

# ROCK RIVER WATER RECLAMATION DISTRICT

## PRIMARY CLARIFIERS 1-4 & PARSHALL FLUME CAPITAL IMPROVEMENT PROJECT #1706

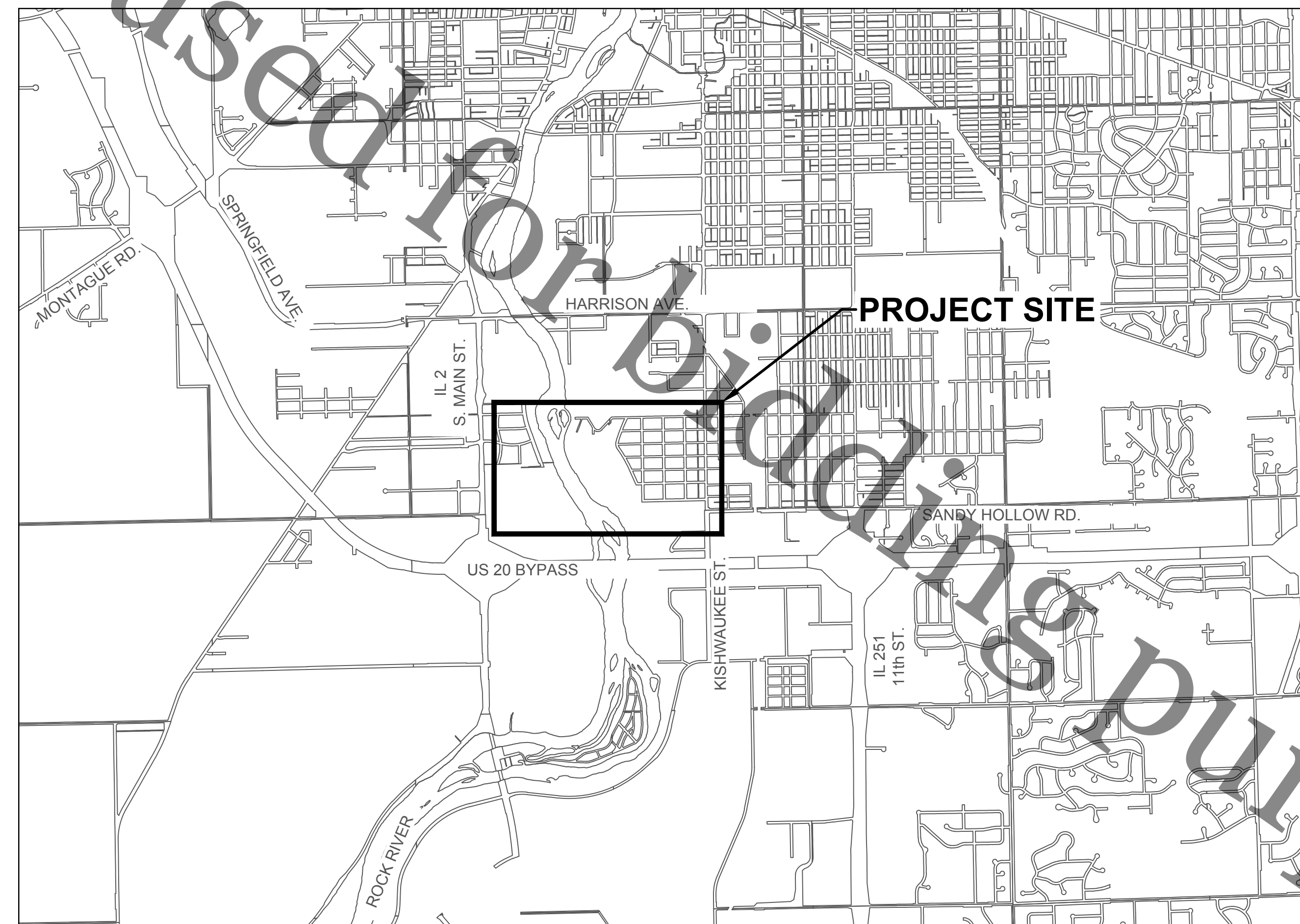
2018

### BOARD OF TRUSTEES

DONALD MASSIER    PRESIDENT  
 ELMER JONES      VICE-PRESIDENT  
 RICHARD POLLACK    CLERK/TREASURER  
 JOHN SWEENEY      TRUSTEE  
 BEN BERNSTEN      TRUSTEE

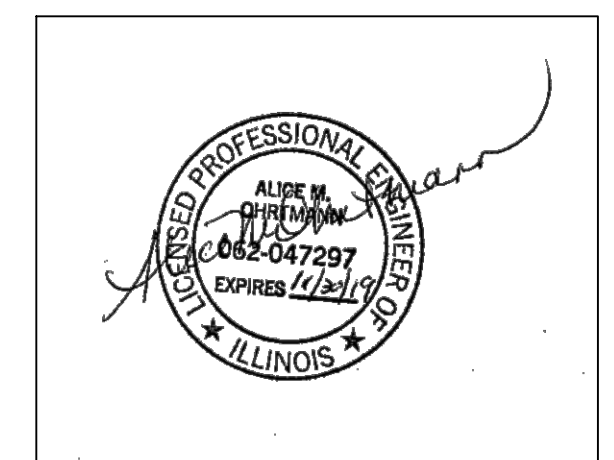
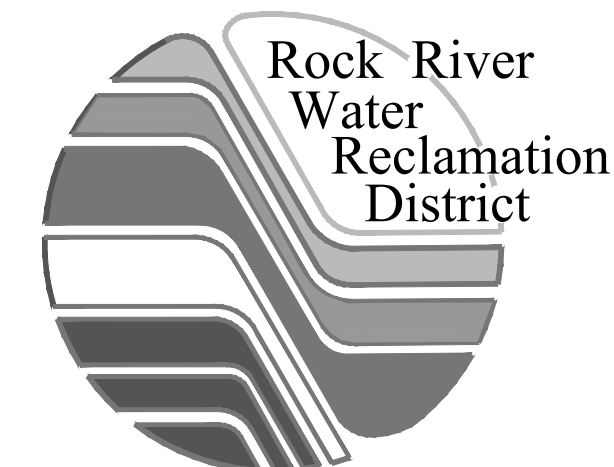
### OFFICIALS

TIMOTHY S. HANSON    DISTRICT DIRECTOR  
 CHRISTOPHER T. BAER, PE    ENGINEERING MANAGER



WINNEBAGO COUNTY, ILLINOIS

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**LEGEND**

EXISTING	PROPOSED	
---	---	RIGHT OF WAY LINE
---	---	PROPERTY LINE
///	///	BUILDING
~	~	WATER EDGE
---	---	EASEMENT - SANITARY
---	---	EASEMENT - TEMPORARY CONSTRUCTION BRUSH OR TREE LINE
→	→	DITCH FLOWLINE
---	---	CONTOUR - MAJOR
---	---	CONTOUR - MINOR
x-x	x-x	FENCE
		FENCE - TEMPORARY CONSTRUCTION
SF	SF	FENCE - SILT
---	---	ROADWAY CENTERLINE
---	---	EDGE OF PAVEMENT
		CURB & GUTTER
		GUARD RAIL
		RAILROAD TRACKS
OC		CABLE - OVERHEAD
UC		CABLE - UNDERGROUND
OE		ELECTRIC - OVERHEAD
UE		ELECTRIC - UNDERGROUND
FO		FIBER OPTIC
G		GAS LINE
OT		TELEPHONE - OVERHEAD
UT		TELEPHONE - UNDERGROUND
TV, E, T, HH, GM, EM		PEDESTALS (CATV, ELEC, TELE), HANDHOLE, GAS METER, ELEC. METER
BM 1		BENCHMARK
△		MAILBOX
○	○	UTILITY POLE W/ GUY WIRE & MAST ARM LIGHT POLE
○	○	TREE (DECIDUOUS & CONIFEROUS)
○	○	BRUSH & SHRUB
XXX.XX	XXX.XX	SPOT ELEVATION
HMA, CONC.	AGG., TURF	EXISTING SURFACE TYPE (HOT-MIX ASPHALT, AGGREGATE CONCRETE, TURF)

**LEGEND**

EXISTING	PROPOSED	
○	○	SANITARY MANHOLE & SANITARY SEWER
○	○	SANITARY SEWER SERVICE & CLEANOUT
FM	FM	SANITARY FORCEMAIN
---	---	STORM SEWER
○	○	STORM MANHOLE, CATCH BASIN, CURB INLET, INLET SPECIAL
---	---	DRAINAGE CULVERT
W	W	WATER MAIN
WS	WS	WATER SERVICE & WATER SERVICE VALVE
⊗	⊗	WATER MAIN VALVE
⊗	⊗	WATER MAIN VALVE WITH BOX
⊗	⊗	WATER MAIN VALVE WITH VAULT
△	△	WATER MAIN REDUCER
○	○	FIRE HYDRANT
⊗	⊗	DITCH CHECK
⊗	⊗	INLET OR PIPE PROTECTION
⊗	⊗	STABILIZED CONSTRUCTION ENTRANCE
⊗	⊗	EROSION CONTROL BLANKET
⊗	⊗	SEEDING AREA
⊗	⊗	PAVEMENT REPLACEMENT
⊗	⊗	AGGREGATE REPLACEMENT
⊗	⊗	RIP RAP

**ABBREVIATIONS**

SAN. = SANITARY	LF = LINEAR FEET
MH = MANHOLE	FT = FEET
C.O. = CLEANOUT	SY = SQUARE YARD(S)
VCP = VITRIFIED CLAY PIPE	EA = EACH
LINCIPP = LINED WITH CURED IN PLACE PIPE	CY = CUBIC YARD(S)
RCP = REINFORCED CONCRETE PIPE	LS = LUMP SUM
DI = DUCTILE IRON	PVMNT = PAVEMENT
CMP = CORRUGATED METAL PIPE	TY. = TYPE
ABD. = ABANDON(ED)	UNK. = UNKNOWN
REM. = REMOVE(D)	EL. = ELEVATION
REPL. = REPLACE(D)	EX. = EXISTING
	PR. = PROPOSED

<b>DTL</b> SHT	<b>DETAIL DESC.</b> SCALE: AS NOTED	= DETAIL OR SECTION #, SHEET DETAIL OR SECTION IS ORIGINATED FROM, DESCRIPTION, AND SCALE.
<b>SEC</b> SHT		= SECTION #, SHEET SECTION IS SHOWN ON.
<b>DTL</b> SHT		= DETAIL #, SHEET DETAIL IS SHOWN ON, AND POINT OF VIEW.

**GENERAL NOTES**  
**ALUM. MECH. SUB-ASSEMBLED**

100

- ALL RAILS WHEN PROPERLY INSTALLED SHALL MEET OR EXCEED OSHA REQUIREMENTS.
- ALL RAIL IS TO BE OF MECHANICAL CONSTRUCTION.
- ALL RAIL, POSTS, & COMPONENTS ARE TO BE 6063-T6.
- ALL FASTENERS ARE TO BE 316 STAINLESS STEEL.
- ALL RAILING SURFACES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS SHALL RECEIVE ONE COAT OF ZINC CHROMATE.
- ALL RAILS ARE SHIPPED LOOSE IN 24'-0" STOCK LENGTHS FOR FIELD CUTTING & DRILLING AS REQUIRED.
- ALL POSTS ARE CUT TO LENGTH WITH FITTINGS ATTACHED. (EXCEPT FOR TOP FITTINGS AT INTERMEDIATE POSTS)
- CAST BASE PLATES TO BE FIELD ATTACHED.
- FINISH TO BE CLEAR SATIN ANODIZED (0.01 MIL.)
- MAX. POST SPACING IS 5'-0" O.C.
- ALL BENDS TO BE FIELD CUT.

