

May 26, 2021

Planning Board  
663 Main Street  
Bolton, MA 01740

Re: 357 Main Street Peer Review

Dear Members of the Board:

On behalf of Environmental Pools, Dillis & Roy Civil Design Group (CDG) respectfully submits this reply to Places Associates peer review letter dated May 12, 2020, along with comments from the Board of Health and the Town of Bolton Staff Report. Included within this letter are the details of the specific parking requirements for the facility.

The following documents are included in this resubmission:

- Special Permit Plans Last Revised May 24, 2021
- Stormwater Management Report Last Revised May 26, 2021
- Truck Turning Movement Exhibit Dated May 25, 2021
- Landscape & Lighting Plan Dated May 12, 2021 by MDLA

For ease of reference review comments are noted in *Italics* with CDG responses in **bold text** below.

*Places Associates Review*

1. *Special Permit Criteria*

*4.6 Development Impact Statement*

*4.6.2 Drainage Calculations – see comments below specific to Stormwater*

**CDG Response:** These comments are acknowledged and are addressed in the specific comments related to Stormwater.

**Please note, Infiltration Area A has been eliminated from the stormwater management design.**

*4.6.3 There is a discrepancy between the volume of earth removal in the narrative/calculations and the amount shown on Sheet C3.1*

**CDG Response:** The volumes documented on the Site Plan were correct. Revisions to the parking layout and drainage design have adjusted the volumes as follows:

- 1,133 CY Cut
- 2,590 CY Fill

*4.64 A waiver is requested from the Traffic Study. However, we note that the number of parking spaces is increasing from 63 spaces to 93 spaces based on an office use. The proposed use for this building is related to the design and installation of swimming pools. It is recommended that at a minimum, a realistic assessment of both the number of parking spaces and traffic vehicle trips is presented to the Board to provide a baseline of the intensity of use on this site. This should include employee vehicles, company vehicles and the anticipated customer parking needs. The Board may want to consider designating spaces as “reserve” or “land banked” to be constructed in the future if the parking demand increases on this site.*

**CDG Response:** Please refer to below responses to Planning Board Comments regarding the parking need for the project.

*It is recommended that the engineer demonstrate that a large delivery truck or emergency response vehicle can maneuver through the site. The westerly intersection of the looped driveway at the main driveway is the principal main area of concern, as we are not convinced that a large truck can make a turn to egress the site without leaving the edge of pavement.*

**CDG Response:** A truck-turning movement exhibit has been provided documenting the adequacy of the existing entrance and proposed parking configuration.

*Site distances at the entry driveway should be added to the plan. The distances should note the driveway location in relation to the posted speed limit and should note whether the distances are sufficient for the posted speed limit.*

**CDG Response:** Sight Triangles have been documented on sheet C3.2. The existing driveway provides sufficient sight distances to meet the sight distance requirements of Chapter 9 of the AASHTO Green Book for a 45 mph road (50 mph design).

*4.7.3.3.c) Site Composite Plan – Benchmarks do not identify the vertical datum used.*

**CDG Response:** The Vertical Datum for the project is NAVD 88.

*4.7.3.4 Site Improvements - The easterly temporary outdoor storage area is within the IWPA for the abutting site. It is recommended that this be shifted outside of the IWPA or be limited to the storage of inert products which will not impact water quality.*

**CDG Response:** The Applicant intends to place metal rack storage in this area. The racks will contain lumber and PVC pipe (inert materials). Granular materials (stone, sand) will be stored

**in interlocking block storage bins in temporary storage areas outside of the IWPA, as will excavated materials being stored for reuse.**

*4.7.3.4c) Site Improvements – There is no indication of any fire protection system or whether the existing building has sprinklers. It is not clear from the application if this pool company will store pool chemicals in any of the storage areas.*

**CDG Response: The Applicant has met with Fire Chief, and to date sprinklers have not been a requirement. The Applicant will continue to work with the Fire Chief to address this item.**

*Pool chemicals in a concentrated form can be hazardous and, in some instances, flammable. If chemicals are stored on site, even if only used by the company employees, it is recommended that the applicant submit a listing of chemicals, container size and total volume stored on site and the location. Given that this site and abutting sites are served by on-site wells, it is recommended that these chemicals be stored inside, in an area with secondary containment, provide a hazardous materials spill kit and provide a Spill Prevention Plan. The applicant should review all information with the Fire Department in the event of an emergency response to the site and provide the Board with any such comments.*

**CDG Response: The Applicant intends to store the majority of pool chemicals within the proposed storage building. A Spill Prevention Plan will be coordinated with the Fire Chief and provided to the Town.**

