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September 12, 2023

Mr. Peter Matchak, Town Planner/Director
Town of Ashland
101 Main Street
Ashland, MA 01721

RE: 2nd Peer Review - Site Plan Review & Special Permit, Mixed Use Development
9-49 Homer Avenue (Assessor's Map 14, Lots 352, 353, and 354)

"This letter was prepared in preparation for the meeting on 9/12/23 with the Town and Development Team. Items that relate to issues discussed at the meeting may not apply based upon the meeting discussion and changes to be made. We are providing this to assist in addressing changes for next submittal."

Dear Mr. Matchak:

GCG Associates, Inc. has reviewed the following information for the proposed Mixed Use Development Site Plan at 9-49 Homer Avenue in Ashland, MA. GCG's latest comments in "Blue"

Documents:

1. Response to comment letter, prepared by Engineering Alliance, Inc., (EAI) dated August 9, 2023.
2. Drainage Calculations and Stormwater Management Plan, prepared by EAI, dated Aprill 22, 2021, last revised August 9, 2023.

Plan References:

1. "Proposed Mixed Use Development, 9-49 Homer Avenue, (Tax Map 14, Lots 352-354) Ashland, Massachusetts 01721" plan set, 1. prepared by Engineering Alliance, Inc. (EAI), dated June 17, 2022, last revised August 9, 2023, consists of 7 sheets (Civil Set) as following:
   C-0 Coversheet
   C-1 Existing Conditions Plan
   C-2 Erosion Control and Demolition Plan
   C-3 Site Layout Plan
   C-4 Grading, Drainage & Utilities Plan
   D-1 Construction Details I
   D-2 Construction Details II

2. "Autoturn Figure" prepared by EAI, dated June 17, 2022, last revised August 9, 2023, consists of 1 sheet.

3. Architectural Drawings, (PDF file titled August 09, 2023), not dated and without title.

This Site Plan application requires a Stormwater Management Permit (SMP) per Chapter 247-6 A, B, and C with Ashland Conservation Commission, and compliance with Chapter 343 Stormwater Management. The property is in the Ashland Downtown District Sub-Area 'C', (ADD-C). This development is in the Floodplain Zone 'X' (outside of 0.02% chance) per FIRM map number 25017C0514F, map revised July 7, 2014. There is no wetland resource identified within 200 feet of the site. The proposed site area and limit of work is below (39,658+/-s.f.) the 1-acre threshold and does not require a NPDES Construction General Permit

Based upon our review of the above information, we offer the following comments with respect to compliance with Town of Ashland Zoning Bylaw, Stormwater Management requirements and Massachusetts Stormwater Handbook (MSH). The numerical section of the regulations is referenced at the beginning of each comment unless it is a general comment.

GENERAL COMMENTS:

This is a re-development project. The site consists of 39,658+/- s.f. (0.910 acres), Assessors Map 14, Lots 352, 353, and 354 combined), per existing conditions plan. This development consists of three lots. Lot 352 (9-25 Homer Avenue) consists of 17,507+/-s.f. with two commercial buildings (9-11 Homer Avenue) and (19-25 Homer Avenue) and paved parking area, site was built in 1968. Lot 353 (35 & 37 Homer Avenue) consists of 12,104+/-s.f. with a two-family residential dwelling building and a detached 3 bays garage, site was built in 1840. Lot 354 (47 & 49 Homer Avenue) consists of 10,047+/-s.f. with a two-family residential dwelling and a detached commercial garage (5 Alden Street), site was built in 1900.

All three lots are in the Ashland Downtown District Sub-Area 'C' (ADD-C) Zoning District and will be combined into a single lot. The proposed Mixed Residential and Commercial/Business use is permitted by right per Section 8.5.5 with note #1 of the Notes on Ashland Downtown District Table of Uses of the zoning Bylaw.

SITE PLAN SET (Civil Plan)

C-0 Cover Sheet

1. No comments.

C-1 – Existing Conditions Plan

1. The Lot Number shown on the easterly lot should be #354. Resolved.
2. Existing utility pole(s) and overhead wire/cable utilities should be shown on the plan. Resolved.
3. Existing drainage, gas, sewer, and water pipe sizes should be specified on the plan. Resolved.
4. Existing Hydrant (one at the Main Street and Homer Avenue intersection and another one at the Homer Avenue and Alden Street intersection) should be shown on the plan. Resolved.
5. Plan shown an existing catch basin in front of the existing garage on Lot 353, the catch basin invert is 1.59' lower than the drainage manhole invert on Homer Avenue. It is unlikely that the Homer Avenue drainage system drains to the site catch basin. Applicant should investigate the onsite drainage system and show on the plan. Resolved.
6. There are existing catch basins and drainage manholes at the Alden Street intersection and on Alden Street south of the project site should be shown on the plan. Additional contour or grading on Alden Street to determine erosion control requirements during construction within Alden Street right-of-way. An existing catch basin was observed through Google Streetview at the southwestern Homer Avenue/Alden Street intersection, (near Lot 354's northeasterly lot corner).

Two drainage manholes were also observed on the southern edge of Homer Avenue/Alden Street intersection.

7. Upstream sewer manhole and invert should be shown on plan. The added SMH invert elevation has demonstrated the sewer line flows eastward; the applicant should provide additional data to show how the proposed sewer connection invert was determined. The downstream sewer main crossing at the Alden Street intersection does not have a SMH. Applicant should verify if there is any paved SMH at the intersection. Even though the existing sewer invert is not critical in this situation, GCG recommends performing a test pit to verify the existing sewer pipe invert prior to start of construction.
8. Show existing water, sewer, and gas services for each building. Resolved.

C-2 – Erosion Control and Demolition Plan

1. Show existing utility poles. The proposed construction entrance appeared to be in the middle of the pole. Resolved.
2. Add silt-sack to existing catch basins on Homer Street and Alden Street (show all catch basins near the site as required on C-1 comment #5. Proposed utilities trench and sidewalk replacement are in the public street right-of-way. Catch basins should be protected. Locate the missing catch basin at the Homer Avenue/Alden Street southwest intersection corner and install temporary silt sack during construction.
3. Existing water, sewer, and gas services for each building should be shown on the plan, show existing utilities services to remain and protected for 9-11 Homer Avenue to retain, and utilities services to be removed, abandoned, or capped. Resolved.

C-3 – Site Layout Plan (Comments based on this plan sheet and updated May 4, 2023, First Floor Plan)

1. Site Layout Plan should be updated with the May 4, 2023, First Floor Plan as listed in Plan References #5 above. The emergency access path surface material should be identified on the plan. Surface finish and maintenance should meet the Fire Department requirements.
    a.) The proposed paver walkway in the emergency vehicle access path was stated as pervious paver in the report and should be designed accordingly. However, a large portion of the walkway and grass area are on top of the garage roof. The plan also called out paver walk and reinforced lawn to meet H20 loading. Design detail should be provided.
    b.) The Fire Department has requested this emergency access or fire lane to be maintained at all times and not grass. The proposed reinforced lawn portion of the access way should require the fire department's approval. If approved, GCG recommends expanding the gravel base reinforcement toward to the building corner to match the emergency vehicle maneuvering path.
    c.) The proposed walkway outside units 1 & 2 should have a minimum width of 4 feet, (ADA/AAB Section 22.2).
    d.) The Alden Street sidewalk replacement should be equipped with a wheelchair ramp at the Homer Avenue intersection to match the existing crosswalk.
2. Plan should identify snow storage area on site, to define the excessive snow, which would require removal off site for disposal by the property owner as specified on the O&M plan. The proposed snow storage area should be accomplished with a revised landscape plan. The applicant should clarify the intent of the proposed seating area (located at the east side of 9-11 Homer Avenue, building to remain) shown on the Architectural ground floor plan. This seating area is separated by a row of planting and intended to serve 9-11 Homer Avenue with a proposed side door. The applicant should clarify how snow be carried to this storage area. Furthermore, if this seating area is intended to serve restaurant uses, which would require additional parking spaces at 1 space per 4 seats. (Section 5.1.2)

3. Land Usage Table – Chapter 282 Section 8.5.6 Dimensional Standards –minimum front yard setback in ADD-C should be 8 feet. The existing commercial building (9-11) proposed to retain has no front yard setback, this is an existing non-conforming condition, which may require a variance. Minimum rear yard setback – 12 feet required. The existing conforming 0 feet common wall side yard for building 9-11will become a non-conforming 0 feet rear yard as the three lots merged to a single lot with double frontage on Homer Avenue and Alden Street, all side lot lines become rear lot lines. Which also requires variance approval. The existing building (9-11 Homer Avenue) is a part of this site plan special permit (SPSP) application and under the Planning Board's jurisdiction. This existing non-conforming structure would require Board approval.
4. Land Usage Table – Chapter 282 Section 8.5.6 Dimensional Standards. Proposed new commercial space #1's northeasterly corner and commercial space #2's northwesterly corner, are within the 8 feet front yard setback (6.5+/- feet as shown) and should be addressed. None of the calculations accounted for the 9-11 Homer Avenue to retain floor areas. Maximum FAR and parking requirements should be revised. The existing building (9-11 Homer Avenue) is a part of this site plan special permit application and has no front yard setback. Which is an existing non-conforming condition and requires Board approval. However, the proposed new building should comply with the 8 feet front yard setback requirements.
5. 282-5.4.2.3 – Buffering between Residential and Nonresidential uses. A minimum of 6 feet wide landscape area is required. 5.5 feet proposed along 220 to 228 Main Street and 3 feet proposed at the 236 Main Street northeasterly lot corner. Resolved.
6. 282-5.6.- Corner Clearance - Existing parking layout on Homer Avenue should be shown on the plan, the existing curb opening has insufficient safety sight distance from the Homer Avenue east bound traffic, where a 25 MPH speed limit sign is mounded on the utility pole in front of building 9-11. (Appeared to lower the speed limit in front of the blind driveway/curb opening). The proposed new curb opening is 30+/- feet closer to the intersection section and exacerbates the situations. Provide driveway intersection sight distance analysis. The plan should show the available intersection safety sight distance from the proposed driveway location. GCG estimated approximately 90+/- feet available. A sight distance should be provided to meet the stopping distance for the 85-percentile vehicle travel speed measured on-site. The existing curb opening does not meet the safety sight distance standards, and the proposed new driveway will further reduce the safety sight distance by 28 feet. This development as presented will worsen the hazardous conditions at the proposed driveway intersection. Where additional traffic trips generated from this development will be concentrated at this curb opening. The proposed loop detector with illuminated "Vehicle Exiting Ahead" warning sign transfers the responsibility/liability to the Homer Avenue eastbound drivers and this warning sign is non-enforceable. GCG recommends relocating the driveway entrance further away from the Homer Avenue and Main Street intersection and seeking recommendation from Professional Traffic Consultants.
7. The existing commercial building (9-11 Homer Avenue) to retain should have parking spaces provided on-site. Parking spaces calculations should be based on the proposed new (8,550 s.f. commercial floor areas per May 5, 2023 Memorandum) and the existing (to retain) commercial floor (3,980+/- s.f., based on building footprint, actual leasable floor space to be verified by the applicant) areas combined, and the 29 proposed new dwelling units, totaled approximately 127.6 spaces required, and reduced by 56.25% (282-8.5.13), a minimum of 72 parking spaces should be required. Insufficient parking should require Section 5.1.2 waiver. There is public parking available in the downtown district for the Board to consider. Parking requirements should be based on the building's leasable floor area and/or per dwelling unit. The existing 3,980 s.f. retail building should have required parking spaces provided on-site; parking spaces should be calculated based on Section 8.5.13.
8. Surface parking layout – GCG concurs with the Fire Department comments dated May 2, 2023. The parking space #17 shown on the May 4, 2023 First Floor Plan is within the Fire Truck (39.5 feet box truck template used on the Vehicle Turning Figure Plan) exit path. GCG recommends using the (BUS-40, 8.5' wide by 40.5' length) vehicle path to analysis the turning path for emergency vehicles access. The BUS-40 dimensions are most comparable to the Fire Engine.

The Vehicle Turning Path analysis should include the turning path through Homer Avenue and Alden Street with all existing and proposed utility pole shown. Vehicle turning path should show the front wheels, rear wheels, and overhang tracks. Furthermore, the Fire Department had requested the parking spots #1 & #2 be designated as emergency vehicle parking only. Homer Avenue turning path should be analysis to assure the emergency parking spaces (spots 1 & 2) cleared for the vehicle turning path. The Alden Street exit should also be analysis to allow emergency vehicles to turn within the Alden Street roadway. Parking spot #10 does not meet the 9'W x 20'L standard parking stall dimensions. (Total surface parking provided 19 spaces including spot #10). GCG recommends showing the building columns to match the Architectural Ground Floor plan. Column locations may affect the parking spaces dimensions. The two parallel parking stalls were designated as pickup/drop-off areas, which should not count as parking spaces. The reduced single parking stall (9' x 18', dimension shortened to save an existing 17" Elm tree), requires Board approval. The total surface parking provided should be 20 spaces, including the reduced length space and handicap accessible spaces). The Parking Calculations table stated 41 below grade spaces, the Architectural plan showed 38 garage parking spaces only. Therefore, the total provided parking (surface and below grade) was counted 58 spaces only. The required parking spaces should be recalculated with the proposed dwelling units, existing to remain and proposed commercial floor area. The applicant should clarify the discrepancy between the latest Architectural floor plans set, which shown 30 proposed dwelling units, and the 29 units stated in the parking calculations table. The proposed seating area at the eastern side of 9-11 Homer Avenue shown on the Architectural plan appeared to be isolated for the 9-11 building uses including, addition parking spaces would be required if the seating area services the restaurant use.

9. Section 5.1.7.1 – Provide hours of operation for the commercial uses to assess parking demand and adequate shared parking spaces. 8.5.13. - Applicant should demonstrate feasibility of shared parking spaces for the two uses and provide a shared parking agreement/plan. The hours of operation for commercial use should be determined based on the shared parking requirements. Commercial uses should be restricted in the approval conditions to ensure sufficient parking spaces provided for the mix-use shared parking schedules.
10. 282-5.2 Loading area required. Section 5.2.6 – Loading Bay(s), not be less than twelve feet in width, sixty-five feet in length, and fourteen feet in height for commercial uses should be provided. Section 282-5.2- Loading area waiver should be requested, off business hours should be specified.
11. Section 5.3.12 – No sign proposed, signs should comply with 5.3.12. Section 5.3.12 should be stated as part of the approval conditions.
12. Proposed sidewalks replacement within the Homer Avenue and Alden Street should be laid out with the existing and proposed relocated utility poles shown. Minimum ADA/AAB sidewalk passage width - Sidewalks should have a minimum width of 4-feet (excluding curb) with a minimum of (5' x 5') passing spaces every 200 feet or provide a minimum 5-feet wide sidewalk (excluding curb) without passing spaces. The minimum passage clearance at the utility pole should not be less than 36". Show wheelchair ramps at all driveway crossings and assessable paths. The proposed Alden Street limit of sidewalk replacement is ended in the middle of an existing garage concrete ramp. The end of the replacement sidewalk should be equipped with a wheelchair ramp to match the Alden Street existing pavement. The response letter stated that the proposed sidewalk along Homer Avenue will be a minimum of 5-feet and widen in most areas. GCG measured two sections of the Homer Avenue sidewalk to be 4 feet wide. GCG recommends calling out the sidewalk width to 5-feet minimum width, where the proposed sidewalk width extended onto the site should be accomplished with a sidewalk easement granted to the Town to release the applicant's liability over the public sidewalk.
13. The proposed residential trash and recycling room is approximately 240 s.f. in the lower level. And the commercial trash room is approximately 80 s.f. on the ground floor. The existing dumpster serving 9-11 Homer Avenue's commercial uses had been eliminated, new trash arrangement for the commercial building (9-11) to remain should be provided. Applicant should provide trash/recycle volume sizing for the proposed uses (residential and commercial) and

clarify how the roll-off containers (per May 5, 2023, Memorandum) being transported from the lower level for pickup. The applicant responded that "The building at 9-11 Homer Avenue will be equipped with trash totes that will be collected by a private contractor." The applicant should clarify the trash pickup locations for the 9-11 building and the new building and pickup schedule.

14. The Lower-Level Parking Layout full size plan should be provided as part of the Civil plan set, the parking plan should be reviewed and certified by the Civil Engineer. Based on the Architectural Lower-Level Parking Plan dated April 13, 2023, 41 parking spaces were proposed in the lower level. However, none of the lower-level spaces meet the standard 9' x 20' dimension. The proposed standard spaces are 8.5+/- feet wide by 16.5+/- feet length with 22+/- feet aisle. The proposed compact spaces are 7.5+/- feet wide by 15+/- feet length with 21+/- feet aisle. As presented, vehicles maneuverability at the bottom of the ramp is questionable. A standard vehicle would not be able to make the turns (in and out) per vehicle tracking template. GCG recommends showing building columns on this plan and demonstrating vehicle maneuvering with vehicle turning path. The parking layout is substantially undersized per industrial standards. The no parking area between the two proposed handicap accessible spaces should be eight feet in width suitable for van access. (As shown the total parking space does not meet the minimum parking spaces requirements.) The commercial portion of the development required 39 parking spaces (reduced with the 56.25% allowance in the ADD). Therefore, the lower-level parking should be shared with the commercial and residential users with no restrictions. The revised architectural plan counted 38 parking spaces only versus the 41 below grade spaces called out on the Parking Calculations table. GCG recommends widening the handicap parking spaces for handicap van accessible.
15. GCG recommends adding EV charging spaces. EV charging spaces demand and regulations are still evolving and is not a requirement.

<u>C-4 – Grading, Drainage & Utility Plan.</u>

1. Plan should be updated with the emergency vehicle access path as shown on the May 4, 2023, First Floor Plan). Resolved.
2. Show 9-11 Homer Avenue commercial building's (to be retained) sewer, water, and gas services. Show proposed utilities upgrade or existing services to be protected. Resolved.
3. The proposed close of existing curb cut in front of lots 353 and 354 would create a depression on Homer Avenue and potential icy hazardous conditions during the winter months, the existing spot grades shown a 5+/- inches dip at the existing northeast curb opening gutter and should be addressed. The proposed spot grade will not resolve the ponding issues, there is an existing hump (elevation 185.10) approximately 20 feet east of the proposed spot grade 184.72. GCG recommends locating the existing catch basin at the southwest intersection corner and determine the existing rim grade and remove the hump between the catch basin rim and the existing high point 185.94 near the catch basin in front of the existing commercial building.
4. Spot grades should be provided at all accessible parking spaces and access paths to assure the maximum cross slope not to exceed 2% in any direction. Resolved.
5. Specify spot grades at all proposed crosswalks and wheelchair ramps. Show re-construct of wheelchair ramp at the Alden Street crosswalk.
6. Show downstream sewer manhole invert to establish the sewer connection invert grade. The proposed lower-level garage slab grade at 174.60 is lower than the proposed sewer connection invert. A 2" force main has been called out on the plan and referenced to a lower level parking and plumbing plan, (not included in the package). Since the garage entrance is covered by the building roof. There should not be any surface runoff drains down to the underground garage with proper grading. The runoff water should be limited to vehicles dripping and winter snow carried into the garage. The Applicant should consult with the building department to conform with the necessary of a pump station. The proposed 2" sewer force main should comply with Chapter 326. Force main should be Class 52, cement-lined, tar coated ductile iron pipe per 326-19. Lower-level parking layout should demonstrate the accessibility of the pump station maintenance vehicles. Based on the soil test pit (PT-1) data, the drive under garage slab is 4.9'

below the ESHGW. The building design should address any potential seepage issues. Pumping/discharging grounding to sewer line is prohibited.

7. A hydrant (show existing and proposed new) should be located or installed near the proposed mechanical room (normally within 100 feet, applicant should verify the minimum distance with the Ashland Fire Department). The mechanical room shown on the architectural plan was located at the northerly new building corner, which is approximately 250 from the nearest hydrant, Fire Department approval is required.
8. Show natural gas services connection, where applicable. Building will not provide natural gas services, resolved.
9. Show existing utility poles, show proposed underground electric, telephone, cable, and any other underground utilities connections. The plan should show conceptual underground electrical route and cable lines with an estimated transformer location and specify all utilities be underground.
10. Call out sewer service pipe size (6" minimum) and slope between proposed SMH to sewer main connection. Show building sewer service invert.
11. Drainage overflow connection to the Homer Avenue drainpipe, (works within the public street right-of-way should comply with Chapter 344 – Subdivision of Land standards), should be equipped with a new drainage manhole. 344-23.B.(4) - Drainpipe within the street right-of-way should be RCP (reinforced concrete pipe), Minimum cover for drains
shall be twenty-four (24) inches. Piping with less than thirty-six (36) inches of cover shall be laid with reinforced concrete Class V pipe. The proposed drainage appeared to be enlarged, revised drainage calculations should be provided for review and verify drainage system as shown.
12. The proposed infiltration chambers system is a Shallow UIC Class V Injection Well and required to register to MassDEP prior to start of construction and comply with the MassDEP's standards design guidelines. Resolved.
13. Infiltration Chambers system should be setback 10-feet minimum from foundation wall.
14. Revise General Utility Notes, multiple notes referenced to the City of Melrose, all sewer system should comply with Ashland Chapter 326 and all water system should comply with Ashland Chapter 334. Resolved.
15. Plan called for removing the existing drain line on Homer Avenue. GCG recommends abandoning the drainpipe in place with bricks and mortar cap if existing pipe is in good condition, or filled the pipe with floatable fill and capped if pipe is in poor condition, to avoid pavement patching and disturbing the road gravel base. Resolved.
16. Re-direct emergency access surface runoff away from 15 Alden Street building. The existing drainage flow path appeared to be ponding in the gravel area and overflowing toward the existing catch basin in front of the garage.
17. Subsurface chambers infiltration system not meeting the 2 feet separation to ESHGW requirements, see Stormwater Report comments below.

D-1 – Construction Details

1. Section 326-14 - Typical Trench Section should specify 24" selected borrow above the sewer pipe. Sewer pipe material should conform with Chapter 326-15. Detail moved to sheet D-1, resolved.
2. Cultec Recharge 330XL HD Chamber "Typical Cross Section" shown 24" stone below chamber, which should be 6". This detail called for a minimum of 10" gravel between the pavement and the 6" crushed stone layer on top of chambers. Based on the grading plan, the chambers near the catch basin inlet will have less than 6" gravel between the pavement and stone layer. (Pavement finish grade elevation at 185.57, top of stone layer elevation at 184.80, minus 0.29 feet pavement thickness, the gravel layer thickness becomes 0.478' (5.74"). Furthermore, the bottom of the infiltration system stone is proposed at 181.26, the ESHGW at elevation 179.5 (TP-1), the available separation is 1.76 feet, which does not meet the minimum of 2 feet separation requirements.

D-2 – Construction Details

1. Dewatering detail should be provided and comply with MassDEP - Activities and Use Limitation (AUL) requirements. Resolved.
2. Add Hydrant detail and should comply with Section 334-56 – Hydrant and valve should "Open Left". The proposed Fire Department connection location should be reviewed by the Fire Department.
3. Add Precast Concrete Drain Manhole structure (for the overflow drainpipe connection within the street right-of-way), bottom should be equipped with cement concrete or brick table/invert like the one shown on MassDOT Construction Standard details drawing number E202.4.0. Concrete structure should be equipped with standard H-20 rated top cone or flat slab. Specify drainage manhole frame and grate similar to the SMH detail. Update Lebaron Foundry to EJ model number.
4. Provide pervious paver (H20 rated) and reinforced lawn (H20 rated) details. The access path must be designed to support fire engines and associated emergency vehicles loading. Design shall be certified by a Massachusetts Registered Professional Structural Engineer.
5. Green roof design over the subsurface garage and first floor commercial area should comply with building code requirements and should be designed with an overflow bypass during cold climate conditions.
6. Drainage Outlet Control Structure detail should be provided, a standard drainage structure with a specified baffle wall to create a control should be sufficient.

Autoturn figure Plan

1. Proposed granite curb corners at the driveway entrance with 2 feet radius are too tight and forced the right turn entrance vehicle and right turn exit vehicle to encroach the oncoming traffic lane. GCG recommends widening the intersection curve radius to keep vehicles within its traffic lane. Provide standard passenger car (AASHTO 7.0' wide x 19.0 length) turning maneuvering path analysis to size the turning radius.

Architectural Plan Set

1. Show North arrow on all plan views. The North arrow was shown on plan sheet 4 and 5 only.
2. Plan scale appeared to be 1" = 20', scale bar's 30 feet label should be 32.

Lower Level Parking Plan

1. Lower-Level Parking full size plan should be provided. Vehicles maneuverability is questionable. Parking stall dimensions do not meet industrial standards. (See Civil Plan C-3 comments above.
   a.) The proposed 3-story building is smaller than the below grade garage. The southern building wall is on top of the below grade garage driveway. The plan should show all building support columns in the lower garage layout.
   b.) The proposed subsurface parking spaces were 9' x 18', which is 2-foot shorter than a standard parking stall, waiver should be required. The proposed 9' x 18' stall with 24' wide aisle is acceptable. However, the columns may further reduce the stall and aisle dimensions.
   c.) The proposed finish grade between the garage slab and first floor finish is 12 feet. Maximum ramp slope should be calculated. The Plan should show the ramp slope details with transition slopes at the top and bottom of the ramp. The American Institute of Architects (AIA) recommends 16% for the straight ramp less than 65 feet in length with 8% transition slope for 10 feet at the top and bottom of the ramp (Ramsey/Sleeper Architectural Graphic Standards, Eighth Edition, AIA.)
   d.) GCG recommends widening the handicap accessible parking spaces to fit van accessible parking.

e.) Provide Autoturn/Vehicle Tracking analysis for the subsurface garage right turn exit to ramp path and from garage door to Homer Avenue right turn path.
f.) The overhang with columns support building layout created multiple compound curves with steep slope ramp at the garage entrance with poor safety sight distance at the Homer Avenue and driveway intersection. GCG recommends requiring a site Traffic Impact Analysis (TIA) report prepared by a Massachusetts registered Professional Traffic Operation Engineer (PTOE) consultant.

First Floor Plan.

1. See Civil Plan C-3 comments above. The revised plan shows 2 commercial units and two residential units.
2. GCG recommends adding EV charging spaces. Revised plan not submitted.

Second Floor Plan.

1. The revised second floor plan shows 15 dwelling units, with units #1 and #2 appearing to be 2-story, which should be called out on the plan.

Third Floor Plan.

1. The revised third floor plan also shows 15 dwelling units, with units #1 and #2 appearing to be 2-story, which should be called out on the plan. There should be 13 units on the third floor. All three floors combined proposed 30 dwelling units. Parking spaces calculations were based on 29 units.

Landscape Plan

1. A formal landscape plan (like the Ground Floor Planting Plan and Green Roof Landscape Plan presented in the Planning Board meeting) should be provided, plan should be updated to match the latest site layout and demonstrate compliance with Sections 5.4, 5.4.1.2; 5.4.2.3;5.4.3.1; and 5.4.4.3. Revised plan not submitted.

9.4.4.8 - Site Lighting Layout, Photometric & Schedules

1. Photometric data (plan) and lighting plan and schedules should be provided. Revised plan not submitted.
2. Provide hours of operation for the outdoor lighting. Not addressed.

9.4.6.9 & 9.4.8 - Site Traffic – Vehicle Trip Analysis

1. The proposed new driveway curb opening with the existing 9-11 commercial building to remain created a hazardous with limited safety sight distance intersection. GCG recommends a Traffic Impact Analysis (TIA) be performed to analysis the proposed driveway location, intersection safety sight distance, shared parking demand, and traffic trap generations for the uses. The proposed driveway curb opening created a hazardous condition, GCG recommends providing a TIA study.
2. TIAS should include vehicle accessibility analysis for the internal lower level (under buildings) parking layout. Revised plan not submitted.

Stormwater Report

1. Chapter 247-6, this project requires a Stormwater Management Permit under 247-6 A, B, and C. Hence, should comply with Chapter 343. Statement, no response required.

2. The applicant should investigate the function of existing drainage catch basin structure on site, (in front of the 3 bays garage building on Lot 353). Catch basin to be removed, resolved.
3. Building 9-11 (to retain) has a flat roof system, existing roof runoff discharge location(s) should be included in the study. Show existing 9-11 flat roof down spout location on plan and show proposed grading to assure discharge to the intended catch basin.
4. On-site soil test pits should be performed to determine soil drainage classes and estimated seasonal high ground water (ESHGW) and restricted layer elevations. The proposed infiltration system should meet the minimum separations between the bottom of the system to the ESHGW and restricted layer. Test pit TP-1 indicated ESHGW at elevation 179.5, the proposed infiltration system does not meet the minimum two feet separation requirements, the minimum bottom of stone elevation should be 181.50 and 181.26 was proposed. If the bottom of system to be raised to 181.50, the minimum cover over the chambers would not meet the manufacturer's requirements. Additional test pits should be performed within the proposed infiltration system.
5. The pre-development and post-development HydroCAD studies appeared to be based on the NOAA Atlas 14 precipitation data as preferred by the Ashland Conservation Commission. Statement only, Ashland's stormwater management regulations were based on MassDEP Stormwater Regulations, which was based on (Technical Paper) TP-40 rain fall data. The Ashland Conservation Commission has recently requested to utilize NOAA Atlas 14 rain fall data and this project's study meets the Conservation Commission requirements. No response required.
6. The pre-development watershed EWS-1 should include the large gravel area between Lot 353 and 354, where appeared to be collecting surface runoff and possible providing limited exfiltration, per July 2022 Google Street View and the existing edge of pavement line shown on the existing conditions plan. There appeared to be some additional lawn areas (good condition with greater than 75% grass coverage) around building #35 and building 47-49. Which should be accounted for the pre-development runoff peak rate and volume for all four study storm events. The gravel surface also affects the groundwater recharge volume and re-development status of this site. Any additional impervious areas should be treated as new developments. The existing gravel surface may have a high CN value similar to pavement surface. However, compliance with the TSS removal and nutrient removal treatments and recharge volume are required. The applicant should verify the existing/pre-development impervious areas used in the HydroCAD calculations. The 9-11 Homer Avenue's 3,980 S.F. (square feet) roof area appeared to be included in the 10,709 S.F. roofs area already. GCG measured all six existing roof areas (excluding the covered walkway in front of the commercial building) during the first round of review and concurred with the 10,699 S.F. used in the original HydroCAD report. GCG also measured approximately 11,800+/- S.F. of existing pavement area (including the covered concrete walkway), which is much smaller than the 15,011 S.F. used in the report. The discrepancy of the existing impervious areas was rather significant in a 39,658 S.F. watershed and should be revisited. The Existing Conditions peak flow rate and volume should be recalculated accordingly.
7. The post-development PWS-1B should be updated with the emergency vehicle access path and any associated new impervious areas. Which affects the overall impervious areas, ground water recharge volume and 65% Rule and treatment requirements under 343-8.1.6. The lawn and reinforced lawn and walkway should be modeled as impervious surface, which provides no groundwater recharge and TSS removal credit unless it was designed to retain the required water quality volume, (MSH Vol. 2, Ch. 2, Pg. 112). Revise grading to direct emergency access path runoff away from 15 Alden Street building.
8. Update total impervious area and provide treatments to meet 343-8. Provide total TSS and phosphorus (TP) calculations. The proposed CDS unit qualified for 50% TSS removal credit, but the TP removal would most likely require retaining 1-inch times the total site post-development impervious area volume to meet Section 343-8 requirements. The proposed CDS unit by Contech Engineered Solutions, Inc. was approved by the New Jersey Department of Environmental Protection (NJDEP), dated January 9, 2015, for 50% TSS removal credit, the rating was also acceptable by the MassDEP. The current MSH (January 2008) does not provide

any nutrients removal credit for Proprietary Separators like the proposed CDS unit. The MSH stated that insufficient data for removal efficiencies. Other acceptable evaluations would be the EPA Region 1's BMP Accounting and Tracking Tool or other BMP performance evaluation tool provided by EPA Region 1. Total impervious area should be based on the subsurface garage footprint, (green roof over the subsurface garage and commercial space is considered impervious area), paved parking area outside the garage footprint, and the proposed walkway and the existing 9-11 Homer Avenue roof should also be included in the project impervious area. GCG scaled the total impervious area approximately 33,400+/-S.F. The applicant should update the groundwater recharge and water quantity volume calculations accordingly. The proposed infiltration volume below the out weir appeared to meet the requirements. However, the updated calculates should be provided by the applicant.

9. Existing Homer Avenue drainpipe size should be identified and check for available capacity to handle the overflow connection. The existing 12" drainpipe on Homer Avenue is most likely under sized. Typical public roadway drainage systems were designed for 10- to 25-year events only. If the project outflow is controlled to below the pre-development conditions, no adverse impacts should be expected.
10. Inlet grate and drainpipe capacity and velocity calculations should be provided. Chapter 343, Section 7.6.16.c).7) & 8) require Culvert Capacities and Flow be included in the hydraulic design calculations. GCG is aware of the small inflow pavement area and does not anticipate any catch basin inlet capacity and velocity issues. However, the two proposed 8" roof drain should be sized with capacity to handle the flow.
11. Water Quality Unit sizing calculations should be provided. Resolved.
12. Operation and Maintenance plan, GCG recommends catch basin grates and sump be inspected at least 4 times per year and cleaned four times per year or whenever the sediment deposit is greater than or equal to one half the depth from the bottom of te invert of the lowest pipe in the basin. Resolved.
13. Additional Operation and Maintenance for the roof drain inlet should be specified, roof drain gutter and leader should be inspected and cleaned at a minimum twice per year. Resolved.
14. Operation and Maintenance plan should include a signature block, annual operation budget and sample O&M log. Resolved.
15. An illicit discharge statement for the site should be provided. Resolved.
16. The latest architectural plan did not show roof coverage over the three walkway/lawn areas along Homer Avenue, these areas combined total of 560+/- square feet are over the surface garage and considered impervious area and drains directly to Homer Avenue. The applicant should clarify the discrepancy of the post-development PWS-1A watershed boundary and the architectural roof layout.

Summary

The proposed driveway intersection at Homer Avenue has insufficient safety sight distance and should be addressed. The lower-level parking layout vehicles maneuverability is questionable. The lack of parking spaces should be further analysis by a traffic impact study. The drainage mitigation method is relatively sound, but needs to be updated to address the site layout changes.

If you have any questions regarding this matter, please contact our office.

Respectfully submitted,
GCG ASSOCIATES, INC.

Michael J. Carter

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