Chapter 6: Irreversible and Irretrievable Commitment of Resources

CHAPTER 6: IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The following identifies and discusses the irreversible and irretrievable commitment of environmental resources that will be lost, converted, or made unavailable over the short and long term as a result of the Project. It evaluates both the construction phase and the operating phase.

The irreversible and irretrievable commitments of resources required for the construction, renovation, reuse, and operation of the Project would include: materials used during construction or renovation, such as fill materials and building supplies; energy in the form of non-renewable, fossil-fuel gas and electricity consumed by gasoline and diesel powered construction equipment during construction, and the ongoing commitment of water, electricity and gas supplies, sewage treatment and solid waste disposal capacity by various mechanical and processing systems through the operation of the Project; and the labor and capital associated with the human effort required to develop, construct, renovate, and operate various elements of the Project. These are considered irretrievably committed because their reuse for some other purpose would be highly unlikely in the foreseeable future. To the extent feasible, commitments will also be made for the use of renewable and/or recyclable resources, such as construction and building materials including concrete, lumber, glass, ductile iron, and copper.

The Project Sponsor will undertake practical efforts to minimize impacts through the implementation of a project-specific Sustainability Program, using LEED ND as the framework for the development and operation of the Project. As described in Section 2.5, LEED ND is a voluntary certification created by the USGBC, a private, non-profit organization that evaluates and certifies buildings and neighborhoods in accordance with their LEED standards. This standard includes evaluation of the Conceptual Site Layout Plan across 57 metrics, or credit categories. Through these steps, the CWD will develop a certified LEED ND Silver plan that provides policies and design proposals for improving the street and pedestrian network, targeted redevelopment, improving stormwater management, adding parks and open space, and increasing green building and energy efficiency efforts.

LEED ND contains a set of measurable standards that collectively identify whether the Project can be deemed environmentally superior, considering the Site's location and access, its internal pattern and design, and its use of green technology and building techniques. These standards include prerequisites (required as a baseline for sustainable neighborhood development) and credits (additional best practice standards for sustainable neighborhood development). The certification process itself is rigorous and complex, requiring submission of many layers of documentation and site maps to USGBC; for the Project to develop as a sustainable neighborhood requires analysis of where to build, what to build, and how to manage the environmental impacts.

For example, the Project is locating housing and jobs in compact clusters near public transit, which increases the likelihood of people taking the bus or walking rather than drive. Development of the existing Site will create a neighborhood that makes efficient use of a brownfield Site, helping limit the spread of suburban sprawl, which consumes and fragments the rural landscape and impacts watersheds, wildlife habitat, and prime farmland. Development that negatively impacts critical environmental resources such as these are often irreversible and irretrievable, which the Project limits through the use of the LEED ND framework. In addition, the planned reuse of existing buildings on the Site—whether it is the entire building, the building shell, or salvageable components of a building—is a fundamental green building strategy rewarded in LEED ND. Once built, operations and management will impact environmental performance without thoughtful and innovative green design; LEED ND strategies include incorporating energy and water efficiency, recycling materials, and reducing stormwater runoff (required also by the City, Town, and NYS).

The Project Sponsor selected the LEED ND as a sustainability platform as the certification framework rests on reinvestment in existing neighborhoods, cleaning up contaminated sites, protecting natural areas, and facilitating connections to the surrounding community – amenities that the Site is well positioned to

deliver. The first step is assessing the existing neighborhood using LEED ND, identifying strengths and weaknesses by each prerequisite and credit. Next, through a collaborative stakeholder and outreach process required to earn points for Community Outreach and Involvement, the Project Team will propose design and policy responses that will address those issues and improve Site sustainability.

The Project will require a long-term commitment of land at the Site for uses identified and approved as part of the SEQR and land use approvals process. Future reclamation of land could result in alternate uses within the Site in the future; therefore, the use of the land will not result in the irreversible or irretrievable commitment of land resources.

Public and private financial commitment is likely to provide residents and municipalities in the immediate area, region, and State with increased property and sales tax revenue, growth in land values surrounding the Site, other revenues directly or indirectly generated by the new development, and other intangible quality of life benefits to the City and Town such as the provision of improved access to downtown and the 95 acre parcel itself. Therefore, the financial investment in the Project represents long-term beneficial effects, rather than irreversible or irretrievable commitments of resources.

Chapter 7:
Unavoidable Adverse Effects

CHAPTER 7: UNAVOIDABLE ADVERSE EFFECTS

While the Project aligns with many needs and goals of the City and Town Comprehensive Plans and would result in significant benefits, there are some adverse impacts that are likely to occur. However, because of Project design and the mitigation measures incorporated into the Project, the adverse impacts will not be significant.

7.1 Short-Term Unavoidable Adverse Impacts

Certain construction-phase impacts constitute short-term unavoidable adverse impacts and include:

- Soil Erosion – Clearing and grading of the Site will result in the removal or import of earth material. Disturbance to the ground cover and the movement of vehicles / equipment during construction pose the potential for soil erosion. This will be minimized with the development of a generic SWPPP for the entire Site and specific SWPPPs as part of the individual Site Plan approvals. Confining construction areas with slopes less than 20% will also minimize erosion. With these mitigation measures in place, adverse impacts from soil erosion will not be significant. See Sections 5.2 and 5.8.
- Solid Waste – Construction related solid waste will be generated even though the Project will emphasize reuse and recycling during the construction phase. The wastes that are not being reused or recycled will be handled in accordance with all local, state, and federal regulations. With reuse of many buildings on Site and emphasis on reuse / recycling of construction and demolition debris, this impact is not anticipated to be significant. See Sections 5.11 and 5.13.
- Noise / Emissions – Noise, emissions, and vibration will be generated during construction from construction and worker traffic, heavy equipment operation, and delivery vehicles. Construction hours will be limited in accordance with City and Town Code. Techniques for minimizing construction noise are provided in Section 5.13 and will keep this impact from being significant.
- Traffic – Traffic volumes will increase from the movement of construction workers and off-site construction equipment. This impact will be minimized with the development of the CW3 staging areas, keeping the impact from being significant. See Section 5.7.

