DRAFT SUPPLEMENTARY ENVIRONMENTAL IMPACT STATEMENT

I.PARK 87 – EAST CAMPUS

Enterprise Drive
Town of Ulster
Ulster County, New York



April 25, 2023

Revised May 17, 2023

Applicant:

i.Park 87 LLC 485 West Putnam Avenue Greenwich, Connecticut 06830

Draft Supplementary Environmental Impact Statement

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Enterprise Drive
Town of Ulster
Ulster County, New York

Applicant: i.Park 87 LLC

485 West Putnam Avenue

Greenwich, Connecticut 06830 Contact: Daniel J. Pennessi, Esq.

Lead Agency: Town of Ulster Town Board / Planning Board

1 Town Hall Drive

Lake Katrine, New York 12449

Proposed Action: Mixed-use redevelopment of 128.47-acre

former Tech City East Campus site, including the construction of 880 multifamily units, redevelopment of 743,000 sq ft of existing buildings, new construction of 626,395 sq ft of industrial/warehouse buildings, hotel, mobility hub, retail with supporting parking.

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INTRODUCTION

I.PARK 87 EAST CAMPUS DRAFT SUPPLEMENTARY ENVIRONMENTAL IMPACT STATEMENT

The purpose of this Draft Supplementary Environmental Impact Statement (DSEIS) is to provide additional support for and information on the proposed i.Park 87 East Campus Master Plan.

In May 2011, the Town of Ulster approved a Final Generic Environmental Impact Statement (FGEIS) in support of the TechCity Comprehensive Design Plan. This Comprehensive Design Plan, as further described herein, has been used as the basis of the proposed i.Park 87 Master Plan, but has been adapted to reflect current market conditions and updated residential and industrial plans.

The i.Park 87 Master Plan calls for the re-use of 762,355 square feet in five existing buildings, the introduction of approximately 607,040 square feet of new industrial, studio and logistics buildings and construction of 880 multifamily dwelling units. Approximately 4,257 parking spaces will be located throughout the East Campus, both in at-grade parking lots (mostly existing) and covered facilities. The land uses proposed include industrial / manufacturing, warehouse, office, film studio, retail, hotel and residential, all of which are consistent with the FGEIS. Some of these components have decreased in scope and some have increased. This DSEIS is provided in order to evaluate potential impacts from the Proposed Action as well as the proposed mitigation measures.

The conceptual foundation of i.Park 87 lies in the legacy of innovation and establishment of a new community, which IBM envisioned. In recognition of this, i.Park 87 seeks to establish a new model for economic development and living based on job creation, environmental sustainability and equity.

i.Park 87 is a Smart Growth model, which will reuse the buildings and infrastructure established by IBM and will incorporate a Think District – a people place. This starts with jobs and housing. Jobs for the workplace of the future and residences for today's lifestyle. It will be a place where people make real products, where they come to learn real skills, where they come to create – whether it be art, food, new technologies or digital content.

The Think District will also include a Mobility Hub that will connect the campus to major commuter centers as well as provide sustainable micro-mobility options onsite. The foundation of

The Think District will be hi-speed 5G data connectivity and a commitment to sustainable through use of renewable power and energy efficient building products.

I. SUMMARY

A. Description of Proposed Action

The Proposed Action consists of approval of the proposed i.Park 87 East Campus Master Plan ("Master Plan") for the redevelopment of the former TechCity (originally the IBM manufacturing property).

The entire i.Park East Campus, the lands east of Enterprise Drive, is approximately 128.47-acres ("East Campus" and "Site"). The East Campus is currently improved with five industrial buildings totaling approximately 762,355 square feet and approximately 3,800 at-grade parking spaces. (It should be noted that the previous ownership demolished several buildings containing approximately 570,000 square feet.)

This Master Plan is proposed to create a new mixed-use development featuring a blend of office, industrial, warehouse / logistics, residential, retail, cultural, and entertainment programs. A significant component of the proposed action is the re-use of existing buildings and adjacent parking areas so as to minimize the amount of new land disturbance and avoid increased impervious areas. This is intended to be reflective of lifestyle changes and market conditions in the post-COVID environment in order to result in a Master Plan that is consistent with the current needs of the community.

The project will include the re-use of 762,355 square feet of existing buildings, the introduction of 607,040 square feet of new buildings and the construction of 880 multifamily residential units. Approximately 4,257 parking spaces will be located throughout the East Campus, both in at-grade parking lots and in covered facilities.

Vehicular access to the i.Park 87 East Campus would continue to be provided from the north and west by the Enterprise Drive Exit from Route 199/209 and from the east and south by Boices Lane and Morton Boulevard, incorporating the existing roadway systems surrounding the East Campus. An internal street system, including pedestrian sidewalks, will be created to provide direct access to the existing and new development parcels.

The Proposed Action is shown on *Figure I-1* on the following page.





Figure I-1 – i.Park 87 East Campus Master Plan

B. Involved & Interested Agencies & Required Permits & Approvals

The following permits and approvals will be required to achieve and implement the Master Plan:

1. Involved Agencies

a. Town of Ulster Town Board & Planning Board

- Approval of specific site plans
- Approval of subdivisions

b. New York State Department of Environmental Conservation

- SPDES Permit
- Other

c. Ulster County Department of Public Works

- Highway access approval

2. Interested Agencies

Other agencies that are not responsible to grant permits or approvals, but may have an interest in the project include:

a. Town of Ulster

- Town Council
- Building Department
- Sewer Department
- Water Department
- Town of Ulster Police Department
- Ulster Hose Company #5

b. Ulster County

- Planning Department

c. State, Regional Agencies and Local Agencies

- New York State Department of Transportation
- Hudson River Valley Greenway

- City of Kingston Water Department
- City of Kingston School District

C. Summary of Anticipated Impacts & Mitigation Measures

Potential impacts may relate to vehicular traffic and future use of utilities, including electric, water and sewer, all of which are analyzed in further detail in Section III of this DSEIS.

D. Redevelopment Concept

i.Park 87 is a Smart Growth model, which will reuse the buildings and infrastructure established by IBM and will incorporate a Think District – a people place. This starts with jobs and housing. Jobs for the workplace of the future and residences for today's lifestyle. It will be a place where people make real products, where they come to learn real skills, where they come to create – whether it be art, food, new technologies or digital content.

The Think District will also include a Mobility Hub that will connect the campus to major commuter centers as well as provide sustainable micro-mobility options onsite. The foundation of The Think District will be hi-speed 5G data connectivity and a commitment to sustainable through use of renewable power and energy efficient building products.

II. DESCRIPTION OF PROPOSED ACTION

A. Project Location

The Site is located in the Town of Ulster, Ulster County, New York and lies a few hundred feet south of New York State Route 209 / Route 199 and is approximately 800 feet west of NYS Route 9W (Ulster Avenue). The Site is bounded to the north by Old Neighborhood Drive; to the east by the CSX Railroad right-of-way; to the south by Boices Lane (County Road 157); and to the west by Enterprise Drive (County Road 157). The location of the Site is shown on *Figure II-2* below:

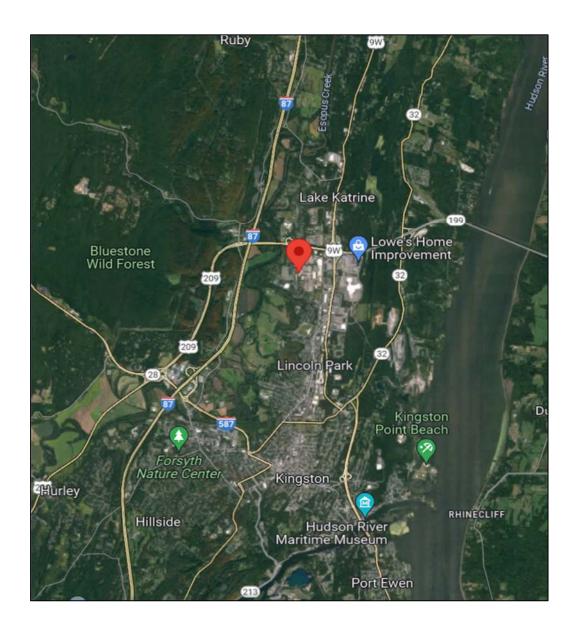


Figure II-2 –Location Map

B. Background

1. Previous Use of Site

The i.Park 87 East Campus is located on approximately 128.47-acres in the Town of Ulster, Ulster County, New York and currently consists of 4 buildings totaling 743,000 square feet of floor area with approximately four thousand on-grade parking spaces.

TechCity

Prior to i.Park's acquisition of the East Campus in June 2022¹, TechCity, as owner, undertook the redevelopment of the Site. This included the establishment of the TechCity Comprehensive Design Plan as supported by the FGEIS adopted by the Town of Ulster in 2011. In addition, TechCity demolished approximately several buildings on the Site totaling 570,000 square feet.

IBM

IBM operated the Site as a manufacturing and testing facility from approximately 1955 to 1994, primarily to produce typewriters as well as military and commercial computers. IBM's on-site operations included manufacturing, testing and research, office and support services. The site was developed progressively since its dedication in 1956.

At the height of its full occupancy, the site employed 12,000 people and was the economic engine of Ulster County. As such, the Site was constructed with extensive infrastructure and road systems (circulation and connectivity) to accommodate this number of employees.

2. Current Use of the Site

The East Campus contains approximately 128.47-acres and contains approximately 762,355 square feet of floor area spread across five buildings. Primary access to the East Campus is from Routes 209/199 via Enterprise Drive and regionally from I-87 and the Taconic Parkway via the Kingston – Rhinecliff Bridge.

¹ The i.Park acquisition excluded the five buildings along the CSX rail line, which are under separate ownership and not a part of the Proposed Action.

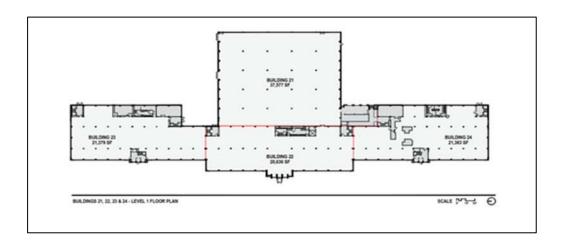
Currently, nearly all of the existing buildings located on the East Campus are vacant although there are several lease agreements in various stages of negotiation. These users would be consistent with those described herein, which includes office, manufacturing, educational and studios. It should be noted that these buildings are proposed to be redeveloped based on an "as-of-right" basis and have no additional impacts. A specific inventory of the existing buildings follows in *Table II-1*.

Table II-1 Existing Building Inventory								
Building No. (Master Plan)	Building No. (IBM Plan)	Year Built	Prior Use of Building	Gross Sq Ft	No. of Floors			
C1	21	1955, 1985	Offices, Café, Medical	40,000	1			
	22	1955	Office	50,000	2			
	23	1955	Office	45,000	2			
	24	1955	Office	45,000	2			
C2	1N & 1S	1955	Testing, Classrooms, Computer Floors	250,000	1			
C3	5N	1985	Offices, Labs	300,000	3			
C4	29	1980	Chemical Storage	13,000	1+Mezz			
M3	32	1955	Service Utility Plant	19,355	1+Mezz			

The above-described existing buildings will undergo renovations to allow for new uses, including a mix of office, educational, warehouse, and manufacturing. The project will include the renovation of approximately 762,355 sq ft of existing buildings on site. Buildings C1 and C3, will be repurposed for office and educational uses, while Buildings C2 and C4 will be dedicated to manufacturing and warehouse use. Building M3 (the "Powerhouse" building) will be repurposed as a hotel and arts center. Individual descriptions and floorplans for Buildings C1, C2, C3 and C4 follow.

• Building C1:

A two-story building containing 180,000 sq ft as depicted on *Figure II-3*. Intended uses include office, educational, and flex space.



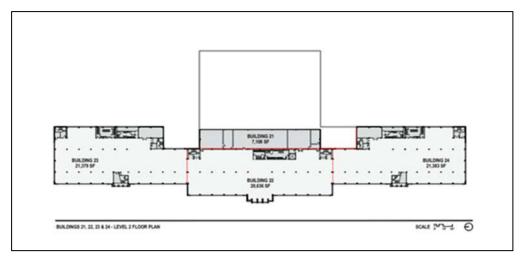


Figure II-3 -Building C1 Floorplan

• Building C2

A single-story building containing approximately 250,000 sq ft as depicted on *Figure II-4*.

Intended uses include manufacturing and industrial.

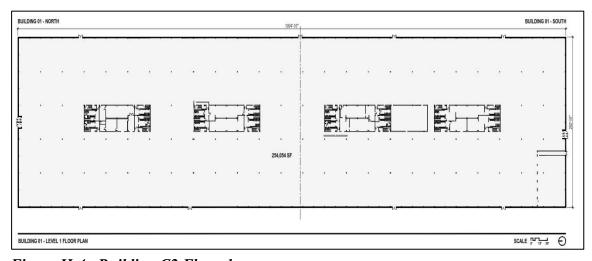


Figure II-4 -Building C2 Floorplan

• Building C3

A three-story building containing 300,000 sq ft as depicted on *Figure II-5*. Intended uses include office, educational, and flex space.

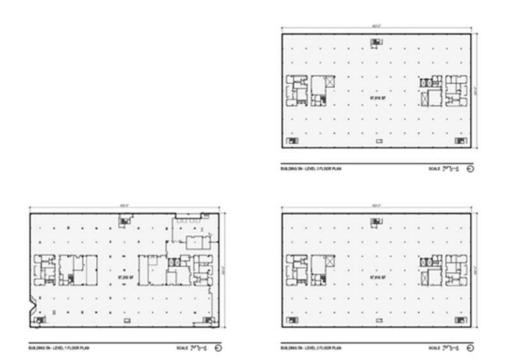


Figure II-5 – Building C3 Floorplan

• Building C4

A one-story building with mezzanine containing 13,000 sq ft as depicted on *Figure II-6*.

Intended uses include warehouse / industrial.

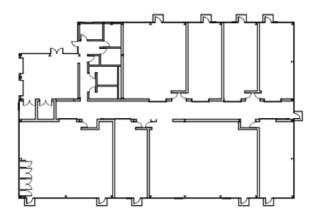


Figure II-6 – Building C4 Floorplan

3. Existing Site Plan & Subdivision

The i.Park 87 East Campus encompasses 128.47-acres. A summary of the tax lots located on the East Campus is detailed below in *Table II-2*.

Table II-2					
i.Park 87 East Campus Tax Lots					
Tax Lot	Acres				
110	5.84				
120	1.00				
130	0.38				
140	0.43				
150	5.80				
160	0.84				
170	2.70				
240	0.28				
250	2.10				
260	0.87				
270	95.50				
400	0.65				
500	3.00				
600	7.40				
700	0.49				
800	0.64				
900	0.55				
17 Lots	128.47				

It is currently subdivided into seventeen separate parcels (currently, known as Parcels 110, 120, 130, 140, 150, 160, 170, 250, 260, 270, 400, 500, 600, 700, 800, 900). The boundaries of sixteen of the parcels are generally coterminous with the footprints of individual existing or demolished buildings.

The remaining land (Parcel 270) comprises 95.5-acres and contains the balance of the East Campus, the majority of which is the northern and southern parking lots.

4. Existing Zoning of the Site

The Site lies entirely within the Town of Ulster's OM-Office Manufacturing District. This district permits a wide range of uses including light-industrial, commercial and residential uses. The density and building height allowed are greater than for any other district in the Town.

5. Relationship to Surrounding Neighborhood

The land uses surrounding the Site are as follows: north – light industrial and manufacturing; east – regional retail and restaurants; south – local commercial and single-family residential; west – light industrial and i.Park 87 West Campus. Surrounding land uses are compatible with the existing and proposed uses of the i.Park 87 East Campus.

C. Description of Proposed Action

1. Proposed i.Park 87 East Campus Master Plan

The i.Park 87 Master Plan calls for the re-use of 762,355 square feet in five existing buildings, the introduction of approximately 607,040 square feet of new buildings, construction of 880 multifamily dwelling units and approximately 4,257 parking spaces located throughout the East Campus, both in at-grade parking lots and covered facilities.

Vehicular access to the i.Park 87 East Campus would continue to be provided from the north and west by the Enterprise Drive Exit from Route 199/209 and from the east and south by Boices Lane and Morton Boulevard, incorporating the existing roadway systems surrounding the East Camps. An internal street system will be created to provide direct access to the existing and new development parcels.

a. Illustrative Site Plan

The i.Park 87 East Campus Master Plan ("Master Plan") illustrates the proposed design plan for the Proposed Action.

The Master Plan includes the creation of several primary development parcels. The re-development would include approximately 1,369,395 square feet of floor area (comprised of 762,355 square feet that will be re-used and the addition of 607,040 square feet of new construction).

880 multifamily residential units will be constructed in the southern portion of the East Campus, as further described herein. There will be a total of 4,257 parking spaces on-site (3,762 in at-grade parking lots and 495 in covered facilities). The Master Plan also includes additional landscaping and an enhanced pedestrian circulation network.

b. Proposed Future Re-Subdivision Plan

The East Campus is proposed to be parcelized in order to establish units of development containing sufficient acreage to achieve a well-planned and efficient layout.

The overall parcelization will provide for light-industrial, manufacturing and warehousing in the northern portion of the Site with access and visibility from Route 209/199. Then, from north to south, the parcels will transition from light-industrial/flex and manufacturing, to office, educational and film studios at the center of the Site.

Finally, the southernmost portion abutting the residential area of the site will be more community oriented with residential, retail, arts center and 60-room hotel. The location, characteristics and uses of the proposed parcels are further described in later Sections. Further re-subdivision of these parcels could take place at a later date to facilitate development and financing.

c. Internal Circulation

To facilitate the future build-out of the mixed-use development and in order to transform the site from a large, isolated complex, a new network of internal streets and parking areas will be established. This will allow access to the various buildings and approximately 4,257 parking spaces.

Existing access points to the site will be upgraded to improve traffic flow and safety. The project proposes re-opening the existing driveway connection on the north side of the East Campus to Old Neighborhood Road. To limit congestion and safety concerns at the intersection of Boices Lane and the rail tracks, the project proposes to limit the access road in the southeast corner of the campus to entry only.

To minimize the impact of truck traffic on the mixed-use residential portion of the site, truck traffic will be limited to the northern portion of the site to reduce the cross circulation within the residential area, improving safety and prevent disruptions to residents and visitors.

Sidewalks along the major streets and within landscaped open areas will provide an internal pedestrian network.

d. Site Design Principles

The i.Park 87 East Campus Master Plan has been designed to be built in phases. This strategy allows for flexible development that can be evolved in order to be reflective of changes in market conditions and the needs of the surrounding community. A key component of the Proposed Action is the immediate re-use of existing buildings, site access, circulation framework and infrastructure upgrades.

The Proposed Action will include the re-use of 762,355 square feet of existing buildings, the introduction of 607,040 square feet of new buildings and the construction of 880 multifamily residential units. Approximately 4,257 parking spaces will be located throughout the East Campus, both in at-grade parking lots and in covered facilities.

The Master Plan may include some shared parking in the future, offering a balance between providing adequate parking for complementary mixed uses with varying peak parking demand and minimizing environmental impacts. Such a strategy is appropriate for a mixed-use development, such as the Proposed Action, where compatible uses and their associated demands peak at different periods of time. This is particularly the case where multiple destinations are within convenient walking distance of shared parking facilities.

The type and placement of retail and commercial uses are consistent with the GEIS Master Plan and are located to promote the public's use of the site. Proposed commercial uses are currently contemplated to include a restaurant/café, brewery, hotel and other artisan shops and retail.

A brewery, arts center / entertainment center and 60-room hotel are a core component of the i.Park Master Plan and will be located towards the rear of the campus in the architecturally intriguing Powerhouse structure. These uses are intended to activate the site by attracting the public from the local and surrounding areas to the site. This is consistent with the goals of the FGEIS as well as the Town of Ulster Comprehensive Plan adopted in July 2007.

e. Residential Design Principles

The southern portion of the Master Plans will be redeveloped into a mixed-use neighborhood with several multi-family rental buildings, retail shops and entertainment options. The residential component will be located adjacent to the existing residential neighborhoods across from Boices Lane. The unit mix will include studio units, 1-bedroom units and 2-bedroom units. The retail component will include shops, restaurants, and entertainment venues, providing a destination for the residents and the wider community. This proposed component is intended to activate this portion of the Site by providing an element of activity in a pedestrian oriented setting.

The creation of the residential dwelling units is critical to support the leasing and occupancy of the commercial portions of the site and as such, the construction will be phased over a five-year period. Preference will be given to employees of companies located at i.Park 87 and residential parking requirements may be waived at a rate of 0.5 parking spaces per unit for each unit occupied by an individual of i.Park 87. (i.Park will offer a loyalty program with preferences and incentives for those working on site.)

The residential portion of the development will blend contemporary design with local architectural features, materials, and styles to create a distinctive sense of place. The use of wood and metal siding, as well as stone accents, will help to create a harmonious blend between the new development and the surrounding area. By blending traditional and modern elements, the development will reflect the character and history of the community, adding value to the site and enhancing the quality of life for residents.

The Master Plan will also incorporate ample green space and parks, promoting a healthy and sustainable lifestyle for residents and workers alike. The development will also prioritize accessibility and connectivity, with easy access to public transportation via a newly created mobility hub and a proposed network of bike and pedestrian paths.

f. Pedestrian System Design Principles

The Master Plan has been designed to facilitate both efficient vehicular and pedestrian circulation. Sidewalks will be newly installed along the major streets and within landscaped open areas to provide a safe and convenient internal pedestrian network. The sidewalk network is laid out to encourage walkability between the uses on the campus and for visitors and employees from adjacent neighborhoods by interfacing conveniently with pedestrian movements in parking lots and building entrances.

Landscaped planting beds, benches, focal points and other streetscape elements will be provided in appropriate locations in order to provide areas of interaction. Appropriate landscaping along internal roads including street trees, will be provided for aesthetic elements and to separate vehicular and pedestrian circulation.

Pedestrian oriented street lighting will be located appropriately along pedestrian sidewalks and walkways. Internal sidewalks will connect to the existing pedestrian pathways along Boices Lane in order to provide interconnection with the adjacent neighborhoods and wider community.

g. Sustainable Design Principles

The i.Park 87 Master Plan has been designed to have the "lightest environmental footprint" possible. The development intends to account for future trends and challenges that include global warming, and thus, sustainability, green infrastructure and resiliency are at the forefront of the design.

This "future-proofing" will ensure that the Proposed Action will continue to meet the needs and expectations of its residents, tenants and visitors as technology advances, new regulations are introduced and preferences change. Ultimately, this will increase the longevity and attractiveness of the project while reducing the carbon footprint of the project and demonstrating a commitment to sustainability. Measures being contemplated include:

Microgrid:

The Master Plan will include the establishment of a microgrid based on a 1-MW solar array and 25-MW battery storage installation. This small-scale, localized electrical system can operate independently or in conjunction with the larger electrical grid and consists of distributed energy resources (solar panels) that can generate, store, and distribute electricity within a defined portion of the site. This microgrid will help to mitigate the electric demands derived from the new development.

Solar Panels / Wind Power:

Where feasible, the Master Plan will seek to incorporate solar panels into the design.

EV Charging Stations:

Provisions will be included for electric vehicles by integrating EV charging stations where appropriate, both throughout the commercial / industrial and residential portions of the site. This will eliminate the need for EV owners to travel to off-site charging stations. In addition, the convenience of the location of EV charging stations will promote sustainability and encourage others to purchase electric vehicles.

Green Infrastructure:

The inclusion of green infrastructure design elements is integral to the Master Plan. In addition to the pedestrian sidewalk network, this will include various walking trails and bicycling pathways that promote other methods of transportation apart from vehicular. A newly created mobility hub will provide easy access to public transportation. Rain gardens and bioswales, planted areas that are designed to capture and filter stormwater runoff, reduce the load on stormwater infrastructure and improve water quality, will also be provided where appropriate throughout the site.

Energy Saving & Sustainable Building Materials:

The design will include sustainable building materials to the fullest extent possible in the construction of new buildings and re-use of the existing order to minimize environmental impact. Such sustainable building materials can include:

- *Renewable Materials* Such as wood or bamboo, which can be regrown and harvested on a continuous basis;
- Recycled Materials Such as steel or glass, which can be reused or diverted from the waste stream;
- Non-Toxic Materials Materials that are free of harmful chemicals, such as volatile organic compounds (VOCs), which promote indoor air quality and reduce health risks to occupants;
- Locally Sourced Materials Materials from local suppliers and manufacturers, which reduce transportation emissions and support the local economy.

Fixtures in residential units, both plumbing and electric, will be selected to meet the latest standards of environmental efficiency with the goal of reducing both water consumption and energy use.

All appliances, such as refrigerators, dishwasher, washer/dryer, HVAC, utilized in the residential units will be energy-efficient models in order to save energy and reduce the carbon footprint of the residential component of the Master Plan.

