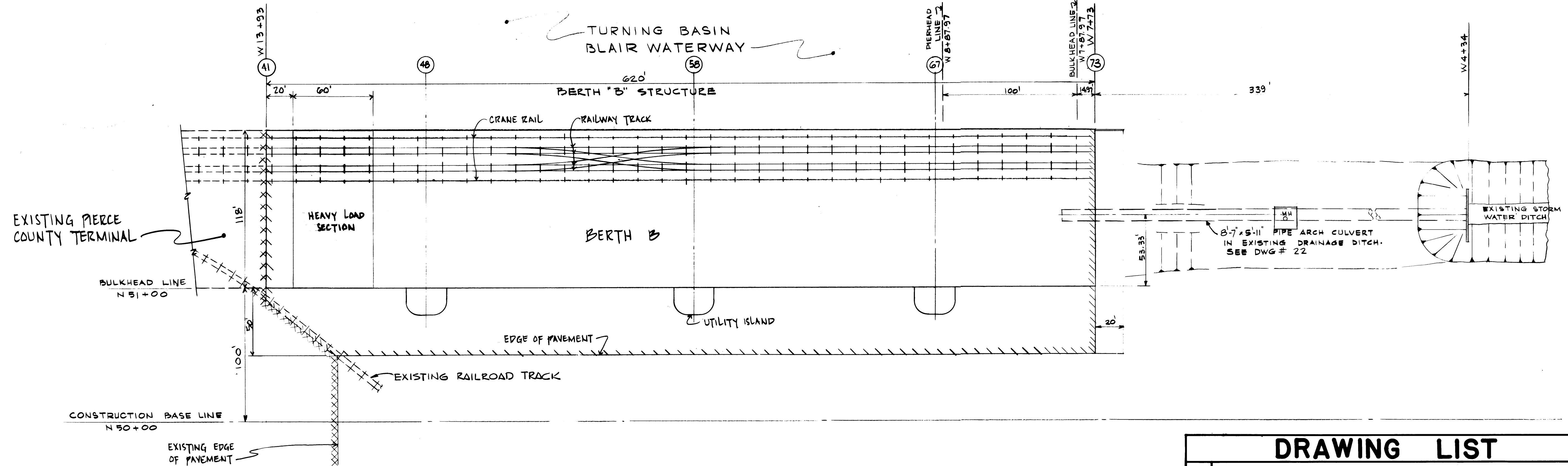
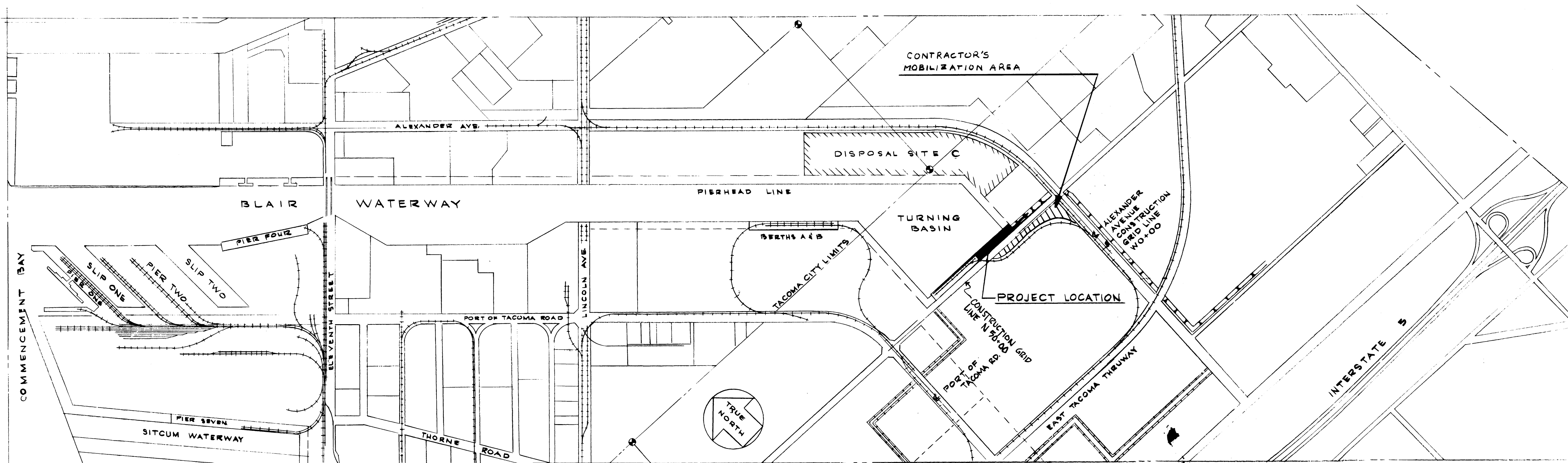




P L A N
1" = 40'

DRAWING LIST

- 1 GENERAL PLAN
- 2 GENERAL NOTES
- 3 LOG OF TEST BORINGS
- 4 CROSS SECTIONS
- 5 CROSS SECTIONS
- 6 PILE PLAN
- 7 DECK PLAN - BENTS 41 THRU 52
- 8 DECK PLAN - BENTS 52 THRU 62
- 9 DECK PLAN - BENTS 62 THRU 73
- 10 TYPICAL WHARF SECTION
- 11 WHARF DETAIL - SHEET NO. 1
- 12 WHARF DETAIL - SHEET NO. 2
- 13 WHARF DETAIL - SHEET NO. 3
- 14 PRESTRESSED CONCRETE PILE & DECK PLAN
- 15 HEAVY LOAD DECK PANEL & MISC. DETAILS
- 16 TRACKAGE PLAN & DETAILS
- 17 FENDER SYSTEM & TIMBER DETAILS
- 18 WHARF SERVICE PLAN
- 19 WHARF SERVICE DETAILS
- 20 UTILITY ISLAND
- 21 WHARF ELECT. SERVICE DETAILS
- 22 DRAINAGE DITCH ALTERATION



V I C I N I T Y M A P
1" = 800'

REFERENCE DRAWING ENTITLED PORT OF TACOMA INDUSTRIAL DEVELOPMENT DISTRICT DRAWING NO. EP-1791-18 REVISED APRIL 22, 1962

Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98408



MARK	REVISION	BY	APP.	DATE

E.D.A. PROJECT #07-11920

DRAWN GA / BW
DATE
CHECKED BW
DATE 10/3/75
CHECKED
DATE
CONT. NO. 430

PORT OF TACOMA
PIERCE COUNTY TERMINAL
BERTH B
GENERAL PLAN

FIELD BOOK(S)

APPROVED

10/3/75

DATE

Donal L. Moorman
CHIEF ENGINEER

SCALE AS NOTED

DRAWING NO.

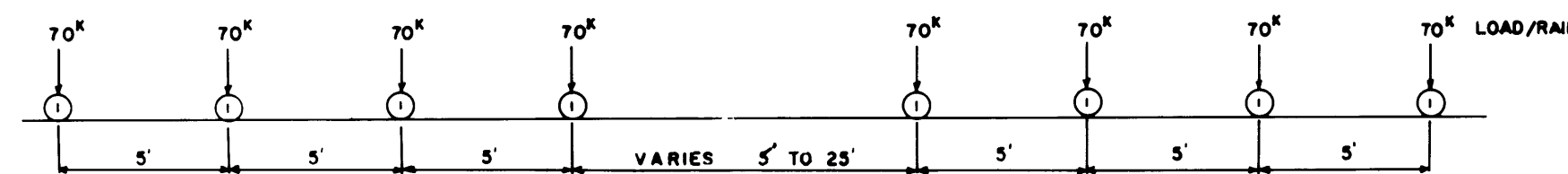
EP-2637-17

SHEET 1 OF 22

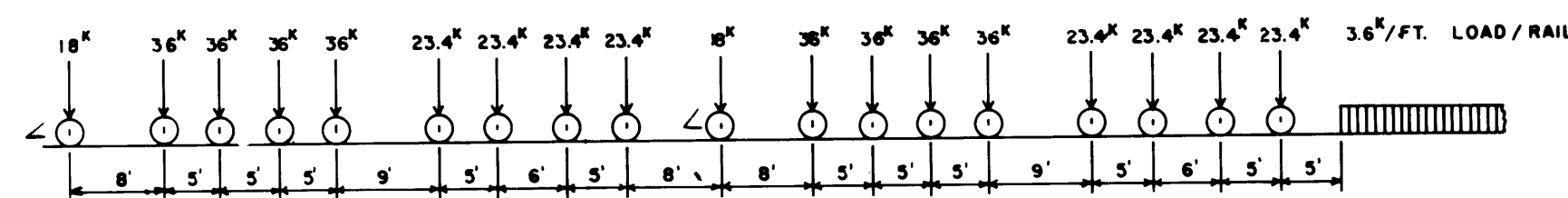
GENERAL NOTES

1. All methods and materials shall conform to the current edition of Tacoma Building Code.
2. All dimensions and details shall be verified by the Contractor before fabrication or construction.
3. Reference Elevations and Base Lines:
Elevation datum and construction base line to be established by Port of Tacoma.
4. Shop drawings shall be prepared by the Contractor and submitted to the Port for review prior to fabrication and construction.
5. Soils Report: The logs of soil borings made by Neil H. Twelker & Associates are shown on Drawing No. 3. This data is shown for Contractor's information only. The Owner and/or Engineer cannot be responsible for variations which might be found during construction.
6. Piling:
 - a. All precast prestressed concrete piles shall be constructed in conformance with the details shown on drawing and called for in specifications. Each pile shall develop a minimum bearing capacity in place of 100-Tons and shall be driven into the bearing stratum indicated by the tentative tip elevations shown on Dwg. No. 6 (see soils report prepared by Neil H. Twelker & Assoc. dated Sept. 29, 1971 and Supplement dated Feb. 1, 1972). The penetration resistance of the pile is to be measured in blows per foot for each foot of the final five feet of driving. See Specification Section 2D.
 - b. Jetting not permitted except when driving resistance becomes sufficiently excessive to cause physical damage to pile. Each case of jetting will be considered a special case and determination of required penetration shall be made by the Port. Jetting shall be restricted to short increments and driving shall be attempted at the conclusion of each increment of jetting. Jetting shall not be permitted within five feet of the final tip elevation.
 - c. Design Loads - Precast Piles:
 - (1) Vertical piles - 100-Ton compression and 50-Ton tension.
 - (2) Batter piles - 100-Ton compression and 50-Ton tension.
 - d. Timber fender piles shall be Pacific Coast Douglas Fir, pressure treated piles (see specifications). The fender piles shall have a minimum penetration of 20 feet below dredge El. -45.00.
 - e. Pressure treatment of fender piles shall be in accordance with the American Wood Preserver's Association (AWPA) Standards C1-74, C3-74, and P13-65 for marine piling using 12# retention.
 - f. Field treatment of pressure treated fender piles, where their surfaces have been accidentally damaged or where field fabricated connections are required, shall be in accordance with the specific instructions outlined in the appendix of the U.S. Dept. of Commerce Commercial Standard CS249-62.
7. Reinforced Concrete:
 - a. All methods and materials shall conform to the recommended practices for concrete work as given in the latest edition of American Concrete Institute (ACI) "Building Code Requirements for Reinforced Concrete".
 - b. Typical Reinforcing Requirements:
 - (1) Prestressing tensions shall be uncoated, stress relieved seven wire strands having a guaranteed minimum ultimate tensile strength of 270 KSI. Strands shall conform to ASTM A416.
 - (2) Reinforcing Steel shall be deformed billet steel bars ASTM Designation A615-74. The grade shall be as follows:
 - (a) Bars #5 and smaller in diameter shall be Grade 40.
 - (b) Bars #6 and larger in diameter shall be Grade 60.
 - (3) Welding of reinforcing steel shall be in accordance with the latest specifications of the American Welding Society (AWS).
 - (4) Concrete coverage over steel shall be 3" for concrete poured directly against ground and 2" for formed concrete exposed to soil or weather, unless specifically noted otherwise on the drawings.
 - (5) All bars shall have a minimum splice of 40 Bar Diameters.
 - (6) All corners shall be reinforced with corner bars of same size and spacing as main steel running to corner. Minimum length of each leg of corner bar shall be 48 Bar Diameters.
 - c. Concrete:
 - (1) All poured-in-place structural concrete shall develop 4000 psi compressive strength in 28 days (see specifications - Division 3.)
 - (2) Prestressed concrete - See Drawing 14 for specific requirements.
 - d. All exposed corners of concrete caps, beams and halls shall be chamfered 3/4" or as directed.
8. Structural Steel:
 - a. All structural steel shall be ASTM A36 unless specifically noted otherwise on the drawings or in the specifications.
 - b. All bolts and nuts shall be A307 unless specifically noted otherwise on the drawings.
 - c. All structural steel shall conform to the latest specifications of the American Institute of Steel Construction (AISC).
 - d. All welding shall conform to the latest specifications of the American Welding Society (AWS).
 - e. All steel and hardware, exposed to elements, shall be galvanized except where specifically noted otherwise (see specifications).

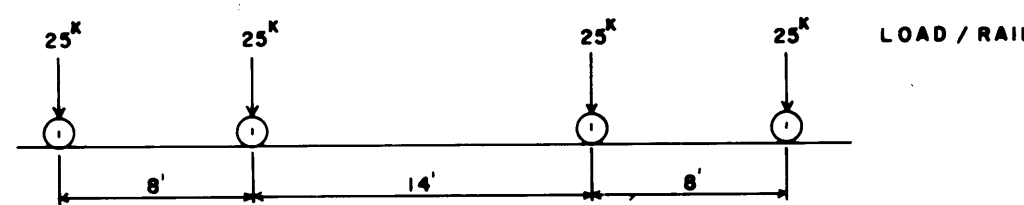
9. Structural Timber:
- a. All timber shall be Pacific Coast Douglas Fir, Grade No. 1 and shall conform to latest specifications of the West Coast Lumber Inspection Bureau (WCLIB).
 - b. All timber shall be surfaced four sides (S4S) unless specifically noted otherwise on the drawings.
 - c. Holes for bolts shall be 1/16" larger than the bolt holes for dowels and pins shall be predrilled 1/16" undersize.
 - d. All timber, including rail ties, shall be pressure treated in accordance with AWPA Standards C1-74, C2-74 and P13-65 with a retention of 8-lbs. of creosote per cubic foot.
 - e. Field treatment of pressure treated timber, where the surface has been accidentally damaged or where field fabricated connections are required, shall be done in accordance with the specific instructions outlined in the Appendix of the U.S. Dept. of Commerce Commercial Standard CS249-62.
10. Crane and Railroad Track:
- a. All straight railroad rail, tie plates, and angle bars shall be furnished by the Port of Tacoma and shall be installed by the Contractor in accordance with the drawings and specifications.
 - b. All other rails, turnouts, crossovers, switches, throw mechanisms, frogs, guard rails, splice bars, wheel stops, track bolts, tie plates, and track spikes in the quantities and types required shall be furnished and installed by the Contractor in accordance with the drawings and specifications.
11. Wharf Design Criteria:
- a. Uniform Live Load:
1000 psf on all or any combination of spans. (Heavy load section: 2000 psf on all or any combination of spans)
 - b. Crane Wheel Load:



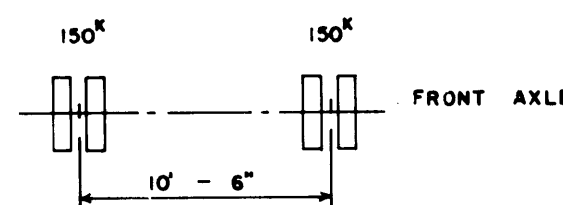
- c. Railroad:
 (1) Cooper E72 Loading.



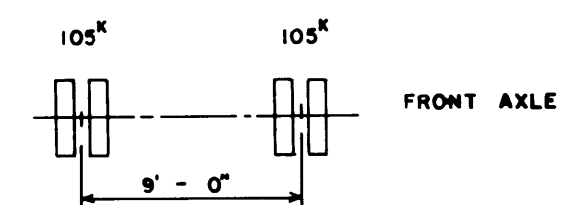
- (2) 100-Ton Diesel Locomotive:



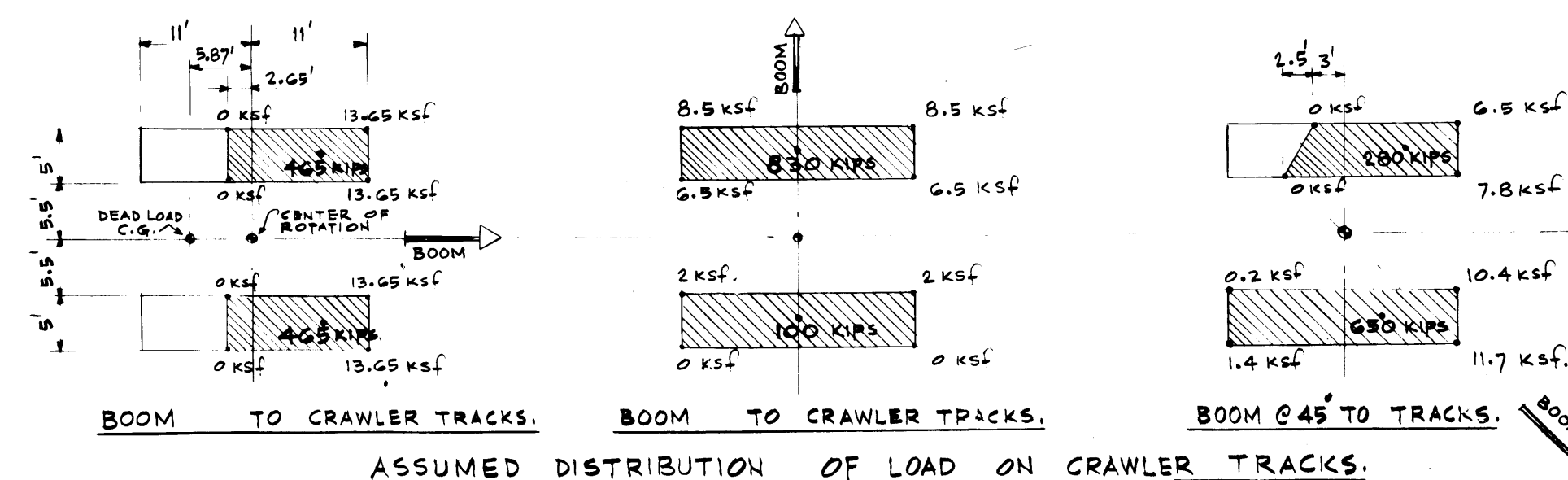
- d. 60-Ton Forklift



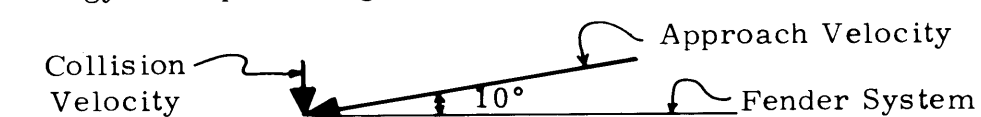
- e. 40-Ton Forklift



- f. CRAWLER CRANE (HEAVY LOAD SECTION ONLY)
 CRANE RATED CAPACITY = 480 KIPS @ 18 FT. RADIUS.
 CRANE DEAD LOAD = 450 KIPS.

