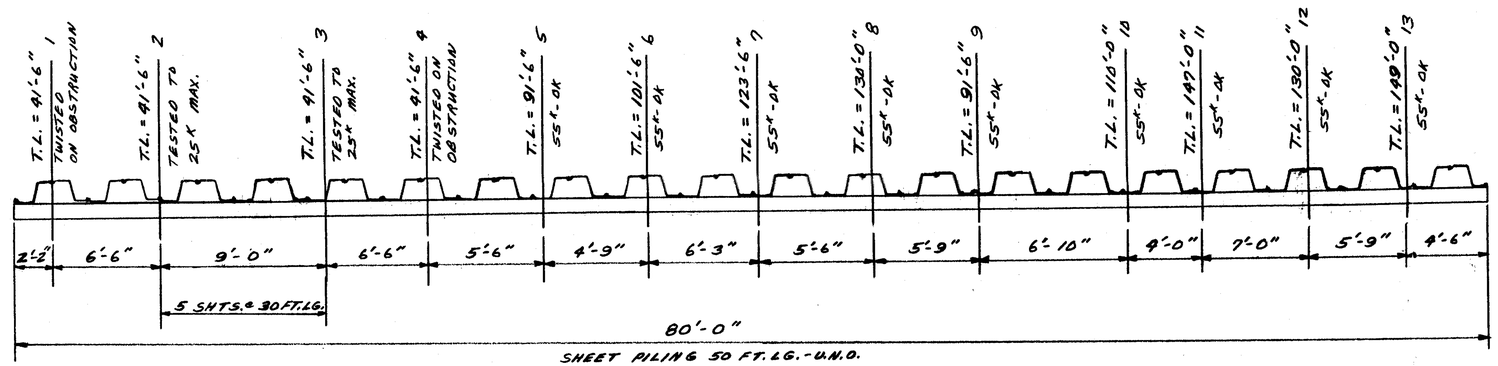
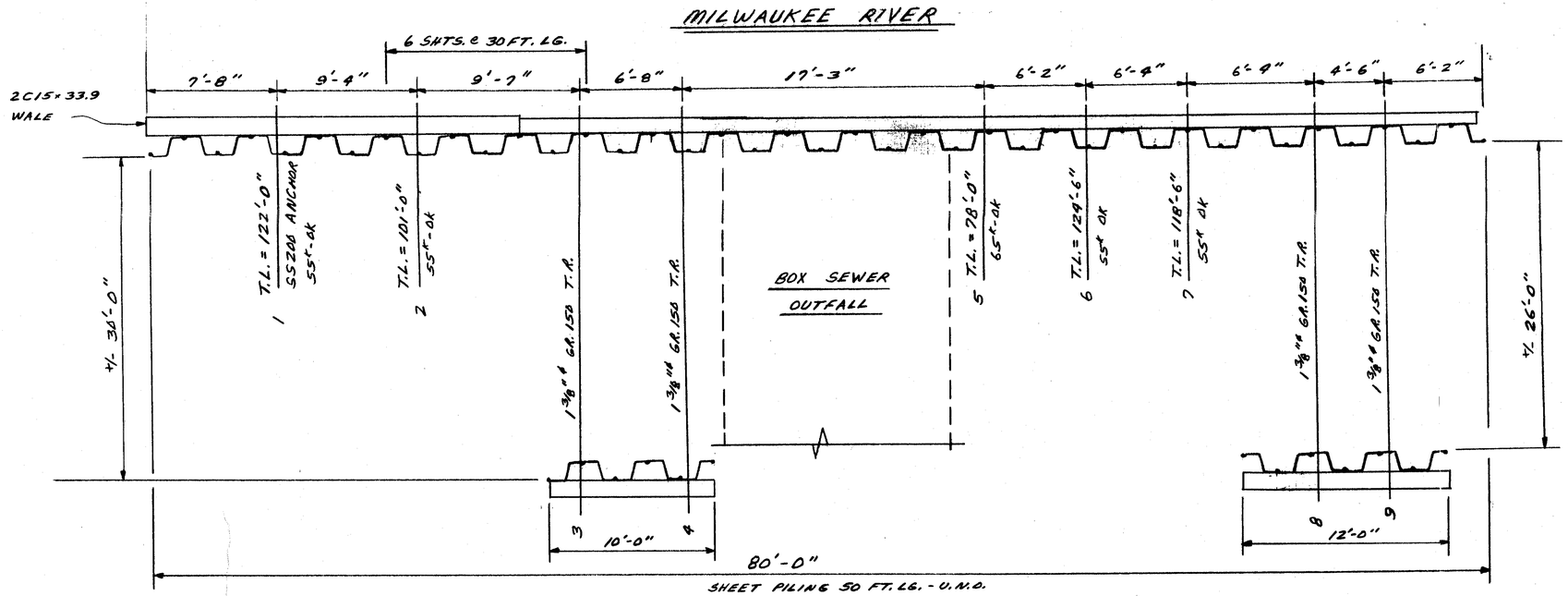
N