7.2 Long-Term Unavoidable Adverse Impacts

Overall, the Project will have significant positive long-term impacts. The Project will transform 821,200 square feet of vacant former industrial space into a revitalized mixed-use “live, work, play” district. Vacant, underutilized land impacted from historical uses will be remediated and transformed into a vibrant mix of residential, commercial, cultural, and industrial uses, and opened to the public to experience beautiful views of Cayuga Lake. However, as with any sizable urban development, there will be long-term adverse impacts. For this Project, those unavoidable adverse impacts are:

- Topography – Site topography will be modified by grading. Impacts will be minimized with proper mitigation measures defined in the SWPPP and steep slopes will be avoided by confining construction to areas with slopes of 20% or less. See Sections 5.2 and 5.8.
- Ecology – The Project will result in a change of habitats found on the Site and natural areas will be decreased. However, future development is occurring in areas with low quality forest cover and disturbed areas with invasive species. No rare plants or ecological communities were found on the Site. The Project will include native plants and no invasive plantings will be introduced. Some areas of native vegetation, including all of CW1 (28 acres), which contains the Appalachian Oak-Hickory forest of high value with stands of good quality hardwood trees, will remain throughout the

Site and provide an area for any displaced Fauna. See Section 5.4.

- Traffic - There will be an increase in traffic volumes. Roadway improvements and traffic improvements are recommended to increase intersection capacity and minimize changes to traffic flow quality. See Section 5.7.
- Public Water – Water consumption will increase. The Site and buildings will be designed to incorporate LEED strategies, which will reduce water consumption, and there is sufficient capacity in the public utility to serve the Project. See Section 5.8.
- Stormwater – Existing drainage patterns will be altered. A stormwater collection, conveyance, and mitigation system will be provided in accordance with the NYSDEC Stormwater Design Manual and using green practices where practical. A SPDES General Construction Permit (GP-0-15-002) will be obtained. See Section 5.8.
- Wastewater – The Project will generate wastewater; however sufficient capacity exists in the downstream collection system. See Section 5.8.
- Air Emissions - Vehicle emissions will increase with the increase of traffic but with traffic mitigation measures in place to prevent significant overall impacts to levels of service, the emissions will be minor. Greenhouse gases from building emissions, mainly in the form of carbon dioxide, are also minor, and could be further mitigated by any feasible renewable energy techniques that are being examined. See Sections 5.8 and 5.9.
- Energy Use – There will be energy requirements for the proposed uses. The Project Sponsor has elected to be part of the Ithaca Microgrid (NY Prize) feasibility study and the Project is planned in accordance with LEED ND and Architecture 2030 principles. See Sections 5.8 and Chapter 9.
- Viewsheds – Some existing viewsheds will be altered due to the placement of new structures on the Site and additions to several existing ones; however, such impacts are mitigated by the fact that existing buildings have been part of the viewshed for many years and new buildings will be clustered as to the fullest extent practicable to preserve as much open space as possible. See Section 5.10.
- Community Services – There will be an increase in need for community services (school, fire, police, and ambulance emergency services). Increased tax assessments will increase revenues to each community service provider. In consultations with providers, it was determined all services have sufficient capacity to serve the Project. See Section 5.11 and Appendix L1.
- Solid Waste – Solid waste will be generated; however sufficient capacity at permitted solid waste management facilities exists. The Project will incorporate LEED ND strategies to reduce the generation of non-recyclable and non-reusable wastes. See Section 5.11.
- Community Character – The Project will alter the existing community character surrounding the Site with an increase of population and development on Site. However, the Project will incorporate LEED ND strategies to reduce the impacts through cluster developments and a conservation of open space. Using Sub Areas in the rezoning of the Site as a PUD / PDZ seeks to blend the industrial character of the Site with the surrounding community character. See Section 8.1.

Chapter 8: Growth Inducing Aspects and Character of Community

CHAPTER 8: GROWTH INDUCING ASPECTS AND CHARACTER OF COMMUNITY

"Growth Inducing Aspects" commonly refers to the likelihood a proposed action sets into motion further development in the community that may be triggered by attracting significant increases in local population; relocating or creating employment and support facilities necessary to serve that population; or increasing the public infrastructure capacity of the area thereby increasing development potential. The Project will provide significant investment and potential growth within the City and Town. Through the revitalization and transformation of a large, underutilized Site with identified environmental challenges, the CWD will function as a lively, mixed-use, sustainable community and regional destination. The potential impacts of such growth and how the character of the community might change are examined below.

8.1 Community Character / Urban Form / Visual Impacts

Improvements to infrastructure, including water and sewer lines, open space, sidewalks, parking, and other circulation areas, will be limited to the Site. It is anticipated that future development would not result in the expansion of infrastructure capacity beyond what little is needed to support development within the Site. Infrastructure in the surrounding neighborhoods is already sufficiently well developed. Thus, the on-site infrastructure improvements associated with the Project will not induce additional growth. In addition, the area surrounding the Site is largely developed and zoning controls the degree of development.

The Project will affect the character of the surrounding neighborhood as it will transform this sizable, highly developed yet underutilized property to an active residential, commercial, office, retail, workshop, and industrial area. As part of this transformation, the Site will see a marked increase in its manner and times of activity. Chapter 2 describes the extension of the South Hill residential neighborhood into the Site. Section 5.7 describes the Project's possible impact on traffic, including potential increased TCAT ridership, cyclists, and pedestrians. As described in Section 5.3, the Project will update the Site's stormwater infrastructure by implementing a series of controls to filter and reduce the runoff. Currently, much of the runoff drains unfiltered into tributaries of Six Mile Creek. As described in Sections 5.2 and 5.3, the Project will develop a full SWPPP. While the Project will offer amenities for residents, workers, and visitors, the increased Site population will present a demand on existing community services. As set forth in Section 5.11, adequate capacity is expected to accommodate that demand.