Open Space:

The Master Plan will incorporate numerous open and landscaped spaces throughout the site. These green spaces, including existing mature plantings and specimen trees, will provide numerous benefits to residents and visitors to the site by promoting recreation, relaxation and socialization.

h. i.Park 87 Master Plan Design Principles

The i.Park 87 East Campus Master Plan has been designed to allow for a flexible development that can evolve in order to be reflective of changes in market conditions and the needs of the surrounding community.

The following design themes, as established in the FGEIS, will be maintained although slightly adapted in line with current market trends, changes in design standards and with an overall emphasis on sustainable design. These themes are critical in order to establish design continuity throughout the Site while also accommodating varying materials and building methods for new construction as well as re-use of existing buildings.

Required Yards:

In order to encourage flexible and creative design, no minimum lot or yard requirements are established. Yards shall be provided that are consistent with the existing site layout and are appropriate to the uses located in both the existing and proposed buildings.

Building Massing and Materials:

Materials and features that strengthen the development of a cohesive and integrated Master Plan will be used throughout the campus. The Master Plan relies on the fact that new construction at the site will include architecturally interesting and varied buildings that include features such as varying roof lines, window patterns, use of materials and decorative elements to create a visually

interesting development. All new development adjacent to existing buildings at the site will be designed to complement and enhance those existing structures. Where possible, buildings will include articulated facades in order to establish a pleasant scale and massing.

Internal Access & Circulation:

To facilitate the future build-out of the mixed-use development and in order to transform the site from a large, isolated complex, a new network of internal streets and parking areas will be established. These internal roads will also provide frontage for buildings located within the interior of the site, giving them an individually defined entrance. been designed to facilitate both efficient vehicular and pedestrian circulation.

Sidewalks will be newly installed along the major streets and within landscaped open areas to provide a safe and convenient internal pedestrian network. Appropriate landscaping along internal roads including street trees, will be provided to separate vehicular and pedestrian circulation. Car traffic will be separated from service and truck traffic be providing service drives and loading areas in appropriate locations throughout the site.

Landscaping & Lighting:

There is significant mature landscaping in place at the site and every effort will be made to retain and enhance featured trees. As such, a critical design principle will be protecting and retaining as much of the existing mature landscaping as possible. The site landscaping will heavily use native species and consist of a combination of evergreen and deciduous trees, shrubs, groundcover and grasses in order to maintain year-round interest. Landscaping materials and treatments will be selected to provide attractive streetscapes and to link various sections of the Master Plan.

In every instance possible, the landscaping at the site will be designed with climate and sustainability in mind by incorporating practices that reduce water usage, promote biodiversity, and improve soil health. This will include use of native plants that are adapted to local climate conditions and require less water and maintenance, as well as the incorporation of features such as rain gardens, bioswales, and permeable paving to reduce stormwater runoff and improve water quality. Planting beds, benches, focal points and other streetscape elements will be provided in appropriate locations in order to provide areas of

interaction. Where possible, hardscape features will be made from reclaimed wood or recycled plastic in order to minimize the environmental impact.

The landscaped buffer and pedestrian path along Boices Lane shall be retained and enhanced in order to provide an attractive visual appearance to the adjacent neighborhoods. Open spaces between the buildings and various internal neighborhoods will be landscaped in accordance with the above design principles in order to create a cohesive system that balance and unify the Master Plan.

Street lighting will include modern poles and fixtures that fit within the context of the landscaping and architectural design of the Master Plan. Individual building lighting and pathway lighting will be selected to provide both attractive and safe illumination for pedestrians along sidewalks and parking areas. The use of solar powered and other sustainable lighting sources will be implemented where possible.

Mechanical Equipment:

Both ground and roof mounted equipment will be adequately screened from view from adjacent roads, sidewalks and parking areas.

Signage:

Signs shall be designed to achieve a high level of visual compatibility with the buildings and surrounds through use of consistent materials, form, style, color and lighting.

2. Existing & Proposed Buildings

The East Campus currently has a total of approximately 762,355 square feet of gross floor area of which the majority is currently unoccupied. The Proposed Action retains all of these buildings (Buildings C1, C2, C3, C4, M3) and constructs 607,040 square feet of new buildings, as summarized herein.

The Proposed Action includes the construction of 880 multifamily residential units in several buildings across five construction phases in the southern portion of the site. The majority of the residential development will occur on existing parking lots in order to minimize impacts and maintain existing pervious surfaces. This southern portion of the site will also include a mixed-use "town center" with entertainment

and retail uses. This portion of the site would be supplemental and compatible with the neighboring commercial and residential uses.

3. Existing & Proposed Parking

Existing parking is presently located in three primary large-scale parking areas positioned in the northern, western and southern portions of the site. The Proposed Action would retain at-grade parking spaces in close proximity to existing and new buildings, but will reduce the number of 'unused' parking spaces given that this project employs a shared parking model. As such, no free-standing parking structures are proposed as part of the Master Plan except for covered parking created in the residential buildings as an amenity to attract renters.

An inventory of the existing and proposed parking spaces at the site is provided in *Table II-3* and is illustrated on the Master Plan.

Table II-3				
Existing & Proposed Parking Inventory				
Existing Parking	Proposed Parking			
(Spaces)	(Spaces)			
3,800	4,257			

a. Existing Parking

The current parking configuration of the East Campus was laid out as an internally-focused campus for IBM, and it contained a series of buildings and parking lots that represented a single purpose industrial model without a correlation to each other, or to the surrounding community.

The existing parking spaces are primarily located in two expansive surface parking lots in the northern and southern portions of the East Campus. Additional parking is located surrounding the existing buildings in the central portion of the site.

Currently, there are 3,800 existing parking spaces located on the East Campus. In terms of existing pedestrian or vehicular interconnection between the parking lots and the existing buildings, there is little to none.

b. Proposed Parking

The proposed parking configuration eliminates the inward focus of the single-user IBM campus by introducing a network of internal roadways through the site in order to connect the different portions of the site as well as to the surrounding neighborhoods. Existing at-grade parking spaces will be maintained surrounding the existing and new buildings in order to provide proximate parking and more accessibility to each building. No free-standing parking structures are proposed as part of the Master Plan except for covered parking created in the residential buildings.

The new parking layout will feature multiple access portals to the adjacent roadway network. On the northern portion of the site, parking and loading will be clustered around the existing Building C4 and proposed Building C6. In the central portion of the site, parking will be clustered in smaller parking lots surrounding Buildings C1, C2 and C3. In the southern portion of the site, the "mixed-use / residential" portion of the site, proximate parking to each individual building is located both on-grade and covered. In total, the Proposed Action would provide 4,257 surface and enclosed parking spaces.

Given the proposed mix of land uses and the varying peaks in demand, it is possible to reduce the number of parking spaces needed through shared use of parking facilities based on the different times of day of peak parking demand.

4. Existing & Proposed Landscaping & Lighting Concept

a. Existing Landscaping & Lighting

The East Campus currently has a mix of developed, undeveloped and landscaped areas. Existing perimeter planting and screening exists along Enterprise Drive and Boices Lane. There are few areas of mature plantings throughout the site, but otherwise landscaped areas within the existing parking areas in the norther and southern portions of the campus are minimal. Lighting is mainly provided by industrial-type pole lights situated throughout the parking lots.

b. Proposed Landscaping & Lighting

The Proposed Action will result in landscaping and lighting concept for the East Campus that will provide an appealing and pedestrian-friendly experience. The site landscaping will heavily use native species and consist of a combination of evergreen and deciduous trees, shrubs, groundcover and grasses in order to maintain year-round interest. A critical design principle will be protecting and retaining as much of the existing mature landscaping as possible. Landscaping materials and treatments will be selected to provide attractive streetscapes and to link various sections of the Master Plan.

In every instance possible, the landscaping at the site will be designed with climate and sustainability in mind by incorporating practices that reduce water usage, promote biodiversity, and improve soil health. This will include use of native plants that are adapted to local climate conditions and require less water and maintenance, as well as the incorporation of features such as rain gardens, bioswales, and permeable paving to reduce stormwater runoff and improve water quality. Planting beds, benches, focal points and other streetscape elements will be provided in appropriate locations in order to provide areas of interaction. Where possible, hardscape features will be made from reclaimed wood or recycled plastic in order to minimize the environmental impact.

The landscaped buffer and pedestrian path along Boices Lane shall be retained and enhanced in order to provide an attractive visual appearance to the adjacent neighborhoods. Open spaces between the buildings and various internal neighborhoods will be landscaped in accordance with the above design principles in order to create a cohesive system that balance and unify the Master Plan.

Street lighting will include modern poles and fixtures that fit within the context of the landscaping and architectural design of the Master Plan. Individual building lighting and pathway lighting will be selected to provide both attractive and safe illumination for pedestrians along sidewalks and parking areas. The use of solar powered and other sustainable lighting sources will be implemented where possible.

5. Construction Phasing Plan

It is expected that construction activity for the Proposed Action would be phased over a four-to-six-year period and is outlined in *Table II-4*. The summary schedule outlines the four major sequences of activity and an approximate length of time for the completion of each sequence. Some of this phasing may necessarily advance or slow based upon commercial and residential demand.

Table II-4							
Construction Sequence Summary							
Phase	Building / Location	Phase	Timeframe				
Commencement (est.)			Q3 2023				
Building Renovation	Building C1	Phase 1					
	Building C2	Phase 1					
	Building C3	Phase 1					
	Building C4	Phase 1					
New Construction	Building C5	Phase 2					
(Commercial)	Building C6	Phase 2					
New Residential	Building R1	Phase 2A					
(Residential)	Building R2	Phase 2A					
	Building R3	Phase 2B					
	Building R4	Phase 2C					
	Building R5	Phase 2D					
	Building R6	Phase 2E					
	Building R7	Phase 2E					
	_						
Mixed-Use	Building M1	Phase 2A					
	Building M2	Phase 2A					
	Building M3	Phase 2C					
	Building M4	Phase 3					
Completion (est.)	-		Q4 2028				

D. Purpose, Need & Benefit of Proposed Action

1. Sponsor

i.Park 87 LLC, the Sponsor, is the ownership entity under which i.Park acquired the East Campus on June 8, 2022. i.Park is one of the National Resources' branded campuses.

National Resources is a specialist real estate development and investment firm with a 30-year successful track record of redevelopment of corporate and industrial sites. National Resources' entities currently own over \$1 billion of projects in

development in the New York metro-area comprised of over 3 million sq ft of commercial property and 1,200 waterfront residential units. National Resources is the largest private owner of Hudson River waterfront in the New York metro region with 1½ miles of shoreline. Headquartered in Greenwich, this 75-person firm includes in-house engineering, legal and planning professionals.

National Resources has been a pioneer of sustainability since it raised one of the first funds to take advantage of the "brownfield" opportunity in 1996, which was used to embark on some of the larger environmental clean-up and redevelopments in the region. The firm has also been at the forefront of renewable energy from installing solar panels and geothermal systems to being one of the founding equity investors in the Champlain Hudson line, which is expected to commence delivery this year of renewable energy from Hydro Quebec to New York City.

2. Purpose & Need For Proposed Project

On July 27, 1994, IBM announced that it was closing the Kingston Plant. The closing of this 2.5 million square foot complex, the economic engine of the surrounding community, resulted in the loss of thousands of jobs. This loss is still being felt today. In 1998, developer Alan Ginsberg purchased the property, which he named "TechCity". While TechCity was able to effectively establish the TechCity Comprehensive Design Plan for the East Campus and work cooperatively with the Town of Ulster to adopt the FGEIS as discussed herein and required under SEQRA, ultimately, the project did not come to fruition. Although nearly all of the buildings deemed "obsolete" under the FGEIS have been demolished, the remaining existing buildings, being Buildings C1, C2, C3, C4 and M3, were left in serious states of disrepair and neglect.

The County of Ulster undertook a process to name a master developer for the Campus and issued a Request for Express of Interest (RFEI) for the redevelopment of the campus. The County specifically invited National Resources to attend. Following submission of a Response to RFEI, a series of meetings and discussions was held regarding the proposed i.Park 87 Master Plan. Following its selection by the County of Ulster, i.Park 87 completed its purchase of the East Campus on June 8, 2022 and the West Campus on April 6, 2023. The goal is to redesign and redevelop the East Campus in order to make it attractive to prospective businesses and create and replace the jobs that were lost at IBM over three decades ago.

The i.Park 87 Master Plan provides for the adaptive reuse of 762,355 square feet in four existing buildings, the introduction of approximately 607,040 square feet of new buildings and construction of 880 multifamily dwelling units. Approximately 4,257 parking spaces will be located throughout the East Campus, both in at-grade parking lots and covered facilities. An internal street system, including pedestrian sidewalks, will be created to provide direct access to the existing and new development parcels.

i.Park 87 will be a future-looking mixed-use technology campus, which would make the attraction of new companies more likely. The proposed creation of the new mixed-use campus will help re-position the former IBM campus as an innovative center for economic and social growth that will provide needed employment and housing opportunities for area residents, both for the immediate and long-term future.

3. Need for Residential Component

There has been an increase in residential in the i.Park 87 Master Plan from the TechCity Comprehensive Design Plan. This is due to the urgent need for housing, both in the immediate Ulster County community as well as from new employers that are intending to locate at the site. This housing is designated as "Mid Housing", targeted for the middle-class and young professionals with an average unit size of 850 sq ft reflecting the trend towards smaller households.

Need for Housing Stock

Over the last several years, the housing supply in the Hudson Valley region has seen a steady decrease as further depicted in *Figure II-8* below.

This supply constraint has been further exacerbated by the lack of new housing being constructed in Ulster and surrounding counties. The existing stock of households, which is older, single family-housing intended for families of four plus, is not representative of the trends towards smaller households described herein. As Pattern for Progress points out, "It is unlikely that housing access will improve, or supply will increase in the Hudson Valley without significant intervention, investment or incentives."

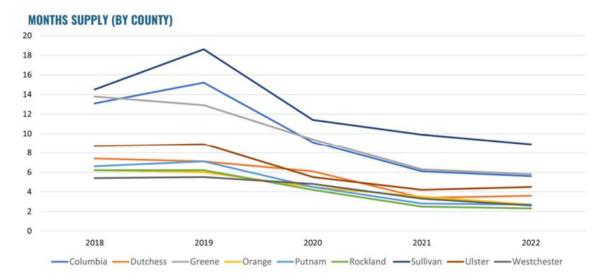


Figure II-8 - Inventory: Months Supply And Total Homes On The Market Q3 2018 - Q3 2022 (Source: "Housing Market Report Q3 2022" prepared by Pattern for Progress)

This lack of housing is not only felt throughout the Ulster County and Hudson Valley Region but across the entire State of New York. Governor Hochul has established this as a major tenet of her term stating that "The New York Housing Compact is a comprehensive plan to spur the changes needed to create more housing, meet rising demand, and make our state a more equitable, stable and affordable place to live". This statewide strategy of building 800,000 new homes over the next decade is a necessary challenge in order to meet the historic shortage.

The increase in multifamily in the i.Park 87 Master Plan is intended to be responsive to these urgent housing needs by creating units that are suitable in both lifestyle and economic terms for millennials and other professionals.

Need for Workforce Housing

Currently, there are three employers planning to locate at i.Park 87 that have expressed interest in housing and training facilities. All three would employ in excess of 1,000 people and individually have indicated that they would need between 50 – 100 housing units per company as there is a dearth of housing in this region. This is considered a critical inducement for bringing their companies to i.Park 87 and Ulster County. The housing requirements for these three companies alone are between 150 to 300 housing units, being approximately 20% to 34% of the units that are proposed.

Changes in Household Size & Lifestyle

In the United States, and especially in the Northeast, there have been a number of trends in household composition over the years. One notable trend has been a decrease in the average household size, which has been driven in part by a decline in the number of children per household.

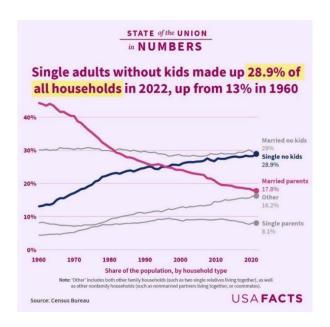


Figure II-9 – Household Trends (Source: "US 2020 Census")

According to the U.S. Census Bureau's American Community Survey, in 2020, approximately 28% of all households in the United States did not have any children under the age of 18 living at home. This percentage has been increasing over time, reflecting a trend towards smaller households.

Other notable trends in household composition in the United States include an increase in the number of single-person households, which have grown as a share of total households from about 13% in 1960 to over 28% in 2020. There has also been an increase in the number of households headed by unmarried partners or same-sex couples, reflecting changes in societal norms and legal recognition.

Additionally, there has been a decline in the number of households made up of married couples with children, which have fallen from over 40% of all households in 1970 to around 19% in 2020. This shift is due to a combination of factors, including changes in social attitudes towards marriage and family, delayed

marriage and childbearing, and an increase in the number of single-parent households.

Overall, these trends suggest that households in the United States are becoming smaller and more diverse in terms of family structure, with a greater proportion of households being made up of individuals or couples without children.

Summary

The proposed housing included in the i.Park 87 Master Plan is reflective of the needs of the community in terms of scale (number of units), unit mix (smaller households) and design (new construction, rental and sustainably focused). Ulster County and the rest of the Hudson Valley has experienced a severe deficit of housing, both required for its current workforce and to increase the population.

4. Benefits of Proposed Project

In terms of job generation, the Project's construction phase will have a direct impact of approximately 1,450 temporary jobs during the multi-year construction, phased build-out. At full build-out, the Project is projected to generate in excess of 1,200 permanent jobs. As further detailed in *Section III.A*, a fiscal impact analysis calculated that, based upon estimated tax revenue at current rates and demand on municipal services through its development, the Project at full build-out will have an overall positive benefit for the Town of Ulster annually. The Project will also transform an underutilized and neglected former industrial complex into a vibrant mixed-use center.

Most importantly, as discussed in *Section II.D.3* above, the Project will provide sorely-needed housing that is reflective of the current lifestyle trends towards smaller households. This housing is urgently needed on a local and regional level, to accommodate residents seeking housing in this heavily supply constrained market and to attract new employers to the area.

E. Permits & Approvals

1. Involved Agencies

Under New York State Environmental Quality Review (SEQR) regulations, an "involved agency" is one that has jurisdiction by law to fund, approve or directly undertake an action. For i.Park 87, these agencies, and the approvals or reviews they have jurisdiction over, include:

a. Town of Ulster Town Board & Planning Board

Town of Ulster Town Hall 1 Town Hall Drive Lake Katrine, New York 12449

- Approval of specific site plans
- Approval of subdivisions

b. New York State Department of Environmental Conservation

Division of Water 625 Broadway, 4th Floor Albany, New York 12233-3505

- SPDES Permit
- Other

c. Ulster County Department of Public Works

Brendan Masterson, Commissioner Public Works Administration 315 Shamrock Lane Kingston, New York 12401

Highway Access Approval

2. Interested Agencies

Other agencies that will not grant permits or approvals, but have expressed an interest in the project include:

a. Town of Ulster

- Town Council
 Town of Ulster Town Hall
 1 Town Hall Drive
 Lake Katrine, New York 12449
- Building Department
 Town of Ulster Town Hall
 1 Town Hall Drive
 Lake Katrine, New York 12449
- Sewer Department
 Town of Ulster Town Hall
 1 Town Hall Drive
 Lake Katrine, New York 12449
- Water Department
 Town of Ulster Town Hall
 1 Town Hall Drive
 Lake Katrine, New York 12449
- Town of Ulster Police Department
 1 Town Hall Drive
 Lake Katrine, New York 12449
- Ulster Hose Company #5
 830 Ulster Avenue
 Kingston, New York 12401

b. Ulster County

Planning Department
 244 Fair Street, P.O. Box 1800
 Kingston, New York 12402

c. State, Regional & Local Agencies

• New York State Department of Transportation

4 Burnett Boulevard Poughkeepsie, New York 12603

• Hudson River Valley Greenway

Capitol Building Capitol Station Room 254 Albany, New York 12224

• City of Kingston Water Department

P.O. Box 1537 Kingston, New York 12402

• City of Kingston School District

21 Wynkoop Place Kingston, New York 12401

III.EXISTING CONDITIONS, POTENTIAL IMPACTS & MITIGATION MEASURES

In May 2011, the Town of Ulster approved a Final Generic Environmental Impact Statement (FGEIS) in support of the TechCity Comprehensive Design Plan. This Comprehensive Design Plan has been used as the basis of the proposed i.Park 87 Master Plan, but has been adapted to reflect current market conditions and residential plans.

The land uses proposed include industrial / manufacturing, warehouse, office, film studio, retail, hotel and residential, all of which are consistent with the FGEIS. Some of these components have decreased in scope and some have increased. The sections that follow will evaluate potential impacts from the revisions to the Comprehensive Design Plan as well as the proposed mitigation measures.

A. Fiscal Impacts

1. Existing Conditions

a. Real Estate Taxes

The total assessed value of all land and buildings on the i.Park 87 East Campus in 2022 was \$14,988,654. The 2022 tax rates for all taxing jurisdictions and the tax revenues generated by the East Campus for each entity are as follows:

Table III-1 Current Assessed Real Estate Taxes (2022)						
Total Assessement \$ 14,988,564						
Jurisdiction	Tax Rate Per \$1,000		Taxes			
Town of Ulster						
General	6.518044	\$	97,696.12			
Highway	2.8521	\$	42,748.88			
Special Districts ¹	5.466375	\$	81,933.11			
Subtotal						
Kingston Consolidated Schools	38.56114	\$	577,976.11			
Ulster County	5.077511	\$	76,104.60			
Total		\$	876,458.83			
¹ Fire Water Sewer Lighting Lib	rany					
¹ Fire, Water, Sewer, Lighting, Lib	rary					

The total taxes generated by the East Campus were approximately \$876,500.

2. Potential Impacts

Direct economic benefits from the Proposed Action include annual real estate taxes. In addition, other direct economic benefits will include on-site employment generated both (i) temporary during the construction period and (ii) permanent during ongoing operations.

a. Real Estate Taxes

The property taxes that will result from the completed i.Park 87 East Campus are projected based upon an estimated valuation. These valuations are based upon the construction costs, building use, type and size and comparable projects within the surrounding area. They do not account for changes in market conditions that may occur over the period of project completion.

In order to derive an assessed building value, the current equalization rate of 55 has been applied to the valuations. The total projected assessed value of the i.Park 87 East Campus project is \$96,030,000 as shown in *Table III-2* below.

Table III-2					
	Estimated Assessed Value				
Use	Sq Ft / Units	Tota	Assessed Value		
Residential	880	\$	63,360,000		
Office	330,000	\$	9,500,000		
Industrial / Warehouse	813,000	\$	17,850,000		
Film Studio	160,000	\$	3,520,000		
Retail / Hotel	51,395	\$	1,800,000		
Total	1,354,395 Sq Ft / 880 Units	\$	96,030,000		

When the 2022 tax rates are applied to the estimated valuation for the commercial, industrial, office and retail buildings, the real estate taxes are projected as shown in *Table III-3*.

Table III-3 Projected Commercial Real Estate Taxes Post Development					
Total Assessement \$ 32,670,					
Jurisdiction	Tax Rate Per \$1,000		Taxes		
Town of Ulster					
General	6.518044	\$	212,944.50		
Highway	2.8521	\$	93,178.11		
Special Districts ¹	5.466375	\$	178,586.47		
Subtotal		\$	484,709.08		
Kingston Consolidated Schools	38.56114	\$	1,259,792.44		
Ulster County	5.077511	\$	165,882.28		
Total		\$	2,395,092.88		
¹ Fire, Water, Sewer, Lighting, Librar	у				

The projected real estate taxes for the residential buildings are shown separately in *Table III-4*, as the 2022 Homestead tax rates are assumed.

Table III-4 Projected Residential Real Estate Taxes Post Development						
Total Assessement						
Jurisdiction	Tax Rate Per \$1,000		Taxes			
Town of Ulster						
General	6.518044	\$	412,983.27			
Highway	2.8521	\$	180,709.06			
Special Districts ¹	5.466375	\$	346,349.52			
Subtotal		\$	940,041.84			
Kingston Consolidated Schools ²	28.07419	\$	1,778,780.68			
Ulster County	5.077511	\$	321,711.10			
Total		\$	3,980,575.46			
¹ Fire, Water, Sewer, Lighting, Librar	ту					
² Homestead Tax Rate						

However, it is worth noting that the projections do not reflect any reductions in taxes due to payment in lieu of tax agreements or similar vehicles.

The projected real estate taxes generated by the full build-out of the i.Park 87 East Campus are estimated at approximately \$4,950,000 per annum. This is an increase of approximately \$4,075,000 per annum based on the existing real estate taxes for the 2022 period.

3. Mitigation Measures

The proposed i.Park 87 project will increase the annual real estate taxes from the site by nearly \$4,075,000. Furthermore, the redevelopment will create over 1,450 construction jobs.

