RE: 585 King Street

1 message

Josh Berman <jberman@marcuspartners.com> Wed, Aug 3, 2022 at 8:48 AM
To: Amy Love <alove@franklinma.gov>

Amy,

Let me know if this works or if you need something more formal.

- The Applicant shall work with the Department of Public Works (DPW) to address remaining comments identified in the DPW comment letter dated July 12, 2022. Prior to the issuance of a building permit, correspondence from the DPW along with one (1) copy of the revised Site Development Plans shall be provided to the DPW Director indicating that all remining comments have been addressed.
- The Applicant shall work with the BETA to address remaining comments identified in the BETA comment Letter dated July 17, 2022. Prior to the issuance of a building permit, correspondence from BETA along with one (1) copy of the revised Site Development Plans shall be provided to BETA indicating that all remining comments have been addressed.
- Prior to the issuance of a building permit for Site Signage, the Applicant shall submit more detailed information of proposed signage including the proposed entry sign and building signs.
- Prior to the commencement of construction, a copy of the Stormwater Pollution Prevention Plan (SWPPP) shall be provided to the Conservation Agent for their review.
- Prior to the commencement of construction of the retaining wall, the Applicant shall provide shop drawings of the proposed retaining walls to the Building Department.
- In conjunction with the MassDOT permitting, the roadway improvement plans shall be provided to the Department of Public Works (DPW) for review and comment.
- The Applicant shall provide one (1) copy of the roadway improvement plans to the DPW Director once they have been approved by the DPW and MassDOT.
- The Applicant will keep the Board appraised of their progress with MEPA and any findings which may significantly impact the site design.

Thanks,

Josh Berman

From: Amy Love <alove@franklinma.gov>
Sent: Monday, August 1, 2022 10:35 AM
To: Josh Berman <jberman@marcuspartners.com>
Subject: Re: 585 King Street

Hi Josh,

Al ist should be compiled before the next meeting of suggested conditions of approvals.

Amy Love, Town Planner II

Town of Franklin

355 East Central

Franklin, MA 02038

508-520-4907

On Mon, Aug 1, 2022 at 10:33 AM Josh Berman <jberman@marcuspartners.com> wrote:

> HI Amy,
>
> Thanks for sending along. We have spoken with both Beta and Mike Maglio and they were both comfortable working through any outstanding items as a condition of approval. Mike and Gary suggested we reach out to you to confirm you were OK with this approach.
>
> Please let us know.
>
> Thanks,
>
> Josh Berman
>
> ---
>
> **From:** Amy Love <alove@franklinma.gov>
> **Sent:** Monday, August 1, 2022 10:09 AM
> **To:** Josh Berman <jberman@marcuspartners.com>; John Kucich <jkucich@bohlereng.com>
> **Subject:** 585 King Street
>
> Attached are review letters from BETA and DPW. Will these items be addressed and updated Site Plans submitted?
>
> Thank you
>
> Amy Love, Town Planner II
>
> Town of Franklin
>
> 355 East Central
>
> Franklin, MA 02038
>
> 508-520-4907
>
>

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IMPROVING COMMUNITIES TOGETHER

July 17, 2022

Mr. Gregory Rondeau, Chairman
Franklin Planning Board
355 East Central Street
Franklin, MA 02038

Re: 585 King Street – Proposed Warehouse

Dear Mr. Rondeau:

BETA Group, Inc. (BETA) has reviewed the submitted documents for the project entitled: ***585 King Street – Proposed Warehouse*** in Franklin. This letter is provided to update BETA's findings, comments and recommendations.

BASIS OF REVIEW

BETA received the following items:

- Plans (36 sheets) entitled: ***Preliminary Major Site Plan*** dated October 8, 2021, revised 06/10/2022, prepared by Bohler Engineering of Southborough, MA.
- Drainage Report dated October 13, 2021, revised June 10,2022, prepared by Bohler Engineering.
- Response to Comments Letter dated June 10, 2022, prepared by Bohler Engineering of Southborough, MA.

Review by BETA included the above items along with the following, as applicable:

- ***Zoning Chapter 185 From the Code of the Town of Franklin,*** current through July 2021
- ***Zoning Map of the Town of Franklin, Massachusetts,*** attested to October 7, 2020
- ***Stormwater Management Chapter 153 From the Code of the Town of Franklin,*** Adopted May 2, 2007
- ***Subdivision Regulations Chapter 300 From the Code of the Town of Franklin,*** current through March 8, 2021
- ***Wetlands Protection Chapter 181 From the Code of the Town of Franklin,*** dated August 20, 1997
- ***Town of Franklin Best Development Practices Guidebook***, dated September 2016

INTRODUCTION

The Applicant proposes to development tracts of land located at 585 King Street in Franklin, Massachusetts which includes four (4) parcels identified by the Town of Franklin Assessor's Office as Parcels 313-008, 313-053, 313-054, and 313-053. These parcels comprise a total area of approximately 28.9 acres. The Site is located within the Business zoning district, while the surrounding area is located within the Single-Family III zoning district. The Site is bounded to the north by Interstate I-495, to the west by undeveloped woodlands, to the south by single-family residences, and to the east by King Street. An easement associated with the New England Power Company (NEPCO) bisects the Site in a northwest to southeast orientation, and an easement associated with AT&T intersects a portion of the Site in a north to south orientation. Existing improvements at the Site include utility towers and overhead wires, an underground utility line associated with AT&T services, a maintained gravel path, dirt trails, cleared areas, and a 42-inch culvert conveying an intermittent stream near the Site entrance.

Topographic relief at the Site is present to the south/southwest, adjacent to a Bordering Vegetated Wetland (BVW) complex and its interior intermittent stream channels. The Site generally consists of flatter areas with shallow slopes to the north and steeper (4H:1V) slopes to the south. The Site is not located within a FEMA mapped 100-year floodplain, a wellhead protection area, a surface water protection area, or any other critical area. There is no mapped Natural Heritage and Endangered Species Program (NHESP) habitat at the Site. The Natural Resources Conservation Service (NRCS) soil maps indicate the presence of the following soil types:

- Woodbridge Fine Sandy Loam with a Hydrologic Soil Group (HSG) rating of C/D (very low infiltration potential);
- Paxton fine sandy loam with an HSG of C (low infiltration potential); and
- Udorthents, loamy with an HSG of A (high infiltration potential).

The project has been modified since the initial submission. The Applicant now proposes to construct a 255,400±-square foot warehouse at the Site, which includes the following associated activities (collectively "the Project"):

- Construction of bituminous parking areas surrounding the warehouse;
- Construction of a bituminous driveway through a BVW and stream complex to provide access from King Street;
- Installation of a new culvert and retaining walls associated with the proposed access driveway;
- Installation of curbing, fencing, lighting, signage, landscaping, on-site septic system, transformers, trailer parking spaces
- Site utilities including water, sewer, gas, electric, telephone, and cable;
- Implementation of stormwater best management practices (BMPs) which include catch basins, manholes, water quality units, subsurface infiltrations systems, infiltration basins, and a detention basin.

The proposed use of the Site is permitted within the Business zoning district. The Project is subject to a Site Plan Review by the Town of Franklin Planning Board, as the proposed modifications at the site are greater than 600 square feet in area.

The stormwater management design proposes closed drainage systems consisting of catch basins, manholes, and water quality units. Based upon the results of the recent soil testing, the design of the BMPs has changed significantly. The previously lined detention basin west of the proposed building is now designed as an infiltration basin. This allowed the proposed subsurface system in the same area closer to the building to be eliminated. In addition, this basin is no longer in series with the proposed infiltration basin west of the entrance driveway. The proposed subsurface infiltration system at the southeast corner of the building remains the same as does the infiltration basin at the southerly edge of the development. Except for the entrance driveway, all runoff from impervious surfaces on site will be directed through an infiltration BMP. Runoff from the entrance driveway will be directed through proprietary separators to meet Standard 4 for water quality. Overflow from all these features will be discharged west towards the stream which flows parallel with King Street. The outfall from Infiltration Basin A which is located at the south end of the building, will be located 50' from the wetlands. The outfalls from the other 2 basins will be outside the 100 foot wetland buffer zone.

Attention is specifically called to the easements at the Site. While the underground conduit associated with the AT&T easement will be relocated and the overhead powerlines associated with NEPCO will be retained, a significant portion of the development is proposed within the NEPCO easement. It is recommended that the

Planning Board require the applicant to demonstrate that correspondence with NEPCO has been sought, as they may require revisions to the Project that can affect compliance with the Zoning Bylaw and the Massachusetts Stormwater Management Standards.

FINDINGS, COMMENTS AND RECOMMENDATIONS

To help with the review, the Bohler response to the 2nd review will be labeled *"BOHLER2"* and highlighted. The BETA response to these comments will follow the Bohler response and be labeled ***"BETA3".*** If there are no highlighted comments than the issue was addressed in the previous revisions and response.

DRAWING REQUIREMENTS (§185-31)

Drawings must be prepared in accordance with the Zoning Bylaw (§185-31).

DR1. Drawings must be between 1"=20' and 1"=50' scale. The larger view drawings are all 1"=60' scale. The scale is not indicated for sheet C-201.

BOHLER: The detailed site drawings (i.e. "A" and "B" sheets) are at 1" =30' scale. The larger view drawings are at 1" =60' scale as noted and are intended to show the overall extent of the development. Our office feels this approach is appropriate given the scale of the project. Sheet C-201 is 1" =60' scale as noted with the scale bar in the upper right corner.

BETA2: Scale is indicated for the sheets, however the Zoning Bylaw requires that drawing scales be between 1"=20' and 1"=50' scale. (§185-31.C.(3).(a). Additionally, the applicant's submitted site plan sheets are 30 x 42 inch dimensions, while the application submittal requirements indicate that 24 x 36 inch sheets will be needed (§185-31.C.(2).(a).

BOHLER2: As noted, our office feels the scale and approach of the plans is appropriate for the scale of the project. The Applicant is amendable to providing as built plans of the project at the 24x36 inch sheet size and between 1"=20'and1"=50' scale. The Applicant respectfully requests a waiver from this requirement should the Board feel one is necessary.

BETA3: BETA will defer this issue to the Board

DR2. Provide earth removal quantities and develop cuts and fills to be presented to the Planning Board. (§185-31.C.(3).(j).

BOHLER: The site has been designed such that the volumes of cuts and fills are relatively balanced. Refer to enclosed earthwork exhibit for location of cuts and fills.

BETA2: The earthwork exhibit is useful for a general sense cut and fill locations, however it does not provide a way to compare cut/fill quantities in a quantitative way. It is requested that the applicant provide a cut/fill table for the proposed site so that an objective comparison can be made using volumetric units.

BOHLER2: A summary of the anticipated earthwork is enclosed with this letter. The summary shows an anticipated export of approximately 4,413 C.Y. of material exclusive of topsoil. All exported material will be removed in accordance with local, state, and federal requirements.

BETA3: Data provided, no further comments

DR3. Provide location, size and sketch of all proposed signs on plans (§185-31.C.(3).(j).

BOHLER: A proposed entry sign has been added to sheet C-303. The sign will be constructed in accordance with the Town of Franklin Zoning Bylaws. Plans and details of building signs have not been developed at this time as the end tenant is unknown. Buildings signs will be constructed in accordance with the Town of Franklin Zoning Bylaws.

BETA2: Acknowledged. It is suggested that a more detailed sign sketch be submitted to the planning board for approval prior to its construction.

BOHLER2: The Applicant is amenable to providing the detailed information as a condition of approval.

BETA3: BETA will defer this matter to the Board.

DR4. Provide data for proposed buildings describing the on-site generation of noise (generators, mechanical cooling, compactors, etc.) and odors (§185-31.C.(3).(r)

BOHLER: Based on comments from the Board and the neighbors the site has been redesigned so the loading area is facing I495 and away from the neighbors and noise generated by the site is not anticipated to impact the abutting properties. The proposed use is a proposed warehouse facility and is not anticipated to generate any odors.

BETA2: Acknowledged. Due to the proposed truck parking, an increase in noise would be anticipated due to trucks' back-up alarms while backing in/out of the spaces. Since the existing vegetation is largely defoliated during the winter season, it is suggested that the applicant consider proposing screening in this area that provides noise-dampening during winter months.

BOHLER2: As requested by the Board, the site was redesigned such that the loading areas are on the northeasterly side of the building facing I-495 away from the residences and is located over 600 feet from the nearest residences. This redesign will provide noise dampening of the loading activities. In addition, a row of arborvitaes has been added between the project and the abutting residences to provide further dampening, refer to sheet C-702.

BETA3: Acknowledged. The addition of the arborvitae row will help; however, BETA recommends that the trees be placed outside the limits of the proposed subsurface sewage disposal system. To ensure that they will be maintained when the system is replaced.

GENERAL COMMENTS

G1. There is no existing conditions plan provided. Sheet C-201 is entitled "*OVERALL DEMOLITION PLAN*" and is presented at too large of a scale to discern Site details. We recommend that a separate Existing

Conditions plan stamped by a Professional Land Surveyor registered in the state of Massachusetts be submitted at an appropriate scale.

BOHLER: An ALTA/NSPS Land Title survey was included with the original submission and shows the site existing conditions at a detailed 1" =40 scale. This same plan has been included with the revised Site Development Plans.

BETA2: Acknowledged. No further comment.

G2. The test pit logs identified in the drainage calculations do not correlate with the locations identified on Sheet C-201. As shown in the drainage report, the test pits were conducted for a previous development plan with a smaller building and different stormwater BMP locations. Based upon BETA's Site visit, there appears to be no evidence that any test pits were conducted on site in the vicinity of the proposed infiltration basin or the subsurface infiltration system. BETA recommends that additional test pits be conducted at the Site (in the presence of the Town and/or their representative) to confirm depth to groundwater and soil classifications.

BOHLER: The locations of the test pits have been clarified with the reviewer. Additional test pits were performed in the area of the proposed systems and witnessed by BETA. Test pit logs for the new test pits are enclosed Appendix C of the revised Drainage Report enclosed with this letter. All test pit locations are shown on the revised Site Development Plans, refer to Sheets C-401, C-402, C-502 and C-503.

BETA2: Acknowledged. However, there are still no test pit locations shown within Proposed Infiltration Basin B. Depth to groundwater and soil classification/infiltration rate will need to be provided to determine whether infiltration is feasible at this location.

BOHLER2: Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in this area were observed to be loamy sand with no observable groundwater. Based upon the additional soil testing, infiltration is feasible in this location. Copies of the soil logs from the additional testing areas are included in Appendix C of the revised Drainage Report.

BETA3: No further comments

G3. Designated walls ranging in height from two (2) to ten (10) feet are depicted with a note indicating "Designed by Others" at the following locations:

- Along each side of the entrance driveway;
- At both ends of the loading dock area; and
- Along the easterly property line adjacent to Interstate I-495.

