

October 28, 2021

Mr. Anthony Padula, Chairman
355 East Central Street
Franklin, MA 02038

**Re: The Engine Yard
40 Alpine Row
Site Plan Peer Review**

Dear Mr. Padula:

BETA Group, Inc. has reviewed revised documents for the project entitled “The Engine Yard” located at 40 Alpine Row in Franklin, Massachusetts. This letter is provided to update findings, comments, and recommendations.

BASIS OF REVIEW

The following documents were received by BETA and formed the basis of the review:

- Plans (18 sheets) entitled: ***The Engine Yard Site Redevelopment 40 Alpine Row Franklin, MA*** revised October 19, 2021, prepared by Level Design Group, LLC. of Plainville, MA.
- ***Stormwater Report for Engine Yard***, revised October 4, 2021, with supplementary documents dated October 18, 2021, prepared by Level Design Group, LLC. Of Plainville, MA.

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

- Site Visit
- ***Zoning Chapter 185 From the Code of the Town of Franklin***, current through October 2019
- ***Zoning Map of the Town of Franklin, Massachusetts***, attested to April 30, 2019
- ***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 January 1, 2016
- ***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 project site includes a single 1.32± acre parcel (#279-181) located at 40 Alpine Row in the Town of Franklin (the “Site”). The Site is located within the Downtown Commercial zoning district and is developed with an office/warehouse building and garages. Associated site features include paved parking areas connected to Alpine Row, a chain link perimeter fence, a weigh station, utility poles, a sewer manhole, and containment walls at the former location of a large above-ground storage tank (AST). Existing stormwater management features include several catch basins. The surrounding region is within the

Downtown Commercial zoning district or the General Residential V zoning district. The Site is not located within the Water Resource District.

Topography at the Site is generally mild, sloping towards the north and then the northwest. No wetlands, streams, or other resource areas are known to be present within or in the vicinity of the Site. The Site is not located within a wellhead protection area, a FEMA-mapped flood zone, an NHESP-mapped estimated habitat of rare or endangered species, or any other critical area. NRCS soil maps indicate the presence of Urban Land with no assigned Hydrologic Soil Group (HSG) rating, though the nearest soil group (Hollis-Rock outcrop-Charlton complex) has an HSG rating of D (very low infiltration potential).

The project proposes to redevelop the Site, retaining the existing southern building and constructing a multi-story residential and commercial structure and an attached single-story commercial building. Associated Site features will include a drive-under parking area beneath the residential building, a concrete patio, a new layout for the parking area, a basketball court, sidewalks, landscaping, and new sewer and water services. The existing garage buildings will be demolished. Stormwater management is proposed via infiltration pits and water quality units, with runoff conveyed to these features via new deep-sump catch basins.

The property is listed in the MassDEP database under two release tracking numbers (RTN): 2-4010321 and 2-4010467. Available documents indicate that two releases of fuel oil occurred at the property circa 1994. A permanent solution is considered to have been achieved at the Site.

FINDINGS, COMMENTS, AND RECOMMENDATIONS

GENERAL

- G1. Clarify if any special provisions are required for work in the area of the former AST and potentially impacted subsurface soils. As the property is a Massachusetts Department of Environmental Protection (MassDEP) listed disposal site, soil (and groundwater, if applicable) should be managed in accordance with the provisions of the Massachusetts Contingency Plan (MCP) including 310 CMR 40.1067 – Remedial Actions After a Permanent Solution Statement has been Submitted to the Department. *LDG: Remedial action has occurred and the site as currently positioned is closed with DEP. If something is encountered during construction the LSP will be notified and dealt with in accordance with the LSP and MCP.* **BETA2: Information provided – issue resolved.**
- G2. Revise the existing conditions plan to reflect current conditions on Alpine Place. The depicted concrete sidewalk to the east of the Site on the north side of the roadway has been removed. *LDG: The existing conditions have been modified to reflect the change, the noted survey is older.* **BETA2: Plan revised – issue resolved.**
- G3. Provide detail for proposed retaining wall, depicting guardrail and fence, where applicable. *LDG: The retaining wall will need to be detailed through the permitting process; a detail has been provided but is not necessarily the wall which will be used at the time of construction.* **BETA2: Detail not provided – issue remains outstanding.** *LDG: LDG apologizes the detail was on a separate sheet which was not integrated into the plan set. Sheet 8 of the plan set now includes the detail. The concrete wall may need to be modified depending on proximity to the property line, but a concrete foundation can be changed to an 'L' style from the 'T' style and have no forward*

footing as well. The guardrail would be a wooden Guardrail with metal posts mounted to the top or through the concrete, same for fence, which would be either connected to the metal posts or into concrete sleeves. The detail reflects only the ability to accomplish this not the attachment – which will need to be designed with the structural engineer at the time of installation. BETA3: Detail provided – refer to comment P10.

- G4. Provide locations for proposed guardrail, bollards, and cape cod berm. Note that cape cod berm is typically only permitted in limited sections where matching into existing berm. *LDG: The cape Cod berm is proposed within the interior of the parking lot for this redevelopment and is proposed throughout, with the exception of the length of the proposed redevelopment along Alpine, which is proposed to be vertical granite curbing. BETA2: Section §185-29 does not include any provisions for the use of Cape Cod berm and the Board does not permit its installation. As such, the installation of vertical granite or reinforced concrete curb will be required throughout the interior of the site. Also, locations of bollards and guardrail have not been provided, although a general note on the latter has been included on the Layout and Materials Plan. Guardrail should be provided along the entirety of the retaining wall abutting parking spaces, and fence provided where the site abuts the railroad where no fence exists today – issue remains outstanding. LDG: Bollards are noted near the drive-in door with the notation BOL. Plan wise the lines will overrun each other if the guardrail fence and wall are shown. The note has been utilized that, top mounted guardrail and fence shall be utilized along the concrete retaining wall. A note and line type has been added for fence where none exists at the end of the wall area. BETA3: Curbing revised to reinforced concrete throughout the interior of the site and bollard locations have been provided. Notes have also been provided regarding the installation of guardrail and fencing along the top of wall when over 4' feet in height. If the Board elects to approve the project, BETA recommends a condition that requires guardrail to be installed at all parking stalls adjacent to the railroad right-of-way or retaining walls. A condition is also recommended to provide fencing for fall protection where walls exceed 30" in height and/or along the entirety of the railroad right-of-way where none exists today. LDG3: A note was added to C-2.0 for the above requirements. BETA4: Notes provided – issue resolved.*

ZONING

The Site is located within the Downtown Commercial (DC) Zoning District. The proposed Site includes mixed residential and commercial uses. Certain commercial uses are allowed in the DC zoning district, while others are not. Multifamily residential uses are permitted under the conditions that (a) All dwelling units shall be located on floors above the street level and (b) No more than one dwelling unit per 2,000 square feet of lot area be permitted. The project proposes fewer residential units than permitted.

- Z1. Add required/proposed building heights to Zoning Table. *LDG: The proposed building height is now listed in the revised plan set as requested. BETA2: Information provided – issue resolved.*
- Z2. Confirm proposed buildings are accurately depicted throughout the civil and architectural plans. The Layout & Materials plan indicates a single-story commercial building, while the architectural renderings appear to show a three-story building with commercial space on the first floor and residences above. *LDG: The note has been modified to detail the residential above. BETA2: Information provided – issue resolved.*
- Z3. Recommend confirming with the Building Commissioner that all proposed residential units meet the requirement for being located on floors above street level. BETA notes that proposed

residences, as depicted on the architectural plans, appear to be located only several feet above the sidewalk and parking lot grades at the western side of the residential structure. *LDG: LDG met with the Building Commissioner before the start of Civil Design and the Commissioner completed a letter which was provided to the Board confirming compliance with Zoning. BETA2: BETA defers to the ruling of the Building Commissioner – issue dismissed.*

- Z4. Clarify the intended use of the commercial spaces, if known. Some commercial uses are prohibited in the DC district, while others require a Special Permit. BETA notes that a grease trap is proposed for the existing building to remain. *LDG: The grease trap is a place holder for potential uses. Currently the uses proposed comply with the Zoning without a Special Permit, however if after the development a use is identified which will require a Special Permit as determined by the Building Commission a modification will be applied for as necessary. BETA2: Information provided – issue resolved.*
- Z5. Clarify if any retail uses are proposed at the site, as listed in the Zoning Table heading, which would require a Special Permit from the Planning Board. *LDG: Currently the uses proposed comply with the Zoning without a Special Permit, however if after the development a use is identified which will require a Special Permit as determined by the Building Commission a modification will be applied for as necessary. BETA2: Information provided. Recommend removing “retail” use from table heading. LDG: To prevent confusion ‘retail’ has been removed. BETA3: Table revised – issue resolved.*

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

The Site meets the requirements for lot area, depth, frontage, width; front and side yards; building height; and impervious coverage. The Site does not meet the requirements for rear yard width; however, this is an existing nonconformity applicable only to the southern building to remain.

