



June 13, 2022

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

Re: 175 East Central Street (Franklin Ford)
Site Plan and Special Permit Review

Dear Mr. Rondeau:

BETA Group, Inc. (BETA) has reviewed documents for the project entitled: Franklin Ford located at 175 East Central Street in Franklin, MA. This letter is provided to present BETA's findings, comments and recommendations.

BASIS OF REVIEW

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

- Plans (8 sheets) entitled: Site Plan, 175 East Central Street, Franklin, Massachusetts dated April 14, 2022, prepared by United Consultants, Inc. of Wrentham, MA.
- Drainage Analysis, dated April 14, 2022, prepared by United Consultants, Inc.
- Plan entitled "Franklin Ford Dealership-Franklin, MA, Site Lighting Plan, Schedules & Specifications" dated May 12, 2022, prepared by SK& Associates, Canton, Mass.

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 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 project site includes two parcels, (#285-090 & 092) with a total area of 5.20 acres located at 175 East Central Street and 9 Chestnut Street in the Town of Franklin (the "Site"). The Site is located within the Commercial II zoning district. Lots to the east of the Site are within the Commercial I district, lots to the north and west of the Site are within the Single Family-IV district. The site has frontage on both East Central Street and Chestnut Street. The Site in its entirety is also located within the Water Resource District.

The existing Site at Parcel 090 is the current location of the automobile dealership, Franklin Ford. The existing dealership building is a single story 19,100± sq. ft. structure. Associated site features include a paved parking lot which can be accessed from driveway openings on both East Central Street and Chestnut Street. There is a gravel parking area (19,600± sq. ft.) also behind the paved parking area. Approximately 1.0 acre of wetlands are located at the rear of the parcel. There is also a ledge outcrop along the southerly property line behind the single-family dwelling at the intersection of East Central and Chestnut Streets. The existing site at 9 Chestnut Street (parcel 92) is a single-family dwelling with 2 driveway

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openings on Chestnut Street and associated landscaping. There is a 20' wide water line easement that runs from Chestnut Street to the rear of the parcel at the edge of the flagged wetlands. Existing utility services (water, sewer, gas) are provided via connections to the mains beneath East Central Street. A sidewalk is present along both East Central Street and Chestnut Street, and a fire hydrant is in the far western corner of the parcel on Chestnut Street.

Topography at the Site is generally directed north towards the wetlands at the rear of the parcel. The current limits of the development are flat with grades that range from 2-5%. The wetlands at the rear of the site are 8' lower than the far edge of the gravel parking area. The Site is not located within a FEMA mapped 100-year floodplain, an NHESP-mapped estimated habitat of rare or endangered species, or any other critical area. NRCS soil maps indicate the presence of Merrimac-Urban land complex with a Hydrologic Soil Group (HSG) rating of A, Freetown muck with an HSG of B/D, and Urban Land with no assigned HSG rating.

The project proposes to construct a 7,600± sq. ft. addition to the existing building which will run parallel with Chestnut Street. The addition will have 10 garage access doorways, 6 at the front and 4 in the rear of the building. All the proposed improvements to the site will occur east of the existing dealership building. The existing single-family dwelling at Chestnut Street and all the infrastructure associated with the dwelling will be removed to allow for expansion of the paved parking area on this portion of the lot. The existing driveway openings along Chestnut Street will all be closed. A new opening will be provided at the east edge of the parcel. The existing gravel area at the rear of the parcel will be loamed and seeded. The parking lot will be regraded to drain towards 5 proposed catch basins. Runoff from these basins will be directed towards a subsurface infiltration structure located at the back right corner of the parking lot. The outfall from the infiltration structure will be directed east towards a swale on the abutting parcel associated with an 18" outfall from drainage on Chestnut Street. Based upon the drawings, the parking lot will be set up as a vehicle display area with the far easterly edge set just inside the existing edge of pavement. Vertical concrete curbing is proposed around the outside edge of the pavement. A 6' high stockade fence is proposed along the west property line along Chestnut Street. No interior landscaped space will be provided, and no additional landscaping is proposed along the east edge of the site. Lighting will also be added to the new parking area.

