

SUBASE New London Joint Land Use Study (JLUS) Implementation Project

City of Groton Parking Management Plan June 2022 Update

Kimley»Horn



Purpose

- Anticipate rising demands for parking due to additional employment at Electric Boat
- Identify how/where parking can be created
- Identify alternatives to reduce demand
- Begin process of amending City policies and instituting new programs
- Protect City of Groton residents and businesses from disruption

Background

- 2016: Southeastern CT Council of Governments receives federal funding to conduct *Joint Land Use Study* (JLUS) supporting cooperation between region, municipalities, defense activities, and CT Office of Military Affairs
- 2019: General Dynamics Electric Boat announces expansion, receives local permits to build South Yard Assembly Building (+2,500 employees peaking in 2029) with minimal additional parking
- 2020: JLUS plans recognize City of Groton parking challenges, recommend further planning, SCCOG receives additional funds to proactively address parking impacts, in partnership with City of Groton

Goals

- Preserve ability of City of Groton businesses to operate and grow
- Minimize impact on City of Groton traffic and adjacent residential neighborhoods
- Accommodate additional demand for parking with new supply or alternative off-site services

Objectives

- Assess availability of existing on- and off-street parking, private or public
- Determine demand for parking in City of Groton- now and with future expansion of Electric Boat employment
- Review existing City of Groton policies
 - Regulation of on-street parking
 - Zoning requirements for off-street parking
- Propose new parking facilities or alternatives
- Propose changes to City of Groton policies regarding parking supply and use

Timeline

- 2020: SCCOG received grant from U.S. Department of Defense, Office of Local Defense Community Cooperation and hired Kimley-Horn, parking consultant
- 2020-2021: Kimley-Horn reviewed existing conditions and policies and plans for growth, and made initial recommendations
- December 2021- today: Meetings with SCCOG, City of Groton, Electric Boat, CT DOT, CT Rides to review new information, post-COVID conditions, and develop alternative solutions

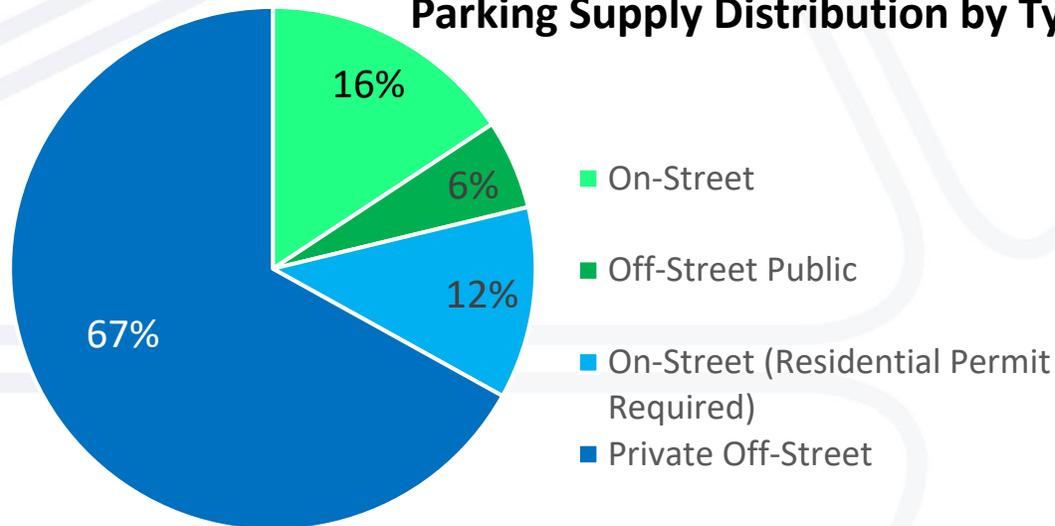
Demand/Supply Analysis



Parking Supply

- The study area was divided into four zones and each block was assigned a block code
- There are approximately **12,500 parking spaces** in the study area
- Off those spaces, only **22%** are open for general public use

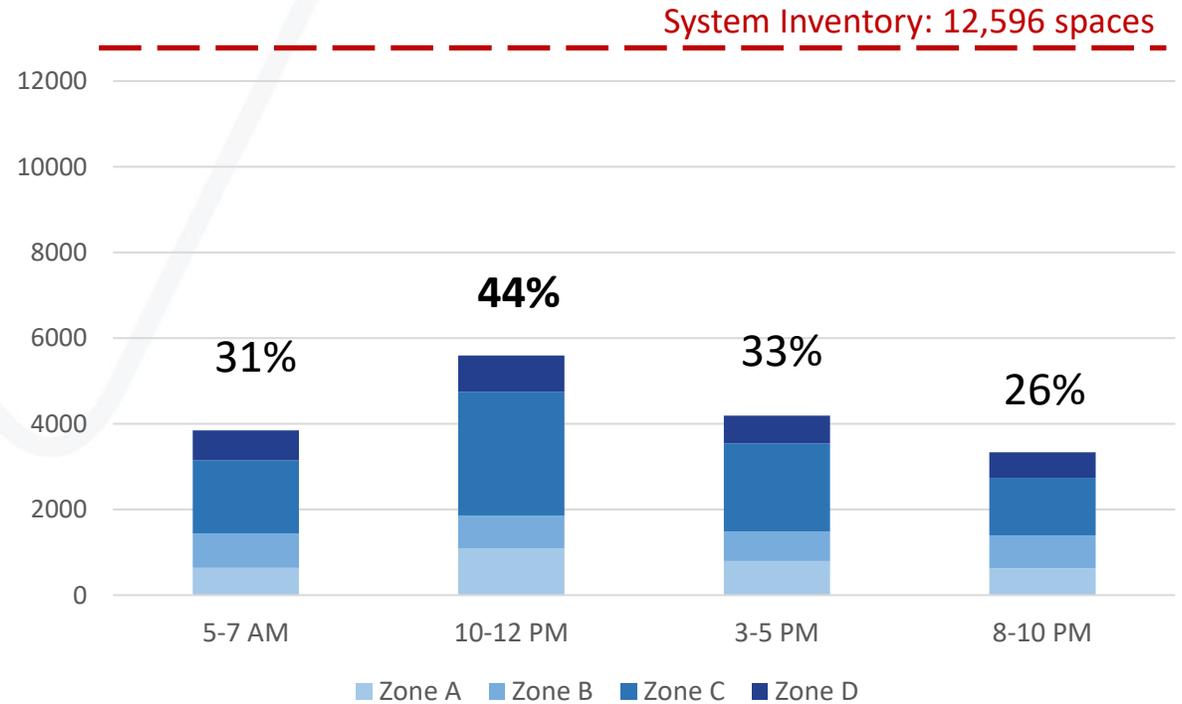
Parking Supply Distribution by Type



Summary of System-wide Hourly Parking Occupancy

- Occupancy counts were collected on December 2, 2020 from 5:00 AM to 10:00 PM
- Peak Hour of study area was determined to be **10:00 AM to 12:00 PM**