EAST DOCKWALL

MILWAUKEE RIVER

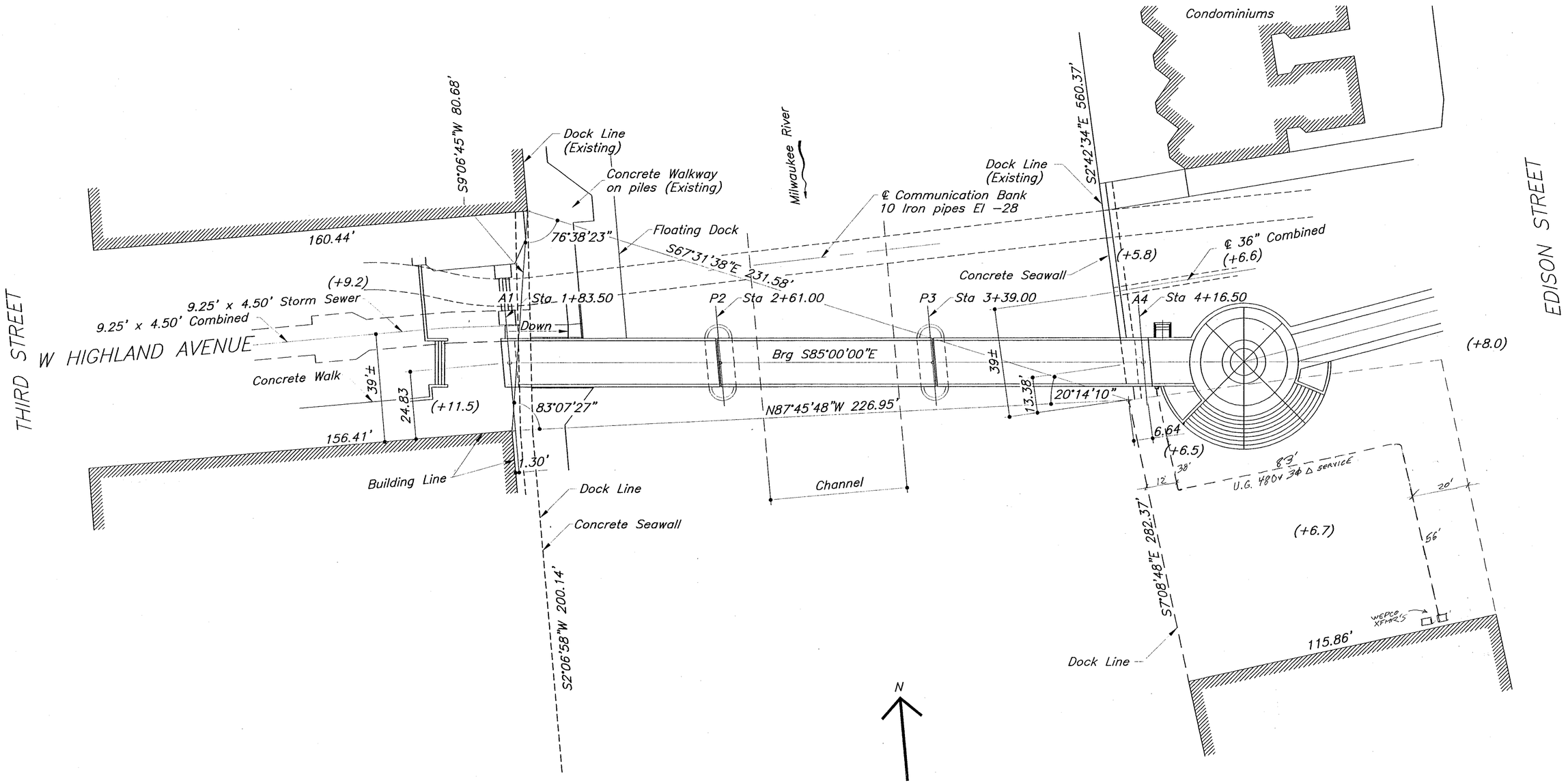


WEST DOCKWALL

NOTE

1. ALL TIEBACKS DRILLED AT 30° TO THE HORIZONTAL.
2. ALL TIEBACKS ARE 175 SS - GALV. WITH 8-10-12 LEAD AND 2 × 2-14 HEL. EXTEN. - U.N.O.
3. WALES AT EL. + 3.5 FT. - EAST AND WEST SIDES.
4. ALL WALES ARE 2C10 × 15.3 - U.N.O.
5. REFER TO G.A.S. DWGS. S1 → S4 DATED 9/29/95.
6. ANCHOR WALL SHEET PILING 20 FT. LG.
7. TEST LOAD LISTED - XX^{K} - OK

HIGHLAND AVE. DOCKWALL		
SCALE:	APPROVED BY:	DRAWN BY J.A.K.
DATE: 11-19-97		REVISED
HIGHLAND AVE. PED. BRIDGE		
"AS BUILT"		DRAWING NUMBER 1 OF 1



SITE PLAN

Scale 1"=20'

NOTES:

1. Dock Line estabilished by Ordinance Board of Harbor Commissions City of Milwaukee
2. (+x.x) Indicates Existing Ground Elevation
3. For Combined and Storm Sewers at W Highland Avenue, see Plan of Sewer (File No 81–53), Bureau of Sewers, Department of Public Works, City of Milwaukee, Wisconsin.
4. For Architectural Design of W Highland Avenue and Plaza at Edison Street, see plans prepared by Eppstein Keller Uhen, Milwaukee, Wisconsin.

28 JANUARY 1997

WISCONSIN CHARLES M REDFIELD E-30500 MILWAUKEE WIS. PROFESSIONAL ENGINEER

CHARLES REDFIELD
CONSULTING ENGINEER

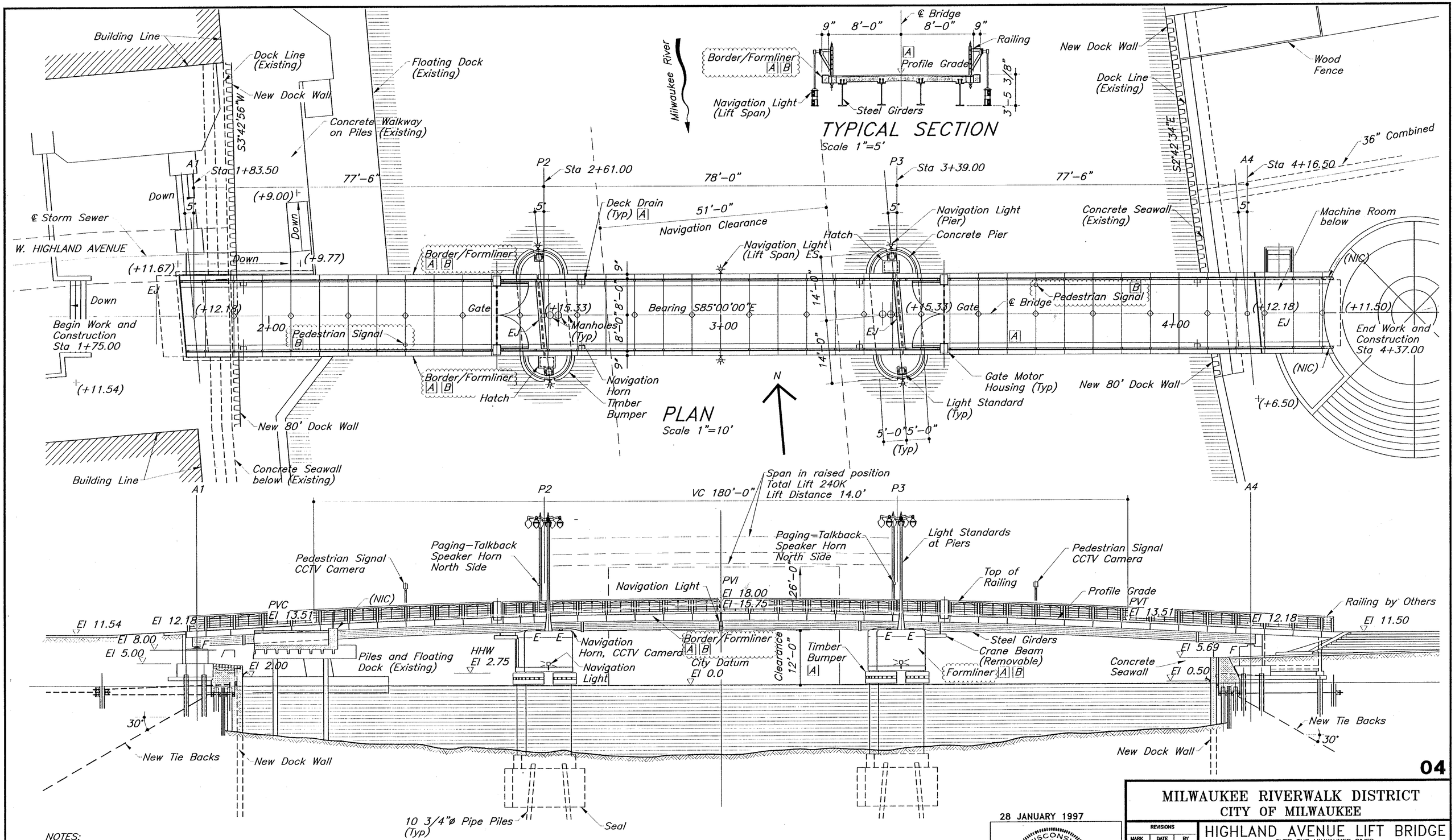
03

MILWAUKEE RIVERWALK DISTRICT
CITY OF MILWAUKEE

REVISIONS		
MARK	DATE	BY
A	6.96	CR
B		
C		
D		
E		
F		
G		
H		
I		
J		
K		
L		
M		

HIGHLAND AVENUE LIFT BRIDGE
OVER THE MILWAUKEE RIVER
SITE PLAN

DESIGNED BY: CR TRACED BY: DATE: Jul95
DRAWN BY: VJ CHECKED BY: CR DATE: Jul95
APPROVED: SCALE: 1"=20'
DATE: SHEET NUMBER 03
DATE: SET OF SHEETS
DATE: JOB NO.



