

2. Existing Conditions

2.1. Zoning and Land Use

The 192-acre study area is generally defined as the parcels between Madison Avenue and Washington Avenue, and North Main Avenue and Lake Avenue moving east along Western Avenue to Robin Street to incorporate the University at Albany's downtown campus (Figure 1). Schools in the area include the University at Albany, The College of Saint Rose, Albany High School, LaSalle School and swing space for the City School District of Albany (Figure 2). When branding the Education District, recommendations will focus on the area between The College of Saint Rose and University at Albany's Downtown Campus – between Madison Avenue, Washington Avenue, Partridge Street and Lake Avenue. This area consists of 791 parcels, which are primarily one and two family residential houses (Figure 3). Commercial uses are interspersed throughout the District with Madison and Washington Avenues having the most contiguous clusters of retail stores.

Within the Education District, there are five different zoning classifications, which include three residential districts and two commercial districts (Figure 4). A list of the permitted uses for these zones can be found in Table 1. Most of the residential homes in the Education District study area are zoned R-2B, which permits one and two family residences¹. College and universities, including dormitories are allowed in this zone by special use permit; however bars, restaurants and other neighborhood commercial uses are not permitted. The land use map shows that a number of the parcels in these zoning districts have non-conforming commercial uses.

There are two areas zoned C-1, (a) around the intersection of Western Avenue and Quail Street and (b) on Madison Avenue between Quail and Park. The C-1 zoning district allows for smaller scale (less than 5,000 square feet) neighborhood commercial uses. Restaurants are permitted; however, those that serve alcohol require a special use permit. Additionally, any business in a C-1 zoning district that is open between the hours of 11:00PM and 6:00 AM are required to obtain a special use permit. Figure 5 shows commercial parcels that are open after 11 PM. A number of these parcels are in the R-2A/R-2B residential zones and are thus non-conforming commercial uses.

Figure 6 shows that students reside in a significant portion of the homes in the Education District. The concentration of students is and has traditionally been greater in the District than those areas outside the study area. This density, however, is spreading south past Madison Avenue, and properties to the north of Western Avenue have been becoming increasingly disinvested as students disperse. The District is slightly denser than the surrounding residential areas, with at least two dwelling units per parcel (Figure 7). The area also has more non owner-occupied residential properties than the surrounding areas (Figure 8). Many of these rentals have owners that live either outside Albany County or New York State.

¹ Albany's zoning code defines "family" as (1) One, two or three persons occupying a dwelling unit; or (2) Four or more persons occupying a dwelling unit and living together as a traditional family or the functional equivalent of a traditional family. The code further states, "It shall be presumptive evidence that four or more unrelated persons living in a single dwelling unit do not constitute the functional equivalent of a traditional 'family.'"

Table 1: Permitted Uses in the Education District Study Area

Zone	Permitted Uses	Special Permit Uses
R-2A One- and Two-Family Residential District	Single-family detached dwellings, two-family detached dwellings. Houses of Worship	Conversions of single-family homes, private schools, colleges or universities, including dormitories, nursing homes, day-care centers, charitable or religious institutions, bed-and-breakfast, satellite dish antennas.
R-2B One- and Two-Family Medium Density Residential District	Single-family detached dwellings, two-family detached dwellings, semidetached dwellings, single-family row dwellings, two-family row dwellings, houses of worship.	Special permit uses from R-2A, community residences.
R-4 Multifamily High-Rise Residential District	Multifamily dwellings/high-rise (elevator apartments), garden apartments, two-family row houses.	Private schools, nursing homes, colleges or universities, including dormitories, hospitals, day-care centers, charitable or religious institutions, bed-and-breakfasts, rooming houses/single-room occupancy (SRO), community residences, satellite dish antennas.
C-1 Neighborhood Commercial District	Bakeries (< 5,000 square feet), banks (< 5,000 square feet), charitable or religious institutions. Drugstores (< 5,000 square feet), fraternal organizations, houses of worship, ice cream and yogurt shops, personal service outlets, restaurants without alcoholic beverages, retail outlets (< 5,000 square feet), residential uses (dwelling units >600 square feet), art galleries, business services.	Adult day-care, automobile service stations, day care, theaters, drive-in banks (Note: Not permitted in historic Districts.) or ATM windows. Funeral homes. Groceries (> 5,000 square feet, health clubs, indoor recreation, offices, take-out and delivery restaurants, taverns, restaurants serving alcohol.
C-O Commercial Office District	Auditoria, banks, colleges, hospitals, houses of worship, museums and art galleries, nursing homes, offices, funeral homes, business services.	Adult day care, health clubs, laboratories, personal service outlets, restaurants, rooming house/SRO, taverns, trade schools, satellite dish antennas.

