SUPPLEMENTAL FINAL ENVIRONMENTAL IMPACT STATEMENT

THE LANDMARK AT EASTVIEW MOUNT PLEASANT ENTITLEMENTS 2

777 OLD SAW MILL RIVER ROAD
TOWN OF MOUNT PLEASANT
WESTCHESTER COUNTY, NY

Prepared for: **BMR-Landmark at Eastview, LLC**
777 Old Saw Mill River Road
Tarrytown, NY 10591

Lead Agency: **Town of Mount Pleasant Planning Board**

Prepared by:

JMC Project 15086

Date: June 22, 2016

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THE LANDMARK AT EASTVIEW
MOUNT PLEASANT
ENTITLEMENTS 2

777 Old Saw Mill River Road
Town of Mount Pleasant
Westchester County, New York

SUPPLEMENTAL FINAL ENVIRONMENTAL IMPACT STATEMENT

Applicant:

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Tarrytown, NY 10591
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Contact: Ms. Tiffany Phipps

Lead Agency:

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Fax: (914) 769-3155
Contact: Mr. Michael McLaughlin, Planning Board Chair

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THE LANDMARK AT EASTVIEW
MOUNT PLEASANT
ENTITLEMENTS 2

SUPPLEMENTAL
FINAL ENVIRONMENTAL IMPACT STATEMENT

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NO.	TITLE
Key	Comment Key
A.	Memorandum from Mr. David Smyth, PE, Town of Mount Pleasant Engineer, dated January 6, 2016
B.	Letter from Chief Paul Oliva, Town of Mount Pleasant Police Department, dated January 13, 2016
C.	Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016
D.	Memorandum from Mr. Patrick Cleary, AICP, Town Planning Consultant, dated March 7, 2016
E.	Email of comments made by Mr. Steven Kavee at Public Hearing, February 4, 2016
F.	Traffic Data by JMC
G.	Email to Chief Paul Oliva, Town of Mount Pleasant Police Department, dated May 17, 2016

I. EXECUTIVE SUMMARY

A. Introduction/Organization of the SFEIS

This Supplemental Final Environmental Impact Statement (SFEIS) responds to specific comments received on the Supplemental Draft Environmental Impact Statement (SDEIS), which was accepted as complete and adequate for public review and comment by the Town of Mount Pleasant Planning Board, the SEQR Lead Agency, on December 29, 2015. Opportunities for the public to comment on the project were provided at the Public Hearing held by the Planning Board on February 4, 2016. Written comments were accepted from December 29, 2015 to February 19, 2016. This SFEIS incorporates by reference the project's SDEIS in its entirety.

BMR-Landmark at Eastview, LLC (the owner and applicant) owns an 86.21 acre Property (Figures I.A-1 and I.A-2) identified on the Town of Mount Pleasant tax maps as Sheet 98, Block 7923, Lots 2.1, 2.2, and 2.3. The proposed project is associated with Tax Lots 2.1 and 2.2, which total 69.88 acres (the "Site" or the "Property"). The Property is the Site of a laboratory and research complex in a campus setting, commonly known as the "Landmark at Eastview" (Figure I.A-4). Tax Lot 2.3 is comprised of 16.33 acres and contains the existing Home Depot (Figure I.A.3), and is not associated with the proposed action. The Property is in the OB-5 "Office Business" zoning district (Figure I.A-5).

B. Description of the Project's Approval History and the Proposed Action

On October 17, 2011, the Planning Board issued Site Plan Approval for redevelopment of the Landmark at Eastview. This approval served as a Master Plan for the then contemplated redevelopment of this Site with 440,000 square feet of new laboratory and research space (Figure I.A-6).

The Planning Board, serving as Lead Agency, conducted a SEQRA evaluation of this redevelopment prior to its issuance of the October 17, 2011 Site Plan Approval. This review included the preparation and acceptance of a Draft Environmental Impact Statement ("DEIS") and

Final Environmental Impact Statement ("FEIS"), as well as the adoption of a SEQRA Findings Statement (Appendix B) on September 12, 2011 (the "Findings Statement").

On July 3, 2013, the Planning Board granted Amended Site Plan Approval for the first phase of construction associated with the redevelopment (Figure I.A-7). It authorized the construction and operation of a 297,000 square foot laboratory/office building supported by a four-story parking garage with a capacity for 758 vehicles. The Planning Board, serving as Lead Agency, found this development was consistent with the Findings Statement.

The development authorized by the Amended Site Plan resulted in the actual construction of 268,702 square feet of new laboratory and research space on the Site for use by Regeneron - 28,298 square feet less than the 297,000 square feet authorized, which remains un-built today.

The proposed action entails the construction of four (4) new laboratory and research buildings with accompanying spaces for cafe and on-Site amenities for tenants' use, which are to be supported by proposed accessory garage structures (Figure I.A-8 and Figure I.A-9). These garages will contain a total of 1,355 parking spaces. As with the garage approved as part of the Amended Site Plan, these garages will directly serve the proposed laboratory buildings and eliminate the need for some of the off-street surface parking spaces approved as part of the Master Plan.

The proposed action entails development beyond the 440,000 square feet of new laboratory and research space first approved by the Planning Board in October 2011. With the construction of the buildings included in the July 3, 2013 Amended Site Plan (i.e., 268,702 square feet of new space), there remains an allotment of 171,298 square feet for new construction under the Master Plan (440,000 sf minus 268,702 sf=171,298 sf). The new buildings proposed in this application encompass 519,140 square feet. The proposed action, however, also calls for the demolition of two aged, existing buildings on the Landmark at Eastview campus, identified as Buildings 769 and 771. This will remove 137,110 square feet of building space from the Site, thereby leaving a net total of new building area of 382,030 square feet (519,140 sf new minus 137,110 sf demolished = 382,030 sf). Thus, the net total of new building area represents an increase of 210,732 square feet

of laboratory and research space above that permitted under the Amended Site Plan (382,030 sf of net new building minus 171,298 sf of remaining space under the Master Plan).

Table I.A-1
Site Development History Since 2011 Master Plan

2011 Master Plan	2013 Amended Site Plan	Remaining from Master Plan (based on as-built)	Total Proposed Additional Development	Buildings to be Removed	Net New Building Square Footage	Net Increase over Master Plan
440,000 sf	297,000 sf (approved) 268,702 sf (as-built)	171,298 sf	519,140 sf	137,110 sf	382,030 sf	210,732 sf (382,030 sf minus 171,298 sf)

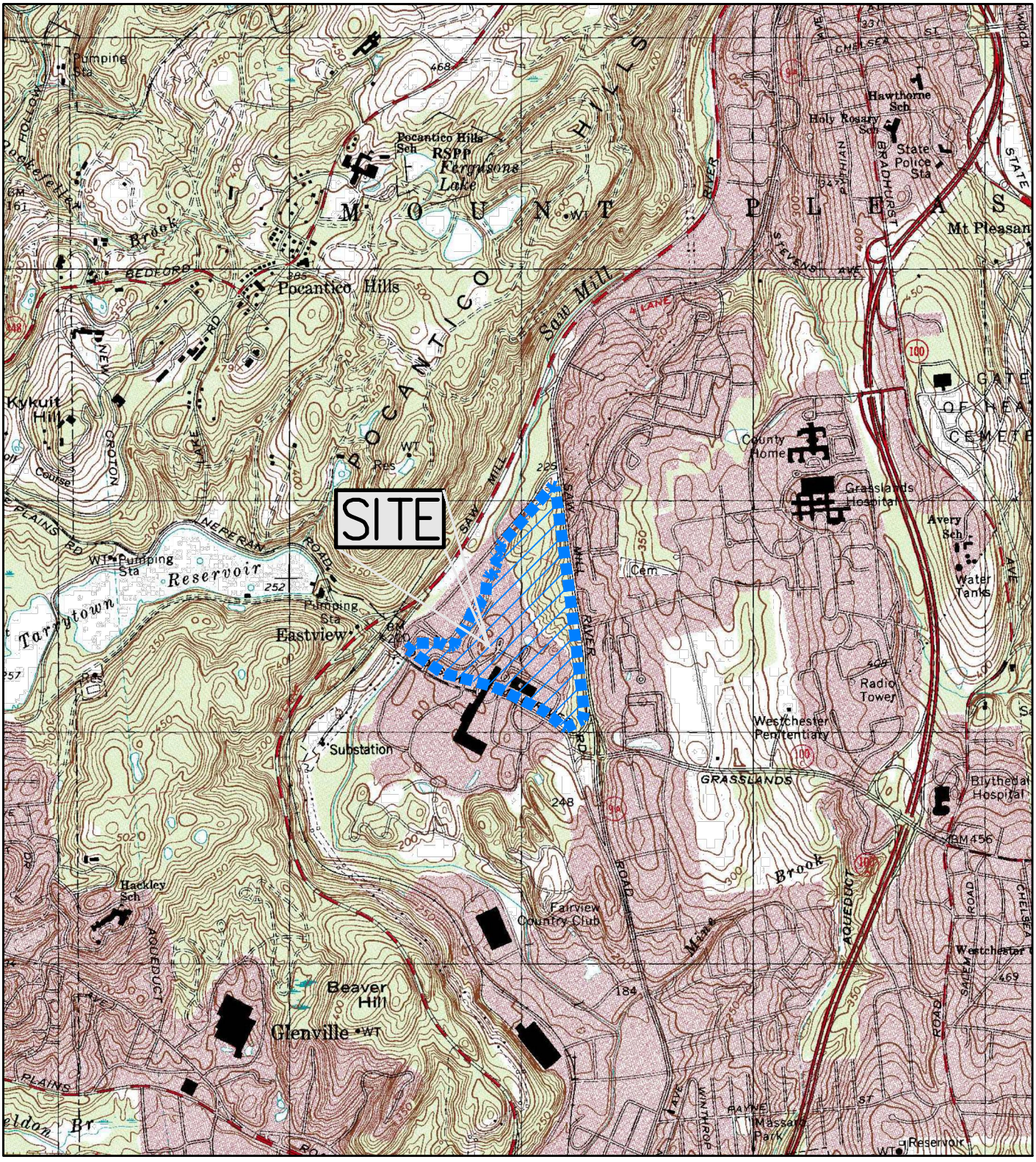
The proposed action is slightly above the disturbance footprint of the 2011 Master Plan (Figure I.A-14), with a 4% increase in the disturbance area compared with the 2011 Master Plan (37.39 acres versus 35.87 acres), and a 7% increase if the landbanked parking of Phase 2 is constructed (38.39 acres versus 35.87 acres).

C. Involved Agencies and Required Reviews and Approvals

The Involved Agencies and the required reviews and approvals/permits are listed on the following page.

Table I.D-1
Involved Agencies and Required Reviews and Approvals

Agency	Approval/Permit
1. Town of Mount Pleasant Planning Board	• SEQRA Determination • Site Plan Approval • Steep Slopes Approval • Wetlands Approval
2. Town of Mount Pleasant Zoning Board of Appeals	• Variances
3. Town of Mount Pleasant Conservation Advisory Council	• Recommendation
4. Town of Mount Pleasant Architectural Board of Review	• Review Building Architecture and Signage
5. Town of Mount Pleasant Building Department	• Engineering Approval • Building Permit
6. Westchester County Department of Health	• Water Main Extension • Sanitary Main Extension
7. Westchester County Planning Board	• 239 L,M Referral
8. Westchester County Department of Public Works	• Permit To Do Work On And Within A County Road Area
9. New York State Department of Transportation	• Possible NYSDOT Highway Work Permit
10. New York State Department of Environmental Conservation	• SPDES General Permit GP-0-15-002 For Stormwater Discharges From Construction Activities
11. Town of Greenburgh Department of Public Works	• Highway Work Permit



MT. PLEASANT ENTITLEMENTS 2

777 OLD SAW MILL RIVER ROAD — TOWN OF MOUNT PLEASANT, NY

REGIONAL SITE LOCATION MAP

DATE: 12/21/2015 — JMC PROJECT: 15086

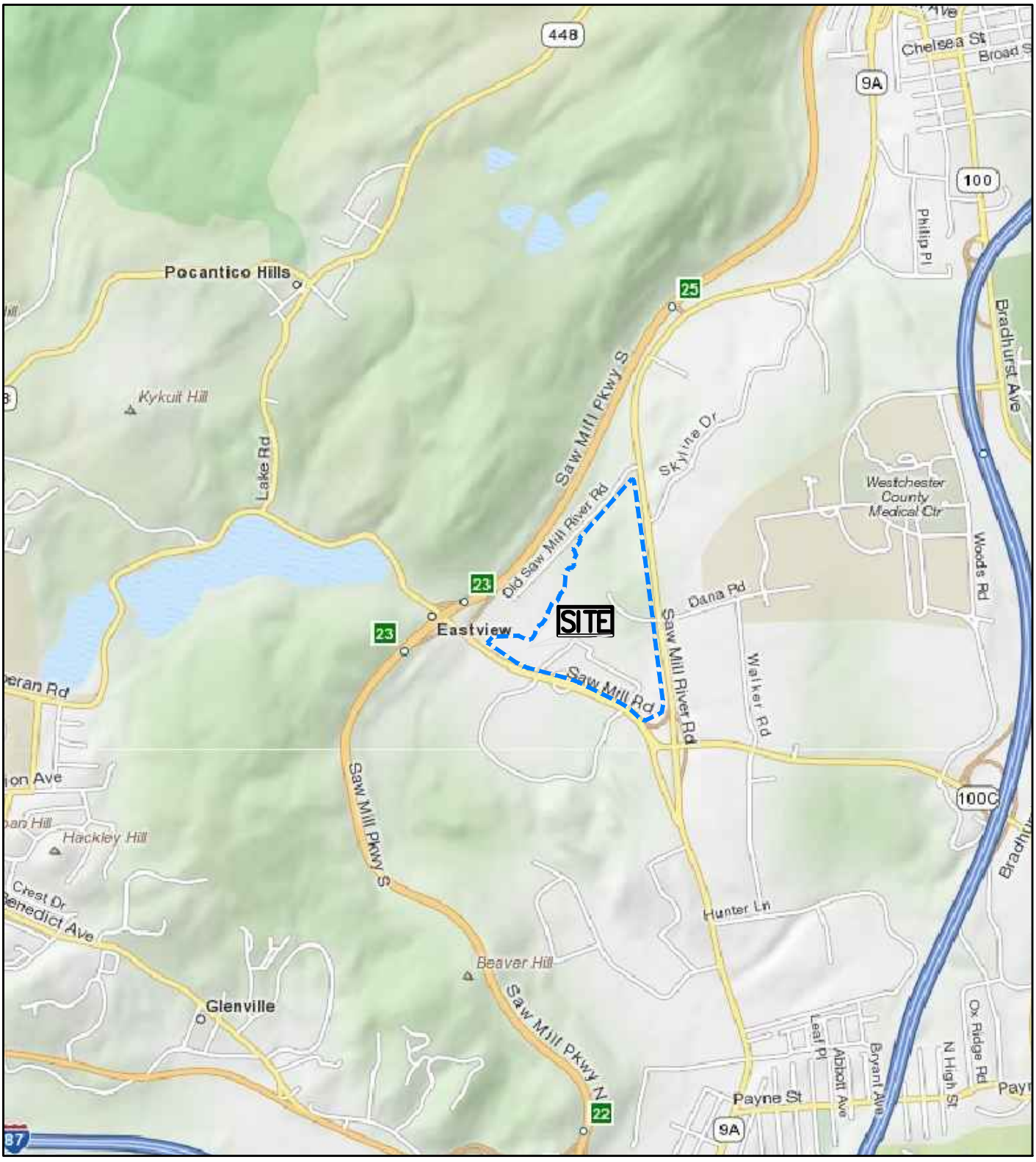
FIGURE: I.A-1 — SCALE: 1" = 2,000'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

SLM–ZONING.dwg; SLM.tab



MT. PLEASANT ENTITLEMENTS 2

777 OLD SAW MILL RIVER ROAD — TOWN OF MOUNT PLEASANT, NY

LOCAL SITE LOCATION MAP

DATE: 12/21/2015 — JMC PROJECT: 15086

FIGURE: I. A-2 — SCALE: 1" = 2,000'

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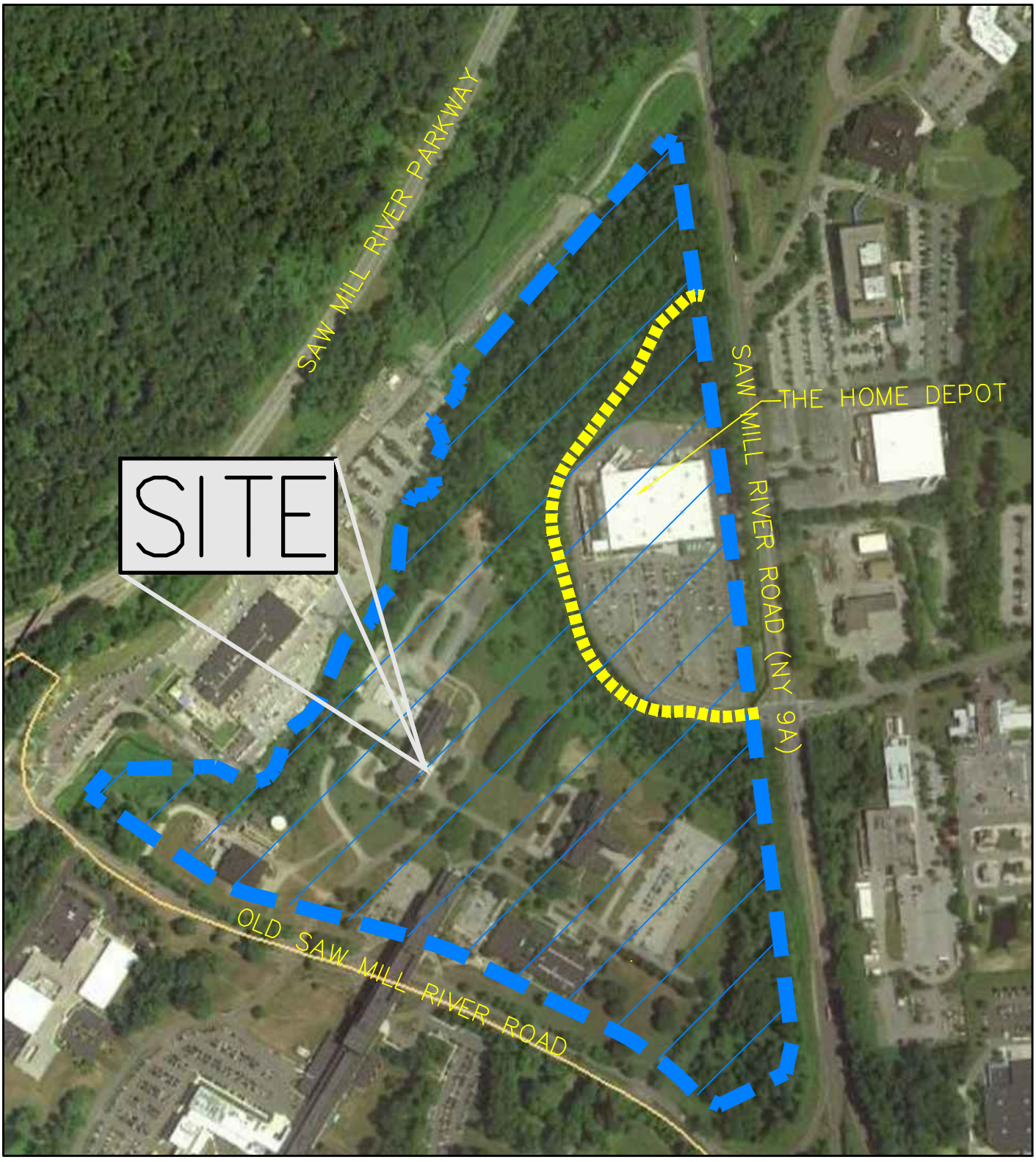
SLM–ZONING.dwg; LOCAL LOCATION.tab



MT. PLEASANT ENTITLEMENTS 2

777 OLD SAW MILL RIVER ROAD — TOWN OF MOUNT PLEASANT, NY

AERIAL PHOTO MAP

DATE: 12/21/2015 — JMC PROJECT: 15086

FIGURE: I. A-3 — SCALE: 1" = 500'

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fax 273-2102

JMCPLLC.COM

SLM–ZONING.dwg; AERIAL.tab

Figure I.A-4

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- WLF-63 WLF-64 WLF-65 — EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- 172 — EXISTING CONTOUR
- 170 — EXISTING INDEX CONTOUR
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- T10 M — EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- 5 — EXISTING PARKING WITH NUMBER OF SPACES
- 2H — EXISTING HANDICAP PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- 36" RCP — EXISTING STORM DRAIN LINE AND SIZE
- 8" SAN — EXISTING SANITARY LINE AND SIZE
- W — EXISTING WATER LINE
- G — EXISTING GAS LINE
- OHW — EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- GV — EXISTING GAS VALVE
- WV — EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- DP-2 — BORING LOCATION AND DESIGNATION

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM:
   - SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC, DATED JULY 30, 2013.
   - BENCHMARK LINE & GRADE INC. DRAWING AS-102 "ASBUILT IMPROVEMENT PLAN" LAST REVISED AUGUST 4, 2015.
   - BELWAY ELECTRIC CONTRACTING CORP. DRAWING BE-SITE-UG "AS-BUILT DRAWING," DATED FEBRUARY 6, 2015.
   - BELWAY ELECTRIC CONTRACTING CORP. DRAWING BE-E-051 "AS-BUILT DRAWING," DATED SEPTEMBER 28, 2015.
2. GEOTECHNICAL BORING/TEST PIT LOCATIONS DEPICTED ON THIS PLAN WERE TAKEN FROM THE GEOTECHNICAL REPORT TITLED "SUBSURFACE SOIL AND FOUNDATION INVESTIGATION", DATED 06/05/2013, PREPARED BY CARLIN-SIMPSON & ASSOCIATES.
3. EXISTING WETLANDS WERE DELINEATED BY EVANS ASSOCIATES IN ACCORDANCE WITH CHAPTER 18 FRESHWATER WETLANDS OF THE TOWN OF MOUNT PLEASANT AND THE TECHNICAL CRITERIA IN THE 1987 ARMY CORPS OF ENGINEERS (ACOE) WETLAND DELINEATION MANUAL TR-Y-87-1).

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Drawing Issue	Date

Revisions

NO	REVISION	DATE

Sheet Information

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Job Number	JMC #15086/035698.000
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Checked	SS
Approved	RJP
Scale	1" = 100'

Title

OVERALL EXISTING CONDITIONS PLAN

Sheet

C-101

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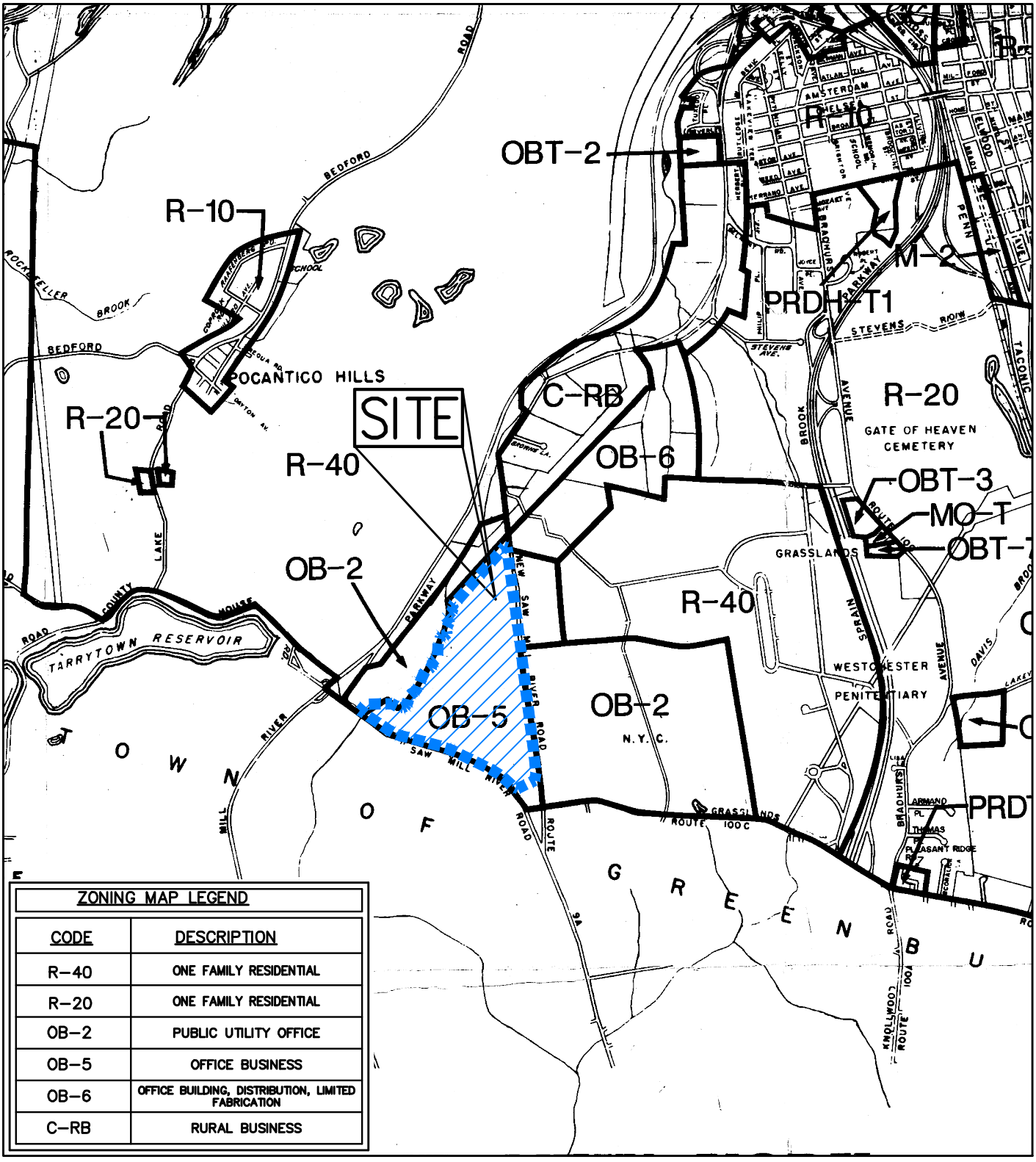

ZONING MAP LEGEND	
CODE	DESCRIPTION
R-40	ONE FAMILY RESIDENTIAL
R-20	ONE FAMILY RESIDENTIAL
OB-2	PUBLIC UTILITY OFFICE
OB-5	OFFICE BUSINESS
OB-6	OFFICE BUILDING, DISTRIBUTION, LIMITED FABRICATION
C-RB	RURAL BUSINESS

MT. PLEASANT ENTITLEMENTS 2

777 OLD SAW MILL RIVER ROAD — TOWN OF MOUNT PLEASANT, NY

ZONING MAP

DATE: 12/21/2015 — JMC PROJECT: 15086

FIGURE: I.A-5 — SCALE: 1" = 2,000'

