

April 13, 2018

Mr. Timothy W. Wales, PE
City Engineer
City of Saratoga Springs
City Hall - 474 Broadway
Saratoga Springs, NY 12866

**Re: City of Saratoga Springs – Site Plan Review – PB App. No. 17.075
Belmonte Builders – Spencer Subdivision**

Dear Mr. Wales:

We are in receipt of revised documents and responses to our initial comments on the above referenced project. The following documents have been submitted by Environmental Design Partnership, LLP in response to our previous comments: Response Letter dated March 22, 2018, Updated Plans, Revised March 23, 2018, SWPPP with Stormwater Management Narrative, Revised March 2018, and MS4 Acceptance Form.

Our initial comments are provided below for your reference, followed by the current status of comment resolution in bold type.

SWPPP Review

SWPPP Report

1. Page 5 – Section H – Please provide correspondence for Historical places.

A Phase 1B Archaeological Survey has been provided. Additional correspondence will be provided. **Comment Addressed.**

2. Page 7 – Number 3 – Stormwater ponds are listed to be used as temporary sediment basins during construction. Please review.

Comment Addressed.

3. Page 8 Item I - Is rip-rap proposed to be used? Please review.

Comment Addressed.

STORMWATER MANAGEMENT NARRATIVE

4. Page 4 – Please provide table for the other analysis points under existing conditions.

Tables have been added. **Comment Addressed.**



5. Page 7 – Why is Chapter 9 of the NYS SWDM referenced? Chapter 9 is for redevelopment projects. Please review.

Comment Addressed.

6. Please provide infiltration test results. Please insure that the testing was done in compliance with the NYS SWDM.

During the Conference Call with the City, it was determined that infiltration testing could be completed when limited clearing has begun. Please note that infiltration testing must be done according to NYSDEC standards and the rates must meet the design criteria provided. If the rates do not meet the design criteria, work shall be stopped until an alternative design is approved. **Applicant will conduct infiltration testing prior to construction of the stormwater management system. Comment Addressed.**

7. In general, please provide a summary table for the stormwater runoff for each subarea (analysis point) under existing and proposed conditions per the SPDES General Permit GP 0-015-002, Part III.B.2.c.iv.

Tables have been provided. **Comment Addressed.**

8. Who will own the chambers within the Right-of-Way? Has a discussion with the City of Saratoga Springs regarding this occurred? The City may wish to have the chambers located outside of the public ROW.

Recent correspondence now indicates that the City of Saratoga Springs will allow stormwater runoff from individual lots to be treated, stored and infiltrated within the City's Right-of-Way (ROW). As a result, the individual stormwater practices along Julian's Way in the front of each parcel have been removed and the size of the infiltration practices (chambers) within the ROW have increased in size. Placed revise Sheet #6 to accurately reflect the size of the practices within each subarea/watershed. **The City Engineer has indicated that he is ok with the placement of the practices within the City's Highway Boundary, upon final approval of DPW. However, DPW will not maintain any Post-Construction Stormwater Management Practices, and an easement from the City must be prepared & submitted for review indicating that they will be inspected yearly and maintained by the HOA. These provisions must also be added to the SWPPP. Reports must be submitted to City Engineer yearly. An easement and inspections are also required for the stormwater practices along Arrowhead Road.**

9. Please discuss in detail how Water Quality/RRv, the Channel Protection Volume, etc. are provided in subcatchments OS-6, OS-7 AND A-1.

The stormwater runoff for subareas OS-6, OS-8 and A-1 under proposed conditions are



directed to individual low areas that are to be part of conservation easements. It should be noted in the easements that these areas are used for stormwater runoff treatment and peak flow attenuation and that no development is allowed within these areas unless a stormwater analysis is completed. The low area for subarea OS-7 that is used for stormwater runoff treatment and peak flow attenuation is located within proposed parcels for development (Lots #2, #3, #4, #9). These parcels must have deed restrictions placed on them or the area used for water quality and quantity must be totally located within the conservation easement. **Low area revised to be totally within Conservation Easement. However, it is our recommendation that yearly inspections be performed to insure the practices within the conservation areas are working as detailed within the SWPPP.**

10. Using chambers for sediment removal/pretreatment will make sediment removal from the chambers extremely difficult. This practice will need to be discussed directly with the City if they are to take ownership of the practices within the ROW.