- SC1. Incorporate completed Zoning Table (provided separately via email) onto next plan submission. *LDG: The table as supplied separately is included on the modified plans. BETA2: Table provided – issue resolved.*

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

Access to the Site is proposed via two new curb cuts, one on Alpine Row, serving as a one-way entrance, and another on Alpine Place. The existing curb cut on Alpine Place will be closed. A surface parking area with 58 parking spaces is proposed at the Site and a parking garage with 16 parking spaces is proposed beneath the eastern building. Three of the surface parking spaces are proposed to be accessible, 2 of which are van accessible. Typical parking spaces are 19 feet wide and 9 feet long; however, 9 parking spaces including the accessible parking spaces are angled at 60° and have a usable length of approximately 14 feet. Five other spaces are in a parallel layout with dimensions of 10 feet wide and 22 feet long. Accessible parking spaces are provided with stalls of 5’ or 8’ widths, as required. Proposed driveways are 18 feet wide for the one-way driveway, and 24 feet wide for two-way driveway. It is anticipated that the Fire Chief will review turning movements for emergency vehicles throughout the site

Parking requirements for the Downtown Commercial Zoning District are defined by the Zoning Bylaw. For residential uses, 1.5 spaces are required for each dwelling unit; for 18 dwelling units, 27 spaces are required. For nonresidential uses, 1 space is required for every 500 square feet of gross floor area; for 9,300 sq. ft., 19 spaces are required; therefore, the total required parking is 46 spaces. The provided 74 parking spaces satisfy this requirement.

- P1. Review angled parking spaces to confirm there is adequate usable length that will not result in parked vehicles encroaching into the access aisle. Recommend depicting a standard passenger vehicle within typical angled parking. *LDG: The parking spaces as detailed are within the requirements of the Town of Franklin for parking spaces. A car is depicted on the revised plan set. BETA2: Information provided. In addition to the Town's requirements, BETA has also reviewed the proposed parking and aisle dimensions based upon recommendations of the Urban Land Institute and finds them to be adequate.*
- P2. Clarify if any accessible parking will be provided within the parking garage and depict the pedestrian routes from the accessible parking spaces to the commercial and residential buildings. Accessible parking spaces should be as close as possible to the entrance of the building they are meant to serve. Ramps to sidewalks, where required, should be located within accessible aisles. *LDG: One space is shown in the subsurface parking area, the accessible path has been labeled on the plan. BETA2: Accessible space provided in the garage. Confirm the accessible route continues to an accessible entrance and that the grades of the sidewalk meet all MAAB requirements. The proposed route currently appears to dead-end at a planting bed. The designer may wish to consider working with the Building Commissioner to confirm the extent that 521 CMR Sections 9 and 10 apply to the proposed residences. LDG: There is an exterior door in this area which leads to the accessible lobby area. I extended the path to the side of the building for clarity. BETA3: Information provided. BETA anticipates that all interior access paths will be reviewed as part of building permit submissions and defers to the Building Commissioner.*
- P3. Revise parking layout such that no off-street parking is within 10 feet of a street right-of-way (§185-21.C(1)). *LDG: The parking spaces have been revised accordingly. BETA2: Parking revised – issue resolved.*
- P4. Review turning moments for parking spaces between the two buildings. Parking areas with five or more cars shall not require backing out onto a public way (§185-21.C(3)). Recommend eliminating the two parking spaces located nearest to the Alpine Row right-of-way as vehicles backing out of these spaces may conflict with vehicles entering the site. *LDG: The parking spaces have been relocated greater than 10' from the ROW in accordance with comment P3 above on the revised plans, this will eliminate the potential backing onto the Public Way. BETA2: Parking revised – issue resolved.*
- P5. Provide and depict sight distances for the easterly driveway. *Provide and depict sight distances for the easterly driveway. BETA2: Information provided. BETA notes the provided sight distance is adequate for vehicle speeds of approximately 27 MPH, accounting for the slope of the roadway and no adverse egress concerns are anticipated at the driveway. BETA3: Upon further review BETA notes that the provided stopping sight distance is adequate for vehicles traveling westbound on Alpine Place only. For vehicles traveling eastbound the provided stopping sight distance is only adequate for vehicle speeds less than 15 MPH. LDG3: While this is true with the standard measurements within the regulations at 15' from the pavement. This is the site line from the Vehicle to the moving object, not from the moving object to the stopped vehicle, which is the stopping sight distance technically. For stopping sight distance, it is when the moving vehicle can first see the stopped vehicle and react to its movements and stop accordingly. This distance at all points of the site is in excess of 200'. However, if the vehicle was measuring line of sight from the stopped vehicle down the road from 5' closer – or the average distance from the front of the car sitting 2-3' from the edge of pavement - the distance that the driver could see a vehicle increases from the 77' noted to 145' or the intersection area of the two roadways. BETA4: Through email*

- correspondence the designer has agreed to investigate if any “windows” can be provided through the architecture near the site entrance. BETA anticipates that the designer will update the Board at the next hearing.
- P6. Revise parking aisle width in 90° layout areas to be a minimum of 24 feet throughout the development (§185-21.C(8)) or consider using angled parking. *LDG: The parking has been revised for 20’ wide aisle at the rear of the building with a 19’x9’ parking space at 30°.* **BETA2: Comment no longer applicable – issue dismissed.**
- P7. Revise parallel parking spaces to be at least 24 feet long (§185-21.C(9)(b)). *LDG: The parallel parking spaces have been adjusted to 24’x9’ in accordance with the regulations.* **BETA2: Dimensions revised; however, BETA notes the Layout and Materials Plan is not plotted to the depicted scale.** *LDG: The scale has been correct in the imagery.* **BETA3: Scale corrected – issue resolved.**
- P8. Indicate location of proposed loading activities associated with commercial buildings. Loading must be performed off-street (§185-21.D). *LDG: A loading “box” has been added to the plans, assuming loading needs to occur for the use.* **BETA2: The location of the loading “box” is not apparent on the plans – issue remains outstanding.** **BETA3: A loading box has been added to the plans; however, BETA notes that loading in this area would block traffic and create a safety issue. BETA defers to the preference of the Board to require a specific loading area for vehicles making commercial or residential (UPS, Amazon, etc.) deliveries. If necessary, several of the proposed parallel spaces adjacent to the building could be designated for loading and this may also allow direct pedestrian access to the sidewalk on the west side of the proposed building.** *LDG3: The loading areas in question are typically major loading or unloading which would occur off hours, the area of commercial use is fairly small and a larger delivery is unlikely, however as noted the area is required to be shown. The space can certainly be moved but it is not going to be utilized throughout the entire day. UPS and amazon are not likely to come into the property they are more likely to pull to the front door of the business facing the roadway as they would in any downtown business area. Information provided.* **BETA4: BETA defers to the preference of the Board on this issue.**
- P9. Provide “Do Not Enter” and “One-Way” signs at the end of the one-way site driveway (area of proposed dumpster pad). *LDG: Signs have been added to the revised plan set as requested.* **BETA2: Signs provided – issue resolved.**
- P10. Provide a detail for the parking spaces and retaining wall along the northwesterly property line to confirm construction can take place without impacting stall lengths. *LDG: The parking spaces have move slightly due to the angled proposed parking, as such the comment has been addressed through the changes in the revised plans attached.* **BETA2: There is approximately 2 feet from the edge of the parking stall to the property line, which leaves minimal space to construct a retaining wall with associated guardrail and fence. As such, a detail should be provided to ensure that construction is feasible – issue remains outstanding.** *LDG: A detail has been provided; the detail however is only a depiction of a type of wall potentially installed in this area. The Guardrail and fence can be top mounted on the wall shown as well as multiple style of precast blocks.* **BETA3: Detail provided. If the Board elects to approve the project, BETA recommends a condition that requires final wall design to be provided at the start of construction to confirm parking stall lengths will not be impacted.** *LDG3: Agreed.* **BETA4: BETA defers to the preference of the Board to include the recommended condition.**

SIDEWALKS (§185-28)

The project proposes a 5' wide concrete sidewalk along the frontage of Alpine Row where the single-story commercial building is proposed.