No mitigation is necessary since these impacts are definitely positive.

B. Community Services

1. Existing Conditions

a. Educational Services

The East Campus of i.Park 87 lies entirely within the City of Kingston School District. The Kingston City School District has a current enrollment of 6,373 students and includes seven Grade K-4 elementary schools, two Grade 5-8 middle schools and one Grade 9-12 high school as shown on the map below on *Figure III-1*. There are four City of Kingston School District buildings physically located within the Town of Ulster.

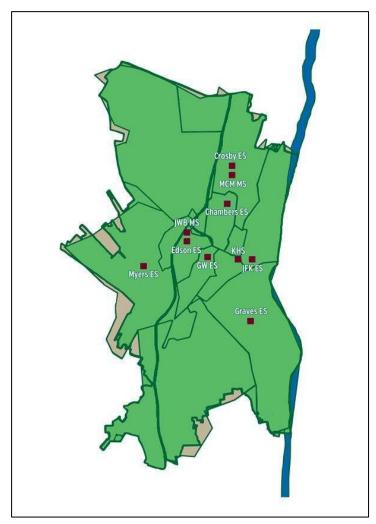


Figure III-1 – City of Kingston School System Map (Source: City of Kingston School District)

Students from i.Park 87 would likely attend the ER Crosby Elementary School on Neighborhood Road approximately 1-mile north from the Site or the Chambers Elementary School on Morton Boulevard approximately 1-mile south from the Site; the M. Clifford Miller Middle School on Fording Place Road approximately 1-mile south; or the Kingston High School on Broadway in the City of Kingston approximately 4-miles south. There is also the option of sending children to private schools as John A. Coleman Catholic High School is located approximately 3-miles from the project.

Current enrollment for the 2022 – 2023 school year is 6,373 students.

b. Police Protection

Police services in the vicinity of the Site are provided by the New York State Police, the Ulster County Sheriff's office and the Town of Ulster Police Department. The i.Park 87 East Campus is situated less than a ½ mile from the Town of Ulster Police Department located at One Town Hall Drive, Lake Katrine, New York. The Site is approximately 3-miles from the New York State Police Troop-F Barracks located on NYS Route 209 in the Town of Ulster. The Ulster Police Patrol Division is an Accredited Agency that is comprised of a force of twenty-four (24) full-time uniform police officers, providing twenty-four hour a day service throughout the year. This service includes regular patrols in the vicinity of the Site, which is augmented by both State Police and County Sheriff patrols. In addition to road patrol, the Town of Ulster Police Department includes the following: K9 Patrol, Detective Division, Juvenile Division, School Resource Officer, Certified Hostage Negotiator, Sniper, Emergency Service Unit and Community Policing Unit.

c. Fire Protection

The Ulster Hose Fire Department provides fire protection services under contract to the Ulster Hose No. 5 Fire District. This district, which is approximately 13 square miles, includes the i.Park 87 East Campus, which lies completely within the service area of the Ulster Hose Fire Department (see *Figure III-2*).

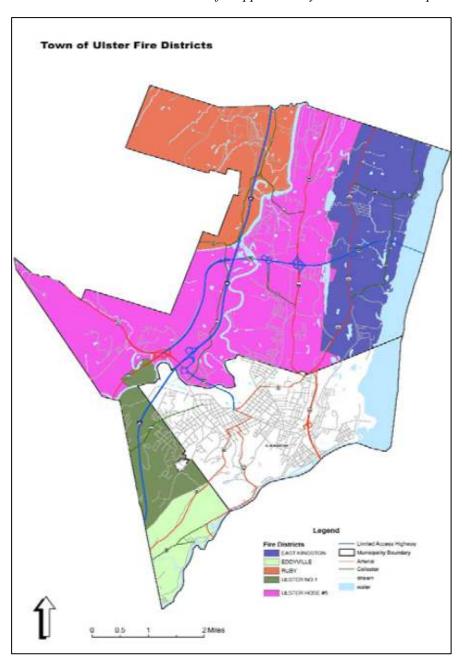


Figure III-2 – Town of Ulster Fire District Map (Source: Town of Ulster Comprehensive Plan)

The headquarters of the Fire Department is located within a mile of the Site, at 830 Ulster Avenue. The fire district is managed by an elected board of five fire commissioners. Ulster Hose Company #5, which staffs the fire district is an all-volunteer company with 90 active members, providing fire and EMS response to the residents and business. The station has a current fleet of over 14 vehicles including four engines, engine tanker, ladder trucks and dive boat among other apparatus. Annual calls for service are between 1,200 to 1,500 each year.

d. Ambulance & Hospital Service

Ambulance service is most likely to be provided by Mobile Life Support Services, which is a private for-profit company that provides 24-hour 7-day a week emergency ambulance services within the vicinity of the Site. Mobile Life Support Services operates a fleet of over 60 paramedic ambulances with a staff of over 300. Annual calls for service are approximately 100,000 each year.

Residents living within the i.Park 87 East Campus are likely to be served at the nearby HealthAlliance Hospital, located on Mary's Avenue in the City of Kingston, approximately 4-miles south of the Site. HealthAlliance of the Hudson Valley, a member of Westchester Medical Center Health Network, operates a 315-hospital-bed health care system comprising HealthAlliance Hospital: Mary's Avenue Campus and HealthAlliance Hospital: Broadway Campus in Kingston, NY, and the Margaretville Hospital in Margaretville, NY. It also operates Mountainside Residential Care Center, an 82-bed nursing home in Margaretville adjacent to Margaretville Hospital. The HealthAlliance Hospital specializes in medical / surgical care, ambulatory surgery, emergency, obstetrics, diagnostic imaging, inpatient / outpatient medicine and rehabilitation services.

In addition to the HealthAlliance Hospital, there are numerous other health care providers located in close proximity to the Site that provide comprehensive and specialist care including walk-in urgent care clinics and injury care.

e. Recreation & Open Space

The Town of Ulster has a wide variety of open space that includes public parks, fishing points, State, County and local parklands as well as private recreational facilities (golf courses and marinas). Existing recreation and open space resources within the Town are shown on *Figure III-3*.

These recreational areas serve both the local community and residents through the Mid-Hudson Valley Region.

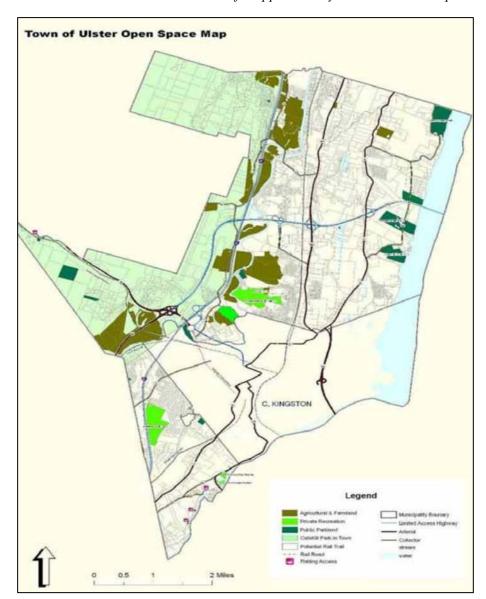


Figure III-3 – Town of Ulster Open Space Map (Source: Town of Ulster Comprehensive Plan)

The Town of Ulster operates three Town parks including:

- Charles Rider Park Boat Launch Facilities
- Robert Post Park Picnic & BBQ facilities, Playground, Basketball Court, Soccer Field, Volleyball Court, Bocce Court, Fishing Access
- Orlando Street Ballpark Two Softball / Baseball Fields, Basketball Court

The Orlando Street Park is the smallest of the three parks comprising a total of 10.3-acres with direct frontage on the Esopus Creek and in close proximity to the Project.

The Robert Post Park is 59-acres with direct frontage on the Hudson River and is the location of the Town of Ulster's Summer Day camp program. The park is open seasonally from May 15 and October 15.

The Charles Rider Park is also located directly on the Hudson River and contains 90.2-acres. This park operates with an attendant on site from approximately April 15 through Labor Day weekend.

In addition, the Town of Ulster has three "mini parks" being those located on Jeannette Lane, Halycon Park / John Brown Park and Elmendorf Drive. There are six boat / kayak launches located throughout the Town as well as two rail trails — Wallkill Valley Rail Trail Park & Ride located on Rockwell Lane and Route 32 and Hudson River Brickyard Rail Trail located on John Street.

The Ulster County Park is located in the northeastern corner of the Town of Ulster with waterfront access to the Hudson River. The recreational amenities at the park include swimming, children's swimming pools, playground areas and a seasonal snack park. The facility is open from Memorial Day to Labor Day.

In addition to these public recreation facilities, there are two private marinas located in the Town of Ulster – The Anchorage Marina and the Roundout Bay Marina in the hamlet of Eddyville. Several driving ranges are located in close proximity to the Project and the Wiltwyck Golf Club, which has an 18-hole golf course, is located on Lucas Avenue.

There are many State, County and local parks within a 20-mile radius of the Project. These include:

• <u>Minnewaska State Park Preserve</u> - This park is located on the Shawangunk Ridge and offers hiking, biking, rock climbing, and swimming opportunities.

- Mohonk Preserve This park is known for its scenic beauty and offers hiking, biking, rock climbing, and cross-country skiing trails.
- <u>Ashokan Reservoir</u> This park offers fishing, boating, and hiking opportunities along the Ashokan Reservoir.
- <u>Kingston Point Park</u> This park is located on the Hudson River and offers swimming, boating, and fishing opportunities.
- <u>Hasbrouck Park</u> This park is a community park in the center of Ulster County and offers playgrounds, sports fields, and picnic areas.
- <u>Esopus Creek Conservancy</u> This park is a nature preserve with hiking trails along the Esopus Creek.

2. Potential Impacts

a. Educational Services

Based upon regional and national multiplies for common configurations of standard housing types for school aged children by housing type, around 40 school aged children would be expected to be generated by the Project as further detailed in *Table III-5* below.

Projected School	Table III-5 Projected School Age Children Generated by i.Park 87 Master Plan						
Unit Type	Total Per Unit Type	Multiplier	# School Aged Children				
Studio	199	0.00	0.0				
1BR	447	0.04	17.9				
1BR+D	84	0.04	3.4				
2BR	150	0.13	19.5				
Total	880		40.7				

These 40 new school aged children would be distributed among the various grades with approximately 26 children expected in grades K-6, seven in grades 7-9 and seven in High School.

This represents a conservative estimate utilizing parameters currently in place for housing although there is considerable evidence that traditional household structures are changing. In actuality, according to data from the National Center for Educational Statistics (NCES), the percentage of school-aged children in Ulster County, New York, who attended private schools in the 2018-2019 school year was approximately 11.6%. Additionally, this percentage may have changed in more recent years, and there may be variations in private school enrollment by grade level, socioeconomic status, and other factors such as lifestyle and employment.

The total enrollment for the Kingston City School District for the 2022-23 School Year is 6,373, including Grades K-12. The estimated increase in enrollment represents less than 0.01% of the current enrollment. As a result, no significant adverse impacts on the school district are anticipated.

Estimating the fiscal impact to the school system is a straightforward exercise. Based upon the School District's current \$203-million budget, it costs approximately \$31,873 annually to educate each of the district's 6,373 students.

The 40 students generated by the Project will therefore cost an additional \$1,275,000 to educate. This is a conservative estimate since it assumes that each child will create a need for capital improvements when in fact, some of the school aged children generated may be expected to be accommodated within existing facilities. However, this cost includes many fixed costs, which would not be increased due to this minor addition to enrollment. Furthermore, such a small increase in enrollment, specifically at the Middle and High School level, would most likely not require any new personal services and related benefits. It is also worth noting that 2010 enrollment in the School District was 7,276 students across all schools in the District. That is a difference of 903 students, which the schools were previously able to accommodate. Given this, it is assumed that the existing facilities are sufficiently sized to educate the additional 40 students generated by this Project.

The project will generate \$3,040,000 in real property taxes to the Kingston School District annually. Therefore, even with the slight increase in enrollment due to the Project, the additional costs of educating project-generated children will be offset by the increase in property tax revenues generated for the District.

b. Police Protection

It is anticipated that the demand for police services will increase slightly as the different phases of the Master Plan are built-out so that there are no immediate demands place upon the police services as a result of the Project. The one aspect that will likely result in a greater call volume for police services will be the multifamily housing component. (Note that one of the previous drivers of police call volume – the multiplex movie theater has been eliminated in the i.Park East Campus Master Plan.)

While the residential component is likely to generate a higher call volume than office or industrial uses, it is expected that this increase could be handled with the existing police services.

At full buildout, the Master Plan is anticipated to create a slightly higher demand for police protection services, and it may become necessary to add additional officers.

The Project will generate increased tax revenues annually to the Town, which could be used to offset any additional funding requirements from the Town of Ulster Police Department.

c. Fire Protection

It is anticipated that the current manpower and equipment of the Ulster Hose Fire Department is adequate to provide fire protection services to the Project upon full buildout. The Ulster Hose Fire Department has Ladder Trucks that are capable of providing fire protection services to all buildings within the i.Park 87 East Campus including the mixed-use, residential and retail buildings.

All new construction and renovations to existing buildings will be fully compliant with current Fire Prevention and Building Codes. These measures will help reduce the need for fire services. The new internal roadway network proposed for the campus will make it easier for the Fire Department to gain access to existing and proposed buildings, which will reduce response times.

In addition, in an effort to further limit impacts to the Town and the Fire Department, the project team intends to review the proposed project in detail with the local Fire Department, specifically the construction type and intended engineered safety systems and measures. Such a review would result in any comments from the below topics being incorporated into the design of new buildings.

Topics of interest will include:

- Fire response, staging, and apparatus and personnel access points;
- Hydrants, hose connection locations;
- Modern zoned and addressable fire suppression and fire alarm systems;
- Emergency back-up power and fire water pressure/pump; and
- Non-fire emergency access (i.e., stretcher) to all buildings and stories.

Any recommendations from Fire Departments with respect to upgrades to the existing site infrastructure, specifically, fire hydrants, will be taken into consideration and included in the Master Plan.

d. Ambulance & Hospital Service

The full buildout of the Master Plan is not expected to require a significant increase in demand for ambulance services. Mobile Life's current equipment and EMS staff should be sufficient the support the additional residents and workforce at the Site. There are no significant impacts anticipated to the ambulance services.

Based upon planning standards established by the Urban Land Institute, four hospital beds should be provided per 1,000 people. The projected population increase based upon full buildout of the residential portion of the i.Park 87 Master Plan is shown below in *Table III-6*.

Table III-6 Projected Residents Generated by i.Park 87 Master Plan							
Unit Type	Unit Type Total Per Unit Residents Per Total Projected Unit Type Residents						
Studio	199	1.00	199.0				
1BR	447	1.60	715.2				
1BR+D	84	1.60	134.4				
2BR	150	2.30	345.0				
Total	880		1393.6				

The project has an estimated population of 1,394 residents and therefore, has the potential to increase the demand for beds in the hospitals serving the Town of Ulster by 5 to 6 beds. This is a 1.5% increase over the existing 315 beds in the area hospitals. It is anticipated that this minor increase can be adequately accommodated in the newly constructed Hospital and the other urgent care providers that are located near the Project. There are no significant impacts anticipated to area hospital of health care providers as a result of the full buildout of the Master Plan.

e. Recreation & Open Space

The National Recreation and Parks Association (NRPA) has developed a set of standards and guidelines for community parks and recreational needs that are designed to help communities create and maintain high-quality recreational facilities. These standards are based upon a variety of factors including population density and demographics. The most recent recommendations from the NRPA are a minimum of 6-acres of parkland per 1,000 residents.

According to the United States Census Bureau, the population of the Town of Ulster, New York, was 12,327 as of the 2020 Census. Based on the population, the NRPA parkland recommendation for the Town of Ulster would be 73.96-acres ($12,327/1,000 \times 6 = 73.96$ -acres). The Town of Ulster currently exceeds these needs as the existing parkland provided within the immediate Ulster area is 261.5-acres as shown in *Table III-7* below.

Table III-7 Town of Ulster Parks & Recreation				
Park Acres				
Orlando Street Park	10.3			
Robert Post Park	59.0			
Charles Rider Park	90.2			
Ulster County Park	102.0			
Total	261.5			

The anticipated 1,394 residents generated by the full residential buildout of the i.Park 87 Master Plan would generate a demand of parkland of approximately 8.36-acres based on NRPA standards. The existing parkland is 261.5-acres, more than a sufficient size to accommodate the combined existing and the projected population parkland demand of 13,721 upon full buildout of the Project.

There are no significant impacts anticipated to open space and parkland as a result of the full buildout of the Master Plan.

3. Potential Mitigation Measures

a. Educational Services

Additional school tax revenues generated by the project will off-set the additional student population generated by the residential portion of the project (see Section III.A above for a summary of the projected tax revenues).

In addition, the Project has been designed with over 83% studio units and one-bedroom units, which are not anticipated to generate a significant amount of schoolchildren, thereby substantially mitigating potential adverse impacts.

b. Police Protection

The demand for police services at the i.Park 87 East Campus will be partially offset by on-site private security that will be in place at adequate levels upon full buildout of the Project. The management will also continue to provide on-site security intended to supplement local law enforcement. In addition, security systems and cameras will be placed throughout the East Campus with specific attention being paid to the residential section of the Site.

Upon full buildout, the Master Plan anticipates a demand for an additional one or two police officers. However, the Project will generate increased tax revenues annually to the Town, which could be used to offset any additional funding requirements from the Town of Ulster Police Department.

c. Fire Protection

All new construction and renovations to existing buildings will be fully compliant with current Fire Prevention and Building Codes. These measures will help reduce the need for fire services. The new internal roadway network proposed for the campus will make it easier for the Fire Department to gain access to existing and proposed buildings, which will reduce response times.

In addition, in an effort to further limit impacts to the Town and the Fire Department, the project team intends to review the proposed project in detail with the local Fire Department, specifically the construction type and intended engineered safety systems and measures. Any recommendations from Fire Departments with respect to upgrades to the existing site infrastructure, specifically, fire hydrants, will be taken into consideration and included in the Master Plan.

The Project will generate increased tax revenues annually to the Ulster Hose Fire District, which could be used to offset any additional funding requirements or enhance the Fire Department's capabilities as needed.

d. Ambulance & Hospital Service

No mitigation is needed as the full foldout of the Master Plan is not anticipated to have a significant impact on ambulance services, area hospital or health care providers.

e. Recreation & Open Space

The Master Plan is not anticipated to have a significant impact on the demand for local or regional parkland or park services. In addition, the Master Plan itself will include a variety of green spaces.

C. Traffic & Transportation

1. Existing Conditions

The following roadways provide direct vehicular access to the Site:

- US Route 209 / NY Route 199
- Enterprise Drive
- Boices Lane

Regional access to the Site is provided from I-87 and the Taconic Parkway via the Kingston – Rhinecliff Bridge.

Transit

The primary regional transit service provider that operates in the project area is Ulster County Area Transit (UCAT). The UCAT bus route that provides year-round service to the Site, except weekends and holidays, is provided via the "Mall Loop" as further depicted in *Figure III-4*.



Figure III-4 – UCAT Mall Loop Map (Source: UCAT)

Pedestrian / Bicycle Provisions

A review of the existing roadway network indicates that multi-use paths are provided on the south and west side of the Site located on the north side of Boices Lane from the Morton Boulevard intersection and on the east side of Enterprise Drive to the Route 209 access ramps. Actual pedestrian and bicycle usage is fairly sparse during peak hours and it is expected that existing pedestrian and bicycle traffic can be accommodated on either the available shoulders or multi-use path.

2. Potential Impacts

a. Master Plan Traffic Analysis

i.Park 87 engaged LaBella Engineers to perform an updated traffic analysis including peak hour trip generation estimates, a copy of which is attached hereto as *Appendix A-1*.

Trip Generation, 11th Edition, published by the Institute of Transportation Engineers (ITE) was used to estimate the site trips. ITE land use codes (LUC) 220 and 221 – Multifamily Housing were used for the residential portion of the project, and LUC 770 – Business Park was used for the remainder. Business Park in Trip Generation is defined as: a group of flex-type or incubator one- or two-story buildings served by a common roadway system. The space may include offices, retail and wholesale stores, restaurants, recreational uses and warehousing, manufacturing, light industrial, or scientific research functions. Given the potential variety and speculative nature of the future uses of the project, Business Park is an appropriate land use to estimate trips.

The estimate of trips is shown in *Figure III-5*.

Land Use	Size	Land Use Code	PM Peak Hour		
			Enter	Exit	Total
Multifamily (Low Rise)	310 units	220	97	57	154
Multifamily (Mid Rise)	570 units	221	136	87	223
Business Park	1,369,000 SF	770	379	1,080	1,459
Subtotal Trips			612	1,224	1,836
Internal Multi-use Credit (2%)			-15	-15	-30
Total External Trips			597	1,209	1,806

Figures III-5 – Trip Generation for Master Plan (Source: Appendix A-1)

The commercial portion of the project can be considered a multi-use development with trips being made between the various uses within the site and not using the external road network.

Given that the Business Park definition already includes a variety of uses, these internal trips would already be included in the trip generation estimates; therefore, no additional internal trip credit was used in the estimate. However, it would be expected that internal trips would be made between the residential portion of the project and the commercial portion.

Using National Cooperative Highway Research Program's (NCHRP) Report 684 Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, the trip credit was calculated to be 2%, or 30 total trips. This credit is accounted for in *Figure III-5*.

Roadway Traffic Analysis

Enterprise Drive South of Route 209 EB Ramps

Tech City East Campus		IPark 87	
Condition	on Volume		Condition
2009 Existing	1,115	840	2022 Existing
5-yr Projection	1,185	885	5-yr Projection
20-yr Projection	1,375	1,025	20-yr Projection

Volume: 2-way (vehicles per hour)

Enterprise Drive North of South Driveway

Tech City East Campus		IPark 87		
Condition	Condition Volume		Condition	
2009 Existing	1,390	1,145	2022 Existing	
5-yr Projection	1,490	1,205	5-yr Projection	
20-yr Projection	1,725	1,400	20-yr Projection	

Volume: 2-way (vehicles per hour)

Boices Lane West of Morton Boulevard

Tech City East Campus		iPark 87	
Condition	Volume	Volume	Condition
2009 Existing	1,305	1,115	2022 Existing
5-yr Projection	1,420	1,175	5-yr Projection
20-yr Projection	1,640	1,360	20-yr Projection

Volume: 2-way (vehicles per hour)

Boices Lane Between Morton Boulevard and John Clark Road

Tech City East Campus		IPark 87	
Condition	Volume	Volume Volume Conditi	
2009 Existing	1,080	985	2022 Existing
5-yr Projection	1,185	1,035	5-yr Projection
20-yr Projection	1,370	1,200	20-yr Projection

Volume: 2-way (vehicles per hour)

Figure III-6 – Roadway Traffic Volumes (Source: Appendix A-1)

Traffic volumes on Enterprise Drive and Boices Lane used for the TechCity Comprehensive Design Plan were compared to recent traffic counts collected on those roads. The recent counts were collected in 2021 and 2022 for the Ulster County Transportation Council (UCTC) and they are being used for UCTC's Route 9W corridor study. UCTC provided the counts to LaBella for use on this project. The UCTC traffic counts are included in the comparisons are shown in *Figure III-6*.

Figure III-6 shows the volumes that were used for the TechCity Comprehensive Design Plan at four locations along Enterprise Drive and Boices Lane as follows:

- Enterprise Drive South of Route 209 EB Ramps;
- Enterprise Drive North of South Driveway;
- Boices Lane West of Morton Boulevard; and
- Boices Lane Between Morton Boulevard and John Clark Road.

These were compared to the volumes that would be used for the i.Park 87 East Campus Master Plan. The volumes are 2009 and 2022 existing volumes, 5-year projected volumes, and20-year projected volumes. It is noted that the volumes do not include trips from the TechCity Comprehensive Design Plan or the i.Park 87 Master Plan These are known as No-Build volumes.

The 5-year and 20-year projections were estimated based on a growth rate of 1% per year.

It is also noted that the 2022 traffic volumes were adjusted to account for the potential travel impacts associated with the COVID-19 pandemic. A comparison of counts taken in 2022 on Enterprise Drive, Boices Lane, and Route 9W near the site to pre-COVID counts taken in 2019 show that the 2022 counts were 6-8% lower than 2019 counts. Therefore, the 2022 counts were increased by 8% to reflect pre-COVID conditions. This adjustment procedure follows the guidelines developed by NYSDOT for COVID-19 travel-related impacts.

In sum, the 2022 Existing volumes are 100 - 300 vehicles per hour lower than the 2009 Existing volumes from the Tech City East Campus study. The 5-year and 20-year projected volumes for iPark 87 are similarly lower than the Tech City projections.

