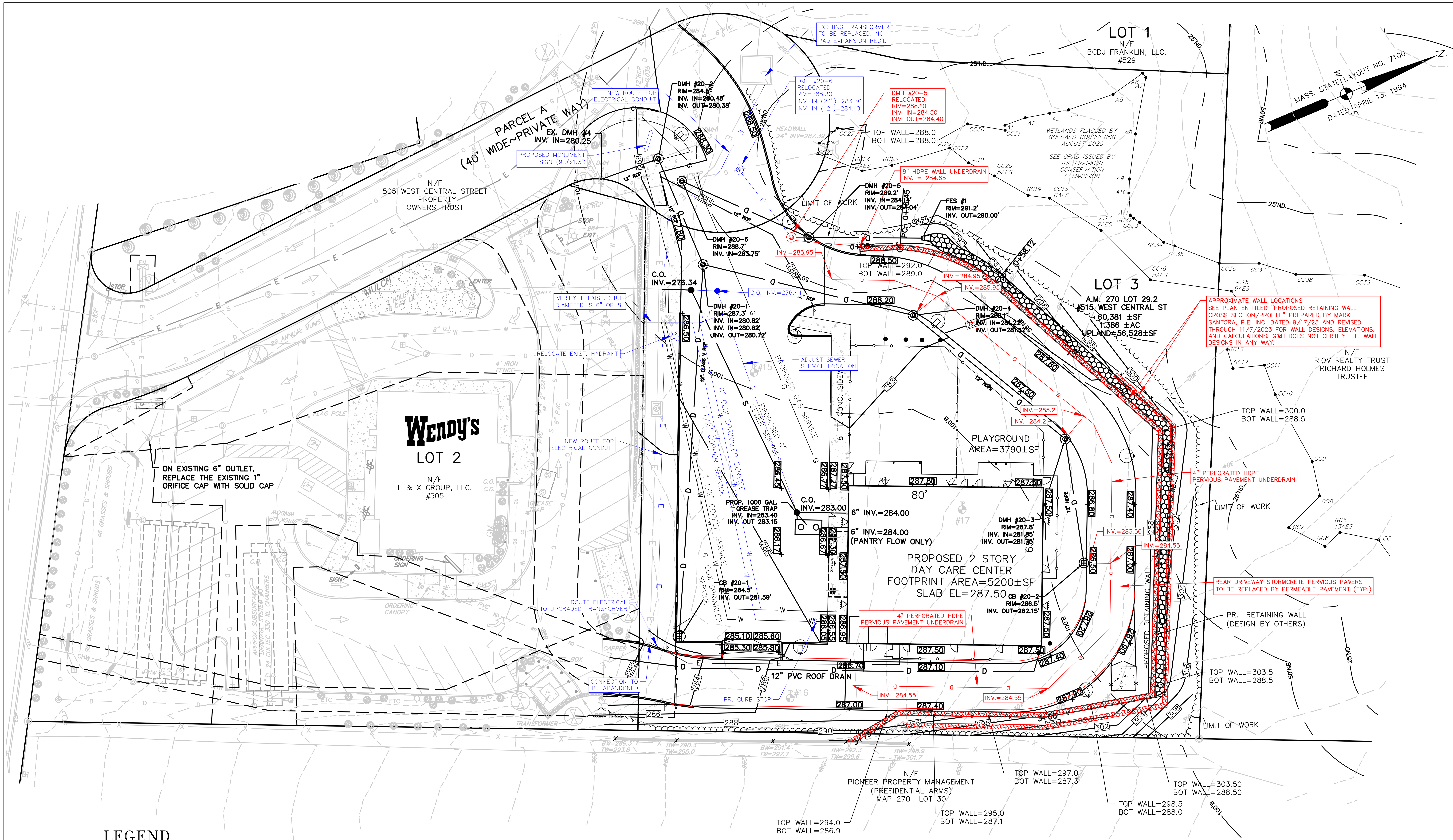


LEGEND

⊞	CATCH BASIN	☼	LIGHT POLE
Ⓓ	DRAIN MANHOLE		UTILITY POLE
Ⓔ	ELECTRIC MANHOLE		GUY WIRE
Ⓢ	SEWER MANHOLE		SIGN
○	MANHOLE	•	WETFLAG
GV	GAS VALVE		UTILITY POLE
	GAS SHUT OFF VALVE		PROP. PARKING LIGHTING
WV	WATER VALVE		PROP. SECURITY LIGHTING
	WATER SHUT OFF VALVE	x 000.0	SPOT ELEVATION
	FIRE HYDRANT		RIPRAP
—— 000 ——	EXISTING CONTOUR		
—— D ——	EXISTING DRAIN LINE		
—— W ——	EXISTING WATER LINE		

PROPOSED FIELD CHANGES

