

January 19, 2023

Ryan Clapp, Conservation Agent
Holliston Conservation Commission
703 Washington Street
Holliston, MA 01746

**RE: Response to BWC Bogastow Brook, LLC BESS Project Stormwater Design Peer Review #1
Proposed Battery Energy Storage System – 600 Central Street, Holliston, MA**

Dear Mr. Clapp:

TRC is pleased to provide the following responses to the engineering peer review letter, dated October 24, 2022 and prepared by CMG Environmental, Inc. The letter provided comments on the stormwater design for the proposed battery energy storage system to be located at 600 Central Street in Holliston, Massachusetts. The stormwater design is presented in the Issued-For-Permitting Civil Design Drawing Set (Drawings) and Stormwater Management Report, dated August 2022 and prepared by TRC. Additional fieldwork, including soil testing and surveying of the flood elevation, is currently underway in response to the peer review comments. The proposed project design may need to be adjusted based on the findings of the soil testing and surveying. Therefore, the updated Drawings and Stormwater Management Report will be submitted after the results of the fieldwork are received.

For ease of review, we have included the comment, as presented in the peer review letter, followed by TRC's response.

General Engineering & Drainage Design Comments

1. *"Existing Conditions Plan" Sheet C1.00 is not stamped by a Licensed State of Massachusetts Land Surveyor. Sheet G1.01 references an Existing Conditions Plan prepared by Land Planning, dated January 19, 2022, however it is not provided.*

Response: An Existing Conditions Plan, prepared by Land Planning and stamped by a Licensed State of Massachusetts Land Surveyor, is provided as **Attachment 1**.

2. *FEMA Flood Mapping identifies a Flood Zone AE along the Northeast corner of the Site property with a defined flood elevation ranging from 151 - 152. The Flood Zone AE elevation must be confirmed by a licensed Land Surveyor and shown on the plan set.*

Response: A licensed Land Surveyor confirmed the defined flood elevation limits which generally match those shown in the Drawings. The Drawings will be updated to show the actual flood zone limits in the next submission.

3. *Project proposes work within the AE Flood Zone for the installation of the stormwater basin overflow berm and outlet pipe. Compensatory flood storage calculations must be provided to account for any filling within the flood plain.*

Response: The stormwater basin emergency spillway and outlet pipe plunge pool will be constructed by excavating and removing existing soil material from the flood zone and replacing with rip rap as shown in the details on Sheet C4.01 of the Drawings. The grading of these proposed features and the higher volume of voids provided by the rip rap pore space should result in a flood storage increase. Changes to flood storage due to construction of these features is considered de minimis and compensatory flood storage will not be required.

4. *CMG recommends the Applicant consult with the Holliston Conservation Commission to determine if a Notice of Intent is required for the project as the 100-year Flood Zone is considered a wetland resource area.*

Response: Bluewave has consulted with the Town of Holliston Conservation Commission, and they concur that a Notice of Intent will not be required for the current proposed Project and that a Request for Determination is sufficient.

5. *No on-site soil testing has been performed for the project. Soil testing is required at each infiltration area in accordance with MA-DEP Stormwater Management Standards. Soil testing must confirm in-situ soil conditions including estimated seasonal high groundwater (ESHW) based on soil mottling, soil classification, and saturated hydraulic conductivity / permeability. CMG recommends this soil testing be performed by a State of Massachusetts licensed soil evaluator and witnessed by the Holliston Board of Health Agent and/or CMG.*

Response: On-site soil testing is being completed, including a minimum of 3 borings in the infiltration basin to determine the depth to seasonal high groundwater and the minimum infiltration rate of the soils as determined by soil textural analyses (in accordance with Massachusetts stormwater standards when the Simple Dynamic method is utilized for sizing the infiltration BMP).

6. *It appears there is existing runoff from the adjacent residential properties across the rear of the Site towards Design Point DP-1 based on the limited grading shown along the northern and western property boundary. CMG recommends Applicant's engineer supplement the existing topographic contours with available MassGIS Lidar or on-the-ground survey to determine the proposed off-site watershed area. The current locations of the proposed battery storage area and stormwater basin may obstruct the existing flow pattern across the rear of the Site. This should be accurately modeled in both pre- and post-development conditions.*

Response: MassGIS Lidar data was reviewed and shows grading which promotes flows in a northeasterly direction in the northwestern corner of the property. These existing flow patterns do not intercept the proposed battery storage area so they will not be impacted by the development. The Drawings will be updated to show the Lidar data beyond the surveyed existing contours. The Pre- and Post-Development Drainage Plans will be updated to show slight adjustments in the drainage areas based on the Lidar data.

