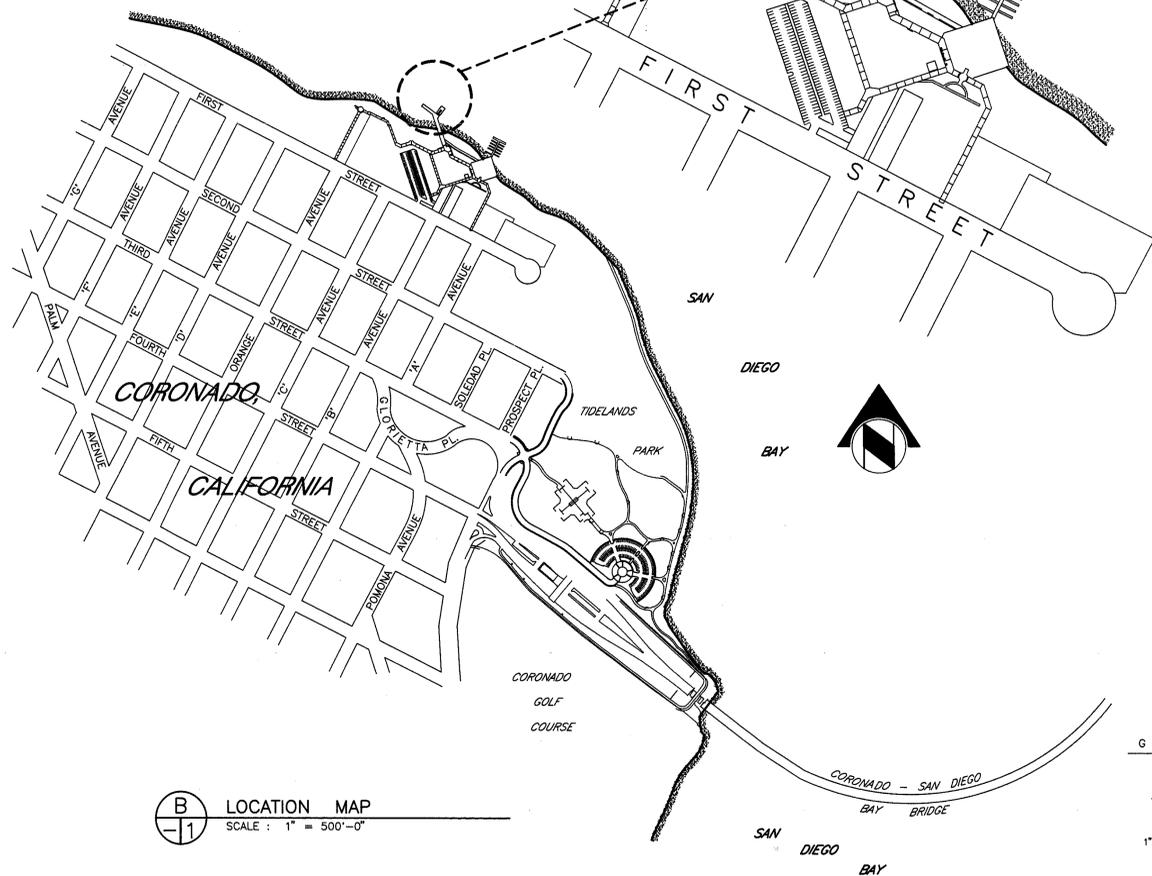


REPLACEMENT OF CORONADO FERRY LANDING FLOAT

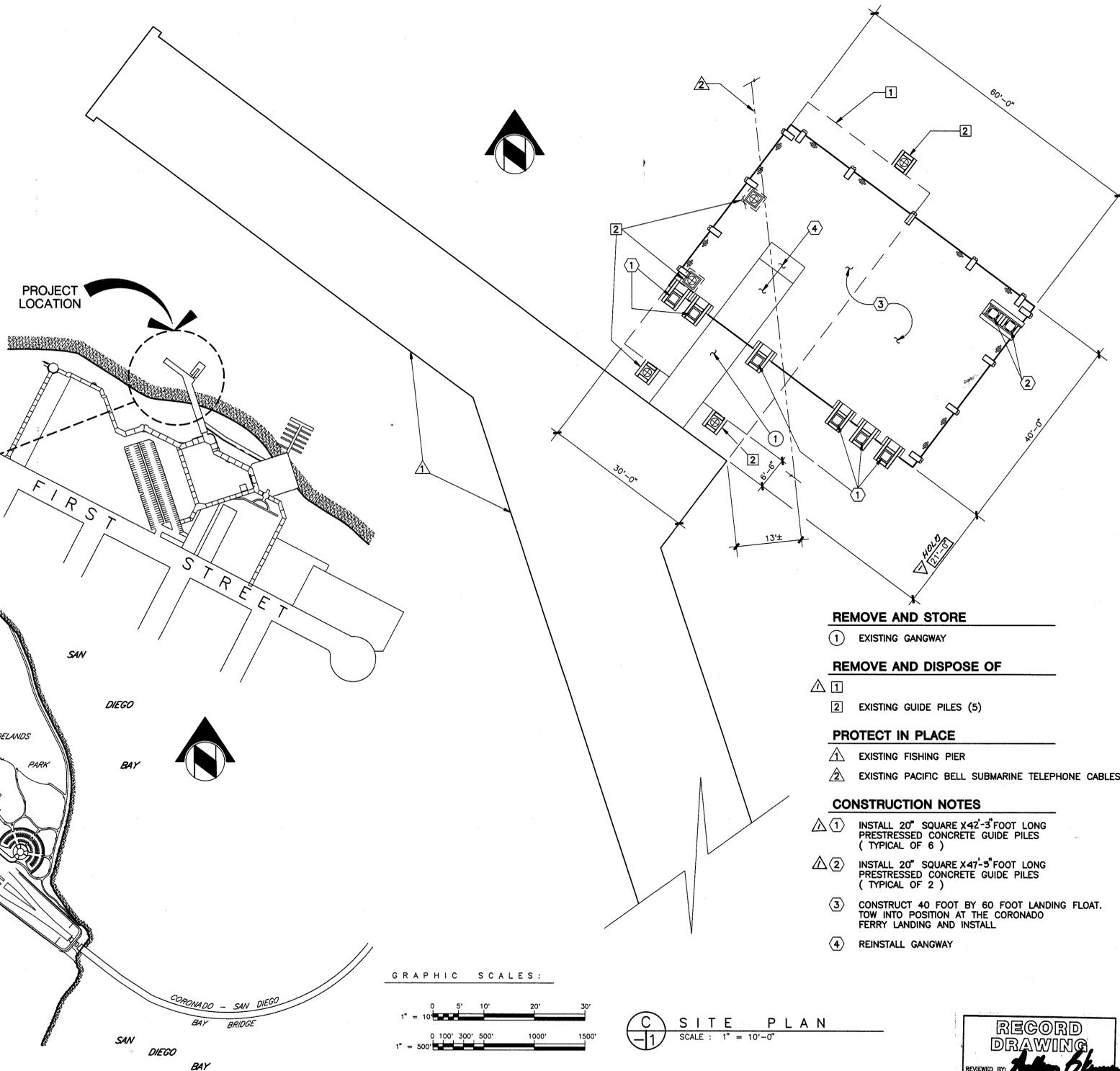
CORONADO, CALIFORNIA



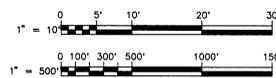
A VICINITY MAP
SCALE AS SHOWN



B LOCATION MAP
SCALE: 1" = 500'-0"



GRAPHIC SCALES:



C SITE PLAN
SCALE: 1" = 10'-0"

WORK TO BE DONE

THE WORK TO BE DONE SHALL BE ACCORDING TO THIS DRAWING AND SPECIFICATION 94-03 OF THE SAN DIEGO UNIFIED PORT DISTRICT.

THE WORK INCLUDES : a) PICKUP, MODIFY, & STORING THE EXISTING GANGWAY, b) REMOVING AND DISPOSING OF THE EXISTING WOOD FLOAT AND 5 EXISTING PRESTRESSED CONCRETE PILES, c) FURNISHING AND INSTALLING SIX 20" SQUARE X 42'-3" FOOT LONG PRESTRESSED CONCRETE PILES, d) FURNISHING AND INSTALLING TWO 20" SQUARE X 47'-5" FOOT LONG PRESTRESSED CONCRETE PILES, e) CONSTRUCTING, TOWING, TRIMMING AND INSTALLING A 40 FOOT X 60 FOOT STEEL FLOAT, AND, f) REINSTALLING THE GANGWAY AT THE OLD FERRY LANDING, CORONADO, CALIFORNIA.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3	DETAILS
4	DETAILS
5	GUIDE PILE PLAN AND DETAILS

ABBREVIATIONS

ABV	ABOVE
@	AT
BEL	BELOW
BHD	BULKHEAD
BKT	BRACKET
BL	BASELINE
CL	CENTERLINE
CC	CENTER TO CENTER
CLR	CLEAR
CONC	CONCRETE
CONTN	CONTINUOUS
CSK	COUNTERSUNK
DBL / DBLR	DOUBLE / DOUBLER
DET	DETAIL
DIA	DIAMETER
DK	DECK
DWG	DRAWING
ELEV	ELEVATION
EQ	EQUAL
FB	FLAT BAR
FDNS	FOUNDATIONS
FLG	FLANGE
FLGD	FLANGED
FRS	FRAMES
FWD	FORWARD
COPLG	COUPLING
HD	HEAD
HDR	HEADER
HDRS	HEADERS
LG	LONG
LGLS	LONGITUDINALS
LGL	LONGITUDINAL
LGTH	LENGTH
MC	STANDARD CHANNEL SECTION
MOORG	MOORING
AWS	AMERICAN WELDING SOCIETY
NOM	NOMINAL
OD	OUTSIDE DIAMETER
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REF	REFERENCE
SEC	SECTION
SQ HD	SQUARE HEAD
STL	STEEL
THK	THICK
TYP	TYPICAL
UHMW	ULTRA HIGH MOLECULAR WEIGHT
UNC	UNIFIED NOMINAL COARSE
W	WEIGHT
WF	WIDE FLANGED
WSHRS	WASHERS
WT BHD	WATER TIGHT BULKHEAD

REMOVE AND STORE

- 1 EXISTING GANGWAY

REMOVE AND DISPOSE OF

- 1 EXISTING GUIDE PILES (5)
- 2 EXISTING GUIDE PILES (5)

PROTECT IN PLACE

- 1 EXISTING FISHING PIER
- 2 EXISTING PACIFIC BELL SUBMARINE TELEPHONE CABLES

CONSTRUCTION NOTES

- 1 INSTALL 20" SQUARE X 42'-3" FOOT LONG PRESTRESSED CONCRETE GUIDE PILES (TYPICAL OF 6)
- 2 INSTALL 20" SQUARE X 47'-5" FOOT LONG PRESTRESSED CONCRETE GUIDE PILES (TYPICAL OF 2)
- 3 CONSTRUCT 40 FOOT BY 60 FOOT LANDING FLOAT. TOW INTO POSITION AT THE CORONADO FERRY LANDING AND INSTALL
- 4 REINSTALL GANGWAY

RECORD DRAWING
REVIEWED BY: *[Signature]*
DATE: 5-17-05



SPED NO. 94-03 W.O. NO. 661380
PROJECT ENGINEER: *[Signature]*
CONTRACTOR: **WATKINS CONSTRUCTION CO.**
CONSTRUCTION STARTED: 12-10-04
CONSTRUCTION COMPLETED: 4-17-05
COST: \$330,000.00 INSPECTOR: D. SOUTHARD

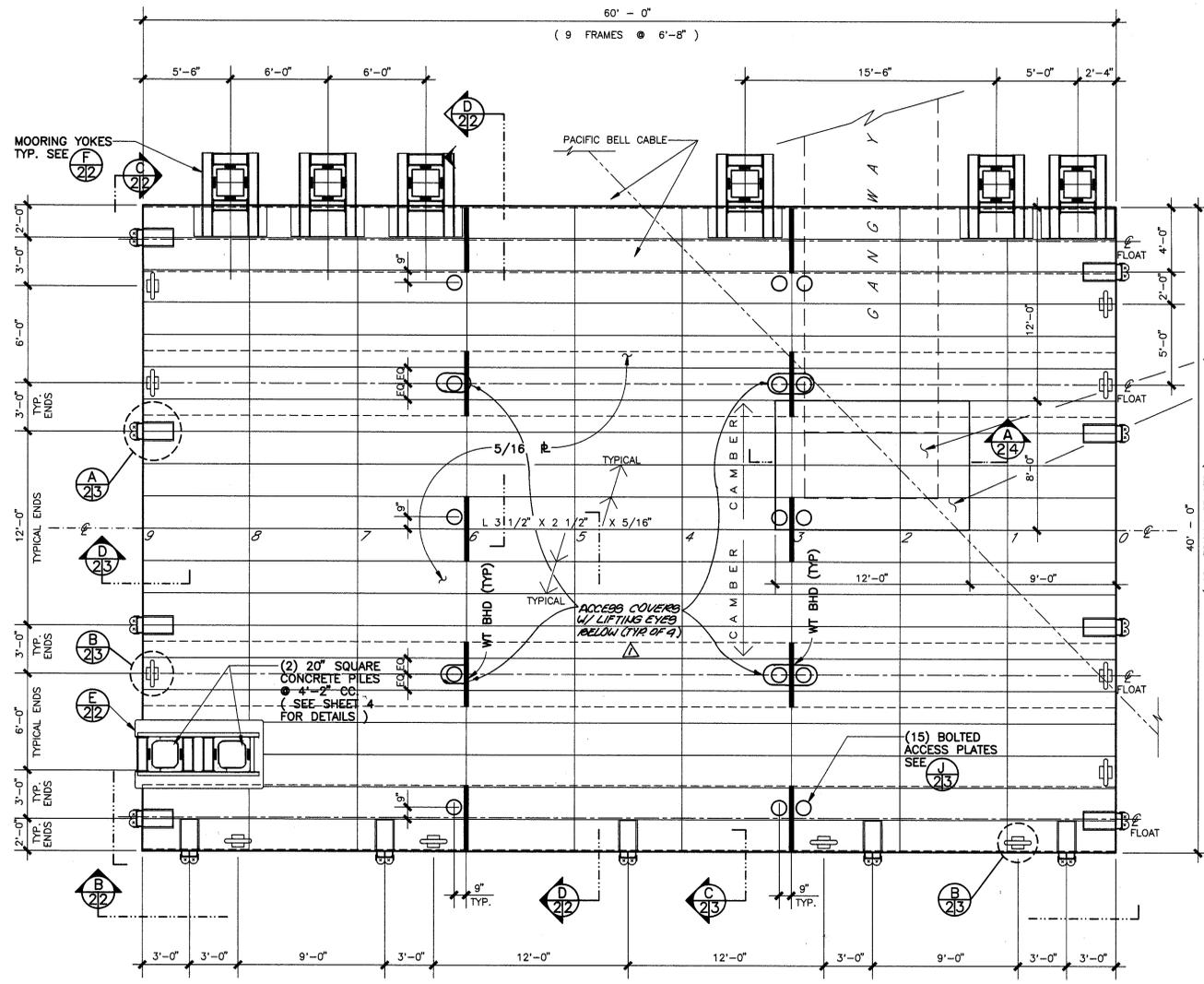
REC. DWG. REV. 9-17-05 B. BAUMS 5-4-05 *[Signature]*

San Diego Unified
Port District
San Diego California

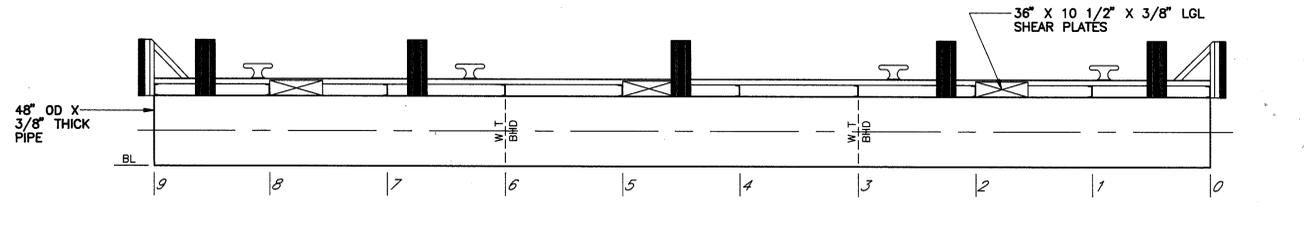


DESIGNED: R. MCCARGELL
DRAWN: *[Signature]*
CHECKED: A.V. / G.K.
DATE: 5-17-05
R. S. AUSTIN DIRECTOR OF ENGINEERING

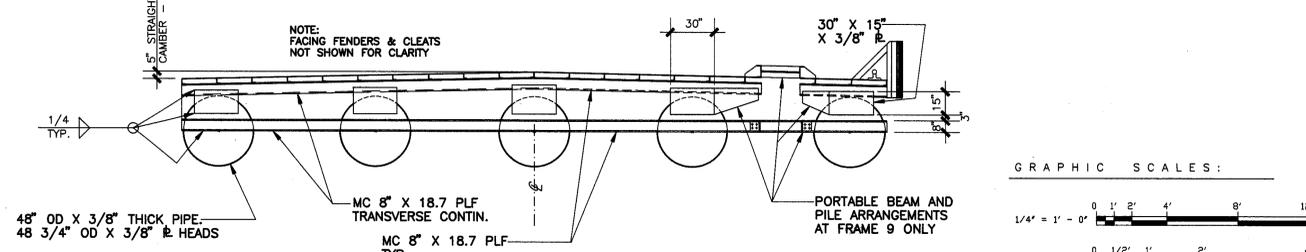
CORONADO, CALIFORNIA
REPLACEMENT OF CORONADO FERRY LANDING FLOAT
TITLE SHEET
DATE: 10/6/94
SHEET 1 OF 5
DRAWING NO. 1680



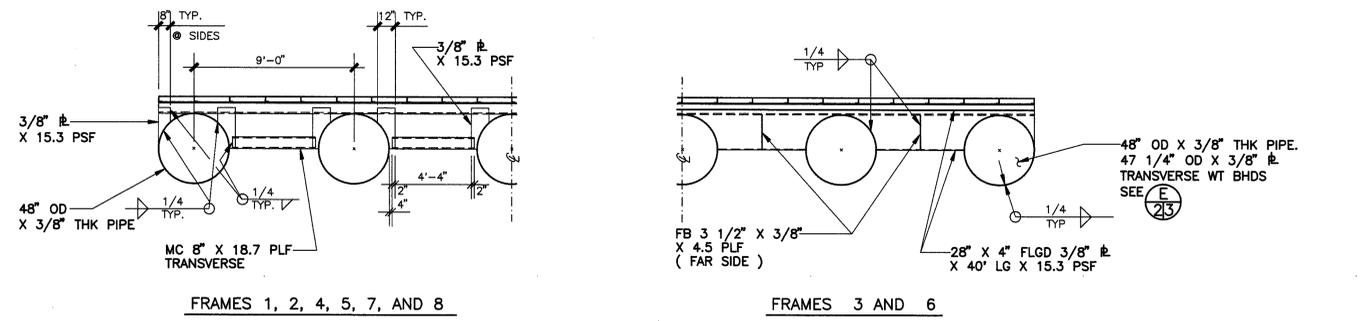
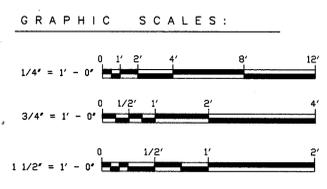
A FLOAT PLAN
SCALE: 1/4" = 1'-0"



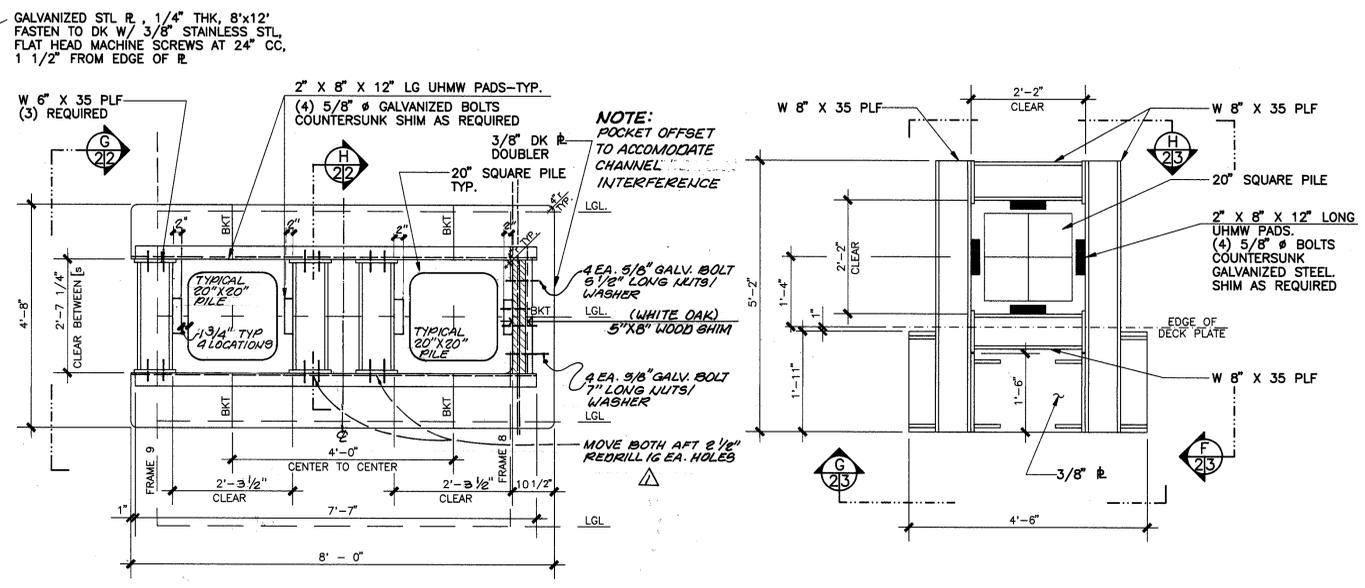
B FLOAT ELEVATION
SCALE: 1/4" = 1'-0"



C SECTION AT ENDS
SCALE: 1/4" = 1'-0" FRAMES 0 AND 9

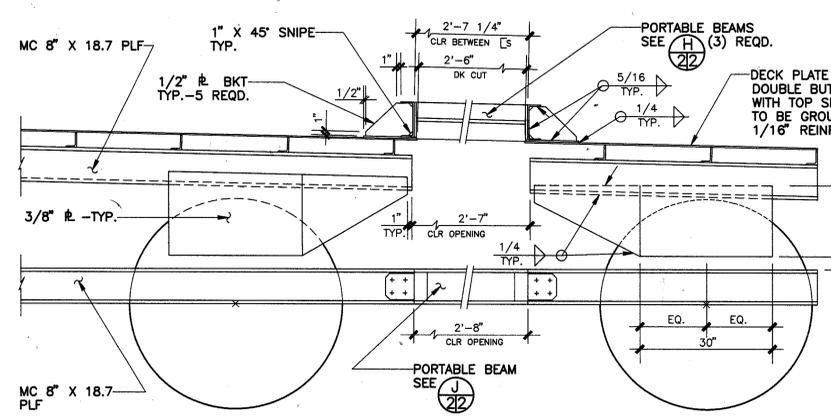


D FLOAT HALF SECTIONS
SCALE: 1/4" = 1'-0"

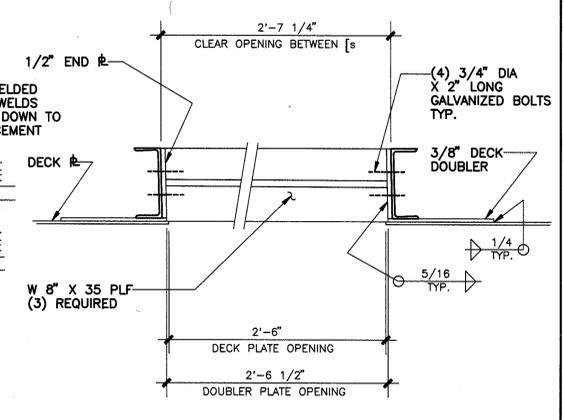


E PLAN - DOUBLE MOORING YOKE
NO SCALE

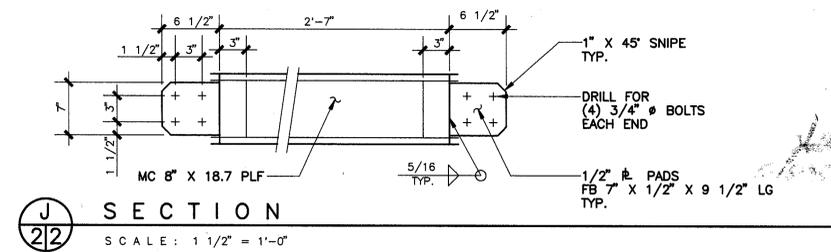
F PLAN - MOORING YOKE
NO SCALE



G ELEVATION - DOUBLE MOORING YOKE
SCALE: 3/4" = 1'-0"



H SECTION
SCALE: 1 1/2" = 1'-0"



J SECTION
SCALE: 1 1/2" = 1'-0"

RECORD DRAWING
REVIEWED BY: *William Blum*
CONSTRUCTION ADMINISTRATOR
DATE: 5-18-94



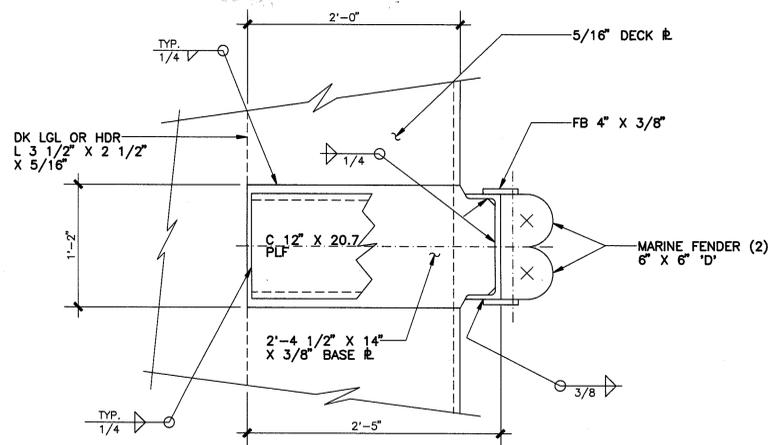
SPEC. NO. 94-03	W.D. NO. 661380
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	
INSPECTOR	

REC. DWG. REV. 4-10-95	B. BARABO	5-4-95	MD
REVISIONS		DATE	APPROVED

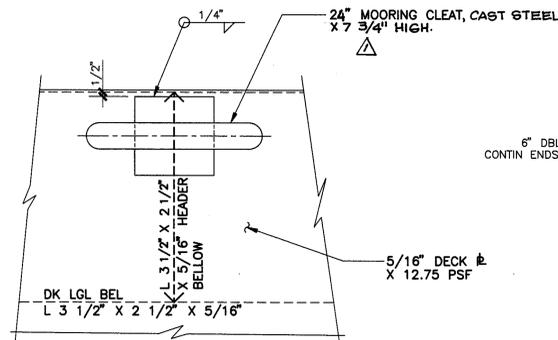
San Diego Unified
Port District
San Diego California

DESIGNED BY: R. S. AUSTIN
DRAWN BY: R. MCCARDLELL
APPROVED BY: *William Blum*
CONSTRUCTION ADMINISTRATOR

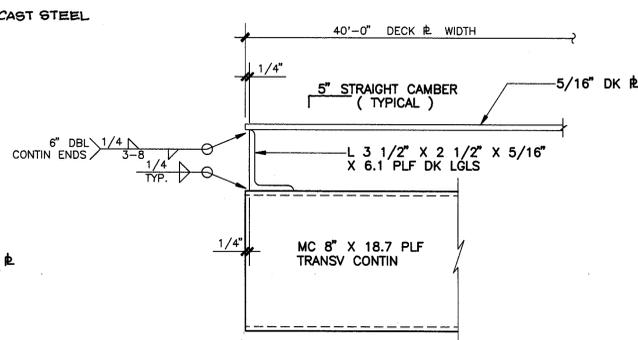
CORONADO, CALIFORNIA		DATE: 10/3/94
REPLACEMENT OF CORONADO FERRY LANDING FLOAT		SHEET 2 OF 5
DETAILS		1680



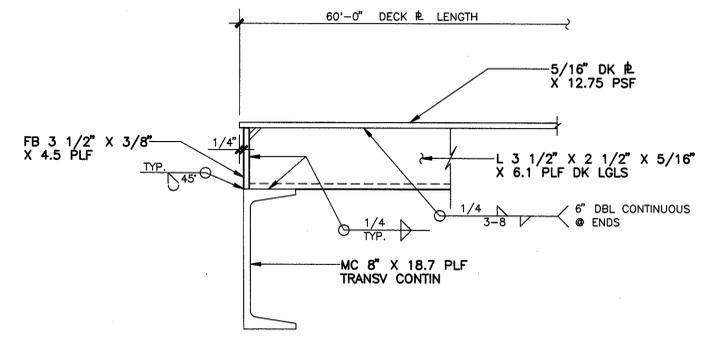
PLAN



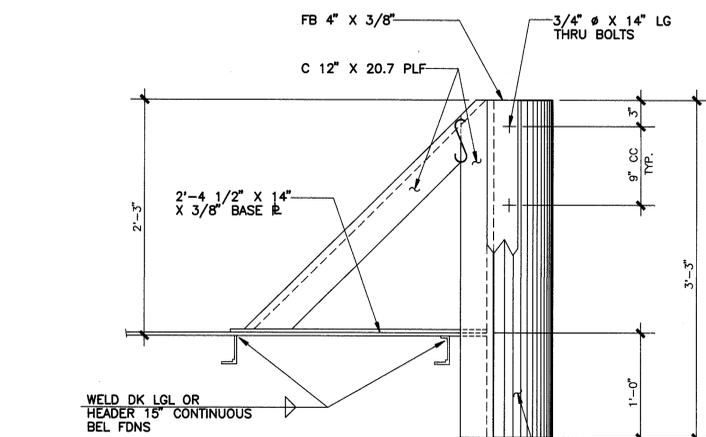
MOORING CLEAT



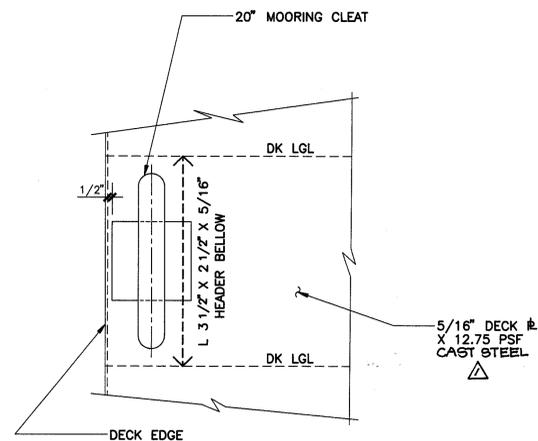
SECTION - DECK EDGE



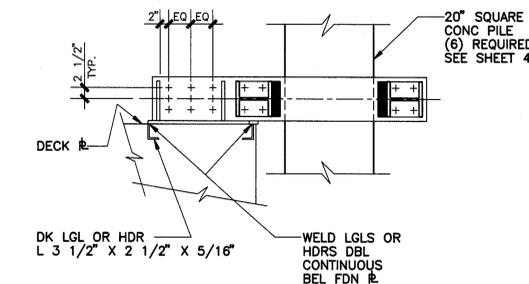
SECTION - DECK EDGE



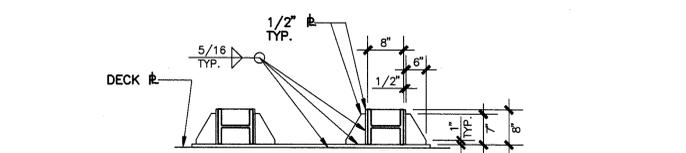
ELEVATION



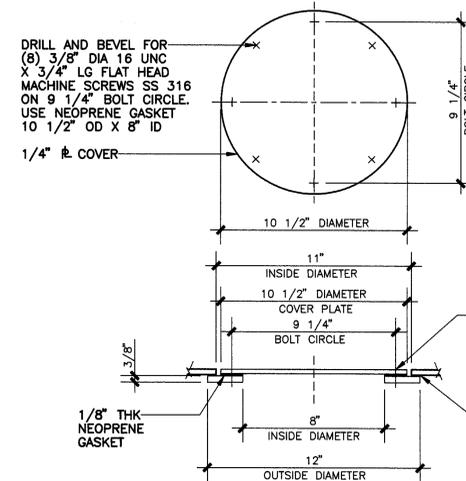
MOORING CLEAT



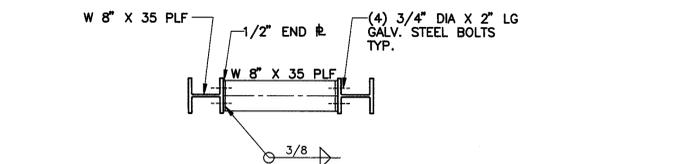
YOKE ELEVATION



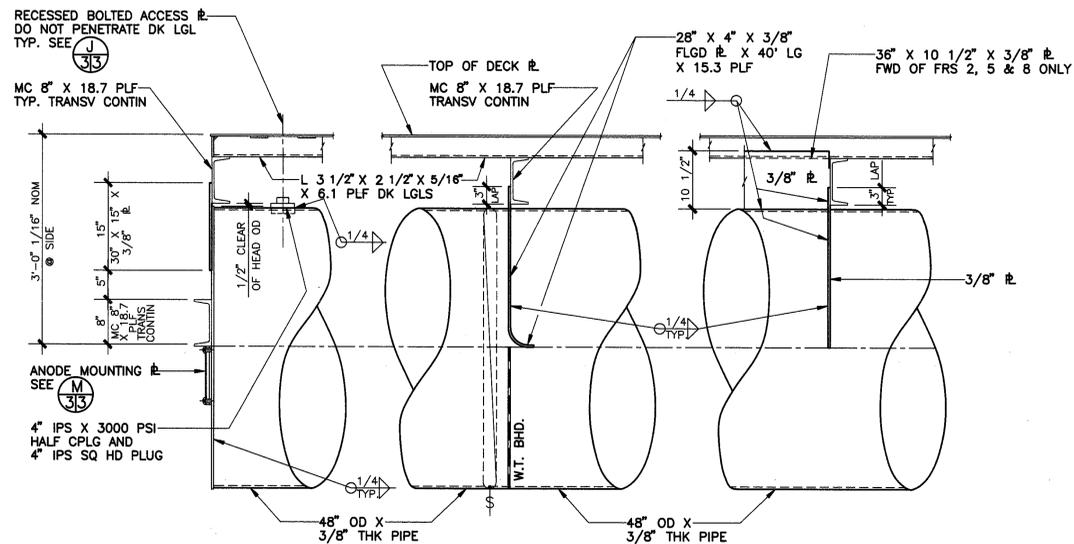
YOKE SECTION



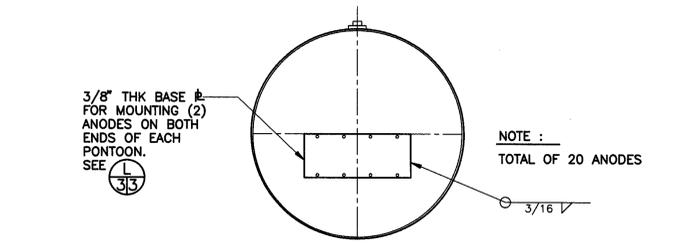
BOLTED ACCESS PLATE



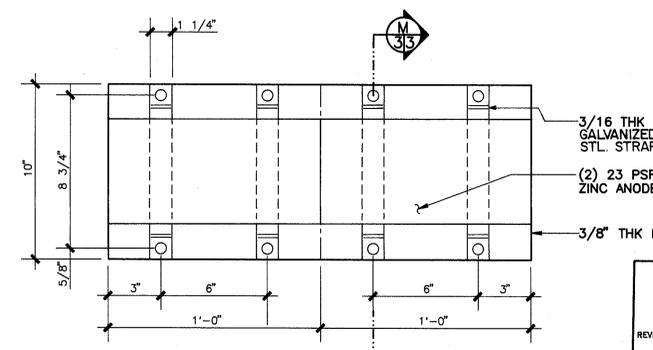
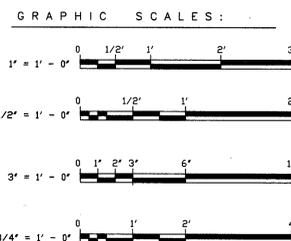
YOKE SECTION



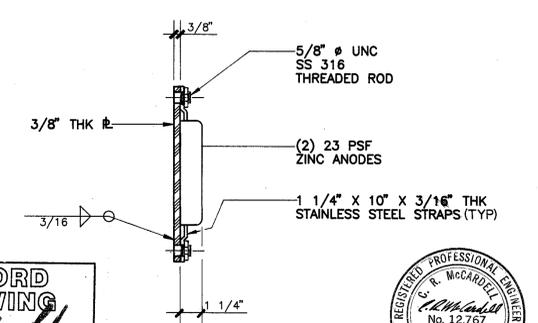
FLOAT AND FRAME DETAIL



ANODE MOUNTING PLATE



ANODE MOUNTING PLATE



SECTION

RECORD DRAWING
 REVIEWED BY: [Signature]
 DATE: 5-12-94



SPEC. NO. 94-03	W.D. NO. 661380
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	

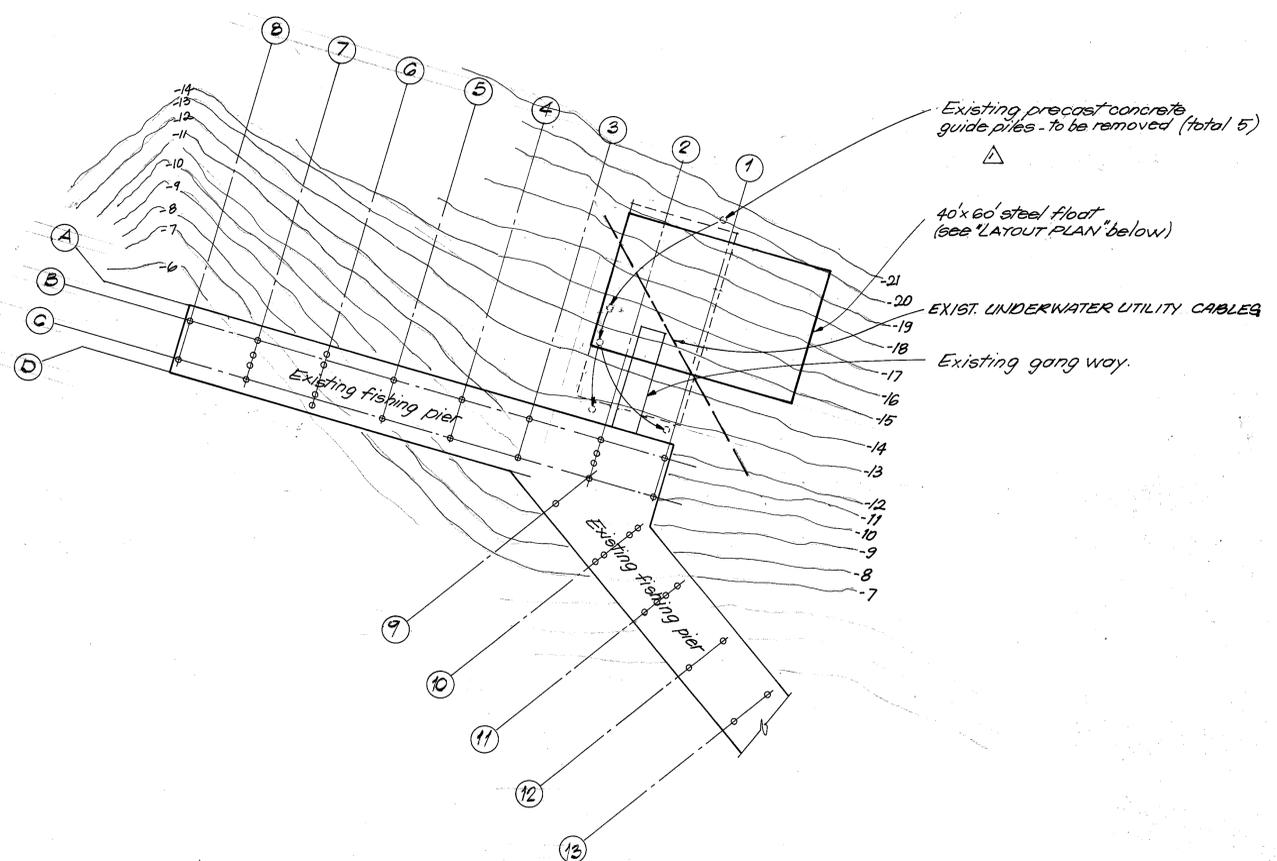
REC. DWG. REV. 4-10-05 B. BARAB I 5-4-05 [Signature] +P

San Diego Unified
 Port District
 San Diego, California

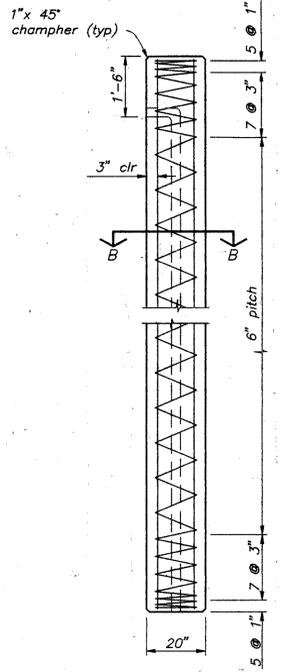
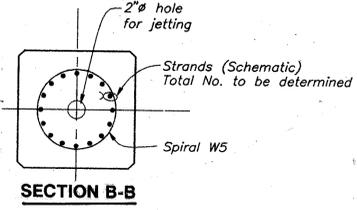
DESIGNED: R. McCardell
 DRAWN: A. Villalba
 CHECKED: R. S. Austin
 APPROVED: [Signature]
 ASSIST. DIRECTOR OF ENGINEERING
 DIRECTOR OF ENGINEERING

CORONADO, CALIFORNIA
**REPLACEMENT OF
 CORONADO FERRY LANDING FLOAT**
 DETAILS
 SHEET 3 OF 5
 DRAWING NO. 1680/1

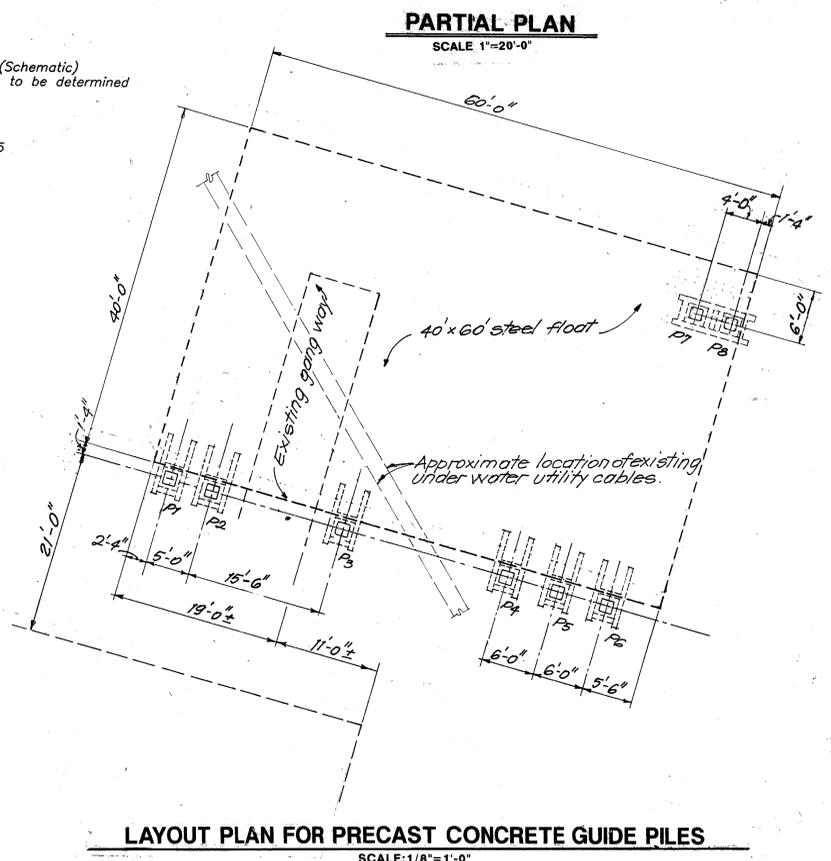
DEPTH FEET	SAMPLE NO.	SYMBOL	DESCRIPTION	UNIT WEIGHT PCF	WATER CONTENT %	LIQUIDITY INDEX	PLASTICITY INDEX	SHRINKAGE INDEX	STRENGTH CLASSIFICATION
BORING 3 ELEVATION 12.5 MSL DATE DRILLED 5/28/85 EQUIPMENT Rotary Wash Drill Rig									
MATERIAL DESCRIPTION									
0			FILL						
0-5	3-1		Loose, moist, tan-brown, Silty SAND with shells, gravel, concrete fragments, asphalt	89.3	23.3				
5-6	3-2		becomes saturated	96.4	20.3				
6-10	3-3		BAY DEPOSITS	89.7	30.9				
10-12	3-4		Loose to moderately dense, saturated, Clayey Silty SAND, organics	12					
12-16	3-5			115.5	16.9				
16-24	3-6			111.7	18.4				
24-27	3-7		BAY POINT FORMATION	90.9	28.5				
27-30	3-8		Moderately dense, saturated, brown, Silty SAND	60/					
30-32	3-9		Dense, saturated, gray-brown, Silty SAND	95.2	25.2				
32-36	3-10			97.1	26.6				
36-40	3-11			100.3	23.8				
40-44	3-12			99.6	24.7				
44-50	3-13			100.0	24.7				
BORING TERMINATED AT 50'-0"									



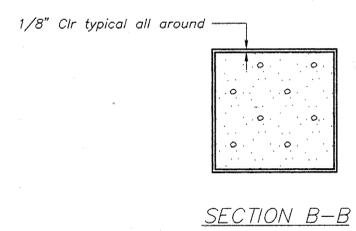
EXPLORATORY BORING - 3
(Taken from CITY OF CORONADO FERRY AND FISHING PIER PLANS)
W.O. 60704 DATE: JAN 20, 1987



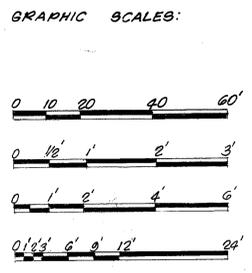
GENERAL NOTES:
20" pile Effective Prestressing $P_e = 373$ Kips
 $f_c = 7,000$ PSI
PILE TOP ELEVATION:
P1 - P6 = -29 Ft.
P7, P8 = -34 Ft.
LENGTH OF PILES:
P1 - P6 = 42'-3" Each
P7, P8 = 47'-3" Each
NOTE:
Contractor shall submit prestressing calculations, number and size of 7-wire strands for each type of pile for approval.



