

NOTES:

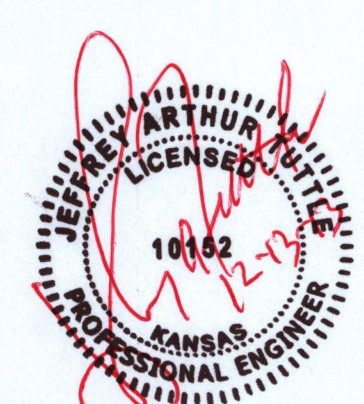
1. Cross-drainage agreements shall be required at the time of plotting.
2. All outlets to 127th Street, Central Avenue, Crest Lane Addition or other off site areas shall conform to City of Wichita water quality requirements.
3. Detailed site grading and final drainage plans to be designed by a licensed professional engineer at the time of building permit.
4. Storm sewer assessments will be provided at the time of building permit only as needed to allow drainage to discharge across adjacent lots.
5. Any revised drainage plan must be approved by storm water engineer prior to building permits being issued.
6. Any storm water detention areas required may be revised when the final plans for the development are completed but the runoff amounts will be at or below the pre-development discharge rates. The final final drainage report shall show discharge rates and slope/drainage discharge curves for any on-site detention areas. Discharge amounts submitted to City with final drainage amendment.
7. Construct 2" wide spillway between the West and the SW ponds as shown. The final pond location, configuration and design will need to be reviewed at the time of building permit.
8. A drainage reserve or account for the proposed detention cells will be dedicated by Separate Instrument during final site design.
9. Water Quality calculations provided with final submitted. Treatment shall be accomplished with inlet BMP's at any ramp location as well as with one inch (1") upstream along longitudinal street/drainway flows using SUDAS system from Best Management Practices, Inc. or approved equal. These types of devices require 4" deep ramps of applicable inlets if outlet pipe is 18" diameter or more.
10. Downstream bank protection based on calculated channel protection volume.

CALCULATION NOTES:

1. Determination of C's was made using the SCS method.
2. Curve Numbers weighted based on hydrologic soil groups.

Proposed Conditions (24-Hour Storm)										
INLET #	Site	Area (Acres)	CN	1-Year	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
J1	Area "1A"	0.886	93.0	2.26	2.95	3.94	4.62	5.49	6.26	7.13
A2	Area "1B"	0.376	93.0	0.94	1.23	1.64	1.92	2.29	2.61	2.97
I4	Area "1C"	0.703	93.0	1.78	2.32	3.10	3.63	4.32	4.93	5.61
G4	Area "1D"	0.306	93.0	0.79	1.03	1.37	1.61	1.92	2.18	2.49
B2	Area "2"	2.399	93.0	6.09	7.96	10.60	12.44	14.80	16.88	19.21
C2	Area "3"	1.213	93.0	3.07	4.01	5.35	6.28	7.46	8.51	9.69
D2	Area "4"	1.521	93.0	3.86	5.04	6.72	7.88	9.38	10.69	12.17
D4	Area "5"	1.703	93.0	4.31	5.64	7.51	8.82	10.48	11.96	13.61
H2	Area "6"	0.715	93.0	1.83	2.39	3.18	3.74	4.44	5.07	5.77
F1	Area "7"	1.774	93.0	4.49	5.87	7.82	9.28	10.91	12.45	14.17
E3	Area "8"	1.929	93.0	4.90	6.40	8.53	10.01	11.90	13.57	15.45