7. *A portion of the gravel access driveway (Sta. 1+75) is within 15 ft. of the existing Church's septic system leaching field, noted as "location approximate". CMG recommends the leaching field limits be accurately located to determine if the driveway construction will impact the existing leaching lines or Title V breakout setbacks.*

Response: Title V requires that no driveways, parking or turning area or other impervious area be located above the leach field system. It also requires that a minimum of 15 feet horizontal separation distance be provided between the soil absorption area and the adjacent side slope. The Drawings currently show the approximate location of the leachfield based on construction drawings for the system and provide a minimum of 19.5' from the edge of the road to the leachfield. This additional buffer in required setback provides additional assurance that minimum setback as required by title V will be maintained. Additionally, subsurface structures will be identified prior to construction.

8. *Existing Church stormwater basin outflow appears to be directed downhill through the proposed steep gravel slope towards the proposed battery storage system without a clearly defined channel. CMG recommends the existing stormwater runoff be routed through a channel or pipe to insure it will connect into the proposed infiltration basin area and not result in potential on-site erosion issues.*

Response: TRC completed an inspection of the existing drainage system on September 27, 2022. The inspection photolog is provided as **Attachment 2**. The existing drainage system features, which could be visually observed, appeared to be in good condition overall. The existing stormwater basin discharges to a rip rap apron which conveys flows to a drainage channel. As shown in Photos No. 14 and 15, the outlet and channel appeared to be in good condition with no signs of erosion. The channel flows through a break in the existing rock wall. The existing grades promote flows to the location of the proposed rip rap channel which shall manage flows along the proposed access road. These flows are accounted for in the proposed stormwater management system design to limit potential for on-site erosion issues.

9. *Additional grading detail and spot grades are required for gravel access driveway Sta. 4+50 to Sta. 6+50. This area appears to be designed as a low point of the driveway which discharges to Sediment Forebay #1. It is unclear from the Grading Plan if the proposed grading, slopes, and driveway area are adequate to direct all runoff into the forebay.*

Response: The Drawings, Sheet C2.00 will be updated to provide spot grades to more clearly illustrate that flows from this segment of the access road will be directed to Sediment Forebay 1.

10. *The plunge pool pipe elevation schedule shown on "Plunge Pool Detail" does not match the elevations shown on the "Sediment Forebay and Infiltration BMP detail" Sheet C4.01.*

Response: The elevations shown in the Drawings, Sheet C4.01 correctly show the proposed design. Sediment Forebay 2 has a pipe outlet invert elevation of 152.00' (as provided for in the Sediment Forebay and Infiltration BMP Detail, Elev. 5) which will discharge flows at the rim of the plunge pool at the same elevation of 152.00' (as provided for in the Plunge Pool Detail, Elev. A). The infiltration BMP has a pipe outlet invert elevation of 148.25' (as provided for in the Sediment Forebay and Infiltration BMP Detail, Elev. 5) which will discharge flows at the rim of the plunge pool at the same elevation of 148.25' (as provided for in the Plunge Pool Detail, Elev. A). The Drawings will be updated to provide individual sediment forebay and infiltration basin details for clarity purposes.

11. *No snow shelf is identified on the plan along the proposed gravel driveway or emergency turnaround area. Snow storage is depicted along the proposed sideslope areas.*

Response: Proposed snow storage locations are depicted on the Site Maintenance Plan, provided as Attachment B of the O&M Plan. One location is proposed along the eastern shoulder of the proposed access road. This will allow snow to be plowed off the road along the access road shoulder. This will also ensure that the roadside ditch on the western side of the road will be kept free to maintain the stormwater management capacity throughout the winter. Two additional snow storage locations are proposed near the vehicle turnaround. The site design allowed for this additional area specifically for snow storage between the access road and proposed landscaping. These locations were also chosen to ensure that stormwater management features were not impacted.

12. *All drainpipes should be reinforced concrete pipe (RCP) or a waiver requested for use of HDPE pipe.*

Response: A waiver is requested for the use of HDPE pipe instead of RCP. HDPE pipe has been successfully employed at numerous other projects for similar stormwater management uses and is the favorable alternative to RCP since it is light-weight and easy to install.

13. *Pipe size, type, slopes, and inverts are not shown on the grading and drainage plan.*

Response: The pipe size, type, slope, and invert elevations are provided in the Drawings, Sheet C4.01. For clarity, this information will also be added to Sheet C2.00 of the Drawings.

Stormwater Standard 1: No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or water of the Commonwealth.

