

July 18, 2022

Middleborough Zoning Board of Appeals
20 Center Street
Middleborough, MA 02346

Re: 457-459 Wareham Street – Special Permit Site Plan

Dear Board Members :

Bohler Engineering is in receipt of comment letters from Town of Middleborough – Water Division (Michael Bumpus), dated June 9, 2022, Town of Middleborough – Department of Public Works (Christopher Peck), dated June 13, 2022, Town of Middleborough – Conservation Commission (Patricia Cassady), dated June 13, 2022, Town of Middleborough – Building Commissioner (Robert Whalen), dated June 9, 2022, Town of Middleborough – Planning Board (Leeann Bradley), dated June 16, 2022 and Amory Engineers, P.C. (Patrick Brennan) dated June 29, 2022. On behalf of Applicant ARCO National New England LLC, Bohler offers the following responses. For clarity, the original comments are in **italics**, while our responses are directly below in **bold** type.

The Site Plans have been revised accordingly to address these comments. Also please note that a 4' high black vinyl chain link fence has been added to plans along the northern property line by Wareham Street as requested during the Public Hearing. Also, the southern access drive has been widened to allow for 2-way traffic. Based on this additional impervious area for the southern driveway, loading docks have been removed from both sides of the building so the total impervious coverage is still below the required 40%.

Town of Middleborough – Water Division

Comment # 1 We suggest the applicant provide additional information on anticipated water use (total daily volume and peak usage rate (fixture count)) and any planned water conservation measures. It is unclear if any irrigation systems are proposed as part of the Project.

Response: The fixture counts and planned water conservation measures are unknown at this time because presently the tenant is unknown. However please note the septic design has been approved for only 130 people. Therefore, based on Title V flow rates (15 GPD per person), the maximum sewer flows will be 1,950 GPD.

*Comment #2 The 71,400 *- square foot buildings will require fire-sprinkler systems. The applicant should submit information and calculations on required peak flow rate, required pressure and duration. A fire flow meter is required on the sprinkler line by Water Department standards. Back-flow devices and meters will be required on all fire connections.*

Response: Once designed, information and calculations will be provided for the fire-sprinkler system. Back-flow devices and meters will be provided on all fire connections as required.

Comment #3 We recommend a hydrant flow test be conducted in Wareham Street in the vicinity of the proposed building to verify available hydrant flow.

Response: A hydrant flow test has been conducted in Wareham Street. The results have been included.

Comment #4 The distribution system in the vicinity includes a 10-in cast iron main (south side) and a 16-in. ductile iron main (north side). We recommend an 8-in. x 16-in. tapping sleeve and valve connection to the 16-in. Wareham Street main on the north side of Wareham Street. A MADOT permit will be required, along with a traffic plan, consultation with MADOT is recommended. MADOT application process is through the Water Department.

Response: The information has been added to Sheet C-502 - Utility Plan A of the Updated Site Plans.

Comment #5 All valves and fitting connections should include retainer glands in accordance with Water Department Standards.

Response: The information has been added to Detail Sheet C-902.

Comment #6 Water Department standards require material specifications be included on the drawings. Attached are the Water Department Technical Specifications.

Response: The information has been added to "Hydrant & Valve Installation" Detail on Sheet C-902.

Comment #7 Minimum depth of cover should be 4'-6" min. to 5'-6" max in accordance with Water Department Standards.

Response: The information has been added to "Typical Water Trench Detail" on Sheet C-902.

Comment #8 The Water Department suggest consultation with Middleborough Fire Department on hydrant locations.

Response: We have requested the Middleborough Fire Department to review and approve the hydrant locations on numerous occasions. To date, we have not received a response.

Comment #9 The "Thrust Block" details should be modified to call out retainer glands at all joints (anchor tee, gate valve, hydrant, and all fittings) in accordance with Water department Standards, Retainer glands shall be of the locking gland-type, MEG-ALUG or series 100, as manufactured by EBBA Iron.

Response: For the clarity purposes, the retaining glands information has been added to "Hydrant & Valve Installation" Detail on Sheet C-902.

Comment #10 All water meters 3 inches and larger shall be the compound type, conforming to AWWA Standard C702'92, of a manufacturer approved by the Water Superintendent. Water meters are required on both the domestic and Fire Protection lines. (Neptune meter is



required to register in C.F.) Meter type for Fire Line: High Performance Fire Service Turbine SS Meter.

