RJOC & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS
80 Montvale Ave., Suite 201
Stoneham, MA 02180
781-279-0180 www.rjoconnell.com

February 12, 2024

Franklin Zoning Board of Appeals
Bruce Hunchard, Chair
355 East Central Street
Franklin, MA 02038

Regarding: Response to Comprehensive Permit Peer Review #2
121 Grove Street
Franklin, MA
Job #22016

Dear Mr. Hunchard:

RJ O'Connell & Associates (RJOC) has reviewed Hancock Associates (HA) comments dated February 12, 2024, on our responses to their initial comments. We have prepared responses in this letter to the remaining comments that require additional information. Appendix A, attached to this letter lists the current set of plans and stormwater report for the record.

Hancock Associates peer review comments are listed below in *italics*, followed by RJOC responses in **bold**. (Please note, any previous comment listed by HA as "No further comment required" or "Hancock is satisfied with this response" have been removed from this response).

ZONING COMPLIANCE

Initial HA Comment Z2*: The proposal requests a waiver from Section 185-21.B.(3) Parking Loading and Driveway Requirements for two spaces per unit, proposing 1.6 per unit. Given the project is 1.8 miles from the Forge Park MBTA Commuter Rail Station, we feel this parking ratio is a bit low. Suburban multi-family projects should provide 1.75 spaces per unit. There are an additional 17 spaces provided at the clubhouse and Buildings 1, 2, and 4 are close to or above the 1.75 mark. The Applicant should look to add spaces at Buildings 3 and 4.*

Initial RJOC Response: This comment aligns with Fairfield's position that approximately 1.74 spaces per unit is an appropriate ratio. As such, a total of 574 spaces are proposed. The parking distribution provides for access to the clubhouse, appropriate ADA compliance and some covered parking. Convenient pedestrian connections are provided in order to accommodate access to parking in other areas of the Site as needed.

2/12/24 HA Comment: Hancock still believes Building 3 and 4 mat still have insufficient parking. Given the distances between the additional parking and the entry points for Buildings 3 and 4 it

may be unreasonable to think people are going to park and walk. Hancock defers to the Board in its deliberation of the parking waiver on this item.

RJOC Response: Based on Fairfield's experience the parking ratio and distribution shown on the plans is appropriate. Property management will coordinate parking with the tenants.

***Initial HA Comment Z4**: The proposal requests waivers from setback from accessory structures (retaining walls) to front and side lot lines. The plans and waiver list do not identify the setbacks provided. These should be enumerated in both the plans and waiver list. The retaining walls to the south of Building 1 abut the NGRID substation parcel and therefore the waiver is appropriate. The retaining wall between Building 3 and Grove Street may be of concern to the Board when also considering the waiver from Section 185-30 Tree Planting, where additional trees are required when buildings are proposed less than 150 feet from the right of way. Building 3 is proposed at 67.9 feet. The Bylaw calls for trees every 30 feet, the Landscape Plan depicts trees every 54 feet. It does not seem unreasonable to request the frequency of trees be increased in this area. The waiver for the retaining wall to the north of Building 5 seems appropriate given the neighboring property is the state forest.*

Initial RJOC Response: The setbacks for the proposed retaining walls to each of the property lines have been added to the Overall Site Plan, Sheet OS-1.

Section 185-30 states "Any lot abutting a right-of-way of 75 feet or more in which a building is constructed within 150 feet of the right-of-way must have trees planted at least every 30 feet in a row between 30 and 50 feet back from the right-of-way, unless a sufficient number of trees already exists." It is not clear if this means width of the right-of-way or length along the right-of-way. If it is width, this requirement does not apply as the Grove Street right of way is only 50 feet.

We believe the proposed landscaping and tree planting provided appropriate for the size and scale along Grove Street.

2/12/24 HA Comment: We differ to the Board on deliberating on this waiver. We repeat that compliance with the requirement for 30-foot tree spacing instead of 54 feet proposed is not unreasonable and would help offset the impact of the waiver.

RJOC Response: Comment acknowledged. The applicant defers to the Board on the interpretation of this zoning requirement and if the plan submitted would require this waiver.

