



Distribution System

Diemer Basin Rehabilitation

<i>Specification Number</i>	1524
<i>Project Number</i>	103129
<i>Drawings Volume</i>	1 of 2

99% INTERNAL ISSUE

Issue Date : June 6, 2014

A | B | C | D | E | F | G | H | I | J | K | L

ROBERT B. DEIMER WATER TREATMENT PLANT - BASIN REHABILITATION

PROJECT DRAWINGS COORDINATION / REVIEW AND APPROVAL SHEET

1

COORDINATION / REVIEW

APPROVALS

2

DESIGN UNIT

PRINT NAME

SIGNATURE

DATE

LEAD CIVIL
LEAD ARCHITECTURAL
LEAD STRUCTURAL
LEAD MECHANICAL
LEAD ELECTRICAL
LEAD INSTRUMENTATION & CONTROLS
LEAD GEOTECHNICAL
ENVIRONMENTAL, HEALTH & SAFETY
ARCHITECTURAL QA/QC
CIVIL QA/QC
STRUCTURAL QA/QC
MECHANICAL QA/QC
ELECTRICAL QA/QC
INSTRUMENTATION QA/QC
CAD COMPLIANCE QA/QC

ENGINEERING SYSTEMS PLANNING UNIT

ENVIRONMENTAL PLANNING
HYDRAULICS

INFRASTRUCTURE UNIT

SAFETY OF DAMS
CORROSION CONTROL
FIELD SURVEY
GEODETICS AND MAPPING

INSPECTION UNIT

DESIGNEE

PROGRAM MANAGEMENT UNIT

CONSTRUCTION CONTRACTS

WATER SYSTEMS OPERATIONS

PRINT NAME

SIGNATURE

DATE

CONVEYANCE AND DISTRIBUTION SECTION

DESIGNEE

OPERATIONS SUPPORT SERVICES SECTION

DESIGNEE

WATER TREATMENT SECTION

UNIT MANAGER

WATER QUALITY SECTION

DESIGNEE

ENGINEERING SERVICES

FACILITIES DEVELOPMENT SECTION MANAGER

INFRASTRUCTURE RELIABILITY SECTION MANAGER

PROGRAM MANAGEMENT SECTION MANAGER

DESIGN UNIT

UNIT MANAGER

DESIGN TEAM MANAGERS

EQUIPMENT

GENERAL

FACILITIES

INSTRUMENTATION

PIPELINE

POWER

TREATMENT PLANT

PROJECT DESIGN MANAGER

PROGRAM MANAGEMENT UNIT

UNIT MANAGER

PROJECT MANAGEMENT TEAM MANAGER

PROJECT MANAGER

3

4

5

6

7

8

BRDR DATE: 01/29/2009
PEN TABLE: mwdhbw.tbl
PLOT TIME: 04-JUN-2014 07:45

ISSUE DESCRIPTION
ORIGINAL ISSUE
APPROVAL SHEET

ISSUE DATE JUNE 2014

 **MWD**
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA

APPROVED DRAWINGS ARE LISTED ON INDEX SHEETS
B-144786, B-144787, B-144788, AND B-144789

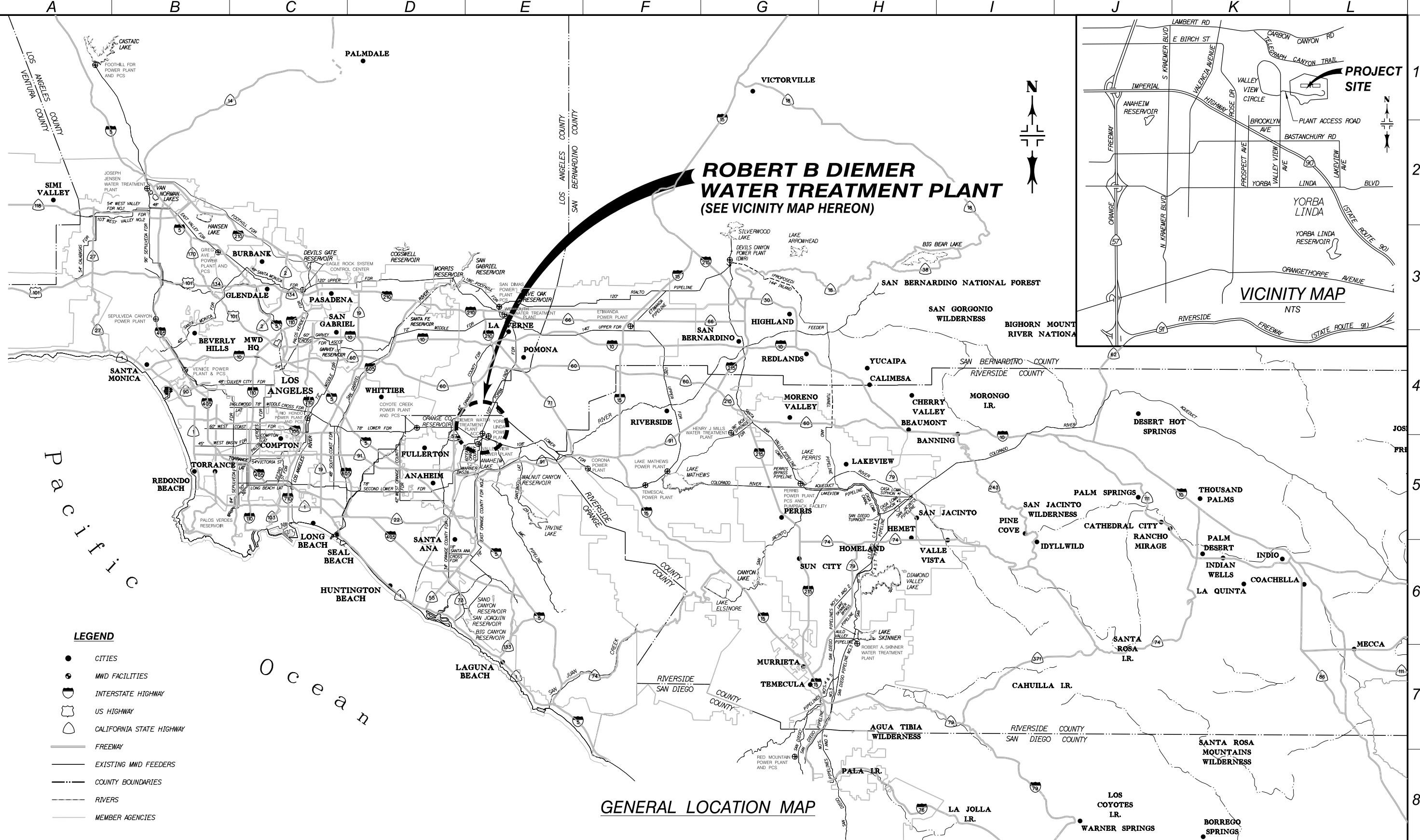
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION

ORIGINAL ISSUE
APPROVAL SHEET

SPECIFICATIONS 1524
PROJECT NUMBER 103129
SHEET APPR-1
DWG B-144777

USERID: u08738

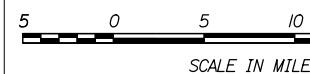
FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37613\1524_103129_00appr001.dgn



LEGEND

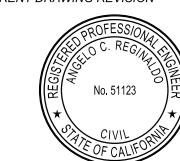
- CITIES
- MWD FACILITIES
- INTERSTATE HIGHWAY
- US HIGHWAY
- △ CALIFORNIA STATE HIGHWAY
- FREEWAY
- EXISTING MWD FEEDERS
- COUNTY BOUNDARIES
- RIVERS
- MEMBER AGENCIES

SCALE BARS



99% SUBMITTAL
JUNE 9, 2014

STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION



ISSUE DESCRIPTION
ORIGINAL ISSUE

ISSUE DATE JUNE 2014



METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

DESIGNED	AR	FOR DRAWING APPROVALS SEE
DRAWN	FL	
CHECKED		

B-144777

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
GENERAL LOCATION AND
VICINITY MAP

SPECIFICATIONS	1524
PROJECT NUMBER	103129
SHEET	G-1
DWG	B-144785
REV	0

DRAWING INDEX

DRAWING INDEX

SHEET NUMBER	DRAWING NUMBER	REV	TITLE	SHEET NUMBER	DRAWING NUMBER	REV	TITLE	SHEET NUMBER	DRAWING NUMBER	REV	TITLE				
AREA - 04															
STRUCTURAL															
4S-1	B-146423	0	EAST BASINS INLET AND WEIR GATE MODIFICATIONS PLAN	4S-90	-	-	NOT USED	4E-4	B-144990	0	EAST BASINS OUTDOOR CONTROL STRUCTURE DETAIL PLAN				
4S-2	B-146424	0	EAST BASINS INLET AND WEIR GATE MODIFICATIONS SECTION	4S-91	B-146469	0	EAST BASINS HATCH COVER REPLACEMENT KEY PLAN	4E-5	B-144991	0	EAST BASINS OUTDOOR CONTROL STRUCTURE FRONT ELEVATION - DEMOLITION				
4S-3	B-146425	0	EAST BASINS WEIR GATE MODIFICATIONS SECTIONS AND DETAILS	4S-92	B-146470	0	EAST BASINS HATCH COVER REPLACEMENT PLANS AND SECTIONS - SHEET 1	4E-6	B-39666	2	EAST BASINS OUTDOOR CONTROL STRUCTURE FRONT ELEVATION				
4S-4	B-146426	0	EAST BASINS INLET GATE MODIFICATIONS DETAILS	4S-93	B-146471	0	EAST BASINS HATCH COVER REPLACEMENT PLANS AND SECTIONS - SHEET 2	4E-7	B-144992	0	EAST BASINS OUTDOOR CONTROL STRUCTURE REAR ELEVATION - DEMOLITION				
4S-5	TO 4S-10	-	NOT USED	4S-94	B-146472	0	EAST BASINS HATCH COVER REPLACEMENT PLANS AND SECTIONS - SHEET 3	4E-8	B-39667	2	EAST BASINS OUTDOOR CONTROL STRUCTURE REAR ELEVATION				
4S-11	B-146427	0	EAST BASINS BAFFLE WALLS DEMOLITION PLAN	4S-95	B-146473	0	EAST BASINS HATCH COVER REPLACEMENT PLANS AND SECTIONS - SHEET 4	4E-9	-	-	NOT USED				
4S-12	B-146428	0	EAST BASINS BAFFLE WALLS LAYOUT KEY PLAN	AREA - 4											
4S-13	B-146429	0	EAST BASINS BAFFLE WALLS LAYOUT ENLARGED PLAN	STRUCTURAL											
4S-14	B-146430	0	EAST BASINS BAFFLE WALLS ELEVATIONS - SHEET 1	MECHANICAL CONT.											
4S-15	B-146431	0	EAST BASINS BAFFLE WALLS ELEVATIONS - SHEET 2	4M-1	B-144822	0	EAST BASINS INLET & WEIR GATE MODIFICATIONS PLAN	4E-10	B-144993	0	EAST BASINS WEIR GATES AND FLOCCULATORS ELECTRICAL PLAN				
4S-16	B-146432	0	EAST BASINS BAFFLE WALLS DETAILS - SHEET 1	4M-2	B-144823	0	EAST BASINS INLET & WEIR GATE MODIFICATIONS SECTION	4E-11	B-144994	0	EAST BASINS - SOUTH WEIR GATES AND FLOCCULATORS POWER PLAN				
4S-17	B-146433	0	EAST BASINS BAFFLE WALLS DETAILS - SHEET 2	4M-3	B-144824	0	EAST BASINS INLET & WEIR GATE MODIFICATIONS INLET GATE SECTIONS AND DETAILS	4E-12	B-144995	0	EAST BASINS - NORTH WEIR GATES AND FLOCCULATORS POWER PLAN				
4S-18	B-146434	0	EAST BASINS BAFFLE WALLS DETAILS - SHEET 3	4M-4	TO 4M-10	-	NOT USED	4E-13	B-144996	0	EAST BASINS - SOUTH WEIR GATES AND FLOCCULATORS GROUNDING PLAN				
4S-19	B-146435	0	EAST BASINS FLOCCULATOR SUPPORT PEDESTAL DETAILS	4M-11	B-144825	0	EAST BASINS INLET CHANNEL DRAIN GATE MODIFICATION SECTIONS	4E-14	B-144997	0	EAST BASINS - NORTH WEIR GATES AND FLOCCULATORS GROUNDING PLAN				
4S-20	TO 4S-30	-	NOT USED	4M-12	TO 4M-20	-	NOT USED	4E-15	B-144998	0	EAST BASINS ELECTRICAL EQUIPMENT DETAILS - DEMOLITION				
4S-31	B-146436	0	EAST BASINS WEIR PLATE MODIFICATIONS PLAN	4M-21	B-144826	0	EAST BASINS DRYWELL AND FLOCCULATION BASINS MODIFICATIONS - KEY PLAN	4E-16	B-144999	0	EAST BASINS WEIR GATE SECTION AND DETAILS				
4S-32	B-146437	0	EAST BASINS WEIR PLATE MODIFICATIONS SECTIONS - SHEET 1	4M-22	TO 4M-40	-	NOT USED	4E-17	B-145000	0	EAST BASINS FLOCCULATOR SECTIONS AND DETAILS				
4S-33	B-146438	0	EAST BASINS WEIR PLATE MODIFICATIONS SECTIONS - SHEET 2	4M-41	B-144827	0	EAST BASINS CLARIFIER MODIFICATIONS PLANS	4E-18	B-145001	0	EAST BASINS TOP DECK & FLOCCULATOR DRYWELL SECTION AND DETAIL				
4S-34	B-146439	0	EAST BASINS WEIR PLATE MODIFICATIONS SECTIONS - SHEET 3	4M-42	B-144828	0	EAST BASINS CLARIFIER MODIFICATIONS SECTIONS	4E-19	-	-	NOT USED				
4S-35	B-146440	0	EAST BASINS WEIR PLATE MODIFICATIONS DETAILS AND SECTION	4M-43	TO 4M-70	-	NOT USED	4E-20	B-145002	0	EAST BASINS CLARIFIERS DEMOLITION PLAN				
4S-36	TO 4S-40	-	NOT USED	4M-71	B-144829	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT MODIFICATIONS - SCHEMATIC	4E-21	B-145003	0	EAST BASINS CLARIFIER EQUIPMENT LOCATION AND POWER PLAN				
4S-41	B-146441	0	EAST BASINS SLUDGE NOZZLE MODIFICATIONS PLANS	4M-72	B-144830	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY EAST END DEMO DETAILS	4E-22	-	-	NOT USED				
4S-42	B-146442	0	EAST BASINS SLUDGE NOZZLE MODIFICATIONS SECTIONS	4M-73	B-144831	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY EAST END MODIFICATIONS	4E-23	B-145004	0	EAST BASINS CLARIFIER SECTION "A"				
4S-43	TO 4S-50	-	NOT USED	4M-74	B-144832	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY WEST END DEMO DETAILS	4E-24	B-145005	0	EAST BASINS CLARIFIER SECTION "B"				
4S-51	B-146443	0	EAST BASINS LAUNDER LAYOUT KEY PLAN	4M-75	B-144833	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY WEST END MODIFICATIONS	4E-25	B-145006	0	EAST BASINS CLARIFIER SECTION				
4S-52	B-146444	0	EAST BASINS LAUNDER LAYOUT ENLARGED PLAN	4M-76	B-144834	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT NORTH SIDE MODIFICATIONS	4E-26	TO 4E-29	-	NOT USED				
4S-53	B-146445	0	EAST BASINS LAUNDER DETAILS SHEET 1	4M-77	B-144835	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT SOUTH SIDE MODIFICATIONS	4E-30	B-145007	0	EAST TUNNEL GENERAL ARRANGEMENT PLAN				
4S-54	B-146446	0	EAST BASINS LAUNDER DETAILS SHEET 2	4M-78	B-144836	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT DETAILS - SHEET 1	4E-31	B-145008	0	EAST BASINS PIPE GALLERY NORTH WALL POWER CONDUITS DEMOLITION				
4S-55	B-146447	0	EAST BASINS LAUNDER CONNECTION DETAILS SHEET 1	4M-79	B-144837	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT DETAILS - SHEET 2	4E-32	B-145009	0	EAST BASINS PIPE GALLERY SOUTH WALL POWER CONDUITS DEMOLITION				
4S-56	B-146448	0	EAST BASINS LAUNDER CONNECTION DETAILS SHEET 2	4M-80	B-144838	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT DETAILS - SHEET 3	4E-33	B-145010	0	EAST BASINS PIPE GALLERY AND DRYWELL FLOCCULATOR CABLE TRAY DEMOLITION				
4S-57	B-146449	0	EAST BASINS LAUNDER DETAILS SHEET 3	4M-81	B-144839	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT DETAILS - SHEET 4	4E-34	TO 4E-39	-	NOT USED				
4S-58	TO 4S-60	-	NOT USED	4M-82	B-144840	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT DETAILS - SHEET 5	4E-40	B-145011	0	EAST CROSS TUNNEL AND DRYWELL EQUIPMENT PLAN				
4S-61	B-146450	0	EAST BASINS GUARDRAIL REPLACEMENT PLAN	4M-83	B-144841	0	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT DETAILS - SHEET 6	4E-41	B-145012	0	BASINS 1 AND 2 DRYWELL EQUIPMENT PLAN				
4S-62	B-146451	0	EAST BASINS GUARDRAIL REPLACEMENT TYPICAL LIGHT STANDARD DETAILS	4M-84	TO 4M-90	-	NOT USED	4E-42	B-145013	0	BASINS 3 AND 4 DRYWELL EQUIPMENT PLAN				
4S-63	B-146452	0	EAST BASINS GUARDRAIL REPLACEMENT DETAILS, SECTION AND ELEVATION	4M-91	B-144842	0	EAST BASINS OVERFLOW WEIR MODIFICATIONS	4E-43	B-145014	0	MCC B13F, MCC BB12C AND RTU DMR053 SECTION				
4S-64	B-146453	0	EAST BASINS GUARDRAIL REPLACEMENT DETAILS SHEET 1	4M-92	TO 4M-100	-	NOT USED	4E-44	B-145015	0	EAST PIPE GALLERY AND SLUDGE TUNNEL SECTIONS				
4S-65	B-146454	0	EAST BASINS GUARDRAIL REPLACEMENT DETAILS SHEET 2	4M-101	B-144843	0	EAST BASINS HYDRANT DEMOLITION AND NEW INSTALLATION DETAIL	4E-45	B-145016	0	EAST CROSS TUNNEL AND DRYWELL CABLE TRAY DETAIL PLAN				
4S-66	B-146455	0	EAST BASINS GUARDRAIL REPLACEMENT DETAILS SHEET 3	AREA - 4											
4S-67	B-146456	0	EAST BASINS GUARDRAIL REPLACEMENT DETAILS	ELECTRICAL											
4S-68	B-146457	0	EAST BASINS GUARDRAIL REPLACEMENT DECORATIVE DETAILS	4E-1	B-144987	0	EAST BASINS ELECTRICAL KEY PLAN	4E-46	B-145017	0	EAST SOUTH DRYWELL CABLE TRAY DETAIL PLAN				
4S-69	TO 4S-70	-	NOT USED	4E-2	B-144988	0	EAST TUNNELS ELECTRICAL KEY PLAN	4E-47	B-145018	0	EAST NORTH DRYWELL CABLE TRAY DETAIL PLAN				
4S-71	B-146458	0	EAST BASINS CONCRETE JOINT LOCATION PLAN	4E-3	B-144989	0	EAST BASINS FLOCCULATORS DEMOLITION PLAN	4E-48	B-145019	0	EAST BASIN PIPE TUNNEL ELEVATION LOOKING EAST				
4S-72	B-146459	0	EAST BASINS CONCRETE JOINT DETAILS	WATER TREATMENT PLANTS											
4S-73	TO 4S-80	-	NOT USED	ROBERT B. DIEMER WATER TREATMENT PLANT											
4S-81	B-146460	0	EAST BASINS CONCRETE REPAIR MODIFICATIONS PLAN	SPECIFICATIONS											
4S-82	B-146461	0	EAST BASINS CONCRETE REPAIR MODIFICATIONS REPAIR LIST SHEET 1	4E-49	B-145024	0	EAST BASINS SLUDGE PUMPS DEMOLITION	1524							
4S-83	B-146462	0	EAST BASINS CONCRETE REPAIR MODIFICATIONS REPAIR LIST SHEET 2	4E-50	B-145025	0	EAST PIPE GALLERY SLUDGE TUNNELS GENERAL ARRANGEMENT PLAN	PROJECT NUMBER	103129						
4S-84	B-146463	0	EAST BASINS CONCRETE REPAIR MODIFICATIONS REPAIR LIST SHEET 3	4E-51	B-145026	0	SLUDGE TUNNEL PUMP ROOM "A" DETAIL PLAN AND SECTIONS	SHEET	G-3						
4S-85	B-146464	0	EAST BASINS CONCRETE REPAIR MODIFICATIONS DETAILS - SHEET 1	4E-52	B-145027	0	SLUDGE TUNNEL PUMP ROOM "A" SECTIONS	DWG	B-144787	0					

DRAWING INDEX

	SHEET NUMBER	DRAWING NUMBER	REV	TITLE	SHEET NUMBER	DRAWING NUMBER	REV	TITLE	SHEET NUMBER	DRAWING NUMBER	REV	TITLE
				AREA - 10 <u>ELECTRICAL CONT.</u>				AREA - 10 <u>STRUCTURAL CONT.</u>				AREA - 10 <u>MECHANICAL CONT.</u>
1	4E-71	B-145032	0	SLUDGE TUNNEL PUMP ROOM "D" DETAIL PLAN AND SECTIONS	10S-93	B-146501	0	WEST BASINS HATCH COVER REPLACEMENT PLANS AND SECTIONS - SHEET 2	10M-80	B-144876	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT SECTIONS
2	4E-72	B-145033	0	SLUDGE TUNNEL PUMP ROOM "D" SECTIONS	10S-94	B-146502	0	WEST BASINS HATCH COVER REPLACEMENT PLANS AND SECTIONS - SHEET 3	10M-81	TO 10M-90	-	NOT USED
3	4E-73	B-16769	3	EAST BASINS PUMP ROOM AND SLUDGE BASINS SECTIONS AND DETAILS				AREA 10 <u>MECHANICAL</u>	10M-91	B-144877	0	WEST BASINS CROSSFLOW WEIR MODIFICATIONS
4	4E-74	-	-	NOT USED					10M-92	TO 10M-100	-	NOT USED
5	4E-75	B-145034	0	EAST SLUDGE TUNNEL PUMP AREA DETAIL PLAN SHEET 1					10M-101	B-144878	0	WEST BASINS FIRE HYDRANT DEMOLITION AND NEW INSTALLATION DETAIL
6	4E-76	B-145035	0	EAST SLUDGE TUNNEL PUMP AREA DETAIL PLAN SHEET 2								AREA - 10 <u>ELECTRICAL</u>
7	4E-77	TO 4E-78	-	NOT USED								
8	4E-79	B-145036	0	EAST CROSS TUNNEL EQUIPMENT DETAIL PLAN								
9	4E-80	B-145037	0	EAST BASIN MAIN TUNNEL NORTH WALL SECTIONS SHEET 1 OF 2								
10	4E-81	B-145038	0	EAST BASIN MAIN TUNNEL NORTH WALL SECTIONS SHEET 2 OF 2								
11	4E-82	B-145039	0	EAST BASIN MAIN TUNNEL SOUTH WALL SECTIONS SHEET 1 OF 2								
12	4E-83	B-145040	0	EAST BASIN MAIN TUNNEL SOUTH WALL SECTIONS SHEET 2 OF 2								
13	4E-84	TO 4E-89	-	NOT USED								
14	4E-90	B-145041	0	EAST BASINS LIGHTING DEMOLITION PLAN								
15	4E-91	B-145042	0	EAST BASINS LIGHTING PLAN								
16				<u>AREA - 10 STRUCTURAL</u>								
17	10S-1	B-146474	0	WEST BASINS INLET AND WEIR GATE MODIFICATIONS PLAN	10M-21	B-144850	0	WEST BASINS DRYWELL AND FLOCCULATION BASINS MODIFICATIONS - KEY PLAN	10E-1	B-145050	0	WEST BASINS ELECTRICAL KEY PLAN
18	10S-2	B-146475	0	WEST BASINS INLET AND WEIR GATE MODIFICATIONS SECTION	10M-22	B-144851	0	WEST BASINS DRYWELL AND FLOCCULATION BASINS DETAILS	10E-2	B-145051	0	WEST TUNNELS ELECTRICAL KEY PLAN
19	10S-3	B-146476	0	WEST BASINS INLET GATE MODIFICATIONS DETAILS - SHEET 1	10M-23	B-144852	0	WEST BASINS DRYWELL AND FLOCCULATION BASINS SECTION	10E-3	B-145052	0	WEST BASINS EQUIPMENT - DEMOLITION
20	10S-4	B-146477	0	WEST BASINS INLET GATE MODIFICATIONS DETAILS - SHEET 2	10M-24	B-144853	0	WEST BASINS DRYWELL AND FLOCCULATION BASINS DETAIL AND SECTION	10E-4	B-145053	0	WEST BASINS OUTDOOR CONTROL STRUCTURE DETAIL PLAN
21	10S-5	B-146478	0	WEST BASINS INLET AND WEIR GATE MODIFICATIONS SECTIONS AND DETAIL	10M-25	B-144854	0	WEST BASINS DRYWELL AND FLOCCULATION BASINS SECTION	10E-5	B-145054	0	WEST BASINS OUTDOOR CONTROL STRUCTURE FRONT ELEVATION - DEMOLITION
22	10S-6	B-146479	0	WEST BASINS INLET AND WEIR GATE MODIFICATIONS DETAILS AND VIEW	10M-26	B-144855	0	WEST BASINS DRYWELL AND FLOCCULATION BASINS SECTIONS - SHEET 2	10E-6	B-39708	1	WEST BASINS OUTDOOR CONTROL STRUCTURE FRONT ELEVATION
23	10S-7	TO 10S-10	-	NOT USED	10M-27	B-144856	0	WEST BASINS DRYWELL AND FLOCCULATION BASINS WALL STUFFING ASSEMBLY DETAILS	10E-7	B-145055	0	WEST BASINS OUTDOOR CONTROL STRUCTURE REAR ELEVATION - DEMOLITION
24	10S-11	B-146480	0	WEST BASINS BAFFLE WALLS DEMOLITION PLAN	10M-28	B-144857	0	WEST BASINS DRYWELL AND FLOCCULATION BASIN WALL STUFFING DETAILS	10E-8	B-39709	1	WEST BASINS OUTDOOR CONTROL STRUCTURE REAR ELEVATION
25	10S-12	B-146481	0	WEST BASINS BAFFLE WALLS LAYOUT KEY PLAN	10M-29	B-144858	0	WEST BASINS FLOCCULATION BASIN BEARING HOUSING DETAILS - SHEET 1	10E-9	-	-	NOT USED
26	10S-13	B-146482	0	WEST BASINS BAFFLE WALLS LAYOUT ENLARGED PLAN	10M-30	B-144859	0	WEST BASINS FLOCCULATION BASIN BEARING HOUSING DETAILS - SHEET 2	10E-10	B-145056	0	WEST BASINS WEIR GATES AND FLOCCULATORS ELECTRICAL PLAN
27	10S-14	B-146483	0	WEST BASINS FLOCCULATOR SUPPORT PEDESTAL DETAILS	10M-31	TO 10M-40	-	NOT USED	10E-11	B-145057	0	WEST BASINS - SOUTH WEIR GATES AND FLOCCULATORS POWER PLAN
28	10S-15	TO 10S-30	-	NOT USED	10M-41	B-144860	0	WEST BASINS CLARIFIER MODIFICATIONS PLANS	10E-12	B-145058	0	WEST BASINS - NORTH WEIR GATES AND FLOCCULATORS POWER PLAN
29	10S-31	B-146484	0	WEST BASINS WEAR PLATE MODIFICATIONS PLAN	10M-42	B-144861	0	WEST BASINS CLARIFIER MODIFICATIONS SECTIONS	10E-13	B-145059	0	WEST BASINS - SOUTH WEIR GATES AND FLOCCULATORS GROUNDING PLAN
30	10S-32	B-146485	0	WEST BASINS WEIR PLATE MODIFICATIONS SECTIONS - SHEET 1	10M-43	B-144862	0	EAST BASINS CLARIFIER MODIFICATIONS SECTION AND DETAILS	10E-14	B-145060	0	WEST BASINS - NORTH WEIR GATES AND FLOCCULATORS GROUNDING PLAN
31	10S-33	B-146486	0	WEST BASINS WEIR PLATE MODIFICATIONS SECTIONS - SHEET 2	10M-44	TO 10M-50	-	NOT USED	10E-15	B-145061	0	WEST BASINS ELECTRICAL EQUIPMENT DETAILS DEMOLITION
32	10S-34	TO 10S-40	-	NOT USED	10M-51	B-144863	0	WEST BASINS SLUDGE PUMP & PIPING MODIFICATIONS - PLANS	10E-16	B-145062	0	WEST BASINS WEIR GATE SECTIONS AND DETAILS
33	10S-41	B-146487	0	WEST BASINS SLUDGE NOZZLE MODIFICATIONS PLAN	10M-52	B-144864	0	WEST BASINS SLUDGE PUMP & PIPING MODIFICATIONS - SECTIONS & DETAIL	10E-17	B-145063	0	WEST BASINS FLOCCULATOR SECTIONS & DETAIL
34	10S-42	B-146488	0	WEST BASINS SLUDGE NOZZLE MODIFICATIONS SECTIONS	10M-53	B-144865	0	WEST BASINS SLUDGE PUMP & PIPING MODIFICATIONS - CHECK VALVE DETAIL	10E-18	B-145064	0	WEST BASINS FLOCCULATOR SECTIONS & DETAIL
35	10S-43	TO 10S-50	-	NOT USED	10M-54	TO 10M-60	-	NOT USED	10S-19	TO 10S-20	-	NOT USED
36	10S-51	B-146489	0	WEST BASINS LAUNDER LAYOUT KEY PLAN	10M-61	B-144866	0	WEST BASINS LAUNDER GATE DETAIL AND SECTIONS	10E-21	B-145065	0	WEST BASINS CLARIFIERS EQUIPMENT LOCATION AND POWER PLAN
37	10S-52	B-146490	0	WEST BASINS LAUNDER LAYOUT ENLARGED PLAN	10M-71	B-144867	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN AND FOAM ABATEMENT - DEMOLITION SCHEMATIC	10E-22	B-145066	0	WEST BASINS CLARIFIERS CONDUITS DEMOLITION
38	10S-53	TO 10S-60	-	NOT USED	10M-72	B-144868	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT MODIFICATIONS - SCHEMATIC	10E-23	B-145067	0	WEST BASINS CLARIFIERS SECTION "A"
39	10S-61	B-146491	0	WEST BASINS GUARDRAIL REPLACEMENT PLAN	10M-73	B-144869	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY EAST END DEMO DETAILS	10E-24	B-145068	0	WEST BASINS CLARIFIERS SECTION "B"
40	10S-62	TO 10S-70	-	NOT USED	10M-74	B-144870	0	WEST BASINS - PERIMETER LINE WATER WASHDOWN & FOAM ABATEMENT GALLERY EAST END MODIFICATIONS	10E-25	B-145069	0	WEST BASINS BASIN CLARIFIERS SECTION SHEET 1
41	10S-71	B-146492	0	WEST BASINS CONCRETE JOINT LOCATION PLAN	10M-75	B-144871	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY WEST END DEMO DETAILS	10E-26	B-145070	0	WEST BASINS BASIN CLARIFIERS SECTION SHEET 2
42	10S-72	B-146493	0	WEST BASINS CONCRETE JOINT DETAILS	10M-76	B-144872	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY WEST END MODIFICATIONS	10E-27	TO 10E-29	-	NOT USED
43	10S-73	TO 10S-80	-	NOT USED	10M-77	B-144873	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT NORTH SIDE MODIFICATIONS	10E-30	B-145071	0	WEST TUNNEL GENERAL ARRANGEMENT PLAN
44	10S-81	B-146494	0	WEST BASINS CONCRETE REPAIR MODIFICATIONS PLAN	10M-78	B-144874	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT SOUTH SIDE MODIFICATIONS	10E-31	B-145072	0	WEST TUNNEL NORTH WALL SECTIONS AND DETAILS DEMOLITION
45	10S-82	B-146495	0	WEST BASINS CONCRETE REPAIR MODIFICATIONS REPAIR LIST SHEET	10M-79	B-144875	0	WEST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT DETAILS	10E-32	B-145073	0	WEST BASINS PIPE GALLERY PARTIAL PLAN AND SECTIONS - SHEET 1 - DEMOLITION
46	10S-83	B-146496	0	WEST BASINS EXISTING STRUCTURE MODIFICATIONS DETAILS					10E-33	B-145074	0	WEST BASINS PIPE GALLERY PARTIAL PLAN AND SECTIONS - SHEET 2 - DEMOLITION
47	10S-84	B-146497	0	WEST BASINS CONCRETE FILL DETAILS					10E-34	B-145075	0	WEST BASINS PIPE GALLERY - SECTIONS DEMOLITION
48	10S-85	B-146498	0	WEST BASINS CONCRETE FILL DETAILS					10E-35	B-145076	0	WEST BASINS PIPE GALLERY AND DRYWELL FLOCCULATOR CABLE TRAY DEMOLITION
49	10S-86	TO 10S-90	-	NOT USED					10E-36	TO 10E-39	-	NOT USED
50	10S-91	B-146499	0	WEST BASINS HATCH COVER REPLACEMENT KEY PLAN					10E-40	B-145077	0	WEST CROSS TUNNEL AND DRYWELL EQUIPMENT PLAN
51	10S-92	B-146500	0	WEST BASINS HATCH COVER REPLACEMENT PLANS AND SECTIONS - SHEET 1					10E-41	B-145078	0	BASINS 5 AND 6 DRYWELL DETAIL PLAN
52									10E-42	B-145079	0	BASINS 7 AND 8 DRYWELL DETAIL PLAN
53									10E-43	B-145080	0	MCC B13E, MCC BB12D AND RTU DMR054 SECTION
54									10E-44	B-145081	0	WEST PIPE GALLERY AND SLUDGE TUNNEL SECTIONS
55									10E-45	B-145082	0	WEST CROSS TUNNEL AND DRYWELL CABLE TRAY DETAIL PLAN
56					</							

A	B	C	D	E	F	G	H	I	J	K	L					
DRAWING INDEX																
SHEET NUMBER DRAWING NUMBER REV TITLE <u>STANDARDS</u> <u>ELECTRICAL CONT.</u>				SHEET NUMBER DRAWING NUMBER REV TITLE <u>STANDARDS</u> <u>STRUCTURAL</u>				SHEET NUMBER DRAWING NUMBER REV TITLE								
10E-48 B-145085 0 WEST BASINS PIPE TUNNEL ELEVATION LOOKING WEST				S3-1 B-146518 0 ANCHOR BOLTS AND REINFORCING STEEL SCHEDULES AND DETAILS				1								
10E-49 B-145086 0 WEST PIPE GALLERY AND SLUDGE TUNNEL SECTIONS				S3-2 TO S3-6 - NOT USED				2								
10E-50 B-145087 0 WEST CROSS TUNNEL AND DRYWELL CABLE TRAY SYSTEM NODE SCHEDULE SHEET 1				S3-7 B-146519 0 TYPICAL PIPE PENETRATION DETAILS				3								
10E-51 B-145088 0 WEST CROSS TUNNEL AND DRYWELL CABLE TRAY SYSTEM NODE SCHEDULE SHEET 2				S3-8 B-146520 0 CONCRETE JOINT SEALANT TYPICAL DETAILS				4								
10E-52 TO 10E-59 - NOT USED				S3-9 TO S3-12 - NOT USED				5								
10E-60 B-145089 0 WEST BASINS SLUDGE PUMPS DEMOLITION				S3-13 B-146521 0 SLAB ON GRADE, CONTAINMENT CURB, EQUIPMENT AND CONCRETE PAD TYPICAL DETAILS				6								
10E-61 B-145090 0 WEST PIPE GALLERY AND SLUDGE TUNNELS GENERAL ARRANGEMENT PLAN				S5-1 B-146522 0 TWO RAIL ALUMINUM GUARDRAIL AND HANDRAIL TYPICAL DETAILS				7								
10E-62 B-145091 0 WEST BASINS SLUDGE ROOMS - NORTH WALL SECTIONS - DEMOLITION				S5-2 B-146523 0 ALUMINUM GUARDRAIL AND HANDRAIL POST CONNECTIONS TYPICAL DETAILS				8								
10E-63 B-145092 0 WEST BASINS SLUDGE ROOMS - SOUTH WALL SECTIONS - DEMOLITION				S5-3 B-146524 0 ALUMINUM GRAVITY GATES TYPICAL DETAILS												
10E-64 - NOT USED				S5-4 B-146525 0 ALUMINUM STAIR HANDRAILS TYPICAL DETAILS AND SECTION												
10E-65 B-145093 0 WEST SLUDGE TUNNEL PUMP ROOM "A" - DETAIL PLAN AND SECTIONS				S5-5 B-146526 0 WALL MOUNTED AND RAMP ALUMINUM HANDRAIL												
10E-66 B-145094 0 WEST SLUDGE TUNNEL PUMP ROOM "A" SECTION				S5-6 TO S5-10 - NOT USED												
10E-67 B-145095 0 WEST SLUDGE TUNNEL PUMP ROOM "B" - DETAIL PLAN AND SECTIONS				S5-11 B-146527 0 STEEL LADDERS TYPICAL DETAILS AND SECTIONS												
10E-68 B-145096 0 WEST SLUDGE TUNNEL PUMP ROOM "B" SECTION				S5-12 B-146528 0 STEEL LADDER OVER WALL OR PARAPET TYPICAL DETAILS AND SECTIONS												
10E-69 B-145097 0 WEST SLUDGE TUNNEL PUMP ROOM "C" - DETAIL PLAN AND SECTIONS				S5-13 - NOT USED												
10E-70 B-145098 0 WEST SLUDGE TUNNEL PUMP ROOM "C" SECTION				S5-14 B-146529 0 FLOOR GRATING TYPICAL DETAILS												
10E-71 B-145099 0 WEST SLUDGE TUNNEL PUMP ROOM "D" DETAIL PLAN AND SECTIONS				S5-15 B-146530 0 FLOOR PLATE TYPICAL DETAILS												
10M-73 TO 10M-74 - NOT USED				<u>STANDARDS</u> <u>MECHANICAL</u>												
10E-75 B-145101 0 WEST SLUDGE TUNNEL PUMP AREA DETAIL PLAN SHEET 1				M15-1 B-144909 0 PROCESS PIPING GENERAL INSTALLATIONS NOTES												
10E-76 B-145102 0 WEST SLUDGE TUNNEL PUMP AREA DETAIL PLAN SHEET 2				M15-2 B-144910 0 PROCESS PIPING ABBREVIATIONS												
10E-77 TO 10E-78 - NOT USED				M15-3 B-144911 0 PROCESS PIPING AND PLUMBING LEGEND AND SYMBOLS												
10E-79 B-145103 0 WEST CROSS TUNNEL EQUIPMENT DETAIL PLAN				M15-4 TO M15-5 - NOT USED												
10E-80 B-145104 0 WEST BASIN MAIN TUNNEL NORTH WALL SECTIONS SHEET 1				M15-6 B-144912 0 PIPING BRANCH CONNECTION TABLES AND NOTES												
10E-81 B-145105 0 WEST BASIN MAIN TUNNEL NORTH WALL SECTIONS SHEET 2				M15-7 - NOT USED												
10E-82 B-145106 0 WEST BASIN MAIN TUNNEL SOUTH WALL SECTIONS SHEET 1				M15-8 B-144913 0 SMALL BORE BRANCH INSTALLATION AND PIPE LINING REPAIR DETAILS												
10E-83 B-145107 0 WEST BASIN MAIN TUNNEL SOUTH WALL SECTIONS SHEET 2				M15-9 B-144914 0 INSTRUMENT ORIENTATION AND CONNECTION DETAILS												
10E-84 TO 10E-89 - NOT USED				M15-10 TO M15-23 - NOT USED												
10E-90 B-145108 0 WEST BASINS SOUTH HALF LIGHTING DEMOLITION				M15-24 B-144915 0 CONCRETE FLOOR AND WALL PIPING PENETRATION DETAILS												
10E-91 B-145109 0 WEST BASINS NORTH HALF LIGHTING DEMOLITION				M15-25 TO M15-29 - NOT USED												
10E-92 B-145110 0 WEST BASINS LIGHTING PLAN				M15-30 B-144916 0 PIPING SUPPORT SPAN AND EXPANSION TABLES AND NOTES SHEET 1												
				M15-31 - NOT USED												
				M15-32 B-144917 0 STEEL ANGLE PIPE SUPPORT DETAILS												
				M15-33 B-144918 0 U-BOLT AND CLAMP ANCHOR OR GUIDE PIPE SUPPORT DETAILS												
				M15-34 B-144919 0 PRE-FABRICATED SUPPORTS PIPE STRAPS AND CLAMPS												
				M15-35 TO M15-40 - NOT USED												
				M15-41 B-144920 0 OVERHEAD SINGLE AND TRAPEZE-PREFAB - STRUT TYPE PIPE SUPPORT ASSEMBLY DETAILS												
SCALE BARS	99% SUBMITTAL JUNE 9, 2014			STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION		WATER TREATMENT PLANTS		SPECIFICATIONS						
				DAVID S. SADAMOTO REGISTERED PROFESSIONAL ENGINEER No. M35821 MECHANICAL STATE OF CALIFORNIA		ORIGINAL ISSUE		ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION		1524						
PLOT TIME: 04-JUN-2014 08:01						DESIGNED DS		FOR DRAWING APPROVALS SEE		PROJECT NUMBER						
						DRAWN TJB		B-144777		103129						
						CHECKED		DRAWING INDEX		SHEET						
						SHEET 4		G-5		DWG B-						

REFERENCE DRAWINGS

	DRAWING NUMBER	REV	TITLE	DRAWING NUMBER	REV	TITLE	DRAWING NUMBER	REV	TITLE				
STRUCTURAL													
SPEC NO. 616 - COLORADO RIVER AQUEDUCT DISTRIBUTION SYSTEM LOWER FEEDER WATER FILTRATION PLANT - EAST													
B-16493	3		STRUCTURAL STAIR AND LADDER DETAILS	B-17697	0	STRUCTURAL PUMP SECTIONS SHEET 1	B-21074	2	STRUCTURAL PUMP ROOM AND SLUDGE TUNNEL PLAN ABOVE EL. 803.00 AND SECTIONS				
B-16495	4		STRUCTURAL CONSTRUCTION AND EXPANSION JOINT DETAILS	B-17698	0	STRUCTURAL PUMP SECTIONS SHEET 2	B-21075	1	STRUCTURAL PUMP ROOM SECTIONS AND DETAILS				
B-16701	4		STRUCTURAL INFLOW CHANNEL PLAN AT ELEVATIONS 813 AND 829	B-17699	0	STRUCTURAL STEEL COVERS AND FRAMES	B-21076	1	STRUCTURAL SLUDGE TUNNEL SCRAPER SUPPORT SECTIONS AND DETAILS				
B-16702	5		STRUCTURAL INFLOW CHANNEL WALL ELEVATIONS	B-17701	0	BAINS 1 - 2 DIVIDER WALLS SPILLWAY - ELEVATIONS AND DETAILS	B-21077	0	STRUCTURAL PIPE GALLERY WEST END PLAN AT ELEV. 812.00 & SECTIONS				
B-16703	5		STRUCTURAL INFLOW CHANNEL SLAB PLANS	B-17702	1	STRUCTURAL PIPE GALLERY - DETAILS - SHEET 3	B-21078	1	STRUCTURAL PIPE GALLERY WEST END SECTIONS SHEET 1				
B-16704	6		STRUCTURAL INFLOW CHANNEL SECTIONS AND DETAILS	B-17703	1	STRUCTURAL DRYWELL - PLAN AND PROFILE	B-21079	1	STRUCTURAL PIPE GALLERY WEST END SECTIONS SHEET 2				
B-16705	5		STRUCTURAL INFLOW CHANNEL WALL SECTIONS	B-17705	1	STRUCTURAL DRYWELL - MISCELLANEOUS STEEL DETAILS	B-21080	0	STRUCTURAL PIPE GALLERY WEST END SECTIONS SHEET 3				
B-16706	6		STRUCTURAL INFLOW CHANNEL DETAILS	B-17710	0	STRUCTURAL PROFILES - SHEET - NO. 1	B-21081	0	STRUCTURAL PIPE GALLERY WEST END SECTIONS SHEET 4				
B-16707	5		STRUCTURAL INFLOW CHANNEL GRAVITY DRAIN STRUCTURE	B-17711	1	STRUCTURAL PROFILES - SHEET - NO. 2	B-21082	0	STRUCTURAL PIPE GALLERY WEST END AT FILTERS PLAN AT ELEV. 812 & SECTIONS				
B-16729	5		STRUCTURAL PLAN BELOW ELEVATION 803 AND DETAILS	B-17712	0	STRUCTURAL PIPE GALLERY DETAILS - SHT. 4	B-21083	1	STRUCTURAL DRYWELL PLANS AT ELEV. 829.0 AND SECTIONS				
B-16730	4		STRUCTURAL PLAN BELOW ELEVATION 815	B-17713	0	STRUCTURAL PIPE GALLERY DETAILS - SHT. 5	B-21084	1	STRUCTURAL DRYWELL SECTIONS AND DETAILS SHEET NO. 1				
B-16731	5		STRUCTURAL PLAN BELOW ELEVATION 830	B-17714	0	STRUCTURAL PIPE GALLERY DETAILS - SHT. 6	B-21085	2	STRUCTURAL DRYWELL SECTIONS AND DETAILS SHEET NO. 2				
B-16732	2		STRUCTURAL WALL ELEVATIONS	B-17715	0	BASINS 3-4 DIVIDER WALLS SPILLWAY - ELEVATIONS	B-21086	0	STRUCTURAL SLUDGE TUNNELS PLANS AT ELEV. 797.5 & 811.0 AND SECTION				
B-16733	4		STRUCTURAL BASIN OVERFLOW - SECTIONS AND SLAB SECTIONS	SPEC NO. 704 - ROBERT B. DIEMER FILTRATION PLANT EXPANSION NO. 1 - WEST									
B-16734	4		STRUCTURAL SECTIONS AND DETAILS	B-21026	0	ARCHITECTURAL EXTERIOR HANDRAILS AND GENERAL ARRANGEMENT	B-21087	0	STRUCTURAL DIVIDER WALKWAY BASINS NO. 7 & NO. 8 PLAN AT ELEV. 830.0				
B-16735	2		STRUCTURAL SECTIONS	B-21027	0	ARCHITECTURAL MIXING AND SETTLING BASINS EXTERIOR HANDRAILS PLAN OF NORTH PORTION	B-21088	0	STRUCTURAL DIVIDER WALKWAY BASINS NO. 5 & NO. 6 PLAN AT ELEV. 830.0				
B-16736	2		STRUCTURAL BAFFLE SUPPORT DETAILS	B-21028	1	ARCHITECTURAL MIXING AND SETTLING BASINS EXTERIOR HANDRAILS PLAN OF SOUTH PORTION	B-21089	0	STRUCTURAL DIVIDER WALKWAY BASINS NO. 7 & NO. 8 ELEVATION				
B-16737	3		STRUCTURAL PLAN OF DRYWELL TOP AND BOTTOM SLABS	B-21029	0	ARCHITECTURAL FILTERS AND WASHWATER RECLAMATION EXTERIOR HANDRAILS PLAN	B-21090	0	STRUCTURAL DIVIDER WALKWAY ELEVATION BASINS 5 & 6 AND TYPICAL SECTIONS				
B-16738	4		STRUCTURAL SECTIONS THRU SCRAPER SUPPORTS	B-21030	1	ARCHITECTURAL HANDRAILS AND LIGHT STANDARDS DETAILS - SHEET 1	B-21091	1	STRUCTURAL DIVIDER WALKWAY TYPICAL SECTIONS				
B-16739	2		STRUCTURAL BASIN OVERFLOW	B-21031	1	ARCHITECTURAL HANDRAILS AND LIGHT STANDARDS DETAILS - SHEET NO. 2	B-21092	1	STRUCTURAL LAUNDER SUPPORT WALL SECTIONAL ELEVATIONS AND DETAILS				
B-16740	3		STRUCTURAL ELECTRICAL PLATFORM	B-21032	1	ARCHITECTURAL HANDRAILS AND LIGHT STANDARDS DETAILS - SHEET NO. 3	B-21093	1	STRUCTURAL SETTLING BASIN SLAB REINFORCEMENT PLAN & LAUNDER WALL DETAILS				
B-16741	3		STRUCTURAL SECTIONS AND DETAILS	B-21033	0	ARCHITECTURAL HANDRAILS AND LIGHT STANDARDS DETAILS - SHEET NO. 4	B-21094	0	STRUCTURAL MISCELLANEOUS SECTIONS AND DETAILS				
B-16742	4		STRUCTURAL SECTIONS THRU PUMP ROOM	B-21044	2	STRUCTURAL PLAN BELOW EL. 830.00	B-21095	0	STRUCTURAL OVERFLOW SPILLWAY PLAN AT ELEV. 827.75				
B-16743	2		STRUCTURAL SECTIONS AND DETAILS	B-21045	1	STRUCTURAL PLAN BELOW EL. 815.00	B-21096	1	STRUCTURAL OVERFLOW SPILLWAY PLAN BELOW ELEV. 816.0				
B-16744	3		STRUCTURAL LAUNDER DETAILS	B-21046	0	STRUCTURAL PLAN BELOW EL. 803.00	B-21097	0	STRUCTURAL OVERFLOW SPILLWAY SECTION				
B-16745	2		STRUCTURAL JOINT DETAILS	B-21047	0	STRUCTURAL SECTIONS - SHEET 1	B-21098	1	STRUCTURAL OVERFLOW SPILLWAY SECTIONS AND DETAILS SHEET NO. 1				
B-16746	1		STRUCTURAL HATCH COVERS	B-21048	1	STRUCTURAL SECTIONS - SHEET 2	B-21099	1	STRUCTURAL OVERFLOW SPILLWAY SECTIONS AND DETAILS SHEET NO. 2				
B-16780	1		ARCHITECTURAL ELECTRICAL, GENERATOR, COMPRESSOR AND LOCKER ROOMS	B-21049	1	STRUCTURAL INFLOW CHANNEL PLAN AT EL. 830.00 AND SECTIONS	B-21100	0	STRUCTURAL OVERFLOW SPILLWAY SECTIONS AND DETAILS SHEET NO. 3				
B-16781	4		ARCHITECTURAL HANDRAILS GENERAL ARRANGEMENT	B-21050	1	STRUCTURAL INFLOW CHANNEL PLAN AT EL. 821.00 AND EL. 813.00	B-21101	1	STRUCTURAL MIXING BASIN SLAB REINFORCING PLAN AND STAIRWAY DETAILS				
B-16787	2		ARCHITECTURAL LIGHT STANDARDS ON CLARIFIER ACCESS PLATFORM	B-21051	0	STRUCTURAL INFLOW CHANNEL ENLARGED PLANS AT EL. 830.00 & 813.00	B-21102	0	STRUCTURAL NORTH AND SOUTH WALLS TYPICAL SECTIONS				
B-16788	4		STRUCTURAL PLAN AT ELEVATIONS 824, 828 AND 844	B-21052	2	STRUCTURAL INFLOW CHANNEL WALL AND BEAM SECTIONS AT EL. 829.00	B-21103	1	STRUCTURAL PLAN OF JOINTS EAST HALF				
B-16789	6		STRUCTURAL PLAN AT ELEVATIONS 803 AND 812.50	B-21053	0	STRUCTURAL INFLOW CHANNEL SECTIONS	B-21104	0	STRUCTURAL PLAN OF JOINTS WEST HALF				
B-16790	4		STRUCTURAL KEY SECTIONS A THROUGH P	B-21054	1	STRUCTURAL INFLOW CHANNEL PLAN AT EL. 829.00 AND SECTIONS	B-21105	2	STRUCTURAL JOINT TYPES				
B-16791	3		STRUCTURAL KEY SECTIONS 1 THROUGH 8 AND FILTER SLAB SECTIONS	B-21056	1	STRUCTURAL INFLOW CHANNEL SECTIONS AND DETAILS SHEET 1	B-21106	1	STRUCTURAL JOINT TYPES AND WATERSTOP CLASSES				
B-16792	5		STRUCTURAL DETAIL A AND SECTIONS	B-21057	1	STRUCTURAL INFLOW CHANNEL SECTIONS AND DETAILS SHEET 2	B-21107	0	STRUCTURAL SLAB AND WALL JOINT SECTIONS - SHEET 1				
B-16793	5		STRUCTURAL SECTION B AND DETAILS	B-21058	0	STRUCTURAL GRAVITY DRAIN STRUCTURE PLAN AND SECTIONS	B-21108	2	STRUCTURAL SLAB AND WALL JOINT SECTIONS - SHEET 2				
B-16794	4		STRUCTURAL SECTION B AND SECTIONS	B-21059	1	STRUCTURAL GRAVITY DRAIN STRUCTURE SECTIONS AND DETAILS	B-21109	0	STRUCTURAL LAUNDER DETAILS				
B-16795	2		EXCAVATION PLAN - SHT. 1	B-21060	1	STRUCTURAL ELECTRICAL PLATFORM PLAN AND SECTIONS	B-21110	1	STRUCTURAL BAFFLE SUPPORT DETAILS				
B-16796	2		EXCAVATION PLAN - SHT. 2	B-21061	0	STRUCTURAL ELECTRICAL PLATFORM SECTIONS AND DETAILS	B-21111	0	STRUCTURAL MISCELLANEOUS STEEL DETAILS - SHEET 1				
B-16777	1		EXCAVATION PLAN - SHT. 3	B-21062	1	STRUCTURAL ENLARGED SECTIONS SHEET NO. 1	B-21112	0	STRUCTURAL MISCELLANEOUS STEEL DETAILS - SHEET 2				
B-16768	1		EXCAVATION PLAN - SHT. 4	B-21063	0	STRUCTURAL ENLARGED SECTIONS SHEET NO. 2	B-21113	0	STRUCTURAL MISCELLANEOUS STEEL DETAILS - SHEET 3				
B-16769	1		EXCAVATION PLAN - SHT. 5	B-21064	0	STRUCTURAL ENLARGED SECTIONS SHEET NO. 3	B-21114	0	STRUCTURAL ACCESS FLOOR DOOR DETAILS				
B-16780	1		EXCAVATION PLAN - SHT. 6	B-21065	1	STRUCTURAL ENLARGED SECTIONS SHEET NO. 4	B-21135	0	FILTERS - STRUCTURAL PLAN BELOW ELEV. 799.00				
B-16781	2		EXCAVATION PLAN - SHT. 7	B-21066	0	STRUCTURAL ENLARGED SECTIONS SHEET NO. 5	B-21136	1	FILTERS - STRUCTURAL PLAN BELOW ELEV. 805.50 - NORTH HALF				
B-16782	2		EXCAVATION PLAN - SHT. 8	B-21067	0	STRUCTURAL PIPE GALLERY PLAN AT ELEV. 827.9 AND DETAILS	B-21137	1	FILTERS - STRUCTURAL PLAN BELOW ELEV. 805.50 - SOUTH HALF				
B-16783	2		EXCAVATION PLAN - SHT. 9	B-21068	0	STRUCTURAL PIPE GALLERY PLAN AT ELEV. 812.0	B-21138	3	FILTERS - STRUCTURAL PLAN BELOW ELEV. 825.00 - NORTH HALF				
B-167692	1		STRUCTURAL PIPE GALLERY - DETAILS - SHEET 1	B-21069	1	STRUCTURAL PIPE GALLERY LONGITUDINAL SECTION	B-21139	4	FILTERS - STRUCTURAL PLAN BELOW ELEV. 825.00 - SOUTH HALF				
B-167693	0		STRUCTURAL PIPE GALLERY - DETAILS - SHEET 2	B-21070	1	STRUCTURAL PIPE GALLERY SECTIONS	B-21140	1	FILTERS - STRUCTURAL PLAN BELOW ELEV. 828.00 - NORTH HALF				
B-167694	1		STRUCTURAL BASIN OVERFLOW - DETAILS - SHEET #1	B-21071	0	STRUCTURAL PIPE GALLERY SECTIONS AND DETAILS	B-21141	0	FILTERS - STRUCTURAL PLAN BELOW ELEV. 828.00 - SOUTH HALF				
B-167695	1		STRUCTURAL BASIN OVERFLOW - DETAILS - SHEET #2	B-21072	1	STRUCTURAL PIPE GALLERY AND SLUDGE TUNNEL SECTIONS	B-21198	1	FILTERS - STRUCTURAL EAST PIPE TUNNEL AND INFLOW CONDUIT DETAILS SHEET 1				
				B-21073	1	STRUCTURAL PIPE GALLERY AND PUMP ROOM PLAN AT ELEV. 811.0 & SECTIONS	B-21199	2	FILTERS - STRUCTURAL EAST PIPE TUNNEL AND INFLOW CONDUIT DETAILS SHEET 2				
SCALE BARS	99% SUBMITTAL JUNE 9, 2014			STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION		MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA		WATER TREATMENT PLANTS	SPECIFICATIONS		
				ORIGINAL ISSUE		DESIGNED DS FOR DRAWING APPROVALS SEE		ROBERT B. DIEMER WATER TREATMENT PLANT		1524			
						DRAWN TJB		BASIN REHABILITATION		PROJECT NUMBER			
						CHECKED		REFERENCE DRAWINGS SHEET 1		103129			
				ISSUE DATE JUNE 2014		G-6				SHEET			
						DWG B-144777 REV 0				DWG			
BRDR DATE: 01/29/2009	PEN TABLE: mwdhw.tb1	PLOT TIME: 04-JUN-2014 08:02		USERID: u08738		FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37613\1524_103129_00g006.dgn				REV			

REFERENCE DRAWINGS

A	B	C	D	E	F	G	H	I	J	K	L
---	---	---	---	---	---	---	---	---	---	---	---

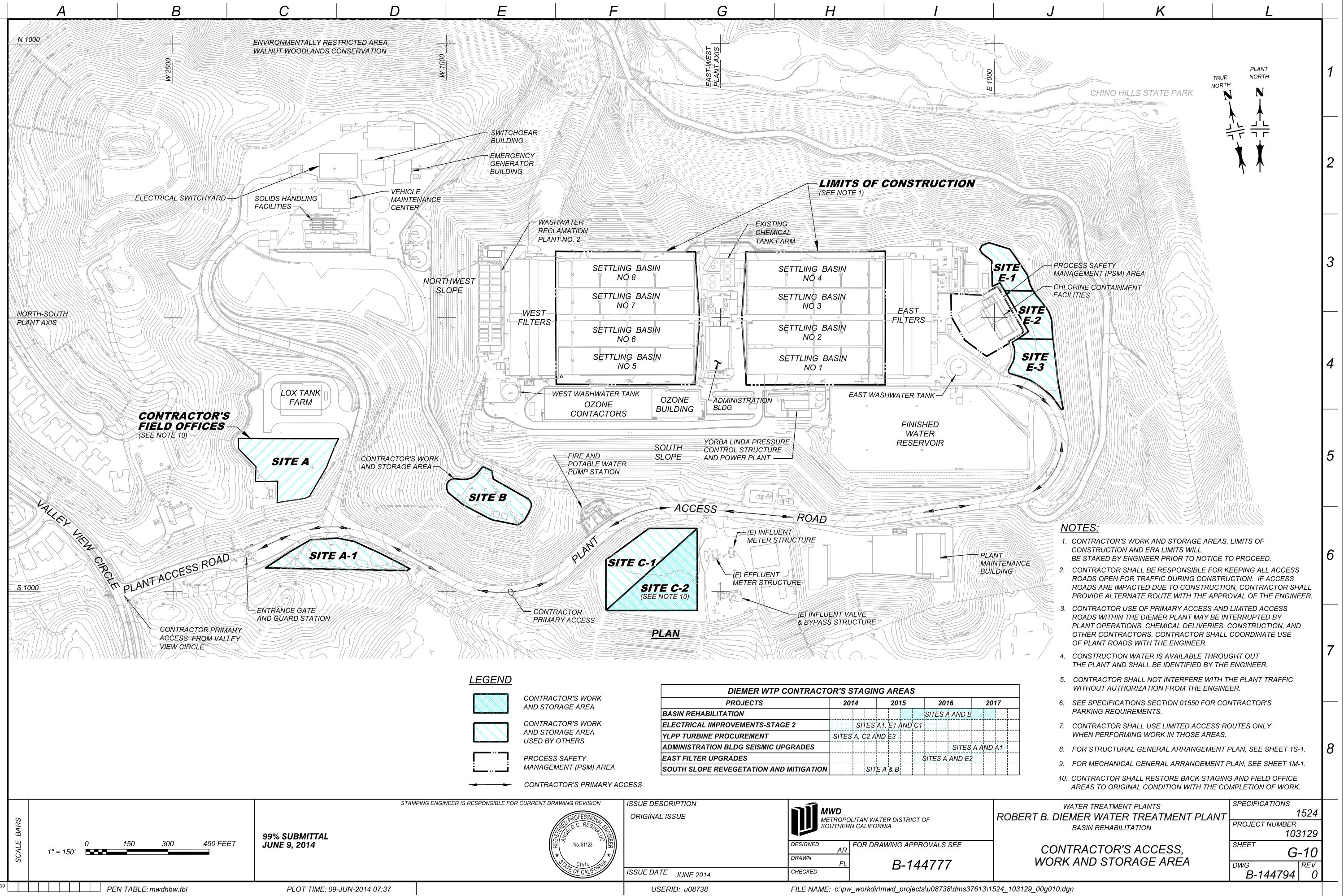
REFERENCE DRAWINGS

DRAWING NUMBER	REV	TITLE
SPEC. NO. 1705 - ROBERT B. DIEMER WATER TREATMENT PLANT DIEMER ELECTRICAL IMPROVEMENTS - STAGE 2.		
B-140015	0	HEADHOUSE SUB-BASEMENT AND CROSS TUNNELS ELECTRICAL PLAN
B-140018	0	BASEMENT AND SUB-BASEMENT SECTIONS
B-140020	0	HEADHOUSE BASEMENT ELECTRICAL LAYOUT PLAN
B-140021	0	HEADHOUSE BASEMENT ELECTRICAL ROOM DETAIL PLAN
B-140026	0	ADMINISTRATION BUILDING BASEMENT ELECTRICAL ROOM MCC SECTIONS
B-140029	0	CONDUIT AND CABLE SCHEDULE SHEET 2
SPEC. NO. 616 - COLORADO RIVER AQUEDUCT DISTRIBUTION SYSTEM LOWER FEEDER WATER FILTRATION PLANT - EAST		
B-16556	1	ELECTRICAL SERVICE LIGHTING PANEL BOARD SCHEDULE SHEET 4
B-16760	2	ELECTRICAL EQUIPMENT SHEET 1 FLOCCULATORS
B-16761	2	ELECTRICAL EQUIPMENT SHEET 2 CLARIFIERS
B-16762	3	ELECTRICAL EQUIPMENT DETAILS
B-16763	5	PIPE TUNNEL - FLOCCULATORS CONDUIT PLAN
B-16764	2	PIPE TUNNEL - FLOCCULATORS SECTIONS AND DETAILS
B-16765	2	CONDUIT PLAN DRY WELL BASINS
B-16766	2	PIPE TUNNEL - NORTH WALL POWER CONDUITS
B-16767	2	PIPE TUNNEL - SOUTH WALL POWER CONDUITS
B-16768	2	ACCESS TUNNELS - CLARIFIERS CONDUIT PLAN
B-16769	2	PUMP ROOM AND SLUDGE BASINS SECTIONS AND DETAILS
B-16770	2	OPERATING DECK AND WALKWAYS LIGHTING CONDUITS FIXTURES
B-16771	2	PIPE TUNNEL LIGHTING CONDUITS FIXTURES
B-16843	4	ELECTRICAL LIGHTING PANELS FILTER FLOOR
B-16845	3	LIGHTING CONDUITS OPERATING FLOOR AND WALKWAYS NORTH 1/2
B-16846	3	LIGHTING CONDUITS OPERATING FLOOR AND WALKWAYS SOUTH 1/2
B-18921	2	MIXING & SETTLING BASINS FLOCCULATORS WIRING DIAGRAM
SPEC. NO. 1533 - ROBERT B. DIEMER WATER TREATMENT PLANT WASHWATER TANK PUMPS REPLACEMENT PROJECT - EAST		
B-16842	12	ELECTRICAL EQUIPMENT PUMP ROOM AND SERVICE WATER DRYWELL EAST PLANT
SPEC. NO. 704 - ROBERT B. DIEMER FILTRATION PLANT EXPANSION NO. 1 - WEST		
B-21835	1	ELECTRICAL SERVICE PLOT PLAN - ELECTRICAL
B-21860	1	ELECTRICAL PLAN - EQUIPMENT LAYOUT
B-21862	2	ELECTRICAL - FLOCCULATORS - CONDUITS
B-21863	3	ELECTRICAL - ELECTRICAL EQUIPMENT - DETAILS
B-21864	1	ELECTRICAL - SLUDGE ROOMS AND TUNNELS PARTIAL PLAN
B-21865	1	ELECTRICAL - CLARIFIERS - CONDUITS
B-21866	1	ELECTRICAL - SLUDGE ROOMS - NORTH WALL - SECTIONS
B-21867	2	ELECTRICAL - SLUDGE ROOMS - SOUTH WALL - SECTIONS
B-21868	1	ELECTRICAL - PUMP ROOM AND SLUDGE BASINS SECTIONS AND DETAILS
B-21869	0	ELECTRICAL - BASIN LEVEL ALARMS
B-21870	2	ELECTRICAL - PIPE GALLERY PARTIAL PLAN AND SECTIONS SHEET 1
B-21871	2	ELECTRICAL - PIPE GALLERY PARTIAL PLAN AND SECTIONS SHEET 2
B-21872	0	ELECTRICAL - PIPE GALLERY - SECTIONS
B-21873	0	ELECTRICAL - MISCELLANEOUS DETAILS
B-21874	0	ELECTRICAL - OPERATING DECK AND WALKWAYS SOUTH 1/2 - LIGHTING
B-21875	0	ELECTRICAL - OPERATING DECK AND WALKWAYS NORTH 1/2 - LIGHTING
B-21876	1	ELECTRICAL - PIPE TUNNEL - LIGHTING CONDUITS
B-21877	0	ELECTRICAL - LIGHTING DETAILS

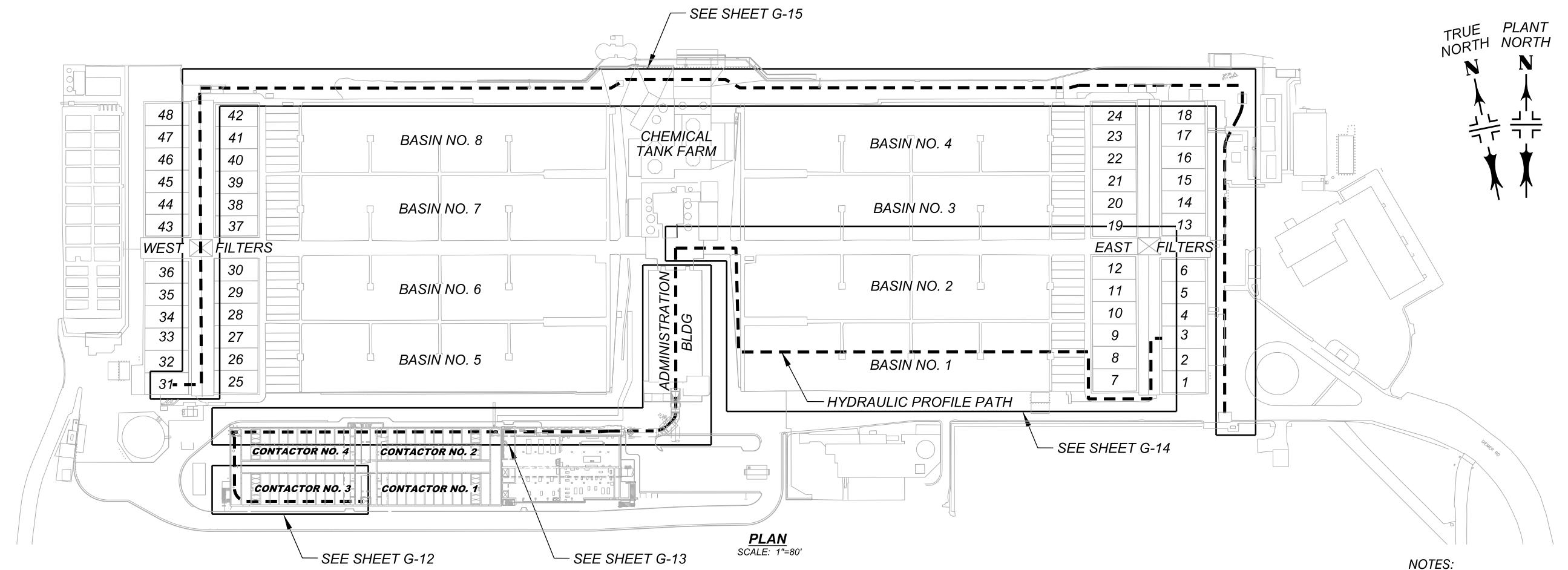
DRAWING NUMBER	REV	TITLE
SPEC. NO. 704 - ROBERT B. DIEMER FILTRATION PLANT EXPANSION NO. 1 - WEST		
B-21892	2	ELECTRICAL CONTROL ROOM AREA PLAN AND SECTIONS
B-21893	2	ELECTRICAL OPERATING FLOOR AND WALKWAYS NORTH 1/2 LIGHTING
B-21894	1	ELECTRICAL OPERATING FLOOR AND WALKWAYS SOUTH 1/2 LIGHTING
SPEC. NO. 1643A - ROBERT B. DIEMER WATER TREATMENT PLANT DIEMER EMERGENCY BROADCAST SYSTEM REHAB.		
B-21890	6	FILTERS - ELECTRICAL PUMP ROOM ELECTRICAL EQUIPMENT
WORK ORDER NO. 4-5085 - ROBERT B. DIEMER FILTRATION PLANT ELECTRICAL - WEST		
B-67674	1	SLUDGE FLOW INSTRUMENTS INTERCONNECTION WIRING DIAGRAM
B-67675	1	SLUDGE DENSITY INSTRUMENTS INTERCONNECTION WIRING DIAGRAM
WORK ORDER NO. 4-5261 - ROBERT B. DIEMER FILTRATION PLANT ELECTRICAL - WEST		
B-32612	0	FLOCCULATORS, CLARIFIERS AND SLUDGE PUMPS CONTROL SCHEMATICS
B-32796	0	SECTIONS AND DETAILS
B-32812	0	SECTIONS AND DETAILS
B-32796	0	SECTIONS AND DETAILS
WORK ORDER NO. 4-7684 - ROBERT B. DIEMER FILTRATION PLANT MIXING AND SETTLING BASINS - EAST & WEST		
B-39664	0	FLOCCULATOR CABLE TRAY LAYOUT NORTH AND SOUTH DRYWELLS AND ACCESS TUNNEL
B-39666	1	FLOCCULATOR CONTROL PANEL FRONT VIEW
B-39667	1	FLOCCULATOR CONTROL PANEL REAR VIEW
B-39669	1	FLOCCULATOR DRIVES ELECTRICAL SCHEMATIC DIAGRAM
B-39708	0	FLOCCULATOR CONTROL PANNEL FRONT VIEW
B-39709	0	FLOCCULATOR CONTROL PANEL REAR VIEW

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION			ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET G-8 DWG B-144792 REV 0
		REGISTERED PROFESSIONAL ENGINEER GINA MAJELLA HOGLUND No. 63849 CIVIL STATE OF CALIFORNIA	DESIGNED DRAWN TJB	FOR DRAWING APPROVALS SEE B-144777				
			ISSUE DATE JUNE 2014	CHECKED	USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37613\1524_103129_00g008.dgn			
BRDR DATE: 01/29/2009		PEN TABLE: mwdhw.tb1		PLOT TIME: 04-JUN-2014 08:03				

A	B	C	D	E	F	G	H	I	J	K	L
GENERAL NOTES				SURVEYOR'S NOTES				DESIGN CRITERIA			
1	2	3	4	5	6	7	8				
1. CONTRACTOR WORK AND STORAGE AREAS WILL BE STAKED BY THE ENGINEER.				THE PURPOSE OF THIS NOTE IS TO PROVIDE THE HORIZONTAL AND VERTICAL CONTROL TO BE USED FOR THE DIEMER PLANT BASIN REHABILITATION PROJECT (SPEC 1524).							
2. THE APPROXIMATE LOCATIONS OF PUBLIC AND PRIVATE UTILITIES WITH THE ACCOMPANYING SUBSTRUCTURES SHOWN ON THESE PLANS ARE FROM AVAILABLE INFORMATION AND REFERENCE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING SUCH UTILITIES AND SUBSTRUCTURES AS SHOWN WITHIN THE CONSTRUCTION WORK LIMITS.				HORIZONTAL CONTROL THE COORDINATES PROVIDED ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, NAD83, ZONE 6 (1991.35 EPOCH) AND DIEMER PLANT LOCAL COORDINATES. FOR ADJUSTMENT DATA REFERENCE MWD SURVEY JOB NO. 08-291 AND DRAWING B-111611 REV. 3.							
3. CONTRACTOR SHALL NOTIFY THE UNDERGROUND SERVICE ALERT FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION.				VERTICAL CONTROL THE ELEVATIONS PROVIDED ARE BASED ON NAVD88 DATUM AND WERE DETERMINED USING DIFFERENTIAL LEVELING TECHNIQUES. FOR DATUM CONVERSION AND REFERENCED BENCHMARK SEE "ELEVATION INFORMATION NOTE" BELOW.							
4. IN GENERAL, WHERE NEW FEATURES AND EXISTING FEATURES ARE SHOWN ON THE SAME DRAWING, THE NEW FEATURES ARE SHOWN IN DARK OR SOLID LINES. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS BEFORE COMMENCING WORK. FOR WORK WITHIN AND CONNECTING TO EXISTING FACILITIES, CONTRACTOR SHALL PREPARE A DETAILED FIELD SURVEY OF EXISTING CONDITIONS, AND IDENTIFY ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND NEW SHOWN ON THE DRAWINGS, PRIOR TO SUBMITTAL OF SHOP DRAWINGS. CONTRACTOR SHALL PROVIDE TEST PITS AND POTHOLING WHERE REQUIRED TO CONFIRM EXISTING CONDITIONS. CONTRACTOR SHALL PROPOSE SOLUTIONS TO RESOLVING CONFLICTS IN ADVANCE OF SUBMITTING SHOP DRAWINGS. SHOP DRAWING SUBMITTAL'S SHALL INCLUDE RESULTS OF FIELD SURVEYS COMPLETED.				THE FOLLOWING POINTS SHOULD BE USED AS CONTROL FOR THIS PROJECT:							
5. CONTRACTOR SHALL MAINTAIN SAFE DISTANCES FROM POWER LINES PER STATE LAW AND PER POWER LINE OWNER'S REQUIREMENTS.				THE COMBINATION FACTOR TO BE USED IS 0.99997652 (TO CONVERT THE GRID TO GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY THE COMBINATION FACTOR).							
6. WHERE THE CONTRACTOR DAMAGES EXISTING IMPROVEMENTS THAT ARE TO REMAIN, THE CONTRACTOR SHALL REPLACE AND RECONSTRUCT TO RETURN THEM TO EXISTING CONDITION, AT CONTRACTOR'S EXPENSE.				POINT # 6023 (DP 23) STATE PLANE COORDINATES N 2,279,264.34 E 6,086,117.00 EL = 817.26 DESCRIPTION = FOUND 3 1/4 INCH STANDARD MWD BRASS DISK STAMPED "DP 23 2012", WITH PUNCH MARK, 12 INCHES BELOW SURFACE IN SURVEY WELL. PER MWD FIELD NOTES 2205-12/044.		LOCAL DIEMER PLANT COORDINATES N 238.08 E 809.86					
7. PLANT ROAD PAVEMENTS DAMAGED OR DISTRESSED BY CONSTRUCTION ACTIVITIES SHALL BE REMOVED AND RECONSTRUCTED AS DIRECTED BY THE ENGINEER.				POINT # 6022 (DP 22) STATE PLANE COORDINATES N 2,279,431.85 E 6,085,261.24 EL = 826.49 DESCRIPTION = FOUND 3 1/4 INCH STANDARD MWD BRASS DISK STAMPED "DP 22 2012", WITH PUNCH MARK, 12 INCHES BELOW SURFACE IN SURVEY WELL. PER MWD FIELD NOTES 2205-12/043.		LOCAL DIEMER PLANT COORDINATES N 234.75 W 62.16					
8. FOR THE FIXTURES IDENTIFIED TO BE RELOCATED, CONTRACTOR SHALL EXAMINE THE FIXTURES CAREFULLY BEFORE THEIR REMOVAL. ANY DIFFICULTIES OF THE REMOVAL SHALL BE IMMEDIATELY REPORTED IN WRITING TO THE ENGINEER FOR DISCUSSIONS. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE FIXTURES TO BE RELOCATED.				POINT # 6025 (DP 25) STATE PLANE COORDINATES N 2,278,975.31 E 6,085,166.16 EL = 828.92 DESCRIPTION = FOUND 3 1/4 INCH STANDARD MWD BRASS DISK STAMPED "DP 25 2012", WITH PUNCH MARK, 11 INCHES BELOW SURFACE IN SURVEY WELL. PER MWD FIELD NOTES 2205-12/040.		LOCAL DIEMER PLANT COORDINATES S 231.59 W 65.98					
9. ON ALL ACCESS ROADS, CONTRACTOR SHALL KEEP AT LEAST ONE TRAFFIC LANE OPEN AT ALL TIMES.				ELEVATION INFORMATION NOTE:							
10. ALL EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS NOTED OTHERWISE.				DIEMER PLANT BASIN REHABILITATION PROJECT							
				THE ORIGINAL DIEMER TREATMENT PLANT PROJECT WAS INCLUDED IN SPEC 616 DATED MARCH 1961. THE BENCHMARK USED FOR THIS PROJECT WAS A NAIL AND TAG IN THE NORTHEAST SIDE OF A POWER POLE AT THE END OF VALLEY VIEW WAY WITH A NGVD29 ELEVATION OF 436.310 FT. (DESTROYED). THE ELEVATIONS TO BE USED ON ALL NEW DESIGN FOR THIS TREATMENT PLANT PROJECT WILL BE BASED ON THE NAVD88 VERTICAL DATUM. THE CONVERSION FACTOR TO BE USED IS 2.28 FEET. NGVD29 ELEVATION 436.310 + 2.28 FEET CONVERSION FACTOR = 438.59 NAVD88 ELEVATION							
				THE ORIGINAL DIEMER TREATMENT PLANT EXPANSION # 1 PROJECT WAS INCLUDED IN SPEC 704 & 713 DATED 1966. THE BENCHMARK USED FOR THIS PROJECT IS A MWD BRASS DISK ON THE TOP OF CURB, ON THE NORTH SIDE OF THE HEAD HOUSE WITH A NGVD29 ELEVATION OF 830.15 FT. (FOUND). THE ELEVATIONS TO BE USED ON ALL NEW DESIGN FOR THIS TREATMENT PLANT PROJECT WILL BE BASED ON THE NAVD88 VERTICAL DATUM. THE CONVERSION FACTOR TO BE USED IS 2.28 FEET. NGVD29 ELEVATION 830.150 + 2.28 FEET CONVERSION FACTOR = 832.43 NAVD88 ELEVATION							
				ALL FUTURE DRAWINGS SHOULD REFER TO DIEMER PLANT BM "4000" WITH A NAVD88 ELEVATION OF 832.43 FT. AS REFERENCED ON FIELD NOTE 2205-03/044 AND NGS PID # AB8696. AND BM "5019" WITH A NAVD88 ELEVATION OF 818.67 FT. AS REFERENCED ON FIELD NOTE 2205-03/042 AND NGS PID # AB8695.							
SCALE BARS				STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER ANGELO C. REGALADO No. 51123 CIVIL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	DESIGNED AR DRAWN FL ISSUE DATE JUNE 2014 CHECKED	FOR DRAWING APPROVALS SEE B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION GENERAL AND SURVEYOR'S NOTES AND DESIGN CRITERIA	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET G-9 DWG B-144793 REV 0	

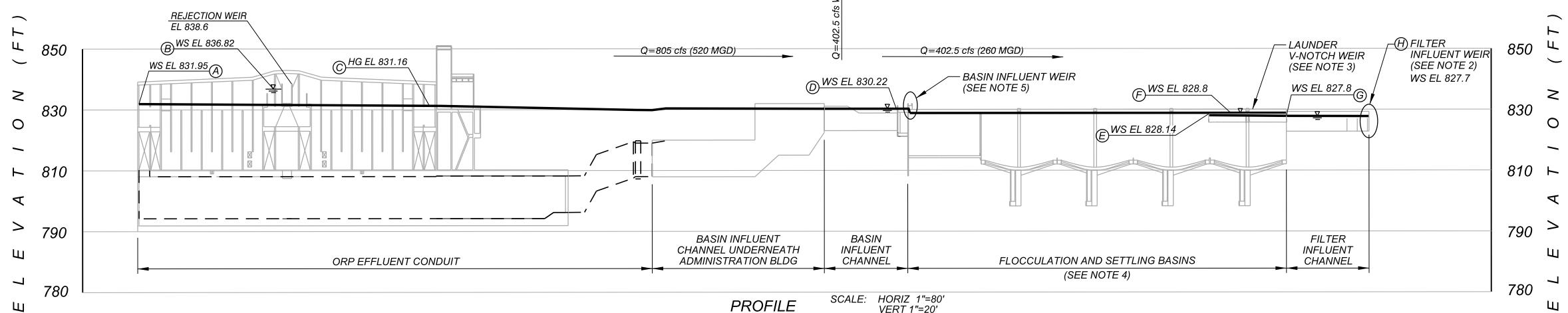


A B C D E F G H I J K L



NOTES:

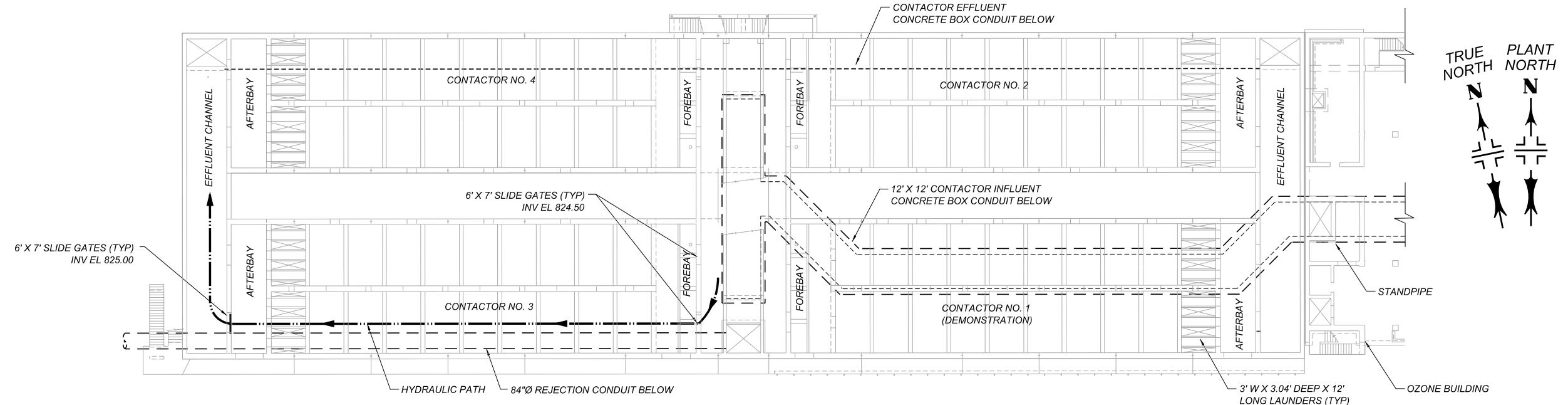
- ALL ELEVATIONS ARE BASED ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88).
- FILTER INFLUENT WEIR ELEVATION, RAISED FOR WEST SIDE FILTERS; NO CHANGE ON EAST SIDE. SEE DETAIL 1 OF SHEET G-14.
- NEW BOTTOM V-NOTCH WEIR ELEVATION, SEE NOTE 8 OF SHEET G-14.
- NEW BAFFLE WALL CONFIGURATION, SEE DETAIL 3 OF SHEET G-14.
- NEW INFLUENT WEIR ELEVATION, SEE DETAIL 2 OF SHEET G-14.
- HYDRAULIC PROFILE IS BASED ON Q=520 mgd WITH EVEN SPLIT (260 mgd) FOR EAST AND WEST SIDE. PLANT FLOW ABOVE AND BEYOND 520 MGD, WILL BE MANUALLY DIVERTED TO WEST SIDE BASINS ONLY.
- INCREASED HGL AT PT (A) IN HYDRAULIC SUMMARY TABLE IS DUE TO LOWER VELOCITY AT FILTER INFLUENT CHANNEL.
- FOR 340 mgd TO WEST SIDE, SEE HYDRAULIC SUMMARY TABLE BELOW.



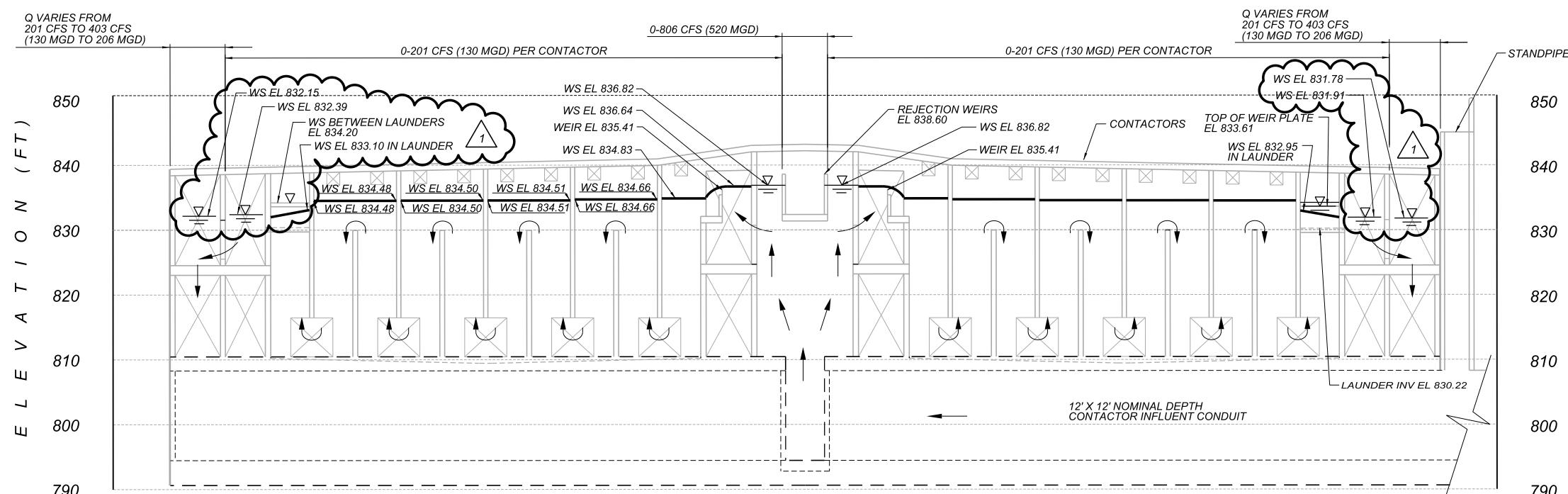
HYDRAULIC SUMMARY TABLE OF WEST BASINS FOR Q = 340 MGD		
PT	WS ELEVATION	LOCATION
(A)	832.44	ORP CONTACTOR NO. 4 EFFLUENT CHANNEL JUNCTION
(B)	837	DOWNTREAM ORP REJECTION WEIR
(C)	831.39	ORP CONTACTOR NO. 2 EFFLUENT CHANNEL JUNCTION
(D)	830.45	UPSTREAM INFLUENT CHANNEL WEIR
(E)	828.22	UPSTREAM EFFLUENT LAUNDER
(F)	828.82	UPSTREAM EFFLUENT LAUNDER WEIR
(G)	827.58	DOWNSTREAM EFFLUENT LAUNDER
(H)	827.82	UPSTREAM FILTER INFLUENT WEIR

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION GINA MAJELLA HOIGEN REGISTERED PROFESSIONAL ENGINEER No. 63849 CIVIL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE FOR DRAWING APPROVALS SEE B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION DIEMER PLANT HYDRAULIC PLAN AND PROFILE	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET G-11 DWG B-144795 REV 0
1" = 80' 0 80 160 240 FEET	99% SUBMITTAL JUNE 9, 2014	ISSUE DATE JUNE 2014	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37613\1524_103129_00g011.dgn
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 05-JUN-2014 03:44		

A B C D E F G H I J K L



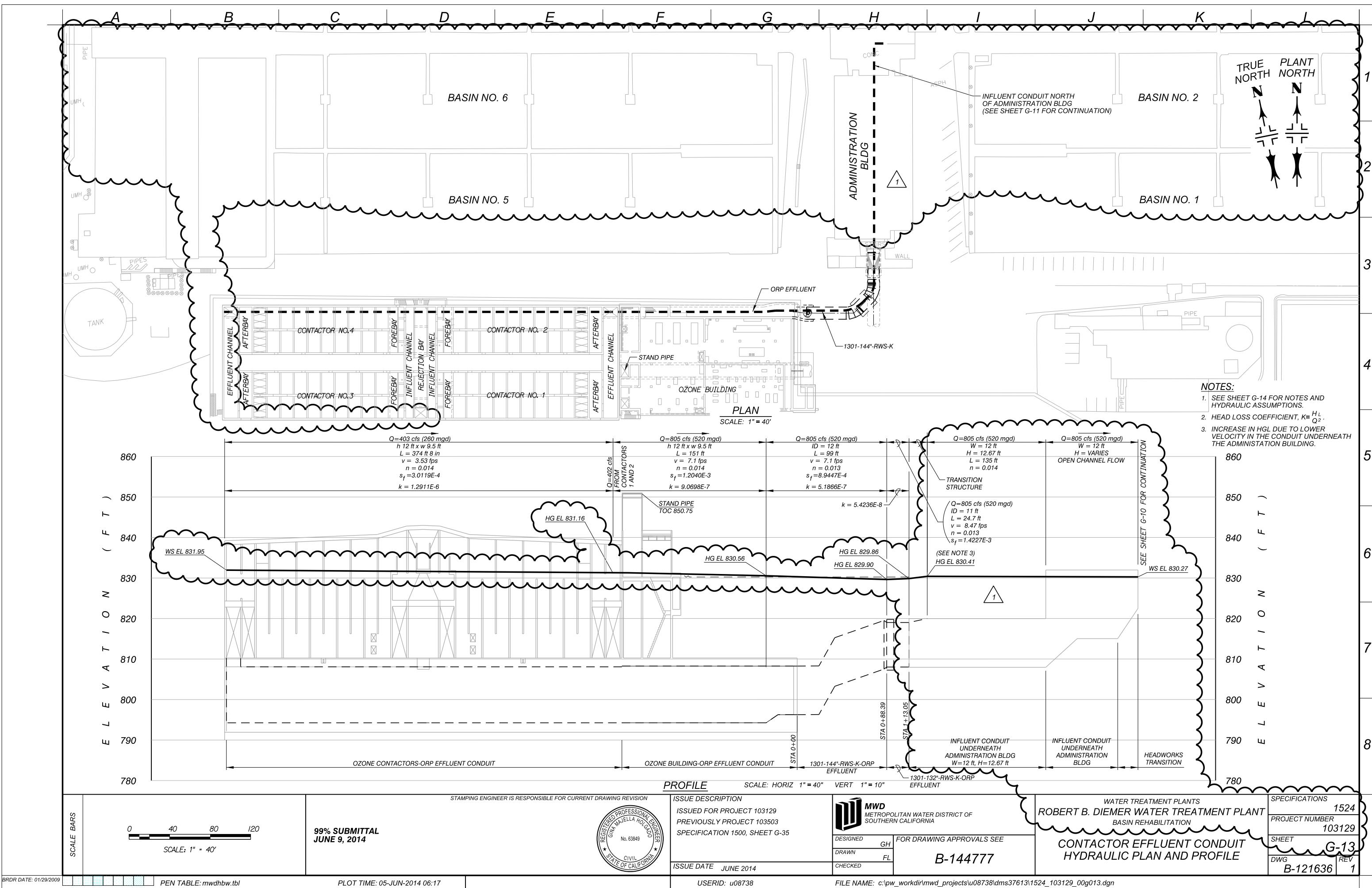
PLAN
SCALE: 1" = 20'

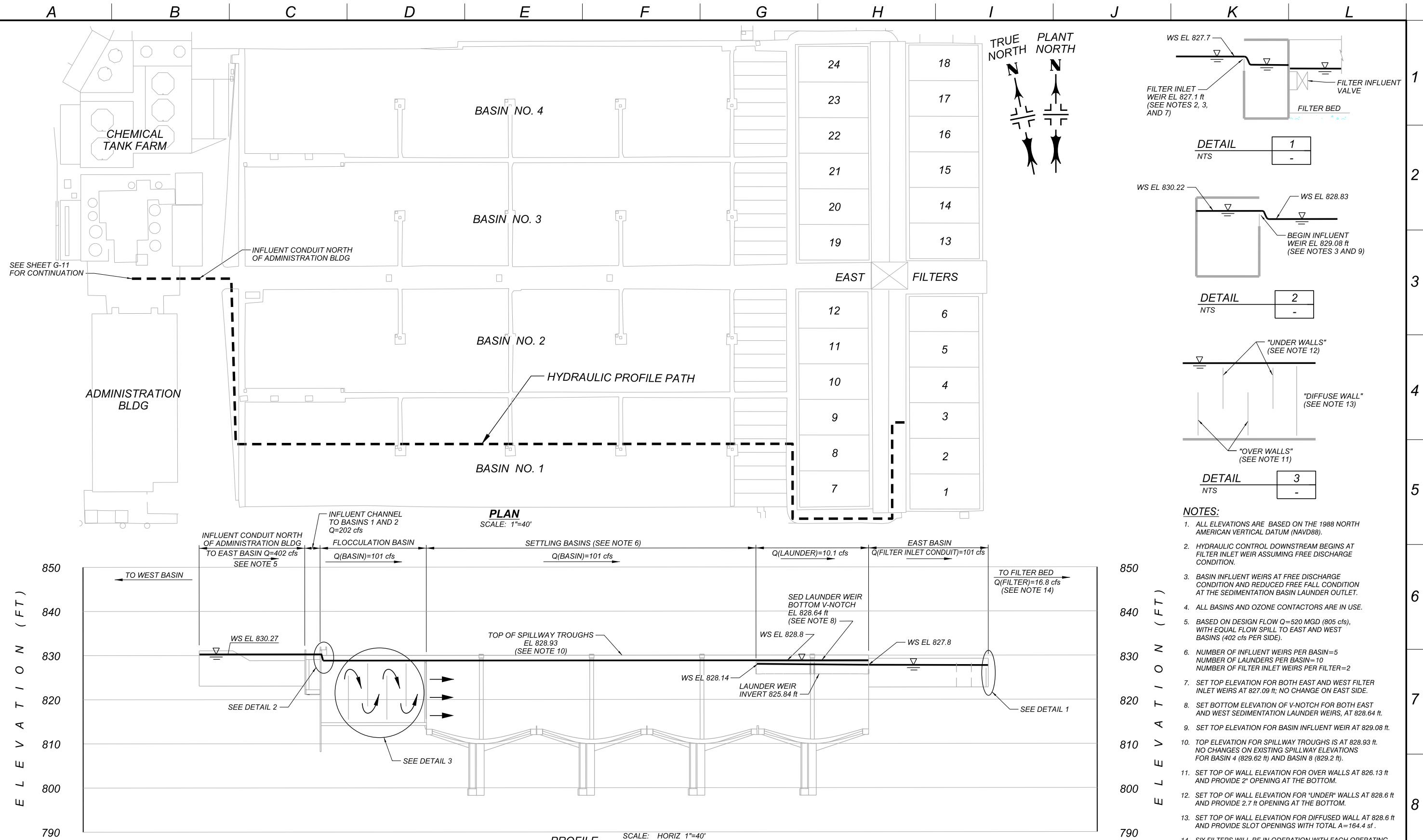


PROFILE
SCALE: HORIZ 1" = 20"
VERT 1" = 10"

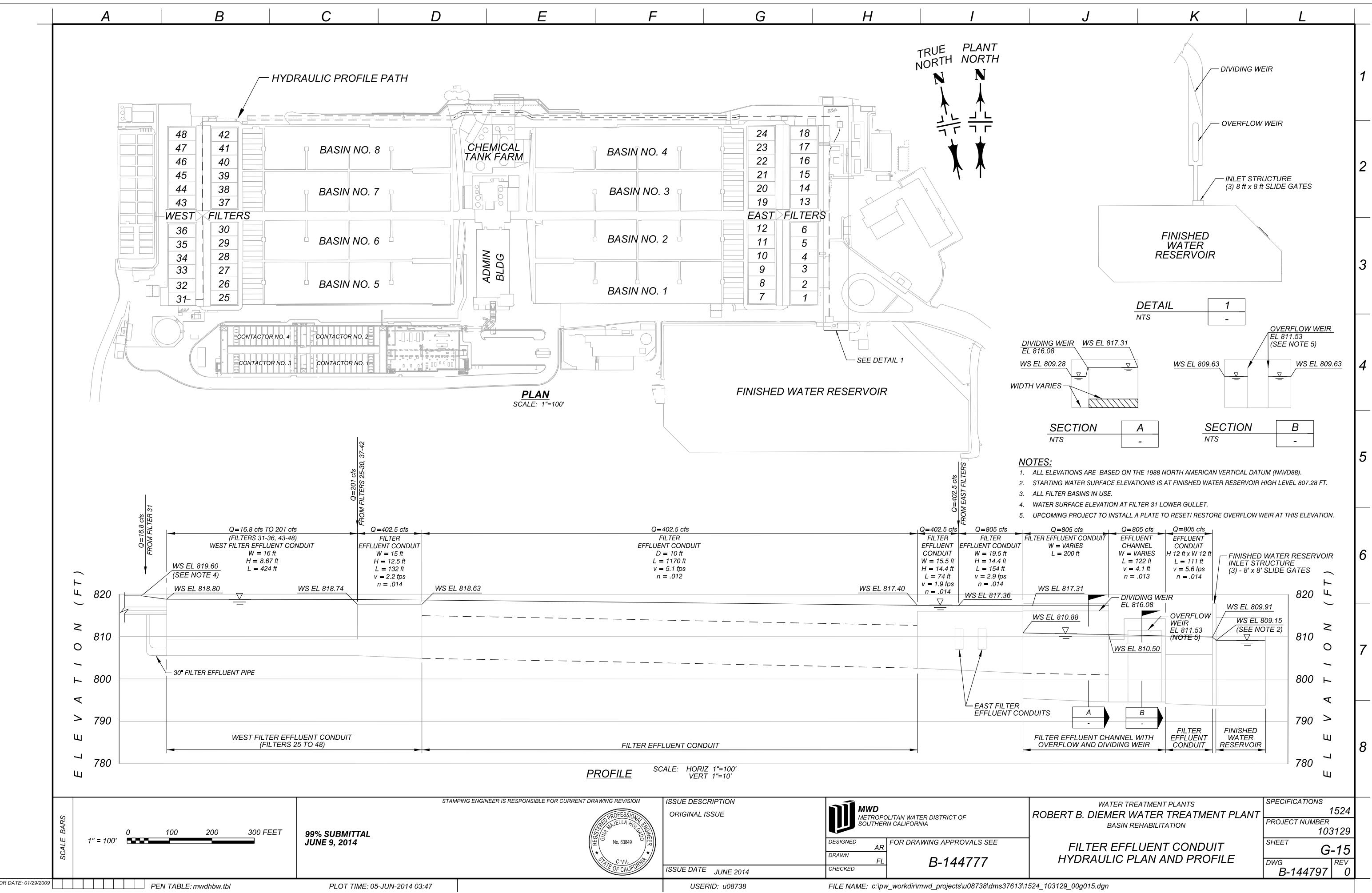
- NOTES:
1. ALL ELEVATIONS BASED ON NAVD 88.
 2. DOWNSTREAM HYDRAULIC CONTROL IS BASED ON EXISTING DIEMER INLET WEIRS AT ELEVATION 829.08 FT. ASSUMING FREE DISCHARGE WEIR CONDITION.
 3. WATER SURFACE ELEVATION AT END OF CONTACTORS IS BASED ON REDUCED FREE FALL CONDITION AT LAUNDER OUTLET.
 4. EQUAL FLOW SPLIT OF 201 CFS (130 MGD) PER CONTACTOR IS BASED ON ALL FOUR CONTACTORS IN SERVICE.
 5. THE DISINFECTION PROCESS ASSUMED OZONE DIFFUSION INTO STAGES 1, 2, 3 AND 6. THE ASSUMED HEADLOSS FOR DISINFECTION IS 0.13 FT PER STAGE FOR COUNTERCURRENT AND NO HEADLOSS FOR CONCURRENT FLOW (MEASUREMENTS TAKEN AT THE WEYMOUTH PLANT OXIDATION DEMONSTRATION PLANT AND DESIGN CRITERIA USED FOR JENSEN AND MILLS PLANT).
 6. OZONE DESTRUCT SYSTEM IN THE CONTACTORS WILL CREATE A VACUUM WHICH COULD RAISE THE WATER SURFACE ELEVATION 3 INCHES.
 7. MAXIMUM WATER SURFACE ELEVATION DURING PLANT REJECTION IS 841.44 FT FOR Q = 600 MGD (930 CFS) AND 84178 FOR Q=710 MGD (1098 CFS).
 8. ALL GATES ARE ASSUMED FULLY OPEN.

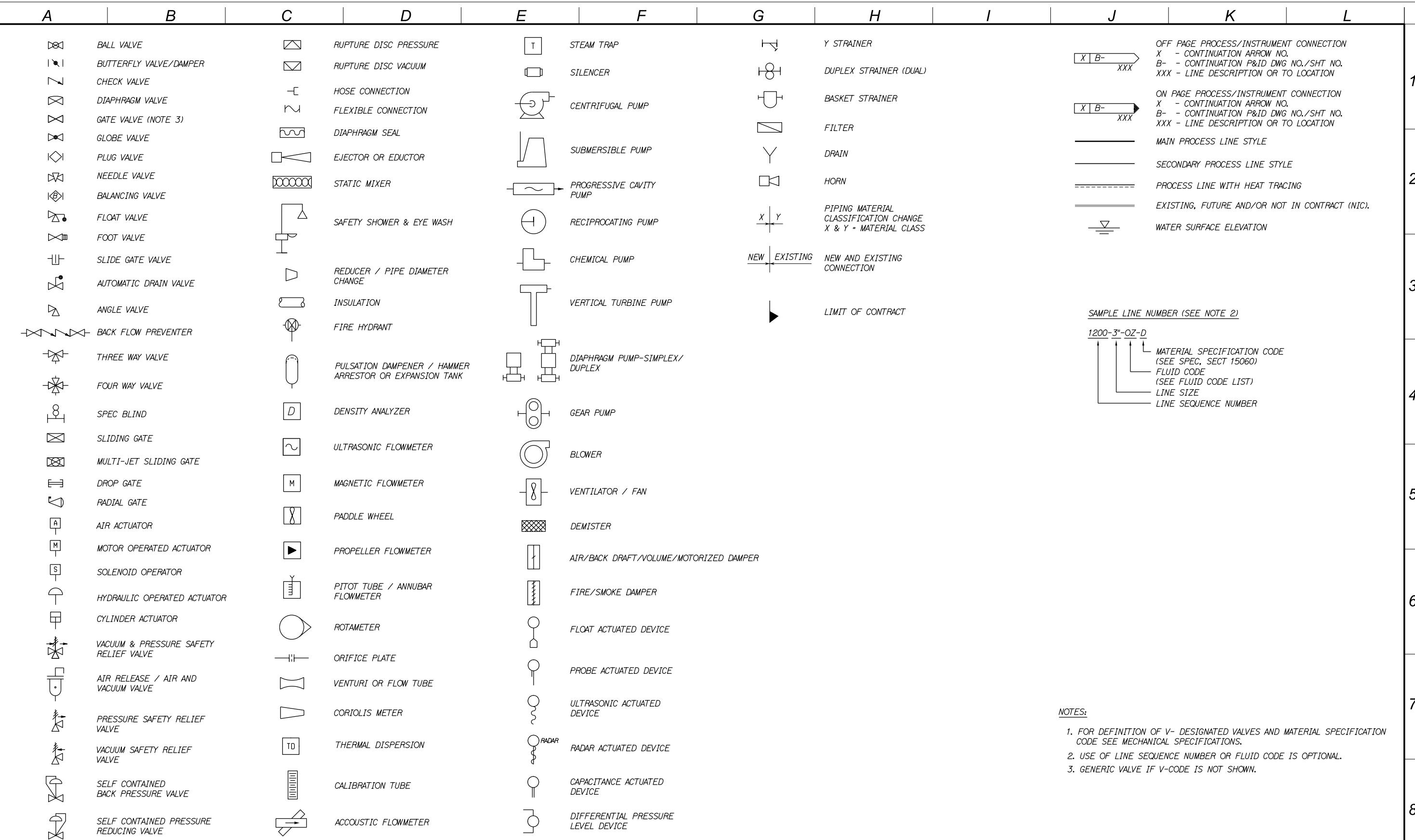
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 	ISSUE DESCRIPTION ISSUED FOR PROJECT 103129 PREVIOUSLY PROJECT 103503 SPECIFICATION 1500, SHEET G-37 ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED GH DRAWN FL CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION CONTACTORS HYDRAULIC PLAN AND PROFILE B-144795	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET G-12 DWG B-121638 REV 1
0 20 40 60 SCALE: 1" = 20'	99% SUBMITTAL JUNE 9, 2014	PEN TABLE: mwdhbw.tbl PLOT TIME: 05-JUN-2014 03:45	USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37613\1524_103129_00g012.dgn		





SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED GH DRAWN FL CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS HYDRAULIC PLAN AND PROFILE B-144796	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET G-14 DWG B-144796 REV 0
1"= 40' 0 40 80 120 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 05-JUN-2014 03:46	USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37613\1524_103129_00g014.dgn			





NOTES:

1. FOR DEFINITION OF V- DESIGNATED VALVES AND MATERIAL SPECIFICATION CODE SEE MECHANICAL SPECIFICATIONS.
2. USE OF LINE SEQUENCE NUMBER OR FLUID CODE IS OPTIONAL.
3. GENERIC VALVE IF V-CODE IS NOT SHOWN.

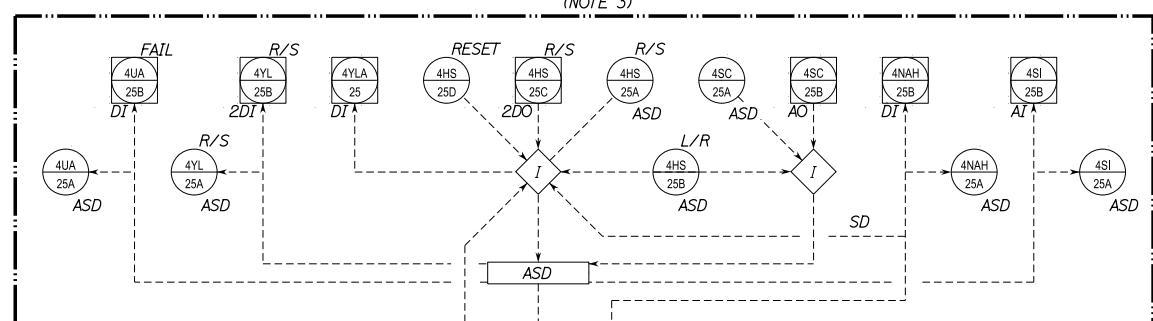
SCALE BARS		99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION ORIGINAL ISSUE		MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION		SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET I-2 DWG B-144800 REV 0
			DESIGNED DRAWN ISSUE DATE JUNE 2014	AM CSL CHECKED						
PEN TABLE: mwdhwbtbl		PLOT TIME: 05-JUN-2014 06:54			USERID: u08288	FILE NAME: IP_PWP:dms37622\1524_103129_00\002.dgn				
BRDR DATE: 01/29/2009										

A	B	C	D	E	F	G	H	I	J	K	L
FLUID CODE				EQUIPMENT ABBREVIATIONS			PANEL ABBREVIATIONS			GENERAL ABREVIATIONS	
A = AIR AA = AQUEOUS AMMONIA AL = ALUM AV = AIR VENT BP = BYPASS BW = BACKWASH WATER C = CONDENSATE CD = CHEMICAL DRAIN CHS = CHILLED WATER SUPPLY CHR = CHILLED WATER RETURN CHW = CHILLED WATER CIS = CHEMICAL INHIBITOR SOL CLG = CHLORINE GAS CLL = CHLORINE LIQUID CLS = CHLORINE SOLUTION COA = COAGULANT CS = CAUSTIC SODA CWR = COOLING WATER RETURN CWS = COOLING WATER SUPPLY DI = DEIONIZED WATER DMW = DEMINERALIZED WATER DN = DECANT DPOL = DRY POLYMER SOLUTION DR = DRAIN FA = FLUOROSILICIC ACID FC = FERRIC CHLORIDE FG = FUEL GAS FOR = FUEL OIL RETURN FOS = FUEL OIL SUPPLY FPW = FIRE PROTECTION WATER FSW = FILTER SURFACE WASHWATER FW = FIRE WATER GW = GRAY WATER HP = HYDROGEN PEROXIDE HW = POTABLE HOT WATER IA = INSTRUMENT AIR IRW = IRRIGATION WATER LO = LUBE OIL LOX = LIQUID OXYGEN LPOL = LIQUID POLYMER LP = LIQUIFIED PETROLEUM LPG = LIQUIFIED PETROLEUM GAS MW = MAKE-UP WATER N = NITROGEN NG = NATURAL GAS OF = OVERFLOW OG = OFF-GAS OW = OZONATED WATER OX = OXYGEN (GAS) OZ = OZONE PA = PLANT AIR PW = POTABLE WATER RW = RAW WATER RWR = RAW WATER RETURN RWS = RAW WATER SUPPLY RWW = RECLAIMED WASHWATER SD = SANITARY DRAIN SF = SLUDGE FILTRATE SFA = SULFURIC ACID SFW = SOFT WATER SH = SODIUM HYPOCHLORITE SLG = SLUDGE SP = SPARE SS = SANITARY SEWER SU = STRUCTURE UNDERDRAIN SUBD = SUBDRAIN SPD = SUMP PUMP DISCHARGE	SW = SERVICE WATER TS = THICKENED SLUDGE TSN = THICKENER SUPERNATANT UWW = USED WASHWATER V = VENT	ACP = AIR COMPRESSOR AD = AIR DAMPER ADP = AIR DRYER PACKAGE ADR = AIR DRYER AF = AIR FILTER AFC = AFTER COOLER AHU = AIR HANDLING UNIT AIV = AIR INTAKE VENTILATOR B = BLOWER BFP = BACKFLOW PREVENTER BO = BOILER BPV = BACK PRESSURE VALVE CD = CATALYTIC DESTRUCT CH = CHILLER CL = CHLORINATOR CLA = CLARIFIER EF = ELECTRIC FAN/EXHAUST EJ = EJECTOR EPG = EMERGENCY POWER GENERATOR EV = EVAPORATOR EW = EYE WASH F = FLOCCULATORS FC = FLEXIBLE CONNECTION FID = FIRE DAMPER FTR = FILTER FV = FLOW VALVE G = SLIDE GATE/SLUICE GATE H = HEATER HE = HEAT EXCHANGER HYDT = HYDROSTATIC TESTER LF = LINE FILTER (STRAINER) MX = MIXER OD = OZONE DESTRUCT OG = OZONE GENERATOR OBC = OXYGEN BOOSTER COMPRESSOR P = PUMP PBC = PRESSURE BUILDING COIL PCV = PRESSURE CONTROL VALVE PD = PULSATION DAMPENER PRV = PRESSURE REDUCING VALVE PSV = PRESSURE SAFETY VALVE RD = RUTURE DISC REC = RECOMPRESSOR S = SAFETY SHOWER SBR = SCRUBBER SF = SUPPLY FAN SV = SOLENOID VALVE TG = TURBINE GENERATOR TGA = TURBINE GENERATOR AUXILIARY TK = TANK TRB = TRAVELING BRIDGE V = VALVE VAP = VAPORIZER VAV = VARIABLE AIR VALVE VRV = VACUUM REGULATING VALVE WE = SCALE	ACCP = AIR COMPRESSOR CONTROL PANEL ACPP = AIR COMPRESSOR PACKAGE ACS = ALARM CONTROL SYSTEM ADCP = AIR DAMPER CONTROL PANEL ADP = AIR DRYER PACKAGE AFCP = AMMONIA FILL CONTROL PANEL AFFCP = ALUM/FERRIC FILL CONTROL PANEL AFICP = ALUM/FERRIC ISOLATION CONTROL PANEL AICP = AMMONIA ISOLATION CONTROL PANEL ANP = ANNUNCIATOR PANEL CFCP = CAUSTIC FILL CONTROL PANEL CICP = CAUSTIC ISOLATION CONTROL PANEL CLP = CHILLER CONTROL PANEL CSCP = CHLORINE SCRUBBER CONTROL PANEL CSFVP = CAUSTIC SODA FLOW VALVE PANEL CSPIP = CAUSTIC SODA PUMP ISOLATION VALVE PANEL CSTP = CAUSTIC SODA TRANSFER PANEL DPFCP = DRY POLYMER FILL CONTROL PANEL DPICP = DRY POLYMER ISOLATION CONTROL PANEL EFCP = EXHAUST FAN CONTROL PANEL ESDP = EMERGENCY SHUTDOWN PANEL FACP = FIRE ALARM CONTROL PANEL FAFCP = FLUOROSILICIC ACID FILL CONTROL PANEL FBSP = FLUOROSILICIC ACID ISOLATION CONTROL PANEL FDCP = FIRE DAMPER CONTROL PANEL HPFPCP = HYDROGEN PEROXIDE FEED PUMP CONTROL PANEL HPIP = HYDROGEN PEROXIDE PUMP ISOLATION PANEL LCP = LOCAL CONTROL PANEL LPFCP = LIQUID POLYMER FILL CONTROL PANEL LPICP = LIQUID POLYMER ISOLATION CONTROL PANEL MCCP = MASTER CONTROLLER CONTROL PANEL PDP = POWER DISTRIBUTION PANEL PSUCP = POWER SUPPLY UNIT CONTROL PANEL SAFCP = SULFURIC ACID FILL CONTROL PANEL SAICP = SULFURIC ACID ISOLATION CONTROL PANEL SHFCP = SODIUM HYPOCHLORITE FILL CONTROL PANEL SHFVP1 = SODIUM HYPOCHLORITE FLOW VALVE PANEL 1 SHFVP2 = SODIUM HYPOCHLORITE FLOW VALVE PANEL 2 SHFVP3 = SODIUM HYPOCHLORITE FLOW VALVE PANEL 3 SHICP = SODIUM HYPOCHLORITE ISOLATION CONTROL PANEL SHIP = SODIUM HYPOCHLORITE PUMP ISOLATION PANEL SVCP = SOLENOID VALVE CONTROL PANEL	ATM = ATMOSPHERE CT = CONTACT TIME CCS = CENTRAL CONTROL SYSTEM DCS = DISTRIBUTED CONTROL SYSTEM EQUIP = DEVICE FURNISHED AS PART OF THE EQUIP PACKAGE HT = HYDROTESTING FC = FAIL CLOSED LC = LOCK CLOSED LD = LEAK DETECTOR LO = LOCK OPEN N/A = NOT APPLICABLE NC = NORMALLY CLOSED NIC = NOT IN CONTRACT NO = NORMALLY OPEN OMI = OPERATOR MACHINE INTERFACE PLC = PROGRAMMABLE LOGIC CONTROLLER PLC MC = PROGRAMMABLE LOGIC MASTER CONTROLLER PLC OGR = PROGRAMMABLE LOGIC CONTROLLER OZONE GENERATOR PSU = POWER SUPPLY UNIT RTD = RESISTANCE THERMAL DETECTOR RTU = REMOTE TERMINAL UNIT VAC = VACUUM	1 2 3 4 5 6 7 8						
SCALE BARS	99% SUBMITTAL JUNE 9, 2014				STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TOMMY FARM No. C 82504 CIVIL STATE OF CALIFORNIA			ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED AM DRAWN CSL ISSUE DATE JUNE 2014 CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION INSTRUMENTATION LEGEND AND SYMBOLS SHEET 3 OF 3	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET I-3 DWG B-144801 REV 0 FILE NAME: IP_PWP:dms37622\1524_103129_00\003.dgn
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 05-JUN-2014 06:55						USERID: u08288			

A | B | C | D | E | F | G | H | I | J | K | L

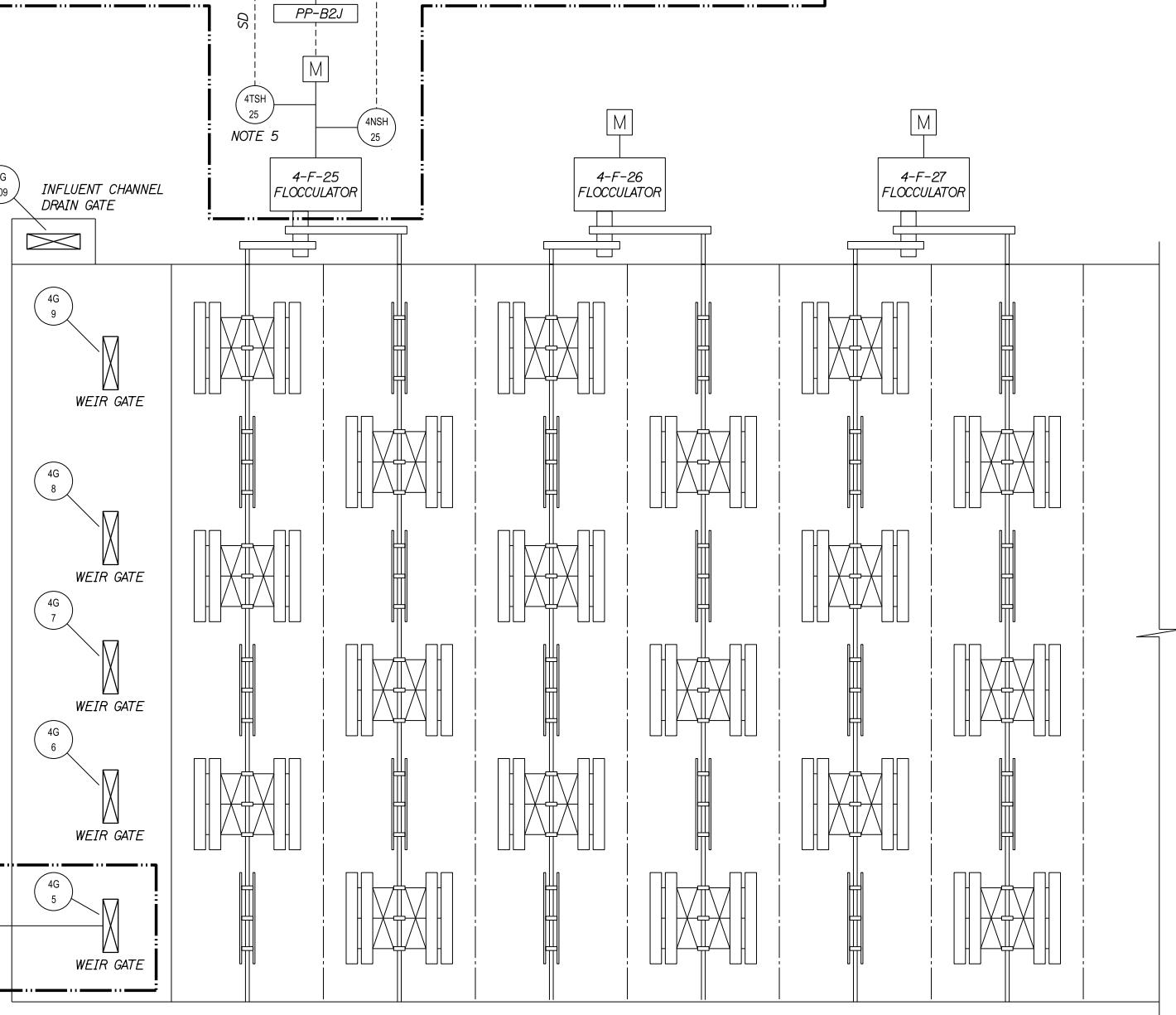
TYPICAL ASSEMBLY

EAST FLOCULATOR
TYPICAL OF 12
(NOTE 3)



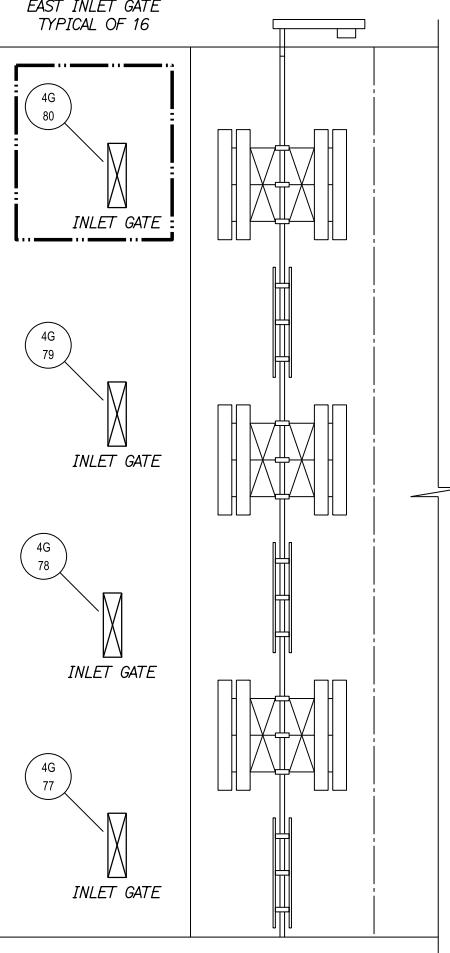
NOTES:

- FOR LEGEND AND SYMBOLS SEE DWG B-144799, B-144800 AND B-144801.
- ALL RTU I/O POINTS SHALL BE CONNECTED TO RTU DMRO53-1 UNLESS OTHERWISE SHOWN ON DRAWING.
- BASIN 1 SHOWN ON THIS DRAWING. FOR BASIN 2 THROUGH 4 TAG NUMBERS SEE TYPICAL TABLE ON SHEET I-5.
- MCC B13F POWERS BASINS 1 & 2 WEIR GATES, MCC BB12C POWERS BASINS 3 & 4 WEIR GATES.
- PART OF MOTOR.

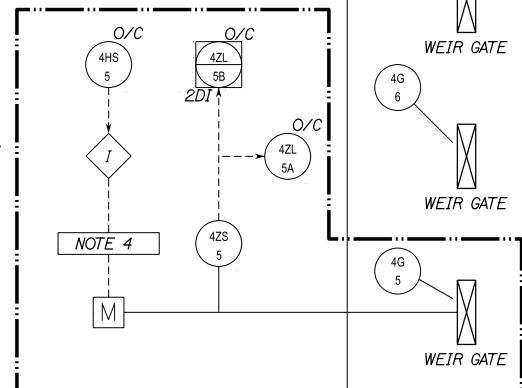


TYPICAL ASSEMBLY

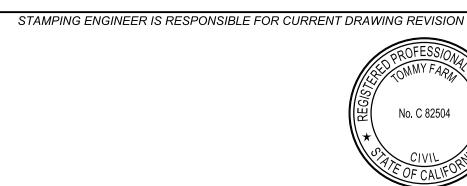
EAST INLET GATE
TYPICAL OF 16



TYPICAL ASSEMBLY
EAST WEIR GATE
TYPICAL OF 20
(NOTE 3)



99% SUBMITTAL
JUNE 9, 2014



ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED AM/TF
DRAWN CSL
CHECKED
FOR DRAWING APPROVALS SEE
B-144777

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
EAST BASINS
INLET AND WEIR GATES

SPECIFICATIONS 1524
PROJECT NUMBER 103129
SHEET I-4
DWG B-144802 REV 0

Typical Table - EAST WEIR GATE

BASIN						RTU
BASIN 1	4G-5	4HS-5	4ZS-5	4ZL-5A	4ZL-5B	DMR053-1
BASIN 1	4G-6	4HS-6	4ZS-6	4ZL-6A	4ZL-6B	DMR053-1
BASIN 1	4G-7	4HS-7	4ZS-7	4ZL-7A	4ZL-7B	DMR053-1
BASIN 1	4G-8	4HS-8	4ZS-8	4ZL-8A	4ZL-8B	DMR053-1
BASIN 1	4G-9	4HS-9	4ZS-9	4ZL-9A	4ZL-9B	DMR053-1
BASIN 2	4G-10	4HS-10	4ZS-10	4ZL-10A	4ZL-10B	DMR053-1
BASIN 2	4G-11	4HS-11	4ZS-11	4ZL-11A	4ZL-11B	DMR053-1
BASIN 2	4G-12	4HS-12	4ZS-12	4ZL-12A	4ZL-12B	DMR053-1
BASIN 2	4G-13	4HS-13	4ZS-13	4ZL-13A	4ZL-13B	DMR053-1
BASIN 2	4G-14	4HS-14	4ZS-14	4ZL-14A	4ZL-14B	DMR053-1
BASIN 3	4G-15	4HS-15	4ZS-15	4ZL-15A	4ZL-15B	DMR053-1
BASIN 3	4G-16	4HS-16	4ZS-16	4ZL-16A	4ZL-16B	DMR053-1
BASIN 3	4G-17	4HS-17	4ZS-17	4ZL-17A	4ZL-17B	DMR053-1
BASIN 3	4G-18	4HS-18	4ZS-18	4ZL-18A	4ZL-18B	DMR053-1
BASIN 3	4G-19	4HS-19	4ZS-19	4ZL-19A	4ZL-19B	DMR053-1
BASIN 4	4G-20	4HS-20	4ZS-20	4ZL-20A	4ZL-20B	DMR053-1
BASIN 4	4G-21	4HS-21	4ZS-21	4ZL-21A	4ZL-21B	DMR053-1
BASIN 4	4G-22	4HS-22	4ZS-22	4ZL-22A	4ZL-22B	DMR053-1
BASIN 4	4G-23	4HS-23	4ZS-23	4ZL-23A	4ZL-23B	DMR053-1
BASIN 4	4G-24	4HS-24	4ZS-24	4ZL-24A	4ZL-24B	DMR053-1

FOR WEIR GATE AND GATE CONTROL ARRANGEMENT SEE SHEET I-4

Typical Table - EAST INLET GATE

BASIN	
BASIN 1	4G-77
BASIN 1	4G-78
BASIN 1	4G-79
BASIN 1	4G-80
BASIN 2	4G-81
BASIN 2	4G-82
BASIN 2	4G-83
BASIN 2	4G-84
BASIN 3	4G-85
BASIN 3	4G-86
BASIN 3	4G-87
BASIN 3	4G-88
BASIN 4	4G-89
BASIN 4	4G-90
BASIN 4	4G-91
BASIN 4	4G-92

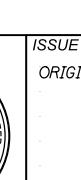
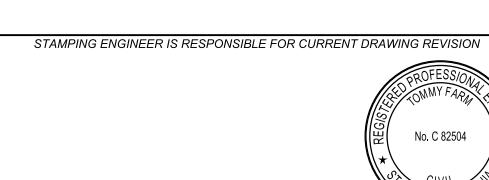
FOR INLET GATE ARRANGEMENT SEE SHEET I-4

Typical Table - EAST FLOCCULATOR

BASIN	FLOCCULATOR																		RTU
BASIN 1	4F-25	4HS-25A	4HS-25B	4HS-25C	4HS-25D	4SC-25A	4SC-25B	4SI-25A	4SI-25B	4NSH-25	4NAH-25A	4NAH-25B	4TSH-25	4YL-25A	4YL-25B	4YLA-25	4UA-25A	4UA-25B	DMR053-1
BASIN 1	4F-26	4HS-26A	4HS-26B	4HS-26C	4HS-26D	4SC-26A	4SC-26B	4SI-26A	4SI-26B	4NSH-26	4NAH-26A	4NAH-26B	4TSH-26	4YL-26A	4YL-26B	4YLA-26	4UA-26A	4UA-26B	DMR053-1
BASIN 1	4F-27	4HS-27A	4HS-27B	4HS-27C	4HS-27D	4SC-27A	4SC-27B	4SI-27A	4SI-27B	4NSH-27	4NAH-27A	4NAH-27B	4TSH-27	4YL-27A	4YL-27B	4YLA-27	4UA-27A	4UA-27B	DMR053-1
BASIN 2	4F-28	4HS-28A	4HS-28B	4HS-28C	4HS-28D	4SC-28A	4SC-28B	4SI-28A	4SI-28B	4NSH-28	4NAH-28A	4NAH-28B	4TSH-28	4YL-28A	4YL-28B	4YLA-28	4UA-28A	4UA-28B	DMR053-1
BASIN 2	4F-29	4HS-29A	4HS-29B	4HS-29C	4HS-29D	4SC-29A	4SC-29B	4SI-29A	4SI-29B	4NSH-29	4NAH-29A	4NAH-29B	4TSH-29	4YL-29A	4YL-29B	4YLA-29	4UA-29A	4UA-29B	DMR053-1
BASIN 2	4F-30	4HS-30A	4HS-30B	4HS-30C	4HS-30D	4SC-30A	4SC-30B	4SI-30A	4SI-30B	4NSH-30	4NAH-30A	4NAH-30B	4TSH-30	4YL-30A	4YL-30B	4YLA-30	4UA-30A	4UA-30B	DMR053-1
BASIN 3	4F-31	4HS-31A	4HS-31B	4HS-31C	4HS-31D	4SC-31A	4SC-31B	4SI-31A	4SI-31B	4NSH-31	4NAH-31A	4NAH-31B	4TSH-31	4YL-31A	4YL-31B	4YLA-31	4UA-31A	4UA-31B	DMR053-1
BASIN 3	4F-32	4HS-32A	4HS-32B	4HS-32C	4HS-32D	4SC-32A	4SC-32B	4SI-32A	4SI-32B	4NSH-32	4NAH-32A	4NAH-32B	4TSH-32	4YL-32A	4YL-32B	4YLA-32	4UA-32A	4UA-32B	DMR053-1
BASIN 3	4F-33	4HS-33A	4HS-33B	4HS-33C	4HS-33D	4SC-33A	4SC-33B	4SI-33A	4SI-33B	4NSH-33	4NAH-33A	4NAH-33B	4TSH-33	4YL-33A	4YL-33B	4YLA-33	4UA-33A	4UA-33B	DMR053-1
BASIN 4	4F-34	4HS-34A	4HS-34B	4HS-34C	4HS-34D	4SC-34A	4SC-34B	4SI-34A	4SI-34B	4NSH-34	4NAH-34A	4NAH-34B	4TSH-34	4YL-34A	4YL-34B	4YLA-34	4UA-34A	4UA-34B	DMR053-1
BASIN 4	4F-35	4HS-35A	4HS-35B	4HS-35C	4HS-35D	4SC-35A	4SC-35B	4SI-35A	4SI-35B	4NSH-35	4NAH-35A	4NAH-35B	4TSH-35	4YL-35A	4YL-35B	4YLA-35	4UA-35A	4UA-35B	DMR053-1
BASIN 4	4F-36	4HS-36A	4HS-36B	4HS-36C	4HS-36D	4SC-36A	4SC-36B	4SI-36A	4SI-36B	4NSH-36	4NAH-36A	4NAH-36B	4TSH-36	4YL-36A	4YL-36B	4YLA-36	4UA-36A	4UA-36B	DMR053-1

FOR FLOCCULATOR AND FLOCCULATOR CONTROL ARRANGEMENT SEE SHEET I-4

SCALE BARS

99% SUBMITTAL
JUNE 9, 2014

ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

DESIGNED AM/TF
DRAWN CSL
CHECKED
B-144777

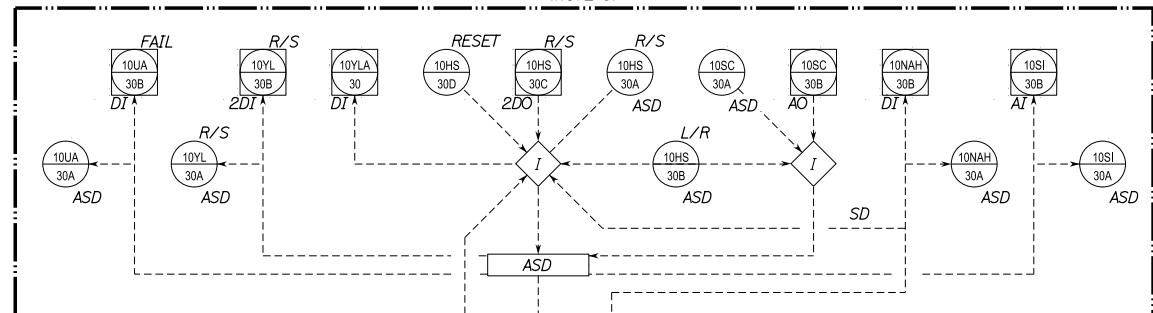
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
EAST BASINS
INLET AND WEIR GATES
TYPICAL TABLE

SPECIFICATIONS 1524
PROJECT NUMBER 103129
SHEET I-5
DWG B-144803 REV 0

A | B | C | D | E | F | G | H | I | J | K | L

TYPICAL ASSEMBLY

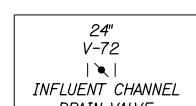
WEST FLOCCULATOR
TYPICAL OF 12
(NOTE 3)



NOTES:

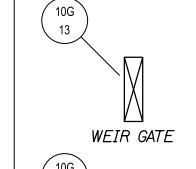
- FOR LEGEND AND SYMBOLS SEE DWG B-144799, B-144800 AND B-144801.
- ALL RTU I/O POINTS SHALL BE CONNECTED TO RTU DMRO54-1 UNLESS OTHERWISE SHOWN ON DRAWING.
- BASIN 5 SHOWN ON THIS DRAWING. FOR BASIN 6 THROUGH 8 TAG NUMBERS SEE TYPICAL TABLE ON SHEET I-7.
- MCC B13E POWERS BASINS 5 & 6 WEIR GATES, MCC B12D POWERS BASINS 7 & 8 WEIR GATES.
- PART OF MOTOR.

