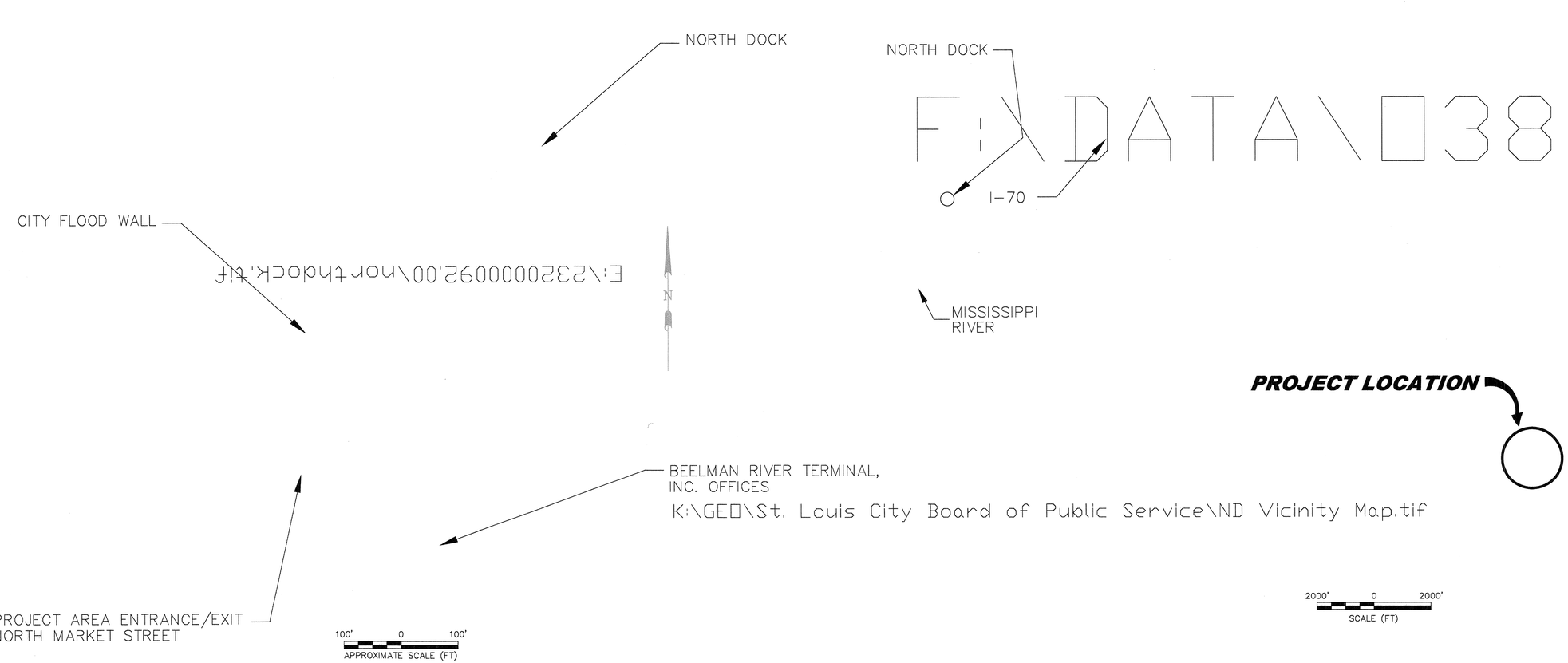
CITY OF ST. LOUIS, MISSOURI

Plans for

ST. LOUIS MUNICIPAL TERMINAL
NORTH DOCK PROJECT #99067

FRANCIS G. SLAY
MAYOR

DEPARTMENT OF THE PRESIDENT
BOARD OF PUBLIC SERVICE



99067
project number

D. HARDIN/T. COOLING
designer/checked by

chief design engineer

R. ALLISON, P.E.
chief, design division

6\01\01
date

revisions | by

ST. LOUIS MUNICIPAL TERMINAL
NORTH DOCK PROPOSED IMPROVEMENTS
ONE NORTH MARKET STREET

URS
3318 MILLPARK DRIVE