Summary

The traffic study concludes that given that the trip generation estimate for the iPark 87 proposal is similar to the estimates for the Tech City East Campus, and that the current traffic volumes and subsequent 5-year and 20-year volume projections are lower than the volumes used for the Tech City traffic analysis, it is concluded that the iPark 87 proposal will not induce additional traffic impacts that have not already been identified for the Tech City East Campus. The recommended improvements will be valid for the iPark 87 proposal. No further traffic analysis is needed.

b. Site Driveways Intersection Assessment

LaBella Engineers performed an in-depth review of the site driveway intersections serving the Site. This Review Memorandum was prepared to review the Tech City East Campus recommended improvements at the site driveways on Boices Lane and Enterprise Drive for their applicability to the i.Park87 proposed project.

A full copy is attached hereto as *Appendix A-2*.

Proposed Mater Plan

The i.Park 87 Master Plan provides for two primary east-west roadways, it does not include any north-south roadway that extends through the entire site. From this, the site driveways along Boices Lane primarily serve the residential portion of the project while the site driveways on Enterprise Drive – the Middle Driveway and the North Driveway – serve the commercial components.

The turn restrictions at the site driveways on Boices Lane will place more residential traffic to the South Driveway intersection. Limited internal access from the South Driveway to the commercial components will place more traffic at the Middle and North Driveways. With these improvements, the North Driveway intersection will operate at level of service B, the Middle Driveway will operate level of service C, and the South Driveway will operate at level of service B. The Enterprise Drive/Boices Lane intersection will operate at level of service B.

Summary

The three site driveways along Boices Lane are all proposed with restricted movements: the East Driveway is restricted to entering traffic only and only for westbound right-turns and northbound through movements; and the other two driveways are restricted to right-turns in and right-turns outonly. Also, trucks will be prohibited from using the East Driveway. These restrictions will significantly reduce the conflicts along Boices Lane. The design of the East Driveway at Boices Lane will be based on input provided by the Town's traffic engineer.

The traffic analysis for the intersections along Enterprise Drive show good levels of service with improvements noted in the Tech City East Campus study. No improvements beyond those in the Tech City East Campus study are needed.

3. Potential Mitigation Measures

Based upon the above, it is anticipated that the traffic generated by the development will be able to be accommodated on the adjacent roadways with completion of certain minor roadway improvements and modifications. It is important to note the site's history as an IBM manufacturing and testing facility that employed over 12,000 people.

a. Improvements

As part of the pedestrian upgrades, ADA compliant ramps, new crosswalks with safety features for visually impaired, signing, etc., will be reviewed and coordinated with the applicable municipal, County and State agencies.

b. Mobility Hub Study & Implementation

i.Park 87 engaged TransitLife, a consulting firm led by Randall Fleischer, former Head of Real Estate for the MTA, to perform an in-depth analysis of the public transportation currently serving the site and the ways in which it could be augmented. Specific attention was paid to sustainable transport as well as ways to connect to the Metro North rail.

This analysis (a full copy of which is attached as Appendix B – "Mobility Hub"), resulted in the design of an onsite "Mobility Hub", which will integrate different transport modes by co-locating services including bike /scooter / carvan sharing, ride hailing, and on-site "green" shuttles along with transfer to buses and other intercity transportation.

The goal of this mobility hub is twofold – to mitigate impacts from traffic by decreasing motorized individual transport and to increase the "green footprint" of the campus.

Should this plan be successfully implemented, it is expected that the convenience and availability of public transportation will reduce traffic generated by the Mobility Hub. Note that if public transit usage is higher, the number of vehicle trips would be reduced further.

c. Summary

The traffic studies performed conclude that given that the trip generation estimate for the i.Park 87 proposal is similar to the estimates for the Tech City East Campus, and that the current traffic volumes and subsequent 5-year and 20-year volume projections are lower than the volumes used for the Tech City traffic analysis, it is concluded that the i.Park 87 East Campus Master Plan will not induce additional traffic impacts that have not already been identified for the Tech City East Campus. The recommended improvements will be valid for the i.Park 87 proposal. No further traffic analysis is needed.

D. Parking

1. Existing Conditions

The East Campus is currently comprised of several separate tax parcels containing individual buildings with easements that grant parking for vehicles on the remaining land. In total, there are 3,800 existing parking spaces located on the East Campus. The existing parking spaces are primarily located in two expansive surface parking lots in the northern and southern portions of the East Campus.

Additional parking is located surrounding the existing buildings in the central portion of the site. In terms of existing pedestrian or vehicular interconnection between the parking lots and the existing buildings, there is little to none.

The current parking configuration of the East Campus was laid out as an internally-focused campus for IBM, and it contained a series of buildings and parking lots that represented a single purpose industrial model without a correlation to each other, or to the surrounding community.

2. Potential Impacts

The proposed parking configuration eliminates the inward focus of the single-user IBM campus by introducing a network of internal roadways through the site in order to connect the different portions of the site as well as to the surrounding neighborhoods. Existing at-grade parking spaces will be maintained surrounding the existing and new buildings in order to provide proximate parking and more accessibility to each building. No free-standing parking structures are proposed as part of the Master Plan except for covered parking created in the residential buildings.

The new parking layout will feature multiple access portals to the adjacent roadway network. On the northern portion of the site, parking and loading will be clustered around the existing Building C4 and proposed Building C6. In the central portion of the site, parking will be clustered in smaller parking lots surrounding Buildings C1, C2 and C3. In the southern portion of the site, the "mixed-use / residential" portion of the site, proximate parking to each individual building is located both on-grade and covered. Generally, walking distances between parking lots and buildings would be limited to a maximum of 500-feet, to the extent possible. In

total, the Proposed Action would provide 4,257 surface and enclosed parking spaces.

Parking Analysis

A parking analysis was performed to examine the needs for the different uses such as residential, office, manufacturing/industrial, warehouse and retail. As a result of this analysis and given the smaller size units proposed, is anticipated that the residential parking needs will be less than that required by Zoning code.

As such, a parking ratio is proposed of 1 parking space per studio unit, 1.5 parking spaces per 1-bedroom and 1-bedroom plus den residential unit is proposed and 2 parking spaces per 2-bedroom residential unit. This is reflective of trends towards smaller household sizes, lifestyle changes, the increase in remote working as well as the proposed Mobility Hub.

A parking ratio of 1 parking space per 1,000 sq ft of warehouse / industrial is proposed. This ratio appropriately reflects changes in warehousing and logistics, where there has been a steady increase in robotics and other technologic advances that reduce the need for parking.

Table III-8a Master Plan Parking Requirements						
Building	Use	Sq Ft / Units	Parking Ratio	Parking Required		
Building C1	Office	130,000	1 per 500 Sq Ft	260		
	Industrial / Warehouse	50,000	1 per 1,000 Sq Ft	50		
Building C2	Industrial / Warehouse	250,000	1 per 1,000 Sq Ft	250		
Building C3	Industrial / Warehouse	100,000	1 per 500 Sq Ft	100		
	Office	200,000	1 per 500 Sq Ft	400		
Building C4	Industrial / Warehouse	13,000	1 per 1,000 Sq Ft	13		
Building C5	Film Studios	160,000	1 per 1,000 Sq Ft	160		
Building C6	Industrial / Warehouse	400,000	1 per 1,000 Sq Ft	400		
Residential	Residential	180	Varies	1,292		
Building M1	Retail	7,600	1 per 250 Sq Ft	30		
Building M2	Retail	24,440	1 per 250 Sq Ft	98		
Building M3	Hotel / Arts Center	19,355	1 per Room + 8 employees	46		
Building M4	Mobility Hub	15,000	N/A	0		
Total Required - i.Park 87 Master Plan				3,099		
Total Required - Neighboring Properties		430,000		614		
Combined Total				3,713		
Total Provided				4,257		
Parking Surplus				544		
See Table III-8b fo	or residential parking requirement of	1etail				
	om hotel and 8 employees	Join				
7.000m100 d 00-100						

Table III-8b shows the breakdown of the parking required for the residential component of the site.

Table III-8b Master Plan Residential Parking Requirements						
Unit Type	Total Per Unit Type	Parking Ratio	Parking Required			
Studio	199	1 space per unit	199			
1BR	447	1.5 space per unit	671			
1BR+D	84	1.5 space per unit	126			
2BR	150	2 space per unit	300			
Total	880		1,292			

The total number of parking spaces sitewide, being a mix of primarily surface with some covered parking spaces, will provide more than adequate parking to meet the needs of the various uses on the site. *Table III-8a* demonstrates the parking provided is in excess of the parking required.

Based on the parking analysis, the site would require 3,099 parking spaces to accommodate all uses at the i.Park 87 East Campus Master Plan and an additional 614 parking spaces for the neighboring buildings for a combined total of 3,713 parking spaces required. Note that this is a conservative figure, which does not take into account the complementary nature of this mixed-use project, where actual parking demand will be less than that required by zoning as the peak parking demand periods for the different uses are not expected to coincide. A total of 4,257 parking spaces are provided, which results in a surplus of 544 parking spaces.

Shared Parking Analysis

Given the proposed mix of land uses and the varying peaks in demand, it is possible to reduce the number of parking spaces needed through shared use of parking facilities based on the different times of day of peak parking demand. In order to optimize the utilization of the parking supply and to take advantage of the differences in parking demand peak characteristics by time of day and weekday versus weekend periods among the Master Plan's varying land uses a shared parking strategy is planned.

A shared parking analysis typically involves several steps to determine the feasibility of implementing a shared parking strategy. The following are the general steps that are usually involved in a shared parking analysis:

- Identify the land uses: The first step is to identify the land uses that could potentially share parking spaces. This involves analyzing the zoning regulations, land use patterns, and parking requirements for each land use.
- Collect parking data: The next step is to collect parking data, which includes parking counts, occupancy rates, and parking demand patterns for each land use. This can be done through parking surveys or by analyzing existing parking data.
- Analyze the data: Once the parking data has been collected, it's analyzed to determine the parking demand for each land use and the times when parking is most in demand.
- Determine the parking supply: The next step is to determine the parking supply, which includes counting the number of available parking spaces in each land use.
- Identify shared parking opportunities: Based on the parking demand and supply data, opportunities for shared parking are identified. This includes identifying the times when parking is most in demand and when parking spaces are available in adjacent land uses.
- Develop a shared parking plan: After identifying the shared parking opportunities, a shared parking plan is developed that outlines how the shared parking arrangement will work, including the terms and conditions of the agreement, parking allocation, and the schedule for shared parking.
- Evaluate the plan: Finally, the shared parking plan is evaluated to determine its feasibility and effectiveness. This involves assessing the potential benefits and drawbacks of the shared parking strategy and making adjustments as needed.

It should also be noted that no credit has been taken into account for mass transit use and/or other transportation alternatives such as carpooling or any of the other alternatives contemplated in the Mobility Hub program. TransitLife performed an in-depth analysis of the public transportation currently serving the site and the ways in which it could be augmented. Specific attention was paid to sustainable transport

as well as ways to connect to the Metro North rail. The result was the integration of a Mobility Hub into the Master Plan.

The Mobility Hub will integrate different transport modes by co-locating services including bike /scooter / car-van sharing, ride hailing, and on-site "green" shuttles along with transfer to buses and other intercity transportation. The goal of this Mobility Hub is twofold – to mitigate impacts from traffic by decreasing motorized individual transport and to increase the "green footprint" of the campus.

Should this plan be successfully implemented, it is expected that the convenience and availability of public transportation will reduce traffic generated by the Project and it would also serve to further reduce on-site parking demands.

E. Utilities

The utility demands for i.Park 87 Master Plan including the redevelopment of the existing buildings and the new residential component have been analyzed and the demands for potable water, sanitary sewer, storm sewer, electric and gas, and telephone / cable are further detailed in this Section. A summary of the existing utilities and providers is detailed below in *Table III-9*.

Table III-9						
Utilities Summary						
Utility	Current Capacity	Provider				
Potable Water	131 gpd	City of Kingston				
Sanitary Sewer	150 gpd	Town of Ulster				
Electric	10 MW	Central Hudson				
Natural Gas	28 MCF	Central Hudson				
Telephone / Cable / Fiber	Varies	Multiple				

1. Existing Conditions

a. Water Supply

Water supply and treatment for the i.Park 87 site is currently and proposed to be provided by the City of Kingston Water District (KWD). The KWD provides potable water to the City of Kingston and is governed by a Board of Water Commissioners, made up of 5 members. The KWD's principal water source is the Mink Hollow Stream, which has its headwaters located in the Catskills, near Tannersville, New York. This 8.6 square mile watershed provides water of excellent quality and significant portions are owned and managed by the City of Kingston. Water from the Mink Hollow Stream is piped into the Cooper Lake Reservoir, located in Lake Hill, New York. Cooper Lake Reservoir, the principal raw water storage reservoir, contains over 1.2 billion gallons of water. From there, water flows through a system of cast iron transmission mains to the KWD's Edmund T. Cloonan Water Treatment Plant.

The Edmund T. Cloonan Water Treatment Plant was built in 1899 and has a nominal capacity of 8 million gallons. (The KWD is currently involved in implementing a series of improvements to ensure continued operation into the future.) The treatment process includes the following:

- Chlorine disinfection;
- Direct in-line filtration with alum coagulation;
- Corrosion control via the addition of lime.

KWD's laboratory is located at the Water Treatment Plant and is certified by the New York State Department of Health for the routine examination of water, specifically monitoring the bacteriological quality of water.

From there, water is then piped to the Binnewater Reservoir, the primary storage facility for the KWD. The Binnewater Reservoir is located in the Town of Ulster and contains 12 million gallons of treated water. From this Reservoir, three cast iron transmission mains carry water into the City of Kingston and the surrounding areas. There are some 8,500 service connections and the average daily flow is about 3.5 million gallons per day.

Per an agreement between i.Park 87 and the Board of Water Commissioners of the City of Kingston, i.Park 87 is allowed to purchase and receive from the Board, water requirements of up to a maximum of 64,000 units of water per year. As per the agreement, i.Park may draw from the KWD up to 1,500 gallons per minute (gpm) of water for the duration of the emergency at a pressure of not less than 50 pounds per square inch (psi). Pressure at the point of delivery shall be 55 psi under normal conditions. A "unit" of water is defined by the City of Kingston Water Department as 100 cubic feet, or 748 gallons. Therefore, 64,000 units of water per year equals 47,872,000 gallons of water per year. Based upon a seven day per week operation, 47,872,000 gallons of water per year would equal an average use of 131,156 gallons per day (gpd).

Current usage data for the period of i.Park 87's ownership has been minimal as the majority of the existing buildings are vacant and no new development has occurred to date.

The agreement between i.Park 87 and the Board of Commissioners of the City of Kingston was executed May 7, 2007 and is effective until May 31, 2057, which means there are 34 years remaining in the 50-year agreement.

A 12" KWD water main transmits water to the i.Park 87 campus via a 10" meter. Subsequent to the meter, water main infrastructure within the campus includes a combination of domestic water mains (on average between 2" to 12") as well as fire protection mains (on average 6" to 12"). The water infrastructure

traverses the site to provide adequate water service to the buildings, and adequately located fire mains and hydrants.

It should be noted that i.Park in preliminary discussions with the Town of Ulster to establish a new water agreement whereby i.Park would terminate its agreement with the City of Kingston Water District and would purchase water directly from the Town of Ulster.

b. Sanitary Sewer

The i.Park 87 site is located within the Town of Ulster Sewer District. Treatment of sanitary sewer from the Town of Ulster Sewer District (USD) is provided by the Town of Sewer District Sewage Treatment Plant.

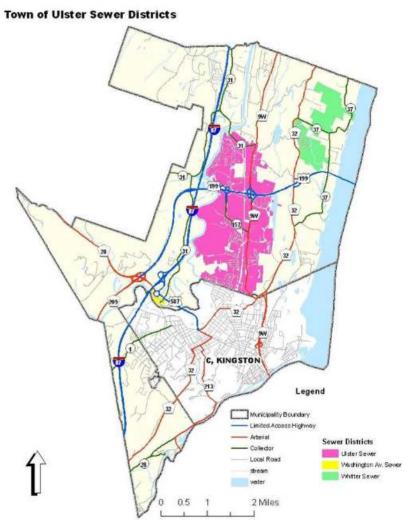


Figure III-8 – Town of Ulster Sewer Districts (Source: Town of Ulster Comprehensive Plan)

The USD's sewer collection system encompasses the sewered portion of the residential, commercial and industrial portion of the Town of Ulster that are located to the north and west of the City of Kingston boundary. The wastewater collection and conveyance system consist of approximately 25 miles of gravity and pressure pipe ranging in size from 4-inches to 25-inches. The majority of these sewers were built in 1973 with some extensions constructed since then to accommodate new commercial development, much of which was centered on the IBM facility. The wastewater collection and conveyance system collects and conveys wastewater to the Town of Ulster Sewer District Sewage Treatment Plant.

The Sewage Treatment Plant is located in a residential, industrial and commercial area in the Town of Ulster and serves the Town of Ulster, as well as parts of the City of Kingston and Town of Kingston. It is centrally located in the western portion of the sewer district on Dogwood Street Extension, which is south of the i.Park 87 campus. It is a publicly owned treatment works that uses a biological treatment process that involves the use of bacteria to break down and treat wastewater generated by residential, industrial and commercial activities within the Town of Ulster Sewer District. The plant also uses advanced treatment processes, including ultraviolet disinfection and chemical treatment, to further remove contaminants and ensure that the treated water meets environmental standards before it is discharged into the nearby Esopus Creek. The discharge is permitted via New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) permit number NY0021563.

The facility is permitted for a flow of 1.6 million gallons per day (MGD) and has been designed to handle a daily flow of 3.0 million gallons per day with a maximum of 7.5 gallons per day. As described above, the treated effluent from the Sewage Treatment Plant is discharged to the nearby Esopus Creek. The Esopus Creek is used for recreational purposes, and is also a tributary of the Hudson River, which is used as a drinking water source for various communities.

The Sewage Treatment Plant utilizes the following treatment processes / components: preliminary treatment (influent flow channel, screening, sewage grinding via a channel monster, grit removal), lift pumps, primary clarification

via primary clarifiers, secondary biological treatment, secondary clarification, disinfection with an ultraviolet disinfection unit and sludge treatment.

The Sewage Treatment Plant daily flows vary seasonally, primarily as a result of inflow and infiltration during precipitation and wet periods. The plant's collection system experiences inflow during precipitation events and wet periods from low-lying and high groundwater areas within the sewer district. According to records, the plant effluent monitoring system indicates that the facility has historically been able to effectively treat the increased flows associated with peak flow events.

i.Park 87 is permitted by the Town of Ulster Sewer District to discharge up to 150,000 gpd (30-calendar day average quantity) of untreated sanitary waste or pretreated industrial waste into the Town of Ulster's north interceptor system. Sewer collection infrastructure within the facility includes a combination of gravity sewers (typically 4" to 8") and force mains (typically 4"). This infrastructure traverses the site to provide adequate sewer service to the buildings.

c. Storm Sewer

Stormwater from the i.Park 87 East Campus is collected on site and is discharged via a series of storm sewer mains that are tributary to the Esopus Creek. IBM constructed the stormwater infrastructure and facilities at the site during their ownership. The construction predates certain stormwater practices and the proposed infrastructure will meet same.

A series of storm water collection and transmission mains that vary in size from 4" to 60" span the East Campus traveling north and west, providing collection of stormwater from parking lots, roadways, grounds, roofs, buildings and other infrastructure, and ultimately provide the conveyance of stormwater to three distinct discharge points. The channels that carry water from these three discharge points subsequently course down gradient through low-lying and wet areas before finally discharging into the Esopus Creek.

d. Electric & Gas

Electric and gas supply for the i.Park 87 East Campus project is currently and proposed to be provided by Central Hudson Gas & Electric Company (Central

Hudson). Central Hudson provides electricity and natural gas services to customers in New York State's Mid-Hudson Valley Region – approximately 300,000 electricity customers and 78,000 natural gas customers in an eight-county region including Ulster County. Central Hudson owns and maintains land and supply facilities located in the Town of Ulster. Central Hudson provides Service Classification 13 – Substation Primary Service to i.Park 87. The electric meter for i.Park 87 is located across from the Site on Boices Lane at Central Hudson's Lincoln Park substation. The Lincoln Park substation is a loop 115 kilovolt transmission substation from Central Hudson's LR and HP transmission lines.

The Lincoln Park substation was constructed in the 1950's. This substation receives power from high-voltage transmission lines and then transforms and distributes it to lower voltage distribution lines that serve commercial, industrial and residential areas within the surrounding vicinity. The substation has been continually maintained since its initial operation with several upgrades including the replacement of all of its substation breakers in 2009. The substation is secured with a chain link fencing topped with barbed wire as well other appropriate security measures. The substation service is 13.2 kilowatts. There are two circuit feeders providing service to i.Park 87 with two additional feeders, which are used for backup or redundant service.

The i.Park 87 electric distribution system includes underground cable, unit substations, switchgear and transformers that are all located on and owned by i.Park 87.

The following improvements were made by the previous ownership of the campus and these include:

- Closure of the central utility plant;
- Power shutdown to demolished buildings;
- Clean-up and ongoing maintenance of substations and panels located in Building 1C;
- Installation of energy efficient electrical service to the first floor of Building 1C;
- Installation of electrical meters to all buildings;
- Installation of control source alarm system and electrical usage monitors for power use;

• Replacement of certain systems with new modern energy efficient units.

Natural gas capacity of approximately 15 million cubic feet per hour exists within the gas distribution system. A 2005 natural gas project occurred at i.Park 87 to replace the outdated IBM owned and maintained distribution gas piping system with modern Central Hudson owned and maintained distribution gas main and services. The Central Hudson 60 pounds per square inch gauge "LP" line provides service to the i.Park 87 East Campus. The gas main is primarily 4" plastic with some 2" high-density polyethylene piping. The gas distribution system allows for the retirement of central steam plant.

e. Telephone & Cable

The i.Park 87 East Campus has multiple strands of light and dark fiber, which connect to a central hub that was installed and utilized by IBM. IBM utilized this robust system, which was built with abundant capacity. Multiple service providers have the ability to connect to the site. These include Verizon, AT&T, Spectrum, Archtop Fiber and Google Fiber, among others.

2. Potential Impacts

a. Water Demand

Water demand per use based upon the full buildout of the Master Plan is shown in *Table III-10*.

Table III-10 Projected Potable Water Demand				
Use	Sq Ft / Units	Demand		
Residential	880	95,040		
Office	330,000	15,840		
Industrial / Warehouse	813,000	11,382		
Film Studio	160,000	3,200		
Retail / Hotel	51,395	5,140		
Total	1,354,395 Sq Ft / 880 Units	130,602		

A more detailed breakdown has been provided for the residential component in *Table III-11*, which gives the estimated wastewater generation from each of the

bedroom types included in the Residential Development area of the i.Park 87 in gallons per day (gpd).

Projected Po	Table III-11 Projected Potable Water Demand Generated by Residential				
Unit Type	Total Per Unit Type	Per Unit (gpd)	Total Flow (gpd)		
Studio	199	60	11,940		
1BR	447	100	44,700		
1BR+D	84	100	8,400		
2BR	150	200	30,000		
Total	880		95,040		

The unit flow rates are from the NYSDEC "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems" (March 5, 2014). The project will be built in accordance with the current New York State Plumbing Code, which incorporates the 1992 "Federal Energy Policy Act".

The average water usage for an apartment is calculated by bedroom count. The residential portion of project will utilize post-1994 plumbing code fixtures, the rate per bedroom is 100 gpd. (Note that this may vary based on various factors such as the number of occupants, the presence of water-saving fixtures, and personal habits.) Since a studio apartment typically has fewer occupants and smaller fixtures, it is reasonable to assume that the water usage would be lower than that of a one-bedroom unit. As an estimate, the water usage for a studio apartment could range from 50 to 70 gallons per day, depending on the factors mentioned above. Given that, an average of 60 gpd is assumed as the estimated unit flow rate.

The combined water demand of 130,602 gpd for the East Campus is within the allowed water flows granted under the agreement between i.Park 87 and the Board of Water Commissioners of the City of Kingston. i.Park 87 is allowed to purchase and receive from the Board, water requirements of up to a maximum of 64,000 units of water per year. As per the agreement, i.Park may draw from the KWD up to 1,500 gallons per minute (gpm) of water for the duration of the emergency at a pressure of not less than 50 pounds per square inch (psi). Pressure at the point of delivery shall be 55 psi under normal conditions. A "unit" of water is defined by the City of Kingston Water Department as 100 cubic feet, or 748 gallons. Therefore, 64,000 units of water per year equals

47,872,000 gallons of water per year. Based upon a seven day per week operation, 47,872,000 gallons of water per year would equal an average use of 131,156 gallons per day (gpd).

Taking into account the above, the Master Plan is not anticipated to have any potential impacts on the City of Kingston Water District as the current potable water capacity is sufficient to meet the increased demands from the Master Plan.

b. Sanitary Sewer Demand

A sewer flow of 130,602 gallons per day (gpd) is projected for the Master Plan is shown in *Table III-12* below. (Note that the potable sewer and sanitary sewer demands are assumed to be the same.)

