



December 01, 2021

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

**Re: Olam Estates Subdivision
Peer Review Update**

Dear Mr. Rondeau:

BETA Group, Inc. has reviewed revised documents for the proposed Definitive Plan application entitled "Olam Estates" located 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 (15 Sheets) entitled ***Olam Estates***, revised to November 12, 2021, prepared by Andrews Survey and Engineering, Inc. of Uxbridge, MA.
- Definitive Plan application, including:
 - USGS Locus Map
 - Project Narrative
 - Application for Approval of Definitive Plan (Form C)
 - Request for Subdivision Waivers (Form R)
 - Certificate of Ownership
 - Articles of Organization
 - Property Deed
 - Certified Abutters List
 - Wetland Delineation Report
- Stormwater Management Report, revised to November 11, 2021, prepared by prepared by Andrews Survey and Engineering, Inc.

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

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INTRODUCTION

The project site includes a single 18.49± acre parcel (#340-006) located at 900 Washington Street in the Town of Franklin (the “Site”). It is largely undeveloped, consisting primarily of woodlands and wetlands. A single building with associated access driveway is also present. The Site and the surrounding region are within the Rural Residential I zoning district. The Site is not located within the Water Resource District.

Topography at the Site is generally moderate, sloping away from an elevated area near the existing building in all directions. Most of the Site is graded toward an extensive wetland system along the westerly, southerly, and southeasterly, property lines. The wetland system is located within the Upper/Middle Charles River Watershed, an impaired waterway. The Site is partially located within a FEMA-mapped 100-year flood zone, but is not located within an NHESP-mapped estimated habitat of rare or endangered species, or any other critical area. NRCS soil maps indicate the presence of Charlton-Hillis-Rock complex throughout the areas proposed for development with Hydrologic Soil Group (HSG) ratings of A or B (moderate to high infiltration potential).

The project proposes to construct a four-lot subdivision, comprised of three residential lots and one lot for Temple Etz Chaim. The subdivision will be accessed from Washington Street via a proposed 600± foot long roadway with cul-de-sac and associated bituminous concrete sidewalk and slant granite curbing. Lots will be served by Town water but will have individual on-site subsurface sewage disposal systems. Stormwater management is proposed through the use of deep sump catch basins which will direct flow through closed drainage systems to three separate infiltration structures.

COMPILED REVIEW LETTER KEY

BETA reviewed this project previously and provided review comments in letters to the Board dated February 26, 2021 and September 29, 2021 (original/previous comments in standard text). Andrews Survey & Engineering, Inc. (ASE) provided responses to BETA’s first letter in a letter dated September 17, 2021 (responses in *italic* text). DiPrete Engineering (DPE) provided responses to BETA’s second letter in a letter dated November 11, 2021 (responses in *italic* text). BETA’s latest update on the status of each peer review comment is provided in this letter (latest status in **standard bold text**). Comments and sections previously noted as “resolved” have been removed from this letter for brevity, unless otherwise noted.

FINDINGS, COMMENTS AND RECOMMENDATIONS

GENERAL COMMENTS

- G1. Revise Plan References Note 1 on Cover Sheet to include reference to Land Court plan, if applicable. *ASE: Added Land Court plan number to Plan Reference Note 1.* **BETA2: Reference provided – issue resolved.**
- G2. Revise Note 1 on Definitive Plan Sheet 2 to reference the non-buildable lots. *ASE: Note 1 has been revised to ‘Parcel A is not to be considered a building Lot’.* **BETA2: Note revised – issue resolved.**
- G3. Depict the limit of tree clearing on the plans. *ASE: Added limit of tree clearing to Sheet C6.* **BETA2: Limit of clearing provided – issue resolved.**

- G4. BETA2: A retaining wall is proposed within the cul-de-sac right-of-way and it is noted that shop drawings will be provided. In consideration that the Town will likely take ownership of the wall the developer should work with the Town to select a limited number of acceptable wall designs/manufacturers. Plans should also be updated to provide top and bottom of wall elevations, and fencing should be provided along the top of the wall for fall protection. *DPE: The retaining wall has been removed from the revised plans.* **BETA3: Retaining wall removed – issue dismissed.**

ZONING

The project is located within the Rural Residential I zoning district zoning district, generally intended for single-family residential uses in a rural and semirural environment. The proposed residential uses comply with this objective and the religious use is exempt from zoning prohibition under MGL Ch. 40A.

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

As proposed, each subdivided lot complies with minimum lot area, frontage, width; and front, rear, and side yard dimensions. Additional dimensional requirements for Lot 4 (e.g. maximum impervious coverage of structures and structures plus paving) will be reviewed at part of the future Site Plan for Lot 4. Based upon the stormwater report, it is anticipated that residential lots will comply with impervious coverage requirements.

- SC1. Clarify the location of and add a bound between the 20-foot radius curve and 7.61' tangent at the northwest corner of Lot 1. *ASE: Added endpoint leader and bound between 20-foot radius curve and 7.61 tangent.* **BETA2: Bound added – issue resolved.**

SUBDIVISION REGULATIONS

GENERAL COMMENTS

- S1. Clarify the stationing and limits of proposed work on the Plan and Profile. The Profile depicts proposed construction at Sta. 0+00, which is shown to be within the Washington Street pavement area on the Plan. *ASE: Profiles and grading updated to start at Washington Street edge of pavement. Profile has been noted to start at station 0+14.99.* **BETA2: Information provided – issue resolved.**

§300-8 DEFINITIVE PLAN

- S2. Provide appropriate notes regarding the existing survey information including date(s) of survey and reference datums (§300-8.B(2)). *ASE: Added survey information to Sheet C4.1.* **BETA2: Information provided – issue resolved.**
- S3. Provide the existing width of Washington Street on the plans (§300-8.B.(2)(i)). *ASE: Added Washington Street road width to Sheet C4.1.* **BETA2: Information provided – issue resolved.**
- S4. Provide a legend or leaders to identify the centerline and left and right sidelines on the profile in accordance with §300-8.C.(2). The existing conditions profiles should also be extended to the limits of the proposed roadway. *ASE: Existing/Proposed centerlines and left/right sidelines have been added to the profiles. The existing profiles have been extended the full length of the roadway.* **BETA2: Information provided – issue resolved.**

- S5. Provide grade stakes in accordance with §300-8.C.(10) or request waiver from the Board. *ASE: General Note 19 added to the plans indicating for this to be done prior to construction. BETA2: BETA defers to the preference of the Board on this issue.*
- S6. Provide a separate Form R for each requested waiver (§300-8.G.(2)). *ASE: We have included separate forms for each waiver requested. BETA2: Separate Forms provided – issue resolved.*

§300-9 GENERAL

- S7. Indicate the location of the Floodplain District (FEMA 100-year flood Zone A) on the Plans (§300-9.C). *ASE: FEMA Flood Zones have been added to the Existing Conditions. BETA2: Information provided – issue resolved.*

