

ENGINEERING DIVISION

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Plans

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 No handicap parking or accessible routes have been provided for Buildings, A, B, C, D or G. Accessible spaces may not be required for these buildings and that finding is left to the Building Commissioner for a determination. However, accessible routes are required between each building and parking area and would include handicap ramps placed at each building and which would not be blocked by parked vehicles.

RESPONSE: For Buildings A, B, C, D or G, our research of the Massachusetts State Building Code (780 CMR), FHA, ADA and ANSI 117.1 do not require accessible building "townhouse" units because they are all multiple story units with no elevators and no accessible access, and also, because of site grades. Additionally, they are private residences with no public access or use areas so no access is required on the site. Per 780 CMR, if parking spaces are assigned to individual units, which they are, those spaces designated for accessible units shall have signage reserving said space. As there are no accessible units, therefore no designated accessible spaces are required. Visitor parking spaces where provided, shall comply fully with the requirements of 521 CMR 23.00: PARKING AND PASSENGER LOADING ZONES.

- 2. Specify the distance between islands of the Pro Shop Parking area. RESPONSE: Additional dimensions have been added to the Pro Shop Parking area.
- 3. There is a section near the Pro Shop building labeled as "Drop Off Area". What are the two rectangles shown on the plan?
 - RESPONSE: They are "drop off" spaces. These have been labeled as such.
- 4. Cape Cod berms should be extended to enclose grassed areas for Buildings A, B, and C. The radii are missing for two small islands located in the cluster of garage spaces.

RESPONSE: Cape Cod berms have been added on the driveway edges and additional dimensions have been added.

Label the full width of each island in the parking areas for Buildings C, D, E and F. RESPONSE: Dimensions have been added.

- 5. Outside parking for Buildings C, D, E. F and G should have overall parking limits as follows, not including additional handicap spaces if required and the appropriate handicap ramps from parking spaces to sidewalks.
 - a. Bldg. C: Required length: 181 feet. Scales 177' face of curb to face of curb.
 - b. Bldg. D: Required length: 143 feet. Scales 139 feet face of curb to face of curb.

- c. Bldg. E: Required length: 167 feet. Scales 164 feet face of curb to face of curb.
- d. Bldg. F: Required length: 167 feet. Scales 164 feet face of curb to face of curb.

Bldg. G: Required length: 128 feet. Scales 121 feet face of curb to face of curb. RESPONSE: Dimensions have been added.

1. For Buildings A and B, at least one handicap ramp should be provided for each section of parking. Each ramp space should be separate from adjacent parking spaces.

RESPONSE: Not required. See response to Comment #1.

- 2. Pro Shop Parking
- a. Parking for the Pro Shop should have spaces dimensioned from face of curb to face of curb for each aisle.
- b. Label the radius between spaces 76 and 77 to be 29 feet. Dimension the outside radius to the left of the drop off area.
- c. Label the width of the islands that separate parking spaces.
- d. Total width of parking should be 183 feet. The scaled width is 179 feet. RESPONSE: Dimensions have been added.
- 3. The width of all proposed sidewalks should be labeled. RESPONSE: Dimensions have been added.

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CB-6 has a rim grade of 33.91 and an invert grade for the 18" pipe of 31.16. This
does not give enough space between the top of the casting and the inside surface
of the structure for the pipe to be installed. The pipe could be adjusted with a lower
outlet grade to provide the necessary clearance and still meet the invert at the far
end.

RESPONSE: Invert has been lowered.

2. The location for each type of headwall now shown on the details sheets 14 and 15 should be noted. It is assumed that no flared ends will be required even though the detail remains on the plans.

RESPONSE: The flared end detail has been removed, and a note indicating where each headwall type will be used has been added.

