



# GREEN INTERNATIONAL AFFILIATES, INC.

100 AMES POND DRIVE, SUITE 200 TEWKSBURY, MA 01876

T: (978) 923-0400 | WWW.GREENINTL.COM

Open Comments  
Defer to Board  
Conditions of Approval

## Peer Review Comment Form

PROJECT NAME: 95 TAYLOR STREET PEER REVIEW  
DATE: 3/29/2024  
UPDATED: \_\_\_\_\_  
PROJECT NO.: 22015.2006

NO.	SHEET NO.	SECTION	GREEN'S COMMENT	Applicant's RESPONSE	CONFIRMED BY	DATE
APPLICATION						
1	List of Waivers		The Applicant has provided a list of waiver in the application. We defer to the board for review of the waivers.	No response needed.		
2	List of Waivers		Please explain why a waiver for § 259-59 C is required.	The waiver is requested to allow details to be finalized during the construction phase to allow modification depending on conditions encountered during construction.		
3	Draft Construction Management Plan R)	§ 249-89 D	Please note the required information to be displayed on signage from § 249-89 D (1)-(4) in this section of the Construction Management Plan.	Information on required signage is now provided on the Construction Management Plan.		
4		§ 249-32 E.3	Per the Subdivision Regulations, the Applicant shall submit calculations showing the proposed sanitary sewer system has been designed according to the standards. No sewer study calculations were submitted, please provide calculations or explain why these were omitted.	No sanitary sewer is proposed. The proposed building lots will be served by individual on-site sewage disposal systems. The Development Impact Report has been revised to incorporate additional information on the proposed on-site systems; nitrogen loading calculations are provided.		
5		§ 249-32 E.4	Per the Subdivision Regulations, the Applicant shall submit calculations showing the water system has adequate fire flow and the services have minimum residual water pressure of 20 psi. No water study calculations were submitted, please provide calculations or explain why these were omitted.	A flow test is scheduled with the Water Department for April 22nd. The data will be shared with the Planning Board when available.		
6		§ 249-32 E.5	Public work costs included costs per mile but did not include costs per CB and per BMP as noted in the Subdivision regulations. Please provide costs for these items as well.	The road is proposed to remain private.		
TRAFFIC IMPACT STUDY						
7	Application for Approval of a Definitive Subdivision Plan pp.10; 11	MassDOT Transportation Impact Assessment (TIA) Guidelines §II.D	MassDOT TIA guidelines state that "ITE rates... from the most recent edition of Trip Generation." The 9th edition of Trip Generation was used although the latest available edition is the 11th. This being stated, there is at most only a 1 vehicle difference in trip generation estimates between the two editions and this is not anticipated to noticeably impact operations at the proposed intersection.	Because the difference between the values provided in the 9th and 11th editions are minimal as they relate to this project, we believe the use of the 9th edition is appropriate.		
8	Application for Approval of a Definitive Subdivision Plan pp.10; 11	§ 249-32 E.2	"Minor projects" are requested to state the "expected operating condition of its site access drive intersection with the major street" but this has not been stated in the traffic section. However, with three or fewer additional trips anticipated to access Taylor Street in any given peak hour, operational impacts to Taylor Street are anticipated to be minimal.	The "Traffic Study" section of the development impact report now includes a statement that operational impacts are expected to be minimal.		
SITE PLAN						
9	2	§ 249-89 A	Please provide permanent monuments at all lot and easement corners along the right of way. There are currently three temporary monuments along the right of way that should be permanent.	All monuments proposed along the right of way boundary are now proposed to be permanent.		
10	3/4/5/7	§ 249-32 C (1)	Please provide a north arrow on every sheet that has a plan view. Sheet 3, 4, 5, 7 do not currently have a north arrow. Please add RD and UGW linestyles to legend.	Sheets 3, 4, 5, and 7 are now provided with a north arrow. RD and UGW linetypes have been added to the legend.		
11	4	§ 249-32 C (11)	Please rotate the station labels to be parallel with the alignment instead of perpendicular for clarity, provide the bearing information on each sheet that shows the alignment, and increase the line thickness of the alignment to match that of the station labels and tick marks for clarity purposes.	The station labels have been rotated and the line thickness of the alignment has been increased.		
12	4	§ 249-32 D (6)	The location and size of the existing water main is not shown on the plans. The size of the proposed water services are not shown on the plans. Please revise to show the location and size of all water pipes.	The approximate location of the existing 6" cast iron water main in Taylor Street is now shown. The water services are proposed to be 1" blue polyethylene; they are now identified as such on the plan.		
13	4	§ 249-32 D (7)	Please show UGW line work on this plan sheet. It is not fully shown on sheet 5. Will there be any proposed gas utilities? Please show gas utilities on this sheet.	The proposed underground wires are now shown on the site development plan. No gas utility is proposed as part of this application.		
14	4	§ 249-43 A (3)	Please consider snow storage and plowing operation for this configuration. Please provide snow storage on the plans.	Snow storage areas are now shown on the site development plan.		
15	4	Table § 249-43.3	Provide at least a 20 foot tangent from the grade break at Taylor Street to the first proposed vertical curve.	A waiver to this requirement is now requested. See updated waiver list.		
16	4	§ 249-43 E (4)	Verify trees nearest Taylor Street are at least 25' beyond the curb line of Taylor Street. They appear to be less than 20 feet currently.	The location of the proposed street trees near Taylor Street have been adjusted to hold 25' to the curb. A waiver is now requested to § 249-43 E (4) to allow street tree locations to be determined after final grading.		
17	4	§ 249-43 E (5)	Street tree locations shall be coordinated with all proposed utilities to avoid conflicts with tree growth. The UGW line appears to be under or very close to the street trees. Please revise or confirm there will not be a conflict.	The underground wires are now shown on the site development plan. Street tree locations shown on the plan have been adjusted. See response to comment #16.		
18	4	§ 249-43 E (8)	The Applicant shall seek the advice of the Shade Tree Committee for location and species of tree. Has the street trees been reviewed and approved by the Shade Tree Committee?	A waiver is now requested to § 249-43 E (4) to allow street tree locations and species to be determined after final grading. The advice of the Shade Tree Committee will be sought prior to planting.		