14. *Project proposes a 12" outlet pipe to be located within the AE Flood Zone which is considered a wetlands resource area. Applicant's engineer should consider relocating the proposed basin and pipe outlet further back and away from this resource area.*

Response: The location of the battery facility was chosen to minimize impacts to the existing property use and abutting properties to the maximum extent practical. As a result, the proposed infiltration basin is located near the lowest point on the property. In order to provide positive drainage of the outlet pipe, it needs to be located within the flood zone. The stormwater treatment measures include two sediment forebays for pretreatment and an infiltration BMP to provide the required Total Suspended Solids (TSS) removal. Therefore, the existing design will ensure that no untreated stormwater discharges directly to or cause erosion in a wetlands resource area.

15. *Proposed 12" and 24" diameter drain pipe outlets should include reinforced concrete flared end sections (FES) with appropriate trash rack / safety grates.*

Response: A waiver is requested for the use of HDPE pipe instead of RCP. The existing design provides for a trash rack and grate at the outlet structures and a rodent screen at the HDPE outlet pipes.

Stormwater Standard 2: Stormwater management systems shall be designed so that post development peak discharge rates do not exceed pre-development peak discharge rates.

16. *Pre-Development HydroCAD model watershed needs to reflect actual as-built conditions. The existing Church parking area and stormwater basin must be modeled to reflect actual as-built conditions and flows through the site to the design point. CMG recommends the Applicant's Engineer revise the pre-development model to reflect the existing developed area and existing wooded areas as two (2) separate subcatchments which both discharge to a channelized reach flowing to DP-1.*

Response: To be conservative, the pre-development HydroCAD model does not account for the existing development stormwater basin capacity. The proposed stormwater management system was designed this way in case there is a failure of the existing drainage system.

17. *Time of Concentration (Tc) for pre-development watershed 1S is not from the most hydraulically distant point.*

Response: Numerous flow paths across the delineated watershed were evaluated to determine the most hydraulically distant point for the pre-development Time of Concentration (Tc). Although the Tc, as shown on Sheet SW1.00, does not represent the longest flow path distance, it does represent the longest time. In this case, the land cover of the initial sheet flow segment had the most influence in finding the most hydraulically distant point. Sheet flow over the existing parking lot resulted in a shorter Tc since we conservatively assumed that the existing drainage system basin does not have detention capacity. Therefore, sheet flow through the wooded area provided for the most hydraulically distant point.

18. *Pre-development and post-development total watershed areas differ slightly. These areas should be equivalent.*

Response: Per your recommendation, the delineated watersheds will be updated to include the same total watershed areas.

19. *Post-Development HydroCAD model needs to account for existing Church stormwater flows in addition to proposed swales, forebays, ponds to accurately reflect the proposed conditions. Attachment C of the Stormwater Report provides several additional unspecified additional subcatchments and (5S, 6S), ponds (7P, SP, 9P) not included on the Post Development watershed map. One (1) comprehensive Post-Development HydroCAD model should be provided to evaluate all aspects of the proposed stormwater management system design.*

Response: To be conservative, the post-development HydroCAD model does not account for the existing development stormwater basin capacity. The proposed stormwater management system was designed this way in case there is a failure of the existing drainage system. The subcatchments included in HydroCAD assessments in Attachment C of the Stormwater Report all correspond with subcatchments specified in the Post-Development Drainage Plan provided on Sheet SW2.00. However, the HydroCAD model does not allow for nodes with the same ID. For clarity, separate HydroCAD files will be prepared to allow for the same IDs to be used.

20. *Stormwater calculations and peak flow summary should include the 2 year, 10-year, 25- year and 100-year storm event. HydroCAD reports should also include the Node Summary and Stage-Storage-Volume tables for the proposed stormwater basin.*

Response: Per your recommendation, the HydroCAD reports will be updated to include 2-year, 10-year, 25-year, and 100-year storm events and the Node Summary and Stage-Storage-Volume tables for the proposed stormwater basin.

21. *The proposed Infiltration Basin is located directly adjacent to the 100-year flood zone. The basin's bottom elevation= 148 is approximately 3 feet lower than the defined AE 100-year Flood Elevation= 151 ~ 152. In addition, the basin's outlet pipe is located within the flood plain with an outlet elevation 147.25. CMG does not believe this basin as currently designed will function properly during the 100-year storm event.*

Response: The location of the battery facility was chosen to minimize impacts to the existing property use and abutting properties to the maximum extent practical. As a result, the proposed infiltration basin is located near the lowest point on the property. The emergency spillway was designed to manage flows from a 100-year storm event even if the outlet structure was not working (e.g., if flooding conditions prevent flows from discharging) as demonstrated in the emergency spillway HydroCAD model provided in Attachment C of the Stormwater Report. The emergency spillway invert elevation is at the 100-year Base Flood Elevation. Therefore, in a 100-year flood event, the spillway will still be able to discharge flows.

Stormwater Standard 3: Loss of annual recharge of groundwater shall be eliminated or minimized.

