

GENERAL NOTES:

- SEE SHEET 100501 FOR STRUCTURAL DETAILS AND CONNECTIONS FOR STRUCTURAL STEEL AND DETAILS.
- SEE CIVIL PLANS FOR STRUCTURE LOCATION.
- SEE 100-SERIES SHEETS FOR EQUIPMENT, PIPING AND PENETRATIONS.
- 1' INDICATES DIMENSION TO BE VERIFIED PRIOR TO CONSTRUCTION.
- OPENINGS IN CONCRETE SLAB TO BE REPAIRED WITH CONCRETE REPAIR MORTAR. SEE DISCIPLINE DRAWINGS FOR LOCATION.

NOTES:

- INS GROUT SHALL BE PROVIDED UNDER EACH REINFORCING BAR AND UNDER EACH REBAR AND EXISTING CONCRETE REINFORCING AT BEAM ANCHORAGE LOCATIONS.
- SEE DISCIPLINE DRAWINGS WHERE APPLICABLE.



2. DETAIL
US102 3/4" x 1/2"



3. KICK-PLATE
US102 1.12\"/>

NOTES:

- PROVIDE 1/2\"/>

NOTES:

- WELD ANGLES TOGETHER AT CORNERS OF OPENINGS TYP.
- CONTRACTOR SHALL LOCATE AND AVOID EXISTING CONCRETE REINFORCING AT ANGLE ANCHORAGE LOCATIONS.

UPPER LEVEL PLAN
3/18' x 1/2'

PROJECT MANAGER: HEATH E. HARDY, P.E.
DESIGNED BY: K. WILLELA
CHECKED BY: V. PATEL
DRAWN BY: J. ARROYO

MAWS PROJECT NO.: 10170707
HR PROJECT NO.: 10256503

ISSUE | **DATE** | **DESCRIPTION**

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FILE NAME: 10256503-10S-114
SCALE: AS NOTED

