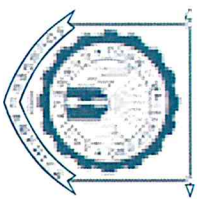


*Presented to Commission & Public
5/10/21 P2C Meeting
TWT*



WALLINGFORD CONNECTICUT

Proposed Development

At

5 RESEARCH PARKWAY
WALLINGFORD, CONNECTICUT

Property Owner

5 Research Parkway Wallingford, LLC

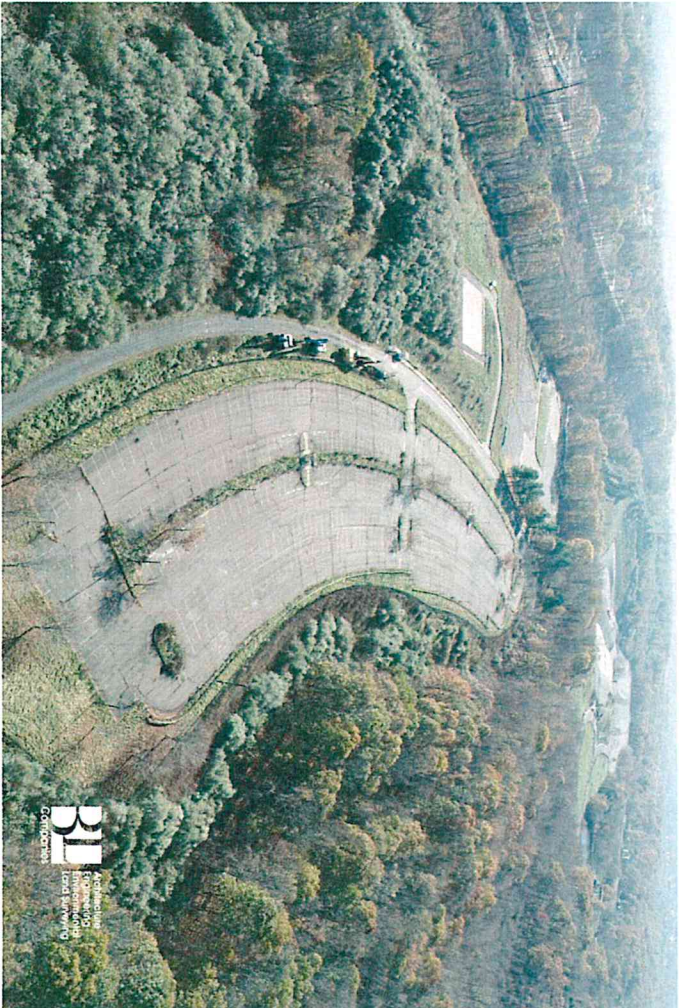
Developer

Montante Construction

Project Team

Counsel: Robinson + Cole

Engineering: BL Companies



Robinson+Cole



Presentation Outline

- Introduction of Design Team, Site History and Project Overview
 - Thomas Cody, Robinson + Cole*
- Facility Site Operations
 - Jessica Schumer, Amazon*
- Traffic Related Considerations
 - Michael Dion, PE, PTOE, BL Companies*
- Project Landscaping Design
 - Wayne Violette, PLA, BL Companies*
- Building Design
 - Chris Gagnon, PE, BL Companies*
- Site Design, Civil Engineering and Construction
 - Jeffery Dewey, PE, BL Companies*
- Summary and Conclusion
 - Thomas Cody, Robinson + Cole*

Aerial Photo of Bristol Myers Squibb facility



Site History

Bristol Myers Squibb Research Center

- 1984 Construction of first phase of BMS
- 1984 Diversion Permit
- 1992 Addition to power plant
- 1996 Excavation Permit for hillside behind main building
- 1997 "F" Wing addition to building
- 1999 Materials Handling building added
- 2002 Widening of Research Parkway
- 2010 Dam Permit issued

Previously Approved Applications

- IWWC Application #A18-6.2 November 7, 2018
- IWWC Modification #A18-11.3 December 5, 2018
- IWWC Application #a20-10.3 April 7, 2021

Summary of Town Staff Review and Peer Reviews

Inland Wetlands Permit

Erin O'Hare Environmental Planner Reports

Erik Krueger Water Department Memos

Alison Kapushinski Town Engineer Review

George Cotter – Erosion and Sediment Control Review

Matt Sanford –SLR, Stormwater and Wetland Review

Special Permit Application

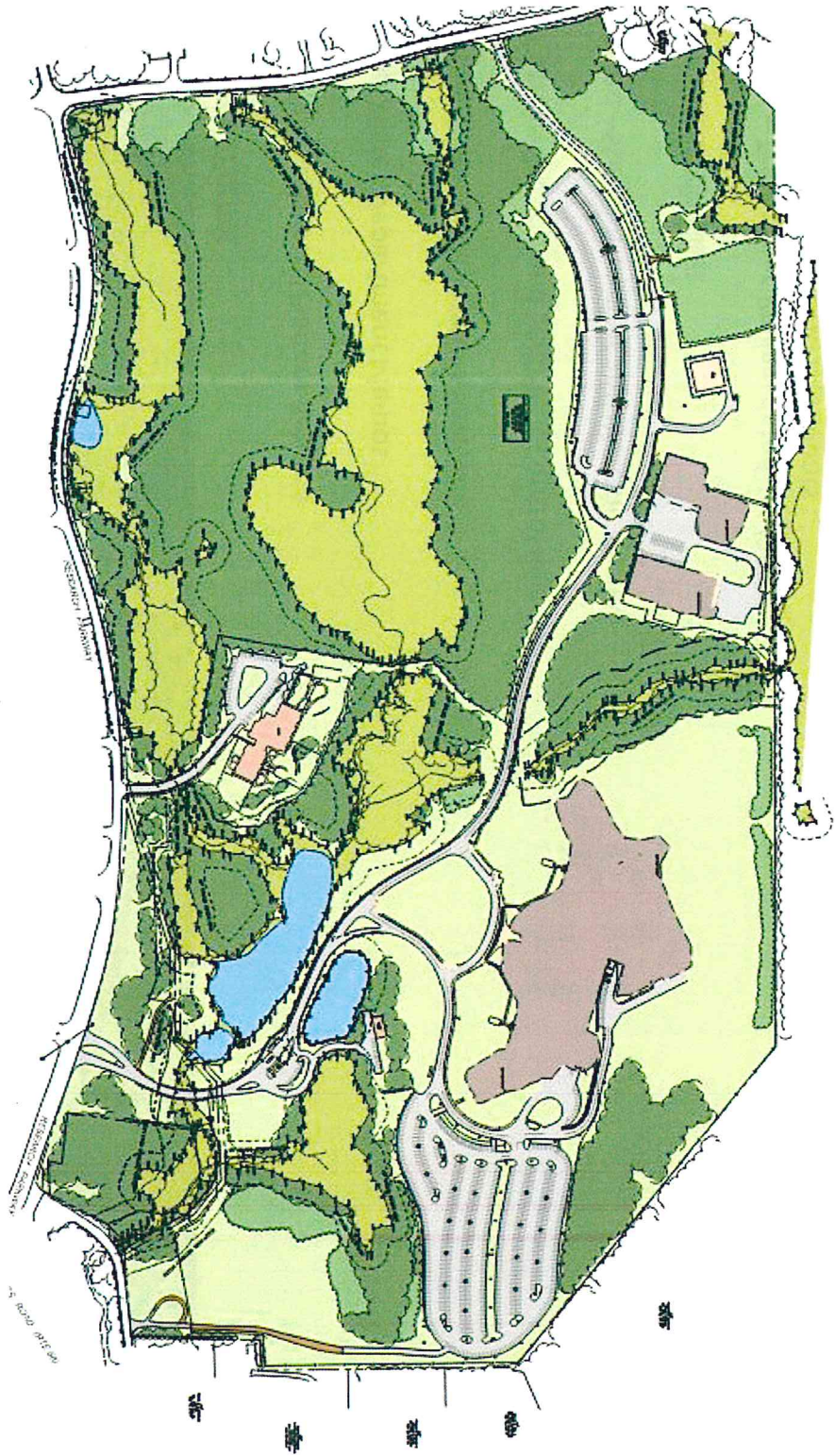
VN Engineers – Traffic Peer Review dated 4/1/2021

