



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

BASIS OF BEARINGS:

MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

NOTES:

ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEES SUMMIT TECHNICAL SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.

GRADING LEGEND:

- DENOTES OVERFLOW SWALE
- DENOTES FINISHED AS-BUILT GRADE ELEVATION
- DENOTES FINISHED GRADE ELEVATION
- DENOTES EXISTING GRADE ELEVATION
- DENOTES LOT HIGH POINT ELEVATION
- DENOTES PROPOSED MAJOR CONTOUR
- DENOTES PROPOSED MINOR CONTOUR
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- DENOTES AS-BUILT MAJOR CONTOUR
- DENOTES AS-BUILT MINOR CONTOUR
- MWSE

NOTES:

- MBOE = MINIMUM BUILDING OPENING ELEVATION FOR HOUSES ADJACENT TO ENGINEERED OVERFLOW SWALES SHALL BE MINIMUM 2 FEET ABOVE THE 100 YR WATER SURFACE ELEVATION.
- EGL = ENERGY GRADE LINE (100 YR)
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LOT TYPE TABLE					LOT TYPE TABLE			
LOT #	BASEMENT TYPE	As Built Revision	MBOE	As Built Revision	LOT #	BASEMENT TYPE	As Built Revision	MBOE
1	STANDARD				34	DAYLIGHT	Walkout	
2	STANDARD				35	DAYLIGHT	Walkout	
3	STANDARD				36	WALKOUT		
4	STANDARD				37	WALKOUT		
5	STANDARD				38*	STANDARD		1002
6*	STANDARD	Daylight	1027	1025	39	STANDARD		
7*	STANDARD	Daylight	1025	1023	40	STANDARD		
8*	DAYLIGHT		1022	1021	41	STANDARD		
9*	DAYLIGHT		1022	1021	42	STANDARD		
10*	STANDARD	Daylight	1021	1020	43	STANDARD		
11*	STANDARD	Daylight	1021	1020	44	STANDARD		
12*	STANDARD		1018		45	STANDARD		
13*	STANDARD		1020		46	WALKOUT		
14*	STANDARD		1020		47	WALKOUT		
15*	STANDARD		1020		48	DAYLIGHT	Walkout	
16	STANDARD				49	DAYLIGHT		
17	STANDARD				50	STANDARD		
18	STANDARD				51	STANDARD		
19	DAYLIGHT				52	STANDARD		
20	DAYLIGHT				53	STANDARD		
21	STANDARD				54*	STANDARD		1014
22	STANDARD				55*	STANDARD		1014
23	STANDARD				56	STANDARD		
24	STANDARD				57	STANDARD		
25	DAYLIGHT				58	STANDARD		
26*	DAYLIGHT		1009		59	STANDARD		
27*	DAYLIGHT		1009		60	STANDARD		
28*	DAYLIGHT		1008	1007	61*	STANDARD		1017
29*	DAYLIGHT		1008	1006	62*	STANDARD		1017
30*	DAYLIGHT		1007	1005	63	STANDARD		
31*	DAYLIGHT		1007	1004	64	STANDARD		
32*	DAYLIGHT		1005	1002	65	STANDARD		
33*	DAYLIGHT		1005	1002				

* LOTS WHICH REQUIRE AN "AS-GRADED PLOT PLAN" BEFORE OCCUPANCY.

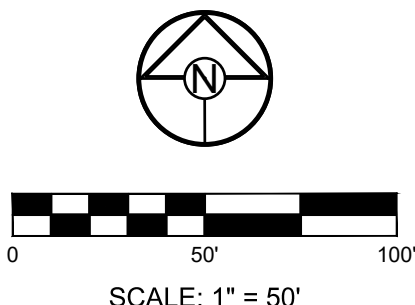
Record Drawing

RECORD DRAWING

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlager and Associates.

"300-00 100.10", "3-00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 04/11/2025
Certified by: JLL
Title: Senior Project Engineer
Firm: Schlager and Associates, P.A.



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
01/21/2022	City Comments dated 12/19/2021
04/20/2022	City Comments dated 02/14/2022
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10/27/2023	Revised Details to current 2023 Details
11/30/2023	Added "New City Requirements" note
02/26/2024	Storm 102-102-103 to HDPE and
08/23/2024	Inlets 1005 & 1014 - revised to JIF's
05/14/2025	Revised Aveny Tract Curb Returns
	As-Built

Record Drawing

MISSOURI GEOGRAPHIC REFERENCE SYSTEM
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000.00 DENOTES OVERFLOW SWALE
EL-000.00 DENOTES FINISHED AS-BUILT GRADE ELEVATION
EL-000.00 (EX.) DENOTES FINISHED GRADE ELEVATION
HP 000.00 DENOTES EXISTING GRADE ELEVATION
1023 DENOTES LOT HIGH POINT ELEVATION
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"480-00 100.10", "4-00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 04/11/2025
Certified by: JLL
Title: Senior Project Engineer
Firm: Schlager and Associates, P.A.



SCALE: 1" = 60'

PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
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MASTER
DRAINAGE
PLAN-GRADING
PLAN (WEST)

SHEET

7



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Title: Senior Project Engineer

Firm: Schlager and Associates, P.A.