SITE VISIT

BETA conducted a site visit on 6/7/2022 to assess existing conditions. Field conditions were found to be generally in accordance with the existing conditions plan. Comments associated with this site visit are as noted throughout this report.

FINDINGS, COMMENTS AND RECOMMENDATIONS

GENERAL

- Z1. Revise planset to distinguish between existing and proposed linework more clearly.
- Z2. Include measures for removal/abandonment of utilities servicing the existing house.

ZONING

The Site is located within the Commercial II (CII) Zoning District. The proposed Site will retain the existing use as an Automobile Dealership.

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 rear yards; impervious coverage and building height.

The project does not meet requirements for required side yard. However, this is an existing nonconformity and the proposed building addition will meet side yard requirements.

DRAWING REQUIREMENTS (§185-31)

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

Z3. Indicate proposed snow storage areas (§185-31.C.(3).(h)). The planset notes that parking spaces above the required number of spaces shall be used for additional snow storage. This approach, however, may be impractical if these spaces are used for the display of vehicles.

Z4. Provide sight line information at proposed entrance/exit ways (§185-31.C.(3).(t))

SIGNS (§185-20)

The project proposes the following signs:

<u>Sign Designation</u>	<u>Location</u>
Stop	East Site Entrance
Accessible Parking Signs	Accessible Parking Spaces

Z5. Provide alternate accessible parking sign detail with “van accessible” designation.

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

The Project proposes an expansion to the existing building. The site planset indicates that the building will be separated into retail, office, and warehouse uses. The required parking for these uses is as follows:

Use	Area (SF)	Rate (Space / SF)	Required Parking
Retail	3,081	1 / 200 SF	16
Office	2,548	1/250 SF	11
Warehouse	23,702	1/1000 SF	24
<u>Total:</u>			<u>51</u>

Parking is proposed to the south and east of the existing/proposed building. A total of 195 parking spaces are provided. 64 of these spaces are proposed in the southwestern lot near the main building entrance, while the remaining 131 spaces are in the eastern lot.

Parking spaces are shown as nine (9) feet by 19 feet with a min. 24-foot access aisle. Americans With Disabilities Act (ADA) regulations require a minimum of three (3) ADA-accessible spaces for lots ranging from 51 to 75 spaces. One (1) shall be van accessible with a 96-inch-wide access aisle and the remaining 3 parking spaces are to be served by a 60-inch-wide access aisle. The six (6) accessible spaces provided meet these requirements.

Access to the Site is proposed via two curb cuts: an existing curb cut at East Central Street and a new curb cut at Chestnut Street. Three existing curb cuts along Chestnut Street will be removed and the concrete sidewalk reconstructed.

The project will include repaving and expanding the eastern parking lot and restriping the western parking lot. Vertical Granite curbing will be provided around the perimeter of the eastern parking lot. Some landscaped areas are proposed around the west and eastern sides of the eastern parking lot.

Refer to the Screening and Landscaping section of this report for comments relating to parking lot screening requirements.

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

Z6. BETA notes that the project includes parking spaces within 10 feet of the East Central Street Right-Of-Way, which is not permitted (§185-21.C(1)). As this is an existing nonconformity, BETA defers to the Planning Board.

- Z7. Revise design of the accessible parking spaces proposed in the center of the southern lot (Space 58) and along the southern building wall (Spaces 59, 60, and 61). Accessible parking spaces should be positioned as near as possible to the building entrance and must include an accessible route to the building they are intended to serve (521 CMR 20).
- Z8. Indicate which percentage of proposed parking spaces are anticipated to be occupied by vehicles to be sold, and which percentage are to be reserved for employees and visitors.
- Z9. Review design of the southernmost parking spaces (Spaces 9 through 20). No access aisle is depicted to provide vehicular access to these spaces.
- Z10. Review design of parking spaces proposed along southern building wall (Spaces 59 through 64). Based on field visit, a garage door is present in this area which will be blocked by the proposed spaces.
- Z11. Provide detail for vertical granite curb and sidewalk.

