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Southborough, MA 01772
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November 4, 2022

Southfield Redevelopment Authority
c/o Jim Young
223 Shea Drive
Weymouth, MA 02190

Re: Proposed 99-Unit Hotel Development
Intersection of Main Street & Shea Drive
Development Plan & Site Plan Approval – Peer Review

Dear Members of the Southfield Redevelopment Authority (SRA):

Bohler Engineering is in receipt of a comment letter from BETA Group, inc. dated August 26, 2022. On behalf of Applicant CP Endeavor Holdings 18 LLC., Bohler and LEC Environmental Consultants (LEC) offers the following responses. For clarity, the original comments are in ***italics,*** while our responses are directly below in **bold** type.

A few primary issues noted in the BETA letter reference the wetlands on the property being protected as Outstanding Resource Waters (ORW) and potential complications associated with the floodplain mapping on the property.

Regarding ORW, our team acknowledges that the man-made wetlands are protected as ORW and LEC is in the process of reviewing permitting considerations with DEP associated with the Water Quality Certification (WQC) that is required for filling wetlands that are ORW. The wetlands on the property are protected as ORW because they are tributary to Mill River, located west of Route 18, which is a tributary to Whitman's Pond, a Public Water Supply source. As a result, the DEP review of the WQC application will be focused on project mitigation which provides protection and enhancement of water quality and the public Water Supply. Our team has identified mitigation measures, including off-site stormwater improvements, which are above and beyond the engineering requirements for permitting the project and will significantly enhance water quality in the watershed to the public water supply. We plan to present these mitigation measures to DEP informally to determine if they are sufficient to satisfy the WQC permitting requirements. The initial approach to providing off-site mitigation is to replace the existing catch basin within the middle of the site with a water quality unit as multiple catch basins at the end of Shea Drive ultimately flow untreated towards this catch basin prior to discharging to the existing wetlands and Public Water Supply tributary. The applicant understands that additional mitigation measures may be required by DEP. Additionally, water quality would be improved by converting the open drainage ditch to a piped connection as it would prevent the transfer of pollutants from untreated surface runoff from Route 18 and the surrounding area from being collected in the open ditch and flowing toward the public water supply. Our team will update the SRA with additional information regarding DEP permitting as we receive it.

Regarding the floodplain mapping issues noted by BETA, the MassDOT Variance and Order of Conditions required MassDOT to assess the floodplain to ensure that there would not be a rise in flood stage following construction of the roadway improvements. MassDOT is required to submit a Letter of Map Revision (LOMR) to FEMA with a detailed model and floodplain elevation. Although the LOMR has not been submitted to FEMA, review of the model prepared by MassDOT's consultant has resulted in our team concluding that the proposed project as currently designed would not exacerbate flooding within the project area. Further explanation of this issue is provided below.

Wetlands/Environmental Regulatory Review:

Comment W1. *The Resource Area flagging on the Project Plans is not consistent with the ALTA survey provided with the Project Plans. If additional and or revised Resource Area boundaries have been established, a Massachusetts Professional Land Surveyor should stamp and certify an up-to-date Existing Conditions Plan to demonstrate that the Project design is based on accurate existing conditions data.*

Response: **The Site Plans and survey have been updated to include resource area flaggings placed and surveyed by the wetland consultant.**

Comment W2. *The Resource Area boundaries depicted on the Project Plans are not qualified (e.g., Bank vs. BVW associated with the culverted stream along Route 18, etc.). The Applicant will be required to accurately qualify each Resource Area at the Site to ensure that impacts are quantified correctly, and all applicable Performance Standards are met. The Applicant will be required to provide this information in order to permit the Project under the Act/NAS Wetlands Regulations and demonstrate to the SRA that the Project is permittable and constructable.*

Response: **The resource area disturbances have been clarified and quantified as follows: the Bank disturbance associated with filling the intermittent stream totals 183 linear feet. The Land Under Water (LUW) disturbance associated with stream totals 319 square feet. The BVW located along the stream to be filled totals 594 square feet. The property also contains Bordering Land Subject to Flooding (BLSF) and the project will result in filling 7,065 square feet of BLSF and displacing 210 cubic feet of BLSF. Mitigation is provided for each of these wetland impacts as described below.**

Comment W3. *Portions of the Project including grading, tree clearing, and construction of impervious areas will occur within an additional area of BVW/ORW identified by BETA during a Site visit on August 10, 2022, near Proposed Test Pit #5. Hydrophytic vegetation including cattail (Typha latifolia) was observed, as well as soil indicators of hydrology within 12 inches of the surface.*

BETA recommends that the Applicant reassess this area concurrently with the recommendations provided above in Comment W2. As of this writing, the Applicant has not provided the SRA with accurate existing conditions information related to Wetland Resource Areas at the Site.