NOTES:
1. Dock Line established by Ordinance Board of Harbor Commissions City of Milwaukee
2. (+x.xx) indicates project Elevations in feet in respect to City Datum
3. For Site Plan, see Sht 03
4. For new Dock Wall, see Plans prepared by Graef Anhalt Schloemer, Milwaukee, WI
5. Bearing Designation
   E = Expansion Bearing
   F = Fixed Bearing
6. For CCTV Cameras and Navigation Horn, see Sht 74

28 JANUARY 1997

WISCONSIN PROFESSIONAL ENGINEER
CHARLES M REDFIELD
E-36500
MILWAUKEE
WIS.

CHARLES REDFIELD
CONSULTING ENGINEER

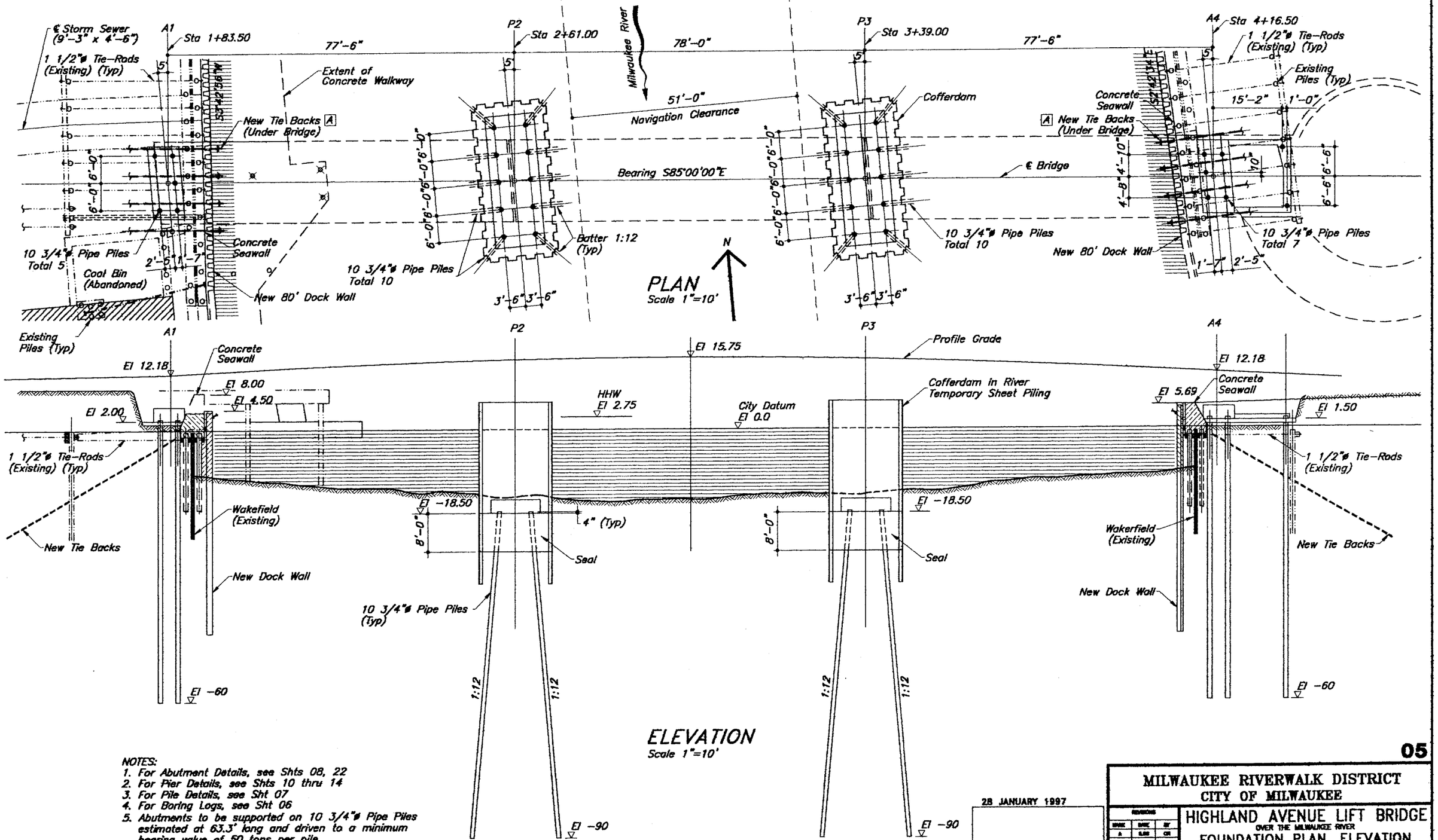
04

MILWAUKEE RIVERWALK DISTRICT
CITY OF MILWAUKEE

HIGHLAND AVENUE LIFT BRIDGE
OVER THE MILWAUKEE RIVER
PLAN, ELEVATION

REVISIONS		
MARK	DATE	BY
A	6.96	CR
B	12.96	CR
C		
D		
E		
F		
G		
H		
I		
J		
K		
L		
M		

DESIGNED BY: CR TRACED BY: DATE: May95
DRAWN BY: VJ CHECKED BY: CR DATE: May95
APPROVED: SCALE: 1"=10'
DESIGNER IN CHARGE DATE: SHEET NUMBER 04
SUPT. OF BRIDGES AND PUBLIC BUILDINGS DATE: SET OF SHEETS
COMMISSIONER OF PUBLIC WORKS DATE: JOB NO.



NOTES:
1. For Abutment Details, see Shts 08, 22
2. For Pier Details, see Shts 10 thru 14
3. For Pile Details, see Sht 07
4. For Boring Logs, see Sht 06
5. Abutments to be supported on 10 3/4"ø Pipe Piles estimated at 63.3' long and driven to a minimum bearing value of 50 tons per pile, Maximum Design Load 75 K per pile
6. Piers to be supported on 10 3/4"ø Pipe Piles estimated at 72.3' in place long and driven to a minimum bearing value of 55 tons per pile, Maximum Design Load 70 K per pile
7. ⊠ Indicates Abandoned Piles. See Plans prepared by Graef Anhalt Schloemer