2.2. Sidewalks

Most sidewalks in the District are in generally good condition and are level, thereby allowing for adequate maneuverability and accessibility for persons with disabilities. The City of Albany's standard curb ramps for persons with disabilities exist at most corners except those at the intersections of Spring Street with Ontario Street and Cortland Place. Sidewalk conditions were evaluated and rated as follows (Figure 9):

No Sidewalk - Sidewalk substantially missing or no sidewalk present

Poor - Difficult to walk on, impassable for average mobile impaired persons. Surface is any combination of broken or crumbled pavement, extreme heaving, extreme vegetation growing through cracks and fissures, or whole slabs are missing

Fair - Marginally passable, impassable for some levels of mobility. Pavement shows advanced cracking, or crumbling, may be slightly heaved (less than 4"), isolated pieces broken or missing, weeds and vegetation are present in cracks and fissures.

Good - Passable for all levels of mobility. Pavement exhibits minor signs of wear, very few cracks visible, surface is level and little to no weed growth or vegetation is present.

Excellent - Passable for all levels of mobility. Pavement is new or shows no signs of wear, has an even, continuous surface, no weed growth or vegetation present.

For inventory purposes, the various types of sidewalks were categorized as follows:

Type A - Consists of a four to five foot wide City of Albany standard concrete sidewalk with a four to five foot wide asphalt maintenance band. The band may or may not include such amenities such as trees, signs, utility poles, and mail boxes.

Type B - Similar to Type A only the band is comprised of grass instead of asphalt.

Type C - Walkway and maintenance bands are uniform concrete pavement from the right-of-way line to the curb. The band area may or may not include amenities such as tree pits, signs, utility poles, telephone booths and mail boxes.

Type D - No sidewalk present.



Typical Sidewalk Types A, B, C, and D respectively.

Sidewalks in the poorest condition exist along Hudson Avenue, Hamilton and Spring Streets, and a portion of Elberon Place. Some of these sidewalks impede mobility with instances of frost heaving, tree root damage or the sidewalk does not exist. See Appendix D-1 for existing sidewalk conditions.

2.3. Crosswalks

Crosswalks primarily consist of a standard eight foot-wide painted NYSDOT Ladder-style crosswalk, typically located at the north-south street intersections of Madison Avenue, Western Avenue and Washington Avenue. There is evidence of wear in some locations while others appear newly re-installed.



Crosswalks on Washington and Western Avenues in good to poor condition.

2.4. Lighting

The primary light source for the District are Cobra Head luminaries installed and powered by National Grid (NG). Figure 10 illustrates the locations of these lamps. The lamps and support arms are typically mounted on wooden utility poles approximately 25 to 30 feet above grade and spaced approximately 80 to 140 feet apart. Most are in a single mount configuration while others are double mounted. Wattage ranges from 70 to 1000 watts. Higher intensity lamps of 250 watts are located along the east-west collector streets of:

- Madison Avenue
- Western Avenue
- Washington Avenue



National Grid Cobra Head Light Fixture

The average light level intensity maintained throughout the District is in the range of 1 to 1.5 foot-candles. The north-south local streets have lamps with 150 to 1000 watt intensities and provide average light levels of 2.85 to 4.41 foot-candles. These streets include:

- Ontario Street, Partridge Street, Quail Street, North Lake Avenue

Four hundred to one thousand-watt lamps are in isolated locations such as the intersections of Ontario and Spring Streets, Elberon Place and Partridge Street near the University at Albany dormitories. Most of the lower intensity lamps from 70 to 100 watts are located on streets with a higher residential density. The use of these fixtures provides a darker average luminescence of .43 to .83 foot-candles which may be more appropriate in non-commercial areas. These streets include:

- Hamilton Street, Hudson Avenue, Spring Street, Cortland Place, South Lake Avenue

Lighting levels vary depending on the land uses around them. In highly illuminated areas, there are fewer residential units near the fixture locations. On the west side of Partridge Street lies the Albany High School athletic fields while the east side has the University at Albany dormitories. These dormitories are set back more than 100 feet from the roadway and fixture locations. At Elberon Place, residential units lie primarily on the north side of the street, the fixtures lie on the south side where residential parking garages are located. This distance is more than 60 feet away.