§300-10 STREETS

- S8. Based upon the anticipated traffic from the future development of Lot 4, reassess the classification of the proposed roadway and revise the width as necessary (§300-10.A.(2)). *ASE: The proposed subdivision roadway is designed with a 26-foot width which is required for a minor street classification roadway. We have assessed this width and believe it is adequate and unnecessary to widen the roadway and increase impervious area to the major width requirement of 28 feet. Minimal traffic will be generated from the proposed three single family homes. The proposed potential future temple on Lot 4 will be designed with adequate on-site parking meeting the Town requirements. Therefore, we don't expect the need for any on street parking and this use would have offset peak times of normal heavy traffic times such as Sunday mornings. The proposed roadway is also a dead end and there is no other development beyond this. We believe the 26-foot width is adequate for the development. BETA2: BETA notes that the 26-foot pavement width meets the Town's Bylaw for the current residential subdivision being proposed; however, a waiver may be required in the future, depending on the number of trips generated by the temple. It is anticipated that the temple will generate the overwhelming majority of its trips in a short period of time and traffic or emergency service operations may be adversely impacted if residential vehicles are parked on the street. Recommend for the proponent to provide the estimated trips for the Temple and to discuss any considerations on parking restrictions with the Board. DPE: The roadway has been widened to 28 feet. BETA3: Roadway revised to meet requirements of a major street – issue resolved.*
- S9. Provide available sight distances vs. that required at the intersection of the proposed roadway and Washington Street (§300-10.B.(6)). *ASE: The Speed limit on Washington Street is 40 mph and the roadway grade is approximately 1% along the frontage of the site. Per the Massachusetts Highway Design Manual: Intersection site distances for a stop control on the minor street: Major Street for Left Turn 445', Major Street for Right Turn 385'; Stopping Sight Distance: Downgrade: 315 feet, Upgrade: 289 feet. See attached exhibit for provided site distances. BETA2: Information provided – issue resolved.*
- S10. Revise the width of the roadway to match that required for the reassessed classification, if necessary (§300-10.C.(1)). *ASE: See response for S8. BETA2: Refer to comment S8. DPE: The roadway has been widened to 28 feet. BETA3: Width revised – issue resolved.*
- S11. A waiver has been requested to allow the grade of the roadway to be less than the required minimum of 1.5% (§300-10.D.(2)). While the proposed short segment of 1.1% is not concerning

from a safety perspective, typical construction tolerances may result in flatter grades or areas that do not drain well. In conjunction with the Board's request to provide a "no waiver" plan, reevaluate if a 1.5% grade can be provided. *ASE: The proposed profile has been revised to be greater than 1.5%.* **BETA2:** Roadway grade revised. Update Subdivision Dimensional Requirements on cover sheet to reflect current provided grade and that no waiver is requested. *DPE: Subdivision Dimensional Requirements on cover sheet have been revised.* **BETA3: Dimensional requirements resolved – issue resolved.**

- S12. Provide an earthwork estimate to confirm conformance with §300-10.D.(1). Earth removal of greater than 1,000 cubic yards of material requires a special permit by the Board of Appeals (§185-23). *ASE: Based on a direct surface to surface comparison and excluding import materials, The site is approximately 2,700 yards of net cut. Note 20 has been added to the plans 'Excess fill materials to be stockpiled for future project phases'. The future phase of the development will need material for construction.* **BETA2:** Information provided. Given the significance of the cut materials, indicate where the materials will be stockpiled and confirm erosion and sedimentation notes will require the stockpiled material to be stabilized. *DPE: Material stockpile area is called out on the revised Soil Erosion and Sediment Control sheet of the revised plan set.* **BETA3: Stockpile area provided – issue resolved.**
- S13. Based on the grade change in the cul-de-sac, a vertical curve is required in accordance with (§300-10.D.(4)). Refer to comment S15. *ASE: The proposed roadway profile has been revised and the grade change at the cul-de-sac removed.* **BETA2: Profile revised – issue resolved.**
- S14. The project proposes cuts of greater than five feet within the right-of-way. Request a waiver from §300-10.D.(5). Shallow ledge was observed in several test pits on the eastern side of the proposed roadway and there are visible outcroppings within the proposed roadway right-of-way. Provide subdrains along the easterly right-of-way to ensure the roadway subgrade does not become saturated following storm events. *ASE: A Subdrain has been added between stations 3+50 and 4+90. Note the existing cut at station 1+75 is an isolated high and will not have a water table that would impact the proposed roadway. The subdrain, cleanouts, and outfall have been added to sheet C8. Detail for the subdrain has been added to sheet C9.3. Waiver request form for §300-10.D.(5) has been included.* **BETA2: Subdrain provided – issue resolved.**
- S15. Revise the grade of the cul-de-sac to be no greater than 3.0% in accordance with §300-10.D.(6). *ASE: The proposed grade has been revised to a maximum of 3%.* **BETA2: Grade revised – issue resolved.**
- S16. Revise the roadway cross-section to indicate that the gravel base shall meet M1.03.0 type B of the Standard Specifications (§300-10.F.(3)(a)). *ASE: Revised detail to include M1.03.0 type B gravel base.* **BETA2:** Reference provided. Fix "M103.1" typo on the roadway callout on the final plan set. *DPE: M1.03.0 type B gravel base is correctly called out on the roadway cross-section in the revised plans.* **BETA3: Callout corrected – issue resolved.**
- S17. Revise the Residential Driveway Entrance detail to include two-foot granite radius pieces and transition pieces if the Board allows the use of slant granite curbing (§300-10.F.(4)(a) and (b)). *ASE: Revised radius of driveway entrance to two-foot radius.* **BETA2:** Provide a detail or depict the radius stones for clarity. *DPE: The Residential Driveway Entrance detail has been revised to include two-foot granite radius pieces.* **BETA3: Radius stones provided – issue resolved.**