These walls are critical elements of the overall grading design. BETA recommends that typical details be provided with a condition that structural details be provided prior to construction.

BOHLER: A retaining wall detail showing a typical cross section for the on-site retaining walls has been added to sheet C-902. The Applicant is amenable to a condition of approval to provide shop drawings of the proposed retaining walls to the Building Department prior to construction.

BETA2: Acknowledged. No further comment.

G4. The Project proposes a new culvert to facilitate a BVW/stream crossing. The Applicant should clarify why the existing path and culvert are not being utilized and/or why they are not being removed. The new culvert is proposed at the confluence of two (2) intermittent stream channels. Based on the footprint of the roadway and culvert, it appears that an intermittent tributary will be filled, and the primary intermittent stream will be relocated to flow through the culvert. The Project proposes to discharge runoff collected by catch basins to this stream via scour pads that appear to be located within the existing stream. The Applicant should provide actual design details of this crossing to ensure that it is constructable, as well as permittable under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40), the Town of Franklin Wetlands Protection Bylaw (Chapter 181), and the Massachusetts Stream Crossing Standards. In addition, any potential for alterations of hydrology that may impact abutters should be addressed.

BOHLER: The Site Development Plans have been updated to show the proposed culvert at the location of the intermittent stream channel. The culvert will be designed and constructed in accordance with applicable local and state standards including the Massachusetts Stream Crossing Standards. Preliminary design information is included in the driveway profile. This information will be detailed further in the Notice of Intent Submittal to the Franklin Conservation Commission.

BETA2: Acknowledged. Additional information was provided that demonstrates compliance with Massachusetts Stream Crossing Standards. In addition, there is insufficient survey data presented to verify the depth of the channel and the height as noted in the detail. It is suggested that the applicant provide additional analysis and information needed to demonstrate compliance with Massachusetts Wetlands Protection Act.

BOHLER2: Compliance with the Stream Crossing Standards does not impact the Planning Board's review. Additional information has been provided to the Conservation Commission as part of the Notice of Intent to demonstrate compliance.

BETA3: The stream invert elevations and additional topography through the crossing has been provided. The elevation of the roof of the box has also been established based upon the additional topography and will provide a corridor with 2.5' of headroom on the shoulders. BETA has no further comments and will defer this issue to the Conservation Commission.

ADDITIONAL COMMENTS

G5. As shown on Sheet C-905, the existing 42" CIP below the proposed stream crossing will be removed. The downgradient flooding impacts associated with this removal should be determined. Additionally, the channel elevations at the removal site 319.5-319.0 do not correlate with the culvert inverts of 318.0-317.8 indicated on the survey plans.

BOHLER2: Additional detailed topography has been obtained in the area of the existing 42-inch culvert and is reflected in the revised Site Plans. The elevations of the proposed channel have been clarified based upon the additional topography, refer to Sheets C-905 and C-907. As shown with the additional topography, there is a defined stream channel that flows north to south through the existing 42" culvert. It is also noted that LEC and Bohler have been on the site multiple times and have not seen any evidence in the field that backwater occurs upstream of the 42" culvert. Based upon the topography and on-site observation, it is not anticipated that the 42" pipe will cause any backwater upstream of the culvert, therefore removal of the culvert and replacement with a stream channel is not anticipated to cause downgradient flooding.

BETA3: The additional survey data indicates that the stream flows at a consistent slope through the proposed development area and the potential for frequent backwater conditions at culvert under existing conditions is extremely limited. BETA reviewed the next downstream hydraulic restriction (Emilio Drive culvert) and noted that this culvert may have the potential to handle substantial volumes due to its size. Therefore, even if periodic backwater conditions are present at the Site that may be reduced due to the removal of the culvert, the Applicant has provided a reasonable evaluation of how hydrologic conditions will be maintained and addressed in the design.

The stream segment proposed as a replacement for the removed culvert will match invert elevations of the existing culvert. In addition, the proposed increase in width and Manning's Roughness Coefficient[1] along this portion of the stream is anticipated to mimic existing conditions during low flow. The Applicant has also clearly defined the limits of stream restoration through depicting the proposed coir logs along the constructed Banks.

G6. It does not appear that the existing culvert beneath the gravel access path can be removed without impacting the abutting parcel. Provide a detail which demonstrate that the work activity will not extend to the abutting parcel or demonstrate the right to conduct activity on the abutting parcel.

BOHLER2: Enclosed with this letter is a letter from the abutter authorizing work on their property.

BETA3: BETA will defer this issue to the Board

G7. The plans now delineate a *"50' Buffer to Exist. Electric Transmission Structure".* However, in multiple locations there is proposed infra-structure improvements within the buffer as delineated. BETA recommends that the applicant provide the Board with information from NEPCO demonstrating what the intent of the buffer is and whether the proposed improvements will be allowed within the limits of the buffer.
BOHLER2: The fifty (50) foot buffers shown on the plans is a requirement of NEPCO to be shown on the plans. Documentation from NEPCO stating approval of the proposed project can be provided to the Board prior to construction.
BETA3: BETA will defer this issue to the Board

[1] The Manning's Roughness Coefficient is used in the Manning's Equation to calculate flow in channels based on the underlying material.

G8. Several notes refer to "THE CITY OF MARLBOROUGH", specifically on sheet C-102 and within the details. It is suggested that specification or regulation references be updated to refer to "Town of Franklin" or other applicable authority.
BOHLER2: Sheet C-102 and the details have been adjusted accordingly.
BETA3: No further comments

SCHEDULE OF LOT, AREA, FRONTAGE, YARD AND HEIGHT REQUIREMENTS (§185 ATTACHMENT 9)

The Proposed Lot will comply with area, frontage, depth, yard dimensions, interior landscape and maximum impervious coverage.

Z1. The property line dimensions are incorrect along the easterly edge abutting Map 313, Lot 43. It is identified as 356.07' on the plan but only scales at 207'±.

BOHLER: The dimension for this property line has been updated on the revised Site Development Pans.

BETA2: Acknowledged. No further comment.

Z2. Depict the circle on the site plan that serves as the basis for the notated lot width.

BOHLER: A circle depicting the minimum lot width required by Zoning has been added to the plans, refer to Sheet C-301.

BETA2: Acknowledged. No further comment.

Z3. BETA recommends providing architectural elevations and sketches of the proposed warehouse and warehouse addition to allow the Planning Board to assess character of the buildings.

BOHLER: Proposed building elevations and a conceptual building rendering were included in the initial application package to the Board.

BETA2: Acknowledged. No further comment.

SIGNS (§185-20)

Verify whether any signs will be erected as part of the construction of the proposed warehouse. Provide location, description, and details of any proposed signs.

BOHLER: As noted previously, a proposed entry sign has been added to sheet C-303. The sign will be constructed in accordance with the Town of Franklin Zoning Bylaws.

BETA2: Acknowledged. Additional detail of proposed signage according to §185-20 will need to be provided to the approving authority prior to issuance of a sign construction permit.

BOHLER2: Acknowledged, the Applicant is amendable to this requirement as a condition of approval.

TRAFFIC IMPACTS

Review of the Traffic Impact and Access Study for the site will be provided under separate cover.

PARKING, LOADING AND DRIVEWAY REQUIREMENTS (§185-21) AND SCREENING (§185-35)

The Project proposes to provide a total of 298 parking spaces including 8 ADA spaces, around the building in a linear fashion along three (3) sides. A multi-lane parking area is proposed at the front of the structure, where 93 spaces will be provided. According to the plan notes, 42 loading dock positions will be provided along the western face of the building along the power easement, although no dimensions have been provided to verify this number. 31 trailer storage spaces will also be provided opposite the loading dock area beneath the NEPC easement. A paved area totaling 1.5± acres will provide a maneuvering area and storage space for an additional 20 trailer storage spaces at the far north end of the Site, adjacent to Interstate I-495.

The dimensions of the parking spaces are shown as 9 feet by 19 feet with a 24-foot access aisle. Americans With Disabilities Act (ADA) regulations require a minimum of seven (7) ADA-accessible spaces for lots ranging from 200 to 300 spaces. One shall be van accessible with a 96-inch-wide access aisle and the remaining 6 parking spaces are to be served by a 60-inch-wide access aisle. The 8 accessible spaces provided meet these requirements.

There are two (2) proposed pavement cross sections. A heavy-duty pavement cross section will be provided in all areas where truck traffic will be anticipated; specifically, at the Site entrance, along the west side of the building past the loading dock area, and into the maneuvering area and trailer storage area at the far northern extent of the Site. All the proposed pavement areas will have vertical precast concrete curbing along the outside edge. Aisle widths for truck traffic will be 30-feet-wide while 24-foot aisle widths will be provided to the parking areas. Internal islands in these parking areas will be limited. Eleven (11) 10-foot-wide landscaped islands will be provided at the east parking area. The other internal landscaped islands will be at each end of the front parking area. A 38-foot by 4-foot entrance island will also be provided. All other landscaped areas will be along the outside edge of the parking areas or between the building and the edge of pavement. All the proposed islands will provide the 40 sq. ft. minimum unpaved area per tree required by paragraph C.(5)

BETA provides the following comments relative to the parking, loading access and landscaping:

P1. The lane width provided for a left-hand turn exiting the site does not appear to be correct. BETA anticipates that most of the truck traffic exiting the site would turn east towards Interstate I-495, yet this lane width is limited to 10.1 feet. The entrance lane is 19.1 feet wide.

BOHLER: The revised plans depict an eleven (11) foot wide exiting left-hand turn lane and a twenty (20) foot wide entry lane. Refer to Sheet C-303.

BETA2: Acknowledged. No further comment.

P2. There is a note on Sheet C-301 that references the King Street Improvement Plans prepared by others for alterations to the signals and lane widening. Provide sufficient information on the site plans to demonstrate compliance with §185-21.C,7.(a) in terms of intersections and driveway openings within 150 feet of the entrance.

BOHLER: The King Street Improvement Plans referenced on Sheet C-301 refer to the proposed improvements to King Street as a result of this project and do not depict any new curb cuts other than the one indicated on the Site Plans. §185-21.C,7.(a) requires that the "entrance or exit center

lines shall not fall within 50 feet of an intersection of street side lines or within 150 feet of the centerline of any other parking area entrance or exit on the same side of the street, whether on the same parcel or not, if serving 20 or more spaces." There are no other street side lines or parking area entrances nor exits on the same side of the street as the proposed entrance. The driveways heading southwest on King Street are for residential homes and do not serve more than 20 spaces. There are no other driveways heading northeast on King Street prior to the I495 off ramp which is over 250 feet from the centerline of the proposed driveway, refer to dimension on Sheet C-301.

BETA2: Acknowledged. No further comment.

P3. To ensure adequate sight distance, a smooth grade transition, and the appropriate locations of proposed catch basins, BETA recommends that a profile of the entrance driveway with centerline geometry be provided. BETA also recommends that the proposed culvert crossing be shown as it relates to the existing stream channel (Comment G4).

BOHLER: Refer to Sheet C-801 for the proposed entry drive profile. The Site Development Plans have been updated to show the proposed culvert at the location of the intermittent stream channel.

BETA2: Acknowledged. No further comment.

P4. Provide correspondence from Fire Department indicating the Site meets their safety requirements for circulation.

BOHLER: It is our understanding that the Fire Department has reviewed the project and provided any comments to the Town Planner.

BETA2: BETA defers this issue to the Town Planner

P5. Clarify if the 51 trailer storage stalls will have extended periods of truck trailer storage. Storage in truck trailers is prohibited for more than 30 days in any twelve-month period (§185-34.B).

BOHLER: Storage of trailers will comply with local ordinances.

BETA2: Acknowledged. No further comment.

P6. The fifteen (15)-foot residential greenbelt is shown along the easterly property line where the parcel abuts a Business-zoned parcel. In accordance with §185-35.C. this greenbelt requirement also applies to that portion of the lot where the parcel abuts the residential zone. The greenbelt should be identified. Since a portion of the property line cannot be maintained as a greenbelt due to its location within the NEPCO easement, the Applicant should seek a waiver and/or identify alternatives.

BOHLER: The fifteen (15) foot residential greenbelt is identified on the Site Plans. Although the area can't be maintained due to the existing NEPC easement additional landscaping has been placed around the perimeter of the parking to screen the abutters which is consistent with the spirit of the requirement. Additionally, the nearest residential home is over 450 feet from the parking area. It is unclear if a wavier is required from this section, but if the Board deems one is needed the Applicant would respectfully request a waiver from §185-35. C.

BETA2: Acknowledged. It is suggested that the Applicant request a waiver in accordance with the §185-35.C.

BOHLER2: As noted, the Applicant respectfully requests a waiver from §185-35. C. should the Board deem one is necessary.

BETA3: BETA defers this issue to the Board.

WASTE STORAGE FACILITIES

There are no exterior compactors, containers or waste handling areas proposed on the lot. Based upon the plan notes, all waste handling will be conducted inside the structure.

UTILITIES

The proposed warehouse will be served by a traditional gravity subsurface sewage disposal system. The septic tank, pump chamber leaching facilities and building sewer are all located at the northeast corner of the building. There is no data shown for any of these facilities on the plans. A note on sheet C-502 states *(SEE SEPTIC DESIGN FOR DETAILS)*; however, no septic design has been provided.

Domestic water and fire protection service will come from King Street up the proposed driveway. An 8-inch fire service and 3-inch domestic service will enter the building at its southwest corner. A 6-inch fire protection loop is also proposed to extend around the entire building. A total of six (6) hydrants will be provided around the outside of the structure to be served by the loop.

Fiber optics, cable, telephone, gas and underground electric lines are also shown on the plans as proposed features as part of the project. They are all proposed to come from King Street up the driveway underground and enter the building at the at the southwest corner form the south.

U1. Provide size, location and material of water and gas mains in King Street. Show existing utility poles and potential underground routing.

BOHLER: The Site Development plans have been updated to show the approximate location of the existing water and gas mains in King Street as well as existing utility poles. Sheet C-503 has been updated to potential routing of electrical service to the existing utility poles.

BETA2: Acknowledged. The existing utility pole that is indicated on for the electric and telecom connections on C-503 is a guy pole with guy wire. Due to proposed relocation of the adjacent utility pole on the south side of King Street as well as proposed grading in the vicinity, the existing guy wire/pole will likely need to be adjusted or relocated to account for different wire angles. As a result, it is recommended that the connecting pole be shown as proposed work to be performed by others.

BOHLER2: It is possible that the connecting pole may need to be replaced or modified due to the proposed connection and/or the work in King Street, however, this does not impact the review of the Planning Board. This work will be detailed on the roadway improvement plans as part of the review and permitting process with MassDOT. Copies of the roadway improvement plans will be provided to the Town once they have been approved by MassDOT.

