



Oak Consulting Group

October 4, 2016

Project 12013

Amesbury Planning Board
and Nipun Jain, City Planner
62 Friend Street
City Hall
Amesbury, MA 01913

RE: Site Plan Review
Village at Bailey's Pond
Amesbury, Massachusetts

Dear Planning Board Members and Nipun,

We are in receipt of a letter to the Amesbury Planning Board from Stantec Consulting Services Inc., dated July 25, 2016. This correspondence noted several questions, comments or other topics that should be addressed as part of the site plan review process for the project.

Below are the comments received and the applicant's responses (bulleted and in **Bold**). Additionally, please find the following enclosed plans and additional information showing the changes described below:

- Revised Site Plan Set (excluding 500 series sheets, landscape plans to be submitted under separate cover; 10-full size, 5-11x17);
- Photometric Plan, prepared by Hubbell Lighting, dated 10/5/16 (10 full size, 5-11x17);
- Fire Apparatus Turning Diagrams, dated August 12, 2016;
- Phasing Plans PH-001 and PH-002, dated 10/4/16 (10 full size, 5-11x17);
- Sight Distance Figures, Figure 1, dated 10/4/16 (10 full size, 5-11x17);
- Revised Stormwater Calculations (3 copies);
- Summary of Plan Changes;
- Waiver Requests.

Section XI.C.5 Material For Review:

- c. **Parcel information:** Existing conditions plans are provided that indicate most of the site boundary, but the northerly most portion of the site is missing from sheet C-102 and recommend the information be provided. We note the following and recommend the plans be revised accordingly by the Applicant:
 - i. Plans lack the appropriate certification by registered land surveyor attesting to the boundary information and easements shown; ***Latest revised and submitted project plan submittal do not include a reference to certification. The existing conditions plans were not provided in the latest submission.***

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, plans showing the site boundary and easements, prepared by and stamped by a register land surveyor (Cammett Engineering), and recorded at the registry of deeds, were submitted on March 18, 2016. Reference to these recorded plans has been added to Sheets C-101 and C-102.

- ii. Location and owner names of all adjacent properties is missing; *Indicated on a previous plan. The existing conditions plans were not provided with the latest submission.*

OCG Response 10/4/16: This information was shown on the previous plan, submitted March 18, 2016 and is also included in the revised plans.

- iii. Location of the two subject parcels and total area of each. *Indicated on a previous plan. The existing conditions plans are missing from the latest submission.*

OCG Response 10/4/16: This information was shown on the previous plan, submitted March 18, 2016 and is also included in the revised plans.

- iv. The Applicant should review and confirm with the DEP and Conservation Commission that the southeasterly limits of the 200 foot river front area is a straight line as shown and update if necessary. *Comment addressed.*
- b. Topographic and existing land features: The existing condition plans indicate most of the topographic contours, except for the missing northerly portion noted above that should be included. We note the following and recommend the Applicant revise the plans accordingly:
- i. The location of all existing trees over 8” in caliper is unclear since the legend does not include all the symbols presented on the plan. Recommend the size and type of each existing tree over 8” be labeled. In addition, we recommend the legend be updated to be complete; *Comment addressed with revised legends.*
 - ii. The location of the existing drain piping related to the catch basins and the separate 18” pipe at Summit Avenue are missing; *The location of the 18” pipe at Summit Avenue is missing from previous plan and latest plans.*

OCG Response 10/4/16: The location of the 18” pipe has been added to the plans.

- iii. The general location of the tree line is missing; *Indicated on a previous plan. The existing conditions plans were not provided with the latest submission*

OCG Response 10/4/16: This information was shown on the previous plan, submitted March 18, 2016 and is also included in the revised plans.

- c. Buildings: Conceptual plans are provided that are not part of the project plan set. The building conceptual information does not include dimensions of the overall buildings, total gross floor area, floor finished elevations, building heights or prepared to the proper scale and endorsed by a registered architect in accordance with the bylaws. The Applicant should revise the project plan set accordingly. *Updated architectural plans were not provided in the latest submission. It is our understanding the Applicant is working on updated plans for review by the Planning Board.*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, these plans have been submitted to the board and the Design Review Committee for review. We assume review of all architectural plans will be directly with the DRC and Planning Board.

- d. Parking and driveways: Driveways are indicated on plans provided. Parking is not addressed on the plans. See XI.C.8.b below for additional comments. ***Parking addressed with the latest submission. See below for additional comments.***
- e. Sidewalks, bike paths and recreational trails: Indicated on plans provided. See XI.C.8 n and p below for additional comments. ***See below for additional comments.***
- f. Utilities: Indicated on plans provided. See XI.C.8 m below for additional comments. ***See below for additional comments.***
- g. Grading and Stormwater Drainage: Indicated on plans provided. See XI.C.8 e and p below for additional comments. ***See below for additional comments.***
- h. Landscaping: Indicated on plans provided. See XI.C.8 c below for additional comments. ***See below for additional comments.***
- i. Lighting: Some information provided. See XI.C.8.i below for additional comments. ***A Lighting Plan (photometric) was not provided with the latest submission. See additional comments below.***

OCG Response 10/4/16: A Photometric Plan is enclosed.

- j. Signs: None shown. The Applicant should indicate any proposed signs and provide appropriate information or notes on the site plan that none are proposed. ***Information relative to the types of signs was not provided with the latest submission. See comments below.***

OCG Response 10/4/16: Proposed sign locations are shown on the plans. Specific sign designs will be provided with the appropriate building permit application and will comply with all zoning regulations.

- k. Open Space: Not labeled on plan. See XI.C.6.f below for additional comments. ***Additional information submitted. See comments below.***
- l. Traffic Generation: Information from 2010 provided. See XI.C.6.d and 8.a below for additional comments. ***Additional information submitted. See comments below.***
- m. Building Facades and Floor Plans: Conceptual plans provided separately. See XI.C.6.e and 8.d below for additional comments. ***Additional information was not provided with this latest submission. See comments below. It is our understanding the Applicant is working on updated plans for review by the Planning Board.***

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, these plans have been submitted to the board and the Design Review Committee for review. We assume review of all architectural plans will be directly with the DRC and Planning Board.

Section XI.C.6 Additional Review Material:

- o. Surface and water pollution: Stormwater runoff information provided. No report on the impacts to subsurface groundwater or water tables was provided. The Applicant should provide additional

information relative to these items acceptable to the Planning Board.

A revised stormwater report was submitted. See below for additional stormwater comments. A report on impacts to subsurface ground water or water tables was not provided with the latest submission.

OCG Response 10/4/16: As indicated in our June 23, 2016 letter and the stormwater report, the project stormwater management system has been designed to treat and infiltrate stormwater to protect and recharge aquifers. The site is a former gravel pit with sandy soils which drain rapidly. Because of the nature of this existing soil, groundwater elevations are low and are most likely dictated by the pond elevation. Significant cuts on site are generally at the higher elevations and not expected to encounter groundwater. The need for permanent groundwater lowering is not required. The project will have no negative impacts to surface or groundwater tables.

- b. Soils: Test pit information conducted in 2004 was included in the submission. Stantec recommends that appropriate testing be conducting in the proposed infiltration areas under this design. *Additional information was not provided. Recommend additional test pits be conducted in the proposed infiltration areas (repeat comment).*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, 23 test pits have been conducted on the site and soils were consistent throughout. There is a test pit within 100' of any proposed infiltration area and it is highly unlikely that any additional information will be contrary to the data already obtained. Additional test pits would be an undue burden to the applicant both in cost and would unnecessarily delay the project moving forward.