Response: **LEC will assess this area and provide the SRA with an update at the November 16 Public Hearing. It is important to note that this area is within the recently constructed BLSF compensatory storage area associated with the Route 18 project and was not identified as a wetland on any previous plans for the property.**

Comment W4. *The BVW along Route 18 that is proposed to be filled is also the location of an intermittent stream with jurisdictional Bank and LUW. The Project, as proposed, will fill/re-route this intermittent stream and therefore cannot meet the Performance Standards under 310 CMR 10.54(4) and 310 CMR 10.56(4) for Bank and LUW, respectively.*

Further, this stream/BVW meets the definition of an ORW due to it being a tributary to Mill River, which appears to ultimately discharge to Whitmans Pond, a Public Water Supply. The 401 WQC Regulations strictly regulate discharge of fill and dredged materials to ORW. BETA recommends that the Applicant demonstrate that the proposed work is permittable under the 401 WQC Regulations and does not require a Variance, as the proposed stormwater and development design relies on filling onsite ORW for purposes of stormwater management.

Response:

The project will result in filling the Bank and associated BVW and Land Under Water associated with the on-site intermittent stream system. While this stream is technically a resource area and is protected as an ORW, it is important to note that it is a recently constructed, man-made ditch designed to provide compensatory flood storage. Prior to the Route 18 Widening project, and within the MassDOT plan set, this feature was labeled as a non-jurisdictional "ditch" (see Attachment A). The Route 18 project relocated the ditch and presumably widened it to provide comp storage for BLSF disturbance. The ditch was filled and the new channel constructed in 2019. The features relative functions and values are severely degraded as a result of its location adjacent to Route 18 and lack of direct surficial connection to any larger contiguous wetland systems. This stream is an approximately 100-foot long segment of stream that flows within long culverts both upstream and downstream of the open channel section. Upstream, the stream flows west from the wetland system off-site located off-site to the east via a 200-foot long 24" pipe extending along the southern property line. From this pipes outlet into the existing channel, the stream flows north in and is again piped for another 350-feet within a 24" pipe extending under Route 18 to an outlet into a wetland system on the west side of Route 18. Due to its location approximately 20-feet from the edge of Route 18, the stream is likely subject to significant water quality impacts from snow plowing and other runoff from surrounding development.
The NOI for the project will address the Performance Standards for the impacted resource areas. The mitigation shown on the Site Plans provides mitigation that is of higher relative function and value than the existing degraded resource areas.

As noted above, the team is in the process of discussing permitting with DEP and will update the SRA with additional information as it is obtained.

Comment W5.

As noted in the above-referenced Covenant and in WSI's memorandum, 2:1 wetland mitigation is required for impacts to BVW at the Site. The Project as proposed does not adhere to this requirement.

Based on the information provided, the proposed mitigation area will not meet the Performance Standards under 310 CMR 10.55(4), as it does not appear that the mitigation area will be constructed at the same elevation and within the same reach of the adjacent waterbody as the impacted area. Further, the Applicant is proposed a flared-end section along the western portion of the replication area that has been designed to drain the replication area, thereby removing sources of hydrology required to establish a wetland.

BETA recommends that the Applicant seek an alternative area/layout for wetland replication that meets local and state Performance Standards and does not interface with the stormwater management system. This revision will require the

construction of a larger wetland replication area and will likely result in proposed stormwater management BMPs being located within 50 feet of a surface water, which is not permittable under the Massachusetts Stormwater Regulations and Standards.