NOTE:
Contractor shall ensure that pile driving operation does not interfere with the under water utility cables.



GUIDE PILES CONES DETAILS
SCALE: 1"=1'-0"



RECORD DRAWING
REVIEWED BY: [Signature]
DATE: 5-15-85

REGISTERED PROFESSIONAL ENGINEER
TOMMY R. TOMINNA
No. 0346280
Exp. 12-31-84
CIVIL
STATE OF CALIFORNIA

KERCHEVAL ENGINEERS
CIVIL / STRUCTURAL ENGINEERING
CONSTRUCTION MANAGEMENT
4740 MURPHY CANYON ROAD, SUITE 310, SAN DIEGO, CA 92128-4821 • (619) 571-0020

SPEC. NO. 93-04	W.O. NO. 661380
PROJECT ENGINEER	
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	
INSPECTOR	

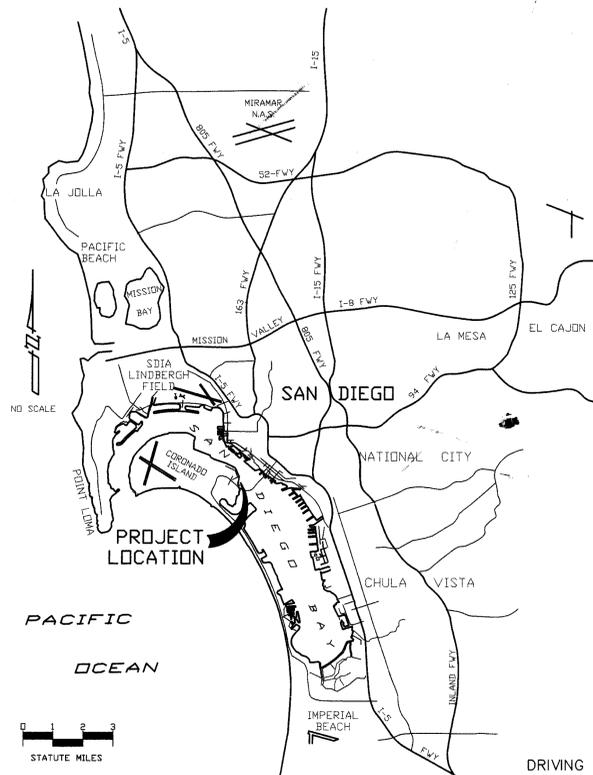
San Diego Unified Port District
San Diego California

DESIGNED DAN POCOPESCU
DRAWN E. REYES
CHECKED T. TOMINNA
APPROVED [Signature]
DIRECTOR OF ENGINEERING

CORONADO, CALIFORNIA
REPLACEMENT OF CORONADO FERRY LANDING FLOAT
GUIDE PILE PLAN AND DETAILS
DATE 7/15/94
SHEET 5 OF 5
DRAWING NO. 1689
REV. 1

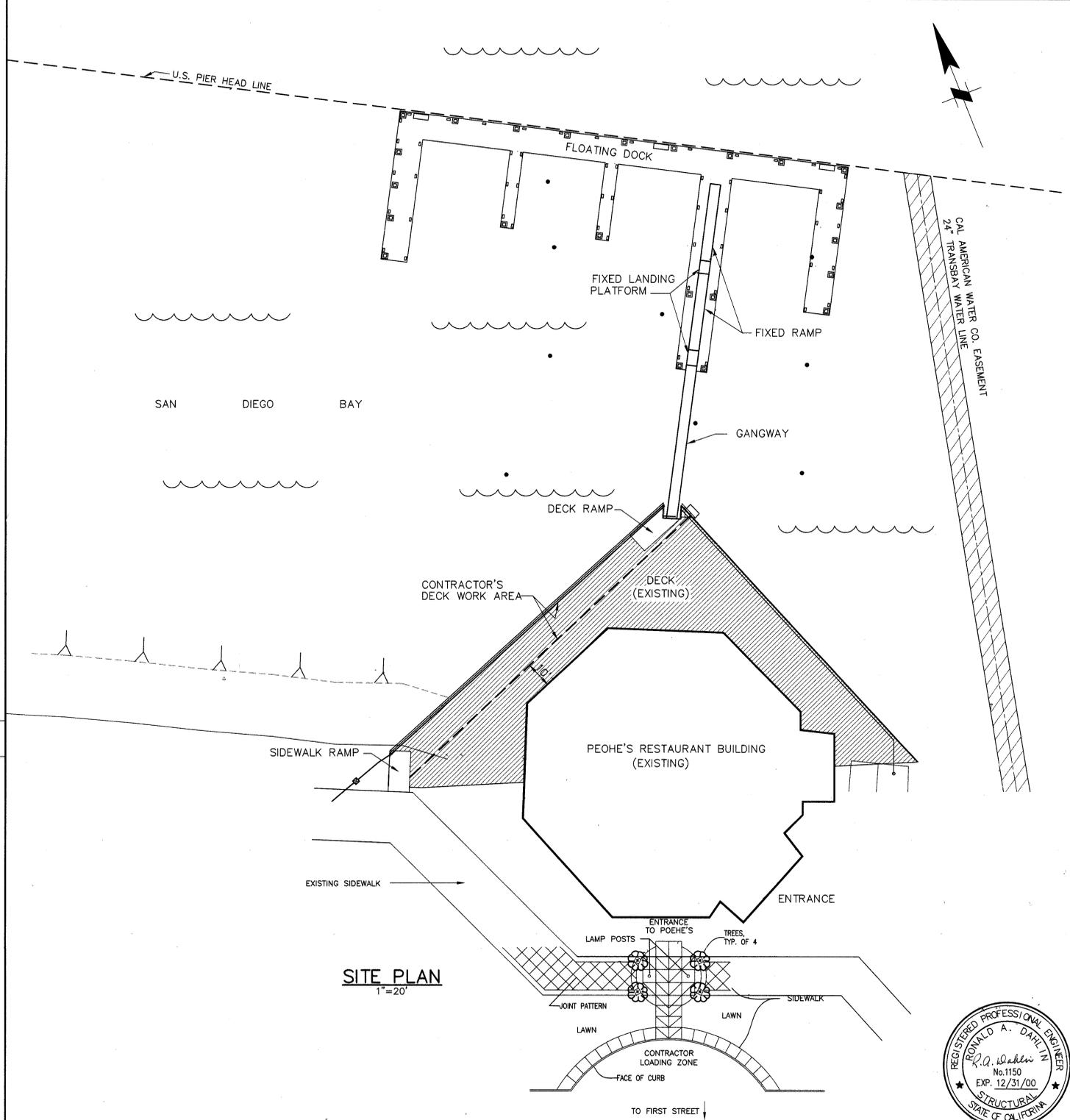
FERRY LANDING MARKETPLACE DOCK REPLACEMENT

CORONADO, CALIFORNIA



LOCATION MAP

DRIVING DIRECTIONS:
CORONADO TOLL BRIDGE (HWY 75) TO
ORANGE AVE. (NORTH), THEN TO FIRST ST. (EAST).
ADDRESS: 1201 FIRST ST.



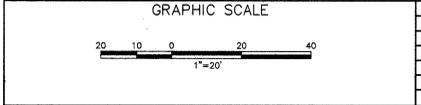
SITE PLAN
1"=20'

SHEET INDEX	
SHEET	DESCRIPTION
1	TITLE SHEET
2	DEMOLITION PLAN
3	LAYOUT PLAN, ELEVATIONS, SECTIONS, AND DETAILS
4	PILE LAYOUT AND DETAILS
5	FRAMING PLAN & SECTIONS
6	STRUCTURAL DETAILS
7	DOCK FIRE WATER PIPING PLAN
8	ELECTRICAL PLAN AND DETAILS

ABBREVIATIONS	
Ø	AT
∅	DIAMETER
CLR	CLEAR
CNTR'D	CENTERED
CONC	CONCRETE
COP	COPPER
DIA	DIAMETER
E	EAST
ELEC	ELECTRICAL
FT	FEET
GAL, GALV	GALVANIZED
GRND	GROUND
INSUL	INSULATION
MAX	MAXIMUM
MFGR'S	MANUFACTURER'S
MIN	MINIMUM
MLLW	MEAN LOWER LOW WATER
N	NORTH
PSI	POUNDS PER SQUARE INCH
P/S	PRESTRESSED
PVC	POLYVINYL CHLORIDE
SQ	SQUARE
STD	STANDARD
TYP	TYPICAL

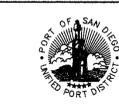
WORK TO BE DONE SHALL BE ACCORDING TO THIS DRAWING AND SPECIFICATION 99-24 OF THE SAN DIEGO UNIFIED PORT DISTRICT AND SHALL INCLUDE FURNISHING AND INSTALLING A FLOATING DOCK, GANGWAY, AND RAMP SYSTEM; REMOVAL OF EXISTING ANCHOR PILES; INSTALLATION OF ANCHOR PILES; INSTALLATION OF WATER SERVICE FOR FIRE PROTECTION AND ELECTRICAL SERVICE FOR AREA LIGHTING; AND MISCELLANEOUS SITE WORK.

MOFFATT, NICHOL & FERVER
ENGINEERS
SAN DIEGO, CALIFORNIA
TEL: 619/220-6050
FAX: 619/220-6055



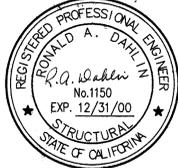
SPEC. NO. 99-24	W.O. NO. 667240
PROJECT ENGINEER	JIM TREFREN
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	
INSPECTOR	
REVISIONS	
DATE	APPROVED

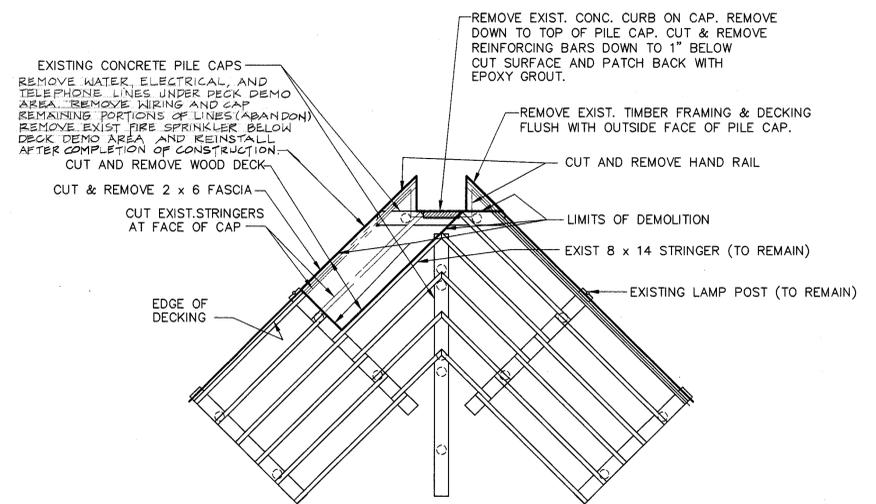
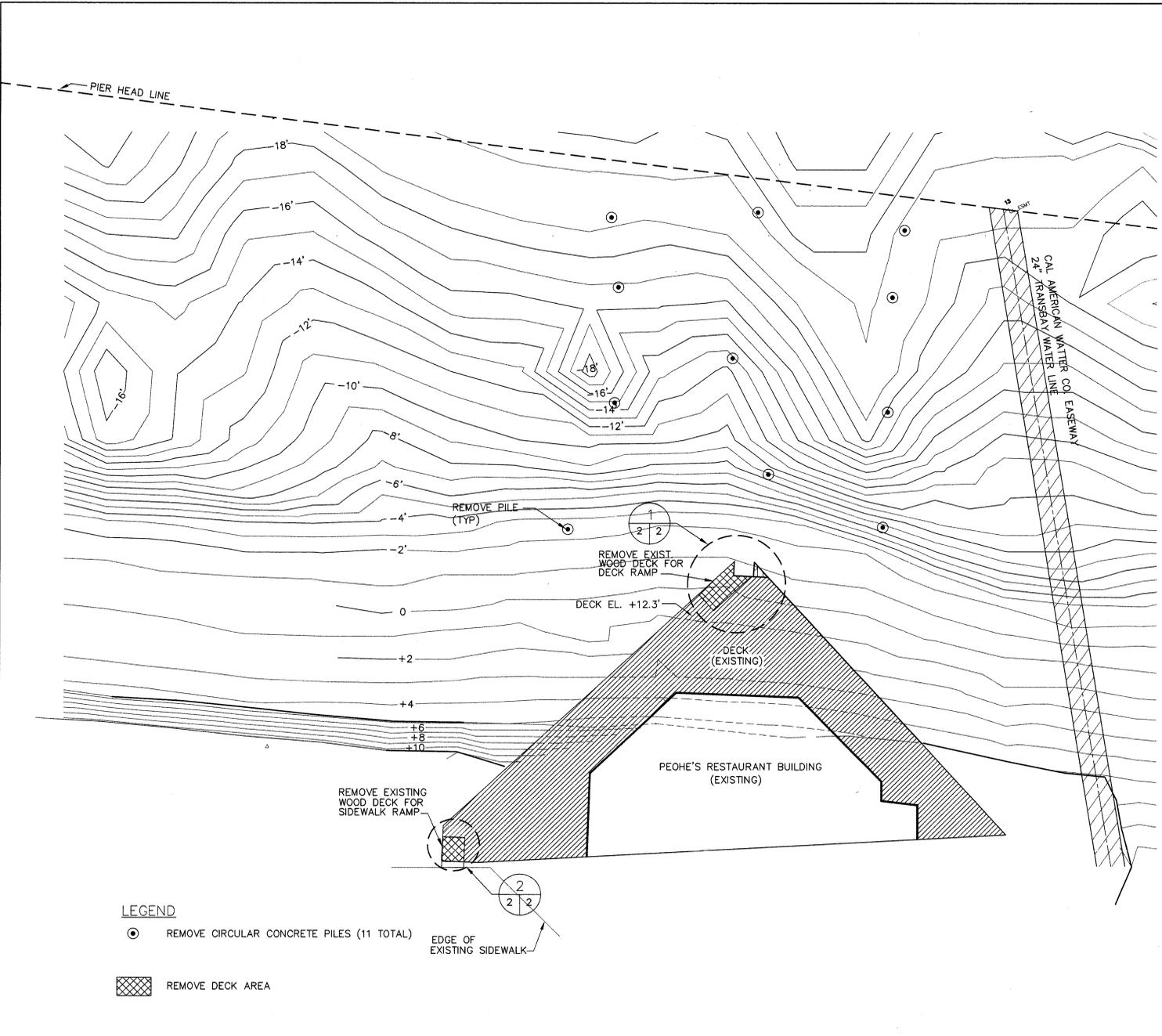
San Diego Unified Port District
San Diego, California



DESIGNED: J.R. LAWRENCE
DRAWN: R. AKBAYANI
CHECKED: A. ALCORN
APPROVED: [Signature]
SENIOR CIVIL ENGINEER
ASSIST. DIRECTOR OF ENGINEERING

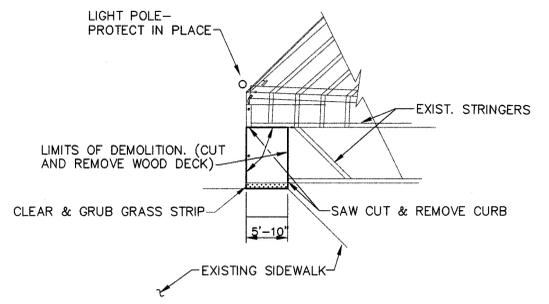
CORONADO, CALIFORNIA
FERRY LANDING MARKETPLACE DOCK REPLACEMENT
TITLE SHEET
DATE: AUG 11 1999
SHEET 1 OF 8
DRAWING NO. 1970
REV.





DECK RAMP DEMOLITION DETAIL 1
1"=10'

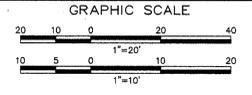
NOTE:
SEE SHEETS 5 & 6 FOR NEW DECK RAMP CONSTRUCTION DETAILS.



SIDEWALK RAMP DEMOLITION DETAIL 2
1"=10'

NOTE:
SEE SHEET 4 FOR CONSTRUCTION OF SIDEWALK RAMP

MOFFATT, NICHOL & FERVER
ENGINEERS
SAN DIEGO, CALIFORNIA
TEL 619/220-6050
FAX 619/220-6055



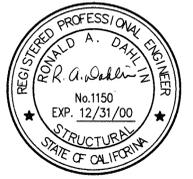
SPEC. NO. 99-24	W.G. NO. 667240				
REFERENCES					
PROJECT ENGINEER	JIM TREFREN				
CONTRACTOR					
CONSTRUCTION STARTED					
CONSTRUCTION COMPLETED					
COST					
INSPECTOR					
REVISIONS					
DATE					
APPROVED					

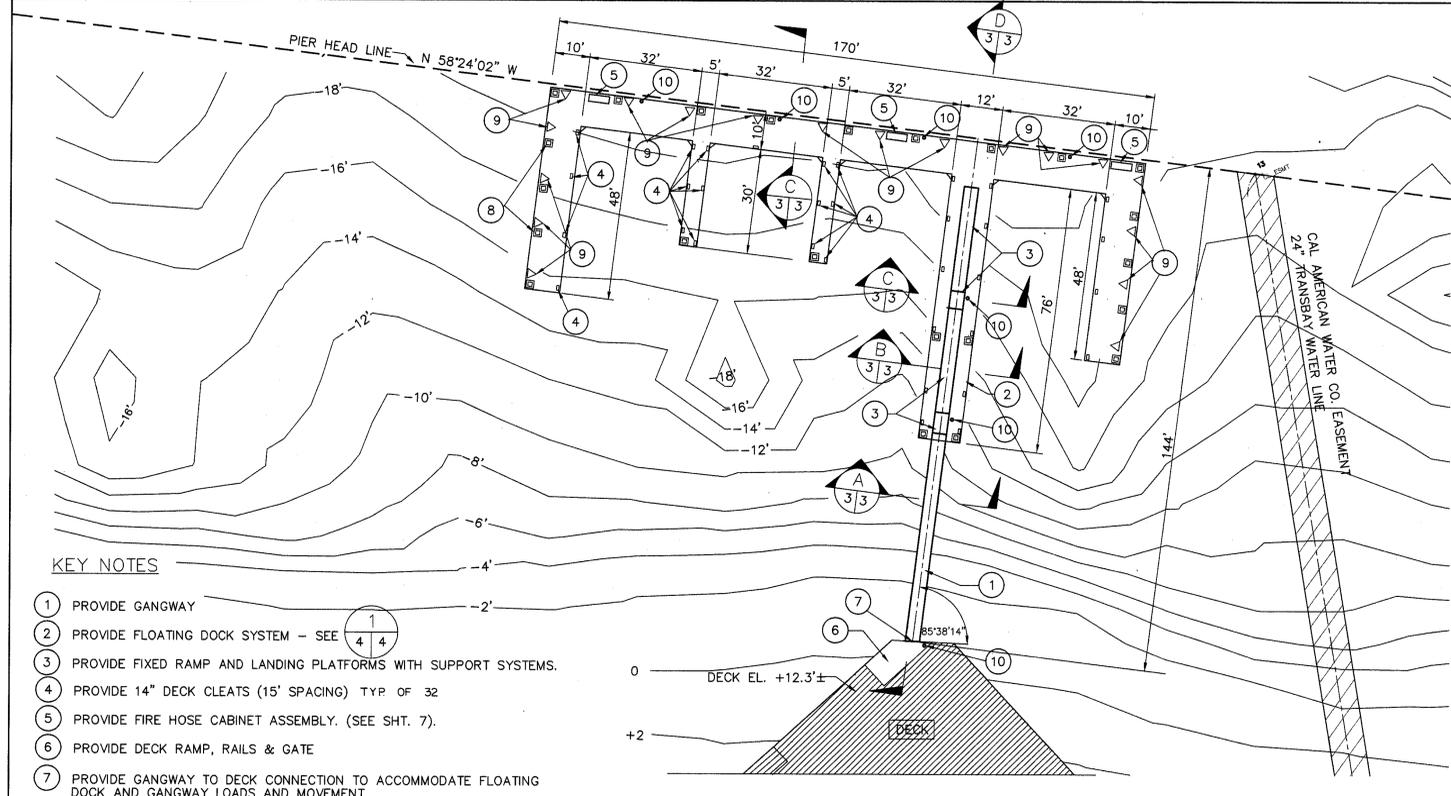
San Diego Unified Port District
San Diego California



DESIGNED	J.R. LAWRENCE	
DRAWN	R. AGBAYANI	
CHECKED	A. ALCORN	
APPROVED	<i>[Signature]</i>	SENIOR CIVIL ENGINEER
ASST. DIRECTOR OF ENGINEERING		

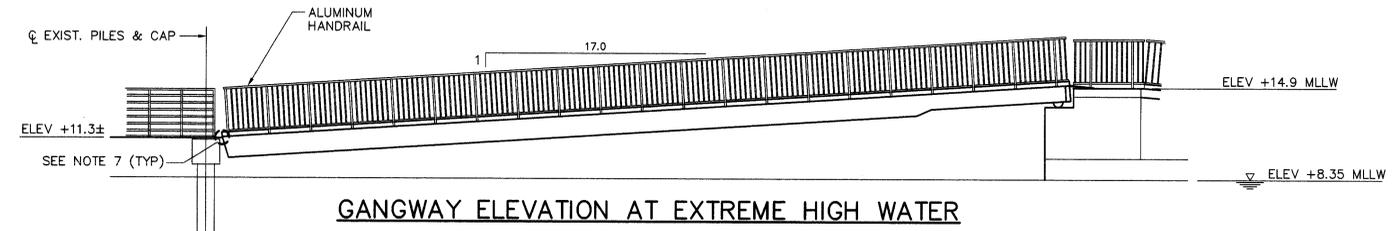
CORONADO, CALIFORNIA		DATE	AUG 11 1999
FERRY LANDING MARKETPLACE DOCK REPLACEMENT		SHEET	2 OF 8
DEMOLITION PLAN		DRAWING NO.	1970



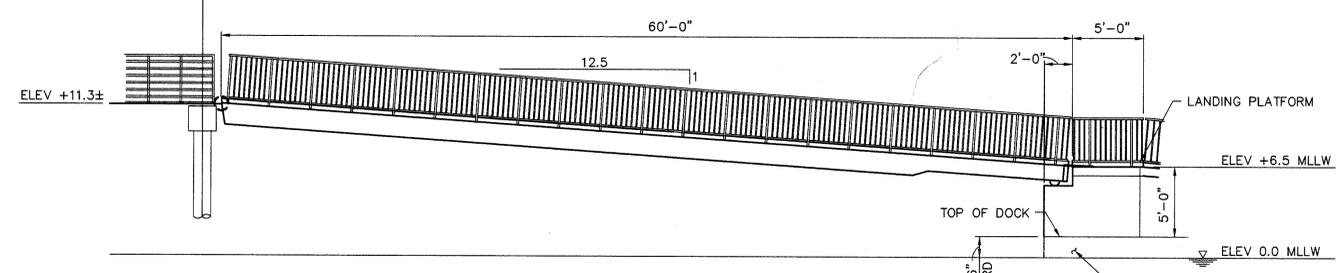


- KEY NOTES**
- 1 PROVIDE GANGWAY
 - 2 PROVIDE FLOATING DOCK SYSTEM - SEE 4/4
 - 3 PROVIDE FIXED RAMP AND LANDING PLATFORMS WITH SUPPORT SYSTEMS.
 - 4 PROVIDE 14" DECK CLEATS (15' SPACING) TYP OF 32
 - 5 PROVIDE FIRE HOSE CABINET ASSEMBLY. (SEE SHT. 7).
 - 6 PROVIDE DECK RAMP, RAILS & GATE
 - 7 PROVIDE GANGWAY TO DECK CONNECTION TO ACCOMMODATE FLOATING DOCK AND GANGWAY LOADS AND MOVEMENT.
 - 8 INSTALL ANCHOR PILES (23 TOTAL)
 - 9 PROVIDE 20" DECK CLEATS. TYP OF 18
 - 10 PROVIDE POLE MOUNTED LIGHTS. (SEE SHT. 8).

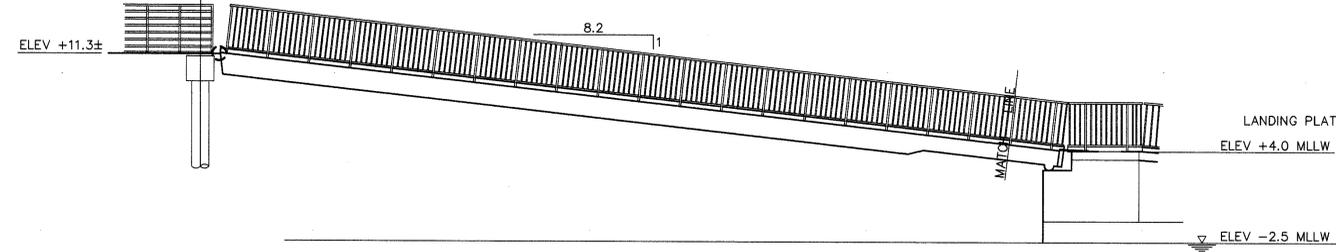
1 FLOATING DOCK & GANGWAY LAYOUT PLAN
1"=20'



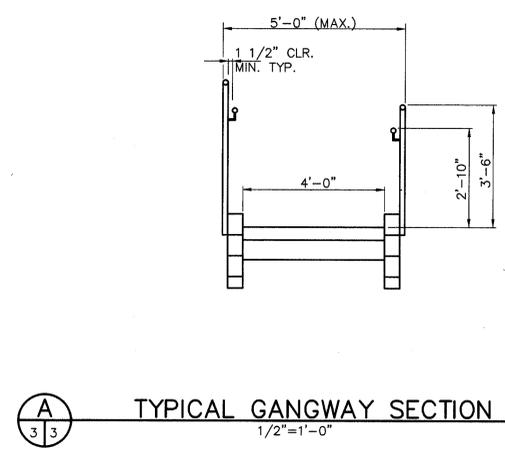
GANGWAY ELEVATION AT EXTREME HIGH WATER



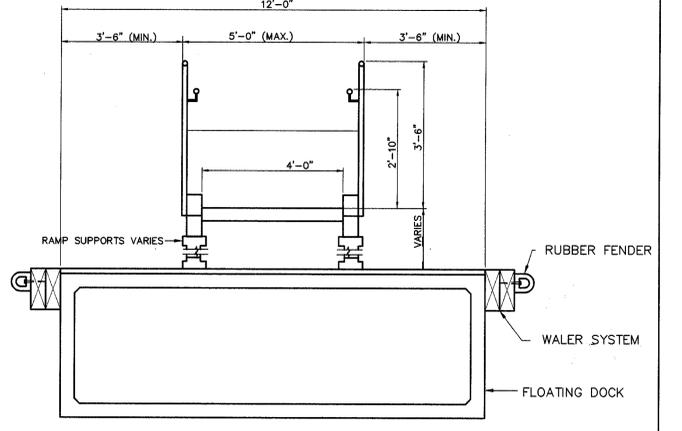
GANGWAY ELEVATION MEAN LOWER LOW WATER



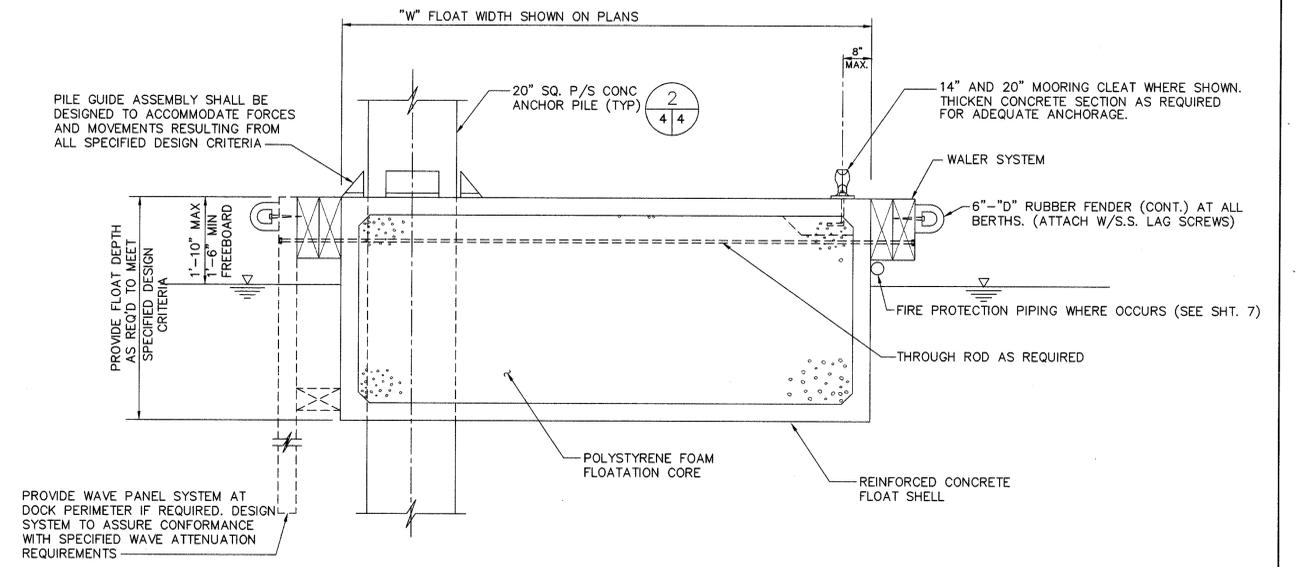
GANGWAY ELEVATION AT EXTREME LOW WATER



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



B TYP. FIXED RAMP AND LANDING SECTION
1/2"=1'-0"



C SECTION AT TYPICAL FLOAT
3/4"=1'-0"

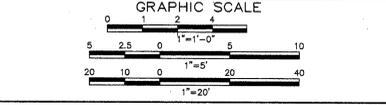
PROVIDE WAVE PANEL SYSTEM AT DOCK PERIMETER IF REQUIRED. DESIGN SYSTEM TO ASSURE CONFORMANCE WITH SPECIFIED WAVE ATTENUATION REQUIREMENTS

PILE GUIDE ASSEMBLY SHALL BE DESIGNED TO ACCOMMODATE FORCES AND MOVEMENTS RESULTING FROM ALL SPECIFIED DESIGN CRITERIA

D FIXED RAMP AND GANGWAY ELEVATIONS
1"=5'-0"

FIXED RAMP ELEVATION

MOFFATT, NICHOL & FERVER
ENGINEERS
SAN DIEGO, CALIFORNIA
TEL 619/220-6050
FAX 619/220-6055



SPR: NO. 99-24	W.D. NO. 667240
PROJECT ENGINEER	JIM TREFFEN
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	
INSPECTOR	
REVISIONS	
DATE	APPROVED

San Diego Unified Port District
San Diego California

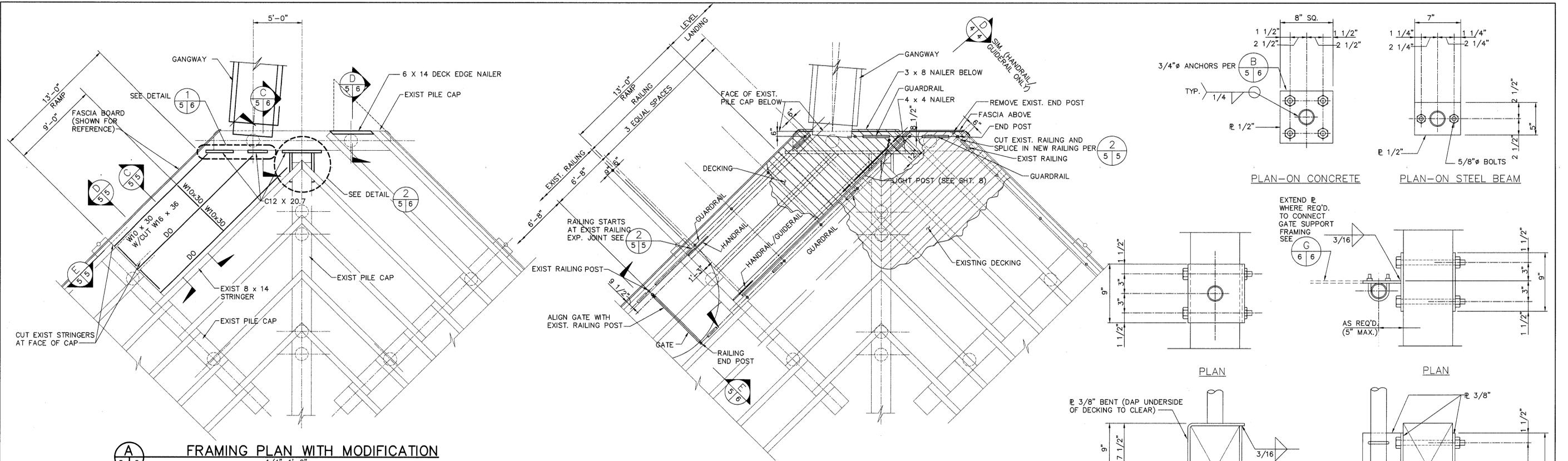


DESIGNED	J.R. LAWRENCE
DRAWN	R. AGBAYANI
CHECKED	A. ALCORN
APPROVED	<i>[Signature]</i> SENIOR CIVIL ENGINEER
ASST. DIRECTOR OF ENGINEERING	

CORONADO, CALIFORNIA
FERRY LANDING MARKETPLACE DOCK REPLACEMENT
LAYOUT PLAN, ELEVATIONS, SECTIONS, AND DETAILS

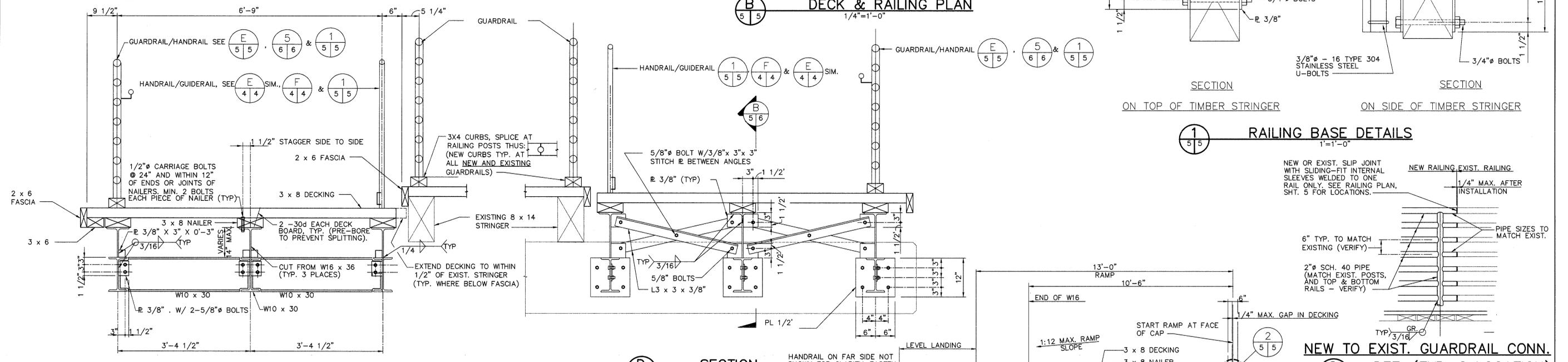
DATE	AUG 11 1999
SHEET	3 OF 8
DRAWING NO.	1970





A FRAMING PLAN WITH MODIFICATION
1/4"=1'-0"

B DECK & RAILING PLAN
1/4"=1'-0"



C SECTION
1"=1'-0"

D SECTION
1"=1'-0"

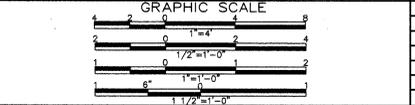
E SECTION
1/2"=1'-0"

1 RAILING BASE DETAILS
1"=1'-0"

2 NEW TO EXIST. GUARDRAIL CONN. DET. (TYP. 2 LOCATION)
N.T.S.

NOTE:
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.