- P11. Remove the proposed accessible transition at the easterly driveway. There is no existing sidewalk in this area. *LDG: This portion of the sidewalk has been removed.* **BETA2: Ramp transition callout remains on the Layout and Materials Plan – issue remains outstanding.** *LDG: The transition note has been removed.* **BETA3: Note removed – issue resolved.**
- P12. Provide wheelchair ramp to sidewalks, where applicable, at proposed access aisles at accessible parking stalls. *LDG: A notation has been added to the area adjacent to the single space at the “retail side” of the proposed building.* **BETA2: Locations of accessible ramps provided; however, they are not included as part of the accessible routes at the access aisles as required by 521 CMR 23.4.6 and 23.5 – issue remains outstanding.** Also, consider incorporating a pedestrian route from conventional parking spaces to the commercial area that does not require use of the access driveway from Alpine Row. *LDG: A sidewalk has been added from the head of the parking spaces to the building front as requested, making the path of travel along the front of the spaces instead of through a travel lane. This modified the patio area slightly.* **BETA3: Ramp provided at easterly accessible aisle; however, it is unclear if a ramp is proposed at the westerly access aisle as required. If the Board elects to approve the project, BETA recommends a condition that requires final plans to provide a ramp at westerly accessible aisle prior to endorsement. The Board may also wish to discuss pedestrian routes from conventional parking to the proposed commercial space within the new building. Refer to comment P8. *LDG3: A wheel chair ramp from the conventional parking to the commercial space through the extended sidewalk within the site has been added.* **BETA4: Through email correspondence the designer has agreed to provide a wheelchair ramp at the westerly accessible aisle and shift parallel parking to allow an unobstructed pedestrian path from the commercial space to the conventional parking spaces at the rear of the property. BETA recommends for the Board to include this as a condition of approval.****
- P13. Revise detail for the proposed sidewalks to be consistent with the proposed edge treatments (e.g. curb). *LDG: The detail for concrete sidewalks has 3 separate portions of the detail. One where there is integrated curbing, one where there is no curbing shown – i.e. will but against a different curb than integrated or will not abut a curb and lastly the walk as it is adjacent to a building. No changes have been made to the detail.* **BETA2: The provided detail includes a note indicating that vertical granite curb or concrete curbing shall be used where shown on the layout and materials plan – issue resolved. Clarify that the minimum sidewalk width is 5 feet, excluding curb.** *LDG: Sidewalks are minimum 42” as required by code. 5’ callout for sidewalk width includes the curb width as well.* **BETA3: Provide note or detail to clarify proposed minimum sidewalk with or without curb. BETA notes the Wheel Chair Ramp details shows a 5’ walk, excluding curb, and defers to the preference of the Board on the designer’s proposal to provide sidewalk widths that meet minimum code requirements.** *LDG3: In accordance with § 185-28, Sidewalks. Concrete sidewalks, a minimum of six feet in width, shall be constructed on all street frontages on accepted streets of Commercial I, Commercial II and Business Zones, unless topography, zoning district boundaries or other specific site conditions as certified by the Planning Board would preclude usefulness of such sidewalks if constructed. The sidewalk in question is not within Commercial 1, Commercial II or a business district thereby the sidewalk width is governed by construction*

*standards and the ADA requirements. An accessible pathway in accordance with MA AAB must be no less than 42" in width. There are no other governing regulations for the width of a sidewalk. The section 185-28 which governs sidewalks also states that If the sidewalk must be 6' in width then there are areas which that may not be practicable where it would preclude usefulness if the sidewalk were required at that width. The sidewalk proposed on-site is to access the one retail shop at the front of the property, there is no pedestrian connection from this sidewalk because the Town recently reconstructed the roadways with the sidewalk on the opposite side of the road. Though it is not a requirement the sidewalk width could be increased by moving the pavement encroachment further off the property. As currently proposed the design has a 5' wide sidewalk only at the corner of the building where the existing paved travel lane encroaches onto the property. If the travel lane were moved entirely onto the Town right-of-way the requested sidewalk width could be accomplished without moving any other object on the property. **BETA4: Through email correspondence the designer has agreed to clarify the proposed minimum sidewalk width on the details. BETA recommends for the Board to include this as a condition of approval.***

CURBING (§185-29)

The project proposes vertical granite curbing throughout the interior of the site.

- C1. Clarify the type of edge treatment proposed along Alpine Place and Alpine Row. Consider using vertical granite curb adjacent to sidewalks to be consistent with recent improvements in the area by the Town. *LDG: Vertical granite curbing is proposed along Alpine and the curb radii into the property associated with the road. **BETA2: Information provided – issue resolved.***
- C2. Consider continuing the proposed edge treatment along Alpine Row in front of the existing building to remain. *LDG: Without knowing the exact use of the building, the applicant is hesitant to propose a treatment along this area. Other modifications are being made however the curbing is not yet proposed until a tenant is located. At the time of the tenant LDG and the applicant will apply for a modification for the proposed tenant fit out. **BETA2: Information provided – no further comment.***

SITE PLAN AND DESIGN REVIEW (§185-31)

The project has been submitted for Site Plan Review and is required to conform to the requirements of this section.

- SP1. Indicate abutting land uses and zoning data on the locus or vicinity map (§185-31.1.C(3)(d)). *LDG: A separate map has been provided for the description and property uses. **BETA2: Map provided – issue resolved.***
- SP2. Indicate proposed snow storage areas (§185-31.1.C(3)(i)). *LDG: The proposed multi-use area has been removed for grass, subsequently – snow storage – it has been noted as such in the revised plan set. **BETA2: Snow storage area provided – issue resolved.***
- SP3. Review planting plan to confirm and then provide note indicating that all proposed plantings will come from the Best Development Practices Guidebook (§185-31.1.C(3)(k)). *LDG: The Landscaping plan has been coordinated as requested and the note has been added. **BETA2: Note could not be located. In conjunction with Planting Note 6, indicate that all proposed plantings will come from the Best Development Practices Guidebook (BDPG).*** *LDG: Within the best development guidelines to planting and it states that all plants do not need to come from that list. There can be*

variations as long as they are not invasive, which our design variants are not. Most of the plants we have are on the list and these are indicated by the 'native' reference on the notes section of the plant list. BETA3: The planting plan provides no notes that require native species or prohibit invasive species and gives blanket discretion to the Landscape Architect to allow substitutions. While BETA agrees there is a discrepancy between the requirements of §185-31.1.C(3)(k) and the language included in the BDPG, the requested note should still be provided to indicate that conformance with the BDPG is required – issue remains outstanding. LDG3: The Planting Plan has been modified to include the requested note. BETA4: No further comment.

SP4. Provide data quantifying on-site generation of noise and odors (§185-31.1.C(3)(r)). If rooftop mechanical/HVAC equipment will be utilized, it should be screened from view. *LDG: With the allowable building height there will be very little view of the roof top area. The units will be centrally located on the roof so the angles will not permit the view from the street. All of the units have been screened in accordance with the attached plan. There will be little noise which is not of a residential nature from the property. The allowable uses permit a parking lot and certain commercial spaces as well as residential use, there is nothing which will be deleterious based upon the allowable uses. BETA2: While the rooftop units may not be visible from the street, they may be readily visible from residences located on the higher elevations of Alpine Place. Screening is not apparent on the provided architectural plans. LDG2: A revised roof-top plan with screening is attached herein. BETA3: Screening provided. In consideration that architectural plans are typically not included as part of documents endorsed by the Board, recommend a condition of approval that requires roof-top units to be screening in accordance with the Proposed Roof Plan, dated October 8, 2021.*

SP5. Provide information on anticipated traffic in sufficient detail for the Board to determine if a traffic impact analysis is necessary (§185-31.1.C(3)(s)).

LDG: The anticipated traffic from the development can be determined utilizing the ITE trip Generation Manuals for an apartment complex (220). The trip generation details that there will be an increase in traffic over existing conditions of:

1. Peak hour – Weekday 17.45 Trips
2. Peak Hour – Weekend 30.71 Trips
3. Total Daily – 318.0 Trips
4. Peak AM (weekday) – 17.45 Trips
5. Peak PM (weekday) - 33.05 Trips

What these numbers do not account for is the use of this property at the time the property was in use for oil and fuel distribution. That business has 40-50 trucks a day plus employees and the tanker trucks with associated movements throughout this neighborhood. The allowed use in this zone, not asking for relief in any manner for the project details that the Zoning utilized this style development for the proposed zoning definitions. BETA2: BETA cannot independently verify the trips provided by the designer; however, commercial and residential uses permitted by right are not anticipated to be significant generators of traffic. Any potential restaurant use in the future would require a Special Permit and additional review by the Board – issue dismissed.

SCREENING (§185-35)

The project proposes outdoor parking for 10 or more cars which must be screened in accordance with this section. The Site will be visible from abutting residential properties located across the street and to the east of the Site along Alpine Place.