BETA3: Note as shown on the plan is acceptable. No further comments.

U2. Requirements for 3-phase power and an outside transformer would normally be anticipated for a warehouse of this size. If 3-phase power is not required, it should be stated as such on the plans.

BOHLER: It is anticipated that 3-phase power is required for the project.

BETA2: Acknowledged. Transformer location shown, no further comment

U3. The septic design will be reviewed and approved by the Board of Health, however we recommend that the design be shown to document and potential conflicts with the water and stormwater collection system.

BOHLER: Acknowledged, the proposed on-site septic system will be reviewed and approved by the Board of Health. Refer to Sheet C-502 for preliminary design information on the proposed system.

BETA2: Acknowledged. The proposed sewage disposal system location no longer conflicts with the other utilities. No further comment.

U4. The Sewer Drop Detail shown on sheet C-902 is incorrect based upon the septic design requirements.

BOHLER: This detail has been removed from the plan set.

BETA2: Acknowledged. No further comment.

U5. The water and sewer crossing detail on sheet C-902 is also incorrect based upon the septic system design requirements.

BOHLER: The water sewer crossing detail is a general design detail for water, sewer and drain crossings. Specific detail for sewer crossings will be provided as part of the formal septic design plans reviewed by the Board of Health.

BETA2: Acknowledged. No further comment.

U6. The Hydrant & Valve Installation Detail on sheet C-902 is depicted incorrectly, as the proposed loop is a 6-inch (rather than 8-inch) main.

BOHLER: The detail has been updated to note both 6” and 8” main as there are hydrant connections to both.

BETA2: Acknowledged. No further comment.

U7. Provide letter from the fire department stating that the hydrant locations and quantity are acceptable.

BOHLER: It is our understanding that the Fire Department has reviewed the project and provided any comments to the Town Planner.

BETA2: BETA will defer this issue to the Town Planner

BOHLER2: Acknowledged. No further response required.

ADDITIONAL COMMENTS:

U8. The plans for the proposed intersection improvements should be submitted for review once they have been developed.

BOHLER2: Acknowledged. Copies of the roadway improvement plans will be provided to the Town once they have been approved by MassDOT.

BETA3: No further comments

LANDSCAPING

A total of 32 trees are proposed for landscaping around the building. All remaining landscaping is proposed to be grass cover. The existing vegetation between the Site development area and the abutting residential property did not appear to be sufficient during leaf-off seasons; BETA was able to view the abutting single-family home from the area northwest of the proposed stream crossing. The Applicant should demonstrate compliance with the screening requirements set forth by §185-35.

BOHLER: A row of arborvitaes is proposed between the parking area and the existing residential homes on Taft Drive to supplement the existing vegetative buffer. Additionally, the nearest residential home is over 450 feet from the parking area.

BETA2: Acknowledged. As mentioned in an earlier response, due to the proposed truck parking, an increase in noise would be anticipated due to trucks' back-up alarms while backing in/out of the spaces. A review of satellite imagery indicates that the surrounding trees are primarily deciduous and defoliated during the winter season. BETA recommends that the applicant consider providing an evergreen screen in this area to provide noise-dampening during winter months.

BOHLER2: As noted above, as requested by the Board the site was redesigned such that the loading areas are on the northeasterly side of the building facing I-495 away from the residences and is located over 600 feet from the nearest residences. This redesign will provide noise dampening of the loading activities. In addition, a row of arborvitaes has been added along the site between the project and the abutting residences to provide further dampening, refer to sheet C-702.

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BETA3: For the area at the rear of the site adjacent to the truck parking area see comment DR4 above.

***On the southwest side of the building, §185-35, par. C. of the Zoning by laws notes*:**

"The following shall apply to any use in an Industrial or Business District if located on premises within 500 feet of a residentially used structure in an adjacent residential district not allowing that use and if located on a lot which abuts or extends into that residential district by less than 75 feet or abuts another lot which has frontage only within the residential district. Such uses shall provide a greenbelt along the portion of the lot which abuts the residential district or abutting lot cited above. Such greenbelt shall consist of an area not less than 15 feet wide containing a dense

grouping of trees and shrubs providing a natural barrier between the lot and the adjacent premises. The trees and shrubs shall have a height of not less than three feet initially and shall be expected to have an effective height of not less than seven feet within five years."
Based upon aerial imagery it appears that the residence at 18 Taft Drive is approximately 500' from the corner of the parking lot along the southwest side of the building. The applicant has proposed a line of 118 Arborvitae along the edge of the development between the dwelling and the parking lot. BETA recommends that the limit of work line be moved to the 15' setback where possible and that the arborvitae be used to fill in where needed to maintain the 15' in compliance with the by-law.

ADDITIONAL COMMENTS:

LA2. Proposed shade tree locations adjacent to the truck parking spaces appear to overhang the spaces. The proximity of trees could result in damage to trees and/or trucks from collisions with branches. The applicant may want to consider relocating the proposed trees and/or providing different vegetation in this area.

BOHLER2: The landscaping plan has been revised to relocate the trees away from the truck spaces and provide alternative vegetation including the aforementioned row of arborvitae, refer to Sheet C-701.
BETA3: No further comments

LA3. Plan C-701 indicates that 28 trees are required and being provided, however, it appears that only 23 trees are bordered within 5 feet, one tree per 10 parking spaces (refer to §185-31). Several of the trees are not within 5 feet of parking spaces.

BOHLER2: Three additional deciduous trees have been added adjacent to the parking areas, these trees along with the addition of the row of arborvitae increase the tree count adjacent to parking areas in compliance with this zoning requirement. Refer to Sheet C-701.

BETA3: No further comments

LIGHTING (§185-31.C(4)(E))

Project Lighting Plans (C-705, C-706, and C-707) indicate that a total of 40 light poles on concrete bases and 12 wall packs will be installed onsite. Approximately 64 lighting fixtures will be installed on 30-foot-high poles within the Site. A photometric plan was provided; according to the summary provided, the average FC intensity on the pavement will be 2.13 FC.

The Illuminating Engineers Society of North America (IESNA) recommends the following for parking lots:

Level	Horizontal Illuminance (min)	Vertical Illuminance (min)	Uniformity Ratio (max/min)
Basic Maintained Illuminance	0.2	0.1	20/1
Enhanced Security Illuminance	0.5	0.25	15/1

L1. The provided photometric plan is difficult to read at the plotted scale. Provide FC results on 1" = 20' scale sheets.

BOHLER: 1"=30' Scale photometric plans are provided, refer to Sheets C-706 and C-707.

BETA2: Acknowledged. Please note that the information above does not correspond to the Calculation Summary on the Overall Lighting Plans.

BOHLER2: Acknowledged. No further response required.

L2. Provide the manufacturers data in the filing to verify the photometric distribution reported.

BOHLER: The manufacturer's cut sheets have been added to the Lighting Plans, refer to Sheet C-705.

BETA2: Acknowledged. No further comment.

L3. Nine (9) of the proposed light poles are located within the NEPC easement, either directly beneath or adjacent to the overhead power lines. Confirm that NEPC will allow these light poles within the easement.

BOHLER: All pole locations within the easement area will be reviewed by NEPC.

BETA2: Acknowledged. Please keep the Board informed if the NEPC review results in substantial changes to proposed lighting levels.

BOHLER2: Acknowledged. No further response required.

ADDITIONAL COMMENTS:

L4. According to the IESNA recommendations mentioned above, horizontal illuminance levels appear to be inadequate in the vicinity of the proposed driveway entrance at King Street. As there is no apparent existing street lighting at this location, the applicant may want to include additional lighting in this area to make pedestrians and exiting/entering vehicles more visible. Due to proximity to the existing crosswalk on King Street, westbound vehicles turning right to exit the site may have some difficulty seeing pedestrians in the crosswalk if lighting is inadequate.

BOHLER2: Additional lights have been added at the entrance to King Street. Refer to sheet C-707.

BETA3: Additional lights added, there is some minor spillage on the King Street pavement, however the safety issues have been addressed.

L5. Along the driveway at the northwest edge of the site at the building corner, there is light spillage that extends nearly 50' beyond the property line onto the abutting parcel. Either modify the proposed lighting to eliminate the spillage or request a waiver from the by-laws.

BOHLER2: Light pole heights in this area have been adjusted and additional light shields added such that there is 0.1 fc along the property line. The adjacent property is undeveloped and the proposed lighting in this area is not anticipated to have any impacts on the abutting property. Refer to sheet C-706.

BETA3: Lights modified, there is some minor spillage beyond the property line but natural vegetation being maintained should prevent any issues. No further comments.

STORMWATER MANAGEMENT

The proposed stormwater management design includes the use of deep sump catch basins with hoods, proprietary separators, and a detention basin, to provide the treatment necessary to flow into 2 infiltration basins and 2 subsurface infiltration systems. In most cases, the proprietary separators will provide the pretreatment required by the standards for the infiltration systems. The proposed detention basin on the southwest side of the building will be a lined basin that will pretreat the flow from the pavement along this edge of the structure. Discharge from this basin will flow into Infiltration Basin 2. Underground basin D will be located along the west side of the structure and will accept and treat flows from the west half of the building. Excess flows from this basin will be directed west towards the stream down gradient of the proposed crossing.

Project is also subject to the Massachusetts Stormwater Management Standards (Stormwater Regulations §153-16) and Stormwater Management Plan requirements (§153-15). A Stormwater Management Report has been provided by the Applicant.

BETA generally found the stormwater design to be in conformance with the requirements of the Stormwater standards and the by law. Overall, the proposed infiltration structures provide sufficient static storage for nearly 2" of runoff from the impervious surfaces on site. The treatment trains will all meet the required 80% TSS removal rate mandated by the Standard 4. The applicant has provided a number of Proprietary separators throughout the site in order to meet and/or exceed the requirements of the standards.

GENERAL

SW1. BETA generally found it difficult to correlate the locations of the test pits on the plan with the unlabeled test pits observed in the field, and it appears that test pits were not provided at critical locations such as within the footprint of the infiltration basin (Comment G2).

BOHLER: As noted above, the locations of the test pits have been clarified with the reviewer. All test pit locations are shown on the revised Site Development Plans, refer to Sheets C-401, C-402, C-502 and C-503

BETA2: Acknowledged. However, there are still no test pit locations shown within Proposed Infiltration Basin B. Depth to groundwater and soil classification/infiltration rate will need to be provided to determine whether infiltration is feasible at this location.

BOHLER2: Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in this area were observed to be loamy sand with no observable groundwater. Based upon the additional soil testing infiltration is feasible in this location. Copies of the soils logs from the additional testing areas are included in Appendix C of the revised Drainage Report.

BETA3: No further comments

SW2. Notwithstanding Comment SW1, the soils information provided is insufficient to characterize the onsite soils and determine estimated seasonal high groundwater (ESHGW). Future test pits should include information such as matrix color and percentage/color of redoximorphic features. Without this information, BETA assumes that the provided ESHGW elevation was extrapolated from the elevation of the wetland boundary, which is not likely to be accurate.

BOHLER: As noted above, additional test pits were performed in the area of the proposed systems and witnessed by BETA. The testing verified the onsite soils and provided additional data relative

to ESHGW. The proposed stormwater system design has been updated to correspond with the additional testing. Test pit logs for the new test pits are in Appendix C of the revised Drainage Report enclosed with this letter.

BETA2: Acknowledged. However, based on the revised design, additional test pit data is now required for both Subsurface Infiltration systems and Infiltration Basin B. In addition, based upon the depth of cuts to form Infiltration basin A, BETA recommends that an additional test pit be conducted at the north edge of the basin to verify depth to groundwater and material classification.

BOHLER2: As noted above, additional test pits were performed in the area of the proposed systems and witnessed by BETA. The testing verified the onsite soils and provided additional data relative to ESHGW. The proposed stormwater system design has been updated to correspond with the additional testing. Test pit logs for the new test pits are in Appendix C of the revised Drainage Report enclosed with this letter.

BETA3: No further comments

SW3. Based on the soils data provided and the observations made onsite, the underlying mineral soils at the Site can be described as a Class 1 soil. The upper layers are described as a Sandy Loam (Class II soil). Based upon these soil descriptions, and regardless of NRCS data, onsite soils will qualify as an HSG B rather than HSG C. In addition, each of the two (2) infiltration structures will be in a Class I soil which would be considered a Rapid Infiltration Rate. Each of these factors will substantially impact the entirety of the drainage analysis, including the water quality volume (WQV), total suspended solids (TSS) pretreatment requirements, and design infiltration rates. The Applicant should reassess the soil classifications and revise the calculations accordingly.

BOHLER: As discussed with BETA and based upon the onsite soil testing the drainage analysis has been revised to classify soils as HSG B. The Drainage Report has been revised to reflect the update in soil characteristics including calculations associated with water quality volume, TSS treatment and infiltration.

BETA2: Acknowledged. No further comment.

SW4. BETA performed hand-auger soil sampling within what appeared to be the footprint of the subsurface infiltration system at the southwestern side of the building and observed redoximorphic features as shallow as ten (10) inches below grade. The Applicant should assess this area further.

BOHLER: As noted above, additional test pits were performed in the area of the proposed systems and witnessed by BETA. Test pit logs for the new test pits are enclosed Appendix C of the revised Drainage Report enclosed with this letter.

BETA2: Acknowledged. No further comment.

SW5. Impervious areas tributary to several catch basins exceeds 0.25 acres per catch basin; therefore, in accordance with Volume 2, Chapter 2 of the standards, these BMPs will not meet the design considerations needed to receive the associated TSS removal credits.

BOHLER: Bohler disagrees with the comment that the BMPs will not receive the associated TSS removal credits as designed. However, based upon conversations with BETA the TSS calculations have been revised to remove the treatment from the catch basins. Pretreatment will be provided by a mix of water quality units, forebays and a detention basin. Refer Appendix F of the revised Drainage Report.

BETA2: Acknowledged. No further comment.

SW6. In accordance with Volume 2, Chapter 2 of the Stormwater Management Handbook (the Handbook), provide maximum separation between the inlet and the outlet of the infiltration basin to prevent runoff from circumventing treatment in larger storm events.

BOHLER: The location of the inlet and outlet pipes has been revised to increase the separation between the two and help prevent circumventing of treatment.

BETA2: Acknowledged. No further comment.

SW7. As noted in Comment G4, further details on the new culvert crossing are required for an accurate assessment of proposed stormwater management at the Site.

BOHLER: The Site Development Plans have been updated to show the proposed culvert at the location of the intermittent stream channel. The culvert will be designed and constructed in accordance with applicable local and state standards including the Massachusetts Stream Crossing Standards. Preliminary design information is included in the driveway profile. This information will be detailed further in the Notice of Intent Submittal to the Franklin Conservation Commission

BETA2: Acknowledged. No further comment.