MOFFATT, NICHOL & FERVER
SAN DIEGO, CALIFORNIA
TEL: 619/220-6050
FAX: 619/220-6055



SPEC. NO. 99-24	W.C. NO. 667240
PROJECT ENGINEER	JIM TREFREN
CONTRACTOR	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	
INSPECTOR	
REVISIONS	
DATE	APPROVED

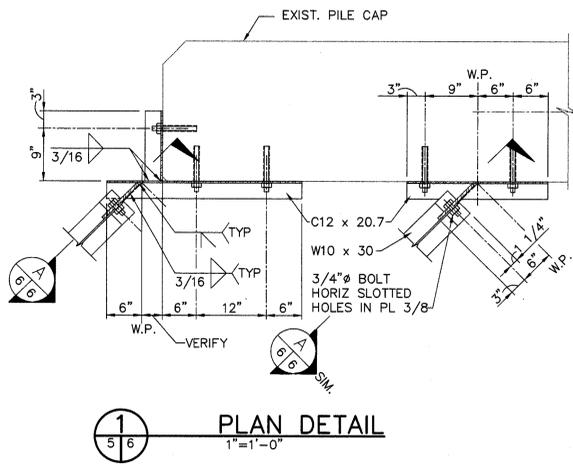
San Diego Unified Port District
San Diego, California



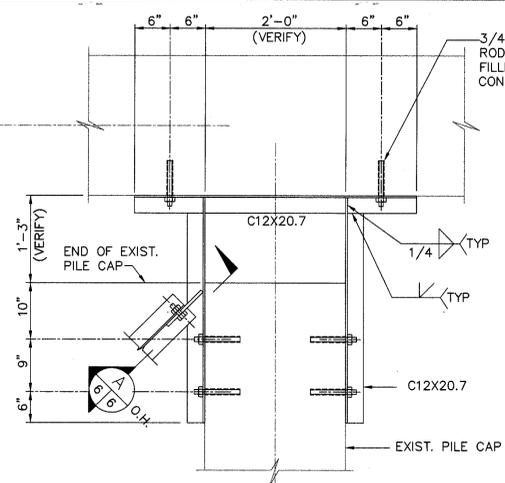
DESIGNED: J.R. LAWRENCE
DRAWN: R. AGBAYANI
CHECKED: A. ALCORN
APPROVED: [Signature]
SENIOR CIVIL ENGINEER
ASSISTANT DIRECTOR OF ENGINEERING

CORONADO, CALIFORNIA
FERRY LANDING MARKETPLACE DOCK REPLACEMENT
FRAMING PLAN AND SECTIONS
DATE: AUG 11 1990
SHEET 5 OF 8
DRAWING NO. 1970

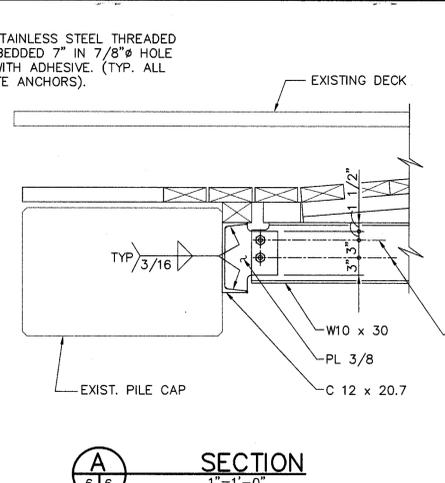




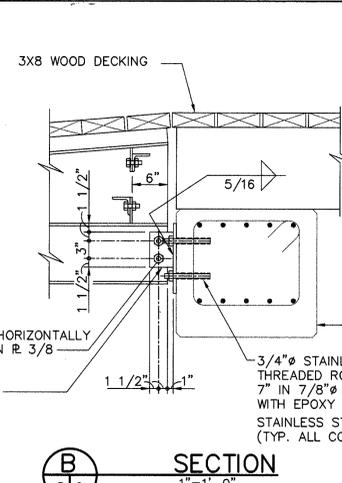
1 PLAN DETAIL
1"=1'-0"



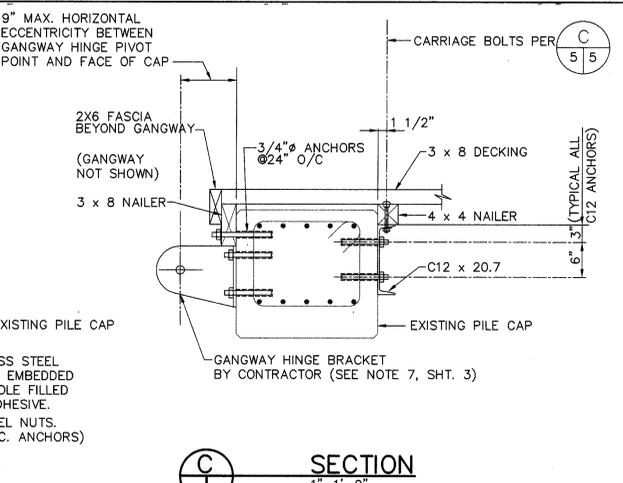
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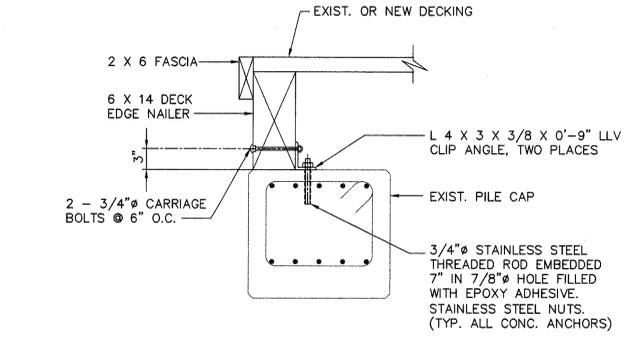
A SECTION
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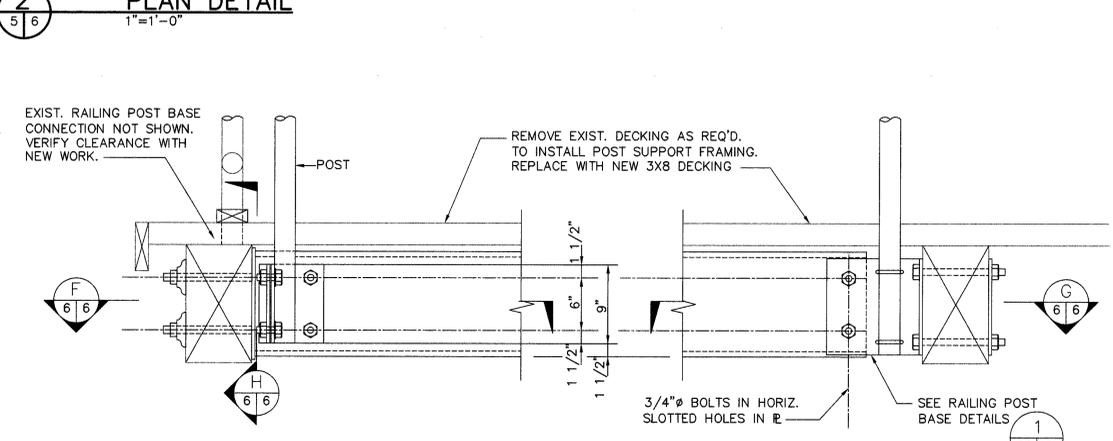
B SECTION
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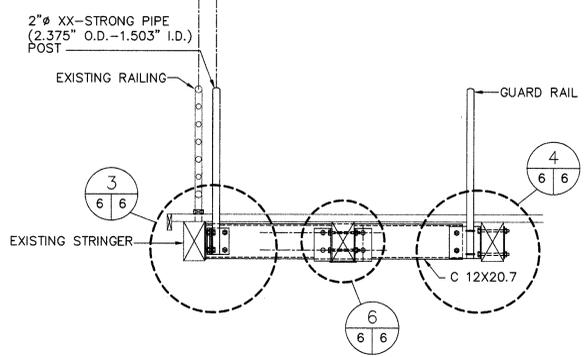
C SECTION
1"=1'-0"



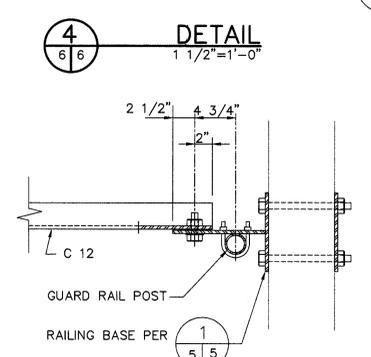
D SECTION
1"=1'-0"



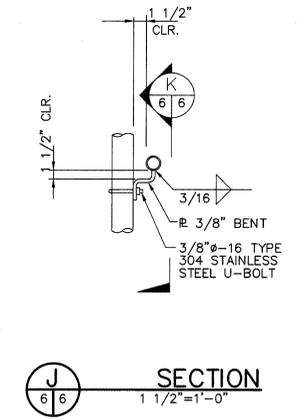
3 DETAIL
1 1/2"=1'-0"



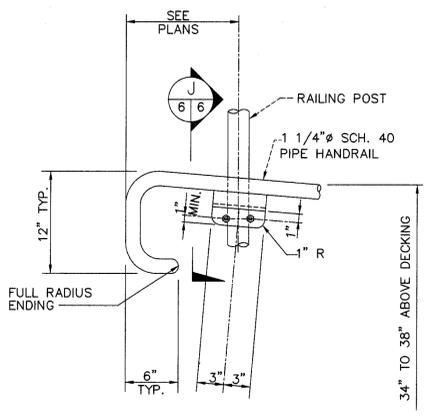
E SECTION
1/2"=1'-0"



4 DETAIL
1 1/2"=1'-0"



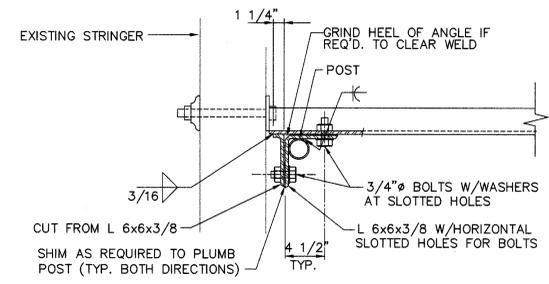
J SECTION
1 1/2"=1'-0"



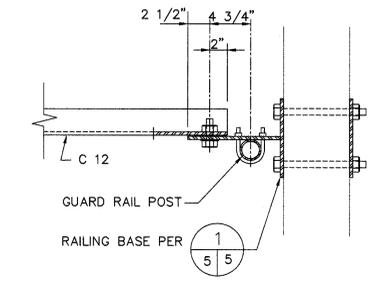
K SECTION
1 1/2"=1'-0"

- NOTES:
1. SLOPING HANDRAIL CONNECTION SHOWN. LEVEL HANDRAIL CONNECTION SIMILAR.
 2. CONNECT HANDRAILS TO ALL POSTS CROSSED BY HANDRAILS.

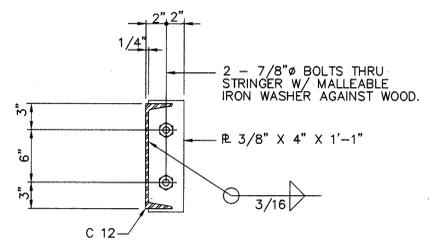
5 TYPICAL HANDRAIL TO GUARD RAIL POST CONNECTION DETAIL
1 1/2"=1'-0"



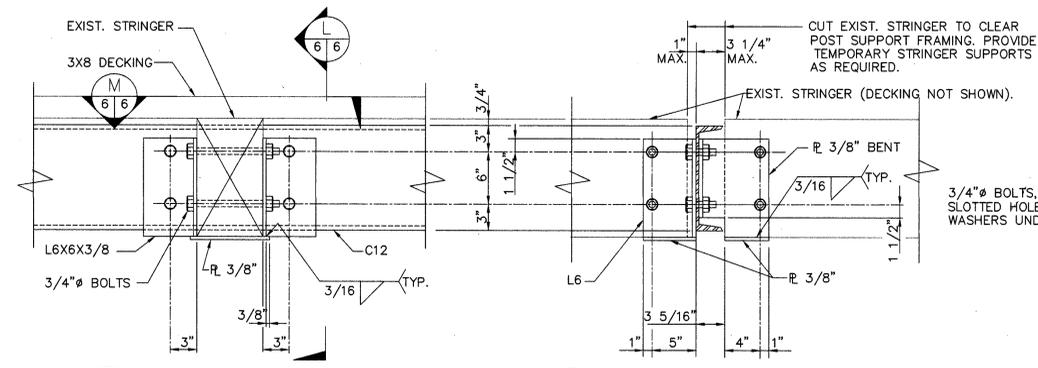
F PLAN-SECTION
1 1/2"=1'-0"



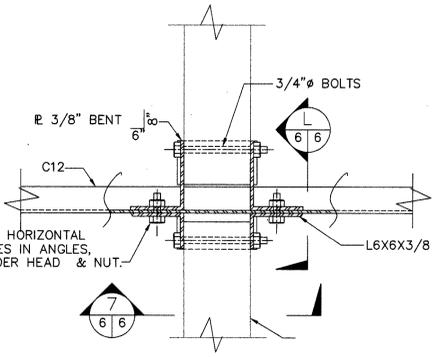
G PLAN-SECTION
1 1/2"=1'-0"



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



6 DETAIL
1 1/2"=1'-0"



M PLAN SECTION
1 1/2"=1'-0"

MOFFATT, NICHOL & FERVER
ENGINEERS
SAN DIEGO, CALIFORNIA
TEL. 619/220-6050
FAX. 619/220-6055

SPEC. NO.	99-24	W.G. NO.	667240
PROJECT ENGINEER	JIM TREFREN		
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST		INSPECTOR	

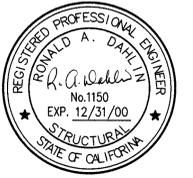
REVISIONS	DATE	APPROVED

San Diego Unified
Port District
San Diego California

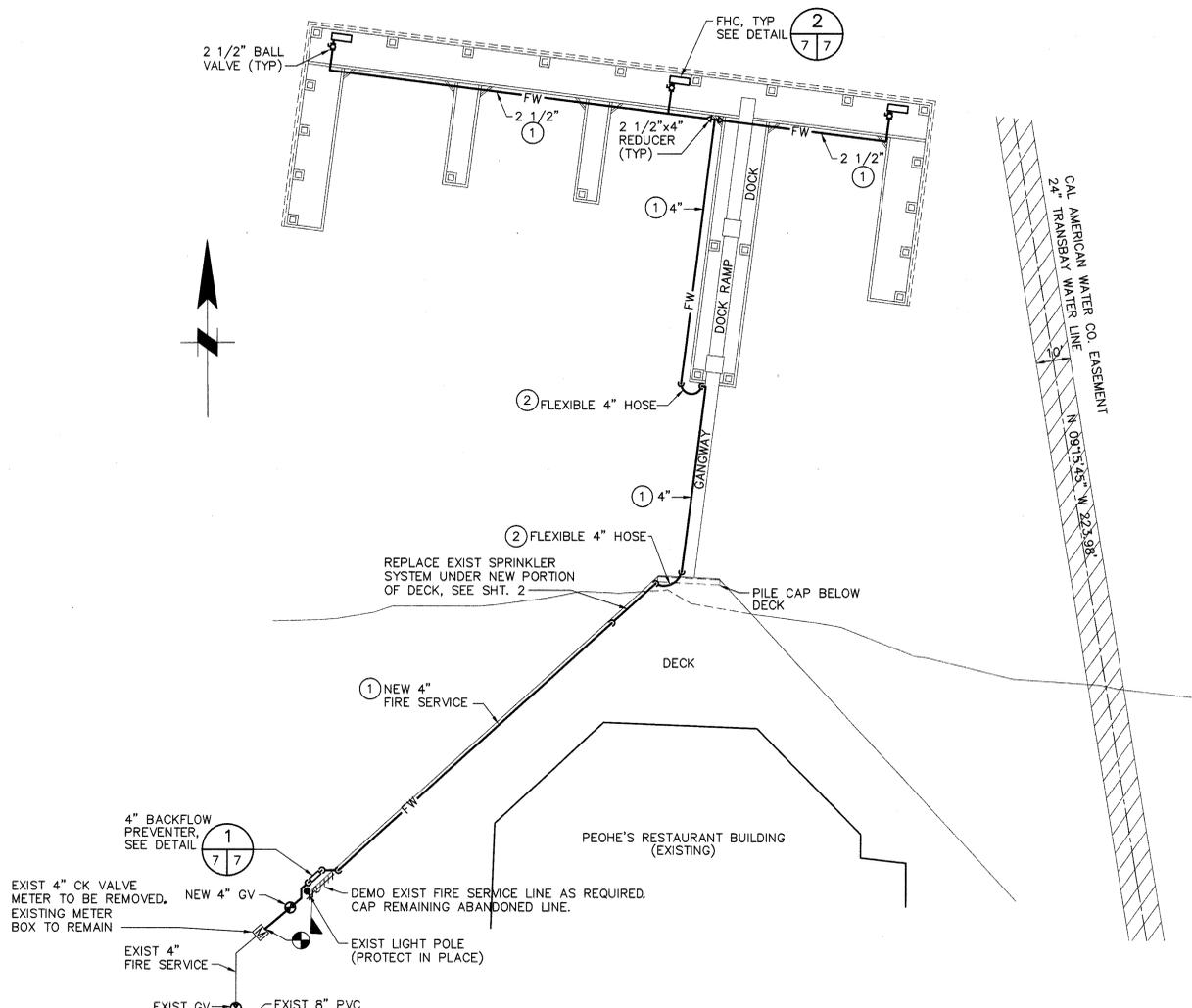
DESIGNED: J.R. LAWRENCE
DRAWN: R. AGBAYANI
CHECKED: A. ALCORN
APPROVED: [Signature]
SENIOR CIVIL ENGINEER
ASSIST. DIRECTOR OF ENGINEERING

CORONADO, CALIFORNIA
FERRY LANDING MARKETPLACE
DOCK REPLACEMENT
STRUCTURAL DETAILS

DATE: AUG 11 1999
SHEET 6 OF 8
DRAWING NO. 1970



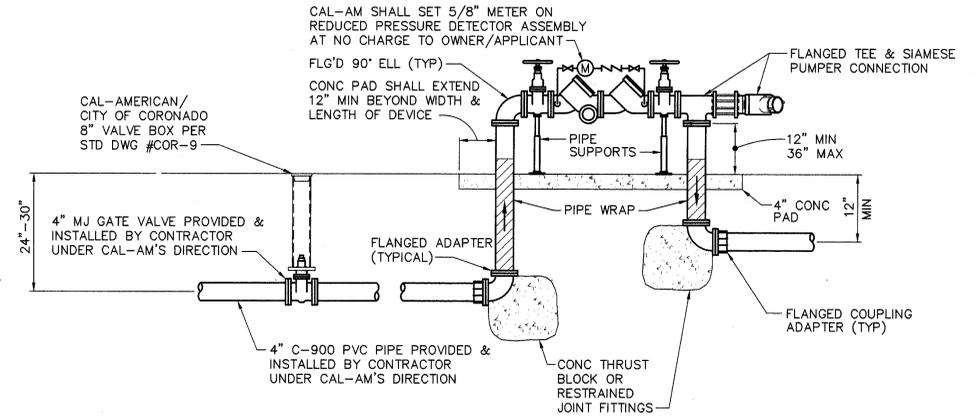
R. VASALAKIS/ADRETT



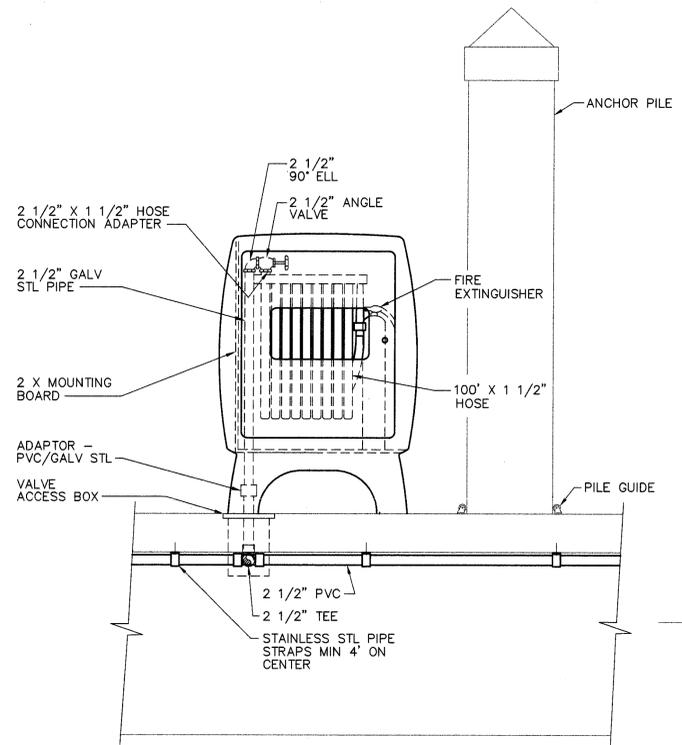
DOCK PLAN
1"=20'-0"

- NOTES:
- ① STAINLESS STEEL PIPE HANGER SPACING 4' ON CENTER
 - ② FURNISH & INSTALL FLEXIBLE 4" HOSE AT ENDS OF GANGWAY

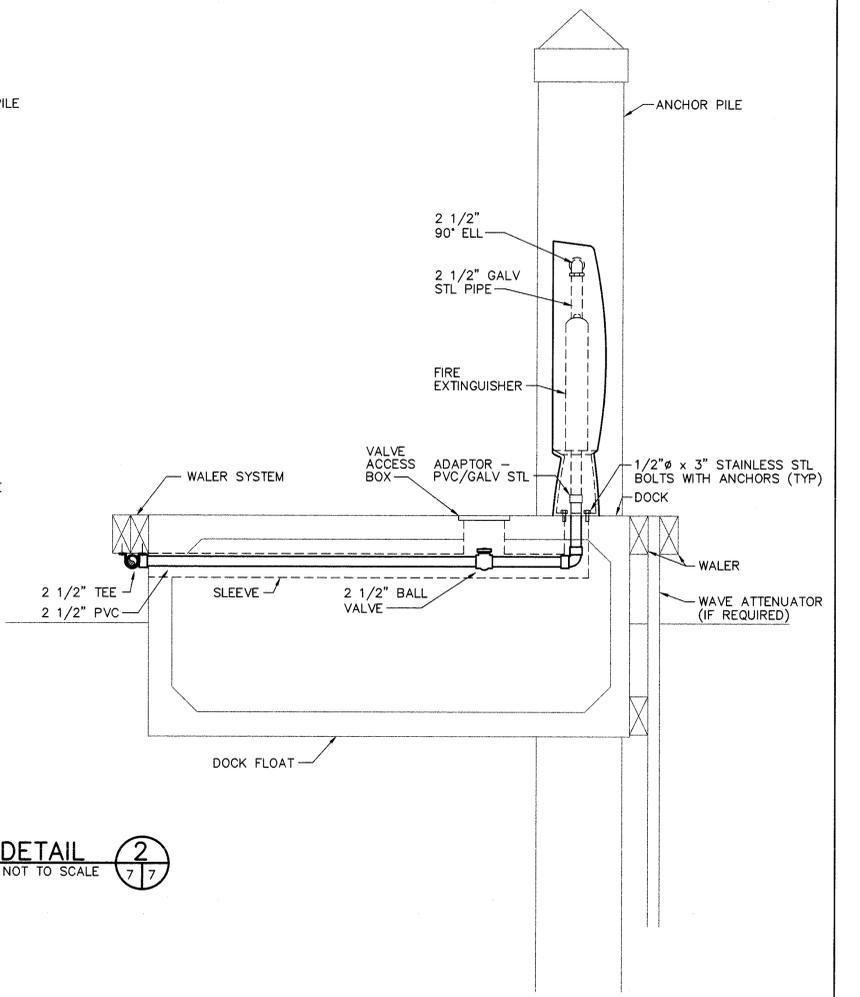
LEGEND & ABBREVIATIONS		
SYMBOL	ABBR	DESCRIPTION
FW	FW	FIRE WATER
M	M	METER
GV	GV	GATE VALVE
BV	BV	BALL VALVE
RED	RED	REDUCER
BFP	BFP	BACK FLOW PREVENTER
POC	POC	POINT OF CONNECTION
EXIST	EXIST	EXISTING
FHC	FHC	FIRE HOSE CABINET
PVC	PVC	POLYVINYL CHLORIDE
EL	EL	ELEVATION
DEMO	DEMO	DEMOLISH
CAL-AM	CAL-AM	CALIFORNIA AMERICAN WATER CO.
FLG	FLG	GLANGE
CPLG	CPLG	COUPLING
GALV	GALV	GALVANIZE
PVC	PVC	POLYVINYL CHLORIDE
STL	STL	STEEL



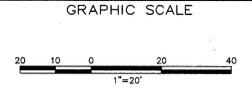
BACKFLOW PREVENTER DETAIL
NOT TO SCALE



DETAIL 1
NOT TO SCALE



MOFFATT, NICHOL & FERVER
ENGINEERS
SAN DIEGO, CALIFORNIA TEL 619/220-8050
FAX 619/220-6055



SPEC NO. 99-24	W.D. NO. 667240
PROJECT ENGINEER JIM TREFREN	
CONSTRUCTION STARTED	
CONSTRUCTION COMPLETED	
COST	
INSPECTOR	
REVISIONS	
DATE	APPROVED

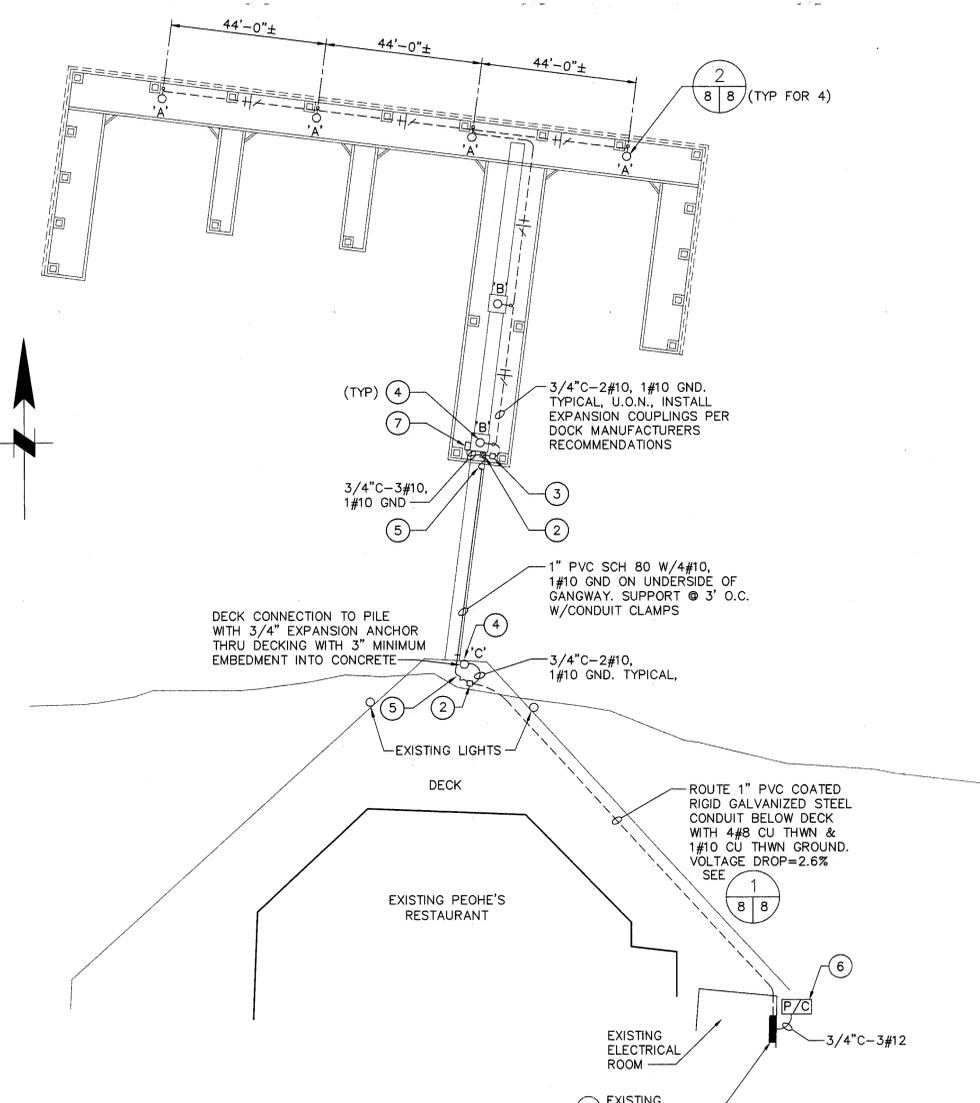
San Diego Unified Port District
San Diego California

DESIGNED: D. MARTIN
DRAWN: G. LU
CHECKED: A. ALCORN
APPROVED: SENIOR CIVIL ENGINEER
A. ALCORN

CORONADO, CALIFORNIA
FERRY LANDING MARKETPLACE DOCK REPLACEMENT
DOCK FIRE WATER PIPING PLAN
DATE: AUG 11 1999
SHEET 7 OF 8
DRAWING NO. 1970



N:\4394\DWG\1970-7.DWG



ELECTRICAL SITE PLAN
1"=20'-0"

SYMBOL LIST

- POLE MOUNTED AREA LIGHT, SEE SCHEDULE FOR TYPE.
- PANEL BOARD.
- PULLBOX, SIZE AS INDICATED NEMA 4X.
- P/C PHOTO CELL CONTROL, TORK # 2101, PARAGON - CW SERIES OR INTERMAC - K4100 SERIES
- ① REFERENCE NOTE CALLOUT.
- PVC, SCHEDULE 80 CONDUIT IN DOCK FLOAT SYSTEM.
- PVC SCHEDULE 80 CONDUIT FASTENED TO UNDERSIDE OF GANGWAY.
- ~ SEAL-TIGHT FLEXIBLE CONDUIT AT GANGWAY LANDING WHERE MOVEMENT OCCURS.

REFERENCE NOTES:

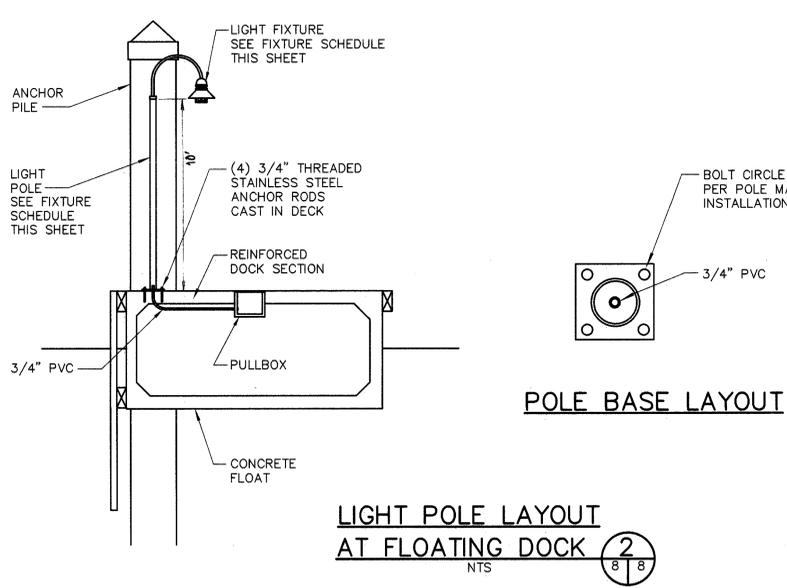
- ① INSTALL 3 NEW 20A, 1P CIRCUIT BREAKERS IN EXISTING PANEL SAME TYPE, AIC RATING AS EXISTING FOR NEW LIGHTING & POWER SYSTEM.
- ② 8" x 8" x 6"D NEMA 4X PULLBOX BELOW DECK / LANDING.
- ③ 8" x 8" x 6"D PULLBOX, FLUSH IN FLOAT DECK.
- ④ POLE MOUNTED AREA LIGHT
- ⑤ 1" SEAL-TIGHT FLEXIBLE CONDUIT CONNECTION AT GANGWAY W/ KELLUMS STRAIN RELIEF FITTINGS AT EACH END.
- ⑥ PROVIDE ADJUSTABLE PHOTOCCELL CONTROL ON ROOF TO CONTROL DOCK LIGHTING.
- ⑦ WEATHERPROOF NEMA 4X, 4 GANG BOX WITH (2) 20A, 120V DUPLEX G.F.I. RECEPTACLES, EACH ON DEDICATED 20A CIRCUIT. BOX SHALL HAVE LOCKABLE COVER AS MANUFACTURED BY TAYMAC. MOUNT BOX TO LANDING STRUCTURE AT +48" ABOVE FLOATING DOCK.

FIXTURE SCHEDULE

TYPE	DESCRIPTION
'A'	HOLOPHANE #HB10DMHMTAU51C; DELTA; OR EQUAL, MOUNTED ON 10' POLE WITH SHEPHERD'S CROOK BRACKET ASSEMBLY. FINISH - LIGHT GRAY-SEE SPECS
'B'	SAME AS TYPE 'A' EXCEPT WITH 14' POLE.
'C'	DELTA # LHB-1-100MH-120V (NO KNOWN EQUAL) MOUNTED ON 10' TAPERED ALUMINUM POLE. FINISH-LIGHT GRAY-SEE SPECS

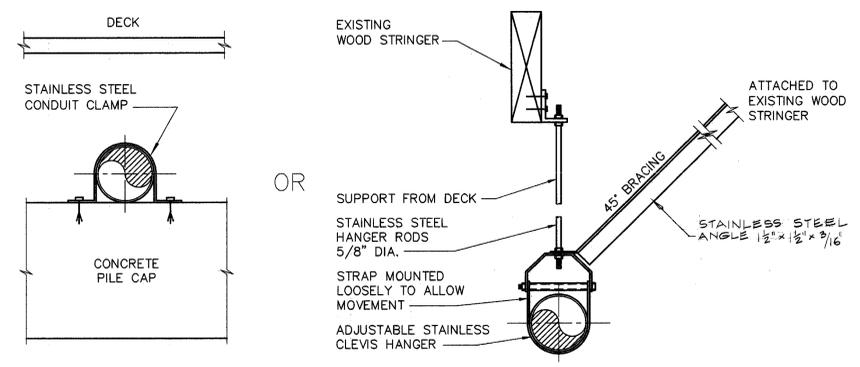
GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL COMPLY WITH THE 1996 EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL CODES. WHERE THE PLANS SHOW MORE RESTRICTIVE REQUIREMENTS, THE PLANS SHALL GOVERN BUT NOTHING ON THESE PLANS SHALL BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.
2. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS AND / OR SPECIFICATIONS OR WITH CODE REQUIREMENTS, THE NOTE, SPECIFICATION OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB OR THE HIGHER STANDARD SHALL PREVAIL.
3. THE CONTRACTOR SHALL FURNISH ALL PERMITS AND PAY ALL FEES.
4. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.
5. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITER'S LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH IT IS DESIGNED AND APPROVED.
6. ALL DEVICES INSTALLED OUTSIDE OR IN DAMP LOCATIONS SHALL BE APPROVED WEATHERPROOF, CORROSION RESISTANT, MARINE GRADE NEMA 4X.
7. UNLESS NOTED OTHERWISE, ALL WIRE SHALL BE STRANDED COPPER, TYPE THHN/THWN. ALL WIRE SHALL BE UL LISTED, RATED FOR 600 VOLTS, NO. 12 AWG MINIMUM SIZE.
8. THE CONTRACTOR SHALL INSTALL ALL CONDUITS, EXPANSION COUPLINGS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, KEEP OPENINGS AND PASSAGEWAYS CLEAR AND MEET ALL STRUCTURAL CODE REQUIREMENTS. THESE DRAWINGS ARE PRIMARILY DIAGRAMMATIC, AND DO NOT SHOW ALL SUCH REQUIRED BENDS, OFFSETS, FITTINGS, BOXES, ETC.
9. THE CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
10. THE CONTRACTOR SHALL PROVIDE SUPPORT FOR ALL CONDUIT AND ELECTRICAL EQUIPMENT TO COMPLY WITH THE SEISMIC REQUIREMENTS OR THE UNIFORM BUILDING CODE NATIONAL ELECTRICAL CODE, AND ALL LOCAL ORDINANCES.
11. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND THE SERVING UTILITY.
12. THE ENTIRE WIRING SYSTEM SHALL BE TESTED FOR SHORT CIRCUITS, GROUNDS AND INSULATION RESISTANCE BETWEEN CONDUCTORS AND TO GROUND.
13. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS, WIRES, BOXES, LIGHT FIXTURES (WITH LAMPS), REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM.
14. ALL SWITCHES AND CIRCUIT BREAKERS, DISCONNECTING OR CONTROLLING ELECTRICAL DISCHARGE LIGHTING SHALL BE WITHIN SIGHT OF FIXTURES (NOT OVER 50 FT.) OR BE CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
15. VERIFY EXISTING SITE CONDITIONS AND EXACT LOCATIONS OF ELECTRICAL FACILITIES BEFORE SUBMITTING BID.
16. LOCATIONS SHOWN ON THE CIVIL, STRUCTURAL OR MECHANICAL DRAWINGS TAKE PRECEDENCE OVER THOSE SHOWN ON ELECTRICAL DRAWINGS.
17. AN UPDATED TYPEWRITTEN DIRECTORY CARD SHALL BE PROVIDED IN EXISTING PANEL IDENTIFYING NEW LOADS AND THEIR CIRCUITS.
18. THE CONTRACTOR SHALL PROVIDE, ARRANGE AND PAY FOR (INCLUDING ANY HOOK-UP FEES) TEMPORARY POWER REQUIRED DURING CONSTRUCTION.
19. INSTALL EXPANSION COUPLINGS AT INTERVALS REQUIRED BY THE CONDUIT MANUFACTURER INSTRUCTIONS.
20. SPLICES OCCURRING IN NEMA 4X JUNCTION BOXES AND PULLBOXES SHALL BE MADE WATERTIGHT BY ENCAPSULATING PRODUCTS AS MANUFACTURED BY 3M, OR EQUAL.



POLE BASE LAYOUT

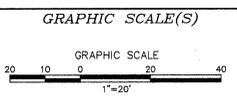
LIGHT POLE LAYOUT AT FLOATING DOCK
NTS



NOTE:
MAXIMUM SPACING BETWEEN SUPPORTS = 10'-0"

PVC COATED RIGID STEEL CONDUIT SUPPORT DETAIL
NTS

PANEL: HOUSE (EXISTING)												
LOCATION: MAIN ELEC. RM				VOLTAGE/PHASE: 208/120V, 3Ø, 4W				FED FROM: SDG & E				
FLOOR: FIRST				BUS AMPS: 100A				METER: # 1202176				
MOUNTING: SURFACE				MAIN BREAKER: LUGS ONLY								
LOADS	SEE NOTE	OUTLETS	VOLT-AMPS	A	B	C	IBKR / POLE	IBKR / POLE	IBKR / POLE	OUTLETS	SEE NOTE	
ELEC. ROOM	2		360				1 20/11	2 1200		2	EXT. BLDG. 3	
HELL BKBD.	2		360				3 20/11	4 1200		2	EXT. BLDG. 3	
SPRINKLER	2		100				5 20/11	6 1200		2	EXT. BLDG. 3	
RESTROOM REC.	2		720				7 20/11	8 1200		2	EXT. BLDG. 3	
MISC.	2		9				9 20/11	10 1200		2	EXT. BLDG. 4	
CABLE BKBD.	2		360				11 20/11	12 1200		2	POST LIGHTS	
TIME CLOCK	2		100				13 20/11	14 1200		2	LANDSCAPE L.T.S.	
N.W. SUNDECK	2		500				15 20/11	16 1200		2	LANDSCAPE L.T.S.	
SPARE	2		17				17 40/2	18 1200		2	LANDSCAPE L.T.S.	
			19				19	20 1200		2	BLDG. 3 DOCK L.T.S.	
			21				21	20 1200		2	SPARE	
SPACE	2		25				25 50/2	26 865	500	2	N.W. SUNDECK	
SPARE	2		27				27	20 1200	1500	1	GATE OPERATOR DOCK OUTLET	
DOCKLIGHTS	1,3	7	875	29	20/11		29 20/11	30 1500	1500	1	DOCK OUTLET	
TOTAL			6845	VOLT-AMPS						NOTES:		
TOTAL			6680	VOLT-AMPS						1. PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE		
TOTAL			6935	VOLT-AMPS						2. EXISTING CIRCUIT TO REMAIN		
TOTAL			3212	VOLT-AMPS						3. CIRCUIT TO BE CONTROLLED BY ADJUSTABLE PHOTOCCELL.		
TOTAL			23,679	VA @ 208V, 3Ø						65.7 AMPS		



SPEC. NO. 99-24	W.D. NO. 667240				
PROJECT ENGINEER	JIM TREFREN				
CONTRACTOR					
CONSTRUCTION STARTED					
CONSTRUCTION COMPLETED					
COST	INSPECTOR	REVISIONS	DATE	APPROVED	

San Diego Unified Port District
San Diego California

DESIGNED: G. MARTIN
DRAWN: K. LESTER
CHECKED: A. ALCORN
APPROVED: SENIOR CIVIL ENGINEER
ASST. DIRECTOR OF ENGINEERING

CORONADO, CALIFORNIA
FERRY LANDING MARKET PLACE DOCK REPLACEMENT
ELECTRICAL PLAN AND DETAILS
DATE: AUG 11 1999
SHEET 8 OF 8
DRAWING NO. 1970





Home (/ Products (products.html) / Datums (stations.html?type=Datums) / 9414750 Alameda, CA Favorite Stations

Station Info Tides/Water Levels Meteorological Obs. (/met.html?id=9414750)

Phys. Oceanography (/physocean.html?id=9414750) PORTS® (/ports/ports.html?id=9414750)

OFS (/ofs/ofs_station.html?strame=Alameda&ofs=sfb&stnid=9414750&subdomain=en)

Datums for 9414750, Alameda CA

NOTICE: All data values are relative to the MLLW.

