

Mt. Hope High School
Bristol, RI
Pare Project No. 23099.01

September 4, 2024
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RESPONSES TO BETA MASTER PLAN REVIEW COMMENTS DATED AUGUST 27, 2024

Attachments:

Attachment 1 – Major Land Development Checklist – Master Plan Phase

Attachment 2 – Traverse Landscape Architects response to synthetic turf concerns.

GENERAL COMMENTS

1. **COMMENT:** Please revise page numbers in location column of the checklist.

RESPONSE: Please see the revised checklist for revised page numbers.

2. **COMMENT:** How will this project be phased?

RESPONSE: Per the estimated schedule provided by the Bristol Warren Regional School District's (BWRSD) OPM, the project is anticipated to commence construction in the spring of 2025. The Owner plans to construct the new school building on the northwest portion of the site, while the existing building remains fully operational. Once the new building is constructed, the existing building and site features will be demolished. The remaining site improvements will then be constructed. The new building is anticipated to be completed for students by August 2027 and the remaining demolition and site improvements will be completed following the new buildings completion.

During the TRC Meeting, members expressed interest in the details of utility connections to maintain connections to the existing school during construction of the new school. Pare will work with the Owner and Utility Companies to provide more detail on utility connections for the Preliminary Plan Submission.

3. **COMMENT:** Can Stormwater runoff be detained and reused on site, for irrigation of the athletic fields or other practices?

RESPONSE: The Owner is reviewing the feasibility of an irrigation well per the request of the TRC on 08/28/2024. Additional information regarding the feasibility of an irrigation well will be provided to the Planning Department when available. An update on the feasibility of an irrigation well will be provided at the Planning Board meeting scheduled September 12, 2024.

APPLICATION FOR MASTER PLAN (COVER LETTER)

1. **COMMENT:** Pare states that the stamped existing conditions plan, preliminary photometric plans, building elevations, renderings plans and BCWA application were not included in the submission and will be provided prior to the Planning Board Meeting.

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RESPONSE: The stamped existing conditions, the photometrics plans, building elevations, rendering plans, and BCWA application have been sent to the Planning Department.

MAJOR LAND DEVELOPMENT CHECKLIST

1. **COMMENT:** Section B, Row 9 - Properties on Dartmouth Street, east of Murgo Lane do not have names, addresses and Plat/Lot information and are within 200' of the parcel.

RESPONSE: An updated certified survey of the site including information on Dartmouth Street and east of Murgo Lane has been provided. See survey sheet 1-4.

2. **COMMENT:** Section C, Row 2 - A certified survey was not provided as part of the submission package. Survey information missing in the existing fields and the east of the football field.

RESPONSE: An updated certified survey of the site, including information on the fields and surrounding areas has been provided. See survey sheet 1-4.

3. **COMMENT:** Section C, Row 3 & 7 – The master plan report mentions an existing sewer easement owned by the Town through the property, the plan set does not show the easement.

RESPONSE: The existing sewer easement has been added to the survey. Refer to survey sheets 2 and 4.

4. **COMMENT:** Section C, Row 9 – The base flood elevation data is not shown on the plan set.

RESPONSE: Base flood elevation on site varies from Elevation 60.3 to 41.8. The datum used for these elevations is North American Vertical Datum of 1988 (NAVD88). Refer to Master Plan Report attachment 3. An updated certified survey of the site, including floodplain limits have been provided. See survey sheet 1-4.

5. **COMMENT:** Section C, Row 13 – Location column was not completed. The delineation of the wetland complex in the northeast portion is shown on the plan and discussed in the report, however the delineation of Silver Creek, the wetlands in the southwest portion, and buffer areas for the wetlands are not show on the plans.

RESPONSE: An updated certified survey of the site, including information depicting wetland flags and buffers for Silver Creek and the southwest wetlands has been provided. See survey sheet 1-4.

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6. **COMMENT:** Section C, Rows 16-18 – A complete certified survey is required.
RESPONSE: An updated certified survey of the site has been provided. See survey sheet 1-4.
7. **COMMENT:** Section C, Rows 20 – Confirm all requirements are addressed in the Stormwater Report and supporting documents for the RIDEM permit submission.
RESPONSE: Following approval of the Master Plan, Pare will advance design and prepare a Stormwater Management Report. The Stormwater Management Report and supporting documents will be included with the Preliminary Plan Submission and the RIDEM Freshwater Wetlands Permit Application.
8. **COMMENT:** Section D, Row 1 - A complete certified survey is required, no areas are identified as unsuitable on the plans.
RESPONSE: An updated certified survey of the site has been provided. See survey sheet 1-4. The unsuitable land area for the property is 9.98 acres per the wetland resources areas delineated on survey sheets 1-4.
9. **COMMENT:** Section D, Row 5 – There are two proposed structures to the east of the proposed softball field that are not labeled with dimensions or area.
RESPONSE: The structures have a gross floor area of 300 square feet (SF) and 1,250 SF and are labeled on revised plan sheet C3.3.
10. **COMMENT:** Section D, Row 14 – Telecommunication connection is not complete. Stormwater/drainage systems have gaps in networks, see notes on the plan set.
RESPONSE: The drainage network has been updated as noted below. The telecommunication connection has been updated, please see sheets C3.1-C3.4.
11. **COMMENT:** Section D, Row 21 – No phasing is addressed on the plans or in the report.
RESPONSE: Refer to our response to General Comment 2. A summary of the phasing has been added to the Master Plan Report.
12. **COMMENT:** Section E, Row 8 – All wetlands and buffers need to be depicted on the plans.
RESPONSE: An updated certified survey of the site, including information depicting wetland flags and buffers for Silver Creek and the southwest wetlands has been provided. See survey sheet 1-4.