22. *Soil analysis is not provided. CMG recommends soil test pit data be provided documenting subsurface soil conditions, infiltration rates, and estimated seasonal high groundwater (ESHGW) for all proposed infiltration structures (Also see Comment #5).*

Response: As discussed in response to Comment #5, on-site soil testing is being completed, including a minimum of 3 borings in the infiltration basin to determine the depth to seasonal high groundwater and the minimum infiltration rate of the soils as determined by soil textural analyses (in accordance with Massachusetts stormwater standards when the Simple Dynamic method is utilized for sizing the infiltration BMP).

23. *Bottom of the infiltration basin must be a minimum 2 ft. above the estimated seasonal high groundwater (ESHGW) elevation. ESHGW information is not provided.*

Response: On-site soil testing is being completed to determine the estimated seasonal high groundwater elevation.

24. *If separation to ESHGW is determined to be less than 4 feet a mounding analysis will be required.*

Response: A mounding analysis would be required when the vertical separation from the bottom of an infiltration system is less than 4 feet from seasonal high groundwater and when the BMP is used to infiltrate the 10-year 24-hour storm event. As demonstrated in the hydrograph for the infiltration basin, the majority of the 10-year 24-hour storm is attenuated and discharged through the outlet control structure and not through infiltration; therefore, a mounding analysis would not be required to demonstrate compliance with Stormwater Standard 3.

25. *A 10 ft. wide maintenance berm is not provided surrounding the proposed infiltration basin. This basin's 2:1 sideslope grading also extends directly adjacent to the northern property line which does not provide enough area for a 10 ft. maintenance berm*

Response: The location of the battery facility was chosen to minimize impacts to the existing property use and abutting properties to the maximum extent practical. As a result, there is very limited space to provide for a 10-foot maintenance berm around the whole basin. The existing design provides for a 15-foot-wide maintenance path to the infiltration basin emergency spillway and to the location of the outlet pipe. Additionally, the proposed 20-foot-wide access road runs along the full length of the basin on the south side. Due to the narrow geometry of the basin, it was determined that the existing design provides for adequate access to the basin for maintenance purposes while also minimizing tree clearing that is needed.

Stormwater Standard 4: Stormwater management systems shall be designed to remove 80% of the average annual post construction load of Total Suspended Solids (TSS).

26. *A "stage-storage-volume" table for the proposed infiltration basin must be provided to confirm the required Water quality volume (WQV) is contained within the basin below the lowest outlet orifice.*

Response: Per your recommendation, the HydroCAD reports will be updated to include the Stage-Storage-Volume tables for the proposed stormwater basin to demonstrate that the required Water Quality Volume (WQV) is contained within the basin below the lowest outlet orifice.

27. *There does not appear to be adequate berm area between Forebay #1 and Forebay #2 to allow proper function. Spot grades should be provided at each of the spillways and forebay berms to provide for adequate detail to accurately construct in the field. CMG recommends additional detail be provided to clarify the proposed design.*

Response: The sediment forebays will be constructed as shown in the Sediment Forebay and Infiltration BMP Detail with a minimum berm width of 1.5 feet at the top. The Drawings will be updated to include spot grades and provide individual sediment forebay and infiltration basin details for clarity.

28. *CMG recommends forebay and stormwater basin grading sideslopes be no steeper than 3:1 in accordance with MA-DEP Stormwater Management Standard design guidelines.*

Response: The location of the battery facility was chosen to minimize impacts to the existing property use and abutting properties to the maximum extent practical. As a result, space constraints do not allow for the sediment forebays and stormwater basin sideslopes to be graded to 3H:1V as recommended in the MA-DEP Stormwater Management Standards. In our experience, basins graded with shorter

sideslopes at a 2H:1V are still mild enough to allow for mowing and other maintenance access as needed. Sediment Forebay 1 will be adequately stabilized with rip rap. Proper vegetative stabilization will be promoted through the use of erosion control blankets placed to 1 foot above the bottom elevation of Sediment Forebay 2 and the infiltration basin. Additionally, the sediment forebays and infiltration basin are generally graded to be below surrounding grades to prevent issues related to potential embankment failure.

29. *CMG recommends individual outlet control structure and stormwater basin cross-section details be provided to confirm compliance with proposed design. Pre-cast concrete outlet control structure specifications and Town of Holliston cast iron grate structures are not specified on the detail sheet.*

Response: The Drawings will be updated to provide individual sediment forebay and infiltration basin details for clarity purposes. A waiver is requested for the use of HDPE pipe instead of RCP. The existing design provides for a trash rack and grate at the outlet structures and a rodent screen at the outlet pipes.