System-wide Parking Occupancy by Time Period



Parking Analysis

System-wide Peak Hour Occupancy by Block

2021 Conditions (COVID Disruption)

10:00 AM to 12:00 PM

- Under existing conditions, Zone C has highest parking occupancy

Peak Hour Occupancy by Zone

Zone	Inventory	Peak Hour Occupancy	% Peak Hour Occupied
A	3,613	1,085	30%
B	2,494	768	31%
C	3,948	2,893	73%
D	2,541	848	33%
Total	12,596	5,594	44%



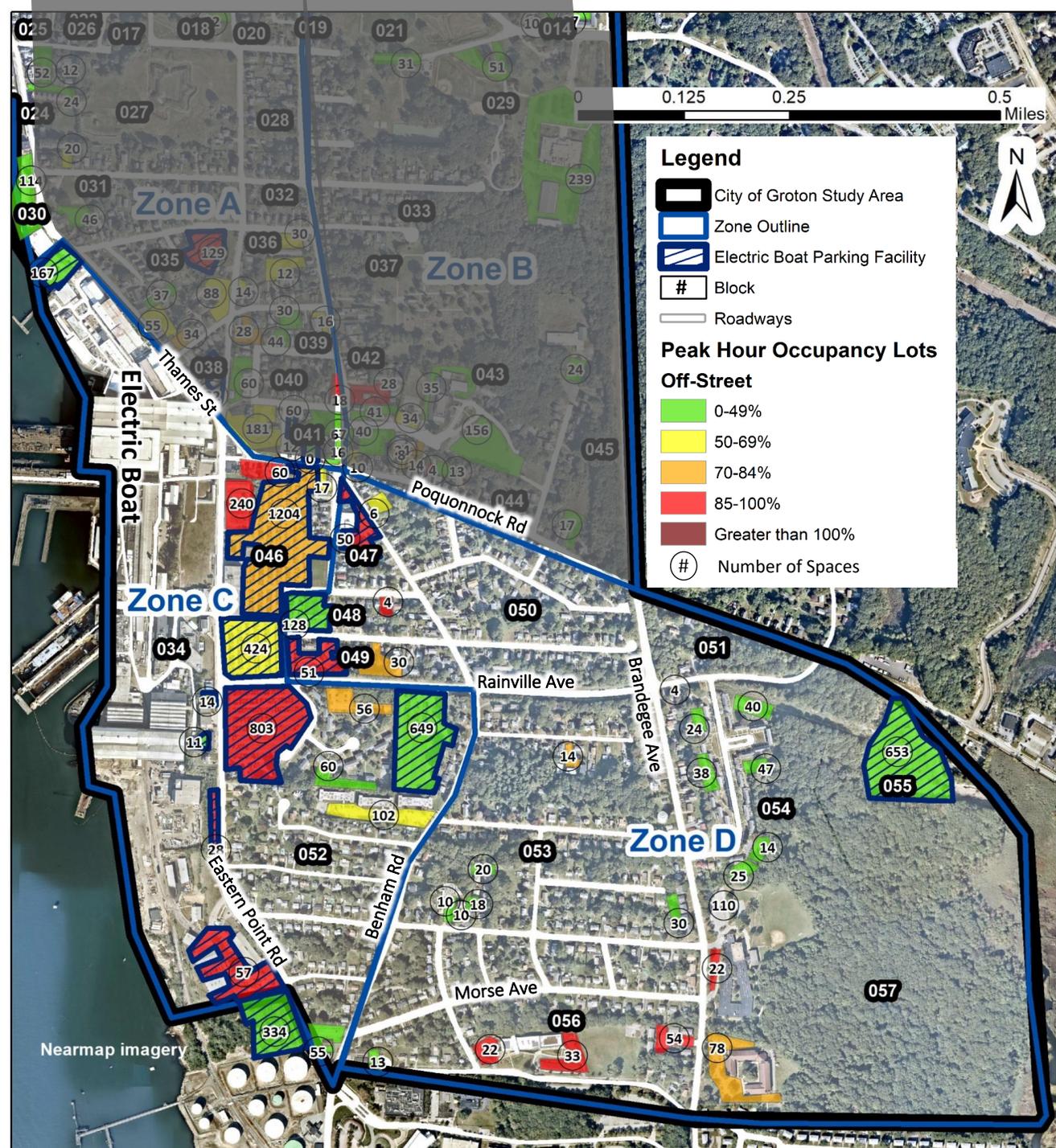
Zones C&D Off-Street Peak Hour Occupancy

10:00 AM to 12:00 PM

- Electric Boat makes up most of the Restricted facilities in Zone C
- Though only 240 “open to the public” spaces exist in Zone C, they were 92% occupied

Off-Street Inventory and Observed Occupancy Zones C&D

Zone	Off-Street Facility Type	Inventory	# of Occupied Spaces				% Peak Hour Occupied
			5-7 AM	10-12 PM	3-5 PM	8-10 PM	
C	Open to the Public	240	60	220	200	150	92%
	Restricted	3,263	1,555	2,568	1,757	1,102	79%
D	Open to the Public	0	0	0	0	0	-
	Restricted	1404	420	503	344	250	36%