MARYLAND HEIGHTS, MISSOURI 63043
PHONE: 314-429-0100
FAX: 314-429-0462

SITE MAP

SHEET 1 OF 5

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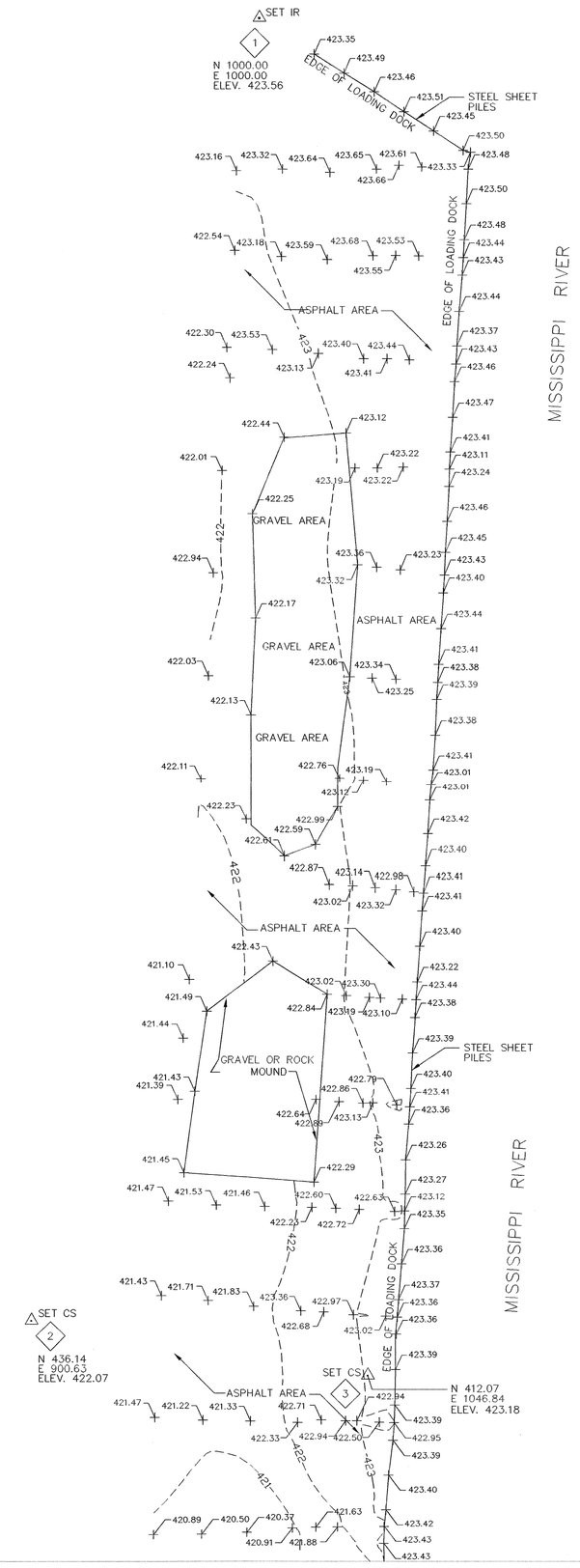

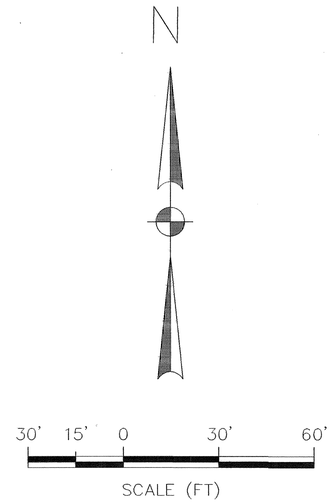

KEY

CS	COTTON SPINDLE
IR	IRON ROD
△	CONTROL POINT
◇	CONTROL POINT DESIGNATOR
422	CONTOURS

SITE BENCHMARK: "CROSS" ON THE WEST FACE OF THE CITY FLOOD WALL; ALONG THE SOUTH END OF GATE #9 AT NORTH MARKET STREET, (2' ABOVE GROUND). MSD–CITY OF ST. LOUIS BENCHMARK C–9. ELEV.=421.41