The Project is compatible with both the City's and Town's approaches to growth and desired character of community, as described in their 2015 and 2014 Comprehensive Plans, respectively. As stated in these Comprehensive Plans, there is a strong desire to focus growth in areas where appropriate services are available and can be provided efficiently, with projects that are attractive, environmentally sensitive, and that provide access to amenities where residents live, work, shop, and play. The Town also encourages the preservation of natural areas and resources, and promotes the use of renewable energy. Both Comprehensive Plans reference Smart Growth approaches and principles as a model for new development. In the Town's Comprehensive Plan, the existing Site is identified as an Area of Special Concern with a priority of redeveloping the Site for a mix of uses. The City's Comprehensive Plan identifies the Site as a Focus Area, presenting unique opportunities for development and redevelopment that require special planning and infrastructure consideration. See Section 5.1. As noted by the City's Comprehensive Plan 2015 on p.11:

> *Ithaca's resilience will be enhanced by fostering increasingly compact and well-designed mixed-use development in suitable locations. This kind of development will help lighten tax burdens, connect jobs and services to public transit and housing, more efficiently incorporate green infrastructure, and reduce the pressure of sprawl on the greenspace and agricultural lands surrounding the City. Connected, compact mixed-use developments that offer financial, environmental, and quality of life benefits can accommodate this unmet demand and prepare us for future growth.*

Both municipalities see the Site as an opportunity to help meet growing housing demands and support economic growth within Tompkins County. The Project meets all of these goals.

While the surrounding neighborhood will experience increased activity, its urban nature will not change. By incorporating Smart Growth principles into the Project design standards, visual and community character will be maintained. Pedestrian oriented safe, compact street networks will be constructed. The rezoning will knit the proposed urban fabric back into the Site's context, opening it back up to its surroundings and creating porosity in access to the Site via its multimodal transportation network. In the adaptive reuse of the existing structures and in the proposed new development, the visual character of the existing Site and factory structures will be enhanced to celebrate the history and industrial character of the Site, thereby minimally impacting views of the Site. See Section 5.10.

The Project will also enhance recreational opportunities for residents and visitors of the Site. As Section 5.12 describes, the addition of the Gateway Trail as a connection between other surrounding trail networks will create continuity within the overall network and increase recreational opportunities for the Ithaca area. The Project's open space network will allow for both active and passive recreational opportunities, with flexible outdoor spaces to hold community events and markets. The CW1 Sub Area will be a conservation zone for passive recreational opportunities to take place for activities such as hiking, birding, and snowshoeing.

As a mixed-use district, the Project will offer a wide array of amenities for residents, workers, and visitors on Site. These amenities include restaurants, cafes, shops and flexible open space for events, circulation and connections.

8.2 Economy / Tax base

The Project will increase occupants, visitors, and to some extent, tourists on the Site. This additional population will support the local economy, including nearby commercial corridors such as the Ithaca Commons, the South West Commercial area along Route 13, and other shopping venues in the City, Town, County, and beyond. The Project could also stimulate additional growth in City, Town, and State economies, primarily due to the employment and fiscal effects during the construction and operation of the Site.

The Project will have both direct and indirect economic effects. Direct effects include jobs created by construction efforts and the earnings of contractors and their employees hired to do the work or supply materials. It also includes the increase of tax base and revenue. These impacts are estimated based on the Project's anticipated construction cost of $200 million. At a rate of 20 construction jobs per $1 million in construction costs, the Project is projected to create an estimated 4,000 construction jobs over its duration. Using the NYS construction employment multiplier of 2.24, the total direct and indirect jobs that will be created or maintained is projected to be a total of 8,960 jobs (this number does not distinguish between full time and part time jobs over the construction period) or 896 jobs per year assuming a 10 year construction period. These estimates are based on rough construction costs and industry rules of thumb. They should be considered an order of magnitude estimate.

After construction, the Project will provide jobs, economic stimulus, and tourism. Operational impacts are projected based on the number of jobs and salary levels derived from anticipated build-out. This analysis is based on Project usage, not specific retailers. It is estimated that approximately 1,500 new jobs will be added following the construction phase as a result of the Project. The renovated buildings are expected to include approximately 396,700 sq. ft. of manufacturing space. On average, fully utilized manufacturing space employs one person per 550 sq. ft.. (Nelson, Arthur C. 2004. *Planner's estimating guide: projecting land-use and facility needs*. Chicago: Planners Press, American Planning Association.) Based on this rule of thumb, 721 manufacturing jobs are projected for the Project. Similarly, fully utilized office space allocates 280 sq. ft. per employee, thus fully leasing the office component of the Project, 223,100 sq. ft.,

would include 797 office workers. These estimates are based on averages that, of course, will vary widely from company to company but they provide an order of magnitude estimate that is useful for evaluating the potential impacts of the Project.

The Project will positively impact the tax levy by increasing the overall property assessment of the Site and neighboring properties. The 2015 tax assessment for the property within the City (462,839 sf) is $2,000,000 and for the property within the Town (306,886 sf) is $1,500,000. This is based on the current 821,200 sq. ft.. industrial use. The Project is estimated to have a total mixed-use development of 1,706,150 sf; which doubles the amount of GFA and therefore will greatly increase the property value, to an estimated $236,000,000. Each developed Phase will be more accurately assessed upon completion. The Project Sponsor will review and incorporate any appropriate programs available to the Project, from City, Town, County, State, or Federal programs, or any other available sources for grants, low interest loans, tax credits, and tax abatements. One such program is the PILOT through the County IDA. Under the typical PILOT program, the sliding scale of tax abatements over a seven to ten year period will only impact improvements to the property and not taxes on the property itself.

Project investment could also stimulate some additional private investment and economic growth outside of the Project in the Ithaca Downtown area to the North, near Ithaca College to the South, and possibly other areas within the City and Town.

8.3 Population / Demographics

As a mixed-use district, the Project will provide a wide array of employment and housing options for the greater population. With the Project, any environmental concerns from historical uses will be remediated to meet residential standards, as described further in Section 5.5 – Public Health and Environment. The Project will not have any disproportionately high human health or environmental effects on minority and / or low-income populations. With approximately 915 units, housing types will vary throughout the Site, which will provide a wide-range of market rate housing opportunities. The wide array and diversity of uses throughout the Site is likely to attract a wide spectrum of demographics. The Conceptual Site Layout Plan is designed to provide different buildings types that will appeal to different segments of the market from double loaded corridor apartment buildings, a very urban arrangement, to loft and penthouse units in the historic buildings, and townhouses nestled into the forested hillside at the south end of the development.