The landscaping plan proposes numerous trees and shrubs throughout the parking area and along the perimeter of the Site. The majority of parking areas are located behind the building to limit visibility. A 6' high wooden stockade is proposed adjacent to residences along the eastern portion of the site and a 5' high wood stockade is proposed around the proposed concrete patio.

- L1. Provide additional screening adjacent to the westerly driveway (located a minimum of 10 feet from the right-of-way) to screen the parking area from residences. *LDG: The additional screening is proposed in this area.* **BETA2: BETA notes that some screening has been provided in the limited available green space in this area. The landscape plan must be updated to reflect the current parking lot layout, however.** *LDG: The landscape plan as attached has been modified according to the parking lot layout.* **BETA3: Landscape plan updated – issue resolved.**

UTILITIES

Proposed utilities include domestic water, fire service, and sanitary sewer. Detailed review of utilities is anticipated to be provided by the DPW and Fire Chief, as applicable. A proposed grease trap is depicted and indicated to be installed in the future.

- U1. Contact the DPW to determine if easements are required for the existing sewer and drainage infrastructure that crosses the property. *LDG: The applicant is willing to provide easements at the end of the project through discussion with the DPW.* **BETA2: Information provided. If the Board elects to approve the project BETA recommends a condition that requires all easements to be in place to the satisfaction of the DPW prior to the start of construction.** *LDG: As discussed with the DPW, the easements will be placed and recorded prior to Occupancy Certificate.* **BETA3: BETA defers to the preference of the Board to include this recommended condition.**
- U2. Provide an oil separator for the parking garage in accordance with 248 CMR 10.09. **BETA2: Detail provided. Recommend providing note on Grading and Utilities Plan referencing required installation, even if location is not known.** *LDG: A Note has been added as requested.* **BETA3: General location provided – issue resolved.**

STORMWATER MANAGEMENT

The project is a redevelopment that will result in an overall decrease in impervious area. Stormwater management will be accomplished through a closed drainage system consisting of catch basins, manholes, and a water quality unit which will convey flow to an existing drainage line that continues offsite to the west. Runoff from the proposed building roof will be captured by a separate roof leader system that discharges to a series of three infiltration pits.

GENERAL

- SW1. Revise proposed HDPE pipe to be RCP. Where cover is less than 42" provide Class V RCP (§300-11.B.(2)(a)). *LDG: The Section detailed is within the Subdivision Standards within the Town. The development is entirely within private property, the HDPE pipe remains as originally proposed.*

There are no requirements within the Zoning, or the Site Plan sections which require the compliance with the Subdivision requirements. The installation of HDPE pipe requires different depth of installations to prevent deflection of the ground surface depending on the diameter of the pipe. The 18" pipe, which is the largest proposed on-site, is installed as a standard with the bell of the pipe at a greater depth than the base grade gravel within the area of installation.

BETA2: The project will disturb greater than one acre and is subject to the Town of Franklin Stormwater Management Bylaw. Chapter 153-16 requires stormwater controls to meet the requirements of the Subdivision rules. Furthermore, the Board has required the use of RCP on all projects, both public and private, with the exception of direct connections to subsurface infiltration systems – issue remains outstanding. LDG2: RCP has been utilized in all locations where RCP is manufactured for the pipe diameter. 12" and above. Where there is not 42" of cover RCP has been noted as Class V. BETA3: Revise pipe label on final plans to indicate that pipe from proposed Vortsenty unit shall be RCP. BETA defers to the preference of the Board to allow the use of HDPE pipe from the proposed trench drain. LDG3: The pipe label has been modified. BETA4: Label revised – issue resolved.

- SW2. Provide stamp on MassDEP Stormwater Checklist. *LDG: The checklist has been stamped as requested. BETA2: Stamped checklist provided – issue resolved.*
- SW3. Review grading design throughout parking areas or provide spot grades for clarity. As designed, runoff will pool in apparent low points created by nearby landscape islands or be directed over the retaining wall onto the railroad right-of-way. *LDG: Spot grades have been added as necessary to the plans, there is not flow which will enter the Rail ROW. BETA2: Information provided – issue resolved.*
- SW4. Provide additional contour labeling and label high points. Provide grading information at the proposed basketball court. *LDG: The basketball court has been eliminated in-lieu of a grassed area, the area is anticipated at the existing grades. BETA2: Adequate grading information provided – issue resolved.*
- SW5. Revise post-development watershed plans to show the boundaries of proposed watersheds (4S, 6S, and 8S). *LDG: The Post Development watersheds have been modified accordingly. BETA2: It is difficult to distinguish watershed boundaries from proposed site features and contour lines. Recommend revising the plan to use thicker, colored, or more prominent line types. BETA will provide a detailed review upon receipt. LDG: The boundaries have been increased in width for greater clarity. BETA3: Watershed boundaries clarified – issue resolved.*
- SW6. Revise overflow design of Pond 13P (IP3). The design proposes to allow overflow to flow upwards out of the grate inlet and into the parking area, after which it will flow to 120' to the nearest catch basin. The flows should be piped directly to the converted drainage manholes. *LDG: The replacement of the infiltration pits with a stormtech system provides an overflow which will pass through the proposed DBLE CB prior to discharge. BETA2: Design revised. Resolve outlet discrepancy between plans (8" pipe @ 0.4% slope) and HydroCAD model (2 – 10" pipes @ 0.99% slope). LDG2: The design Model has been revised. BETA3: The outlet size and number of barrels has been revised. Revise outlet or chamber system, as appropriate, to reduce peak elevations within the system to below the top of stone for the 25- and 100-year storm events. Also, a slight discrepancy remains in the proposed outlet invert between the HydroCAD model and the plans. LDG3: The piping and header outlet on a smaller stormtech system like this is not well modeled in HydroCAD. LDG has added a DMH with a low inlet and internal weir, this type of piping*

arrangement will provide complete filling of the system allowing full use of the storage capacity as well as providing a pipe which follows the model with HydroCAD showing complete drainage of the system. BETA4: The outlet design has been modified; however, minor discrepancies remain between the plans and stormwater model. In consideration that any required design changes are anticipated to be minor, BETA recommends a condition of approval that requires the stormwater basin to be sized and modeled consistently with the plans to confirm stormwater standards are fully met.

- SW7. Confirm that adequate cover is provided over all pipes. Plans indicate cover as shallow as 1' in some areas. *LDG: The pipe cover is adequate as provided for the type and size of materials proposed. BETA2: BETA notes the comment also relates to confirming there is adequate room to fit the pipes beneath structure top covers and castings. As proposed, specialty flat tops or 4" castings with no brick may be required. LDG: In all structures there is a minimum 2.5' from rim to invert, this will allow a standard top and 2 courses of levelling brick installed, or a flat top could be utilized for the structures. The detail provided allows for both. There are two locations where rim to invert is a lesser, the first is the trench drain which is not a standard structure, and doesn't require the same rim to invert elevations, the second location is the parking lot CDS which runs to the stormtech system. This is a specialty structure which can be manufactured in this fashion only with piping less than 10" in diameter. BETA3: BETA notes product submittals and shop drawings will be required for structures during construction – no further comment.*
- SW8. Clarify how the concrete patio area will drain. The patio is at a lower elevation than the top of surrounding retaining wall. *LDG: The patio area will drain to the landscape bed areas, the landscape bed areas will have access to the subdrain behind the wall to prevent any system backup. BETA2: Information provided. Recommend depicting required drainage on the plans, even if only conceptually, pending final wall design. LDG: The concrete walls are shown with weepholes in the detail sheet. BETA3: Information provided – issue resolved.*
- SW9. Provide top and bottom of wall elevations for the concrete wall proposed adjacent to the residential properties (#'s 60 – 68) on Alpine Place. In consideration that the site is being filled in this area the designer should confirm that the proposed wall will not block drainage from said properties. *LDG: Additional elevations for the wall in question have been provided. BETA2: Information provided. Clarify how the existing residential properties will drain. Based on the limited contour information in this area the proposed wall may block stormwater from running off the properties. LDG2: A catch basin has been placed atop the existing drain line to manage this area of grass and the abutting property. BETA3: Catch basin added. The designer should clarify if any additional field reconnaissance was conducted to confirm existing drainage patterns and that the proposed wall will not adversely impact adjacent residences. LDG3: The area was evaluated in the field, however the applicant does not have access to the abutting properties. Per the meeting October 18th LDG and the applicant are amenable to having the area staked during construction and evaluated for drainage patterns to determine any dips or contour issues to make sure that drainage pathways are maintained. BETA4: BETA recommends the Board include this as a condition of approval.*

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 does not propose any new untreated stormwater discharges to wetlands – **complies with standard.**

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 a decrease in overall impervious area as well as the installation of three infiltration pits. The provided calculations indicate a decrease post-development peak discharge rates and total runoff volumes compared to pre-development conditions.