§300-11 STORMWATER MANAGEMENT

- S18. Recommend including a short vertical crest curve or similar measure at the intersection of the proposed roadway and Washington Street to prevent roadway runoff from entering the subdivision. *ASE: The proposed profile has been revised to include a short vertical curve at the site entrance.* **BETA2: Profile revised – issue resolved.**
- S19. Provide an overflow for the drywell that receives flow from CB4. In the event that the drywell loses infiltration capacity over time it would result in ponding on the roadway. *ASE: The proposed drywell has been removed.* **BETA2: Drywall removed – issue dismissed.**
- S20. Include notes and details for handling stormwater following placement of binder course. All catchment structures and mitigation features must be fully operational at the time of paving and an edge treatment such as curb or temporary berm must be installed. The Board does not accept dribble berm as an adequate stormwater control due to ease of compaction/damage by construction equipment. *ASE: A note has been added to the catch basin detail as well as note General Note 10 indicating catch basins to be set at binder elevation.* **BETA2:** Note provided regarding rim grades; however, an edge treatment is still required to direct stormwater to the structures – issue remains outstanding. *DPE: A note has been added to the General Notes instructing the contractor to install curbing or temporary berm along the edge of pavement prior to the placement of the binder course.* **BETA3: Note provided – issue resolved.**
- S21. A waiver has been requested from the requirements of §300-11.A.(7)(a) to allow the minimum distance from the edge of the maximum pond water surface elevation to be less than 20 feet to the property line. BETA recommends for the Board to determine if this requirement is applicable to the roadway right-of-way, or solely buildable lots. *ASE: Acknowledged.* **BETA2: BETA anticipates this requirement is related to buildable lots unless otherwise directed. No further comment.**
- S22. Revise drainage pipe to be Class III RCP, or in the case where cover is less than 42”, Class V RCP (§300-11.B.(2)(a)). Pipe with less than 42” of cover will require a waiver from the Board. *ASE: Pipes with less than 42” have been revised to Class V RCP.* **BETA2:** Class V RCP provided where cover is less than 42”. Revise HDPE pipe in stormwater basins to be RCP. *DPE: 6” PVC pipe is required in the stormwater basins for the low flow outlets. All other pipe has been revised to Class III or Class V RCP pipe where appropriate.* **BETA3: Piping revised to RCP, where possible – issue resolved.**
- S23. Provide a Type B winged headwall at the outlet to the infiltration basin or request a waiver for the use of a flared end section (§300-11.B.(2)(c)). *ASE: Headwalls have been proposed on all outlets/inlets from the drainage system.* **BETA2:** Clarify intended design. “HW” is depicted on the plans, but a flared end section is included in the details. *DPE: A reference to Franklin Subdivision Regulations 300 Attachment 2:4 has been added to the plan.* **BETA3: Design clarified – issue resolved.**
- S23A.** **BETA2:** Revise the Definitive Plan to locate the stormwater management ponds on a separate lot of sufficient size with sufficient access (§300-11.A.(4)) or request a waiver from the Planning Board. At a minimum, it appears the drainage features on Parcel A could be included on a separate Parcel. There is also no defined access to Infiltration Basin 1, which is located at the bottom of 5:1 slopes or steeper.

DPE: The Definitive Plan has been revised to show the stormwater basins on a separate lot. Grading has been revised to show access to Infiltration Basin 1. BETA3: Lot layout revised to include stormwater basins on Parcel "A." BETA defers to the DPW to confirm that the provided access is adequate.

§300-12 UTILITIES

- S24. Based on the proposed elevations of the development (between 310 to 340), consult the DPW to determine if individual booster pumps are required for the water supply (§300-12.A.(1)). *ASE: Proposed finish floors for the homes will be between 312 and 317. Note 21 has been added to the plans 'Proposed homes may require individual booster pumps. Home builder to determine if booster pumps are necessary at time of building permit'. Note, the site is at a lower elevation than Bogan Way subdivision, currently under construction, adjacent to the site. BETA2: Note provided. BETA defers to the DPW for additional information on anticipated water pressure. DPE: Per the DPW water pressure at the highest home (T.F.=318.50) is 50 psi. BETA3: BETA defers to the DPW on this issue.*
- S25. Revise hydrant locations to be within the right-of-way and if acceptable to the Fire Chief, revise locations to be at the back of sidewalk (§300-12.A.(2)(e)). Also indicate that hydrant lines shall be 6". *ASE: Revised hydrant locations to within the right-of-way and added 6" line leader. BETA2: Hydrant locations revised. BETA defers to the Fire Chief to confirm the proposed locations of hydrants are acceptable. DPE: Deputy Fire Chief has approved the proposed locations of the hydrants. BETA3: No further comment.*
- S26. Revise Light Pole detail to indicate that luminaire shall be an LED in accordance with DPW standards. *ASE: Revised Light Pole Detail. BETA2: Detail revised. In accordance with latest subdivision amendments, attached for reference, indicate additional luminaire requirements on detail. DPE: Additional luminaire requirements have been added to the detail. BETA3: Information provided. Issue resolved.*
- S27. Provide a note that all water and sewer utility installations shall be done in accordance with the Town of Franklin Department of Public Works Standards for Sewer and Water Materials and Installation (Town Standards). Also note that where utility installation details conflict with the Town Standards that the Town Standards shall govern. *ASE: Note 18 has been added to the General Notes. BETA2: Note provided – issue resolved.*

§300-13 OTHER IMPROVEMENTS

- S28. The applicant has requested a waiver from §300-13.A.(1) and proposes a sidewalk on one side of the roadway. BETA notes the Board typically requires the installation of vertical granite curb when granting this waiver for sidewalks. *ASE: The roadway has been revised to vertical granite curb. BETA2: Vertical granite curbing proposed. Revise curb detail leaders to correctly identify locations of curb and dense grade. Also update curb type to be Type VA with a reveal of 7". DPE: Curb detail leaders have been revised to identify locations of curb and dense grade. Curb type and reveal have been updated to Type VA (M9.04.1) with 7" of reveal. BETA3: Detail revised. Issue resolved.*
- S29. Revise sidewalk to be 5" thick concrete in accordance with §300-13.A.(1). BETA notes the Board typically requires sidewalks through driveway areas to be at a continuous grade and for the driveway apron to the back of sidewalk to be concrete. *ASE: Revised sidewalk to Class A 5"*

concrete. The driveway aprons have been revised to concrete. The driveway details have been updated to show the concrete apron and noted to maintain sidewalk graded and cross slope and slope apron to sidewalk. BETA2: Driveway detail revised. Clarify the limits of concrete on Section A-A and ensure dimensions are consistent with Plan view. DPE: *The residential driveway detail has been revised to clarify the limits of concrete.* **BETA3: Detail revised – issue resolved.**

- S30. In coordination with the DPW, consider providing an access easement to the Town at the northwest corner of Lot 1 to allow an ADA compliant sidewalk to be constructed around the existing utility pole in the future. ASE: *Added access/sidewalk easement to plan.* **BETA2: Easement provided – issue resolved.**
- S31. Remove the accessible ramp at the intersection of Washington Street. Directing pedestrians into the roadway at this location is not encouraged. ASE: *Removed accessible ramp at the intersection of Washington Street.* **BETA2: Ramp removed – issue resolved.**
- S32. Revise cross-section to indicate that side slopes shall be a maximum of 3:1 (§300-13.C.(1)). ASE: *Revised side slopes to 3:1.* **BETA2: Cross-section revised – issue resolved.**
- S33. In conjunction with comment SC1, provide a bound at the point of tangency along the proposed right-of-way near the northwest corner of Lot 1 (§300-13.D.(1)(a)). ASE: *Added bound to point of tangency.* **BETA2: Bound provided – issue resolved.**
- S34. Provide a detail for the proposed bounds. ASE: *Added concrete bound detail.* **BETA2: Detail provided – issue resolved.**
- S35. Provide street signs (§300-13.F(1)). ASE: *Added street sign to and stop sign to Sheet C6.* **BETA2: Signs added – issue resolved.**
- S36. BETA2: Review proposed landscaping plan and revise as necessary to coordinate proposed plantings with driveways, existing tree lines, and avoiding steep slopes. DPE: *Landscaping plan has been revised.* **BETA3: Landscaping plan revised – issue resolved.**

STORMWATER MANAGEMENT

The project proposes a closed drainage system consisting of catch basin to manhole connections within the proposed roadway. Runoff from these systems will discharge to several infiltration structures designed to attenuate flows.