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SURVEY

SHEET 2 OF 5

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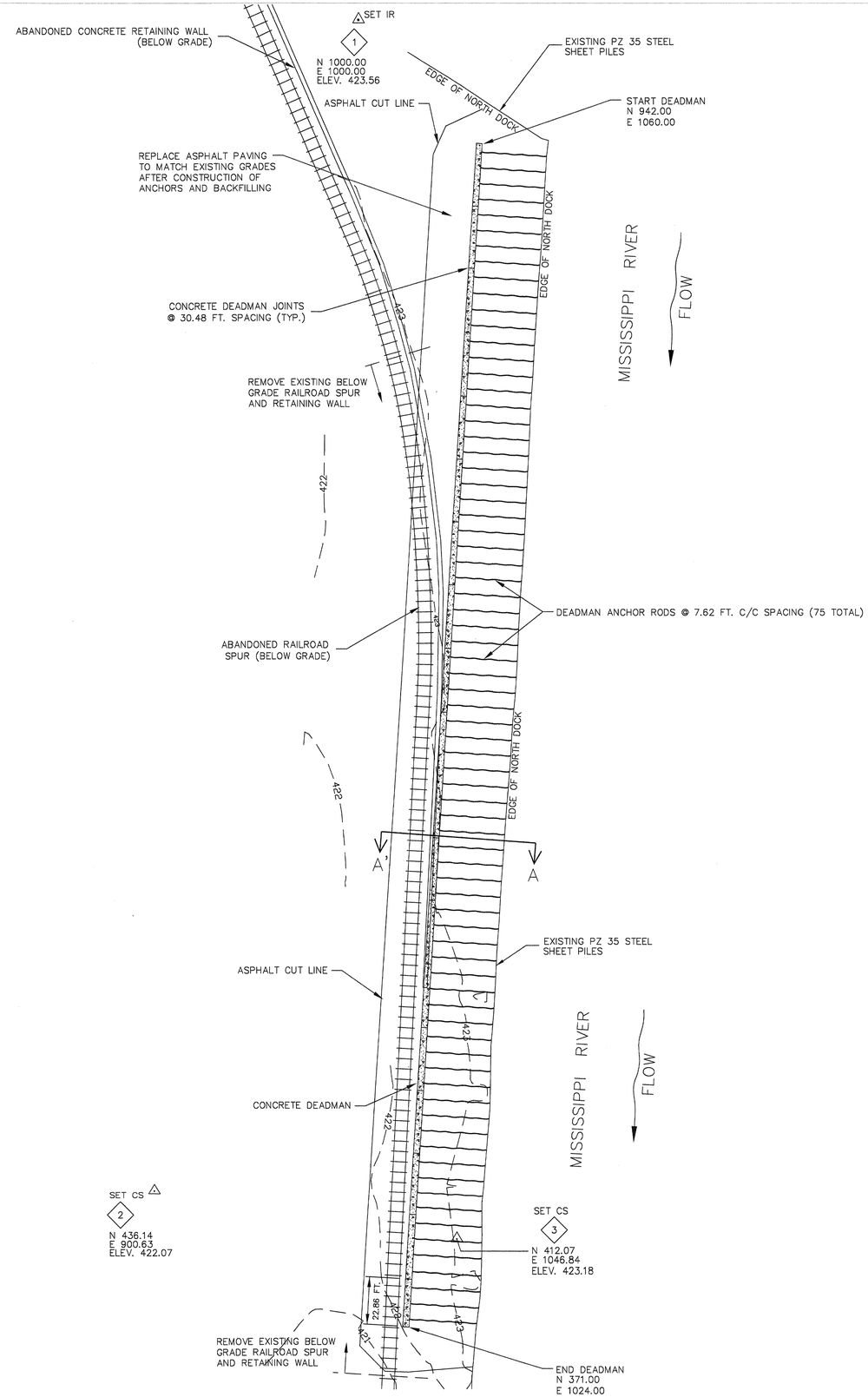
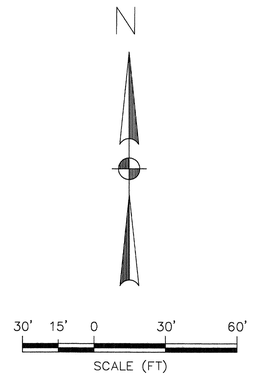