SW10. Although all site flows are eventually directed to a single discharge point, the designer should provide a summary of site flows directed onto the public right-of-way in the existing and proposed conditions. *LDG: The individual flows pre and post have been labeled "street" in the analysis.*
BETA2: The intent of the comment was to compare flows directed from the private site onto the public way in the existing and proposed conditions. In consideration that additional mitigation may be required to comply with the Town's Bylaw, the requested analysis may no longer be beneficial. Refer to comment SW11. *LDG: The area which currently contributes to the roadway is reduced by 90% or better, there is still an area of the site, mainly the area in front of the existing building and the proposed reduced driveway which contribute to the existing Alpine way. The applicant intends to comply with the new stormwater bylaw and infiltrate greater than 0.80in of flow over the entire impervious area for compliance, but in addition the applicant is treating all of the stormwater discharged from the proposed areas in excess of the 80% TSS. This is accomplished through the installation of CDS or equivalent units for capture and discharge.*
BETA3: Information provided – no further comment.

SW11. Review HydroCAD model for Pond Infiltration pits. The diameter and invert of the storage is inconsistent with the detail provided in the plans. *LDG: The pits have been removed from the site plans and a stormtech system installed in its place. Though not required the site has also provided additional capture, treatment and infiltration of a portion of the parking lot through this basin.*
BETA2: The project will disturb greater than one acre and is therefore subject to the Town's Stormwater Management Bylaw. As such, redevelopment areas are required to retain 0.80 inches over the post-construction impervious area or remove 80% TSS and 50% of Total Phosphorus of the post-construction impervious area. Based on the provided documentation it does not appear these requirements have been satisfied. *LDG: The infiltration area has been increased in size, utilizing a different stormtech chamber to allow for greater retention. The Stormwater report has been modified to detail the state and local requirements for infiltration.*
BETA3: Clarify 6-foot depth used in simple dynamic calculations and how the provided storage volume (3,101 cu. ft.) was determined. BETA notes the depth of the system from the outlet pipe to the bottom of stone is 2 feet and the storage volume (based on the stage-storage graph) below the outlet is approximately 1,800 cu. ft. Recommend providing a detailed calculation showing all input values. *LDG3: With the addition of the weir manhole the system fills completely to elev 300 allowing the full utilization of the bottom and side stone as well as the full system. The system contains a full volume of 1,838 c/f of capacity and the stone contains a total of 1,463cf. if the stone at the top of the system is 6" thick over the area of the system at 62.58'x25.25' with 30% voids, the total storage of the stone above the invert is 237cf. Total storage is 1,838+(1,463-237) = 3,064cf, greater than the 3,010 cf.*
BETA4: Clarification provided; however, minor discrepancies remain between the plans and stormwater model. In consideration that any required design changes are anticipated to be minor, BETA recommends a condition of approval the requires the stormwater basin to be sized and modeled consistently with the plans to confirm stormwater standards are fully met.

SW12. In consideration of the scale of the proposed development evaluate if expanding the size of the proposed infiltration system is practicable. *LDG: The pits have been removed from the site plans and a stormtech system installed in its place. Though not required the site has also provided additional capture, treatment and infiltration of a portion of the parking lot through this basin.* **BETA2: Refer to comment SW11.** *LDG: The area which currently contributes to the roadway is reduced by 90% or better, there is still an area of the site, mainly the area in front of the existing building and the proposed reduced driveway which contribute to the existing Alpine way. The applicant intends to comply with the new stormwater bylaw and infiltrate greater than 0.80in of flow over the entire impervious area for compliance, but in addition the applicant is treating all of the stormwater discharged from the proposed areas in excess of the 80% TSS. This is accomplished through the installation of CDS or equivalent units for capture and discharge.* **BETA3: Information provided – no further comment.**

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.*

NRCS soil maps indicate that soils beneath the Site are Urban Land with no assigned Hydrologic Soil Group (HSG) rating, though the nearest soil group (Hollis-Rock outcrop-Charlton complex) has an HSG rating of D (very low infiltration potential).

As a redevelopment project, the annual recharge from the post-development site must, at a minimum, approximate the annual recharge from pre-development conditions. As the Site proposes a net decrease in impervious area, no recharge is required. The project proposes three infiltration pits to provide limited recharge of roof runoff.

SW13. Revise stormwater report components to use a consistent Hydrologic soil group. The narrative for Standard 3 indicates an HSG of B; while the HydroCAD model indicates an HSG of A. *LDG: The stormwater report has been modified accordingly.* **BETA2: The referenced section of the narrative remains inconsistent with HydroCAD model. Issue remains outstanding.** *LDG: The observed soils are HSG A, the HSG B was used for a conservative analysis in the previous report. LDG is confident in the HSG A determination and has changed the paperwork, report and analysis accordingly.* **BETA3: Narrative revised – issue resolved.**

SW14. Provide test pit logs for soil investigations identified in the Stormwater Report. *LDG: Within the Phase I report some logs are provided, LDG provides one Soil probe log for the site, the log is provided for an area outside the containment wall.* **BETA2: The locations of the test pits should be identified on the plans.** *LDG: The soil probe location is noted on the revised plans. The remainder of the soil log information from the LSP report is detailed within the report.* **BETA3: Information provided. BETA notes that soil textures will need to be confirmed during construction – no further comment.**

SW15. Review the HydroCAD model as it relates to provided recharge volume, the outflow invert is at the same elevation as the bottom of proposed storage, resulting in no storage volume being available for recharge. *LDG: The pits have been removed from the site plans and a stormtech system installed in its place. Though not required the site has also provided additional capture, treatment and infiltration of a portion of the parking lot through this basin.* **BETA2: The required recharge calculations should be consistent with the soil investigations on the site and as used in the HydroCAD model cover type (i.e. HSG A). Also review the numbers provided for recharge and water quality volume in the narrative. Based on the stage-storage figure for the infiltration system and an outlet elevation of 299, the storage volume is estimated to be 800 cu. ft.** *LDG:*

The observed soils are HSG A, the HSG B was used for a conservative analysis in the previous report. LDG is confident in the HSG A determination and has changed the paperwork, report and analysis accordingly. The system type has been revised to SC-740, 30" high chambers instead of 16" chambers, modelling has been changed for the single 8" outlet, allowing for increased storage for the franklin as well as HSG A calculations on infiltration. The report has been changed accordingly.

BETA3: Information provided – refer to comment SW11.

SW16. Revise exfiltration rate used in HydroCAD model be consistent with that noted in narrative (2.41 in/hr). *LDG: The exfiltration rate has been removed accordingly.* **BETA2: Exfiltration rate revised – issue resolved.**

SW17. Provide calculations showing that recharge BMPs will drain within 72 hours. *LDG: The drawdown page is attached independently of the remainder of the report.* **BETA2: Calculation provided – issue resolved.**

SW18. Clarify if any evaluation has been performed to determine if soils below proposed recharge areas are likely to be impacted by petroleum or other contaminants. *LDG: There has been extensive testing through the Phase I, which is attached, and there is no evidence of residual materials. Should something be encountered during the installation process which is unanticipated the LSP will be utilized for evaluation.* **BETA2: Information provided – issue resolved.**

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 to direct runoff from the majority of impervious areas through water quality units for treatment. A long-term pollution prevention plan was included as part of the Drainage Analysis.

SW19. Provide TSS worksheets indicating TSS removal achieved at all discharge points. TSS removal rates should be consistent with third-party testing. Also Include calculations for runoff that flows overland onto Alpine Row to demonstrate a portion of the site will remain untreated. *LDG: TSS Worksheets are attached herein.* **BETA2: Worksheets provided. In consideration of the commitment required to receive the credit for street sweeping it is recommended to remove this from the worksheets.** *LDG: Street Sweeping has been removed, although "quarterly" is typically manageable for a site of this nature because it allows "forced air collection"* **BETA3: Information provided. BETA notes that as currently designed, the site will fully comply with all TSS removal requirements, regardless of street sweeping frequency – issue resolved.**

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 Land Use with Higher Potential Pollutant Load (LUHPPL).

Critical Areas (Standard Number 6): *Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas.*

The project does not propose discharges to critical areas.

Redevelopment (Standard Number 7): *Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable.*

The project is considered a redevelopment and need only meet certain standards to the maximum extent practicable.

Mr. Anthony Padula, Chairman

October 28, 2021

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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 as currently depicted will disturb more 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 erosion control barrier (silt fence or compost sock), catch basin inlet protection, and a stabilized construction entrance, which are anticipated to be adequate.

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.

Illicit Discharges (Standard Number 10): *All illicit discharges to the stormwater management systems are prohibited.*

An Illicit Discharge Compliance Statement was included in the Stormwater Management Report.