Table III-12 Projected Sanitary Sewer Demand				
Use	Sq Ft / Units	Demand		
Residential	880	95,040		
Office	330,000	15,840		
Industrial / Warehouse	813,000	11,382		
Film Studio	160,000	3,200		
Retail / Hotel	51,395	5,140		
Total	1,354,395 Sq Ft / 880 Units	130,602		

The anticipated flow is less than the 150,000 gpd of untreated sanitary waste or pretreated industrial waste that i.Park 87 is permitted by the Town of Ulster Sewer District into the Town of Ulster's north interceptor system.

c. Storm Sewer Demand

The i.Park 87 redevelopment as contemplated in the Master Plan will result in a minimal increase in the total area of existing impervious surfaces and thus, an associated increase in stormwater flow. As a result, several mitigation measures are being implemented. A considerable portion of the new construction will be built in existing parking areas or in the footprint of previously demolished buildings. Similarly, the parking areas will be provided in existing parking areas, thus minimizing the land disturbance associated with the construction of both the new construction buildings and the parking areas.

New York State Stormwater Management Design standards for redevelopment projects will be applied on the project via the following applicable redevelopment project practices as well as other engineering stormwater practices and technologies.

Over the course of the redevelopment of the East Campus, stormwater quality devices that remove sediment from parking lots such as hydrodynamic separators will be provided at proper underground locations throughout the Site. Hydrodynamic separators are highly effective at removing both sediment and pollutants from stormwater runoff, which will help to protect water quality and prevent downstream erosion and flooding. Any such devices installed would be regularly maintained in order to ensure proper ongoing function.

Other measures that may be implemented in certain areas of the Site, should they be determined technically feasible and financially sustainable, could include:

- <u>Green Roofs</u> Roofs covered with vegetation, such as grasses or sedums, which are designed to absorb and retain stormwater.
- <u>Permeable Pavement</u> Made of materials such as permeable concrete, porous asphalt or interlocking pavers that allow stormwater to filter through the surface and into the ground below.
- <u>Vegetative Swales</u> Shallow landscaped cannels designed to slow down and filter stormwater runoff. Often, these are planted with vegetation such as grasses, shrubs or trees to absorb and filter stormwater.

As the internal road circulation network is put into place and the surface parking areas are redeveloped, the existing stormwater mains will be evaluated, and as necessary stormwater infiltration and exfiltration will be mitigated. In selected areas of the East Campus, pervious paving materials and infiltration gardens and trenches will be utilized to reduce off-site storm water discharge. Land disturbance in excess of one acre will be undertaken in accordance with the NYSDEC General Permit GP-0-10-001 for redevelopment compliance as defined in Chapter 9 of the NYS Stormwater Management Design Manual.

d. Electric & Gas Demand

The existing electric and gas infrastructure at the East Campus was designated to be adequate for the previous use by IBM at an industrial standard. The total square footage of all of the buildings in the Master Plan represents a significant decrease from the IBM site occupancy and in addition, several improvements were made by the previous owner as follows:

- Closure of the central utility plant;
- Power shutdown to demolished buildings;
- Clean-up and ongoing maintenance of substations and panels located in Building C3;
- Installation of energy efficient electrical service to the first floor of Building C3;
- Installation of electrical meters to all buildings;
- Installation of control source alarm system and electrical usage monitors for power use;
- Replacement of certain systems with new modern energy efficient units.

Electric demand per use based upon the full buildout of the Master Plan is shown in *Table III-13*.

Table III-13 Projected Electric Demand					
Use	Sq Ft / Units	Demand			
Residential	880	1.5 MW			
Office	330,000	1 MW			
Industrial / Warehouse	813,000	5.25 MW			
Film Studio	160,000	1 MW			
Retail / Hotel	51,395	.5 MW			
Total	1,354,395 Sq Ft / 880 Units	9 MW			

Gas demand per use based upon the full buildout of the Master Plan is shown in *Table III-14*.

Table III-14 Projected Natural Gas Demand				
Use	Sq Ft / Units	Demand		
Residential	880	-		
Office	330,000	4 MCF		
Industrial / Warehouse	813,000	16 MCF		
Film Studio	160,000	4 MCF		
Retail / Hotel	51,395	2 MCF		
Total	1,354,395 Sq Ft / 880 Units	26 MCF		

Note that all residential units are proposed to be built utilizing all electric appliances and systems and no natural gas is currently contemplated to be required for the residential component of the site. Sufficient electric and gas capacity exists for the Master Plan. Therefore, no adverse impacts are anticipated.

e. Telephone & Cable

The existing telephone and cable infrastructure and capacity were adequate for the previous use by IBM. The total square footage of all of the buildings in the Master Plan represents a significant decrease from the IBM site occupancy. Sufficient telephone and cable capacity exist for the Master Plan. Therefore, no adverse impacts are anticipated.

3. Potential Mitigation Measures

a. Water Supply

Sufficient potable water capacity exists for the Master Plan and therefore, no mitigation measures are necessary.

b. Sanitary Sewer

Sufficient sanitary sewer capacity exists for the Master Plan and therefore, no mitigation measures are necessary.

c. Storm Sewer

New York State Stormwater Management Design standards for redevelopment projects will be applied on the project via the following applicable redevelopment project practices as well as other engineering stormwater practices and technologies.

Land disturbance in excess of one acre will be undertaken in accordance with the NYSDEC General Permit GP-0-10-001 for redevelopment compliance as defined in Chapter 9 of the NYS Stormwater Management Design Manual.

A considerable portion of the new construction will be built in existing parking areas or in the footprint of previously demolished buildings. Similarly, the parking areas will be provided in existing parking areas, thus minimizing the land disturbance associated with the construction of both the new construction buildings and the parking areas.

Over the course of the redevelopment of the East Campus, stormwater quality devices that remove sediment from parking lots such as hydrodynamic separators will be provided at proper underground locations throughout the Site. Hydrodynamic separators are highly effective at removing both sediment and pollutants from stormwater runoff, which will help to protect water quality and prevent downstream erosion and flooding. Any such devices installed would be regularly maintained in order to ensure proper ongoing function. Other measures that may be implemented in certain areas of the Site, should they be determined technically feasible and financially sustainable, could include:

- <u>Green Roofs</u> Roofs covered with vegetation, such as grasses or sedums, which are designed to absorb and retain stormwater.
- <u>Permeable Pavement</u> Made of materials such as permeable concrete, porous asphalt or interlocking pavers that allow stormwater to filter through the surface and into the ground below.
- <u>Vegetative Swales</u> Shallow landscaped cannels designed to slow down and filter stormwater runoff. Often, they are planted with vegetation such as grasses, shrubs or trees to absorb and filter stormwater.

As the internal road circulation network is put into place and the surface parking areas are redeveloped, the existing stormwater mains will be evaluated, and as necessary stormwater infiltration and exfiltration will be mitigated. In selected

areas of the East Campus, pervious paving materials and infiltration gardens and trenches will be utilized to reduce off-site storm water discharge.

All of the practices described above would serve as appropriate mitigation measures.

d. Electric & Gas

Sufficient electric and natural gas capacity exist for the Master Plan and therefore, no mitigation measures are necessary.

e. Telephone & Cable

Sufficient telephone and cable capacity exist for the Master Plan and therefore, no mitigation measures are necessary.

APPENDIX A-1

MEMORANDUM

TRAFFIC COMPARISON ASSESSMENT OF IPARK 87 TO TECH CITY EAST CAMPUS

FROM: Thomas Johnson, PE, PTOE

TO: Lynne Ward, George Distefano, Lauren Calabria

CC: Stuart Mesinger, AICP; Walter Kubow, PE; Haley Bigando

DATE: April 5, 2023 RE: iPark 87, Ulster, NY

A. Introduction

The purpose of this assessment is to compare the trip generation and potential traffic impacts of the proposed iPark 87 project against the Transportation Findings of the previously approved Tech City East Campus project. The concept for iPark 87 is attached.

B. Trip Generation

The initial phase of iPark 87 includes the construction of 880 multifamily dwelling units in multiple buildings of three to five stories. It is envisioned that the remainder of the project will consist of about 1,369,000 square feet (SF) of commercial and retail uses. At this time, this portion of the project is speculative and may consist of uses such as office, industrial, film studio, small retail, and hotel.

Trip Generation, 11th Edition, published by the Institute of Transportation Engineers (ITE) was used to estimate the site trips. ITE land use codes (LUC) 220 and 221 – Multifamily Housing were used for the residential portion of the project, and LUC 770 – Business Park was used for the remainder. Business Park in *Trip Generation* is defined as: a group of flex-type or incubator one- or two-story buildings served by a common roadway system. The space may include offices, retail and wholesale stores, restaurants, recreational uses and warehousing, manufacturing, light industrial, or scientific research functions.

Given the potential variety and speculative nature of the future uses of the project, Business Park is an appropriate land use to estimate trips.

The estimate of trips is shown in Table 1. The commercial portion of the project can be considered a multi-use development with trips being made between the various uses within the site and not using the external road network. Given that the Business Park definition already includes a variety of uses, these internal trips would already be included in the trip generation estimates; therefore, no additional internal trip credit was used in the estimate. However, it would be expected that internal trips would be made between the residential portion of the project and the commercial portion. Using National Cooperative Highway Research Program's (NCHRP) Report 684 Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, the trip credit was calculated to be 2%, or 30 total trips. This credit is accounted for in Table 1.



Table 1: Trip Generation for the iPark 87 Project

Land Has	Size	Land Use Code	PM Peak Hour		
Land Use			Enter	Exit	Total
Multifamily (Low Rise)	310 units	220	97	57	154
Multifamily (Mid Rise)	570 units	221	136	87	223
Business Park	1,369,000 SF	770	379	1,080	1,459
Subtotal Trips			612	1,224	1,836
Internal Multi-use Credit (2%)			-15	-15	-30
Total External Trips			597	1,209	1,806

Table 2 compares the trip generation estimates for the Tech City East Campus project to that of iPark 87. The table shows that iPark 87 will generate 48 more trips in the PM peak hour than the Tech City East Campus proposal. With nine different driveways to the project site, the 48 additional trips will be spread out and can be considered a negligible increase.

Table 2: Trip Generation Comparison

Droject	PM Peak Hour			
Project	Enter	Exit	Total	
Tech City East Campus	456	1,302	1,758	
iPark 87	597	1,209	1,806	
External Trip Difference	+141	-93	+48	

C. Roadway Traffic Volumes

Traffic volumes on Enterprise Drive and Boices Lane used for the Tech City East Campus proposal were compared to recent traffic counts collected on those roads. The recent counts were collected in 2021 and 2022 for the Ulster County Transportation Council (UCTC) and they are being used for UCTC's Route 9W corridor study. UCTC provided the counts to LaBella for use on this project. The UCTC traffic counts are attached.

Tables 3, 4, 5, and 6 show volumes that were used for the Tech City East Campus at four locations along Enterprise Drive and Boices Lane and compares them to volumes that would be used for the iPark 87 project. The volumes are 2009 and 2022 existing volumes, 5-year projected volumes, and 20-year projected volumes. It is noted that the volumes do not include trips from the Tech City East Campus or iPark 87. These are known as No-Build volumes. The 5-year and 20-year projections were estimated based on a growth rate of 1% per year. The Tech City East Campus volume figures are attached.

It is also noted that the 2022 traffic volumes were adjusted to account for the potential travel impacts associated with the COVID-19 pandemic. A comparison of counts taken in 2022 on Enterprise Drive, Boices Lane, and Route 9W near the site to pre-COVID counts taken in 2019 show that the 2022 counts were 6-8% lower than 2019 counts. Therefore, the 2022 counts were increased by 8% to reflect pre-COVID conditions. This adjustment procedure follows the guidelines developed by NYSDOT for COVID-19 travel-related impacts.



Table 3: Enterprise Drive South of Route 209 EB Ramps

Tech City East Campus		iPark 87		
Condition	Volume	Volume Condition		
2009 Existing	1,115	840	2022 Existing	
5-yr Projection	1,185	885	5-yr Projection	
20-yr Projection	1,375	1,025	20-yr Projection	

Volume: 2-way (vehicles per hour)

Table 4: Enterprise Drive North of South Driveway

Tech City East Campus		iPark 87		
Condition	Volume	Volume Condition		
2009 Existing	1,390	1,145	2022 Existing	
5-yr Projection	1,490	1,205	5-yr Projection	
20-yr Projection	1,725	1,400	20-yr Projection	

Volume: 2-way (vehicles per hour)

Table 5: Boices Lane West of Morton Boulevard

Tech City East Campus		iPark 87		
Condition	Volume	Volume Condition		
2009 Existing	1,305	1,115	2022 Existing	
5-yr Projection	1,420	1,175	5-yr Projection	
20-yr Projection	1,640	1,360	20-yr Projection	

Volume: 2-way (vehicles per hour)

Table 6: Boices Lane Between Morton Boulevard and John Clark Road

Tech City East (Tech City East Campus		iPark 87	
Condition	Volume	Volume Condition		
2009 Existing	1,080	985	2022 Existing	
5-yr Projection	1,185	1,035 5-yr Projection		
20-yr Projection	1,370	1,200	20-yr Projection	

Volume: 2-way (vehicles per hour)

As the tables show, the 2022 Existing volumes are 100 – 300 vehicles per hour lower than the 2009 Existing volumes from the Tech City East Campus study. The 5-year and 20-year projected volumes for iPark 87 are similarly lower than the Tech City projections.

D. Alternative Trip Generation Estimate

Rather than grouping the entire commercial and mixed-use components of the project and classifying them as a Business Park, alternative trip estimates were calculated for each individual use with the following assumptions:

- 1. Office space is General Office space
- 2. Industrial space is Manufacturing space
- 3. Film Studio is Warehousing space
- 4. Hotel is 100 Rooms
- 5. Mobility Hub is General Office space



Table 7 presents the alternative trip generation estimates. When estimating trips for each individual component the entire project can be considered a multi-use development with trips being made between the various uses within the site and not using the external road network. Using National Cooperative Highway Research Program's (NCHRP) Report 684 *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*, the trip credit was calculated to be 7%, or 128 total trips. This credit is accounted for in Table 7.

Table 7: Alternative Trip Generation for the iPark 87 Project

Land Use	Cine	Land Use	PM Peak Hour		
	Size	Code	Enter	Exit	Total
Multifamily (Low Rise)	310 units	220	97	57	154
Multifamily (Mid Rise)	570 units	221	136	87	223
Office	495,000 SF	710	106	520	626
Retail	32,040 SF	822	89	89	178
Hotel	100 Rooms	310	24	22	46
Film Studio	160,000 SF	150	13	33	46
Industrial	663,000 SF	140	173	386	559
Subtotal Trips			638	1,194	1,832
Internal Multi-use Credit (7%)			-64	-64	-128
Total External Trips			574	1,130	1,704

The alternative trip estimate of 1,704 total trips is less than than trip estimate from Table 1 of 1,806 total trips when grouping the commercial uses as a Business Park, and the alternative trip estimate is less than the Tech City East Campus estimate of 1,758 total trips. Therefore, use of the Business Park trip estimates is conservative.

E. Conclusion

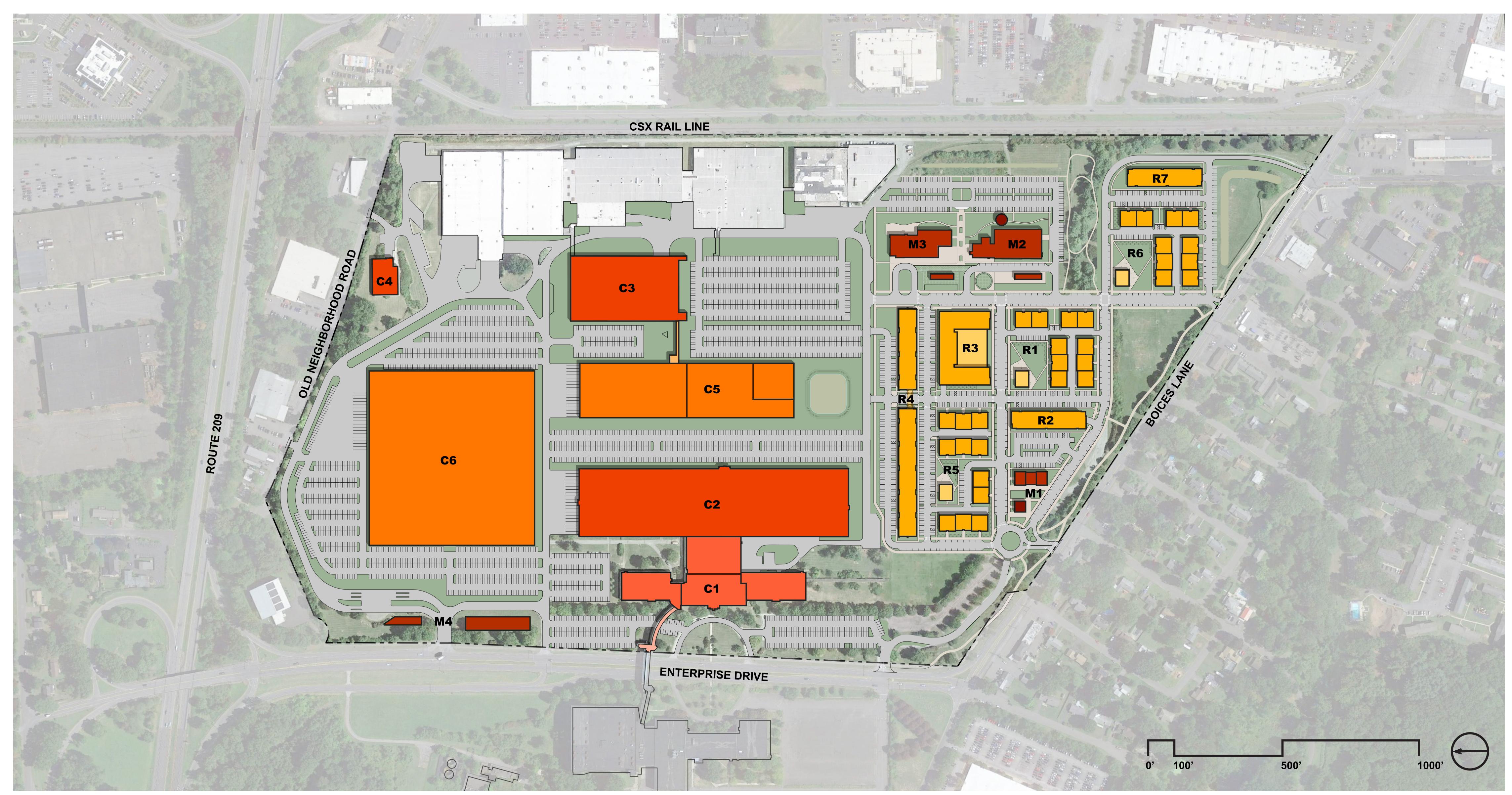
Given that the trip generation estimate for the iPark 87 proposal is similar to the estimates for the Tech City East Campus, and that the current traffic volumes and subsequent 5-year and 20-year volume projections are lower than the volumes used for the Tech City traffic analysis, it is concluded that the iPark 87 proposal will not induce additional traffic impacts that have not already been identified for the Tech City East Campus. The recommended improvements in the Findings Statement for the Tech City East Campus will be valid for the iPark 87 proposal. No further traffic analysis is needed.

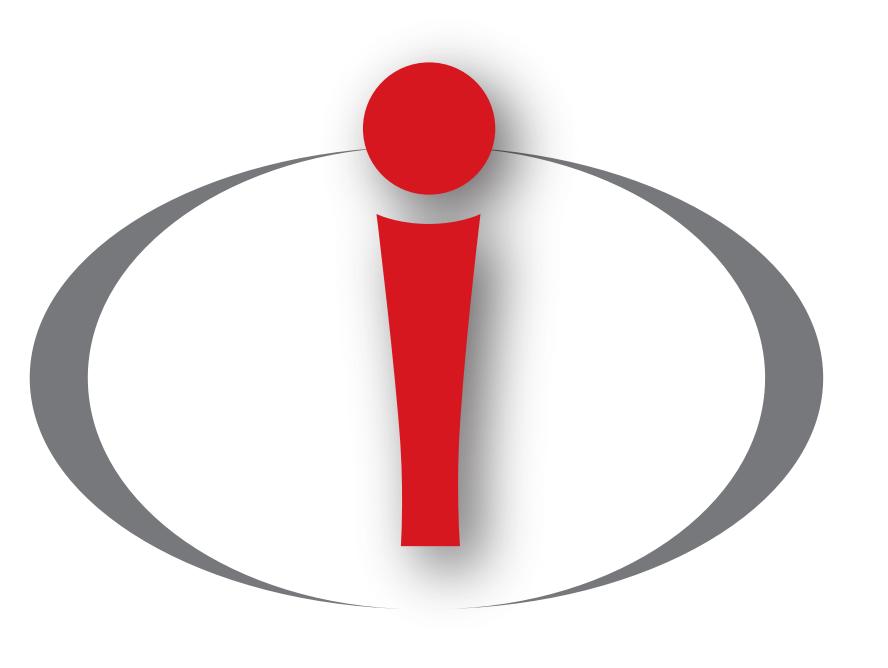
Attachments

iPark 87 Concept Plan Ulster County Traffic Counts Tech City East Campus Traffic Volume Figures



iPark 87 Concept Plan





iPARK 87

iPARK87 | EAST CAMPUS COMPREHENSIVE DESIGN PLAN

OTES:

- BUILDING SQUARE FOOTAGE (S.F.) IS MEASURED TO THE EXTERIOR OF THE BUILDING, INCLUDES MECH. CLOSETS & PARKING GARAGES, EXCLUDES BALCONIES.
- 2. CURRENT RESIDENTIAL BUILDINGS ASSUME GROUND FLOOR RESIDENTIAL.

