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ENVIRONMENTAL DESIGN, LLC

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Erin Zwirko,
Director of Planning & Development
Town of Yarmouth
200 Main Street
Yarmouth, Maine 04096

Railroad Square - Development Master Plan
CBDC Development Plan –Submittal #2 –Traffic and Parking
(Map 37 Lots 28 and 29-00A)

Dear Erin:

On behalf of Railroad Square Associates LLC, we are pleased to provide this second in a series of focused submissions for the Railroad Square Masterplan located on Main Street and Railroad Square in Yarmouth Village. The project is being reviewed under Chapter 703, Article 6 –Character Based Development Code (CBDC) and Chapter 601 –Subdivisions. This submission covers the topics of ***Traffic and Parking*** as outlined in the project review schedule presented at the January Planning Board meeting. Enclosed for review are the following:

- Cover Letter
- Exhibit 1 –Trip Generation Analysis 298 Main Street and Railroad Square
- Exhibit 2 – Parking Table Rev. 02-08-22
- Exhibit 3 – 298 Parking at Railroad Square
- Exhibit 4 - Pedestrian Shed Plan

1. Introduction:

At the January 12th Planning Board meeting the project team presented an overview of the proposed Railroad Square (RRSQ) mixed use Development Masterplan to introduce and update the Planning Board and public on the project design and concept refinements since our first meeting with the Board in January, 2021. A schedule of subsequent development review submissions and meetings was presented in order to facilitate specific topics and review standards of the CBCD Article 6 over the next 6 months – culminating in a final Development Plan and Subdivision Plan review in June, 2022.

This submission focuses on the initial traffic trip generation assessment, parking and bike-pedestrian connectivity.

2. Traffic –Trip Generation Analysis:

Diane Morabito, PE, PTOE of Sewall has performed a trip generation analysis (*Exhibit 1)* for the combined approved 298 Main and RRSQ Masterplan to determine estimated vehicle trips which would be generated by the entire development. The analysis has been prepared in accordance with standards

of the Institute of Transportation Engineers (ITE) which provides estimated peak hour vehicle trips (entering and exiting) from the development based on the various proposed types of building occupancies and uses. The data is derived from nationwide studies of similar development types and is the accepted standard for determining estimated volumes of vehicle trips from various types of developments.

To be clear, the next step in the traffic assessment study will be to assign from which direction and what street those vehicle trips enter or exit the site and what impacts may result to current levels of service or capacity of immediate and nearby streets and intersections. This second part of the study will require actual field traffic counts, which per MDOT standards, are not typically performed in winter conditions and will be performed in the spring. The counts will also include the Down East Energy business truck trips. The Board will recall that this process has already been completed for 298 Main, however the updated counts will again include South Street as an update.

As discussed at the introductory meeting (as well as throughout the 298 Main approval process), the applicant's traffic consultant will be working closely with the Town's traffic consulting engineer to assess impacts of other recent developments on Main Street to ensure a comprehensive view of the traffic conditions are considered in the review of the RRSQ project.

The Trip Generation Analysis essentially provided for the following assumed uses for 298 Main and RRSQ:

298 Main – Residential condominiums, restaurant, retail and/or office uses.
Railroad Square –Senior housing, non restricted residential apartments or condominiums, retail and/or office uses.

Summarizing the Trip Generation Analysis:

- The peak hour generator is the weekday evening (PM) time period which generates a total of 109 trips.
- The analysis also takes credit for grandfathered vehicle trips currently being generated by the project within the past 10 years which would include the prior use of 298 Main Street, calculated at 29 PM hour trips. However, the pre-existing Artrascope Studios and Strong Bodies fitness trips were conservatively, not deducted or credited.
- The Net volume of peak hour trips from the development is thus 80 trips.
- The Net generated peak hour trips are under the 100 trip threshold for a MDOT Traffic Movement Permit (TMP). As such a MDOT-TMP is not required.