120 BEDFORD RD
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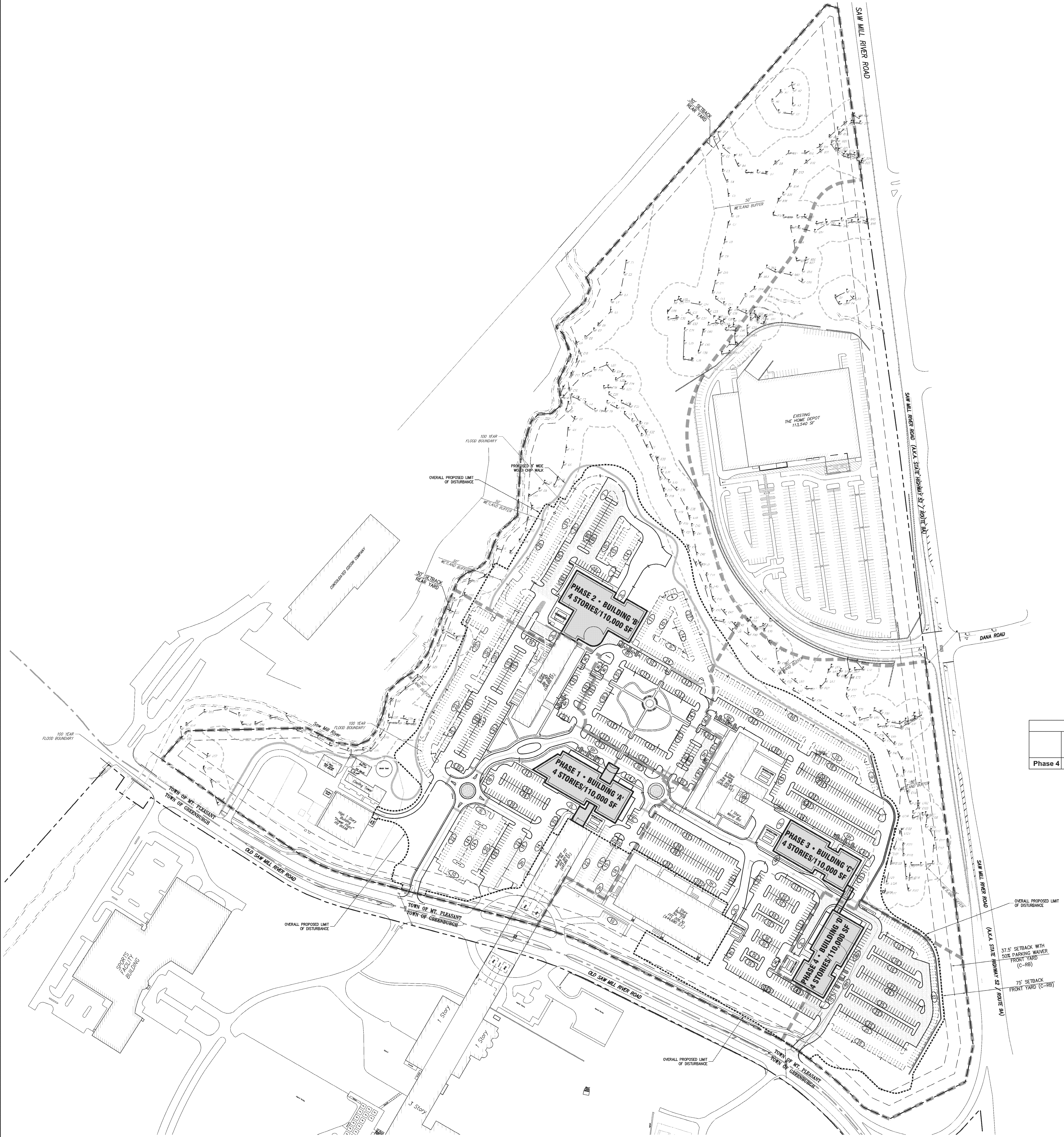
SLM-ZONING.dwg; ZONING.tab



Phase 4 Parking Summary Table						
	Building GFA (S.F.)	Required (2.0 : 1000)	Required (3.0 : 1000)	Landbanked Parking	Proposed Parking	TOTAL Provided
Phase 4	721,325	1,443	2,164	722	1,443	**2,165**

BMR LANDMARK AT EASTVIEW, LLC
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MASTER PLAN (PHASE 1–4)
THE LANDMARK AT EASTVIEW REDEVELOPMENT PLAN
777 OLD SAW MILL RIVER ROAD
TARRYTOWN, NY 10591

NOT FOR CONSTRUCTION

SP–6

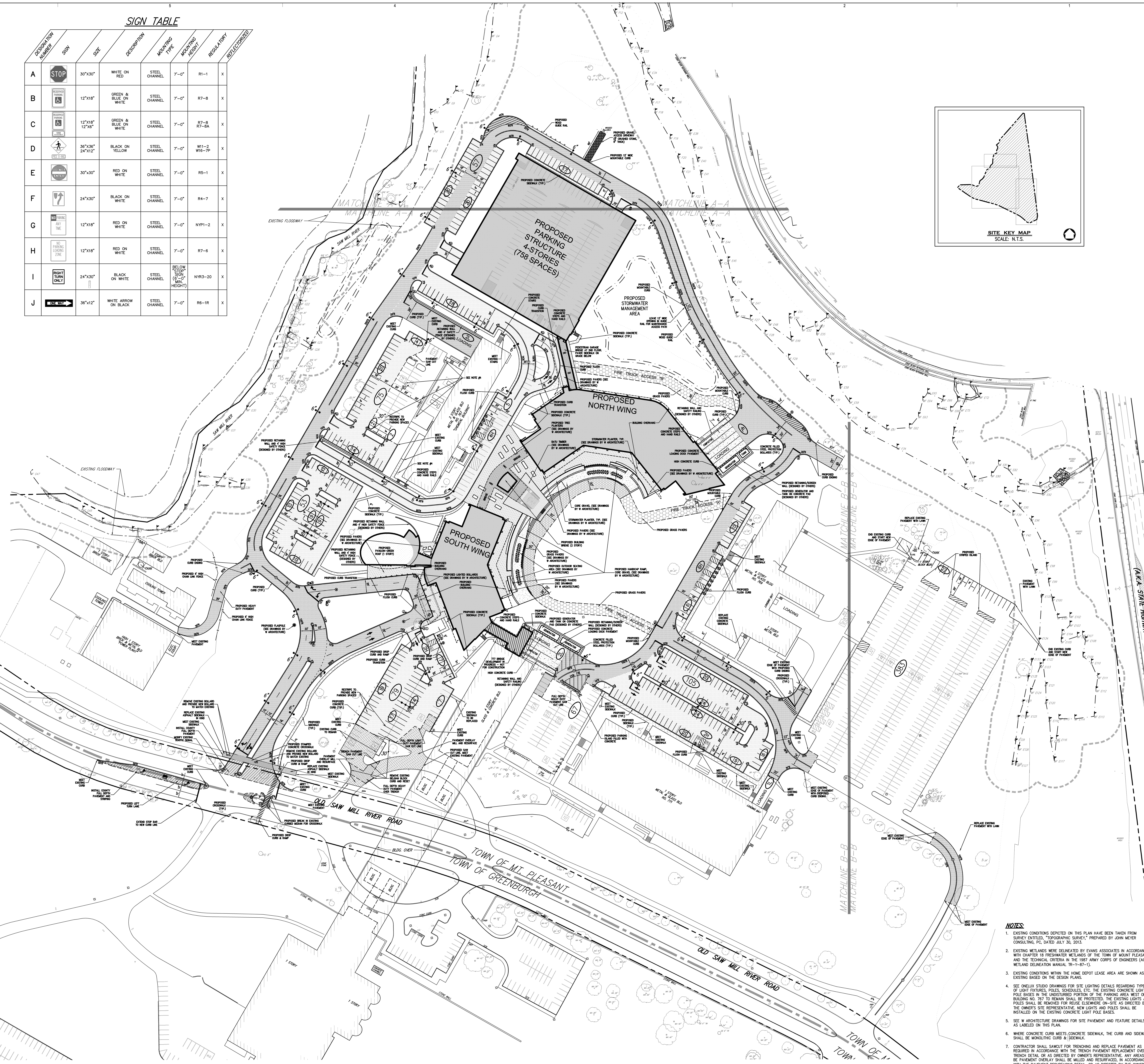
Figure I.A-6

LEGEND

EXISTING PROPERTY LINE	
ADJACENT PROPERTY LINE	
EXISTING EASEMENT LINE	
EXISTING WETLAND LINE AND DELINEATION	WLF-63 WLF-64 WLF-65
EXISTING WETLAND BUFFER LINE	
EXISTING BUILDING OVERHANG	
EXISTING BUILDING LINE	
EXISTING PAVEMENT EDGE	
EXISTING CURB LINE	
EXISTING RETAINING WALL	
EXISTING FENCE	
EXISTING TREE LINE	
EXISTING PAINT	
EXISTING PARKING WITH NUMBER OF SPACES	46
EXISTING HANDICAP PARKING WITH NUMBER OF SPACES	2H
EXISTING UTILITY POLE	
EXISTING LIGHT POLE	
EXISTING SIGN	
PROPOSED BUILDING LINE	
PROPOSED BUILDING OVERHANG LINE	
PROPOSED CONCRETE CURB	
PROPOSED DROP CURB & RAMP	
PROPOSED SAWCUT LINE	
PROPOSED HANDICAPPED PARKING SPACES WITH NUMBER OF SPACES INDICATED	2H
PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED	5
PROPOSED LIGHT DUTY PAVEMENT	
PROPOSED HEAVY DUTY PAVEMENT	
PROPOSED CONCRETE SIDEWALK	
PROPOSED MONOLITHIC CONCRETE SIDEWALK & CURB	
PROPOSED DROP CURB AND RAMP	
PROPOSED COUNTY PAVEMENT	
PROPOSED PAVERS	
PROPOSED CONCRETE PAVEMENT	
PROPOSED FIRE ACCESS/GRASS PAVERS	
PROPOSED RETAINING WALL AND SAFETY FENCE OR RAILING (DESIGN BY OTHERS)	
PROPOSED GUIDE RAIL	
PROPOSED 2-4" WIDE YELLOW LINES 8"O.C.	Y
PROPOSED 1-4" WIDE WHITE LINE	W
PROPOSED 12" WIDE WHITE STOP LINE	
PROPOSED 4" WIDE YELLOW HATCH LINES 18" O.C. @ 45°	
PROPOSED ARROW MARKING ON PAVEMENT	
TRAFFIC SIGN LOCATION & DESIGNATION	A
PEDESTRIAN CROSSING	
PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS) WITH BASE HEIGHT	30"
PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS) WITH BASE HEIGHT	6"

SIGN TABLE

DESIGNATION NUMBER	SIGN	SIZE	DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT	REGULATORY	REFLECTORIZED
A	STOP	30"X30"	WHITE ON RED	STEEL CHANNEL	7'-0"	R1-1	X
B	RESERVED PARKING	12"X18"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'-0"	R7-8	X
C	RESERVED PARKING / VAN ACCESSIBLE	12"X18" 12"X6"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'-0"	R7-8 R7-8A	X
D	PED X-ING	36"X36" 24"X12"	BLACK ON YELLOW	STEEL CHANNEL	7'-0"	W11-2 W16-7P	X
E	DO NOT ENTER	30"x30"	RED ON WHITE	STEEL CHANNEL	7'-0"	R5-1	X
F		24"X30"	BLACK ON WHITE	STEEL CHANNEL	7'-0"	R4-7	X
G	NO PARKING ANY TIME	12"X18"	RED ON WHITE	STEEL CHANNEL	7'-0"	NYP1-2	X
H	NO PARKING LOADING ZONE	12"X18"	RED ON WHITE	STEEL CHANNEL	7'-0"	R7-6	X
I	RIGHT TURN ONLY	24"X30"	BLACK ON WHITE	STEEL CHANNEL	BELOW "STOP" SIGN (6'-0" MIN. HEIGHT)	NYR3-20	X
J	ONE WAY	36"x12"	WHITE ARROW ON BLACK	STEEL CHANNEL	7'-0"	R6-1R	X



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PARKING CONSULTANT
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New York, NY 10018
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w: www.desman.com

Revisions

1. 06/07/2013 DESIGN & DEVELOPMENT DRAWING SUBMISSION
2. 06/24/2013 REVISED PER TOWN COMMENTS
3. 07/18/2013 REVISED PER TOWN COMMENTS
4. 08/16/2013 ISSUED FOR CONSTRUCTION

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY ENTITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JOHN MEYER CONSULTING, PC, DATED JULY 30, 2013.
2. EXISTING WETLANDS WERE DELINEATED BY EVANS ASSOCIATES IN ACCORDANCE WITH CHAPTER 18 FRESHWATER WETLANDS OF THE TOWN OF MOUNT PLEASANT AND THE TECHNICAL CRITERIA IN THE 1987 ARMY CORPS OF ENGINEERS (ACOE) WETLAND DELINEATION MANUAL TR-Y-87-1).
3. EXISTING CONDITIONS WITHIN THE HOME DEPOT LEASE AREA ARE SHOWN AS EXISTING BASED ON THE DESIGN PLANS.
4. SEE ONELUX STUDIO DRAWINGS FOR SITE LIGHTING DETAILS REGARDING TYPES OF LIGHT FIXTURES, POLES, SCHEDULES, ETC. THE EXISTING CONCRETE LIGHT POLE BASES IN THE UNDISTURBED PORTION OF THE PARKING AREA WEST OF BUILDING NO. 767 TO REMAIN SHALL BE PROTECTED. THE EXISTING LIGHTS AND POLES SHALL BE REMOVED FOR REUSE ELSEWHERE ON-SITE AS DIRECTED BY THE OWNER'S SITE REPRESENTATIVE. NEW LIGHTS AND POLES SHALL BE INSTALLED ON THE EXISTING CONCRETE LIGHT POLE BASES.
5. SEE W ARCHITECTURE DRAWINGS FOR SITE PAVEMENT AND FEATURE DETAILS AS LABELED ON THIS PLAN.
6. WHERE CONCRETE CURB MEETS CONCRETE SIDEWALK, THE CURB AND SIDEWALK SHALL BE MONOLITHIC CURB & SIDEWALK.
7. CONTRACTOR SHALL SAWCUT FOR TRENCHING AND REPLACE PAVEMENT AS REQUIRED IN ACCORDANCE WITH THE TRENCH PAVEMENT REPLACEMENT OVER TRENCH DETAIL OR AS DIRECTED BY OWNER'S REPRESENTATIVE. ANY AREAS TO BE PAVEMENT OVERLAY SHALL BE MILLED AND RESURFACED, IN ACCORDANCE WITH THE PAVEMENT RESURFACING DETAIL, OR AS DIRECTED BY THE OWNER'S SITE REPRESENTATIVE.

Sheet Information

Date	MAY 09, 2013
Job Number	JMC # 12138/155229.000
Drawn	AL
Checked	JS
Approved	JS
Scale	1" = 60'

Title
OVERALL LAYOUT PLAN

Sheet
C-107

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

Figure I.A-7

JMC # 12138-SITE.dwg SITE.tab LAY.scr

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING SETBACK LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED DROP CURB & RAMP (DET XX)
- PROPOSED SAWCUT LINE
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES TO BE "LANDBANKED"
- PROPOSED CONCRETE SIDEWALK
- PROPOSED MONOLITHIC CONCRETE SIDEWALK & CURB
- PROPOSED DROP CURB AND RAMP
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED PERVIOUS PAVEMENT
- PROPOSED CONCRETE APRON
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED GUIDE RAIL (DET XX)
- PROPOSED FENCE
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED 2-4" WIDE YELLOW LINES 8"O.C.
- PROPOSED 1-4" WIDE WHITE LINE
- PROPOSED 1-4" WIDE WHITE LINE (DASHED-40' REPEAT CYCLE)
- PROPOSED 12" WIDE WHITE STOP LINE
- PROPOSED 4" WIDE YELLOW HATCH LINES 18" O.C. @ 45°
- PROPOSED ARROW MARKING ON PAVEMENT
- PROPOSED WORD MARKING ON PAVEMENT
- TRAFFIC SIGN LOCATION & DESIGNATION
- PEDESTRIAN CROSSING

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM:
   - SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC, DATED JULY 30, 2013.
   - BENCHMARK LINE & GRADE INC. DRAWING AS-102 "ASBUILT IMPROVEMENT PLAN" LAST REVISED AUGUST 4, 2015.
   - BELWAY ELECTRIC CONTRACTING CORP. DRAWING BE-SITE-UG "AS-BUILT DRAWING," DATED FEBRUARY 6, 2015.
   - BELWAY ELECTRIC CONTRACTING CORP. DRAWING BE-E-051 "AS-BUILT DRAWING," DATED SEPTEMBER 28, 2015.
2. REFER TO JMC CONCEPTUAL HIGHWAY IMPROVEMENT DRAWINGS FOR THE OFF-SITE ROADWAY MODIFICATIONS.

JMC

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Drawing Issue	Date

Revisions

NO	REVISION	DATE

Sheet Information

Date	11/19/2015
Job Number	JMC #15086/035698.000
Drawn	CS
Checked	SS
Approved	RJP
Scale	1" = 60'

Title

OVERALL SITE LAYOUT PLAN

Sheet

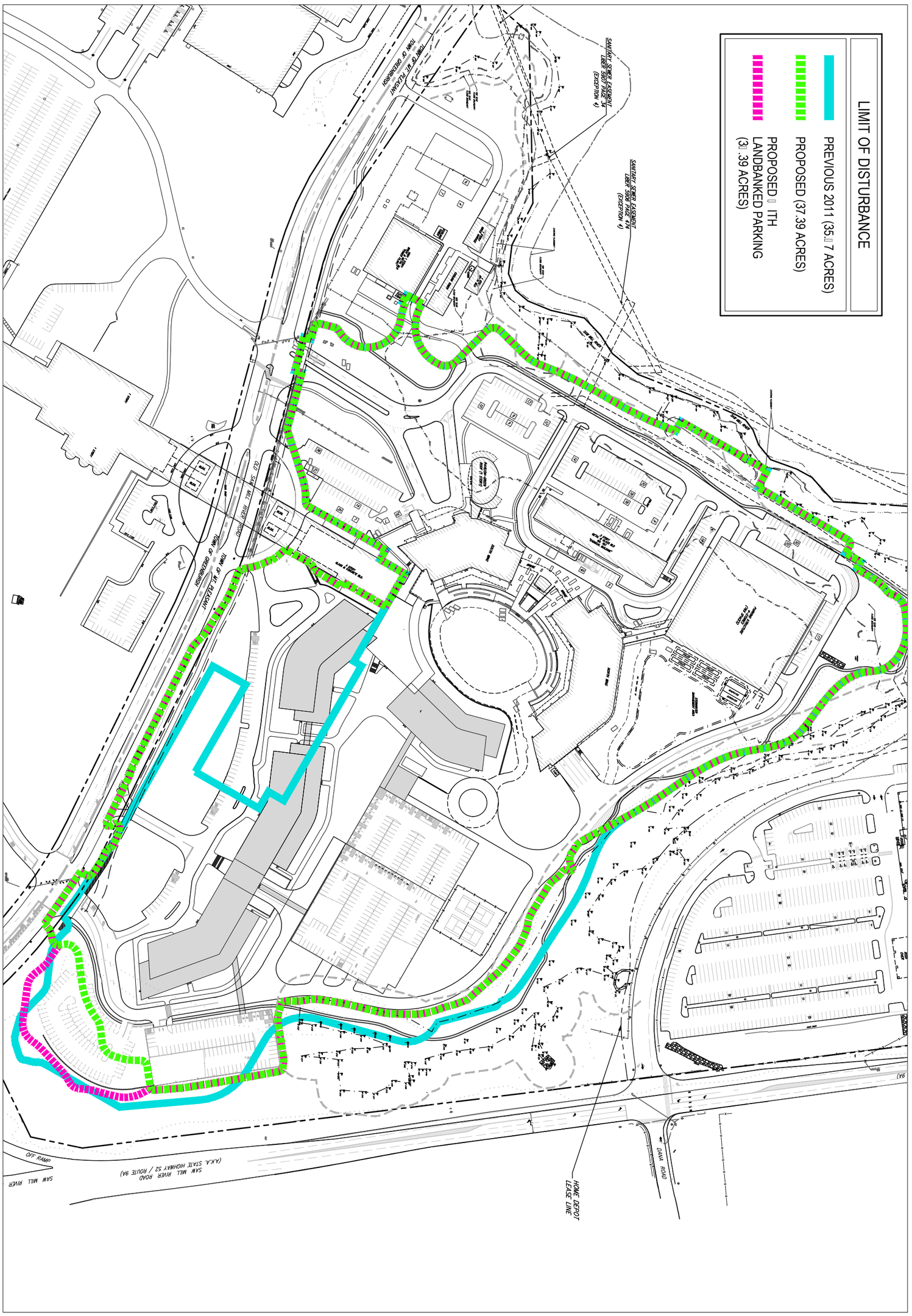
C-102

Figure I.A-8

15086-LAYOUT.dwg

Proposed Action Aerial Rendering

Figure I.A-9



MT. PLEASANT ENTITLEMENTS 2

777 OLD SAW MILL RIVER ROAD — TOWN OF MOUNT PLEASANT, NY

LIMIT OF DISTURBANCE COMPARISON MAP

DATE: 12/21/2015 — JMC PROJECT: 15086

FIGURE: I.A-14 — SCALE: 1" = 200'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

15086-LOD-FIGURE.dwg; FIG.tab

II. COMMENTS AND RESPONSES TO COMMENTS ON THE SDEIS

A. Introduction

Pursuant to 6 NYCRR 617.14, this FEIS includes responses to comments on the Supplemental Draft Environmental Impact Statement (SDEIS) that were presented orally at the Public Hearing held by the Planning Board on February 4, 2016, and in writing by area residents, interested and involved agencies including the Town of Mount Pleasant, and all others who commented. The period for written comments on the SDEIS remained open until February 19, 2016. All of the comments received can be found in their original form in the Appendices of this SFEIS.

The following section contains these comments categorized by type and followed by a response that addresses the concerns of the comment. Section B summarizes and responds to the substance of the comments received. Comments are organized by subject matter and follow the chapter structure of the SDEIS. In some cases the remarks of a single commenter have been separated in order to address each aspect of the commenter's concern separately. Every substantive comment received on the Proposed Action has been addressed.

A key to the comments and responses is provided at the end of this Volume to assist with ease of reference.

B. Comments and Responses to Comments on the SDEIS

1. Land Use and Zoning

Comment 1-1

Consistency with *Westchester 2025* and County economic development goals. Although the Landmark at Eastview campus is not listed as a center in the County Planning Board's long-range planning policies and strategies set forth in *Westchester 2025--Context for County and Municipal Planning and Policies to Guide County Planning*, adopted by the County Planning Board on May 6, 2008, and amended January 5, 2010, the further development of this campus will direct additional growth of research and development space to a site that has long been home to such uses and that can support the additional development. This proposal is consistent with County economic development goals to increase the concentration of science-related research/technical industries in Westchester.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 1-1

Comment noted.

Comment 1-2

Will the proposed development of the "North 60" to support extensive bio-tech uses impact the project need.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-2

The applicant anticipates the "North 60" will have no impact on the project need because the major tenants of the proposed project are already present on the BMR property, and will utilize the proposed facilities to accommodate their anticipated future growth needs.

Comment 1-3

Describe the square footages of the proposed buildings – by building – as was done for the existing buildings.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-3

The square footage of the proposed buildings is as follows:

Building Designation	***Square Footage***
• ***Building 1***	***128,400***
• ***Building 2***	***123,000***
• ***Building 3***	***119,200***
• ***Building 4***	***102,700***
• ***Café***	***6,120***
• ***Amenity***	***39,720***
Total	***519,140***

Comment 1-4

Table IV.A-1 - Clarify how the areas and square footages of the buildings were calculated. Outside wall to outside wall? Were any deductions incorporated (such as excluding areas under overhangs, mechanical spaces, etc.)?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-4

The areas were calculated by using the outside face of wall and deductions were made for mechanical spaces and shafts.

Comment 1-5

Verify that the 80 foot building height was calculated in a way consistent with the building height definition set forth in §218-3 of the Mount Pleasant Zoning Ordinance.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-5

The 80 foot building height was calculated in a way consistent with the building height definition set forth in §218-3 of the Mount Pleasant Zoning Ordinance for both the proposed and existing buildings on the site. Because the proposed buildings are more than 10 feet from the front property line, building height was measured from the highest point on the surface of the flat roofs of the buildings to the average level of the finished grade adjacent to the exterior walls of the building. Because the finished ground surface is made by filling, the level of the finished grade was considered to be not more than three feet above the established grade of the curb.

Comment 1-6

Do the proposed building and parking setbacks comply with the 17% waiver – or is a new waiver required from the Planning Board?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-6

The 17% waiver for an existing parking space 62 feet from the front property line where 75 feet is required is still required for the existing parking spaces to remain. There are no new proposed parking spaces requiring a waiver for the front yard setback.

Comment 1-7

What has been the experience at the site with loading space availability? Is the Town's requirement adequate, insufficient or excessive?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-7

Loading space availability has not been an operational concern. Adequate loading exists and the proposed loading areas reflect the future anticipated needs of the building occupants based on discussions with the applicant, whose offices are located on the subject property.

Comment 1-8

Verify that all parking areas, including the parking structures, will fully comply with all Town standards for such facilities. If any waivers or modifications to Town standards are being considered, they should be clearly identified at this point.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-8

A variance will be requested for a reduction of the required parking stall depth of 20 feet to 18 feet for all of the proposed parking spaces. This is consistent with the variance obtained for the 2013 Amended Site Plan, and granted on June 13, 2013 (Appendix D of the SDEIS). The total 2,323 spaces proposed exceeds the 1,962 required by the Town Code.

Comment 1-9

Is the increase in building coverage from 9.6% to 12.43% geographically limited to a particular area of the site, or is it distributed throughout the site in the new buildings?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-9

The percentage relates to the overall site and the increase in building coverage is from 9.5% to 11.75% from existing conditions to Phase 4 full build out.

Comment 1-10

Describe the "significant vegetative buffer" along the westerly side of Route 9A. How deep is it? What type of vegetation is present? Generally, describe the sizes of the trees, vegetation.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 1-10

Figures IV.L-1c and IV.L-2c depict views into the site from NY Route 9A, and illustrate the dense vegetation that exists in the buffer. The buffer is approximately 110 feet deep, and the top of the buffer along NY 9A is approximately 20-24 feet higher than the lower portion of

the buffer where the proposed parking structure for Phase 1 is to be situated. Although the sizes of the trees in the buffer have not been surveyed, it is estimated that the larger trees within the buffer are 8" to 12" diameter at breast height. As depicted in the figures, there is also a substantial amount of smaller vegetation within the buffer, providing a range of heights of vegetative screening.

Comment 1-11

Quantify the net increase/decrease in overall impervious surface coverage from that shown on the current Amended Site Plan Approval.

(Email of comments made by Mr. Steven Kavee at Public Hearing, February 4, 2016)

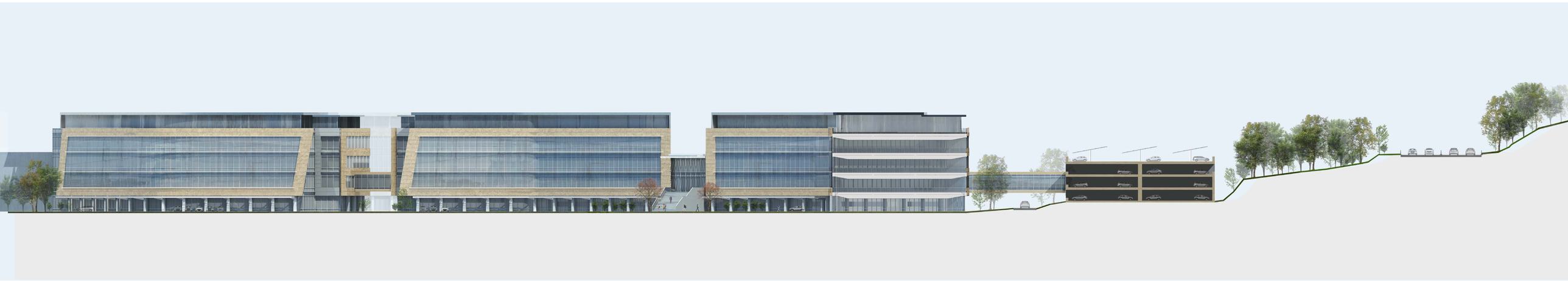
Response 1-11

There is a net decrease in overall impervious surface coverage from that shown on the current Amended Site Plan Approval by approximately 6 acres.