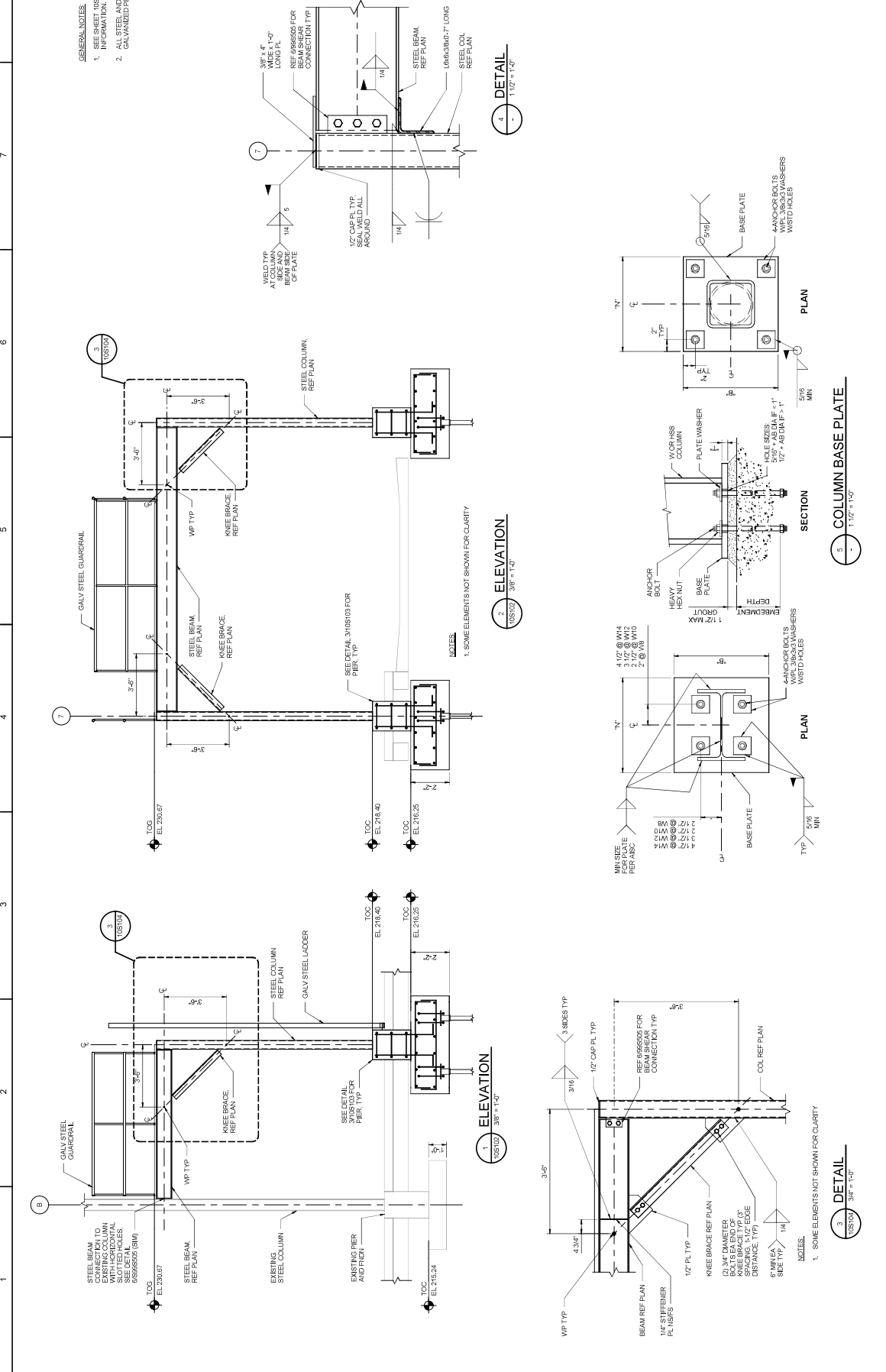
SHEET: 10S102

DEWATERING BUILDING UPPER LEVEL PLAN

MAWS
MOBILE AREA WATER & SEWER SYSTEM
MYERS SOLIDS HANDLING IMPROVEMENTS

F2R
 F2R Engineering, Inc.
 1000
 Mobile, AL 36605-3339
 Certificate of Authorization: CA-5354-E

9/13/2021 11:56:21 AM
 BIM 9607/10250593.MWSS_T006.Myers_Solids Handling_2020/10250593-10S-114



- GENERAL NOTES
- SEE SHEET 10S102 FOR ADDITIONAL INFORMATION.
 - ALL STEEL AND HARDWARE SHALL BE HOT DIP GALVANIZED PER ASTM A780 AND A153, UNO.

NOTES

- SOME ELEMENTS NOT SHOWN FOR CLARITY

NOTES

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 DRAWN BY: J. ARROYO

MASS PROJECT NO.: 10170707
 HOR PROJECT NO.: 10256503

ISSUE DATE DESCRIPTION

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FOR ENGINEERING, INC.
 1000 W. 10th St., Suite 1000
 Mobile, AL 36602-3339
 Certificate of Authorization: CA-534-E

PROJECT NAME: 10256503-10S-104
 SCALE: As indicated

MYERS SOLIDS HANDLING IMPROVEMENTS

MOBILE AREA WATER & SEWER SYSTEM

DEWATERING BUILDING ELEVATIONS AND DETAILS

SHEET 10S104

11/3/2021 11:56:22 AM
 BHM 9607/10250593/MWSS_T006_Myrs_Sdhrs_Hmndrl_1020/10250593-10S-104