EROSION CONTROL

***Initial HA Comment EC1**: The site development involves a significant amount of earthwork on a very large hillside with marginal soils. The erosion control plan notes the use of proposed infiltration basins for temporary sediment basins. The number and location of the basins will not suffice to control sediment from disturbed areas. Sediment basin sizing calculations should be performed for each pre-development subcatchment area and a suitably sized temporary sediment basin provided at the lower end of the area with appropriate outlet control.*

Initial RJOC Response: The Demolition and Erosion Control plans (C-1A & C-1B) have been revised to provide the sufficient number and size of temporary sediment basins. An exhibit plan depicting the contributing subcatchment area for each temporary sediment

basin and the associated basin sizing calculations is enclosed with this letter. Lastly, of course, the SWPPP required to accommodate the NPDES permit will include construction-level design provisions.

2/12/24 HA Comment: We are satisfied with the revised Erosion Control Plans. We suggest modifying the direction on the infiltration basin to be used as a temporary sediment basin to call for excavation to one foot higher than final grade to ensure the underlying soil is not adversely impacted. The stone for the final bottom should also not be installed until after final stabilization.

RJOC Response: The plans have been revised to provide notes on the Erosion Control Plans, sheets C-1A and C-1B that the temporary sediment basin at the location of the infiltration basin (stormwater basin-1) shall be set one foot above the bottom of the proposed stormwater basin. Excavation of the bottom one foot to final grade and the installation of the crushed stone shall not be completed until after final stabilization. The grading for the temporary sediment basin has been modified to reflect these changes and a revised Temporary Sediment Basin Sizing Exhibit plan is attached.

SITE LAYOUT

***Initial HA Comment L1**: The project proposes five distinct building areas accessed from a single main entrance configured as an island divided boulevard. A secondary gated emergency entrance is provided north of Building 3. The National Fire Protection Association recommends two points of access for housing projects exceeding 100 units. The Board should seek input from Franklin Fire Department as to the acceptability of the gated entrance in meeting this recommendation.*

Initial RJOC Response: Fairfield met with the Fire Department and received a comment letter dated 10/13/22 acknowledging that the plan provided adequate access and turning and recommended an emergency access. The applicant will address any additional comments or concerns from the Franklin Fire Department.

2/12/24 HA Comment: We defer to the Franklin Fire Department on this issue. Revised plans should be cycled through the FD to confirm they remain satisfied with access, especially at the entry to Building 3 noted in Comment L4 below.

RJOC Response: Comment acknowledged. The applicant will review the plans with the Franklin Fire Department to ensure they are satisfied with access through the site.

***Initial HA Comment L2**: The plans do not depict snow storage areas. Many of the parking lots are directly abutted by proposed retaining walls in close proximity to the parking. Many of the retaining walls abut wetland resource areas. The Applicant should demonstrate that adequate area for snow storage is provided with consultation with the Conservation Commission.*

Initial RJOC Response: Proposed Snow Storage locations have been added to Sheets C-4A & C-4B. Additionally, a Snow Management and Disposal section (Section 4) has been added to the narrative of the Operation and Maintenance Plan

2/12/24 HA Comment: Snow storage proximate to Building 1 appear to be insufficient, three area of snow storage for Building 2 are located such that snow melt will be directed to the neighboring wetlands, snow storage at the intersection of the main entry and the drive to Buildings 3, 4 and 5 could obstruct vehicle sight distances at that intersection. The snow

management section of the revised Operation and Maintenance Plan calls for snow to be removed from the site when piles reach 7 feet tall. This area should have piles controlled to lower levels to avoid conflict. Snow storage areas between Buildings 4 and 5 are located in an area designated for limited to no tree removal. The Civil Engineer and Landscape Architect should coordinate plantings to avoid conflicts between plantings and snow storage areas.