- 3. The top of slope for the sediment forebay behind Buildings E and F continues to be only three (3) feet from the two closest building units. It is recommended that the top of slope be reshaped to allow for a more flat living area at least for these locations, if not for all units having walkout spaces in that area.
 - RESPONSE: Retaining walls have been added to provide a larger area behind these buildings.
- 4. The grassed drainage swale that is located adjacent to the retaining wall behind Building G is near the same grade as the sidewalk that abuts the Pro Shop parking. It is recommended that the grade be adjusted to allow for more separation to the sidewalk to avoid flooding or freezing surfaces. The swale could be eliminated altogether by extending the drainage line from CB-A to the sediment forebay. RESPONSE: The swale is 12 inches deeper than the existing grade along the cart

- path. During a 100-year storm event, the depth of flow is less than 5 inches. As a result, no changes to this swale have been made.
- 5. The grades for the Pro Shop parking include two handicap access ramps leading to the Pro Shop. Runoff from the parking area should be intercepted before reaching the ramps or the grading should be adjusted so that runoff will not exit or flood the ramp areas. This is also a requirement under 521 CMR 21.5. RESPONSE: Additional spot grades have been added to ensure that the runoff will not exit or flood the ramps.
- 6. As has been noted previously there is a conflict between the elevation of the drainage line from CB-4 to the sediment forebay and the proposed water line as it crosses approximately 20 feet from CB-4. A note should be placed on plan sheets 4 and 5 that these pipes do not have proper separation clearance assuming that the water main is constructed with the customary 4.5 feet to 5 feet of cover. RESPONSE: A note has been added to ensure that the water line will be installed below the drainage line.
- 7. Although not mentioned in earlier reviews, the detail for Cape Cod berms shows that they are five (5) inches high from front to back and with a one (1) inch lip at the gutter line. A typical Cape Cod berm is made flush with the gutter grade and with a rise of not more than 3" from front to back to avoid damage from snow plow blades. Width of the berm remains at twelve (12) inches minimum. RESPONSE: Detail has been revised.
- 8. No labels or notations have been added to show where roof runoff will be directed. RESPONSE: Downspouts locations and the stormwater control trenches have been added to the plans.

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- 1. Information for sewer manholes 3B and C4 is incomplete. Also there needs to be a one (1) inch drop in all sewer manholes from invert in to invert out within the channel slope.
 - RESPONSE: These items have been revised accordingly on the plans.
- 2. Water mains should be shown with the appropriate size of tees and gate valves at all intersecting pipes.
 - RESPONSE: This information has been added to the plans.

Sheet 6 of 18, Landscape Plan

- Article 10 of the Zoning By-Law applies to this project. There needs to be a 10 vegetated buffer between Building E and the property line that separates Greenlinks Condominium on Lot 1005. Ref: Section 1042.
 RESPONSE: Additional plantings have been added to this area. In addition, a screen fence along the retaining wall top is provided.
- 2. Section 1061.2 requires the implementation of one or more of the landscape features between the parking lot and the public way of Bay Pointe Drive. The site plan should limit its activity to within the boundaries of the lot except for where grade changes might require sloping to accommodate entrances or exits. Locating the parking aisle within the public right of way does not meet this requirement.

- RESPONSE: Bay Pointe Drive is not a public street. It is private. Therefore, the above section does not apply.
- 3. The landscaping between the Pro Shop parking and Bay Pointe Drive does not meet the requirements of Section 1061.2 along its northerly line. One of two alternatives would make the landscaping compliant:
 - Shift the parking away from the layout line sufficient to meet the requirement or,
 - b. Relocate the southerly layout line of Bay Pointe Drive to match more nearly the eventual pavement location of Bay Pointe Drive as it passes the parking lot.
 - RESPONSE: Bay Pointe Drive is not a public street. It is private. Therefore, the above section does not apply.
- 4. There appears to be a perimeter drain around the Pro Shop building. Is this existing or proposed? If proposed, there are no details of it. RESPONSE: It is not a perimeter drain. The plan indicates the fact that the downspouts shall be piped to the basin. A note has been added to clarify this.
- 5. There are four areas on the plan of heavy cross hatching that are not labeled. If they are intended to represent the rip rap shown in the detail sheets for flared ends or headwalls they are not consistent. The spillway detail for the drainage basin does not show stone other than at the top. See the grading on Sheet 4. RESPONSE: Riprap areas have been removed from the landscape plans.