The University at Albany Downtown Campus equips 400 watt flood lamps directed toward the campus property along Western Avenue. These lamps are co-located on wooden NG street poles together with 250 watt Cobra Head lamps facing the street. Both fixtures are owned and operated by NG. Average light levels around the entire campus are above 2 foot-candles.

The Illuminating Engineering Society (I.E.S) Standards for average maintained light levels for various land uses in residential, intermediate and commercial areas are as follows:

Use Type	I.E.S Standard	Use in NYC
Residential	.4 to 1 foot-candle	.8 to 1 foot-candles
Intermediate	.6 to 1.2 foot-candle	1 to 1.5 foot-candles
Commercial	.9 to 2 foot-candle	1.5 to 2 foot-candles

Figure 4 – Illuminating Engineering Society for maintained light levels and NYC light levels

Each street was measured in the field with a Minolta Illuminance Meter, Model TL-1 light meter. Ratings were determined as follows (the rating takes into consideration that the study area has a mix of residential and commercial uses):

Poor lighting - below .4 foot-candles;

Fair lighting - between .4 to .9 foot-candles;

Good lighting - between .9 to 1.2 foot-candles;

Over illuminated - above 1.2 foot-candles (This level of brightness may be too bright in certain areas except where efforts to enhance security were deemed necessary.

As noted above, some streets are poorly lit within the District. These areas are illustrated in Figure 11. This is partially caused by the interference of tree branches and extensive leaf coverage reducing street light intensities.

Currently, there is an arrangement with the City of Albany Department of General Services (DGS) to trim and remove vegetation that obstructs light from the street. Upon notification, the DGS dispatches a crew to the location to selectively trim and remove obstructing limbs and tree vegetation as necessary. This occurs in addition to NG's own Tree Pruning Program. The DGS will also notify NG if a fixture does not provide enough light or is non-operational. NG will send a crew to the location to replace and or upgrade the fixture.

2.5. Streetscape Amenities

2.5.1. Bus Shelters

City bus shelters are owned and operated by the Capital District Transportation Authority (CDTA). There are several types of shelters located throughout Albany, some are vintage while others are the newer Brasco International shelters. CDTA, with approval from the City, is replacing old shelters with the newer Brasco shelters on a case by case basis. Installation is predicated on a point system as described in CDTA's Bench and Shelter Program, see Appendix D-2. CDTA is proposing a Bus Rapid Transit (BRT) line for Washington or Western Avenue (route alignment to be determined). For branding purposes, this system uses a different shelter, seen below. The Washington/Western line will have its own color scheme. In the future, a number of shelters along Washington or Western Avenue within the District will be replaced with BRT shelters.



CDTA Bus Shelter



CDTA Bus Shelter



CDTA Brasco BRT Bus Shelter

2.5.2. Benches

There are several different types of benches used throughout the District from metal to wood and metal/wood combinations. It is noted that the while City of Albany uses a standard bench, the DuMor model 57PL wood and metal bench, none are located in this area of the District. The DuMor bench has an eight foot length with an arm rest in the center to minimize vagrant loitering.



Existing Benches in the Education District



The DuMor Bench 57 on New Scotland Avenue

2.5.3. Bike Racks

The City of Albany has recently changed the model of its standard bike rack. Previously, the Creative Pipe's model FH-2-F, was placed throughout the City. In many instances these racks have been installed incorrectly such as the one shown below on Madison Avenue. Albany's new standard hoop racks and hitch posts are being installed throughout the City. Numerous new racks are being located within the District. Many of which have been placed using a grant program developed and executed by CDTA.

The City's new standard bike rack models, seen in the second and third photos below, are consistent with the City of Albany Bicycle Master Plan.



Poorly Installed
Creative Pipe bike rack



Standard Hoop Rack



Standard Hitch Post

2.5.4. Trash Receptacles

Public trash receptacles consist of DGS's standard metal retainer chained or bolted in place and generally located at collector and connector street intersections. Corrosion is evident on most of the receptacles. There are also trash receptacles adjacent to bus shelters consisting of a metal frame with aggregate stone side panels. As of the completion of the study, no Big Belly solar trash compactors have been located within the District.