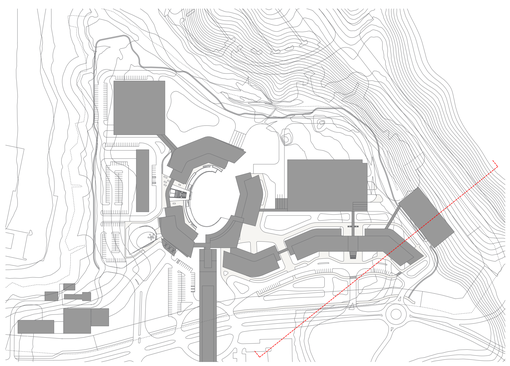
Figure I.A-6

MT PLEASANT ENTITLEMENTS 2

SECTION



SECTION THROUGH GARAGE AND NY 9A



VIEWS FROM NY 9A

2. Geology, Steep Slopes and Soils

Comment 2-1

What measures were taken to avoid impacts to steep slopes, and in particular, the 0.15 acres of impacts to excessively steep slopes? Do alternatives exist to further avoid impacting steep slopes?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 2-1

The steep slope disturbance of 0.96 acres associated with the proposed action is to the slopes to the east and includes the 0.15 acres of impacts to excessively steep slopes, and is associated with the construction of the proposed Phase 1 parking structure and the access driveway between the parking structure and Building 1. The proposed parking structure's location is constrained by the presence of wetlands to its immediate north, additional steep slopes to the south, and the proposed Building 1 to the west. The remainder of the proposed action including buildings and additional parking structures are to the northwest and west, thereby constraining the location of the Phase 1 parking structure and associated driveway to their proposed locations.

Comment 2-2

The 25 steep slope permit standards were noted. The applicant should document how the proposed action complies with each of these standards.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 2-2

§180-7.B. of the Steep Slope Protection Ordinance provides 25 review standards for requesting a steep slope permit.

How the proposed action complies with each of the standards of Section 180-7.B is discussed below.

(1) There is no reasonable alternative for the proposed regulated activity on that portion of the site not containing steep slopes;

The steep slope disturbance of 0.96 acres associated with the proposed action is to the slopes to the east, and is associated with the construction of the proposed Phase 1 parking structure and the access driveway between the parking structure and Building 1. The proposed parking structure's location is constrained by the presence of wetlands to its immediate north, additional steep slopes to the south, and the proposed Building 1 to the west. The remainder of the proposed action including buildings and additional parking structures are to the northwest and west, thereby constraining the location of the Phase 1 parking structure and associated driveway to their proposed locations.

(2) The planning, design and development of buildings and site improvements limits the rate of stormwater runoff to a zero increase with overflow to a municipal drain system where practicable and provides the maximum in structural safety, slope stability, and human enjoyment while adapting the affected site to, and taking advantage of, the best use of the natural terrain and aesthetic character;

The site has been designed so there is a zero increase in the rate of stormwater runoff post-redevelopment, and will outflow to the existing site drainage system. The design provides the maximum in structural safety and slope stability, and provides for human enjoyment throughout the property, which provides an abundance of aesthetic terrain.

(3) The terracing of building sites is kept to a minimum;

No terracing of buildings is proposed.

(4) Roads and driveways follow the natural topography to the greatest extent possible in order to minimize the potential for erosion, and they are consistent with other applicable regulations of the Town of Mount Pleasant and current engineering practices;

The proposed plan takes advantage of the best use of the natural terrain by locating the proposed roads/driveways to follow the natural topography to the greatest extent possible. Temporary erosion controls (silt fencing, etc.) and permanent erosion controls (engineered slopes, lawn, etc.) have been implemented through the development to minimize potential erosion.

(5) Habitat is quantified and protected, no endangered species of flora or fauna are adversely impacted and any replanting shall be maintained by the applicant for two years and shall consist of indigenous vegetation that at a minimum replicates the original vegetation on the site, in kind;

Wildlife habitat has been quantified in the DEIS. The natural habitat will be afforded protection by primarily developing in an area of the site that is presently developed. Any plantings installed by the applicant will be indigenous to replicate original vegetation and be maintained by the applicant in perpetuity because they will be elements of the approved site plan, as well as mitigation measures. If they should become damaged, diseased, or die, they will be replaced in-kind.

(6) The natural elevations and vegetative cover of ridgelines are disturbed only if the crest of a ridge and the tree line at the ridge remain uninterrupted. This will be accomplished either by positioning buildings and areas of disturbance below a ridgeline or by positioning buildings and areas of disturbance at a ridgeline so that the elevation of the roofline of the building is no greater than the elevation of the natural tree line, so long as

no more than 100 feet along the ridgeline, to a width of 100 feet generally centered on the ridgeline, is disturbed;

No ridgelines are to be impacted by the proposed action.

(7) Any regrading blends in with the natural contours and undulations of the land;

The Grading Plans depicts regrading that will generally blend in with the natural contours and undulations of the land. Some retaining wall are proposed in areas of the redevelopment where such are necessary to accomplish the site design, such as adjacent to the slope to the southeast, and along the westerly portions of the redevelopment.

(8) Cuts and fills are rounded off to eliminate sharp angles at the top, bottom, and sides of regraded slopes;

As shown on the Grading Plans, the "cuts and fills" indicated by proposed contour lines for regrading the land for the roadway/driveway and parking structure are rounded so as to eliminate sharp angles at the top, bottom and sides of regraded slopes.

(9) The angle of cut and fill slopes does not exceed a slope of one vertical to two horizontal, except where retaining walls, structural stabilization, or other methods acceptable to the Town Engineer are used;

As shown on the Grading Plans, the slopes indicated by proposed contour lines do not exceed a slope of one vertical to two horizontal, except where retaining walls are proposed.

(10) Tops and bottoms of cut and fill slopes are set back from the structures an adequate distance to ensure the safety of the structures in the event of the collapse of the cut or fill slopes. Generally, such distance is six feet plus 1/2 the height of the cut or fill;

In following accepted engineering design practices, cut and fill slopes will be set back a sufficient distance from structures to ensure the safety of the structures.

(11) Disturbance of rock outcrops is by means of explosives only if labor and machines are not effective and only if rock blasting is conducted in accordance with all applicable regulations of the Town of Mount Pleasant and the State of New York. The rock shall be effectively stabilized;

The bedrock on the site is generally more than 6 feet below grade. However, some bedrock may be expected to be encountered during construction activities. Any moderately fractured mica schist bedrock can be removed using conventional excavation equipment. Blasting would be required to remove areas of less weathered, harder rock. However, no blasting has been required to be utilized for the recent construction of the buildings approved under the 2013 Amended Site Plan, although some rock was encountered. The encountered rock was removed with non-blast techniques such as the use of heavy construction equipment and rock ripping. As such, although blasting may be a possibility, it has not been necessary to-date to blast on the site, and therefore it may not be necessary to blast in the future with the construction work associated with the proposed action.

Should blasting be required, a blasting plan would be prepared for review and approval by the Town, and any permits from local or state authorities would be obtained for the blasting work itself and the transportation of explosives to the Site. The plan would specify that blasting be conducted in strict conformance with all applicable rules and regulations to ensure the public safety, and that rock is to be stabilized.

(12) Disturbance of slopes is undertaken in workable units in which the disturbance can be completed and stabilized in one construction season so that areas are not left bare and exposed during the period from December 15 through April 1st;

In accordance with the NYSDEC's final Stormwater Permit, the project's approved SWPPP by the Town of Mt. Pleasant Engineering Department, and the requirements of the Town's Steep Slope Ordinance, the proposed plans will conform to this requirement as applicable.

(13) Disturbance of existing vegetative ground cover does not take place more than 15 days prior to grading and construction;

Existing vegetative ground cover within the limits of the planned disturbance will not be disturbed more than 15 days prior to grading and construction operations.

(14) Temporary soil stabilization, including, if appropriate, temporary stabilization measures such as netting or mulching to secure soil during the grow-in period, is applied to an area of disturbance within two days of establishing the final grade, and permanent stabilization is applied within 15 days of establishing the final grade;

An approved Erosion and Sediment Control Plan will be implemented in connection with any site construction and necessary disturbance to the site. The plan includes temporary best management practices, such as netting, mulching, mats, etc. as is necessary to stabilize soils and slopes during and immediately after construction, prior to the establishment of permanent stabilization by turf and landscape.

(15) Soil stabilization is applied within two days of disturbance if the final grade is not expected to be established within 60 days;

The approved SWPPP and plans will conform to this requirement.

(16) Measures for the control of erosion and sedimentation are undertaken consistent with the Westchester County Soil and Water Conservation District's "Best Management Practices Manual for Erosion and Sediment Control," and the New York State Department of Environmental Conservation's "Guidelines for Urban Erosion and Sediment Control," as amended, or its equivalent satisfactory to the Planning Board;

The approved SWPPP and plans will conform to this requirement.

(17) All proposed disturbance of slopes is undertaken with consideration of the soils limitations characteristics contained in the latest Identification Legend, Westchester County Soils Survey, as prepared by the Westchester County Soil and Water Conservation District, in terms of recognition of limitation of soils on slopes for development and application of all mitigating measures, and as deemed necessary by the Town Engineer;

The slopes that are proposed to be disturbed consist of Charlton loam (ChB and ChC) according to the Westchester County Soils Survey. The slope disturbances will be undertaken with considerations of the limitations of the Charlton loam soils. The Charlton series consists of very deep, well drained soils on the sides and tops of glaciated hill. They have no major development limitations other than how the slope affects the proposed use, which in this case will be engineered so that the proposed Phase 1 parking structure and the access driveway between the parking structure and Building 1 will be situated on a flat ground surface. Proposed slope disturbances will conform to all mitigating measures as may be required by the Town Engineer.

(18) Topsoil is removed from all areas of disturbance, stockpiled and stabilized in a manner to minimize erosion and sedimentation, and replaced elsewhere on the site at the time of final grading;

The approved SWPPP and plans will conform to these requirements for soil stockpiling and stabilization, for soil replacement at the time of final grading.

(19) Topsoil stockpiling is not permitted on slopes of greater than 10%;

The approved SWPPP and plans will conform to this requirement.

(20) Compaction of fill materials in fill areas is such to ensure support of proposed structures

and stabilization for intended uses;

The proposed plans will conform to this requirement.

(21) Structures are designed to fit into the hillside rather than altering the hillside to fit the structure, employing methods such as reduced footprint design, step-down structures, stilt houses, and minimization of grading outside the building footprint;

The proposed parking structure is sited into the base of the hillside to minimize grading at its rear, preserving the remaining existing slopes up to NY Route 9A.

(22) Development is sited on that portion of the site least likely to impact the natural landforms, geological features, and vegetation;

The majority of the proposed development is situated on portions of the property that are already developed.

(23) The applicant has provided landscaping plans for after-development;

Landscaping plans for each of the 4 proposed phases of the development have been provided as part of the SDEIS.

(24) The development conforms with the requirements set forth in Chapter 218, Zoning, of the Code of the Town of Mount Pleasant;

The proposed redevelopment is substantially in compliance with the existing OB-5 zoning district requirements with the exception of two variances that will be requested from the Zoning Board of Appeals (ZBA). These two variances are the same as two of the variances requested from the ZBA associated with the 2013 Amended Site Plan, and granted on June 13, 2013. These variances are:

- ***A reduction by two-feet of the required parking stall depth from 20 feet to 18 feet; and***

- ***A story variance limited for the exclusive purpose of the proposed enclosed mechanical equipment located on the penthouse of the proposed buildings.***

(25) The construction equipment has adequate access so as not to disturb anything outside the approved limit of disturbance that shall be shown on the plan drawings and, when approved, staked in the field.

Construction access will be off of the existing access off of Saw Mill River Road, and will remain within the approved limit of disturbance.

Comment 2-3

It is noted that "the soils on the property are the same as studied under the 2011 Master Plan." It is understood that fill was imported to accommodate the recently constructed Regeneron building. This fill represents a change, and its extent and composition should be identified.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 2-3

It is very likely that fill will be imported to accommodate the proposed grades. The fill may be imported from the nearby NYCDEP property similar to the previously construction Regeneron Buildings on the site. The fill was rigorously tested and monitored by the project geotechnical engineer to confirm compatibility and quality. Any fill for the current application will be treated in the same way.

Comment 2-4

Provide a summary of the soil impacts, rather than simply referring back to the DEIS for the

2011 Master Plan.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 2-4

The soils proposed to be disturbed are Udorthents, wet substratum (Ub), Urban land (Uf), or Charlton loam (CjhB and ChC). The proposed project mainly covers areas that already contain alterations and/or development, within areas of Udorthents, smoothed, and Urban land. Areas of Udorthents, smoothed, and/or Urban land may consist of a variety of soils and possibly other materials. However, these areas are likely suitable for the proposed project, since these areas have already been altered or developed in the past. Charlton soils are generally suitable for development, as discussed in Response 2-2 (17).

Comment 2-5

Provide an estimate of the number of truck trips required to import the 46,000 cubic yards of fill, as well as the length of time required for this activity.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 2-5

Assuming 20-yard capacity haul trucks, approximately 2,300 truck-equivalents will be required to bring in the estimated 46,000 cubic yards of fill material required from off-site. The estimated quantity of fill is for the entire 4-phase project, and thus fill will be imported during each phase of construction as it needed, and not all at once at the beginning of the project. Therefore the length of time to complete this activity will be variable depending upon the construction phasing schedule, but is anticipated to take no longer than 2-3 months for each phase.

The number of truck trips is estimated to be approximately 7-8 trips to the site per hour for the time period noted above. This compares to the NYCDEP's UV at Eastview project's rate of 24 one-way trucks per hour, over a period of four months, for a total of approximately17,600 one-way truck trips, significantly higher than the 2,300 truck-equivalents estimated for the subject project. The NYCDEP's trucks hauled their material to a NYCDEP site adjacent to the Kensico Reservoir, a significantly greater distance than the Eastview NYCDEP site, the anticipated source of the fill material, to the Landmark site. The applicant will also only be utilizing NY Route 9A, a State road. The applicant does not see the need to incorporate the various mitigation measures proposed by the NYCDEP due to the differing circumstances and needs of the project. The applicant is willing to restrict trucks transporting fill material to the hours between 9:00 AM to 3:00 PM if desired by the Town.

Comment 2-6

The erosion and sediment controls specifically required for this action should be described.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 2-6

The erosion and sediment controls for this action are described below, and in the Stormwater Pollution Prevention Plan (SWPPP) contained in Appendix E of the SDEIS.

An Erosion and Sediment Control Management Program will be established for the proposed development, beginning at the start of construction and continuing throughout its course, as outlined in the "New York State Standards and Specifications for Erosion and Sediment Control," dated August 2005. A continuing maintenance program will be implemented for the control of sediment transport and erosion control after construction and throughout the useful life of the project.

The Operator (Property Owner) will have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify that the appropriate erosion and sediment controls, as shown on the Sediment & Erosion Control Plans, have been adequately installed to ensure overall preparedness of the site for the commencement of construction. In addition, the Operator will have a qualified professional conduct one site inspection at least every seven calendar days and at least two site inspections every seven calendar days when greater than five acres of soil is disturbed at any one time.

Prior to the commencement of construction activity, the owner or operator will identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The owner or operator will have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person will be known as the trained contractor. The owner or operator will ensure that at least one trained contractor is on site on a daily basis when soil disturbance activities are being performed. The owner or operator will have each of the contractors and subcontractors identified above sign a copy of the Contractor's Certification statement to be provided before they commence any construction activity.

A qualified professional acceptable to the Town will be hired by the owner or operator to monitor the installation and maintenance of the sediment and erosion control plans. The qualified professional will report directly to the Town Engineer and be responsible for ensuring compliance with the design of the sediment and erosion control plans.

The qualified professional so hired will inspect all sediment and erosion control measures at least every seven calendar days. In the event that there has been a variance with the design of the sediment and erosion control measures so that the ability of the measures to adequately perform the intended function is lessened or compromised and/or the facilities

are not adequately maintained, the qualified professional will be required to report such variance to the Engineering Consultant within 48 hours and will be empowered to order immediate repairs to the sediment and erosion control measures.

The qualified professional will also be responsible for observing the adequacy of the vegetation growth (trees, shrubs, groundcovers and turf grasses) in newly graded areas and for ordering additional plantings in the event that the established plant materials do not adequately protect the ground surface from erosion.

Construction will be conducted in accordance with the NYSDEC SPDES General Permit, however there will be points during construction when the area of disturbance is greater than 5 acres in size. The Town Engineer must approve the request to authorize the disturbance of greater than five (5) acres of soil at any one time. The owner or operator must receive permission from the Town of Mount Pleasant, as the designated MS4, for the disturbance of greater than five (5) acres of land at a given time. At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

- ***The owner or operator will have a qualified inspector conduct at least two (2) site inspections in every seven (7) calendar days, for as long as greater than 5 acres of soil remain disturbed. When performing just two (2) inspections every seven (7) calendar days, the inspections will be separated by a minimum of two (2) full calendar days.***

- ***In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures will be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected will be in conformance with the most current version of the technical standard, New York Standards and Specifications for Erosion and Sediment Control.***

The owner/operator will retain a copy of the NOI, NOI Acknowledgement Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves final stabilization. The completed Construction Inspection Checklists and Maintenance Inspection Checklists within Appendix J of the SWPPP must be retained.

<u>Temporary Erosion and Sediment Control Measures</u>
Temporary control measures and facilities will include silt fences, interceptor swales, stabilized construction entrances, temporary seeding, mulching and sediment traps with temporary riser and anti-vortex devices.

Throughout the construction of the proposed project, temporary control facilities will be implemented to control on-site erosion and sediment transfer. Interceptor swales, if required, will be used to direct stormwater runoff to temporary sediment traps for settlement. The sediment traps will be constructed as part of this project will serve as temporary sediment basins to remove sediment and pollutants from the stormwater runoff produced during construction.

Descriptions of the temporary sediment & erosion controls that will be used during the development of the site including silt fence, stabilized construction entrance, seeding, mulching and inlet protection are as follows:

1. ***<u>Silt Fence</u> is constructed using a geotextile fabric. The fence will be either 18 inches or 30 inches high. The height of the fence can be increased in the event of placing these devices on uncompacted fills or extremely loose undisturbed soils. The fences will not be placed in areas which receive concentrated flows such as ditches, swales and channels nor will the filter fabric material be placed across the entrance to pipes, culverts, spillway structures, sediment traps or basins.***

2. ***<u>Stabilized Construction Entrance</u> consists of AASHTO No. 1 rock. The rock entrance will be a minimum of 50 feet in length by 20 feet in width by 8 inches in depth.***

3. ***Seeding** will be used to create a vegetative surface to stabilize disturbed earth until at least 70% of the disturbed area has a perennial vegetative cover. This amount is required to adequately function as a sediment and erosion control facility. Grass lining will also be used to line temporary channels and the surrounding disturbed areas.*

4. ***Mulching** is used as an anchor for seeding and disturbed areas to reduce soil loss due to storm events. These areas will be mulched with straw at a rate of 3 tons per acre such that the mulch forms a continuous blanket. Mulch must be placed after seeding or within 48 hours after seeding is completed.*

5. ***Inlet Protection** will be provided for all stormwater basins and inlets with the use of curb & gutter inlet protection and stone & block inlet protection structures, which will keep silt, sediment and construction debris out of the storm system. Existing structures within existing paved areas will be protected using "Silt Sacks" inside the structures.*

6. ***Erosion Control Matting** will be utilized on slopes and within swales, where applicable, to provide stabilization in advance of vegetation being established. Such matting will be biodegradable to facilitate long term growth of vegetation in swales, on slopes and within stormwater management facilities.*

7. ***Sediments Traps** will be used with the permanent SMP's until their contributing areas drainage are stabilized. Once stabilized, the temporary risers will be removed and final grading/planting of the basins will be completed for permanent use as Stormwater Management basins.*

8. ***Temporary Riser and Anti-Vortex Devices**- are placed at the bottom of the temporary sediment basins where they intercept and collect debris and litter from the pond before they can enter the off-site storm drainage system.*

9. ***Stone Check Dams** are small barriers of crushed stone which will be laid across the grass swales which are approximately 12 inches high, located every one foot of elevation*

change along the swales so that the crest elevation of the downstream dam is at the same elevation of the toe of the upstream dam.

The contractor will be responsible for maintaining the temporary sediment and erosion control measures throughout construction. This maintenance will include, but not be limited to, the following tasks:

1. ***For dust control purposes, moisten all exposed graded areas with water at least twice a day in those areas where soil is exposed and cannot be planted with a temporary cover due to construction operations or the season (December through March).***

2. ***Inspection of erosion and sediment control measures will be performed at the end of each construction day and immediately following each rainfall event. All required repairs will be immediately executed by the contractor.***

3. ***Sediment deposits will be removed when they reach approximately ⅓ the height of the silt fence. All such sediment will be properly disposed of in fill areas on the site, as directed by the Owner's Field Representative. Fill will be protected following disposal with mulch, temporary and/or permanent vegetation and be completely circumscribed on the downhill side by silt fence.***

4. ***Rake all exposed areas parallel to the slope during earthwork operations.***

5. ***Following final grading, the disturbed area will be stabilized with a permanent surface treatment (i.e. turf grass, pavement or sidewalk). During rough grading, areas which are not to be disturbed for fourteen or more days will be stabilized with the temporary seed mixture, as defined on the plans. Seed all piles of dirt in exposed soil areas that will not receive a permanent surface treatment.***

<u>Permanent Control Measures and Facilities for Long Term Protection</u>

Towards the completion of construction, permanent sediment and erosion control measures

will be developed for long term erosion protection. The following permanent control measures and facilities have been proposed to be implemented for the project:

1. ***<u>Vegetated Swales</u> will function to provide additional treatment of stormwater runoff by removal of pollutants and will promote a reduction of peak flows and provide runoff infiltration.***

2. ***<u>Infiltration Basins</u> will be used to treat the runoff volume generated from the developed area and provide improvement to water quality control. The proposed basins will provide water quality for 90% of the average annual stormwater runoff volume. The water quality volume will be retained and higher storms will be released gradually.***

3. ***<u>Catch Basins</u> will be used to remove some of the coarse sand and grit sediment before entering the drainage system. Each catch basin will be constructed with an 18 inch deep sump.***

4. ***<u>Seeding</u> of at least 70% perennial vegetative cover will be used to produce a permanent uniform erosion resistant surface. The seeded areas will be mulched with straw at a rate of 3 tons per acre such that the mulch forms a continuous blanket.***

5. ***<u>CDS Water Quality Structures</u> must provide water quality treatment for the water quality volume in accordance with the requirements of the New York State Department of Conservation (NYSDEC). The CDS Water Quality Structures have been designed to treat up to the required water quality volume and appropriately handle all storm frequencies without the resuspension of solids. The system will provide 80% TSS removal rate for particles having a mean particle size of 125 microns for stormwater runoff. The treated stormwater will then be discharged into the subsurface retention systems.***

6. ***<u>Stormwater Planters</u> are proposed at various locations around the proposed buildings to collect and infiltrate runoff from portions of the building rooftops. Small drainage areas, less than 15,000 square feet will be collected by gutters and roof drain leaders***

and discharged into stormwater planters that will infiltrate the smaller storms and then discharge the higher storms through risers/standpipes directly into the underground storm pipes to the proposed stormwater management basins. Stormwater Planters act as small basins that treat stormwater as it flows through plant material and a soil matrix and is discharged to the storm drain system. These practices are elevated above the existing grade, surrounded by a concrete wall and consist of a reservoir with a depth of 12 inches, grass/landscaping with a layer of mulch, 12 inches of sandy loam topsoil and a sand/gravel layer a minimum of 24 inches wide that extends down to the native soil. Infiltration through these layers will enable removal of pollutants and sediment generated by the rooftop and other small impervious areas.

7. ***<u>Infiltration Systems</u> which are a standard SMP that will be used to treat the runoff volume generated from a portion of the developed area and provide additional water quality and runoff volume reduction. The smaller storms will be retained and the higher storms will be released gradually.***

   The StormTech MC-3500 Recharge Chambers are domed shaped fully opened bottom corrugated chambers with perforated side walls. Chambers allow stormwater to be stored within the dome void until it can infiltrate into the ground. They are able to be used for residential, commercial or industrial applications and provide an easy way to treat and dispose of stormwater runoff underground. Water is infiltrated into the ground through the chambers and surrounding crushed stone and will replenish the groundwater as a natural condition.

   The Isolator Row is a row of StormTech chambers that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as stormwater rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls allow stormwater to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage access of the adjacent stone and chambers from sediment accumulation.

The Isolator Row is designed to capture the "first flush" and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but includes a high flow weir such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other standard chambers. By treating stormwater prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured.

8. ***<u>Rip-Rap Energy Dissipaters</u> At discharge points from the stormwater drainage system into the stormwater management basins, rip-rap pads consisting of angular rocks will be placed to dissipate velocity and reduce the risk of erosion. The rip-rap pads will be 10 feet wide by 10 feet long.***

9. ***<u>Bioretention Basins</u> are a shallow depression that treats stormwater as it flows through a soil matrix, and is returned to the storm drain system. This practice will consist of a stone diaphragm, grass strip at 2% slope and a layer of mulch, which will enable removal of pollutants and sediment generated by the parking areas.***

3. Flora and Fauna

Comment 3-1

A narrative description of the Conceptual Landscaping Plan should be provided.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 3-1

As stated in the SDEIS, the property will be landscaped with decorative plantings consistent with the existing landscaping on the overall Landmark property. A detailed landscaping plan will be prepared after the EIS is completed. The Conceptual Landscape Plan proposes a mix of native and non-invasive species, and include shade and evergreen trees, ornamental flowering trees, shrubs and groundcovers/grasses, offering a range of heights and textures. All will be selected to be appropriate for the climate and the site conditions. As discussed in the SDEIS, landscaping will be installed as part of each of the project's 4 phases, so that as each phase is completed it will be appropriately landscaped in accordance with the approved Site Plan for that specific phase.

Comment 3-2

Quantify the increase/decrease in (1) tree removal and (2) existing site vegetation from that shown on the current Amended Site Plan Approval.

(Email of comments made by Mr. Steven Kavee at Public Hearing, February 4, 2016)

Response 3-2

The Amended Site Plan Approval proposed no change from the 2011 Master Plan to the portion of the site of the current proposed action.

However, as noted in the SDEIS, the proposed action is slightly above the disturbance footprint of the 2011 Master Plan (Figure I.A-14), with a 4% increase in the disturbance area compared with the 2011 Master Plan (37.39 acres versus 35.87 acres), and a 7% increase if the landbanked parking of Phase 2 is constructed (38.39 acres versus 35.87 acres).

Because individual trees were not surveyed, there is no quantitative measure of the number of trees removed for the 2011 Master Plan compared with the proposed action. However, if the landbanked parking is not constructed, trees on that portion of the hillside adjacent to NY Route 9 will be preserved versus the 2011 Master Plan (Figure I.A-14). Based on an informal evaluation of the area, it is estimated that approximately 35-40 trees are so situated, consisting of box elder, black cherry, tulip, sycamore, and Norway maple, with tree sizes generally on the order of 10 inches diameter and up, with one box elder tree having a 30 inch diameter, the largest tree observed. Other proposed vegetative removal is primarily to existing developed portions of the property, where landscaping that is present will be removed and replaced in conformance with the design of the proposed action.

Parenthetically, for the proposed action, parking structures are proposed to replace large surface parking fields to limit the area of disturbance and impervious area.

Comment 3-3

Will BMR consider aiding in efforts to restore the adjoining, off-site Saw Mill River; work with Saw Mill River Coalition invasive species and vine removal and introduction of native plant species?

(Email of comments made by Mr. Steven Kavee at Public Hearing, February 4, 2016)

Response 3-3

Legally the applicant does not believe it can officially engage in environmental restoration work outside of any such work related to the proposed action, given the sensitive nature of work restoring the river and related wetlands. The applicant of course has no objection to its employees volunteering for restoration work on their own time when they are not at work, and their volunteer activities are not associated with their employment at BMR.