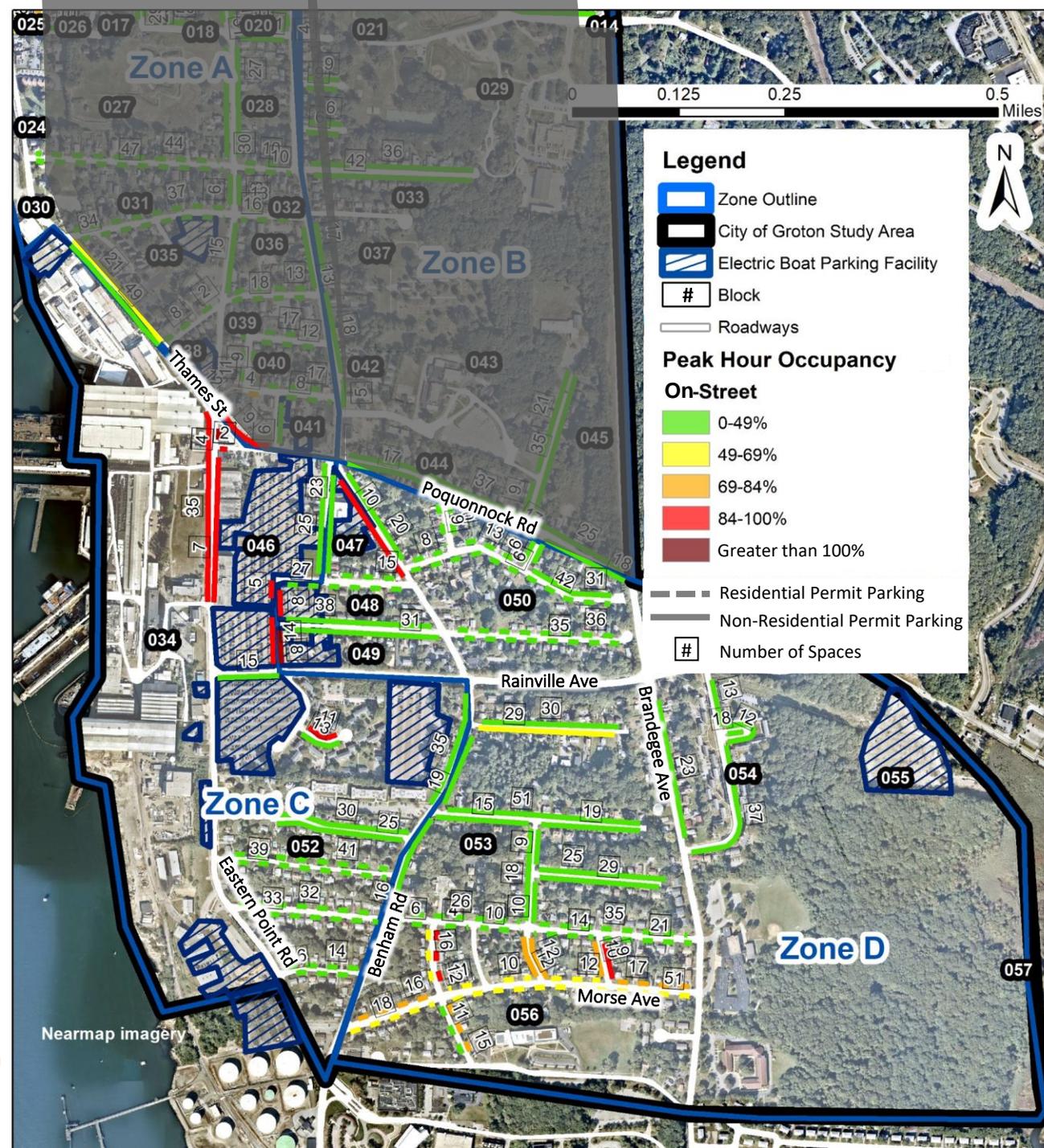
Zone C & D On-Street Peak Hour Occupancy

10:00 AM to 12:00 PM

- Majority of Zone C on-street occupancy is residential permit parking
- Zone D is more occupied than Zone C

On-Street Inventory and Observed Occupancy Zones C&D

Zone	On-Street Space Type	Inventory	# of Occupied Spaces				% Peak Hour Occupied
			5-7 AM	10-12 PM	3-5 PM	8-10 PM	
C	RPPP Zones	270	67	87	78	52	32%
	Non-Residential	175	25	18	26	37	10%
D	RPPP Zones	637	166	170	133	151	27%
	Non-Residential	500	113	175	170	196	35%



Existing Land Use Analysis – Supply/Demand Analysis



Scenario 1:

Covid-19 Conditions

Parking Demand/Supply

- Measures parking demands generated by current activities in study area
- Highest demand in Zone C, location of EB Headquarters as well as their surface lots
- Estimated peak-hour demand by EB during COVID: 3,425
- Slight parking surplus in Zone C of 100 parking spaces due to Covid-19 Work-From-Home conditions

Existing Land Use Analysis – Supply/Demand Analysis



Scenario 2:

Pre-Covid

Parking Supply/Demand

- With full on-site employment, Zone C generates demand for 1,550 more parking spaces than it provides
- Estimated pre-COVID demand by EB: 4,282
- Unmet demand must be met by supply in Zones A, B, D

Future Land Use/EB Staffing Scenario

Scenario 3: Future Parking Demand *Post* Covid-19

- Other Potential Development

Zone	Industrial SF	Institutional SF	Office SF	Residential DU	Restaurant SF	Retail SF
A	35,340	-	95,758	5	12,737	-
B	-	-	10,000	80	-	15,900
C	-	-	-	-	-	-
D	-	-	-	60	1,658	-

- Electric Boat Employment Growth:

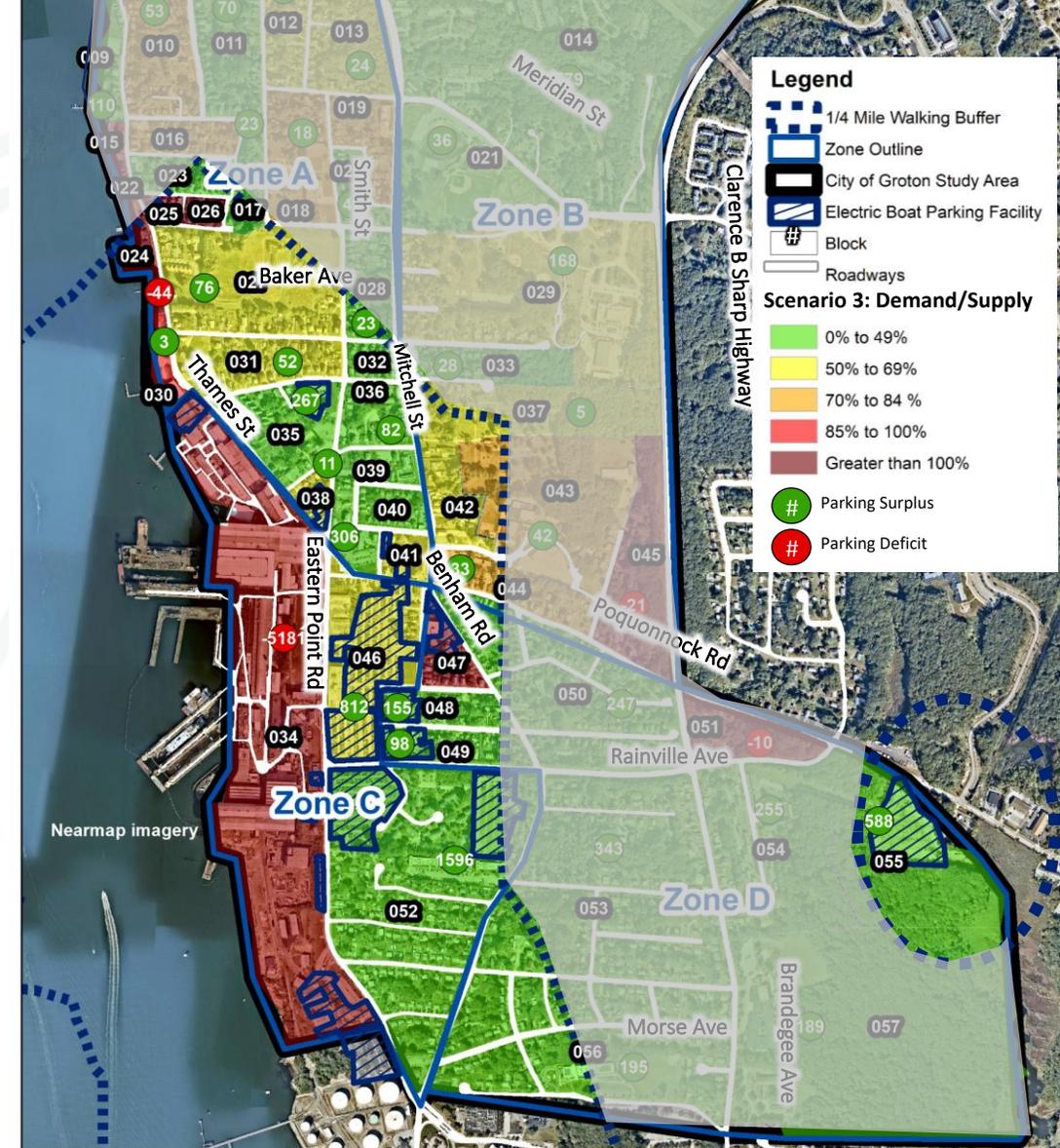
2500 + Employees

Current Staffing		Future Staffing	
Typical First Shift	Covid-19 First Shift	Growth	Total First Shift
6,000	4,800	2,500	8,500



Surplus/Deficit Within ¼ mile of EB (walking distance)

EB Demand Deficit	Supply of EB Parking Facilities	Supply of Additional Parking Utilized by EB	EB Surplus/Deficit within Walking Buffer
-5,181	3,260	678	-1,243



Note: For the parking supply and demand analysis, effective capacity of parking facilities was assumed to be 90%

Conclusion

- Most curbside parking (residential permit zones) and off-street spaces are restricted to specific groups.
- System-wide there is a significant surplus of spaces (even during pre-Covid-19 conditions), but adjusting for Covid-19, off-street facilities within proximity to EB have exceeded their practical capacity.
- Other future development will have only modest impact on system-wide parking surplus or deficit condition.
- However, EB staffing projections (+2,500 employees) are anticipated to create a **1,243 deficit in parking** within an area of influence around the facility.