The proposed infiltration basins are located in cut areas and the bottom of the basins will be in native material. This was recently discussed with the Technical review committee. At this meeting it was suggested that a test pit be conducted in each of the infiltration basins to confirm the native material during the rough grading of the site. The applicant would like to propose this be incorporated as a condition in the Planning Board decision should the project be approved.

Separately, the project proposes significant alteration of the site with cutting and filling to achieve the proposed elevations, but the amount of soil to be excavated or filled does not appear to be included in the application information relative to Sections XI.A & XI.B of the bylaws. A special permit appears necessary. The Applicant should provide additional information relative to these items acceptable to the Planning Board. *Information on the amount of soil to be excavated or filled was not provided with the submission. In addition, an application for a special permit has not been submitted (repeat comment).*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, the applicant is aware of the regulation. OCG recently conducted preliminary earthwork calculations which showed that the site is essentially balanced. It is likely that only select gravel materials for road base, crushed stone and asphalt pavement will be required to be imported. Given these results, we believe that it would be appropriate for this permit to be filed (if necessary) once a site contractor is selected and has confirmed these calculations.

- c. General environmental impact: No information provided. The site proposes to create more than 6 acres of impervious area and a MEPA review appears necessary for this current design. We recommend the Applicant provide a report to address the project impacts acceptable to the Board. In addition, the Applicant should submit for a MEPA review for this current project design. *The Applicant states in the response letter that “The Applicant does not believe preparation of a stand-alone general environmental impact report is warranted...” The Applicant notes that this latest project proposed fewer units (100 now versus 136 previously), less impervious area and more open space and a MEPA review was conducted for the previous larger project. The Board should review and consider if this latest project should have an updated general impact statement for the City file and/or additional MEPA review.*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, given the nature of the changes from the approved project in 2013 to the current project, additional MEPA permitting is not necessary.

- d. Traffic impacts: The report submitted is based upon information obtained in 2010, for a previous project, but not include any recent developments. We note that the reports’ project description is inconsistent with the design submitted with this application; but that the previous report was for 136 residential units versus the current proposal with 100 units and thus the impacts noted in the report would less than noted in the report. The driveway on Summit Avenue is relocated under this latest submission, but this is not reflected in 2010 report. The sight distance for the Summit Avenue driveway is now different that described in the 2010 report. In general, the issues identified in the previous traffic reviews have been addressed. We recommend that the Applicant discuss if additional traffic information is necessary with the Board. *Supplemental traffic review information was submitted. See comments below.*
- e. Architectural Drawings: Some Information provided. The architectural drawings for the project do not appear to be prepared by a registered architect in accordance with the bylaws. *Information was not provided in the latest submission to address this comment.*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, these plans have been submitted to the board and the Design Review Committee for review. We assume review of all architectural plans will be directly with the DRC and Planning Board.

- f. Legal Documents: Some Information provided relative to the previous project. Draft versions for the legal documents (covenants, or agreements) associated with the public access, open spaces and trail system should be provided by the Applicant to the City. We recommend the Applicant clarify the open space for the project. In addition, we note the proposed drainage design indicates the existing drainage flowing from Route 150 and Summit Avenue would be relocated and create a new discharge within in the 200 foot river front area. It is unknown if Mass DOT has agreed to this change to their drainage system, if access is needed to the new pipe and outlet location for maintenance, or if this new outlet location and discharged within the 200 foot riverfront area is acceptable to the Conservation Commission. Additional legal documents may be necessary associated with the submitted design. The Applicant should discuss the necessary legal documents for the project with the Board. *Information was not provided in the latest submission to address this comment.*

OCG Response 10/4/16: The following was provided in our June 23, 2016 letter:

“Draft condominium documents and other necessary legal documents will be submitted separately. The revised drainage system does not propose any utilization of or connection to MassDOT’s drainage pipe. With respect to open space, open space is defined in the Bylaw as “The space on a lot unoccupied by buildings, unobstructed to the sky, not devoted to streets, driveways or off-street parking or loading spaces” and is expressed as a percentage of total lot area. In the submitted “Project Overview and History” under subheading Open Space and Protection of Natural Resources (page 2), the calculations are shown. The project, as presented in the October 2015 application, proposes 73% open space where 50% is required. The enclosed revised plans provide for 71% open space where 50% is required.”

Draft condominium documents were submitted as part of the previous approval for the project. Updated documents will be provided prior to final approval of the revised project.

- g. Additional Information: Copies of the previous Mass DOT, MEPA submittal and Planning Board approval information was provided. The revised project appears to require several permits including an order of conditions for the wetland and buffer impacts, revised Mass DOT for the wider driveway and the drainage relocation related to the existing drainage pipes, and MEPA certification for the current design. It is unclear if the previous project had addressed the MEPA comments. The Applicant should provide a listing of all state and federal permits, licenses and approval necessary for this project and provide the estimated schedule for application and approvals in accordance with the bylaws. We recommend the necessary project permits be listed on the cover sheet. *The MEPA review notes that a state permit (MassDEP sewer connection) is needed for the sanitary sewer. However, no information was provided to indicate the permit has been obtained or submitted for approval. We recommend the project permits and approval numbers be noted on the project plans.*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, a Mass DEP sewer connection permit is no longer necessary due to regulatory changes in 2014.

Section XI.C.8 Development and Performance Standards:

- c. Access and traffic impacts: We note the following relative to the submitted design:
1. The project proposes three curb cuts with one from each abutting roadways; Route 150, Summit Avenue and Beacon Street. The access drive from Beacon Street is designated as an emergency access and is to be gated. The design configuration for this portion of the site containing 76 housing units would have one public access route from Route 150. The Board will need to consider if the design as proposed is acceptable. *The revised design submitted indicates the access from Beacon Street will be a full roadway access. We recommend that the Applicant provide a roadway sight distance plan for the access onto Beacon Street indicating that the necessary sight distance is provided in accordance with the regulations. The sight distance plan should indicate all necessary improvements to achieved proper sight distance. In addition, the sight distance plans should contain a certification by a professional engineer that the required sight distance is provided upon completion and maintenance of the improvements shown on the plan.*

OCG Response 10/4/16: The planning board requested additional topographic information in the area. Enclosed are the sight distance figures with additional survey information requested by the Planning Board.

2. The proposed entrance from Route 150 includes an island that separates the traffic entering and exiting the site. The width of the entire curb cut including the island, travel lanes is approximately 30 feet and exceeds the 24 feet maximum at the ROW with Route 150 per XI.C.8.a.3 of the Bylaws. We note that each lane in and out is dimensioned as 12 feet on the site plan sheet C-201. The design as shown would require a revision the current Mass DOT permit with the increased width indicated. The raised island may require changes to be acceptable to Mass DOT. The Applicant is requesting a waiver to width requirement at this driveway. The Board should review the design and consider the waiver request. Separately, the proposed emergency access drive from Beacon Street and the proposed driveway on Summit Avenue does not exceed 24 feet.
The Applicant has previously submitted a waiver request for Board consideration.

