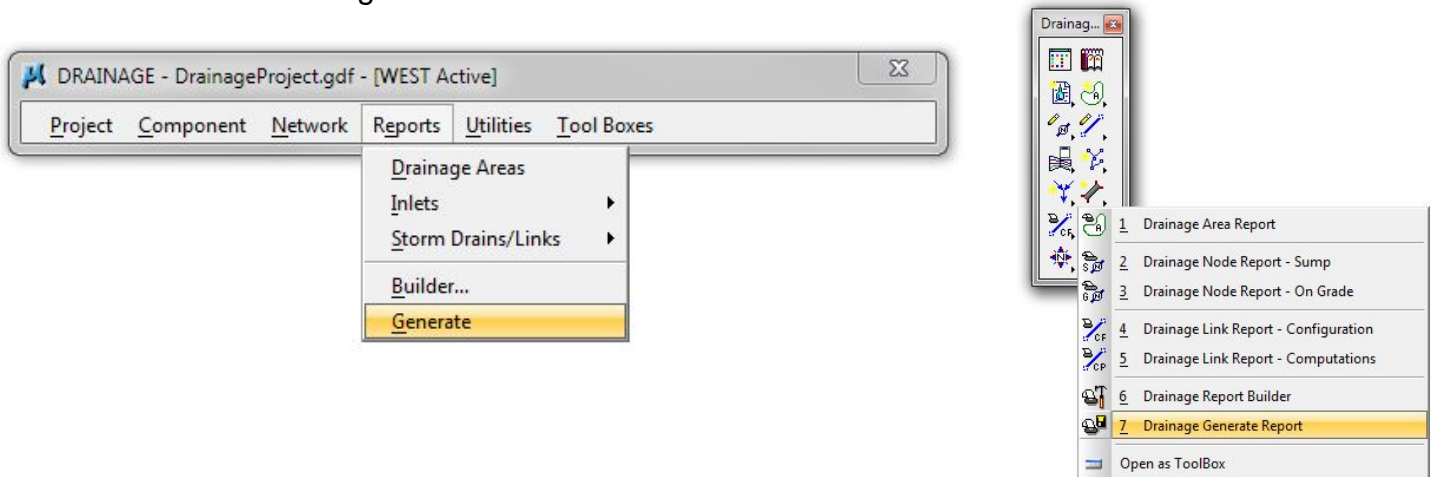


12. Reports

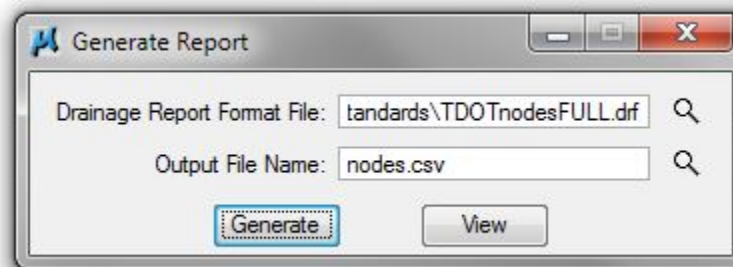
This exercise shows the user the report options by creating standard and customized reports.

12.1 Customized Reports

- a) Select **Reports > Generate** from the Drainage Menu Bar or **Drainage Generate Report** from the Drainage Toolbar:



- b) Use the browse button to select report format file **TDOTNodesFULL.drf** (from **C:\Users\Public\Geopak Standards**). Click in the Output File Name area and type in **nodes.csv** as the file name. Click **Generate** to create the report file.



- c) Use Excel to open and review **nodes.csv** report file.
 d) Access report format **TDOTlinksFULL.drf** and generate **links.csv** report file.
 e) Use Excel to open and review **links.csv** report file.

12.2 Excel Tab Builder

- Open Excel and click **File > New**
- Click **My templates > TDOT English Tab Quantities > Storm Drainage Structure Tab Builder**

If the "My templates" button does not provide you with the Storm Drainage Structure Tab Builder excel file, then navigate to **C:\Users\Public\Office Standards\TDOT English Tab Quantities** and open the file there. Do a "Save As" and save it into your Project folder before making any changes.

