

# BEALS • ASSOCIATES INC.

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**July 14, 2021**

**Bernard Cahill**  
**Town Planner**  
**Town of Shrewsbury**  
100 Maple Avenue  
Shrewsbury, MA 01545

**Reference: Centech Park Campus Master Plan**  
**Site Plan Review**  
**Graves Engineering Peer Review – Letter of Response**

Dear Mr. Cahill,

Our office has received the review letter prepared by Jeffrey M. Walsh, P.E., of Graves Engineering dated June 17, 2021 relative to the above noted project. Our office has provided the following responses, where necessary, to the comments raised by Mr. Walsh and Graves Engineering in their review.

## **Rules and Regulations Governing Special Permits and Site Plan Review**

*Comment 1: GEI has no issues relative to compliance with Shrewsbury Rules and Regulations Governing Special Permits & Site Plan Review.*

**Response 1: Acknowledged**

## **Zoning By-Law**

*Comment 2: GEI has no issues relative to compliance with the Shrewsbury Zoning Bylaw.*

**Response 2: Acknowledged**

## **Hydrology & Stormwater Management Review**

*Comment 3: GEI has reviewed the hydrology (HydroCAD) calculations and found them to be in order.*

**Response 3: Acknowledged, however the stormwater design and subsequent Stormwater Management Report has recently changed. Updated Grading & Drainage plans as well as an**

**updated Stormwater Management Report has been provided in the revised submittal dated July 15<sup>th</sup>, 2021.**

*Comment 4: GEI has no issues relative to compliance with the MassDEP Stormwater Standards and Handbook.*

**Response 4: Acknowledged. As noted above revised Grading and Drainage Plans have been resubmitted for review. The revised design and Stormwater Management Report remain in compliance with the MassDEP Stormwater Standards and Handbook.**

**General Engineering Comments**

*Comment 5: Based upon the proposed layout, it is GEI's understanding that trucks will enter and exit the site from Hartford Turnpike, which is under MassDOT jurisdiction and that only passenger vehicles will enter and exit the site from South Street. GEI has no issues with the South Street intersection radii or sight distances.*

**Response 5: Acknowledged. The revised plans maintain a layout which requires trucks to enter the site from Hartford Turnpike and only passenger vehicles may enter and exit the site from South Street.**

*Comment 6: On sheet C0.1, Utility Note #15 mistakenly references another Town.*

**Response 6: Sheet C0.1 Utility Note #15 has been revised to reference the Town of Shrewsbury.**

*Comment 7: On Sheet C0.1, Accessibility Note #1 was omitted.*

**Response 7: Sheet C0.1 Accessibility note #1 has been updated.**

*Comment 8: On Sheet C0.1, the symbols for the monitoring well and the test pit should be aligned with their text.*

**Response 8: On sheet C0.1 the symbols and text for monitoring wells and test pits have been aligned.**

*Comment 9: On Sheet C1.0A through C1.0F, the topographic contours need to be labeled. It is too difficult to follow the topography using just the spot elevations.*

**Response 9: Sheets C1.0A through C1.0F have been updated to include contour labels.**

*Comment 10: On Sheets C1.1 and C1.2 the drawing legend should include the symbol for soil borings.*

**Response 10: Sheets C1.1 & C1.2 have been updated to include the symbol for soil borings.**

*Comment 11: On sheets C1.1, C1.2, and C1.3, the test pit symbol in the drawing legend should reference Note 10 instead of Note 8.*

**Response 11: On Sheets C1.1, C1.2, and C1.3 have been updated such that the test pit symbol in the drawing legend references Note #8.**

*Comment 12: On Sheets C2.0 (and C2.2), the label “32” for the number of loading bays at Building B needs to be revised to “31”.*

**Response 12: The layout for both Buildings “A” & “B” have changed. Coordination with structural design team has required a change in the total number of loading docks. Building “A” now provides 33 loading docks while Building “B” provides 29 docks.**

*Comment 13: On Sheet C2.3 and C2.4, clarification of the guardrail types should be provided. While Sheet C6.0 indicates steel guardrails for the wetland crossing, the plans do not indicate where to install timber guardrails (Sheet C7.1 includes a detail for “Wood Safety Rail” and for “TL-3 Guardrail”). Additionally, the drawing legend notes that “GR” stands for guiderail instead of guardrail.*

**Response 13: Sheets C2.3 & C2.4 have been revised to clarify the type of guardrail which will be all steel guiderail. All guiderail throughout the site shall be steel TL-3 type guardrail which meets the MassDOT specification. Sheet C7.1 has been updated to remove any references of wood safety rail. The drawing legends have also been revised to note “guardrail”.**

*Comment 14: On Sheets C2.5 and C3.1, the existing topographic contours need to be labeled.*

**Response 14: Sheets C2.5 & C3.1 have been revised to provide existing contour labels.**

*Comment 15: On Sheet C3.3, the pipe between OCS 2 and FES 15 needs to be labeled with pertinent information.*

**Response 15:** The Drainage Plan sheets, C3.3 and C3.4, have been updated per the revised site layout. A Drainage Schedule has been provided which lists each pipe and structures' pertinent information.