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13. **COMMENT:** Section E, Row 10 – BCWA application was not provided.

RESPONSE: BCWA application has been received and submitted to the town.

14. **COMMENT:** Section E, Row 13 – QPAs are not depicted on the plans.

RESPONSE: Specific locations for QPA's will be depicted on the Preliminary Plan submission with the advanced stormwater design.

15. **COMMENT:** Section E, Row 28 – Signage including location, size, design and illumination are not provided.

RESPONSE: Details for wayfinding signage and new high school signs have not yet been developed. Therefore, details are not included in this Master Plan permit application. Regulatory, parking, and warning signs for on-site circulation and pedestrian safety will conform to MUTCD standards and be depicted on the Preliminary Plan Submission.

MASTER PLAN SUBMISSION SET

SHEET C1.1 NOTES

1. **COMMENT:** General Notes # 2 – The State of Rhode Island Standard Specifications for Road and Bridge Construction was amended by TAC 0442 on August 14, 2024. Please revise.

RESPONSE: Updated. See Sheet C1.1.

2. **COMMENT:** Erosion and Sedimentation Control Notes – Rhode Island #13 – Confirm all dewatering operations are in accordance with State regulations.

RESPONSE: Updated. See sheet C1.1 Erosion and Sedimentation Control Notes – Rhode Island #14. Soil Erosion and Sediment Control Plan shall be provided at Preliminary Plan detailing dewatering operations and procedures.

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SHEET C3.1 CONCEPT PLAN

1. **COMMENT:** Parking lot to the south of the football field provides an accessible van parking space, the sidewalk adjacent to this lot does not provide an accessible route anywhere.

RESPONSE: The schematic walk layout depicted on the Master Plan Submission has been revised to depict an accessible path to the bleachers from the accessible parking spaces. Refer to Sheet C3.1. The final layout of walks and accessible routes will be provided at Preliminary Plan.

2. **COMMENT:** Telecommunications line shown from proposed building and terminating before connection.

RESPONSE: The telecommunication connection and routing has been updated. See sheet C3.1, C3.2, & C3.3.

3. **COMMENT:** Detention basin to the south of the building has no drainage connection.

RESPONSE: A drain pipe is depicted on the revised Master Plan Submission. See sheet C3.1.

4. **COMMENT:** Ramp shown at southern end of bleachers does not connect to an accessible route.

RESPONSE: The schematic walk layout depicted on the Master Plan Submission has been revised to depict an accessible route from the bleachers to the south and east parking lots. Refer to Sheet C3.1. The final layout of walks and accessible routes will be provided at Preliminary Plan.

5. **COMMENT:** Page 3 of the report mentions a wetland in the southwest portion of the site, the wetland boundary is not shown on the plans.

RESPONSE: An updated certified survey of the site, including information depicting wetland flags and buffers for Silver Creek and the southwest wetlands has been provided. See survey sheet 1-4.

6. **COMMENT:** Need to check set back requirements of bio retention areas to surface waters/within buffer

RESPONSE: Bioretention areas and sand filters on-site are filtering systems, which do not have required setbacks per the RISDISM. The BMPs will be designed in accordance with RIDEM stormwater standards and will minimize disturbance to wetlands, surface

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waters and vegetated buffers. Final locations of BMPs will be depicted on the Preliminary Plan Submission.

SHEET C3.2 CONCEPT PLAN

1. **COMMENT:** Has the existing bridge over Silver Creek been inspected? How will the sewer force main and the electric service be installed without impacting Silver Creek?

RESPONSE: The culverts along Silver Creek and proposed crossings will be reviewed with a structural engineer prior to Preliminary Plan. Improvements to provide support for vehicles will be designed during the subsequent design phase and depicted on the Preliminary Plan Submission. Grades may be modified to provide adequate cover for site utilities while minimizing impact to Silver Creek. Insulation for sewer and water services will be proposed where warranted due to the depth of the proposed piping. No in-water work is anticipated at these crossings.

2. **COMMENT:** Electrical service going to the building from Chestnut Street is shown through a bioretention basin.

RESPONSE: Bioretention area footprint has been updated to avoid the electrical line. See sheet C3.2.

3. **COMMENT:** The bioretention areas to the north of the parking lot and to the east of the tennis courts have no closed drainage discharging to them.

RESPONSE: These bioretention areas have been removed. See sheet C3.2.

4. **COMMENT:** Sewer pipe out of the building to the lift station is shown through a bioretention area.

RESPONSE: Sewer pipe has been routed around bioretention area. See sheet C3.2.

5. **COMMENT:** Revise the thickness of the concrete reinforced slab at the driveway crossing of Silver Creek. Has the existing culvert been inspected? Are there any structural deficiencies that would prevent the proposed geometry of the driveway?

RESPONSE: The culvert will be reviewed by a structural engineer, and the reinforced concrete slab will be designed for the Preliminary Plan submission. The Owner and Design Team are not currently aware of any structural deficiencies that would prevent geometry of the proposed driveway.

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6. **COMMENT:** Is there enough cover between the proposed reinforced slab and the culvert to install in the water and fire service as shown on the plans?