RJOC Response: The plans have been revised to provide additional snow storage adjacent to Building 1. One of the snow storage areas adjacent to Building 2 has been removed and the other locations have been regraded in a manner that the snow melt will be directed to the parking lot. The proposed snow storage area at the intersection of the main entry drive and the drive to Buildings 3, 4 and 5 has been moved back from the intersection to allow for ample site distance at the intersection. A note has been added to the Operation & Maintenance (O&M) Plan to not locate snow storage areas where they may impact vehicle site distance at any intersections. The snow storage between building 4 and 5 has been revised to only be within areas of proposed tree clearing and additional snow storage locations have been proposed around Building 5 and the main drive. The Civil Engineer and Landscape Architect have coordinated to ensure that numerous snow storage areas are located throughout the site so there are no large piles of snow located in areas of landscaping. The O&M Plan requires excess snow to be removed from the site when on-site storage areas are at capacity.

SITE GRADING

***Initial HA Comment G3**: At the rear of Building 1, the grading calls for upwards of a 20-foot cut within 25 feet of a wetland. The Applicant should comment on the impact of this cut may have on the wetland's hydrology. There does not appear to have been any soil testing in this area to understand depth to groundwater or ledge. Further investigation is warranted. A similar situation is proposed at the rear of Building 3 with a 10-foot cut as close as 10 feet from a wetland.*

Initial RJOC Response: The grading at the rear of Building 1 has been revised to raise the parking area and reduce the cut in that area to be approximately 5 feet below the wetland elevation at the southeast portion of the parking area. The nearest location of this cut is approximately 25 feet from the wetlands at one point. However, the distance increases to greater than 40' immediately north and south of that point. The cut reduces to 0 feet just north of that area. The ground surface of the wetland area slopes northerly and the intermittent stream in the wetland flows northerly parallel to the earth cut line and drops below the elevation of the parking area. The cut will be supported by a varying height retaining wall extending from the top of the cut. The excavation for the installation of the wall will include a geosynthetic clay liner on the face of the cut slope prior to backfilling with the existing soil. The clay liner will extend below proposed finish grade a nominal distance as a means to mitigate groundwater flow. Cross sections of the cut in that area have been added to the enclosed plans. See Sheet C-15.

2/12/24 HA Comment: We agree that the revisions to the Building 1 site will aid in minimizing impact to the wetlands. We believe the Board can defer to the Conservation Commission at this point for any further study they may need as part of the Notice of Intent filing.

RJOC Response: Comment acknowledged. The applicant has filed a Notice of Intent application with the Conservation Commission, which is currently under review.

UTILITIES

Initial HA Comment U1: *The Applicant should provide sewer design flow and water demand and comment on the capacities of the municipal systems to service the project.*

Initial RJOC Response: The number of bedrooms for the 330 units is approximately 536. Based on MassDEP Title 5 sewer design flow of 110 gallons per day (gpd) per bedroom the flow will be 58,960 gpd. The clubhouse is anticipated to use approximately 5,000 gpd. The project total sewer flow will be approximately 63,960 gpd. The water demand is anticipated to be 110% of the sewer flow which is 70,356 gpd.

See response to Comment U2 regarding sewer capacity.

The Town Engineer has submitted comments to the Zoning Board of Appeals (ZBA). In his comments to the ZBA the Town Engineer noted that the two existing fire hydrants along the site frontage on Grove Street should be replaced. In a previous response to our request for comments on the water system in a letter dated April 25, 2022, the Town Engineer noted the water system has sufficient capacity. Lastly, a hydrant flow test performed in the vicinity in May of 2022 indicated ample flow and pressure, very likely without the need for any domestic or fire protection pumps.

2/12/24 HA Comment: Correspondence from Michael Maglio, P.E., Town Engineer referenced above states there is ample water for the project. The Board should condition the Comprehensive Permit requiring the Applicant replace the two hydrants in front of the site on Grove Street. Final construction plans and building design will dictate the need for fire and/or domestic pumps based on Massachusetts State Building Code.

RJOC Response: The plans have been revised to include additional notes on Sheets C-3A and C-4A that the two fire hydrants along the site frontage be replaced. As noted by HA the final construction plans and building design will evaluate the need for fire and/or domestic pumps.