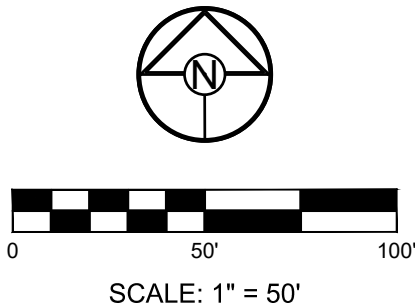
WEIR CALCULATIONS (Q = CLH ^{3/2})							
SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	DESIGN OVERFLOW (CFS)	WEIR ELEVATION	WEIR COEFFICIENT	LENGTH	HEAD REQ'D
1	6.45	67.40	67.40	1016.56	3.33	10'-0"	1.60
2	5.50	57.47	57.47	1016.63	3.33	10'-0"	1.44
3	4.95	51.72	51.72	1017.89	3.33	10'-0"	1.34
4	4.30	44.93	44.93	1018.84	3.33	10'-0"	1.22

RUNOFF CALCULATIONS:

$Q = K \cdot C \cdot i \cdot A$
 $K_{10} = 1.0$ $K_{100} = 1.25$ $C = 0.51$
 $i = \text{INTENSITY } (i_{10} = 7.35" / h_{100} = 10.32")$
 $\text{DESIGN OVERFLOW} = Q_{\text{OVERFLOW}} = Q_{100} - Q_{10}$

MANNINGS "n" = 0.030 FOR SWALES

100 YEAR OVERFLOW SWALES											
SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	Q10 (CFS)	DESIGN OVERFLOW (CFS)	BED SLOPE (%)	BASE WIDTH (FT.)	SIDE SLOPE	TOP WIDTH (FT.)	NORMAL DEPTH (FT.)	VELOCITY (FPS)	VELOCITY HEAD (FT.)
D-D	4.30	28.29	16.12	12.17	2.00	5	50:1	35.00	0.30	2.03	0.06



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
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08/23/2024	Revised Amenty Tract Curb Returns
05/14/2025	As-Built

DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	11/05/2021
PROJ. NUMBER:	21-130

MASTER
DRAINAGE
PLAN-SWALE
GRADING PLAN
SHEET (EAST)

Record Drawing

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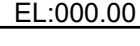
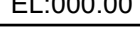
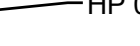
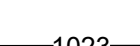
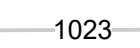
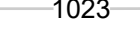
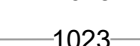
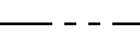


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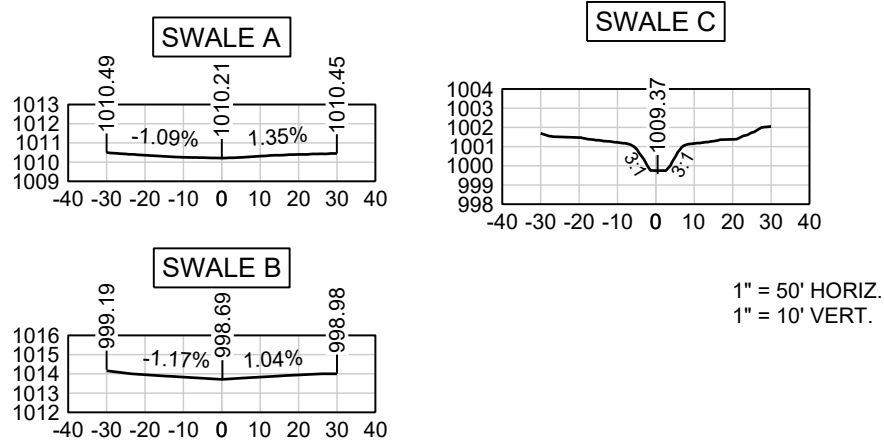
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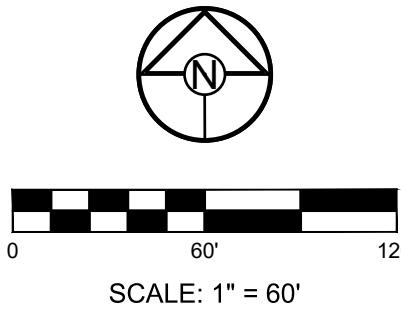
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100 YEAR OVERFLOW SWALES											
SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	Q10 (CFS)	DESIGN OVERFLOW (CFS)	BED SLOPE (%)	BASE WIDTH (FT.)	SIDE SLOPE	TOP WIDTH (FT.)	NORMAL DEPTH (FT.)	VELOCITY (FPS)	VELOCITY HEAD (FT.)
A-A	1.10	7.24	4.12	3.12	2.6	--	100:1	30.00	0.15	1.39	0.03
B-B	0.90	5.92	3.38	2.54	3.5	--	100:1	28.00	0.14	1.30	0.03
C-C	14.80	97.37	55.48	41.89	2.4	5	3:1	10.58	0.93	5.78	0.52

RUNOFF CALCULATIONS:
 $Q = K \cdot C \cdot i \cdot A$
 $K_{10} = 1.0$ $K_{100} = 1.25$ $C = 0.51$
 $i = \text{INTENSITY (} i_{10} = 7.35" / i_{100} = 10.32")$
 $\text{DESIGN OVERFLOW} = Q_{\text{OVERFLOW}} = Q_{100} \cdot C_{10}$

MANNINGS "n" = 0.030 FOR SWALES



PREPARED BY:



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MASTER
DRAINAGE
PLAN-SWALE
GRADING PLAN
SHEET (WEST)