The most recent county wide Housing Needs Assessment (2006) projects a demand for 300 new housing units in the county every year with a majority of new units being rental. The key growing demographic noted is a sharp rise in the senior population, which is expected to be an increasing percentage of the population over the next several decades and a key demographic for the CWD. Other factors in the increasing demand for housing is a reduction in average household size, as empty nesters make up a larger percentage of the population and millennials, working young professionals, delay family formation. The Tompkins County Housing Demand Forecast from Economic & Policy Resources, Inc. confirms this trend noting that between 2006 and 2014 households ages 55+ were expected to require an additional 800 housing units, growing faster than any other demographic group. (http://www.tompkinscountyny.gov/files/planning/HNA/documents/Appendix4LTHousing Demand Forecast.pdf)

The 2012 Danter Housing Choices report prepared for the Downtown Ithaca Alliance identified the market for luxury, upscale, and moderate / affordable new rental units in the Downtown Ithaca Expected Market Area. The study measured the potential market base for such products based on 2010 census data and data collected during 2011. At that point, Danter recommended adding around 200 units per year with a focus on luxury and upscale rental. The Project Sponsor plans to include units averaging 2 bedrooms, with a range from studios to 3 bedrooms. The average 2 bedroom unit is expected to rent for around $2,370 based on the current market for similar units. At this price, units would be affordable for households with a combined income of $94,800. Most households are expected to be one or two people based on the unit mix. According to the 2013 ACS 22.5% of Tompkins County Households earn more than $100,000. This

accounts for approximately 8,460 existing households in the county that would be potential customers for the Project. In addition, recent surveys of Downtown and Cornell employees have found that on average, 30% of employees that do not live in Tompkins County would like to live here if there were units available that they could afford. Residential turnover in Tompkins County is particularly high, according to the ACS 5-year estimate 2009-2013. In Tompkins County every year just over 15% of all Tompkins County residents move here from outside the county, and more than half of them come from another state or country. Due to this turnover and the growth in the County, it is expected that up approximately 60% of the Project will accommodate new residents, while 40% is filled by existing City and Town residents. Based on that assumption, the Project will need to capture 4.7% of the target market.

With an estimate of 1,500 employees and 915 new housing units, averaging 2 bedrooms each, the development will have a net positive impact on the currently unbalanced housing / jobs ratio in Ithaca. Based on an assumed 1.75 adult residents per housing unit, the Project will house more people than it employs. Due to the existing severe housing shortage in Ithaca, additional unrelated infill development should be expected in the surrounding neighborhood, adjacent business, and industrial sites with or without the Project. For example, the neighboring South Hill Business Campus applied to amend their zoning to allow residential uses at the Town Board's Dec. 7, 2015 meeting. The Project is expected to act as a relief valve for the existing housing demand pressure, reducing the likely amount of change in established neighborhoods rather than inducing additional demand.

8.4 Gentrification

Gentrification is a difficult phenomenon to measure, planning researchers do not agree on one set definition or metric, but it generally includes the phenomenon of rising housing prices, displacement of people from longstanding communities, and neighborhood demographic change in class, race, or ethnicity. There is ample anecdotal evidence that several of Ithaca's neighborhoods are experiencing gentrification, particularly Ithaca's formerly working class neighborhoods of Northside and Southside. In recognition of gentrification as a growing issue, local affordable housing developer Ithaca Neighborhood Housing Services recently created a policy to place all new housing units they produce into a "Community Housing Trust" in recognition of the fact that fighting rising costs is now a primary concern in areas where low investment was previously seen as the main problem. For most of the last decade, the housing market in the City has experienced a severe housing shortage, and the local economy has continued to add jobs more quickly than new housing units have been constructed while Cornell University continues to attract more students. From 2000 to 2013 the Ithaca Metropolitan Statistical Area had an 18.6% increase in private sector jobs, compared to increases of 8.6% in NYC and 4.5% statewide. Over that same period, the population of the City only increased 1%. As a result of high demand and low housing supply, according to the 2008 - 2012 ACS 5-year estimates, Ithaca's homeowner vacancy rate is only 2.4%, while the rental vacancy rate is 1.1%. Some recent estimates put the figure even lower for apartments in prime areas. A market with healthy competition generally has vacancy rates of 5% or higher, and gentrification is frequently observed in neighborhoods with vacancy rates significantly higher than Ithaca's crisis level shortage. The Ithaca Housing Authority has wait times that average 1-3 years according to the 2014-2018 City Consolidated Plan, and according to the City Mayor, Svante Myrick, "every-day" black households are being pushed out of the city. This occurs as a result of policies that say to build absolutely no housing, even though the population increases by (about) 4,000 people. The people who will get priced out are the poor and the working class. (Ithaca Voice, http://ithacavoice.com/2015/09/as-rents-rise-fewer-black-people-live-in-city-of-ithaca/)

The Project addresses two of the underlying causes of gentrification: low housing supply and a shortage of developable land in the City for new housing. Rezoning the CWD to allow the development of new housing will reduce pressure on existing neighborhoods to accommodate Ithaca's job growth and demand for housing in walkable neighborhoods. Due to construction costs, new housing in the CWD will likely be more expensive on average than much of the existing housing in Ithaca, which some may see as a sign of

gentrification. However, converting an area that is not residential into a new neighborhood is, by definition, not resulting in the displacement of existing households, one of the key factors in gentrification. While the Project does not plan to include any below market rate housing, the additional supply of units allowed under the proposed rezoning action can be expected to help slow, reduce, or prevent gentrification in the surrounding neighborhoods by increasing the City's limited housing supply.

Chapter 9: Effect of the Proposed Project on the Use and Conservation of Energy

CHAPTER 9: EFFECT OF THE PROPOSED PROJECT ON THE USE AND CONSERVATION OF ENERGY

Impacts of the Project on the Use and Conservation of Energy are discussed below (please note: a summary of the energy demands is under Section 5.8). It also describes the sustainability and energy efficient features that have been incorporated into the Project, consistent with LEED ND, to mitigate any impacts on the use of energy. A discussion of strategies to be implemented to conserve energy and reduce consumption is provided. The Project Sponsor will provide guidelines for the construction of "Green Buildings" and evaluate the certification of buildings under LEED guidance.