City of Albany Trash Receptacles and other Trash Receptacles.

2.5.5. Telephones

There are several telephone booths located in the study area. These phones are owned and operated by Verizon Communications, Inc. and currently are not profitable for the company. Selected phone booths are being removed as they fall out of service and are not being replaced.



Verizon Telephone Booth

2.5.6. Emergency Call Boxes

The College and University have installed emergency call boxes in various locations on their campuses. These boxes are installed so that students, staff and visitors can contact campus security in the event of an emergency.



Emergency Call Box

2.6. Trees and Vegetation

Trees and vegetation included in this study are those located in the maintenance bands between the curb and sidewalk of existing walkways and the public right-of-way. Several varieties of large and small species are present throughout the District (see Appendix D-3). Their condition ranges from poor to excellent. The City of Albany's forester has provided definitions for each of the existing tree conditions as follows;

Dead - Tree is dead and must be removed. The condition could present a potential safety hazard to pedestrians.

Poor - Tree has less than 50% foliage and exhibits substantial dieback throughout the canopy. Tree exhibits multiple dead limbs and leaders that are decayed and structurally unsound. The plant has evidence of insect infestation, leaf scorch, early die back, disease or restrictive growing conditions, severely damaged, decayed and hollow or malformed trunk or limbs

Fair - 50-75% good foliage, some canopy dieback. The tree may exhibit occasional major limbs that are decayed, damaged or missing, poor branch structure, evidence of insect infestation or disease and minimal damage to trunk

Good - 75% or more full foliage, good branch structure. The tree is erect with no significant injuries or decay, few if any dead limbs, minor areas of decay, if present, do not affect structure. Tree exhibits healthy vigor, presents a good spring leaf out and good fall color characteristic.

The District has many urban environment-tolerant tree species that are generally well tended by the City Forestry Division. Those that are dying or pose a public safety hazard are being replaced by trees listed in the *Recommended Urban Trees* Manual published by Cornell University's Urban Horticulture Institute. The manual is designed to help in the selection of the most appropriate tree for any given urban situation. The manual emphasizes diversity as one of the key elements to a successful tree planting program.

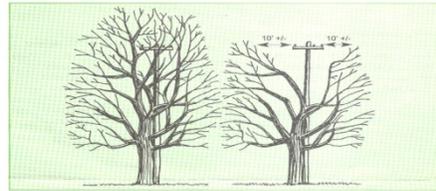
There are over 750 trees in the study area. It was noted that there are only five trees rated in "poor" condition that would identify them for removal (see Appendix D-3 for a pictorial of existing tree conditions). The current tree replacement program in the City states that trees under power lines must be replaced with smaller growing species to limit intermingling. Potential replacement species will be selected from the *Recommended Urban Trees* guide. Trees in the poorest condition are considered 'at risk' trees and have a high probability of failure. They have been categorized and defined as follows:

Power Line Intermingling – Tree branches that have grown through power line cables and are completely intermingled with each other. This poses a hazard to local residents during severe storm events.

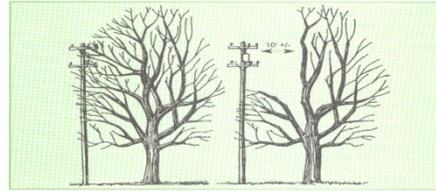
Over Pruned - National Grid uses a technique called “directional pruning”. Their specifications are to maintain at least 10 feet of clearance from primary conductors in residential, urban and maintained areas. The guiding principle behind “directional pruning” is the “90-3-90” rule. Typically 90% of the interfering branches can be removed by making 3 larger cuts within the tree crown 90% of the time. Efforts are focused on the tree species and/or defects most likely to cause an outage in the most sensitive, critical portions of the distribution circuit.

The three types of pruning used for this technique are called “Through Pruning”, “Side Pruning” and “Under Pruning”. The most common form in urban areas is Through Pruning. This technique has been used in conjunction with “tree thinning”, conducted by the City of Albany DGS, to allow sufficient light from streetlights to get through the canopy to the ground plane. This has caused an unusual tree form to occur where the only major tree branches remaining give it a “V” habit.