4. Wetland and Surface Water Resources

Comment 4-1

Are modifications to the parking lot or associated access driveway possible that would allow for the 0.17 acre of wetland buffer impact to be avoided?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 4-1

Modifications to the parking structure and access roadway are possible but the parking structure would need to extend north to compensate for lost spaces. It is not desirable to construct the parking structure toward the north more than currently proposed since a recreational area with tennis courts and lawn is planned for this area and fits well within the area.

5. Stormwater Management

Comment 5-1

Stormwater and flooding impacts to the Saw Mill River. The additional development on the site will increase impervious surfaces. The draft SEIS documents how stormwater runoff will be treated and retained so as to not increase the peak rate of runoff from the site during storm events over predevelopment conditions. While this is appropriate, we encourage the Town and applicant to do as much as possible to reduce stormwater runoff from the site because flooding continues to be a problem at several downstream locations along the Saw Mill River.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 5-1

Proposed stormwater management practices will account for the increase in impervious area from existing conditions and decrease runoff rates to the Saw Mill River. The SWPPP developed for the project will demonstrate all requirements will be met.

Comment 5-2

Since parking is proposed to be structured, one measure that could be considered to reduce runoff could be the construction of a green roof above the parking. This would provide a level of protection to vehicles parked in the garage, as well as make the garage a model of sustainable development. We also recommend consideration of permeable paving surfaces in lower traffic areas.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 5-2

Although green roofs are not proposed for the parking structures, instead solar panels will be installed, and façade integrated vegetation is proposed on the parking structure façades.

Permeable pavers are not being considered for the redevelopment, because the proposed stormwater management "green" practices are sufficient to conform to NYSDEC requirements without their use. These green practices include infiltration of stormwater to help capture/reduce stormwater run-off, and implementation of stormwater quality measures to improve the water quality of stormwater that leaves the site via the stormwater infrastructure.

6. Sanitary Sewage and Water Supply

Comment 6-1

The increased water demand and wastewater discharges from the property shall be considered based on the net new building increase of 382,030 square feet and not solely on the additional square footage above the approved 2011 Master Plan. The subsequent reduced wastewater flows shall be calculated based on this amount. The Engineering Department will work with the applicant to determine the costs associated with completing these improvements.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 6-1

As discussed in the SDEIS, the 2011 Master Plan provided a water demand rate of approximately 0.126 gallons per day per square foot, and this remains the rate for the proposed action. Utilizing the net new building increase of 382,030 square feet yields an additional demand of approximately 48,136 gallons per day (gpd). Additional wastewater flow would therefore be the same.

Westchester County typically requires that where sanitary mains are being extended, a 3:1 mitigation ratio be provided for reduction of infiltration and inflow (I&I), to reduce existing flows of groundwater and/or surface water in an effort to ensure that the Yonkers Joint Wastewater Treatment Plant will continue to operate within its treatment capacity. However, this project does not propose a sanitary main extension, and to-date no correspondence has been received from Westchester County recommending such an I&I reduction. With additional projected flows being approximately 48,136 gpd, mitigating reduced flows would therefore be approximately 144,408 gpd. As noted in the comment above, the Town has requested such I&I reduction and will work with the applicant to determine the costs associated with completing the improvements that the Town wishes the

applicant to complete. Whether or not the mitigation is provided is up to the Town, and not in this case Westchester County.

Examples of I&I improvements might be repairing leaking manholes, installing water tight manhole covers, and/or repairing pipes with groundwater infiltration.

Comment 6-2

The Town is requesting an analysis of the water demands and potential impacts associated with the new net building square footage water usage in relationship to existing demands to verify adequate supply is available.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 6-2

JMC discussed with the Town Engineer and it is recommended that the Town request the applicant set up an escrow account for the Town to hire the previous engineering consultant that studied the Town's water system. The study should be completed prior to issuance of a building permit for Phase 1. The applicant will make any reasonable and practicable improvements to the water system as determined to be required by the Town's consultant. Depending on the results of the study, the applicant may reserve the right to install the required improvements on a phase by phase basis as needed.

Comment 6-3

County sewer impacts. The draft SEIS notes that increased sewer flows from the site would be offset by inflow and infiltration (I&I) mitigation performed at a rate of 3:1. We recommend that the Town review the work to be implemented with the County Department of

Environmental Facilities.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 6-3

Comment noted.

Comment 6-4

Verification is required from the Town to establish if the additional 26,550 gpd of water usage can be accommodated.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 6-4

See Response 6-2.

Comment 6-5

The proposed I&I improvements should be more fully described, or a more specific commitment by the applicant should be documented, to assure that the 79,650 gpd mitigation will be achieved.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 6-5

See Response 6-2.

7. Other Utilities

Comment 7-1

More fully explain the solar photovoltaics proposed for the parking structure roofs. How much electricity is anticipated to be generated? What percentage of overall electricity would be generated? Will this electricity be used exclusively at the Site, or returned back to the grid?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 7-1

The specifics of this strategy have not been developed to give exact quantities at this time.

8. Traffic

Comment 8-1

The applicant appears to have included BMR's new building on the Town of Greenburgh's portion of the Landmark in the existing traffic volume analysis. What is the status of this project? If this project has not significantly advanced beyond site approval, then these volumes should be considered under the buildout portion of the traffic analysis and not counted under the existing condition.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 8-1

The construction of the new building on the Town of Greenburgh's portion of the Landmark property is anticipated to start at the end of 2016. The volumes associated with the building were included in the Other Development Volumes.

Comment 8-2

The intersection queues are requested to be analyzed using Trafficware's Synchro/Sim Traffic analysis software to determine the anticipated queueing distances and their impacts associated with the traffic volumes changes.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 8-2

Intersection queuing analysis have been provided in tabular format on Tables F-1 and F-2 within Appendix F. The tables show 50% (average) and 95% queues during the peak 15 minutes within each peak hour, as well as the available storage lengths for turn lanes and

between intersections. In general, the projected queues can be accommodated within their available storage lengths.

Comment 8-3

A traffic signal warrant should be conducted at the intersection of Old Saw Mill River Road and Grasslands Road utilizing the anticipated increased volumes. In regard to monitoring of this intersection during the project, how will funding be secured if a traffic signal is found to be warranted during the project? This work will also require permits outside of the Town's control should a new signal be warranted after site plan approval is granted.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 8-3

A traffic signal warrant analysis is summarized on Table F-3 located in Appendix F for the intersection of Old Saw Mill River Road and Grasslands Road (Route 100C). The eight hour warrants typically utilized by NYSDOT are not met for existing conditions, yet will be met based on the full buildout at the intersection of Old Saw Mill River Road and Grasslands Road (Route 100C).

Consistent with the 2011 Findings Statement, the applicant shall hire a licensed traffic engineer to monitor the intersection of Old Saw Mill River Road and Grasslands Road (Route 100C) to determine if and when traffic signals shall be installed. Monitoring shall take place prior to the commencement of construction and subsequent to the completion of each phase of development. The monitor shall submit written reports to the NYSDOT, Town of Mount Pleasant, and Westchester County DPW evaluating traffic conditions relative to traffic signal warrant criteria. The applicant would be responsible for funding the proportional cost of the required traffic improvements. Other projects which may contribute to the proportional cost, depending on the timing of construction, include the 'Parcel D' lab building approved but not yet constructed within the Greenburgh portion of

the BMR property, and/or the 100+ acre property adjacent to the BMR property which was recently purchased by Regeneron.

Comment 8-4

A table listing the improvements & ownership of the future infrastructure shall be included in the study and on the plans. Old Saw Mill River Road is partially under jurisdiction of Westchester County and the Town of Greenburgh, with the State controlling the ramps/signals to SMRP. As such the Town of Mount Pleasant would not be assuming control of any new traffic signals or roadways. These features will be required to be accepted by the agencies in control of the infrastructure along Old Saw Mill River Road.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 8-4

The Town of Greenburgh has jurisdiction along the southernmost lane of Old Saw Mill River Road, as well as the traffic signal at the western site access Driveway A. WCDPW has jurisdiction regarding the remaining three through lanes and turn lanes along Old Saw Mill River Road. The Town of Mount Pleasant will not be requested to assume control of any new signals or roadways.

Comment 8-5

In reference to comment #8-4 above, the Vehicle & Traffic law shall be reviewed for the steps required to successfully legalize the traffic controls for the any new signals for a split controlled intersection between Westchester County and Town of Greenburgh.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 8-5

Since the existing traffic signal at Driveway A is under the jurisdiction of the Town of Greenburgh, the applicant contacted the Town of Greenburgh and confirmed that the Town of Greenburgh will have jurisdiction of the proposed traffic signal at Driveway D, which was approved by the Town of Greenburgh in association with the Parcel D building in Greenburgh that is expected to be constructed in late 2016.

Comment 8-6

Any increase in population does affect our ability to carry out our mission as an organization. We have an average of 33 thousand calls for service and average about one arrest per day. We would expect increased traffic to the area roads and our ability to conduct selective enforcement is diminished due to our decreased numbers. In addition, we would expect an increase in the calls for service to the area based on the amount of persons at the location. We have used license plate reader cameras to augment our investigative capabilities at other areas in Town. Perhaps this type of equipment would mitigate some of the resources needed to thoroughly investigate any crimes occurring at or near the facility.

(Letter from Chief Paul Oliva, Mount Pleasant Police Department, dated January 13, 2016)

Response 8-6

The applicant will take this comment into consideration as the project phases are constructed. Because the proposed action is not a residential project, it is not adding a permanent population to the Town of Mount Pleasant. Rather, employees will be commuting to the campus for the work day from all over Westchester and NYC. Other than potential traffic accidents and/or violations, the impact is anticipated to be minimal on the local Police Department as the police have rarely been called to the Landmark Campus. An email has been sent to the Chief of Police inquiring about the number of calls that

Landmark currently generates (Appendix G). The employees on the site are well educated scientists and professionals, not particularly likely to require police assistance.

Comment 8-7

County road impacts. Old Saw Mill River Road is a County Road (CR 303) in the westbound direction only. The proposed development will affect the operation and maintenance of the roadway. Approval of this work from the Westchester County Department of Public Works and Transportation under Section 239-F of the General Municipal Law is required. Pertinent drainage, utility, erosion control and curb cut details need to be provided at the time of Section 239 F-submittal. The roadway improvements must also be designed in accordance with current County, State and AASHTO standards.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 8-7

The applicant will coordinate with WCDPW pertaining to future improvements and recently implemented improvements under County permits.

Comment 8-8

In addition, the Towns of Greenburgh and Mount Pleasant must concur with the installation of the proposed traffic signal at Driveway D and Old Saw Mill River Road and agree on the maintenance responsibility. We note that the potential signal at the NYS Route 100C and NYS Route 9A ramp would be on NYS roads. We recommend that all signals in the corridor (including the signal at the Con Edison driveway) be coordinated, interconnected and potentially outfitted with communications for connected [connection] to a closed loop signal

system with adaptive signal control.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 8-8

The Town of Greenburgh previously approved the installation of a traffic signal at the eastern Driveway D in association with the Parcel D building to be constructed in the Greenburgh portion of the BMR property, and the Town of Greenburgh will have jurisdiction of the signal at Driveway D. The applicant agrees to discuss the coordination of the traffic signals with the NYSDOT and the Town of Greenburgh.

Comment 8-9

Bee-Line bus impacts. The site is currently served by County Bee-Line bus route 27. We recommend the Town require the applicant to contact the County Department of Public Works and Transportation to discuss what impacts, if any, the proposed development will have on the provision of bus service in the area and whether or not improvements to the bus stops serving the site are required or desired.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 8-9

The applicant has contacted the Westchester County Department of Public Works and Transportation (WCDPWT) who offered two recommendations for consideration relating to impacts to the County Bee-Line bus.

The first recommendation states "Installation of at-grade pedestrian amenities across Saw Mill River Road to improve access from the site of the proposed new buildings to existing bus stop #4254." The site currently provides an elevated pedestrian bridge over Old Saw Mill River Road for pedestrian access to the existing bus stop which will provide access to the proposed buildings. Additionally, there is a signalized pedestrian crossing at the intersection of Old Saw Mill River Road and Driveway 'A' which allows pedestrians to cross Old Saw Mill River Road under traffic control. A sidewalk is proposed along the south side of Old Saw Mill River Road as part of another application connecting the pedestrian crossing to the existing bus stop.

The other recommendation states "Reserving sufficient space in front of Building I or II for a potential future bus stop if the need arises." A space will be provided on the property adjacent to Building I or II, subject to site plan approval for potential future use by County buses.

Comment 8-10

Bicycle parking. We encourage the applicant to provide bicycle parking on the site. Providing bicycle parking can be a low cost way to promote this form of non-motorized transportation. The Landmark at Eastview campus is directly served by a trailway that connects to three other trailways-North County Trailway, South County Trailway and Tarrytown Lakes Trailway.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 8-10

The applicant currently provides bicycle racks in multiple locations on the campus as well as a locked bike storage room outside of the fitness center with locker room facilities. The existing 7,500 square foot fitness center facility is located on the south campus (Greenburgh

side) and contains shower and locker room facilities. Outside the fitness center in the adjacent bike room over 100 bikes can be accommodated in a key code-locked room.

Comment 8-11

Provide a narrative summary of the types and frequency of accidents.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-11

Our office requested and reviewed accident reports from the Town of Greenburgh and the Town of Mount Pleasant police departments for all studied intersections during a three year period from 10/2012 to 10/2015. The data from the accident reports have been provided in tabular format and are included within Appendix D of the SDEIS. The majority of accidents reported at the studied intersections were rear end accidents, with sideswipe accidents being the second most common. All studied intersections experienced an average number of accidents per year equal to or less than three. Based on the contributing factors, the studied intersection experienced accidents resulting primarily from operator error or distraction.

Comment 8-12

Describe (quantify) what is meant by "delivery vehicle traffic volumes are generally low."

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-12

Existing building 785 gets approximately 2 deliveries per week; buildings 769 and 771 get one daily delivery; building 795 gets approximately 6 deliveries per day which are staggered

and scheduled so that there is never a shortage of loading dock availability. It is anticipated that deliveries to the new buildings will similarly be scheduled.

Comment 8-13

Where is the Bee-line bus stop on the Landmark site? Only one stop?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-13

The bus stop is located beneath the Spine building spanning Old Saw Mill River Road.

Comment 8-14

Further define and quantify the statement that the "the existing parking supply on the Site currently exceeds the existing parking demand…" Is this true in all areas of the Site and for all buildings? Are vacant spaces more prevalent in certain areas of the Site? Do vacancies vary throughout the day, or do they remain constant?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-14

There is an overall surplus within the Mount Pleasant portion of the site. There is a substantial underutilized supply in the parking structure as well as the surface parking in the northeast portion of the site.

Comment 8-15

What are the traffic implications of the potential "North 60" development?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-15

To the applicant's knowledge, a traffic study has not been prepared for the development. It is expected that the traffic from the subject application will be included in the background/no-build volumes when a traffic study is prepared for the North 60 development.

Comment 8-16

Have *actual* operating conditions and trip generation rates observed at the site (including the Greenburgh side) indicate that the ITE trip generation rates are inaccurate? Would employing actual trip generation rates provide a more accurate traffic analysis?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-16

Existing traffic volumes were compared to vehicle trip information published by the Institute of Transportation Engineers (ITE) in its publication "Trip Generation Manual, 9th Edition" for the existing occupied square footage. The existing driveway volumes are generally less than the volumes projected by ITE. The re-occupied vacant space driveway volumes are calculated as the net increase in driveway volumes between the total constructed space square footage and the existing occupied square footage based on ITE data. The Phase 1 proposed net increase in driveway volumes are calculated as the net increase in driveway volumes between the total square footage at the completion of Phase 1

and the total constructed space square footage based on ITE data. The Phase 2, 3 and 4 proposed net increase in driveway volumes are calculated as the net increase in driveway volumes between the total square footage at the completion of each phase and the previously approved undeveloped square footage based on ITE data. The amenities building and connector building are not included within the total building square footage calculations. Table D-1 included in the SDEIS depicts the proposed development volumes by each phase.

Comment 8-17

What measures, if any, are proposed to improve, facilitate of expand pedestrian and bicycle access to the Site?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-17

Westchester County improved access to the site several years ago as part of the North County Trailway. A recreational path is proposed around the perimeter of the site, primarily for walking and jogging. There are existing locations for bicycle storage on the property and additional storage areas will be provided for the proposed buildings.

Comment 8-18

Address the significant delays and failing LOS at the Old Saw Mill River Road & Saw Mill River Parkway northbound exit ramp, Old Saw Mill River Road & Grasslands Road and Grasslands Road & Route 9A intersections during the weekday AM peak hour.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-18

The Saw Mill River Parkway northbound off-ramp currently operates at a level of service D and is projected to operate over capacity at a level of service F under each no-build scenario during the peak weekday AM hour. At this intersection as a Phase 1 improvement, traffic signal phasing and timing improvements are proposed which would reduce delays and associated queuing. Additionally as a Phase 3/4 improvement, the northbound off-ramp is proposed to be extended and widened to provide a separate left turn lane and dual right turn lanes. This Phase 3/4 improvement will provide additional capacity and minimize queuing. With the proposed improvements, the overall intersection with the northbound off-ramp is projected to operate at a level of service C with the off-ramp operating at a level of service D. The proposed improvements are depicted and mentioned on Figure IV.H-1.

The northbound left turn at the intersection of Old Saw Mill River Road and Grasslands Road currently operates over capacity at a level of service F. As mentioned in the SDEIS, this intersection is proposed to be monitored for a potential installation of a traffic signal, the need for which will depend on actual future volumes from the Site and other area traffic. Monitoring is proposed to be performed upon completion of each phase of the proposed development. See Response 8-3 for traffic signal warrant analysis at this intersection based on projected future volumes. Tables D-2 and D-3 included in the SDEIS depict the intersection operations for this intersection with a potential traffic signal which projects the northbound approach operating at a level of service D during the peak weekday AM and PM hours. The overall intersection is projected to operate at a level of service B with the potential traffic signal.

The northbound left turn at the intersection of Grasslands Road and Route 9A northbound ramp is currently operating under capacity at a level of service F and is to continue under each projected phase. The ramp has delays for the relatively low volume of vehicles exiting the Route 9A off-ramp. Most vehicles destined west turn left onto Old Saw Mill River Road at the Old Saw Mill River Road and Grasslands Road intersection, rather than from the Route 9A northbound ramp at this intersection. If the traffic signals are warranted at the

Old Saw Mill River Road and Grasslands Road (Route 100C) intersection, the applicant will be willing to pay its proportional cost of the potential traffic signal.

Comment 8-19

Address the significant delays and failing LOS at the Old Saw Mill River Road & Saw Mill River Parkway northbound exit ramp, Old Saw Mill River Road & Site Driveway C, Old Saw Mill River Road & Grasslands Road and Grasslands Road & Route 9A intersections during the weekday PM peak hour.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 8-19

The overall intersection of Old Saw Mill River Parkway and Saw Mill River Parkway northbound exit ramp currently operates at a level of service D and is projected to operate at a level of service F under each no-build scenario during the peak weekday PM hour. The westbound approach to this intersection currently operates at a level of service E and is projected to operate over capacity at a level of service F under each no-build scenario during the peak weekday PM hour. See Response 8-18 regarding the proposed improvements to this intersection. With the proposed improvements, the westbound and eastbound approaches are projected to operate at a level of service B or better and the overall intersection is projected to operate at a level of service A.

Site Driveway C currently operates at a level of service E and is projected to operate at a level of service F under each no-build scenario during the peak weekday PM hour. Site Driveway C is proposed to be restriped to provide a separate right turn lane for a Phase 2 improvement as depicted and mentioned on Figure IV. H-2. This lane will provide a separate lane for right turns to complete their maneuver instead of waiting behind a vehicle looking for a gap in the traffic along Old Saw Mill River Road to complete a left turn. With the proposed improvements, the right turn is projected to operate at a level of service B while

the left/thru lane is projected to operate within capacity at a level of service F. The left turning vehicles will need to wait for a gap within the traffic along Old Saw Mill River Road or they can choose to utilize the proposed traffic signal at Site Driveway D to exit onto Old Saw Mill River Road.

See response 8-18 regarding operations, intersection monitoring and potential signal installation at the intersection of Old Saw Mill River Road and Grasslands Road. Tables D-2 and D-3 included in the SDEIS depict the intersection operations for this intersection with a potential traffic signal which projects the northbound approach operating at a level of service D during the peak weekday AM and PM hours. The overall intersection is projected to operate at a level of service B with the potential traffic signal.

Response 8-18 regarding delays at the intersection of Grasslands Road and Route 9A northbound ramp.

JMC
120 BEDFORD RD
ARMONK
NY 10504
(914) 273-5225
fax 273-2102
JMCPLLC.COM

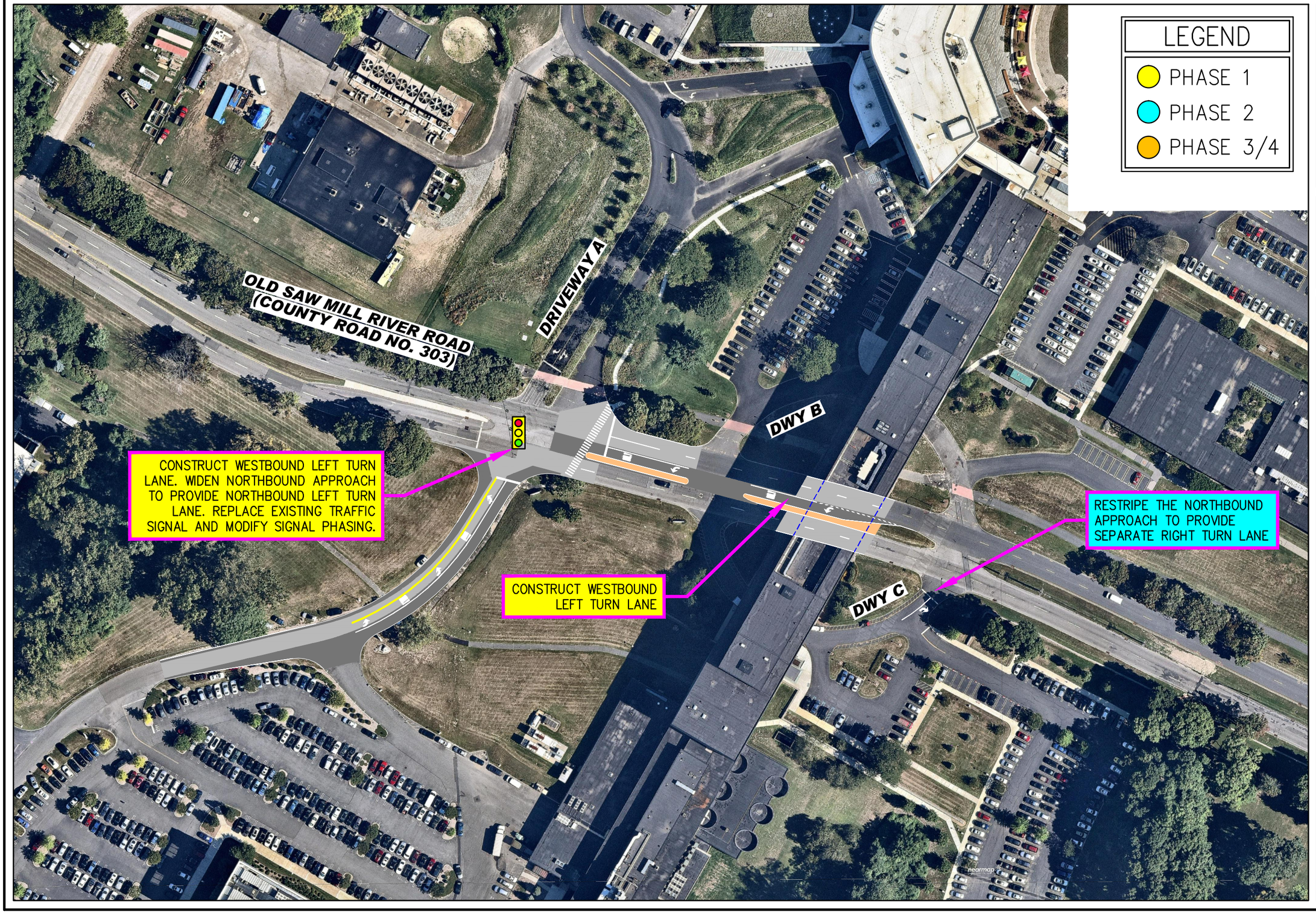
MT. PLEASANT ENTITLEMENTS 2
777 OLD SAW MILL RIVER ROAD
TOWN OF MOUNT PLEASANT, NY

CONCEPTUAL HIGHWAY IMPROVEMENT

JMC PROJECT: 15086
SCALE: 1" = 100'
DATE: 11/19/2015

FIGURE: IV. H-1

15086-TRAFFIC-FIG.dwg; CHF-1.tab



JMC
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MT. PLEASANT ENTITLEMENTS 2
777 OLD SAW MILL RIVER ROAD
TOWN OF MOUNT PLEASANT, NY

CONCEPTUAL HIGHWAY IMPROVEMENT

JMC PROJECT: 15086

SCALE: 1" = 100'

DATE: 11/19/2015

FIGURE: IV. H-2

15086-TRAFFIC-FIG.dwg; CHF-2.tab

9. Community Facilities

Comment 9-1

Recycling provisions. The draft SEIS does not contain a discussion on recycling. Changes to commercial buildings or expansions are often not accompanied by expansions in on-site facilities to handle the source separation of recyclables. This can create problems with recyclable material entering the waste stream due to inadequate storage/separation space for recyclable materials such as packaging material that may be associated with work that takes place on the campus. We recommend that the Town require the applicant to identify on the site plans floor area of sufficient size where recyclable material will be source separated and stored. We also encourage the applicant to consider a food composter for any on-site foodservice operation for employees of the site.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 9-1

The applicant currently complies with all County recycling requirements, and will provide recycling areas in the proposed facilities. This will be shown on the plans when submitting for a building permit.

Regarding using a food composter, an interior food composter is judged not able to be accommodated because of concerns of tenants over potential odors and vermin. BMR has explored off-site composting through the food service operator Flik, and is considering using it at some point in the future.

Comment 9-2

We note, for your information, that Westchester County has reporting requirements for waste management for businesses with more than 100 employees.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 9-2

The applicant notes that its existing facilities comply with this requirement, and will continue to comply with the proposed facilities expansion.

Comment 9-3

Verify potential impacts with Police Department.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 9-3

A response letter dated 1/13/2016 was received from the Police Department (Appendix B). Their comment is noted as Comment 8-6.

Comment 9-4

Verify potential impacts with Fire Department.

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 9-4

As part of Site Plan Approval, the applicant will meet with the Fire Department for their comments.

Comment 9-5

Are any unusual or specific fire protection measures necessary given the biomedical laboratory uses at the Site?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 9-5

None, and all proposed buildings will be compliant with the State Fire Code. The research operations at the site are such that they will not inherently result in any particularly hazardous conditions.

10. Fiscal

Comment 10-1

Is a PILOT or other tax incentives being pursued for the project?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 10-1

The developer has no such plans, and in any case BioMed Realty is not eligible for tax incentives. Future tenants may pursue such incentives should they qualify.

Because BMR as the real estate developer is not the direct provider of new jobs, it is not eligible for the PILOT program. PILOT benefits are obtained by the company that actually leases space and occupies the building.

11. Market Environment

Comment 11-1

Will the potential development of the "North 60" to support a significant bio-medical facility, impact the market environment for the proposed action?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 11-1

The applicant anticipates the "North 60" will have no impact on the market environment for the proposed action because the major tenants of the proposed project are already present on the BMR property, and will utilize the proposed facilities to accommodate their anticipated future growth needs.