RESPONSE: The grades over the bridge will be raised to provide cover. Insulation will be provided to protect pipes from frost where located within the frost zone.

SHEET C3.3 CONCEPT PLAN

1. **COMMENT:** Proposed overflow spillways are shown outside of the LOD/CFS line, please revise.

RESPONSE: LOD has been updated to include the proposed overflows. See sheet C3.3.

2. **COMMENT:** The proposed storage shed structures to the east of the softball field are not labeled or dimensioned.

RESPONSE: Updated the storage sheds have labels and areas associated with them. See sheet C3.3.

SHEET C3.4 CONCEPT PLAN

1. **COMMENT:** Sand filter to the north of the football field shows flared end outlet structure but no connection to a drainage network.

RESPONSE: Connection from the drainage network to the sand filter has been added. See sheet C3.4.

2. **COMMENT:** Ramp down from bleachers is not connected to an accessible path.

RESPONSE: The schematic walk layout depicted on the Master Plan Submission has been revised to depict an accessible path to the bleachers from the accessible car parking space. Refer to Sheet C3.1. The final layout of walks and accessible routes will be provided at Preliminary Plan.

3. **COMMENT:** How will the stormwater water from the synthetic turf surface and track be handled?

RESPONSE: The stormwater from the synthetic turf field and track will be captured and treated outside the limits of the athletic field through a wet vegetated treatment system. Stormwater will be sent to the BMP to the south of the field to provide water quality and mitigate peak flows. Stormwater management for the field will be designed in accordance with RIDEM standards. Additional detailed information regarding stormwater treatment design will be provided at Preliminary Plan.

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MASTER PLAN REPORT

1. **COMMENT:** Page 2, Soils – What is the SHGT? There are numerous filtering systems proposed on the site, that require the bottom of the filter to be at or above the SHGT. Please provide referenced test pit data.

RESPONSE: The estimated seasonal high groundwater table (SHGT) is approximately 10”-38” below existing grade across the site due to the highly restrictive natural soils on site. The groundwater onsite is generally high due to poorly draining soils estimated at an infiltration rate of 0.27 in/hr. The BMPs will be lined as needed and will be depicted on the Preliminary Plan submission. Test pit data is included within the revised Master Plan Report.

2. **COMMENT:** Page 3, Wetlands/Flood Plain – Forested swamp and wet meadow located on the southwest portion described in this section is not shown on the plans.

RESPONSE: An updated certified survey of the site, including information depicting wetland flags and buffers for Silver Creek and the southwest wetlands has been provided. See survey sheet 1-4.

3. **COMMENT:** Page 3, Wetlands/Flood Plain – Verify bio retention areas should be located within the flood plain

RESPONSE: Stormwater BMPs may be located within floodplain. The design will result in no net loss of flood storage volume. Stormwater elements of the project are conceptual; locations will be updated for Preliminary Plan.

4. **COMMENT:** Page 3, Wetlands/Flood Plain – Compensatory storage shall be provided as needed.

RESPONSE: Grading within the floodplain will be provided to result in no overall loss of flood storage volume.

5. **COMMENT:** Page 3, Utilities – Town owned sewer easement described in this section is not shown on the plans.

RESPONSE: Easement has been added to the survey. See survey sheets 2 and 4.

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6. **COMMENT:** Page 4, Proposed Development – What is the net increase of impervious area?

RESPONSE: The existing conditions have approximately 10.25 acres of impervious area, while the proposed conditions have approximately 12.20 acres of impervious area, leading to an increase of 1.95 acres of impervious cover. The proposed conditions impervious surface value reflects the schematic design and are subject to change. The updated impervious surface values will be provided at Preliminary Plan submission.

7. **COMMENT:** Page 6, Impacts to Silver Creek – Per the Town of Bristol’s Subdivision and Development Review Regulations the existing culverts shall be analyzed to verify development will not increase runoff to existing culverts.

RESPONSE: The site will be designed to match or reduce the peak flows going to the existing culverts. Design points on site were set up at culverts to analyze the hydrology at these locations. Calculations for peak flow will be provided at preliminary plan.

8. **COMMENT:** Page 6, Utilities – The telecommunication service is not shown connecting to Chestnut Street.

RESPONSE: The telecommunication connection has been updated. See sheet C3.1, C3.2, & C3.3.

9. **COMMENT:** Page 7, Stormwater – The project is the Silver Creek watershed, per the Town of Bristol’s Subdivision and Development Review Regulations it is required within the Silver Creek Watershed that any increase in storm runoff volume, up to and including the 10-year storm event shall be retained and recharged on site as close as feasible to its place of origin. RIDEM regulations state for Minimum Standard 5 – Overbank Flood Protection that downstream overbank flood protection must be provided by attenuating the post development peak discharge rate to the pre-development levels for the 10-year and 100-year, 24-hour Type III design storm events.

RESPONSE: The proposed development shall be design in accordance with the RIDEM stormwater regulation requirements. The site’s stormwater management will meet the RISDISM 11 minimum standard requirements to the maximum extent practicable. Per Minimum Standard 5 for overbank flood protection the site will be designed to match or improve the predevelopment peak flows for the 1, 10, and 100 year 24-hour Type III design storm event. The stormwater management design will retain and recharge the 10-year storm to the maximum extent practicable per the Bristol Subdivision and Developmental Regulations for the Silver Creek watershed. The Design team is aware of the flood concerns within this watershed and will provide as much infiltration as possible, while respecting the existing site constraints such as the poorly drained soils on-site and high groundwater per the estimated

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seasonal high ground water table profile per the test pit log information provided within the Master Plan Report.