1. STORMCRETE PERVIOUS PAVERS TO BE REPLACED BY PERMEABLE PAVEMENT. DUE TO LEDGE AND PERSISTENT HIGH GROUNDWATER BENEATH THE REAR ACCESS ROAD, INSTALLATION OF AN UNDERDRAIN CONNECTED TO THE STORMWATER CHAMBERS IS PROPOSED.

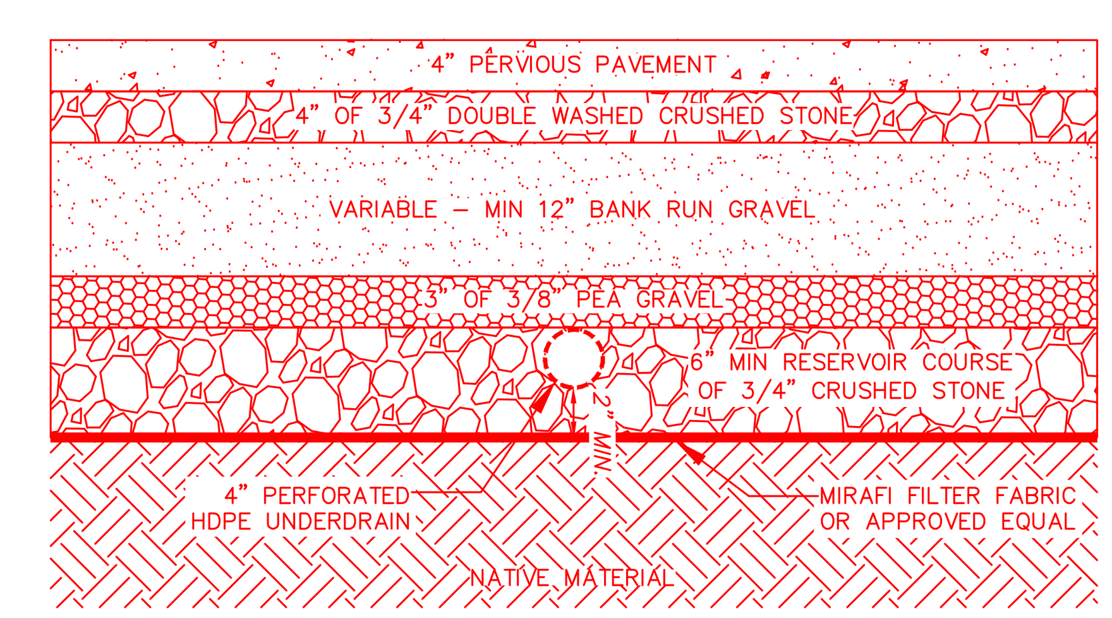
2. THE PROPOSED WALL DESIGN IS TO BE A TERRACED DESIGN PREPARED BY MARK SANTORA, P.E. INC. INSTALLATION OF A SUBDRAIN 4' BELOW THE PROPOSED RETAINING WALL IS PROPOSED TO INTERCEPT GROUNDWATER ENTERING THE SITE, AND WILL CONNECT TO DMH #20-5 .