Applicant provided responses to comments

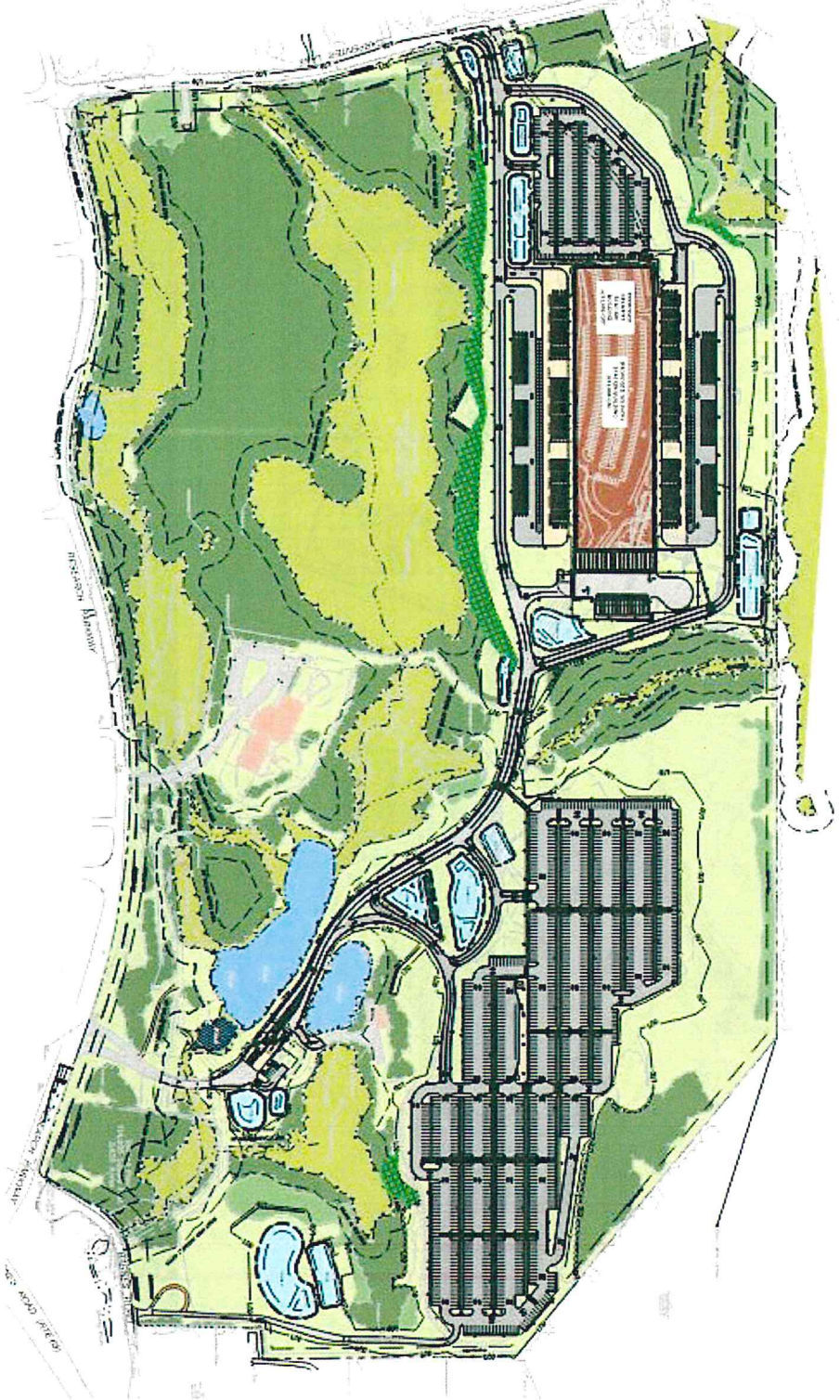
Tom Talbot, Planner review dated 3/31/2021

Applicant provided responses to comments

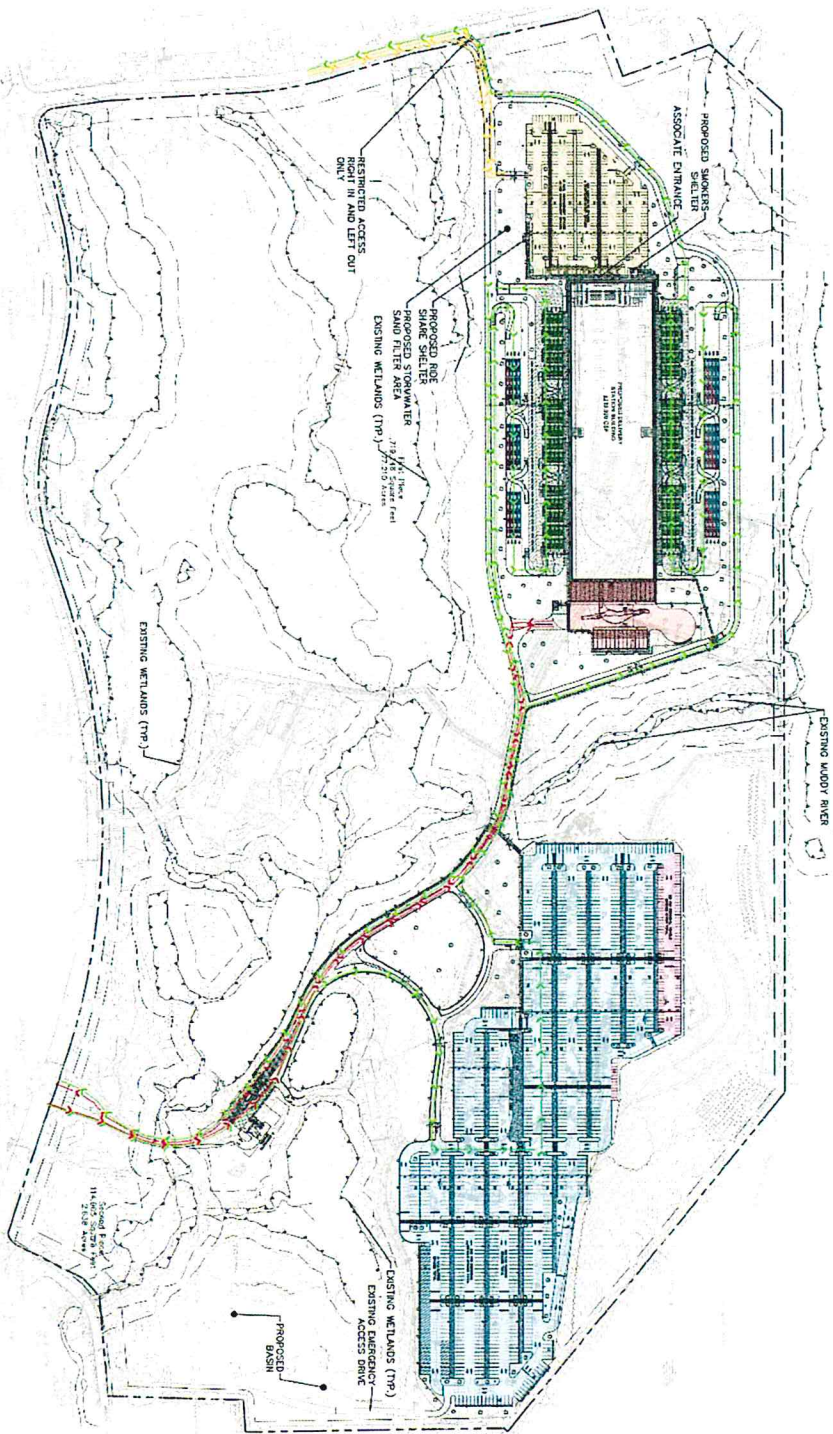
Rendering of Existing Site Conditions



Rendering of Proposed Site Conditions



Proposed Site Operations



Site Summary	
Building Size	219,000 sf
Loading Docks	17
Van Queuing	120
Van Loading	120
Car Parking Stalls	350
Van Parking Stalls	1038
Truck Parking Stalls	13

Project Traffic Analysis and Conclusions: Project Background

- Proposed Delivery Station “last mile” package delivery services
- ± 219,000 SF warehouse building
- 1508 parking spaces
- Location previously OSTA Approved under Administrative Decision 148-0103-01
- Former Bristol-Myers Squibb Company Site



Project Traffic Analysis and Conclusions: Data Collection

DATA COLLECTION

- Traffic Counts at 4 signalized intersections & 4 stop controlled
- AM/PM/MD peak hours of adjacent street traffic counts
- AM/PM peak hours of Generator counts
- Counts obtained in Oct '20 & verified by CTDOT