24" V-72
INFLOW CHANNEL
DRAIN VALVE

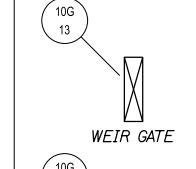


10G 14
WEIR GATE

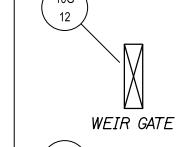
10G 13
WEIR GATE



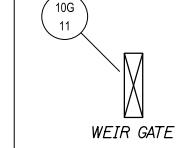
10G 12
WEIR GATE



10G 11
WEIR GATE

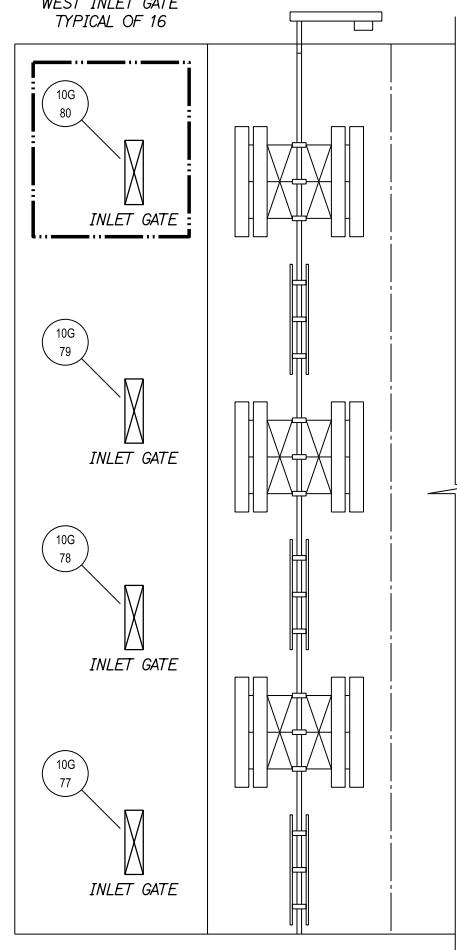


10G 10
WEIR GATE

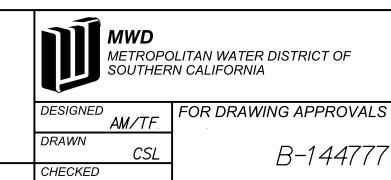
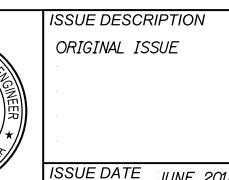
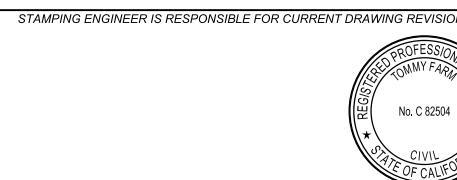
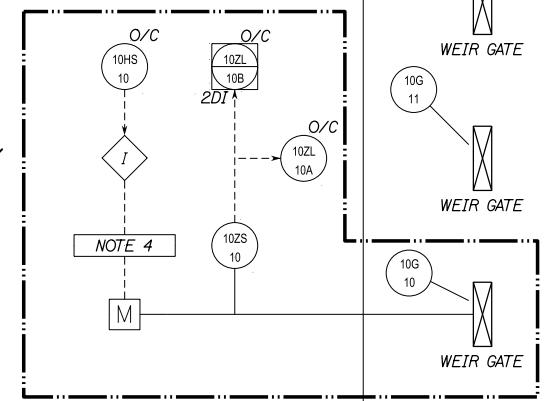


FROM PLANT INFLOW CHANNEL →

TYPICAL ASSEMBLY
WEST INLET GATE
TYPICAL OF 16



TYPICAL ASSEMBLY
WEST WEIR GATE
TYPICAL OF 20
(NOTE 3)



WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS
INLET AND WEIR GATES

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
I-6
DWG
B-144804 REV 0

SCALE BARS

99% SUBMITTAL
JUNE 9, 2014

BRDR DATE: 01/29/2009

PEN TABLE: mwdhbw.tbl

PLOT TIME: 05-JUN-2014 06:56

USERID: u08288

FILE NAME: IP_PWP:dms37622\1524_103129_001006.dgn

Typical Table - WEST WEIR GATE

BASIN	10G	O/C 10HS	102S	102L A	O/C 10ZL B	RTU
BASIN 5	10G-10	10HS-10	102S-10	10ZL-10A	10ZL-10B	DMR054-1
BASIN 5	10G-11	10HS-11	102S-11	10ZL-11A	10ZL-11B	DMR054-1
BASIN 5	10G-12	10HS-12	102S-12	10ZL-12A	10ZL-12B	DMR054-1
BASIN 5	10G-13	10HS-13	102S-13	10ZL-13A	10ZL-13B	DMR054-1
BASIN 5	10G-14	10HS-14	102S-14	10ZL-14A	10ZL-14B	DMR054-1
BASIN 6	10G-15	10HS-15	102S-15	10ZL-15A	10ZL-15B	DMR054-1
BASIN 6	10G-16	10HS-16	102S-16	10ZL-16A	10ZL-16B	DMR054-1
BASIN 6	10G-17	10HS-17	102S-17	10ZL-17A	10ZL-17B	DMR054-1
BASIN 6	10G-18	10HS-18	102S-18	10ZL-18A	10ZL-18B	DMR054-1
BASIN 6	10G-19	10HS-19	102S-19	10ZL-19A	10ZL-19B	DMR054-1
BASIN 7	10G-20	10HS-20	102S-20	10ZL-20A	10ZL-20B	DMR054-1
BASIN 7	10G-21	10HS-21	102S-21	10ZL-21A	10ZL-21B	DMR054-1
BASIN 7	10G-22	10HS-22	102S-22	10ZL-22A	10ZL-22B	DMR054-1
BASIN 7	10G-23	10HS-23	102S-23	10ZL-23A	10ZL-23B	DMR054-1
BASIN 7	10G-24	10HS-24	102S-24	10ZL-24A	10ZL-24B	DMR054-1
BASIN 8	10G-25	10HS-25	102S-25	10ZL-25A	10ZL-25B	DMR054-1
BASIN 8	10G-26	10HS-26	102S-26	10ZL-26A	10ZL-26B	DMR054-1
BASIN 8	10G-27	10HS-27	102S-27	10ZL-27A	10ZL-27B	DMR054-1
BASIN 8	10G-28	10HS-28	102S-28	10ZL-28A	10ZL-28B	DMR054-1
BASIN 8	10G-29	10HS-29	102S-29	10ZL-29A	10ZL-29B	DMR054-1

FOR WEIR GATE AND GATE CONTROL ARRANGEMENT SEE SHEET I-6

Typical Table - WEST INLET GATE

BASIN	10G
BASIN 5	10G-77
BASIN 5	10G-78
BASIN 5	10G-79
BASIN 5	10G-80
BASIN 6	10G-81
BASIN 6	10G-82
BASIN 6	10G-83
BASIN 6	10G-84
BASIN 7	10G-85
BASIN 7	10G-86
BASIN 7	10G-87
BASIN 7	10G-88
BASIN 8	10G-89
BASIN 8	10G-90
BASIN 8	10G-91
BASIN 8	10G-92

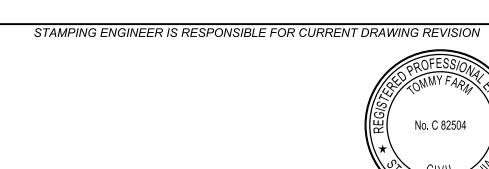
FOR INLET GATE ARRANGEMENT SEE SHEET I-6

Typical Table - WEST FLOCCULATOR

BASIN	FLOCCULATOR	R/S 10HS A	L/R 10HS B	R/S 10HS C	RESET 10HS D	10SC A	10SC B	10SI A	10SI B	10NSH	10NAH A	10NAH B	10TSH	10YL A	10YL B	10YLA	10UA A	10UA B	RTU
BASIN 5	10F-30	10HS-30A	10HS-30B	10HS-30C	10HS-30D	10SC-30A	10SC-30B	10SI-30A	10SI-30B	10NSH-30	10NAH-30A	10NAH-30B	10TSH-30	10YL-30A	10YL-30B	10YLA-30	10UA-30A	10UA-30B	DMR054-1
BASIN 5	10F-31	10HS-31A	10HS-31B	10HS-31C	10HS-31D	10SC-31A	10SC-31B	10SI-31A	10SI-31B	10NSH-31	10NAH-31A	10NAH-31B	10TSH-31	10YL-31A	10YL-31B	10YLA-31	10UA-31A	10UA-31B	DMR054-1
BASIN 5	10F-32	10HS-32A	10HS-32B	10HS-32C	10HS-32D	10SC-32A	10SC-32B	10SI-32A	10SI-32B	10NSH-32	10NAH-32A	10NAH-32B	10TSH-32	10YL-32A	10YL-32B	10YLA-32	10UA-32A	10UA-32B	DMR054-1
BASIN 6	10F-33	10HS-33A	10HS-33B	10HS-33C	10HS-33D	10SC-33A	10SC-33B	10SI-33A	10SI-33B	10NSH-33	10NAH-33A	10NAH-33B	10TSH-33	10YL-33A	10YL-33B	10YLA-33	10UA-33A	10UA-33B	DMR054-1
BASIN 6	10F-34	10HS-34A	10HS-34B	10HS-34C	10HS-34D	10SC-34A	10SC-34B	10SI-34A	10SI-34B	10NSH-34	10NAH-34A	10NAH-34B	10TSH-34	10YL-34A	10YL-34B	10YLA-34	10UA-34A	10UA-34B	DMR054-1
BASIN 6	10F-35	10HS-35A	10HS-35B	10HS-35C	10HS-35D	10SC-35A	10SC-35B	10SI-35A	10SI-35B	10NSH-35	10NAH-35A	10NAH-35B	10TSH-35	10YL-35A	10YL-35B	10YLA-35	10UA-35A	10UA-35B	DMR054-1
BASIN 7	10F-36	10HS-36A	10HS-36B	10HS-36C	10HS-36D	10SC-36A	10SC-36B	10SI-36A	10SI-36B	10NSH-36	10NAH-36A	10NAH-36B	10TSH-36	10YL-36A	10YL-36B	10YLA-36	10UA-36A	10UA-36B	DMR054-1
BASIN 7	10F-37	10HS-37A	10HS-37B	10HS-37C	10HS-37D	10SC-37A	10SC-37B	10SI-37A	10SI-37B	10NSH-37	10NAH-37A	10NAH-37B	10TSH-37	10YL-37A	10YL-37B	10YLA-37	10UA-37A	10UA-37B	DMR054-1
BASIN 7	10F-38	10HS-38A	10HS-38B	10HS-38C	10HS-38D	10SC-38A	10SC-38B	10SI-38A	10SI-38B	10NSH-38	10NAH-38A	10NAH-38B	10TSH-38	10YL-38A	10YL-38B	10YLA-38	10UA-38A	10UA-38B	DMR054-1
BASIN 8	10F-39	10HS-39A	10HS-39B	10HS-39C	10HS-39D	10SC-39A	10SC-39B	10SI-39A	10SI-39B	10NSH-39	10NAH-39A	10NAH-39B	10TSH-39	10YL-39A	10YL-39B	10YLA-39	10UA-39A	10UA-39B	DMR054-1
BASIN 8	10F-40	10HS-40A	10HS-40B	10HS-40C	10HS-40D	10SC-40A	10SC-40B	10SI-40A	10SI-40B	10NSH-40	10NAH-40A	10NAH-40B	10TSH-40	10YL-40A	10YL-40B	10YLA-40	10UA-40A	10UA-40B	DMR054-1
BASIN 8	10F-41	10HS-41A	10HS-41B	10HS-41C	10HS-41D	10SC-41A	10SC-41B	10SI-41A	10SI-41B	10NSH-41	10NAH-41A	10NAH-41B	10TSH-41	10YL-41A	10YL-41B	10YLA-41	10UA-41A	10UA-41B	DMR054-1

FOR FLOCCULATOR AND FLOCCULATOR CONTROL ARRANGEMENT SEE SHEET I-6

SCALE BARS

99% SUBMITTAL
JUNE 9, 2014

ISSUE DATE JUNE 2014

AM/TF

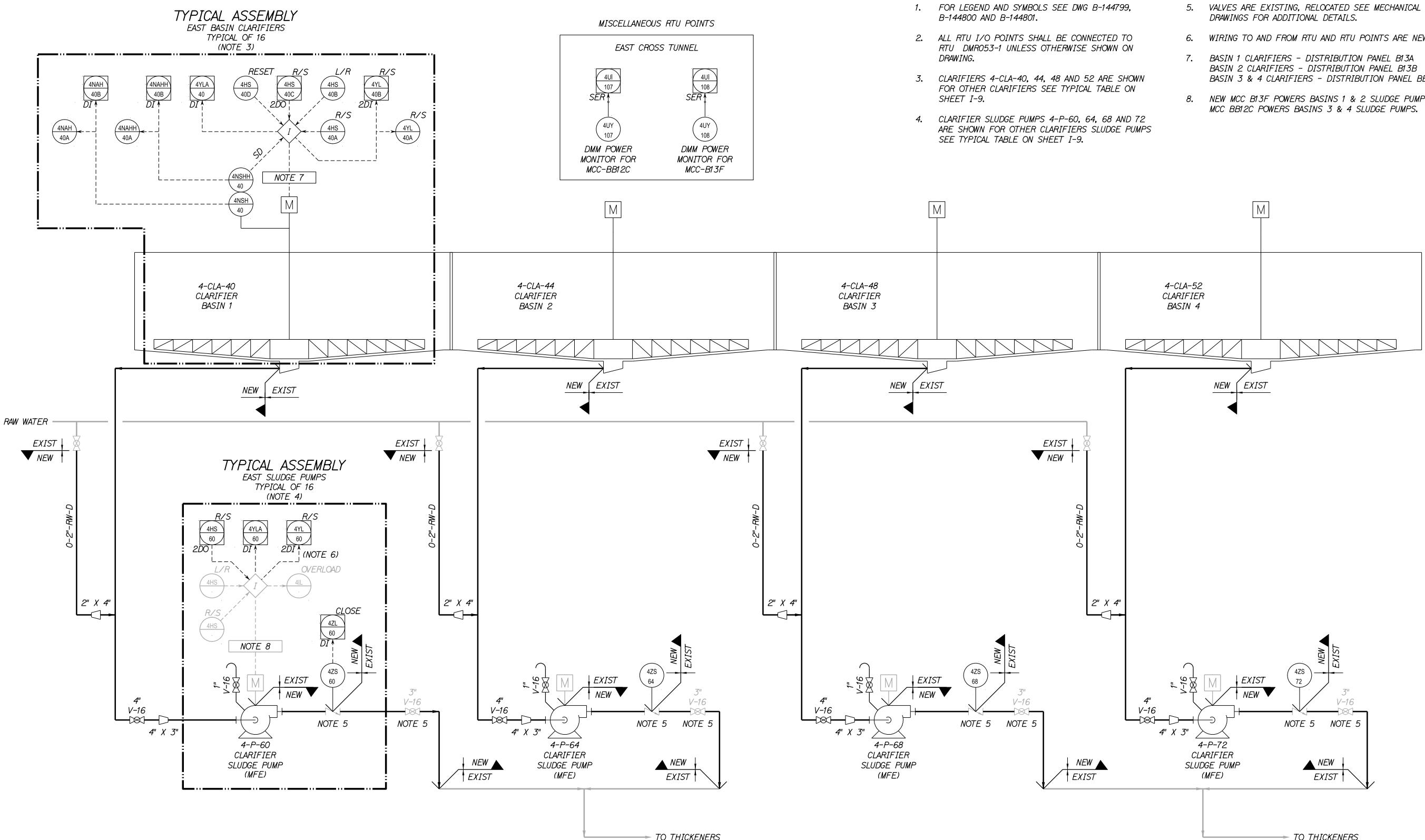
DRAWN

CSL

CHECKED

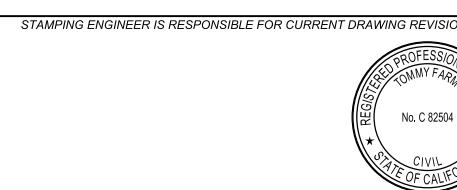
MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIAWATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS
INLET AND WEIR GATES
TYPICAL TABLE
B-144777SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
I-7
DWG
B-144805
REV
0

A | B | C | D | E | F | G | H | I | J | K | L



SCALE BARS

99% SUBMITTAL
JUNE 9, 2014



ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED AM/TF
DRAWN CSL
CHECKED

B-144777

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
EAST BASINS
CLARIFIERS AND SLUDGE PUMPS

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
I-8
DWG
B-144806 REV 0

Typical Table - EAST BASIN CLARIFIERS

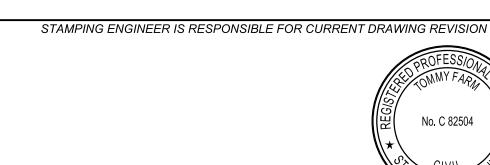
BASIN	CLARIFIER	R/S 4HS A	L/R 4HS B	R/S 4HS C	RESET 4HS D	R/S 4YL A	R/S 4YL B	4YLA	4NSH	4NAH A	4NAH B	4NSHH	4NAHH A	4NAHH B	RTU
BASIN 1	4CLA-40	4HS-40A	4HS-40B	4HS-40C	4HS-40D	4YL-40A	4YL-40B	4YLA-40	4NSH-40	4NAH-40A	4NAH-40B	4NSHH-40	4NAHH-40A	4NAHH-40B	DMR053-1
BASIN 1	4CLA-41	4HS-41A	4HS-41B	4HS-41C	4HS-41D	4YL-41A	4YL-41B	4YLA-41	4NSH-41	4NAH-41A	4NAH-41B	4NSHH-41	4NAHH-41A	4NAHH-41B	DMR053-1
BASIN 1	4CLA-42	4HS-42A	4HS-42B	4HS-42C	4HS-42D	4YL-42A	4YL-42B	4YLA-42	4NSH-42	4NAH-42A	4NAH-42B	4NSHH-42	4NAHH-42A	4NAHH-42B	DMR053-1
BASIN 1	4CLA-43	4HS-43A	4HS-43B	4HS-43C	4HS-43D	4YL-43A	4YL-43B	4YLA-43	4NSH-43	4NAH-43A	4NAH-43B	4NSHH-43	4NAHH-43A	4NAHH-43B	DMR053-1
BASIN 2	4CLA-44	4HS-44A	4HS-44B	4HS-44C	4HS-44D	4YL-44A	4YL-44B	4YLA-44	4NSH-44	4NAH-44A	4NAH-44B	4NSHH-44	4NAHH-44A	4NAHH-44B	DMR053-1
BASIN 2	4CLA-45	4HS-45A	4HS-45B	4HS-45C	4HS-45D	4YL-45A	4YL-45B	4YLA-45	4NSH-45	4NAH-45A	4NAH-45B	4NSHH-45	4NAHH-45A	4NAHH-45B	DMR053-1
BASIN 2	4CLA-46	4HS-46A	4HS-46B	4HS-46C	4HS-46D	4YL-46A	4YL-46B	4YLA-46	4NSH-46	4NAH-46A	4NAH-46B	4NSHH-46	4NAHH-46A	4NAHH-46B	DMR053-1
BASIN 2	4CLA-47	4HS-47A	4HS-47B	4HS-47C	4HS-47D	4YL-47A	4YL-47B	4YLA-47	4NSH-47	4NAH-47A	4NAH-47B	4NSHH-47	4NAHH-47A	4NAHH-47B	DMR053-1
BASIN 3	4CLA-48	4HS-48A	4HS-48B	4HS-48C	4HS-48D	4YL-48A	4YL-48B	4YLA-48	4NSH-48	4NAH-48A	4NAH-48B	4NSHH-48	4NAHH-48A	4NAHH-48B	DMR053-1
BASIN 3	4CLA-49	4HS-49A	4HS-49B	4HS-49C	4HS-49D	4YL-49A	4YL-49B	4YLA-49	4NSH-49	4NAH-49A	4NAH-49B	4NSHH-49	4NAHH-49A	4NAHH-49B	DMR053-1
BASIN 3	4CLA-50	4HS-50A	4HS-50B	4HS-50C	4HS-50D	4YL-50A	4YL-50B	4YLA-50	4NSH-50	4NAH-50A	4NAH-50B	4NSHH-50	4NAHH-50A	4NAHH-50B	DMR053-1
BASIN 3	4CLA-51	4HS-51A	4HS-51B	4HS-51C	4HS-51D	4YL-51A	4YL-51B	4YLA-51	4NSH-51	4NAH-51A	4NAH-51B	4NSHH-51	4NAHH-51A	4NAHH-51B	DMR053-1
BASIN 4	4CLA-52	4HS-52A	4HS-52B	4HS-52C	4HS-52D	4YL-52A	4YL-52B	4YLA-52	4NSH-52	4NAH-52A	4NAH-52B	4NSHH-52	4NAHH-52A	4NAHH-52B	DMR053-1
BASIN 4	4CLA-53	4HS-53A	4HS-53B	4HS-53C	4HS-53D	4YL-53A	4YL-53B	4YLA-53	4NSH-53	4NAH-53A	4NAH-53B	4NSHH-53	4NAHH-53A	4NAHH-53B	DMR053-1
BASIN 4	4CLA-54	4HS-54A	4HS-54B	4HS-54C	4HS-54D	4YL-54A	4YL-54B	4YLA-54	4NSH-54	4NAH-54A	4NAH-54B	4NSHH-54	4NAHH-54A	4NAHH-54B	DMR053-1
BASIN 4	4CLA-55	4HS-55A	4HS-55B	4HS-55C	4HS-55D	4YL-55A	4YL-55B	4YLA-55	4NSH-55	4NAH-55A	4NAH-55B	4NSHH-55	4NAHH-55A	4NAHH-55B	DMR053-1

FOR CLARIFIER AND CLARIFIER CONTROL ARRANGEMENT SEE SHEET I-8
FOR CLARIFIERS SPECIFICATION SEE SECTION 11222**Typical Table - EAST SLUDGE PUMPS**

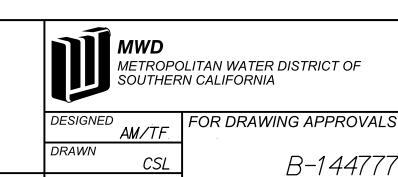
BASIN	CLARIFIER	CLARIFIER SLUDGE PUMP	R/S 4HS	4YLA	R/S 4YL	4ZS	4ZL	RTU
BASIN 1	4CLA-40	4P-60	4HS-60	4YLA-60	4YL-60	4ZS-60	4ZL-60	DMR053-1
BASIN 1	4CLA-41	4P-61	4HS-61	4YLA-61	4YL-61	4ZS-61	4ZL-61	DMR053-1
BASIN 1	4CLA-42	4P-62	4HS-62	4YLA-62	4YL-62	4ZS-62	4ZL-62	DMR053-1
BASIN 1	4CLA-43	4P-63	4HS-63	4YLA-63	4YL-63	4ZS-63	4ZL-63	DMR053-1
BASIN 2	4CLA-44	4P-64	4HS-64	4YLA-64	4YL-64	4ZS-64	4ZL-64	DMR053-1
BASIN 2	4CLA-45	4P-65	4HS-65	4YLA-65	4YL-65	4ZS-65	4ZL-65	DMR053-1
BASIN 2	4CLA-46	4P-66	4HS-66	4YLA-66	4YL-66	4ZS-66	4ZL-66	DMR053-1
BASIN 2	4CLA-47	4P-67	4HS-67	4YLA-67	4YL-67	4ZS-67	4ZL-67	DMR053-1
BASIN 3	4CLA-48	4P-68	4HS-68	4YLA-68	4YL-68	4ZS-68	4ZL-68	DMR053-1
BASIN 3	4CLA-49	4P-69	4HS-69	4YLA-69	4YL-69	4ZS-69	4ZL-69	DMR053-1
BASIN 3	4CLA-50	4P-70	4HS-70	4YLA-70	4YL-70	4ZS-70	4ZL-70	DMR053-1
BASIN 3	4CLA-51	4P-71	4HS-71	4YLA-71	4YL-71	4ZS-71	4ZL-71	DMR053-1
BASIN 4	4CLA-52	4P-72	4HS-72	4YLA-72	4YL-72	4ZS-72	4ZL-72	DMR053-1
BASIN 4	4CLA-53	4P-73	4HS-73	4YLA-73	4YL-73	4ZS-73	4ZL-73	DMR053-1
BASIN 4	4CLA-54	4P-74	4HS-74	4YLA-74	4YL-74	4ZS-74	4ZL-74	DMR053-1
BASIN 4	4CLA-55	4P-75	4HS-75	4YLA-75	4YL-75	4ZS-75	4ZL-75	DMR053-1

FOR SLUDGE PUMP & CHECK VALVE POSITION SWITCH ARRANGEMENT SEE SHEET I-8

SCALE BARS

99% SUBMITTAL
JUNE 9, 2014

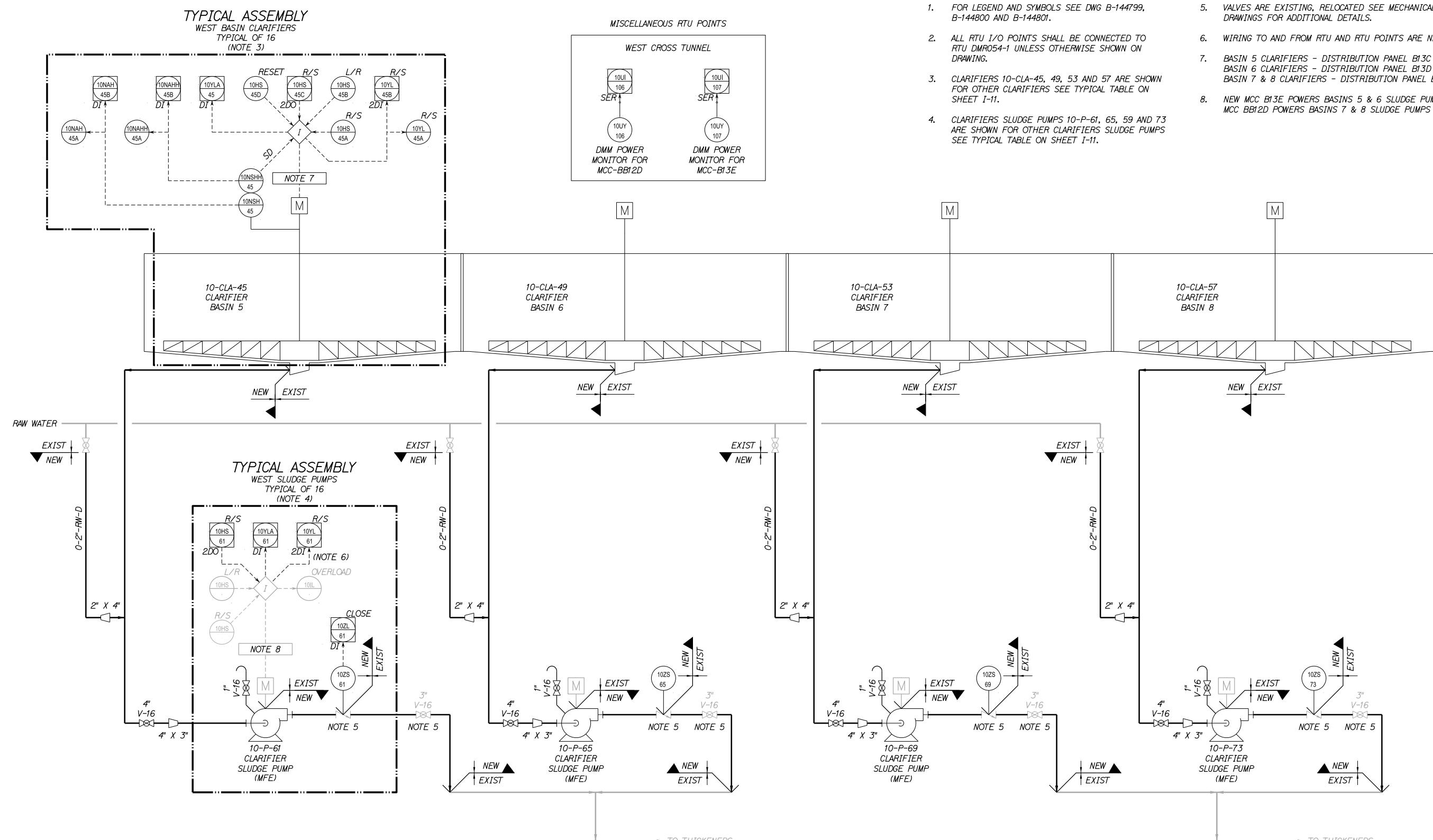
STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014



WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
EAST BASINS
CLARIFIERS AND SLUDGE PUMPS
TYPICAL TABLES

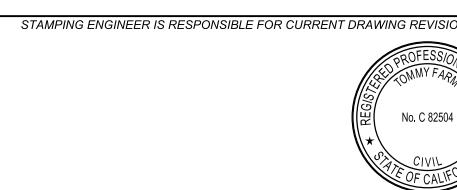
SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
I-9
DWG
B-144807 REV
0

A B C D E F G H I J K L



SCALE BARS

99% SUBMITTAL
JUNE 9, 2014



ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED AM/TF
DRAWN CSL
CHECKED

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS
CLARIFIERS AND SLUDGE PUMPS

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
I-10
DWG
B-144808 REV 0

Typical Table - WEST BASIN CLARIFIERS

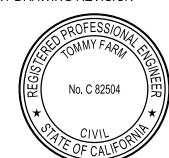
BASIN	CLARIFIER	R/S 10HS A	L/R 10HS B	R/S 10HS C	RESET 10HS D	R/S 10YL A	R/S 10YL B	10YLA	10NSH	10NAH A	10NAH B	10NSHH	10NAHH A	10NAHH B	RTU
BASIN 5	10CLA-45	10HS-45A	10HS-45B	10HS-45C	10HS-45D	10YL-45A	10YL-45B	10YLA-45	10NSH-45	10NAH-45A	10NAH-45B	10NSHH-45	10NAHH-45A	10NAHH-45B	DMR054-1
BASIN 5	10CLA-46	10HS-46A	10HS-46B	10HS-46C	10HS-46D	10YL-46A	10YL-46B	10YLA-46	10NSH-46	10NAH-46A	10NAH-46B	10NSHH-46	10NAHH-46A	10NAHH-46B	DMR054-1
BASIN 5	10CLA-47	10HS-47A	10HS-47B	10HS-47C	10HS-47D	10YL-47A	10YL-47B	10YLA-47	10NSH-47	10NAH-47A	10NAH-47B	10NSHH-47	10NAHH-47A	10NAHH-47B	DMR054-1
BASIN 5	10CLA-48	10HS-48A	10HS-48B	10HS-48C	10HS-48D	10YL-48A	10YL-48B	10YLA-48	10NSH-48	10NAH-48A	10NAH-48B	10NSHH-48	10NAHH-48A	10NAHH-48B	DMR054-1
BASIN 6	10CLA-49	10HS-49A	10HS-49B	10HS-49C	10HS-49D	10YL-49A	10YL-49B	10YLA-49	10NSH-49	10NAH-49A	10NAH-49B	10NSHH-49	10NAHH-49A	10NAHH-49B	DMR054-1
BASIN 6	10CLA-50	10HS-50A	10HS-50B	10HS-50C	10HS-50D	10YL-50A	10YL-50B	10YLA-50	10NSH-50	10NAH-50A	10NAH-50B	10NSHH-50	10NAHH-50A	10NAHH-50B	DMR054-1
BASIN 6	10CLA-51	10HS-51A	10HS-51B	10HS-51C	10HS-51D	10YL-51A	10YL-51B	10YLA-51	10NSH-51	10NAH-51A	10NAH-51B	10NSHH-51	10NAHH-51A	10NAHH-51B	DMR054-1
BASIN 6	10CLA-52	10HS-52A	10HS-52B	10HS-52C	10HS-52D	10YL-52A	10YL-52B	10YLA-52	10NSH-52	10NAH-52A	10NAH-52B	10NSHH-52	10NAHH-52A	10NAHH-52B	DMR054-1
BASIN 7	10CLA-53	10HS-53A	10HS-53B	10HS-53C	10HS-53D	10YL-53A	10YL-53B	10YLA-53	10NSH-53	10NAH-53A	10NAH-53B	10NSHH-53	10NAHH-53A	10NAHH-53B	DMR054-1
BASIN 7	10CLA-54	10HS-54A	10HS-54B	10HS-54C	10HS-54D	10YL-54A	10YL-54B	10YLA-54	10NSH-54	10NAH-54A	10NAH-54B	10NSHH-54	10NAHH-54A	10NAHH-54B	DMR054-1
BASIN 7	10CLA-55	10HS-55A	10HS-55B	10HS-55C	10HS-55D	10YL-55A	10YL-55B	10YLA-55	10NSH-55	10NAH-55A	10NAH-55B	10NSHH-55	10NAHH-55A	10NAHH-55B	DMR054-1
BASIN 7	10CLA-56	10HS-56A	10HS-56B	10HS-56C	10HS-56D	10YL-56A	10YL-56B	10YLA-56	10NSH-56	10NAH-56A	10NAH-56B	10NSHH-56	10NAHH-56A	10NAHH-56B	DMR054-1
BASIN 8	10CLA-57	10HS-57A	10HS-57B	10HS-57C	10HS-57D	10YL-57A	10YL-57B	10YLA-57	10NSH-57	10NAH-57A	10NAH-57B	10NSHH-57	10NAHH-57A	10NAHH-57B	DMR054-1
BASIN 8	10CLA-58	10HS-58A	10HS-58B	10HS-58C	10HS-58D	10YL-58A	10YL-58B	10YLA-58	10NSH-58	10NAH-58A	10NAH-58B	10NSHH-58	10NAHH-58A	10NAHH-58B	DMR054-1
BASIN 8	10CLA-59	10HS-59A	10HS-59B	10HS-59C	10HS-59D	10YL-59A	10YL-59B	10YLA-59	10NSH-59	10NAH-59A	10NAH-59B	10NSHH-59	10NAHH-59A	10NAHH-59B	DMR054-1
BASIN 8	10CLA-60	10HS-60A	10HS-60B	10HS-60C	10HS-60D	10YL-60A	10YL-60B	10YLA-60	10NSH-60	10NAH-60A	10NAH-60B	10NSHH-60	10NAHH-60A	10NAHH-60B	DMR054-1

FOR CLARIFIER AND CLARIFIER CONTROL ARRANGEMENT SEE SHEET I-10
FOR CLARIFIERS SPECIFICATION SEE SECTION 11222**Typical Table - WEST SLUDGE PUMPS**

BASIN	CLARIFIER	CLARIFIER SLUDGE PUMP	R/S 10HS	10YLA	R/S 10YL	10ZS	10ZL	RTU
BASIN 5	10CLA-45	10P-61	10HS-61	10YLA-61	10YL-61	10ZS-61	10ZL-61	DMR054-1
BASIN 5	10CLA-46	10P-62	10HS-62	10YLA-62	10YL-62	10ZS-62	10ZL-62	DMR054-1
BASIN 5	10CLA-47	10P-63	10HS-63	10YLA-63	10YL-63	10ZS-63	10ZL-63	DMR054-1
BASIN 5	10CLA-48	10P-64	10HS-64	10YLA-64	10YL-64	10ZS-64	10ZL-64	DMR054-1
BASIN 6	10CLA-49	10P-65	10HS-65	10YLA-65	10YL-65	10ZS-65	10ZL-65	DMR054-1
BASIN 6	10CLA-50	10P-66	10HS-66	10YLA-66	10YL-66	10ZS-66	10ZL-66	DMR054-1
BASIN 6	10CLA-51	10P-67	10HS-67	10YLA-67	10YL-67	10ZS-67	10ZL-67	DMR054-1
BASIN 6	10CLA-52	10P-68	10HS-68	10YLA-68	10YL-68	10ZS-68	10ZL-68	DMR054-1
BASIN 7	10CLA-53	10P-69	10HS-69	10YLA-69	10YL-69	10ZS-69	10ZL-69	DMR054-1
BASIN 7	10CLA-54	10P-70	10HS-70	10YLA-70	10YL-70	10ZS-70	10ZL-70	DMR054-1
BASIN 7	10CLA-55	10P-71	10HS-71	10YLA-71	10YL-71	10ZS-71	10ZL-71	DMR054-1
BASIN 7	10CLA-56	10P-72	10HS-72	10YLA-72	10YL-72	10ZS-72	10ZL-72	DMR054-1
BASIN 8	10CLA-57	10P-73	10HS-73	10YLA-73	10YL-73	10ZS-73	10ZL-73	DMR054-1
BASIN 8	10CLA-58	10P-74	10HS-74	10YLA-74	10YL-74	10ZS-74	10ZL-74	DMR054-1
BASIN 8	10CLA-59	10P-75	10HS-75	10YLA-75	10YL-75	10ZS-75	10ZL-75	DMR054-1
BASIN 8	10CLA-60	10P-76	10HS-76	10YLA-76	10YL-76	10ZS-76	10ZL-76	DMR054-1

FOR SLUDGE PUMP & CHECK VALVE POSITION SWITCH ARRANGEMENT SEE SHEET I-10

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER No. C 82504 CIVIL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE FOR DRAWING APPROVALS SEE B-144777 ISSUE DATE JUNE 2014 CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS CLARIFIERS AND SLUDGE PUMPS TYPICAL TABLES	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET I-11 DWG B-144809 REV 0
BRDR DATE: 01/29/2009		PEN TABLE: mwdhbw.tbl		USERID: u08288 FILE NAME: IP_PWP:dms37622\1524_103129_00i011.dgn	
PLOT TIME: 05-JUN-2014 06:58					



A	B	C	D	E	F	G	H	I	J	K	L
---	---	---	---	---	---	---	---	---	---	---	---

GATES - CONTINUED

TAG NO	DESCRIPTION/LOCATION	P&ID NO	TYPE/MATERIAL	SERVICE	SIZE	MAX SEATING HD	MAX UNSEATING HD	ACTUATOR TYPE	CLOSE TIME	REMARKS
10G-29	WEIR GATE / WEST BASIN 8	B-144804	SLIDE GATE / SS	WATER	5 FT W X 2 FT H	0.57 FT	0.57 FT	TYPE C	2 MINUTES	SECT 13124
10G-77	INLET GATE / WEST BASIN 5	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-78	INLET GATE / WEST BASIN 5	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-79	INLET GATE / WEST BASIN 5	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-80	INLET GATE / WEST BASIN 5	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-81	INLET GATE / WEST BASIN 6	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-82	INLET GATE / WEST BASIN 6	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-83	INLET GATE / WEST BASIN 6	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-84	INLET GATE / WEST BASIN 6	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-85	INLET GATE / WEST BASIN 7	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-86	INLET GATE / WEST BASIN 7	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-87	INLET GATE / WEST BASIN 7	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-88	INLET GATE / WEST BASIN 7	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-89	INLET GATE / WEST BASIN 8	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-90	INLET GATE / WEST BASIN 8	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-91	INLET GATE / WEST BASIN 8	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124
10G-92	INLET GATE / WEST BASIN 8	B-144804	SLIDE GATE / SS	WATER	3 FT W X 3.5 FT H	5.30 FT	6.69 FT	MANUAL	--	SECT 13124

EQUIPMENT - FLOCCULATOR

TAG NO	DESCRIPTION/LOCATION	P&ID NO	PADDLE TYPE	MAX MOTOR SPEED (RPM)	MIN/MAX PADDLE SPEED	HP	VOLTS	PHASE	REMARKS
4F-25	FLOCCULATOR 1A / EAST BASIN 1	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
4F-26	FLOCCULATOR 1B / EAST BASIN 1	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
4F-27	FLOCCULATOR 1C / EAST BASIN 1	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)
4F-28	FLOCCULATOR 2A / EAST BASIN 2	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
4F-29	FLOCCULATOR 2B / EAST BASIN 2	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
4F-30	FLOCCULATOR 2C / EAST BASIN 2	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)
4F-31	FLOCCULATOR 3A / EAST BASIN 3	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
4F-32	FLOCCULATOR 3B / EAST BASIN 3	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
4F-33	FLOCCULATOR 3C / EAST BASIN 3	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)
4F-34	FLOCCULATOR 4A / EAST BASIN 4	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
4F-35	FLOCCULATOR 4B / EAST BASIN 4	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
4F-36	FLOCCULATOR 4C / EAST BASIN 4	B-144802	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)
10F-30	FLOCCULATOR 5A / WEST BASIN 5	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
10F-31	FLOCCULATOR 5B / WEST BASIN 5	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
10F-32	FLOCCULATOR 5C / WEST BASIN 5	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)
10F-33	FLOCCULATOR 6A / WEST BASIN 6	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
10F-34	FLOCCULATOR 6B / WEST BASIN 6	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
10F-35	FLOCCULATOR 6C / WEST BASIN 6	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)
10F-36	FLOCCULATOR 7A / WEST BASIN 7	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
10F-37	FLOCCULATOR 7B / WEST BASIN 7	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
10F-38	FLOCCULATOR 7C / WEST BASIN 7	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)
10F-39	FLOCCULATOR 8A / WEST BASIN 8	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 45. (NOTE 1)
10F-40	FLOCCULATOR 8B / WEST BASIN 8	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 25. (NOTE 2)
10F-41	FLOCCULATOR 8C / WEST BASIN 8	B-144804	HORIZONTAL PADDLE WHEEL	1800 RPM	0.53 RPM (0.35 FPS) / 2.64 RPM (1.73 FPS)	5	480	3	VELOCITY GRADIENT OF 10. (NOTE 3)

NOTES:

1. PADDLE SPEED OF 2.64 RPM
2. PADDLE SPEED OF 1.79 RPM
3. PADDLE SPEED OF 0.98 RPM

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER No. C 82504 CIVIL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED AM/TF DRAWN CSL CHECKED	FOR DRAWING APPROVALS SEE B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EQUIPMENT LIST SLIDE GATES SHEET 2 OF 2 AND FLOCCULATORS	SPECIFICATIONS 1524
							PROJECT NUMBER 103129
							SHEET I-13
							DWG B-144811 REV 0

BRDR DATE: 01/29/2009

PEN TABLE: mwdhwbtbl

PLOT TIME: 05-JUN-2014 06:59

USERID: u08288

FILE NAME: IP_PWP:dms37622\1524_103129_001013.dgn

A | B | C | D | E | F | G | H | I | J | K | L

EQUIPMENT MISCELLANEOUS - CLARIFIERS

TAG NO	DESCRIPTION/LOCATION	P&ID NO	SERVICE	CAPACITY	REMARKS
4CLA-40	CLARIFIER 1A / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-41	CLARIFIER 1B / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-42	CLARIFIER 1C / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-43	CLARIFIER 1D / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-44	CLARIFIER 2A / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-45	CLARIFIER 2B / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-46	CLARIFIER 2C / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-47	CLARIFIER 2D / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-48	CLARIFIER 3A / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-49	CLARIFIER 3B / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-50	CLARIFIER 3C / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-51	CLARIFIER 3D / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-52	CLARIFIER 4A / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-53	CLARIFIER 4B / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-54	CLARIFIER 4C / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
4CLA-55	CLARIFIER 4D / EAST BASIN	B-144806	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-45	CLARIFIER 5A / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-46	CLARIFIER 5B / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-47	CLARIFIER 5C / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-48	CLARIFIER 5D / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-49	CLARIFIER 6A / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-50	CLARIFIER 6B / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-51	CLARIFIER 6C / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-52	CLARIFIER 6D / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-53	CLARIFIER 7A / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-54	CLARIFIER 7B / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-55	CLARIFIER 7C / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-56	CLARIFIER 7D / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-57	CLARIFIER 8A / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-58	CLARIFIER 8B / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-59	CLARIFIER 8C / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)
10CLA-60	CLARIFIER 8D / WEST BASIN	B-144808	WATER	80000 FT LBS	OPERATING TORQUE 400 FT LBS; TORQUE SWITCH ALARM AT 40% OF OPERATING TORQUE; MOTOR CUTOUT AT 85% OF OPERATING TORQUE; (NOTE 1)

NOTES:

1. RAKE SPEED - 0.028 RPM
HORSE POWER - 0.75

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER No. C 82504 CIVIL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	DESIGNED AM/TF DRAWN CSL CHECKED	FOR DRAWING APPROVALS SEE B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET I-14 DWG B-144812 REV 0

A	B	C	D	E	F	G	H	I	J	K	L
---	---	---	---	---	---	---	---	---	---	---	---

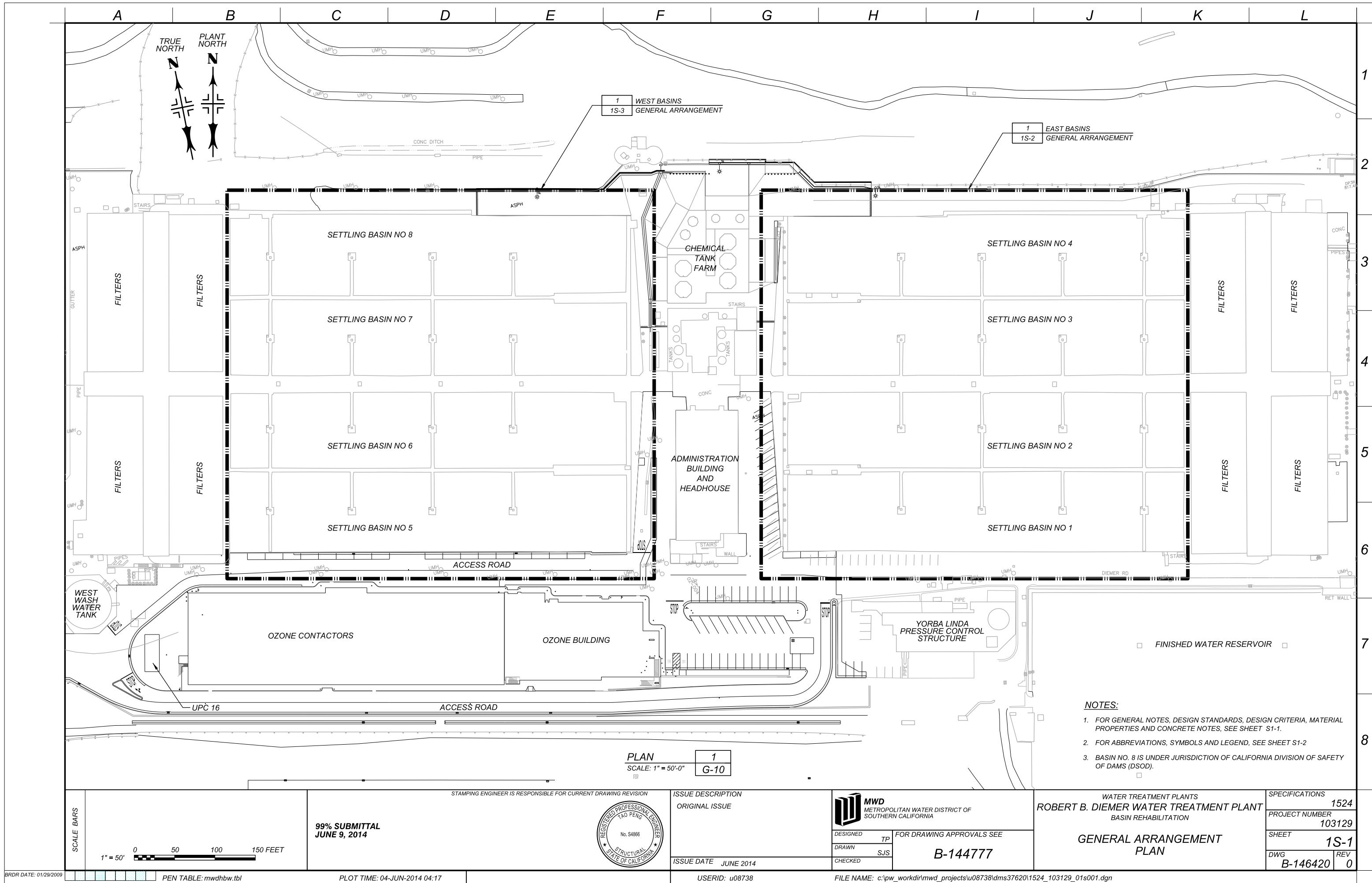
EQUIPMENT - PUMPS

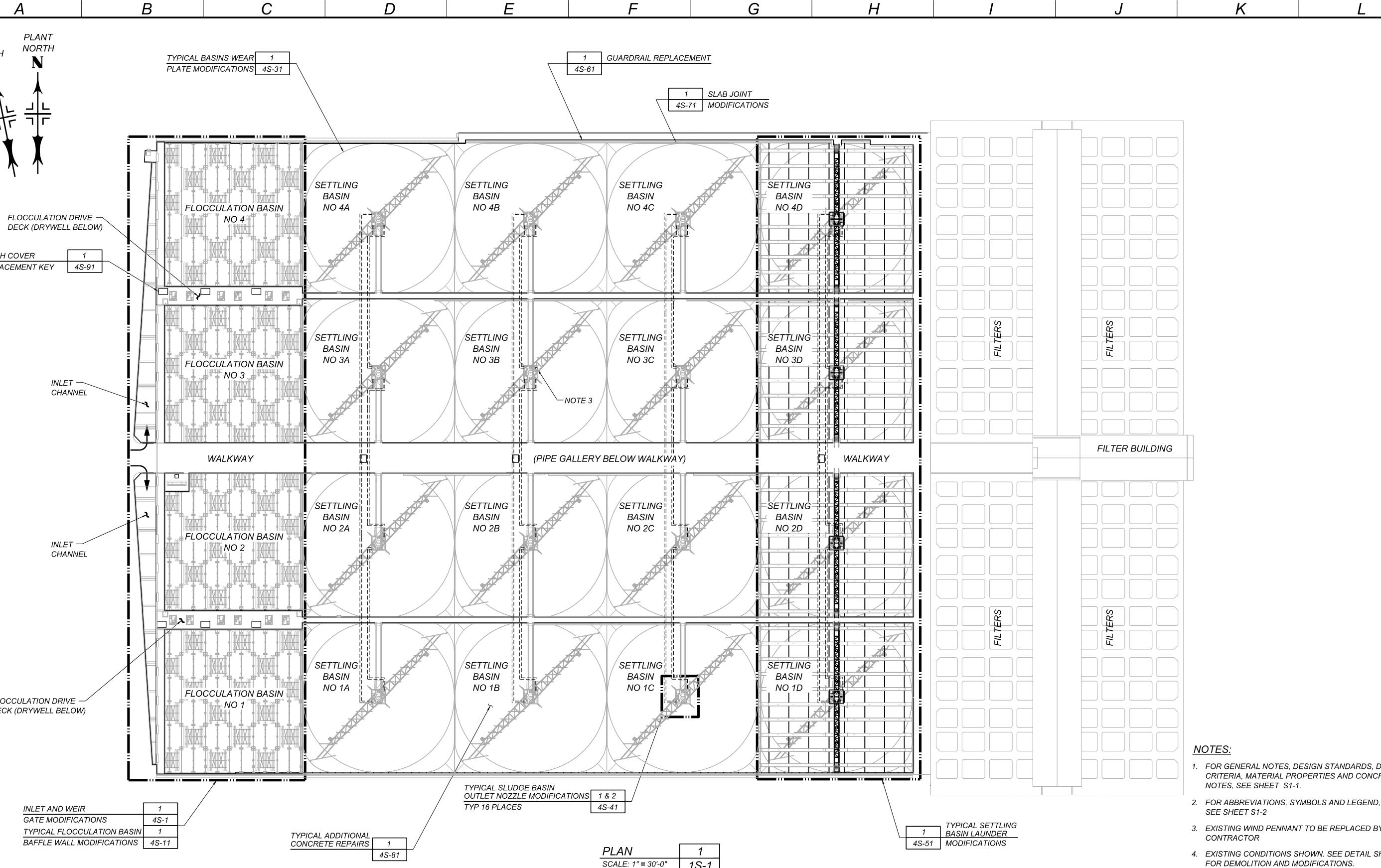
TAG NO	DESCRIPTION/LOCATION	P&ID NO	TYPE	SERVICE	CAPACITY/TDH	SIZE	RPM	EST. HP	VOLTS	REMARKS
4P-60	CLARIFIER 1A SLUDGE PUMP / EAST SLUDGE PUMP ROOM A	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-61	CLARIFIER 2A SLUDGE PUMP / EAST SLUDGE PUMP ROOM A	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-62	CLARIFIER 3A SLUDGE PUMP / EAST SLUDGE PUMP ROOM A	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-63	CLARIFIER 4A SLUDGE PUMP / EAST SLUDGE PUMP ROOM A	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-64	CLARIFIER 1B SLUDGE PUMP / EAST SLUDGE PUMP ROOM B	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-65	CLARIFIER 2B SLUDGE PUMP / EAST SLUDGE PUMP ROOM B	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-66	CLARIFIER 3B SLUDGE PUMP / EAST SLUDGE PUMP ROOM B	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-67	CLARIFIER 4B SLUDGE PUMP / EAST SLUDGE PUMP ROOM B	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-68	CLARIFIER 1C SLUDGE PUMP / EAST SLUDGE PUMP ROOM C	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-69	CLARIFIER 2C SLUDGE PUMP / EAST SLUDGE PUMP ROOM C	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-70	CLARIFIER 3C SLUDGE PUMP / EAST SLUDGE PUMP ROOM C	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-71	CLARIFIER 4C SLUDGE PUMP / EAST SLUDGE PUMP ROOM C	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-72	CLARIFIER 1D SLUDGE PUMP / EAST SLUDGE PUMP ROOM D	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-73	CLARIFIER 2D SLUDGE PUMP / EAST SLUDGE PUMP ROOM D	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-74	CLARIFIER 3D SLUDGE PUMP / EAST SLUDGE PUMP ROOM D	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
4P-75	CLARIFIER 4D SLUDGE PUMP / EAST SLUDGE PUMP ROOM D	B-144806	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-61	CLARIFIER 5A SLUDGE PUMP / WEST SLUDGE PUMP ROOM A	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-62	CLARIFIER 5B SLUDGE PUMP / WEST SLUDGE PUMP ROOM A	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-63	CLARIFIER 5C SLUDGE PUMP / WEST SLUDGE PUMP ROOM A	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-64	CLARIFIER 5D SLUDGE PUMP / WEST SLUDGE PUMP ROOM A	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-65	CLARIFIER 6A SLUDGE PUMP / WEST SLUDGE PUMP ROOM B	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-66	CLARIFIER 6B SLUDGE PUMP / WEST SLUDGE PUMP ROOM B	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-67	CLARIFIER 6C SLUDGE PUMP / WEST SLUDGE PUMP ROOM B	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-68	CLARIFIER 6D SLUDGE PUMP / WEST SLUDGE PUMP ROOM B	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-69	CLARIFIER 7A SLUDGE PUMP / WEST SLUDGE PUMP ROOM C	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-70	CLARIFIER 7B SLUDGE PUMP / WEST SLUDGE PUMP ROOM C	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-71	CLARIFIER 7C SLUDGE PUMP / WEST SLUDGE PUMP ROOM C	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-72	CLARIFIER 7D SLUDGE PUMP / WEST SLUDGE PUMP ROOM C	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-73	CLARIFIER 8A SLUDGE PUMP / WEST SLUDGE PUMP ROOM D	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-74	CLARIFIER 8B SLUDGE PUMP / WEST SLUDGE PUMP ROOM D	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-75	CLARIFIER 8C SLUDGE PUMP / WEST SLUDGE PUMP ROOM D	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)
10P-76	CLARIFIER 8D SLUDGE PUMP / WEST SLUDGE PUMP ROOM D	B-144808	CENTRIFUGAL	SLUDGE / WATER	150 GPM @ 30 FT	3 IN X 3 IN	1180	3	480	(MFE)

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER No. C 82504 CIVIL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED AM/TF DRAWN CSL CHECKED	FOR DRAWING APPROVALS SEE B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EQUIPMENT LIST PUMPS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET I-15 DWG B-144813 REV 0

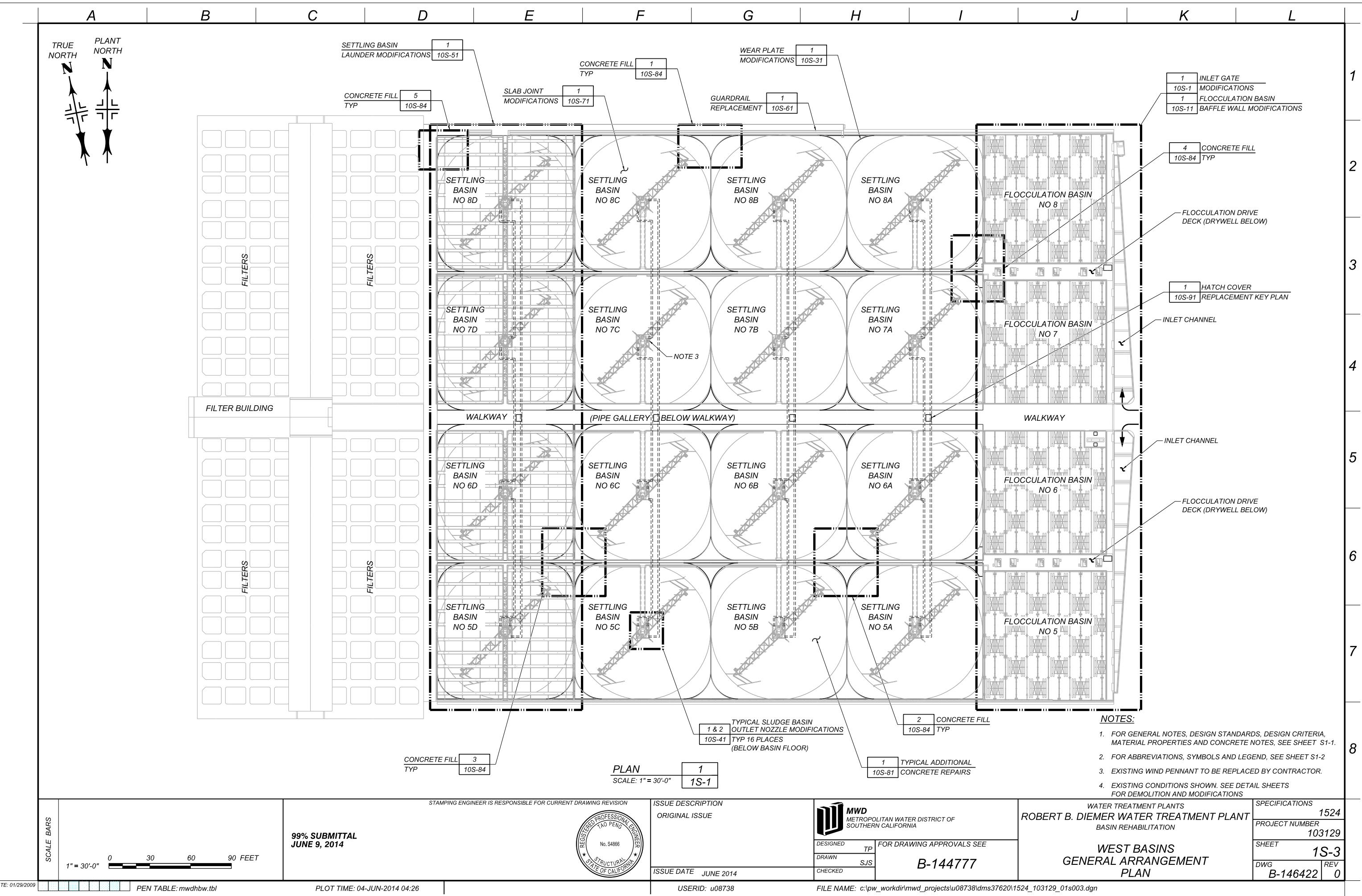
A	B	C	D	E	F	G	H	I	J	K	L											
GENERAL NOTES			DESIGN CRITERIA			CONCRETE NOTES			MATERIAL PROPERTIES													
<u>UNLESS NOTED OTHERWISE:</u> <ol style="list-style-type: none"> FOR DRAWING INDEX AND REFERENCE DRAWINGS, SEE PROJECT DRAWING "G" SHEETS. THE DESIGN DRAWINGS, (S-SHEETS), SHALL GOVERN OVER THE TYPICAL DETAILS AND T SHEETS. UNLESS DETAILED, SPECIFIED, OR NOTED OTHERWISE ON THE DESIGN DRAWINGS, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS SHALL BE USED WHERE REQUIRED EVEN WHEN NOT SPECIFICALLY NOTED AS SUCH ON THE DRAWINGS. LOCATION OF CIVIL, MECHANICAL AND ELECTRICAL ITEMS SHALL BE VERIFIED ON THE APPLICABLE DRAWINGS. FOR STATION COORDINATES, SEE CIVIL DRAWINGS. 			<u>UNLESS NOTED OTHERWISE:</u> <p><u>DESIGN LOADING - GRAVITY</u></p> <p>LIVE LOAD</p> <p>ROOF..... 20 PSF</p> <p>FLOOR..... 100 PSF</p> <p>SLAB ON GRADE..... HS20 AASHTO</p> <p>GRATING..... 100 PSF</p> <p><u>SEISMIC LOADING</u></p> <table border="0"> <tr> <td>BASIN NO. 1 - 7 SITE COEFFICIENTS FOR MCE:</td> <td>BASIN NO. 8 SITE COEFFICIENTS FOR MCE:</td> </tr> <tr> <td>$S_{DS} = 1.56g$</td> <td>$S_{DS} = 1.72g$</td> </tr> <tr> <td>$S_{D1} = 0.93g$</td> <td>$S_{D1} = 1.16g$</td> </tr> </table> <p>SITE CLASSIFICATION: D</p> <p>OCCUPANCY CATEGORY: IV ESSENTIAL FACILITIES</p> <p><u>WIND LOADING</u></p> <p>BASIC WIND SPEED (3 SECOND GUST) V3S = 85 MPH</p> <p>EXPOSURE: C</p> <p>OCCUPANCY CATEGORY: IV ESSENTIAL FACILITIES</p>			BASIN NO. 1 - 7 SITE COEFFICIENTS FOR MCE:	BASIN NO. 8 SITE COEFFICIENTS FOR MCE:	$S_{DS} = 1.56g$	$S_{DS} = 1.72g$	$S_{D1} = 0.93g$	$S_{D1} = 1.16g$	<u>UNLESS NOTED OTHERWISE:</u> <ol style="list-style-type: none"> DIMENSIONS OF HOOKS AND BENDS SHALL CONFORM TO THE RECOMMENDED SIZES OF THE CONCRETE REINFORCING STEEL INSTITUTE CODE (CRSI). THE MINIMUM LAP SPLICE AND DEVELOPED LENGTH FOR REINFORCING STEEL IN WALLS AND SLABS SHALL BE AS SHOWN IN THE REINFORCING STEEL SCHEDULE, ON S3-1. WHERE BARS OF THE SAME SIZE ARE LAP SPliced, THEY SHALL BE LAPPED THE DISTANCE SHOWN IN THE SCHEDULE. FOR BARS OF A DIFFERENT SIZE, THE LAP LENGTH SHALL BE THE LAP SPLICE LENGTH GIVEN FOR THE SMALLER SIZE BAR OR SHALL BE THE DEVELOPMENT LENGTH FOR THE LARGER BAR WHICHEVER IS GREATER. AT ALL OPENINGS IN CONCRETE WALLS AND SLABS, REINFORCEMENT SHALL BE PROVIDED EQUAL TO THE REINFORCEMENT THAT WAS CUT OUT FOR THE OPENING. REINFORCING STEEL SHALL BE PLACED 3 INCHES CLEAR FROM CONCRETE CAST AGAINST EARTH, 2 INCHES CLEAR FROM ALL OTHER EXISTING CONCRETE SURFACES, FORMS AND A MINIMUM OF 2" CLEAR FROM THE OUTERMOST SURFACE OF WATERSTOPs. PROVIDE 3/4 INCH FILLETS OR CHAMFERS AT ALL EXPOSED CORNERS. Maintain 3 inches minimum clearance between reinforcing steel and piping, including flanges and ribs, etc. Pipes, conduits, or sleeves passing through concrete walls or slabs shall be spaced not less than 3 diameters on center based on the largest outside diameter. LOCATIONS, SIZE, AND DIMENSIONS OF ANCHOR BOLTS, WELD INSERTS AND CONCRETE PIERS REQUIRED FOR ATTACHMENT OR SUPPORT OF MECHANICAL EQUIPMENT SHALL BE BASED ON APPROVED EQUIPMENT SHOP DRAWINGS. SHOP DRAWINGS FOR CONTRACTOR FURNISHED EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER AND APPROVED PRIOR TO THE FABRICATION OR PLACEMENT OF ANY PART OF THE ATTACHMENT OR SUPPORT SYSTEM. ALL REINFORCING STEEL THAT IS EXPOSED AFTER CONSTRUCTION SHALL BE COVERED WITH A NEAT CEMENT COATING, A MIXTURE OF "PORTLAND" CEMENT AND WATER WITHOUT SAND OR LIME. 			<u>UNLESS NOTED OTHERWISE:</u> <p>CONCRETE CLASS B, $f'_c = 4,000$ PSI</p> <p>REINFORCING STEEL ASTM A615, GR 60</p> <p>STRUCTURAL STEEL UNO ASTM A36</p> <p>STRUCTURAL STEEL (W-SHAPES) ASTM A992</p> <p>STRUCTURAL BOLTS 3/4" DIAMETER, ASTM A325</p> <p>ELECTRODES E70-XX LOW HYDROGEN</p> <p>CONCRETE MASONRY $f'_m = 1,500$ PSI</p> <p>ANCHOR BOLTS ASTM A307 OR A36</p>			1				
BASIN NO. 1 - 7 SITE COEFFICIENTS FOR MCE:	BASIN NO. 8 SITE COEFFICIENTS FOR MCE:																					
$S_{DS} = 1.56g$	$S_{DS} = 1.72g$																					
$S_{D1} = 0.93g$	$S_{D1} = 1.16g$																					
<p>DESIGN STANDARDS</p> <u>UNLESS NOTED OTHERWISE:</u> <ol style="list-style-type: none"> CALIFORNIA BUILDING CODE (CBC), 2010. INTERNATIONAL BUILDING CODE, 2009. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-05). CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES (ACI 350-07). AISC STEEL CONSTRUCTION MANUAL, 13TH EDITION 											2											
												3										
												4										
												5										
												6										
												7										
												8										
									<p>NOTES:</p> <ol style="list-style-type: none"> FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2. 													
SCALE BARS	99% SUBMITTAL JUNE 9, 2014		<p>STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION</p> <p>REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STATE OF CALIFORNIA</p>			<p>ISSUE DESCRIPTION</p> <p>ORIGINAL ISSUE</p> <p>ISSUE DATE JUNE 2014</p>			<p>MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA</p> <table border="1"> <tr> <td>DESIGNED</td> <td>TP</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN</td> <td>SJS</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> <td></td> </tr> </table> <p>B-144777</p>			DESIGNED	TP	FOR DRAWING APPROVALS SEE	DRAWN	SJS		CHECKED			<p>WATER TREATMENT PLANTS</p> <p>ROBERT B. DIEMER WATER TREATMENT PLANT</p> <p>BASIN REHABILITATION</p> <p>GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES</p>	<p>SPECIFICATIONS</p> <p>1524</p> <p>PROJECT NUMBER</p> <p>103129</p> <p>SHEET</p> <p>S-1</p> <p>DWG</p> <p>B-146418</p> <p>REV</p> <p>0</p>
DESIGNED	TP	FOR DRAWING APPROVALS SEE																				
DRAWN	SJS																					
CHECKED																						

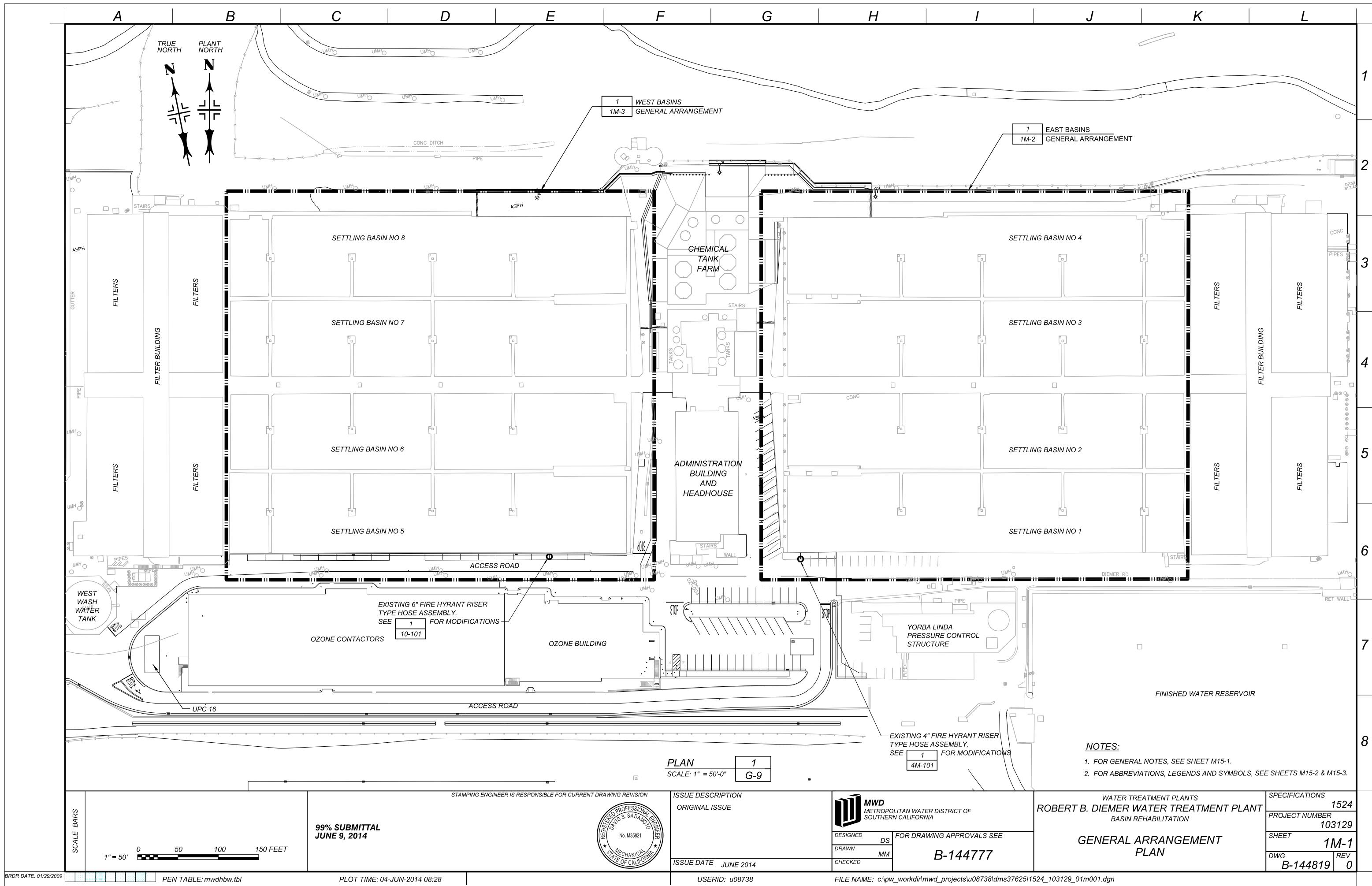
A	B	C	D	E	F	G	H	I	J	K	L
ABBREVIATIONS										LEGEND	
A	AB ABT AC ADD ALT ALUM APPD ARCH ASSY	ANCHOR BOLTS ABOUT ASPHALTIC CONCRETE ADDITIONAL ALTERNATE ALUMINUM APPROVED ARCHITECTURAL ASSEMBLY	F (CONTINUED) FRP FS FT F.T. FTG FV	FIBERGLASS REINFORCED PLASTIC FAR SIDE FOOT / FEET FIELD TOP FOOTING FIELD VERIFY	R RAD RCP RD REF REINF REQD REV RM RO RT R/W	RISER RADIUS REINFORCED CONCRETE PIPE ROOF DRAIN REFERENCE REINFORCEMENT OR REINFORCING REQUIRED REVISION ROOM ROUGH OPENING RIGHT RIGHT-OF-WAY	@ # £ Ø ,	AT POUND / POUNDS / NUMBER CENTER LINE DIAMETER FOOT / FEET INCH / INCHES DEGREE ANGULAR MINUTE SECOND	EXTENT OF DETAIL HANDBRAIL CENTER LINE	1	
B	B/B BC BE BF BL BLDG BM BOC BOF BOT BOS BS BTWN	BACK TO BACK BOLT CIRCLE BOTH ENDS BOTTOM FACE BUILDING LINE BUILDING BEAM BOTTOM OF CONCRETE BOTTOM OF FOUNDATION / FOOTING BOTTOM BOTTOM OF STEEL BOTH SIDES BETWEEN	H	HEX HORIZ HP HR HS HT HVAC HVY	HEXAGONAL HORIZONTAL HIGH POINT HANDRAIL HIGH STRENGTH HEIGHT HEATING, VENTILATION AND AIR CONDITIONING HEAVY	S SCH SECT SHT SIM SPA SPCD SPCS SPEC SPEC SQ SST S.T. STA STAG STD STIFF STL STR SYM	SLOPE SCHEDULE SECTION SHEET SIMILAR SPACE SPACED SPACES SPECIFICATION SPECIFICATIONS SQUARE STAINLESS STEEL SHOP TOP STATION STAGGER / STAGGERED STANDARD STIFFENER STEEL STRUCTURAL / STRUCTURE SYMMETRICAL	f_c' f_m' f_y'	SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNIT TENSILE YIELD STRENGTH	EXISTING EXISTING HIDDEN HIDDEN LINE UNLESS OTHERWISE INDICATED	2
C	CBC C/C CCP CEM CHKD CI CIR CIP CIV CJ CJP CL / CLR CMP CMU CND COL CONC CONN CONST CONT CTR CTR'D CU FT CU YD CY	CALIFORNIA BUILDING CODE CENTER TO CENTER CONCRETE CYLINDER PIPE - PRETENSIONED CEMENT CHECKERED CAST IRON CIRCLE CAST IRON PIPE CIVIL CONSTRUCTION JOINT COMPLETE JOINT PENETRATION CLEAR CORRUGATED METAL PIPE CONCRETE MASONRY UNIT CONDUIT COLUMN CONCRETE CONNECTION CONSTRUCTION CONTINUOUS / CONTINUATION CENTER CENTERED CUBIC FOOT CUBIC YARD CYLINDER	I	ID IF IN INV	INSIDE DIAMETER INSIDE FACE INCH INVERT	T LB LBS LG LLH LLV LOCs LONGIT LP LT	TREAD TOP & BOTTOM TONGUE & GROOVE TOP FACE THREAD THICK / THICKNESS THRU TANGENT LINE TOP OF CONCRETE TOP OF FOUNDATION / FOOTING TOP OF GRATING TOP OF STEEL TOP OF WALL TRANSVERSE TYPICAL		GRADE LINE, SOIL LINE OR FINISH SURFACE	3	
D	D DEG DET DIA DIAG DIM DIP DN DO DP DS DWG DWGS DWLS	DEPTH DEGREE DETAIL DIAMETER DIAGONALS DIMENSION DUCTILE IRON PIPE DOWN DITTO DEEP DOWNSPOUT DRAWING DRAWINGS DOWELS	M	MATL MAX MB MECH MFD MFE MFR MH MK MIN MISC MO MTL	MATERIAL MAXIMUM MACHINE BOLT MECHANICAL MANUFACTURED METROPOLITAN FURNISHED EQUIPMENT MANUFACTURER MANHOLE MARK MINIMUM MISCELLANEOUS MASONRY OPENING METAL	U UNO	UNLESS NOTED OTHERWISE		STEEL	4	
E	EA EF EL ELECT EMBED ENGR EPDM EQ EQUIP ER EW EXIST EXP EX HVY	EACH EACH FACE ELEVATION ELECTRICAL EMBEDMENT ENGINEER ETHYLENE PROPYLENE DIENE TERPOLYMER EQUAL EQUIPMENT EVALUATION REPORT EACH WAY EXISTING EXPANSION EXTRA HEAVY	N	NF NIC NO NPT NS NTS	NEAR FACE NOT IN CONTRACT NUMBER NATIONAL PIPE THREADS NEAR SIDE NOT TO SCALE	V VAC VCP VERT VIF VOL OR V VP VPI	VACUUM VITRIFIED CLAY PIPE VERTICAL VERIFY IN FIELD VOLUME VENT PIPE VERTICAL POINT OF INTERSECTION		MASONRY	5	
F	FABD FABR FD FDN FF FH FHS FIN FLG FLR	FABRICATED FABRICATOR FLOOR DRAIN FOUNDATION FAR FACE OR FLAT FACE FLAT HEAD FLAT HEAD SCREW FINISH FLANGE FLOOR	P	PC PCS PCCP PE PI PL	PIECE PIECES PRESTRESSED CONCRETE CYLINDER PIPE POLYETHYLENE POINT OF INTERSECTION PLATE (STEEL)	W WH WP WPS WS WSP WT WWF WI W/O	WEEP HOLE WORKING POINT WELD PROCEDURE SCHEDULE WATER SURFACE WELDED STEEL PIPE WEIGHT WELDED WIRE FABRIC WITH WITHOUT		CONCRETE	6	
			X	X-STG	EXTRA STRONG				GROUT, DRYPACK, EPOXY OR ELEVATIONS OF WALLS BEYOND OR IN SECTION	7	
									BAR GRATING	8	
									NON-SKID FLOOR PLATE (RAISED PATTERN, CHECKER PLATE)		
									INDICATES BOUNDARY OF DEMOLITION / REMOVAL		
									INDICATES SPAN DIRECTION TO SPAN GRATING OR METAL DECKING		
									NOTES:	8	
									1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.		
SCALE BARS					STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA No. S4666 REGISTERED PROFESSIONAL ENGINEER TAO PENG STRUCTURAL STATE OF CALIFORNIA	ISSUE DATE JUNE 2014	FOR DRAWING APPROVALS SEE TP DRAWN SJS CHECKED B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION ABBREVIATIONS, SYMBOLS AND LEGEND DWG B-146419	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET S1-2 REV 0

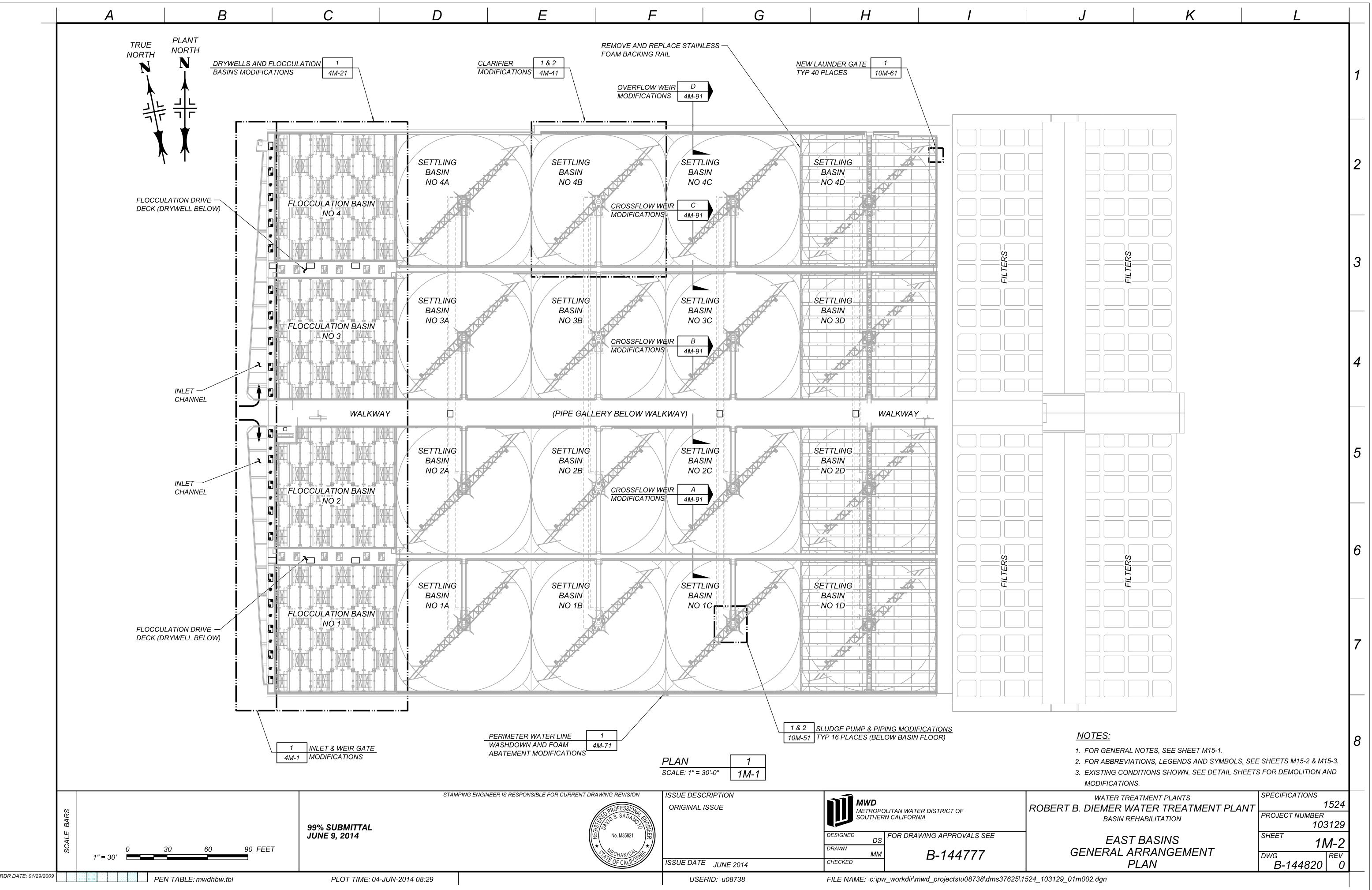


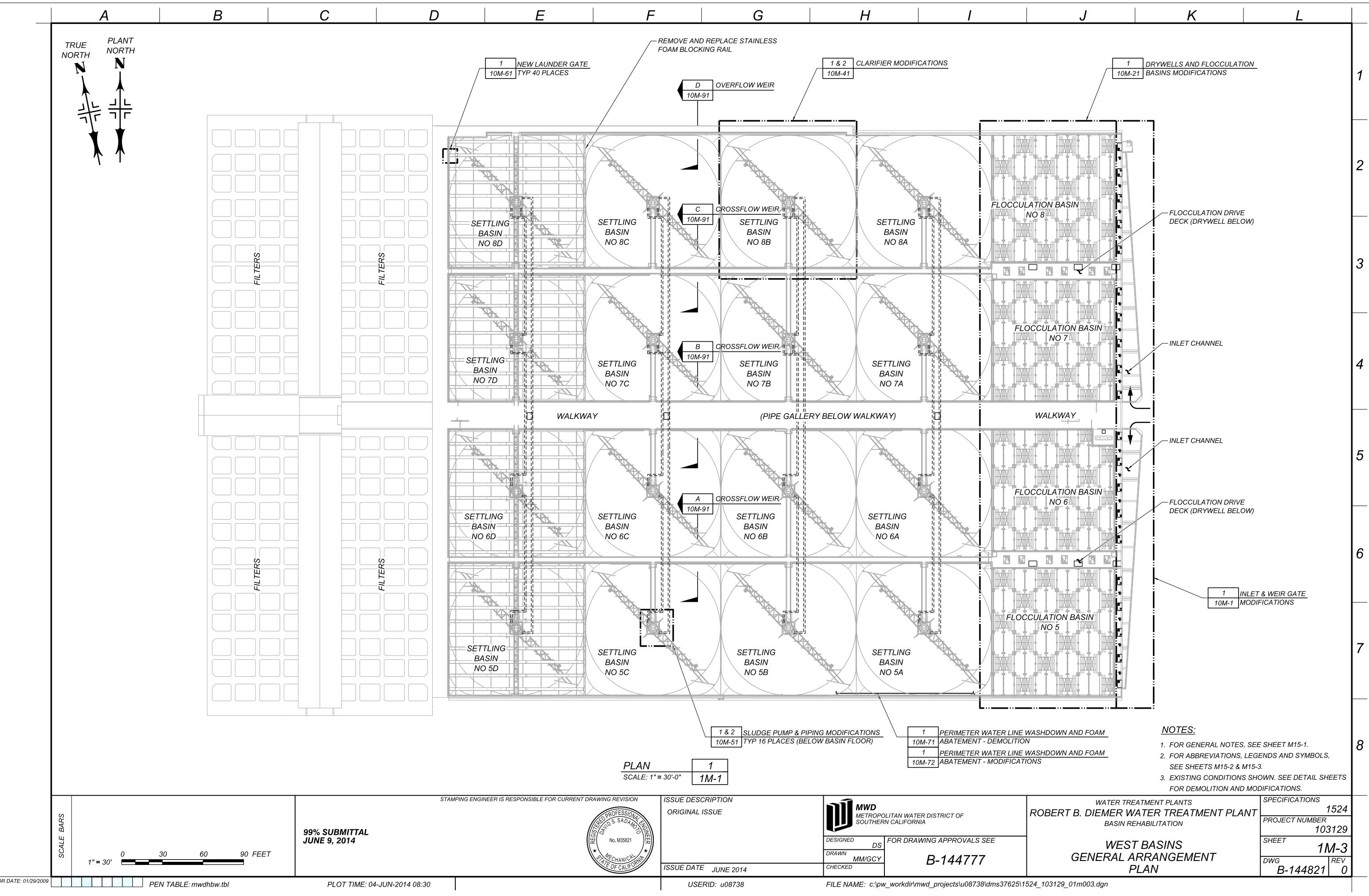


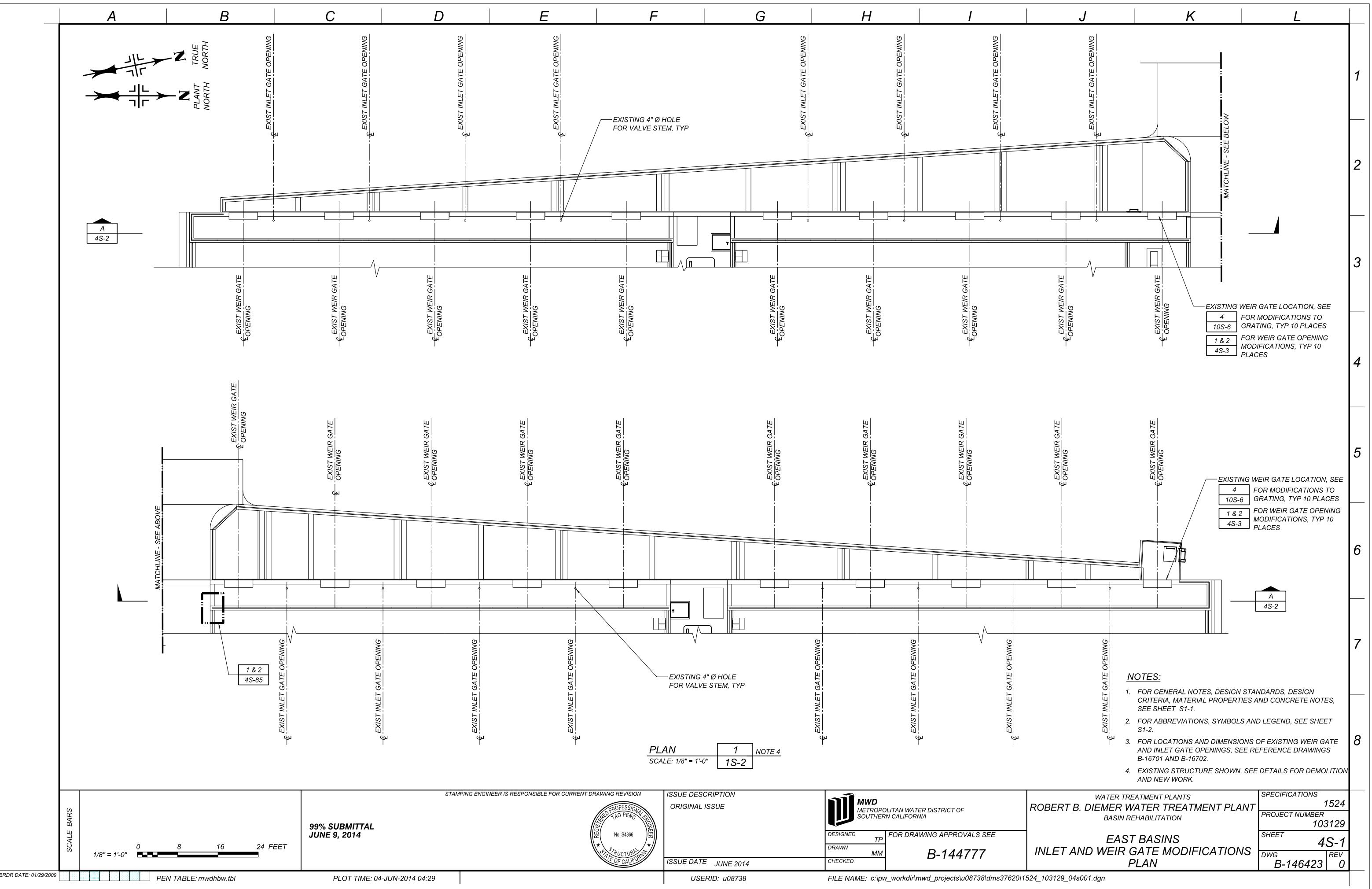
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE REGISTERED PROFESSIONAL ENGINEER No. S4866 TAO PENG STRUCTURAL STATE OF CALIFORNIA	FOR DRAWING APPROVALS SEE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS GENERAL ARRANGEMENT PLAN	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 1S-2 DWG B-146421 REV 0
1" = 30'-0" 0 30 60 90 FEET	PEN TABLE: mwdhbw.tbl	TP DRAWN SJS CHECKED	B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_01s002.dgn	

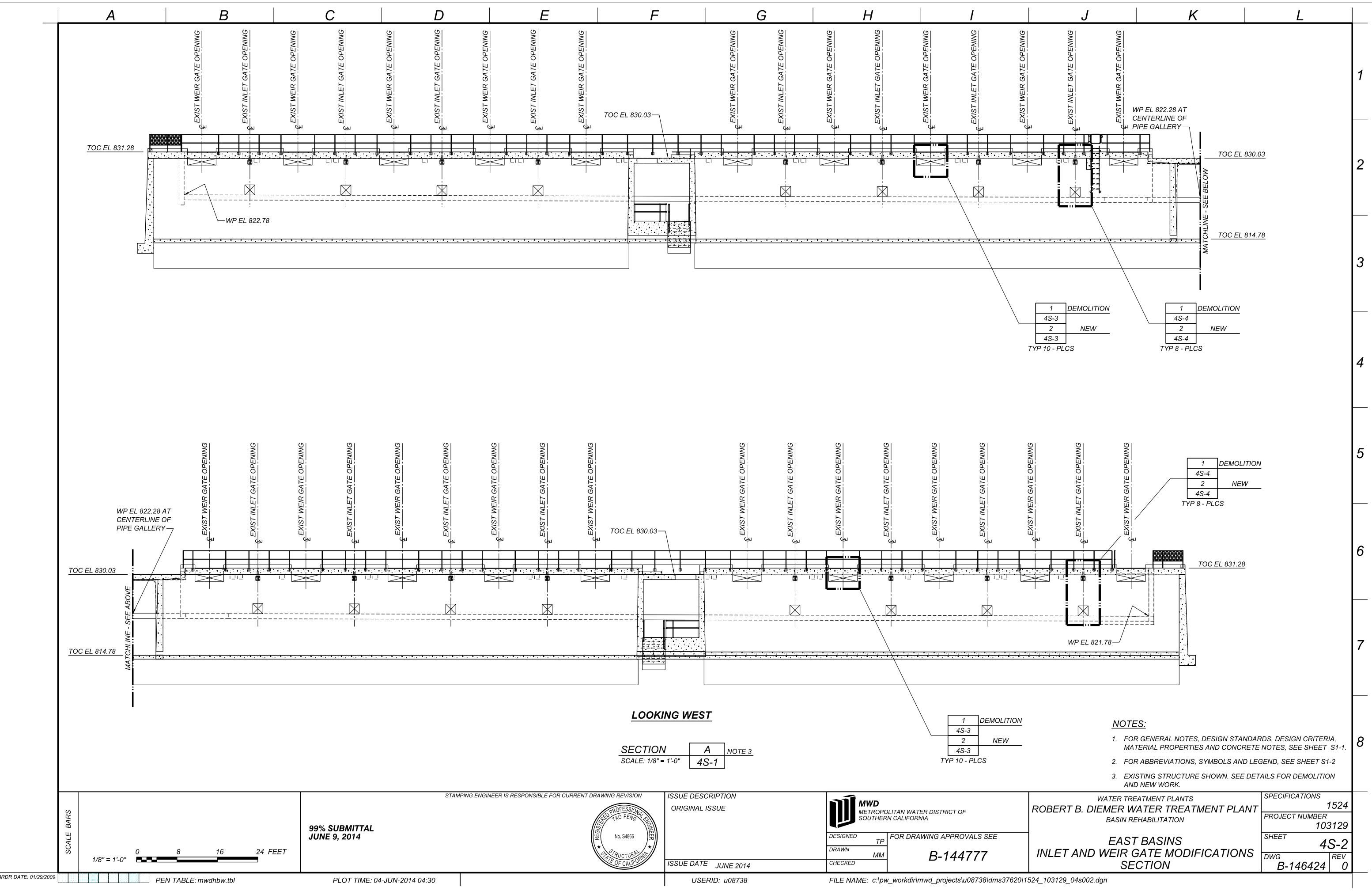


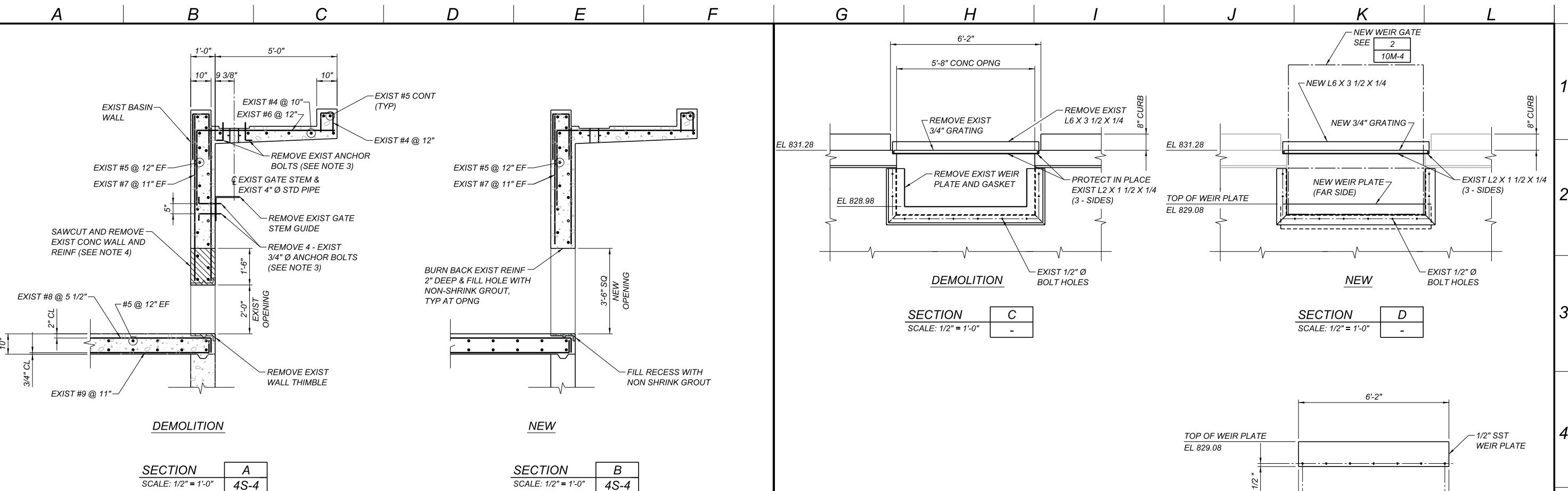




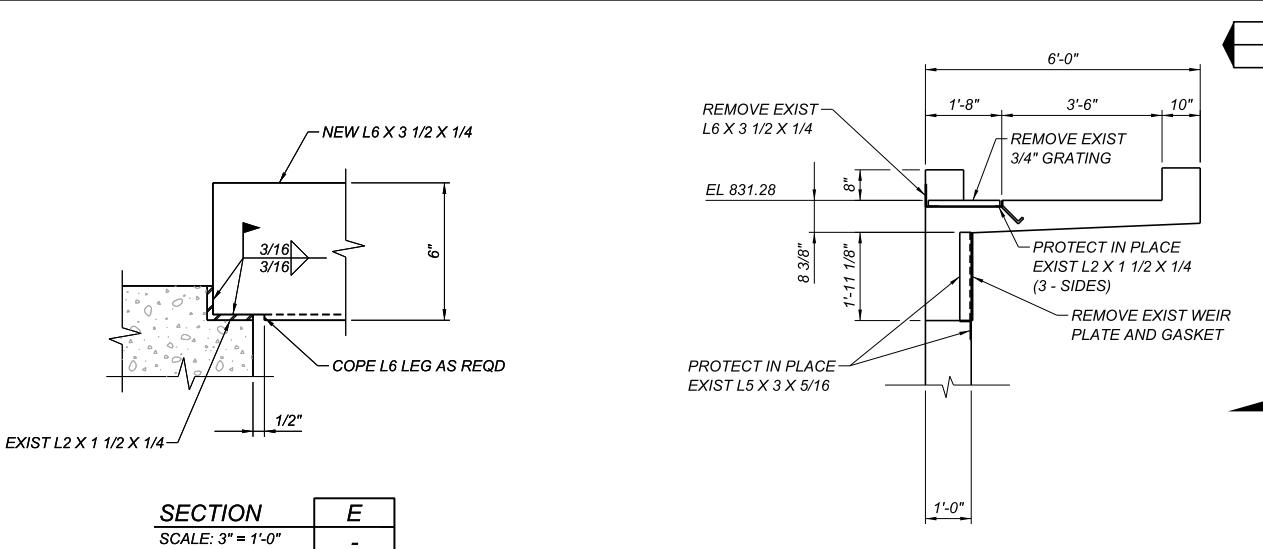






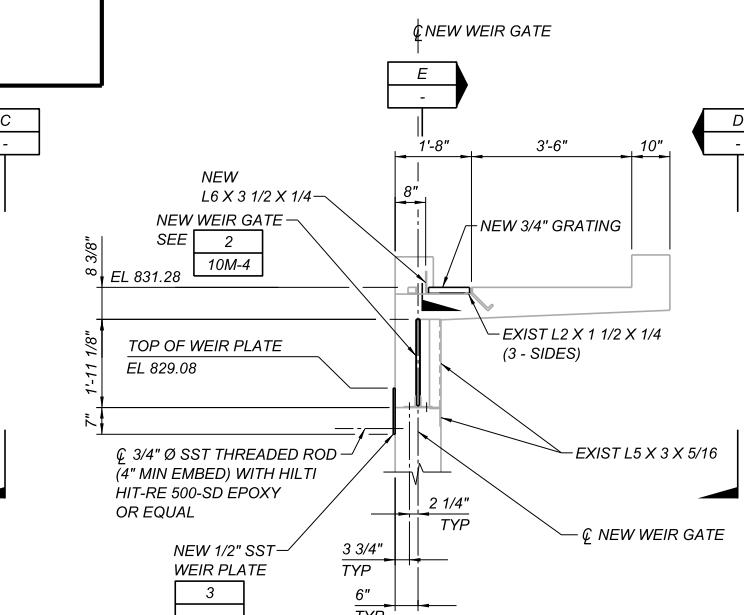


INLET OPENING MODIFICATIONS



DEMOLITION - SECTION
(LOOKING NORTH / SOUTH)

DETAIL 1
SCALE: 1/2" = 1'-0"
4S-1 4S-2, 10S-1, 10S-2



NEW - SECTION
(LOOKING NORTH / SOUTH)

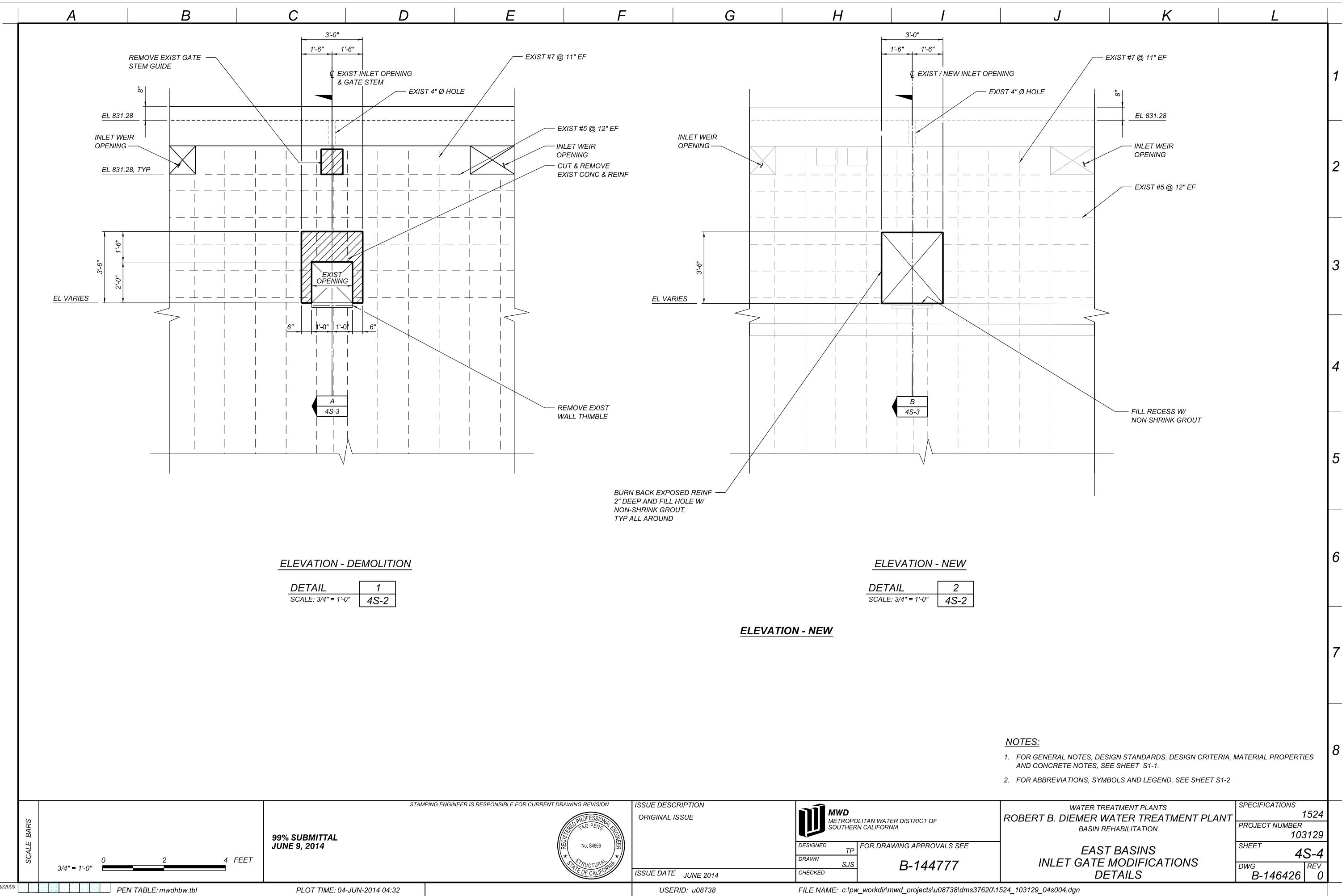
DETAIL 2
SCALE: 1/2" = 1'-0"
4S-1 4S-2, 10S-1, 10S-2,
10M-4

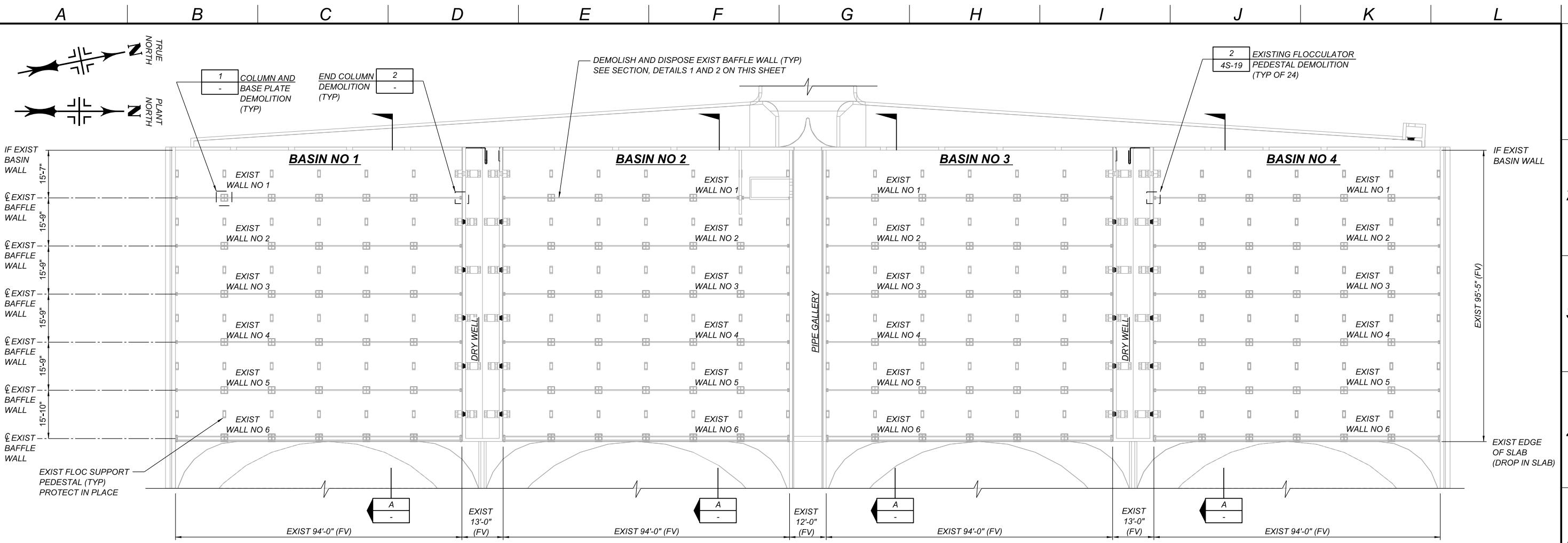
WEIR GATE OPENING MODIFICATIONS

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER No. S4866 STRUCTURAL STATE OF CALIFORNIA Tao Peng	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP FOR DRAWING APPROVALS SEE DRAWN SJS/GCY CHECKED B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS WEIR GATE MODIFICATIONS SECTIONS AND DETAILS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-3 DWG B-146425 REV 0
3" = 1'-0" 0 1/2 1 FEET	99% SUBMITTAL JUNE 9, 2014				
1/2" = 1'-0" 0 2 4 6 FEET					

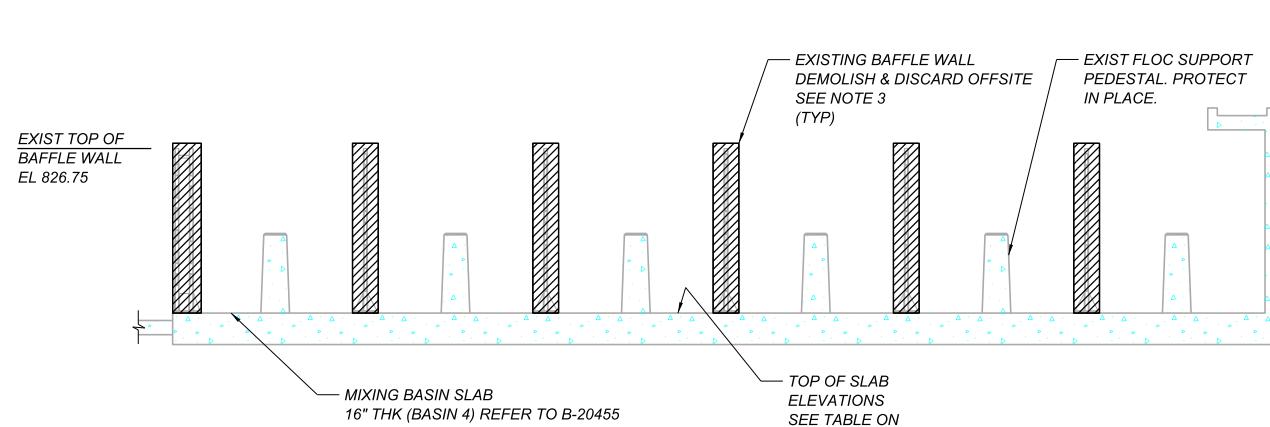
NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
- CUT EXISTING ANCHOR BOLTS AND BURN BACK 2" DEEP. FILL HOLES WITH NON SHRINK GROUT.
- CUT EXISTING REINFORCEMENT AND BURN BACK 2" DEEP. FILL HOLES WITH NON SHRINK GROUT.

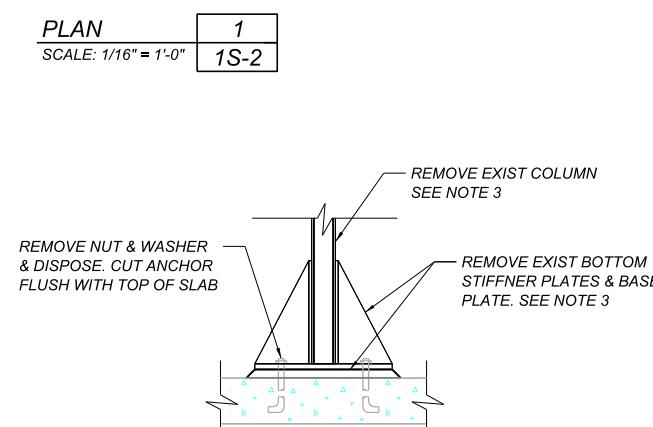




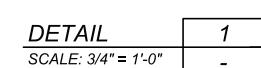
EAST BASINS BAFFLE WALLS DEMOLITION PLAN



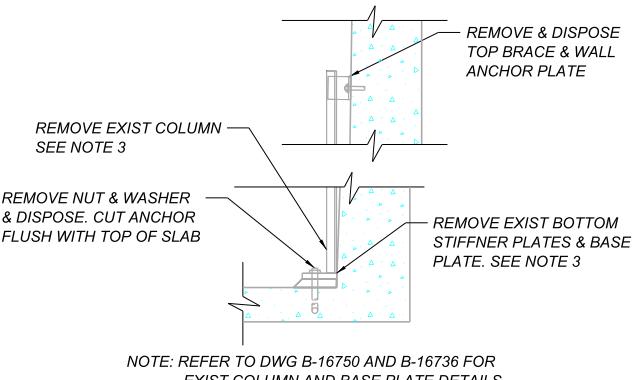
SECTION	A
SCALE: $1/8'' = 1'-0''$	-



*NOTE: REFER TO DWG B-16750 AND B-16736 FOR
EXISTING COLUMN AND PLATE DETAILS.*



1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2
3. DEMOLISH AND DISPOSE OFF-SITE:
 - a. EXISTING BAFFLE WALL COLUMNS AND BASE PLATES
 - b. EXISTING WOOD BAFFLE BOARDS
 - c. REMOVE ALL ANCHOR, NUTS & WASHERS AND DISPOSE. BURN BACK ANCHORS 1/4" BELOW THE SLAB.
- d. FOR LOCATIONS AND DETAILS OF EXISTING BAFFLE WALLS AND SUPPORTS, REFER TO DRAWINGS B-16750 AND B-16736
- e. AFTER DEMOLITION, CLEAN AREA BELOW EXISTING BASE SLAB FREE OF DEBRIS. REPAIR CHIPPED OR SPALLED CONCRETE PRIOR TO INSTALLATION OF NEW GROUT PAD AND BASE PLATE. CONTRACTOR SHALL SUBMIT PROPOSED REPAIR PROCEDURE AND MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION



EERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES
RETE NOTES, SEE SHEET S1-1.

EViations, SYMBOLS AND LEGEND, SEE SHEET S1-2

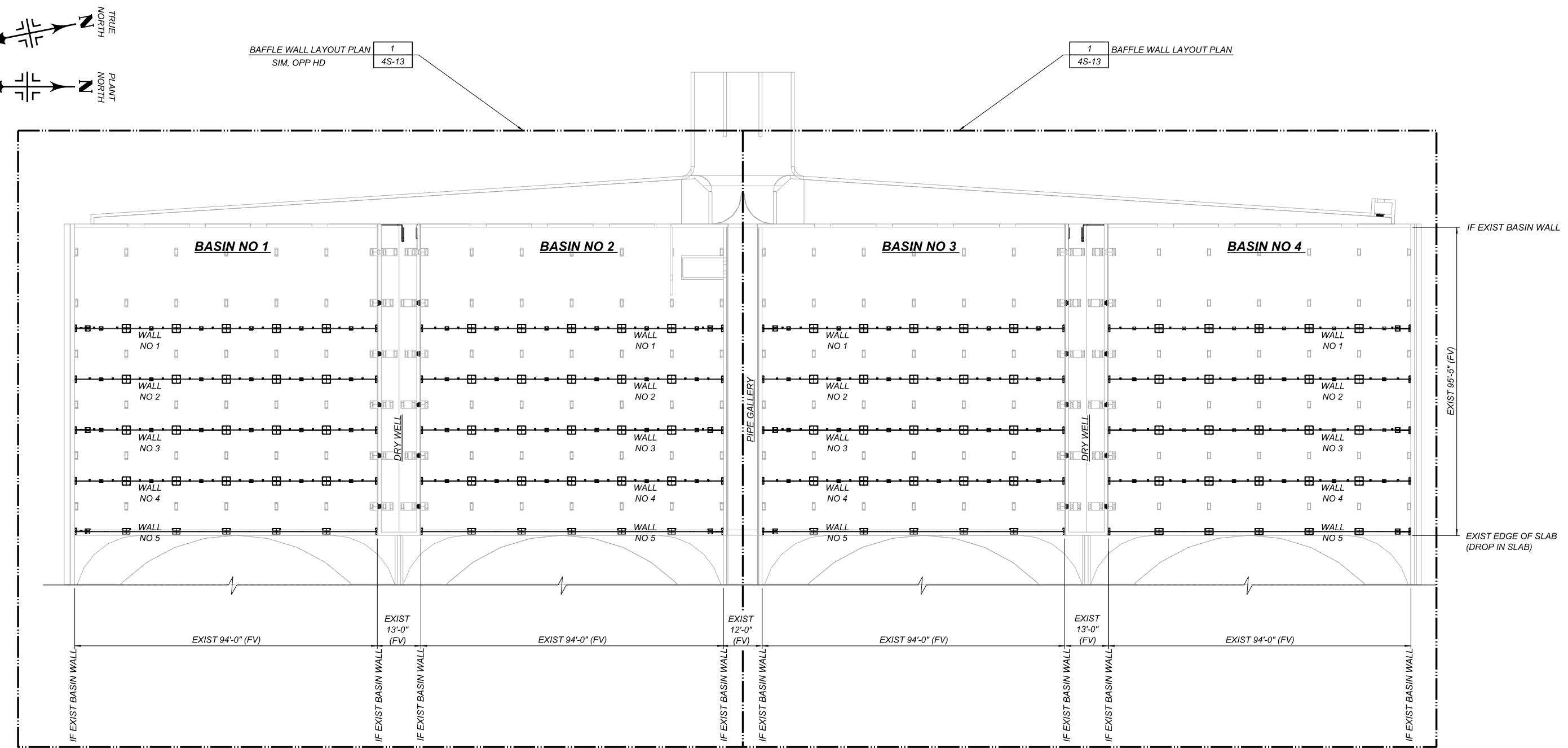
AND DISPOSE OFF-SITE:
G BAFFLE WALL COLUMNS AND BASE PLATES
G WOOD BAFFLE BOARDS
E ALL ANCHOR, NUTS & WASHERS AND DISPOSE. BURN BACK ANCHORS 1/4"
THE SLAB.

CATIONS AND DETAILS OF EXISTING BAFFLE WALLS AND SUPPORTS, REFER
WINGS B-16750 AND B-16736

EMOLITION, CLEAN AREA BELOW EXISTING BASE SLAB FREE OF DEBRRE,
CHIPPED OR SPALLED CONCRETE PRIOR TO INSTALLATION OF NEW GROUT
BASE PLATE. CONTRACTOR SHALL SUBMIT PROPOSED REPAIR PROCEDURE

TERIALS FOR APPROVAL PRIOR TO CONSTRUCTION

Kennedy/Jen Eng	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION										AND MATERIALS ON A PROVEN RISK TO CONSTRUCTION.						
	SCALE BARS		3/4" = 1'-0"		0 2 4 FEET		1/8" = 1'-0"		0 8 16 24 FEET		1/16" = 1'-0"		0 16 32 48 FEET		WATER TREATMENT PLANTS		SPECIFICATIONS
														ROBERT B. DIEMER WATER TREATMENT PLANT		1524	
														BASIN REHABILITATION		PROJECT NUMBER	
														EAST BASINS		103129	
														BAFFLE WALLS DEMOLITION PLAN		SHEET	
														4S-11		DWG	
														B-144777		REV	
														B-146427		0	
99% SUBMITTAL JUNE 9, 2014		REGISTERED PROFESSIONAL ENGINEER SRIDHAR SADASIVAN STRUCTURAL S-6039 EXP. 12/31/2014 STATE OF CALIFORNIA		ISSUE DESCRIPTION ORIGINAL ISSUE		 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA		FOR DRAWING APPROVALS SEE B-144777		ISSUE DATE JUNE 2014		USERID: u08738		FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s011.dgn			
BRDR DATE: 01/29/2009		PEN TABLE: mwdbhw.tbl		PLOT TIME: 05-JUN-2014 03:54													



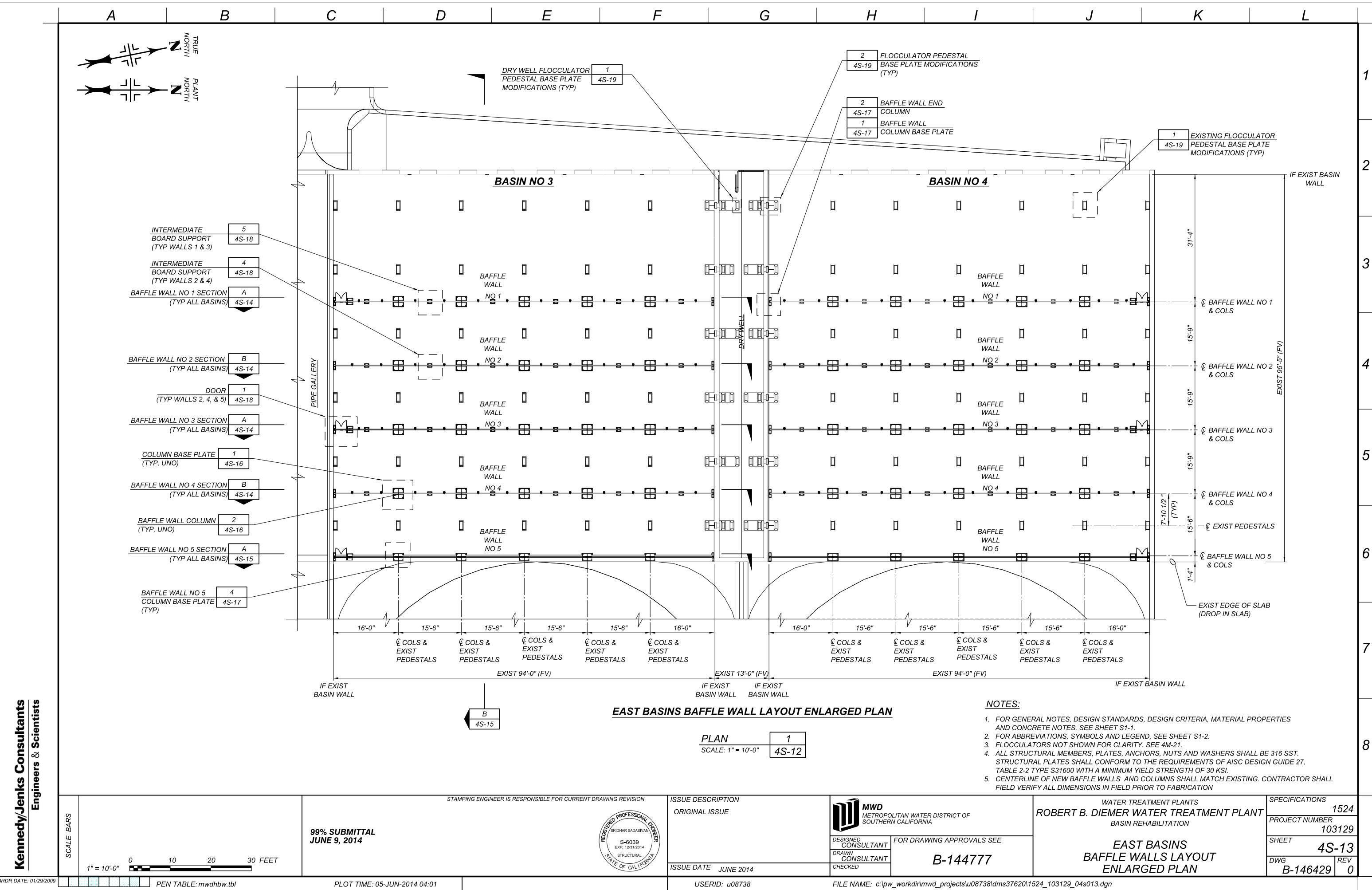
EAST BASINS BAFFLE WALL LAYOUT KEY PLAN

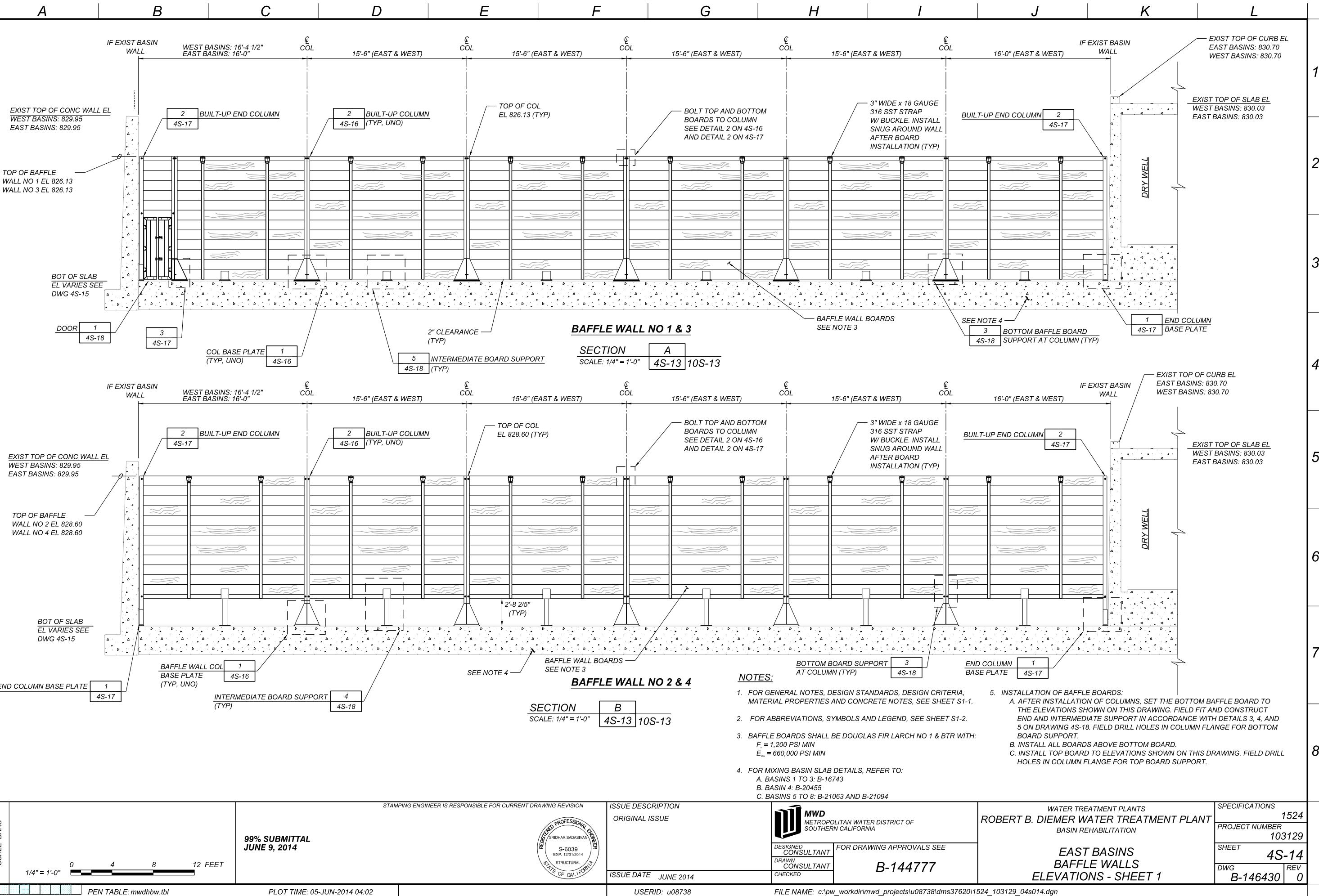
<i>PLAN</i>	1
SCALE: 1/16" = 1'-0"	1S-2

- NOTES:**

 1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
 2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
 3. ALL STRUCTURAL MEMBERS, PLATES, ANCHORS, NUTS AND WASHERS SHALL BE 316 SST. STRUCTURAL PLATES SHALL CONFORM TO THE REQUIREMENTS OF AISC DESIGN GUIDE 27, TABLE 2-2 TYPE S31600 WITH A MINIMUM YIELD STRENGTH OF 30 KSI.
 4. FLOCCULATORS NOT SHOWN FOR CLARITY, SEE 4M-21.
 5. A) STAINLESS STEEL BOLTS: AISI 316, ASTM F593
B) STAINLESS STEEL NUTS: ASTM F594
C) WASHERS: ASTM F436
D) DIMENSIONAL REQUIREMENTS:
A) BOLTS: ANSI B18.2.1
B) NUTS: ANSI B18.2.2

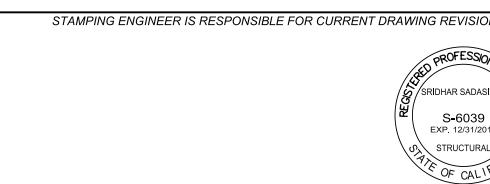
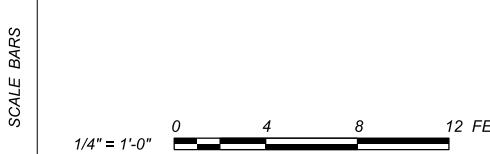
KENNEDY/JEN Eng					STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS	
	99% SUBMITTAL JUNE 9, 2014				ORIGINAL ISSUE				1524	
SCALE BARS	 1/16" = 1'-0"				DESIGNER CONSULTANT B-144777		PROJECT NUMBER			
					DRAWN CONSULTANT		103129			
	ISSUE DATE JUNE 2014				CHECKED		SHEET			
							4S-12			
							DWG	REV		
							B-146428	0		
BRDR DATE: 01/29/2009										
PEN TABLE: mwdhbw.tbl										
PLOT TIME: 05-JUN-2014 03:59										
USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s012.dgn										





TOP OF SLAB ELEVATION							
BASIN	HIGH POINT	WALL NO 1	WALL NO 2	WALL NO 3	WALL NO 4	WALL NO 5	LOW POINT
BASINS 1-3 AND 5-8	814.91	814.66	814.54	814.41	814.29	814.17	814.16
BASIN 4	815.58	815.33	815.21	815.08	814.96	814.84	814.83

99% SUBMITTAL
JUNE 9, 2014



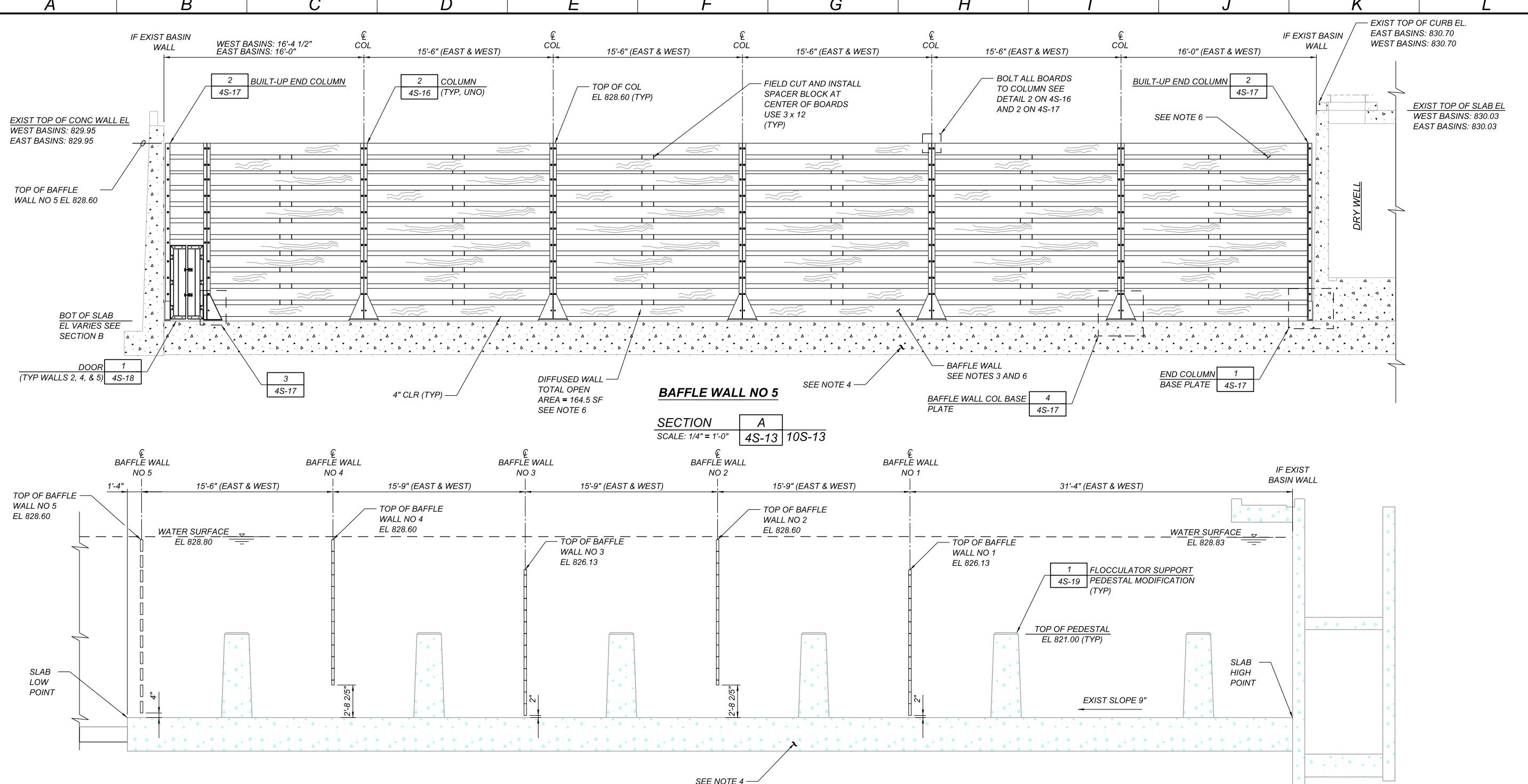
MIXING BASIN TYPICAL SECTION

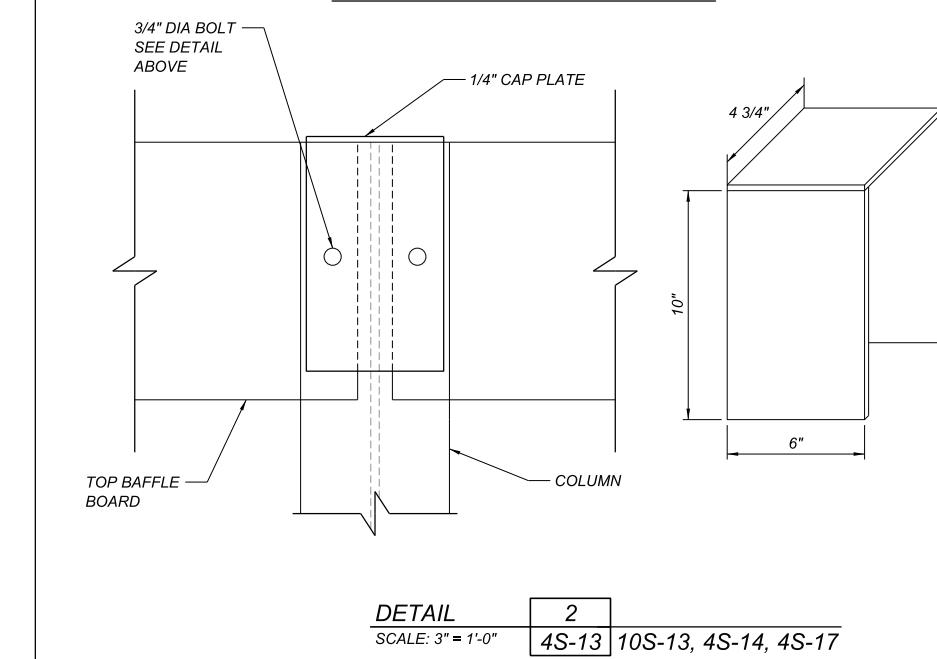
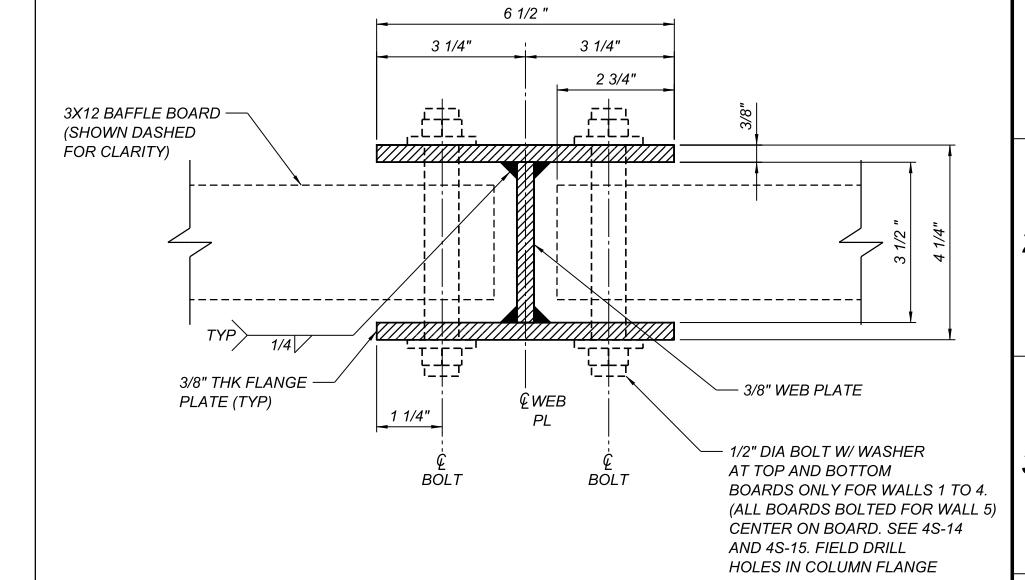
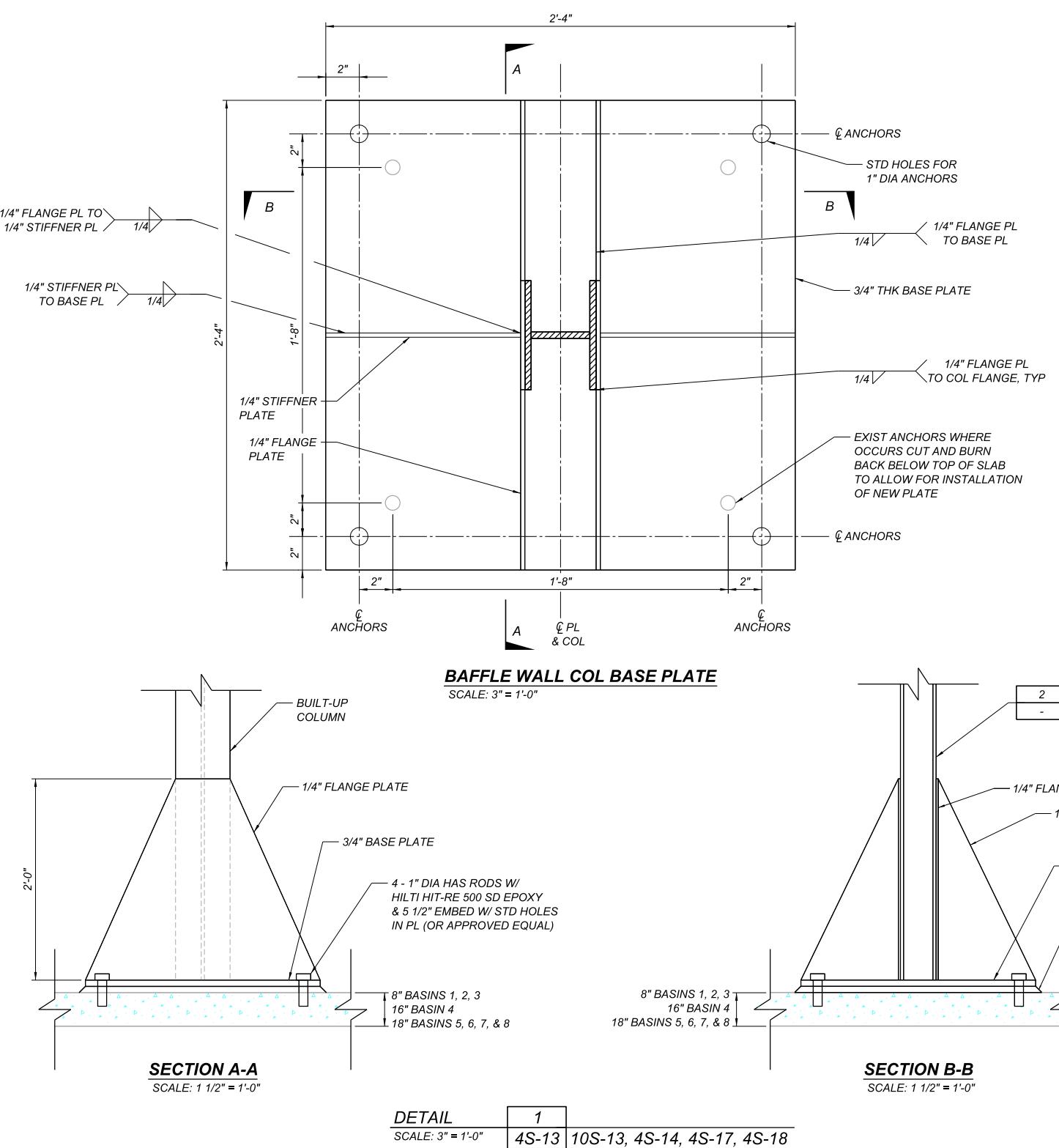
SECTION B
SCALE: 1/4" = 1'-0"
4S-13 10S-13

SEE NOTE 4

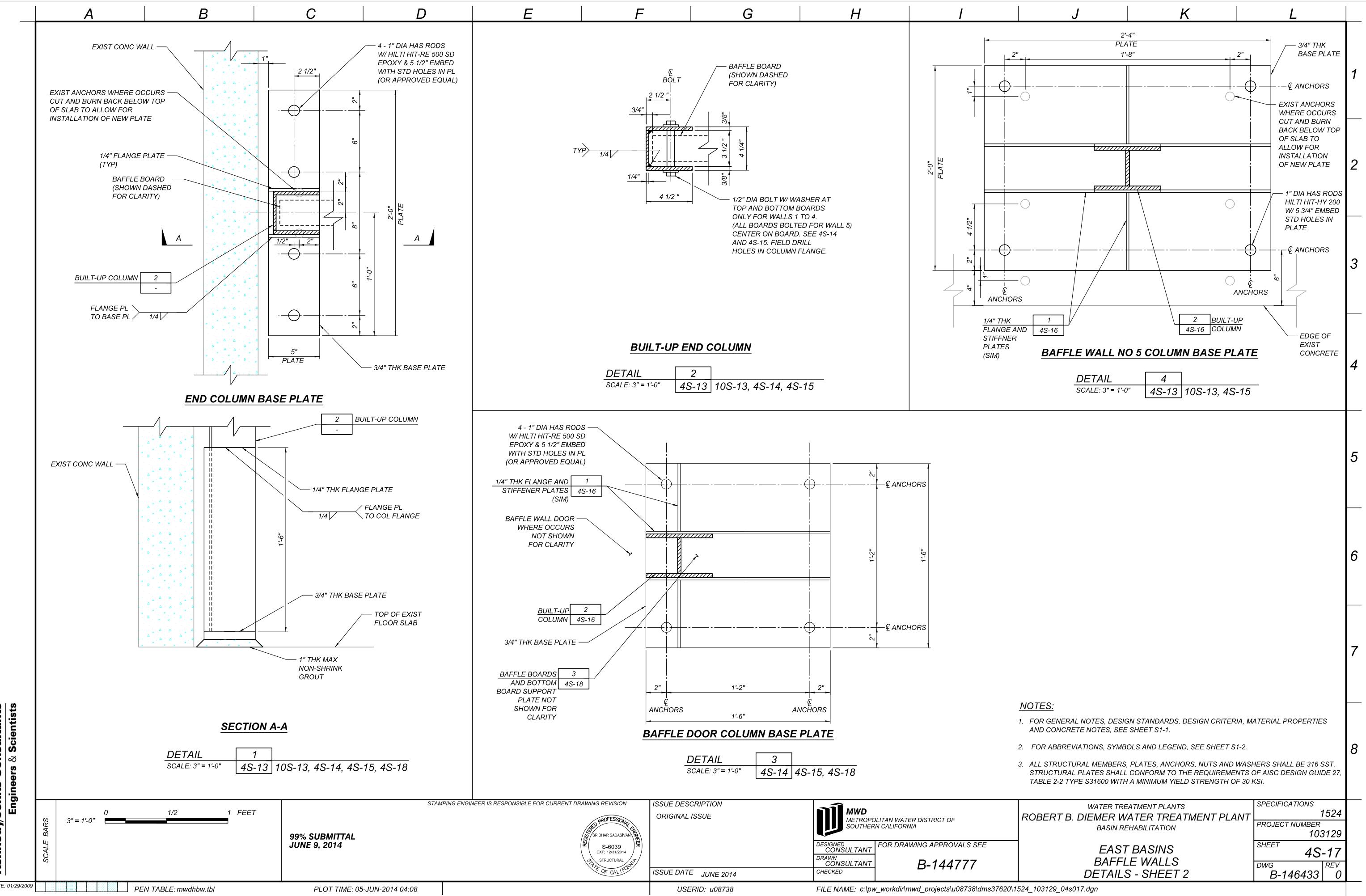
NOTES:

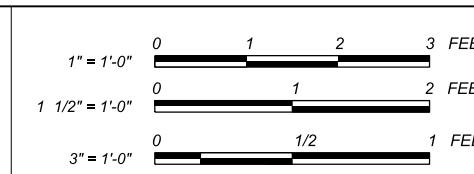
- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
- BAFFLE BOARDS SHALL BE DOUGLAS FIR LARCH NO 1 & BTR WITH:
 $F_u = 1,200 \text{ PSI MIN}$
 $E_{uu} = 660,000 \text{ PSI MIN}$
- FOR MIXING BASIN SLAB DETAILS, REFER TO:
A. BASINS 1 TO 3: B-16743
B. BASIN 4: B-20455
C. BASINS 5 TO 8: B-21063 AND B-21094
- INSTALLATION OF BAFFLE BOARDS:
A. AFTER INSTALLATION OF COLUMNS, SET THE BOTTOM BAFFLE BOARD TO THE ELEVATIONS SHOWN ON THIS DRAWING. FIELD FIT AND CONSTRUCT END AND INTERMEDIATE SUPPORT IN ACCORDANCE WITH DETAILS 3, 4, AND 5 ON DRAWING 4S-18. FIELD DRILL HOLES IN COLUMN FLANGE FOR BOTTOM BOARD SUPPORT.
B. INSTALL ALL BOARDS ABOVE BOTTOM BOARD.
C. INSTALL TOP BOARD TO ELEVATIONS SHOWN ON THIS DRAWING. FIELD DRILL HOLES IN COLUMN FLANGE FOR TOP BOARD SUPPORT.
- CONTRACTOR SHALL SUBMIT A LAYOUT PLAN TO THE DISTRICT FOR APPROVAL. THE LAYOUT PLAN SHALL SHOW THE SIZES AND LOCATIONS OF BAFFLE BOARDS AND PROPOSED OPENINGS, PROVIDING A TOTAL OPEN AREA OF 164.50 SQUARE FEET.