12. Visual Resources

Comment 12-1

Describe the proposed architecture of the new buildings. Will a common architectural motif be employed, or will the new buildings express unique and distinctly different architecture?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 12-1

The proposed architecture will reflect that of the adjacent campus on the Mount Pleasant site, and continue this architectural language with similar materials, scale and form.

Comment 12-2

Are any of the pedestrian connections between individual buildings proposed to be enclosed, as is often the case on large corporate campuses?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 12-2

The intent for the bridges connecting buildings and parking garages is to be enclosed.

Comment 12-3

Describe the architecture of the mechanical penthouse(s). Will it be designed to integrate into the architecture of the lower floors, or will it have a distinctly different architectural

appearance, thereby highlighting its non-conformity?

(Memorandum from Mr. Patrick Cleary, AICP, dated March 7, 2016)

Response 12-3

The mechanical penthouses will be expressed with metal by metal louvers and fascia that wrap the penthouse level, and will conform to the overall form of the building.

13. Construction

Comment 13-1

The proposed action discusses the removal of two aged buildings, Buildings 769 and 777. The Building Department has recently received a new application to retrofit of a floor within the 769 Building. This action warrants discussion as to the logistics with the removal of the existing buildings and authorizing to commence the build out of additional footage outside of the total allowable square footage of the site.

(Memorandum from Mr. David Smyth, PE, Town Engineer, dated January 6, 2016)

Response 13-1

The retrofit of a floor within the 769 Building is for an immediate need. The proposed action will have an approval period of 10 years, and so the retrofit of the floor has no relationship to the proposed action.

14. "Green" Building Components

Comment 14-1

Green building technology. We encourage the applicant to consider using as many "green" or sustainable building methods and technologies as possible into the proposed development.

(Letter from Mr. Edward Buroughs, AICP, Commissioner, Westchester County Planning Board, dated February 12, 2016)

Response 14-1

The buildings will be built to green best practices. Sustainable design strategies/practices include:

- ***Bioswales***
- ***Solar panels***
- ***South facing shading panels***
- ***Maximizing footprint of parking to decrease impervious surfaces on site***
- ***Native plantings***

These are considered green best practices, and not as a standard of any particular rating system. Any decision on a particular rating system, if any, will be determined by future tenants.

Comment 14-2

Will the buildings be LEED certified or certifiable?

(Email of comments made by Mr. Steven Kavee at Public Hearing, February 4, 2016)

Response 14-2

This has not yet been determined, and will be a decision of the future tenants.

Comment 14-3

Will BMR consider "green roofs" on parking structure?

(Email of comments made by Mr. Steven Kavee at Public Hearing, February 4, 2016)

Response 14-3

Although green roofs are not proposed for the parking structures, instead solar panels will be installed, and façade integrated vegetation is proposed on the parking structure façades.

15. Air Quality

No comments were received relating to air quality.

Comment Key

COMMENT KEY

The table below notes the source of each comment within the Appendix and the corresponding SFEIS Comment Response Number within which contains the responses.

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	SFEIS SUBSECTION	SFEIS COMMENT RESPONSE NUMBER
Memorandum	A	A.1	Mr. David Smyth, PE Town Engineer	Construction	13-1
Memorandum	A	A.2	Mr. David Smyth, PE Town Engineer	Sanitary Sewage and Water Supply	6-1
Memorandum	A	A.3	Mr. David Smyth, PE Town Engineer	Sanitary Sewage and Water Supply	6-2
Memorandum	A	A.4	Mr. David Smyth, PE Town Engineer	Traffic	8-1
Memorandum	A	A.5	Mr. David Smyth, PE Town Engineer	Traffic	8-2
Memorandum	A	A.6	Mr. David Smyth, PE Town Engineer	Traffic	8-3
Memorandum	A	A.7	Mr. David Smyth, PE Town Engineer	Traffic	8-4
Memorandum	A	A.8	Mr. David Smyth, PE Town Engineer	Traffic	8-5
Letter	B	B.1	Chief Paul Oliva Mount Pleasant Police Department	Traffic	8-6
Letter	C	C.1	Mr. Edward Buroughs, AICP	Land Use & Zoning	1-1
Letter	C	C.2	Mr. Edward Buroughs, AICP	Traffic	8-7
Letter	C	C.3	Mr. Edward Buroughs, AICP	Traffic	8-8
Letter	C	C.4	Mr. Edward Buroughs, AICP	Stormwater Management	5-1
Letter	C	C.5	Mr. Edward Buroughs, AICP	Stormwater Management	5-2
Letter	C	C.6	Mr. Edward Buroughs, AICP	Sanitary Sewage and Water Supply	6-3
Letter	C	C.7	Mr. Edward Buroughs, AICP	Traffic	8-9

COMMENT KEY (continued)

The table below notes the source of each comment within the Appendix and the corresponding SFEIS Comment Response Number within which contains the responses.

COMMENT DOCUMENT/APPENDIX/KEY			COMMENTER	SFEIS SUBSECTION	SFEIS COMMENT RESPONSE NUMBER
Letter	C	C.8	Mr. Edward Buroughs, AICP	Community Facilities	9-1
Letter	C	C.9	Mr. Edward Buroughs, AICP	Community Facilities	9-2
Letter	C	C.10	Mr. Edward Buroughs, AICP	Traffic	8-10
Letter	C	C.11	Mr. Edward Buroughs, AICP	"Green" Building Components	14-1
Memorandum	D	D.1	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-2
Memorandum	D	D.2	Mr. Patrick Cleary, AICP	Fiscal	10-1
Memorandum	D	D.3	Mr. Patrick Cleary, AICP	Visual Resources	12-1
Memorandum	D	D.4	Mr. Patrick Cleary, AICP	Visual Resources	12-2
Memorandum	D	D.5	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-3
Memorandum	D	D.6	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-4
Memorandum	D	D.7	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-5
Memorandum	D	D.8	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-6
Memorandum	D	D.9	Mr. Patrick Cleary, AICP	Traffic	8-11
Memorandum	D	D.10	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-7
Memorandum	D	D.11	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-8
Memorandum	D	D.12	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-9

COMMENT KEY (continued)

The table below notes the source of each comment within the Appendix and the corresponding SFEIS Comment Response Number within which contains the responses.

Memorandum	D	D.13	Mr. Patrick Cleary, AICP	Visual Resources	12-3
Memorandum	D	D.14	Mr. Patrick Cleary, AICP	Land Use & Zoning	1-10
Memorandum	D	D.15	Mr. Patrick Cleary, AICP	Geology, Steep Slopes and Soils	2-1
Memorandum	D	D.16	Mr. Patrick Cleary, AICP	Geology, Steep Slopes and Soils	2-2
Memorandum	D	D.17	Mr. Patrick Cleary, AICP	Geology, Steep Slopes and Soils	2-3
Memorandum	D	D.18	Mr. Patrick Cleary, AICP	Geology, Steep Slopes and Soils	2-4
Memorandum	D	D.19	Mr. Patrick Cleary, AICP	Geology, Steep Slopes and Soils	2-5
Memorandum	D	D.20	Mr. Patrick Cleary, AICP	Geology, Steep Slopes and Soils	2-6
Memorandum	D	D.21	Mr. Patrick Cleary, AICP	Flora and Fauna	3-1
Memorandum	D	D.22	Mr. Patrick Cleary, AICP	Wetland and Surface Water Resources	4-1
Memorandum	D	D.23	Mr. Patrick Cleary, AICP	Sanitary Sewage and Water Supply	6-4
Memorandum	D	D.24	Mr. Patrick Cleary, AICP	Sanitary Sewage and Water Supply	6-5
Memorandum	D	D.25	Mr. Patrick Cleary, AICP	Other Utilities	7-1
Memorandum	D	D.26	Mr. Patrick Cleary, AICP	Traffic	8-12
Memorandum	D	D.27	Mr. Patrick Cleary, AICP	Traffic	8-13
Memorandum	D	D.28	Mr. Patrick Cleary, AICP	Traffic	8-14

COMMENT KEY (continued)

The table below notes the source of each comment within the Appendix and the corresponding SFEIS Comment Response Number within which contains the responses.

Memorandum	D	D.29	Mr. Patrick Cleary, AICP	Traffic	8-15
Memorandum	D	D.30	Mr. Patrick Cleary, AICP	Traffic	8-16
Memorandum	D	D.31	Mr. Patrick Cleary, AICP	Traffic	8-17
Memorandum	D	D.32	Mr. Patrick Cleary, AICP	Traffic	8-18
Memorandum	D	D.33	Mr. Patrick Cleary, AICP	Traffic	8-19
Memorandum	D	D.34	Mr. Patrick Cleary, AICP	Traffic	8-20
Memorandum	D	D.35	Mr. Patrick Cleary, AICP	Community Facilities	9-3
Memorandum	D	D.36	Mr. Patrick Cleary, AICP	Community Facilities	9-4
Memorandum	D	D.37	Mr. Patrick Cleary, AICP	Community Facilities	9-5
Memorandum	D	D.38	Mr. Patrick Cleary, AICP	Market Environment	11-1
Email	E	E.1	Mr. Steven Kavee	Land Use & Zoning	1-11
Email	E	E.2	Mr. Steven Kavee	Flora and Fauna	3-2
Email	E	E.3	Mr. Steven Kavee	Flora and Fauna	3-3
Email	E	E.4	Mr. Steven Kavee	"Green" Building Components	14-2
Email	E	E.5	Mr. Steven Kavee	"Green" Building Components	14-3

f:\2015\15086\SFEIS comment key 02-17-2016.docx

APPENDIX A

Memorandum from Mr. David Smyth, PE, Town of Mount Pleasant Engineer, dated January 6, 2016

Memorandum
Town of Mount Pleasant
Engineering Department

TO: Michael H. McLaughlin, Chairman, and Members of the Planning Board

FROM: David Smyth, P.E.
Town Engineer

RE: **Landmark at Eastview - Phase 2 Expansion**
DEIS Submittal

DATE: January 6, 2016

This office has completed its review of the December 29th, 2015 Supplemental DEIS submittal for the above referenced project and has the following comments regarding the submission.

1. The proposed action discusses the removal of two aged buildings, Buildings 769 and 777. The Building Department has recently received a new application to retrofit of a floor within the 769 Building. This action warrants discussion as to the logistics with the removal of the existing buildings and authorizing to commence the build out of additional footage outside of the total allowable square footage of the site. A.1
2. The increased water demand and wastewater discharges from the property shall be considered based on the net new building increase of 382,030 square feet and not solely on the additional square footage above the approved 2011 Master Plan. The subsequent reduced wastewater flows shall be calculated based on this amount. The Engineering Department will work with the applicant to determine the costs associated with completing these improvements. A.2
3. The Town is requesting an analysis of the water demands and potential impacts associated with the new net building square footage water usage in relationship to existing demands to verify adequate supply is available. A.3
4. The applicant appears to have included BMR's new building on the Town of Greenburgh's portion of the Landmark in the existing traffic volume analysis. What is the status of this project? If this project has not significantly advanced beyond site approval, then these volumes should be considered under the buildout portion of the traffic analysis and not counted under the existing condition. A.4
5. The intersection queues are requested to be analyzed using Trafficware's Synchro/Sim Traffic analysis software to determine the anticipated queueing distances and their impacts associated with the traffic volumes changes. A.5
6. A traffic signal warrant should be conducted at the intersection of Old Saw Mill River Road and Grasslands Road utilizing the anticipated increased volumes. In regard to monitoring of this intersection during the project, how will funding be secured if a traffic signal is found to be warranted during the project? This work will also require permits outside of the Town's control should a new signal be warranted after site plan approval is granted. A.6

One Town Hall Plaza
Valhalla, NY 10595

(914) 831 - 1636 (fax)
(914) 742 - 2317

7. A table listing the improvements & ownership of the future infrastructure shall be included in the study and on the plans. Old Saw Mill River Road is partially under jurisdiction of Westchester County and the Town of Greenburgh, with the State controlling the ramps/signals to SMRP. As such the Town of Mount Pleasant would not be assuming control of any new traffic signals or roadways. These features will be required to be accepted by the agencies in control of the infrastructure along Old Saw Mill River Road. A.7
8. In reference to comment #5 above, the Vehicle & Traffic law shall be reviewed for the steps required to successfully legalize the traffic controls for the any new signals for a split controlled intersection between Westchester County and Town of Greenburgh. A.8

More specific technical comments will be provided during the public comment period of the DEIS.

Please do not hesitate to contact me if you have any questions or if you would like further clarification regarding these comments.

APPENDIX B

Letter
from
Chief Paul Oliva,
Town of Mount Pleasant Police Department,
dated January 13, 2016

POLICE DEPARTMENT

PAUL J. OLIVA
Chief of Police

January 13, 2016

Mr. Robert B. Peake
120 Bedford Rd.
Armonk, NY 10504

Dear Mr. Peake,

I am in receipt of your correspondence regarding a request for information for the Draft Environmental Impact Statement regarding JMC Project 15086. I know from phase one of the project, that a parking structure of approximately 850 spaces was constructed for vehicles of employees coming to the location. It appears that the square footage of floor area for phase two will more than double the square footage available at the facility. If I could extrapolate the data and estimate that there may be another 800 employees at the site, it would bring the employees on location to around 1600.

The Mt. Pleasant Police Department has 41 sworn officers and a population from the 2010 census report of approximately 44,000 persons residing in Town. The FBI statistics show an average of 2.4 officers per 1000 people in areas with a similar population range to Mt. Pleasant. Many areas are in the 1.5 to 1.7 officer per thousand in population range. Considering the 2010 numbers, we are less than one officer (.93) per thousand persons in Mt. Pleasant. This is significantly less than the average. Any increase in population does affect our ability to carry out our mission as an organization. We have an average of 33 thousand calls for service and average about one arrest per day. We would expect increased traffic to the area roads and our ability to conduct selective enforcement is diminished due to our decreased numbers. In addition, we would expect an increase in the calls for service to the area based on the amount of persons at the location. We have used license plate reader cameras to augment our investigative capabilities at other areas in Town. Perhaps this type of equipment would mitigate some of the resources needed to thoroughly investigate any crimes occurring at or near the facility.

B.1

I would like to thank you for the opportunity to comment on the concerns that I have regarding this project. I believe that your client has made a wise decision to stay in Mt. Pleasant and expand here. Please know that our officers will strive to deliver the best service possible.

Very truly yours,

Chief Paul J. Oliva

ONE TOWN HALL PLAZA VALHALLA, N.Y. 10595 PHONE: 914-769-1941 FAX: 914-769-7199

APPENDIX C

Letter
from
Mr. Edward Buroughs, AICP, Commissioner
Westchester County Planning Board,
dated February 12, 2016

Robert P. Astorino
County Executive

County Planning Board

February 12, 2016

Carolyn Saracino, Planning Board Secretary
Town of Mount Pleasant Planning Board
One Town Hall Plaza
Valhalla, NY 10595

Subject: **Referral File No. MTP 16-001 – Landmark at Eastview North Campus**
Site Plan Amendment
Supplemental Draft Environmental Impact Statement

Dear Ms. Saracino:

The Westchester County Planning Board has received a supplemental draft environmental impact statement (SEIS), dated accepted December 29, 2015, prepared pursuant to the NYS Environmental Quality Review Act (SEQR), for the above-referenced proposal for the next phase of redevelopment on the 86.21-acre Landmark at Eastview North Campus property within the Town of Mount Pleasant. This application proposes the construction of four new laboratory and research buildings totaling 519,520 square feet along with structured parking for 1,355 vehicles. Construction will require the disturbance of approximately 20 acres of the site and will include demolition of an existing building containing 137,110 square feet. This will result in a net increase in building space of 382,410 square feet.

The application materials note that the Town undertook a SEQR review for the master plan of this site, which culminated in a findings statement issued on September 12, 2011 and a site plan approval on October 17, 2011. At that time, the master plan approval was for 440,000 square feet. In 2013, the applicant was granted a site plan amendment to construct the first phase of the development, which resulted in 268,702 square feet of built space, leaving 171,298 square feet of space left under the master plan approval to be built as a second phase. The current application exceeds this approved amount by 211,112 square feet, necessitating a re-opening of the SEQR process.

We have reviewed the draft SEIS under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code and we offer the following comments:

1. **Consistency with *Westchester 2025* and County economic development goals.** Although the Landmark at Eastview campus is not listed as a center in the County Planning Board's long-range planning policies and strategies set forth in ***Westchester 2025—Context for County and Municipal Planning and Policies to Guide County Planning,*** adopted by the County Planning Board on May 6, 2008, and amended January 5, 2010, the further development of this campus will direct additional

C.1

432 Michaelian Office Building
148 Martine Avenue
White Plains, New York 10601 Telephone: (914) 995-4400 Website: westchestergov.com

growth of research and development space to a site that has long been home to such uses and that can support the additional development. This proposal is consistent with County economic development goals to increase the concentration of science-related research/technical industries in Westchester. C.1

2. **County road impacts.** Old Saw Mill River Road is a County Road (CR 303) in the westbound direction only. The proposed development will affect the operation and maintenance of the roadway. Approval of this work from the Westchester County Department of Public Works and Transportation under Section 239-F of the General Municipal Law is required. Pertinent drainage, utility, erosion control and curb cut details need to be provided at the time of Section 239 F-submittal. The roadway improvements must also be designed in accordance with current County, State and AASHTO standards. C.2

In addition, the Towns of Greenburgh and Mount Pleasant must concur with the installation of the proposed traffic signal at Driveway D and Old Saw Mill River Road and agree on the maintenance responsibility. We note that the potential signal at the NYS Route 100C and NYS Route 9A ramp would be on NYS roads. We recommend that all signals in the corridor (including the signal at the Con Edison driveway) be coordinated, interconnected and potentially outfitted with communications for connected to a closed loop signal system with adaptive signal control. C.3

3. **Stormwater and flooding impacts to the Saw Mill River.** The additional development on the site will increase impervious surfaces. The draft SEIS documents how stormwater runoff will be treated and retained so as to not increase the peak rate of runoff from the site during storm events over pre-development conditions. While this is appropriate, we encourage the Town and applicant to do as much as possible to reduce stormwater runoff from the site because flooding continues to be a problem at several downstream locations along the Saw Mill River. C.4

Since parking is proposed to be structured, one measure that could be considered to reduce runoff could be the construction of a green roof above the parking. This would provide a level of protection to vehicles parked in the garage, as well as make the garage a model of sustainable development. We also recommend consideration of permeable paving surfaces in lower traffic areas. C.5

4. **County sewer impacts.** The draft SEIS notes that increased sewer flows from the site would be offset by inflow and infiltration (I&I) mitigation performed at a rate of 3:1. We recommend that the Town review the work to be implemented with the County Department of Environmental Facilities. C.6

5. **Bee-Line bus impacts.** The site is currently served by County Bee-Line bus route 27. We recommend the Town require the applicant to contact the County Department of Public Works and Transportation to discuss what impacts, if any, the proposed development will have on the provision of bus service in the area and whether or not improvements to the bus stops serving the site are required or desired. C.7

6. **Recycling provisions.** The draft SEIS does not contain a discussion on recycling. Changes to commercial buildings or expansions are often not accompanied by expansions in on-site facilities to handle the source separation of recyclables. This can create problems with recyclable material entering the waste stream due to inadequate storage/separation space for recyclable materials such as packaging C.8

material that may be associated with work that takes place on the campus. We recommend that the Town require the applicant to identify on the site plans floor area of sufficient size where recyclable material will be source separated and stored. We also encourage the applicant to consider a food composter for any on-site foodservice operation for employees of the site. C.8

We note, for your information, that Westchester County has reporting requirements for waste management for businesses with more than 100 employees. C.9

7. **Bicycle parking.** We encourage the applicant to provide bicycle parking on the site. Providing bicycle parking can be a low cost way to promote this form of non-motorized transportation. The Landmark at Eastview campus is directly served by a trailway that connects to three other trailways – North County Trailway, South County Trailway and Tarrytown Lakes Trailway. C.10

8. **Green building technology.** We encourage the applicant to consider using as many "green" or sustainable building methods and technologies as possible into the proposed development. C.11

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

For:
By:

Edward Buroughs, AICP
Commissioner

EEB/LH

cc: Michael Dispenza, Contract Administrator, County Department of Public Works and Transportation
Kevin Roseman, Traffic Engineer, County Department of Public Works and Transportation

APPENDIX D

Memorandum from Mr. Patrick Cleary, AICP, Town Planning Consultant, dated March 7, 2016

CLEARY CONSULTING

MEMORANDUM

To: Chairman McLaughlin & Members of the Planning Board
From: Patrick Cleary, AICP, CEP, PP, LEED AP
Date: March 7, 2016
Re: Landmark at Eastview – Phase 2 – DEIS Review

The following comments are offered regarding the Draft Environmental Impact Statement prepared for the Landmark at Eastview – Phase 2, prepared by JMC dated December 29, 2015:

#	PAGE #	COMMENT
II – Project Description of Proposed Action		
1	34	**2. Public Need for the Project & Municipal Objectives** – 1st ¶ - Will the proposed development of the "North 60" to support extensive bio-tech uses impact the project need? D.1
2	34	**2. Public Need for the Project & Municipal Objectives** – 2nd ¶ - Is a PILOT or other tax incentives being pursued for the project? D.2
3	36	3rd ¶ - Describe the proposed architecture of the new buildings. Will a common architectural motif be employed, or will the new buildings express unique and distinctly different architecture? D.3
4	36	**c. Proposed Site Parking, Landscaping & Pedestrian Circulation, Stormwater Design** – Are any of the pedestrian connections between individual buildings proposed to be enclosed, as is often the case on large corporate campuses? D.4
5	46	2nd ¶ - Describe the square footages of the proposed buildings – by building – as was done for the existing buildings. D.5
IV A – Zoning & Land Use		
6	56	Table IV.A-1 – Clarify how the areas and square footages of the buildings were calculated. Outside wall to outside wall? Were any deductions incorporated (such as excluding areas under overhangs, mechanical spaces, etc.)? D.6
7	57	**(iii) Building Height** – verify that the 80 foot D.7

#	PAGE #	COMMENT	
		building height was calculated in a way consistent with the building height definition set forth in §218-3 of the Mount Pleasant Zoning Ordinance.	D.7
8	58	**(iv) Building & Parking Setbacks –** Do the proposed building and parking setbacks comply with the 17% waiver – or is a new waiver required from the Planning Board?	D.8
9	58	**(v) Total Parking Spaces –** How does the actual parking occupancy rates at the site (or on the Greenburgh side) compare to the 1/350 square foot ratio provided?	D.9
10	58	**(vi) Loading Spaces –** What has been the experience at the site with loading space availability? Is the Town's requirement adequate, insufficient or excessive?	D.10
11	59	**(vii) Layout & Location of Parking Spaces –** Verify that all parking areas, including the parking structures, will fully comply with all Town standards for such facilities. If any waivers or modifications to Town standards are being considered, they should be clearly identified at this point.	D.11
12	59	**2. Anticipated Impacts a.** – Is the increase in building coverage from 9.6% to 12.43% geographically limited to a particular area of the site, or is it distributed throughout the site in the new buildings?	D.12
13	63	**3. Proposed Mitigation a. Building Heights –** Describe the architecture of the mechanical penthouse(s). Will it be designed to integrate into the architecture of the lower floors, or will it have a distinctly different architectural appearance, thereby highlighting its non-conformity?	D.13
14	63	**3. Proposed Mitigation b. Building Setbacks –** Describe the "significant vegetative buffer" along the westerly side of Route 9A. How deep is it? What type of vegetation is present? Generally describe the sizes of the trees, vegetation.	D.14
IV-B – Geology, Steep Slopes & Soils			
15	68	**2. Steep Slopes b. Anticipated Impacts i. –** What measures were taken to avoid impacts to steep slopes, and in particular, the 0.15 acres of impacts to excessively steep slopes? Do alternatives exist to further avoid impacting steep slopes?	D.15
16	70-74	The 25 steep slope permit standards were noted. The applicant should document how the proposed action complies with each of these standards.	D.16
17	75	**3. Soils a. Existing Conditions i.** – It is noted that "the soils on the property are the same as studied	D.17

#	PAGE #	COMMENT	
		under the 2011 Master Plan." It is understood that fill was imported to accommodate the recently constructed Regeneron building. This fill represents a change, and its extent and composition should be identified.	D.17
18	76	**b. Anticipated Impacts i.** – Provide a summary of the soil impacts, rather than simply referring back to the DEIS for the 2011 Master Plan.	D.18
19	76	**b. Anticipated Impacts ii. –** Provide an estimate of the number of truck trips required to import the 46,000 cubic yards of fill, as well as the length of time required for this activity.	D.19
20	76	**c. Proposed Mitigation i.** – The erosion and sediment controls specifically required for this action should be described.	D.20
IV-C – Flora & Fauna			
21	87	**3. Proposed Mitigation a.** – A narrative description of the Conceptual Landscaping Plan should be provided.	D.21
IV-D – Wetland & Surface Water Resources			
22	90	**2. Anticipated Impacts a**. – Are modifications to the parking lot or associated access driveway possible that would allow for the 0.17 acre of wetland buffer impact to be avoided?	D.22
IV-F – Sanitary Sewage & Water Supply			
23	106	**2. Anticipated Impacts a**. – Verification is required from the Town to establish if the additional 26,550 gpd of water usage can be accommodated.	D.23
24	108	The proposed I&I improvements should be more fully described, or a more specific commitment by the applicant should be documented, to assure that the 79,650 gpd mitigation will be achieved.	D.24
IV-G – Other Utilities			
25	109	More fully explain the solar photovoltaics proposed for the parking structure roofs. How much electricity is anticipated to be generated? What percentage of overall electricity would be generated? Will this electricity be use exclusively at the Site, or returned back to the grid?	D.25
IV-H - Traffic			
26	120	**c. Accident Analysis** – Provide a narrative summary of the types and frequency of accidents.	D.26
27	121	**d. School Bus, Truck & Delivery Vehicle Traffic** – Describe (quantify) what is meant by "delivery vehicle traffic volumes are generally low."	D.27
28	121	**e. Bus Transportation** – Where is the Bee-line bus stop on the Landmark site? Only one stop?	D.28

#	PAGE #	COMMENT	
29	121	**f. Parking & Loading** – Further define and quantify the statement that the "the existing parking supply on the Site currently exceeds the existing parking demand..." Is this true in all areas of the Site and for all buildings? Are vacant spaces more prevalent in certain areas of the Site? Do vacancies vary throughout the day, or do they remain constant?	D.29
30	122	**2. Anticipated Impacts –** What are the traffic implications of the potential "North 60" development?	D.30
31	123	**b. Proposed Action Traffic Volumes –** Have *actual* operating conditions and trip generation rates observed at the site (including the Greenburgh side) indicate that the ITE trip generation rates are inaccurate? Would employing actual trip generation rates provide a more accurate traffic analysis?	D.31
32	124	**e. Impact on Pedestrian Traffic... -** What measures, if any, are proposed to improve, facilitate of expand pedestrian and bicycle access to the Site?	D.32
33	Table D-2	Address the significant delays and failing LOS at the Old Saw Mill River Road & Saw Mill River Parkway northbound exit ramp, Old Saw Mill River Road & Grasslands Road and Grasslands Road & Route 9A intersections during the weekday AM peak hour.	D.33
34	Table D-3	Address the significant delays and failing LOS at the Old Saw Mill River Road & Saw Mill River Parkway northbound exit ramp, Old Saw Mill River Road & Site Driveway C, Old Saw Mill River Road & Grasslands Road and Grasslands Road & Route 9A intersections during the weekday PM peak hour.	D.34
IV-I – Community Facilities			
35	127	**1. Police b. Anticipated Impacts** – Verify potential impacts with Police Department.	D.35
36	129	**2. Fire b. Anticipated Impacts** – Verify potential impacts with Fire Department.	D.36
37	129	**c. Proposed Mitigation** – Are any unusual or specific fire protection measures necessary given the biomedical laboratory uses at the Site?	D.37
IV-K – Market Environment			
38	141	**2. Anticipated Impacts** – Will the potential development of the "North 60" to support a significant bio-medical facility, impact the market environment for the proposed action?	D.38

APPENDIX E

Email
Of Comments Made by
Mr. Steven Kavee
At Planning Board Hearing,
February 4, 2016

Robert B. Peake, AICP

From: Robert B. Peake, AICP
Sent: Tuesday, March 08, 2016 11:24 AM
To: Bob Peake
Subject: FW: BMR - DSEIS Hearing/February 4, 2015

My notes reflect the following comments presented by the CAC at Thursday night's hearing –

Quantify the net increase/decrease in overall impervious surface coverage from that shown on the current Amended Site Plan Approval.] E.1
Quantify the increase/decrease in (1) tree removal and (2) existing site vegetation from that shown on the current Amended Site Plan Approval.] E.2
Will BMR consider aiding in efforts to restore the adjoining, off-site Saw Mill River; work with Saw Mill River Coalition in invasive species and vine removal and introduction of native plant species?] E.3
Will the buildings be LEED certified or certifiable?] E.4
Will BMR consider "green roofs" on parking structures?] E.5

Thanks.