Elevations on Mean Lower Low Water

Station: 9414750, Alameda, CA

Status: Accepted (Oct 6 2011)

Units: Feet

Control Station:

T.M.: 0

Epoch: (/datum_options.html#NTDE) 1983-2001

Datum: MLLW

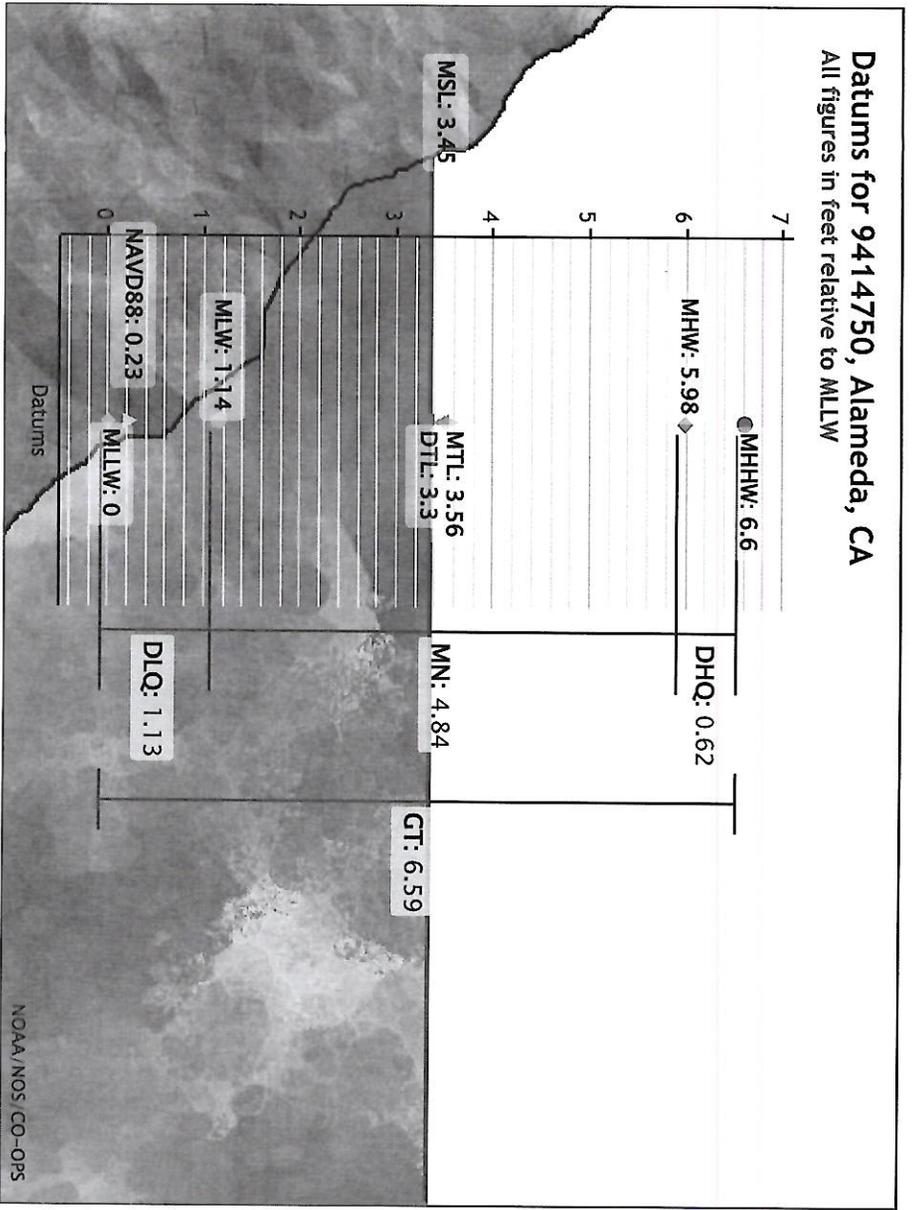
Datum	Value	Description
MHHW (/datum_options.html#MHHW)	6.60	Mean Higher-High Water
MHW (/datum_options.html#MHW)	5.98	Mean High Water
MTL (/datum_options.html#MTL)	3.56	Mean Tide Level
MSL (/datum_options.html#MSL)	3.45	Mean Sea Level
DTL (/datum_options.html#DTL)	3.30	Mean Diurnal Tide Level
MLW (/datum_options.html#MLW)	1.14	Mean Low Water
MLLW (/datum_options.html#MLLW)	0.00	Mean Lower-Low Water
NAVD88 (/datum_options.html)	0.23	North American Vertical Datum of 1988
STND (/datum_options.html#STND)	-3.33	Station Datum
GT (/datum_options.html#GT)	6.59	Great Diurnal Range
MN (/datum_options.html#MN)	4.84	Mean Range of Tide

Datum	Value	Description
DHQ (/datum_options.html#DHQ)	0.62	Mean Diurnal High Water Inequality
DLQ (/datum_options.html#DLQ)	1.13	Mean Diurnal Low Water Inequality
HWI (/datum_options.html#HWI)	8.01	Greenwich High Water Interval (in hours)
LWI (/datum_options.html#LWI)	1.50	Greenwich Low Water Interval (in hours)
Max Tide (/datum_options.html#MAXTIDE)	9.65	Highest Observed Tide
Max Tide Date & Time (/datum_options.html#MAXTIDEDT)	12/03/1983 18:18	Highest Observed Tide Date & Time
Min Tide (/datum_options.html#MINTIDE)	-2.57	Lowest Observed Tide
Min Tide Date & Time (/datum_options.html#MINTIDEDT)	01/11/2009 01:42	Lowest Observed Tide Date & Time
HAT (/datum_options.html#HAT)	7.96	Highest Astronomical Tide
HAT Date & Time	12/05/2025 19:06	HAT Date and Time
LAT (/datum_options.html#LAT)	-1.90	Lowest Astronomical Tide
LAT Date & Time	06/04/2008 14:18	LAT Date and Time

Tidal Datum Analysis Periods

01/01/1983 - 12/31/2001

Datums for 9414750, Alameda, CA
All figures in feet relative to MLLW



Showing datums for

9414750 Alameda, CA

Datum

MLLW



Data Units Feet

Meters

Epoch Present (1983-2001)

Superseded (1960-1978)

Submit

Show nearby stations

Products available at 9414750 Alameda, CA

TIDES/WATER LEVELS

[Water Levels \(/waterlevels.html?id=9414750\)](/waterlevels.html?id=9414750)

[NOAA Tide Predictions \(/noaatidepredictions.html?id=9414750\)](/noaatidepredictions.html?id=9414750)

[Harmonic Constituents \(/harcon.html?id=9414750\)](/harcon.html?id=9414750)

[Sea Level Trends \(/sltrends/sltrends_station.shtml?id=9414750\)](/sltrends/sltrends_station.shtml?id=9414750)

[Datums \(/datums.html?id=9414750\)](/datums.html?id=9414750)

[Bench Mark Sheets \(/benchmarks.html?id=9414750\)](/benchmarks.html?id=9414750)

[Extreme Water Levels \(/est/est_station.shtml?stinid=9414750\)](/est/est_station.shtml?stinid=9414750)

[Reports \(/reports.html?id=9414750\)](/reports.html?id=9414750)

METEOROLOGICAL/OTHER

[Meteorological Observations \(/met.html?id=9414750\)](/met.html?id=9414750)

[Water Temp/Conductivity](#)

PORTS®

[San Francisco Bay PORTS® \(/ports/index.html?port=sf\)](/ports/index.html?port=sf)

[PORTS® product page for Alameda \(/ports/ports.html?id=9414750\)](/ports/ports.html?id=9414750)

OPERATIONAL FORECAST SYSTEMS

[San Francisco \(/ofs/sfbofs/sfbofs.html\)](/ofs/sfbofs/sfbofs.html)

INFORMATION

[Station Home Page \(/stationhome.html?id=9414750\)](/stationhome.html?id=9414750)

[Data Inventory \(/inventory.html?id=9414750\)](/inventory.html?id=9414750)

[Measurement Specifications \(/measure.html\)](/measure.html)

Website Owner: Center for Operational Oceanographic Products and Services

[National Oceanic and Atmospheric Administration \(http://www.noaa.gov\)](http://www.noaa.gov)

[National Ocean Service \(http://oceanservice.noaa.gov\)](http://oceanservice.noaa.gov)

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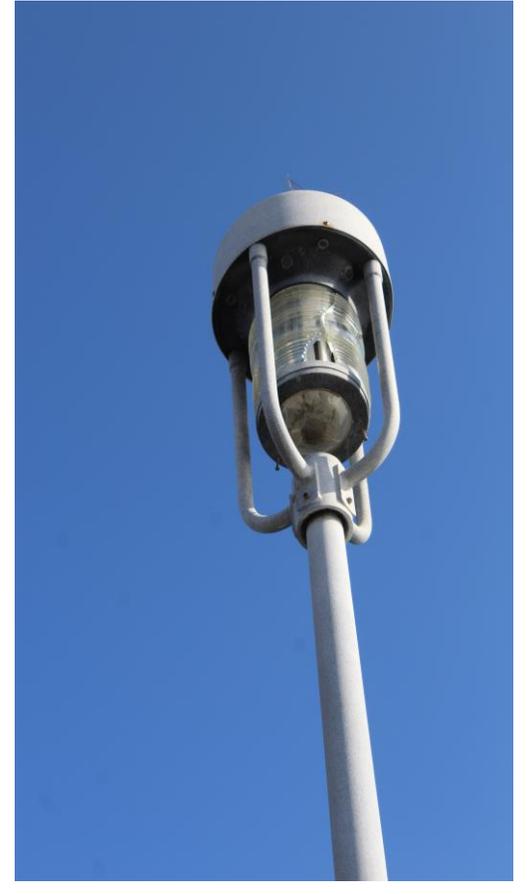
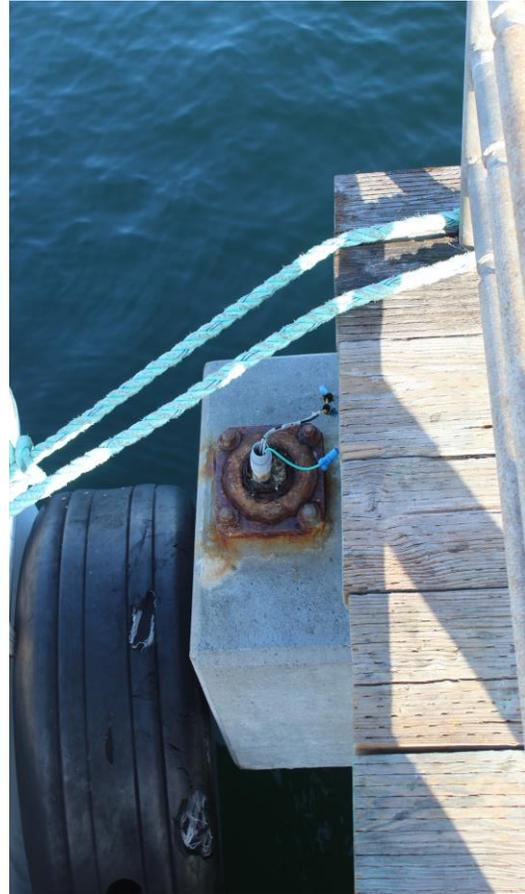
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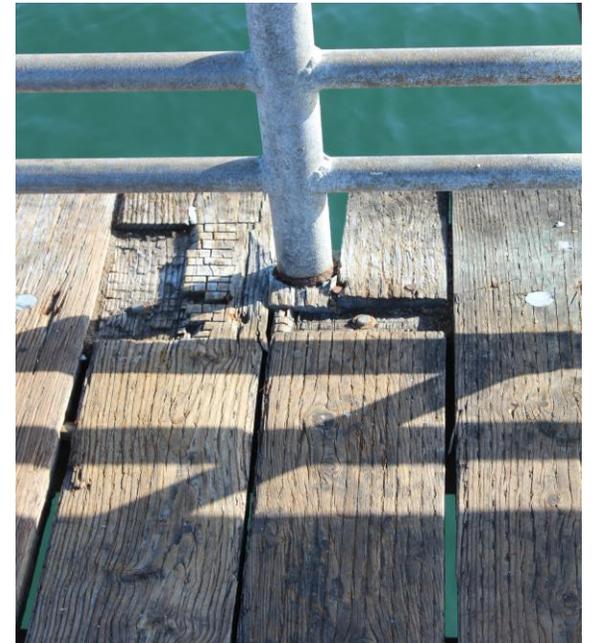
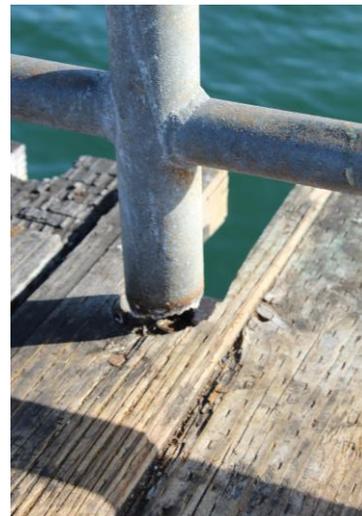
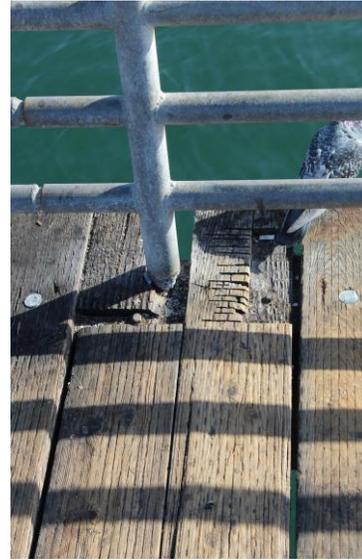
[Contact Us \(/contact.html\)](/contact.html)

CORONADO FERRY PIER

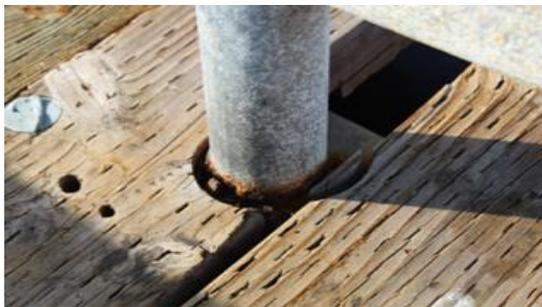
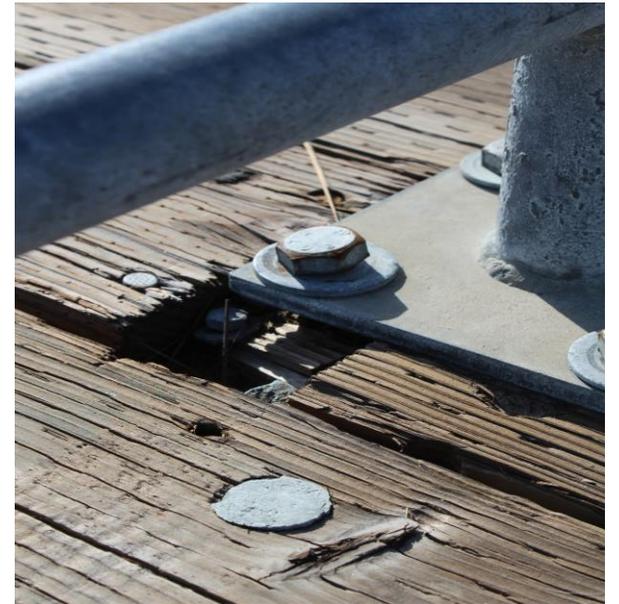
Light poles are missing and damaged, and missing ones are left with the wires exposed.
(photos 7248, 7252, 7265, 7289, 7310)



Handrails in multiple spots, missing bolts, or have rusted completely off at the bases.
(Photos 7255, 7256, 7257, 7258, 7305, 7308, 7309, 7311, 7312, 7322, 7323, 7324,
7330, 7331, 7332, 7333, 7335)

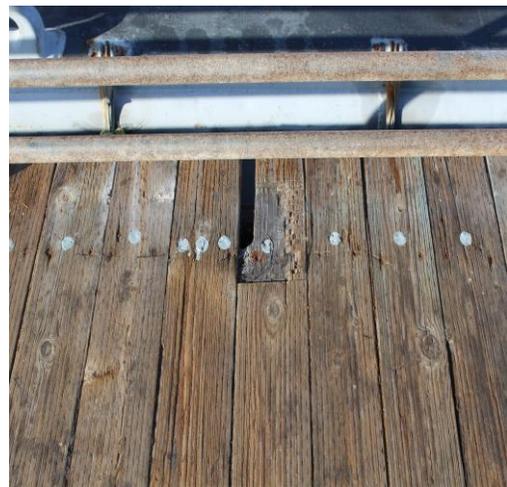
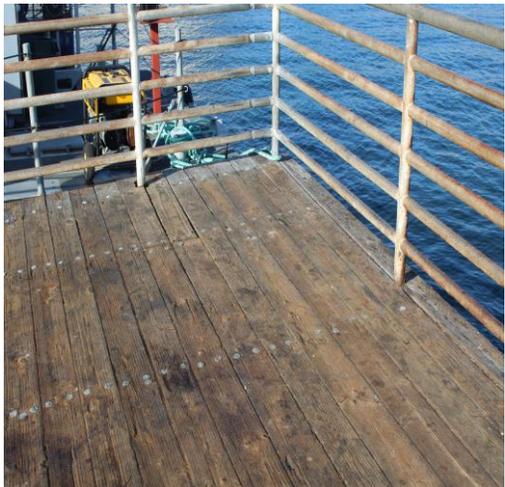
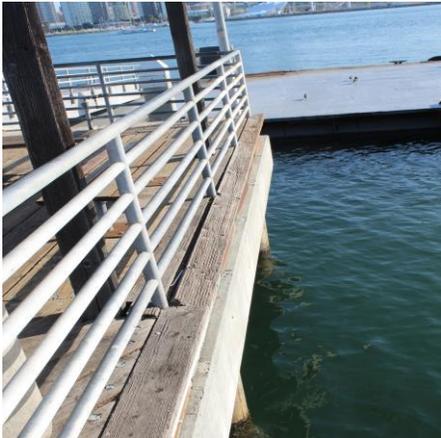
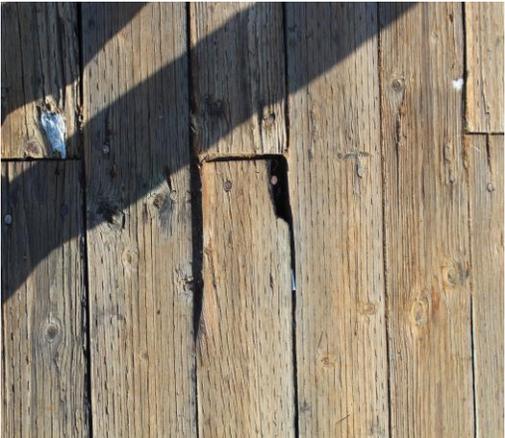


Handrails in multiple spots are missing bolts or have rusted completely off at the bases. (CONT.)



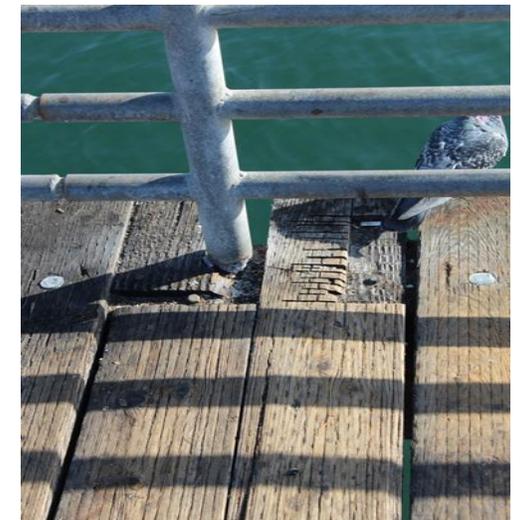
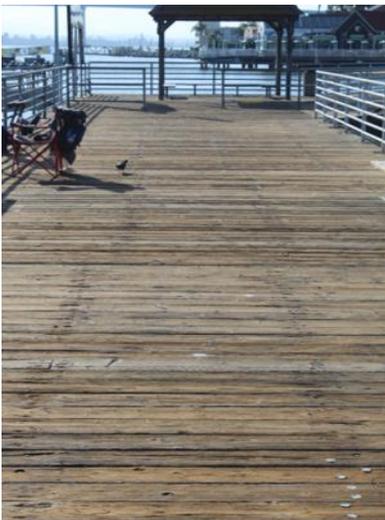
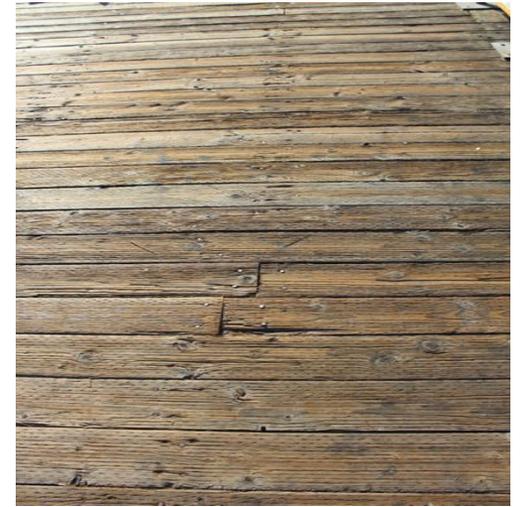
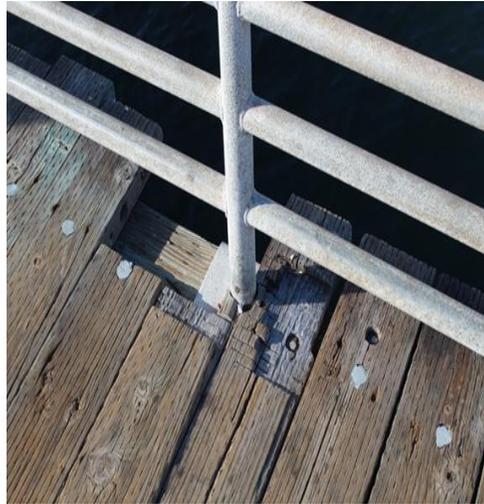
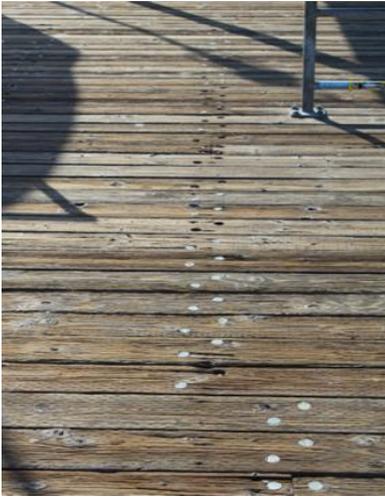
Dock decking is worn and uneven, has loose boards, and some areas are rotting. It is also very dry and brittle. Some areas are almost a full inch higher than all the other boards around.

(Photos 7249, 7250, 7254, 7261, 7263, 7264, 7267, 7272, 7274, 7275, 7284, 7285, 7286, 7293, 7294, 7306, 7308, 7314, 7315, 7316, 7317, 7320, 7321, 7327, 7337, 7338)



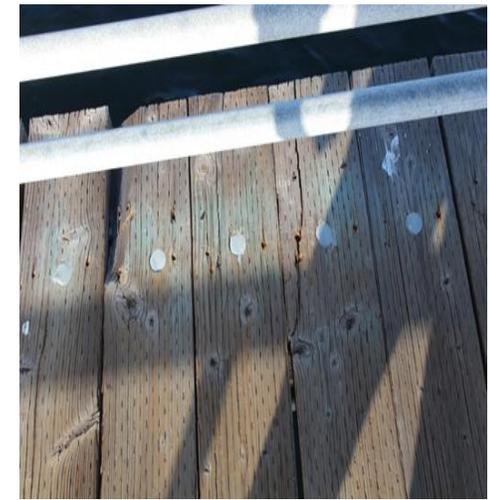
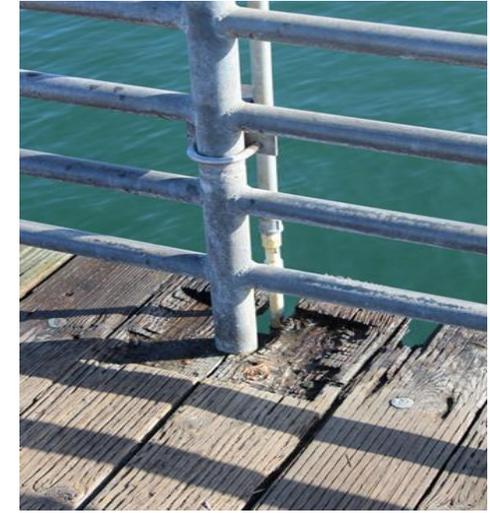
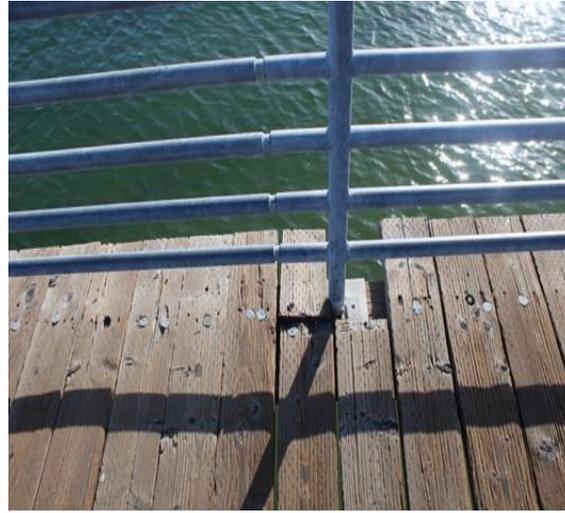
Dock decking is worn and uneven, has loose boards, and some areas are rotting. It is also very dry and brittle. Some areas are almost a full inch higher than all the other boards around.

Cont.



Dock decking is worn and uneven, has loose boards, and some areas are rotting. It is also scorched and brittle. Some areas are almost a full inch higher than all the other boards.

Cont.



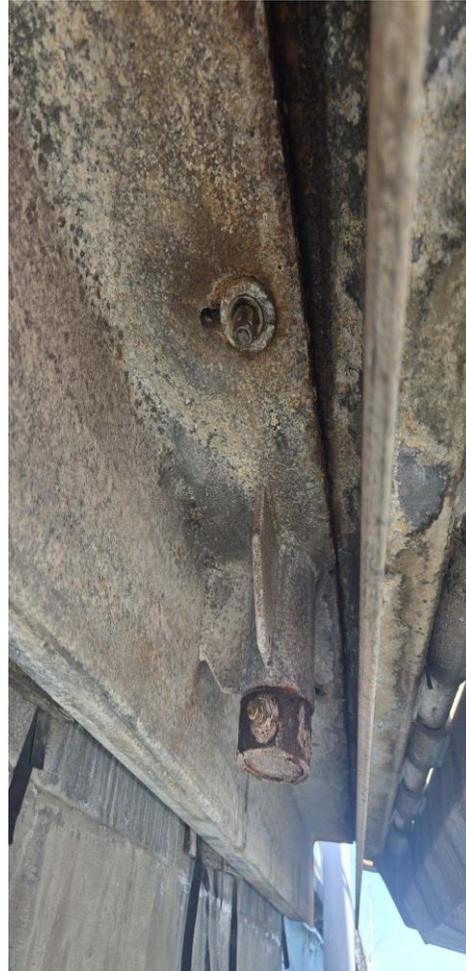
Gazebo is missing roof ridge tiles, and the roof sheathing is rotting.



The fire standpipe support connection is broken.



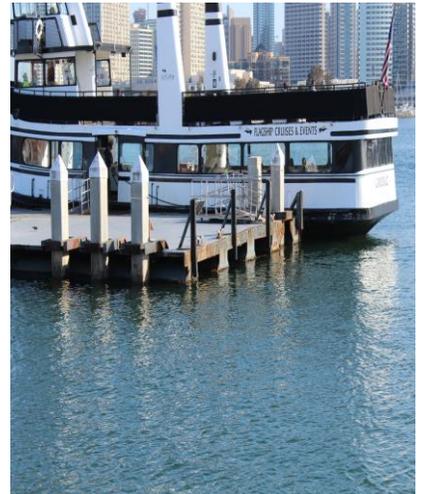
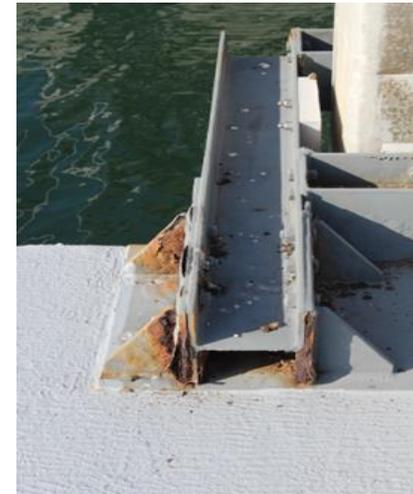
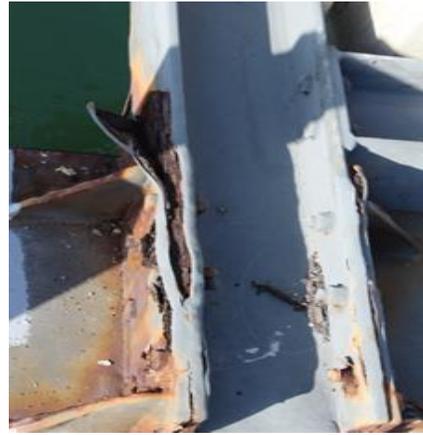
The floating dock ramp has an unfamiliar designed connection that is not on any of the plan sets. (photos 1000007044, 7045, 7046, 7047, 7048)



The floating dock ramp landing pad is delaminating from the deck of the dock, pile pocket brackets are in poor condition and are delaminating, bumper attachments to the deck are delaminating, and holes are rusting through on bumpers; the landing pad for the gangway ramp is delaminating and rusting through, end of ramp worn to a razor-sharp edge and pile cap missing. (Photos 7288, 7343, 7344, 7345, 7346, 7347, 7350, 7351, 7352, 7353, 7356, 7359, 7361, 7363, 7364, 7365, 7366)

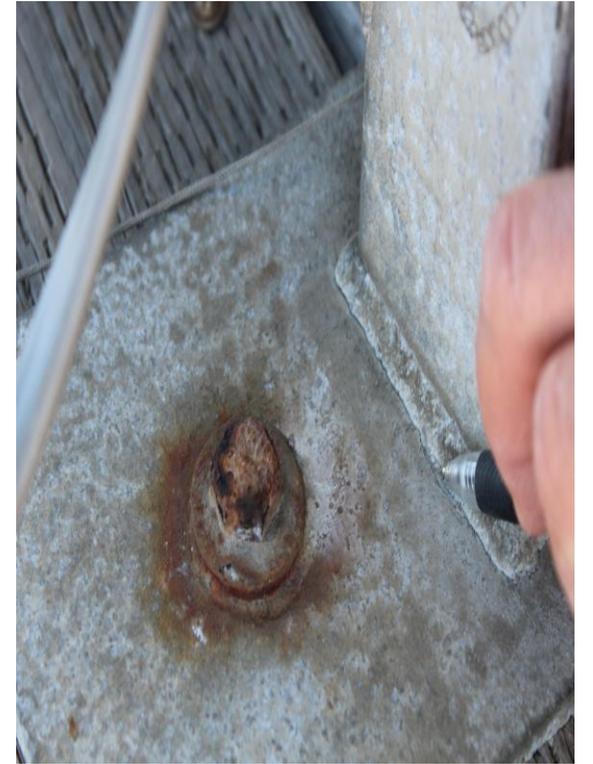


Additional photos of the floating dock damage. (Photos 7288, 7343, 7344, 7345, 7346, 7347, 7350, 7351, 7352, 7353, 7356, 7359, 7361, 7363, 7364, 7365, 7366)

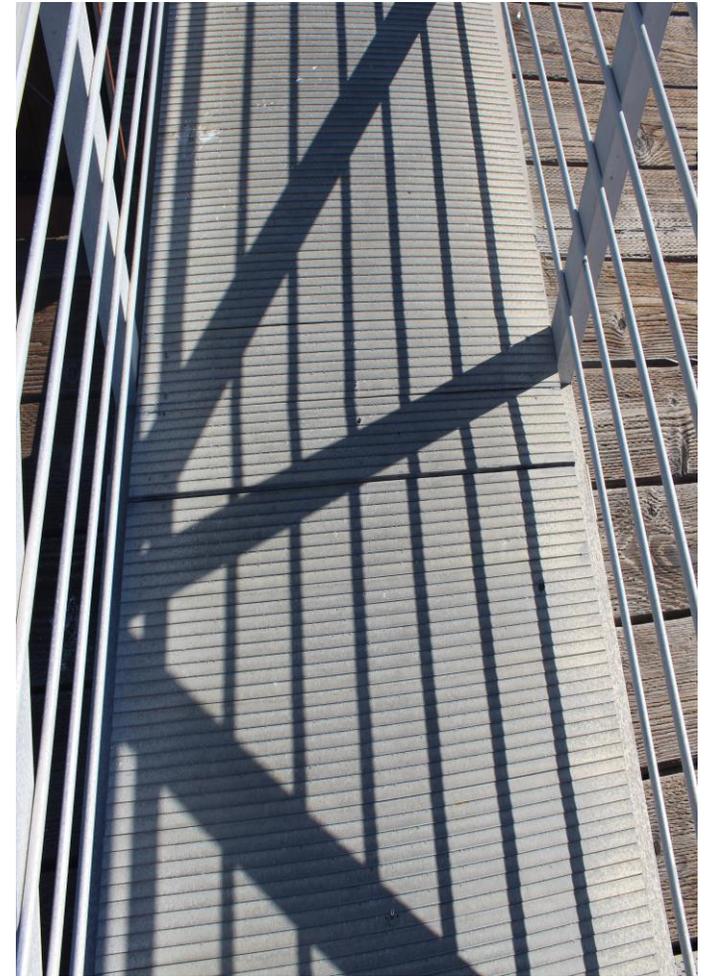


Coronado Boat Docks

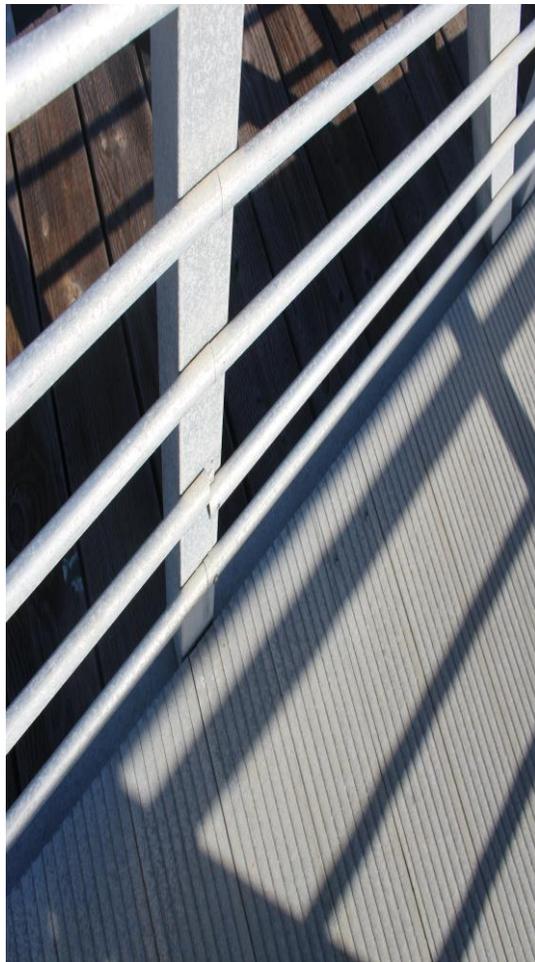
There are cracked welds on the handrail bases at the start of the ramp, feet on the dock middle landing legs are cracked, a bolt is missing from the leg base, and bolts in the ramp landing pad are pulled through.



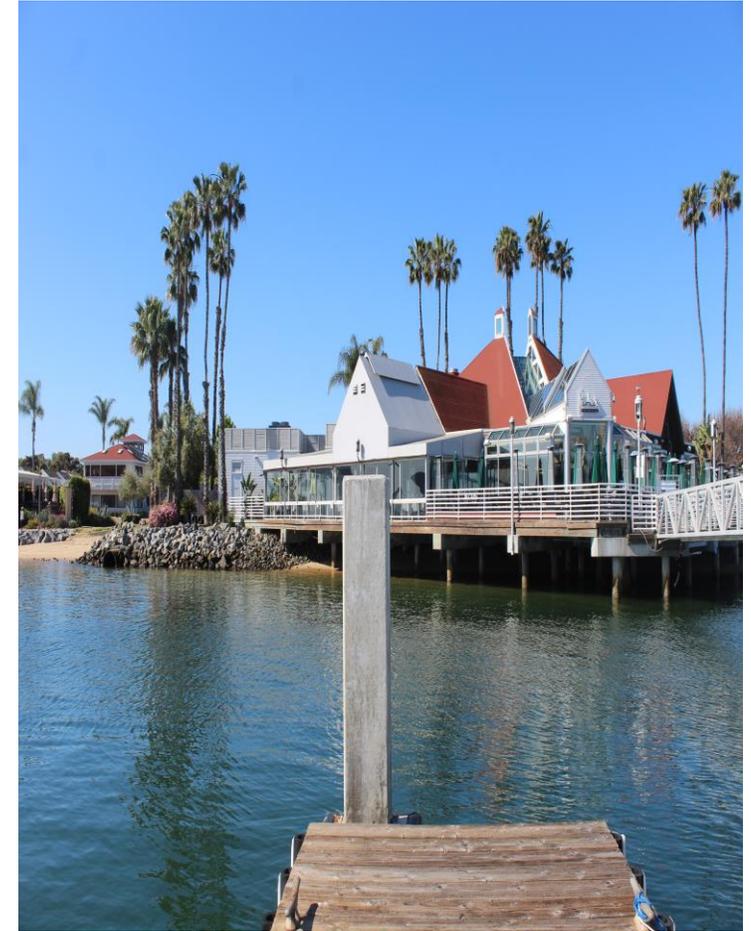
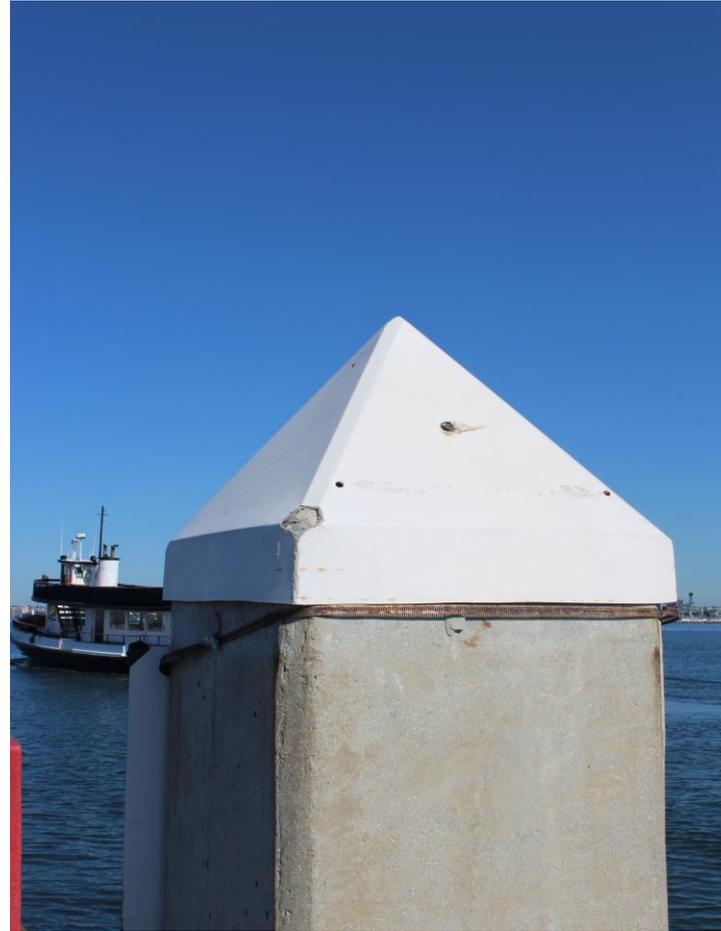
Ramp decking loose in multiple places



Multiple areas on the handrails are loose or missing altogether. The end of the floating dock has a finishing bar that is bent off, and the other side is missing.



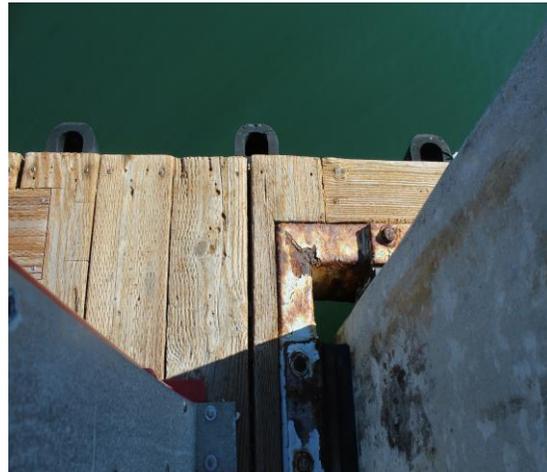
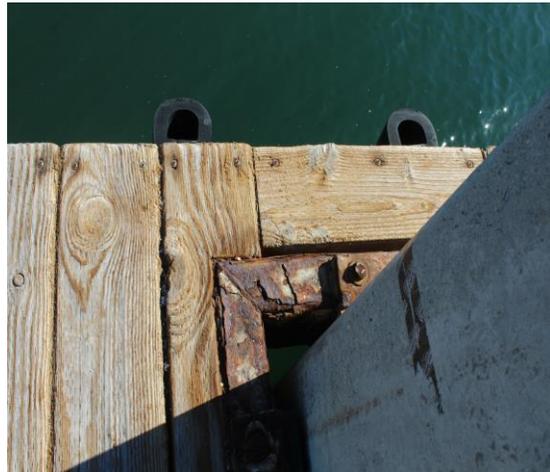
Pile caps (covers) damaged or missing



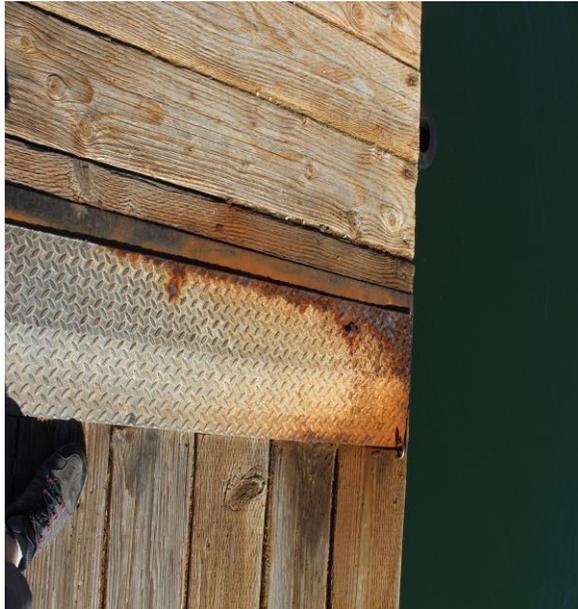
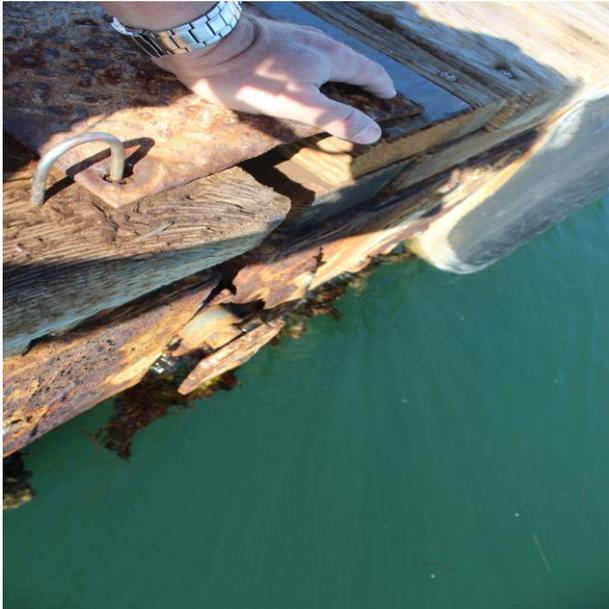
Rubber fenders are missing/damaged, and the UHMW sliders are missing.



One pile pocket is completely broken in half, and the others are almost rusted through in multiple places. Pile guide pads are worn, causing grooves in one pile.



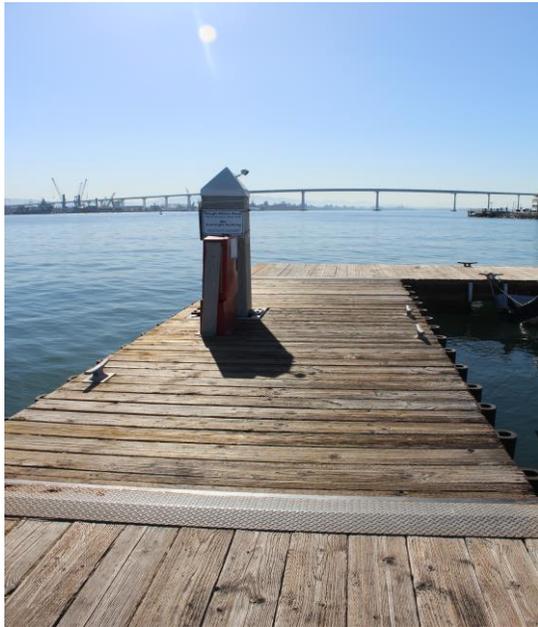
The hinge pin is not secured in its retainer; Hinge pin plates have jagged edges from rusting through, and a new hinge is installed but not connected on one side.