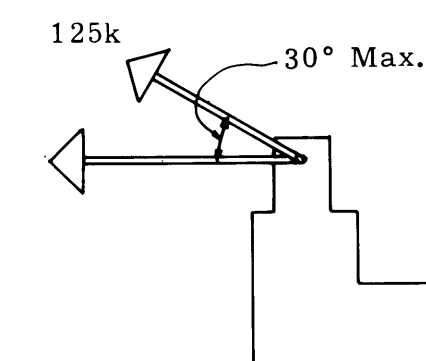


- g. Ship Impact
Kinetic energy of ship striking fender system:



Ship	Approach Velocity	Collision Velocity
Long Tons	Knots	Ft/ Sec.
100,000	0.68	0.20
25,000	1.36	0.40

-



Force on bollards is based on 75 mph wind on light drafted SS Manhattan or CVA 59 design per Dept. of Navy Publication "NAVDOKS DM-26" revised July 1968. Eight bollards with outward loads of 125 Kips on each, are required for SS Manhattan in 75 mph wind.

- i. Seismic:
Lateral Load applied in any direction
 $V = 0.1 \times (D. L. + 0.1 L. L.)$

12. Structural Plate Pipe Arch: Shall be of size and gage as indicated on the plans. Pipe Arch shall conform to the requirements of WSRS (1974) 9-05.6(1), (2), (4) & (8) A. Pipe Arch shall be coated, after assembly, uniformly inside and out with "Koppers" Bitumastic #50 or approved equal. Bedding and fill shall be constructed in accordance with Dwg #22 and the detailed Specifications.



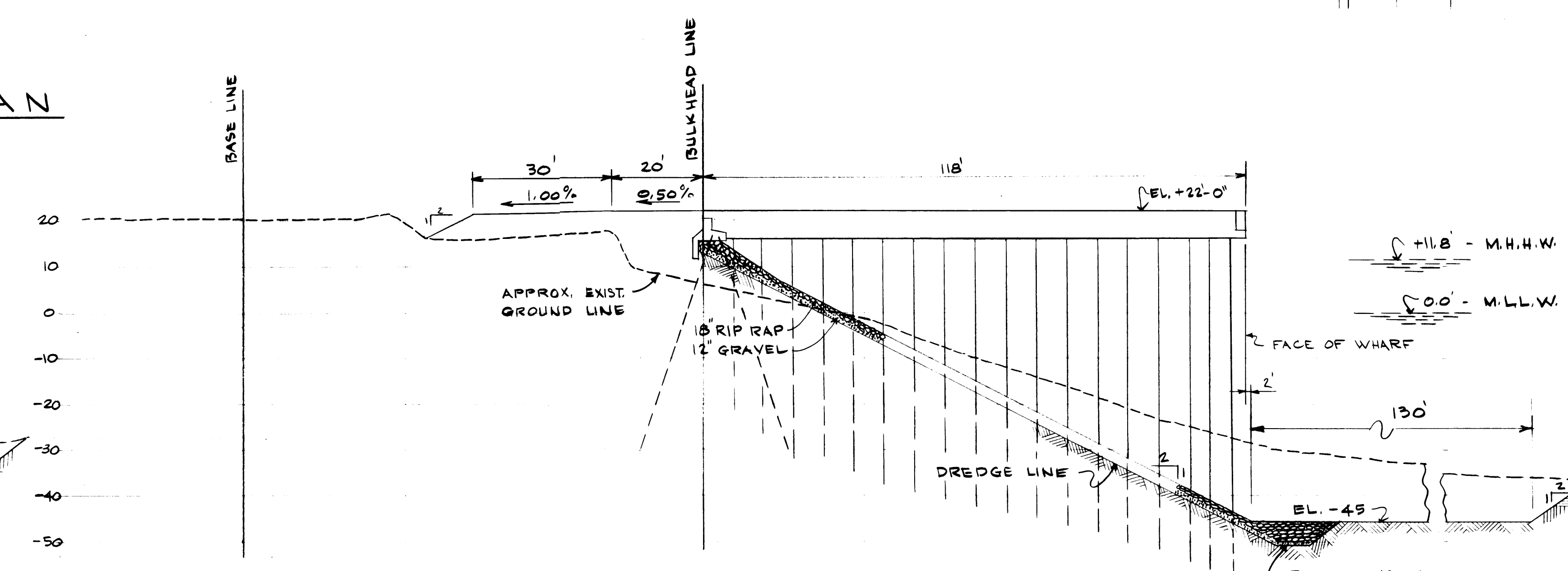
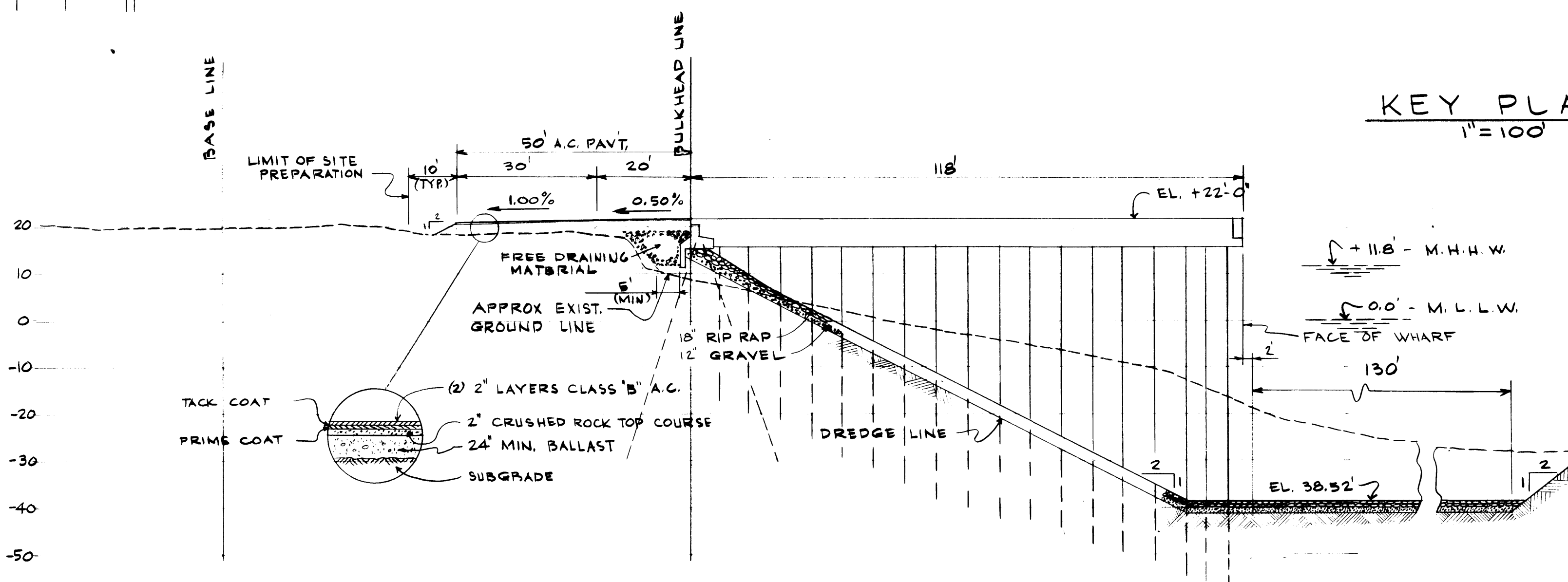
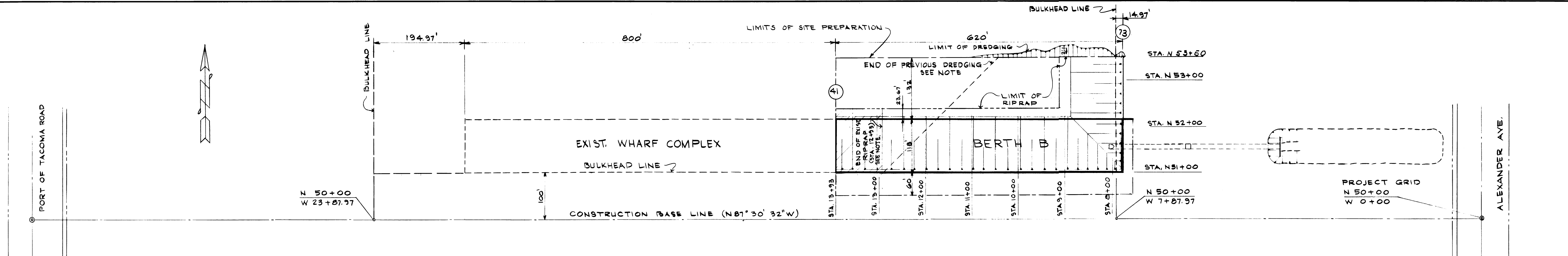
E.D.A. PROJECT #07-1-1920
CONT. No. 430

PORT OF TACOMA
PIERCE COUNTY TERMINAL
BERTH B
GENERAL NOTES

DRAWN <u>GA/BM</u>	CHECKED <u>BVN</u>	SCALE <u>NONE</u>
DATE _____	DATE <u>10/3/75</u>	DRAWING NO. _____
APPROVED <u>10/3/75</u> <u>Donald L. Mason</u> DATE CHIEF ENGINEER	EP-2637-17	
FIELD BOOK _____	SHEET <u>2</u> OF <u>22</u>	

Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98408





ESTIMATED MATERIAL QUANTITIES

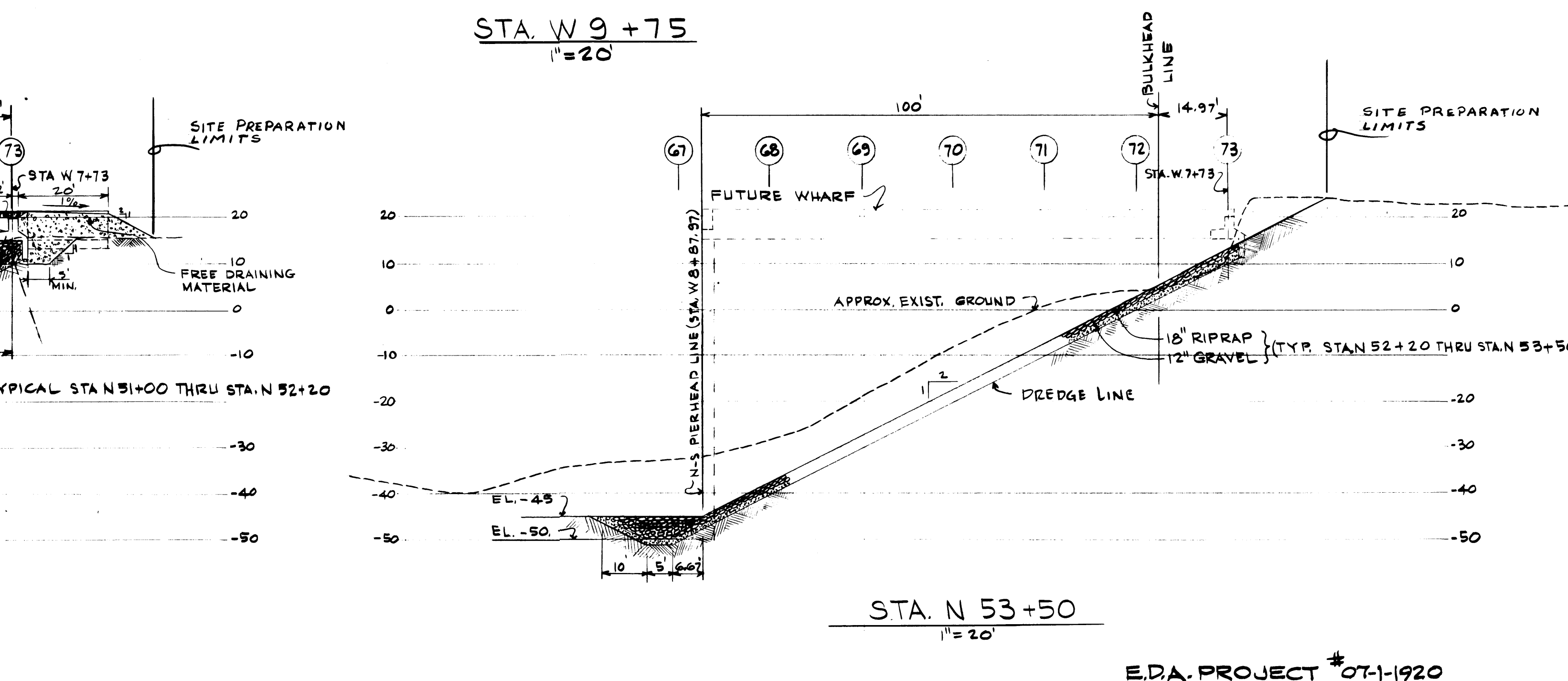
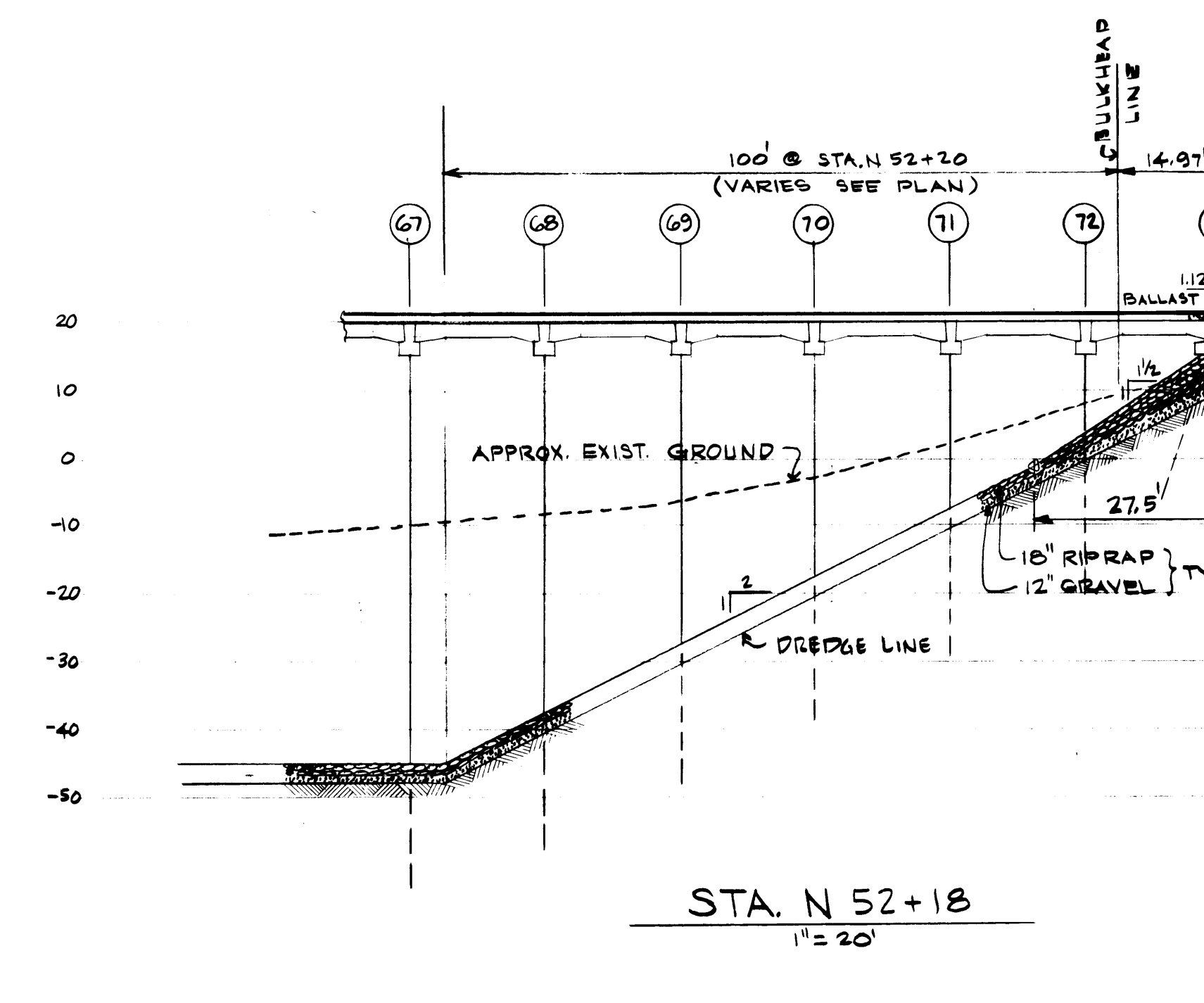
DREDGING	—	39,000 C.Y.
GRAVEL BLANKET	—	4,000 C.Y.
RIPRAP	—	4,250 TONS
FREE DRAINING FILL (BEHIND BULKHEAD)	—	4,800 C.Y.

SECTIONS HAVE BEEN DEVELOPED FROM FIELD DATA TAKEN BY THE PORT OF TACOMA. DEVIATIONS WILL EXIST, AND SECTIONS ARE SHOWN ONLY TO INDICATE THE GENERAL CONDITIONS AND SCOPE OF WORK.

ELEVATIONS ARE IN FEET, AND REFER TO USC & GS DATUM, MLLW = ELEVATION 0.00'

NOTE:

LIMITS OF DREDGING & RIPRAP FOR THE EXISTING WHARF ARE INDICATED ON THE PLAN, THE AREA FROM THESE LIMITS TO THE LIMIT OF SITE PREPARATION SHALL BE TOUCHED UP AS REQUIRED TO BRING AREA INTO CONFORMANCE WITH TYPICAL CROSS-SECTION.

