

ISSUE	REMARKS/DATE
1	INITIAL SUBMITTAL
2	9-23-20 Rev Ducket Creek Cmmnt
3	20201001 Rev per City/Ducket/PWSD#2
4	20201014 Rev per Ducket
5	20201020 Rev per City Comments
6	20201102 Rev per DCSD Comments
7	20201106 Rev per City Comments

PRECAST CONCRETE MANHOLE  
SHAFT STEPS UNIFORMLY SPACED AT MAX. 16" C-C  
LINE OF ACTUAL EXCAVATION  
COMPACTED CRUSHED LIMESTONE  
PRECAST MANHOLE BASE

IF EXCAVATED SPACE OUTSIDE OF MANHOLE WALL EXCEEDS 12" ENCASE SWER PIPE WITH CLASS "A" CONCRETE AND REINFORCE WITH 4-#4 REBAR FOR LENGTH OF ENCASEMENT, DOWEL INTO MANHOLE WALL.

SECTION OF MANHOLE	DIMENSION
TOP TRANSITION	26 1/2" DIA.
UPPER	42" DIA.
LOWER	42" DIA.
BOTTOM SECTION	8" DIA. PIPE
PIPE	42" DIA.
BOTTOM SECTION	10" THRU 36" DIA. PIPE
PIPE	48" DIA.
BOTTOM SECTION	42" DIA. PIPE
PIPE	60" DIA.

NOTES:  
1. ALL INVERTS SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLE.  
2. BRICK SHALL NOT BE USED ON MANHOLES.

SEE A.S.T.M. C-478 FOR MINIMUM STEEL REQUIREMENTS.

**Duckett Creek Sanitary District**  
INSIDE FOULWATER DROP MANHOLE (SWEEP INLET)  
Dwn By: BSM App By: KA Detail No. 9  
Ckd By: MDOB Date: DEC. 2015

APPROVED PATENTED COMPRESSION TYPE JOINT  
GROUT TO SEAL AROUND PIPE  
DUCTILE IRON PIPE MAXIMUM DIA. 12"  
2"  
12" MAX  
6" PVC DROP PIPE FOR 8", 10" OR 12" MAINS

INSTALL DROP BOWL "A-6" (MFR. RELINER-DURAN INC. OR EQUAL). ATTACH BOWL DIRECTLY UNDER INCOMING PIPE WITH 1" CLEARANCE USING FOUR 3/4" X 3" STAINLESS STEEL BOLTS WITH APPROVED ANCHORS & MASTIC.  
FLARED LEG BRACKET (D021 OR EQUAL) ATTACHED WITH 3/8" DIA. X 3" STAINLESS STEEL BOLT WITH APPROVED ANCHOR. USE 3/4" STAINLESS STEEL BAND, MINIMUM 3 BANDS, MAXIMUM 3 FT. SPACING.

**DETAIL "A" STANDARD DROP PIPE**

OVERDIG  
DUCTILE IRON PIPE TO BRIDGE OVERDIG  
90° ELBOW  
6" PVC  
SEE DETAIL "A"  
MINIMUM 48" INSIDE DIAMETER  
STEP RUNGS PLACED ON UNOBSTRUCTED WALL  
GRANULAR BACKFILL

**INSIDE DROP MANHOLE**

NOTES:  
1. ALL INVERTS SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLE.  
2. INSIDE DROP CONNECTION SHALL NOT ENTER AT A JOINT.

**Duckett Creek Sanitary District**  
INSIDE DROP MANHOLE  
Dwn By: MSM App By: KA Detail No. 10  
Ckd By: MDOB Date: JULY 2016

37 1/2"  
25 1/2"  
21 3/8" CLEAR  
1 1/2"  
2 1/2" LUG

**CAST IRON MANHOLE FRAME**

MACHINED SURFACE  
LUG  
2 1/2"

**SECTION A-A**  
(230 lbs)

**Duckett Creek Sanitary District**  
CAST IRON MANHOLE FRAME  
Dwn By: BSM App By: KLA Detail No. 11  
Ckd By: MDOB Date: DEC. 2015