SW8. The slope on the first leg of the time of concentration (Tc) analysis for all three (3) of the existing conditions watersheds is incorrect. BETA is of the opinion that the Tc for existing conditions is understated.

BOHLER: The time of concentration for each existing watershed was reviewed and updated in the revised analysis. Refer Appendix D of the revised Drainage Report.

BETA2: Acknowledged. No further comment.

SW9. The outlet from the subsurface infiltration structure is opposite the inlet. This configuration will allow stormwater to essentially bypass the treatment intended by the BMP once the filter fabric capacity becomes restrictive over time due to sedimentation. The primary outlet from the BMP should be from the middle row of the system, as stormwater runoff from pavement is being directed from the west and roof runoff from the east.

BOHLER: Due to the changes to the stormwater design this comment is no longer applicable. However, it was taken into account as part of the revised design. Refer to revised stormwater systems as depicted on Sheets C-502 and C-503.

BETA2: Acknowledged. No further comment.

SW10. Due to infiltration structures being sited below pavement, the observation risers should not be considered optional and should be provided as shown. An additional riser should be provided in the outlet row.

BOHLER: The revised stormwater design specifies required observation risers / inspection ports for each underground system.

BETA2: Acknowledged. No further comment.

SW11. The proposed infiltration basin is not designed in accordance with Volume 2, Chapter 2 of the Handbook. There is no low-level emergency dewater trench, nor are there any monitoring wells. In addition, the grading plan for the berm is incorrect. The crest width is not 10 feet by scale; this is due to the crest elevation being 338.5 feet rather than 338 feet. Information provided in the emergency spillway detail does not match the design. A riprap-lined spillway, as shown on the detail is more appropriate.

BOHLER: The proposed infiltration basin has been revised to include a low-level outlet with a valve to allow for emergency dewatering of the basin. The plans have been revised to show a rip-rap lined spillway consistent with the detail. The proposed berm is 10 feet wide and the center height has been lowered to 338.15 to provide a flatter top while allowing for the berm to drain.

BETA2: Acknowledged. The plans still do not appear to be showing proposed dewatering capability. The table provided indicates that the orifice size is N/A. Correct the detail to show the gated emergency outlet. Based upon the capacity of the basins, BETA recommends that this outlet be a minimum 6" diameter orifice. Monitoring wells still are not identified on the plans nor are details provided.

BOHLER2: Each basin outlet structure will have a six (6) inch orifice and shutoff valve set at the bottom elevation of the basin that will allow for dewatering of the basin. The invert orifice in the table is for the main orifices used to control the runoff. Those specified as N/A in the table do not have any orifices in the side wall of the structure and only have the grates at the top of the structure. The detail has been updated to clarify this intent, refer to sheet C-903.

Monitoring wells have been added within the surface infiltration basin areas and a corresponding detail has been added to the plans. Refer to sheets C402, C-403 and C-903 respectively.

BETA3: No further comments.

SW12. The Project will require an NOI filing with the EPA and the development of a SWPPP. Provide a copy of the SWPPP for the Planning Board's review. The Erosion Control Plan (Sheets C-601 & 602) shows little more than the proposed perimeter controls and stockpile areas. The Project will disturb approximately 15 acres; based on EPA requirements, temporary sediment basins are required. Depict construction-period erosion and sedimentation control measures such as temporary sediment basins. These BMPs should not be sited within the locations of the permanent infiltration structures.

BOHLER: The Applicant is amenable to providing a copy of the SWPPP to the Planning Board prior to construction as a condition of approval. Approximate locations of temporary settling basins have been added to the Erosion Control Plans, refer to Sheets C-601 and C-602.

BETA2: Acknowledged. When available, please provide the SWPPP for review prior to construction approval.

BOHLER2: Acknowledged. The Applicant is amenable to providing a copy of the SWPPP to the Planning Board prior to construction as a condition of approval.
BETA3: No further comments, however the applicant is reminded of the local requirements to file with the DPW for permits associated with site disturbances.

ADDITIONAL COMMENTS:

SW13. Now that the Earthwork Exhibit has been provided, it appears that significant depths of cut will be occurring within proposed Infiltration Basin A, specifically to depths greater than 5' below existing ground. Given that seasonal high groundwater needs to be a minimum of 2' below the proposed basin bottom, test pit data at this location may not be deep enough to determine adequate separation from seasonal high groundwater. Additionally, given the large cut, it may not be appropriate to assume that the infiltration rate is that of the existing surface soil rate of 2.41; a lower rate may be appropriate for modelling and drawdown calculations. Additional field information may be needed to confirm the infiltration rates and separation from seasonal ground water.

BOHLER2: Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in the areas were observed to be loamy sand with no observable groundwater. Based upon the additional testing, soils in these areas are consistent with previously tested areas and the proposed design. Copies of the soil logs from the additional testing areas are included in Appendix C of the revised Drainage Report.

BETA3: Soils acceptable based upon test pit results, no further comments

SW14. Please provide rip-rap sizing calculations for the W-600, W-601, W-602 stormwater outlets. Currently it is uncertain whether additional scour protection will be needed for the flows at this location. Also, consider including additional detail for how the three outlets at this location will combine flows and connect hydraulically to the stream just to their north. BETA recommends that a rip-rap or some kind of channel protection be extended from these 3 outfalls to the main stream channel just to the north to prevent erosion and sedimentation and the structural integrity of the retaining wall supporting the driveway

BOHLER2: The Site Plans have been updated to reflect a rip rap swale in this area. The swale size is consistent with the size of combined rip rap / scour hole sections that would be required for each individual outlet, refer to sizing calculations in Appendix F of the revised Drainage Report. The swale will be graded to drain toward the stream and provide a hydraulic connection while minimizing disturbance to existing wetlands. Refer to sheet C-402.

BETA3: Calculations have been provided which document the stone size requirements. However, the plan view of this scour hole and the construction detail do not adequately show the

dimensions of the hole. BETA recommends that a smaller scale plan view of this area and a better construction detail be provided to show what is the limits and depth of the scour hole. (See comment SW17 below)

SW15. The plans do not appear to show a test pit located within proposed (UG) Basin C. Please indicate which test pit serves as the basis for soil and ground water table assessment at this location. If necessary, coordinate additional testing.

BOHLER2: Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in the areas were observed to be loamy sand with no observable groundwater. Based upon the additional testing, soils in these areas are consistent with previously tested areas and the proposed design. Copies of the soils logs from the additional testing areas are included in Appendix C of the revised Drainage Report.

BETA3: No further comments

SW16. The design of the intersection may have potential impacts on the entrance roadway drainage system by allowing runoff from King Street to enter the system. In addition, it is suggested that the existing catch basin at the intersection be relocated to the edge of the entrance driveway pavement away from the center of the site driveway.

BOHLER2: The grading for the proposed entrance has been updated to maintain the gutter flow in King Street, refer to sheet C-801. The existing catch basin at the intersection will be relocated pending final review and approval by MassDOT. This relocation will be detailed on the roadway improvement plans and the Site Plans will be coordinated with this relocation once the design is approved by MassDOT.

BETA3: Plans corrected no further comments

SW17. BETA recommends that a proprietary water quality filter be provided for the 36" culvert being proposed at the entrance to extend the MS4 system to the stream. Based upon the extension and the fact that the system now will discharge directly into the mainstream channel this unit would help match the existing treatment benefits associated with the channel section being lost by the construction of the driveway and meet the requirements of *Maximum Extent Possible* associated with redevelopment.

BOHLER2: We have provided a rip rap outlet to dissipate energy from the outlet and prevent scouring where one does not exist today and is an improvement over existing condition. We have not proposed a water quality unit in this location as it would require approval from the DPW / DOT as it is the stormwater system for the roadway, and they would be required to maintain the requested unit.

BETA3: This outfall has been discussed with the DPW and they are not in favor of the proprietary unit in this location. They have requested that some additional depth in the stilling basin at the outfall be added to provide some additional treatment value prior to discharge into the stream. In addition, the construction detail and the plan view of this outfall need further clarification

and a better construction detail to specifically show the shape of the basin. (See comment SW14 above.)

SW18. On the detail entitled "Sediment Basin with Pipe Outlet", it is suggested that the minimum slope of outlet pipe be labeled.

BOHLER2: The detail has been revised to specify a minimum slope of 1%, refer to sheet C-603.

BETA3: Detail revised, no further comments

SW19. Plan C-502 shows a proposed pipe to outfall FES-101 as being located directly under a stone waterway that is draining the parking lot surface. To avoid undermining or eroding around the proposed pipe, BETA recommends that the stone waterway not be located directly over the proposed pipe.

BOHLER2: This pipe location has been adjusted so that it does not discharge under at the base of the stone waterway, refer to sheet C-502.

BETA3: The stone waterway has been eliminated and the discharge from the roof runoff now flows through the sediment forebay. BETA recommends that this outfall be moved and discharge directly into the basin similar to FES-D.

SW20. In the Operations & Maintenance plan, BETA offers the following comments:

- Catch basins should be inspected 4x per year.
- On the inspection forms provide a notation that indicates if the inspection followed a storm event and the amount of rainfall received.
- Add a note relative to inspection and maintenance of the rip rap outfalls.
- Provide a plan showing the location of the BMPs within the O & M Plan.
- Provide an estimated budget of the overall maintenance

BOHLER2: The O&M Plan has been updated to include inspection of catch basins 4x per year, the requested notation on the inspection forms, inspection and maintenance of riprap and scour hole discharge locations, a plan showing location of the BMPs and an estimated budget for overall maintenance. Refer to Appendix G of the revised Drainage Report.

BETA3: The O & M Plan has been revised, no further comments

SW21. Provide a signed Illicit Discharge Statement.

BOHLER2: A signed Illicit Discharge Statement is included along with the revied O&M Plan. Refer to Appendix G of the revised Drainage Report.

BETA3: A signed illicit discharge statement is included in the drainage report.

MASSACHUSETTS STORMWATER MANAGEMENT STANDARDS:

No untreated stormwater (Standard Number 1): *No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*
The project proposes 4 new outfalls which will discharge to the wetland buffer zone along King Street. All runoff through these outfalls will be treated by infiltration basins with a combination of sediment forebays and water quality units for pretreatment. Along the entrance driveway, an additional 2 outfalls will be provided. Water quality units will be provided at these outlets for treatment. Riprap aprons are proposed at outlets to mitigate erosion.

Post-development peak discharge rates (Standard Number 2): *Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.*

The project proposes an increase in in overall impervious area and removal of existing woodlands. Three infiltration basins and one subsurface infiltration system are proposed to control stormwater runoff rates and volumes. The infiltration structures have been designed to provide sufficient static storage to store nearly 2" of runoff form the proposed impervious surfaces on site including the entrance driveway. The provided calculations indicate a decrease in post-development peak discharge rates and total runoff volumes compared to pre-development conditions.

SW22. As shown on the plans revised 07/08/22 filed with the conservation commission, Basin A has been reduced in size to provide additional wetlands compensation area outside of the NEPCO easement. Since the calculations predate this revision, the applicant should revise the calculations to reflect the new size.

SW23. The total rainfall for a 100 Year storm is 7" in 24 hours as defined by Mass DEP.

Recharge to groundwater (Standard Number 3): *Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to maximum extent practicable.*

The infiltration systems have been designed based upon the Rawl's Rate of the underlying soils as determined by the test pits. Basin A will have an infiltration rate of 2.41 inches / hour (Loamy Sand) while the remaining systems will be designed with an infiltration rate of 1.02 inches per hour (Sandy Loam). All the runoff from impervious surfaces up gradient of the entrance driveway are proposed to flow through an infiltration structure. The infiltration structures have been designed to provide sufficient static storage to store nearly 2" of runoff form the proposed impervious surfaces on site including the entrance driveway. Calculations have been provided showing that BMPs will all drain within 72 hours.

80% TSS Removal (Standard Number 4): *For new development, stormwater management systems must be designed to remove 80% of the annual load of Total Suspended Solids.*

The project proposes a treatment train consisting of water quality units, sediment forebays and infiltration systems. The treatment train will provide the required TSS removal and water quality volume. The treatment train to Basin A has been designed to provide the required 44% TSS pretreatment prior to infiltration based upon the higher infiltration rate. On the entrance driveway, all the treatment will be provided by water quality units. The existing municipal outfall at King Street will be extended to the downgradient edge of the driveway.

A scour hole will be provided at the outfall to help provide some additional treatment prior to discharge into the main channel.

Higher Potential Pollutant Loads (Standard Number 5): *Stormwater discharges from Land Uses with Higher Potential Pollutant Loads require the use of specific stormwater management BMPs*.
The project is not a LUHPPL - **not applicable.**

Critical Areas (Standard Number 6): *Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas.*
The project is not located within a Critical area - **not applicable.**

Redevelopment (Standard Number 7): *Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable.*
The project is not a redevelopment - **not applicable.**

Construction Period Erosion and Sediment Controls (Standard Number 8): *Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.*
The project will disturb greater than one acre of land; therefore, a Notice of Intent with EPA and a Stormwater Pollution Prevention Plan (SWPPP) are required. The project proposes the use of a double row erosion control barrier (compost sock), catch basin inlet protection, and stabilized construction entrance. As noted above the applicant will need a permit from the DPW for the site disturbance. (See comment SW12 above)

SW24. BETA recommends that greater detail be provided in the construction schedule for timing on the driveway construction means and methods.

Operations/maintenance plan (Standard Number 9): *A Long-Term Operation and Maintenance Plan shall be developed and implemented to ensure that stormwater management systems function as designed.*
A Long-Term Operation and Maintenance (O&M) Plan has been provided. Previous comments have been addressed.

Illicit Discharges (Standard Number 10): *All illicit discharges to the stormwater management systems are prohibited.*
A signed illicit discharge statement is included in the Stormwater Report. .

WETLANDS PROTECTION (§181)

The Project proposes work within Areas Subject to Protection and Jurisdiction of the Franklin Conservation Commission, including Bank, BVW, Land Under Water (LUW), the 25-foot Buffer Zone, the 50-foot Buffer Zone, and the 100-foot Buffer Zone. Therefore, the Applicant is required to submit an NOI to the Town of Franklin Conservation Commission and must obtain an Order of Conditions to complete the proposed work.

BOHLER: Acknowledged, no further response Required.

BETA2: Acknowledged. BETA has received the NOI from the applicant's representative.

ADDITIONAL COMMENTS:

WP2. BETA has been advised that the project has received an ENF Certificate from MEPA and that they are now moving forward with a Draft EIR. BETA recommends that the applicant keep the Planning Board appraised of their progress with the MEPA process and any findings which may impact the site design.

BOHLER2: Acknowledged, the Applicant will keep the Board appraised of their progress with MEPA and any findings which may significantly impact the site design.