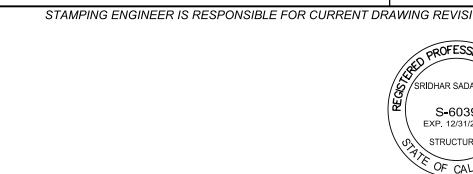


SCALE/BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-16 DWG B-146432 REV 0
3" = 1'-0" 1 1/2" = 1'-0"	0 1/2 1 FEET 0 1 2 FEET	99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER SRIDHAR SADASIVAN S-6039 EXP. 12/31/2014 STRUCTURAL STATE OF CALIFORNIA	ISSUE DATE JUNE 2014 FOR DRAWING APPROVALS SEE B-144777 CHECKED	PEN TABLE: mwdhbw.tbl PLOT TIME: 05-JUN-2014 04:06 USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s016.dgn





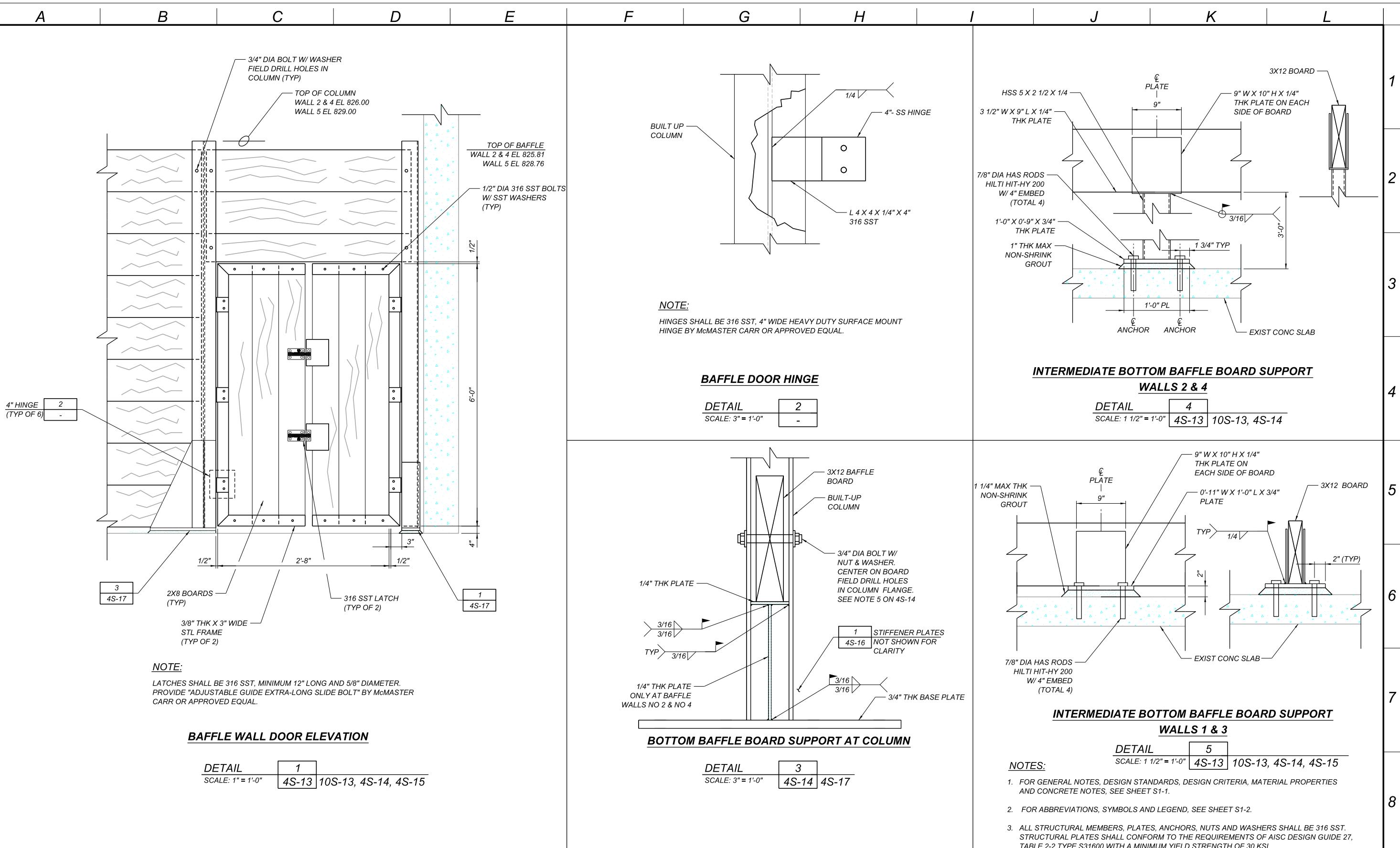
99% SUBMITTAL
JUNE 9, 2014



ISSUE DESCRIPTION	
ORIGINAL ISSUE	
DESIGNED CONSULTANT	FOR DRAWING APPROVALS SEE
DRAWN CONSULTANT	
CHECKED	
ISSUE DATE JUNE 2014	B-144777

USERID: u08738

FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s018.dgn



1

2

3

4

5

6

7

8

1524

PROJECT NUMBER

103129

SHEET

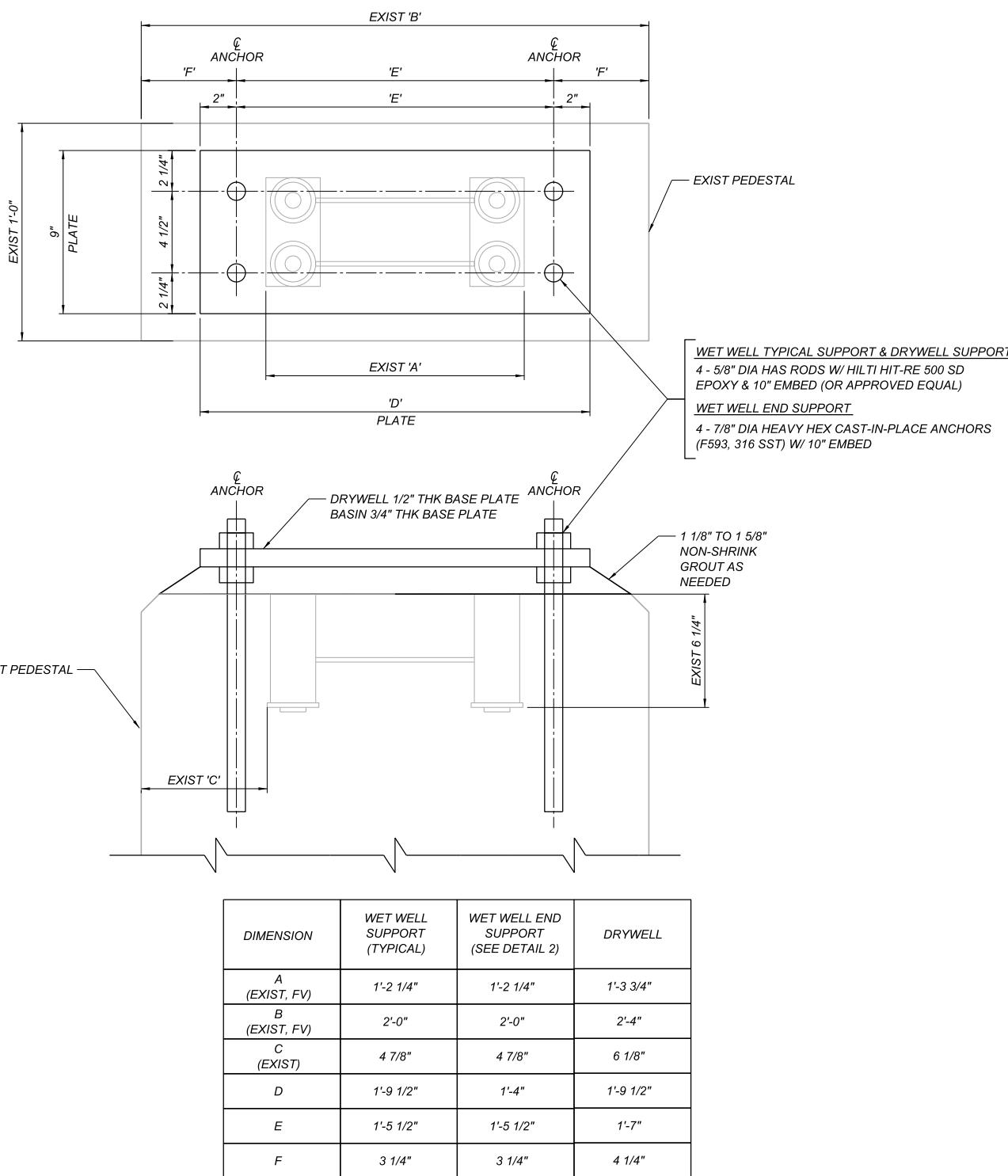
4S-18

DWG

B-146434

REV

0



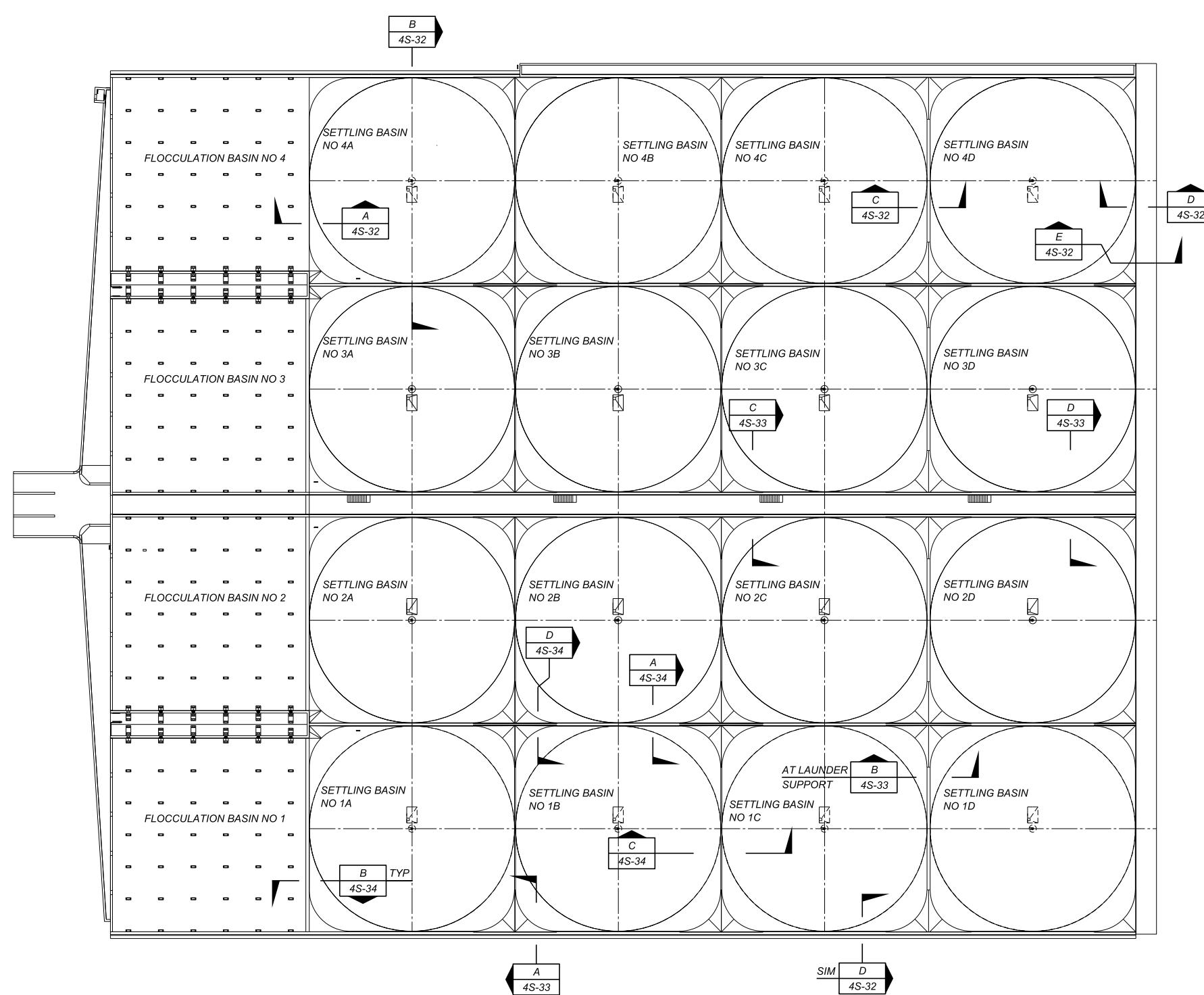
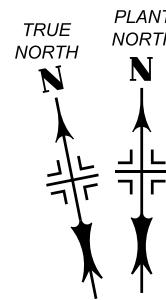
FLOCCULATOR SUPPORT PEDESTAL

DETAIL 1
SCALE: 3" = 1'-0"
- 4S-13, 4S-15

99% SUBMITTAL
JUNE 9, 2014

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION SRIDHAR SADASIVAN S-6039 EXP. 12/31/2014 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS FLOCCULATOR SUPPORT PEDESTAL DETAILS B-144777	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-19 DWG B-146435 REV 0
3" = 1'-0" 0 1/2 1 FEET	PEN TABLE:mwdhbw.tbl PLOT TIME: 05-JUN-2014 04:12	USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s019.dgn		

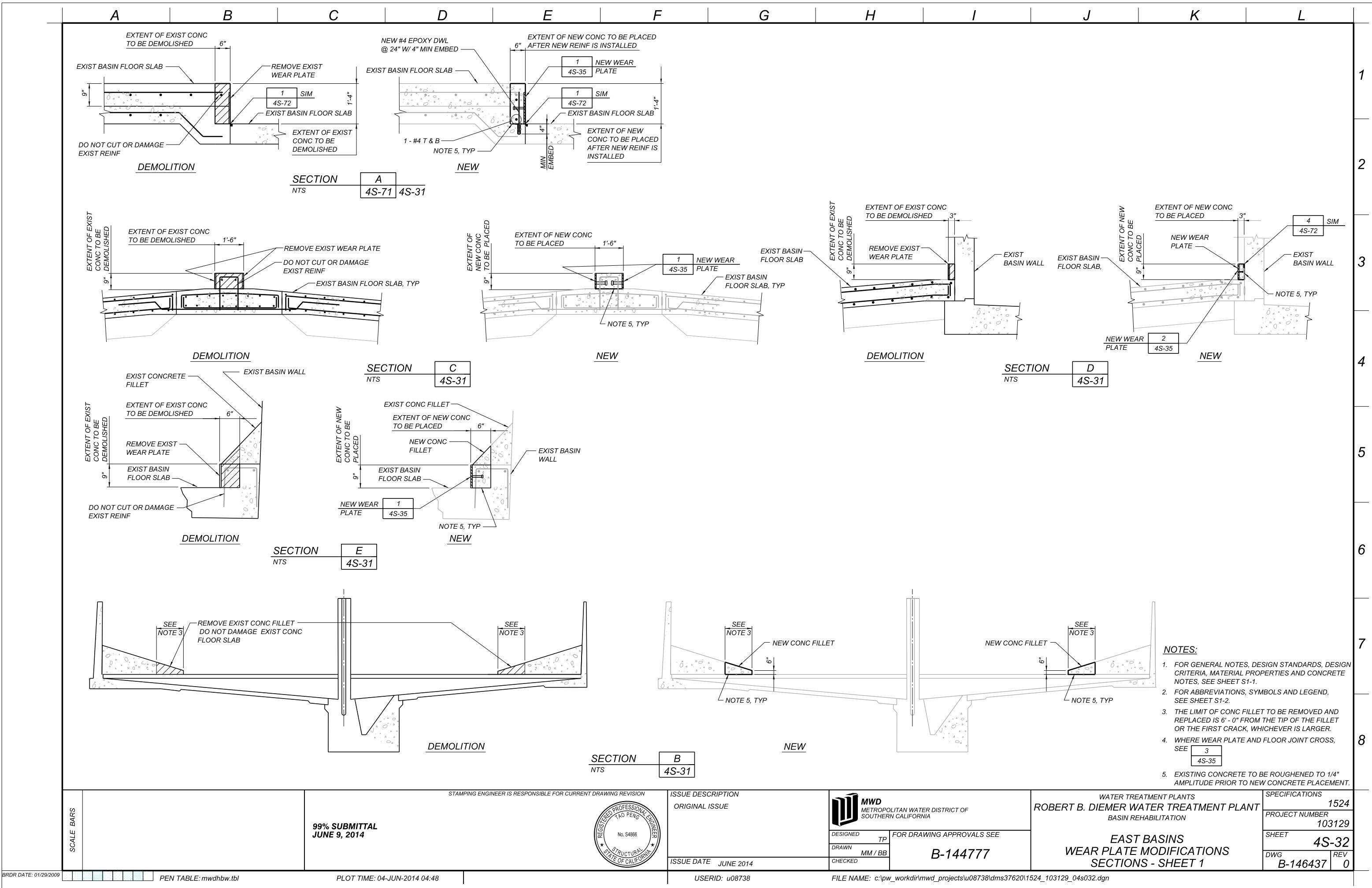
A | B | C | D | E | F | G | H | I | J | K | L

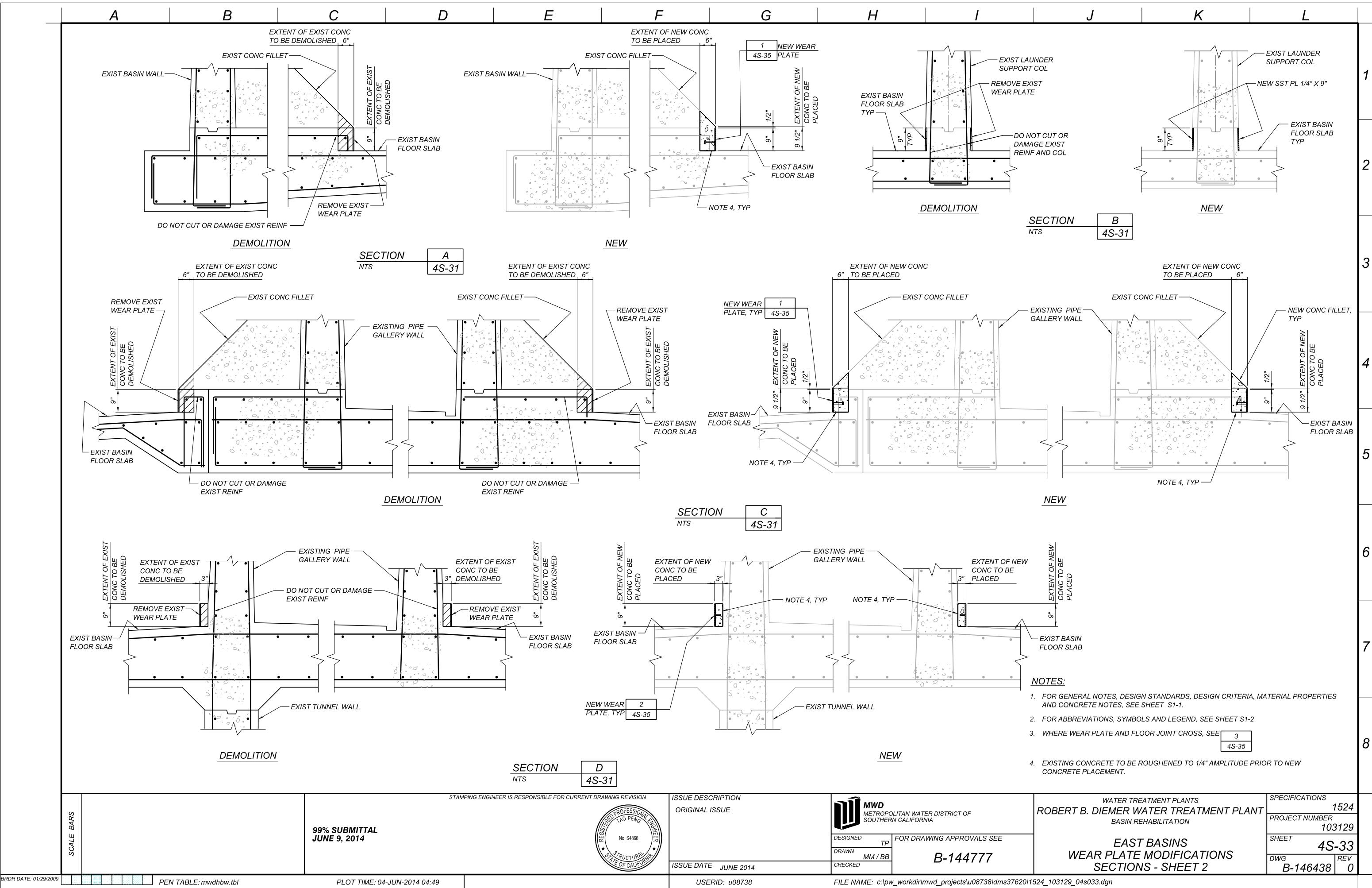


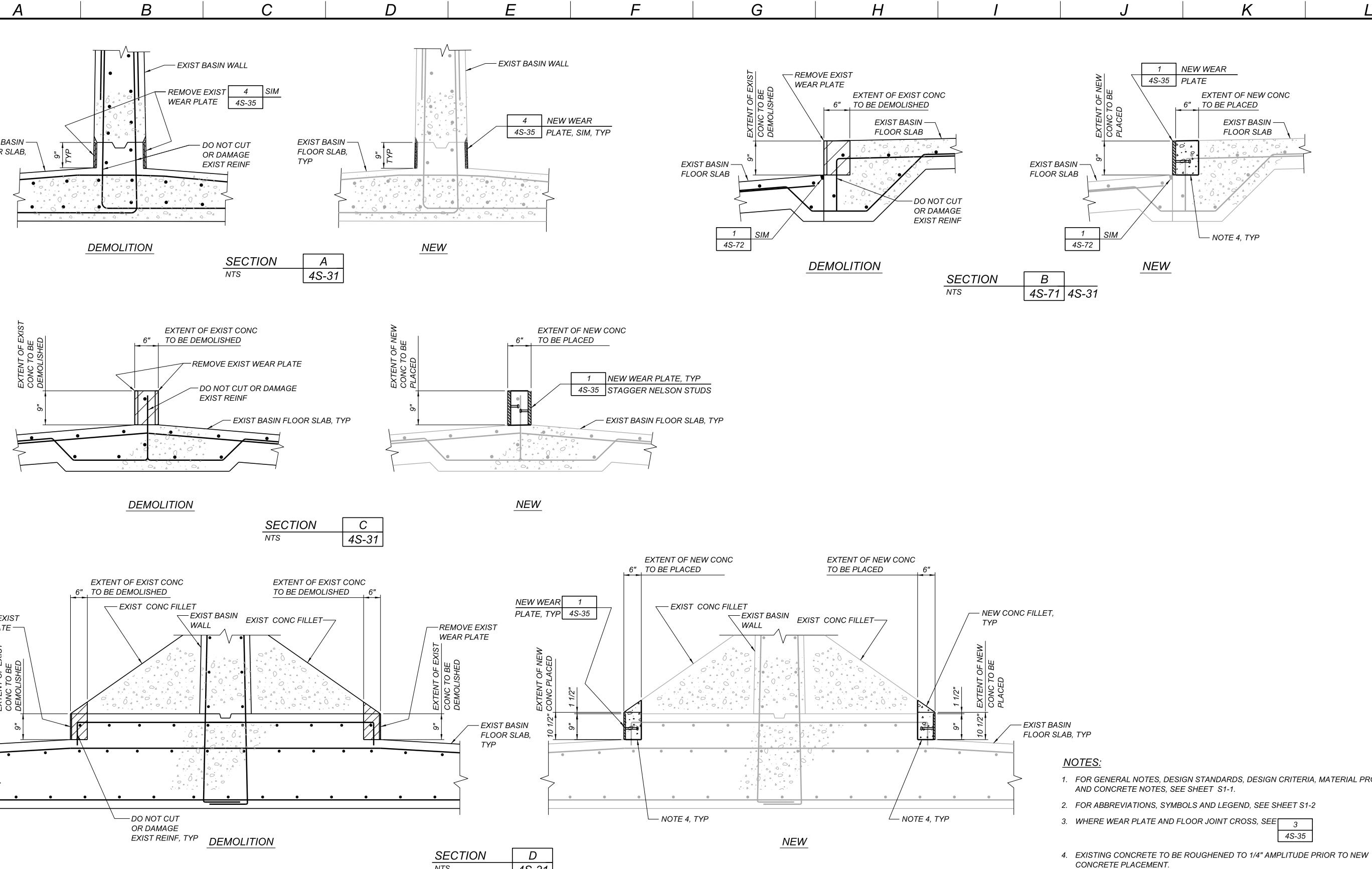
1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2

PLAN 1
SCALE: 1" = 30'-0"
1S-2 10M-43

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP DRAWN MM/GCY CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS WEAR PLATE MODIFICATIONS PLAN	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-31 DWG B-146436 REV 0
1" = 30'-0" 0 30 60 90 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 04:48				USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s031.dgn	

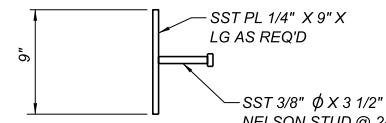




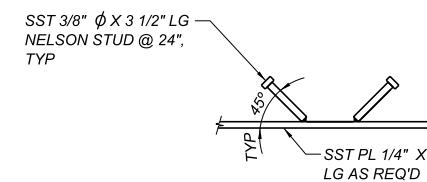


SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS	SPECIFICATIONS
	 REGISTERED PROFESSIONAL ENGINEER TAO PENG STRUCTURAL STATE OF CALIFORNIA No. S4866	ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP DRAWN MM / BB CHECKED	1524 PROJECT NUMBER 103129 SHEET 4S-34 DWG B-146439 REV 0
		FOR DRAWING APPROVALS SEE B-144777	EAST BASINS WEAR PLATE MODIFICATIONS SECTIONS - SHEET 3	
	PLOT TIME: 04-JUN-2014 04:49	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s034.dgn	

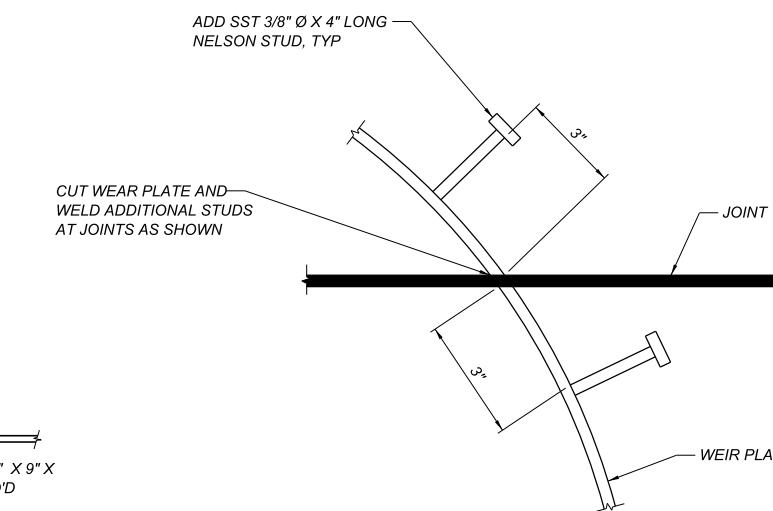
A B C D E F G H I J K L



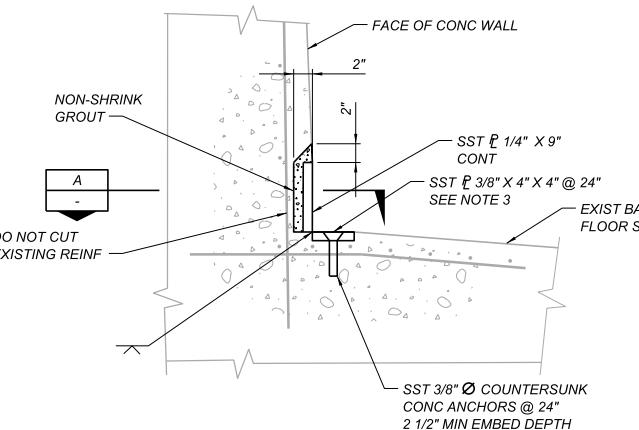
WEAR PLATE ASSEMBLY



WEAR PLATE ASSEMBLY



TYPICAL INTERSECTION OF
WEAR PLATE AND FLOOR JOINT



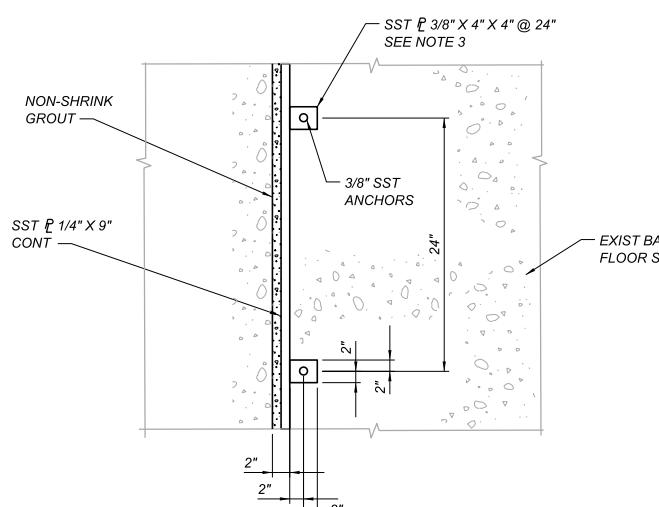
ELEVATION

DETAIL 1
NTS 4S-32 4S-33, 4S-34, 10S-32, 10S-33

DETAIL 2
NTS 4S-33 10S-32, 10S-33

DETAIL 3
NTS 4S-32 4S-33, 4S-34, 10S-32, 10S-33

DETAIL 4
NTS 4S-34 10S-32



SECTION A
NTS

NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-35 DWG B-146440 REV 0
PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 04:50		ISSUE DATE JUNE 2014	DESIGNED TP DRAWN BB CHECKED	FOR DRAWING APPROVALS SEE B-144777	USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s035.dgn

A B C D E F G H I J K L

1

2

3

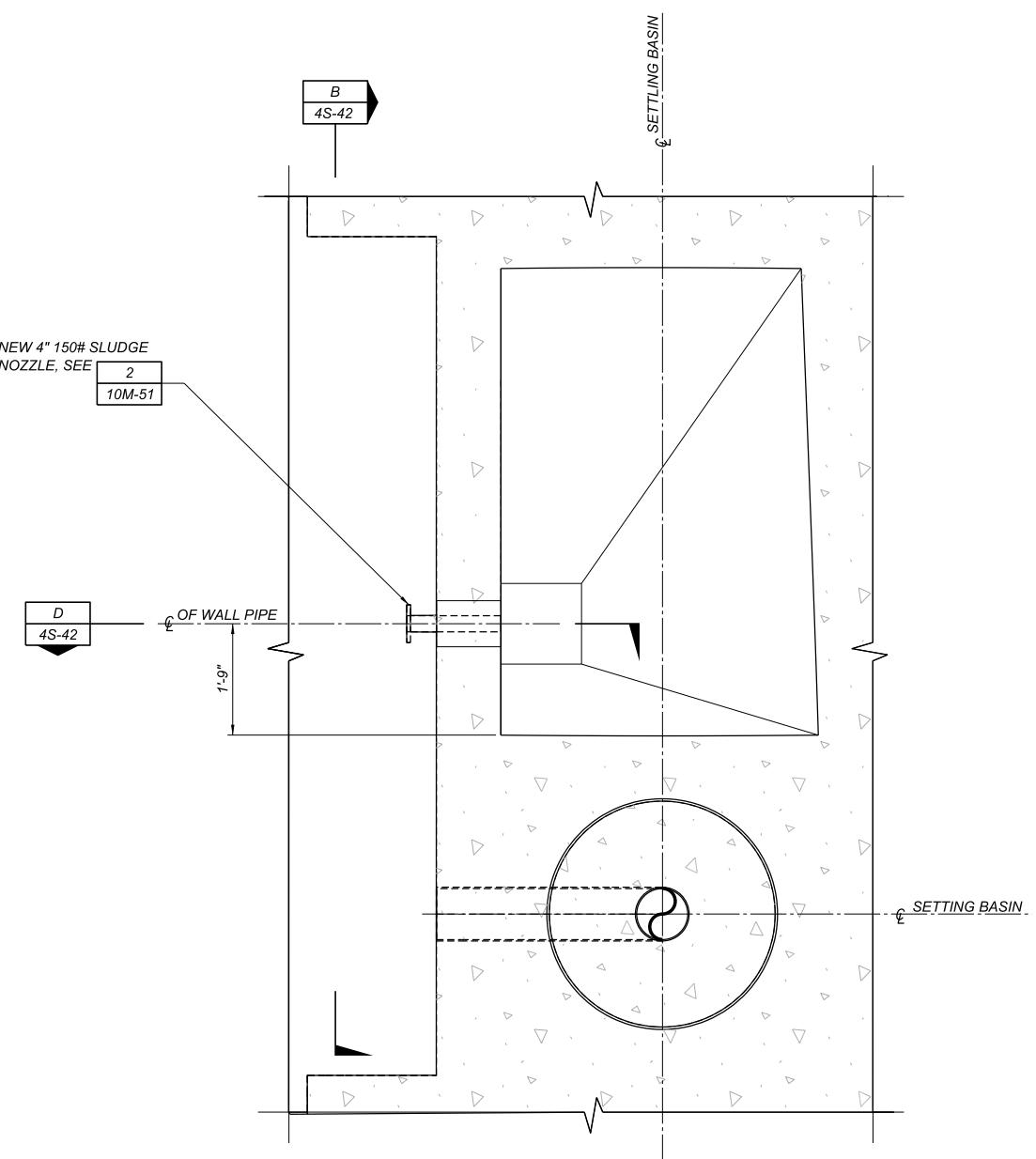
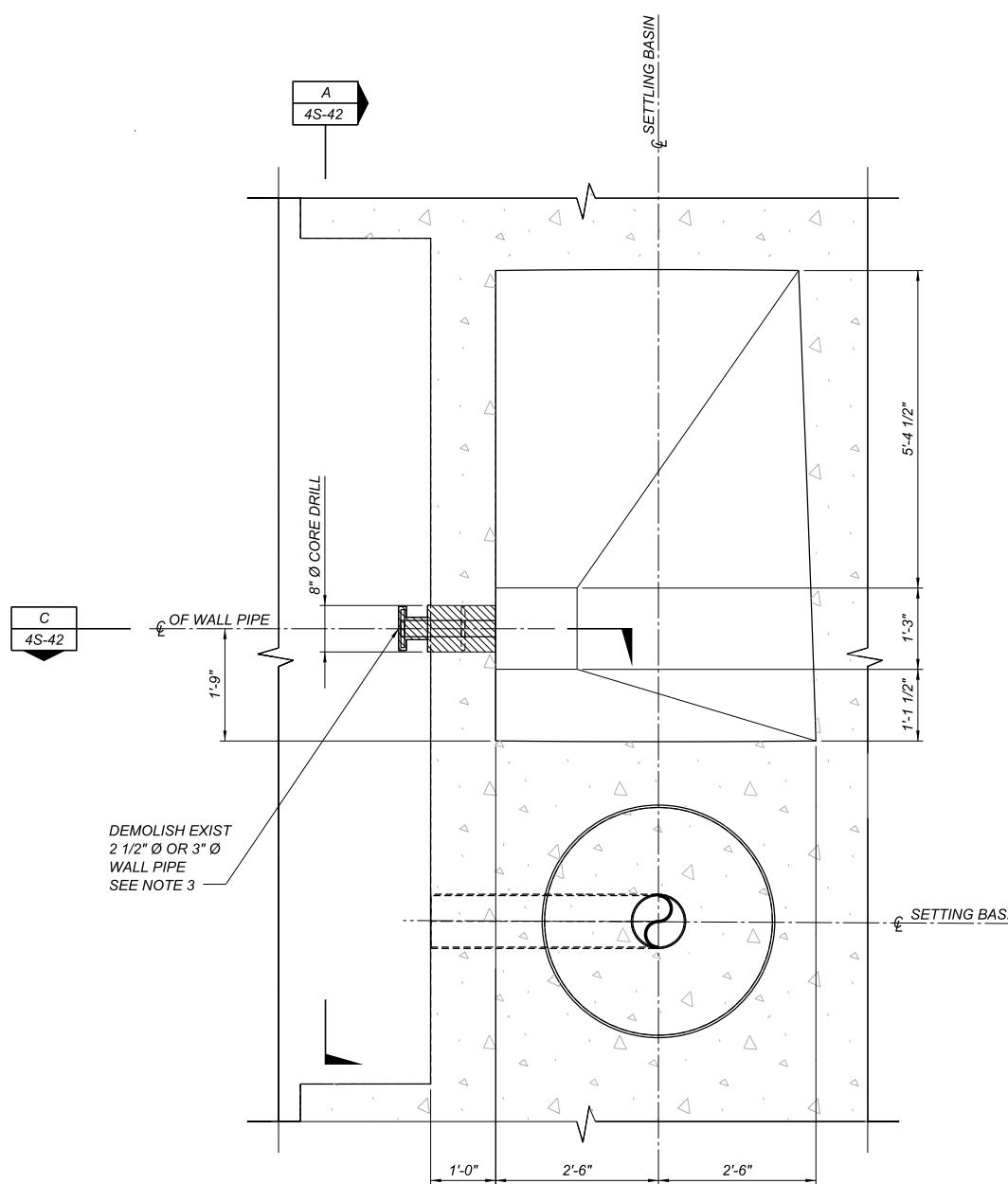
4

5

6

7

8



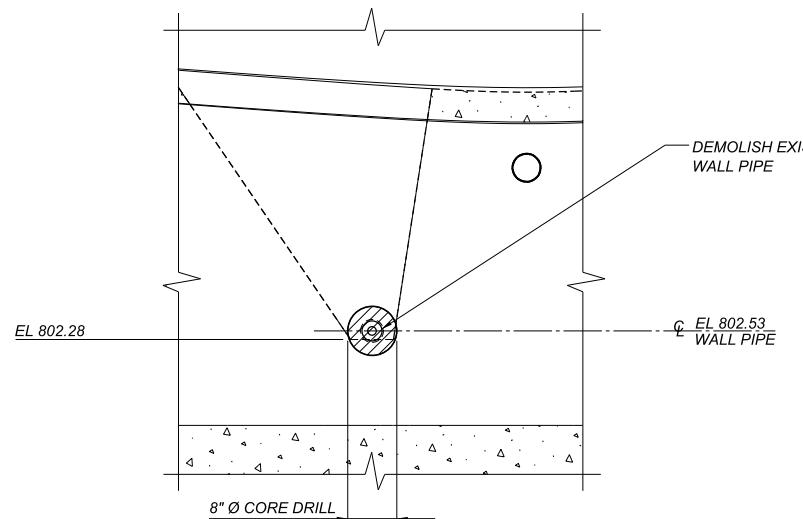
NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2
- FOR EXISTING WALL PIPE DETAILS, SEE REFERENCE DRAWING B-16757.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP DRAWN MM CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS SLUDGE NOZZLE MODIFICATIONS PLANS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-41 DWG B-146441 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl			B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s041.dgn	

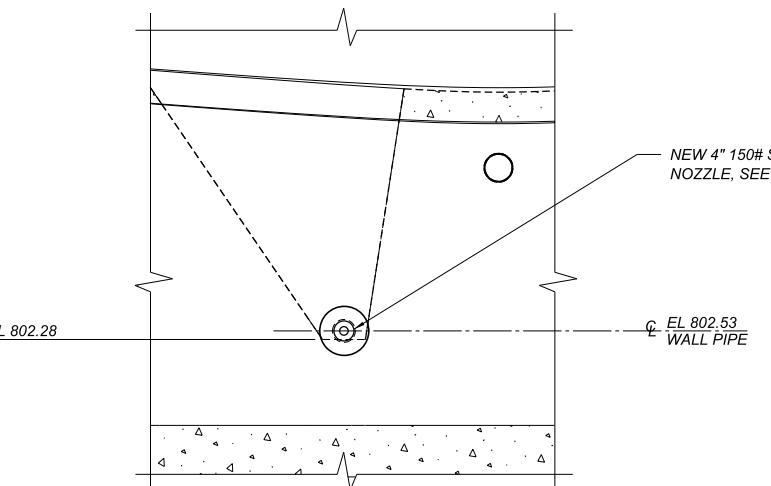
A B C D E F G H I J K L

1



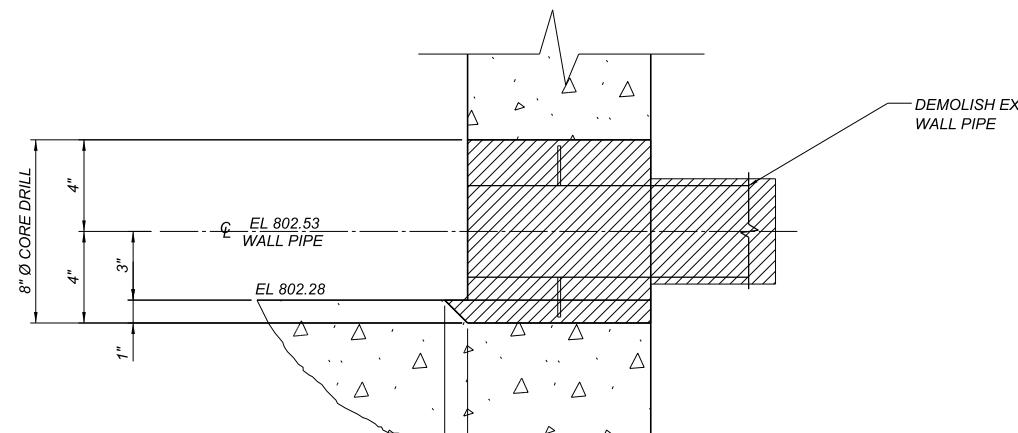
DEMOLITION

SECTION **A**
SCALE: 3/8" = 1'-0"
4S-41



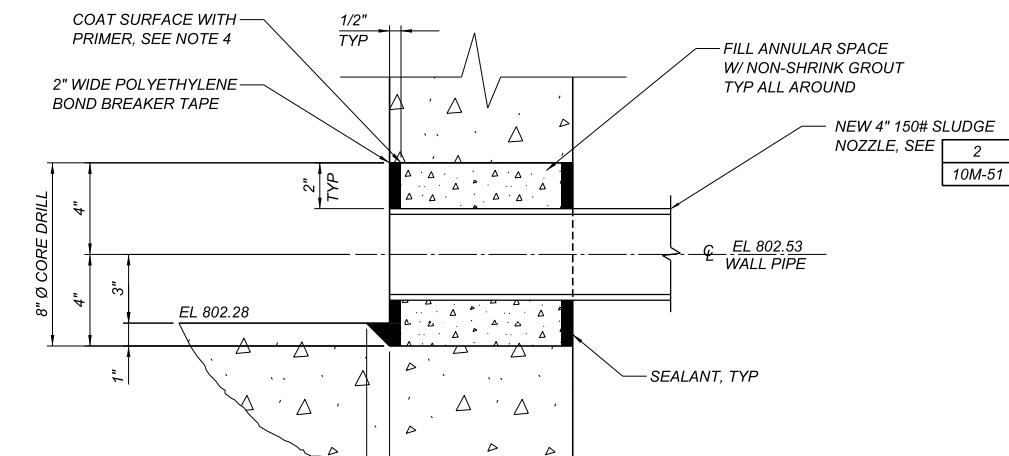
NEW

SECTION **B**
SCALE: 3/8" = 1'-0"
4S-41



DEMOLITION

SECTION **C**
SCALE: 1 1/2" = 1'-0"
4S-41



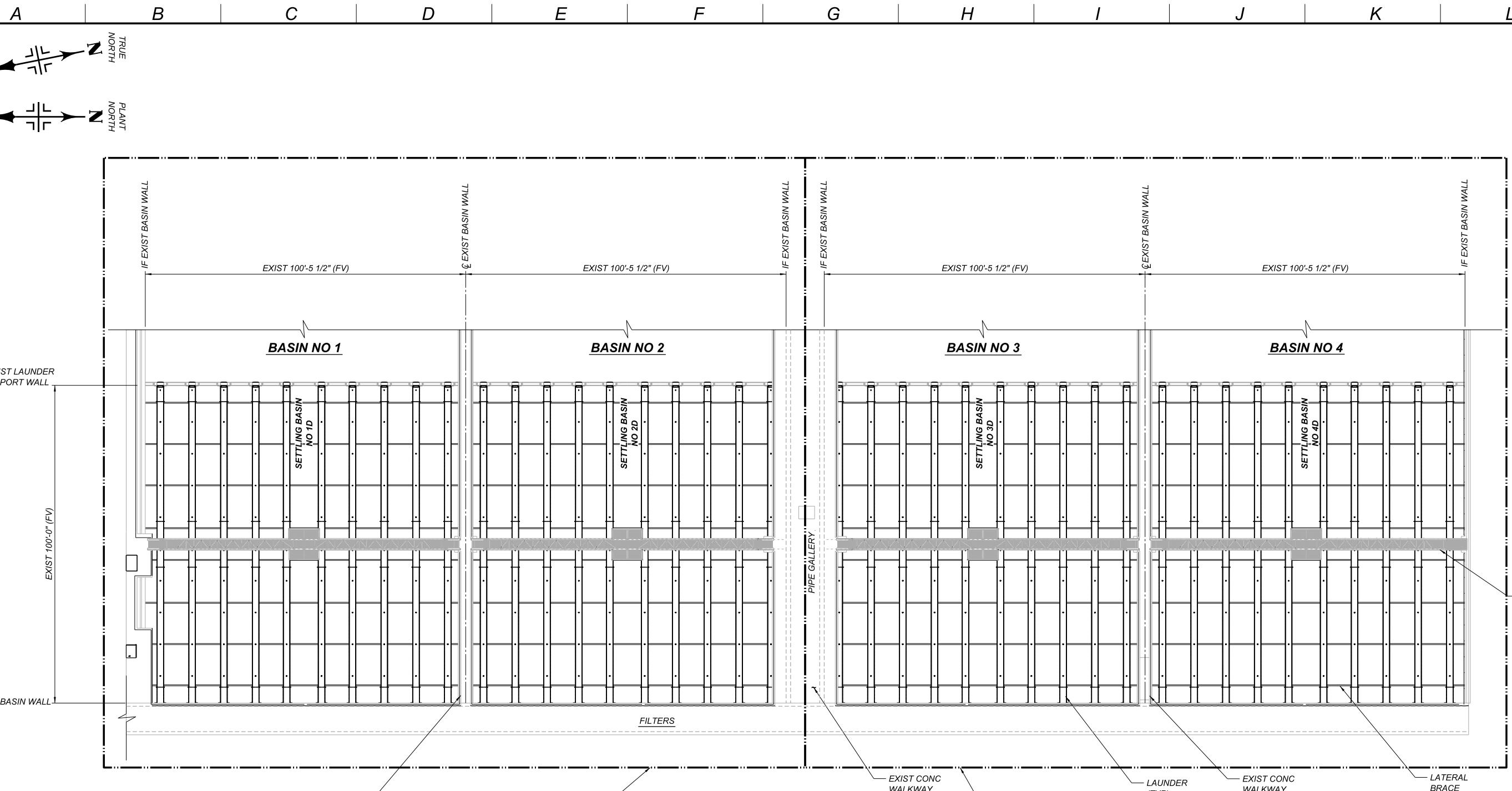
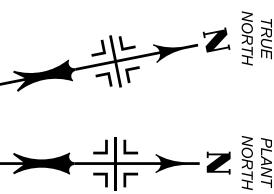
NEW

SECTION **D**
SCALE: 1 1/2" = 1'-0"
4S-41

NOTES:

1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-2.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. FOR EXISTING WALL PIPE DETAILS, SEE REFERENCE DRAWING B-16757.
4. APPLY PRIMER IN ACCORDANCE WITH THE REQUIREMENTS OF THE SEALANT MANUFACTURER.

SCALE BARS	1 1/2" = 1'-0"	0 1 2 FEET	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-42 DWG B-146442 REV 0
	3/8" = 1'-0"	0 4 8 FEET						
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 04:52	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s042.dgn				



EAST BASINS LAUNDER LAYOUT KEY PLAN

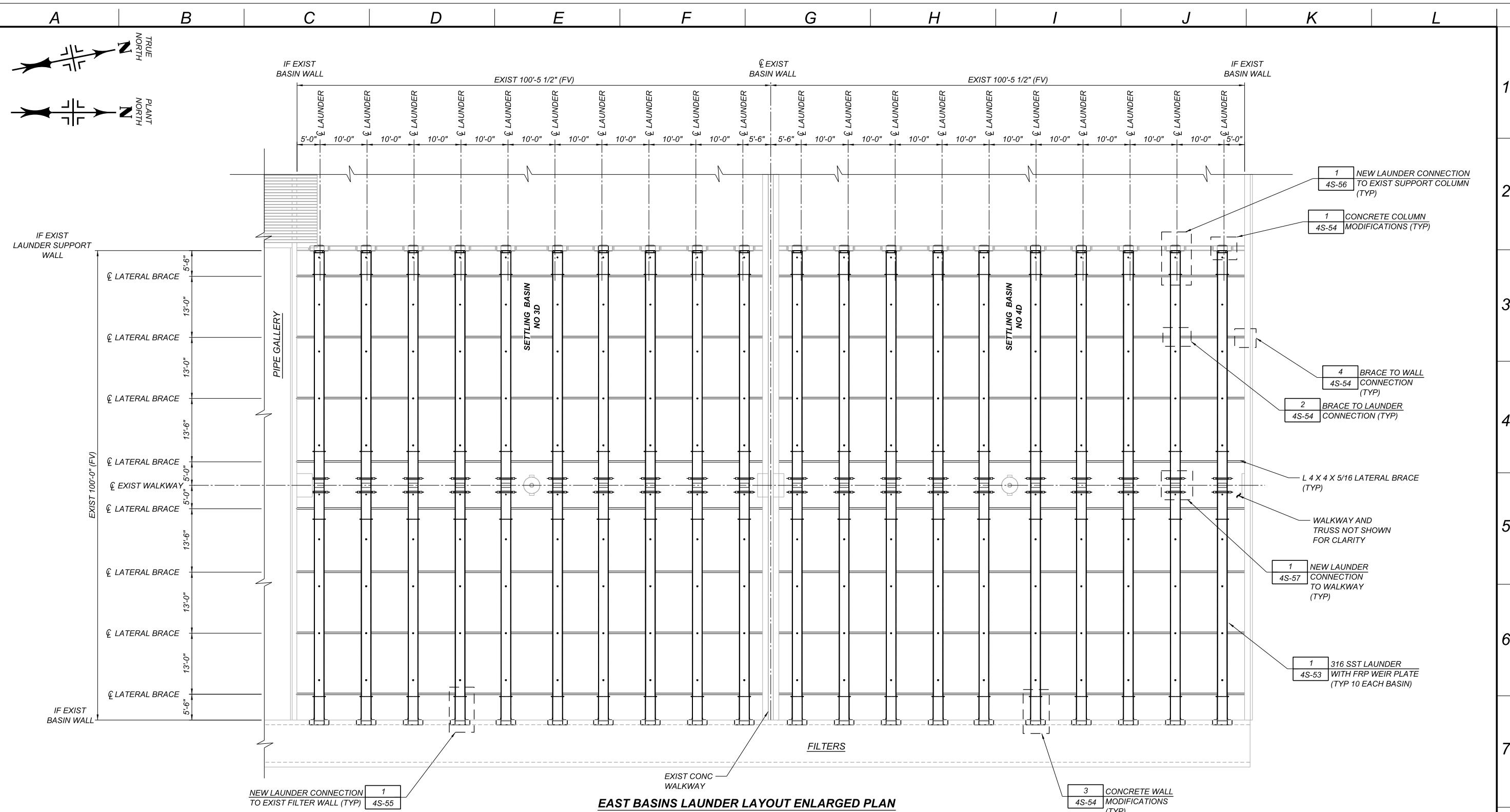
LAUNDER LAYOUT PLAN
SIM. OPP HD
4S-52

PLAN
SCALE: 1/16" = 1'-0"
1S-2

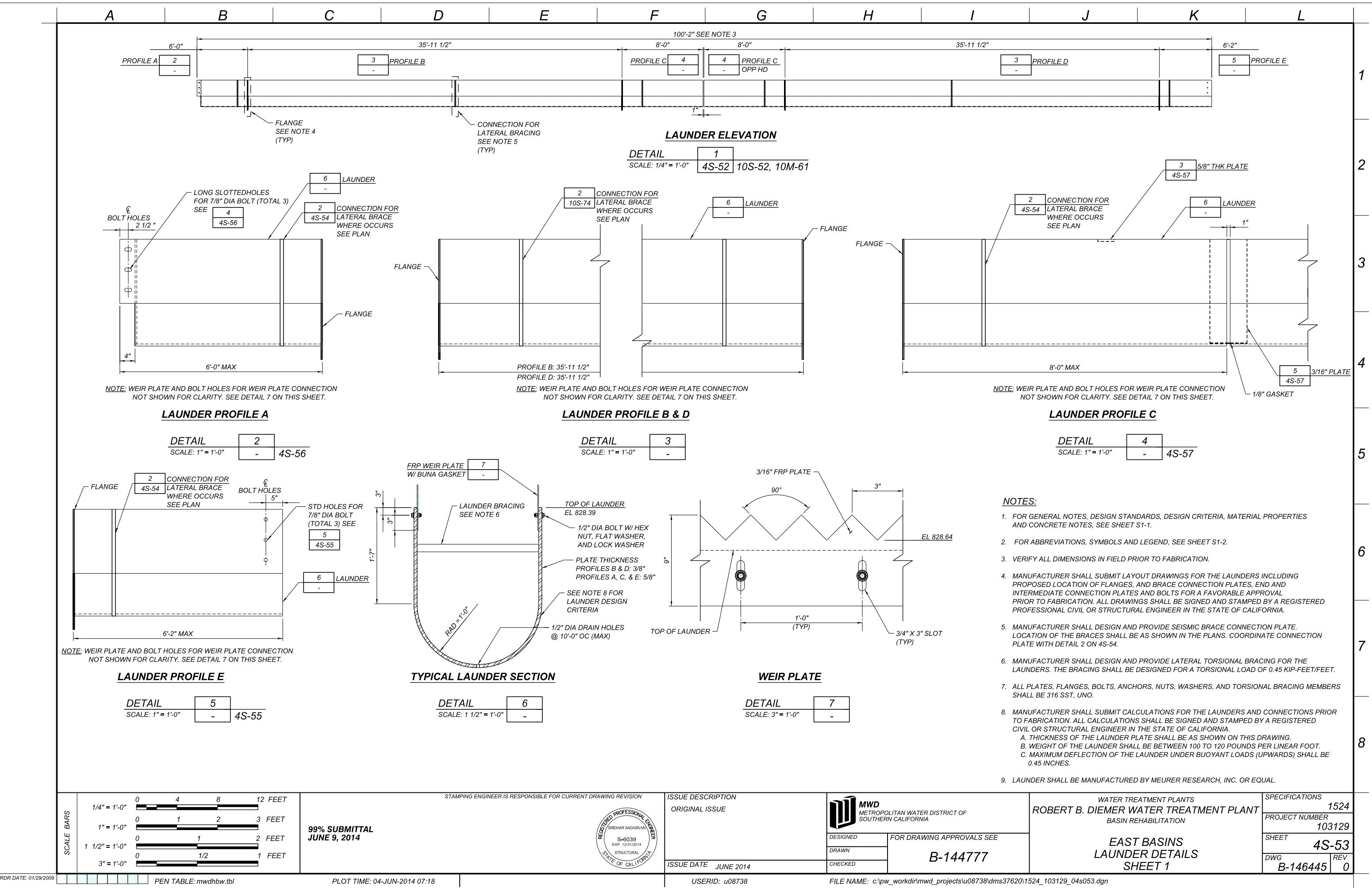
NOTES:

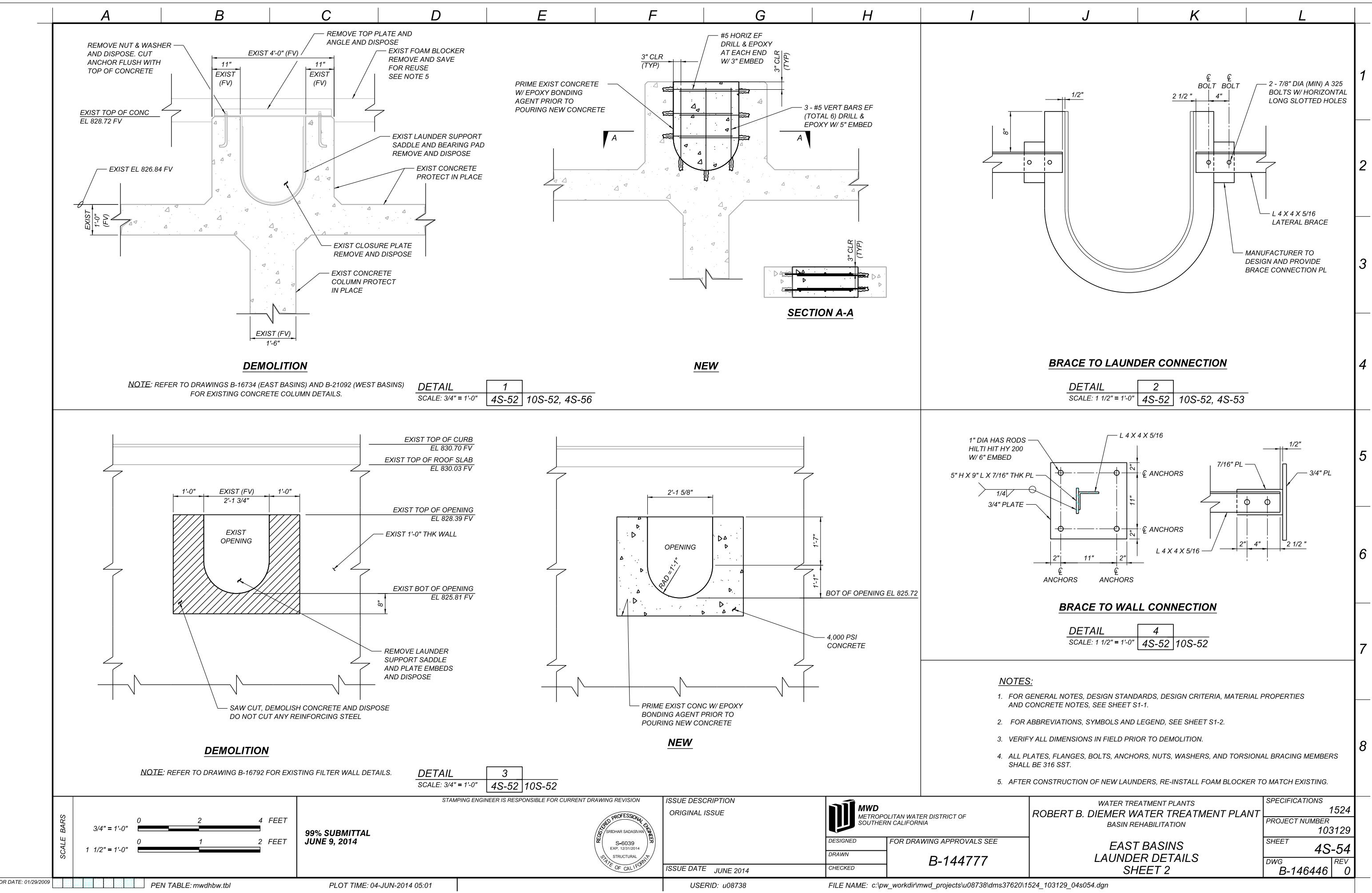
1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. REMOVE EXISTING STEEL LAUNDERS, WEIR PLATES, BEARING PADS, AND LAUNDER WALL CONNECTIONS AND DISPOSE OFF-SITE. FOR EXISTING LAUNDER DETAILS, REFER TO B-16734 AND B-16744.
4. CONTRACTOR SHALL REMOVE (AND SAVE FOR REUSE) EXISTING WALKWAYS AND PLATFORMS IN BASINS 1D TO 8D FOR INSTALLATION OF NEW LAUNDERS. AFTER INSTALLATION OF NEW LAUNDERS, CONTRACTOR SHALL REINSTALL WALKWAYS AND PLATFORMS.
5. FIELD VERIFY ALL DIMENSIONS PRIOR TO DEMOLITION AND FABRICATION.

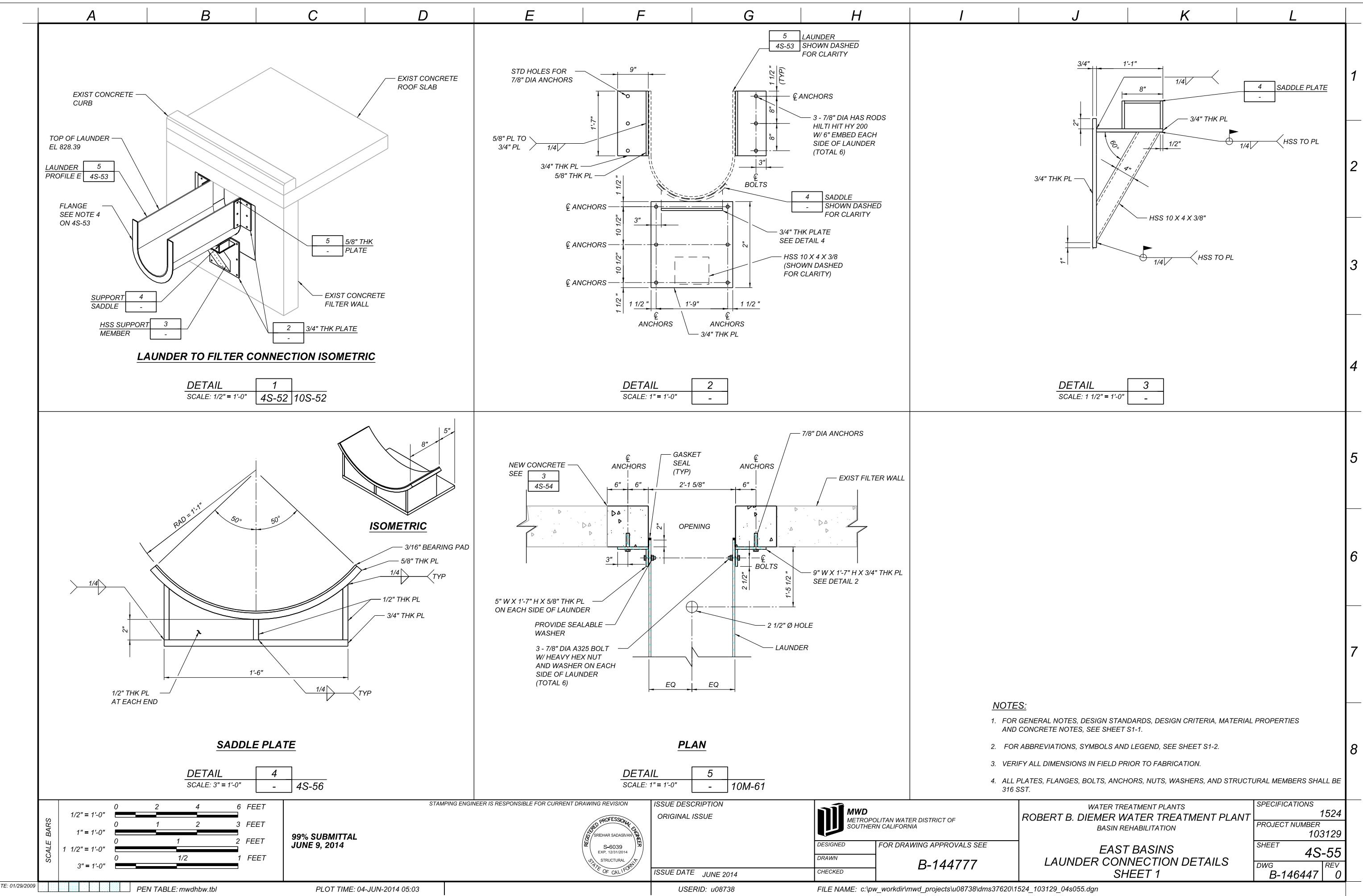
SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION SRIDHAR SADASIVAN S-6039 EXP. 12/31/2014 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS LAUNDER LAYOUT KEY PLAN B-144777	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-51 DWG B-146443 REV 0
1/16" = 1'-0" 0 16 32 48 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 08:46			USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s051.dgn	

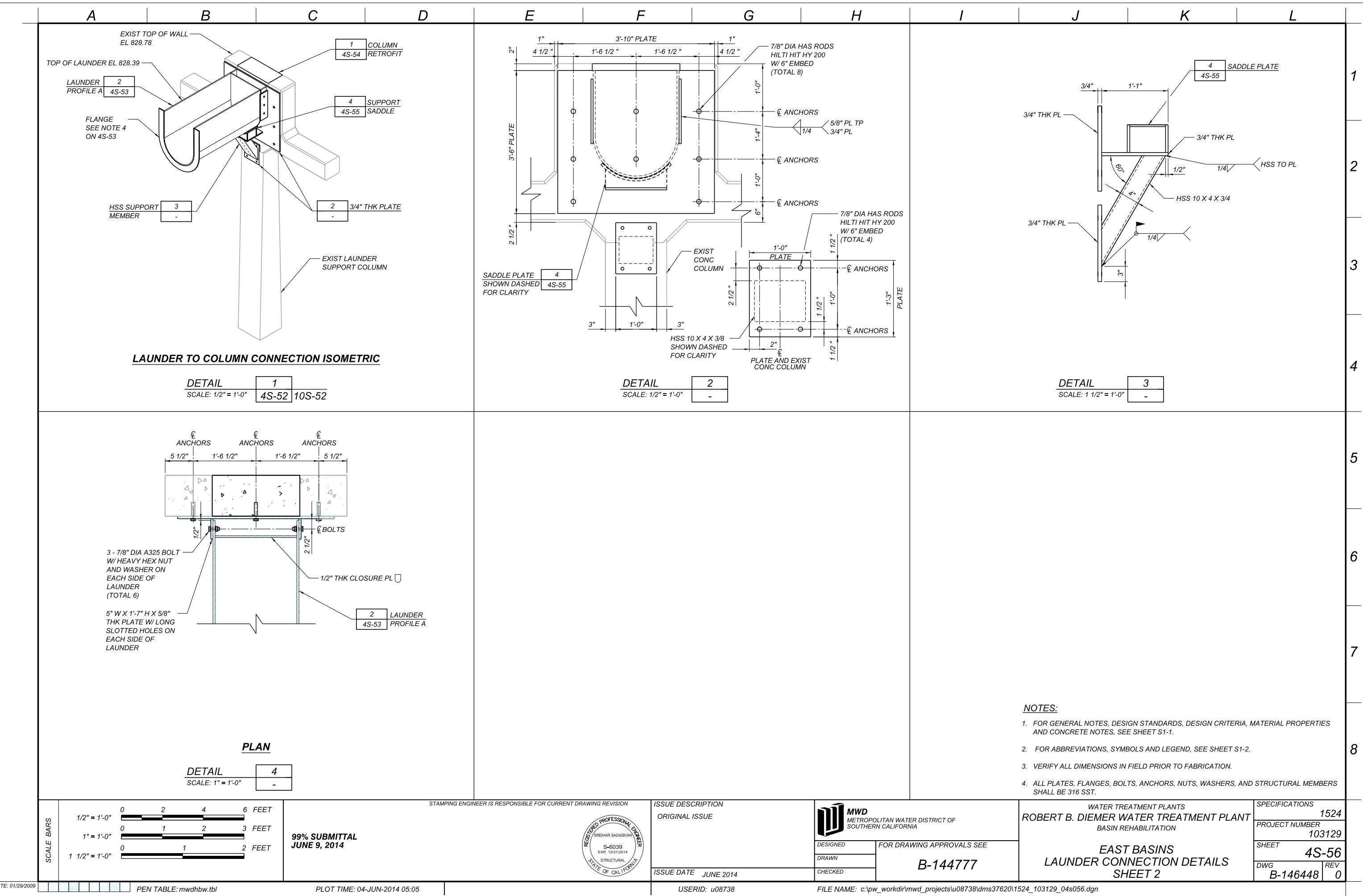


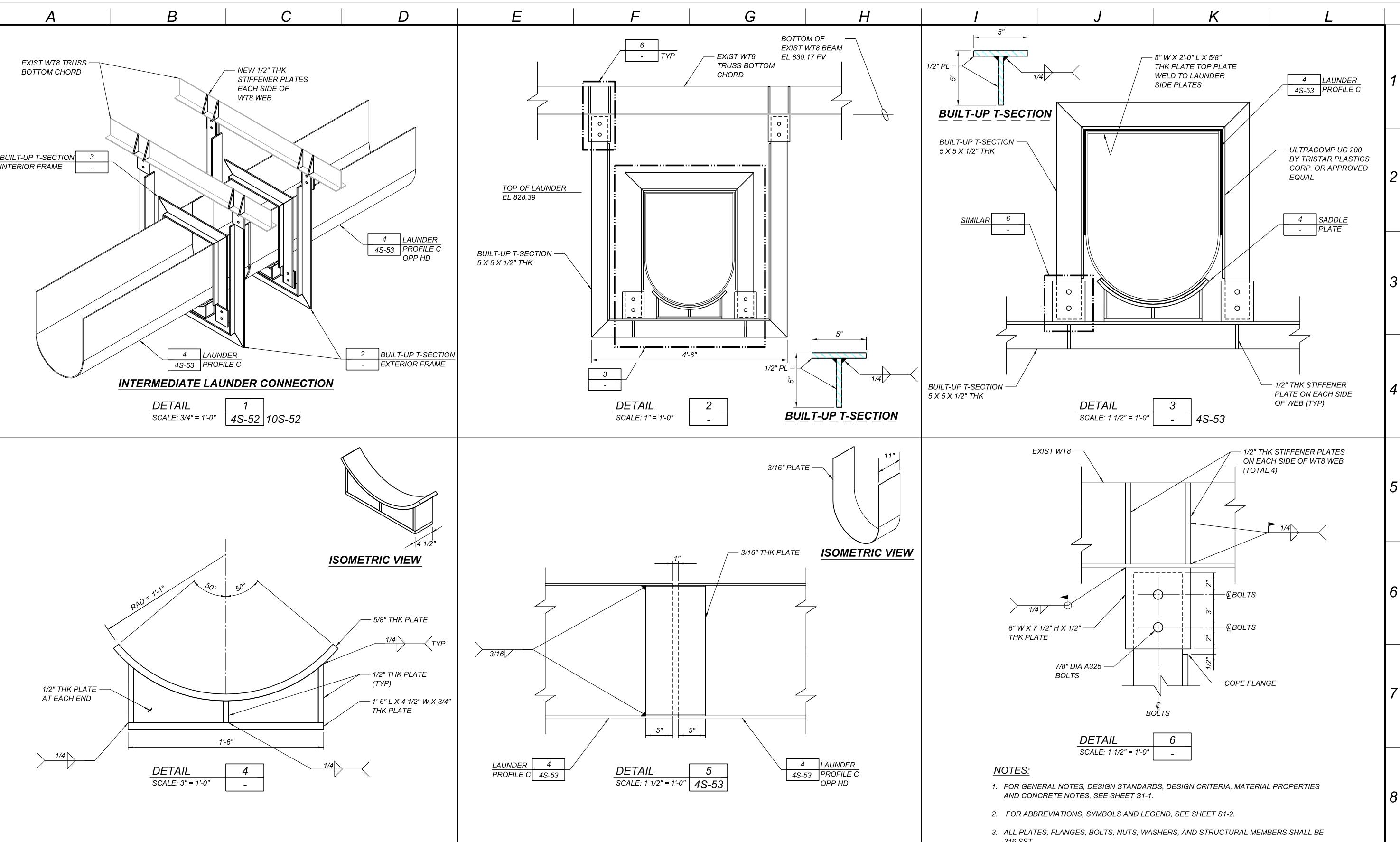
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS	SPECIFICATIONS
1" = 10'-0" 0 10 20 30 FEET	<p>99% SUBMITTAL JUNE 9, 2014</p> <p>PEN TABLE: mwdhbw.tbl</p>	<p>ORIGINAL ISSUE</p> <p>ISSUE DATE JUNE 2014</p> <p>FOR DRAWING APPROVALS SEE B-144777</p>	<p>MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA</p> <p>DESIGNED DRAWN CHECKED</p> <p>ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION</p> <p>EAST BASINS LAUNDER LAYOUT ENLARGED PLAN</p>	<p>1524 PROJECT NUMBER 103129 SHEET 4S-52 DWG B-146444 REV 0</p>
BRDR DATE: 01/29/2009	<p>REGISTERED PROFESSIONAL ENGINEER SRIDHAR SADASIVAN S-6039 EXP. 12/31/2014 STRUCTURAL STATE OF CALIFORNIA</p>			
PLOT TIME: 04-JUN-2014 04:57		USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s052.dgn	



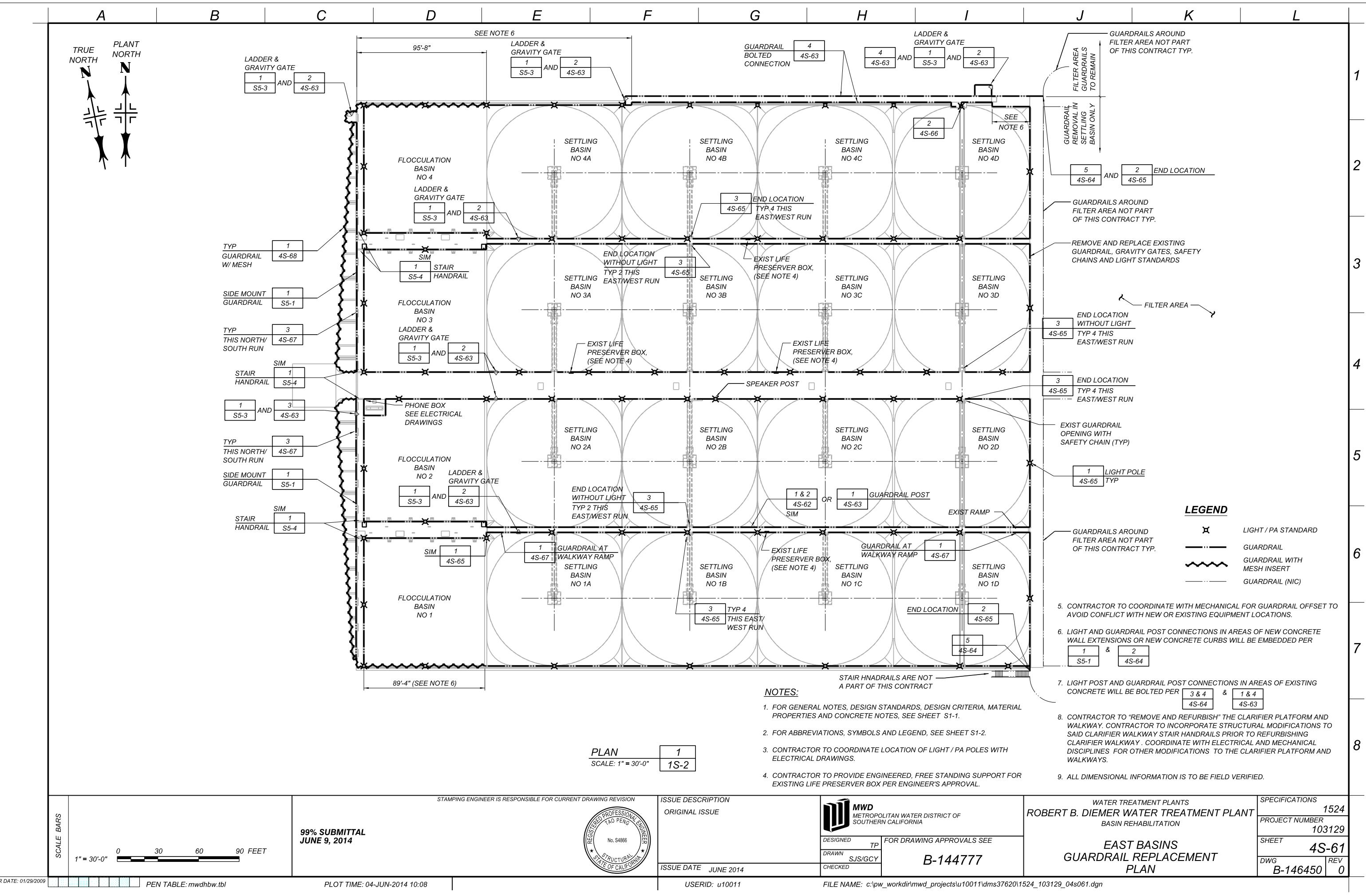




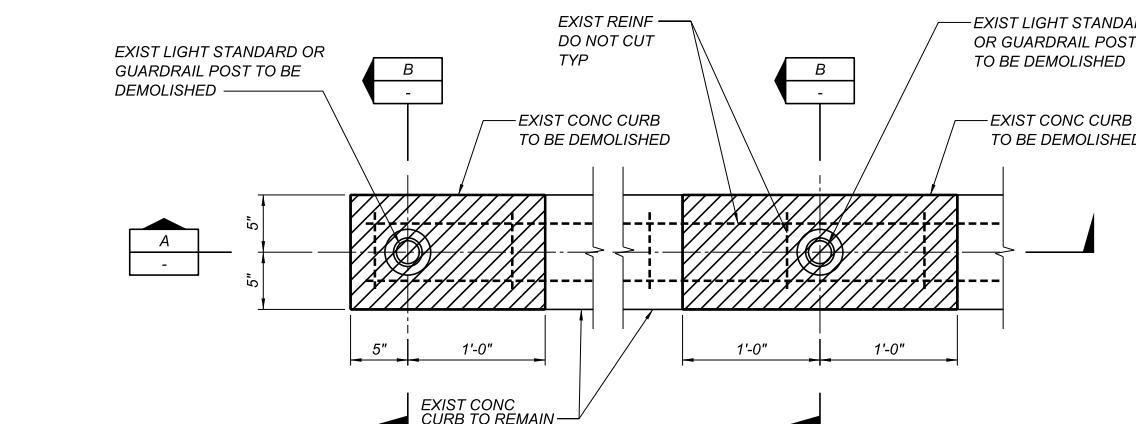




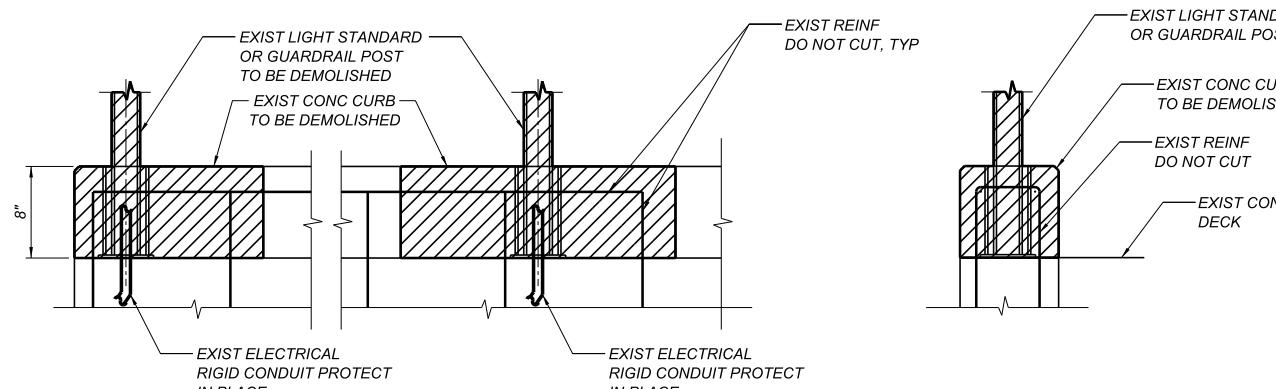
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS	SPECIFICATIONS
$3/4" = 1' - 0"$ $1" = 1' - 0"$ $1 1/2" = 1' - 0"$ $3" = 1' - 0"$	 99% SUBMITTAL JUNE 9, 2014	ORIGINAL ISSUE ISSUE DATE JUNE 2014 DRAWN BY B-144777 CHECKED BY	ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS LAUNDER DETAILS SHEET 3	1524 PROJECT NUMBER 103129 SHEET 4S-57 DWG B-146449 REV 0



A B C D E F G H I J K L



PLAN

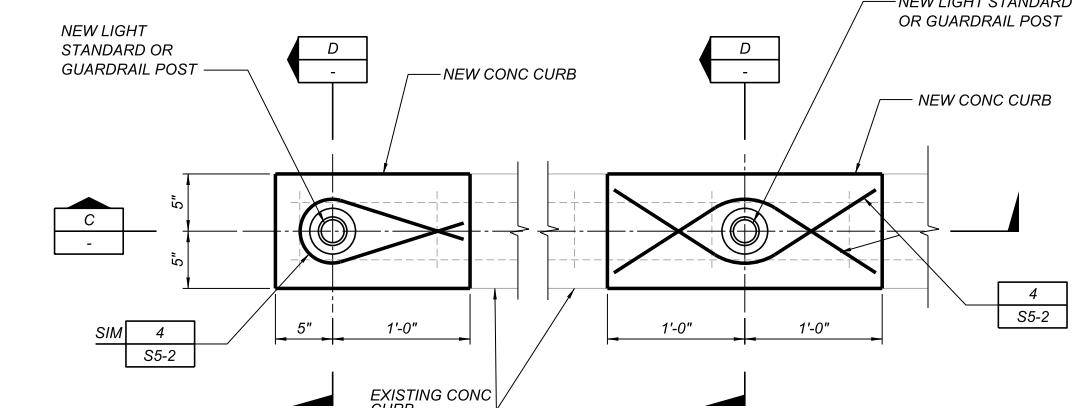


SECTION
SCALE: 1 1/2" 1'-0"

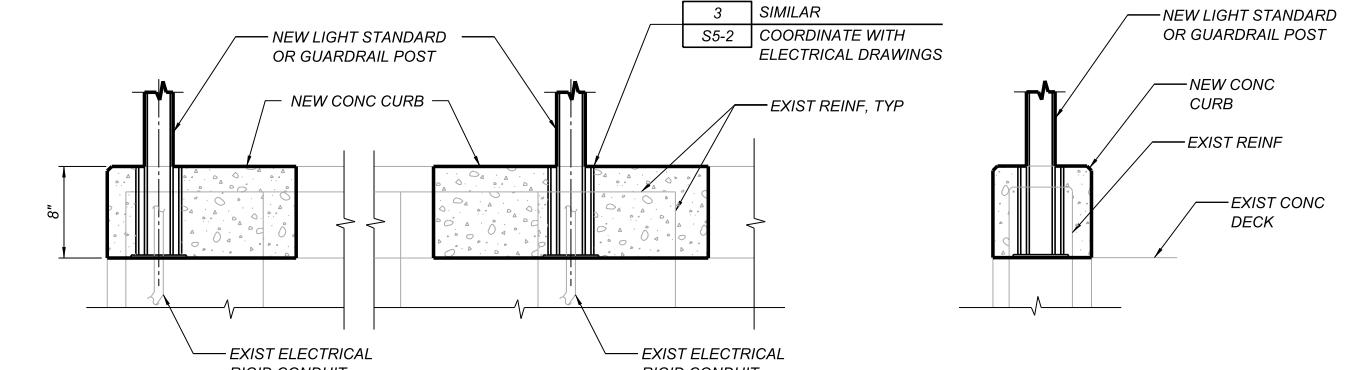
SECTION
SCALE: 1 1/2" 1'-0"

DEMOLITION

DETAIL
SCALE: 1 1/2" 1'-0"
1 4S-61 10S-61



PLAN



SECTION
SCALE: 1 1/2" 1'-0"

SECTION
SCALE: 1 1/2" 1'-0"

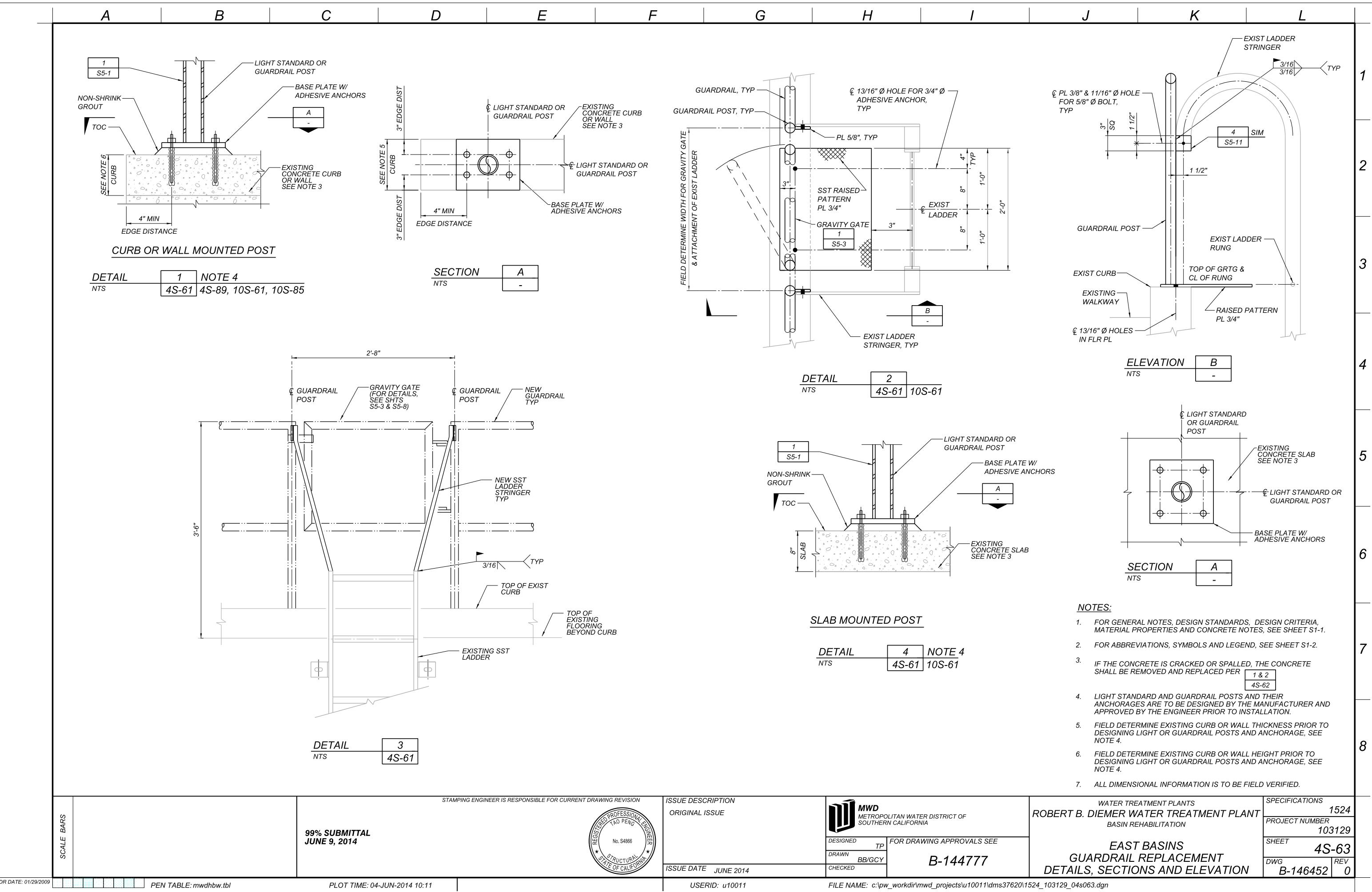
NEW

DETAIL
SCALE: 1 1/2" 1'-0"
2 4S-61 10S-61

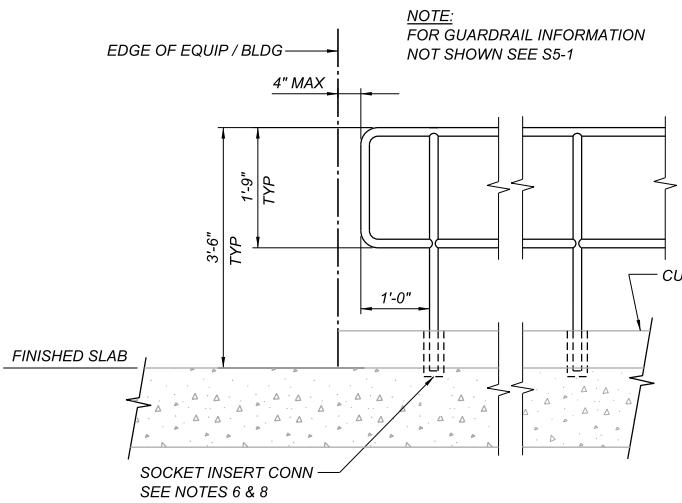
NOTES:

1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. THE LIGHT POLE SHALL BE INSTALLED AT THE SAME LOCATION AS THE EXISTING LIGHT POLE.
4. IF NEW LIGHT OR GUARDRAIL POSTS ARE INSTALLED AT EXISTING POST LOCATIONS AND THE CONCRETE CURB IS IN GOOD CONDITION, SEE 3 OR 4 FOR INSTALLATION.
5. IF NEW LIGHT OR GUARDRAIL POSTS ARE INSTALLED AT DIFFERENT LOCATIONS THAN EXISTING POSTS AND THE CONCRETE CURB IS IN GOOD CONDITION, SEE 1 OR 4 FOR INSTALLATION.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-62 DWG B-146451 REV 0						
1 1/2" = 1'-0" 0 1 2 3 FEET	<p>PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 10:10</p>	<p>ISSUE DATE JUNE 2014</p> <table border="1"> <tr> <td>DESIGNED TP</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN TJB/MM</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> </tr> </table> <p>B-144777</p>	DESIGNED TP	FOR DRAWING APPROVALS SEE	DRAWN TJB/MM		CHECKED				
DESIGNED TP	FOR DRAWING APPROVALS SEE										
DRAWN TJB/MM											
CHECKED											

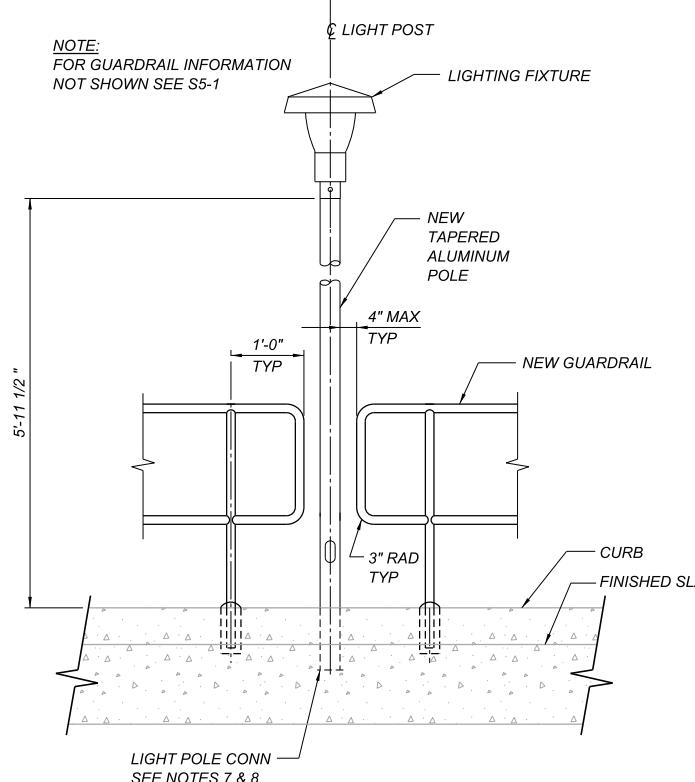


A B C D E F G H I J K L



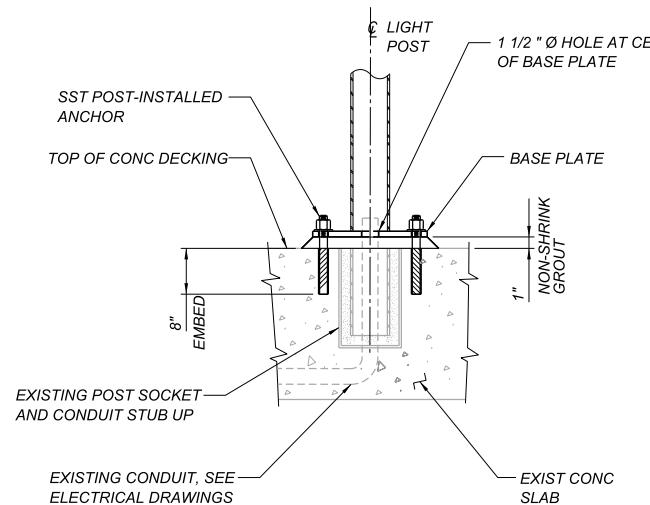
GUARDRAIL END LOCATION WITH EMBEDDED ANCHORAGE

DETAIL 1
SCALE: 3/4" = 1'-0"
4S-6 10S-61

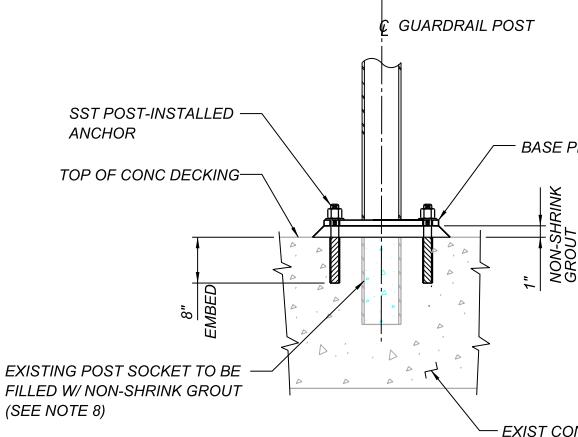


GUARDRAIL AT LIGHT STANDARD WITH EMBEDDED ANCHORAGE

DETAIL 2
SCALE: 3/4" = 1'-0"
4S-61 10S-61



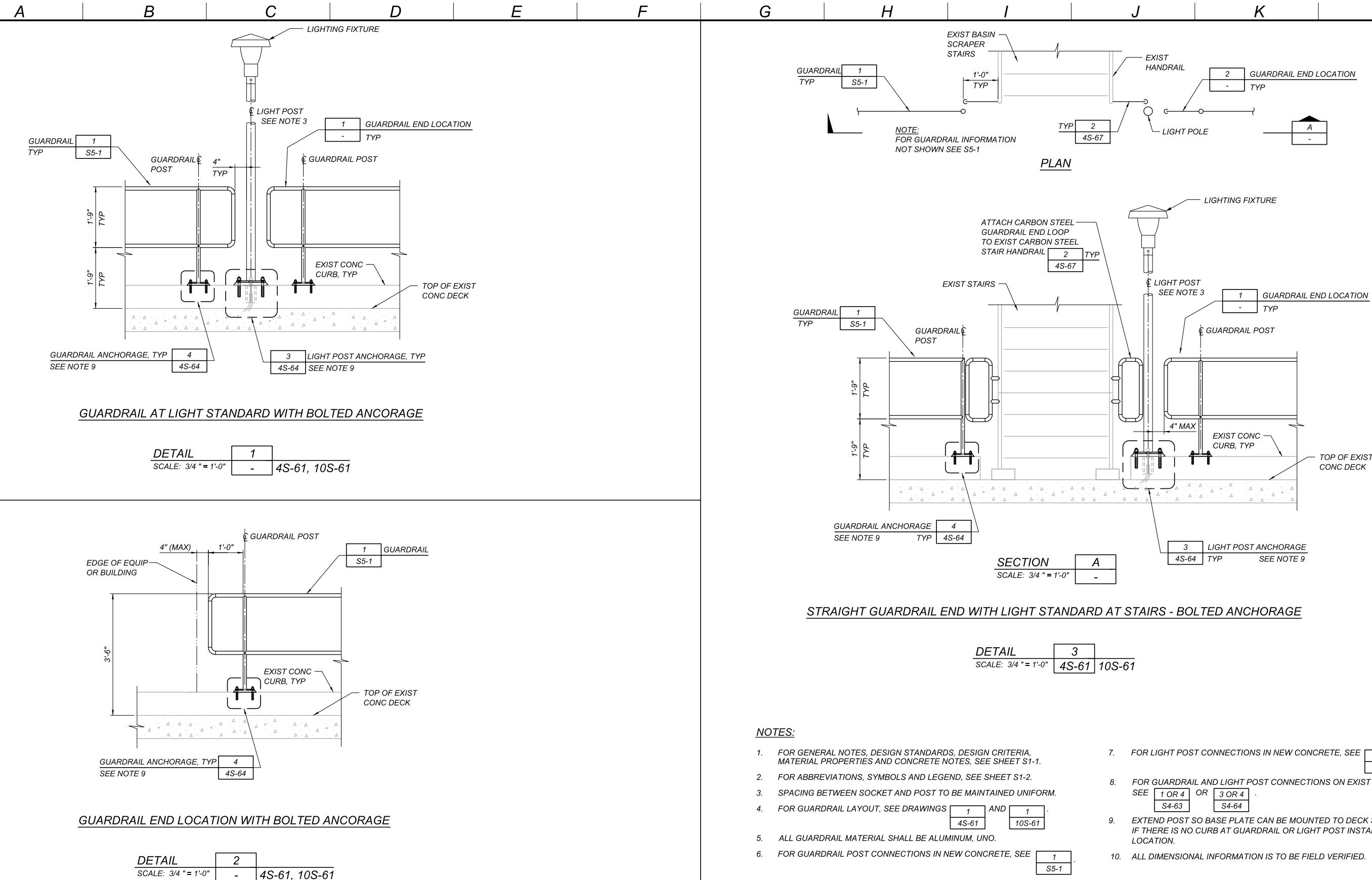
DETAIL 3
SCALE: 3/4" = 1'-0"
4S-65 4S-66



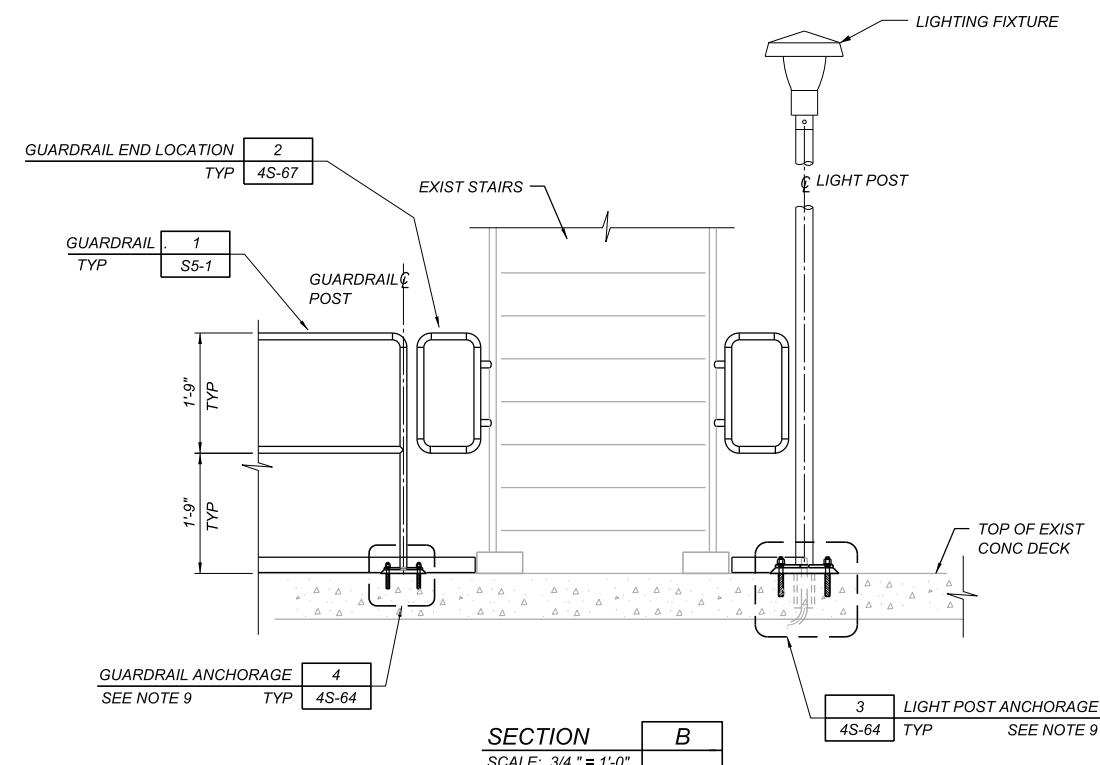
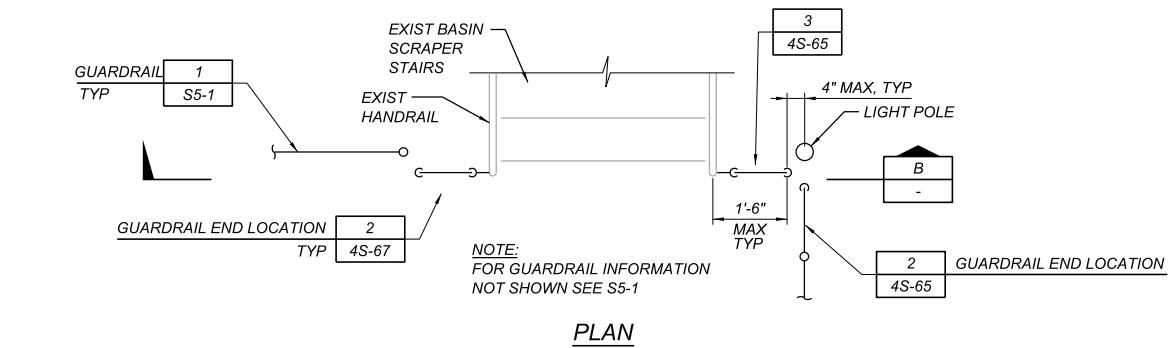
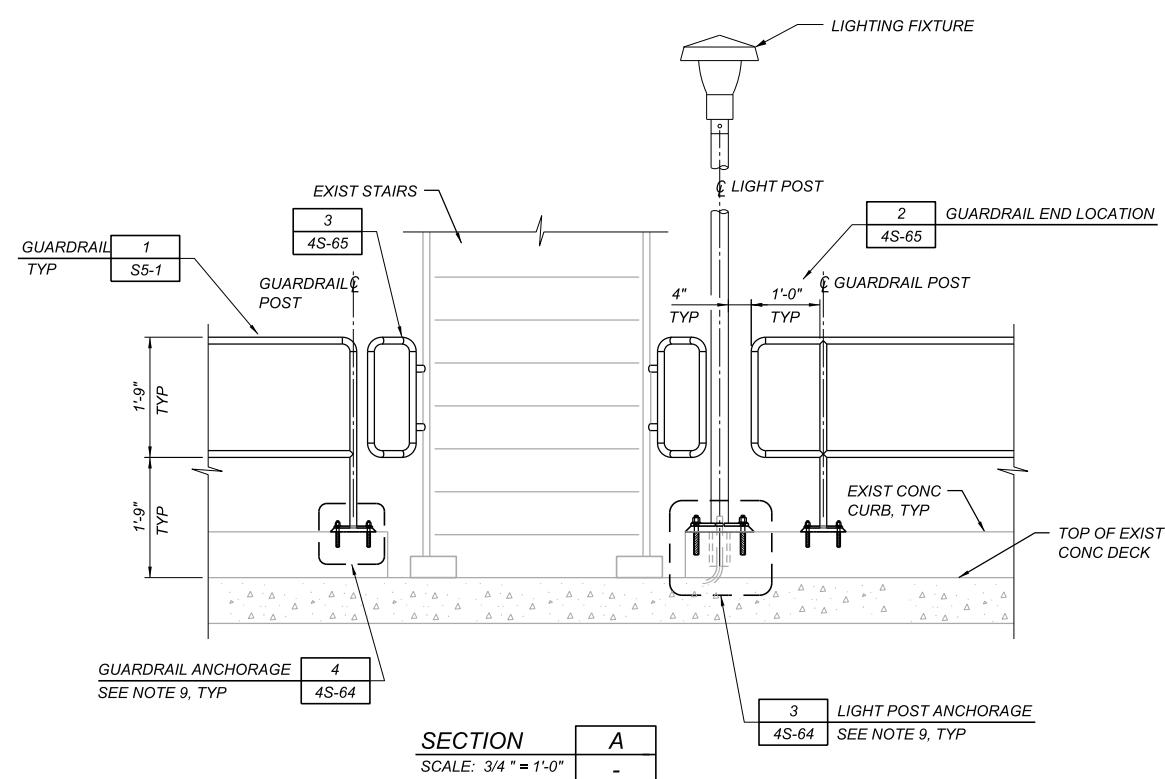
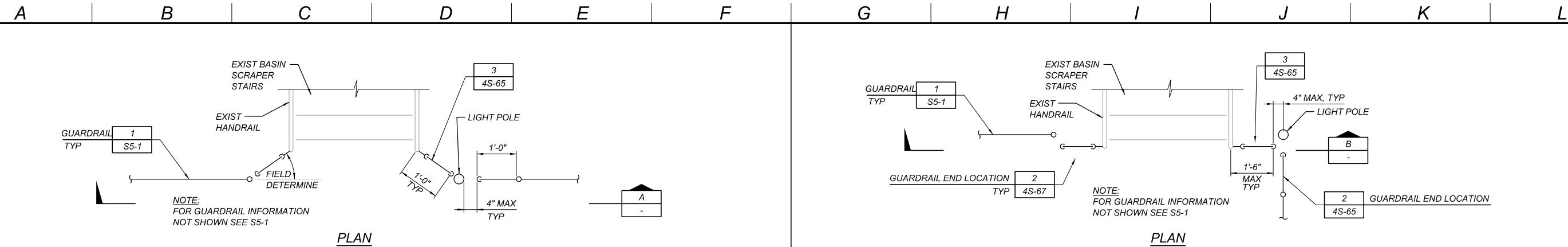
DETAIL 4
SCALE: 3/4" = 1'-0"
4S-65 4S-66

- NOTES:**
- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
 - FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
 - SPACING BETWEEN SOCKET AND POST TO BE MAINTAINED UNIFORM.
 - FOR GUARDRAIL LAYOUT, SEE DRAWINGS 1 AND 1.
 - ALL GUARDRAIL MATERIAL SHALL BE ALUMINUM, UNO.
 - FOR GUARDRAIL POST CONNECTIONS IN NEW CONCRETE, SEE 1 AND 1.
 - FOR LIGHT POST CONNECTIONS IN NEW CONCRETE, SEE 2 SIM. AND 2.
 - FOR GUARDRAIL AND LIGHT POST CONNECTIONS ON EXIST CONCRETE, SEE 1 OR 4 OR 3 OR 4.
 - NON-SHRINK GROUT TO MATCH EXISTING CONCRETE SURFACE.
 - DO NOT CUT EXISTING REINFORCING STEEL IN CONCRETE SLAB UNLESS APPROVED BY THE ENGINEER.
 - FOR EXIST POSTS ANCHORED BY CAP SCREWS, REMOVE THE EXIST SCREWS AND PATCH HOLES W/ NON-SHRINK GROUT FLUSH TO THE CONC SURFACE.
 - ALL DIMENSIONAL INFORMATION IS TO BE FIELD VERIFIED.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION			ISSUE DESCRIPTION	ORIGINAL ISSUE	WATER TREATMENT PLANTS		SPECIFICATIONS
	99% SUBMITTAL JUNE 9, 2014					REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	FOR DRAWING APPROVALS SEE	
3/4" = 1'-0"	0	2	4 FEET	ISSUE DATE MAY 2014	B-144777	DESIGNED JL	EAST BASINS GUARDRAIL REPLACEMENT DETAILS & SECTION - SHEET 1	1524 PROJECT NUMBER 103129 SHEET 4S-64 DWG B-146453 REV 0
1 1/2" = 1'-0"	0	1	2 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 10:11	DRAWN CLV	USERID: u10011	FILE NAME: c:\pw\workdir\mwd_projects\u10011\dms37620\1524_103129_04s064.dgn



SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-65 DWG B-146454 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 10:12	REGISTERED PROFESSIONAL ENGINEER No. S4866 STRUCTURAL STATE OF CALIFORNIA	DESIGNED TP DRAWN CLV CHECKED	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u10011\dms37620\1524_103129_04s065.dgn



90° GUARDRAIL END WITH LIGHT STANDARD AT STAIRS - BOLTED ANCHORAGE

DETAIL 2
SCALE: 3/4" = 1'-0" 4S-61 10S-61

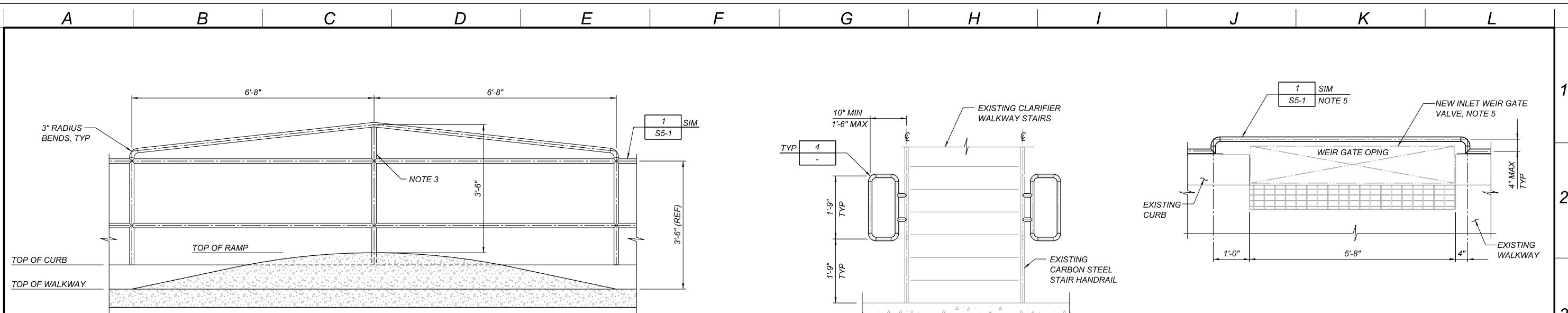
35° GUARDRAIL END WITH LIGHT STANDARD STAIRS - BOLTED ANCHORAGE

DETAIL 1
SCALE: 3/4" = 1'-0" 4S-61 10S-61

NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
- SPACING BETWEEN SOCKET AND POST TO BE MAINTAINED UNIFORM.
- FOR GUARDRAIL LAYOUT, SEE DRAWINGS 1 AND 1.
- ALL GUARDRAIL MATERIAL SHALL BE ALUMINUM, UNO.
- FOR GUARDRAIL POST CONNECTIONS IN NEW CONCRETE, SEE 1.
- FOR LIGHT POST CONNECTIONS IN NEW CONCRETE, SEE 2 SIM. 4S-62
- FOR GUARDRAIL AND LIGHT POST CONNECTIONS ON EXIST CONCRETE, SEE 1 OR 4 OR 3 OR 4.
- EXTEND POST SO BASE PLATE CAN BE MOUNTED TO DECK SURFACE IF THERE IS NO CURB AT GUARDRAIL OR LIGHT POST INSTALLATION LOCATION.
- ALL DIMENSIONAL INFORMATION IS TO BE FIELD VERIFIED.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-66 DWG B-146455 REV 0						
3/4" = 1'-0" 0 2 4 FEET	<p>PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 05:17</p>	<p>ISSUE DATE MAY 2014</p> <table border="1"> <tr> <td>DESIGNED TP</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN CLV</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> </tr> </table> <p>B-144777</p>	DESIGNED TP	FOR DRAWING APPROVALS SEE	DRAWN CLV		CHECKED		<p>EAST BASINS GUARDRAIL REPLACEMENT DETAILS & SECTION - SHEET 3</p>	<p>FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s066.dgn</p>
DESIGNED TP	FOR DRAWING APPROVALS SEE									
DRAWN CLV										
CHECKED										



GUARDRAIL EXTENSION OVER EXISTING CONCRETE RAMP

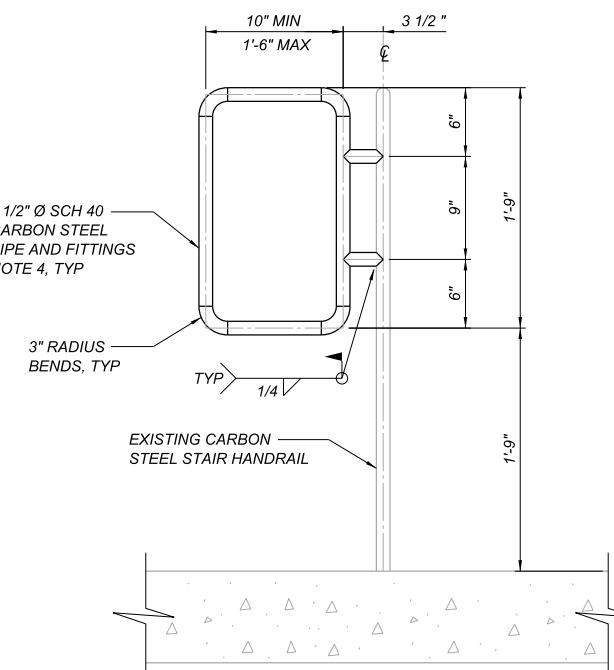
DETAIL
SCALE: 3/4" = 1'-0"
1
4S-61 10S-61

EXIST STAIR HANDRAIL EXTENSION END LOOP

DETAIL
SCALE: 3/4" = 1'-0"
2
4S-65 4S-66

PLAN

DETAIL
SCALE: 3/4" = 1'-0"
3
4S-61 10S-61



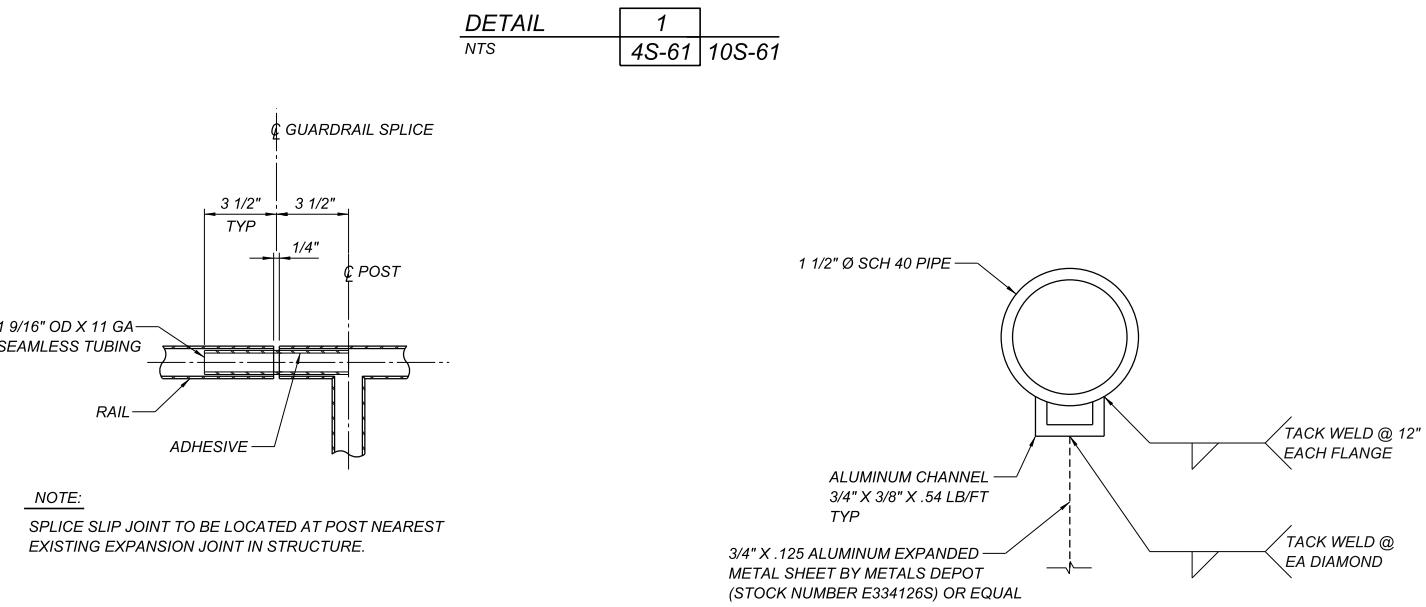
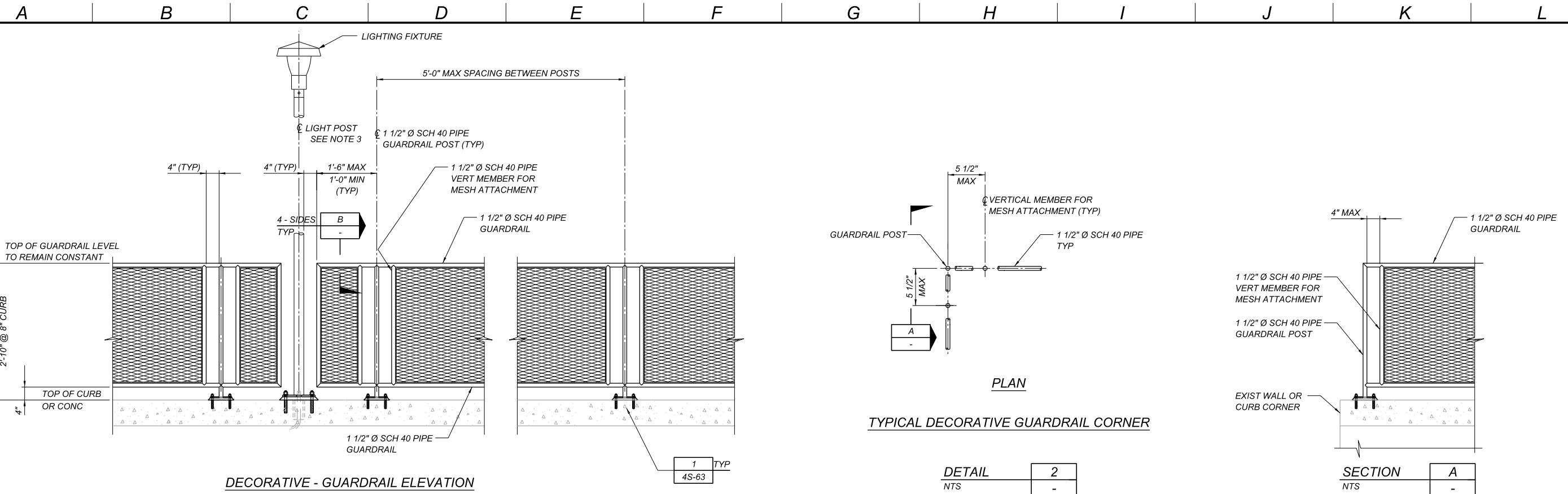
EXTENSION FOR EXISTING CLARIFIER HANDRAIL

DETAIL
SCALE: 1 1/2" = 1'-0"
4
-

NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
- SECOND RAIL MAY BE NEEDED IF TOP RAIL IS MORE THAN 1'-9" ABOVE LEVEL TOP RAIL.
- BEVEL WELD ALL SEAMS AND GRIND SMOOTH, INCLUDING FIELD WELDS.
- CONTRACTOR TO COORDINATE WITH MECHANICAL FOR GUARDRAIL OFFSET TO AVOID CONFLICTS WITH NEW OR EXISTING EQUIPMENT LOCATIONS.
- ALL DIMENSIONAL INFORMATION IS TO BE FIELD VERIFIED.