3. The roadway sight distance plans were not included in the project plan submission. We are concerned that the proposed roadway intersection on Summit Avenue may require more improvements that indicated on the submitted design to achieve proper sight distance. We recommend the Applicant provide an intersection sight distance plan with certification from a licensed professional engineer that proper and safe all season sight distance is achieved upon completion of the site improvements for both roadways. The plans should specify all work needed to achieve the sight distance for proper construction. *The revised submission did not include roadway sight distance plans. We recommend the Applicant provide the roadway sight distance plans as previously requested.*

OCG Response 10/4/16: The planning board requested additional topographic information in the area. Enclosed are the sight distance figures with additional survey information requested by the Planning Board.

4. The proposed roadway design does provide curbing for the entire site in accordance with the Section 7.09.G of the Amesbury Subdivision Regulations. In addition, the site design proposed to decrease the separation between the proposed sidewalks and roadway from 6 feet to 3 feet that is contrary to the intent of Section 7.09.H the Amesbury Subdivision Regulations and Section XI.C.8.a.5 of the bylaws. In addition, the design indicates a shoulder for pedestrians is to be constructed along a portion of the entrance driveway with no separation or curbing from vehicles. Curbing and appropriate separation from vehicular traffic are generally key components to promoting a safer circulation of pedestrians as recommended in section XI.C.7.a.2 of the bylaws. We recommend the design be revised to provide curbing along all portions of the roadway and the minimum separation for sidewalks consistent with the Subdivision Regulations and Bylaws or as acceptable to the Board. The Applicant is requesting a waiver to reduce the sidewalk separation to 3 feet and to eliminate most of the curbing along the roadways. *The revised design includes granite curbing. The Applicant has submitted a waiver for the separation distance for the sidewalk from the roadway to 3 feet for Planning Board consideration.*

5. The proposed design indicates a sidewalk will be constructed along Summit Avenue from the northerly development area ending at to Route 150. In addition, a sidewalk is proposed along the main site driveway of the easterly development area ending at Route 150. Both of these two sidewalks end at Route 150 and are not connected along Route 150 to provide complete circulation between the two development areas. We recommend a sidewalk along Route 150 be provided to connect the two development areas consistent with the intent of Section XI.C.8.a.7 of the Bylaws. In addition, we recommend a sidewalk along the entrance drive to the mailboxes and potential school bus stop at Route 150 be provided. Also, we recommend that cross walk be provided at the Route 150 driveway. We recommend the Applicant discuss the proposed project sidewalks with the Board and revise the plans acceptable to the Board. ***The sidewalk along Summit Avenue was removed in the latest submission and this comment does not apply now.***

6. The proposed roadway design for the easterly portion of the site, shown on sheet C- 201, does not provide a cul-de-sac prior to emergency access drive that is necessary to provide a safe turn around and means to accommodate the anticipated delivery vehicles such as propane, oil, Fed Ex, UPS, etc. in accordance with Section IX.C.8.a.11 of the bylaws and Section 7.09.D.4 of the Subdivision Regulations. We recommend the Applicant revise the roadway design accordingly. ***This comment does not apply now with the latest revision to the project roadway onto Beacon Street.***

7. The proposed project roadway design included two separate cul-de-sacs with interior pavement radii of 16 feet, a pavement width of 24 feet in the cul-de-sac and outside pavement radius of 40 feet that do not comply with Section 7.09.D.4 of the Subdivision Regulations. The design would not accommodated a SU 30 vehicle (with a turning radius of 42 feet) such as propane, oil, Fed Ex, UPS, etc. in accordance with Section IX.C.8.a.11 of the bylaws. In addition, the design may not be adequate f o r Emergency and Fire vehicles. We recommend the Applicant revise the roadway cul- de-sac design consistent with the Subdivision Regulations. The Applicant is requesting a waiver to the cul-de-sac requirements. **The Applicant has revised the outside cul- de-sac pavement radius to the minimum radius for a SU 30 vehicle with the latest design. However, the Applicant has not provided documentation that revised pavement radius is adequate for all of the Fire Department’s Emergency and Fire Equipment. Please provide supporting information to indicate the reduced pavement of the proposed cul-de-sac is adequately sized to properly serve the Fire Department’s emergency and fire equipment for inclusion in the Planning Board’s file. The Applicant has submitted a waiver to reduce the size of the cul-de-sac for Planning Board consideration.**

OCG Response 10/4/16: Included are diagrams showing the fire apparatus circulation around the cul-de-sac. These diagrams were recently reviewed and approved by Deputy Chief Nolan of the Amesbury Fire Department.

- b. Parking: We recommend the Applicant clarify the following:
 1. The proposed residential use requires 1.5 spaces per dwelling unit in accordance with Section VIII of the Bylaws. However, the application information implies 3 to 4 spaces are provided for each unit that includes garage and outside spaces. We note that the plans do not include any information relative to the minimum parking requirements or address the actual number of spaces intended for each unit as would be anticipated and requested by the Board. The

Applicant should revise the site plan notes accordingly to clarify compliance with the bylaws. ***The revised plans include sufficient information to address the comment.***

2. Please note that several units, such as 32, 33, 44, 52, 77, 98 and 99 do not appear to have a minimum 18 feet from the sidewalk or roadway pavement to the unit to be considered as outside parking space within the driveway area shown. We note that the design does not have spaces that could be utilized or designated for visitors as typically recommend by the City. The Applicant should indicate and label all outside parking spaces on the layout plans for clarity and to confirm the parking area is adequately sized. ***The revised plans include sufficient information to address the comment.***
3. The location of parking spaces in the driveways appears to impact visibility of cars to access (back into) the roadway that is not allowed by section VIII.G.12 of the Bylaws. The proposed driveways shown are stacked together at the buildings and it appears that visibility would be obstructed with cars in each of the driveways. The short driveways do not provide a means to turn around when exiting the garage and face roadway traffic. We recommend the Board review and consider if parking spaces in the driveways should be allowed under this design. We recommend the Applicant discuss the proposed site parking with the Board and revise the design as necessary acceptable to the Board.
The revised plans include sufficient information to address the parking in the driveway issue. The Applicant states that "Backing from the proposed driveways onto these roads does not present a legitimate concern" in the response letter. The Board will need to consider this issue.

c. Landscaping: We recommend the Applicant address the following:

1. The landscape plans submitted are not prepared by a registered landscape architect as required by Section XI.C.5h of the bylaws. The Applicant should revise the plans accordingly. ***Landscape concepts are provided with the latest submission. A landscape plan for the entire site prepared by a registered landscape architect has not been provided.***

OCG Response 10/4/16: Landscape plans prepared by the Cecil Group/Harriman will be submitted under separate cover.

2. The roadway design does not appear to provide the minimum tree planting in accordance with section 7.09.I of the subdivision regulations. The Applicant should revise the plans accordingly. ***Landscape concepts are provided with the latest submission. A landscape plan for the entire site prepared by a registered landscape architect has not been provided. It is our understanding the Applicant is working on updated plans for review by the Planning Board***

OCG Response 10/4/16: Landscape plans prepared by the Cecil Group/Harriman will be submitted under separate cover.

3. The project plans do not include details indicating the appropriate methods to install/construct the landscaping as described in the subdivision regulations. The Applicant should revise the plan set accordingly. ***Landscape concepts are provided with the latest submission. A landscape plan for the entire site prepared by a registered landscape architect has not been provided. It is our understanding the Applicant is working on updated plans for review by the Planning Board***

OCG Response 10/4/16: Landscape plans prepared by the Cecil Group/Harriman will be submitted under separate cover.