Judson K. Siebert
Principal Member

KEANE & BEANE P.C.
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APPENDIX F

Traffic Data
By
JMC

APPENDIX F

TRAFFIC DATA

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F-2	Queuing Analysis-Peak Weekday PM Hour
F-3	Old Saw Mill River Road & Grasslands Road (Route 100C) Eight-Hour Vehicular Volume Traffic Signal Warrant Analysis

B. QUEUING ANALYSES

- 2015 Existing Conditions
- 2022 Phase 1 - No Build Conditions
- 2022 Phase 1 - Build Conditions
- 2023 Phase 2 - No Build Conditions
- 2023 Phase 2 - Build Conditions
- 2026 Phase 3/4 - No Build Conditions
- 2026 Phase 3/4 - Build Conditions

PART A

TABLES

TABLE F-1

QUEUING ANALYSIS-PEAK WEEKDAY AM HOUR

INTERSECTION	APPROACH	LANE GROUP	STORAGE LENGTH	2015 EXISTING		2022 PHASE 1				2023 PHASE 2				2026 PHASE 3/4			
						NO BUILD		BUILD		NO BUILD		BUILD		NO BUILD		BUILD	
				50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
1. Old Saw Mill River Road & Saw Mill River Parkway Southbound Entrance /Exit Ramp (Signalized)	EASTBOUND	LEFT/THRU	2,950	172	226	194	260	198	265	203	270	204	272	211	283	217	290
	WESTBOUND	THRU	195	7	19	14	19	14	18	14	19	14	18	15	19	15	19
		RIGHT	195	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTHBOUND	LEFT/RIGHT	415	112	157	146	201	152	208	156	212	157	214	161	19	168	227
1a. Old Saw Mill River Road & Saw Mill River Parkway Southbound Entrance /Exit Ramp (Signalized w/ Improvements)	EASTBOUND	LEFT/THRU	2,950					73	99			75	102			95	130
	WESTBOUND	THRU	195	N/A		N/A		111	168	N/A		115	171	N/A		117	178
		RIGHT	195					0	0			0	0			0	0
	SOUTHBOUND	LEFT/RIGHT	415					150	238			155	249			155	215
2. Old Saw Mill River Road & Saw Mill River Parkway Northbound Exit Ramp (Signalized)	EASTBOUND	THRU/RIGHT	195	23	25	24	27	25	27	25	28	25	28	26	30	26	35
	WESTBOUND	LEFT/THRU	200	99	134	108	150	112	153	114	156	115	156	118	162	122	165
	NORTHBOUND	LEFT/RIGHT	700	180	367	290	472	331	515	351	536	358	543	378	563	413	601
		RIGHT	175	155	342	314	504	338	530	360	552	368	562	385	578	429	626
2a. Old Saw Mill River Road & Saw Mill River Parkway Northbound Exit Ramp (Signalized w/ Improvements)	EASTBOUND	THRU/RIGHT	195					109	125			111	127			107	121
	WESTBOUND	LEFT/THRU	200					64	88			65	90			63	86
	NORTHBOUND	LEFT/RIGHT	700	N/A		N/A		241	417	N/A		255	440	N/A		N/A	N/A
		LEFT	700					N/A	N/A			N/A	N/A			50	91
		RIGHT	175					247	437			263	462			242	359
3. Old Saw Mill River Road & Saw Mill River Parkway Northbound Entrance Ramp (Unsignalized)	EASTBOUND	LEFT/THRU	200	-	10	-	13	-	13	-	13	-	13	-	13	-	13
	WESTBOUND	THRU/RIGHT	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Old Saw Mill River Road & Consolidated Edison Driveway/Consolidated Edison Parking Lot (Signalized)	EASTBOUND	LEFT/THRU /RIGHT	95	177	398	251	604	271	640	285	661	290	670	306	688	336	731
	WESTBOUND	LEFT/THRU /RIGHT	910	32	8	38	92	39	94	40	96	41	97	43	100	44	102
	NORTHBOUND	LEFT/THRU	135	2	11	2	11	2	11	2	11	2	11	3	13	3	13
		RIGHT	135	0	1	0	2	0	2	0	2	0	2	0	3	0	3
	SOUTHBOUND	LEFT	130	37	79	40	84	40	84	40	84	40	84	42	88	42	88
		THU/RIGHT	130	8	29	8	31	8	31	8	31	8	31	8	31	8	31
4a. Old Saw Mill River Road & Consolidated Edison Driveway/Consolidated Edison Parking Lot (Signalized w/ Improvements)	EASTBOUND	LEFT/THRU /RIGHT	95					290	615			311	688			361	757
	WESTBOUND	LEFT/THRU /RIGHT	910					42	92			43	95			47	100
	NORTHBOUND	LEFT/THRU	135	N/A		N/A		3	13	N/A		3	13	N/A		4	15
		RIGHT	135					0	5			0	5			0	6
	SOUTHBOUND	LEFT	130					48	97			48	98			50	101
		THU/RIGHT	130					10	35			10	36			10	36
5. Old Saw Mill River Road & Site Driveway A (Signalized)	EASTBOUND	LEFT	150	9	75	14	106	14	106	14	108	15	108	15	112	15	113
		THRU/RIGHT	910	98	546	138	685	152	723	160	745	164	754	170	772	190	818
	WESTBOUND	LEFT/THRU /RIGHT	95	34	204	44	280	46	289	48	294	48	297	51	307	53	315
	NORTHBOUND	LEFT/THRU /RIGHT	300	8	27	13	35	14	36	14	37	15	37	15	38	16	39
	SOUTHBOUND	LEFT/THRU	295	4	13	5	16	5	16	5	16	5	16	5	17	5	17
		RIGHT	265	0	1	0	4	0	4	0	4	0	4	0	5	0	5

TABLE F-1

QUEUING ANALYSIS-PEAK WEEKDAY AM HOUR

INTERSECTION	APPROACH	LANE GROUP	STORAGE LENGTH	2015 EXISTING		2022 PHASE 1				2023 PHASE 2				2026 PHASE 3/4			
						NO BUILD		BUILD		NO BUILD		BUILD		NO BUILD		BUILD	
				50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
5a. Old Saw Mill River Road & Site Driveway A (Signalized w/ Improvements)	EASTBOUND	LEFT	150					12	73			12	74			12	89
		THRU/RIGHT	910					332	935			356	979			411	1,178
	WESTBOUND	LEFT	95					25	157			26	158			28	189
		THRU/RIGHT	95	N/A		N/A		51	164	N/A		53	168	N/A		56	203
	NORTHBOUND	LEFT	300					10	29			10	29			10	29
		THRU/RIGHT	300					8	34			8	34			9	35
	SOUTHBOUND	LEFT/THRU	295					8	25			8	25			9	26
		RIGHT	265					0	0			0	0			0	0
6. Old Saw Mill River Road & Site Driveway B (Unsignalized)	EASTBOUND	THRU/RIGHT	95	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	WESTBOUND	LEFT/THRU	225	-	10	-	13	-	13	-	15	-	15	-	15	-	18
	SOUTHBOUND	LEFT/THRU /RIGHT	55	-	8	-	10	-	10	-	13	-	13	-	13	-	15
6a. Old Saw Mill River Road & Site Driveway B (Unsignalized w/ Improvements)	EASTBOUND	THRU/RIGHT	95					-	0			-	0			-	0
	WESTBOUND	LEFT/THRU	225	N/A		N/A		-	13	N/A		-	15	N/A		-	18
	SOUTHBOUND	LEFT/THRU /RIGHT	55					-	8			-	10			-	13
7. Old Saw Mill River Road & Site Driveway C (Unsignalized)	EASTBOUND	THRU/RIGHT	225	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	WESTBOUND	LEFT/THRU	700	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	NORTHBOUND	LEFT/THRU /RIGHT	40	-	5	-	8	-	8	-	10	-	10	-	10	-	13
7a. Old Saw Mill River Road & Site Driveway C (Unsignalized w/ Improvements)	EASTBOUND	THRU/RIGHT	225									-	0			-	0
	WESTBOUND	LEFT/THRU	700	N/A		N/A		N/A		N/A		-	0	N/A		-	0
	NORTHBOUND	LEFT/THRU	40									-	8			-	10
		RIGHT	40									-	3			-	3
8. Old Saw Mill River Road & Site Driveway D (Unsignalized)	EASTBOUND	LEFT/THRU /RIGHT	700	-	5												
	WESTBOUND	LEFT/THRU /RIGHT	225	-	3												
	NORTHBOUND	LEFT/THRU /RIGHT	560	-	3	N/A		N/A		N/A		N/A		N/A		N/A	
	SOUTHBOUND	LEFT/THRU	108	-	5												
		RIGHT	108	-	0												
8a. Old Saw Mill River Road & Site Driveway D (Signalized by Others)	EASTBOUND	LEFT/THRU /RIGHT	700			0	152	0	222	132	271	146	347	143	300	244	525
	WESTBOUND	LEFT/THRU /RIGHT	225			0	102	0	118	65	127	68	134	68	136	83	179
	NORTHBOUND	LEFT/THRU /RIGHT	560	N/A		4	26	3	26	4	26	4	26	4	26	4	26
	SOUTHBOUND	LEFT/THRU	108			1	10	4	20	6	22	7	24	6	22	10	33
		RIGHT	108			0	5	0	17	0	20	0	22	0	21	0	25
8b. Old Saw Mill River Road & Site Driveway D (Signalized w/ Improvements)	EASTBOUND	LEFT	150					0	24			14	32			22	49
		THRU/RIGHT	700					78	267			171	283			186	321
	WESTBOUND	LEFT	225					0	24			10	25			11	29
		THRU/RIGHT	225					42	143			97	160			114	187
	NORTHBOUND	LEFT/THRU/ RIGHT	560	N/A		N/A		10	38	N/A		N/A	N/A	N/A		N/A	N/A
		LEFT/THRU	560					N/A	N/A			5	20			5	19
		RIGHT	200					N/A	N/A			8	28			9	29
	SOUTHBOUND	LEFT/THRU	108					5	22			7	27			12	36
		RIGHT	108					8	31			13	37			19	49

TABLE F-1

QUEUING ANALYSIS-PEAK WEEKDAY AM HOUR

INTERSECTION	APPROACH	LANE GROUP	STORAGE LENGTH	2015 EXISTING		2022 PHASE 1				2023 PHASE 2				2026 PHASE 3/4			
						NO BUILD		BUILD		NO BUILD		BUILD		NO BUILD		BUILD	
				50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
9. Old Saw Mill River Road & NYS Route 9A Southbound Exit Ramp (Unsignalized)	EASTBOUND	THRU	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WESTBOUND	THRU	225	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SOUTHBOUND	THRU	625	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Old Saw Mill River Road & Grasslands Road (Unsignalized)	EASTBOUND	THRU	575	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		RIGHT	575	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WESTBOUND	LEFT	120	-	10	-	13	-	13	-	13	-	13	-	15	-	15
		THRU	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NORTHBOUND	LEFT	1,000	-	178	-	310	-	335	-	350	-	353	-	368	-	398
		RIGHT	65	-	10	-	10	-	10	-	13	-	13	-	13	-	13
10a.Old Saw Mill River Road & Grasslands Road (Signalized w/ Improvements)	EASTBOUND	THRU	575					434	833			451	850			523	896
		RIGHT	575					3	41			4	43			6	46
	WESTBOUND	LEFT	120	N/A		N/A		14	50	N/A		14	56	N/A		15	66
		THRU	340					116	226			124	238			140	262
	NORTHBOUND	LEFT/RIGHT	1,000					81	146			83	150			89	158
11. Grasslands Road & NYS Route 9A Northbound Entrance /Exit Ramps (Unsignalized)	EASTBOUND	LEFT	165	-	15	-	20	-	20	-	20	-	20	-	23	-	23
		THRU	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WESTBOUND	THRU/RIGHT	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NORTHBOUND	LEFT	440	-	28	-	50	-	55	-	58	-	58	-	65	-	70
		THRU/RIGHT	630	-	18	-	23	-	23	-	23	-	23	-	25	-	25

Notes:

(1) Vehicle length is equal to 25 feet.

TABLE F-2

QUEUING ANALYSIS-PEAK WEEKDAY PM HOUR

INTERSECTION	APPROACH	LANE GROUP	STORAGE LENGTH	2015 EXISTING		2022 PHASE 1				2023 PHASE 2				2026 PHASE 3/4			
						NO BUILD		BUILD		NO BUILD		BUILD		NO BUILD		BUILD	
				50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
1. Old Saw Mill River Road & Saw Mill River Parkway Southbound Entrance /Exit Ramp (Signalized)	EASTBOUND	LEFT/THRU	2,950	101	191	131	217	133	220	141	224	145	225	153	236	162	240
	WESTBOUND	THRU	195	2	2	3	2	3	2	3	2	3	2	3	2	3	2
		RIGHT	195	0	87	42	57	72	54	103	50	121	48	146	42	212	38
	SOUTHBOUND	LEFT/RIGHT	415	25	52	29	59	30	59	29	60	30	60	30	61	30	62
1a. Old Saw Mill River Road & Saw Mill River Parkway Southbound Entrance /Exit Ramp (Signalized w/ Improvements)	EASTBOUND	LEFT/THRU	2,950					35	48			35	48			59	81
	WESTBOUND	THRU	195	N/A		N/A		53	83	N/A		55	85	N/A		217	244
		RIGHT	195					21	34			23	37			37	60
	SOUTHBOUND	LEFT/RIGHT	415					30	68			32	69			29	64
2. Old Saw Mill River Road & Saw Mill River Parkway Northbound Exit Ramp (Signalized)	EASTBOUND	THRU/RIGHT	195	17	21	20	23	20	23	21	24	21	24	22	27	22	32
	WESTBOUND	LEFT/THRU	200	408	651	637	780	675	810	711	829	728	837	757	861	816	900
	NORTHBOUND	LEFT/RIGHT	700	62	102	68	111	69	113	71	116	70	116	72	118	73	119
		RIGHT	175	0	40	0	42	0	42	0	43	0	43	0	43	0	44
2a. Old Saw Mill River Road & Saw Mill River Parkway Northbound Exit Ramp (Signalized w/ Improvements)	EASTBOUND	THRU/RIGHT	195					36	42			36	43			53	65
	WESTBOUND	LEFT/THRU	200					147	167			155	175			240	286
	NORTHBOUND	LEFT/RIGHT	700	N/A		N/A		64	139	N/A		68	144	N/A		N/A	N/A
		LEFT	700					N/A	N/A			N/A	N/A			48	87
		RIGHT	175					0	46			0	47			0	23
3. Old Saw Mill River Road & Saw Mill River Parkway Northbound Entrance Ramp (Unsignalized)	EASTBOUND	LEFT/THRU	200	-	35	-	53	-	58	-	60	-	63	-	70	-	78
	WESTBOUND	THRU/RIGHT	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Old Saw Mill River Road & Consolidated Edison Driveway/Consolidated Edison Parking Lot (Signalized)	EASTBOUND	LEFT/THRU /RIGHT	95	0	108	0	124	0	126	36	128	36	128	38	132	39	135
	WESTBOUND	LEFT/THRU /RIGHT	910	0	406	0	606	0	640	186	660	188	669	199	690	216	730
	NORTHBOUND	LEFT/THRU	135	5	22	6	23	6	23	7	23	7	23	8	24	8	24
		RIGHT	135	0	3	0	4	0	4	0	4	0	4	0	4	0	4
	SOUTHBOUND	LEFT	130	2	11	2	11	2	11	2	11	2	11	3	12	3	12
		THU/RIGHT	130	0	17	3	22	4	23	6	23	6	23	6	24	7	25
4a. Old Saw Mill River Road & Consolidated Edison Driveway/Consolidated Edison Parking Lot (Signalized w/ Improvements)	EASTBOUND	LEFT/THRU /RIGHT	95					36	123			37	125			40	132
	WESTBOUND	LEFT/THRU /RIGHT	910					181	652			192	685			218	754
	NORTHBOUND	LEFT/THRU	135	N/A		N/A		9	27	N/A		9	27	N/A		9	28
		RIGHT	135					0	7			0	7			0	7
	SOUTHBOUND	LEFT	130					3	14			3	14			3	14
		THU/RIGHT	130					3	23			5	24			6	27
5. Old Saw Mill River Road & Site Driveway A (Signalized)	EASTBOUND	LEFT	150	1	8	2	12	2	12	2	12	2	12	2	12	2	12
		THRU/RIGHT	910	70	136	99	154	102	157	103	160	104	160	107	164	110	168
	WESTBOUND	LEFT/THRU /RIGHT	95	191	348	295	478	317	512	332	533	338	540	349	555	426	597
	NORTHBOUND	LEFT/THRU /RIGHT	300	129	216	170	316	170	316	174	325	174	325	182	339	182	339
	SOUTHBOUND	LEFT/THRU	295	20	44	28	57	28	57	28	57	28	57	28	58	28	58
		RIGHT	265	15	39	26	56	26	56	26	56	26	56	27	58	27	58

TABLE F-2

QUEUING ANALYSIS-PEAK WEEKDAY PM HOUR

INTERSECTION	APPROACH	LANE GROUP	STORAGE LENGTH	2015 EXISTING		2022 PHASE 1				2023 PHASE 2				2026 PHASE 3/4			
						NO BUILD		BUILD		NO BUILD		BUILD		NO BUILD		BUILD	
				50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
5a. Old Saw Mill River Road & Site Driveway A (Signalized w/ Improvements)	EASTBOUND	LEFT	150					2	9			2	9			2	11
		THRU/RIGHT	910					135	195			138	199			146	239
	WESTBOUND	LEFT	95					8	23			8	23			8	27
		THRU/RIGHT	95	N/A		N/A		288	561	N/A		306	594	N/A		343	752
	NORTHBOUND	LEFT	300					177	277			180	285			186	285
		THRU/RIGHT	300					5	35			5	36			5	35
	SOUTHBOUND	LEFT/THRU	295					39	75			39	75			40	74
		RIGHT	265					0	33			0	33			0	32
6. Old Saw Mill River Road & Site Driveway B (Unsignalized)	EASTBOUND	THRU/RIGHT	95	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	WESTBOUND	LEFT/THRU	225	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	SOUTHBOUND	LEFT/THRU /RIGHT	55	-	5	-	8	-	8	-	8	-	8	-	8	-	10
6a. Old Saw Mill River Road & Site Driveway B (Unsignalized w/ Improvements)	EASTBOUND	THRU/RIGHT	95					-	0			-	0			-	0
	WESTBOUND	LEFT/THRU	225	N/A		N/A		-	0	N/A		-	0	N/A		-	0
	SOUTHBOUND	LEFT/THRU /RIGHT	55					-	8			-	8			-	8
7. Old Saw Mill River Road & Site Driveway C (Unsignalized)	EASTBOUND	THRU/RIGHT	225	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	WESTBOUND	LEFT/THRU	700	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	NORTHBOUND	LEFT/THRU /RIGHT	40	-	65	-	103	-	110	-	118	-	123	-	135	-	148
7a. Old Saw Mill River Road & Site Driveway C (Unsignalized w/ Improvements)	EASTBOUND	THRU/RIGHT	225									-	0			-	0
	WESTBOUND	LEFT/THRU	700	N/A		N/A		N/A		N/A		-	0	N/A		-	0
	NORTHBOUND	LEFT/THRU	40									-	98			-	118
		RIGHT	40									-	5			-	5
8. Old Saw Mill River Road & Site Driveway D (Unsignalized)	EASTBOUND	LEFT/THRU /RIGHT	700	-	0												
	WESTBOUND	LEFT/THRU /RIGHT	225	-	0												
	NORTHBOUND	LEFT/THRU /RIGHT	560	-	25	N/A		N/A		N/A		N/A		N/A		N/A	
	SOUTHBOUND	LEFT/THRU	108	-	58												
		RIGHT	108	-	13												
8a. Old Saw Mill River Road & Site Driveway D (Signalized by Others)	EASTBOUND	LEFT/THRU /RIGHT	700			56	124	61	130	66	135	71	150	70	146	91	170
	WESTBOUND	LEFT/THRU /RIGHT	225			95	205	101	208	109	215	115	238	115	234	145	264
	NORTHBOUND	LEFT/THRU /RIGHT	560	N/A		41	114	41	115	42	117	42	116	49	127	49	125
	SOUTHBOUND	LEFT/THRU	108			19	50	35	81	41	91	46	99	41	92	64	135
		RIGHT	108			1	32	22	65	31	78	37	87	34	82	64	128
8b. Old Saw Mill River Road & Site Driveway D (Signalized w/ Improvements)	EASTBOUND	LEFT	150					4	12			4	14			6	17
		THRU/RIGHT	700					86	172			70	173			81	180
	WESTBOUND	LEFT	225					3	10			3	10			3	10
		THRU/RIGHT	225					144	278			117	285			212	302
	NORTHBOUND	LEFT/THRU/ RIGHT	560	N/A		N/A		125	301	N/A		N/A	N/A	N/A		N/A	N/A
		LEFT/THRU	560					N/A	N/A			28	74			36	78
		RIGHT	200					N/A	N/A			86	182			109	186
	SOUTHBOUND	LEFT/THRU	108					35	93			43	102			72	134
		RIGHT	108					53	120			68	149			95	159

TABLE F-2

QUEUING ANALYSIS-PEAK WEEKDAY PM HOUR

INTERSECTION	APPROACH	LANE GROUP	STORAGE LENGTH	2015 EXISTING		2022 PHASE 1				2023 PHASE 2				2026 PHASE 3/4			
						NO BUILD		BUILD		NO BUILD		BUILD		NO BUILD		BUILD	
				50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
9. Old Saw Mill River Road & NYS Route 9A Southbound Exit Ramp (Unsignalized)	EASTBOUND	THRU	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WESTBOUND	THRU	225	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SOUTHBOUND	THRU	625	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Old Saw Mill River Road & Grasslands Road (Unsignalized)	EASTBOUND	THRU	575	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		RIGHT	575	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WESTBOUND	LEFT	120	-	8	-	10	-	10	-	10	-	10	-	13	-	13
		THRU	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NORTHBOUND	LEFT	1,000	-	230	-	348	-	363	-	380	-	385	-	408	-	423
		RIGHT	65	-	8	-	10	-	10	-	13	-	13	-	13	-	13
10a.Old Saw Mill River Road & Grasslands Road (Signalized w/ Improvements)	EASTBOUND	THRU	575					357	686			380	718			434	785
		RIGHT	575					0	33			0	34			2	37
	WESTBOUND	LEFT	120	N/A		N/A		14	33	N/A		14	33	N/A		15	41
		THRU	340					111	192			113	195			122	205
	NORTHBOUND	LEFT/RIGHT	1,000					103	178			104	180			108	186
11. Grasslands Road & NYS Route 9A Northbound Entrance /Exit Ramps (Unsignalized)	EASTBOUND	LEFT	165	-	8	-	13	-	13	-	15	-	15	-	15	-	18
		THRU	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WESTBOUND	THRU/RIGHT	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NORTHBOUND	LEFT	440	-	8	-	15	-	18	-	18	-	18	-	20	-	20
		THRU/RIGHT	630	-	13	-	18	-	18	-	20	-	20	-	20	-	23

Notes:

(1) Vehicle length is equal to 25 feet.

TABLE F-3

Old Saw Mill River Road & Grasslands Road (Route 100C)
Eight-Hour Vehicular Volume Traffic Signal Warrant Analysis

Time	2016 Existing Volumes		Other Development Volumes Landmark at Eastview South Campus (Greenburgh Development)		Re-Occupied Volumes Bldg. 767 and Bldg. 769		Site Driveway Volumes		2026 No Build Volumes		2026 Build Volumes		2026 Design Year Warrant #1 Satisfied	
	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor		
	Old Saw Mill River Road /Grasslands Road	Road to NY 9A	Old Saw Mill River Road /Grasslands Road	Road to NY 9A	Old Saw Mill River Road /Grasslands Road	Road to NY 9A	Old Saw Mill River Road /Grasslands Road	Road to NY 9A	Old Saw Mill River Road /Grasslands Road	Road to NY 9A	Old Saw Mill River Road /Grasslands Road	Road to NY 9A	$A_{100\%}$ [2]	$B_{100\%}$ [3]
7:00-8:00 AM	1,053	111	32	7	50	7	48	7	1,163	123	1,293	144	NO	YES
8:00-9:00 AM	1,372	105	75	16	87	12	84	12	1,516	116	1,762	156	YES	YES
9:00-10:00 AM	866	117	43	9	52	7	50	7	957	129	1,102	152	YES	YES
10:00-11:00 AM	615	79	19	4	27	4	26	4	679	87	751	99	NO	YES
11:00-12:00 PM	629	99	32	7	31	4	29	4	695	109	787	124	NO	YES
12:00-1:00 PM	707	128	35	7	31	4	29	4	781	141	876	156	YES	YES
1:00-2:00 PM	668	123	17	1	33	1	33	1	738	136	821	139	NO	YES
2:00-3:00 PM	738	130	42	1	47	1	47	1	815	144	951	147	NO	YES
3:00-4:00 PM	900	119	31	1	72	1	72	1	994	131	1,169	134	NO	YES
4:00-5:00 PM	905	117	64	2	92	2	92	2	1,000	129	1,248	135	NO	YES
5:00-6:00 PM	1,117	128	97	3	99	2	99	2	1,234	141	1,529	148	NO	YES
6:00-7:00 PM	688	94	43	1	78	2	78	2	760	104	959	109	NO	YES
										TOTAL HOURS SATISFIED			3	12
										REQUIRED EIGHT HOURS SATISFIED			NO	YES

Notes:

[1] Turning movement counts were conducted on Tuesday, February 23, 2016.

[2] Warrant 1 Condition A is satisfied when there are 500 vehicles per hour or more on a major street having one lane in each approach and there are 150 vehicles per hour or more on the higher-volume minor street having a one lane approach.

[3] Warrant 1 Condition B is satisfied when there are 750 vehicles per hour or more on a major street having one lane in each approach and there are 75 vehicles per hour or more on the higher-volume minor street having a one lane approach.