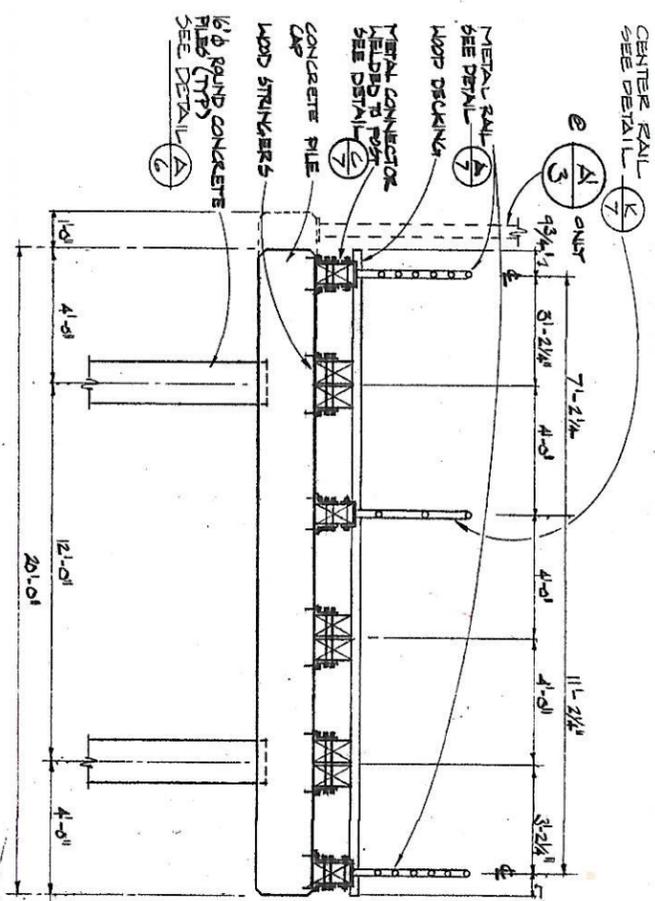
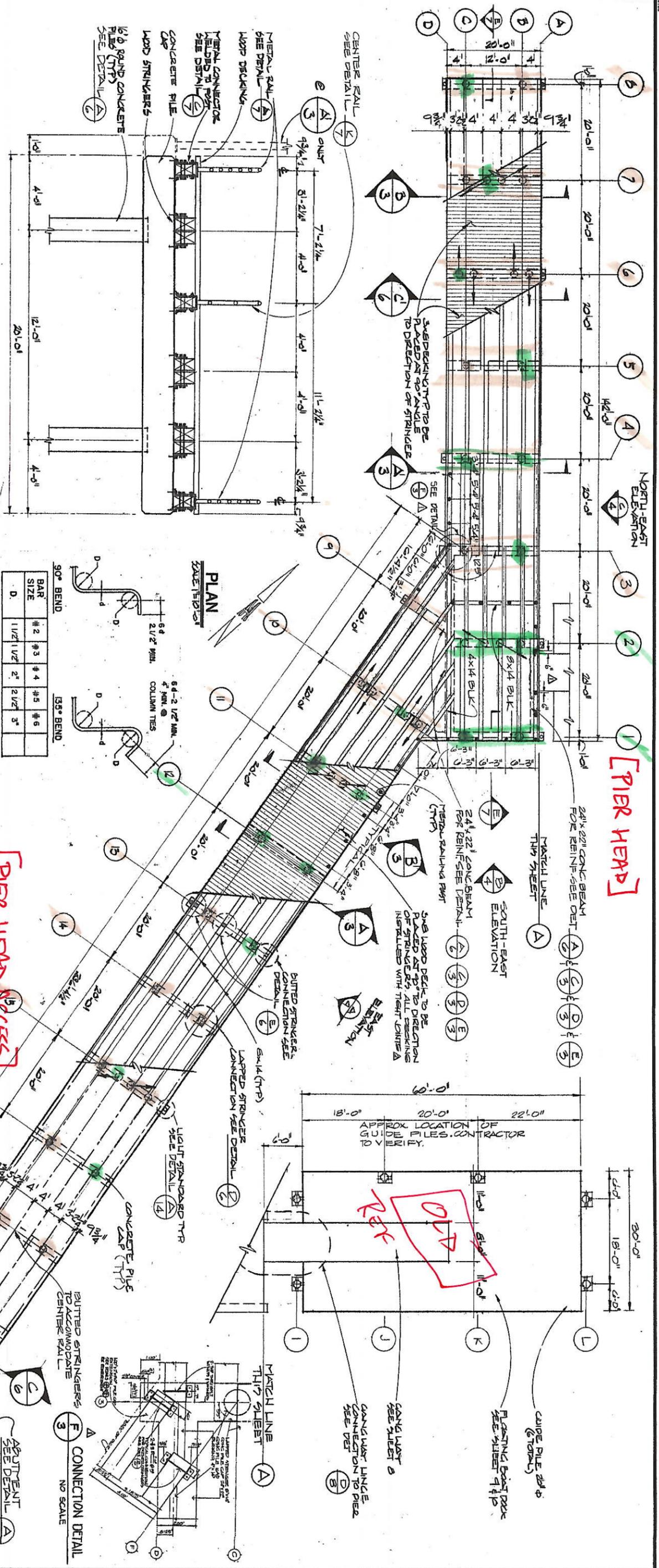


The extension cord ran through the floating dock ramp(around and through moving parts) to a junction box with an unsecured lid.



Decking is nearing the end of its service life. The wood has become very dry and brittle.

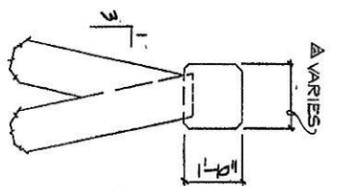




A TYPICAL PIER SECTION
SCALE 3/8" = 1'-0"

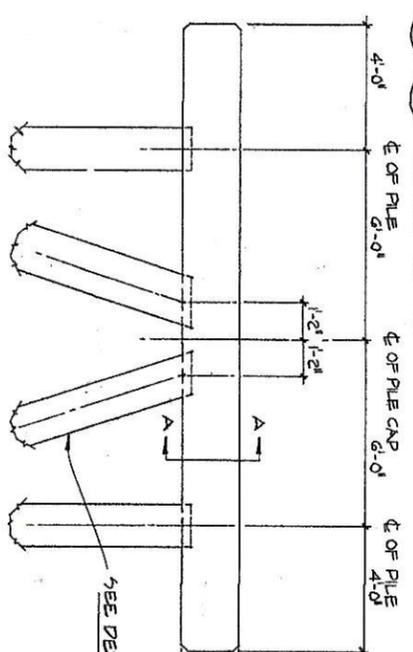
C TYP. STIRRUP AND TIE BENDS
NO SCALE

BAR SIZE	#2	#3	#4	#5	#6
D.	1 1/2"	1 1/2"	2"	2 1/2"	3"

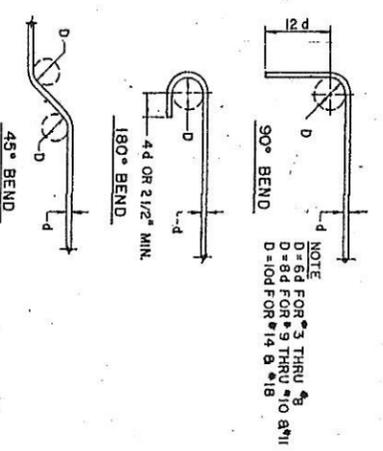


SECTION A-A

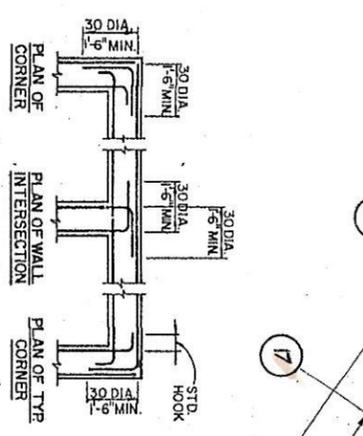
B SECTION: PILE CAP & BATTERED PILES
SCALE 3/8" = 1'-0"



D TYPICAL REINFORCING BENDS
NO SCALE



E TYP. REINF. AT INTERSECTION OF BEAMS
NO SCALE



AS BUILT

REGISTERED PROFESSIONAL ENGINEER
No. 35153
EXPIRES 4.30.87
CITY OF CALIFORNIA

AA KERRIGAN AND ASSOCIATES
CIVIL/STRUCTURAL ENGINEERING
PLANNING
3420 RANDOLPH ST. SUITE 110, SAN DIEGO, CA 92108-3700
PHONE: 619/594-8800 FAX: 619/594-8800
DATE: 1/23/87

San Diego Unified San Port District California

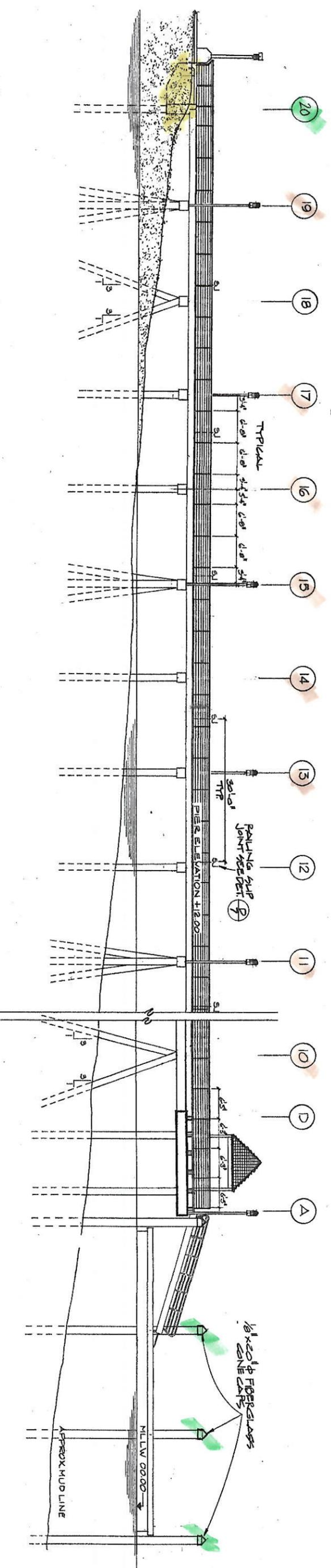
CITY OF CORONADO:
CORONADO FERRY AND FISHING PIER
FRAMING PLAN

DESIGNED: C.R. EBY
CHECKED: M. HENRY
APPROVED: J. HENRY
DATE: 1/23/87

CONTRACT NO. 87-10 W.O. NO. COT04

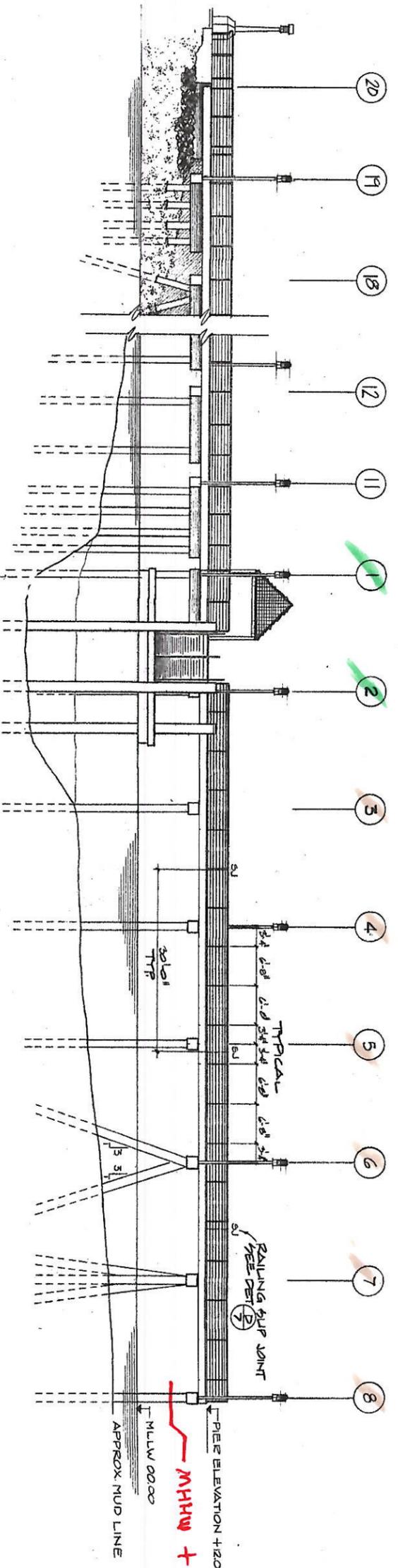
CONSTRUCTION STARTED: 3-1-87
CONSTRUCTION COMPLETED: 12-9-87

DATE: 1/23/87



A EAST ELEVATION
SCALE 1/4"=1'-0"

B SOUTH-EAST ELEVATION
SCALE 1/4"=1'-0"



C NORTH EAST ELEVATION
SCALE 1/4"=1'-0"

PROJECT NO. 27-10	W.O. NO. 60704	DESIGNED BY E.K. & B.V.	APPROVED BY [Signature]	CITY OF CORONADO
CONTRACTOR [Signature]	CONSTRUCTION STARTED [Date]	DRAWN BY [Signature]	RECOMMENDED BY [Signature]	CORONADO FERRY AND FISHING PIER
CONSTRUCTION COMPLETED [Date]	INSPECTOR B.F. OSBORN	CHECKED BY [Signature]	ASST. CHIEF ENGINEER [Signature]	ELEVATIONS
		APPROVED BY [Signature]	CHIEF ENGINEER [Signature]	

**San Diego Unified
San Port District
California**



AS BUILT
APPROVED BY [Signature]
DATE 1/20/07

C-4

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
No. 43013
EXPIRES 9/30/07
ARCHITECTURE
CHECKED BY D. MORGAN
DATE 1/19/07



DATE JAN 20 2007	MEAN LOW WATER
SHEET 4 OF 14	
DRAWING NO. 1294	

~ BALL

Bent 1

Alpha: appears to be in good condition.
Charlie: only 1 crack on east face.
Bent cap appears to be in good condition.

N 30-35 PILE WEARS
* FURTHER INVESTIGATION FOR STRUCTURAL NON-STRUCTURAL

Bent 2

Alpha: appears to be in good condition.
Bravo: only 1 crack on east face that is located 4" from mudline.
Charlie: appears to be in good condition.
Delta: pile has a total of 2 cracks. 1 on west face and 1 on east face.
Bent cap: appears to be in good condition.
Notes: There is an 8" gap between piles Charlie and Delta at mudline. There is a 2" gap between Alpha and Bravo pile in the middle. There is a 3" gap between Alpha and Bravo piles on bottom.

* NOTED SCOUR

Bent 3

Bravo: appears to be in good condition.
Charlie: bleed through on west face.
Bent cap: has a 2" circle of bleed through that is located east of pile Charlie. Location is 2" from east face of Charlie and 10" from the north face of pile cap.

* ALSO IN BUILD-UP

* COVER LIKE CRACK

Bent 4

Bravo: pile appears to be in good condition.
Charlie: pile appears to be in good condition.
Bent cap: on bottom of pile cap, 4" north of pile bravo there is a 4" x 3" square of rust bleeding with the four corners having a corroding fastener located in the concrete.

* COVER

* COVER & DAMAGE? CRACK OCCURS AT JUNCTION IS THE MAKE GOOD JOINT ISSUE?

Bent 5

Bravo: has a spall located 18" below bent cap.
Charlie: has a horizontal crack starting on east face and travels north all the way around to center of south face. The beginning of crack on east face is $\frac{1}{2}$ " higher than where the crack terminates on the south face. There is also a spall on north face that's highest point is connected to the horizontal crack.
Bent cap: on bottom of bent cap centered between piles and centered north/south there is a 3" x 4" square of rust bleeding with rusting hardware located in the four corners. On the north side of bravo pile there is a 3" x 4" square of rust bleeding with rusting hardware located in the four corners.

Bent 6

Alpha: 4" circle of rust bleeding on southwest face.
Bravo: 20" from cap there is a 2" x 3" square of rust bleeding.
Charlie: 2" circle of rust bleeding located on east face 4" from pilecap.
Delta: appears to be in good condition.
Bent cap: first bleed through location is 6" from north face and 6" from east face, location is 6" x 4" square with rusting hardware in all 4 corners. The second bleed through location is 11" from south face and 3" from east face with location being 8" x 6" square with rusting hardware in all four corners.

* COVER & PULL-UP ISSUES.

Bent 14

Foxtrot: two locations of bleed through.
Gulf: two locations of bleed through.
Bent cap: various locations of bleed through.

Bent 15

Echo: piece of metal located in pile that is rusting.
Foxtrot: appears to be in good condition.
Gulf: one location of spalling.
Hotel: two locations of bleeding through
Bent cap: various bleed through locations.

Bent 16

Foxtrot: one bleed through location.
Gulf: appears to be in good condition.
Bent cap: various bleed through locations.

Bent 17

Foxtrot: various bleed through on pile.
Gulf: cold joint that has resulted in a crack.
Bent cap: various bleed through locations.

Bent 18

Echo: two cracks and one bleed through location.
Foxtrot: one crack and one bleed through location.
Gulf: appears to be in good condition.
Hotel: appears to be in good condition.
Bent cap: appears to be in good condition.

Bent 19

Echo: lots of bleed through coming from joint between pile and pile cap. Crack along south face.
Foxtrot: one spot of bleed through.
Gulf: one bleed through, one crack, one spall.
Hotel: five cracks located around the south half of the pile and appears to have a lot of concrete about to spall off.
Bent cap: multiple spots of bleed through.

Bent 20

Unable to inspection the piles and bottom half of the pile cap due to rip rap being in the way.
There are 5 conduit brackets that have completely rusted out.

After inspecting all 8 piles on the ferries floating pier we were unable to find any bleed through, cracks or spalling.

Peoche's piles

After inspecting all 14 piles on the floating pier we were unable to find any spalling, cracks or bleed through.

★ ISSUES w/ BUILD-UP

Bent 7

Alpha: has two $\frac{3}{4}$ " bleed through locations.

Bravo: has a single crack and location of bleed through.

Charlie: appears to be in good condition.

Delta: has two locations of bleeding. Bottom of east face concrete beginning to deteriorate at mudline.

Notes: 3" gap on bottom between piles Alpha and Bravo. 2" gap between charlie and delta at bottom of pilecap. 4" gap between piles charlie and delta at mudline.

Bent cap: appears to be in good condition.

Bent 8

Bravo: two locations of spalling and one location of rust bleeding.

Charlie: appears to be in good condition.

Bent cap: on bottom of pile cap, 3" from east face and 11" from south face there are 2 bleed through locations.

Bent 9

Echo: has a location of delaminating concrete, one location of bleed through and two cracks.

Bent cap: one location of bleed through.

Bent 10

Echo: one crack on the north face that travels into mud line.

Foxtrot: one spall location on the south face located on the piles searn. One spall location traveling into mud.

Golf: appears to be in good condition.

Hotel: one crack on southeast face.

Bent cap: two locations of bleed through.

Bent 11

Echo: appears to be in good condition.

Foxtrot: various cracks and rust bleed through location.

Gulf: one crack close to bottom

Hotel: appears to be in good condition.

Bent cap: appears to be in good condition.

Notes: gulf and hotel have a 4" gap between piles at mudline.

Bent 12

Foxtrot: appears to be in good condition.

Gulf: appears to be in good condition.

Bent cap: has one location of bleed through.

Bent 13

Foxtrot: has one spall location

Gulf: appears to be in good condition.

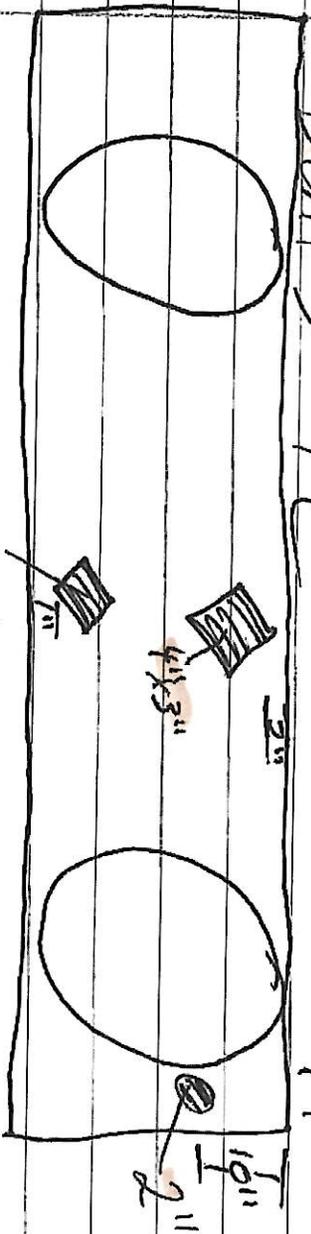
Bent cap: has a square of bleed through with rusting hardware in all four corners.

*ACCOVER
BUILD-UP*

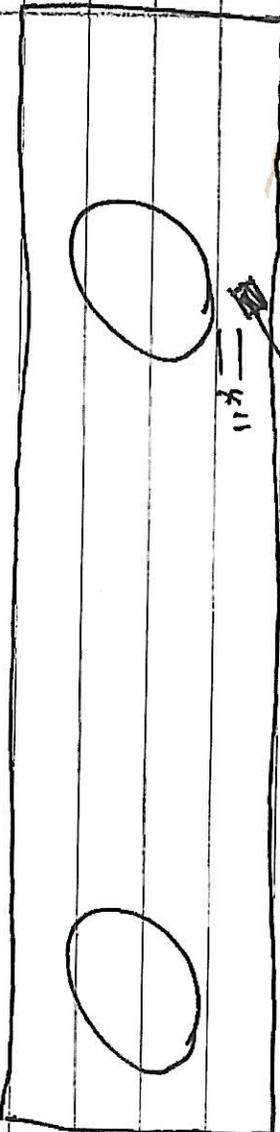
** COVER BUILD-UP*

** B/O*

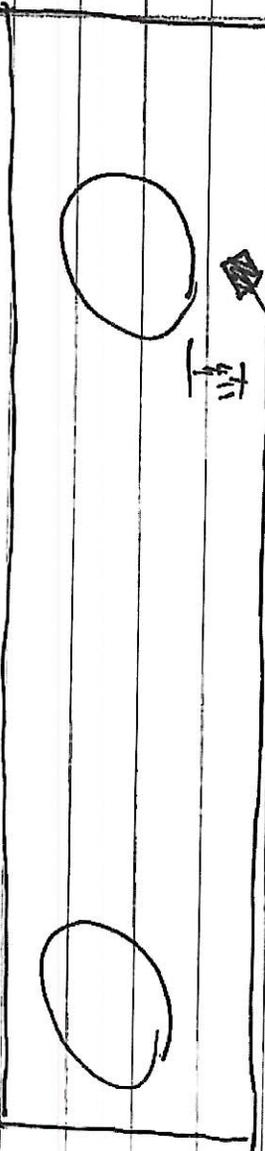
Bent 3 PC



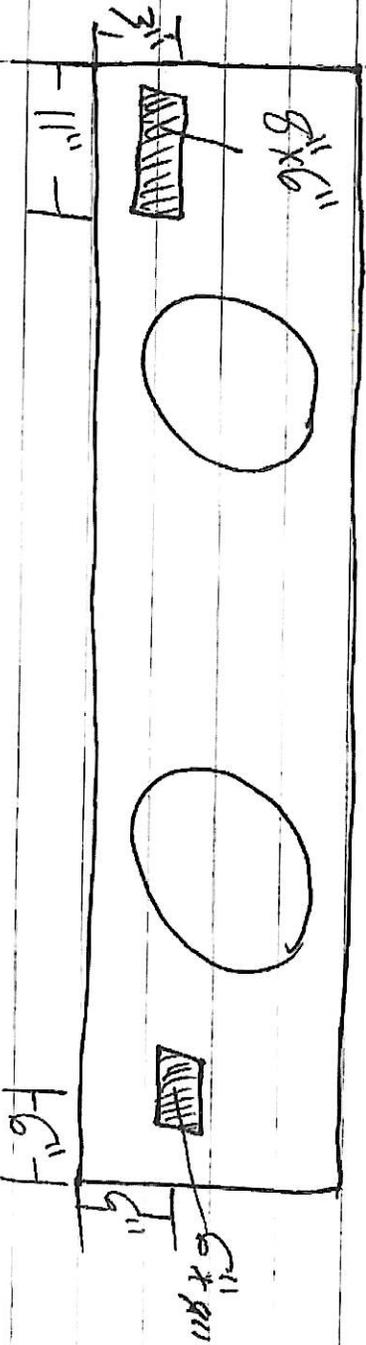
Bent 4 4'' x 3''



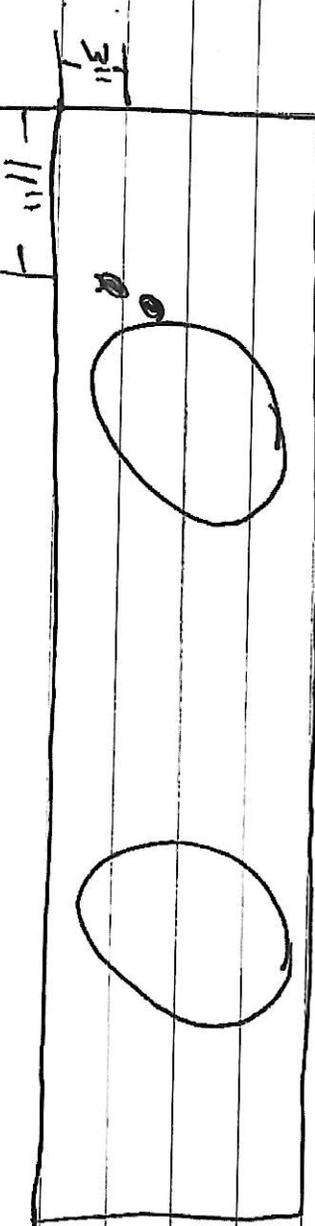
Bent 5 3'' x 4''



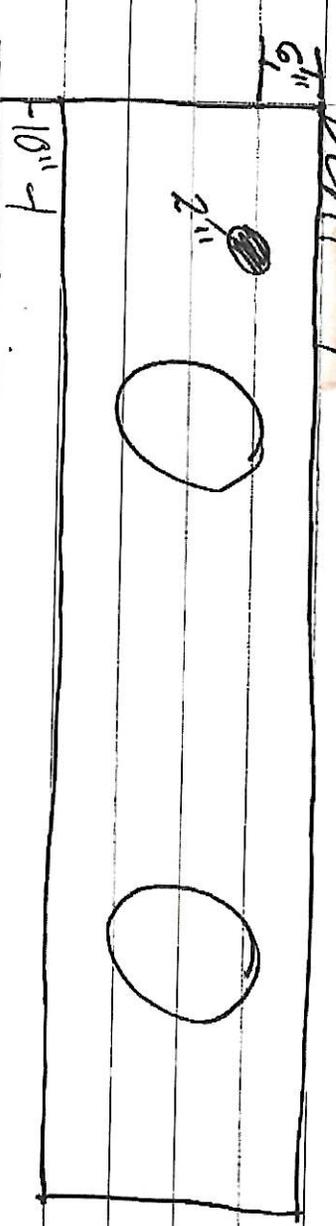
Bent 6



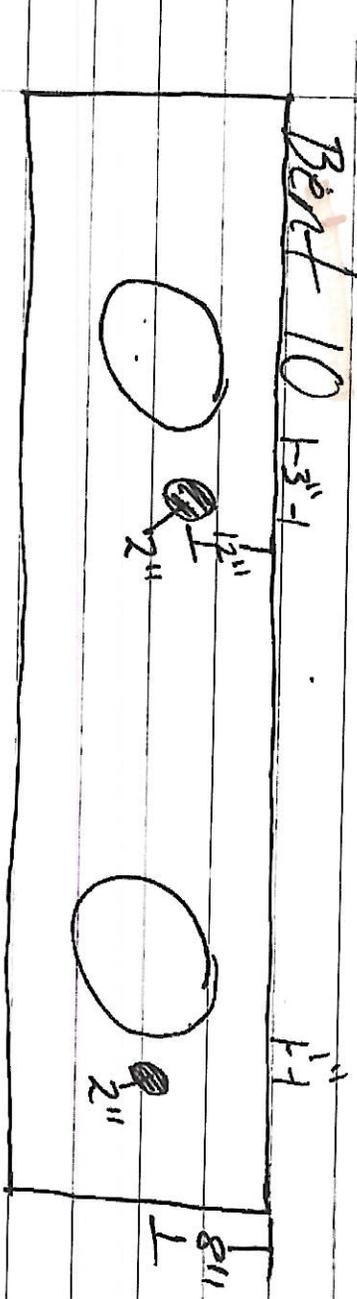
Bent 8



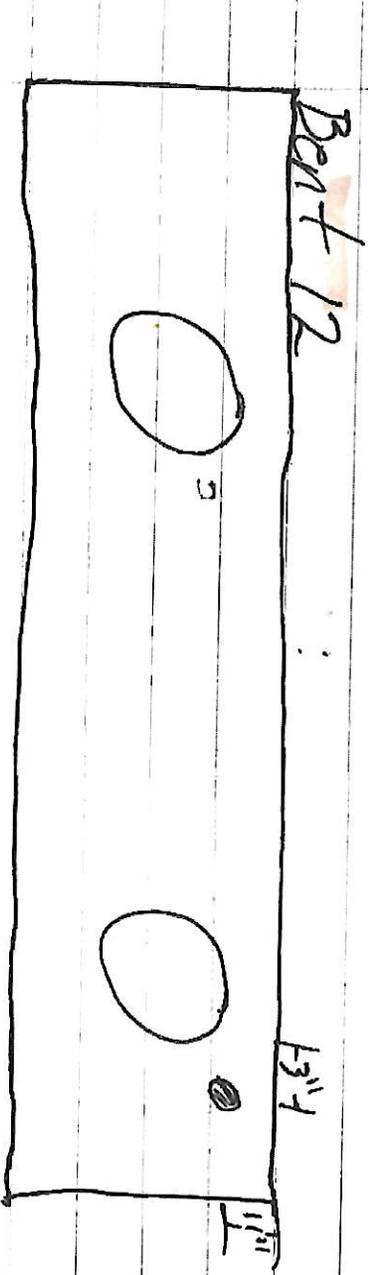
Bent 9

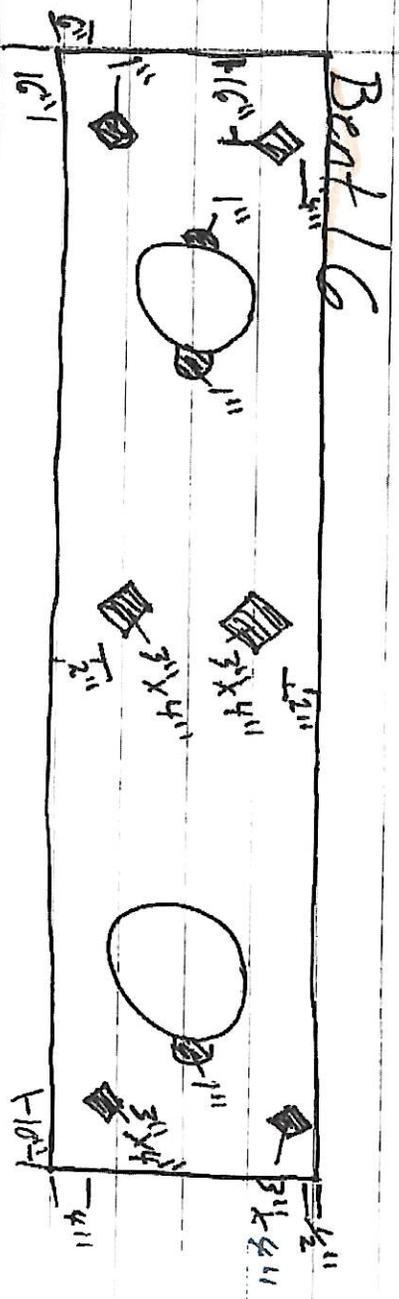
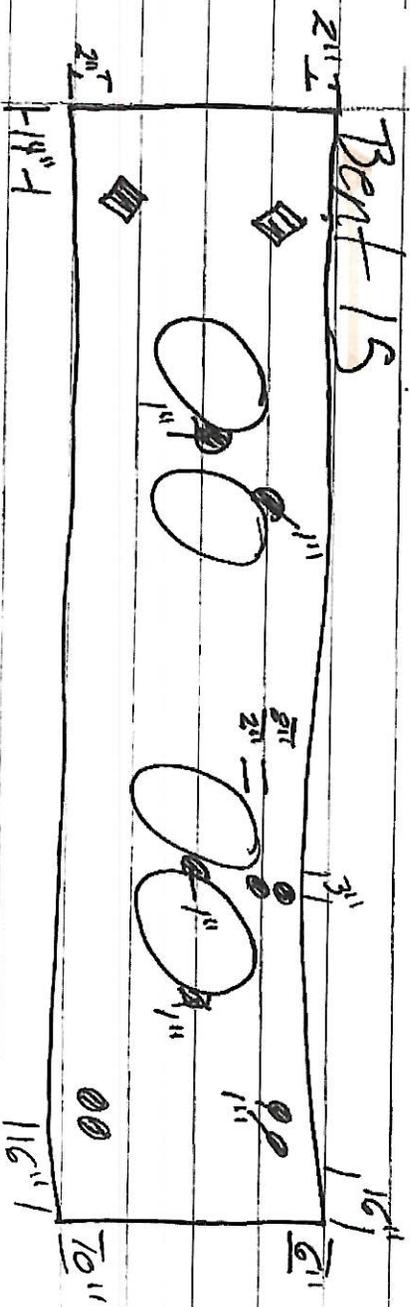
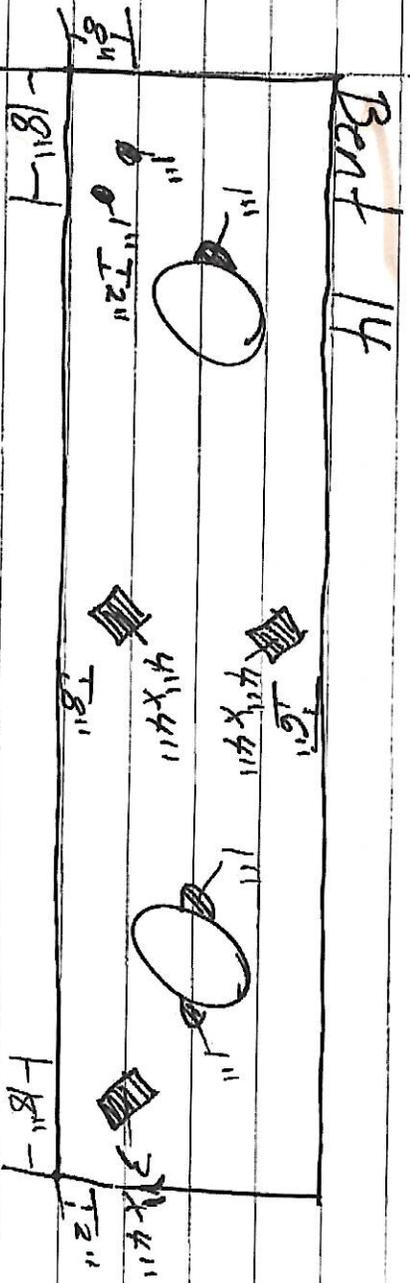
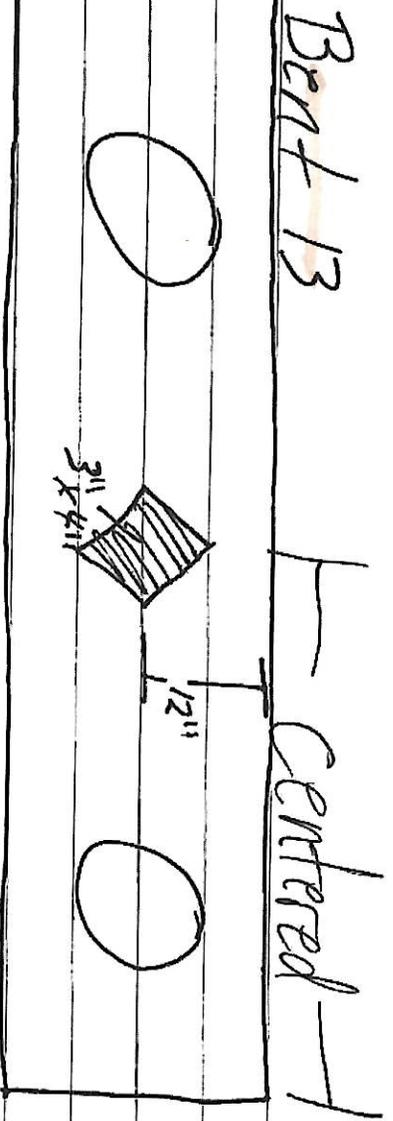


Bent 10

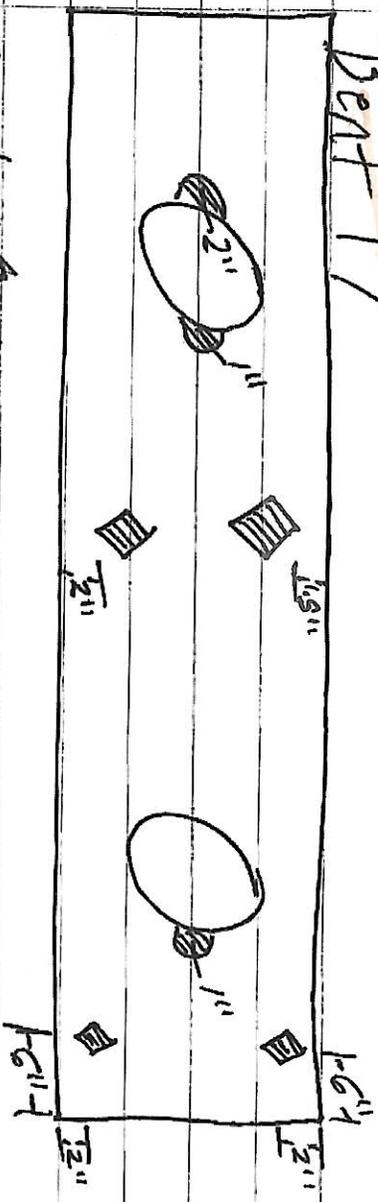


Bent 12

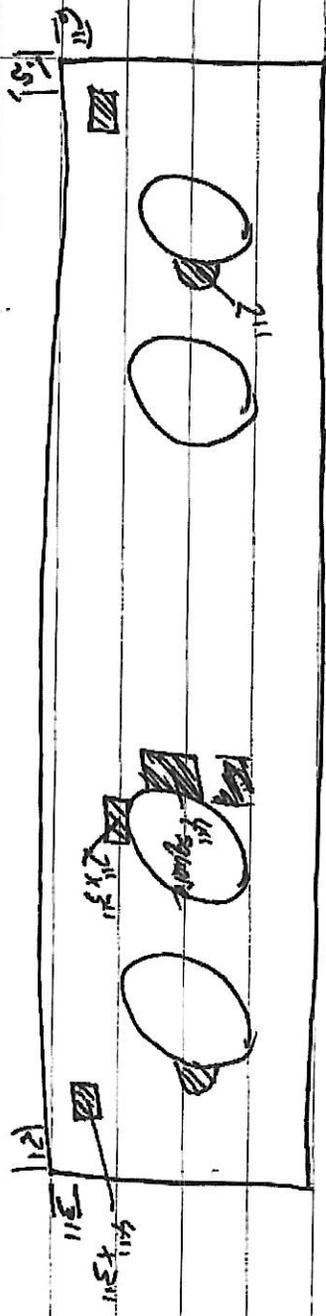




Bent 17



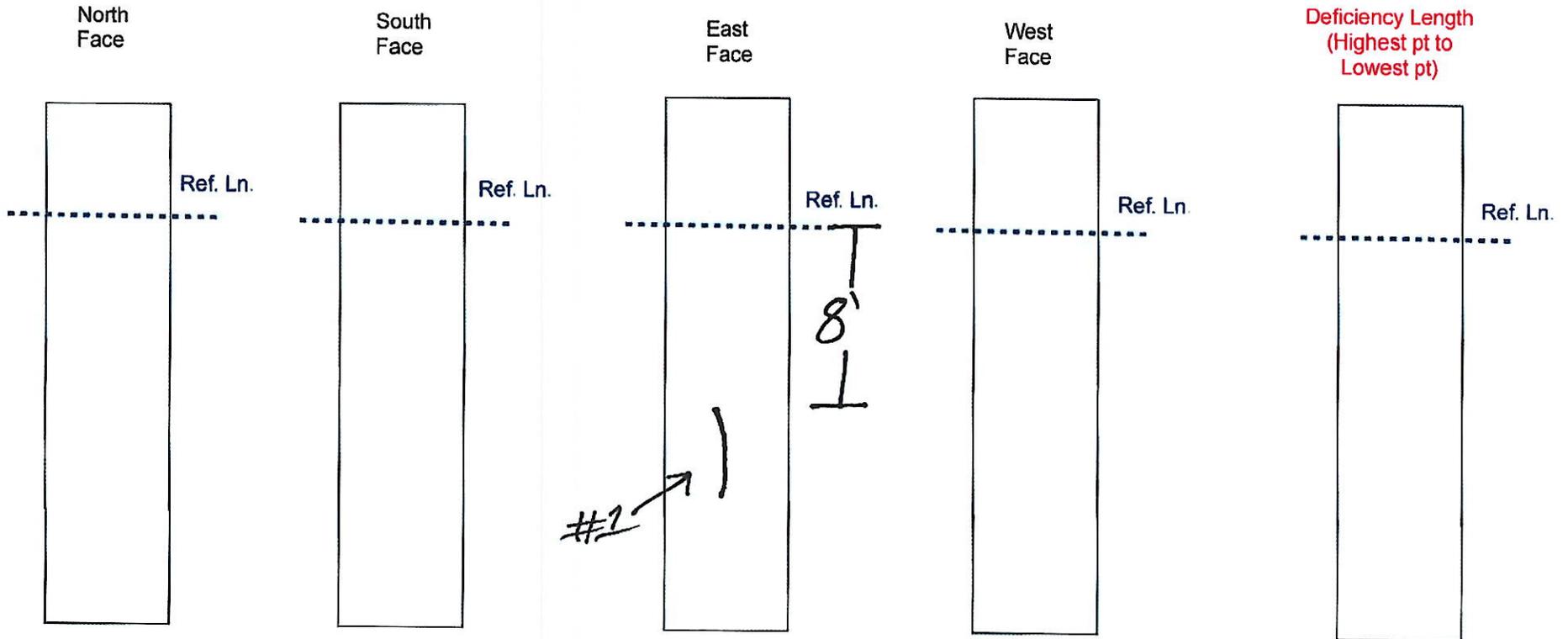
Bent 18/19



Pile Survey Sheet

Bent #	2
Pile #	C

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



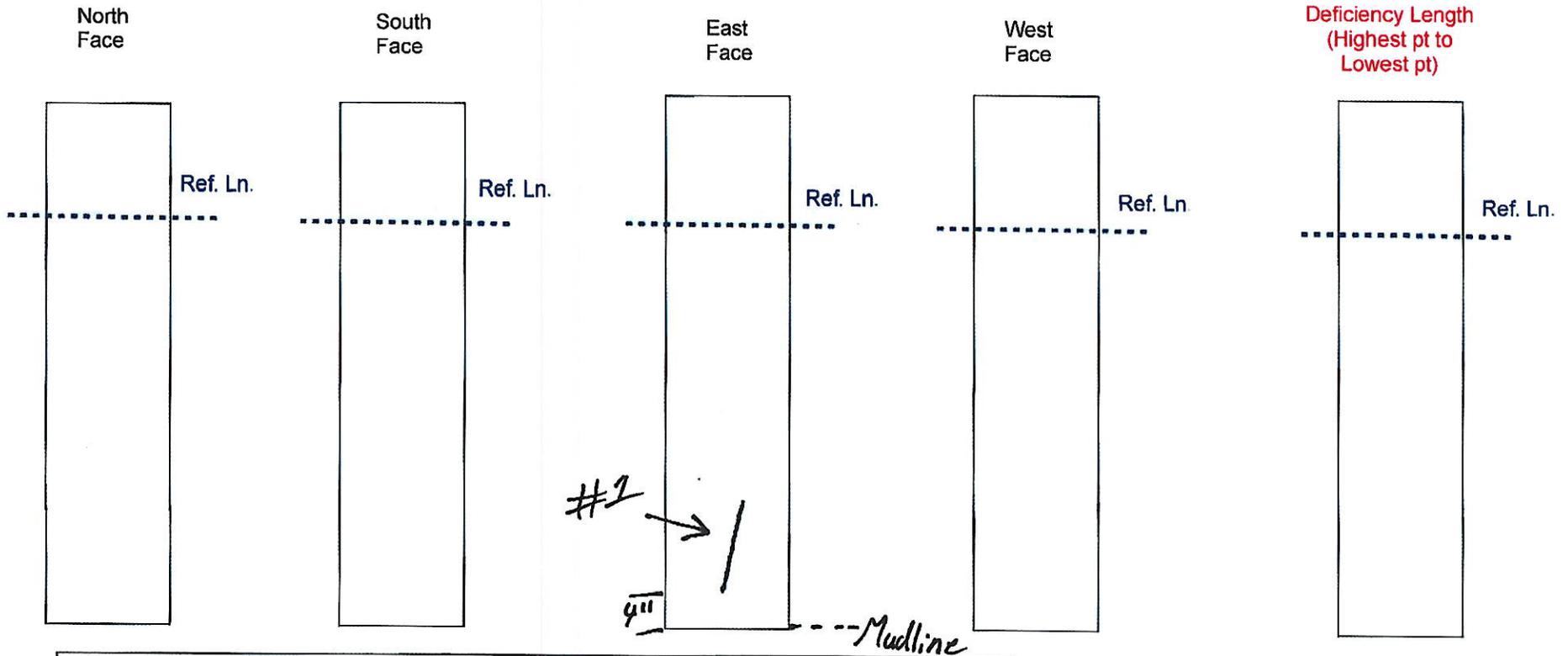
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	96"	5"	1.5"	1/16" - 1/8"
2					*Below 3" COVER
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Bot. pile cap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	96"
Distance from Ref. Line to bottom of lowest deficiency	101"
Overall Length of Deficiencies	5"