FIELD INVENTORY

- Photographic inventory
- Verify roadway geometry & lane arrangements

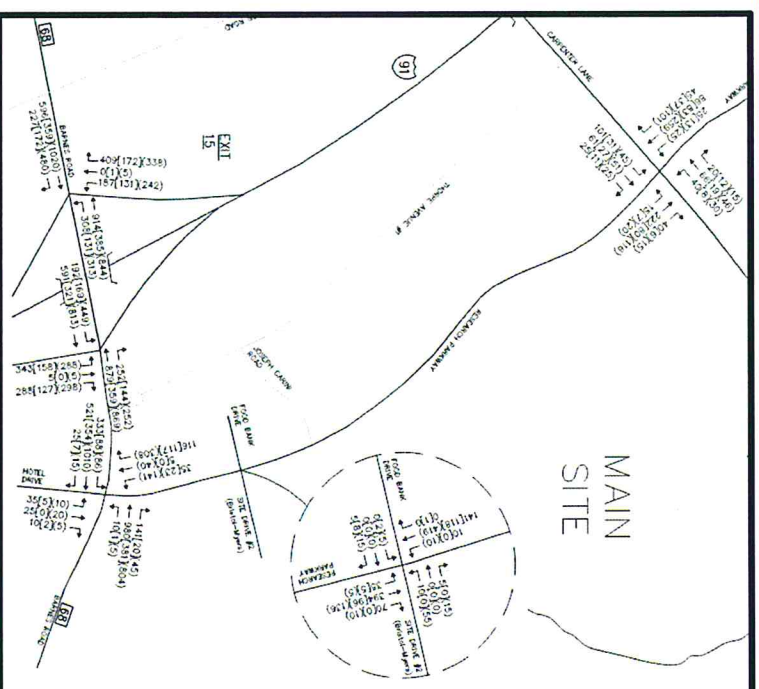
ADDITIONAL DATA

- Historical 24-hour Traffic counts



Project Traffic Analysis and Conclusions: Traffic Operations Analysis

- Projected existing counts to horizon year (2021)
- No proposed developments identified
- Generated trips were distributed to the roadway network to produce build analysis



WEEKDAY AM: XXX
 WEEKDAY PM: (XXX)
 WEEKDAY MD: [XXX]

Project Traffic Analysis and Conclusions: Traffic Operations Analysis

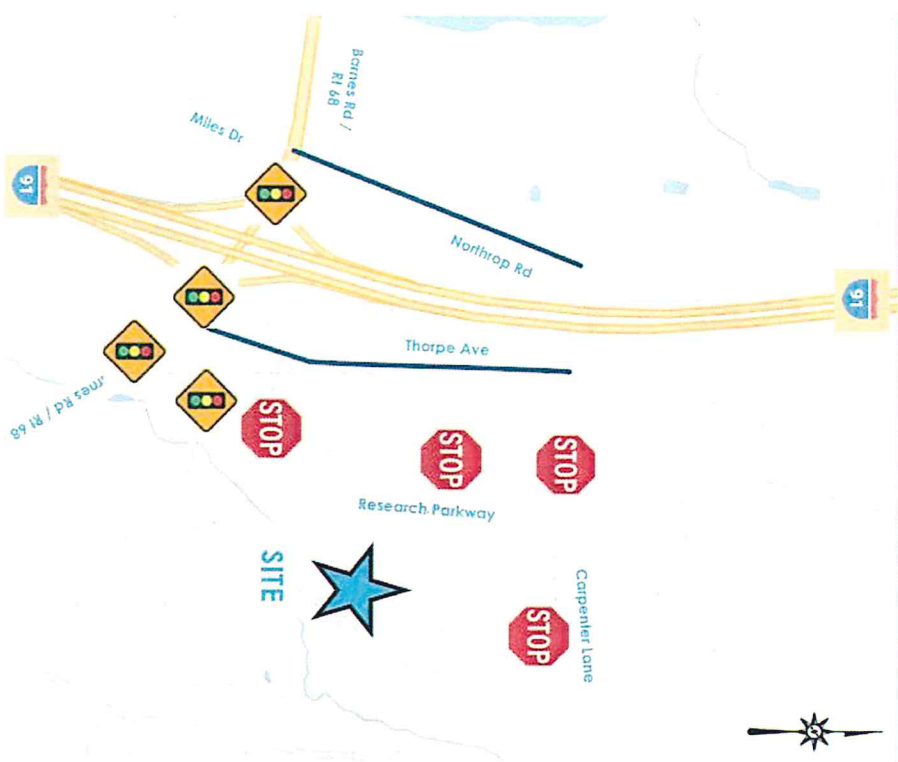
	Trips											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			Total	In	Out
	Total	In	Out	Total	In	Out	Total	In	Out			
Bristol-Myers Squibb Cup Development	620	592	28	No Available Data			533	47	486			
<u>Net Old Trips</u>	<u>620</u>	<u>592</u>	<u>28</u>	-	-	-	<u>533</u>	<u>47</u>	<u>486</u>			
Associates/Managers	0	0	0	148	0	148	0	0	0			
DSP	0	0	0	0	0	0	0	0	0			
Flex Drivers	0	0	0	0	0	0	135	90	45			
Trucks	3	1	2	0	0	0	1	1	0			
<u>Net New Trips</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>148</u>	<u>0</u>	<u>148</u>	<u>136</u>	<u>91</u>	<u>45</u>			
Difference	<u>-617</u>	<u>-591</u>	<u>-26</u>	<u>148</u>	<u>0</u>	<u>148</u>	<u>-397</u>	<u>44</u>	<u>-441</u>			

Ref: Trip Generation developed by Tenant
 Bristol-Myers Squibb Cup Development trips noted by OSTA approved development:
 Certificates #449C-G.

Project Traffic Analysis and Conclusions: Traffic Operations Analysis

Existing Conditions:

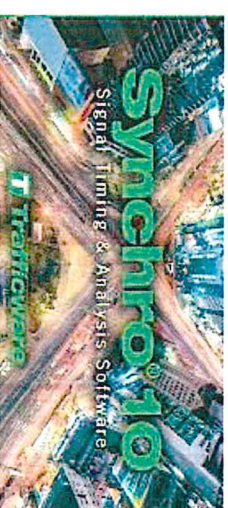
- Through Truck Closures
- Signalized Intersections
- Unsignalized Intersections