4. The utility plans indicate several transformers are to be placed on the site but landscaping in accordance with section XI.C.8.c.5 does not appear to be provided. The Applicant should review and revise the design accordingly. *Landscape concepts are provided with the latest submission. A landscape plan for the entire site prepared by a registered landscape architect has not been provided. It is our understanding the Applicant is working on updated plans for review by the Planning Board*

OCG Response 10/4/16: Landscape plans prepared by the Cecil Group/Harriman will be submitted under separate cover.

5. The site design includes several retaining walls with several 6 foot tiered wall locations. The design indicates a 4 foot chain link fence is proposed along the upper most walls and provision to limit access to the other walls in the series is indicated on sheet C-202, but is missing from sheet C-201. The design on sheet C-201 indicates only one fence would be placed along the proposed tiered retaining walls. The Applicant should review with the Building Department and confirm if additional fencing along the ends should be provided to minimize access to the other walls. In addition, it appears a fence is needed along the retaining wall connected to unit 4 and at the wall between units 8 and 9. We recommend the design be revised to include additional provisions to limit access to the walls acceptable to the Board and Building Department. In addition, we recommend that the Applicant note the top and toe elevations of each wall on the grading plan for clarity and proper construction. *A portion of the site layout has been revised with this latest submission including relocation and revisions to the retaining walls. We note that several walls are 14-15 feet high. Additional fencing is shown at the retaining walls. However, it is unknown if the revised retaining wall design is acceptable to the Building Department. We note a typical retaining wall detail is provided in the revised plan set on sheet C-605, but a stamped design of the retaining walls is not included in the submission. Separately, the latest submission includes landscape concepts at the retaining walls. The Board should review and consider if the revised site layout and retaining wall configuration is acceptable.*

OCG Response 10/4/16: Landscape plans prepared by the Cecil Group/Harriman will be submitted under separate cover and as discussed with the board, additional landscape detail around the proposed walls will be provided.

As indicated in our June 22, 2016 letter, as with typical procurement and construction of these systems, the contractor will supply a final wall design from the manufacturer, stamped by a professional engineer, prior to construction. This submittal will be provided to the building department prior to construction and can be addressed through a condition in the Site Plan Approval.

6. The project details include a small block wall and a separate chain link fence detail, but a detail to clarify the appropriate location of the fence along the wall with dimensions is not provided for proper construction. We note the several of the six foot high walls are tiered and understand that the Building Department requires retaining walls over four feet be designed by a professional engineer. Please update the plan set accordingly. *The revised design*

indicates a large block retaining wall is to be used on the site. The Applicant notes the design of the retaining walls by a professional engineer will be prepared and submitted to the Building Department prior to construction in the response letter.

7. The roadway design shown on sheet C-201 includes placement of the guardrail along the top of one of the 6 foot tiered retaining walls. We recommend the Applicant provide a detail to indicate the location of the guardrail adjacent to the tiered retaining wall and calculations supporting that the wall is adequately designed to address the adjacent guardrail and potential impacts along this curved section of the roadway. *The revised plans include a typical detail on sheet C-605 for the guardrail along a tiered retaining wall. The Applicant should address if calculations will be provided for the wall and indicate that the wall is adequately designed to address the adjacent guardrail and potential impacts along this curved section of the roadway.*

OCG Response 10/4/16: As indicated in our June 22, 2016 letter, as with typical procurement and construction of these systems, the contractor will supply a final wall design from the manufacturer, stamped by a professional engineer, prior to construction. This submittal will be provided to the building department prior to construction and can be addressed through a condition in the Site Plan Approval.

8. The site design intent shown on sheet C-201 is to have pedestrians along a portion of the roadway pavement north of unit 4 and along a portion of the site with several 6 foot tiered retaining walls. The design notes only a guardrail is to be provided, but a standard guardrail does not provide the appropriate protection from the 6 foot wall drop off. The Applicant should review and revise the design to provide an appropriate design for pedestrians acceptable to the Board. *The comment does not apply now with the latest revised design.*
9. The landscaping plans do not address maintenance in accordance with Section XI.C.8.c.6 of the bylaws. The Applicant should update the plans accordingly. *This comment was not addressed with the latest submission.*

OCG Response 10/4/16: Landscape plans prepared by the Cecil Group/Harriman will be submitted under separate cover.

- d. Site Plan and Architectural Design: We recommend the Applicant address the following;
 1. The submitted application information included the building plans and renderings, but the plans are not included in the project plan set, are not endorsed by a registered architect, are at the appropriate scale or include all information noted in the bylaws. The Applicant should revise the plan set accordingly to include the building plans in accordance with the bylaws and acceptable to the Board. *Information was not provided in the latest submission to address this comment.*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, these plans have been submitted to the board and the Design Review Committee for review. We assume review of all architectural plans will be directly with the DRC and Planning Board.

2. We note that several units, such as 32, 33, 44, 52, 77, 98 and 99 do not appear to be 20 feet from the sidewalk or roadway pavement and could be considered within the front setback. We note that several other units such as 16, 17 and 50 could have potential additions (dashed lines) that would place the builds closer to the roadway. No further review was conducted as related to the site plan building layout. We recommend the Applicant discuss the proposed project design building layout with the Board. The Applicant should revise acceptable to the Board. *The Applicant has revised some of the building locations, but several are shown in close proximity to the roadway and sidewalk. The Board should review and consider if the revised site layout building configuration is acceptable.*

OCG Response 10/4/16: This has been discussed with the board.

3. We note that most of the buildings separations on the plans are less than 30 feet and recommend the Applicant confirm that appropriate building separation is provided with the Fire Department. *The revised plans indicate some buildings with separations of 15 feet. The Applicant should confirm the building separation meets approval of the Fire Department and Building Department.*

OCG Response 10/4/16: The minimum building separation required by code is 15'. The layout of the proposed site and buildings was recently reviewed with Deputy Chief Nolan of the Amesbury Fire Department and no concerns with the site layout were identified.

e. Stormwater runoff: We recommend the Applicant clarify the following:

1. The stormwater design proposes to connect to Mass DOT 's existing 18" drain pipe outlet within the Route 150 right of way and redirect the runoff into a piping system on- site adjacent to Summit Avenue and discharge at the limits of and within the 200 riverfront area associated with a tributary stream to Bailey's Pond. The design indicates that another 18" pipe along the route under Summit Avenue would also be connected to the proposed system. The stormwater management report identifies four outlets drain onto the site and notes that *"High volumes through these culverts have caused some significant erosion at these outfalls"*. However, the analysis does not address these culvert flows onto the site or if the proposed system is adequately designed. The Applicant should revise the design and report to address the following:
 - a. Provide documentation that Mass DOT has agreed to the proposed relocation of the drain system within Route 150. This should include the location/alignment of the proposed piping system (under retaining walls?) and any associated access and/or maintenance easements requested/required for the pipe and outlet. *The comment does not apply now with the latest revised design. However, the revised project design does not address or account for flow from the existing culvert under Route 150. The Applicant states in the response letter that the flow is from the former truck stop, and appears to be abandoned, but does not provide a plan to support the determination of where the pipe inlet is located. In addition, it is unknown if there are flowage rights associated with the historic culvert and associated flows noted in the previous report. The Applicant has not provided information to address the issue as previously requested. We note that the revised design indicates proposed buildings are located downstream of the culvert outlet. Recommend additional information be provided to clarify that the site is designed to address discharge from the pipe, as may be allowed by flowage right, and would*

not impact the proposed dwellings acceptable to the Board.