HELICAL PILES

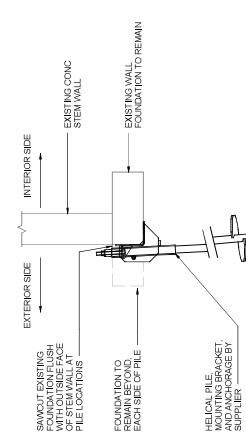
- HP1. DESIGN THE HELICAL PILES IN ACCORDANCE WITH THE GOVERNING APPLICABLE BUILDING CODE.
- HP2. DESIGN THE HELICAL PILES FOR THE DEAD, LIVE, AND LATERAL WIND AND SEISMIC LOADS INDICATED ON THE DRAWINGS. LOAD COMBINATIONS SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE.
- HP3. DESIGN OF THE HELICAL PILE SYSTEM AND ALL OF ITS COMPONENTS SHALL BE COMPLETED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF ALABAMA.
- HP4. COMPONENTS SHALL BE OF A QUALITY FOR THE DESIGN OF THE HELICAL PILE SYSTEM AND ALL ITS COMPONENTS SHALL BE AS FOLLOWS:
 - HP5. HELICAL PILE SYSTEM DESIGN SHALL BE BASED ON THE GEOTECHNICAL REPORT INDICATED ON THE DRAWINGS. A COPY WILL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST.
 - HP6. THE HELICAL PILE LAYOUT SHOWN IS CONCEPTUAL. SIGNED AND SEALED CALCULATIONS PREPARED BY THE HELICAL PILE ENGINEER SHALL BE SUBMITTED FOR REVIEW, SIGNED AND SEALED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER SHALL BE RESPONSIBLE FOR ANY DESIGN ERRORS AND FOR THE DESIGN AND CONSTRUCTION OF THE HELICAL PILE SYSTEM. FOUNDATION REPORT TO THE OWNER AND APPROVAL OF THE HELICAL PILE SYSTEM DESIGN.
 - HP7. FOOTING BEARS AND LOCATIONS SHOWN ARE BASED UPON ASSUMPTIONS OF THE HELICAL PILE SYSTEM COMPONENTS, CONFIGURATION, AND LOADS.
 - HP8. MINIMUM SYSTEM AND COMPONENT REQUIREMENTS SHALL BE AS FOLLOWS:
 - 1. GENERAL STEEL SHEET
 - A. FORMED AS INTEGRAL PART OF FLANGE AND HELICAL EXTENSION MATERIAL.
 - B. FOR TYPE SS MATERIAL, COUPLINGS SHALL BE HOT UPSET FORGED SQUARE TS.
 - C. HELICAL PILE TO BE MADE OF A307 OR A307B.
 - D. HELICAL PILE TO BE MADE OF A307 OR A307B.
 - E. PROVIDE A LEAD SECTION CONSISTING OF 8 IN. 10 IN. AND 12 IN. DIAMETER TRIPLE HELIX.
 - 2. HELIX BEARING PLATE
 - A. SS 175 MATERIAL.
 - B. MINIMUM THICKNESS OF 3/8 IN.
 - C. MINIMUM WELD STRENGTH OF 80 KSI.
 - D. MINIMUM WELD STRENGTH OF 80 KSI.
 - E. PROVIDE A LEAD SECTION CONSISTING OF 8 IN. 10 IN. AND 12 IN. DIAMETER TRIPLE HELIX.
 - 3. BOLTS USED TO CONNECT CENTRAL STEEL SHEET SECTIONS
 - A. 7/8 IN. DIAMETER BOLTS PER ASTM A193 GRADE B7.
 - 4. COUPLINGS
 - A. FORMED AS INTEGRAL PART OF FLANGE AND HELICAL EXTENSION MATERIAL.
 - B. FOR TYPE SS MATERIAL, COUPLINGS SHALL BE HOT UPSET FORGED SQUARE TS.
 - C. HELICAL PILE TO BE MADE OF A307 OR A307B.
 - D. HELICAL PILE TO BE MADE OF A307 OR A307B.
 - E. PROVIDE A LEAD SECTION CONSISTING OF 8 IN. 10 IN. AND 12 IN. DIAMETER TRIPLE HELIX.
 - 5. CONFORM TO ASTM A307 OR ASTM A307B, GRADE B7.
 - 6. MINIMUM SIZE FOR COMPRESSION SHALL BE 6 IN. BY 6 IN.
 - 7. HOT UPSET GALVANNEAL MATERIALS IN ACCORDANCE WITH ASTM A103, AFTER FABRICATIONS.