28 JANUARY 1997

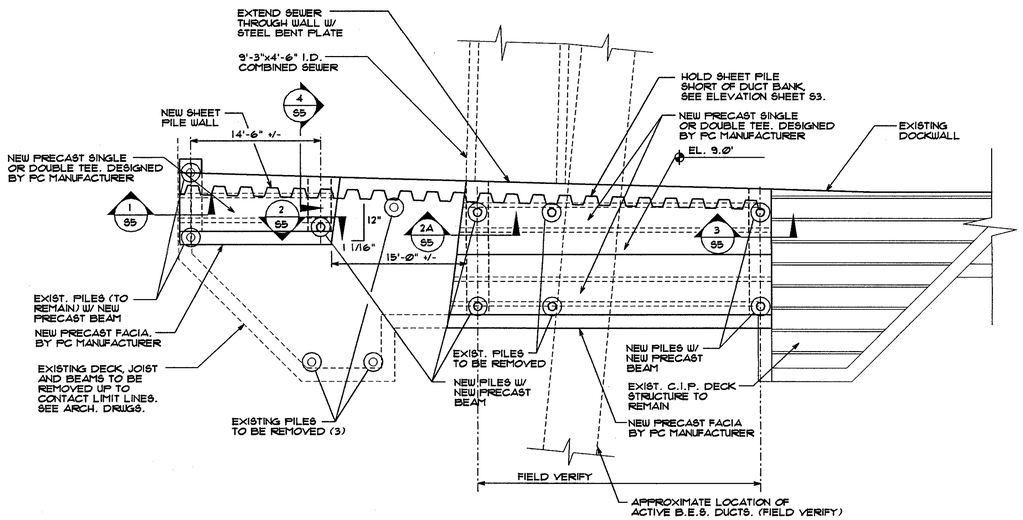
CHARLES REDFIELD
CONSULTING ENGINEER

05

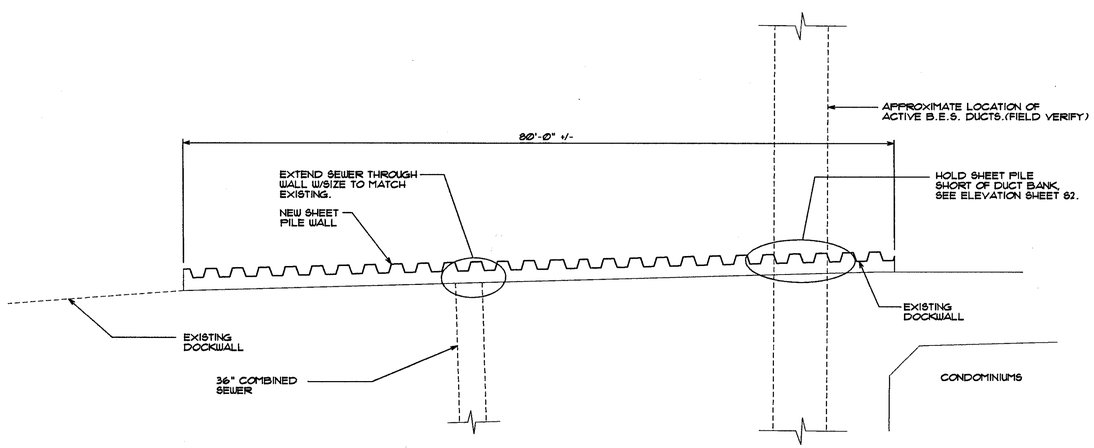
MILWAUKEE RIVERWALK DISTRICT
CITY OF MILWAUKEE

HIGHLAND AVENUE LIFT BRIDGE
OVER THE MILWAUKEE RIVER
FOUNDATION PLAN, ELEVATION

DESIGNED BY: CR TRACED BY: DATE: Jul95
DRAWN BY: VJ CHECKED BY: CR DATE: Jul95
APPROVED: SCALE: 1"=10'
DATE: SHEET NUMBER 05
DATE: SET OF SHEETS
DATE: JOB NO.



PLAN HIGHLAND AVE. - WEST SIDE



PLAN HIGHLAND AVE. - EAST SIDE

GRAEF ANHALT SCHLOEMER and Associates Inc.

345 North 95th Street
Milwaukee, Wisconsin 53226
414 259-1500
FAX 259-0037

Other Offices Located In:

Green Bay, Wisconsin
Madison, Wisconsin
Chicago, Illinois

PROJECT NAME:

HIGHLAND AVE.
DOCKWALL REPLACEMENT

SHEET TITLE:

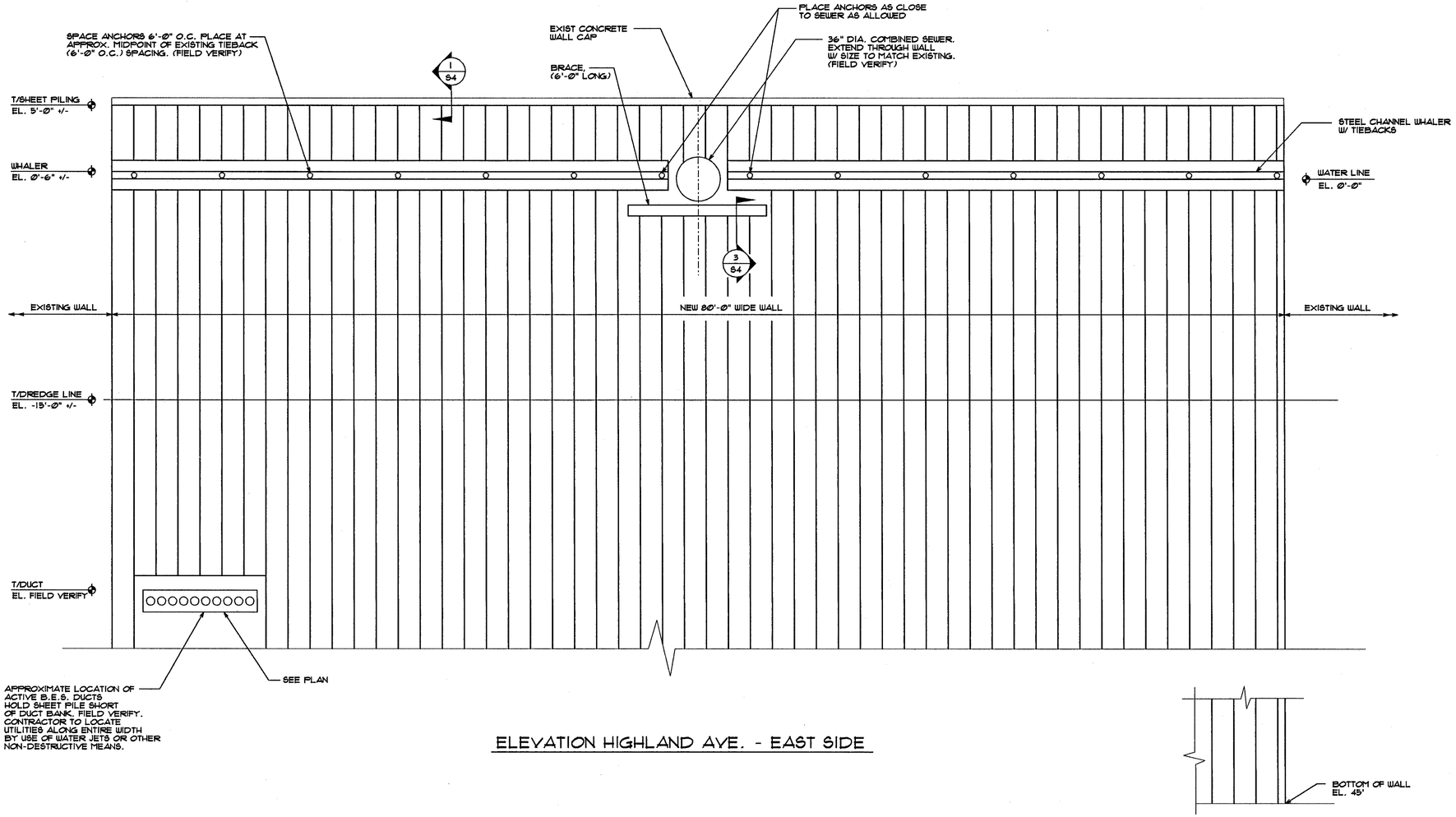
PLAN VIEW

NO.	DATE	REVISIONS	BY

PROJECT NUMBER: 940022.07
DATE: 3-11-97
DRAWN BY: GAS
CHECKED BY: CJB
PROJECT MANAGER: B.W.L.
FILE NAME: G:\940022\HIGHLAND\HI-S1.DG

SHEET NUMBER

S1



ELEVATION HIGHLAND AVE. - EAST SIDE

DESIGN SPECIFICATIONS

- STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM A572 GRADE 50.
- STRUCTURAL STEEL PLATES, CHANNELS, AND ANGLE MEMBERS SHALL CONFORM TO ASTM A36.
- ALL CHANNELS, ANCHORS, PLATE WASHERS, ANGLES, AND WIDE FLANGE MEMBERS TO BE PAINTED W/COAL TAR EPOXY COATING.
- SHEET PILES SHALL CONFORM TO A-328 SECTION PZ27 AS MANUFACTURED BY BETHLEHEM STEEL CORPORATION OR APPROVED EQUIVALENT.
- TIE BACK ANCHOR SHALL BE INSTALLED AT 6'-0" O.C. TO ACHIEVE A DESIGN LOAD OF 89 KIPS.