SCREENING (§185-35) AND LANDSCAPING

The project proposed twenty (20) tree plantings along the perimeter of the southeastern parking lot. Proposed trees include American Elm, Red Maple, and White Birch. The provided planting quantity is in accordance with those required for the proposed number of parking spaces.

§185-35(2) and (7) require that outdoor sales displays and outdoor parking for 10 or more cars be screened from adjacent residential district or uses. The residential Single Family IV district abuts the Site to the northwest, north, and east, and residential uses abut the Site to the south, west, and southeast. Existing vegetation is proposed to be retained to provide screening along the north and eastern perimeters of the Site. Existing vegetation along the southern property line will be removed to allow the proposed parking lot expansion. No additional screening is proposed beyond the 20 aforementioned tree plantings.

- Z12. Provide required screening along the southern property line to screen the property from the abutting 183 E Central Street property. BETA notes that existing vegetation is present in this area but its extent is not depicted on the Site plans.
- Z13. Indicate limit of existing treeline and any proposed tree clearing along the perimeter of the property. BETA notes that trees along the eastern property line, which screen the property from an abutting residence, are primarily deciduous and may not form an effective buffer during winter.

LIGHTING (§185-31.C(4)(E))

Project Lighting Plans (SL1) indicate that a total of 23 pole-mounted and 14 wall-mounted luminaires are proposed on the eastern portion of the Site. A photometric plan was provided.

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

- Z14. BETA defers to the Town regarding approval of the waiver to allow light spillage onto Chestnut Street. This waiver must also be revised to include light spillage onto the abutting properties. (§185-31.C.(4).(e))
- Z15. BETA recommends revising lighting design to reduce areas of high illuminance proposed throughout the eastern parking lot.

WATER RESOURCE DISTRICT (§185-40)

The project is located within a Water Resources District and a Zone II Wellhead Protection Area. Refer to the Stormwater Management section of this report for the project's compliance with groundwater recharge requirements.

Z16. Indicate if motor vehicle service or repair will occur within the proposed building extension, which is a prohibited use (§185-40.D.(1).(c)). BETA notes that the existing building includes a service area, though this is an existing nonconformity.

STORMWATER MANAGEMENT

The stormwater management design proposes a subsurface infiltration system to capture, store, and infiltrate stormwater runoff from the redesigned eastern parking lot. Stormwater runoff will be conveyed to this system via a new closed drainage system consisting of catch basins, drainage manholes, and a water quality unit. Overflow from the subsurface system will be conveyed to a new outfall which discharges to a low-lying area to the east upgradient of an existing wetland. Stormwater runoff from the proposed building extension roof will bypass the subsurface system and be conveyed via roof drains to a new outfall which discharges to a grassed area upgradient of the wetlands.

No modifications are proposed to the stormwater management design of the western parking lot.

STORMWATER MANAGEMENT REGULATIONS (CHAPTER 153)

The project proposes to disturb land in excess of once acre within the Town of Franklin. It is therefore subject to the Stormwater Management Regulations. The project is also required to comply with the Town of Franklin Best Development Practices Guidebook (BDPG) Compliance with these regulations is outlined below and throughout the following sections.

SW1. Provide clear and definite delineation of any areas of vegetation or tree disturbance (§153-12.J).

SUBDIVISION REGULATIONS - STORMWATER MANAGEMENT REGULATIONS (§300-11)

Additional requirements for stormwater management are outlined in §300-11 of the Town of Franklin Subdivision Regulations. The Applicant has requested a waiver to allow for the use of HPDE pipe and Class V RCP.

SW2. Provide required headwall at outfalls (§300-11.B(2.b)).

SW3. The proposed discharge from the infiltration system is directly towards the abutting parcel. There is an easement in this area, however, the applicant should document that they have rights to discharge into this easement area. Otherwise, the discharge should be moved to discharge into the wetland buffer zone at the rear of the parcel.

