

**Building Name:** Paul F. Titchener Hall

**Original Construction Date:** 1961

**Existing Programming:** Liberal Arts and Human Services

### **General Building Systems**

**Roof:** Single-ply rubber

**Structure:** Steel Frame, reinforced concrete deck, slab on grade with perimeter crawlspace

**Façade:** Masonry and storefront windows

### **Hazardous Materials**

100% abatement with 1990s Renovation

### **Renovations**

Total renovation, 1994

### **Accessibility**

This building was renovated following the Americans with Disabilities Act of 1990. Therefore, areas of non-compliance, such as those listed in section 1.3 of this report, were not observed.

### **Persistent Problems**

The mortar in the exterior wall is crumbling, indicating a poor mix.

Excessive moisture in floor slab at the forward areas of lecture hall

The north and south masonry cap at the roof parapet has water infiltration.

The exterior pedestrian plazas are cracking and spalling.

Condensation from HVAC units is damaging ceiling tiles

### **General Finishes**

**Floors:** The floors are VCT in the public areas and classrooms with carpet in the study area and offices. Ceramic tile was installed in the bathrooms.

**Walls:** The walls are painted GWB and are in generally good condition. There are, however, areas of damaged walls.

**Ceilings:** The ceilings are a combination of suspended acoustical ceiling tile with areas where the painted, structural tube steel truss has been exposed. Overall, the ceilings are in excellent condition, with occasional damaged tiles.

### **Mechanical**

**Heating:** The Titchener Building is served by a hot water loop that serves four-pipe fan coil units (terminal and central station units) and miscellaneous cabinet and unit heaters. Hot water is generated by two gas-fired, cast iron sectional, hot water boilers (Bryan, 1,920 MBH each). The boilers are located in the basement mechanical room. The boilers and associated water pumps were installed in 1993 as part of a complete building renovation project and are in good condition.

**Cooling:** The Titchener Building is served by a chilled water loop that serves four-pipe fan coil units (terminal and central station units). Chilled water is generated by a water-cooled, centrifugal, chiller (Trane, 160 TON). The chiller is located in the basement mechanical room. The chiller's condenser water system includes an indoor sump tank configured to allow for year-round operation of the condenser water system. The chilled water loop, via a plate-&-frame heat exchanger includes a waterside economizer utilizing condenser water.

The chiller and associated cooling tower and circulation pumps were installed in 1993 as part of a complete building renovation project and are in good condition except for the condenser water system mixing valve which shows signs of significant corrosion.

**Ventilation:** Building ventilation is supplied by a single, 100 percent outdoor air, and central station air-handling unit located in the basement mechanical room. The unit supplies tempered air within the vicinity of the return air connection to each of the building's terminal fan coil units.

**HVAC Controls:** HVAC system temperature controls are direct digital (Johnson Metasys) with pneumatic actuators. The pneumatic system's compressor and air dryer appear to be in good condition. The direct digital control system provides for local access only and is outdated, as the system can no longer be accessed from the campus control network.

## **Plumbing**

**Domestic Water:** Domestic hot water is generated by a single storage type, natural gas fired, water heater (A. O. Smith, 100 Gallon, 218 GPH recovery) located in the basement mechanical room. The heater appears to be in excellent shape.

**Sanitary:** Plumbing fixtures are vitreous china and in good condition. The building's sanitary system is below the level of the municipal connection as such is served by two (2) ejector pumps.

**Storm:** The building is served by system of roof drains and internal drainage pipes. All roof drains appeared to be functional.

**Fire Suppression:** The building is protected by a hydraulically designed (0.08 GPM/SqFt for 2000 SqFt area) sprinkler system that includes a wet-pipe riser and a pre-action dry-pipe riser. Listed residual pressure for the wet pipe system is 65 PSIG at 495 GPM and the listed residual pressure for the pre-action system is 40 PSIG at 280 GPM. The listed residual pressures are questionable, as lower residual pressures would occur at higher flow rates.

## **Electrical**

**Power Distribution:** This building is fed from the 12.47KV site network distribution. The 12.47KV feeds an S&C switch, which serves a 500KVA transformer. This transformer steps the voltage down to 480Y/277V, 3Ø, 4W and enters the building. The building electric distribution consists of a Main Distribution Panel rated at 480Y/277V, 3Ø, 4W, with an 800A Main Circuit Breaker. This panel feeds various panels that serve building lighting and mechanical loads. In addition this panel serves a transformer which steps the voltage down to 208Y/120V, 3Ø, 4W, which feeds various panels, serving the building receptacles, office equipment etc.

The overall condition of the building power distribution system appears serviceable and no problems have been reported.