Project Traffic Analysis and Conclusions: Traffic Operations Analysis

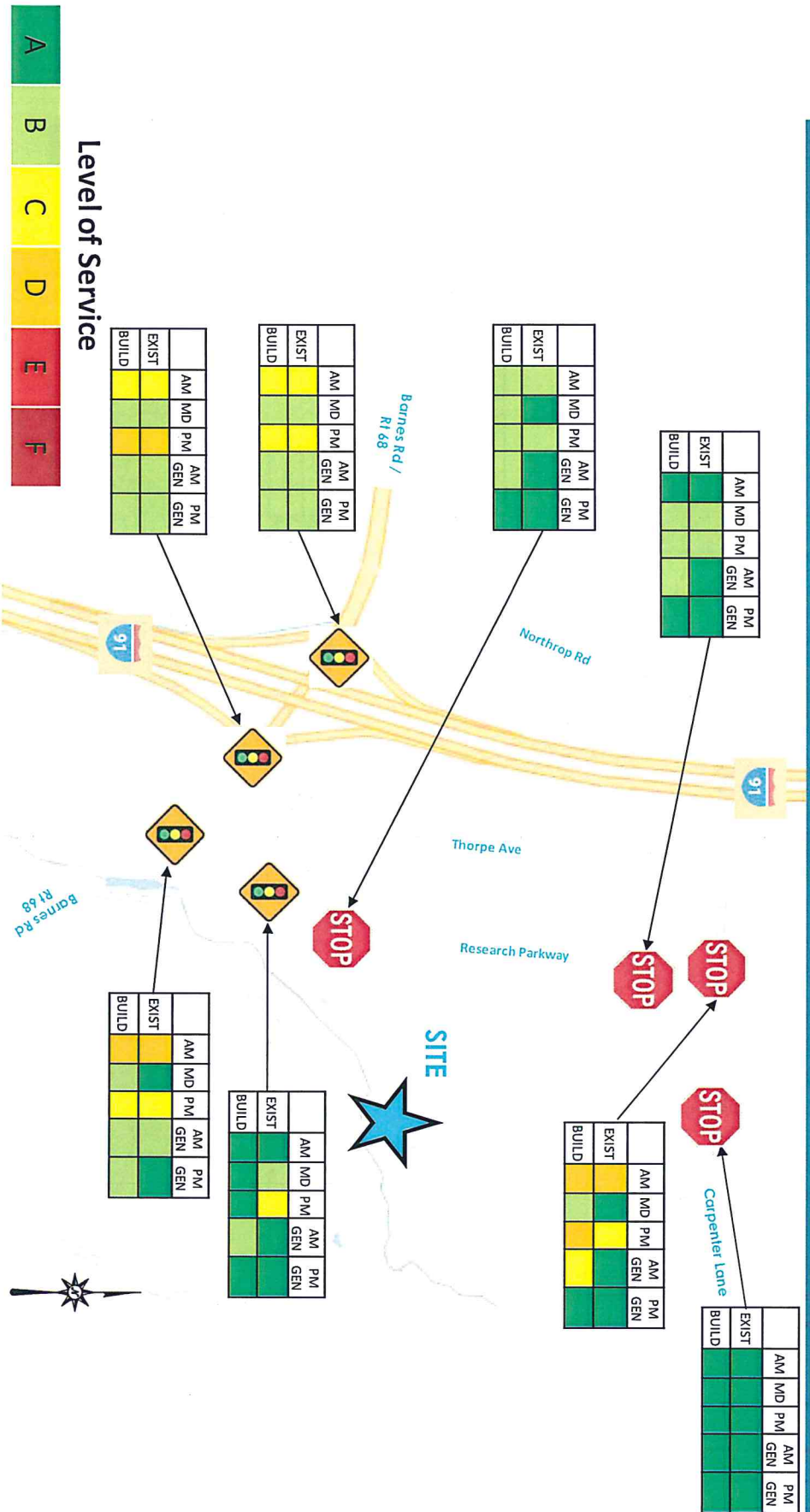
ROADWAY ADEQUACY

- Synchro Version 10
- Level of Service (LOS)
 - Highway Capacity Manual Criteria
 - Calculates Delay
 - Assigns Letter Grade A-F

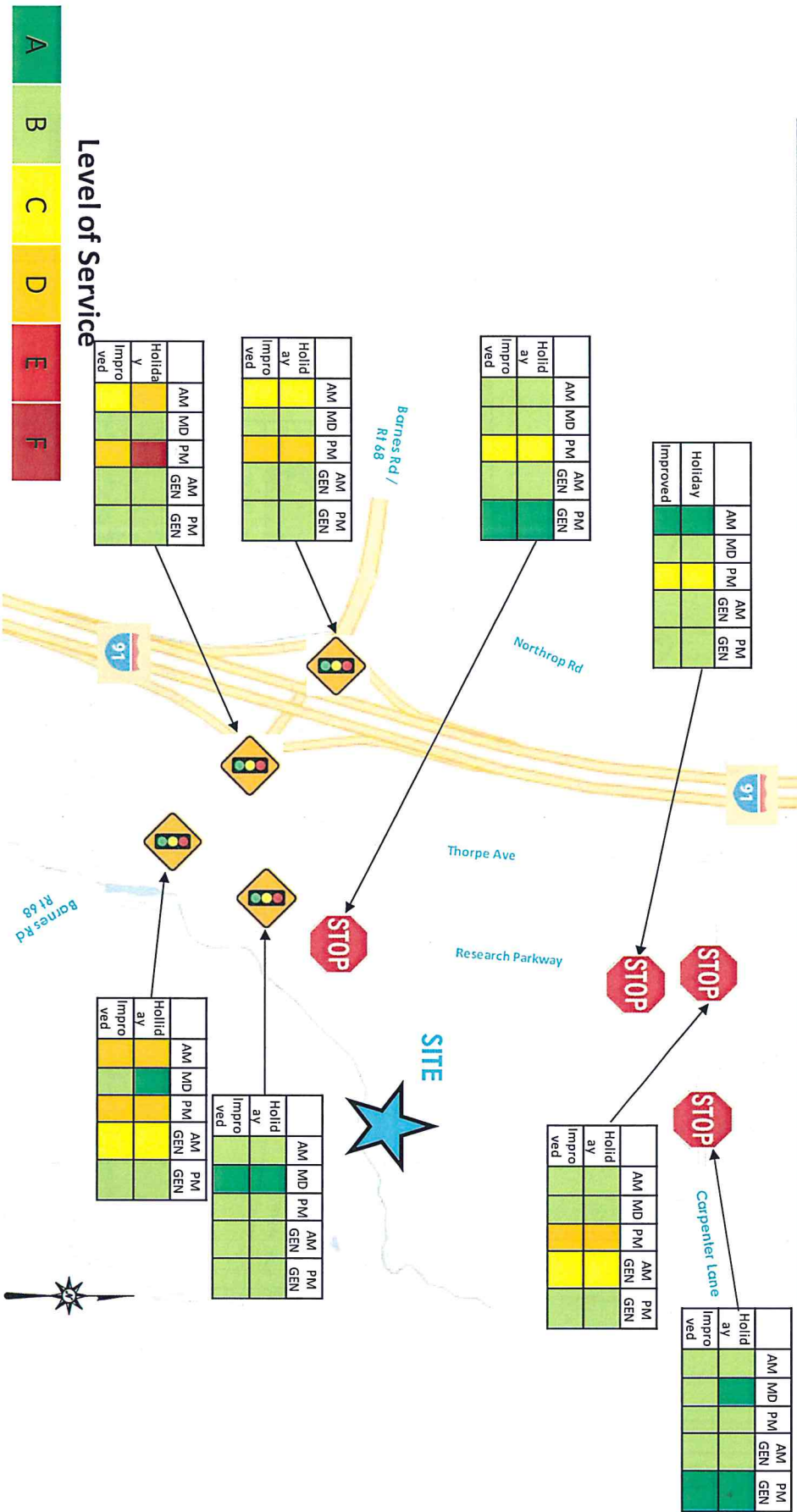


Level of Service	Average Control Delay of Intersection	
	SIGNALIZED (seconds per vehicle)	UNSIGNALIZED (seconds per vehicle)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Project Traffic Analysis and Conclusions – Traffic Operations Analysis – Roadway Adequacy

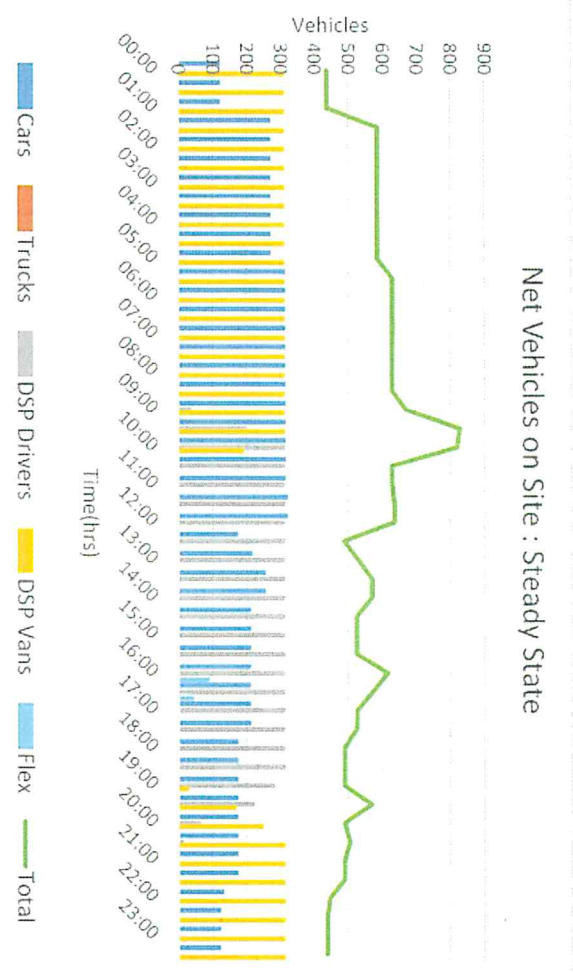


Project Traffic Analysis and Conclusions – Traffic Operations Analysis – Roadway Adequacy - Holiday



Project Traffic Analysis and Conclusions – Parking

Estimation of Net Vehicles on Site: Average Weekday



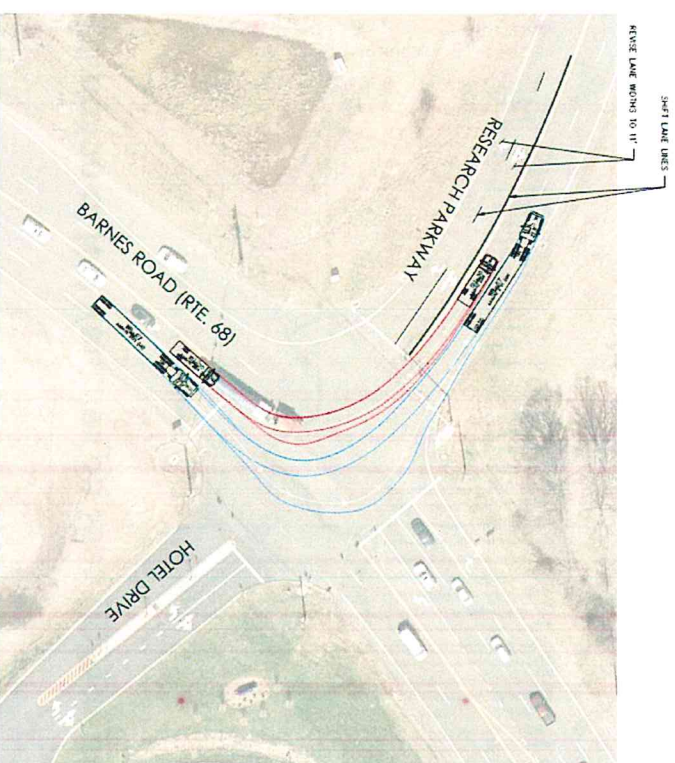
Estimation of Net Vehicles on Site: Holiday Season