Other factors affecting traffic:

The design of an in-town mixed use/live-work neighborhood with a strong bike-pedestrian focus has tangible effects on standard vehicular trip generation and in short –transportation options for residents and visitors to Railroad Square. While the ITE data must be used for the traffic analysis, the reality is that the project implements many Smart-Growth principles which encourage alternate means of transportation and lifestyles which can reduce projected volumes of vehicular trips generated by this new neighborhood. Examples include:

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- The in-village location where walking and cycling are preferred to move around the village – reducing the demand on both vehicles and parking. Bike racks will be incorporated throughout the project to encourage two-wheeled visits to the existing village businesses and the RRSQ businesses and residences.
- Direct access to the proposed railroad multi-use path –which has the support of the Town of Yarmouth to provide a demonstration rail-trail project. This is an integral ethos of the project vision for a walkable-bikable community. The plan envisions an open plaza and gathering areas on Lots 2 and 3 which will front on the rail-trail creating gathering areas and points of interest for trail users.
- Seniors traditionally are enthusiastic walkers and can be expected to use the rail trail and downtown sidewalks and trails for both exercise and for visiting local businesses, reducing the dependency on the automobile for close trips.
- The applicants have agreed to perform traffic count updates as the project is phased in to determine actual counts as compared to projected peak hour volumes.

3. Parking:

An updated Parking Summary Table is provided as *Exhibit 2.* Parking requirements and actual proposed parking spaces as shown on the *Railroad Square Lot, Use and thoroughfare Plan*, submitted with the prior Pre-Application Sketch Plan submission are based on the parking requirements of the CBDC Article 5.K for the proposed uses. The table includes both 298 Main and RRSQ to demonstrate that as a common-scheme of development, all parking needs will be met with the implementation of the Development Masterplan. The plan provides 116 spaces at RRSQ for a code required 113 spaces.

Article 5.K provides minimum parking requirements and credits for encouraging shared parking to reduce the need for unnecessary pavement by essentially recognizing that many uses are non-simultaneous and generate peak parking needs at different times of the day.

Shared parking is provided onsite as thoroughfare parallel parking and the Lot 3 shared space parking which can be used for activities and events as well. The Lots 4-5 senior residential buildings 1, 2 and 3 provide 50 underground parking spaces in garages accessed from the rear of the buildings and the Lots 5 and 6 carriage house six (6) senior units provide one car garages and on-street parking.

As proposed with the 298 Main approvals, that building provides nine (9) dedicated spaces for 298 Main residents on RRSQ through a parking agreement. *Exhibit 3* shows both the temporary location of the 9 spaces as 298 Main construction is commenced and the final locations along the Railroad Square thoroughfare and dedicated on Lot 3.

Additionally while the Parking Summary demonstrates that the project, including two (2) spaces on Main Street located in front of 298 Main, can meet the parking demand requirements, the reality is that Main Street and adjacent lots are practically empty in the evenings and see minimal use at off-peak hours. The table has included a restaurant at 298 Main (rather than at RRSQ as in a previous version of the parking summary) which would likely see patrons using empty parking spaces on Main Street or the nearby church lot during evening or late day hours. However, the site program has allowed for those spaces to be located on the project site.

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The Downtown Main Street Parking Study performed by Milone & MacBroom, March 2018 notes that there are an excess of parking spaces typically available via public and private lots within the greater village area and that shared parking should be encouraged.

4. Pedestrian Shed Plan:

As required by the CBDC Article 6.D.2 - a Pedestrian Shed Plan has been prepared and included as *Exhibit 4.* This plan provides a context of all trails and walkways – existing and proposed, open spaces and civic buildings within ¼ mile of the project. What can be identified from the plan is that the RRSQ neighborhood is both centrally located adjacent to existing sidewalks and the proposed rail-trail and is directly or indirectly linked to the Town Hall, Library, William Rowe School and the Village Green to name a few locations.

This plan demonstrates again, the strength of Railroad Square as a walkable-bikeable neighborhood located in the heart of Yarmouth Village.

In summary, we look forward to our next meeting with the Planning Board on March 9th. Our traffic consultant Diane Morabito will present the trip generation report and discuss the next steps in the traffic evaluation. In the interim should you require any additional information or have questions on this Sketch Plan application please do not hesitate to contact Matt Teare or me.