GENERAL

- SW1. The Town Council recently approved changes to the Stormwater Management Bylaw (Chapter 153), which incorporate additional requirements to comply with the Town's MS4 permit. As a new development, provide documentation that demonstrates the proposed stormwater management systems will retain the 1" runoff volume or remove 90% TSS and 60% total phosphorus for post-construction impervious surfaces. ASE: *The proposed design fully infiltrates 1" of runoff volume. See the stormwater report for calculations (Water Quality Section).* **BETA2: Calculations provided – issue resolved.**
- SW2. At the discretion of the DPW, remove the subsurface infiltration system and leaching basin and provide an alternative, such as a surface infiltration basin. ASE: *The subsurface system has been*

removed and replaced with an above ground infiltration basin. BETA2: Subsurface systems removed – issue resolved.

- SW3. Provide a weir through the infiltration basin overflow rip rap, such as curbing, to prevent premature discharge through the stone. *ASE: An emergency overflow weir detail has been added to the plan with a curb outlet. BETA2: Weir provided – issue resolved.*

MASSACHUSETTS STORMWATER MANAGEMENT STANDARDS:

The proposed development will disturb greater than one acre and it located in proximity to wetland resource areas; therefore, the project is subject to Chapter 153: Stormwater Management of the Town of Franklin Bylaws and MassDEP Stormwater Management Standards.

No untreated stormwater (Standard Number 1): *No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*

The project does not propose any new untreated discharges to wetlands. Discharges from stormwater basins are within or near to wetland buffer zones; however, rip rap aprons are proposed to mitigate erosion potential.

- SW4. Extend rip rap to the toe of slope on the infiltration basin overflow. *ASE: Extended rip rap to the toe of the slope. BETA2: Rip Rap extended. In the area of the overflow culverts, rip rap should be extended beyond the limits of the proposed 3:1 slope. DPE: Riprap aprons have been extended as far as the 25' wetland buffer allows. BETA3: Aprons extended and have been flared out to mitigate erosive velocities – issue resolved.*

- SW5. Provide rip rap pads for discharges to the sediment forebays. *ASE: Added rip rap pads to sediment forebay discharges. BETA2: Rip rap pads provided – issue resolved.*

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 to attenuate post-development peak discharge rates and volumes through the use of several infiltration basins and structures. Stormwater will be conveyed to these basins via catch basin to manhole connections.

- SW6. The total area of “1 acre lots, 20% impervious” included in the HydroCAD model is approximately 10,000 sq. ft. less than the sum of Lots 1-3. Revise cover type areas as necessary. *ASE: The HydroCAD model has been revised. Instead of using 1-acre lots 20% impervious, impervious areas were calculated based on the site plans. BETA2: Cover types revised – issue resolved.*

- SW7. Evaluate the impervious area totals used in the proposed condition HydroCAD calculations, which appear to be high. BETA notes that the surface area of the infiltration basin should be modeled as impervious to avoid “double-counting” infiltration. *ASE: Pond Bottoms were broken out as separate subcats with a Ponding 98 CN and a TC of 0 per HydroCAD modeling guidance (<https://www.hydrocad.net/pond.htm>). BETA2: Model revised – issue resolved.*

- SW8. In consideration that the development of Lot 4 will be part of a future Site Plan, revise the stormwater report calculations and descriptions to be reflective of the current development only. *ASE: The future development has been removed from the calculations. BETA2: Calculation revised – issue resolved.*

- SW9. Provide justification for the use of exfiltration rates between 2.41 in/hr and 4.27 in/hr in the infiltration BMPs. Five out of the six test pit logs in these areas indicate the presence of sandy loam, associated with a Rawls rate of 1.02 in/hr. *ASE: Infiltration rates have been revised to 1.02 in/hr. BETA2: Infiltration rates revised – issue resolved.*
- SW10. Provide an outlet control structure for the infiltration basin and reserve the rip rap overflow weir for emergency overflows only. *ASE: Pond calculations have been revised. The weir has been reserved for emergency use only and culverts used to control flow out of the pond. BETA2: Outlets revised. The use of an outlet control structure or trash rack at the outlet culvert is recommended to minimize clogging potential. DPE: The low flow outlet contains a trash rack element to minimize clogging potential. BETA3: Detail provided – issue resolved.*
- SW10A. **Review culvert invert for Pond IB1. The invert elevation does not match that listed on the plans.** *DPE: Culvert invert elevations are consistent in the revised plan set and HydroCAD model. BETA3: Inverts corrected – issue resolved.*

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 the presence of Charlton-Hillis-Rock complex throughout the area of proposed development and is associated Hydrologic Soil Group (HSG) ratings of A or B (moderate to high infiltration potential). Recharge is proposed using several infiltration structures. Calculations indicate the project will provide a recharge volume in excess of that required and that infiltration BMPs will drain within 72 hours.

- SW11. Soil logs located within the proposed infiltration basin indicate seasonal high groundwater is within 4 feet of the basin bottom. Revise basin to provide 4 feet of separation or provide the required mounding analysis. *ASE: The proposed infiltration basins have been revised and provide 4 feet of separation. BETA2: There does not appear to be any revisions to the bottom elevation of Infiltration Basin No. 1 – issue remains outstanding. DPE: The grading within Infiltration Basin No. 1 has been revised. The pond has been raised to a bottom elevation of 302. Additionally, the bottom on the eastern side of the basin has been sloped to provide separation of at least 4' to the seasonal high groundwater. BETA3: Required separation provided – issue resolved.*
- SW12. In conjunction with comment SW9, revise drawdown calculations to be reflective of the Rawls rate associated with sandy loam. Also provide drawdown calculation for the drywell. *ASE: The draw down calculations have been revised. BETA2: Calculation revised – 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 roadway and surrounding lawns through closed drainage systems consisting of deep sump catch basins with hoods, manholes, and piping. The systems will discharge to one of several infiltration structures, including a surface infiltration basin with sediment forebays for pretreatment. The proposed BMPs will treat a water quality volume that exceeds that of the proposed impervious increase and will provide the minimum required 80% TSS removal.

- SW13. Remove the 25% treatment credit for the sediment forebay at the infiltration basin. The required forebay is not considered a separate credit from the 80% associated with the basin (Stormwater Handbook Volume 2, Chapter 2, page 13). *ASE: Revised TSS Removal Worksheet. BETA2: Worksheets revised – 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 does not propose any land uses with Higher Potential Pollutant Loads – **not applicable.**

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 – **not applicable.**

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

Although the project is considered a mixture of new and redevelopment, it appears practicable to fully meet all the Stormwater Standards. Revise the narrative, as necessary.

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 in excess of 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 and sock/filter combination) and catch basin inlet protection.