**CAUTION:**

CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING CONSTRUCTION TO AVOID DROPPING TOOLS OR ALLOWING CONSTRUCTION DEBRIS TO FALL INTO CLARIFIER TANKS OR PARSHALL FLUME

**TYPICAL NOTES**  
**"Z" TOE BOARD**

250

- 4" EXTRUDED ALUM. "Z" SHAPE.
- SHIPPED LOOSE IN 24'-0" LENGTHS FOR FIELD CUTTING, DRILLING, MITERING, NOTCHING AND CURVING.
- INSTALL TOE BOARD ON WALKING SURFACE SIDE OF RAILING W/ 1/4" CLEARANCE FROM WALKING SURFACE.
- ALL FASTENERS ARE TO BE 316 STAINLESS STEEL.
- ALL HARDWARE TO BE FIELD DRILLED.

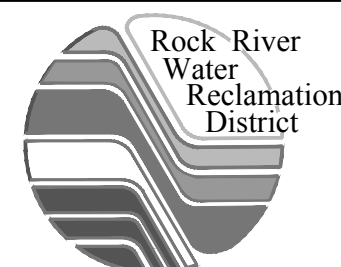
**SUMMARY OF QUANTITIES**

No.	ITEM	UNIT	QTY.
1	REMOVAL & DISPOSAL OF GUARDRAIL SYSTEM AND FENCING, COMPLETE	LS	1
2	1-1/2" DIA. ALUMINUM PIPE RAILING WITH 4" TOE PLATE, COMPLETE	LF	2500
3	REMOVABLE 4' GUARD RAIL SECTIONS, COMPLETE	EA	48
4	DAVIT RECEIVER BRACKETS	EA	48

**PROJECT LOCATION & ACCESS MAP**



file: I:\District Projects\Clarifier Railings 1706\Survey\Field Data\Primary Clarifiers 1-4 & Parshall Flume.dwg



**ROCK RIVER WATER RECLAMATION DISTRICT**  
3501 KISHWAUKEE STREET  
ROCKFORD, ILLINOIS 61109  
(815) 387-7660

No.	DATE	REVISION	INT.

**PRIMARY CLARIFIERS 1-4 & PARSHALL FLUME**  
**CAPITAL IMPROVEMENT PROJECT #1706**

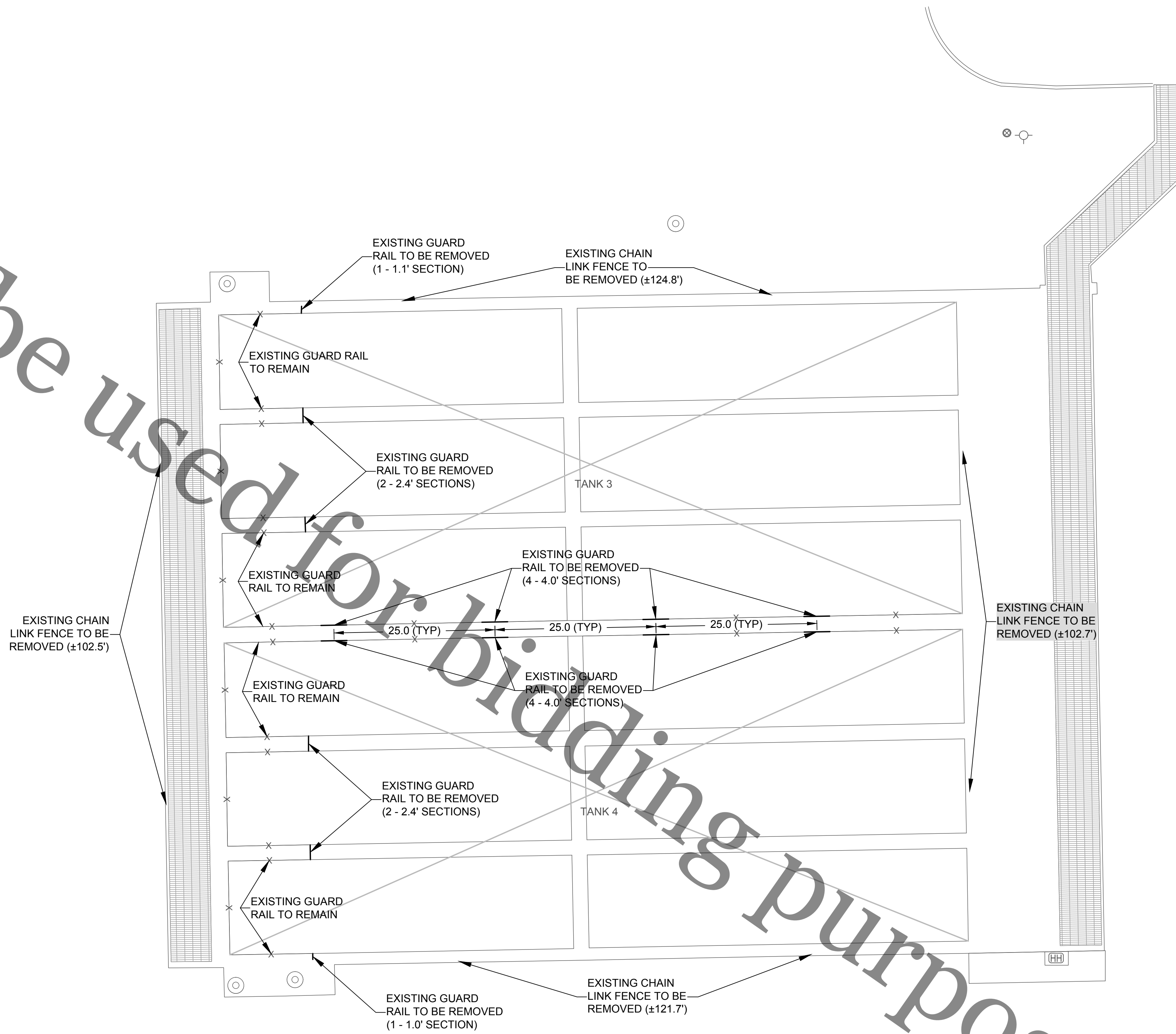
**LEGEND, GENERAL NOTES, & SUM OF QTYS**

FOR BID

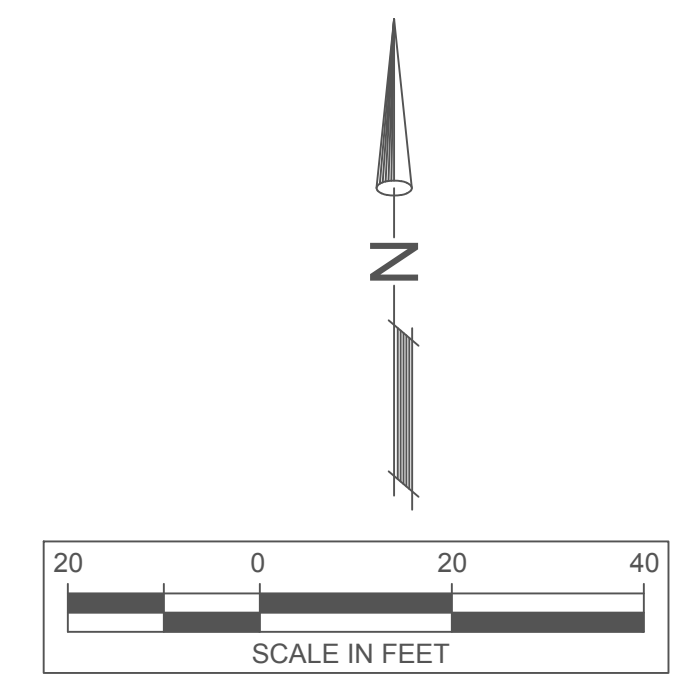
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**NOTE:**

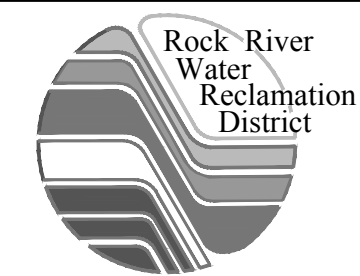
- REMOVE AND PROPERLY DISPOSE OF EXISTING CHAIN LINK FENCE AND 1 1/2" DIA. GALVANIZED STEEL RAILING, (2 RAILS AND 4" TOE PLATE).
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING CONSTRUCTION TO AVOID DROPPING TOOLS OR ALLOWING CONSTRUCTION DEBRIS TO FALL INTO CLARIFIER TANKS OR PARSHALL FLUME.



SEE SHEET 4



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**CLARIFIERS 3 & 4 - EXISTING CONDITIONS & DEMO**

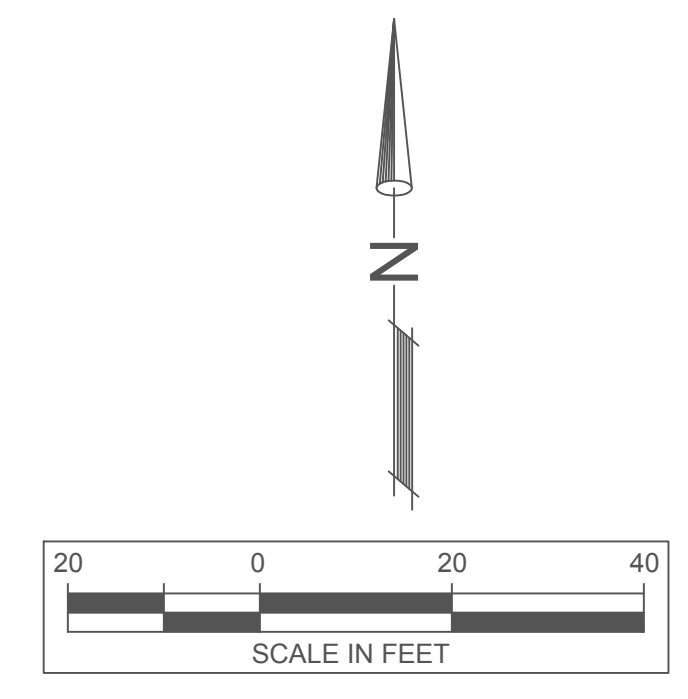
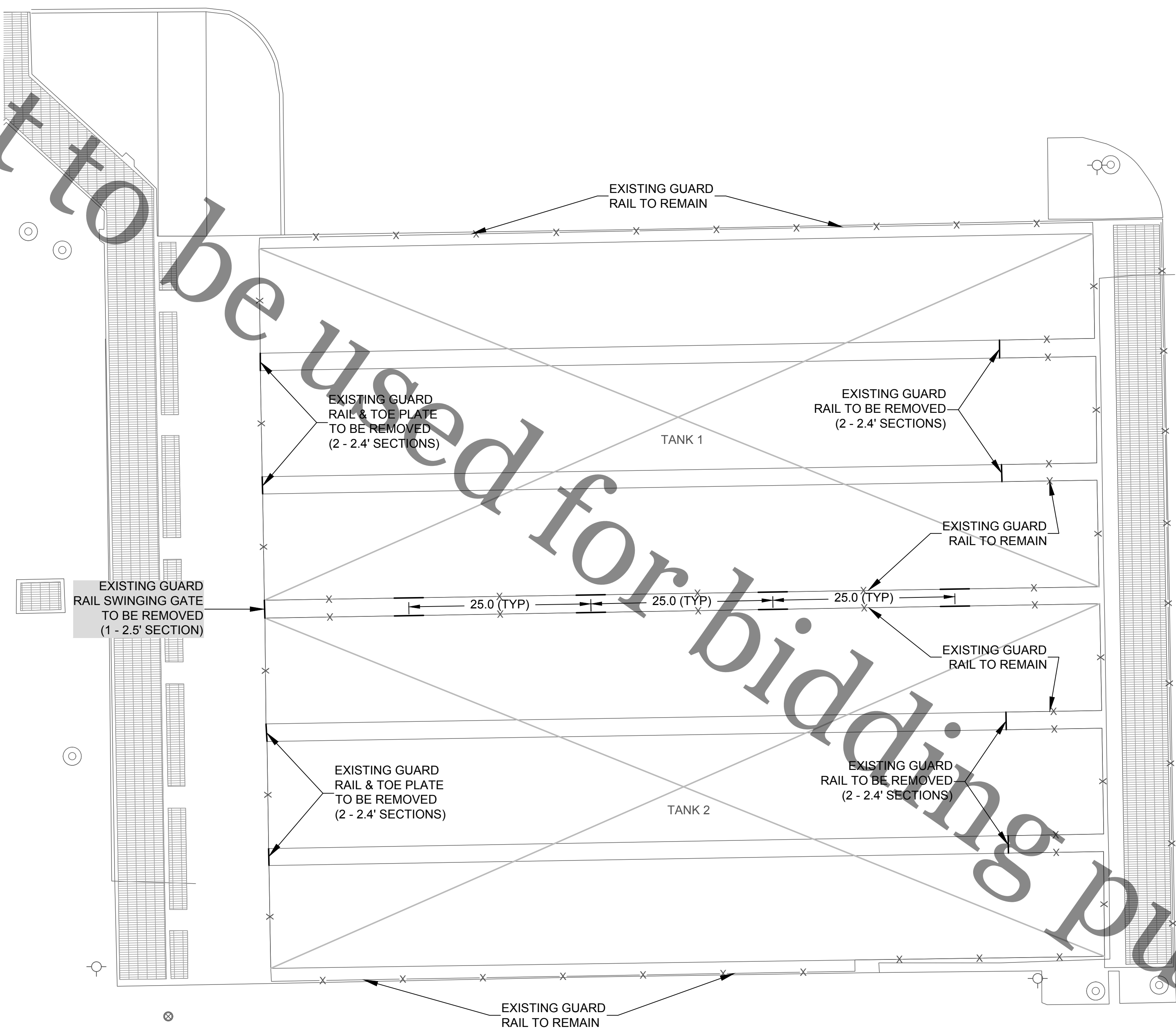
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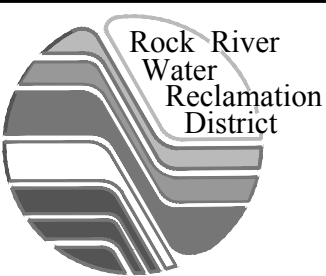
Not to be used for bidding purposes