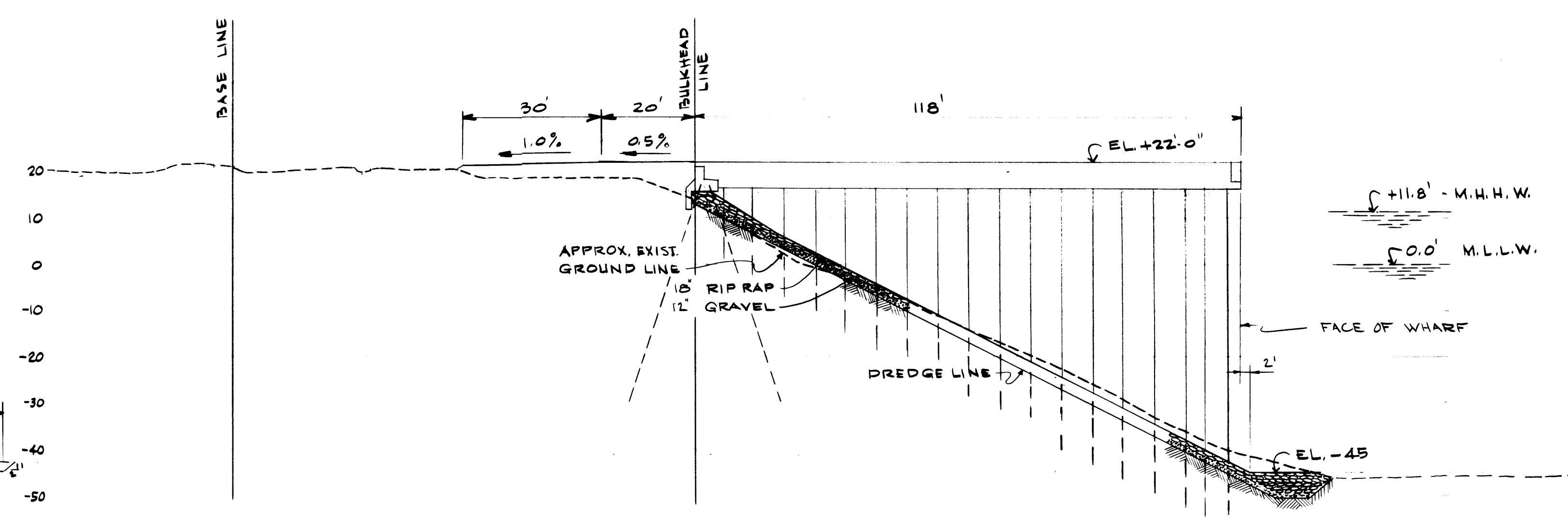
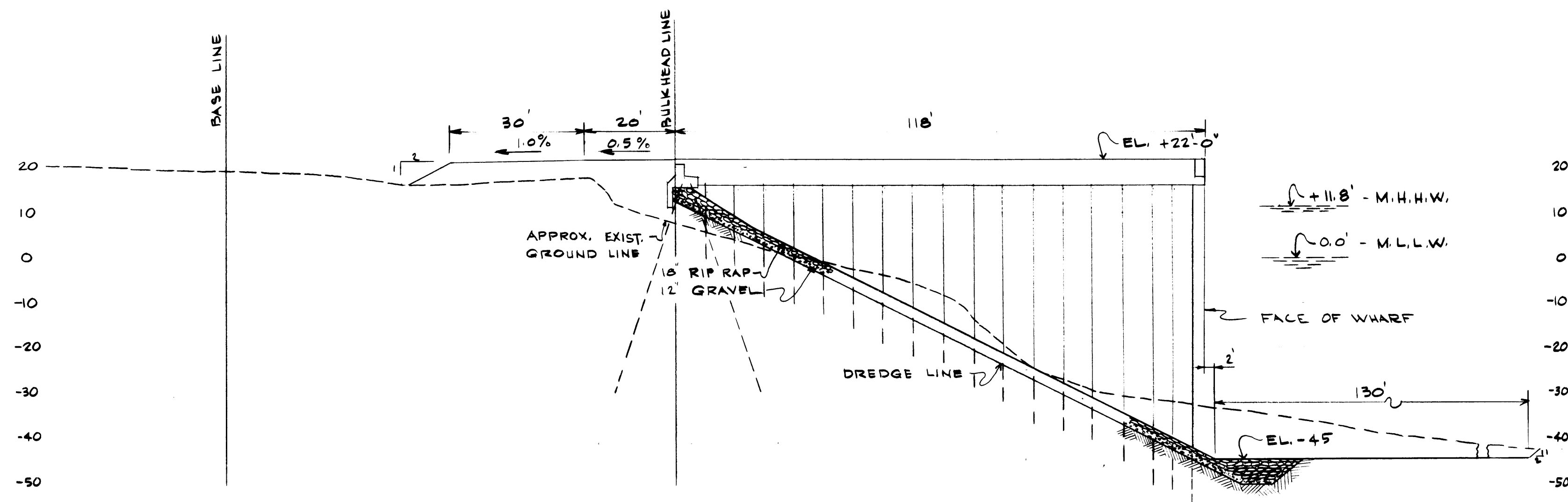


E.D.A. PROJECT #07-1-1920

DRAWN: GA		PORT OF TACOMA	
DATE:		PIERCE COUNTY TERMINAL	
CHECKED: BN		BERTH B	
DATE: 10/3/75		CROSS SECTIONS	
CHECKED:			
DATE:			
CONT. NO. 430			
FIELD BOOK (S):		SCALE AS NOTED	
APPROVED:		DRAWING NO.	
DATE: 10/3/75		EP-2637-17	
CHIEF ENGINEER: Donald L. Moorman		SHEET 4 OF 22	

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2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98405

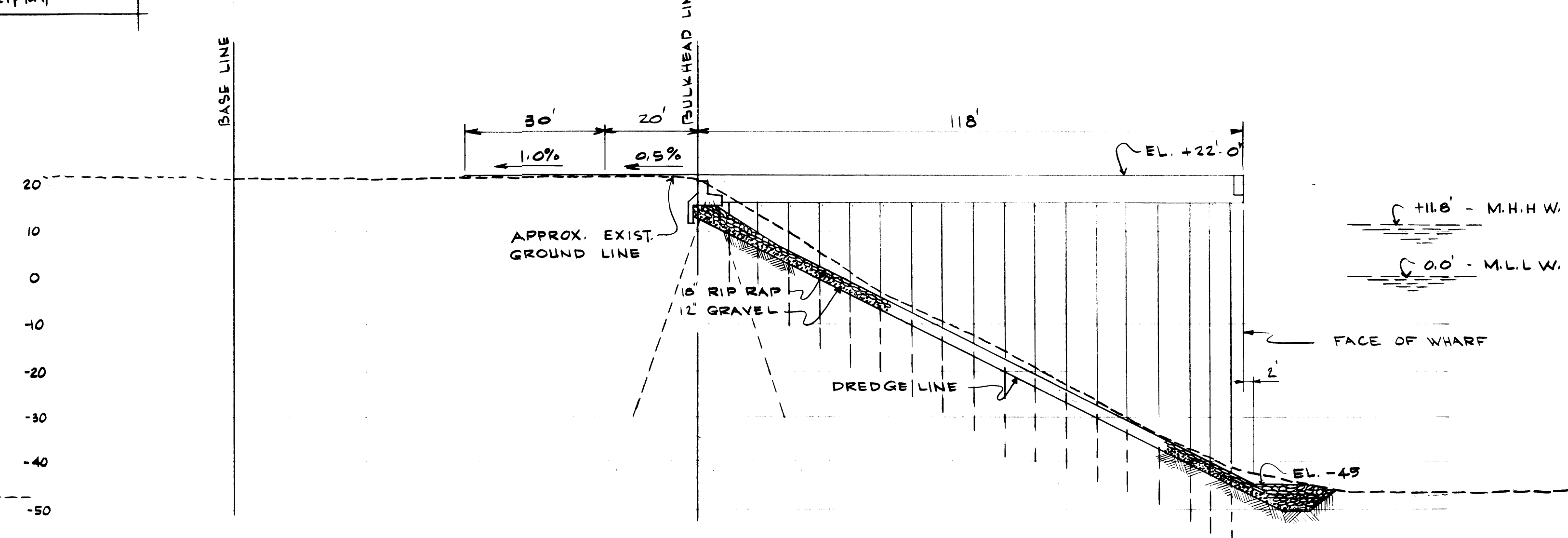
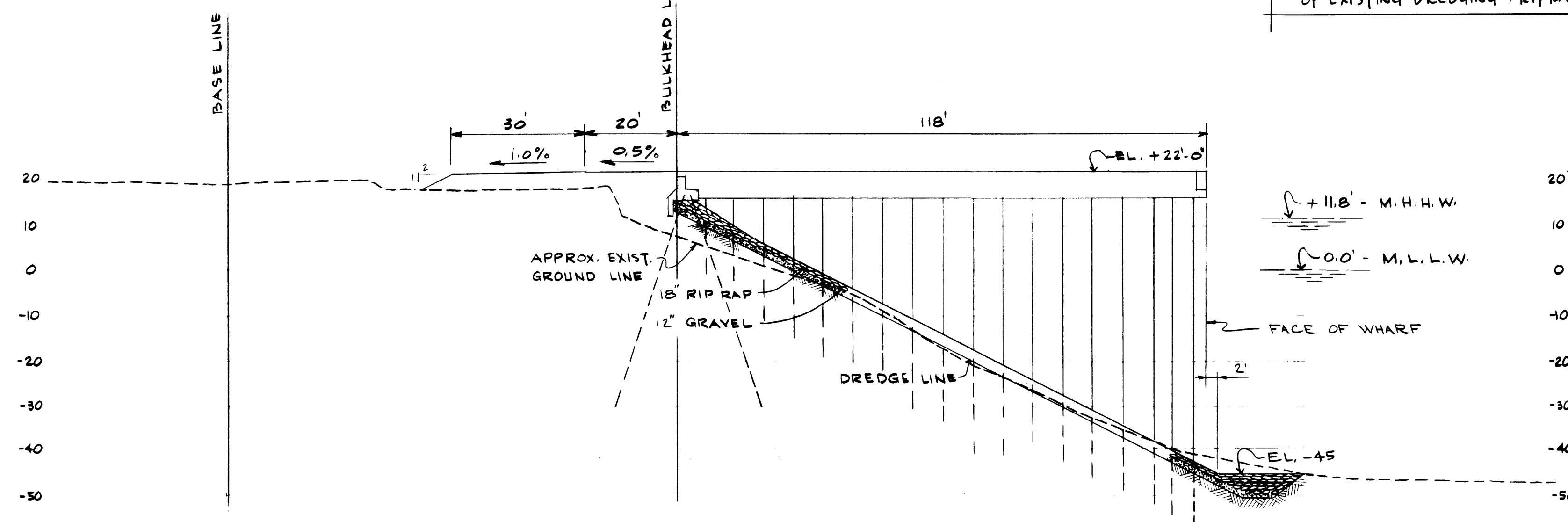
MARK	REVISION	BY	APP.	DATE



STA. W10+75
1" = 20'

NOTE:
SEE KEY PLAN ON PNG #4 FOR LIMITS
OF EXISTING DREDGING & RIPRAP

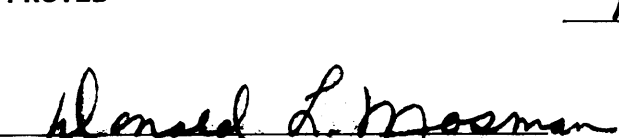
STA. W12+75
1" = 20'



STA. W11+75
1" = 20'

STA. W13+93
1" = 20'

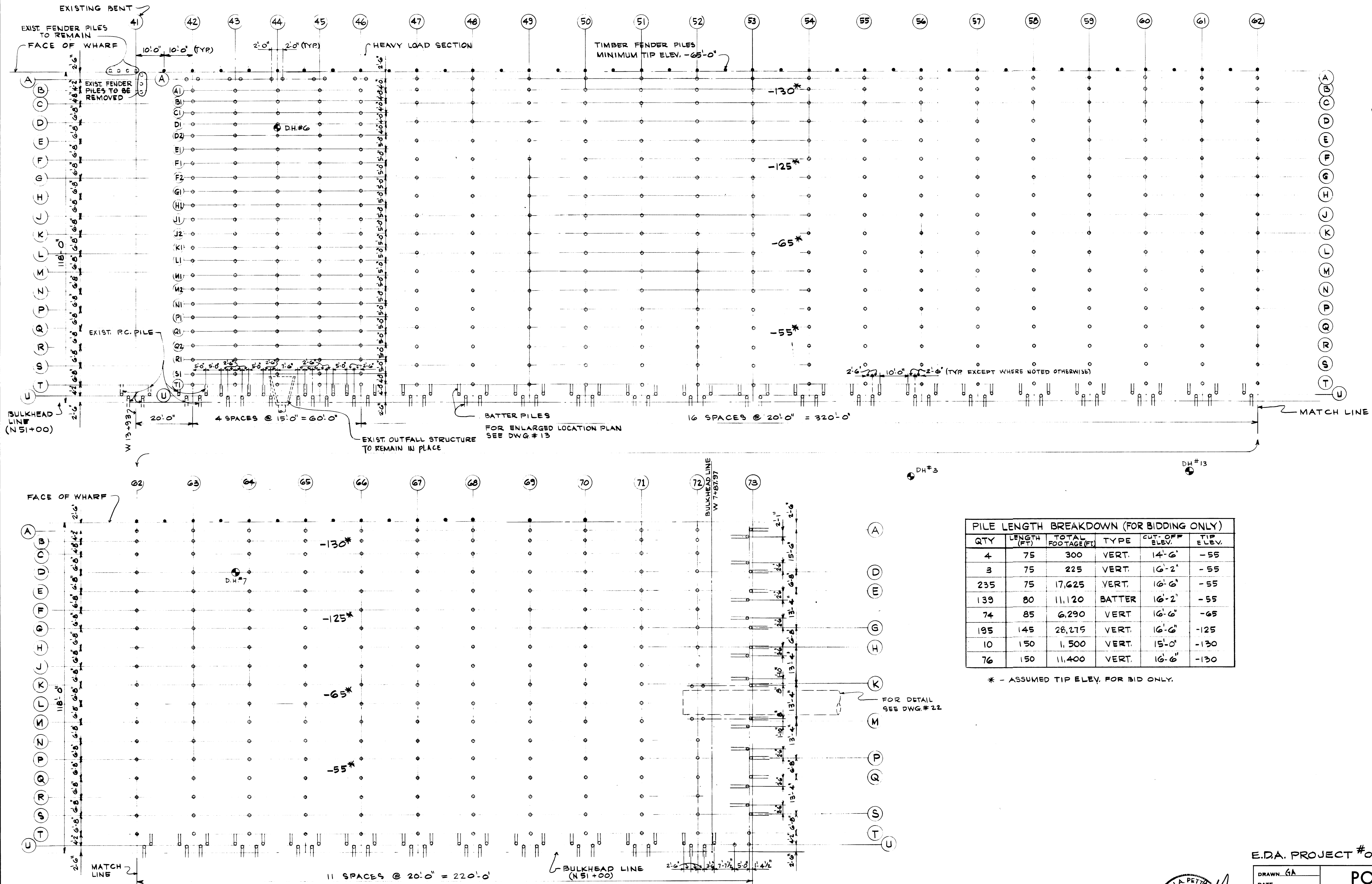
E.D.A. PROJECT #07-1-1920

DRAWN: GA	PORT OF TACOMA	
DATE	PIERCE COUNTY TERMINAL	
CHECKED: BN	BERTH B	
DATE: 10/3/75	CROSS SECTIONS	
CHECKED:		
DATE:		
CONT. NO. 430		
FIELD BOOK(S):	SCALE AS NOTED	
APPROVED:	DATE: 10/3/75	DRAWING NO. EP-2637-17
 CHIEF ENGINEER		SHEET 5 OF 22

Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98406



MARK	REVISION	BY	APP.	DATE



LEGEND

- 16 1/2 OCTAGONAL PRESTRESSED CONCRETE PILE (VERTICAL)
- ▭ 16 1/2 OCTAGONAL PRESTRESSED CONCRETE PILE (BATTER)
- TIMBER FENDER PILE
- ⊕ TEST BORINGS (SEE DWG #3)
- * ASSUMED PILE TIP ELEVATION FOR BID ONLY.

PILE LENGTH BREAKDOWN (FOR BIDDING ONLY)					
QTY	LENGTH (FT)	TOTAL FOOTAGE (FT)	TYPE	CUT-OFF ELEV.	TIP ELEV.
4	75	300	VERT.	14'-6"	-55
3	75	225	VERT.	16'-2"	-55
235	75	17,625	VERT.	16'-6"	-55
139	80	11,120	BATTER	16'-2"	-55
74	85	6,290	VERT.	16'-6"	-65
195	145	28,275	VERT.	16'-6"	-125
10	150	1,500	VERT.	15'-0"	-130
76	150	11,400	VERT.	16'-6"	-130

* - ASSUMED TIP ELEV. FOR BID ONLY.

- NOTES:
- SEE DWG. 3 FOR LOG OF TEST BORINGS.
 - SEE DWG. 10 FOR TYPICAL WHARF SECTION.
 - SEE DWG. 14 FOR PRESTRESSED CONCRETE PILE DATA.

PILE PLAN
1/16" = 1'-0"

E.D.A. PROJECT #07-1-1920

PORT OF TACOMA

PIERCE COUNTY TERMINAL

BERTH B

PILE PLAN

DRAWN: GA
DATE:
CHECKED: BAW
DATE: 10/3/75
CHECKED:
DATE:
CONT. NO. 430

FIELD BOOK(S):
APPROVED:

10/3/75
DATE
CHIEF ENGINEER

SCALE: 1/16" = 1'-0"

DRAWING NO.