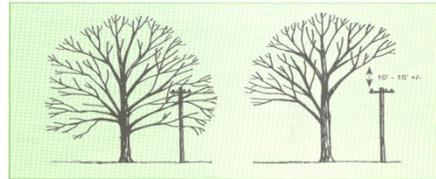
Through Pruning



Side Pruning



Under Pruning



National Grids Directional Pruning Techniques

Although there are many reasons why trees decline, some trees that have been over pruned are left without sufficient foliage and do not produce enough chlorophyll to survive, particularly when pruning is done later in the life cycle of the tree. Additional reasons for the decline of a tree beyond power line intermingling and over pruning include:

Dead – The tree is visibly expired; foliage is minimal or not present.

Heaving Pavements –This is common in dense urban areas where large tree root systems begin cracking and heaving pavements and other substructures because they do not have enough space for proper growth. The impervious surface around the root system does not allow sufficient water supply for the expanding mature tree.

Light Array Conflict - These situations exist where major trees are located in maintenance strips and grow to a height and density that obstructs light arrays. In some locations tree branches have been pruned beyond their natural form to improve light. Sometimes power lines are buried within the canopy to where even the most intense light fixtures can prove ineffective. While some of these conditions may be isolated, there are many instances where two or more conditions may exist near the same tree..

2.7.

2.8. Parks and Open Space

There are a number of public park and open space resources within and adjunct to the Education District. These spaces are often used for both active (i.e. baseball, basketball, etc.) and passive (i.e. walking, jogging, etc.) recreation. They are also important assets that can attract and retain new residents and business owners to the District. See Appendix D-5 for photos and additional descriptions of District playgrounds and recreational facilities. Descriptions of a few of the key resources follows:

2.8.1. Washington Park

Washington Park represents the District's Eastern boundary and it is the oldest park in the study area. Built in 1872 it encompasses over 81 acres and has many opportunities for active and passive recreational activities. It is an urban oasis for many types of outdoor activities including strolling, jogging, picnicking, fishing, tennis, basketball, cross-country skiing, site seeing, and bird watching. The park is also a year round hotspot for many popular special events, displays and concerts. Washington Park exhibits high usage all months of the year. It has many activities open to visitors and residents; some sponsored by the City while others are spontaneously organized by individuals. Washington Park's open spaces are often used by visitors to play bocce, volleyball and badminton games. More formal activities such as tennis, basketball and handball have facilities maintained by the City in the park. Bicycling is popular on the many roadways, many of which are periodically closed to vehicular traffic. Limited vehicular access to Albany Plan of Union Avenue is maintained at South Lake Avenue at Hudson Avenue. Access for pedestrians, bicyclists, and persons with disabilities is maintained at all times.

2.8.2. Pine Hills Park

Located on Madison Avenue, Pine Hills Park is both a passive and active recreational park. It has basketball courts and play structures for younger-aged children as well as benches for passive recreational users. Use is higher during the spring as college students use it during the warmer weeks of the semester before departing for home, however the basketball courts and play areas are also well used during the summer and fall. Access to Pine Hills Park is achieved from Madison Avenue, Ontario and Hamilton Streets.

2.8.3. Beverwyck Park

Beverwyck is a 6-acre park with three natural turf ball fields, two near Washington Avenue and one closer to State Street. Access for persons with disabilities is limited due to the 5 to 6 foot elevation change of the playing field above Washington Avenue, Ontario and Partridge Streets. Various components of the playing fields are in need of rehabilitation. Similar to Pine Hills Park, this park is used more often during the spring as college students approach summer break and graduation. The park is more heavily used in May than during the mid-summer months primarily for general lawn recreation (i.e. Frisbee, sunning, ball play) and softball. The Beverwyck Park

lies mostly within a residential neighborhood of interior streets between Central and Western Avenues. The neighborhood received its name from Beverwyck Park, which in turn was named for Albany's original Dutch name, Beverwyck, meaning literally, "Beaver District". Beverwyck Park functions as the "backyard" of the University at Albany's Alumni Quad, the original residence halls of the University.