KEY

CS	COTTON SPINDLE
IR	IRON ROD
△	CONTROL POINT
◇	CONTROL POINT DESIGNATOR
422	CONTOURS, EXISTING AND FINAL



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SITE PLAN

SHEET 3 OF 5

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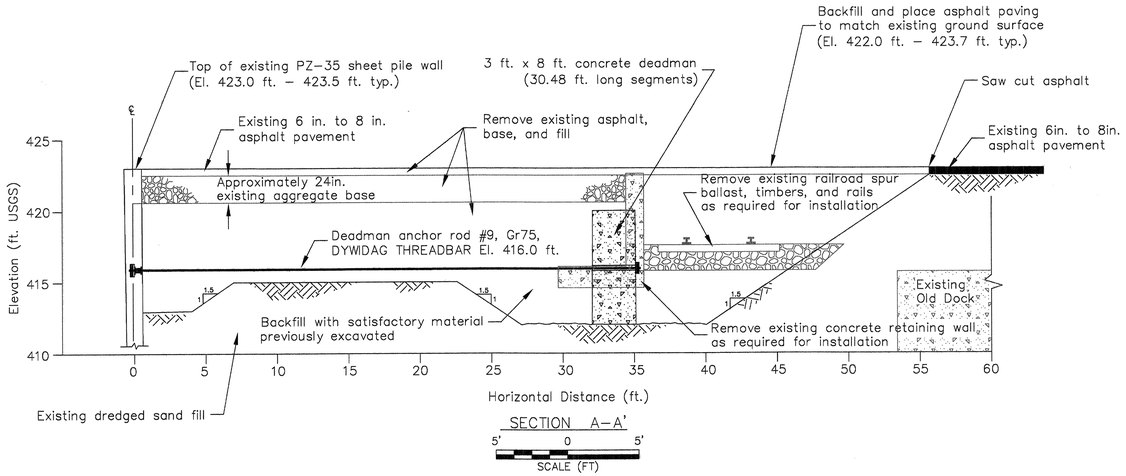
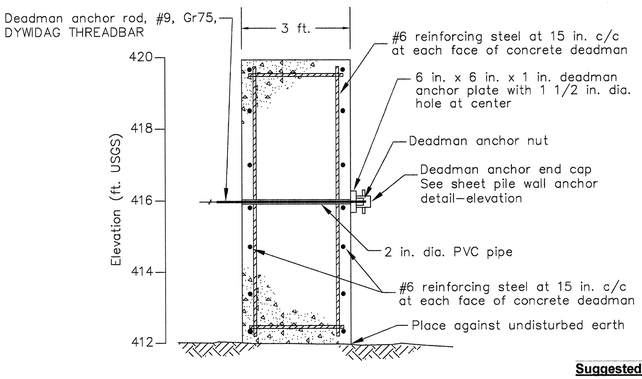


SECTION A-A'

5' 0 5'

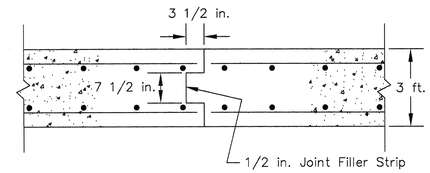
SCALE (FT)



CONCRETE DEADMAN DETAIL-ELEVATION

2' 0 2'

SCALE (FT)