- Click **Build Catch Basins and Manholes Block**.
- Navigate to the project folder, select the file **nodes.csv** created in Exercise 12.1 and click open. The tab block is created.

CATCH BASINS														
SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSION	DEPTH (FT.)	STANDARD DRAWINGS	TYPE 12 C.B. 611-12.01 0' - 4'	TYPE 12 C.B. 611-12.02 4' - 8'	TYPE 42 C.B. 611-42.01 0' - 4'	TYPE 43 C.B. 611-43.02 4' - 8'	REMARKS
	CL	11+45.00	26	CB-13	865.16	#12	4X3	4.59			1			
	CL	12+00.00	-26	CB-12	863.9	#12	4X3	5.9			1			
	CL	14+00.00	-26	CB-14	860.14	#12	4X3	6.64			1			
	CL	3+70.00	-26	CB-1	880.97	#12	4X3	3.88		1				
	CL	3+70.00	26	CB-2	880.95	#12	4X3	4.05			1			
	CL	3+70.00	35	CB-5	881.51	#42	4X4	3.8				1		
	CL	6+20.00	-26	CB-3	874.68	#12	4X3	5.24			1			
	CL	6+20.00	26	CB-4	874.66	#12	4X3	3.88		1				
	CL	6+20.00	-50	CB-7	874.11	#43	8X4	4.42					1	
	CL	8+00.00	26	CB-9	870.78	#12	4X3	4.21			1			
	CL	8+00.00	38	CB-10	872.38	#43	8' DIA	4.49					1	
	CL	9+30.00	-26	CB-6	868.55	#12	4X3	4.42			1			
	CL	9+30.00	-35	CB-8	869.19	#42	4X4	3.8				1		
	CL	9+30.00	26	CB-11	868.52	#12	4X3	4.38			1			
TOTALS										2	8	2	2	

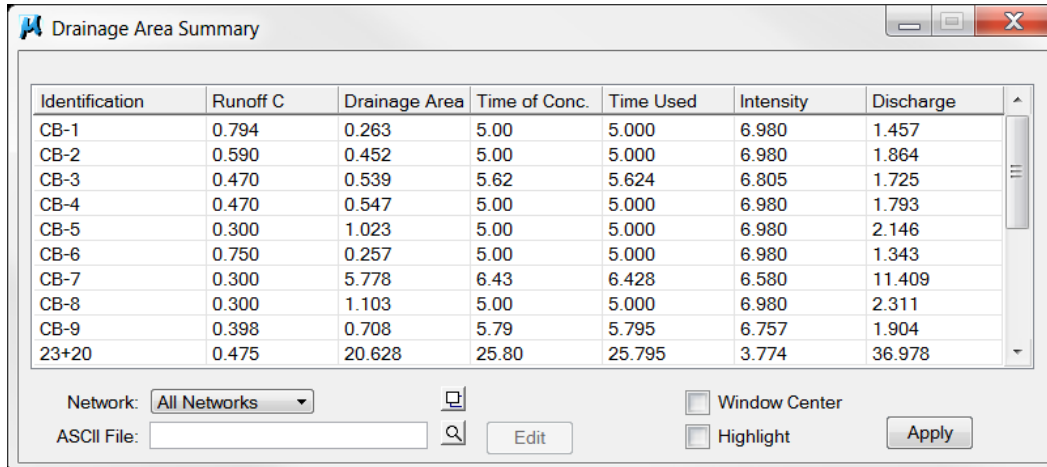
- Repeat Step 1 through Step 4 using the **links.csv** file and the **Storm Drainage Pipe Tab Builder**

