

FILE REF.

BORING WR-4 (5-19-72)						
DEPTH	CASING BLOWS	SAMPLE BLOWS/FT	NUMBER	TYPE	STATION DEPTH	SOIL DESCRIPTION
			12	1	SS	Surface Elev. 83.7
5	7		3	2	SS	Sand, gravel, silt cinder, concrete and brick fill.
10	16	HP 1.5			ST-3	8.0
15	24		2	3	SS	Gray micaceous silty sand - some quartz gravel and organic matter
20	30		2	4	SS	
25	36		3	5	SS	21.5
30	42		20	6	SS	23.0
35	48		36	7	SS	33.0
40	54		95	8	SS	38.0
45	60		103/3	9	SS	43.0
50	66		50	10	SS	50.5
55	72		32	11	SS	55.2
60	78		36	12	SS	55.3
65	84		103	13	SS	62.0
70	90		4.1	14	DB	70.0
75	96		4.5	15	DB	76.0
80	102		5.0	16	DB	80.0
85	108		4.5	17	DB	86.8
90	114		5.0	18	DB	88.8
95	120		4.0	19	DB	92.0
100	126		2.0	20	DB	100.5

BORING WR-12 (5-15-72)						
DEPTH	CASING BLOWS	SAMPLE BLOWS/FT	NUMBER	TYPE	STATION DEPTH	SOIL DESCRIPTION
						Surface Elev. 64.7
5			2	2	SS	30.0
10	10		2	3	SS	7.5
15	16		2	4	SS	
20	22		44	5	SS	26.0
25	28		50	6	SS	26.0
30	34		30	7	SS	32.0
35	40		98	8	SS	
40	46		80	9	SS	43.0
45	52		38	10	SS	
50	58		100	11	SS	50.5
55	64		70/3	12	SS	55.2
60	70		100/4	13	SS	55.3

BORING WR-16 (5-11-72)						
DEPTH	CASING BLOWS	SAMPLE BLOWS/FT	NUMBER	TYPE	STATION DEPTH	SOIL DESCRIPTION
						Surface Elev. 60.7
5			20	1	SS	4.0
10	16		3	3	SS	11.5
15	22		2	4	SS	
20	28		9	5	SS	19.0
25	34		15	6	SS	23.5
30	40		27	7	SS	33.0
35	46		54	8	SS	36.0
40	52		49	9	SS	42.0
45	58		98	10	SS	
50	64		100	11	SS	
55	70		100/2	12	SS	57.5
60	76		97/2	13	SS	
65	82		100/2	14	SS	65.5
70	88		72	15	SS	73.0
75	94		50/0	16	DB	75.0
80	100		3.6	17	DB	
85	106		5.0	18	DB	85.0

BORING WR-17 (4-28-72)						
DEPTH	CASING BLOWS	SAMPLE BLOWS/FT	NUMBER	TYPE	STATION DEPTH	SOIL DESCRIPTION
						Surface Elev. 74.7
5			16	1	SS	3.5
10	16		2	2	SS	
15	22		3	3	SS	11.0
20	28		3	4	SS	
25	34		4	5	SS	
30	40		4	6	SS	
35	46		100	7	SS	34.0
40	52		52	8	SS	
45	58		94	10	SS	45.0

BORING WR-21 (6-7-72)						
DEPTH	CASING BLOWS	SAMPLE BLOWS/FT	NUMBER	TYPE	STATION DEPTH	SOIL DESCRIPTION
						Surface Elev. 63.7
5			16	1	SS	2.0
10	16		2	2	SS	7.0
15	22		6	3	SS	
20	28		3	4	SS	
25	34		5	5	SS	18.5
30	40		4	6	SS	27.0
35	46		100/3	7	SS	
40	52		100/4	8	SS	33.0
45	58		100/2	9	SS	40.0

REVISIONS			
NO.	DESCRIPTION	DATE	BY

- NOTES:**
- For location of borings WR-4, WR-12, WR-16, WR-17 and WR-21 see boring location plan on Sheet 6.
 - Borings WR-12, WR-17 and WR-21 were made using a 2 1/2" casing, a 2 inch O.D. sampler and a 140 lb. hammer falling 30 inches.
 - Borings WR-4 and WR-16 were made using a 4" casing, a 2 inch O.D. sampler and a 140 lb. hammer falling 30 inches.
 - Boring logs shown on this drawing are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or completeness of the information shown. The Contractor shall use the information shown at his own risk.

- ABBREVIATIONS:**
- S.S. Split Spoon
 - S.T. Shelby Tube - shown as
 - HP 1.5 UP - Hydraulically Pushed
 - 1.5 Recovery
 - W.H. Weight of Hammer

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

CONTRACT NO. 2293

**RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET**

BORING LOGS

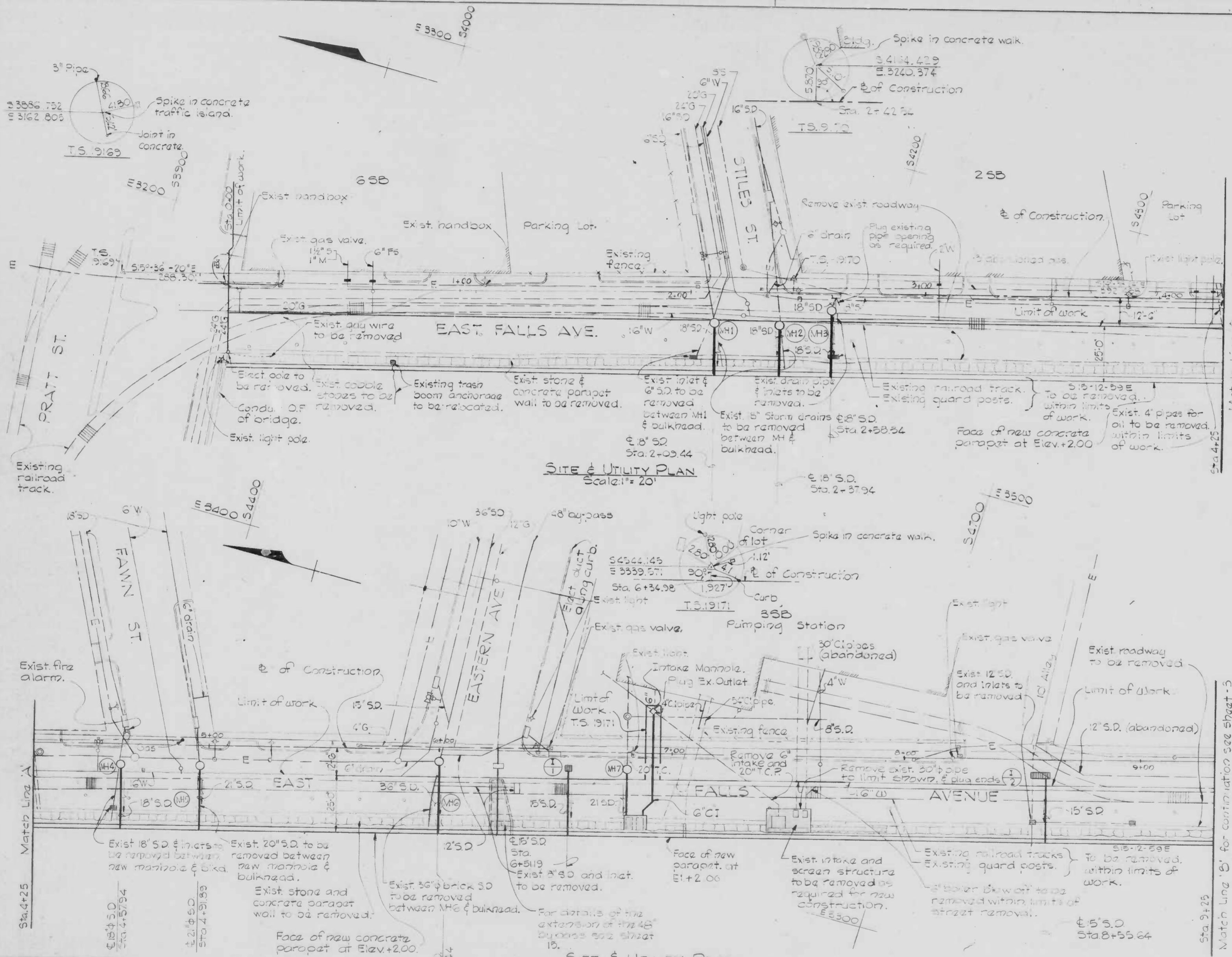
SCALE AS SHOWN DATE: 9-15-75
SHEET 7 OF 18

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

DRAWN BY: WLL
EXAMINED BY: JQA

FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY



NOTES:

- Underground utilities shown on this drawing are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or the completeness of the information shown. The Contractor shall verify all utility information to his own satisfaction.
- Existing pipes and inlets to be removed, shall be removed completely.
- For manhole and inlet schedules see sheet 3.
- For plans, sections and details of the new bulkhead and parapet see sheets 8 thru 13.
- For plans, sections and details of the extension of the existing 48\"/>

SITE & UTILITY PLAN
Scale: 1"=20'

SITE & UTILITY PLAN
Scale: 1"=20'

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DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

CONTRACT NO. 2293

RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET

SITE AND UTILITY PLANS

SCALE AS SHOWN DATE: 9 - 15 - 75
SHEET 2 OF 19

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ENGINEERS
1304 ST. PAUL STREET
BALTIMORE, MARYLAND

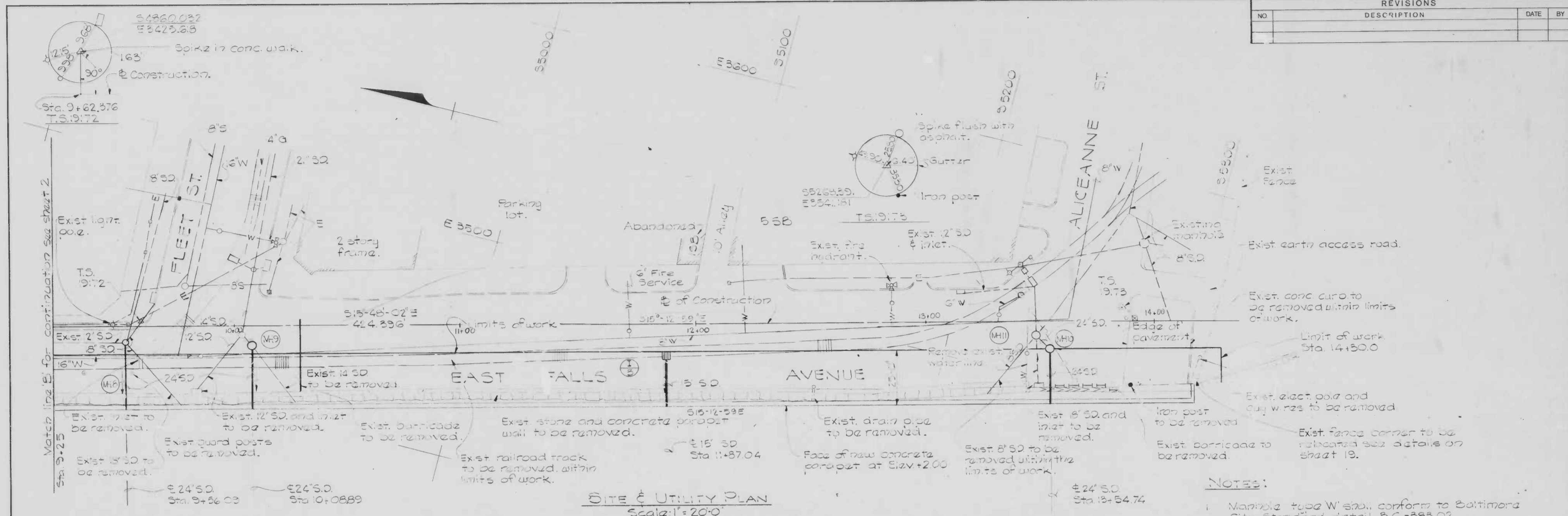
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EXAMINED BY J.O.A.

WO 6704-2

FILE REF.

FILE REF.

REVISIONS		
NO.	DESCRIPTION	DATE BY



SITE & UTILITY PLAN
Scale: 1" = 20'-0"

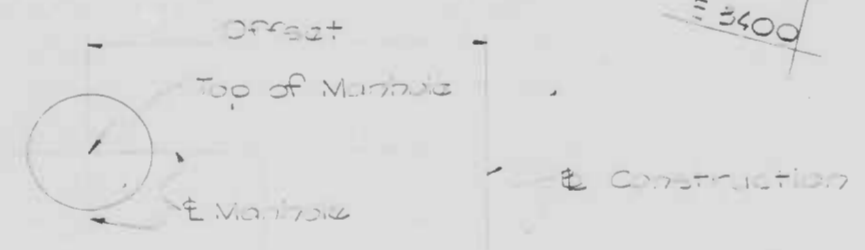
NOTES:

- Manhole type W shall conform to Baltimore City Standard Detail B.C.-383.02
- Existing pipes, manholes and inlets to be removed shall be removed completely.
- Underground utilities shown on this drawing are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or the completeness of the information shown. The Contractor shall verify all utility information to his own satisfaction.
- Inlet type 'S' shall conform to Baltimore City Standard Detail B.C.-273.11.
- Inlet type '6S' shall conform to Baltimore City Standard Detail B.C.-273.31.

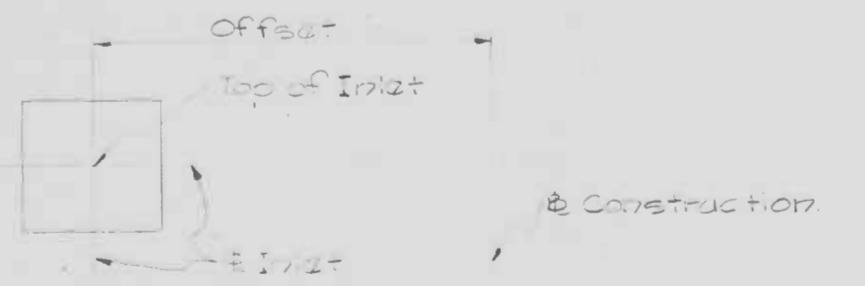
INLET SCHEDULE					
Inlet	Type	Reference Line	Station	Offset	Top Elev.
I1	S	& Construction	8+51.19	7.50	6.70
I2	6S	& Construction	8+55.64	7.50	6.50
I3	S	& Construction	11+97.04	16.00	7.75

MANHOLE SCHEDULE					
Manhole	Type	Reference Line	Station	Offset	Top Elev.
MH1	W	& Construction	2+09.44	14.75	6.30
MH2	W	& Construction	2+29.94	14.75	6.90
MH3	W	& Construction	2+58.24	7.50	6.00
MH4	W	& Construction	4+51.24	8.50	6.50
MH5	W	& Construction	4+51.89	7.50	6.50
MH6	W	& Construction	5+34.44	8.00	6.70
MH7	W	& Construction	6+77.00	7.50	6.70
MH8	W	& Construction	8+06.55	6.50	6.20
MH9	W	& Construction	10+08.85	7.50	6.55
MH10	W	& Construction	12+52.74	12.50	6.70
MH11	W	& Construction	13+45.74	6.50	6.70

Note: All manhole and inlet offsets noted in the schedules above are to the right of the & of Construction.