SW14. Remove silt fence, which is not permitted by the Conservation Commission, from proposed erosion and sedimentation control details and O&M procedures. Recommend using a 12" minimum diameter compost filter tube or sock for perimeter erosion controls. *ASE: Removed Silt Fence and added 12" diameter compost filter sock.* **BETA2:** Silt fence eliminated. Revise limits of barrier to include all grading areas near the end of the cul-de-sac. *DPE: Limits of barrier have been revised to include all grading areas.* **BETA3: Limits of barrier revised – issue resolved.**

SW15. Provide a stabilized construction entrance (with detail) at Washington Street (minimum of 50' long x 20 feet wide). *ASE: Added a stabilized construction entrance to plans.* **BETA2: Construction entrance and detail provided – issue resolved.**

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 was included as part of the Stormwater Management Report.

SW16. Revise the O&M Plan to be reflective of the BMPs proposed as part of the subdivision only. *ASE: Revised O&M Plan.* **BETA2: Plan revised – issue resolved.**

SW17. Revise Inspection Log form to reference the site address in Franklin. *ASE: Revised Inspection Log.* **BETA2: Location revised – issue resolved.**

SW18. Provide an estimated operations and maintenance budget. *ASE: Added estimated budget to operations and maintenance plan.* **BETA2: Estimated budget provided – issue resolved.**

SW19. Provide a plan (11x17 recommended) that depicts the locations of all BMPs and discharge points. *ASE: Added BMP Plan.* **BETA2: Plan provided – issue resolved.**

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

Mr. Gregory Rondeau, Chairman
December 01, 2021
Page 12 of 12

An Illicit Discharge Compliance Statement was provided.

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
Project Manager



Stephen Borgatti
Staff Engineer

cc: Amy Love, Town Planner
Jennifer Delmore, Conservation Agent

Job No: 4830 - 71



TOWN OF FRANKLIN

DEPARTMENT OF PUBLIC WORKS

Franklin Municipal Building
257 Fisher Street
Franklin, MA 02038-3026

December 1, 2021

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

RE: Definitive Subdivision – Olam Estates, Washington St

Dear Mr. Chairman and Members:

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

1. The applicant is requesting the following six waivers for the proposed subdivision:
 - a. To allow cuts and fills within the proposed right-of-way greater than 5 feet from existing grades – The designer has provide a balanced road profile with acceptable grades, we do not see an issue with the requested waiver.
 - b. To allow a dead end street longer than 600 feet – As designed the proposed roadway length is approximately 632 feet from the sideline of Washington St to the center of the cul-de-sac. The Board has typically not allowed waivers for roadway length.
 - c. To allow a stormwater basin's maximum water elevation within 20 feet of a property line – The Board added this setback to the Subdivision Regulations five years ago to protect adjacent properties from ponds constructed right at the property line.
 - d. To allow a stormwater basin's toe of the pond berm within 10 feet of a property line – The Board added this setback to the Subdivision Regulations five years ago to protect adjacent properties from ponds constructed right at the property line.
 - e. To allow PVC pipe to be used for a low flow outlet within the stormwater basins – We do not see an issue with this requested waiver, as the Board has allowed this type of use for certain portions of the stormwater system outside of the proposed roadway.
 - f. To allow the construction of only one sidewalk within the subdivision - We note that the applicant proposes to utilize vertical granite curb in place of sloped granite edging, and the Board has typically allowed this waiver in the past.

2. Under the proposed conditions, there is a slight increase in runoff rate for the 2-year event of 0.2 cfs. Although this is not a significant amount, this should be taken into account when designing the future development of the rear parcel.
3. The two drainage basins are designed with a low flow outlet pipe which are modelled with a riser and horizontal inlet. A detail for this should be included in the plans.
4. There is a detail for a monitoring well on the plans, however it is not clear where this is to be installed and for what purpose.
5. On the drainage plans, the overflow weirs have two different elevations noted for each basin. This discrepancy should be resolved.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'M Maglio', written in a cursive style.

Michael Maglio, P.E.
Town Engineer



FRANKLIN PLANNING & COMMUNITY DEVELOPMENT

355 EAST CENTRAL STREET, ROOM 120
FRANKLIN, MA 02038-1352
TELEPHONE: 508-520-4907
FAX: 508-520-4906

MEMORANDUM

DATE: November 30, 2021
TO: Franklin Planning Board
FROM: Department of Planning and Community Development
RE: Olam Estates
Definitive Subdivision Plan

The DPCD has conducted a review for the above referenced Definitive Subdivision Application for the Monday, December 6, 2021 Planning Board meeting and offers the following commentary:

General:

1. The applicant has submitted a Definitive Subdivision plan for a Conventional Subdivision on January 19, 2021.
2. The Planning Board has been given an extension for a decision date of January 1, 2022.
3. The proposal is located within the rural Residential I zoning district.
 - 40,000 sf of lot area
 - 200' of frontage
 - 180' diameter circle must fit within the lot
4. The Definitive plans indicates the development will be serviced by town water and individual on-site subsurface sewage disposal systems.
5. Applicant has submitted a Long Term Pollution and O&M Plan and Storm Water Management Report.

Waiver Requests:

- **§300-11.A.7.B – Distance from toe of pond berm to property line shall be min. 10'**
- **§300-13.A.1 – Sidewalk to be installed on one side of the road.**
- **§300-11.A.7.A – Distance from maximum pond water surface to property line and structure shall be 20'**
- **§300-10.D.5 – Right of way grade**
- **§300-10.E.2.4 – Requesting to exceed the 600' dead-end street**
- **§300-11.B.2.A – Requesting a waiver from non-RCP (PVC pipe) in the filtration basins**

Comments from the October 4, 2021 meeting:

1. The Planning Board requested the Applicant provide the location of the building and parking area on Lot 4. Applicant should show the proposed building for Lot 4 on the plans.
2. Town Water shall require a By-Law Amendment from the Town Council. Each lot will have individual septic systems.
3. The construction of the roadway and storm water system will require a permit through the Conservation Commission. The next meeting with Conservation is December 16.

4. Planning Board should determine if they will allow the waivers listed above.
5. The Planning Board requested the abutters be notified of the hearing (for a second time). The Engineer has indicated the notification was sent to all abutters on November 18.
6. DPCD defers to DPW and BETA to comment on drainage and roadway layout.



November 11, 2021

Franklin Planning Board
355 East Central Street
Franklin, MA 02038

RE: Olam Estates
Franklin, MA
3003-001

Dear Members of the Board:

DiPrete Engineering has received your comments submitted to your office by BETA Group, Inc., dated September 29th, 2021. We have reviewed these comments and offer the following in response. The original comments are provided in italics with responses in bold.

Findings, Comments, and Recommendations

- G4. *A retaining wall is proposed within the cul-de-sac right-of-way and it is noted that shop drawings will be provided. In consideration that the Town will likely take ownership of the wall the developer should work with the Town to select a limited number of acceptable wall designs/manufacturers. Plans should also be updated to provide top and bottom of wall elevations, and fencing should be provided along the top of the wall for fall protection.*

The retaining wall has been removed from the revised plans.