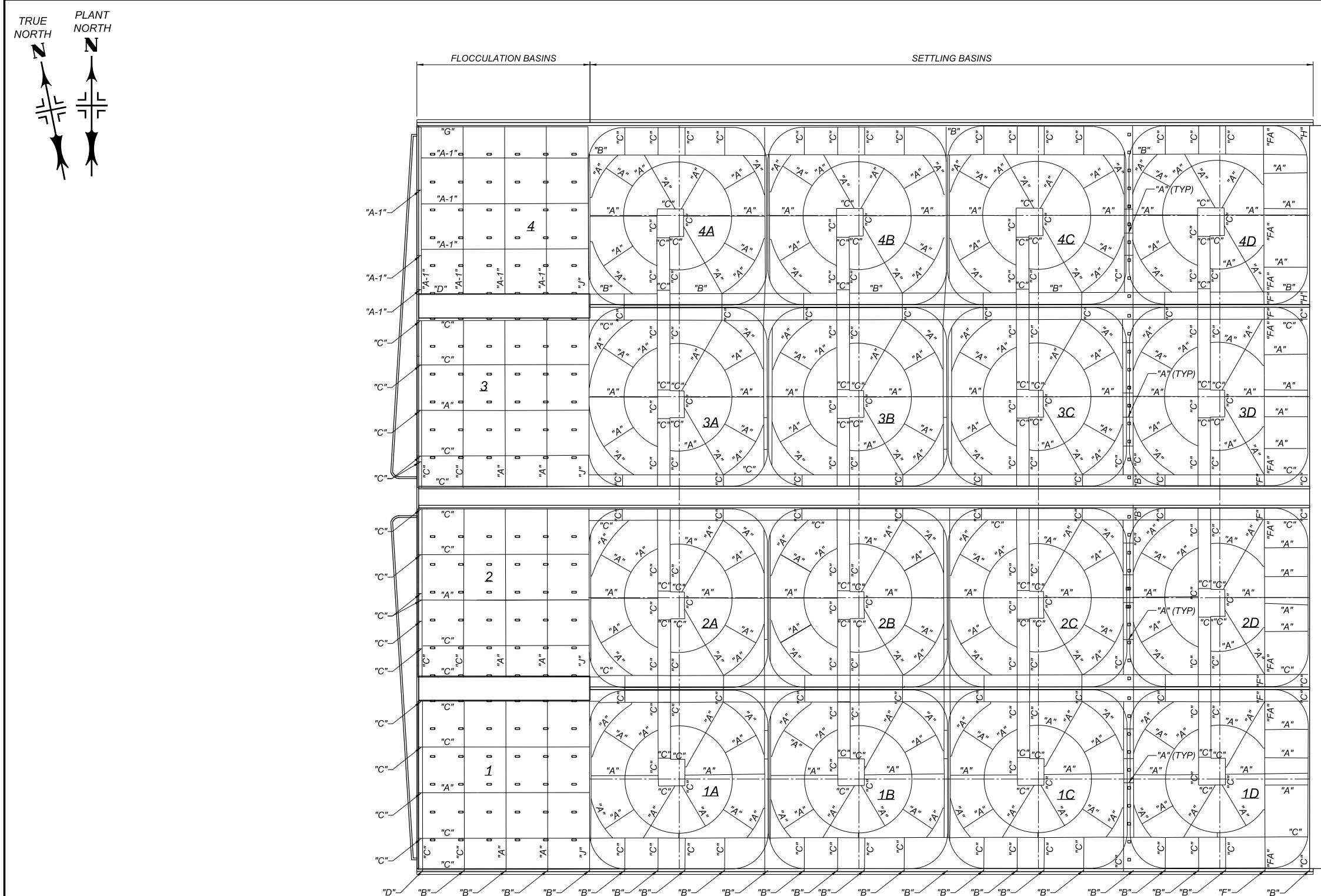
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-67 DWG B-146456 REV 0						
3/4" = 1'-0" 0 2 4 FEET	<p>PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 10:13</p>	<p>ISSUE DATE JUNE 2014</p> <table border="1"> <tr> <td>DESIGNED JL</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN CLV</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> </tr> </table> <p>B-144777</p>	DESIGNED JL	FOR DRAWING APPROVALS SEE	DRAWN CLV		CHECKED		<p>EAST BASINS GUARDRAIL REPLACEMENT DETAILS</p>	<p>FILE NAME: c:\pw\workdir\mwd_projects\u10011\dms37620\1524_103129_04s067.dgn</p>
DESIGNED JL	FOR DRAWING APPROVALS SEE									
DRAWN CLV										
CHECKED										



- NOTES:**
- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-2.
 - FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
 - FOR GUARDRAIL LAYOUT, SEE DESIGN DRAWINGS.
 - ALL MATERIAL SHALL BE ALUMINUM, UNO.
 - FABRICATE ALL HANDRAIL AND GUARDRAIL CONNECTING MEMBERS WITH CONCEALED MECHANICAL FASTENERS AND FITTINGS, UNO.
 - ALL DIMENSIONAL INFORMATION IS TO BE FIELD VERIFIED

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS GUARDRAIL REPLACEMENT DECORATIVE DETAILS B-144777	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-68 DWG B-146457 REV 0
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 10:13	USERID: u10011	FILE NAME: c:\pw\workdir\mwd_projects\u10011\dms37620\1524_103129_04s068.dgn	

A | B | C | D | E | F | G | H | I | J | K | L



PLAN
SCALE: 1" = 30'-0"
1S-3

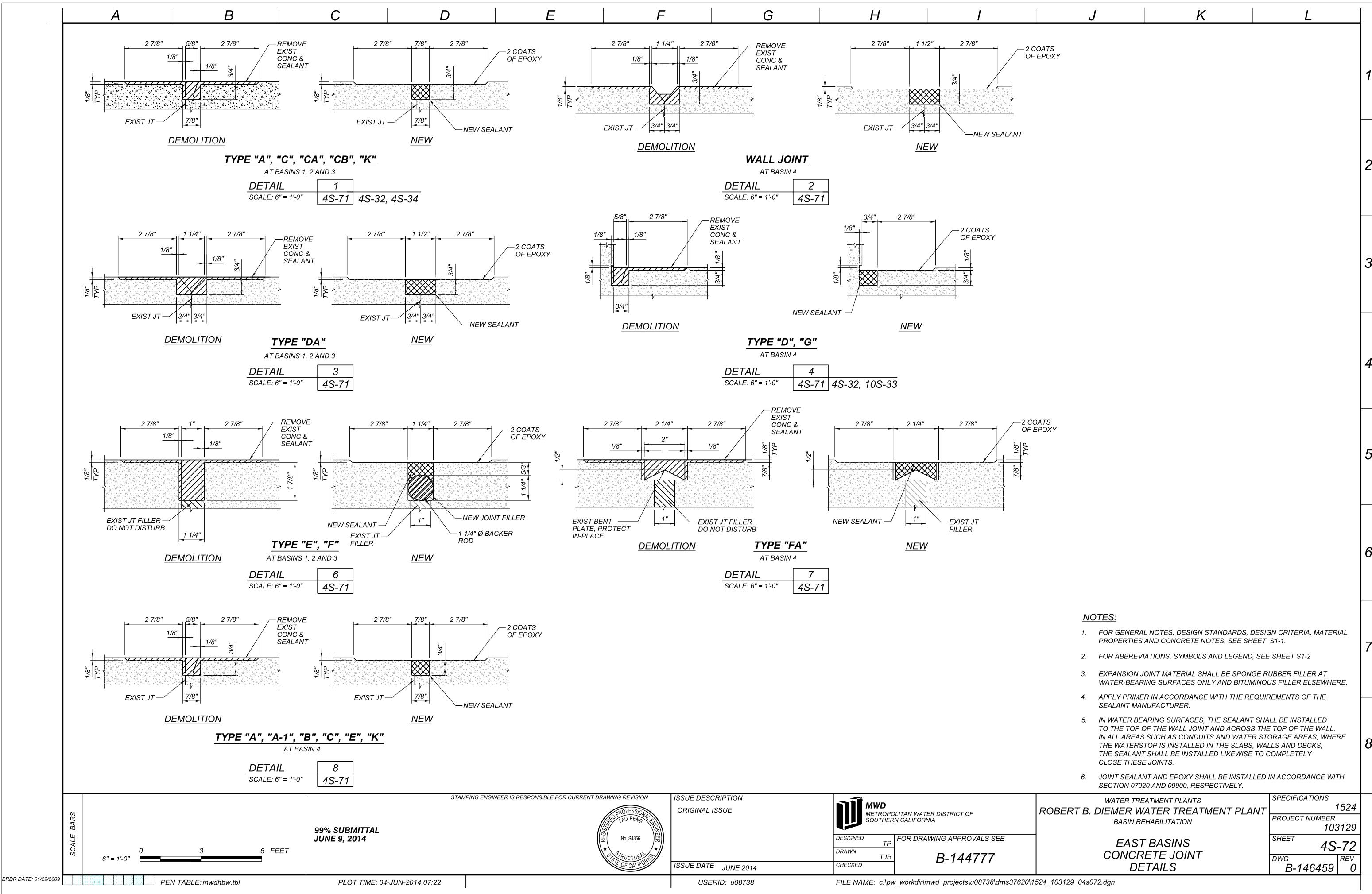
SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP DRAWN BB CHECKED FOR DRAWING APPROVALS SEE B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS CONCRETE JOINT LOCATION PLAN	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-71 DWG B-146458 REV 0
------------	-------------------------------	---	---	---	--	---

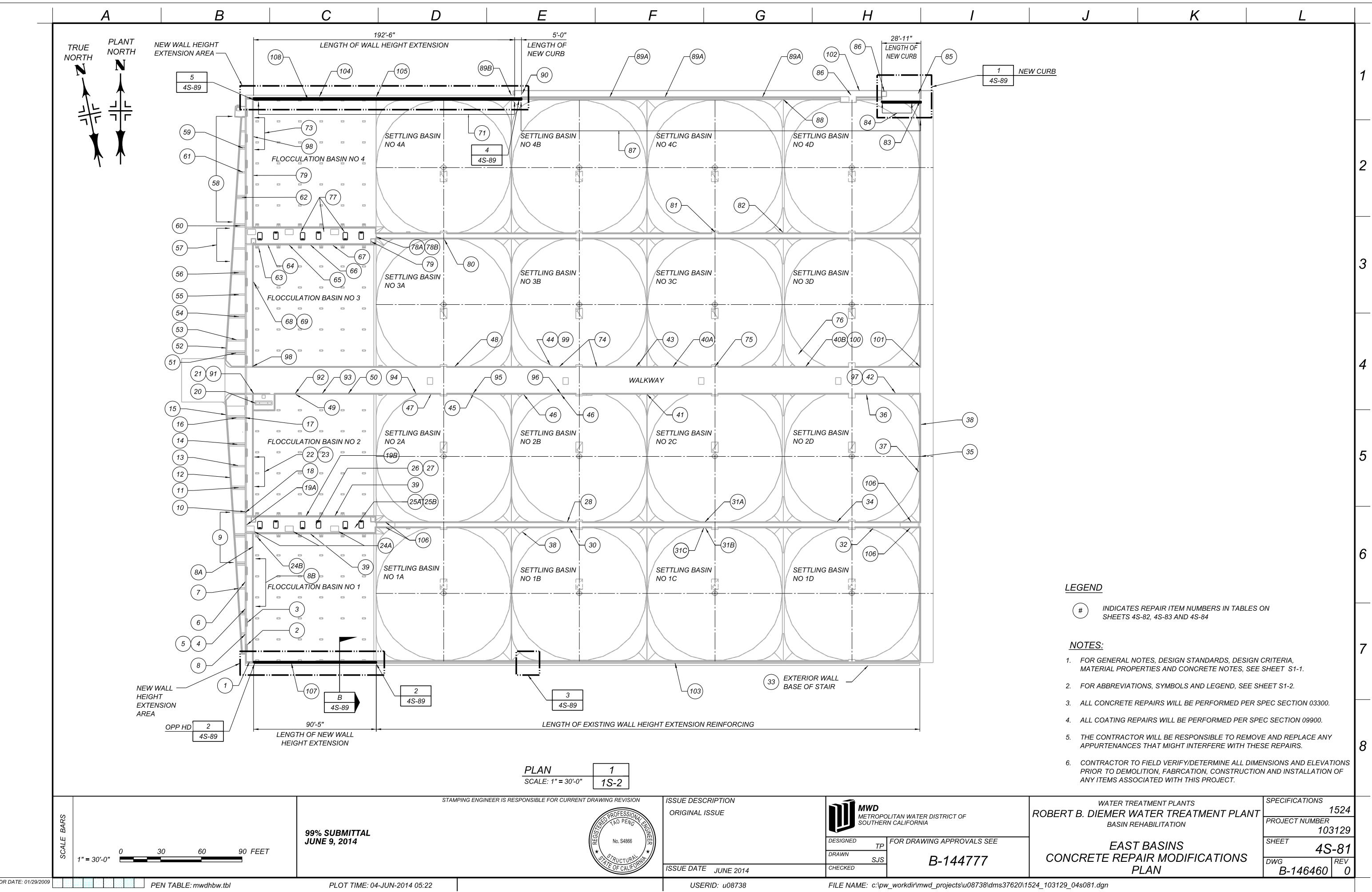
PEN TABLE: mwdhbw.tbl

PLOT TIME: 04-JUN-2014 05:19

USERID: u08738

FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s071.dgn





A	B	C	D	E	F	G	H	I	J	K	L
ITEM NO #	BASIN #	REPAIR TYPE	CONCRETE REPAIR AREA	DETAIL / DRAWING	NOTES						
1	NO 1	1/2" Ø ANCHOR HOLES (2)	1/2" Ø X 4" DEEP	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
2	NO 1	3 SHALLOW SURFACE SPALLS IN VERTICAL FACE OF WALKWAY CURB	3" Ø X 2" DEEP (X3)	1 & 2 / 4S-88 (SIM)	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF EXPOSED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, PROVIDE SMOOTH FINISH						
3	NO 1	2 SHALLOW SURFACE SPALLS IN VERTICAL FACE OF WALKWAY CURB	3" Ø X 2" DEEP (X3)	1 & 2 / 4S-88 (SIM)	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF EXPOSED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, PROVIDE SMOOTH FINISH						
4	NO 1	(2) 1/2" Ø X 4" DEEP EMBEDDED ALL THREAD	1/2" Ø X 4" DEEP (X2)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
5	NO 1	1 SHALLOW SURFACE SPALLS IN VERTICAL FACE OF BEAM	3" Ø X 2" DEEP (X3)	1 & 2 / 4S-88 (SIM)	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF EXPOSED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, PROVIDE SMOOTH FINISH						
6	NO 1	SHALLOW SURFACE SPALL WITH EXPOSED RUSTED REBAR	6" X 6" X 2" DEEP	1 & 2 / 4S-88 (SIM)	ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; REMOVE RUST FROM EXPOSED REBAR BY ABRASIVE BLASTING TO AN SP-5 WHITE METAL CONDITION; TROWEL REPAIR MATERIAL INTO REPAIR AREA, TROWEL FINISH SURFACE OF WALL						
7	NO 1	(2) 1/2" Ø X 4" DEEP EMBEDDED ALL-THREAD	1/2" Ø X 4" DEEP (X2)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
8A	NO 1	CONCRETE SPALL IN BASIN 1 WEST WALL; POSSIBLE RUSTED RE-BAR EXPOSED	8" X 8" X 8"	1 & 2 / 10S-83 (SIM)	REMOVE LOOSE CONCRETE BY CHIPPING; ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; REMOVE RUST FROM EXPOSED REBAR BY ABRASIVE BLASTING TO A SP-5 WHITE METAL CONDITION; TROWEL REPAIR MATERIAL INTO REPAIR AREA, TROWEL FINISH SURFACE OF WALL						
8B	NO 1	(8) 5/8" X 4" DEEP EMBEDDED ANCHORS IN THE FACE OF BASIN 1 WEST WALL	5/8" Ø X 4" DEEP (X8)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
9	NO 1	(21) 1/2" INCH X 4" DEEP EMBEDDED ANCHORS IN TOP SURFACE OF BASIN WALL	1/2" Ø X 4" DEEP (X21)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
10	NO 2	SEVERE CONCRETE CRACKING AND SPALLING, AND EXPOSED RUSTED REBAR	24" X 36" X 12" DEEP	1 & 2 / 4S-88	REMOVE LOOSE DAMAGED CONCRETE BY CHIPPING; CHIP CONCRETE AWAY FROM REBAR UNTIL CLEAN NON-RUSTED REBAR IS OBSERVED; CHIP BACK MIN 1" TO EXPOSE COMPLETE CIRCUMFERENCE OF REBAR; ABRASIVE BLAST REBAR TO SP 5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, PROVIDE A SMOOTH SURFACE						
11	NO 2	(4) 1/2" X 4" DEEP EMBEDDED ALL-THREAD	1/2" Ø X 4" DEEP (X4)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
12	NO 2	(5) 1/2" X 4" DEEP EMBEDDED ANCHORS	1/2" Ø X 4" DEEP (X5)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
13	NO 2	(4) 1/2" X 4" DEEP EMBEDDED ALL-THREAD	1/2" Ø X 4" DEEP (X4)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
14	NO 2	(2) 1/2" X 4" DEEP EMBEDDED ALL-THREAD	1/2" Ø X 4" DEEP (X2)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
15	NO 2	(5) 3/4 INCH X 4" DEEP EMBEDDED ANCHORS	3/4" Ø X 4" DEEP (X5)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
16	NO 2	(4) 1/2" X 4" DEEP EMBEDDED ALL-THREAD	1/2" Ø X 4" DEEP (X4)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
17	NO 2	LOWER DECK SLAB CRACKING AND SPALLING	36" X 18" X 12" DEEP	1 & 2 / 4S-87	CHIP AND REMOVE LOOSE DAMAGED CONCRETE; ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; FORM AND PLACE REPAIR MATERIAL INTO REPAIR AREA, TROWEL FINISH WALL SURFACE						
18	NO 2	4 SMALL SHALLOW SURFACE IMPERFECTIONS IN BASIN CURB FACE WITH POSSIBLE RUSTED REBAR	AVERAGE SIZE = 4" X 4" X 1" DEEP	1 & 2 / 4S-88 (SIM)	CHIP AND REMOVE LOOSE DAMAGED CONCRETE; ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; FORM AND PLACE REPAIR MATERIAL INTO REPAIR AREA, TROWEL FINISH SURFACE OF CURB.						
19A	NO 2	2 SMALL SHALLOW SURFACE IMPERFECTIONS IN FACE OF BASIN WALL	AVERAGE SIZE = 3" X 2" X 1" DEEP	N/A	CHIP AND REMOVE DAMAGED AND LOOSE CONCRETE; ABRASIVE BLAST SURFACE AREA TO SP-7 CONDITION; TROWEL REPAIR FACE OF WALL.						
19B	NO 2	1) SHALLOW SURFACE SPALL IN CONCRETE DECK ADJACENT TO DECK CURB 2) CRACKING AND SPALL IN CONCRETE DECK CURB	1) 6" Ø X 2" DEEP 2) 8" W X 8" L X 6" DEEP	1 & 2 / 4S-88	CHIP AND REMOVE LOOSE DAMAGED CONCRETE; ABRASIVE BLAST RUST OFF OF EXPOSED REBAR TO SP 5 CONDITION; ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; TROWEL REPAIR MATERIAL INTO REPAIR AREA, AND TROWEL FINISH DECK SURFACE						
20	NO 2	SHALLOW SURFACE SPALL IN CONCRETE DECK ADJACENT TO DECK GRATING	8" W X 6" L X 1-1/2" DEEP	1 & 2 / 4S-87 (SIM)	CHIP AND REMOVE LOOSE DAMAGED CONCRETE; ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; TROWEL REPAIR MATERIAL INTO REPAIR AREA; TROWEL FINISH DECK SURFACE.						
21	NO 2	SHALLOW SURFACE SPALL IN FACE OF 36" TALL CONCRETE WALL WITH RUSTING REBAR EXPOSED	6" X 2" X 2" DEEP	1 & 2 / 4S-88 (SIM)	CHIP AND REMOVE LOOSE DAMAGED CONCRETE TO EXPOSE REBAR; CHIP CONCRETE BACK UNTIL CLEAN NON-RUSTED REBAR IS FOUND; ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; ABRASIVE BLAST REBAR TO SP 5 CONDITION; TROWEL REPAIR MATERIAL INTO REPAIR AREA; TROWEL FINISH SURFACE OF WALL						
22	NO 2	CRACKING AND SURFACE SPALL IN CONCRETE DECK ON INTERIOR BASIN WALL	24" W X 12" L X 6" DEEP	1 & 2 / 4S-87	CHIP AND REMOVE LOOSE DAMAGED CONCRETE; ABRASIVE BLAST RUST OFF OF EXPOSED REBAR TO SP 5 CONDITION; ABRASIVE BLAST CONCRETE REPAIR AREA SURFACE TO SP-7 CONDITION; TROWEL REPAIR MATERIAL INTO REPAIR AREA; TROWEL FINISH DECK SURFACE						
23	NO 2	8 ABANDON ANCHORS LOCATED IN THE WEST INTERIOR BASIN 2 HEADER	5/8" Ø X 4" DEEP	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
24-A	NO 2	3 RUSTY CARBON STEEL HATCH PLATES	5' X 6" (X3)	1 & 2 / 4S-93	ABRASIVE BLAST TOP AND BOTTOM SURFACE TO SP-5 CONDITION; COAT PER SECTION 09790 (18-22 MILS OF ZINC BY METALLIZED SPRAY)						
24-B	NO 1	SHALLOW SURFACE SPALL LOCATED INTERIOR BASIN 1 NORTH WALL WITH POSSIBLE RUSTY REBAR EXPOSED	18" Ø X 8" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, PROVIDE SMOOTH FINISH						
25-A	NO 2	SHALLOW SURFACE SPALL LOCATED ON VAULT HATCH PEDESTAL WITH RUSTY REBAR EXPOSED	6" Ø X 2" DEEP	1 & 2 / 4S-88 (SIM)	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, PROVIDE SMOOTH FINISH						
25-B	NO 2	SHALLOW SURFACE SPALL LOCATED ON TOP OF WALKWAY DECK CURB; POSSIBLE RUSTY EXPOSED REBAR	12" X 8" X 2	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, PROVIDE SMOOTH FINISH						
26	NO 2	7 ABANDON ANCHORS LOCATED ON WALKWAY DECK	5/8" Ø X 4" DEEP	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
27	NO 2	SHALLOW SURFACE SPALL LOCATED ON WALKWAY DECK	6" Ø X 2" DEEP	1 & 2 / 4S-87	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
28	NO 2	CRACK AND SPALL IN TOP OF CURB	12" X 8" X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
31	NO 2	SHALLOW SPALL IN WALKWAY DECK; CRACK AND SPALL IN CURB TOP	14" X 12" X 4" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
31A	NO 2	CRACK AND SPALL IN TOP OF CURB	12" X 8" X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
31B	NO 2	SPALL IN INTERIOR FACE OF CURB AT 4" PVC PIPE BRACKET	4" Ø X 2" DEEP	N/A	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
31C	NO 2	SHALLOW SPALL IN WALKWAY DECK; CRACK & SPALL ON CURB	14" W X 12" L X 4" DEEP	1 & 2 / 4S-87 & -88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
32	NO 2	SHALLOW SPALL IN WALKWAY DECK; CRACK AND SPALL IN CURB TOP	14" X 12" X 8" DEEP	1 & 2 / 4S-87 & -88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
33	NO 1	4 ABANDON ANCHORS LOCATED ON BASIN 1 EXTERIOR WALL APPROX HALFWAY DOWN STAIRS	5/8" Ø X 4" DEEP	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
34	NO 2	SHALLOW SPALL IN FACE OF WALKWAY CURB; REBAR EXPOSED	6" Ø X 2" DEEP	1 & 2 / 4S-88 (SIM)	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH						
3											

A	B	C	D	E	F	G	H	I	J	K	L
---	---	---	---	---	---	---	---	---	---	---	---

ITEM NO #	BASIN #	REPAIR TYPE	CONCRETE REPAIR AREA	DETAIL / DRAWING	NOTES
36	NO 2	SEVERE CRACK AND SPALL AT TOP OF BASIN 2 NORTH INTERIOR WALL	18" X 12" X 12" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
37	NO 2	NUMEROUS ABANDON ANCHORS LOCATED ON BASIN 2 EAST INTERIOR WALL	1/4" Ø X 4" DEEP, 18" ON CENTER	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
38	NO 2	NUMEROUS ABANDON ANCHOR BOLTS, HARDWARE AND HOLES IN SOUTH, NORTH & EAST FACES OF BASIN 2 CURBS; EVERY 18" FOR THE LENGTH OF THE CURBS	1/2" Ø BOLTS X 4" DEEP, 18" ON CENTER	4 / 4S-86	REMOVE STEEL HARDWARE AND TROWEL REPAIR HOLES IN FACE OF DECK CURB
39	NO 2	NUMEROUS ABANDON ANCHOR BOLTS, HARDWARE AND HOLES IN SOUTH, NORTH & SOUTH FACES OF BASIN 1 & 2 CURBS	1/2" Ø BOLTS X 4" DEEP	4 / 4S-86	REMOVE STEEL HARDWARE AND TROWEL REPAIR HOLES IN FACE OF DECK CURB
40-A	NO 3	CONCRETE SPALL IN WALKWAY DECK CURB	8" X 8" X 6" DEEP	1 & 2 / 4S-87	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
40-B	NO 3	CONCRETE SPALL IN WALKWAY DECK CURB	8" X 8" X 6" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
41	NO 2	CONCRETE SPALL IN WALKWAY DECK CURB (SITE OF A PREVIOUS REPAIR)	24" X 8" X 24" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
42	NO 3	CONCRETE SPALL IN WALKWAY DECK CURB (SITE OF A PREVIOUS REPAIR)	24" X 8" X 24" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
43	NO 3	CONCRETE SPALL IN WALKWAY DECK CURB	8" X 8" X 8" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
44	NO 3	2 SHALLOW CONCRETE SPALLS IN WALKWAY DECK CURB	12" X 6" X 3" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR AND ELECTRICAL CONDUIT TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
45	NO 2	1 SHALLOW SURFACE SPALL WITH EXPOSED RUSTED REBAR	4' X 4' X 2" DEEP	1 & 2 / 4S-88 (SIM)	CHIP AND REMOVE DAMAGED AND LOOSE CONCRETE; ABRASIVE BLAST SURFACE AREA TO SP-7 CONDITION; TROWEL REPAIR FACE OF CURB
46	NO 2	1 SHALLOW CONCRETE SPALL IN WALKWAY DECK CURB, EXPOSED RE-BAR & ELECTRICAL CONDUIT	4" Ø X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR AND ELECTRICAL CONDUIT TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
47	NO 2	1 SHALLOW CONCRETE SPALL IN WALKWAY DECK CURB	8" X 6" X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR AND ELECTRICAL CONDUIT TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
48	NO 3	CONCRETE SPALL IN WALKWAY DECK CURB BELOW EQUIPMENT CABINET; 2 SHALLOW SPALLS ADJACENT TO CABINET	4" Ø X 2" DEEP (X3)	N/A	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
49	NO 2	CONCRETE SPALL IN FRONT AND BACK SIDES OF WALKWAY DECK CURB	8" X 12" X 8"	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
50	NO 2	1 SHALLOW CONCRETE SPALL IN WALKWAY DECK CURB	4" Ø X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
51	NO 3	ABANDON ANCHOR BOLT ALL-THREAD HARDWARE	1/2" Ø X 4" DEEP (X4)	4 / 4S-86	REMOVE HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
52	NO 3	ABANDON ANCHOR BOLT HOLE WITH HARDWARE	5/8" Ø X 4" DEEP (X4)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
53	NO 3	ABANDON ANCHOR BOLT HOLE WITH HARDWARE	5/8" Ø X 4" DEEP (X4)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
54	NO 3	ABANDON ANCHOR BOLT ALL-THREAD HARDWARE	1/2" Ø X 4" DEEP (X2)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
55	NO 3	ABANDON ANCHOR BOLT HOLE WITH HARDWARE	1/2" Ø X 4" DEEP (X4)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
56	NO 3	ABANDON ANCHOR BOLT HOLE WITH HARDWARE	1/2" Ø X 4" DEEP (X9)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
57	NO 3	ABANDON ANCHOR BOLT ALL-THREAD HARDWARE	1/2" Ø X 4" DEEP (X20)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
58	NO 4	ABANDON ANCHOR BOLT HOLE WITH HARDWARE	1/2" Ø X 4" DEEP (X50)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
59	NO 4	SHALLOW SPALL IN BASIN 4 WEST EXTERIOR WALL	36" X 8" X 4" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
60	NO 4	ABANDON ANCHOR BOLT HOLE WITH HARDWARE; ABANDON ANCHOR BOLT ALL-THREAD HARDWARE	1/2" Ø X 4" DEEP (X3)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
61	NO 4	ABANDON ANCHOR BOLT HOLE WITH HARDWARE; ABANDON ANCHOR BOLT ALL-THREAD HARDWARE	1/2" Ø X 4" DEEP (X2)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
62	NO 4	ABANDON ANCHOR BOLT HOLE WITH HARDWARE; ABANDON ANCHOR BOLT ALL-THREAD HARDWARE	1/2" Ø X 4" DEEP (X3)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
63	NO 3	CONCRETE SPALL IN BASIN 3 WEST DECK CURB	8" X 6" X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR AND ELECTRICAL CONDUIT (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH

LEGEND

INDICATES REPAIR ITEM, FOR LOCATION SEE DRAWINGS 4S-81.

NOTES:

1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. ALL CONCRETE REPAIRS WILL BE PERFORMED PER SPEC SECTION 03300.
4. ALL COATING REPAIRS WILL BE PERFORMED PER SPEC SECTION 09900.
5. THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE AND REPLACE ANY APPURTENANCES THAT MIGHT INTERFERE WITH THESE REPAIRS.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS CONCRETE REPAIR MODIFICATIONS REPAIR LIST - SHEET 2	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-83 DWG B-146462 REV 0	1
						PEN TABLE: mwdhwbtbl
BRDR DATE: 01/29/2009						2

A	B	C	D	E	F	G	H	I	J	K	L
---	---	---	---	---	---	---	---	---	---	---	---

ITEM NO #	BASIN #	REPAIR TYPE	CONCRETE REPAIR AREA	DETAIL / DRAWING	NOTES
64	NO 3	ABANDON ANCHOR HOLES AND HARDWARE	1/2" Ø X 4" DEEP (X3)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
65	NO 3	ABANDON ANCHOR HOLES AND HARDWARE	1/2" Ø X 4" DEEP (X3)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
66	NO 3	ABANDON ANCHOR HOLES AND HARDWARE	1/2" Ø X 4" DEEP (X3)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
67	NO 3	SHALLOW SPALL IN BASIN 3 WALKWAY CURB	36" X 8" X 4" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
68	NO 4	SPALL IN BASIN 4 TOP OF WEST WALL	24" X 8" X 8" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
69	NO 4	ABANDON ANCHOR HOLE AND HARDWARE WEST WALL OF BASIN 3	5/8" Ø X 4" DEEP (X8)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
70	NO 4	SPALL IN BASIN 4 TOP OF WEST WALL	12" X 8" X 6" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
71	NO 4	ABANDON ANCHOR HOLES AND HARDWARE AT THE TOP OF BASIN 4 NORTH WALL	5/8" Ø X 4" DEEP (X50)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
72	NO 4	SPALL IN BASIN 4 TOP OF WEST WALL	24" X 8" X 8" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
73	NO 3	ABANDON ANCHOR HOLE AND HARDWARE IN WEST WALL OF BASIN 4	5/8" Ø X 4" DEEP (X8)	4 / 4S-86	REMOVE ANCHOR AND ALL TREAD HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
74	NO 3	CONCRETE SPALLS IN FLOOR OF BASIN 3	18" X 18" X 6" DEEP (X2)	1 & 2 / 4S-87	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
75	NO 3	SPALL IN FLOOR OF BASIN 3	24" X 24" X 6" DEEP	1 & 2 / 4S-87	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
76	NO 3	CRICKET DELAMINATION FROM SOUTH WALL AND FLOOR OF BASIN 4	8' X 4' X 8"	1 / 10S-84 (SIM)	REPAIR AS INDICATED ON DRAWING (REMOVE DAMAGED CRICKET AND RE-POUR)
77	NO 4	ABANDON ANCHOR BOLT HOLES AND HARDWARE	1/2" Ø X 4" DEEP (X8)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
78A	NO 4	SHALLOW SPALL IN BASIN 4 WALKWAY CURB AND DECK	18" X 6" X 6" DEEP	1 & 2 / 4S-87 & -88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
78B	NO 4	SHALLOW SPALL IN BASIN 4 INTERIOR FACE OF CURB EXTENDING 24" INTO BASIN	24" X 8" X 6" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
79	NO 4	SHALLOW SPALL IN BASIN 4 WALKWAY DECK CURB UNDER SS-316 ACCESS HATCH	6" Ø X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
80	NO 3	SHALLOW SPALL IN TOP OF BASIN 3 WALKWAY DECK CURB	4" Ø X 2" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
81	NO 4	SHALLOW SPALL IN SURFACE OF BASIN 4 WALKWAY DECK UNDER BRIDGE STEPS	6" Ø X 3" DEEP	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
82	NO 4	SHALLOW SPALL IN FACE AND TOP OF BASIN 4 WALKWAY DECK CURB	6" X 8" X 4"	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
83	NO 4	SEVERE SPALL ON INTERIOR FACE OF BASIN 4 WALL - NORTH EAST INTERIOR CORNER	18" X 24" X 36"	1 & 2 / 4S-88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
84	NO 4	ABANDON ANCHOR HOLES AND HARDWARE	5/8" Ø X 4" DEEP (X8)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
85	NO 4	SHALLOW SURFACE SPALL ON WALKWAY DECK OF BASIN 4 WALL - NORTH EAST CORNER	12" X 4" X 1" DEEP	1 & 2 / 4S-87	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
86	NO 4	SEVERE SPALL ON WALKWAY DECK AND INTERIOR FACE OF BASIN 4 WALL - NORTHEAST INTERIOR CORNER	18" X 24" X 24"	1 & 2 / 4S-87 & -88	REMOVE DAMAGED CONCRETE; ABRASIVE BLAST RUSTED REBAR (IF REQUIRED) TO SP-5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
87	NO 4	DECK SLAB CUT AWAY WITH EXPOSED REBAR IN FACE OF BASIN 4 NORTH WALKWAY SLAB; EXPOSED REBAR IS 12" ON CENTER FOR APPROX 200 LINEAR FEET	12" ON CENTER FOR 200 FT	4 / 4S-86 (SIM)	REMOVE RUSTED REBAR, TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
88	NO 4	BASIN 4 WALKWAY DECK SLAB HAS EXPOSED CRACKING, SHALLOW SPALL AREA AND ROUGHENED JAGGED SURFACE; REPAIR AREA EXTENDS APPROX 10 LINEAR FEET	10 LINEAR FEET	1 & 2 / 4S-87 (SIM)	REPAIR CRACKS AND SMOOTH JAGGED SURFACE BY GRINDING; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
89A	NO 4	SEVERE CRACKS AND SPALLING WITH POSSIBLE EXPOSED RUSTING REBAR; TOP OF BASIN 4 NORTH WALL SLAB; REPAIR AREA EXTENDS APPROX 6 LINEAR FEET	6' X 1' X 1' (3 PCS)	4S-87 OR 4S-88	REMOVE DAMAGED LOOSE CONCRETE BY CHIPPING; ABRASIVE BLAST EXPOSED RUSTY REBAR TO SP 5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE A SMOOTH FINISH
89B	NO 4	SEVERE CRACKING AND SPALLING WITH POSSIBLE EXPOSED RUSTING REBAR; TOP OF BASIN 4 EXTERIOR NORTH WALL SLAB	18" x 18" x 18"	4S-87 OR 4S-88	REMOVE DAMAGED LOOSE CONCRETE BY CHIPPING; ABRASIVE BLAST EXPOSED RUSTY REBAR TO SP 5 CONDITION; TROWEL APPROVED REPAIR MATERIAL, AND PROVIDE A SMOOTH FINISH
90	NO 4	ABANDON ANCHOR BOLT HOLES AND HARDWARE	5/8" Ø X 4" DEEP (X3)	4 / 4S-86	REMOVE ANCHOR HARDWARE BY CORING; FILL HOLE WITH APPROVED REPAIR MATERIAL, AND PROVIDE SMOOTH FINISH
91	NO 2	SPALLED CONCRETE ON STAIR CURB	0.25 SQ FT X 2" DEEP	1 & 2 / 4S-88	
92	NO 2	REMOVE JOINT SEALANT AND REPAIR BROKEN CONCRETE	1 CU FT	4S-87 OR 4S-88	
93	NO 2	REMOVE JOINT SEALANT AND REPAIR BROKEN CONCRETE	1 CU FT	4S-87 OR 4S-88	
94	NO 2	CURB WITH ELECTRICAL CONVENIENCE OUTLET		1 & 2 / 4S-86	
95	NO 2	REMOVE JOINT SEALANT AND REPAIR CONCRETE	0.5 CU FT	4S-87 OR 4S-88	
96	NO 2	CURB WITH ELECTRICAL CONVENIENCE OUTLET		1 & 2 / 4S-86	
97	NO 2	REMOVE JOINT SEALANT AND REPAIR CONCRETE	0.5 CU FT	4S-87 OR 4S-88	
98	NO 3	REMOVE AND REPLACE CRACKED CONCRETE, LIGHT POLE AND GUARDRAIL POST		1 & 2 / 4S-85	
99	NO 3	REPAIR SPALLED CONCRETE ON CURB		1 & 2 / 4S-88	
100	NO 3	REMOVE JOINT SEALANT AND REPAIR BROKEN CONCRETE	1 CU FT	4S-87 OR 4S-88	
101	NO 3	REMOVE JOINT SEALANT AND REPAIR BROKEN CONCRETE	1 CU FT	4S-87 OR 4S-88	
102	NO 4	CHIPPED CONCRETE JOINT EDGE	11' X 1' X 1" DEEP	N/A	PREPARE SURFACE AND PATCH DAMAGED AREA
103	NO 1	CHIPPED CONCRETE JOINT EDGE	13' X 5' X 1" DEEP	N/A	PREPARE SURFACE AND PATCH DAMAGED AREA
104	NO 4	SPALLING	47" X 14" X 8" DEEP	1 & 2 / 4S-88	
105	NO 4	CRACK	10' X 5' X 4" DEEP	1 & 2 / 4S-88 (SIM)	
106	NO 1 & 2	REMOVE 14'-6" OF FIBER BOARD ON BOTH SIDES OF RAMP AND ASSOCIATED ANCHOR BOLTS	1/2" Ø X UNK DEPTH	4 / 4S-86	
107	NO 1	REMOVE 90'-9" OF STEEL PLATE AND ASSOCIATED ANCHOR BOLTS	1/2" Ø UNK DEPTH	4 / 4S-86	GRIND ANCHOR BOLTS & FILL WITH NON-SHRINK GROUT (BOLTS ARE EVERY 18" ALONG CURB)
108	NO 4	REMOVE 197'-6" OF FIBER BOARD AND ASSOCIATED ANCHOR BOLTS	1/2" Ø X 4" DEEP	4 / 4S-86	GRIND ANCHOR BOLTS & FILL WITH NON-SHRINK GROUT

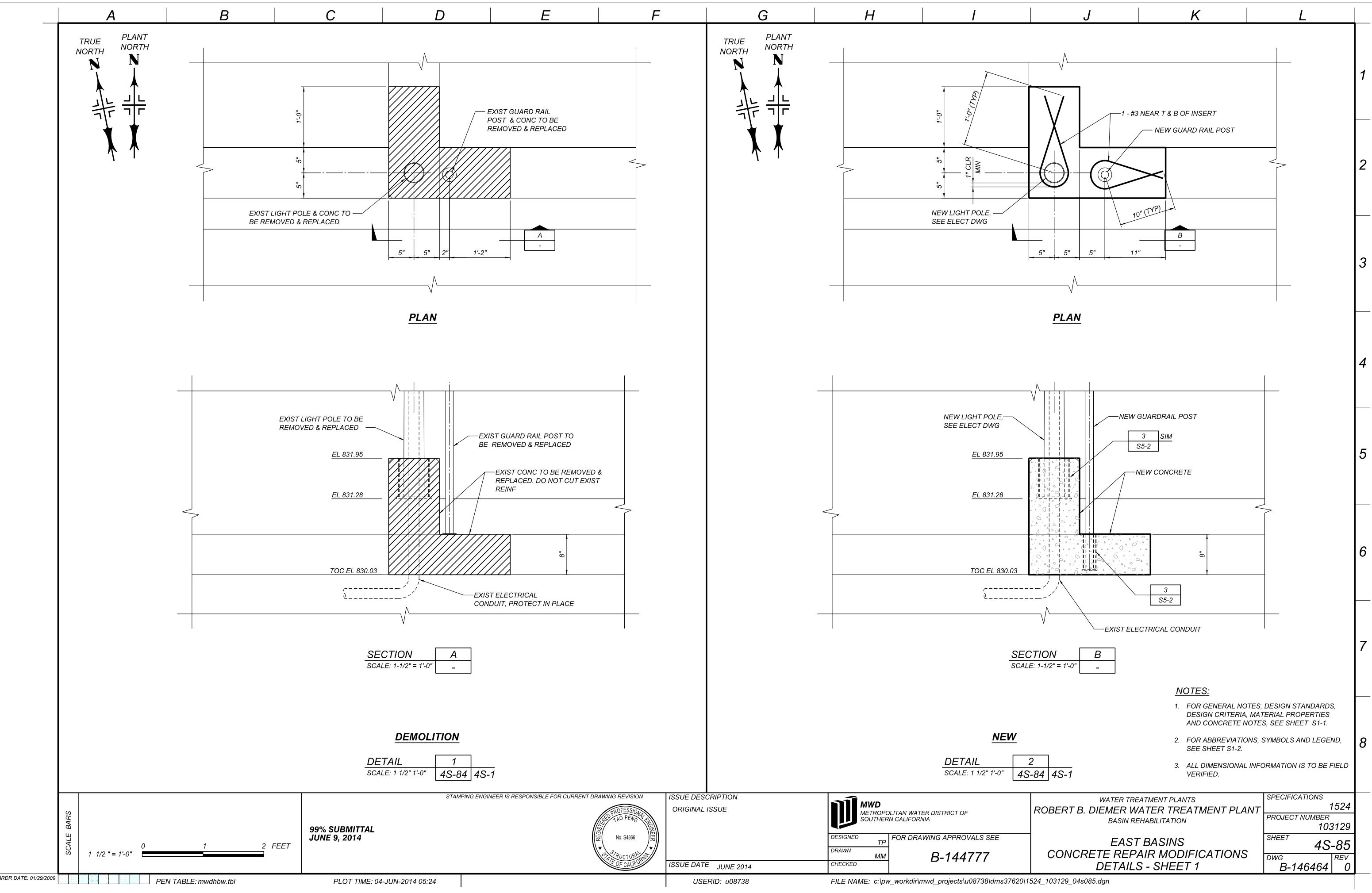
LEGEND

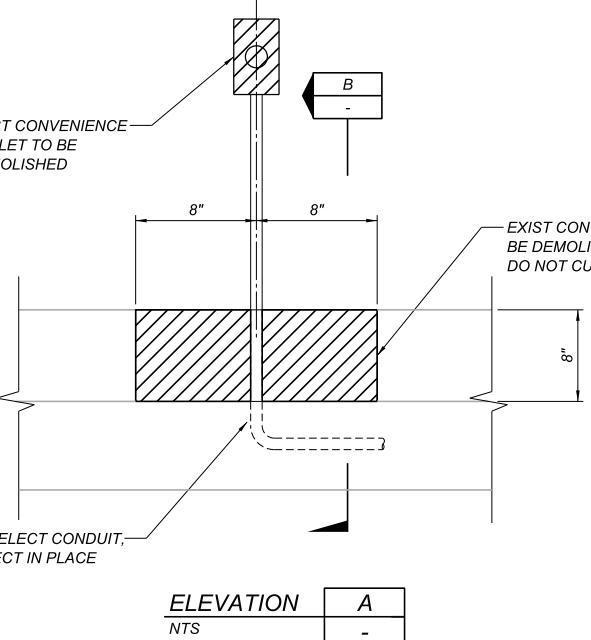
INDICATES REPAIR ITEM, FOR LOCATION SEE DRAWINGS 4S-81.

NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
- ALL CONCRETE REPAIRS WILL BE PERFORMED PER SPEC SECTION 03300.
- ALL COATING REPAIRS WILL BE PERFORMED PER SPEC SECTION 09900.
- THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE AND REPLACE ANY APPURTENANCES THAT MIGHT INTERFERE WITH THESE REPAIRS.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-84 DWG B-146463 REV 0
		ISSUE DATE JUNE 2014	CHECKED B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u10011\dms37620\1524_103129_04s084.dgn		
BRDR DATE: 01/29/2009 PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 10:15 USERID: u10011						





DEMOLITION

DETAIL 1
NTS 4S-84

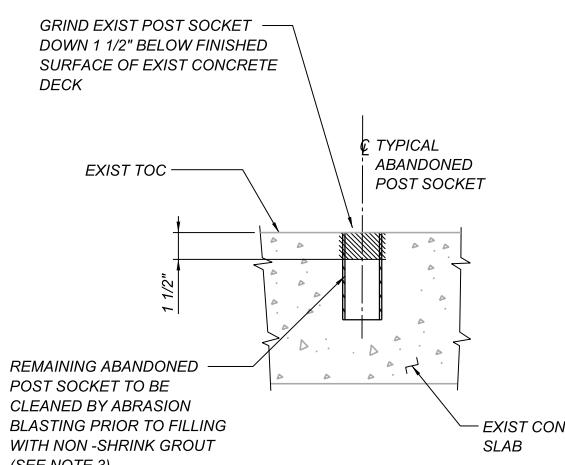
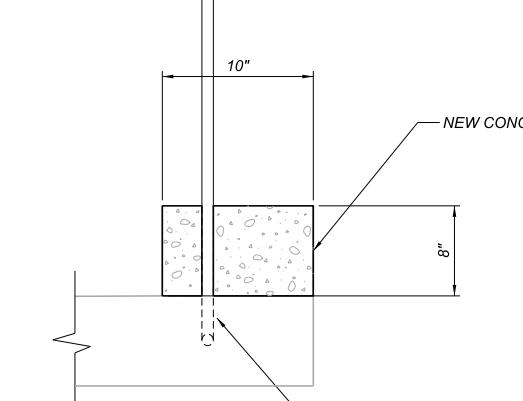
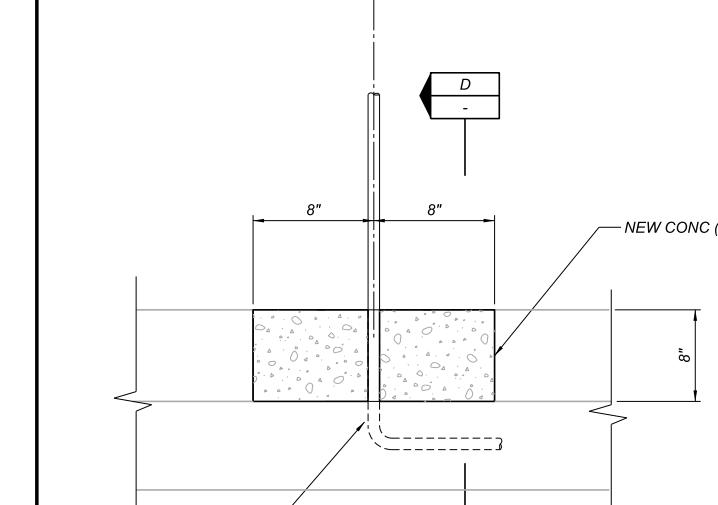
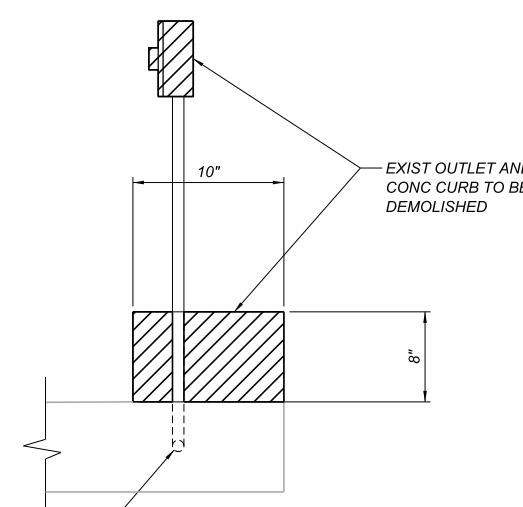
SECTION NTS - B

ELEVATION NTS - C

SECTION NTS - D

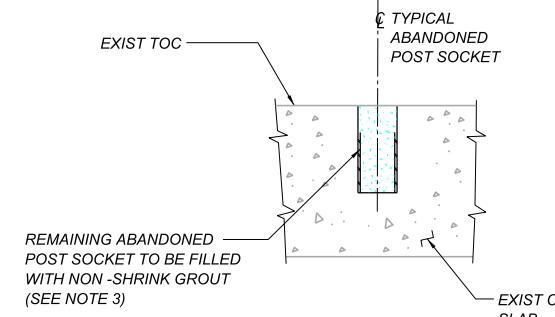
NEW

DETAIL 2
NTS 4S-84

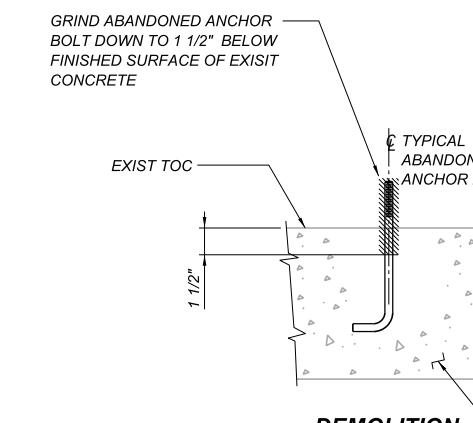


DEMOLITION

DETAIL 3
SCALE: 3/4" = 1'-0" 10S-82

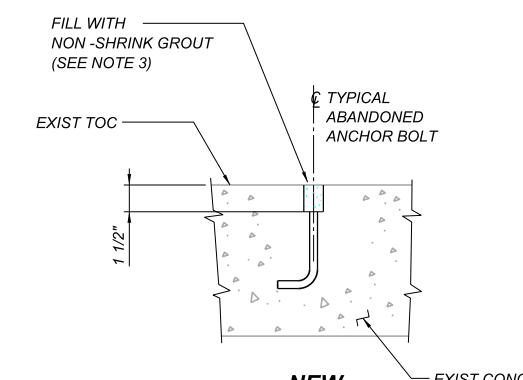


NEW



DEMOLITION

DETAIL 4
SCALE: 3/4" = 1'-0" 4S-82 4S-83, 4S-84, 10S-82



NEW

NOTES:

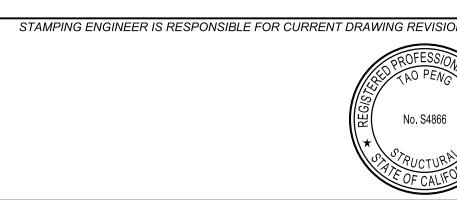
1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2
3. NON-SHRINK GROUT TO MATCH EXISTING CONCRETE SURFACE.
4. DO NOT CUT EXISTING REINFORCING STEEL IN CONCRETE SLAB UNLESS APPROVED BY THE ENGINEER.
5. FOR EXIST POSTS ANCHORED BY CAP SCREWS, REMOVE THE EXIST SCREWS AND PATCH HOLES W/ NON-SHRINKING GROUT FLUSH TO THE CONC SURFACE.
6. ALL DIMENSIONAL INFORMATION IS TO BE FIELD VERIFIED.

SCALE BARS	1 1/2" = 1'-0" 0 1 2 FEET	99% SUBMITTAL JUNE 9, 2014
------------	---------------------------	----------------------------

BRDR DATE: 01/29/2009

PEN TABLE: mwdhbw.tbl

PLOT TIME: 04-JUN-2014 10:16



ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
DESIGNED TP FOR DRAWING APPROVALS SEE
DRAWN SJS
CHECKED GHE

B-144777

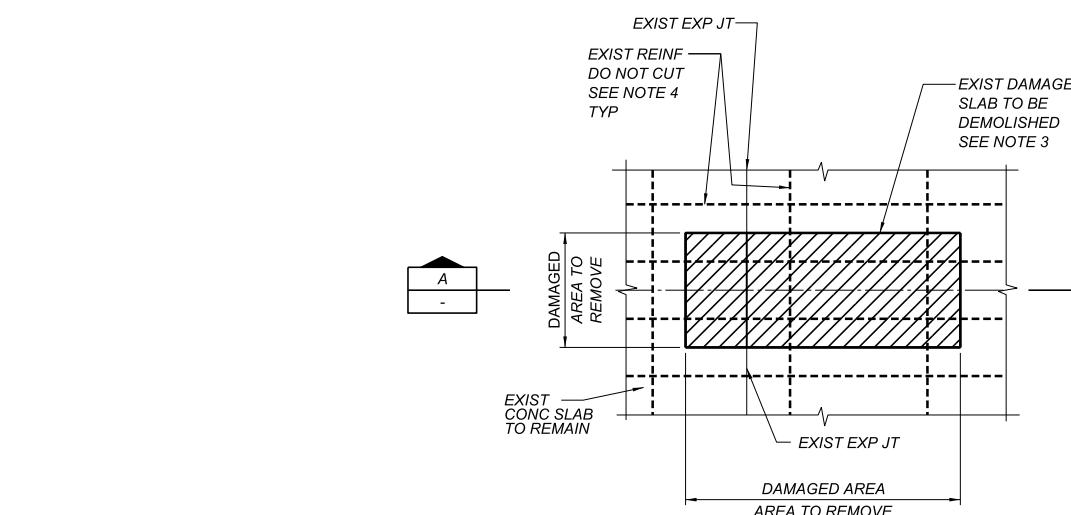
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
EAST BASINS
CONCRETE REPAIR MODIFICATIONS
DETAILS - SHEET 2

SPECIFICATIONS 1524
PROJECT NUMBER 103129
SHEET 4S-86
DWG B-146465 REV 0

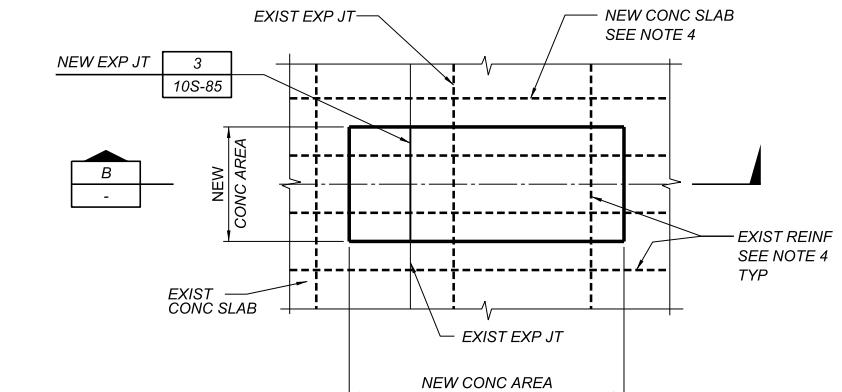
USERID: u10011

FILE NAME: c:\pw\workdir\mwd_projects\u10011\dms37620\1524_103129_04s086.dgn

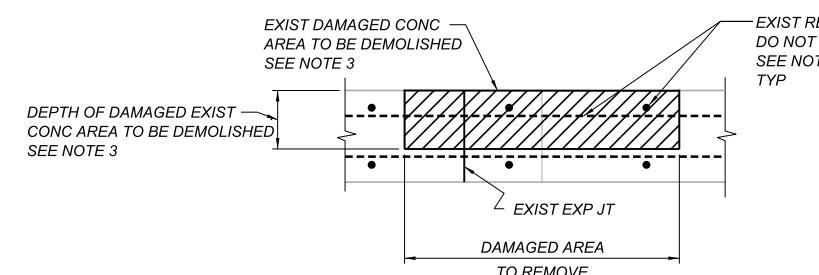
A | B | C | D | E | F | G | H | I | J | K | L



PLAN



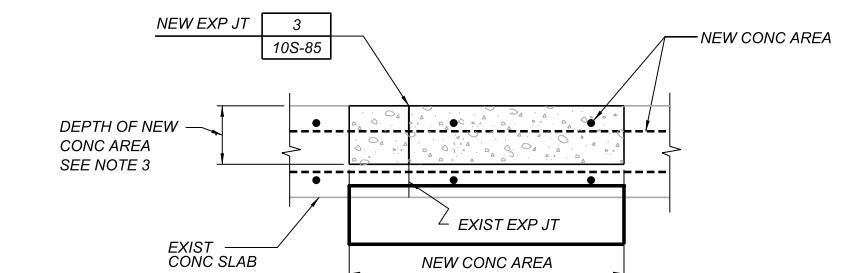
PLAN



SECTION A
SCALE: 1 1/2" 1'-0"

DEMOLITION - SLAB REPAIR

DETAIL 1
SCALE: 1 1/2" 1'-0" 4S-82 4S-83, 4S-84, 10S-82



SECTION B
SCALE: 1 1/2" 1'-0"

NEW - SLAB REPAIR

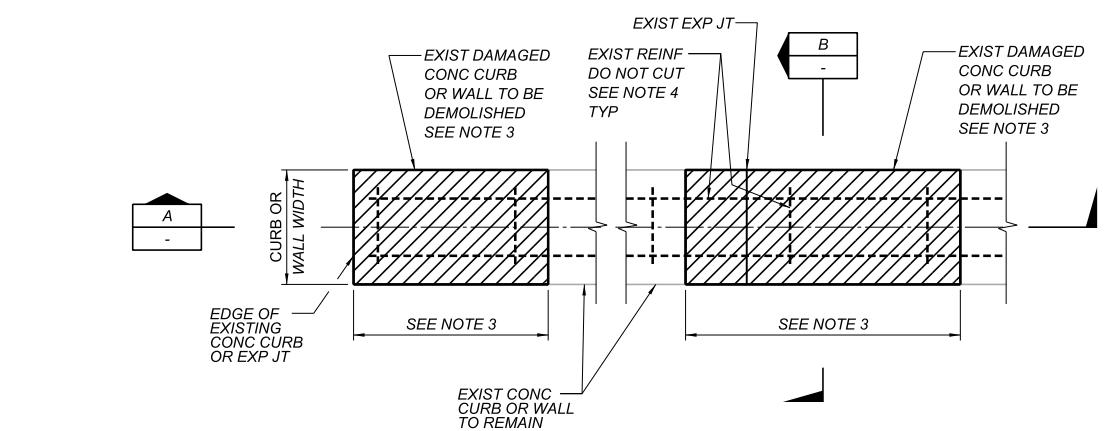
DETAIL 2
SCALE: 1 1/2" 1'-0" 4S-82 4S-83, 4S-84, 10S-82

NOTES:

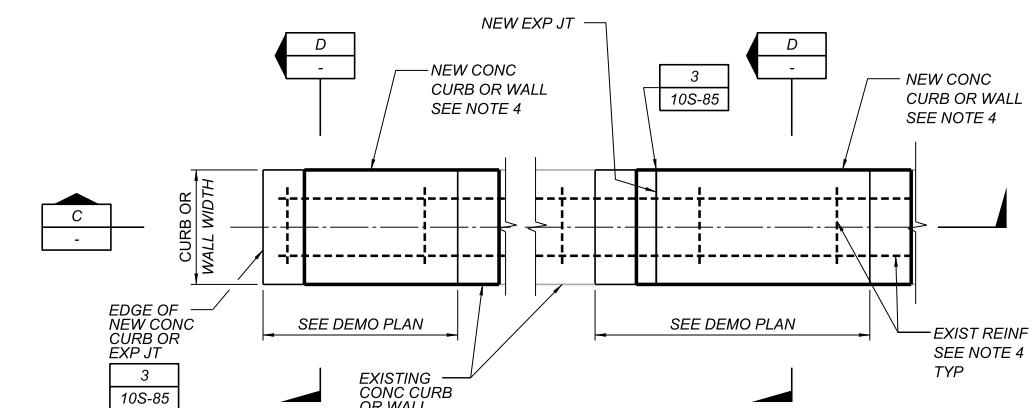
1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. DEMOLISH ENOUGH CONCRETE TO REMOVE DAMAGED CONCRETE BACK TO CLEAN NON-RUSTED REBAR.
4. CLEAN REBAR BY ABRASION BLASTING. COAT REBAR PER SPEC SECTION 09900 PRIOR TO POURING CONCRETE.

SCALE BARS 1 1/2" = 1'-0" 	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA PEN TABLE: mwdhbw.tbl	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS CONCRETE REPAIR MODIFICATIONS DETAILS - SHEET 3	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-87 DWG B-146466 REV 0
				PLOT TIME: 04-JUN-2014 10:17	USERID: u10011

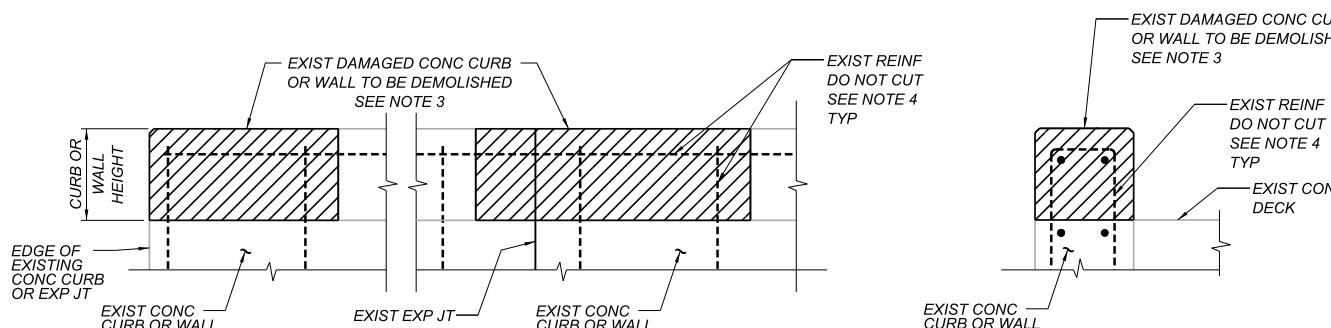
A B C D E F G H I J K L



PLAN



PLAN



SECTION

SCALE: 1 1/2" 1'-0"

A

DEMOLITION - CURB REPAIR

DETAIL
SCALE: 1 1/2" 1'-0"

1

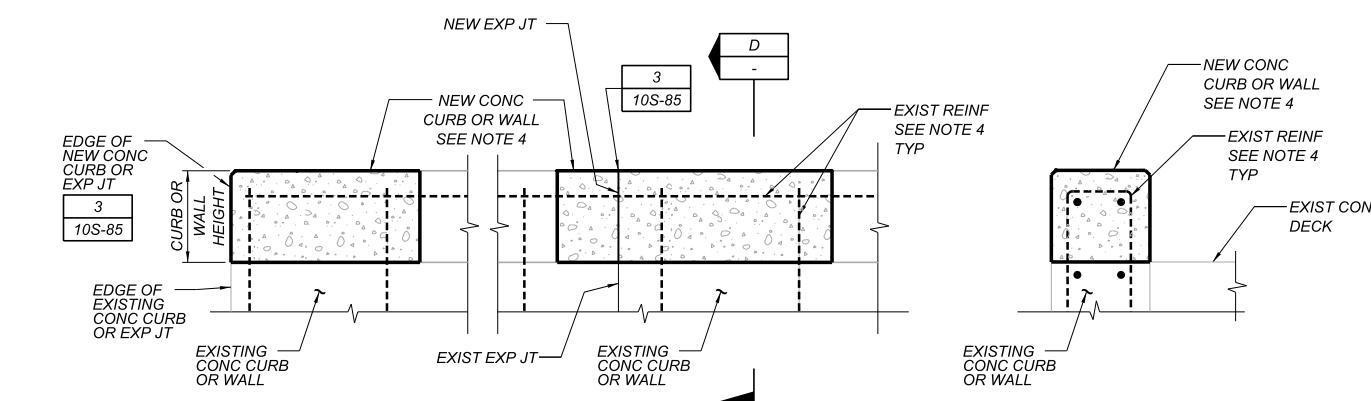
4S-82 4S-83, 4S-84, 10S-82

SECTION

SCALE: 1 1/2" 1'-0"

B

EXIST EXP JT
EXIST REINF
EXIST Damaged Conc Curb or Wall to be demolished
SEE NOTE 3
EXIST Conc Curb or Wall to remain
CURB OR WALL HEIGHT
EDGE OF EXISTING CONC CURB OR EXP JT
SEE NOTE 3



SECTION

SCALE: 1 1/2" 1'-0"

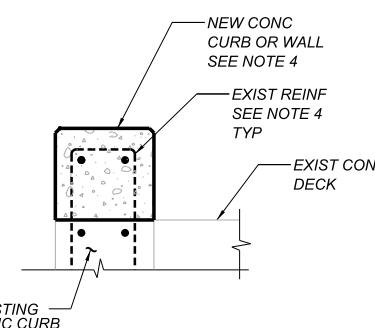
C

NEW - CURB REPAIR

DETAIL
SCALE: 1 1/2" 1'-0"

2

4S-82 4S-83, 4S-84, 10S-82



SECTION

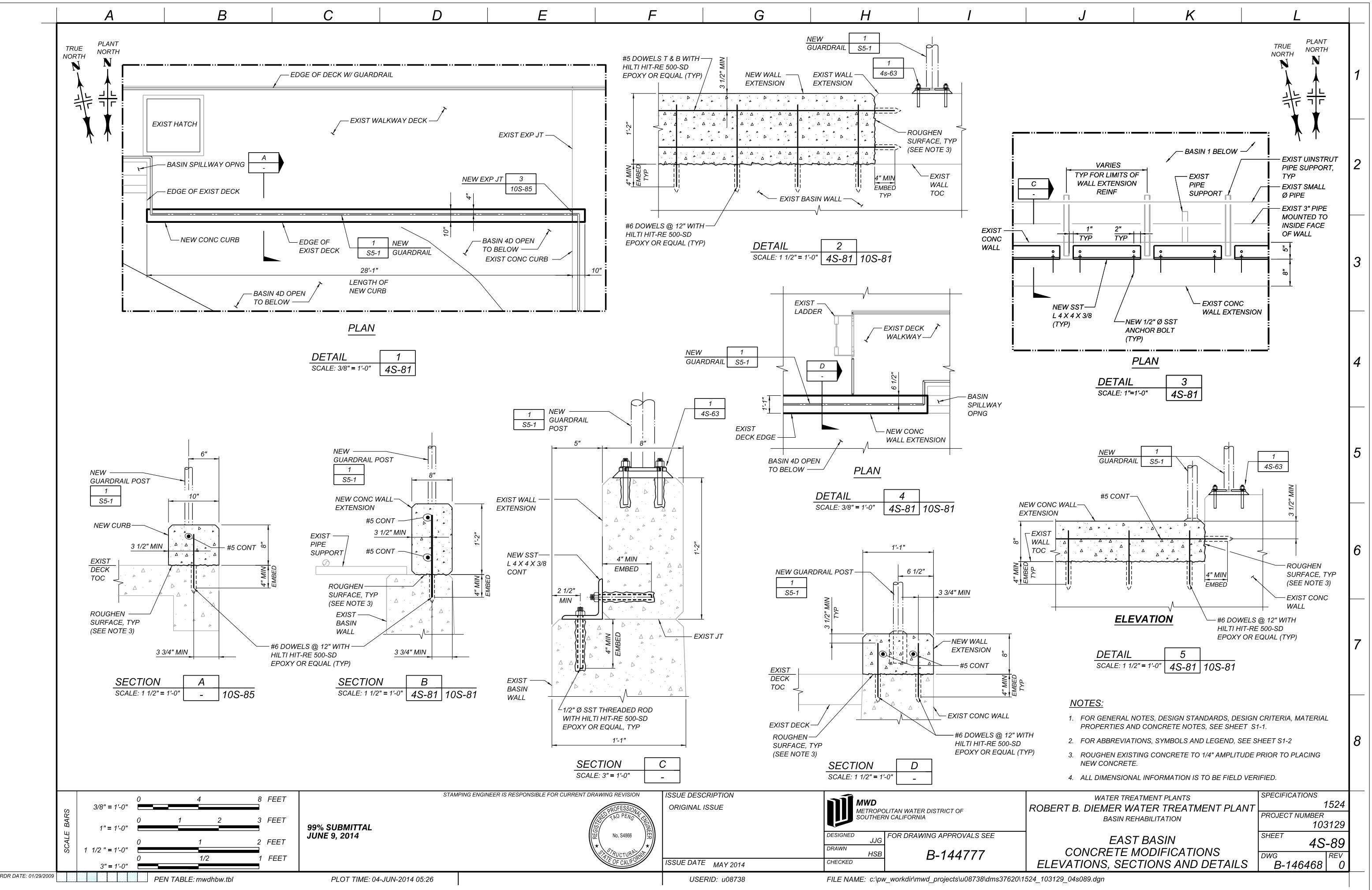
SCALE: 1 1/2" 1'-0"

D

NOTES:

1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. DEMOLISH ENOUGH CONCRETE TO REMOVE DAMAGED CONCRETE BACK TO CLEAN NON-RUSTED REBAR.
4. CLEAN REBAR BY ABRASION BLASTING. COAT REBAR PER SPEC SECTION 09900 PRIOR TO POURING CONCRETE.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-88 DWG B-146467
			TP DRAWN CLV CHECKED			
1 1/2" = 1'-0"	0 1 2 3 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 05:26	ISSUE DATE JUNE 2014	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s088.dgn

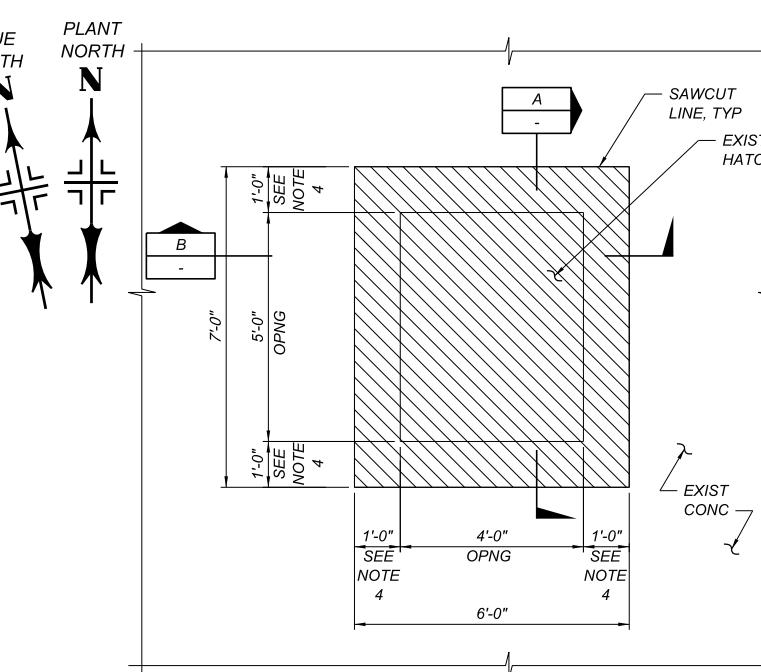




PLAN
SCALE: 1" = 30' 0"
1S-2

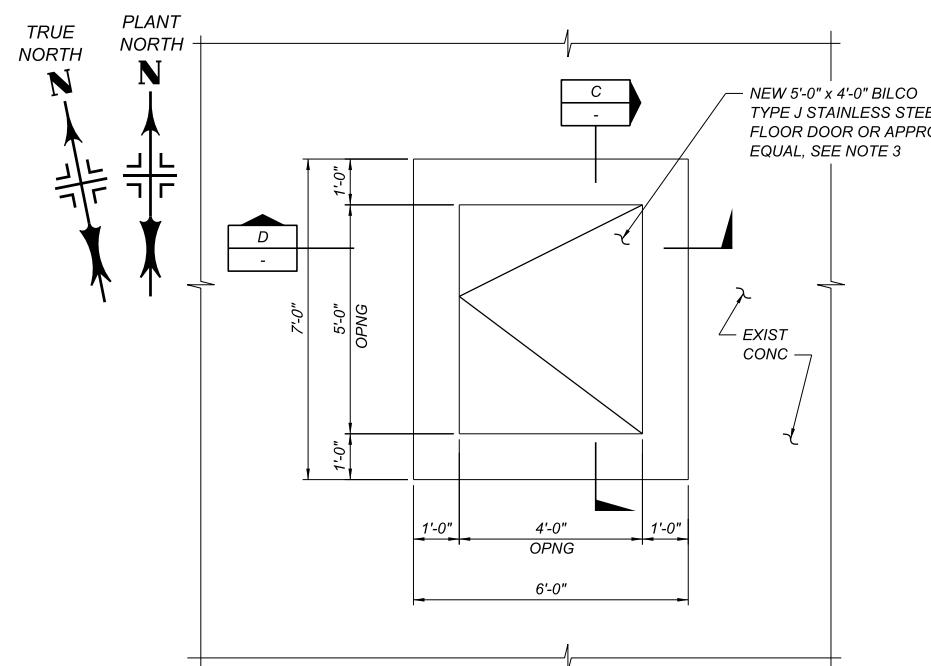
- NOTES:**
1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
 2. FOR ABBREVIATIONS, SYMBOLS AND LEGENDS, SEE SHEET S1-2.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-91 DWG B-146469 REV 0
1" = 30' 0" 0 30 60 90 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 05:27		ISSUE DATE JUNE 2014	FOR DRAWING APPROVALS SEE B-144777	



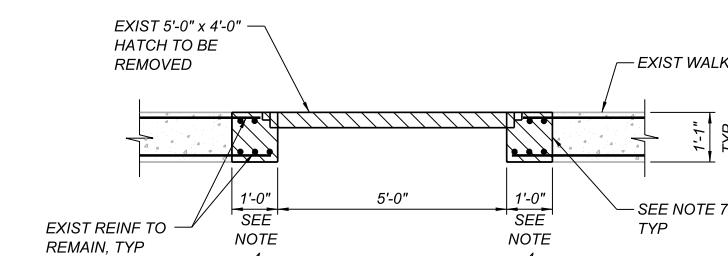
DEMOLITION

PLAN 1
SCALE: 1/2"=1'-0"
4S-91



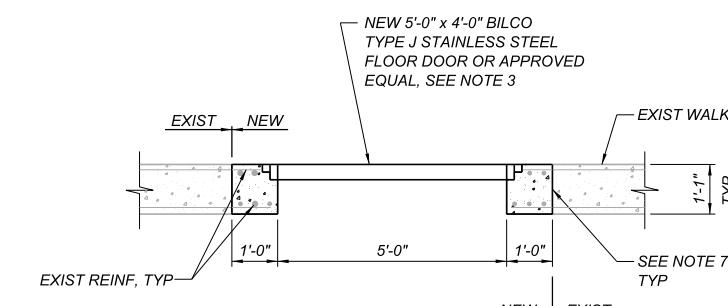
NEW

PLAN 2
SCALE: 1/2"=1'-0"
4S-91



DEMOLITION

SECTION A SEE NOTES 5 & 6
SCALE: 1/2"=1'-0"

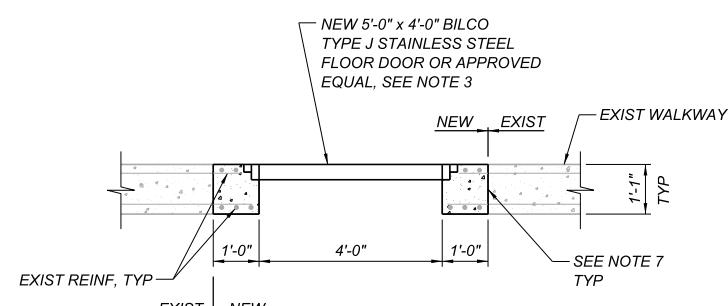


DEMOLITION

SECTION B SEE NOTES 5 & 6
SCALE: 1/2"=1'-0"

SECTION C SEE NOTES 5 & 6
SCALE: 1/2"=1'-0"

NEW



NEW

SECTION D SEE NOTES 5 & 6
SCALE: 1/2"=1'-0"

NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
- ORIENTATION OF NEW FLOOR DOOR TO MATCH EXISTING HATCH.
- CONCRETE TO BE DEMOLISHED SHALL BE REMOVED WITH CARE. EXISTING REINFORCING TO REMAIN IN PLACE.
- NOT ALL EXISTING REINFORCING SHOWN FOR CLARITY.
- EXISTING REINFORCING SHOWN IS CONCEPTUAL AND MAY NOT REFLECT ACTUAL PLACEMENT LOCATION.
- EXISTING CONCRETE SURFACE TO BE ROUGHENED TO 1/4" AMPLITUDE PRIOR TO PLACEMENT OF NEW CONCRETE.
- EXISTING REINFORCING STEEL SHOWING EVIDENCE OF CORROSION SHALL BE EXPOSED TO NON-CORRODED STEEL AND SANDBLASTED.
- FLOOR DOOR TO BE DESIGNED FOR HS-20 LOADING.

STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION



ISSUE DESCRIPTION
ORIGINAL ISSUE

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA

DESIGNED	TP	FOR DRAWING APPROVALS SEE
DRAWN	SJS	
CHECKED		B-14477

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
EAST BASINS
HATCH COVER REPLACEMENT
PLANS AND SECTIONS - SHEET 1

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
4S-92
DWG
B-146470
REV
0

SCALE BARS

1/2" = 1'-0" 0 2 4 6 FEET

99% SUBMITTAL
JUNE 9, 2014

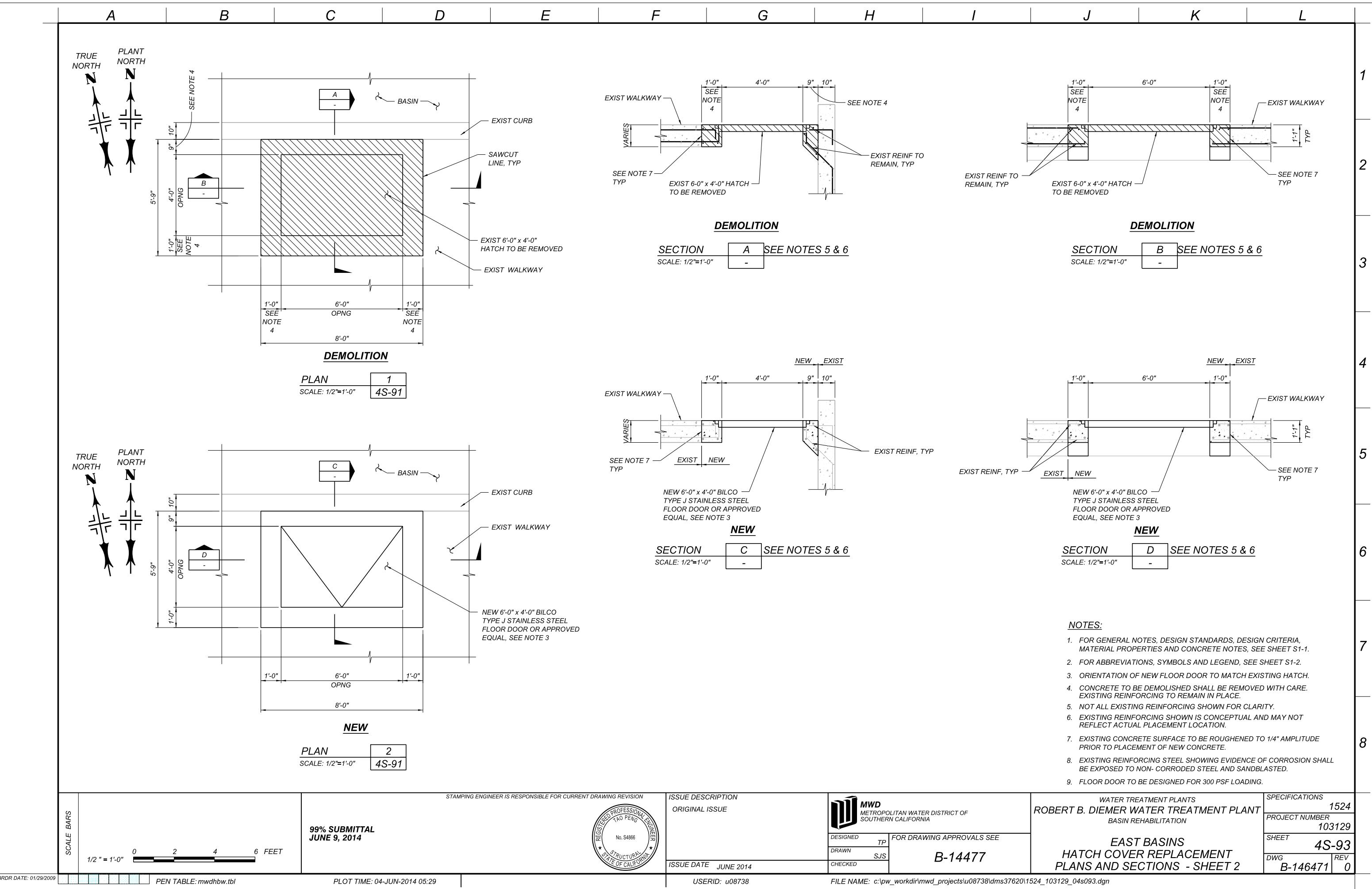
BRDR DATE: 01/29/2009

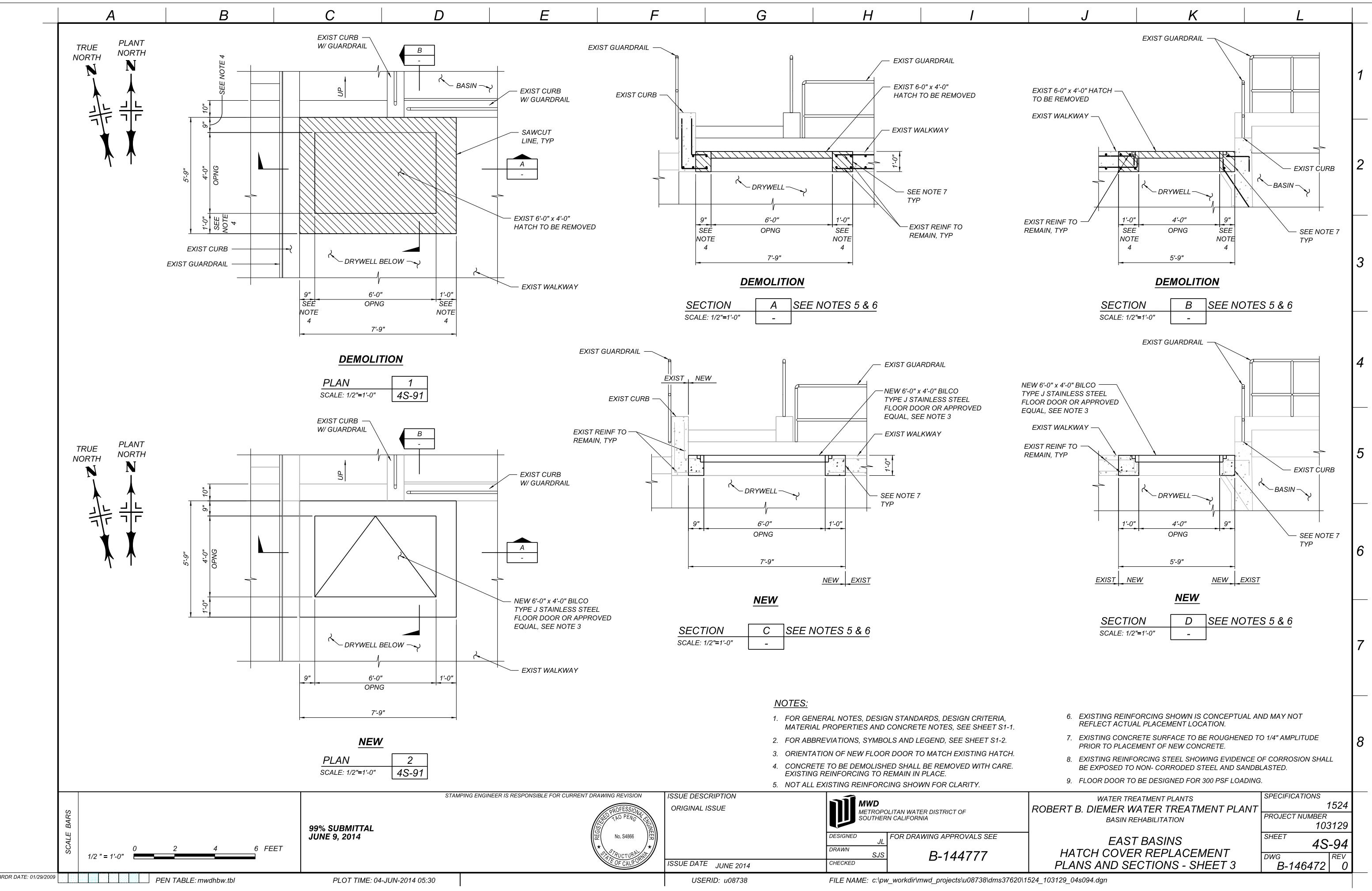
PEN TABLE: mwdhbw.tbl

PLOT TIME: 04-JUN-2014 05:29

USERID: u08738

FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s092.dgn

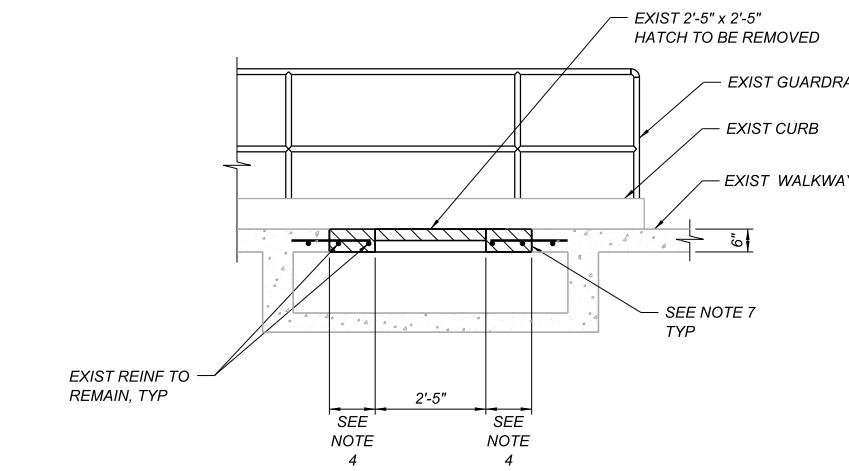
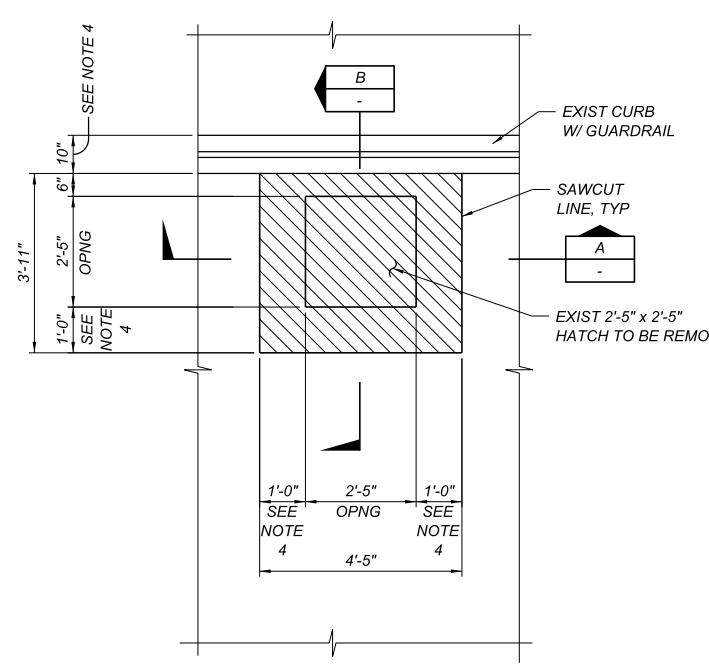




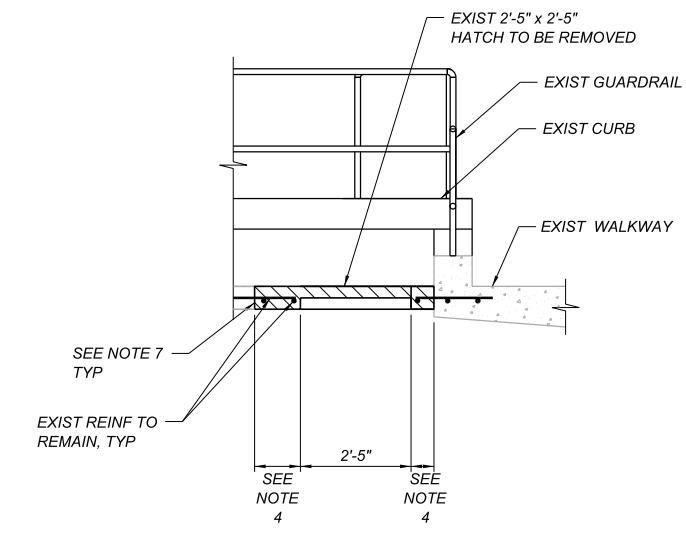
TRUE NORTH
N



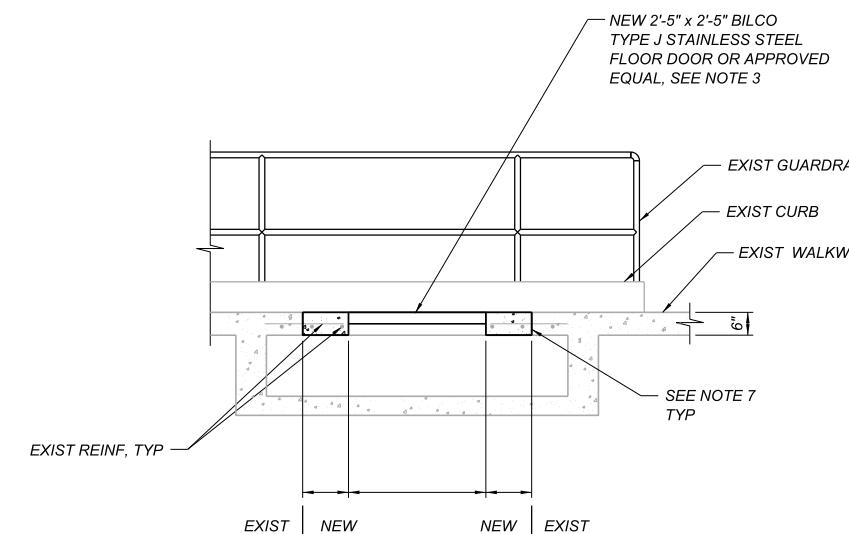
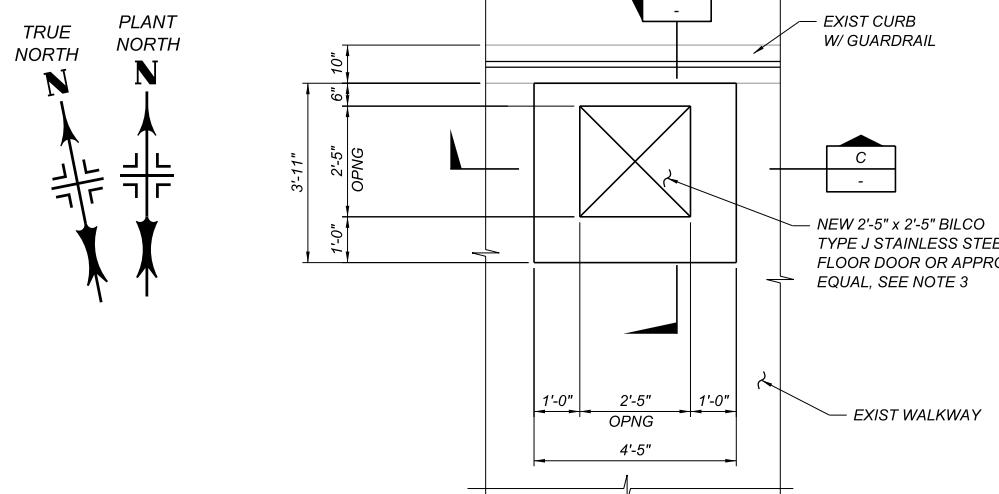
PLANT NORTH
N



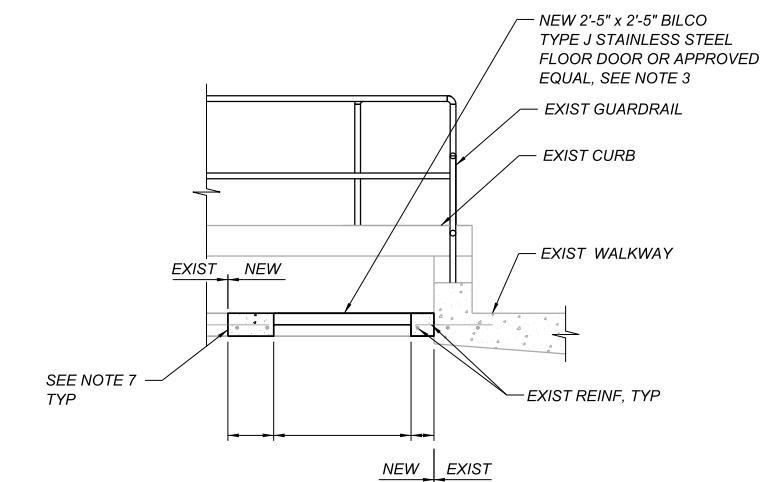
DEMOLITION



DEMOLITION



NEW



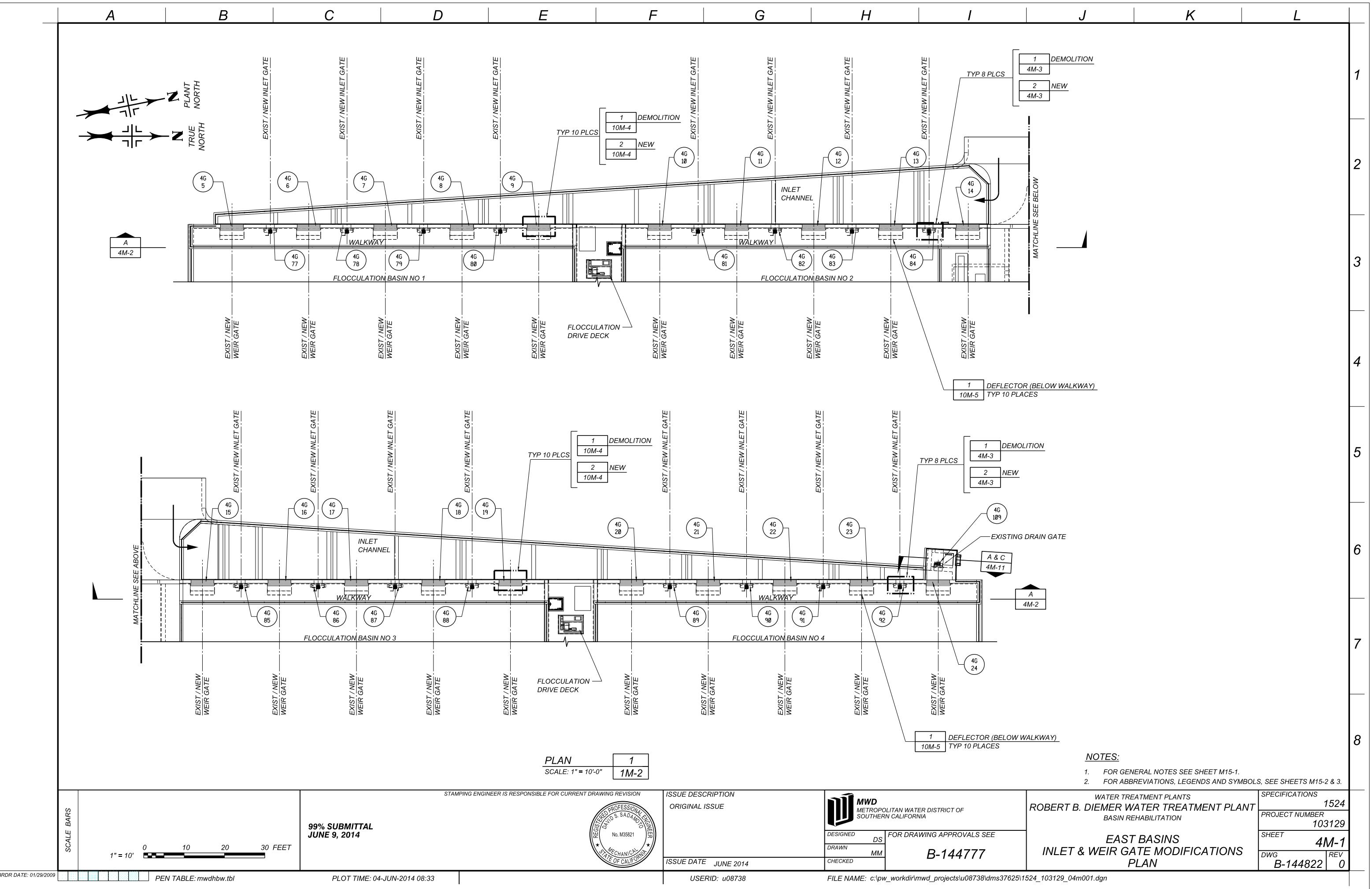
NEW

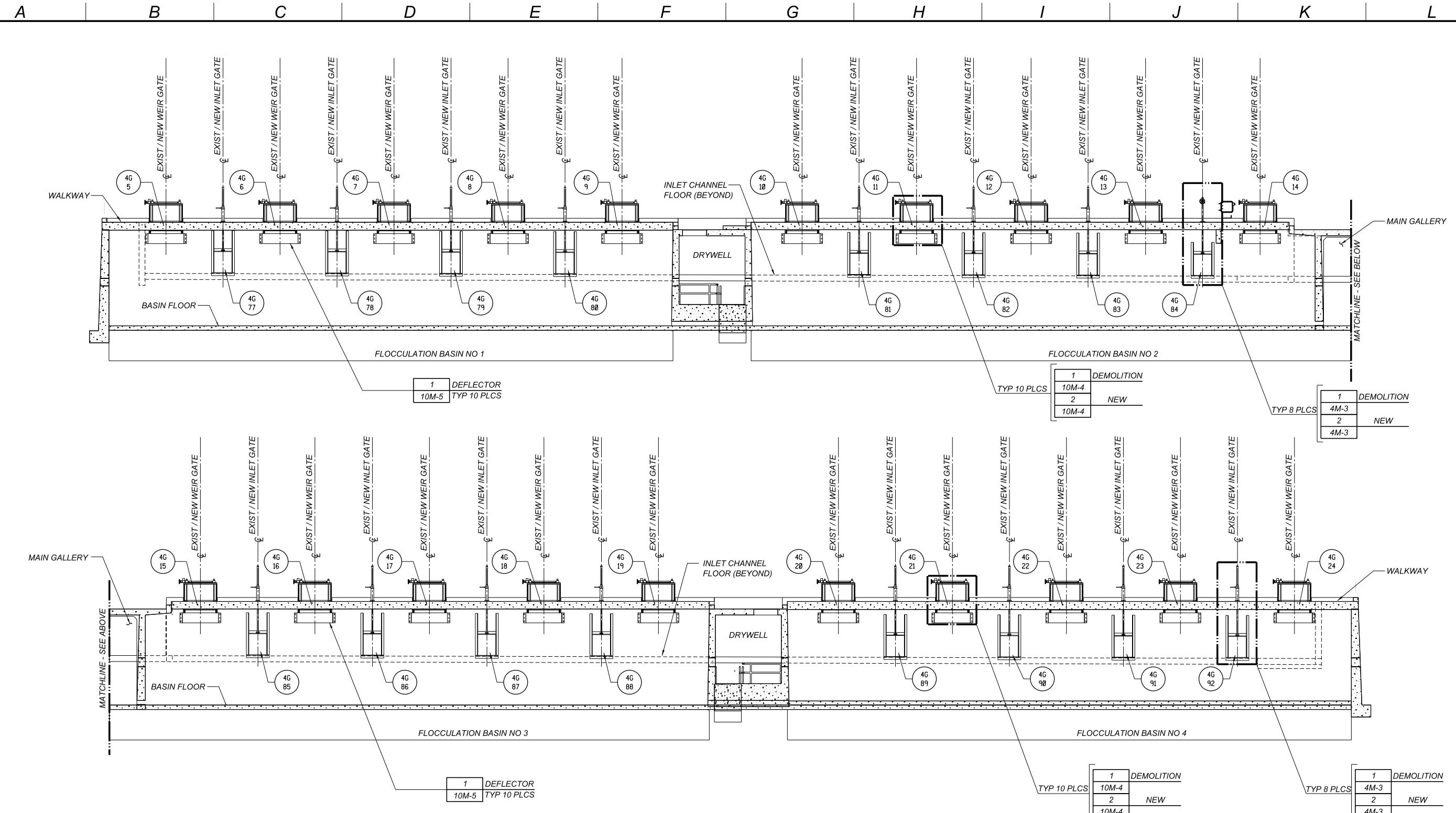
NEW

PLAN 2
SCALE: 1/2"=1'-0"
4S-91

- NOTES:**
- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
 - FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
 - ORIENTATION OF NEW FLOOR DOOR TO MATCH EXISTING HATCH.
 - CONCRETE TO BE DEMOLISHED SHALL BE REMOVED WITH CARE. EXISTING REINFORCING TO REMAIN IN PLACE.
 - NOT ALL EXISTING REINFORCING SHOWN FOR CLARITY.
 - EXISTING REINFORCING SHOWN IS CONCEPTUAL AND MAY NOT REFLECT ACTUAL PLACEMENT LOCATION.
 - EXISTING CONCRETE SURFACE TO BE ROUGHENED TO 1/4" AMPLITUDE PRIOR TO PLACEMENT OF NEW CONCRETE.
 - EXISTING REINFORCING STEEL SHOWING EVIDENCE OF CORROSION SHALL BE EXPOSED TO NON-CORRODED STEEL AND SANDBLASTED.
 - FLOOR DOOR TO BE DESIGNED FOR 300 PSF LOADING.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4S-95 DWG B-146473 REV 0
1/2" = 1'-0" 0 2 4 6 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 05:30		ISSUE DATE JUNE 2014	DESIGNED JL DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_04s095.dgn





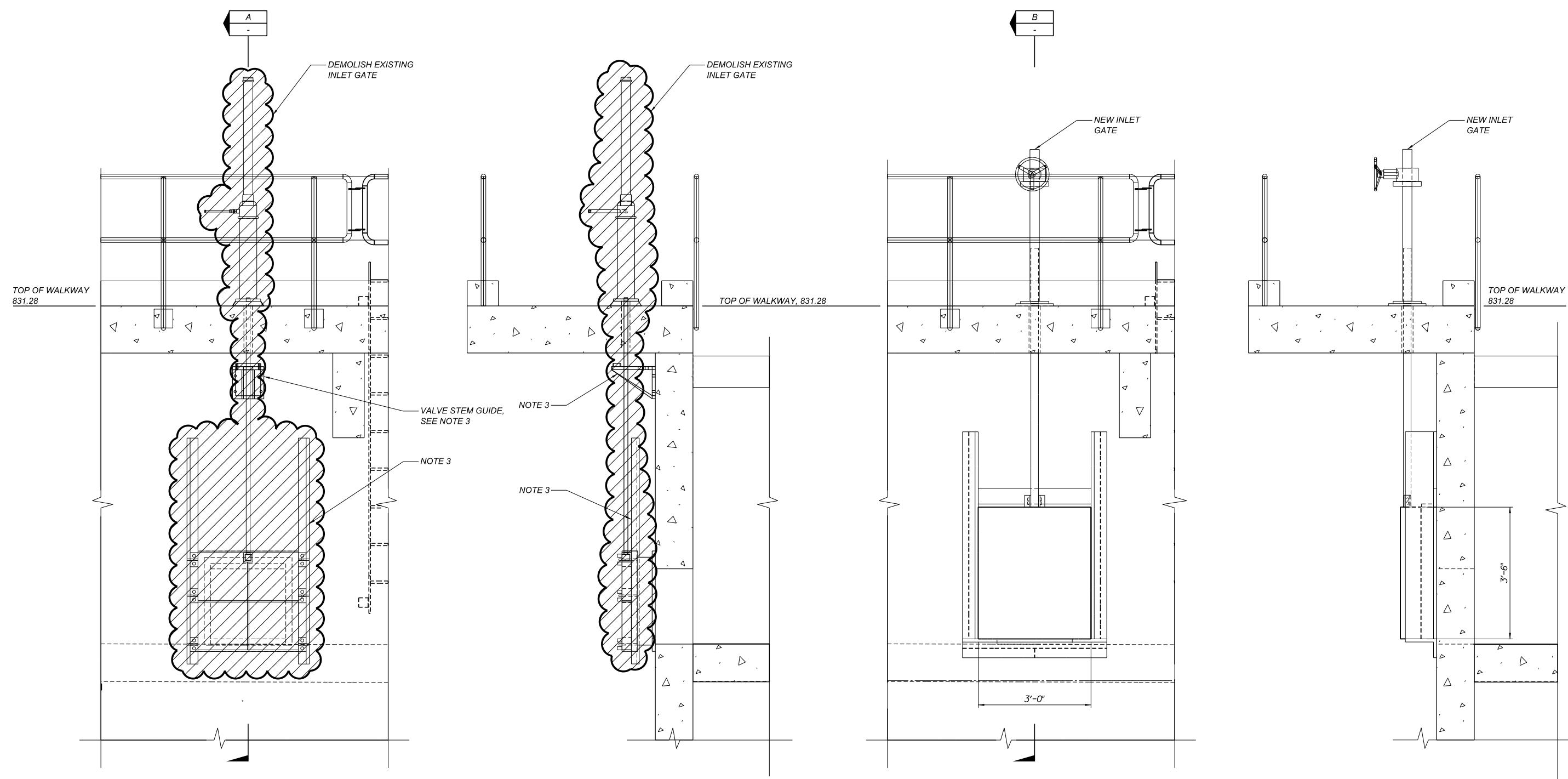
LOOKING WEST

SECTION **A**
SCALE: 1/4" = 1'-0"
4M-1 NOTE 3

- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET M15-1.
 2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
 3. GUARDRAIL NOT SHOWN FOR CLARITY.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-2 DWG B-144823 REV 0
1/4" = 1'-0" 0 4 8 12 FEET	PEN TABLE: mwdhbw.tbl BRDR DATE: 01/29/2009 PLOT TIME: 04-JUN-2014 08:34	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DATE JUNE 2014	DESIGNED DS DRAWN MM CHECKED B-144777	EAST BASINS INLET & WEIR GATE MODIFICATIONS SECTION

A B C D E F G H I J K L



DETAIL
SCALE: $\frac{3}{4}'' = 1'-0''$ 1 4M-1 4M-2

SECTION
SCALE: $\frac{3}{4}'' = 1'-0''$ A -

DETAIL
SCALE: $\frac{3}{4}'' = 1'-0''$ 2 4M-1 4M-2

SECTION
SCALE: $\frac{3}{4}'' = 1'-0''$ B -

LEGEND:

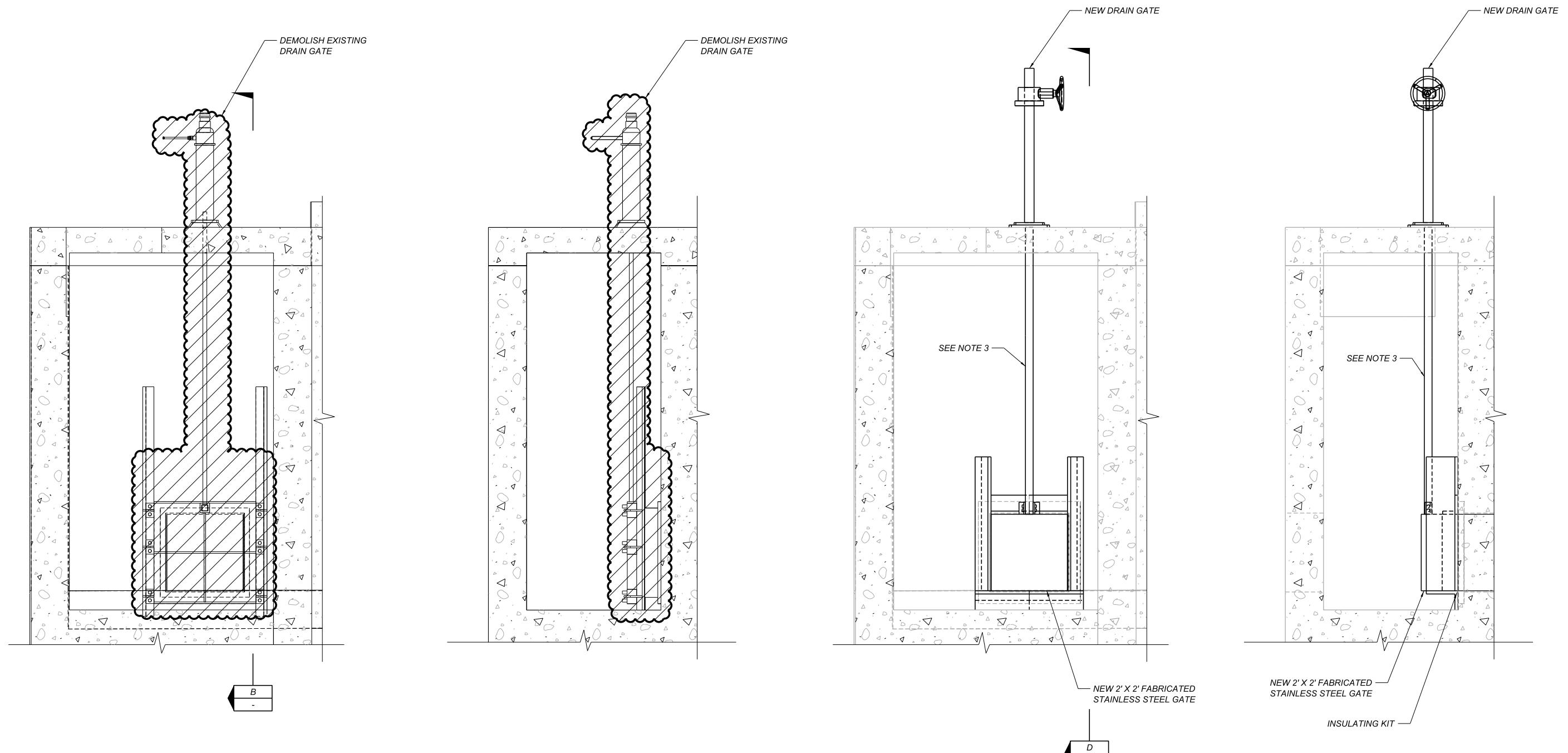
= TO BE DEMOLISHED

NOTES:

1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. FOR DEMOLITION OF EXISTING VALVE STEM GUIDE AND VALVE MOUNTING HARDWARE, SEE STRUCTURAL DRAWINGS.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-3 DWG B-144824 REV 0
		3/4 " = 1'-0"	0 2 4 FEET	ISSUE DATE JUNE 2014	DESIGNED DS DRAWN MM CHECKED	FOR DRAWING APPROVALS SEE B-144777	

A B C D E F G H I J K L



DEMOLITION

SECTION A
SCALE: 3/4" = 1'-0"
4M-1

DEMOLITION

SECTION B
SCALE: 3/4" = 1'-0"
-

NEW

SECTION C
SCALE: 3/4" = 1'-0"
4M-1

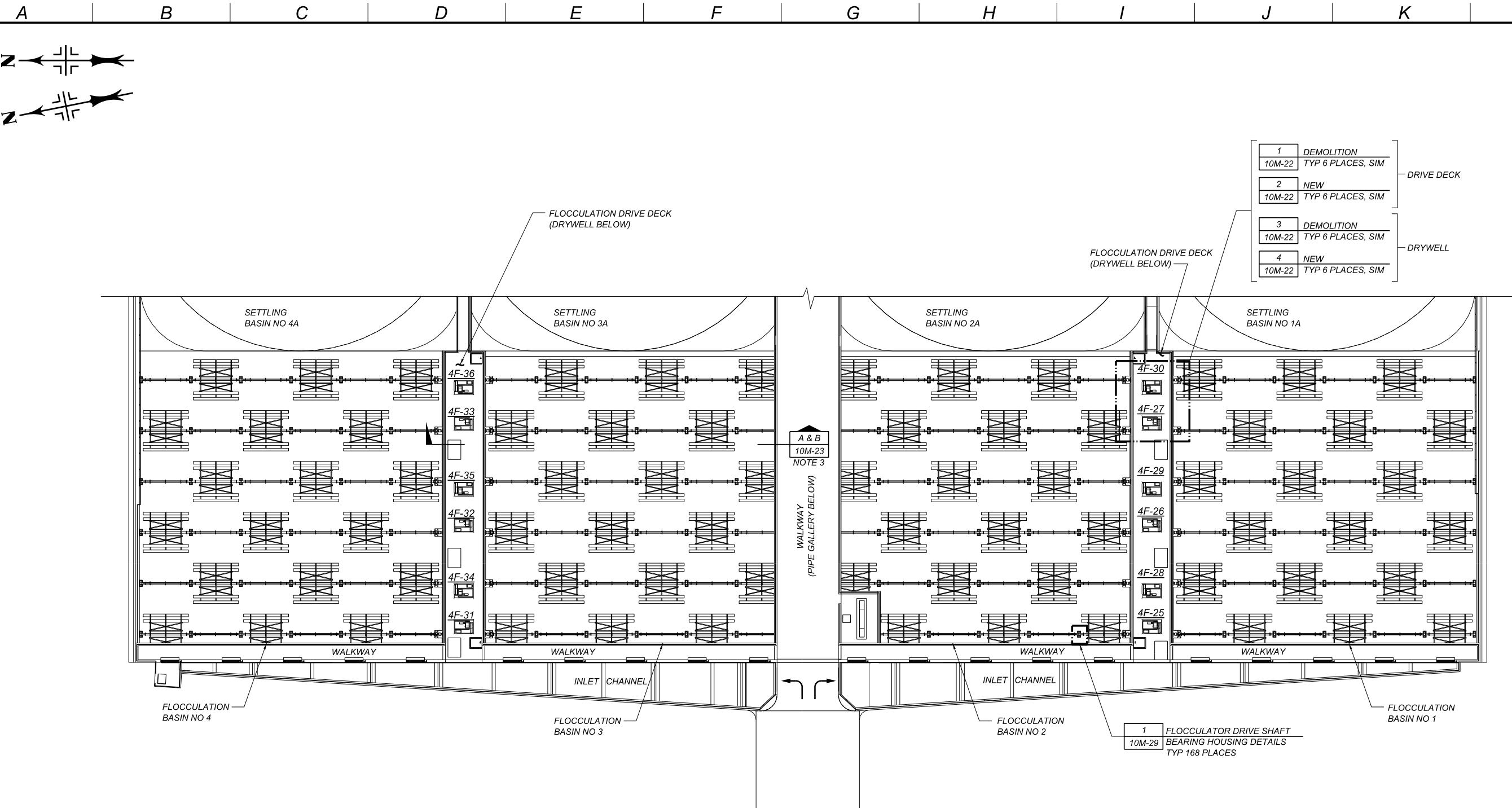
NEW

SECTION D
SCALE: 3/4" = 1'-0"
-

NOTES:

1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. VALVE STEM GUIDES MAY BE REQUIRED PER VALVE MANUFACTURER.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS			SPECIFICATIONS
			ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	
3/4" = 1'-0"	99% SUBMITTAL JUNE 9, 2014	No. M35621 DAVID S. SADAMOTO REGISTERED PROFESSIONAL ENGINEER MECHANICAL STATE OF CALIFORNIA	DESIGNED DS DRAWN MM CHECKED	FOR DRAWING APPROVALS SEE B-144777	EAST BASINS INLET CHANNEL DRAIN GATE MODIFICATION SECTIONS	1524 PROJECT NUMBER 103129 SHEET 4M-11 DWG B-144825 REV 0
0 2 4 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 08:36	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_04m011.dgn		
BRDR DATE: 01/29/2009						

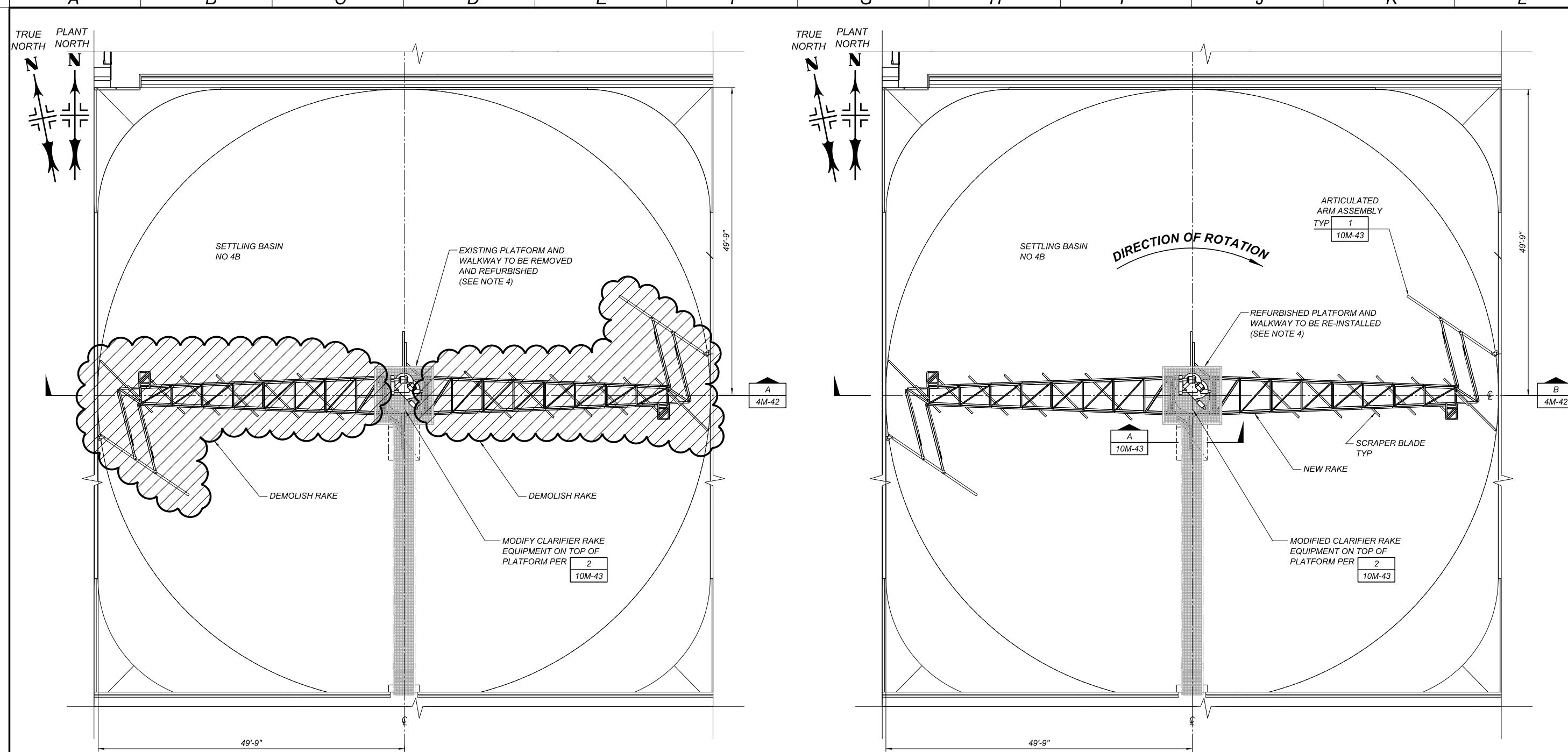


PLAN 1
SCALE: 1/16" = 1'-0"
1M-2 4S-11, 4S-12

NOTES:

1. FOR GENERAL NOTES SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
3. TYPICAL 24 PLACES.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-21 DWG B-144826 REV 0
1/16" = 1'-0" 0 16 32 48 FEET			ISSUE DATE JUNE 2014	DESIGNED DS DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777	



DEMOLITION

PLAN 1
SCALE: 1/8" = 1'-0"
1M-2

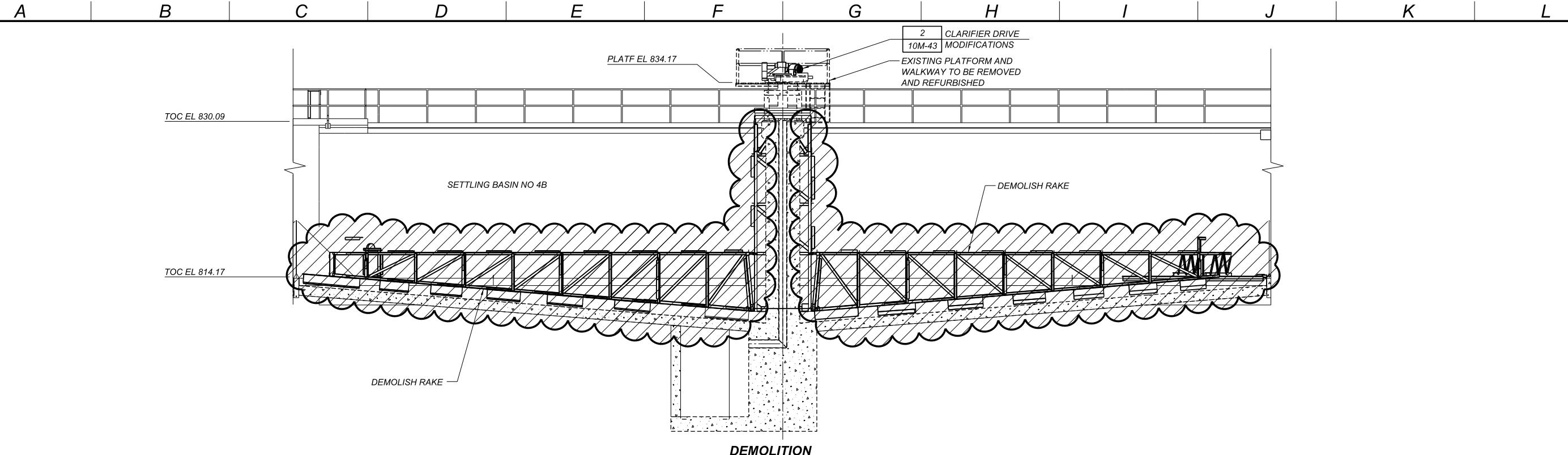
NEW

PLAN 2
SCALE: 1/8" = 1'-0"
1M-2

- NOTES:
1. FOR GENERAL NOTES, SEE SHEET M15-1.
 2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEET M15-2 & M15-3.
 3. FOR EXISTING CLARIFIER EQUIPMENT, SEE DORR-OLIVER REFERENCE DRAWINGS 41540 AND REFERENCE DRAWING B-20859.
 4. CONTRACTOR TO COORDINATE WITH STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR MODIFICATIONS TO THE CLARIFIER PLATFORM AND WALKWAY REQUIRED PER THIS PROJECT.

LEGEND:
= TO BE DEMOLISHED

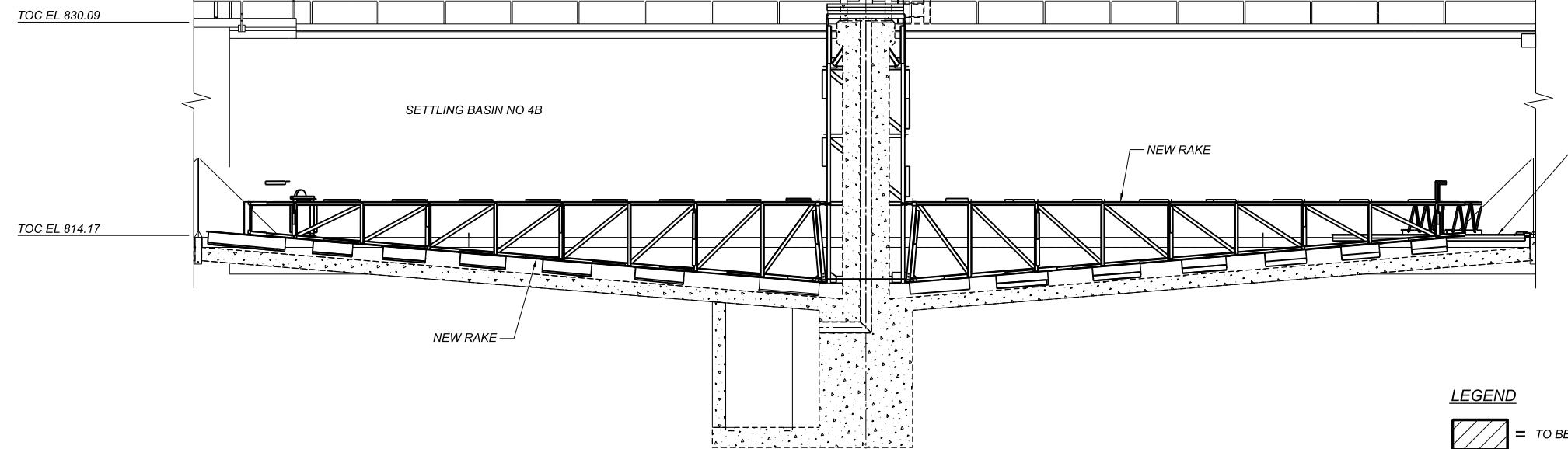
SCALE/BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-41 DWG B-144827 REV 0
1/8" = 1'-0" 0 8 16 24 FEET			ISSUE DATE JUNE 2014 FOR DRAWING APPROVALS SEE B-144777 DESIGNED DS DRAWN MM CHECKED		



DEMOLITION

SECTION A
SCALE: 3/16" = 1'-0" 4M-41

MODIFIED CLARIFIER RAKE EQUIPMENT PER 2 4M-13
PLATF EL 834.17 2 CLARIFIER DRIVE 10M-43 MODIFICATIONS
REFURBISHED PLATFORM AND WALKWAY TO BE RE-INSTALLED



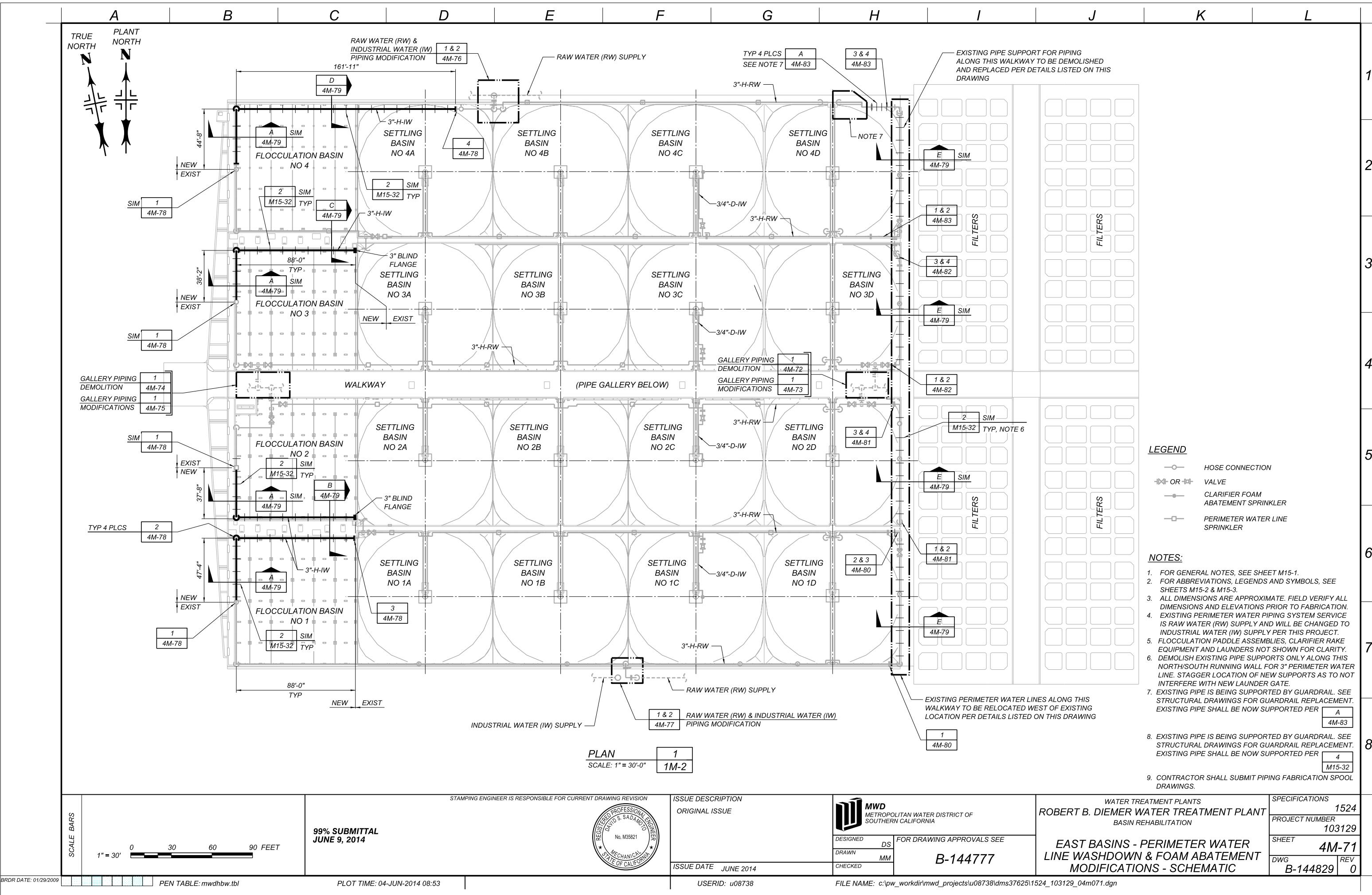
LEGEND

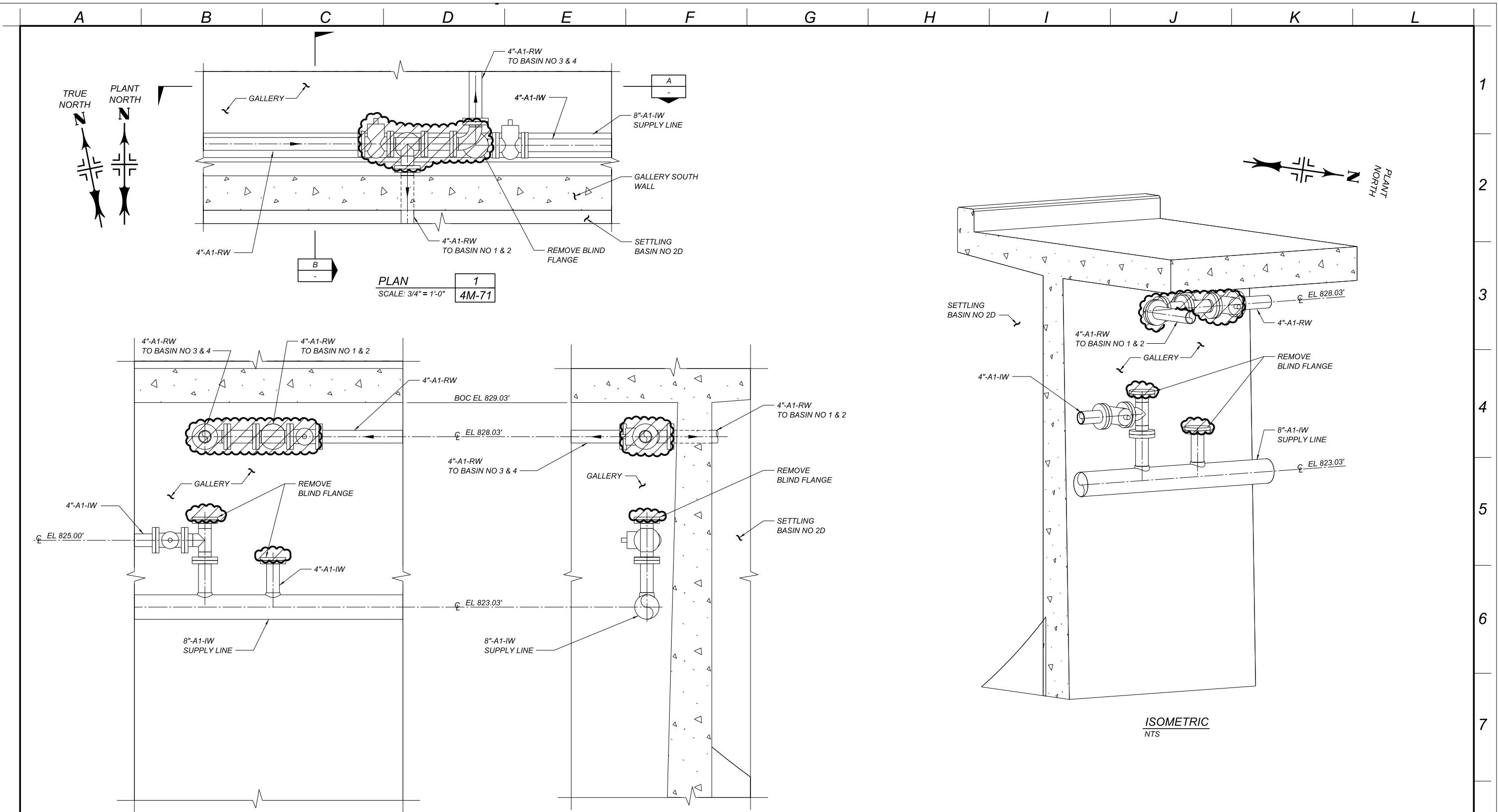
= TO BE DEMOLISHED

NOTES:

1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. FOR EXISTING CLARIFIER EQUIPMENT, SEE DORR-OLIVER REFERENCE DRAWINGS 41540 AND REFERENCE DRAWING B-20859.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-42 DWG B-144828 REV 0									
3/16" = 1'-0" 0 8 16 FEET	<p>REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA</p>	<p>ISSUE DATE JUNE 2014</p> <table border="1"> <tr> <td>DESIGNED</td> <td>DS</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN</td> <td>MM</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> <td>B-144777</td> </tr> </table>	DESIGNED	DS	FOR DRAWING APPROVALS SEE	DRAWN	MM		CHECKED		B-144777			
DESIGNED	DS	FOR DRAWING APPROVALS SEE												
DRAWN	MM													
CHECKED		B-144777												





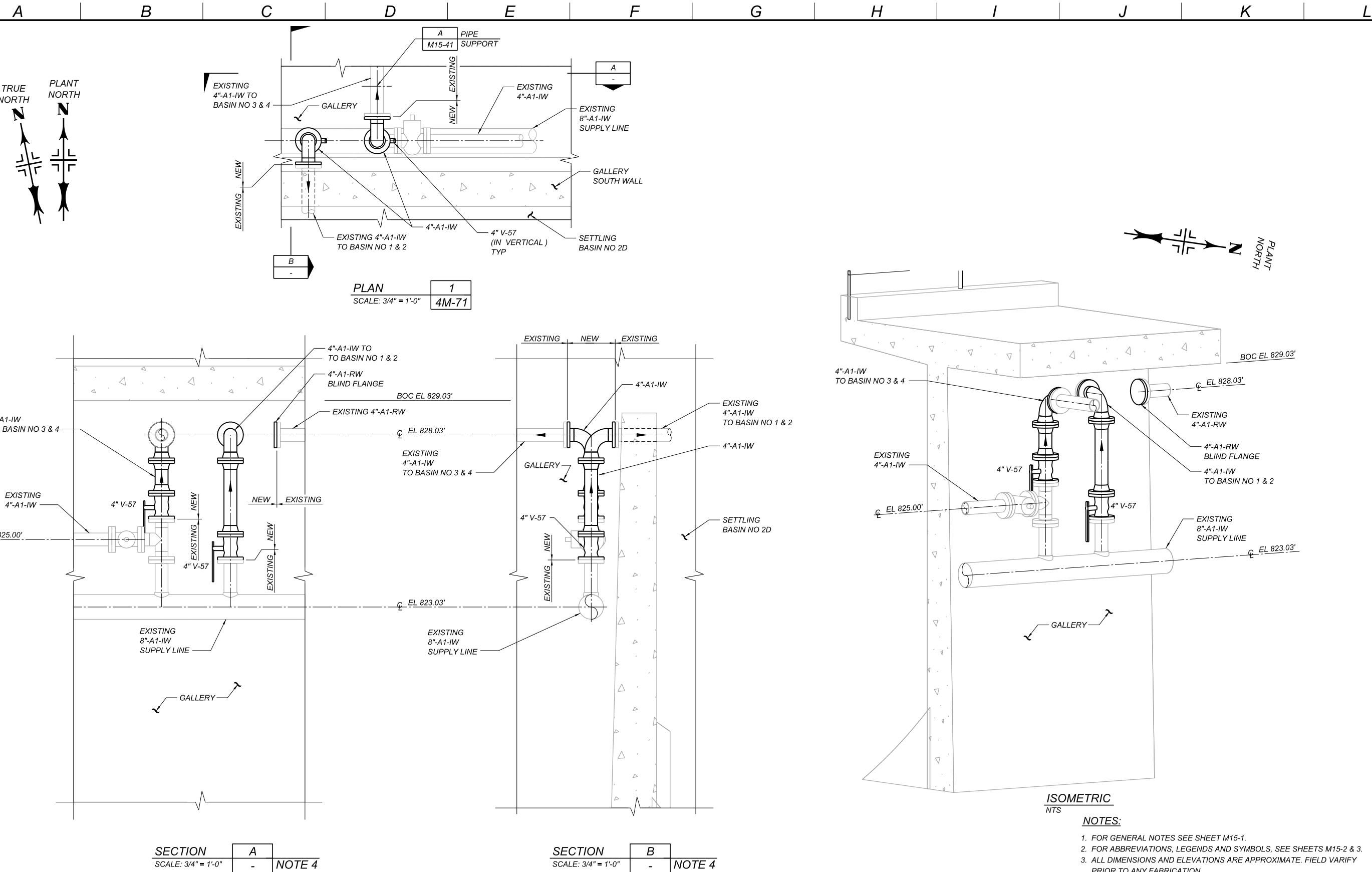
LEGEND

= TO BE DEMOLISHED

NOTES:

1. FOR GENERAL NOTES SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
3. ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE. FIELD VERIFY PRIOR TO ANY FABRICATION.
4. APPROXIMATE GALLERY FLOOR ELEVATION 813.28' (REF).