OCG Response 10/4/16: There are no known flowage rights. Any development of the former truck stop site would require drainage conditions to match existing in which no runoff from that site enters the Village Bailey's Pond Site.

If the pipe were to discharge flow, this flow would flow around the back of units 9 through 14 and be captured by a double catchbasin between units 14 and 15. Any flow not capture here, would continue to flow around units 15 and 16 to a double catchbasin between units 16 and 17. Any flow not captured here, would continue to flow around units 17 through 20 to Basin 1-2. Flow not contained within basin 1-2 would overflow around unit 21 and flow to Bailey's Pond.

Any flow from this culvert, however unlikely, would not impact the site in the post development condition.

- b. Provide documentation that Mass DOT/Department of Public Works has agreed to the proposed connection to and relocation of the proposed drain system as related to the 18" pipe under Summit Avenue. This should include the location/alignment of the proposed piping system (under retaining walls?) and any associated access and/or maintenance easements requested/required for the pipe and outlet. **The revised plans indicate a proposed retaining wall would be constructed adjacent to the existing 18" pipe outlet along Summit Avenue. The design indicates a double grate catch basin is proposed downstream of the existing culvert and a riprap apron is to be placed at the existing culvert outlet. Please verify the revised design at the culvert outlet is acceptable to with Mass DOT/Department of Public Works and will provide appropriate and adequate access for maintenance of the culvert outlet by Mass DOT/Department of Public Works. Please verify the downstream drainage system is adequately sized to address the flows from the existing culvert.***

OCG Response 10/4/16: There are no changes to the outlet of the culvert and rip-rap apron is outside of the easement area. None of the changes down stream of this pipe would hinder or restrict flow so as to impact the DOT drainage system. Enclosed are HydroCAD calculations of the 100-year storm with this off-site flow included showing the site drainage system can handle this flow.

- c. Provide analysis indicating the current flows from these culverts to the site and impacts/flows to Bailey Pond. **The submitted analysis does not appear to address or include the existing culvert flows onto the site as previously requested. It is unclear if the proposed drainage system is adequately sized to handle the upstream flows as stated in the Applicant's response letter.***

OCG Response 10/4/16: Enclosed are HydroCAD calculations of the 100-year storm with this off-site flow included showing the site drainage system can handle this flow.

- d. Provide analysis that the proposed system is adequately sized to the handle the 100 year storm event. The calculations should be included for each storm event in the report. **The submitted analysis does not appear to address or include the existing culvert flows onto the site as previously requested. It is unclear if the proposed drainage system is adequately sized to handle the 100 year storm event that would include the existing***

off-site flow onto the site. The Applicant should provide additional information to clarify the proposed stormwater system is adequately sized.

OCG Response 10/4/16: Enclosed are HydroCAD calculations of the 100-year storm with this off-site flow included showing the site drainage system can handle this flow.

- e. Provide outlet protection calculations for sizing the stone apron at the proposed outlet. *Included in the revised report.*
- f. Address proposed downstream flow impacts directed to the proposed sewer pump station acceptable to the Department of Public Works. *Comment does not apply with revised design.*
- g. Address proposed impacts to Bailey's Pond and abutters. *The revised report only addressed proposed impacts to Bailey's Pond. The Applicant should update the report narrative to contain a summary table indicating each abutter, and the pre and post development flows to each abutter to clarify the project impacts for review by the Board.*

OCG Response 10/4/16: As shown on the plans, the entire site slopes directly to the pond with no flow from the site to abutters in either the Pre-development or Post-development condition.

- 2. The submitted analysis is based upon rainfall data that does not represent the known regional rainfall increases documented for the 2, 10 25 and 100 years storms based upon the NOAA Atlas 14 precipitation data. The Applicant should update the analysis accordingly. *Standard rainfall information is used in the updated report. Comment closed.*
- 3. The stormwater report and site design indicate 10 infiltration basins/areas are to be created for the project of various sizes and with various outlet devices. We recommend a typical cross section detail of the various basins and various outlet devices be provided in the plan set for proper construction. *The updated plans include typical infiltration cross sections on sheet C-605. We recommend the cross section indicate the proposed drywells in the basins 1-1, 1-3, 1-4, and 2-2 shown in the basin plan view to clarify the design intent of the drywell rims. We anticipate the rims to be consistent with the drywell shown in basin 1-5.*

OCG Response 10/4/16: The cross sections have been updated to include the proposed drywells as requested.

- 4. The pond analysis at pond 2-2 does not address the catch basin outlet device with a rim of 39.0 and pipe outlet. The Applicant should revise the analysis accordingly. *The revised pond 2-2 analysis does not include the pipe outlet from the outlet device (12" HDPE). The analysis should be updated accordingly.*

OCG Response 10/4/16: The pipe outlets to the basin outlet structures have been added to the HydroCAD model. Revised Post-Development calculations are enclosed.

- 5. Ponds 1-7 and 1-8 note rectangular outlet devices that are not indicated on the grading plans. The Applicant should indicate the devices on the grading plan for proper construction. *Comment does not apply with updated report and analysis.*

6. The analysis for ponds 2-1, 1-5, 1-2 and 1-5 do not address the catch basin outlet device or the pipe. The Applicant should revise the analysis according. *The revised pond 1-1, 1-2 and 2-1 analysis do not include the proposed pipe from the outlet device (12" HDPE). The analysis should be updated accordingly.*

OCG Response 10/4/16: The pipe outlets to the basin outlet structures have been added to the HydroCAD model. Revised Post-Development calculations are enclosed.

7. The 25-year post development analysis indicate at Ponds DMH P2-3, DMH P1-1, DMH P1-6, barrel controls the discharge indicating the pipe size is not adequate for the 25- year design storm. The Applicant should revise the analysis according to provide proper pipe sizing for the 25-year storm. *The revised analysis indicates pond DMH P1- 7 with barrel controls the discharge indicating the pipe size is not adequate for the 25- year design storm. The Applicant should revise the analysis accordingly to provide proper pipe sizing for the 25-year storm.*

OCG Response 10/4/16: The plans and analysis has been revised to ensure the closed drainage system can safely convey the 25-year storm event without surcharging any catchbasins or drain manholes.

The pipe conveyances are evaluated under 3 different control scenarios: inlet, outlet, and barrel controls. Under barrel control, the discharge in the culvert is controlled by the combined hydraulic effects of the entrance (inlet), barrel length & slope, and the roughness of the barrel. The important measure of the ability of a culvert to convey a flow rate of stormwater is the headwater in the upstream structure maintaining a level below the rim elevation (no surcharge). This can occur under inlet, outlet or barrel control. All three of these control conditions are anticipated to occur within the drainage system, however no surcharging of the structures should occur during the 25-year storm event.

8. The report does not include any calculations for the stone apron sizing in the plan set. The Applicant should revise the report to include the analysis according. *Addressed in the revised report for the proposed outlets. The Applicant should provide sizing for the riprap aprons shown at the existing pipe outlets and update the table on sheet C-604 accordingly.*

OCG Response 10/4/16: The table on C-604 has been updated to include rip-rap apron sizing for the existing headwall for the 18" DOT culvert (HWEX-1).