BETA3: No further comments

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Gary D. James, P.E.
Senior Project Manager

cc: Amy Love, Town Planner

Job No: 4830 - 80

TOWN OF FRANKLIN

DEPARTMENT OF PUBLIC WORKS
Franklin Municipal Building
257 Fisher Street
Franklin, MA 02038-3026

July 11, 2022

Mr. Greg Rondeau, Chairman
Members of the Franklin Planning Board
355 East Central Street
Franklin, MA 02038

RE: Special Permit / Site Plan – Proposed Warehouse, 585 King St

Dear Mr. Chairman and Members:

We have reviewed the submitted materials for the subject project and offer the following comments:

1. The proposed development includes modifications to the King Street traffic signal and lane widening along King Street, some of which is MassDOT jurisdiction and some of which is Town jurisdiction. If the Board decides to approve the project, we request that it be conditioned that the offsite improvement plans be reviewed, approved, and permitted by DPW as well as MassDOT prior to issuance of a building permit.

2. The elevations of the top and bottom of the proposed retaining wall between the parking area and the truck access on the southeast side of the building should be noted similar to the other proposed walls on the site.

3. The retaining wall along the I-495 layout may require a protective fence along a portion of its length due to the 11 foot height.

4. The existing catch basin located within the layout of the driveway entrance should be relocated so it will not be subject to extensive vehicle and truck traffic.

5. The plans call out for HDPE piping for drainage, however the Board requires reinforced concrete pipe for drainage. Any drainage pipe within the Town right-of-way should also be reinforced concrete pipe.

6. Whereas the emergency spillway is set at an elevation of only 0.01 ft above the 100 year peak elevation for Infiltration Pond A, we recommend considering lowering the bottom of the basin somewhat to provide additional freeboard for a factor of safety. Also, on sheet C503 the proposed top of berm elevation is shown as 348.15 rather than 338.15.

7. Similarly for Infiltration Pond E, consider lowering the bottom of the proposed basin or possibly raising the berm elevation so that there is additional freeboard between the spillway elevation and the peak 100 year storm elevation, which is currently only 0.07ft.

8. The detail and/or plan view for underground infiltration system Pond C should indicate the number and configuration of pipes and overall stone dimensions as designed per the drainage report. Minimum dimension for top of stone should also be indicated.

9. We note that the precast concrete curb detail does not indicate the use of any reinforcement, the Board has typically required pre-cast concrete curb to be reinforced.

10. The 3" domestic and the 8" fire lines should be shown as two separate services coming off the looped 8" water main. The 8" fire service should also have a PIV installed on the line.

11. The designer should verify whether or not a fire pump will be needed due to the elevation of the site.

12. To avoid confusion during construction, we note that Town of Franklin water gates and service valves are "open left" style, not "open right" as noted in the details.

Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Michael Maglio, P.E.
Town Engineer

Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352

Phone: (508) 520-4907
www.franklinma.gov

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

MEMORANDUM

DATE: **July 18, 2022**

TO: **Franklin Planning Board**

FROM: **Department of Planning and Community Development**

RE: **585 King St**
Special Permit & Site Plan

The DPCD has reviewed the above referenced Site Plan Modification application for the Monday, July 25, 2022 Planning Board meeting and offers the following commentary:

General:

1. The site is located at 585 King St in the Business Zoning District. The property consists of several lots, as listed below:
   - Map 313, Lots 007, 0055, 053, 054, 006, 007, 005
2. The applicant is proposing to construct a Warehouse/Storage facility. Storage facilities require a Special Permit in the Business Zoning District, under 185 Attachment 4, 3.10.
3. Applicant is still waiting a decision from the Conservation Commission.

Comments:

1. The Planning Board requested hours of operation for the truck traffic and possible tenants.
2. As part of the regrading plan, work will be performed on the abutting property at 627 King St. A letter has been provided by the abutter.
3. The Planning Board asked for a detailed plan of the roadway improvements, including sidewalks, road widening and lights. Are any changes being proposed to the 495 South ramp
4. What if any communication has been made with MASSDOT.
5. DPCD defers to BETA and Town Engineer for any outstanding items.
6. Plans submitted are dated June 11, 2022. There have been changes to the plan per Conservation Commission.

Chestercove, Richard
627 King Street
Franklin, MA 02038

508-369-4897

crick44@yahoo.com

05/08/2022

Town of Franklin
355 East Central Street
Franklin, MA 02038

Planning Board / Conservation Board
Proposed Grading Work on 627 King St.

Salutations,

I am writing this letter regarding the proposed grading on my property for the removal of existing pipe and construction of new stream channel.

After speaking in detail with the developers contact, Mr. Josh Berman of Marcus Partners (cell: 207-712-4216) about the work which involves my property.

I hereby give my authorization for him and any contractors in the business of the proposed work onto, and to alter my property for purposes of the regrading.

Sincerely,

Richard Chestercove

Chestercove, Richard

IMPROVING COMMUNITIES TOGETHER

April 26, 2022

Mr. Gregory Rondeau, Chairman
Franklin Planning Board
355 East Central Street
Franklin, MA 02038

Re: Proposed Warehouse Building
585 King Street
Traffic Peer Review Update

Dear Mr. Rondeau:

BETA Group, Inc. (BETA) conducted a review of traffic related items provided by the applicant for the proposed project entitled 585 King Street – Proposed Warehouse located in Franklin, Massachusetts. This letter is provided to update findings, comments, and recommendations.

BASIS OF REVIEW

BETA received the following items:

- E-mail dated April 26, 2022, prepared by Vanasse & Associates, Inc., Andover, MA
- Response to Traffic Peer Review Update, dated January 10, 2022, prepared by Vanasse & Associates, Inc., Andover, MA
- Traffic Impact Assessment (TIA), dated December 2021, prepared by Vanasse & Associates, Inc., Andover, MA
- Plans (33 sheets) entitled: Preliminary Major Site Plan dated October 8, 2021, revise March 16,2022, prepared by Bohler Engineering of Southborough, MA.
- Response to Traffic Peer Review, dated December 2, 2021, prepared by Vanasse & Associates, Inc., Andover, MA
- Traffic Impact Assessment Update, dated December 23, 2021, prepared by Vanasse & Associates, Inc., Andover, MA
- Survey Based Concept Plan B, dated December 21, 2021, prepared by Bohler Engineering of Southborough, MA.
- Figure 13 Conceptual Improvement Plan King Street at Constitution Boulevard and the Project Site Driveway, dated December 22, 2021, prepared by Vanasse & Associates, Inc., Andover, MA
- Figure 14 WB-67 Semi-Trailer Turning Movement Plan King Street at Constitution Boulevard and the Project Site Driveway, dated December 22, 2021, prepared by Vanasse & Associates, Inc., Andover, MA
- Figure 15 Conceptual Study Area Improvement Plan King Street, dated December 22, 2021, prepared by Vanasse & Associates, Inc., Andover, MA

COMPILED REVIEW LETTER KEY

BETA reviewed this project previously and provided review comments in letters to the Board dated November 18, 2022, and January 5, 2022 (original comments in standard text), Vanasse & Associates,

BETA GROUP, INC.
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P: 781.255.1982 | F: 781.255.1974 | W: www.BETA-Inc.com

Inc. (VAI) provided responses (responses in italic text), and BETA has provided response comments (status in standard bold text).

PROJECT DESCRIPTION

The Applicant proposes to develop tracts of land located at 585 King Street in Franklin, Massachusetts (the Site) which comprises a total area of approximately 33.5 acres. The Site is located within the Business zoning district, while the surrounding area is located within the Single-Family III zoning district. The Site is bounded to the north by Interstate I-495, to the west by undeveloped woodlands, to the south by single-family residences, and to the east by King Street.

The project originally proposed to construct a 293,600 square foot warehouse building. Subsequently the project has been changed to construct a 255,400 square foot building. Access to the site will be provided via a new driveway that will intersect King Street and Constitution Boulevard via a fourth leg from the north.

The original project included 298 parking spaces, 42 loading bays, and 51 trailer storage spaces for a total of 391 parking spaces. The revised project will include 293 parking spaces, 64 loading bays, and 18 trailer spaces for a total of 375 parking spaces.

FINDINGS, COMMENTS AND RECOMMENDATIONS

The study area includes the following four signalized intersections in the vicinity of the site:

- King Street at Constitution Boulevard (Site access/egress location) and the fire station signal
- King Street at I-495 Southbound Ramps
- King Street at I-495 Northbound Ramps
- King Street at Union Street

The study area was found to be adequate, and the study methodology follows MassDOT Transportation Impact Assessment (TIA) guidelines.

Manual turning movement counts (TMCs) were collected on Wednesday, May 26th, 2021, from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. These time periods were chosen because they are representative of the peak generator times of the proposed development and roadways.

Traffic volume data were collected via automatic traffic recorder (ATR) on King Street over a 48-hour period on Wednesday, May 26th and Thursday, May 27th, 2021.

Permanent count station data from I-495 were reviewed to determine the need for seasonal adjustment. Traffic volumes in May were found to be above average-month conditions, therefore, the volumes were not adjusted.

In order to account for the difference in traffic patterns due to the pandemic, permanent count station data from 2018 was compared to the 2021 data. The existing 2021 volumes were increased by 6.1% to account for the volume reduction due to the pandemic.

T1. The developer's traffic consultant prepared a traffic study for a proposed hotel on Union Street dated November 2018 which included traffic volume data collected in 2018. The study area intersections for that project were the same as this project's study area. MassDOT's current Engineering Directive for "Guidance on Traffic Count Data" allows the use of 2018 volume data with the application of factors. Explain the reason behind collecting new volume data during the

continued pandemic rather than using volumes collected prior to the change in traffic patterns and decrease in volumes which are acceptable to MassDOT.

VAI: The November 2018 TIA did not include the intersection of King Street at Constitution Boulevard, the intersection that will serve as the access to the Project site and the location where the Applicant is proposing to advance significant improvements to the transportation infrastructure. As such, updated traffic count data was obtained for the entirety of the study area and adjusted following the guidance and procedures outlined in MassDOT's April 2020 "Guidance on Traffic Counting Data".

Subsequent review and comparison between the adjusted 2021 peak-hour traffic volume data and the 2018 traffic volume data for the King Street intersections with Union Street and the I-495 ramps indicated traffic volume variations for specific movements ranging from an increase of 60 vehicles to decreases of 220 vehicles. A detailed comparison of the traffic volume data by intersection and movement is attached.

Given that the identified variations would be considered material and would result in a change in the reported operating conditions at the intersections that were assessed in the October 2021 TIA, the 2018 peak-hour traffic volumes were used to reestablish baseline (2021) traffic volumes from which to reassess traffic volumes and operating conditions at the study intersections, which were adjusted to 2021 Existing traffic volume conditions following the adjustment procedure that is outlined in aforementioned MassDOT April 2020 guidance. The 2021 traffic volume data that was collected at the King Street/Constitution Boulevard intersection (the 2018 traffic count data did not include this intersection) was then added to the reestablished baseline traffic volumes and the traffic volumes at the intersection were adjusted to balance with the traffic volumes at the adjacent King Street/I-495 southbound ramp intersection. The 2018 traffic count data and the adjustment calculations are attached.

Figures 3R and 4R depict the revised 2021 Existing weekday morning and evening peak-hour traffic volumes, respectively, with Figures 5R and 6R depicting the revised 2028 No-Build condition peak-hour traffic volumes and Figures 10R and 11R depicting the corresponding 2028 Build condition traffic volumes.

BETA2: During the review process for the proposed hotel on Union Street, 2018 traffic volume data was collected for the intersection of King Street at Constitution Boulevard which VAI had provided at the time. Based on a quick review of the volumes, the overall volumes are similar, but the distribution varied at the intersection between the original data collection in 2018 and the baseline volumes provided in the TIA. BETA recommends the volumes be reviewed and the intersection analysis redone as needed to determine if the redistribution would provide a negative impact to the intersection operational analysis if the intersection movement volumes into and out of Constitution Boulevard are once again realized.

VAI2: The 2018 traffic volumes at the King Street/Constitution Boulevard intersection conducted in support of the aforementioned hotel project by others were reviewed and applied to the intersection accordingly. As previously described, the King Street/Constitution Boulevard traffic volumes were adjusted to 2021 Existing traffic volume conditions using the adjustment procedure outlined in the MassDOT's April 2020 guidance. The volumes were then adjusted to balance with the traffic volumes at the adjacent King Street/I-495 southbound ramp intersection.

Figures 3R and 4R depict the revised 2021 Existing weekday morning and evening peak-hour traffic volumes, respectively, with Figures 5R and 6R depicting the revised 2028 No-Build condition peak-hour traffic volumes, and Figures 10R and HR depicting the corresponding 2028 Build condition traffic volumes.

It should be noted that the 2028 Build condition traffic volumes reflect the trip- generation calculations for the larger warehouse building as presented in the October 2021 TIA in order to allow for a comparison to the prior analyses that have been completed in support of the Project. As documented in VAI's December 23, 2021, letter, the reduction in the size of the warehouse building from 293,600± square feet (sf) to 255,400± sf was shown to result in a corresponding reduction in the volume of traffic produced by the warehouse by approximately 68 vehicle trips on an average weekday, seven (7) vehicle trips during the weekday morning peak hour and six (6) vehicle trips during the weekday evening peak hour.

Table 8R1 presents the results of the revised traffic operations analysis for the study area intersections incorporating the updated traffic volumes at the King Street/ Constitution Boulevard intersection. As shown in Table 8R1 and consistent with the findings that were presented in the October 2021 TIA, overall intersection operations will continue to be maintained at a level-of-service (LOS) C or better during the peak hours with the addition of Project-related traffic, where an LOS "D" or better is defined as "acceptable" operating conditions. The revised traffic operations analysis did indicate that the addition of Project-related traffic would result in additional delays over No-Build conditions that cased the overall level-of-service at the King Street/Constitution Boulevard and intersection to degrade from LOS B to LOS C during the weekday morning peak-hour as a result of an increase in overall control delay of 5.0 seconds.

Table 8R1 has also been expanded to include a review of operating conditions at the study area intersections with the planned improvements, which include the development of an optimal traffic signal timing, phasing and coordination plan. This analysis illustrates that the planned improvements, traffic operations will be maintained or improved over No-Build conditions.

BETA3: Information provided. No further comment.

T2. Please clarify if a volume comparison between the 2018 and 2021 volume data was performed for reference prior to determining which traffic volumes to use for the study.

VAI: A comparison between the 2018 and 2021 traffic volumes was not conducted in conjunction with the preparation of the October 2021 TIA. Subsequent review and comparison between the adjusted 2021 peak-hour traffic volume data and the 2018 traffic volume data for the King Street intersections with Union Street and the I-495 ramps indicated traffic volume variations for specific movements ranging from an increase of 60 vehicles to decreases of 220 vehicles. A detailed comparison of the traffic volume data by intersection and movement is attached.