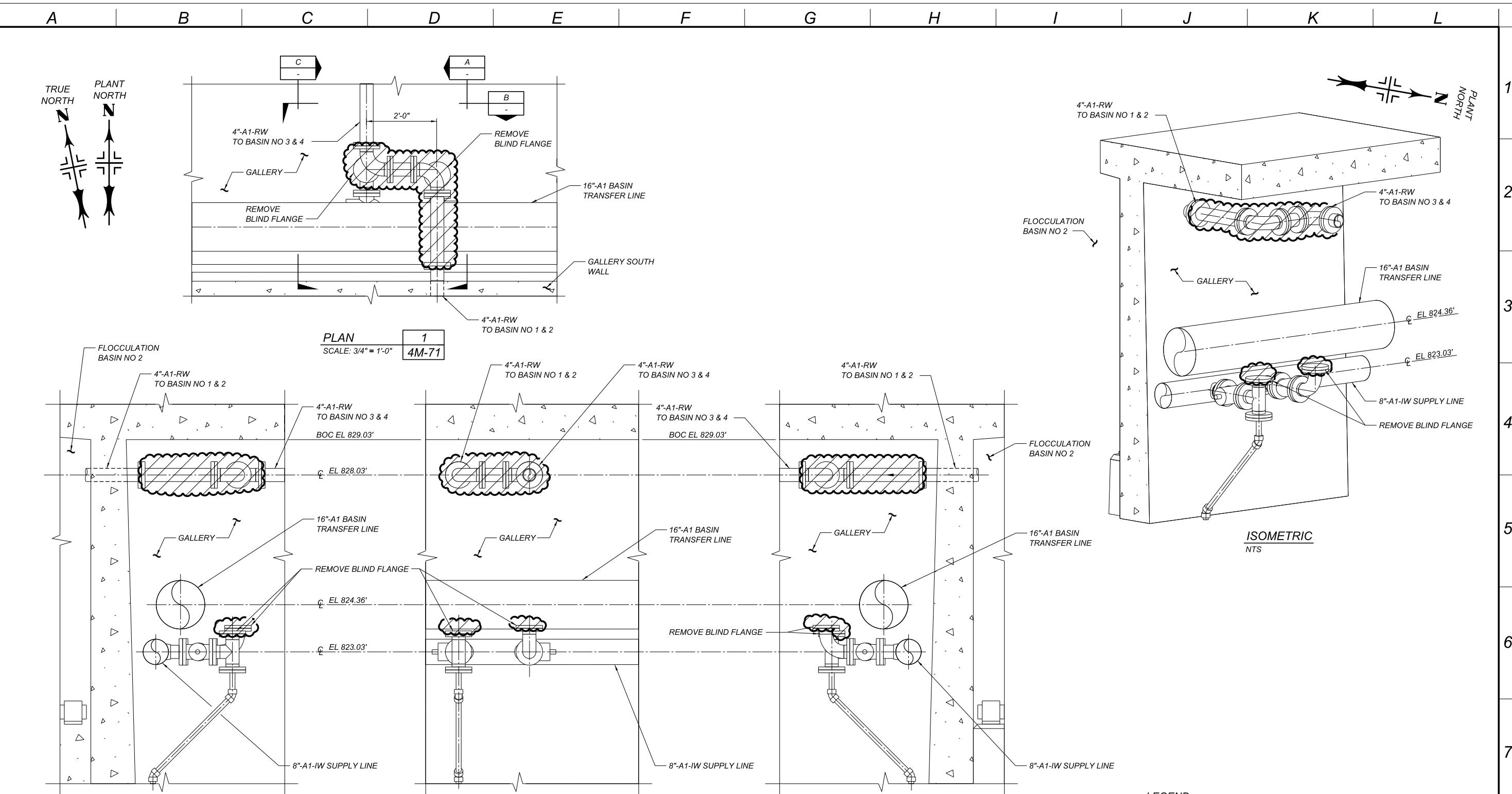
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-72 DWG B-144830 REV 0
3/4" = 1'-0" 0 2 4 FEET		REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	DESIGNED DS DRAWN MM CHECKED	FOR DRAWING APPROVALS SEE B-144777	EAST BASINS - PERIMETER WATER LINE WASHDOWN & FOAM ABATEMENT GALLERY EAST END DEMO DETAILS



NOTES:

1. FOR GENERAL NOTES SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
3. ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE. FIELD VERIFY PRIOR TO ANY FABRICATION.
4. APPROXIMATE GALLERY FLOOR ELEVATION 813.28' (REF).

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-73 DWG B-144831 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 08:55	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	FOR DRAWING APPROVALS SEE B-144777 ISSUE DATE JUNE 2014	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_04m073.dgn



SECTION
SCALE: 3/4" = 1'-0"
A - NOTE 4

SECTION
SCALE: 3/4" = 1'-0"
B - NOTE 4

SECTION
SCALE: 3/4" = 1'-0"
C - NOTE 4

LEGEND
= TO BE DEMOLISHED

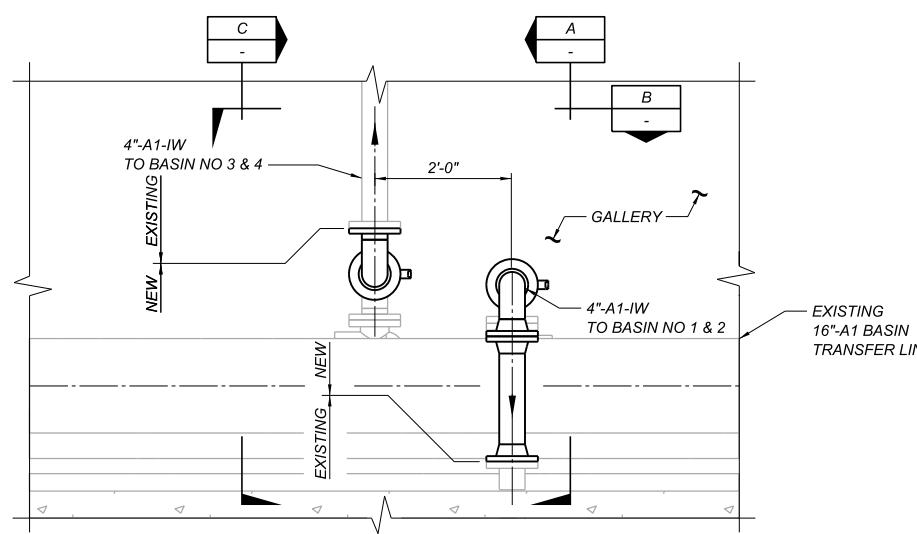
NOTES:

1. FOR GENERAL NOTES SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
3. ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE. FIELD VERIFY PRIOR TO ANY FABRICATION.
4. APPROXIMATE GALLERY FLOOR ELEVATION 813.28' (REF).

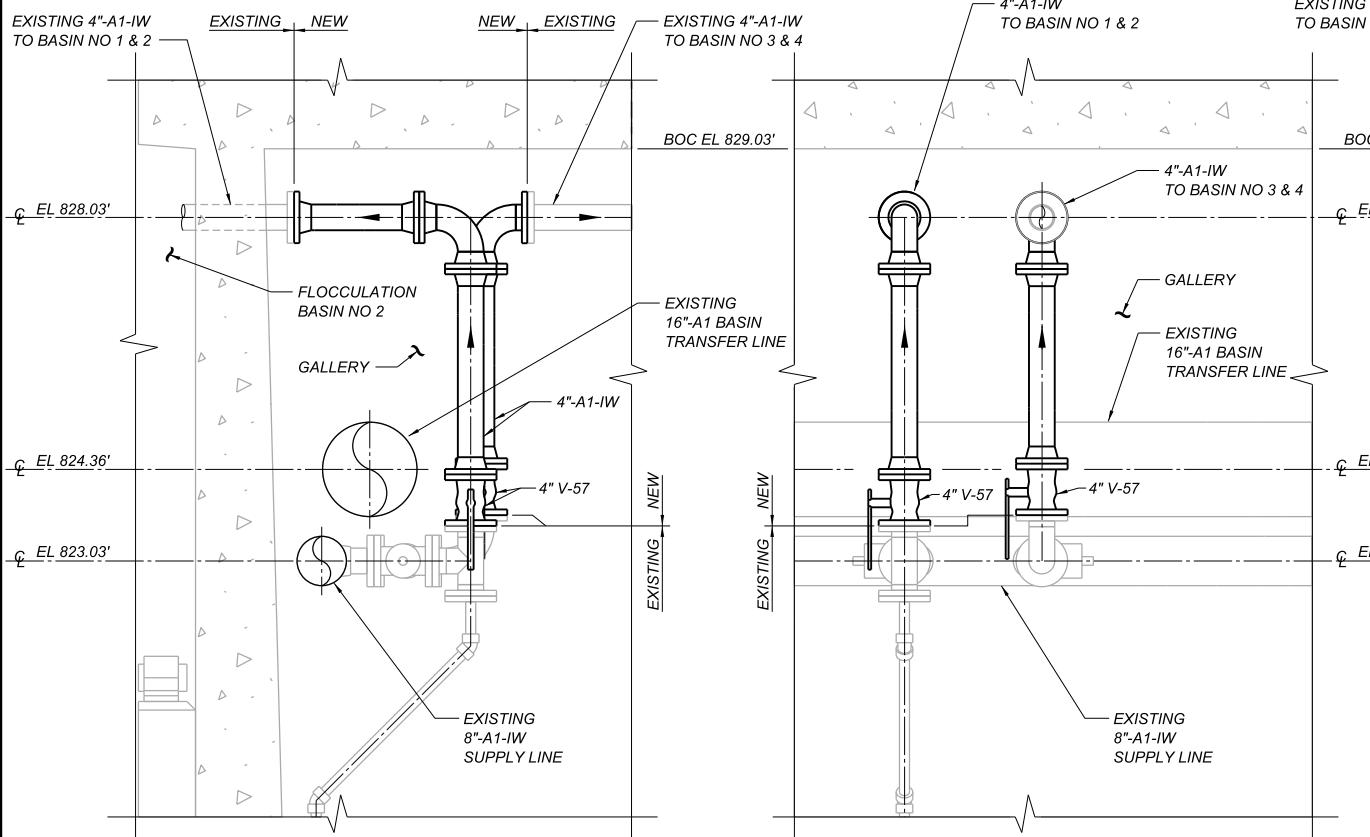
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS			SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-74 DWG B-144832 REV 0
			DESIGNED DS	DRAWN MM	FOR DRAWING APPROVALS SEE B-144777	
3/4" = 1'-0"	0 2 4 FEET	ISSUE DATE JUNE 2014	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	CHECKED	PEN TABLE: mwdhbw.tbl	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_04m074.dgn

TRUE NORTH
N

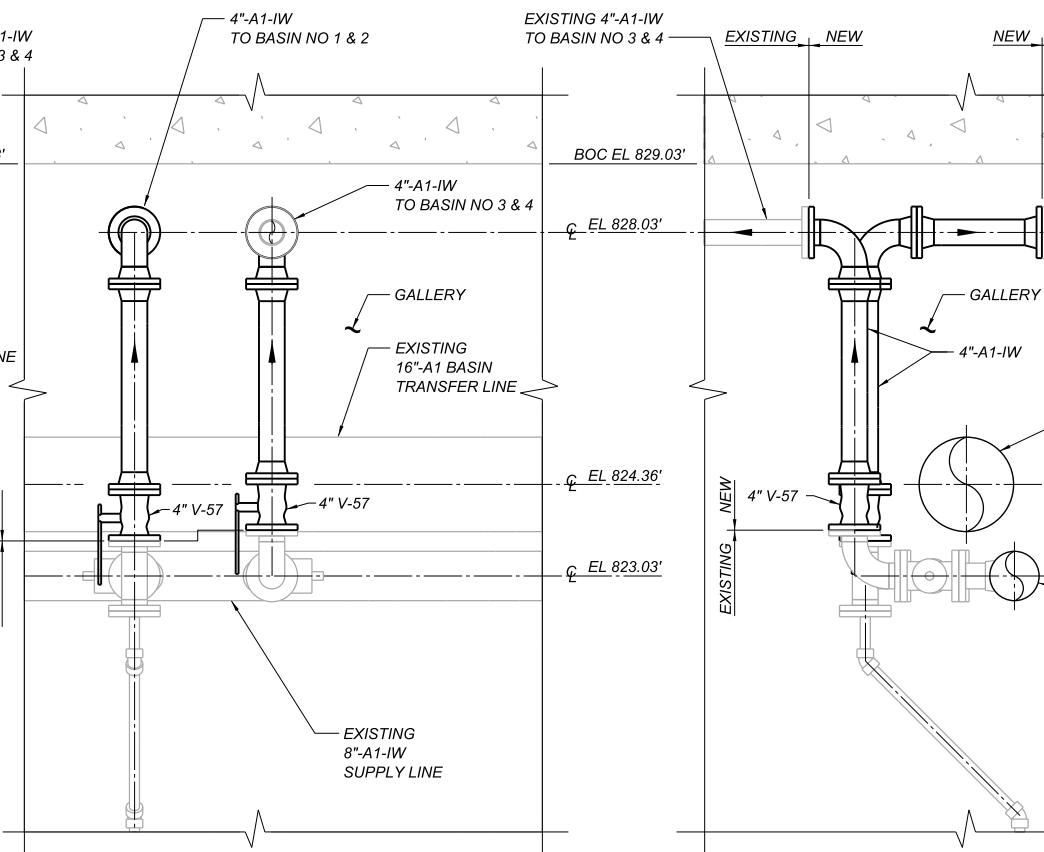
PLANT
NORTH



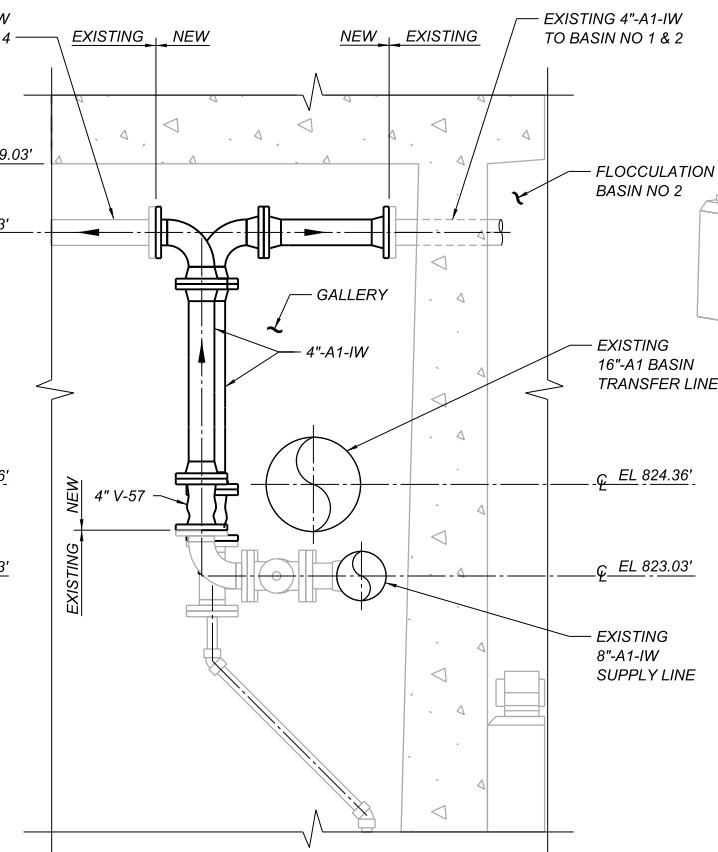
PLAN
SCALE: 3/4" = 1'-0"
1
4M-71



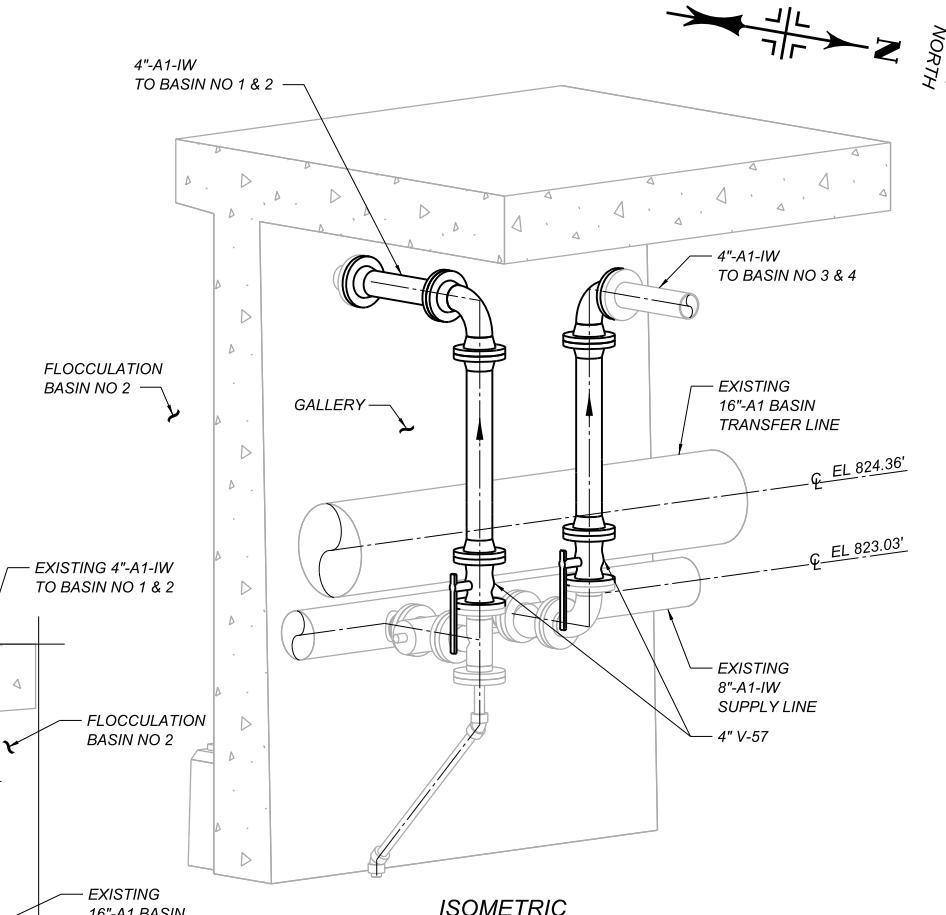
SECTION
SCALE: 3/4" = 1'-0"
A
NOTE 4



SECTION
SCALE: 3/4" = 1'-0"
B
NOTE 4



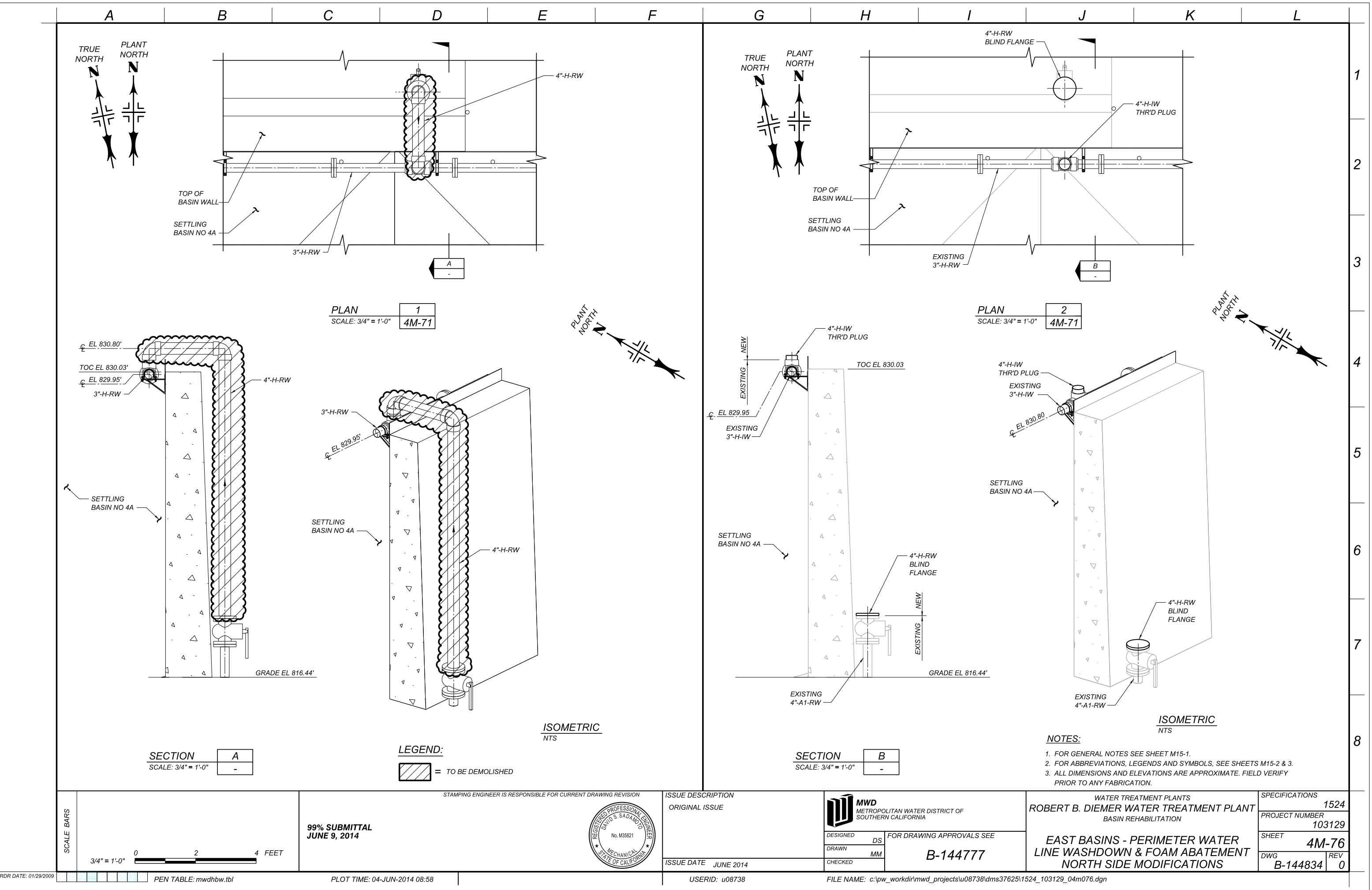
SECTION
SCALE: 3/4" = 1'-0"
C
NOTE 4

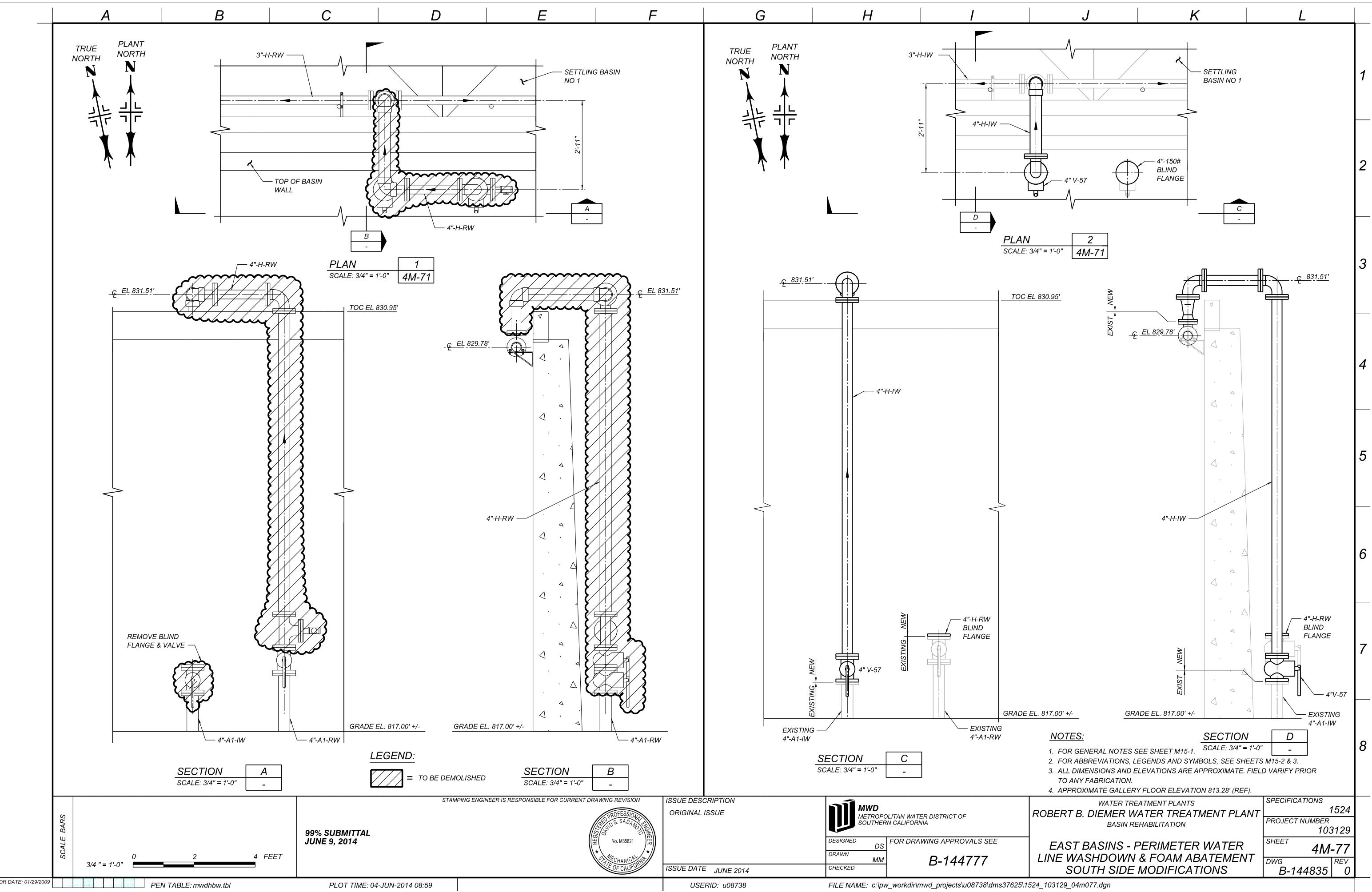


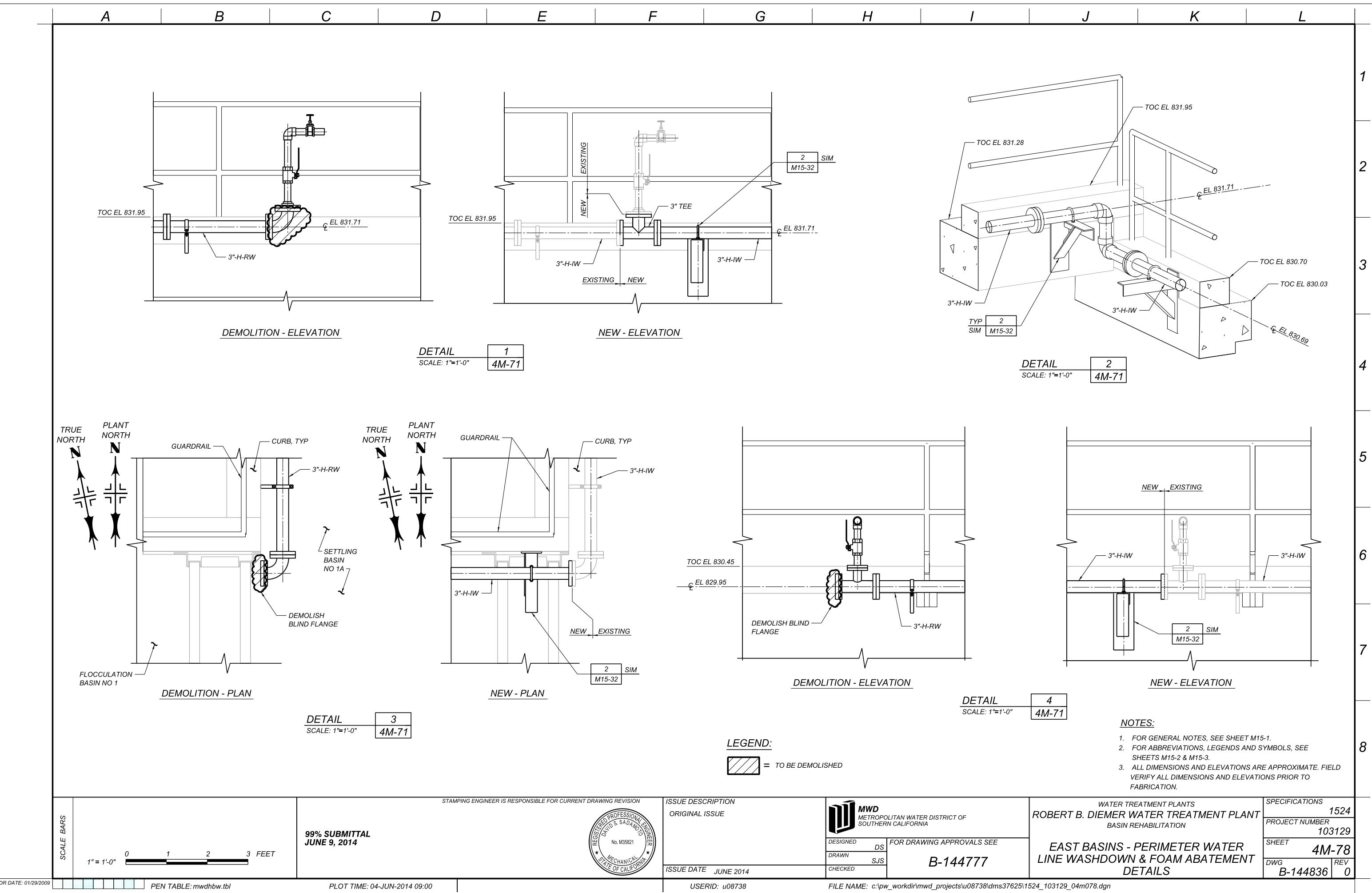
NOTES:

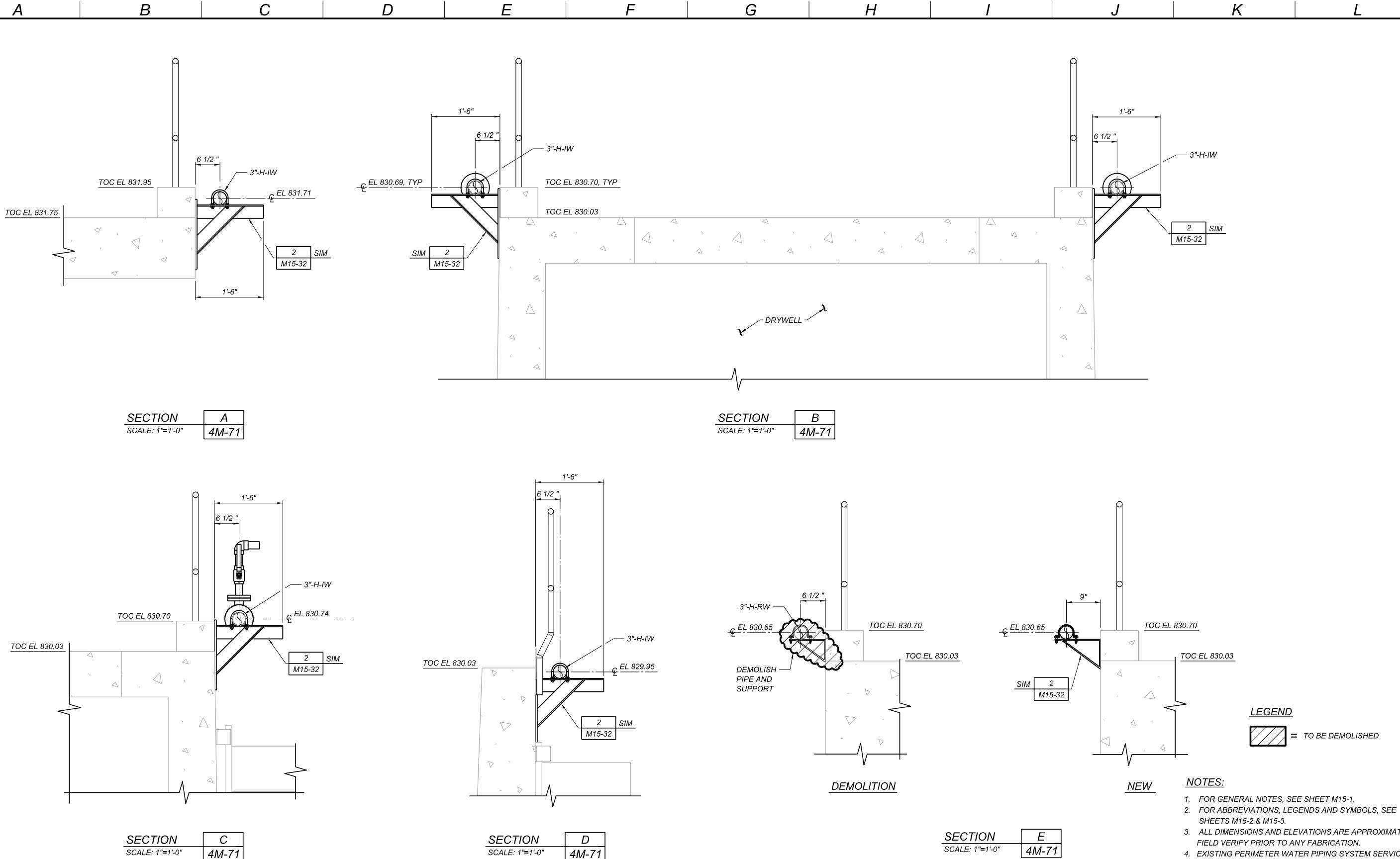
1. FOR GENERAL NOTES SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
3. ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE. FIELD VERIFY PRIOR TO ANY FABRICATION.
4. APPROXIMATE GALLERY FLOOR ELEVATION 813.28' (REF).

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-75 DWG B-144833 REV 0
3/4" = 1'-0" 0 2 4 FEET		REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	DESIGNED DRAWN CHECKED FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_04m075.dgn	



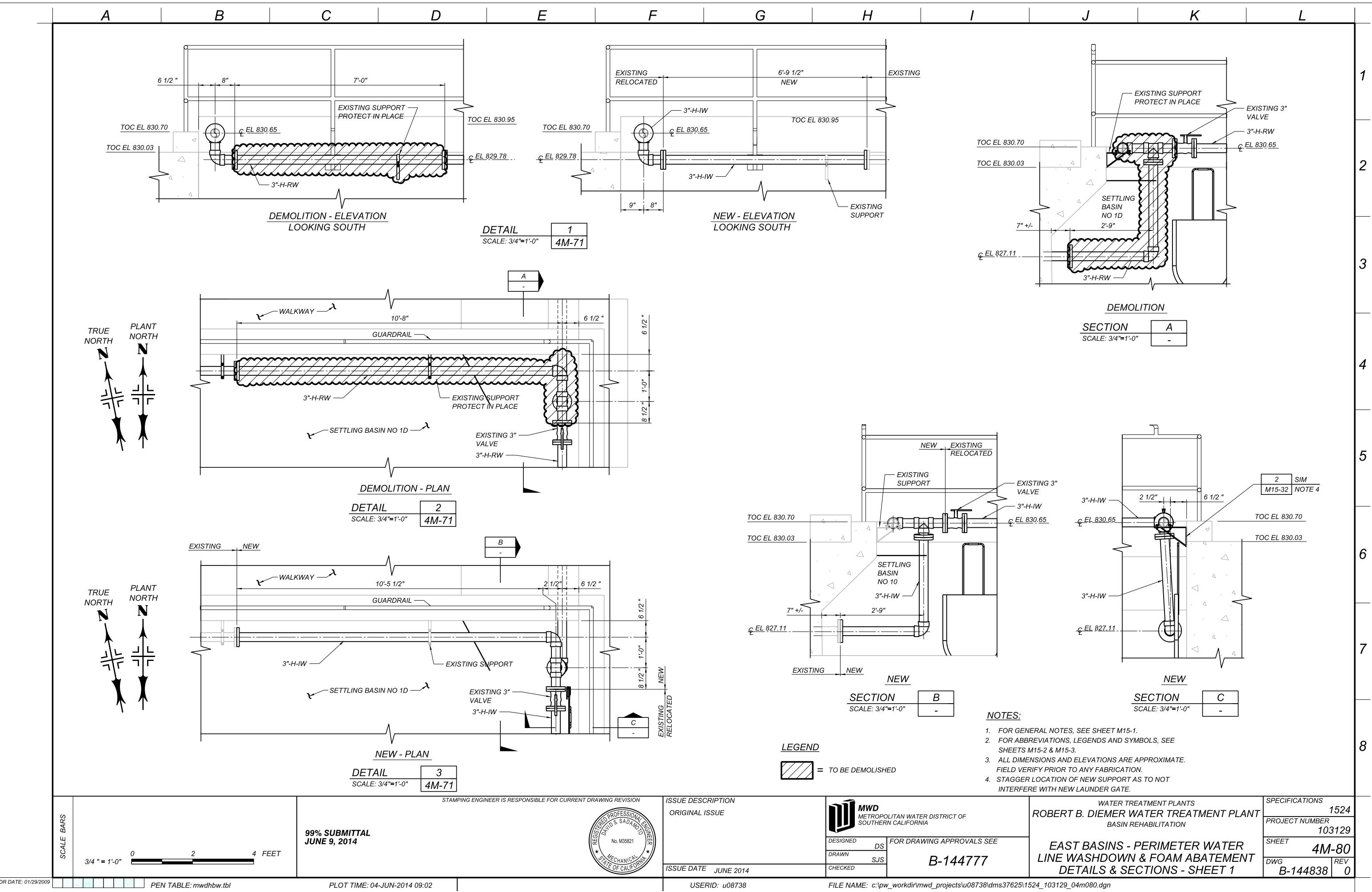


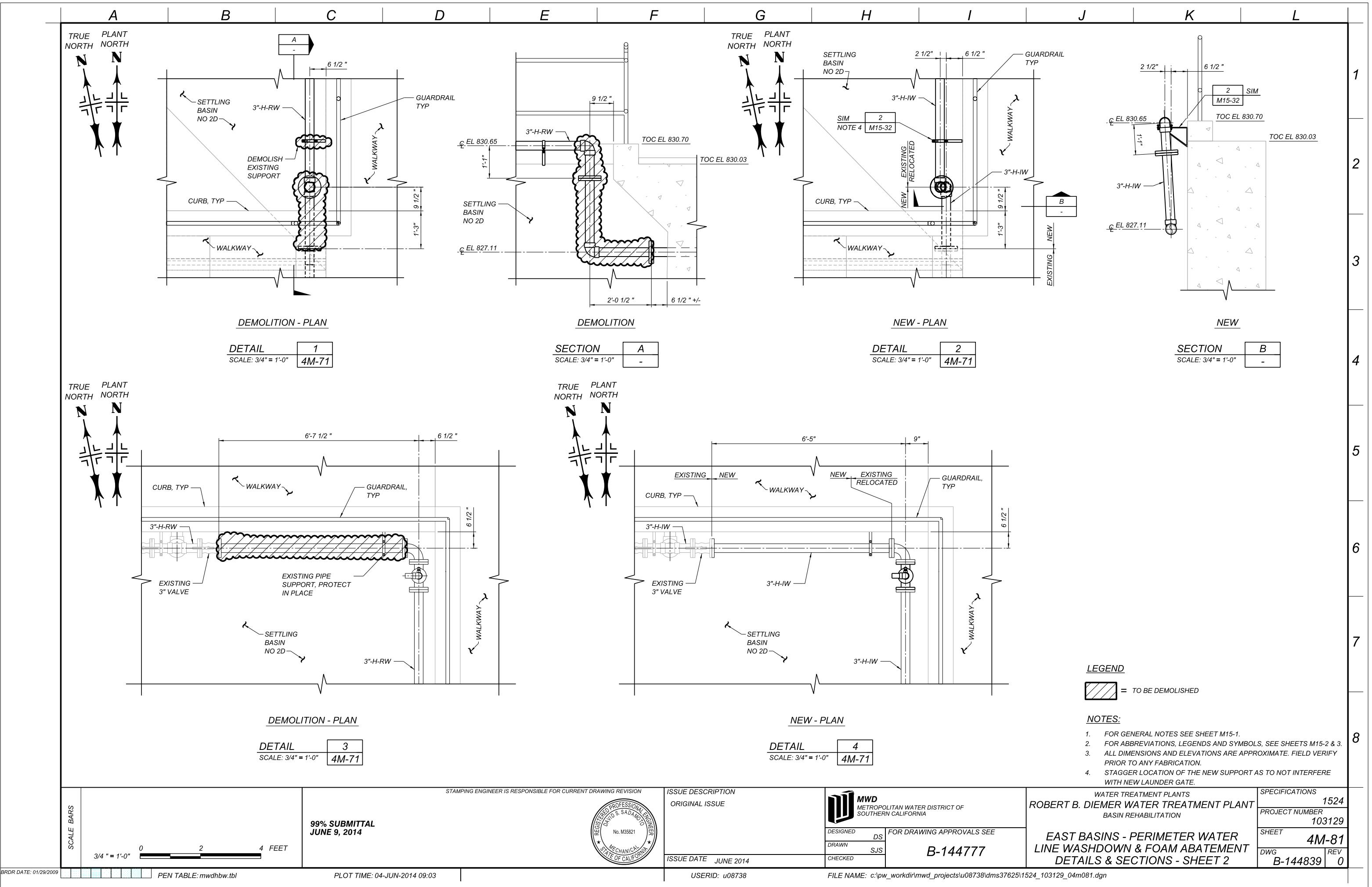


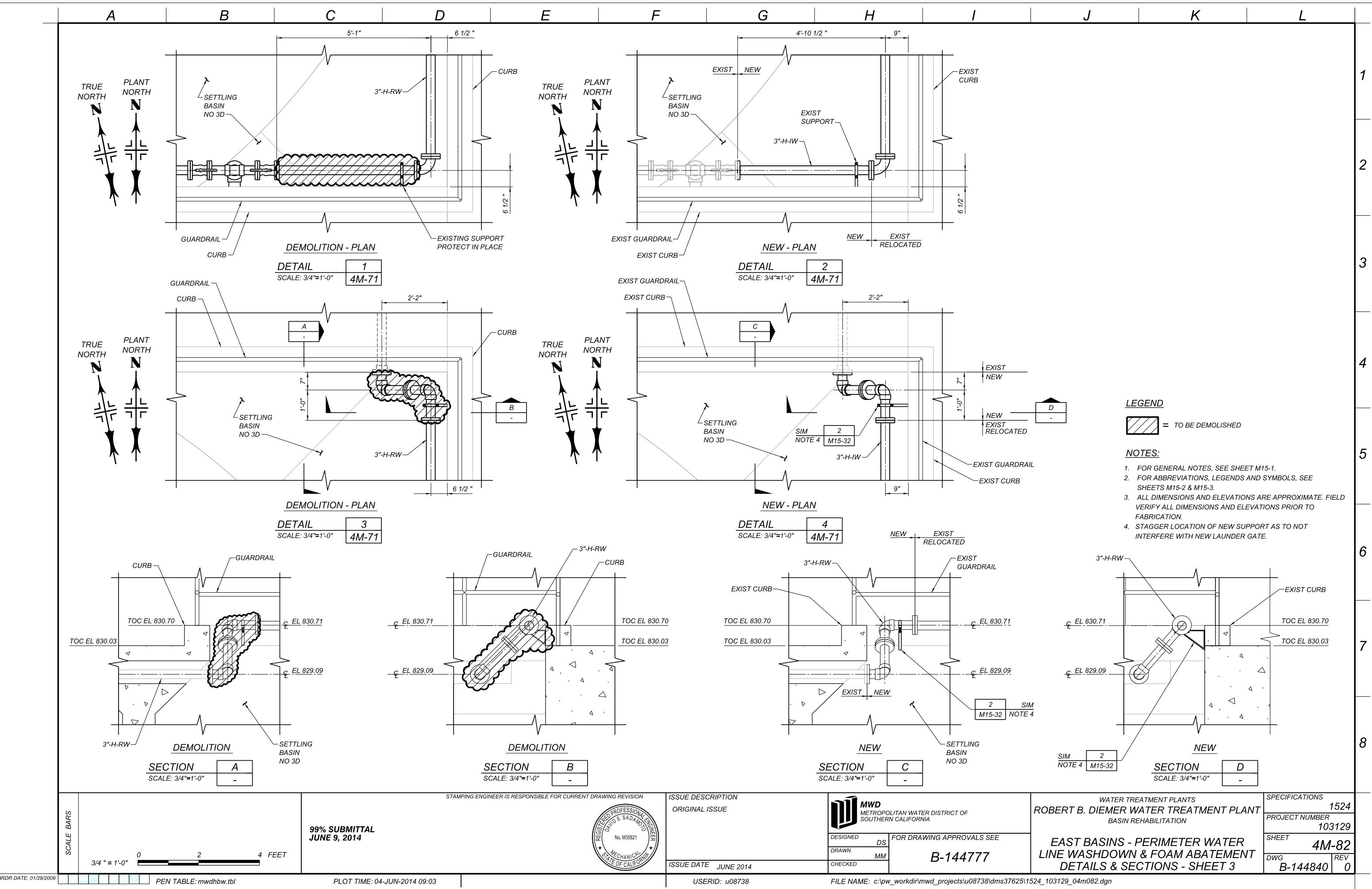


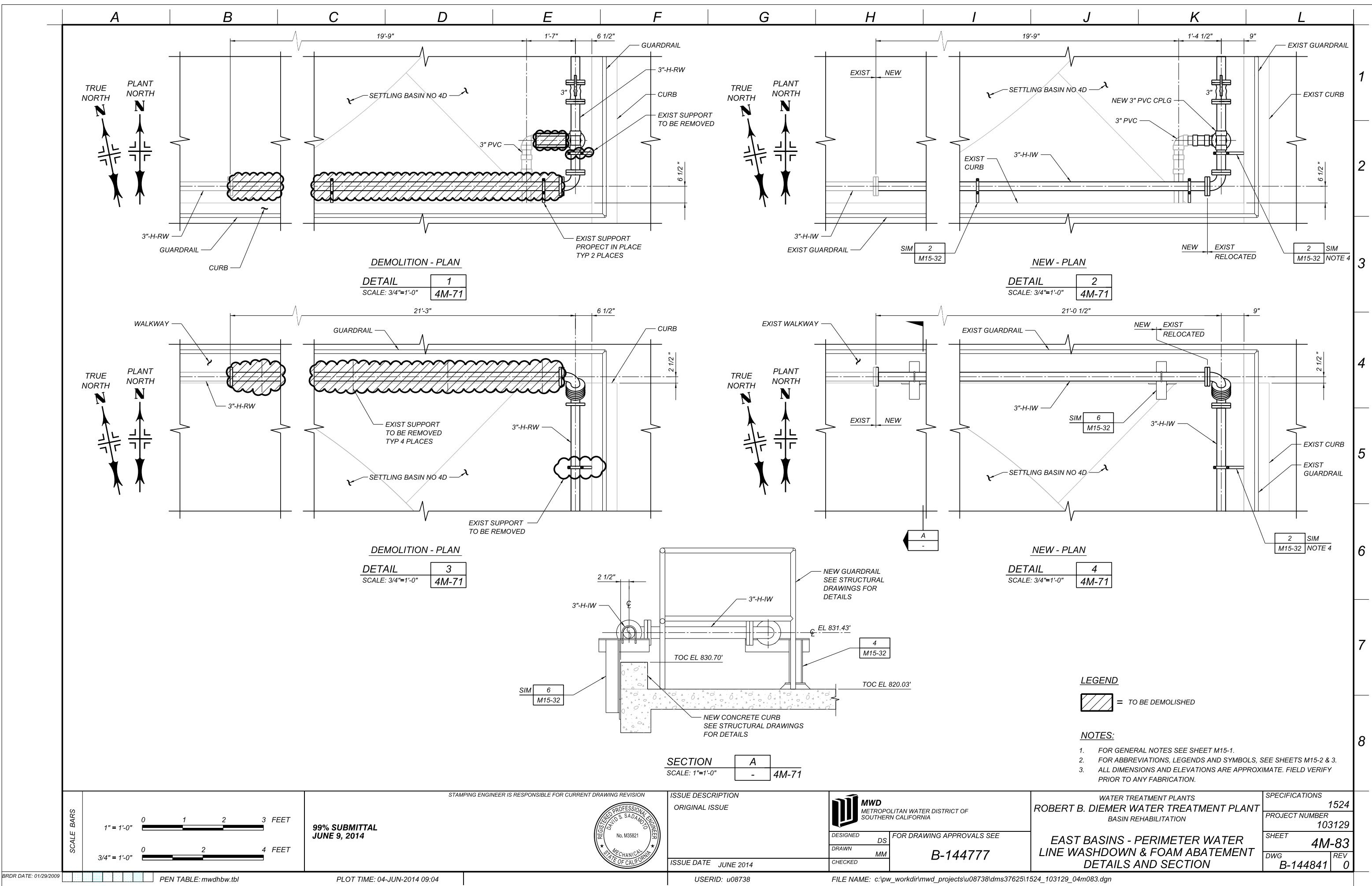
SPECIFICATIONS	1524
PROJECT NUMBER	103129
SHEET	4M-79
DWG	B-144837
REV	0

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA No. M35821	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION
1" = 1'-0" 0 1 2 3 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 09:01	ISSUE DATE JUNE 2014	DESIGNED DS DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_04m079.dgn

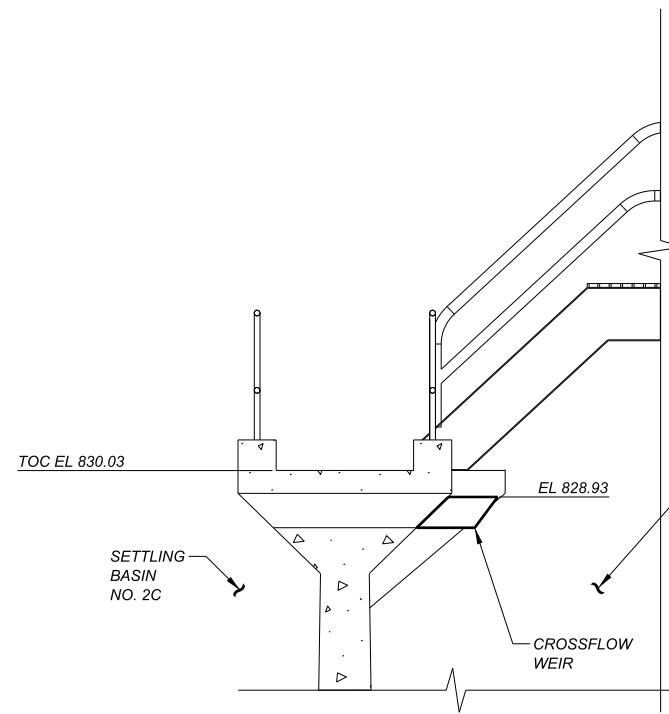




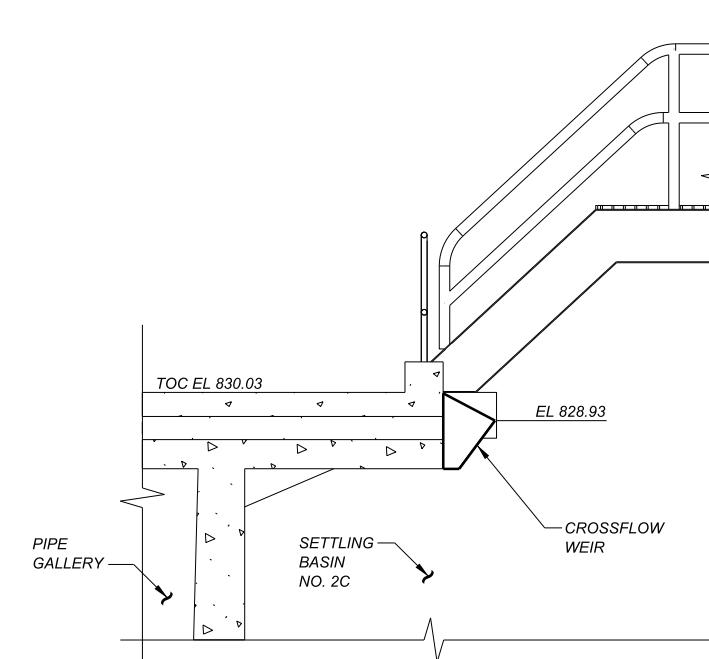




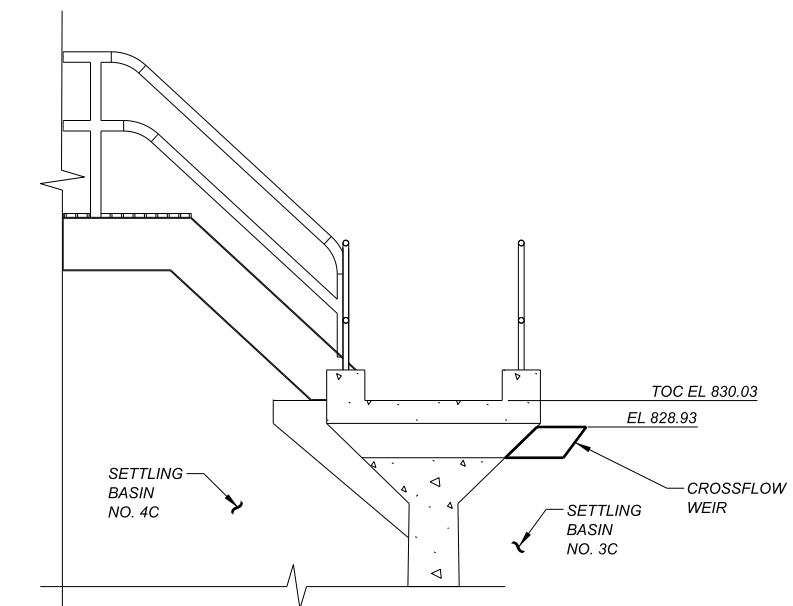
A B C D E F G H I J K L



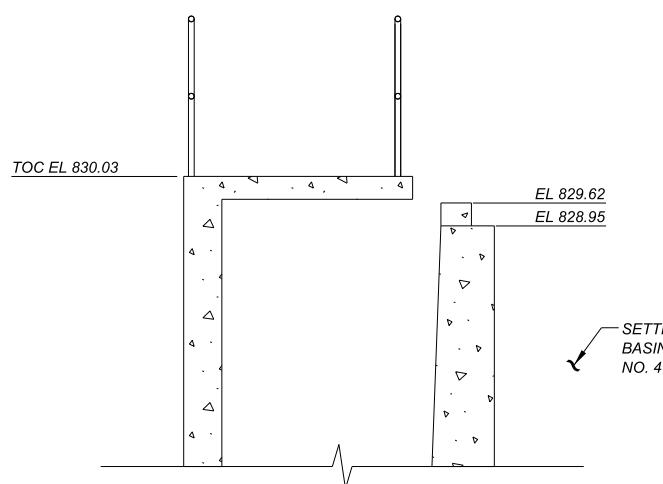
SECTION A
SCALE: 1/2" = 1'-0" 1M-2



SECTION B
SCALE: 1/2" = 1'-0" 1M-2



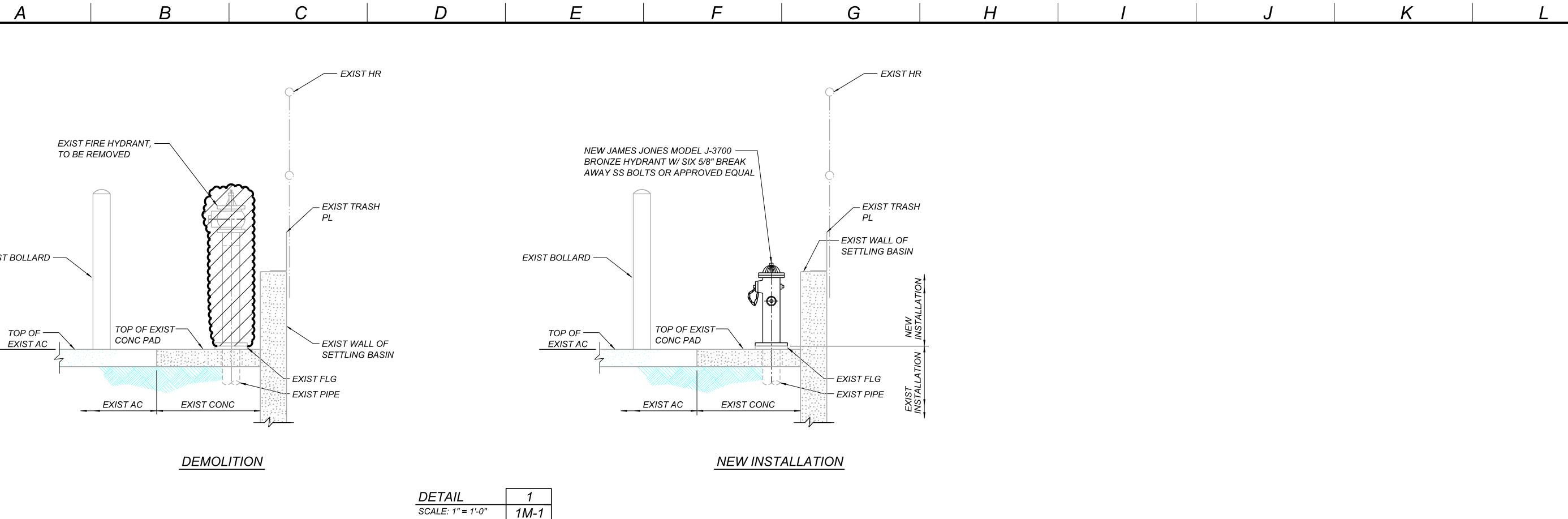
SECTION C
SCALE: 1/2" = 1'-0" 1M-2



SECTION D
SCALE: 1/2" = 1'-0" 1M-2

- NOTES:**
1. FOR GENERAL NOTES SEE SHEET M15-1.
 2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
 3. ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE. FIELD VERIFY PRIOR TO ANT FABRICATION.
 4. EXISTING CROSSFLOW WEIRS TO BE REMOVED PRIOR TO JOINT SEAL REPLACEMENT AND RE-INSTALLED AFTER TO ELEVATIONS SHOWN ON THIS DRAWING. REPLACE GASKET WITH _____. SEE REPLACEMENT DRAWINGS _____.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-91 DWG B-144842 REV 0
1/2" = 1'-0" 0 2 4 6 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 09:08	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DATE JUNE 2014	DESIGNED DS DRAWN MM CHECKED B-144777	FOR DRAWING APPROVALS SEE FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_04m091.dgn



DETAIL
SCALE: 1" = 1'-0"
1
1M-1

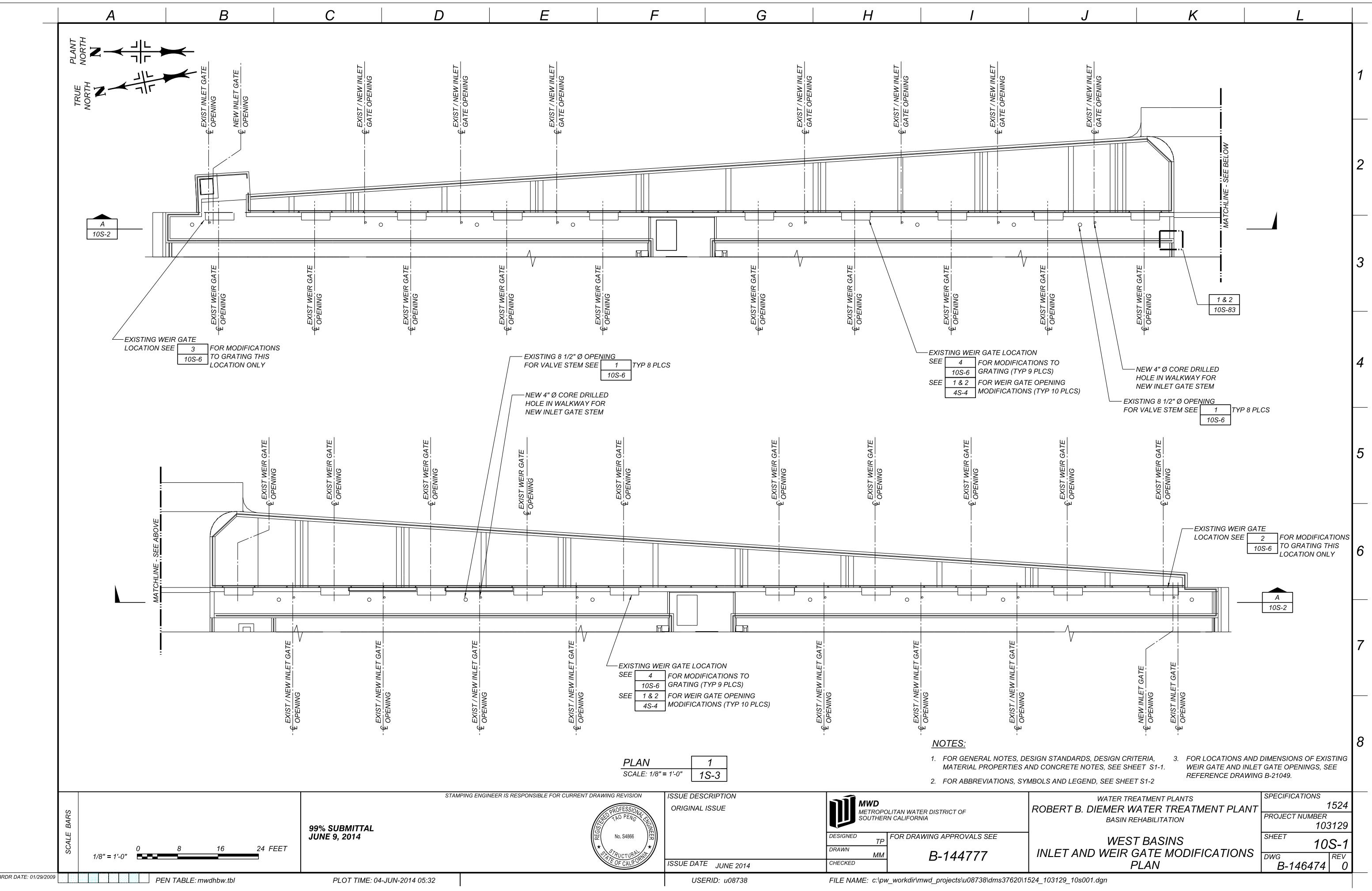
LEGEND

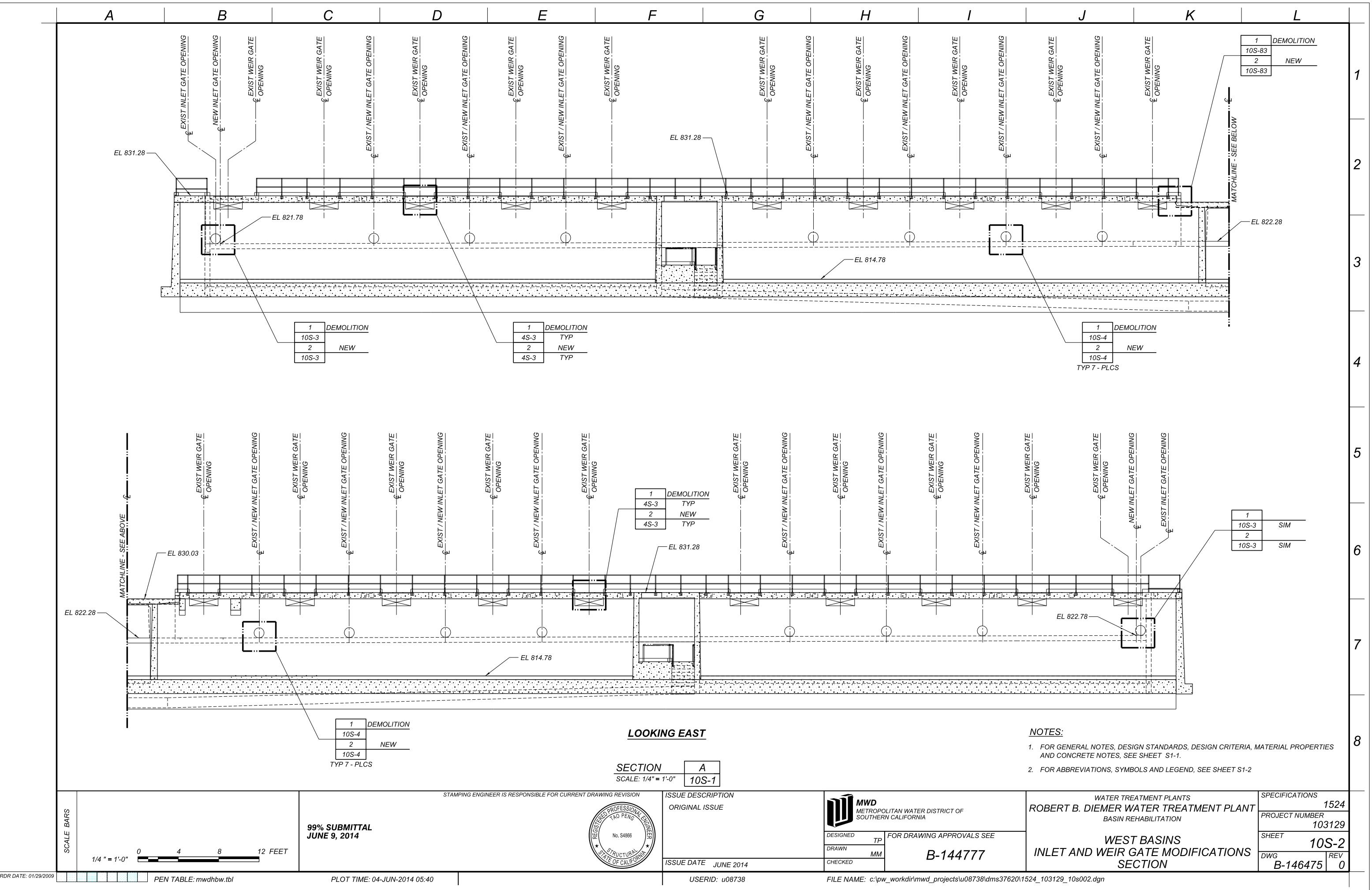
= TO BE DEMOLISHED

NOTES:

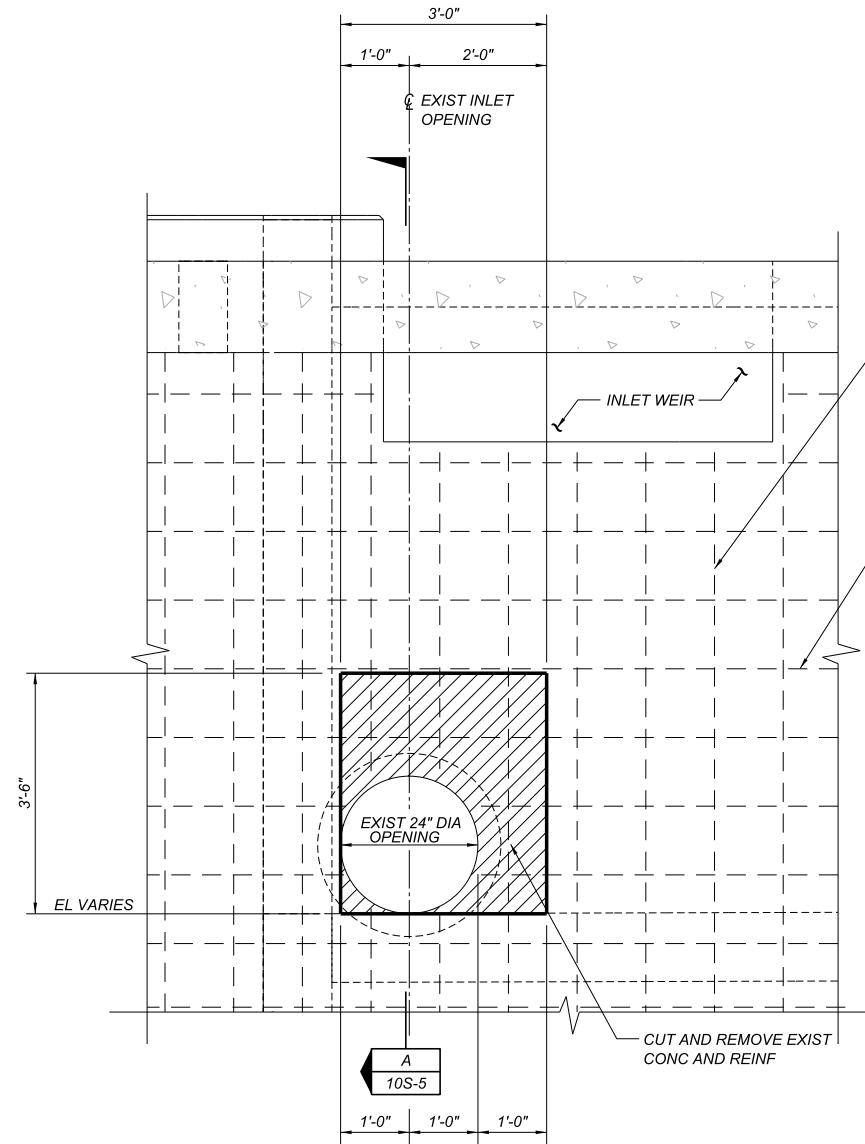
1. FIRE HYDRANT HEAD SHALL BE PER OCFA REQUIREMENTS.
2. ABOVE GRADE PIPE AND HYDRANT SHALL RECEIVE 2 COATS OF DUNN-EDWARDS, INDUSTRIAL MAINTENANCE ENAMEL-GLOSS, 10-14 HIGH VISIBILITY YELLOW OF EQUAL.
3. BLUE DOT HYDRANT MARKERS SHALL BE PROVIDED IN FRONT OF THE FIRE HYDRANT PER OCFA GUIDELINE B-09.
4. THE EXISTING RISER TYPE HOSE ASSEMBLY SHALL BE REMOVED SALVAGED AND GIVEN BACK TO MWD (PLANT).

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED AR FOR DRAWING APPROVALS SEE DRAWN GCY CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION EAST BASINS FIRE HYDRANT DEMOLITION AND NEW INSTALLATION DETAIL B-144777	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 4M-101 DWG B-144843 REV 0
1" = 1'-0" 0 1 2 3 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 09:09	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_04m101.dgn		



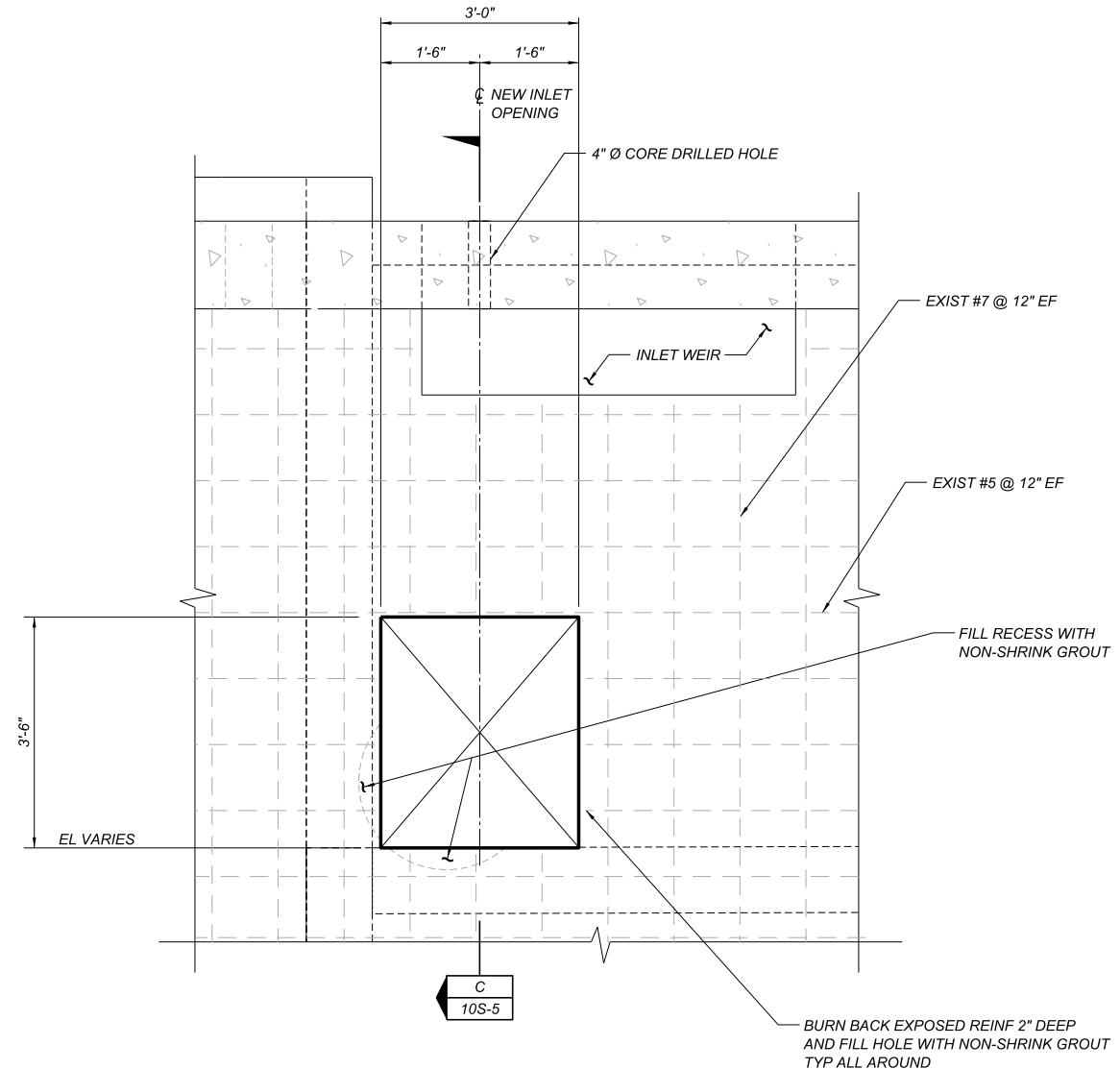


A B C D E F G H I J K L



ELEVATION - DEMOLITION

DETAIL 1
SCALE: 3/4" = 1'-0" 10S-2



ELEVATION - NEW

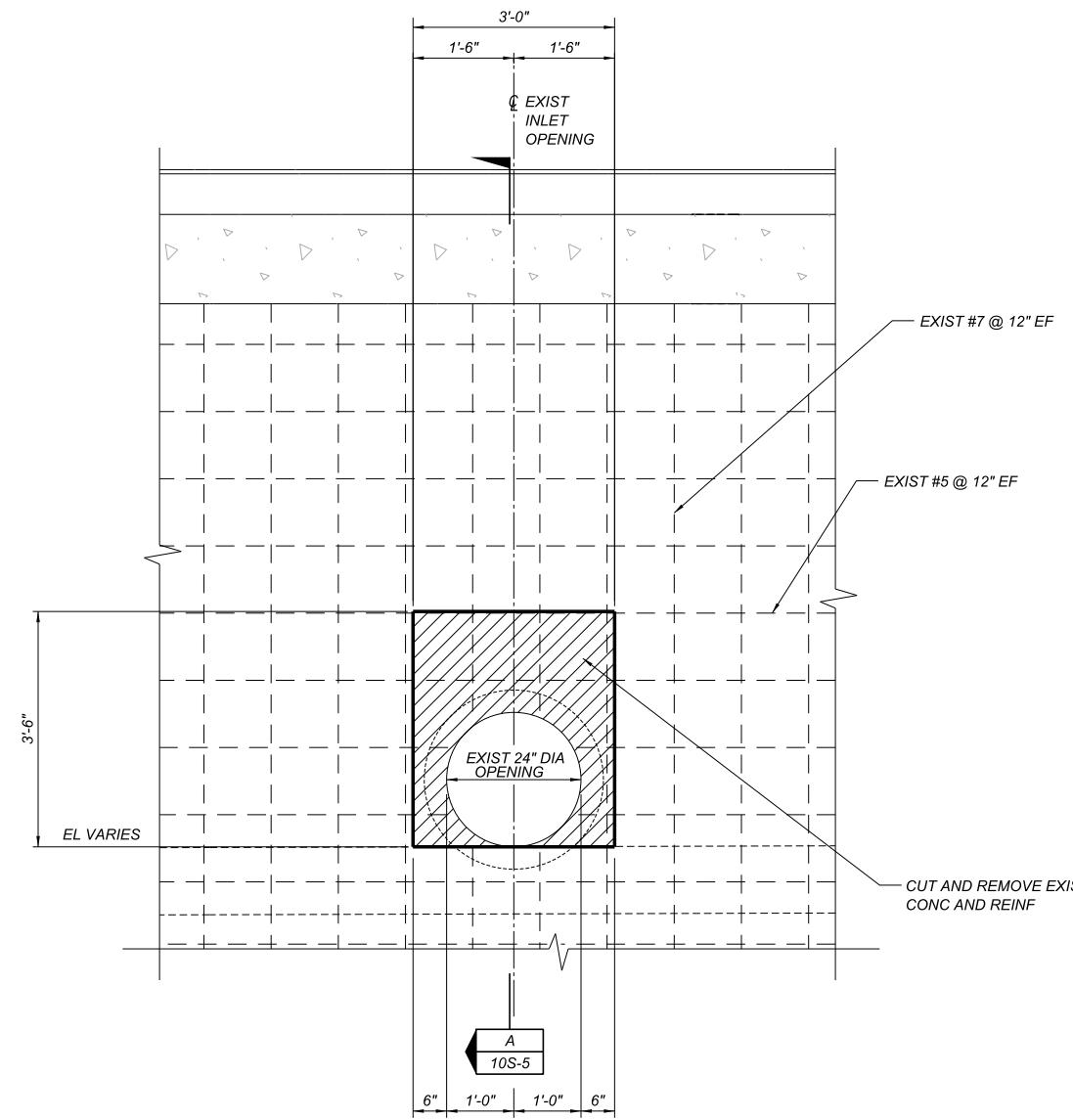
DETAIL 2
SCALE: 3/4" = 1'-0" 10S-2

NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2

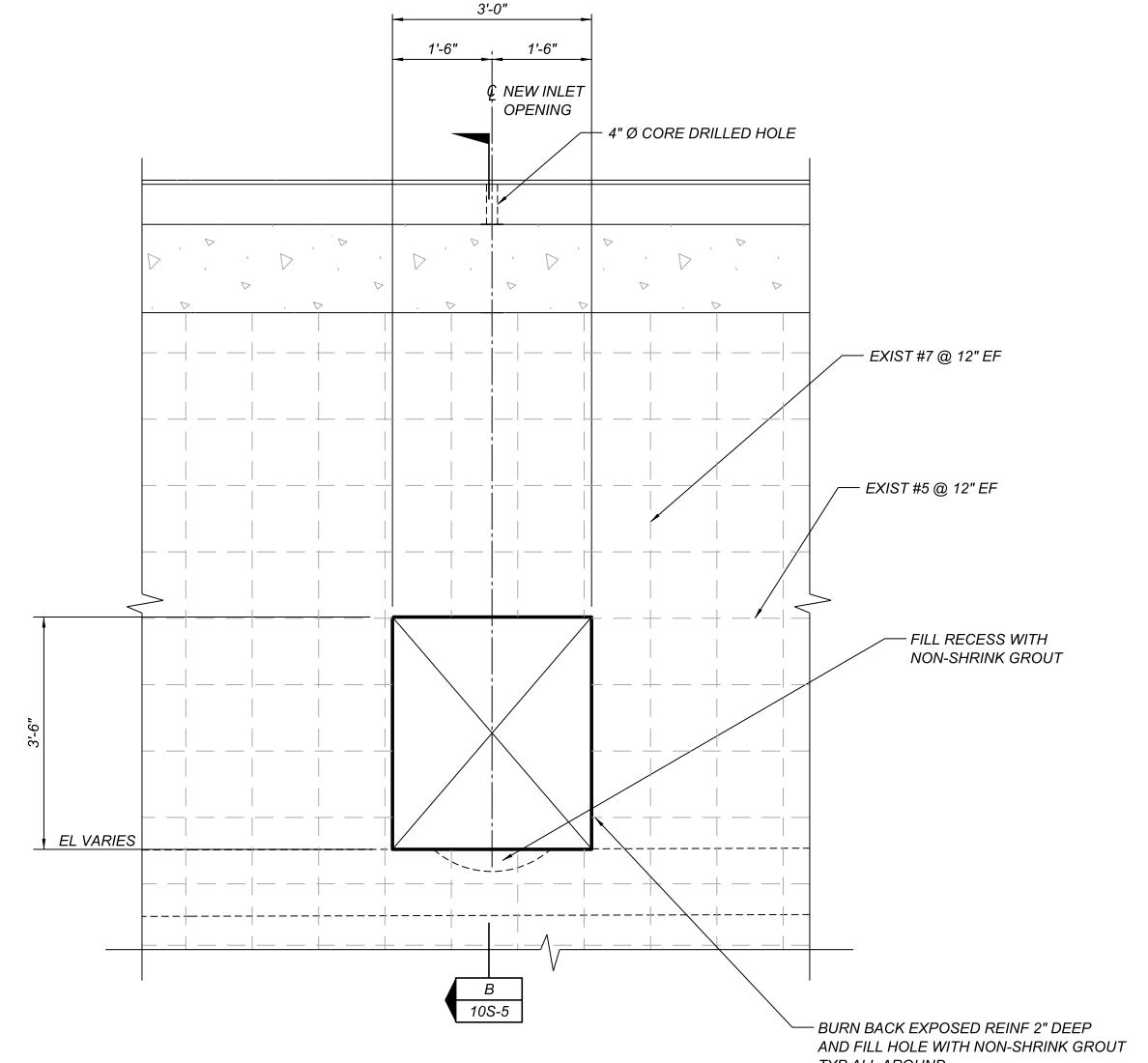
SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP DRAWN MM CHECKED B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS INLET GATE MODIFICATIONS DETAILS - SHEET 1	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10S-3 DWG B-146476 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 05:40	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s003.dgn		

A B C D E F G H I J K L



ELEVATION - DEMOLITION

DETAIL 1
SCALE: 3/4" = 1'-0" 10S-1 10S-2



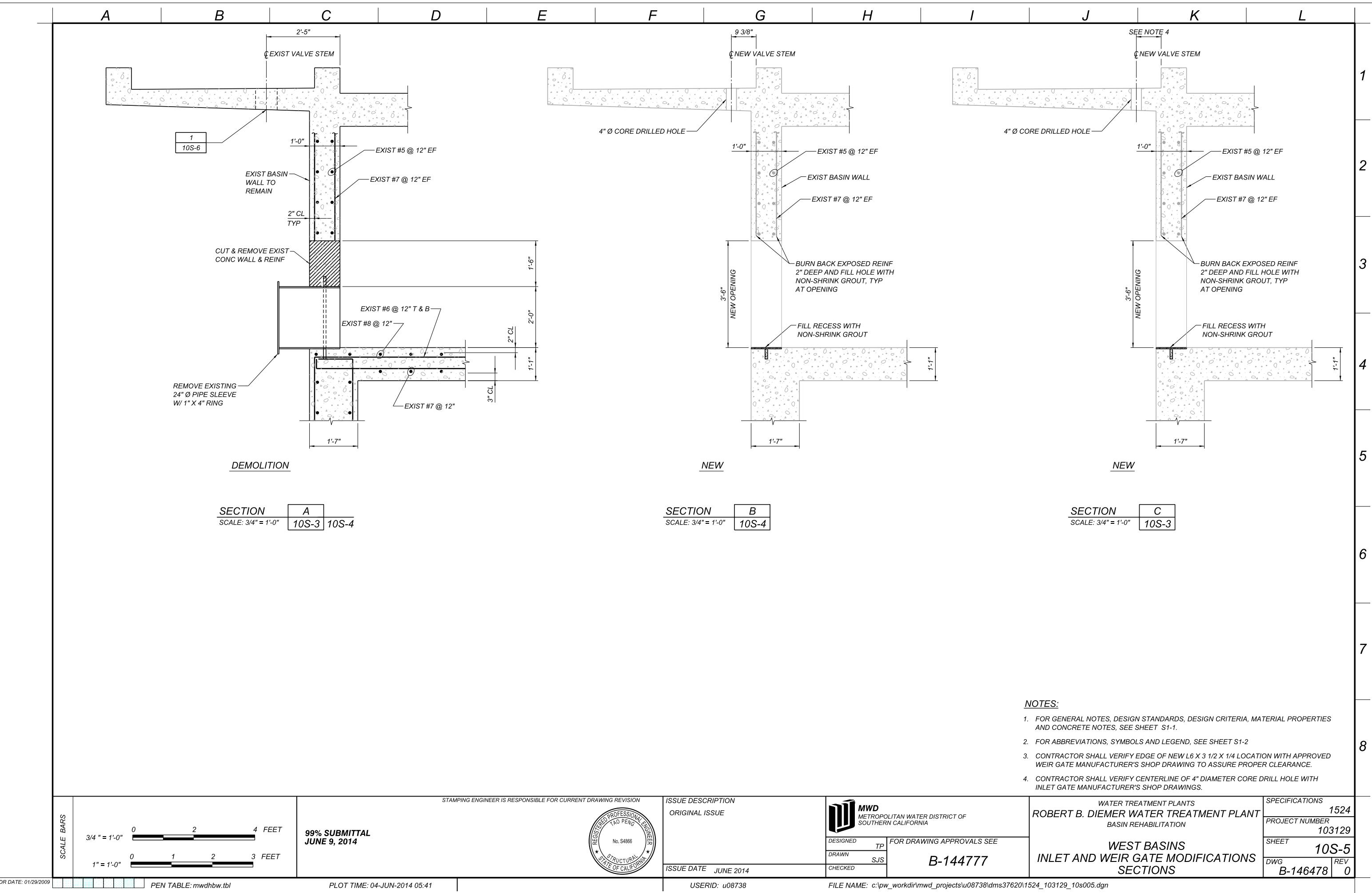
ELEVATION - NEW

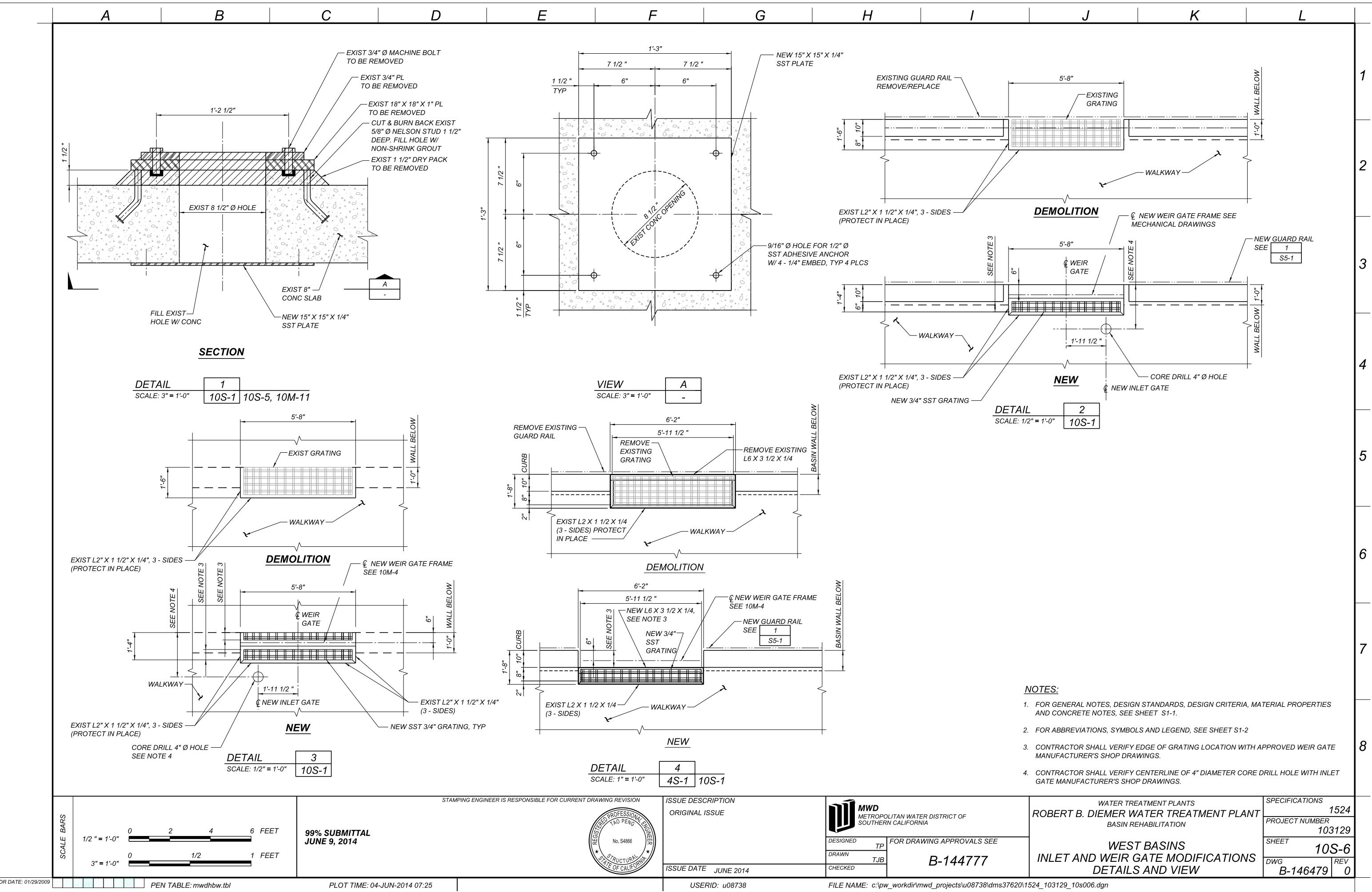
DETAIL 2
SCALE: 3/4" = 1'-0" 10S-1 10S-2

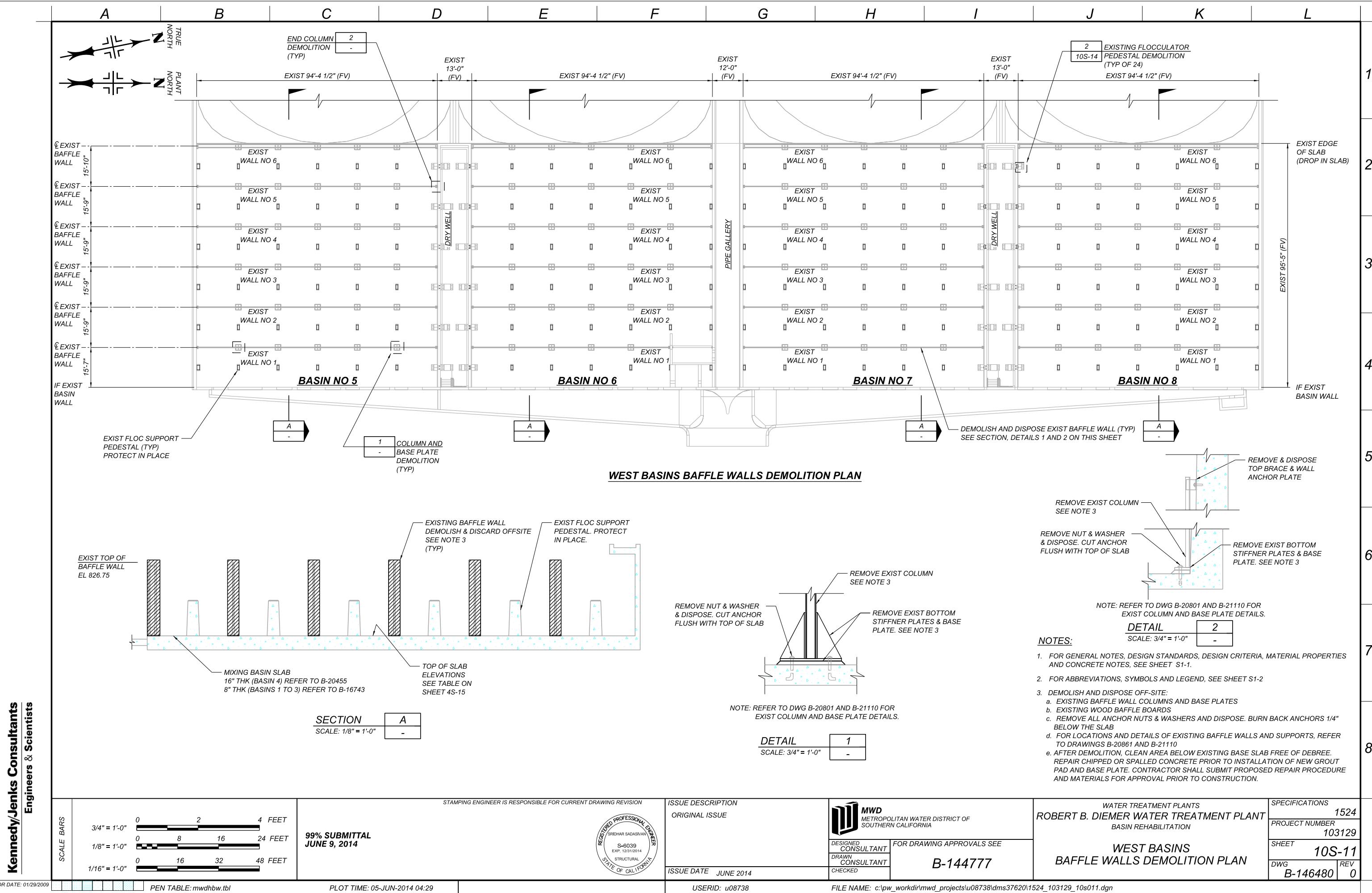
NOTES:

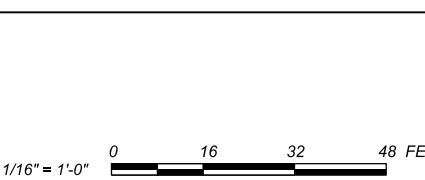
- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS INLET GATE MODIFICATIONS DETAILS - SHEET 2	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10S-4 DWG B-146477 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 05:41	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s004.dgn	

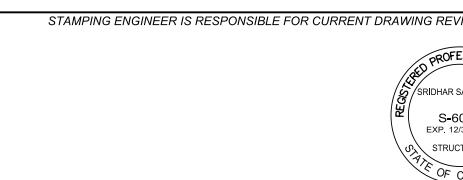






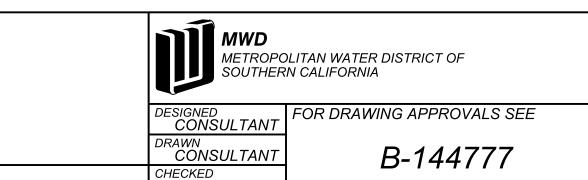


99% SUBMITTAL
JUNE 9, 2014

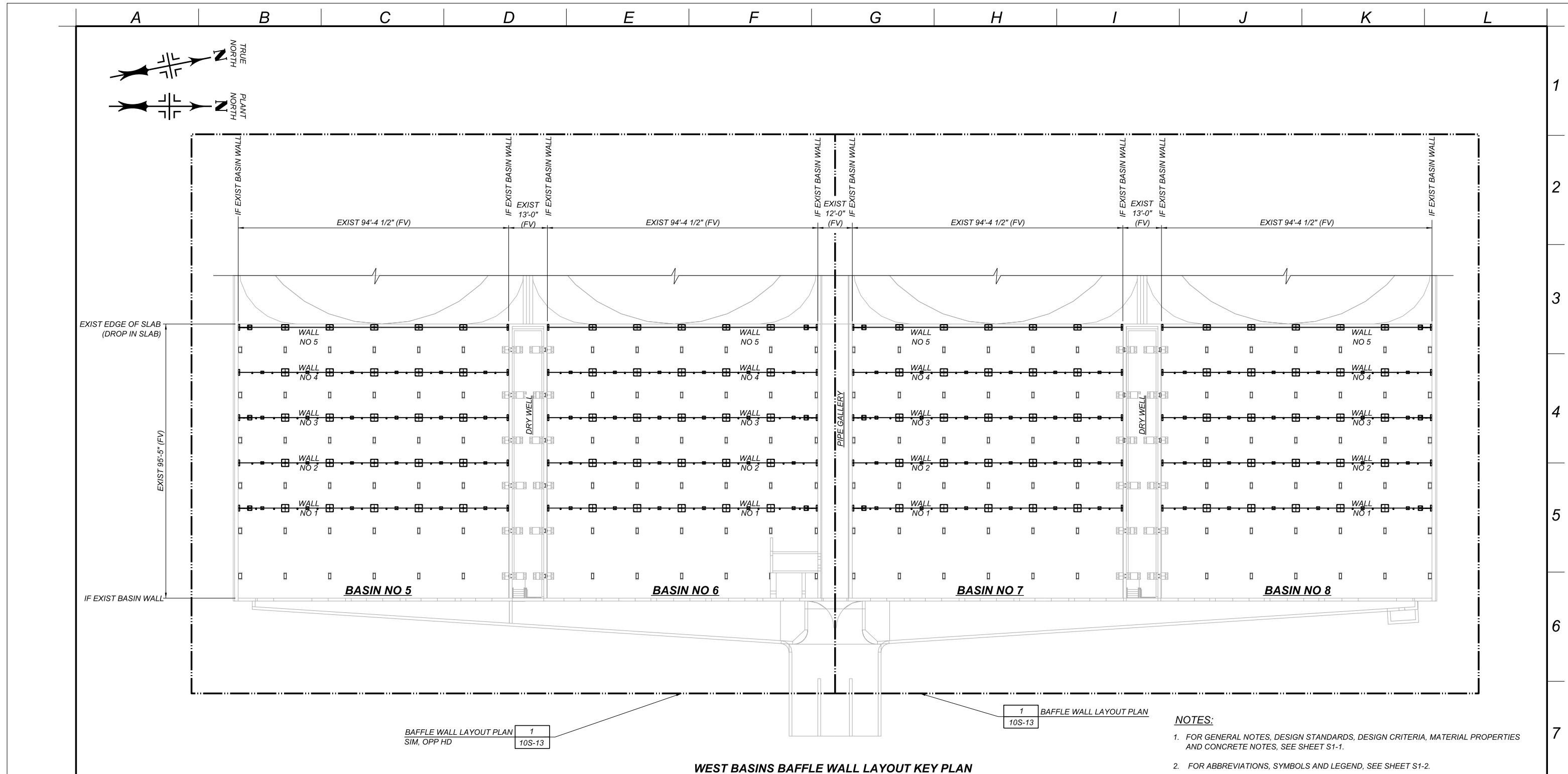


ISSUE DESCRIPTION	
ORIGINAL ISSUE	
DESIGNED CONSULTANT	FOR DRAWING APPROVALS SEE
DRAWN CONSULTANT	B-144777

CHECKED



SPECIFICATIONS	
1524	PROJECT NUMBER
103129	SHEET
10S-12	DWG
B-146481	REV



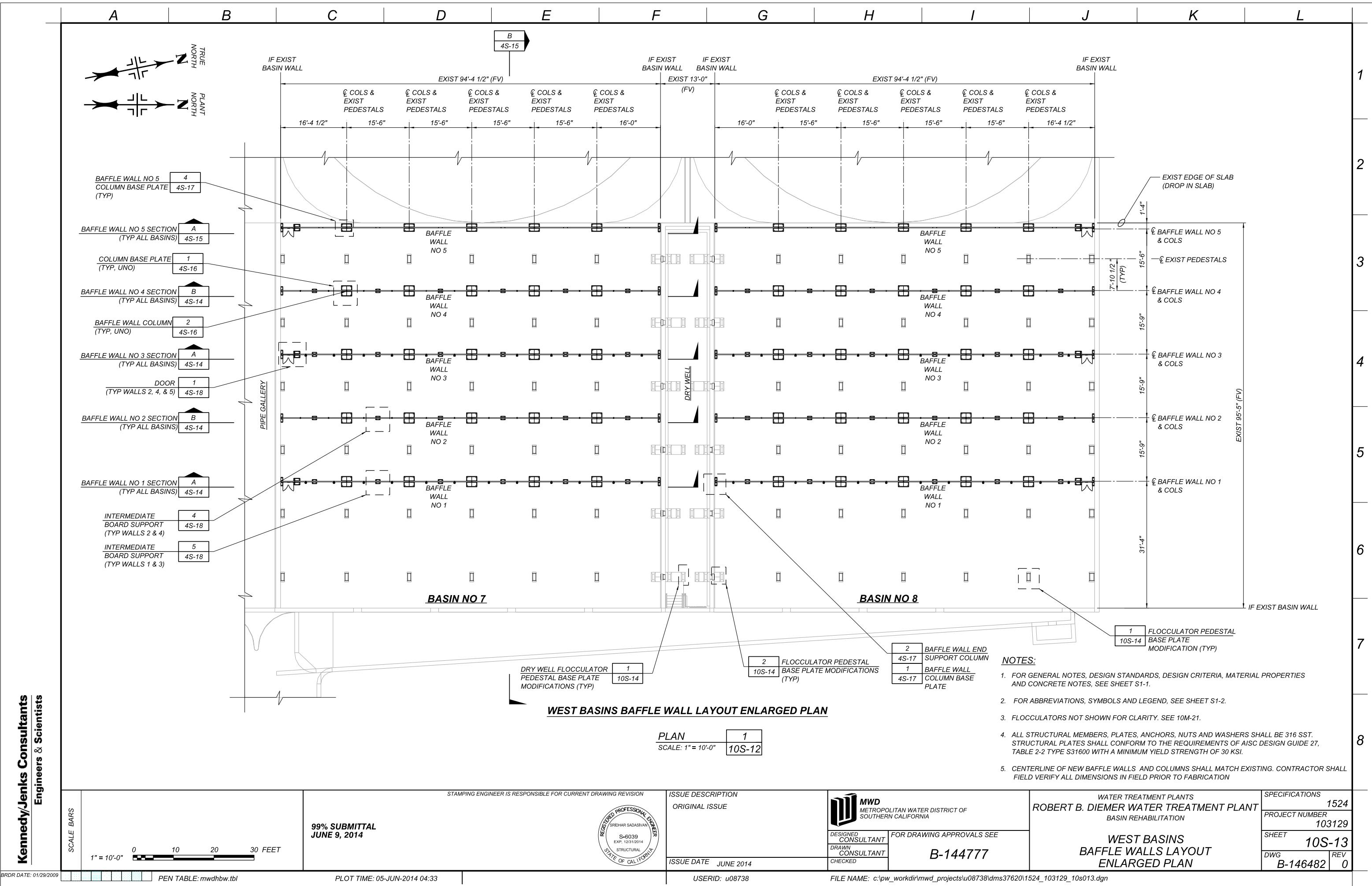
BAFFLE WALL LAYOUT PLAN
SIM, OPP HD
10S-13

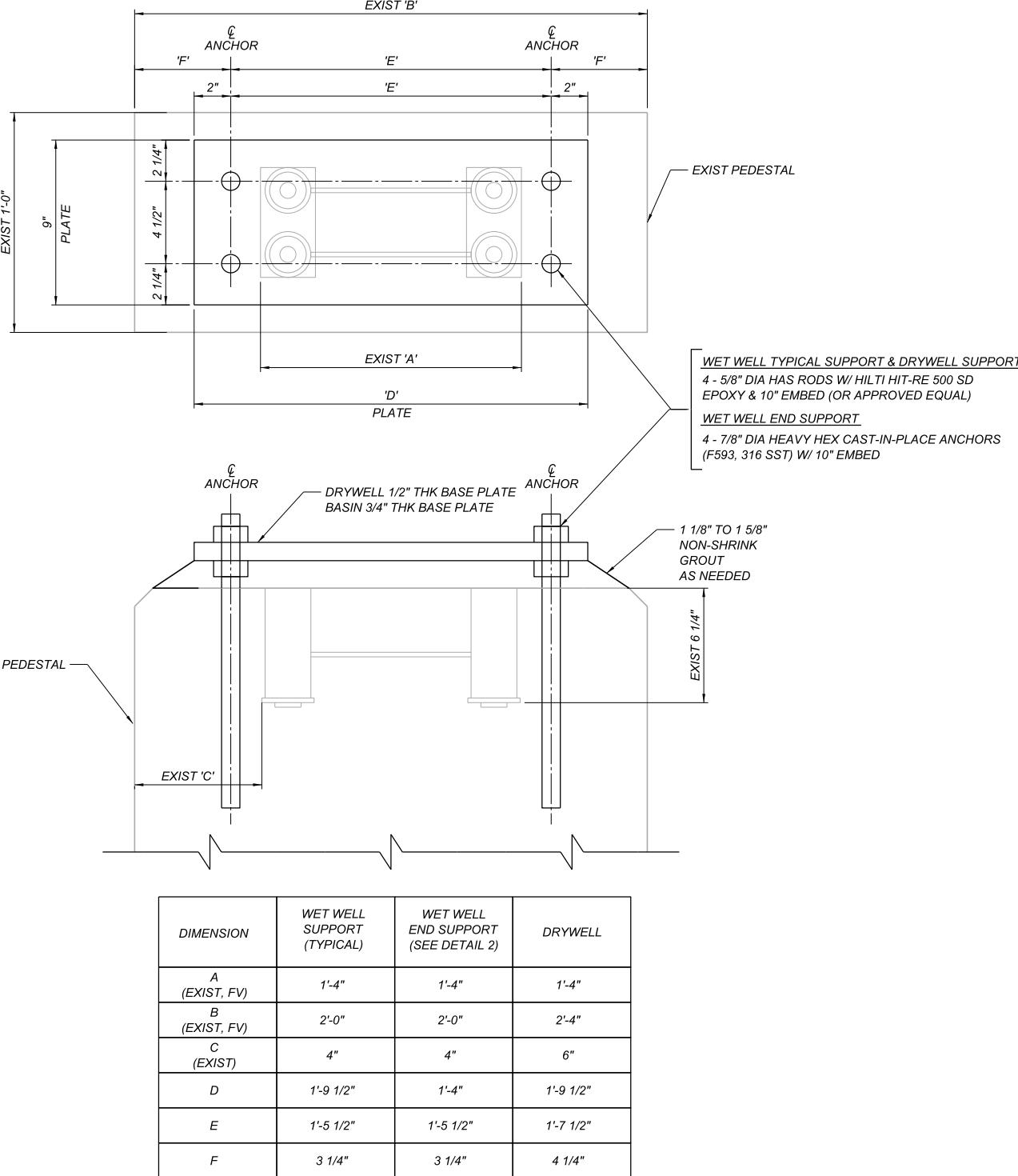
WEST BASINS BAFFLE WALL LAYOUT KEY PLAN

PLAN
SCALE: 1/16" = 1'-0"
1S-3

NOTES:

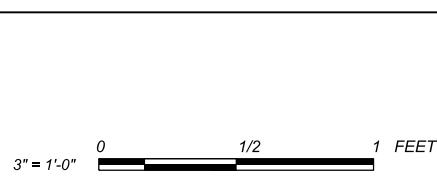
1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. ALL STRUCTURAL MEMBERS, PLATES, ANCHORS, NUTS AND WASHERS SHALL BE 316 SST. STRUCTURAL PLATES SHALL CONFORM TO THE REQUIREMENTS OF AISC DESIGN GUIDE 27, TABLE 2-2 TYPE S31600 WITH A MINIMUM YIELD STRENGTH OF 30 KSI.
4. FLOCCULATORS NOT SHOWN FOR CLARITY. SEE 4M-21.
5. A) STAINLESS STEEL BOLTS: AISI 316, ASTM F593
B) STAINLESS STEEL NUTS: ASTM F594
C) WASHERS: ASTM F436
D) DIMENSIONAL REQUIREMENTS:
A) BOLTS: ANSI B18.2.1
B) NUTS: ANSI B18.2.2



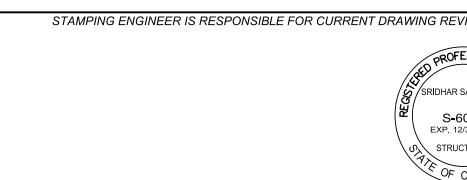


FLOCCULATOR SUPPORT PEDESTAL

DETAIL 1
SCALE: 3" = 1'-0" - 10S-13



99% SUBMITTAL
JUNE 9, 2014



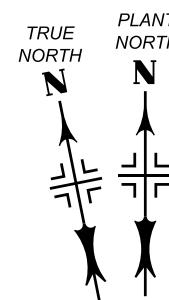
STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION
Sridhar Sadasivan
S-6039
Exp. 12/31/2014
STRUCTURAL
STATE OF CALIFORNIA

ISSUE DESCRIPTION
ORIGINAL ISSUE
/ISSUE DATE JUNE 2014

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS
FLOCCULATOR SUPPORT PEDESTAL DETAILS
B-144777
DESIGNED CONSULTANT
DRAWN CONSULTANT
CHECKED

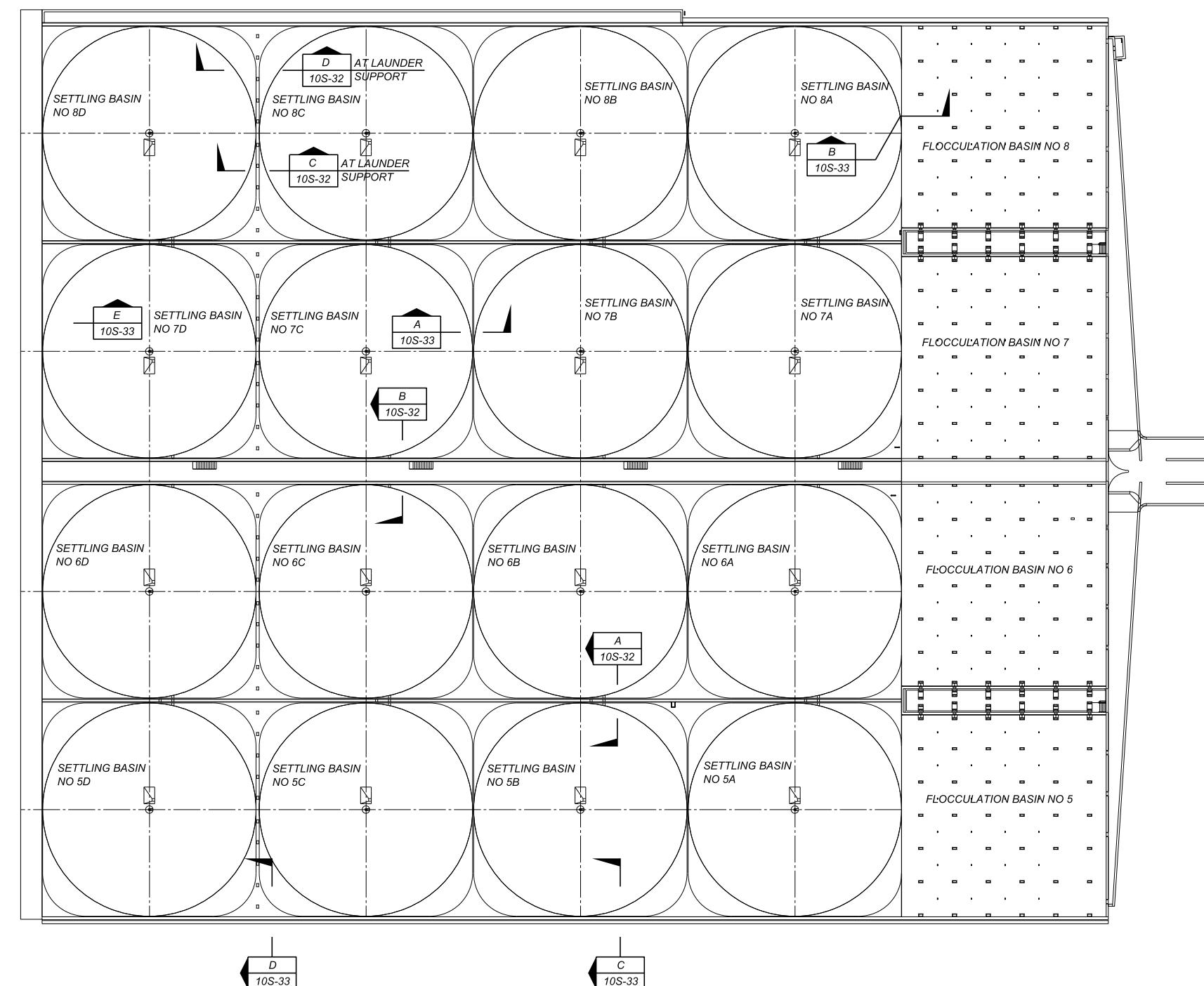
SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
10S-14
DWG B-146483 REV 0
FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s014.dgn

A B C D E F G H I J K L



L

FILTERS



D
10S-33

C
10S-33

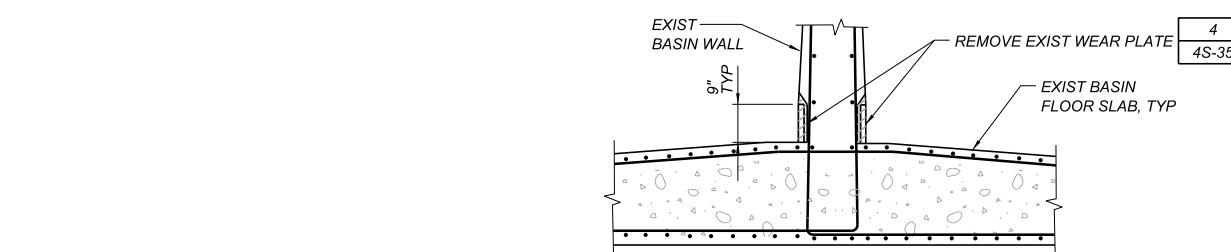
PLAN 1
SCALE: 1" = 30'-0"
1S-3 10M-43

NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2

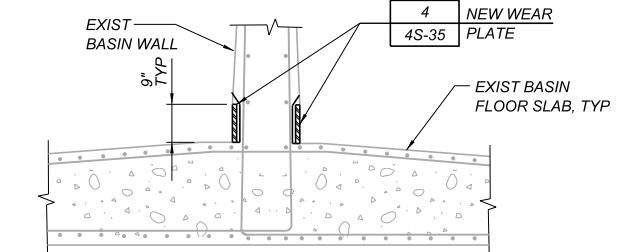
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10S-31 DWG B-146484 REV 0						
1" = 30'-0" 0 30 60 90 FEET	<p>REGISTERED PROFESSIONAL ENGINEER TAO PENG STRUCTURAL ENGINEER STATE OF CALIFORNIA NO. S4866</p>	<p>ISSUE DATE JUNE 2014</p> <table border="1"> <tr> <td>DESIGNED TP</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN MM</td> <td>B-144777</td> </tr> <tr> <td>CHECKED</td> <td></td> </tr> </table>	DESIGNED TP	FOR DRAWING APPROVALS SEE	DRAWN MM	B-144777	CHECKED			WEST BASINS WEAR PLATE MODIFICATIONS PLAN	
DESIGNED TP	FOR DRAWING APPROVALS SEE										
DRAWN MM	B-144777										
CHECKED											

A | B | C | D | E | F | G | H | I | J | K | L

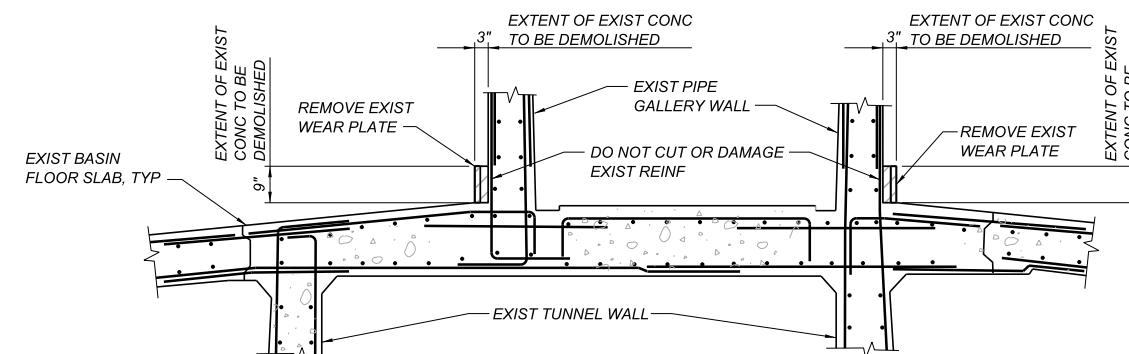


DEMOLITION

SECTION
NTS
A
10S-31

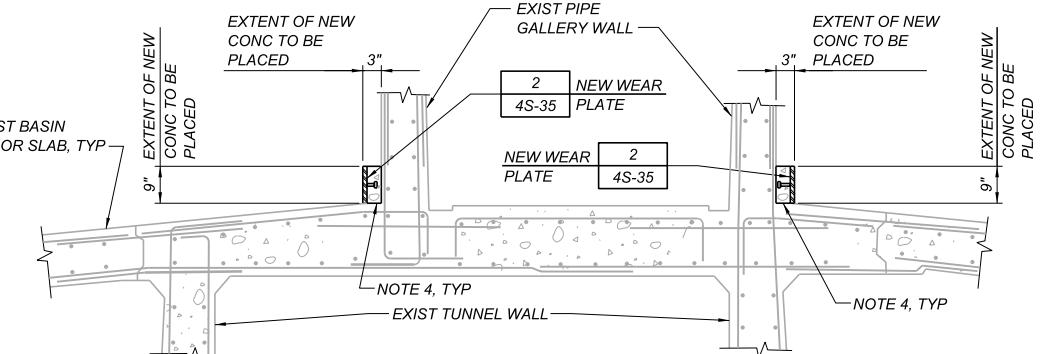


NEW

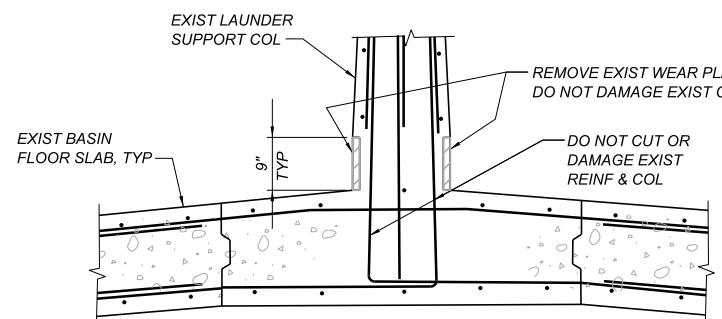


DEMOLITION

SECTION
NTS
B
10S-31

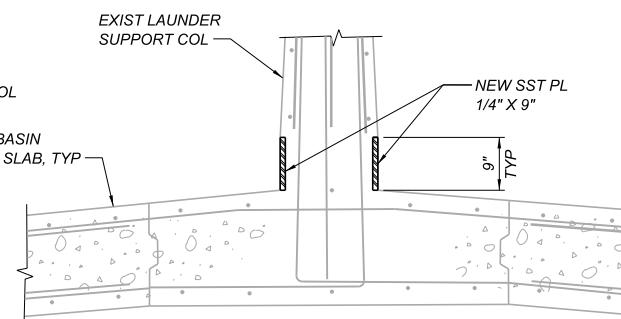


NEW

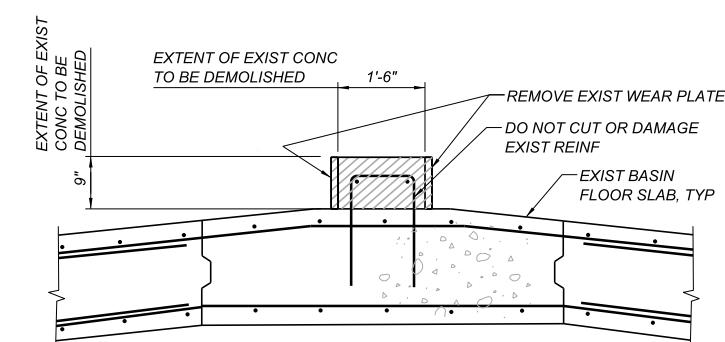


DEMOLITION

SECTION
NTS
C
10S-31

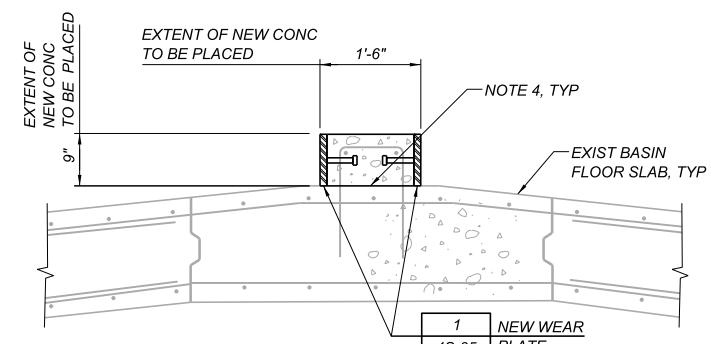


NEW



DEMOLITION

SECTION
NTS
D
10S-31

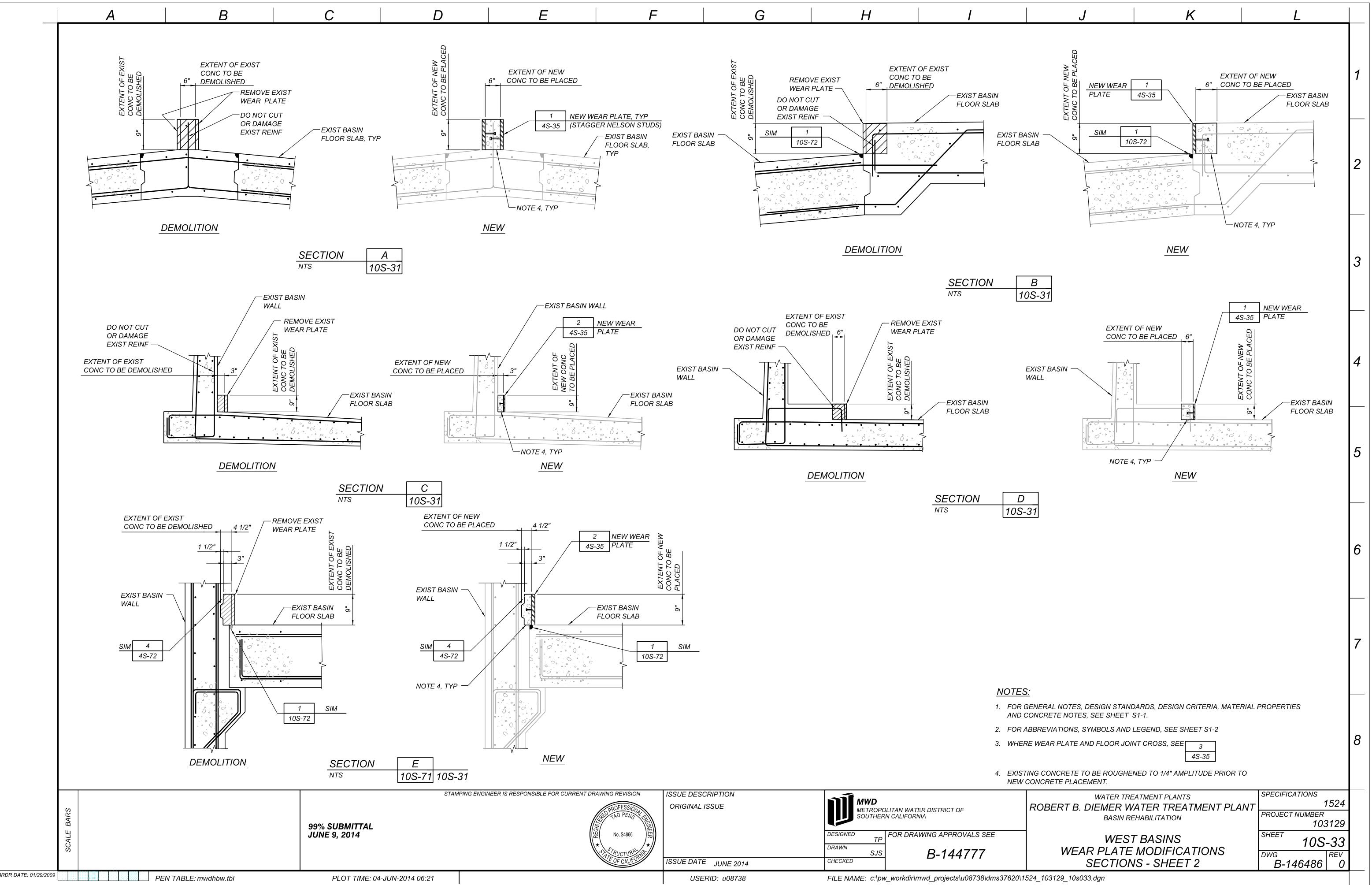


NEW

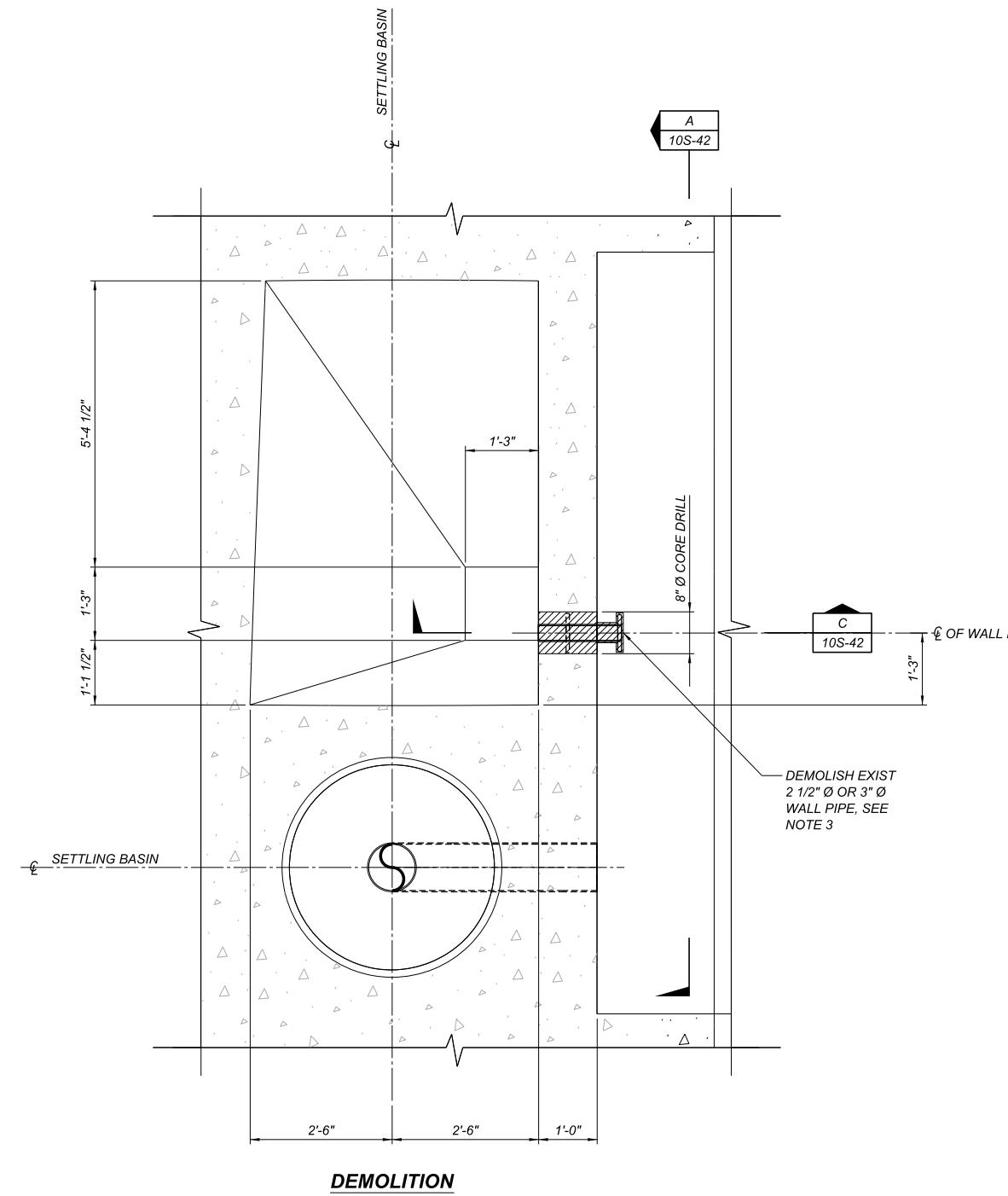
NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2
- WHERE WEAR PLATE AND FLOOR JOINT CROSS, SEE 3 4S-35
- EXISTING CONCRETE TO BE ROUGHENED TO 1/4" AMPLITUDE PRIOR TO NEW CONCRETE PLACEMENT.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP DRAWN SJS CHECKED B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS WEAR PLATE MODIFICATIONS SECTIONS - SHEET 1	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10S-32 DWG B-146485 REV 0
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 06:20	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s032.dgn	

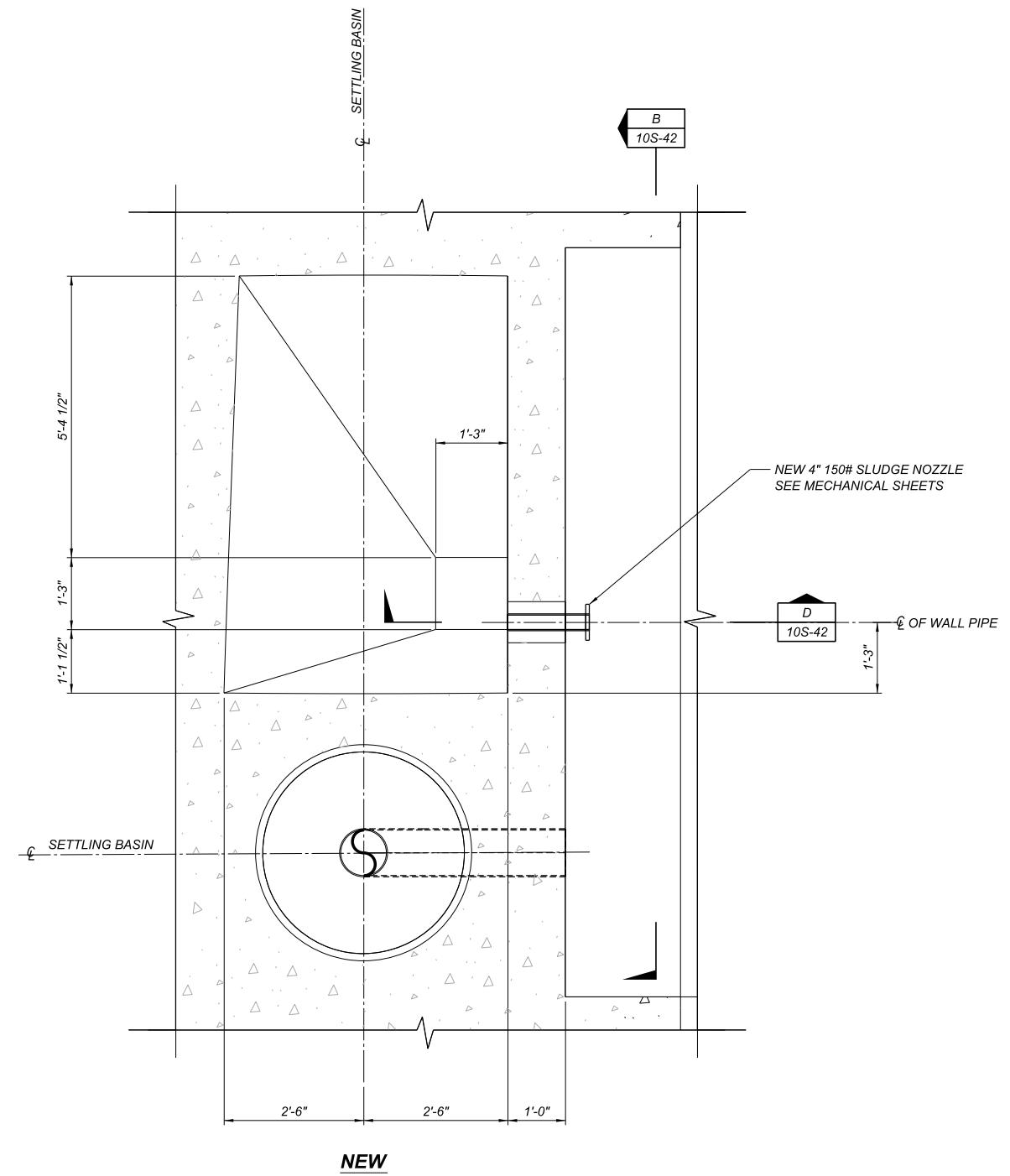


A B C D E F G H I J K L



DEMOLITION

PLAN 1
SCALE: 3/4" = 1'-0" 1S-3 10M-51



NEW

PLAN 2
SCALE: 3/4" = 1'-0" 1S-3 10M-51

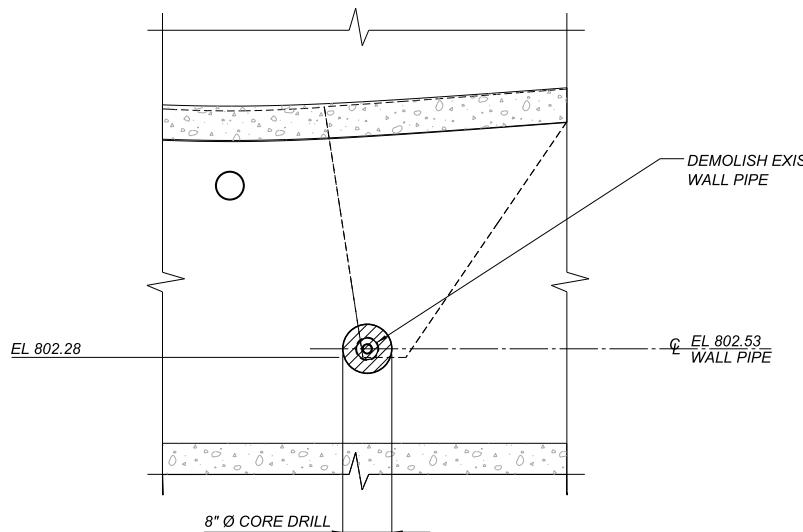
NOTES:

- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2
- FOR EXISTING WALL PIPE DETAILS, SEE REFERENCE DRAWINGS B-19928 AND B-20601.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION ORIGINAL ISSUE No. S4866 REGISTERED PROFESSIONAL ENGINEER TAO PENG STRUCTURAL STATE OF CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS SLUDGE NOZZLE MODIFICATIONS PLANS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10S-41 DWG B-146487 REV 0
		TP	MM			
3/4" = 1'-0"	0 2 4 FEET			ISSUE DATE JUNE 2014	B-144777	

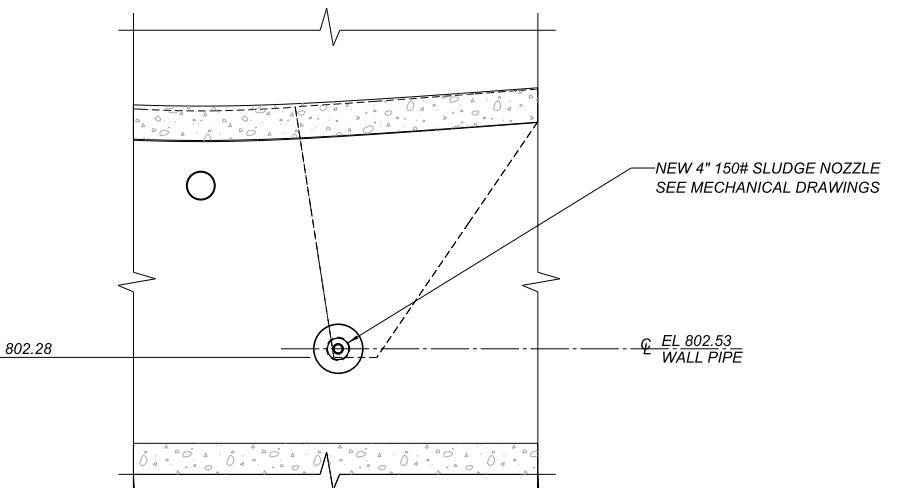
A B C D E F G H I J K L

1



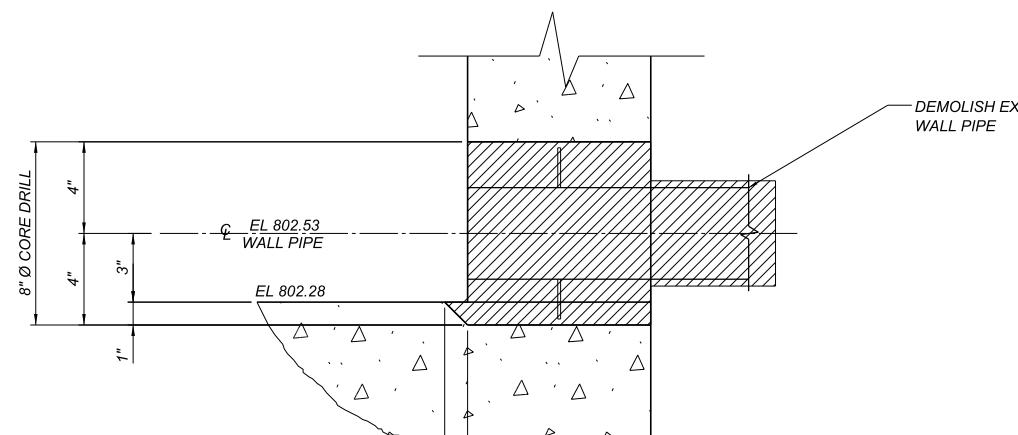
DEMOLITION

SECTION A
SCALE: 3/8" = 1'-0"
10S-41



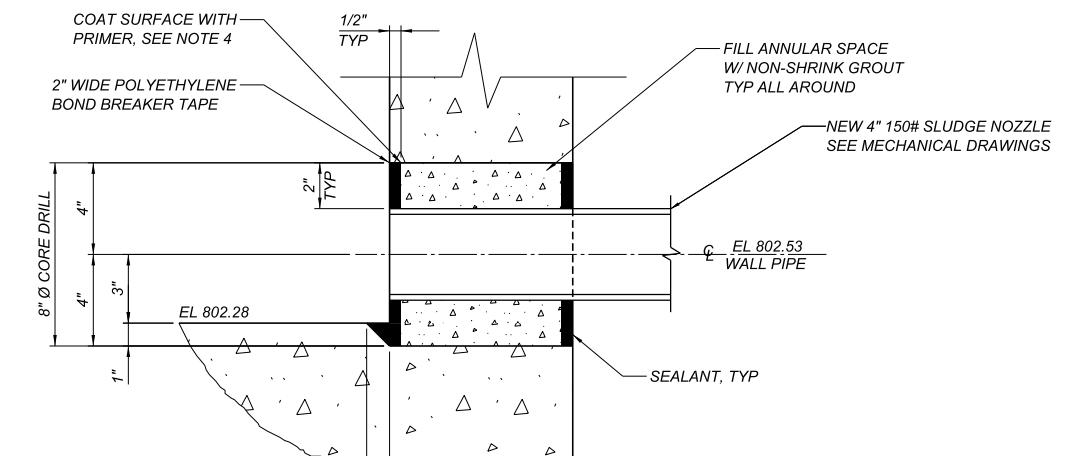
NEW

SECTION B
SCALE: 3/8" = 1'-0"
10S-41



DEMOLITION

SECTION C
SCALE: 1 1/2" = 1'-0"
10S-41



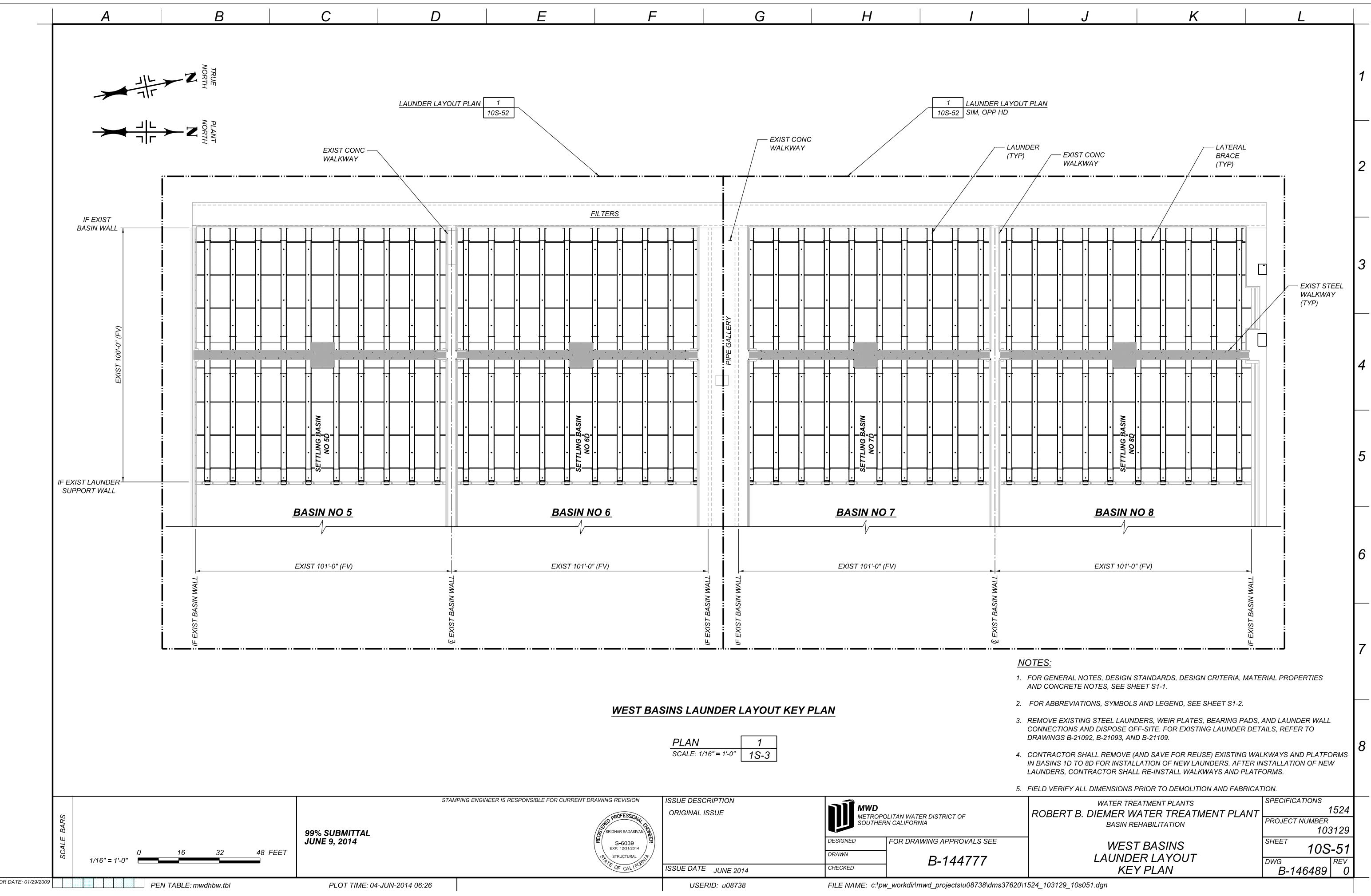
NEW

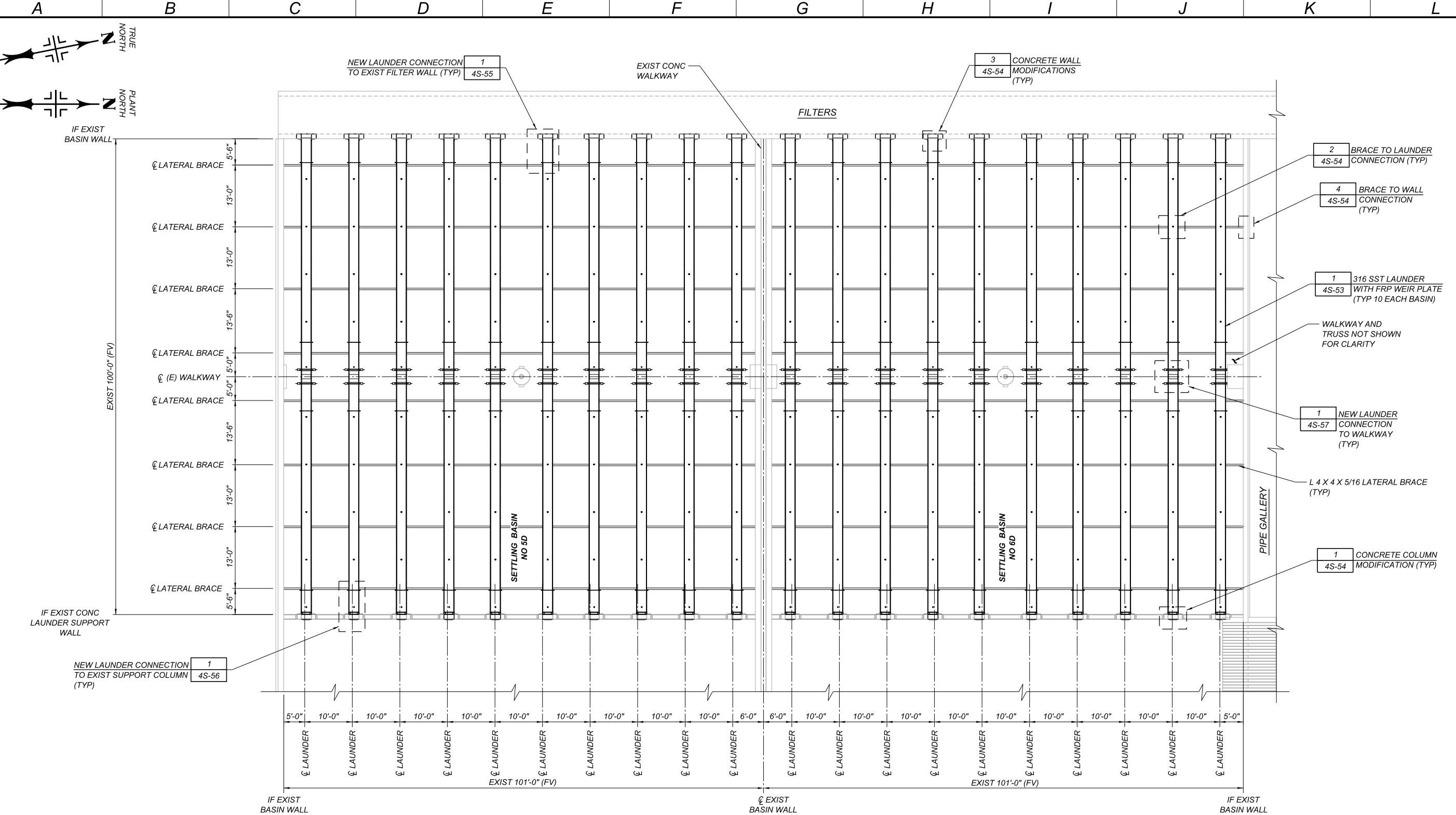
SECTION D
SCALE: 1 1/2" = 1'-0"
10S-41

NOTES:

1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-2.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. FOR EXISTING WALL PIPE DETAILS, SEE REFERENCE DRAWINGS B-19928 AND B-20601.
4. APPLY PRIMER IN ACCORDANCE WITH THE REQUIREMENTS OF THE SEALANT MANUFACTURER.