MANHOLE NOTATION
No Scale



INLET NOTATION
No Scale

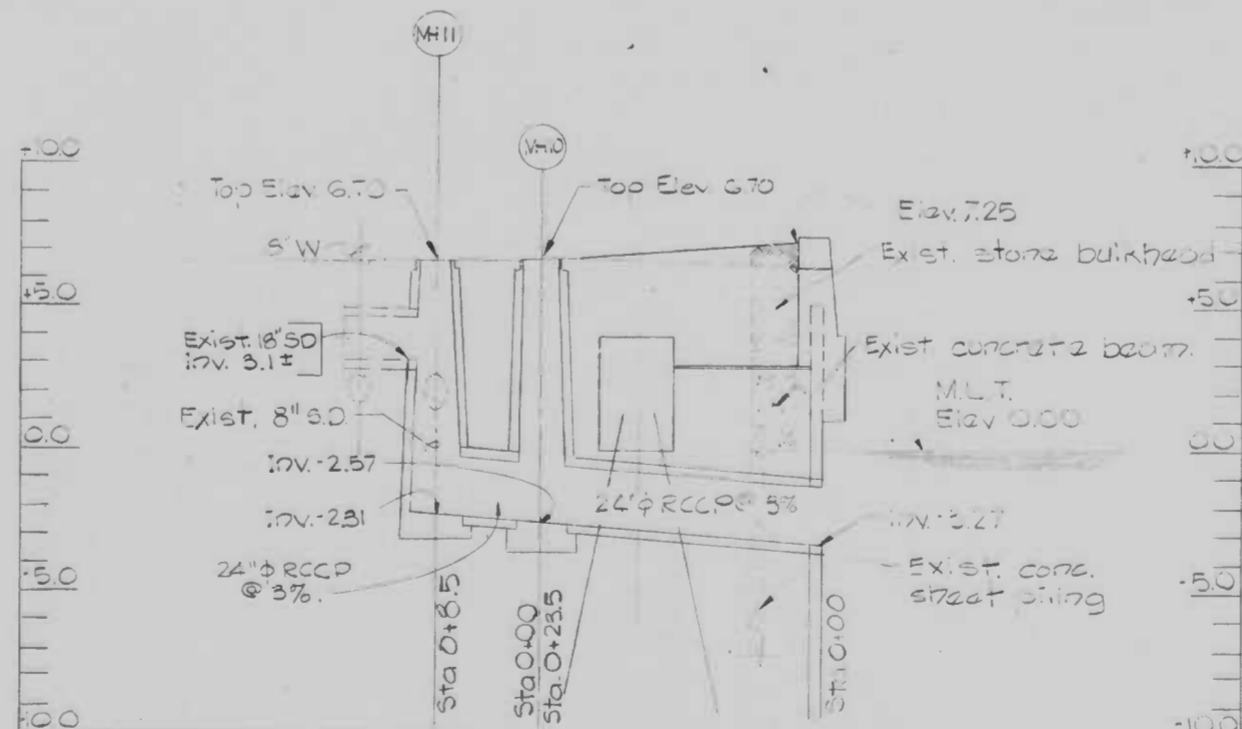
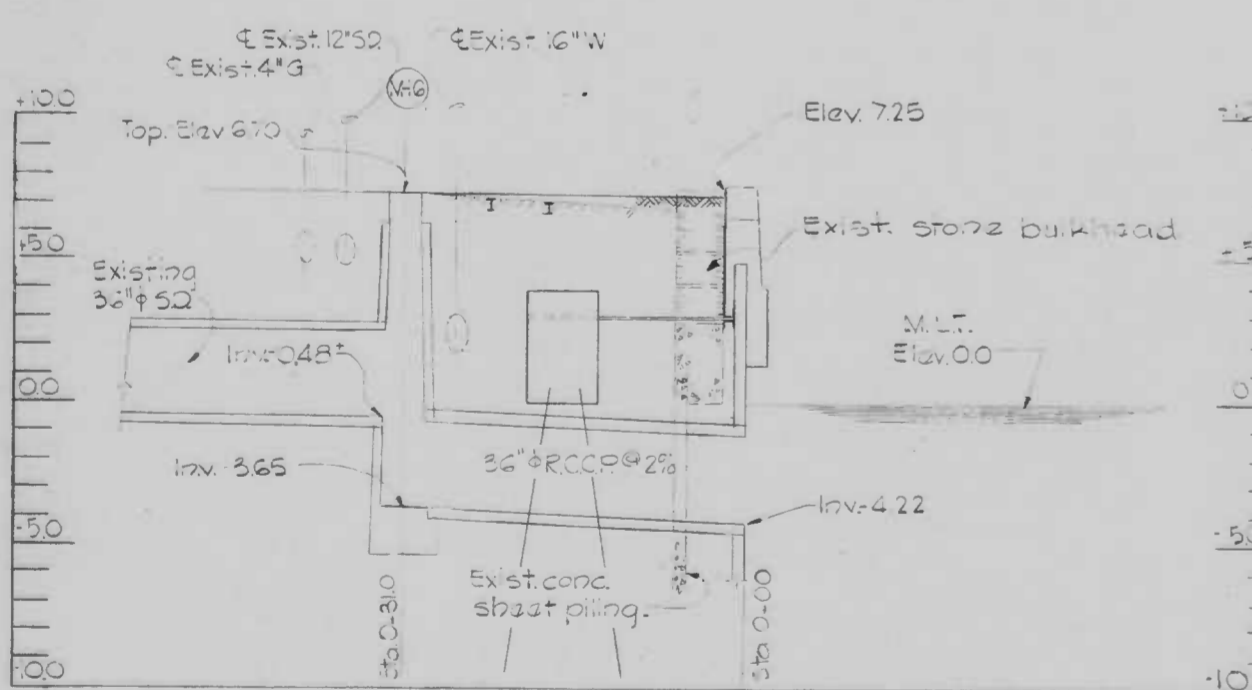
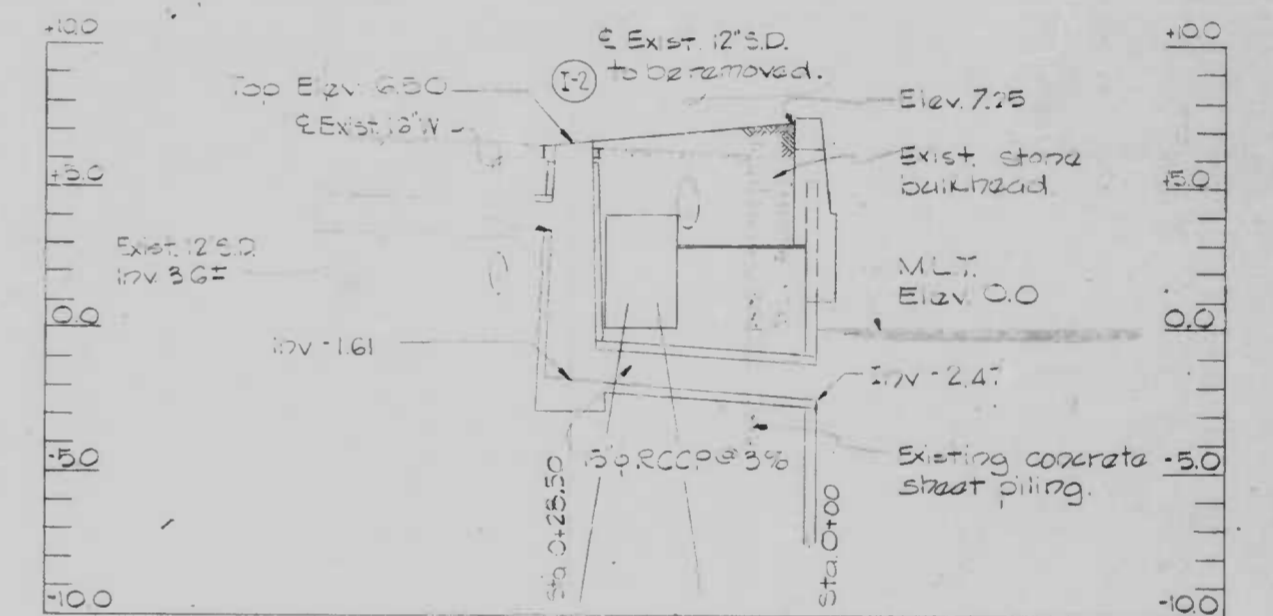
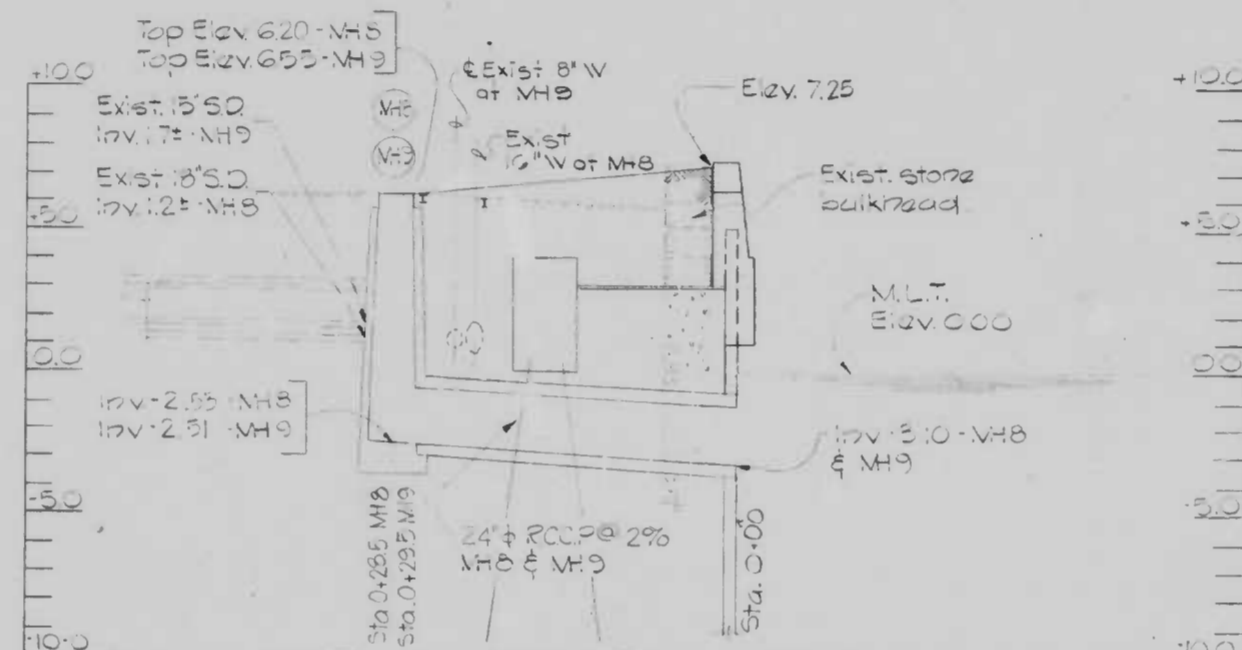
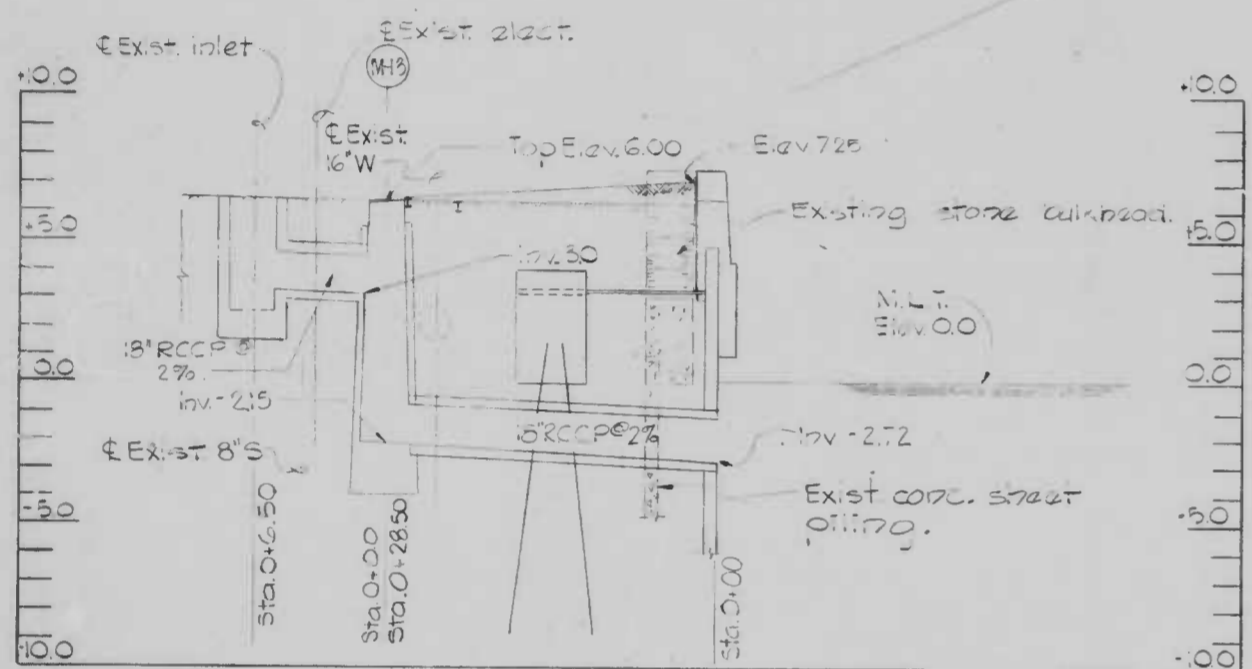
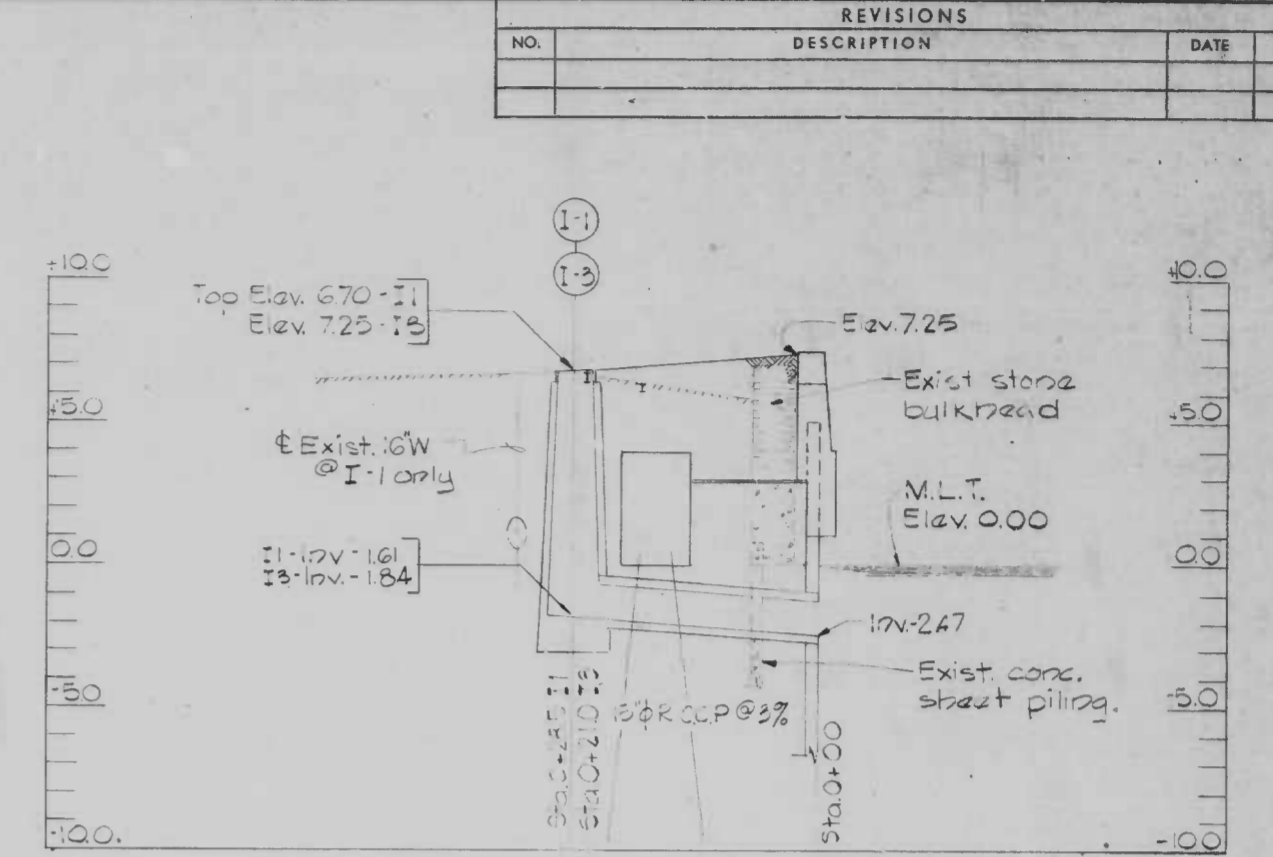
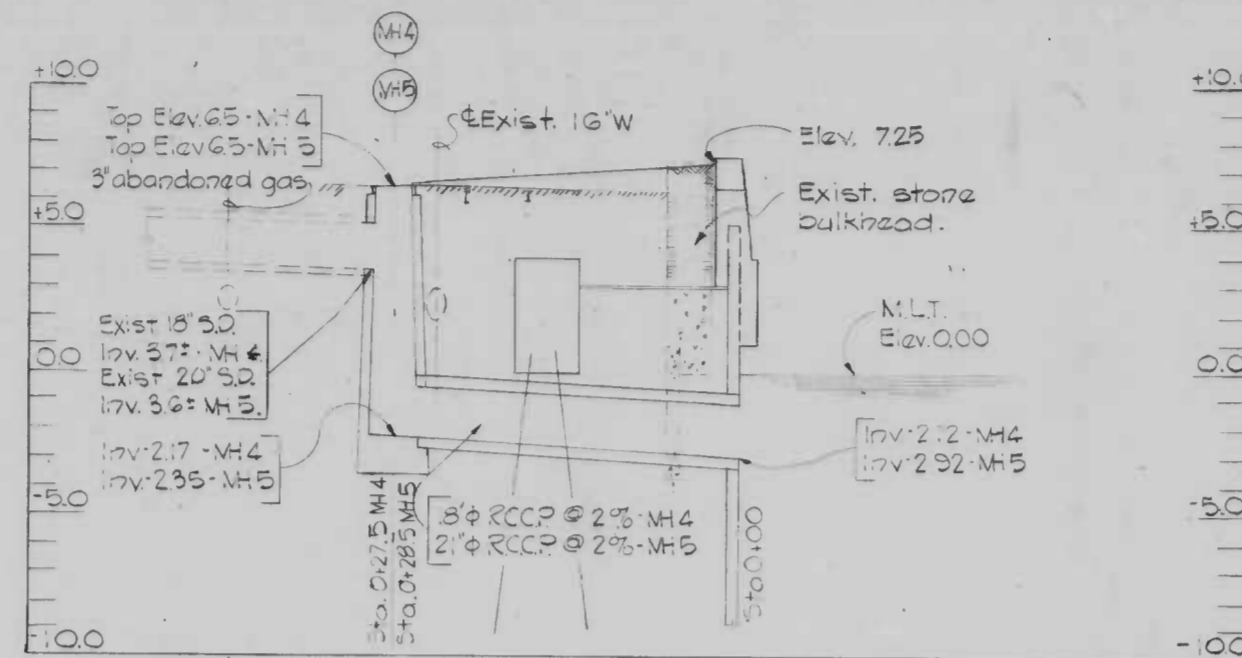
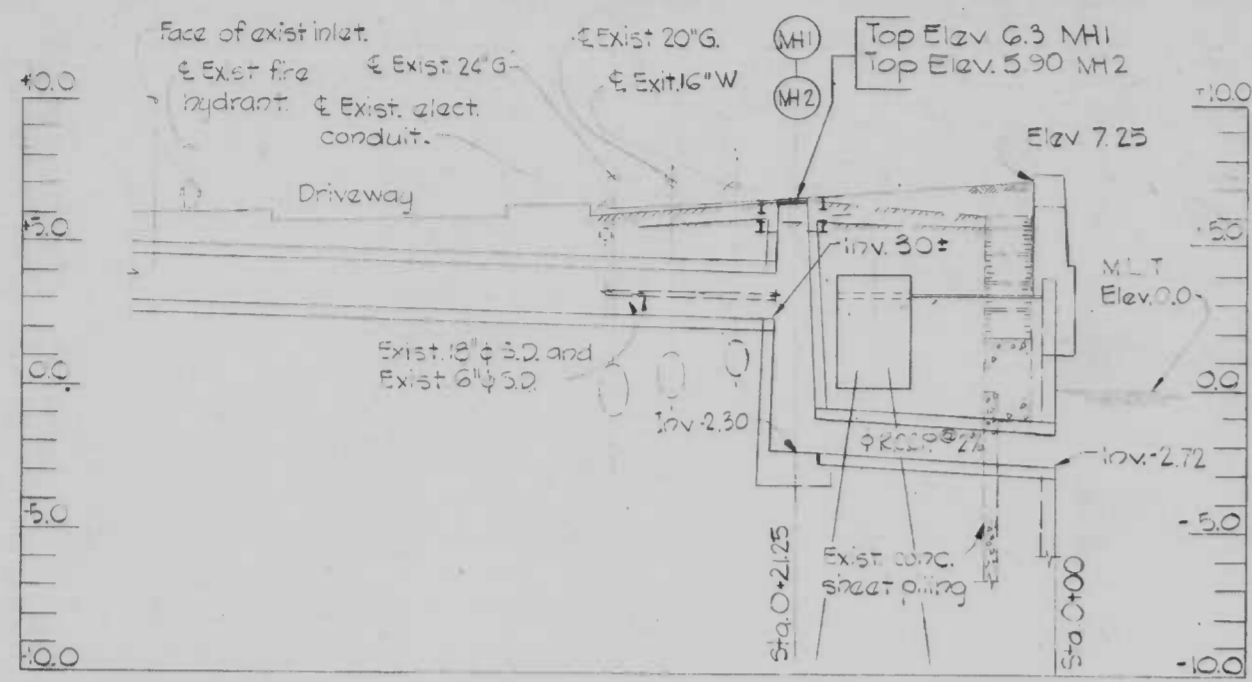
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EXAMINED BY J.O.A.

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ENGINEERS
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BALTIMORE, MARYLAND

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CONTRACT NO. 2293
RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
SITE AND UTILITY PLAN AND DETAILS
SCALE AS SHOWN
DATE 9-15-75
SHEET 3 OF 19

FILE REF.

FILE REF.



REVISIONS		
NO.	DESCRIPTION	DATE BY

Notes:

1. For locations of manholes, inlets and storm drains see sheets 2 and 3.
2. For details of new steel pile bulkhead and concrete cap see sheets 8 thru 10.
3. For typical pipe penetration details see sheet 13.

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EXAMINED BY J.O.A.

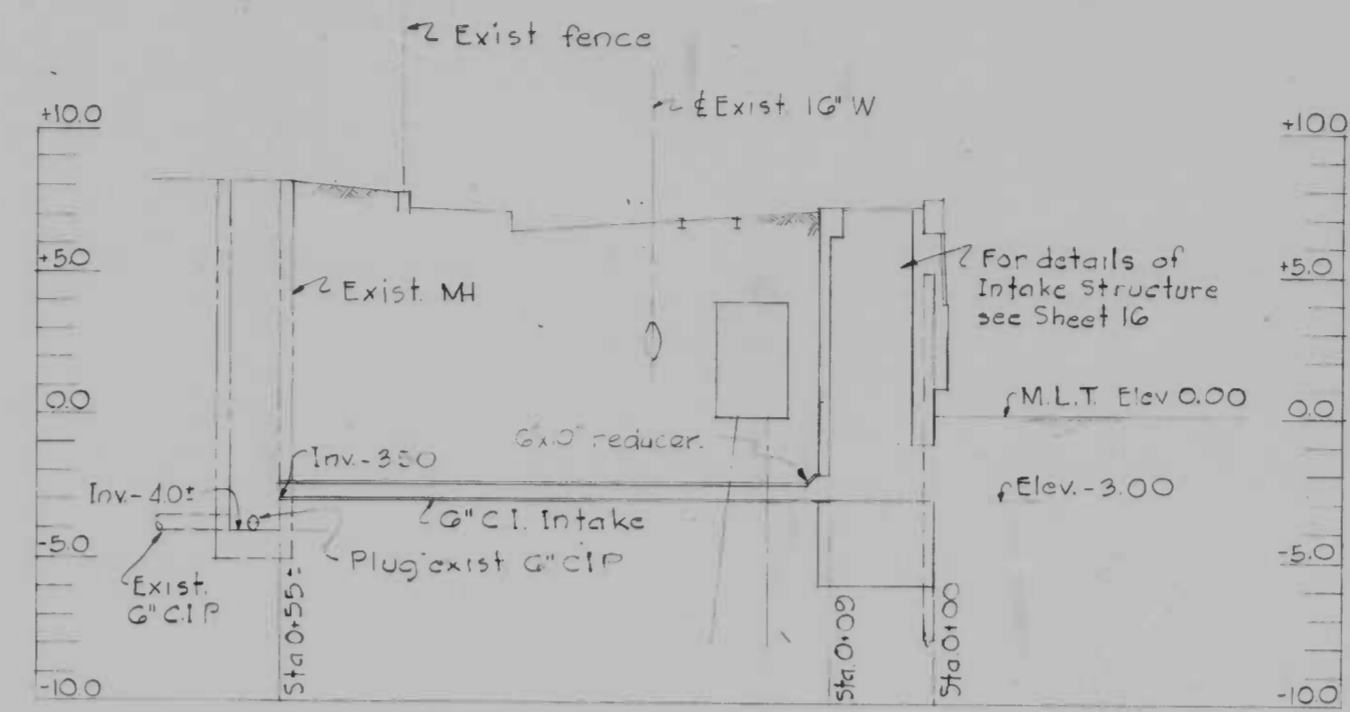
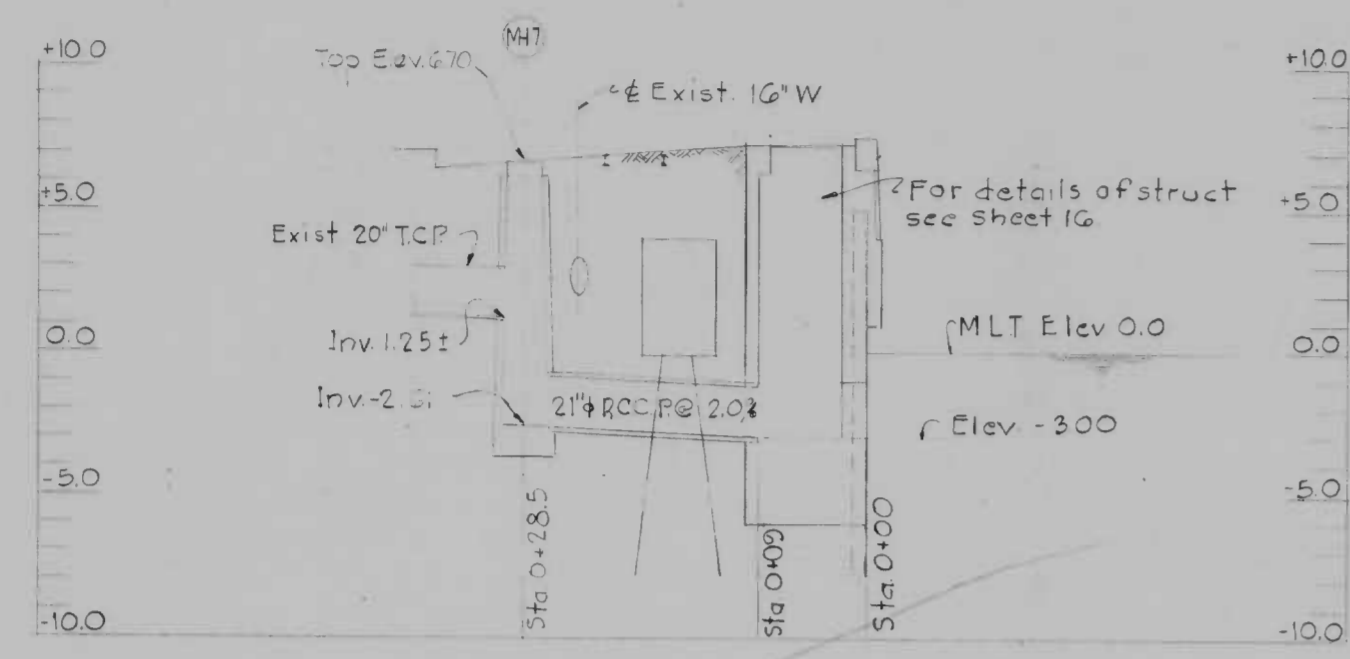
WO 6704-2

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BUREAU OF ENGINEERING
CONTRACT NO. 2293
RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
STORM DRAIN PROFILES
HORIZ. 1"=10'-0"
SCALE VERT. 1"=4'-0"
DATE 9-15-75
SHEET 4 OF 19

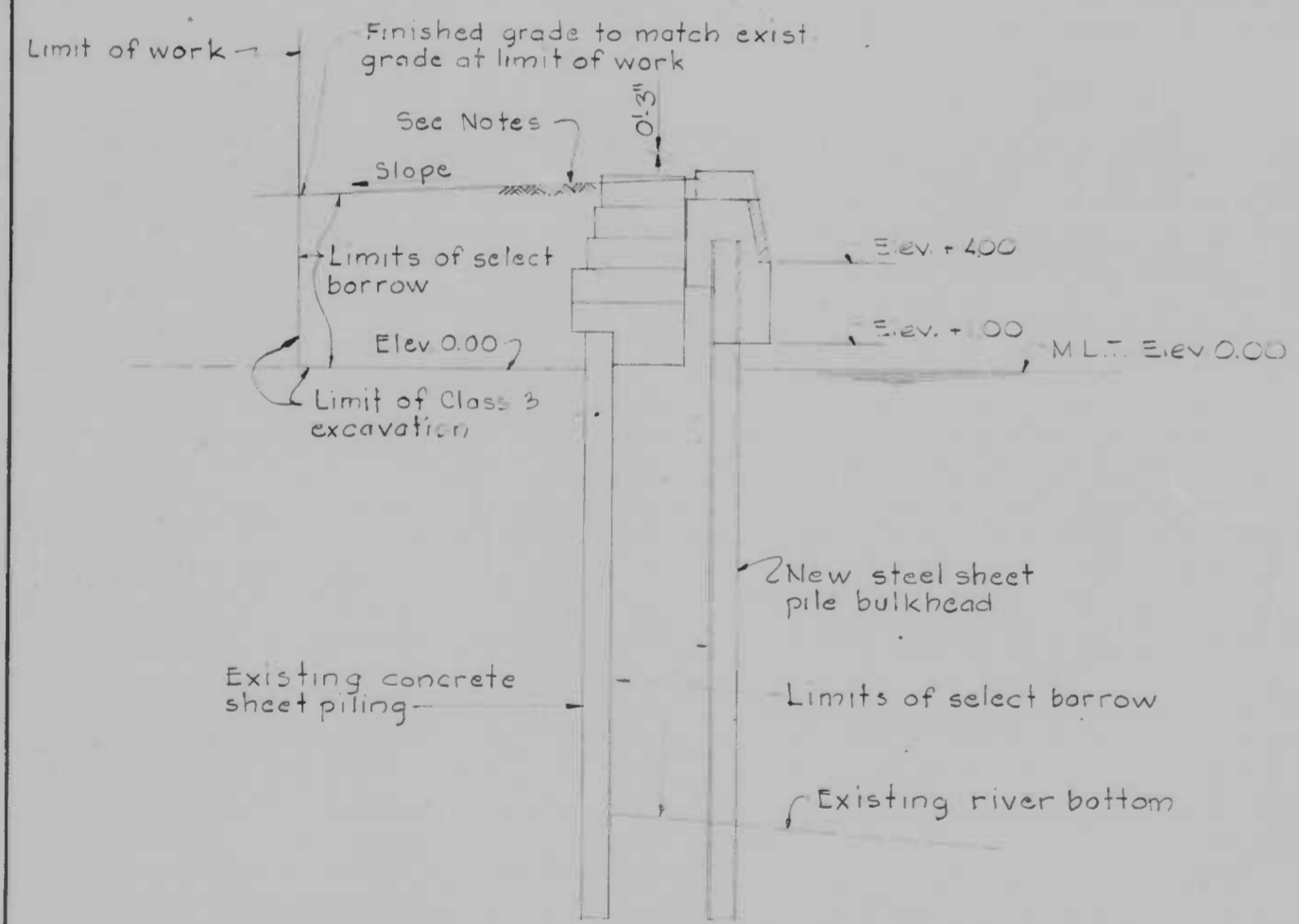
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REVISIONS			
NO.	DESCRIPTION	DATE	BY

NOTES:
 1. All disturbed earth surfaces shall receive 2" of topsoil and shall be seeded per specifications.



TYPICAL EARTHWORK SECTION
 No Scale

DRAWN BY: M.M.
 EXAMINED BY: J.O.A.

WHITMAN, REQUARDT & ASSOCIATES
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 1304 ST. PAUL STREET
 BALTIMORE, MARYLAND

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 CONTRACT NO. 2293
 RECONSTRUCTION
 EAST FALLS AVENUE BULKHEAD
 PRATT STREET TO ALICEANNA STREET
 PROFILES AND DETAILS
 HORIZ. 1"=10'-0"
 SCALE: VERT. 1"=4'-0" DATE: 9-15-75
 SHEET 5 OF 19

FILE REF.

FILE REF.