*Comment 16:* On Sheet C3.4, the rim elevation needs to be provided for DMH 25 and DMH 19.

**Response 16:** The Drainage Plan sheets, C3.3 and C3.4, have been updated per the revised site layout. All structures include rim elevations on the drainage structure tables on the revised plans.

*Comment 17:* On Sheet C3.4, pertinent information (e.g. elevations, pipe diameters) for the proposed drain manhole associated piping connected to the Building "C" roof leaders needs to be provided.

**Response 17:** Sheet C3.4 has been updated to provide all pertinent information for the proposed drain manhole associated piping connections to the roof leaders.

*Comment 18:* On Sheet C6.0, GEI recommends that the design engineer verify that the one-foot and two-foot shoulder widths will accommodate the proposed chain link fence, steel guardrails, associated footings, required setbacks and snow storage (if any) along the sidewalk and /or curb. The inclusion of a blow-up detail may be help for clarification during the construction phase.

**Response 18:** The revised plans have been updated to include a minimum shoulder width of 3.0 feet across the overall site which shall be adequate to accommodate guardrails and a chain-link fence. Final design drawings from a Structural Engineer are required prior to construction which shall include the location and construction spec. for the installation of guardrail and fence within or adjacent to the wall.

*Comment 19:* On Sheet C6.0, the construction sequence notes omitted Step 9 and construction of the retaining walls, which should occur between steps 7 and 8.

**Response 19:** Sheet C6.0 has been updated to provide the proper construction sequence which notes the construction of the retaining walls as step 8. Subsequent const. sequence steps have been updated accordingly.

*Comment 20:* On Sheet C6.7, the drainage pipe between DMH 12 and DMH 14 (the manholes with catch basins nearby) should be included in the plan view in order to coincide with Section B-B.

**Response 20:** Sheet C6.7 has been updated per the revised stormwater system layout.

*Comment 21:* On Sheet C7.2, the diameter of the concrete footing should be included for the “Steel Bollard Detail”

**Response 21:** The “Steel Bollard Detail” has been updated to provide a concrete footing diameter of 18 inches.

*Comment 22:* On Sheet C7.10, a construction detail for sewer trench construction should be included.

**Response 22:** Sheet C7.10 has been updated to provide a detail for sewer trench construction.

### **General Comments**

*Comment 23:* GEI understands the water and sewer utilities will be reviewed by the Shrewsbury Water and Sewer Division.

**Response 23:** Acknowledged.

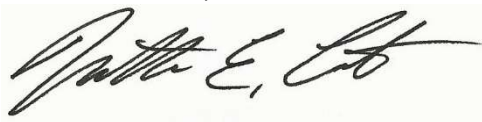
*Comment 24:* GEI did not review the wetland replication area no for compliance with 310 CMR 10.00 (Wetlands Protection Act Regulations)

**Response 24:** Acknowledged.

On behalf of the entire project team, we appreciate the opportunity to provide these responses and clarifications. We look forward to continuing to work with the Town of Shrewsbury and Graves Engineering, Inc. to reach a conclusion on the permitting of this project. If you have any additional questions or comments, please do not hesitate to contact us directly at either [mcosta@bealsassociates.com](mailto:mcosta@bealsassociates.com) or [tmorey@belasassocites.com](mailto:tmorey@belasassocites.com).

Sincerely,

**Beals Associates, Inc.**



Matthew Costa  
Project Manager / Engineer

Attachments:

Attachment A: Revised Plans to Accompany Permit Documents  
Attachment B: Stormwater Management Report  
Attachment D: Stormwater Operation & Maintenance Plan

# **ATTACHMENT A: REVISED PLANS TO ACCOMPANY PERMIT DOCUMENTS**

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(Provided under Separate Cover)

# **ATTACHMENT B: STORMWATER MANAGEMENT REPORT**

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(Provided under Separate Cover)

## **ATTACHMENT C: STORMWATER OPERATION & MAINTENANCE PLAN**

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(Provided under Separate Cover)