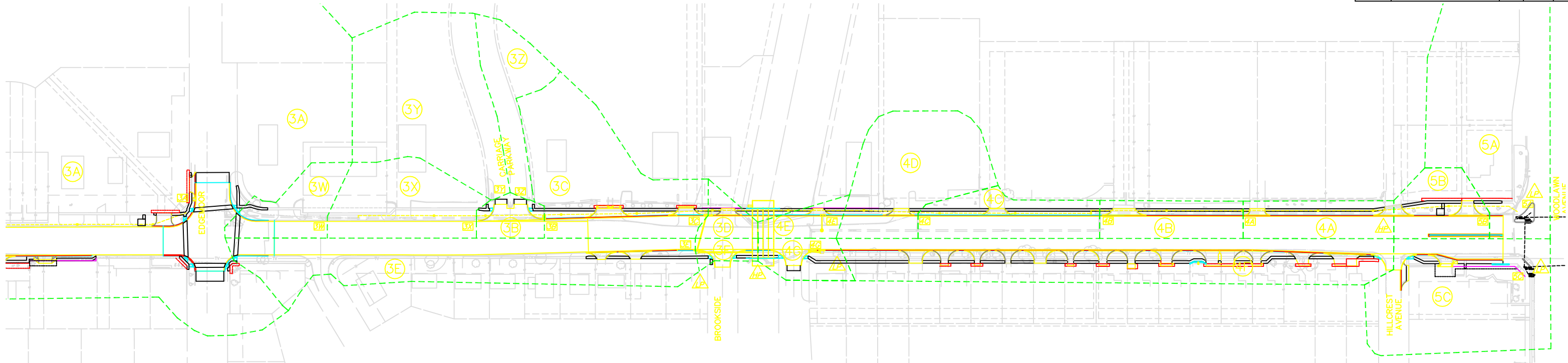


STATE	PROJECT NO.	YEAR	SHEET NO	TOTAL SHEETS
KANSAS	87 N-0135-01	2005	109	137



DRAINAGE ANALYSIS SUMMARY

CENTRAL - OLIVER TO WOODLAWN														HYDROLOGIC SOIL GROUP B													
Area ID	Area (ac.)	C 5-yr	C 100-yr	Elev Max (ft.)	Elev Min (ft.)	Flow Length (ft.)	Tc (5-yr) Calc (min.)	Tc (100-yr) Calc (min.)	Tc (5-yr) min (min.)	Tc (100-yr) min (min.)	Intensity (5-yr) (in./hr.)	Intensity (100-yr) (in./hr.)	Q 5-yr (cfs)	Upstream Spill-over (cfs)	Q 5-yr Total (cfs)	Q 100-yr (cfs)	Inlet ID	Inlet Size 5-yr (ft.)	Q Intercept (cfs)	Q Bypass (cfs)	Comments						
1A	82.0	0.50	0.64	200.00	178.00	2500	56.35	43.20	56	43	2.25	4.49	92.25		92.25	235.64			29	63.25	Existing inlets off project						
1B	0.08	0.85	0.91	178.50	177.31	175	6.77	5.14	15	15	4.56	7.37	0.31	48.21	48.52	0.54	1B, Type 1, on-grade	15	21.64	26.88							
1C	0.13	0.68	0.80	177.51	176.01	125	7.95	5.68	15	15	4.56	7.37	0.40	26.88	27.28	0.77	1C, Type 1, on-grade	15	14.86	12.42							
1D	0.48	0.68	0.80	177.50	174.00	250	10.69	7.63	15	15	4.56	7.37	1.49	12.42	13.91	2.83											
1E	0.6	0.68	0.80	178.25	174.00	500	17.85	12.75	17	15	4.31	7.37	1.76	15.04	16.80	3.54											
2A	0.52	0.50	0.64	196.00	193.00	200	13.34	10.23	15	15	4.56	7.37	1.19		1.19	2.45	2A, Type 1A, on-grade	5	0.68	0.51							
2B	0.76	0.50	0.64	197.30	193.30	280	16.05	12.30	16	15	4.43	7.37	1.68		1.68	3.58	2B, Type 1A, on-grade	5	0.73	0.96							
2C	0.38	0.50	0.64	196.00	193.00	220	14.45	11.08	15	15	4.56	7.37	0.87		0.87	1.79	2C, Type 1A, on-grade	5	0.52	0.34							
2D	0.63	0.50	0.64	195.50	191.50	320	17.93	13.75	17	15	4.31	7.37	1.36		1.36	2.97	2D, Type 1A, on-grade	5	0.76	0.60							
2EE	0.55	0.50	0.64	194.35	189.35	150	8.86	6.79	15	15	4.56	7.37	1.25	1.81	3.06	2.59	2EE, Type 1A, on-grade	10	1.93	1.13							
2E	0.98	0.50	0.64	190.50	183.50	460	20.14	15.44	20	15	4.00	7.37	1.96	1.13	3.09	4.62	2E, Type 1A, on-grade	10	1.81	1.28							
2F	0.48	0.50	0.64	189.50	183.50	290	14.43	11.07	15	15	4.56	7.37	1.09		1.09	2.26	2F, Type 1, on-grade	5	0.56	0.54							
2G	0.60	0.50	0.64	181.75	174.75	330	15.27	11.71	15	15	4.56	7.37	1.37	0.54	1.91	2.83	2G, Type 1, on-grade	5	0.88	1.03							
2H	0.74	0.50	0.64	181.60	174.60	320	14.88	11.41	15	15	4.56	7.37	1.69	1.28	2.97	3.49	2H, Type 1, on-grade	10	1.81	1.16							
2I	0.13	0.50	0.64	175.25	174.25	160	15.98	12.25	15	15	4.56	7.37	0.30	1.03	1.33	0.61											
2J	0.50	0.50	0.64	175.25	174.25	250	23.18	17.61	23	17	3.73	7.00	0.93	1.16	2.09	2.25											
2J+1D															16.00		2J, Type 1, sump	30	16.00		3- 10' x 3' RCB, north side						
2I+1E															18.13		2I, Type 1, sump	30	18.13		3- 10' x 3' RCB, south side						
3W	0.49	0.50	0.64	187.25	185.75	200	16.81	12.89	16	15	4.43	7.37	1.09		1.09	2.31	3W, Type 1, on-grade	5	0.72	0.37							
3X	0.92	0.50	0.64	188.00	183.50	275	15.20	11.65	15	15	4.56	7.37	2.10	0.37	2.47	4.34	3X, Type 1A, on-grade	5	1.15	1.32							