SCALE BARS	1 1/2" = 1'-0"	0 1 2 FEET	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10S-42 DWG B-146488 REV 0
	3/8" = 1'-0"	0 4 8 FEET						
BRDR DATE: 01/29/2009		PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 06:22	USERID: u08738		FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s042.dgn		

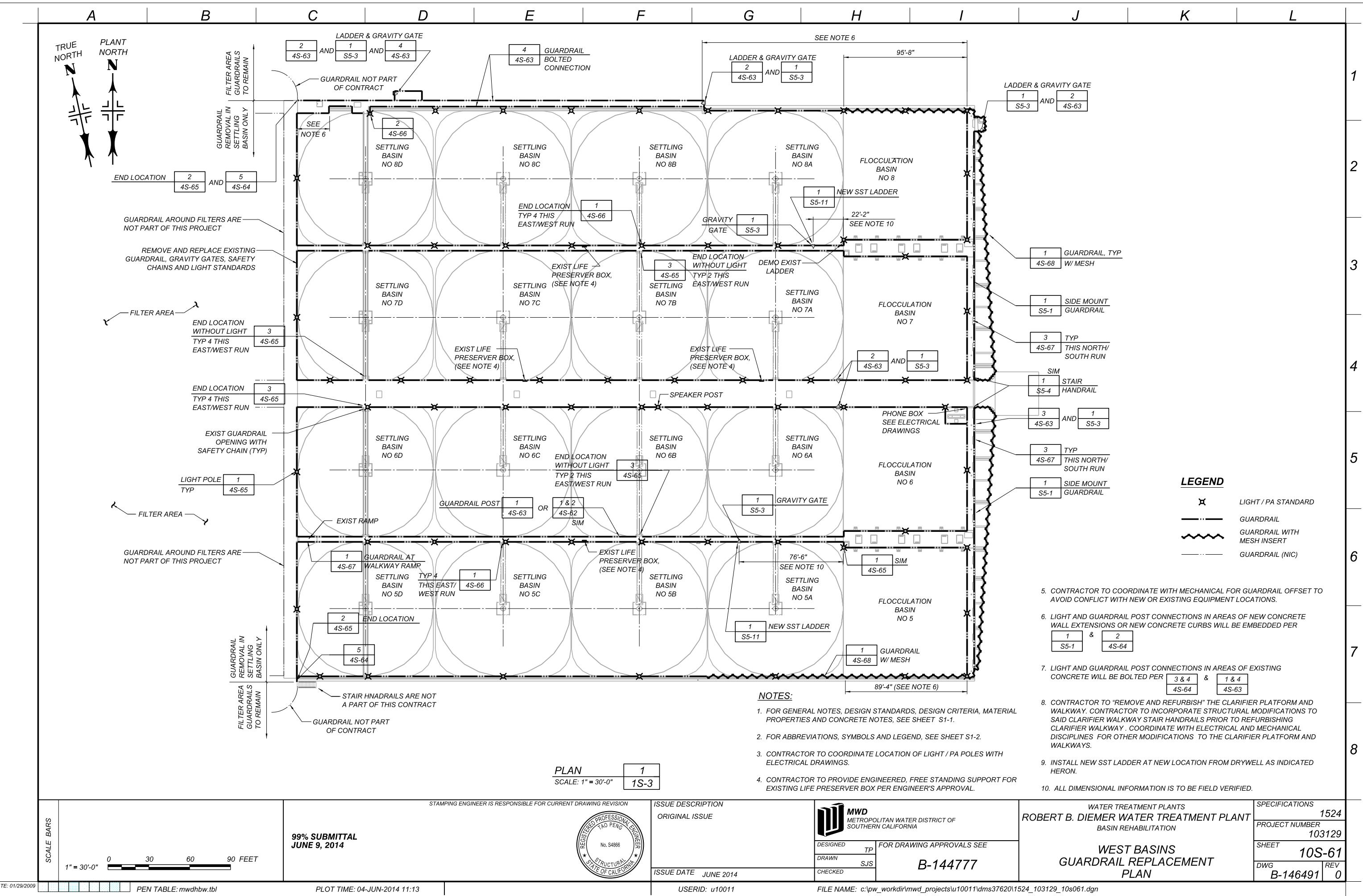




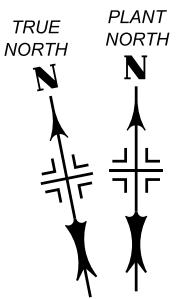
WEST BASINS LAUNDER LAYOUT ENLARGED PLAN

PLAN 1
SCALE: 1" = 10'-0"
10S-51

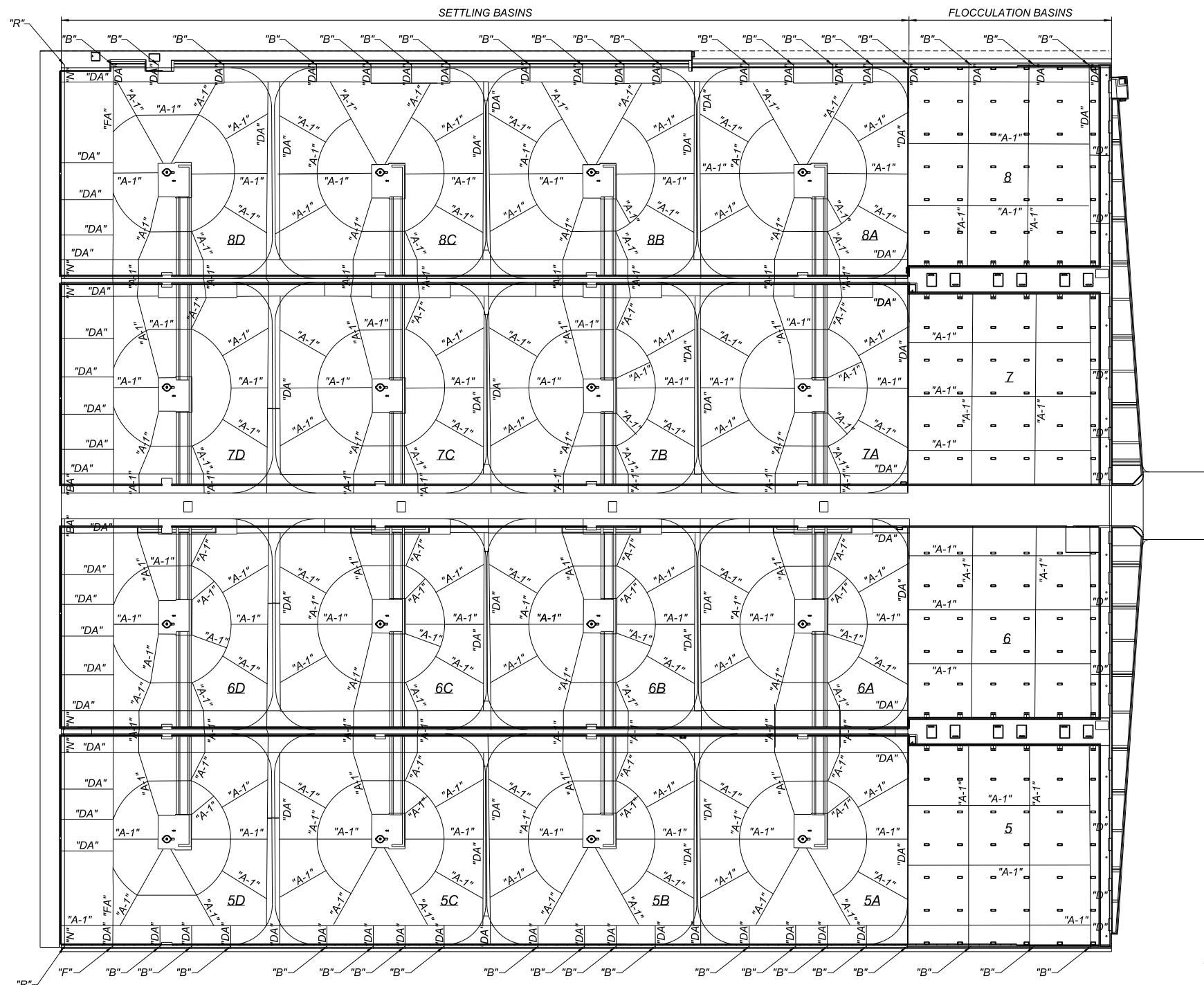
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS	SPECIFICATIONS
1" = 10'-0" 0 10 20 30 FEET	<p>99% SUBMITTAL JUNE 9, 2014</p> <p>REGISTERED PROFESSIONAL ENGINEER SRIDHAR SADASIVAN S-6039 EXP. 12/31/2014 STRUCTURAL STATE OF CALIFORNIA</p>	<p>ORIGINAL ISSUE</p> <p>ISSUE DATE JUNE 2014</p>	<p>MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA</p> <p>DESIGNED DRAWN FOR DRAWING APPROVALS SEE CHECKED B-144777</p>	<p>1524 PROJECT NUMBER 103129 SHEET 10S-52 DWG B-146490 REV 0</p>
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 06:28	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s052.dgn



A B C D E F G H I J K L



FILTERS



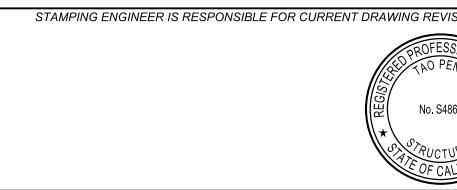
PLAN 1
SCALE: 1" = 30'-0"

1S-2

SCALE BARS

1" = 30'-0" 0 30 60 90 FEET

99% SUBMITTAL
JUNE 9, 2014

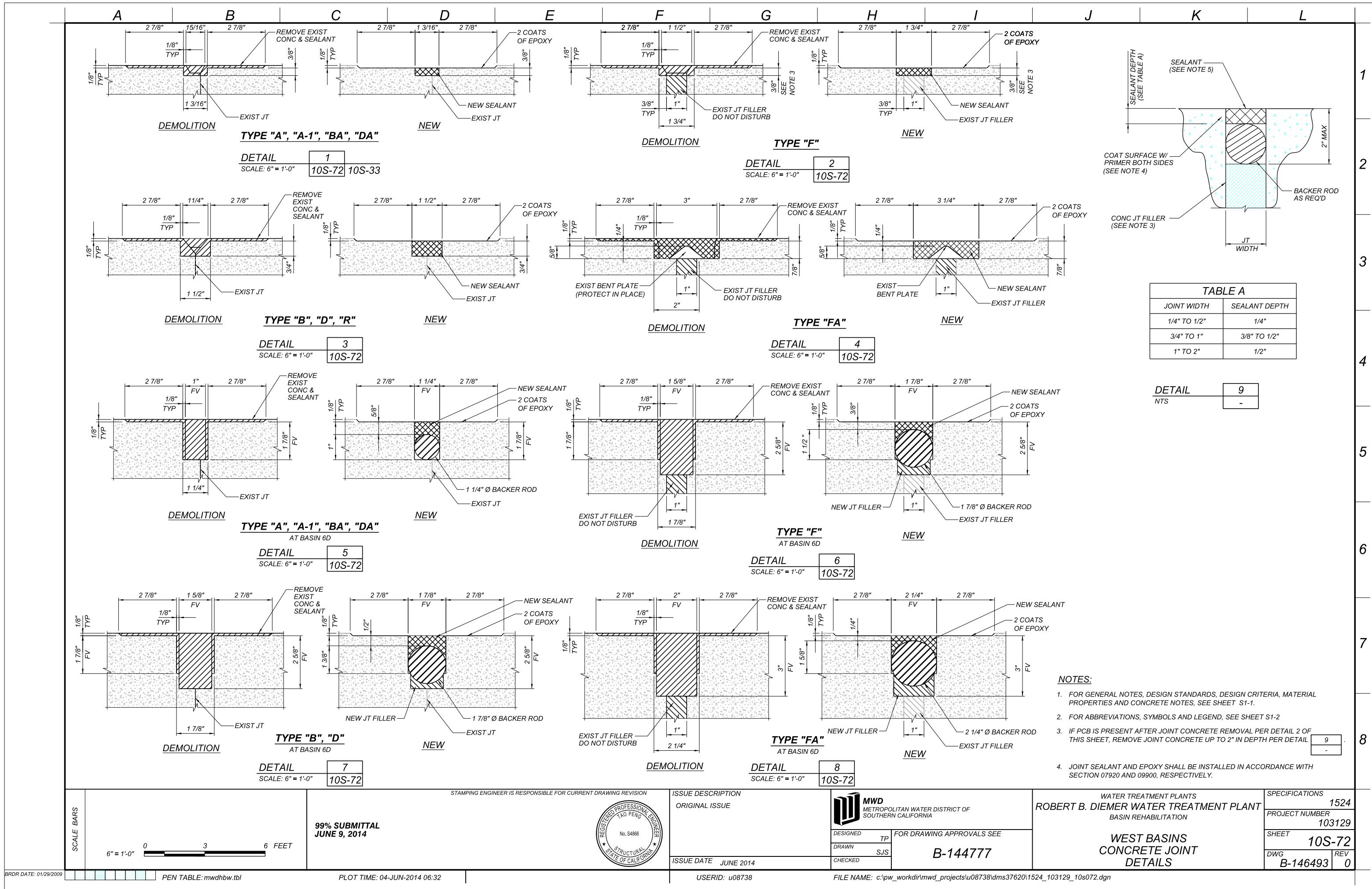


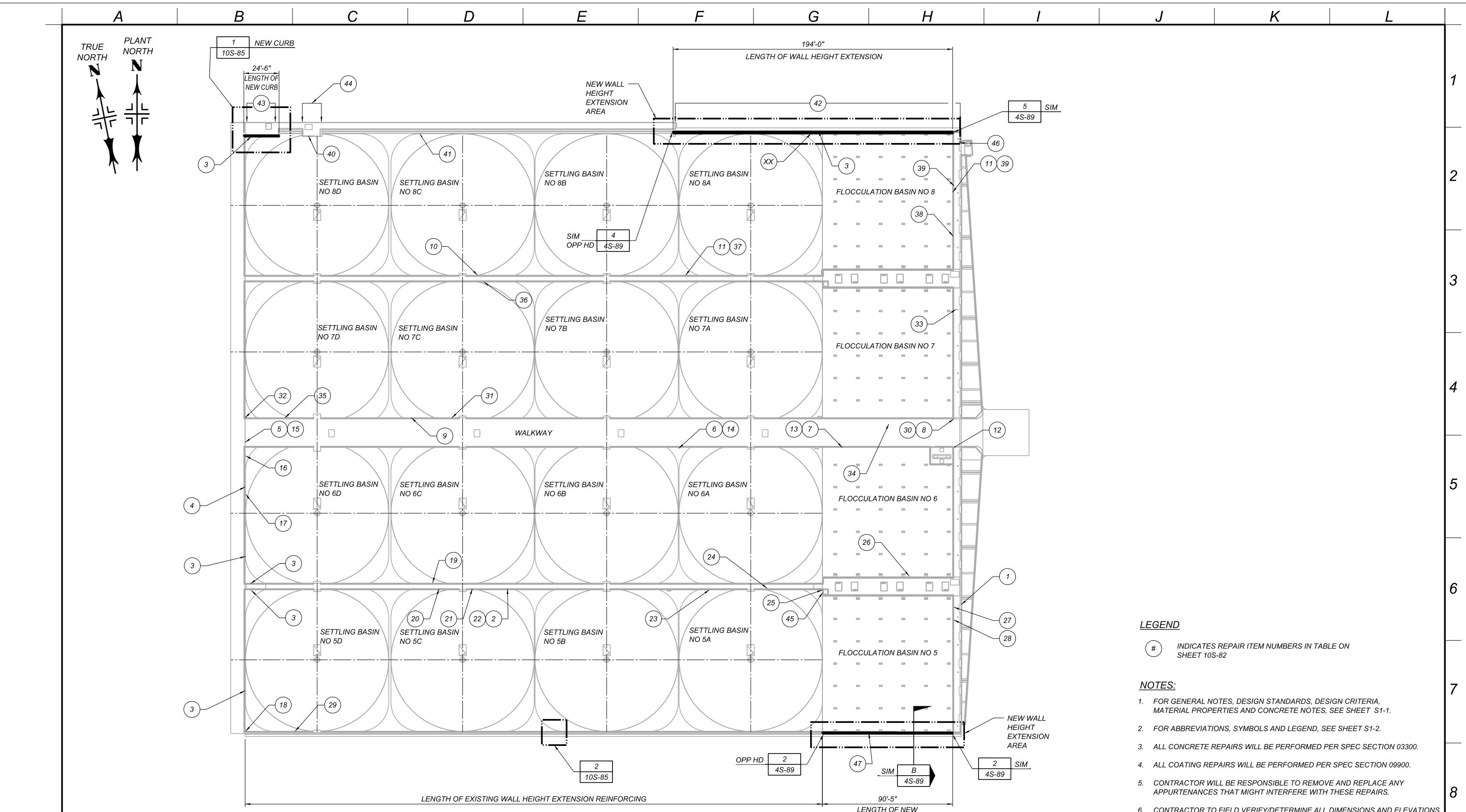
ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED TP FOR DRAWING APPROVALS SEE
DRAWN SJS
CHECKED
B-144777

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS CONCRETE JOINT LOCATION PLAN
10S-71

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
10S-71
DWG B-146492 REV 0



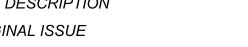


LEGEND

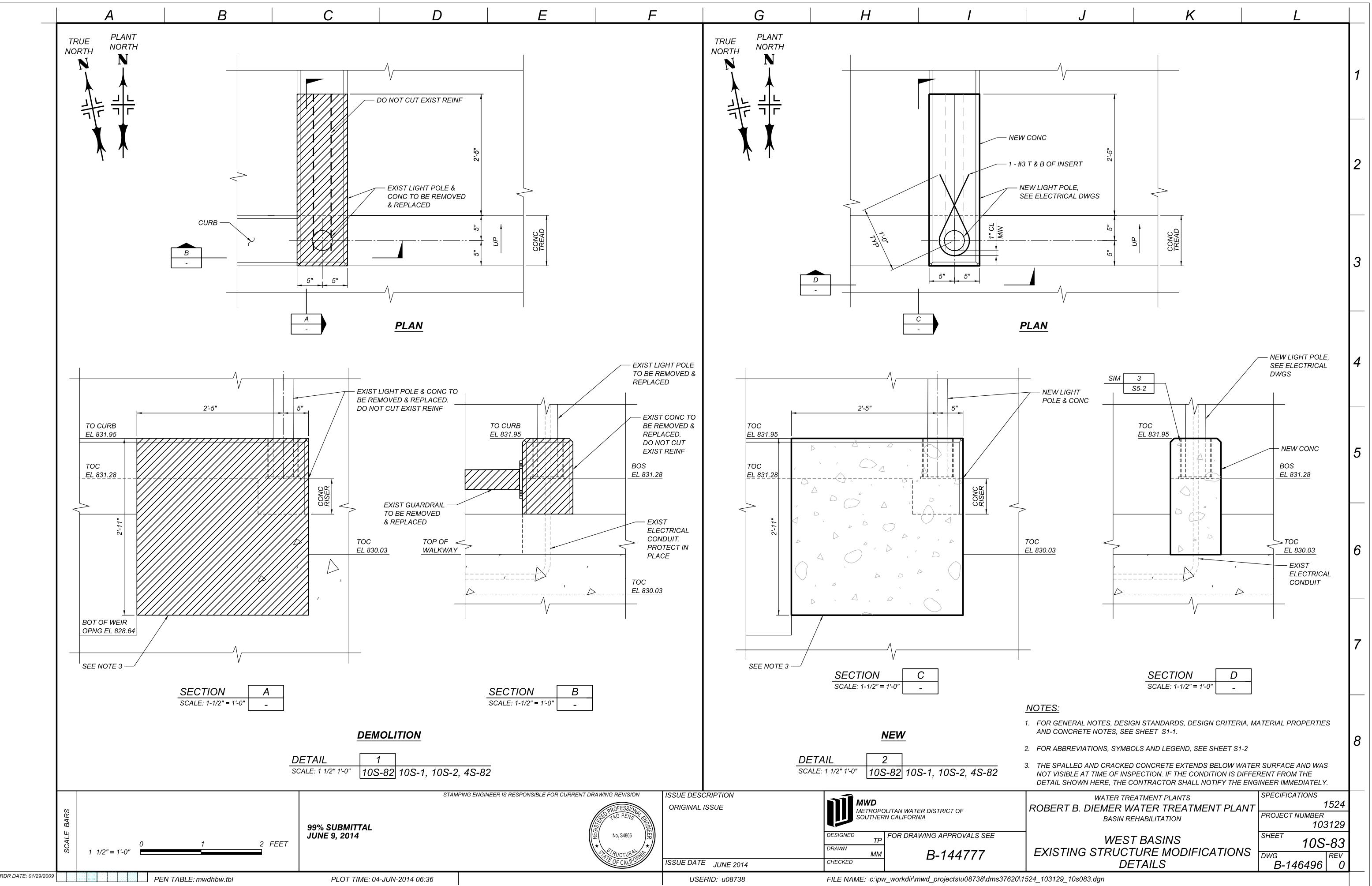
INDICATES REPAIR ITEM NUMBERS IN TABLE ON SHEET 10S-82

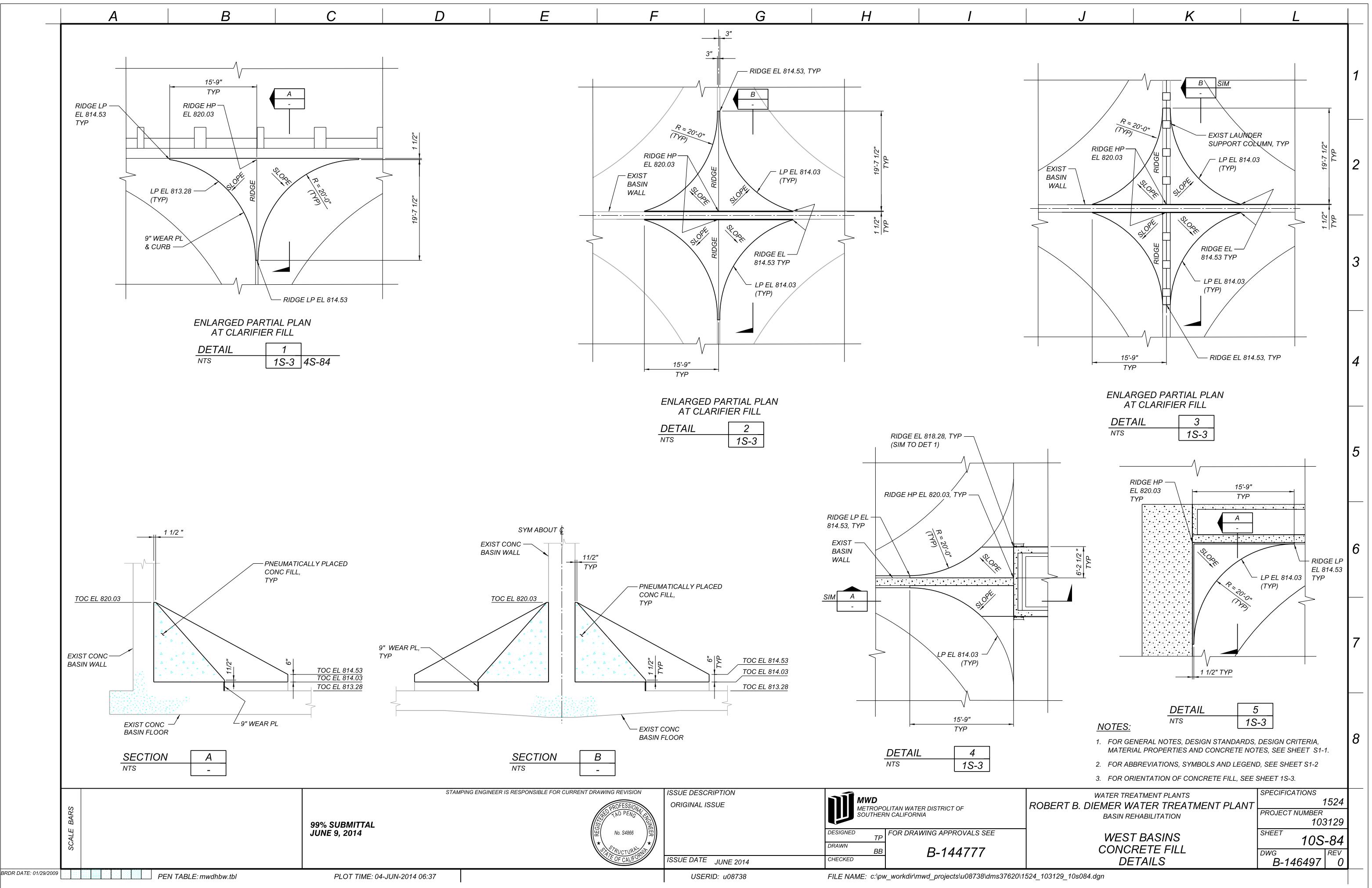
NOTES:

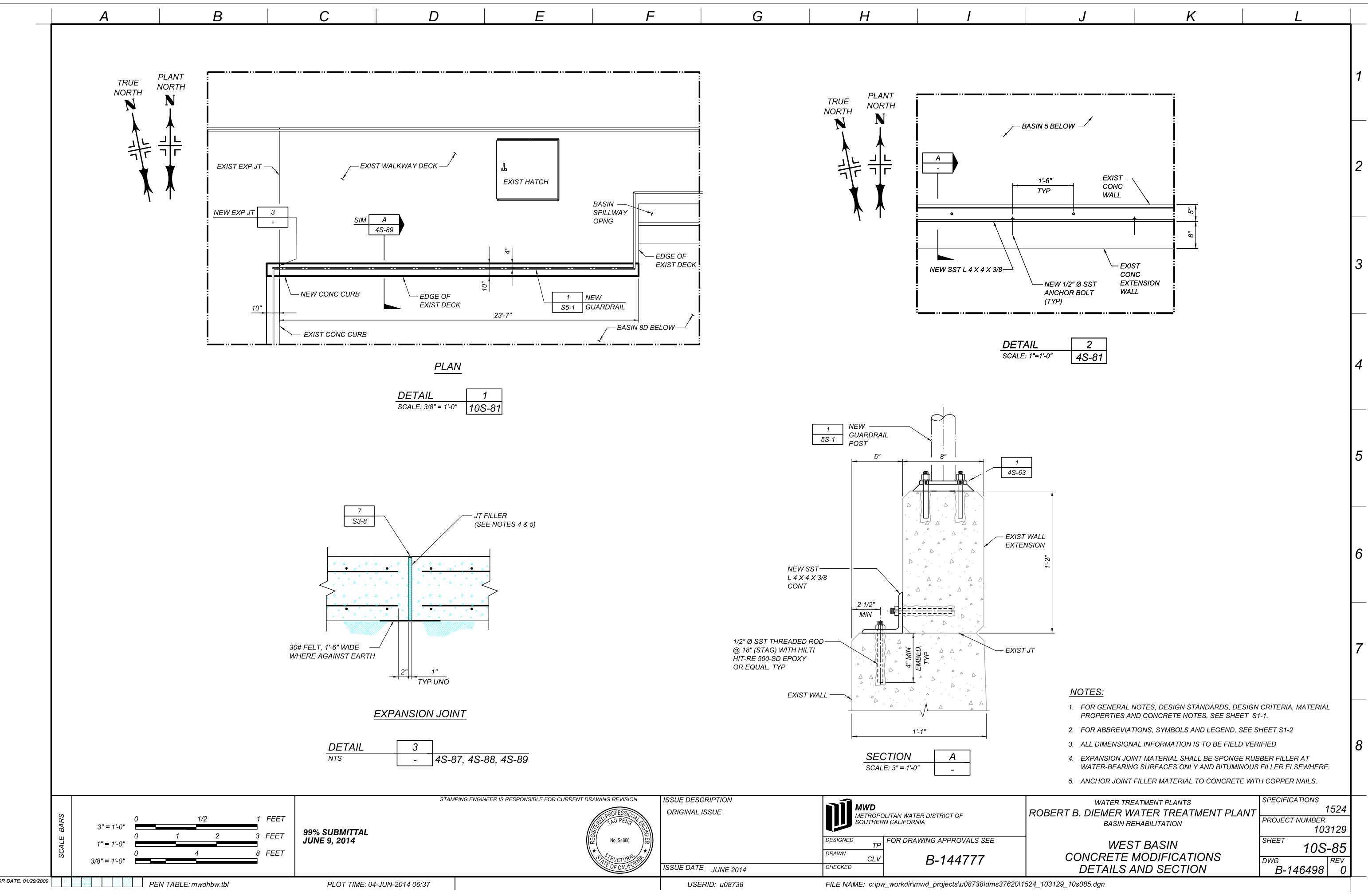
1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
 2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
 3. ALL CONCRETE REPAIRS WILL BE PERFORMED PER SPEC SECTION 03300.
 4. ALL COATING REPAIRS WILL BE PERFORMED PER SPEC SECTION 09900.
 5. CONTRACTOR WILL BE RESPONSIBLE TO REMOVE AND REPLACE ANY APPURTENANCES THAT MIGHT INTERFERE WITH THESE REPAIRS.
 6. CONTRACTOR TO FIELD VERIFY/DETERMINE ALL DIMENSIONS AND ELEVATIONS PRIOR TO DEMOLITION, FABRICATION, CONSTRUCTION AND INSTALLATION OF ANY ITEMS ASSOCIATED WITH THIS PROJECT.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION			ISSUE DESCRIPTION ORIGINAL ISSUE	 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524			
	99% SUBMITTAL JUNE 9, 2014							DESIGNED TP	FOR DRAWING APPROVALS SEE B-144777	
	 <p>REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA</p>			DRAWN SJS	CHECKED	SHEET 10S-81				
				ISSUE DATE JUNE 2014		DWG B-146494	REV 0			
BRDR DATE: 01/29/2009			PEN TABLE: mwdhbw.tbl			PLOT TIME: 04-JUN-2014 06:35			USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s081.dgn
 <p>1" = 30'-0"</p>										

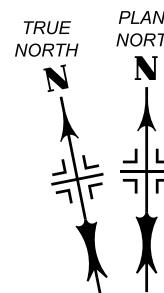
A	B	C	D	E	F	G	H	I	J	K	L
ITEM NO #	BASIN #	REPAIR TYPE	CONCRETE REPAIR AREA	DETAIL / DRAWING	NOTES						
1	NO 5	REPAIR CRACKED AND SPALLED CONCRETE SURFACE ON WALKWAY SLAB	AREA = 2 sq ft. DEPTH = 2"	1 & 2 / 4S-87	REPAIR PER SPEC SECTION 03300						
2	NO 5/6	REPAIR SPALLED CONCRETE SURFACE; 8 LOCATIONS	AREA = 0.25 sq ft EACH, DEPTH = 2"	1 & 2 / 4S-87 OR 1 & 2 / 4S-88	REPAIR PER SPEC SECTION 03300						
3	NO 5/6/8	REMOVE FIBER GLASS BOARD WITH 1/2" Ø ANCHOR BOLT AT 24" ON CENTER; APPROXIMATE 430' IN TOTAL LENGTH		4 / 4S-86	BURN BACK EXPOSED ANCHOR BOLT(S) 1 1/2" DEEP AND FILL HOLE WITH NON-SHRINK GROUT						
4	NO 6	REMOVE CORRODED PARTIALLY REMOVED GUARDRAIL POST AND CONCRETE CURB. REPLACE WITH NEW CONCRETE AND/OR GUARDRAIL POST	VOL = 1 cu ft.	1 & 2 / 4S-62							
5	NO 6/7	REPAIR CRACKED AND SPALLED CONCRETE SURFACE (PREVIOUS REPAIR)	AREA = 4.5 sq ft. DEPTH = 4"	1 & 2 / 4S-87	REPAIR PER SPEC SECTION 03300						
6	NO 6	REPAIR SPALLED CONCRETE ON CURB	AREA = 0.25 sq ft DEPTH = 2"	1 & 2 / 4S-88	REPAIR PER SPEC SECTION 03300						
7	NO 6	REMOVE AND REPLACE CRACKED CONCRETE CURB AT THE EXISTING CONSTRUCTION JOINT	VOL = 0.8 cu ft.	1 & 2 / 4S-62	USE DETAILS IF NEW GUARDRAIL POST IS INSTALLED AT THIS LOCATION						
8	NO 7	REMOVE AND REPLACE CRACKED CONCRETE		1 & 2 / 10S-83							
9	NO 7	REPAIR CRACKED AND SPALLED CONCRETE AROUND ELECTRICAL PULL BOX	AREA = 0.1 sq ft. DEPTH = 2"	1 & 2 / 4S-88 (SIM)	REPAIR PER SPEC SECTION 03300						
10	NO 7/8	REPAIR CRACKED AND SPALLED CONCRETE SURFACE ON WALKWAY SLAB	AREA = 1.5 sq ft. DEPTH = 2"	1 & 2 / 4S-87	REPAIR PER SPEC SECTION 03300						
11	NO 7/8	REPAIR SPALLED CONCRETE SURFACE AT EXISTING CONSTRUCTION JOINT; 2 LOCATIONS	AREA = 0.15 sq ft EACH, DEPTH = 2"	1 & 2 / 4S-87 OR 1 & 2 / 4S-88	REPAIR PER SPEC SECTION 03300						
12	NO 6	ABANDON 1/2" ANCHOR HOLES EVERY 24" ALONG THE ENTIRE LENGTH OF THE CURB ON THE EAST, NORTH, AND WEST SIDES OF BASIN 6	N/A	4 / 4S-86	HOLES ARE 1/2" Ø AND APPROX. 3 1/2" DEEP						
13	NO 6	BASIN CURB CORNER IS CRACKED (1/16" WIDE) AND SPALLING. CRACK IS APPROX 6" LONG. REMOVE SPALLED MATERIAL, TROWEL PATCH AND REPAIR	8' X 8' X 6'	1 & 2 / 4S-88 (SIM)	CHIP AND REMOVE LOOSE MATERIAL; ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
14	NO 6	BASIN CURB FACE SPALL APPROX 6" X 6". REMOVE SPALLED MATERIAL, TROWEL PATCH & REPAIR	6' X 6"	1 & 2 / 4S-88 (SIM)	CHIP AND REMOVE LOOSE OR DAMAGED MATERIAL; ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
15	NO 6	BASIN DECK IS CRACKED AND SPALLING	18'X 36" X 4" DEEP	1 & 2 / 4S-87 (SIM)	SAW CUT PERIMETER 1/2" DEEP; CHIP AND REMOVE LOOSE MATERIAL; ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL						
16	NO 6	REMOVE 12" TALL FIBER GLASS PLATE WITH 1/2" Ø ANCHOR BOLTS PLACED EVERY 24" ON WEST SIDE TOP CURB OF BASIN 6		4 / 4S-86	REMOVE FIBER GLASS PLATE; REMOVE ANCHOR HARDWARE; PATCH REPAIR 1/2" HOLES						
17	NO 6	REMOVE 6" PORTION OF PARTIALLY REMOVED 2" Ø STEEL HAND RAIL POST ON WEST SIDE TOP CURB OF BASIN 6		3 / 4S-86	REMOVE STEEL POST INSERTED IN CONCRETE. FILL AND REPAIR HOLE PER INSTRUCTIONS ON DRAWINGS						
18	NO 5	CRACKED & SPALLED 12" TALL X 6" WIDE CONCRETE CURB AT SOUTHWEST CORNER OF BASIN 5	24'X 12'X 6"	1 & 2 / 10S-83(SIM)	REMOVE CRACKED AND SPALLED CONCRETE. REPLACE CONCRETE PER SPECIFICATION 1524						
19	NO 6	1 SHALLOW SURFACE SPALL IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	AREA = 12" Ø	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
20	NO 6	3 SHALLOW SURFACE SPALLS IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	10'X 3"	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
21	NO 6	3 SHALLOW SURFACE SPALLS IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	10'X 3"	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
22	NO 6	3 SHALLOW SURFACE SPALLS IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	10'X 3"	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
23	NO 6	3 SHALLOW SURFACE SPALLS IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	10'X 3"	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
24	NO 6	3 SHALLOW SURFACE SPALLS IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	10'X 3"	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
25	NO 6	3 SHALLOW SURFACE SPALLS IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	10'X 3"	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
26	NO 6	3 SHALLOW SURFACE SPALLS IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	10'X 3"	N/A	REMOVE LOOSE DEBRIS AND CONCRETE. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
27	NO 6	LONG SURFACE CRACK AND SHALLOW SURFACE SPALL IN CONCRETE WALKWAY BETWEEN BASIN 5 & BASIN 6	36'X 8'X 2"	N/A	CHIP AND REMOVE SPALLED CONCRETE AND LOOSE DEBRIS. ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL PER SPEC SECTION 03300						
28	NO 6	HOLE PASSING THROUGH CONCRETE WALKWAY DECK BETWEEN BASIN 6 & BASIN 5	2" Ø X 12" DEEP HOLE	N/A	ABRASIVE BLAST FACE OF REPAIR AREA TO SP-7 CONDITION. TROWEL APPLY NEW MATERIAL						
29	NO 6	SPALLING AND CRACKING CONCRETE AT EXPANSION JOINT AND STAIR		1 & 2 / 4S-88 (SIM)							
30	NO 7	SPALLING CONCRETE AT STAIR STEP CORNER		1 & 2 / 10S-83(SIM)							
31	NO 7	CRACKED CONCRETE ABOVE STEEL PLATE 32" FROM LIGHT POLE		1 & 2 / 4S-88 (SIM)							
32	NO 7	CRACK AT JOINT THAT WAS PREVIOUSLY REPAIRED		1 & 2 / 4S-87 (SIM)							
33	NO 7	2 1/2" CORE DRILLED HOLES ALONG CURB AT 10' OC TOTAL OF 8 HOLES		4 / 4S-86							
34	NO 7	REMOVE ANCHOR BOLTS (4)		4 / 4S-86							
35	NO 7	EXPANSION JOINT MATERIAL DAMAGE			2 / S3-5						
36	NO 7/8	CRACK AT CONSTRUCTION JOINT		1 & 2 / 4S-87							
37	NO 7/8	SLIGHT SPALL AT CONSTRUCTION JOINT		1 & 2 / 4S-87 (SIM)							
38	NO 8	2 1/2" CORE DRILLED HOLES ALONG CURB AT 10' OC TOTAL OF 9 HOLES		1 & 2 / 4S-87 (SIM)							
39	NO 8	SLIGHT SPALL AT CONSTRUCTION JOINT		1 & 2 / 4S-87 (SIM)							
40	NO 8	SPALLING CONCRETE AT EXPANSION JOINT		1 & 2 / 4S-88 (SIM)							
41	NO 8	SLIGHT SPALLING AT WALKWAY EDGE; 2 PLACES		1 & 2 / 4S-87 (SIM)							
42	NO 8	REMOVE 12" TALL FIBER GLASS PLATE WITH 1/2" Ø ANCHOR BOLTS PLACED EVERY 24" ON SOUTH SIDE TOP CURB OF BASIN 8	1/2" Ø HOLES X 3 1/2" DEEP	4 / 4S-86	REMOVE FIBER GLASS PLATE; REMOVE ANCHOR HARDWARE; PATCH REPAIR 1/2" HOLES						
43	NO 8	REMOVE 12" TALL FIBER GLASS PLATE WITH 1/2" Ø ANCHOR BOLTS PLACED EVERY 24" ON SOUTH SIDE TOP CURB OF BASIN 8	1/2" Ø HOLES X 3 1/2" DEEP	4 / 4S-86	REMOVE FIBER GLASS PLATE; REMOVE ANCHOR HARDWARE; PATCH REPAIR 1/2" HOLES						
44	NO 8	REMOVE 12" TALL FIBER GLASS PLATE WITH 1/2" Ø ANCHOR BOLTS PLACED EVERY 24" ON SOUTH SIDE TOP CURB OF BASIN 8	1/2" Ø HOLES X 3 1/2" DEEP	4 / 4S-86	REMOVE FIBER GLASS PLATE; REMOVE ANCHOR HARDWARE; PATCH REPAIR 1/2" HOLES						
45	NO 5	REMOVE DECK PLATE & ANCHOR BOLTS		4 / 4S-86							
46	NO 8	SHALLOW SPALL IN DECK AT HATCH COVER FRAME	6'X 4'X 1" DEEP	1 & 2 / 4S-87							
47	NO 5	REMOVE 90'-9" OF STEEL PLATES AND ASSOCIATED ANCHOR BOLTS	1/2" Ø X UNK DEPTH	4 / 4S-86	GRIND DOWN ANCHOR B						



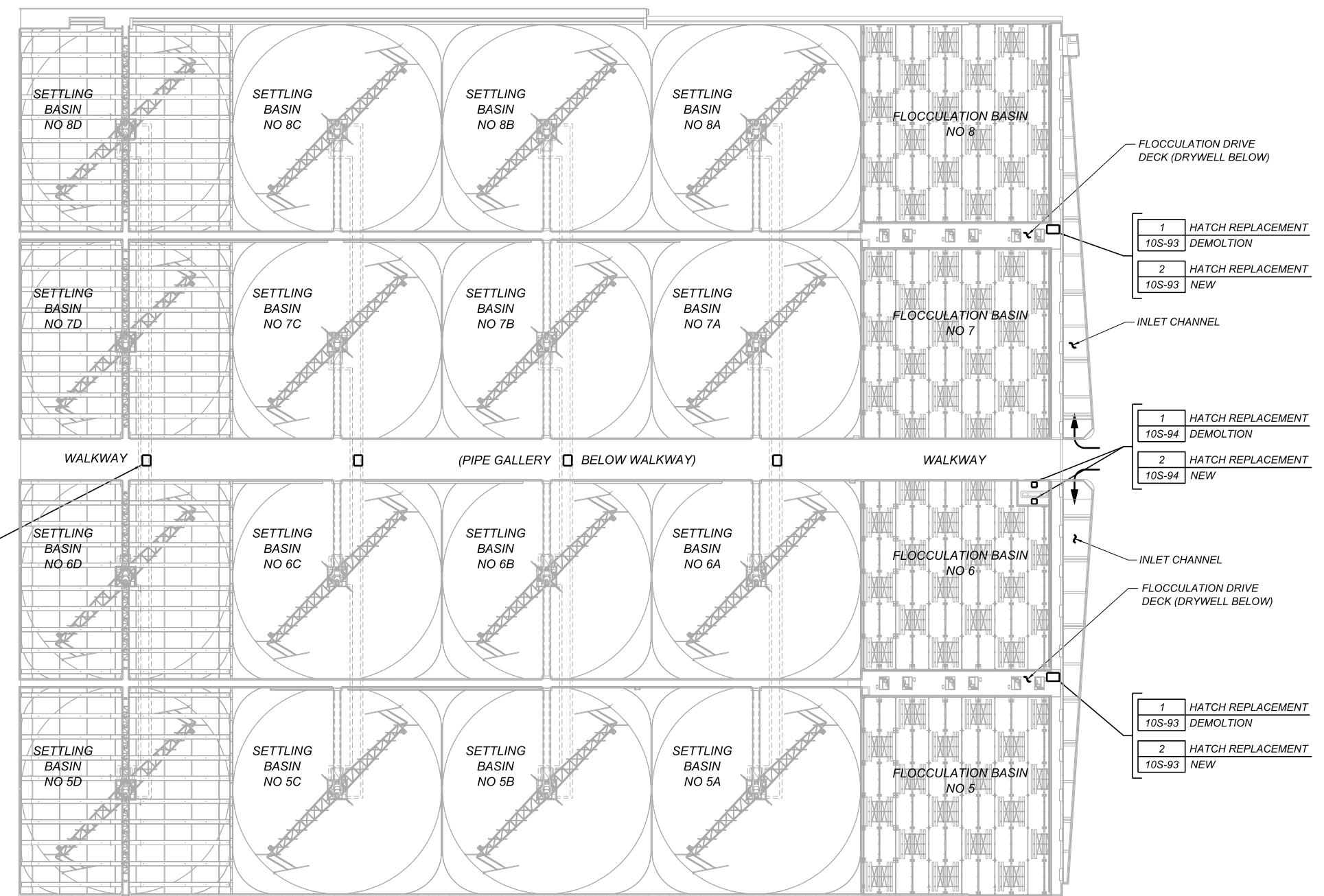




A B C D E F G H I J K L



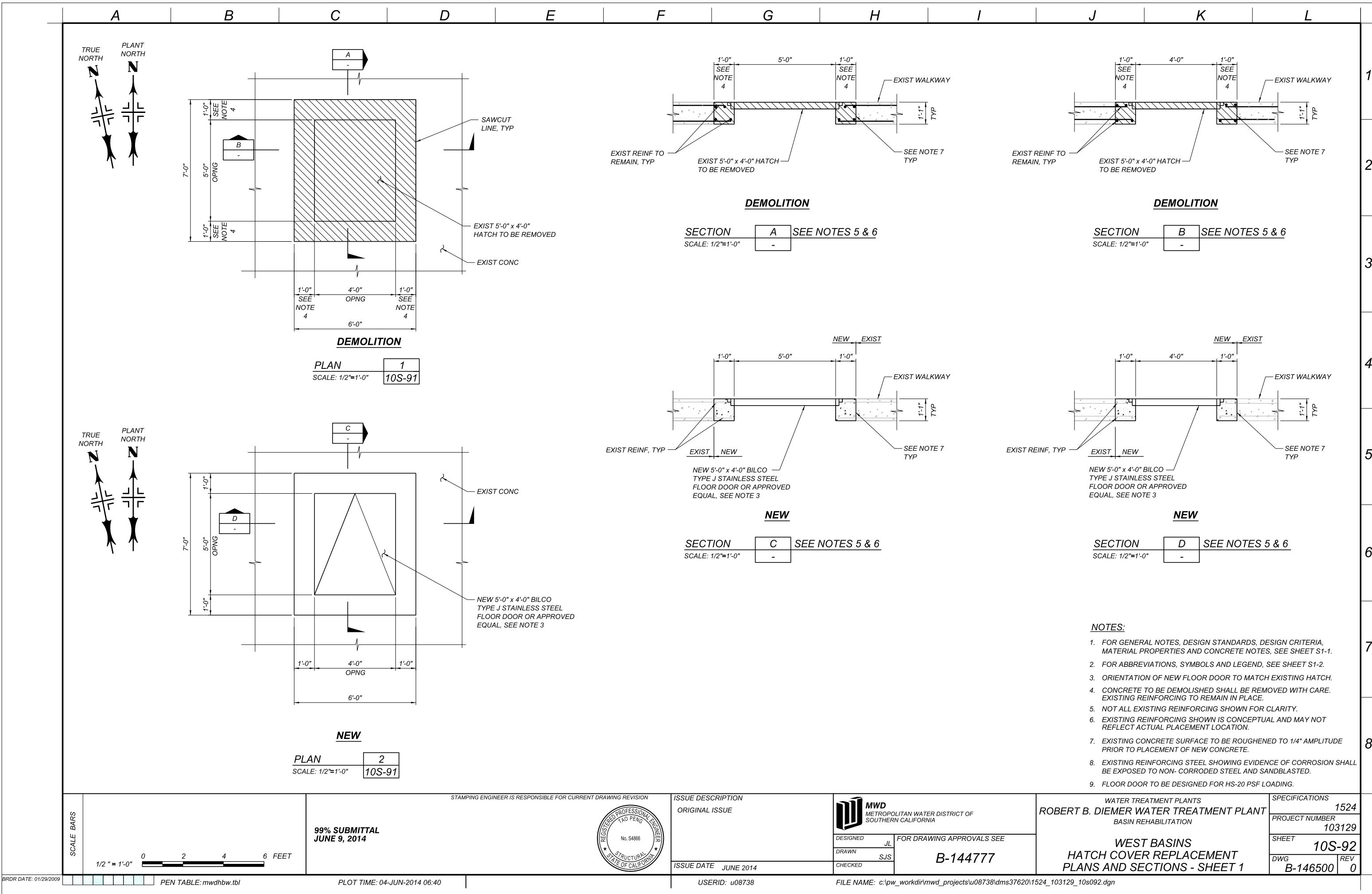
HATCH REPLACEMENT
1 10S-92
DEMOLITION
HATCH REPLACEMENT
2 10S-92
NEW
TYP 4 PLACES (WALKWAY ABOVE PIPE GALLERY)

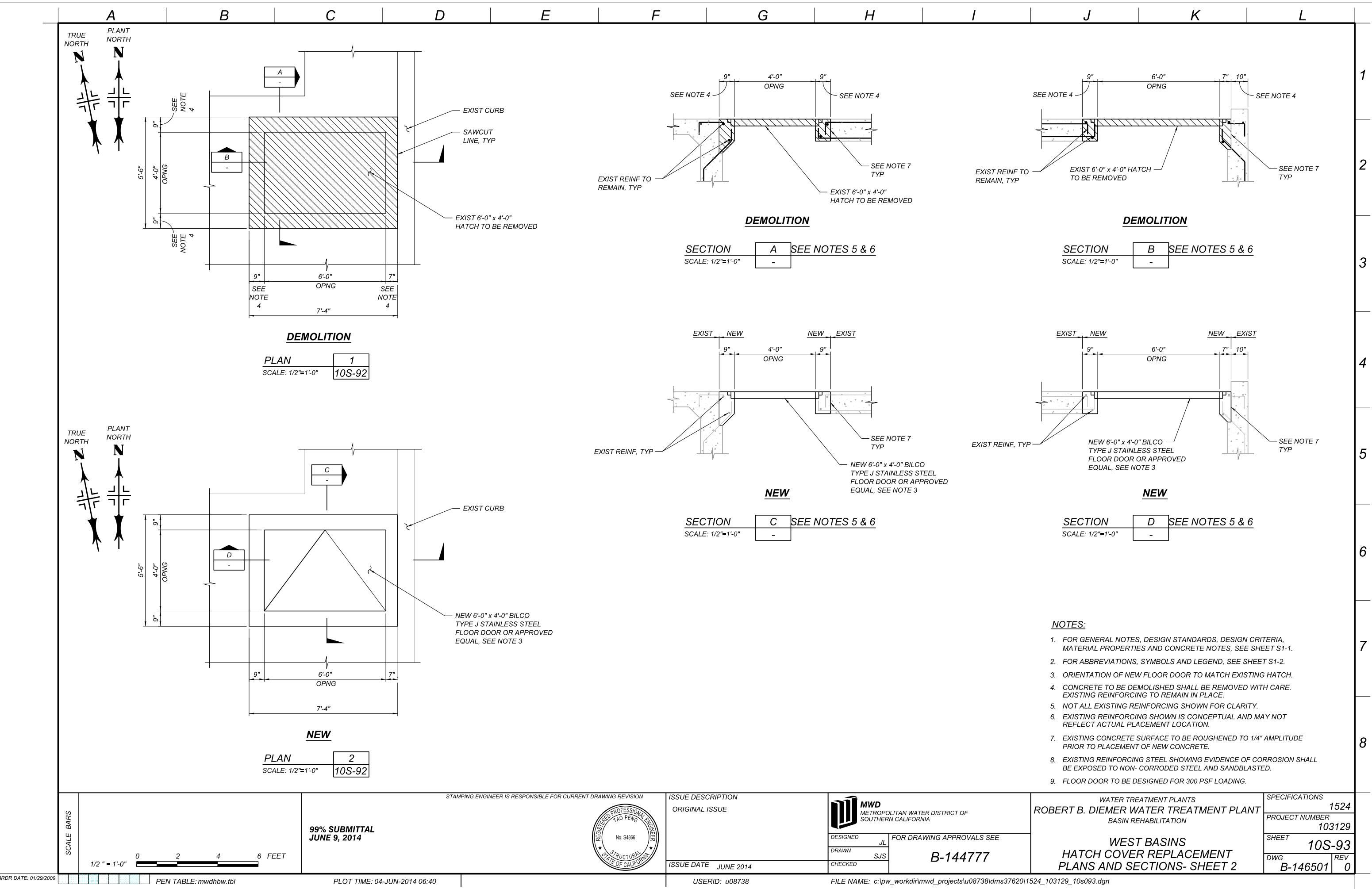


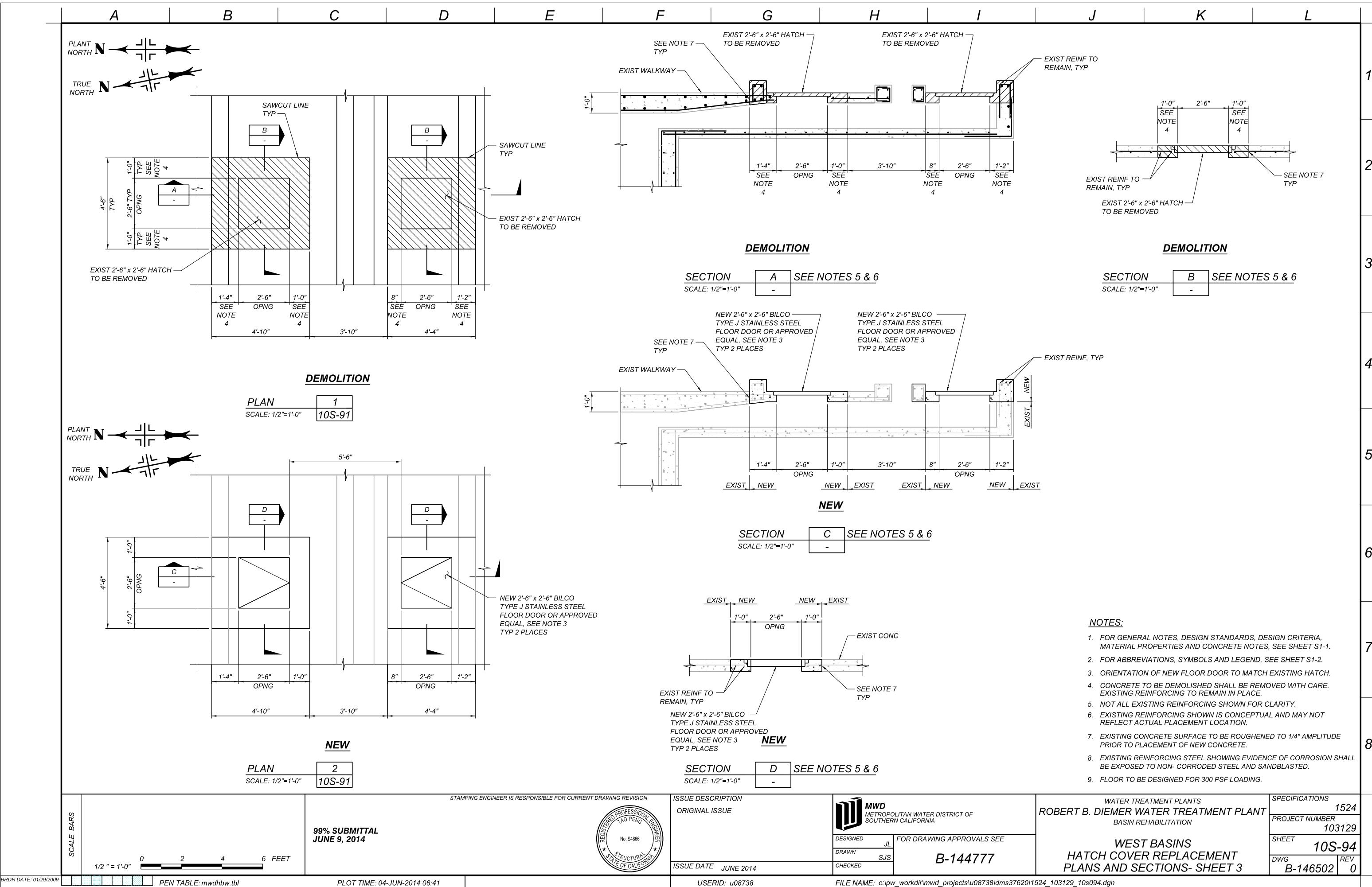
NOTES:

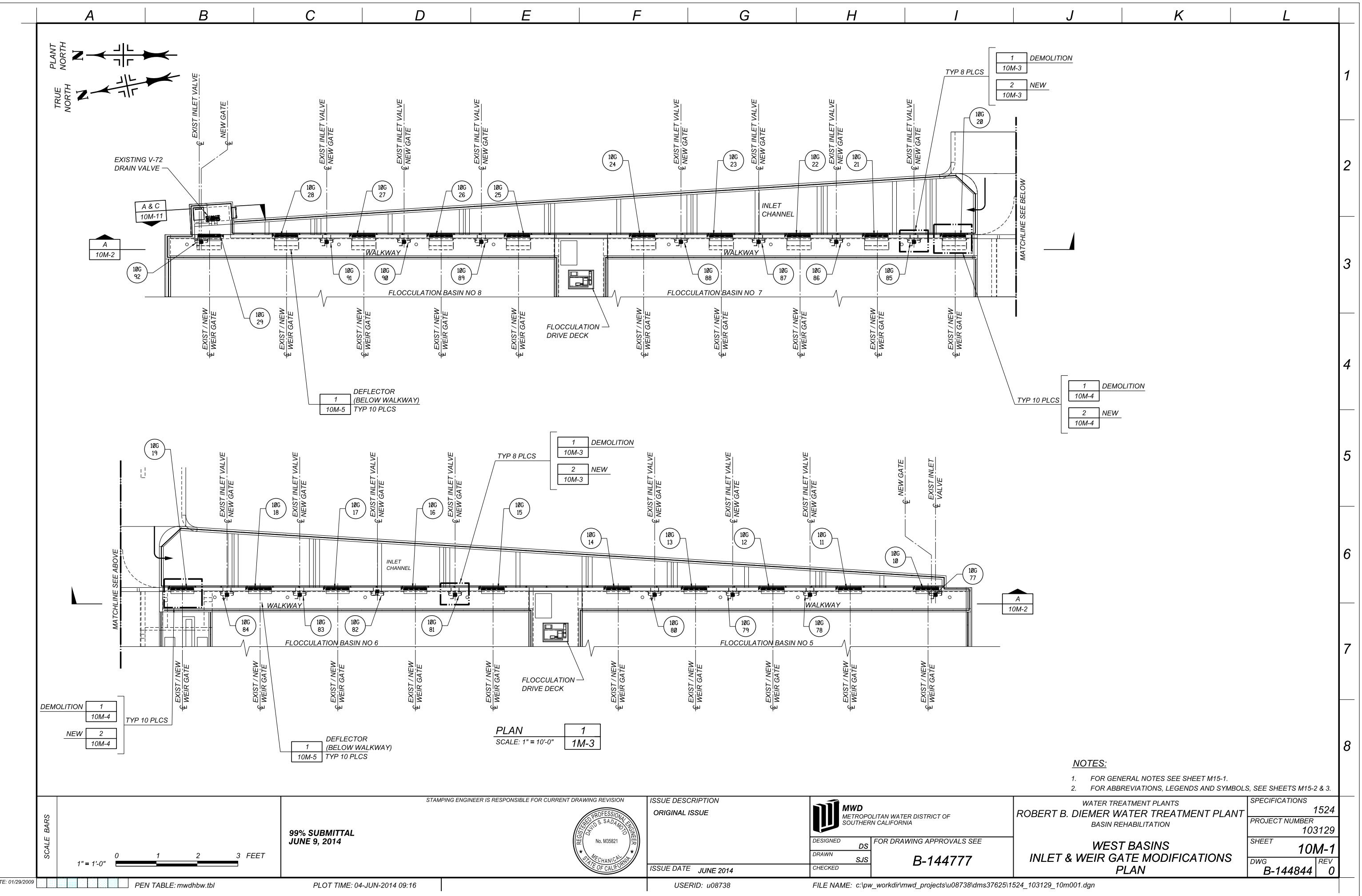
- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
- FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.

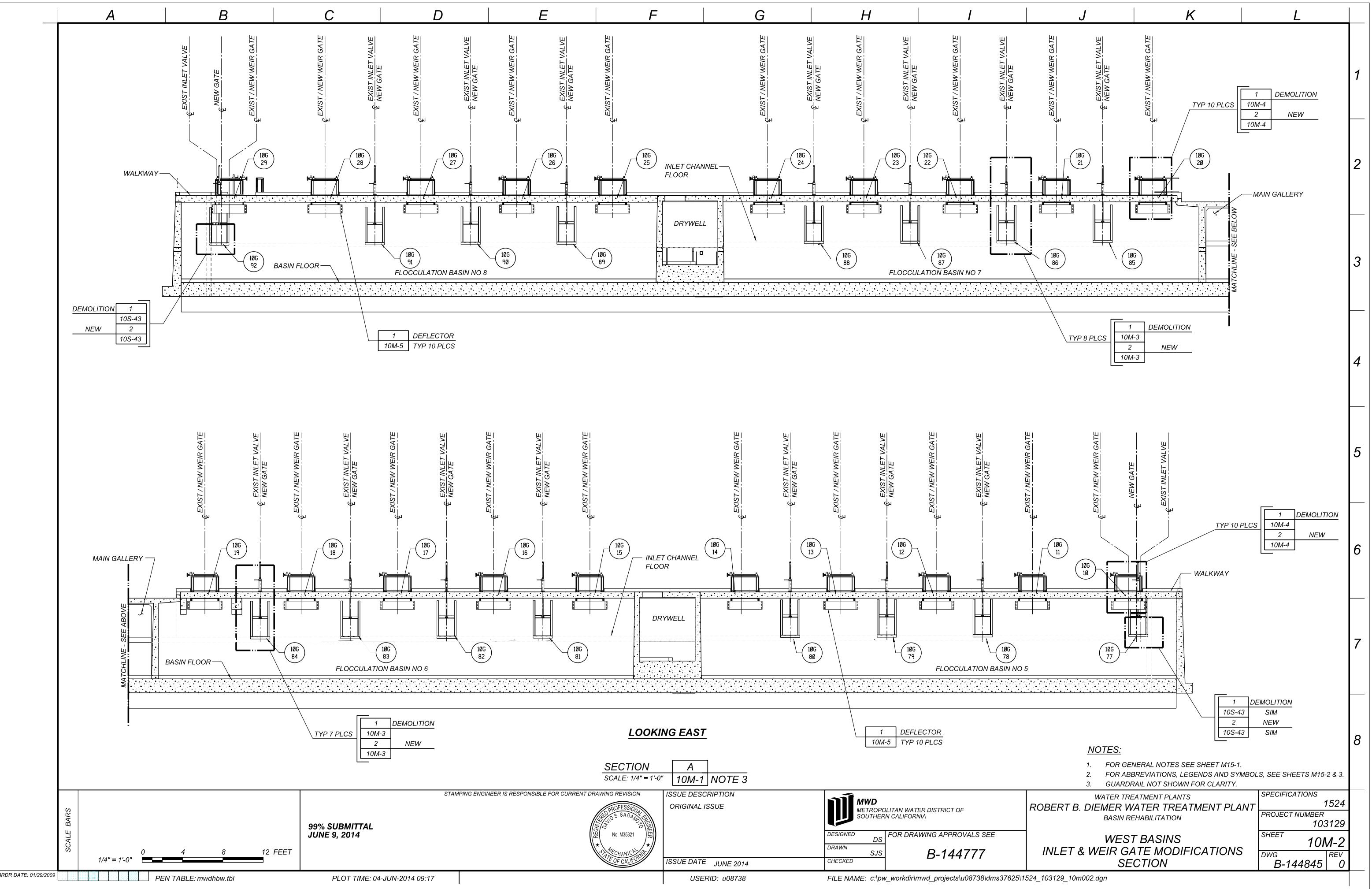
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	REGISTERED PROFESSIONAL ENGINEER No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED JL FOR DRAWING APPROVALS SEE DRAWN SJS CHECKED B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS HATCH COVER REPLACEMENT KEY PLAN	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10S-91 DWG B-146499 REV 0
1" = 30'-0" 0 30 60 90 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 06:39		USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_10s091.dgn		

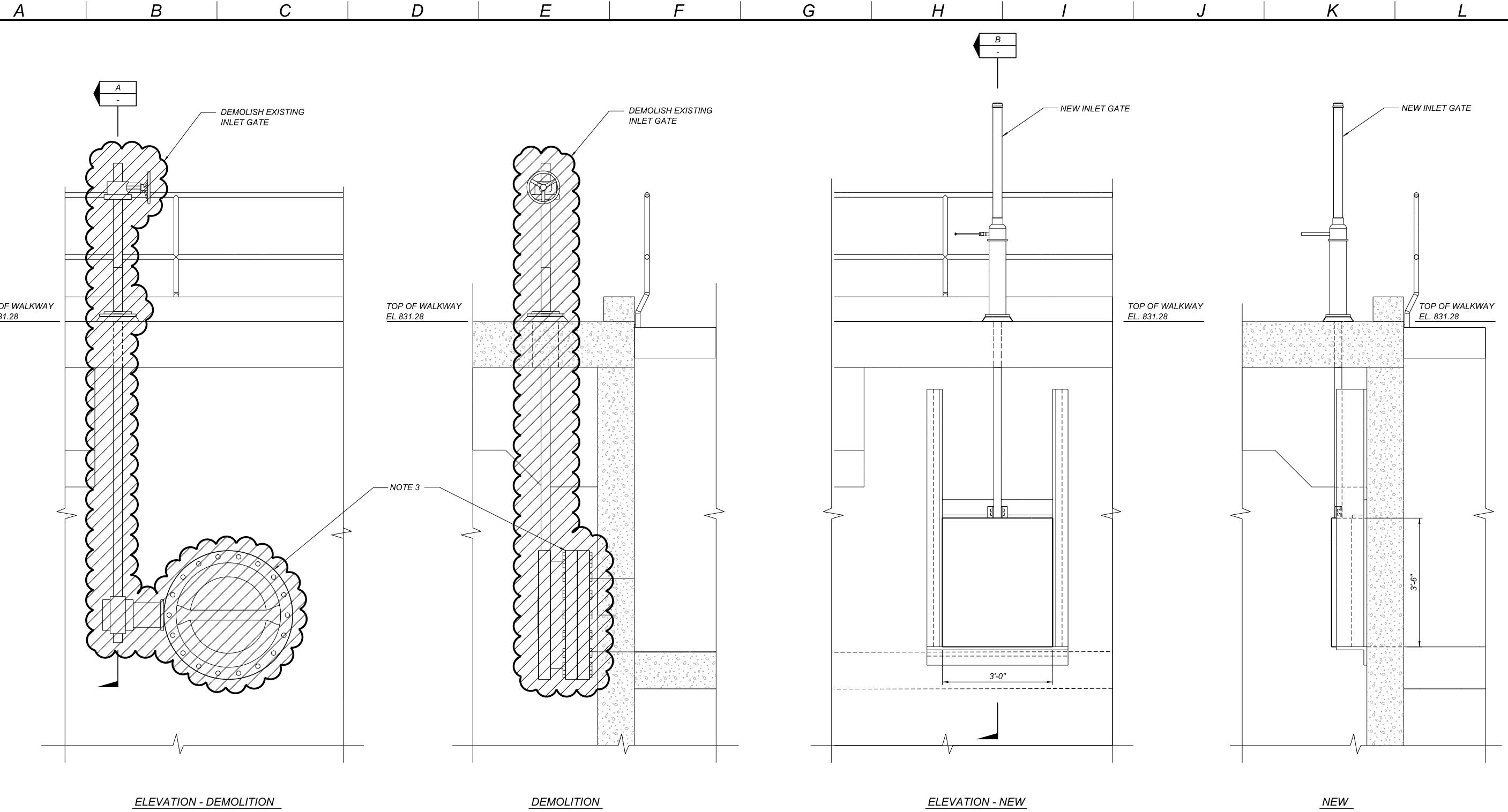






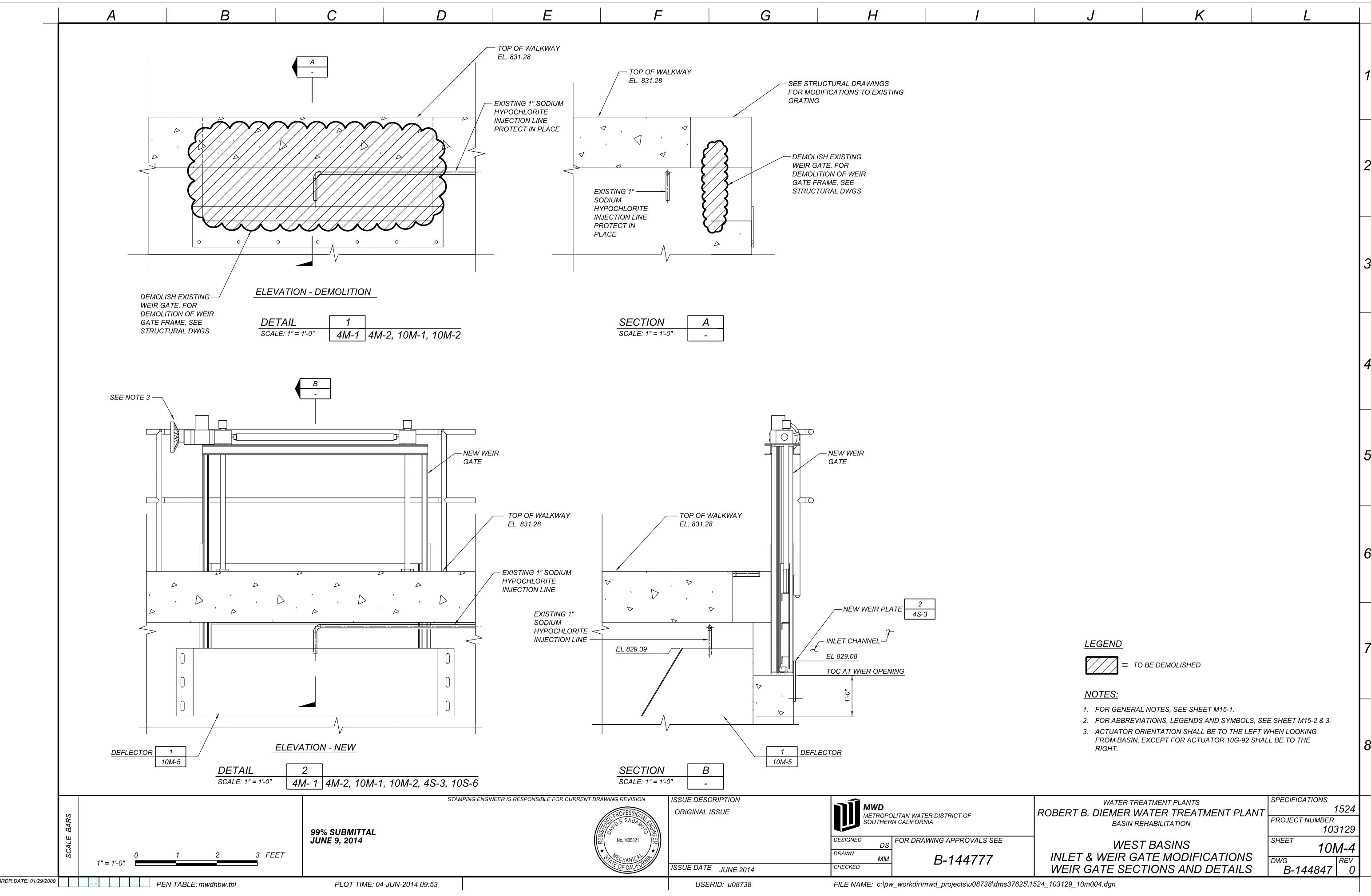




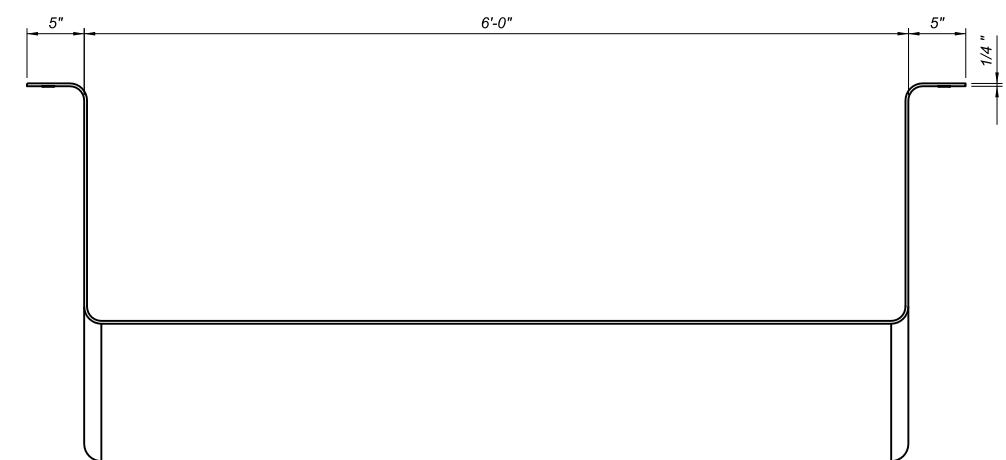
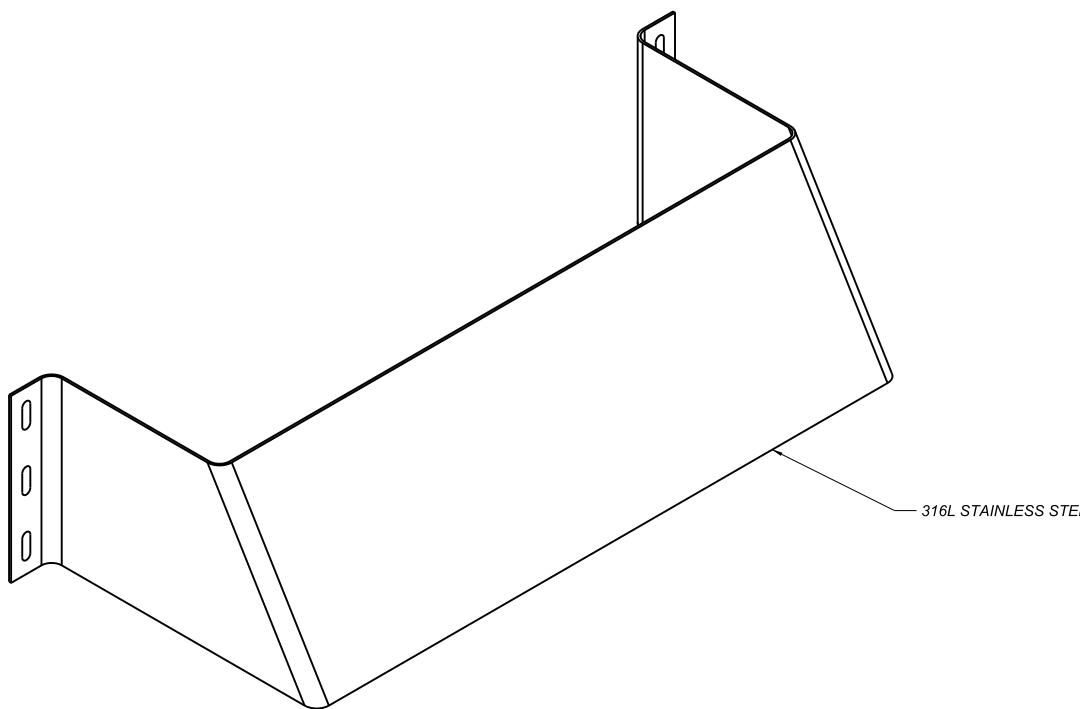


- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET M15-1.
 2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
 3. FOR DEMOLITION OF EXISTING VALVE STEM GUIDE AND VALVE MOUNTING HARDWARE, SEE STRUCTURAL DRAWINGS.

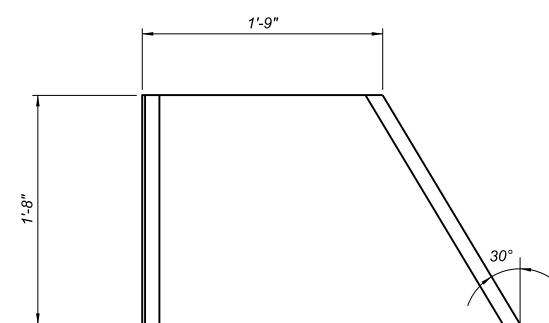
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION DAVID S. SADAMOTO REGISTERED PROFESSIONAL ENGINEER No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE 99% SUBMITTAL JUNE 9, 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS INLET & WEIR GATE MODIFICATIONS INLET GATE SECTIONS AND DETAILS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-3 DWG B-144846 REV 0
3/4" = 1'-0" 0 2 4 FEET			USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m003.dgn	



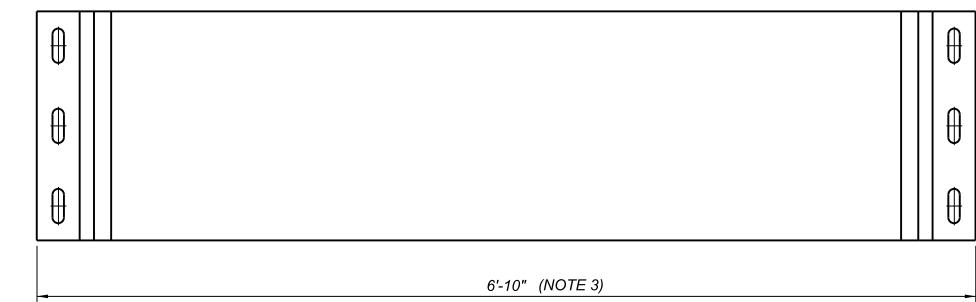
A | B | C | D | E | F | G | H | I | J | K | L



PLAN



LEFT SIDE



FRONT

NOTES:

1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. DEFLECTORS FOR 10G-10 AND 10G-29 SHALL BE LONGER (WIDER) TO ACCOMODATE 10G-77 AND 10G-92.

DETAIL 1
SCALE: 1 1/2" = 1'-0"
4M-1 4M-2, 10M-1, 10M-2, 10M-4

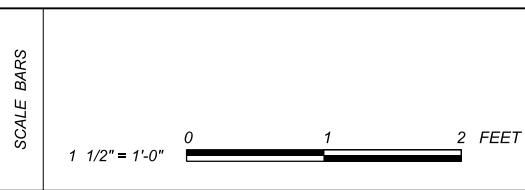


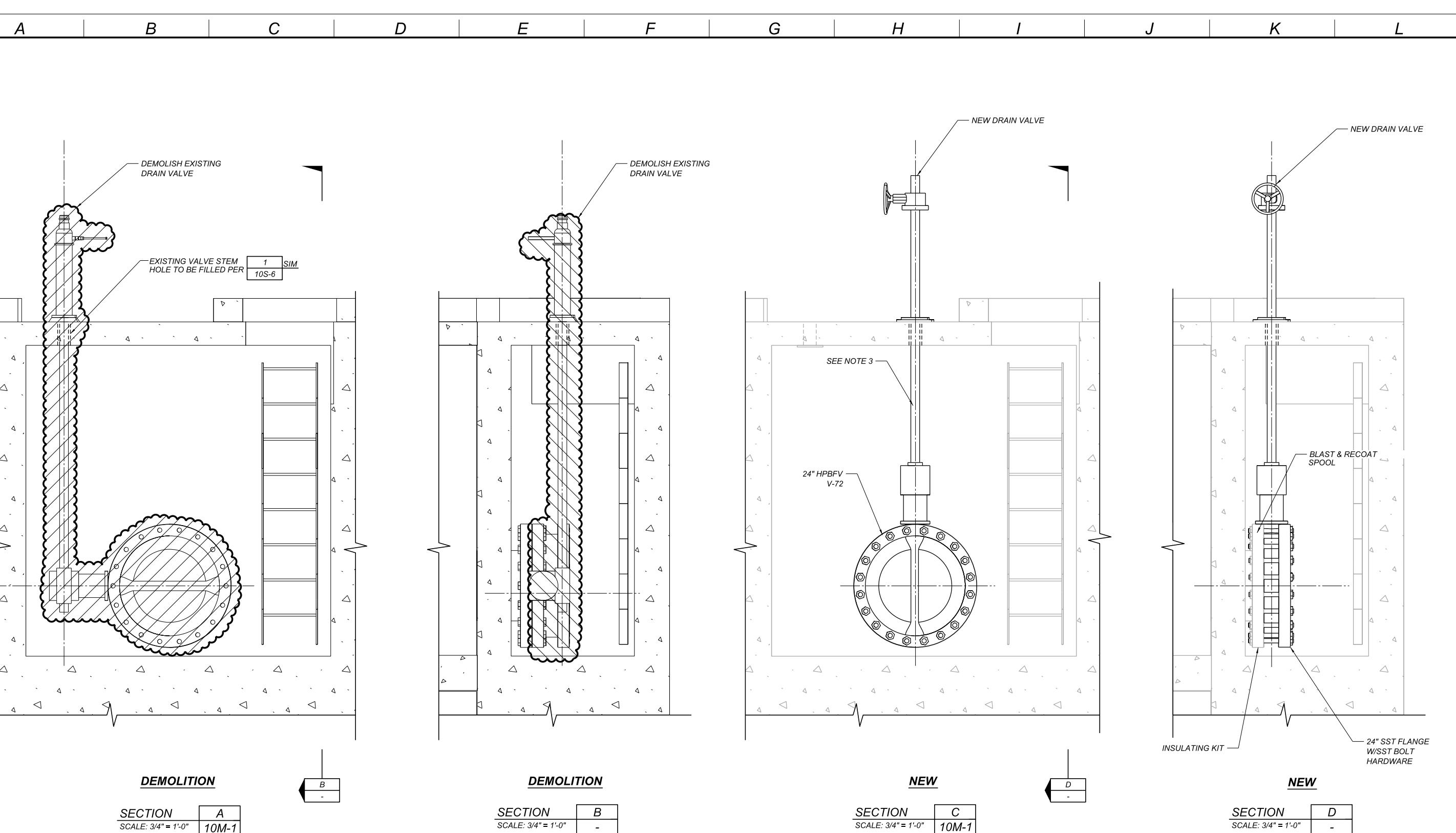
STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION
99% SUBMITTAL
JUNE 9, 2014
ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED DS
DRAWN TJB
FOR DRAWING APPROVALS SEE
B-144777
CHECKED

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS
INLET & WEIR GATE MODIFICATIONS
INLET WEIR DEFLECTOR DETAIL

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
10M-5
DWG B-144848 REV 0





SECTION A
SCALE: 3/4" = 1'-0"
10M-1

SECTION B
SCALE: 3/4" = 1'-0"
-

SECTION C
SCALE: 3/4" = 1'-0"
10M-1

SECTION D
SCALE: 3/4" = 1'-0"
-

LEGEND

= TO BE DEMOLISHED

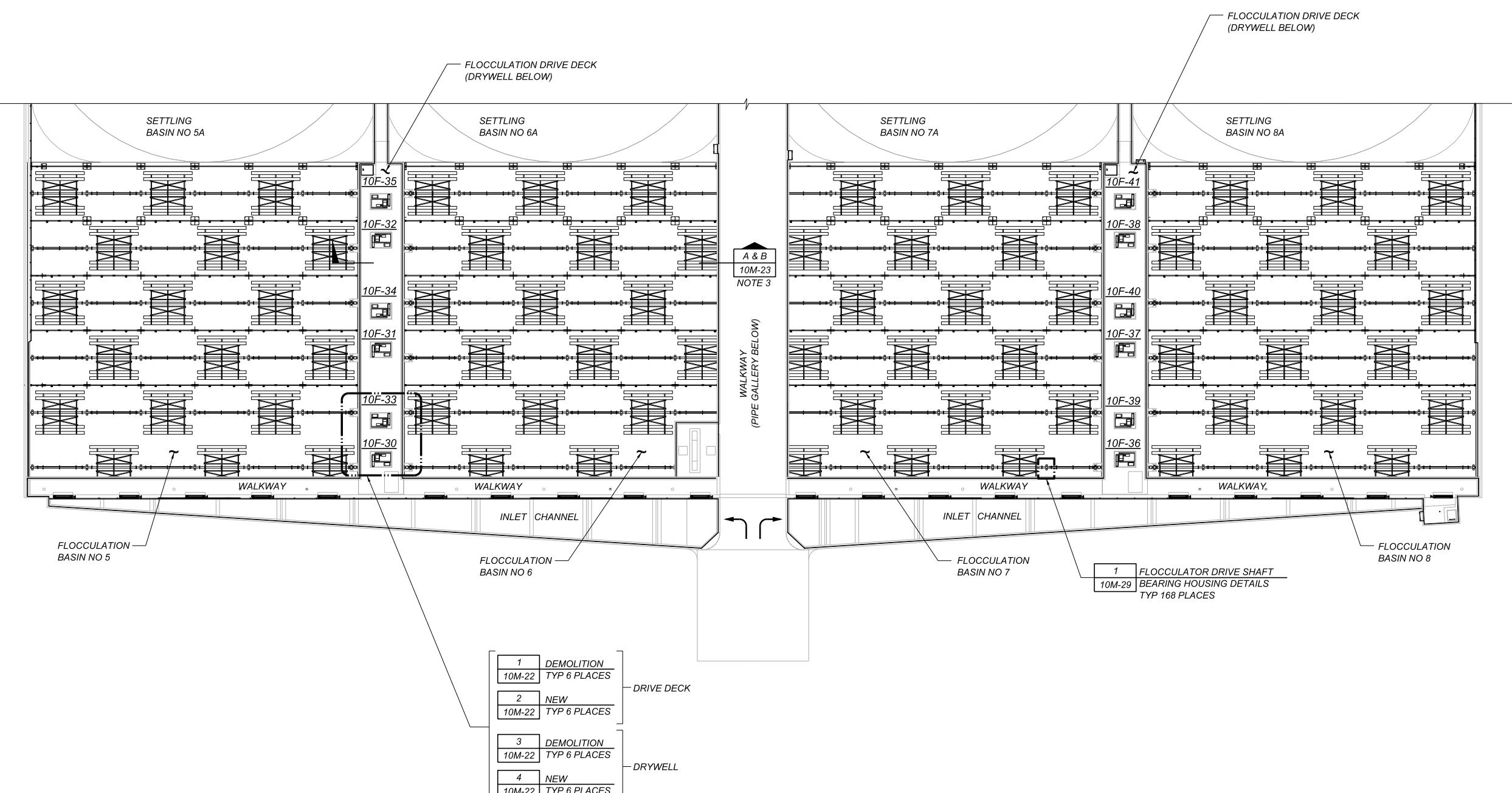
NOTES:

1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. EXTENSION STEM TO BE DESIGNED FOR VALVE TORQUE.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION DAVID S. SADAOMOTO MECHANICAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED DS DRAWN MM CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS INLET CHANNEL DRAIN VALVE MODIFICATION SECTIONS FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m011.dgn	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-11 DWG B-144849 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 09:24	USERID: u08738	B-144777		

A B C D E F G H I J K L

TRUE NORTH
PLANT NORTH

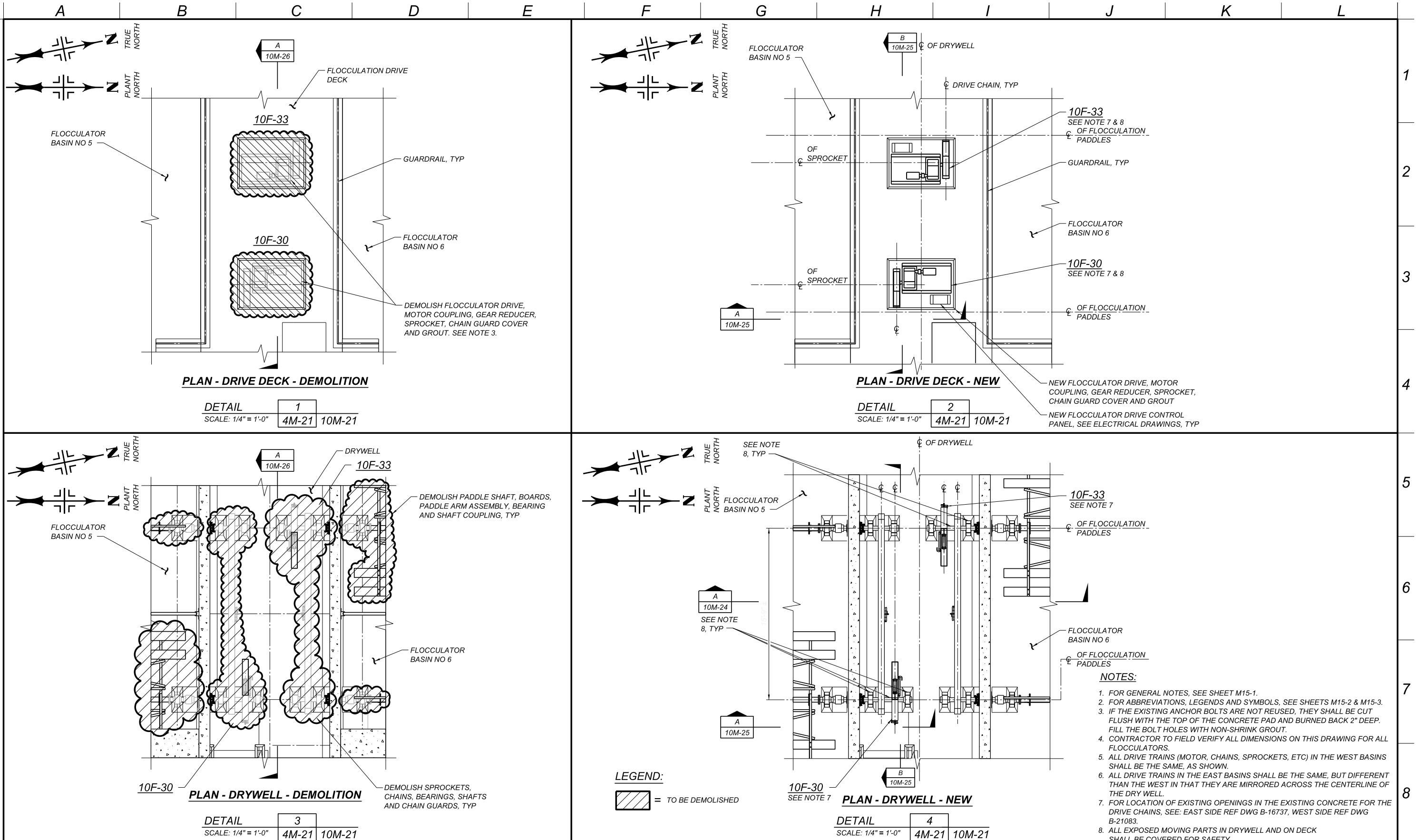


PLAN 1
SCALE: 1/16" = 1'-0" 1M-3

NOTES:

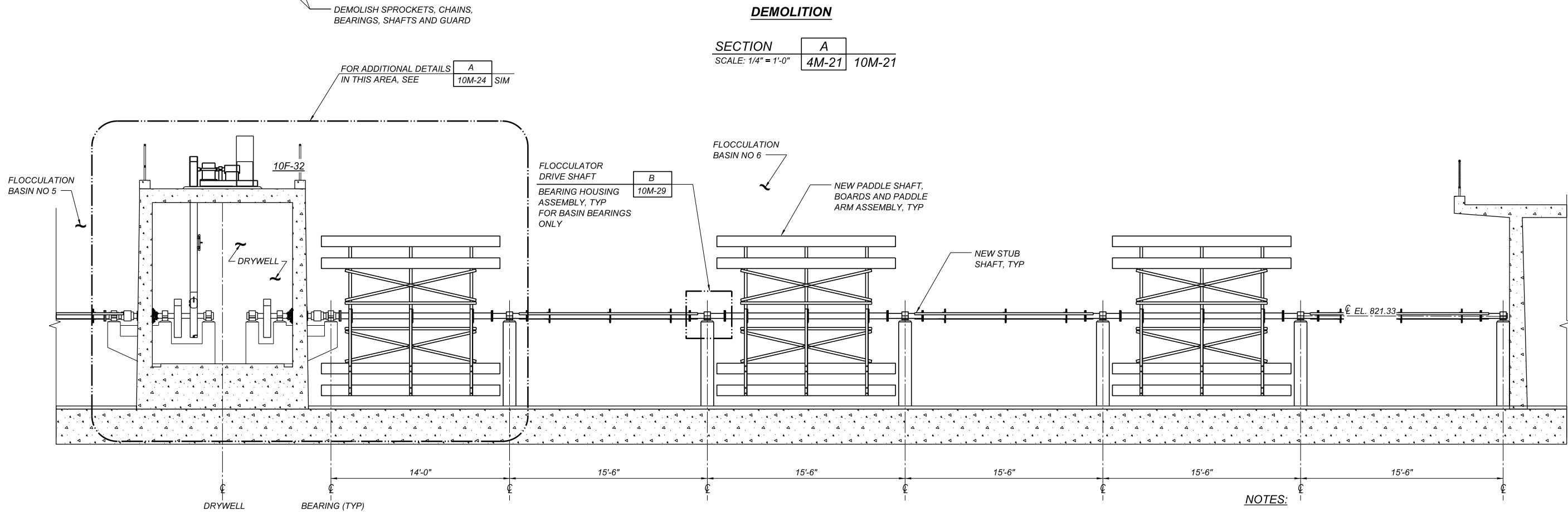
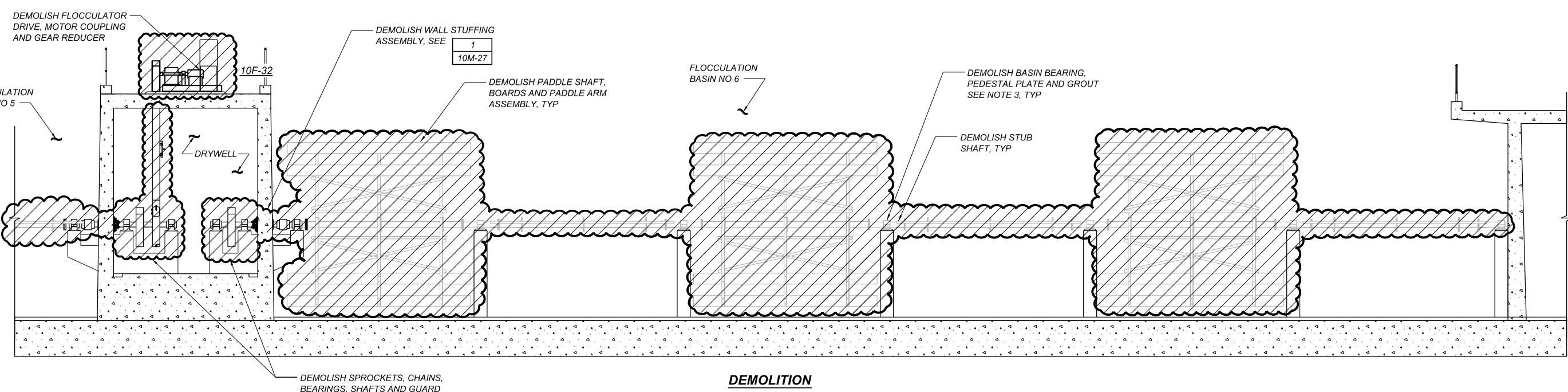
1. FOR GENERAL NOTES SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
3. TYPICAL 24 PLACES.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-21 DWG B-144850 REV 0
1/16" = 1'-0" 0 16 32 48 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 09:29	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DATE JUNE 2014	DESIGNED DS DRAWN SJS CHECKED B-144777	FOR DRAWING APPROVALS SEE B-144777 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m021.dgn



SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-22 DWG B-144851 REV 0
1/4" = 1'-0" 0 4 8 12 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 09:35	ISSUE DATE JUNE 2014	DESIGNED GD DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m022.dgn





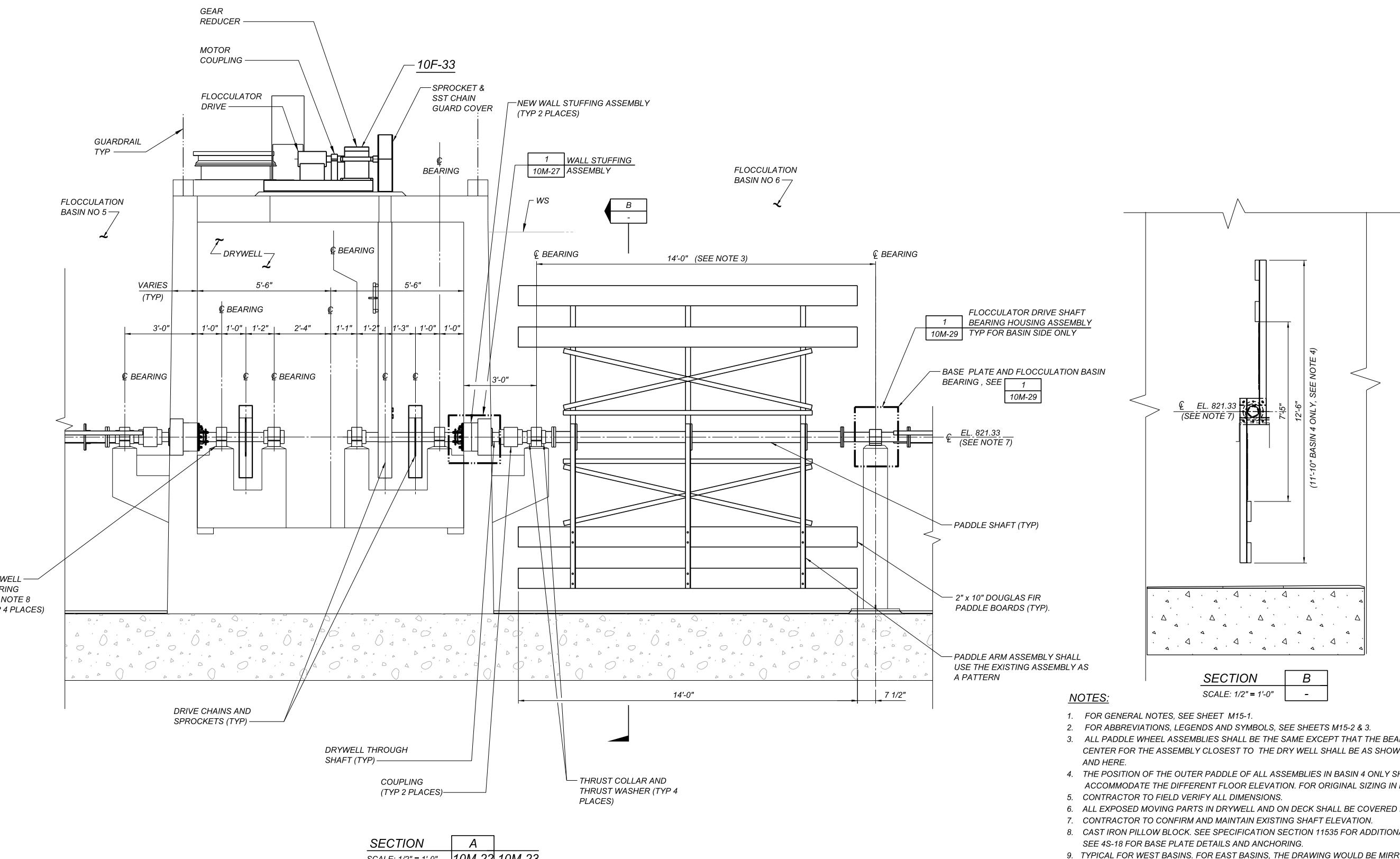
NEW
SECTION B
SCALE: 1/4" = 1'-0"
10M-21 10M-24, 4M-21

LEGEND:

= TO BE DEMOLISHED

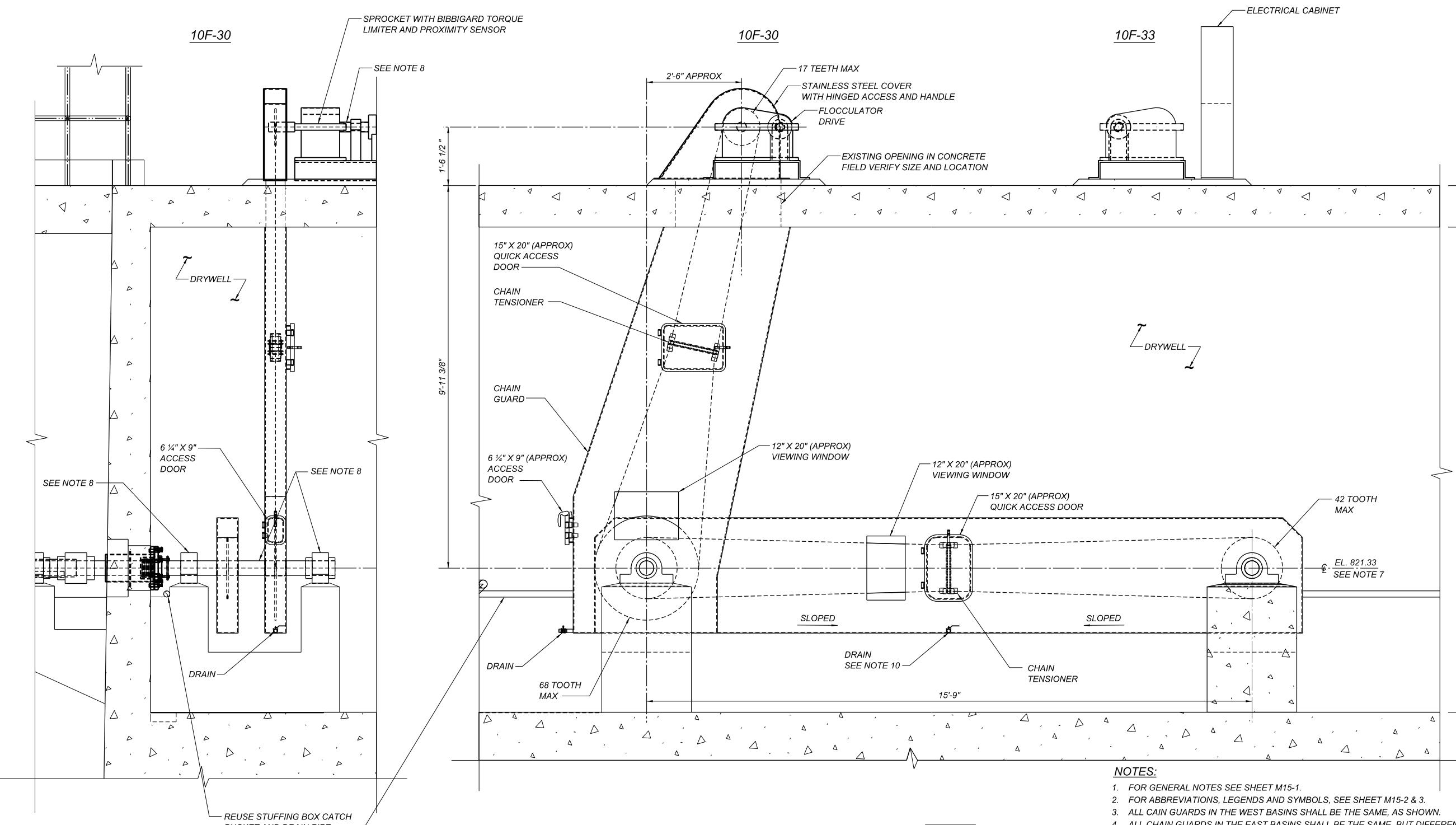
SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-23 DWG B-144852 REV 0
1/4" = 1'-0" 0 4 8 12 FEET	<p>PEN TABLE: mwdhbw.tbl</p> <p>PLOT TIME: 04-JUN-2014 09:37</p> <p>BRDR DATE: 01/29/2009</p>	<p>REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA</p> <p>ISSUE DATE JUNE 2014</p>	<p>DESIGNED GD DRAWN SJS CHECKED</p> <p>B-144777</p>	<p>FOR DRAWING APPROVALS SEE FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m023.dgn</p>	

A B C D E F G H I J K L



SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-24 DWG B-144853 REV 0
1/2 " = 1'-0" 0 2 4 6 FEET	<p>REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA</p> <p>PEN TABLE: mwdhbw.tbl</p> <p>PLOT TIME: 04-JUN-2014 09:42</p>	<p>ISSUE DATE JUNE 2014</p> <p>DESIGNED GD FOR DRAWING APPROVALS SEE DRAWN SJS CHECKED</p> <p>B-144777</p>	<p>WEST BASINS DRYWELLS AND FLOCCULATION BASINS SECTIONS - SHEET 2</p> <p>FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m024.dgn</p>	<p>USERID: u08738</p>

A B C D E F G H I J K L



SECTION B
10M-22

SCALE: 3/4" = 1'-0"

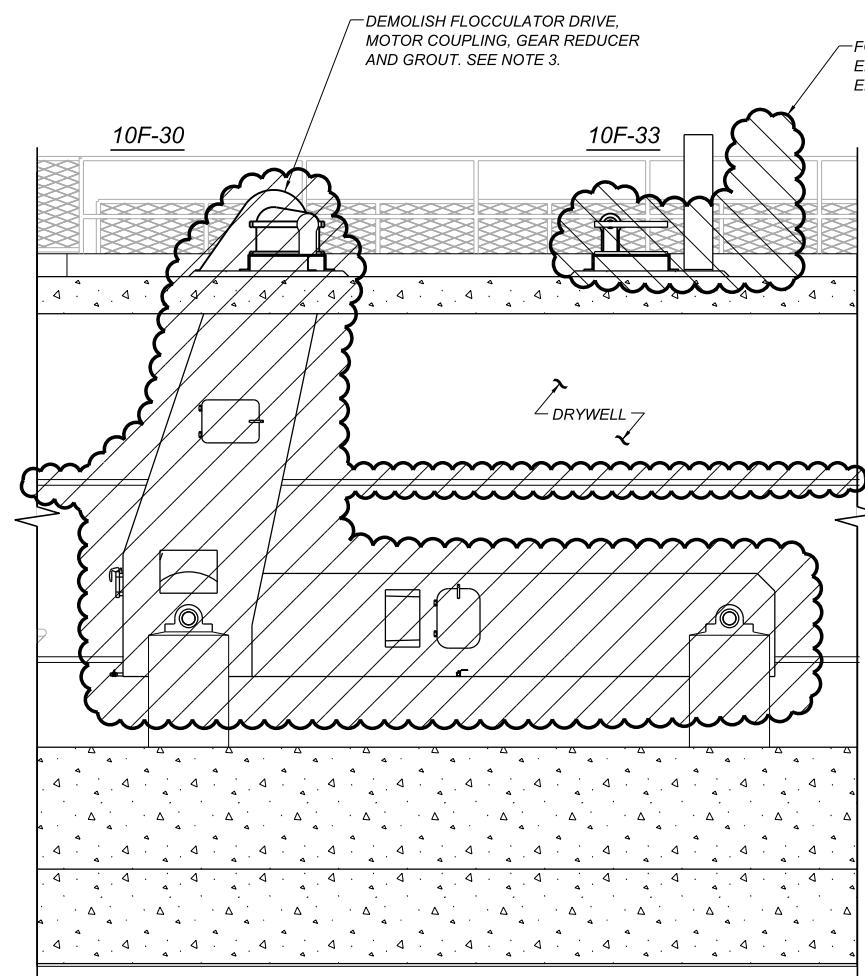
SECTION A
10M-22

SCALE: 3/4" = 1'-0"

- NOTES:**
1. FOR GENERAL NOTES SEE SHEET M15-1.
 2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEET M15-2 & 3.
 3. ALL CAIN GUARDS IN THE WEST BASINS SHALL BE THE SAME, AS SHOWN.
 4. ALL CHAIN GUARDS IN THE EAST BASINS SHALL BE THE SAME, BUT DIFFERENT THAN THE WEST AS FOLLOWS. STANDING IN THE CENTER OF THE DRYWELL FACING THE CHAIN GUARDS, AS SEEN IN THIS VIEW, THE VERTICAL CHAIN GUARD AND CORRESPONDING MOTOR ARE ON THE RIGHT SIDE.
 5. ACCESS DOOR SHALL BE POSITIONED TO ALLOW ACCESS TO CHOSEN MAIN TENSIONING (OR SUPPORT) SYSTEM AND TO LUBRICATE THE CHAIN.
 6. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
 7. CONTRACTOR TO CONFIRM AND MAINTAIN EXISTING SHAFT ELEVATION.
 8. ALL EXPOSED MOVING PARTS IN DRYWELL AND ON THE DECK SHALL BE COVERED FOR SAFETY.
 9. CONTRACTOR TO PROVIDE DRAIN WITH 3/4" VALVE FOR DRAINING ACCUMULATED LUBRICANT AND WATER.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS	SPECIFICATIONS
3/4" = 1'-0" 0 2 4 FEET	 DAVID S. SADAUMOTO REGISTERED PROFESSIONAL ENGINEER No. M35621 MECHANICAL STATE OF CALIFORNIA	ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	1524
99% SUBMITTAL JUNE 9, 2014		ISSUE DATE JUNE 2014	FOR DRAWING APPROVALS SEE B-144777	PROJECT NUMBER 103129
			DESIGNED GD DRAWN MV CHECKED	SHEET 10M-25
				DWG B-144854 REV 0

A B C D E F G H I J K L



DEMOLITION

SECTION **A**
SCALE: 1/4" = 1'-0"
10M-22

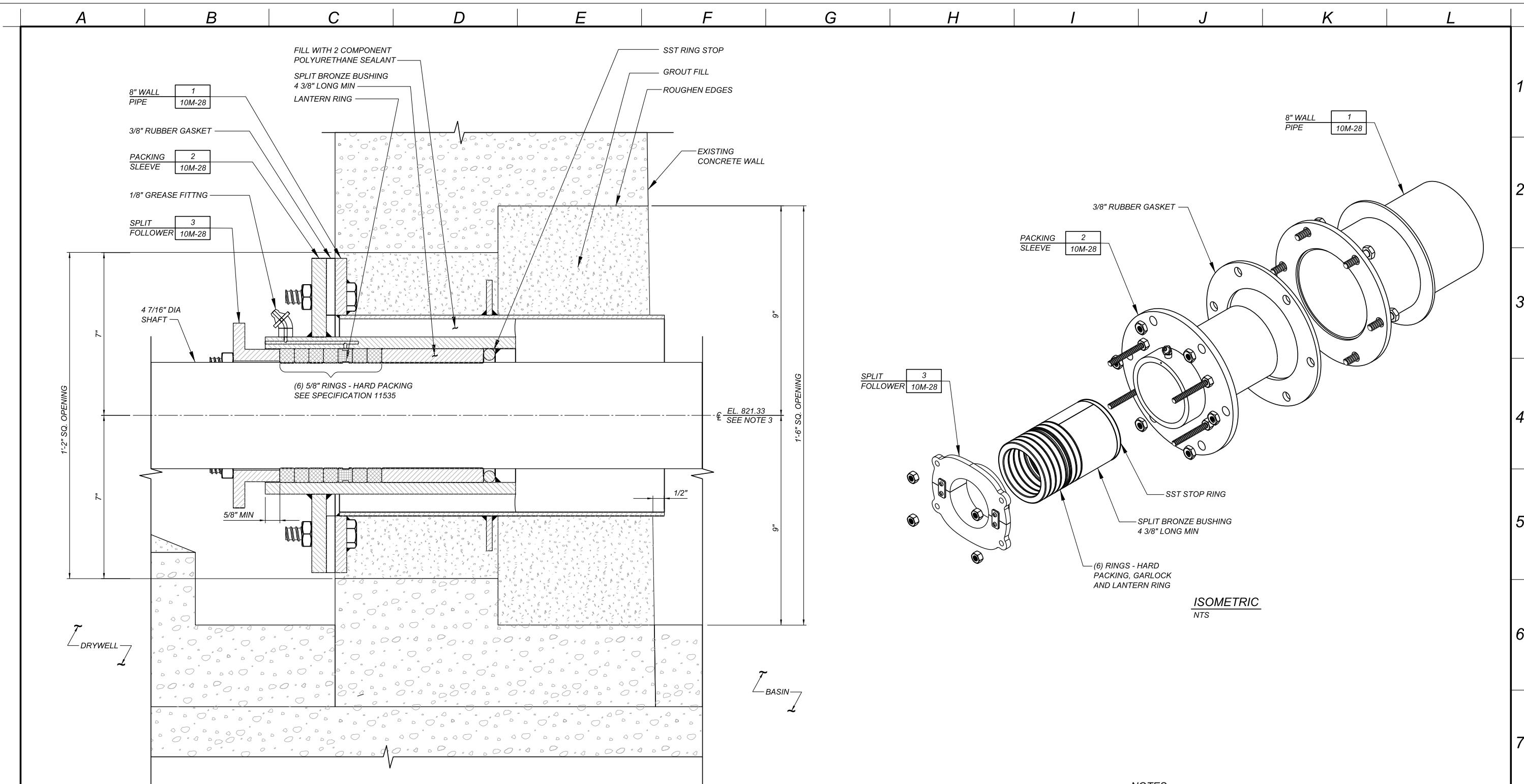
LEGEND

= TO BE DEMOLISHED

NOTES:

1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. IF THE EXISTING ANCHOR BOLTS ARE NOT REUSED, THEY SHALL BE CUT FLUSH WITH THE TOP OF THE CONCRETE PAD AND BURNED BACK 2" DEEP. FILL THE BOLT HOLES WITH NON-SHRINK GROUT.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED GD DRAWN MV CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS DRYWELLS AND FLOCCULATION BASINS SECTION SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-26 DWG REV B-144855 0
1/4" = 1'-0" 0 4 8 12 FEET	PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 09:44			USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m026.dgn	



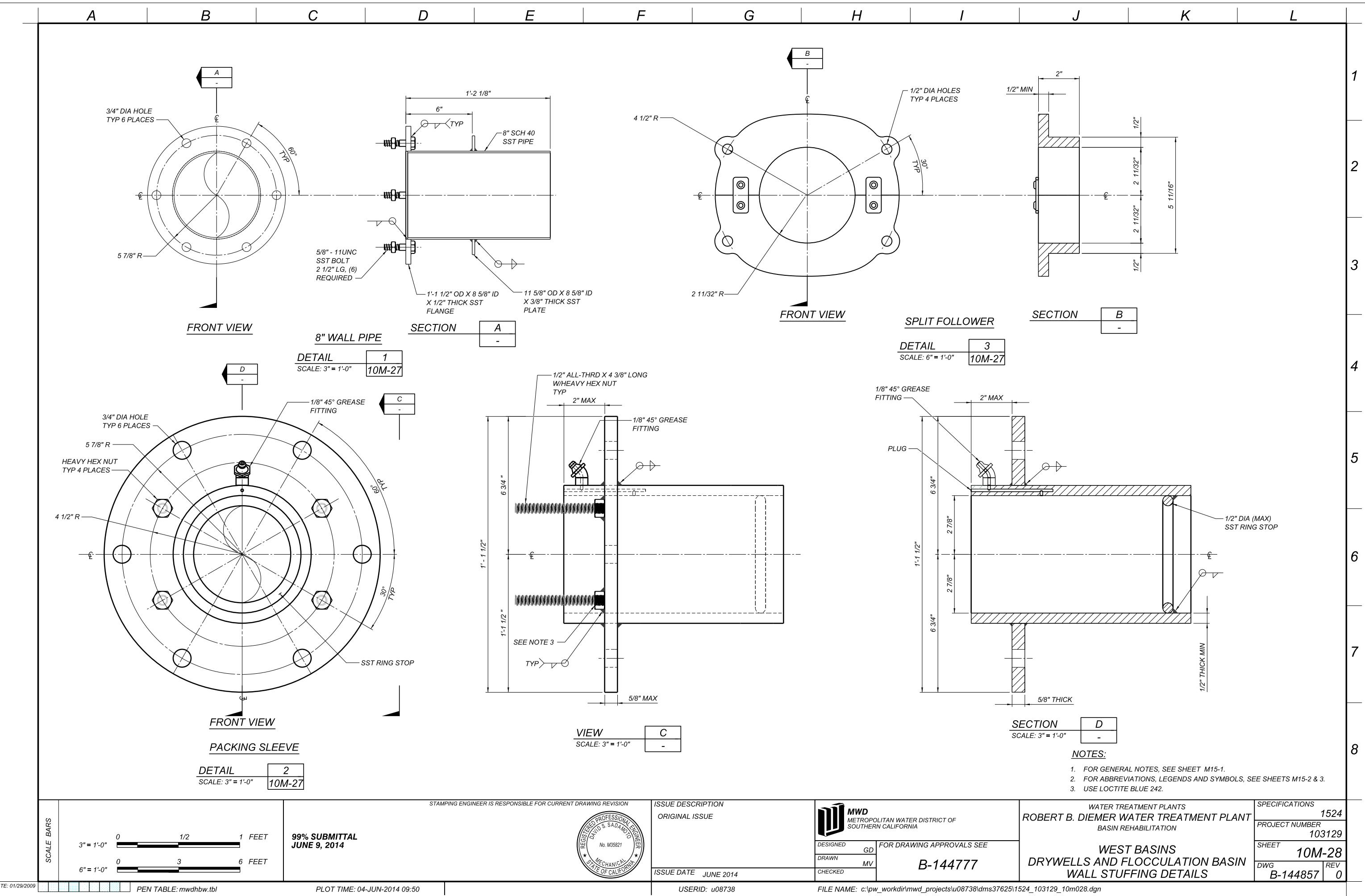
SECTION

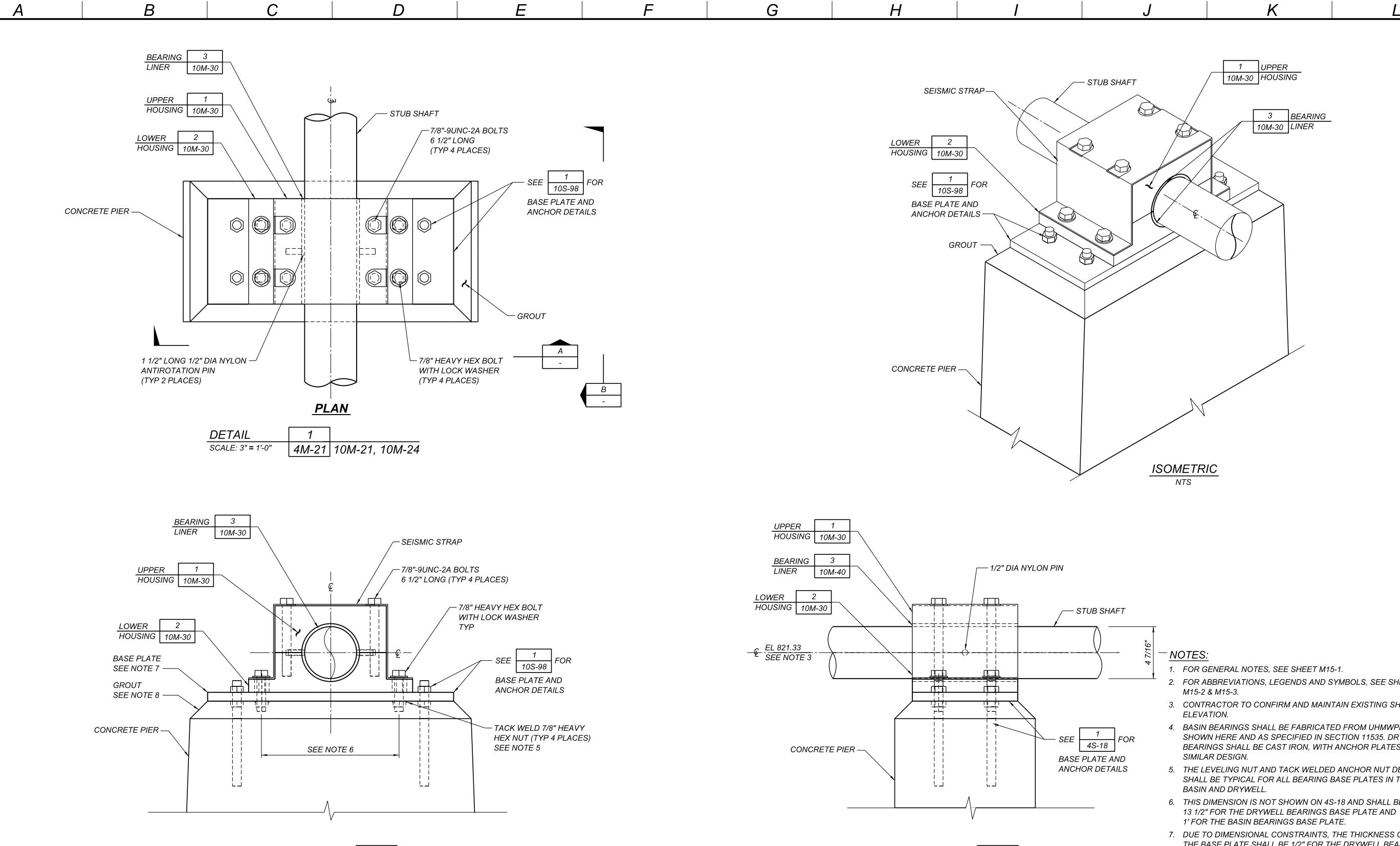
DETAIL **1**
SCALE: 6" = 1'-0" 10M-23 10M-24

NOTES:

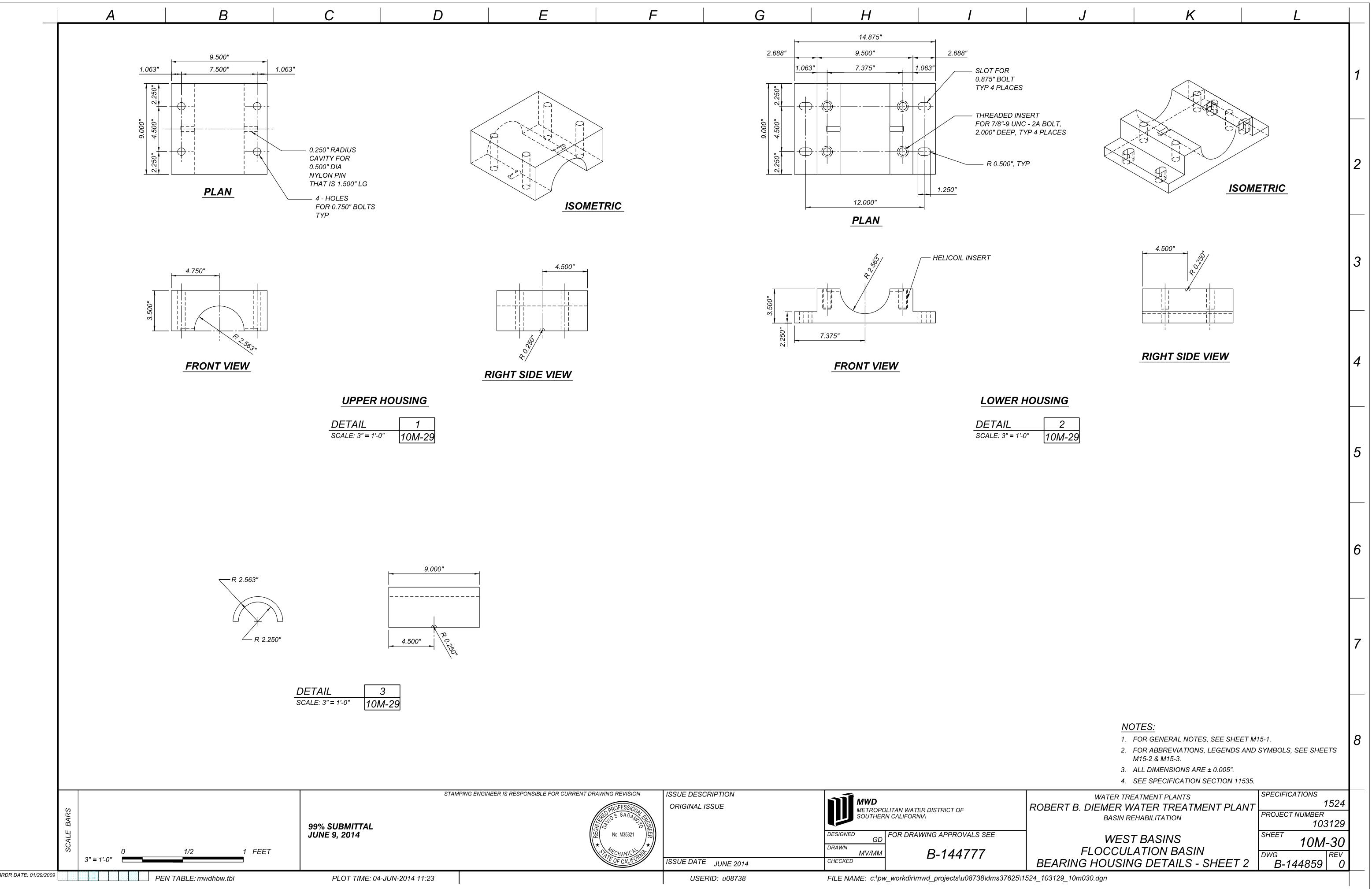
1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. CONTRACTOR TO CONFIRM AND MAINTAIN SHAFT ELEVATIONS.
4. REMOVE AND REPLACE EXISTING GROUT AND WALL STUFFING ASSEMBLY.
EXISTING GASKET WAS COATED WITH NOAH'S PITCH, AN ASBESTOS CONTAINING PLASTIC COMPOUND. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ASBESTOS IN COMPLIANCE WITH CURRENT REQUIREMENTS OF THE U.S. EPA.
THE CONTRACTOR IS EXPECTED TO BE FULLY KNOWLEDGEABLE OF THESE REQUIREMENTS.
5. WALL STUFFING ASSEMBLY DESIGN SHOWN IS ACCEPTABLE. MODIFICATIONS ARE ACCEPTABLE WITH ENGINEER'S REVIEW AND APPROVAL.