Project Traffic Analysis and Conclusions – Conclusions and Recommendations

CONCLUSIONS AND RECOMMENDATIONS

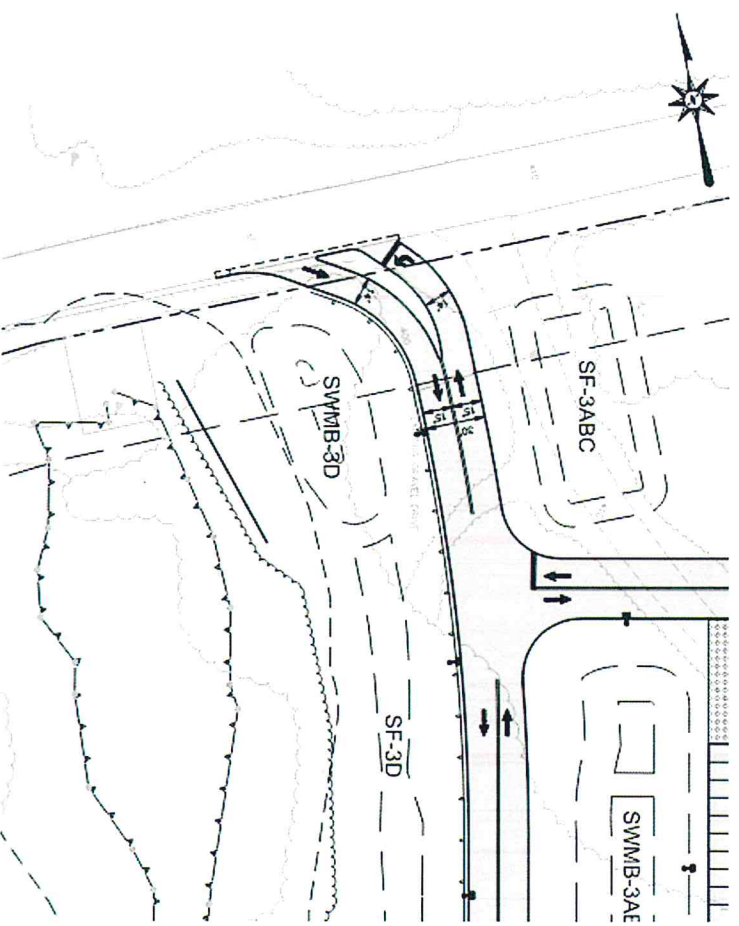
- Research Parkway:
 - Route 68 Left Turn into Research Parkway operates with throat width of 27.5'±. Current CTDO guidelines suggest expanded throat width of 30' to avoid conflicts in turning paths at double left turn.
 - Restripe travel lanes to 11ft wide to accommodate the movements without widening of roadway or conflict areas.
 - Route 68 and highway ramps are under CTDOT jurisdiction and review.



Project Traffic Analysis and Conclusions – Conclusions and Recommendations

CONCLUSIONS AND RECOMMENDATIONS

- Industrial Park Road:
 - Install “STOP” signs and stop bars to the Site drives
 - Install raised median island to deter right turns out of / left turns into site.



Project Traffic Analysis and Conclusions – Conclusions and Recommendations

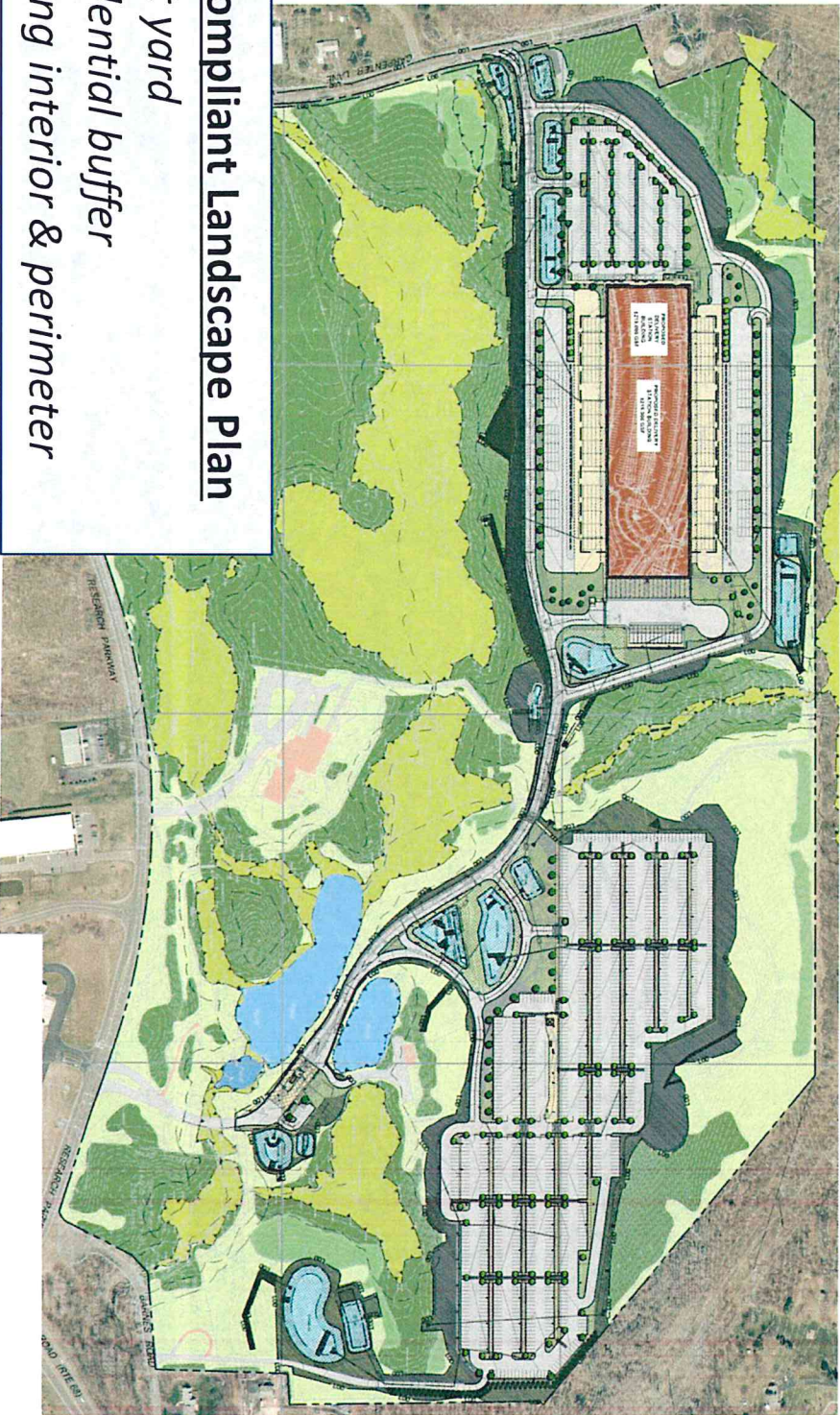
NEXT STEPS

- In receipt of peer reviewer comments dated 4/5/2021
 - Include additional intersection in the Study
 - Holiday Period Analysis.
 - Off-Peak Analysis(?)