Pile Survey Sheet

Bent #	2
Pile #	B

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



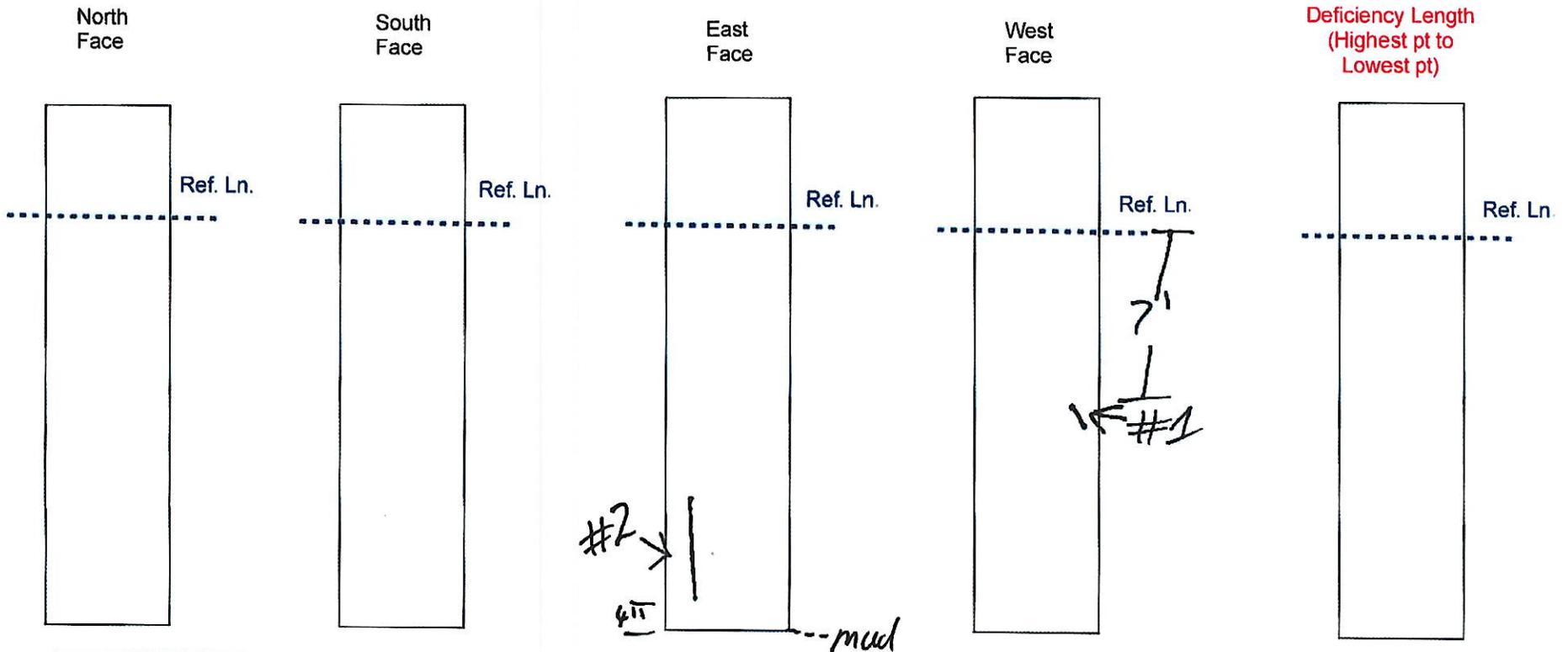
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack		9"	1"	1/16" - 3/4"
2					< 3"
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pile cap
MLW Elevation	
Mudline Elevation	
Distance from Ref. Line to Top of highest deficiency	
Distance from Ref. Line to bottom of lowest deficiency	
Overall Length of Deficiencies	9"

Pile Survey Sheet

Bent #	2
Pile #	D

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



Deficiency Length
(Highest pt to
Lowest pt)

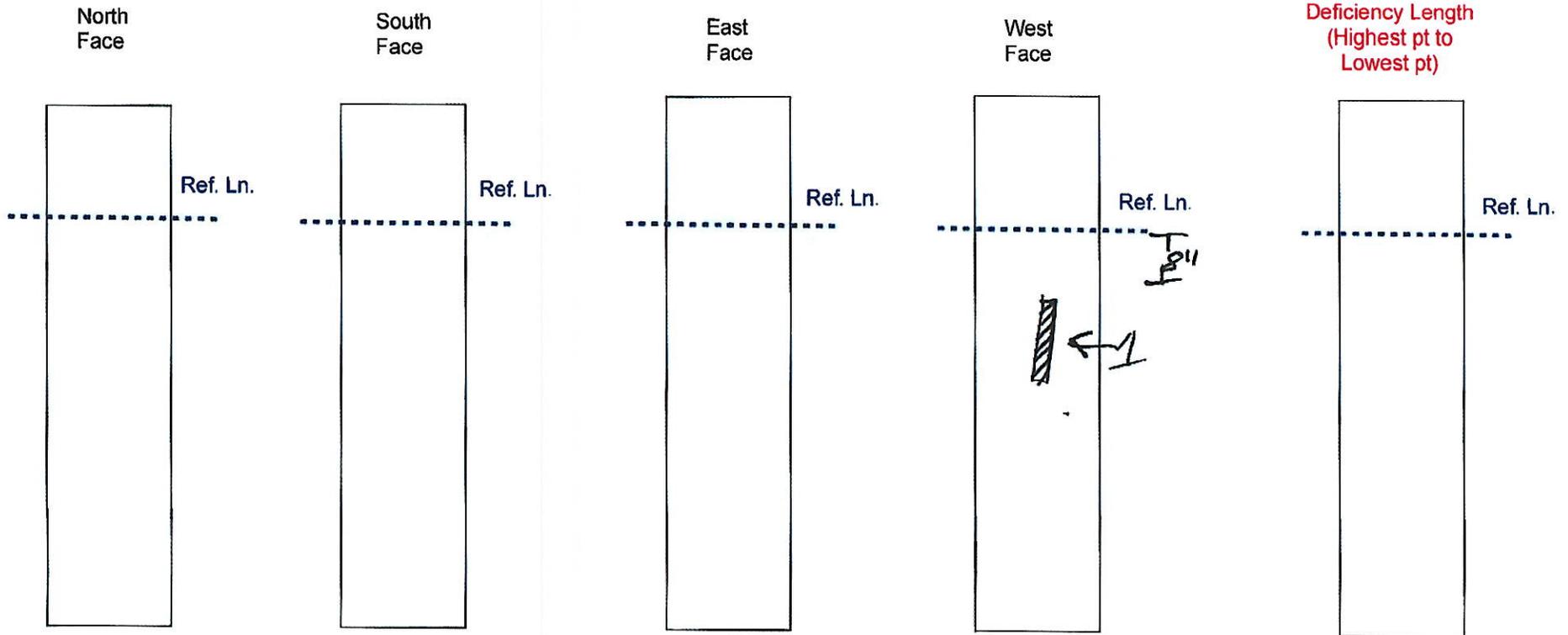
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	84"	3"	1"	1/16" - 1/8"
2	Cracks		15"	1"	1/16" - 3/16"
3					< 3"
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	84"
Distance from Ref. Line to bottom of lowest deficiency	
Overall Length of Deficiencies	18"

Pile Survey Sheet

Bent #	3
Pile #	C

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



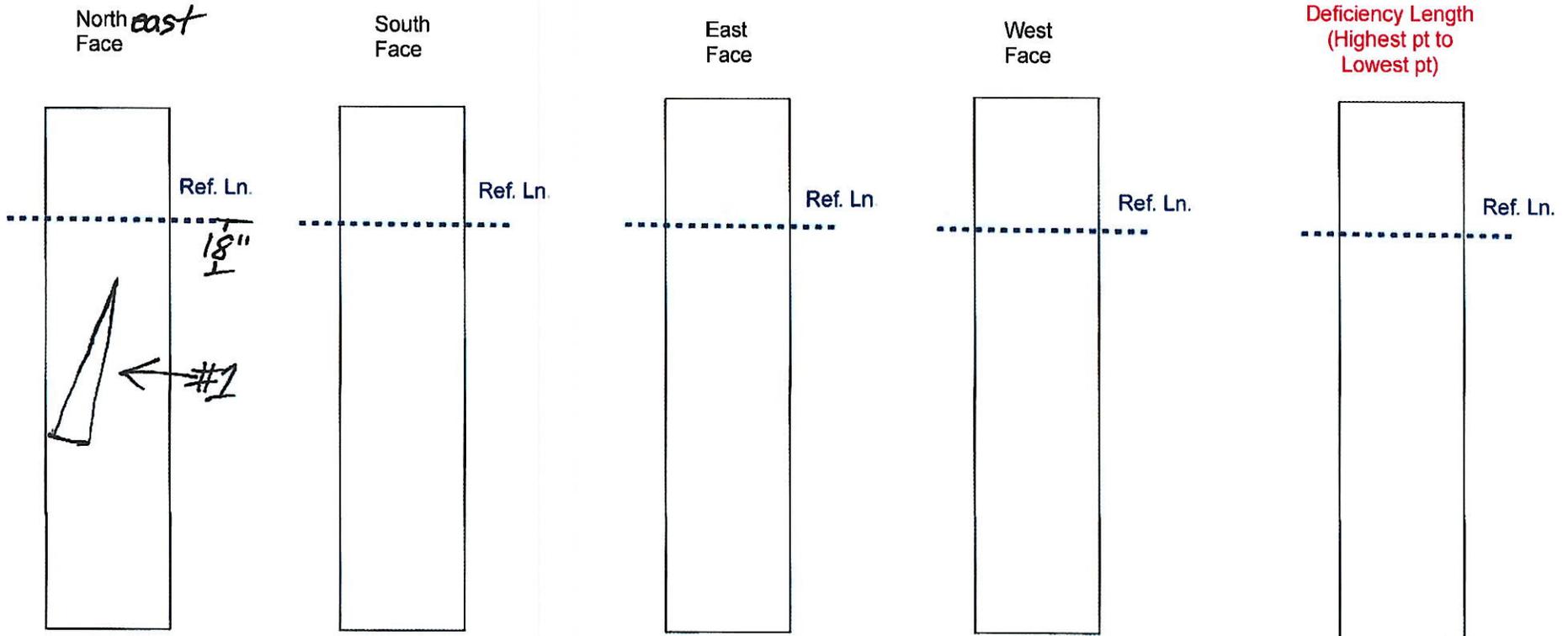
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Rusting	8"	18"	1"	N/A
2	↳ INDICATES CONCRETE COVER IS COMPROMISED, TYPICAL OF SERVICE LIFE				
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pile cap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	8"
Distance from Ref. Line to bottom of lowest deficiency	26"
Overall Length of Deficiencies	18"

Pile Survey Sheet

Bent #	5
Pile #	B

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



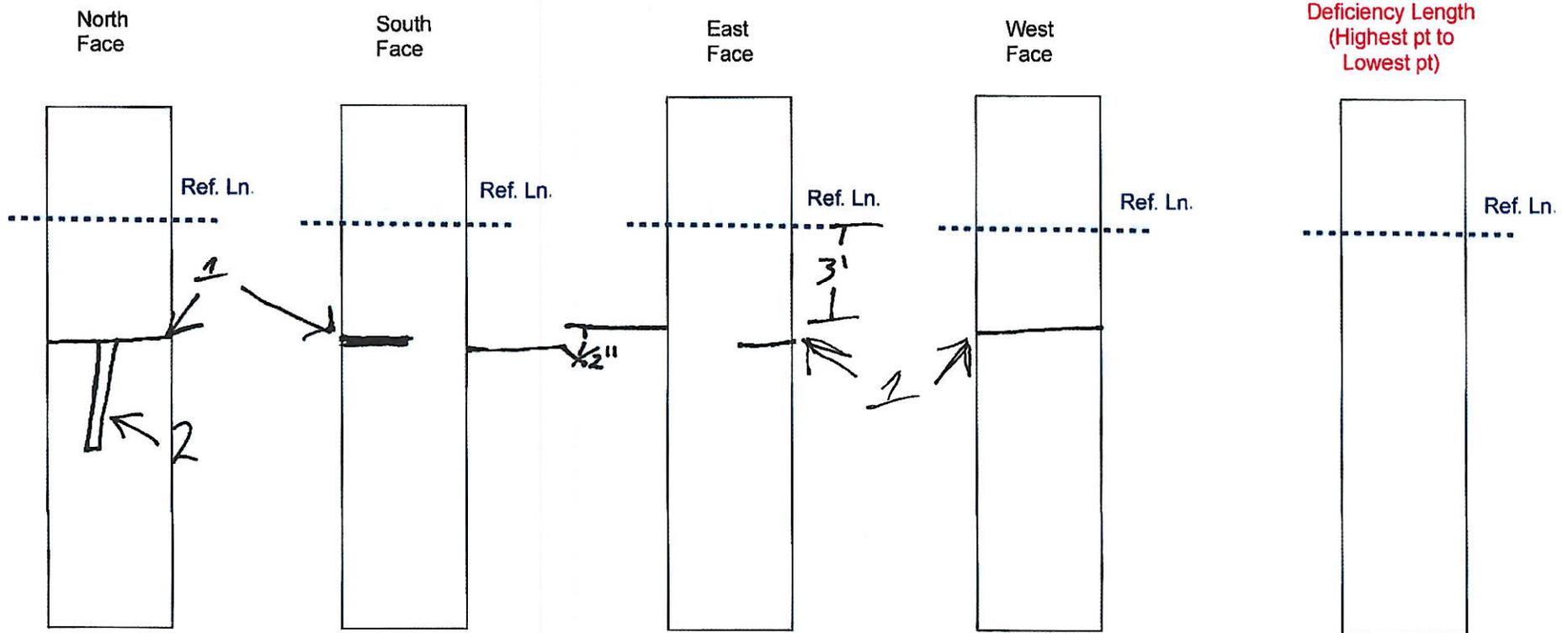
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Spall	18"	42"	3"	1/16" - 1/4"
2					< 3"
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pile cap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	18"
Distance from Ref. Line to bottom of lowest deficiency	60"
Overall Length of Deficiencies	60" 42"

Pile Survey Sheet

Bent #	S
Pile #	C

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



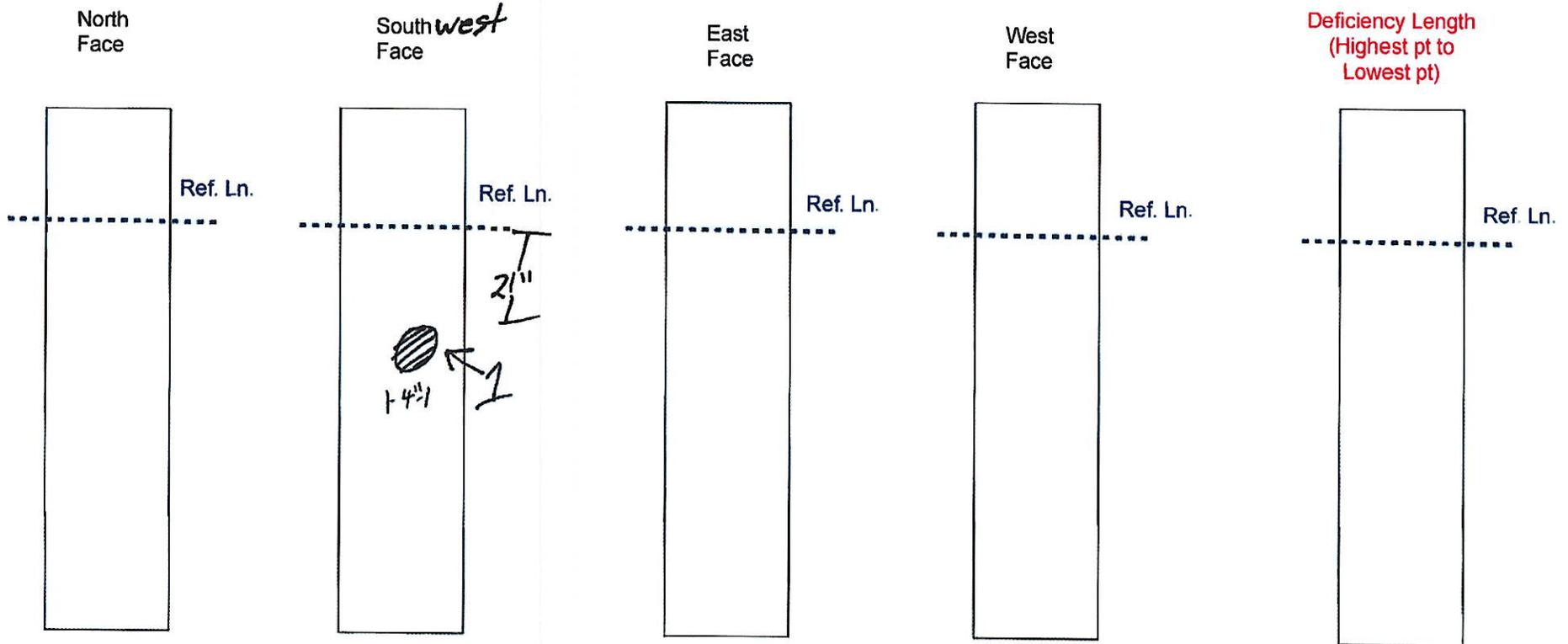
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	36"	1/16" - 1/8"	42"	1/4"
2	Spall	36"	12"	3/4"	1/16" - 1/8"
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	36"
Distance from Ref. Line to bottom of lowest deficiency	48"
Overall Length of Deficiencies	54"

Pile Survey Sheet

Bent #	61
Pile #	21

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



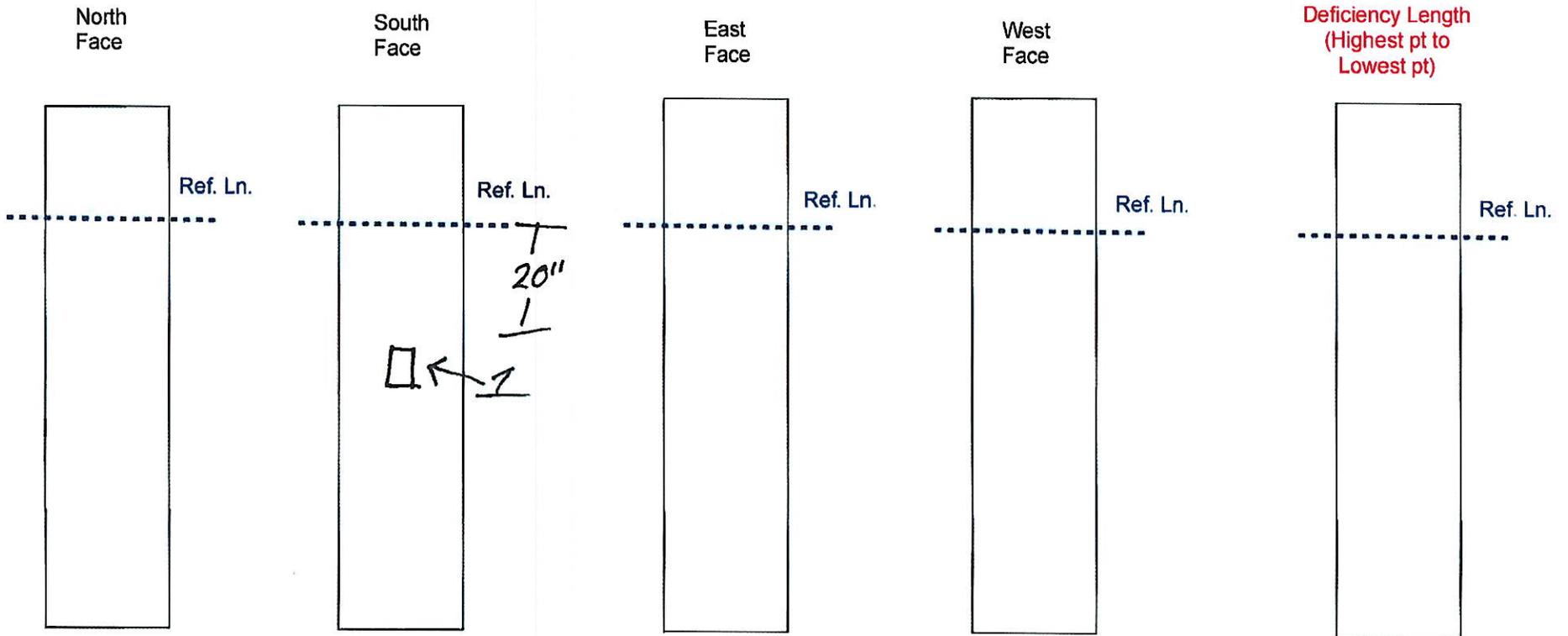
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	21"	4"	4"	N/A
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pile cap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	21"
Distance from Ref. Line to bottom of lowest deficiency	25"
Overall Length of Deficiencies	4"

Pile Survey Sheet

Bent #	6
Pile #	B

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



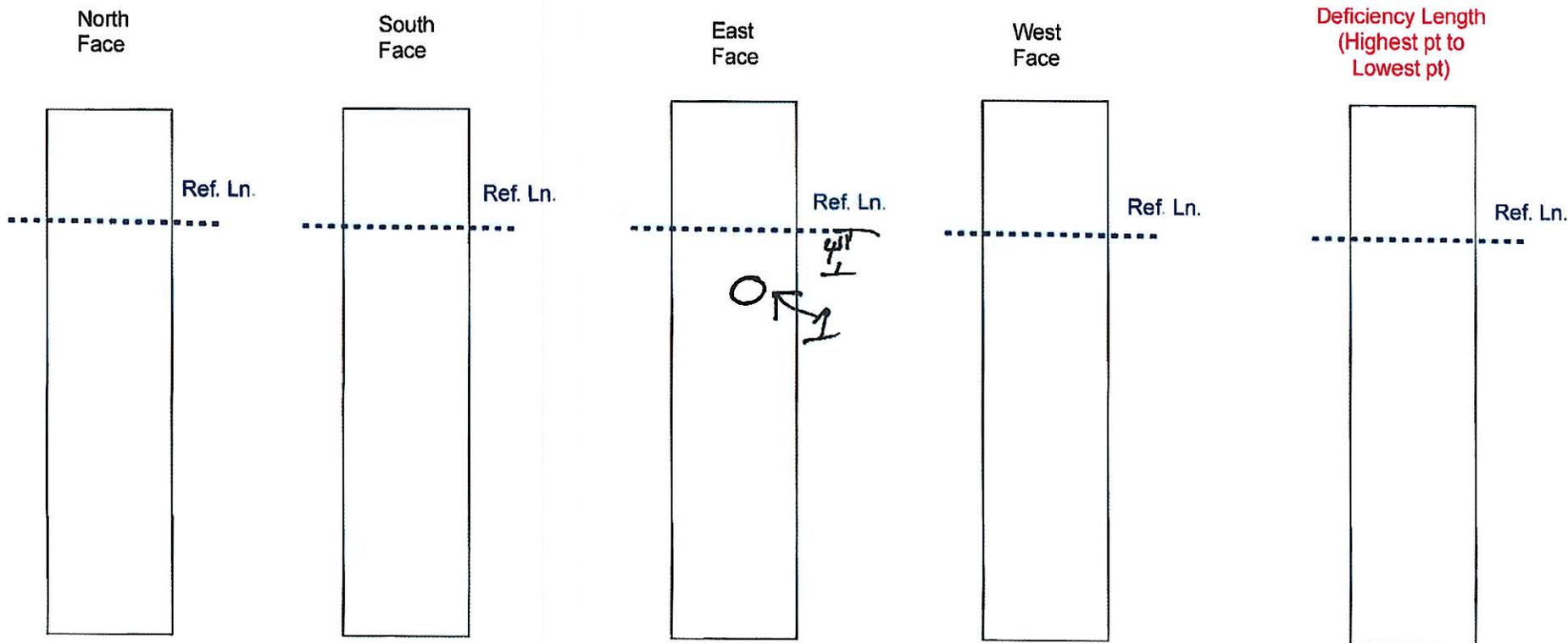
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	20"	2"	3"	N/A
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pile cap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	20"
Distance from Ref. Line to bottom of lowest deficiency	23"
Overall Length of Deficiencies	3"

Pile Survey Sheet

Bent #	6
Pile #	C

Project:	
Inspector:	
Contract:	
FIN	
# of Pics	



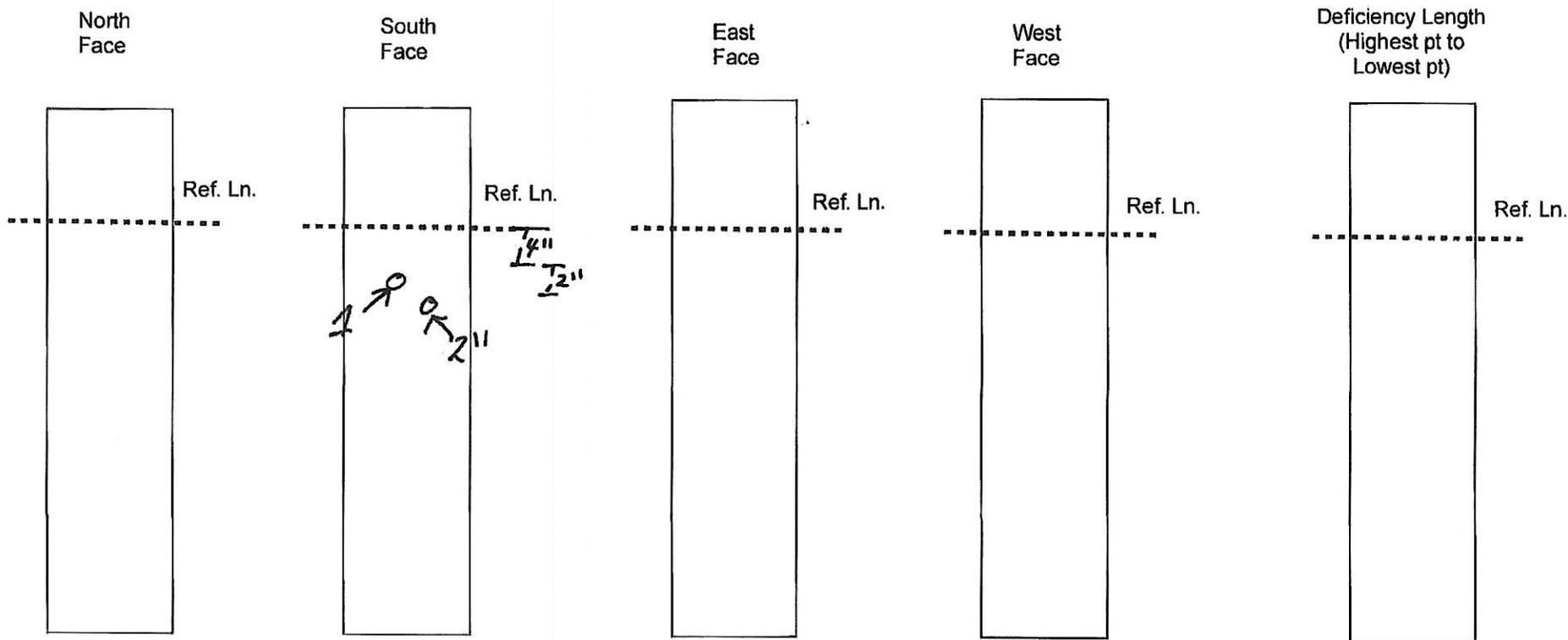
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	4"	2"	2"	N/A
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	4"
Distance from Ref. Line to bottom of lowest deficiency	6"
Overall Length of Deficiencies	2"

Pile Survey Sheet

Bent #	7
Pile #	A

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



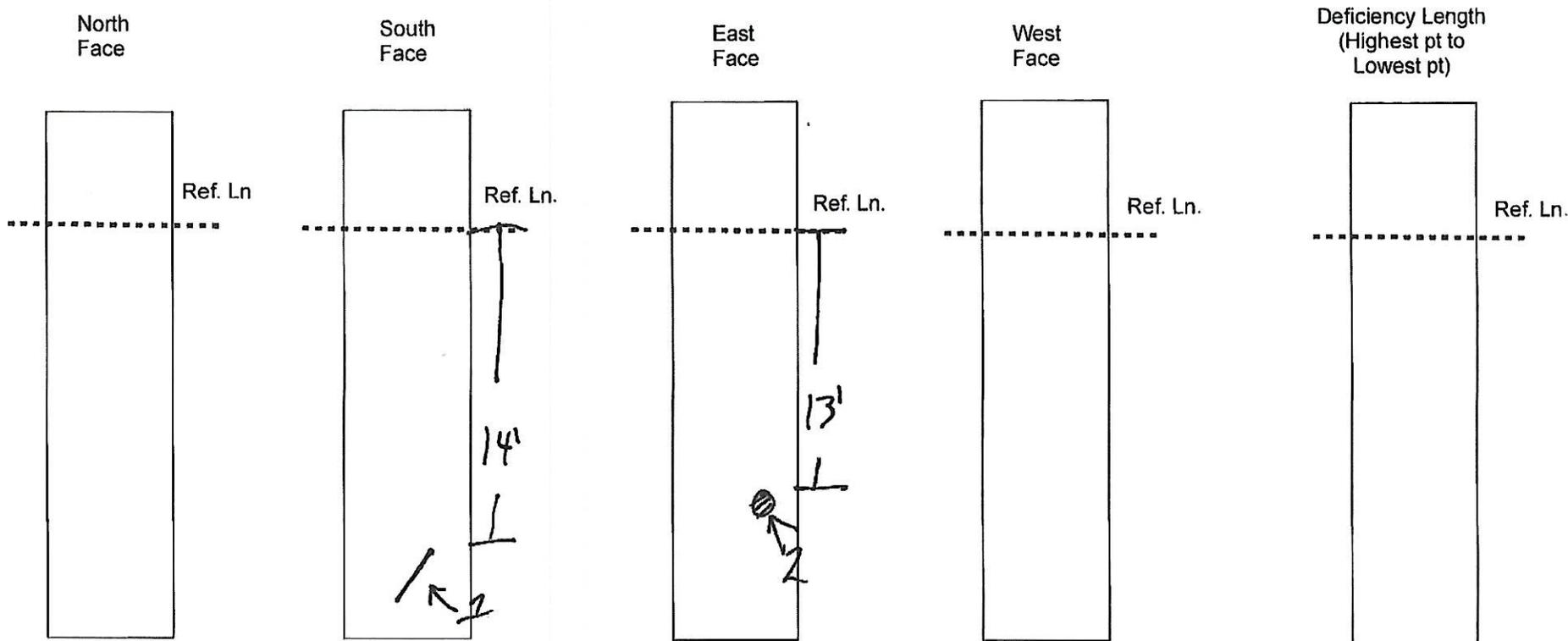
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	4"	3/4"	3/4"	N/A
2	Bleeding	6"	3/4"	3/4"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	4'
Distance from Ref. Line to bottom of lowest deficiency	6"
Overall Length of Deficiencies	1.5"

Pile Survey Sheet

Bent #	7
Pile #	B

Project:	
Inspector:	
Contract:	
FIN:	
# of Pils	



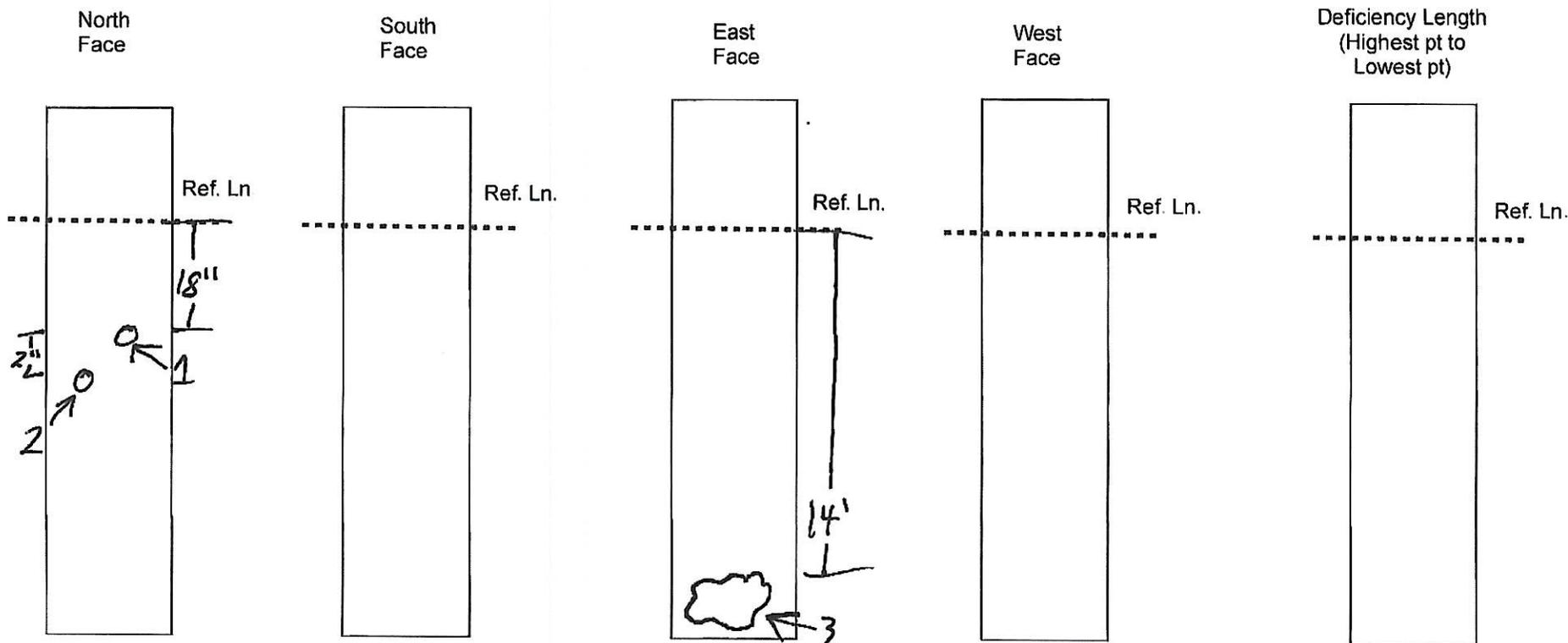
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	168"	10"	1/16" - 3/16"	1/4"
2	Bleeding	156"	2"	2"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pile cap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	13'
Distance from Ref. Line to bottom of lowest deficiency	14' 10"
Overall Length of Deficiencies	12"

Pile Survey Sheet

Bent #	7
Pile #	D

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



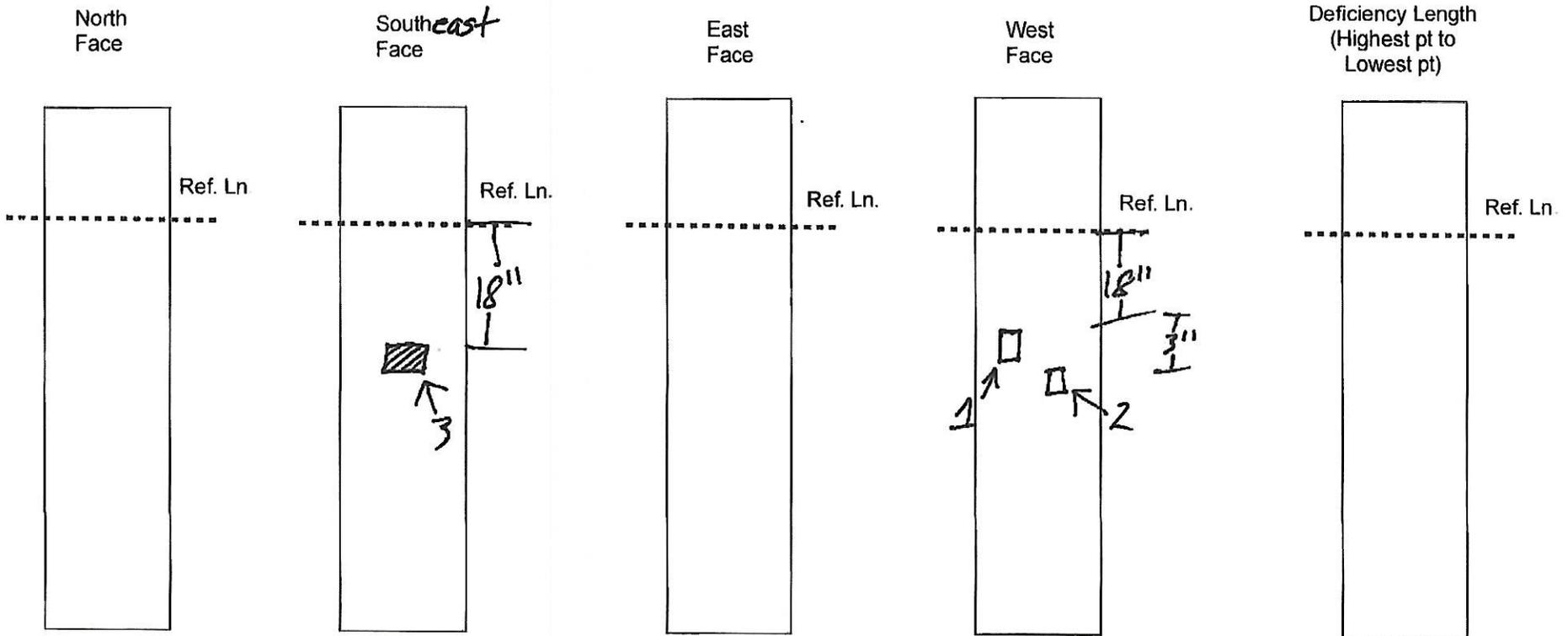
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	18"	3/4"	3/4"	N/A
2	Bleeding	20"	3/4"	3/4"	N/A
3	Spall	168"	12"	8"	1/4" - 1/8"
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	18"
Distance from Ref. Line to bottom of lowest deficiency	20"
Overall Length of Deficiencies	1.5"

Pile Survey Sheet

Bent #	8
Pile #	B

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



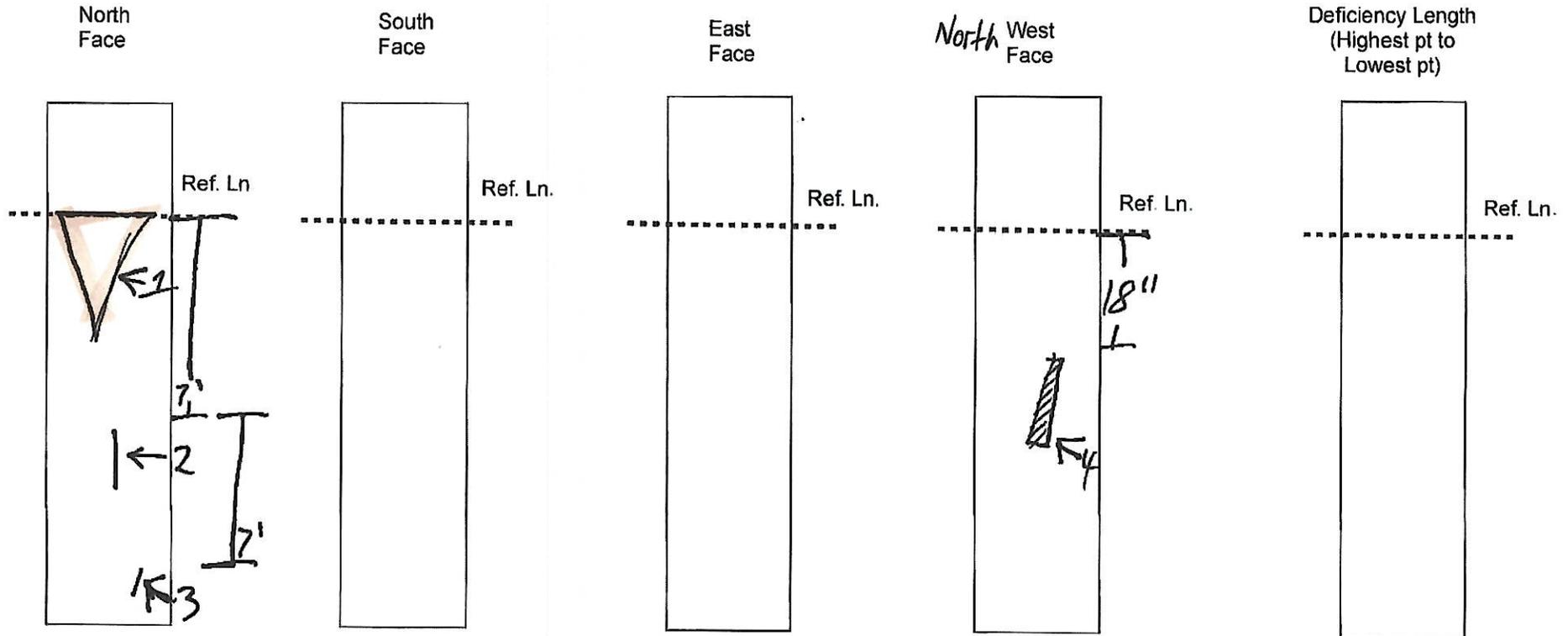
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Spall	18"	1/2"	2"	1/16" - 1/8"
2	Spall	21"	3/4"	3"	1/16" - 1/8"
3	Bleeding	18"	2"	3"	N/A
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	18"
Distance from Ref. Line to bottom of lowest deficiency	21"
Overall Length of Deficiencies	8"