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1. The plan is inconsistent with the linework on Sheet 3 that indicates all edging around the Pro Shop parking is concrete curb. Curb should be labeled. RESPONSE: A note has been added to sheet 3 that indicates that only concrete curb shall be used in the Pro Shop parking lot.

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- 1. This sheet indicates that flat paver edging will be used between garages for Buildings A, B, and C. Pavers will be flush with the adjacent garage pavement. Label these areas to distinguish them from Cape Cod berms. Also indicate if they will contain roof downspouts and where they will be located. The narrow island for Building C is only three (3) feet in width but will drop 12 inches from side to side at the building. Containment may be difficult at this location. RESPONSE: Labels and a cross-section for a grade wall have been added.
- There is concern for how proposed plantings within these islands will hold up over the long run especially if roof runoff is discharged over these same areas. If roof runoff was collected and diverted to the storm drainage system by pipe, this concern would be eliminated.
 - RESPONSE: Plantings have been eliminated in these areas in order to provide greater storage for the flow from the downspouts.

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- 1. Show the double grated catch basin with the cement concrete collar and twelve (12) inch depth of hood as noted in the detail for the four (4) foot catch basin. RESPONSE: Cement concrete collar has been added to detail.
- 2. A curb inlet is not recommended for a double grate since there will only be support on two sides of each casting. A double grate may not be necessary if the runoff is captured at other locations as well.

RESPONSE: A curb inlet is not proposed. Detail has been revised.

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1. It is recommended that an alternative to a retaining wall be considered for behind Building D. The proposed wall is 188 feet long with a maximum exposed height of not more than 4 feet over a very short length of wall. There appears to be more than enough room to reconfigure grades with a 2:1 or 3:1 slope, blend with existing conditions and still stay within the limits of work as shown on the plan.

RESPONSE: Applicant prefers installing the retaining wall in order to preserve as much existing vegetation as possible.

Pump Station Summary

A letter from Principe Engineering to Tim Fay dated March 21, 2021 (2022?) was reviewed. The letter states that the new pump station for Phase IV would include 4 low pressure pumps discharging effluent through a 1-1/2" force main to the gravity sewer main of Phase II. The full location of this main has not been shown on the plans as far as it extends to a sewer manhole for discharge.

RESPONSE: The distance and manhole designation at the tie in point has been referenced but the location is phase II/III. This information is shown/detailed on the phase II/phase III construction plan. This is a separate plan set (attached) and is a minor modification to the Phase II/Phase III approval.

The explanation as to why four pumps are needed has not been fully explained. RESPONSE: We are submitting this required information from Mahoney/EOne. These materials have been attached.

Only two pumps are designed for the Phase II pump station. In any event the four pumps need to be grinder pumps in accordance with Wareham Sewer Department requirements. This should be noted on the plans.

RESPONSE: The EOne pumps are already grinder pumps this is in all of the EOne details.

The additional flow from Phase IV will require an expansion of the holding capacity for the Phase II pump station. An eight (8) foot diameter equalization manhole has been suggested but no construction details have been presented.

RESPONSE: The distance and manhole designation at the tie in point has been referenced but the location is phase II/III. This information is shown/detailed on the phase II/phase III construction plan. This is a separate plan set (attached) and is a minor modification to the Phase II/Phase III approval.

A summary of the anticipated pumping cycles for each station would be helpful since most of the peak flow occurs between the hours of 7 AM and 8PM on a daily basis. RESPONSE: Within the March 21st letter from our office to Mr. Tim Fay, the basis of

design for the new Phase II/III sewer pump station was thoroughly explained. The information included the results of a current draw-down test at the existing Baypointe station and analyzed peak flows and design conditions in order for the new station design to work in concert with the existing station after construction. The anticipated pumping cycles will match with the current peak for the existing station and projected peaks for the new station. As such, the additional information regarding pump cycles did not play a role in specific design parameters at either station.