30. *Forebay berm construction details are not provided.*

Response: The sediment forebay berms will be constructed as shown in the Sediment Forebay and Infiltration BMP Detail with a minimum berm width of 1.5 feet at the top. The Drawings will be updated to provide individual sediment forebay and infiltration basin details for clarity purposes.

Stormwater Standard 5: Land uses with higher potential pollutant loads (LUHPPL), source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable.

Not applicable - Site is not a LUHPPL.

Response: Noted.

Stormwater Standard 6: Stormwater discharges within a Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area.

31. *Zone III wellhead protection area limits should be noted on the plans in addition to the Zone II limit.*

Response: Zone III encompasses the full Project Site and limits extend far beyond the property boundaries. The Drawings will be updated to specify that the full Project Site is located within Zone III.

32. *Applicant's Engineer should verify if the proposed development's stormwater discharge location is within an area of critical environmental concern.*

Response: The site is not located within a State of Massachusetts area of critical environmental concern (ACEC).

Stormwater Standard 7: Redevelopment Projects

Not Applicable - Site is not a redevelopment project.

Response: Noted.

Stormwater Standard 8: Construction period erosion and sedimentation control

33. *The Site is > 1 Acre therefore an EPA NPDES 2022 Construction General Permit (CGP) registration and SWPPP is required to be submitted prior to construction. CMG recommends the Planning Board make this a condition of approval.*

Response: TRC agrees with this recommendation and it is the applicant's intent to prepare a SWPPP and submit an NOI for coverage under the NPDES CGP.

34. *A complete "Erosion and Sediment Control Plan" is not provided. Site Plan set only provides an "Erosion Control Notes & Details" sheet.*

Response: The Erosion and Sediment Control Plan is integrated into the Site Preparation Plan on Sheet C1.01 of the Drawings. Erosion and sediment control measures are shown on this sheet.

35. *Limits of Erosion control and specified barrier type (i.e. compost filter barrier with silt fencing) must be shown on all relevant plan sheets (i.e. Proposed Site Preparation Plan, Site Grading and Drainage, and Erosion and Sediment Control Plan).*

Response: The erosion and sediment control measures are depicted on Sheet C1.01 of the Drawings. Per your recommendation, the Drawings will be updated to include these on Sheet 2.00: Site Grading & Drainage Plan as well.

36. *CMG recommends properly sized temporary sediment basins be provided and shown on the "Erosion and Sediment Control Plan". Consideration should also be given to construction phasing to minimize the potential for erosion until grass areas are established.*

Response: Sheet C1.01 of the Drawings will be updated to include temporary sediment basins and more detailed notes regarding construction phasing.

37. *CMG recommends Mirafi 700x Filter Fabric or approved equal be specified for geotextile fabric beneath stone on construction entrance detail.*

Response: The Stabilized Construction Entrance detail on Sheet G1.02 of the Drawings will be updated to specify Mirafi HP270 or approved equal for beneath the stone. This woven geotextile fabric is suitable for separation and filtration uses. Furthermore, this geotextile is specified for the access road construction and therefore the contractor will already need to procure this material.

Stormwater Standard 9: Long term operation and maintenance plan

38. *CMG recommends the O & M Plan include the following required information:*

- *Estimated Operation and Maintenance Budget: At a minimum, a statement noting the "Responsible Party shall maintain an adequate annual estimated operation and maintenance budget for the proposed stormwater management system" should be included in the O&M Plan.*

Response: The Stormwater Management System Long-Term Operation and Maintenance Plan (O&M Plan) will be updated to note the "Responsible Party shall maintain an adequate annual estimated operation and maintenance budget for the proposed stormwater management system."

- *Site specific Maintenance and inspection log form should be provided for the Project's proposed stormwater best management practices (Currently an example generic form is provided). CMG*

recommends the log form list both inspection and maintenance frequencies for each BMP in accordance with the MA-DEP Stormwater Management Standards.

Response: The Post-Construction Maintenance and Inspection Log, provided as Attachment C of the O&M Plan, will be updated to include the appropriate inspection and maintenance frequencies in accordance with the Massachusetts Stormwater Standards.

- *Snow removal operations should be included in O & M Plan and inspection log form.*

Response: The O&M Plan and Inspection Log will be updated to address snow removal operations.

39. *A copy of the plan and easement deed allowing Site access for the legal entity (Responsible Party) to operate and maintain stormwater BMP functions must be provided. The O&M Plan identifies BWC Bogastow Brook, LLC as the Operator (i.e., Responsible Party) of the stormwater system with a separate Property Owner, Christ The King Lutheran Church.*

Response: Bluewave will be submitting the easement deed as a separate document.

Stormwater Standard 10: Illicit discharges

40. *A signed Illicit Discharge Statement is not included in the submitted stormwater report.*

Response: The Stormwater Report will be updated to include a signed Illicit Discharge Statement.