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

Very truly yours,
BETA Group, Inc.



Matthew J. Crowley, PE
Senior Project Manager



Stephen Borgatti, PE
Engineer

cc: Amy Love, Planner



FRANKLIN PLANNING & COMMUNITY DEVELOPMENT

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MEMORANDUM

DATE: October 27, 2021
TO: Franklin Planning Board
FROM: Department of Planning and Community Development
RE: 40 Alpine Row
Site Plan

The DPCD has reviewed the above referenced Site Plan application for the Monday, October 18, 2021 Planning Board meeting and offers the following commentary:

General:

1. The site is located at 40 Alpine Row in the Downtown Commercial Zoning District (Assessors Map 279 Lot 181).
2. The applicant is proposing to construct a 12,230 sq/ft structure with commercial, multi-family and under level parking and surface parking.
3. The Applicant is not required to file with the Conservation Commission.
4. Applicant has not requested any waivers.

Comments from September 27, 2021:

1. There was an issue with encroachment onto private property. Applicant is to work with DPW to resolve this.
2. Applicant will need to work with the MBTA. Planning Board may require to see an agreement with MBTA.
3. Planning Board requested the pavement be 2 ½", per §300-F(4), of the Subdivision Rules and Regs.
4. The Board should determine the minimum width of the sidewalk, 4ft or 5ft?
5. The Planning Board requested the Applicant submit details for the retaining wall.
6. Below is a list of recommended conditions from BETA.

Recommended Conditions:

1. Final wall design to be provided at the start of construction to confirm parking stall lengths will not be impacted.
2. Final plans to provide a ramp at westerly accessible aisle prior to endorsement.
3. All easements to be in place to the satisfaction of the DPW prior to the start of construction.
4. All roof top units should be screened in accordance with the Proposed Roof Plan, dated October 8, 2021.
5. Provide a detailed grading at bases of retaining wall adjacent to residential properties to ensure positive drainage.
6. Provide a wheelchair ramp at the westerly accessible aisle and shift parallel parking spaces, as needed, to allow an unobstructed pedestrian path from the commercial space to the conventional parking spaces at the rear of the property.
7. Revise sidewalk details to clarify the proposed minimum width.
8. Provide revised stormwater calculations and additional storage volume within the stormwater basin, as necessary, to confirm that all stormwater standards are being met.



October 19, 2021

Town of Franklin, Planning Board
Attn: Mr. Anthony Padula, Chair
C/O Mrs. Amy. Love, Planner
355 East Central Street
Franklin, MA 02038

Re: The Engine Yard
40 Alpine Row, Franklin, MA
LDG Proj. No.: 1880.00

Level Design Group, LLC (LDG) on behalf of Walker Development & Construction does hereby submit a response to comments for the above referenced project. The comments were peer review comments provided by BETA Engineering, dated October 14, 2021, and the DPW letter by Mike Maglio, Dated October 13, 2021, and are answered in the same order as presented in that letter.

GENERAL

GENERAL

- G1. BETA2: Information provided – issue resolved.
- G2. BETA2: Plan revised – issue resolved.
- G3. BETA3: Detail provided – refer to comment P10.
- G4. BETA3: Curbing revised to reinforced concrete throughout the interior of the site and bollard locations have been provided. Notes have also been provided regarding the installation of guardrail and fencing along the top of wall when over 4' feet in height. If the Board elects to approve the project, BETA recommends a condition that requires guardrail to be installed at all parking stalls adjacent to the railroad right-of-way or retaining walls. A condition is also recommended to provide fencing for fall protection where walls exceed 30" in height and/or along the entirety of the railroad right-of-way where none exists today.

A note was added to C-2.0 for the above requirements.

ZONING

- Z1. BETA2: Information provided – issue resolved.
- Z2. BETA2: Information provided – issue resolved.
- Z3. BETA2: BETA defers to the ruling of the Building Commissioner – issue dismissed.
- Z4. BETA3: Table revised – issue resolved.

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

- SC1. BETA2: Table provided – issue resolved.

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

- P1. **BETA2: Information provided.** In addition to the Town's requirements, BETA has also reviewed the proposed parking and aisle dimensions based upon recommendations of the Urban Land Institute and finds them to be adequate.
- P2. **BETA3: Information provided.** BETA anticipates that all interior access paths will be reviewed as part of building permit submissions and defers to the Building Commissioner.
- P3. **BETA2: Parking revised – issue resolved.**
- P4. **BETA2: Parking revised – issue resolved.**
- P5. Provide and depict sight distances for the easterly driveway. *Provide and depict sight distances for the easterly driveway.* **BETA2: Information provided.** BETA notes the provided sight distance is adequate for vehicle speeds of approximately 27 MPH, accounting for the slope of the roadway and no adverse egress concerns are anticipated at the driveway. **BETA3: Upon further review BETA notes that the provided stopping sight distance is adequate for vehicles traveling westbound on Alpine Place only. For vehicles traveling eastbound the provided stopping sight distance is only adequate for vehicle speeds less than 15 MPH.**

While this is true with the standard measurements within the regulations at 15' from the pavement. This is the site line from the Vehicle to the moving object, not from the moving object to the stopped vehicle, which is the stopping sight distance technically. For stopping sight distance, it is when the moving vehicle can first see the stopped vehicle and react to its movements and stop accordingly. This distance at all points of the site is in excess of 200'.

However, if the vehicle was measuring line of sight from the stopped vehicle down the road from 5' closer – or the average distance from the front of the car sitting 2-3' from the edge of pavement - the distance that the driver could see a vehicle increases from the 77' noted to 145' or the intersection area of the two roadways.

- P6. **BETA2: Comment no longer applicable – issue dismissed.**
- P7. **BETA3: Scale corrected – issue resolved.**
- P8. Indicate location of proposed loading activities associated with commercial buildings. Loading must be performed off-street (§185-21.D). *LDG: A loading "box" has been added to the plans, assuming loading needs to occur for the use.* **BETA2: The location of the loading "box" is not apparent on the plans – issue remains outstanding.** **BETA3: A loading box has been added to the plans; however, BETA notes that loading in this area would block traffic and create a safety issue. BETA defers to the preference of the Board to require a specific loading area for vehicles making commercial or residential (UPS, Amazon, etc.) deliveries. If necessary, several of the proposed parallel spaces adjacent to the building could be designated for loading and this may also allow direct pedestrian access to the sidewalk on the west side of the proposed building.**

The loading areas in question are typically major loading or unloading which would occur off hours, the area of commercial use is fairly small and a larger delivery is unlikely, however as noted the area is required to be shown. The space can certainly be moved but it is not going to be utilized throughout the entire day. UPS and amazon are not likely to come into the property they are more likely to pull to the front door of the business facing the roadway as they would in any downtown business area.



P9. **BETA2: Signs provided – issue resolved.**

P10. **BETA3: Detail provided. If the Board elects to approve the project, BETA recommends a condition that requires final wall design to be provided at the start of construction to confirm parking stall lengths will not be impacted.**

Agreed

SIDEWALKS (§185-28)

P11. **BETA3: Note removed – issue resolved.**

P12. Provide wheelchair ramp to sidewalks, where applicable, at proposed access aisles at accessible parking stalls. *LDG: A notation has been added to the area adjacent to the single space at the “retail side” of the proposed building.* **BETA2: Locations of accessible ramps provided; however, they are not included as part of the accessible routes at the access aisles as required by 521 CMR 23.4.6 and 23.5 – issue remains outstanding. Also, consider incorporating a pedestrian route from conventional parking spaces to the commercial area that does not require use of the access driveway from Alpine Row.** *LDG: A sidewalk has been added from the head of the parking spaces to the building front as requested, making the path of travel along the front of the spaces instead of through a travel lane. This modified the patio area slightly.* **BETA3: Ramp provided at easterly accessible aisle; however, it is unclear if a ramp is proposed at the westerly access aisle as required. If the Board elects to approve the project, BETA recommends a condition that requires final plans to provide a ramp at westerly accessible aisle prior to endorsement. The Board may also wish to discuss pedestrian routes from conventional parking to the proposed commercial space within the new building. Refer to comment P8.**

A wheel chair ramp from the conventional parking to the commercial space through the extended sidewalk within the site has been added.