BORING LOCATION PLAN
No Scale

BORING BH-1 (12-20-72)

DEPTH	NUMBER	TYPE	CONDITION	NO. BLOWS PER FT.	RECOVERY PERCENT	STATION DEPTH	SOIL DESCRIPTION
							Surface Elev. 5.5'
5	1	DS	I	1-1-1	100	3.0	Broken Concrete
	2	DS	I	WQH/6 1-1	100	7.5	Brown to Gray wet micaceous sandy silt and cinders fill
10	3	DS	I	1-1-2	100		Ground water depth at completion 7.1'
15	4	DS	I	1-1-1	100		Gray wet silty micaceous sand to sandy micaceous silt wood fragments
	5	PT	I	Push	88		
	6	DS	I	WQH/6 2-2	100	23.5	
25	7	DS	I	4-7-8	100		Gray wet silty sand and coarse gravel
30	9	DS	I	10-17-24	100		

* 0.5 Black concrete paving

BORING BH-2 (12-19-72)

DEPTH	NUMBER	TYPE	CONDITION	NO. BLOWS PER FT.	RECOVERY PERCENT	STATION DEPTH	SOIL DESCRIPTION
							Surface Elev. 6.6'
5	1	DS	I	2-1-1	100	1.8	Broken Concrete
	2	DS	I	1-1-3	100	7.0	Brown and Gray moist micaceous sand, silt fill
10	3	DS	I	1-2-3	100		Ground water depth at completion 7.1'
15	4	DS	I	1-1-2	100		Gray moist to wet silty sand with pure sand lenses and organic material
	5	DS	I	WQH/6 1-1	100		
25	6	DS	I	WQH	100	27.5	
30	7	DS	I	11-9-8	50		Gray wet silty sand and coarse gravel
35	8	DS	I	28-23-19	100	36.0	

* 0.8 10' Concrete and Black

BORING BH-3 (12-18-72)

DEPTH	NUMBER	TYPE	CONDITION	NO. BLOWS PER FT.	RECOVERY PERCENT	STATION DEPTH	SOIL DESCRIPTION
							Surface Elev. 7.1'
5	1	DS	I	3-4-5	100	1.1	Brown to Gray moist micaceous silty sand and cinders fill
	2	DS	I	1-2-1	100	5.0	
	3	PT	I	Push	85		Gray wet silt and sand some shells and cinders
10	4	DS	I	WQH	100		Ground water depth at completion 3.5'
15	5	DS	I	1-1-1	100	15.0	Gray wet sandy micaceous silt
	6	PT	I	Push	85		
20	7	DS	I	WQH/6 1-2	100	23.0	
25	8	DS	I	3-2-1	100	25.5	Gray wet silty sand and gravel
	9	DS	I	3-2-1	100	28.5	Gray wet sandy micaceous silt
30	10	DS	I	8-16-21	100		Gray wet silty sand and gravel
35	11	DS	I	10-10-8	100	35.0	White moist silty sand

* 2' Blacktop
11' Concrete

REVISIONS		
NO.	DESCRIPTION	DATE BY

NOTES:

- For location of borings BH-1, BH-2 & BH-3 see the boring location plan this sheet.
- For boring logs of borings WR-4, WR-12, WR-16, WR-17 and WR-21 see Sheet 7.
- Borings BH-1, BH-2 and BH-3 were made using a 7/8" hollow stem auger. Samples were taken using a 140 lb. hammer dropping 30 inches.
- Boring logs shown on this drawing are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or the completeness of the information shown. The Contractor shall use the information shown at his own risk.

ABBREVIATIONS:

- DS Driven Split Spoon
- PT Pressed Shelby Tube
- I Intact
- L Lost
- U Undisturbed
- D Disintegrated
- WQH Weight of Hammer

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EXAMINED BY J.O.A.

W.O. 6704-2

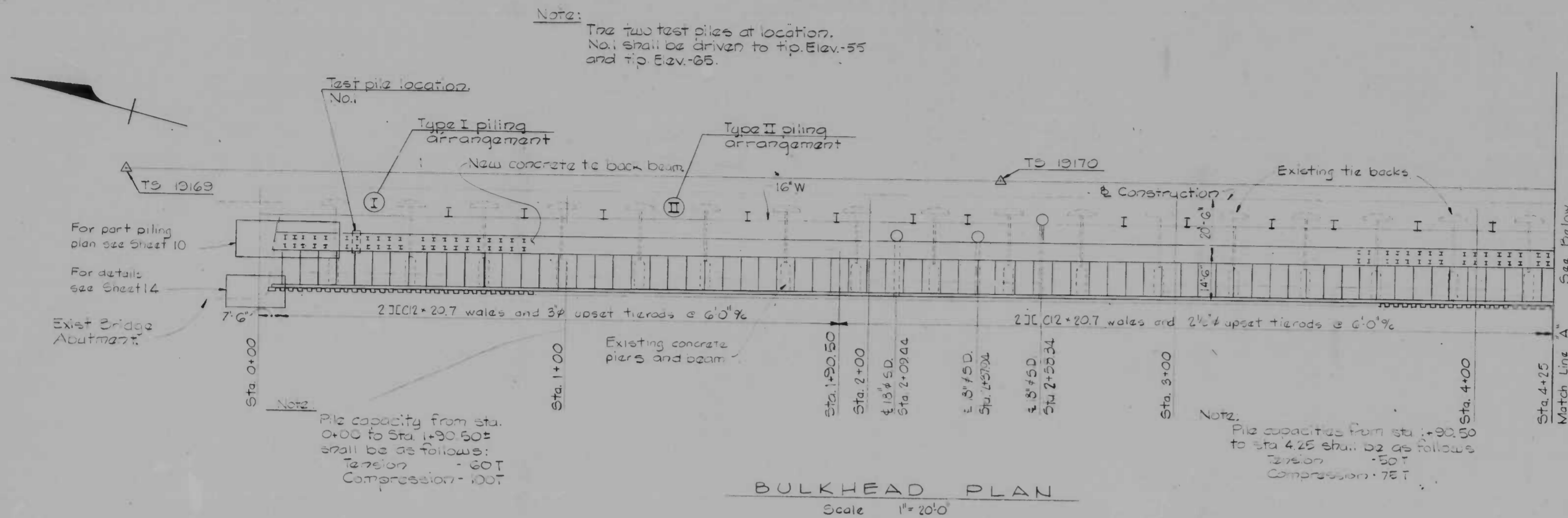
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BALTIMORE, MARYLAND

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BUREAU OF ENGINEERING
CONTRACT NO. 2293
RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
BORING PLAN AND LOGS
SCALE: AS SHOWN
DATE: 9-15-75
SHEET 6 OF 19

FILE REF.

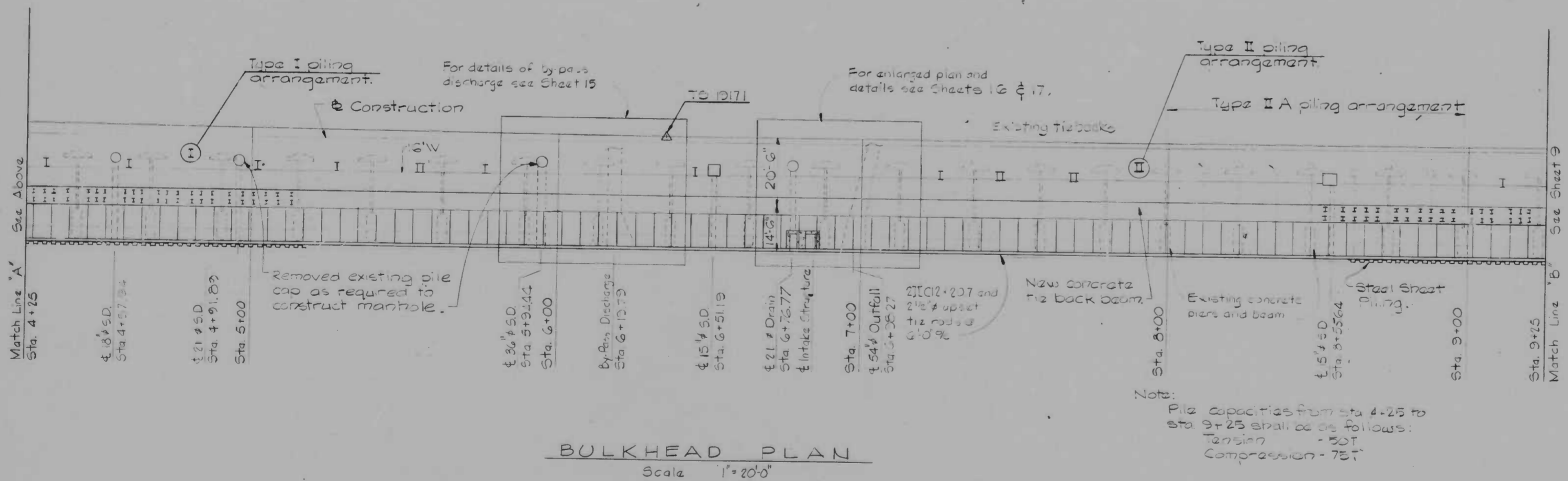
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REVISIONS		
NO.	DESCRIPTION	DATE BY



NOTES:

- For data on turning stations TS 19169 and TS 19170 and for the relation of the turning stations to the base line of construction see Sheet 2.
- For enlarged piling plan Type I and Type II see Sheet 9.
- For storm drainage plans and details see sheet 2 thru 5.
- For typical bulkhead sections and details see Sheets 12 and 13.
- For bulkhead elevations see Sheet 11.
- For data on turning station TS 19171 and for relation of the turning station to the base line of construction see Sheet 2.
- Type II A piling arrangement shall be similar to Type II except that the pile spacing shall be field adjusted as required to avoid interfering with the existing intermediate tie rods.
- Existing concrete piers, beams, tie rods and abutment shown on this sheet are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or completeness of the information shown. The Contractor shall verify the size and location of all existing structures to his own satisfaction.
- When the removal of the existing bulkhead beams, piers, etc. is required by new construction, the contractor shall provide temporary shoring and bracing as necessary to insure the protection of adjacent utilities and construction. Any damages resulting from such removals shall be repaired at the contractor's own expense.
- The existing bulkhead structure shall be removed only as required for new construction and its structural integrity maintained as far as practicable.



DRAWN BY WLL
EXAMINED BY JOA

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DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

CONTRACT NO. 2293

RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET

BULKHEAD PLANS

SCALE: AS SHOWN DATE: 9-15-75

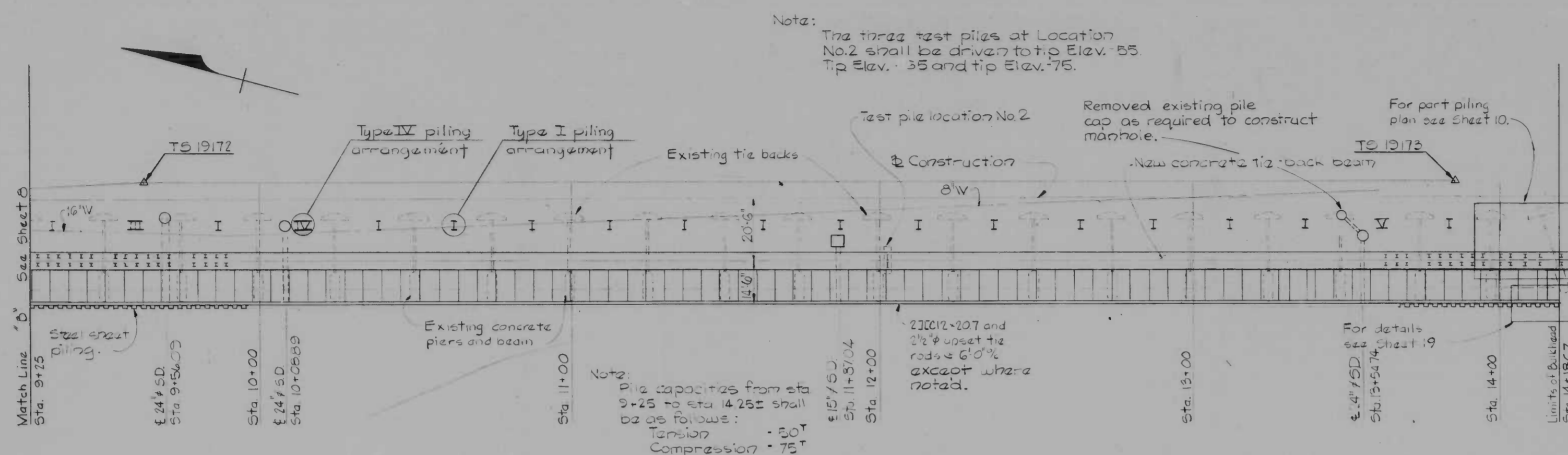
SHEET 8 OF 19

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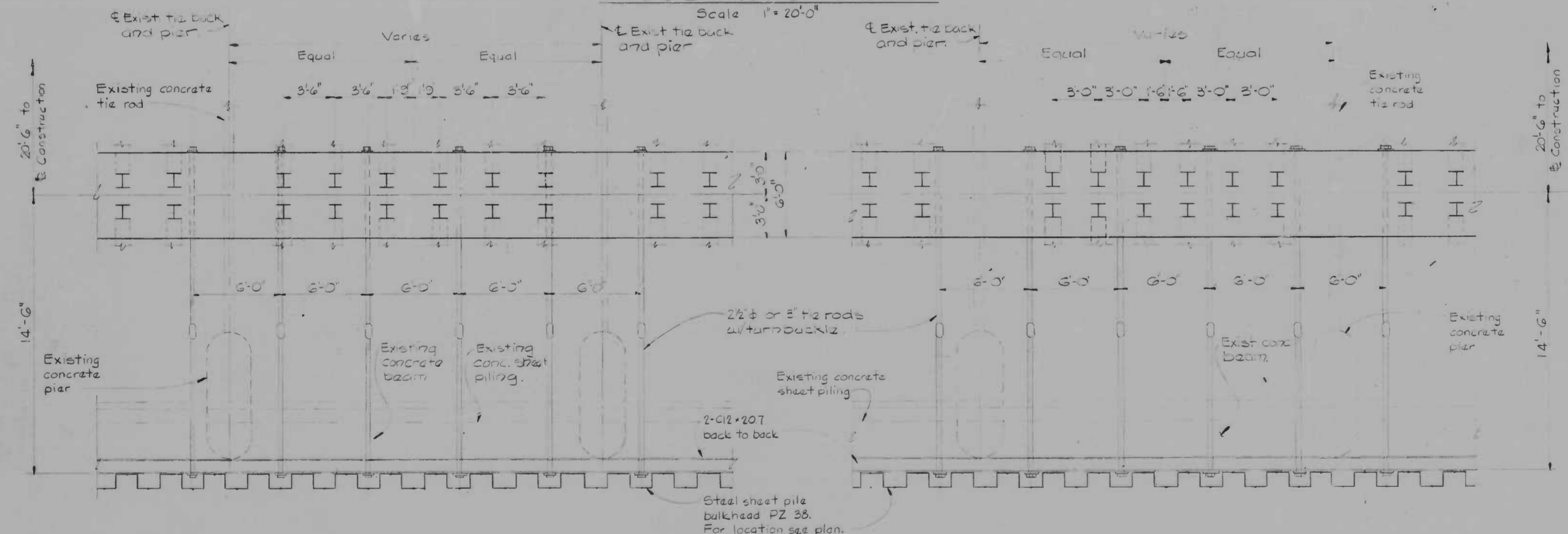
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REVISIONS			
NO.	DESCRIPTION	DATE	BY



- NOTES:
- For data on turning stations T5 19172 and T5 19173 and for the relation of the turning stations to the baseline of construction see Sheet 9.
 - For enlarged piling plans Type III, Type IV and Type V see Sheet 10.
 - For storm drainage plans and details see sheet 2 thru 6.
 - For typical bulkhead sections and details see Sheets 12 and 13.
 - For bulkhead elevations see Sheet 11.
 - Existing concrete piers, beams, tie backs and sheet piling shown on this sheet are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or completeness of the information shown. The Contractor shall verify the size and location of all existing structures to his own satisfaction.

BULKHEAD PLAN



PARTIAL PLAN - TYPE I PILE LAYOUT
No Scale

PARTIAL PLAN - TYPE II PILE LAYOUT
No Scale

DRAWN BY W.L.L.
EXAMINED BY J.O.A.

WHITMAN, REQUARDT & ASSOCIATES
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BALTIMORE, MARYLAND

CITY OF BALTIMORE
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BUREAU OF ENGINEERING

CONTRACT NO. 2293

RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET

BULKHEAD AND PILING PLANS

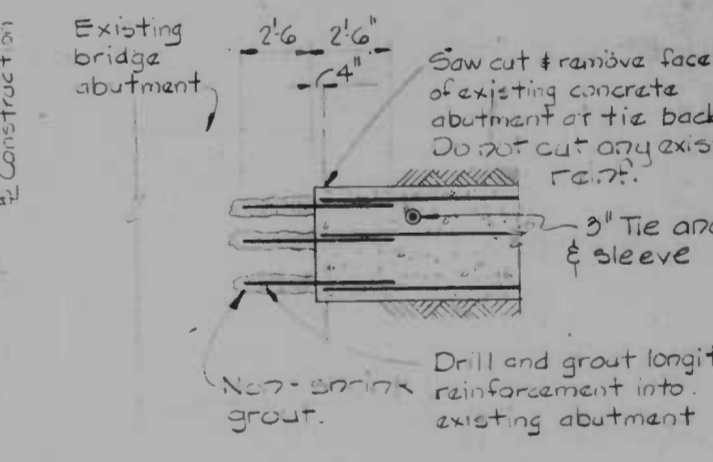
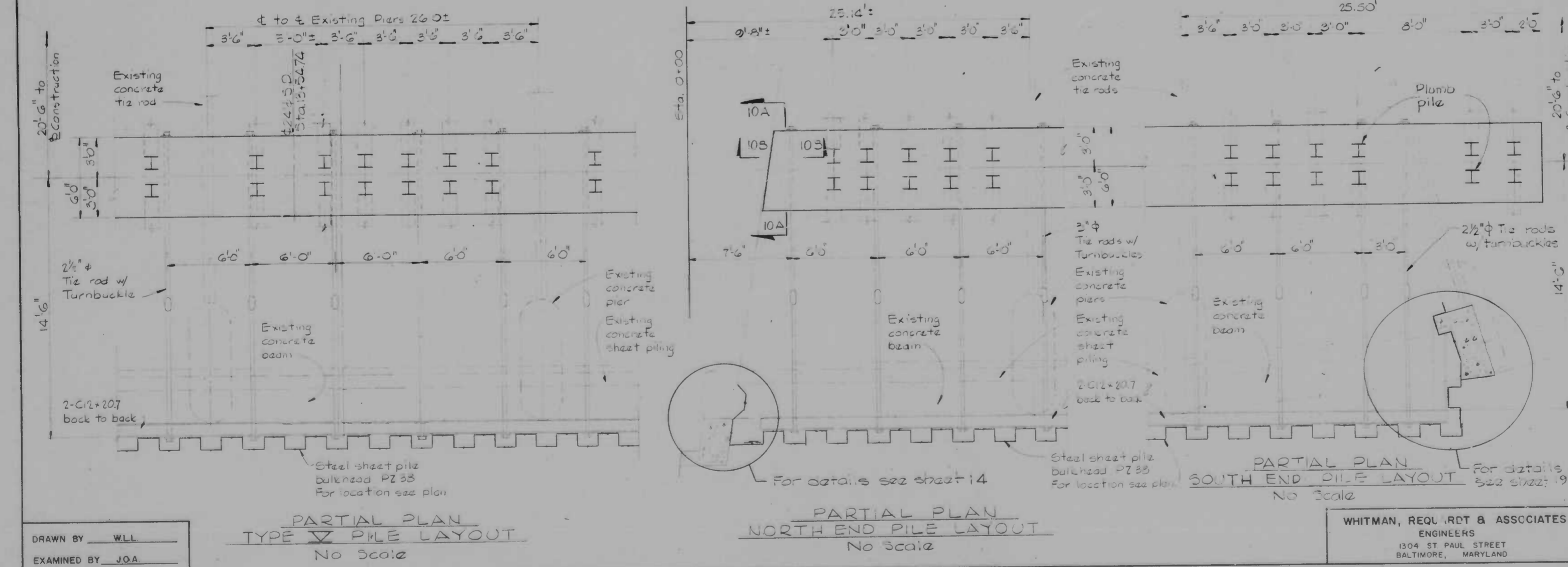
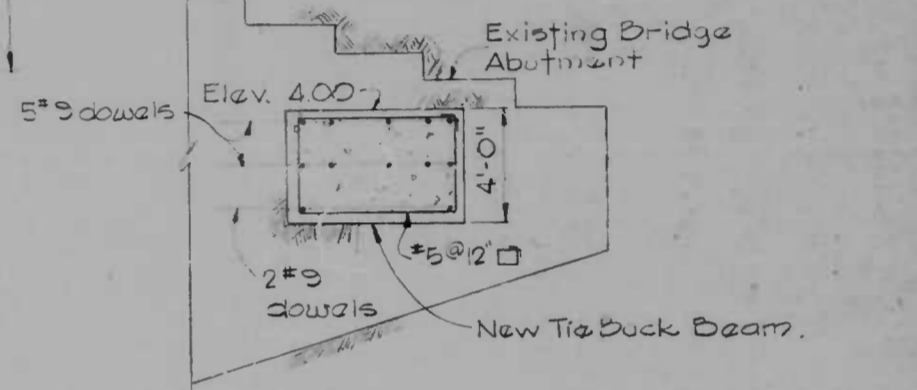
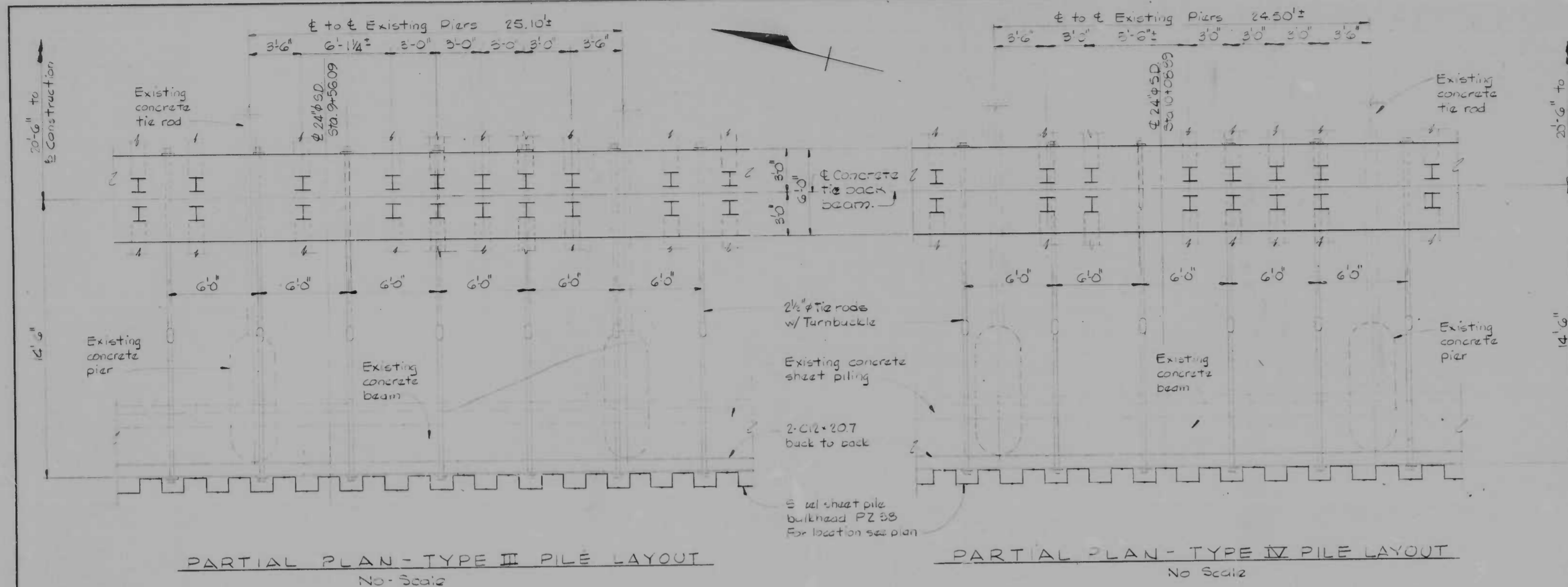
SCALE: AS SHOWN DATE: 9-15-75
SHEET 9 OF 19

FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

NOTES:

1. For plans of bulkhead showing locations of piling layouts see sheets 8 & 9
2. For bulkhead Elevations see sheet 11
3. For typical bulkhead sections and details see sheets 12 & 13
4. For bulkhead details at North end adjacent to Pratt St. see sheet 14.
5. For bulkhead details at the south end see sheet 19.
6. For storm drain plans, sections and details see sheet 2 thru 5.
7. For bonding new to existing concrete see specifications
8. Plumb piles shall be compression piles.