				1074 dist									
CATEGORY	TAG	PRIMARY USE	PHASE	STORIES	TOTAL AREA (S.F.)	COMMERC	IAL AREA	A (S.F.)	RESID	DENTIAL A	REA (S.F.) #	UNITS
					TOTAL	COMMERCIAL	RETAIL	HOTEL	RESIDENTIAL	AMENITY	UTILITY	GARAGE	
OTAL					2,326,835								880
COMMERCIAL	ı				1,303,000								
	C1	OFFICE	PHASE 1	2	180,000	180,000							
	C2	INDUSTRIAL	PHASE 1	1	. 250,000	250,000							
	C3	OFFICE	PHASE 1	3	300,000	300,000							
	C4	INDUSTRIAL	PHASE 1	1	13,000	13,000							
	C5	FILM STUDIOS	PHASE 2	1	160,000	160,000							
	C6	INDUSTRIAL	PHASE 2	1	400,000	400,000							
RESIDENTIAL					957,440								880
	R1	RESIDENTIAL	PHASE 2A	3	111,300				86,950	6,200	3,000	15,150	100
	R2	RESIDENTIAL	PHASE 2A	5	82,500				66,000	3,500	2,500	10,500	80
	R3	RESIDENTIAL	PHASE 2B	3	122,450				95,965	6,520	3,000	16,965	110
	R4	RESIDENTIAL	PHASE 2C	5	202,035		6,500		140,520	10,000	3,000	42,015	146
	R5	RESIDENTIAL	PHASE 2D	5	245,675				196,540	10,000	4,000	35,135	264
	R6	RESIDENTIAL	PHASE 2E	3	110,980				86,950	5,880	3,000	15,150	100
	R7	RESIDENTIAL	PHASE 2E	5	82,500				66,000	3,500	2,500	10,500	80
MIXED-USE					66,395								
	M1	RETAIL ENTRY PLAZA	PHASE 2A	1	7,600		7,600						
	M2	RETAIL/AMENITY	PHASE 2A	1	. 24,440		22,940				1,500		
	M3	HOTEL/ARTS CENTER	PHASE 2C	2	19,355			19,355					
	M4	MOBILITY HUB	PHASE 3	1	15,000	15,000							

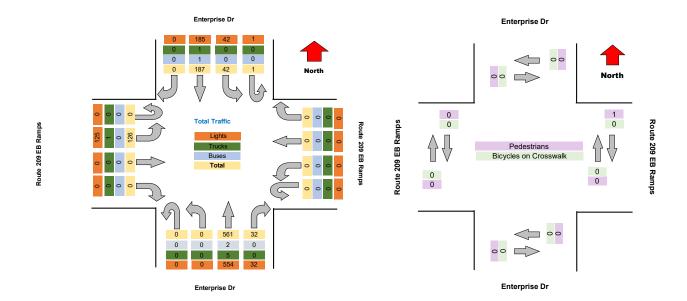
UCTC Traffic Counts

	Creighton Manning
Project Code	10651
Site Name	10651-12_Enterprise Dr & R
Legs and Movements	All Processed Legs & Moven
Bin Size	15 minutes
Survey Date	2022-10-04, Tuesday
Location	10651-12_Enterprise Dr & R
Latitude and Longitude	41.975046, -73.999362

	Start	End	PHF
AM Peak	2022/10/04 07:15:00	2022/10/04 08:15:00	0.77
PM Peak	2022/10/04 16:30:00	2022/10/04 17:30:00	0.93

4:30:00 PM

Leg				Enterpri	ise Dr					Ro	ute 209 E	B Ramps						Enterpris	se Dr					Route	209 EB I	Ramps			
Direction				Southb	ound						Westbo	und						Northbo	und					-	Eastbour	d			
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Tum	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:30:00 PM	0	54	6	0	60	0	0	0	0	0	0	0	0	0	12	152	0	0	164	0	0	0	0	31	0	31	0	0	255
4:45:00 PM	0	41	16	0	57	0	0	0	0	0	0	0	0	0	7	119	0	0	126	0	0	0	0	35	0	35	0	0	218
5:00:00 PM	0	50	8	0	58	0	0	0	0	0	0	0	0	0	9	154	0	0	163	0	0	0	0	29	0	29	0	0	250
5:15:00 PM	0	42	12	1	55	0	0	0	0	0	0	0	1	0	4	136	0	0	140	0	0	0	0	31	0	31	0	0	226
Grand Total	0	187	42	1	230	0	0	0	0	0	0	0	1	0	32	561	0	0	593	0	0	0	0	126	0	126	0	0	949
% Approach	0.0%	81.3%	18.3%	0.4%	0.0%	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.0%	0.0%	0.0%	5.4%	94.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
% Total	0.0%	19.7%	4.4%	0.1%	24.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	59.1%	0.0%	0.0%	62.5%	0.0%	0.0%	0.0%	0.0%	13.3%	0.0%	13.3%	0.0%	0.0%	
PHF	0.000	0.866	0.656	0.250	0.958	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.911	0.000	0.000	0.904	0.000	0.000	0.000	0.000	0.900	0.000	0.900	0.000	0.000	0.930
Lights	0	185	42	1	228	0	0	0	0	0	0	0	0	0	32	554	0	0	586	0	0	0	0	125	0	125	0	0	939
% Lights	0.0%	98.9%	100.0%	100.0%	99.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	98.8%	0.0%	0.0%	98.8%	0.0%	0.0%	0.0%	0.0%	99.2%	0.0%	99.2%	0.0%	0.0%	98.9%
Trucks	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	1	0	1	0	0	7
% Trucks	0.0%	0.5%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.8%	0.0%	0.0%	0.7%
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	3
% Buses	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

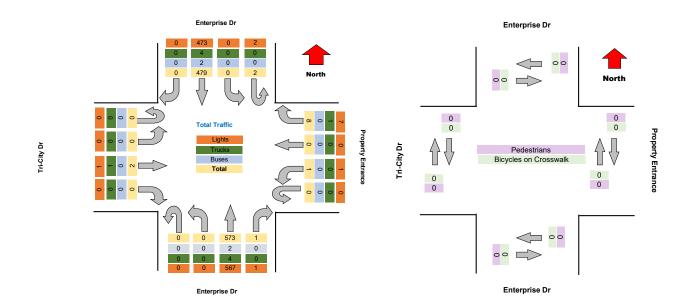


Project	Creighton Manning
Project Code	10651
Site Name	10651-11_Enterprise Dr & Tr
Legs and Movements	All Processed Legs & Movem
Bin Size	15 minutes
Survey Date	2022-10-04, Tuesday
Location	10651-11_Enterprise Dr & Tr
Latitude and Longitude	41.968608, -73.999383

	Start	End	PHF
AM Peak	2022/10/04 07:15:00	2022/10/04 08:15:00	0.79
PM Peak	2022/10/04 16:30:00	2022/10/04 17:30:00	0.87

4:30:00 PM

Leg				Enterpri	se Dr					Pi	roperty E	ntrance						Enterpris	se Dr						Tri-City D	r			
Direction				Southb	ound						Westbo	ound						Northbo	und			Eastbound						ĺ	
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Tum	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:30:00 PM	0	123	0	1	124	0	0	1	0	0	0	1	0	0	1	162	0	0	163	0	0	0	2	0	0	2	0	0	290
4:45:00 PM	0	115	0	0	115	0	0	1	0	0	0	1	0	0	0	123	0	0	123	0	0	0	0	0	0	0	0	0	239
5:00:00 PM	0	129	0	1	130	0	0	3	0	0	0	3	0	0	0	172	0	0	172	0	0	0	0	0	0	0	0	0	305
5:15:00 PM	0	112	0	0	112	0	0	3	0	1	0	4	0	0	0	116	0	0	116	0	0	0	0	0	0	0	0	0	232
Grand Total	0	479	0	2	481	0	0	8	0	1	0	9	0	0	1	573	0	0	574	0	0	0	2	0	0	2	0	0	1066
% Approach	0.0%	99.6%	0.0%	0.4%	0.0%	0.0%	0.0%	88.9%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.2%	99.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
% Total	0.0%	44.9%	0.0%	0.2%	45.1%	0.0%	0.0%	0.8%	0.0%	0.1%	0.0%	0.8%	0.0%	0.0%	0.1%	53.8%	0.0%	0.0%	53.8%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%	ĺ
PHF	0.000	0.928	0.000	0.500	0.925	0.000	0.000	0.667	0.000	0.250	0.000	0.563	0.000	0.000	0.250	0.833	0.000	0.000	0.834	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.874
Lights	0	473	0	2	475	0	0	7	0	1	0	8	0	0	1	567	0	0	568	0	0	0	1	0	0	1	0	0	1052
% Lights	0.0%	98.7%	0.0%	100.0%	98.8%	0.0%	0.0%	87.5%	0.0%	100.0%	0.0%	88.9%	0.0%	0.0%	100.0%	99.0%	0.0%	0.0%	99.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	0.0%	98.7%
Trucks	0	4	0	0	4	0	0	- 1	0	0	0	1	0	0	0	4	0	0	4	0	0	0	1	0	0	1	0	0	10
% Trucks	0.0%	0.8%	0.0%	0.0%	0.8%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.9%
Buses	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	4
% Buses	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

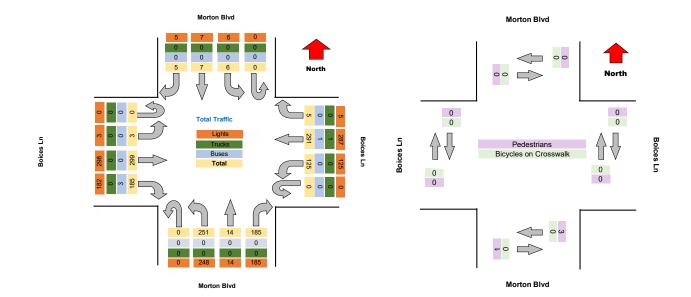


Project	Creighton Manning
Project Code	#10699
Site Name	Boices Ln & Morton Blvd
Legs and Movements	All Processed Legs & Move
Bin Size	15 minutes
Survey Date	2022/03/08, Tuesday
Location	Boices Ln & Morton Blvd
Latitude and Longitude	41.963945, -73.992846

	Start	End	PHF
AM Peak	2022/03/08 07:30:00	2022/03/08 08:30:00	0.87
PM Peak	2022/03/08 16:15:00	2022/03/08 17:15:00	0.93

4:15:00 PM

Leg				Morton	Blvd						Boices	Ln						Morton	Blvd						Boices L	n			
Direction				Southbo	ound						Westbo	und						Northbo	und		Eastbound						i l		
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Tum	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Tum	App Total	Peds CW	Peds CCW	Total
4:15:00 PM	0	2	2	0	4	0	0	0	61	36	0	97	0	0	50	0	68	0	118	1	0	43	76	1	0	120	0	0	339
4:30:00 PM	2	0	0	0	2	0	0	3	61	27	0	91	0	0	43	3	60	0	106	1	1	56	79	2	0	137	0	0	336
4:45:00 PM	0	2	1	0	3	0	0	2	80	28	0	110	0	0	35	7	59	0	101	0	0	40	79	0	0	119	0	0	333
5:00:00 PM	3	3	3	0	9	0	0	0	89	34	0	123	0	0	57	4	64	0	125	1	0	46	65	0	0	111	0	0	368
Grand Total	5	7	6	0	18	0	0	5	291	125	0	421	0	0	185	14	251	0	450	3	1	185	299	3	0	487	0	0	1376
% Approach	27.8%	38.9%	33.3%	0.0%	0.0%	0.0%	0.0%	1.2%	69.1%	29.7%	0.0%	0.0%	0.0%	0.0%	41.1%	3.1%	55.8%	0.0%	0.0%	0.0%	0.0%	38.0%	61.4%	0.6%	0.0%	0.0%	0.0%	0.0%	
% Total	0.4%	0.5%	0.4%	0.0%	1.3%	0.0%	0.0%	0.4%	21.1%	9.1%	0.0%	30.6%	0.0%	0.0%	13.4%	1.0%	18.2%	0.0%	32.7%	0.0%	0.0%	13.4%	21.7%	0.2%	0.0%	35.4%	0.0%	0.0%	i
PHF	0.417	0.583	0.500	0.000	0.500	0.000	0.000	0.417	0.817	0.868	0.000	0.856	0.000	0.000	0.811	0.500	0.923	0.000	0.900	0.000	0.000	0.826	0.946	0.375	0.000	0.889	0.000	0.000	0.935
Lights	5	7	6	0	18	0	0	5	287	125	0	417	0	0	185	14	248	0	447	0	0	182	298	3	0	483	0	0	1365
% Lights	100.0%	100.0%	100.0%	0.0%	100.0%	0.0%	0.0%	100.0%	98.6%	100.0%	0.0%	99.0%	0.0%	0.0%	100.0%	100.0%	98.8%	0.0%	99.3%	0.0%	0.0%	98.4%	99.7%	100.0%	0.0%	99.2%	0.0%	0.0%	99.2%
Trucks	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Buses	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	3	0	3	0	0	3	0	0	0	3	0	0	7
% Buses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

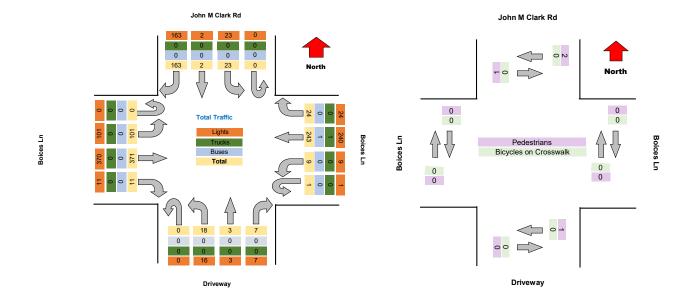


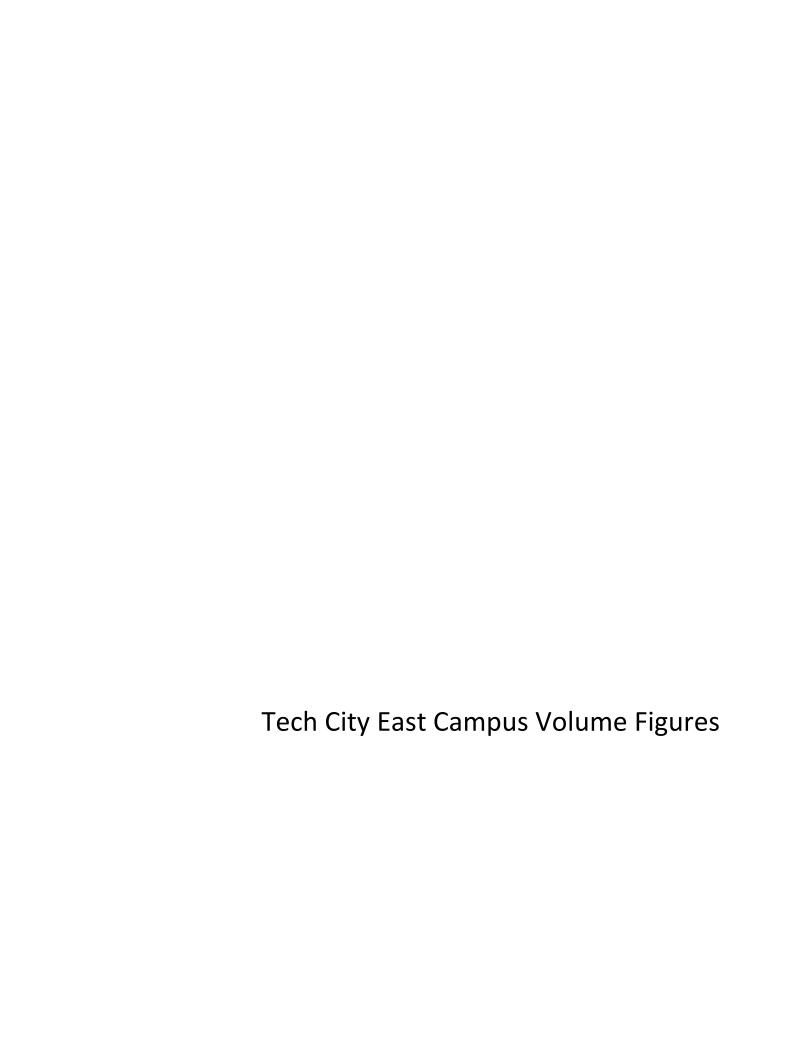
	Creighton Manning
Project Code	#10699
Site Name	Boices Ln & John M Clark Ro
Legs and Movements	All Processed Legs & Moven
Bin Size	15 minutes
Survey Date	2022/03/08, Tuesday
Location	Boices Ln & John M Clark Ro
Latitude and Longitude	41.963480, -73.991834

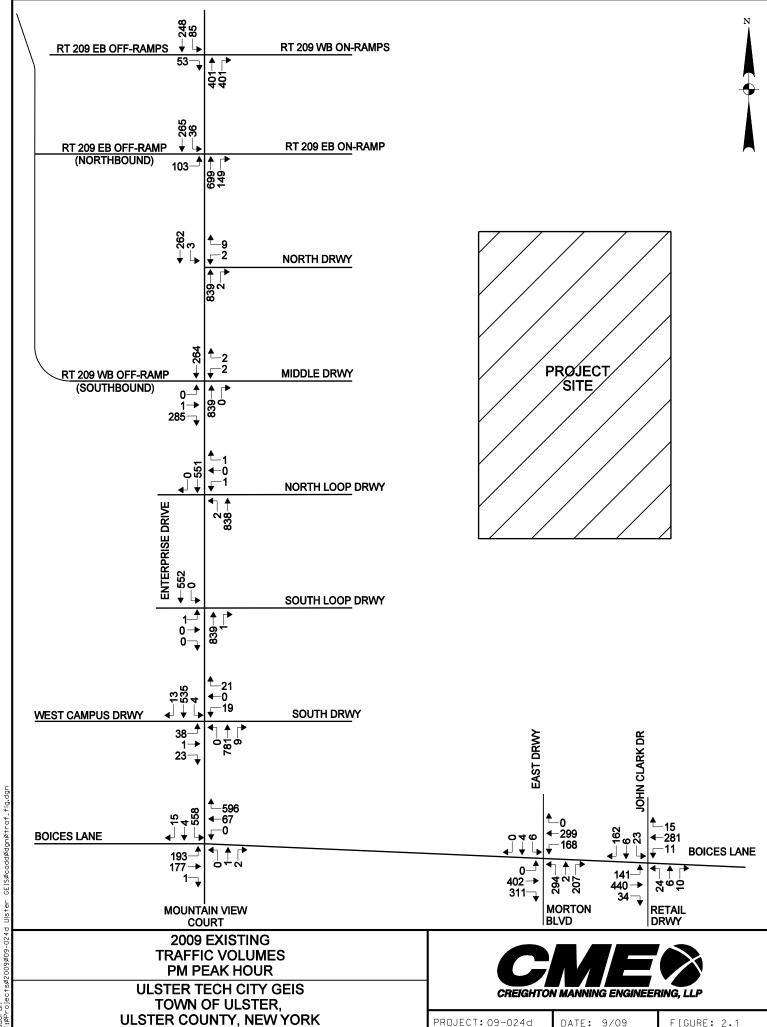
	Start	End	PHF
AM Peak	2022/03/08 07:30:00	2022/03/08 08:30:00	0.81
PM Peak	2022/03/08 16:15:00	2022/03/08 17:15:00	0.93

4:15:00 PM

Leg	John M Clark Rd							Boices Ln					Driveway					Boices Ln											
Direction	Southbound						Westbound					Northbound					Eastbound					i l							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Tum	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Tum	App Total	Peds CW	Peds CCW	Total
4:15:00 PM	40	0	5	0	45	0	1	6	53	2	0	61	0	0	2	0	4	0	6	1	0	3	94	26	0	123	0	0	235
4:30:00 PM	40	0	8	0	48	0	0	8	48	1	1	58	0	0	4	2	5	0	11	0	0	4	86	30	0	120	0	0	237
4:45:00 PM	44	2	5	0	51	1	0	4	65	3	0	72	0	0	0	0	3	0	3	0	0	3	90	23	0	116	0	0	242
5:00:00 PM	39	0	5	0	44	0	1	6	77	3	0	86	0	0	- 1	1	6	0	8	0	0	1	101	22	0	124	0	0	262
Grand Total	163	2	23	0	188	1	2	24	243	9	1	277	0	0	7	3	18	0	28	1	0	11	371	101	0	483	0	0	976
% Approach	86.7%	1.1%	12.2%	0.0%	0.0%	0.0%	0.0%	8.7%	87.7%	3.2%	0.4%	0.0%	0.0%	0.0%	25.0%	10.7%	64.3%	0.0%	0.0%	0.0%	0.0%	2.3%	76.8%	20.9%	0.0%	0.0%	0.0%	0.0%	
% Total	16.7%	0.2%	2.4%	0.0%	19.3%	0.0%	0.0%	2.5%	24.9%	0.9%	0.1%	28.4%	0.0%	0.0%	0.7%	0.3%	1.8%	0.0%	2.9%	0.0%	0.0%	1.1%	38.0%	10.3%	0.0%	49.5%	0.0%	0.0%	i
PHF	0.926	0.250	0.719	0.000	0.922	0.000	0.000	0.750	0.789	0.750	0.250	0.805	0.000	0.000	0.438	0.375	0.750	0.000	0.636	0.000	0.000	0.688	0.918	0.842	0.000	0.974	0.000	0.000	0.931
Lights	163	2	23	0	188	0	0	24	240	9	1	274	0	0	7	3	16	0	26	0	0	11	370	101	0	482	0	0	970
% Lights	100.0%	100.0%	100.0%	0.0%	100.0%	0.0%	0.0%	100.0%	98.8%	100.0%	100.0%	98.9%	0.0%	0.0%	100.0%	100.0%	88.9%	0.0%	92.9%	0.0%	0.0%	100.0%	99.7%	100.0%	0.0%	99.8%	0.0%	0.0%	99.4%
Trucks	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Buses	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Buses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Pedestrians	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



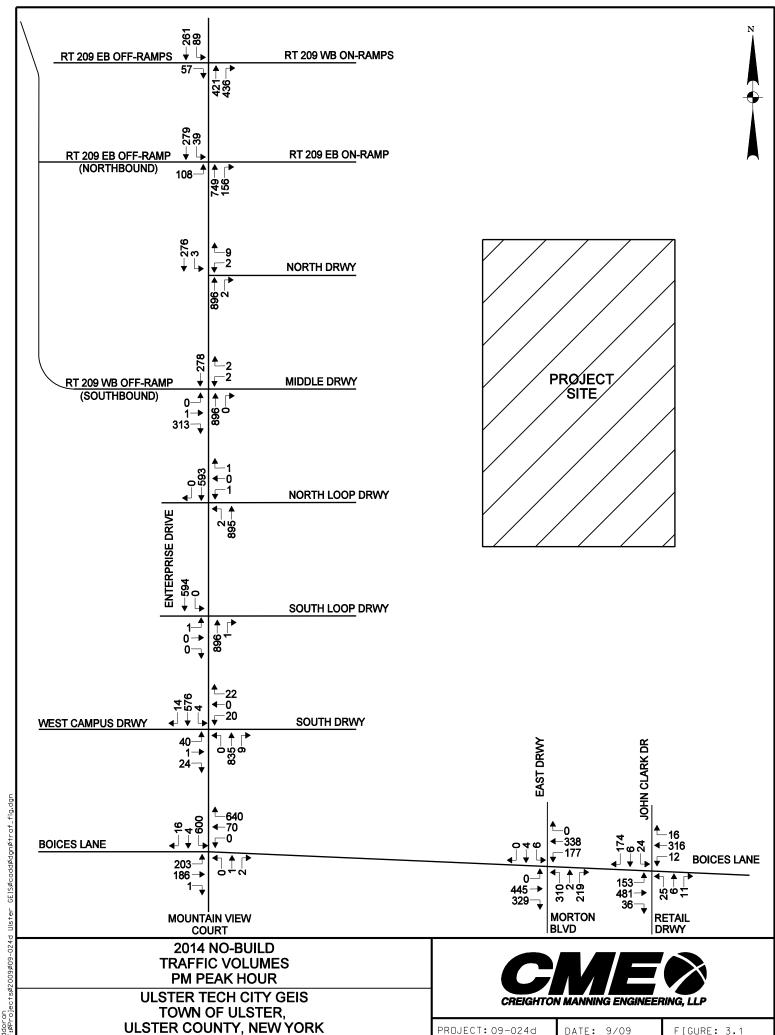




PROJECT: 09-024d

DATE: 9/09

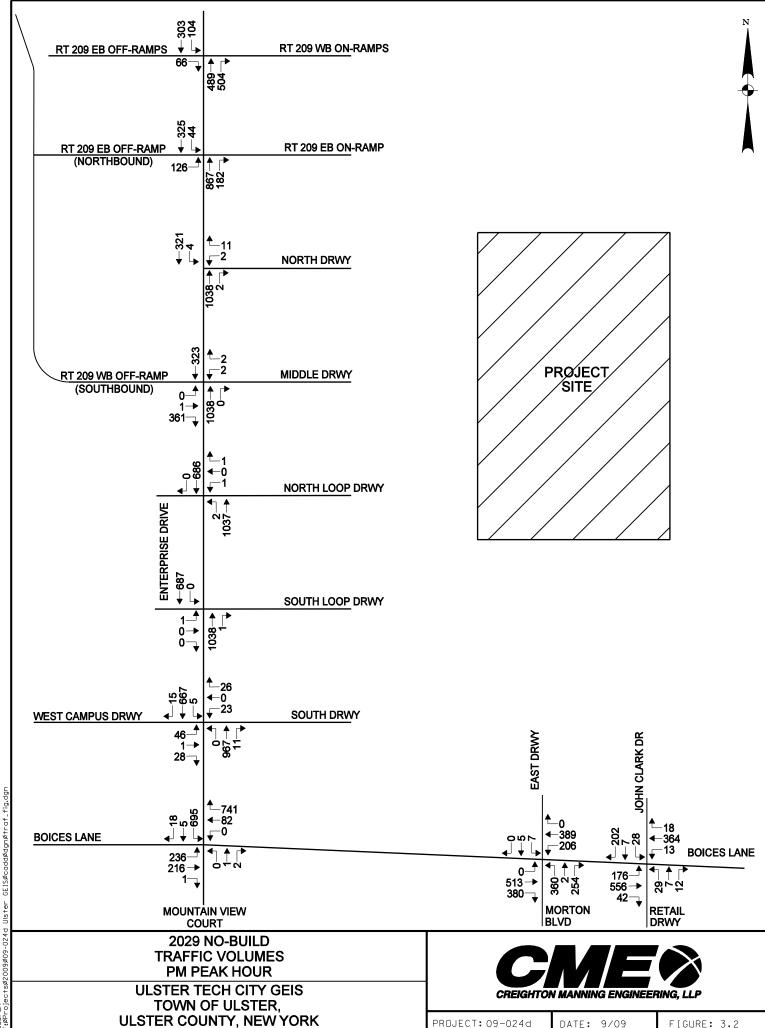
FIGURE: 2.1



PROJECT: 09-024d

DATE: 9/09

FIGURE: 3.1



PROJECT: 09-024d

DATE: 9/09

FIGURE: 3.2

APPENDIX A-2

MEMORANDUM

SITE DRIVEWAYS INTERSECTION REVIEWS

FROM: Thomas Johnson, PE, PTOE

TO: Lynne Ward, George Distefano, Lauren Calabria

CC: Stuart Mesinger, AICP; Walter Kubow, PE; Haley Bigando

DATE: May 16, 2023 RE: iPark 87, Ulster, NY

A. Introduction

The purpose of this assessment is to review the Tech City East Campus recommended improvements at the site driveways on Boices Lane and Enterprise Drive for their applicability to the iPark87 proposed project.