TRC MEETING COMMENTS FROM 08/28/2024

COMMENT: The Planning Board Chairman and Vice Chairman raised concerns about parking during special events.

RESPONSE: The Town of Bristol's Planning Board Chair and Vice Chair requested a parking breakdown for special event parking spaces. Parking rates were compared to the ITE ParkGen Web App and parking spaces were calculated from the Town of Bristol's Zoning Ordinance based on similar uses. For standard events, such as football games and theater events there is adequate parking. Please refer to the table below depicting estimated parking requirements for several events. After reviewing the proposed off-street parking spaces, on-street parking, adequate parking should be available to meet the need for the special events listed. The estimated bleacher seat quantities for football, baseball and softball are subject to change as athletic field design progresses.

Special Event Parking Table					
Special Event Use	Seats	Parking Rate	Unit	Total Parking Spaces	Source
Theater	402	0.33	per seat	133	Bristol Zoning Ordinance 28-252 (theater and auditorium)
Football Bleachers*	1446	0.2	per seat	290	Bristol Zoning Ordinance 28-252 (outdoor recreation facility)
Baseball Bleachers*	150	0.2	per seat	30	Bristol Zoning Ordinance 28-252 (outdoor recreation facility)
Softball Bleachers*	150	0.2	per seat	30	Bristol Zoning Ordinance 28-252 (outdoor recreation facility)
Gym (basketball)	456	0.2	per person	92	Bristol Zoning Ordinance 28-252 (outdoor recreation facility)
Gym (graduation)	960	0.33	per seat	317	Bristol Zoning Ordinance 28-252 (theater and auditorium)
*Actual capacity of bleachers is to be determined as athletic field design progresses					

COMMENT: The Planning Board Chairman and Vice Chairman raised concerns about health and safety regarding the synthetic turf field.

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RESPONSE: Please see the synthetic turf health and safety information attachment provided by the Landscape Architect.

AJM/ACB/dp

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**Bristol Warren Regional School District
MT. HOPE HIGH SCHOOL**

Attachment 1

Major Land Development Checklist

MAJOR SUBDIVISION OR MAJOR LAND DEVELOPMENT CHECKLIST

Name of proposed subdivision/development:

Mt. Hope High School

Applicant Name and Address: Ana C. Riley

- Bristol Warren Regional School District 235 High Street, Bristol RI 02809

Phone Number: 401-253-4000

Email: ariley@bwrsd.com

Date of Application: 08/02/2024

Plat and Lot Number(s) of the land being subdivided/developed: AP 117, Lots 3,4,5,6,&7

Date Received / Initials

A COPY OF ALL PLANS AND SUPPORTING DOCUMENTS SHALL BE SUBMITTED IN DIGITAL FORM (PDF). APPLICATIONS WILL NOT BE CONSIDERED SUBMITTED FOR REVIEW OF COMPLETENESS UNTIL BOTH DIGITAL AND PAPER SUBMISSIONS ARE RECEIVED.
INSTRUCTIONS

Five Copies of the application package including all plans and supporting documents shall be provided along with a Digital Form (PDF) of the entire application package. Each plan sheet shall be a minimum size of 8 1/2x 11" and a maximum of 24" x 36" and at a scale of 1"=40' with a sufficient number of sheets to clearly show all of the information required. Upon final approval one reproducible mylar, three (3) paper copies, and one electronic AutoCAD file of all plans shall be submitted. A reduced copy (11x17) shall also be provided for each plan.

All plans required by this checklist shall show the following information (as applicable). The shaded boxes within the checklist indicate an item is **not** required at a particular stage of review. If any checklist items are marked as not applicable (NA) please provide an explanation as to why the item is not applicable in the space provided at the end of the checklist, attached additional sheets as needed.

For items required at the pre-application and master plan stage of review, conceptual design and approximate locations of required checklist items is acceptable. For items required at the preliminary and final stage of review, engineered design and proposed final locations of required checklist items shall be provided, with certification by registered Professional Engineer where required. The Administrative Officer can provide further guidance on specific checklist items.

For the LOCATION column please provide the location of the specific checklist item. This can be a plan sheet number or the name of the supporting document and page. All revisions in response to comments shall include a written statement with reply.

Review Codes are for administrative use only and are to be entered by the Administrative Officer.

Please check the applicable stage of review for the submission

Project Type: <input type="checkbox"/> Major Subdivision	Stage of Review: <input checked="" type="checkbox"/> Master Plan (M)
<input checked="" type="checkbox"/> Major Land Development	<input type="checkbox"/> Preliminary Plan (PR)
	<input type="checkbox"/> Final Plan (F)

A. FORMS AND DOCUMENTS

A	M	PR	F	REQUIRED FORMS AND DOCUMENTS	REVIEW CODE
1.	X			Completed Application Form	
2.	N/A			A notarized letter from the property owner(s) stating that the applicant has been granted the authority to proceed with the application with the owner(s) permission and consent	
3.	X			Narrative describing the application	
4.	X			Completed Project Review Application Checklist	