Sincerely

Frederic (Rick) Licht, PE, LSE
Principal

Encl: As Noted

Cc: Matt Teare, Railroad Square Associates LLC
Tamson Hamrock, Railroad Square Associates LLC
Rob Barrett, Barrett Made
Matthew Alhberg, Barrett Made
Tony Panciocco, Atlantic Resource Consultants
Diane Morabito, Sewall
Paul Ruopp, Paul H. Ruopp Jr. Land Surveying & Mapping
Nate Huckel-Bauer, Drummond & Drummond

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EXHIBIT 1

TRIP GENERATION ANALYSIS 298 MAIN & RRSQ

TRIP GENERATION ANALYSIS
298 MAIN STREET AND RAILROAD SQUARE
YARMOUTH, MAINE

INTRODUCTION

Sewall has performed trip generation analysis for the approved 298 Main Street development and the currently proposed Railroad Square development. This updated analysis was performed for:

Approved 298 Main	Proposed Railroad Square
15 Residential Condominiums	51 Age-Restricted Condominiums
1,046 S.F. Retail Space	10 Residential Apartments
1,484 S.F. Quality Restaurant	4,600 S.F. Office
587 S.F. Office Space	3,000 S.F. Retail

REVISED TRIP GENERATION ANALYSIS

The revised number of trips to be generated by 298 Main Street was estimated utilizing the Institute of Transportation Engineers (ITE) "Trip Generation, 11th edition", since it is the most current information and derived from the largest database. The following land use codes were utilized on the noted bases:

- LUC 221 – Multifamily Housing – Mid-Rise - 15 dwelling units
- LUC 931 – Fine Dining Restaurant – 1,484 S.F.
- LUC 822 – Strip Retail Plaza - 1,046 S.F.
- LUC 712 – Small Office - 587 S.F.

The results are summarized in the following table:

298 MAIN TRIP GENERATION

Time Period	Condos	Restaurant	Retail	Office	Total
Weekday	68	124	58	10	260
AM Peak Hour – Adjacent Street	6	1	2	1	10
Entering	1	1	1	1	4
Exiting	5	0	1	0	6
AM Peak Hour – Generator	5	7	8	2	22
Entering	1	5	4	1	11
Exiting	4	2	4	1	11
PM Peak Hour – Adjacent Street	6	12	7	1	26
Entering	4	8	3	0	15
Exiting	2	4	4	1	11
PM Peak Hour – Generator	6	12	14	2	34
Entering	4	7	8	1	20
Exiting	2	5	6	1	14
Saturday Peak Hour	6	16	7	0	29
Entering	3	9	4	0	16
Exiting	3	7	3	0	13

The above results are very similar to the original analysis we did in the traffic impact study for 298 Main but slightly increased (highest PM peak hour generator increased from 26 to 34 due to several factors – additional dwelling unit, larger restaurant space and higher ITE 11th Edition retail rates). For the proposed Railroad Square, the following LUCs were used on the noted bases:

- LUC 252 – Senior Adult Housing – Multifamily Housing - 51 dwelling units
- LUC 220 – Multifamily Low Rise - 10 dwelling units.
- LUC 712 – Small Office – 4,600 S.F.
- LUC 822 – Strip Retail Plaza – 3,000 S.F.

The results for Railroad Square are summarized as follows:

PROPOSED RAILROAD SQUARE TRIP GENERATION

Time Period	Senior	Apts.	Retail	Office	Total
Weekday	166	68	164	66	464
AM Peak Hour – Adjacent Street	10	4	7	8	29
Entering	3	1	4	6	14
Exiting	7	3	3	2	15
AM Peak Hour – Generator	15	5	23	12	55
Entering	7	1	11	7	26
Exiting	8	4	12	5	29
PM Peak Hour – Adjacent Street	13	5	20	10	48
Entering	7	3	10	3	23
Exiting	6	2	10	7	25
PM Peak Hour – Generator	15	6	40	14	75
Entering	8	4	21	6	39
Exiting	7	2	19	8	36
Saturday Peak Hour	16	4	20	2	42
Entering	8	2	10	1	21
Exiting	8	2	10	1	21

The two projects are combined as follows:

COMBINED 298 MAIN & RAILROAD SQUARE

Time Period	298 Main	RR Square	Combined
Weekday	260	464	724
AM Peak Hour – Adjacent Street	10	29	39
Entering	4	14	18
Exiting	6	15	21
AM Peak Hour – Generator	22	55	77
Entering	11	26	37
Exiting	11	29	40