Initial HA Comment U2: *The municipal sewer in Grove Street travels north via a 15-inch gravity line to a municipal sewer pump station located at 100 Grove Street. The Applicant should consult with the Franklin Sewer Department to determine the status of this pump station including any need for upgrade or modernization to handle the additional flows.*

Initial RJOC Response: We acknowledge a comment letter provided by the Town Engineer dated December 12, 2023, and will work with the town to address their comments.

2/12/24 HA Comment: Per the Town Engineer, town sewer is available along this section of Grove St, however, the applicant will need to have the downstream sewer main, pump station, and force main reviewed by the Town's on-call sewer consultant to evaluate impacts from the proposed development. Depending on the findings of this evaluation, additional provisions may need to be provided in order to address deficiencies. This may include on site storage with off-peak pumping, or possible upgrades to the downstream infrastructure. Hancock recommends the Board get further clarification from Mr. Maglio as to the timing of this additional study and if it would be appropriate to condition the study be performed after issuance of the Comprehensive Permit and prior to construction.

RJOC Response: **The applicant will work with the Town Engineer to have the sewer evaluated and determine if improvements are needed.**

Initial HA Comment U3*: The proposed development features elevation changes from 283 at the intersection of the site drive with Grove Street and the elevation of the fifth floor of Building 5 at 360.0 (77 feet). The Applicant should perform flow testing proximate to the site and determine the sufficiency of the existing municipal system to supply adequate volume and pressure for fire suppression systems. The Applicant should consult with the Franklin Water Department in this preliminary review.*

Initial RJOC Response: A hydrant flow test was completed at the hydrants located along the frontage of 121 Grove Street by John Hoadley and Sons, Inc. on May 31, 2022 at 9:00 am. The test was witnessed by a representative of RJOC and the Franklin Water Department. The results indicate ample flow and pressure, very likely without the need for any domestic or fire protection pumps. A copy of the Flow Test Report has been provided with this response letter.

2/12/24 HA Comment: See response to Comment U2 above.

RJOC Response: **As noted in the response to Comment U1 above, the final construction plans and building design will evaluate the need for fire and/or domestic pumps.**

STORMWATER

Initial HA Comment SW6*: Stormwater Basin 2 does not have the recommended freeboard of 1 foot above the 100-year stage. The HydroCAD model does not include exfiltration. Soil test data has good depth of loam sand material and depth to groundwater more than 4 feet from the bottom. Exfiltration is the only way to drain the basin. The model should be adjusted. If this is an infiltration basin, it lacks a maintenance drawdown device, 15-foot access around basin for maintenance, a monitoring well and an emergency overflow above the 100-year storm level. The current design has a single stone broad crested weir outlet. The basin bottom material is not specified. If it is to be loam and seeded, the exfiltration rate should be reduced from 2.41 inches per hour Rawl's rate for loamy sand. As an infiltration basin, the design must comply with MassDEP Stormwater Handbook Volume 2 Chapter 2.*

Initial RJOC Response: **Upon further review of the stormwater analysis, it was determined that Stormwater Basin-2 is not needed for detention or infiltration and therefore has been eliminated as a stormwater mitigation basin. However, the area will be graded into an outlet level spreader to dissipate flows discharged from the subsurface drainage systems.**

2/12/24 HA Comment: Hancock is satisfied with this response. The Operation and Maintenance Plan should include provisions for the long term maintenance of the level spreader area.

RJOC Response: The Operation and Maintenance Plan has been revised to include long-term maintenance of the level spreader area.

Initial HA Comment SW7*: Stormwater Basin 3 does not have the recommended freeboard of 1 foot above the 100-year stage. The HydroCAD model does not include exfiltration. Soil test data has good depth of loam sand material and depth to groundwater more than 4 feet from the bottom. Exfiltration is the only way to drain the basin. The model should be adjusted. If this is an infiltration basin, it lacks a maintenance drawdown device, 15-foot access around basin for*

maintenance, a monitoring well and an emergency overflow above the 100-year storm level. The current design has a single stone broad crested weir outlet. The basin bottom material is not specified. If it is to be loam and seed, the exfiltration rate should be reduced from 8.27 inches per hour Rawl's rate for sand. As an infiltration basin, the design must comply with MassDEP Stormwater Handbook Volume 2 Chapter 2.

Initial RJOC Response: Upon further review of the stormwater analysis, it was determined that Stormwater Basin-2 is not needed for detention or infiltration and therefore has been eliminated as a stormwater mitigation basin. However, the area will be graded into an outlet level spreader to dissipate flows discharged from the subsurface drainage systems.

2/12/24 HA Comment: Hancock is satisfied with this response. The Operation and Maintenance Plan should include provisions for the long term maintenance of the level spreader area.

RJOC Response: The Operation and Maintenance Plan has been revised to include long-term maintenance of the level spreader area.

***Initial HA Comment SW10**: We have a concern with the proximity of System PSIS-4 which is a very large system 120-inch perforated pipes 118 feet long in very close proximity to a 13 feet high retaining wall. A detail of the system and the wall should be developed with a ploy liner between the system and the wall.*

Initial RJOC Response: A cross-section of the system and wall, depicting an impervious liner, has been included on Sheet C-14 in the plan set.

2/12/24 HA Comment: Hancock remains concerned given the size of the proposed system proximate to the wall. While the plans have been revised to include an impervious liner, the system and weight of water may impart a large hydrostatic load. The Board should condition the Comprehensive Permit requiring a structural engineer provide a structural analysis for all proposed over four feet high that considers the global stability of the wall and backfill and the hydrostatic load imparted on the wall from infiltration systems proximate to the walls.

RJOC Response: The applicant is working with an engineer for the design of the retaining walls that takes into account the temporary hydrostatic pressure from the infiltration systems and the walls will be designed for these conditions.

***Initial HA Comment SW11**: The HydroCAD model for PSIS-5 has an outlet with five 24-inch orifices. The plan does not show how this will be configured between the system and the 30-inch pipe out. We also have a concern with this very large system 60-inch perforated pipes 118 feet long in very close proximity to the retaining wall. A detail of the system and the wall should be developed with a ploy liner between the system and the wall.*

Initial RJOC Response: The outlet label on Sheet C-2B has been revised to depict the outlet pipe sizes and elevations. The PSIS-5 detail on Sheet C-8 has been revised to depict the 24" outlet pipes and 30" discharge pipe. A cross-section of the system and wall, depicting an impervious liner, has been included on Sheet C-14 in the plan set.

2/12/24 Hancock Comment: See response to Comment SW11 above.

RJOC Response: The applicant is working with an engineer for the design of the retaining walls that takes into account the temporary hydrostatic pressure from the infiltration systems and the walls will be designed for these conditions.

TRAFFIC ASSESSMENT AND FIRE ACCESS

Initial HA Comment T1*: We recommend that a Professional Traffic Operations Engineer be engaged to review the report. We have obtained a proposal from Howard Stein Hudson who is supremely qualified in these matters.*

Initial RJOC Response: Comment acknowledged.

2/12/24 HA Comment: Howard Stein Hudson has prepared a Traffic Peer Review Memorandum dated January 23, 2024.

RJOC Response: The applicant has received and reviewed Howard Stein Hudson's Traffic Peer Review Memorandum dated January 23, 2024. A response letter prepared by Vanasse & Associates was submitted to the Board on February 8, 2024.

Initial HA Comment T2*: A swept path analysis has been provided showing the movements of an emergency vehicle through the site. The Board should seek input from the Franklin Fire Department regarding this analysis.*

Initial RJOC Response: Fairfield met with the Fire Department and received a comment letter dated 10/13/22 acknowledging that the plan provided adequate access and turning and recommended an emergency access. The applicant will address any additional comments or concerns from the Franklin Fire Department.

2/12/24 HA Comment: We defer to the Franklin Fire Department. FFD should be given full size copies of the revised site plan for review.

RJOC Response: The applicant has submitted copies of the revised plans to the Franklin Fire Department for review and will address any comments received from the Fire Department.

WETLANDS

Initial HA Comment W1*: The is an isolated vegetated wetland in the area of Proposed Building 4. The wetland will be eliminated. This wetland may be jurisdictional under the Franklin Wetlands Bylaw. The Applicant should comment on the status of this wetland area and any plans to mitigate its elimination.*

Initial RJOC Response: A Notice of Intent has been submitted to the Town of Franklin Conservation Commission pursuant to the Massachusetts Wetlands Protection Act (WPA; M.G.L. Ch. 131, Section 40) and implementing regulations (310 CMR 10.00 et seq.). The isolated vegetated wetland is not jurisdictional under the Wetlands Protection Act. However, the applicant has proposed to provide mitigation for the filling of this isolated wetland in the proposed wetland replication area at the western side of the proposed crossing of wetland series-A.

2/12/24 HA Comment: The filling of a local jurisdictional wetlands is under the prevue of the Franklin ZBA as part of the review of the Comprehensive Permit application. The ZBA should seek input from the Conservation Commission as to the adequacy of the proposed mitigation.

<u>RJOC Response:</u> The applicant has filed a Notice of Intent application with the Conservation Commission, which is currently under review.

Please feel free call me if you have any questions at 781-279-0180 x101 or email brian.mccarthy@rjoconnell.com.

Sincerely,

RJ O'CONNELL & ASSOCIATES

Brian J. McCarthy
Vice President

cc: Joe Peznola – Hancock Associates
Mark Bobrowski – Blatman, Bobrowski, Haverty & Silverstein, LLC
Robb Hewitt - Fairfield Residential Company, LLC
John Shipe - Fairfield Residential Company, LLC
Richard R. Cornetta Jr. - Cornetta, Ficco & Simmler, P.C.
Michael Capachietti - RJOC