B. iPark 87 Proposed Project

1. Tech City East Campus Site Layout

The Tech City East Campus Master Plan (attached) provided for two primary north-south roadways and two primary east-west roadways that connected to Enterprise Drive and Boices Lane, with the eastern-most north-south roadway (East Driveway) intersecting Boices Lane opposite Morton Blvd in its current location. Each of these primary roadways provide access to all land uses throughout the site. It was estimated that almost a quarter of the site traffic would use the East Driveway, about 425 vehicles per hour for the weekday PM peak hour. With this volume of traffic, it was recommended that a second eastbound through lane on Boices Lane be added to the intersection and switching the lane arrangement on Morton Boulevard for a separate left-turn lane.

2. iPark 87 Site Layout

The iPark 87 concept plan (attached) provides for two primary east-west roadways, it does not include any north-south roadway that extends through the entire site. From this, the site driveways along Boices Lane primarily serve the residential portion of the project while the site driveways on Enterprise Drive – the Middle Driveway and the North Driveway – serve the commercial components.

a. Boices Lane Site Driveways

The East Driveway access road from Boices Lane is short and would serve a portion of the residential component of the project. Further, it is contemplated that the East Driveway be restricted to entering traffic only, and only for westbound right-turns in and northbound through movements in from Morton Boulevard. Eastbound left-turns in will be prohibited. Further, the driveway will be limited to cars only with truck traffic prohibited. These factors limit the amount of site traffic expected to use the East Driveway, estimated at 62 vehicles per hour in the weekday PM peak hour for build-out conditions. Most of that volume will be right-turns entering from Boices Lane westbound. Figure 1 attached shows the estimated site trips at each driveway for the weekday PM peak hour at full build-out. The design of the East Driveway at Boices Lane will be based on input from the Town's traffic engineer. A concept of the East Driveway at Boices Lane, and other improvements to Boices Lane is attached.



The other two site driveways along Boices Lane are both proposed as restricted to right-turns in and right-turns out only. These restrictions will significantly reduce the conflicts along Boices Lane. Without left-turn movements at the Middle Driveway, a traffic signal is not needed; therefore, the driveway does not need to be relocated opposite Dalewood Street as recommended in the Tech City East Campus study.

b. Enterprise Drive Site Driveways

The turn restrictions at the site driveways on Boices Lane will place more residential traffic to the South Driveway intersection. Limited internal access from the South Driveway to the commercial components will place more traffic at the Middle and North Driveways. The recommended improvements in the Tech City East Campus study along Enterprise Drive include:

- i. North Driveway Eliminate left-turn lane and restrict driveway to right-turns in and right-turns out; remove signal equipment.
- ii. Middle Driveway Prohibit left-turns from Enterprise Drive; reconstruct Route 209 off-ramp to a jug-handle; install traffic signal.
- iii. South Driveway Provide westbound left-turn lane; coordinate traffic signal with signal at Enterprise Drive/Boices Lane.

With these improvements, the North Driveway intersection will operate at level of service B, the Middle Driveway will operate level of service C, and the South Driveway will operate at level of service B. The Enterprise Drive/Boices Lane intersection will operate at level of service B. No improvements beyond those in the Tech City East Campus study are needed.

[Note: Levels of service are assigned in the range of A through F with A the best condition and F the worst, or failure conditions. Levels of service A through D are typically the minimal acceptable operating conditions with levels of service E and F indicating conditions at or above capacity levels.]

C. Conclusion

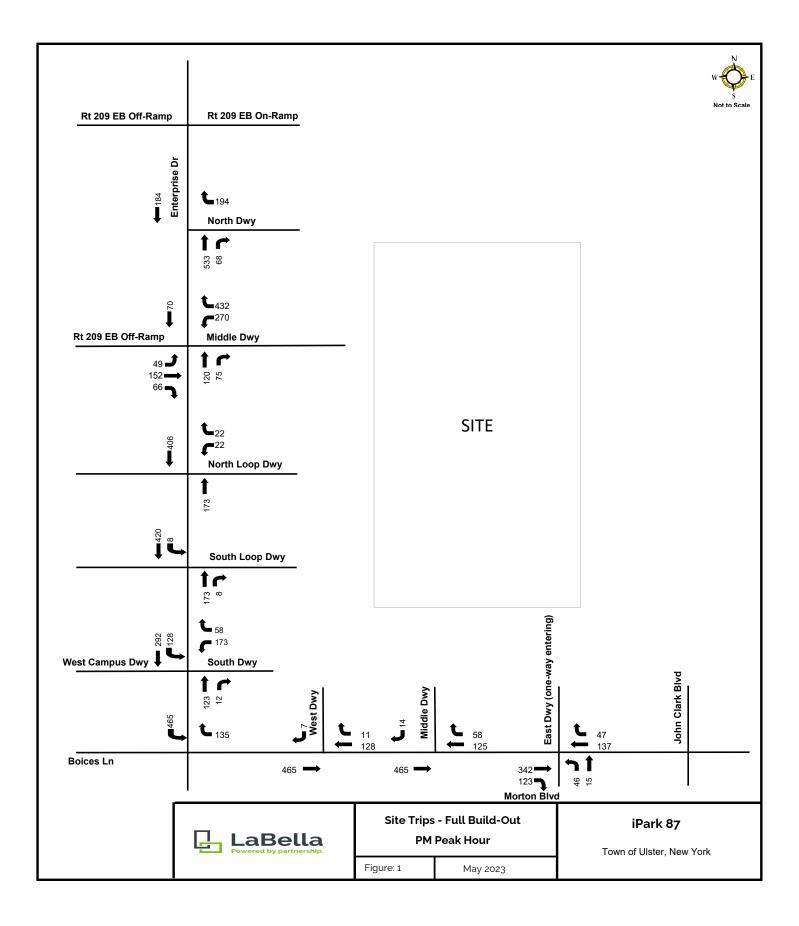
The three site driveways along Boices Lane are all proposed with restricted movements: the East Driveway is restricted to entering traffic only and only for westbound right-turns and northbound through movements; and the other two driveways are restricted to right-turns in and right-turns out only. Also, trucks will be prohibited from using the East Driveway. These restrictions will significantly reduce the conflicts along Boices Lane. The design of the East Driveway at Boices Lane will be based on input provided by the Town's traffic engineer.

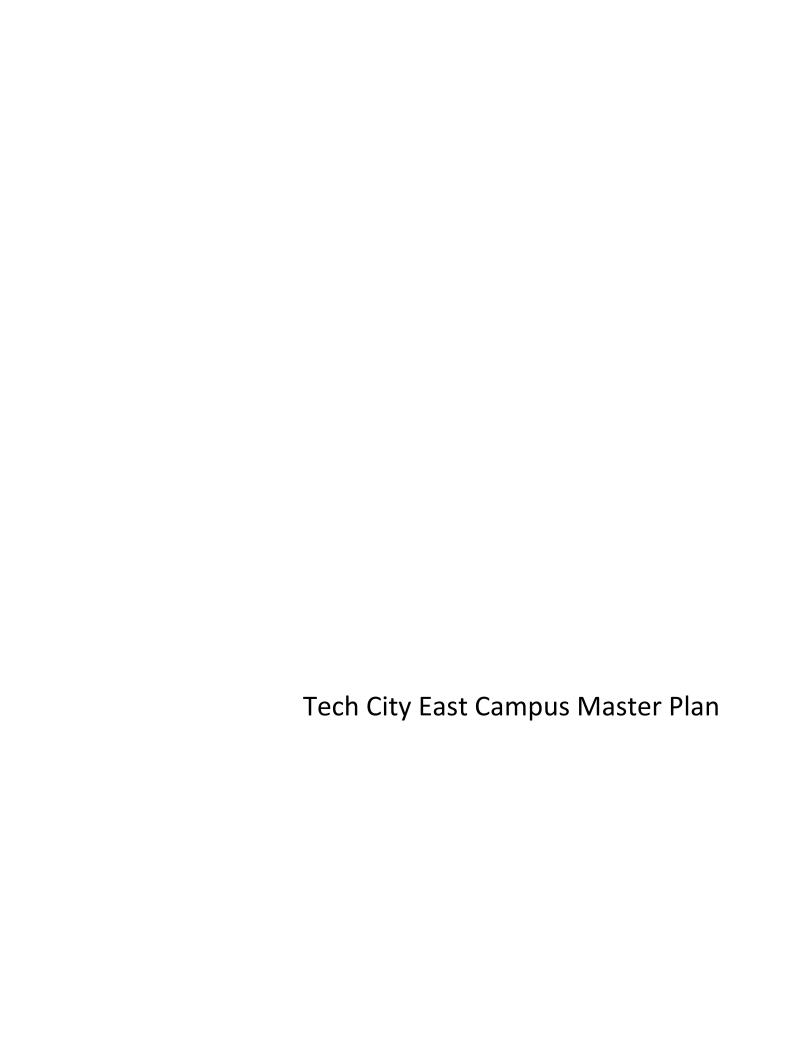
The traffic analysis for the intersections along Enterprise Drive show good levels of service with improvements noted in the Tech City East Campus study. No improvements beyond those in the Tech City East Campus study are needed.

Attachments

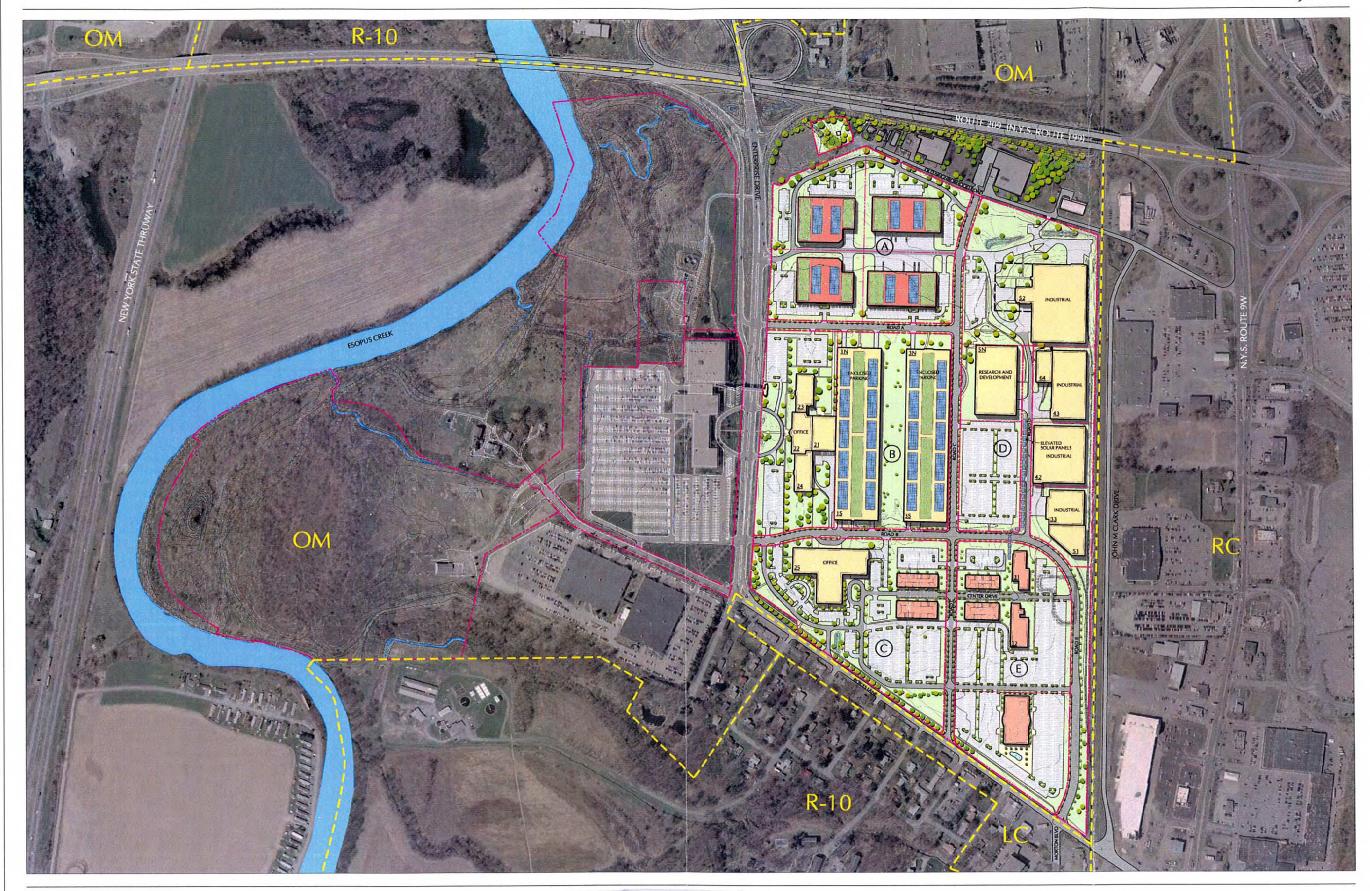
Tech City East Campus Master Plan iPark 87 Concept Plan Boices Lane Concept Improvements Site Generated Trips – Full Build-out Capacity Analysis Worksheets







TECH CITY- TOWN OF ULSTER, NY



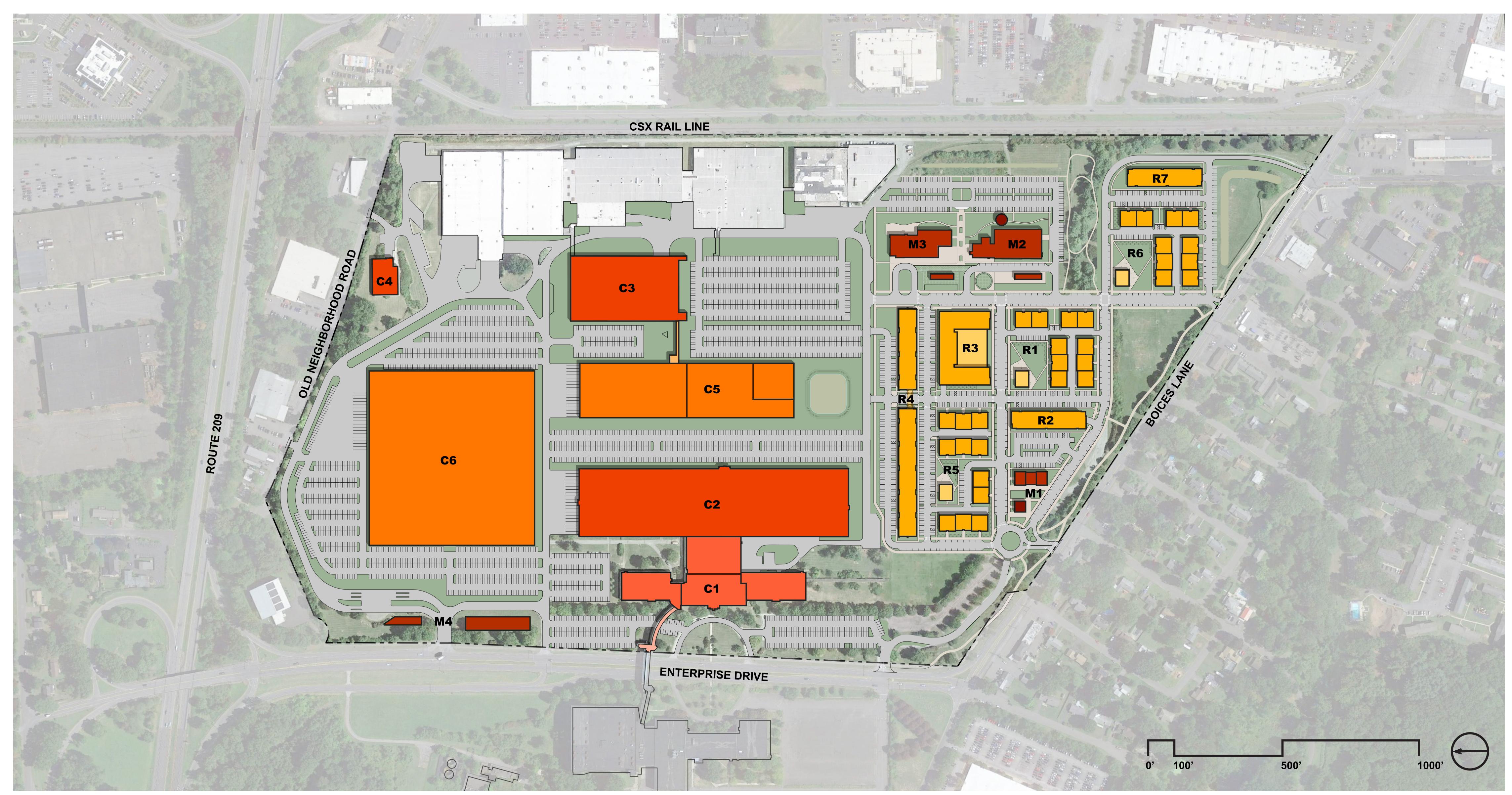


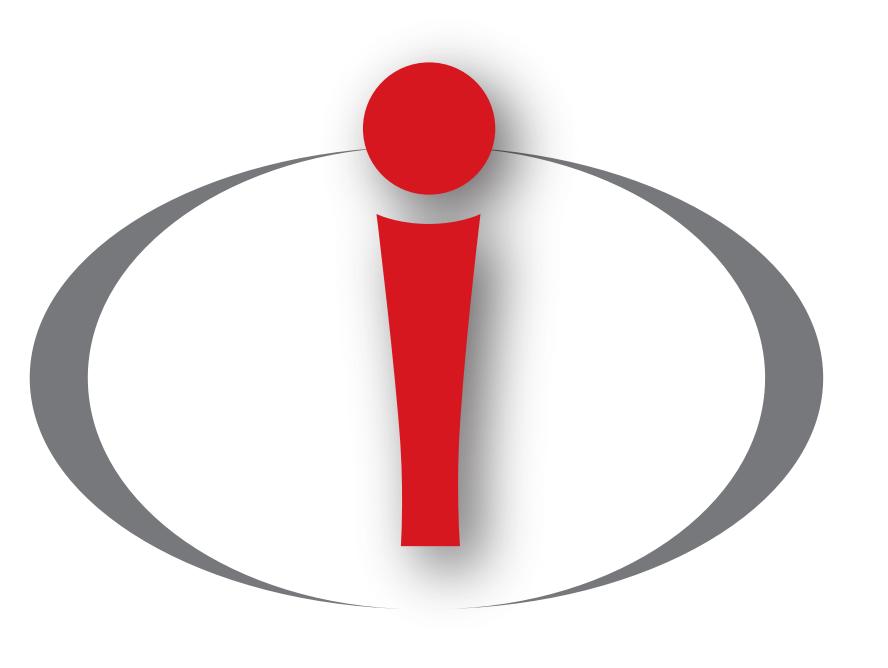
Note: This plan pre-dates the Traffic Study and does not necessarily reflect the access recommendations found in the report.

CAMPUS MASTER PLAN

JANUARY 27, 2009

iPark 87 Concept Plan





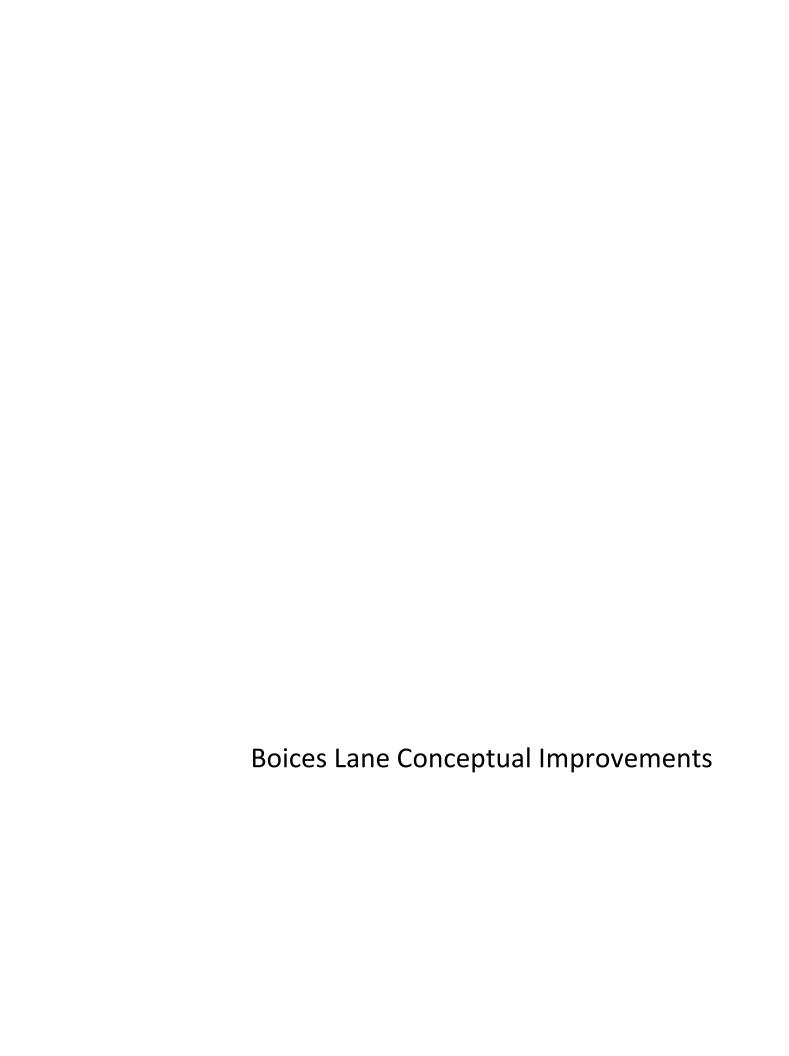
iPARK 87

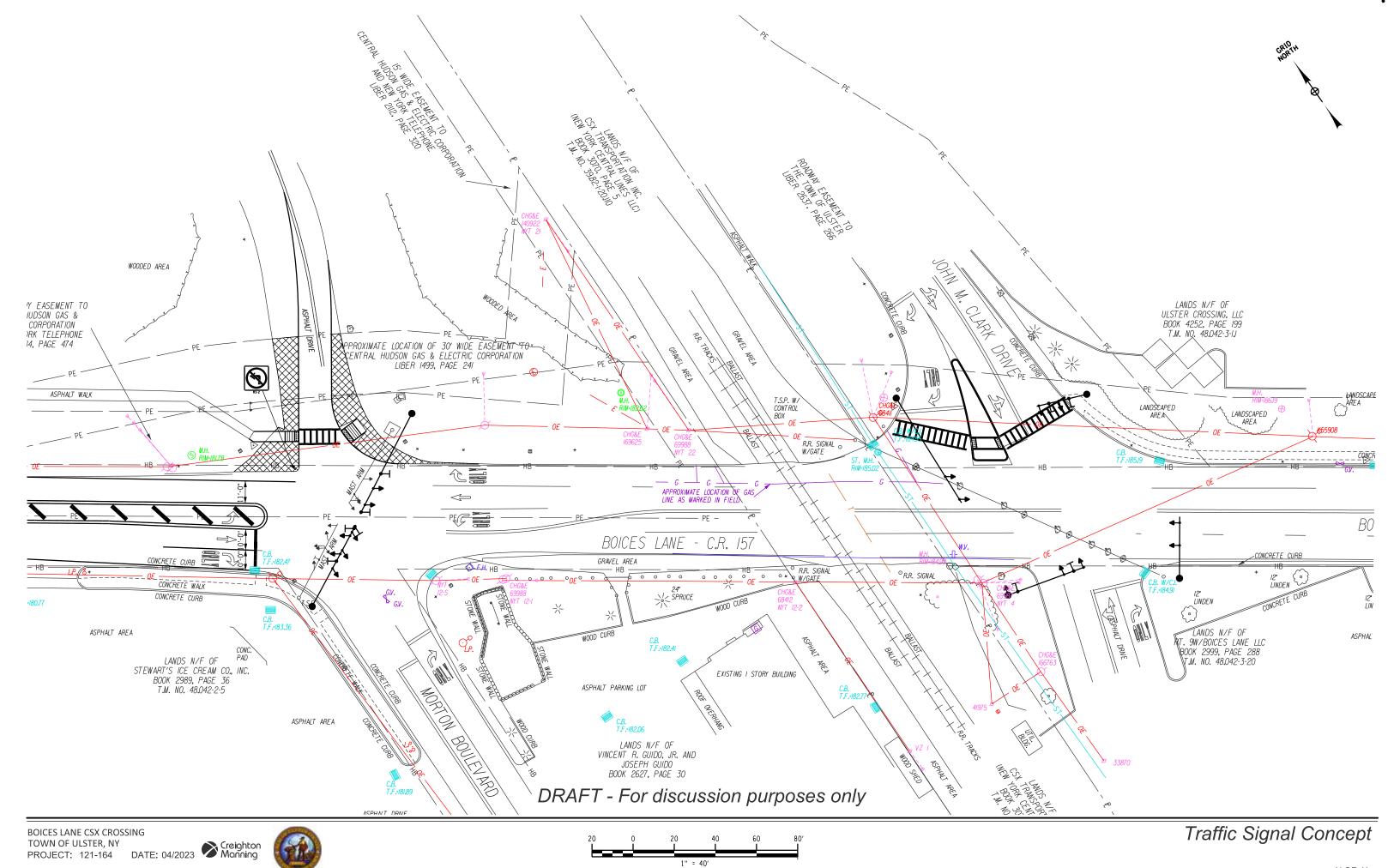
iPARK87 | EAST CAMPUS COMPREHENSIVE DESIGN PLAN

OTES:

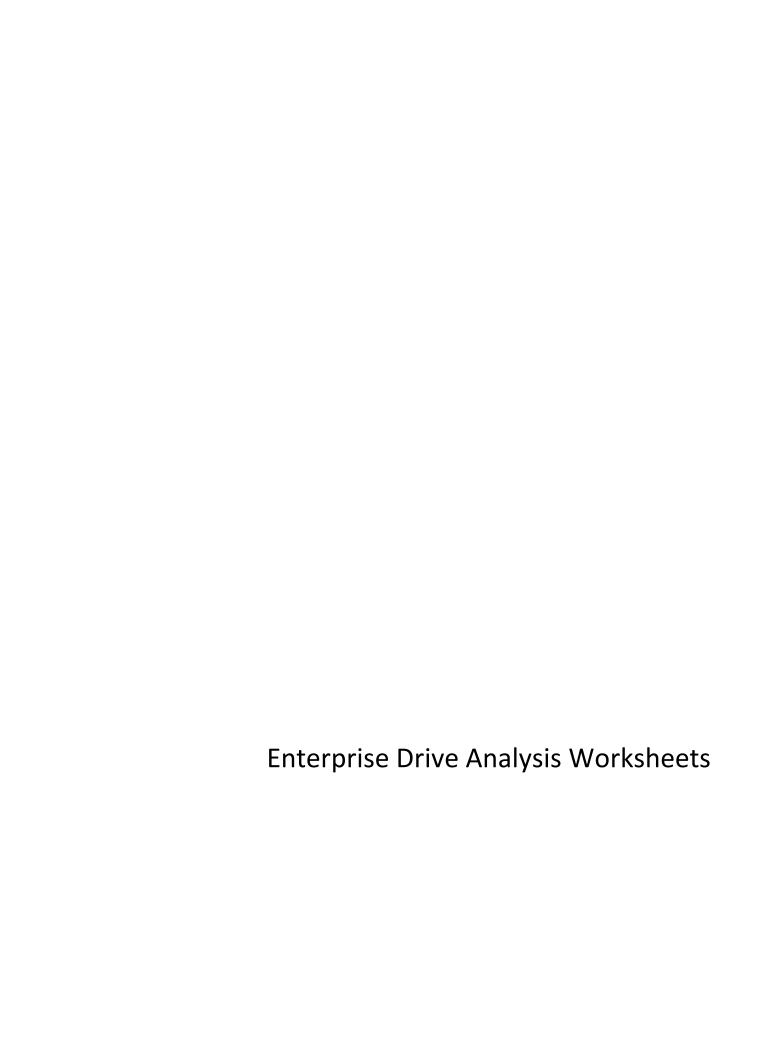
- BUILDING SQUARE FOOTAGE (S.F.) IS MEASURED TO THE EXTERIOR OF THE BUILDING, INCLUDES MECH. CLOSETS & PARKING GARAGES, EXCLUDES BALCONIES.
- 2. CURRENT RESIDENTIAL BUILDINGS ASSUME GROUND FLOOR RESIDENTIAL.