BETA2: Information provided. Further adjustments are pending. Refer to T1 responses.

VAI2: See Response to Comment TI.

BETA3: Information provided. No further comment.

Vehicle speeds were also collected via ATR along King Street in the vicinity of the development roadways. The posted speed limit along King Street is 40 miles per hour (mph). The mean and 85th percentile speeds were less than the posted speed limit. For example, the measured 85th percentile speeds were 4-8 miles per hour less than the posted speed.

Crash data were collected, compiled, and analyzed for the study area intersections for a five-year period,2014 through 2018, based on the most recent data available from MassDOT. This is an industry standard practice. Crash rates quantified in number of crashes per million entering vehicles were found to be 0.57 or less. All are below the Statewide and District 3 average crash rates of 0.78 and 0.89, respectively.

Based on discussions with the Town of Franklin Planning Department, there are currently no development or roadway projects expected to increase traffic or capacity in the vicinity of the project site. Therefore, no additional development traffic volumes were added to the No-Build condition.

No-Build traffic volumes were determined by applying a one (1) percent per year growth rate over seven years. The review of permanent count station data between 2009 and 2019 shows an average traffic rate of 0.57 percent per year, however 1% was applied to account for any future unforeseen developments. The 1% growth rate is consistent with other recent studies for the Town of Franklin; therefore, BETA agrees with the annual growth rate over a seven-year horizon to 2028.

Project-generated traffic volumes were determined by utilizing trip-generation statistics published by the Institute of Transportation Engineers (ITE) for land use code 150 (Warehousing). The land use and methodology chosen is accurate and consistent with industry standards. The project site is projected to generate a total of 510 new trips on an average weekday. New peak hour trips are 61 (47 entering, 14 exiting) in the weekday morning peak hour, and 63 (17 entering, 46 exiting) in the weekday afternoon peak hour. Six of the weekday morning peak hours and nine of the weekday afternoon peak hour are expected to be truck trips. It should be noted that the truck trips are based on the peak hour of the main road and not the facility. During the morning and afternoon peak hours of the facility, the number of truck trips is expected to range from 16 to 19 trips.

New trips were distributed through the study area based on existing traffic patterns and the location of the highway system. Backup calculations were not provided for review.

T3. Please provide the trip distribution backup calculations for reference and review.

VAI: The trip distribution pattern for the project was developed based on a review of existing traffic patterns within the study area during the peak hours. Backup calculations have been provided as an attachment.

BETA2: Information provided. No further comment.

The level of service analysis for the intersections was performed using the Synchro 11 software and based on the HCM 2000 methodology. Analyses were performed for the Existing, No-Build, and Build conditions. The analysis results show that all movements would operate at LOS D or better during the morning and afternoon peak periods for the Existing, No-Build, and Build conditions and the intersections overall would operate at LOS C or better. Even with the addition of the site driveway approach to the intersection, the Project was not found to change overall Level of Service (LOS) when compared to the No-Build conditions.

T4. As stated previously, the developer's traffic consultant prepared a traffic study for a proposed hotel on Union Street dated November 2018 which included traffic volume data collected in 2018. The LOS results for the same study area intersections indicates that intersections overall would operate at LOS D or better with several movements operating at LOS E or better during the Build conditions. Therefore, the analysis prepared for this study, with the same intersections, results in much better intersections operations. The variation in LOS results is

indicative of lower traffic volumes used in this study. Although the comparison of impacts between the No-Build and Build volumes suggests similar degradations, it is important to have a good understanding of the real traffic volumes when providing updated coordination timing plans.

VAI: The traffic operations analysis for the study area intersections has been revised to reflect the reestablished baseline 2021 Existing traffic volumes and the associated revised 2028 No-Build and 2028 Build condition traffic volumes, the results of which are summarized in Table 8R, with the detailed analysis results attached.

A comparison of the analysis results shown in Table 8 of the October 2021 TIA to the results shown in Table 8R indicates that overall intersection operations will be maintained at a level-of-service (LOS) C or better during the peak hours, with no change in overall LOS shown to occur as a result of the addition of Project-related traffic, consistent with the findings of the October 2021 TIA, and all but two (2) movements shown to operate at LOS D or better, where an LOS "D" or better is defined as "acceptable" operating conditions. As noted by BETA, the King Street westbound approach to the I-495 southbound ramps and the Union Street southbound approach to King Street were identified to operate at LOS E during the weekday evening peak-hour under 2028 No-Build conditions, independent of the Project. Project-related impacts on these movements were identified as an increase in average motorist delay of up to 7.9 seconds and in vehicle queuing of up to one (1) vehicle.

BETA2: Information provided. Further adjustments are pending. Refer to T1 responses.

VAI2: See Response to Comment TI.

BETA3: Information provided. No further comment.

T5. Clarify if the Build conditions analysis incorporates the optimized coordination times intended to be implemented for this project.

VAI: The 2028 Build condition analysis presented in Table 8 of the October 2021 TIA do not reflect the proposal to optimize the traffic signal timing, phasing and coordination plan for the King Street corridor.

BETA2: Elaborate on the effort and timeline the proponent is committing to in terms of the design and implementation of "an optimal traffic signal timing, phasing, and coordination plan" for the King Street corridor.

VAI2: The Project proponent has committed to the design and implement an optimal traffic signal timing, phasing and coordination plan for the King Street corridor inclusive of the following intersections:

- King Street/Constitution Boulevard
- King Street/I-495 Southbound Ramps
- King Street/I-495 Northbound Ramps
- King Street/Union Street

The timing plan will be developed based on then current traffic volume conditions (i.e., new traffic counts will be performed) and will be submitted to the Town and MassDOT for review and approval. Once approved, the Project proponent will retain a MassDOT approved contractor implement the improvements prior to the issuance of a Certificate of Occupancy for the Project subject to receipt of all necessary rights, permits and approvals. As shown in Table 8R1, with

implementation of the traffic signal timing improvements, all movements at the study area intersections are expected to operate at LOS D or better, and improvement over No-Build conditions.

BETA3: Information provided. No further comment.

The 95th percentile queues are anticipated to be similar between the No-Build condition and the Build condition throughout the study area.

KING STREET AT CONSTITUTION BOULEVARD/SITE DRIVEWAY

The proponent proposes to provide a 4th leg from the north to form a 4-legged signalized intersection with King Street at Constitution Boulevard.

In addition, the proponent is prepared to replace the fire station intersection's emergency flashing signal with a traditional traffic signal. This would provide indications tied into the King Street and Constitution Boulevard/Site Driveway intersection traffic signal. Signal indications will be replaced with optically programmed signal indications and queuing will be prohibited from in front of the fire station. The proposed concept is expected to provide safety improvements to the intersection operations; however, a traffic signal plan was not provided as part of this submission, so a detailed review of the operations was not performed.

T6. The proposed lane use configuration used in the analysis for the King Street southbound approach to its intersection with Constitution Boulevard/Site Driveway is different than that layout shown in Figure 13. Figure 13 – Conceptual Improvement Plan shows a proposed lane configuration and associated R3-8a sign which depicts two left-turn only lanes and one shared though/right turn lane. However, the Synchro Build analysis shows two exclusive left-turn lanes, one through lane, and one right turn lane. Please clarify the intended proposed lane configuration.

VAI: The proposed lane configuration shown on Figure 13 (i.e., two (2) left-turn lanes and one (1) through/right-turn lane) reflects the proposed lane configuration. A revised traffic operations analysis has been performed that reflects the lane use shown on Figure 13, the results of which are summarized in Table 8R with the detailed analysis results attached.

As shown in Table 8R, no change in overall level-of-service is predicted to occur over No-Build conditions, with Project-related impacts defined as an increase in overall average motorist delay of up to 4.5 seconds and in vehicle queuing of up to six (6) vehicles (King Street westbound through/right-turn lane during the weekday morning peak-hour). All movements exiting the Project site are predicted to operate at LOS D during both the weekday morning and evening peak hours with vehicle queues of up to three (3) vehicles predicted. These results are generally similar to those reported in Table 8 of the October 2021 TIA.

BETA2: Page 2 of the TIA states some recommendations for the project access design and includes "King Street approaching the Project site driveway should be widened to provide a southbound right-turn lane in order to accommodate trucks slowing to enter the Project site." Based on the proposed lane configuration, an exclusive right-turn lane is no longer proposed. Could you elaborate on how this design recommendation changed to a shared through/right-turn lane and your thoughts on any safety issues related to the lack of an exclusive right-turn lane for slow turning trucks as initially noted?

VAI2: A "No Access Line" has been established by MassDOT along the north side of King Street that extends through the King Street/I-495 Interchange to a point approximately 125 feet northeast of the Project site driveway. This restriction precludes the ability to widen King Street to allow for additional "access" (travel lanes) beyond what is currently afforded. In addition, the presence of wetlands along the north side of King Street and the limited distance between the driveway and the 1-495 southbound off-ramp also restricted the ability to develop a turn lane in this area.

The Project site driveway has been designed with appropriate corner radii to facilitate truck turning maneuvers entering the site without unduly impeding through traffic along King Street, acknowledging that following vehicles will need to slow to allow for the turning maneuver to occur. It is expected that truck traffic will primarily occur during off-peak periods and that trucks will constitute a smaller portion of the overall trips that are generated by the Project. As such, the overall capacity of the King Street corridor due to trucks slowing to enter the Project site is not expected to be significantly impacted.

BETA3: Information provided. No further comment.

SITE PLAN

T7. The queueing currently experienced on I-495 off ramps to King Street and the King Street left turns onto I-495, specifically in the northbound direction, should be closely monitored when the signal timings and coordination are revised. Tractor trailer truck start up times are longer and additional time would be needed to accommodate the additional truck traffic in the study area.

VAI: As shown in Table 8R1, with the implementation of an optimal traffic signal timing and phasing plan, it is expected that vehicle queues on the 1-495 off-ramps to King Street and for left-turn movements from King Street to the 1-495 on-ramps will be reduced, maintained or will marginally increase up to one (1) vehicle. In general, vehicle queues in the King Street left-turn lanes were shown to be greatly reduced over current (pre-COVID) conditions.

BETA2: Information provided. No further comment.

T8. The revised site plan shows the loading docks now facing I-495. As a result, approximately 33 truck parking spaces were removed, and 22 loading docks were added to the site plan. Do you anticipate that the increase in loading docks would increase the number of truck trips to and from the site on a daily or weekly basis?

VAI: As noted, the revisions to the building layout and Site Plan have resulted in a decrease of 33 truck parking spaces and an increase of 22 loading docks. Given that the net change is an overall reduction in truck accommodations within the Project site, the changes will not result in an increase in the number of truck trips generated by the Project, particularly since the warehouse has also been reduced in size, which limits the volume of goods that can be processed.

BETA2: Information provided. No further comment.

ADDITIONAL COMMENTS

An update to the original TIA was submitted for review. The update summarizes the decrease in the proposed warehouse square footage from 293,000 square feet to 255,400 square feet, which results in a lower trip generation. The decrease in square footage results in a negligible 7 and 6 vehicle decrease in trips during the AM and PM peak periods, respectively.

T9. The ITE Trip Generation data is an industry standard resource for determining proposed vehicle trips for planning purposes. Due to the existing congestion at the proposed site driveway intersection with Constitution Boulevard and King Street, BETA recommends that the proponent provide additional traffic volume data. The traffic data should include vehicle volumes, including trucks, from a similar sized and type of facility as well as a facility with a similar number of loading docks adjacent to a major highway. This data would provide a trip generation comparison to support the ITE trip generation data provided in the TIA.

VAI: The traffic characteristics of the Project were developed using the ITE Trip Generation data that is representative of a comparable use given that a tenant has not been identified for the warehouse. The ITE data that was used is representative of and includes warehouse facilities of a comparable size to that of the proposed warehouse. Given that an end user has not been identified, it would be difficult and speculative to select a warehouse that could reasonably be assumed to be representative of the conditions that would result from the Project. As such, use of the ITE Trip Generation data provides a reasonable basis from which to assess the impact of the Project.

BETA2: No further comment.

T10. The traffic signal at the site driveway is under the Town's jurisdiction but the traffic signal is coordinated with three other intersections, two of which are owned by the MassDOT. Could you elaborate on discussions with MassDOT in general involving the project as well as the traffic signal redesign and their comments about how adding the additional phase would impact the coordinated network.

VAI: The Project proponent coordinated with MassDOT as the October 2021 TIA was prepared, including discussing the site access and off-site improvements. MassDOT provided the design plans for the traffic signals along King Street in order to allow VAI to assess the impact of the Project and to develop the traffic signal timing improvements that will be advanced as a part of the Project. The Project will be subject to a filing under the Massachusetts Environmental Policy Act (MEPA) that will include the submission of an update (to incorporate BETA'S comments to date) Transportation Impact Assessment and accompanying Conceptual Improvement Plan that will be reviewed in more detail by MassDOT as a part of the MEPA process.

BETA2: Information provided. No further comment.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,

BETA Group, Inc.

Jaklyn Centracchio

Jaklyn Centracchio, PE, PTOE
Project Manager

cc: Amy Love, Town Planner
Job No: 4830 – 80

352 Turnpike Road
Southborough, MA 01772
508.480.9900

June 10, 2022

Mr. Gregory Rondeau, Chairman
Franklin Planning Board
355 East Central Street
Franklin, MA 02038

Re: 585 King Street – Proposed Warehouse

Dear: Mr. Rondeau:

Bohler Engineering is in receipt of a comment letter from BETA Group, Inc., dated May 3, 2022, for the above referenced project. On behalf of the Applicant, Marcus Properties Inc., Bohler offers the following responses. For clarity, the original comments and responses are in *italics*, BETA additional comments are in normal type and our responses are directly below in **bold** type. It is noted that comments that are acknowledged as requiring no further comment have been omitted from this response letter.

Drawing Requirements (§185-31):

Comment DR1. *Drawings must be between 1" =20' and 1" =50' scale. The larger view drawings are all 1" =60' scale. The scale is not indicated for sheet C-201.*

Response: *The detailed site drawings (i.e. "A" and "B" sheets) are at 1" =30' scale. The larger view drawings are at 1" =60' scale as noted and are intended to show the overall extent of the development. Our office feels this approach is appropriate given the scale of the project. Sheet C-201 is 1" =60' scale as noted with the scale bar in the upper right corner.*

BETA2. Scale is indicated for the sheets, however the Zoning Bylaw requires that drawing scales be between 1"=20' and 1"=50' scale. (§185-31.C.(3).(a). Additionally, the applicant's submitted site plan sheets are 30 x 42 inch dimensions, while the application submittal requirements indicate that 24 x 36 inch sheets will be needed (§185-31.C.(2).(a).

