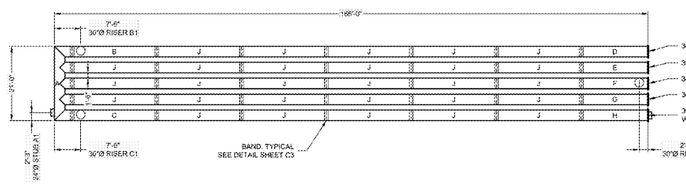
RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
30"Ø RISER B1	TBD	526.70
30"Ø RISER C1	TBD	526.70
30"Ø RISER F2	TBD	526.70

STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
24"Ø STUB A1	526.70	525.70
24"Ø STUB H2	526.73	525.50



THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (5) PAGES INCLUDING THE FOLLOWING:

- **PIPE STORAGE = 5,981 CF**
- **MAINLINE PIPE GAGE = 16**
- **WALL TYPE = PERFORATED**
- **DIAMETER = 36"**
- **FINISH = ALT2**
- **CORRUGATION = 2 2/3x1/2**

CUSTOMER _____ DATE _____

ASSEMBLY
SCALE: 1" = 20'
PIPE STORAGE: 5,981 CF
STRUCTURAL BACKFILL STORAGE: 2,416 CF
TOTAL STORAGE PROVIDED: 8,398 CF
LOADING: H20
PIPE INV. = 525.70'±

NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 25½' x ⅔" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ACCESS CASTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SUPPLIED BY CONTECH.

REV	DATE	REVISION DESCRIPTION	BY
1	03/11/19	STUB LOCATION	YI

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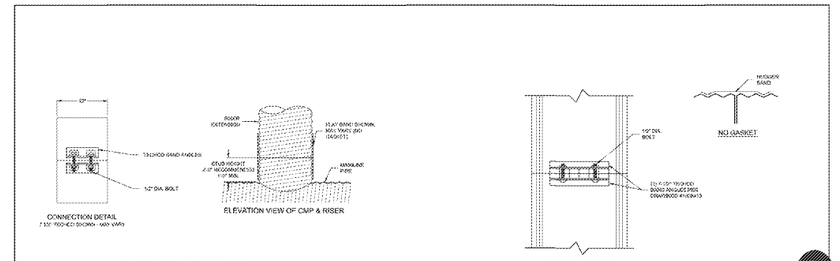
CONTECH CMP DETENTION SYSTEMS
PROPOSAL
13040662

36"Ø PERFORATED UNDERGROUND RETENTION SYSTEM - 605685-010
HOLIDAY INN - CRACKER BARREL DR
CLARKSVILLE, TN
SITE DESIGNATION: UDS

PROJECT No.	REV. No.	DATE
605685	010	3/11/2019
DESIGNED	YI	
DRAWN	YI	
CHECKED		
SHEET No.	C1 OF 5	



PLAIN END CMP RISER PIPE

GENERAL NOTES

1. **DELIVERED BAND STYLE AND FASTENER TYPE MAY VARY BY FABRICATION PLANT.**
2. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SECTION 12.7.4.2.A
3. BAND MATERIAL AND GAGE TO BE SAME AS RISER MATERIAL.
4. 9" HDPE/PP WILL REQUIRE TWO COUPLERS PER RISER, USE A SLIP JOINT
5. BANDS ARE NORMALLY PLACED AS FOLLOWS:
   - 12" THRU 30" 1 PIECE
   - 36" 2 PIECES
6. ALL RISER JOINT COMPONENTS MUST BE FURNISHED BY CONTECH.
7. MINIMUM CLEARANCE IS STILL LOCATIONS TO WORK TRAFFIC LOADS ARE SWITCHED REQUIRE SPECIAL DESIGN CONSIDERATIONS.
8. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.

12" RISER BAND DETAIL
NOT TO SCALE

GENERAL NOTES

1. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   12" THRU 30" 1 PIECE
   36" THRU 144" 2 PIECES
   NOT THRU 144" 3 PIECES
2. BAND FASTENERS ARE ATTACHED WITH CONTECH WRENCH OR HAMMER WELDER.
3. FURNISHED ANGLES AN END CONNECTION ARE NORMALLY 20" x 3", DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES

12 HUGGER BAND DETAIL
NOT TO SCALE

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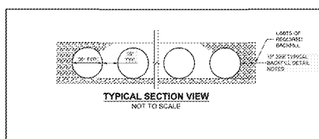

TYPICAL SECTION VIEW
NOT TO SCALE

2 2/3" x 1/2" CORRUGATION - STEEL AND ALUMINUM CMP
6000 SYMLINE OR EQUAL OR BETTER SOCKS

EXFILTRATION AREA
STANDARD PERFORATION PATTERN

APPROXIMATE AREA PER LINEAR FOOT OF PIPE			
PERFORATION PATTERN			
Ø	COLUMN A (SQ. INCHES)	COLUMN B (SQ. INCHES)	COLUMN C (SQ. INCHES)
12"	4.8		
18"	7.2		
24"	9.6		
30"	12.0		
36"	14.4		
42"	16.8		
48"	19.2		
54"	21.6		
60"	24.0		
66"	26.4		
72"	28.8		

NOTES
1. PERFORATIONS MEET AASHTO M36 SPECIFICATIONS
2. PERFORATION AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE
3. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES
4. ALL HOLES SHOP...