Proposed Site Landscaping



Proposed Site Landscaping



Zone Compliant Landscape Plan

- ✓ Front yard
- ✓ Residential buffer
- ✓ Parking interior & perimeter

Proposed Site Landscaping

Residential Buffer (East)

- ✓ Supplemental Evergreen trees along eastern parcel line

Fleet Parking Area

- ✓ Canopy trees within islands & front perimeter
- ✓ Native seed mix to restore perimeter (blend of grasses, wildflowers & shrubs)

Stormwater Management Areas

- ✓ Wet & Dry tolerant restoration seed mixes for basin bottoms and slopes



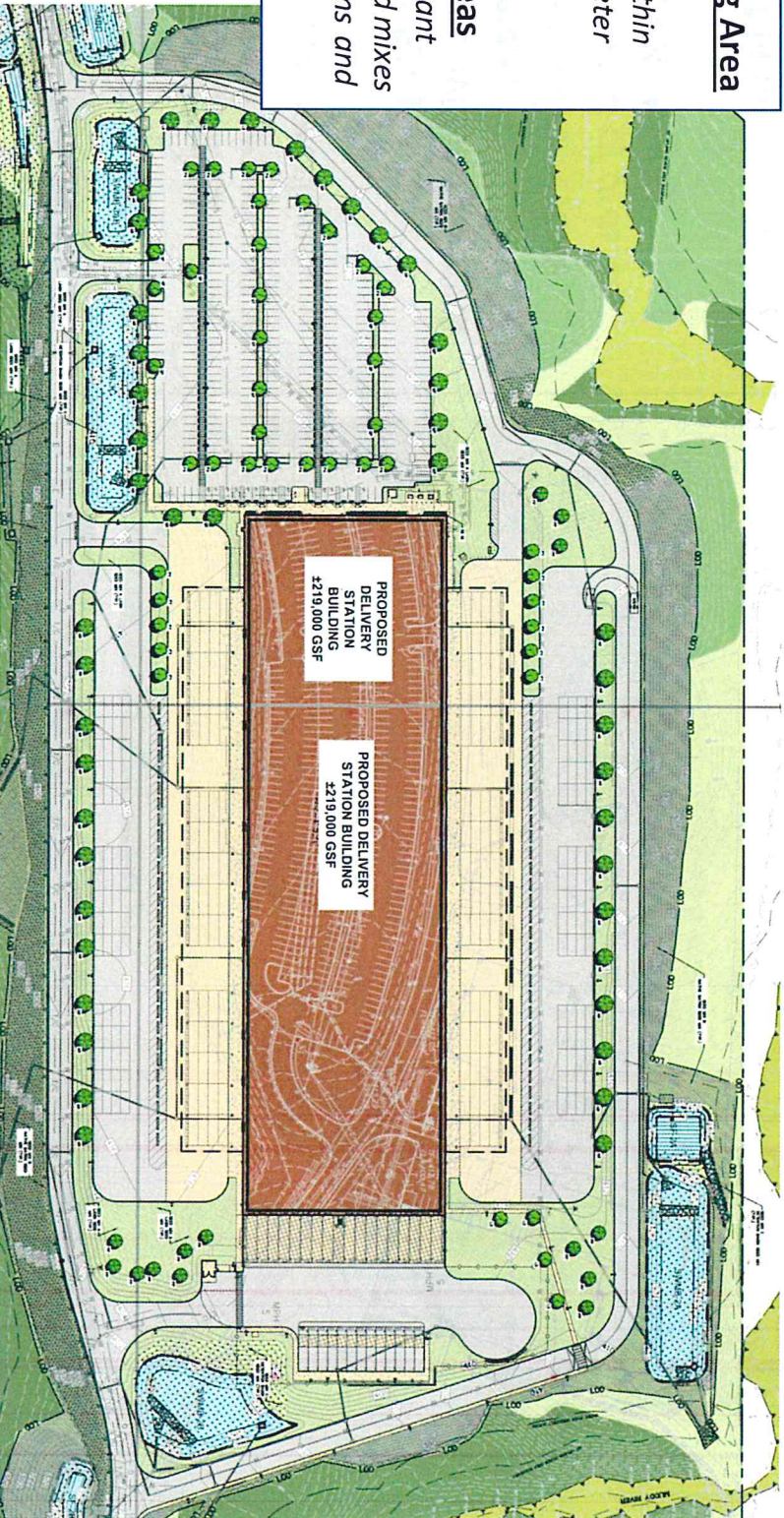
Proposed Site Landscaping

Employee Parking Area & Loading Areas

- ✓ *Canopy trees within islands & perimeter*

Stormwater Management Areas

- ✓ *Wet & Dry tolerant restoration seed mixes for basin bottoms and slopes*



Proposed Site Landscaping

LANDSCAPE PLANT SCHEDULE	
DECIDUOUS TREES	
KEY	COMMON NAME
AR	RED SUNSET RED MAPLE
GT	SHADEMASTER HONEYLOCUST
LS	ROTUNDILOBA SWEETGUM
MP	ADAMS CRABAPPLE
PA	EXCLAMATION! PLANETREE
QB	SWAMP WHITE OAK
QP	PACIFIC BRILLIANCE PIN OAK
QR	RED OAK
PY	OKAME FLOWERING TREE
TOTAL	
EVERGREEN TREES	
PS	EASTERN WHITE PINE
TC	EASTERN HEMLOCK