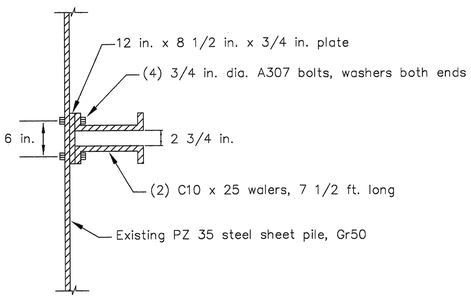


DEADMAN JOINT DETAIL-TYPICAL PLAN

Not to Scale

Suggested construction sequence

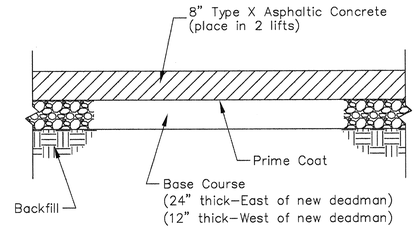
a.) Coordinate construction and staging areas with Beelman River Terminals, Inc.
b.) Saw cut asphalt and remove existing pavement.
c.) Excavate to grades shown on drawings. Remove any railroad spur or retaining wall debris encountered.
d.) Prepare subgrade for concrete deadman.
e.) Place forms, construction joints, PVC pipe, and steel reinforcement for concrete deadman as needed.
f.) Cast concrete deadman.
g.) Field burn hole for deadman anchor rod and drill holes for waler connection in existing sheet piling.
h.) Insert deadman anchor plate, trumpet, and spacer plate assembly through deadman anchor hole.
i.) Place anchor backing plate around trumpet and field weld plate to trumpet and to sheet pile wall as indicated in drawings.
j.) Install corrosion protection around deadman anchor rod.
k.) Insert deadman anchor rod into concrete deadman and then through anchor plate and trumpet assembly.
l.) Place deadman anchor plate on end of anchor rod at concrete deadman.
m.) Screw deadman anchor nuts onto anchor rod at both concrete deadman and at sheet pile wall until snug tight.
n.) Assemble waler to wall using backing plate at waler connection point as indicated in drawings.
o.) Pack trumpet with corrosion inhibiting grease and oakum. Install tape sleeve to retain grease and oakum.
p.) Backfill and compact soil between concrete deadman and existing sheet pile wall.
q.) Stress deadman anchor rods to a load of 45 kips each.
r.) After successful stressing of deadman anchor rods, cut ends of anchor rod to allow assembly of anchor end cups.
s.) Anchor end cups should be installed and filled with corrosion inhibiting grease.
t.) Anchor protection plate should be installed above anchor at sheet pile wall as shown on drawings.
u.) Backfill and compact soil behind concrete deadman.
v.) Backfill and compact soil and install base course and asphalt as necessary to restore original grades.



SHEET PILE WALL WALER DETAIL - ELEVATION

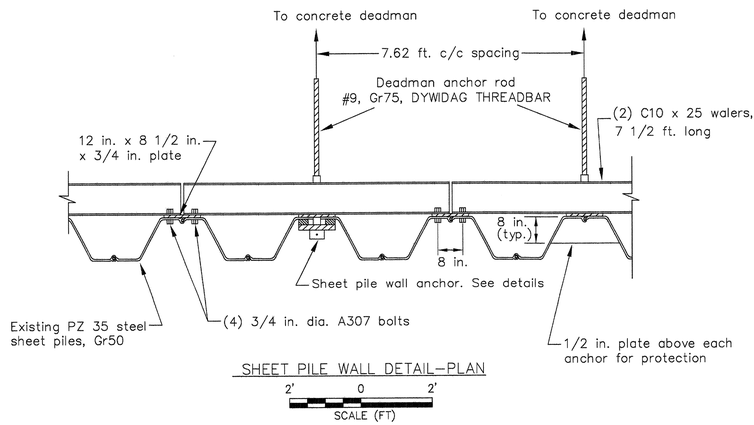
1' 0 1'

SCALE (FT)



ASPHALT PAVING DETAIL

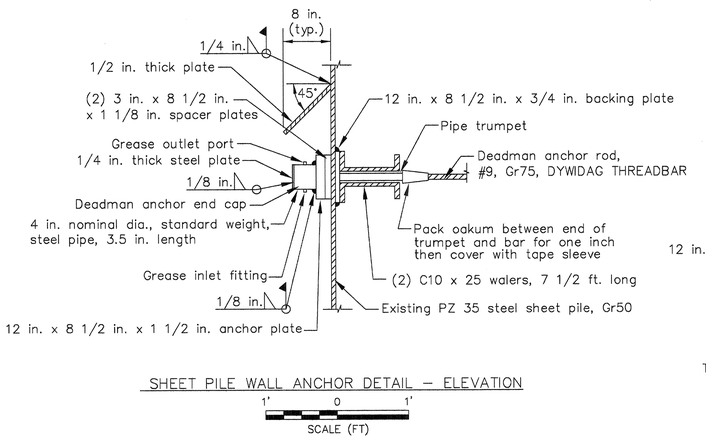
Not to Scale



SHEET PILE WALL DETAIL-PLAN

2' 0 2'

