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Mr. Tim Wales, PE
City Engineer
City of Saratoga Springs
474 Broadway Saratoga Springs, New York 12866

June 27, 2016

Delivered via email: timothy.wales@saratoga-springs.org

Re: Technical Review of Documents – 1st submittal
Regatta View – Area B – Phase 3
State Route 9P, Dyer Switch Road and Regatta View Drive
City of Saratoga Springs, Saratoga County, New York
City Project No. PB# 16.018
Chazen Project No. 31604.03

Dear Tim:

The Chazen Companies (Chazen) have completed our review of the following materials received:

- Site Plan application package containing:
 - New Water Service Connection Agreement & Application Form dated May 13, 2016
 - Application for Site Plan Review (Including PUD) dated May 18, 2016
 - Site Plan Submittal Check List dated May 19, 2016
 - Completed Streets Checklist
 - Construction Cost Estimate dated May 19, 2016
 - Short EAF dated May 18, 2016
- Project Narrative – PUD Site Plan Review, dated May 19, 2016, prepared by Mathew J. Jones Esq.
- Sanitary Sewer Service Narrative prepared by Environmental Design Partnership, LLP (EDP), dated May 2016
- Water Service Narrative prepared by EDP, dated May 2016
- Draft Stormwater Pollution Prevention Plan (SWPPP), dated May, 2016, prepared by EDP
- Stormwater Report, dated May 19, 2016, prepared by EDP
- Water Main Connection Plan for Regatta View – Interlaken, prepared by EDP, dated May 10, 1991
- Site Plans dated May 19, 2016, prepared by EDP, consisting of the following 10 sheets:
 - Cover
 - Existing Conditions and Removals Plan
 - Site Plan
 - Grading Plan
 - Utility Plan
 - Erosion Sediment Control Plan
 - Planting Plan
 - Road Profile
 - Site and Sanitary Details
 - Stormwater and Water Details
- Architectural artwork and floor plans, prepared by Belmonte Builders LLC, not dated

Following are our observations/comments:

General:

1. All documents should reference the City's project number PB# 16.018.
2. Please submit the original survey for this project, as required in the Site Plan Review Submittal Checklist. Please add a note on the plans and survey that the topography is based on the NGVD 1929 Elevation datum.
3. Please provide the design, type of construction and materials, and exterior dimensions of proposed buildings, as required in the Site Plan Review Submittal Checklist.

Water Service Narrative:

4. The Narrative should clearly state what the required fire flow is for these duplex units. The two closest proposed duplexes are located within 10' of one another therefore it appears from the ISO Guidelines as if 1,500 gpm is required. The report indicates that they anticipate 1,500 gpm is available and fire flow tests will be performed. It is suggest that this testing be done prior to approval of the application. Please provide the results of the hydrant flow tests.

Site Plans:

5. The Complete Streets Checklist indicates that street lighting will be provided however none is shown on any of the plans. Please clarify and/or show the locations of proposed lights.
6. The Site Plan depicts a vegetated median at the intersection of Dyer Switch Road and references the typical boulevard road section. There is no typical boulevard road section included in the plans, only a typical road cross section on Sheet 8 which does not show the median. Please provide the boulevard road section.
7. Three (3) drywells are labeled on Sheet 4. Three more are shown on the east portion of the site but are not labeled as such. These additional drywells are included in the SWPPP and should be labeled on Sheet 4 with their invert elevations.
8. Infiltration chambers are depicted on Sheet 4 with a reference to see details. There are no infiltration chamber details included with this plan set. Please revise accordingly.
9. Please complete the table of bioretention area elevations on Sheet 5.
10. Proposed easements for the sanitary sewer and water main extensions should be depicted on the plans.
11. Many of the erosion and sediment control details and notes on Sheet 6 are not legible at the scale and line weight chosen. Please revise so that these details and notes are legible.
12. The limits of clearing and grading shown on Sheet 6 (Erosion and Sediment Control Plan) are not consistent with the limits of clearing identified on Sheet 2 (Existing Conditions and Removals Plan). Please revise accordingly and ensure that the area of disturbance used as the basis for the stormwater management design in the SWPPP is accurate. Also please quantify the area of disturbance on the plans.
13. A line shown on Sheet 6 is depicted in the legend on that sheet as "denotes proposed stone check dam". Based on the way this is shown on the erosion and sediment control plan, it appears that this line is intended to denote a temporary swale, possibly with stone check dams. Please update the legend or plan to clarify this.
14. The Typical Road Cross Section on Sheet 8 contains references to the Town of Malta and Town Engineer approval and does not show the relationship of proposed utilities to one another. Please update this to be applicable to this project. It is our understanding that the proposed road is to be maintained by a home owners association and will not be dedicated to the City of Saratoga Springs. The road should be constructed to the City standards. Please revise accordingly.
15. Both water and sewer mains are shown within the pavement limits with biorention areas located along the edge of pavement. Please indicate the locations of electric, CATV, natural gas and communications lines on the plans.
16. Only garage floor elevations are indicated on the site plans. Please indicate the first floor and basement floor elevations for each unit.
17. There are insufficient spot elevations shown on the site plans - please add additional spot elevations to clearly depict how the site will drain.