SCALE/BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-27 DWG B-144856 REV 0
6" = 1'-0" 0 3 6 FEET	<p>PEN TABLE: mwdhbw.tbl</p> <p>PLOT TIME: 04-JUN-2014 09:46</p> <p>BRDR DATE: 01/29/2009</p>	<p>ISSUE DATE JUNE 2014</p> <p>USERID: u08738</p> <p>FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m027.dgn</p>	<p>REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA</p>	<p>DESIGNED GD DRAWN MV CHECKED</p> <p>B-144777</p>	

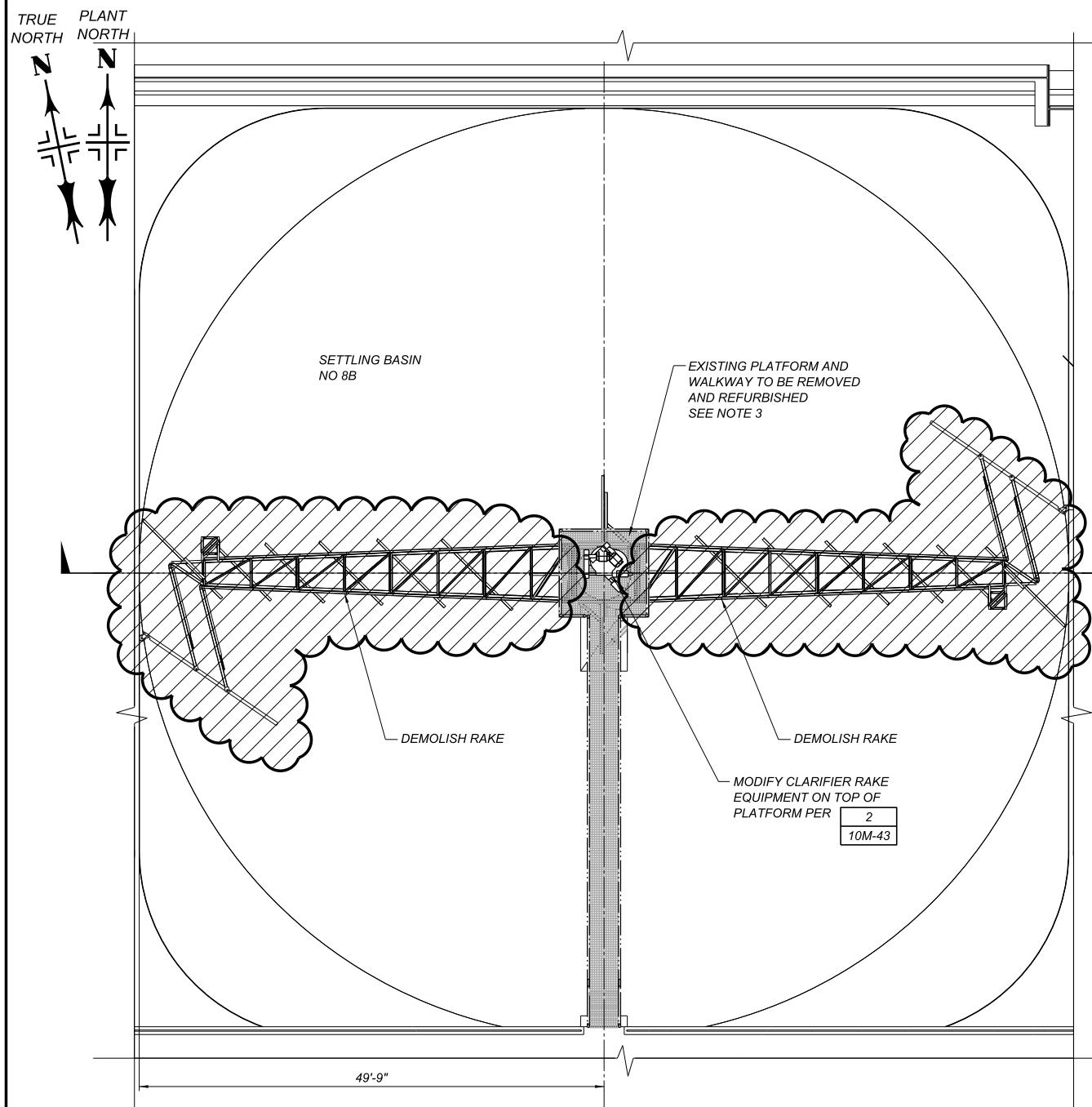




SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-29 DWG B-144858 REV 0
3" = 1'-0" 0 1/2 1 FEET	PEN TABLE: mwdhbw.tbl BRDR DATE: 01/29/2009 PLOT TIME: 04-JUN-2014 09:51	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DATE JUNE 2014	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m029.dgn

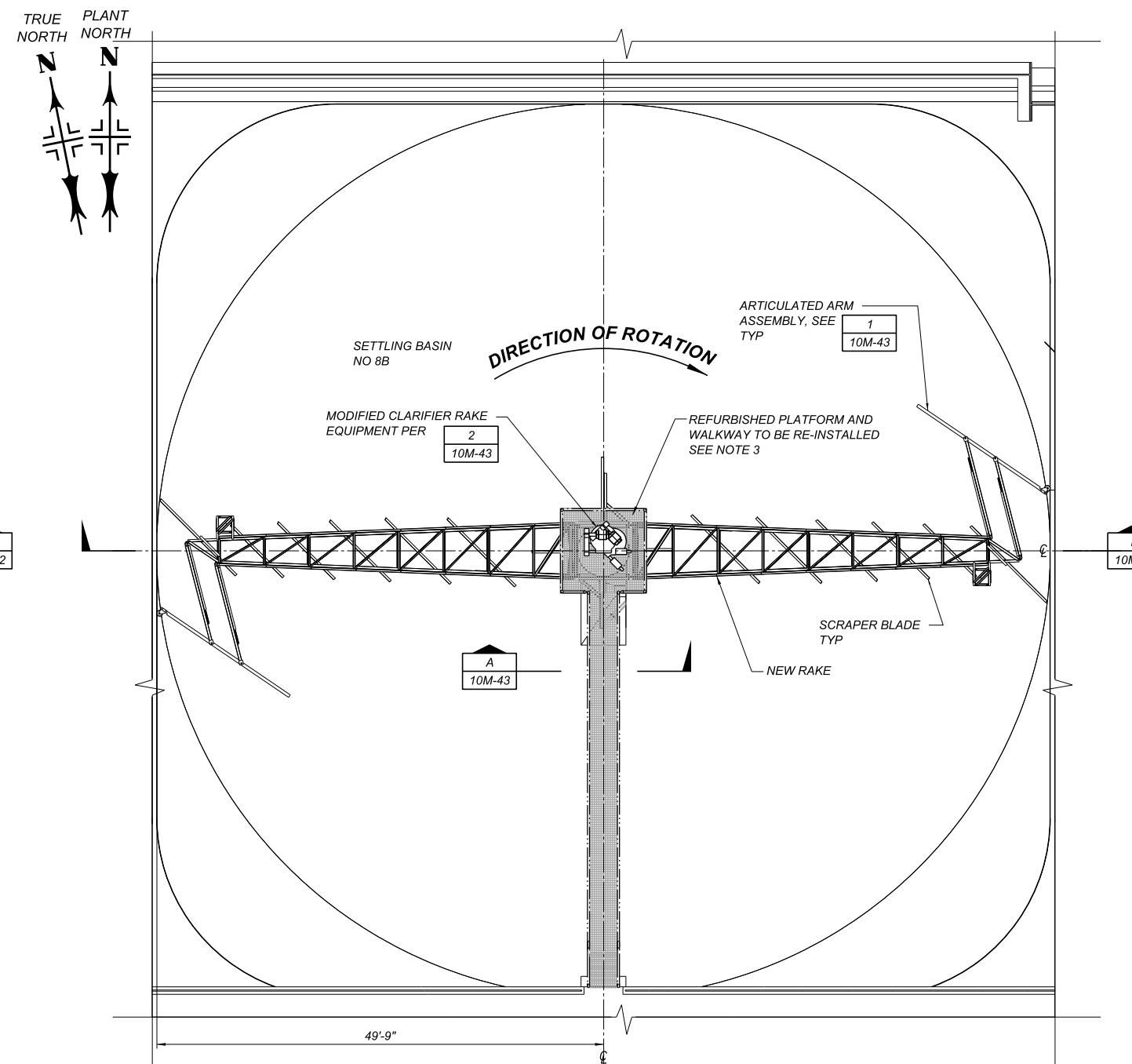


A B C D E F G H I J K L



DEMOLITION

PLAN 1
SCALE: 1/8" = 1'-0" 1M-3



NEW

PLAN 2
SCALE: 1/8" = 1'-0" 1M-3

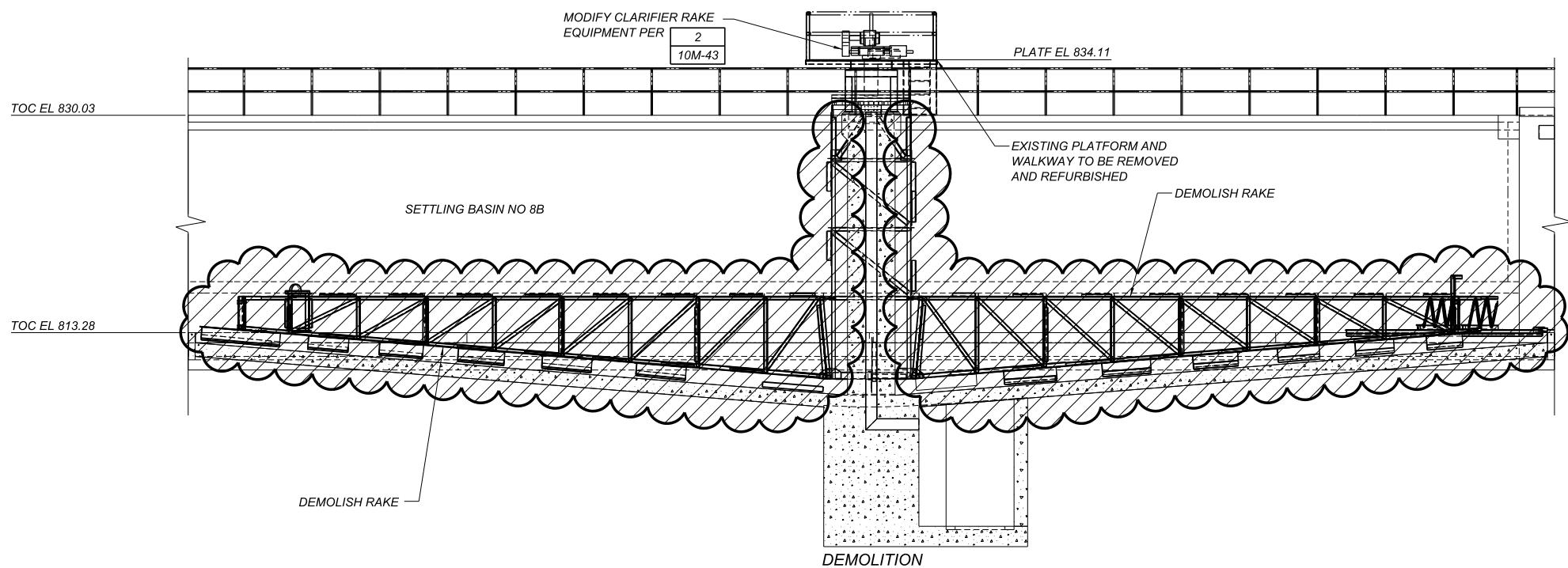
= TO BE DEMOLISHED

NOTES:

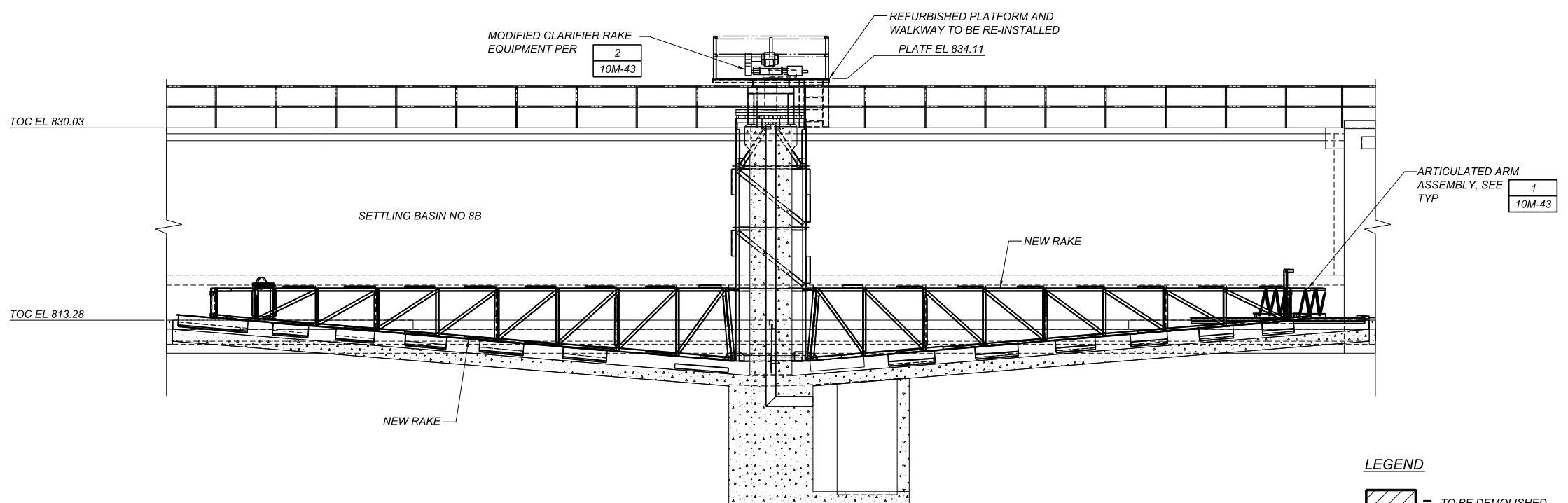
1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. CONTRACTOR TO COORDINATE WITH STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR MODIFICATIONS TO THE CLARIFIER PLATFORM AND WALKWAY REQUIRED PER THIS PROJECT.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-41 DWG B-144860 REV 0									
1/8" = 1'-0" 0 8 16 24 FEET	<p>ISSUE DATE JUNE 2014</p>	<p>MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA</p> <table border="1"> <tr> <td>DESIGNED</td> <td>DS</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN</td> <td>MM</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> <td>B-144777</td> </tr> </table>	DESIGNED	DS	FOR DRAWING APPROVALS SEE	DRAWN	MM		CHECKED		B-144777	<p>PEN TABLE: mwdhbw.tbl</p> <p>PLOT TIME: 04-JUN-2014 11:26</p> <p>USERID: u08738</p> <p>FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m041.dgn</p>	
DESIGNED	DS	FOR DRAWING APPROVALS SEE											
DRAWN	MM												
CHECKED		B-144777											

A | B | C | D | E | F | G | H | I | J | K | L



SECTION A
SCALE: 3/16" = 1'-0" 10M-41



LEGEND

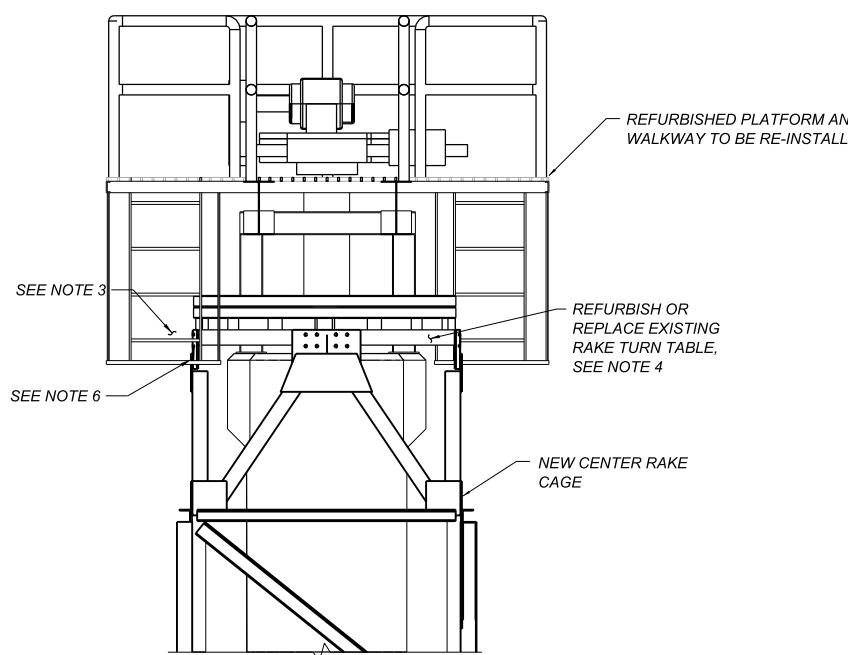
= TO BE DEMOLISHED

NOTES:

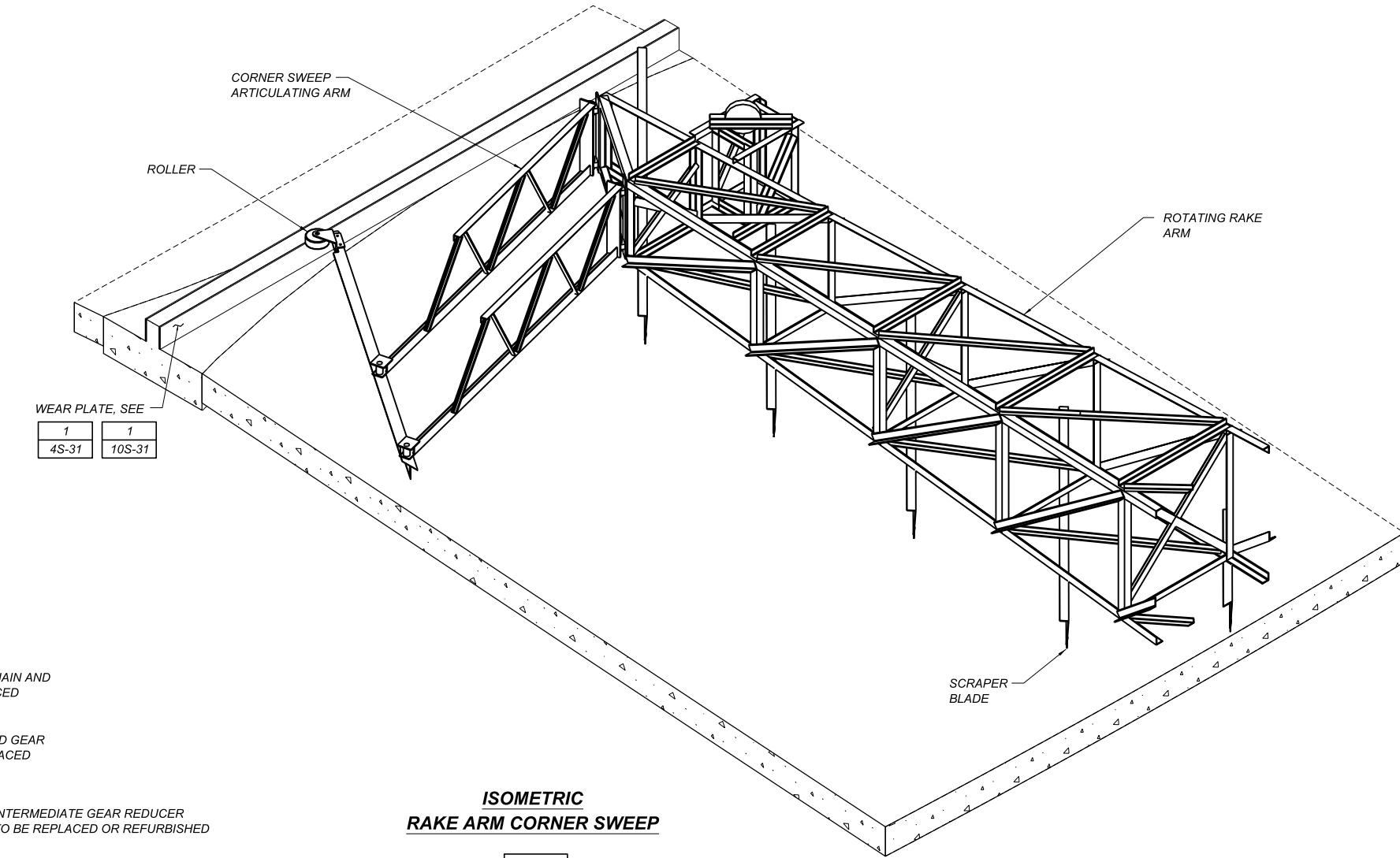
1. FOR GENERAL NOTES, SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
3. FOR EXISTING CLARIFIER EQUIPMENT, SEE REFERENCE DRAWING B-20859.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-42 DWG B-144861 REV 0									
3/16" = 1'-0" 0 8 16 FEET	<p>PEN TABLE: mwdhbw.tbl PLOT TIME: 04-JUN-2014 09:57</p>	<p>ISSUE DATE JUNE 2014</p> <table border="1"> <tr> <td>DESIGNED</td> <td>DS</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN</td> <td>MM</td> <td></td> </tr> <tr> <td>CHECKED</td> <td></td> <td>B-144777</td> </tr> </table>	DESIGNED	DS	FOR DRAWING APPROVALS SEE	DRAWN	MM		CHECKED		B-144777			
DESIGNED	DS	FOR DRAWING APPROVALS SEE												
DRAWN	MM													
CHECKED		B-144777												

A B C D E F G H I J K L

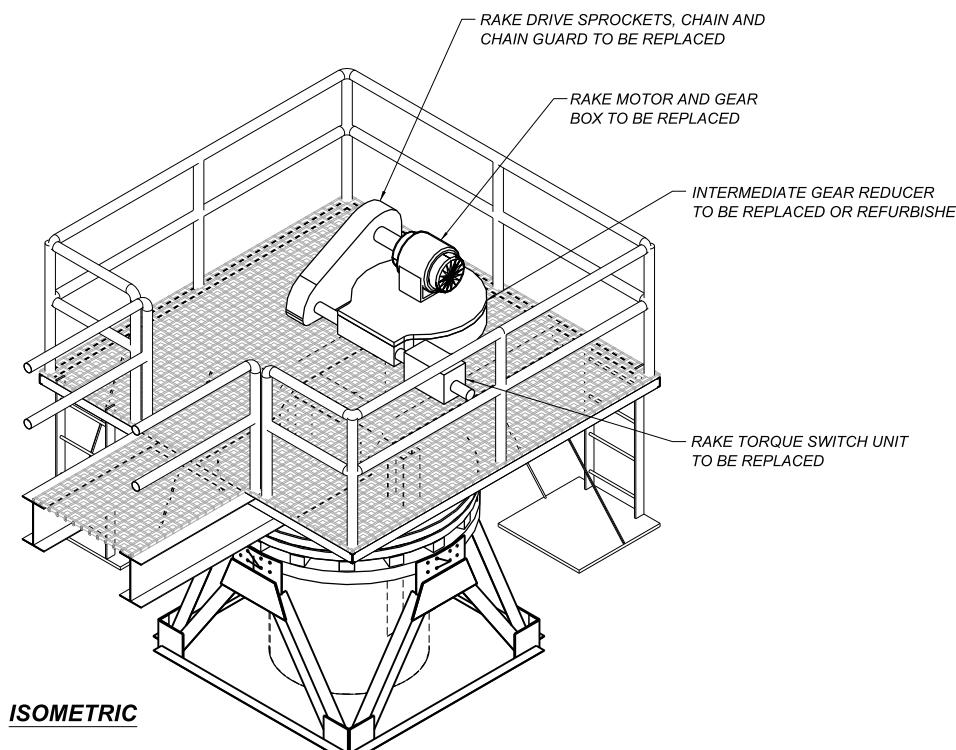


SECTION A SEE NOTE 3
SCALE: 1/2" = 1'-0"
4M-41 10M-41



ISOMETRIC
RAKE ARM CORNER SWEEP

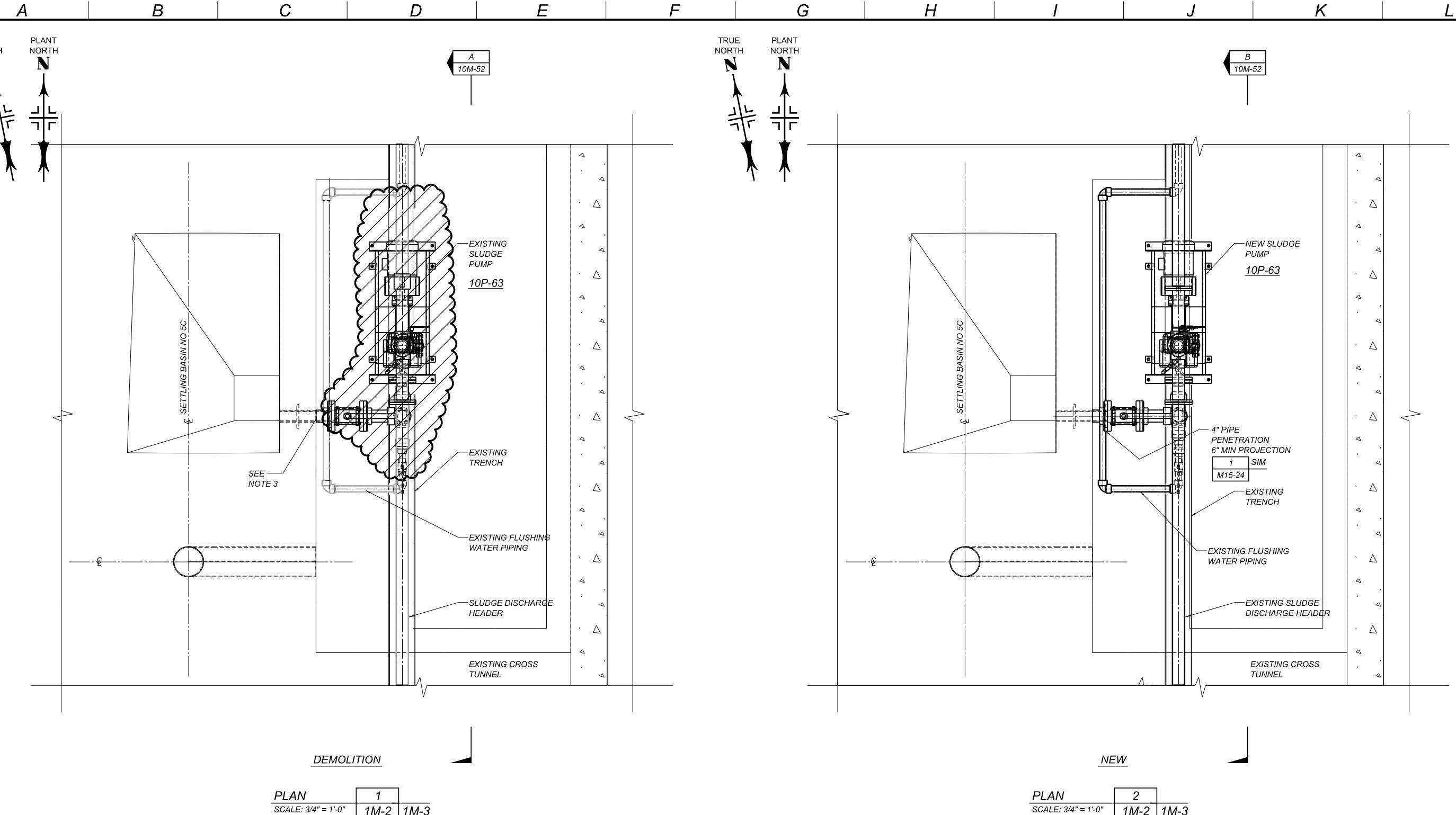
DETAIL 1
NTS 4M-41 4M-42, 10M-41, 10M-42



DETAIL 2 SEE NOTE 3
NTS 4M-41 4M-42, 10M-41, 10M-42

- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET M15-1.
 2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
 3. FOR EXISTING PLATFORM AND RAKE ANCHOR BOLT PATTERNS, SEE DORR-OLIVER REFERENCE DRAWINGS, INCLUDING 41540.
 4. SEE SPECIFICATION SECTION 11222 FOR REPLACEMENT & REFURBISHMENT OF CLARIFIER COMPONENTS.
 5. NEW RAKE TURNTABLE SHALL BE FABRICATED TO ACCOMODATE FOR EXISTING PLATFORM SUPPORT COLUMNS AND EXISTING TURNTABLE ANCHOR BOLT PATTERNS.
 6. PROVIDE INSULATING KITS WHERE RAKE CAGE IS FASTENED TO THE TURNTABLE. SEE REFERENCE DRAWINGS 03D11713 FOR EXISTING BOLTING PATTERN OF RAKE CAGE.
 7. DETAILS SHOWN ON THIS SHEET ARE TYPICAL (SIM) TO WEST BASINS.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-43 DWG B-144862 REV 0
1/2" = 1'-0" 0 2 4 6 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 09:58	ISSUE DATE JUNE 2014	DESIGNED DS DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m043.dgn



NOTES:

- FOR GENERAL NOTES SEE SHEET M15-1.
- FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
- FOR SLUDGE PIPING WALL CONNECTION MODIFICATIONS, SEE 1 & 2
10S-41
- DETAILS SHOWN ON THIS SHEET ARE TYPICAL (SIM) TO EAST BASINS.

= TO BE DEMOLISHED

LEGEND



STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION

99% SUBMITTAL
JUNE 9, 2014

SCALE BARS

3/4" = 1'-0" 0 2 4 FEET

BRDR DATE: 01/29/2009

PEN TABLE: mwdhbw.tbl

PLOT TIME: 04-JUN-2014 11:28

ISSUE DESCRIPTION	
ORIGINAL ISSUE	
DESIGNED	FOR DRAWING APPROVALS SEE
DRAWN	
CHECKED	
ISSUE DATE JUNE 2014	

MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
DESIGNED DS
DRAWN MM
CHECKED

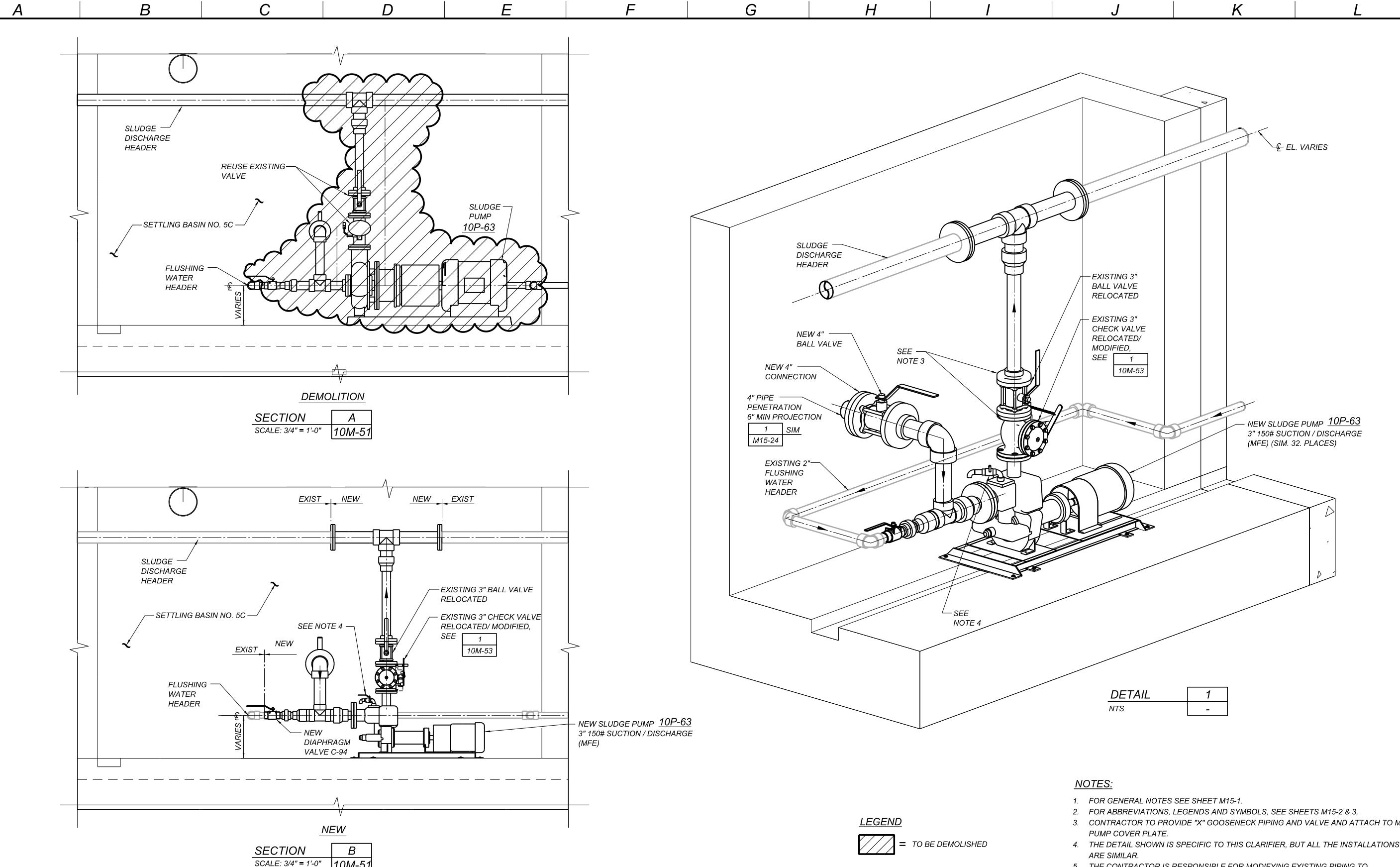
B-144777

WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS
SLUDGE PUMP & PIPING
MODIFICATIONS - PLANS

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
10M-51
DWG B-144863 REV 0

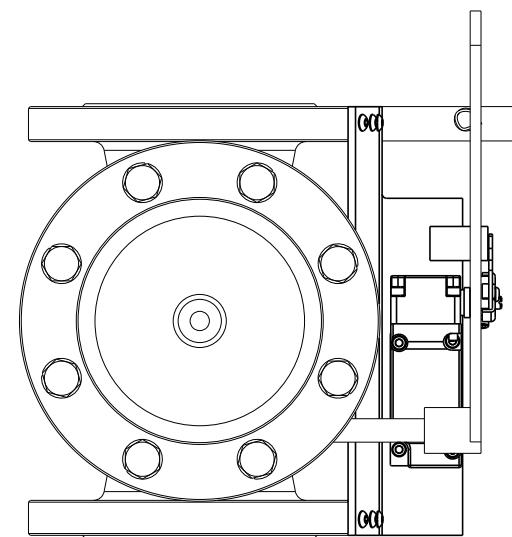
USERID: u08738

FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m051.dgn

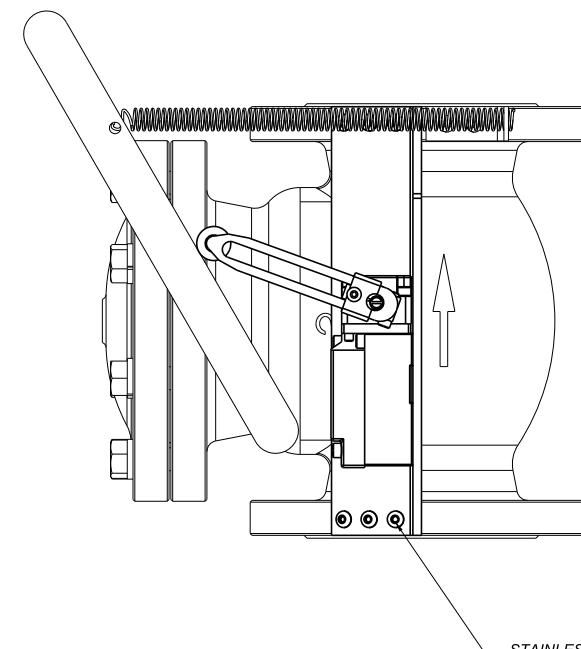


SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-52 DWG B-144864 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl	REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	DESIGNED DS DRAWN MM CHECKED	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m052.dgn

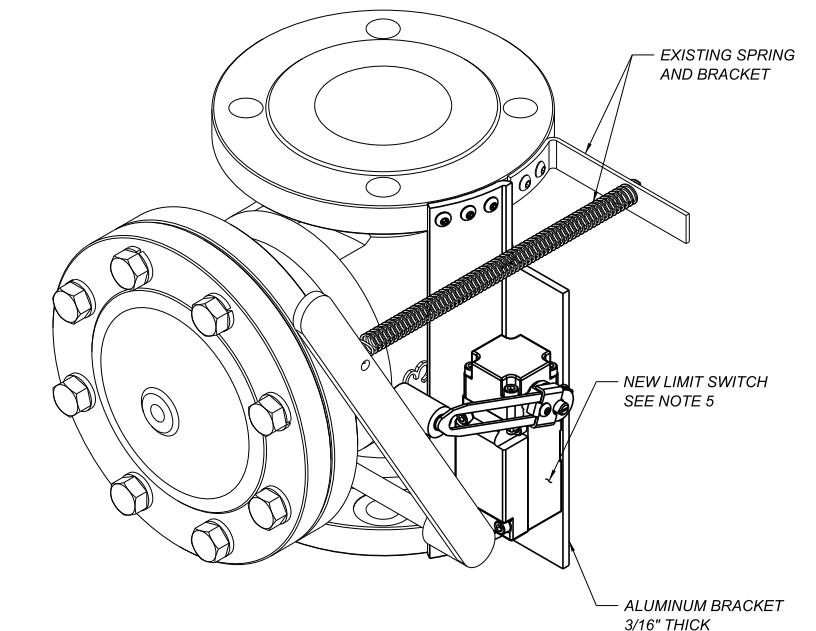
A | B | C | D | E | F | G | H | I | J | K | L



FRONT VIEW



RIGHT VIEW



ISOMETRIC VIEW

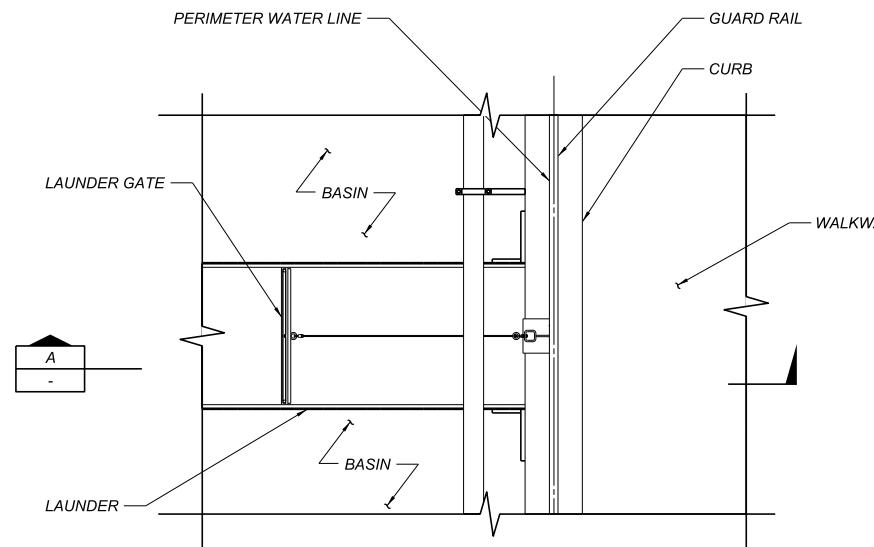
DETAIL 1
SCALE: 6" = 1'-0" 10M-52

NOTES:

1. FOR GENERAL NOTES SEE SHEET M15-1.
2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
3. RE-USE EXISTING VALVES.
4. CONTRACTOR TO FIELD VERIFY DIMENSIONS REQUIRED FOR THE ALUMINUM MOUNTING BRACKET.
TO MFE PUMP COVER PLATE.
5. INSTALL ON EXISTING CHECK VALVE, NORMALLY OPEN, SINGLE PULL
SINGLE THROW MAKE AND MODEL: CUTLER HAMMER E50 HEAVY-DUTY
LIMIT SWITCH OR EQUAL.
6. CONTRACTOR TO ADJUST LIMIT SWITCH FOR CHECK VALVE CLOSED POSITION.

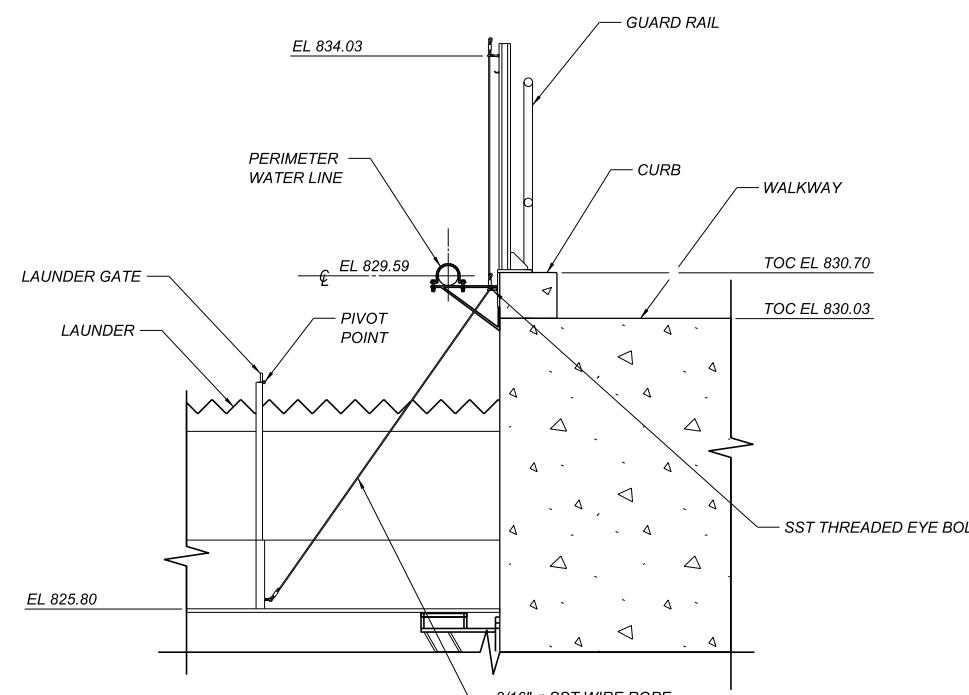
SCALE BARS	3/4" = 1'-0"	0 2 4 FEET	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014		ISSUE DESCRIPTION PRELIMINARY DESIGN REPORT	 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS		SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-53 DWG B-144865 REV 0
						DESIGNED DRAWN ISSUE DATE	FOR DRAWING APPROVALS SEE MM JUNE 2014 B-144777 CHECKED		
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 13:15			USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m053.dgn			

A B C D E F G H I J K L

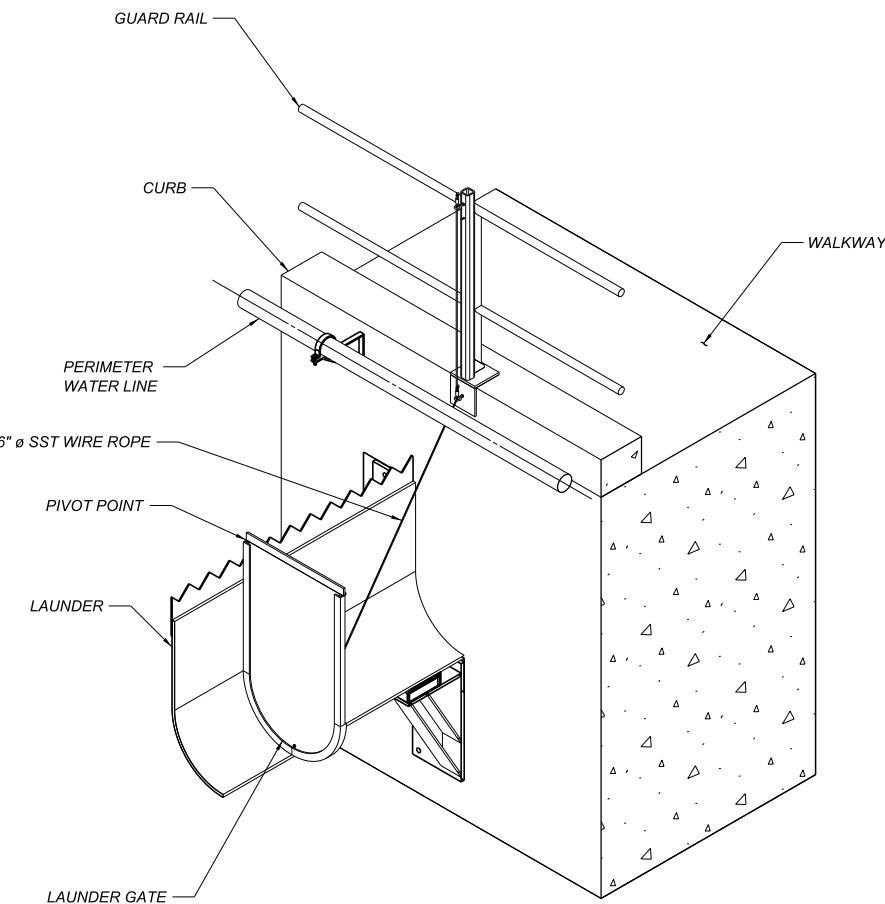


PLAN

DETAIL 1
SCALE: 3/4" = 1'-0"
1M-2 1M-3



SECTION A
SCALE: 3/4" = 1'-0"
-

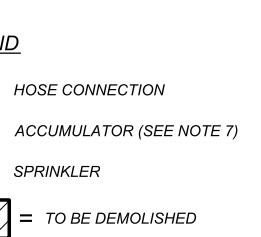
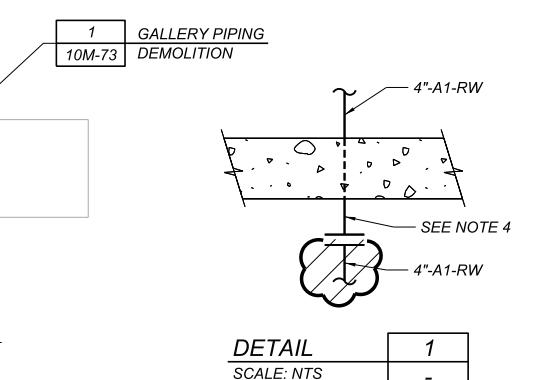
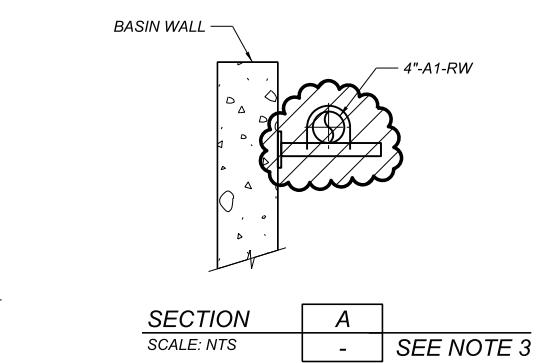
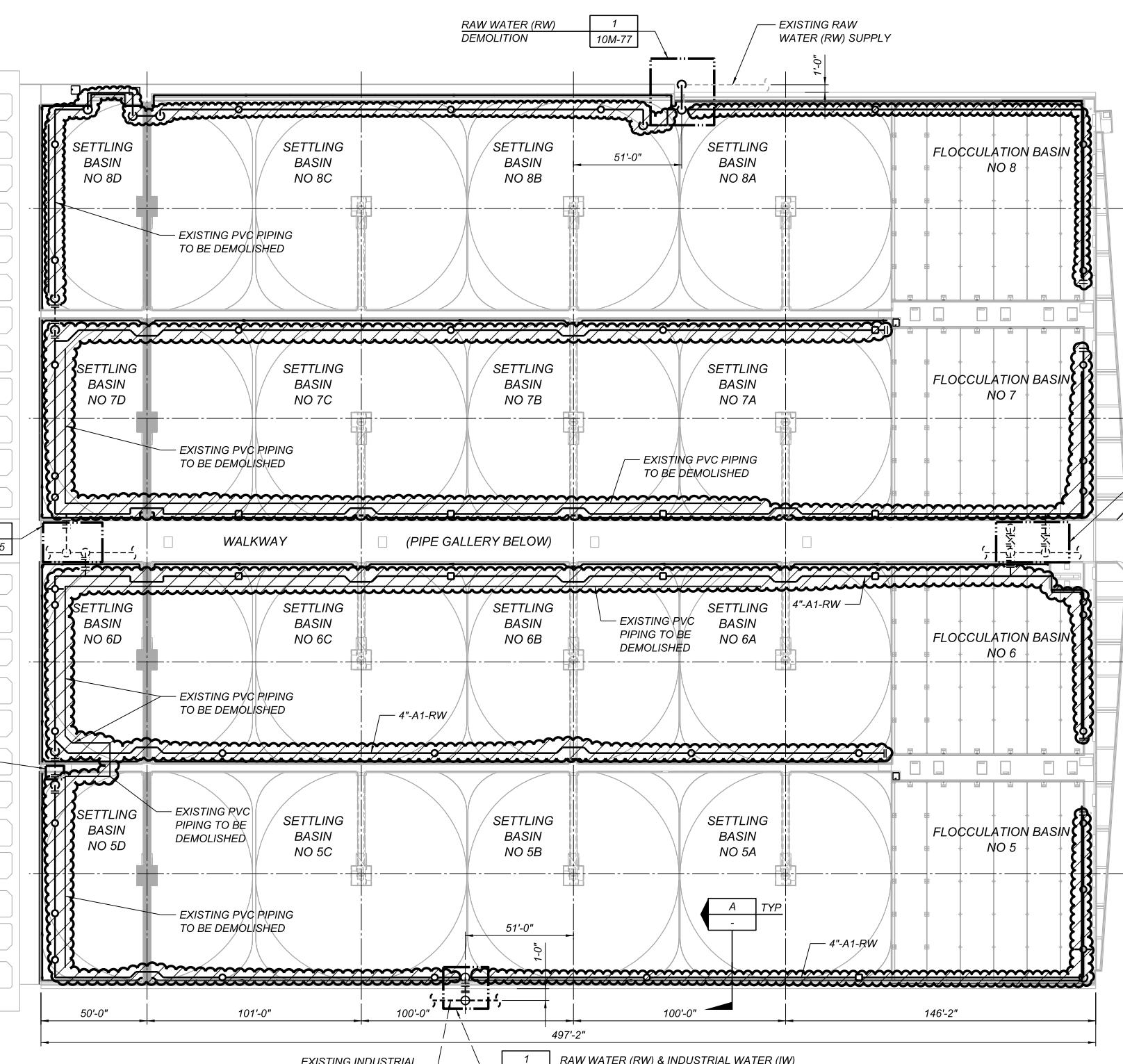
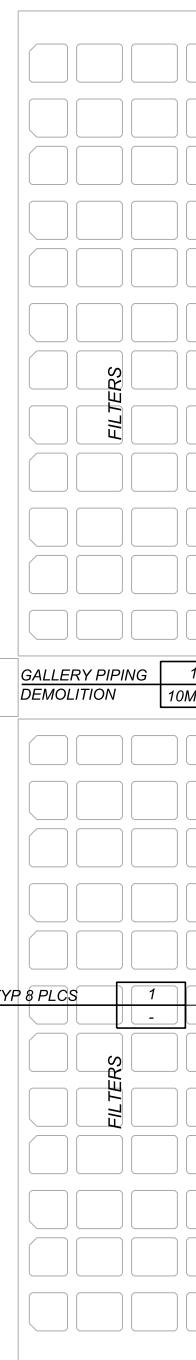
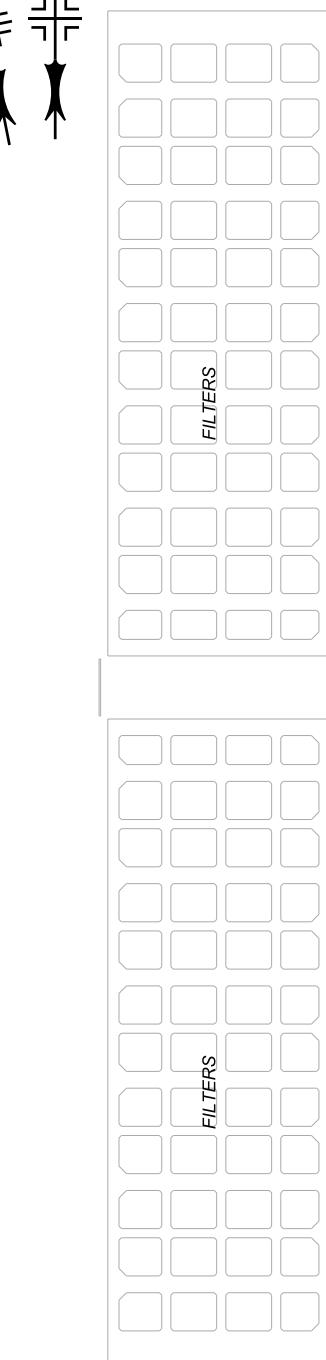


DETAIL 2
SCALE: 3/4" = 1'-0"
-

- NOTES:**
1. FOR GENERAL NOTES SEE SHEET M15-1.
 2. FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
 3. THE DETAIL SHOWN IS SPECIFIC TO THIS LAUNDER, BUT ALL THE INSTALLATIONS ARE SIMILAR FOR EAST AND WEST LAUNDERS.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED JP FOR DRAWING APPROVALS SEE DRAWN TJB CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION WEST BASINS LAUNDER GATE DETAILS SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-61 DWG B-144866 REV 0
3/4" = 1'-0" 0 2 4 FEET	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 11:32	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m061.dgn	

TRUE
NORTH
N



NOTES:

- FOR GENERAL NOTES, SEE SHEET M15-1.
- FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & M15-3.
- PROTECT IN PLACE ANY ADJACENT PIPING AND CONDUIT COMPONENTS UNLESS NOTED OTHERWISE
- CONTRACTOR ALONG WITH MWD ENGINEER ARE TO ASSESS EXISTING PIPING AND FLANGES TO DETERMINE IF MODIFICATIONS ARE REQUIRED.
- CONTRACTOR TO NOTE LOCATION OF EXISTING HOSE CONNECTIONS, ACCUMULATOR AND SPRINKLERS AND COORDINATE WITH INSTALLATION OF NEW COMPONENTS.
- SOME FLANGES NOT SHOWN FOR CLARITY.
- ACCUMULATORS TO BE REUSED.

PLAN 1
SCALE: 1"=30'-0"
1M-3 10M-78



STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION
ISSUE DESCRIPTION
ORIGINAL ISSUE
DESIGNED DS FOR DRAWING APPROVALS SEE
DRAWN MV
CHECKED
ISSUE DATE JUNE 2014
B-144777

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED DS FOR DRAWING APPROVALS SEE
DRAWN MV
CHECKED
ISSUE DATE JUNE 2014
B-144777

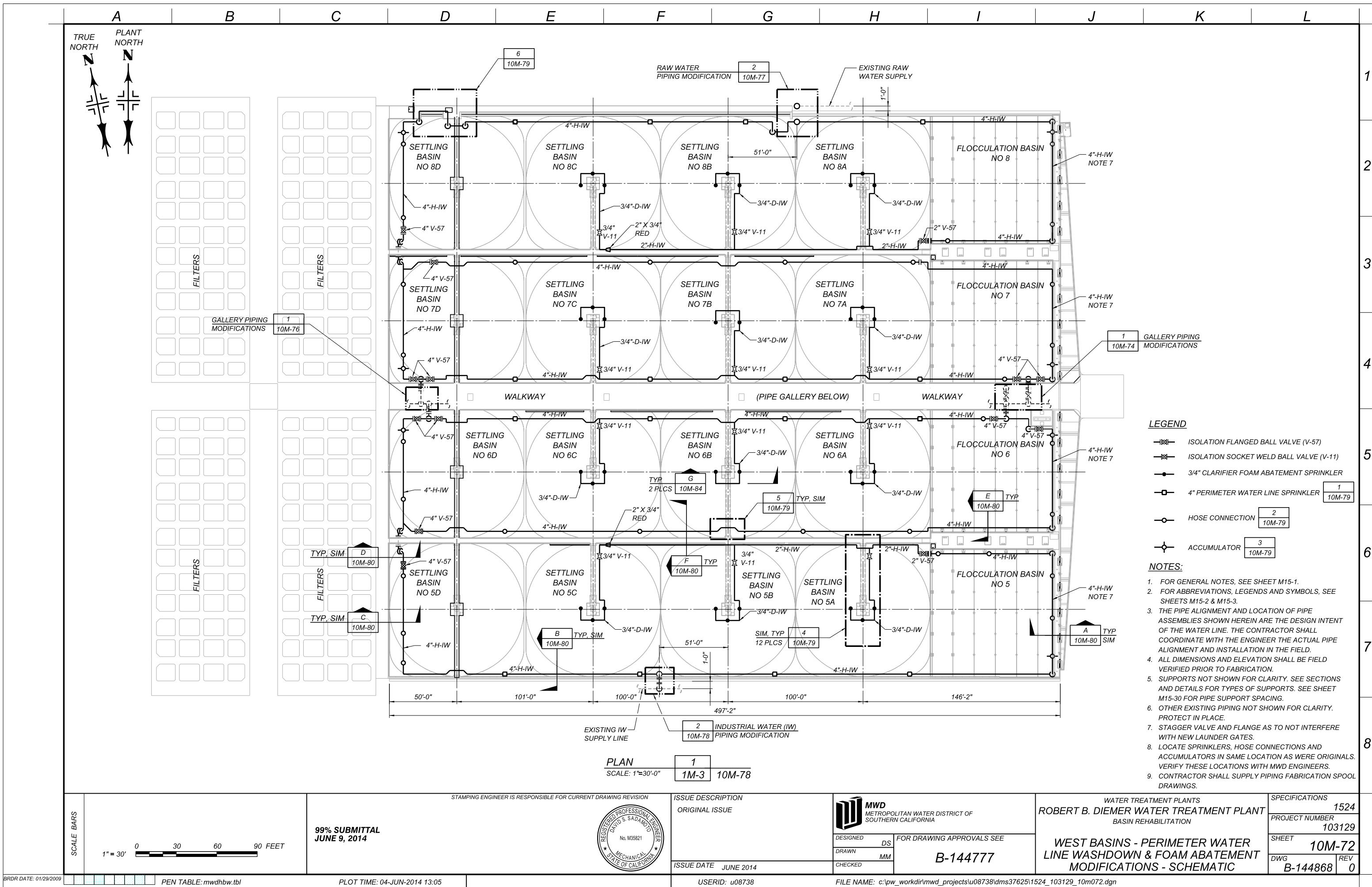
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WEST BASINS - PERIMETER
WATER LINE WASHDOWN AND FOAM
ABATEMENT - DEMOLITION SCHEMATIC

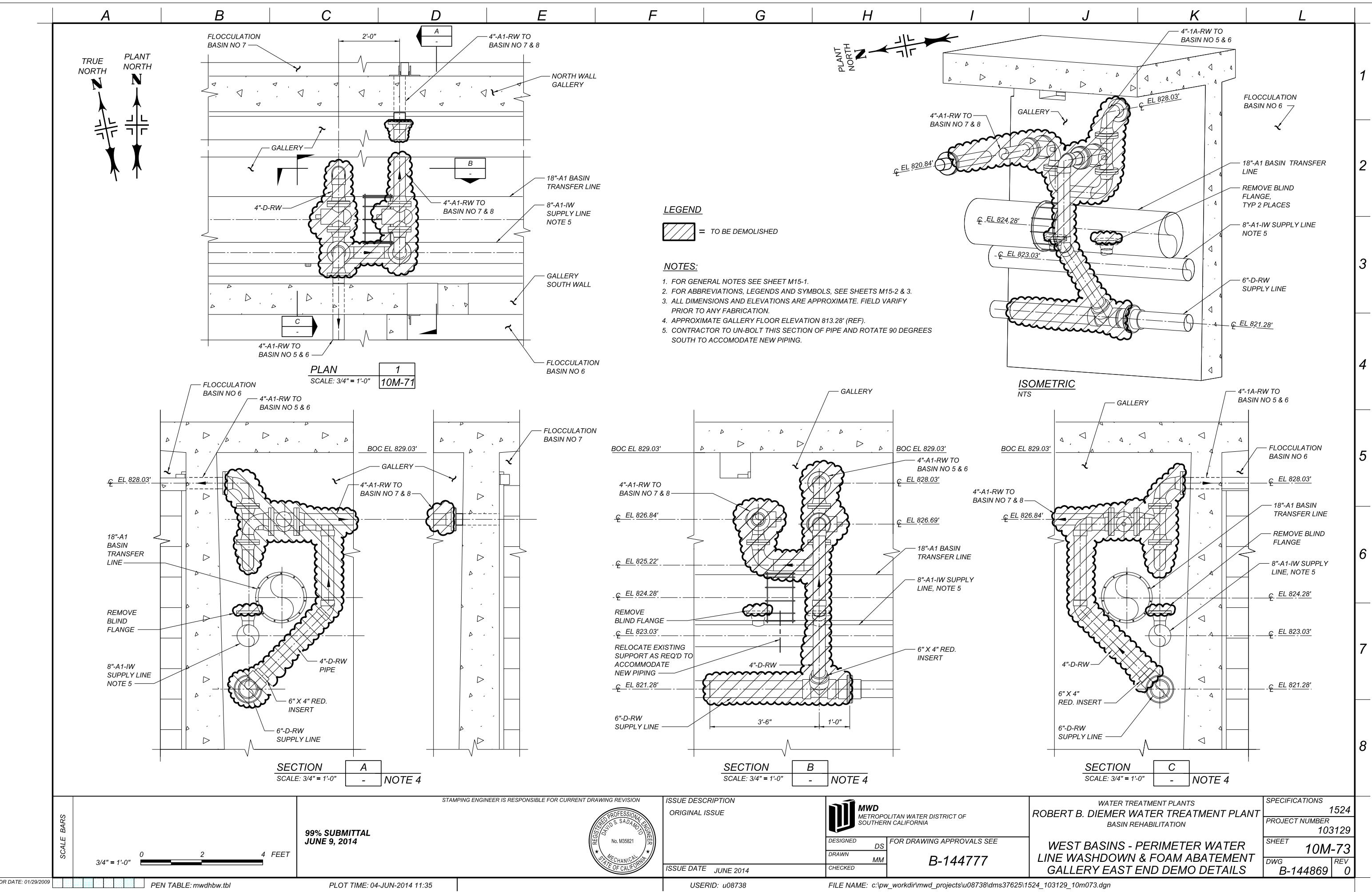
SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
10M-71
DWG B-144867 REV 0

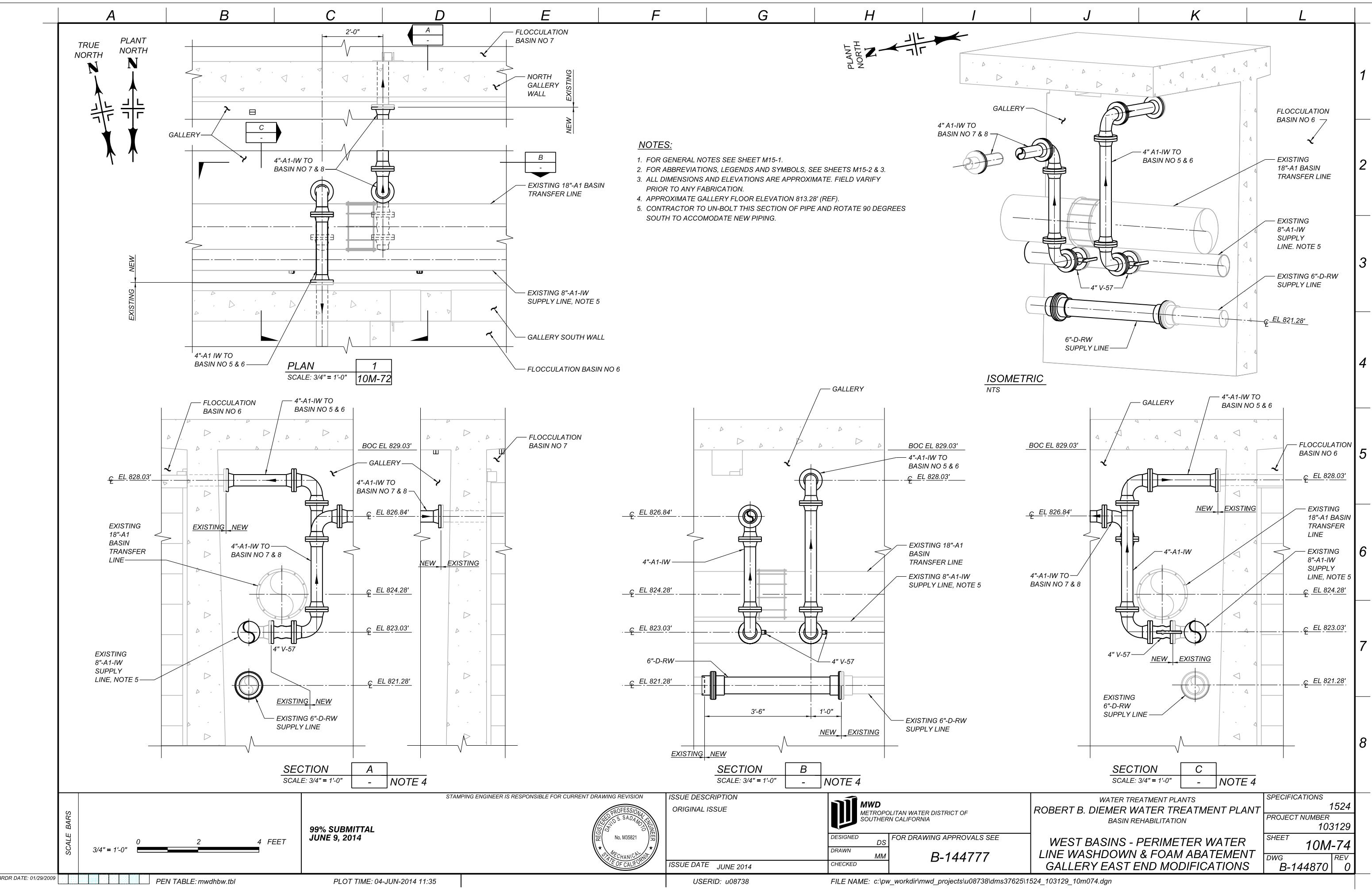
SCALE BARS

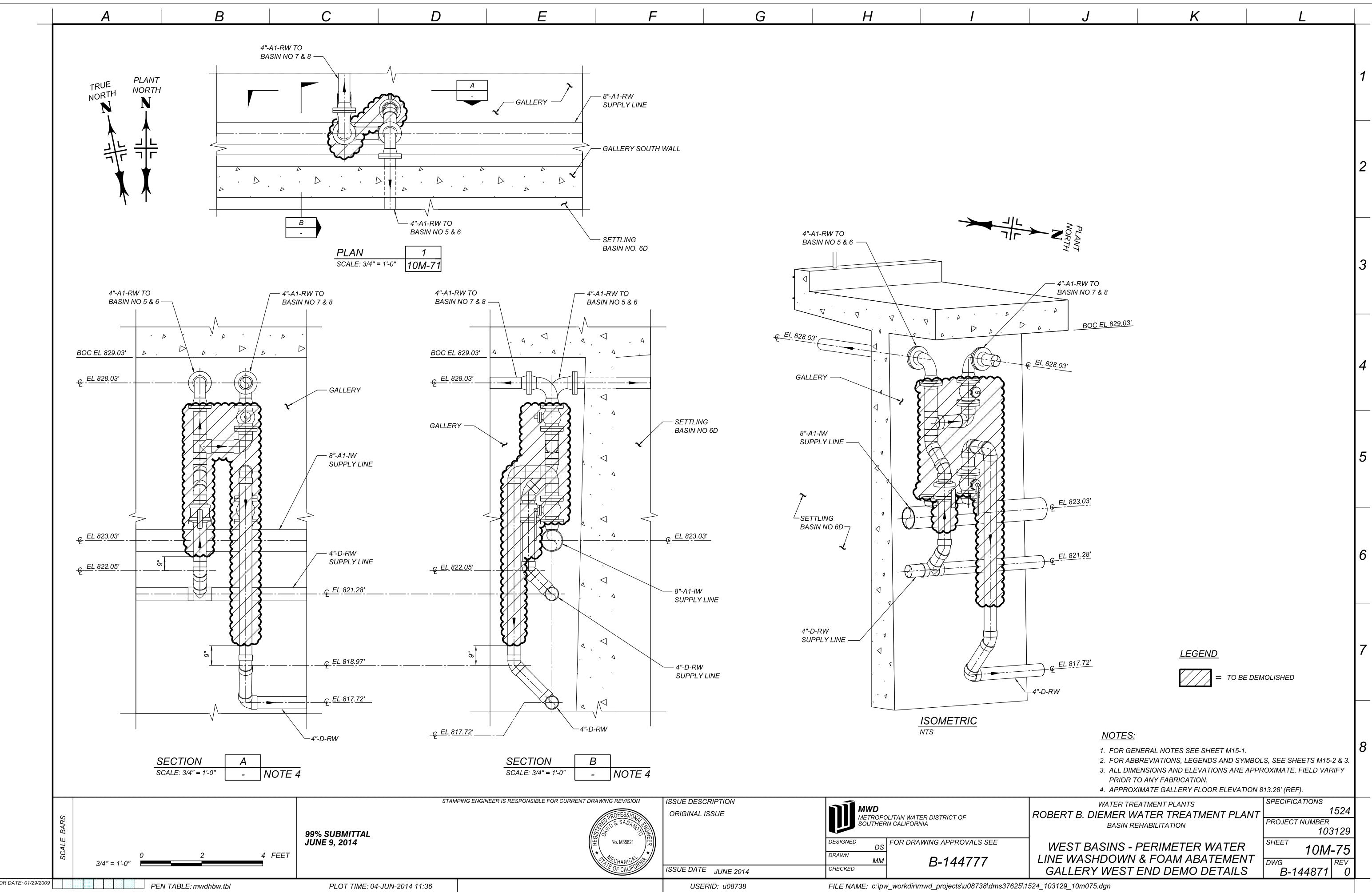
1" = 30' 0 30 60 90 FEET

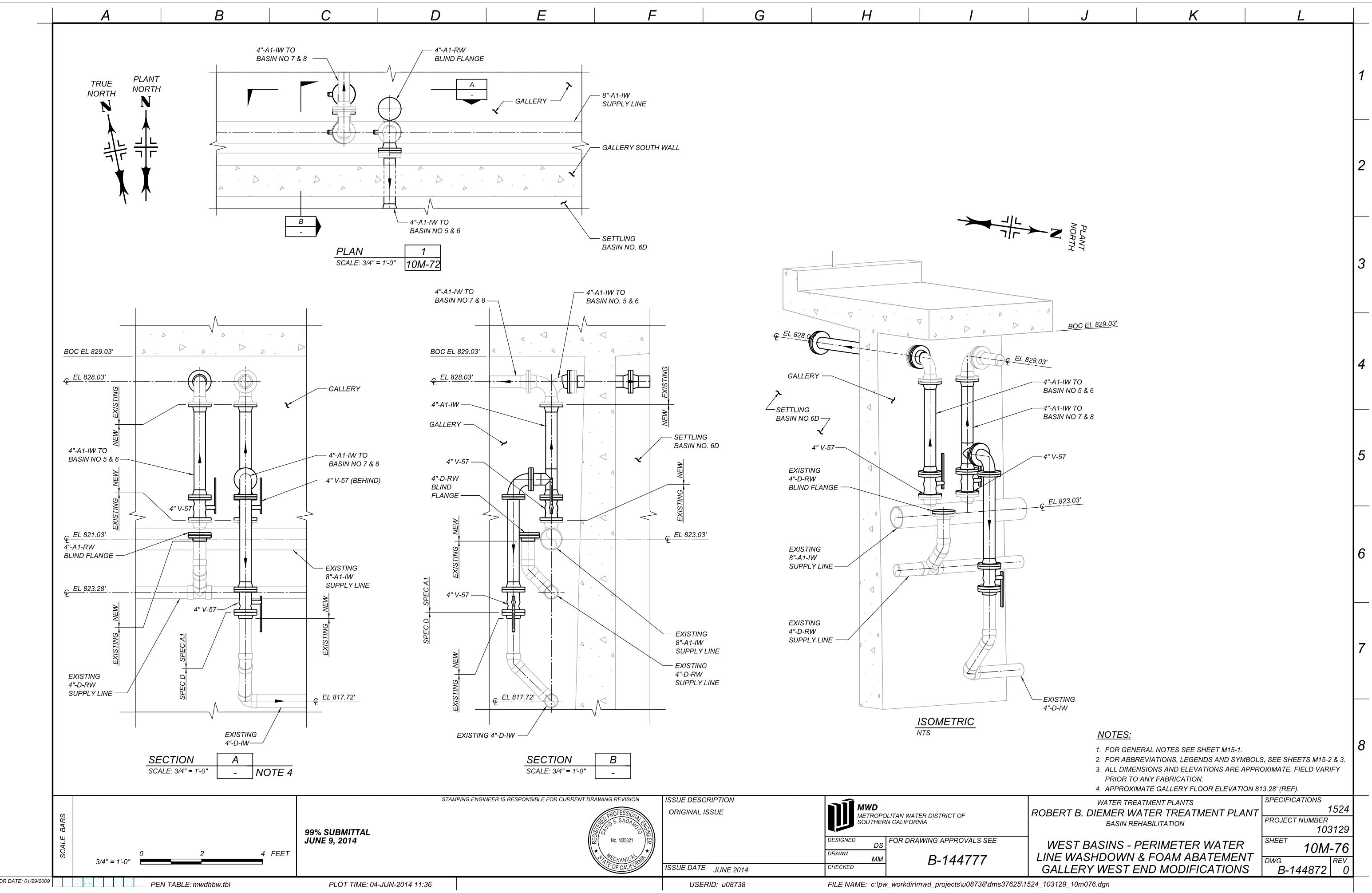
99% SUBMITTAL
JUNE 9, 2014

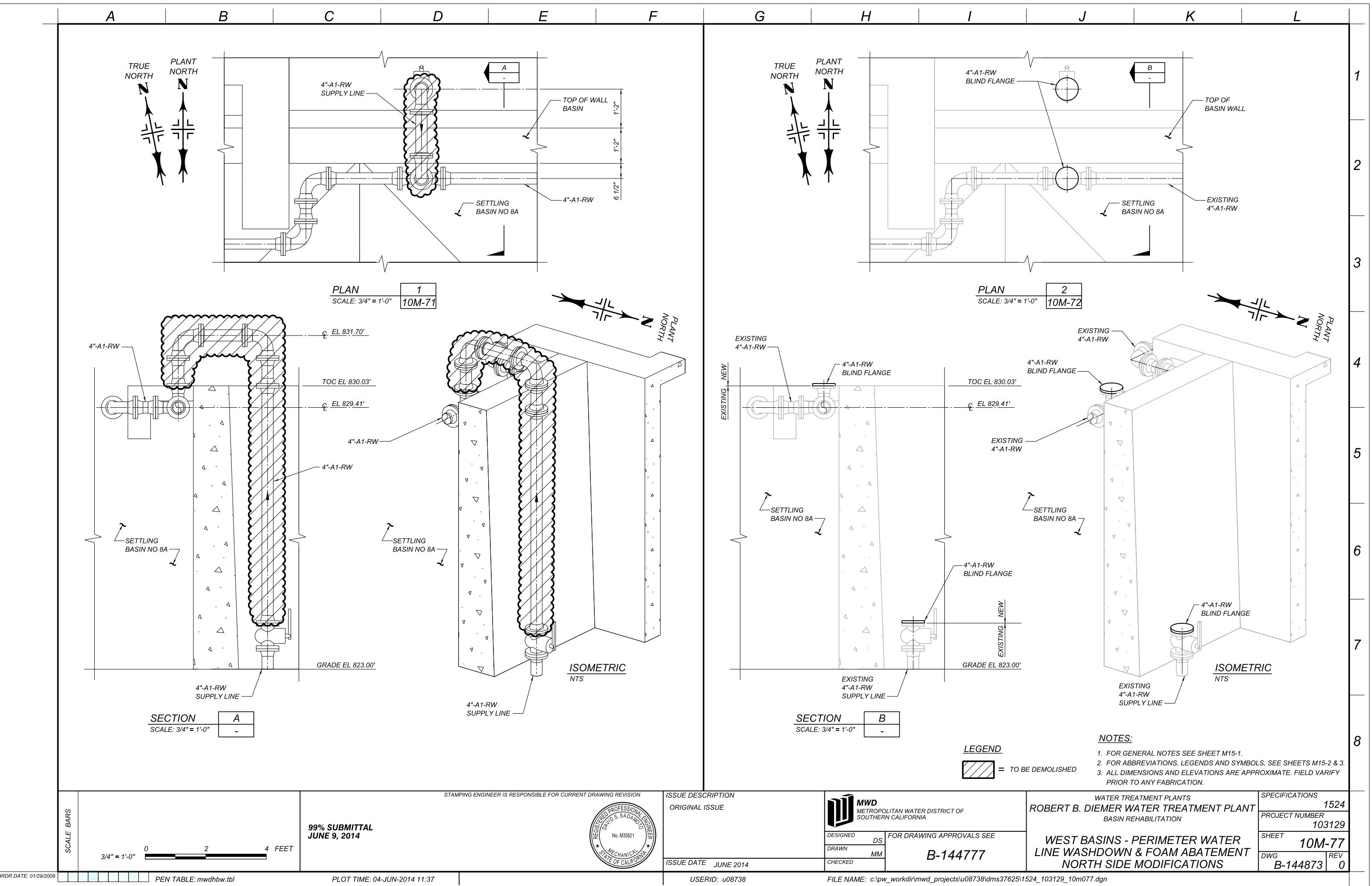


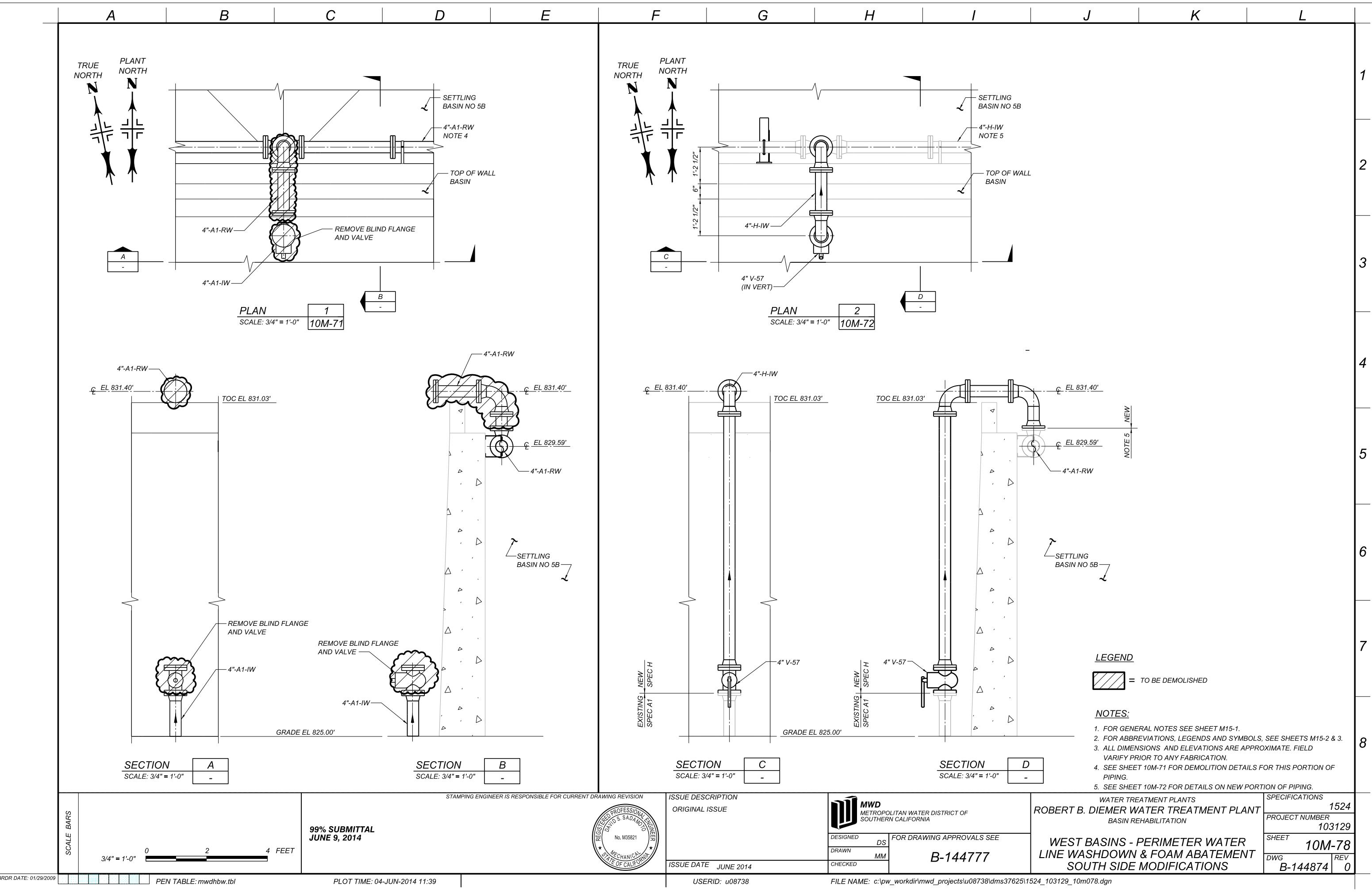


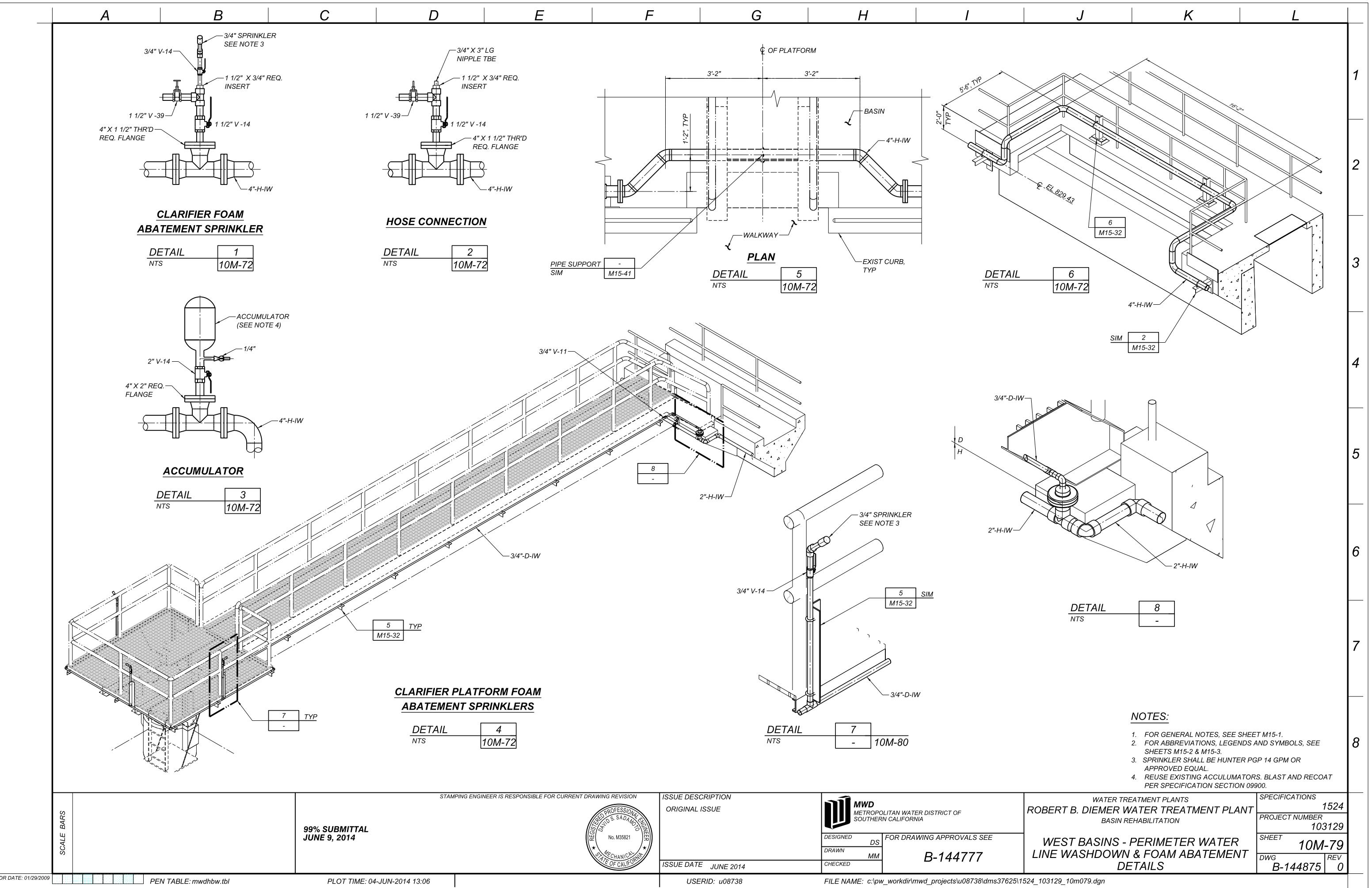


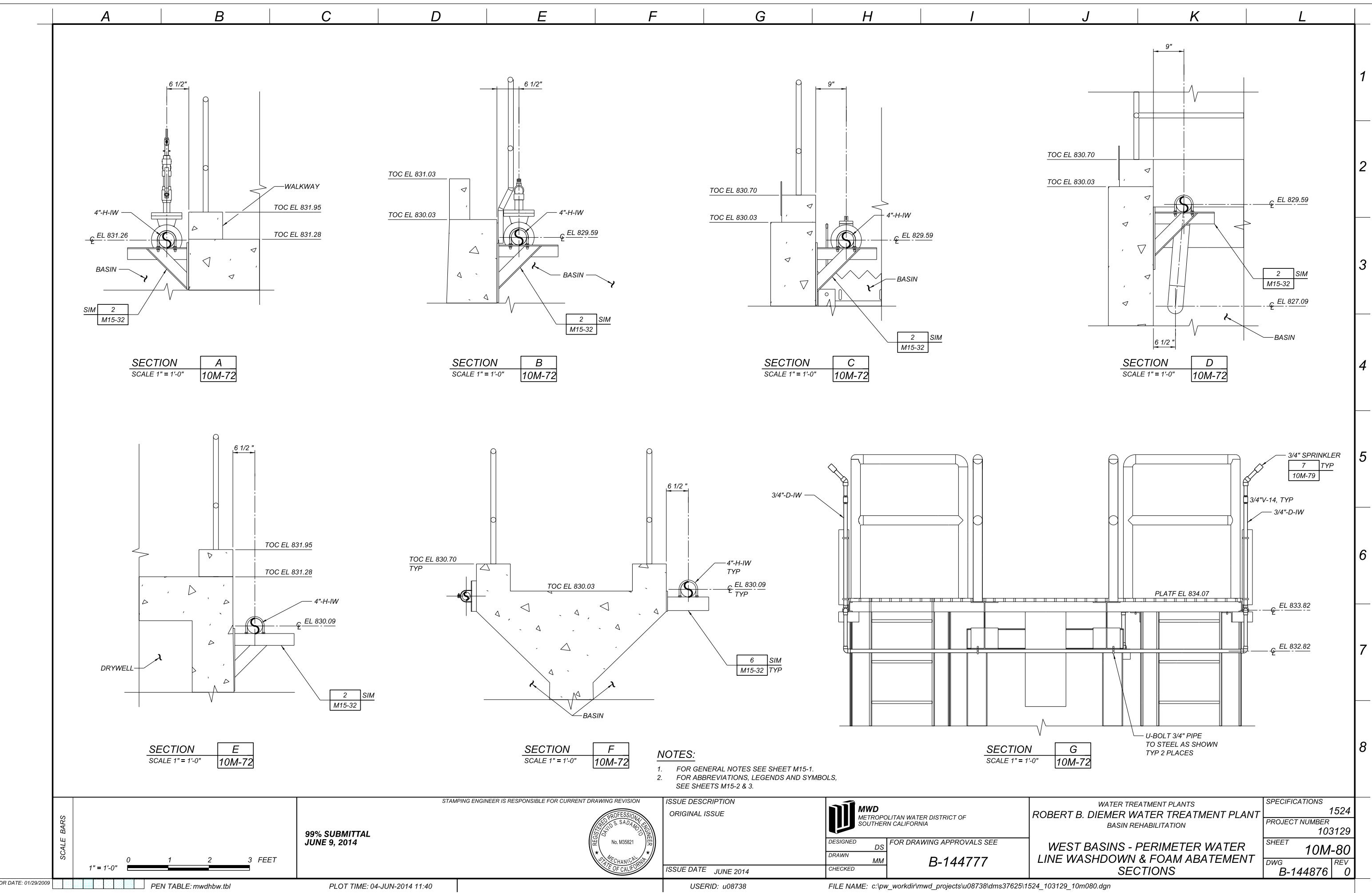




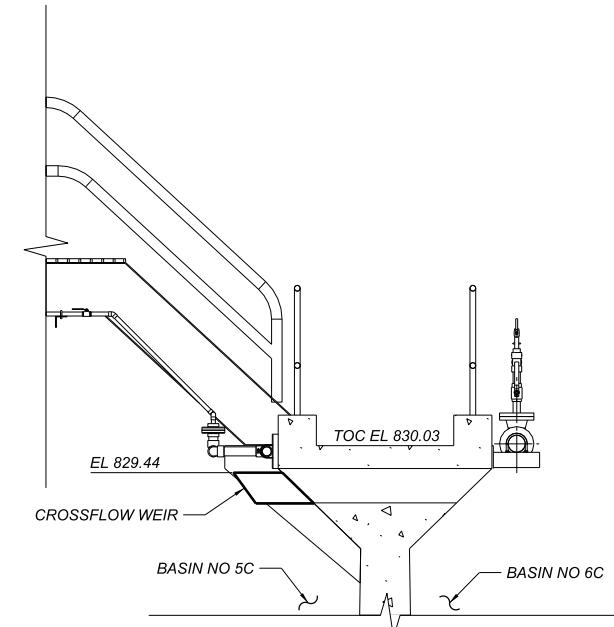




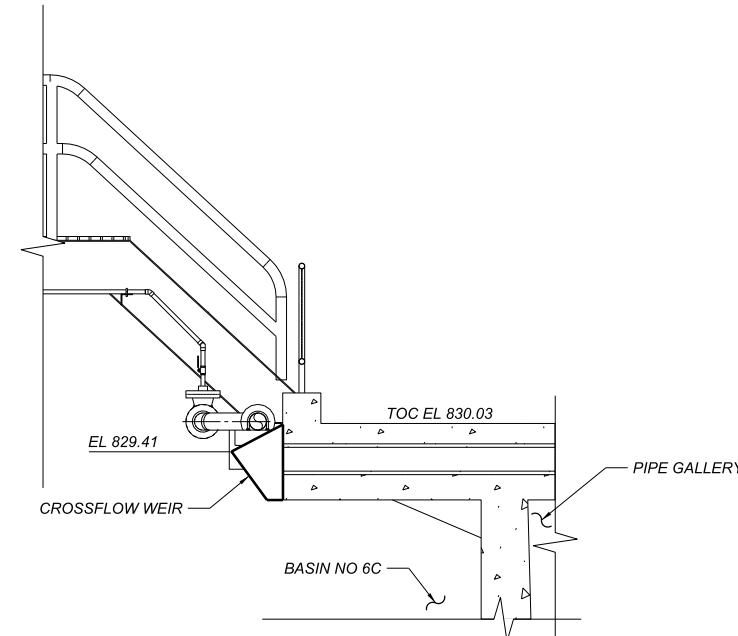




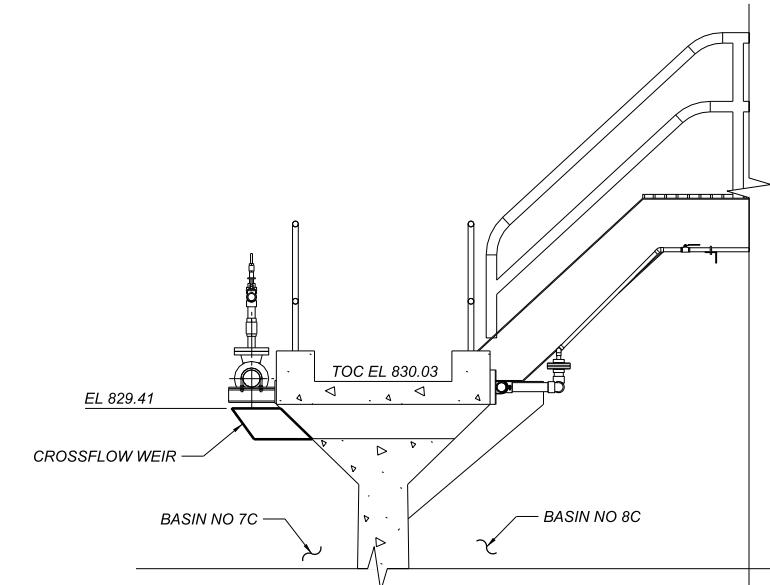
A B C D E F G H I J K L



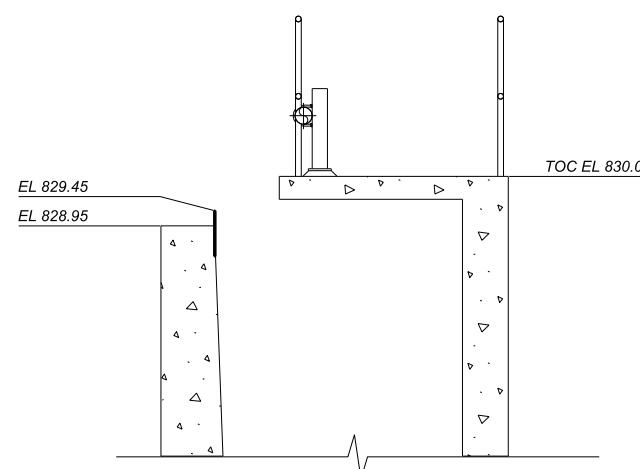
SECTION A
SCALE: 1/2" = 1'-0"
1M-3



SECTION B
SCALE: 1/2" = 1'-0"
1M-3



SECTION C
SCALE: 1/2" = 1'-0"
1M-3

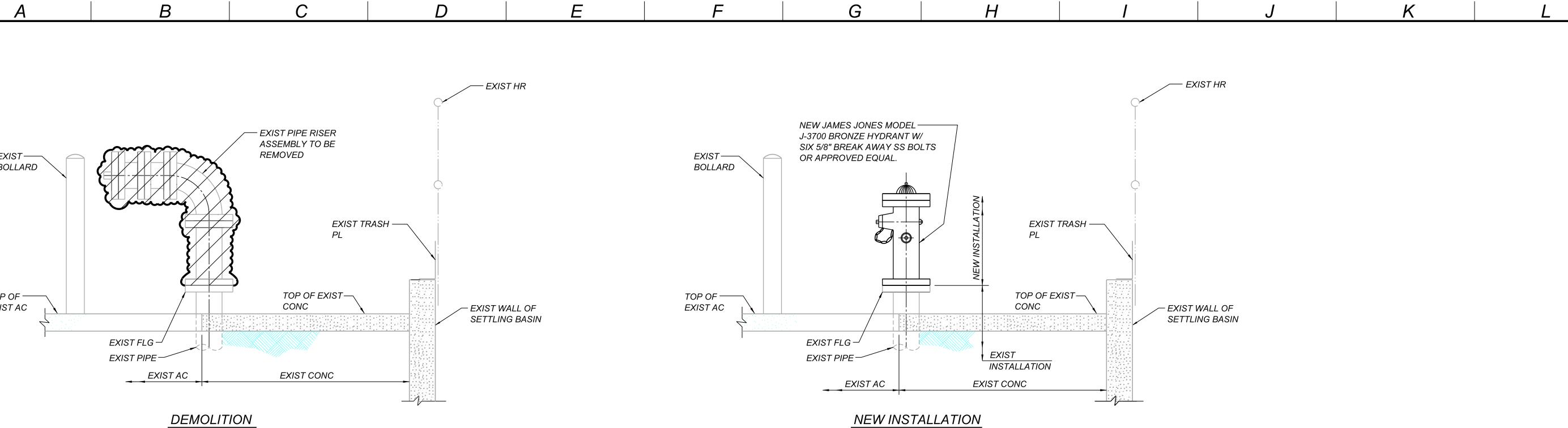


SECTION D
SCALE: 1/2" = 1'-0"
1M-3

NOTES:

- FOR GENERAL NOTES SEE SHEET M15-1.
- FOR ABBREVIATIONS, LEGENDS AND SYMBOLS, SEE SHEETS M15-2 & 3.
- ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE. FIELD VERIFY PRIOR TO ANT FABRICATION.
- EXISTING CROSSFLOW WEIRS TO BE REMOVED PRIOR TO JOINT SEAL REPLACEMENT AND RE-INSTALLED AFTER TO ELEVATIONS SHOWN ON THIS DRAWING. REPLACE GASKET WITH _____. SEE REPLACEMENT DRAWINGS.

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION ORIGINAL ISSUE	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-91 DWG B-144877 REV 0
		REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA	FOR DRAWING APPROVALS SEE B-144777			
1/2" = 1'-0"	0 2 4 6 FEET			ISSUE DATE JUNE 2014	CROSSFLOW WEIR MODIFICATIONS	



DETAIL
SCALE: 1" = 1'-0"
1
1M-1

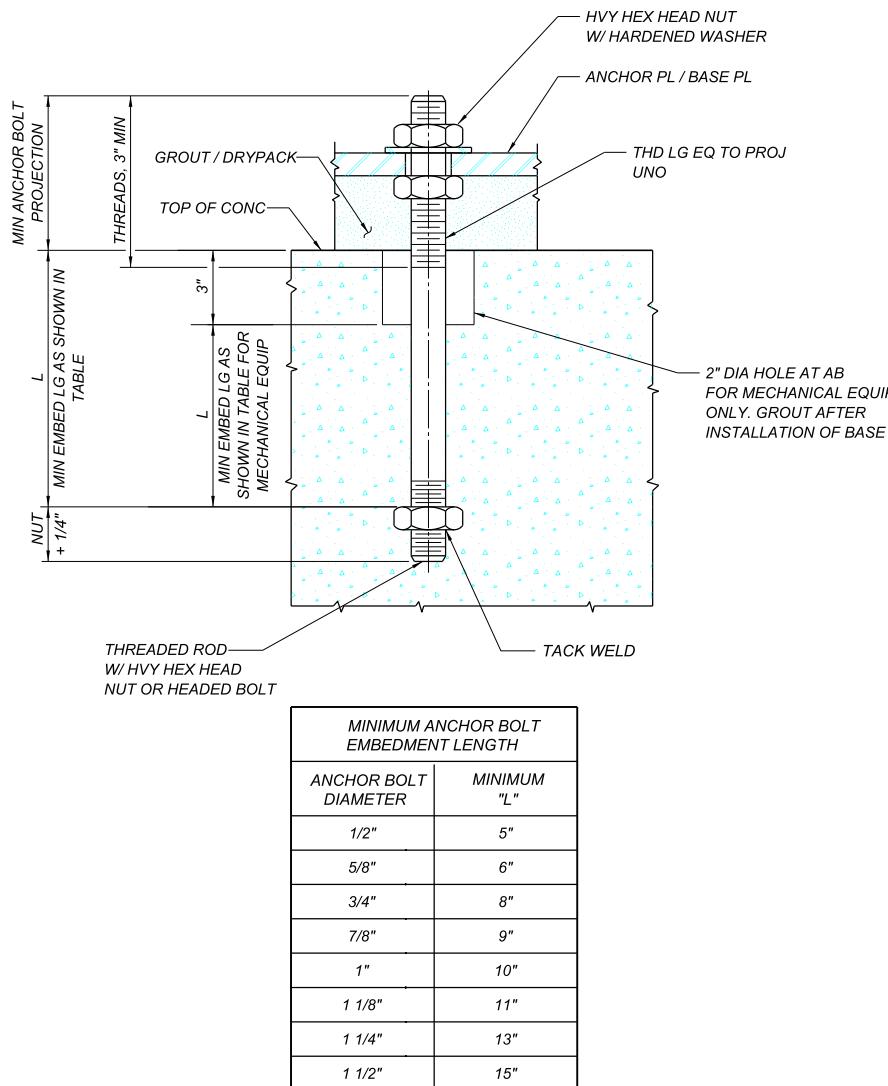
LEGEND:

= TO BE DEMOLISHED

NOTES:

1. FIRE HYDRANT HEAD SHALL BE PER OCFA REQUIREMENTS.
2. ABOVE GRADE PIPE AND HYDRANT SHALL RECEIVE 2 COATS OF DUNN-EDWARDS, INDUSTRIAL MAINTENANCE ENAMEL-GLOSS, 10-14 HIGH VISIBILITY YELLOW OF EQUAL.
3. BLUE DOT HYDRANT MARKERS SHALL BE PROVIDED IN FRONT OF THE FIRE HYDRANT PER OCFA GUIDELINE B-09.
4. THE EXISTING RISER TYPE HOSE ASSEMBLY SHALL BE REMOVED SALVAGED AND GIVEN BACK TO MWD (PLANT).

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 99% SUBMITTAL JUNE 9, 2014	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET 10M-101 DWG B-144878 REV 0					
1" = 1'-0" 0 1 2 3 FEET	<p>REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 MECHANICAL STATE OF CALIFORNIA</p>	<p>ISSUE DATE JUNE 2014</p> <table border="1"> <tr> <td>DESIGNED AR</td> <td>FOR DRAWING APPROVALS SEE</td> </tr> <tr> <td>DRAWN GCY/BB</td> <td></td> </tr> <tr> <td>CHEKED</td> <td></td> </tr> </table> <p>B-144777</p>	DESIGNED AR	FOR DRAWING APPROVALS SEE	DRAWN GCY/BB		CHEKED		<p>USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_10m101.dgn</p>	
DESIGNED AR	FOR DRAWING APPROVALS SEE									
DRAWN GCY/BB										
CHEKED										



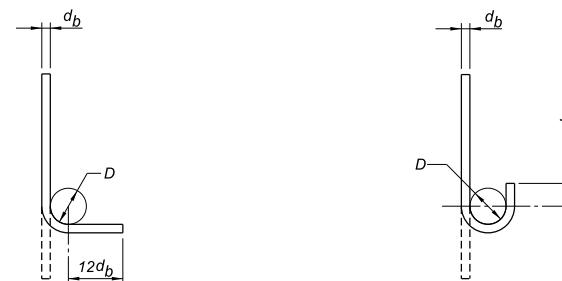
ANCHOR BOLT NOTES:

1. DETAIL TO APPLY UNLESS NOTED OTHERWISE.
 2. LEVELING NUTS AND SHIMS TO BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR REQUIRED BY THE ENGINEER.
 3. ALL BASE PLATES SHALL BE DRYPACKED OR GROUTED AFTER INSTALLATION OR AS INDICATED ON THE DESIGN DRAWINGS.
 4. LOCATION OF ANCHOR BOLTS FOR MECHANICAL EQUIPMENT SHALL BE VERIFIED FROM APPROVED EQUIPMENT AND SHOP DRAWINGS.
 5. ALL NUTS SHALL BE HEAVY HEX TYPE.
 6. ANCHOR BOLTS SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE.

ANCHOR BOLT DETAIL

DETAIL

REINFORCING STEEL SCHEDULE FOR WALLS AND SLABS			
MINIMUM MATERIAL PROPERTIES			
	$f_c' = 4,000 \text{ PSI}$, $f_y = 60,000 \text{ PSI}$		
BAR SIZE	DEVELOPMENT LENGTH		LAP SPLICE LENGTH
	TOP BARS	OTHER BARS	
#3	1'-9"	1'-3"	#3
#4	2'-2"	1'-7"	2'-3"
#5	2'-8"	2'-0"	2'-9"
#6	3'-2"	2'-4"	2'-2"
#7	4'-6"	3'-6"	3'-6"
#8	5'-2"	3'-11"	4'-2"
#9	5'-10"	4'-6"	5'-10"
#10	6'-6"	5'-0"	6'-6"
#11	7'-3"	5'-7"	7'-3"



90° END HOOKS

180° END HOOKS

STIRRUP & TIE HOOKS

END HOOKS	
BAR SIZE	D
#3	2 1/4"
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"
#9	9"
#10	10"
#11	11"

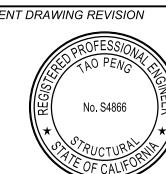
STIRRUP & TIE HOOKS	
BAR SIZE	D
#3	1 1/2"
#4	2"
#5	2 1/2"
#6	4 1/2"
#7	5 1/4"
#8	6"

HOOK AND BEND DETAILS

d_b = NOMINAL DIAMETER OF BAR, (INCHES)

D = FINISHED BEND DIAMETER

DETAIL 2



**99% SUBMITTED
JUNE 9, 2014**

STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION

ISSUE DESCRIPTION

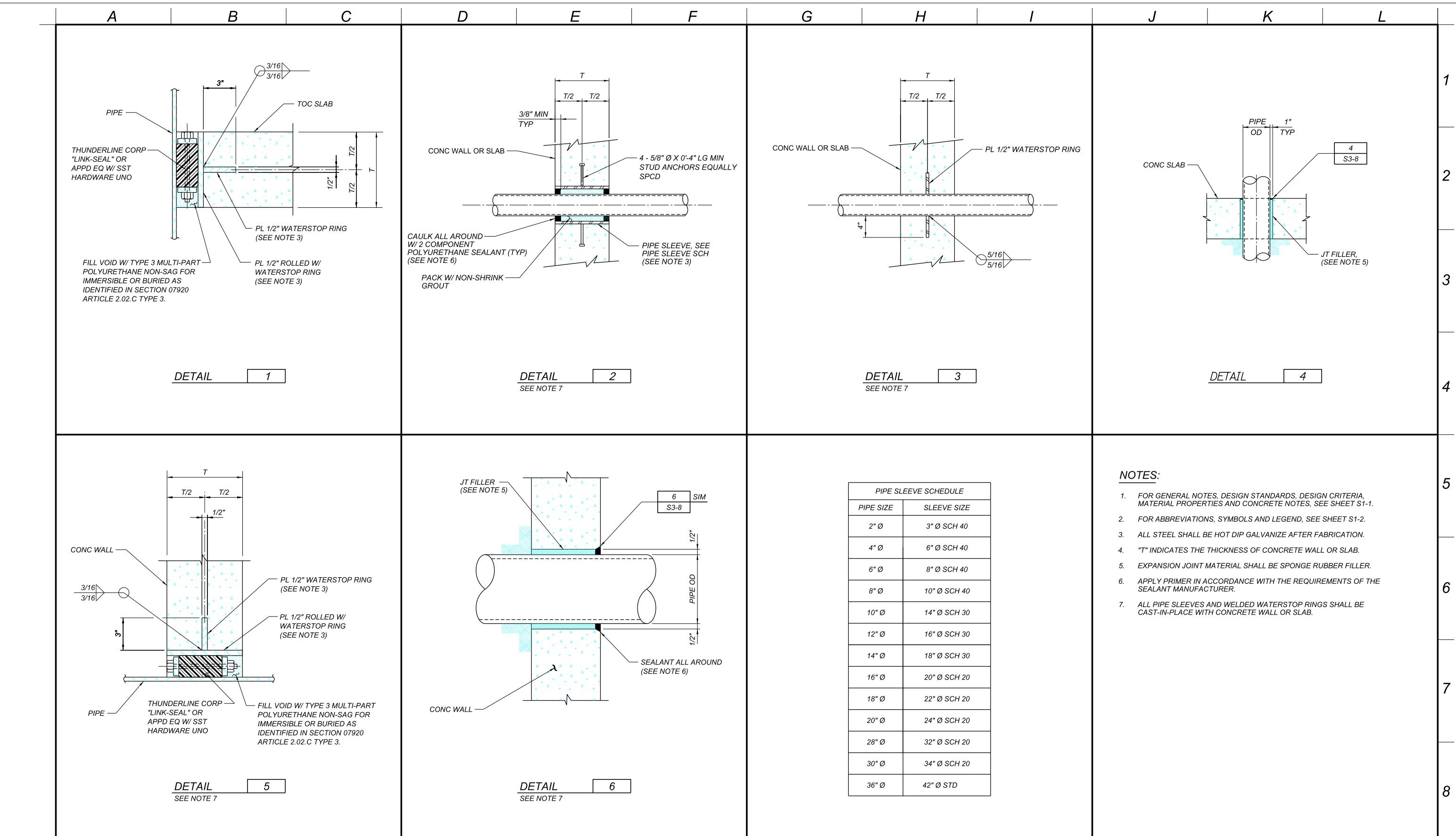
MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA

R-144777

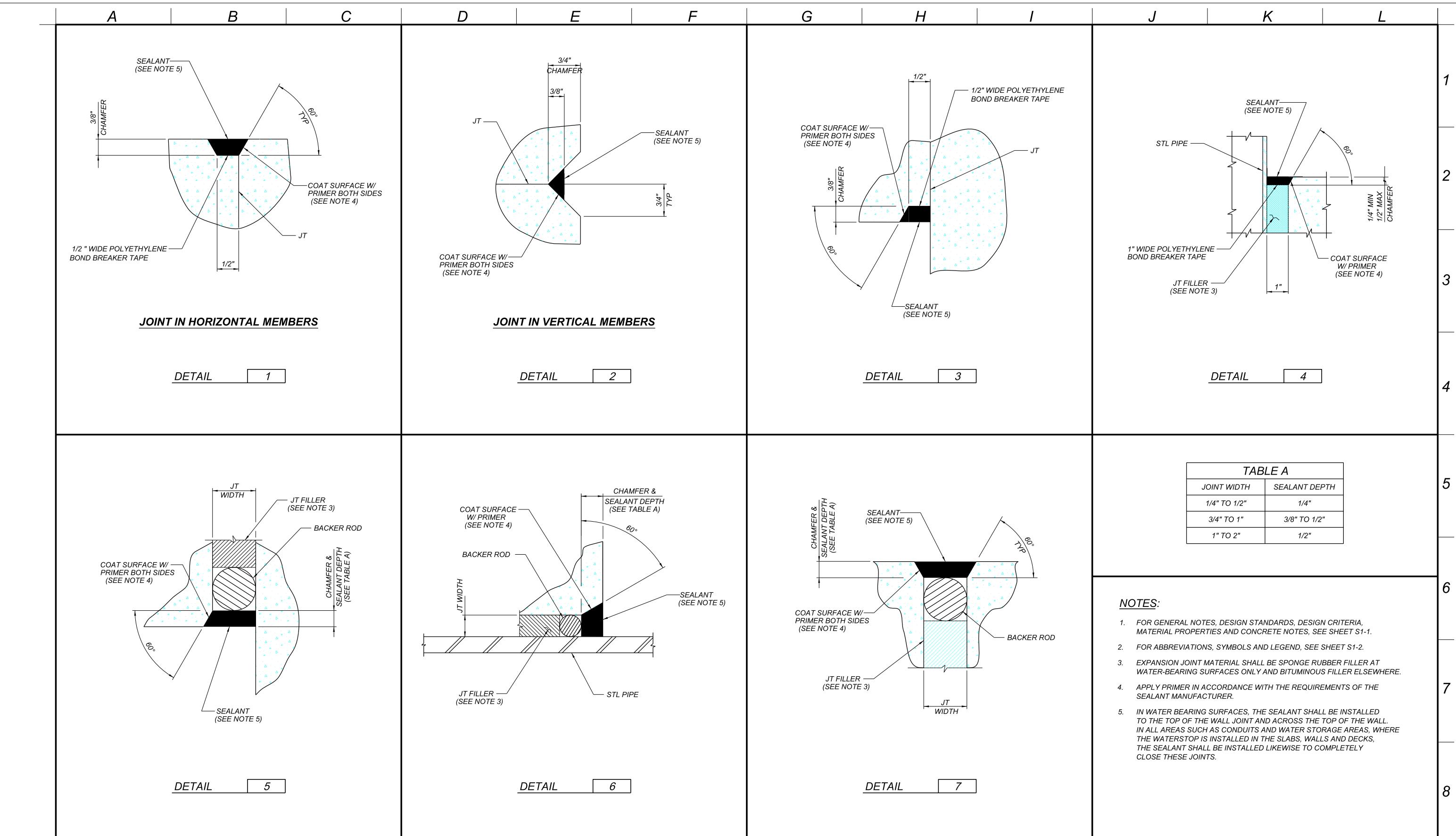
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION

ANCHOR BOLTS AND
REINFORCING STEEL
SCHEDULES AND DETAILS

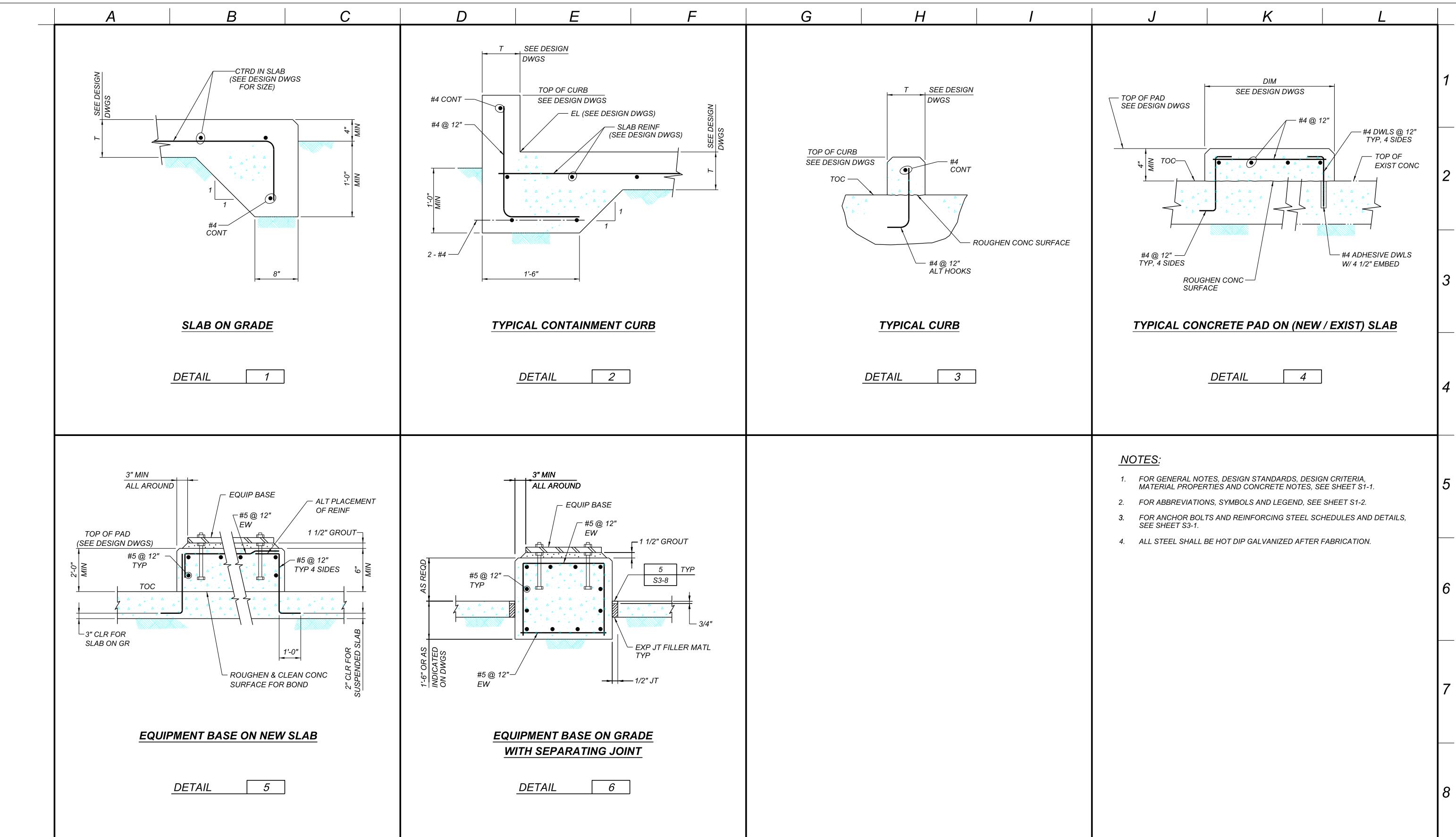
ECIFICATIONS	1524
PROJECT NUMBER	103129
REET	S3-1
VG	REV
B-146518	0



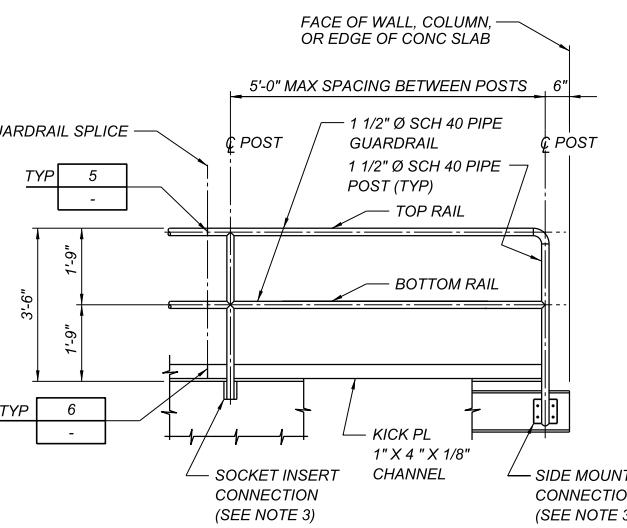
SCALE BARS		99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION TYPICAL PIPE PENETRATION DETAILS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET S3-7 DWG B-146519 REV 0	
					TP	SJS	
					CHECKED	B-144777	



SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS	SPECIFICATIONS
	99% SUBMITTAL JUNE 9, 2014	ORIGINAL ISSUE	ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	1524 PROJECT NUMBER 103129
		FOR DRAWING APPROVALS SEE B-144777	CONCRETE JOINT SEALANT TYPICAL DETAILS	SHEET S3-8
		ISSUE DATE JUNE 2014		DWG B-146520 REV 0

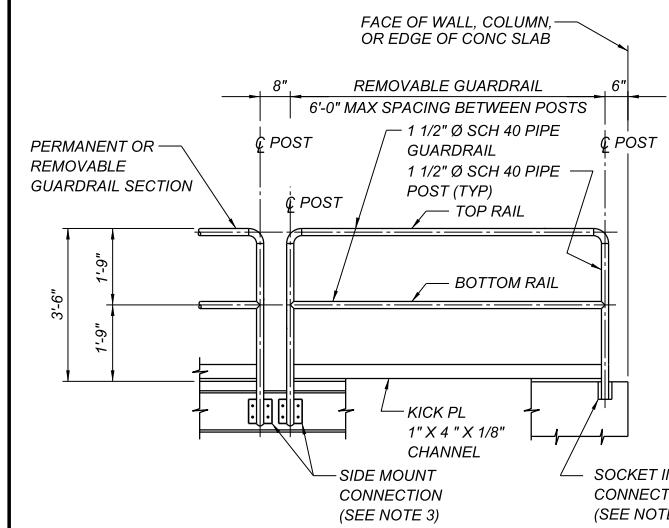


SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION SLAB ON GRADE, CONTAINMENT CURB, EQUIPMENT AND CONCRETE PAD TYPICAL DETAILS B-144777	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET S3-13 DWG B-146521 REV 0
PEN TABLE: mwdhbw.tbl		PLOT TIME: 04-JUN-2014 06:45	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_00s3013.dgn	



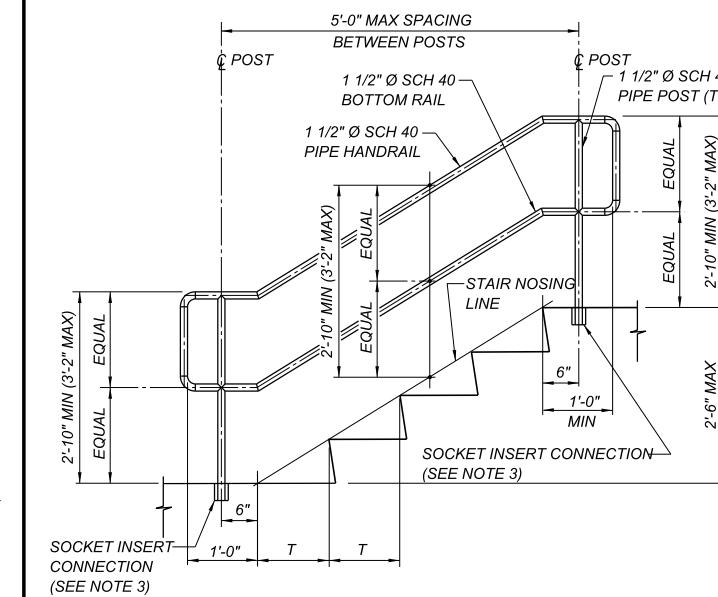
TWO RAIL - GUARDRAIL ELEVATION

DETAIL 1



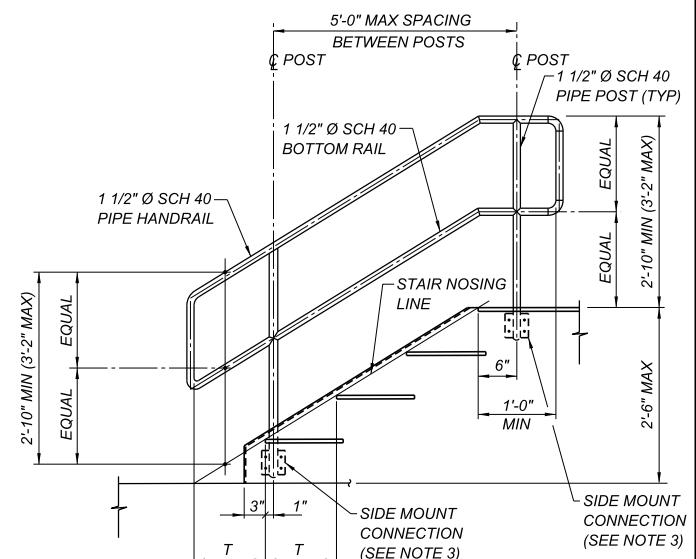
REMOVABLE GUARDRAIL ELEVATION

DETAIL 2



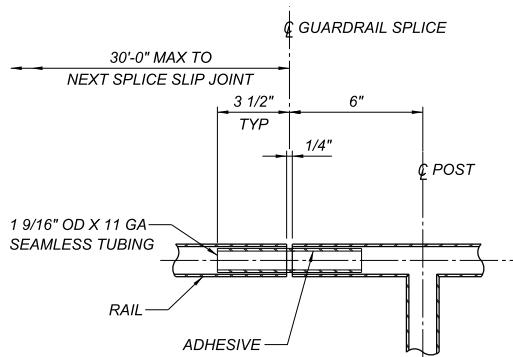
HANDRAIL ELEVATION @ CONCRETE STAIR

DETAIL 3



HANDRAIL ELEVATION @ STEEL STAIR

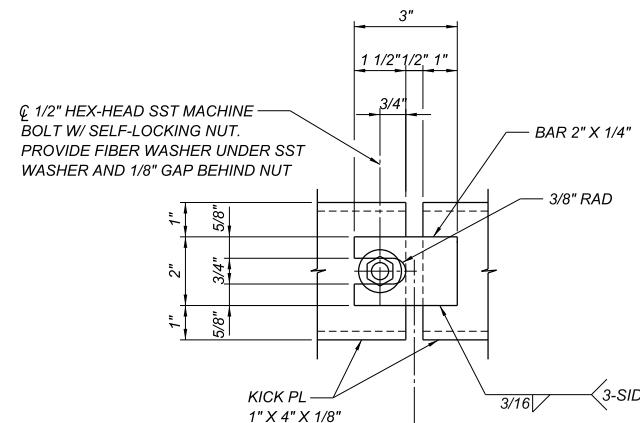
DETAIL 4



NOTE:
SPLICE SLIP JOINT TO BE LOCATED AT POST NEAREST EXPANSION JOINT IN STRUCTURE.

GUARDRAIL SPICE SLIP JOINT

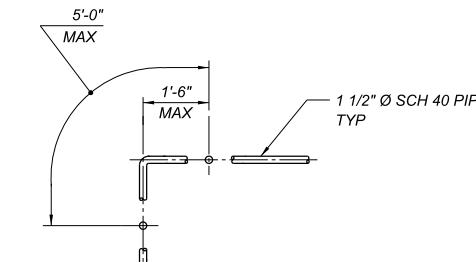
DETAIL 5



NOTE:
LOCATE KICK PLATE SPLICE SLIP JOINT WITH GUARDRAIL SPLICE SLIP JOINT.

KICK PLATE SPLICE JOINT

DETAIL 6



PLAN

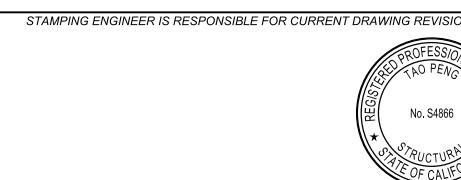
TYPICAL GUARDRAIL CORNER

DETAIL 7

- NOTES:**
- FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
 - FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
 - FOR POST CONNECTIONS, SEE SHEET S5-2.
 - FOR GUARDRAIL LAYOUT, SEE DESIGN DRAWINGS.
 - ALL MATERIAL SHALL BE ALUMINUM, UNO.
 - FABRICATE ALL HANDRAIL AND GUARDRAIL CONNECTING MEMBERS WITH CONCEALED MECHANICAL FASTENERS AND FITTINGS, UNO.