STORM DRAINAGE PIPES									
SHEET NO.	FROM		TO		%	RCP CLASS III			
	CODE	OUTLET ELEV.	CODE	INLET ELEV.		607-03.02 18" (L.F.)	607-05.02 24" (L.F.)	607-06.02 30" (L.F.)	607-07.02 36" (L.F.)
	CB-1	877.09	CB-3	870.93	2.50	246			
	CB-2	876.90	CB-4	870.95	2.42	246			
	CB-3	869.44	CB-6	864.30	1.68		306		
	CB-4	870.78	CB-9	867.07	2.11	176			
	CB-5	877.71	CB-2	877.07	9.82	6			
	CB-6	864.13	CB-12	859.65	1.68		266		
	CB-7	869.69	CB-3	869.61	0.40		19		
	CB-8	865.39	CB-6	864.80	9.13	6			
	CB-9	866.57	CB-11	864.31	1.79		126		
	CB-10	867.89	CB-9	867.07	11.00	7			
	CB-11	864.14	CB-13	860.74	1.61		211		
	CB-12	858.00	CB-14	854.00	2.10			191	
	CB-13	860.57	CB-12	859.65	1.27		72		
	CB-14	853.50	EW-1	850.42	4.18				74
TOTALS						688	1000	191	74

12.3 Standard Reports

Geopak Drainage also provides several standard reports which are useful during storm drainage network design. The current Active Network will determine which drainage features are listed.

- a) Select **Reports > Drainage Areas** from the Drainage Menu Bar.

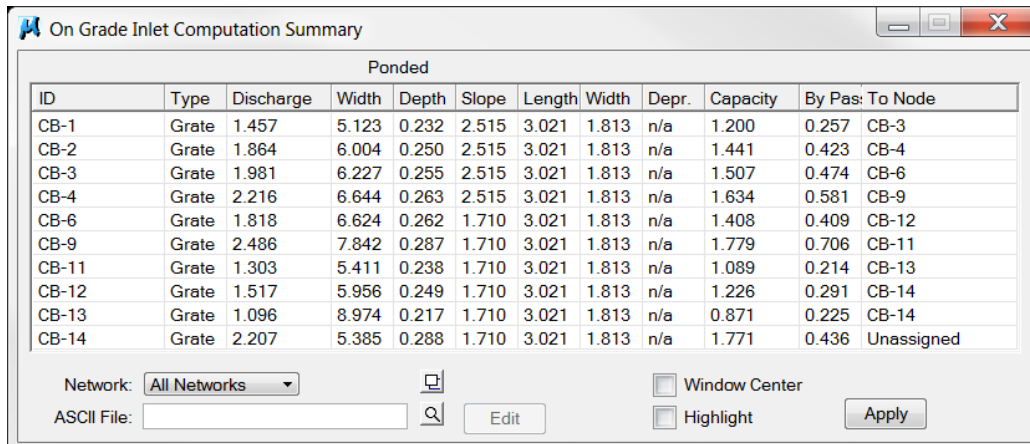


Drainage Area Summary

Identification	Runoff C	Drainage Area	Time of Conc.	Time Used	Intensity	Discharge
CB-1	0.794	0.263	5.00	5.000	6.980	1.457
CB-2	0.590	0.452	5.00	5.000	6.980	1.864
CB-3	0.470	0.539	5.62	5.624	6.805	1.725
CB-4	0.470	0.547	5.00	5.000	6.980	1.793
CB-5	0.300	1.023	5.00	5.000	6.980	2.146
CB-6	0.750	0.257	5.00	5.000	6.980	1.343
CB-7	0.300	5.778	6.43	6.428	6.580	11.409
CB-8	0.300	1.103	5.00	5.000	6.980	2.311
CB-9	0.398	0.708	5.79	5.795	6.757	1.904
23+20	0.475	20.628	25.80	25.795	3.774	36.978

Network: All Networks
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- b) Select **Reports > Inlets > On Grade Inlets** from the Drainage Menu Bar.



On Grade Inlet Computation Summary

Ponded

ID	Type	Discharge	Width	Depth	Slope	Length	Width	Depr.	Capacity	By Pas: To Node
CB-1	Grate	1.457	5.123	0.232	2.515	3.021	1.813	n/a	1.200	0.257 CB-3
CB-2	Grate	1.864	6.004	0.250	2.515	3.021	1.813	n/a	1.441	0.423 CB-4
CB-3	Grate	1.981	6.227	0.255	2.515	3.021	1.813	n/a	1.507	0.474 CB-6
CB-4	Grate	2.216	6.644	0.263	2.515	3.021	1.813	n/a	1.634	0.581 CB-9
CB-6	Grate	1.818	6.624	0.262	1.710	3.021	1.813	n/a	1.408	0.409 CB-12
CB-9	Grate	2.486	7.842	0.287	1.710	3.021	1.813	n/a	1.779	0.706 CB-11
CB-11	Grate	1.303	5.411	0.238	1.710	3.021	1.813	n/a	1.089	0.214 CB-13
CB-12	Grate	1.517	5.956	0.249	1.710	3.021	1.813	n/a	1.226	0.291 CB-14
CB-13	Grate	1.096	8.974	0.217	1.710	3.021	1.813	n/a	0.871	0.225 CB-14
CB-14	Grate	2.207	5.385	0.288	1.710	3.021	1.813	n/a	1.771	0.436 Unassigned