Subdivision Regulations

- S5. *Provide grade stakes in accordance with §300-8.C.(10) or request waiver from the Board. ASE: General Note 19 added to the plans indicating for this to be done prior to construction. BETA2: BETA defers to the preference of the Board on this issue.*

DiPrete agrees with BETA on this issue.

- S8. *Based upon the anticipated traffic from the future development of Lot 4, reassess the classification of the proposed roadway and revise the width as necessary (§300-10.A.(2)). ASE: The proposed subdivision roadway is designed with a 26-foot width which is required for a minor street classification roadway. We have assessed this width and believe it is adequate and unnecessary to widen the roadway and increase impervious area to the major width requirement of 28 feet. Minimal traffic will be generated from the proposed three single family homes. The proposed potential future temple on Lot 4 will be designed with adequate on-site parking meeting the Town requirements. Therefore, we don't expect the need for any on street parking and this use would have offset peak times of normal heavy traffic times such as Sunday mornings. The proposed roadway is also a dead end and there is no other development beyond this. We believe the 26-foot width is adequate for the development. BETA2: BETA notes that the 26-foot pavement width meets the Town's Bylaw for the current residential subdivision being proposed; however, a waiver may be required in the future, depending on the number of trips generated by the temple. It is anticipated that the temple will generate the overwhelming*

majority of its trips in a short period of time and traffic or emergency service operations may be adversely impacted if residential vehicles are parked on the street. Recommend for the proponent to provide the estimated trips for the Temple and to discuss any considerations on parking restrictions with the Board.

The roadway has been widened to 28 feet.

- S10. *Revise the width of the roadway to match that required for the reassessed classification necessary (§300-10.C.(1)). ASE: See response for S8. BETA2: Refer to comment S8.*

The roadway has been widened to 28 feet.

- S11. *A waiver has been requested to allow the grade of the roadway to be less than the required minimum of 1.5% (§300-10.D.(2)). While the proposed short segment of 1.1% is not concerning from a safety perspective, typical construction tolerances may result in flatter grades or areas that do not drain well. In conjunction with the Board's request to provide a "no waiver" plan, reevaluate if a 1.5% grade can be provided. ASE: The proposed profile has been revised to be greater than 1.5%. BETA2: Roadway grade revised. Update Subdivision Dimensional Requirements on cover sheet to reflect current provided grade and that no waiver is requested.*

Subdivision Dimensional Requirements on cover sheet have been revised.

- S12. *Provide an earthwork estimate to confirm conformance with §300-10.D.(1). Earth removal of greater than 1,000 cubic yards of material requires a special permit by the Board of Appeals (§185-23). ASE: Based on a direct surface to surface comparison and excluding import materials, The site is approximately 2,700 yards of net cut. Note 20 has been added to the plans 'Excess fill materials to be stockpiled for future project phases'. The future phase of the development will need material for construction. BETA2: Information provided. Given the significance of the cut materials, indicate where the materials will be stockpiled and confirm erosion and sedimentation notes will require the stockpiled material to be stabilized.*

Material stockpile area is called out on the revised Soil Erosion and Sediment Control sheet of the revised plan set.

- S16. *Revise the roadway cross-section to indicate that the gravel base shall meet M1.03.0 type B of the Standard Specifications (§300-10.F.(3)(a)). ASE: Revised detail to include M1.03.0 type B gravel base. BETA2: Reference provided. Fix "M103.1" typo on the roadway callout on the final plan set.*

M1.03.0 type B gravel base is correctly called out on the roadway cross-section in the revised plans.

- S17. *Revise the Residential Driveway Entrance detail to include two-foot granite radius pieces and transition pieces if the Board allows the use of slant granite curbing (§300-10.F.(4)(a) and (b)). ASE: Revised radius of driveway entrance to two-foot radius. BETA2: Provide a detail or depict the radius stones for clarity.*

The Residential Driveway Entrance detail has been revised to include two-foot granite radius pieces.

S20. *Include notes and details for handling stormwater following placement of binder course. All catchment structures and mitigation features must be fully operational at the time of paving and an edge treatment such as curb or temporary berm must be installed. The Board does not accept dribble berm as an adequate stormwater control due to ease of compaction/damage by construction equipment. ASE: A note has been added to the catch basin detail as well as note General Note 10 indicating catch basins to be set at binder elevation. BETA2: Note provided regarding rim grades; however, an edge treatment is still required to direct stormwater to the structures – issue remains outstanding.*

A note has been added to the General Notes instructing the contractor to install curbing or temporary berm along the edge of pavement prior to the placement of the binder course.

S21. *A waiver has been requested from the requirements of §300-11.A.(7)(a) to allow the minimum distance from the edge of the maximum pond water surface elevation to be less than 20 feet to the property line. BETA recommends for the Board to determine if this requirement is applicable to the roadway right-of-way, or solely buildable lots. ASE: Acknowledged. BETA2: BETA anticipates this requirement is related to buildable lots unless otherwise directed. No further comment.*

DiPrete agrees with BETA on this issue.

S22. *Revise drainage pipe to be Class III RCP, or in the case where cover is less than 42", Class V RCP (§300-11.B.(2)(a)). Pipe with less than 42" of cover will require a waiver from the Board. ASE: Pipes with less than 42" have been revised to Class V RCP. BETA2: Class V RCP provided where cover is less than 42". Revise HDPE pipe in stormwater basins to be RCP.*

6" PVC pipe is required in the stormwater basins for the low flow outlets. All other pipe has been revised to Class III or Class V RCP pipe where appropriate.

S23. *Provide a Type B winged headwall at the outlet to the infiltration basin, or request a waiver for the use of a flared end section (§300-11.B.(2)(c)). ASE: Headwalls have been proposed on all outlets/inlets from the drainage system. BETA2: Clarify intended design. "HW" is depicted on the plans, but a flared end section is included in the details.*

A reference to Franklin Subdivision Regulations 300 Attachment 2:4 has been added to the plan.

S23A. *Revise the Definitive Plan to locate the stormwater management ponds on a separate lot of sufficient size with sufficient access (§300-11.A.(4)) or request a waiver from the Planning Board. At a minimum, it appears the drainage features on Parcel A could be included on a separate Parcel. There is also no defined access to Infiltration Basin 1, which is located at the bottom of 5:1 slopes or steeper.*

The Definitive Plan has been revised to show the stormwater basins on a separate lot. Grading has been revised to show access to Infiltration Basin 1.

S24. *Based on the proposed elevations of the development (between 310 to 340), consult the DPW to determine if individual booster pumps are required for the water supply (§300-12.A.(1)). ASE: Proposed finish floors for the homes will be between 312 and 317. Note 21 has been added to the plans 'Proposed homes may require individual booster pumps. Home builder to determine if*

booster pumps are necessary at time of building permit'. Note, the site is at a lower elevation than Bogan Way subdivision, currently under construction, adjacent to the site. BETA2: Note provided. BETA defers to the DPW for additional information on anticipated water pressure.