Initial Recommendations

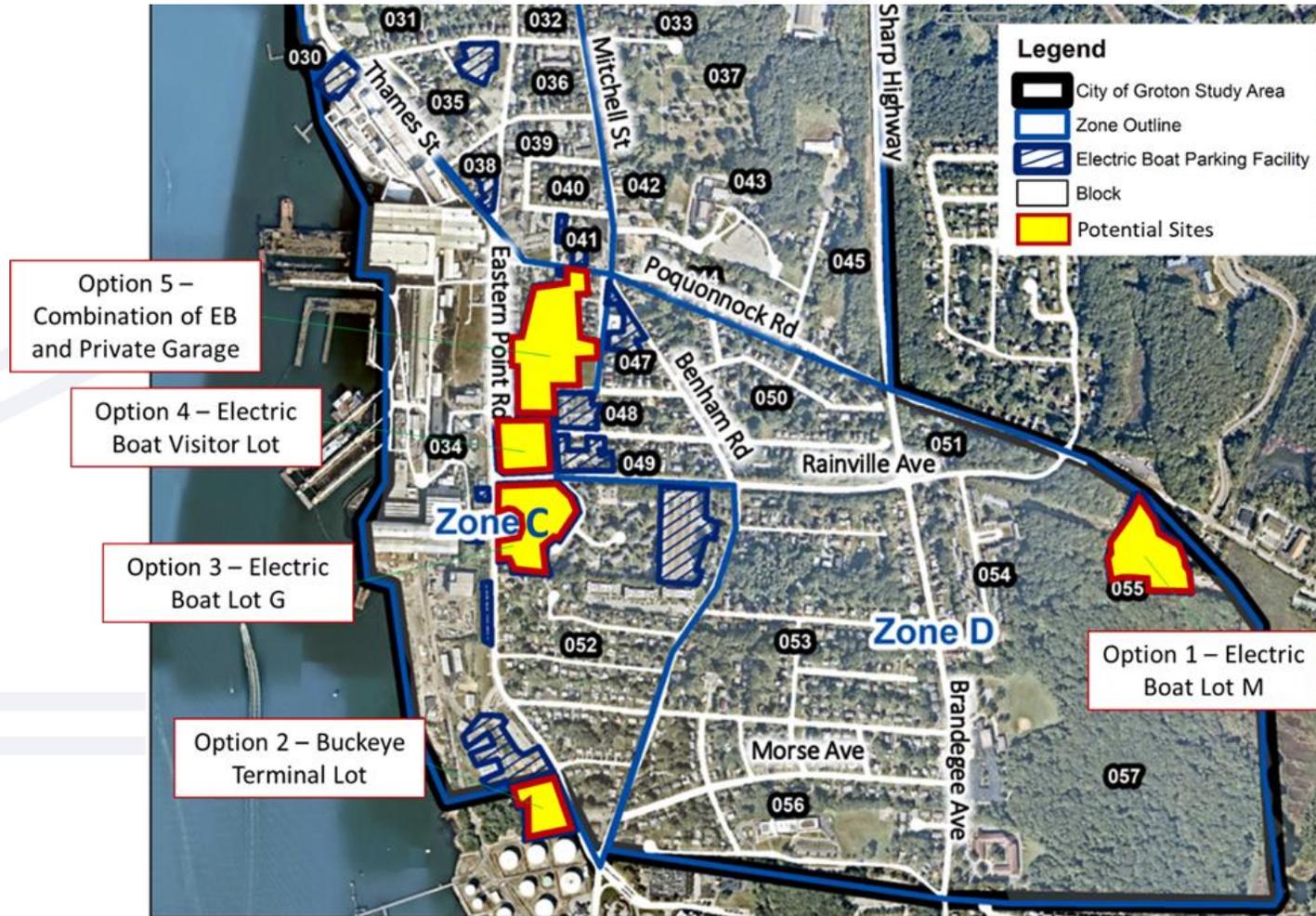


Initial Recommendations

- EB: Construct parking garage on EB-owned property
- City of Groton:
 - Administer commuter permit program for on-street parking in vicinity until garage is operational
 - Codify Parking Advisory Committee to provide oversight
 - Update Zoning:
 - Increase required parking for any future industrial expansions
 - Provide design guidelines for any future surface parking
 - Limit where surface parking may be primary use of property

Structured Parking Options

Potential Sites



Site Considerations

- Additional parking supply to meet future parking deficit of 1,243 spaces
- Sites within proximity to EB entry gates (no need for shuttle service)
- Elimination of land acquisition to lower costs
- Reduce impact on adjacent residential neighborhoods
- Create designs that control capital and long-term operating costs
- Lowest impact on current traffic conditions