Both short-term and long-term impacts on the Use and Conservation of Energy will result from the construction and operation of the Project. Construction of the Project will require the use of non-renewable energy resources including electricity, gasoline, and diesel fuel over the short-term. In addition to powering construction and paving equipment, that equipment, along with delivery vans and construction workers, will be commuting to and from the construction Site consuming energy. The use of an area within CW3 for construction storage and staging will reduce the amount of energy used associated with trips to and from the Site to bring equipment and supplies.

Long-term impacts on the use and conservation of energy will result from the consumption of energy from day-to-day Project operations, such as heating, cooling, powering various commercial and industrial operations and lighting buildings, and from Project generated traffic.

To mitigate these impacts, the Project Sponsor is exploring various sustainability and energy efficient features that will be considered in Project development and implementation consistent with LEED ND, LEED for Existing Buildings, and LEED for New Construction to minimize Project energy consumption. The Project Sponsor will be seeking LEED certification for at least one or more of the individual buildings as a requirement of the NYSERDA Cleaner Greener Communities Grant. Energy usage will exceed NYS Energy Conservation Construction Codes and follow LEED standards as the general guidelines for the construction of all buildings regardless of whether or not a building will seek certification.

LEED ND certification prerequisites require all of the following to be documented in the Green Building and Infrastructure (GIB) credit category:

- At least one building will be designed, constructed, or retrofitted to LEED standards;
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Energy Standard for Buildings Except Low-Rise Residential Buildings (Standard 90.1–2010), which has been a benchmark for commercial building energy codes in the United States and a key basis for codes and standards around the world for more than 35 years, will be applied to 90% of the total building floor area (rounded up to the next whole building) of all nonresidential buildings, mixed-use buildings, and multi-unit residential buildings four stories or more constructed as part of the Project or undergoing major renovations as part of the Project;
- Requirements of LEED for Homes v4 EA Prerequisite: Minimum Energy Performance will be applied to 90% of new single-family residential buildings and new multiunit residential buildings three stories or fewer.

The Project Sponsor will also evaluate alternative energy measures including (but not limited to) PV, wind, and CHP or cogeneration systems. Resources for further study include the 2011 Cornell University CEE 5910 Feasibility Study of Renewable Energy Sources at the Emerson Plant in Ithaca, NY. The City was also awarded the 2015 NY Prize for The Ithaca Community Microgrid: First Stage Feasibility Assessment that will play a major role in the conservation of energy for not only the CWD but also a large portion of the City. The following excerpt from the City's NY Prize application summarizes the objectives of the study.

This proposal is designed to create the basis for an Ithaca Community Microgrid by using two existing facilities, the IAWWTF and the former Emerson Power Transmission plant now referred to as the Chain Works District (CWD), for power generation to serve two city energy districts, preferably via existing NYSEG distribution infrastructure. The IAWWTF will serve as the core distributed energy resource facility of a Northside Energy District (NED) and the CWD will serve the same function for a Southside Energy district (SED). This project proposes the feasibility assessment of Combined Heat and Power (CHP) as well as extensive biogas, solar PV, and energy storage systems at these two facilities. The value of energy production buildout at these two sites is emphasized by the extensive planned developments in the areas of the IAWWTF and the CWD that will significantly augment current electricity demand. Thus, development of the two new energy districts will provide an economic foundation for the project and the community. The microgrid configuration as proposed would provide electricity that is islandable from the commercial grid to power vital community services during emergencies. Collaboration with NYSEG to improve electric system reliability, efficiency, expansion, emissions reduction, and cost will also interest third party investors.

The Project Sponsor will be seeking available funding through the NY-Sun Program to help reduce the costs of installing solar electric PV systems across NYS. These programs help owners understand and navigate the various opportunities for incentives. Although solar electric systems have not been designed at this point, it is likely that roof mounted and to some extent ground mounted solar will play a major role in reducing the consumption of fossil fuels throughout the CWD.

The Project Sponsor has developed a Project Benefits Metrics Report (PBMR) as part of the Cleaner Greener Communities award from NYSERDA (See Appendix N1). This report outlines the anticipated conservation of energy that could result from the full build out of the Project over time. All calculations for benefits are based on the building area and planned usage with multipliers applied based on industry standards as noted below. Further benefits are likely but difficult to calculate precisely. New buildings constructed in the neighborhood will magnify the estimated impacts on neighborhood connectivity, walkability, diversity, and mix of uses. Benefits will also accrue for adjacent residents, including increased walkability and reduced VMT, but this potential is not yet quantifiable.

The following information is excerpted from the PBMR. The complete PBMR can found in the attached Appendix N1.

Conventional Energy Savings (17,054 MMBTU/year): Estimate based on U.S. EPA's Energy Star–Target Finder data collected by nationally representative surveys, such as DOE's Commercial Buildings Energy Consumption Survey (CBECS). The design goal is to reduce energy use over regional average (assumes conventional energy to be natural gas and grid electricity) for building type by 70% (Architecture 2030) and consumption per finished 1 square foot (the baseline used is 98,000BTU/sq. ft. based on the 2003 U.S. EIA Middle Atlantic Commercial Building Survey, the most recent available.).

Natural Gas Savings (5,457 therms/year): Assumption: natural gas represents 32% of total annual MMBTU; See above for total energy use estimate.

Grid Electricity Savings (8,762,906 KWh/year): Assumption: Electricity represents 68% of total MMBTU.

Gasoline Savings (48,378 gallons/year): Gallons saved are based on VMT reduction per capita multiplied by new resident estimate. Assumptions: Average 2013 fuel efficiency - 23.5 MPG - US EIA. See VMT calculation.

Conventional Energy Cost Savings ($ / year): Estimated Grid Electricity and Natural Gas savings multiplied by average 2013 price ($0.1029/kWh and $12.66/ 1,000 cu. ft.,

respectively).