Response 2: **As noted, our office feels the scale and approach of the plans is appropriate for the scale of the project. The Applicant is amendable to providing asbuilt plans of the project at the 24x36 inch sheet size and between 1"=20' and1"=50' scale. The Applicant respectfully requests a waiver from this requirement should the Board feel one is necessary.**

Comment DR2. *Provide earth removal quantities and develop cuts and fills to be presented to the Planning Board. (§185-31.C.(3).(j).*

Response: *The site has been designed such that the volumes of cuts and fills are relatively balanced. Refer to enclosed earthwork exhibit for location of cuts and fills.*

BETA2. The earthwork exhibit is useful for a general sense cut and fill locations, however it does not provide a way to compare cut/fill quantities in a quantitative way. It is requested that the applicant provide a cut/fill table for the proposed site so that an objective comparison can be made using volumetric units.

Response 2: **A summary of the anticipated earthwork is enclosed with this letter. The summary shows an anticipated export of approximately 4,413 C.Y. of material exclusive of topsoil. All exported material will be removed in accordance with local, state, and federal requirements.**

Comment DR3. *Provide location, size and sketch of all proposed signs on plans (§185-31.C.(3).(j).*

Response: *A proposed entry sign has been added to sheet C-303. The sign will be constructed in accordance with the Town of Franklin Zoning Bylaws. Plans and details of building signs have not been developed at this time as the end tenant is unknown. Buildings signs will be constructed in accordance with the Town of Franklin Zoning Bylaws.*

BETA2. Acknowledged. It is suggested that a more detailed sign sketch be submitted to the planning board for approval prior to its construction**.**

Response 2: **The Applicant is amenable to providing the detailed information as a condition of approval.**

Comment DR4. *Provide data for proposed buildings describing the on-site generation of noise (generators, mechanical cooling, compactors, etc.) and odors (§185-31. C. (3). (r))*

Response: *Based on comments from the Board and the neighbors the site has been redesigned so the loading area is facing I495 and away from the neighbors and noise generated by the site is not anticipated to impact the abutting properties. The proposed use is a proposed warehouse facility and is not anticipated to generate any odors.*

BETA2. Acknowledged. Due to the proposed truck parking, an increase in noise would be anticipated due to trucks' back-up alarms while backing in/out of the spaces. Since the existing vegetation is largely defoliated during the winter season, it is suggested that the applicant consider proposing screening in this area that provides noise-dampening during winter months.

Response 2: **As requested by the Board, the site was redesigned such that the loading areas are on the northeasterly side of the building facing I-495 away from the residences and is located over 600 feet from the nearest residences. This redesign will provide noise dampening of the loading activities. In addition, a row of arborvitaes has been added between the project and the abutting residences to provide further dampening, refer to sheet C-702.**

General Comments:

Comment G2. *The test pit logs identified in the drainage calculations do not correlate with the locations identified on Sheet C-201. As shown in the drainage report, the test pits were conducted for a previous development plan with a smaller building and different stormwater BMP locations. Based upon BETA's Site visit, there appears to be no evidence that any test pits were conducted on site in the vicinity of the*

proposed infiltration basin or the subsurface infiltration system. BETA recommends that additional test pits be conducted at the Site (in the presence of the Town and/or their representative) to confirm depth to groundwater and soil classifications.

Response: *The locations of the test pits have been clarified with the reviewer. Additional test pits were performed in the area of the proposed systems and witnessed by BETA. Test pit logs for the new test pits are enclosed Appendix C of the revised Drainage Report enclosed with this letter. All test pit locations are shown on the revised Site Development Plans, refer to Sheets C-401, C-402, C-502 and C-503.*

BETA2. Acknowledged. However, there are still no test pit locations shown within Proposed Infiltration Basin B. Depth to Groundwater and soil classification / infiltration rate will need to be provided to determine whether infiltration is feasible at this location.

Response 2: **Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in this area were observed to be loamy sand with no observable groundwater. Based upon the additional soil testing, infiltration is feasible in this location. Copies of the soils logs from the additional testing areas are included in Appendix C of the revised Drainage Report.**

Comment G4. *The Project proposes a new culvert to facilitate a BVW/stream crossing. The Applicant should clarify why the existing path and culvert are not being utilized and/or why they are not being removed. The new culvert is proposed at the confluence of two (2) intermittent stream channels. Based on the footprint of the roadway and culvert, it appears that an intermittent tributary will be filled, and the primary intermittent stream will be relocated to flow through the culvert. The Project proposes to discharge runoff collected by catch basins to this stream via scour pads that appear to be located within the existing stream. The Applicant should provide actual design details of this crossing to ensure that it is constructable, as well as permittable under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40), the Town of Franklin Wetlands Protection Bylaw (Chapter 181), and the Massachusetts Stream Crossing Standards. In addition, any potential for alterations of hydrology that may impact abutters should be addressed.*

Response: *The Site Development Plans have been updated to show the proposed culvert at the location of the intermittent stream channel. The culvert will be designed and constructed in accordance with applicable local and state standards including the Massachusetts Stream Crossing Standards. Preliminary design information is included in the driveway profile. This information will be detailed further in the Notice of Intent Submittal to the Franklin Conservation Commission.*

BETA2: Acknowledged. Additional information was provided that demonstrates compliance with Massachusetts Stream Crossing Standards. In addition, there is insufficient survey data presented to verify the depth of the channel and the height as noted in the detail. It is suggested that the applicant provide additional analysis and information needed to demonstrate compliance with Massachusetts Wetlands Protection Act.

Response 2: **Compliance with the Stream Crossing Standards does not impact the Planning Board's review. Additional information has been provided to the Conservation Commission as part of the Notice of Intent to demonstrate compliance.**

Comment G5: As shown on Sheet C-905, the existing 42" CIP below the proposed stream crossing will be removed. The downgradient flooding impacts associated with this removal should be determined. Additionally, the channel elevations at the removal site 319.5-319.0 do not correlate with the culvert inverts of 318.0-317.8 indicated on the survey plans.

Response: **Additional detailed topography has been obtained in the area of the existing 42-inch culvert and is reflected in the revised Site Plans. The elevations of the proposed channel have been clarified based upon the additional topography, refer to Sheets C-905 and C-907. As shown with the additional topography, there is a defined stream channel that flows north to south through the existing 42" culvert. It is also noted that LEC and Bohler have been on the site multiple times and have not seen any evidence in the field that backwater occurs upstream of the 42" culvert. Based upon the topography and on-site observation, it is not anticipated that the 42" pipe will cause any backwater upstream of the culvert, therefore removal of the culvert and replacement with a stream channel is not anticipated to cause downgradient flooding.**

Comment G6: It does not appear that the existing culvert beneath the gravel access path can be removed without impacting the abutting parcel. Provide a detail which demonstrate that the work activity will not extend to the abutting parcel or demonstrate the right to conduct activity on the abutting parcel.

Response: **Enclosed with this letter is a letter from the abutter authorizing work on their property.**

Comment G7: The plans now delineate a "50' Buffer to Exist. Electric Transmission Structure". However, in multiple locations there is proposed infra-structure improvements within the buffer as delineated. BETA recommends that the applicant provide the Board with information from NEPCO demonstrating what the intent of the buffer is and whether the proposed improvements will be allowed within the limits of the buffer

Response: **The fifty (50) foot buffers shown on the plans is a requirement of NEPCO to be shown on the plans. Documentation from NEPCO stating approval of the proposed project can be provided to the Board prior to construction.**

Comment G8: Several notes refer to "THE CITY OF MARLBOROUGH", specifically on sheet C-102 and within the details. It is suggested that specification or regulation references be updated to refer to "Town of Franklin" or other applicable authority

Response: **Sheet C-102 and the details have been adjusted accordingly.**

SIGNS (§185-20):

Comment *Verify whether any signs will be erected as part of the construction of the proposed warehouse. Provide location, description, and details of any proposed signs.*

Response: *As noted previously, a proposed entry sign has been added to sheet C-303. The sign will be constructed in accordance with the Town of Franklin Zoning Bylaws. Plans and details of building signs have not been developed at this time as the end tenant is unknown. Buildings signs will be constructed in accordance with the Town of Franklin Zoning Bylaws.*

BOHLER

BETA2: Acknowledged. Additional detail of proposed signage according to §185-20 will need to be provided to the approving authority prior to issuance of a sign construction permit.

Response 2: **Acknowledged, the Applicant is amendable to this requirement as a condition of approval.**

Traffic Impacts:

Comment P4. *Provide correspondence from Fire Department indicating the Site meets their safety requirements for circulation.*

Response: *It is our understanding that the Fire Department has reviewed the project and provided any comments to the Town Planner.*

BETA2: BETA defers this issue to the Town Planner

Response 2: **Acknowledged. No further response required.**

Comment P6. *The fifteen (15)-foot residential greenbelt is shown along the easterly property line where the parcel abuts a Business-zoned parcel. In accordance with §185-35.C. this greenbelt requirement also applies to that portion of the lot where the parcel abuts the residential zone. The greenbelt should be identified. Since a portion of the property line cannot be maintained as a greenbelt due to its location within the NEPC easement, the Applicant should seek a waiver and/or identify alternatives.*

Response: *The fifteen (15) foot residential greenbelt is identified on the Site Plans. Although the area can't be maintained due to the existing NEPC easement additional landscaping has been placed around the perimeter of the parking to screen the abutters which is consistent with the spirit of the requirement. Additionally, the nearest residential home is over 450 feet from the parking area. It is unclear if a wavier is required from this section, but if the Board deems one is needed the Applicant would respectfully request a waiver from §185-35. C.*

BETA2: Acknowledged. It is suggested that the Applicant request a waiver in accordance with the §185-35.C.

Response 2: **As noted, the Applicant respectfully requests a waiver from §185-35. C. should the Board deem one is necessary.**

Utilities:

Comment U1. *Provide size, location and material of water and gas mains in King Street. Show existing utility poles and potential underground routing.*

Response: *The Site Development plans have been updated to show the approximate location of the existing water and gas mains in King Street as well as existing utility poles. Sheet C-503 has been updated to potential routing of electrical service to the existing utility poles.*

BETA2: Acknowledged. The existing utility pole that is indicated on for the electric and telecom connections on C-503 is a guy pole with guy wire. Due to proposed relocation of the adjacent utility pole on the south side of King Street as well as proposed grading in the vicinity, the existing guy wire/pole will likely need to be adjusted or relocated to account for different wire angles. As a result, it is recommended that the connecting pole be shown as proposed work to be performed by others.

Response 2: **It is possible that the connecting pole may need to be replaced or modified due to the proposed connection and/or the work in King Street, however, this does not impact the review of the Planning Board. This work will be detailed on the roadway improvement plans as part of the review and permitting process with MassDOT. Copies of the roadway improvement plans will be provided to the Town once they have been approved by MassDOT.**

Comment U7. *Provide letter from the fire department stating that the hydrant locations and quantity are acceptable.*

Response: *It is our understanding that the Fire Department has reviewed the project and provided any comments to the Town Planner.*

BETA2: BETA will defer this issue to the Town Planner

Response 2: **Acknowledged. No further response required.**

Additional Comments:

U8. The plans for the proposed intersection improvements should be submitted for review once they have been developed.

Response 2: **Acknowledged. Copies of the roadway improvement plans will be provided to the Town once they have been approved by MassDOT.**

Landscaping

Comment: *A total of 32 trees are proposed for landscaping around the building. All remaining landscaping is proposed to be grass cover. The existing vegetation between the Site development area and the abutting residential property did not appear to be* sufficient during leaf-off seasons; BETA was able to view the abutting single-family home from the area northwest of the proposed stream crossing. The Applicant *should demonstrate compliance with the screening requirements set forth by §185-35.*

Response: *A row of arborvitaes is proposed between the parking area and the existing residential homes on Taft Drive to supplement the existing vegetative buffer. Additionally, the nearest residential home is over 450 feet from the parking area.*

BETA2: Acknowledged. As mentioned in an earlier response, due to the proposed truck parking, an increase in noise would be anticipated due to trucks' back-up alarms while backing in/out of the spaces. A review of satellite imagery indicates that the surrounding trees are primarily deciduous and defoliated during the winter season. BETA recommends that the applicant consider providing an evergreen screen in this area to provide noise-dampening during winter months.

Response 2: **As noted above, as requested by the Board the site was redesigned such that the loading areas are on the northeasterly side of the building facing I-495 away from the residences and is located over 600 feet from the nearest residences. This redesign will provide noise dampening of the loading activities. In addition, a row of arborvitaes has been added along the site between the project and the abutting residences to provide further dampening, refer to sheet C-702.**

Additional Comments

LA2. Proposed shade tree locations adjacent to the truck parking spaces appear to overhang the spaces. The proximity of trees could result in damage to trees and/or trucks from collisions with branches. The applicant may want to consider relocating the proposed trees and/or providing different vegetation in this area.

Response: **The landscaping plan has been revised to relocate the trees away from the truck spaces and provide alternative vegetation including the aforementioned row of arborvitae, refer to Sheet C-701.**

LA3. C-701 indicates that 28 trees are required and being provided, however, it appears that only 23 trees are bordered within 5 feet, one tree per 10 parking spaces (refer to §185-31). Several of the trees are not within 5 feet of parking spaces.

Response: **Three additional deciduous trees have been added adjacent to the parking areas, these trees along with the addition of the row of arborvitae increase the tree count adjacent to parking areas in compliance with this zoning requirement. Refer to Sheet C-701.**

Lighting (§185-31.C(4)(E))

Project Lighting Plans (C-705, C-706, and C-707) indicate that a total of 40 light poles on concrete bases and 12 wall packs will be installed onsite. Approximately 64 lighting fixtures will be installed on 30-foot-high poles within the Site. A photometric plan was provided; according to the summary provided, the average FC intensity on the pavement will be 2.13 FC.

The Illuminating Engineers Society of North America (IESNA) recommends the following for parking lots:

Level	Horizontal Illuminance (min)	Vertical Illuminance (min)	Uniformity Ratio (max/min)
Basic Maintained Illuminance	0.2	0.1	20/1
Enhanced Security Illuminance	0.5	0.25	15/1

Comment L1. *The provided photometric plan is difficult to read at the plotted scale. Provide FC results on 1" = 20' scale sheets.*

Response: *1"=30' Scale photometric plans are provided, refer to Sheets C-706 and C-707.*

BETA2: Acknowledged. Please note that the information above does not correspond to the Calculation Summary on the Overall Lighting Plans.