- NOTE:**
- REMOVE AND PROPERLY DISPOSE OF EXISTING CHAIN LINK FENCE AND 1 1/2" DIA. GALVANIZED STEEL RAILING, (2 RAILS AND 4" TOE PLATE).
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SEE SHEET 3



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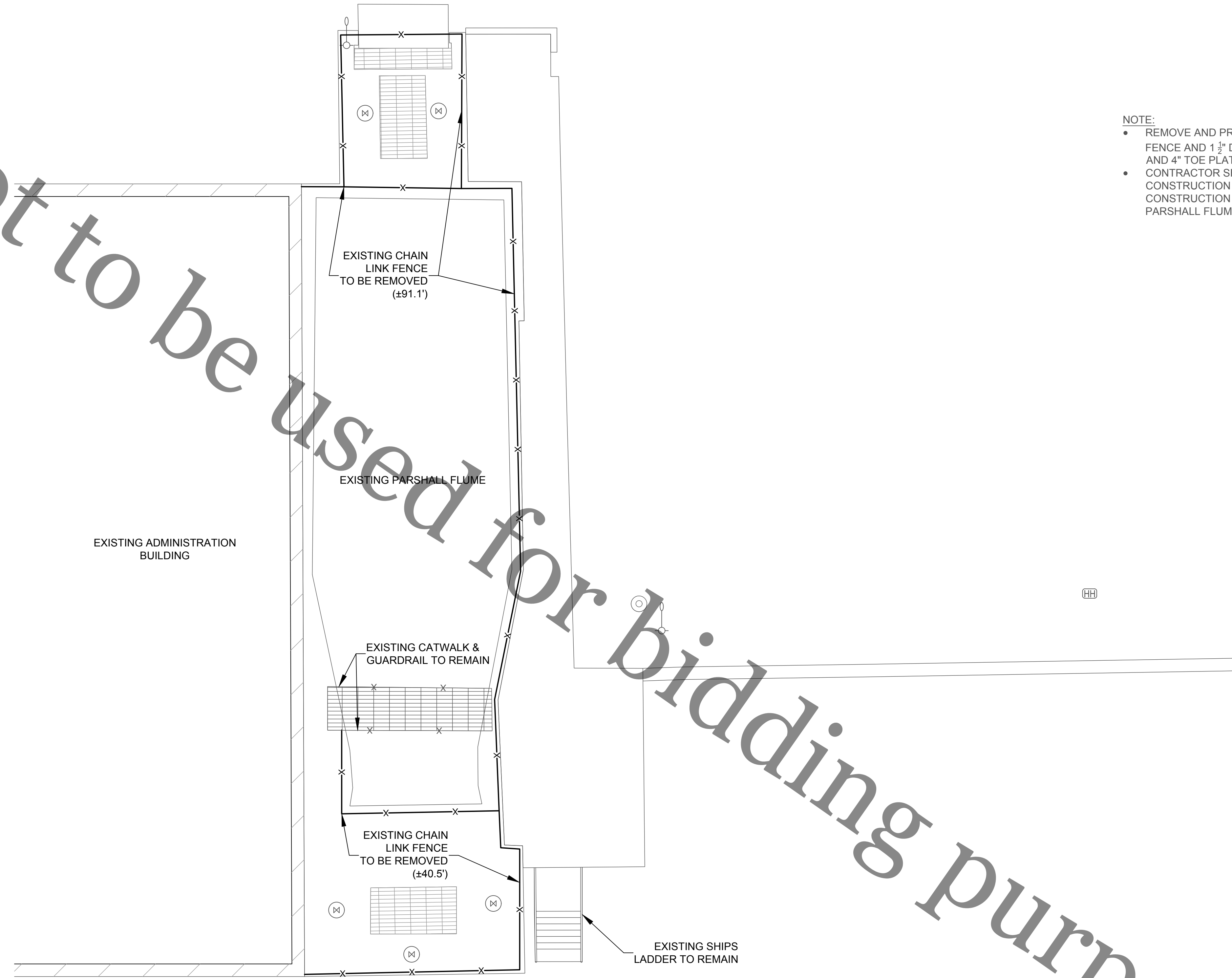
**CLARIFIERS 1 & 2 - EXISTING CONDITIONS & DEMO**

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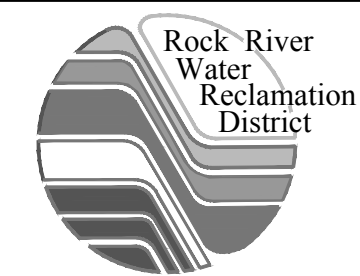
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4 OF 10  
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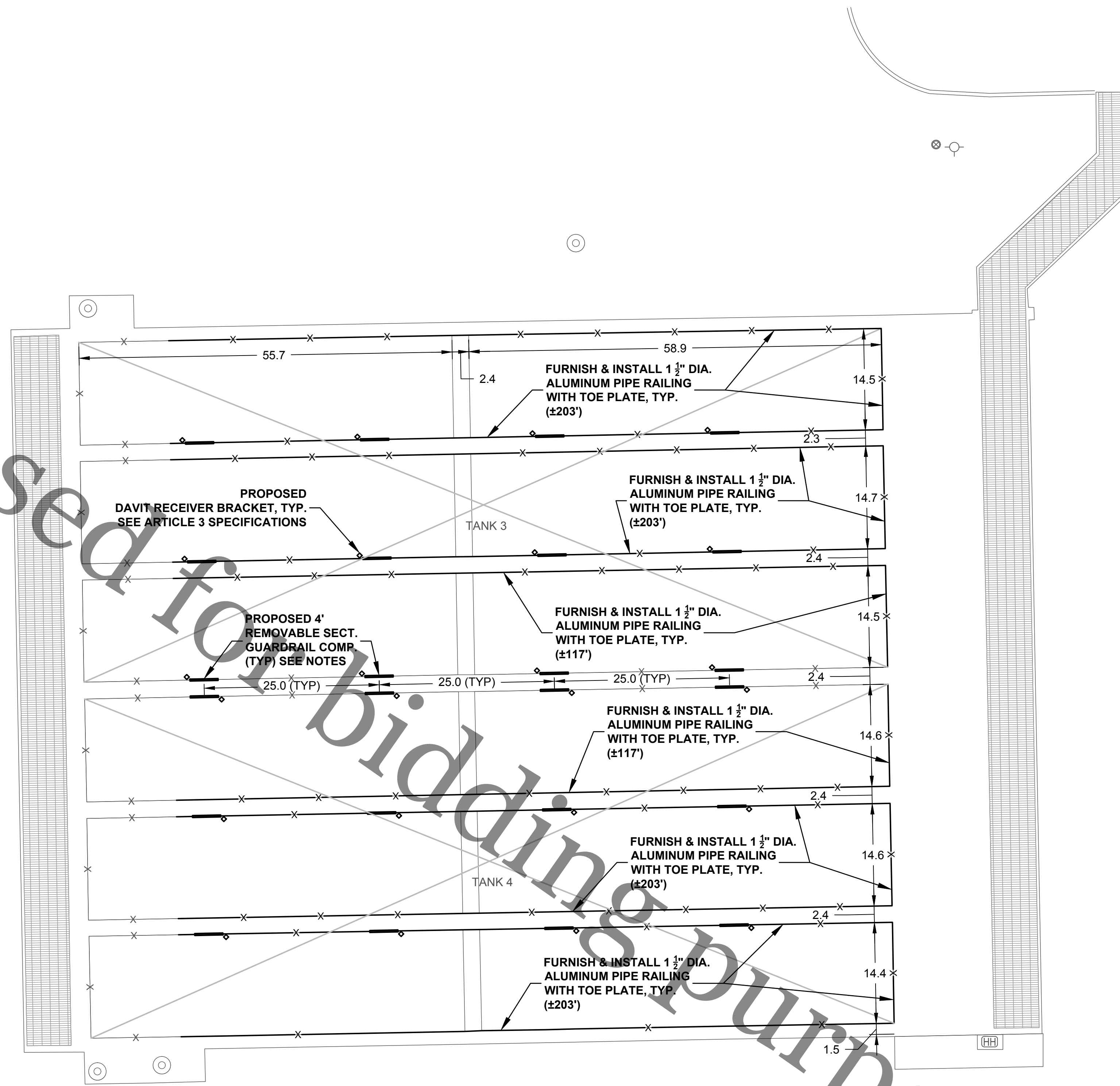
**PRIMARY CLARIFIERS 1-4 & PARSHALL FLUME**  
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**PARSHALL FLUME - EXISTING CONDITIONS & DEMO**

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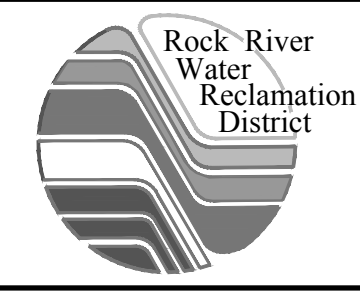


SEE SHEET 7

**NOTE:**

- PROVIDE 1 DAVIT RECEIVER BRACKET FOR DAVIT AT EACH REMOVABLE GUARD RAIL SECTION; BEST HOIST PRO SERIES PERMANENT BASES, 4 POINT WALL MOUNT BASE OR APPROVED EQUAL (48 TOTAL).
- REMOVABLE GUARD RAIL SECTIONS SHALL MATCH PERMANENT GUARD RAIL (DETAIL 102/SHEET 9). THE WALL BRACKET SHALL BE AS SHOWN IN DETAIL 154/SHEET 9. (TYP. OF 48)
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING CONSTRUCTION TO AVOID DROPPING TOOLS OR ALLOWING CONSTRUCTION DEBRIS TO FALL INTO CLARIFIER TANKS OR PARSHALL FLUME.