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19	4	§ 173-18 D & § 173-127 H & § 249-43 A (3), § 249-85	Please provide additional documentation that the Town of Littleton fire truck can safely maneuver in and out of the proposed development and can enter and exit each driveway branch. Confirm that the dead-end closed end accommodates fire truck turning, and that the Town and Fire Department has approved of the branched closed-end instead of circular closed end. Also, the subdivision does not have any new hydrants. Please coordinate with the fire department if hydrants are needed and for their location.	Firetruck turning templates are now provided.		
20	4	§ 249-43.A.1.a & § 249-81	The traveled way width for a Lane (used to provide access to 10 or fewer residential units and not intended for through traffic) shall be as specified in the Town of Littleton Subdivision of Land Figure 1, with roadway 22 feet wide and providing a sidewalk along one side of the roadway. This also requires curbing and a sidewalk. The Applicant is providing no curb or sidewalk and is reducing the roadway width to 16 feet. The Applicant reduced the roadway width to 16 feet to meet the Shared Driveway requirements and not the Subdivision requirements. The Applicant is seeking a waiver for this standard. We defer to the board if this is acceptable.	No response needed.		
21	4	§ 249-51.H	A minimum 35 foot setback as measured from the top of the inside slope of the infiltration basins to all property lines shall be required. It appears the distance between the neighboring property line and the infiltration basins is less than 35 feet. Please revise.	A waiver to this requirement is now requested. See updated waiver list.		
22	4	§ 249-85 E(3)	Water mains crossing storm drain shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the storm drain. This shall be the case whether the water main is either above or below the storm drain. At crossings, one full length of water pipe shall be located so both joints will be as far from the storm drain as possible. If the storm drain is over the water main, the storm drain pipe shall be encased in concrete per Figure 4, Typical Concrete Encasement of Sanitary Sewers or Storm Drains. Please revise to include these details for the drain pipe connecting AD-3 and DMH-2 and crossing multiple water services.	The drain is now shown and a pipe sleeve is now specified; a detail is provided with the construction details.		
23	4	§ 249-89 B	Since this will be a Town accepted roadway, a street sign should be provided. Please provide a detail and show on the plan.	The road is proposed to remain private. A sign detail is now provided and the location is shown on the plan.		
24	4		Please provide pedestrian curb ramps on either side of the proposed Strawberry Farm Road at the intersection of Taylor Street. Please provide a detail of these ramps.	Curb ramps are now proposed and a detail is provided.		
25	5	§ 249-32 D (5)	Please provide grid lines on the profile for clarity purposes and please show the crossing of drain pipe on the profile to clearly represent the separation between this pipe and the water line.	Horizontal grid lines are now provided. The crossing drain pipe is now shown.		
26	5	§ 249-51.D	Roads shall be graded so that surface water does not cross the roadway. The road is currently superelevated and allows surface water to cross the roadway. Please revise and include an inlet analysis demonstrating gutter line spreads at all inlets meet the requirements of MassDOT.	A waiver to this requirement is now requested. See updated waiver list. Inlet grate capacity calculations are now provided.		
27	5	§ 249 Appendix A Figure 1	Gravel borrow shall meet the material specification of M1.03.0(b) for gravel borrow, type b. Please revise typical pavement section.	The typical pavement section has been revised to specify gravel borrow, type b.		
28	5	§ 249 Appendix A Figure 1	Binder course shall be 2-1/2" per Littleton detail. Please revise typical pavement section.	The typical pavement detail has been revised to specify 2-1/2" of binder course.		
29	5		Please add existing ground elevation at STA 1+25 on the profile. It is currently missing from the x-axis.	There is an existing building at STA 1+25 so an existing ground elevation cannot be provided.		
30	6	§ 249-43 E (15)	General note 12 states that street trees shall be provided in accordance with the Town subdivision regulations, however the Town regulations require the planting operations and street tree requirements be shown on the subdivision plans and shall meet ANLA standards for planting, please provide this information on the plans.	A waiver is now requested to § 249-43 E (15) to allow street tree planting operations to be determined after final grading with input from the Shade Tree Committee and Planning Board.		
31	7	§ 38-16 C (2&7)	The erosion and sediment control plan is missing a legend. The catch basin within Taylor street has a dashed line around it but no call out. Please identify on the plans that the catch basin will have inlet protection. The catch basin on the other side of Taylor Street should have inlet protection as well.	A legend is now provided. Silt sacks are now identified on the plan. The approximate location of the existing catch basin on the opposite side of Taylor Street is now shown and is proposed to be protected with a silt sack.		
32	8	§ 249-59	Traffic management plan should be developed to include signage for work on the access of the proposed Strawberry Farm Road that encroaches onto Taylor Street.	A detail is provided on Sheet 8 to specify signage that shall be used during proposed construction within the Taylor Street right of way.		
Stormwater Report						
33	Critical Area Standard #6	MassMapper	The narrative and stormwater checklist says the project is not in a critical area. The project is within a Zone II, therefore it is in a critical area. Please revise.	The checklist and narrative have been revised to note the critical area.		
34	Watershed Plans		The Existing Watershed Plan does not have labels for each subcatchment noted in the Stormwater Report. Please add the subcatchment labels for clarity.	Subcatchment labels have been added to the pre-development drainage map.		
35	Peak Rate and Volume Calcs	§ 251-51 F	The drainage system shall be designed such that there is no increase in peak rates and total volume of runoff from any watershed area at the discharge points. Analysis Point 2 has an increase in volume for the 10 year storm. Please revise.	Grading on Lot 3 has been revised to direct additional area to the proposed infiltration trench so that there is no increase in volume for the 10 year design storm.		