9. The site design indicates a compact design with sidewalks, numerous driveways and proposed multifamily dwellings in close proximity to the proposed roadways that concentrates the runoff to the roadways that are most not curbed. We believe that this "country drainage" design noted by the Applicant is not appropriate for the site design presented. We are concerned that the roadway edges and the narrow separations from sidewalks (three feet) would undermine the roadways without curbing. We recommend that the roadways be curbed entirely in accordance with the Subdivision Rules and Regulations. The curbing also provides a separation measure between vehicular traffic and pedestrians utilizing the sidewalks. We recommend the Applicant revise the analysis according. *Curbing provided with revised design to address comment.*

10. A cursory review of the drainage system information indicates several catch basins such as P1-10, P1-11, P1-15, P1-16, P1-18, etc., do not provide the minimum 3 feet of cover over the drain pipe as required per section 8.04.A.1 of the Subdivision Rules and Regulations. In addition, several drain manholes do not provide the minimum pipe cover in accordance with the regulations. The Applicant should carefully review the entire drainage system design and revise as necessary to provide the minimum cover required by the regulations and acceptable to the Department of Public Works. *The revised design still indicates several locations, such as CB P1-8, CB P1-9, CB P-14, CB P1-15, CB P1-16, DMH P1-8, CB P1-5, CB P2-1, CB P2-5, etc. do not provide the minimum 3 feet of cover over the drain pipe as required per section 8.04.A.1 of the Subdivision Rules and Regulations and noted previously. The Applicant should revise as necessary to provide the minimum cover required by the regulations and acceptable to the Department of Public Works.*

OCG Response 10/4/16: The manufacturer recommends a minimum of 1' of cover over these pipes. The Proposed drainage culverts within paved areas have been revised to have 3' of cover. Some culverts in grassed area from the pond overflow structures will have less than the 3' of cover. Since these culverts are in grassed area, the applicant is requesting waiver from the 3' requirement.

11. The proposed drainage system is noted to be HDPE that does not comply with section 8.04.A.1 of the Subdivision Rules and Regulations requiring concrete pipe. The Applicant should revise the design accordingly. *Information was not provided in the latest submission to address compliance with the regulations.*

OCG Response 10/4/16: As indicated in our June 23, 2016 letter, the project was originally approved with HDPE pipe which is considered the industry standard. This was recently reviewed with the City Engineer and the Technical Review Committee and it was indicated that HDPE would be acceptable. The applicant is requesting a waiver from this requirement.

12. The site grading plan does not include the finish floor elevations to adequately review the proposed grading design as related to the proposed buildings. The Applicant should revise the design accordingly. *The revised plans include sufficient information to address the comment. Recommend a note be placed on the grading plans stating that finish site grading adjacent to buildings should direct runoff away from buildings.*

OCG Response 10/4/16: The recommended note has been added to sheet C-301 and C-302.

13. The proposed grading design along the roadway adjacent to units 1-4 appears to indicate some of the roadway drainage could be directed to the buildings, which is not recommended. This also appears to occur near units 52-54, and 82-84. It is also unclear what the grading intent is in the vicinity of units 100-93 and 80-77. The Applicant should provide additional spot elevation for clarity and proper construction. *The revised plans include sufficient information to address the comment.*
14. The location of FES P1-7 at elevation 45.9 would appear to be above the existing ground elevation of 44 on sheet C-302. On addition, DMH P1-11 with a rim of 52.0 is 4 feet above elevation 48.0 and the 18" pipe into the DMH at elevation 46.2 appears to have less than a foot of cover with a portion of the proposed pipe south of the DMH placed at elevation 46 indicating that no cover is provided for the pipe. Please carefully review the

proposed drain system layout to ensure the proposed design is appropriate and in compliance with the regulations. ***Comment does not apply with updated design shown.***

15. The Applicant should review and update the drain manhole labels on the drainage plan to DMH vs DHM for clarity and consistency with the stormwater report. ***Comment addressed.***
 16. The grading plan does not include any design information such as spot elevations for the proposed sidewalk construction along Summit Avenue. The design appears to impact existing catch basins, require relocation of guardrail and possibly some shoulder widening. We note portions of the existing grading appear to be at 2H:1V and may require a pedestrian rail . The Applicant should coordinate the proposed sidewalk design with the Department of Public Works and include appropriate details in the plan set such as a typical section of the sidewalk with the guardrail location and slope grading for proper construction. ***Comment does not apply with updated design shown.***
 17. A detail for a double grate catch basin should be included in the plan set by the Applicant. ***Comment addressed.***
- f. Erosion Control: We recommend the Applicant clarify the following:
1. Erosion control configuration for the site shown on sheets C-301 and C-302, but appears incomplete. For example, construction entrances and the erosion control matting areas indicated in the details on sheet C-601 are missing along with staging and stock pile areas typically associated with construction. With the two different areas, it would likely be constructed in phases, but phasing is not noted for the project. We note the seed planting on sheet C-601 is not consistent with the notes on the landscape plan, which should be consistent. We recommend that separate plans related to erosion control be prepared that include, construction entrances, erosion control matting, staging and stock pile areas, phasing, temporary facilities such as construction trailer, portable toilets, dumpster, etc. the seeding notes of the landscape plan and erosion control should be updated accordingly to be consistent. ***The Applicant has recently submitted a phasing narrative. However, the project plans do not address the recently submitted phasing as noted in the narrative. We recommend the plans be updated to address the phasing noted acceptable to the Board.***

OCG Response 10/4/16: Phasing Plans are enclosed.

2. We note construction is proposed along Summit Avenue but the plans do not include any erosion control measures. We recommend the Applicant carefully review the project design and provide/include all appropriate measures necessary for the project. ***Comment does not apply with updated grading design shown.***
3. The proposed design includes construction of a trail along Bailey's Pond. We note that the trail is to be constructed from the emergency access drive and is located along a steep portion of the site with nearly a 30 foot grade change in 150 feet. What measures will be implemented to prevent trail erosion in this area? Please clarify and note accordingly on the plans. ***Revised design indicates steps for the steep portion of the trail. However a detail for the design of this feature is missing from the latest submission. The Applicant should update the plans to include a detail for proper construction.***

OCG Response 10/4/16: A detail of the proposed timber steps and the trail has been added to Sheet C-602. This trail construction will be coordinated with the Amesbury Conservation Commission.

4. The grading shown on sheet C-301 indicates a 130 foot long slope a 3H:1V with an elevation from 86 to 42 without any grade breaks and benches or erosion control fabrics to minimize erosion potential and concentrated flows. This slope has potential for erosion with sandy soil conditions noted in the submitted information. We recommend that the Applicant updated the slope design be revised to provide grade breaks and benching or provide an appropriate erosion control matting design to minimize the erosion potential or this area. ***Comment does not apply with updated grading design shown.***

g. Water Quality: We recommend the Applicant clarify the following:

1. The project design proposes to utilize drywells as one of the measures to provide groundwater recharge as indicated by the detail provided on sheet C-604. However, it is unclear where these are to be used. Please properly label on the drainage plan for proper construction. ***Comment addressed in latest submission.***

2. We note the design includes infiltration within the detention basin areas and proposes 4 foot deep sump catch basins. The catch basin detail appears to imply that an outlet hood is to be used but the information is unclear. We recommend the catchbasin detail be updated for clarify and design intent including information on the hood for proper construction. The measures noted above are consistent with the water quality performance standards outlined in the bylaws. ***Comment addressed in latest submission.***

h. Hazardous Materials and Explosive Materials: The submitted information does not include or address this performance standard and it is unknown if it is applicable. Will oil or propane systems be used for the units? We recommend the Applicant provide a note on the site plan or supporting documentation for the project file that demonstrates compliance of this standard acceptable to the Fire Department and Planning Board. ***No information provided in submission to address comment.***

OCG Response 10/4/16: A note has been added to Sheets C-201 and C-202.

i. Lighting: We recommend the Applicant clarify the following:

1. Light poles are indicated on the utility and landscape plans, but the utility line to serve each pole is missing. Please update the utility plan accordingly. ***Comment addressed in latest submission.***
2. The light pole detail indicates the proposed pole height is 22 feet and exceeds the 16 foot maximum per XI.C.i.2 of the bylaws. Please revise the detail accordingly. ***Comment addressed in latest submission.***
3. A photometric plan was not provided per XI.C.i.6 of the bylaws. We recommend the Applicant provide a photometric plan indicating the proposed lighting levels. The plan should to indicate compliance with XI.C.8.i of the Bylaws is achieved. ***Comment not addressed with the latest submission.***

OCG Response 10/4/16: A photometrics plan is enclosed.