Per the DPW water pressure at the highest home (T.F.=318.50) is 50 psi.

- S25. *Revise hydrant locations to be within the right-of-way and if acceptable to the Fire Chief, revise locations to be at the back of sidewalk (§300-12.A.(2)(e)). Also indicate that hydrant lines shall be 6". ASE: Revised hydrant locations to within the right-of-way and added 6" line leader. BETA2: Hydrant locations revised. BETA defers to the Fire Chief to confirm the proposed locations of hydrants are acceptable.*

Deputy Fire Chief has approved the proposed locations of the hydrants.

- S26. *Revise Light Pole detail to indicate that luminaire shall be an LED in accordance with DPW standards. ASE: Revised Light Pole Detail. BETA2: Detail revised. In accordance with latest subdivision amendments, attached for reference, indicate additional luminaire requirements on detail.*

Additional luminaire requirements have been added to the detail.

- S28. *The applicant has requested a waiver from §300-13.A.(1) and proposes a sidewalk on one side of the roadway. BETA notes the Board typically requires the installation of vertical granite curb when granting this waiver for sidewalks. ASE: The roadway has been revised to vertical granite curb. BETA2: Vertical granite curbing proposed. Revise curb detail leaders to correctly identify locations of curb and dense grade. Also update curb type to be Type VA with a reveal of 7".*

Curb detail leaders have been revised to identify locations of curb and dense grade. Curb type and reveal have been updated to Type VA (M9.04.1) with 7" of reveal.

- S29. *Revise sidewalk to be 5" thick concrete in accordance with §300-13.A.(1). BETA notes the Board typically requires sidewalks through driveway areas to be at a continuous grade and for the driveway apron to the back of sidewalk to be concrete. ASE: Revised sidewalk to Class A 5" concrete. The driveway aprons have been revised to concrete. The driveway details have been updated to show the concrete apron and noted to maintain sidewalk graded and cross slope and slope apron to sidewalk. BETA2: Driveway detail revised. Clarify the limits of concrete on Section A-A and ensure dimensions are consistent with Plan view.*

The residential driveway detail has been revised to clarify the limits of concrete.

- S36. *Review proposed landscaping plan and revise as necessary to coordinate proposed plantings with driveways, existing tree lines, and avoiding steep slopes.*

Landscaping plan has been revised.

- SW4. *Extend rip rap to the toe of slope on the infiltration basin overflow. ASE: Extended rip rap to the toe of the slope. BETA2: Rip Rap extended. In the area of the overflow culverts, rip rap should be extended beyond the limits of the proposed 3:1 slope.*

Riprap aprons have been extended as far as the 25' wetland buffer allows.

SW10. Provide an outlet control structure for the infiltration basin and reserve the rip rap overflow weir for emergency overflows only. ASE: Pond calculations have been revised. The weir has been reserved for emergency use only and culverts used to control flow out of the pond. BETA2: Outlets revised. The use of an outlet control structure or trash rack at the outlet culvert is recommended to minimize clogging potential.

The low flow outlet contains a trash rack element to minimize clogging potential.

SW10A. Review culvert invert for Pond IB1. The invert elevation does not match that listed on the plans.

Culvert invert elevations are consistent in the revised plan set and HydroCAD model.

SW11. Soil logs located within the proposed infiltration basin indicate seasonal high groundwater is within 4 feet of the basin bottom. Revise basin to provide 4 feet of separation or provide the required mounding analysis. ASE: The proposed infiltration basins have been revised and provide 4 feet of separation. BETA2: There does not appear to be any revisions to the bottom elevation of Infiltration Basin No. 1. – Issue remains outstanding.

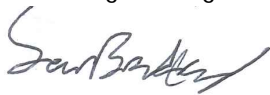
The grading within Infiltration Basin No. 1 has been revised. The pond has been raised to a bottom elevation of 302. Additionally, the bottom on the eastern side of the basin has been sloped to provide separation of at least 4' to the seasonal high groundwater.

SW14. Remove silt fence, which is not permitted by the Conservation Commission, from proposed erosion and sedimentation control details and O&M procedures. Recommend using a 12" minimum diameter compost filter tube or sock for perimeter erosion controls. ASE: Removed Silt Fence and added 12" diameter compost filter sock. BETA2: Silt fence eliminated. Revise limits of barrier to include all grading areas near the end of the cul-de-sac.

Limits of barrier have been revised to include all grading areas.

Please, feel free to contact me if you have any further questions regarding this matter.

Sincerely,
DiPrete Engineering Associates, Inc.



Sean Bradley
Civil Engineer
sbradley@diprete-eng.com



Brian Giroux, PE
Director of Engineering and Design
bgiroux@diprete-eng.com

cc: Recipients Name (if applicable)

Enclosure (if applicable)



DiPrete Engineering

November 11, 2021

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

RE: Olam Estates Definitive Subdivision
Franklin, MA
Project #: 3003-001

Dear Mr. Chairman and Members:

DiPrete Engineering has received your comments dated September 27th, 2021. We have reviewed these comments and offer the following in response. The original comments are provided in italics with responses in bold.

NOTE to SPECIFY TOPIC:

1. *Extension of the water main into the proposed subdivision will require a Water Map Amendment approved by the Town Council.*

DiPrete acknowledges this comment.

2. *There is no town sewer available at this location, each lot will need to have its own septic system.*

DiPrete acknowledges that each lot will need its own septic system and will conduct additional soil evaluations for individual septic design.

3. *The second fire hydrant should be relocated from STA 4+25 to after the last services in the cul-de-sac.*

The second fire hydrant has been relocated to the end of the cul-de-sac. Additionally, DiPrete Engineering coordinated the fire hydrant locations with the Deputy Fire Chief.

4. *The domestic and fire services for the site plan on Lot 4 will need to be two separate services coming off the proposed water main.*

The revised plan set shows two separate water services for Lot 4.

5. *The applicant is requesting a waiver for constructing only one sidewalk. We note that the applicant proposes to utilize vertical granite curb in place of sloped granite edging.*

Acknowledged, DiPrete Engineering has coordinated the sidewalk and curbing with the Town reviewing engineer and presented the plan to the Planning Board.

6. *Subdivision Rules and Regulations require that stormwater management components be located on a separate lot of sufficient size and with sufficient access. Half of Drainage basin #2 is located on one of the building lots.*

Proposed lot lines have been revised to keep stormwater management components on a separate lot.

7. *We also note that the applicant is requesting waivers for placing the drainage basins closer to the property line than is allowed.*

DiPrete acknowledges this comment.

8. *Sample: Drainage basin #2 also has a proposed retaining wall located at the edge of the roadway limiting access for future maintenance of the pond. The proposed wall is an additional feature that would become the Town's responsibility and it should be eliminated from the design.*

The proposed retaining wall has been eliminated from the design.

9. *The revised drainage design shows an increase in runoff volume leaving the site for the 100 year event.*

The drainage design has been revised to eliminate the increase in runoff volume leaving the site for the 100 year event.