If there are any questions, please do not hesitate to contact me at (207) 620-3804 or via email adavidson@trccompanies.com.

Respectfully submitted,



Ariel Davidson, P.E. (ME)
Project Engineer



Thomas Daniels, P.E.*
Manager | Senior Engineer
*Licensed: ME, NH, VT, MA, NY

Enclosures:

- Attachment 1: Existing Conditions Surveying Plan
- Attachment 2: TRC Inspection Photolog

CC: Joshua Lariscy (BlueWave), Tracy Sudhalter (TRC)

ATTACHMENT 1

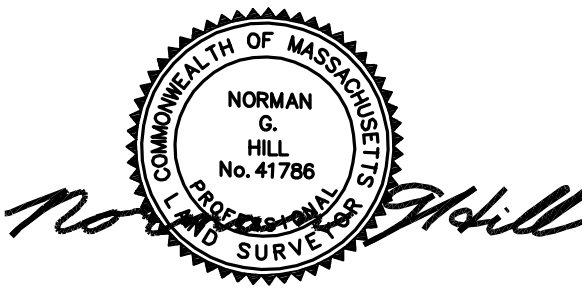
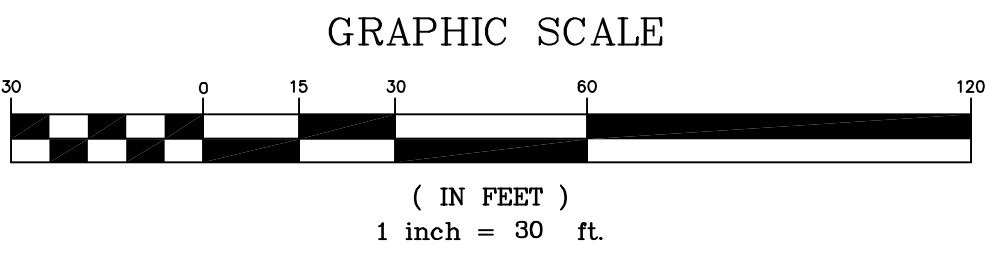
Existing Conditions Surveying Plan



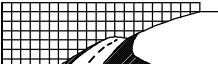
UTILITY NOTE:
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND COMPILED FROM PROPOSED PLAN INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
BEFORE DESIGN AND CONSTRUCTION PLEASE CALL "DIG SAFE" AT 1-888-344-7233.

MAP: 9 LOT: 4-30

- GENERAL NOTES:**
1. LOT SUMMARY
MAP LOT OWNERS
9 4-62 CHRIST THE KING LUTHERAN CHURCH
DEED REFERENCE
BK. 18699 PG. 336
2. MIDDLESEX COUNTY REGISTRY OF DEEDS DISTRICT
 3. LAND IS ZONED: AGRICULTURAL-RESIDENTIAL DISTRICT B
 4. PROPERTY LINES SHOWN AREA COMPILED FROM EITHER FIELD SURVEY INFORMATION OR AVAILABLE PLANS AND DEEDS OF RECORD.
 5. ELEVATIONS BASED ON NAVD88
 6. PLAN REFERENCE: BK. 11287 PG. 6



**EXISTING CONDITIONS PLAN
600 CENTRAL STREET
IN HOLLISTON, MA**
PREPARED FOR:
TRC
650 SUFFOLK STREET
LOWELL, MA 01854

		LAND PLANNING, INC.			
HANSON: 1115 MAIN STREET 02341 (781) 294-4144					
BELLINGHAM: 167 HARTFORD AVE. 02019 (508) 966-4130					
N. GRAFTON: 214 WORCESTER ST. 01536 (508) 839-9526					
CALCS. G.R.R.	JOB NO. P-3658	DWG NAME. P3658EX	DATE 1/19/2022	SHEET NO. 1 OF 1	

ATTACHMENT 2

TRC Inspection Photolog

Project Name/Number: *BWC Bogastow Brook BESS Project – 412899.1*

Project Location: *Central Street, Holliston, Massachusetts*

Client Name: *BWC Bogastow Brook, LLC*

Inspection: *Documentation of Site and Drainage Pre-Development Conditions*

Photos by: *Christopher Daubert*

Photo No. 1

Date: September 27, 2022

Coordinates:

42.198810° N
71.404262° W

Description:

Proposed Project Site access point from church parking lot.

Location Map:

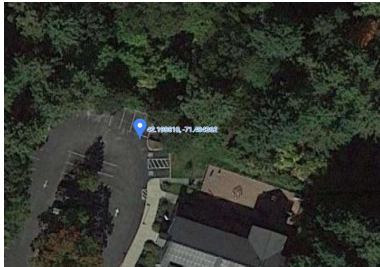


Photo No. 2

Date: September 27, 2022

Coordinates:

42.198891° N
71.403953° W

Description:

Typical vegetation along the proposed roadway centerline.