P13. Revise detail for the proposed sidewalks to be consistent with the proposed edge treatments (e.g. curb). *LDG: The detail for concrete sidewalks has 3 separate portions of the detail. One where there is integrated curbing, one where there is no curbing shown – i.e. will but against a different curb than integrated or will not abut a curb and lastly the walk as it is adjacent to a building. No changes have been made to the detail.* **BETA2: The provided detail includes a note indicating that vertical granite curb or concrete curbing shall be used where shown on the layout and materials plan – issue resolved. Clarify that the minimum sidewalk width is 5 feet, excluding curb.** *LDG: Sidewalks are minimum 42” as required by code. 5’ callout for sidewalk width includes the curb width as well.* **BETA3: Provide note or detail to clarify proposed minimum sidewalk with or without curb. BETA notes the Wheel Chair Ramp details shows a 5’ walk, excluding curb, and defers to the preference of the Board on the designer’s proposal to provide sidewalk widths that meet minimum code requirements.**

In accordance with § 185-28, Sidewalks.

Concrete sidewalks, a minimum of six feet in width, shall be constructed on all street frontages on accepted streets of Commercial I, Commercial II and Business Zones, unless topography, zoning district boundaries or other specific site conditions as certified by the Planning Board would preclude usefulness of such sidewalks if constructed.

The sidewalk in question is not within Commercial I, Commercial II or a business district thereby the sidewalk width is governed by construction standards and the ADA requirements. An accessible pathway in accordance with MA AAB must be no less than 42” in width. There are no other governing regulations for the width of a sidewalk. The section 185-28 which

governs sidewalks also states that If the sidewalk must be 6' in width then there are areas which that may not be practicable where it would preclude usefulness if the sidewalk were required at that width. The sidewalk proposed on-site is to access the one retail shop at the front of the property, there is no pedestrian connection from this sidewalk because the Town recently reconstructed the roadways with the sidewalk on the opposite side of the road.

Though it is not a requirement the sidewalk width could be increased by moving the pavement encroachment further off the property. As currently proposed the design has a 5' wide sidewalk only at the corner of the building where the existing paved travel lane encroaches onto the property. If the travel lane were moved entirely onto the Town right-of-way the requested sidewalk width could be accomplished without moving any other object on the property.

CURBING (§185-29)

The project proposes vertical granite curbing throughout the interior of the site.

- C1. **BETA2: Information provided – issue resolved.**
- C2. **BETA2: Information provided – no further comment.**

SITE PLAN AND DESIGN REVIEW (§185-31)

- SP1. **BETA2: Map provided – issue resolved.**
- SP2. **BETA2: Snow storage area provided – issue resolved.**
- SP3. Review planting plan to confirm and then provide note indicating that all proposed plantings will come from the Best Development Practices Guidebook (§185-31.1.C(3)(k)). *LDG: The Landscaping plan has been coordinated as requested and the note has been added. BETA2: Note could not be located. In conjunction with Planting Note 6, indicate that all proposed plantings will come from the Best Development Practices Guidebook (BDPG). LDG: Within the best development guidelines to planting and it states that all plants do not need to come from that list. There can be variations as long as they are not invasive, which our design variants are not. Most of the plants we have are on the list and these are indicated by the 'native' reference on the notes section of the plant list. BETA3: The planting plan provides no notes that require native species or prohibit invasive species and gives blanket discretion to the Landscape Architect to allow substitutions. While BETA agrees there is a discrepancy between the requirements of §185-31.1.C(3)(k) and the language included in the BDPG, the requested note should still be provided to indicate that conformance with the BDPG is required – issue remains outstanding.*

The Planting Plan has been modified to include the requested note.

- SP4. **BETA3: Screening provided. In consideration that architectural plans are typically not included as part of documents endorsed by the Board, recommend a condition of approval that requires roof-top units to be screening in accordance with the Proposed Roof Plan, dated October 8, 2021.**
- SP5. **BETA2: BETA cannot independently verify the trips provided by the designer; however, commercial and residential uses permitted by right are not anticipated to be significant generators of traffic. Any potential restaurant use in the future would require a Special Permit and additional review by the Board – issue dismissed.**

SCREENING (§185-35)

- L1. **BETA3: Landscape plan updated – issue resolved.**



UTILITIES

- U1. Contact the DPW to determine if easements are required for the existing sewer and drainage infrastructure that crosses the property. *LDG: The applicant is willing to provide easements at the end of the project through discussion with the DPW. BETA2: Information provided. If the Board elects to approve the project BETA recommends a condition that requires all easements to be in place to the satisfaction of the DPW prior to the start of construction. LDG: As discussed with the DPW, the easements will be placed and recorded prior to Occupancy Certificate. BETA3: BETA defers to the preference of the Board to include this recommended condition.*
- U2. **BETA3: General location provided – issue resolved.**

STORMWATER MANAGEMENT

GENERAL

- SW1. Revise proposed HDPE pipe to be RCP. Where cover is less than 42" provide Class V RCP (§300-11.B.(2)(a)). *LDG: The Section detailed is within the Subdivision Standards within the Town. The development is entirely within private property, the HDPE pipe remains as originally proposed. There are no requirements within the Zoning, or the Site Plan sections which require the compliance with the Subdivision requirements. The installation of HDPE pipe requires different depth of installations to prevent deflection of the ground surface depending on the diameter of the pipe. The 18" pipe, which is the largest proposed on-site, is installed as a standard with the bell of the pipe at a greater depth than the base grade gravel within the area of installation. BETA2: The project will disturb greater than one acre and is subject to the Town of Franklin Stormwater Management Bylaw. Chapter 153-16 requires stormwater controls to meet the requirements of the Subdivision rules. Furthermore, the Board has required the use of RCP on all projects, both public and private, with the exception of direct connections to subsurface infiltration systems – issue remains outstanding. LDG: RCP has been utilized in all locations where RCP is manufactured for the pipe diameter. 12" and above. Where there is not 42" of cover RCP has been noted as Class V. BETA3: Revise pipe label on final plans to indicate that pipe from proposed Vortsenty unit shall be RCP. BETA defers to the preference of the Board to allow the use of HDPE pipe from the proposed trench drain.*

The pipe label has been modified.

- SW2. **BETA2: Stamped checklist provided – issue resolved.**
- SW3. **BETA2: Information provided – issue resolved.**
- SW4. **BETA2: Adequate grading information provided – issue resolved.**
- SW5. **BETA3: Watershed boundaries clarified – issue resolved.**
- SW6. Revise overflow design of Pond 13P (IP3). The design proposes to allow overflow to flow upwards out of the grate inlet and into the parking area, after which it will flow to 120' to the nearest catch basin. The flows should be piped directly to the converted drainage manholes. *LDG: The replacement of the infiltration pits with a stormtech system provides an overflow which will pass through the proposed DBLE CB prior to discharge. BETA2: Design revised. Resolve outlet discrepancy between plans (8" pipe @ 0.4% slope) and HydroCAD model (2 – 10" pipes @ 0.99% slope). LDG: The design Model has been revised. BETA3: The outlet size and number of barrels has been revised. Revise outlet or chamber system, as appropriate, to reduce peak elevations within the system to below the top of stone for the 25- and 100-year storm events.*



Also, a slight discrepancy remains in the proposed outlet invert between the HydroCAD model and the plans.

The piping and header outlet on a smaller stormtech system like this is not well modeled in HydroCAD. LDG has added a DMH with a low inlet and internal weir, this type of piping arrangement will provide complete filling of the system allowing full use of the storage capacity as well as providing a pipe which follows the model with HydroCAD showing complete drainage of the system.

- SW7. **BETA3: BETA notes product submittals and shop drawings will be required for structures during construction – no further comment.**
- SW8. **BETA3: Information provided – issue resolved.**
- SW9. Provide top and bottom of wall elevations for the concrete wall proposed adjacent to the residential properties (#'s 60 – 68) on Alpine Place. In consideration that the site is being filled in this area the designer should confirm that the proposed wall will not block drainage from said properties. *LDG: Additional elevations for the wall in question have been provided.* **BETA2: Information provided. Clarify how the existing residential properties will drain. Based on the limited contour information in this area the proposed wall may block stormwater from running off the properties. LDG: A catch basin has been placed atop the existing drain line to manage this area of grass and the abutting property. BETA3: Catch basin added. The designer should clarify if any additional field reconnaissance was conducted to confirm existing drainage patterns and that the proposed wall will not adversely impact adjacent residences.**

The area was evaluated in the field, however the applicant does not have access to the abutting properties. Per the meeting October 18th LDG and the applicant are amenable to having the area staked during construction and evaluated for drainage patterns to determine any dips or contour issues to make sure that drainage pathways are maintained.

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.