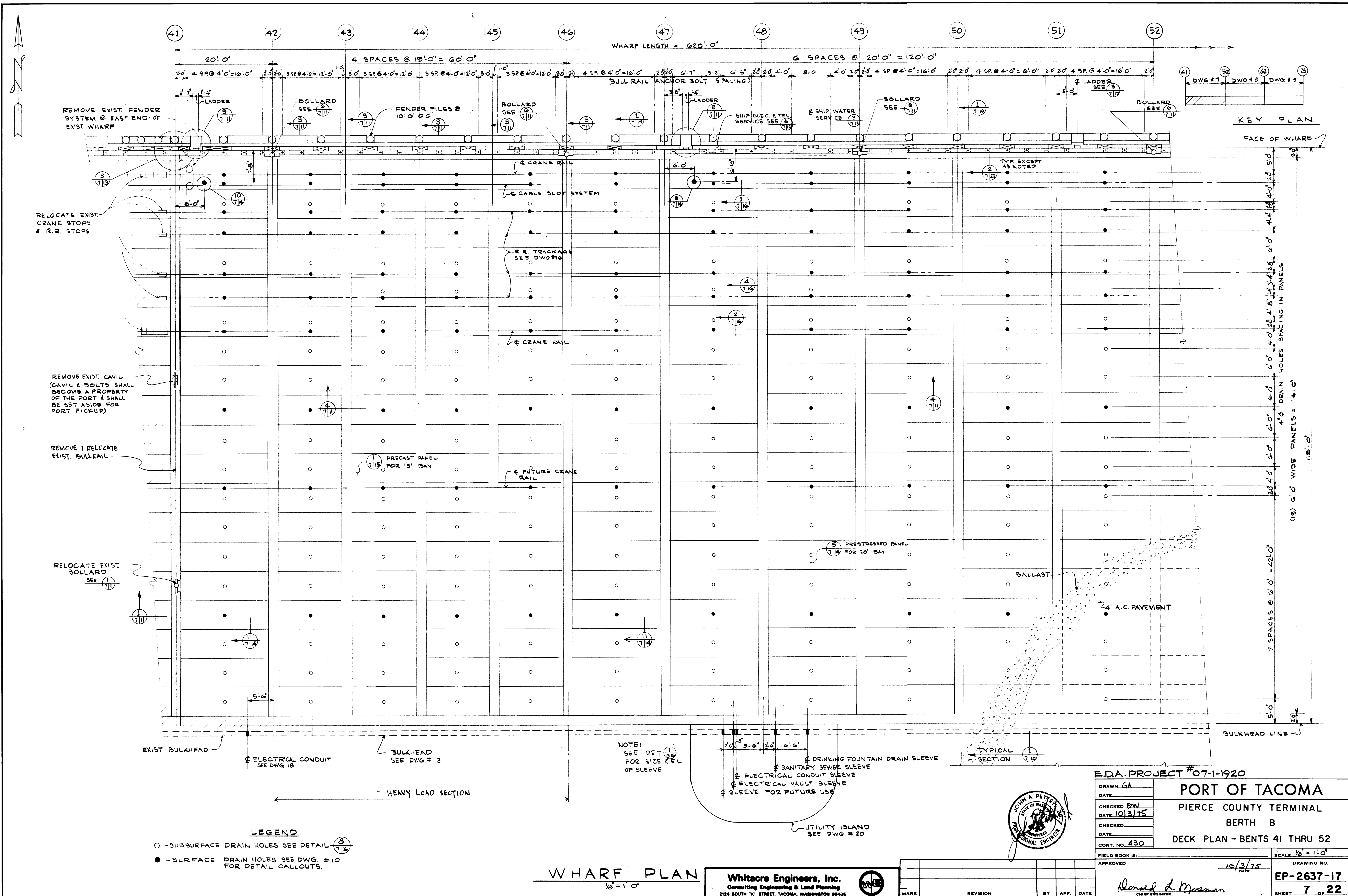
EP-2637-17

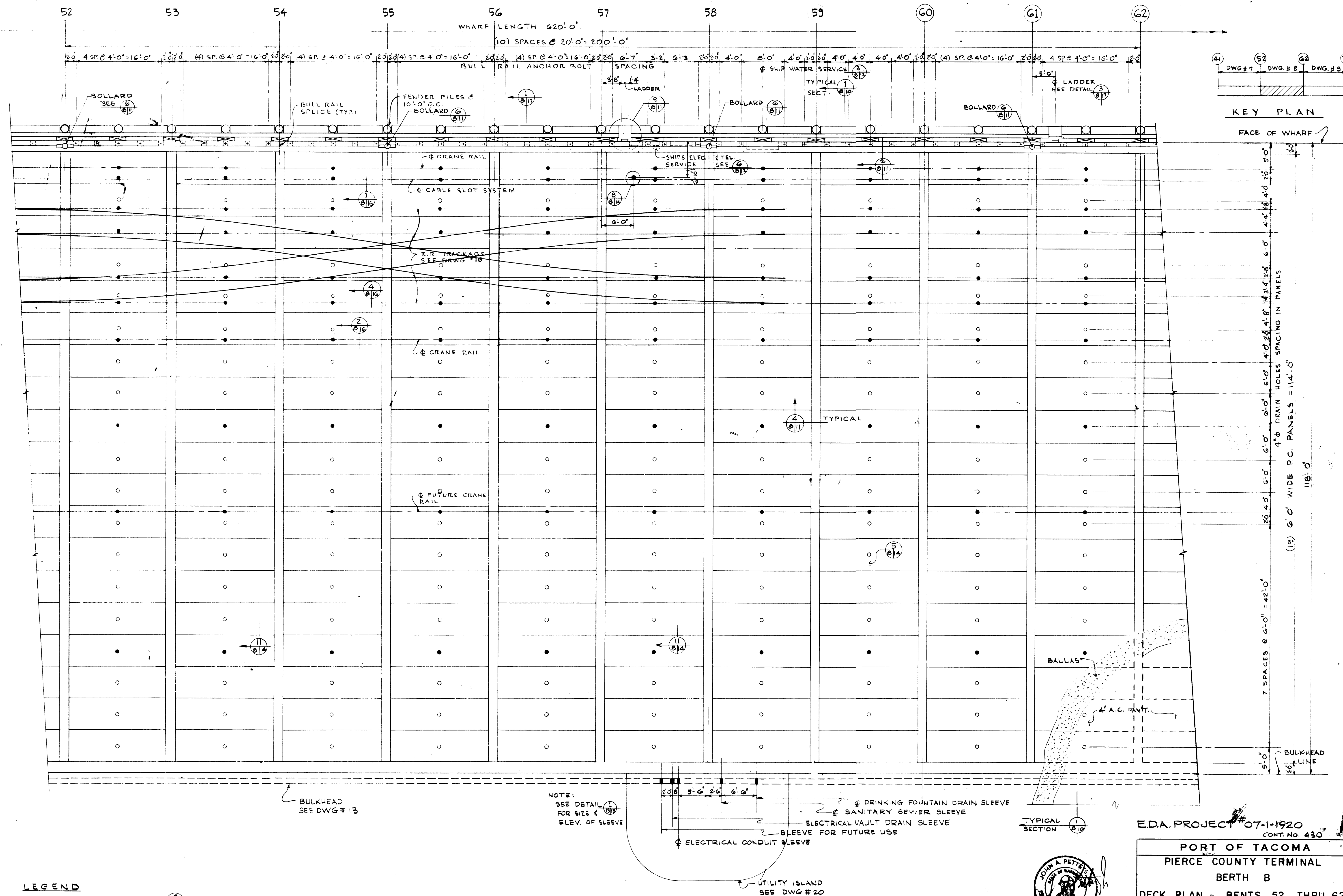
SHEET 6 OF 22

Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98406



MARK	REVISION	BY	APP.	DATE





LEGEND

- - SURFACE DRAIN HOLES SEE DETAIL 8/16
- - SURFACE DRAIN HOLES SEE DWG #10 FOR DETAIL CALLOUTS

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

Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98405

E.D.A. PROJECT #07-1-1920
CONT. NO. 430

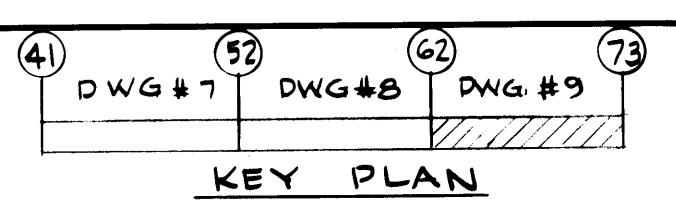
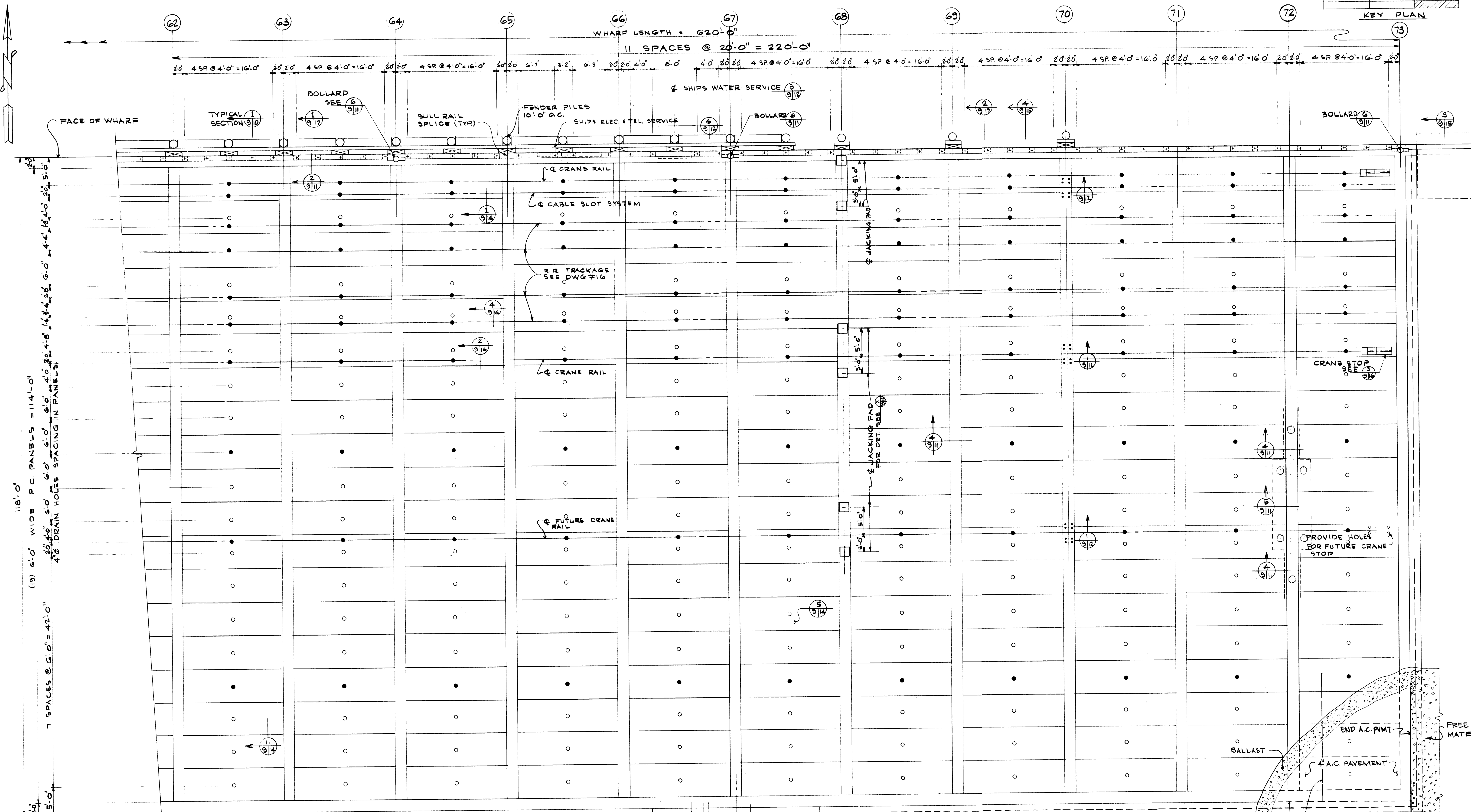
PORT OF TACOMA
PIERCE COUNTY TERMINAL
BERTH B

DECK PLAN - BENTS 52 THRU 62

DRAWN: GA
CHECKED: P.W.
DATE: 10/3/75
SCALE: 1/8" = 1'-0"

APPROVED: [Signature]
DATE: 10/3/75
FIELD BOOK

DRAWING NO.
EP-2637-17
SHEET: 8 OF 22



118'-0" WIDE P.C. PANELS = 114'-0"

7 SPACES @ 6'-0" = 42'-0"

4" DRAIN HOLES SPACING IN PANELS

- LEGEND**
- - SUBSURFACE DRAIN HOLES SEE DETAIL 9/16
 - - SURFACE DRAIN HOLES SEE DWG. #10 FOR DETAIL CALL OUTS

WHARF PLAN

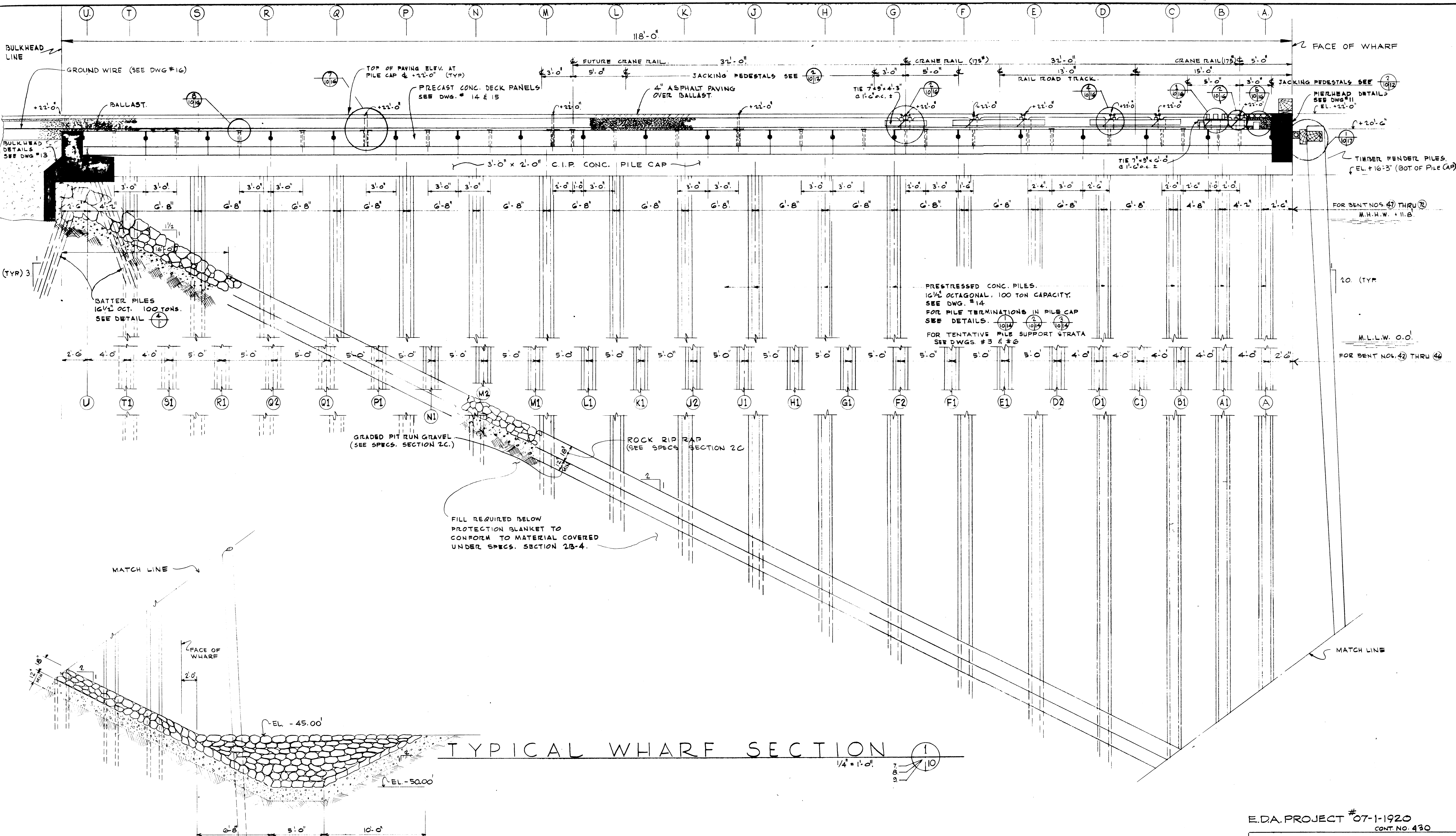
1/8" = 1'-0"



DRAWN GA		PORT OF TACOMA	
DATE		PIERCE COUNTY TERMINAL	
CHECKED BW		BERTH B	
DATE 10/3/75		DECK PLAN - BENTS 62 THRU 73	
CHECKED		SCALE 1/8" = 1'-0"	
DATE		DRAWING NO. EP-2637-17	
CONT. NO. 430		SHEET 9 OF 22	
FIELD BOOK(S)		APPROVED 10/3/75	
APPROVED		DATE	
Donnell L. Mosman		CHIEF ENGINEER	

Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98406

MARK	REVISION	BY	APP.	DATE

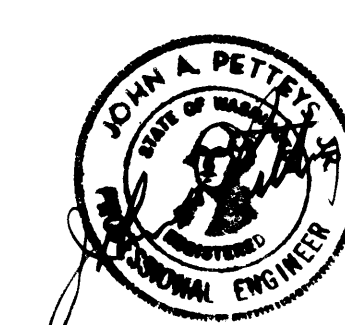


TYPICAL WHARF SECTION

1/4" = 1'-0"
7
8
9
10

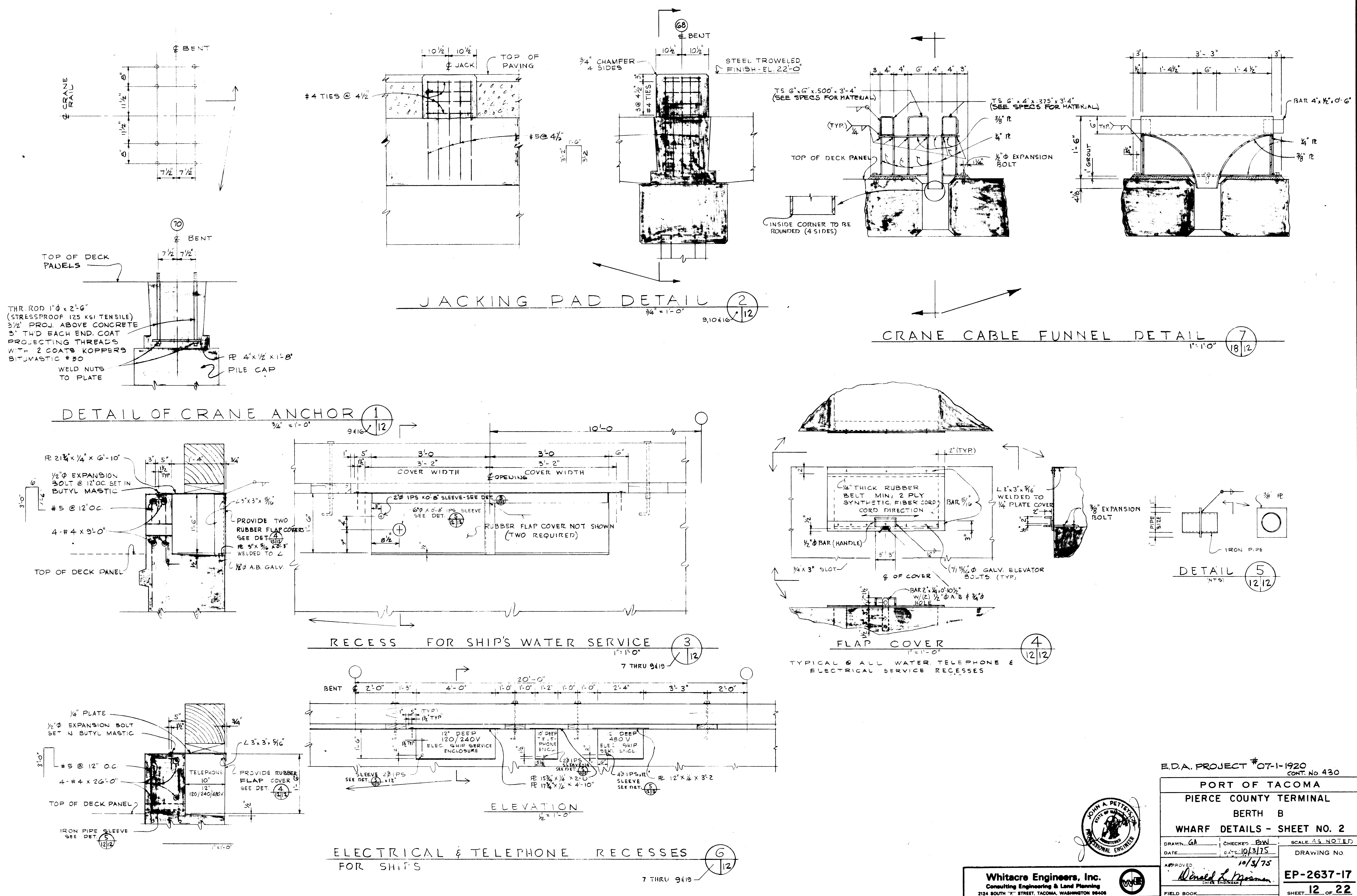
E.D.A. PROJECT #07-1-1920
CONT. NO. 430

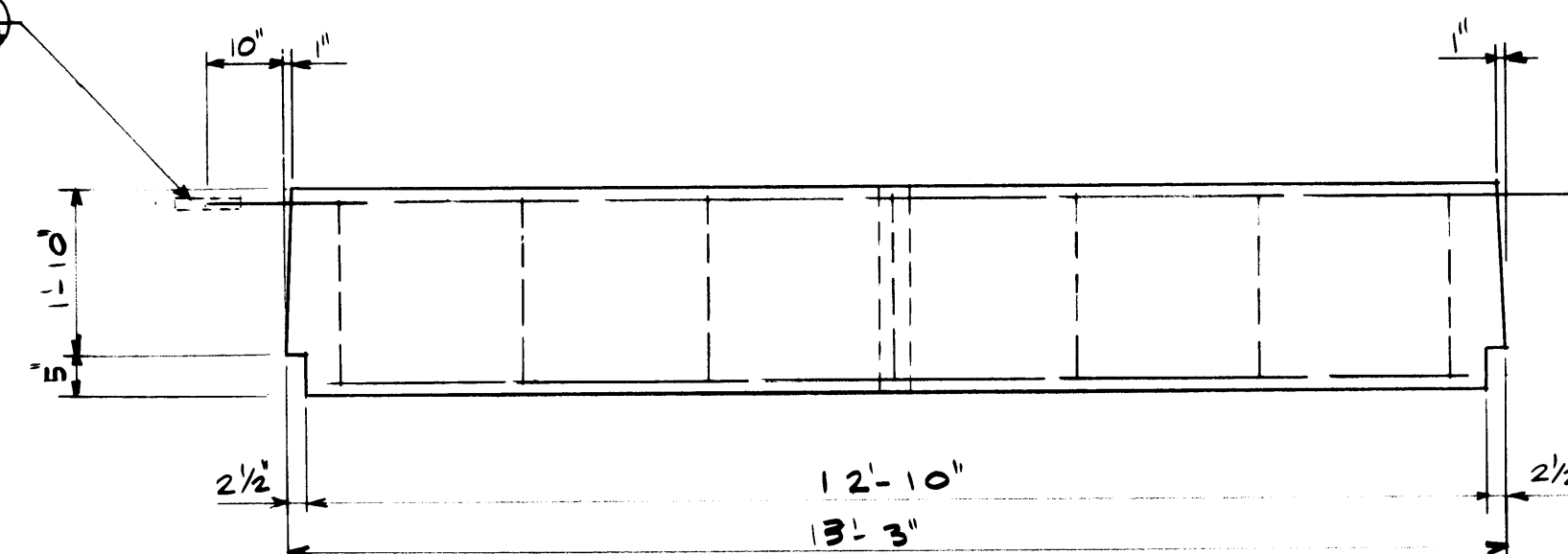
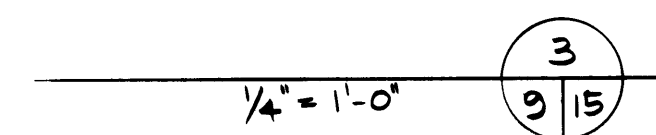
PORT OF TACOMA		
PIERCE COUNTY TERMINAL		
BERTH B		
TYPICAL WHARF SECTION		
DRAWN GA	CHECKED B.W.	SCALE 1/4" = 1'-0"
DATE 10/3/75	DATE 10/3/75	DRAWING NO
APPROVED	10/3/75	EP-2637-17
FIELD BOOK		SHEET 10 OF 22



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Consulting Engineering & Land Planning
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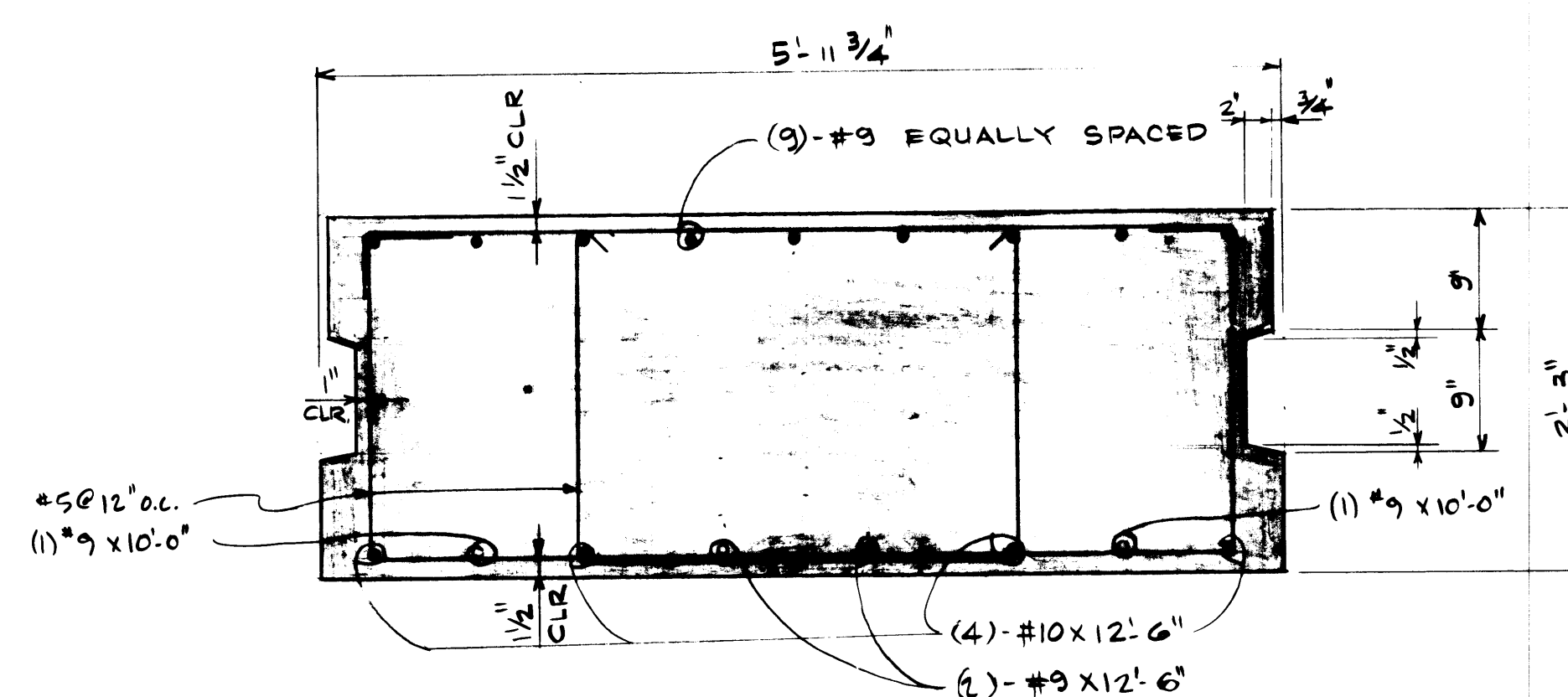






PRECAST PANEL DETAIL

HEAVY LOAD SECTION



1" = 1'-0" 2
15 15

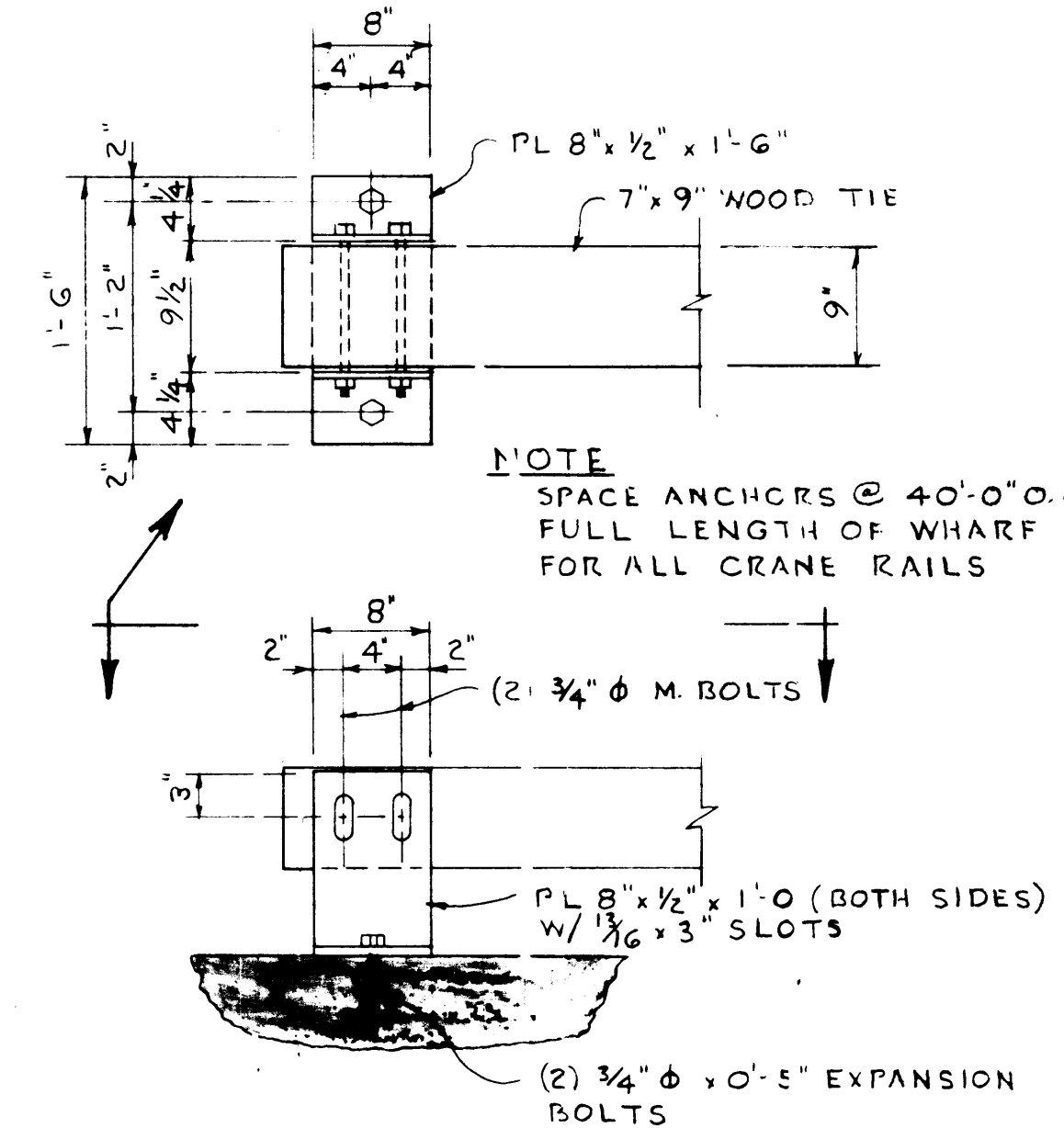
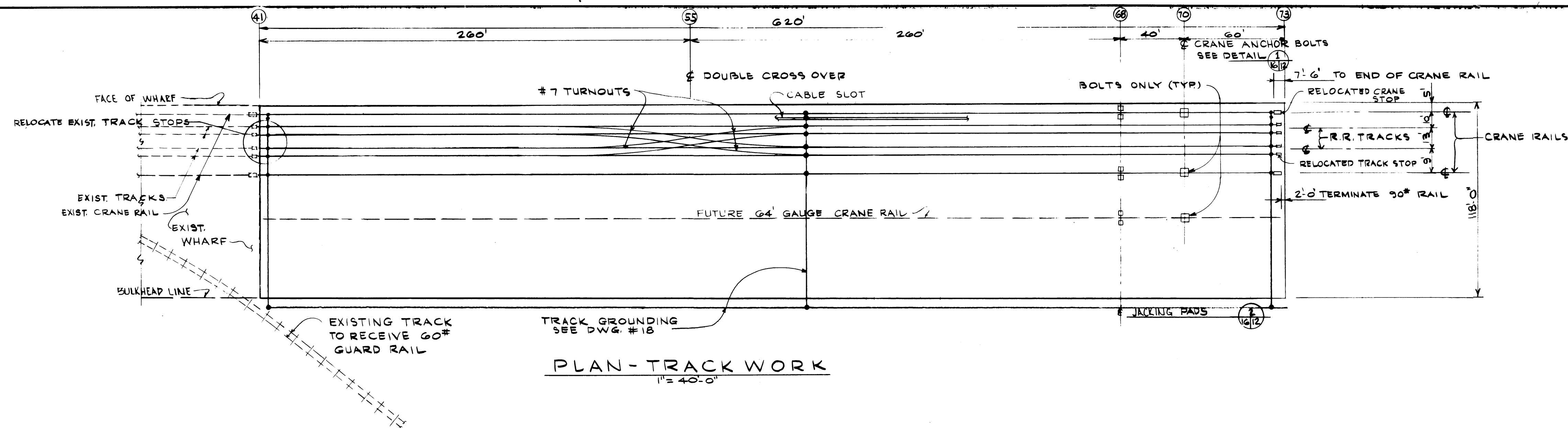
DRAWN <u>GA</u>	PORT OF TACOMA	
DATE		
CHECKED <u>BW</u>	PIERCE COUNTY TERMINAL	
DATE <u>10/3/75</u>	BERTH B	
CHECKED	HEAVY LOAD DECK PANEL & MISC. DETAILS	
DATE		
CONT. NO. <u>430</u>		
FIELD BOOK(S)		SCALE <u>AS NOTED</u>
APPROVED	<u>10/3/75</u> DATE	DRAWING NO.
<u>Donnell L. Moorman</u>		EP-2637-17
SHEET		<u>15</u> OF <u>22</u>



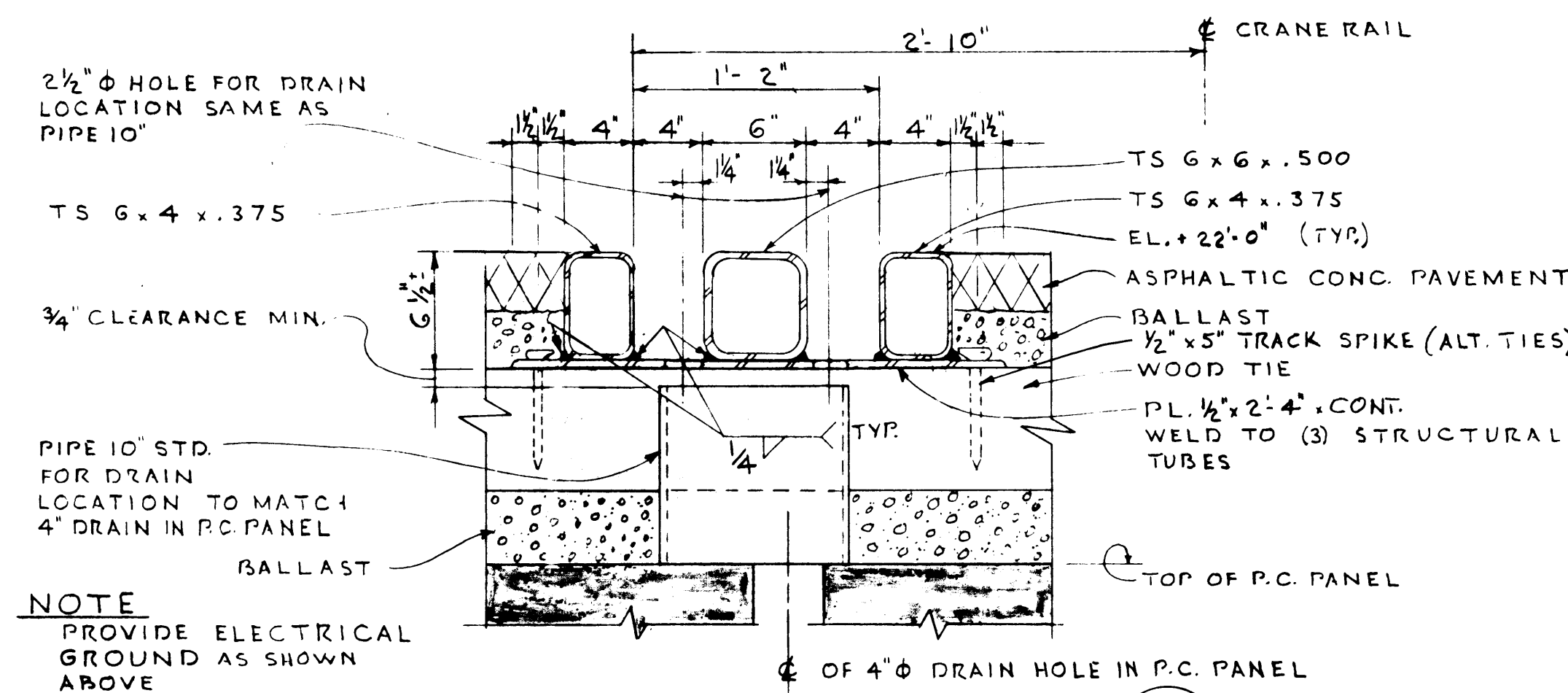
Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 9840