Recent correspondence now indicates that the City of Saratoga Springs will allow stormwater runoff from individual lots to be treated, stored and infiltrated within the City's Right-of-Way (ROW). **The City Engineer has indicated that he is ok with the placement of the practices within the City's Highway Boundary, upon final approval of DPW. However, DPW will not maintain any Post-Construction Stormwater Management Practices, and an easement from the City must be prepared & submitted for review indicating that they will be inspected yearly and maintained by the HOA. These provisions must also be added to the SWPPP. Reports must be submitted to City Engineer yearly. An easement and inspections are also required for the stormwater practices along Arrowhead Road.**

11. For the 10-year and 100-year storm events, please provide a table that includes the various subareas/analysis points. Please provide the peak runoff rates for the various Design Points under existing and proposed conditions.

Comment addressed.

12. For the Water Quality Calculations (Attachment A), please provide the sizing calculations for each practice. For example, please provide calculations for the "shallow grass depressions" Please use the GI Excel Worksheets provided by NYSDEC where appropriate. It may be appropriate to run the HydroCad model using the Water Quality Storm event as well.

Comment addressed.

13. Please discuss what Pond 1P: Roof Top Disconnect under proposed conditions within the HydroCad model is?



Comment addressed.

14. Please discuss the number chambers provided for within each “chamber system”. Is the “first set” of chambers providing water quality while the remaining chambers are providing water quantity control? Or is the first set of chambers providing pretreatment?

Sheet #6 revised to show correct sizes of proposed practices. Comment Addressed.

15. For each subarea where chambers are proposed, please provide a summary of the number of proposed chambers and a brief discussion of how each system will operate.

Comment addressed.

16. For each Post-Construction Stormwater Practice, a Maintenance Plan must be presented and yearly inspections be completed with reports provided to the City Engineer.

The City Engineer has indicated that he is ok with the placement of the practices within the City’s Highway Boundary, upon final approval of DPW. However, DPW will not maintain any Post-Construction Stormwater Management Practices, and an easement from the City must be prepared & submitted for review indicating that they will be inspected yearly and maintained by the HOA. These provisions must also be added to the SWPPP. Reports must be submitted to City Engineer yearly. An easement and inspections are also required for the stormwater practices along Arrowhead Road.

PLANS

17. Sheet 4 – Please provide the number of chambers for each practice.

Comment addressed.

18. Sheet 4 – Behind lot 18,19, 20,21 and 22 – Is this supposed to be a depression? If so, please revise grading accordingly.

Comment addressed.

19. Sheet 4 – Why is the TF of CB 5 and CB 6 different? Why is the TF for CB 3 and CB 4 different?

Comment addressed.

20. Sheet 7 – Please note that the disturbance must be under 5 acres at any one time.

The Erosion and Sediment Control Plan indicates 5.36 Acres and 5.48 acres of disturbance. Please limit disturbance to less than 5 acres. **Note added to plan sheet 9**



that disturbance cannot be greater than 5 acres. Comment Addressed.

21. Sheet 7 – Please make the Stabilized Construction Entrance a minimum of 24’ wide.

Comment addressed.

22. Sheet 8 – The Bituminous Pavement Detail text is “cut-off” at the top of the sheet.

Comment addressed.

23. Page 10 – Please provide a detailed layout for each chamber system. Include at a minimum the number of chambers and pipe entrance elevations.

Comment addressed.

NEW COMMENTS

24. Notice of Intent indicates 0.08 pre & post development stormwater runoff rates for a 100-yr. storm event. The report does not indicate the same. Please review.

Comment addressed.

25. Notice of Intent - #38 – The City of Saratoga Springs will not be responsible for stormwater practices located outside of the Right-of-Way.

The City Engineer has indicated that he is ok with the placement of the practices within the City’s Highway Boundary, upon final approval of DPW. However, DPW will not maintain any Post-Construction Stormwater Management Practices, and an easement from the City must be prepared & submitted for review indicating that they will be inspected yearly and maintained by the HOA. These provisions must also be added to the SWPPP. Reports must be submitted to City Engineer yearly. An easement and inspections are also required for the stormwater practices along Arrowhead Road.

26. Notice of Intent – Please review #39 – Total area of roof disconnect indicated to be 7.39 acres. Total disturbance is 5.36 acres in NOI. Page 6 of Stormwater Management Narrative indicates 4.36 acres of development. Please review all numbers in the NOI and in the report to insure all numbers are consistent.

Comment addressed.

