

NMDOT 8th ST. and I-40

RETENTION / DETENTION POND

Table 8P – NMDOT 8th St. & I-40 Retention / Detention Pond

NOTE – This pond not modeled with a detention pond routing

TABLE 8P

NMDOT RETENTION / DETENTION POND at 8th St. and I-40 East Bound Frontage Road (d)**ELEVATION-STORAGE-DISCHARGE DATA (c)**

NOTE - This pond was NOT MODELED AS A POND IN SWMM, The RETENTION VOLUME IS INCLUDED IN THE SUBCATCHMENT DATA as Additional Depth of Depression Storage on the Impervious Area in Subcatchment B41 that is 94% impervious

Retention Vol. ac-ft = 2.5903 Basin Area ac. = 24.82
94% of Basin Area ac.= 23.33

Convert Retention Pond Volume to Equivalent Depth inches = 1.33 Add this to SWMM
Impervious Typical depression storage assume is 0.1 in. therefore

THEREFORE now use this value for Impervious depth of depression storage for Subcatchment B41 **1.43 inches**

grey box means must input data

Contour Elevation	Depth SWMM	Incremental Depth	Contour Area SWMM	Incremental Volume	Incremental Volume	Cumulative Volume	Comment
(ft)			(sq ft)	(cu ft)	(ac-ft)	(ac-ft)	
0			0			0.0000	
4956	0	0	0	0	0.0000	0.0000	
4958	2	2	25776	25776	0.5917	0.5917	
4960	4	2	30640	56416	1.2951	1.8869	
4961	5	1	30640	30640	0.7034	2.5903	invert elevation of 24-inch outfall pipe (d)
4962	6	1	40283	35462	0.8141	3.4044	
4964	8	2	59696	99979	2.2952	5.6996	Emerg. Spill. Elev. (only soil top of pond)

(d) This pond has a 24-inch dia. principal spillway pipe that has a steel plate on the top half of the pipe to restrict flows. This pipe invert is located at about 1/2 of the pond depth. Therefore, the pond volume below the 24-inch pipe invert is RETENTION and will percolate and evaporate.

Area - Elevation Data obtained from contours on the drainage basin map (generated from Lidar)