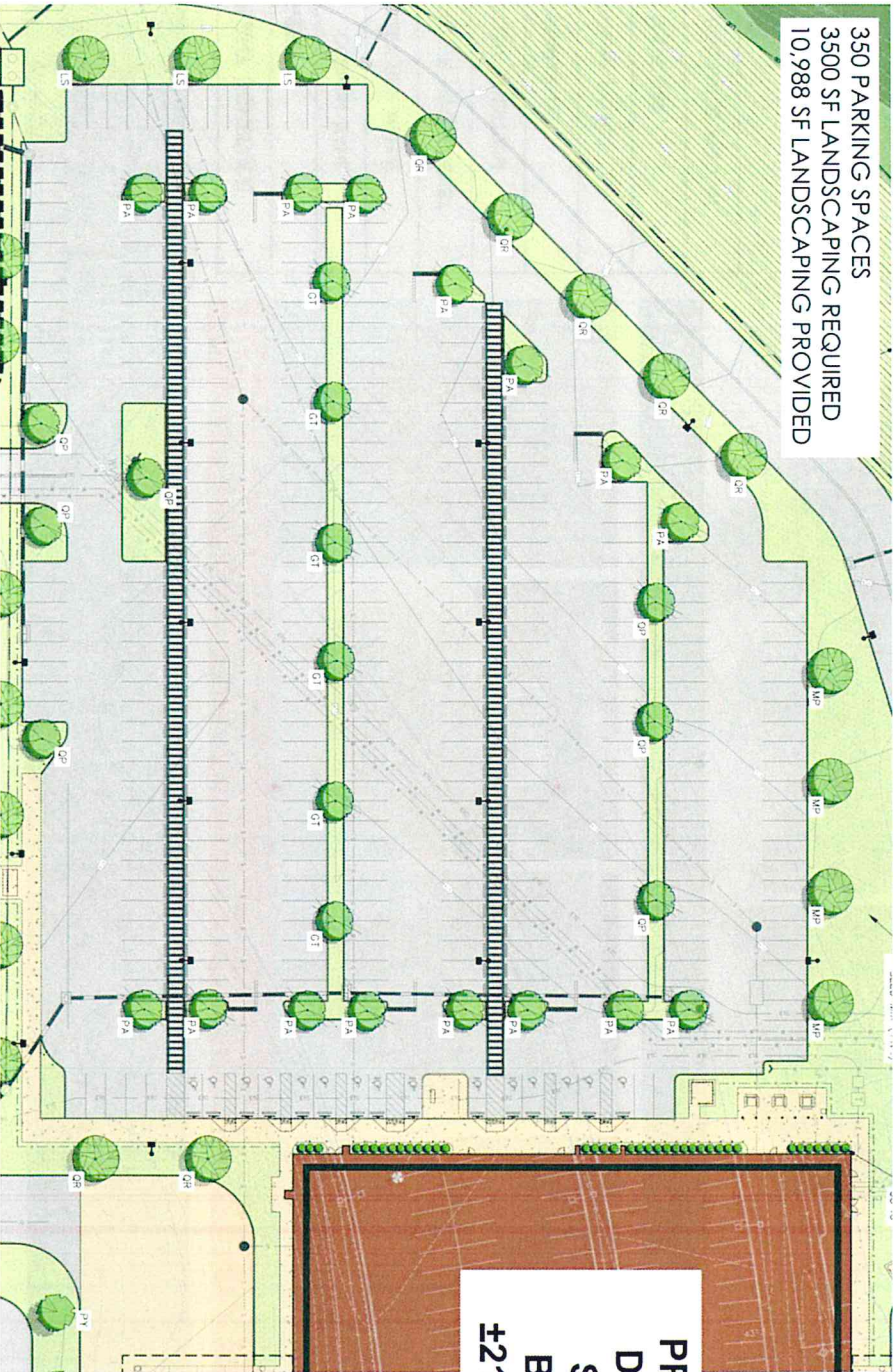
Deciduous trees



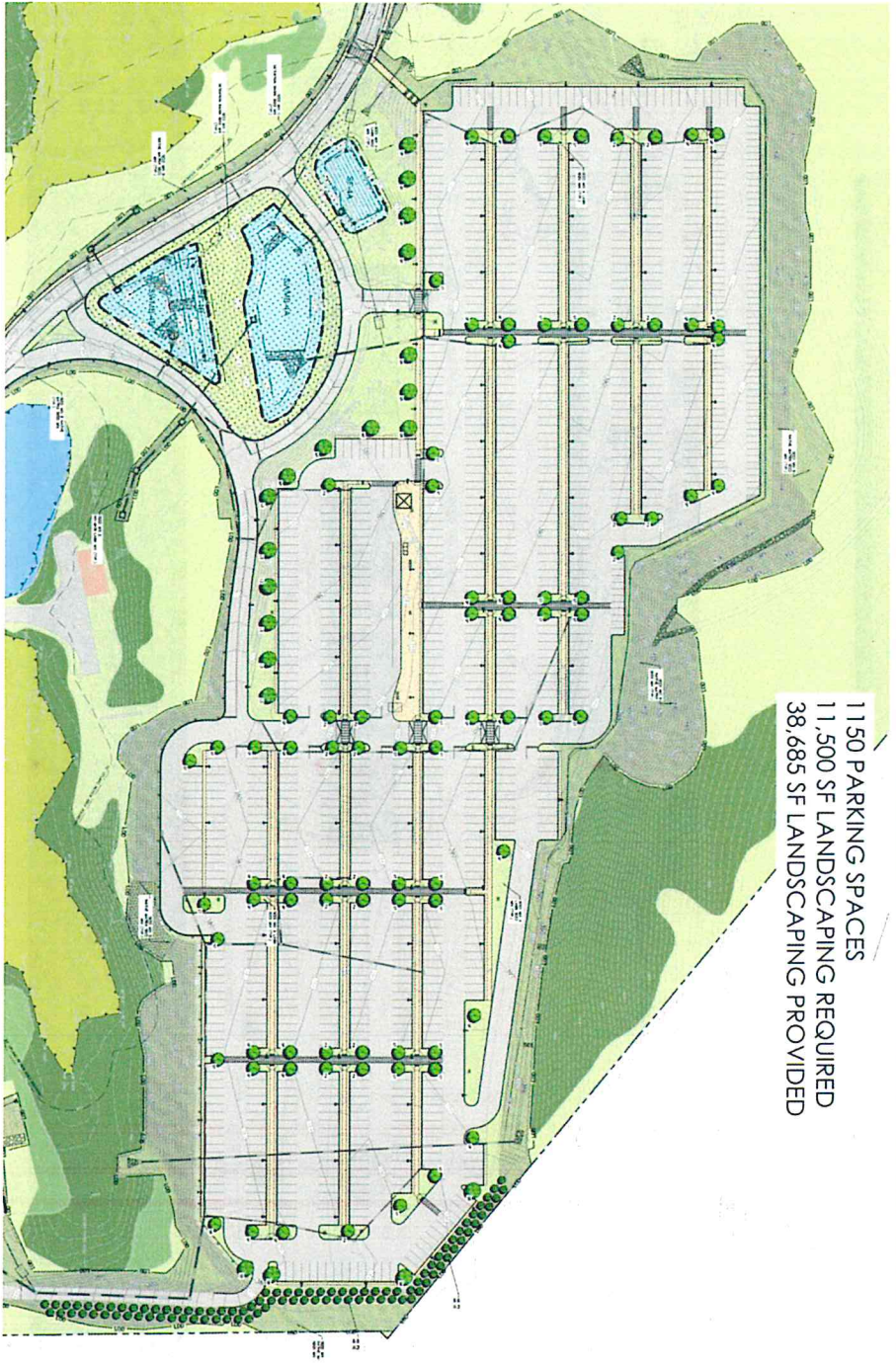
Evergreen trees



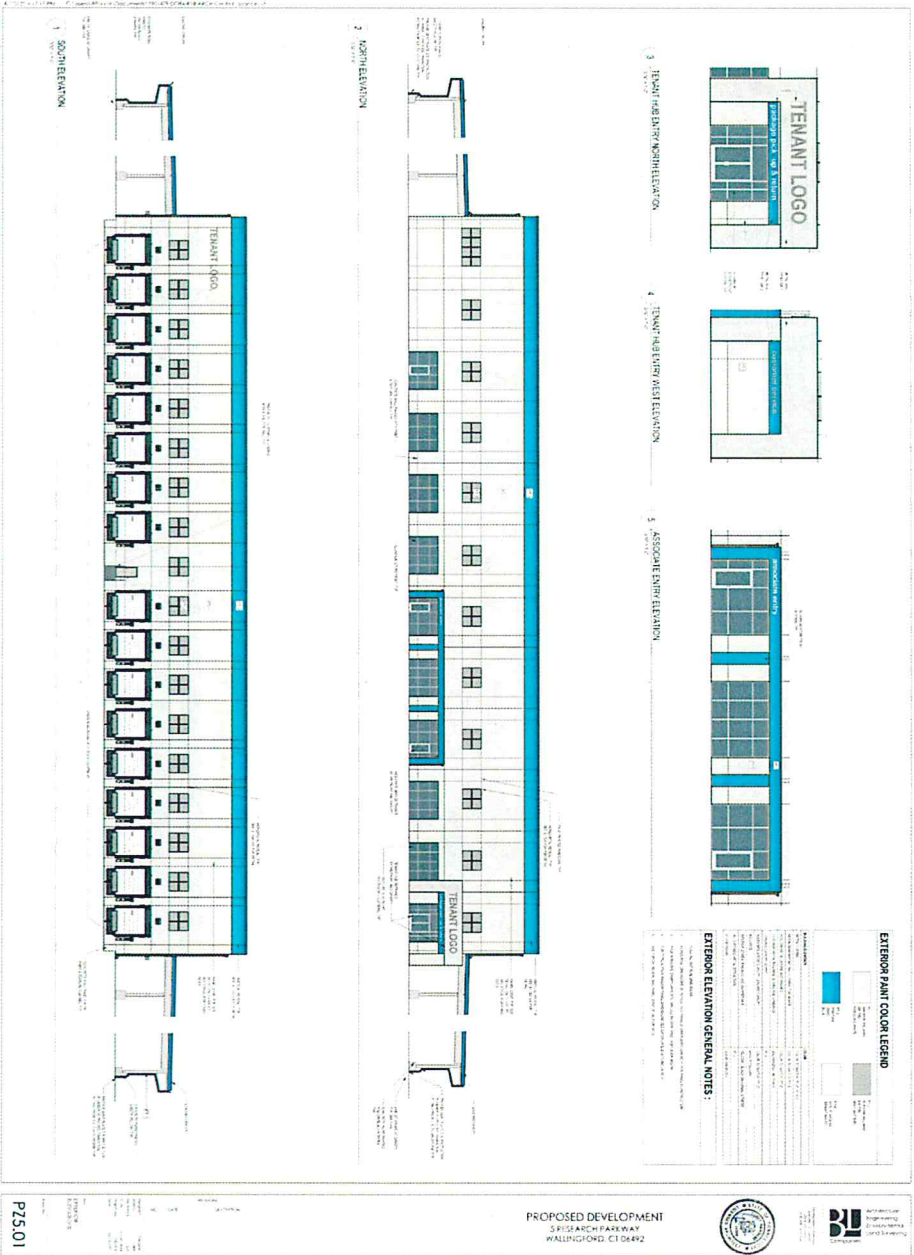
Proposed Site Landscaping



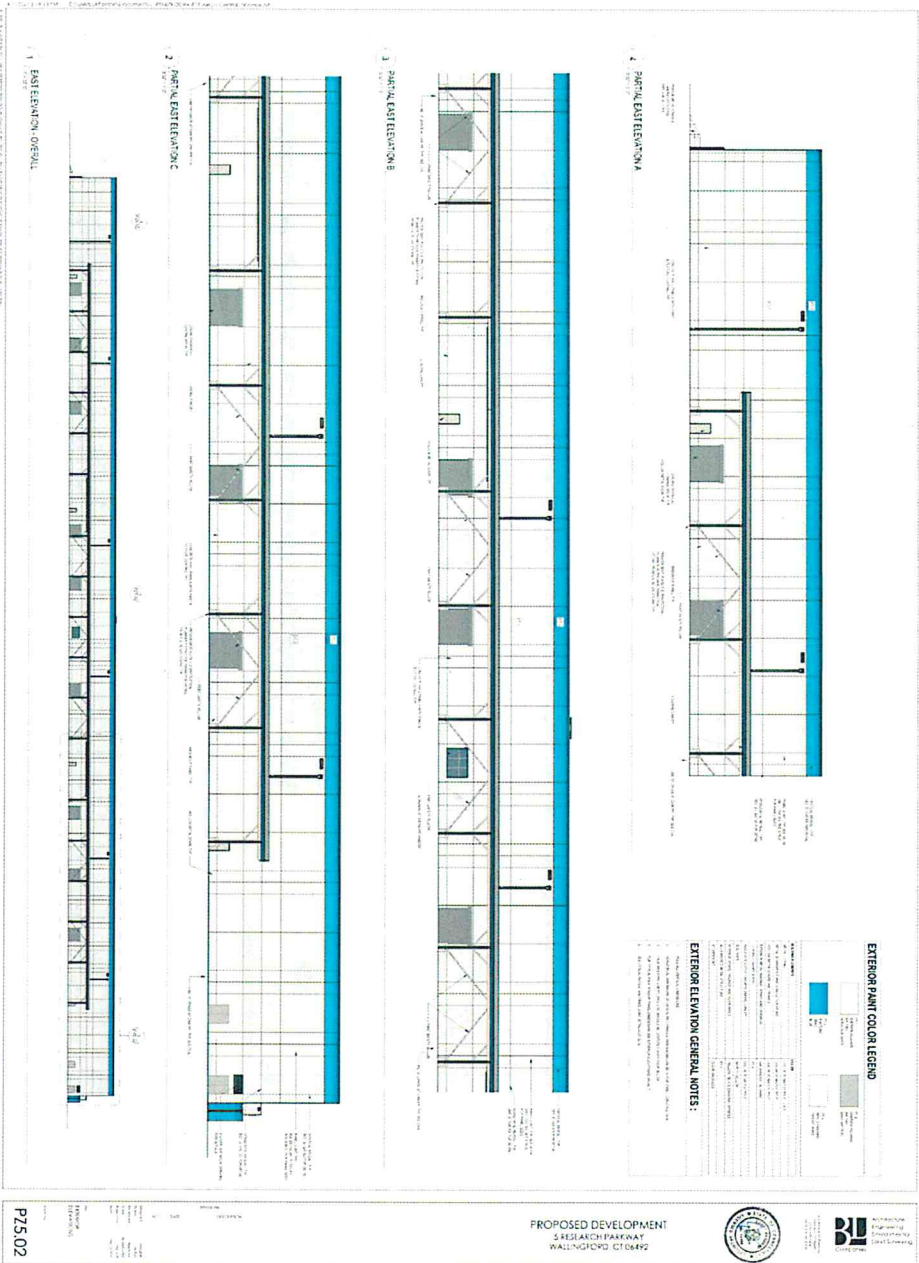
Proposed Site Landscaping



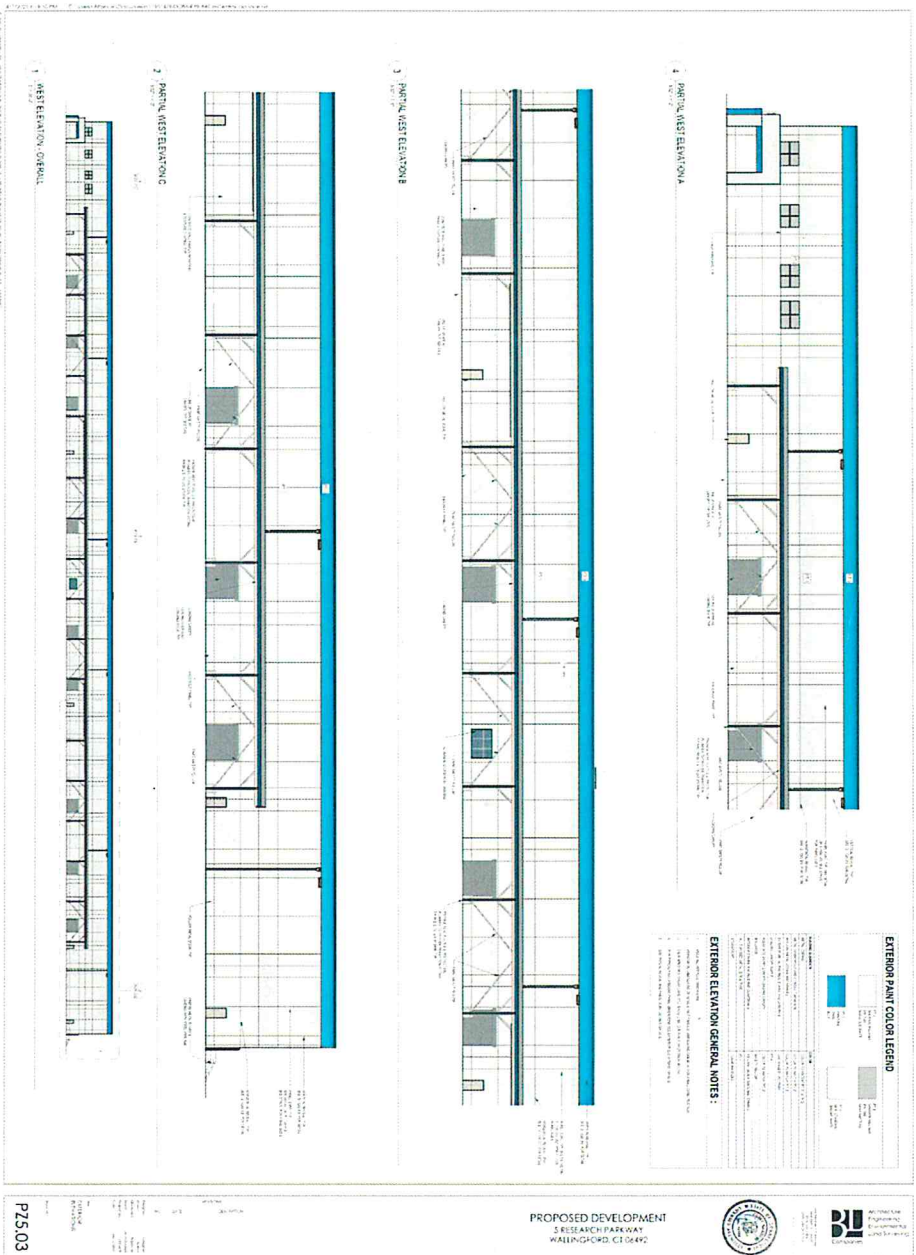
Proposed Building Elevation Views



Proposed Building Elevation Views



Proposed Building Elevation Views



Summary of Project Site Design-Stormwater and Erosion Control

Stormwater management – Conformance with Wallingford ZR Sect 4.13 Watershed Protection

- Exceeds requirements of CT DOT Stormwater manual and DEEP Water Quality manual
- Roof area into infiltration trenches
- Management system includes 9 stormwater basins and 8 Sand Filter basins
- Extensive, multi faceted treatment train approach to water quality
- Incorporation of subsurface infiltration outlet systems - minimization of surface discharges
- Multiple discharge points to minimize stormwater runoff concentration
- No increase in peak runoff rate or volume leaving site

Erosion Control – Exceeds DEEP E&S Manual

- Contractor temp parking (impervious) and directed to oil/water separator
- Hydraulic Analysis of Temporary Sediment Traps for up to a 25-year storm event
- Design level spreader systems for Sediment Trap discharge points
- In corporation of secondary settling basins
- Provide detail for direction on erosion control for intermediate stages of construction