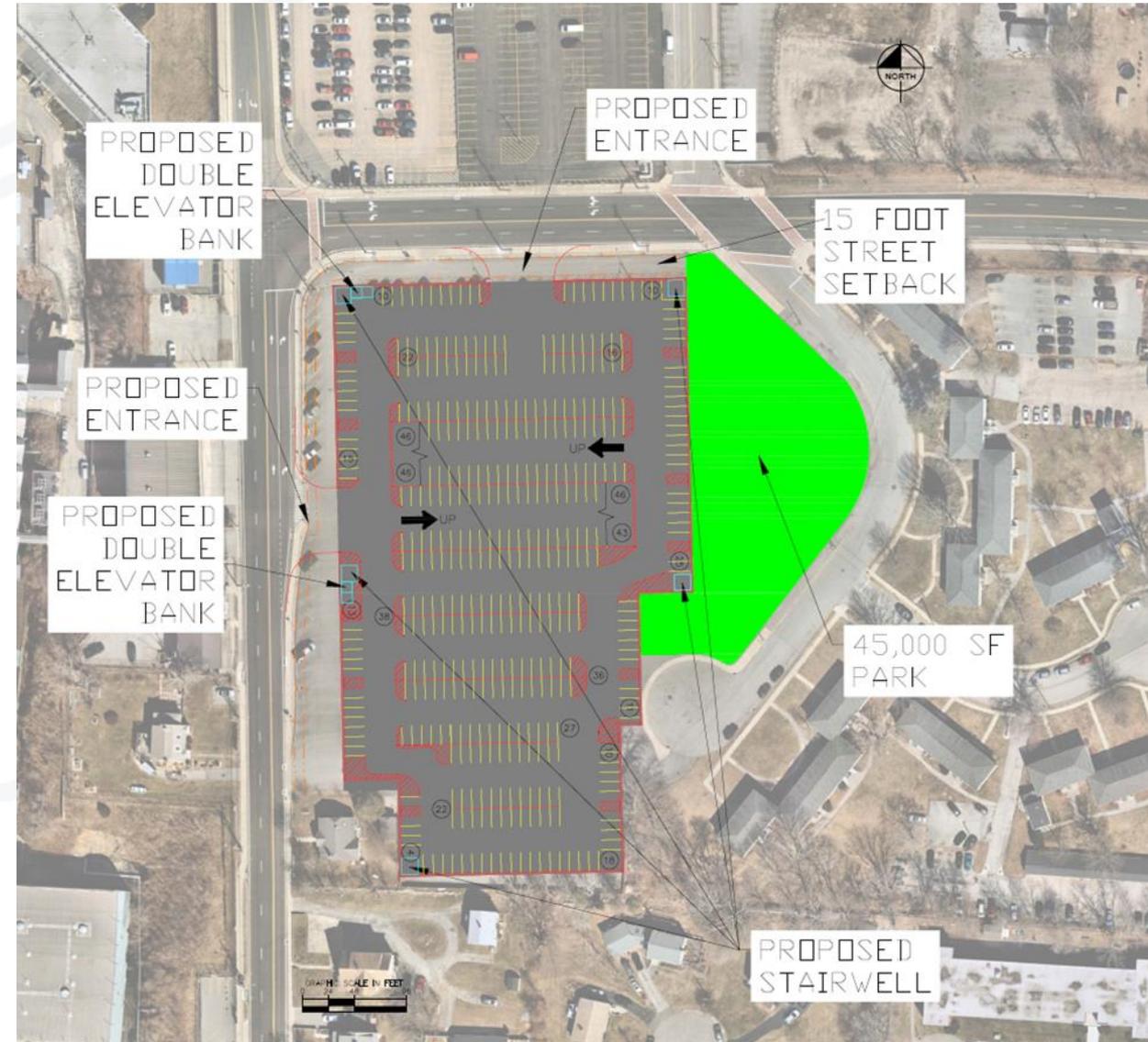
Potential Sites- Capacities

Name	Location	Total Spaces	# of Floors	Displaced Spaces	Net Gain
#1 - Lot M	Poquonnock Road	2,111	6	653	1,458
#2 - Buckeye Lot	Eastern Point Road	1,735	4	334	1,401
#2 - Buckeye Lot (w/Retail)	Eastern Point Road	1,666	5	334	1,332
#3 - Lot G	Eastern Point Road	1,940	4	803	1,137
#3 - Lot G (w/Retail)	Eastern Point Road	2,055	5	803	1,252
#4 - EB Visitor Parking Lot	Eastern Point Road	1,900	5	424	1,476
#4 - EB Visitor Parking Lot (w/Retail)	Eastern Point Road	1,703	6	424	1,279
#5A – Combination EB lots/private garage rebuild	Eastern Point Road	2,835	4	1,444	1,391
#5A – Combination EB lots/private garage rebuild with mixed use	Eastern Point Road	2,975	5	1,444	1,534
#5B – Combination EB lots/private garage with retail	Eastern Point Road	2,298	5	1,044	1,254
Blended with Lot M/Private Garage Rebuild	Poquonnock Road/ Eastern Point Road	2,132	4/5	932	1,200

Structured Parking Options

Option- Lot G

- 1,940 spaces (net 1,137)
- 45,000 sf green space buffering residential
- Ingress/egress from both surrounding streets



Structured Parking Options

Lot G Garage Costs

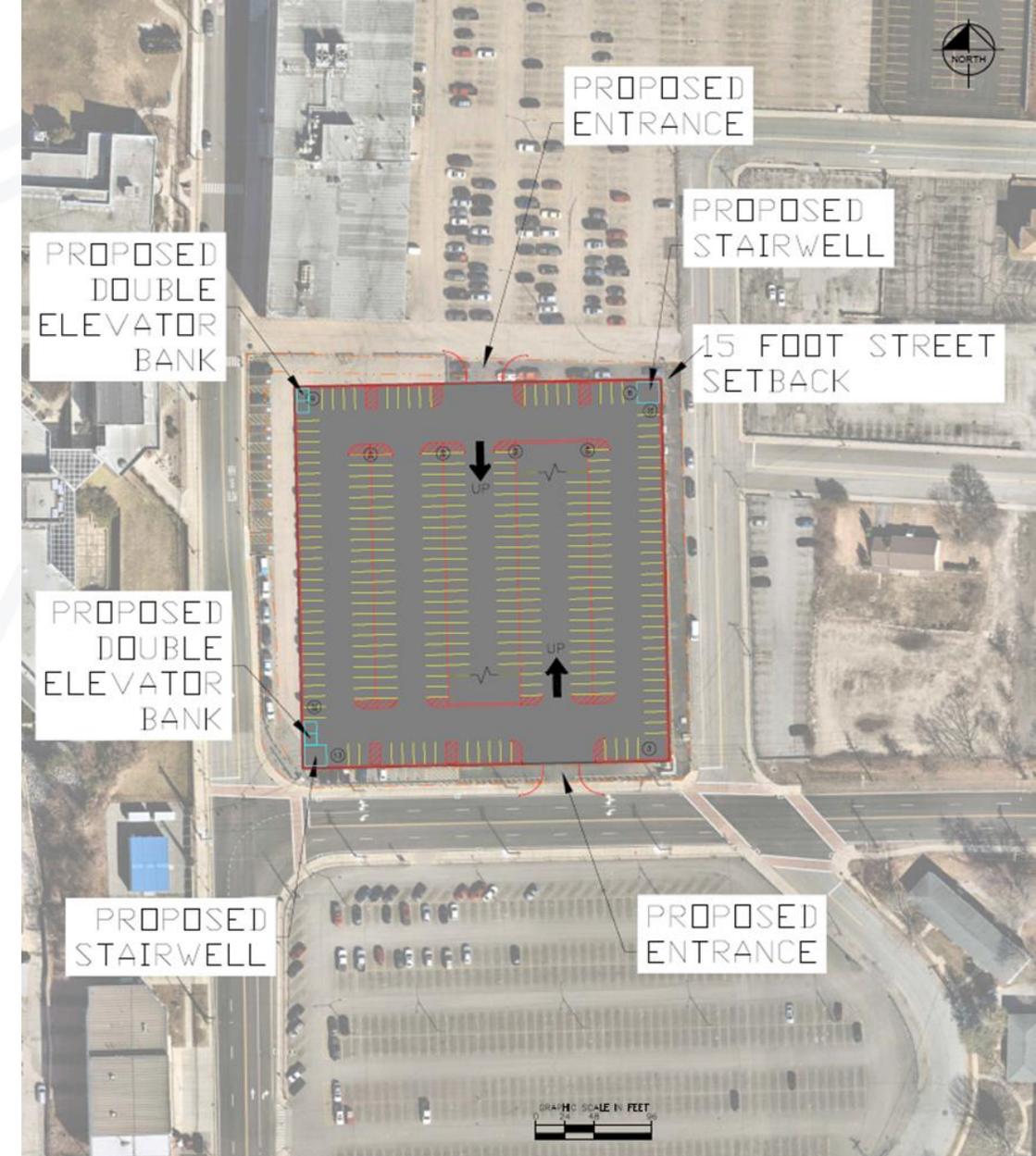
- \$82 million hard/soft costs
- \$10 million financing costs
- \$4.7 million annual debt service cost
- \$679K annual operating costs
- \$5.3 million annual projected expense

<u>PROJECT DESCRIPTION</u>			
1,940 Space Parking Garage			
<u>PROJECT DEVELOPMENT COST</u>			
Garage Structure	1,940 Spaces		
Cost/Space	\$35,000	\$67,900,000	
Hard Construction Cost Estimate			\$67,900,000
Misc. Construction Costs*	15%	\$10,185,000	
Total Construction Budget			\$78,085,000
Architectural/Engineering	5.5%	\$3,734,500	
Surveys, Soil, Title, Testing, Etc.	1.0%	\$679,000	
Professional Fees Estimate			\$4,413,500
TOTAL PROJECT DEVELOPMENT COST TO BE FINANCED			\$82,499,000
<u>FINANCING COSTS</u>			
Cost of Issuance		\$2,474,970	
Debt Service Reserve (DSR)		\$680,000	
Construction Fund Earnings (CFE)		(\$586,000)	
Capitalized Interest Fund (Annual debt service payment X 18 months)		\$7,050,000	
LOAN SIZE			\$92,117,970
<u>DEBT SERVICE CALCULATION</u>			
Principal		\$92,117,970	Tax Exempt
Rate		3.00%	
Term		30	
ESTIMATE OF ANNUAL DEBT SERVICE (Level Payments)			\$4,700,000
<u>ASSUMED OPERATIONAL COSTS</u>			
Annual Operating Cost per Space		\$350	
Spaces		1,940	
ESTIMATE OF ANNUAL PROJECT OPERATING EXPENSE			\$679,000
TOTAL ANNUAL PROJECTED EXPENDITURE			\$5,379,000
TOTAL ANNUAL PROJECTED REVENUE			\$0
<u>PROFIT/(LOSS)</u>			
*Includes:			
	General Conditions		
	Contractor Overhead/Profit		
	Contingency		
DSR: A bond requirement amount equal to debt service obligation for one year. Since DSR balance remains fixed throughout the life of the bond, the issuer can realize annual interest earnings on the balance until bond reaches maturity.			
CFE: These funds are drawn down over a 12-18 month period. Issuer can earn 1.5% interest on amount of unused CFE to lower amount of bond issue.			