Response: **The proposed Wetland Replication Area can be modified to achieve the required 2:1 ratio and to comply with the BVW Performance Standards. As noted above, the stream system to be impacted is hydrologically connected the wetland system to the east, which includes the location of the wetland replication area. Mitigating the wetland impacts in the proposed location will create a significantly more valuable and functional resources since they will be located adjacent to, and become part of the existing wetland system. This will be an improvement when compared to the low-quality, man-made wetlands to be filled.**

Comment W6. *W6. The extent of BLSF on the Project Plans conflicts with the information provided as part of the MassDOT Route 18 Variance proceedings, and the proposed compensatory flood storage does not meet the Performance Standards listed under 310 CMR 10.57(4)(a). BETA offers the following comments regarding the onsite floodplain:*

a. As noted by the Applicant, the published FEMA base flood elevation for the Site is 151.2 feet (NAVD88). Although FEMA has published a base flood elevation for the Site, Special Condition 18a and 18d of the MassDOT Variance required MassDOT to assess the floodplain via a HEC-RAS analysis to ensure that there would not be a rise in flood stage following construction of the roadway improvements, as fill was proposed within a Regulatory Floodway. MassDEP's May 5, 2017 letter documented agreement with the analysis performed by Tetra Tech that established a base flood elevation of 153.83 feet (NAVD88). MassDEP's letter also indicates that MassDOT is required to submit a Letter of Map Revision (LOMR) to FEMA. No LOMR appears to have been submitted at the time of this writing.

BETA recommends that the Applicant be required to consider the results of the HEC-RAS analysis in determining the boundary of BLSF at the Site. Although the Act notes that FEMA mapping is presumed accurate for determining the boundary of BLSF, 310 CMR 10.57(2)(a) indicates that presumption is rebuttable based on credible evidence by a Professional Engineer or another competent professional. Use of the most up-to-date floodplain data will result in a majority of the Site being below the floodplain elevation and the Project not being permittable as proposed.

b. The proposed compensatory storage area is effectively a stormwater basin receiving onsite stormwater discharge and features a hydraulic restriction (i.e., a "pinch point") in the center of the area; therefore, the Performance Standards under 310 CMR 10.57(4)(a) are not met. BETA recommends that the Applicant consider this Performance Standard in any subsequent design revisions.

Response: **Since MassDOT's LOMR has not yet been acted on by FEMA, the design plans have been prepared to provide compensatory flood storage based off the flood elevation currently listed by FEMA (151.30) rather than the elevation**

listed in MassDOT's LOMR (153.86). However, the building elevation has been set at 154.00 to be above the flood elevation listed in MassDOT's LOMR.

Per review of the HEC-RAS model prepared by MassDOT's consultant, the existing grades do not account for the existing compensatory flood storage areas within the site and are essentially blind to changes in grading within the site. Although the proposed site plan does provide compensatory flood storage, given how the site is modeled in HEC-RAS, it is Bohler's opinion that the proposed project would not have an adverse effect in flooding within the project area.

Comment W7. *BETA understands that due to the Site's land use history, polyfluoroalkyl substances (PFAS) have resulted in groundwater contamination. During the August 10, 2022 Site visit, BETA observed an environmental consultant working with a driller to collect soil samples. Numerous groundwater monitoring wells are present at the Site.*

Given the nature of the Project and its use of stormwater best management practices (BMPs) that will infiltrate onsite runoff into the groundwater table, the Applicant should provide a full analysis of the PFAS risks at the Site and how work at the Site will comply with the Massachusetts Contingency Plan. It is recommended that full disclosure of contaminants and any potentially required remediation be disclosed to the SRA to determine what constraints, if any, exist for development at the Site.

Response: **An Environmental consultant has been engaged and is currently preparing a Phase I Environmental Site Assessment (ESA) to determine the presence of any potential contaminants on the site. This information will be forwarded to the SRA once available.**

<u>Stormwater Management Review</u>

Comment SW1. *There are no test pit logs to verify the soil conditions at the Site. Since there is no Natural Resources Conservation Service (NRCS) soils determination in the upland portion of the Site, the entirety of the design is based upon assumptions relative to the curve number (CN) values, infiltration rates, and most importantly, depth to groundwater.*

Response: **Test pit and soil boring have been conducted and are included within the Geotechnical Engineering Report included in this submission and the proposed drainage design has been revised accordingly.**

Comment SW2. *As noted above, the Site is located within an area tributary to a public water supply (Whitmans Pond) and the wetlands at the Site are therefore considered ORWs. The Project design presently does not provide sufficient setbacks for stormwater BMPs from surface waters, nor does it provide the required level of treatment for stormwater discharging to an ORW. Therefore, the stormwater design is not in compliance with the Standards.*

Response: **The drainage design has been revised such that the proposed underground infiltration systems provide 50 feet of separation from all wetland resource**

areas/surface waters. Should additional water quality be required within the site prior to discharge to the wetland resource areas, additional measures will be introduced.