GHG Savings (1299 MTCDE/year): Based on estimated electricity, natural gas savings from buildings and gasoline savings from VMT reduction. MTCDE calculations based on EPA's Pollution Prevention Program's Greenhouse Gas Calculator and NYSERDA conversion factor for grid electricity.

Renewable Electricity Created (2313 MWh/year): Assumptions: Annual average of 5 hours usable sun per day. See Installed Solar Capacity.

Installed Solar/Wind/Geothermal Capacity (1.5 MW): Assumptions: Half of all roof area is covered in solar panels, generating 8W per sq. ft. (the low range of industry estimate of 8-10W per sq. ft.).

Number of new LEED or Certified Buildings: All buildings will target LEED Gold, at least 1 building will be Certified as required by LEED ND.

Vehicle-Miles-Traveled (551,400 VMT/year) reduced (miles): Assumes residential count based on 1.5 residents per 1000 gross sq. ft. residential space. Neighborhood form results in 30% VMT reduction from county average (Growing Cooler, Ewing, et al., shows a 30% reduction in VMT and GHG emissions in walkable neighborhoods). Reduced VMT in surrounding neighborhoods from the increase in walkability has not been calculated. This calculation does not include additional reductions from other complementary measures, such as higher fuel prices and transportation demand management policies.

Finally, the Project's adaptive reuse of existing buildings allows for the preservation of the energy embodied in existing buildings. By preserving the existing buildings where feasible, the Project will avoid the disposal of thousands of BTUs worth of building materials. Building reuse extends the life cycle of buildings and conserves resources such as energy by requiring less manufacturing and transportation of materials.

Chapter 10: Thresholds for Future Actions

CHAPTER 10: THRESHOLDS FOR FUTURE ACTIONS

The Project is based upon the proposed PUD / PDZ Zoning Code and the Conceptual Site Layout Plan involving both well-defined elements (e.g., Redevelopment of Buildings 21, 24, 33, and 34 – identified as Phase I of the Project – along with selected demolition and redevelopment of the other existing structures and the necessary improvements to related infrastructure such as the internal streets through the Project core to be performed some time following Phase I), and less defined components that would be further designed and developed in the future such as the new buildings clustered at the north end of the Site, along NYS Route 96B, and the southeastern portion of the Site. Certain assumptions were made to evaluate impacts associated with the Project, with more assumptions made related to the less-defined elements. As Project plans move forward and the Conceptual Site Layout Plan is developed into final design proposals, Project changes may occur for the well-defined components but more likely for the less defined elements. While the PUD / PDZ Zoning Code should minimize the degree of change that could influence the evaluation of impacts set forth in the DGEIS, changes could occur. For example, such changes could include increases or decreases in total square footage for specific uses (e.g., residential, commercial, retail).

This Chapter sets forth conditions, criteria, or thresholds and procedures to guide the need for supplemental determinations of significance or final design-specific EISs related to future final design-specific actions that may be undertaken.

Final designs for less-defined, more conceptual Project phases and components, or any proposed changes to the better-defined elements (collectively, “Future Project Plans”) will require further evaluation pursuant to SEQR. Because the Site lies in both the City and Town, either the City Planning Board or Town Planning Board are most likely to be lead agencies for designated actions depending upon the location of the Future Project Plans (hereinafter “Lead Agency”). The Lead Agency will be responsible for performing an environmental review on the Future Project Plans and must consider Future Project Plans proposed in relation to (i) the FGEIS and (ii) the Findings Statement, which will be issued for the Project. Once Future Project Plans have been submitted to the Lead Agency, that agency must determine if the environmental impacts associated with such Future Project Plans have been adequately addressed in the FGEIS and SEQR Findings Statement issued by that Lead Agency, taking into account whether the proposal exceeds any of the thresholds or meets any of the conditions outlined below. This determination must be made and documented before any Future Project Plans are approved.

In the event that the Lead Agency determines that:

1. Future Project Plans would be carried out in conformance with the conditions and thresholds established in Table 10-1 below, then no further SEQR compliance would be required;

2. Future Project Plans would be carried out in conformance with the conditions and thresholds established in Table 10-1 below, but are not addressed or are not adequately addressed in the Findings Statement for the FGEIS, then an amended Findings Statement must be prepared;

3. Future Project Plans are not addressed or are not adequately addressed in the FGEIS for the Project, but the proposal does not exceed any of the thresholds established in Table 10-1 below, or the proposal does exceed a threshold established in Table 10-1 below, but would not result in any significant adverse environmental impacts, then a negative declaration must be prepared; or,

4. Future Project Plans are not addressed or are not adequately addressed in the FGEIS for the Project and/or the proposal would exceed one of the thresholds established in Table 10-1 below and may have one or more significant adverse environmental impacts, then a supplement to the FGEIS must be prepared.

Note that Pursuant to SEQR regulations governing GEISs, the issuance of a conditioned negative declaration is not authorized.

Environmental Setting	Threshold
Land Use	Material changes to when site plan approvals are triggered; allowable uses in Sub Areas; size and location of Sub Areas (see Figure 2.1-3 and Table 2.7-1); required buffers; maximum Sub Area coverage; and maximum density. A material change to the Conceptual Site Layout Plan such as the general location or grouping of structures and streets or Site access points. Total square footage of uses (residential, commercial and industrial) as set forth in Table 2.7-1.
Land – Topography	Development proposed on slopes greater than or equal to 20%.
Water Resources – Stormwater	Future proposed action likely to exceed total impervious coverage rate of 70%.
Vegetation	Non-recreational facilities proposed in CW1. Material changes to size (23.86 acres) and location of CW1.
Public Health	The approved ROD Amendment must allow residential development.
Transportation	Future proposed action likely to exceed a mixed-use development of 1.7 MSF or square footage allocations for land uses generally set forth in Table 5.7-4.
Utilities Water Discharge to Turner Place Sewer Discharge to South Cayuga Street Sewer Total peak sewer discharge Natural Gas / Electric Light	Proposed action likely to cause the Project's total demand to exceed: 271,500 GPD and peak @ 1500 gpm 2,033 gpm 1,450 gpm 1,500 gpm 143,400 MMBTUs Not to exceed Design Standards, Table 13
Air Quality	Proposed action likely to cause Project's total emission of carbon dioxide equivalent to exceed 2,686 tons/year.
Visual and Aesthetic Resources	Proposed maximum building height exceeds Design Standards, Table 7. Material changes to size (23.86 acres) and location of CW1.
Open Space	Non-recreational facilities proposed in CW1. Material changes to size (23.86 acres) and location of CW1.