Response 2: **Acknowledged. No further response required.**

Comment L3. *Nine (9) of the proposed light poles are located within the NEPC easement, either directly beneath or adjacent to the overhead power lines. Confirm that NEPC will allow these light poles within the easement.*

Response: *All pole locations within the easement area will be reviewed by NEPC.*

BETA2: Acknowledged. Please keep the Board informed if the NEPC review results in substantial changes to proposed lighting levels**.**

Response 2: **Acknowledged. No further response required.**

Additional Comments:

L4. According to the IESNA recommendations mentioned above, horizontal illuminance levels appear to be inadequate in the vicinity of the proposed driveway entrance at King Street. As there is no apparent existing street lighting at this location, the applicant may want to include additional lighting in this area to make pedestrians and exiting/entering vehicles more visible. Due to proximity to the existing crosswalk on King Street, westbound vehicles turning right to exit the site may have some difficulty seeing pedestrians in the crosswalk if lighting is inadequate.

Response: **Additional lights have been added at the entrance to King Street. Refer to sheet C-707.**

L5. Along the driveway at the northwest edge of the site at the building corner, there is light spillage that extends nearly 50' beyond the property line onto the abutting parcel. Either modify the proposed lighting to eliminate the spillage or request a waiver from the by-laws.

Response: **Light pole heights in this area have been adjusted and additional light shields added such that there is 0.1 fc along the property line. The adjacent property is undeveloped and the proposed lighting in this area is not anticipated to have any impacts on the abutting property. Refer to sheet C-706.**

Stormwater Management

General

Comment SW1. *BETA generally found it difficult to correlate the locations of the test pits on the plan with the unlabeled test pits observed in the field, and it appears that test pits were not provided at critical locations such as within the footprint of the infiltration basin (Comment G2).*

Response: *As noted above, the locations of the test pits have been clarified with the reviewer. All test pit locations are shown on the revised Site Development Plans, refer to Sheets C-401, C-402, C-502 and C-503.*

BETA2: Acknowledged. However, there are still no test pit locations shown within Proposed Infiltration Basin B. Depth to groundwater and soil classification/infiltration rate will need to be provided to determine whether infiltration is feasible at this location.

Response 2: **Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in this area were observed to be loamy sand with no observable groundwater. Based upon the additional soil testing infiltration is feasible in this location. Copies of the soils logs from the additional testing areas are included in Appendix C of the revised Drainage Report.**

Comment SW2. *Notwithstanding Comment SW1, the soils information provided is insufficient to characterize the onsite soils and determine estimated seasonal high groundwater (ESHGW). Future test pits should include information such as matrix color and percentage/color of redoximorphic features. Without this information, BETA assumes that the provided ESHGW elevation was extrapolated from the elevation of the wetland boundary, which is not likely to be accurate.*

Response: *As noted above, additional test pits were performed in the area of the proposed systems and witnessed by BETA. The testing verified the onsite soils and provided additional data relative to ESHGW. The proposed stormwater system design has been updated to correspond with the additional testing. Test pit logs for the new test pits are in Appendix C of the revised Drainage Report enclosed with this letter.*

BETA2: Acknowledged. However, based on the revised design, additional test pit data is now required for both Subsurface Infiltration systems and Infiltration Basin B. In addition, based upon the depth of cuts to form Infiltration basin A, BETA recommends that an additional test pit be conducted at the north edge of the basin to verify depth to groundwater and material classification.

Response 2: **Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in the areas were observed to be loamy sand with no observable groundwater. Based upon the additional testing, soils in these areas are consistent with previously tested areas and the proposed design. Copies of the soils logs from the additional testing areas are included in Appendix C of the revised Drainage Report.**

Comment SW11. *The proposed infiltration basin is not designed in accordance with Volume 2, Chapter 2 of the Handbook. There is no low-level emergency dewater trench, nor are there any monitoring wells. In addition, the grading plan for the berm is incorrect. The crest width is not 10 feet by scale; this is due to the crest elevation being 338.5 feet rather than 338 feet. Information provided in the emergency spillway detail does not match the design. A riprap-lined spillway, as shown on the detail is more appropriate.*

Response: *The proposed infiltration basin has been revised to include a low-level outlet with a valve to allow for emergency dewatering of the basin. The plans have been revised to show a rip-rap lined spillway consistent with the detail. The proposed berm is 10 feet wide and the center height has been lowered to 338.15 to provide a flatter top while allowing for the berm to drain.*

BETA2: Acknowledged. The plans still do not appear to be showing proposed dewatering capability. The table provided indicates that the orifice size is N/A. Correct the detail to show the gated emergency outlet. Based upon the capacity of the basins, BETA recommends that this outlet be a minimum 6” diameter orifice. Monitoring wells still are not identified on the plans nor are details provided.

Response 2: **Each basin outlet structure will have a six (6) inch orifice and shutoff valve set at the bottom elevation of the basin that will allow for dewatering of the basin. The invert orifice in the table is for the main orifices used to control the runoff. Those specified as N/A in the table do not have any orifices in the side wall of the structure and only have the grates at the top of the structure. The detail has been updated to clarify this intent, refer to sheet C-903.**

Monitoring wells have been added within the surface infiltration basin areas and a corresponding detail has been added to the plans. Refer to sheets C-402, C-403 and C-903 respectively.

Comment SW12. *The Project will require an NOI filing with the EPA and the development of a SWPPP. Provide a copy of the SWPPP for the Planning Board's review. The Erosion Control Plan (Sheets C-601 & 602) shows little more than the proposed perimeter controls and stockpile areas. The Project will disturb approximately 15 acres; based on EPA requirements, temporary sediment basins are required. Depict construction-period erosion and sedimentation control measures such as temporary sediment basins. These BMPs should not be sited within the locations of the permanent infiltration structures.*

Response: *The Applicant is amenable to providing a copy of the SWPPP to the Planning Board prior to construction as a condition of approval. Approximate locations of temporary settling basins have been added to the Erosion Control Plans, refer to Sheets C-601 and C-602*.

BETA2: Acknowledged. When available, please provide the SWPPP for review prior to construction approval.

Response 2: **Acknowledged. The Applicant is amenable to providing a copy of the SWPPP to the Planning Board prior to construction as a condition of approval.**

ADDITIONAL COMMENTS:

SW13. Now that the Earthwork Exhibit has been provided, it appears that significant depths of cut will be occurring within proposed Infiltration Basin A, specifically to depths greater than 5' below existing ground. Given that seasonal high groundwater needs to be a minimum of 2' below the proposed basin bottom, test pit data at this location may not be deep enough to determine adequate separation from seasonal high groundwater. Additionally, given the large cut, it may not be appropriate to assume that the infiltration rate is that of the existing surface soil rate of 2.41; a lower rate may be appropriate for modelling and drawdown calculations. Additional field information may be needed to confirm the infiltration rates and separation from seasonal ground water.

Response: **Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in the areas were observed to be loamy sand with no observable groundwater. Based upon the additional testing, soils in these areas are consistent with previously tested areas and the proposed design. Copies of the soils logs from the additional testing areas are included in Appendix C of the revised Drainage Report.**

SW14. Please provide rip-rap sizing calculations for the W-600, W-601, W-602 stormwater outlets. Currently it is uncertain whether additional scour protection will be needed for the flows at this location. Also, consider including additional detail for how the three outlets at this location will combine flows and connect hydraulically to the stream just to their north. BETA recommends that a rip-rap or some kind of channel protection be extended from these 3 outfalls to the main stream channel just to the north to prevent erosion and sedimentation and the structural integrity of the retaining wall supporting the driveway.

Response: **The Site Plans have been updated to reflect a rip rap swale in this area. The swale size is consistent with the size of combined rip rap / scour hole sections that would be required for each individual outlet, refer to sizing calculations in Appendix F of the revised Drainage Report. The swale will be graded to drain toward the stream and provide a hydraulic connection while minimizing disturbance to existing wetlands. Refer to sheet C-402.**

SW15. The plans do not appear to show a test pit located within proposed (UG) Basin C. Please indicate which test pit serves as the basis for soil and ground water table assessment at this location. If necessary, coordinate additional testing.

Response: **Additional soil testing was conducted on May 25, 2022 and witnessed by BETA. Soils in the areas were observed to be loamy sand with no observable groundwater. Based upon the additional testing, soils in these areas are consistent with previously tested areas and the proposed design. Copies of the soils logs from the additional testing areas are included in Appendix C of the revised Drainage Report.**

SW16. The design of the intersection may have potential impacts on the entrance roadway drainage system by allowing runoff from King Street to enter the system. In addition, it is suggested that the existing catch basin at the intersection be relocated to the edge of the entrance driveway pavement away from the center of the site driveway.

Response: **The grading for the proposed entrance has been updated to maintain the gutter flow in King Street, refer to sheet C-801. The existing catch basin at the intersection will be relocated pending final review and approval by MassDOT. This relocation will be detailed on the roadway improvement plans and the Site Plans will be coordinated with this relocation once the design is approved by MassDOT.**

SW17. BETA recommends that a proprietary water quality filter be provided for the 36” culvert being proposed at the entrance to extend the MS4 system to the stream. Based upon the extension and the fact that the system now will discharge directly into the main stream channel this unit would help match the existing treatment benefits associated with the channel section being lost by the construction of the driveway and meet the requirements of Maximum Extent Possible associated with redevelopment.

Response: **We have provided a rip rap outlet to dissipate energy from the outlet and prevent scouring where one does not exist today and is an improvement over existing conditions. We have not proposed a water quality unit in this location as it would require approval from the DPW / DOT as it is the**

stormwater system for the roadway, and they would be required to maintain the requested unit.

SW18. On the detail entitled "Sediment Basin with Pipe Outlet", it is suggested that the minimum slope of outlet pipe be labeled.

Response: **The detail has been revised to specify a minimum slope of 1%, refer to sheet C-603.**

SW19. Plan C-502 shows a proposed pipe to outfall FES-101 as being located directly under a stone waterway that is draining the parking lot surface. To avoid undermining or eroding around the proposed pipe, BETA recommends that the stone waterway not be located directly over the proposed pipe.

Response: **This pipe location has been adjusted so that it does not discharge under at the base of the stone waterway, refer to sheet C-502.**

SW20. In the Operations & Maintenance plan, BETA offers the following comments:

- Catch basins should be inspected 4x per year.
- On the inspection forms provide a notation that indicates if the inspection followed a storm event and the amount of rainfall received.
- Add a note relative to inspection and maintenance of the rip rap outfalls.
- Provide a plan showing the location of the BMPs within the O & M Plan.
- Provide an estimated budget of the overall maintenance

Response: **The O&M Plan has been updated to include inspection of catch basins 4x per year, the requested notation on the inspection forms, inspection and maintenance of riprap and scour hole discharge locations, a plan showing locations of the BMPs and an estimated budget for overall maintenance. Refer to Appendix G of the revised Drainage Report.**

SW21. Provide a signed Illicit Discharge Statement.

Response: **A signed Illicit Discharge Statement is included along with the revied O&M Plan. Refer to Appendix G of the revised Drainage Report.**

<u>Wetlands Protection (§181):</u>

Comment *The Project proposes work within Areas Subject to Protection and Jurisdiction of the Franklin Conservation Commission, including Bank, BVW, Land Under Water (LUW), the 25-foot Buffer Zone, the 50-foot Buffer Zone, and the 100-foot Buffer Zone. Therefore, the Applicant is required to submit an NOI to the Town of Franklin Conservation Commission and must obtain an Order of Conditions to complete the proposed work.*

Response: *Acknowledged, no further response Required.*

BETA2: Acknowledged. BETA has received the NOI from the applicant's representative.

Response: **Acknowledged, no further response required.**

ADDITIONAL COMMENTS:

WP2. BETA has been advised that the project has received an ENF Certificate from MEPA and that they are now moving forward with a Draft EIR. BETA recommends that the applicant keep the Planning Board appraised of their progress with the MEPA process and any findings which may impact the site design.

Response: **Acknowledged, the Applicant will keep the Board appraised of their progress with MEPA and any findings which may significantly impact the site design.**

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

Nathaniel E. Mahonen, P.E.

John A. Kucich, P.E.

cc. BETA – Gary D. James, Christopher M. Longenbaker
Amy Love, Town Planner

BOHLER
352 Turnpike Road
Southborough, MA 01772

Marcus Partners
Job #: 211018
Date: 06/09/2022

Preliminary Earthwork Summary

Earthwork Model - See Note 1	**Earthwork 06/09/2022**		
Cut volume	27,214	Cu. Yd.	
Fill volume	62,794	Cu. Yd.	
Net volume	***35,580***	***Cu. Yd.***	***<Fill>***
Topsoil & Subsoil Stripping			
Topsoil Reuse in Landscape Areas	3,737	Cu. Yd.	
Net Volume Adjusted for Topsoil Reuse	***31,843***	***Cu. Yd.***	***<Fill>***
Building Foundation Adjustment			
Building Foundation (18" Section - *assumed*)	14,189	Cu. Yd.	
Subtotal Building Foundation	*14,189*	*Cu. Yd.*	
Paved Area Adjustment			
Standard Pavement (15" Section)	4,281	Cu. Yd.	
Heavy Duty Pavement (24" Section)	13,583	Cu. Yd.	
Sidewalks (12" Section)	387	Cu. Yd.	
Subtotal Paved Area	*17,864*	*Cu. Yd.*	
Underground Utility & Trenching Adjustment			
Underground Infiltration System	533	Cu. Yd.	
Prop. Septic System	376	Cu. Yd.	
Prop. Stormdrain Trench	2,164	Cu. Yd.	
Prop. Watermain Trench	1,081	Cu. Yd.	
Prop Sewer Trench	48	Cu. Yd.	
Subtotal Utility & Trenching Adjustment	*4,203*	*Cu. Yd.*	
Net Volume (Excluding Topsoil Export)	***-4,413***	***Cu. Yd.***	***<Cut>***

Earthwork Summary Notes:

(1) Reported Cut and Fill values are based on a comparison between the existing grade and the proposed finish grade as shown in the "Grading Plan 'A' & Grading Plan'B'," prepared by Bohler. (Dated: 10/08/21 & Revised: 06/10/2022)

The following adjustments are accounted for in the proposed Earthwork Model:

- 8.3" of Topsoil Stripping based on average from onsite soil observations.

Chestercove, Richard
627 King Street
Franklin, MA 02038

508-369-4897

crick44@yahoo.com

05/08/2022

Town of Franklin
355 East Central Street
Franklin, MA 02038

Planning Board / Conservation Board
Proposed Grading Work on 627 King St.

Salutations,

I am writing this letter regarding the proposed grading on my property for the removal of existing pipe and construction of new stream channel.

After speaking in detail with the developers contact, Mr. Josh Berman of Marcus Partners (cell: 207-712-4216) about the work which involves my property.

I hereby give my authorization for him and any contractors in the business of the proposed work onto, and to alter my property for purposes of the regrading.

Sincerely,

Richard Chestercove

Chestercove, Richard