CONTRACT SPECIFICATIONS

THE WORK OF THIS CONTRACT IS NOT EXCLUDED, BUT IS NOT NECESSARILY LIMITED TO, RECLAMING THE INTERIOR OF THE TANK, THE REPAIR OF EXTERIOR COATING DAMAGED WHILE COMPLETING THE WORK OF THIS CONTRACT, AND REPLACEMENT OR REPAIR OF ANY TANK DECKING, HATCH, ADDITION OF HANDRAILS AND PERMITTER ROOF VENTS, REPLACE INTERIOR OIL/WATER STRATA, OPENING OF INTERIOR LADDER, EXTERIOR RAPID RESPONSE IMPROVEMENTS, AND REPAIRS AS DETERMINED BY STRUCTURAL EVALUATION PROVIDED BY DISTRICT TECHNICAL STAFF DURING CONSTRUCTION.

CONTRACT SPECIFICATIONS

PREPARED BY: INFRASTRUCTURE ENGINEERING CORPORATION
4180 WENTSCHER RD, BLD 110
[310] 269-4600
CONTACT: SARITA LEMONS, PE

EASTERN MUNICIPAL WATER DISTRICT
ANGLE IRON
ABBREVIATIONS
DESIGNED:
APPROVED:
CHECKED:
DRAWN:

EASTERN MUNICIPAL WATER DISTRICT
ANGLE IRON
ABBREVIATIONS
DESIGNED:
APPROVED:
CHECKED:
DRAWN:

STANDARD SPECIFICATIONS AND DRAWINGS
EASTERN MUNICIPAL WATER DISTRICT STANDARDS, SPECIFICATIONS AND DRAWINGS, LATEST EDITION
EASTERN MUNICIPAL WATER DISTRICT STANDARDS, SPECIFICATIONS AND DRAWINGS, LATEST EDITION

GENERAL NOTES
1. TRAFFIC CONTROL IF SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF CALIFORNIA MANUAL OF TRAFFIC CONTROL SPECIFICATIONS, OR OTHER DOCUMENTS REGULATING TRAFFIC.
2. ALL WORK ACTIVITIES SHALL BE CONDUCTED TO PREVENT PROPERTY DAMAGE, THE PUBLIC OF-OR-IN WAY, AND PUBLIC UTILITY EASEMENTS.
3. ALL EXISTING UTILITIES INDICATED ON THE DRAWINGS ARE SHOWN DIAGRAMMATICALLY AND ARE BASED ON FIELD RESEARCH AS BUILT DRAWINGS ON THE ORIGINAL CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES TO LOCATE AND PROTECT ANY EXISTING UTILITIES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR LEGALLY DISPOSING OF ALL EXISTING MATERIAL THAT IS REMOVED, UNLESS NOTED OTHERWISE.
5. THERE WAS NO TOPOSURVEY/SURVEY PERFORMED FOR THIS PROJECT. ALL ELEVATIONS, STRUCTURES AND SITE IMPROVEMENTS ARE PLANTED PER DRAWING. ALL UTILITIES SHALL BE SHOWN BY EXISTING PIPE ELEVATIONS, STRUCTURES AND SITE IMPROVEMENTS ARE PLOTTED PER RECORD

ACEC CALIFORNIA
AMERICAN COUNCIL OF ENGINEERING COMPANIES - CALIFORNIA

UNAUTHORIZED CHANGES AND USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES OR USES OF THEIR PLANS. ALL DRAWINGS TO THE PLANS MUST BE IN WRITTEN AND MUST BE APPROVED BY THE PREPARER.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ABIDE BY SOILS AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION.