- Incorporated plan for drawdown of both ponds for final runoff polishing during construction

Contingency Plan: Turbidity curtains and stop logs to be staged on site

Stormwater Management – Treatment Train

Proposed Treatment Train:

- Roof areas discharge to infiltration trenches for groundwater recharge
 - All Catch Basins (CB) to have oil/water separation hood and 4' sumps
 - Wallingford Aquifer Protection standard: 1" runoff assuming all surfaces impervious directed into Hydrodynamic Separator Systems
 - 1" runoff (all impervious) directed to Sand Filter Beds
 - Flows beyond 1" runoff directed to Stormwater Management Basin (SWMB) Sediment Forebay sized per DEEP.
- Note sediment forebay volume not included in basin volume for modeling
- 100% storage and infiltration of WQV in SWMB main bay
 - Minimum 12" freeboard for max water surface elevation of 100-year storm
 - SWMB discharge to infiltration trench (where feasible)

NO increase in peak runoff Volume or Rate leaving site

Presentation Summary and Conclusion

- Redevelopment and reuse of a developed site
- Application complies with Zoning Regulations
- Inland Wetlands Permit approved
- Extensive peer reviews of site engineering already completed
- Project design meets or exceeds all erosion control standards and requirements
- Project design meets or exceeds all stormwater design standards and requirements
- Traffic Impact Study demonstrates no significant impacts to area roadway network
- Access design measures implemented to protect neighborhoods