West Pond Stage Storage Table									
ELEV (ft. RL)	AREA (Ac. RL)	DEPTH (ft.)	Avg. Pond Volume (cu. ft.)	Avg. Pond Volume (cu. ft.)	CONC. (cu. ft.)	CONC. (cu. ft.)	TOTAL VOL. (cu. ft.)	TOTAL VOL. (cu. ft.)	TOTAL VOL. (cu. ft.)
1360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1360.25	0.00	0.25	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1360.50	0.00	0.50	400.00	400.00	400.00	400.00	400.00	400.00	400.00
1360.75	0.00	0.75	900.00	900.00	900.00	900.00	900.00	900.00	900.00
1361.00	0.00	1.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00
1361.25	0.00	1.25	2500.00	2500.00	2500.00	2500.00	2500.00	2500.00	2500.00
1361.50	0.00	1.50	3600.00	3600.00	3600.00	3600.00	3600.00	3600.00	3600.00
1361.75	0.00	1.75	4900.00	4900.00	4900.00	4900.00	4900.00	4900.00	4900.00
1362.00	0.00	2.00	6400.00	6400.00	6400.00	6400.00	6400.00	6400.00	6400.00
1362.25	0.00	2.25	8100.00	8100.00	8100.00	8100.00	8100.00	8100.00	8100.00
1362.50	0.00	2.50	10000.00	10000.00	10000.00	10000.00	10000.00	10000.00	10000.00
1362.75	0.00	2.75	12100.00	12100.00	12100.00	12100.00	12100.00	12100.00	12100.00
1363.00	0.00	3.00	14400.00	14400.00	14400.00	14400.00	14400.00	14400.00	14400.00
1363.25	0.00	3.25	16900.00	16900.00	16900.00	16900.00	16900.00	16900.00	16900.00
1363.50	0.00	3.50	19600.00	19600.00	19600.00	19600.00	19600.00	19600.00	19600.00
1363.75	0.00	3.75	22500.00	22500.00	22500.00	22500.00	22500.00	22500.00	22500.00
1364.00	0.00	4.00	25600.00	25600.00	25600.00	25600.00	25600.00	25600.00	25600.00
1364.25	0.00	4.25	28900.00	28900.00	28900.00	28900.00	28900.00	28900.00	28900.00
1364.50	0.00	4.50	32400.00	32400.00	32400.00	32400.00	32400.00	32400.00	32400.00
1364.75	0.00	4.75	36100.00	36100.00	36100.00	36100.00	36100.00	36100.00	36100.00
1365.00	0.00	5.00	40000.00	40000.00	40000.00	40000.00	40000.00	40000.00	40000.00
1365.25	0.00	5.25	44100.00	44100.00	44100.00	44100.00	44100.00	44100.00	44100.00
1365.50	0.00	5.50	48400.00	48400.00	48400.00	48400.00	48400.00	48400.00	48400.00
1365.75	0.00	5.75	52900.00	52900.00	52900.00	52900.00	52900.00	52900.00	52900.00
1366.00	0.00	6.00	57600.00	57600.00	57600.00	57600.00	57600.00	57600.00	57600.00
1366.25	0.00	6.25	62500.00	62500.00	62500.00	62500.00	62500.00	62500.00	62500.00
1366.50	0.00	6.50	67600.00	67600.00	67600.00	67600.00	67600.00	67600.00	67600.00
1366.75	0.00	6.75	72900.00	72900.00	72900.00	72900.00	72900.00	72900.00	72900.00
1367.00	0.00	7.00	78400.00	78400.00	78400.00	78400.00	78400.00	78400.00	78400.00
1367.25	0.00	7.25	84100.00	84100.00	84100.00	84100.00	84100.00	84100.00	84100.00
1367.50	0.00	7.50	90000.00	90000.00	90000.00	90000.00	90000.00	90000.00	90000.00
1367.75	0.00	7.75	96100.00	96100.00	96100.00	96100.00	96100.00	96100.00	96100.00
1368.00	0.00	8.00	102400.00	102400.00	102400.00	102400.00	102400.00	102400.00	102400.00
1368.25	0.00	8.25	108900.00	108900.00	108900.00	108900.00	108900.00	108900.00	108900.00
1368.50	0.00	8.50	115600.00	115600.00	115600.00	115600.00	115600.00	115600.00	115600.00
1368.75	0.00	8.75	122500.00	122500.00	122500.00	122500.00	122500.00	122500.00	122500.00
1369.00	0.00	9.00	129600.00	129600.00	129600.00	129600.00	129600.00	129600.00	129600.00
1369.25	0.00	9.25	136900.00	136900.00	136900.00	136900.00	136900.00	136900.00	136900.00
1369.50	0.00	9.50	144400.00	144400.00	144400.00	144400.00	144400.00	144400.00	144400.00
1369.75	0.00	9.75	152100.00	152100.00	152100.00	152100.00	152100.00	152100.00	152100.00
1370.00	0.00	10.00	160000.00	160000.00	160000.00	160000.00	160000.00	160000.00	160000.00



SCALE: 1" = 60'

DRAINAGE PLAN

PORTOFINO

CITY OF WICHITA, KANSAS

PLANS & ESTIMATES PREPARED BY:
TUTTLE & ASSOCIATES, INC. 8718 E. 30TH PL., WICHITA, KS 67218-3587

PROJECT NUMBER: _____

REVISION	BY	DATE

DESIGNED BY: J. TUTTLE	APPROVED:
DRAWN BY: _____	RECOMMENDED:
CHECKED BY: _____	RECOMMENDED:
FILED BY: _____	RECOMMENDED:
DATE: _____	DATE: _____
ATLAS PAGE NO: _____	SHEET 4 OF 11 SHEETS