Location Map:

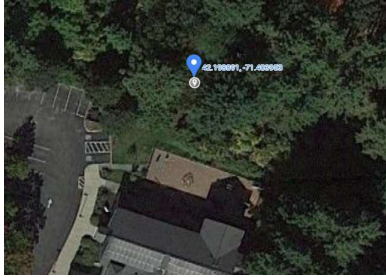


Photo No. 3

Date: September 27, 2022

Coordinates:

42.199554° N
71.403856° W

Description:

Debris including rusty metal, old cans of paint, and shards of glass in the vicinity of the Project Site. Could pose a physical hazard.



Location Map:

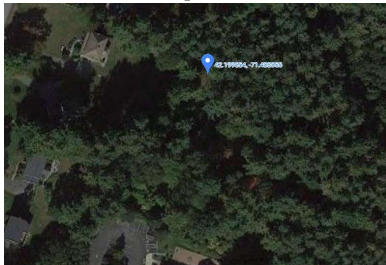


Photo No. 4

Date: September 27, 2022

Coordinates:

42.199680° N
71.403631° W

Description:

Blue and green survey flags mark the proposed battery location within the Project Area.

Location Map:



Photo No. 5

Date: September 27, 2022

Coordinates:

42.199680° N
71.403631° W

Description:

Corner of the parking lot with the drain manhole (DMH) and catch basin.

Location Map:

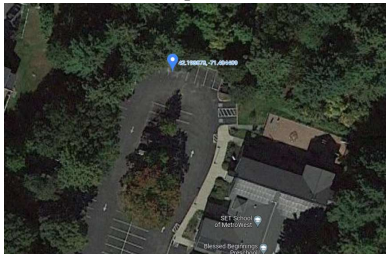


Photo No. 6

Date: September 27,

2022**Coordinates:**

42.199680° N

71.403631° W

Description:

View inside drain manhole. CJD measured water levels 48 inches below the rim and a sump of 61.5 inches below the rim. Tops of inlet and outlet pipes were visible.

Location Map:

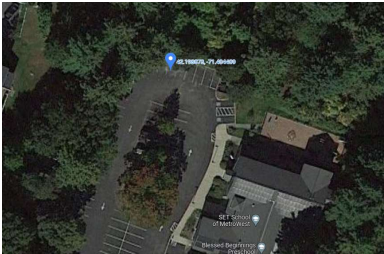


Photo No. 7

Date: September 27, 2022

Coordinates:

42.198937° N

71.404391° W

Description:

Concrete cover to water quality tank, located approximately 10 to 15 feet north of the drain manhole. CJD was unable to open.

Location Map:

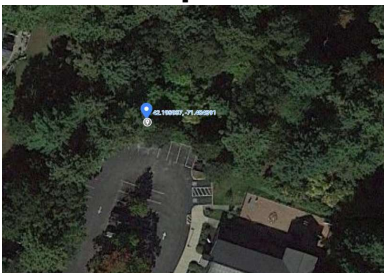


Photo No. 8

Date: September 27, 2022

Coordinates:

42.198974° N
71.404275° W

Description:

View from inside stormwater basin, view towards drainage outfall.

Location Map:

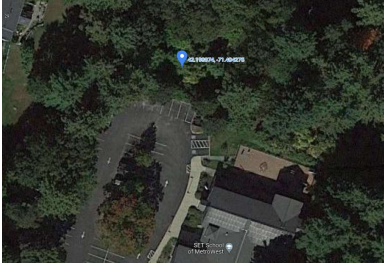


Photo No. 9

Date: September 27, 2022

Coordinates:

42.198974° N
71.404275° W

Description:

The sediment forebay for the drainage outfall observed in good condition.

Location Map:

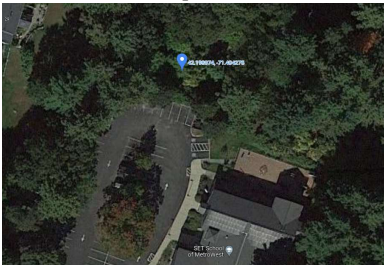


Photo No. 10

Date: September 27, 2022

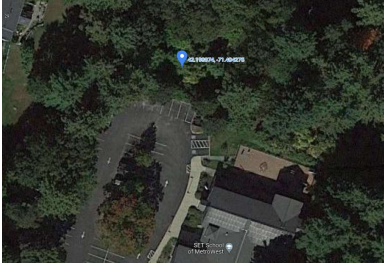
Coordinates:

42.198974° N
71.404275° W

Description:

Looking inside the drainage outfall. No standing water present, pipe observed in good condition. Inside of water quality tank is visible.