Unresolved Comments

There are four previous review letters that have been submitted to the Planning Board for consideration. The letter dates are November 30, 2021, January 10, 2022, February 7, 2022 and February 25, 2022. The following items mentioned in these reviews are either unresolved or have not been part of the general discussion of the project.

- 1. Overall density of Phase IV should be discussed and appropriate language inserted in such Special Permit modification the Board may approve. Phase IV does not match the density that was approved for Phases I, II and III by virtue of the number of units and the land area occupied by each phase. RESPONSE: There is no requirement or guidance identified in the CR zone for this calculation and it is subject to the planning board discretion. Generally speaking, the overall property is approximately 147 acres with this additional parcel bringing the total to 154 acres. Phase I is 28 units phase II and III are 56 units, and this townhome phase is 52 units. In total that is 136 units of residential use combined with the golf operations activity.
- 2. The stormwater plan includes to sediment containment areas that are directly behind Buildings E and F. It has been suggested that these should be moved away from the buildings to allow for more usable space and to separate areas that could be breeding grounds for mosquitos away from the buildings. It has also been suggested that including subsurface infiltration for the stormwater system could reduce the amount of land area required for the sediment control and surface infiltration as shown on the plans. Both recommendations have been rejected.
 - RESPONSE: Principe Engineering has repeatedly responded to Mr. Rowley's opinion regarding these issues. We responded that the applicant did not want to move the sediment containment areas (swales) any further onto the golf course than currently proposed, that the areas would be maintained so that there wouldn't be a mosquito issue and, in this last iteration, we added retaining walls to provide for additional "usable" space behind several of the units. Regarding the opinion that adding subsurface infiltration to the basin, Principe also reiterates that this is a false assumption that the basin would be reduced in size, the underground piping would be an additional (and unseen) maintenance issue, and the design of the basin meets all current standards. Principe does in fact reject these recommendations and will continue to do so.
- 3. The design of the pump station for Phase IV is incomplete. Details for connections to sanitary manholes and a new receiving well at the Phase II pump station have not been provided as asked for. The question of why four pumps in the Phase IV station has not been completely answered.

RESPONSE: See previous responses.

4. When it was discovered that the force main from the Bay Pointe Condominiums does not fall within the old lines of Cahoon Road but runs across the golf course, it was recommended that a plan be submitted for the file that would reference where the relocation will be done and how it will connect to the Phase II station. The plan should be submitted.

RESPONSE: See previous responses.

5. Roof runoff continues to be a concern as there has been no documented evidence as to where this runoff is collected or where it will be discharged. The only information that has been received is that the location would show on the architectural plans and that discharges would be in landscaped and planted areas.

RESPONSE: See responses to comment #8.

6. The need for a revised purchase and sale agreement between the Town of Wareham and the applicant to account for the EDC property not having been part of the Special Permit for Phases I, II and III. The Principe response of February 25, 2022 states that "everything requested has been submitted to the Town Planner and Town Solicitor". A revised P & S should be made part of the record for the project.

RESPONSE: The applicant has previously submitted these documents.

- 7. The Conference Recreational District requirements contained in Section 580.5.2 (a-d) of the Zoning By-law have not been fully satisfied.

 RESPONSE: A-C have been previously submitted and D is attached.
- 8. The concerns raised as Items 6 and 7 above were mentioned as the first four items of my November 30, 2021 letter to the Planning Board. In a response letter from Principe Engineering dated December 30, 2021, each of these four items were noted as being "Under separate cover (Timothy Fay, Stonestreet)". The Planning Board web site does not indicate that there are any responses of record for the Board to consider.

RESPONSE: No response required: