

November 28, 2022

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

RE: Site Plan Review & Special Permit, Mixed Use Development Community
501 Pond Streer (Assessor's Map 29, Lot 151, and the Converse Private Way)

Dear Mr. Matchak:

GCG Associates, Inc. has reviewed the following information for the Mixed-Use Development Community Site Plan at 501 Pond Street in Ashland, MA.

Documents:

1. Stormwater Attachment dated 11-07-2022

Plan References:

"Site Plan, 501 Pond Street, Ashland, MA." C1 and C3 prepared by Bruce Saluk & Associates., Inc. (BSA) dated 10-24-2021, last revised 11-16-2022.

This Site Plan application requires a Stormwater Management Permit (SMP) per Chapter 247-6 A and B with Ashland Conservation Commission, and compliance with Chapter 343 Stormwater Management. The proposed site area and limit of work exceeds 1-acre threshold and requires NPDES General Permit for Stormwater Discharges from Construction Activity. A NPDES filing and SWPPP should be filed 14 days prior to start of construction. There are no wetland resource areas identified on the property. A letter was generated by Oxbow Associates, Inc., dated 09-21-202, stated that there is no wetland resource area within the property. However, the Application for Planning Board Approval/Permit in the additional information section the applicant had stated 'Yes' is the parcel within 100 feet of a wetland or 200 feet of a river. Furthermore, there appears to be some off-site wetland area and drainage ditch at the abutting properties along the Hopkinton Town Line. The resource area(s) and associated buffer zone should be determined by the Ashland Conservation Commission and shown on the plan if applicable.

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. GCG latest comments shown in “Green” In general all items have been addressed.

GENERAL COMMENTS:

This is a new mixed-use development in the “Highway Commercial” (CH) and “Pond Street Mixed Use Overlay District” (PSMUOD). This development consists of the 3.63+/- acres parcel 151 Map 20 and the Converse Way (Private Way) 0.51+/- acres with combined total area of 4.14 acres (180,369 s.f.). Based on the property Quitclaim Deed, book 48742, page 540’s Exhibit “A”, paragraph 3, which stated that “Said parcel is conveyed with the right to use Converse Way as shown on said plan, in common with others lawfully entitled thereto, for the purposes as streets, roads and ways are commonly used in the Commonwealth of Massachusetts.” GCG recommends obtaining legal opinions for the applicant’s right to use the private Converse Way to be part of the site development plan as proposed. Based on Mark A. Kablack Memorandum, dated July 21, 2022. GCG concurs that the proposed driveway aisle retained the existing functional use of the easement for Parcels 2A and 2D. However, their right to improvement the right-of-way for frontage road use has been demolished. Furthermore, the existing plan also shown the Meeting House Path’s pavement extended onto the Converse Way right-of-way and practiced their right to utilize Converse Way for vehicle turnaround maneuvering. Since there are legal issues and beyond GCG’s expertise, GCG recommends having the Town Council to review the legal responses. **Resolved per Town Council.**

The proposed mixed uses (8.8.5.1 - residential dwelling units and 8.8.5.2 - non-residential uses) are by right per Section 8.8.5 of the zoning Bylaw.

SITE PLAN

1 - Cover Sheet

1. No comments.

2 – Existing Conditions Preliminary, C0.1

1. Zoning districts boundary should be shown on the plan. **Resolved.**
2. Oxbow Associates letter dated 09-21-202, stated that there is no wetland resource area within the property. However, there appears to be potential wetland resource area(s) in the adjacent properties along the Hopkinton Town Line, which may affect this development. The Ashland Conservation Commission should approve resource areas. Any wetland buffer should be shown on the plan set as applicable. **Resolved, wetlands were not flagged, which is subject to Conservation Commission approval.**
3. Provide Converse Way right-of-way distance at the Meeting House Path and Pond Street intersections. **Resolved.**
4. Provide legal opinion for the applicant’s right to include the private road “Converse Way” in the development. Applicant should provide legal proof of discontinuance of Converse Way/Meeting House Path (private portion) right-of-way and sole legal ownership of the discontinued right-of-way and right to utilize the southerly Converse Way, including Parcels “C” and “E” as their development property line. GCG recommends Town Council’s offer a legal opinion for the ownership of the Converse Way and review the applicant’s legal responses. **Resolved per Town Council.**

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3 – Layout Plan, C1

1. 8.8.6.3, 8.8.6.7.2, and 8.8.7.1.b. - Proposed 120 residential dwelling units are based on 8.8.6.3 Density - 90 units at one residential dwelling unit per 2,000 sf. of “buildable lot area” and additional 30 bonus units under 8.8.6.7.2 or 8.8.7.1.b. The Converse Way’s 22,286 sf. as “buildable lot area” should be clarified by legal opinion(s). Common Open Land area should be calculated and defined on the plan, if used for density bonus. Density Bonus units require SPGA approval. *As stated in the deed B22910 P222 that “ Lots 2A and 2D are conveyed with the right and easement to use that private way labeled as Meeting House Path, and Parcel “C” (1697 +/- sf) and Parcel “E” (as 95+/- sf), all as shown on said plan, in common with others lawfully entitled thereto, for all purpose as streets, roads, and ways are commonly used in the Commonwealth of Massachusetts. Grantor reserves the fee interest in the private portion of meeting House Path and Parcel “C” and “D”. Based on this paragraph, this private portion of Meeting House Road was laid out as a right-of-way for street, road, and way uses purpose. GCG felt that the “buildable lot area” issue was not clearly addressed on the Mark A. Kablack Memorandum’s response. GCG recommends having Town Counsel to review the legal responses. Bonus units could be approved by the SPGA under 8.8.7.b. The layout/easement should be included on the plans to show the relationship to parking and the buildings. Resolved per Town Council.*
2. 5.2.1 – Loading area for nonresidential building or use is required. Loading area should comply with Sections 5.2.6 and 5.2.7. Unless approved by the SPGA through Section 5.2.8. *No loading area proposed, GCG interpreted the Ashland Zoning By-Law Section 5.0 – ‘General Regulations’ are applicable to all projects and Section 5.2.1 stated that the loading area requirements are based on the nonresidential building or use, not by Zoning District. But Mr. Mark A. Kablack’s July 29, 2002, response email disagrees with GCG’s interpretation. GCG recommends seeking Town Counsel’s offer an opinion. Nevertheless, loading area requirements could be approved by SPGA under Section 5.2.8. Resolved per Planning Board Waiver.*
3. The proposed standard and compact parking stalls dimensions are 9’ x 18’ with 24’ wide driving aisle and 8.5’ x 16’ with 22’ wide driving aisle, respectively which do not meet the standard parking space dimensions requirements. Ashland Zoning By-laws currently do not have a compact parking space policy. Section 10 - Parking Space definition requires minimum 9’ x 20’ parking stall dimensions. Parallel parking space as shown scaled between 17’ to 20’ length by 8’ wide, also not complying with the parking space definition. In addition, GCG recommends parallel parking space should have a minimum length of 22’. *The 90-degree parking stall dimension have been revised to 9’ x 18’, which is below the 9’ x 20’ dimensions required, Board waiver is required. GCG recommends maintaining the standard 9’ x 20’ parking stall dimensions. GCG recommends minimum module dimension (face of curb to face of curb) of 62’ to prevent bumper overhanging over sidewalk. In addition, the southeasterly middle parallel parking space scaled 19’ in length and 4 of the easterly middle parallel spaces between the two crosswalks were scaled 20’ length. GCG concurs that a minimum of 20’ parallel parking stall length for the end spaces and a minimum of 22’ length for the interior parallel spaces as recommended by MDM. and MUTCD 2009, (Manual on Uniform Traffic Control Devices). Resolved per Planning Board Waiver.*
4. Converse Way is a private way with rights granted to the abutting parcels. It appears to be the only obtainable frontage for the Ronald A. Golz property, Map 30 Lot

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0001. The proposed parking layout and retaining wall is within the Converse Way right-of-way will affect Map 30 Lot 0001. The right to develop the proposed parking spaces in front of the Meeting House Path edge of pavement and within the Converse Way right-of-way should be clarified by legal opinion(s). Layout, building setback and parking space setback to street (Converse Way) requirements should be determined by the legal interpretations. Legal process of discontinuance of Converse Way and owner should be determined. Based on Mark A. Ka black's Memorandum and Deed Book 22918 Page 220, which stated that "Lots 2A and 2D are conveyed with the right and easement to use that private way labeled as Meeting House Path (now Converse Way), and Parcel "C" (1697+/- sf) and Parcel "E" (as 95+/- sf), all as shown on said plan, in common with others lawfully entitled thereto, for all purposes as street, roads, and ways are commonly used in the Commonwealth of Massachusetts. Grantor reserves the fee interest in the private way portion of Meeting House Path and Parcel "C" and "E". this wording stated that the Meeting House Path/Converse Way was laid out as a private right-of-way, also known as Paper Street. Where all abutting properties have right to pass and repass and improve the roadway, if exercised could eliminate all the proposed site parking spaces within this right-of-way. And the Grantor still has fee interest in the right-of-way. Furthermore, portion of the existing (public section) Meeting House Path pavement is already within the Converse Way layout and exercised their right to utilize the Converse Way for vehicle turnaround maneuvering. And this development will further restrict the Meeting House Path's passage right through the right-of-way. which should be addressed. In typical land development, an abandoned paper street will be divided along the center line of right-of-way and distributed or claimed by the abutters. As proposed, the steep slope and retaining wall along the southerly Converse Way right-of-way has restricted access right from the abutting property (Parcel 2D). Furthermore, the right of this project site access to Parcel 2A should be clarified. The Deed proved that Parcels 2A and 2D have right to access the Converse Way, but not this development's (Converse Way will become part of this development) access right to Parcels 2A and 2D. GCG believe the proposed driveways and walkway connections to Parcels 2A and 2D should require access easements or restriction for liability purpose. GCG recommends having the Town Counsel to review the applicant's legal responses and the ownership and development right over the private right-of-way. **Resolved per Town Council.**

5. 5.4.4. (1) & (3). – Interior Landscaping in Parking Areas. Parking areas shall be broken into 25 spaces cells, landscape island and buffer shall have a minimum area of 150 sf. and minimum width of 8' and contain 1 tree per 100 sf. Based on the 06/09/2022 Landscape Plan (L-100 & L-200), plant screening is proposed at the Meeting House Path pavement area within the Converse Way, please clarify. Proposed southerly property line (along Converse Way southerly right-of-way) trees have been eliminated and not meeting 5.4.4. - 'one tree per eight spaces. Trees shall be in any case not further than five feet from the parking cell.' There are abundant of trees proposed along the northerly property line, but only two trees in front of the northerly building face. The proposed number of trees along Pond Street frontage exceeded the requirements. There are some discrepancies with plan sheets L-100, L-200, and Site Plan C-1 at the walkway/stair connection to the southerly property line, which should be addressed. The number of proposed trees exceeded the 1 tree per 8 parking spaces requires. Tree locations should be reviewed and approved by the Board. The parallel handicap accessible spaces do not comply with ADA/AAB requirements and should be eliminated.

Lower-level elements as shown should be reviewed and approved by the Board. **Resolved per List of Finding (9/22/2022) Item #4.**

6. The proposed retaining walls (North and south) are up to 5' in height and should be equipped with safety fence. **Resolved.**
7. Driveway aprons at sidewalk crossing should be constructed with ADA compliant continuous sidewalk to match the proposed 8' wide sidewalk along Pond Street. **Resolved.**
8. Handicap parking spaces should be equipped MUTCD compliant R7-8 and R7-8P signs and pavement marking. **Resolved.**
9. EV charging spaces may be used by anyone and must not be reserved for persons with disabilities. Therefore, do not install markings or signage restricting the space to ADA accessibility only. Per "MassEVIP Direct Current Fast Charging (DCFC) Program Requirements" Accessibility section. The two HC/EV spaces would not qualify for the required 6 handicap accessible spaces. Two additional HC spaces should be provided. **At a minimum, 1 EV parking space should conform with the HC spaces requirements, but not be reserved for persons with disabilities, per "MassEVIP Direct Current Fast Charging (DCFC) Program Requirements" and U.S. Access Board recommendation for Accessible EV Charging Stations standards. Resolved.**
10. Stop sign and stop line at curb opening are recommended by the MDM traffic report. **Resolved.**
11. Bicycle parking is recommended by the MDM Traffic Report. **Resolved.**
12. Portion of the proposed wheelchair access at the west end of the south parking lot is in the abutters private property crossing Golz and outs. **Layout subject to approval by the abutter.**
13. **Add Stop line and Stop sign at the Pond Street site driveway intersections, parallel parking aisle and minigolf driveway intersection per MDM responses to RM8 and RM9.**

4 – Grading Plan, C2

1. Silt sacks should be installed at the existing downstream catch basins on Pond Street. **Resolved.**
2. Proposed curb openings require a MassDOT State Highway Access Permit. Additional drainage improvements may be required by MassDOT. **MassDOT Permit required. Statement.**
3. The 260 contour should be provided at the easterly parking area (in front of proposed building). **Show 260 contour on the northerly parking area. Resolved.**
4. The 258 contour should be provided near WQI #3. Applicant may consider showing one foot contour to clarify the intent of the grading especially at the northerly parking lot. **Resolved.**
5. Even though the parking areas are relatively flat. GCG recommends calling out the handicap accessible parking space and access path should have a maximum 2% slope at any direction requirements. **Applicant and contractor should be responsible to assure accessible parking space and access route not to exceed the maximum 2 % cross slope. Plan note 8b requires the contactor to responsible for meeting the ADA requirements. Site is relatively flat and should be manageable by the contractor. Resolved.**
6. The proposed walkway at the southeasterly building corner toward south has a 6.7% slope in front of a wheelchair ramp and should be addressed. **A walkway with**

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stairs has been proposed to connect to the Golz property (Plan Book 22918 page 220, Parcel 2D), Counsel Kablack's document shown that Parcels 2A and 2D's right to the Converse Way. Counsel should also clarify the right of this development's walkway and driveway connection to Parcel 2D without the benefit of an easement and the legal ownership of the Converse Way layout. Proposed walkway connection does not meet ADA/AAB requirements. GCG recommends seeking Town Counsel's opinion. **Work/grading in the abutter's property subjects to owner approval. Applicant to seek approval from AAB and abutter for walkway connection.**

7. Verify the southerly access to the Ronald A Golz parcel (Map 30, Lot 0001), the spot grade as shown creates a 9+/- percent slope driveway connection. Provide transitional curve to avoid abrupt grade changes. GCG measured the slope between proposed 256- contour to the 254.6 existing spot grade at the property line with 9.3% slope in 15 feet, with 5.7 % cross slope at the intersection and should be addressed. These steep grades could cause vehicles to bottom out at the steep grade transition. **Proposed work and grading in the south abutter's property and walkway connections subject to owner approval.**

8. Provide top of curb and bottom of curb spot grades to indicate wheelchair ramp locations. The handicap parking areas are relatively flat, applicant and contractor should be responsible for the construction of wheelchair ramps in compliance with the ADA/AAB requirements. **Note 8b stated that Contractor to responsible for ADA/AAB requirements. Resolved.**

5 – Drainage Plan, C3

1. MassDEP – Standard Design Guidelines for Shallow UIC Class V Injection Wells. – proposed subsurface structures (chambers) system is classified as Shallow UIC Class V Injection Wells and should be registered to MassDEP prior to construction. **Resolved.**
2. The proposed subsurface chambers system does not meet the minimum 10 feet separation to the existing and proposed water supply lines. **Resolved.**
3. The proposed retaining wall should be equipped with impervious barrier to prevent infiltration chambers break out. **Resolved.**
4. Determine off-site wetland resource areas. Infiltration chambers/UIC Class V injection well should be located with a minimum 50' setback. **Resolved. Wetland boundary subject to Conservation Commission approval.**
5. Label the number of Cultech FC-24 Feed Connector units per each system according to the HydroCAD calculations. **Resolved.**
6. Resident Courtyard TU#1 is missing YD#2 inlet invert (254.71), verify outlet invert 254.72, which is higher than the YD#2 inlet, Stormceptor STC 450i detail (plan sheet C-10) detail shown 3" drop between inlet and outlet. **YD#2 invert should be 255.37, TU#1's - (4" in) label no longer applicable, the (10" in) invert elevation is applicable to both YD #1 and YD#2 inlets, (per Storm Drainage Computations). Resolved**
7. The rain garden filter section (shown on sheet C-7) specified 12" of filter soil. MSH requires a minimum of 30" of soil media to qualify for nitrogen removal. **Resolved.**
8. Verify OCS outlet invert and adjust outlet pipe slope accordingly, outlet invert as shown, drainpipe is back pitched. **OCS#2 - I (18" out) = 253.55 versus CS#7 Inv's (all) = 253.8, this pipe remains back pitched. Resolved**

6 – Water, Sewer, and Utilities, C4

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1. Provide minimum 10' horizontal separation between subsurface drainage chambers system to water supply line. **Resolved.**
2. Provide minimum 10' horizontal separation between water and sewer line (relocate SMH #1). **Resolved.**
3. Label sewer pipe length and slope between SMH #2 and building sewer service. **Resolved.**

7 – Truck Access Plan, C5

1. Show sight distances for both curb openings. MDM Traffic Memo stated that the sight distance at the Converse Way location meets the safety sight distance requirements. Analysis for the north access required. **MDM stated that the south access curb opening meets the safety sight distance requirements. No additional analysis was provided for the proposed north side curb access. Based on the aerial image and Pond Street layout, GCG does not anticipate any sight distance issues at the proposed north driveway intersection. Unless the Board requires the applicant to provide a statement. Statement.**

8 – Details, C6

1. Verify the Standpipe Filter detail applicable to this project. This detail shows a discharge to a forebay. **Resolved.**

9 – Details, C7

1. The storm drain manhole should be equipped with 4,000 psi cement concrete inverts and table, similar to MassDOT construction standards. **Show 4,000 psi concrete manhole channel, (like Sewer Manhole Channel shown on plan sheet C-9, but with concrete). Resolved.**
2. Chapter 334-57, Trench Section for Water, note #2, minimum pipe cover should be 5½ feet. **Resolved.**
3. Chapter 326-14B, requires a minimum depth of 24" select gravel borrow (no stones larger than 3") above the top of pipe. Placed in 12" layers and compacted by hand tamping. **Resolved.**
4. Chapter 326-14D, requires 18" of bank gravel backfill for trench within roadways. **Resolved.**
14. Parking Dimensions – parking spaces should be 20' x 9', Zoning - Section 10 – Definitions. **The 9'x20' stall dimension has been enforced within the past few years, including Town of Ashland's own school project. However, drive aisle width is not specified in the By-Laws. GCG recommends a minimum of 22 feet aisle width for this site application based on MHD Highway Design Manual 1989. Resolved per List of Finding (9/22/2022) item #3.**
5. Signage – should comply with MUTCD standards, use R7-8 and R7-8P signs. **Resolved.**
6. Type 2 berm detail, hot mix asphalt curb/berm should be set on top of the binder course. **Resolved.**
7. **A Rain Garden Filter Section (-Filtering Bioretention Area-) was added. Rain Garden soil media (labeled Filter Soil) does not meet the minimum 30" depth to qualify for nitrogen removal credit. Resolved.**

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10 – Details, C8

1. Hydrant and water system should comply with Chapter 334. **Resolved.**

11 – Details, C9

1. Missing Stormceptor STC 450i details, drawing layer appeared to be turned off, majority of the details within the concrete structure are missing. **Resolved.**
2. **Rename “Trench Drain at Loading Dock”, loading dock was not proposed. Resolved.**

12 – Details, C10

1. Recharger (R150XLHD & R180HD) Chamber System - Plan View, calls for Cultech HVLV FC-24 Feed Connector where specified. The FC-24 chambers were utilized in the HydroCAD report for storage. Plan should show the number of FC-24 unit for each system. **Resolved.**

Additional utility requirements - 326-11. A – Provide plans and profiles of the proposed sewer work. **Sewer plan and profile have been added for the Sewer Division to review.**

Architectural and Landscape Plan

The landscape plan shown on the Architectural plan set and the Schematic Landscape Plan by Copley Wolff Design Group, were without plant and tree counts and species specifications and should be updated. **L-200 - Two trees in front of the southerly building face were not labeled. There are discrepancies between the L-100, L-200, and C1 at the walkway connection to the southerly property line and should be addressed. Resolved per List of Finding (9/22/2022) item #4.**

The latest plan called for 6,800 cubic feet of snow storage volume, which provided only 1” storage of the site pavement and surrounding walkway (combined 75,500+/- s.f., excluding roofs) snow volume. Plan should call out excessive snow to be removed off site by the property owner with no costs to the Town. Resolved

Lighting Plan

9.4.4.8. Lighting Plan (Photometric) is required. The lighting plan should include the pole and lighting fixture details, mounting height and style. An outdated lighting plan by Grady Consulting, LLC. dated October 26, 2021, was filed. However, the parking layout has been changed and that plan shown proposed lighting on Ronald A Golz’s property. **Landscape Photometric Plan L-300 shows a pole mounted fixture height at 16’. Lighting fixture and pole cut sheets should be included in the submittal for the Board’s review. Some light spillages (footcandle) were shown on the north and south sides property lines. GCG recommends installing additional shield to reduce the spillage along the property lines. The spillage at the Converse Way entrance would be overpowered by the existing Pond Street streetlight. Lighting cut sheets subject to Board approval. Additional light fixture shield should be added to eliminate spillage along the northern and eastern property lines. Resolved**

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TRAFFIC IMPACT ASSESSMENT (TIA) MEMORANDUM

1. The report was based on August 2021 traffic volume count, during school summer break. Adjustment should be provided for the school traffic impacts during the weekday morning and evening peak hours. **Not addressed. Resolved.**
2. The commercial use trip generation was based on “Land Use Code (LUC) 712 – Small Office Building” use. Any uses by right in the Highway Commercial (CH) zoning district is permitted for the commercial portion (6,800 sf.) of this development. Hence, the actual commercial uses of this site may affect the total trip generation. **Not addressed. Resolved.**
3. The “MEMO: Demographics report from Ashland Woods – requested by members of public at 4/28/22 Planning Board hearing” in file, estimated 0.167 school aged children per unit based on the Ashland Woods October 2021 leasing report which translates to 20.04 school aged children from the proposed 120 dwelling units. **GCG statement.**
4. Currently the Town of Ashland schools does not have any buses route through this part of Pond Street. New routes will be required to serve this development. **GCG statement.**
5. The proposed two curb opening access would be subject to MassDOT State Highway Access Permit approval. **GCG statement.**
6. The latest MDM Memorandum dated August 3, 2022, only responded to the loading area comment and the standard spaces stall dimensions. GCG concurs that the commercial space may not require a dedicated loading area. GCG does not recommending the proposed 9' x 18' parking stall dimensions. Zoning By-Law's definition of parking space is 9' x 20'. The Board had recently enforced the David Mindess Elementary School in 2021 (a Town of Ashland public school project) to comply with the parking stall requirements. **Resolved per List of Finding (9/22/2022) items #2 & #3.**

STORMWATER MITIGATION REQUIREMENTS

1. Pre-development/Existing Conditions HydroCAD calculations - Based on the soil logs, all 7 test pits found medium sand and coarse sand below the topsoil and/or fill layers. Furthermore, the post-development exfiltration rate for the infiltration chamber systems were based on sand soil, Hydrologic Soil Group (HSG) 'A'. GCG recommends using the HSG 'A' for both Pre-development and Post-development HydroCAD calculations. **Resolved.**
2. Chapters 247.4.C. & 343 - Stormwater Management requires no increases of stormwater runoff volume for the post-development in comparison with the pre-development conditions. A summary of the pre-development and post-development runoff volume comparison should be provided for all four study storm events. Based on the HydroCAD reports, there were increased post-development runoff volumes during the 10-year, 25-year, and 100-year storm events, net increase of 0.131 acre-feet (AF.), 0.145 AF., and 1.035 AF., respectively. **Based on the Addendum#1 Stormwater Management Report, there are net increase of 0.165 AF, 0.182 AF and 0.183 AF runoff volumes during the 10-year, 25-year, and 100-year storm events, respectively. Both Chapters 247 & 343 - Stormwater Management are under Conservation Commission's jurisdiction. GCG's comments were based on the Zoning By-Laws compliance for the Board, Conservation Commission, and all other Town Departments for consideration. Since these are local By-Law requirements, waivers would be required. GCG concurs that the groundwater recharge volume provided meets the MSH requirements. As for the**

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referenced 2014 Mindess Elementary School stormwater report did not meet the current Stormwater Management standards. The 2021 David Mindess Elementary School project (currently under construction) is a re-development and new-development project, which was required to meet the no post-development runoff volume increase requirements. That project had managed to control the volume increase to within 0.01% to 0.02% during the 25-year and 100-year storm events, respectively. And considered acceptable. **Resolved.**

3. 343-8.1.6. (a.) – Requires BMPs must be designed to remove 80% of the average annual post-development total suspended solid (TSS) and 40% for total phosphorus (TP), and 30% for total nitrogen (TN). The proposed subsurface structures (Chambers with WQI unit pre-treatments) do not have sufficient data for MassDEP to determine nutrients (TP, TN) removal rate. Therefore, the subsurface structures should be sized to capture the prescribed water quality volume (1-inch times the total impervious area for rapid soil site). GCG concurs that the proposed stormwater management system meets the MSH's 1" WQV requirements. However, Chapter 343-8.1.6 called out BMPs must be designed to remove 40% TP and 30% TN pollutants. The Massachusetts Stormwater Handbook (MSH) stated that there is insufficient data to support the Subsurface Structure (as the proposed subsurface chambers system) BMP's pollutant removal efficiencies. Current MSH only recognizes surface treatments BMP can remove nutrient pollutants. The 343-8.1.6 (a) recommended capturing the prescribed water quality volume appears to be consistent with the EPA Region 1's BMP performance analysis. Chapter 343 is also a local requirement that could be waived by the Conservation Commission. **The proposed subsurface infiltration chambers system does not qualify for nutrient (TP and TN) pollutants removal. Applicant will be seeking a waiver with Section Chapter 343-8.1.6. Without a waiver, the subsurface infiltration system would require additional expansion. There appears to be some freeboard storage volumes within CSs #5 and #6 could be utilized to improve the capture volumes. Resolved**
- 3.a **Verify Chamber System Schedule - storage below pipe invert volume, CS#6B should have provided addition 230 cubic foot of storage volume. Resolved**
4. The proposed 13 inlets with catch basin open grate meet the required 44% TSS removal prior to discharge to infiltration structures with rapid exfiltration rate. **GCG statement.**
5. The applicant should provide a drainage study to demonstrate compliance with Chapter 247 and 343. Which requires project to meet current MSH requirements and control the post-development runoff volume not to exceed the pre-development conditions. There was a predetermined discharge flow allowance to the drainage parcel Map 14 Lot 21 for detention. The applicant should provide calculations showing this project meeting the predetermined runoff allowance. **GCG recommends applicant to provide a pre-development and post development runoff volume comparison for all four storm analysis events for the Board and Conservation Commission to consider. Resolved.**
6. 343-7.06.17 requires an Operation and Maintenance plan for this project. **See comment item #8 below. Resolved**
7. Sub-catchment and pipe capacity analysis and WQU sizing calculations should be provided. The proposed Stormceptor water quality units (WQU) calculations TSS removal rating as shown were based on the manufacturers claim. The sizing calculations were appropriate. However, GCG can only accept 50% TSS removal rate per NJDEP approval document dated August 31, 2011 (concurrent by MassDEP). Which exceeded the MSH 44% pretreatment requirement. **Resolved.**
8. Operation and Maintenance (O&M) Plan, Long Term. – Water Quality Structures/Inlet, (WQI) Structures. There should be a total of 13 units, (9A and 9B) should be counted as

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two units. O&P plan referenced the WQI units be CDS units manufactured by Contech, but the plan detail and calculations were based on Stormceptor STC450i unit. Both Stormceptor and CDS units are currently under Contech Engineered Solutions, both units are rated with 50% TSS removal with proper maintenance by NJDEP. Since the inflow sub-catchment to each inlet unit is relatively small. The smaller CDS unit would meet the 50% TSS rating as well. However, O&M maintenance references should match with the WQI unit proposed on the plan set and calculations. Update O&M plan to 15 Water Quality Structures, (Additional units TU#1 and TU#2 were added). Verify the Stormceptor sediment removal requirement, O & M plan calls for 75% of the capacity of the sump, but Stormceptor manufacturer Operation and Maintenance Guide, Table 4, recommends at 8-inch depth. Yard drain and catch basin grates should be cleaned during inspection (4 times per year). Add roof drain inlet and gutter inspection and cleaning schedule. There should be two outlet control structures (OCS). Resolved

9. Catch basins maintenance should be merged with WQI units. Inspect and clean the inlet grates four times per year. WQI units sump should be inspected and cleaned per manufacturer's recommendation. Resolved.
10. Pavement should be swept at a minimum twice per year, early spring, and late fall. GCG recommends adding an additional pavement sweeping at the late fall. Resolved.
11. Dog park O&M should be specified. Resolved.
12. Update inspection log accordingly. Resolved.
13. Verify DMH#3 to DMH#2 and OCS #1 to DMH #1 pipe flow velocity. These two pipes have steep slopes, 10% and 8.5%, respectively. Both pipes have flow full velocity over 17 feet per second. Should be revised to maintain the flow full velocity under 10 feet per second. Resolved

Summary

The Converse Way right-of-way ownership and abutters' legal right to develop should be address by legal counsel. Parking space dimensions do not meet current Zoning standards Additional storm water storage is required to control the runoff volume and comply with the Stormwater Management Permit requirements. Based on the abutter's Deed description attached to Mr. Kablack's legal opinion, the Converse Way/Meeting House Path (private portion) layout was worded as a roadway right-of-way. And laid out like a street right-of-way. The private street should be discontinued through the proper legal discontinuance procedure to terminate all rights over the right-of-way if the applicant intends to use this area as part of their parcel. Applicant should provide legal documents to prove sole ownership of the right-of-way to merger the parcel to their lot for development. Since this is more of a legal procedure, GCG recommends having the Town Counsel's review their response. Furthermore, the drainage design follows the Massachusetts Stormwater requirements, but not to the Ashland Stormwater Management Bylaws standards. Chapter 343-8.1.6's drainage nutrient removal requirements were adopted to comply with the EPA MS4 Permit requirements and applicant is seeking a waiver. Resolved.

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

Respectfully submitted,
GCG ASSOCIATES, INC.

Site Plan Review & Special Permit
501 Pond Street, Ashland, MA
GCG Job#2257

Michael J. Carter

Michael J. Carter, P.E.
Project Manager

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