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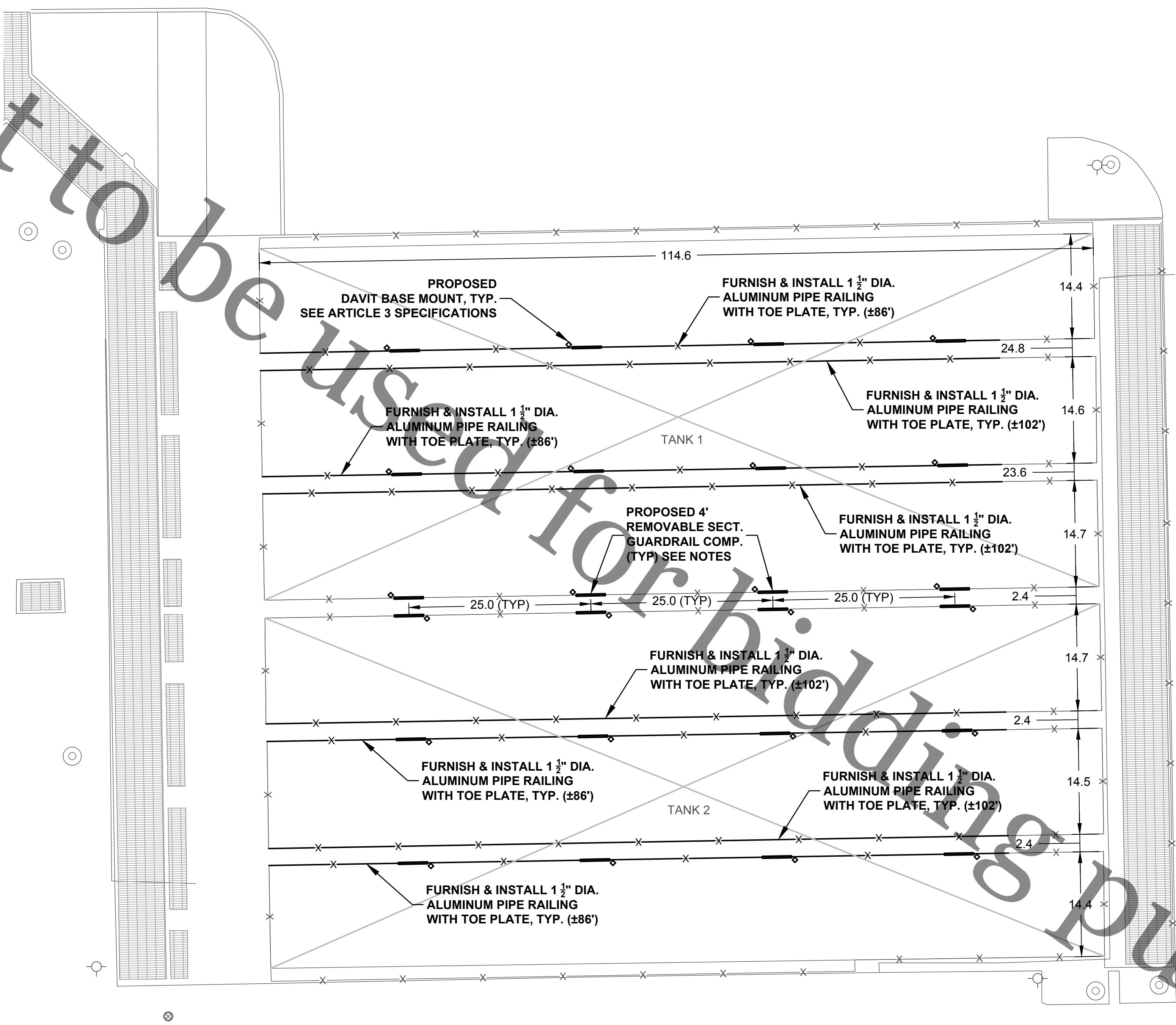
**CLARIFIERS 3 & 4 - PROPOSED**

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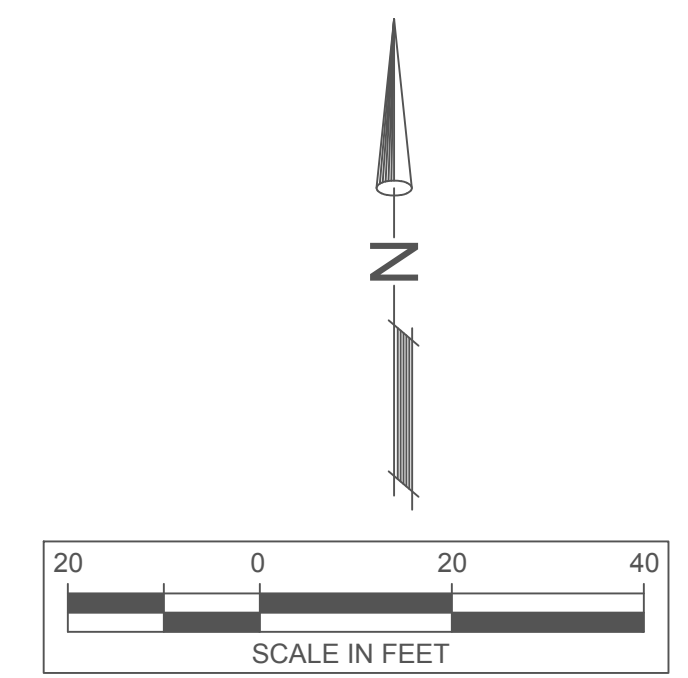
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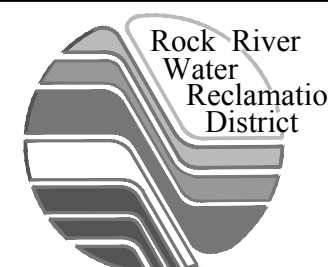


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**PRIMARY CLARIFIERS 1-4 & PARSHALL FLUME  
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**CLARIFIERS 1 & 2 - PROPOSED**

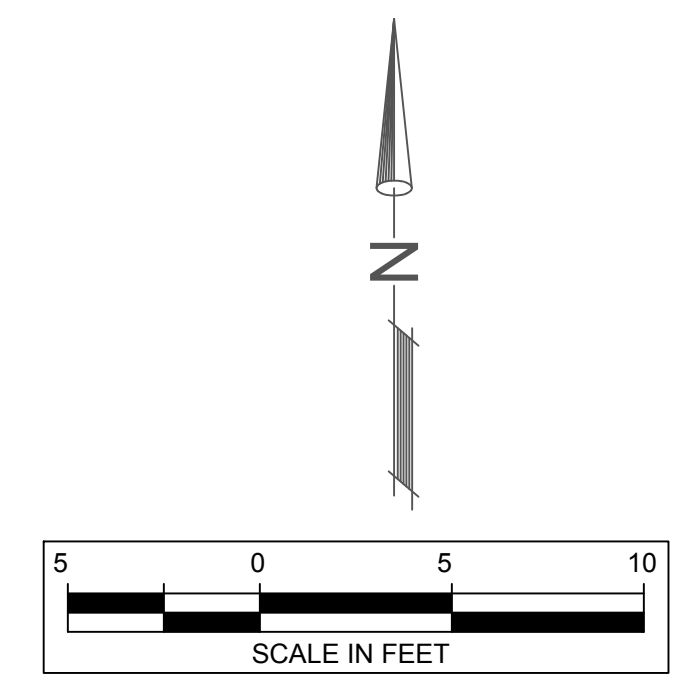
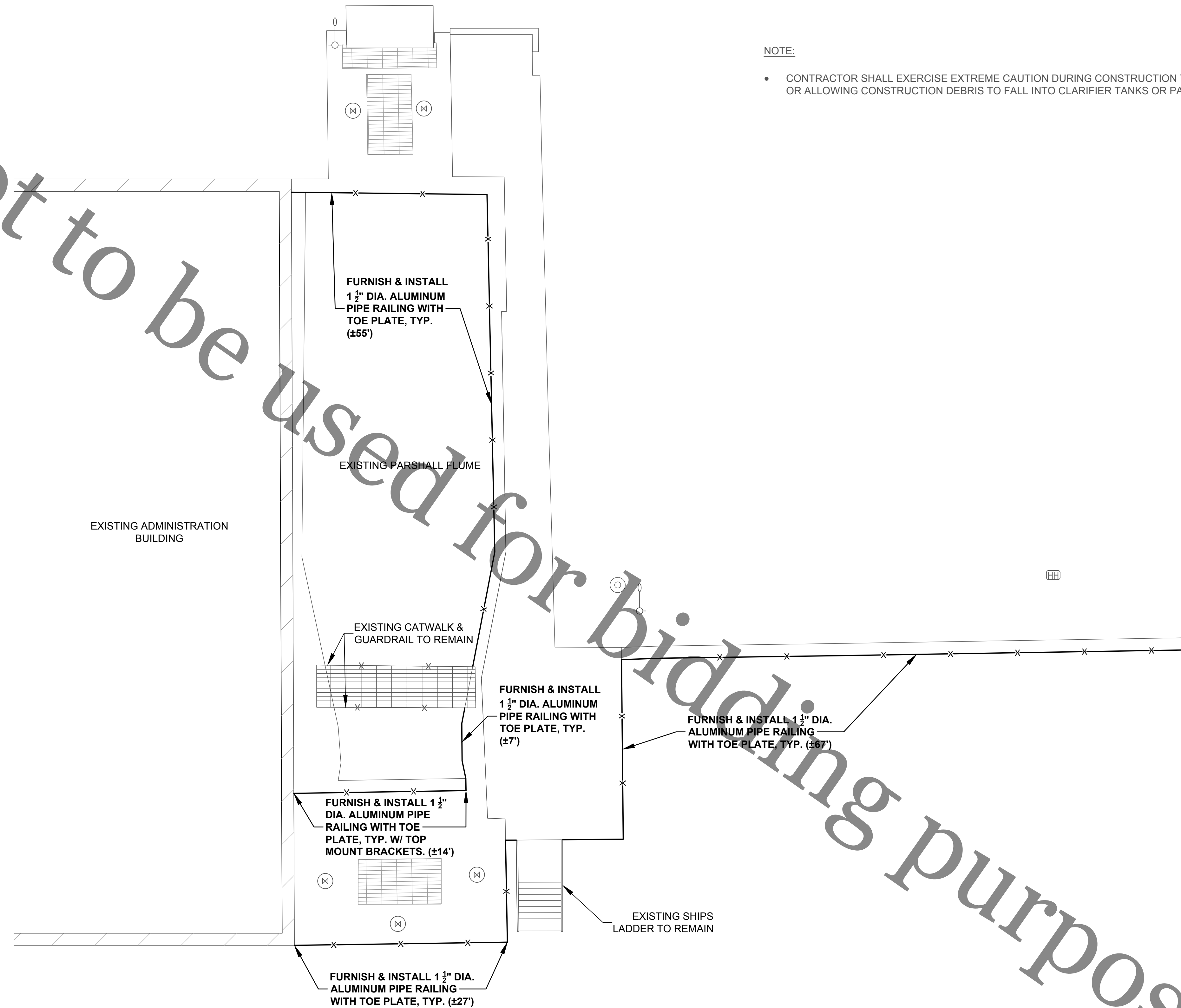
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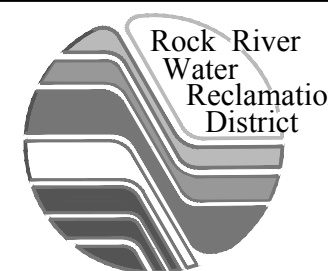
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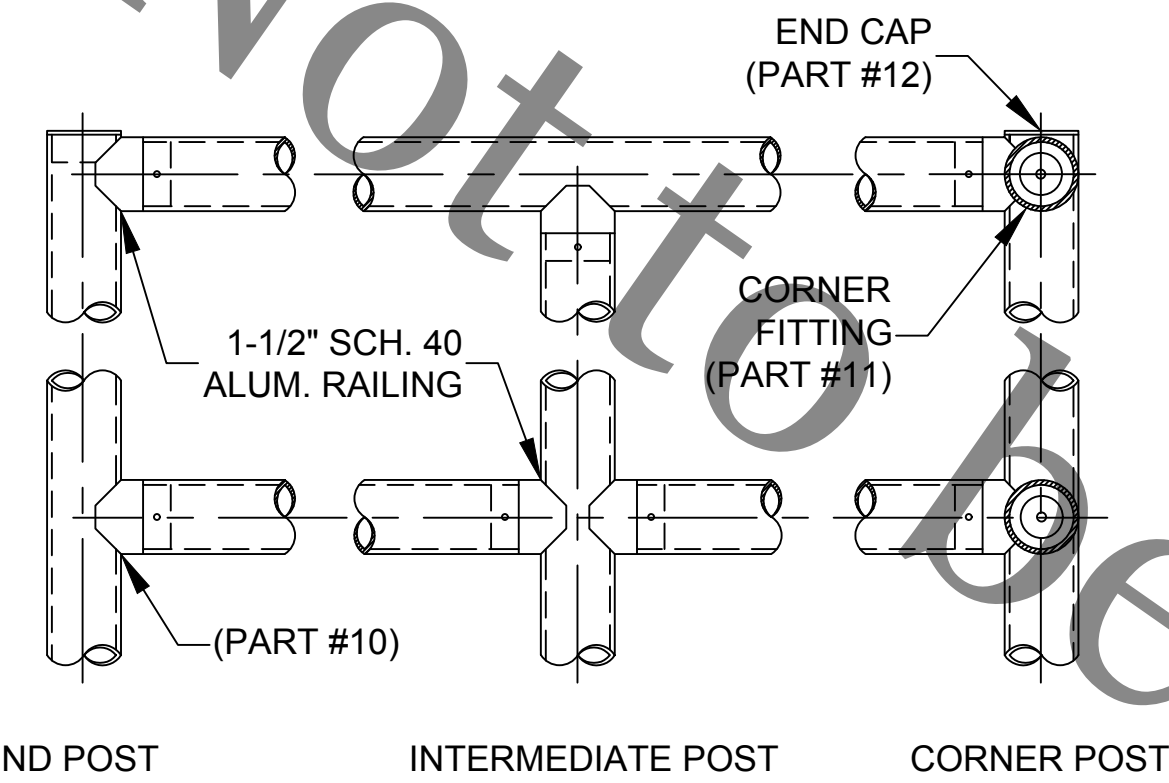
**PARSHALL FLUME - PROPOSED**