B. GENERAL INFORMATION (to be provided on plan sheets)

B	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
1.	X			Title Block with Name of the proposed project, Plat and Lot numbers of the subject property, address of the subject property, name and address of owner/applicant	Plan set - Sheet C1.1	
2.	X			Name, address, phone, and stamp(s) of the RI Registered Engineer and/or RI Registered Land Surveyor responsible for the plans	Plan set - Sheet Cover Sheet and C1.1	
3.	X			Date of plan preparation and all revision date(s), if any	Plan set - Sheet C1.1	
4.	X			True north arrow and graphic scale	Plan set - Sheet C2.1	
5.	X			Site plan legend (all items displayed on site plans shall be symbolized in a legend)	Plan set - Sheet C1.2	
6.	X			Relevant references to deeds and recorded plans	Plan set - Survey	
7.	X			List of sheets contained within the plan set	Plan set - Cover Sheet	
8.	N/A			Notation of any permits and/or agreements obtained from or made with State and Federal agencies, including permit number if applicable	Will be provide once available	
9.	X			Names, addresses and Plat/Lot identified of abutting property owners and property within 200' of the parcel(s)	Plan set - Sheet C2.1	
10.	N/A			Names and address of any agencies or adjacent communities requiring notification under these regulations	Will be provide once available	

C. EXISTING CONDITIONS PLAN(S) Show the entire tract of the subject property and all lots owned by the owner/applicant as it currently exists

C	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
1.	X			A general location map showing the relationship of the subdivision/development parcel(s) of the area within a half-mile radius	Plan set - Coversheet Master Plan Report - Appendix A Locus Map	
2.	*			Certification by a RI Registered Land Surveyor that a perimeter study of the land being developed has been performed and meets a Class I standard for property lines and a Class III standard for topographic and existing conditions information. * A Class I Property Survey is required at Master Plan for any project that is requesting a Unified Development for a dimensional variance.	Plan set - Survey	

C	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
3.	X			Location of known existing easements and rights-of-way within or adjacent to the subdivision/development parcel(s)	Plan set - Survey	
4.	X			Location of any existing street, driveways, farm roads, woods roads, and/or trails that have been in public use (pedestrian, equestrian, bicycle, etc.) within and adjacent to the subdivision/development parcel(s)	Plan set - Survey	
5.	X			Zoning district(s) of the land being subdivided/developed, with zoning boundary lines shown if there is more than one district	Plan set - Sheet C2.1 Master plan report - Appendix A zoning Map	
6.	N/A			Density calculations based upon the exclusion of unsuitable land from the total land area of the subdivision/development parcel(s), include the total acreage, the acreage of unsuitable land and the resulting total number of units allowed by right	No units will be provided for this project	
7.	X			Dimensions and total area of the subdivision/development parcel(s), and location and dimensions of existing property lines, type of easements and rights-of-way within or adjacent to the subdivision/development parcel(s)	Plan set - Survey	
8.	X			Existing contours at intervals at a minimum of two (2) feet	Plan set - Survey	
9.	X			Base flood elevation data; use the North American Vertical Datum of 1988 (NAVD 88)	Plan set - Survey Master plan report - Appendix A - FEMA	
10.	X			Boundaries and notation of the soil types classifications for the entire area of the subdivision parcel(s) Identification of areas containing prime agricultural soils and farmland soils of statewide importance, or if no such soils are present on the site, a notation indicating such	Master plan report - Appendix A Soils Map	
11.	N/A			Location of soil contaminants present on the subject parcel, if any	Per the Phase I ESA completed, no additional investigations were required.	
12.	X			Identification of any geologic formations on the proposed parcel(s), including rock outcroppings, cliffs, coastal features, etc.	Plan set - Survey	
13.	X			Location of wetlands, watercourses or coastal features within and adjacent to the parcel(s), including buffer areas as defined by RIDEM for wetlands	Plan set - Survey	
14.	X			Location of wooded areas and areas of active agricultural use	Plan set - Survey	
15.	X			Boundaries of applicable watersheds for the parcel(s)	Master Plan Report - Appendix A Existing Drainage Map	
16.	X			Location, size, and use/type of all existing buildings or significant above-ground structures, including stone walls	Plan set - Survey	
17.	X			Location and size of existing buildings or significant above-ground structures, including stone walls, on parcels immediately adjacent to the subdivision/development parcel(s)	Plan set - Survey	
18.	X			Location, size, and type of all known, existing above and below ground utilities, including sewer, water, gas, electric, stormwater drainage and communications or telecommunications infrastructure, as may be present on	Plan set - Survey	

C	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
				the site or within the right of way along the property frontage		
19.	X			Location of any significant natural or cultural features, include historic cemeteries and access, within or adjacent to the parcel(s)	Plan set - Survey Master Plan Report - Appendix A Aerial Map	
20.	X			Notation indicating that the subdivision/development parcel(s) (or existing structures) are located or not located within the following areas of special concern: <ul style="list-style-type: none"> a. Natural Heritage Areas, as defined by RIDEM b. The area(s) under the jurisdiction of any Special Area Management Plan (SAMP) of RI CRMC c. A Groundwater Protection Overlay District d. A Wellhead Protection Area e. Groundwater Recharge Area f. Areas within a TMDL watershed, as identified by RIDEM g. A Drinking Water Supply Watershed, as defined by RIDEM h. OWTS Critical Resource Area, as defined by RIDEM i. National Register of Historic Places j. Bristol Historic District k. Tanyard Brook Watershed in Bristol l. Silver Creek Watershed in Bristol 	Master Plan report pages 1-3	
21.	X			Location and size of trees with a caliper of ten (10) inches or greater that are within the area proposed for disturbance or alteration	Plan set - Survey	