Network: All Networks
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Sag Inlets

Sag Inlet Computation Summary

- c) Select **Reports > Storm Drains/Links> Link Configuration** from the Drainage Menu Bar.

Storm Drain Configuration Summary for Network WEST - Calculations Current

Upstream		Downstream										Upstream	Downstream
ID	ID	ID	Discharge	Length	Shape	#	Rise	Span	n	Slope		Invert	Invert
SS-14	CB-14	EW-1	31.612	73.540	Circ...	1	3.000	n/a	0.013	4.182		853.500	850.425
SS-12	CB-12	CB-14	30.494	190...	Circ...	1	2.500	n/a	0.013	2.098		858.000	854.000
SS-6	CB-6	CB-12	17.408	265...	Circ...	1	2.000	n/a	0.013	1.684		864.128	859.652
SS-13	CB-13	CB-12	12.726	72.257	Circ...	1	2.000	n/a	0.013	1.270		860.569	859.652
SS-3	CB-3	CB-6	14.399	306...	Circ...	1	2.000	n/a	0.013	1.681		869.443	864.298
SS-8	CB-8	CB-6	2.311	6.460	Circ...	1	1.500	n/a	0.013	9.127		865.388	864.798
SS-11	CB-11	CB-13	12.156	211...	Circ...	1	2.000	n/a	0.013	1.611		864.138	860.739
SS-1	CB-1	CB-3	1.457	246...	Circ...	1	1.500	n/a	0.013	2.503		877.090	870.931
SS-7	CB-7	CB-3	11.409	19.460	Circ...	1	2.000	n/a	0.013	0.400		869.691	869.613
SS-9	CB-9	CB-11	11.735	126...	Circ...	1	2.000	n/a	0.013	1.795		866.570	864.308

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Link Hydraulic Calculations

Storm Drain Hydraulic Calculation Summary for Network WEST - Calculations Current

Upstream		Downstream		Upstream		Downstream		Uniform				Actual	
ID	ID	ID	HGL	HGL	Discharge	Capacity	Slope	Loss	Velocity	Depth	Velocity	Depth	
SS-14	CB-14	EW-1	856.237	851.489	31.612	146.718	4.181	0.851	15.703	0.982	14.069	1.065	
SS-12	CB-12	CB-14	861.997	855.280	30.494	63.904	2.097	2.031	12.181	1.270	12.052	1.280	
SS-6	CB-6	CB-12	866.140	860.760	17.408	31.583	1.689	0.440	9.752	1.107	9.736	1.109	
SS-13	CB-13	CB-12	862.211	861.997	12.726	27.419	1.277	0.141	8.129	0.997	4.051	2.000	
SS-3	CB-3	CB-6	872.281	865.288	14.399	31.554	1.677	1.404	9.285	0.990	9.285	0.990	
SS-8	CB-8	CB-6	866.351	865.120	2.311	34.138	9.125	0.069	10.461	0.274	8.311	0.322	
SS-11	CB-11	CB-13	865.466	861.648	12.156	30.889	1.604	0.010	8.746	0.909	8.746	0.909	
SS-1	CB-1	CB-3	877.737	871.232	1.457	17.878	2.504	0.094	5.787	0.300	5.787	0.300	
SS-7	CB-7	CB-3	872.550	872.281	11.409	15.391	0.400	0.205	5.059	1.349	3.632	2.000	
SS-9	CB-9	CB-11	869.185	865.178	11.735	32.600	1.797	1.313	9.036	0.864	8.959	0.869	

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