18. Please indicate where sump pumps and foundation drains will be discharged.
19. The proposed water main is intended to be dedicated to the City and should conform to City standards. Please address the following discrepancies between the water service details presented on Sheet 10 and City standard details:
 - a. Per City standards all hydrants and valves should open right. The "Typical Hydrant Installation" detail (plan view) on Sheet 10 calls for a valve which opens left.
 - b. The "Typical Hydrant Installation" detail (elevation view) on Sheet 10 references Village of Ballston Spa standards. Another detail labeled "Hydrant Installation" on the right side of this sheet is consistent with City of Saratoga Springs standards. Please revise accordingly.
 - c. The curb box, curb stop, and corporation stop models referenced in the "Water Service" detail are not the City's standard models. Please update accordingly.

Project Cost Estimate

20. The cost estimate indicates 20 bioretention areas; only 13 are shown on the plans. Please double check all quantities on the cost estimate and update accordingly.

Stormwater Pollution Prevention Plan:

21. The stormwater management plan utilizes infiltration through porous pavement, infiltration chambers and drywells. Only results of deep test pit excavations were submitted. The SWPPP indicates that the required infiltration testing will be completed to confirm infiltration rates. Falling head permeability testing must be performed in accordance with the SWMDM, the designs updated as needed, and the SWPPP revised accordingly and resubmitted for review.
22. The stormwater management plan utilizes infiltration through porous pavement for proposed driveways. Please address the following comments pertaining to the requirements of the NYSDEC Stormwater Management Design Manual (SWMDM) for porous pavement practices:
 - a. The SWMDM requires a 25-foot down-gradient setback from structures for porous pavement practices. The site plans indicate that porous pavement is to be utilized for all proposed driveways, which abut the proposed buildings. Please add sufficient spot elevations to assure water drains away from the structures.
 - b. The SWPPP indicates that the site is to be graded such that porous pavement areas do not receive runoff from adjacent areas. The Grading Plan (Sheet 4) does not contain sufficient detail to assure this. Please add sufficient spot elevations to assure that adjacent areas do not drain onto the pavement.
 - c. The SWMDM requires observation wells to be installed within porous pavement practices. The porous pavement detail on Sheet 10 does not include observation wells. Please revise accordingly.
23. The SWPPP indicates that the NYSDEC and NYSOPRHP have been contacted to request a determination as to whether the project will result in the taking of any species listed as endangered or threatened, and whether the project will result in any adverse effects on cultural resources, respectively. If either of these responses are affirmative then this project will not be eligible for coverage under SPDES General Permit GP-0-15-002. The responses of these two agencies should be submitted to the City when available. The SWPPP should not be approved until those documentation of no effect are provided and included as part of the SWPPP.
24. Please answer Question 5 on the Notice of Intent (NOI).
25. Six proposed drywells are modeled in the HydroCAD model for the project. The drywells are shown with inconsistent dimensions and only one detail is provided in the site plans. In addition, the inverts in the HydroCAD model for Drywell 3 do not match those shown on the plan. Please update dimensions and inverts for consistency between the model and plans.
26. The SWPPP indicates that ownership and maintenance of the SWM practices will be by Regatta View LLC. A formal inspection and maintenance agreement, acceptable to the City and in accordance with City Code Chapter 242, must be in place to assure that the practices will be properly operated and maintained in accordance with the long term operation and maintenance plans included in the SWPPP. Please submit an agreement for the City's review. A sample agreement is available in City Code Chapter 242.

27. The City Engineer's office requires that yearly inspection and maintenance reports for post-construction stormwater management facilities be submitted for their files. This requirement should be added to the SWPPP.

In order to expedite and simplify the review of revised materials we would appreciate if the next submission be accompanied by a response letter that describes the revised materials and how our comments were/were not integrated.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Connors". The signature is fluid and cursive, with a large initial "J" and a long, sweeping underline.

James J. Connors, P.E., Associate
Sr. Director, Engineering Services

cc: File