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**RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET**

DETAILED PILING PLANS

SCALE: AS SHOWN DATE: 9-15-75
SHEET 10 OF 19

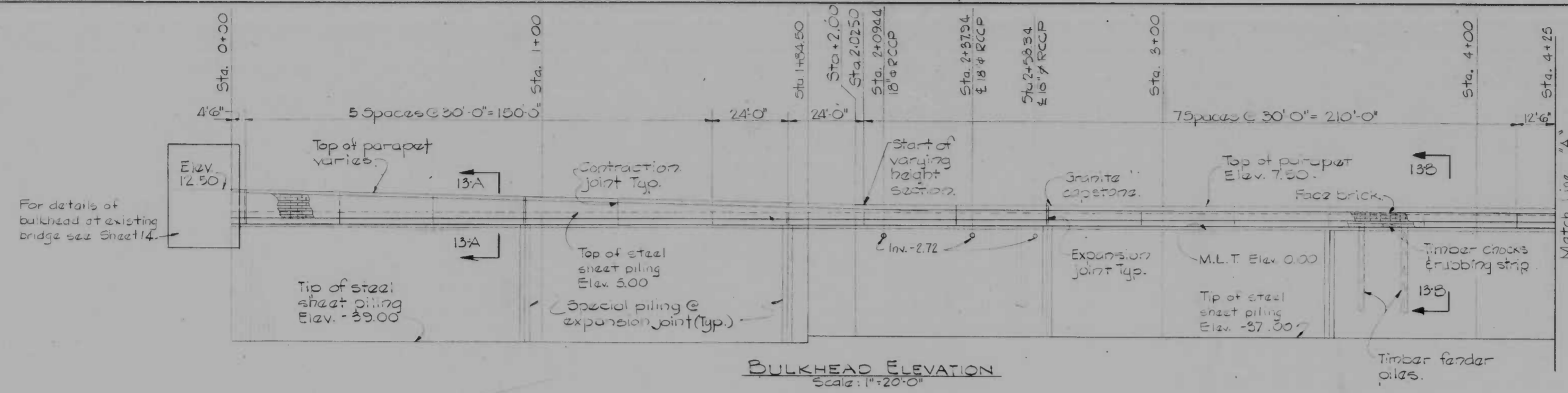
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EXAMINED BY: JOA

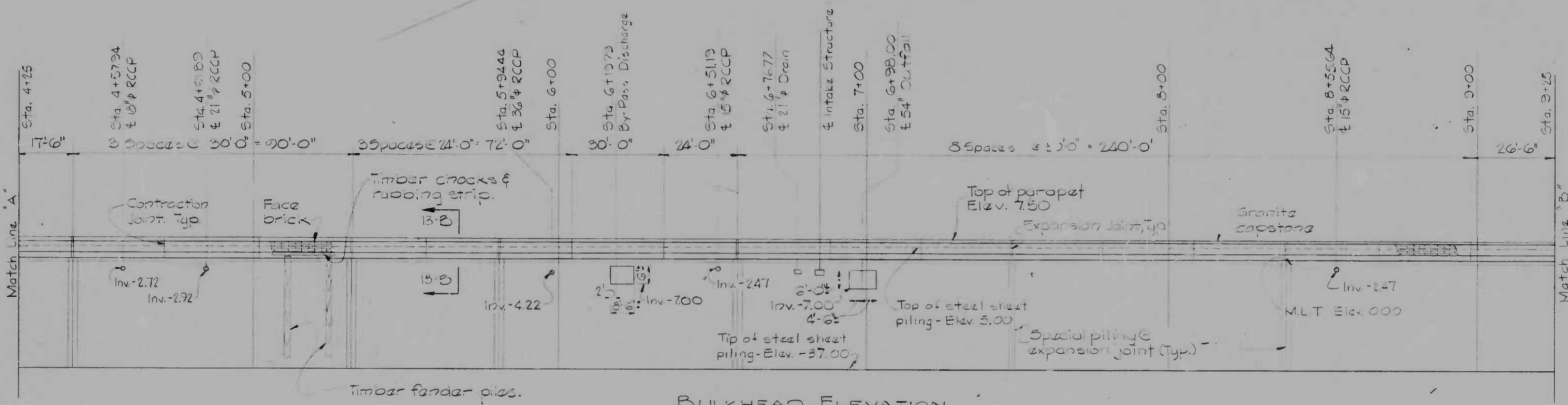
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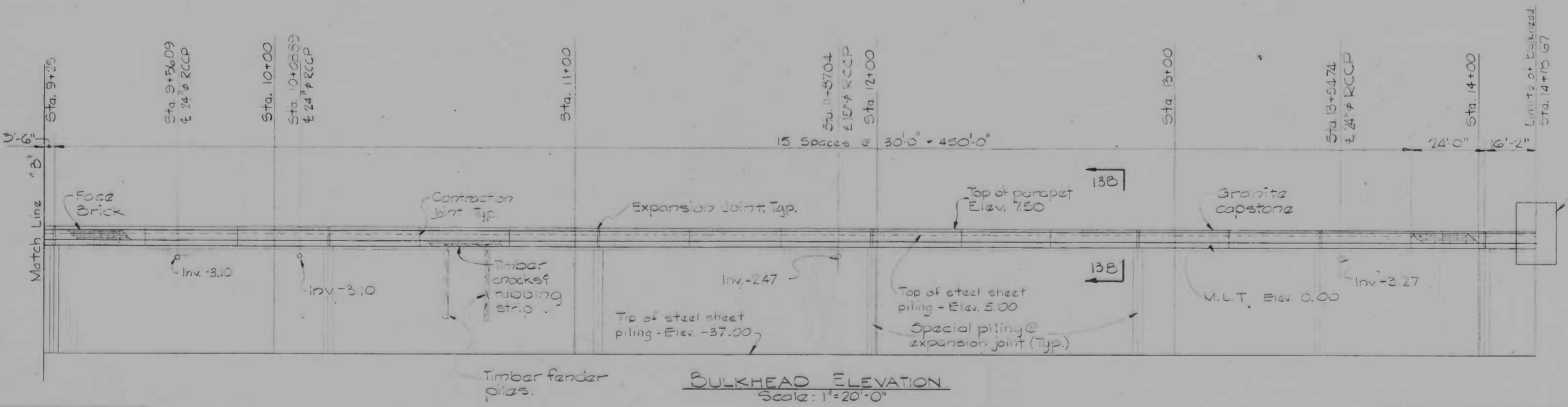
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BULKHEAD ELEVATION
Scale: 1"=20'-0"



BULKHEAD ELEVATION
Scale: 1"=20'-0"



BULKHEAD ELEVATION
Scale: 1"=20'-0"

- NOTES:
1. For storm drainage plans, profiles and details see sheets 2 thru 5.
 2. For plans of the bulkhead see sheets 8 & 9.
 3. For typical bulkhead section and details see sheets 12 & 13.
 4. For plans, sections and details of the By-Pass Discharge see sheet 15.
 5. For plans, sections and details of the intake structure and the 54" Outfall see sheets 16 & 17.
 6. For piling details at expansion joints see sheet 18.
 7. Control joints in the face brick and the granite capstone shall have the same spacing as the contraction and expansion joints in the concrete.
 8. Omit fender piles at the bypass discharge opening and the Outfall opening so as not to impede possible flows. Fender piles at storm drains shall be moved to avoid interference with the openings.

DRAWN BY W.L.B.M.M.
EXAMINED BY J.O.A.

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CONTRACT NO. 2293

RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET

BULKHEAD ELEVATIONS

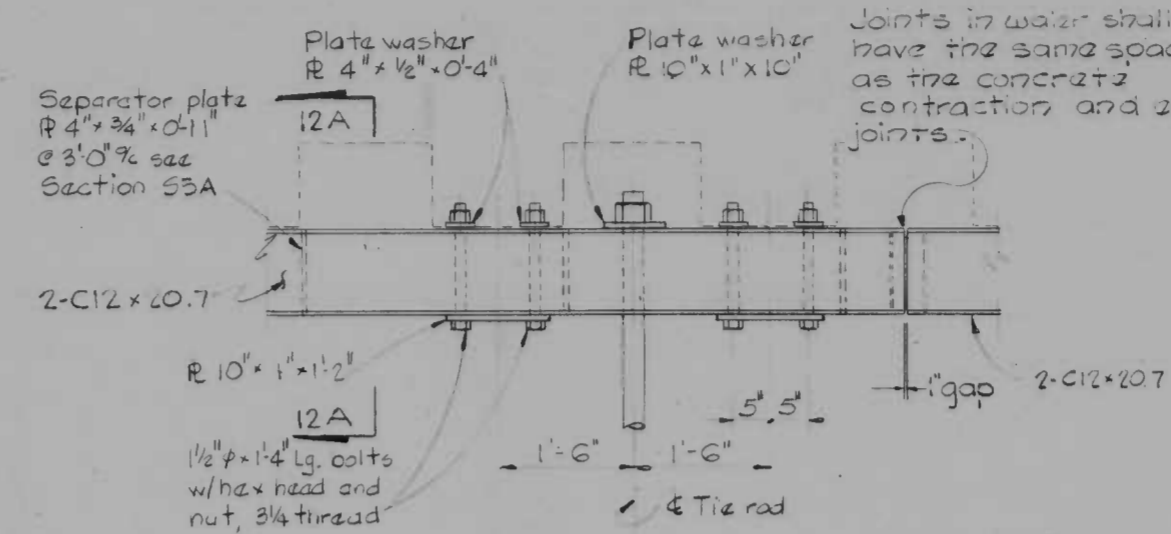
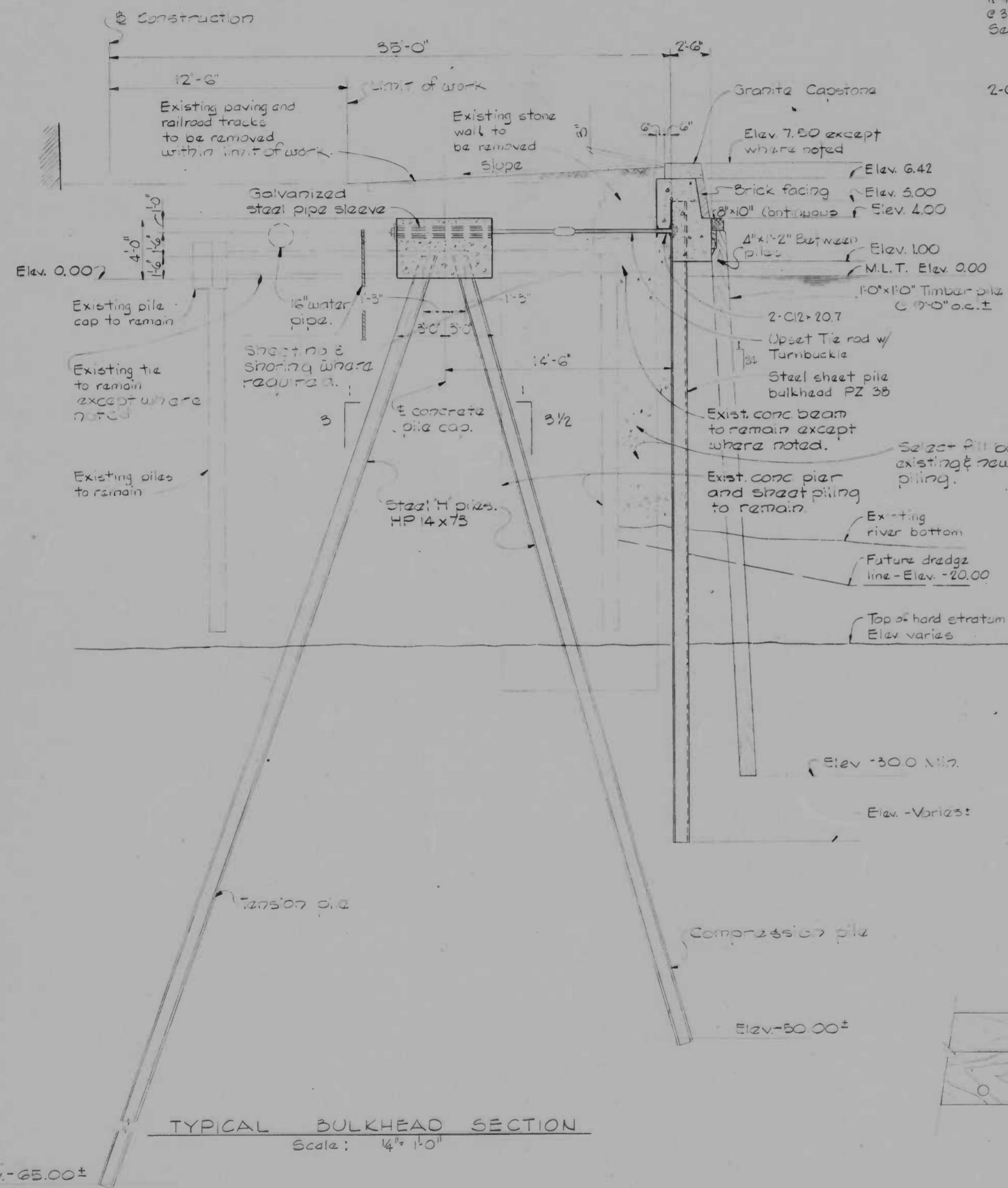
SCALE AS SHOWN DATE: 9-15-75
SHEET 11 OF 19

WG 6704-2

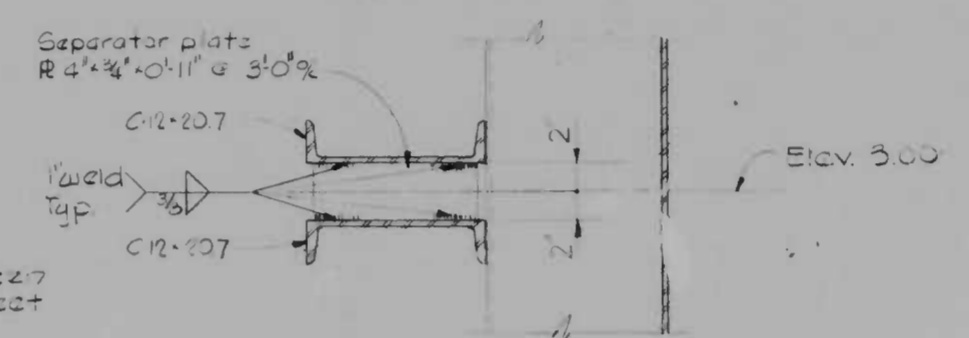
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NO.	DESCRIPTION	DATE	BY

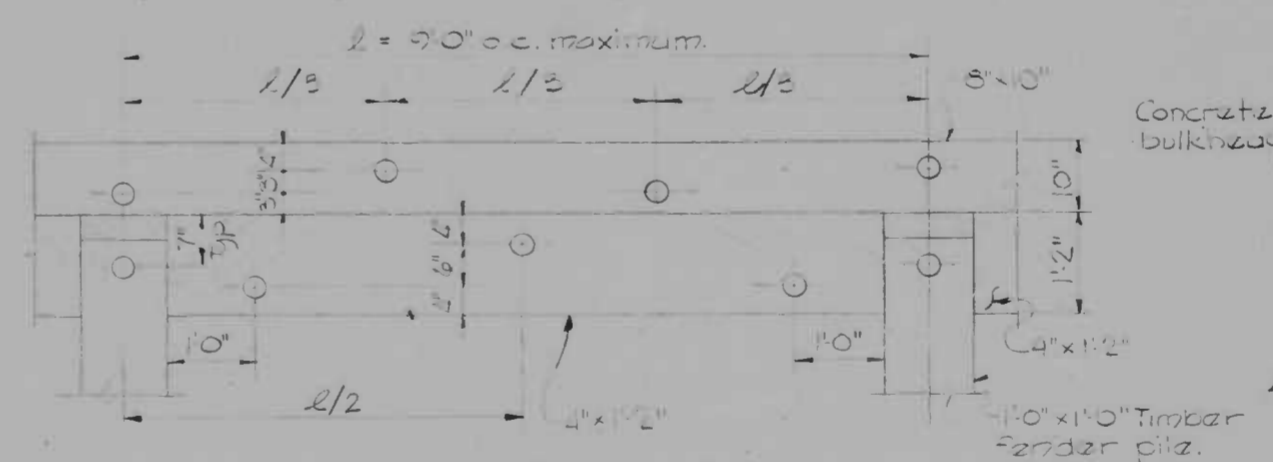


PLAN Scale: 3/4" = 1'-0"

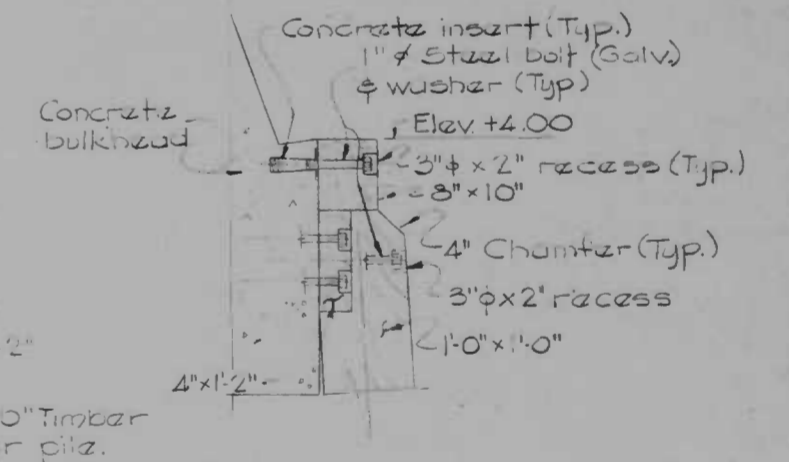


SECTION 12A/12 Scale: 1/2" = 1'-0"

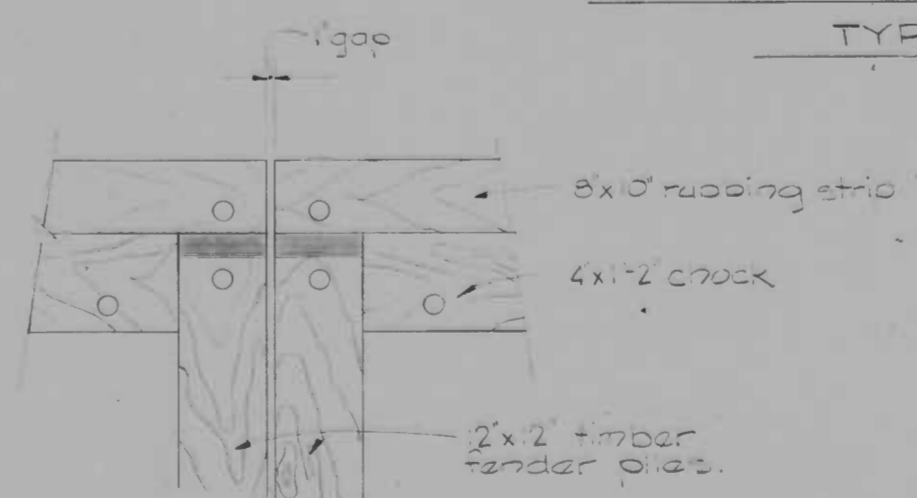
TYPICAL WALER DETAILS



ELEVATION TYPICAL TIMBER FENDERS Scale: 3/4" = 1'-0"



SECTION



TYP. FENDERS AT EXPANSION JOINT. Scale: 3/4" = 1'-0"

TYPICAL BULKHEAD SECTION Scale: 1/4" = 1'-0"

NOTES:

1. For existing utilities and new storm drain plans, profiles and details see sheets 2 thru 5.
2. For bulkhead plans see Sheets 8 and 9.
3. For details of the bulkhead at the north end, adjacent to the existing Pratt Street bridge, see Sheet 14.
4. For details of the bulkhead at the south end, see Sheet 13.
5. For bulkhead elevation see sheet 11.
6. Backfill shall slope from 5' below top of granite capstone to existing grade at the limit of work and shall be seeded.
7. Tip Elevations for piles are for bid purposes only. Final pile lengths will be based on the criteria in the Specifications, and as noted on the plans.
8. Concrete inserts shall be type EC-2 as manufactured by Richmond Screw Anchor Co. or approved equivalent.

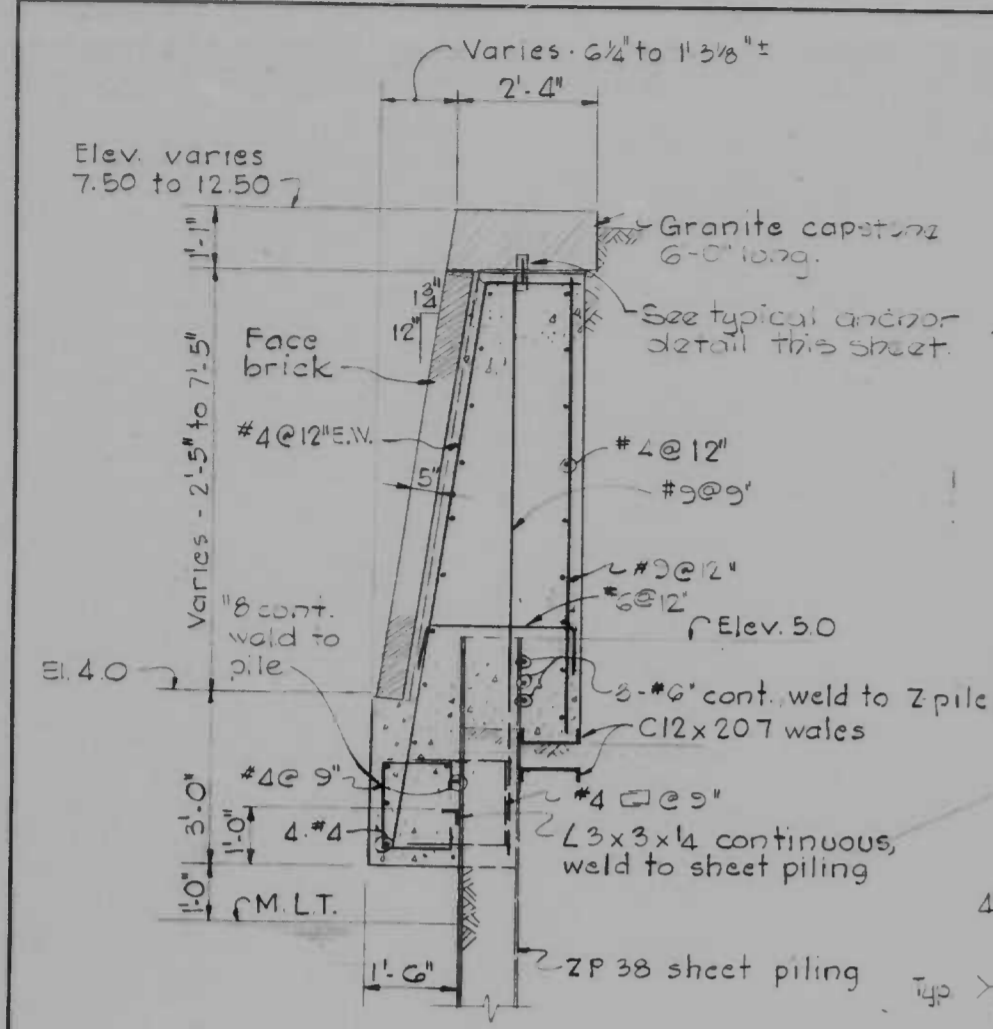
DRAWN BY W.L.L. B.M.S.
EXAMINED BY J.O.A.

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BALTIMORE, MARYLAND

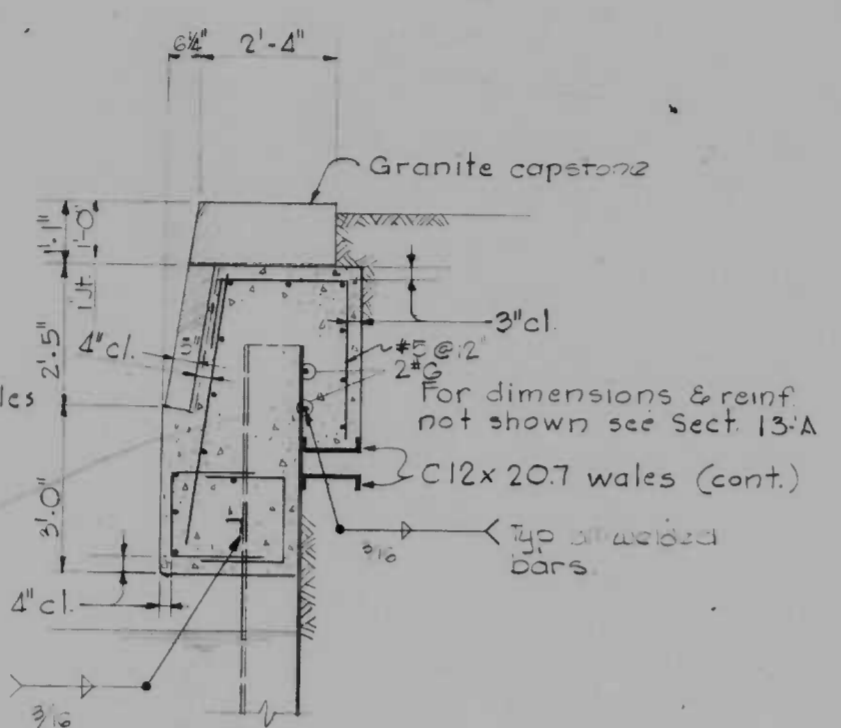
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CONTRACT NO. 2293
RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
TYPICAL BULKHEAD SECTIONS AND DETAILS
SCALE: AS SHOWN
DATE: 9-15-75
SHEET 12 OF 19

FILE REF.