APPENDIX A
Grove Street Residences
121 Grove Street
Franklin, MA

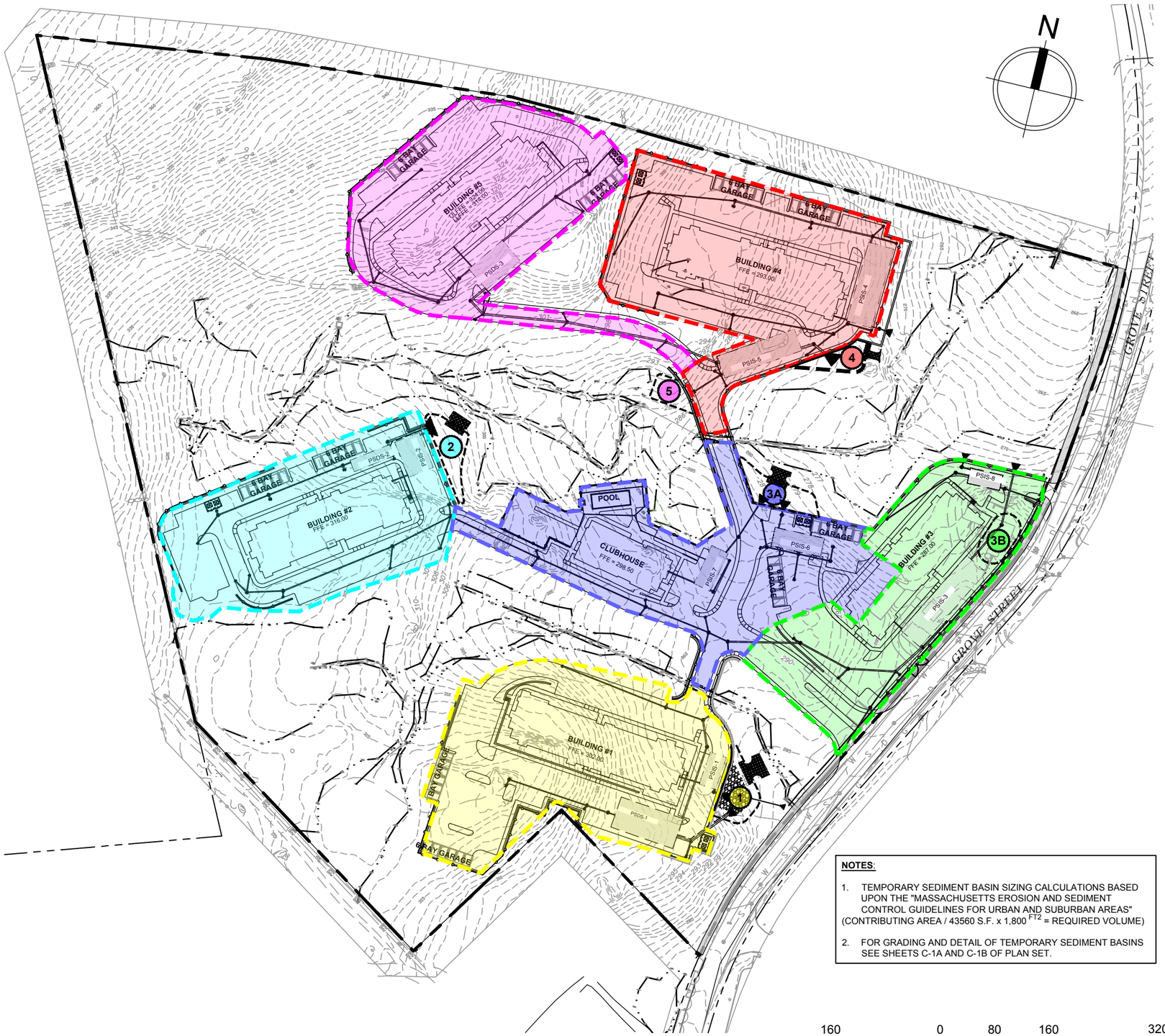
DRAWING LIST

Original Date	Last Revision	Drawing No.	Drawing Description
10/30/2023	02/12/2024	C-0	COVER SHEET
05/25/2022	11/09/2023	1 OF 1	EXISTING CONDITIONS SITE PLAN
10/30/2023	02/12/2024	OS-1	OVERALL SITE PLAN
10/30/2023	02/12/2024	C-1A	DEMOLITION AND EROSION CONTROL PLAN
10/30/2023	02/12/2024	C-1B	DEMOLITION AND EROSION CONTROL PLAN
10/30/2023	02/12/2024	C-2A	GRADING AND DRAINAGE PLAN
10/30/2023	02/12/2024	C-2B	GRADING AND DRAINAGE PLAN
12/18/2023	02/12/2024	C-2C	WETLAND REPLICATION PLAN
10/30/2023	02/12/2024	C-3A	UTILITY PLAN
10/30/2023	02/12/2024	C-3B	UTILITY PLAN
10/30/2023	02/12/2024	C-4A	PARKING AND TRAFFIC CONTROL PLAN
10/30/2023	02/12/2024	C-4B	PARKING AND TRAFFIC CONTROL PLAN
10/30/2023	02/12/2024	C-5	SITE DETAILS - I
10/30/2023	02/12/2024	C-6	SITE DETAILS - II
10/30/2023	02/12/2024	C-7	SITE DETAILS - III
10/30/2023	02/12/2024	C-8	SITE DETAILS - IV
10/30/2023	02/12/2024	C-9	SITE DETAILS - V
10/30/2023	02/12/2024	C-10	SITE DETAILS - VI
10/30/2023	02/12/2024	C-11	SITE DETAILS - VII
10/30/2023	02/12/2024	C-12	SITE DETAILS - VIII
02/02/2024	02/12/2024	C-13	SITE DETAILS - IX
02/02/2024	02/12/2024	C-14	RETAINING WALL CROSS SECTIONS
02/02/2024	02/12/2024	C-15	RETAINING WALL CROSS SECTIONS

10/30/2023	02/12/2024	FT-1	FIRE TRUCK TURNING PLAN
02/05/2024	02/12/2024	TT-1	MOVING TRUCK TURNING PLAN
02/05/2024	02/12/2024	TT-2	GARBAGE/RECYCLE TRUCK TURNING PLAN
10/30/2023	02/05/2023	L100-L103	LANDSCAPE PLANTING PLANS
10/30/2023	02/05/2023	L200-L203	LANDSCAPE LIGHTING PLAN
10/30/2023	02/05/2023	L300	LANDSCAPE DETAILS
10/30/2023	02/05/2023	L301	LANDSCAPE LIGHTING CUTSHEETS
10/30/2023	02/05/2023	L400-L403	LANDSCAPE PHOTOMETRIC PLANS