		The state of the s		107 dist				1200					
CATEGORY	TAG	PRIMARY USE	PHASE	STORIES	TOTAL AREA (S.F.)	COMMERCIAL AREA (S.F.)			RESIG	DENTIAL A	REA (S.F.) #	UNITS
					TOTAL	COMMERCIAL	RETAIL	HOTEL	RESIDENTIAL	AMENITY	UTILITY	GARAGE	
OTAL					2,326,835								880
COMMERCIAL					1,303,000								
	C1	OFFICE	PHASE 1	2	180,000	180,000							
	C2	INDUSTRIAL	PHASE 1	1	250,000	250,000							
	C 3	OFFICE	PHASE 1	3	300,000	300,000							
	C4	INDUSTRIAL	PHASE 1	1	13,000	13,000							
	C5	FILM STUDIOS	PHASE 2	1	160,000	160,000							
	C6	INDUSTRIAL	PHASE 2	1	400,000	400,000							
RESIDENTIAL					957,440								880
	R1	RESIDENTIAL	PHASE 2A	3	111,300				86,950	6,200	3,000	15,150	100
	R2	RESIDENTIAL	PHASE 2A	5	82,500				66,000	3,500	2,500	10,500	80
	R3	RESIDENTIAL	PHASE 2B	3	122,450				95,965	6,520	3,000	16,965	110
	R4	RESIDENTIAL	PHASE 2C	5	202,035		6,500		140,520	10,000	3,000	42,015	146
	R5	RESIDENTIAL	PHASE 2D	5	245,675				196,540	10,000	4,000	35,135	264
	R6	RESIDENTIAL	PHASE 2E	3	110,980				86,950	5,880	3,000	15,150	100
	R7	RESIDENTIAL	PHASE 2E	5	82,500				66,000	3,500	2,500	10,500	80
MIXED-USE					66,395								
	M1	RETAIL ENTRY PLAZA	PHASE 2A	1	7,600		7,600						
	M2	RETAIL/AMENITY	PHASE 2A	1	24,440		22,940				1,500		
	M3	HOTEL/ARTS CENTER	PHASE 2C	2	19,355			19,355					
	M4	MOBILITY HUB	PHASE 3	1	15,000	15,000							





: Nt/Projects\2021\121-164 Ulster - Boices Lane RR Crossing\Working\CADD\dgn\figures\121-164_fig_tsp-0



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ર્ન	7	ሻ		7		ħβ			^	
Traffic Volume (vph)	64	152	456	270	0	432	0	885	75	0	315	0
Future Volume (vph)	64	152	456	270	0	432	0	885	75	0	315	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	150		0	0		0	0		0
Storage Lanes	0		1	1		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.988				
Flt Protected		0.985		0.950								
Satd. Flow (prot)	0	1835	1583	1770	0	1583	0	3497	0	0	3539	0
FIt Permitted		0.985		0.950	-		-			•		
Satd. Flow (perm)	0	1835	1583	1770	0	1583	0	3497	0	0	3539	0
Right Turn on Red	•		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			266			314		13	100			. 00
Link Speed (mph)		30	200		30	011		30			30	
Link Distance (ft)		448			506			1269			413	
Travel Time (s)		10.2			11.5			28.8			9.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	165	496	293	0.32	470	0.32	962	82	0.32	342	0.52
Shared Lane Traffic (%)	70	100	730	200	U	410	U	302	02	U	072	U
Lane Group Flow (vph)	0	235	496	293	0	470	0	1044	0	0	342	0
Turn Type	Split	NA	Perm	Prot	U	Perm	U	NA	U	U	NA	U
Protected Phases	4	4	1 01111	7		1 01111		2			6	
Permitted Phases	7	7	4	,		7					U	
Detector Phase	4	4	4	7		7		2			6	
Switch Phase	7	7	7	,		'					U	
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0		5.0			5.0	
Minimum Split (s)	23.0	23.0	23.0	9.5		9.5		23.0			23.0	
Total Split (s)	23.0	23.0	23.0	22.0		22.0		32.0			32.0	
Total Split (%)	29.9%	29.9%	29.9%	28.6%		28.6%		41.6%			41.6%	
Maximum Green (s)	18.0	18.0	18.0	17.5		17.5		27.0			27.0	
Yellow Time (s)	4.0	4.0	4.0	3.5		3.5		4.0			4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0		1.0			1.0	
Lost Time Adjust (s)	1.0	0.0	0.0	0.0		0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0	4.5		4.5		5.0			5.0	
Lead/Lag		3.0	5.0	4.5		4.5		5.0			5.0	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0			3.0	
Recall Mode	None	None	None	None		None		Max			Max	
Act Effct Green (s)	None	15.8	15.8	15.5		15.5		27.2			27.2	
		0.22	0.22	0.21		0.21		0.37			0.37	
Actuated g/C Ratio		0.22	0.22	0.21		0.21					0.26	
v/c Ratio								0.80				
Control Delay		32.8	35.0	43.6		22.0		27.2			17.7	
Queue Delay		0.0	0.0	0.0		0.0		0.0			0.0	
Total Delay		32.8	35.0	43.6		22.0		27.2			17.7	
LOS		C	С	D	20.2	С		C			B	
Approach Delay		34.3			30.3			27.2			17.7	
Approach LOS		С			С			С			В	

15: Enterprise & Ramp/Jug Handle/Middle Dwy

	•	-	•	•	•	•	1	†	/	-	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		99	107	131		64		236			61	
Queue Length 95th (ft)		168	#284	#239		#218		#329			92	
Internal Link Dist (ft)		368			426			1189			333	
Turn Bay Length (ft)				150								
Base Capacity (vph)		454	592	426		619		1308			1315	
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		0.52	0.84	0.69		0.76		0.80			0.26	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 73.2

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90
Intersection Signal Delay: 28.7

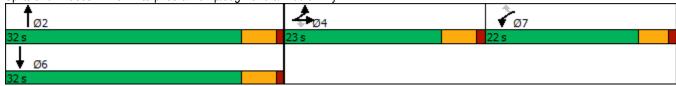
Intersection Signal Delay: 28.7 Intersection LOS: C
Intersection Capacity Utilization 77.2% ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: Enterprise & Ramp/Jug Handle/Middle Dwy



	•	→	\rightarrow	•	←	•	4	†	/	>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	f)		*	1>		ች	↑ Ъ		ች	† Ъ	
Traffic Volume (vph)	50	0	50	173	0	58	50	888	12	128	927	50
Future Volume (vph)	50	0	50	173	0	58	50	888	12	128	927	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.998			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1583	0	1770	3532	0	1770	3511	0
FIt Permitted	0.909			0.426			0.210			0.195		
Satd. Flow (perm)	1693	1583	0	794	1583	0	391	3532	0	363	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		374			379			1			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		357			427			304			1269	
Travel Time (s)		8.1			9.7			6.9			28.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	0	54	188	0	63	54	965	13	139	1008	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	54	0	188	63	0	54	978	0	139	1062	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	23.0		10.0	23.0		10.0	23.0		10.0	23.0	
Total Split (s)	10.0	25.0		25.0	40.0		15.0	30.0		20.0	35.0	
Total Split (%)	10.0%	25.0%		25.0%	40.0%		15.0%	30.0%		20.0%	35.0%	
Maximum Green (s)	5.0	20.0		20.0	35.0		10.0	25.0		15.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	9.4	5.5		23.2	15.2		59.0	52.3		65.3	57.2	
Actuated g/C Ratio	0.09	0.06		0.23	0.15		0.59	0.52		0.65	0.57	
v/c Ratio	0.33	0.12		0.57	0.11		0.17	0.53		0.38	0.53	
Control Delay	34.4	0.6		38.6	0.4		8.6	19.0		10.3	16.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	1.3		0.0	0.2	
Total Delay	34.4	0.6		38.6	0.4		8.6	20.3		10.3	16.8	
LOS	С	A		D	A		Α	C		В	В	
Approach Delay		17.5			29.0			19.7			16.0	
Approach LOS		В			С			В			В	

	•	-	•	•	←	•	•	†	/	-	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	27	0	LDIX	100	0	WDIX	11	226	NDIX	31	225	ODIX
Queue Length 95th (ft)	54	0		153	0		m23	345		63	335	
Internal Link Dist (ft)		277			347			224			1189	
Turn Bay Length (ft)	50			100			50			250		
Base Capacity (vph)	162	615		395	800		381	1849		453	2011	
Starvation Cap Reductn	0	0		0	0		0	611		0	0	
Spillback Cap Reductn	0	83		4	0		0	0		0	299	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.33	0.10		0.48	0.08		0.14	0.79		0.31	0.62	

Intersection Summary

Area Type: Other

Cycle Length: 100 Actuated Cycle Length: 100

Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

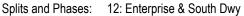
Control Type: Actuated-Coordinated

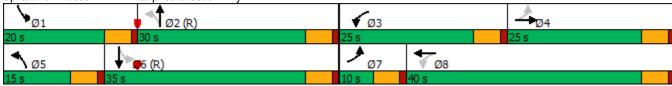
Maximum v/c Ratio: 0.57

Intersection Signal Delay: 18.8 Intersection LOS: B
Intersection Capacity Utilization 60.8% ICU Level of Service B

Analysis Period (min) 15

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





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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	f)			4	7		4		ች	1>	
Traffic Volume (vph)	65	60	0	0	10	818	0	5	5	1065	10	25
Future Volume (vph)	65	60	0	0	10	818	0	5	5	1065	10	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850		0.932			0.893	
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	1736	0	1770	1663	0
Flt Permitted	0.615									0.584		
Satd. Flow (perm)	1146	1863	0	0	1863	1583	0	1736	0	1088	1663	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						889		5			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		427			563			402			304	
Travel Time (s)		9.7			12.8			9.1			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	65	0	0	11	889	0	5	5	1158	11	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	65	0	0	11	889	0	10	0	1158	38	0
Turn Type	pm+pt	NA			NA	Free		NA		pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		Free	2			6		
Detector Phase	7	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	10.0	32.6		22.6	22.6		22.5	22.5		44.9	67.4	
Total Split (%)	10.0%	32.6%		22.6%	22.6%		22.5%	22.5%		44.9%	67.4%	
Maximum Green (s)	5.0	27.6		17.6	17.6		17.5	17.5		39.9	62.4	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0			5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		C-Max	Max	
Act Effct Green (s)	9.8	9.9			6.2	100.0		17.5		82.2	83.2	
Actuated g/C Ratio	0.10	0.10			0.06	1.00		0.18		0.82	0.83	
v/c Ratio	0.45	0.35			0.10	0.56		0.03		0.89	0.03	
Control Delay	49.9	45.6			45.6	1.4		26.6		18.9	0.0	
Queue Delay	4.7	0.0			0.0	0.4		0.0		1.6	0.0	
Total Delay	54.6	45.6			45.6	1.8		26.6		20.6	0.0	
LOS	D	D			D	Α		С		С	Α	
Approach Delay		50.3			2.4			26.6			19.9	
Approach LOS		D			A			C			В	
Queue Length 50th (ft)	44	40			7	0		3		342	0	
Queue Length 95th (ft)	80	75			25	0		17		#882	m0	
Internal Link Dist (ft)		347			483			322			224	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)	157	514			327	1583		307		1301	1388	
Starvation Cap Reductn	0	0			0	0		0		52	0	
Spillback Cap Reductn	43	0			0	261		0		0	0	
Storage Cap Reductn	0	0			0	0		0		0	0	
Reduced v/c Ratio	0.62	0.13			0.03	0.67		0.03		0.93	0.03	

Intersection Summary

Area Type: Other

Cycle Length: 100
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 1:SBL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89
Intersection Signal Delay: 14.8

Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 84.3% ICU Level of Service E

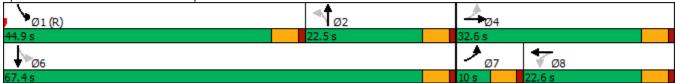
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

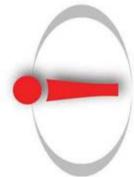
Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Mtn View/Enterprise & Boices



APPENDIX B



MOBILITY HUB

iPark 87



Prepared By



TransitLife.



A Sustainable Transport Ecosystem

- iPark 87 is pioneering environmentally friendly and sustainable transport options for its new Ulster campus and seeks to decrease motorized
- provide an integration of transport modes by co-locating services including As one of the first of its kind in New York, a new onsite Mobility Hub will bike / scooter / car-van sharing, ride hailing, and onsite "green" shuttles individual transport towards achieving carbon neutrality.
- The site will feature solar-powered and battery/electric-powered renewable along with seamless transfer to buses and other intercity transportation. sources of energy to activate the site and enable many forms of transportation.
- Personal mobility is evolving to support a "car-optional" lifestyle with more use of mobility options, on-demand and electric vehicles.

Mobility Hub for iPark 87

iPark 87 will integrate onsite micromobility options with external transit connectivity in an intermodal hub and give it a sense of place. accessibility, for a best-in-class tenant / employee / student / customer experience. Shared mobility (on-demand) followed by zero-Goals include mode shift away from auto reliance, greenhouse gas reduction, carbon neutrality, community and pedestrian emission vehicles and connected/automated technologies is the likely sequence of emergence.



Intercity Connections to iPark 87

- Railroad: Metro-North, Amtrak (freight: CSX railroad)
- Bus: Trailways with connections to Greyhound/FlixBus, Peter Pan, Shortline



George Hamlin

Primary Intercity Service Plan Needs

- Metro-North Railroad: from Poughkeepsie 1:40 travel time to Grand Central (fare is \$25.75 OW)
- Requires UCAT extension of existing bus route to originate at iPark 87 Mobility Hub and connec Poughkeepsie station (via Kingston and New Paltz); add: 45 for shuttle
- Amtrak: from Rhinecliff 1:50 travel time to Penn/Moynihan Station (\$42 OW)
- Requires new Trans-Hudson bus/shuttle to originate at iPark 87 Mobility Hub and connect to Rhinecliff station, Bard, and Red Hook; add: 25 for shuttle
- Trailways: from Kingston 2:10 travel time to P.A. Bus Terminal (\$27 OW)
- Requires new origination stop at iPark 8
 Mobility Hub. County assisting TransitLi
 on initiating negotiations with Trailways
- Determine if digital ticketing or direct chains to P.A. Bus Terminal are more effective
- New York State Thruway: from iPark87/Kingston 2:05 travel time to midtown NYC



Local Bus Service Needs

- Ulster County Area Transit (UCAT)
- Reroute relevant UCAT routes to stop at iPark 87
- other tenants/residents originating elsewhere in Identify park-and-rides and realign with UCAT the County
- Extend existing UCAT route to originate at iPark 87, connecting to Poughkeepsie station
- riginate at iPark 87 and connect with Bard, Red Hook and Rhinecliff station. County has to seek 'operating authority" for inter-county service Facilitate new Trans-Hudson bus shuttle to
 - Dutchess County Public Transit (LOOP)
- support connections to iPark 87. Enhance LOOP bus stop identification/locations in Red Hook for As needed, coordinate inter-county services to recognizable points of connection.



- Airport express shuttles
- Coordinate an additiona stop at iPark 87 if feasible

Academic Shuttle Service Needs

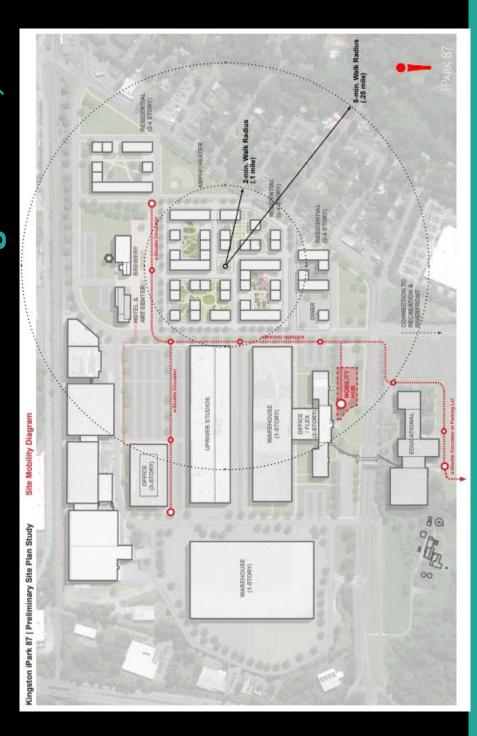
- Bar
- Has some existing routes but extremely limited fleet that connects on-campus buildings to Red Hook, Tivoli, Montgomery Pl., Rhinecliff station and H.V. Mall
- Modify existing Bard shuttle routes to interconnect with shuttles to iPark 87. Bard lost Zip-Car and iPark 87 can replace with an hourly ride-share at the Mobility Hub.
- Einstein-Montefiore Academic Medical Partnership (with Bard)
- Determine if additional service to NYC/ Einstein-
- SUNY UISTE
- Determine if new shuttle to SUNY Ulster's primary Stone Ridge campus will be required.
- **BOCES of Ulster County**
- Park 87 campus BOCES location, originating from Determine if school buses will need to service the multiple school districts/parts of the County.



New iPark 87 Onsite Circulating Shuttle

deployed. These can be on a fixed route scheduled or on-demand and/or flex-route buildings/spaces, site parking areas and the onsite Mobility Hub is key, along with Development of a new internal circulation shuttle to interconnect iPark 87 tenant pedestrian pathways. An electric microtransit bus/van or electric vehicle can be mode basis. An opportunity to participate in Ulster County pending microtransit <u>program may prove invaluable.</u>

New iPark 87 Onsite Circulating Shuttle, cont'd



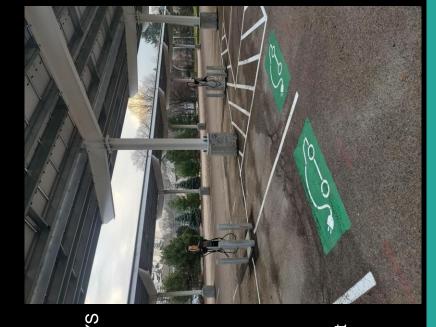
On-Demand Ride/Hail-Sharing Services

- Car & Van sharing: Zipcar, Getaround, Sharenow, Turo, Enterprise CarClub share
- Car Rental: Hertz, National, Alamo, Enterprise, Avis, Sixt, Fox
- Ride hailing platforms that operate vehicle-for-hire, food delivery, couriers, package delivery and freight transportation, Uber, Lyft, Revel, Ola Cab, Curb, Grab, Bolt, Yandex, Via, Cabify, Gojek
- Incentives from NYSDOT/511NY (e.g. toll subsidy/reimbursements, guaranteed-ride-home, etc.)
- Microtransit Demand APP's support services including ride-matching; TransitLife evaluating Beta Test with 511Mobility APP



Electric Vehicle (EV) Charging & Parking at iPark 87

- TransitLife is evaluating a range of options, technologies and providers for EV Charging.
- incentive programs offered by NYSERDA and Central-Hudson, including NYS With prospective providers and State/County leads, we are also reviewing tax credits. Need to ascertain electrical source connection on site.
- One turn-key provider, Amersco, has met with TransitLife at iPark 87 and is quoting the provision and installation of Chargepoint or BLINK "Fast Chargers." Omniflow and Via evaluations may follow. Will bring final quote/incentives to NRE for decision/approval.
- Parking prioritization on site:
- Advance conduit work for future growth/expansion of EV parking must ordinances/zoning regulations and are being investigated to ensure compliance. Discussions with Ulster County Planning is underway. EV charging station spaces & EV parking are governed by local be considered prior to renovating iPark 87 parking.
- Carpool, high-occupancy vehicle (HOV) parking will also be needed



Micromobility Shared Services

number of choices at the iPark 87 Mobility Hub. Rides/passes purchased with mobile APP or To achieve a more carbon-free/neutral set of options for internal circulation there will be a interactive kiosks located on the docks. Units are unlocked with keypad, key fob, or radiofrequency identification card (RFID).

- Bikes and e-Scooter share:
- Non-motorized or motorized electric pedal-assist e-bikes will be available for rental.
- Bike storage: racks, corrals, "smart" docked or "free-floating" dockless or hybrid bike share
- 3rd-party operators: Citibike, Divvy/Lyft, Bewegen, Capital Bikeshare, Bay wheels, GreenBike, Jump, VeoRide, Lime, BCycle, HOPR, Dynamic Bicycles, Koloni
- e-Scooter sharing (standing or seated), storage, rental, "smart" docked or "free floating" dockless [not motor scooters or 0
- 3rd-party operators: Lime, Bird, Divvy, Spin, Revel, SuperPedestrian, VeoRide, HOPR
- TransitLife with NYSDOT/511NY are sourcing and reviewing

contractors with favorable terms for iPark 87 micromobility



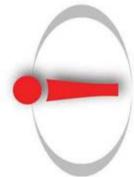


Key next steps and Phase-in for Mobility Hub at iPark 87

- 1) Working with Ulster County, NYSDOT, FTA, NRE, advance efforts and fund sourcing for creation of an iPark 87 Intermodal Transportation Center and Mobility Hub. Finalize onsite location.
- Continue outreach and negotiations with transit providers and micromobility entities to finalize range of
- services to activate the Mobility Hub in a phased approach.
- Provide on-site, well-placed, attractive, easy-to-comprehend visual information about mobility services, in NRE to ensure leases allow for perimeter routing through tenanted areas for on-site shuttles (driver or addition to content accessible online/through a mobility APP.
 - autonomous operated). Incremental costs for Mobility Hub and augmented transportation services could

be folded into a common area cost allocation by NRE.

Make a determination on EV charging, parking, and solar/energy solutions for the site



MOBILITY HUB

iPark 87



Prepared By





