Attachment M

Preliminary Design Drawings
THIS SHEET, ADJUST IF NOT ONE INCH ON BAR IS ONE INCH ON ORIGINAL DRAWING.

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA
MVRWRF 2B EQUIPPING FINAL DESIGN

DESIGNED DRAWN TRACED CHECKED SUBMITTED

SCALE: AS SHOWN

LEGEND

1. CHEMICAL STREAM
2. LIQUID STREAM
3. PLANT DISCHARGE
4. RECIRCULATE STREAM
5. SCREENING/GRIT STREAM
6. SEPTAGE STREAM
7. CHEMICAL STREAM

THE PROCESS FLOW. PLANT SCHEMATIC SHOWS ONLY THE GENERAL CONFIGURATION OF THE PROCESS FLOW.


**TYPICAL SECTION - BELOW GRADE STRUCTURES**

**TYPICAL SECTION - AT SLAB ON GRADE**

**GENRAL NOTES**

1. MOSR CONSTRUCTION - ALL EXCAVATIONS ARE SUITABLE FOR PLACING COMPACTED FILL.
2. ARRANGEMENT AND CUMMINES IN ACCORDANCE WITH APPROPRIATE SPECIFICATION.
3. CEMENT:

- CONCRETE
- STRUCTURAL MIXTURE DESIGN SELECT MATERIAL
- IN ACCORDANCE WITH SPECIFICATION 31_05_05
- MATERIALs USED (TYP) WHERE SHORING IS NEEDED (TYP) AND MOISTURE CONDITIONED.

- UNDISTURBED EARTH (TYP)
- UNDISTURBED NATIVE MATERIAL.
- SCARIFIED NATIVE MATERIAL.
- 8" OF SCARIFIED NATIVE MATERIAL.
- COMPACTION (TYP) COMPACTED TO 92% RELATIVE COMPACTION (TYP)
- 92% RELATIVE COMPACTION (TYP) OF 6" MIN AGGREGATE BASE COURSE
- 6" MIN AGGREGATE BASE COURSE COMPACTED TO 92%
- STRUCTURAL BACKFILL COMPACT TO 92%

**NOTES:**

- FILL COMPACT ON ACCORDANCE WITH ASTM D1557.
- DESIGN AS REQUIRED.
- SHEETING/SHORING
- FINISH GRADE
- APPROX FINISH GRADE
- APPROX FINISH GRADE
- APPROX FINISH GRADE

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**LEGENDS:**

- CLSM FILL
- STRUCTURAL MIXTURE SELECT MATERIAL
- UNDISTURBED EARTH MATERIAL
- SPECIFICATION 31_00_00
- AGGREGATE BASE COURSE IN ACCORDANCE WITH SPECIFICATION 31_05_15
- STRUCTURAL BACKFILL: NATIVE SOIL-SELECT MATERIAL
- CONCRETE

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**PREPARATION DETAILS**

- AREA 22 - CARRB
- AREA 20 - SPLITTER BOX
- AREA 19 - SPLITTER BOX
- YARD AREA - SLABS ON GRADE & EQUIPMENT PADS
- • AREA 3 - CARRB
GENERAL NOTES:
1. REFER TO DWGS 01G10 AND 01G11 FOR GENERAL MECHANICAL SYMBOLS AND NOTES.
2. CONTRACTOR SHALL PROVIDE ALL PIPES, VALVES, FITTINGS, INSTRUMENTATION, SUPPORTS, AND ALL OTHER ITEMS SHOWN ON DRAWINGS UNLESS OTHERWISE NOTED.
3. FIELD VERIFY ALL MEASUREMENTS SHOWN ON DRAWINGS BEFORE CONSTRUCTION.

PLANT 2 SPLITTER BOX PLANS

MECHANICAL

FEED SPLITTER BOX TO PLANT 2A STEP

FEED SPLITTER BOX TO PLANT 2B STEP
GENERAL NOTES:

1. BEFORE CONSTRUCTION STARTS, CONTRACTOR SHALL VERIFY ALL DEMOLITION LIMITS.
2. CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH CURRENT FIELD CONDITIONS.

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GENERAL NOTES:
1. FOR GENERAL STRUCTURAL NOTES AND
SUBGRADE PREPARATION DETAILS SEE
DRAWINGS 01G08 & 01G09.
2. CONTRACTOR SHALL VERIFY ALL
DIMENSIONS AND ELEVATIONS.
3. NOT ALL STRUCTURAL PENETRATIONS ARE
BROKEN. VERIFY DIMENSIONS IN CONCRETE.
4. MECHANICAL DRAWINGS PROVIDE ADDITIONAL
INFORMATION.
5. ALL WELDING, DRAWINGS FOR LOCATION AND
ALIGNMENT OF PUMPS AND EQUIPMENT IS TO BE
CONFIRMED WITH EQUIPMENT MANUFACTURER.
6. PROVIDE ADDITIONAL REINFORCING BARS PER
S180/TYP.