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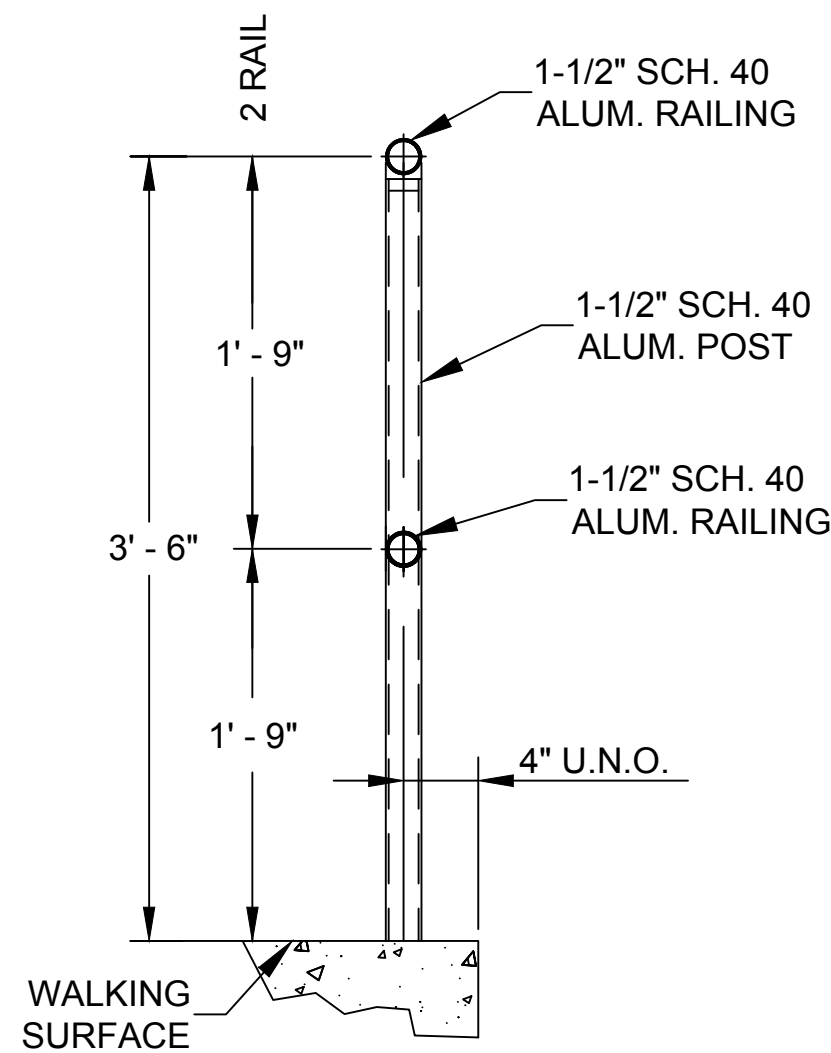
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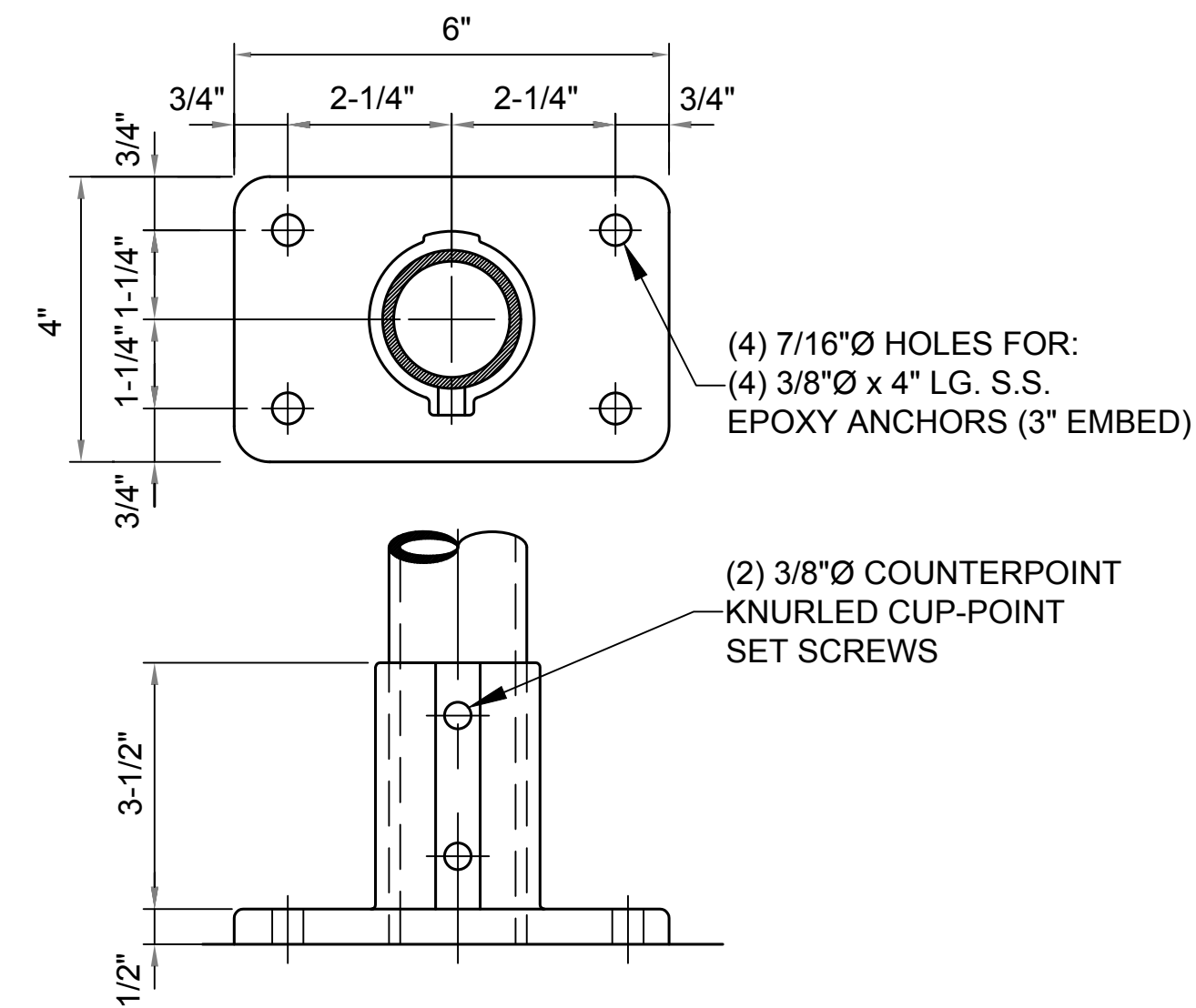
- FITTINGS ATTACHED TO INTERMEDIATE POSTS W/ (1) 1/4"Ø x 2-3/4" LG. S.S.M.B. (PART #49)
- FITTINGS ATTACHED TO END POSTS, CORNER POSTS, & TOP RAILS W/ (1) #17 x 1" LG. S.S. TEK-SCREW. (PART #46)
- RAILING ATTACHED TO FITTINGS W/ (2) 1/8"Ø S.S. RIVETS. (PART #47)



