

USER: Matt Streiber TAB: C9.4 DETAILS
 DATE: June 17, 2022 - 12:05:57 AM
 DRAWING: S:\JOBS\100221\21-0154\CADD\C-Plan\PoolSheet_V0_IPAL_DETAL_21-0154.dwg

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)		
	18-50	50-75	75-110
	MINIMUM COVER (FT)		
12-42	2.0	2.5	3.0
48-72	3.0	3.0	3.5
78-120	3.0	3.5	4.0
128-144	3.5	4.0	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

Ø CMP RISER	A	B Ø	REINFORCING	**BEARING PRESSURE (PSF)
24"	4'0"	26"	#5 @ 10" OCEW #5 @ 10" OCEW	2,540 1,900
30"	4'-6" @ 4'-6"	32"	#5 @ 10" OCEW #5 @ 9" OCEW	2,260 1,670
36"	5'0"	38"	#5 @ 9" OCEW #5 @ 9" OCEW	2,060 1,500
42"	5'-6" @ 5'-6"	44"	#5 @ 9" OCEW #5 @ 8" OCEW	1,840 1,370
48"	6'0"	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,210 1,270

** ASSUMED SOIL BEARING CAPACITY

ACCESS CASTING NOT SUPPLIED BY CONTECH

ROUND OPTION PLAN VIEW
NOTES:
1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 4,000 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.

SQUARE OPTION PLAN VIEW
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL
THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A502.

PIPE
THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M88 OR ASTM A780. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA) IN THE PROJECT PLANS.

INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A750 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

ANTI-FLOTATION PROVISIONS DUE TO HIGH GROUNDWATER OR OTHER FLOTATION CONCERNS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

MATERIAL SPECIFICATION
NOT TO SCALE

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
CONTECH CMP DETENTION SYSTEMS

96"Ø UNDERGROUND DETENTION SYSTEM - 699563-020
 TEXAS ROADHOUSE - OFALLON
 OFALLON, MO
 SITE DESIGNATION: UNDERGROUND DETENTION

PROJECT NO: 699563 SEQ. NO: 020 DATE: 2/22/2022
 DESIGNED: CEU DRAWN: CEU
 CHECKED: TNB APPROVED: CEU
 SHEET NO: P4 OF 5

STANDARD LADDER DETAIL
NOT TO SCALE
PART NO. HALAGVL16

ALL STEEL PER ASTM A36

FABRICATION TOLERANCE: 1/8" FLAT BAR AND REBAR MILL TOLERANCE APPLIES

NOTE: WHEN RISER EXTENSIONS ARE USED, THE PLAN SHOULD CUT 3" FROM THE SIDE RAILS AS SHOWN

NOTE: THIS DRAWING IS INTENDED TO APPLY TO LADDERS INSTALLED IN RISERS HAVING A DIAMETER OF 30" OR LARGER. DUE TO SPACE CONSTRAINTS AND LIMITED ACCESSIBILITY, THE PRACTICALITY AND SUITABILITY OF UTILIZING RISERS SMALLER THAN 30" DIAMETER AND/OR INCORPORATING LADDERS IN THESE SMALLER DIAMETER RISERS SHOULD BE ADDRESSED BY THE OWNER AND PROJECT ENGINEER

RISER LADDER DETAIL
NOT TO SCALE

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 TEXAS ROADHOUSE - OFALLON
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 SITE DESIGNATION: UNDERGROUND DETENTION

PROJECT NO: 699563 SEQ. NO: 020 DATE: 2/22/2022
 DESIGNED: CEU DRAWN: CEU
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 SHEET NO: P5 OF 5

DEVELOPER/OWNER:
MOHR CAPITAL LLC
 14643 DALLAS PARKWAY SUITE 1000
 DALLAS, TX 75254
 (214) 801-9860

DATE: 02/24/2022
 NO. 1
 REVISION DESCRIPTION: GRADING AND DRAINAGE UPDATES

TEXAS ROADHOUSE
 IMPROVEMENT PLANS

MEXICO ROAD
 OFALLON, MO 63368

DETAILS

+ ST. CHARLES
 3200 South Street
 St. Charles, MO 63303
 636.978.7508 tel
 www.colstl.com

COLE
 CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
 10000 Woodloch Forest Blvd., Suite 1000, St. Louis, MO 63127
 636.978.7508 tel
 www.colstl.com

DESIGN/CALC BY: MGS
 DRAWN BY: MGS
 CHECKED BY: MGS
 DRAWING SCALE: AS SHOWN
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