	COMBINED 298 MAIN & RAILROAD SQUARE		
Time Period	298 Main	RR Square	Combined
PM Peak Hour – Adjacent Street	26	48	74
Entering	15	23	38
Exiting	11	25	36
PM Peak Hour – Generator	34	75	109
Entering	20	39	59
Exiting	14	36	50
Saturday Peak Hour	29	42	71
Entering	16	21	37
Exiting	13	21	34

As seen above, the combined 298 Main and Railroad Square developments will generate from 39 to 109 one-way trips in peak hours. A traffic movement permit (TMP) is required from MaineDOT if trip generation exceeds 100 or more trips in any peak hour. However, there is a credit for grandfathered pre-existing trips to the site. This credit is based upon uses which occupied the site and were operating in the last ten years. At the time the 298 Main Street study was performed in 2020 the credit was calculated for the previous 298 Main Street uses:

- 4 Residential Apartments
- 2,250 S.F. of General/Professional Office Space
- 1,500 S.F. Medical Office
- 1,000 S.F. Retail Space

The trips for these former 298 Main uses, to determine the credit for grandfathered trips for state traffic permitting purposes, were similarly calculated utilizing the 11th edition ITE report utilizing the following ITE land use codes and bases:

LUC 220 – Multifamily Housing – low rise – 4 dwelling units
LUC 712 – Small Office - 2,250 S.F.
LUC 720 – Medical Office – 1,500 S.F.
LUC 822 – Strip retail - 1,000 S.F.

The trip generation results for the former uses are summarized as follows:

298 MAIN – PREVIOUS TRIP GENERATION

Time Period	Apts.	Offices	Med. Office	Retail	Total
Weekday	28	32	54	54	168
AM Peak Hour – Adjacent Street	2	4	5	2	13
Entering	0	3	4	1	8
Exiting	2	1	1	1	5
AM Peak Hour – Generator	2	6	6	8	22
Entering	0	4	3	4	11
Exiting	2	2	3	4	11
PM Peak Hour – Adjacent Street	2	5	6	7	20
Entering	1	2	2	3	8
Exiting	1	3	4	4	12
PM Peak Hour – Generator	2	7	7	13	29
Entering	1	3	3	7	14
Exiting	1	4	4	6	15
Saturday Peak Hour	2	1	5	7	15
Entering	1	0	3	3	7
Exiting	1	1	2	4	8

These 298 Main trip credits are removed from the combined proposed below:

NEW 298 MAIN & RAILROAD SQUARE TRIPS

Time Period	Combined	Credit	New Trips
Weekday	724	168	556
AM Peak Hour – Adjacent Street	39	13	26
Entering	18	8	10
Exiting	21	5	16
AM Peak Hour – Generator	77	22	55
Entering	37	11	26
Exiting	40	11	29

NEW 298 MAIN & RAILROAD SQUARE TRIPS

Time Period	Combined	Credit	New Trips
PM Peak Hour – Adjacent Street	74	20	54
Entering	38	8	30
Exiting	36	12	24
PM Peak Hour – Generator	109	29	80
Entering	59	14	45
Exiting	50	15	35
Saturday Peak Hour	71	15	56
Entering	37	7	30
Exiting	34	8	26

As seen above, with consideration of the trip credits for former 298 Main Street uses, new trip generation will be well below 100 in all peak hours so a TMP is not required. Additionally, there are also pre-existing uses in railroad square, namely the art studio and fitness center, which yield further trip credits. Since there are not ITE codes that fully describe these uses and their classes, the trip credits for railroad square will be based upon actual site counts.