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Madison, Wisconsin
Chicago, Illinois

PROJECT NAME:

HIGHLAND AVE.
DOCKWALL REPLACEMENT

SHEET TITLE:

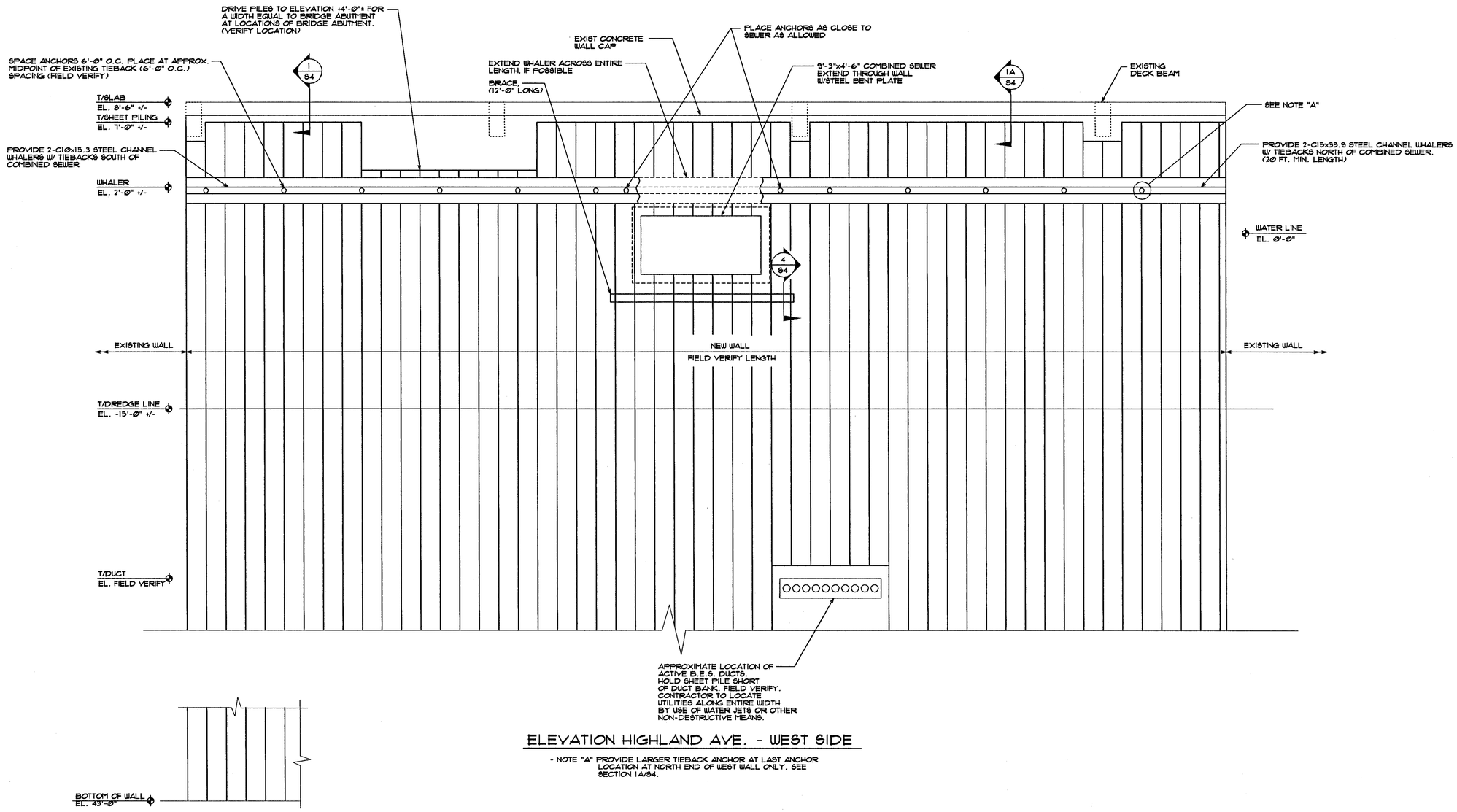
ELEVATION
EAST SIDE

NO.	DATE	REVISIONS	BY

PROJECT NUMBER: 940022.07
DATE: 3-11-97
DRAWN BY: GAS
CHECKED BY: CJB
PROJECT MANAGER: B.W.L.
FILE NAME: G:\940022\HIGHLAND\HI-S2.DG

SHEET NUMBER

S2



ELEVATION HIGHLAND AVE. - WEST SIDE

- NOTE "A" PROVIDE LARGER TIEBACK ANCHOR AT LAST ANCHOR LOCATION AT NORTH END OF WEST WALL ONLY. SEE SECTION 1A/S4.

GRAEF ANHALT SCHLOEMER
and Associates Inc.

345 North 95th Street
Milwaukee, Wisconsin 53226
414 259-1500
FAX 259-0037

Other Offices Located In:

Green Bay, Wisconsin
Madison, Wisconsin
Chicago, Illinois

PROJECT NAME:

HIGHLAND AVE.
DOCKWALL REPLACEMENT

SHEET TITLE:

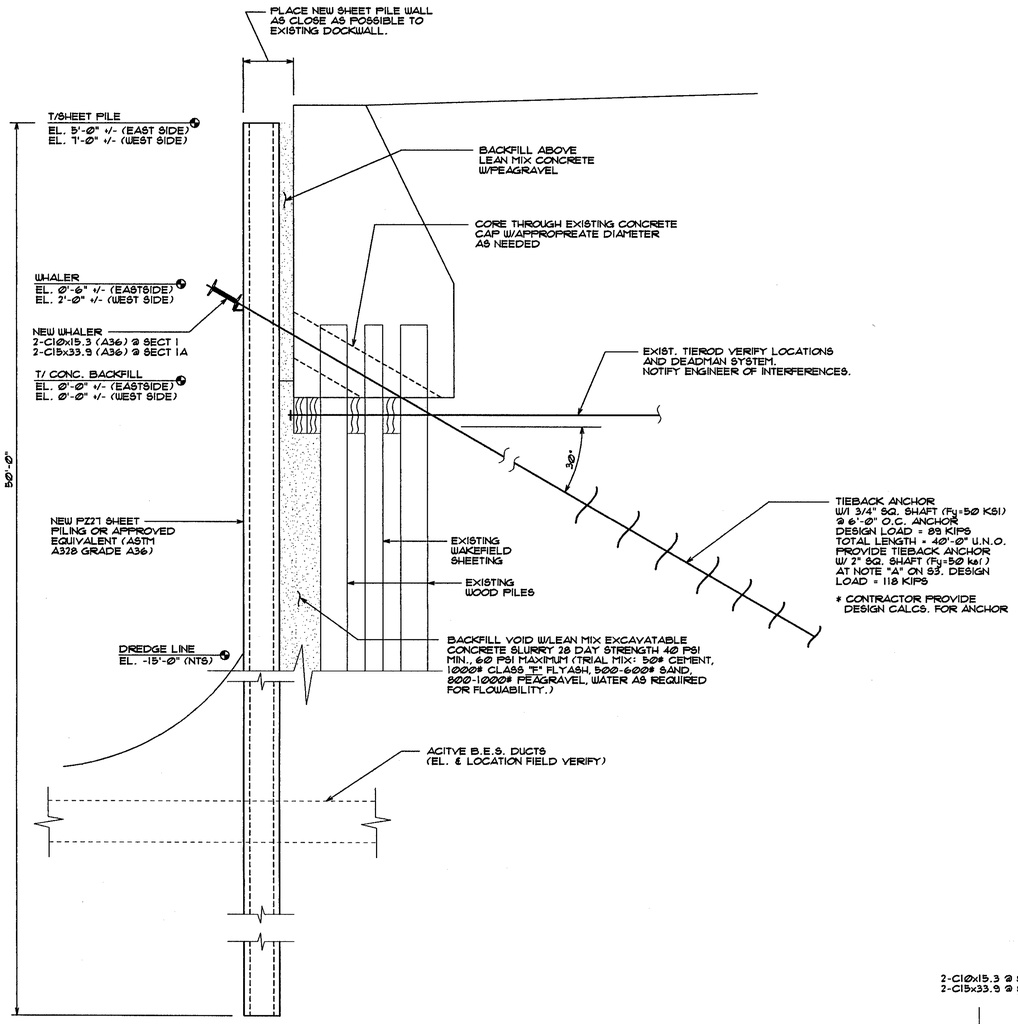
ELEVATION
WEST SIDE

NO.	DATE	REVISIONS	BY

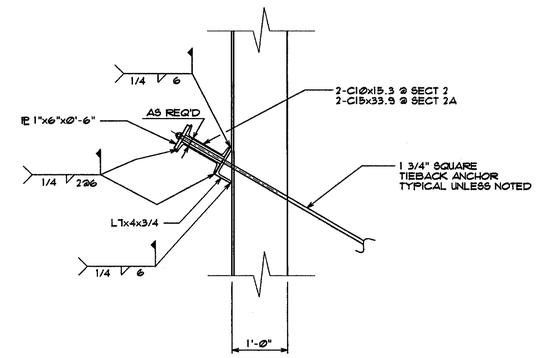
PROJECT NUMBER: 940022.07
DATE: 3-11-97
DRAWN BY: GAS
CHECKED BY: CJB
PROJECT MANAGER: B.W.L.
FILE NAME: G:\940022\HIGHLAND\HI-S3.DG

SHEET NUMBER

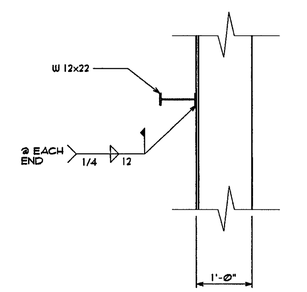
S3



SECTION 1 1A



SECTION 2 2A



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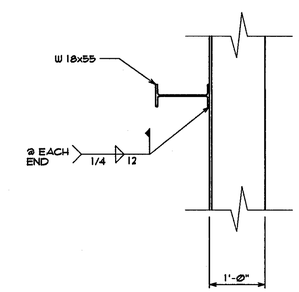

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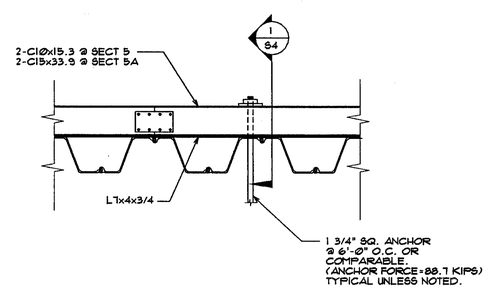


SECTION 5 5A

GRAEF ANHALT SCHLOEMER and Associates Inc.

345 North 95th Street
Milwaukee, Wisconsin 53226
414 259-1500
FAX 259-0037

Other Offices Located In:

Green Bay, Wisconsin
Madison, Wisconsin
Chicago, Illinois

PROJECT NAME:

HIGHLAND AVE.
DOCKWALL REPLACEMENT

SHEET TITLE:

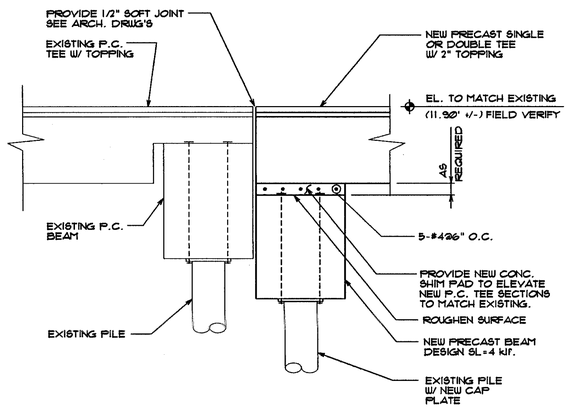
STRUCTURAL DETAILS

NO.	DATE	REVISIONS	BY

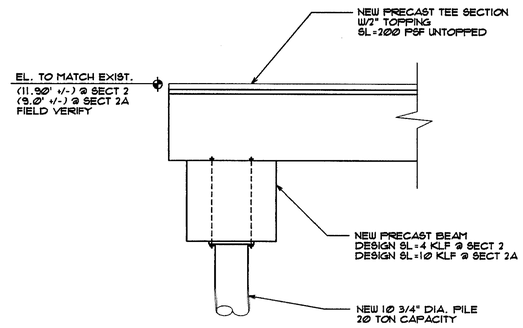
PROJECT NUMBER: 940022.07
DATE: 3-11-97
DRAWN BY: GAS
CHECKED BY: CJB
PROJECT MANAGER: B.W.L.
FILE NAME: G:\940022\HIGHLAND\HI-S4.DG

SHEET NUMBER

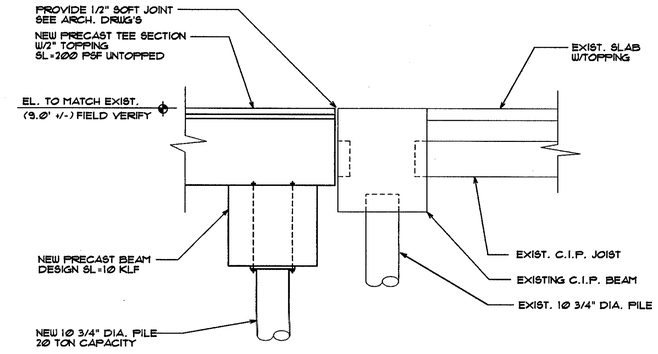
S4



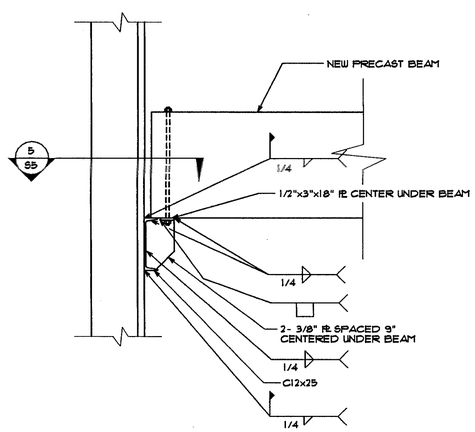
SECTION 1



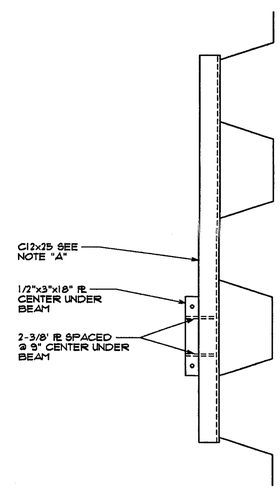
SECTION 2 2A



SECTION 3



4 SECTION



NOTE "A": WELD C12x25 TO THE OTHER FACE OF A MINIMUM OF 6 SHEET PILES FIELD VERIFY LENGTH REQUIRED.