THE WORK OF THIS CONTRACT INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, RECLAMING THE INTERIOR OF THE TANK, THE REPAIR OF EXTERIOR COATING DAMAGED WHILE COMPLETING THE WORK OF THIS CONTRACT, AND REPLACEMENT OR REPAIR OF ANY TANK DECKING, HATCH, ADDITION OF HANDRAILS AND PERMITTER ROOF VENTS, REPLACE INTERIOR OIL/WATER STRATA, OPENING OF INTERIOR LADDER, EXTERIOR RAPID RESPONSE IMPROVEMENTS, AND REPAIRS AS DETERMINED BY STRUCTURAL EVALUATION PROVIDED BY DISTRICT TECHNICAL STAFF DURING CONSTRUCTION.

SECTION AND DETAIL IDENTIFICATION SYSTEM

SECTION CALLOUT
SECTION LETTER
DETAIL CALLOUT
DETAIL LETTER

SECTION TITLE
SECTION LETTER
DETAIL TITLE
DETAIL NUMBER

DRAWING WHERE SECTION IS SHOWN
DRAWING WHERE DETAIL IS SHOWN
DRAWING FROM WHICH SECTION IS CUT
DRAWING FROM WHICH DETAIL IS SHOWN
NOTES:

1. UNLESS OTHERWISE NOTED, ALL EXISTING SITE IMPROVEMENTS, TANK, PIPING, PANELS, UTILITIES, CABINETS, CONSULTANTS, AND OTHER TANK OR SITE ITEMS SHALL REMAIN AND BE PROTECTED IN PLACE.

2. ALL INTERIOR SURFACES OF THE TANK, INCLUDING COLUMN, SUPPORTS, ROOF, TANK, CONNECTIONS AND APPURTENANCES, WHETHER EXISTING OR PROPOSED, SHALL BE REPAIRED OR REPAINTED TO MATCH ADVANCED ENGINEERING CORPORATION TANK EXTERIOR. INTERIOR OF PLATE SHALL BE PAINTED TO MATCH COLOR OF EXISTING EXTERIOR TANK PAINT PER SPECIFICATIONS. ANY DAMAGE TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

3. COATINGS OR PAINT SHALL BE REPAIRED AT ALL LOCATIONS OF NEW WELDS OR REMOVALS OF REMOVED ITEMS PER SPECIFICATIONS. PERFORM ALL GRINDING AND WELDING PRIOR TO RECOATING OR REPAINTING.

4. DAMAGE TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

5. ALL INTERIOR SURFACES OF THE TANK, INCLUDING COLUMN, SUPPORTS, ROOF, TANK, CONNECTIONS AND APPURTENANCES, WHETHER EXISTING OR PROPOSED, SHALL BE REPAIRED OR REPAINTED TO MATCH ADVANCED ENGINEERING CORPORATION TANK EXTERIOR. INTERIOR OF PLATE SHALL BE PAINTED TO MATCH COLOR OF EXISTING EXTERIOR TANK PAINT PER SPECIFICATIONS. ANY DAMAGE TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

6. COATINGS OR PAINT SHALL BE REPAIRED AT ALL LOCATIONS OF NEW WELDS OR REMOVALS OF REMOVED ITEMS PER SPECIFICATIONS. PERFORM ALL GRINDING AND WELDING PRIOR TO RECOATING OR REPAINTING.

7. REMOVE AND REPLACE HANDRAILS, GUARD, AND REFERENCE CAGE PARTS AS NEEDED TO MATCH ROOF OR 1/4" THICKNESS OF PLATE TO MATCH ROOF OR 1/4", WHICHEVER IS GREATER. PHOTOS OF EXISTING LADDER PROVIDED IN SPECS.

8. REMOVE EXIST 24" HATCH, GRIND SMOOTH, FLUSH WITH TANK ROOF. COVER OPENINGS WITH 24" x 12" PLATE. FIELD VERIFY ACTUAL SIZE SUCH THAT THE PLATE EXTENDS 4" MIN BEYOND OPENED ON ALL SIDES. THICKNESS OF PLATE TO MATCH ROOF OR 1/4", WHICHER IS GREATER. ANY DAMAGED TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

9. VERIFY LOCATIONS AND DIMENSIONS TOTAL (NOT SHOWN FOR CLARITY) FIELD VERIFY DIMENSIONS, REPLACES IN LIKE AND KIND, INTERIOR OVERFLOW CONE, MORE DETAILS SEE DETAIL X, M-1.

