



LEE'S SUMMIT MISSOURI

DESIGN & CONSTRUCTION MANUAL DESIGN CRITERIA MODIFICATION REQUEST

PROJECT NAME: Petsites – Lee's Summit, MO

ADDRESS: 250 NW McNary Court

PERMIT NUMBER: PL2021039

OWNER'S NAME: TM Crowley – Owner Under Contract

TO: Deputy Director of Public Works / City Engineer

In accordance with the City of Lee's Summit's Design and Construction Manual (DCM), I wish to apply for a modification to one or more provisions of the code as I feel that the spirit and intent of the DCM is observed and the public health, welfare and safety are assured. The following articulates my request for your review and action. (NOTE: Cite specific code sections, justification and all appropriate supporting documents.)

We are requesting this waiver for section 5601.5.A.4.a – default strategy: comprehensive Protection Attached with this submittal are the construction documents and stormwater report that contains the justification for removing the requirement for the peak runoff control for the 1%, 10% and 50% to accommodate leaving the existing trees to the west of the project. To meet the requirement, we would have to remove the existing trees to remain.

SUBMITTED BY:

NAME: Matt Fogarty

ADDRESS: 100 Midland Park Drive

CITY, STATE, ZIP: Wentzville, MO 63385

Email: mfogarty@premiercivil.com

() OWNER (x) OWNER'S AGENT

PHONE #: 314-925-744

SIGNATURE: 

KENT MONTER, P.E.

DEVELOPMENT ENGINEERING MANAGER

SIGNATURE: _____ DATE: _____

☒ APPROVAL () DENIAL

JEFF THORN, P.E.

WATER UTILITIES ASSISTANT DIRECTOR OF ENGINEERING SERVICES

SIGNATURE: _____ DATE: _____

() APPROVED () DENIAL

GEORGE M. BINGER III, P.E.

DEPUTY DIRECTOR OF PUBLIC WORKS/CITY ENGINEER

SIGNATURE: _____ DATE: 12 April 2021

☒ APPROVED () DENIAL

COMMENTS: The Development Engr. Group supports the requested waiver to the allowable release rates for the proposed site. (The disturbed areas of the project, that are able to be routed through the basin, do meet the allowable release rates.) We are in concurrence that removing the existing vegetated area to the west of the proposed building would be worse from a water quality standpoint than the benefit gained from trying to route this area through the detention basin. The applicant has demonstrated an overall decrease in runoff from existing to post development.

A COPY MUST BE ATTACHED TO THE APPROVED PLANS ON THE JOB SITE

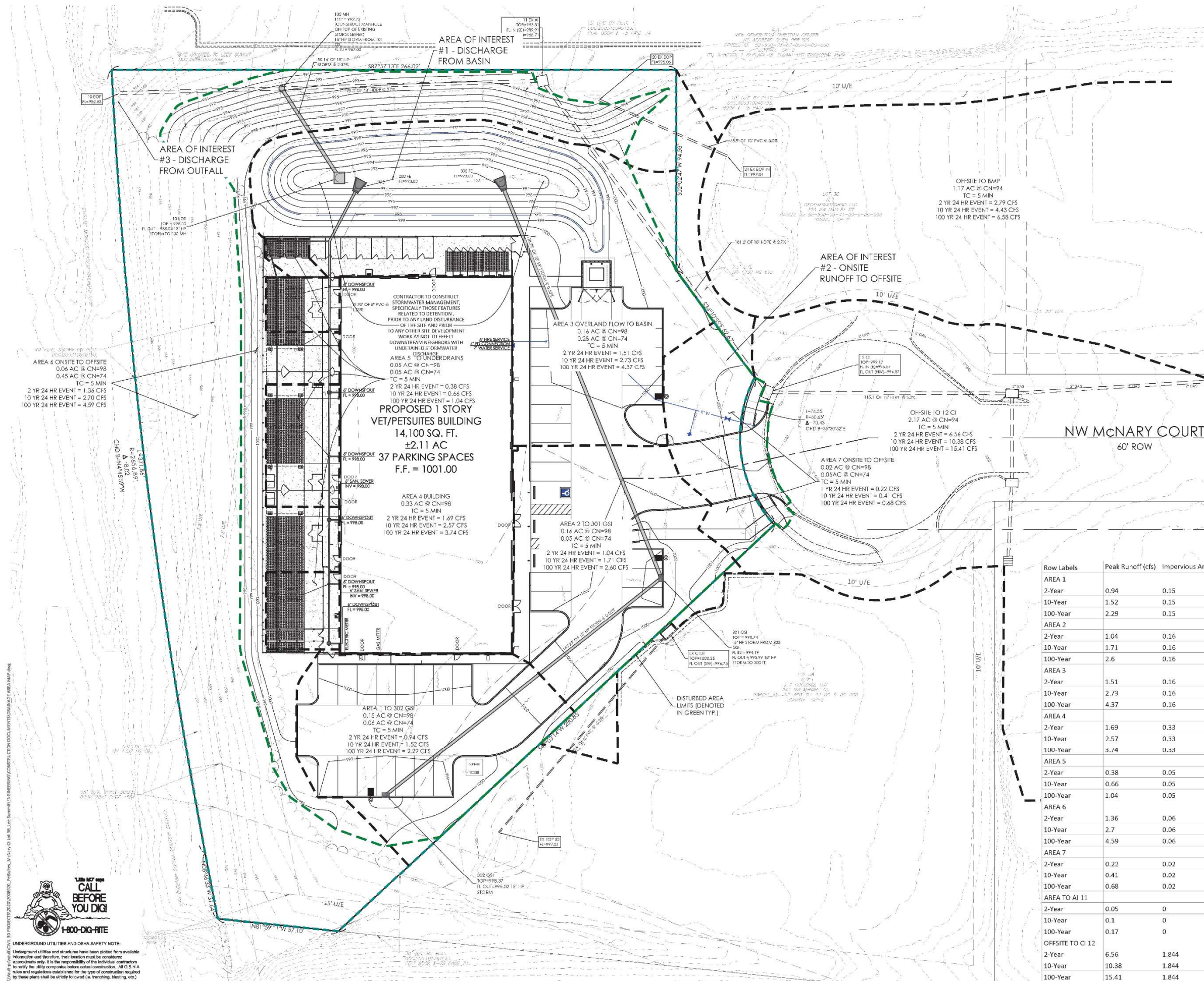
Summarization and Conclusions

Impacts to downstream sewers and streams have been mitigated to the maximum extent practical. This project provides filters via catch basin inserts for interim stormwater protection and a vegetated basin which meets the requirements for orifice size for water quality. Due to the existing conditions and topography of the site, we have mitigated the water quality and detention requirements set forth by the city for the area that is being disturbed. The area that is not being disturbed is the existing woodland which will remain in place. The basin location as shown on the plans is best suited based on the existing storm sewer and protecting the existing woodland to the west.

The listed waivers as shown below are being requested for the post developed condition to allow the increase from the allowable release rate due to the Bypass Areas associated with the existing vegetation to remain instead of routing those areas to the basin. This waiver would be for the 2 Year, 10 Year and 100 Year Events. The proposed project will increase the impervious surface however it will reduce the runoff for the overall disturbed area per APWA 5600. This project proposes that areas that will route through the detention will meet the allowable release rate. The bypass areas consist of existing woodlands that will remain in place therefore to meet the requirements we would have to remove the existing vegetation in place.

The water quality orifice size is 1" for this project. This will allow for the water quality orifice size to meet the City's requirements while being slightly lower for the volume due to the decreased area to the basin. We are reducing the overall runoff for this project. While we are requesting waivers, this is only due to limiting the disturbed area to keep the woodlands in place.