Comment SW3. *The design of the two (2) proposed subsurface infiltration systems are based upon test pits to be conducted in the future. The bottom elevation of each of these systems is 147 feet (NAVD88). The adjacent wetlands and streams are depicted at or around elevation 152 feet (NAVD88); therefore, the proposed systems are currently proposed to be five (5) feet lower than the adjacent wetlands. According to the Handbook, the bottom of these systems should be a minimum of two (2) feet above seasonal high groundwater. It is BETA's opinion that it is not reasonable to assume that the groundwater elevation adjacent to the wetlands will be a minimum of seven (7) feet lower than the delineated boundary.*

Response: **Test pit and soil boring have been conducted and are included within the Geotechnical Engineering Report included in this submission and the proposed drainage design has been revised accordingly.**

Comment SW4. *Proposed Underground Infiltration System No. 1 is located within the wetlands that have been flagged along Main Street, and Underground Infiltration System No. 2 will be only 18 feet from the replicated wetlands area. Neither location will meet the Handbook requirement for an infiltration system to be located a minimum of 50 feet from the surface waters.*

Response: **The project proposed to fill the existing wetland resource area where Proposed Underground Infiltration System-1 and replicated within the site. Proposed Underground Infiltration System-2 has been revised to provide 50 feet of separation from all wetland resource areas/surface waters.**

Comment SW5. *As noted above, additional consideration should be given to the onsite floodplain. If the proposed Project were to be constructed, the Site would act as a dam to restrict flood flows towards the north. This would result the Resource Areas at the rear of the site to detain flood flows and effectively act as a stormwater control structure.*

Response: **As previously stated, per review of the HEC-RAS model prepared by MassDOT's consultant, the existing grades do not account for the existing compensatory flood storage areas within the site and are essentially blind to changes in grading within the site. Although the proposed site plan does provide compensatory flood storage, given how the site is modeled in HEC-RAS, it is Bohler's opinion that the proposed project would not have an adverse effect in flooding within the project area.**

Comment SW6. *As proposed, the grades along the southerly property line would be raised by approximately one (1) foot. There is insufficient survey data on the plans to determine if this would result in any additional localized ponding on the adjacent site. At a minimum, it will divert additional flood flows onto the adjacent lot, particularly during events less than a 100-year frequency event.*

Response: **Additional survey data will be gathered and the Site Plans will be adjusted as necessary as to not divert flows towards the adjacent lot.**

Comment SW7. *The design of the proposed flared end section at the wetland replication area and the connection with the Main Street collection system is associated with the following design issues:*

a. *During low flows, it will divert runoff away from the wetlands beyond the existing outfall and essentially act to dewater the wetlands.*
b. *The angle of the inlet into the proposed DMH to be set along Main Street at a significantly acute angle to the direction of flow.*
c. *During high intensity storm events, a reverse flow may occur within the culvert and allow untreated stormwater flow from the MS4 into the Resource Areas.*

Response:

a. **The design has been revised to remove the existing headwall and its associated pipe. The existing flows directed to the headwall will now be transferred to a new flared end section that directs flows towards the proposed wetland replication and compensatory flood storage area. In the existing condition, there is a depression at the headwall that results in ponding of stormwater up to approximately elevation 151.10. The proposed wetland replication area has been designed to provide a spillway at elevation 149.67 that leads to a small depression where the existing headwall is located. Stormwater will then pond within this depression up to approximately elevation 151.10 prior to discharge to the existing wetlands, as it does in the existing condition. This spillway will continue to water the existing wetlands during low flow storm events in a similar manner as the existing headwall does in the existing condition.**

b. **The design of the inlet to the existing Main Street drainage system has been revised to connect via a doghouse manhole north of the previous connection location. The proposed connection is now at 90 degrees.**

