

**Project narrative:** The site is located on southeast of Broadway and Evan St. (3040 S Broadway.) There is existing asphalt parking lot on east and rest of the property is covered by grass. The proposed development is to build a car lot in it. This include parking and a small building. The proposed drainage pattern follows the existing pattern.

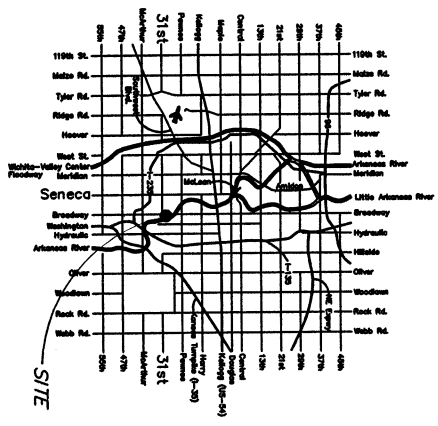
**EXISTING CONDITION:**  
 TOTAL SITE AREA = 0.79 ACRES  
 HYDROLOGICAL SOIL GROUP = C  
 West Basin(1) = 0.33 Acres, Draining to Broadway  
 East Basin(2) = 0.46 Acres, Draining to East

EXISTING DRAINAGE CALCULATIONS							REMARKS
DRAINAGE AREA	ACRES	Tc min	CN	Q2	Q5	Q10	
A	0.33	15	90	1.06	1.51	1.76	2.14
B	0.46	15	82	1.11	1.72	2.10	2.6
Total Discharge from Site							2.17

DEVELOPED DRAINAGE CALCULATIONS							REMARKS
DRAINAGE AREA	ACRES	Tc min	CN	Q2	Q5	Q10	
1	0.33	15	96	1.18	1.60	1.85	2.18
2	0.46	15	96	1.64	2.23	2.58	3.04
Total discharge from Site							2.82

**DEVELOPED CONDITION:**  
 TOTAL SITE AREA = 0.79 ACRES  
 HYDROLOGICAL SOIL GROUP = C  
 LAND USE = CAR LOT  
 West Basin(1) = 0.33 Acres, Draining to Broadway  
 East Basin(2) = 0.46 Acres, Draining to East

**Hydraulic Calculation for 10" PVC from Basin (1)**  
 Drainage area (basin 1) = 0.33 acres  
 100-yr flow, basin (1) = 2.76 cfs  
 Slope of HGL of 10" Pipe from basin (1) = 1.50 %  
 Capacity of 10" PVC = 3.17 cfs  
 Actual flow in Pipe = 2.76 cfs, OK

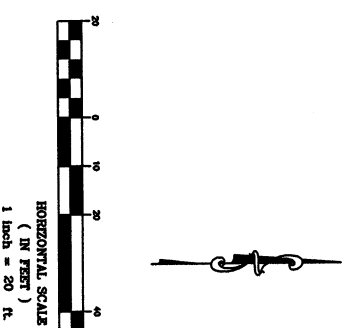


**Engineer's Notes:**

1. Water quality and channel protection is not required as the site is less than 1.0 acre.
2. Site drainage calculations developed using the SCS Method for peak flow.
3. Weighted CN and I values were established based on site conditions.
4. A positive overflow from basin 1, will be maintained through the access drive entrance from Broadway.
5. Depth of water ponding in basin 1 will be limited to 6" before it drains through the access drive.
6. Basin 2 sheet drains to the property on east.
7. A cross lot drainage agreement will be made to the property on east to protect the outflow from basin 2.
8. Future grading plan shall follow the drainage pattern as shown on plan.
9. There is no sign of wetland and the property is in zone X' (500-yr flood zone) according to FRM Panel 2017300355E, February, 2007.

**Legal Description:**  
 Beginning of a point 822.5 feet North of the Southwest Corner of Government Lot 4 in Section 4, Township 28 South, Range 1 East of the 8th Principal Meridian, Sedwick County, Kansas; thence East parallel with the South line of said Lot 4 230 feet; thence South parallel with the West line of said Lot 4 182.5 feet; thence West parallel with the South line of said Lot 4 230.25 feet; more or less; to the East line of U.S. 81 Highway; thence Northwesterly along said Highway to a point 822.5 feet North of the South line of said Lot 4; thence East 91.7 feet; more or less; to the place of beginning; EXCEPT that part described for street in Area, Book 207, Page 376, and EXCEPT the East 100 feet.

**Benchmark:**  
 City of Wichita disc on the Northwest corner of the intersection of Broadway and 31st Street South, approximately 45 feet West and 42 feet North of Centerlines: 1281.12 NAVD 88



Campbell Auto Addition  
 Drainage Plan  
 Wichita, Kansas

**Kemiller**  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 11283  
 KANSAS  
 EXPIRES 12/31/16

PROJECT NUMBER	DATE	SHEET
	08/2011	1.0
FILE	DATE	
DRAINAGE	REVISION	