- HP9. TEST ONE SACRIFICIAL PILE PRIOR TO INSTALLATION OF PRODUCTION PILES. TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION OF THE HELICAL PILE SYSTEM. TEST SHALL BE DEEMED ACCEPTABLE IF TEST LOAD CAN BE MAINTAINED FOR 30 MINUTES WITH SETTLEMENTS THAT REMAINS AFTER TEST LOAD HAS BEEN REMOVED. TEST PILE SHALL BE LOCATED AS DIRECTED BY THE OWNER.
 - 1. REPLACE REJECTED PILES. PILES MAY BE REJECTED FOR FOLLOWING REASONS:
 - A. EXCESSIVE SETTLEMENT.
 - B. PILES OF IMPROPER SIZE AND DEPTH.
 - C. EXCESSIVE LATERAL AND VERTICAL ALIGNMENT. IN EXCESS OF TOLERANCES INDICATED.
 - D. EXCESSIVE DEFLECTIONS.
 - 2. WITH ANY ADDITIONAL ENGINEERING SERVICES REQUIRED FOR REDESIGN/REJECTION PILES.
- HP10. REFER TO SPECIFICATION 31.05.15 FOR ADDITIONAL INFORMATION.

HELICAL PILE LOADING REQUIREMENTS

| MARK | AXIAL COMPRESSION | AXIAL TENSION | LATERAL |
|------|-------------------|---------------|---------|
| HP1 | 15K | 5K | 1K |
| HP2 | 15K | 5K | 1K |
| HP3 | 25K | 5K | 2K |
| HP4 | 25K | 10K | 2K |

- NOTES:**
- 1. LOADS LISTED ARE AND COMBINATION FACTORED LOADS BASED ON ASCE 7-10.
 - 2. LOADS LISTED ARE BASED ON THE ASSUMED PILE LAYOUT SHOWN ON THE DRAWINGS. THE ASSUMED PILE LAYOUT AND THE ASSUMED INSTALLATION OF PILES IF LAYOUT DIFFERS FROM THAT WHICH IS SHOWN.



- NOTES:**
- 1. EXTENTS OF FOUNDATION REMOVAL SHALL BE LIMITED TO ONLY EXISTING HELICAL PILES.
 - 2. CUT ENDS AND OTHER REINFORCING STEEL EXPOSED BY FOUNDATION REMOVAL SHALL BE REPAIRED IN ACCORDANCE WITH 8803A.
 - 3. BRACKET SHALL BE INSTALLED BETWEEN PILE BRANGES AND SHALL BE CASTED IN CONCRETE. FULLY DEVELOPED LOADS SHALL NOT BE TRANSFERRED INTO THE BRACKET AND HELICAL PILE BY POST INSTALLED ANCHORS.
 - 4. AT EXISTING SPREAD FOUNDATIONS TO RECEIVE HELICAL PILES, NO PART OF EXISTING FOUNDATION SHALL BE REPAIRED.

1. TYPICAL HELICAL PILE AT EXISTING WALL FOUNDATION

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Moale, AL 36603-3739
Certificate of Authorization: CA-534-E

| ISSUE | DATE | DESCRIPTION |
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CHECKED BY V. PATEL
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MAWS
MOBILE AREA WATER & SEWER SYSTEM
MYERS SOLIDS HANDLING IMPROVEMENTS

STRUCTURAL GENERAL AND MATERIAL NOTES

SCALE AS NOTED
FILENAME 10256503-10-SS-M
SHEET 99S502