*4.7.3.5.a) No solid waste dumpsters are shown, and the narrative indicates that they will comply with the Bylaws. It is recommended that a dumpster/recycling area be designated on the plan for shipping materials, cardboard, pallets and other bulk waste. If pool chemicals or other solvents used for pipe connections etc. are to be used, the dumpsters should be incorporated into the drainage maintenance system and spill prevention plan.*

**CDG Response: The Applicant intends to provide two 20-yard dumpsters in the existing paved parking area to the rear of the site, as shown on sheet C2.1.**

*4.7.3.6 The Erosion and Sedimentation Control Plan is detailed and complies with the requirements of this section. We would recommend extending the erosion control barrier along the westerly toe of the berm for the Infiltration Basin to prevent any potential erosion toward the abutting property.*

**CDG Response: Acknowledged. The Erosion Control Barrier along the westerly toe of the berm for the Infiltration Basin has been extended to prevent any potential erosion toward the abutting property.**

*4.8 Construction Details – Cross Section A (Infiltration Pond) should include an impermeable core in the berm, which is “keyed” into existing earth and an anti-sleep collar or check dam along the outlet pipe to prevent seepage which could weaken the berm.*

**CDG Response: The Infiltration Pond detail has been revised to provide an impermeable core (M1.08.0) in the berm, and the revised detail included in the future resubmitted site pans.**

*The 5' width of the berm on the Infiltration Pond is insufficient to provide access to the pond for maintenance. Recommend identifying maintenance access or widening the berm width to allow equipment to reach into the pond for this reason.*

**CDG Response: The Infiltration Pond berm has been revised to provide a 10-ft wide berm.**

#### *4.8.3 Parking Details – shown on sheet C2.1*

*Parking lot is not fully dimensioned and is irregular in shape. Aisle width on the southerly side of the island scales 20" while the northerly side scales 50". Angled parking does not identify the angle may require one way traffic around the island.*

*Since the parking is being re-striped and modified, it is recommended that it be reconfigured to make the amount of pavement more efficient. There is potential to eliminate paved surfaces and provide a more uniform parking lot.*

*It is recommended that if the applicant does not need the full 93 spaces required by Zoning, that spaces be land banked for future construction if needed. If the Board feels this is appropriate, we recommend a finding in the decision that the drainage system has been designed to accommodate construction of these future spaces.*

**CDG Response: Please refer to Planning Board responses below.**

*Plans have insufficient detailed grading to assess whether the grades for both the spaces and accessible route are in compliance with the ADA requirements. Accessible parking spaces are required to be the closest spaces to the public entrance and along the accessible route. Can these spaces be relocated to immediately in front of the front door with a new ramp installed in this area?*

**CDG Response: A detail of the restriped ADA spaces has been provided on sheet C3.2. Please note that only 2 ADA spaces are required for 26-50 parking spaces.**

*4.9.3 Landscape Plan – a waiver has been requested. Given that this building has been inactive for a number of years, it is recommended that if the Board considers the grant of this waiver, that the existing plants on site are pruned appropriately, dead plants removed and replaced at a minimum.*

*Lighting is considered under the Landscaping plan. The narrative indicates that no additional exterior lighting is proposed. No lighting is shown of the Existing Conditions Plan so there is no way to evaluate if there is sufficient lighting on the site. The board may want to consider having exterior lighting updated for consistency with the new building and have energy efficient shielded lighting installed on the site. The submittal of a photometric plan would demonstrate whether lighting is sufficient or not.*

**CDG Response: The Applicant withdraws this waiver request. Please refer to the enclosed Landscape and Lighting Plan prepared by Michael D'Angelo Landscape Architecture LLC, sheets L1 through L3.**

2. *Bylaw Compliance – See comments above regarding parking layout, and trash/recycling.*

**CDG Response:** Please refer to above responses regarding parking layout and trash/recycling.

3. *Site Plan Approval – Many of the criteria overlap with those of the Special Permit. However, two items required by the Site Plan Review Development Impact Study were not included in the submittal. There was no fiscal impact assessment or a Community Impact assessment.*

**CDG Response:** It is the intent of the applicant to utilize the existing commercial building while improving the infrastructure at the site. Should the Board require, a detailed Fiscal Impact Assessment & Community Impact assessment will be provided.

4. *Design Review Board – No comments.*
5. *Stormwater Calculations – Overall, the Stormwater Calculations are complete. We have been in contact with Dilllis and Roy regarding a typo which impacted the HydroCAD calculations. The revised data submitted to this office show compliance with the Stormwater Standards.*

**CDG Response:** The Stormwater Management Report will be revised to address this and will be provided once the Site Plan is updated to address the revised parking demand.

