



Planning & Development
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Memo

Date: August 4, 2023

To: Planning Board

From: Michael G. Livingston, Town Engineer/Planner

Re: Anchor Inn – Map 27, Lot 4
Stormwater Management Review

Information Provided

- Design Plans by Civil Consultants, Dated 6/13/23
- Pre-Development Stormwater Plan, Sht. D1 dated 6/13/23
- Post-Development Stormwater Plan, Sht. D2 dated 6/13/23
- Stormwater Management Plan dated May 2023 by Neil J Rapoza. PE # 12169 of Civil Consultants

Analysis

Methodology:

- HydroCAD model good
- Rainfall intensity rates good
- Water Quality approach good
- Analysis Point, consistent pre vs post, location good
- Total area pre vs post area the same, good

Pre-Development:

Basin Limits: Contours provided, two basins have been delineated. Both basins represented well per divisions in the elevations

Travel Paths: Both paths well described and modelled. Sheet and Shallow flow lengths could be longer, but model is conservative, good.

Areas: Surface types and areas good. Offsite RV park at 65% impervious.

Reaches: 2R good for road overflow conditions, cross-section type/area available?
Out 1 good as comparison point.

Ponds: Ponds 2P and 1P modelled. Storage/volume information needed to analyze peak conditions. Spot elevations along edge of pavement available?

Post-Development:

Basin Limits: Contours provided, three basins have been delineated. Basins represented well per divisions in the elevations and proposed contours

Travel Paths: Paths well described and modelled. Sheet and Shallow flow lengths could be longer, but model is conservative, good.

Areas: Surface types and areas good.

Reaches:

- 2R and 20R inflow depth 4.32" Pre vs 4.48" Post but reduction in flow?

Ponds:

- Ponds 20P and 10P modelled. Storage/volume information needed to analyze peak conditions. Spot elevations along edge of pavement available?
- Secondary outlet to JF-1 in model as 147.25, but on plans appears to be outlet C of DMH 6 which is labelled as 48.00.
- See comments below

Model Recommendations/Comments:

- DMH 6 should be modelled as a separate Pond.
- 20P has a higher flood elevation than Pre 2P. 10S has a higher flow than 1S and primary flow from JF-1 added as well. Additional flooding onto abutter is a concern at the existing 18" culvert.
- 10P when compared to 1P indicates flooding across the road and into Route 1 but the same as Pre development conditions.
- 2R and 20R both indicate flooding across the road but with an increase in depth Post
- The extent of the peak elevations/flooding on the ground at the abutter Pre vs Post should be verified with some additional spot elevations. The existing pavement elevations should be available.
- See attached sketch with highlights.