KEY NOTES:
1. NEW CONCRETE SUMP.
2. NEW CONCRETE WALL.
3. NEW FRP BAFFLE WALLS.
4. NEW WALL OPENING(S) AT EXISTING WALL(S).
5. ALIGN CENTER OF NEW CONCRETE AND BAFFLE
WALLS WITH CENTER OF EXISTING CONCRETE.

50% SUBMITTAL
GENERAL NOTES:
1. FOR GENERAL STRUCTURAL NOTES AND PREPARATION DETAILS SEE E 10640.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS.
3. NOT ALL STRUCTURAL PENETRATIONS ARE SHOWN. FIELD EXECS MUST COORDINATE ALL PENETRATIONS WITH MECHANICAL DRAWINGS. PROVIDE ADDITIONAL REINFORCING AND MORTAR.
4. FOR MECHANICAL DRAWS FOR LOCATION AND SIZES OF EQUIPMENT PAD TIMES CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
5. PROVIDE EQUIPMENT PADS PER S302/TYP & S304/TYP, UNLESS OTHERWISE NOTED.

KEY NOTES:
1. NEW CONCRETE SUMP.
2. NEW CONCRETE WALL.
3. NEW FRP BAFFLE WALL.
4. NEW WALL OPENINGS AT EXISTING WALL(S).
5. ALIGN CENTER OF NEW BAFFLE WALL WITH CENTER OF EXISTING BAFFLE WALL.

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA
MVRWRF 2B EQUIPPING FINAL DESIGN

BOROUGH OF CONSTRUCTION DESIGN
APPROVALS
INITIAL
DESIGN
DRAWN
TRACED
CHECKED
SUBMITTED
APPROVED BY:
DIRECTOR OF ENGINEERING
DATE
PROJECT MANAGER
DATE
EASTERN MUNICIPAL WATER DISTRICT
APPROVALS
PROJECT ENGINEER
INSPECTION
WATER OPERATIONS
RECLAMATION PLANT

SCALE: AS SHOWN

5'-8" 1'-0" 10'-0"

11309A10

05-MAY-2020 6:43:41 AM

Plot Date:    05-MAY-2020    6:43:41 AM

USER:  sv c PW
MODEL:  Layout1     COLOR TABLE:  g shade.ctb     DESIGN SCRIPT:  Carollo_Std_Pen_v0905.pen

PROJECT NO.
FILE NAME:
20S02

 STRUCTURAL

HCC

BASIN PARTIAL BOTTOM PLAN 2

04/2020

04/2020

04/2020

04/2020

50% SUBMITTAL

FULL DRAWN, INCLUDING DETAIL DETAILS

VERIFY SCALES

APPROVED BY:

1004

49B16

04/2020

04/2020

04/2020

04/2020

19

32

xxxxxxx

Stick File - DRAFT

20S02

BA 920-5 20S02

PROJECT NO: 11304A10

FILE: 11309A10_20S02.dgn

11309A10

20S02
GENERAL NOTES:
1. FOR GENERAL STRUCTURAL NOTES AND SUBGRADE PREPARATION DETAILS SEE DRAWINGS 01G08 & 01G09.
2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
3. NOT ALL STRUCTURAL PENETRATIONS ARE BODY OF WATER SEPARATION TYP. COORDINATE ALL PENETRATIONS AND CONNECT WITH MECHANICAL, ELECTRICAL, AND OTHER ADDITIONAL SERVICES.
4. SITE CONDITIONS CHANGES ARE TO BE SEEN IN SITE CONDITIONS SHEET, WITH APPROPRIATE MARKING LINES.
5. DOSA: CONTRACTOR IS RESPONSIBLE FOR PREPARATION OF SMALL CARPENTRY & SECURITY. UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL FILL PITS AND HOLES PRIOR TO DIGgeh.
7. ALL STEEL SHALL BE TYPE 316L (316 FOR WELDED MEMBERS).
8. FOR ALUMINUM STAIR SEE DETAIL AC101/TYP. STAIR TREAD RISERS SHALL BE AT EQUAL SPACING.
9. FOR ALUMINUM GUARDRAIL/HANDRAIL SEE DETAILS AC500/TYP, AC504/TYP & AC510/TYP.
10. SEPARATE DISSIMILAR METALS PER SPECIFICATION 05500.
11. DO NOT INTERRUPT EXISTING REINFORCING BARS FOR INSTALLATION OF POST-INSTALLED ANCHORS/DOWELS.