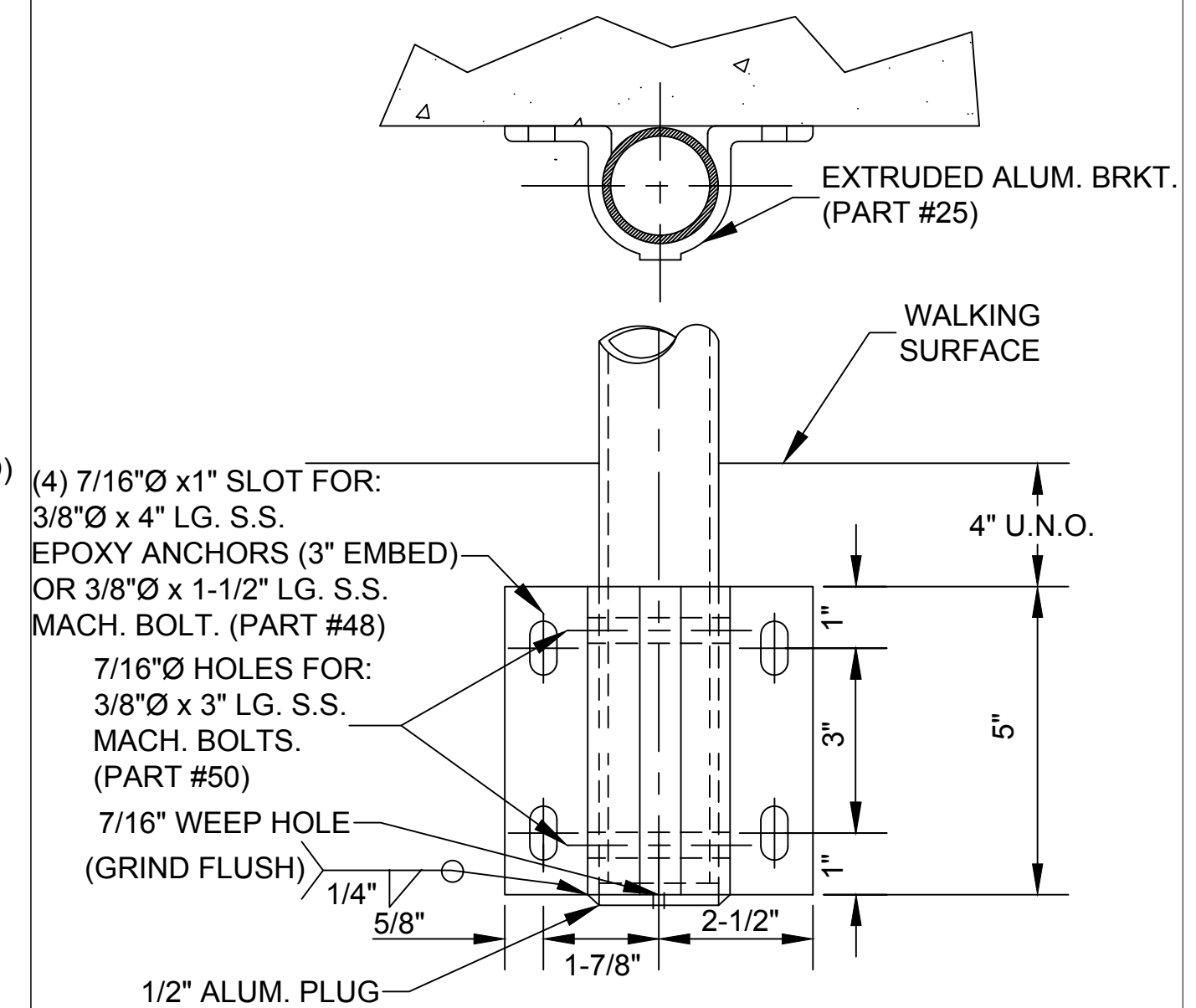
HORIZONTAL RAIL CONNECTIONS 102



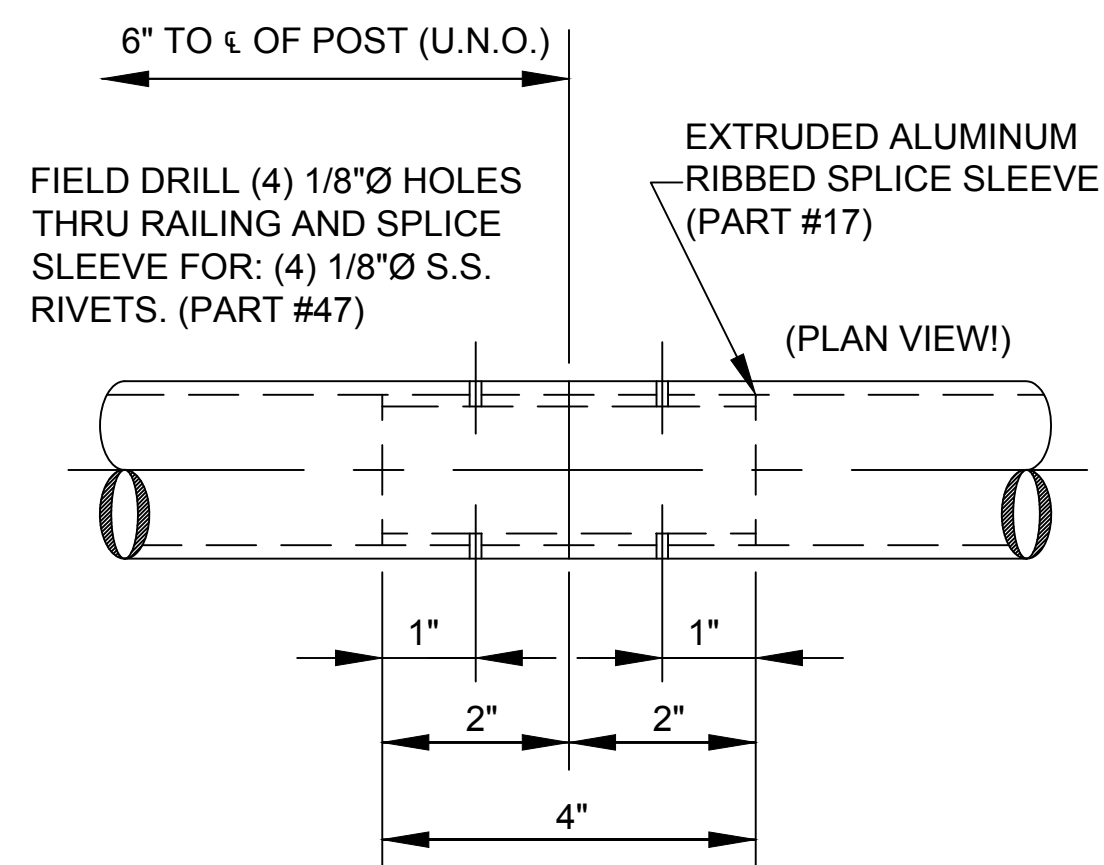
HORIZONTAL RAIL SPACING 103



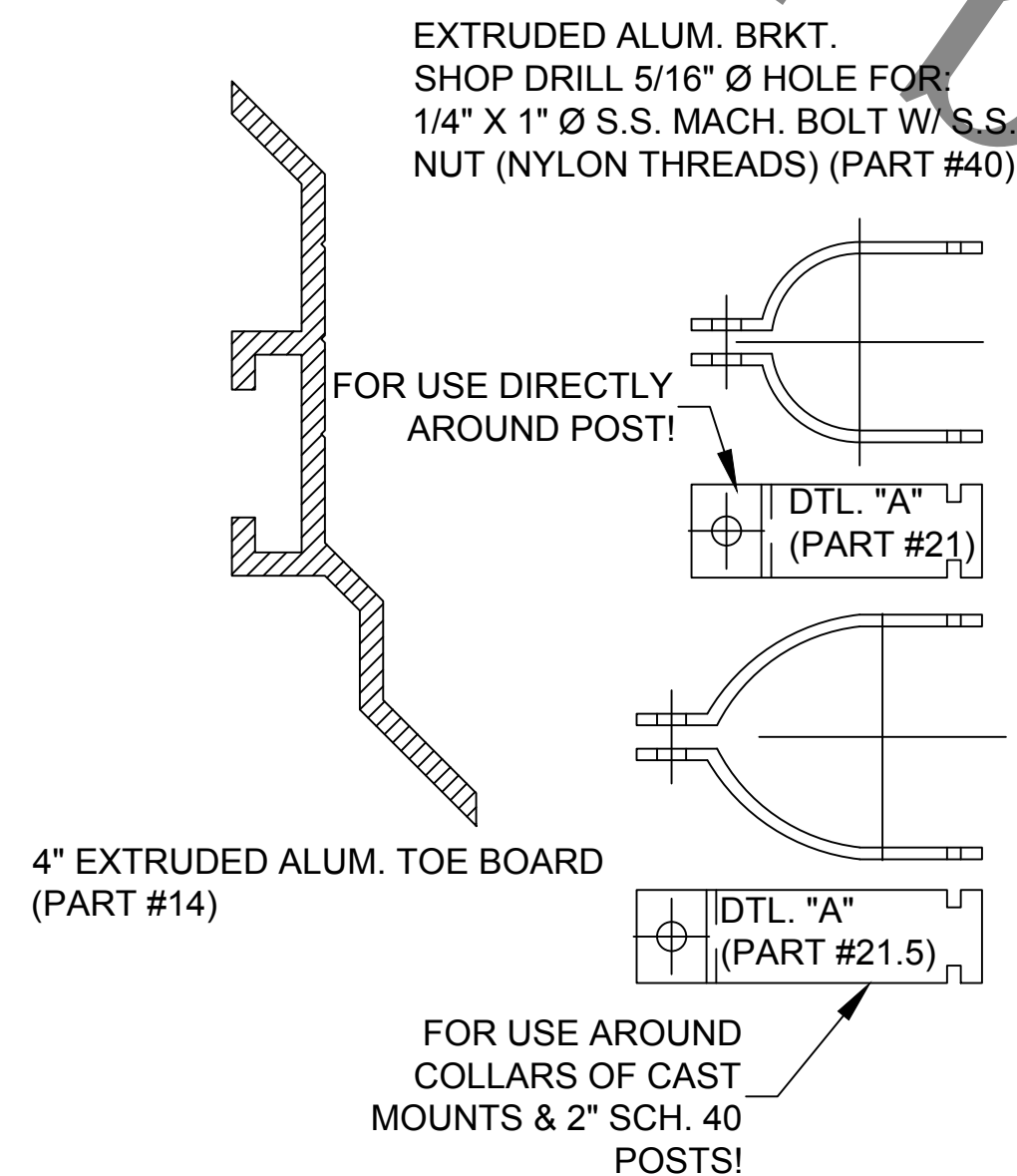
LEVEL CAST BASE MOUNT (4) HOLE 120



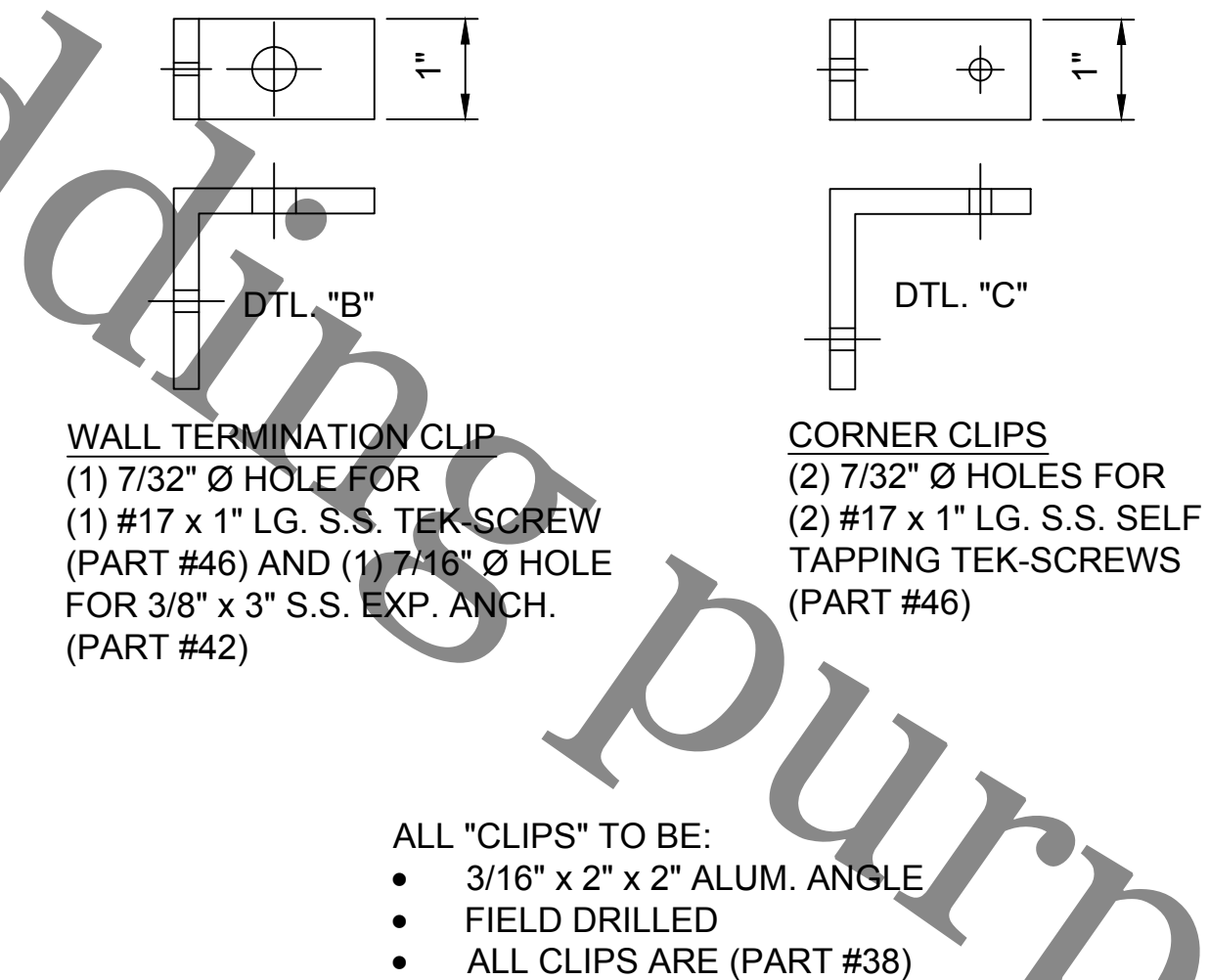
REMOVABLE SIDE MT. BRACKET 154



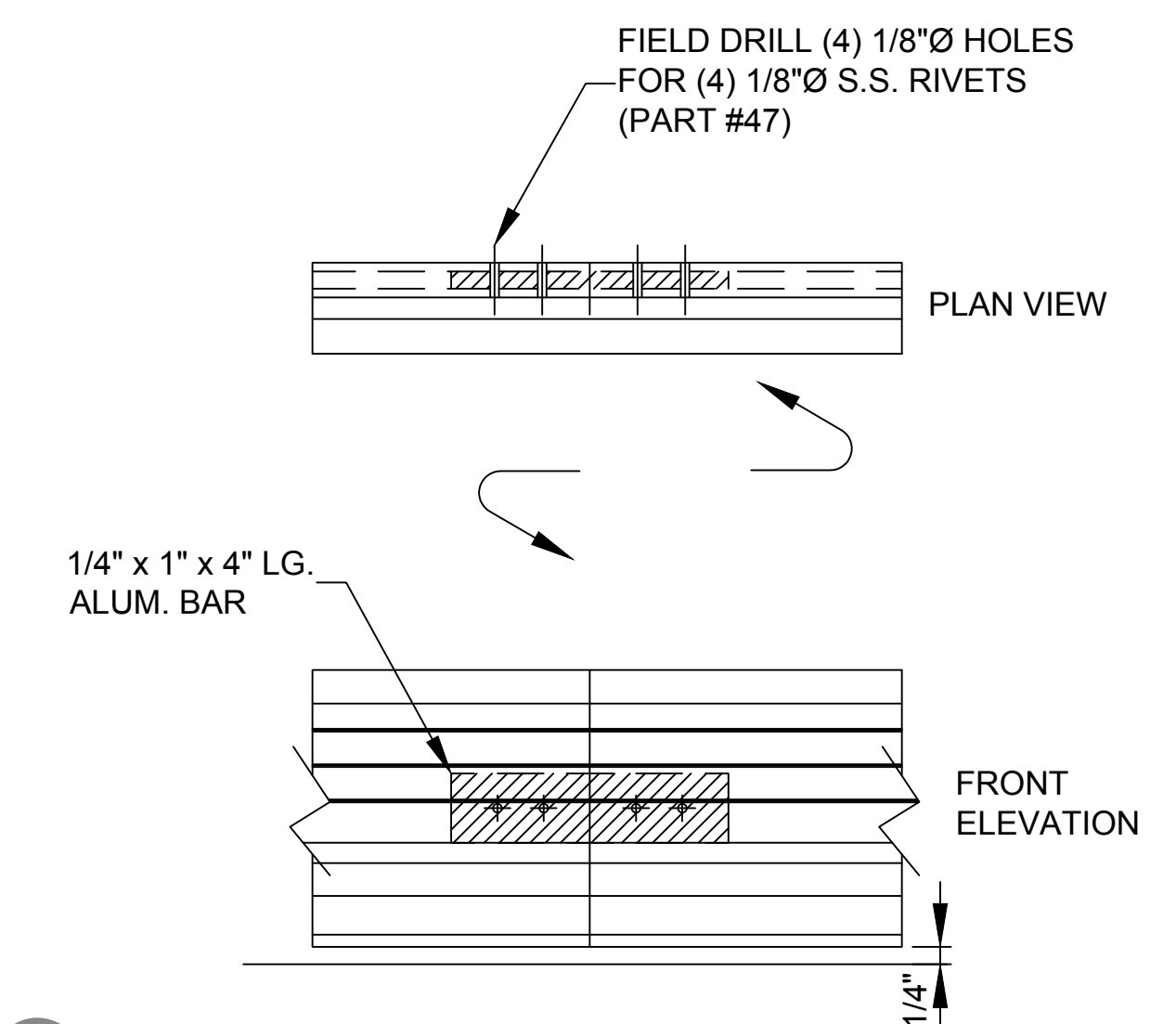
FIELD JOINT SPLICE SLEEVE 166



"Z" TOE BOARD HARDWARE 251