Pile Survey Sheet

Bent #	9
Pile #	E

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



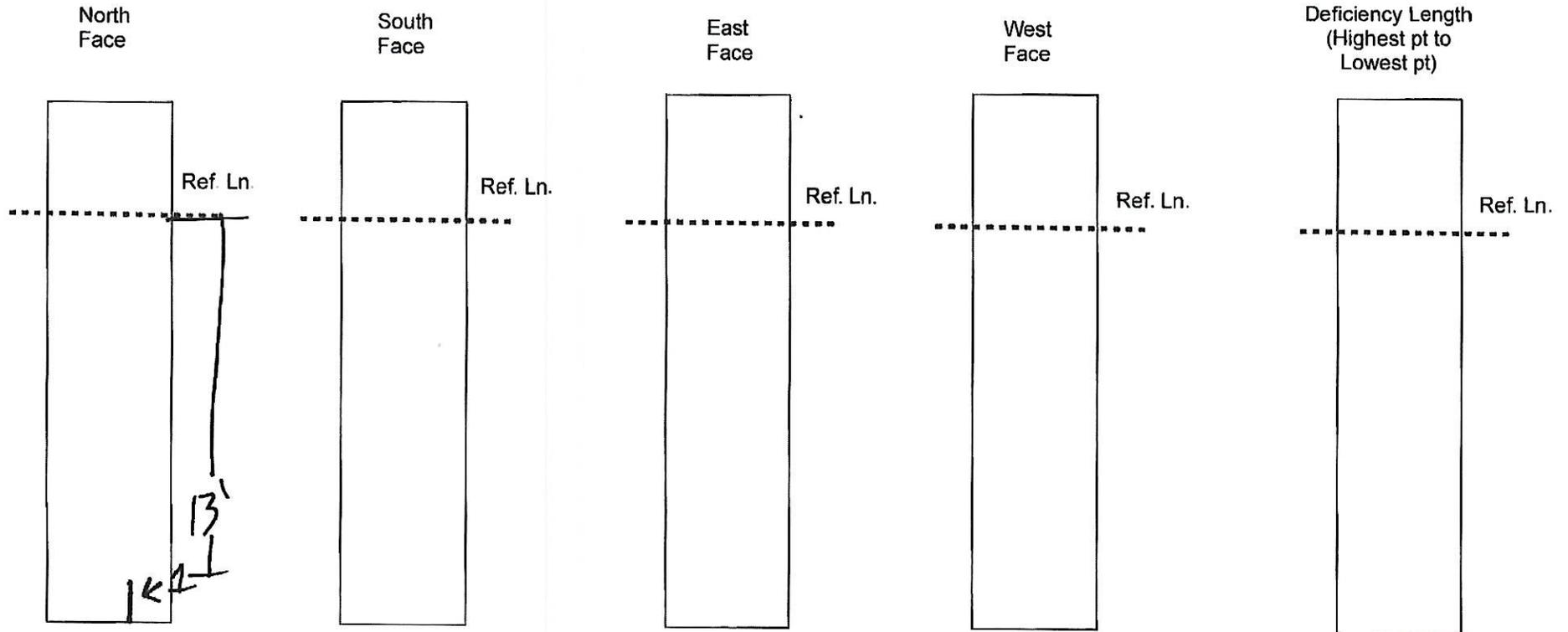
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Delam.	0"	30"	9"	+1"
2	Crack	84"	12"	1"	1/16" - 3/8"
3	Crack	168"	4"	1/2"	1/16" - 3/8"
4	Bleeding	18"	18"	1"	N/A
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	14.5'
Overall Length of Deficiencies	46"

Pile Survey Sheet

Bent #	10
Pile #	E

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



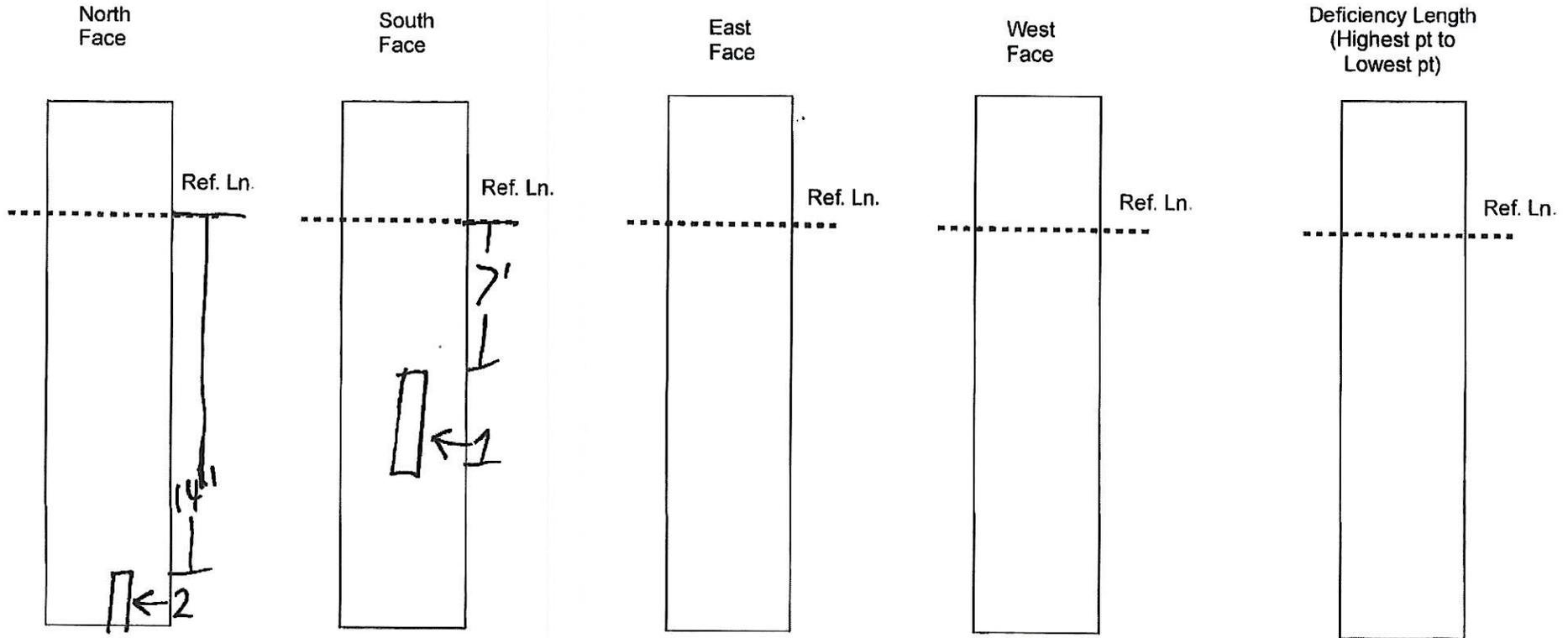
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	13'	12"	1"	1/16" - 1/4"
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pile cap
MLW Elevation	
Mudline Elevation	14'
Distance from Ref. Line to Top of highest deficiency	13'
Distance from Ref. Line to bottom of lowest deficiency	
Overall Length of Deficiencies	12"

Pile Survey Sheet

Bent #	10
Pile #	F

Project	
Inspector	
Contract	
FIN	
# of Pics	



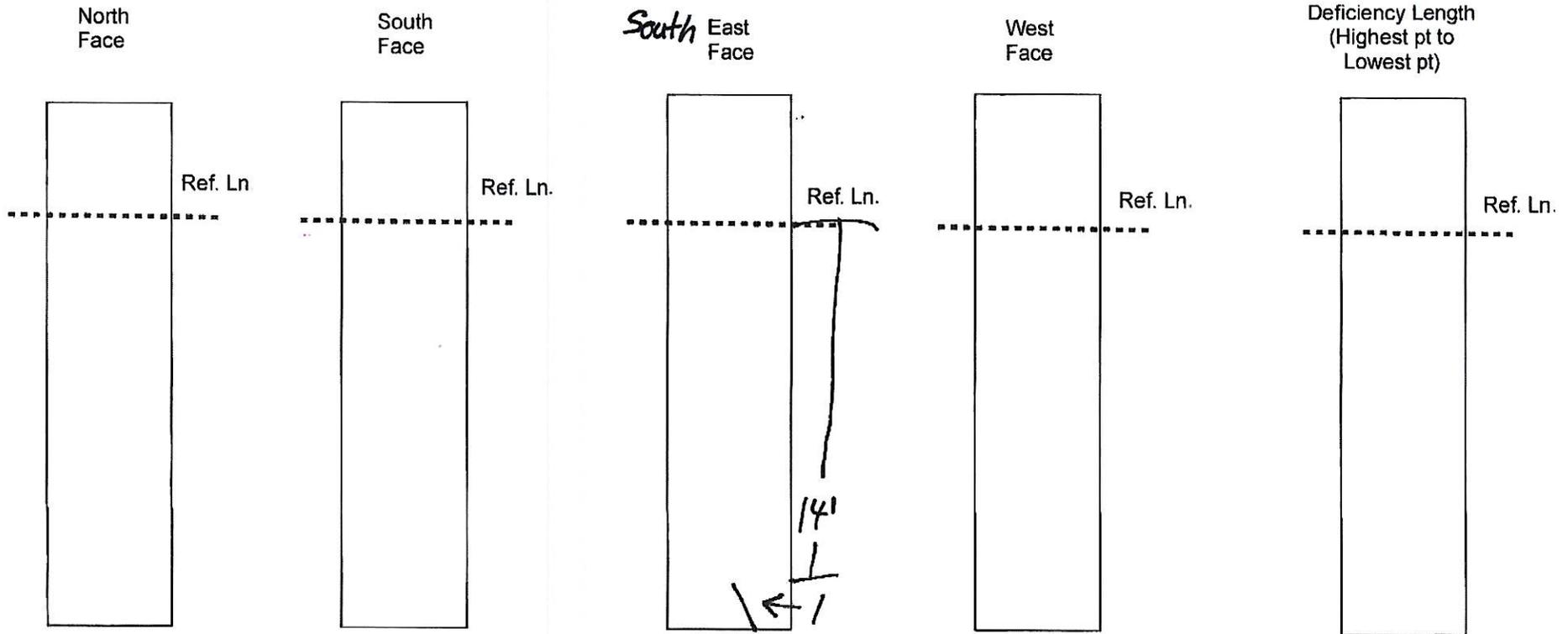
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Spall	84"	12"	3/4"	1/6" - 1/4"
2	Spall	168"	12"	1/2"	1/6" - 1/2"
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	7'
Distance from Ref. Line to bottom of lowest deficiency	8'15"
Overall Length of Deficiencies	12"

Pile Survey Sheet

Bent #	10
Pile #	H

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



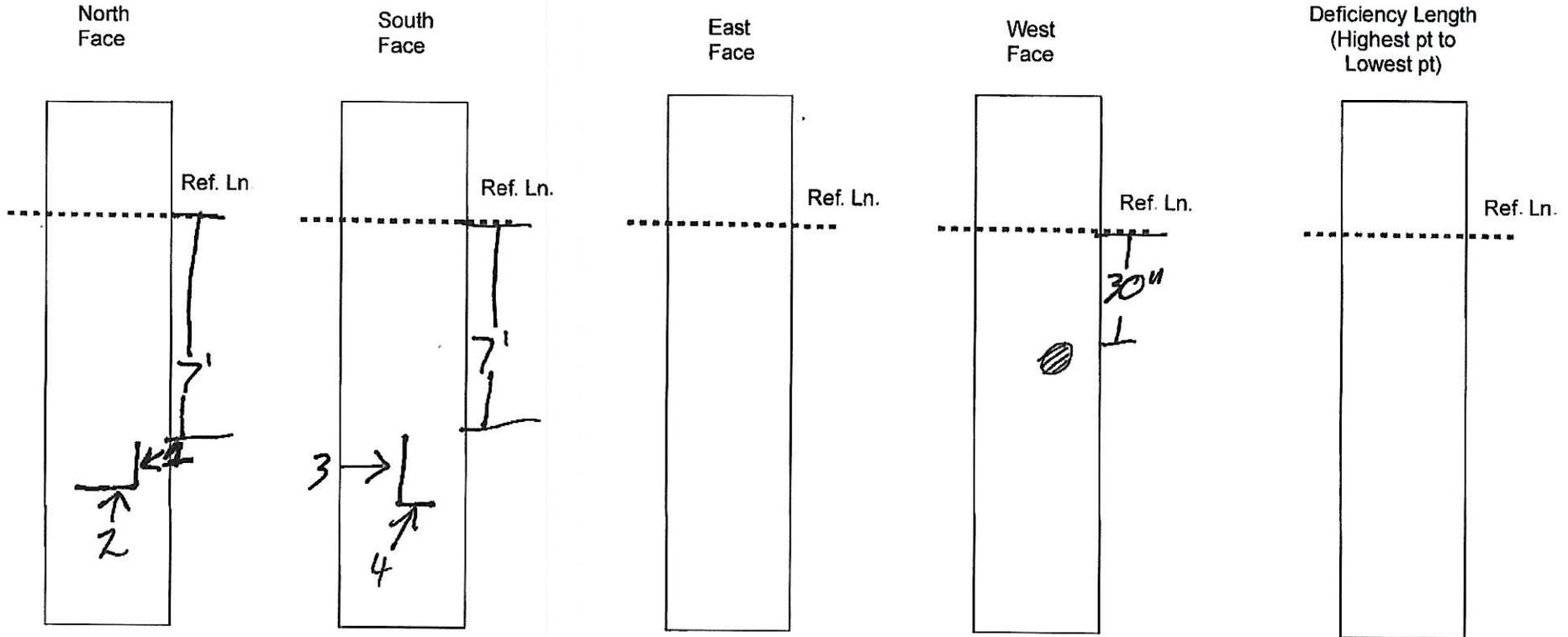
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Cracks	168"	11"	3/4"	1/6" - 1/2"
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	15'
Distance from Ref. Line to Top of highest deficiency	14'
Distance from Ref. Line to bottom of lowest deficiency	15'
Overall Length of Deficiencies	12"

Pile Survey Sheet

Bent #	11
Pile #	F

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



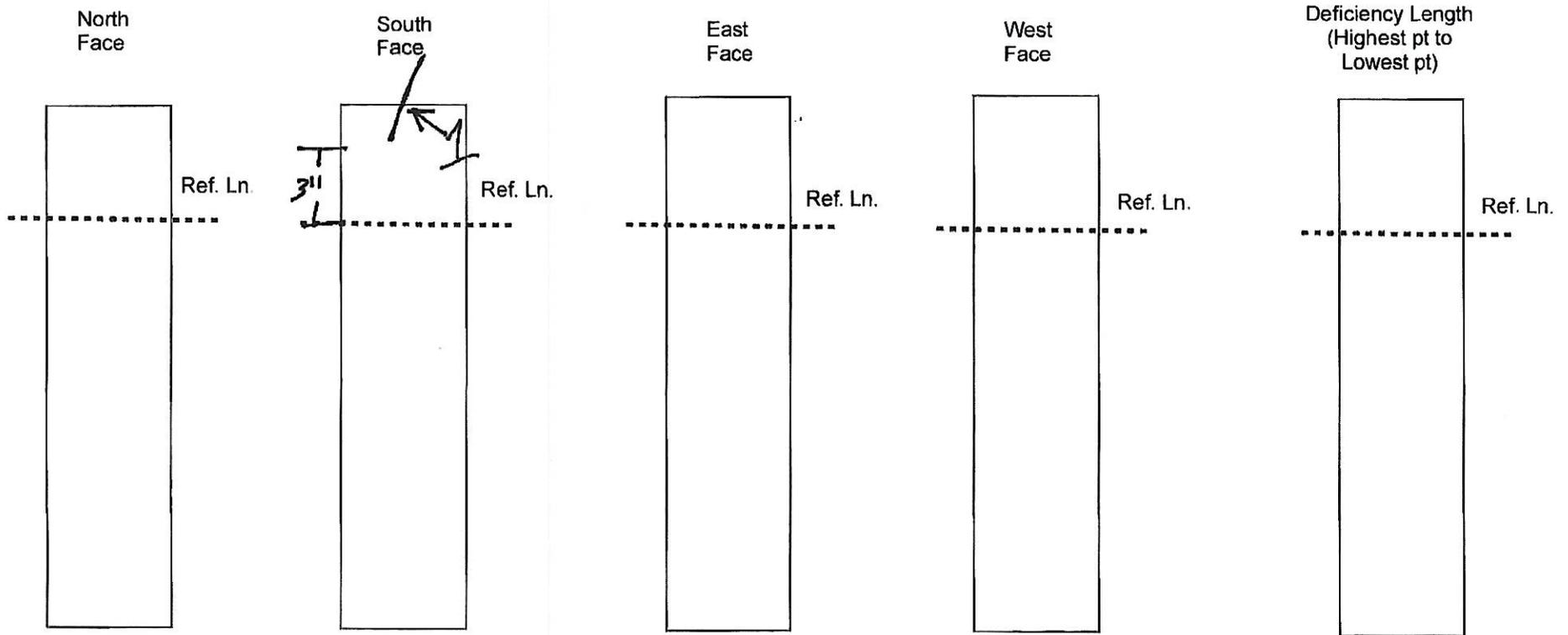
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	84"	4"	12 1/2"	1/2"
2	Crack	84"	6"	1/8"	1/8"
3	Crack	84"	12"	3/4"	1/4"
4	Crack	84"	5"	1/8"	1/16"
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	11'
Distance from Ref. Line to Top of highest deficiency	30"
Distance from Ref. Line to bottom of lowest deficiency	8'
Overall Length of Deficiencies	2.5'

Pile Survey Sheet

Bent #	11
Pile #	G

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



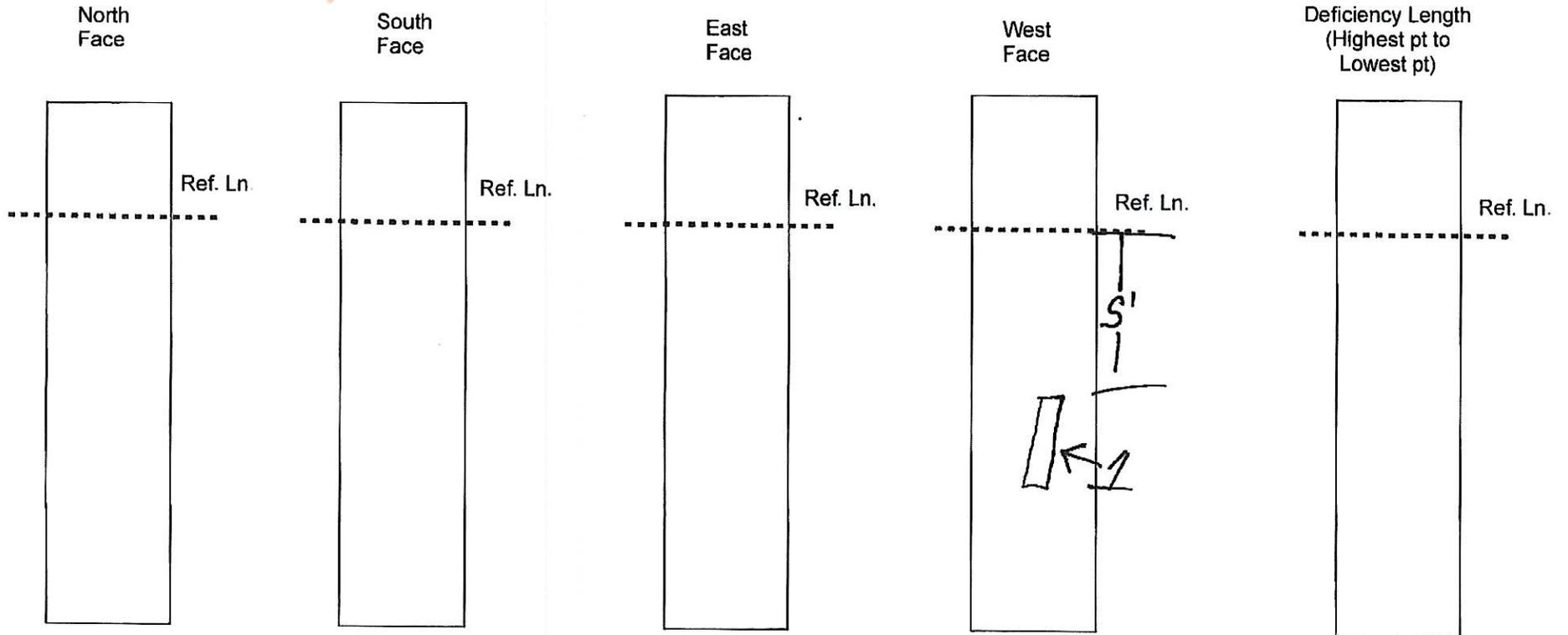
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	3"	12"	1/2"	1/16" - 1/8"
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Mud line
MLW Elevation	
Mudline Elevation	8'1"
Distance from Ref. Line to Top of highest deficiency	15"
Distance from Ref. Line to bottom of lowest deficiency	3"
Overall Length of Deficiencies	12"

Pile Survey Sheet

Bent #	13
Pile #	F

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



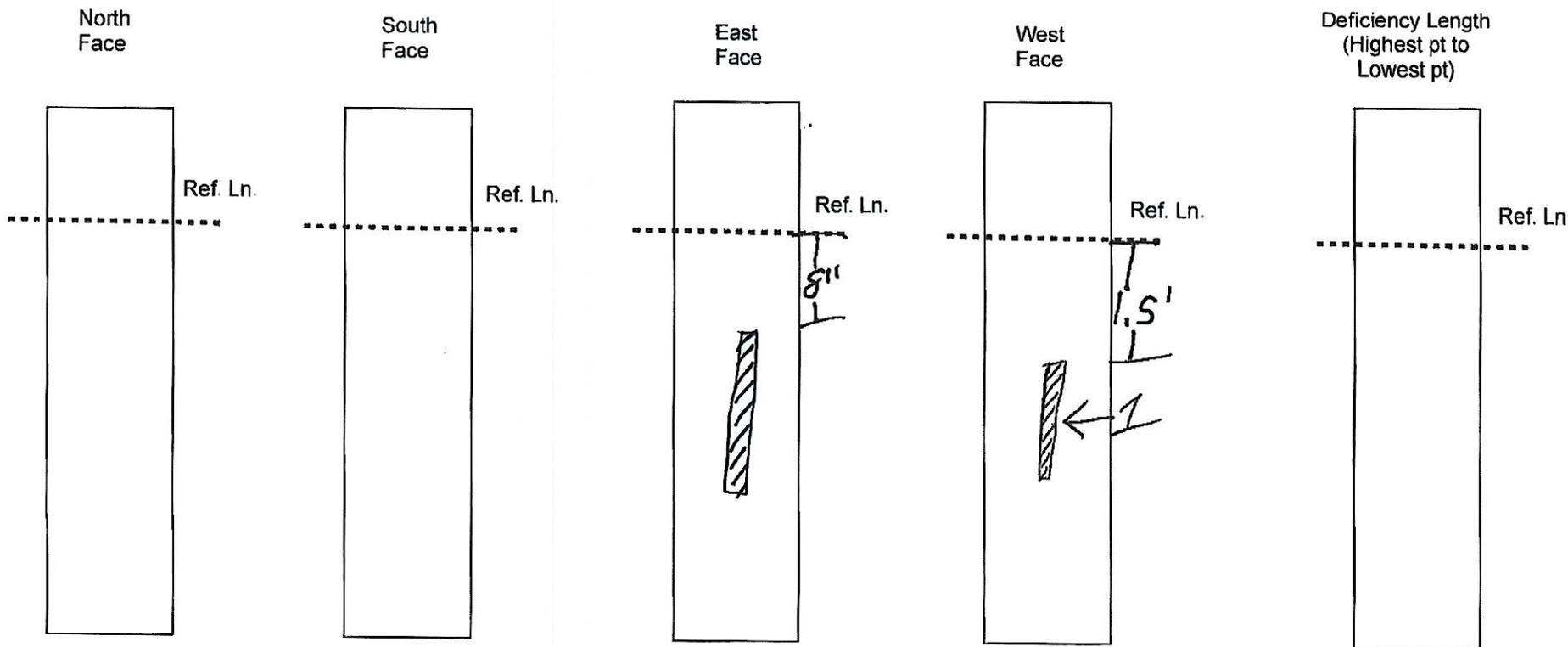
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Spall	60"	12"	1/2"	1/16" - 1/8"
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	9'
Distance from Ref. Line to Top of highest deficiency	5'
Distance from Ref. Line to bottom of lowest deficiency	6'
Overall Length of Deficiencies	1'

Pile Survey Sheet

Bent #	14
Pile #	F

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



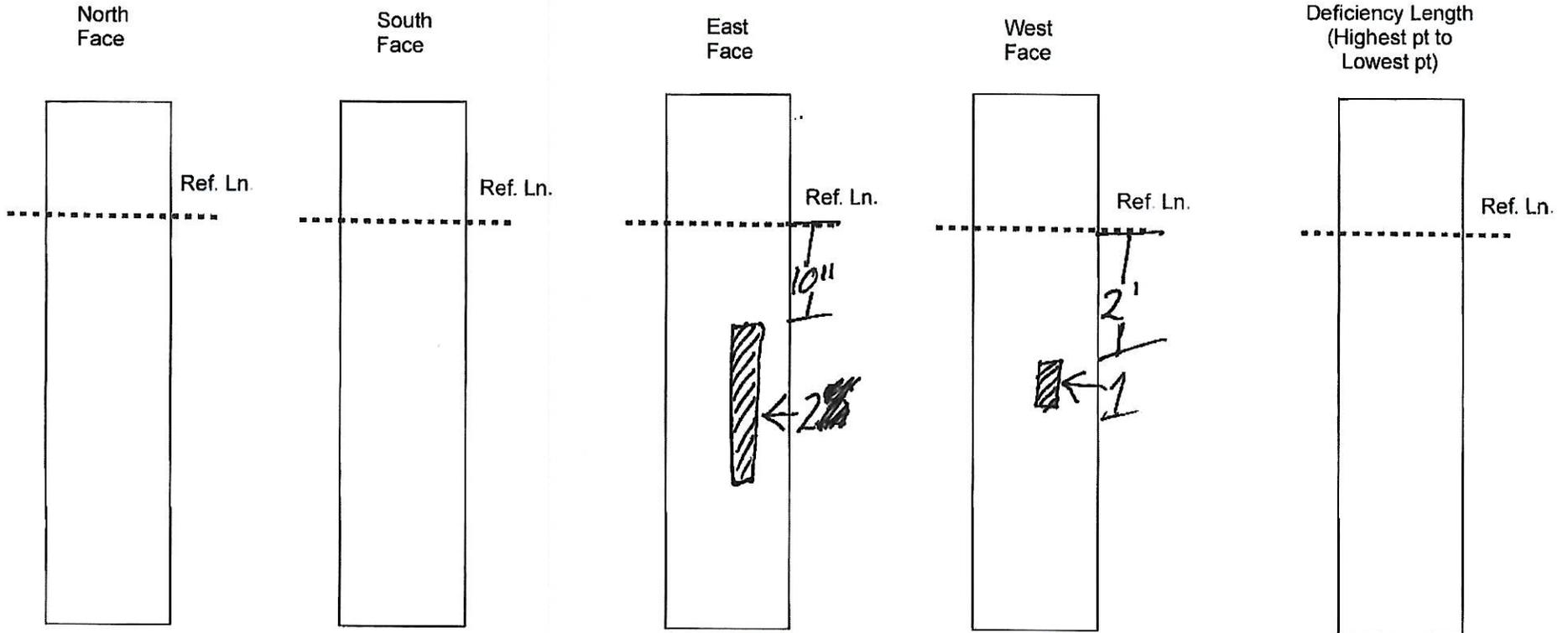
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	18"	16"	1"	N/A
2	Bleeding	8"	36"	1"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	4'
Distance from Ref. Line to Top of highest deficiency	8"
Distance from Ref. Line to bottom of lowest deficiency	8" 5'
Overall Length of Deficiencies	4.5'

Pile Survey Sheet

Bent #	14
Pile #	G

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



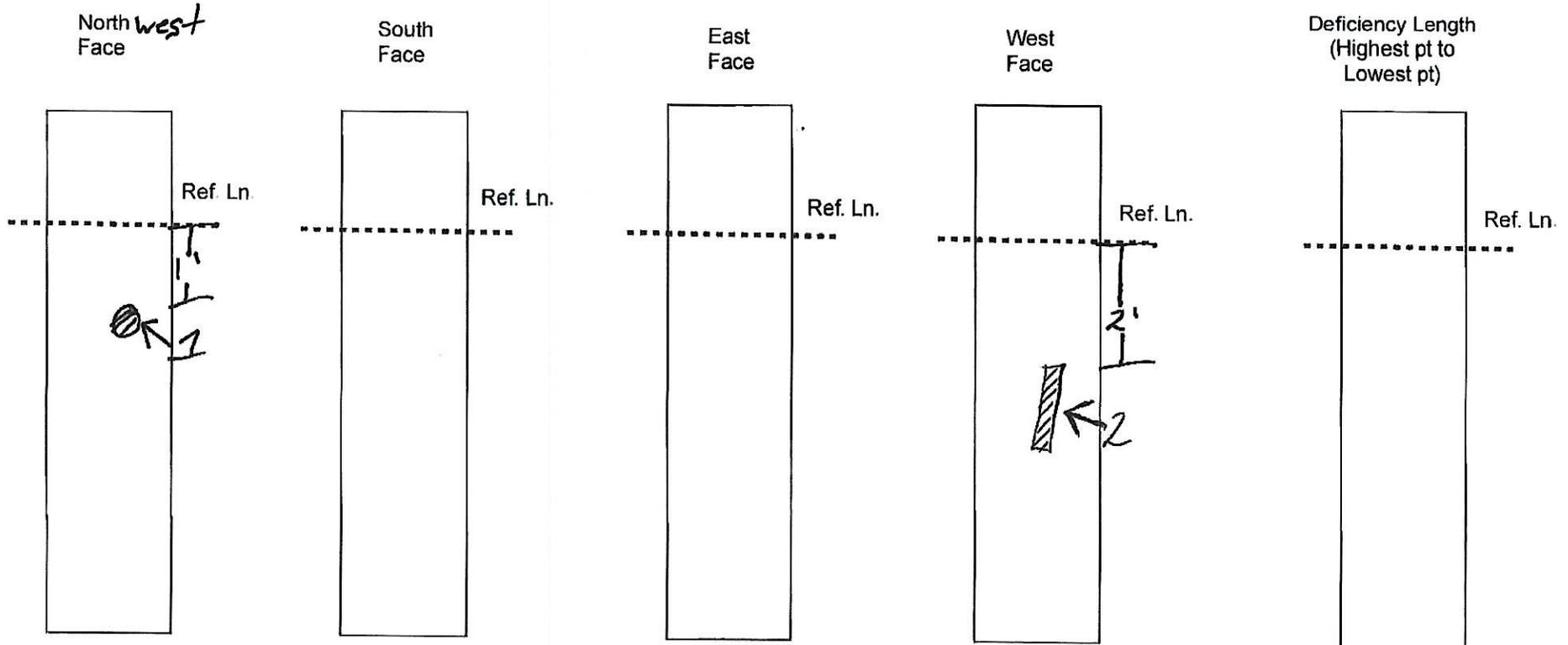
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	24"	3"	1"	N/A
2	Bleeding	10"	30"	1"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	4'
Distance from Ref. Line to Top of highest deficiency	10"
Distance from Ref. Line to bottom of lowest deficiency	3.5'
Overall Length of Deficiencies	3'

Pile Survey Sheet

Bent #	15
Pile #	E

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



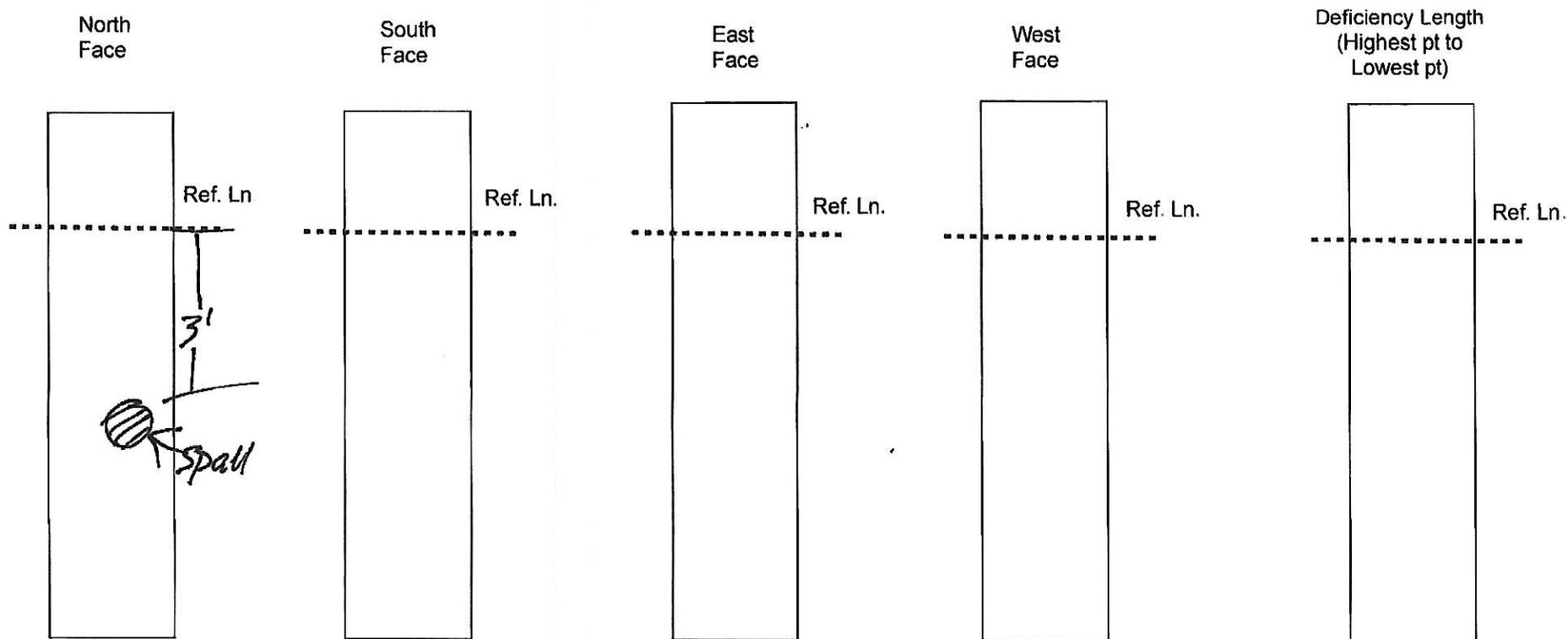
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Metal	12"	2"	2"	N/A
2	Bleeding	24"	12"	1"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	
MLW Elevation	
Mudline Elevation	
Distance from Ref. Line to Top of highest deficiency	
Distance from Ref. Line to bottom of lowest deficiency	
Overall Length of Deficiencies	

Pile Survey Sheet

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	

Bent #	15
Pile #	6



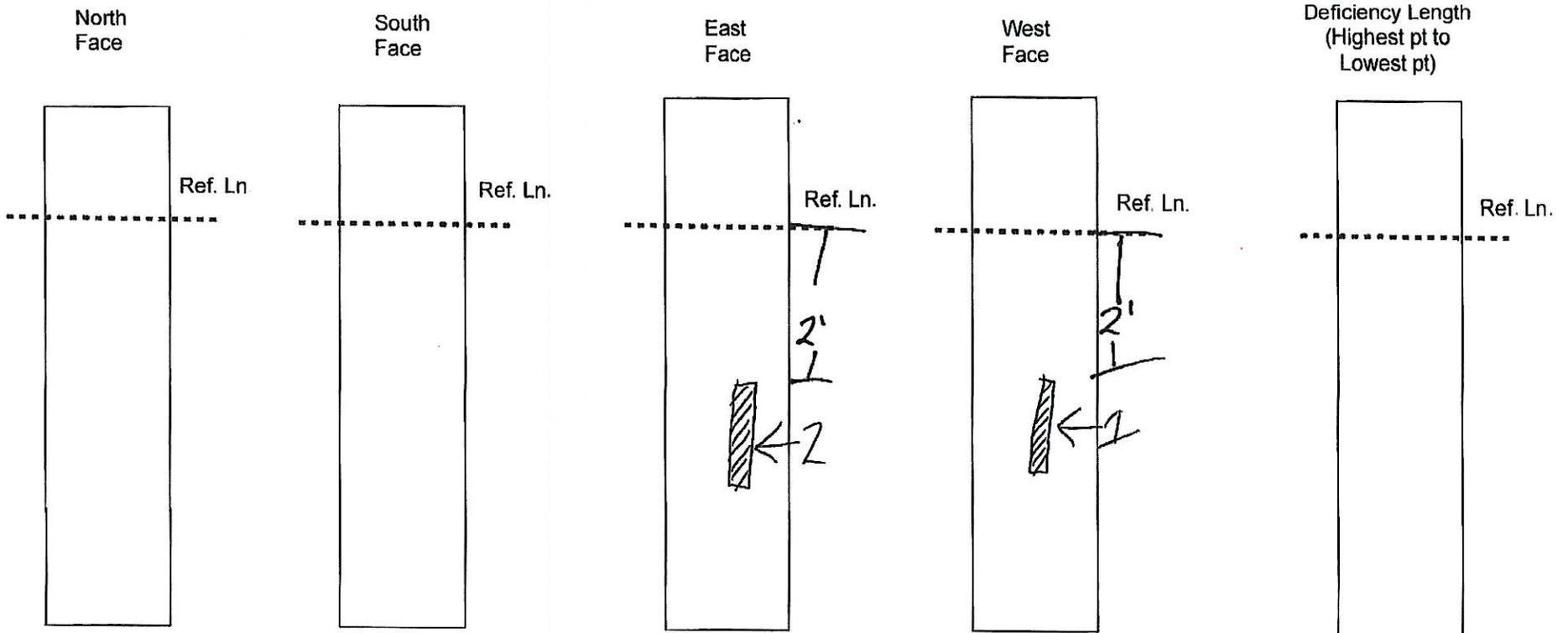
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Spall	36"	4"	4"	1/16" - 1/8"
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	4'
Distance from Ref. Line to Top of highest deficiency	3'
Distance from Ref. Line to bottom of lowest deficiency	3.5'
Overall Length of Deficiencies	4"

Pile Survey Sheet

Bent #	15
Pile #	H

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



Spall & Crack - Dimensions and locations Table (all measurements in inches)

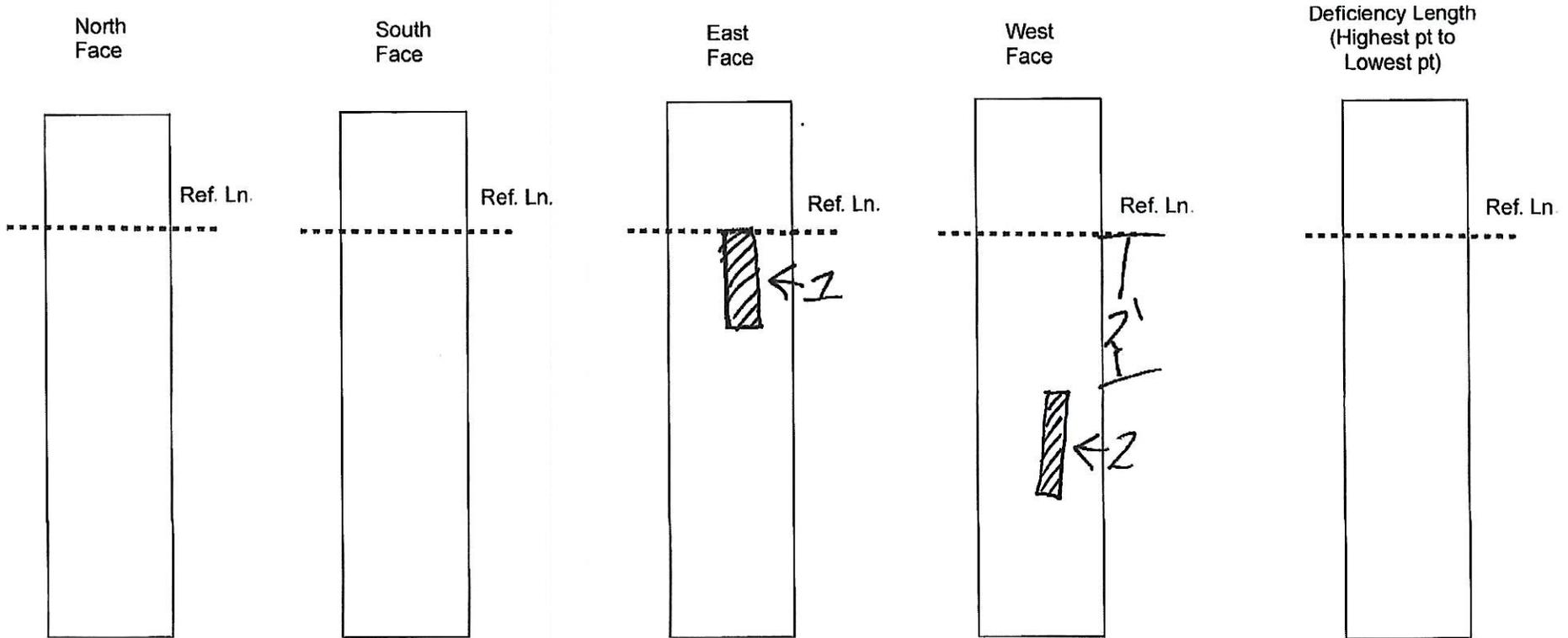
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	24"	12"	1"	N/A
2	Bleeding	24"	15"	1"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	4'
Distance from Ref. Line to Top of highest deficiency	2'
Distance from Ref. Line to bottom of lowest deficiency	3.5'
Overall Length of Deficiencies	2'