6 GUSSETS 3/4" TAPER TO 1/2"  
2 OPEN PICKSLOTS  
1" LETTERS (TYP)

**SECTION A-A**

25 1/2"  
23 3/8"  
23 3/8"  
1 1/2"  
7 1/8"  
2 1/2"  
21 3/8"  
24 1/2"  
37 1/2"  
1 1/2"  
2 1/2"

**MANHOLE FRAME AND COVER**

**Duckett Creek Sanitary District**  
MANHOLE FRAME AND COVER  
Dwn By: BSM App By: KLA Detail No. 12  
Ckd By: MDOB Date: DEC. 2015

NOTE: IF WATER-TIGHT COVER REQUIRED USE APPROVED BUTYL RUBBER PREFORMED MASTIC SEALANT BETWEEN COVER AND FRAME.

RECESS 3/8"  
TYP. OF 3 HOLES  
3 HOLES AT 180°

**TYPE "T"**

2 - CONCEALED PICKHOLES AT 180°

3 CORE HOLES ON A 18 3/4" DIA. B.C. FOR 3-TYPE "N" CAM LOCKS 120° APART. 7/8" X 3/8" STAINLESS STEEL BOLTS

**TYPE "N"**

**Duckett Creek Sanitary District**  
CAST IRON MANHOLE COVERS (LOCK TYPE)  
Dwn By: BSM App By: KLA Detail No. 14  
Ckd By: MDOB Date: DEC. 2015

WASHER 1 1/2" O.D. MAX.  
WASHER 1 1/2" O.D. MAX.  
7/8" - 9 x 3 1/2" N.C. STAINLESS STEEL 18-8 HEX HD. BOLT WITH STAINLESS STEEL WASHER N43500 - THREADED TO 1/2" OF THE HEAD  
2 1/2" DIA. MIN.  
1" DIA.  
DRILL & TAP 7/8" - 9 N.C.  
LOCK LUG  
1 1/2" O.D. MAX. STAINLESS STEEL WASHER  
DRILL FOR STAINLESS STEEL HAIR PINS FOR 7/8" DIA. SHAFT  
DRILL FOR STAINLESS STEEL HAIR PINS FOR 7/8" DIA. SHAFT

**LOCK LUG**  
N.T.S.

**LOCKING DEVICE FOR TYPE "N" LOCK TYPENAME HOLE COVER**

**Duckett Creek Sanitary District**  
LOCKING DEVICE FOR TYPE "N" LOCK TYPENAME HOLE COVER  
Dwn By: BSM App By: KLA Detail No. 16  
Ckd By: MDOB Date: DEC. 2015

1 1/2"  
3 3/4"  
9 1/2"  
10 1/2"  
12"  
1 1/2"  
3 3/4"  
1 1/2"

**MANHOLE STEP FOR PRECAST MANHOLE**

3/4" GRADE 60 STEEL REINFORCEMENT

**SECTION A-A**

COPOLYMER POLYPROPYLENE PLASTIC

**Duckett Creek Sanitary District**  
MANHOLE STEP FOR PRECAST MANHOLE  
Dwn By: BSM App By: KA Detail No. 18  
Ckd By: MDOB Date: DEC. 2015

SDR-35 x C900 BELL x SPIGOT ADAPTERS

A B C D E F G H CT PT

SIZE	CATALOG NO.	A	B	C	D	E	F	G	H	CT	PT
4"	334-040	4.56	8.23	4.25	4.10	3.94	4.80	2.72	2.7	.32	.25
6"	334-060	6.68	9.93	6.31	4.57	5.88	6.90	3.72	3.5	.45	.36

**Duckett Creek Sanitary District**  
SDR-35 x C900 BELL AND SPIGOT ADAPTERS  
Dwn By: BSM App By: KA Detail No. 19A  
Ckd By: MDOB Date: DEC. 2015

PROJECT TITLE

**AMBERLEIGH**  
OF FALLON, MISSOURI

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Corporate Certificate of Authority #001548

STATE OF MISSOURI  
JASON D HOWELL  
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PROFESSIONAL ENGINEER

Date: 5-18-2021  
Jason D Howell  
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**DUCKETT CREEK SANITARY SEWER DETAILS**

P+Z No. 20-000028  
City No. 20-003192  
Date: May 18, 2021  
Job No. 14-04-136  
Page No.

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