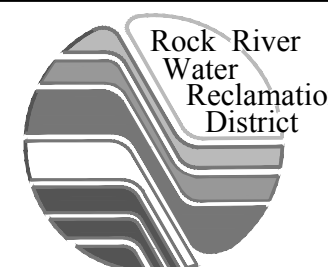


"Z" TOE BOARD HARDWARE (DTL. B & C) 252



"Z" TOE BOARD FIELD JOINT 254

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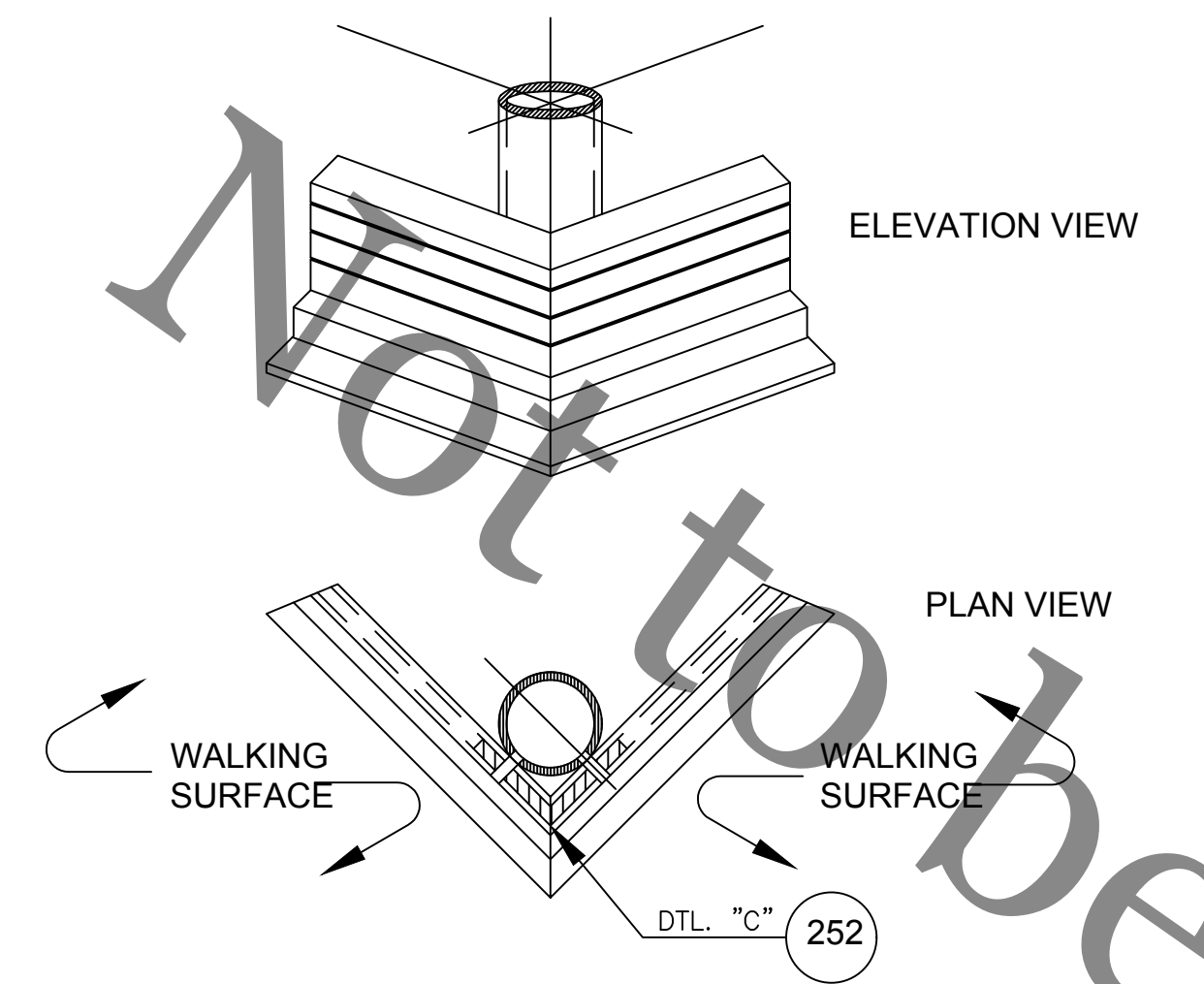
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PRIMARY CLARIFIERS 1-4 & PARSHALL FLUME  
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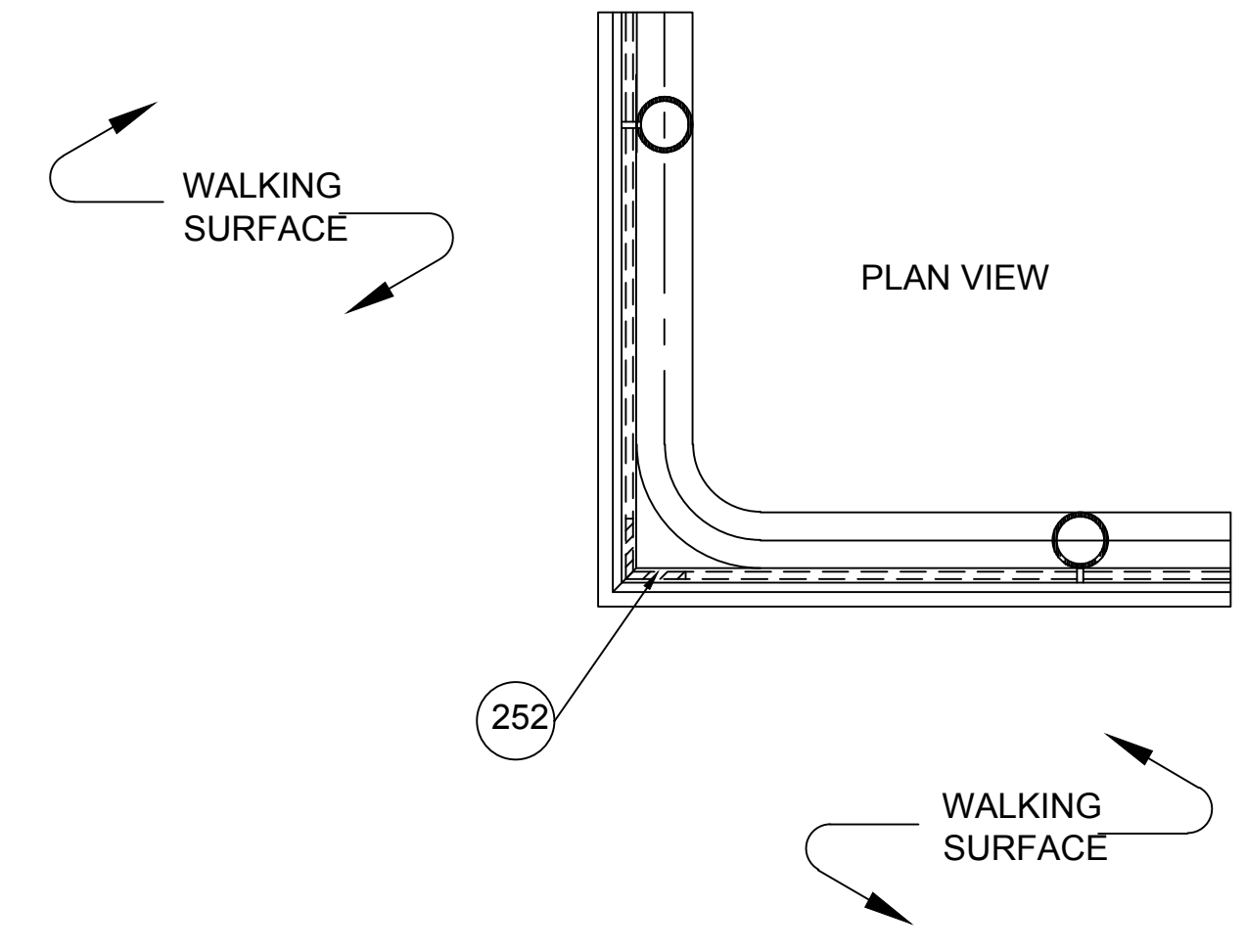
DETAILS - 1