Table 10-1: GEIS Thresholds (FE)

Future Project Plans which exceed any of the thresholds set forth in Table 10-1 shall not be considered to have been adequately addressed by this DGEIS and must be evaluated by the Lead Agency by following the procedures outlined earlier in this Chapter to determine whether additional environmental review will be necessary.

Because noise impacts are highly dependent upon specific proposed uses, potential impacts from noise have not been evaluated in this DGEIS. Noise impacts associated with Phase I of the Project are addressed in Chapter 12. The Lead Agency should evaluate whether the uses involved in specific Site Plan proposals or other proposals before that agency may have the potential to be a significant adverse environment impact and appropriately document that determination to comply with SEQR. Such determination may result in either a negative declaration (i.e., a determination that the noise does not constitute a significant adverse environmental impact) or a positive declaration, which would then require a supplemental EIS to further study the potential impacts from noise.

Chapter 11:
Cumulative Impacts

CHAPTER 11: CUMULATIVE IMPACTS

Cumulative impacts may result from separately minor but collectively significant actions that take place over an extended period time. It is an impact that could result from incremental impacts of a proposed action when added to other recently constructed, present, or reasonably foreseeable future actions by other entities separate from the Project.

In a consultation with the Lead Agency (see Appendix A2 for correspondence), it was determined the Study Area for the TIS (Figure 5.7-1) be used as the area to consider projects that have been approved and / or constructed in the last 24 months to consider cumulative impacts. The Project Sponsor is not aware of any reasonably foreseeable future actions by other entities within the Study Area not already approved, under construction, or recently completed.

In the City, the following projects in the vicinity of the Project have been recently approved, are undergoing construction, or were recently completed in the last 24 months:

1. Marriott Hotel (undergoing construction): This 10-story downtown hotel, located adjacent to the Ithaca Commons on S. Aurora Street, began construction in early 2015 with a target completion for 2017. This will add 159 guestrooms to Ithaca's stock, with a restaurant/retail space on the ground floor. This project, among others in the Central Business District (CBD), is part of a plan to revitalize Downtown Ithaca to become denser and more pedestrian friendly.

2. Canopy Hotel (recently approved): This 7-story downtown boutique hotel is a new lifestyle hotel brand from Hilton, centered on a neighborhood-driven theme of locality, culture, and comfort. The project is located along Seneca Way and behind the Carey Building, with vehicular access from E. State Street. Recently approved in early 2015, the project will add 123 guestrooms to Ithaca's stock, with a restaurant/retail space on the ground floor. This project is also located in the CBD zone in Downtown Ithaca.

3. Carey Building- additions (undergoing construction): This project will create a five-story, mixed-use addition to an existing two-story building located on E. State Street. REV, a downtown business incubator, will move from the second to the new third floor, working in partnership with Cornell University, Ithaca College, and TC3 to create one of three incubators as part of the Southern Tier Hot Spot Innovation Zone and is part of the StartupNY initiative to create jobs throughout New York State. The upper floors will contain 16 residential apartments. This project is also located in the CBD zone in Downtown Ithaca.

4. Harold's Square (recently approved): This project, located on the Commons, will create a new 11-story mixed-use building housing retail (one-story) and business spaces (three-stories), with 36 one and two-person residential apartments units (six-stories) and a penthouse level with multi-purpose uses for tenant amenities. This project is also located in the CBD zone in Downtown Ithaca.

5. Lofts @ Six Mile Creek [Cayuga Place 2- 217 S. Cayuga Street] (construction completed in late 2015): This 7-story project in Downtown Ithaca adds 45 residential apartments to Ithaca's shortage of rental units. The project is located along Six Mile Creek, and provides tenants with parking via the S. Cayuga Street Parking Garage.

6. Collegetown Terrace Apartments (recently completed / undergoing construction): This project sits on a 16.4 acre site located on E. State Street between Quarry Street and Valentine Place. When completed, it will contain seven new structures ranging from three to four stories. Buildings 5 & 6 have been recently completed in the last two years, and Building 7 is currently under construction. This new rental apartment development is targeted towards graduate students, with a total of 1,260 bedrooms, 634 of which are new, in new and existing apartment

buildings on the site. The project completed a DEIS in June 2010 and the FEIS was completed in October 2010. Impacts relating to visual, stormwater, land, transportation and traffic, and growth were reviewed based on these documents.

7. Stone Quarry Apartments (recently completed): This project contains 35 units of affordable housing, located on 400 Spencer Road. It contains one 3-story apartment building and 2-story townhouses as rental apartments. It was recently completed in Fall 2015.

8. Some projects are on the boundary of the Study Area. For reference, these projects are:

9. Collegetown Crossing [307 College Ave.] (under construction): Located in Collegetown on College Avenue, this project adds 46 apartments, or 96 bedrooms, and is geared towards students. The six-story building will also have a Greenstar Grocery co-op on the ground floor. Completion is expected in Summer 2016.

10. 323 Taughannock Boulevard Waterfront Project (recently approved): Located on the Cayuga Inlet, this waterfront project will create a 4-story, mixed-use building. Office space will be available on the ground floor, with 21 apartment units on the three stories above.

11. Dryden Eddy Apartments [327 Eddy Street] (under construction): Located in Collegetown in Eddy Street this project will create a 5-story, mixed-use building. Retail will be on the ground floor, with 22 new units, or 56 bedrooms, on the upper floors. Completion is expected in August 2016.

In the Town, the following projects are relevant to the Project:

1. Holly Creek Townhomes [Danby Rd/King Road W.]: This project provides 22-unit townhomes. It was constructed in two phases, with its second phase recently completed.

2. College Crossings [Danby Rd/King Road E.]: This project is a 19,000sq.ft. mixed-use office, retail, and residential structure. The project was approved, but has not yet begun construction.