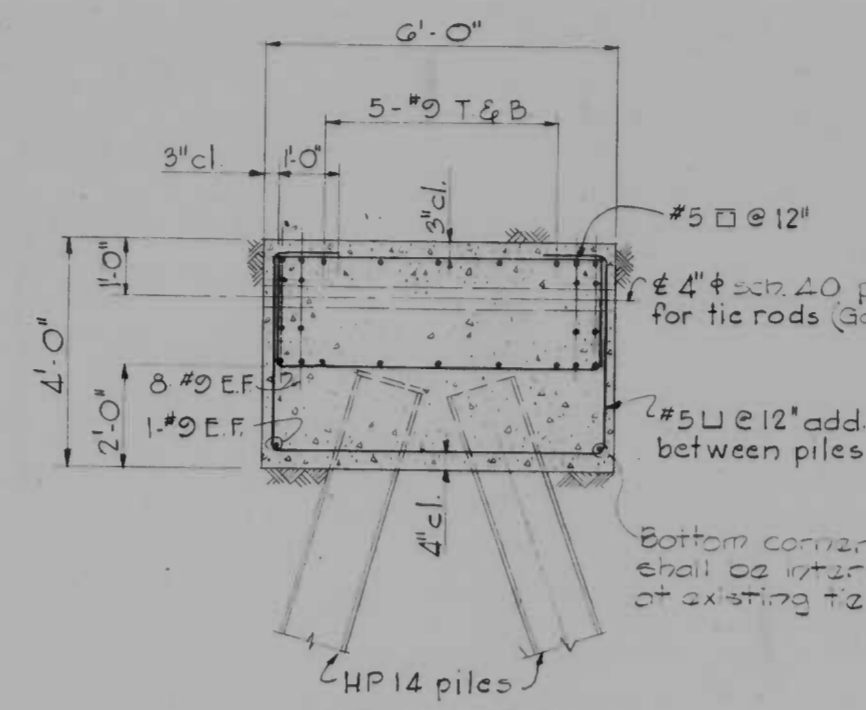
REVISIONS			
NO.	DESCRIPTION	DATE	BY



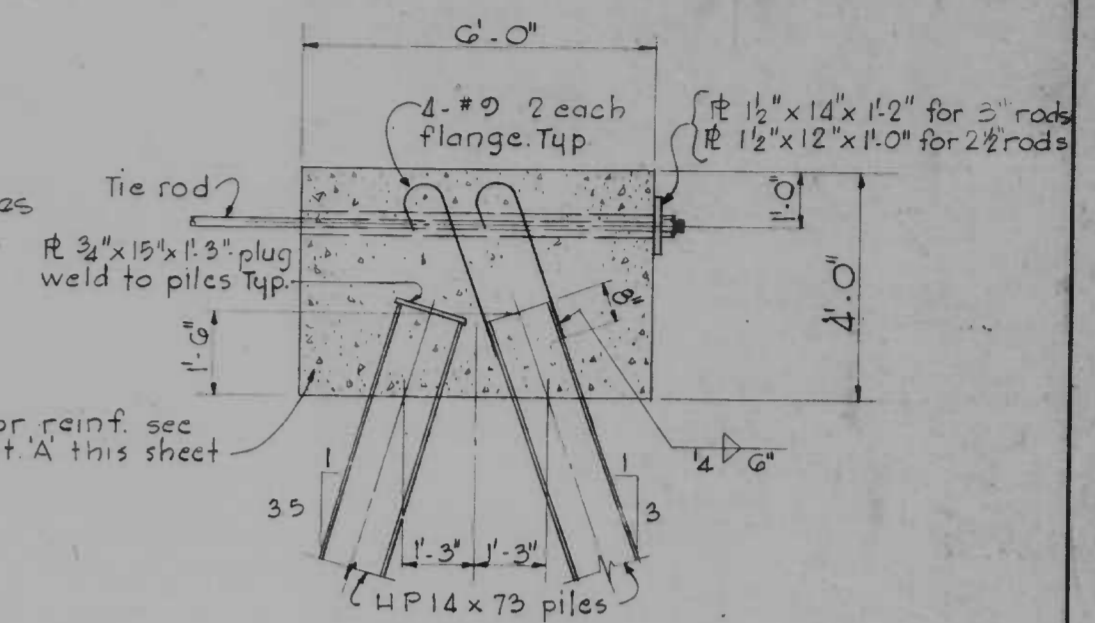
SECTION 13A/11
Scale: 1/2" = 1'-0"



SECTION 13B/11
Scale: 1/2" = 1'-0"



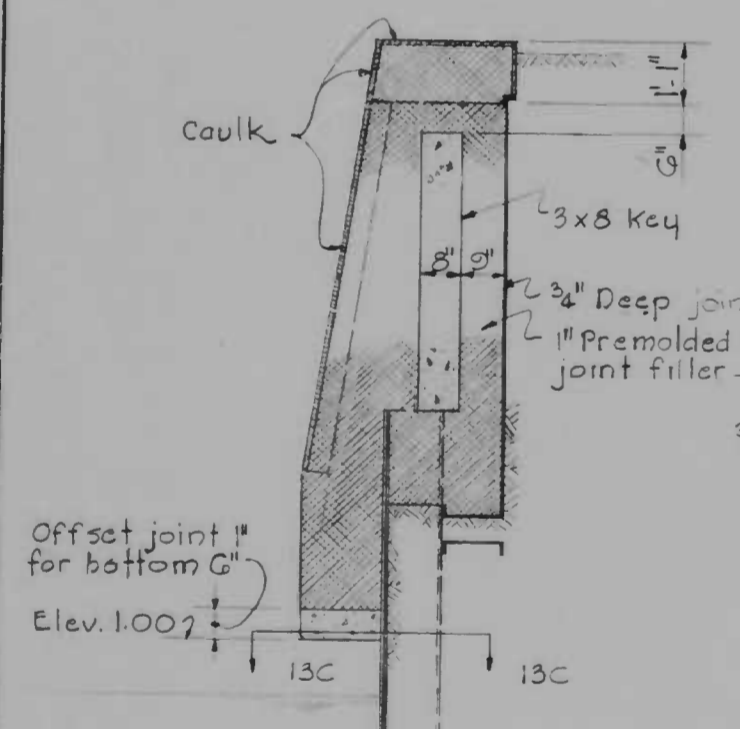
SECTION TIE-BACK BEAM-DETAIL 'A'
SHOWING REINFORCING
Scale: 1/2" = 1'-0"



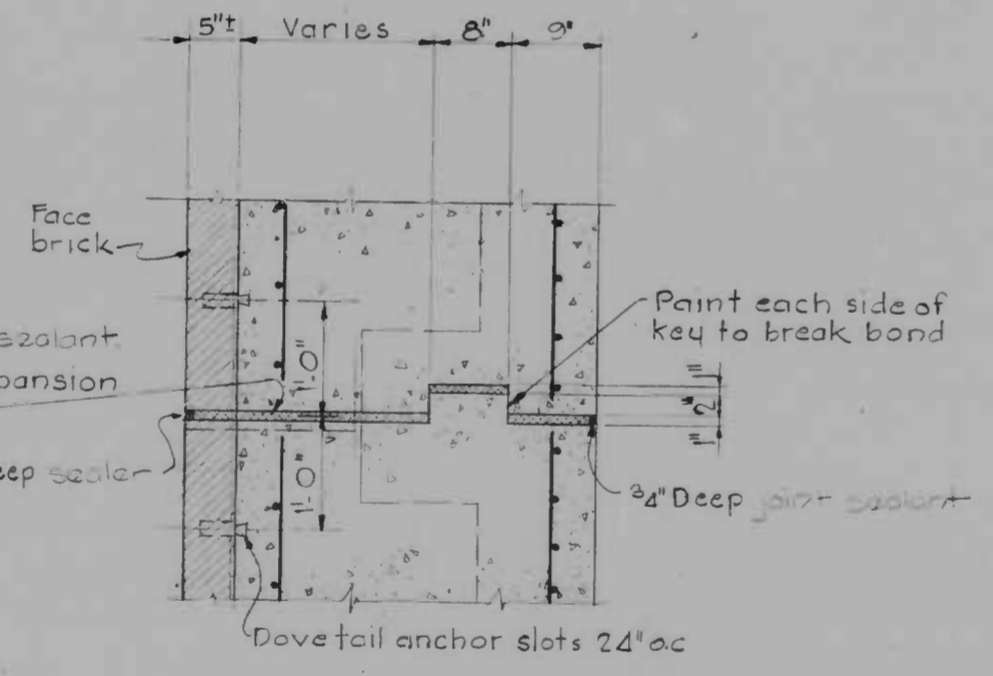
SECTION TIE-BACK BEAM-DETAIL 'B'
SHOWING PILE ANCHORAGE
Scale: 1/2" = 1'-0"

Notes:

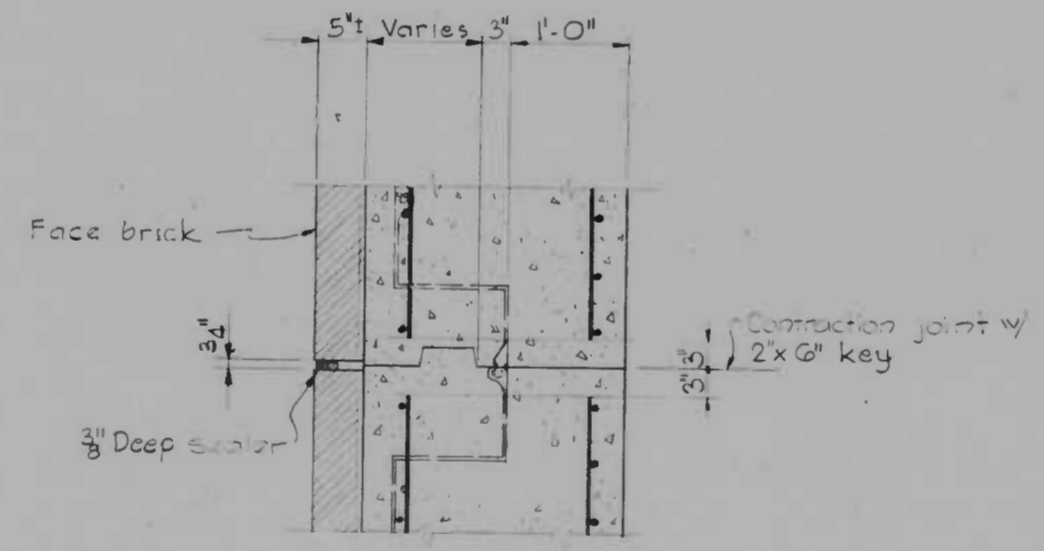
1. For plan of bulkhead see sheets 9 and 10.
2. For elevation of bulkhead see sheet 11.
3. For typical bulkhead section see sheet 12.
4. Fill area between back of bricks and concrete with mortar.
5. Lewis bolts shall be firmly anchored in granite capstones before the capstones are set.
6. Construction joints in tie back beam shall be at 30'-0" max and spaced to avoid points of maximum stress. Lap longitudinal reinforcing 5'-0".



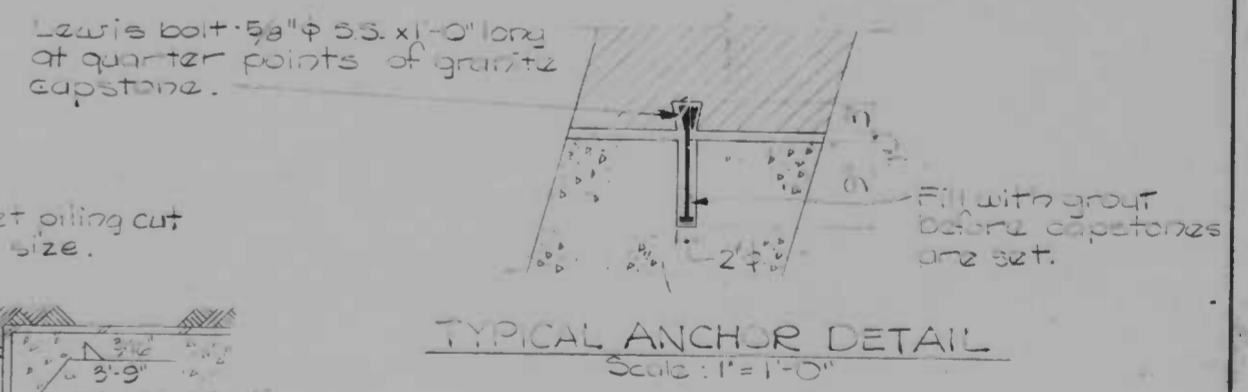
SECTION 13C
Scale: 1/2" = 1'-0"
PARAPET EXPANSION JOINT DETAIL



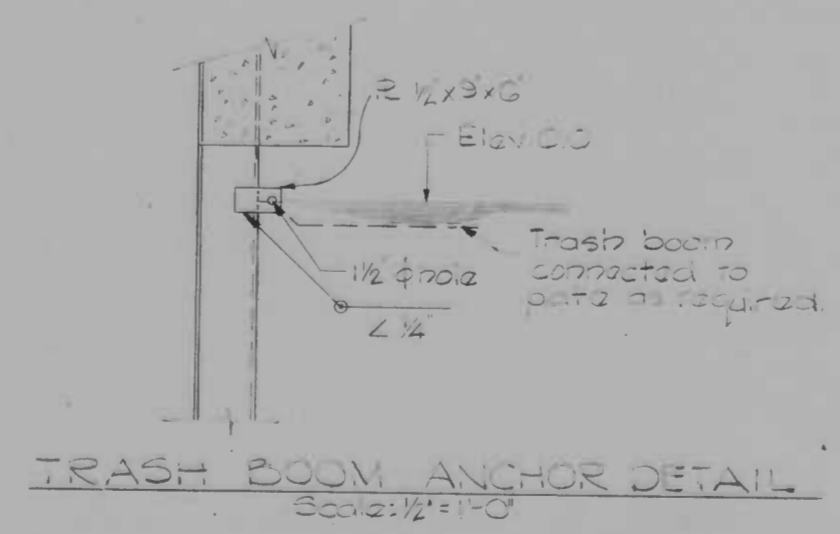
PLAN
Scale: 1" = 1'-0"



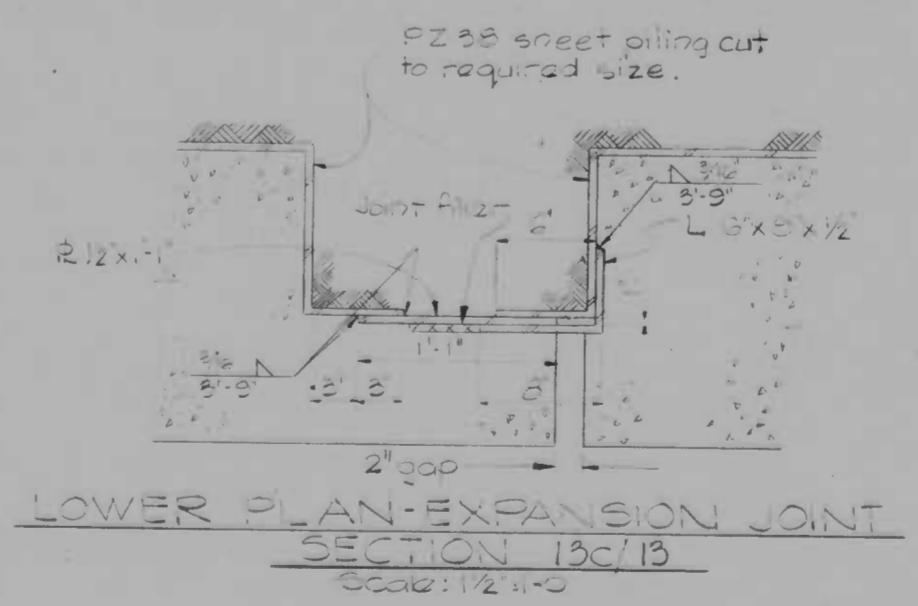
CONTRACTION JOINT DETAIL
Scale: 1" = 1'-0"



TYPICAL ANCHOR DETAIL
Scale: 1" = 1'-0"



TRASH BOOM ANCHOR DETAIL
Scale: 1/2" = 1'-0"



LOWER PLAN-EXPANSION JOINT
SECTION 13C/13
Scale: 1/2" = 1'-0"

DRAWN BY O.A.F.
EXAMINED BY J.O.A.

WO 6704-2

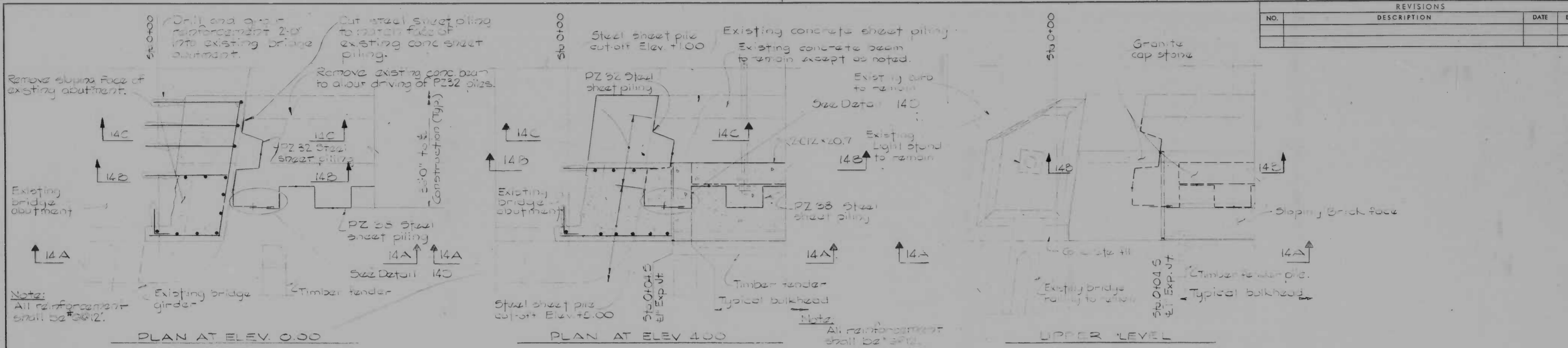
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RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
TYPICAL DETAILS
SCALE AS SHOWN
DATE: 9-15-75
SHEET 13 OF 19

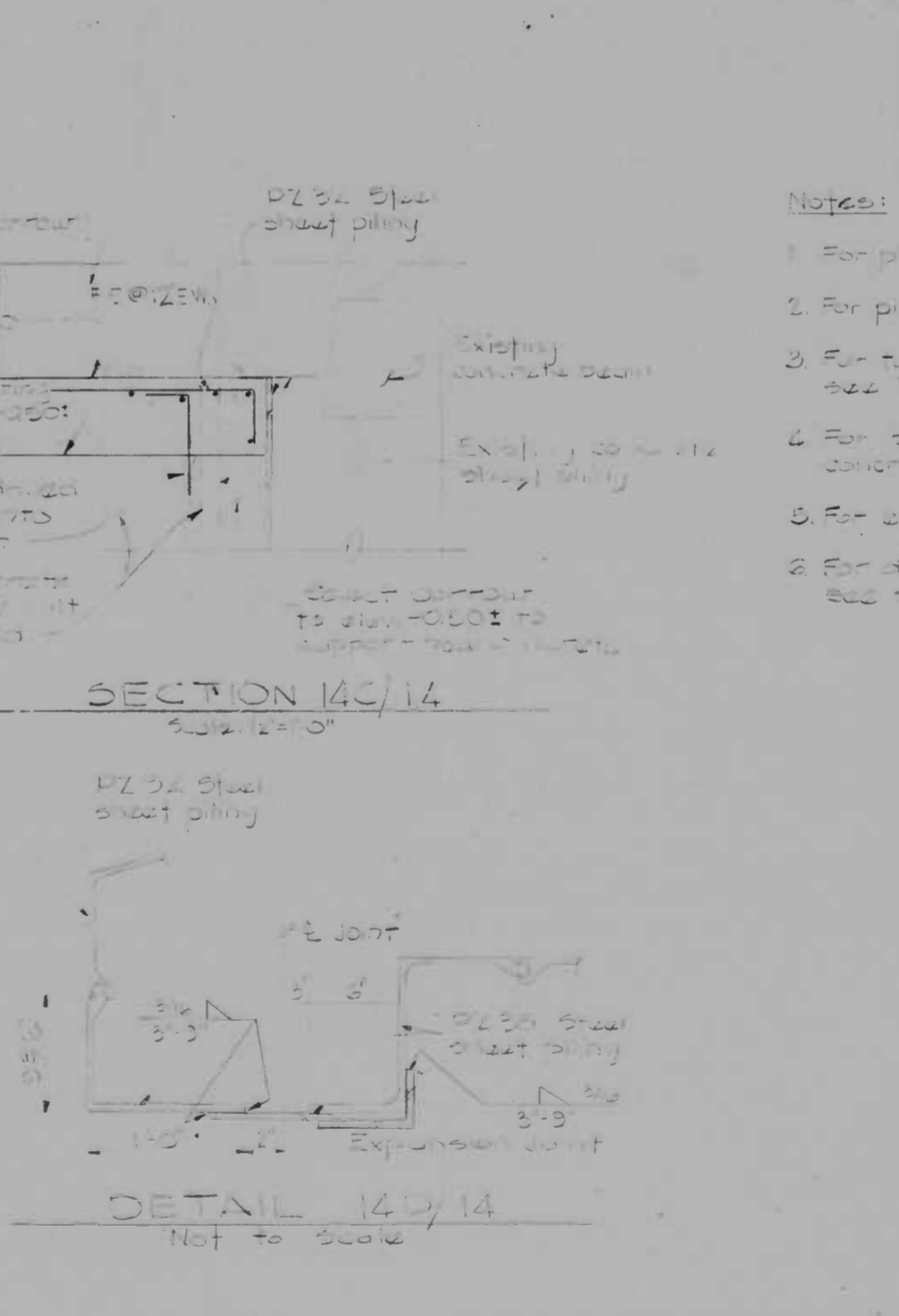
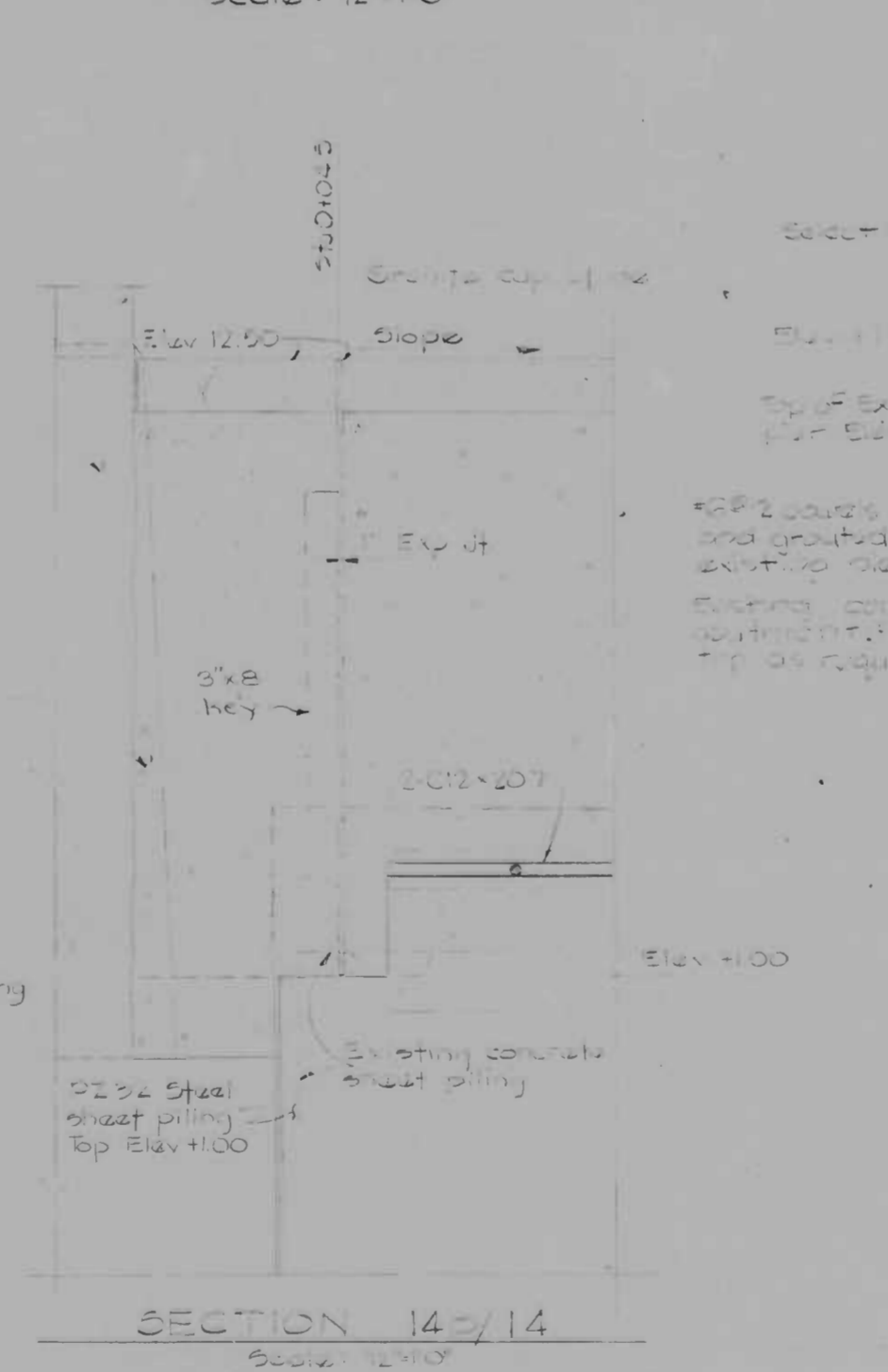
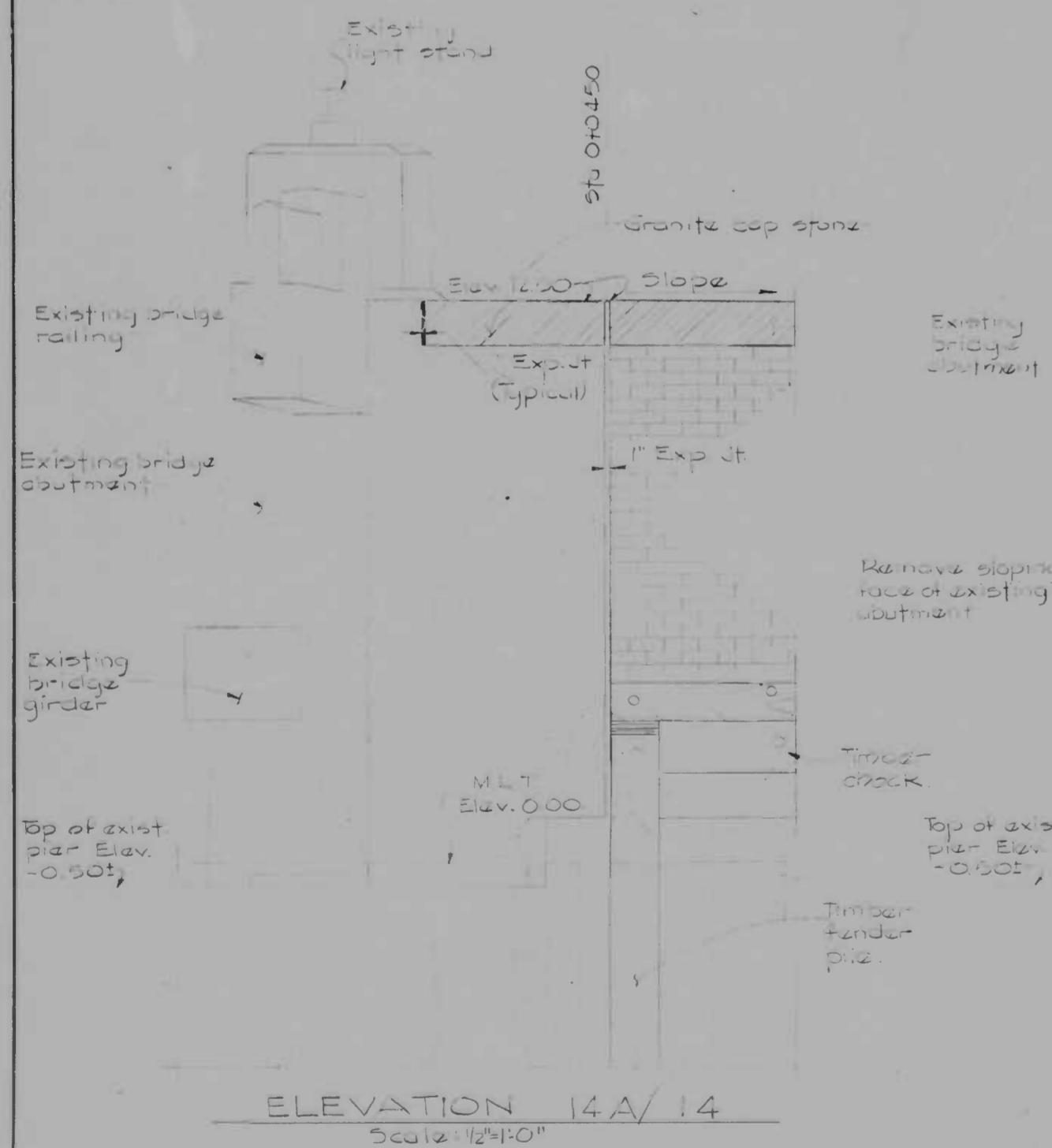
FILE REF.