- j. Environmental Performance Standards: The application submittal did not include a general environmental impact report per Section XI.C. 6.c of Bylaws or information relative to meeting the performance standard of Section XI.C.8.j. We recommend the Applicant prepare and provide the required information and include an explanation how the project has met the development and performance standards of the Bylaws for review and consideration of the Planning Board and for the project file. *Comment addressed in previous submission.*
- k. Noise: The submission noted that the “no commercial or industrial activities are proposed”. We recommend the Applicant provide a note on the layout plan indicating the project will comply with Section XI.C.8.k of the Bylaws or other notes acceptable to Board. *No information was provided to address this comment.*

OCG Response 10/4/16: A note was added to Sheets C-201 and C-202.

- l. Wetlands: The project site is located along Bailey’s Pond with an on-site stream that discharges into Bailey’s Pond entering the site from a culvert under Summit Avenue. In addition, an isolated on-site wetland area is indicated on the plans. The project design includes impacts to the 100 foot buffer to Bailey’s Pond, impacts to the 200 riverfront buffer of the existing stream, impacts adjacent to the isolated wetland and impacts to the stream and adjacent wetlands for construction of utilities under the stream to serve the site. An order of conditions for the proposed wetland and buffer impacts is needed for the project as proposed. We recommend the Applicant obtain an order of conditions for the project and incorporate the necessary measures of the order of conditions in the plan set to address this performance standard. *Recommend the Order of Condition be noted on the site plan.*

OCG Response 10/4/16: As noted in our June 22, 2016 letter, the applicant has filed a notice of intent with the Amesbury Conservation Commission which is currently under review.

- m. Utilities: We recommend the Applicant clarify the following:
 - 1. The project design indicated the site would be served by public sewer. The layout includes a sewer pump station, but sewer pump discharges directly to an existing sewer manhole on Beacon Street that is not recommended. We recommend that the design be revised to provide a new sewer manhole for receipt of the site sewer pump discharge that would flow by gravity into the existing manhole at this location. We recommend the Applicant discuss the proposed sewer pump design with the Department of Public Works and update the design as necessary acceptable to the Department. *The Applicant should confirm the revised proposed design meets the approval of the Department of Public Works.*

OCG Response 10/4/16: As noted in our June 22, 2016 letter, the pump station and connection to the municipal system is consistent with what the board and DPW approved in 2013. This was recently reviewed with the City Engineer and the Technical Review Committee. Based on this discussion the connection to the municipal sewer system has been revised to include a new manhole for the discharge from the force main which will then flow by gravity to the existing sewer manhole in Beacon Street. As indicated on Sheets C-401 and C-402, this construction will be coordinated with the City DPW.

2. A cursory review of the sewer design was conducted and we note that the sewer design inverts indicates the proposed sewer pipe at SMH P1-1 and SMH P1-2 will have less than 4 feet of cover. In addition, the sewer inverts at SMH P1-3 indicate the sewer pipe will have less than 5 feet of cover and do not provide the minimum 5 feet of cover under pavement as required by sections 7.07 and 8.09.4 of the Subdivision Regulations. Separately, a review of the inverts and design slopes of the proposed drain pipe from CB P-17 to DMH-P1-7 would appear to conflict with the proposed sewer line. In addition the inverts and design slopes of the proposed drain pipe from CB P-15 to DMH-P1-7 would appear to conflict with another proposed sewer line. As such, no further review of the sewer design was conducted. We recommend the Applicant carefully review the proposed sewer and drainage design and revise as necessary acceptable to the Department of Public Works. We recommend that a plan and profile of the proposed sewer system indicating all crossings be included within the project plan set. *Sewer profiles were provided with the latest submission, but are incomplete, since the profiles do not include the sewer force main. With a cursory review we note the profile on sheet C-404 indicates that most of the sewer line is under the roadway between SMHP2-2 and P2-1 with less than 5 feet of cover over the pipe and that does not comply with requirements of the regulations. In addition, the profile on sheet C4-03 indicates pipe cover less than 5 feet under the roadway from between SMH P-1-3 to SMH P1-1. Also, profile on sheet C404 indicates pipe cover less than 5 feet under the driveway near SMH P1-13. We note the profiles do not indicate the dwelling service water line crossings to clarify compliance are achieved. We note sewer services to dwellings will cross the proposed waterline and it appears the crossings would conflict with the proposed waterline and not provide the required vertical separation. As such, no further review of the sewer design was conducted. We recommend the Applicant carefully review the proposed sewer and utility design and revise as necessary in compliance with the regulations and acceptable to the Department of Public Works.*

OCG Response 10/4/16: The sewer profiles have been revised to provide at least 5 feet of cover. In most locations cover exceeds 7.5' to allow for adequate crossing of water service lines over the sewer and sewer service lines to cross under the water main. A note has been added to C-401 and C-402 indicating required sewer/water clearance and measures to be taken if those clearances cannot be met. The proposed force main as shown on the C-401 will be laid next to the gravity sewer with 3' minimum horizontal separation and therefore run in the same profile as shown on C-403. A note has been added to C-401 regarding the force main construction.

This was recently reviewed with the City Engineer and the Technical Review Committee and with this change, it was indicated that the City Engineer was satisfied.

3. The design indicates the site will be served by public water with connections at Route 150, Beacon Street and Summit Avenue. The Applicant should verify the proposed connection locations are acceptable to the Department of Public Works and that adequate pressure and capacity is available. The Applicant should indicate the pavement sawcut limits associated with the connections for proper construction. The Applicant should obtain any permits for the proposed water service from the Department of Public Works. In addition, the Applicant should obtain a permit/permission for the proposed work in Route 150 from Mass DOT. *We recommend the Applicant confirm the proposed pipe connections and pipe sizes are acceptable to the Department of Public Works. The Applicant should indicate the pavement sawcut limits associated with the connections for proper construction.*

OCG Response 10/4/16: As noted in our June 22, 2016 letter, the proposed water main sizes and connection to the municipal system is consistent with what the board and DPW approved in 2013. Comments received from the City Engineer did not include any concerns or comments on the proposed pipe sizes and connection locations.

This was recently reviewed with the City Engineer and the Technical Review Committee and it was indicated that the City Engineer was satisfied. As indicated on Sheets C-401 and C-402 this construction will be coordinated with the City DPW.