	<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>	<u>Column F</u>	<u>Column G</u>	<u>Column H</u>
	<u>Existing Conditions (c.f.s.)</u>	<u>Post Developed Condition Overall Site (No Detention) (c.f.s.)</u>	<u>Allowable release rate (c.f.s.)</u>	<u>Post Developed Basin Discharge (c.f.s.)</u>	<u>Undisturbed Bypass Areas (c.f.s.)</u>	<u>Post Developed Condition Final Routing (Column D + Column E) (c.f.s.)</u>	<u>Differential Runoff Post Developed to Existing (Column F - Column A) (c.f.s.)</u>	<u>Increase or Reduction for Runoff from Existing to Proposed Condition</u>
2 Year	4.12	6.76	1.06	0.92	1.58	2.50	-1.62	Reduction
10 Year	8.74	12.44	4.22	3.45	3.11	6.56	-2.18	Reduction
100 Year	15.43	20.17	6.33	5.11	5.27	10.38	-5.05	Reduction



MINIMUM TIME OF CONCENTRATION = 5 MINUTES
EXISTING SOIL TYPE = C
CN PAVI = 98
CN GRASS = 74
CN COMMERCIAL AREAS = 94

MASTER DRAINAGE PLAN NOTES

1. MINOR - (MINIMUM BUILDING OPENING ELEVATION) ELEV = 1001.00

2. THE INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE OVERALL DRAINAGE FLOW LINES OR PATHS ON THE LOT AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.



Row Labels	Peak Runoff (cfs)	Impervious Area	Pervious Area	Total Area	Composite CN	TC
AREA 1						
2-Year	0.94	0.15	0.06	0.21	91	5
10-Year	1.52	0.15	0.06	0.21	91	5
100-Year	2.29	0.15	0.06	0.21	91	5
AREA 2						
2-Year	1.04	0.16	0.08	0.24	90	5
10-Year	1.71	0.16	0.08	0.24	90	5
100-Year	2.6	0.16	0.08	0.24	90	5
AREA 3						
2-Year	1.51	0.16	0.28	0.44	83	5
10-Year	2.73	0.16	0.28	0.44	83	5
100-Year	4.37	0.16	0.28	0.44	83	5
AREA 4						
2-Year	1.69	0.33	0	0.33	98	5
10-Year	2.57	0.33	0	0.33	98	5
100-Year	3.74	0.33	0	0.33	98	5
AREA 5						
2-Year	0.38	0.05	0.05	0.1	86	5
10-Year	0.66	0.05	0.05	0.1	86	5
100-Year	1.04	0.05	0.05	0.1	86	5
AREA 6						
2-Year	1.36	0.06	0.45	0.51	77	5
10-Year	2.7	0.06	0.45	0.51	77	5
100-Year	4.59	0.06	0.45	0.51	77	5
AREA 7						
2-Year	0.22	0.02	0.05	0.07	81	5
10-Year	0.41	0.02	0.05	0.07	81	5
100-Year	0.68	0.02	0.05	0.07	81	5
AREA TO AI 11						
2-Year	0.05	0	0.02	0.02	74	5
10-Year	0.1	0	0.02	0.02	74	5
100-Year	0.17	0	0.02	0.02	74	5
OFFSITE TO CI 12						
2-Year	6.56	1.844	0.325	2.17	94	20
10-Year	10.38	1.844	0.325	2.17	94	20
100-Year	15.41	1.844	0.325	2.17	94	20

PREMIER DESIGN GROUP
100 MIDLAND PARK DRIVE
WENTZVILLE, MO 63385
MISSOURI CERTIFICATE OF AUTHORITY #020000048
MISSOURI CERTIFICATE OF AUTHORITY #A20060758

ENGINEERS AUTHENTICATION

I, the undersigned, do hereby certify that I am a duly licensed Professional Engineer in the State of Missouri, and that I am the author of the design and construction of the project shown on the attached drawings, and that I am not providing engineering services to any other party for the same project, and that I am not providing engineering services to any other party for the same project, and that I am not providing engineering services to any other party for the same project.

STEVEN D. MARION, P.E.
PROFESSIONAL ENGINEER
#000000078

PETSUITES OF AMERICA
LEES SUMMIT, MO
250 NW McNARY CT.
LEES SUMMIT, MO 64086
TM CROWLEY
501 PENNSYLVANIA PARKWAY SUITE 160
INDIANAPOLIS, IN 46280

1-27-2021

STORMWATER MANAGEMENT PLAN

C-501

Project No. 2008920
Drawn By Z. KUNTZ/A. JONES
Checked By M. FOGARTY

NOT RELEASED FOR CONSTRUCTION

CALL BEFORE YOU DIG!
1-800-DIG-8112

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:
Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to verify the utility companies before actual construction. All OSHA rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