3. Cleveland Estates [Danby Rd, across from College Circle Apts.]: This project will provide 13 single family homes. It is under construction.

4. Namgyal Monastary [Danby Rd, south of King Rd.]: This project is a 14,000 sq.ft. development of multiple structures. This includes a dormitory, shrine, etc. The project has been under construction for several years, but is not yet completed.

5. Westview Subdivision [Schickel Rd. off Danby Rd]: This project will provide 31 single family lots. It has been under construction for several years, but is not yet completed.

6. Longview: This project added a 22-unit townhouse development adjacent to their current facility. Construction completed in 2014.

7. Ithaca College Circle Apartments: This 42-unit project is rental apartments geared towards undergrad juniors/seniors housing. Construction completed in 2013.

8. Montessori School and Annex additions: This project increased the size of the Montessori School to accommodate growing enrollment (11,215 sq. ft. addition to main/middle school and 1,155 sq. ft. classroom addition to the annex building. Construction began in 2013, and was completed in 2014.

9. Coddington Road/Pennsylvania Ave/Kendall Avenue/Danby Road area: In 2013-2014 the Town approved approximately ten 2- and 3- lot subdivisions for the creation of additional building lots in this area.

As this list of projects indicates, the Ithaca area is undergoing a significant amount of development to accommodate growing housing demands in the City and Town. In mature urban areas, minor to moderately adverse impacts typically occur due to the combined impacts from new development and future projects because of their close proximity to one another. Although these types of cumulative impacts are often unavoidable, the moderate pace of current and future development, as well as the growing demand for pedestrian-oriented development, allow for potential future adverse cumulative impacts to be mitigated through the Project's adherence to the Comprehensive Plans of the City and Town, and Smart Growth principles discussed in Chapter 2 and throughout this DGEIS.

Potential cumulative adverse impacts to traffic from this and other projects listed above were examined as part of the TIS. Projected trips generated by these developments have been included in the background traffic growth projections for Phase I and full build-out of the Site. Additionally, a traffic report prepared by the City for a traffic signal replacement project was reviewed to determine an approximate growth rate. See Section 5.7 and the TIS in Appendix I1. The Project will mitigate cumulative traffic impacts through measures such as Transit Coordination with TCAT to provide bus stops and routes on Site, Car Share, and Bike Share. The Project's use of Smart Growth principles in its design to create a pedestrian-oriented, bike-friendly district, and the Site's proximity to downtown, will discourage excessive use of the automobile and encourage pedestrian-based modes of transportation.

The Project viewed in conjunction with other new development in the area can be anticipated to result in long-term positive impacts. The combination of these projects, including the Project, demonstrates a clear shift towards density, walkability, and pedestrian-oriented development to create vibrant, mixed-use buildings and streetscapes consistent with the economic development and urban character goals of the City and region.

The Project's increased on-site residential and commercial populations will result in an increased demand for utilities along with the other projects mentioned. As described in Subsection 5.8.3, the Project Sponsor is exploring alternative energy sources which can reduce the fossil fuel demand and serve as a model for other projects to follow. The Project's participation, along with other projects in the City of Ithaca Prize micro-grid study, illustrates the cumulative impact that large-scale projects can have that also benefit individual consumers. The cumulative impact of this and surrounding projects will likely result in a point at which the utilities approach capacity. It is anticipated that these utilities will take necessary action to increase their capacity to meet future demand.

As Subsection 5.8.3 further describes, the light pollution impacts will be minimized through the utilization of "Dark Sky" compliant lighting fixtures applied to these new developments through City and Town existing requirements. To the extent some of these projects are redevelopments, such as this one, light pollution may even be reduced as compared to previous conditions. Stormwater volume will likely increase with increased development, however as described in Sections 5.3 and 5.8, the Project will implement as much green infrastructure, as opposed to grey infrastructure, as possible, which doubles as public amenity. To the extent that these projects are planned and constructed, there may be an overall increase in impervious area, resulting in an increase in stormwater volume, however, stormwater runoff will likely be reduced and stormwater quality increased given the employment of green infrastructure and ever evolving stormwater standards.

Similar to the increased demand for utilities, the increase in residential and commercial populations from this and surrounding projects will result in an increased demand for community services, as was described for this Project in Section 5.11. Existing community services have the capacity to accommodate to the projected populations increases and will take necessary actions to respond and increase their capacity, as needed, over time.

While cumulative impacts as previously described are certain with the number of projects taking place in the City and Town, the extended duration of development of these future projects will allow time for cooperative effort to address deficiencies and respond to mitigate possible future unfavorable impacts. There are no significant adverse impacts that would result from the addition of the Project to the existing and approved development projects.

Cumulatively, it is realistic to expect that the surrounding projects in combination with the Project will result in changes to the character of the City and adjacent areas of the Town, which are consistent with the Comprehensive Plans of the City, Town, and County. It would be impossible for any action to not impact its surroundings. Together, these projects indicate an overwhelmingly positive net effect, through the revitalization of underutilized buildings and spaces, the creation of much needed housing, new commercial spaces to provide increased employment opportunities, and housing and jobs in relative close proximity to the established developed areas to allow for alternative transportation options, the employment of alternative energy technologies, and increased trail connections and access to open space.

Chapter 12: Issues not Considered Significant during the Scoping Process

CHAPTER 12: ISSUES NOT CONSIDERED SIGNIFICANT DURING THE SCOPING PROCESS

Noise – The first phase of the Project as proposed will not create additional noise impacts beyond the existing ambient levels during normal operations. Noise associated with construction activities will be mitigated with standard BMPs and operating requirements set by the City and the Town during the Site Plan approval process. Phase I of the Project will not have any operational noise impacts after construction is complete. Subsequent phases will include open public areas that may allow events. Noise impacts from future phases will be addressed as each phase moves through the approval process (see Chapter 10).

Odor – The Project will not create additional odor impacts beyond the existing ambient levels. Even though the CWD will include industrial uses, it was determined that the Project will not create odors beyond the normal due to the mixed-use nature of the Project and the inherent policing by the residents of the Project.

Chapter 13: References

CHAPTER 13: REFERENCES

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