MASSDEP STORMWATER STANDARDS

The project is subject to the Massachusetts Stormwater Standards as outlined by MassDEP. Compliance with these standards is outlined below:

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 two new outfalls. One of these outfalls, FES-2, is located within the 100-foot wetland buffer zone. Stormwater runoff will be treated by water quality units and a subsurface infiltration system prior to discharge. Riprap aprons are proposed at each outfall for erosion control.

SW4. Provide calculations for sizing of riprap aprons. (Length, width, riprap depth, and riprap D50).

SW5. The roof runoff must be treated and cannot be directly discharged towards the wetlands. BETA recommends that this flow be routed through the subsurface system to meet standard 4 or an infiltration basin be constructed downgradient of FES-1 to provide treatment. If the Applicant intends to instead direct rooftop runoff to a qualifying

pervious area, the applicant must demonstrate that the design meets the minimum criteria set forth on Volume 3, Chapter 1, Page 47 of the MA Stormwater Handbook.

SW6. Based upon the site location within the limits of the water resource district, BETA recommends that the applicant review the site to determine if any minor revisions to the pavement behind the existing building could be made to collect and treat the runoff from this area.

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 net increase in impervious area and minor changes to site hydrology. Stormwater runoff will be mitigated via a new subsurface infiltration system. Calculations indicate a decrease in peak discharge rate and runoff volume to all watersheds.

SW7. Revise limit of analysis to include the entire limit of alterations. The southern portion of the eastern parking lot has been excluded from the model.

SW8. Review cover types used for pre-development hydroCAD model. A portion of the area modelled as "Paved parking & roofs" should be modelled as "Grass" and "Woods."

SW9. Review roof area used for subcatchment RS. Revise TC to be 6 minutes.

SW10. Indicate source of rainfall data used in HydroCAD model. Revise 100-year storm event to use a 7" rainfall depth to comply with the Wetlands protection Act. To ensure the infiltration BMP is adequately sized, BETA recommends the use of NOAA Atlas-14 rainfall rates or NRCC Extreme Precipitation Estimates.

SW11. Indicate location of existing water lines which may be present within the water line easement and confirm existing utilities will not conflict with proposed drainage pipes.

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 soil in the area of proposed modifications is predominantly Merrimac-Urban Land complex with HSGR A (high infiltration) and Urban Land with no assigned HSGR.

The Applicant has conducted permeability testing in the area of the proposed infiltration BMP indicating an infiltration rate 11.16 in/hr. In accordance with standard engineering practices, the rate used in the HydroCAD model is one-half this measured rate or 5.58 in/hr. Test Pits conducted at the Site indicate that subsurface soil in the area of the infiltration BMP is medium sand. Groundwater was not observed in these test pits to an approximate excavation depth of 10' b.g. (Elevation 82' ±)

Recharge is proposed via a new subsurface infiltration system which will capture runoff from the eastern parking lot area. The project will provide groundwater recharge in excess of what is required.

SW12. Revise model for Pond P1 to use an accurate groundwater elevation, rather than elevation 0.

SW13. BETA Recommends including an outlet control structure / drainage manhole at the subsurface infiltration system outlet similar to the inlet configuration. This would facilitate system maintenance, simplify transition to 18" RCP, and avoid the need for a pipe bend.

TOTAL SUSPENDED SOLIDS (STANDARD NUMBER 4): For new development, stormwater management systems must be designed to remove 80% (90% per Town Bylaw) of the annual load of Total Suspended Solids (TSS). The project includes treatment of the eastern parking lot via deep sump catch basins, a proprietary water quality unit, and a subsurface infiltration system. The resulting TSS removal rate are listed as 98.1%

The project is required to treat the 1.0-inch water quality volume (See Standard 6). Water quality volume is provided via the proposed proprietary unit and the subsurface infiltration system in excess of what is required. At least 44% TSS removal is achieved prior to discharge to the infiltration BMP. A Long-Term Pollution Prevention Plan has been provided as part of the Operation and Maintenance Plan.

SW14. Provide calculations for provided total phosphorus (TP) removal (§153-16.B(1.b)) and total nitrogen removal (TN) (BDPG).