SCALE BARS

99% SUBMITTAL
JUNE 9, 2014



ISSUE DESCRIPTION
ORIGINAL ISSUE

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA

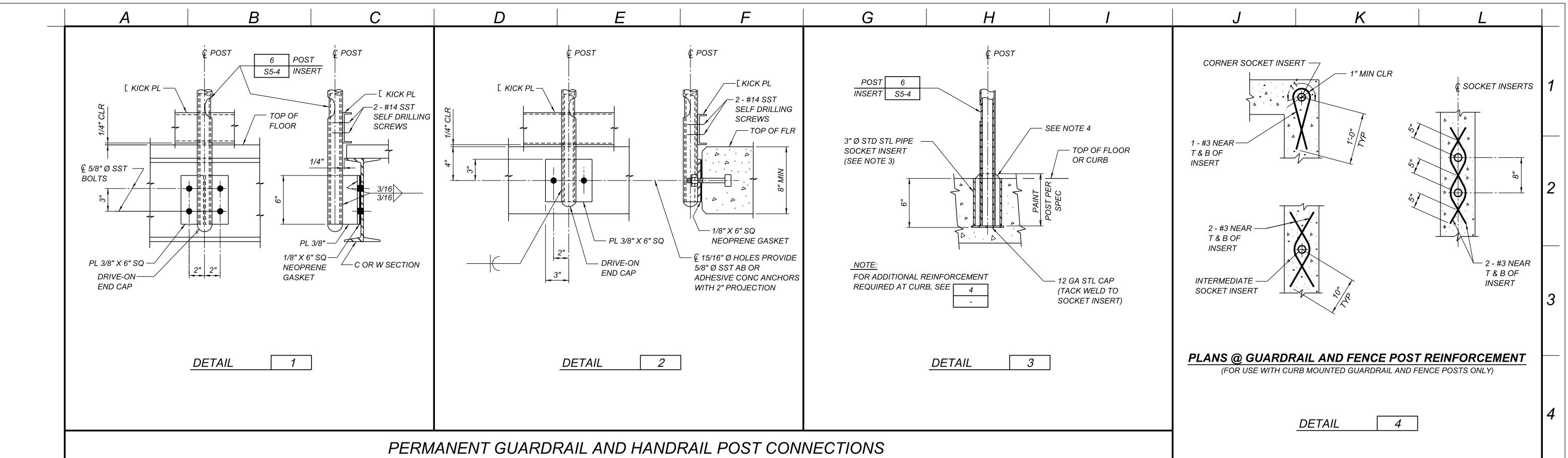
DESIGNED	TP	FOR DRAWING APPROVALS SEE
DRAWN	GCV	
CHECKED		

B-144777

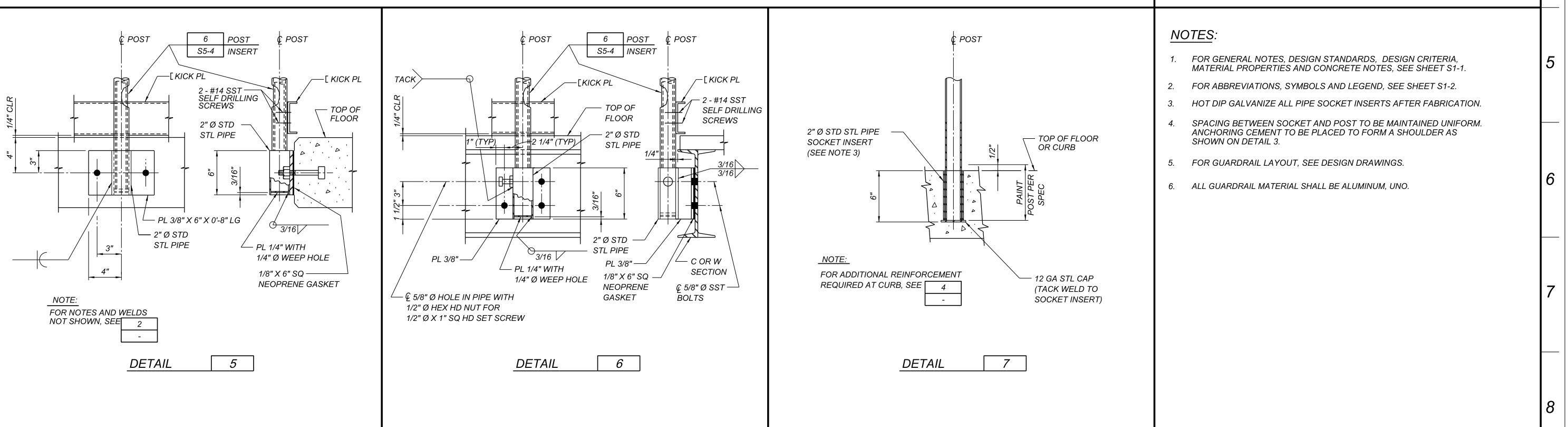
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION

**TWO RAIL ALUMINUM
GUARDRAIL AND HANDRAIL
TYPICAL DETAILS**

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
S5-1
DWG
B-146522
REV
0

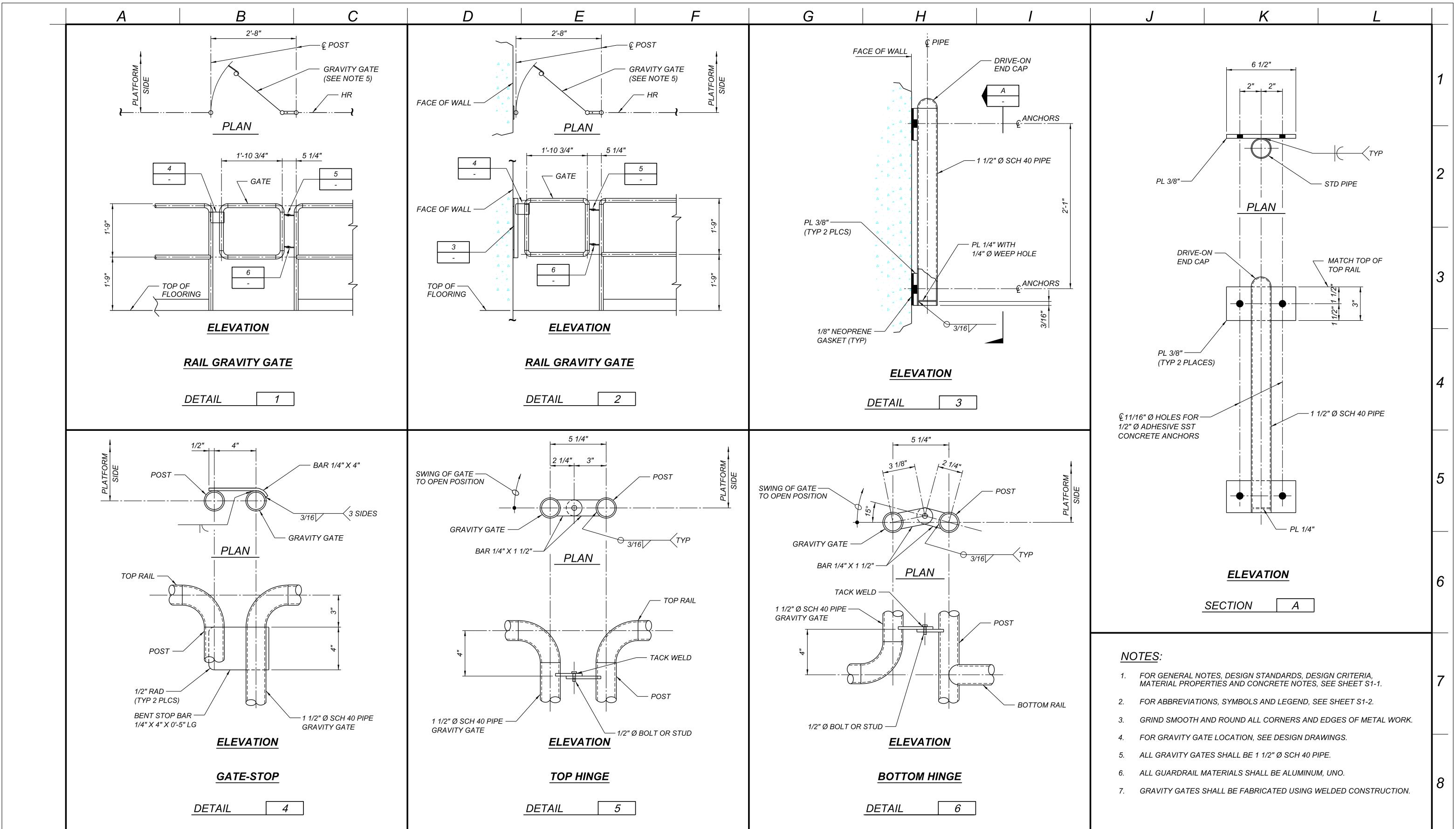


PERMANENT GUARDRAIL AND HANDRAIL POST CONNECTIONS

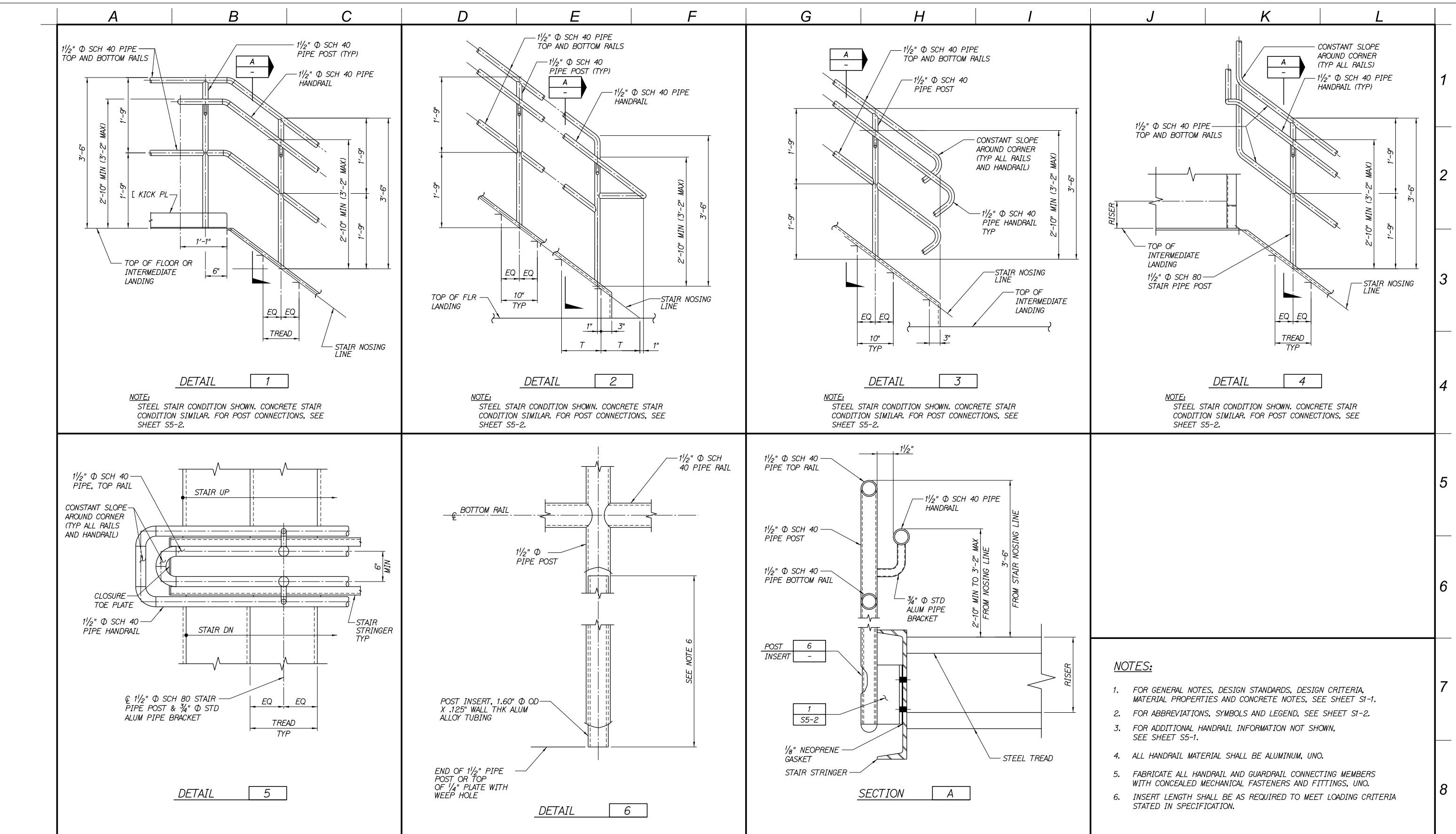


REMOVABLE GUARDRAIL AND HANDRAIL POST CONNECTIONS

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP FOR DRAWING APPROVALS SEE DRAWN GCY CHECKED B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION ALUMINUM GUARDRAIL AND HANDRAIL POST CONNECTIONS TYPICAL DETAILS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET S5-2 DWG B-146523 REV 0
99% SUBMITTAL JUNE 9, 2014					
BRDR DATE: 01/29/2009		PEN TABLE: mwdhbw.tbl		PLOT TIME: 04-JUN-2014 06:46	
				USERID: u08738 FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_00s5002.dgn	



SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED TP FOR DRAWING APPROVALS SEE DRAWN SJS CHECKED B-144777	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION ALUMINUM GRAVITY GATES TYPICAL DETAILS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET S5-3 DWG B-146524 REV 0
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 06:46	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_00s5003.dgn		



STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION



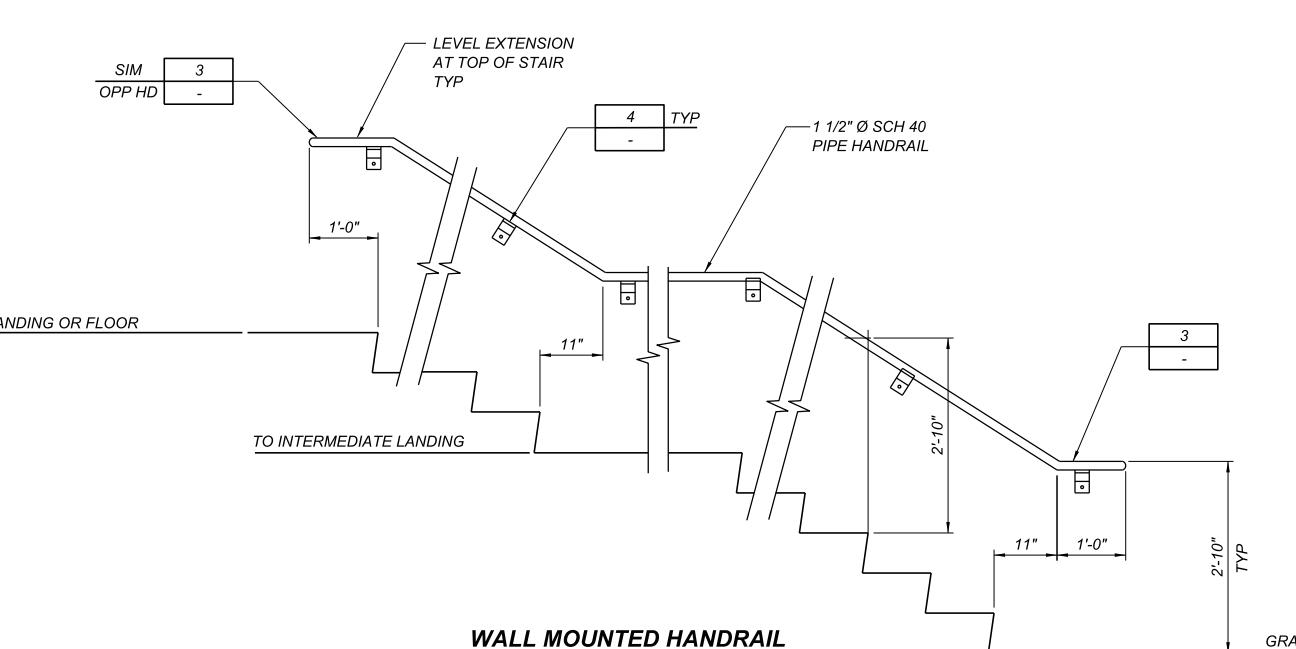
ISSUE DESCRIPTION
ORIGINAL ISSUE

 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA			
DESIGNED	TP	FOR DRAWING APPROVALS SEE B-144777	
	DRAWN		GCY
	CHECKED		
2014			

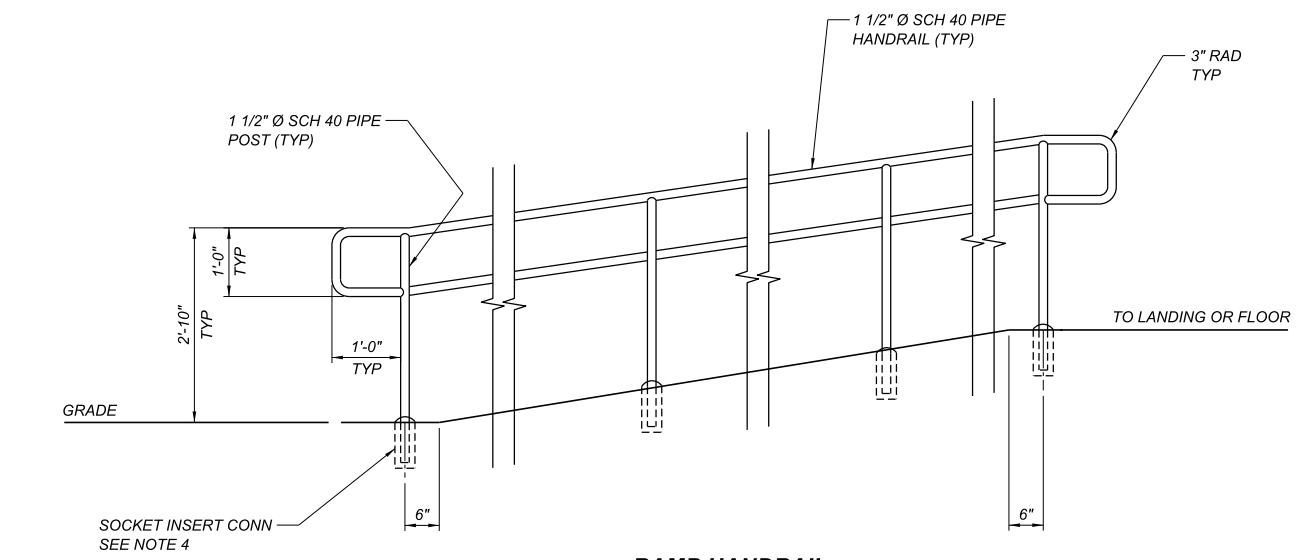
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION

ALUMINUM STAIR HANDRAILS
TYPICAL DETAILS AND SECTION

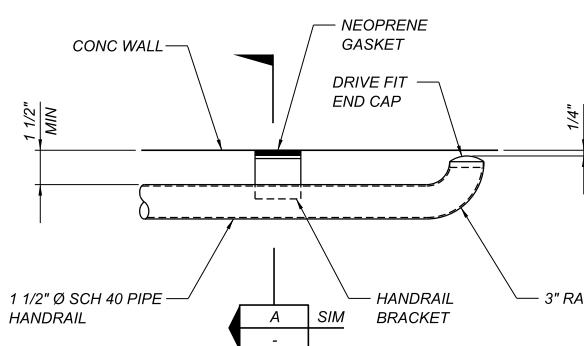
SPECIFICATIONS	
1524	
PROJECT NUMBER	
103129	
SHEET	
S5-4	
DWG	REV
B-146525	0



DETAIL 1

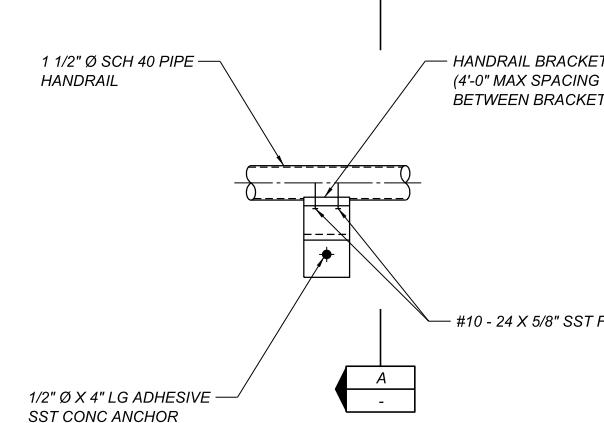


DETAIL 2

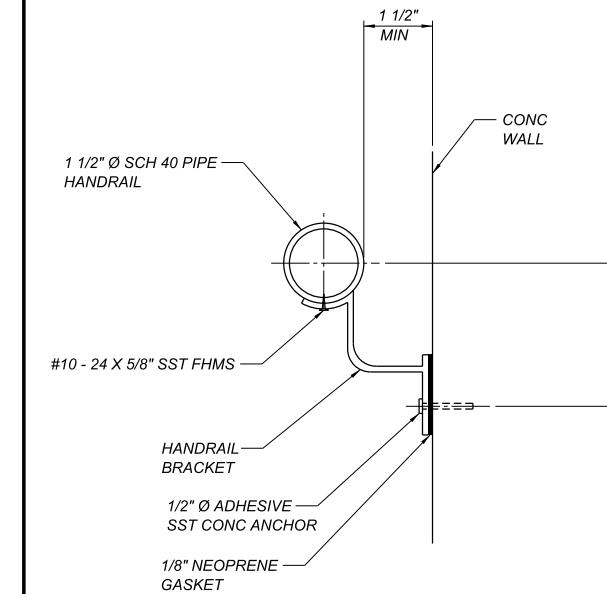


PLAN

DETAIL 3



DETAIL 4



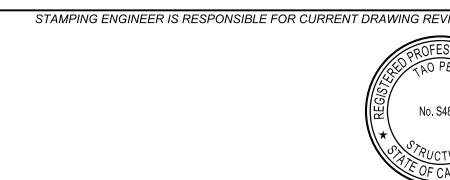
SECTION A

NOTES:

1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.
3. SPACING BETWEEN SOCKET AND POST TO BE MAINTAINED UNIFORM.
4. FOR HANDBRAIL POST CONNECTIONS, SEE SHEET S5-2.
5. FOR HANDBRAIL LAYOUT, SEE DESIGN DRAWINGS.
6. ALL HANDBRAIL MATERIAL SHALL BE ALUMINUM, UNO.

SCALE BARS

99% SUBMITTAL
JUNE 9, 2014

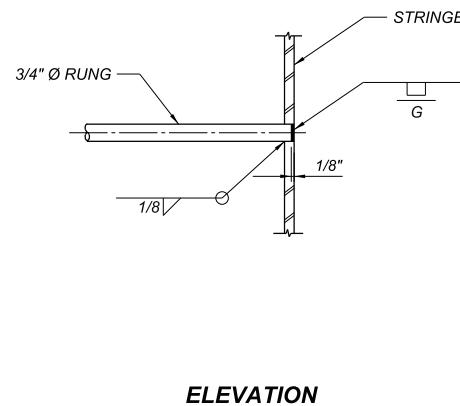
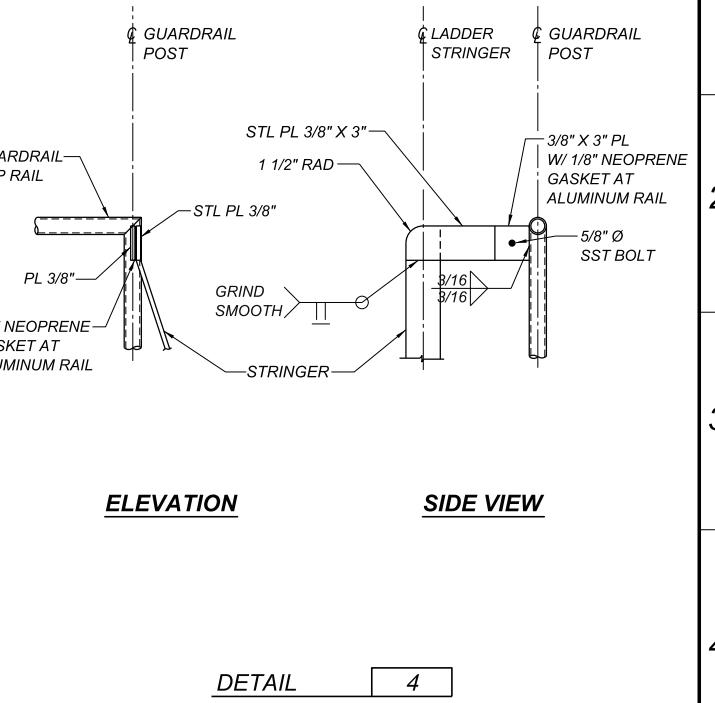
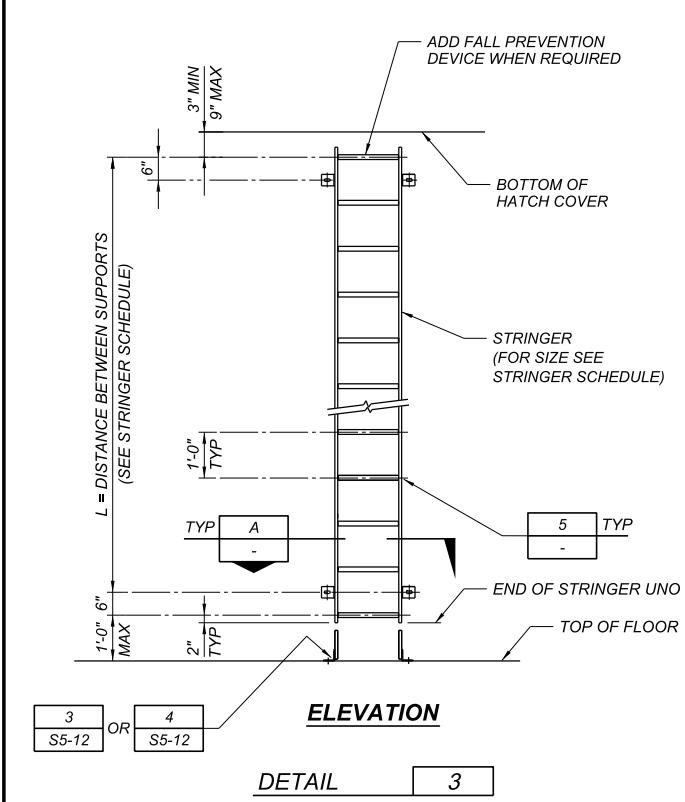
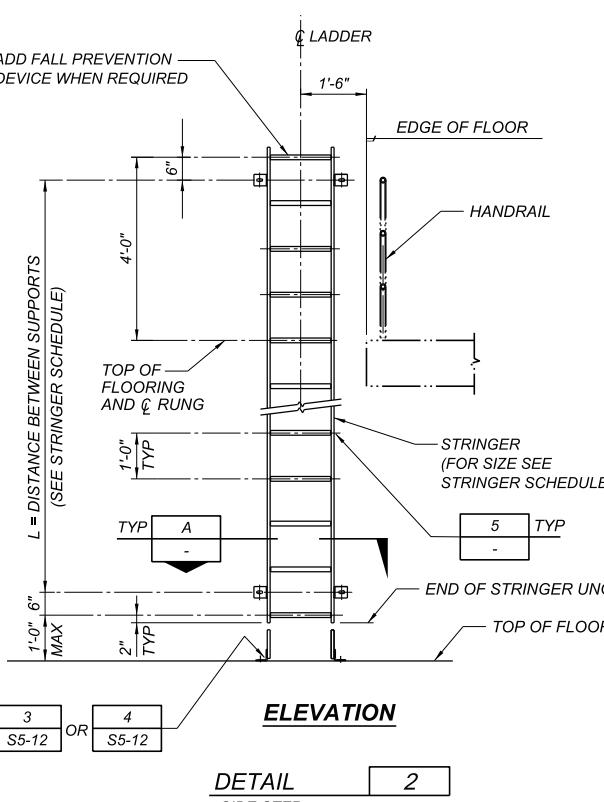
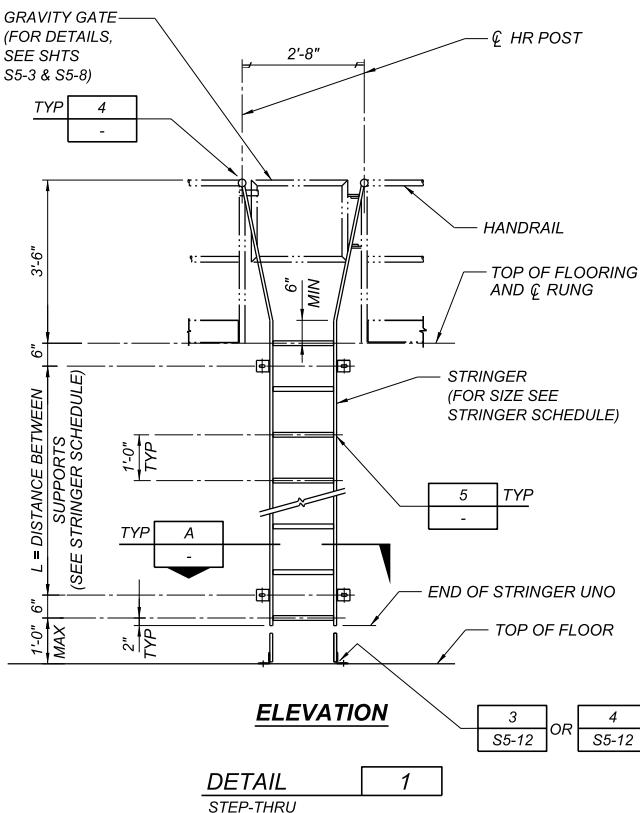


ISSUE DESCRIPTION
ORIGINAL ISSUE
ISSUE DATE JUNE 2014

MWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED TP FOR DRAWING APPROVALS SEE
DRAWN SJS
CHECKED
B-144777

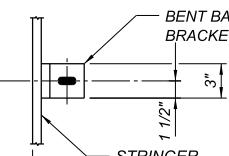
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
WALL MOUNTED AND RAMP
ALUMINUM HANDRAIL

SPECIFICATIONS 1524
PROJECT NUMBER 103129
SHEET S5-5
DWG B-146526 REV 0

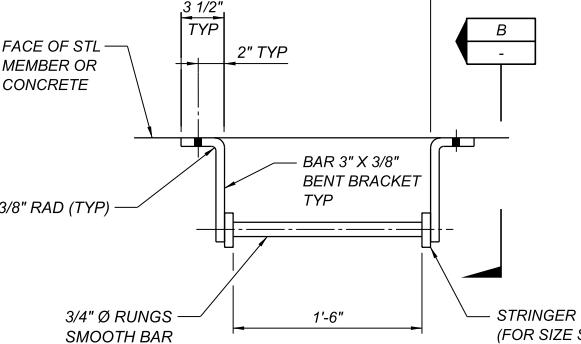


¼ 13/16" X 1 1/2" LG SLOTTED
 HOLE PROVIDE 3/4" Ø HEX HD
 CAP SCREW WITH NUT AND
 WASHER FOR STL CONNECTION
 OR
 ¼ 15/16" X 1 1/2" LG SLOTTED
 HOLE PROVIDE 3/4" Ø ADHESIVE
 CONC ANCHOR WITH HEX HD CAP
 SCREW AND WASHER FOR CONC
 OR CMU CONNECTION

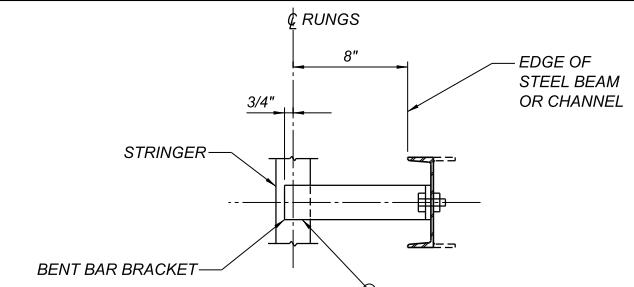




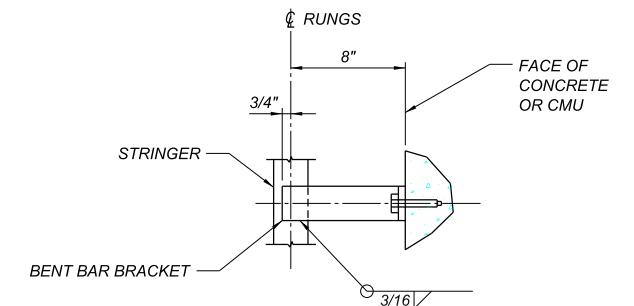
ELEVATION



PLAN



FOR STEEL CONNECTION



FOR CONCRETE OR CMU CONNECTION

STRINGER SCHEDULE	
BAR SIZE	L = DISTANCE
2" X 3/8"	5'-0" MAX
3" X 3/8"	5'-0" TO 10'-0"
3" X 1/2"	10'-0" TO 20'-0"
4" X 1/2"	OVER 20'-0"

STRINGER SCHEDULE

AR SIZE	L = DISTANCE
2" X 3/8"	5'-0" MAX
3" X 3/8"	5'-0" TO 10'-0"
3" X 1/2"	10'-0" TO 20'-0"
4" X 1/2"	OVER 20'-0"

NOTES:

1. FOR GENERAL NOTES, DESIGN STANDARDS, DESIGN CRITERIA, MATERIAL PROPERTIES AND CONCRETE NOTES, SEE SHEET S1-1.
 2. FOR ABBREVIATIONS, SYMBOLS AND LEGEND, SEE SHEET S1-2.

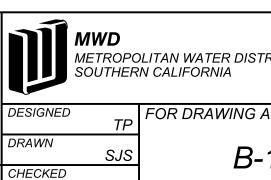


**99% SUBMITTAL
JUNE 9, 2014**

A circular stamp with the following text:

REGISTERED PROFESSIONAL
TAO PENG
No. S4866
STRUCTURAL
STATE OF CALIFORNIA

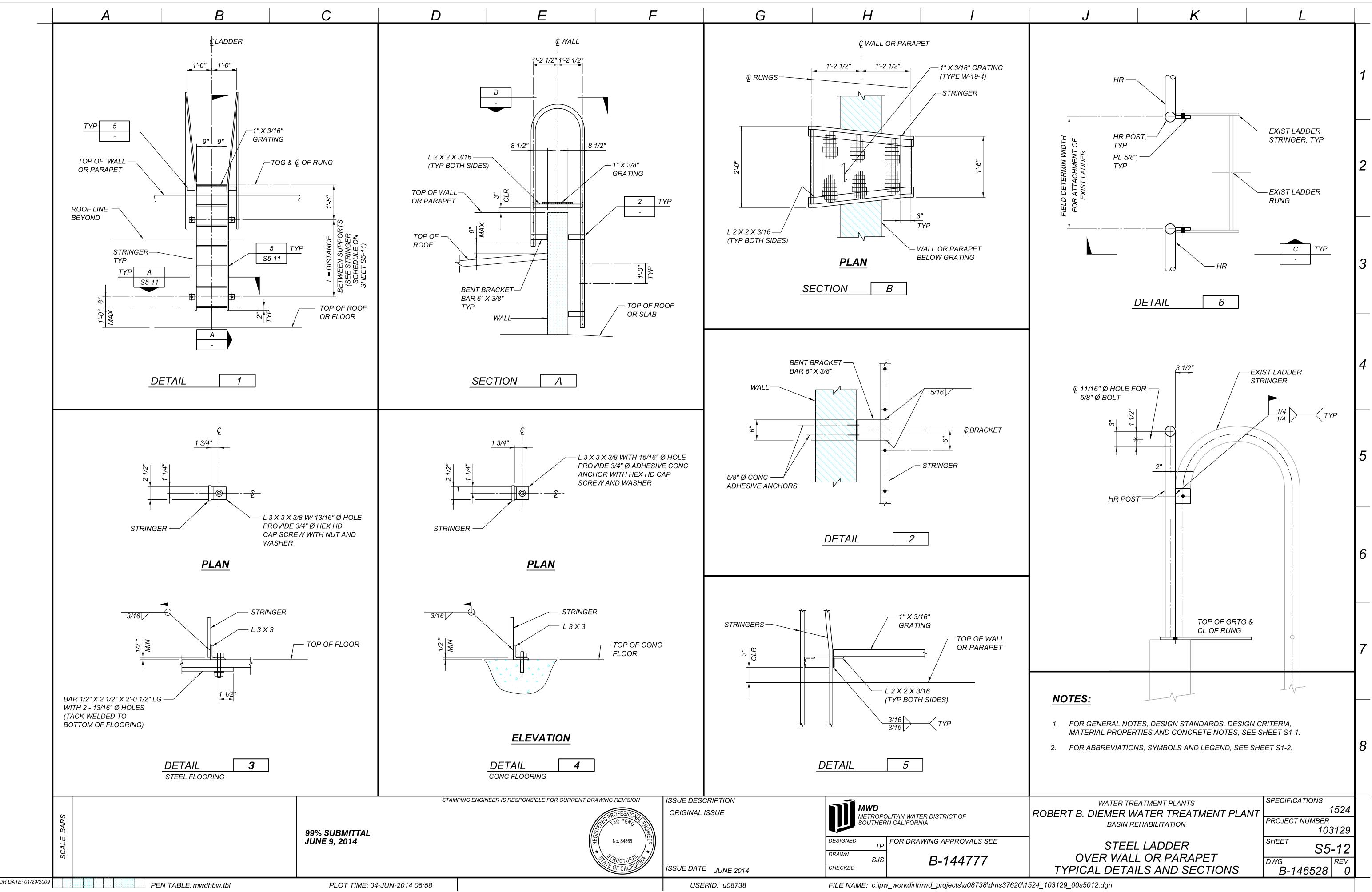
ISSUE DESCRIPTION
ORIGINAL ISSUE

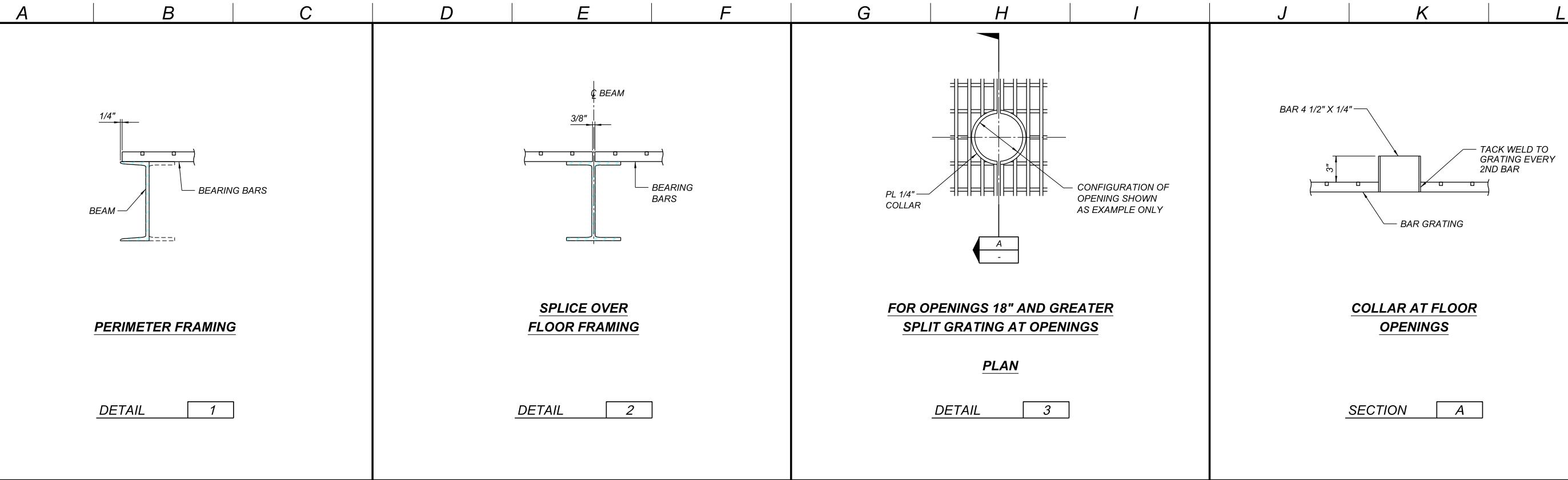


WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION

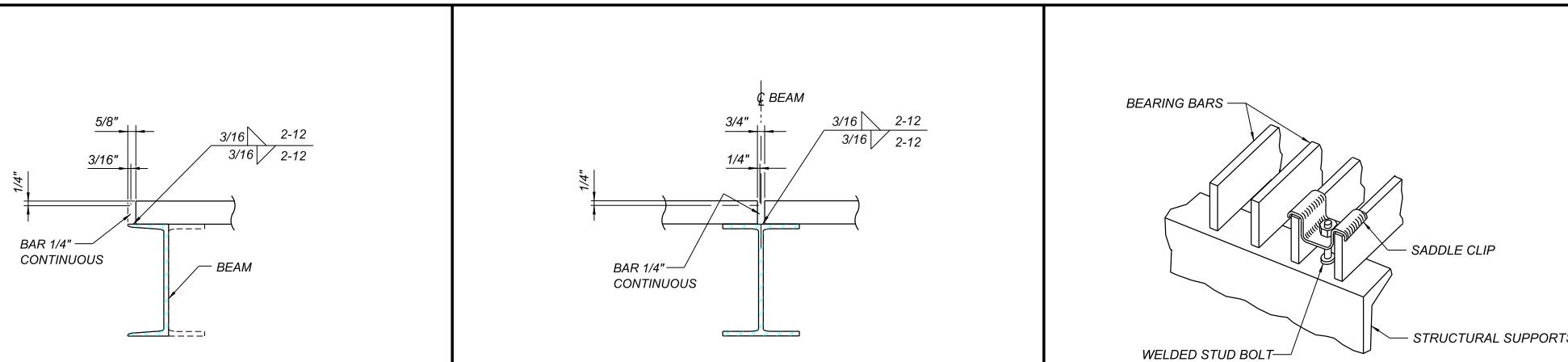
STEEL LADDERS
TYPICAL DETAILS AND SECTIONS

ECIFICATIONS	1524
PROJECT NUMBER	103129
HEET	S5-11
VG	REV
B-146527	0





STANDARD BAR GRATING DETAILS



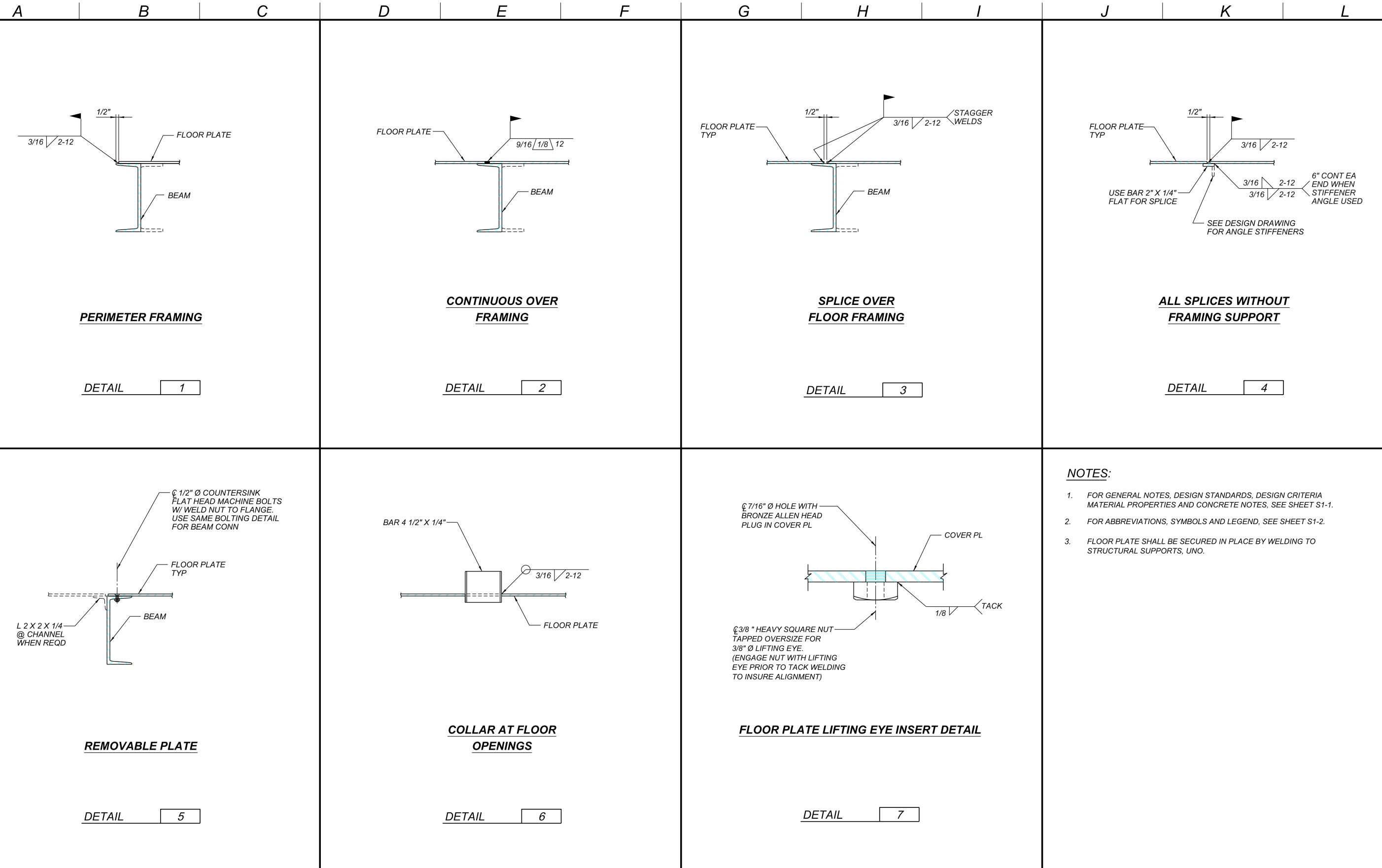
PERIMETER FRAMING

**SPICE OVER
FLOOR FRAMING**

**BAR GRATING
HOLD DOWN CLIP**

INTERLOCKING GRATING DETAILS

SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION  TAO PENG No. S4866 REGISTERED PROFESSIONAL ENGINEER STRUCTURAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET S5-14 DWG B-146529 REV 0
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 06:59	ISSUE DATE JUNE 2014	DESIGNED TP DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_00s5014.dgn

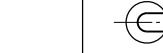
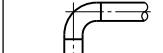
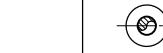
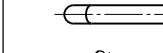
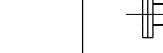
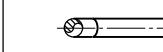
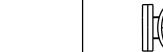
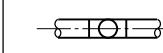
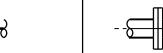
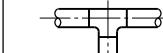
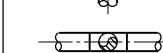
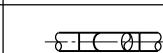
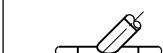
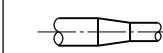
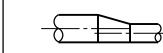
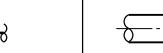


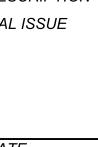
SCALE BARS		99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION		ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION		SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET S5-15 DWG B-146530 REV 0	
			REGISTERED PROFESSIONAL ENGINEER TAO PENG No. S4866 STRUCTURAL STATE OF CALIFORNIA	TP DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777					
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 06:59		USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37620\1524_103129_00s5015.dgn					

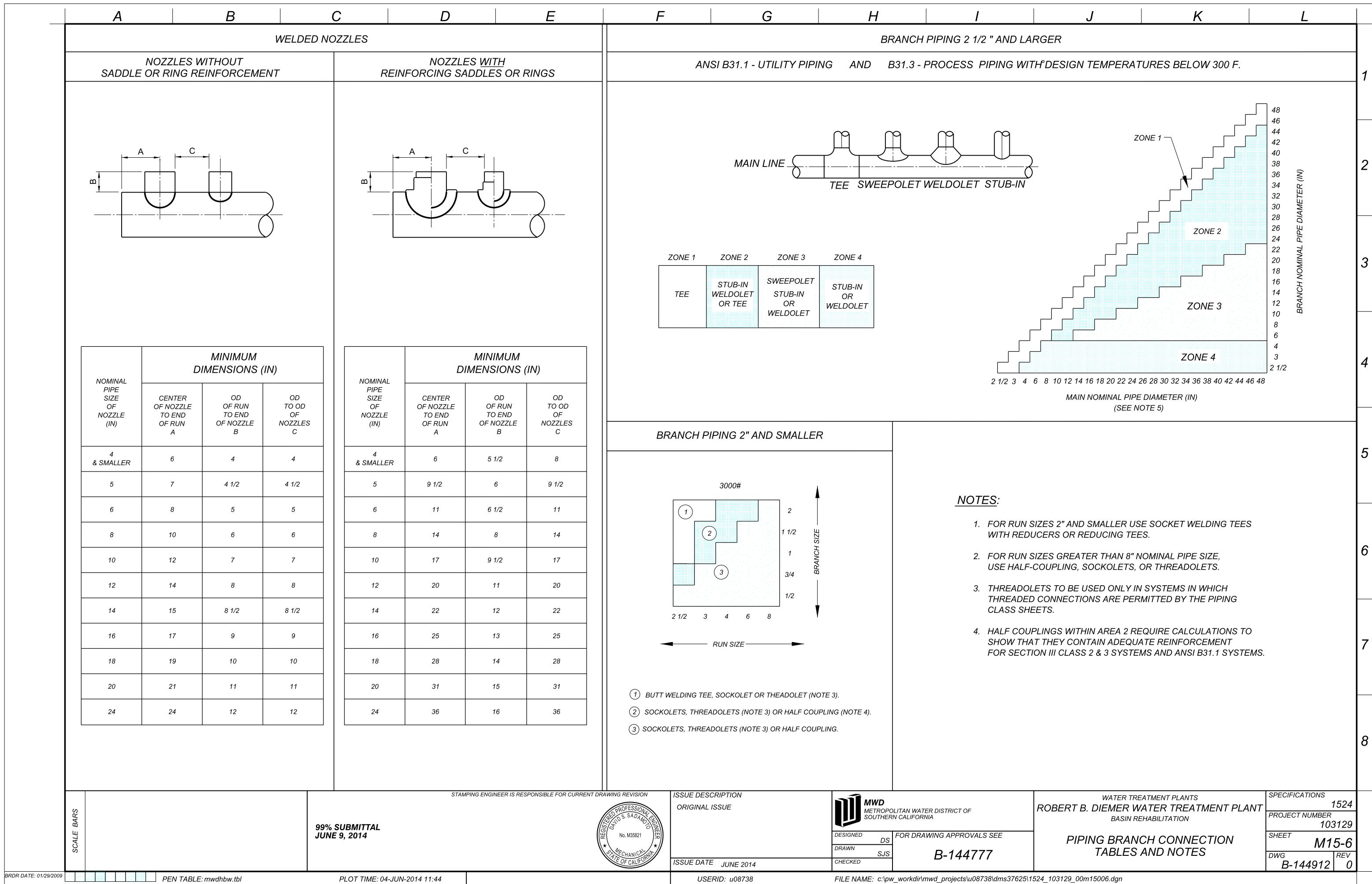
A	B	C	D	E	F	G	H	I	J	K	L	
GENERAL						VENTS, DRAINS, GRAB SAMPLES, ANALYZERS AND INSTRUMENT CONNECTIONS						
1.	ALL EQUIPMENT, PIPING AND SUPPORTING COMPONENTS, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. METROPOLITAN FURNISHED EQUIPMENT "MFE" TAGGED ITEMS SHALL BE INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. FOR DETAILED "MFE" EQUIPMENT DATA REFER TO P&ID EQUIPMENT LIST.					1.	EXCEPT FOR YARD (BURIED) PIPING, INSTRUMENT CONNECTIONS AND ALL HIGH AND LOW POINTS OF PIPING SYSTEMS, SHALL HAVE A ROOT VALVE. THE ROOT VALVE SHALL BE 1" FOR PIPE SIZES 1 " AND ABOVE. FOR PIPE SIZES BELOW 1" THE ROOT VALVE SHALL BE THE SAME SIZE AS THE PIPE HEADER. BURIED (YARD) PROCESS PIPING SYSTEMS, SHALL HAVE HYDRO TEST CONNECTIONS AND AIR/VACUUM RELEASE VALVES AS SHOWN ON APPLICABLE CIVIL DRAWINGS.					
2.	"THE ENGINEER" WHEN NOTED ON DRAWINGS, REFERS TO METROPOLITAN WATER DISTRICT'S RESIDENT ENGINEER.					2.	UNLESS NOTED OTHERWISE, ON PIPING DESIGN DRAWINGS ALL GASEOUS PIPING SYSTEMS SHALL BE PROVIDED WITH LOW POINT DRIP LEGS.					
3.	FIELD ROUTED OR MODIFIED PIPE ROUTING AND INSTALLATION OF IN LINE COMPONENTS SHALL COMPLY WITH THE MECHANICAL STANDARD DRAWINGS.					3.	FOR PIPING SYSTEMS CONTAINING HAZARDOUS/HARMFUL FLUIDS OR GASES, VENTS AND DRAINS SHALL BE HARD PIPED TO THE APPROPRIATE DRAINS OR VENT HEADERS. VENT PIPING SHALL BE ROUTED OUTSIDE TO ATMOSPHERE - 7'-0" ABOVE WORKING AREA OR PLATFORMS. THE DRAINS SHALL BE ROUTED INTO CONTAINMENT.					
4.	STRUCTURAL & CIVIL BACKGROUND AND DIMENSIONAL DATA ON MECHANICAL- PIPING DRAWINGS ARE FOR REFERENCE (REF) ONLY. SEE APPLICABLE STRUCTURAL OR CIVIL DRAWINGS FOR ACTUAL DESIGN INFORMATION.					4.	CHEMICAL GRAB SAMPLES AND ANALYZERS CONNECTION SHALL BE DOUBLE VALVED.					
5.	ALL PROCESS YARD PIPING TO AND FROM BUILDINGS OR STRUCTURES, LOCATED ON CIVIL DRAWINGS, SHALL AGREE AND MATCH WITH THE CORRESPONDING PIPE PENETRATION LOCATION SHOWN ON MECHANICAL DRAWINGS.					5.	NON -OPERATING VENTS AND DRAINS (HYDROTEST CONNECTIONS) IN PIPING SYSTEMS DO NOT REQUIRE VALVES. THESE CONNECTIONS REQUIRE BAR- STOCK PLUGS OR CAPS AND SHALL BE SEAL WELDED AFTER THE COMPLETION OF HYDRO TEST.					
6.	SUBSTITUTION OR MODIFICATION OF PIPING COMPONENTS SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.					6.	SCREWED VALVES FOR DRAINS OR VENTS THAT REQUIRE SEAL WELDING SHALL BE WELDED ON THE PRESSURE SIDE ONLY.					
7.	FIELD VERIFY AND ADJUST PIPE ROUTING AND TIE -IN CONNECTION TO SUIT PURCHASED EQUIPMENT WHICH MAY DIFFER FROM THAT SHOWN ON THE DRAWINGS.					7.	CHILLED AND COOLING WATER SYSTEM PIPING SHALL HAVE A 1" AIR RELEASE VALVE INSTALLED ON HIGH POINTS OF SUPPLY AND RETURN HEADERS.					
8.	ALL (PVC, CPVC, ETC.) TYPE PIPING EXPOSED TO SUNLIGHT SHALL BE PROTECTED WITH URETHANE INSULATING SLEEVES OR JACKETING. HOWEVER, WHEN APPROVED BY THE ENGINEER, PVC TYPE PIPING SHALL BE PREPARED AND PAINTED WITH COATING SYSTEM NP-1, PER SPECIFICATION 09900 TABLE 1.					8.	BIRD SCREENS SHALL BE STAINLESS STEEL MESH, 1/2 " X 1/2 " X 16 GAUGE. THEY SHOULD BE TACKED WELDED OR CLAMPED ON AS APPLICABLE.					
9.	STEEL TYPE PIPING SHALL BE PAINTED PER SPECIFICATION 09900.											
PROCESS PIPING						SUPPORTS						
1.	INSTALLATION TOLERANCES ARE 1/2 " FOR 3" PIPE & LARGER AND 1 1/2 " FOR 2 1/2 " PIPE AND SMALLER PROVIDED THAT PIPE SPACING COMPLIES WITH THE REQUIREMENTS OF MECHANICAL STANDARD DRAWINGS AND SLOPING LINES MAINTAIN THE SYSTEM SLOPE REQUIREMENTS WITHOUT LOW POINT POCKETS.					1.	MECHANICAL LAYOUT DRAWINGS MAY NOT SHOW ALL SUPPORTS. ALL REQUIRED SUPPORTS AND APPURTENANCES FOR A COMPLETE SYSTEM SHALL BE PROVIDED BY THE CONTRACTOR. FOR GENERAL CRITERIA SEE MECHANICAL STANDARD SUPPORT DRAWINGS.					
2.	BRANCH CONNECTIONS FROM PIPE HEADERS SHALL COMPLY WITH THE MECHANICAL STANDARD DRAWINGS.					2.	ANCHOR BOLTS OR EXPANSION TYPE ANCHORS SHOWN ON PIPE SUPPORT DRAWINGS SHALL BE ADHESIVE TYPE. FOR APPROVED TYPE AND ADDITIONAL CRITERIA SEE MWD SPECIFICATIONS.					
3.	AUXILIARY SMALL BORE PIPING (BELOW 2 1/2 ") SUCH AS SERVICE WATER, POTABLE WATER, AIR, VENT AND DRAIN PIPING ARE LOCATED WITHIN DESIGNATED PIPE CORRIDORS. CONTRACTOR SHALL COMPLETE THE TRIM PIPE ROUTING, NOT SHOWN ON DRAWINGS, USING THE APPLICABLE STANDARD DRAWINGS, P&ID'S AND SPECIFICATION.					3.	INSTALL 1 1/2 " MAX GROUT ON ALL FLOOR MOUNTED PIPE SUPPORTS					
4.	UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS, ALL REDUCER'S ON HORIZONTAL PIPING RUNS, 3" & ABOVE, SHALL BE ECCENTRIC BOTTOM FLAT.					4.	UNLESS NOTED OTHERWISE ALL SUPPORT ASSEMBLIES SHALL BE INSTALLED AS GUIDES TO ACCOMMODATE PIPE FLEXIBILITY.					
5.	THREADED PIPE INSTALLATIONS FOR CHEMICAL AND GASEOUS PIPING SYSTEMS THAT ARE HARMFUL TO PERSONNEL OR ENVIRONMENT MUST BE SEAL WELDED. WHEN CONNECTING TO SCREWED COMPONENTS OR EQUIPMENT, PROVIDE BREAKOUT CONNECTION (FLANGED TYPE) AND SEAL WELD PER VENDOR'S REQUIREMENTS.					5.	UNLESS GUIDE CLAMPS ARE PURCHASED FELT LINED AND/OR WITH PLASTIC COATED FROM MANUFACTURER, ALL PVC TYPE PIPE, COPPER TUBING AND PIPE, AT SUPPORT CONTACT AREA SHALL BE WRAPPED WITH TEFLON OR PVC TAPE (50 MILS MIN. & 70 MILS MAX. THICK) BEFORE TIGHTENING PIPE CLAMPS. FIBERGLASS AND COPPER PIPING SHALL BE PROTECTED BY STEEL SHIELD.					
6.	WHEN NOT SHOWN ON DRAWINGS, CONTRACTOR SHALL ADD ISOLATION VALVES TO PIPING BRANCH OUT FROM HEADERS AND TO ALL PRESSURIZED SYSTEMS ENTERING BUILDINGS, CONNECTING TO STORAGE TANKS AND/OR STRUCTURES. VALVE CLASS AND MATERIAL SHALL BE IN ACCORDANCE TO PIPING SPECS.					6.	UNLESS NOTED OTHERWISE MAXIMUM PIPE SUPPORT SPACING FOR IN WATER SUBMERGED PVC TYPE PIPE, 2 1/2 " OR LESS, SHALL NOT EXCEED 3'-0". FOR PIPE SIZES ABOVE 2 1/2 " SEE MECHANICAL STANDARD DRAWINGS.					
7.	EXCEPT FOR SCREWED 2 1/2 " AND SMALLER VALVES, PROVIDE CHAIN OPERATOR TO ALL OPERATING VALVES WHICH ARE ABOVE 7'-0" OF ANY OPERATING LEVEL, CHAINS SHALL BE EXTENDED TO CLEAR AREA AND TO AN ELEVATION OF MAXIMUM 3 FEET ABOVE THE OPERATING LEVEL. EXTENSION STEMS ARE REQUIRED TO ALL OPERATING VALVES WHICH ARE NOT ACCESSIBLE OR LOCATED AWAY FROM A PLATFORM MORE THAN 2'-0".					7.	WHERE WELDING IS REQUIRED, ALL SUPPORTS IN CONTACT WITH WATER OR WITHIN MOIST ENVIRONMENT SHALL BE SST 316L.					
8.	UNLESS NOTED OTHERWISE, ALL ELBOWS 2 1/2 " AND LARGER SHALL BE STANDARD LONG RADIUS. USE SHORT RADIUS OR REDUCING ELBOWS IN TIGHT AREAS FOR FIT -UP.					8.	BREAK / ROUND AND SMOOTH ALL SHARP EDGES OF STEEL SUPPORTS AND HOT DIPPED GALVANIZE AFTER FABRICATION.					
9.	ALL OVERHEAD PIPING INSTALLATIONS AND SUPPORTS SHALL HAVE MINIMUM 7'-6" HEADROOM CLEARANCE.					9.	WHEN FIBERGLASS OR PVC-COATED MATERIALS ARE CUT, DRILLED, OR SCRATCHED, THE MATERIAL SHALL BE SEALED AND REPAIRED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.					
10.	UNLESS SPECIFICALLY NOTED OTHERWISE ON PIPING DESIGN DRAWINGS, ALL FLANGE BOLT HOLES SHALL STRADDLE PER ASME B16.5 STANDARD REQUIREMENTS.					10.	ALL UNISTRUT TYPE CHANNEL ENDS THAT EXTEND INTO OR ARE WITHIN MAINTENANCE OR OPERATING AREAS, SHALL HAVE PROTECTIVE PLASTIC END CAPS.					
a.	WHEN FLANGES ARE INSTALLED ON HORIZONTAL PIPE RUN, STRADDLE BOLT HOLES ON VERTICAL AND HORIZONTAL CENTERLINES.											
b.	WHEN FLANGES ARE INSTALLED ON VERTICAL PIPE RUN, STRADDLE BOLT HOLES ON "PLANT" NORTH / SOUTH CENTERLINES.											
11.	UNLESS NOTED OTHERWISE ON DRAWINGS, UTILITY STATIONS SHALL CONSIST OF PLANT AIR BLOW OFF AIR AND SERVICE WATER.					PIPE AND EQUIPMENT INSULATION						
12.	FOR STARTUP AND FLUSHING PIPING SYSTEMS PROVIDE TEMPORARY EQUIPMENT INLET CONE STRAINERS . SIZES 2" AND BELOW SHALL HAVE PERMANENT "Y" STRAINERS. TEMPORARY AND "Y" STRAINER SCREENS SHALL BE REMOVED AFTER COMPLETION OF HYDROTEST AND STARTUP OPERATIONS. FOR STRAINER DETAILS SEE MECHANICAL STANDARD DRAWINGS.					1.	PROVIDE THERMAL INSULATION TO ALL HOT WATER AND CHILLED WATER PIPING WITHIN TANK FARMS AND OUTSIDE OF ENCLOSED STRUCTURES, POTABLE WATER SUPPLY PIPING TO SAFETY SHOWER AND EYE- WASH. FOR INSULATION CRITERIA SEE MWD SPECIFICATION SECTION 15250.					
13.	UNLESS NOTED OTHERWISE, FLOW METERS INSTALLED ON HORIZONTAL PIPE RUNS, SHALL HAVE MINIMUM UPSTREAM AND DOWNSTREAM STRAIGHT PIPE RUNS PER INSTRUMENT VENDOR'S REQUIREMENTS.					2.	PIPING INSULATION SHOWN ON DESIGN DRAWINGS SHALL EXTEND TO ALL VESSELS AND EQUIPMENT, EXCEPT PUMPS.					
14.	FOR PERSONNEL PROTECTION, ALL OVERHEAD PVC TYPE CHEMICAL PIPING, MORE THAN 5'-6" ABOVE FLOOR OR A PLATFORM, SHALL BE EITHER DOUBLE WALL PIPED OR ENCLOSED WITHIN DRIP PAN OR TRAY.					3.	ALL ROOT VALVES AND PRV / PSV TYPE VALVES INSTALLED ON INSULATED PIPES, VALVE STEM AND TOP WORKS SHALL EXTEND AND CLEAR PIPE INSULATION. FOR PRV DISCHARGE VENTING, SEE NOTATION "VENTS, DRAINS..." ON THIS SHEET.					
15.	ALL INSTALLED PIPING SHALL BE TAGGED TO REFLECT FLOW DIRECTION, LINE NUMBER, PIPE SIZE AND FLUID CODE, AND SHALL BE IN CONFORMANCE WITH ANSI A 13.1 AND SECTIONS 09900 + 15060. FOR FLUID CODE SEE P&ID DRAWINGS.											
16.	TYPICAL LABELING SCHEME =  (FLOW - LINE NO. -SIZE -PROCESS)					FLUSHING & AIR BLOW- OFF CONNECTIONS						
						1.	FLUSHING CONNECTIONS FOR PIPE SIZES 8" AND ABOVE SHALL BE 1 1/2 ". FOR PIPE SIZES 2" THRU 6" SHALL BE 1" AND FOR PIPE SIZE 1/2 " THRU 1 1/2 " SHALL BE 1/2 ".					

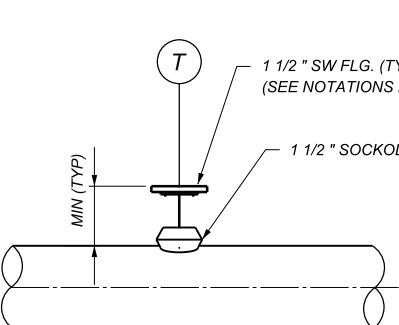
SCALE BARS		<p style="text-align: center;">STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION  99% SUBMITTAL JUNE 9, 2014</p>	<p>ISSUE DESCRIPTION ORIGINAL ISSUE</p> <p>DESIGNED DS DRAWN SJS</p> <p>ISSUE DATE JUNE 2014</p> <p>CHECKED</p>	 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA <p style="text-align: center;">B-144777</p>	<p>WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION</p> <p style="text-align: center;">PROCESS PIPING GENERAL INSTALLATIONS NOTES</p>	SPECIFICATIONS
						1524
						PROJECT NUMBER
						103129
						SHEET
						M15-1
						DWG
						B-144909
						REV
						0

A	B	C	D	E	F	G	H	I	J	K	L
INITIAL	DESCRIPTION	INITIAL	DESCRIPTION	INITIAL	DESCRIPTION	INITIAL	DESCRIPTION	INITIAL	DESCRIPTION	INITIAL	DESCRIPTION
AA	AQUEOUS AMMONIA	FG	FUEL GAS	NC	NORMALLY CLOSED	SH	SODIUM HYPOCHLORITE				
AD	AREA DRAIN	FHD	FUNNELED HUB DRAIN	NF	NATIONAL FINE (THREAD)	SHT	SHEET OR DRAWING				
ADPTR	ADAPTOR	FIN	FINISH OR FINISHED	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	SO	SLIP-ON				
AL	ALUM	FJ	FLEXIBLE JOINT	NG	NATURAL GAS	SON	SOLENOID OPERATED VALVE				
ALM	ALARM	FL	FLOOR	NIP	NIPPLE	SP	SPARE OR MALE END OF A COUPLING				
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	FLEX	FLEXIBLE	NLL	NORMAL LIQUID LEVEL	SPD	SUMP PUMP DISCHARGE				1
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	FLG	FLANGE	NO	NORMALLY OPEN	SPEC	SPECIFICATION				
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS	FLGD	FLANGED	NO OR #	NUMBER	SQ	SQUARE				
AWWA	AMERICAN WATER WORKS ASSOCIATION	FOB	FLAT ON BOTTOM	NOM	NOMINAL	SR	SHORT RADIUS				
		FOT	FLAT ON TOP	NORM	NORMAL	SST	STAINLESS STEEL				
		FPT	FEMALE PIPE THREAD	NOS	NUMBERS	STD	STANDARD				
BBE	BEVEL BOTH ENDS	FRP	FIBERGLASS REINFORCED EPOXYRESIN PIPING	NOZ	NOZZLE	STL	STEEL				2
BE	BEVEL ENDS	FWP	FIRE POTABLE WATER	NPT	NATIONAL PIPE THREAD	STN	STRAINER				
BEV	BEVEL	FS	FAR SIDE OR FLOOR SINK	NTS	NOT TO SCALE	SOL	SOCKOLET				
BF	BLIND FLANGE	FST	FORGED STEEL			SUCT	SUCTION				
BFP	BACKFLOW PREVENTER	FT	FOOT OR FEET	OD	OUTSIDE DIAMETER OR OPEN DRAIN	SW	SOCKET WELD OR SERVICE WATER				
BLDG	BUILDING	FTF	FITTING TO FITTING	OF	OVERFLOW	SWG	SWAGE (REDUCING FITTING)				
BLE	BEVEL LARGE END	FW	FIELD WELD OR FIRE WATER	OG	OFF-GAS	SYS	SYSTEM				
BOP	BOTTOM OF PIPE			ORIF	ORIFICE						
BOT F	BOTTOM FLAT	GA	GAGE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION						
BP	BULL PLUG (CAP FITTING)	GALV	GALVANIZED	OS & Y	OUTSIDE SCREW AND YOKE (INDICATES A RISING STEM IN VALVE)	TBE	THREADED BOTH ENDS				
BS	BUTT STRAP	GEN	GENERAL	OW	OXONATED WATER	T&C	THREADED AND COUPLED				3
BSE	BEVEL SMALL END	GO	GEAR OPERATED	O ₂ OR OX	OXYGEN (GAS)	TE	THREAD END				
BTF	BUTTERFLY	GR	GRADE	O ₃ OR OZ	OZONE	TEMP	TEMPORARY OR TEMPERATURE				
BW	BUTT WELD	GRD	GROUND	PA OR SA	PLANT/SERVICE AIR	TF	TOP FLAT				
		GRTG	GRATING	PBE	PLAIN BOTH ENDS	TF	TOP OF FINISH FLOOR				
		GS	GRAB SAMPLE	PE	PLAIN END OF PIPE	THD	THREAD OR THREADED				
CA	COMPRESSED AIR			PFI	PIPE FABRICATION INSTITUTE	THK	THICKNESS				
CFP	CHEMICAL FEED PUMP			PI	PRESSURE INSTRUMENT GAUGE	TK	TANK				
CHO	CHAIN OPERATED	HB	HOSE BIBB	P&ID	PIPING & INSTRUMENTATION DIAGRAM	TOC	TOP OF CONCRETE				4
CI	CAST IRON	HC	HOSE CONNECTION	PLATF	PLATFORM	TOG	TOP OF GROUT				
CLG	CHLORINE GAS	HCR	HEAT EXCHANGER CLEANER RETURN	PLBG	PLUMBING	TOL	THREADOLET				
CLL	CHLORINE LIQUID	HCS	HEAT EXCHANGER CLEANER SUPPLY	PMP	PUMP	TOS	TOP OF STEEL OR TOP OF SUPPORT				
CLS	CHLORINE SOLUTION	HDR	HEADER	POL	POLYMER	TSE	THREAD SMALL END				
CMP	CORRUGATED METAL PIPE	HH	HAND HOLE	PS	PIPE SUPPORT	TYP	TYPICAL				
CONN	CONCENTRIC OR CONCRETE	HORIZ	HORIZONTAL	PSE	PLAIN SMALL END	UA	UTILITY AIR				
CONT	CONTINUE, CONTINUATION, CONTINUED OR CONTINUOUS	HP	HYDROGEN PEROXIDE, HIGH POINT OR HIGH PRESSURE	PSV	PRESSURE SAFETY VALVE	UBC	UNIFORM BUILDING CODE				
CPLG	COUPLING	HPFS	HIGH POINT FINISHED SURFACE	PT	PIPE TAP OR POINT	UG	UNDERGROUND				5
CS	CAUSTIC SODA			PTFE	TEFLON	UN	UNION				
CST	CAST STEEL	IA	INSTRUMENT AIR	PVMT	PAVEMENT	UNO	UNLESS NOTED OTHERWISE				
CW	COOLING WATER	ID	INSIDE DIAMETER	PW	POTABLE WATER OR PIPE WAY	US EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY				
CWR	COOLING WATER RETURN	IW	INDUSTRIAL WATER (NON POTABLE)			US	UTILITY STATION				
CWS	COOLING WATER SUPPLY	INSTR	INSTRUMENT			UW	UTILITY WATER				
		INSUL	INSULATION								
		INV	INVERT								
DEMO	DEMOLITION	ISA	INSTRUMENT SOCIETY OF AMERICA								
DET	DETAIL	ISO	ISOMETRIC	QC	QUICK CONNECT						
DI	DUCTILE IRON					V	VENT				6
DIA	DIAMETER	LB	POUND			VAC	VACUUM				
DIAPH	DIAPHRAGM	LC	LOCKED CLOSED	R	RADIUS	VAR	VARIES				
DIM	DIMENSION	LJ	LAP JOINT	RD	ROAD OR ROOF DRAIN	VB	VACUUM BREAKER OR VORTEX BREAKER				
DISCH	DISCHARGE	LLL	LOW LIQUID LEVEL	RED	REDUCER	VC	VENT CONNECTION				
DIW	DEIONIZED WATER	LNG	LIQUIFIED NATURAL GAS	REF	REFERENCE						7
DMW	DEMINERALIZED WATER	LO	LOCKED OPEN OR LUBE OIL	RECIRC	RECIRCULATE						
DR	DRAIN	LOL	LATROLET	REG	REGULATOR	WE	WELD END				
DS	DUMMY SUPPORT	LOX	LIQUID OXYGEN	REINF	REINFORCING	WF	WELD NECK FLANGE				
ECC	ECCENTRIC	LP	LOW POINT	REQD	REQUIRED	WN	WELD NECK				
EDR	EQUIPMENT DRAIN	LPOL	LIQUID POLYMER	REV	REVISION	WOS	WASTE OIL SEPARATOR				
EL	ELEVATION (HEIGHT)	LR	LONG RADIUS	RF	RAISED-FACE	WOL	WELDOLET				
ELEV	ELEVATION (VIEW)	LVR	LOUVER	RFSF	RAISED FACE SMOOTH FINISH	WP	WORKING POINT				
ELL	ELBOW			RTRP	REINFORCED THERMOSET RESIN PIPE (FRP)	WS	WATER SURFACE (ELEVATION)				
EOL	ELBOLET	MAINT	MAINTENANCE	RO	RESTRICTION ORIFICE						
EQUIP	EQUIPMENT	MATL	MATERIAL	RW	RAW WATER						
EW/SS	EYEWASH AND SAFETY SHOWER	MAX	MAXIMUM	RWW	RECLAIMED WASH WATER						
		MCC	MOTOR CONTROL CENTER								
		MECH	MECHANICAL								
		MEZZ	MEZZANINE	SA OR PA	SERVICE/PLANT AIR						
FA	FLUORISILICIC ACID OR FIRE ALARM	MF	MANUFACTURER	SB	SPECTACLE BLIND OR SLIP BLIND						8
FC	FERRIC CHLORIDE	MH	MANHOLE	SC	SLEEVE TYPE COUPLING OR SAMPLE CONNECTION						
FF	FLAT FACE	MIN	MINIMUM	SCH	SCHEDULE (PIPE)						
F OFF F	FACE OF FLANGE	MISC	MISCELLANEOUS	SCRD	SCREWED						
F/F	FACE TO FACE	MJ	MECHANICAL JOINT	SFA	SULFURIC ACID						
FFU	FIELD FIT-UP	MPT	MALE PIPE THREAD	SG	SIGHT GLASS						
SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION DAVID S. SADAMOTO REGISTERED PROFESSIONAL ENGINEER No. M35621 MECHANICAL STATE OF CALIFORNIA			ISSUE DESCRIPTION ORIGINAL ISSUE	 MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA		WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION		SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET M15-2 DWG B-144910 REV 0	
					ISSUE DATE JUNE 2014	FOR DRAWING APPROVALS SEE B-144777		PROCESS PIPING ABBREVIATIONS			
					USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_00m15002.dgn					

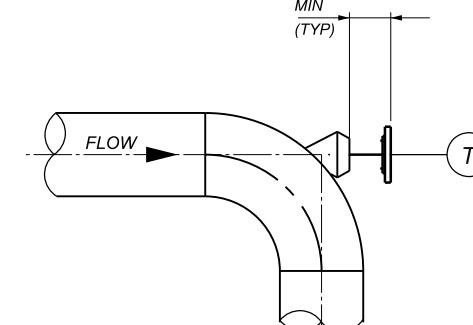
A	B	C	D	E	F	G	H	I	J	K	L	
<u>PROCESS PIPING SYMBOLS</u>										<u>PLUMBING - SANITARY</u>		
<u>LEGEND</u>												
DESCRIPTION		SCREWED OR SOCKET WELD	WELDED		FLANGED		FLANGE TYPE					
		SINGLE LINE	DOUBLE LINE	SINGLE LINE	DOUBLE LINE	SINGLE LINE	DESCRIPTION	DOUBLE LINE	SINGLE LINE			
90° ELBOW (PIPE ROUTED DOWN OR AWAY FROM YOU)							SLIP-ON					
90° ELBOW (PLAN OR SECTION VIEW)							WELD NECK					
90° ELBOW (PIPE ROUTED UP OR TOWARD YOU)							ORIFICE					
45° ELBOW (PIPE ROUTED DOWN OR AWAY FROM YOU)							BLIND					
45° ELBOW (PLAN OR SECTION VIEW)							COUPLING					
45° ELBOW (PIPE ROUTED UP OR TOWARD YOU)							DESCRIPTION	SLEEVE	FLEXIBLE			
TEE (BRANCH ROUTED DOWN OR AWAY FROM YOU)							DOUBLE LINE					
TEE (PLAN OR SECTION VIEW)							SINGLE LINE					
TEE (BRANCH ROUTED UP OR TOWARD YOU)							UNION SINGLE LINE					
SANITARY TEE OR LATERAL "Y" (BRANCH ROUTED UP OR TOWARDS YOU)							CAP OR PLUG					
SANITARY TEE OR LATERAL "Y" (PLAN OR SECTION VIEW)							INSULATED PIPE					
SANITARY TEE OR LATERAL "Y" (BRANCH ROUTED DOWN OR AWAY FROM YOU)							DOUBLE LINE					
CONCENTRIC PIPE REDUCER (PLAN OR SECTION VIEW)							SINGLE LINE		INDICATES HEAT TRACING			
ECCENTRIC PIPE REDUCER (BOTTOM FLAT-SECTION VIEW)									INDICATES HEAT TRACING			
99% SUBMITTAL JUNE 9, 2014		STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35621 STATE OF CALIFORNIA MECHANICAL										
SCALE BARS	ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014										WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION PROCESS PIPING AND PLUMBING LEGEND AND SYMBOLS	
SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET M15-3 DWG B-144911 REV 0												



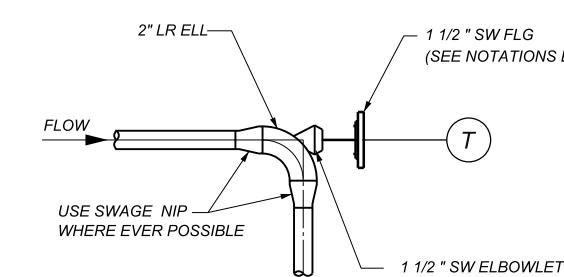




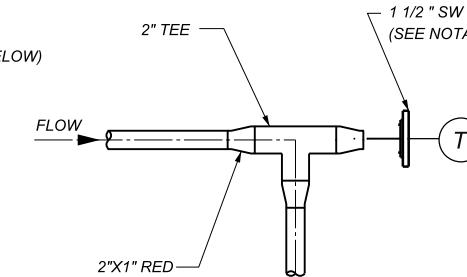
3" AND LARGER LINES
PREFERRED ARRANGEMENT
FIG 1



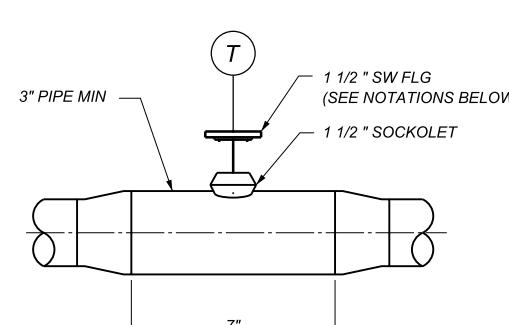
2 1/2 " AND LARGER
PREFERRED ARRANGEMENT FOR 2" AND 3" ONLY. FOR 4" AND LARGER USE ONLY WHEN DETAIL 1 IS NOT PRACTICAL
FIG 2



1 1/2 " AND SMALLER LINES
PREFERRED (OPTION 1)
FIG 3



1 1/2 " AND SMALLER LINES
PREFERRED (OPTION 2)
FIG 4



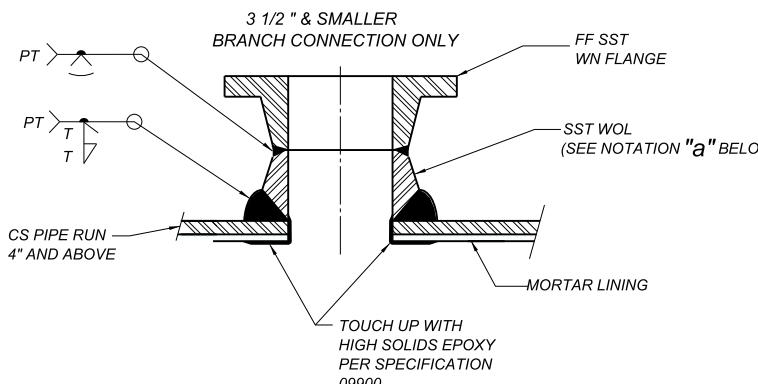
2" AND SMALLER
USE ONLY WHEN FIG 3 IS NOT PRACTICAL
FIG 5

- a. FLANGED CONNECTIONS AS SHOWN, FOR THREADED CONNECTIONS REPLACE FLANGE AND NIPPLE WITH REDUCING BUSHING TO ACCOMMODATE INSTRUMENT INSTALLATION.

- b. DO NOT USE THREADED CONNECTIONS ON CHEMICAL OR WITH HAZARDOUS GAS PIPING SYSTEMS. SEAL WELD UPSTREAM OF ROOT VALVES OR REDUCING BUSHINGS WHEN SOCKET WELD FITTINGS ARE NOT USED.

BRANCH CONNECTION FOR INSTRUMENT INSTALLATION REQUIRING INSERTION ELEMENT OR THERMOWELL

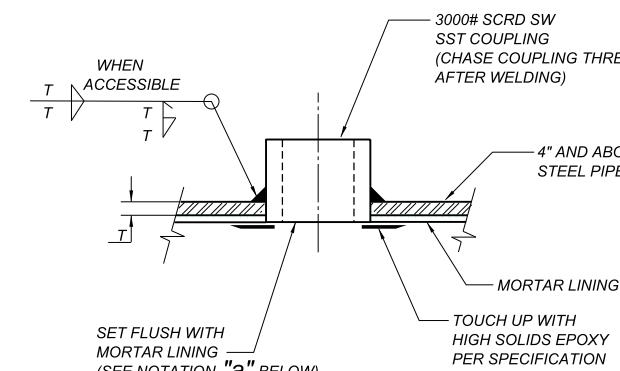
DETAIL
NTS



- a. THE WELDOLET MUST BE LOCATED WITHIN 9" OR AS CLOSE AS POSSIBLE OF A FLANGED AND REMOVABLE PIPE SPOOL. IN ORDER TO PROVIDE ACCESS FOR INSPECTION AND REPAIR OF PIPE HEADER LINING.

"A" / "K" SPECIFICATION PIPING
CARBON-STEEL MORTAR LINED PIPING

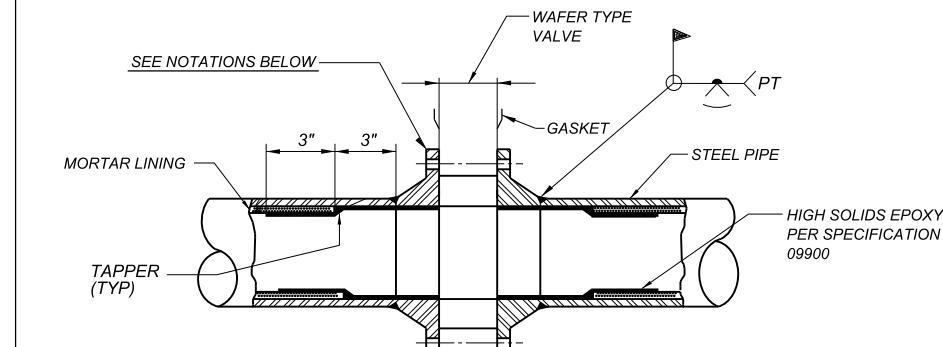
DETAIL
NTS



- a. THE HALF COUPLINGS MUST BE LOCATED WITHIN 12" OF A FLANGED OR REMOVABLE PIPE SPOOL. IN ORDER TO PROVIDE ACCESS FOR INSPECTION AND REPAIR OF PIPE HEADER LINING.

COUPLING CONNECTION ON
MORTAR LINED PIPE

DETAIL
NTS



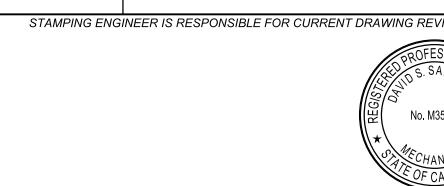
- a. USE SLIP ON FF FLANGES FOR 10" & ABOVE WAFER TYPE VALVES. AND FOR 8" & BELOW INSTALLATION, USE FF WELD NECK FLANGES.
b. TACK WELD AND ALIGN FLANGE/VALVE ASSEMBLY. AFTER PROPER SPACING ACQUIRED, REMOVE VALVE, COMPLETE WELDING AND COATING AS REQUIRED.

"A" / "K" SPECIFICATION PIPING
CARBON-STEEL MORTAR LINED PIPING
WAFER TYPE BUTTERFLY OR CHECK VALVE
INSTALLATION DETAIL

DETAIL
NTS

SCALE BARS

99% SUBMITTAL
JUNE 9, 2014



ISSUE DESCRIPTION
ORIGINAL ISSUE
No. M35621
REGISTERED PROFESSIONAL ENGINEER
DAVID S. SADAMOTO
MECHANICAL
STATE OF CALIFORNIA

WWD
METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
DESIGNED DS
DRAWN SJS
CHECKED
FOR DRAWING APPROVALS SEE
B-144777
ISSUE DATE JUNE 2014

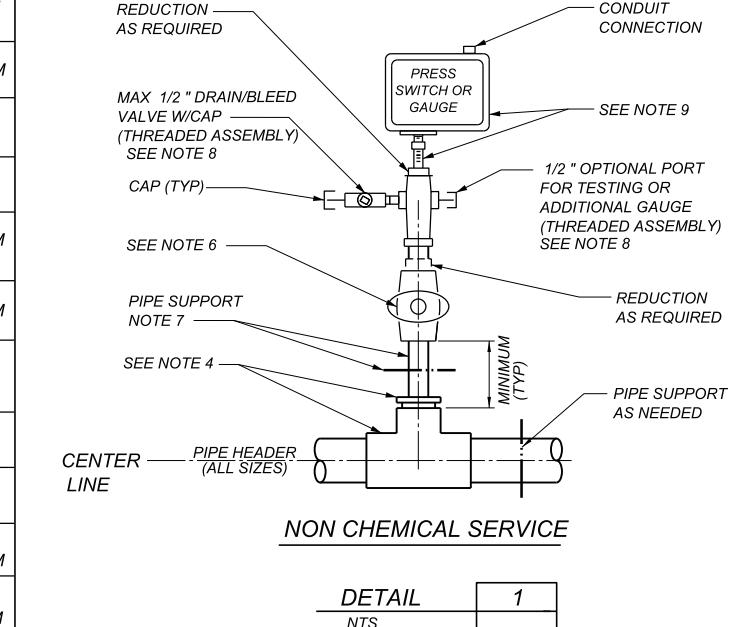
WATER TREATMENT PLANTS
ROBERT B. DIEMER WATER TREATMENT PLANT
BASIN REHABILITATION
SMALL BORE BRANCH INSTALLATION
AND PIPE LINING REPAIR
DETAILS

SPECIFICATIONS
1524
PROJECT NUMBER
103129
SHEET
M15-8
DWG
B-144913
REV
0

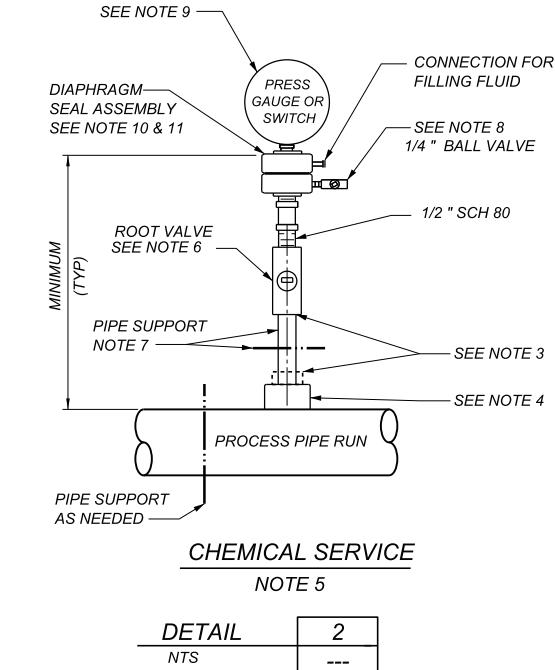
A	B	C	D	E	F	G	H	I	J	K	L				
TABLE A INSTRUMENT AND PIPE BRANCH ORIENTATION-SEE NOTES 1 AND 2															
FLOW PRESSURE, OR DIFFERENTIAL PRESS.	LIQUID		VAPOR OR SLURRY		AIR OR GAS										
ANALYSIS	LIQUID OR SLURRY		VAPOR, AIR, OR GAS												
TEMPERATURE	ALL FLUIDS														
OVERHEAD PIPING	LIQUID		AIR OR GAS												
GRADE/ OR ON SLIPPER SUPPORT PIPING															

TABLE B

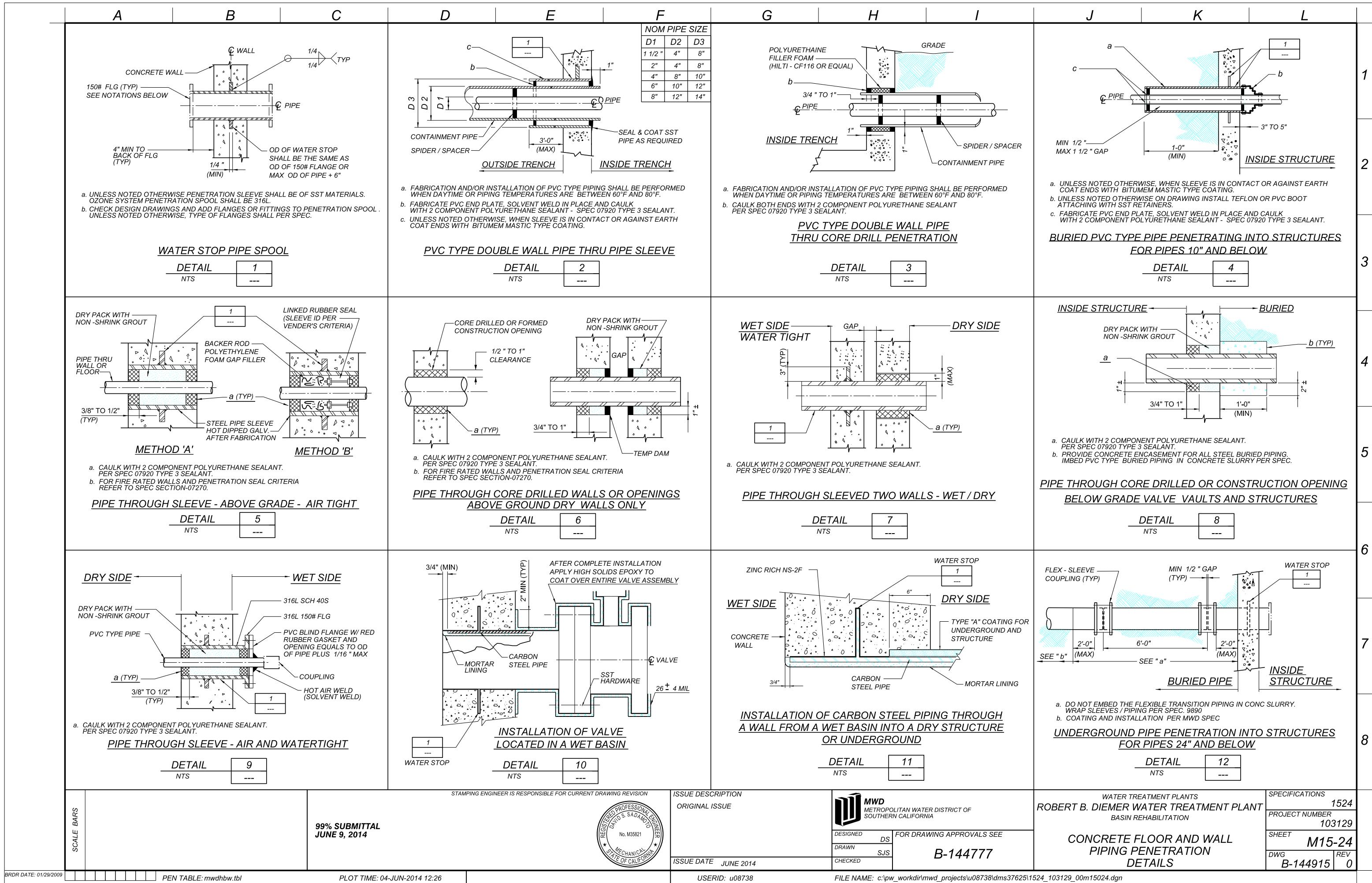
CHEMICAL SERVICE	BRANCH CONNECTION SIZE/TYPE / (GASKET)	FITTING MATERIALS	ROOT VALVE	BLEED VALVE	DIAPHRAGM (SEAL)
ALUM	1"-FLG OR SW COUPLING (VITON OR TEFLO)	KK-HASTELLOY C OR TITANIUM	NEEDLE (TITANIUM)	MAX 1/2 " V-100	VITON OR TEFLO
FERRIC CHLORIDE	1"-FLG OR SW COUPLING (GYLON OR TEFLO)	TITANIUM	NEEDLE (TITANIUM)	MAX 1/2 " V-100	TITANIUM
AQUA AMMONIA VAPOR AMMONIA	1" FLG'D (VITON OR EPDM) NOTE 13	AA-CS NIPPLES & F.S. FITTINGS	MAX 1" V-103	MAX 1/2 " V-103	VITON
CAUSTIC SODA	1"-FLG OR SW COUPLING (GYLON OR EPDM)	E (SST-304/307)	MAX 1" V-16	1/4 " V-14	TEFLON
DRY CHLORINE GAS	1"-T&G-FLG UNION (VITON OR CHEM. LEAD) NOTE 13	S (CS SCH 80) ASTM A105 & A106	1" V-11 NOTE 12	1/2 " V-11	TANTALUM
CHLORINE SOLUTION	1" FLG'D (VITON OR CHEM. LEAD)	E (SST-316 OR 316L)	1" V-13	1/4 " V-13	TANTALUM
FLUOROSILICIC ACID	1" FLG'D (EPDM OR VITON)	CPVC KK-HASTELLOY C	1" & 1/2 " SIMILAR TO V-11 EXCEPT FOR (EPDM O-RINGS SEALS)		EPDM
HYDROGEN PEROXIDE	1" FLG'D (VITON OR EPDM)	E (SST-316 OR 316L)	MAX 1" V-103	1/2 " V-103	VITON TEFLO
POLYMER	1"-FLG OR SW COUPLING (TEFLON OR EPDM)	E (SST)	MAX 1" V-16	1/4 " V-14	TEFLON
SODIUM HYPOCHLORIDE	1" FLG'D (TEFLON OR GYLON)	PVDF-THREADED OR HASTELLOY C	MAX 1" V-28	1/2 " V-28	TEFLON TANTALUM
SULFURIC ACID	1" FLG'D (HARD TEFLO OR GYLON)	JJ-ALLOY 20 OR GG/T-C.S. SCH 80	MAX 1" V-101	1/2 " V-101	TEFLON TANTALUM
LOX & O ² OZONE	1" FLG'D (GYLON - TEFLO)	LL (SST-316/316L) OR BRASS	MAX 3/4 " V-124	1/2 " V-124	TEFLON
SLURRY/SLUDGE	1"-FLG OR COUPLING (PTFE - NON ASBESTOS)	C.S. SCH 80 OR SST	1" V-11	1/2 " V-11	SST TEFLO
AIR/WATER/GAS	COUPLING (THREADED) (RUBBER/NON ASBESTOS)	E (SST)	1" V-03	1/2 " V-03	N/A

**DRAWING NOTES:**

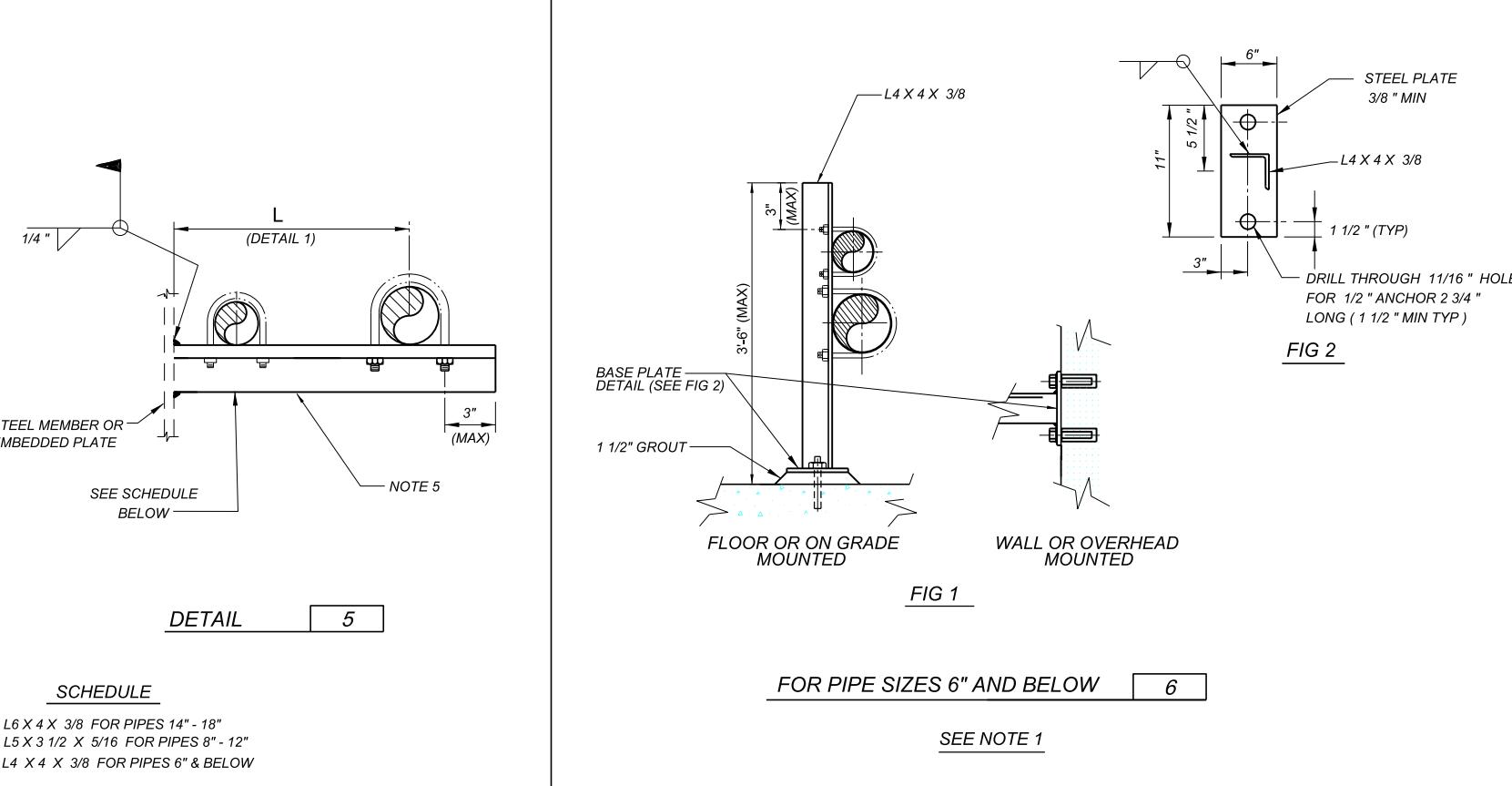
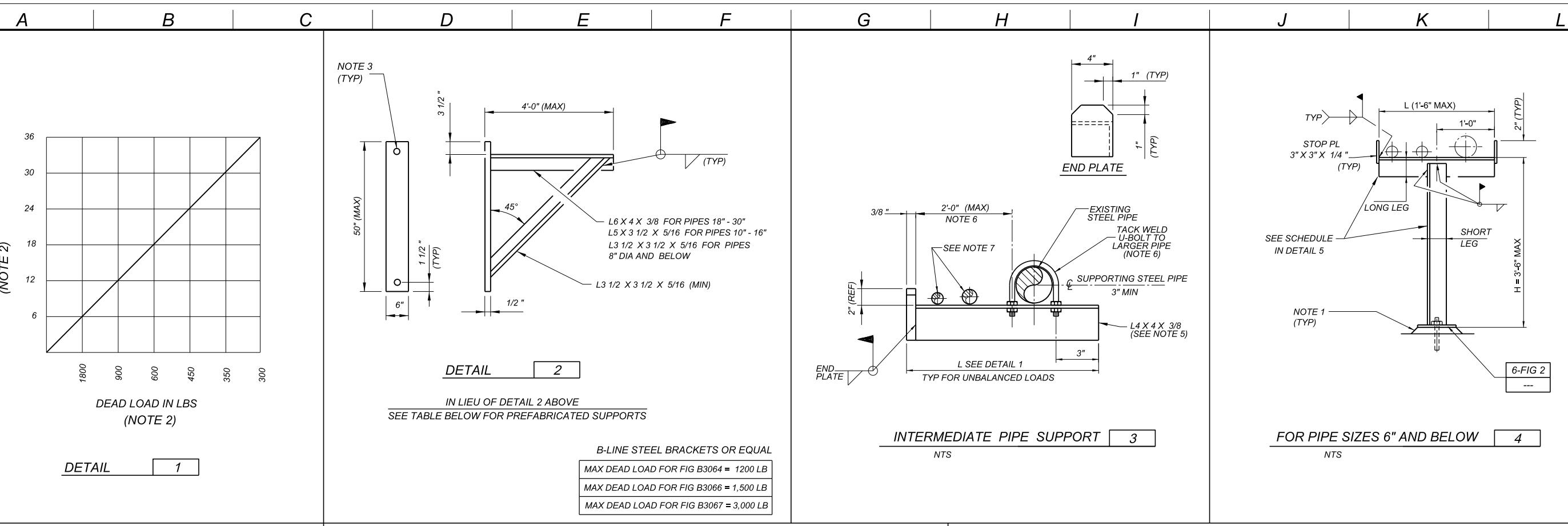
1. BRANCH ORIENTATION SHOWN IN "TABLE A", DOES NOT APPLY WHEN PIPE HEADER IS 2" AND SMALLER OR PIPE RUN IS VERTICAL.
2. ALL BRANCH CONNECTIONS SHALL HAVE A ROOT ISOLATION VALVE. THEY SHOULD BE INSTALLED AS CLOSE TO HEADER AS POSSIBLE.
3. FOR CHEMICAL AND HAZARDOUS PIPING SYSTEM, USE SW OR WELDED FITTINGS. WHEN THREADED FITTINGS IS USED, SEAL WELD ALL SCREWED CONNECTIONS, UP TO AND INCLUDING ROOT VALVE CONNECTION.
4. FOR OPTIONAL SMALL BORE BRANCH CONNECTIONS DETAILS, SEE MECHANICAL STANDARD DRAWING INDEX.
5. ALL FLANGED CONNECTIONS WHICH ARE INSTALLED ON HAZARDOUS PIPING SYSTEMS, SUCH AS SULFURIC ACID OR FLUOROSILICIC ACID, SHALL BE "RF" TYPE AND WRAPPED WITH TEFLO SAFETY SHIELDS.
6. WHEN USING LEVER OPERATED VALVES, ENSURE THE HAND WHEEL, IS AN INTERFERENCE FREE INSTALLATION.
7. WHEN PIPING MATERIAL IS PVC TYPE, PROVIDE RIGID SUPPORT. ALL NIPPLES SHALL BE SCHEDULE 80, PER PIPE SPEC.
8. CONNECTION USED FOR APPLICATIONS WHERE FLUSHING/DRAINING OF PROCESS FLUID IS REQUIRED.
9. DIRECT MOUNTING OF "PI" OR "PS", AS SHOWN, ARE THE PREFERRED INSTALLATION. WHEN THE PRESSURE SWITCH OR INDICATORS ARE INSTALLED OFF THE MAIN HEADER, THE CAPILLARY LINE/TUBING AND INSTRUMENT ASSEMBLY MUST BE INDEPENDENTLY SUPPORTED.
10. ENSURE SYSTEM AND CHEMICAL COMPATIBILITY WHEN ENTIRE ASSEMBLY OR SUBSTITUTES ARE SUPPLIED BY THE INSTRUMENT VENDOR.
11. UNLESS OTHERWISE NOTED ON DESIGN DRAWINGS OR SPECIFICATIONS, DIAPHRAGM SEAL ASSEMBLY SHALL BE "FULL SIZE" TYPE AND THE DIAPHRAGM SEAL SHALL BE AS NOTED IN "TABLE B" OR EQUAL.
12. OPTIONAL OUT OF SPEC VALVES SHALL BE 1" THREADED BALL VALVE WITH C.S. BODY AND MONEL TRIM OR 1" 300# RF FLANGED C.S. BODY WITH HASTELLOY C TRIM.
13. FOR ADDITIONAL IN-LINE COMPONENTS, SUCH AS RUPTURE DISK AND EXPANSION TANK, REFER TO APPLICABLE P&ID AND PIPING DETAIL DESIGN DRAWINGS.



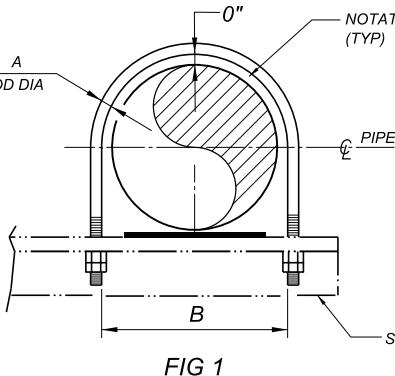
SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION REGISTERED PROFESSIONAL ENGINEER DAVID S. SADAMOTO No. M35821 STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA DESIGNED DS DRAWN SJS CHECKED	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION INSTRUMENT ORIENTATION AND CONNECTION DETAILS	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET M15-9 DWG B-144914 REV 0
				B-144777		FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_00m15009.dgn
BRDR DATE: 01/29/2009		PEN TABLE: mwdhbw.tbl		USERID: u08738		
PLOT TIME: 04-JUN-2014 11:45						



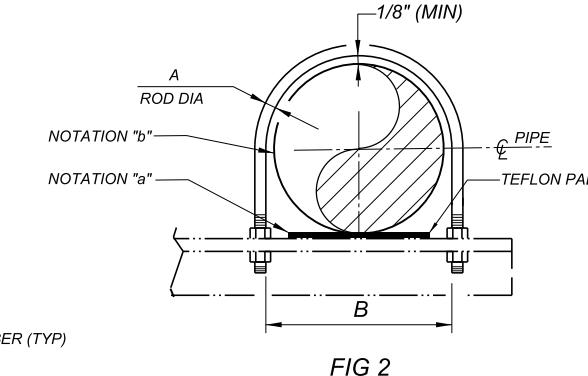
A	B	C	D	E	F	G	H	I	J	K	L					
PVC TYPE SCHEDULE 80 PIPE SEE NOTES 5 AND 7				COPPER TUBE / PIPING SEE NOTES 5 AND 7				MAX DISTANCE "L" IN FEET FOR STEEL TYPE PIPING SEE NOTES 5 AND 6								
PIPE SIZE (IN)	MAX. HORIZONTAL RUN (FT)			PIPE SIZE (IN)	MAX. HORIZONTAL RUN (FT)			PIPE SIZE (IN)	PIPE SCHEDULE	CASE NUMBER						
	60°F	100°F *	140°F * (MAX)		60°F	100°F	140°F			1	2	3				
1/4	4	3	2	1/4	5	3	2	< 1	80	7	6	6	1			
1/2	4.5	4	2.5	1/2	5	4	2.5	1 1/2	80	9	8	7	2			
3/4	5	4.5	2.75	3/4	5	4	3	2	40 OR 80	10	9	8	3			
1	5.5	4	3.5	1	6	5	3.5	2 1/2	40	11	10	9	4			
1 1/4	5.75	4	3.5	1 1/4	7	5	3.75	3	40	12	11	10	5			
1 1/2	6	4.5	3.75	1 1/2	7.5	5.5	3.75	4	40	14	13	11	6			
2	6.5	5.5	4	2	8	6	4	6	40	17	16	14	7			
2 1/2	7	6	5	2 1/2	9	7	5	8	40	18	17	16	8			
3	7.5	6.75	5.5	3	10	8	6	10	20	19	18	17	9			
4	8	6.5	6	4	12	10	8	10	40	20	18	17	10			
6	9	8	7	6	14	12	10	12	20	20	19	18	11			
8 **	10	9	7.5	8	16	13	11	14	STD	23	21	19	12			
10 **	12.75	11.5	10.5	10	18	15	12	14	10	23	21	19	13			
12 **	14.5	13.5	12.5	12	19	17	15	14	STD	25	22	20	14			
				12	19	17	15	16	10	25	23	22	15			
* SEE NOTE 13.																
* * SEE NOTE 14.																
FIBERGLASS REINFORCED PIPE (FRP) 150 PSI RATING SEE NOTE 5																
PIPE SIZE (IN)	MAX. HORIZONTAL RUN DISTANCE GIVEN IN FEET				PIPE SIZE (IN)	MAX. HORIZONTAL RUN DISTANCE GIVEN IN FEET				PIPE SIZE (IN)	MAX. HORIZONTAL RUN DISTANCE GIVEN IN FEET					
	75°F	150°F	175°F	200°F		75°F	150°F	175°F	200°F		75°F	150°F	175°F	200°F		
1	8.0	7.5	7	6	10	9.5	9	8	10.5	10	9.5	8.5				
1 1/2	10	9.5	9	8	12	11.5	11	10	13	12.5	12	11				
2	10.5	10	9.5	8.5	14	16	15.5	15	16	17	16.5	16	15			
3	12	11.5	11	10	18	17.5	17	16	18	17.5	17	16	15			
4	13	12.5	12	11	20	19.5	19	18	20	19.5	19	18	17			
6	16	15.5	15	14	24	22	20	18	24	20	30	28	26			
8	17	16.5	16	15	24	22	20	18	24	20	30	28	26			
10	18	17.5	17	16	24	22	20	18	24	20	30	28	26			
12	18.5	18	17.5	16.5	24	22	20	18	24	20	30	28	26			
14	20	19.5	19	18	24	22	20	18	24	20	30	28	26			
SCALE BARS																
99% SUBMITTAL JUNE 9, 2014				STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION 				ISSUE DESCRIPTION ORIGINAL ISSUE ISSUE DATE JUNE 2014				MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA		WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION		SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET M15-30 DWG B-144916 REV 0
BRDR DATE: 01/29/2009				PEN TABLE: mwdhbw.tbl				USERID: u08738				FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_00m15030.dgn				
PLOT TIME: 04-JUN-2014 12:26								B-144777								



SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS	SPECIFICATIONS
			ORIGINAL ISSUE		ROBERT B. DIEMER WATER TREATMENT PLANT	1524
					BASIN REHABILITATION	PROJECT NUMBER
						103129
					STEEL ANGLE PIPE SUPPORT DETAILS	SHEET
						M15-32
			ISSUE DATE JUNE 2014	DESIGNED FOR DRAWING APPROVALS SEE DRAWN GCY CHECKED	B-144777	DWG B-144917 REV 0



**ANCHOR FOR HORIZONTAL AND VERTICAL
STEEL PIPE ATTACHED TO STEEL**



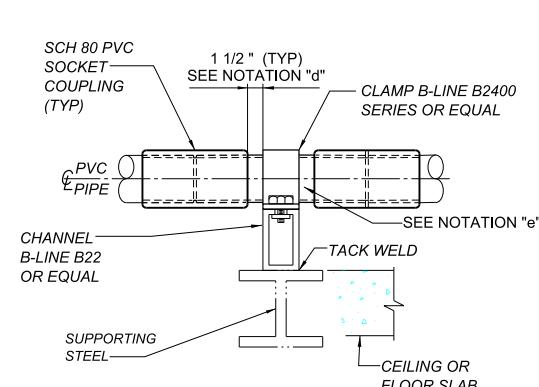
**GUIDE FOR HORIZONTAL AND VERTICAL
STEEL PIPE ATTACHED TO STEEL**

a: FOR HORIZONTAL STEEL PIPE, ADD TEFLON PADDING OR CORROSION RESISTANT BASE SPACER AT CONTACT POINT.
b: FOR COPPER AND ALUMINUM PIPING, REPLACE PAD WITH PROTECTIVE WRAPPING AS DIRECTED ON SHEET M15-1.
c: UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS AND SPECS, U-BOLTS SHALL BE HOT DIPPED GALVANIZED.

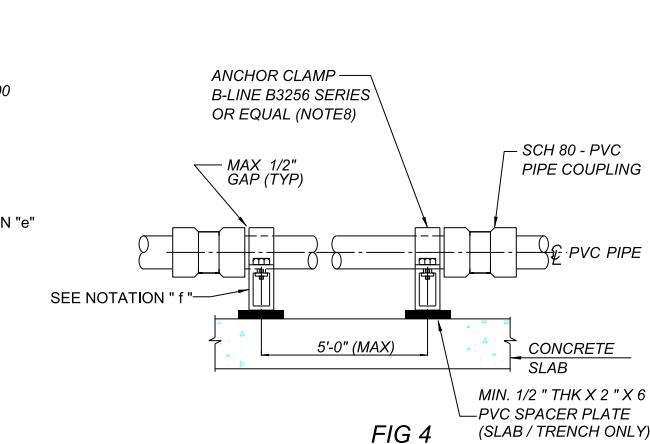
STANDARD "U" BOLT WITH 2 HEX NUTS AND WASHERS (DIMENSIONS ARE IN INCHES)

PIPE SIZE (IN)	1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24
"A" ROD DIA (IN)	1/4	1/4	1/4	3/8	3/8	1/2	1/2	1/2	5/8	5/8	3/4	7/8	7/8	7/8	1	1	1
"B" (IN)	15/16	1 1/8	1 3/8	2	2 7/16	2 15/16	3 9/16	4 9/16	6 3/4	8 3/4	10 7/8	12 7/8	14 1/8	16 1/8	18 1/8	20 1/8	24 1/8

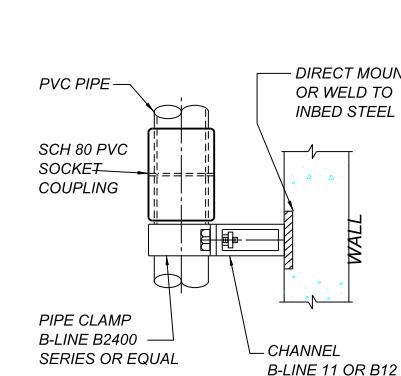
DETAIL
NTS



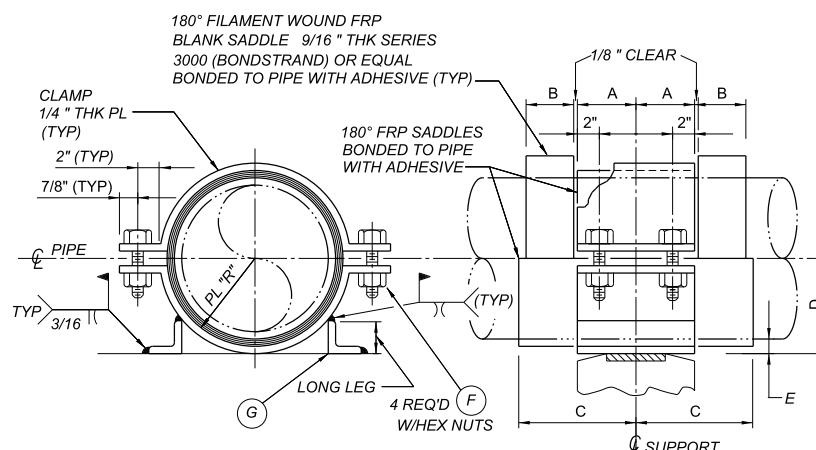
**ANCHOR / LIMIT TRAVEL SUPPORT
FOR PVC TYPE PIPE 3" AND ABOVE**



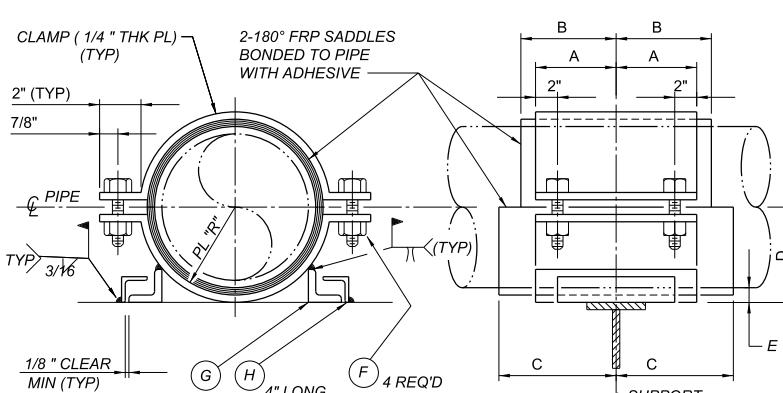
**ANCHOR / LIMIT TRAVEL SUPPORT
FOR PVC TYPE PIPE BELOW 3"**



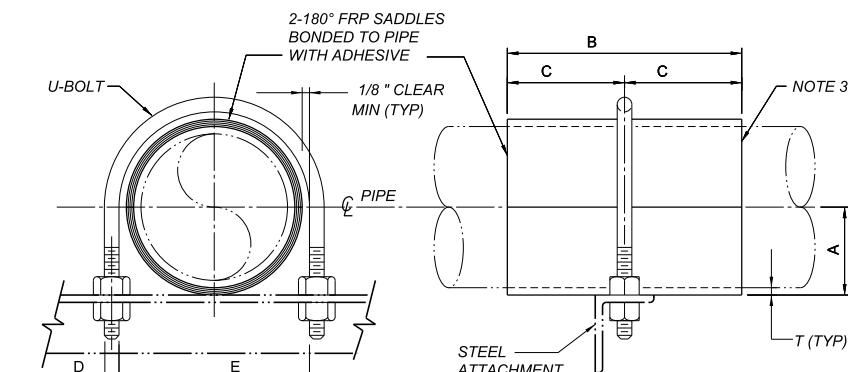
**VERTICAL PIPE SUPPORT
FOR PVC TYPE PIPE**



ANCHOR FOR FRP PIPE



GUIDE FOR FRP PIPING



**GUIDE FOR HORIZONTAL AND VERTICAL
FRP PIPING ATTACHED TO STEEL**

PIPE SIZE (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	(F) (IN)	(G) (IN)	(H) (IN)	R (IN)
2	3	6	42	1-1/2	5/16	3/8 Ø X 1-1/2	1 X 1 X 1/4	1/2 X 1/2 X 1/8	1-1/4
3	3	6	27	2-1/16	5/16	3/8 Ø X 1-1/2	1 X 1 X 1/4	1 X 1 X 1/4	1-13/16
4	3	6	21	2-9/16	5/16	3/8 Ø X 2	1 X 1 X 1/4	1 X 1 X 1/4	2-5/16
6	3	8	6	3-11/16	3/8	1/2 Ø X 2	2 X 2 X 1/4	1 X 1 X 1/4	3-7/16
8	6	8	8	4-11/16	3/8	1/2 Ø X 2	2 X 2 X 1/4	1 X 1 X 1/4	4-7/16
10	6	8	10	5-13/16	7/16	1/2 Ø X 2	3 X 2 X 1/4	1 X 1 X 1/4	5-9/16

DETAIL
NTS

NOTES:

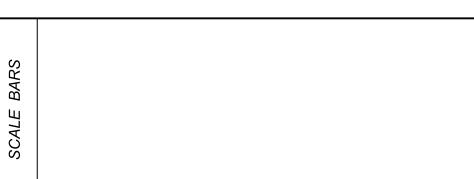
1. BOLTS SHALL BE ASTM A-193 GR B7 WITH LOCK WASHERS AND HEAVY HEX NUTS ASTM A-194 GR 2H.
2. BOLT HOLE DIAMETER TO BE 1/8 INCH LARGER THAN BOLT DIAMETER.
3. ALL GUIDE MATERIAL CARBON STEEL EXCEPT AS NOTED.
4. SADDLES SHOWN ARE BONDSTRAND SERIES 3000 FRP WEAR SADDLES, EXCEPT AS NOTED.
5. ADHESIVE FOR BONDING SADDLES TO BE TYPE B 20 ADHESIVE EPOXY (BONDSTRAND) OR EQUAL.
6. ALL WELDING TO BE DONE PRIOR TO INSTALLING METAL PARTS AGAINST FRP PIPE.
7. ALL CARBON STEEL MATERIAL TO BE PAINTED PER SPECIFICATIONS.
8. SEE SHEET M15-1 FOR GENERAL SUPPORTS REQUIREMENT.

PIPE SIZE (IN)	2	3	4	6	8	10
T	1/16	1/16	1/16	1/8	1/8	3/16
A	1-1/4	1-13/16	2-5/16	3-7/16	4-7/16	5-9/16
B (HORIZ)	72	48	36	24	20	20
B (VERT)	6	6	8	12	16	20
C (HORIZ)	36	24	18	12	10	10
C (VERT)	3	3	4	6	8	10
D	3/8	1/2	1/2	5/8	5/8	3/4
E	2-3/4	3-7/8	4-7/8	7-1/8	9-1/8	11-3/8

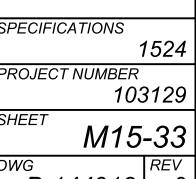
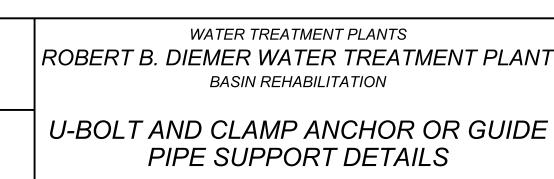
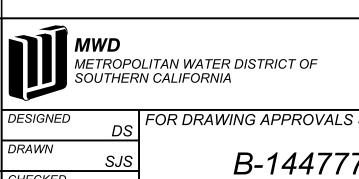
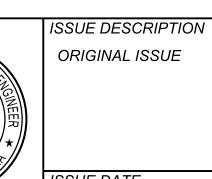
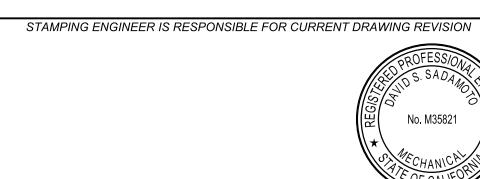
NOTES:

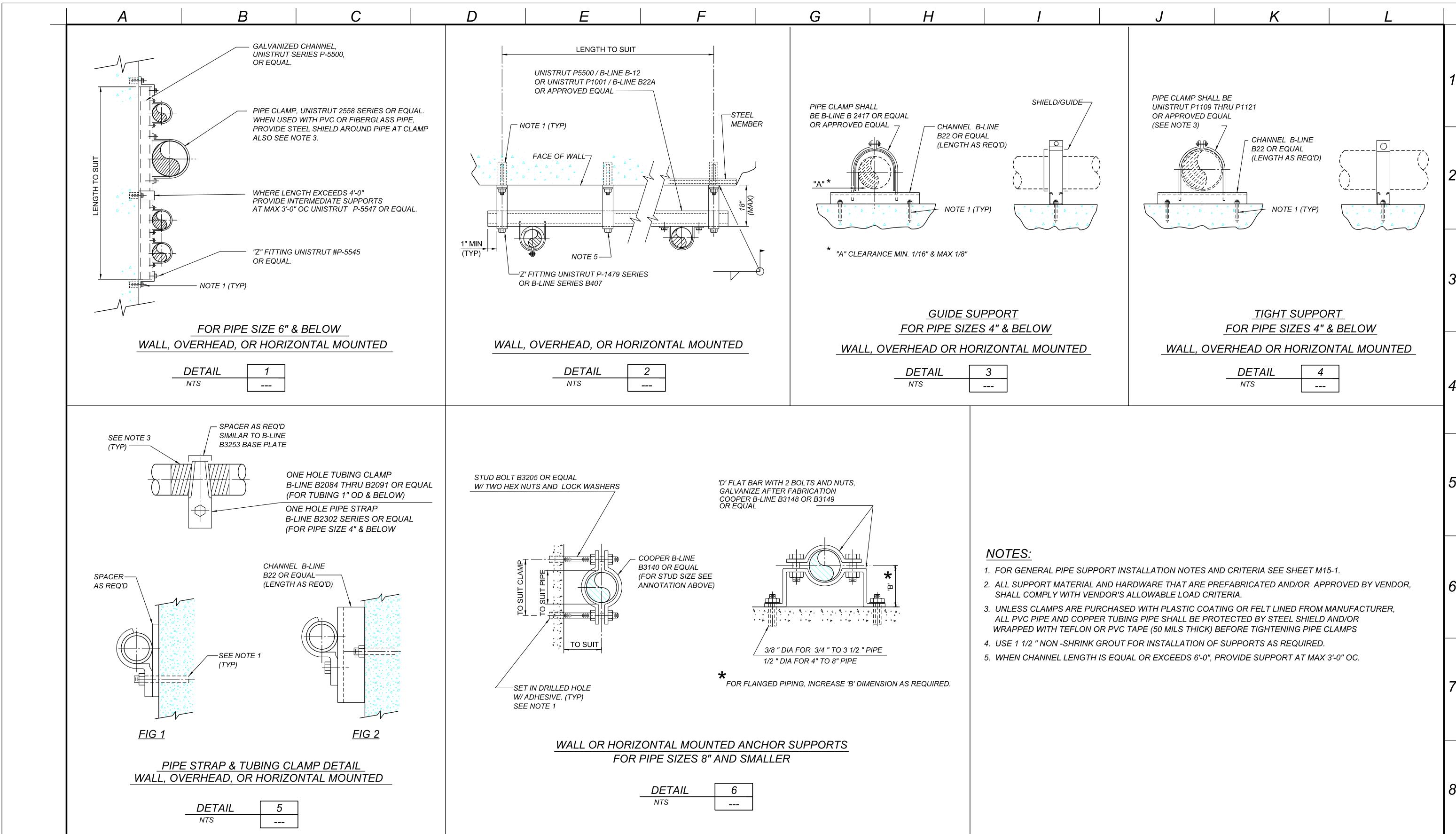
1. U-BOLTS TO BE HOT-DIPPED GALVANIZED AND SUPPLIED WITH OVERSIZED HEX NUTS.
2. FOR HORIZONTAL GUIDES, USE DIMENSIONS B (VERTICAL) AND C (VERTICAL) FOR TOP SADDLE ONLY.
3. SADDLES SHOWN ARE BONDSTRAND SERIES 3000 FRP WEAR SADDLES OR EQUAL.
4. ADHESIVE FOR BONDING SADDLES SHALL BE TYPE B 20 ADHESIVE EPOXY (BONDSTRAND) OR EQUAL.

DETAIL
NTS

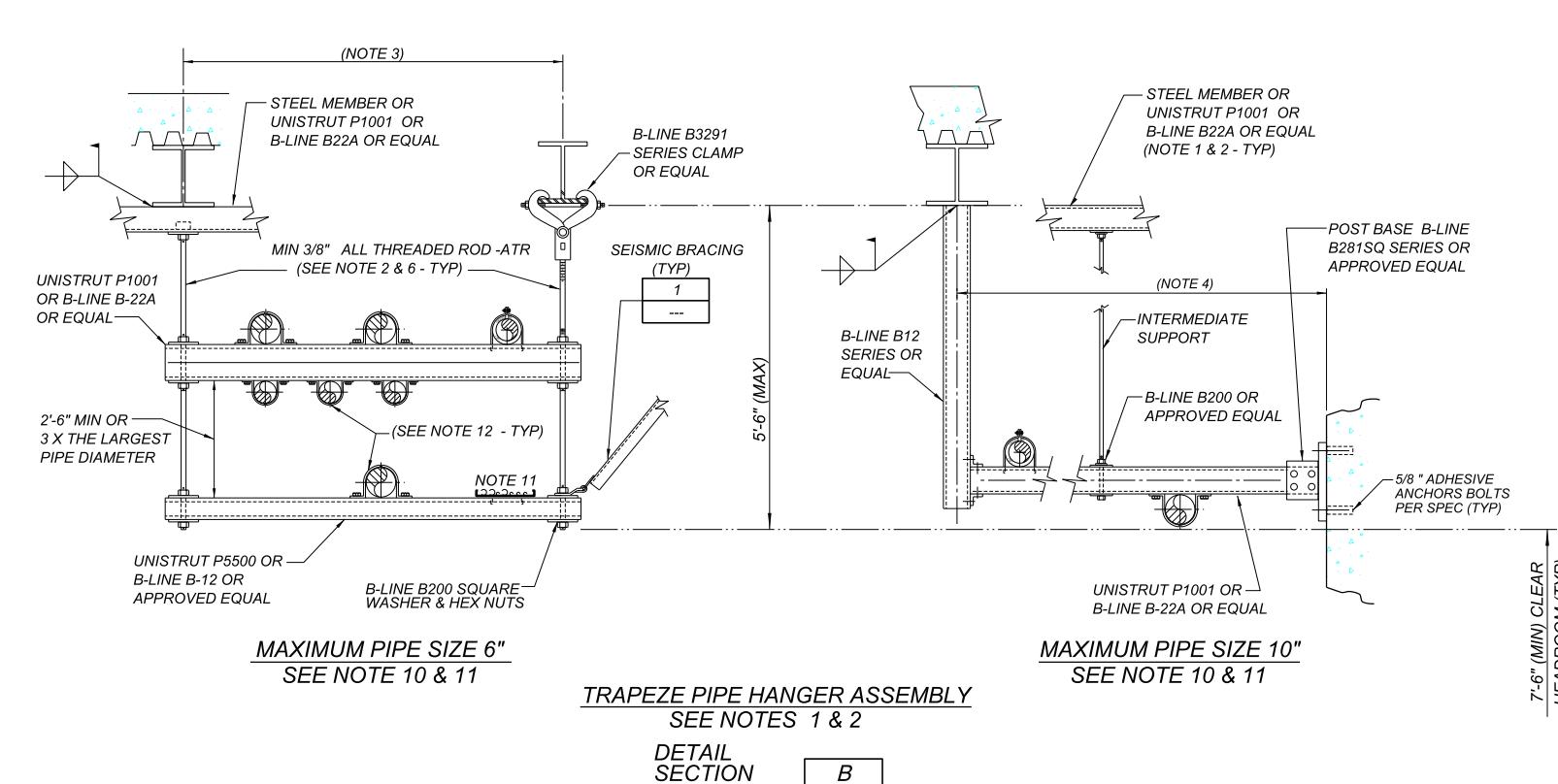
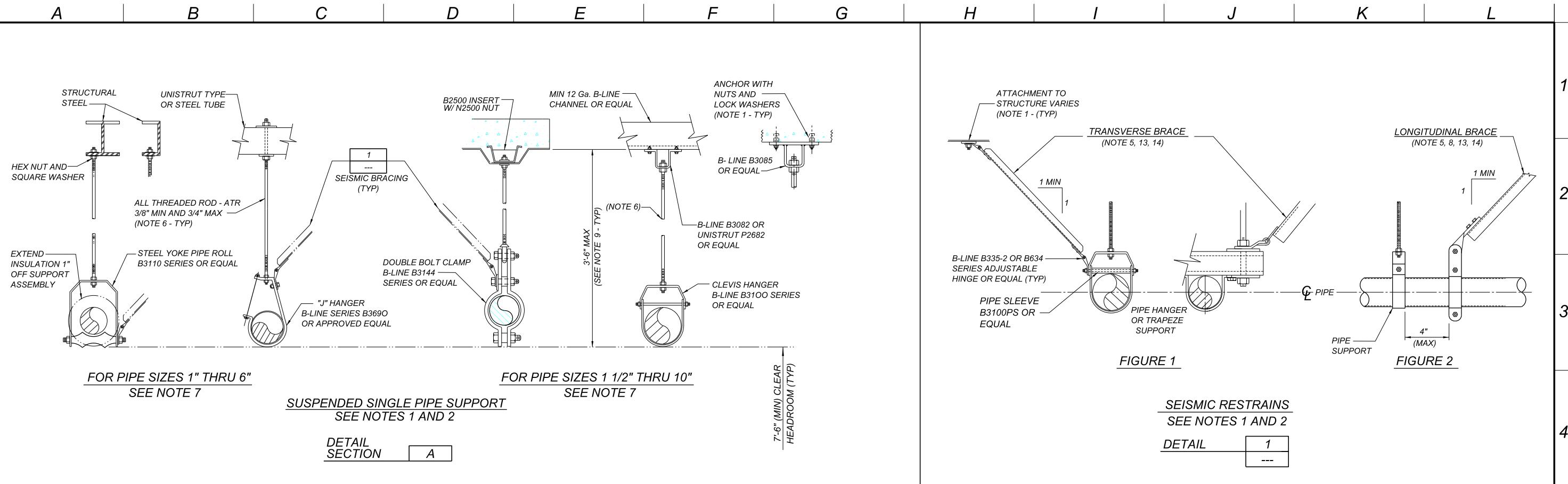


99% SUBMITTAL
JUNE 9, 2014





SCALE BARS	99% SUBMITTAL JUNE 9, 2014	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION DAVID S. SADAMOTO REGISTERED PROFESSIONAL ENGINEER No. M35621 MECHANICAL STATE OF CALIFORNIA	ISSUE DESCRIPTION ORIGINAL ISSUE	MWD METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	WATER TREATMENT PLANTS ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	SPECIFICATIONS 1524 PROJECT NUMBER 103129 SHEET M15-34 DWG B-144919 REV 0
BRDR DATE: 01/29/2009	PEN TABLE: mwdhbw.tbl	PLOT TIME: 04-JUN-2014 12:28	ISSUE DATE JUNE 2014	DESIGNED DS DRAWN SJS CHECKED	FOR DRAWING APPROVALS SEE B-144777	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_00m15034.dgn



NOTES:

1. FOR GENERAL STANDARD PIPE SUPPORT NOTES AND CRITERIA SEE SHEET M15-1.
2. SUPPORT COMPONENTS AND FASTENERS SHALL BE COOPER B-LINE OR UNISTRUT OR EQUAL. TOTAL LOADINGS OF SUPPORT ASSEMBLY AND ATTACHMENTS SHALL NOT EXCEED MANUFACTURER'S APPROVED AND RECOMMENDED LOADINGS.
3. ADD INTERMEDIATE ROD SUPPORT ASSEMBLY AT $\frac{1}{4}$ OF SUPPORT WHEN LENGTH EXCEEDS 3'-0".
4. ADD INTERMEDIATE ROD SUPPORT ASSEMBLY AT $\frac{1}{4}$ OF SUPPORT WHEN LENGTH EXCEEDS 5'-0".
5. FOR SEISMIC BRACING USE B-LINE SERIES B-22 CHANNELS. MAXIMUM LENGTH OF BRACE CHANNEL SHALL NOT EXCEED 9'-3". MAXIMUM SPACING OF BRACES SHALL BE PER MANUFACTURER'S CRITERIA.
6. MAXIMUM LENGTH OF THREADED ROD, WITHOUT STIFFENER, SHALL NOT EXCEED 3'-0". WHEN STIFFENERS REQUIRED USE B-LINE SERIES SC-228 / SC-UB OR EQUAL.
7. UNLESS SHOWN OTHERWISE ON PIPING DESIGN DRAWINGS, OVERHEAD PIPE HANGER SUPPORT SPACING SHALL NOT EXCEED 5'-0".
8. LONGITUDINAL BRACES MUST BE INSTALLED AT BOTH ENDS OF TRAPEZE SUPPORT.
9. UNLESS REQUIRED BY DESIGN, SEISMIC BRACING IS NOT REQUIRED WHEN SINGLE ROD HANGER SUPPORT LENGTH IS LESS THAN 8" OFF THE SUPPORTING CEILING OR STRUCTURAL MEMBER.
10. THE TRAPEZE SUPPORT ARRANGEMENT SHOWN ON THIS DRAWING IS GENERIC IN NATURE. ANY NUMBER OF PIPES OR ADJACENT STRUCTURAL MEMBERS MAY REQUIRE DIFFERENT ARRANGEMENT. ALL TRAPEZE PIPE SUPPORT DESIGN SHALL USE VENDOR'S SEISMICALLY PRE APPROVED COMPONENTS AND SHALL FOLLOW THE MANUFACTURE'S SYSTEM WEIGHT AND LOAD CRITERIA.
11. UTILIZE STEEL LADDER TYPE CABLE TRAYS TO SUPPORT PVC TYPE PIPING WHICH ARE SMALLER THAN 2 1/2" AND STEEL PIPING / TUBING WHICH ARE SMALLER THAN 1 1/4". FOR TRAY SUPPORT DETAILS SEE APPLICABLE MECHANICAL STANDARD DRAWINGS.
12. FOR PIPE CLAMP ASSEMBLY DETAILS AND MINIMUM PIPE SPACING REQUIREMENTS, SEE APPLICABLE MECH. STANDARDS.
13. FOR DUCTILE PIPING (STEEL, COPPER, ETC), SPACING OF TRANSVERSE BRACING SHALL NOT EXCEED 40'-0" AND THE SPACING OF LONGITUDINAL BRACING SHALL NOT EXCEED 80'-0".
14. FUEL, HAZARDOUS FLUIDS AND NON DUCTILE PIPING. SHALL HAVE TRANSVERSE BRACING 20'-0" o.c. MAX. AND LONGITUDINAL BRACING 40'-0" o.c. MAX.

SCALE BARS	STAMPING ENGINEER IS RESPONSIBLE FOR CURRENT DRAWING REVISION	ISSUE DESCRIPTION	WATER TREATMENT PLANTS	SPECIFICATIONS
	99% SUBMITTAL JUNE 9, 2014	ORIGINAL ISSUE	ROBERT B. DIEMER WATER TREATMENT PLANT BASIN REHABILITATION	1524 PROJECT NUMBER 103129
		DESIGNED DS DRAWN SJS CHECKED	OVERHEAD SINGLE AND TRAPEZE PREFAB - STRUT TYPE PIPE SUPPORT ASSEMBLY DETAILS	SHEET M15-41 DWG B-144920 REV 0
		FOR DRAWING APPROVALS SEE B-144777		
		ISSUE DATE JUNE 2014	USERID: u08738	FILE NAME: c:\pw\workdir\mwd_projects\u08738\dms37625\1524_103129_00m15041.dgn