3. DMH#20-5 AND DMH #20-6 LOCATIONS ADJUSTED TO AVOID CONFLICTS WITH EXISTING AND PROPOSED UTILITIES.

4. EXISTING TRANSFORMER AT SITE ENTRANCE TO BE UPGRADED, AND NEW ELECTRICAL SERVICE CONDUIT INSTALLED PARALLEL TO THE EXISTING RUN.

5. FIRE AND DOMESTIC SERVICE CONNECTIONS TO BE MODIFIED TO ACCOUNT FOR FIELD CONDITIONS. CONTRACTOR TO VERIFY DIAMETER OF EXISTING STUB. EXISTING HYDRANT TO BE RELOCATED. SEWER SERVICE TO BE ADJUSTED TO MAINTAIN MIN 10' SEPERATION TO WATER SERVICES.

6. MONUMENT SIGN PROPOSED AT SITE ENTRANCE.



NOTES:
1. PERVIOUS PAVEMENT TO BE PLACED IN TWO 2" LIFTS
2. ALL GRAVEL & CRUSHED STONE TO BE WASHED.

PERVIOUS PAVEMENT CROSS SECTION
N.T.S.

F4383

APPROVED DATE:

FRANKLIN PLANNING BOARD

BEING A MAJORITY

LEGAL NOTES

UTILITIES ARE PLOTTED AS A COMPILATION OF RECORD DOCUMENTS, MARKINGS AND OTHER OBSERVED EVIDENCE TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES AND SHOULD BE CONSIDERED APPROXIMATE. LOOKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. ADDITIONAL UTILITIES, NOT EVIDENCED BY RECORD DOCUMENTS OR OBSERVED PHYSICAL EVIDENCE, MAY EXIST. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING AND CALL DIGSAFE AT 1(888)DIG-SAFE{7233}.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

OWNER

NORFOLK COUNTY DEVELOPMENT LLC
185 QUINCY SHORE DRIVE, #26
QUINCY, MA 02171

DEED BOOK 33300 PAGE 92
PLAN NO. 40 OF 2014 PLAN BK. 628
A.M. 270 LOT 29.2

APPLICANT

FRANKLIN LEARNING RE LLC.
ATTEN: MANOJ GANDHI
206 GREAT ROAD
LITTLETON, MA. 01460

SITE PLAN MODIFICATION 505 WEST CENTRAL STREET LOT 3 (515 WEST CENTRAL STREET) FRANKLIN MASSACHUSETTS

FIELD CHANGE PLAN

NOVEMBER 22, 2023

DATE	REVISION DESCRIPTION
1/24/2024	PERVIOUS PAVEMENT REVISIONS

GRAPHIC SCALE: 1"=20'
0 5 10 15 20 25 30 40 50 FEET
0 1 2 3 4 5 10 15 20 METERS

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST.
FRANKLIN, MA 02038
PH. (508) 528-3221
FX. (508) 528-7921
www.gandhengineering.com

SHEET 1 OF 1
JOB NO. F4383

G:\C3DFranklin\F4383\DWG\F4383-SITE- field change 1-5-23.dwg, 1/24/2024 9:32:24 AM, [MAH]

IMPROVING COMMUNITIES TOGETHER

MEMORANDUM

Date:	February 1, 2024	Job No.:	10520.07
To:	Ms. Breeka Lí Goodlander Mr. Gregory Rondeau		
Cc:	Amy Love, Mike Maglio		
From:	Matt Crowley		
Subject:	**515 West Central Field Changes**		

BETA has reviewed updated materials for the proposed field change for the project located at 515 West Central Street in Franklin, MA and offers the following comments:

- The proposed pervious pavement detail is generally consistent with the Stormwater Handbook. Comments specific to the porous pavement are as follows:
    - The designer should confirm the proposed porous pavement thickness of 3" is suitable to support waste collection vehicle and fire apparatus loads. Porous pavement has a lower load-bearing capacity than conventional pavement. *G&H: The applicant has coordinated with BETA and revised the porous pavement detail to specify a 4" pavement thickness, placed in 2" lifts, to be consistent with the UNH Porous Pavement spec.* **BETA2: BETA defers to the Engineer of Record to confirm pavement has adequate load-bearing capacity – no further comment.**
    - The bottom of the reservoir course should be flat, and it is recommended to raise the subdrain from the reservoir bottom to promote recharge when groundwater levels stabilize or are lower during the dry season. *G&H: The plans have been revised to provide a flat bottom, and the subdrain raised to promote recharge when conditions allow.* **BETA2: Design revised – issue resolved.**
    - The Operation and Maintenance Plan should be updated to reference the porous pavement and include specific maintenance requirements (e.g. power washing and vacuum sweeping). The approved O&M includes proprietary documentation for the porous concrete that is no longer applicable. *G&H: The O&M has been revised to remove proprietary maintenance guidance, and specific maintenance guidelines have been added for the proposed porous pavement.* **BETA2: The O&M has been updated to provide some general maintenance provisions; however, additional information included in the Stormwater Handbook should be included to ensure long-term functionality of the system, such as the prohibition of winter sanding and regular assessments during/following storm events. Also, in accordance with the Handbook, signage should be posted to identify the porous pavement areas. The Board may elect to include these provisions as a condition of approval and BETA recommends and additional condition that prohibits the replacement of the porous pavement with an impervious surface unless specifically permitted to do so.**
- Subdrains from the porous pavement area will be directed to the existing infiltration basin near the front of Lot 2 (Wendy's). If the proposed modification is approved, the existing basin should be monitored during dry periods to ensure a permanent pool is not created. If the storage volume of the pond is affected, additional calculations or corrective measures may be required to ensure the site remains in compliance with the approved stormwater objectives. *G&H: The applicant does not object to this requirement.* **BETA2: BETA recommends for the Commission/Board to include**

a condition that requires monthly monitoring of the basin for a period of three months following connection of the subdrain to the closed drainage system. Monitoring should take place 72 hours after storm events and should generally be conducted when groundwater levels are high (March – May).

- BETA did not perform a detailed review of all stormwater documentation; however, the updated HydroCAD model input was noted to be consistent with the approved 2021 model, except for the proposed cover type change for the porous pavement area. While the stormwater objectives of the approved project are still anticipated to be met, the designer should ensure summary tables are fully representative of the HydroCAD output and the narrative and calculations are clear and consistent throughout each section. *G&H: G&H has coordinated with BETA and revised the drainage analysis narrative and HydroCAD output for consistency and clarity.* **BETA2: The narrative has been revised in sufficient detail to confirm that applicable stormwater standards will be met – issue resolved.**
- A letter dated November 8, 2023, from Mark Santora, PE, (the Engineer of Record (EOR)) has been provided in response to BETA's limited draft retaining wall design comments. The EOR has indicated that comments have been satisfactorily addressed and BETA defers final structural design and review to the EOR and permit granting authority. *G&H: No response required.* **BETA2: Wall revisions were previously approved by the Board/Commission – comment no longer applicable.**
- It is BETA's understanding that the critical path for construction is the proposed retaining wall. The Commission and Board may choose to act on this aspect of the project alone at their discretion. *G&H: No response required.* **BETA2: Wall revisions were previously approved by the Board/Commission – comment no longer applicable.**

Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352

Phone: (508) 520-4907
www.franklinma.gov

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

DATE: **January 30, 2024**

TO: **Franklin Planning Board**

FROM: **Department of Planning and Community Development**

RE: **515 West Central Street**
Field Change

The Applicant has requested the following field changes:

1. To allow for the installation of permeable pavement in place of the previously proposed Stormcrete pervious pavers north of the building.
2. Changes to the retaining wall – plans are provided.