SW15. Roof runoff is exempt from pretreatment but still requires treatment prior to discharge. See SW 4 above.

HIGHER POTENTIAL POLLUTANT LOADS (STANDARD NUMBER 5): Stormwater discharges from Land Uses with Higher Potential Pollutant Loads (LUHPPLs) require the use of specific stormwater management BMPs. The project is considered a LUHPPL under the definition of a motor vehicle repair operation (310 CMR 22.20C(2)(i)), and is required to comply with this section. The project narrative notes that automobile maintenance will be completed within the building. Subsurface structures are considered recommended uses for a LUHPPL and the proposed hydrodynamic separator will provide adequate pretreatment.

SW16. Revise narrative to identify the Site as a LUHPPL.

SW17. Provide Source Control and Pollution Prevention Plan, accounting for the contingency that leaks and spills occurring within the building may migrate into the parking lot.

SW18. Show current floor drain connection and discharge and show proposed connection for floor drains for proposed expansion.

CRITICAL AREAS (STANDARD NUMBER 6): Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas. The project is located within a Zone II Wellhead Protection Area which is a critical area. Subsurface structures are considered recommended uses for a Zone II and the proposed hydrodynamic separator will provide adequate pretreatment.

REDEVELOPMENT (STANDARD NUMBER 7): Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable. The project is a mix of new development and redevelopment with a net increase in impervious area.

EROSION AND SEDIMENT CONTROLS (STANDARD NUMBER 8): Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities. As the project proposes to disturb greater than one acre of land, it will be required to file a Notice of Intent with EPA and develop a Stormwater Pollution Prevention Plan (SWPPP). Erosion control measures are depicted on the plans including compost sock for perimeter control.

SW19. Provide Stormwater Pollution Prevention Plan (SWPPP) and revise project narrative to indicate a NPDES Construction General Permit is required.

SW20. Provide stabilized construction entrance with measures to ensure that all construction period traffic will be over this entrance.

SW21. Provide location and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures.

SW22. Provide measures to prevent sedimentation into open excavations for subsurface infiltration systems during construction.

SW23. Provide approximate location of proposed stockpile and staging locations including measures to minimize exposure to the materials and mitigate sedimentation (§153-12.L). Include stockpile location for materials generated during demolition.

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SW24. Provide approximate construction sequencing including all required information outlined in §153-12.M.

SW25. Include requirement that erosion control barriers must be installed, inspected, and approved by a professional engineer or licensed wetlands scientist and that no sedimentation barrier may be removed without prior approval of the commission or its staff (BDPG).

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 Stormwater Operation and Maintenance Manual was provided with the Stormwater Management Report.

SW26. Include maintenance of the outfalls and riprap aprons.

SW27. Provide owner signature (§153-18.B(5)).

SW28. Include provision requiring a documentation submittal to the DPW confirming when maintenance has been satisfactorily completed (§153-18.B(6)).

SW29. Obtain Stormwater Management easement with eastern abutter to ensure that stormwater runoff conveyance route is preserved between FES-2 and the nearby wetlands (§153-18.C(1.b)).

SW30. Include note that the owner of the stormwater management system must notify the Director of changes in ownership or assignment of financial responsibility (§153-18.D(1)).

ILLICIT DISCHARGES (STANDARD NUMBER 10): All illicit discharges to the stormwater management system are prohibited. An Illicit Discharge Compliance Statement was provided with the submission

SW31. Provide signature of owner on the illicit discharge compliance statement.

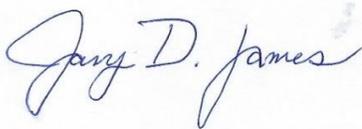
WETLANDS PROTECTION

The Project proposes work within Areas Subject to Protection and Jurisdiction of the Franklin Conservation Commission, including the 100-foot Buffer Zone to a vegetated wetland. Work within this area includes a small portion of the proposed parking lot, the removal of an existing gravel parking area, and the construction of a new drainage system outfall. 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.

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



Stephen Borgatti, PE, MENG
Project Engineer

cc: Amy Love, Town Planner

Job No: 4830 - 84

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