EXHIBIT 2

PARKING SUMMARY TABLE REV 02-08-22

RAILROAD SQUARE & 298 MAIN MASTERPLAN - PARKING SUMMARY TABLE

PLAN REF: RAILROAD SQUARE MASTERPLAN & LOT, FRONTAGE & THOROUGHFARE PLAN BY KSLA REV. 12-15-21								DATE:REV:	2/8/2022
LOT AND TYPE OF USE			**CBDC 5.K.1 STANDARDS**		**MINIMUM SPACES REQUIRED**			**TOTAL SPACES PROVIDED**	
Lot #	Description	Use	Units	Square Footage	Min Ordinance Requirement	Spaces Required (Before division by 1.2 shared factor)	Spaces Required After Apply 1.2 Shared Factor	**SPACES PROVIDED**	Spaces Location & Comments
298 MAIN (APPROVED)									
298 MAIN	298 Main	Retail/office	2	1,633	2 per 1,000 sf	4	3	2	Main Street-Parallel
	Mixed Use	(2 +/-Units)						**1**	RRSQ Site Drive Parallel **** (Applied Below to RRSQ)**
	298 Main	**Restaurant**	1	1,484	1 per 4 seats	8	6	**6**	RRSQ Site (RRSQ Drive and Lot 3 Parking Lot)
	Mixed Use			(30 seats)					***(Applied Below to RRSQ)**
	298 Main	Residential Condos	15	14000+/-	1 per unit	15	15	7	Under Building
	Mixed Use							**9**	RRSQ - Lot 3 Parking Lot ** (Applied Below to RRSQ)**
									under shared parking agreement
TOTALS 298 MAIN PROJECT						27	**24**	**25**	
RAILROAD SQUARE									
298 MAIN	Required Easement	Residential	*Spaces per 298 Main Approval*		1 per unit	9	9	**9**	RRSQ - Lot 3 Parking Lot
	Parking @RRSQ								(Applied from above)
298 MAIN	restaurant & office/retail	restaurant & offiice/retail	2	1,633	2 per 1000 sf	7	7	**7**	Parallel RRSQ Drive and Lot 3
LOT 1	Pavilion	Arts/Events	1	2,750	3 per 1000 sf	8	8	8	Parallel RRSQ Drive and Lot 3 Parking Lot
LOT 2	Mixed Use Bldg.								
	3 Story	Retail/Office -1st fl	3-4 units	4,600	2 per 1,000 sf	9	7	7	Parallel RRSQ Drive and Lot 3 Parking Lot
	(11,600 GSF)	4,600 sf							
	(4,600 FP)								
	2/3 floors	Residential	7	7,000	1 per unit	7	7	7	Lot 3 Parking Lot
	resid apts								
LOT 3	Mixed Use	Retail/Office	2-3 Units	3,033	2 per 1000	6	5	5	Lot 3 Parking Lot
	2 story	1st Flr.							
	(3033 FP, 6066 GSF)								
		Residential Units	3	3,033	1 per unit	3	3	3	Lot 3 Parking Lot
		2nd Flr.							
LOT 4	55+	SR Residential	30	55,719	1.3 per Unit	39	39	35	Under Building Garage Spaces
	(18,773 FP)	2bldgs/3 sty@15 units ea.						1	Civic Green Area F - Parallel
		34 spaces garage						3	Lot 4 Rear Building Spaces
LOT 5	55+	SR Residential	15	26,430	1.3 per Unit	20	20	15	Under Building Garage Spaces
	(8810 FP)	1 bldg/3 sty @ 15 units						5	Civic Green Area F - Parallel
		15 spaces garage							
LOTS 6 & 7	55+	55+ Resid. Carriage Hse. Units	6	16,000	1.3 per Unit	8	8	6	Garage Spaces @ 1 per Unit
	(6,400 FP)	2.5 sty						2	Parallel Spaces in front of Lots5-6
								3	**EXTRA SPACES AVAILABLE CIVIC GREEN**
					TOTAL SPACES:	**116**	**113**	**116**	