D. PROPOSED CONDITIONS PLAN(S) Show all items on Existing Conditions Plan as well as the following:

D	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
1.	X			Boundaries and total area of any land classified as “unsuitable for development” as defined in the Regulations	Plan set - Survey	
2.	N/A			Proposed number of buildable lots	No subdivision	
3.	N/A			Proposed easements and rights-of-way within the subdivision parcel(s)	No subdivision	
4.	N/A			Proposed lot lines, with accurate dimensions and lot areas and lot numbers, drawn so as to distinguish them from existing property lines	No subdivision	
5.	X			Proposed structures and all accessory structures with dimensions or area indicated and total lot coverage, including proposed number of residential units per building, if applicable	Plan Set - Sheet C3.1 - C3.4	
6.	X			Zoning District Dimensional Regulations of the subdivision/development parcel(s) and a Zoning Data table with the required zoning dimensions and those for the proposed project	Plan Set - Sheet C3.0	

D	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
7.	N/A			Proposed structure(s) and other site improvements with dimensions or area indicated for a multi-family, commercial or industrial subdivision/development and total lot coverage	No subdivision	
8.	N/A			Proposed streets, if any, with accurate areas and dimensions	No subdivision	
9.	X			Any proposed on- and/or off-site improvements including streets, access drives, loading areas, parking areas, sidewalks, pedestrian areas, and bicycle parking and/or paths	Plan Set - C3.1-C3.4	
10.				Traffic plan; include vehicular access sites showing the dimensions and location of roads, driveways, curb cuts, radii, parking as well as other off-site traffic improvements		
11.	X			Designated trash collection and recycling collection area(s)	Plan Set - C3.3	
12.				Certification by a RI Registered Land Surveyor that a perimeter study of the land being developed has been performed and meets a Class I standard for property lines and a Class III standard for topographic and existing conditions information		
13.	N/A			Location and dimensions of proposed easements and rights-of-way within the subdivision/development parcel(s), or those to be acquired adjacent to the subdivision/development parcel(s) as maybe necessary	No proposed easements	
14.	X			Proposed location, size, and type of all above ground and underground utilities servicing the property, including wastewater, water, gas, electric, transformers, stormwater drainage, hydrants, and communications or telecommunications infrastructure, as may be required for site development	Plan Set - C3.1-C3.4	
15.	X			Proposals, if any, for connection with existing sanitary sewer systems, or a notation that OWTS is proposed	Plan Set - C3.1-C3.4	
16.				The locations and design details of any OWTS proposed for use within the subdivision/development, if any		
17.	N/A			If future subdivision/development is to be serviced by an OWTS, soil evaluations in the relative location where each system is proposed, which have been performed by a licensed RI soil evaluator and witnessed by RIDEM	No OWST system	
18.	X			Proposals, if any, for connection with existing water supply systems, or if future subdivision/development is to be serviced by on-site wells, notation of such	Plan Set - C3.1-C3.4	
19.	X			Concept designs for stormwater management and water quality infrastructure	Plan Set - C3.1-C3.4	
20.				Designs of proposed stormwater management infrastructure, including type, location, and configuration, prepared by a Registered Professional Engineer for preliminary and final plans		
21.	X			Proposed phasing, including depiction of which structures and on- and off-site improvements are to be installed in which phase, if applicable	Plan Set - C3.1-C3.4 Master Plan Report page 4	
22.	N/A			Location, dimensions, types, and area of any land proposed to be set aside as open space or to be conveyed to the Town for public purposes	Plan Set - C3.1-C3.4	
23.				Locations and types of proposed survey and open space monumentation, if any. (Documentation that all proposed		

D	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
				bounds have been set shall be provided prior to recording final plan)		
24.				Limits of disturbance/work relative to on-and off-site improvements and infrastructure installation		
25.				Proposed grading plan(s) to show contours at sufficient detail (2-foot intervals) for all on and off-site street construction, drainage facilities, and individual house lots, stamped by a licensed Professional Engineer for final plans		
26.				Landscape plan(s), by a Landscape Architect, to show all significant proposed clearing of land, removal of existing vegetation, re-vegetation, landscaping on street rights-of-way, and within common areas, and landscape installation details and related notations, in accordance with Appendix F		
27.				Notation of any special conditions as required by the Preliminary Plan approval		
28.				Proposed measures to minimize impacts to the natural topography of the site using the Low Impact subdivision (LID) Site Planning & Design Guidance Manual		
29.				Final construction plans including plans and any additional improvements as required as a condition of preliminary plan		
30.				For phased projects, as-built drawings for the previous phase		
31.						
32.						

E. SUPPORTING MATERIALS

E	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
1.	X			Copies of an aerial photograph or satellite image vicinity map drawn to a measurable scale as necessary to show the relationship of the subdivision/development parcel(s) to the area within a half-mile radius, identifying the locations of all streets, zoning district boundaries, schools, parks, fire stations, and other significant public facilities	Master Plan Report - Appendix A	
2.	X			Renderings, elevations or photographs as may be needed to illustrate the visual impact of a proposed multi-family, commercial or industrial subdivision/development	Plan Set - Renderings A-200MP - A-209MP	
3.	X			A narrative report or written statement including: <ul style="list-style-type: none"> a. A general description of the existing physical environment and existing use(s) of the property; b. A general description of the use(s) and type(s) of subdivision/development proposed; c. A general statement and supporting maps and/or graphics that illustrates the approach utilized in designing the proposed subdivision/development, including consideration of existing conditions and significant site features; d. An estimate of the approximate population of the proposed subdivision/development, if any 	Master Plan Report	