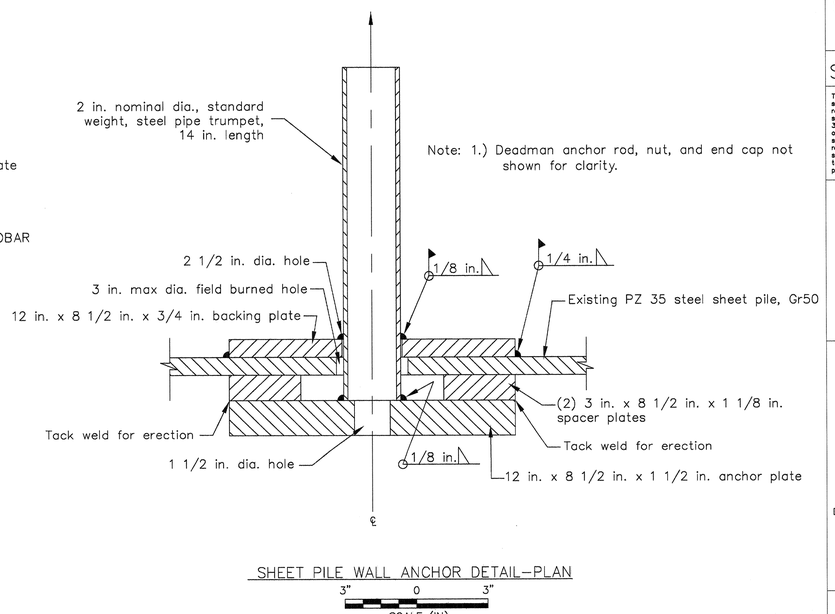
SCALE (FT)



SHEET PILE WALL ANCHOR DETAIL - ELEVATION

1' 0 1'

SCALE (FT)



SHEET PILE WALL ANCHOR DETAIL-PLAN

3" 0 3"

SCALE (IN)

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SECTIONS AND DETAILS

SHEET 4 OF 5

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AS-BUILT DRAWING
See General Note 3

General Notes

1.) Underground facilities, structures and utilities have been plotted from available surveys and records and, therefore, their locations must be considered approximate only. It shall be the contractor's responsibility to verify the location of all underground utilities and other features related to the proposed work prior to beginning construction. Discrepancies found shall be reported to the Owner's Representative.

2.) Work performed within the public right-of-way shall conform to requirements of the City of St. Louis.

3.) Positions of existing project elements prepared on the basis of as-built drawings from Booker Associates, Inc., dated 4/21/86. See plan view for position of existing project elements relative to existing North Dock.

4.) Grayscale lines show location of possible existing below ground structures.

5.) Possibility that concrete gutter, drain grate inlets, and sub-drains may be encountered in excavation west of railroad debris.

6.) Asphaltic Concrete shall be installed in accordance with City of St. Louis, Standard Specification, Section 02600. Prepare base course for asphalt in accordance with City of St. Louis, Standard Specification, Section 02300.

7.) Construction of deadman anchor system will be carried out in 3 stages. Approximately 250 ft. of the dock will be closed during each stage. Construction and staging areas shall be coordinated with Beelman River Terminals, Inc.

8.) Deadman anchors should be placed horizontally at locations above existing rock anchors.

9.) Care should be taken during construction to ensure deadman anchor plate concrete bearing surface is planar.

10.) Steel reinforcement in concrete deadman should be placed so a minimum of 3 in. of concrete cover is maintained.

11.) All bolt holes in plates, channels, and sheet pile are drilled, standard size.

12.) Deadman anchor rod sheathed with Ray Chem heat shrink tubing containing corrosion inhibiting grease or equivalent along entire length. Trumpet and anchor end caps packed with corrosion inhibiting grease.

13.) Deadman anchor rods stressed to load of 45 kips each.

14.) See suggested construction sequence for details, sheet 4.

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GENERAL NOTES
AND
AS-BUILT DRAWING

SHEET 5 OF 5

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