Valley SELF STORAGE

Valley Industrial Park, Lot 6F Self Storage Facility TP15-10

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Lot 6F Application Overview What is there today?

oAboveground pond

- o6.60 Acres Drain there currently
- o4.35 Acres Impervious exist offsite

Existing pond is non-compliant with current State requirements



What is being provided?

oUnderground pond

o6.60 Total Acres will continue to drain there

o5.58 Acres Impervious will be accounted for



- The proposed stormwater management facility brings the legacy storm drainage up to code requirements.
- If a Lot Owner wished to redevelop their site after the Valley Storage SWM installation, within the stormwater standards that currently govern, they would not need to provide additional quantity treatment.



TE: HATCHED AREAS SHOW IMPERVIOUS AREA USED TO CALCULATE IMPERVIOUS FACTORS. THE AREAS USED TO CALCULATE IMPERVIOUS FACTORS ARE BASED OFF AREA DRAINING TO THE POND. OTHER OFFSITE AREAS ARE NOT UTILIZED IN THIS ANALYSIS.







 Based on the downstream analysis as seen in the Application, the capacity provided in the downstream pipes is 35cfs allowable for the 50-year storm event.

- oThe SWM pond volume increases 50%.
- oThe SWM design meets the current State requirements

PRE VS. POST ROUTING (QUANTITATIVE) SUMMARY		
	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YEAR	ELEV = 536.35'	ELEV = 536.19'
	STORAGE = 7,077 CF	STORAGE = 10,759 CF
	DRAWDOWN TIME = 10.25 HR	DRAWDOWN TIME = 12.05 HR
10-YEAR	FLOW RATE = 8.37 CFS	FLOW RATE = 27.10 CFS (SEE NOTE 1)
50-YEAR	FLOW RATE = 17.61 CFS	FLOW RATE = 34.82 CFS (SEE NOTE 1)
NOTES:		

1. BASED ON ZICHT ANALYSIS (SHEET 13, NOTE 1.5), 35 CFS ALLOWABLE DISCHARGE.







Potential Additional Storage Capacity

Potential for an additional 240' of detention system
Additional 3,637 CF of storage
Potential total storage area of 14,395 CF
Double the amount of storage which currently exists



Hydraulic Grade Line EX2-EX1



 O 10-Year Water Surface Elevation from Proposed Pond Design create a Hydraulic Grade Line as seen here with the dashed line inside the pipe along the Southern border of the property.

- The 10-Year Water Surface Elevation has been maintained with this proposed design.
- There are no concerns with ponding water at either end of the culvert on this property.

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