Response: The meter information has been added to “Hydrant & Valve Installation” Detail on Sheet C-902.

Comment #11 Final plans should be submitted to the Water Department for approval, prior to construction, after all suggested changes/modifications are made.

Response: Noted

Town of Middleborough – Department of Public Works

Comment #1 The applicant should apply State Highway Access permit through the District 5, MassDOT office in Taunton.

Response: The applicant will apply for a State Highway Access permit.

Comment #2 The applicant will be required to complete a storm water permit. The permit is available through the Department of Public Works.

Response: The applicant will complete a stormwater permit.

Town of Middleborough – Conservation Commission

Comment #1 This applicant has filed a Notice of Intent with the Conservation Commission. The first hearing was on June 2, 2022 but was continued to June 1,6,2022 to vote on a peer review consultant to review the wetland delineation.

Response: The peer review consultant has completed their review of the wetland delineation and agree with the location. The next Notice of Intent hearing with the Conservation Commission is scheduled for July 21st.

Comment #2 It was observed at a site visit before the June 2,2022 meeting that there is potential encroachment into the wetlands.

Response: See response above.

Town of Middleborough – Building Commissioner

Comment I have reviewed the petition submitted Keith Curran, P.E., Southborough, MA 01772 relative to his request to allow for the construction of a 71,400 +- square-foot single story industrial warehouse along with associated site improvements. The subject property is located at 457 & 459 Wareham Street, Middleborough Assessor's Map 087, lot 2445 and 3128, In the G1IX district.

I would support this request.

Response: Noted

Town of Middleborough – Planning Board

Comment *The Planning Department is in receipt of the above-referenced application and plan. This department recommends that a full engineering review be conducted for this project focusing on traffic, stormwater management, wetland protection, limiting impervious surfaces, providing adequate buffering and maximum retention of existing vegetation.*

Response: **Noted**

Amory Engineers, P.C.

Comment #1 *The Applicant should describe in more detail the exact relief that is being sought. For example, they should explain what areas of the site do not meet the screening requirement, etc.*

Response: **The parking area near the Basin #1 is missing the required 5' landscape islands, as well as the screening.**

Comment #2 *We note the following with respect to ZBL §8.2.8, the WRPD Z3 Use Regulations:*

a. ZBL §8.2.8.3.j requires a Special Permit for greater than 25% impervious area on a lot and prohibits greater than 40% impervious area. Based on the HydroCAD calculations, post-development impervious area would be 173,627 s.f., which is just over the threshold at 40.13%.

Response: **The impervious area has been adjusted by eliminating 4 loading docks. The updated total impervious area is less than 40%.**

b. ZBL §8.2.8.3.j also requires that not less than 35% of any lot shall be maintained as Natural Vegetation Area. We calculate the existing site to contain approximately 41% Natural Vegetation Area and the proposed development would result in about 22% Natural Vegetation Area remaining. The amount of clearing needs to be reduced to provide the minimum 35% Natural Vegetation Area.

Response: **The Division 8.2.8.3 (j) waiver is requested. The request has been added to sheet C-301.**

Comment #3 *We question whether the person that logged the test pits is a MassDEP certified Soil Evaluator because the only indication of groundwater was direct observation and not redox features (mottles). The MassDEP Stormwater Handbook requires the use of redox features to determine seasonal high groundwater. The Middleborough Stormwater Rules and Regulations, §5.7.b(11) also require soil test pits to be logged by a MassDEP certified Soil Evaluator.*

Response: **The test pits were conducted by Brandon Barry who is a certified Soil Evaluator (Mass SE #14024). Redox features were used to determine seasonal high groundwater when present. See the attached soil logs.**

Comment #4 The catch basins on the steep grades at the front portion of the site should be equipped with double, cascade-type grates to optimize stormwater collection.

Response: The double catch basins DCB-01, DCB-02, DCB-05 have been added accordingly. Refer to Sheet C-302 Grading and Drainage Plan A.

Comment #5 The water quality sizing calculations for the CDS proprietary treatment units conflict with the details on Sheet C-903 of the plans. We believe that WQS-1 and WQS-2 should be model CDS2020-5 and WQS-3 should be model CDS2015-4. These should be specified on the plans.