c. **The design has been revised to remove the flat portion of pipe from the existing Main Street drainage system to the proposed wetland/compensatory flood storage area. The updated design includes converting the existing catch basin within the site to a drain manhole. This manhole will essentially act as an outlet control structure to send low flows to the wetlands and higher flows directly to the Main Street drainage system to reduce the potential for erosion of the existing wetlands during higher intensity storms a. During high intensity storm events in the existing condition, the existing Main Street drainage system backs up and ultimately begins to discharge out of the 24" RCP pipe at the southerly property corner towards the wetland resource area beginning at elevation 149.40. In the proposed condition, no backup towards the proposed wetland resource area would occur prior to elevation 151.50 (outlet elevation from converted catch basin to manhole towards the Main Street system).**

Comment SW8. *As noted above in Comment W7, the Applicant should demonstrate that the proposed stormwater design accounts for PFAS contamination if found to be present. Should infiltration (as currently proposed) not be feasible due to*

groundwater contamination concerns, alternative stormwater BMPs will be required and may significantly decrease the developable area at the Site.

Response: **An Environmental consultant has been engaged and is currently preparing a Phase I Environmental Site Assessment (ESA) to determine the presence of any potential contaminants on the site. This information will be forwarded to the SRA once available.**

Traffic Engineering Review:

Comment T1. *Clarify why the Main Street (Route 18) and Shea Drive intersection was not included in the study area. Including adjacent intersections is standard practice for a traffic study.*

Response: **The traffic engineer is currently conducting additional analysis and this information will be provided once available.**

Comment T2. *BETA recommends manual turning movement counts (TMCs) be conducted from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on a weekday to capture peak hour traffic volumes at the Main Street (Route 18) and Shea Drive intersection.*

Response: **The traffic engineer is currently conducting additional analysis and this information will be provided once available.**

Comment T3. *While trip distribution based on existing travel patterns is typically appropriate, BETA recommends the Assessment apply all Site trips to the adjacent intersection of Main Street. When reviewed, online mapping services generally do not route trips to travel along Shea Drive to access the Site unless they begin/end within the Union Point area to the south and east. All exterior trips generally are routed via Main Street from the north or south.*

Response: **The traffic engineer is currently conducting additional analysis and this information will be provided once available.**

Comment T4. *Due to the close proximity of the proposed driveway to the intersection of Main Street (Route 18) and Shea Drive, provide data/analysis to verify that the intersection operations would not negatively impact each other.*

Response: **The traffic engineer is currently conducting additional analysis and this information will be provided once available.**

Comment T5. *The existing Shea Drive provides a wide landscaped median island separating eastbound and westbound traffic that extends approximately 500 feet east of Main Street. Within this area, Shea Drive utilizes a four-lane section that tapers to a two-lane section east of the proposed site driveway. Consider whether the median island and roadway striping should be altered to accommodate the driveway.*

Response: **Under existing conditions, there is a striped median along Shea Drive at the location of the proposed site driveway which prevents left turns. The existing striping will be modified to create a break in the median island thereby allowing left turns into and out of the site. Please refer to the "Proposed Hotel Development, Site Circulation" plan prepared by Ron Muller & Associates for the proposed pavement striping improvements within Shea Drive.**

Comment T6. *Discuss and include any additional development-related growth for other known proposed developments in the area which would impact the intersections.*

Response: **The traffic engineer is currently conducting additional analysis and this information will be provided once available.**

Comment T7. *In addition, a Traffic Assessment should include a safety analysis. Provide a crash data analysis for the intersection of Main Street (Route 18) and Shea Drive in addition to the segment of Shea Drive adjacent to the proposed driveway.*

Response: **The traffic engineer is currently conducting additional analysis and this information will be provided once available.**

Comment T8. *Recommend the Applicant provide a fire truck turning diagram showing how the fire truck will access the rear of the building.*

Response: **A Fire Truck Turning Exhibit was included in the original application submission and has also been included in this submission. It is anticipated that in an emergency situation, a fire apparatus would stop along the shoulder of Main Street to access the westerly and southerly building faces. The northerly and easterly building faces would be accessed from the turn around area.**

We trust the above as well as the attached information are sufficient for your continued review of the project. Should you have any questions or require additional information, please do not hesitate to contact me at (508) 480-9900.

Sincerely,

Bohler

Nick Dewhurst

cc. BETA