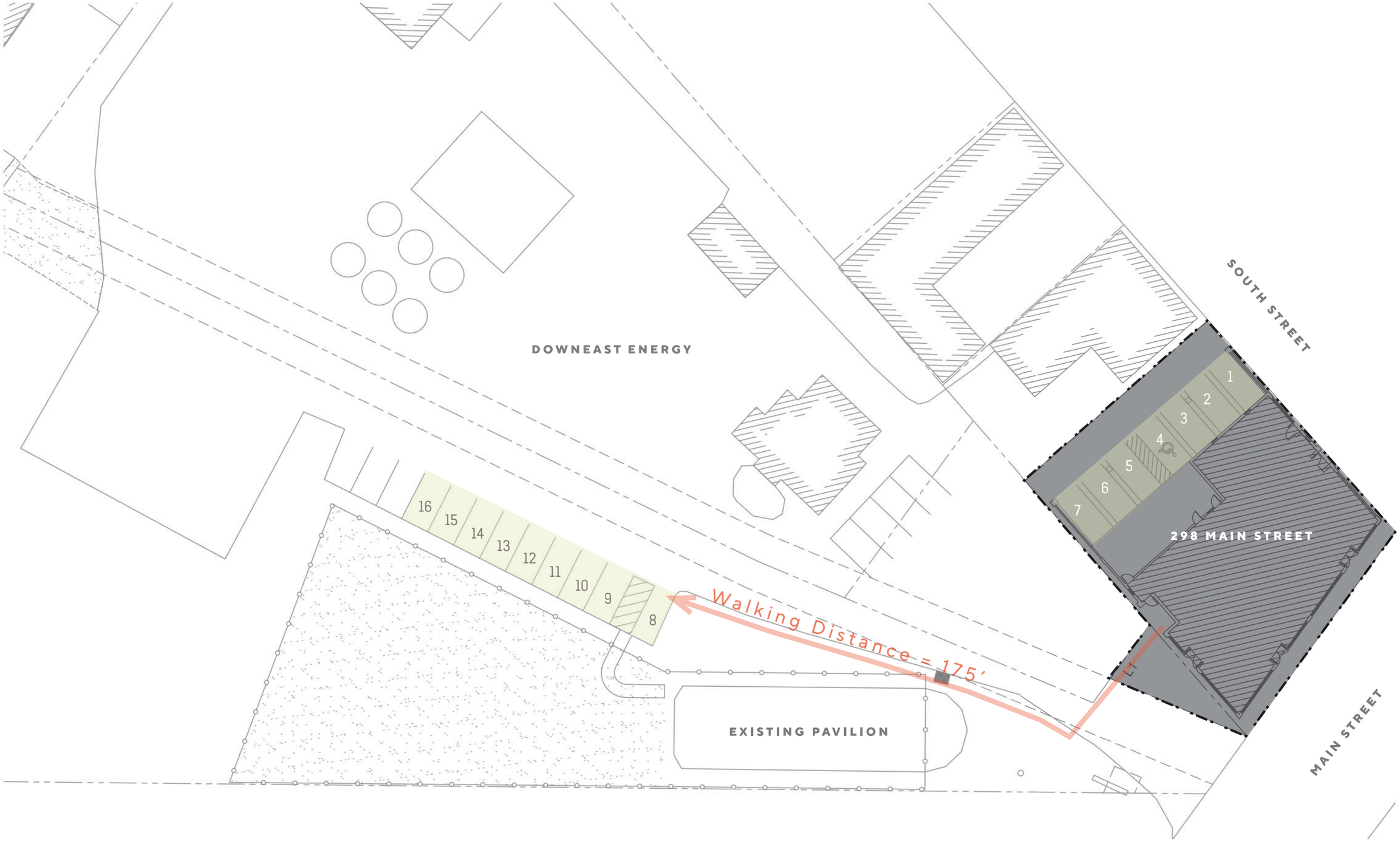
NOTE (1.): ARTICLE 5.K.2 SHARED PARKING FACTOR (DIVISOR) APPLIED TO ALL RETAIL/OFFICE/USES ONLY CONSERVATIVELY - EXCEPT RESID UNITS AND DEDICATED 55+ RESID. MIN REQUIRED PARKING SPACES.

SHARED PARKING FACTOR AVERAGED AT 1.3 USING TABLE 5.K.2 AVERAGING RESIDENTIAL WITH COMBINATION OFFICE (1.4) AND RETAIL/RESTAURANT (1.2).

HOWEVER TO BE CONSERVATIVE THE 1.2 FACTOR WAS APPLIED TO THIS TABLE.