Comments from the December 18, 2023 Meeting:

- Chair Rondeau asked the applicant to have the Conservation Commission document with a letter the change of asphalts and make sure it is followed though
- Provide test reports and inspections for the back fill and back of wall
- Proof there are no sections that are higher than 8ft
- Add a fence on the top of the retaining wall and show it on the drawing

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
www.gandhengineering.com
Est. 1972

Milford Office
333 West Street, P. O. Box 235
Milford, MA 01757-0235
(508) 473-6630/Fax (508) 473-8243

Franklin Office
55 West Central Street
Franklin, MA 02038-2101
(508) 528-3221/Fax (508) 528-7921

Whitinsville Office
1029 Providence Road
Whitinsville, MA 01588-2121
(508) 234-6834/Fax (508) 234-6723

F-4383

January 24, 2024

Franklin Planning Board
355 East Central Street
Franklin, MA. 02038
Attn: Gregory Rondeau, Chairman

RE: ***December 13, 2023 Memorandum from BETA Group, Inc.: 515 West Central Field Changes***

Dear Members of the Board:

On behalf of our client, Franklin Learning RE, LLC, Guerriere & Halnon, Inc. has prepared the following information to address the comments contained in the letter from BETA Group, Inc. dated December 13, 2023.

BETA Group's findings, comments and recommendations are shown in *italics* followed by our response in **bold.**

- *The proposed pervious pavement detail is generally consistent with the Stormwater Handbook. Comments specific to the porous pavement are as follows:*
  - *The designer should confirm the proposed porous pavement thickness of 3" is suitable to support waste collection vehicle and fire apparatus loads. Porous pavement has a lower load-bearing capacity than conventional pavement.*
    - **The applicant has coordinated with BETA and revised the porous pavement detail to specify a 4" pavement thickness, placed in two 2" lifts, to be consistent with the UNH Porous Pavement spec.**
  - *The bottom of the reservoir course should be flat, and it is recommended to raise the subdrain from the reservoir bottom to promote recharge when groundwater levels stabilize or are lower during the dry season.*
    - **The plans have been revised to provide a flat bottom, and the subdrain raised to promote recharge when conditions allow.**
  - *The Operation and Maintenance Plan should be updated to reference the porous pavement and include specific maintenance requirements (e.g. power washing and vacuum sweeping). The approved O&M includes proprietary documentation for the porous concrete that is no longer applicable.*
    - **The O&M Plan has been revised to remove proprietary maintenance guidance, and specific maintenance guidelines have been added for the proposed porous pavement.**

- *Subdrains from the porous pavement area will be directed to the existing infiltration basin near the front of Lot 2 (Wendy's). If the proposed modification is approved, the existing basin should be monitored during dry periods to ensure a permanent pool is not created. If the storage volume of the pond is affected, additional calculations or corrective measures may be required to ensure the site remains in compliance with the approved stormwater objectives.*
    - **The applicant does not object to this requirement.**
- *BETA did not perform a detailed review of all stormwater documentation; however, the updated HydroCAD model input was noted to be consistent with the approved 2021 model, except for the proposed cover type change for the porous pavement area. While the stormwater objectives of the approved project are still anticipated to be met, the designer should ensure summary tables are fully representative of the HydroCAD output and the narrative and calculations are clear and consistent throughout each section.*
    - **G&H has coordinated with BETA and revised the drainage analysis narrative and HydroCAD output for consistency and clarity.**
- *A letter dated November 8, 2023, from Mark Santora, PE, (the Engineer of Record (EOR)) has been provided in response to BETA's limited draft retaining wall design comments. The EOR has indicated that comments have been satisfactorily been addressed and BETA defers final structural design and review to the EOR and permit granting authority.*
    - **No response required.**
- *It is BETA's understanding that the critical path for construction is the proposed retaining wall. The Commission and Board may choose to act on this aspect of the project alone at their discretion.*
    - **No response required.**

We believe these responses have addressed the concerns expressed by BETA Group, Inc. from their review letter. Should you have any further questions or concerns, please contact our office.

Sincerely,
Guerriere & Halnon, Inc.

Michael Hassett
Project Engineer