Response: The MADEP water quality sizing calculations were provided as a Reference A and have the adequate capacity to provide the required infiltration rates.

Comment #6 To enhance infiltration we recommend that the bottom of the infiltration basins have four inches of loam rather than six inches.

Response: The comment has been addressed and is noted on Sheets C-701 through C-703.

Comment #7 The proposed perimeter erosion control barrier at the rear of the property should be located at the 25-foot wetland setback rather than at the limits of the wetland. This would ensure compliance with ZBL §8.2.8.3.i, which does not allow disturbance within 25 feet of wetlands.

Response: The proposed perimeter erosion control barrier is shown at the limits of the wetland because existing fill will need to be removed with the 25' wetland buffer.

Comment #8 The diameter of the proposed straw wattle should be specified on the detail on Sheet C-602.

Response: The detail "Erosion Control Detail" was revised accordingly, refer to Sheet C-602.

Comment #9 The HydroCAD calculations indicate that the rate of runoff will not be increased in the post-development condition to either design point. The calculations also indicate that total post-development volume of runoff from the site will not exceed existing conditions. However, the post-development volume of runoff to Design Point 1 (wetlands at the rear of the site) will be increased over existing conditions for each of the design storm events. The Applicant's engineer should quantify whether the increase in volume would have adverse effects on downstream properties.

Response: DEP stormwater Standard #2 states / requires that to prevent damage and downstream off-site flooding, the post-development peak discharge rate must be equal to or less than the pre-development rate from the 2-year and the 10-year 24-hour storms. ... Proponents must also evaluate the impact of peak discharges from the 100-year 24-hour storm. As outlined in the submitted Drainage Report, peak rates at the design points are at or below pre-development conditions for all storm events thereby mitigating the potential for off-site flooding impacts from the increase in stormwater volume in accordance with DEP standards. In addition, rip rap pads / scour holes are provided at the stormwater discharge points to dissipate velocity of the runoff and prevent downstream erosion.

Comment #10 We recommend that the proposed guide rail (guard rail) along the rear portion of the site should be extended to the northwest along the nine parking spaces adjacent to Infiltration Basin #1.

Response: The comment has been addressed and noted on Sheet C-303.

Comment #11 The proposed Cape Cod berm should be installed monolithically with the binder and top courses of pavement to control stormwater between when the binder and top courses of pavement are installed.

Response: Noted.

Comment #12 We recommend that the binder thickness for the standard duty pavement be a minimum of two inches.

Response: The detail "Standard Duty Pavement Section" detail was revised accordingly, refer to Sheet C-901.

Comment #13 A detail for the emergency gravel access road should be included on the plans.

Response: The comment has been addressed and "Gravel Access Driveway" detail added on Sheet C-901.

Comment #14 There is no dumpster shown on the plans. If a dumpster is proposed it should be shown and details of it, including proposed screening should be included on the plan.

Response: A dumpster is not proposed.

Comment #15 Snow storage areas should be identified on the plans.

Response: The comment has been addressed and snow areas were added on Sheets C-302 and C-303.

Comment #16 A swept path analysis should be provided to verify that the Fire Department's largest apparatus can safely maneuver around the site.

Response: Please see the attached Fire Truck Turning Exhibit verifying safe access around the site for the largest Fire Department apparatus.

Comment #17 The Applicant should consult with the Fire Department regarding the proposed locations of fire hydrants.

Response: We have requested the Middleborough Fire Department to review and approve the hydrant locations on numerous occasions. To date, we have not received a response.



Comment #18 We echo the comments in Mr. Bumpus' June 9, 2A22 memorandum and also suggest installation of a line valve on the 8-inch water main just after the tee for the fire service into the building.

Response: The comment has been addressed and noted on Sheet C-502.

Comment #19 There is an 80-foot wide temporary roadway easement that crosses the property, and the proposed building would block that easement. The Applicant should provide documentation that 1) it has the rights to block the easement or 2) the easement has been abandoned.

Response: This easement does not exist anymore. We will provide documentation once received.

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

A handwritten signature in blue ink, appearing to read "Keith W. Curran".

Keith W. Curran, P.E.