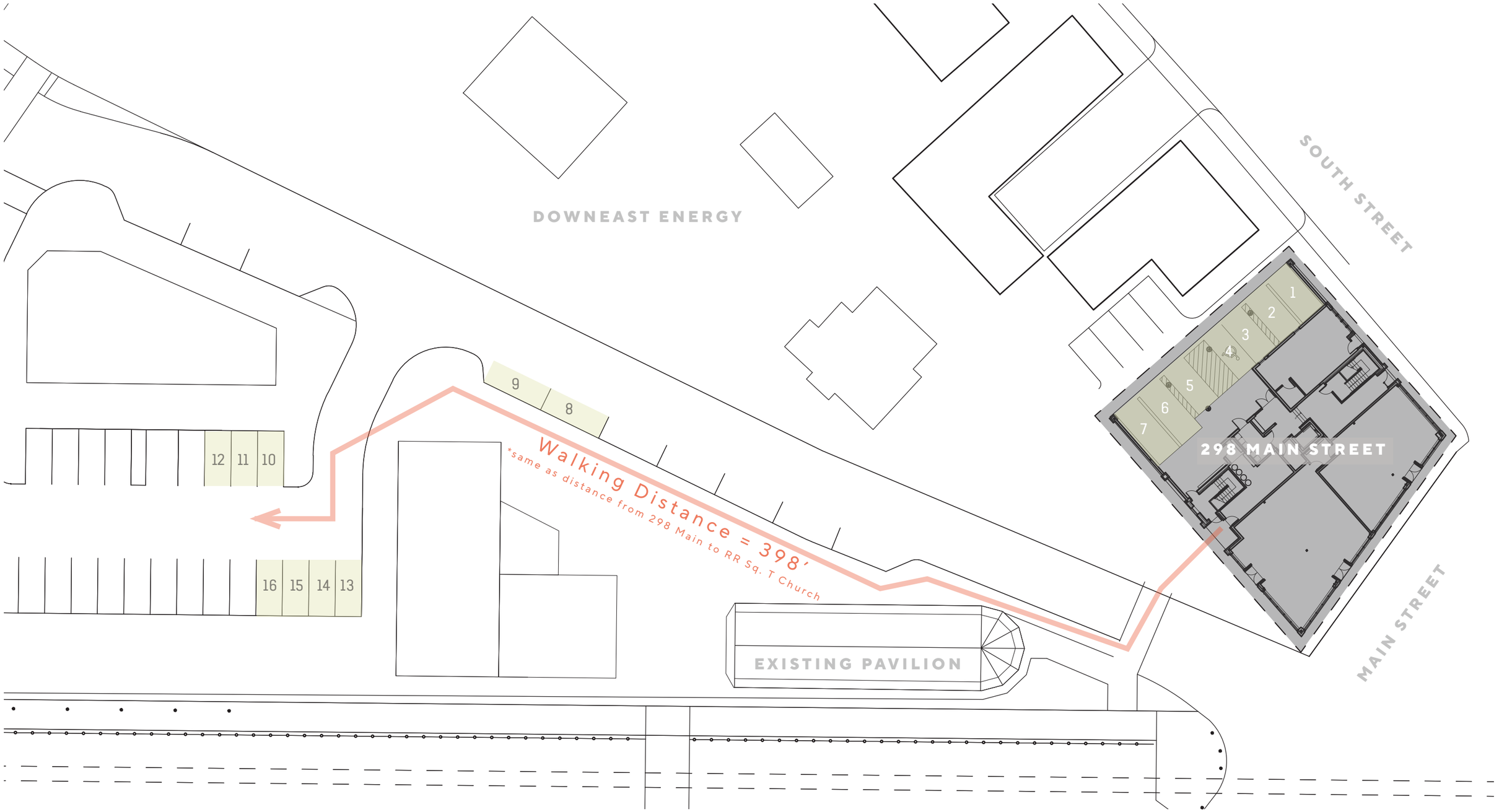
EXHIBIT 3

298 MAIN PARKING AT RRSQ



Parking Access: Before

65 Hanover Street | Portland, Maine | 04101 | 207.650.6500 | info@barrettmade.com
2525 Main Street | Rangeley, Maine | PO Box 527 | 04970 | 207.502.5115



*Allotted parking spaces are approximate and subject to slight adjustment per final building design and construction.