5 SECTION

GRAEF
ANHALT
SCHLOEMER
and Associates Inc.

345 North 95th Street
Milwaukee, Wisconsin 53226
414 259-1500
FAX 259-0037

Other Offices Located In:

Green Bay, Wisconsin
Madison, Wisconsin
Chicago, Illinois

PROJECT NAME:

HIGHLAND AVE.
DOCKWALL REPLACEMENT

SHEET TITLE:

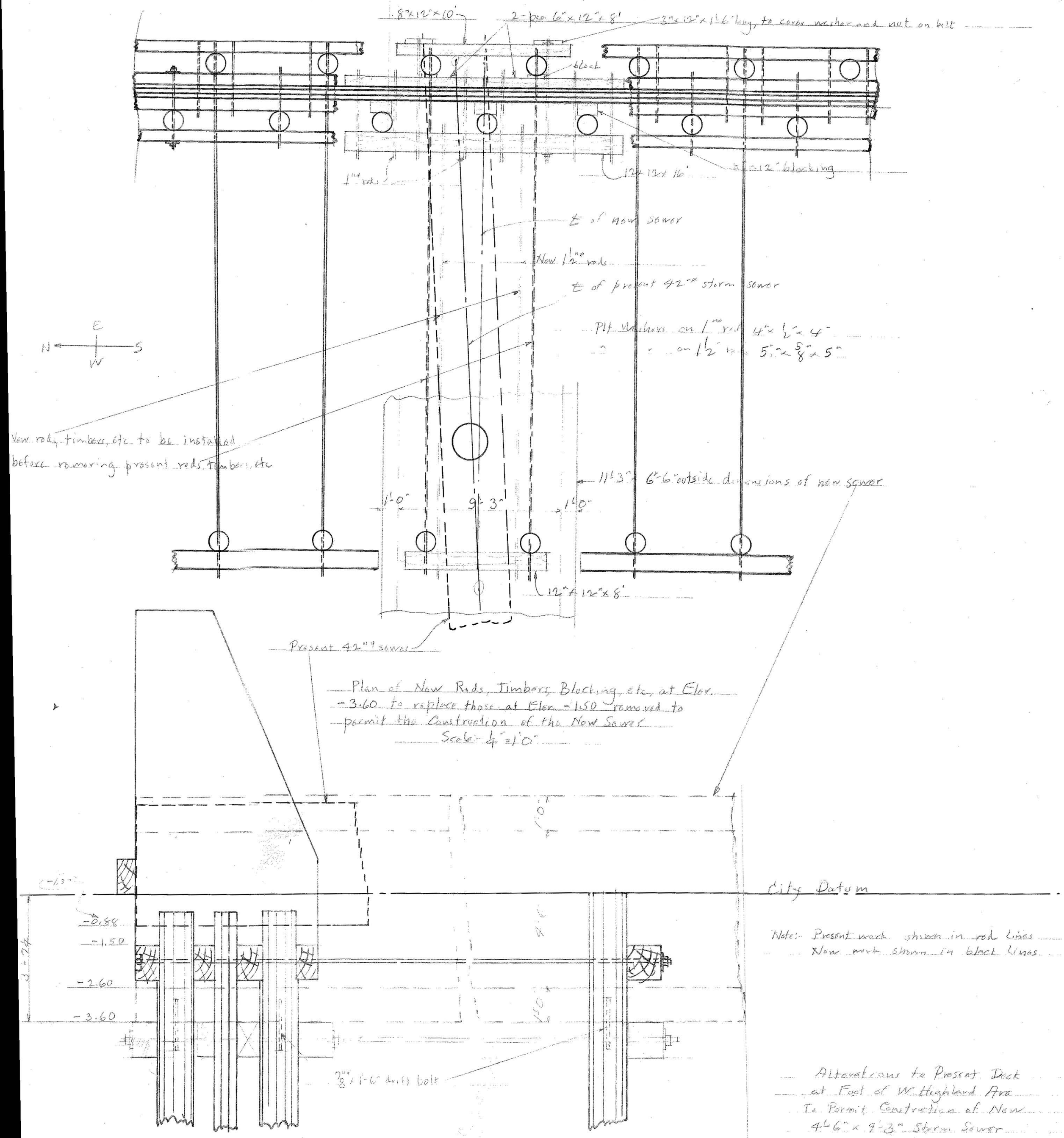
STRUCTURAL DETAILS

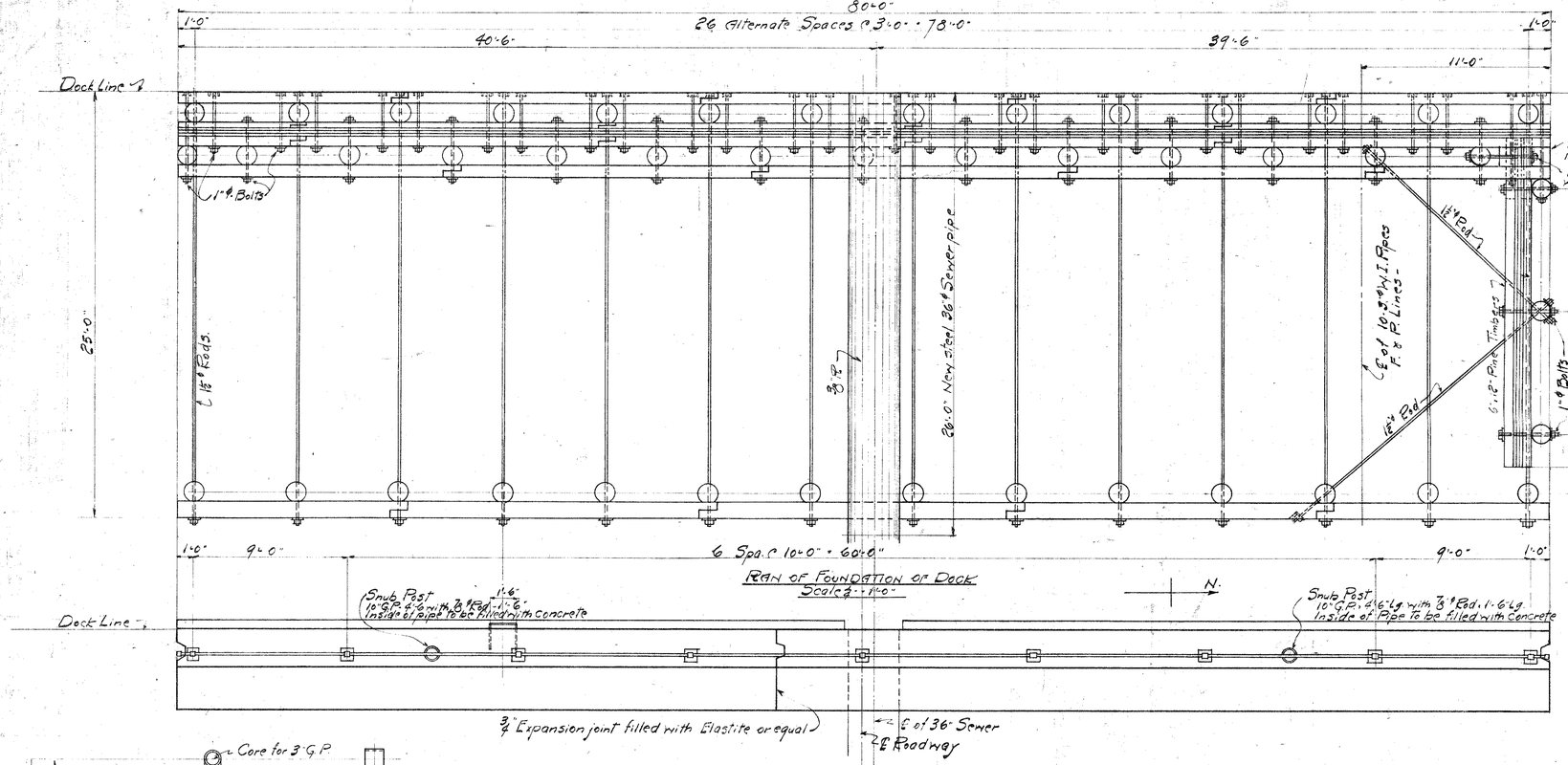
NO.	DATE	REVISIONS	BY

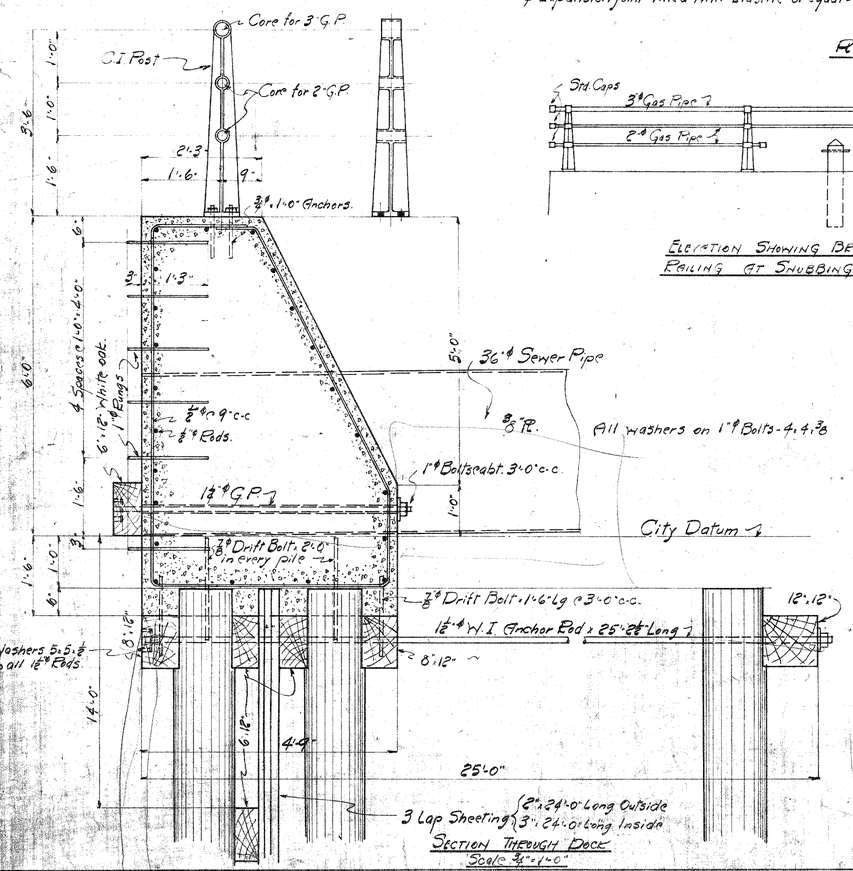
PROJECT NUMBER: 940022.07
DATE: 3-11-97
DRAWN BY: GAS
CHECKED BY: CJB
PROJECT MANAGER: B.W.L.
FILE NAME: G:\940022\HIGHLAND\HI-S5.DG

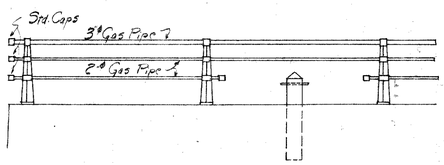
SHEET NUMBER

S5

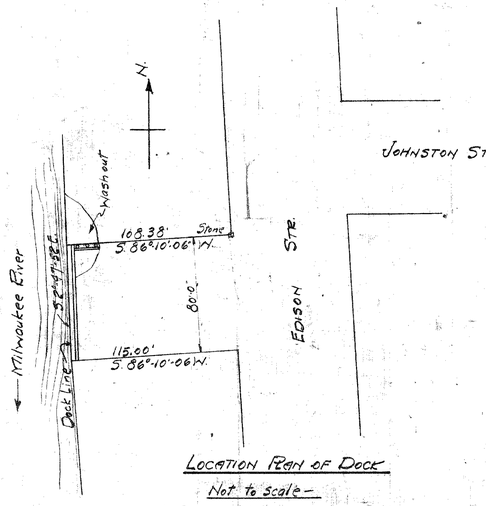

8"x12"x10'
2-pcs 6"x12"x8'
3"x12"x1'-6" long, to cover washer and nut on bolt
block
1" rods
12"x12"x16'
8"x12" blocking
℄ of new sewer
New 1½" rods
℄ of present 42" storm sewer
Pit washers on 1" rod 4"x½"x4"
" " on 1½" rod 5"x⅝"x5"
N
E
S
W
New rods, timbers, etc. to be installed
before removing present rods, timbers, etc
11'-3"
6'-6" outside dimensions of new sewer
1'-0"
9'-3"
1'-0"
12"x12"x8'
Present 42" sewer
Plan of New Rods, Timbers, Blocking, etc, at Elev.