E	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
				<ul style="list-style-type: none"> e. An estimate of the number of school-aged children to be housed in the proposed subdivision/development, if any. f. A general analysis of soil types and suitability for the development proposed; g. A general viewshed analysis, showing the location and extent of significant views both from and within the proposed subdivision/development parcel(s), as well as anticipated views into the property from adjacent public or private streets and properties; h. A statement of the potential fiscal impacts of the subdivision/development on the Town of Bristol expenses and revenues (See Section 6.6B) 		
4.	X			A written, signed statement indicating the specific sections of the Regulations from which waiver and/or modification is requested; or a written signed statement indicating that no waivers and/or modifications are being requested	Cover letter and Master Plan Report	
5.	X			A written signed statement indicating any specific zoning variances or modifications requested or a statement that no variances or zoning modifications are being requested.	Cover letter	
6.	N/A			A statement from the Zoning Officer confirming the variances requested or modifications requested.	No zoning requests	
7.				For subdivisions with freshwater wetlands present on the subdivision parcel(s), copies of either: <ul style="list-style-type: none"> a. An RIDEM wetlands permit, if required pursuant to RIDEM rules and regulations; or b. A letter of non-jurisdiction from RIDEM 		
8.	N/A			If no freshwater wetlands and/or wetland buffers are depicted within the plan set, copies of an affidavit signed by a qualified professional stating that there are no freshwater wetlands and/or buffer areas within the subdivision/development parcel(s)	Wetlands delineated and depicted on plan set - Survey	
9.				Either, copies of: <ul style="list-style-type: none"> a. An affidavit signed by a qualified professional stating that there are no coastal features and/or buffer areas adjacent to or within the subdivision/development parcel(s); or b. A Preliminary Determination, including coastal feature verification, from the Coastal Resources Management Council 		
10.	X			For subdivisions/developments proposing service by public water, copies of a written statement from the Bristol County Water Authority that the proposed plan, with plan revision date indicated, has been reviewed and which provides: <ul style="list-style-type: none"> c. Confirmation that water service is available; d. Approval of connection to the existing water main as depicted on the plan; and, 	Attached BCWA application	

E	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
				If extension is proposed, approval from BCWA of the extension of the water main as depicted on the plan		
11.	X			For subdivisions/developments proposing service by public sewer, copies of a written statement from the Bristol Water Pollution Control Department that the proposed plan, with plan revision date indicated, has been reviewed and which provides: <ul style="list-style-type: none"> a. Approval of connection to the existing sewer main as depicted on the plan; and b. If extension is proposed, approval of extension of the sewer main as depicted on the plan 	Attached Bristol Water Pollution Control letter	
12.				For subdivisions/developments proposing service by OWTS(s), copies of a permit issued by RIDEM.		
13.	X			Low Impact Development (LID) Site Planning and Design Strategies and Checklist from the RI Stormwater Design and Installation Standards Manual. Stormwater designs to meet RI Stormwater Manual Minimum Standards.	Master Plan Report - Appendix A LID Checklist	
14.				Written comments on the Plans, by the following as required: <i>REFERRALS TO THE AGENCIES BELOW WILL BE MADE BY THE PLANNING DEPARTMENT STAFF.</i> <div style="display: flex; justify-content: space-between;"> <div> _____ Zoning Official _____ Building Official _____ Technical Review Committee _____ Director of Public Works _____ Fire Department _____ Conservation Commission _____ Police Department _____ School Department Other (specify below) _____ Adjacent Communities _____ </div> <div> Date _____ Date _____ Date _____ Date _____ Date _____ Date _____ Date _____ Date _____ Date _____ </div> </div>		
15.				Drainage calculations, by a registered professional engineer, associated explanatory narrative, and all supporting documentation, including an Operations and Maintenance manual for the system		
16.				A traffic study, if required, prepared by a traffic engineer regarding the potential impact of the proposed subdivision/development on neighboring properties and roads; include all means of vehicular access to and from the site onto public streets showing driveways, curb cuts, radii, parking as well as other offsite traffic improvements necessary to ensure public safety and convenience		
17.	N/A			Copies of any RIDEM stormwater or other general construction permits that are required, or an affidavit,	Permitting with RIDEM will be required	

E	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
				signed by a qualified professional, stating that no RIDEM stormwater or construction permits are required		
18.	N/A			"Tax Certificate" from the Tax Collector showing that all taxes due on the parcel being subdivided have been paid to date and there are no outstanding municipal liens of the parcel	Municipal Land	
19.	N/A			Written confirmation and/or permits from any additional required federal, state, or local agencies	Will be provided once available.	
20.				Soil Erosion Sediment Control Plan		
21.				Written report of Phase I Environmental Site Assessment and Phase II, if indicated		
22.				Written report and approval from RIDEM of an Environmental Site Assessment Phase III (Remediation Plan) if required		
23.				Draft (at preliminary) or final (at final) copies of all legal documents; legal description of property, proposed easement and rights-of-way, dedications, restrictions or other required legal documents including but not limited to covenants or Homeowners Association, Stormwater Management Plan, Landscaping Maintenance Plan, a deed conveying open space or offer of street dedication		
24.				Final copies of an irrevocable offer to convey to the Town all public streets and/or other public improvements, accompanied by a metes and bounds description		
25.				For subdivisions/developments proposing new physical access to a State right-of-way a letter evidencing the issuance of such a permit upon the submission of a bond and insurance ¹	Plan Set Electric Site	
26.	X			A Photometric Plan	Plan- E-101A - E-101D	
27.	X			Renderings as needed to illustrate the visual impact on abutting properties.	Plan Set - Renderings A-200MP - A-209MP	
28.	X			Signage including location, size, design and illumination.	N/A	
29.				A plan with new street address numbers and new assessor's plat and lot numbers signed by the Tax Assessor.		
30.	N/A			Fiscal Impact Analysis or Environmental Analysis (Section 6.6) if required	Not required for school developments	
31.				Historic District Commission (HDC) Certificate of Appropriateness if the project requires HDC review and approval		
32.	N/A			Proposed residential density and square footage of non residential use. Floor plans to scale for each building including the use of floor space, number of units, number of bedrooms and square footage of each unit and building elevations showing exterior building design, materials,	Not required for school developments	

