Hydrologic Methods
SCS Curve Number Methods, Type II 24 Hour Rainfall from the Wichita Drainage Manual Volume 2, Chapter 4 dated November 14, 2013, Time of concentration by TR-55 Method.

Soil Type
The Hydraulic Soil Group (HSG) for selection of runoff curve numbers (CN) is HSG "D".

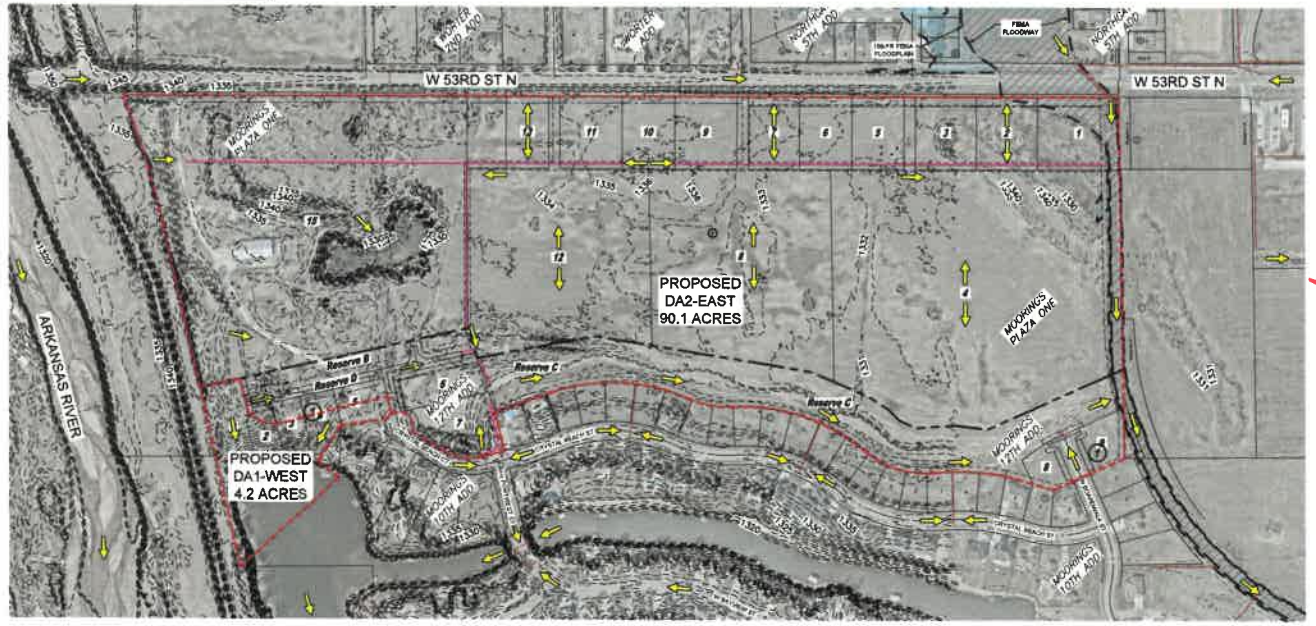
National Wetlands Inventory
A riverine stream is located on the northeast side of the site with freshwater emergent wetlands. A lake is located at the southwest side of the site with freshwater emergent wetlands. Permitting may be required.

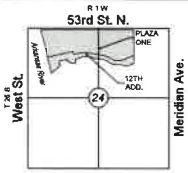
Flood Insurance Rate Map (FIRM)
FEMA FIRM Panel 20173C0194GF dated December 22, 2016. FEMA Flood Zone AE at the northeast portion of the site associated with Meridian Ditch. These base flood elevations range from 1329-1330. The lake at the southwest of the site is Zone AH with an elevation of 1321. The remaining area of the site are in Zone X, area protected by levee. A LOMR-F will be required to remove the lots from the floodplain.

Water Quality
The site will seek coverage under the offsite BMP program. At a cost of $19 per acre per year, the 75.5 acre Moorings Plaza One plat will pay $1,434.50 and the 18.8 acre Moorings 12th Addition will pay $327.20 a year for the program.

Stormwater Sewer
Proposed stormwater sewer will be constructed to drain the site improvements to the designated lake or Meridian Ditch floodplains. The stormwater sewer will be sized for the 5-year design storm for commercial development and 2-year design storm for the residential development with emergency overflow for larger storm events.

Detention
Not provided, flow rate comparison provided by downstream analysis.





VICINITY MAP

Approved
C.O.W.
Thomas Hale
6-23-26

N

SCALE: 1" = 200'
0 200 400

STORM WATER RUNOFF DATA (DEVELOPED CONDITIONS)									
	Area (acre)	Tc (min)	CN	2-Yr (cfs)	5-Yr (cfs)	10-Yr (cfs)	25-Yr (cfs)	50-Yr (cfs)	100-Yr (cfs)
Proposed DA1- West	4.2	14.5	90	14	18.5	22.5	26.1	32.7	37.5
Proposed DA2- East	90.1	30	94	218	278	332	409	472	537

FLOW RATE COMPARISON - DA1 (WEST)						
	2-Yr (cfs)	5-Yr (cfs)	10-Yr (cfs)	25-Yr (cfs)	50-Yr (cfs)	100-Yr (cfs)
Existing DA1- West	14.1	19.8	24.8	32.1	38	44.3
Proposed DA1- West	14	18.5	22.5	26.1	32.7	37.5
Decrease	1%	7%	9%	12%	14%	15%
Explanation	The decreased drainage area has decreased flows to the adjacent point in all design storms.					

MERIDIAN DITCH FLOW RATES						
	Location	Drainage Area (sq.mi.)	10-Yr (cfs)	25-Yr (cfs)	50-Yr (cfs)	100-Yr (cfs)
Meridian Ditch	At Southwest Corner of Site	2.2	372	472	554	640

FLOW RATE COMPARISON AT MERIDIAN DITCH - DA2 (EAST)				
	10-Yr (cfs)	25-Yr (cfs)	50-Yr (cfs)	100-Yr (cfs)
Existing Conditions at Meridian Ditch	377	479	562	649
Proposed Conditions at Meridian Ditch	377	479	562	649
Change	0%	0%	0%	0%
Explanation	The peak flow from the site area will drain to the floodplain before the peak flow from the overall Meridian Ditch floodplain. The proposed site improvements do not indicate an increase of flows at Meridian Ditch due to the proposed development.			

LEGEND

- FLOW ARROW
- DRAINAGE AREAS
- 1330 - EXISTING CONTOURS
- EXISTING SWS
- PROPOSED SWS
- PROPERTY BOUNDARY

MKEC
Wichita, KS • 316.854.9000

ANTON BRIANNE WHERRY
LICENSED
30248
08/12/26
KANSAS
PROFESSIONAL ENGINEER

PROPOSED DRAINAGE PLAN FOR

MOORINGS PLAZA ONE & 12TH ADD.

WICHITA, KANSAS

PROPOSED DRAINAGE PLAN

PROJECT NO. 2301010365

SCALE 1" = 200'

DRAWN	DESIGNED	CHECKED
WAD	ABW	ABW

NO.	REVISION	DATE

SHEET NO.
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01 OF 01