TYPICAL PERFORATION DETAIL
NOT TO SCALE

PLAN

FRONT

44 Ø x 30"SP FITTING (REINFORCED) MAY BE REQUIRED ON HEIGHT OF 72"DIAM AND LESS LONG DIAMETER

TYPICAL MANWAY DETAIL
NOT TO SCALE

NOTES
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BACKFILL DETAIL
NOT TO SCALE

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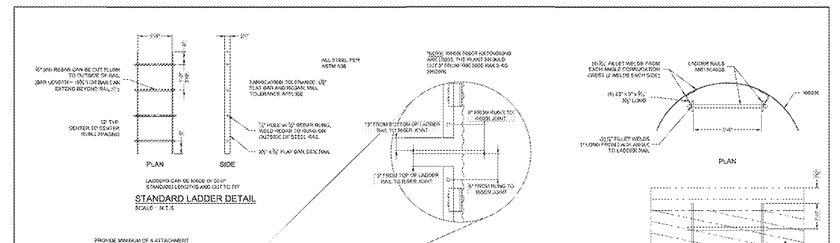

REINFORCING TABLE				
Ø CMP RISER	A	Ø S	REINFORCING	**BEARING PRESSURE (PSF)
24"	8"± 4cm	36"	16 @ 10" OCEW 16 @ 10" OLEW	2,500 1,500
30"	8"± 4cm 6"± 4.5 cm	42"	16 @ 10" OCEW 16 @ 7" OLEW	2,000 1,500
36"	8"± 4cm 6"± 4"	36"	#5 @ 5" OCEW #5 @ 5" OLEW	2,000 1,500
42"	8"± 4cm 5"± 4.5"±	42"	#5 @ 5" OCEW #5 @ 5" OLEW	1,500 1,500
48"	8"± 4cm 5"± 4.5"±	60"	#5 @ 5" OCEW #5 @ 5" OLEW	1,250 1,250

** ASSUMES SOIL MODULUS OF 3,000 PSI

SECTION VIEW

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

ROUND OPTION PLAN VIEW | **SQUARE OPTION PLAN VIEW**

NOTES
1. DESIGNED IN ACCORDANCE WITH AASHTO, 17th EDITION
2. DESIGN LOAD H20
3. f'c = 4,000 psi
4. CONCRETE STRENGTH = 4,000 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, THAT CROSS THE OPENING. EXTEND BARS TO BE 40 DIA. BEYOND OPENING
7. TEST OPENING WITH DIAGONAL MEASURE, ADJUSTING MAKE A MINIMUM OF 12" BEYOND OPENING. BEND BARS AS REQUIRED TO MAINTAIN BAR CLEAR
8. PROTECTION SHALL AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAILS, DESIGN, SPECIFICATIONS, AND CRITERIA ARE CONSIDERED PROPRIETARY TO MCKAY-BURCHETT ENGINEERING, AND ARE NOT TO BE USED, REPRODUCED, OR DISTRIBUTED WITHOUT WRITTEN PERMISSION.

MATERIAL SPECIFICATION
NOT TO SCALE

MANHOLE CAP DETAIL
NOT TO SCALE

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CHECKED		
SHEET No.	C4 OF 5	

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 THOSE SMALLER DIAMETER RISERS SHOULD BE ADDRESSED BY THE OWNER AND PROJECT ENGINEER

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EDWARD C. BURCHETT
REGISTERED ENGINEER
AGRICULTURE
COMMERCIAL
3/11/19
STATE OF TENNESSEE

REVISIONS

DATE	COMMENTS
3/11/19	ADDED RISER AND STUB INFORMATION

STANDARD DETAILS

CLARKSVILLE
MONTGOMERY COUNTY, TENNESSEE
March 11, 2019

McKAY-BURCHETT & COMPANY ENGINEERS
1545 Madison Street
Clarksville, TN 37040
Ph # 931-245-3095

FILE: Z:\Projects\2019\0301.18 Holiday Inn Band Drive\HOLIDAY INN - Phase 1.dwg

DRAWN BY: D. HOOVER
CHECKED BY: C. BURCHETT

SHEET: D.5