¹ RIGL §45-23-39(d)(1)(v) states that for a state permit from the Rhode Island department of transportation, a letter evidencing the issuance of such a permit upon the submission of a bond and insurance is sufficient, but such actual permit shall be required prior to the issuance of a building permit.

E	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
				colors and height (for land developments and adaptive re-use)		

F. PROJECTS WITH STREETS/ROADWAYS

If your project proposes to extend or create a roadway, please complete this section. If your project does not propose to extend or create a roadway, you may skip this section.

F	M	PR	F	ELEMENT REQUIRED	LOCATION (PAGE #)	REVIEW CODE
1.	N/A			Street plans (minimum scale of 1"=40' horizontal with profiles (minimum 1"=4' vertical) indicating the street center line, curblines, and the existing elevations of the ground at the street center line, location and size of proposed sewer lines, water lines and other underground utilities; and, street cross sections showing width of right-of-way, roadway; and, sidewalks. Plan must include street names and hydrant locations approved by the Fire Chief. Plan must include proposed street light locations.	No roadway improvements or new roads are proposed	
2.	N/A			Roadway design plan(s) and profile(s), including existing and proposed elevations and typical cross-sections and paved (impervious) areas delineated on the appropriate plans, including all pedestrian facilities	No roadway improvements or new roads are proposed	
3.	N/A			Stormwater management plan(s), and drainage calculations, to show accurate designs and details of proposed stormwater management and water quality infrastructure, including type, location, drainage calculations, extension of existing lines, and configuration, prepared by a Registered Professional Engineer	No roadway improvements or new roads are proposed	
4.	N/A			Landscape plan(s), maintenance plan and tree preservation plan, to show all significant proposed clearing of land, removal of existing vegetation, re-vegetation, landscaping on street rights-of-way, and within common areas, and landscape installation details and related notations, signed by a licensed Landscape Architect for final plans	No roadway improvements or new roads are proposed	
5.				Construction Cost Estimate for all improvements		
6.	N/A			Soil Erosion and Sediment Control Plan	No roadway proposed	
7.				Construction Schedule		
8.				If any Streets, Areas or Facilities are to be dedicated to the Town of Bristol, the Final Plan shall include a Statement that such dedication shall not impose any duty or responsibility upon the Town of Bristol to maintain or improve any dedicated streets, areas or facilities until specifically authorized by the Town Council Per Section 6.7 of these regulations.		

G. FEES

G	M	PR	F		Received
1.				Application Fee	
2.				Engineering Review Fee	
3.				Advertising Reimbursement	
4.				Final Plat Recording and Mapping Fees	
5.				Performance Guarantee (if applicable)	
6.				Engineering Inspection Fee	
7.				Maintenance Guarantee (if applicable)	
8.				Receipt that all other fees to outside agencies have been paid (if applicable)	

Applicant Comments on Required Items: Attach additional sheets as needed
Reviewer Comments on Required Items:

Signature of Applicant: _____
Signature of Professional Land Engineer: _____
Registration Number: _____

Signature of Professional Land Surveyor: _____
Registration Number: _____

Signature of reviewer: _____
Date of Review: _____

**Bristol Warren Regional School District
MT. HOPE HIGH SCHOOL**

Attachment 2

**Traverse Landscape Architects response to
synthetic turf concerns**

Synthetic Turf Questions from Wednesday August 28th Technical Review Committee

A question was posed about the cleanliness of synthetic turf with regards to infections.

To date several studies have been conducted relative to potential bacterium such as Staphylococcus aureus capable of causing infections or diseases spread by contact with synthetic turf. Relative to infilled synthetic turf surfaces installed in outdoor environments the survival rate of bacteria is very low. This is due to the higher temperatures and the presence of Ultra Violet light. There are several products made to be applied topically to synthetic turf as a “disinfectant or anti-microbial” these have been shown to have little add benefit in outdoor environments because the bacteria can not survive long enough in the high temperatures and UV exposure. See Penn State Study “Survival of Staphylococcus Aureus on Synthetic Turf” for more information.

<https://extension.psu.edu/survival-of-staphylococcus-aureus-on-synthetic-turf>

A question was posed relative to safety, both impact and lower extremity injury.

When choosing an athletic surface, we often hear the question - is turf better than grass for both safety and performance? The truth is that it is complicated and both systems have their pros and cons.

Traverse has a presentation, which at this stage in design should be presented to the Owner/Stakeholders which includes a deeper dive into the design of a synthetic turf system. This is important in both understanding the data and research as it relates to injuries and safety.