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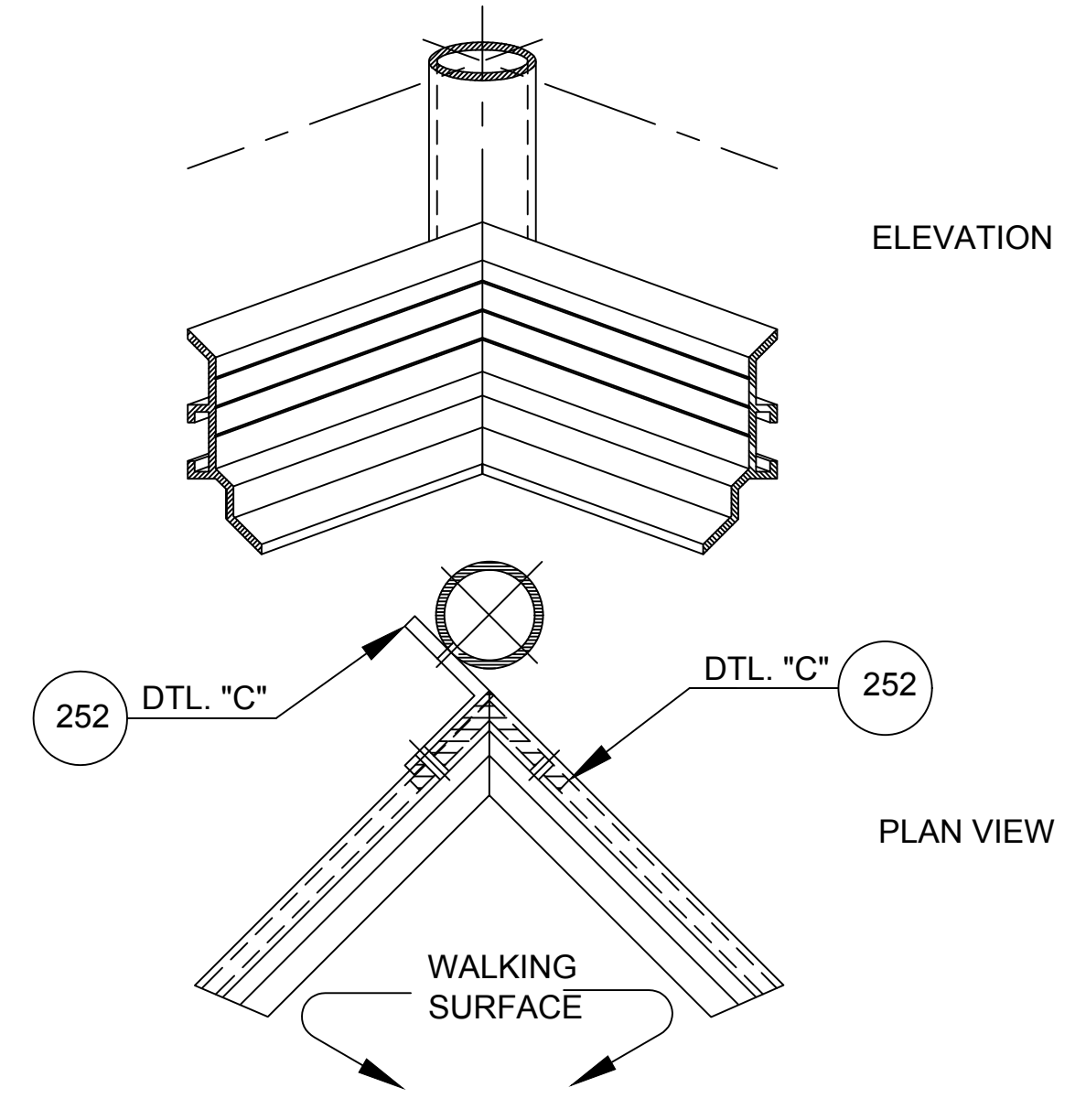
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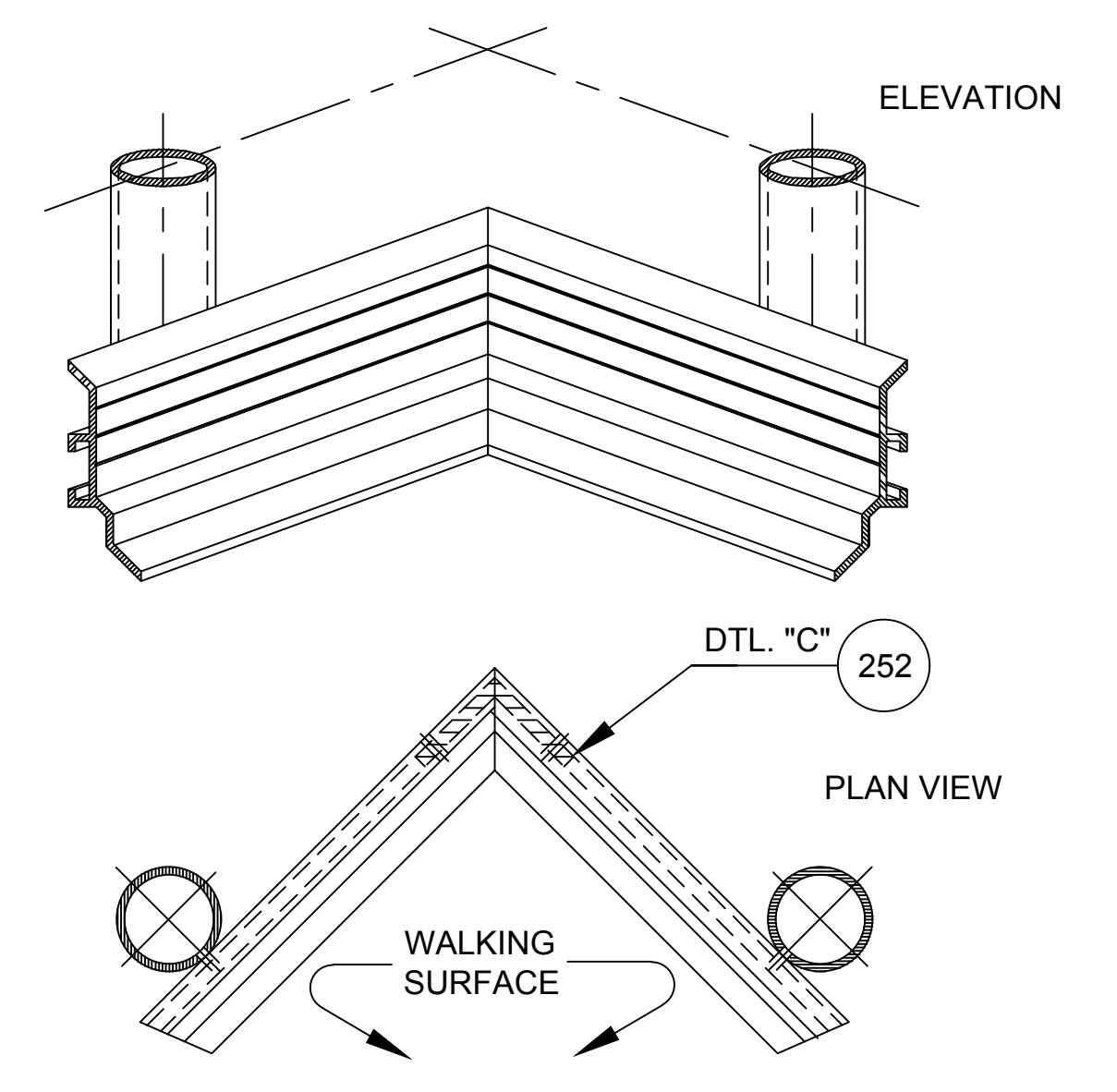
"Z" TOE BOARD  
OUTSIDE CORNER 256



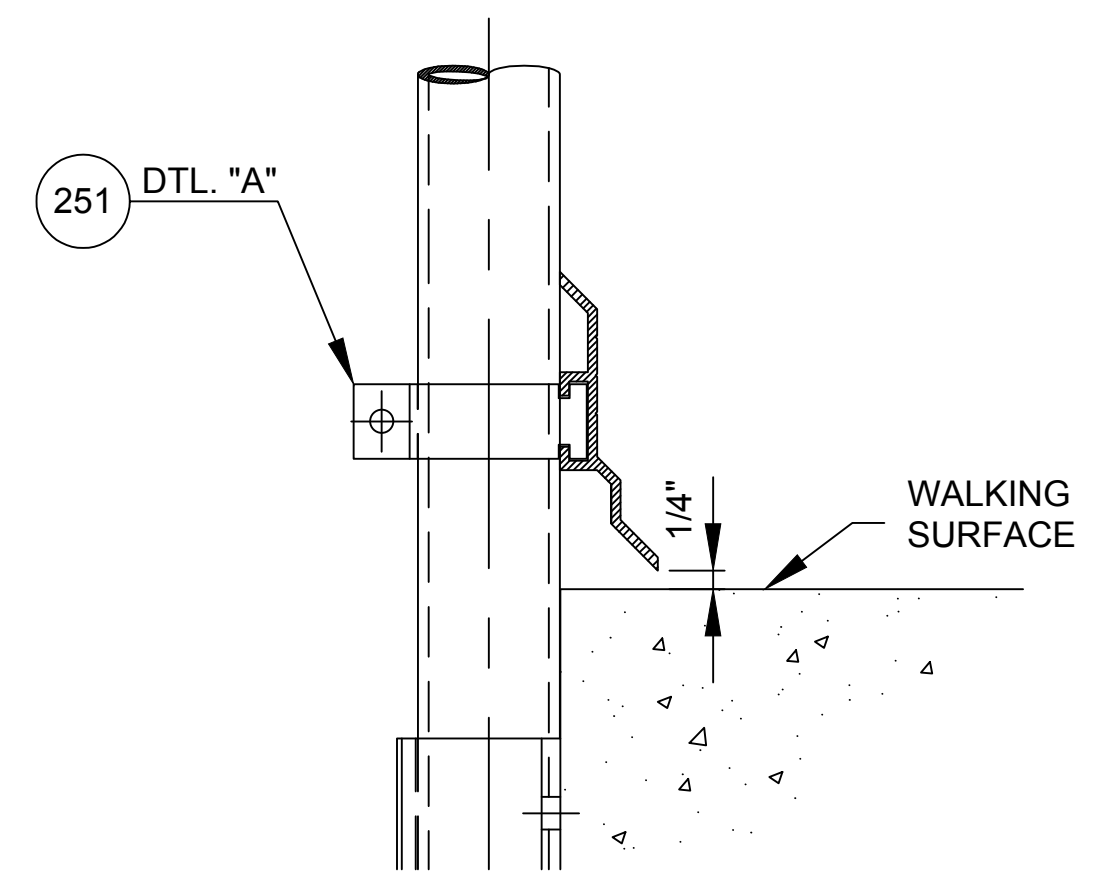
"Z" TOE BOARD  
OUTSIDE CORNER 256  
A



"Z" TOE BOARD  
INSIDE CORNER 257



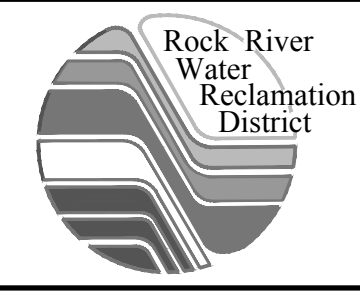
"Z" TOE BOARD  
INSIDE CORNER 257  
A



"Z" TOE BOARD  
W/ SIDE MT. BRKT. 261

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**PRIMARY CLARIFIERS 1-4 & PARSHALL FLUME  
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**DETAILS - 2**

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