3Y	1.92	0.50	0.64	190.00	184.00	400	18.87	14.47	18	15	4.20	7.37	4.03		4.03	9.06	3Y, Type 1, on-grade	10	2.44	1.60							
3Z	0.60	0.50	0.64	190.00	184.00	400	18.87	14.47	18	15	4.20	7.37	1.26		1.26	2.83	3Z, Type 1, on-grade	5	0.71	0.55							
3A	37.0	0.50	0.64	196.00	186.00	2000	60.85	46.65	60	46	2.15	4.33	39.78		39.78	102.53					Existing inlets off project						
3B	0.23	0.75	0.85	185.00	181.92	150	6.07	4.34	15	15	4.56	7.37	0.79	3.47	4.26	1.44	3B, Type 1, on-grade	5	1.50	2.75		Existing inlet (retrofit)					
3C	1.64	0.75	0.85	188.00	178.84	450	10.55	7.53	15	15	4.56	7.37	5.61	2.75	8.36	10.27					Existing inlet						
3D	0.19	0.68	0.80	181.00	178.84	100	5.85	4.18	15	15	4.56	7.37	0.59		0.59	1.12											
3E	1.91	0.68	0.80	188.00	178.50	925	22.79	16.28	22	16	3.81	7.18	4.95		4.95	10.97											
3F	0.13	0.68	0.80	180.50	178.50	100	6.00	4.29	15	15	4.56	7.37	0.40		0.40	0.77											
4A	0.51	0.50	0.64	195.50	191.15	275	15.37	11.78	15	15	4.56	7.37	1.16		1.16	2.41	4A, Type 1, on-grade		0.68	0.49	Existing inlet						
4B	0.49	0.50	0.64	192.50	186.00	300	14.46	11.08	15	15	4.56	7.37	1.12	0.49	1.60	2.31	4B, Type 1, on-grade		0.57	1.03	Existing inlet						
4C	0.66	0.50	0.64	188.50	179.00	375	15.34	11.76	15	15	4.56	7.37	1.50	1.03	2.54	3.11	4C, Type 1, on-grade		1.51	1.03	Existing inlet						
4D	1.35	0.68	0.80	181.50	177.00	325	12.23	8.73	15	15	4.56	7.37	4.19	1.03	5.21	7.96											
4E	0.11	0.68	0.80	180.00	177.00	200	9.34	6.67	15	15	4.56	7.37	0.34		0.34	0.65											
4F	2.32	0.68	0.80	195.50	177.00	1100	21.08	15.06	21	15	3.90	7.37	6.15		6.15	13.68											
4G	0.17	0.68	0.80	180.00	177.00	200	9.34	6.67	15	15	4.56	7.37	0.53		0.53	1.00											
3C+3D															8.95		3C, Type 1A, sump	10	8.95								
3E+3F															5.35		3E, Type 1A, sump	5	5.35								
4D+4E															5.55		4E, Type 1A, sump	5	5.55								
4F+4G															6.68		4G, Type 1A, sump	5	6.68								
5A	5.20	0.68	0.80	195.00	191.00	850	28.34	20.24	28	20	3.37	6.53	11.92	0.75	12.67	27.16					Existing inlets off project						
5B	0.51	0.68	0.80	194.50	191.40	275	12.05	8.60	15	15	4.56	7.37	1.58		1.58	3.01	5B, Type 1, on-grade		0.83	0.75	Existing inlet						
5C	1.79	0.85	0.91	195.50	191.26	340	7.71	5.86	15	15	4.56	7.37	6.94		6.94	12.00	5C, Type 1, sump				Existing inlet						
RCB 1*																											
RCB 2#																											

LEGEND

- = Drainage Area
- = Inlet I.D. Number
- = High Point/Low Point
- = Drainage Basin Boundary



\* Drainage area shown includes flow from areas 1 and 1# Drainage area shown includes flow from area 3.

0.5 0.64 Res.  
0.85 0.91 95% com.  
0.68 0.87 70% com.

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NO.	DATE	REVISIONS	BY	APP'D
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION

**CENTRAL STREET IMPROVEMENTS DRAINAGE ANALYSIS SUMMARY**

PROJ. NO. 87 N-0135-01 SEDGWICK CO.

MKEC ENGINEERING CONSULTANTS, INC.  
WICHITA, KANSAS

DESIGNED BY:	ASH	CHECKED BY:	GJA
DRAWN BY:	WNJ	DATE:	DEC 05

SHEET 109 OF 137