10. INSTALL (4) PERIMETER ROOF VENTS, APPROX 90° APART. FIELD VERIFY LOCATION TO AVOID ROOF PARALLEL W/ THE PERIMETER OF THE TANK SHELL, SEE DETAIL 1, M-1.

11. VERIFY LOCATIONS AND DIMENSIONS TOTAL (NOT SHOWN FOR CLARITY) FIELD VERIFY DIMENSIONS, REPLACES IN LIKE AND KIND, INTERIOR OVERFLOW CONE, MORE DETAILS SEE DETAIL X, M-1.

12. REMOVE EXIST SELF CLOSING GATE, REUSE AND RELOCATE TO NEW HANDRAIL.

13. REMOVE EXIST 15' WIDE AC ROADWAY W/ 6" SLOPE=20% AC BERM AND CONC V-DITCH, EXIST TANK SHELL, REPLACE IN LIKE AND KIND, FIELD VERIFY LOCATION TO AVOID ROOF GRATING PER EMWD STD DWG B-984.

14. REMOVE EXIST 24" x 24" CONC PLATE TO COVER EXIST HATCH OPENING. SEAL WELD ALL AROUND INTERIOR AND EXTERIOR. THICKNESS OF PLATE TO MATCH ROOF OR 1/4", WHICHER IS GREATER. ANY DAMAGED TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

15. REMOVE AND DISPOSE OF EXIST INTERIOR LADDER IN ITS ENTIRETY, INCLUDING ALL SUPPORTS AND LADDER COMPONENTS. GRIND SMOOTH ALL SURFACES FOLLOWING REMOVAL AND PRIOR TO COVERING.

16. REMOVE EXIST PIPES, GRIND SMOOTH, FLUSH W/ TANK ROOF. COVER OPENINGS W/ 24" X 12" PLATE. FIELD VERIFY ACTUAL SIZE SUCH THAT THE PLATE EXTENDS 4" MIN BEYOND OPENED ON ALL SIDES. THICKNESS OF PLATE TO MATCH ROOF OR 1/4", WHICHER IS GREATER. ANY DAMAGED TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

17. NO OPENINGS W/ 24" X 12" PLATE. FIELD VERIFY ACTUAL SIZE SUCH THAT THE PLATE EXTENDS 4" MIN BEYOND OPENED ON ALL SIDES. THICKNESS OF PLATE TO MATCH ROOF OR 1/4", WHICHER IS GREATER. ANY DAMAGED TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

18. REMOVE EXIST PIPES, GRIND SMOOTH, FLUSH W/ TANK ROOF. COVER OPENINGS W/ 24" X 12" PLATE. FIELD VERIFY ACTUAL SIZE SUCH THAT THE PLATE EXTENDS 4" MIN BEYOND OPENED ON ALL SIDES. THICKNESS OF PLATE TO MATCH ROOF OR 1/4", WHICHER IS GREATER. ANY DAMAGED TO THE EXTERIOR TANK PAINT AS A RESULT OF ANY WORK PERFORMED SHALL BE REPAIRED PER SPECIFICATIONS.

19. REPAIR HANDRAIL/SMALL CONNECTIONS (TYP 10' ANYWHERE AS ANNOTATING SITE ITEM) TIME BETWEEN WELDS OR RECOAT PLATE LOCATION. REMOVE EXIST HANDRAIL W/ TANK SHELL, FIELD VERIFY ACTUAL LOCATION TO AVOID ROOF PARALLEL W/ THE PERIMETER OF THE TANK SHELL, SEE DETAIL 1, M-1.

20. REMOVE EXIST HANDRAIL W/ TANK SHELL, FIELD VERIFY ACTUAL LOCATION TO AVOID ROOF PARALLEL W/ THE PERIMETER OF THE TANK SHELL, SEE DETAIL 1, M-1.