PART B

QUEUING ANALYSIS

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	654	305	171	434
v/c Ratio	0.58	0.27	0.11	0.55
Control Delay	26.2	1.8	0.1	33.4
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	26.2	2.2	0.1	33.4
Queue Length 50th (ft)	172	7	0	112
Queue Length 95th (ft)	226	m19	m0	157
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1173	1129	1514	883
Starvation Cap Reductn	0	420	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.43	0.11	0.49

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

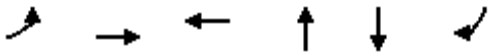
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	962	412	427	414
v/c Ratio	0.41	0.40	0.88	0.86
Control Delay	2.2	23.2	46.5	40.0
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	2.4	23.2	46.5	40.0
Queue Length 50th (ft)	23	99	180	155
Queue Length 95th (ft)	25	134	#367	#342
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2388	1070	485	483
Starvation Cap Reductn	631	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.55	0.39	0.88	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1488	429	7	18	97	40
v/c Ratio	0.64	0.20	0.02	0.06	0.55	0.14
Control Delay	10.8	6.3	20.7	0.5	36.5	15.4
Queue Delay	0.3	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	6.3	20.7	0.5	36.5	15.4
Queue Length 50th (ft)	177	32	2	0	37	8
Queue Length 95th (ft)	398	81	11	1	79	29
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2333	2134	542	480	332	511
Starvation Cap Reductn	277	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.20	0.01	0.04	0.29	0.08

Intersection Summary



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	109	1515	614	53	13	7
v/c Ratio	0.19	0.59	0.45	0.17	0.05	0.03
Control Delay	8.9	10.3	9.5	12.0	16.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	10.3	9.5	12.0	16.2	0.3
Queue Length 50th (ft)	9	98	34	8	4	0
Queue Length 95th (ft)	75	#546	#204	27	13	1
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	579	2571	1373	863	792	743
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.59	0.45	0.06	0.02	0.01

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	559	579	758	232
v/c Ratio	0.40	0.45	0.50	0.34
Control Delay	16.7	0.6	3.4	14.8
Queue Delay	0.0	0.8	0.0	0.0
Total Delay	16.7	1.4	3.4	14.8
Queue Length 50th (ft)	101	2	0	25
Queue Length 95th (ft)	191	m2	m87	52
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1395	1410	1530	924
Starvation Cap Reductn	0	511	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.40	0.64	0.50	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

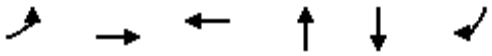
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	607	1343	126	117
v/c Ratio	0.23	0.98	0.49	0.38
Control Delay	1.8	46.3	37.9	10.3
Queue Delay	0.2	22.7	0.3	0.0
Total Delay	2.0	69.0	38.2	10.3
Queue Length 50th (ft)	17	408	62	0
Queue Length 95th (ft)	21	#651	102	40
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2685	1365	365	399
Starvation Cap Reductn	1128	97	0	0
Spillback Cap Reductn	0	3	39	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	1.06	0.39	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	559	1480	19	21	7	25
v/c Ratio	0.20	0.53	0.11	0.08	0.05	0.11
Control Delay	4.1	6.8	22.8	1.3	21.8	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	6.8	22.8	1.3	21.8	10.7
Queue Length 50th (ft)	0	0	5	0	2	0
Queue Length 95th (ft)	108	406	22	3	11	17
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2746	2781	479	646	399	602
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.53	0.04	0.03	0.02	0.04

Intersection Summary



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	5	599	1212	372	72	88
v/c Ratio	0.04	0.33	0.72	0.81	0.18	0.16
Control Delay	13.0	11.7	18.1	33.5	15.6	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	11.7	18.1	33.5	15.6	10.2
Queue Length 50th (ft)	1	70	191	129	20	15
Queue Length 95th (ft)	8	136	348	216	44	39
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	132	1789	1681	605	542	736
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.33	0.72	0.61	0.13	0.12

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	727	330	194	535
v/c Ratio	0.68	0.30	0.13	0.63
Control Delay	29.3	2.2	0.1	35.2
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	29.3	2.6	0.1	35.2
Queue Length 50th (ft)	194	14	0	146
Queue Length 95th (ft)	260	m19	m0	201
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1112	1092	1510	879
Starvation Cap Reductn	0	371	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.65	0.46	0.13	0.61

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1134	455	486	480
v/c Ratio	0.48	0.46	1.04	1.09
Control Delay	2.1	24.6	81.9	98.6
Queue Delay	0.3	0.0	0.0	0.0
Total Delay	2.5	24.6	81.9	98.6
Queue Length 50th (ft)	24	108	~290	~314
Queue Length 95th (ft)	27	150	#472	#504
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2396	1024	469	441
Starvation Cap Reductn	634	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.64	0.44	1.04	1.09

Intersection Summary

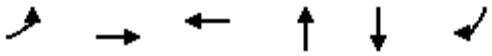
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1755	484	7	20	103	43
v/c Ratio	0.76	0.23	0.02	0.07	0.57	0.15
Control Delay	14.2	6.5	20.5	0.9	37.3	15.1
Queue Delay	0.6	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	6.5	20.5	0.9	37.3	15.1
Queue Length 50th (ft)	251	38	2	0	40	8
Queue Length 95th (ft)	#604	92	11	2	84	31
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2321	2125	540	478	331	508
Starvation Cap Reductn	233	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.23	0.01	0.04	0.31	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	146	1757	690	65	17	12
v/c Ratio	0.27	0.69	1.11dl	0.22	0.07	0.04
Control Delay	10.2	12.2	11.7	14.8	16.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	12.2	11.7	14.8	16.4	2.3
Queue Length 50th (ft)	14	138	44	13	5	0
Queue Length 95th (ft)	106	#685	#280	35	16	4
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	536	2557	1279	833	732	739
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.69	0.54	0.08	0.02	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	1297	912	30	4	9
v/c Ratio	0.52	0.45	0.19	0.03	0.06
Control Delay	3.1	2.9	19.4	27.2	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.1	2.9	19.4	27.2	4.9
Queue Length 50th (ft)	0	0	4	1	0
Queue Length 95th (ft)	152	102	26	10	5
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	2516	2012	444	365	369
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.45	0.07	0.01	0.02

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	606	645	871	262
v/c Ratio	0.50	0.51	0.57	0.34
Control Delay	20.4	0.8	6.2	14.6
Queue Delay	0.0	1.8	0.0	0.0
Total Delay	20.4	2.6	6.2	14.6
Queue Length 50th (ft)	131	3	42	29
Queue Length 95th (ft)	217	m2	m57	59
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1212	1347	1529	935
Starvation Cap Reductn	0	513	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.50	0.77	0.57	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	671	1527	141	131
v/c Ratio	0.25	1.22	0.51	0.39
Control Delay	1.9	130.9	37.2	9.8
Queue Delay	0.2	0.1	0.3	0.0
Total Delay	2.1	131.0	37.6	9.8
Queue Length 50th (ft)	20	~637	68	0
Queue Length 95th (ft)	23	#780	111	42
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2650	1255	367	410
Starvation Cap Reductn	1046	0	0	0
Spillback Cap Reductn	0	22	40	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	1.24	0.43	0.32

Intersection Summary

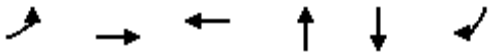
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	630	1732	21	22	7	27
v/c Ratio	0.23	0.62	0.12	0.08	0.05	0.12
Control Delay	4.2	8.6	23.0	1.6	21.8	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.2	8.6	23.0	1.6	21.8	15.6
Queue Length 50th (ft)	0	0	6	0	2	3
Queue Length 95th (ft)	124	#606	23	4	11	22
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2715	2783	479	646	398	596
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.62	0.04	0.03	0.02	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	9	668	1383	440	96	123
v/c Ratio	0.09	0.40	0.88	0.89	0.22	0.20
Control Delay	15.4	13.7	26.9	41.1	15.8	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	13.7	26.9	41.1	15.8	11.8
Queue Length 50th (ft)	2	99	295	170	28	26
Queue Length 95th (ft)	12	154	#478	#316	57	56
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	101	1671	1568	553	479	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.40	0.88	0.80	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	789	1135	293	52	83
v/c Ratio	0.35	0.51	0.73	0.44	0.25
Control Delay	5.8	7.1	21.5	36.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.8	7.1	21.5	36.0	8.5
Queue Length 50th (ft)	56	95	41	19	1
Queue Length 95th (ft)	124	205	114	50	32
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	2231	2229	657	257	636
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.35	0.51	0.45	0.20	0.13

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	739	332	201	551
v/c Ratio	0.70	0.30	0.13	0.64
Control Delay	29.7	2.2	0.1	35.4
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	29.7	2.7	0.1	35.4
Queue Length 50th (ft)	198	14	0	152
Queue Length 95th (ft)	265	m18	m0	208
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1110	1086	1520	879
Starvation Cap Reductn	0	370	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.67	0.46	0.13	0.63

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1163	465	510	491
v/c Ratio	0.49	0.47	1.11	1.14
Control Delay	2.1	24.8	106.7	116.1
Queue Delay	0.3	0.0	0.0	0.0
Total Delay	2.5	24.8	106.7	116.1
Queue Length 50th (ft)	25	112	~331	~338
Queue Length 95th (ft)	27	153	#515	#530
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2431	1023	458	431
Starvation Cap Reductn	630	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.65	0.45	1.11	1.14

Intersection Summary

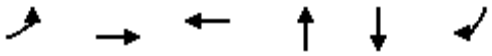
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1817	497	7	20	103	43
v/c Ratio	0.78	0.23	0.02	0.07	0.57	0.15
Control Delay	15.1	6.6	20.5	0.9	37.3	15.1
Queue Delay	0.8	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	6.6	20.5	0.9	37.3	15.1
Queue Length 50th (ft)	271	39	2	0	40	8
Queue Length 95th (ft)	#640	94	11	2	84	31
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2321	2125	540	478	331	508
Starvation Cap Reductn	223	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.23	0.01	0.04	0.31	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	146	1821	704	65	17	12
v/c Ratio	0.28	0.71	1.11dl	0.22	0.07	0.04
Control Delay	10.3	12.7	12.1	15.5	16.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	12.7	12.1	15.5	16.4	2.3
Queue Length 50th (ft)	14	152	46	14	5	0
Queue Length 95th (ft)	106	#723	#289	36	16	4
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	528	2556	1271	830	731	738
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.71	0.55	0.08	0.02	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	1359	953	30	13	22
v/c Ratio	0.62	0.48	0.18	0.12	0.15
Control Delay	4.7	3.3	18.8	29.0	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	3.3	18.8	29.0	12.6
Queue Length 50th (ft)	0	0	3	4	0
Queue Length 95th (ft)	222	118	26	20	17
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	2193	1982	449	302	375
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.62	0.48	0.07	0.04	0.06

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	608	656	902	265
v/c Ratio	0.52	0.53	0.59	0.34
Control Delay	21.2	0.9	7.1	14.5
Queue Delay	0.0	2.2	0.0	0.0
Total Delay	21.2	3.1	7.1	14.5
Queue Length 50th (ft)	133	3	72	30
Queue Length 95th (ft)	220	m2	m54	59
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1179	1334	1528	941
Starvation Cap Reductn	0	515	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.80	0.59	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	677	1573	145	133
v/c Ratio	0.26	1.27	0.52	0.39
Control Delay	1.9	154.6	37.1	9.8
Queue Delay	0.2	0.1	0.3	0.0
Total Delay	2.1	154.7	37.4	9.8
Queue Length 50th (ft)	20	~675	69	0
Queue Length 95th (ft)	23	#810	113	42
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2643	1237	368	412
Starvation Cap Reductn	1056	0	0	0
Spillback Cap Reductn	0	26	40	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	1.30	0.44	0.32

Intersection Summary

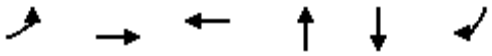
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	640	1789	21	22	7	27
v/c Ratio	0.24	0.64	0.12	0.08	0.05	0.12
Control Delay	4.2	9.0	23.0	1.6	21.8	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.2	9.0	23.0	1.6	21.8	16.5
Queue Length 50th (ft)	0	0	6	0	2	4
Queue Length 95th (ft)	126	#640	23	4	11	23
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2713	2784	479	646	398	595
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.64	0.04	0.03	0.02	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	9	680	1442	440	96	123
v/c Ratio	0.09	0.41	0.92	0.89	0.22	0.20
Control Delay	15.4	13.8	30.5	41.1	15.8	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	13.8	30.5	41.1	15.8	11.8
Queue Length 50th (ft)	2	102	317	170	28	26
Queue Length 95th (ft)	12	157	#512	#316	57	56
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	101	1671	1568	553	479	690
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.41	0.92	0.80	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	800	1142	293	91	141
v/c Ratio	0.38	0.52	0.69	0.64	0.39
Control Delay	6.4	7.7	19.3	45.9	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	7.7	19.3	45.9	14.8
Queue Length 50th (ft)	61	101	41	35	22
Queue Length 95th (ft)	130	208	115	81	65
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	2108	2176	639	272	622
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.52	0.46	0.33	0.23

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	739	332	201	551
v/c Ratio	0.37	0.28	0.13	0.84
Control Delay	5.8	9.2	0.2	46.2
Queue Delay	0.0	1.2	0.0	2.3
Total Delay	5.8	10.3	0.2	48.5
Queue Length 50th (ft)	73	111	0	150
Queue Length 95th (ft)	99	m168	m0	#238
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1975	1174	1530	655
Starvation Cap Reductn	0	608	0	0
Spillback Cap Reductn	0	0	0	38
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.37	0.59	0.13	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1163	465	510	491
v/c Ratio	0.59	0.27	0.88	0.91
Control Delay	8.1	10.2	43.0	47.8
Queue Delay	1.3	0.0	0.0	0.0
Total Delay	9.5	10.2	43.0	47.8
Queue Length 50th (ft)	109	64	241	247
Queue Length 95th (ft)	125	88	#417	#437
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2108	1821	581	542
Starvation Cap Reductn	683	0	0	0
Spillback Cap Reductn	0	5	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.82	0.26	0.88	0.91

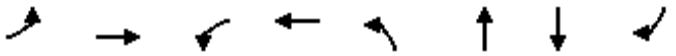
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1817	497	7	20	103	43
v/c Ratio	0.75	0.22	0.03	0.08	0.62	0.16
Control Delay	13.2	6.0	25.2	2.2	46.1	18.0
Queue Delay	1.2	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	6.0	25.2	2.2	46.1	18.0
Queue Length 50th (ft)	290	42	3	0	48	10
Queue Length 95th (ft)	#615	92	13	5	97	35
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2429	2224	468	416	285	442
Starvation Cap Reductn	370	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.22	0.01	0.05	0.36	0.10

Intersection Summary

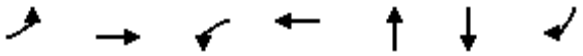
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	146	1821	159	545	21	44	17	12
v/c Ratio	0.21	0.83	0.61	0.26	0.12	0.18	0.09	0.05
Control Delay	5.5	19.3	26.4	9.0	31.9	18.4	31.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	19.3	26.4	9.0	31.9	18.4	31.5	0.4
Queue Length 50th (ft)	12	332	25	51	10	8	8	0
Queue Length 95th (ft)	73	#935	#157	164	29	34	25	0
Internal Link Dist (ft)		936		98		568	304	
Turn Bay Length (ft)	150				300			265
Base Capacity (vph)	748	2194	314	2108	306	394	304	370
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.83	0.51	0.26	0.07	0.11	0.06	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	123	1236	120	833	30	13	22
v/c Ratio	0.21	0.52	0.30	0.34	0.19	0.12	0.17
Control Delay	2.8	7.9	4.0	5.9	32.8	32.7	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.8	7.9	4.0	5.9	32.8	32.7	33.2
Queue Length 50th (ft)	0	78	0	42	10	5	8
Queue Length 95th (ft)	24	267	24	143	38	22	31
Internal Link Dist (ft)		701		264	446	318	
Turn Bay Length (ft)	150						108
Base Capacity (vph)	666	2355	481	2484	453	312	368
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.52	0.25	0.34	0.07	0.04	0.06

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	939	239	100	610	176
v/c Ratio	0.91	0.29	0.44	0.46	0.66
Control Delay	33.7	3.1	13.2	7.2	42.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.7	3.1	13.2	7.2	42.4
Queue Length 50th (ft)	434	3	14	116	81
Queue Length 95th (ft)	#833	41	50	226	146
Internal Link Dist (ft)	261			318	437
Turn Bay Length (ft)			120		
Base Capacity (vph)	1029	818	262	1317	373
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.29	0.38	0.46	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	608	656	902	265
v/c Ratio	0.31	0.48	0.59	0.56
Control Delay	3.0	3.5	2.3	22.0
Queue Delay	0.0	0.5	0.0	0.0
Total Delay	3.0	4.0	2.3	22.0
Queue Length 50th (ft)	35	53	21	30
Queue Length 95th (ft)	48	83	34	68
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	2117	1461	1530	470
Starvation Cap Reductn	0	393	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.61	0.59	0.56

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	677	1573	145	133
v/c Ratio	0.25	0.65	0.66	0.46
Control Delay	2.7	5.9	46.5	13.0
Queue Delay	0.2	0.4	0.0	0.0
Total Delay	2.9	6.3	46.5	13.0
Queue Length 50th (ft)	36	147	64	0
Queue Length 95th (ft)	42	167	#139	46
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	3029	2734	221	292
Starvation Cap Reductn	1311	598	0	0
Spillback Cap Reductn	0	21	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.74	0.66	0.46

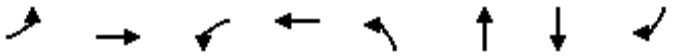
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	640	1789	21	22	7	27
v/c Ratio	0.25	0.67	0.14	0.09	0.06	0.14
Control Delay	4.3	9.1	29.5	3.0	27.5	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	9.1	29.5	3.0	27.5	16.4
Queue Length 50th (ft)	36	181	9	0	3	3
Queue Length 95th (ft)	123	#652	27	7	14	23
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2601	2673	394	539	329	496
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.67	0.05	0.04	0.02	0.05

Intersection Summary

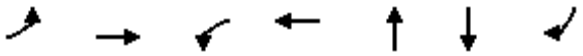
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	9	680	33	1409	344	96	96	123
v/c Ratio	0.04	0.40	0.09	0.74	0.85	0.18	0.24	0.21
Control Delay	10.5	16.3	10.4	20.1	46.7	7.2	22.9	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	16.3	10.4	20.1	46.7	7.2	22.9	5.1
Queue Length 50th (ft)	2	135	8	288	177	5	39	0
Queue Length 95th (ft)	9	195	23	#561	277	35	75	33
Internal Link Dist (ft)		936		98		568	304	
Turn Bay Length (ft)	150				300			265
Base Capacity (vph)	209	1706	381	1908	490	638	474	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.40	0.09	0.74	0.70	0.15	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	24	776	20	1122	293	91	141
v/c Ratio	0.08	0.38	0.05	0.56	0.83	0.46	0.37
Control Delay	6.1	10.7	5.8	12.9	51.5	36.1	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	10.7	5.8	12.9	51.5	36.1	29.3
Queue Length 50th (ft)	4	86	3	144	125	35	53
Queue Length 95th (ft)	12	172	10	278	#301	93	120
Internal Link Dist (ft)		701		264	446	318	
Turn Bay Length (ft)	150						108
Base Capacity (vph)	385	2027	485	2019	365	203	398
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.38	0.04	0.56	0.80	0.45	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	830	205	92	546	214
v/c Ratio	0.81	0.21	0.33	0.42	0.73
Control Delay	25.0	2.4	8.1	7.2	46.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	2.4	8.1	7.2	46.0
Queue Length 50th (ft)	357	0	14	111	103
Queue Length 95th (ft)	#686	33	33	192	178
Internal Link Dist (ft)	261			318	437
Turn Bay Length (ft)			120		
Base Capacity (vph)	1030	961	315	1304	368
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.81	0.21	0.29	0.42	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	750	338	203	562
v/c Ratio	0.70	0.31	0.13	0.65
Control Delay	29.6	2.3	0.1	35.8
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	29.6	2.7	0.1	35.8
Queue Length 50th (ft)	203	14	0	156
Queue Length 95th (ft)	270	m19	m0	212
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1109	1099	1520	879
Starvation Cap Reductn	0	362	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.46	0.13	0.64

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1185	473	520	501
v/c Ratio	0.49	0.48	1.16	1.19
Control Delay	2.1	24.7	124.5	136.3
Queue Delay	0.4	0.0	0.0	0.0
Total Delay	2.5	24.7	124.5	136.3
Queue Length 50th (ft)	25	114	~351	~360
Queue Length 95th (ft)	28	156	#536	#552
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2431	1024	448	421
Starvation Cap Reductn	627	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	0.46	1.16	1.19

Intersection Summary

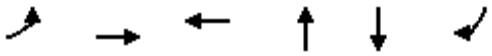
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1855	506	7	20	104	44
v/c Ratio	0.80	0.24	0.02	0.07	0.58	0.15
Control Delay	15.7	6.6	20.5	0.9	37.4	15.2
Queue Delay	0.9	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	6.6	20.5	0.9	37.4	15.2
Queue Length 50th (ft)	285	40	2	0	40	8
Queue Length 95th (ft)	#661	96	11	2	84	31
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2322	2122	539	478	330	509
Starvation Cap Reductn	217	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.24	0.01	0.04	0.32	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	147	1860	713	65	17	12
v/c Ratio	0.28	0.73	1.12dl	0.22	0.07	0.04
Control Delay	10.4	13.1	12.2	15.9	16.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	13.1	12.2	15.9	16.4	2.3
Queue Length 50th (ft)	14	160	48	14	5	0
Queue Length 95th (ft)	108	#745	#294	37	16	4
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	524	2557	1273	829	732	738
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.73	0.56	0.08	0.02	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	1392	975	30	15	26
v/c Ratio	0.71	0.53	0.18	0.19	0.18
Control Delay	7.3	4.4	19.0	32.9	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	4.4	19.0	32.9	14.2
Queue Length 50th (ft)	132	65	4	6	0
Queue Length 95th (ft)	271	127	26	22	20
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	1973	1851	430	222	360
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.53	0.07	0.07	0.07

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	615	667	920	268
v/c Ratio	0.53	0.54	0.60	0.34
Control Delay	21.8	1.0	7.7	14.4
Queue Delay	0.0	2.5	0.0	0.0
Total Delay	21.8	3.5	7.7	14.4
Queue Length 50th (ft)	141	3	103	29
Queue Length 95th (ft)	224	m2	m50	60
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1153	1326	1523	942
Starvation Cap Reductn	0	510	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.82	0.60	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	684	1602	148	136
v/c Ratio	0.26	1.31	0.52	0.40
Control Delay	2.0	170.8	37.7	9.7
Queue Delay	0.2	0.1	0.4	0.0
Total Delay	2.2	170.9	38.0	9.7
Queue Length 50th (ft)	21	~711	71	0
Queue Length 95th (ft)	24	#829	116	43
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2628	1224	367	414
Starvation Cap Reductn	1080	0	0	0
Spillback Cap Reductn	0	29	40	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	1.34	0.45	0.33

Intersection Summary

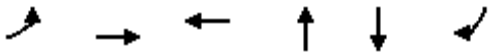
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	649	1825	21	23	7	27
v/c Ratio	0.26	0.71	0.12	0.09	0.05	0.12
Control Delay	5.0	10.9	24.1	2.0	22.5	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	10.9	24.1	2.0	22.5	17.6
Queue Length 50th (ft)	36	186	7	0	2	6
Queue Length 95th (ft)	128	#660	23	4	11	23
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2515	2587	456	619	380	567
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.71	0.05	0.04	0.02	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	9	690	1477	447	96	123
v/c Ratio	0.09	0.41	0.95	0.89	0.22	0.20
Control Delay	15.4	14.0	34.3	42.0	15.8	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	14.0	34.3	42.0	15.8	11.7
Queue Length 50th (ft)	2	103	332	174	28	26
Queue Length 95th (ft)	12	160	#533	#325	57	56
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	101	1663	1558	549	474	686
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.41	0.95	0.81	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	812	1155	294	103	162
v/c Ratio	0.39	0.53	0.71	0.75	0.45
Control Delay	6.6	7.9	20.3	57.1	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	7.9	20.3	57.1	17.3
Queue Length 50th (ft)	66	109	42	41	31
Queue Length 95th (ft)	135	215	117	91	78
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	2092	2183	637	268	623
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.53	0.46	0.38	0.26

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	753	339	204	566
v/c Ratio	0.70	0.31	0.13	0.65
Control Delay	29.7	2.2	0.1	35.9
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	29.7	2.6	0.1	35.9
Queue Length 50th (ft)	204	14	0	157
Queue Length 95th (ft)	272	m18	m0	214
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1109	1099	1520	879
Starvation Cap Reductn	0	361	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.46	0.13	0.64

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1193	475	524	506
v/c Ratio	0.50	0.48	1.17	1.21
Control Delay	2.1	24.7	129.5	142.7
Queue Delay	0.4	0.0	0.0	0.0
Total Delay	2.5	24.7	129.5	142.7
Queue Length 50th (ft)	25	115	~358	~368
Queue Length 95th (ft)	28	156	#543	#562
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2431	1024	446	419
Starvation Cap Reductn	625	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	0.46	1.17	1.21

Intersection Summary

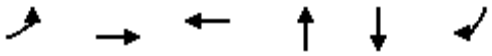
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1871	509	7	20	104	44
v/c Ratio	0.81	0.24	0.02	0.07	0.58	0.15
Control Delay	15.9	6.6	20.5	0.9	37.4	15.2
Queue Delay	1.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	6.6	20.5	0.9	37.4	15.2
Queue Length 50th (ft)	290	41	2	0	40	8
Queue Length 95th (ft)	#670	97	11	2	84	31
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2322	2122	539	478	330	509
Starvation Cap Reductn	214	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.24	0.01	0.04	0.32	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	147	1877	717	65	17	12
v/c Ratio	0.28	0.73	1.12dl	0.22	0.07	0.04
Control Delay	10.4	13.2	12.3	16.2	16.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	13.2	12.3	16.2	16.4	2.3
Queue Length 50th (ft)	15	164	48	15	5	0
Queue Length 95th (ft)	108	#754	#297	37	16	4
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	521	2556	1273	829	732	738
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.73	0.56	0.08	0.02	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	1408	986	30	17	29
v/c Ratio	0.74	0.54	0.18	0.22	0.19
Control Delay	8.7	4.6	18.8	34.1	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	4.6	18.8	34.1	14.3
Queue Length 50th (ft)	146	68	4	7	0
Queue Length 95th (ft)	#347	134	26	24	22
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	1908	1841	428	212	361
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.54	0.07	0.08	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	615	671	928	270
v/c Ratio	0.54	0.54	0.61	0.34
Control Delay	22.1	1.1	8.0	14.4
Queue Delay	0.0	2.7	0.0	0.0
Total Delay	22.1	3.8	8.0	14.4
Queue Length 50th (ft)	145	3	121	30
Queue Length 95th (ft)	225	m2	m48	60
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1141	1321	1523	943
Starvation Cap Reductn	0	513	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.83	0.61	0.29

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	686	1614	148	137
v/c Ratio	0.26	1.33	0.52	0.39
Control Delay	2.0	178.5	37.3	9.6
Queue Delay	0.2	0.1	0.4	0.0
Total Delay	2.2	178.6	37.7	9.6
Queue Length 50th (ft)	21	~728	70	0
Queue Length 95th (ft)	24	#837	116	43
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2620	1216	367	415
Starvation Cap Reductn	1074	0	0	0
Spillback Cap Reductn	0	30	40	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	1.36	0.45	0.33

Intersection Summary

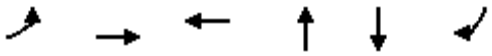
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	651	1840	21	23	7	27
v/c Ratio	0.26	0.71	0.12	0.09	0.05	0.12
Control Delay	5.0	11.0	24.1	2.0	22.5	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	11.0	24.1	2.0	22.5	17.6
Queue Length 50th (ft)	36	188	7	0	2	6
Queue Length 95th (ft)	128	#669	23	4	11	23
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2515	2587	456	619	380	567
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.71	0.05	0.04	0.02	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	9	692	1492	447	96	123
v/c Ratio	0.09	0.42	0.96	0.89	0.22	0.20
Control Delay	15.4	14.0	35.6	42.0	15.8	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	14.0	35.6	42.0	15.8	11.7
Queue Length 50th (ft)	2	104	338	174	28	26
Queue Length 95th (ft)	12	160	#540	#325	57	56
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	101	1663	1561	549	474	686
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.42	0.96	0.81	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	814	1158	294	114	178
v/c Ratio	0.40	0.54	0.69	0.75	0.47
Control Delay	7.2	8.6	18.8	54.0	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	8.6	18.8	54.0	17.9
Queue Length 50th (ft)	71	115	42	46	37
Queue Length 95th (ft)	150	238	116	99	87
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	2043	2150	627	275	615
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.40	0.54	0.47	0.41	0.29