#### *Additional Comments*

1. *The Infiltration Basin and the two infiltration areas contain the 100 year storm and do not have an emergency overflow. Given the changes in the characteristics of recent rainfall events, it is recommended that emergency overflows be provided for all areas.*

**CDG Response:** The infiltration areas will be revised to provide an emergency overflow. The Infiltration Basin outlet structure has a grate at the top, above the 100-year water surface elevation and will provide emergency overflow.

2. *The areas described for the Pre and Post soil totals do not match.*

**CDG Response:** The Stormwater Management Report will be revised to correct the discrepancy between pre-development and post-development soils totals.

3. *Please label Pre and Post Drainage Area Plans to correspond to the HydroCAD designations for clarity. (ie. 6P versus Infil Pond).*

**CDG Response:** The Pre- and Post-Development Drainage Area Plans have been revised to correspond to the HydroCAD designations for clarity.

#### Town of Bolton Board of Health Review

1. *Septic permit dated 2/26/08 – Items necessary to issue the Certificate of Compliance for the septic system:*

*Recorded deed notice requiring the annual inspection of the area around the sewer line, forced main and leaching facility by a licensed Title 5 Inspector.*

**CDG Response:** The Applicant will provide a copy of a recorded deed notice documenting these requirements.

*Contract for inspections required by Title 5 Inspector.*

**CDG Response:** The Applicant will provide a copy of a contract for inspections by a registered Title 5 Inspector.

*Destruction of existing well in accordance with Bolton Board Of Health Well Regulations.*

**CDG Response:** The Applicant will provide documentation of demolition of the existing well in accordance with Bolton Board of Health Well Regulations.

*DEP approval of Public Water Supply.*

**CDG Response:** DEP approval of a Public Water Supply is no longer required. The Applicant's business will have 10 employees at the facility on a day to day basis, which is below the 24 employee threshold requiring a DEP approved Public Water Supply.

*Septic System design if for 1,500 gallons/day based on:*

*66 employees at 20 gallons/day/employee*

*60 attendees at 3gallons/day/attendee*

*Any proposed use of the facility would be subject to BOH review to determine if the current system is adequate for the proposed use.*

**CDG Response:** The Applicant's business will have 10 employees, which will result in a lower demand than the design of 1500 gallons per day.

*When did property change ownership? Was a Title 5 Inspection done?*

**CDG Response:** The sale of the property was finalized on September 11, 2017. Title 5 Inspection was done and a record will be provided.

#### Town of Bolton Staff Review Memo

##### *1. Water collection system does not specify weight*

**CDG Response:** The underground infiltration systems provide HS-20 loading with 12-inches of cover over the stone bedding in unpaved areas. Paved areas provide HS-20 loading with 10-inches of cover over the stone bedding.



2. *If HD-20 rating will have the ability to hold the weight of the fire apparatus*

**CDG Response:** HS-20 vehicle loading corresponds to 32,000 pounds per axle, and would support fire apparatus within this weight class.

3. *Roadways will have to be hard pack and have the ability to accommodate fire apparatus 10 feet wide*

**CDG Response:** The proposed gravel roadway around the building will be compacted sufficient for vehicle traffic and is a minimum of 24-feet wide.

4. *Storage permits will be needed for chemical storage along with on-site MSDS sheets*

**CDG Response:** The Applicant will coordinate all required permits for the storage of chemicals on-site with the Fire Department.

*Town of Bolton Planning Board Comments*

1. *Please document actual parking needs based on planned use of building.*

**CDG Response:** The existing building is 21,295 square feet in total. The Applicant plans to use 6000 square feet as office (1 space per 250 square feet), with the remaining 15,295 square feet as showroom space (1 space per 800 square feet) for a total of 44 parking stalls. The revised parking layout provides 48 standard parking stalls and 2 accessible parking stalls.

The original application documented 63 existing parking spaces split between the front parking lot and the rear paved parking area.

If the Planning Board is in agreement with this parking distribution, a revised site plan will be prepared, which will reconfigure the front parking lot.

2. *Document Peak Rate and Volume for all storm events*

**CDG Response:** The Stormwater Management Report has been revised to document both Peak Rate and Volume for all storm events. These rates and volumes are summarized below.

DP-A				
	Runoff		Volume	
Storm	Existing	Proposed	Existing	Proposed
2-year	0.40 cfs	0.31 cfs	0.067 af	0.066 af
10-year	2.87 cfs	2.42 cfs	0.240 af	0.238 af
100-year	12.79 cfs	11.49 cfs	0.884 af	0.871 af
DP-B				
	Runoff		Volume	
Storm	Existing	Proposed	Existing	Proposed
2-year	0.02 cfs	0.02 cfs	0.009 af	0.013 af
10-year	0.60 cfs	0.52 cfs	0.121 af	0.128 af
100-year	7.19 cfs	6.26 cfs	0.735 af	0.717 af
DP-C				
	Runoff		Volume	
Storm	Existing	Proposed	Existing	Proposed
2-year	2.78 cfs	0.13 cfs	0.216 af	0.015 af
10-year	5.67 cfs	1.89 cfs	0.429 af	0.232 af
100-year	14.02 cfs	9.85 cfs	1.042 af	0.938 af

While DP-B has minor volume increases in the 2-year and 10-year storm events, this is more than offset by the reductions in volume for DP-A and DP-C.



3. *Document source of Rainfall Data*

**CDG Response:** The source of the Rainfall Data is the Northeast Regional Climate Center 24-hour rainfall data.

Storm	24-hour (in/hour)
2-year	3.10
10-year	4.62
100-year	8.20

4. *Provide surcharge outlet for Stormwater Management Area B for storms in excess of the 100-year event*

**CDG Response:** Stormwater Management Area B has been revised to provide a surcharge outlet for storms in excess of the 100-year event.

5. *Document locations of proposed lighting and landscaping – Lighting to be full cut-off LED*

**CDG Response:** Please refer to the Landscape and Lighting Plan prepared by Michael D'Angelo Landscape Architecture LLC, sheets L1 through L3.

6. *Provide plantings on basin berm*

**CDG Response:** Please refer to the Landscape and Lighting Plan prepared by Michael D'Angelo Landscape Architecture LLC, sheets L1 through L3.

7. *Document proposed barn height*

**CDG Response:** The height of the proposed barn will be less than or equal to 32-feet, in conformance with section 250-13.F(2)(b).

8. *Provide berms around temporary storage areas*

**CDG Response:** The temporary storage areas have been revised to provide 6-inch berms around the perimeter of the areas.

*The applicant has requested waivers from the landscaping plan, traffic study, and floor plans. Given the proximity of construction to wetlands areas and the slopes between impervious areas and wetlands, a landscaping plan would be helpful to better understand the final condition of the site and any impacts to wetlands. The applicant should clarify whether the proposed temporary outdoor storage areas are to be used during construction only, or whether this is the ongoing storage of materials.*

**CDG Response:** Please refer to the Landscape and Lighting Plan prepared by Michael D'Angelo Landscape Architecture LLC, sheets L1 through L3.

*The trucking of fill on/off site is indicated to be lessened by storing materials onsite and reusing fill where possible. The applicant should clarify the cut/fill volumes as there is some discrepancy between the narrative application and Sheet C3.1. The number of truckloads off site should be estimated, though the site is conveniently located along 117.*

**CDG Response:** The volumes documented on the Site Plan have been revised to reflect the elimination of Infiltration Area A and its associated grading. The project now results in 1,133 cubic yards of cut and 2590 cubic yards of fill for a net import of approximately 1457 cubic yards. This will result in approximately 73 truckloads, assuming 20 cy per truck.

*The plans indicate 89 parking spaces provided with 4 additional handicapped spaces. Though the board may not waive zoning for the number of parking spaces, paved areas should be limited onsite to the extent possible. The Town's conservation agent would like to know, pursuant to previous conversations, if there is still the intent to provide a few parking spaces for residents to access the abutting trail to Rattlesnake Hill.*

**CDG Response:** The existing building is 21,295 square feet in total. The Applicant plans to use 6000 square feet as office (1 space per 250 square feet), with the remaining 15,295 square feet as showroom space (1 space per 800 square feet) for a total of 44 parking stalls. The original application documented 63 existing parking spaces split between the front parking lot and the rear paved parking area.

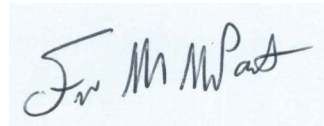
**For security reasons, the Applicant intends to install a gate on the driveway and therefore public parking is not feasible.**

We thank the Board for your review of this project. Please let us know if you require additional copies of the enclosed materials. We look forward to continuing to work with the Board to allow the improvements to the site and existing building.

Very Truly Yours,  
**DILLIS & ROY**  
Civil Design Group



Seth Donohoe  
Project Manager



Francis McPartlan, PE (MA)  
Senior Civil Engineer

cc:    Environmental Pools  
      Places Associates