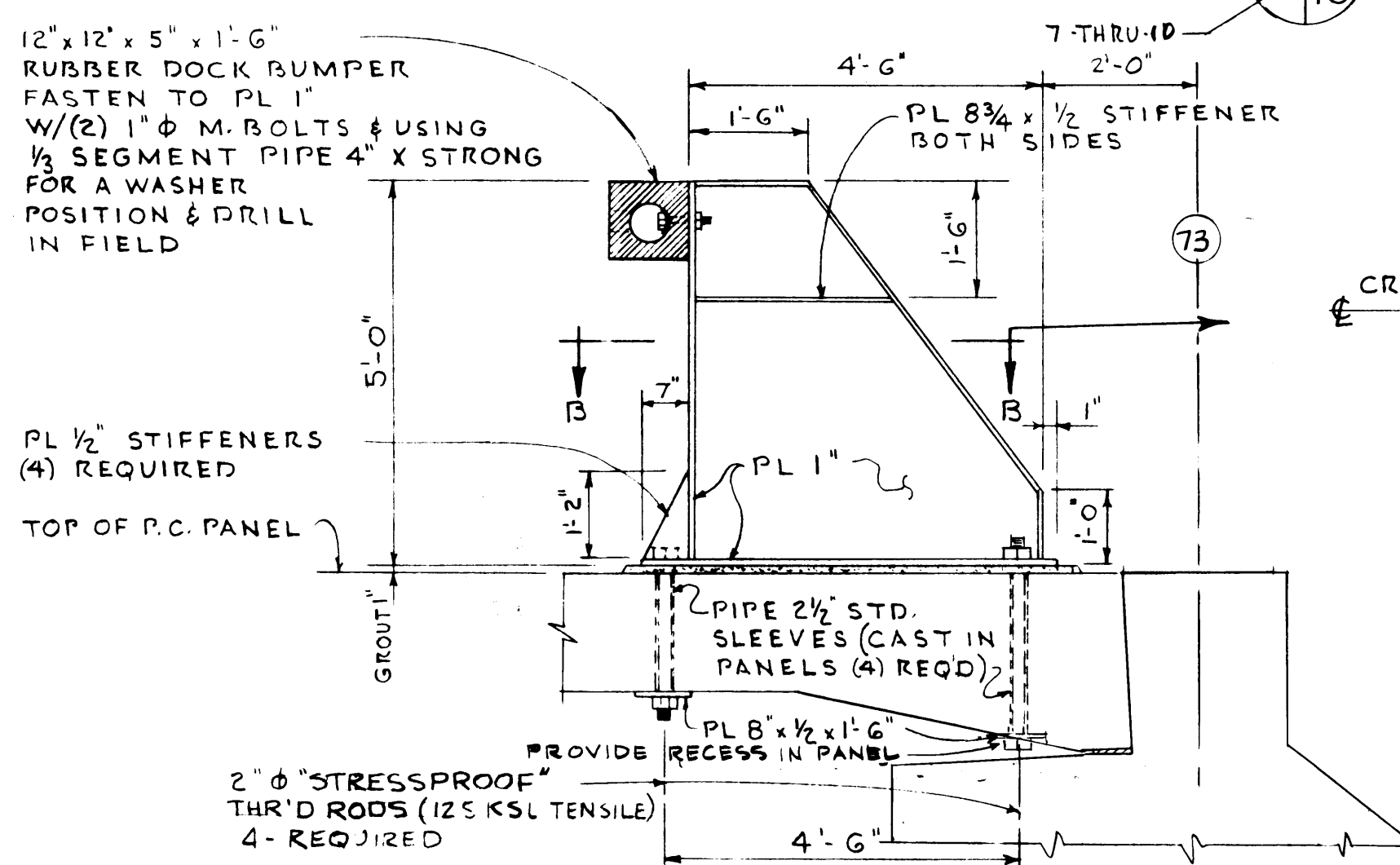
MARK	REVISION	BY	APP.	DATE



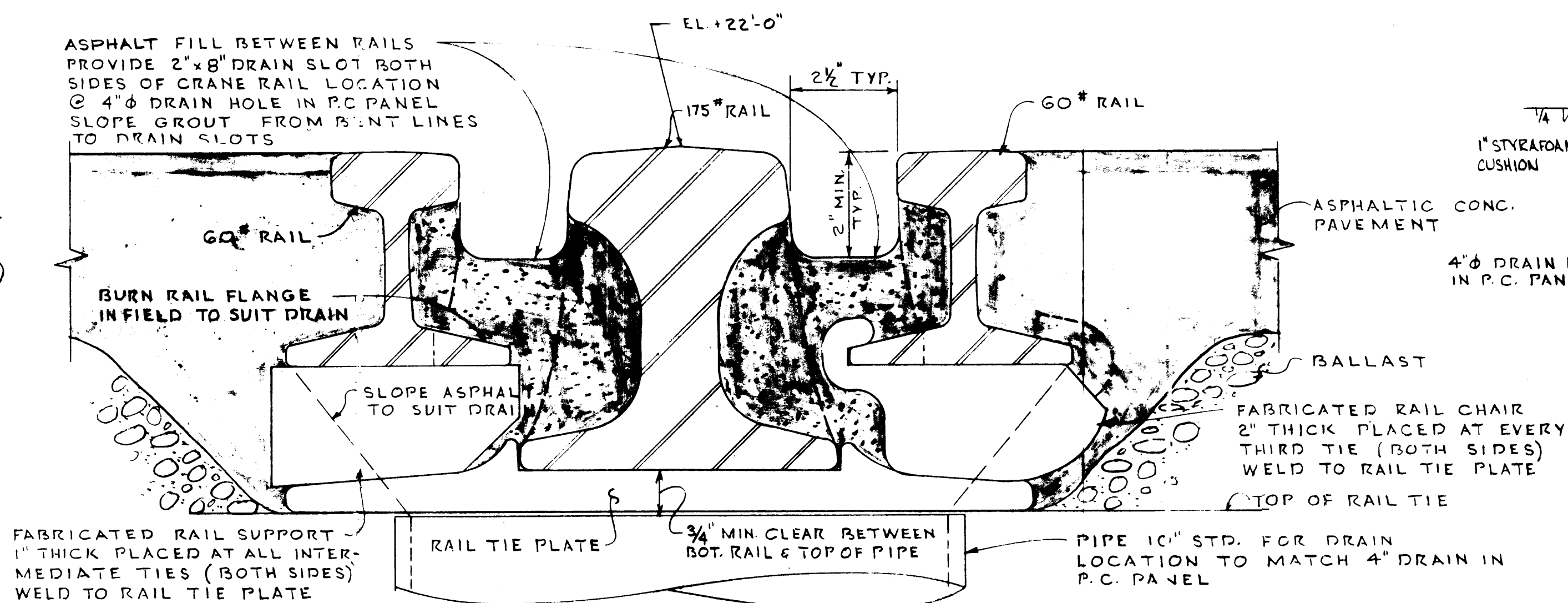
CRANE RAIL TIE ANCHOR 5
1\"/>



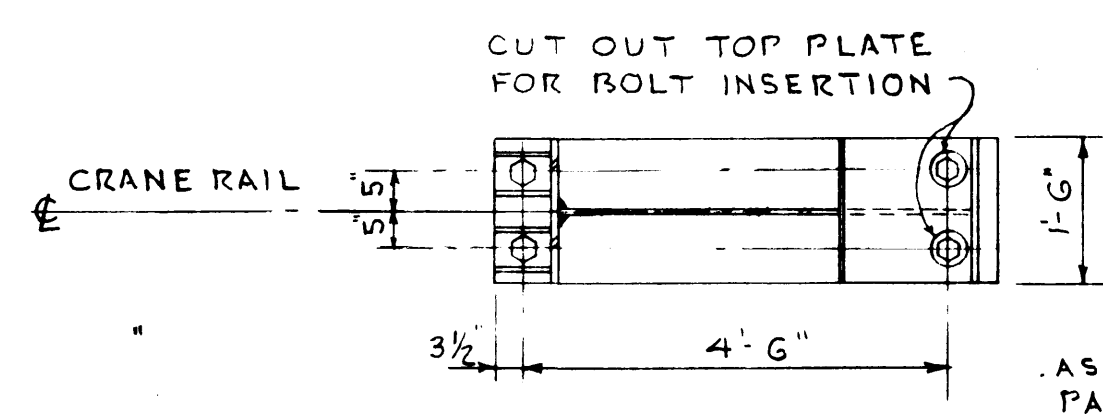
CABLE SLOT DETAIL 1
1\"/>



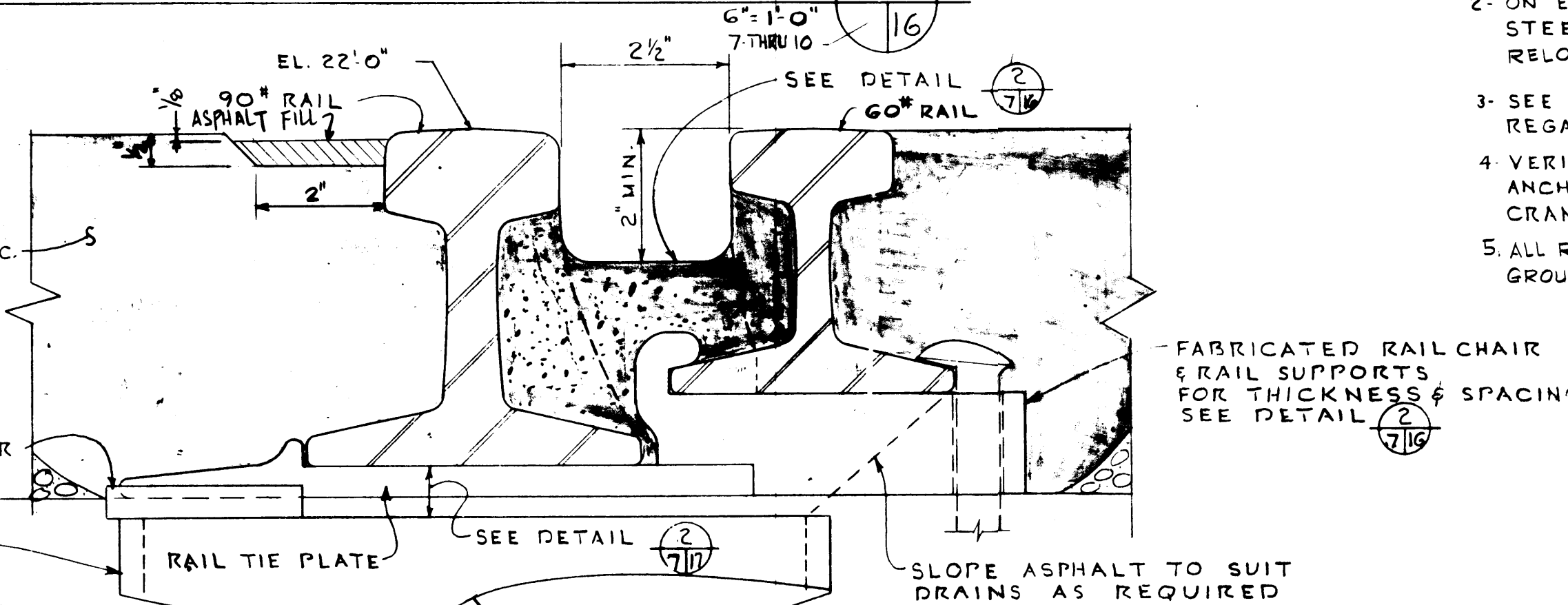
CRANE STOP DETAIL 3
(TO BE RELOCATED FROM EXISTING WHARF) 1\"/>



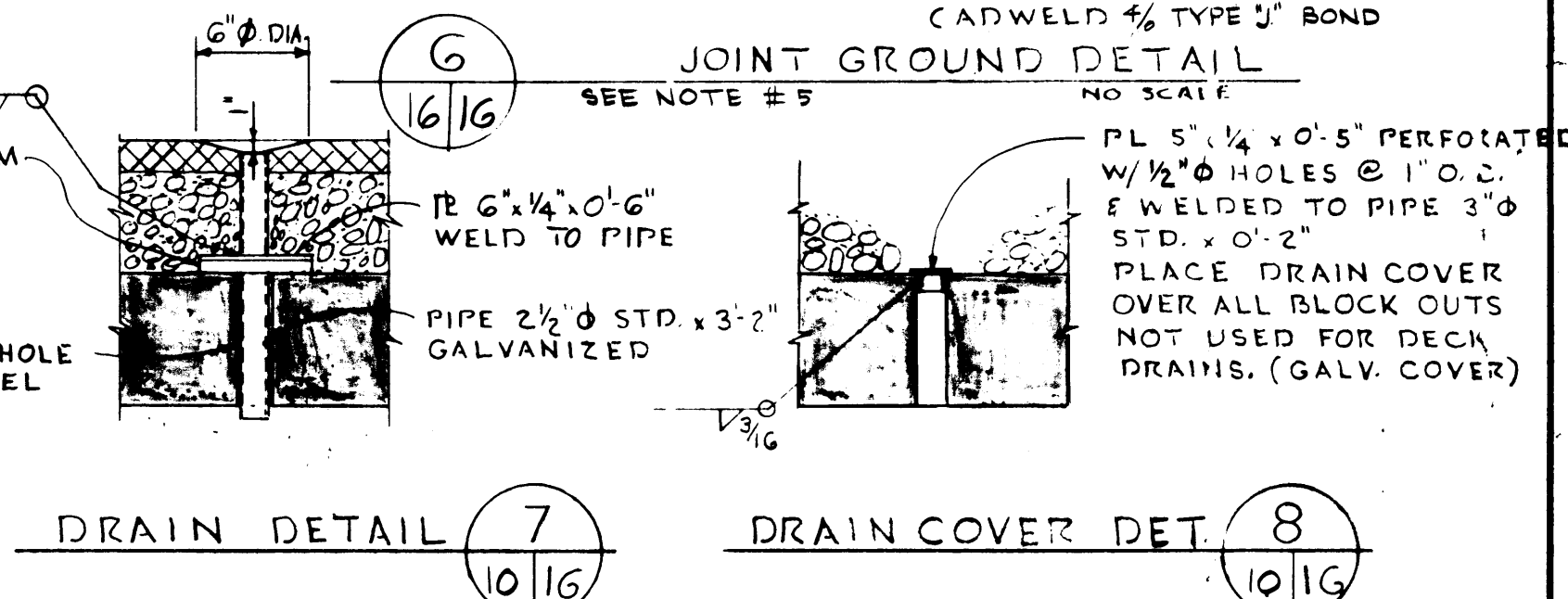
TYPICAL CRANE RAIL SECTION 2
6\"/>



NOTE
ALL STEEL PLATES ARE 1/2\"/>



TYPICAL TRACK RAIL SECTION 4
6\"/>



DRAIN DETAIL 7
10\"/>

DRAIN COVER DET. 8
10\"/>

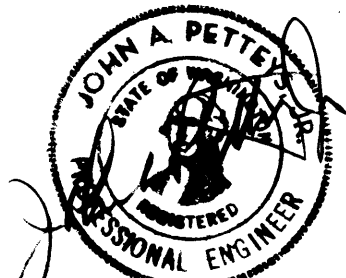
NOTES

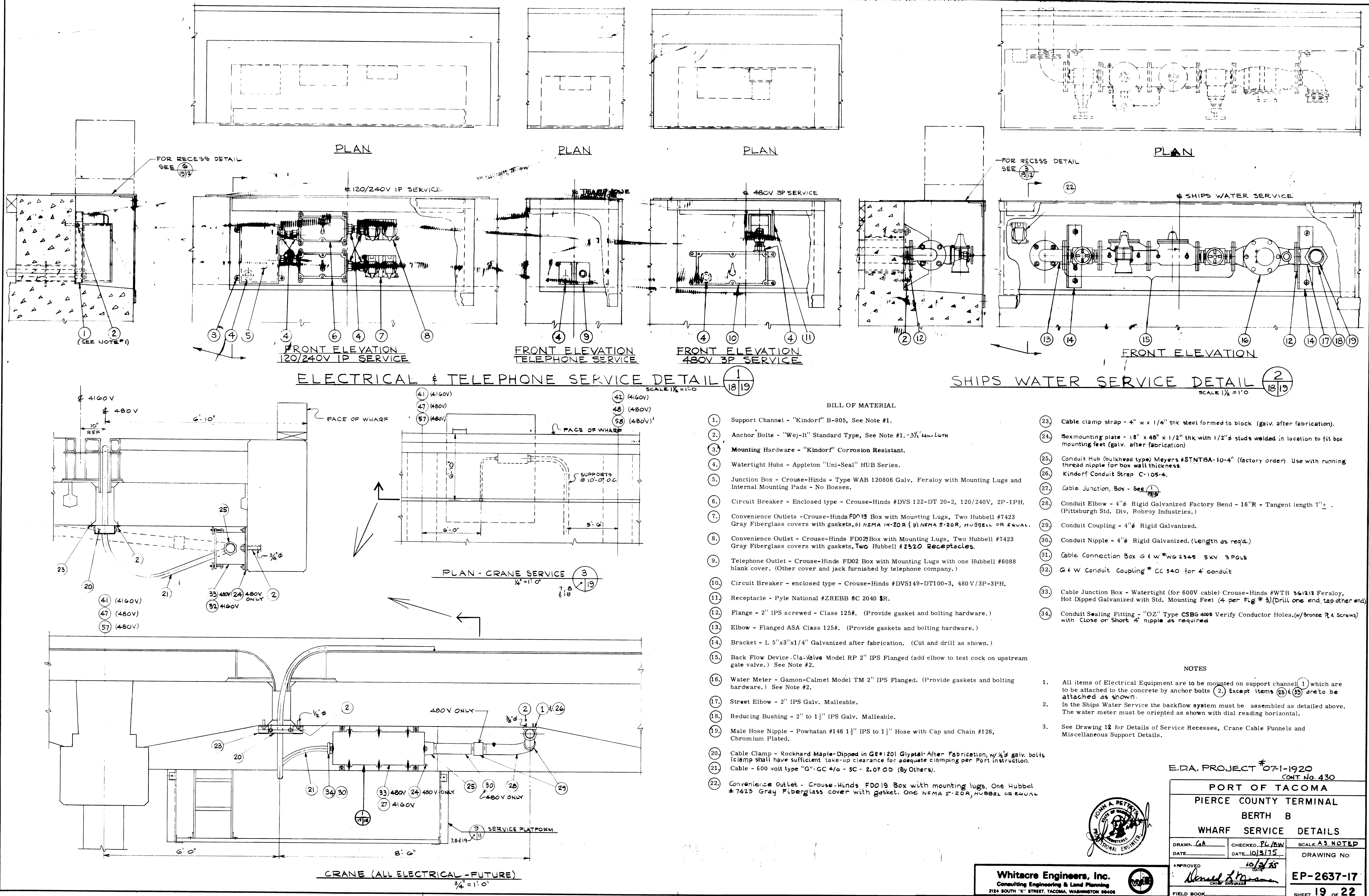
- 1- FABRICATE CABLE SLOT ASSEMBLY IN MINIMUM LENGTHS OF 18'-0\"/>
- 2- ON EACH 90\"/>
- 3- SEE SPECIFICATIONS FOR DATA AND RELATED INFORMATION REGARDING FROGS, TURNOUTS AND CROSS-OVERS
- 4- VERIFY LOCATION OF JACKING PEDESTALS AND CRANE ANCHORS WITH PORT OF TACOMA FOR COMPATIBILITY WITH CRANE, RAILWAY TRACK WORK & BOLLARDS.
- 5- ALL RAILROAD RAIL, CRANE RAIL & CABLE SLOT JOINTS SHALL BE GROUNDED AS SHOWN IN DETAIL 6

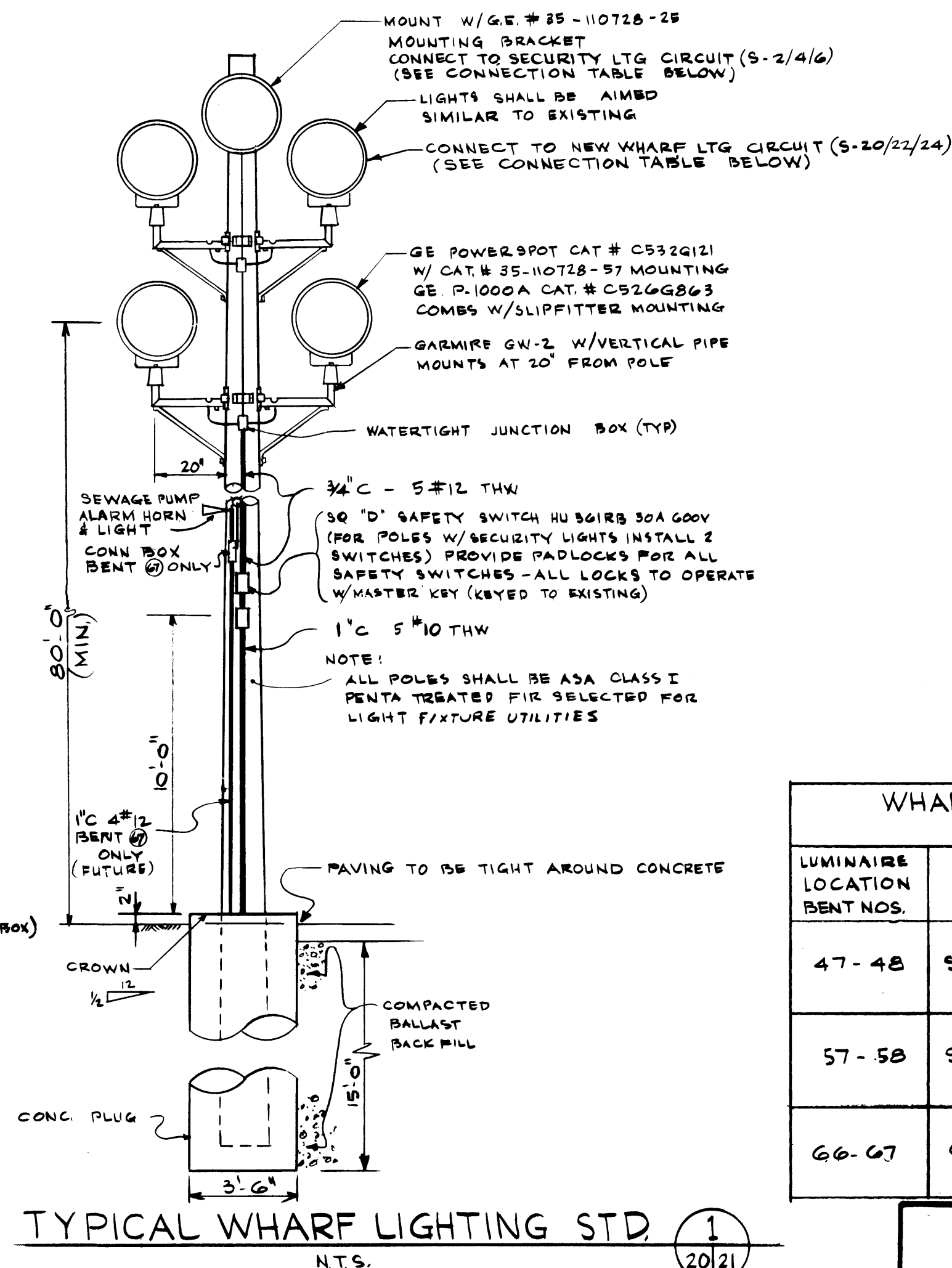
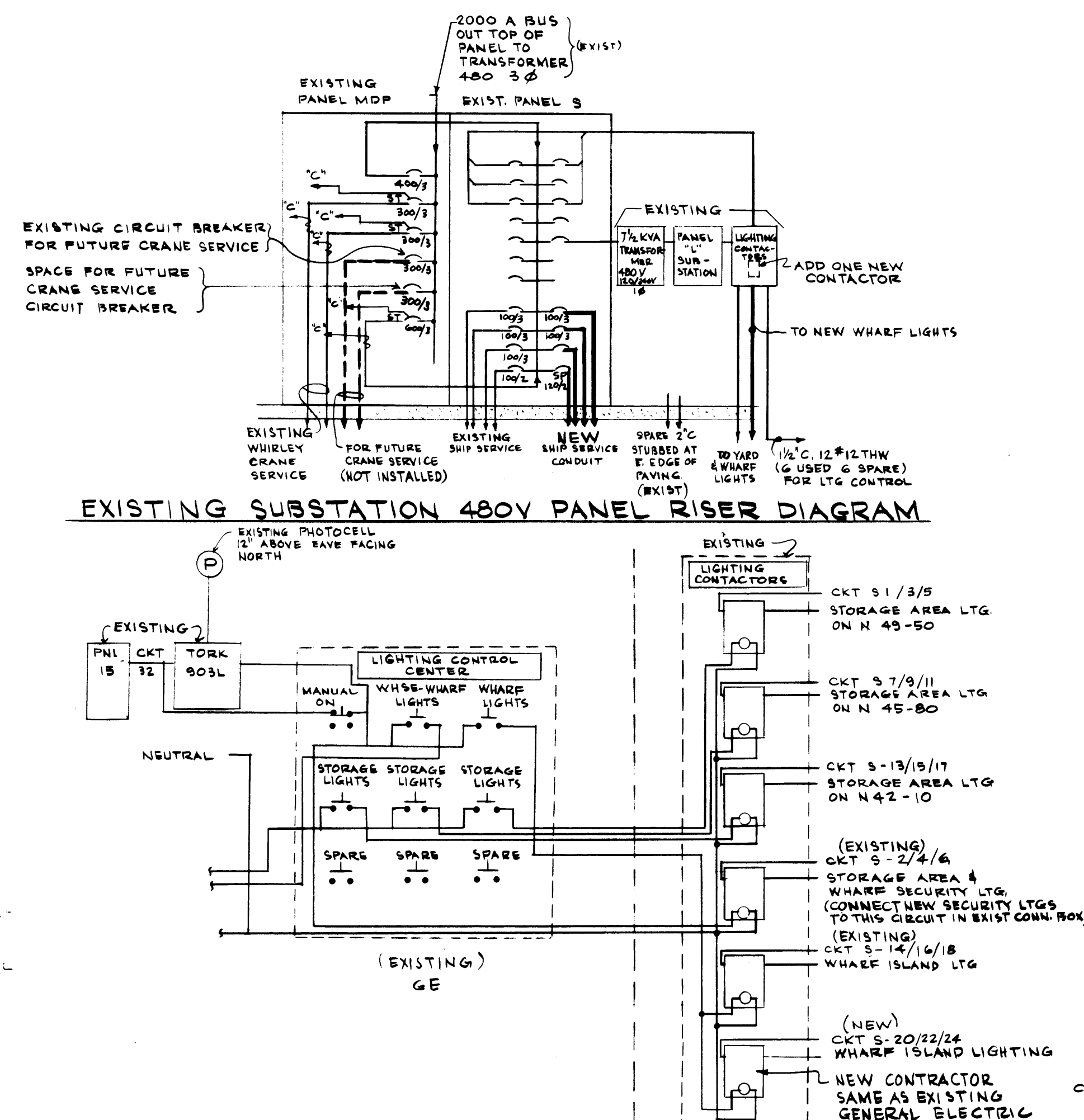
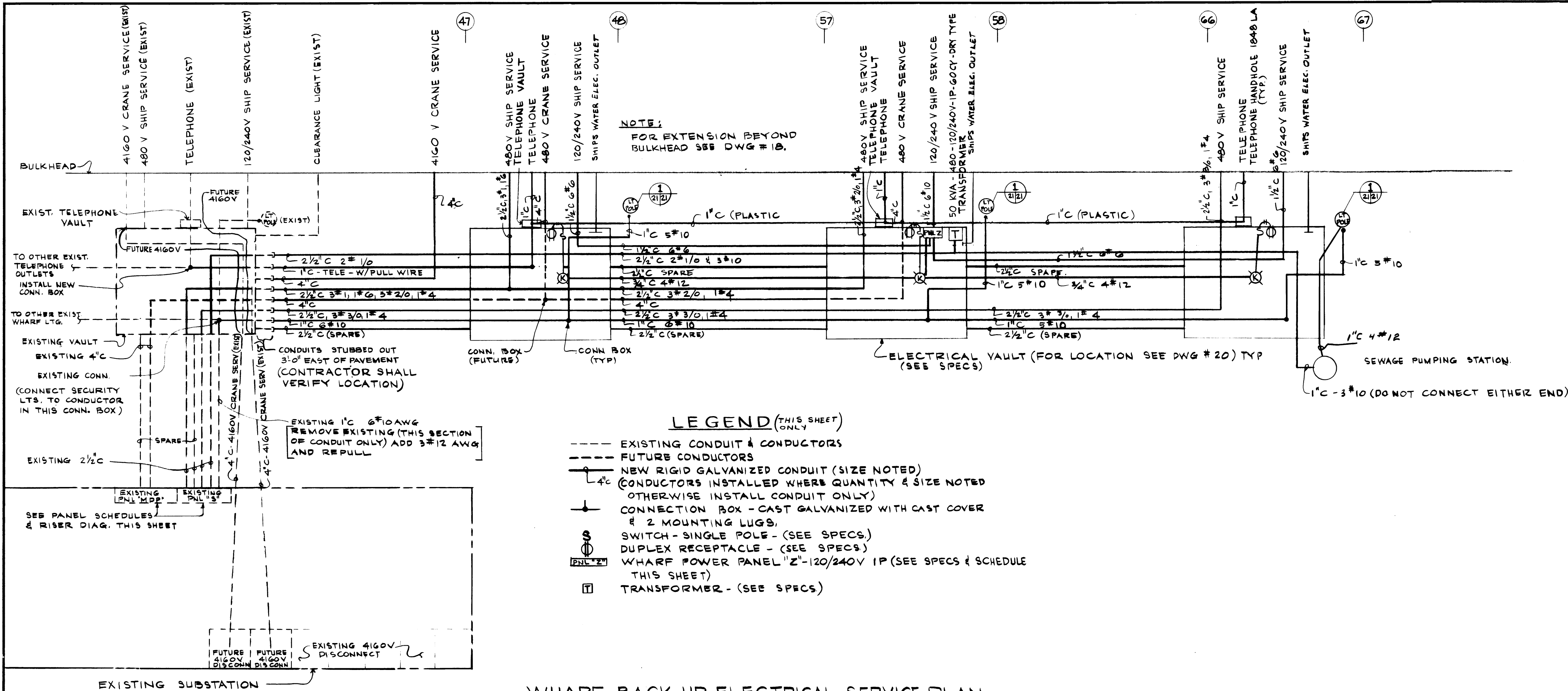
E.D.A. PROJECT #07-1-1920
CONT. No. 430

PORT OF TACOMA		
PIERCE COUNTY TERMINAL		
BERTH B		
TRUCKAGE PLAN AND DETAILS		
DRAWN: GA	CHECKED: BW	SCALE: AS NOTED
DATE: 10/3/75	DATE: 10/3/75	DRAWING NO.:
APPROVED: Daniel L. Moorman	DATE: 10/3/75	EP-2637-17
FIELD BOOK:	CHIEF ENGINEER:	SHEET 16 OF 22

Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98406







WHARF OPERATING & SECURITY LIGHTING CONNECTION TABLE					
LUMINAIRE LOCATION BENT NOS.	CKT	NUMBER OF FIXTURES TO EACH PHASE CONNECTION			SECURITY LIGHTING CIRCUIT 5-2/4/6 CONNECTION
		A-B	B-C	C-A	
47 - 48	5-20/22/24	2	1	1	A-B
57 - 58	5-20/22/24	1	2	1	B-C
66 - 67	5-20/22/24	1	1	2	C-A

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TYPE: GE VOLTS 480 PHASE 3 WIRE 3
MOUNTING: FREE STANDING FLOOR MT. LUGS: _____
FEEDER: _____ MAIN BREAKER NONE
LOCATION: SUBSTATION MAINS 600 AMP SPLIT BUS

EXISTING PANEL "S" SCHEDULE (TOP SECTION)											
DESIGNATION	WIRE	KVA	BROCK	A	B	C	EXT	BROCK	KVA	WIRE	DESIGNATION
EXISTING STORAGE AREA LIGHTING	10	13.7	29 ³ / ₄	1	2				9.0	10	EXISTING STORAGE AREA & WHARF SECURITY LIGHTING
				3	4			29 ³ / ₄			
				5	6						
				7	8						
B	B			9	10				10.2		FUTURE STORAGE AREA SECURITY
				11	12			29 ³ / ₄			
				13	14						
				15	16			29 ³ / ₄			
B	B			17	18				11.5	10	EXISTING WHARF LIGHTING
				19	20						
				21	22			29 ³ / ₄			
				23	24						
FUTURE STORAGE AREA LIGHTING	-			25	26				13.7	10	NEW WHARF LIGHTING EXISTING CIRCUIT BREAKER
				27	28						
				29	30			15 ¹ / ₂			
				31	32						
-	-			33	34				7.5	12	SUBSTATION SERVICE TRANSFORMER 480V-120/240
				35	36						
				37	38						
				39	40						
-	-			41	42						SPACE FOR FUTURE SEWAGE PUMPING STATION
				43	44						
				45	46						
				47	48						
-	-			49	50						SPACE
				51	52						
				53	54						
				55	56						

TOTAL LOAD: 82.8 KVA = 104 AMPS.