Location Map:


Photo No. 11

Date: September 27, 2022

Coordinates:

42.198974° N
71.404275° W

Description:

View of stormwater pond bottom. No erosion was observed in the basin or along the side slopes.

Location Map:

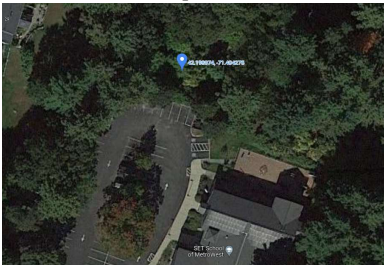


Photo No. 12

Date: September 27, 2022

Coordinates:

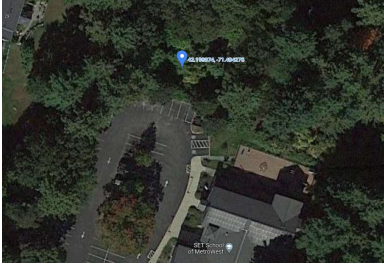
42.198974° N

71.404275° W

Description:

View of stormwater basin outlet control structure.

Location Map:

**Photo No. 13**

Date: September 27, 2022

Coordinates:

42.198974° N

71.404275° W

Description:

View inside outlet control structure. The structure is observed in good condition. No excess standing water or apparent clogging observed.

Location Map:

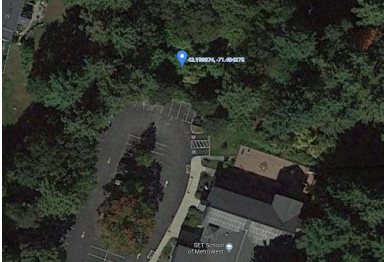


Photo No. 14

Date: September 27, 2022

Coordinates:

42.198974° N
71.404109° W

Description:

View of outlet pipe from outlet control structure. No erosion observed around the area.

Location Map:



Photo No. 15

Date: September 27, 2022

Coordinates:

42.198974° N
71.404109° W

Description:

View of drainage channel downstream from the outlet control structure discharge pipe. The channel is observed not eroded and is in good condition.

Location Map:

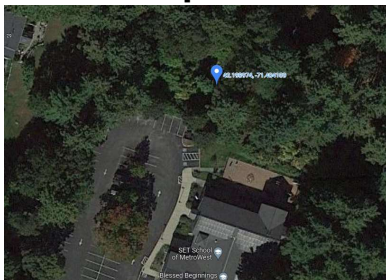


Photo No. 16

Date: September 27, 2022

Coordinates:

42.198974° N
71.404275° W

Description:

View of pond embankment observed in good condition. There is no evidence that water overtops the embankment of the basin during storm events.

Location Map:

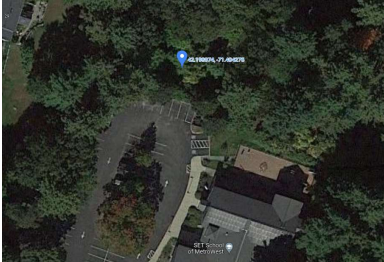


Photo No. 17

Date: September 27, 2022

Coordinates:

42.198884° N
71.404534° W

Description:

This parking spot in the northwest corner of the lot has sediment and drying water from a storm event the previous day, which suggests stormwater runoff accumulates in this spot.

Location Map:

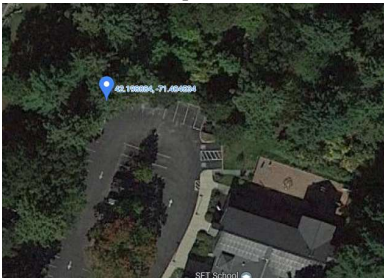


Photo No. 18

Date: September 27, 2022

Coordinates:

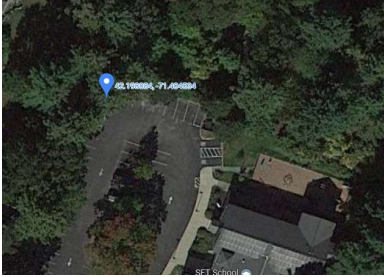
42.198884° N

71.404534° W

Description:

View of bare ground adjacent to parking lot area. The ground being free of pine needles may indicate that water has flowed in this location recently.

Location Map:


Photo No. 19

Date: September 27, 2022

Coordinates:

42.198884° N

71.404534° W

Description:

View looking down an embankment from the subject parking spot. An abutter shed is located adjacent to an area where stormwater may flow.

Location Map:

