

May 26, 2022

To:

Alaa M. Abusalah , Director of Development & Inspectional
Services/Town Planner
Leicester Development and Inspectional Services
3 Washburn Square
Leicester, Massachusetts 01524

A&M Project #:

2889-01

Re:

ZBA Special Permit
Area Summary Letter
651 Main Street
Map 21/Parcel B5.1

Copy:

Dear Ms. Abusalah

On behalf of our client, MKEP 770, LLC, the Applicant, Allen & Major Associates, Inc. has filled for a Special Permit Application with the Board of Appeals to support the construction of a proposed subdivision/site plan off Main Street in Leicester, Massachusetts as portion of the project area lies within the Water Resources Protection Overlay District (Section 7.1.04.2.a). The project includes land depicted on the Assessor's Map #21 as Parcel B5.1 (651 Main Street), owned by MKEP 770, LLC. The plans submitted intend to depict the land encompassing the subdivision & site plan based on the Existing Conditions Plan created by Allen & Major Associates, Inc. Dated: July 16, 2021, latest revision 02-07-2022

We wish to provide this clarification letter which may help better explain how our project is conforming with Section 7.1.04.2. As stated in Section 7.1.04. a special permit is required when:

"the rendering impervious of more than 15% or 2500 square feet of any lot, but not greater than 30% of any lot; for uses with impervious areas greater than that specified by the By-Law, appropriate measures must be taken to insure that the increase in storm-water runoff (over that amount generated by a lot with the specified impervious area) must be artificially recharged into the ground water."

Based upon the calculation for the project, the area specifically within the Water Resources Protection Overlay District is 27.96% impervious. The total impervious cover is further broken down into either paved parking which encompasses driveways, sidewalks & streets or building roof areas.

Summary for Subcatchment WRPOD: Subcat WRPOD[46] Hint: $T_c=0$ (Instant runoff peak depends on dt)

Runoff = 24.03 cfs @ 12.01 hrs, Volume= 1.506 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, $dt=0.05$ hrs
Type III 24-hr 2-year Rainfall=3.23"

Area (sf)	CN	Description
76,243	98	Paved parking, HSG C
555	98	Paved parking, HSG B
1,130	61	>75% Grass cover, Good, HSG B
275,580	74	>75% Grass cover, Good, HSG C
62,470	70	Woods, Good, HSG C
78,003	65	Brush, Good, HSG C
85,144	98	Roofs, HSG C
579,126	79	Weighted Average
417,183		72.04% Pervious Area
161,942		27.96% Impervious Area

Per Section 7.01.03 – Definitions: *"Impervious Area" - A surface covered by materials or structures on or above the ground that severely limits the amount of precipitation that infiltrates the underlying soil, including, but not limited to, asphalt, roofed buildings, etc.* As the project proposes to install gutters at approximately 18 of the residential buildings within the overlay district to capture 100% of the roof water for recharge, by definition, these areas would not *"severely limit the amount of precipitation that infiltrates the underlying soil"*.

As stated in the Massachusetts Stormwater Policy, LID site design credit is obtained by directing runoff from non-metal roofs to a qualifying pervious area (Disconnected roof runoff). In accordance with the Massachusetts Stormwater Policy, dry wells area classified as a "qualifying pervious area".

Based on this principle of disconnecting roof runoff, the area of impervious cover associated with the roofs could be re-evaluated in terms of the impervious percentage within the district. Below is a summary of the updated impervious calculations utilizing only "connected" impervious areas within the watershed district.

Summary for Subcatchment WRPOD: Subcat WRPOD

[46] Hint: $T_c=0$ (Instant runoff peak depends on dt)

Runoff = 19.17 cfs @ 12.01 hrs, Volume= 1.235 af, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, $dt=0.05$ hrs
Type III 24-hr 2-year Rainfall=3.23"

Area (sf)	CN	Description
76,243	98	Paved parking, HSG C
555	98	Paved parking, HSG B
1,130	61	>75% Grass cover, Good, HSG B
275,580	74	>75% Grass cover, Good, HSG C
62,470	70	Woods, Good, HSG C
155,545	65	Brush, Good, HSG C
7,603	98	Roofs, HSG C
579,126	75	Weighted Average
494,725		85.43% Pervious Area
84,401		14.57% Impervious Area

Based on this principles and explanations, the project would not meet the requirements of requiring a Special Permit. However, the project proposes to still pursue the Special Permit for the project as well as implementing the complete stormwater management design for the project include the comprehensive Operation & Maintenance protocols submitted both for this permit as well as the site plan approval.

We thank you in advance for your anticipated cooperation regarding this project and look forward to meeting to discuss the plans.

Very Truly Yours,

ALLEN & MAJOR ASSOCIATES, INC.



Michael Malynowski, PE
Senior Project Manager