

Outfall Structure Summary												
Design Storm	Volume (ac-ft)	Elevation (ft)	Opening #1			Opening #2			Opening #3			Total
			Weir	Orifice	Actual	Weir	Orifice	Actual	Weir	Orifice	Actual	
2-year	0.09	1052.50	1.63	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19
10-year	0.15	1053.80	3.27	0.25	0.25	1.97	1.17	1.17	0.00	0.00	0.00	1.42
100-year	0.23	1056.00	6.80	0.32	0.32	9.40	2.14	2.14	1.52	0.19	0.19	2.64

Elevation Discharge Summary Table											Stage Storage Summary Table		
Elevation	Opening #1			Opening #2			Opening #3			Total	Elevation (ft)	Volume (ft3)	Volume (ac-ft)
	Weir	Orifice	Actual	Weir	Orifice	Actual	Weir	Orifice	Actual	Total			
1050.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1050.30	0.00	0.000
1050.38	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1050.38	91.43	0.002
1051.38	0.56	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	1051.38	1543.49	0.035
1052.38	1.50	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	1052.38	3663.37	0.084
1053.38	2.70	0.23	0.23	1.03	0.88	0.88	0.00	0.00	0.00	1.11	1053.38	5687.70	0.131
1054.38	4.12	0.27	0.27	3.56	1.49	1.49	0.17	0.08	0.08	1.84	1054.38	7562.42	0.174
1055.38	5.72	0.30	0.30	6.95	1.91	1.91	0.90	0.16	0.16	2.37	1055.38	9193.80	0.211
1056.38	7.50	0.33	0.33	11.02	2.26	2.26	1.95	0.21	0.21	2.80	1056.38	10382.55	0.238
1057.05	8.77	0.35	0.35	14.08	2.47	2.47	2.80	0.23	0.23	3.05	1057.05	11114.01	0.253

NOTE:
LATERAL PVC COLLECTOR OF
ADS N12 PER DETAIL 4 SHEET
L-7

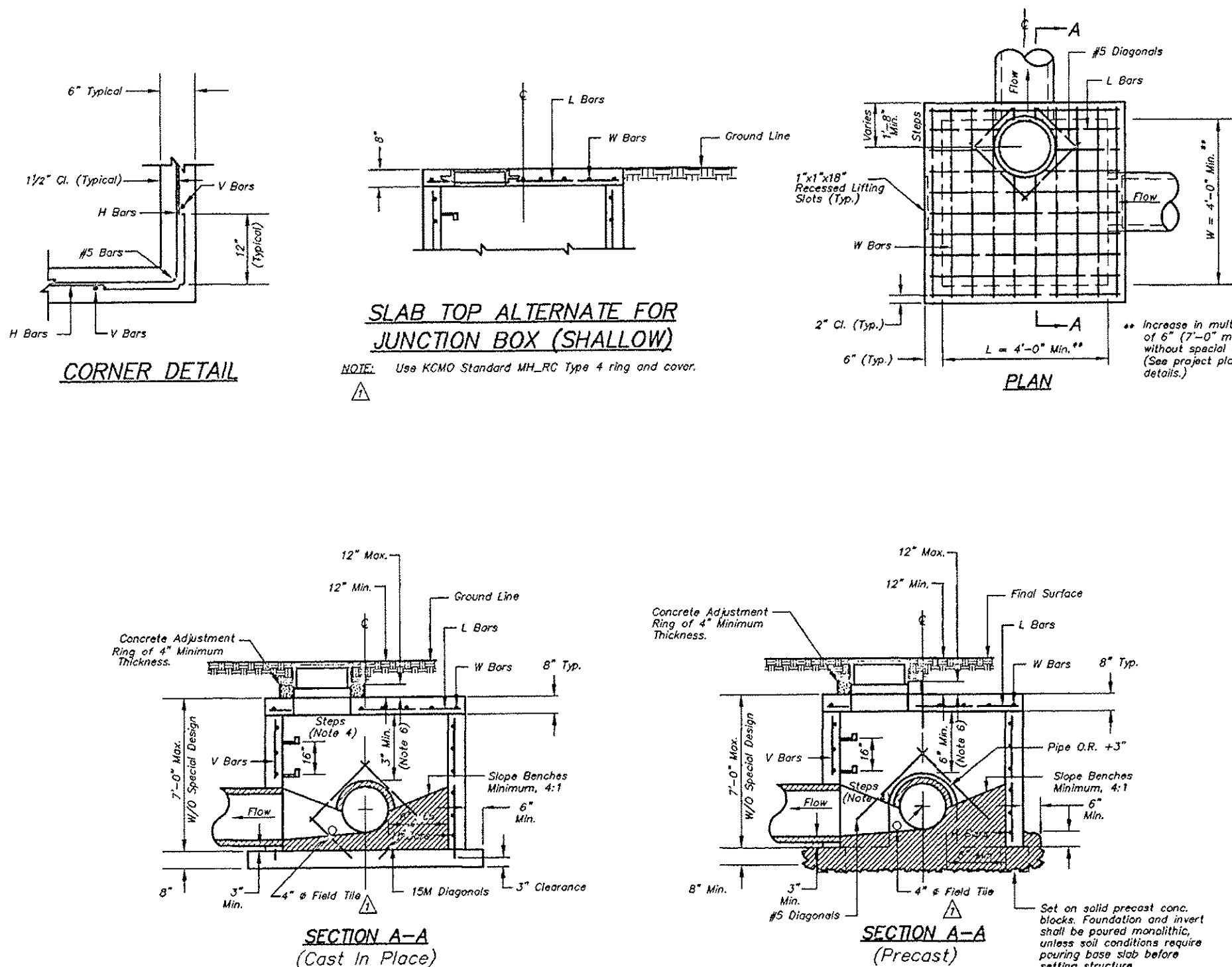
STOP!
CALL BEFORE YOU DIG
MISSOURI ONE CALL SYSTEM
1-800-344-7483 or 811
(@ least 72 hours prior to digging)

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION AND THE FLOWLINES OF ALL EXISTING UTILITIES.
2. WATER AND WASTEWATER SERVICE TO BE PROVIDED BY THE CITY OF LEE'S SUMMIT.
3. CONTRACTOR TO COORDINATE WITH MEP PLANS AT ALL UTILITY STUBOUTS.
4. CONTRACTOR TO REFERENCE GEOTECHNICAL REPORT PREPARED BY INTERTEK PSI (PSI PROJECT NO. 03381842 DATED DECEMBER 14, 2018 FOR UTILITY TRENCH RECOMMENDATIONS).

SITE UTILITY NOTES:

1. THE LOCATION AND /OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF EXISTING UTILITIES ON SITE OR IN RIGHT-OF-WAY.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTION TO ANY EXISTING LINES.
3. CONTRACTOR SHALL COORDINATE AND SCHEDULE THE IN-SITU CONNECTIONS WITH ALL UTILITY COMPANIES
4. ALL OVERHEAD BURN LINES SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO BACKFILLING.
5. ALL NECESSARY INSPECTION AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED UTILITY POSSESSION AND THE FINAL CONNECTION OF SERVICE.
6. GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS.
6. ALL SEWER LINES TO HAVE 48" COVER MINIMUM.
7. ALL WATERLINES AND SANITARY SEWER LINES, AND WATERLINES AND STORM SEWER LINES SHOULD BE KEPT TEN FEET (10') APART VERTICALLY. MINIMUM CLEARANCE WHEN CROSSING (OUTSIDE OF PIPE TO OUTSIDE OF PIPE), IF 24" OF VERTICAL CLEARANCE CAN NOT BE MAINTAINED, SANITARY SEWER LINE TO BE ENCASED IN CONCRETE FOR 20" CENTERED ON CROSSING.
8. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS
9. ALL MATERIALS, CONSTRUCTION, AND INSPECTION FOR WATER AND SANITARY SEWER LINES SHALL BE PER CITY OF ST. CHARLES STANDARD SPECIFICATIONS.
10. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT THE CONTRACTORS EXPAND.
11. CONTRACTOR SHALL REFER TO MEP PLANS AND SP SHEETS FOR EXACT UTILITY ENTRANCE/CONNECTION LOCATIONS
12. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND IN FEES REQUIRED; AS WELL AS COSTS OF UNDERGROUND SERVICE CONNECTIONS TO BE BUILDINGS.
13. THE CONTRACTOR SHALL INCLUDE IN THE BID PRICE THE DAILY RECORD KEEPING OF THE AS-BUILT CONDITION OF ALL THE UNDERGROUND UTILITIES.



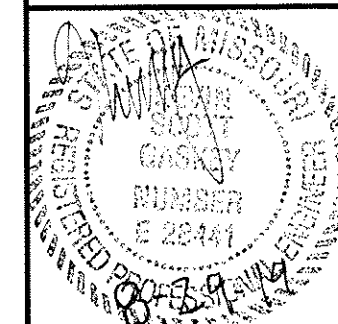
GENERAL NOTES:

1. Locate ring and cover over outlet.
2. All work and materials shall conform to Section 2600 APWV.
3. Use $3/4"$ "Chamber strip or $3/2"$ x edge tool on all exposed concrete corners.
4. Steps required at 10' O.C. when depth from top of casting to invert exceeds 4'.
5. Ravaults will not be allowed to project through the Corners of the structure and the minimum distance between ravaults is 7' with 1 corner bar.
6. The minimum reinforcing shall be 1 #10-bar over a cast-in-place pipe and 2 #10-bars over a precast box.
7. Show orientation on plans. Locating point at center of structure.
8. O.R. = one half outside pipe diameter (O.D.).
9. Reinforcing of covers in streets require special design.
10. Use KMO Standard MH-Ring Type 3 ring and cover.
11. 4" field shell shall be located at entering pipes. These field shells shall be 1/4" thick and 1/4" diameter. Field shell shall be the outside of the structure and clear of man and base course.

BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6

JUNCTION BOX DETAIL
FOR REFERENCE ONLY

Kimley»»Horn
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MISSOURI REGISTRATION NUMBER 001512
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**SUMMIT WAVES
WAVE POOL ADDITION
LEE'S SUMMIT, MO**

DRAINAGE AND DETENTION POND PLAN

Scale:	AS SHOWN
Designed by:	ABP
Drawn by:	ABO
Checked by:	SEG
Date:	AUGUST 2011
Project No.	004500700

SHEET

C-8

Project no.	064536700	8/29/2019 8:12am
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