27. Notice of Intent #43 – Please indicate yes.

The area is located within an MS4. Please revise #43 and this project will require a MS4 Acceptance Form. **The NOI has been revised and MS4 Acceptance Form included.**



Comment Addressed.

28. Please note that all stormwater practices located outside of the right-of-way will require deed restrictions to insure homeowners, etc. do not remove them. Additionally, maintenance of the practices will need to be determined and a maintenance agreement developed.

During the Conference Call with the City, it was determined that a “Home Owner’s Association” would be created and responsible for the maintenance, etc. associated with all of the stormwater practices located outside of the Right-of-Way. Restrictions will be required to insure the practices cannot be removed. **The City Engineer has indicated that he is ok with the placement of the practices within the City’s Highway Boundary, upon final approval of DPW. However, DPW will not maintain any Post-Construction Stormwater Management Practices, and an easement from the City must be prepared & submitted for review indicating that they will be inspected yearly and maintained by the HOA. These provisions must also be added to the SWPPP. Reports must be submitted to City Engineer yearly. An easement and inspections are also required for the stormwater practices along Arrowhead Road.**

29. Pond 2P provides 0.03’ of freeboard while Pond 4P provides 0.09’ of freeboard for the 100-yr storm. If another storm event occurs before the stormwater infiltrates, should some type of overflow be provided to insure downstream owners are not directly impacted?

Comment addressed.

30. Please provide information how the “pond” surface areas were determined when only 2’ contours are provided.

Comment addressed.

31. Notice of Intent indicates 2.02 acres of new impervious in disturbed area. Page 13 of the Stormwater Management Narrative indicates 1.87 acres. Please review.

Comment addressed.

NEW COMMENTS – MARCH 20, 2018

32. Construction Plans: Please insure a Silt Fence detail is provided.

Detail provided. Comment Addressed.

33. Construction Plans, Page 8: Many of the trees proposed along the eastern edge of Julian’s Way are in direct conflict with the proposed infiltration chambers. Please review.

Proposed tree locations revised. Comment Addressed.



34. Construction Plans, Page 9: Additional Erosion Control and Grading Notes: #7 is not applicable – there is no rip-rap shown on the drawings. Please review.

Note #7 removed. Comment Addressed.

35. NOI #5 – Why is more than 5 acres proposed to be disturbed at a time? This is a perfect example where there can be two or more phases with less than 5 acres of disturbance.

NOI revised. Less than 5 acres of disturbance proposed at any given time. Comment Addressed.

36. Stormwater Pollution Prevention Plan, Page 11, Section V, Maintenance/Inspection Procedures During Construction: Section 2, Item e – Please locate sediment basins on Construction Drawings or remove item from section if sediment basins are not proposed.

Note removed. Comment Addressed.

37. Stormwater Pollution Prevention Plan, Page 13, Section VI, Long Term Operation and Maintenance Procedures: Please update this section as it is outdated.

The City Engineer has indicated that he is ok with the placement of the practices within the City's Highway Boundary, upon final approval of DPW. However, DPW will not maintain any Post-Construction Stormwater Management Practices, and an easement from the City must be prepared & submitted for review indicating that they will be inspected yearly and maintained by the HOA. These provisions must also be added to the SWPPP. Reports must be submitted to City Engineer yearly. An easement and inspections are also required for the stormwater practices along Arrowhead Road.

38. Stormwater Management Narrative, Page 4, Table 1 indicates 5 Design Discharge Points (A-E). However, Figure 2 only shows Discharge location A. Please update Figure 2.

Figure 2 updated. Comment Addressed.

39. Stormwater Management Narrative, Page 6, Third Paragraph indicates “Infiltration Chambers” are proposed under grassy depressions. The Construction Drawings indicated a different practice – Please review.

Stormwater Narrative updated. Comment Addressed.

40. Stormwater Management Narrative, Page 11, Section 5.3.2: Please review the “proposed project development area to 11.12 acres” statement. Should this number be greater than the previous number (12.63 acres) provided in the paragraph since the area increases? Please review.

Stormwater Narrative updated. Comment Addressed.

41. For the lots along Arrowhead Road, please provide a summary of the peak elevations and



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Water Quality Volume along with the size of each proposed practice.

Elevation of stormwater ponding within the infiltration trench is 267.44' for 100-year storm event. Please provide driveway elevations.

Should you have any questions, please do not hesitate to contact us.

Sincerely,

Clark Patterson Lee

Matthew T. Smullen, P.E.

Principal