10. *The Town's stormwater design criteria for new developments require retaining a volume of runoff of at least 1 inch over the total post-construction impervious area. The designer should verify this criteria is met.*

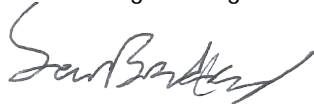
DiPrete has verified that this criteria has been met.

11. *The inlet to the 10" HDPE outfall pipe for Infiltration Basin #1 has a different elevation on the plan than what is shown in the stormwater report.*

Invert elevations on the plan and HydroCAD reports have been verified.

Please, feel free to contact me if you have any further questions regarding this matter.

Sincerely,
DiPrete Engineering Associates, Inc.



Sean Bradley
Civil Engineer
sbradley@diprete-eng.com



Brian Giroux, PE
Director of Engineering and Design
bgiroux@diprete-eng.com

cc: *Recipients Name (if applicable)*

Enclosure (if applicable)

**Form R:
Franklin Planning Board
Subdivision Waiver Request**

Prepared by: Brian Giroux, PE

Signed:



Subdivision: Olam Estates

Date: 11/12/2021

Nature of Waiver:

Requesting a waiver for a dead-end roadway with a length exceeding 600 feet.

Subdivision Rules and Regulation Reference:

300-10.E.2.4- Dead-end streets shall be no longer than 600'

Reason the waiver is requested:

Our proposed center line is 693 feet, while the roadway per the definition in the subdivision regulations is 632 feet. The cul-de-sac was shifted to allow for a larger infiltration pond, increasing the length of the roadway. The cul-de-sac on the shorter roadway would force construction in the 25-foot wetland buffer.

Alternatives to granting the waiver:

The alternative would be a smaller infiltration basin which would not mitigate the discharge volume for the 100-year event or would force construction in the 25-foot wetland buffer

Impact of waiver denial on the project:

If not granted, the stormwater discharge volume may increase. The cul-de-sac on the shorter roadway would force construction in the 25-foot wetland buffer.

Reasons this waiver is in the best interests of the Town and consistent with the intent and purpose of the Subdivision Control Law:

The longer roadway allows for an adequate stormwater management system.

**Form R:
Franklin Planning Board
Subdivision Waiver Request**

Prepared by: Brian Giroux, PE

Signed:



Subdivision: Olam Estates

Date: 11/12/2021

Nature of Waiver:

Requesting a waiver for non-RCP (PVC pipe) in the infiltration basins.

Subdivision Rules and Regulation Reference:

300-11.B.2.A- The drainage pipe shall be reinforced concrete, with bell and spigot gasketed joints.

Reason the waiver is requested:

We are requesting a waiver from this regulation to allow the use of a PVC low flow outlet to control stormwater discharge rates to the wetlands

Alternatives to granting the waiver:

The alternative would require using RCP pipe which would increase stormwater discharge rates to the wetland.

Impact of waiver denial on the project:

If not granted, the stormwater discharge rates may increase.

Reasons this waiver is in the best interests of the Town and consistent with the intent and purpose of the Subdivision Control Law:

There is no PVC pipe proposed within the right-of-way and allows the design to mitigate peak discharge rates to the wetland.

**Form R:
Franklin Planning Board
Subdivision Waiver Request**

Prepared by: Brian Giroux, PE

Signed:



Subdivision: Olam Estates

Date: 9/17/2021

Nature of Waiver:

Requesting a waiver to allow cuts greater than 5'

Subdivision Rules and Regulation Reference:

300-10.D.5- Right of way grade. Proposed grades within the right of way shall not be more than 5' above or below the existing grades unless specifically authorized by the Board in unusual topographical circumstances.

Reason the waiver is requested:

We are requesting a waiver from this regulation due to unusual topographical circumstances.

Alternatives to granting the waiver:

The alternative would require alternative grading which may require grading within the wetland.

Impact of waiver denial on the project:

If not granted, the grading may extend into the wetland and buffer.

Reasons this waiver is in the best interests of the Town and consistent with the intent and purpose of the Subdivision Control Law:

The site has kept cuts below 5' to the maximum extent possible with the unusual topographical circumstances on site.

**Form R:
Franklin Planning Board
Subdivision Waiver Request**

Prepared by: Brian Giroux, PE

Signed:



Subdivision: Olam Estates

Date: 9/17/2021

Nature of Waiver:

Requesting a waiver to allow stormwater BMPS closer than 20' to the property line.

Subdivision Rules and Regulation Reference:

300-11.A.7.A- Distance from maximum pond water surface to property line and structure shall be 20'.

Reason the waiver is requested:

We are requesting a waiver from this regulation in order to keep the stormwater BMPS out of the 25' wetland buffer area.

Alternatives to granting the waiver:

The alternative would be to move the BMPS closer to the wetlands and buffers.

Impact of waiver denial on the project:

If not granted, the BMPS would be located closer to the wetlands and buffers.

Reasons this waiver is in the best interests of the Town and consistent with the intent and purpose of the Subdivision Control Law:

The site has located the stormwater BMPS away from the property line to the maximum extent possible without altering wetlands and wetland buffers.

**Form R:
Franklin Planning Board
Subdivision Waiver Request**

Prepared by: Brian Giroux, PE

Signed:



Subdivision: Olam Estates

Date: 9/17/2021

Nature of Waiver:

Requesting a waiver to allow stormwater BMPS berm to be closer than 10' to the property line.

Subdivision Rules and Regulation Reference:

300-11.A.7.B- Distance from toe of pond berm to property line shall be min. 10'.

Reason the waiver is requested:

We are requesting a waiver from this regulation in order to keep the stormwater BMPS out of the 25' wetland buffer area.

Alternatives to granting the waiver:

The alternative would be to move the BMPS closer to the wetlands and buffers.

Impact of waiver denial on the project:

If not granted, the BMPS would be located closer to the wetlands and buffers.

Reasons this waiver is in the best interests of the Town and consistent with the intent and purpose of the Subdivision Control Law:

The site has located the stormwater BMPS away from the property line to the maximum extent possible without altering wetlands and wetland buffers.

**Form R:
Franklin Planning Board
Subdivision Waiver Request**

Prepared by: Brian Giroux, PE

Signed:



Subdivision: Olam Estates

Date: 9/17/2021

Nature of Waiver:

Requesting a waiver from both sides, to allow sidewalks only on one side of the road.

Subdivision Rules and Regulation Reference:

300-13.A.1- Sidewalk required on both sides of the road.

Reason the waiver is requested:

We are requesting to put sidewalks only on one side of the road due to topography on the west side of the roadway and lack of any residential homes on that side of the development.

Alternatives to granting the waiver:

None

Impact of waiver denial on the project:

If not granted, due to the topography of the west side of the site, the roadway drainage would need to be relocated closer to the wetland areas and potentially within buffer areas.

Reasons this waiver is in the best interests of the Town and consistent with the intent and purpose of the Subdivision Control Law:

The development would still provide sidewalk accessibility without having to alter the wetlands on site.