2.8.4. Albany High School Athletic Fields

The Albany High campus contains athletic fields for soccer, baseball, football, and softball. It also has several seldom-used basketball and tennis courts. There are no rims on the basketball court backboards and the old tennis courts are overgrown with weeds, making them unusable. New tennis courts were built in the summer of 2009 next to the old ones, and the High School tennis team now uses these. The school's running track was resurfaced in 2003, and is used frequently by the general public.

Use of the sports facilities is permitted only through applying to the Alternative Learning Center office for a special permit. Athletic field use is restricted to resident neighborhood associations and resident athletic organizations only. There is an hourly cost to use these facilities with a signature required for insurance to cover damage and liability. Due to past misuse and vandalism no exceptions will be made without proof of residency and insurance coverage.

2.8.5. Other Private Green Spaces

There are several privately owned open green spaces for passive and minor active recreation adjacent to the buildings at the University at Albany's Downtown Campus and the Alumni Quad. Some areas are shaded, while others are more open and sun-filled. The lawns of these private green spaces are mostly well maintained. Access is open to the public provided loitering isn't excessive and nuisance behavior is not evident.

2.9. Transportation

2.9.1. Transit

The District has a number of CDTA bus lines that connect to the rest of the city including the: 10, 11, and 12 which are considered trunk routes or routes with the highest service frequency and ridership in the CDTA system. All the major arterial streets in the District are covered by CDTA's bus system. Figure 12 shows the latest bus routes in the study area provided by CDTA. CDTA also implemented a Bus Rapid Transit (BRT) route on Central Avenue which runs along Route 5. An additional BRT line has been proposed for either Washington Avenue or Western Avenue (Figure 14). Both proposed routes feature proposed BRT stations at Thurlow Terrace/University at Albany Downtown Campus, Quail Street and Partridge Street in the District.

CDTA has recently completed a county-wide route restructuring project, including major changes to routes within the City of Albany. CDTA took into account neighborhood input, rider surveys,

boarding and alighting counts, future projects and institutional needs when designing the changes. This restructuring positively impacted the District by providing better efficiency and reliability.

2.9.2. Motor Vehicle

Figure 15 shows that the highest average daily traffic volume (AADT) is on Madison Avenue (14,400) followed by Washington Avenue (12,900), Quail Street (6,000 to 8,700) and Western Avenue (7,700). Figure 16 shows the PM peak hour traffic volume at the major intersections in the study area. The intersection of Madison Avenue and Main Avenue has the highest traffic load with about 2,279 vehicles passing through in the PM peak hours. Figure 17 shows the vehicular crash locations in the study area from January 2003 to January 2009. The map shows crashes in three categories of fatal, injury and property damage only (PDO). Madison Avenue saw 14 injury crashes, including 1 fatality. Western Avenue and Washington Avenue had 11 and 12 injury crashes respectively on a slightly longer segment than Madison Avenue.

2.9.3. Bicycle

In 2009, The City of Albany, in partnership with the CDTC released a 20-year Bicycle Master Plan (BMP) with the goal of identifying bicycle routes to improve cycling as a viable mode of transportation throughout the city². Figure 14 shows proposed bicycle lanes in the study area vicinity. Shared-lane pavement markings are proposed for Quail Street and Western Avenues. Washington and Madison Avenues have 14 ft. wide outside travel lanes with 3 ft. wide paved shoulders. The BMP recommends that shared-use lane markings and 'Bicycles May Use Full Lane' signs be installed on the section of Washington Avenue within the District. It identifies two potential treatments for Madison Avenue, either a reduction in vehicular travel lanes with bike lanes, or the installation of shared-use lane markings; however, both treatments require additional evaluation

2.9.4. Pedestrian

Although detailed pedestrian counts were not taken as part of this study, those living and working in the District are frequently pedestrians at some point in their daily travels. Whether it's walking to a car to travel to work, walking to a bus stop to travel to school or walking to a neighborhood retail shop to pick up a few items, walking is clearly a major form of transportation in the District. Sections 2.4 through 2.6 describe in great detail the existing sidewalk, crosswalk and street lighting conditions. Figure 18 shows the pedestrian and bicyclist crash locations from January 2003 to January 2009. Taking into consideration the traffic volumes and lengths of the roadway segments, the highest number of pedestrian injuries from crashes are along Quail Street, Western Avenue, Washington Avenue and Madison Avenue.

² City of Albany Bicycle Master Plan, Final Report. <http://www.cdtcmpo.org/linkage/albanybmp.pdf>