



# Town of Simsbury

933 HOPMEADOW STREET

P.O. BOX 495

SIMSBURY, CONNECTICUT 06070

*Engineering Department*

## MEMORANDUM

**To:** James Rabbitt, AICP Director of Planning and Community Development

**From:** Jerome F. Shea, P.E., Town Engineer *JFS*

**Subject:** Application Comments – Casterbridge Crossing Roadway Extension

**Date:** April 4, 2017

I have completed a review of the application documents received on March 28, 2017 that included the following:

1. Plans Entitled “Grading, Drainage, Soil Erosion and Sediment Control Plan, Prepared for Dorset Crossing, LLC, Casterbridge Crossing, Simsbury, CT” by F.A. Hesketh & Associates, Inc. revised to 03-08-2017 along with associated plan, profile and details.
2. Report Entitled “Supplemental Culvert & Floodplain Analysis Casterbridge Crossing, Re-Subdivision and Inland Wetland Applications, Dorset Crossing PAD, Simsbury, Connecticut” by F.A. Hesketh & Associates, Inc., dated 03-24-2017.

Dorset Crossing, LLC proposes to extend the existing road, Casterbridge Crossing, and install a temporary cul-de-sac on the north side of the roadway immediately following the crossing of Saxton Brook. The roadway construction includes the installation of a 5’x5’ Concrete Box Culvert with 12” of gravel to form a natural bottom. The culvert will replace the two existing 24” ACCMP culverts. The project includes the extension of utilities to serve future development and future extension of Casterbridge Crossing. The existing sidewalk on the south side of the road will be extended to the temporary cul-de-sac as well.

Grassed swales will be utilized to convey stormwater runoff around the temporary cul-de-sac. Roadway drainage infrastructure consists of two proposed catch basins that will route through a hydrodynamic separator prior to direct discharge to the box culvert. A twelve foot wide maintenance access on the upstream side of the culvert is proposed to facilitate future maintenance.

Currently, the subject area is Town-owned right-of-way with a temporary cul-de-sac located on the south side of the roadway. The roadway surface consists of a base course of asphalt. The crossing at Saxton Brook consists of two 24” ACCMP, which provides approximately 6.3 square feet of open area for conveyance of the brook.

The proposed culvert will increase the culvert opening to 20 square feet. The applicant has provided sufficient analysis and design documentation to support the proposed improvement.

The USDA NRCS Soil Survey indicated that the soils on the site are generally Udorthents-Pits complex, gravelly. These soils are moderately well drained soils with a restrictive layer that is typically greater than 80 inches deep. The proposed construction will result in approximately 2,300 square feet of wetlands disturbance.

Below are some additional comments for the submitted application.

### General Comments

1. At the culvert crossing, consideration should be given to concrete encasement and potential requirement for water stops to be installed on all utilities running underneath the proposed open-bottom culvert.
2. The applicant has proposed a Stormceptor STC 900 water quality unit to be installed prior to discharge to the concrete box culvert. The proposed location will conflict with the proposed utility trench. Staff recommends in lieu of the water quality unit, provide hoods in all catch basins, four foot deep sumps and discharge directly to the box culvert.
3. The applicant has proposed a wood guiderail along the curb and a four foot high chain link fence between the proposed sidewalk and top of slope. Staff recommends eliminating the chain link fence and installing the guiderail along the proposed top of slope.
4. Proposed guiderail shall be Metal Beam Rail (Type RB-350), weathered.
5. The proposed hydrant should not be located within a drainage swale to avoid erosion at the hydrant. The applicant should relocate it accordingly and provide plans to the Fire Marshall for review and approval.
6. Maintain a minimum 10' separation between all water and sanitary services.
7. Sanitary sewer laterals shall not directly connect to manholes. Laterals shall connect via wye to sanitary mains.
8. Submit all plans to the WPCA for review and approval.
9. Provide street light locations and details.
10. Provide access to south end of culvert for future maintenance considerations.
11. Provide formal easement in favor of the Town for future maintenance of the upstream area of the proposed culvert.
12. Expand proposed temporary easement to include the swale around the cul-de-sac.
13. Utility Conduits in Trench on sheet PP-3 conflicts with Electric/Communication Trench detail on sheet SD-3. Confirm number, type, size and configuration of conduits required and update accordingly.
14. On the detail for the Bit. Conc. Cape Cod Curb, provide dimension for the distance between edge of base course and back of curb.
15. Provide depth of Cut-Off Wall to detail "Concrete Box Culvert Cut-Off-Wall Detail" on Sheet SD-2.
16. On the detail for Box Culvert, Crush Stone No. 6 conflicts with Note #5 on Sheet SD-4 and specify type of geotextile material. For the natural earth material, will that material be sourced on-site? Provide specification for gradation and type of material.
17. Revise Standard Frame and Cover detail to current standard.

18. Revise pavement section to comply with Collector Road standard. Bituminous Concrete pavement shall consist of 1.5" Class 2 on 2.5" Class 1.
19. Provide Invert of 15" Storm on the Culvert Section detail, sheet SD-4.
20. Provide minimum depth to utilities on the Culvert Section detail, sheet SD-4.
21. Add "Coarse Aggregate shall be broken stone" to Note 5 on sheet SD-4.
22. Add "for Crushed Gravel" to Note #6 on Sheet SD-4.
23. Note #7 on SD-4 references Section 7.3 of the Geotechnical Report regarding preparation of the subgrade. Add this section to the design plans for reference.
24. Provide outlet protection for 15" outfall into proposed culvert.
25. Provide easement documents for all proposed permanent and temporary easements.
26. Specify standard 6" bituminous concrete curb west of Type "C" Catch Basins. Transition from Cape Cod profile to Standard profile shall occur at this point.
27. Coordinate depth, location and details with various utilities and provide appropriate documentation prior to final plan approval.

This favorable recommendation is subject to resolution of these outstanding comments to the satisfaction of the Engineering Department prior to final approval of the project.

cc: Robert Decrescenzo, Town Counsel  
Tom Roy, P.E. Director of Public Works  
Henry Miga, Building Official  
Anthony Piazza, Superintendent, Water Pollution Control Authority