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NORTH END DETAILS
Scale: 1/2"=1'-0"



- Notes:**
1. For plan of bulkhead see Sheet 8.
 2. For pile up plan at north end see Sheet 10.
 3. For typical bulkhead sections and details see Sheets 12 & 13.
 4. For bonding of new concrete to existing concrete see Specifications.
 5. For elevation of new bulkhead see Sheet 11.
 6. For details of sheet pile expansion joint see Sheet 13.

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**RECONSTRUCTION
 EAST FALLS AVENUE BULKHEAD
 PRATT STREET TO ALICEANNA STREET**

PLANS AND SECTIONS - NORTH END

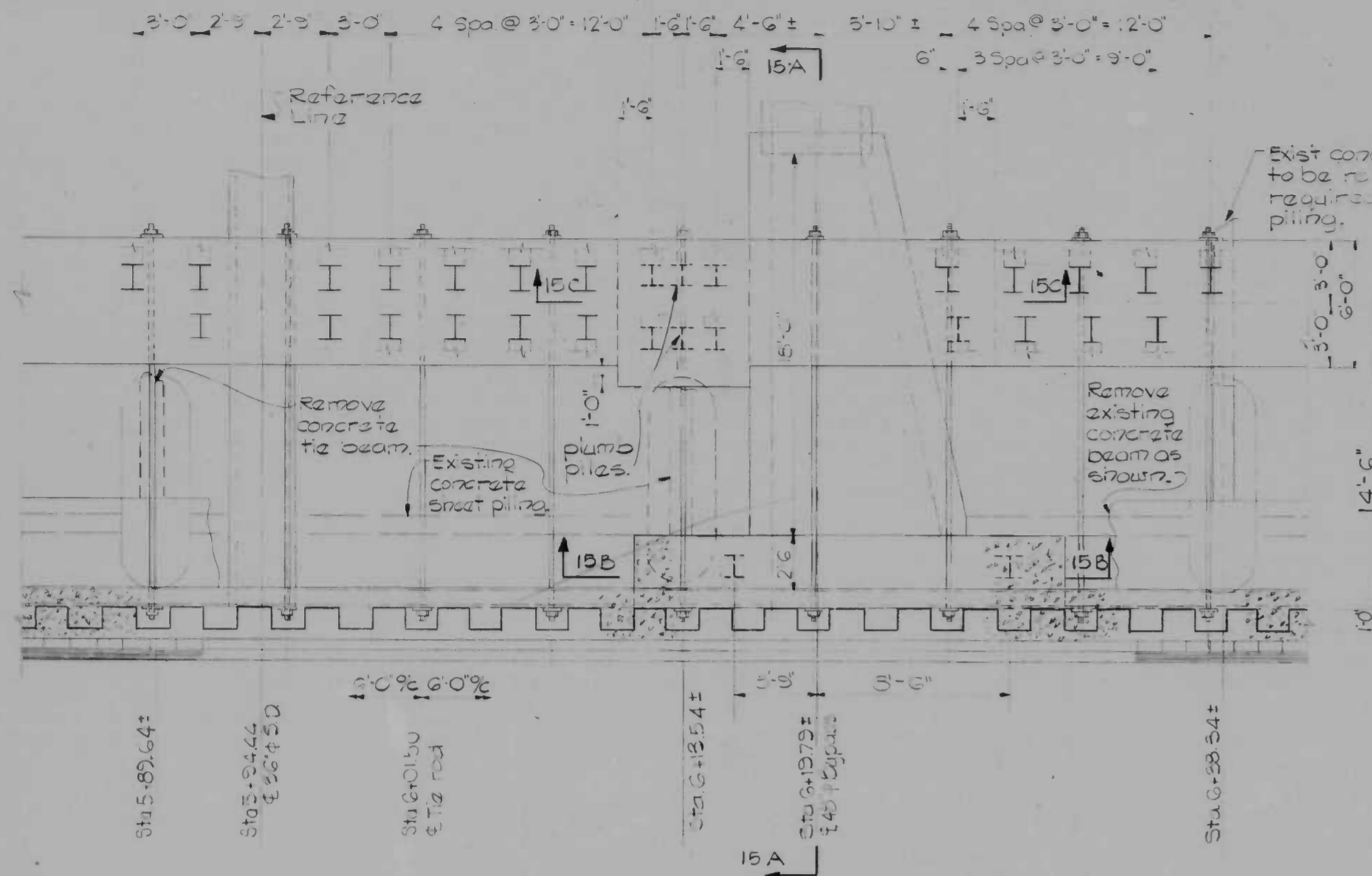
SCALE AS SHOWN DATE 9-15-75
 SHEET 14 OF 19

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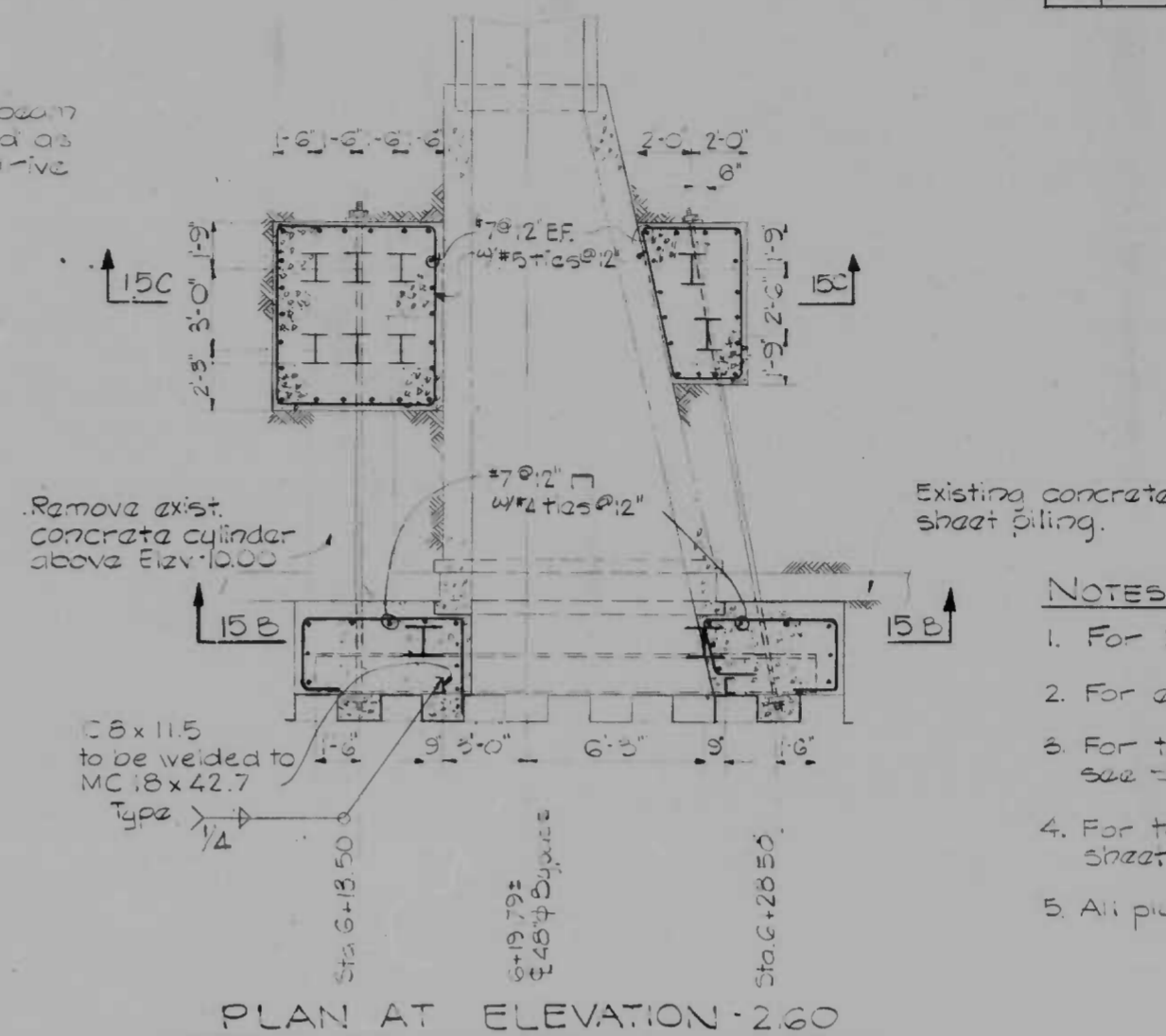
DRAWN BY MS
 EXAMINED BY JOA

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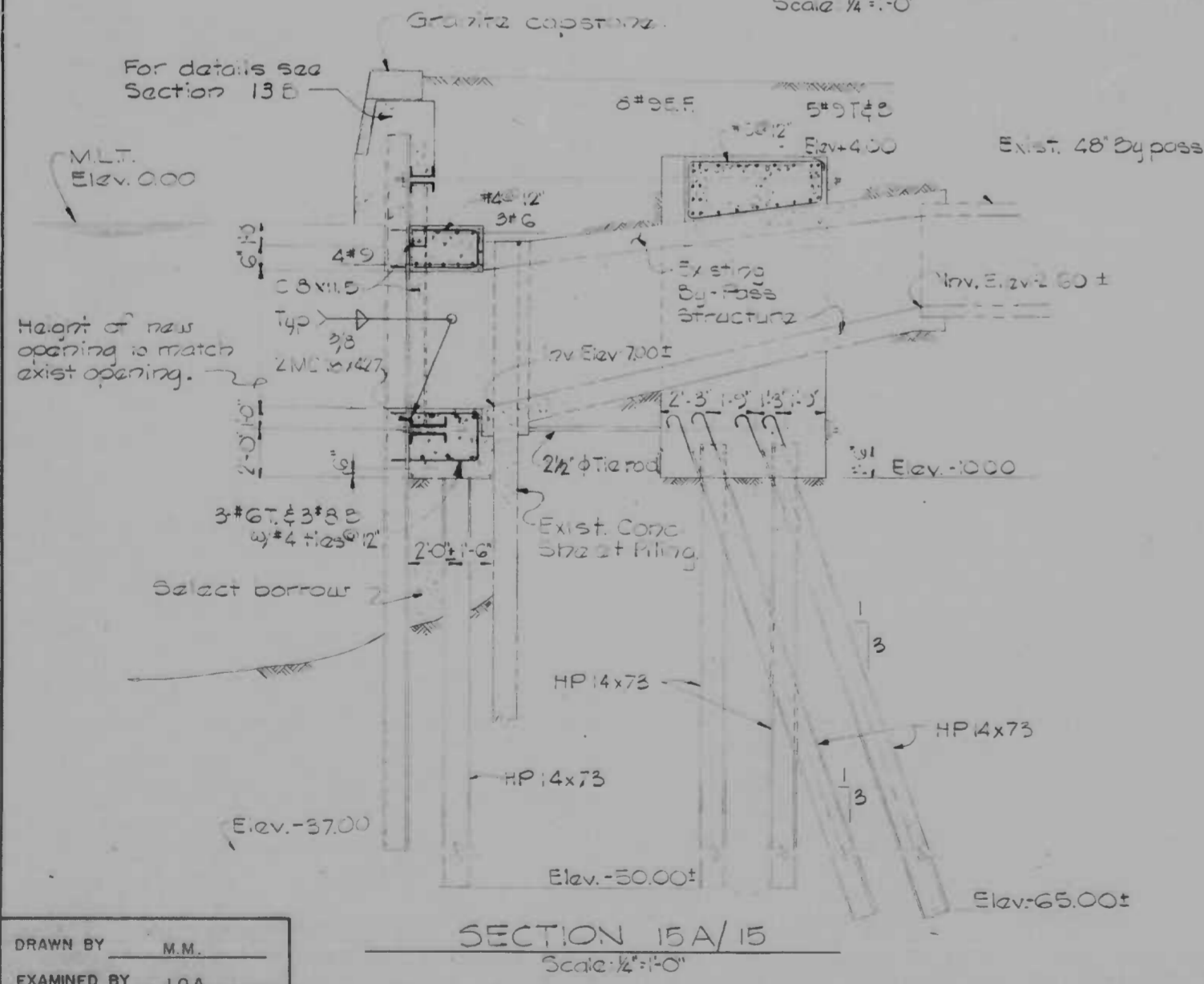
PLAN AT ELEVATION 4.00
Scale: 1/4"=1'-0"



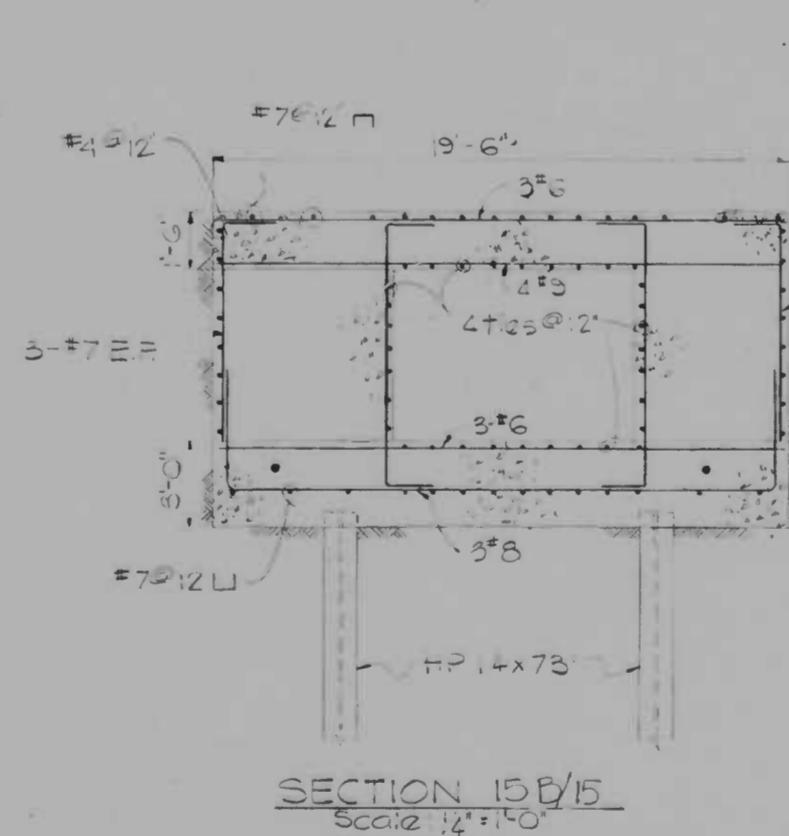
PLAN AT ELEVATION 2.60
Scale: 1/4"=1'-0"

NOTES:

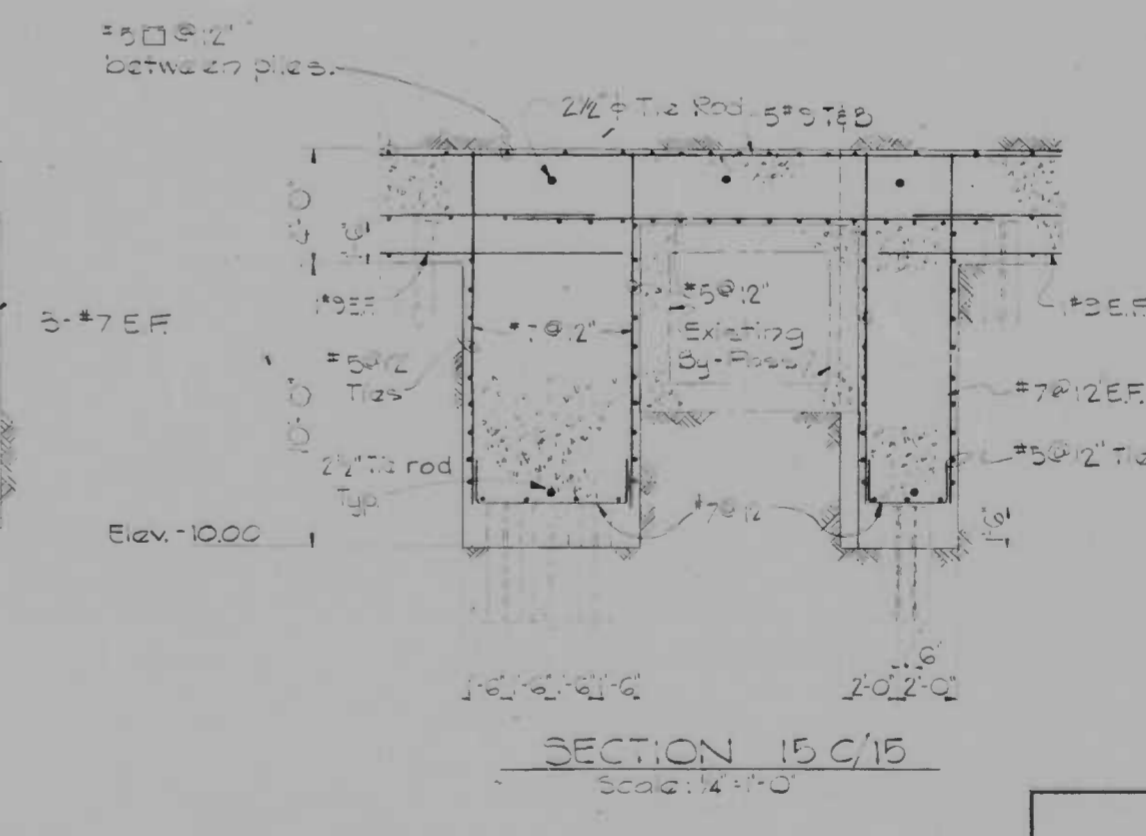
1. For bulkhead parts see sheet 8 and 9.
2. For elevation of bulkhead see sheet 11.
3. For typical bulkhead sections and details see sheets 12 and 13.
4. For typical pile anchorage details see sheet 13.
5. All pump piles shall be compression piles.



SECTION 15A/15
Scale: 1/4"=1'-0"



SECTION 15B/15
Scale: 1/4"=1'-0"



SECTION 15C/15
Scale: 1/4"=1'-0"

DRAWN BY M.M.
EXAMINED BY J.O.A.

WO 6704-2

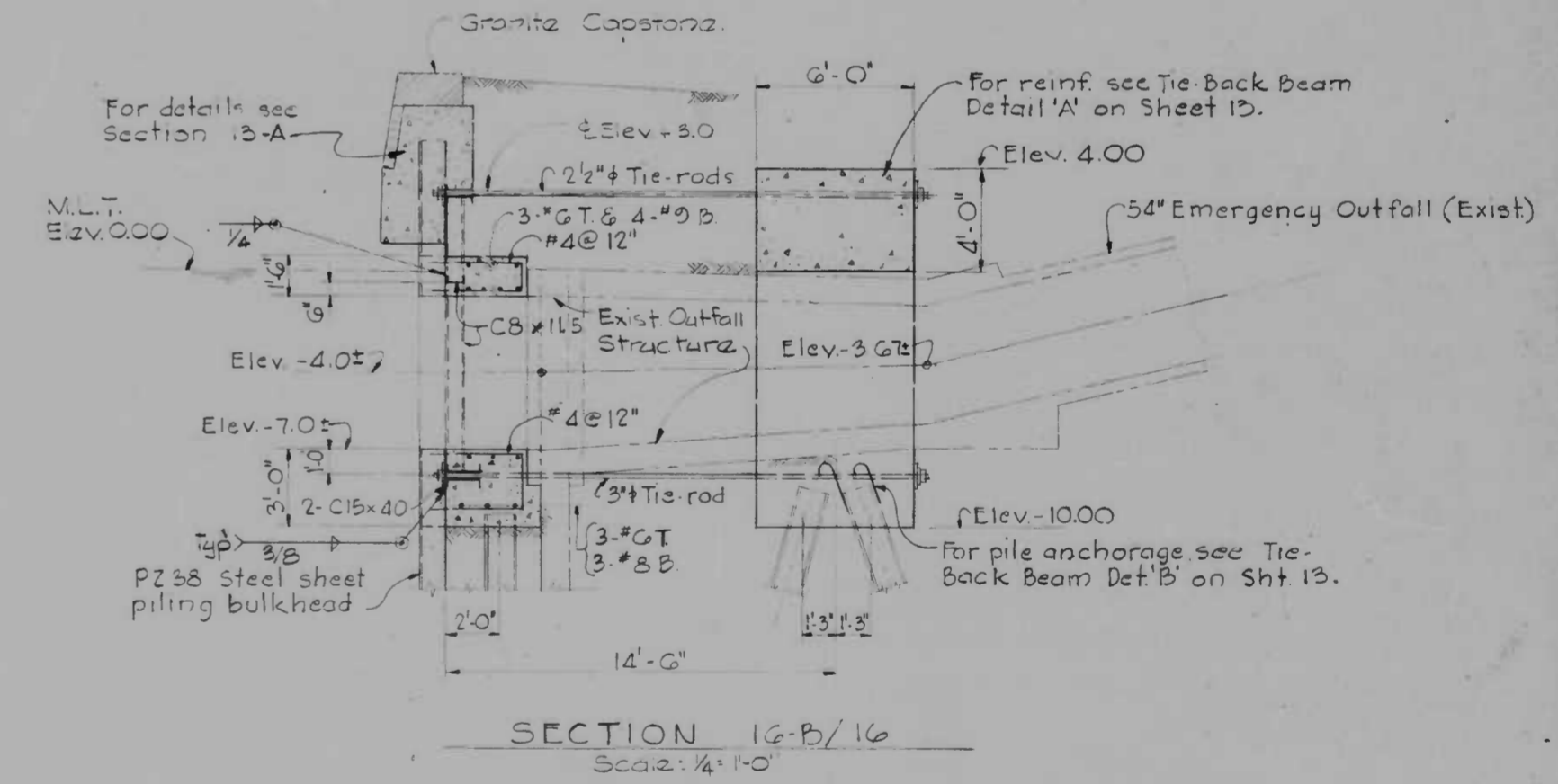
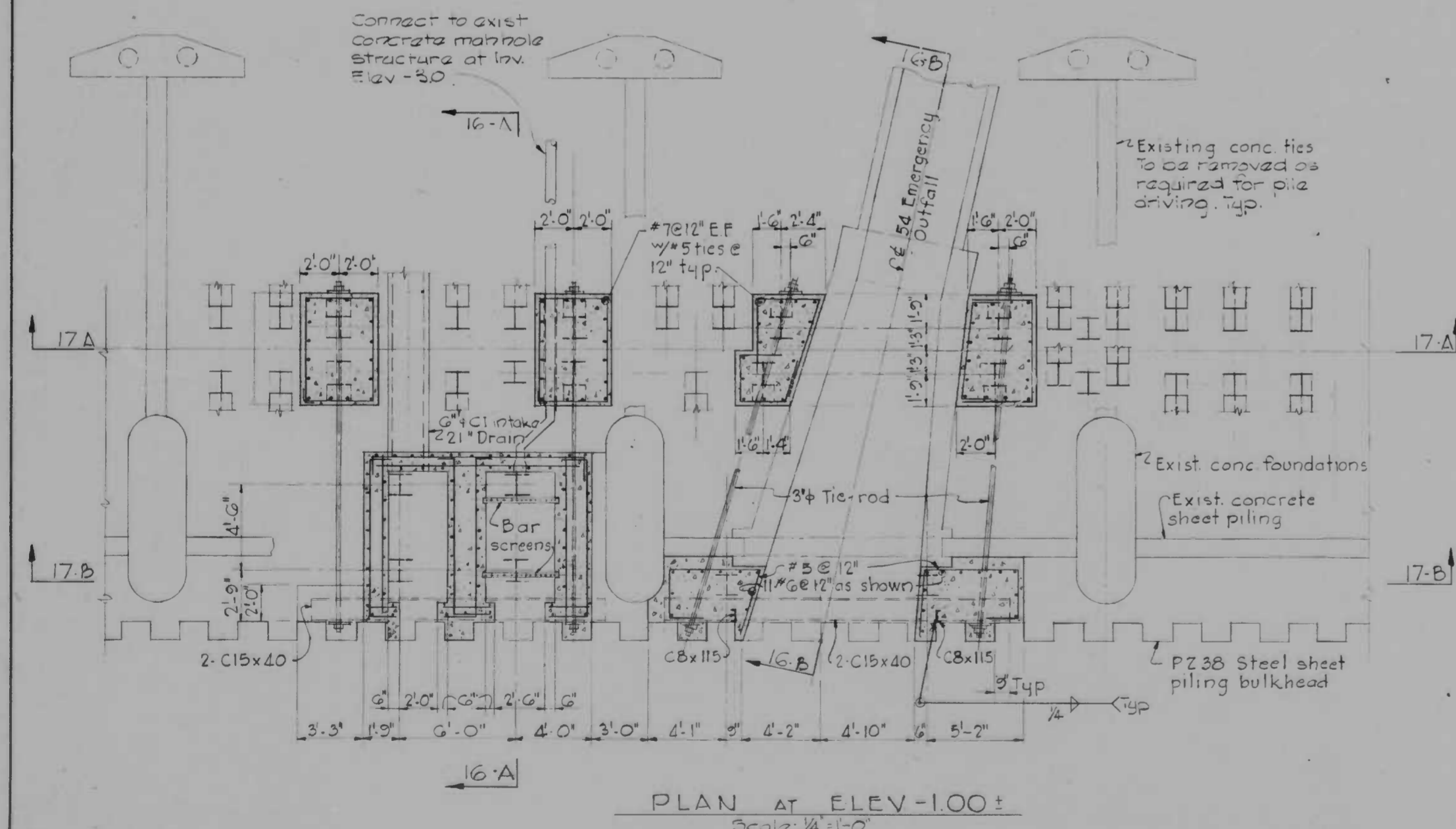
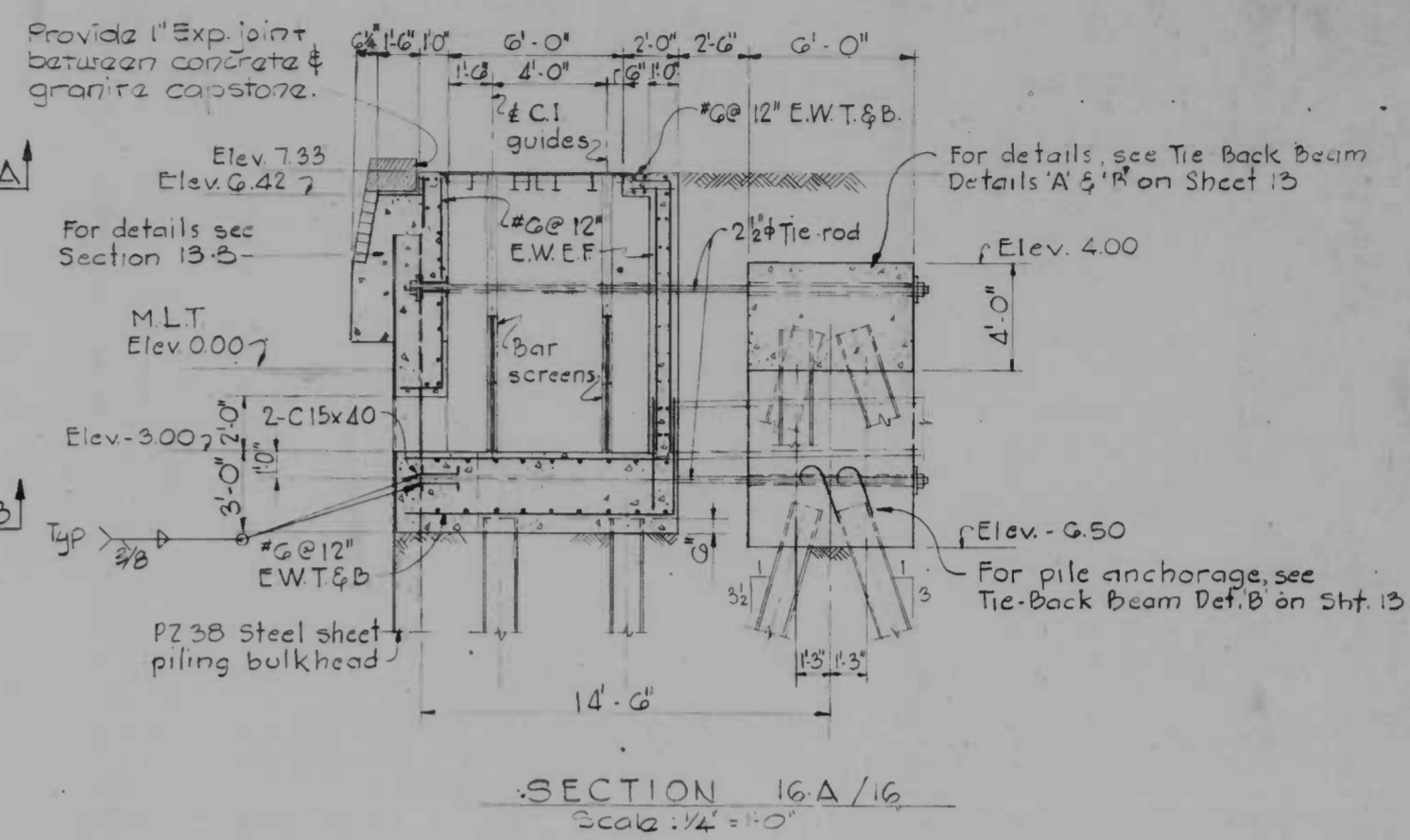
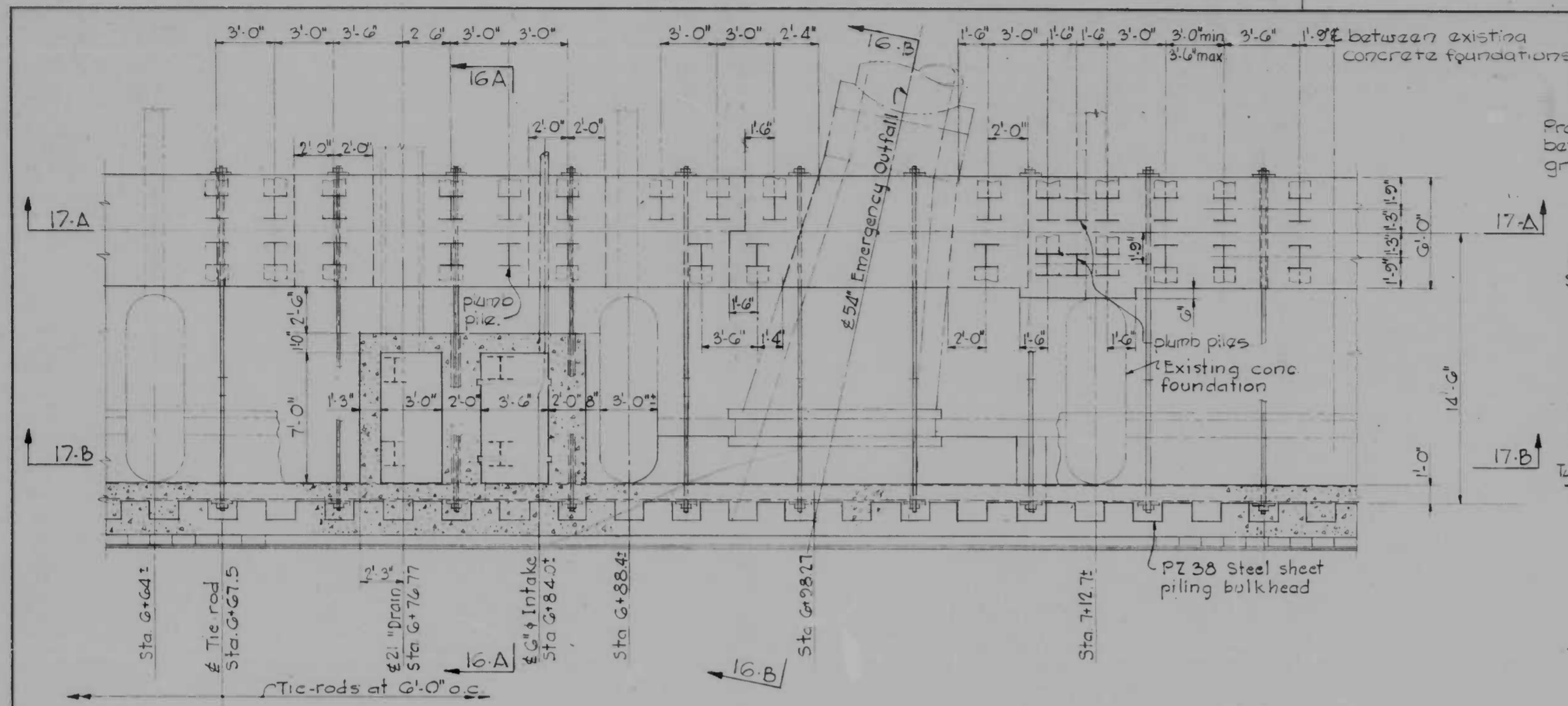
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RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
PLANS AND SECTIONS - 48" BY-PASS
SCALE AS SHOWN
DATE 9 - 15 - 75
SHEET 15 OF 19

FILE REF.

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REVISIONS			
NO.	DESCRIPTION	DATE	BY



- NOTES:
1. For bulkhead plans see sheets 8 and 9
 2. For elevation of bulkhead see sheet 11
 3. For typical bulkhead sections and details see sheets 12 and 13
 4. Pump piles shall have 15" square cap plates see Tie Back Beam Detail 'B' on sheet 13.
 5. All pump piles shall be compression piles.

DRAWN BY O.A.F.
EXAMINED BY J.O.A.

DETAILS OF INTAKE AND OUTFALL STRUCTURES

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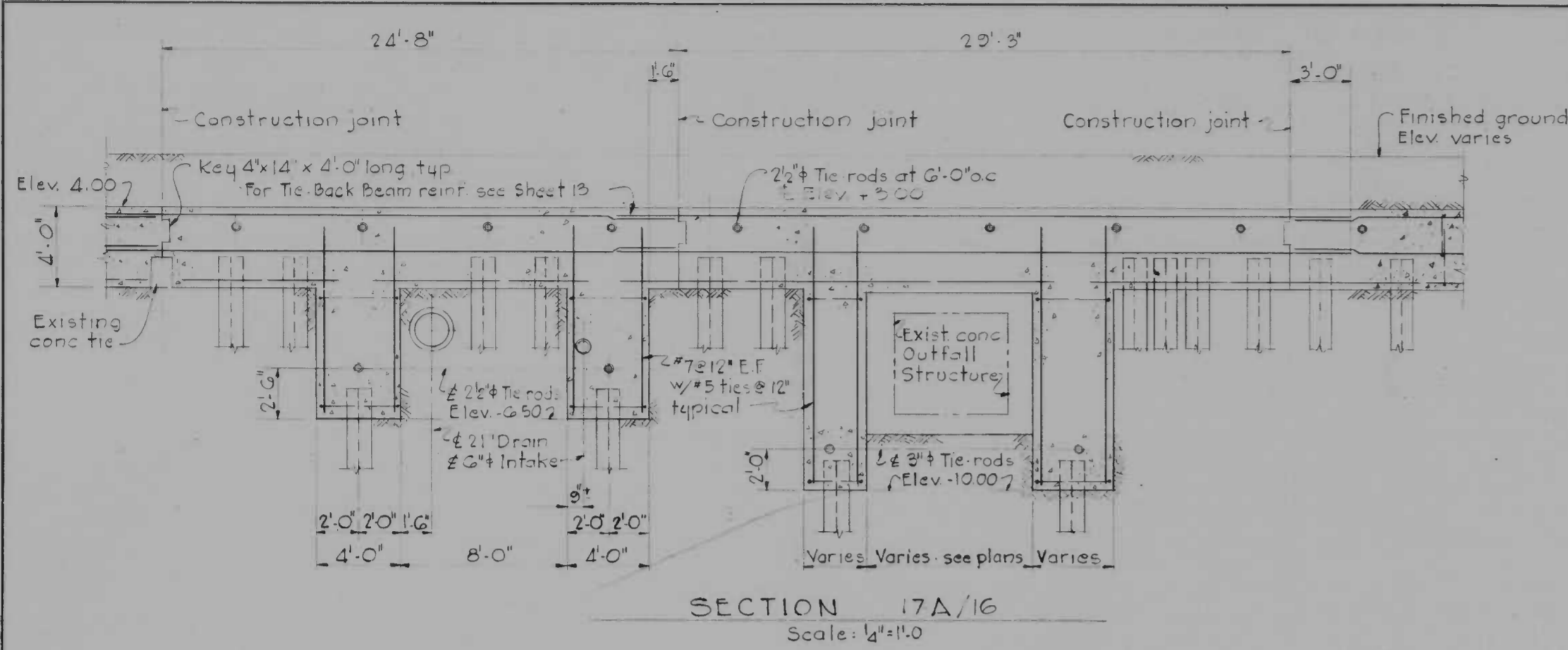
CONTRACT NO. 2293

RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET

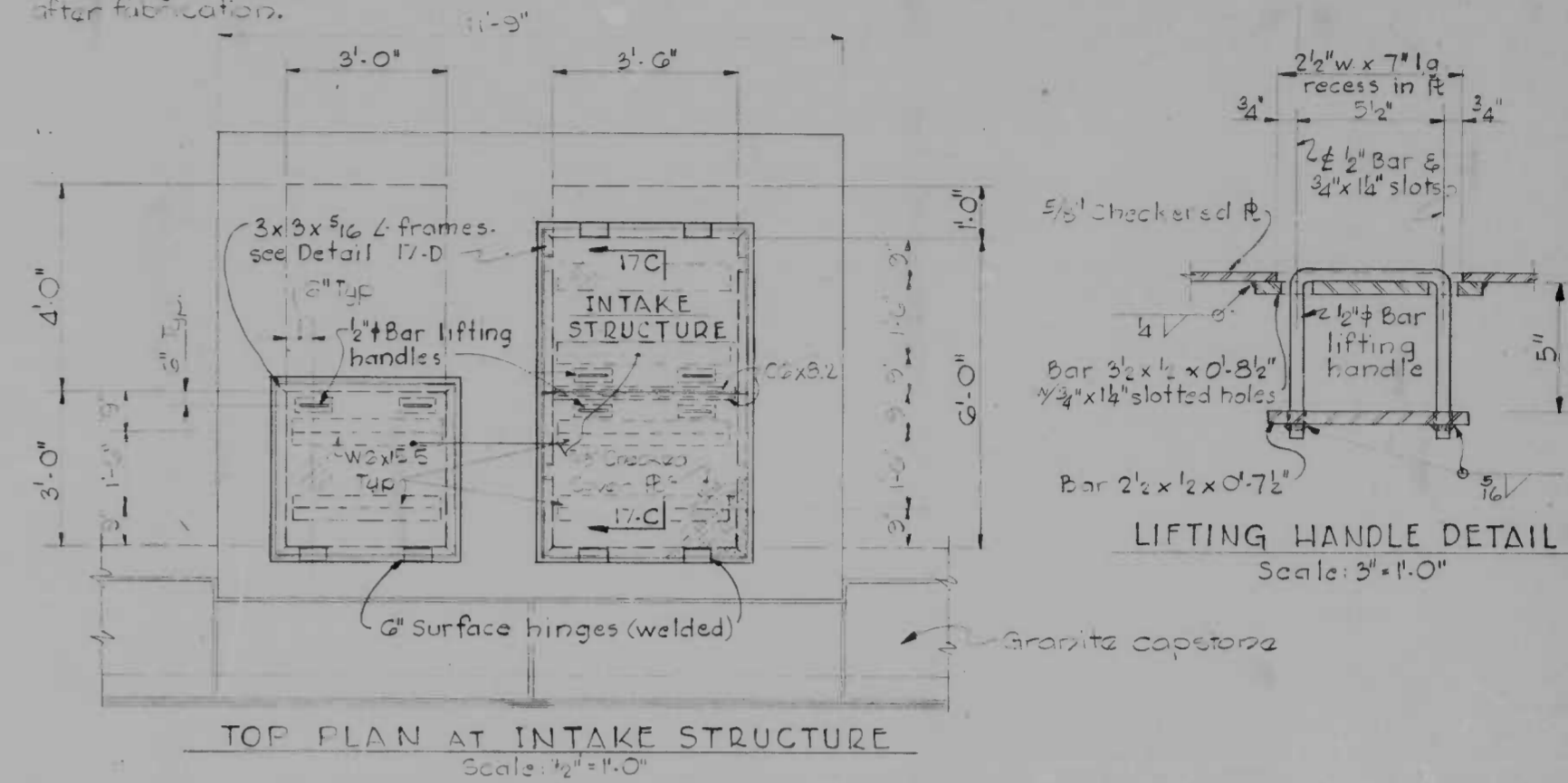
PLANS AND SECTIONS - 54" OUTFALL.

SCALE AS SHOWN DATE 9-15-75 SHEET 16 OF 19

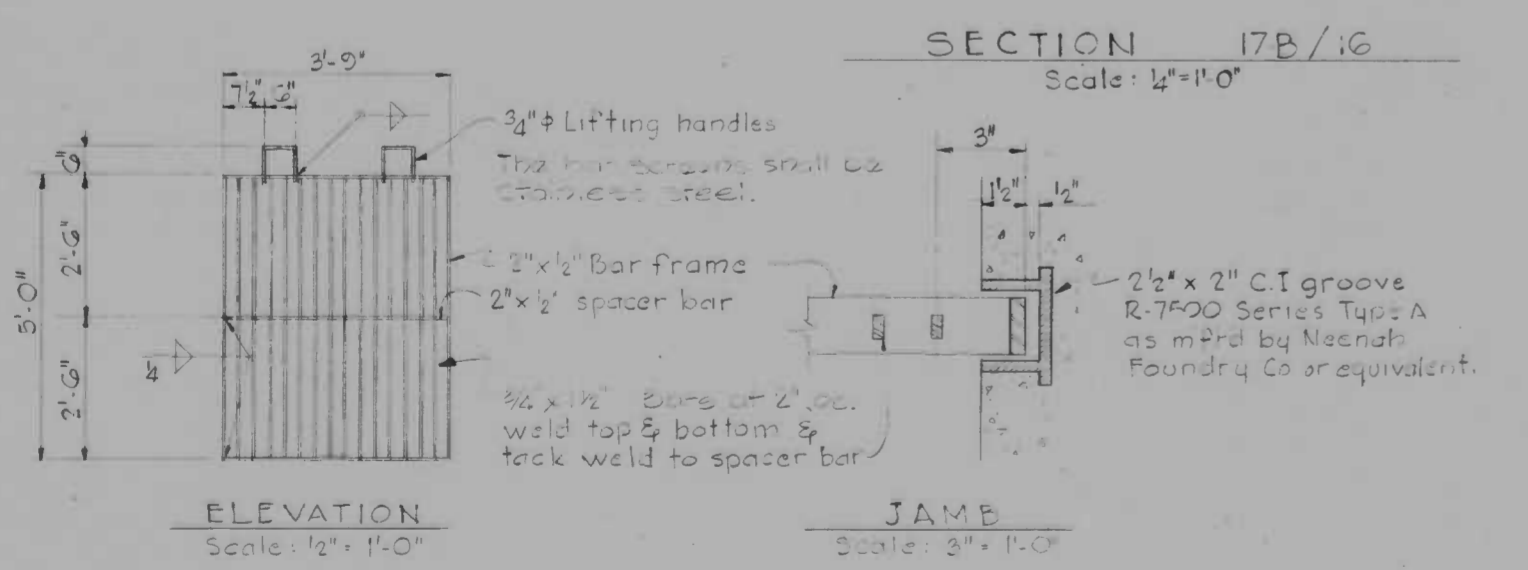
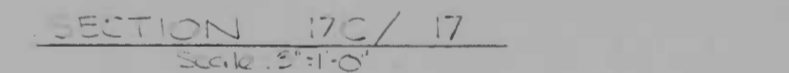
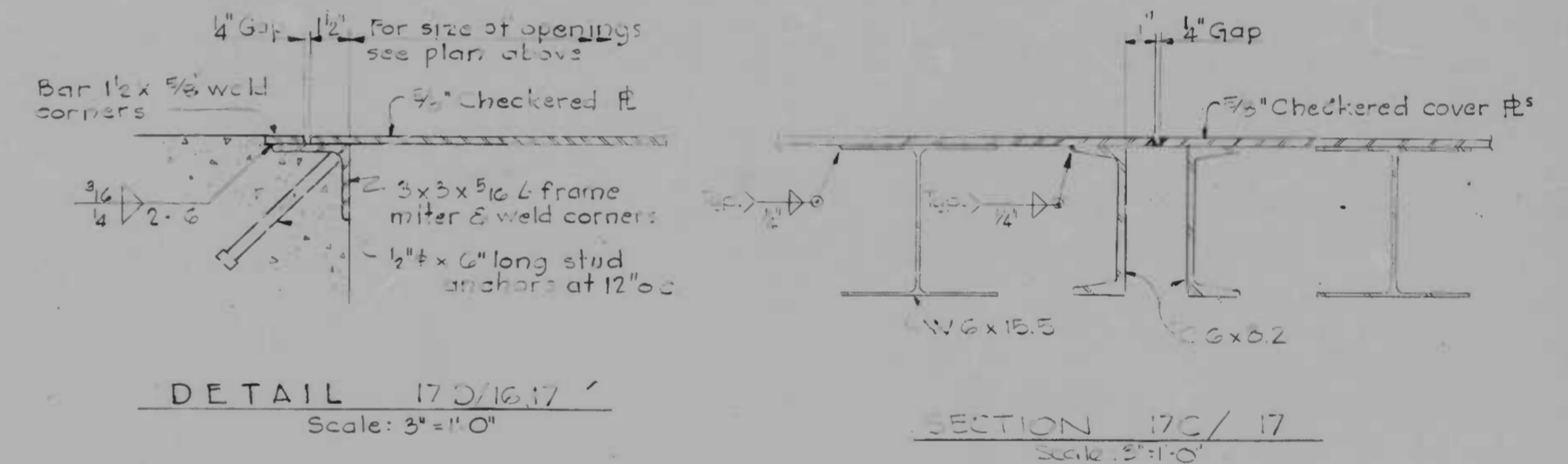
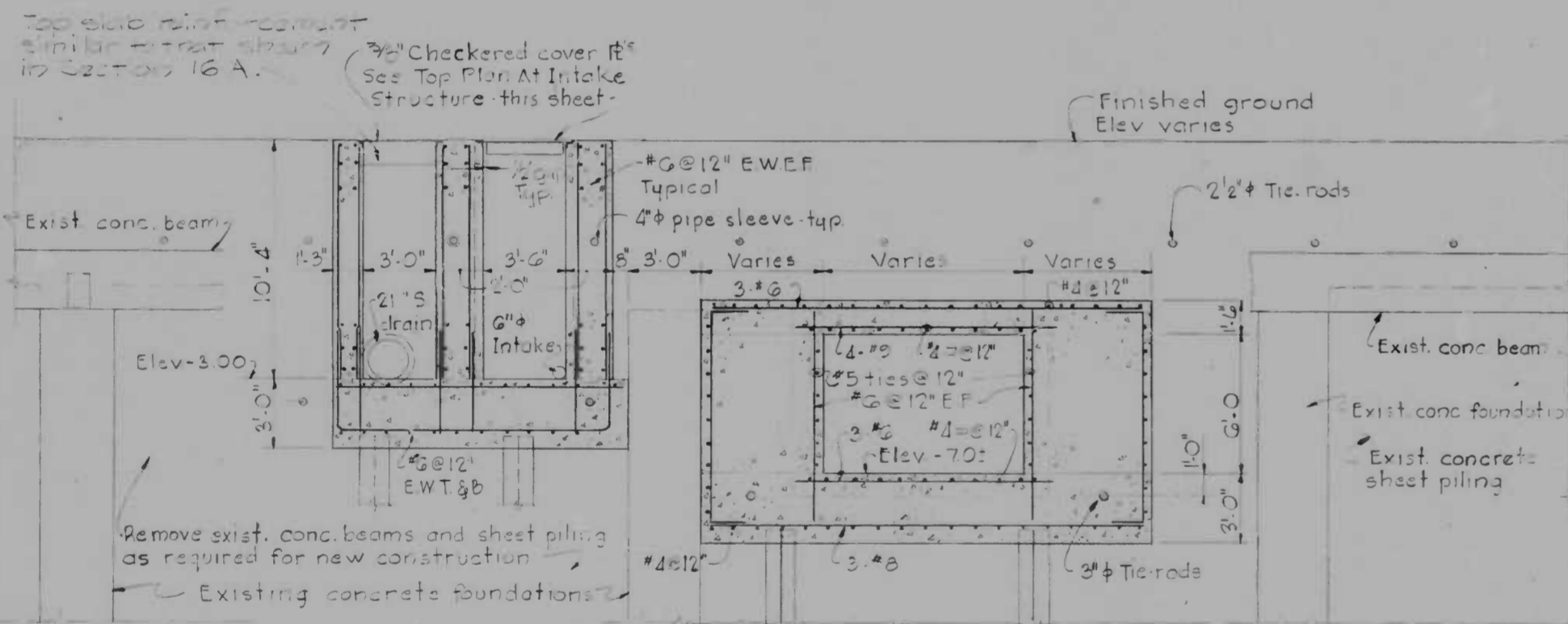
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Note: Hinged frame & covers to be hot dipped galvanized after fabrication.