Structured Parking Options

Option- EB Visitors Lot

- 1,900 spaces (net 1,476)
- Minimal impact on adjacent residential neighborhood
- Ingress/egress from two surrounding streets



Structured Parking Options

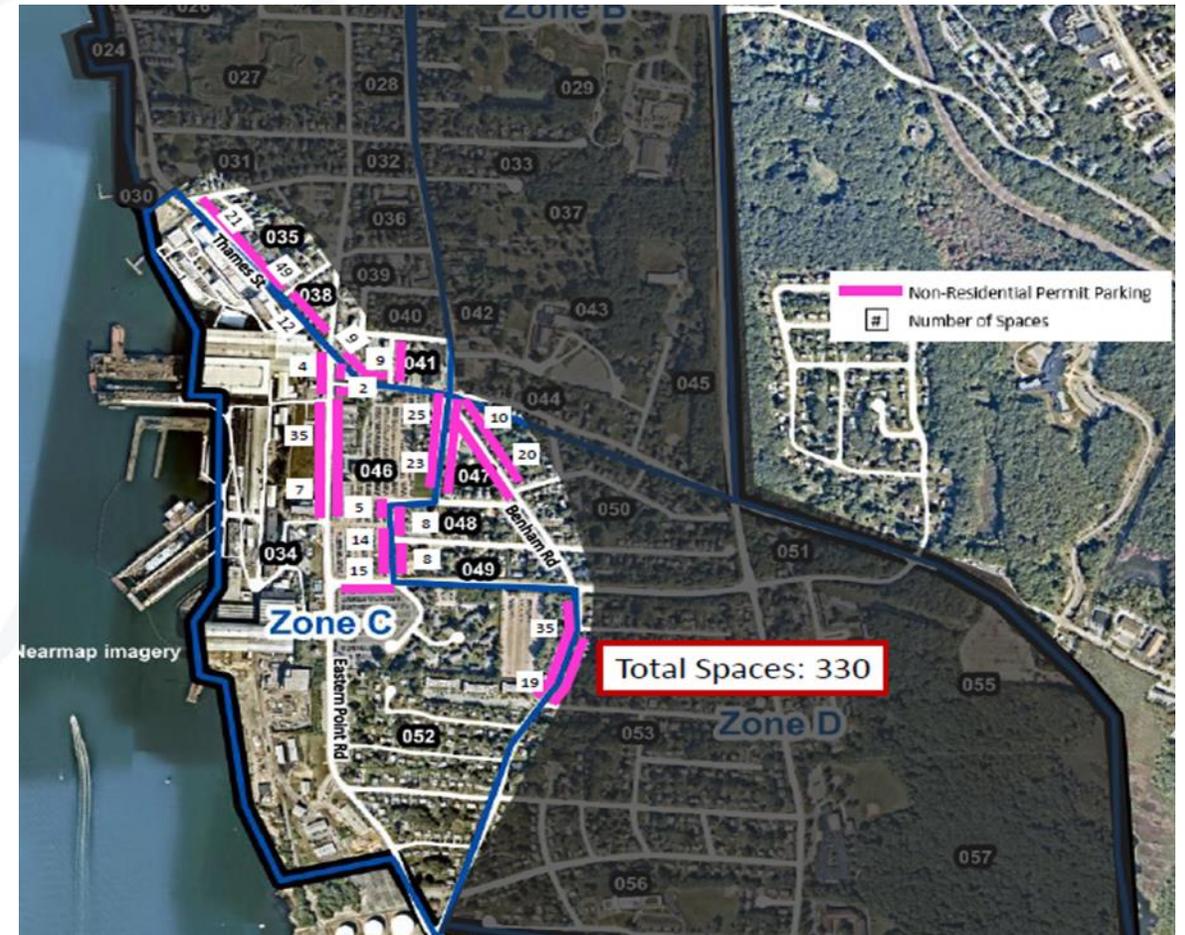
Visitors Lot Garage Costs

- \$80 million hard/soft costs
- \$10 million financing costs
- \$4.6 million annual debt service cost
- \$665K annual operating costs
- \$5.3 million annual projected expense

<u>PROJECT DESCRIPTION</u>		
1,900 Space Parking Garage		
<u>PROJECT DEVELOPMENT COST</u>		
Garage Structure	1,900 Spaces	
Cost/Space	\$35,000	\$66,500,000
Hard Construction Cost Estimate		\$66,500,000
Misc. Construction Costs*	15%	\$9,975,000
Total Construction Budget		\$76,475,000
Architectural/Engineering	5.5%	\$3,657,500
Surveys, Soil, Title, Testing, Etc.	1.0%	\$665,000
Professional Fees Estimate		\$4,322,500
TOTAL PROJECT DEVELOPMENT COST TO BE FINANCED		\$80,798,000
<u>FINANCING COSTS</u>		
Cost of Issuance		\$2,423,940
Debt Service Reserve (DSR)		\$680,000
Construction Fund Earnings (CFE)		(\$574,000)
Capitalized Interest Fund (Annual debt service payment X 18 months)		\$6,906,000
LOAN SIZE		\$90,233,940
<u>DEBT SERVICE CALCULATION</u>		
Principal		Tax Exempt \$90,233,940
Rate		3.00%
Term		30
ESTIMATE OF ANNUAL DEBT SERVICE (Level Payments)		\$4,604,000
<u>ASSUMED OPERATIONAL COSTS</u>		
Annual Operating Cost per Space		\$350
Spaces		1,900
ESTIMATE OF ANNUAL PROJECT OPERATING EXPENSE		\$665,000
TOTAL ANNUAL PROJECTED EXPENDITURE		\$5,269,000
TOTAL ANNUAL PROJECTED REVENUE		\$0
<u>PROFIT/(LOSS)</u>		
*Includes:		
	General Conditions	
	Contractor Overhead/Profit	
	Contingency	
DSR: A bond requirement amount equal to debt service obligation for one year. Since DSR balance remains fixed throughout the life of the bond, the issuer can realize annual interest earnings on the balance until bond reaches maturity.		
CFE: These funds are drawn down over a 12-18 month period. Issuer can earn 1.5% interest on amount of unused CFE to lower amount of bond issue.		