Parking Access: After

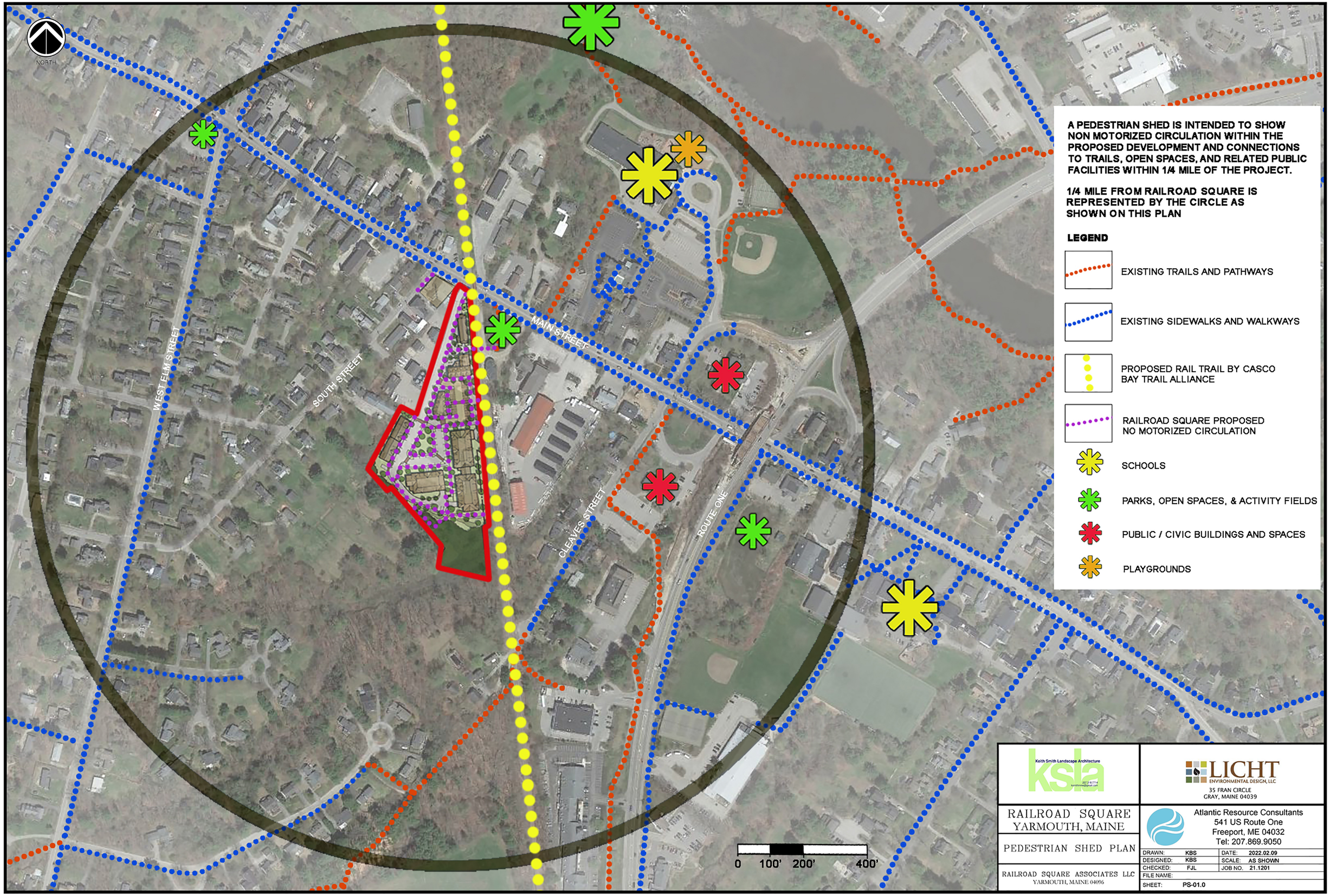
B ARCHITECTURE+ CONSTRUCTION

298 Main Street | 2022.02.04

65 Hanover Street | Portland, Maine | 04101 | 207.650.6500 | info@barrettmade.com

2525 Main Street | Rangeley, Maine | PO Box 527 | 04970 | 207.502.5115

EXHIBIT 4
PEDESTRIAN SHED PLAN



Keith Smith Landscape Architecture
ksla

LICHT ENVIRONMENTAL DESIGN, LLC
35 FRAN CIRCLE
GRAY, MAINE 04039

RAILROAD SQUARE
YARMOUTH, MAINE

PEDESTRIAN SHED PLAN

RAILROAD SQUARE ASSOCIATES LLC
YARMOUTH, MAINE 04096

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

DRAWN:	KBS	DATE:	2022.02.09
DESIGNED:	KBS	SCALE:	AS SHOWN
CHECKED:	FJL	JOB NO.	21.1201
FILE NAME:			
SHEET:	PS-01.0		