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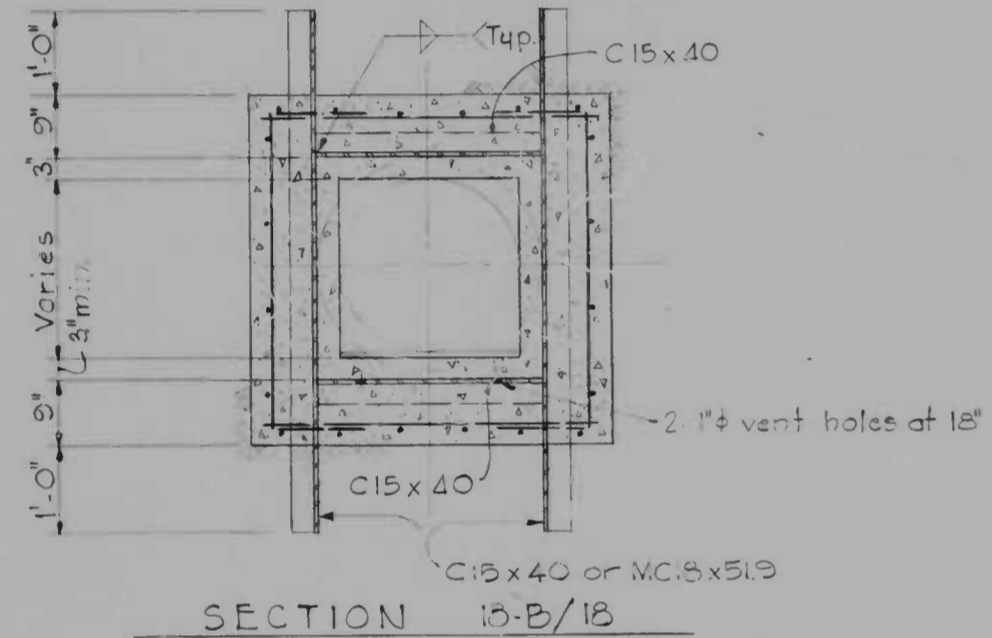
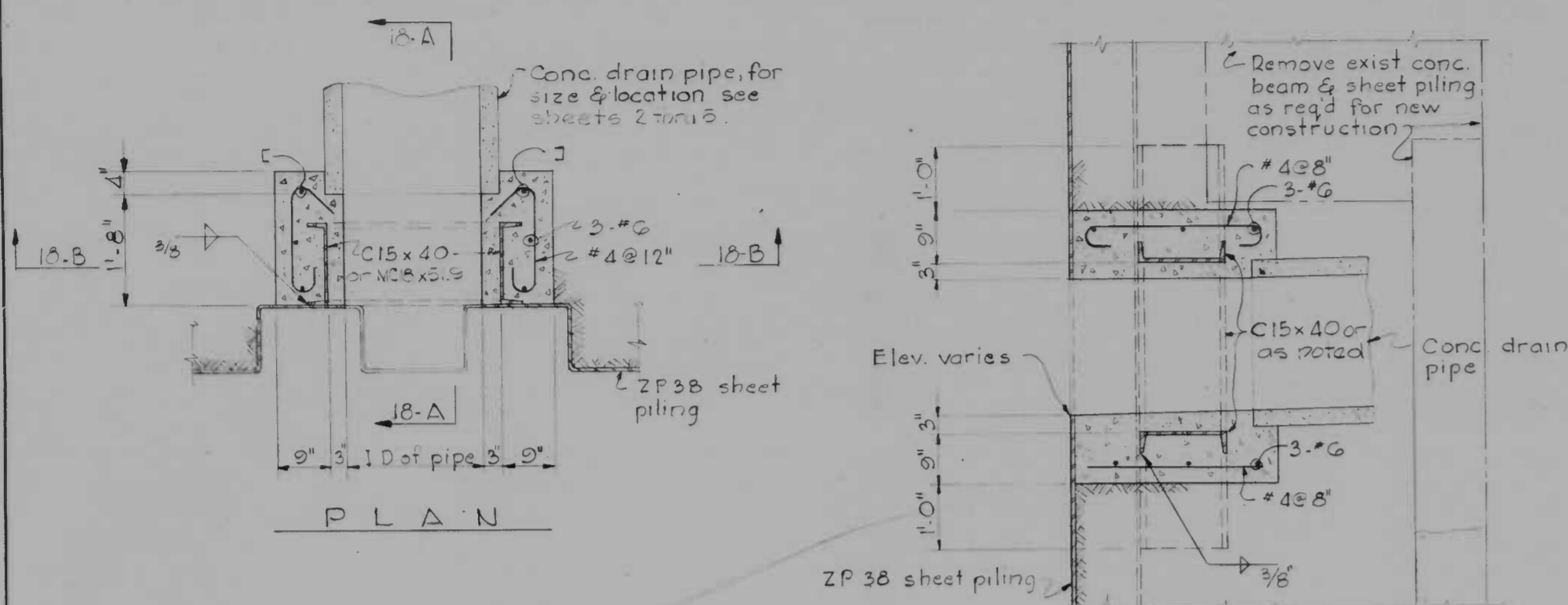
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CONTRACT NO. 2293
RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
SECTIONS AND DETAILS - 54" OUTFALL
SCALE AS SHOWN DATE 9-15-75
SHEET 17 OF 19

FILE REF.

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Note:
Vertical channels shall be MC18x51.9 when drain pipe is 3" dia. For all smaller diameter pipes C15x40 shall be used.

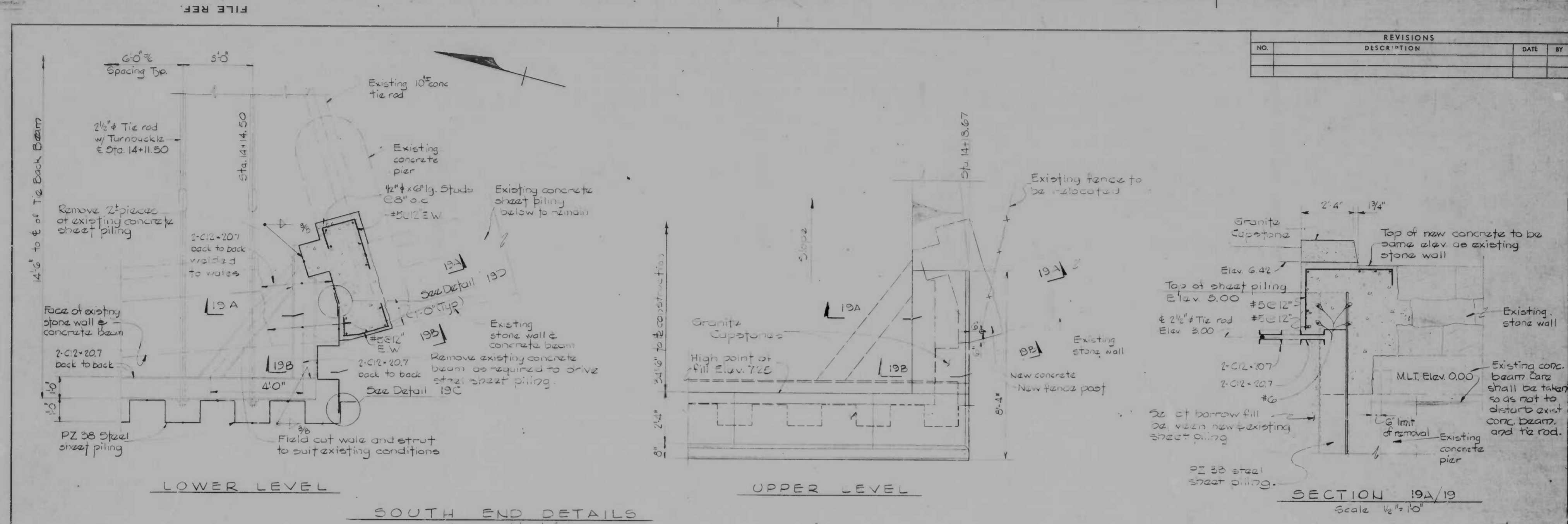
DETAILS OF FRAMING FOR BULKHEAD OPENINGS
Scale: 3/4" = 1'-0"

- NOTES:
1. For plans of bulkhead see sheets 8 and 9.
 2. For elevations of bulkhead see sheet 11.
 3. For typical bulkhead sections and details see sheets 12 and 13.
 4. Exposed ends of channels shall be cleaned and coated with coal tar epoxy. See Specifications.

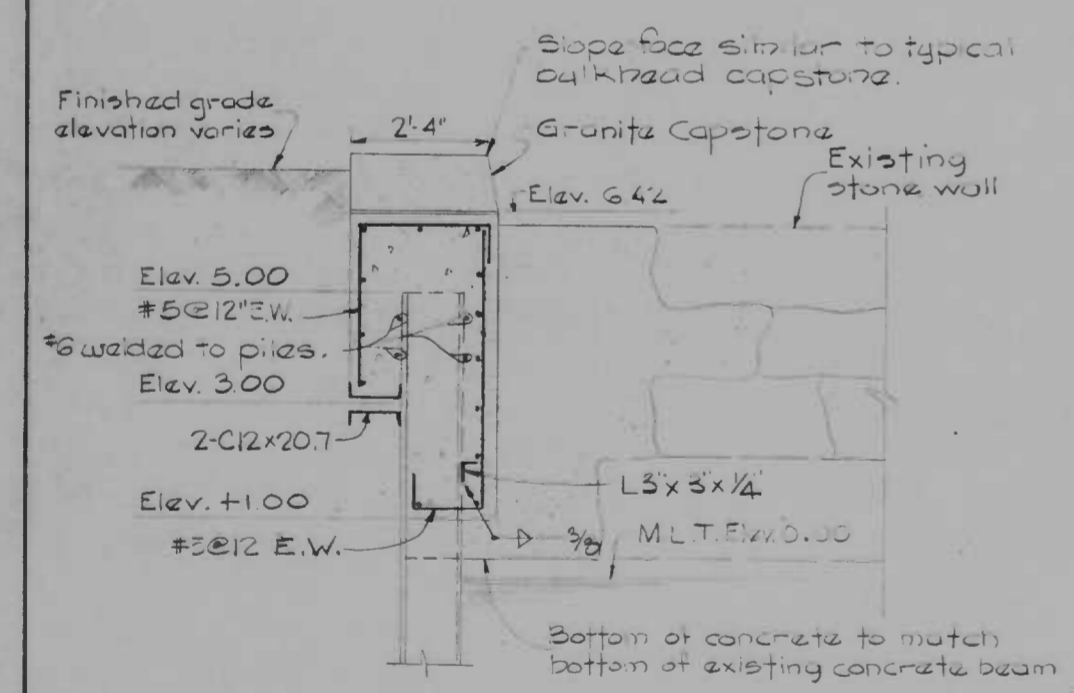
DRAWN BY: OAF
EXAMINED BY: J.O.A.

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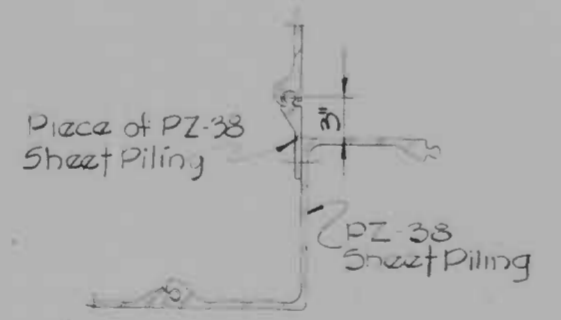
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EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET
PLANS AND SECTIONS
TYPICAL PIPE PENETRATIONS
SCALE AS SHOWN DATE 9-15-75
SHEET 18 OF 19



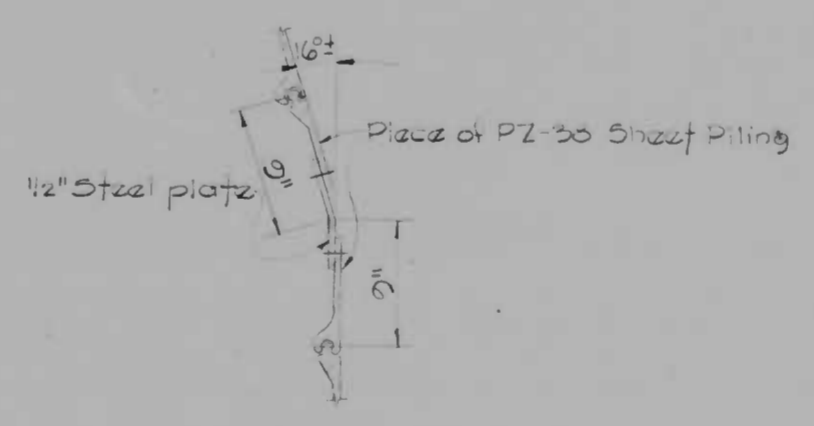
REVISIONS			
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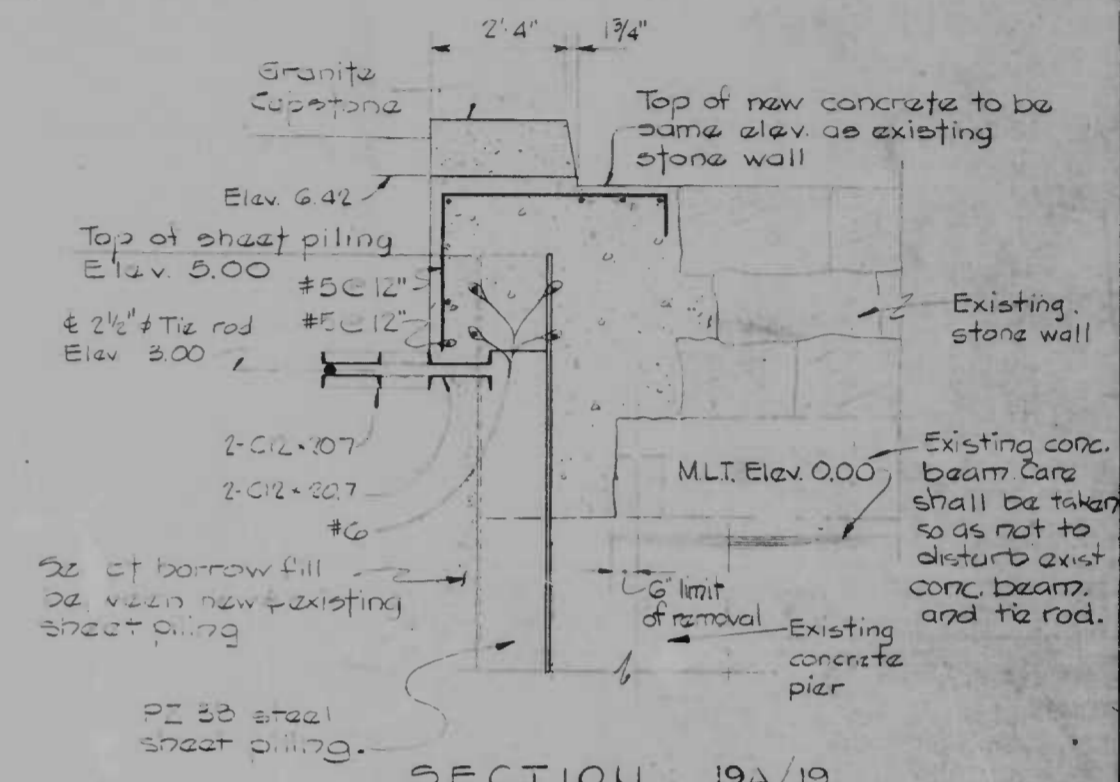
SECTION 19B/19
Scale: 1/2" = 1'-0"



DETAIL 19C/19
Scale: 1/2" = 1'-0"



DETAIL 19D/19
Scale: 1/2" = 1'-0"



SECTION 19A/19
Scale: 1/2" = 1'-0"

- Notes:
1. For plan of bulkhead see Sheets 8 & 9.
 2. For elevation of bulkhead see Sheet 11.
 3. For typical bulkhead section and details see Sheets 12 & 13.
 4. For piling plan at south end see Sheet 10.
 5. Existing concrete piers beams tiebacks sheet piling etc shown on this sheet are for the convenience of the Contractor and there is no warranty or guarantee of the correctness or the completeness of the information shown. The Contractor shall verify the size and location of all existing structures to his own satisfaction and before driving corner piling and fabrication of adjacent walers.

DRAWN BY M.S.
EXAMINED BY J.O.A.

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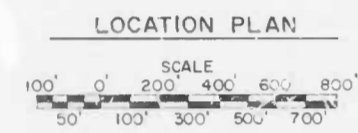
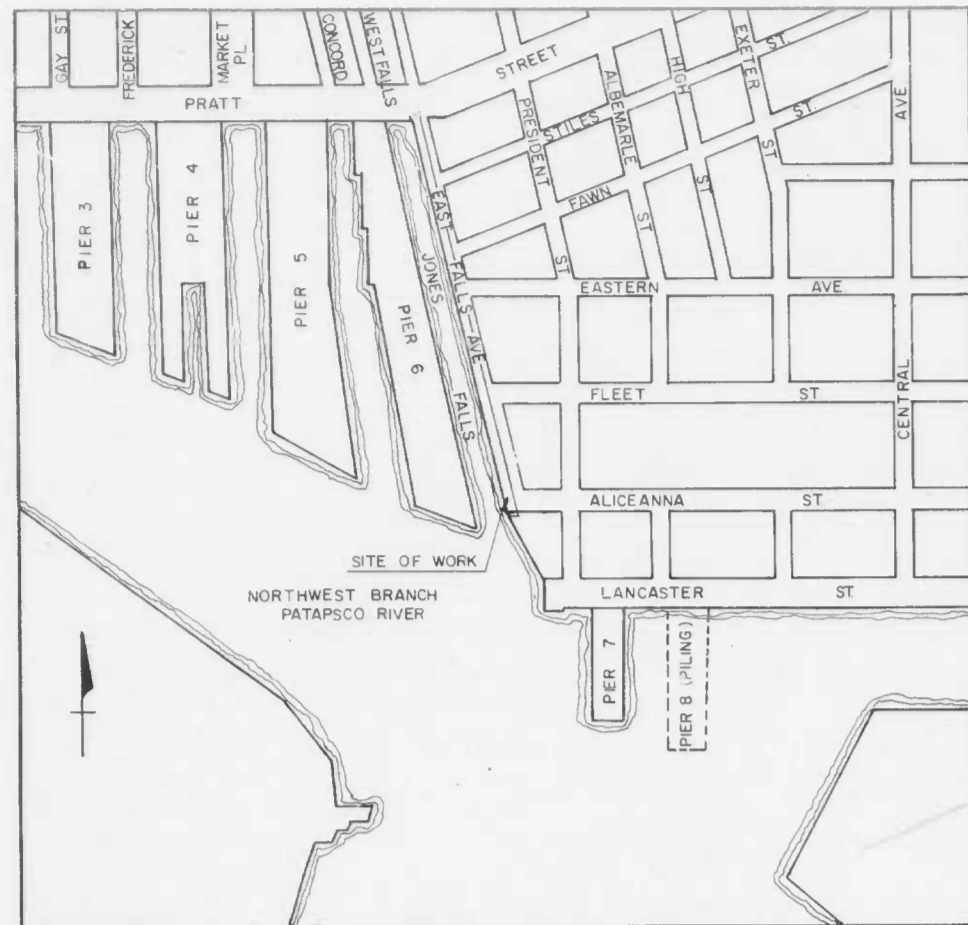
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RECONSTRUCTION
EAST FALLS AVENUE BULKHEAD
PRATT STREET TO ALICEANNA STREET

PLANS AND SECTIONS - SOUTH END

SCALE AS SHOWN DATE: 9-15-75 SHEET 19 OF 19



LEGEND

EXISTING UTILITIES

- SANITARY SEWER & MANHOLE
- WATER MAIN
- STORM DRAIN & INLET
- GAS LINE & VALVE
- ELECTRICAL CONDUIT
- FIRE HYDRANT & VALVE
- STREET LIGHT & HAND BOX
- GENERAL

- RAILROAD
- GUARD POSTS
- BUILDING
- BLOCK WALL & CONCRETE CURB
- FENCE

SURVEYING

- TURNING STATIONS
- PROPOSED WORK
- STORM DRAIN, MANHOLE & INLET
- CONCRETE
- EARTH

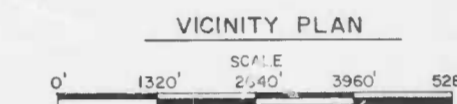
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CONTRACT NO. 2293

**RECONSTRUCTION
 EAST FALLS AVENUE
 BULKHEAD**

PRATT STREET TO ALICEANNA STREET



INDEX OF DRAWINGS

1. TITLE SHEET
2. SITE AND UTILITY PLANS
3. SITE AND UTILITY PLAN AND DETAILS
4. STORM DRAIN PROFILES
5. PROFILES AND DETAILS
6. BORING PLAN AND LOGS
7. BORING LOGS
8. BULKHEAD PLANS
9. BULKHEAD AND PILING PLANS
10. DETAILED PILING PLANS
11. BULKHEAD ELEVATIONS
12. TYPICAL BULKHEAD SECTIONS AND DETAILS
13. TYPICAL DETAILS
14. PLANS AND SECTIONS - NORTH END
15. PLANS AND SECTIONS - 48" BY-PASS
16. PLANS AND SECTIONS - 54" OUTFALL
17. SECTIONS AND DETAILS - 54" OUTFALL
18. PLANS AND SECTIONS - TYPICAL PIPE PENETRATIONS
19. PLANS AND SECTIONS - SOUTH END

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 1304 ST. PAUL STREET
 BALTIMORE, MARYLAND

SEPTEMBER 15, 1975
 DATE
 REG NO

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 CHIEF, WASTE WATER DIVISION

CHIEF, SURVEYS AND RECORDS
 CHIEF, WATER DIVISION

HEAD, BUREAU OF ENGINEERING

DIRECTOR OF PUBLIC WORKS

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SHEET 1 OF 19