Commuter Parking Permit Program

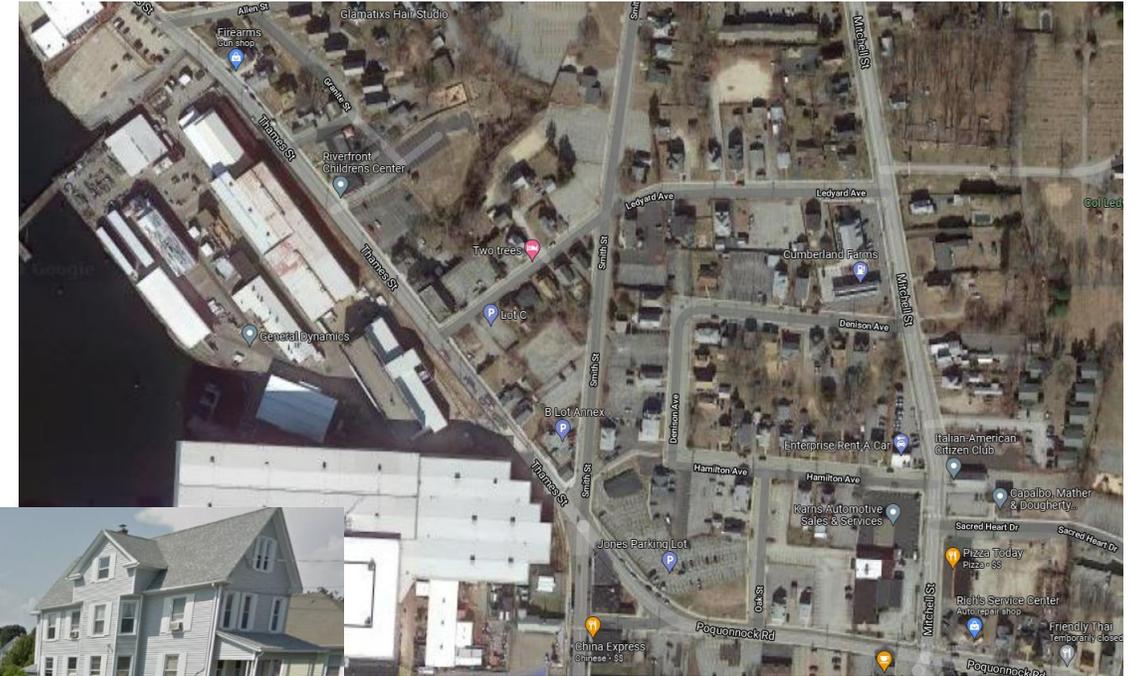
- Manage demand for on-street parking closest to EB
- \$85 per month permit fee, minimum 3% per year increase
- Approximately 330 on-street spaces
- Year 1 Capital Costs \$90,000
- Revenues would cover program costs
- Sunset program when garage opens



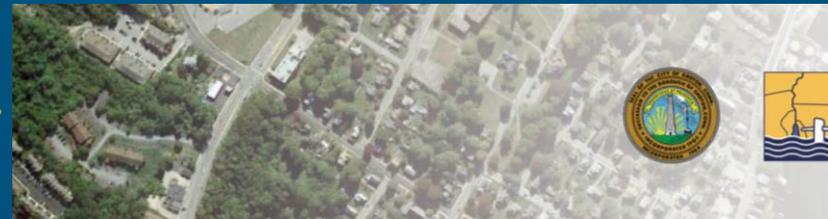
Zoning & Administration

Guiding Principles

- Discourage Proliferation of Surface Parking Lots
- Strengthen Residential Parking Permit Program
- Codify Shared Parking Operations and Benefits
- Update Off-Street Requirements for EB Expansion
- Codify and Create a Parking Advisory Committee



Alternative Solutions



CITY OF GROTON
Parking Plan

Alternative Solutions

- Reduce demand for parking
- Lease existing under-utilized surface lots
- Incentivize use of Ride-Share and Transit

Reduce Demand for Parking (EB)

- Formalize Work-from-Home policies
 - *in progress*
- Shift first-shift workers to second shift
 - *in progress*
- Demolish excess building, use for parking
 - *planned*

Lease existing under-utilized private lots (EB)

- EB identified multiple surface lots in City with excess capacity, including:
 - Pfizer East Campus (up to 640 spaces)
 - Pfizer West Campus
 - Buckeye Lot (leasing 330 spaces beginning 9/30/2024)
 - Total excess capacity of identified lots: 1,695 spaces

Incentivize Use of Ride-Share and Transit (EB/SEAT/State of CT)

- Promote Rideshare and car-pooling opportunities
 - EB exploring financial incentives for carpooling
 - State's Commuter Services Program, *CTRides*, now engaged with EB to develop program
- Develop satellite parking lots with shuttle services
 - *Connecticut Department of Transportation (CT DOT), and SE CT's public transit provider, SEAT, now engaged with EB to explore partnerships*

Next Steps

- Bimonthly safety meetings to include parking plan development (Mayor, City Staff, EB Staff)
- Bi-annual report on parking capacity to City of Groton (EB)
- Connections made with CT DOT, SEAT, CT Rides to develop satellite lots, shuttles, transit routes
- City of Groton Planning & Zoning Commission addressing zoning recommendations
- Incorporate coordination activities into SCCOG JLUS Implementation work



Discussion & Questions



CITY OF GROTON
Parking Plan