Pile Survey Sheet

Bent #	16
Pile #	F

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



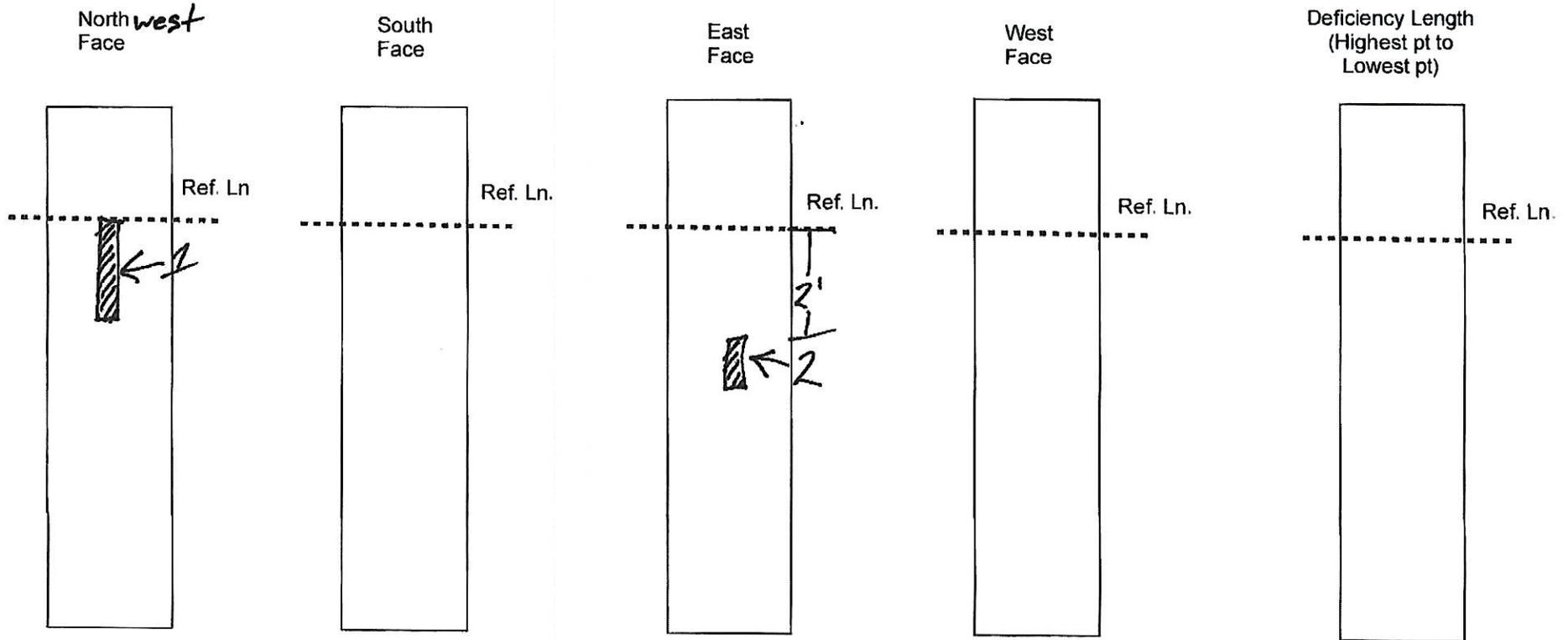
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	0"	18"	3"	N/A
2	Bleeding	24"	15"	1"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	4'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	3'
Overall Length of Deficiencies	3'

Pile Survey Sheet

Bent #	17
Pile #	F

Project:	
Inspector:	
Contract:	
FIN:	
# of Piles	



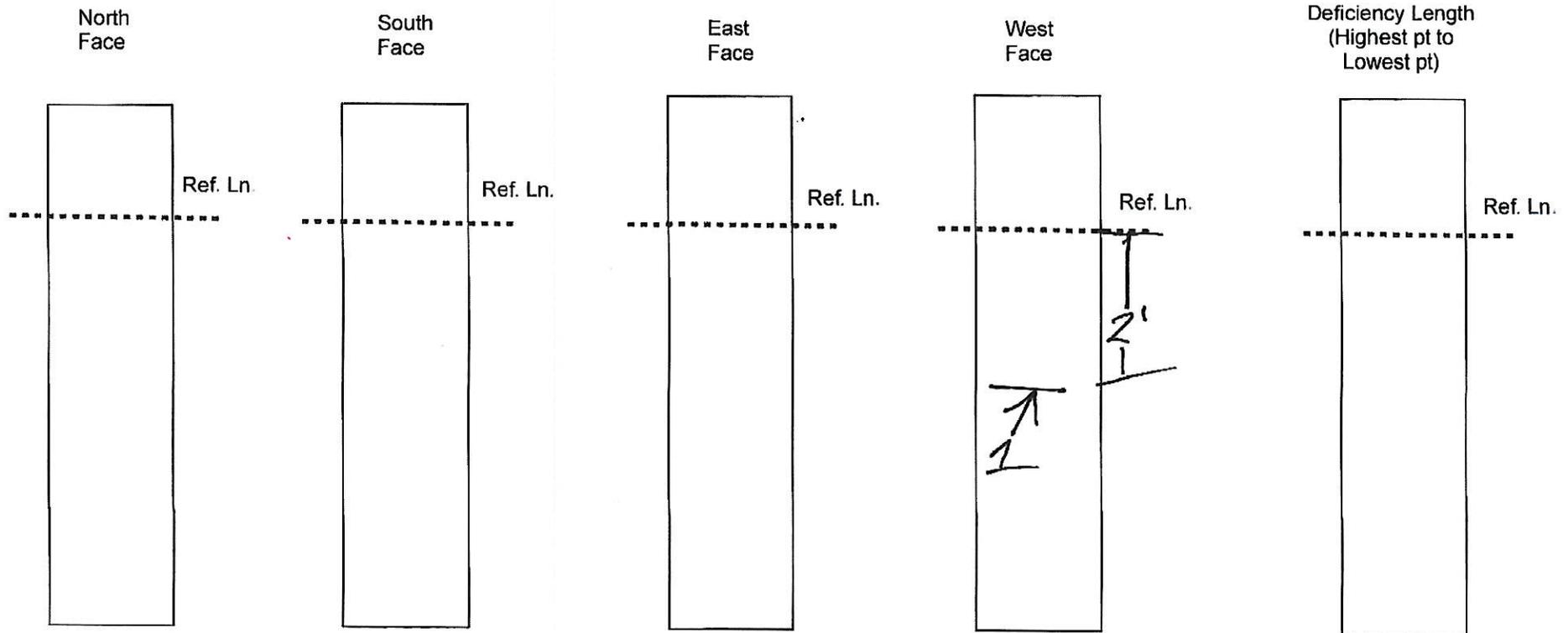
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	0"	24"	1/2"	N/A
2	Bleeding	24"	4"	1"	N/A
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	3'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	2'
Overall Length of Deficiencies	2'

Pile Survey Sheet

Bent #	17
Pile #	G

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



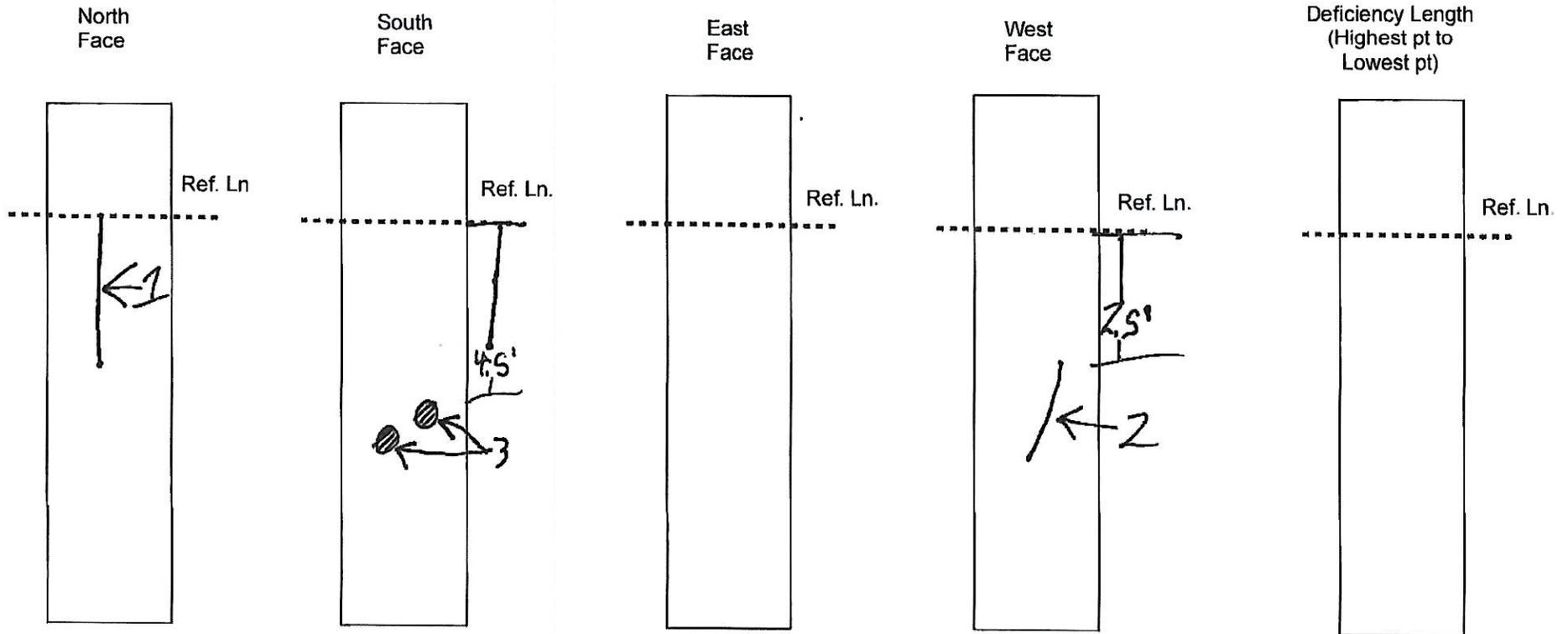
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	24"	1/2"	8"	1/16"
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	3'
Distance from Ref. Line to Top of highest deficiency	2'
Distance from Ref. Line to bottom of lowest deficiency	2'
Overall Length of Deficiencies	8"

Pile Survey Sheet

Bent #	18
Pile #	E

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	0"	48"	1/16"	1/16" - 1/8"
2	Crack	30"	30"	1/16"	1/16" - 1/8"
3	Bleeding	54"	1"	1"	N/A
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	3'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	4.5'
Overall Length of Deficiencies	4'

Pile Survey Sheet

Bent #	18
Pile #	F

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	

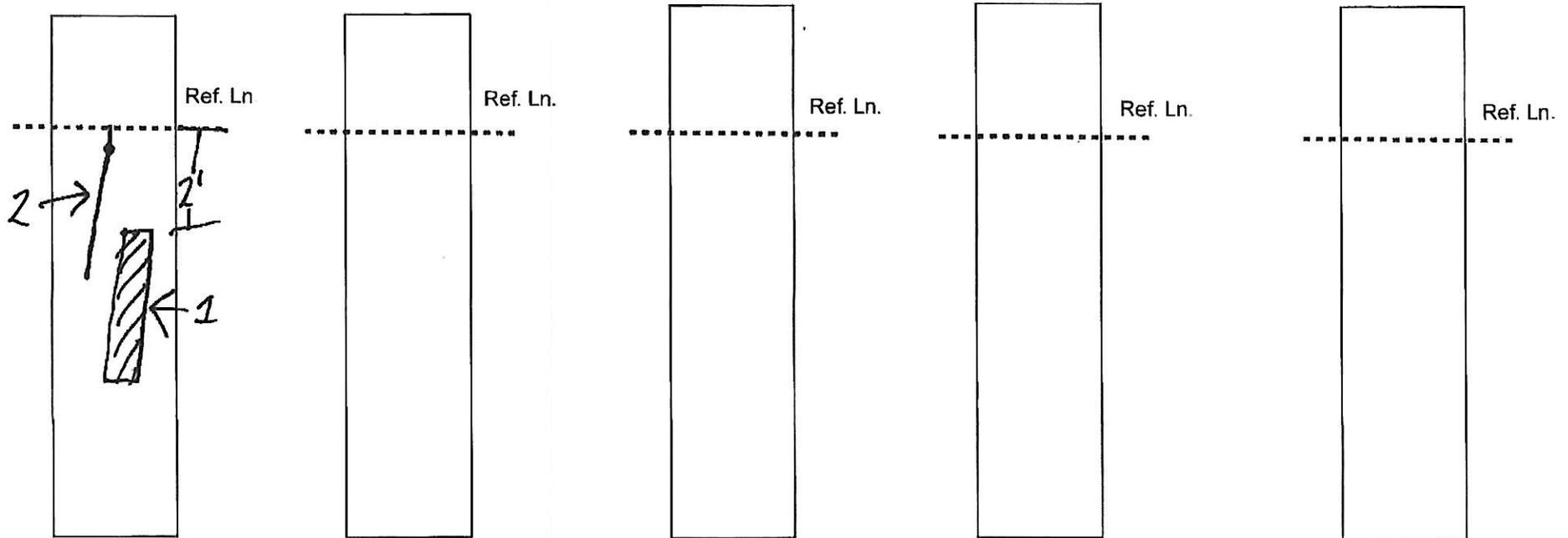
Northwest
Face

South
Face

East
Face

West
Face

Deficiency Length
(Highest pt to
Lowest pt)



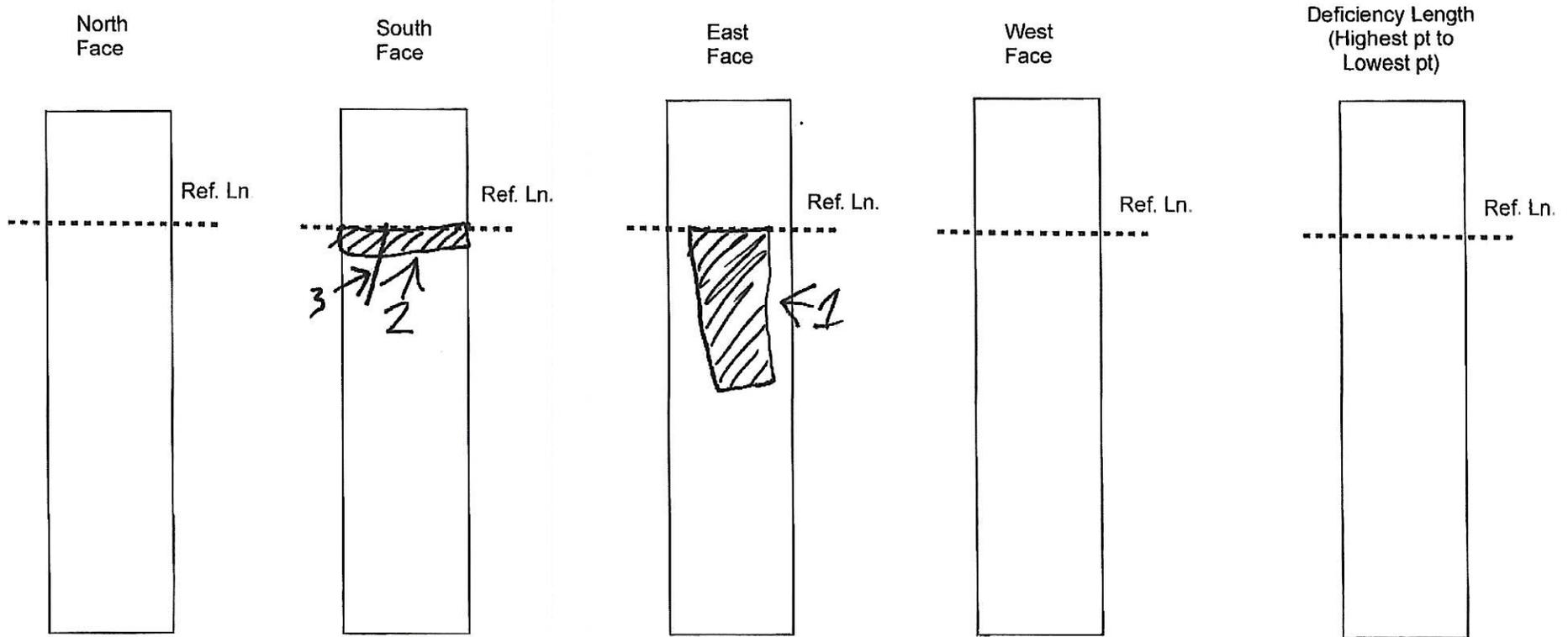
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	24"	30"	3"	N/A
2	Crack	0"	30"	1/6"	1/6" - 1/8"
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	3'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	4.5'
Overall Length of Deficiencies	5'

Pile Survey Sheet

Bent #	19
Pile #	E

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



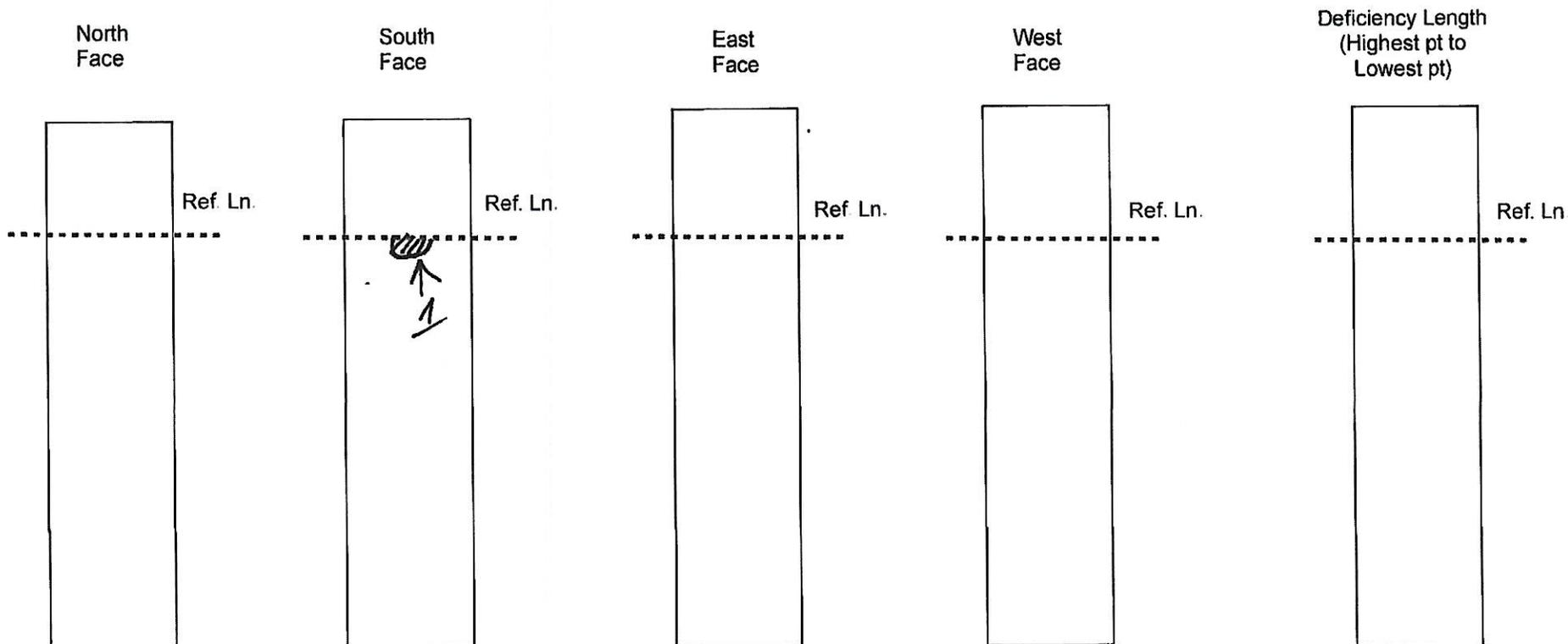
Spall & Crack - Dimensions and locations Table (all measurements in inches)					
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	0"	36"	12"	N/A
2	Bleeding	0"	3"	12"	N/A
3	Crack	0"	8"	1/6" - 1/8"	1/6" - 1/8" 1/4"
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	3'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	3'
Overall Length of Deficiencies	3'

Pile Survey Sheet

Bent #	19
Pile #	F

Project:	
Inspector:	
Contract:	
FIN:	
# of Piles	



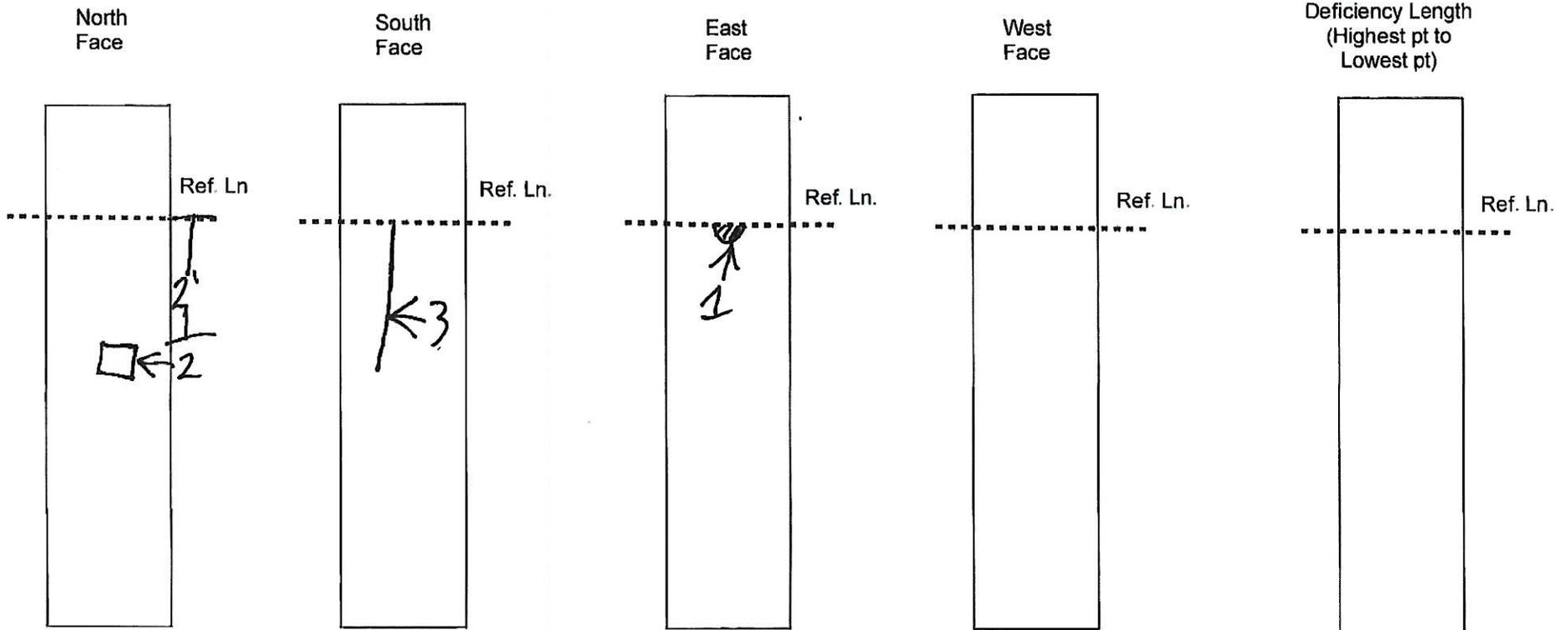
Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	0"	1/2"	1/2"	N/A
2					
3					
4					
5					
6					
7					
8					
9					
10					

Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	3'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	1/2"
Overall Length of Deficiencies	1/2"

Pile Survey Sheet

Bent #	19
Pile #	G

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	



Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Bleeding	0"	1/2"	1/2"	N/A
2	Spall	24"	3"	2"	1/16" - 1/4"
3	Crack	0"	24"	1/16"	1/16" - 1/8"
4					
5					
6					
7					
8					
9					
10					

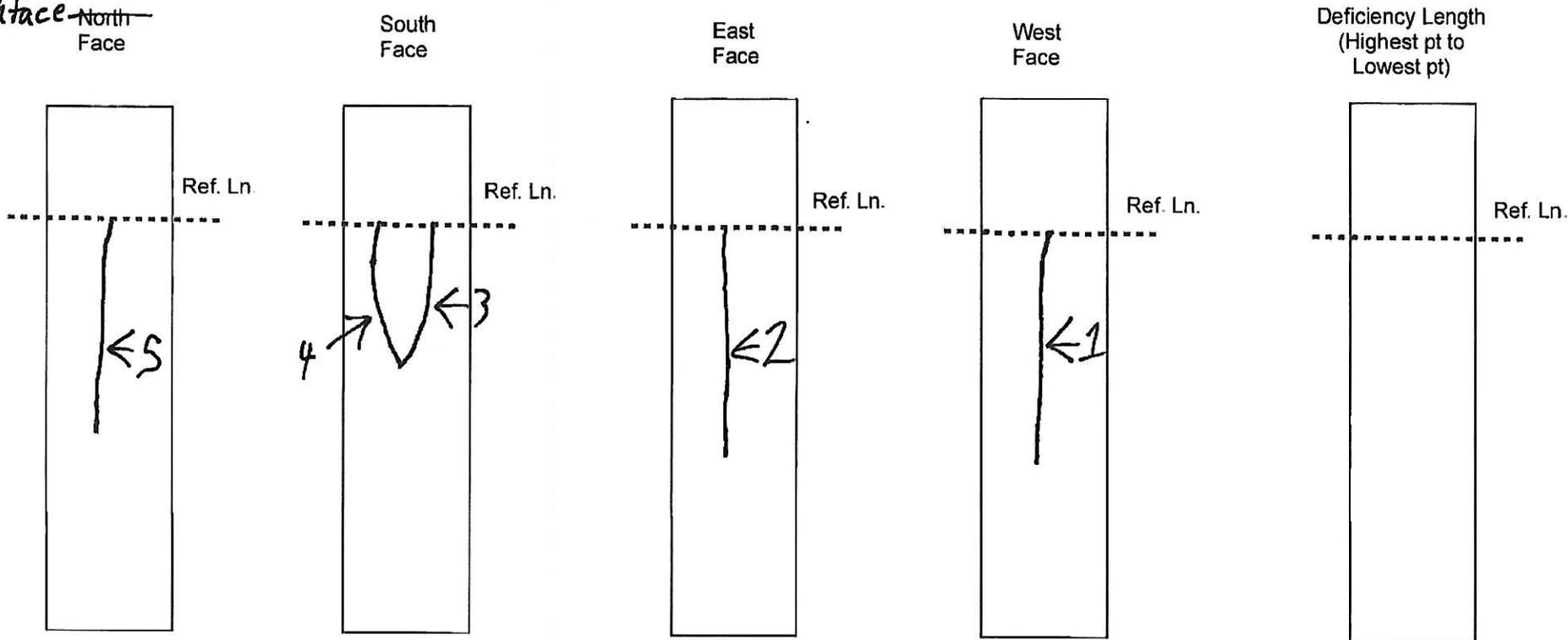
Ref. Line Elevation	Pilecap
MLW Elevation	
Mudline Elevation	3'
Distance from Ref. Line to Top of highest deficiency	0"
Distance from Ref. Line to bottom of lowest deficiency	2'
Overall Length of Deficiencies	2'

Pile Survey Sheet

Bent #	19
Pile #	H

Project:	
Inspector:	
Contract:	
FIN:	
# of Pics	

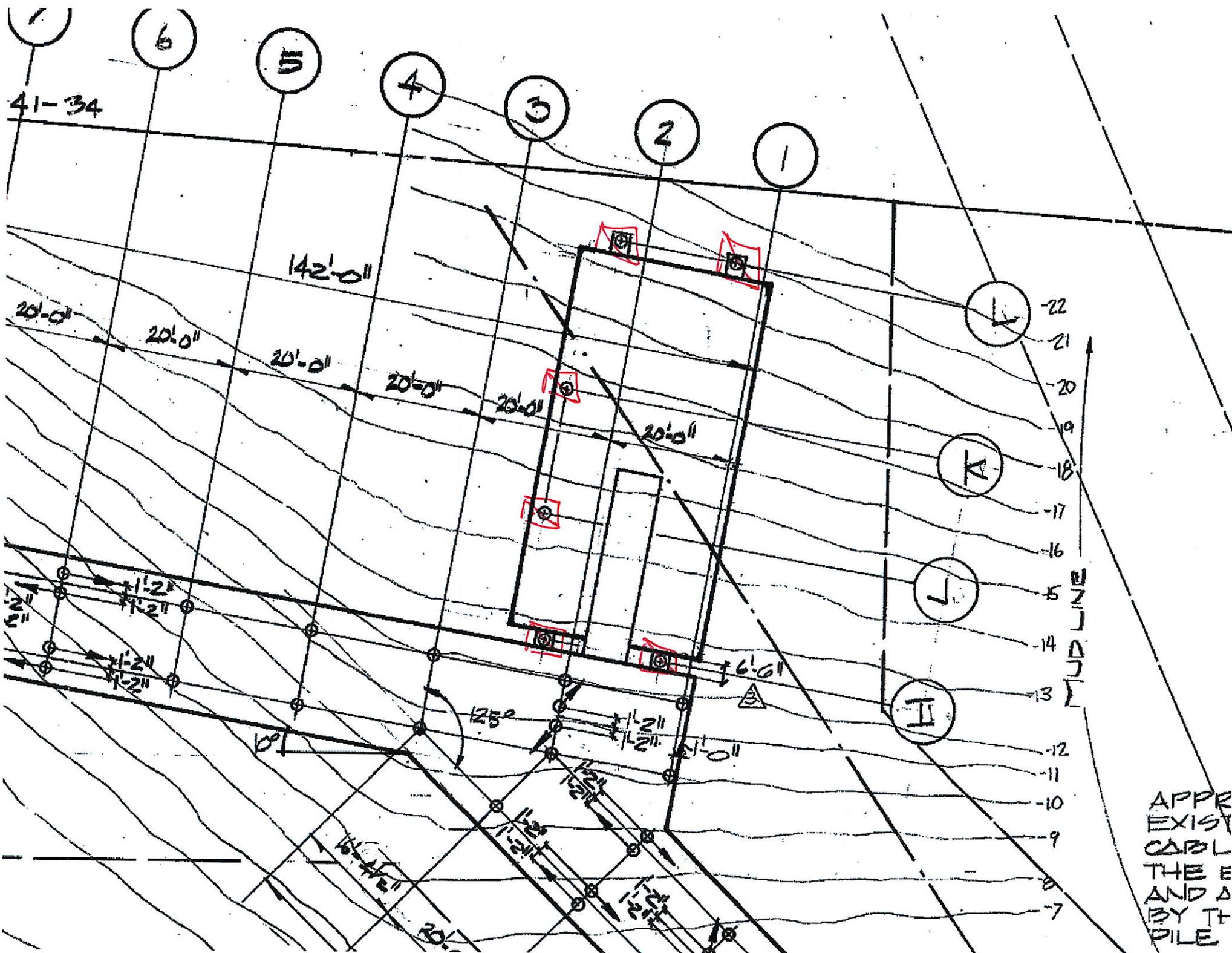
South Face ~~North Face~~



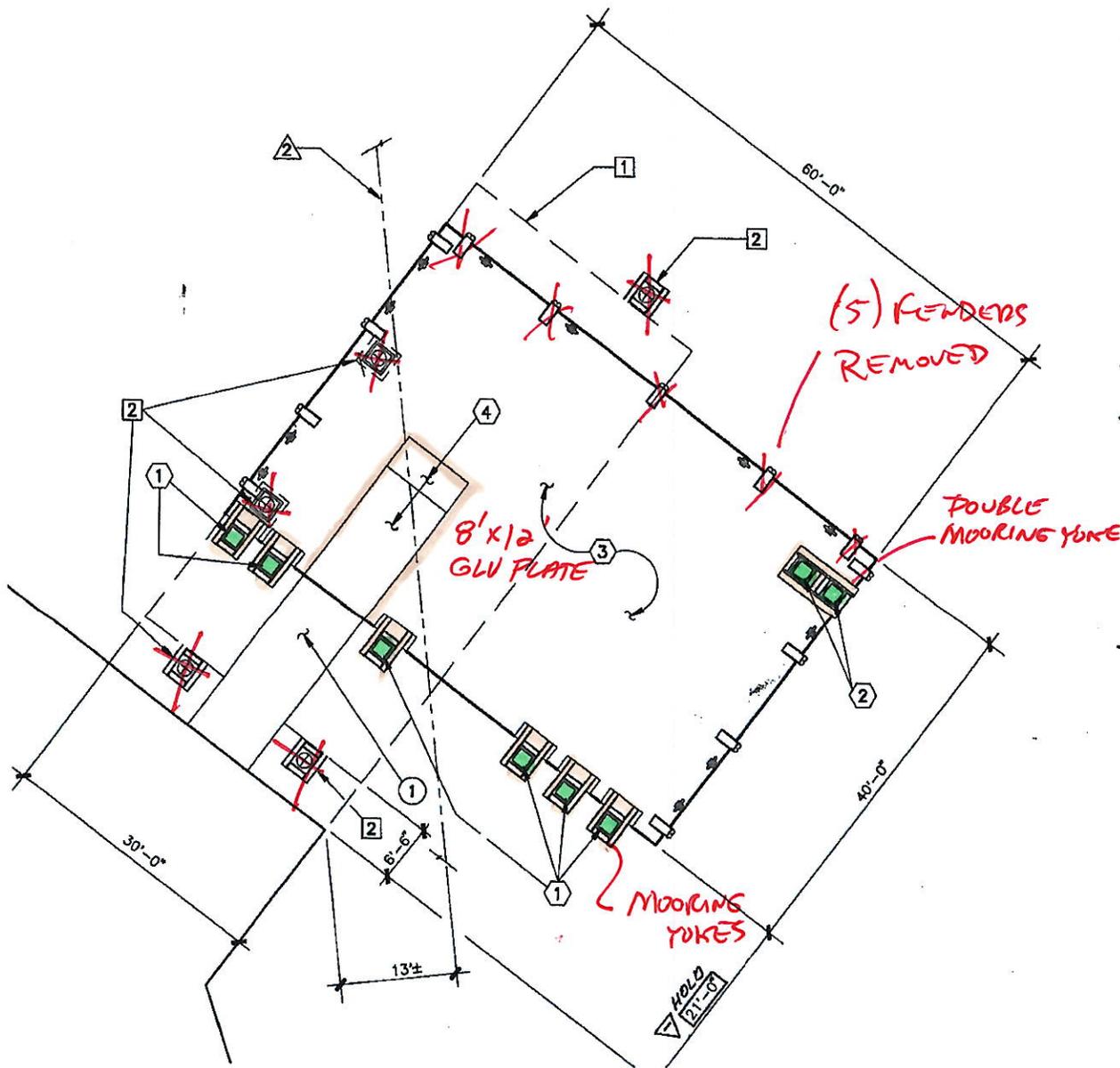
Spall & Crack - Dimensions and locations Table (all measurements in inches)

Location #	Type	Distance from Ref. Line	Vert. Length	Width	Depth
1	Crack	0"	42"	1/16" - 1/4"	3/8" - 3/4"
2	Crack	0"	42"	1/16" - 1/4"	3/8" - 1"
3	Crack	0"	24"	1/16" - 1/2"	1/16" - 5"
4	Crack	0"	24"	1/16" - 1/2"	1/16" - 5"
5	Crack	0"	36"	1/16" - 3/4"	1/16" - 4"
6					
7					
8					
9					
10					

Ref. Line Elevation	
MLW Elevation	
Mudline Elevation	
Distance from Ref. Line to Top of highest deficiency	
Distance from Ref. Line to bottom of lowest deficiency	
Overall Length of Deficiencies	



APPROXIMATE
 EXISTING
 CABLE
 THE E
 AND A
 BY THE
 PILE



WORK TO BE DONE

THE WORK TO BE DONE SHALL BE ACCORDING TO THIS DRAWING AND SPECIFICATION 94-03 OF THE SAN DIEGO UNIFIED PORT DISTRICT.

THE WORK INCLUDES : a) PICKUP, MODIFY, & STORING THE EXISTING GANGWAY, b) REMOVING AND DISPOSING OF THE EXISTING WOOD FLOAT AND 5 EXISTING PRESTRESSED CONCRETE PILES, c) FURNISHING AND INSTALLING SIX 20" SQUARE X 42'-3" FOOT LONG PRESTRESSED CONCRETE PILES, d) FURNISHING AND INSTALLING TWO 20" SQUARE X 47'-3" FOOT LONG PRESTRESSED CONCRETE PILES, e) CONSTRUCTING, TOWING, TRIMMING AND INSTALLING A 40 FOOT X 60 FOOT STEEL FLOAT. AND, f) REINSTALLING THE GANGWAY AT THE OLD FERRY LANDING, CORONADO, CALIFORNIA.

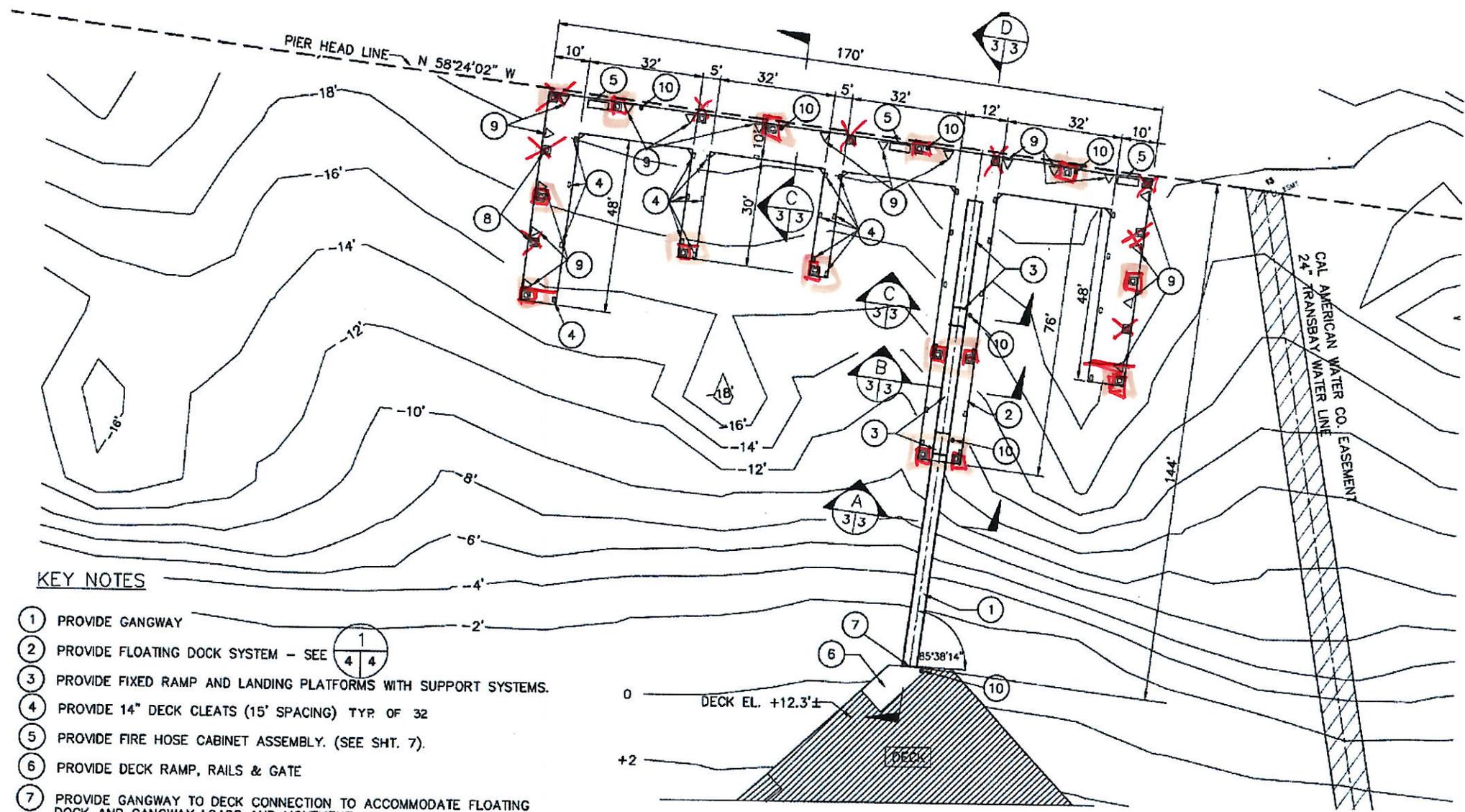
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3	DETAILS
4	DETAILS
5	GUIDE PILE PLAN AND DETAILS

ABBREVIATIONS

ABV	ABOVE
⊙	AT
BEL	BELOW
BHD	BULKHEAD
BKT	BRACKET
BL	BASELINE
CL	CENTERLINE
CC	CENTER TO CENTER
CLR	CLEAR
CONC	CONCRETE
CONTIN	CONTINUOUS
CSK	COUNTERSUNK
DBL / DBLR	DOUBLE / DOUBLER
DET	DETAIL
DIA	DIAMETER
DK	DECK
DWG	DRAWING
ELEV	ELEVATION
EQ	EQUAL
FB	FLAT BAR
FDNS	FOUNDATIONS
FLG	FLANGE
FLGD	FLANGED
FRS	FRAMES
FWD	FORWARD
CPLG	COUPLING

A1995



KEY NOTES

- ① PROVIDE GANGWAY
- ② PROVIDE FLOATING DOCK SYSTEM - SEE

1
4 4
- ③ PROVIDE FIXED RAMP AND LANDING PLATFORMS WITH SUPPORT SYSTEMS.
- ④ PROVIDE 14" DECK CLEATS (15' SPACING) TYP. OF 32
- ⑤ PROVIDE FIRE HOSE CABINET ASSEMBLY. (SEE SHT. 7).
- ⑥ PROVIDE DECK RAMP, RAILS & GATE
- ⑦ PROVIDE GANGWAY TO DECK CONNECTION TO ACCOMMODATE FLOATING DOCK AND GANGWAY LOADS AND MOVEMENT.
- ⑧ INSTALL ANCHOR PILES (23 TOTAL)
- ⑨ PROVIDE 20" DECK CLEATS. TYP. OF 18
- ⑩ PROVIDE POLE MOUNTED LIGHTS. (SEE SHT. 8).



FLOATING DOCK & GANGWAY LAYOUT PLAN
1"=20'

* TRANSITION PLATES
* PILE GUIDES + PADS