-3.60 to replace those at Elev. -1.50 removed to
permit the Construction of the New Sewer
Scale: ¼"=1'-0"
City Datum
-0.88
-1.50
-2.60
-3.60
⅞"x1'-6" drift bolt
Note:- Present work shown in red lines
New work shown in black lines
Alterations to Present Dock
at Foot of W. Highland Ave.
To Permit Construction of New
4'-6" x 9'-3" Storm Sewer
Section Thru Dock Showing Present Work and New Work - Looking South
Scale: ¼"=1'-0"
Bureau of Bridges & Public Bldgs.
Milwaukee, Wis.
Drawn by O.H.D. Jan 18-1952
This plan returned 2-18-52 by Kaz Kubata of Bureau of Sewers



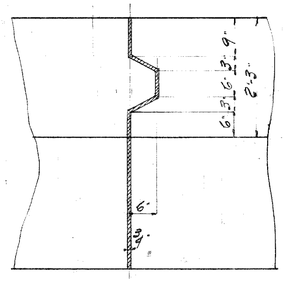




Elevation Showing Break in Railing at Snubbing Posts.



Location Plan of Dock
Not to scale



Detail of Expansion Joint
Scale ¾" = 1'-0"

Paint Railing in field with { 1-Coat Red Lead & Oil / 1-Coat Graphite

East Dock Wall at Highland Ave
1919

Concrete Dock
At the Foot of Johnson Str.
City of Milwaukee
Dept. of Public Works
Bureau of Bridges and Public Bldgs.
Scale: As Noted Oct. 9-1919 Sht. #1

Correct:-
Supt. of Bridges & Public Bldgs.
Approved:-
Deputy Commissioner of Public Works.