21. VERIFY LOCATIONS AND DIMENSIONS TOTAL (NOT SHOWN FOR CLARITY) FIELD VERIFY DIMENSIONS, REPLACES IN LIKE AND KIND, INTERIOR OVERFLOW CONE, MORE DETAILS SEE DETAIL X, M-1.

22. INSTALL (4) PERIMETER ROOF VENTS, APPROX 90° APART. FIELD VERIFY LOCATION TO AVOID ROOF PARALLEL W/ THE PERIMETER OF THE TANK SHELL, SEE DETAIL 1, M-1.

23. VERIFY LOCATIONS AND DIMENSIONS TOTAL (NOT SHOWN FOR CLARITY) FIELD VERIFY DIMENSIONS, REPLACES IN LIKE AND KIND, INTERIOR OVERFLOW CONE, MORE DETAILS SEE DETAIL X, M-1.
NOTES:

1. ALL RAILINGS, HANDRAILS, BRACKETS, AND ALL RAILING COMPONENTS SHALL CONFORM TO THE CODE REQUIREMENTS FOR CBC AND THE STATE-APPROVED OSHA, THE MOST STRINGENT OF THE CODES OR REFERENCE STANDARDS. RAILING SYSTEM AND ALL COMPONENTS SHALL BE DESIGNED FOR THE LOADING CONDITIONS PER OSHA REQUIREMENTS, BUT AT A MINIMUM SHALL BE CAPABLE OF WITHSTANDING, WITHOUT FAILURE, A FORCE OF AT LEAST 350 LB CONCENTRATED LOAD APPLIED IN ANY DIRECTION AT ANY POINT OF THE HANDRAIL.

2. MAXIMUM CONTINUOUS LENGTH OF RAILING BETWEEN 4-INCH MAX SEPARATION SHALL BE 50'-0".

3. STEEL PIPE FOR HANDRAIL SHALL CONFORM TO ASTM DESIGNATION A-53, GRADE B, SEAMLESS.

4. HANDRAIL SYSTEM, INCLUDING ALL RAILINGS AND CONNECTIONS, SHALL BE PAINTED PER SPECIFICATIONS TO MATCH COLOR OF TANK EXTERIOR.

5. EXIST ROOF PLATE:

   - FIELD VERIFY ACTUAL LOCATION TO AVOID CONFLICTS WITH OTHER TANK APPURTENANCES

6. ALL METAL SURFACES TO BE COATED/PAINTED PER SPECIFICATIONS AFTER FABRICATION AND INSTALLATION (EXCEPT SS).
ANODE ACCESS PORT

REFERENCE PORT

MAGNESIUM ANODE

ACCESS HANDBOLES

ANODE LEAD SPICE

NOTES:
1. Measure 2% riser height and 2% diameter for standing access port and refer all access ports.
2. All standing feet size components shall be 1' x 1'.

SPEC NO. 1363W
ELLIS TANK INTERIOR RECOATING
CATHODIC PROTECTION DETAILS

NOT FOR CONSTRUCTION
DRA C

100% SUBMITTAL

AS-NOTED

100% SUBMITTAL

APRIL 2019
APRIL 2019
APRIL 2019
APRIL 2019

57850

CATHODIC PROTECTION DETAILS

COATING ENGINEERING CONSULTANTS
1016 BROADWAY, SUITE A
EL CAJON, CA 92021
PHONE: 619.312.0195
FAX: 619.312.0197

DESIGNED:

DRAWN:

CHECKED:

APPROVED / DATE

REFERENCES

APPROVED BY:

MARC A. SERNA, P.E., DIRECTOR OF ENGINEERING

DATE

EDWARD M. SERNA, P.E., PROJECT MANAGER

DATE

PROJECT ENGINEER

INSPECTION

WATER OPERATION

MAINTENANCE