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	753	339	204	566
v/c Ratio	0.38	0.29	0.13	0.87
Control Delay	5.9	9.2	0.2	48.7
Queue Delay	0.0	1.2	0.0	4.6
Total Delay	5.9	10.5	0.2	53.3
Queue Length 50th (ft)	75	115	0	155
Queue Length 95th (ft)	102	m171	m0	#249
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1970	1171	1530	653
Starvation Cap Reductn	0	605	0	0
Spillback Cap Reductn	0	0	0	47
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.60	0.13	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1193	475	524	506
v/c Ratio	0.60	0.28	0.91	0.94
Control Delay	8.2	10.2	48.0	54.6
Queue Delay	1.5	0.0	0.0	0.0
Total Delay	9.8	10.2	48.0	54.6
Queue Length 50th (ft)	111	65	255	263
Queue Length 95th (ft)	127	90	#440	#462
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2101	1815	576	537
Starvation Cap Reductn	671	0	0	0
Spillback Cap Reductn	0	12	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.83	0.26	0.91	0.94

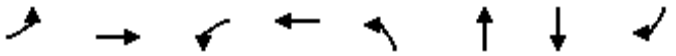
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1871	509	7	20	104	44
v/c Ratio	0.77	0.23	0.03	0.08	0.62	0.16
Control Delay	14.0	6.0	25.2	2.2	46.2	18.1
Queue Delay	1.6	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	6.0	25.2	2.2	46.2	18.1
Queue Length 50th (ft)	311	43	3	0	48	10
Queue Length 95th (ft)	#688	95	13	5	98	36
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2428	2223	467	416	285	443
Starvation Cap Reductn	355	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.23	0.01	0.05	0.36	0.10

Intersection Summary

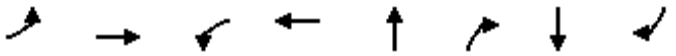
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	147	1877	160	557	21	44	17	12
v/c Ratio	0.22	0.86	0.61	0.26	0.12	0.18	0.09	0.05
Control Delay	5.6	20.5	26.4	9.1	31.9	18.4	31.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	20.5	26.4	9.1	31.9	18.4	31.5	0.4
Queue Length 50th (ft)	12	356	26	53	10	8	8	0
Queue Length 95th (ft)	74	#979	#158	168	29	34	25	0
Internal Link Dist (ft)		936		98		568	304	
Turn Bay Length (ft)	150				300			265
Base Capacity (vph)	742	2190	314	2110	306	394	304	369
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.86	0.51	0.26	0.07	0.11	0.06	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	160	1248	120	866	11	19	17	29
v/c Ratio	0.30	0.55	0.32	0.39	0.07	0.12	0.21	0.23
Control Delay	3.9	9.4	4.8	7.7	31.8	32.6	37.6	35.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	9.4	4.8	7.7	31.8	32.6	37.6	35.7
Queue Length 50th (ft)	14	171	10	97	5	8	7	13
Queue Length 95th (ft)	32	283	25	160	20	28	27	37
Internal Link Dist (ft)		701		264	446		318	
Turn Bay Length (ft)	150					200		108
Base Capacity (vph)	593	2272	451	2196	408	430	219	336
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.55	0.27	0.39	0.03	0.04	0.08	0.09

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	952	243	101	632	180
v/c Ratio	0.93	0.30	0.47	0.48	0.67
Control Delay	35.8	3.2	15.3	7.4	42.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	3.2	15.3	7.4	42.7
Queue Length 50th (ft)	451	4	14	124	83
Queue Length 95th (ft)	#850	43	56	238	150
Internal Link Dist (ft)	261			318	437
Turn Bay Length (ft)			120		
Base Capacity (vph)	1026	816	253	1314	372
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.30	0.40	0.48	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	615	671	928	270
v/c Ratio	0.31	0.49	0.61	0.58
Control Delay	3.0	3.4	2.4	22.6
Queue Delay	0.0	0.6	0.0	0.0
Total Delay	3.0	4.0	2.4	22.6
Queue Length 50th (ft)	35	55	23	32
Queue Length 95th (ft)	48	85	37	69
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	2101	1459	1530	466
Starvation Cap Reductn	0	396	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.63	0.61	0.58

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	686	1614	148	137
v/c Ratio	0.25	0.66	0.68	0.47
Control Delay	2.7	6.0	48.9	13.1
Queue Delay	0.2	0.6	0.0	0.0
Total Delay	2.9	6.6	48.9	13.1
Queue Length 50th (ft)	36	155	68	0
Queue Length 95th (ft)	43	175	#144	47
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2966	2677	217	292
Starvation Cap Reductn	1320	599	0	0
Spillback Cap Reductn	0	21	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.78	0.68	0.47

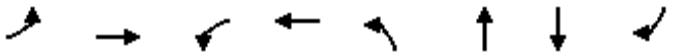
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	651	1840	21	23	7	27
v/c Ratio	0.25	0.69	0.14	0.10	0.06	0.14
Control Delay	4.4	9.5	29.5	3.3	27.5	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	9.5	29.5	3.3	27.5	18.2
Queue Length 50th (ft)	37	192	9	0	3	5
Queue Length 95th (ft)	125	#685	27	7	14	24
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2599	2673	394	539	329	494
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.69	0.05	0.04	0.02	0.05

Intersection Summary

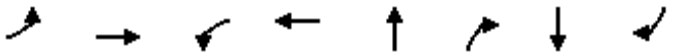
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	9	692	33	1459	348	99	96	123
v/c Ratio	0.04	0.41	0.09	0.77	0.85	0.18	0.24	0.21
Control Delay	10.5	16.5	10.4	21.0	47.3	7.3	22.9	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	16.5	10.4	21.0	47.3	7.3	22.9	5.1
Queue Length 50th (ft)	2	138	8	306	180	5	39	0
Queue Length 95th (ft)	9	199	23	#594	#285	36	75	33
Internal Link Dist (ft)		936		98		568	304	
Turn Bay Length (ft)	150				300			265
Base Capacity (vph)	208	1702	374	1903	488	635	472	673
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.41	0.09	0.77	0.71	0.16	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	30	784	20	1138	77	217	114	178
v/c Ratio	0.09	0.36	0.04	0.53	0.33	0.70	0.44	0.57
Control Delay	5.8	9.5	5.5	11.5	30.7	41.9	32.7	35.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.8	9.5	5.5	11.5	30.7	41.9	32.7	35.2
Queue Length 50th (ft)	4	70	3	117	28	86	43	68
Queue Length 95th (ft)	14	173	10	285	74	182	102	149
Internal Link Dist (ft)		701		264	446		318	
Turn Bay Length (ft)	150					200		108
Base Capacity (vph)	415	2154	519	2140	316	411	351	422
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.36	0.04	0.53	0.24	0.53	0.32	0.42

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	856	211	94	554	216
v/c Ratio	0.83	0.22	0.36	0.43	0.74
Control Delay	26.8	2.4	8.7	7.3	46.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	2.4	8.7	7.3	46.2
Queue Length 50th (ft)	380	0	14	113	104
Queue Length 95th (ft)	#718	34	33	195	180
Internal Link Dist (ft)	261			318	437
Turn Bay Length (ft)			120		
Base Capacity (vph)	1028	963	300	1303	367
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.22	0.31	0.43	0.59

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	771	349	210	576
v/c Ratio	0.72	0.32	0.14	0.66
Control Delay	30.5	2.3	0.1	36.2
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	30.5	2.7	0.1	36.2
Queue Length 50th (ft)	211	15	0	161
Queue Length 95th (ft)	283	m19	m0	219
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1096	1098	1519	879
Starvation Cap Reductn	0	349	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.70	0.47	0.14	0.66

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1216	488	535	514
v/c Ratio	0.50	0.49	1.22	1.24
Control Delay	2.1	24.9	145.9	157.3
Queue Delay	0.4	0.0	0.0	0.0
Total Delay	2.5	24.9	145.9	157.3
Queue Length 50th (ft)	26	118	~378	~385
Queue Length 95th (ft)	30	162	#563	#578
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2431	1024	440	413
Starvation Cap Reductn	636	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.48	1.22	1.24

Intersection Summary

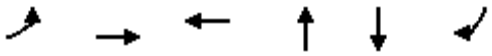
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1902	521	9	21	108	45
v/c Ratio	0.82	0.25	0.03	0.07	0.59	0.15
Control Delay	16.8	6.7	20.6	1.3	38.1	14.9
Queue Delay	1.2	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	6.7	20.6	1.3	38.1	14.9
Queue Length 50th (ft)	306	43	3	0	42	8
Queue Length 95th (ft)	#688	100	13	3	88	31
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2313	2116	539	477	329	507
Starvation Cap Reductn	209	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.25	0.02	0.04	0.33	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	150	1908	734	67	19	13
v/c Ratio	0.29	0.75	1.15dl	0.22	0.07	0.05
Control Delay	10.7	13.5	12.6	16.4	16.5	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	13.5	12.6	16.4	16.5	2.5
Queue Length 50th (ft)	15	170	51	15	5	0
Queue Length 95th (ft)	112	#772	#307	38	17	5
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	511	2556	1274	830	731	737
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.75	0.58	0.08	0.03	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	1429	998	31	15	27
v/c Ratio	0.73	0.55	0.18	0.19	0.18
Control Delay	8.1	4.6	18.7	32.9	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	4.6	18.7	32.9	14.6
Queue Length 50th (ft)	143	68	4	6	0
Queue Length 95th (ft)	#300	136	26	22	21
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	1966	1831	431	222	360
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.55	0.07	0.07	0.07

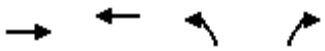
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	633	688	946	276
v/c Ratio	0.57	0.56	0.62	0.34
Control Delay	23.1	1.3	8.4	14.2
Queue Delay	0.0	3.4	0.0	0.0
Total Delay	23.1	4.8	8.4	14.2
Queue Length 50th (ft)	153	3	146	30
Queue Length 95th (ft)	236	m2	m42	61
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1104	1310	1522	944
Starvation Cap Reductn	0	510	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.57	0.86	0.62	0.29

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	705	1649	151	139
v/c Ratio	0.27	1.37	0.53	0.40
Control Delay	2.1	199.0	37.6	9.6
Queue Delay	0.2	0.1	0.4	0.0
Total Delay	2.3	199.1	37.9	9.6
Queue Length 50th (ft)	22	~757	72	0
Queue Length 95th (ft)	27	#861	118	43
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2614	1200	367	416
Starvation Cap Reductn	1089	0	0	0
Spillback Cap Reductn	0	32	40	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.46	1.41	0.46	0.33

Intersection Summary

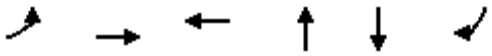
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	667	1875	22	23	8	28
v/c Ratio	0.27	0.73	0.13	0.09	0.06	0.13
Control Delay	5.0	11.4	24.2	1.9	22.7	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	11.4	24.2	1.9	22.7	18.2
Queue Length 50th (ft)	38	199	8	0	3	6
Queue Length 95th (ft)	132	#690	24	4	12	24
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2511	2585	456	618	379	565
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.73	0.05	0.04	0.02	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	9	709	1517	459	98	126
v/c Ratio	0.09	0.43	0.98	0.91	0.23	0.20
Control Delay	15.4	14.3	41.0	43.8	15.8	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	14.3	41.0	43.8	15.8	11.7
Queue Length 50th (ft)	2	107	~349	182	28	27
Queue Length 95th (ft)	12	164	#555	#339	58	58
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	100	1648	1543	544	466	680
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.43	0.98	0.84	0.21	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	834	1189	300	104	164
v/c Ratio	0.40	0.55	0.73	0.75	0.46
Control Delay	6.9	8.3	22.3	56.7	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	8.3	22.3	56.7	18.3
Queue Length 50th (ft)	70	115	49	41	34
Queue Length 95th (ft)	146	234	127	92	82
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	2080	2174	628	265	617
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.40	0.55	0.48	0.39	0.27

Intersection Summary

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	786	352	217	596
v/c Ratio	0.74	0.32	0.14	0.68
Control Delay	30.9	2.3	0.1	36.8
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	30.9	2.7	0.1	36.8
Queue Length 50th (ft)	217	15	0	168
Queue Length 95th (ft)	290	m19	m0	227
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1096	1095	1516	878
Starvation Cap Reductn	0	345	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.72	0.47	0.14	0.68

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1253	499	554	538
v/c Ratio	0.52	0.50	1.29	1.33
Control Delay	2.2	25.0	177.2	194.8
Queue Delay	0.4	0.0	0.0	0.0
Total Delay	2.6	25.0	177.2	194.8
Queue Length 50th (ft)	26	122	~413	~429
Queue Length 95th (ft)	35	165	#601	#626
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2431	1024	429	403
Starvation Cap Reductn	630	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.70	0.49	1.29	1.33

Intersection Summary

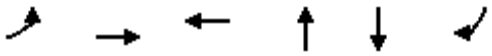
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1979	536	9	21	108	45
v/c Ratio	0.86	0.25	0.03	0.07	0.59	0.15
Control Delay	18.4	6.8	20.6	1.3	38.1	14.9
Queue Delay	1.9	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	6.8	20.6	1.3	38.1	14.9
Queue Length 50th (ft)	336	44	3	0	42	8
Queue Length 95th (ft)	#731	102	13	3	88	31
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2313	2119	539	477	329	507
Starvation Cap Reductn	196	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.25	0.02	0.04	0.33	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	150	1987	749	67	19	13
v/c Ratio	0.30	0.78	1.15dl	0.22	0.07	0.05
Control Delay	10.9	14.3	12.8	17.0	16.5	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.9	14.3	12.8	17.0	16.5	2.5
Queue Length 50th (ft)	15	190	53	16	5	0
Queue Length 95th (ft)	113	#818	#315	39	17	5
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	501	2555	1278	828	731	737
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.78	0.59	0.08	0.03	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	1506	1049	31	26	42
v/c Ratio	0.89	0.59	0.17	0.33	0.24
Control Delay	17.9	5.8	17.8	38.2	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	5.8	17.8	38.2	13.0
Queue Length 50th (ft)	244	83	4	10	0
Queue Length 95th (ft)	#525	179	26	33	25
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	1695	1764	426	197	368
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.89	0.59	0.07	0.13	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	636	702	985	279
v/c Ratio	0.60	0.58	0.64	0.33
Control Delay	24.1	1.5	9.8	14.2
Queue Delay	0.0	4.5	0.0	0.0
Total Delay	24.1	6.0	9.8	14.2
Queue Length 50th (ft)	162	3	212	30
Queue Length 95th (ft)	240	m2	m38	62
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1067	1295	1516	941
Starvation Cap Reductn	0	505	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.60	0.89	0.65	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	711	1706	153	145
v/c Ratio	0.27	1.45	0.52	0.40
Control Delay	2.2	231.7	36.9	9.4
Queue Delay	0.3	0.1	1.5	0.0
Total Delay	2.5	231.9	38.4	9.4
Queue Length 50th (ft)	22	~816	73	0
Queue Length 95th (ft)	32	#900	119	44
Internal Link Dist (ft)	209	177	601	
Turn Bay Length (ft)				175
Base Capacity (vph)	2587	1178	368	421
Starvation Cap Reductn	1117	0	0	0
Spillback Cap Reductn	0	37	97	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	1.50	0.56	0.34

Intersection Summary

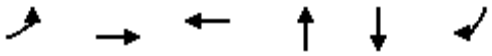
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	678	1945	22	23	8	28
v/c Ratio	0.27	0.75	0.13	0.09	0.06	0.13
Control Delay	5.1	12.1	24.2	1.9	22.7	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	12.1	24.2	1.9	22.7	19.2
Queue Length 50th (ft)	39	216	8	0	3	7
Queue Length 95th (ft)	135	#730	24	4	12	25
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2506	2586	456	618	379	563
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.75	0.05	0.04	0.02	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	9	721	1591	459	98	126
v/c Ratio	0.09	0.44	1.03	0.91	0.23	0.20
Control Delay	15.4	14.4	53.2	43.8	15.8	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	14.4	53.2	43.8	15.8	11.7
Queue Length 50th (ft)	2	110	~426	182	28	27
Queue Length 95th (ft)	12	168	#597	#339	58	58
Internal Link Dist (ft)		936	98	568	304	
Turn Bay Length (ft)	150					265
Base Capacity (vph)	100	1648	1545	544	466	680
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.44	1.03	0.84	0.21	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	846	1198	300	152	237
v/c Ratio	0.45	0.58	0.66	0.81	0.57
Control Delay	8.8	10.3	18.0	57.6	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	10.3	18.0	57.6	22.0
Queue Length 50th (ft)	91	145	49	64	64
Queue Length 95th (ft)	170	264	125	#135	128
Internal Link Dist (ft)	701	264	446	318	
Turn Bay Length (ft)					108
Base Capacity (vph)	1890	2064	600	281	590
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.45	0.58	0.50	0.54	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	786	352	217	596
v/c Ratio	0.42	0.32	0.14	0.75
Control Delay	7.8	10.5	0.2	37.3
Queue Delay	0.0	1.0	0.0	0.3
Total Delay	7.8	11.4	0.2	37.6
Queue Length 50th (ft)	95	117	0	155
Queue Length 95th (ft)	130	178	0	215
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1866	1113	1530	797
Starvation Cap Reductn	0	503	0	0
Spillback Cap Reductn	0	0	0	21
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.58	0.14	0.77

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1253	499	114	978
v/c Ratio	0.59	0.27	0.23	0.97
Control Delay	6.8	8.7	26.4	50.9
Queue Delay	1.1	0.0	0.0	0.0
Total Delay	7.9	8.7	26.4	50.9
Queue Length 50th (ft)	107	63	50	242
Queue Length 95th (ft)	121	86	91	#359
Internal Link Dist (ft)	209	177	299	
Turn Bay Length (ft)				175
Base Capacity (vph)	2184	1887	506	1006
Starvation Cap Reductn	630	0	0	0
Spillback Cap Reductn	0	9	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.81	0.27	0.23	0.97

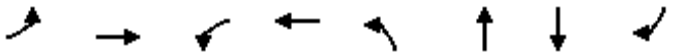
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1979	536	9	21	108	45
v/c Ratio	0.82	0.24	0.03	0.08	0.64	0.17
Control Delay	15.9	6.2	25.1	2.6	47.0	17.7
Queue Delay	2.8	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	6.2	25.1	2.6	47.0	17.7
Queue Length 50th (ft)	361	47	4	0	50	10
Queue Length 95th (ft)	#757	100	15	6	101	36
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2421	2217	467	415	284	441
Starvation Cap Reductn	325	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.24	0.02	0.05	0.38	0.10

Intersection Summary

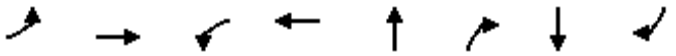
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	150	1987	164	585	21	46	19	13
v/c Ratio	0.23	0.92	0.63	0.28	0.11	0.18	0.10	0.05
Control Delay	6.7	25.3	28.9	10.2	31.0	17.6	30.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	25.3	28.9	10.2	31.0	17.6	30.8	0.3
Queue Length 50th (ft)	12	411	28	56	10	9	9	0
Queue Length 95th (ft)	89	#1178	#189	203	29	35	26	0
Internal Link Dist (ft)		936		98		568	304	
Turn Bay Length (ft)	150				300			265
Base Capacity (vph)	714	2169	309	2093	318	409	321	381
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.92	0.53	0.28	0.07	0.11	0.06	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	222	1284	122	927	11	20	26	42
v/c Ratio	0.44	0.57	0.33	0.43	0.07	0.12	0.32	0.31
Control Delay	5.5	10.3	5.5	8.7	31.7	32.3	42.2	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	10.3	5.5	8.7	31.7	32.3	42.2	37.4
Queue Length 50th (ft)	22	186	11	114	5	9	12	19
Queue Length 95th (ft)	49	321	29	187	19	29	36	49
Internal Link Dist (ft)		701		264	446		318	
Turn Bay Length (ft)	150					200		108
Base Capacity (vph)	552	2260	432	2147	366	422	197	329
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.57	0.28	0.43	0.03	0.05	0.13	0.13

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	988	251	104	672	190
v/c Ratio	0.97	0.31	0.51	0.51	0.69
Control Delay	43.6	3.5	19.9	8.0	43.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	3.5	19.9	8.0	43.7
Queue Length 50th (ft)	~523	6	15	140	89
Queue Length 95th (ft)	#896	46	66	262	158
Internal Link Dist (ft)	261			318	437
Turn Bay Length (ft)			120		
Base Capacity (vph)	1018	812	240	1308	371
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.97	0.31	0.43	0.51	0.51

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	636	702	985	279
v/c Ratio	0.36	0.56	0.64	0.39
Control Delay	5.5	6.9	3.6	16.2
Queue Delay	0.0	1.7	0.0	0.0
Total Delay	5.5	8.6	3.6	16.2
Queue Length 50th (ft)	59	217	37	29
Queue Length 95th (ft)	81	244	60	64
Internal Link Dist (ft)	349	209		315
Turn Bay Length (ft)				285
Base Capacity (vph)	1766	1310	1512	717
Starvation Cap Reductn	0	417	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.79	0.65	0.39

Intersection Summary

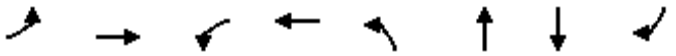
Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	711	1706	94	204
v/c Ratio	0.28	0.73	0.35	0.31
Control Delay	3.8	9.2	37.5	6.5
Queue Delay	0.2	1.2	0.0	0.0
Total Delay	4.0	10.4	37.5	6.5
Queue Length 50th (ft)	53	240	48	0
Queue Length 95th (ft)	65	286	87	23
Internal Link Dist (ft)	209	177	296	
Turn Bay Length (ft)				175
Base Capacity (vph)	2674	2451	320	741
Starvation Cap Reductn	1151	474	0	0
Spillback Cap Reductn	0	127	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.47	0.86	0.29	0.28

Intersection Summary

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	678	1945	22	23	8	28
v/c Ratio	0.26	0.73	0.15	0.10	0.06	0.14
Control Delay	4.4	10.5	29.6	3.3	27.7	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	10.5	29.6	3.3	27.7	20.2
Queue Length 50th (ft)	40	218	9	0	3	6
Queue Length 95th (ft)	132	#754	28	7	14	27
Internal Link Dist (ft)	122	936	149			244
Turn Bay Length (ft)						
Base Capacity (vph)	2590	2673	394	539	328	491
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.73	0.06	0.04	0.02	0.06

Intersection Summary

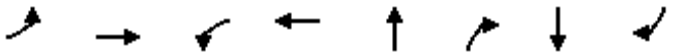
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	9	721	34	1557	357	102	98	126
v/c Ratio	0.04	0.43	0.10	0.83	0.84	0.18	0.24	0.21
Control Delay	12.1	18.0	11.9	24.6	44.4	6.8	22.2	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	18.0	11.9	24.6	44.4	6.8	22.2	4.6
Queue Length 50th (ft)	2	146	8	343	186	5	40	0
Queue Length 95th (ft)	11	239	27	#752	285	35	74	32
Internal Link Dist (ft)		936		98		568	304	
Turn Bay Length (ft)	150				300			265
Base Capacity (vph)	203	1668	352	1867	497	648	479	685
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.43	0.10	0.83	0.72	0.16	0.20	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	40	806	20	1178	79	221	152	237
v/c Ratio	0.13	0.36	0.04	0.62	0.39	0.74	0.60	0.45
Control Delay	6.1	9.4	5.5	15.3	35.0	46.9	40.7	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	9.4	5.5	15.3	35.0	46.9	40.7	24.5
Queue Length 50th (ft)	6	81	3	212	36	109	72	95
Queue Length 95th (ft)	17	180	10	302	78	186	134	159
Internal Link Dist (ft)		701		264	446		318	
Turn Bay Length (ft)	150					200		108
Base Capacity (vph)	367	2227	526	1911	247	368	313	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.36	0.04	0.62	0.32	0.60	0.49	0.40

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	908	222	96	573	223
v/c Ratio	0.89	0.23	0.42	0.44	0.75
Control Delay	31.5	2.6	11.6	7.6	47.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	2.6	11.6	7.6	47.2
Queue Length 50th (ft)	434	2	15	122	108
Queue Length 95th (ft)	#785	37	41	205	186
Internal Link Dist (ft)	261			318	437
Turn Bay Length (ft)			120		
Base Capacity (vph)	1024	962	268	1299	366
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.89	0.23	0.36	0.44	0.61

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX G

Email to
Chief Paul Oliva,
Town of Mount Pleasant Police Department,
dated May 17, 2016

Robert B. Peake, AICP

From:	Robert B. Peake, AICP
Sent:	Tuesday, May 17, 2016 11:45 AM
To:	'poliva@mtpleasantny.com'
Cc:	Richard J. Pearson, PE, PTOE
Subject:	Additional Question for Landmark at Eastview Final Environmental Impact Statement, Town of Mount Pleasant, NY [15086]
Attachments:	Letter from Chief Oliva dated 01-13-2016.pdf
Categories:	15086

Chief Paul Oliva
Town of Mount Pleasant Police Department
One Town Hall Plaza
Valhalla, NY 10595

RE: JMC Project 15086
The Landmark at Eastview Phase 2 Expansion
777 Old Saw Mill River Road
Town of Mount Pleasant, NY

Request for Information for a Final Environmental Impact Statement

Dear Chief Oliva:

Thank you for your earlier reply (attached) to our request for information for the Draft Environmental Impact Statement for this proposed project.

We received the following additional question from the Town's Planning Consultant, and would kindly ask if you would provide a reply:

"Substantiate the statement that the local Police Department has rarely been called to the Landmark Campus. Are Police Department statistics available?"

Thank you for your help.

Sincerely,

ROBERT B. PEAKE, AICP
Planner

JMC
SITE DEVELOPMENT CONSULTANTS
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POLICE DEPARTMENT

PAUL J. OLIVA
Chief of Police

January 13, 2016

Mr. Robert B. Peake
120 Bedford Rd.
Armonk, NY 10504

Dear Mr. Peake,

I am in receipt of your correspondence regarding a request for information for the Draft Environmental Impact Statement regarding JMC Project 15086. I know from phase one of the project, that a parking structure of approximately 850 spaces was constructed for vehicles of employees coming to the location. It appears that the square footage of floor area for phase two will more than double the square footage available at the facility. If I could extrapolate the data and estimate that there may be another 800 employees at the site, it would bring the employees on location to around 1600.

The Mt. Pleasant Police Department has 41 sworn officers and a population from the 2010 census report of approximately 44,000 persons residing in Town. The FBI statistics show an average of 2.4 officers per 1000 people in areas with a similar population range to Mt. Pleasant. Many areas are in the 1.5 to 1.7 officer per thousand in population range. Considering the 2010 numbers, we are less than one officer (.93) per thousand persons in Mt. Pleasant. This is significantly less than the average. Any increase in population does affect our ability to carry out our mission as an organization. We have an average of 33 thousand calls for service and average about one arrest per day. We would expect increased traffic to the area roads and our ability to conduct selective enforcement is diminished due to our decreased numbers. In addition, we would expect an increase in the calls for service to the area based on the amount of persons at the location. We have used license plate reader cameras to augment our investigative capabilities at other areas in Town. Perhaps this type of equipment would mitigate some of the resources needed to thoroughly investigate any crimes occurring at or near the facility.

B.1

I would like to thank you for the opportunity to comment on the concerns that I have regarding this project. I believe that your client has made a wise decision to stay in Mt. Pleasant and expand here. Please know that our officers will strive to deliver the best service possible.

Very truly yours,

Chief Paul J. Oliva

ONE TOWN HALL PLAZA VALHALLA, N.Y. 10595 PHONE: 914-769-1941 FAX: 914-769-7199