STORMWATER MANAGEMENT REPORT

Original Date	**Last Revision**	**Description**
12/18/2023	02/12/2024	Stormwater Management Report



NOTES:

1. TEMPORARY SEDIMENT BASIN SIZING CALCULATIONS BASED UPON THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" (CONTRIBUTING AREA / 43560 S.F. x 1,800 ^{FT2} = REQUIRED VOLUME)
2. FOR GRADING AND DETAIL OF TEMPORARY SEDIMENT BASINS SEE SHEETS C-1A AND C-1B OF PLAN SET.

160 0 80 160 320

GRAPHIC SCALE IN FEET

RJOC

- SUBCATCHMENT BOUNDARY
- (1) TEMPORARY BASIN SUBCATCHMENT AREA = 101,018 S.F.
- (2) TEMPORARY BASIN SUBCATCHMENT AREA = 84,393 S.F.
- (3A) TEMPORARY BASIN SUBCATCHMENT AREA = 88,274 S.F.
- (3B) TEMPORARY BASIN SUBCATCHMENT AREA = 75,422 S.F.
- (4) TEMPORARY BASIN SUBCATCHMENT AREA = 97,547 S.F.
- (5) TEMPORARY BASIN SUBCATCHMENT AREA = 92,060 S.F.

TEMPORARY SEDIMENT BASIN 1

ELEVATION	AREA (S.F.)	VOLUME (CF)	∑ VOLUME (CF)
287	2507	0	0
		2,720	
288	2,933		2,720
		3,163	
289	3,393		
			5,883

VOLUME REQUIRED = 4,174 CF
VOLUME PROVIDED = 5,883 CF

TEMPORARY SEDIMENT BASIN 2

ELEVATION	AREA (S.F.)	VOLUME (CF)	∑ VOLUME (CF)
302	673	0	0
		2,439	
304	1,766		2,439
		2,180	
305	2,593		
			4,619

VOLUME REQUIRED = 3,500 CF
VOLUME PROVIDED = 4,619 CF

TEMPORARY SEDIMENT BASIN 3A

ELEVATION	AREA (S.F.)	VOLUME (CF)	∑ VOLUME (CF)
279	2,973	0	0
		3,190	
280	3,406		3,190
		3,633	
281	3,860		
			6,823

VOLUME REQUIRED = 3,648 CF
VOLUME PROVIDED = 6,823 CF

TEMPORARY SEDIMENT BASIN 3B

ELEVATION	AREA (S.F.)	VOLUME (CF)	∑ VOLUME (CF)
278	840	0	0
		1,040	
279	1,245		1,040
		1,472	
280	1,700		2,513
		1,960	
281	2,225		4,473

VOLUME REQUIRED = 3,117 CF
VOLUME PROVIDED = 4,473 CF

TEMPORARY SEDIMENT BASIN 4

ELEVATION	AREA (S.F.)	VOLUME (CF)	∑ VOLUME (CF)
272	1,210	0	0
		3,110	3,110
274	1,900		
		2,096	
275	2,292		
			5,206

VOLUME REQUIRED = 4,031 CF
VOLUME PROVIDED = 5,206 CF

TEMPORARY SEDIMENT BASIN 5

ELEVATION	AREA (S.F.)	VOLUME (CF)	∑ VOLUME (CF)
286	762	0	0
		2,197	2,197
288	1,435		
		1,628	
289	1,820		
			3,825

VOLUME REQUIRED = 3,804 CF
VOLUME PROVIDED = 3,825 CF

RJO'CONNELL
& ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS

DATE: 02/12/2024 SCALE: 1"=160'

TEMPORARY SEDIMENT BASINS SIZING EXHIBIT

121 GROVE STREET
FRANKLIN, MA