KEY NOTES:
1. FOR NEW CONCRETE AND BAFFLE WALLS SEE DRAWING 20S01.
2. SST HSS 6x6x1/4 HORIZONTAL BRACE AT TOP OF BAFFLE WALLS.
3. PROVIDE GRATING SUPPORTING ALUMINUM BEAMS, HORIZONTAL AND VERTICAL BRACES SIMILAR TO AC130/TYP.
4. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
5. EXTENSION OF GRATING AS REQUIRED FOR EQUIPMENT ACCESS. SEE MECHANICAL DRAWINGS FOR EQUIPMENT.
6. ALUMINUM BEAM CONNECTORS PER AC130/TYP & S510/TYP.
7. ALUMINUM STAIR:
   - 7 TREADS AT 11" = 6'-5"
   - 8 RISERS AT 7" = 4'-7"
8. ALUMINUM STAIR:
   - 9 TREADS AT 11" = 8'-3"
   - 10 RISERS AT 6.6"± = 5'-6"

SPEC. NO.

FILE: 11309A10_20S03.dgn

PROJECT NO.: 11309A10

FILE NAME: 11309A10

1. BASIN PARTIAL TOP PLAN 1
1. FOR GENERAL STRUCTURAL NOTES SEE DRAWING 01G08.
2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.
3. GRATING LL = 100 PSF. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
4. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
5. ALL 316 STAINLESS STEEL, EXCEPT TYPE 316L FOR WELDED MEMBERS.
6. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
7. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
8. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
9. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
10. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
11. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
12. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
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14. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
15. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
16. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
17. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
18. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
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20. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
21. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
22. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
23. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
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25. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
26. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
27. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
28. PROVIDE GRATING SEAT AT CONCRETE WALL PER S542/TYP.
GENERAL NOTES:
1. FOR GENERAL STRUCTURAL NOTES AND SUBGRADE PREPARATION DETAILS SEE DRAWINGS 01G08 & 01G09.
2. NOT ALL STRUCTURAL JOINTS ARE SHOWN AND/OR DIMENSIONED. COORDINATE ALL PENETRATIONS AND/OR CONNECTIONS WITH MECHANICAL DRAWINGS. PROVIDE ADDITIONAL REINFORCING BARS PER S180/TYP, UNLESS OTHERWISE NOTED.
3. STAIR & GRATING TREAD RISERS SHALL BE AT EQUAL SPACING.
4. ALL STAINLESS STEEL SHALL BE TYPE 316 (316L FOR WELDED MEMBERS).
5. FOR ALUMINUM GUARDRAIL/HANDRAIL SEE DETAILS AC500/TYP, AC504/TYP & AC510/TYP.
6. FOR ALUMINUM STAIR SEE DETAIL AC101/TYP.
7. CONCRETE JOINTS ARE DESIGNATED AS FOLLOWS:
   - EXP JT = EXPANSION JOINT, SEE S130/TYP.
   - SCJ = SLAB CONSTRUCTION JOINT, SEE S110/TYP.
   - WCJ = WALL CONSTRUCTION JOINT, SEE S110/TYP.
8. ALUMINUM GRATING STOP AND FASTENERS PER S557/TYP & S559/TYP, UNLESS NOTED OTHERWISE.
9. UNDERGROUND SERVICE ALERT:
   - CALL: TOLL FREE 1-800-227-2600
   - TWO WORKING DAYS BEFORE YOU DIG

KEY NOTES:
1. XXXX.

GENERAL NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND
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2. NOT ALL STRUCTURAL PENETRATIONS ARE
   SHOWN AND/OR DIMENSIONED. COORDINATE ALL
   PENETRATIONS AND/OR CONNECTIONS WITH
   MECHANICAL DRAWINGS. PROVIDE ADDITIONAL
   REINFORCING BARS PER S180/TYP.

3. SEE MECHANICAL DRAWINGS FOR LOCATION AND
   SIZE OF EQUIPMENT PADS. CONTRACTOR SHALL
   COORDINATE WITH EQUIPMENT MANUFACTURER
   FOR EXACT LOCATION AND SIZES OF EQUIPMENT
   PADS. PROVIDE EQUIPMENT PADS PER S302/TYP,
   UNLESS OTHERWISE NOTED.

4. CONCRETE JOINTS ARE DESIGNATED AS
   FOLLOWING:
   - EXP JT = EXPANSION JOINT, SEE PLANS.
   - SCJ = SLAB CONSTRUCTION JOINT, PLANS.
   - WCJ = WALL CONSTRUCTION JOINT, SEE
   - PLANS.

5. SEE PLANS FOR ADDITIONAL NOTES.

KEY NOTES:

1. KEY

2. XXXXX
GENERAL NOTES:
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3. FIELD VERIFY ALL MEASUREMENTS SHOWN ON DRAWINGS BEFORE CONSTRUCTION.

KEY NOTES:
1. ALL UTILITY WATER PIPING, PIPING INSULATION, AND SCUM HOPPER SPRAY NOZZLES ALONG CLARIFIER NO. 1 AND 2 TO BE INSPECTED FOR CORROSION AND REPLACED AS NECESSARY.
2. CONTRACTOR TO REPLACE ALL EXISTING 1-INCH OR SMALLER HOSE BIBBS WITH HOSE BIBB PER TYP M272.
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