4. The plans indicate underground electric and communication utility connections to serve the site will be from Beacon Street for the easterly development area and from Summit Avenue for the northerly development area. We recommend the Applicant obtain and provide letters from each utility provider indicating the proposed service location is acceptable and service is available for the Planning Boards file. *The Applicant noted that the utility service letters will be provided when received.*
5. The plans do not address how the project will handle refuse/trash as noted in XI.C.5.f. of the bylaws. The Applicant should clarify and note accordingly on the site plan. *Comment addressed with this submission.*
6. The size and types of the existing water lines should be noted on the existing conditions and utility plans. In addition, the size and type of drain pipes along Summit Avenue should be indicated on the existing conditions plan. The Applicant should update the plans accordingly. *The revised plans do not include changes to address this comment. The Applicant should update the plans to address this comment.*

OCG Response 10/4/16: This information as provided by the City Engineer has been added to the plans.

7. We recommend the Applicant update the plans and application information as necessary to obtain the sewer and water utility connections acceptable to the Department of Public Works. *We recommend the Applicant confirm the proposed pipe connections and pipe sizes are acceptable to the Department of Public Works.*

OCG Response 10/4/16: As noted in our June 22, 2016 letter, the proposed water main sizes and connection to the municipal system is consistent with what the board and DPW approved in 2013. Comments received from the City Engineer did not include any concerns or comments on the proposed pipe sizes and connection locations.

This was recently reviewed with the City Engineer and the Technical Review Committee and it was indicated that the City Engineer was satisfied. As indicated on Sheets C-401 and C-402 this construction will be coordinated with the City DPW.

n. Roadways and Sidewalks: We recommend the Applicant clarify the following:

1. The proposed paved sidewalk indicated by the detail on sheet C-602 does not comply with section 8.05 the Amesbury Subdivision Regulations requiring a concrete sidewalk. The Applicant should revise the detail in compliance with the regulations and note the sidewalks

are concrete on the site plan. *Comment addressed with this submission.*

2. The site design indicates a mailbox area to serve the easterly site will be placed on Route 150, but no improvements are indicated in this area. It seems appropriate that the boxes should be placed along the entrance drive with a pull off. Please verify and confirm that the mailbox location shown meets approval of Mass DOT and post master. In addition the Applicant should verify the proposed mailbox location to serve the northerly development is appropriate and acceptable to the DPW and postmaster. *Comment addressed with this submission.*
3. The design indicates a sidewalk is to be constructed along Summit Avenue. We recommend the sidewalk be designed with curbing to separate pedestrians from vehicular traffic acceptable to the Department of Public Works. The Applicant should update the plan set to include appropriate design and details for proper construction in this area acceptable to Department of Public Works. *Comment does not apply with updated design shown.*
4. The site design does not provide sidewalks on both sides of the roadway per section 7.09.H of the Amesbury Subdivision Regulations. We recommend that a sidewalk versus a pedestrian shoulder be provided along the main site drive of the easterly development area and that the sidewalk continue to Route 150 and to the potential school bus stop area. In addition, we recommend that appropriate cross walks with accessible ramps be provided along Route 150 and at the roadway intersection opposite unit #74. The Applicant notes a waiver is requested to provide a sidewalk along one side of the proposed drives (private roadways) in some locations. We recommend that the Applicant discuss the proposed waiver request and sidewalk locations with the Board. The Applicant should revise the design acceptable to the Board or in compliance with the regulations. *The revised design does not provide sidewalks on both sides of the entire roadways per section 7.09.H of the Amesbury Subdivision Regulations. The Applicant has submitted a waiver request for the proposed sidewalk for Planning Board consideration.*
5. The Applicant submission notes that a waiver for 200 foot centerline radius of the roadway design is requested. However, the plans do not include any roadway design or geometry information. It appears that this waiver may apply to more than one location, but it is unknown. We recommend that the Applicant revise the plan set to provide the roadway horizontal and vertical design for review and comparison relative to the roadway design standards of the City of Amesbury and AASHTO. The information should include stationing for the roadways. No further review of the roadways or sidewalks was performed at this time. *The revised submission does not include complete horizontal and vertical roadway design alignments to clarify the proposed roadways are in compliance section 7.09 of the Subdivision Regulations and AASHTO as previously requested. The Applicant has noted that some of the centerlines do not comply in the latest submission. The Applicant should provide complete roadway design information to clarify compliance with the regulations.*

OCG Response 10/4/16: Roadway profiles showing the proposed horizontal and vertical geometry are enclosed.

The applicant is requesting waiver from the requirement of 100' of 3% or less slope prior to an intersection. The proposed plans show 60' to 80'. Because of the nature of the site and the existing steep slopes down to the pond, strict compliance with this regulation would require a

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Amesbury, Massachusetts

significant amount of fill. We believe the lengths provided provide ample length of moderate slope prior to the intersection and is consistent with the intent of the regulation.

- o. Marina or Docking Facilities: The project design does not indicate any proposed marina or docking facilities and this performance standard does not appear to apply to this application. ***No Comment.***

- p. Specific Design and Construction Standards: We recommend the Applicant clarify the following:
 1. Please provide roadway names and unit address acceptable to the Board and Fire Department. ***The Applicant noted this will be addressed at a later time in the response.***
 2. Please note the roadways (on site drives) are to be private. The Applicant should provide notes on the plans acceptable to the City. ***Comment addressed.***
 3. Recommend the access trail be updated to provide a connection to the sidewalk along the northerly development area. This could be located in the utility construction area south of unit 77. ***Comment addressed.***
 4. The project proposed a trail adjacent to Bailey's Pond, but details for the trail construction are missing from the plans set including any associated grading. Should other amenities along the trail be provided such as benches or informational signs? An easement for use by the public appears necessary. The Applicant should discuss the trail design and public access with the Board and should update the plans and application information acceptable to the Board. ***No information was provided to address this comment.***

OCG Response 10/4/16: This will be discussed with the board and the Conservation Commission.

Other information for Planning Board Consideration:

1. The City tax maps indicate there are three separate lots in this area with only lot 50 map 88 and lot 1 map 98 labeled. It appears there is another unlabeled lot between these two labeled lots as displayed on tax map 87. The development for the easterly area would appear to be upon both the unlabeled lot and lot 1. We recommend that Applicant clarify if there is an additional lot and if a lot consolidation plan that combines the existing lots into one lot that allows the proposed development is needed to meet the setback requirements of the Bylaws. ***The Applicant notes that lot consolidation would occur after approval in the response letter.***
2. A special permit may be required under section XI.A and/or IX.B of bylaws. The Applicant should review the project soil volumes and the requirements under section XI.A and/or IX.B of bylaws and submit an application for a special permit if applicable. We recommend that the Applicant provide information on the proposed soil volumes for the Planning Boards project file. ***The Applicant indicates that a special permit will be filed later in the response letter.***
3. It is our understanding that the Applicant had requested an immediate review and meeting relative to this major modification design and we understand the Applicant has requested a meeting for January 21, 2016. At the City's request, Stantec has conducted an expedited review of the major elements of

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Amesbury, Massachusetts

the submitted project design needed to meet the Applicant's request for review comments and meeting. Clarification and/or information may arise from this meeting that may need further comments. ***No comment.***

We look forward to discussing the plan changes and these comments with the Planning Board at the next hearing. If you have any questions, please feel free to contact me at your earliest convenience.

Sincerely,

OAK CONSUTLING GROUP, LLC

A handwritten signature in black ink, appearing to read "Sean P. Malone".

Sean P. Malone, P.E.
Vice President

SPM/

Enclosures