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36	Peak Rate and Volume Calcs	§ 251-51 F	There is an increase in peak rates and volume to the depression area in Subcatchment P-3. Please confirm the depression area has enough volume that the stormwater will remain within the depression area on site and not overtop to the wetlands under proposed conditions.	The existing depression is now included in the hydrology model; runoff to the depression is contained up to the 100-year design storm.		
37	Recharge Calcs		A drawdown calculation should be performed for the infiltration trench to confirm it fully infiltrates within 72 hours. Please provide.	Drawdown calculations for the infiltration trench are now provided.		
38	Pretreatment Calcs	MA Stormwater Handbook Vol 2. CH 2	Pretreatment calculations should be performed to confirm the sediment forebays are adequately sized per MA Stormwater Handbook. At a minimum size the volume of the sediment forebay to hold 0.1-inch/impervious acres to pretreat the water quality volume. Please provide.	Sediment Forebay sizing calculations are now provided.		
39	TSS	MA Stormwater Handbook Vol 1. CH 1 & Vol 2. CH 2	TSS calculations indicate runoff will be pretreated by deep sump catch basins with hoods and sediment forebay. Based on the grading it appears some impervious area will sheet flow into the infiltration basins with no pretreatment. This specifically appears to occur near the turnaround area. Please revise to provide pretreatment for all runoff from impervious before entering the infiltration basin. 44% TSS removal is needed for pretreatment because the project is within a critical area and rapid infiltration rate area. Also, without proper pretreatment the infiltration basins will clog with sediment quicker and won't function as designed.	Cape cod berm is now proposed adjacent to the turnaround to ensure that pavement runoff drains to AD-1.		
40	O&M		O&M for the roof drywells (stormtech SC 740) should include maintenance instructions from the manufacturer. The current maintenance description is not sufficient. Please revise.	Maintenance instructions from the chamber manufacturer are now provided.		
41	O&M		O&M should note that if water is observed to be ponding 72 hours after a rainfall event in the infiltration basin and infiltration trench then the infiltration basin and trench needs to be rehabilitated. The basin and trench shall be inspected after every major storm event for the next 3 months after rehabilitation to confirm it has been rehabilitated properly.	The O&M has been modified to include language that the basin and trench shall be rehabilitated if ponding is observed 72 hours after a rainfall event.		
42	O&M		The bottom of the basin appears to be crushed stone per the detail. The O&M should note how this will be maintained (washed, replaced, etc.). Please revise.	The bottom of the basin is now proposed to consist of 6" of Title 5 sand so that it can be raked.		
43	O&M	§ 38-18 B	The O&M shall be signed.	The O&M is now signed by the responsible party.		
44	O&M	§ 38-18 C	The stormwater BMPs are serving more than one lot, the applicant shall include a mechanism for implementing and enforcing the O&M Plan. The applicant shall identify the lots or units that will be serviced by the proposed stormwater BMPs. The applicant shall also provide a copy of the legal instrument (deed, declaration of trust, articles of incorporation, etc.) that establishes the terms of and legal responsibility for the operation and maintenance of stormwater BMPs. In the event that the stormwater BMPs will be operated and maintained by an entity or person other than the sole owner of the lot upon which the BMPs are placed, the applicant shall provide a plan and easement deed that provides a right of access for the entity or person to be able to perform said operation and maintenance functions.	This is in progress and will be provided by the applicant		