EXISTING PANEL "S" SCHEDULE (BOTTOM SECTION)													
DESIGNATION		WIRE	KVA	BREAK	CKT	A	B	C	CKT	KVA	WIRE	DESIGNATION	
EXISTING SHIP SERVICE	↓	10	66.0	100%	43	44	45	46	47	66.0	#1	BENT 47-48	
					48	49	50	51	52	53	NEW SHIP SERVICE (EXISTING CIRCUIT BREAK)		
					54	55	56	57	58	59	BENT 57-58		
					60	61	62	63	64	65	NEW SHIP SERVICE (EXISTING CIRCUIT BREAK)		
					66	67	68	69	70	71	BENT 65-66		
	↓	#1			100%						#10	NEW SHIP SERVICE (FURNISH NEW CIRCUIT BREAK)	
												BENT 47-48	
												BENT 57-58	
												BENT 65-66	
												NEW SHIP SERVICE (FURNISH NEW CIRCUIT BREAK)	
↓	#2	23.9	100%								NEW SHIP SERVICE (FURNISH NEW CIRCUIT BREAK)		
											BENT 47-48		
EXISTING 50 KVA 480-120/240 V 1 ϕ SHIP SERVICE TRANSFORMERS		#2	23.9	100%								NEW 50 KVA 480-120/240 V 1 ϕ SHIP SERVICE TRANSFORMERS	
SPAC												120	
		-	-	-	66	67	68	69	70	71	72	SPAC	

TOTAL LOAD: 443.8 KVA = 557.6 AMP

TYPE: <u>GE (SIMILAR TO EXST. PANEL ³")</u>	VOLTS: <u>20/240</u>	<u>1</u>	<u>3</u>
MOUNTING: <u>SURFACE</u>	LUGS: <u>300 CU/AL</u>		
FEEDER: <u>3-40 CU THW</u>	MAIN BREAKER: <u>225 AMP</u>		
LOCATION: <u>SHIP SERVICE VAULT</u>	MAINS: <u>225 AMP S/N</u>		

A NEW PANEL "Z" SCHEDULE									
DESIGNATION	WIRE	VA	WIRE	VA	WIRE	DESIGNATION			
SHIP SERVICE BENT 47-48	6	3800	2 1/2	3	2 1/2	3800 6 SHIP SERVICE BENT 47-48			
SHIP SERVICE BENT 57-58	10	3800	2 1/2	5	6 3 1/2	3800 10 SHIP SERVICE BENT 57-58			
SHIP SERVICE BENT 66-67	6	3800	2 1/2	9	10 2 1/2	3800 6 SHIP SERVICE BENT 66-67			
SPACE	-	-	2 1/2	13	14 2 1/2	450 10 VAULT LIGHTING			
SPACE	-	-	-	15	16 2 1/2	540 10 VAULT RECEPTLES			
				17	18 2 1/2	100 SPACE			
				19	20 2 1/2				
				21	22 2 1/2				
				23	24 2 1/2				
				25	26				
				27	28				
				29	30				

TOTAL LOAD 23.8 KVA = 100 A

VOLTS: 480V PHASE 3 WIRE 3
LUGS: 2000 AMP BUS
MAIN BREAKER NONE
MAINS: 2000 AMP

EXIST. PANEL "MDP"		SCHEDULE			
DESIGNATION	WIRE	KVA	BRKCT	ABC	
EXISTING PANEL "S" (TOP SECTION)	3/6	82.8	200 3 5		
EXISTING WHIRLEY CRANE	600 MCM G4	250	300 9 11		
EXISTING WHIRLEY CRANE	600 MCM G4	250	300 13 15		
FOR FUTURE WHIRLEY CRANE	-	(250)	300 17 19		
NEW WHARF SECTION (EXISTING CIRCUIT BAKALBE)	-	-	28		
FOR FUTURE WHIRLEY CRANE	-	-	27		
NEW WHARF SECTION (FUTURE CIRCUIT BAKS)	-	-	29		
EXISTING PANEL "S" (BOTTOM SECTION) (SHIP SERVICE MAIN)	2-330 MCM G4	443.8	600 31 35		

TOTAL LOAD 1026.6 KVA = 1236 AMPS

E.D.A. PROJECT # 07-1-1920

PORT OF TACOMA

PIERCE COUNTY TERMINAL
BERTH B

WHARF ELECT. SERVICE DETAIL

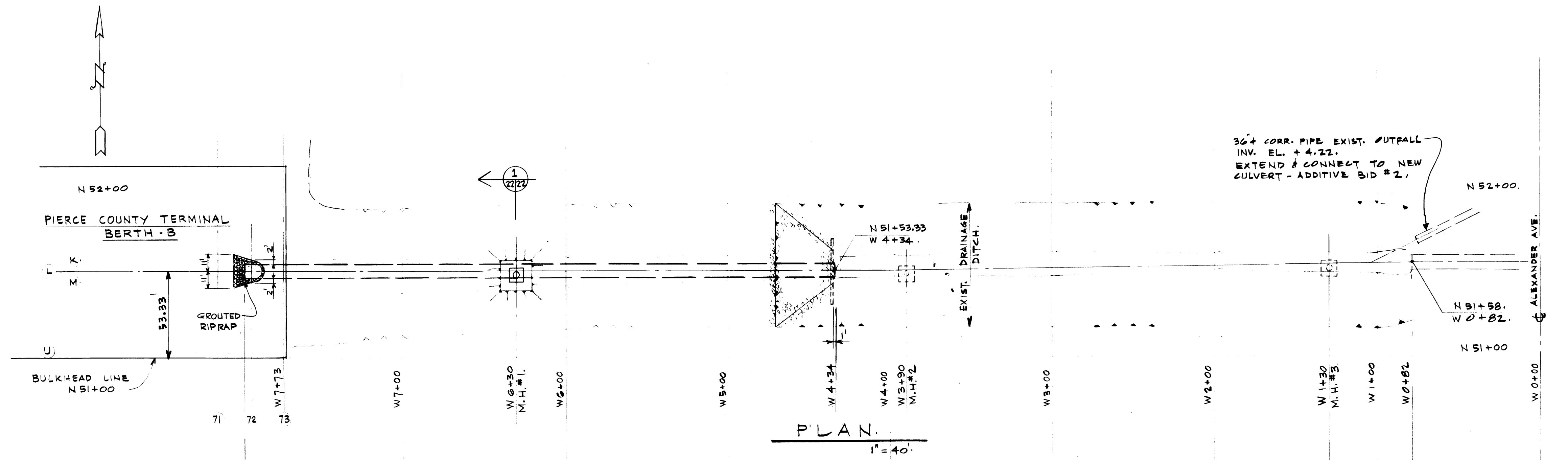
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DRAWN GA
DATE _____
CHECKED PL
DATE 10/3/75
CHECKED _____
DATE _____
CONT. NO. 430

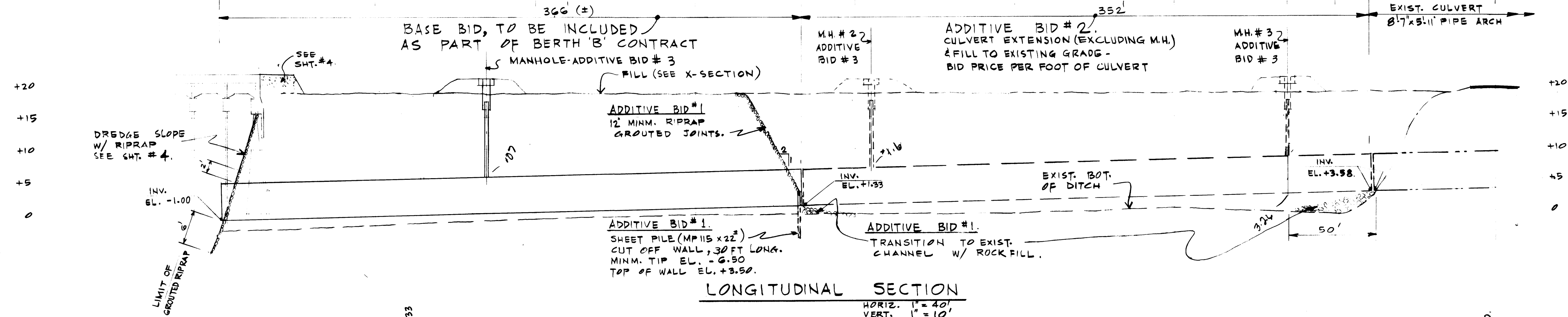
FIELD BOOK(S) _____
APPROVED _____

1

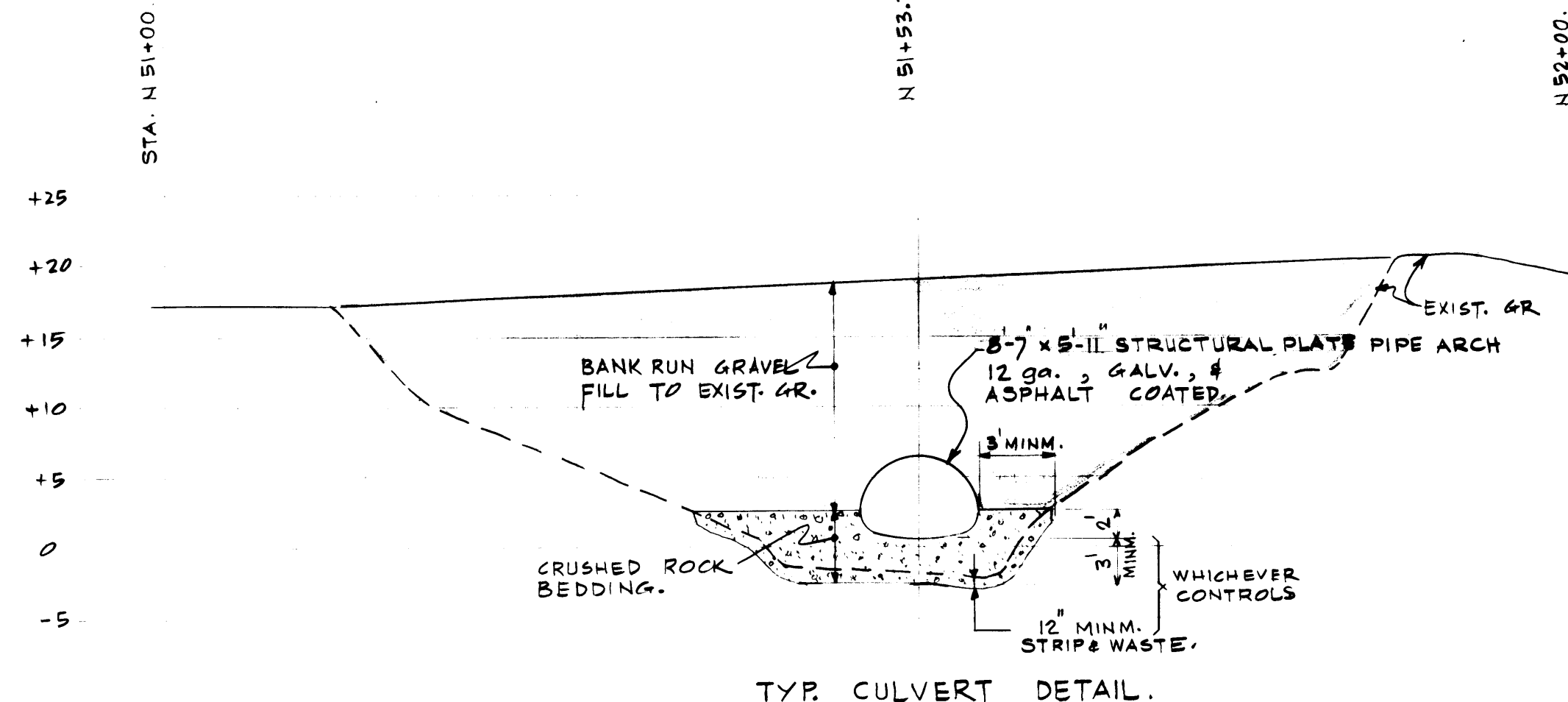
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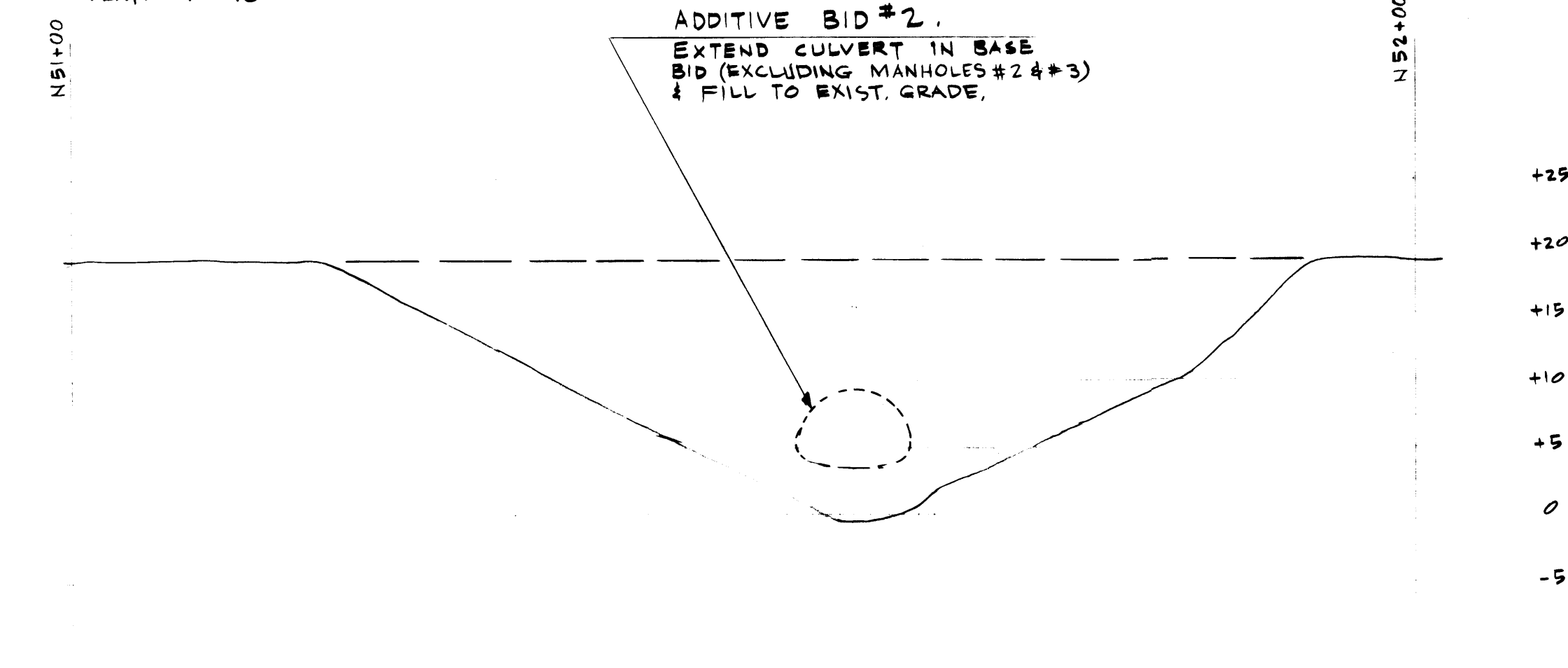
PLAN
1" = 40'



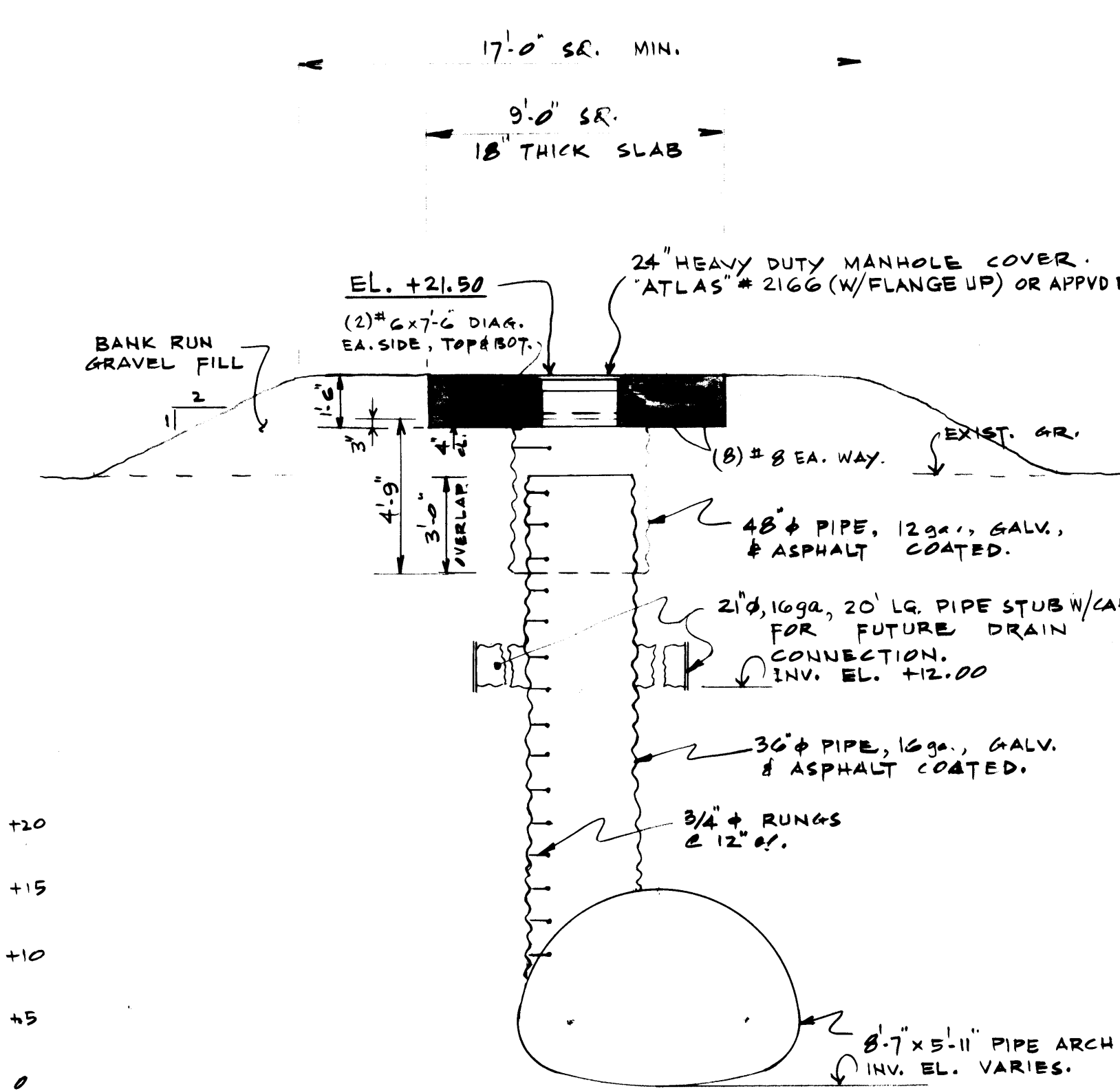
LONGITUDINAL SECTION
HORIZ. 1" = 40'
VERT. 1" = 10'



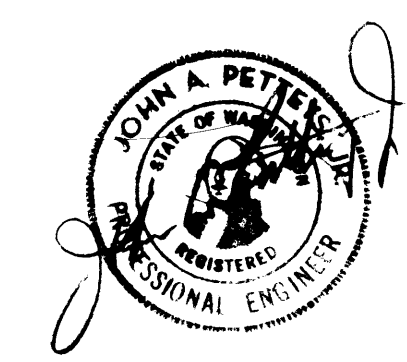
TYP. CULVERT DETAIL.
X-SECTION STA. W. 7+00
HORIZ. & VERT. 1" = 10'



X-SECTION STA. W. 1+00
HORIZ. & VERT. 1" = 10'



TYP. MANHOLE DETAIL. 1/4" = 1'-0"
ADDITIVE BID # 3
BID PRICE PER M.H.



Whitacre Engineers, Inc.
Consulting Engineering & Land Planning
2124 SOUTH "K" STREET, TACOMA, WASHINGTON 98406

MARK	REVISION	BY	APP.	DATE

E.D.A. PROJECT # 07-1-1920	
PORT OF TACOMA	
PIERCE COUNTY TERMINAL	
BERTH B	
DRAINAGE DITCH ALTERATION	
DRAWN BY: <u>BM</u>	SCALE: NOTED
DATE: <u>10/3/75</u>	DRAWING NO. <u>EP-2637-17</u>
CHECKED BY: <u>BM</u>	SHEET <u>22</u> OF <u>22</u>
DATE: <u>10/3/75</u>	
CHECKED: <u>BM</u>	
DATE: <u>10/3/75</u>	
CONT. NO. <u>430</u>	
FIELD BOOK(S): <u>10/3/75</u>	
APPROVED: <u>John A. Peterson</u>	
PROFESSIONAL ENGINEER	