- SW10. **BETA3: Information provided – no further comment.**
- SW11. Review HydroCAD model for Pond Infiltration pits. The diameter and invert of the storage is inconsistent with the detail provided in the plans. *LDG: The pits have been removed from the site plans and a stormtech system installed in its place. Though not required the site has also provided additional capture, treatment and infiltration of a portion of the parking lot through this basin.* **BETA2: The project will disturb greater than one acre and is therefore subject to the Town's Stormwater Management Bylaw. As such, redevelopment areas are required to retain 0.80 inches over the post-construction impervious area or remove 80% TSS and 50% of Total Phosphorus of the post-construction impervious area. Based on the provided documentation it does not appear these requirements have been satisfied. LDG: The infiltration area has been increased in size, utilizing a different stormtech chamber to allow for greater retention. The Stormwater report has been modified to detail the state and local requirements for infiltration.** **BETA3: Clarify 6-foot depth used in simple dynamic calculations and how the provided storage volume (3,101 cu. ft.) was determined. BETA notes the depth of the system from the outlet pipe to the bottom of stone is 2 feet and the storage volume (based on the stage-storage graph) below the outlet is approximately 1,800 cu. ft. Recommend providing a detailed calculation showing all input values.**

With the addition of the weir manhole the system fills completely to elev 300 allowing the full utilization of the bottom and side stone as well as the full system. The system contains a full volume of 1,838 c/f of capacity and the stone contains a total of 1,463cf. if the stone at the top of the system is 6" thick over



the area of the system at 62.58'x25.25' with 30% voids, the total storage of the stone above the invert is 237cf. Total storage is $1,838+(1,463-237) = 3,064cf$, greater than the 3,010 cf

SW12. **BETA3: Information provided – no further comment.**

SW13. **BETA3: Narrative revised – issue resolved.**

SW14. **BETA3: Information provided. BETA notes that soil textures will need to be confirmed during construction – no further comment.**

SW15. Review the HydroCAD model as it relates to provided recharge volume, the outflow invert is at the same elevation as the bottom of proposed storage, resulting in no storage volume being available for recharge. *LDG: The pits have been removed from the site plans and a stormtech system installed in its place. Though not required the site has also provided additional capture, treatment and infiltration of a portion of the parking lot through this basin. BETA2: The required recharge calculations should be consistent with the soil investigations on the site and as used in the HydroCAD model cover type (i.e. HSG A). Also review the numbers provided for recharge and water quality volume in the narrative. Based on the stage-storage figure for the infiltration system and an outlet elevation of 299, the storage volume is estimated to be 800 cu. ft. LDG: The observed soils are HSG A, the HSG B was used for a conservative analysis in the previous report. LDG is confident in the HSG A determination and has changed the paperwork, report and analysis accordingly. The system type has been revised to SC-740, 30" high chambers instead of 16" chambers, modelling has been changed for the single 8" outlet, allowing for increased storage for the franklin as well as HSG A calculations on infiltration. The report has been changed accordingly. BETA3: Information provided – refer to comment SW11.*

See Above response.

SW16. **BETA2: Exfiltration rate revised – issue resolved.**

SW17. **BETA2: Calculation provided – issue resolved.**

SW18. **BETA2: Information provided – issue resolved.**

Mike Maglio/DPW Comments

1. As previously noted, based on the applicant's plans, the roadway in front of the proposed building appears to encroach onto private property. We will coordinate with the applicant on the layout of the proposed curb in this area, however we recommend that this issue be resolved prior to any approval by the Board. We will need a plan showing the existing encroachment and have the existing right-of-way staked out by a Professional Land Surveyor.

The right-of way will be staked prior to Friday October 22, 2021. A Plot Plan of current site conditions will also be provided as requested.

2. The sight distance at the eastern driveway is shown at 73 feet looking to the right. This does not meet section 185-21.C.7.c which requires that exiting vehicles comply with the Intersection Sight Distance. For a local road speed limit of 30 mph, the required sight distance for exiting vehicles looking to the right is 335 feet.

In accordance with the referenced section the driveways of a development shall be designed in accordance with the MassDOT 2006 project design guide, in accordance



with that document and the noted section the two items of evaluation shall be stopping sight distance and intersection sight distance. The Project Design Manual states: Stopping sight distance is the distance necessary for a vehicle traveling at the design speed to stop before reaching a stationary object in its path. The sight distance at every point along a roadway should be at least the stopping sight distance. Though this doesn't affect the existing vehicle the question is can a vehicle travelling along the roadway see a vehicle existing the property. The design consideration in accordance with the manual is based upon design speed of the roadway. The westerly direction approaching vehicle has a travel speed does not have a posted speed limit, anecdotally it was stated that the speed limit is 30mph on this roadway, LDG will utilize this speed for the analysis, however absent a posted speed limit the Commonwealth has a standard speed of 25mph since 2015. There is a 1-2% down grade approaching from this direction which according to exhibit 3-8 of the referenced text the between 200 and 205" for the approaching vehicle. The currently provided sight distance from this direction is 265'+ including the building position as it is proposed. The approach sight distance is limited by the existing roadway curvature away from the subject property and obstructed with buildings and landscape.

From the easterly direction the downgrade is approximately 5% which in accordance with the referenced exhibit requires a stopping site distance between 205' and 215'. The sight distance in this direction is 250+' as well.

The driveway as noted complies with the stopping sight distances in the referenced manual.

The Project Design Manual states:

Intersection Sight Distance Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid colliding in the intersection. Sight distance also allows drivers of stopped vehicles with a sufficient view of the intersecting roadway to decide when to enter or cross the intersecting roadway. If the available sight distance for an entering or crossing vehicles is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate or avoid collisions. However, in some cases, this may require a major-road vehicle to slow or stop to accommodate the maneuver by a minor-road vehicle. The intersection sight distance is established utilizing the intersection sight triangle which is designed based upon line of sight of the stopped vehicle. The triangle is based upon the speed of the roadway, intersection sight controls and the pathway of travel. The driveway is the controlled leg of the intersection in this scenario, Alpine intersection is a controlled intersection and visible from the driveway, these two vehicles are not in direct conflict. The potential conflict occurs with the one-way roadway Alpine Way as it approaches the property and the vehicle exiting and turning eastbound, essentially in front of this vehicle. Above it was established that the approaching vehicle can ascertain the movement of the vehicle in accordance with the requirements of the referenced manual. In accordance with section 3.7.4 of the referenced manual does not have a driveway to roadway stopping maneuver. Because of the roadway orientation the maneuver is covered under the AASHTO Policy on geometric design of highways and



street, which is referenced in the MassDOT design guidance. This manual has a closer scenario to that which is detailed, though still does not fit the actual site design. With the minor street, a local intersection, which turns two way almost in front of the property and the stop controlled driveway the distance from which the object is viewed is established by the roadway width and the approach, the object is measured based upon the width of the roadway, at 25' the current roadway establishes the stopped vehicle line of sight at 30' from the center of the travel lane of the approaching vehicle from the west (in this case) that vehicle is approximately 19.25' from the edge of the road, establishing the line of sight from 10.75' from the edge of proposed pavement. For the intersection sight distance. This creates the sight triangle within the parcel for the existing driveway. The required sight distance is 190' for the approaching vehicle to be seen by the stopped motorist in the best-case design scenario, the 10.75' from edge of pavement establishes an intersection sight distance of 170'. The 190' is not achieved due to the curvature of the roadway. Nothing in the referenced documents assumes that this is being utilized for design of a low volume driveway, entering a minor street.

With all of the relevant assumptions noted above, LDG would propose the following scenarios:

- 1. A waiver of the requirements for intersection sight distance to reduce the distance to 170' as noted.*
- 2. Alternatively, the development could limit left turns out of the driveway, providing a small raised island and a sign.*
3. We previously noted that any missing easements for town drainage and/or sewer lines that run across the site should be resolved as part of the approval process. We recommend that that if the project is approved, the Board should consider adding a Special Condition requiring that the easements shall be in place prior to Occupancy.
Agreed prior to occupancy.
4. The detail for the wheelchair ramp does not appear to meet ADA/AAB requirements. The designer indicated that the detail is in accordance with AAB 521.21.7, however that detail is for wide sidewalks that do not require a drop to a level landing. Section 521.21.3 reads "Where sidewalks are too narrow to install a straight-line curb cut at a slope of one-in-12 (1:12) (8.3%), the sides of the curb cut shall not exceed one-in-12 (1:12) (8.3%)." The detail should be revised.
The detail is revised per the enclosed.

Enclosed please find:

- 2 Full Size sets of plans
- 5 reduced (11x17) size sets of plans
- Associated review documentation provided electronically
- Electronic copies supplied to review

I look forward to meeting with the Board at the next meeting. If there are any questions prior to the hearing please do not hesitate to ask.

Mr. Anthony Padula, Chairman
October 19, 2021
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Truly yours,

LEVEL DESIGN GROUP, LLC

A handwritten signature in blue ink, appearing to read "Daniel Campbell". The signature is fluid and somewhat abstract, with several loops and overlapping lines.

Daniel Campbell, P.E.

Principal

Attachments

Cc: Walker Development and Construction

JtA

File