**Lighting:** The lighting consists of T-8 fluorescent luminaires. The foot-candle levels appear adequate for the tasks being performed. This building has occupancy sensor controls.

**Emergency Lighting:** The emergency lighting consists of newer self-contained emergency battery lighting units.

**Exit Lights:** The exit lights are energy saving L.E.D. type and appear to be serviceable.

**Fire Alarm:** The fire alarm system consists of a point addressable Simplex 4100 Fire Alarm Control panel. The initiation devices consist of Manual Pull Stations, Smoke Detectors, and Heat Detectors. The notification devices consist of Horn/Strobe units and Strobe only units.

**Clock System:** The clock system consists of a Simplex Master Clock with an impulse generator. This system is in working condition and appears serviceable.

**Telephone/Data:** The telephone system enters the building with copper. The Data is provided over fiber-optic cabling from the Campus Data Center. The Fiber is routed to a HP Procurve data switch and routed to clients via Cat 5E and Cat 6 cabling and Cisco Airo Net 1100 series wireless access points.

### **Recommendations**

Architectural recommendations are as follows:

- Repoint masonry at areas of deficient or damaged mortar
- Eliminate moisture at lecture hall slab
- Repair / reinforce flashing at the roof parapet to mitigate water migration through the wall
- Repair pedestrian plazas at areas of cracking and spalling
- Replace all damaged finishes

Mechanical recommendations are as follows:

- Update existing controls and provide campus central DDC system and tie building controls into campus network.

Electrical recommendations are as follows:

Power Distribution - It was noted that there were minor problems such as broken circuit breakers associated with some of the panels. It is recommended that the panels be inspected and any deficiencies corrected.



Exterior at south façade



Exterior at north façade



Ground Floor Lobby



Low Roof



**Building Name:** 901 Front Street

**Original Construction Date:** 1961

**Existing Programming:** General Classrooms  
Biological Sciences  
English Offices  
Early Childhood Development Offices

### **General Building Systems**

**Roof:** Single ply roofing, 1987

**Structure:** Steel frame and concrete slabs on bars joists, slab on grade with perimeter crawlspace

**Facade:** Masonry veneer with, stone panel and curtain wall system with single pane glazing

### **Hazardous Materials**

Requires Investigation

### **Renovations**

Roof replacement, 1987

### **Accessibility**

This building was erected prior to the Americans with Disabilities Act of 1990, therefore, many areas of non-compliance were observed. Refer to section 1.3 of this report for examples of non-compliance.

### **Persistent Problems**

Poor site drainage  
Classroom orientation not conducive to teaching  
Inoperable automatic entrance door hardware  
Poor and unbalanced air conditioning

### **General Finishes**

**Floors:** Carpet squares in the offices and VCT in the corridors are showing age. The ground floor corridor to the bio labs has had carpet installed recently.

**Walls:** Painted GWB partitions

**Ceilings:** Ceilings are generally suspended acoustical tile.

### **Mechanical**

**Heating:** The 901 Front Street building is provided with a hot water heating system that serves perimeter radiation and fan coil air handling units. A single, gas-fired, sectional cast iron boiler (Bryant, 504 MBH) located in the building's basement mechanical room generates heating hot water. The atmospheric boiler appears to be in good condition. Hot water is circulated to radiation via six zone pumps and to fan coil units via two circulation pumps. All circulating pumps appear to be in good condition.

**Cooling:** Summer cooling is provided via window air conditions.

**Ventilation:** Five fan coil units (Trane Torivent) provide a mixture of outdoor and re-circulated air to all occupied spaces. The percentage of outdoor air is manually adjusted to each fan coil unit. The fan coil units are original equipment and in fair condition.

**HVAC Controls:** The buildings temperature controls are the original pneumatic system. The system's air compressor is new and in excellent shape. The pneumatic system is not equipped with an air dryer.

## **Plumbing**

**Domestic Water:** Domestic hot water is generated by a, storage type, electric water heater (Ruud, 80 Gallon, 4500 Watt) located in the basement mechanical room. The heater was installed in July 1994 and appears to be in good shape. A second storage type, electric water heater exists but was inactive on the day of the site survey and appears to be rather old.

**Sanitary:** Plumbing fixtures are original and dated but appeared to be in relatively good condition and functional.

**Storm:** The building is not provided with an internal roof drain system. Rainwater is collected around the perimeter of the roof and discharged via external downspouts.

**Fire Suppression:** The building is not provided with a sprinkler or standpipe system.

## **Electrical**

**Power Distribution:** This building is fed directly from a NYSEG utility pole. The building electric distribution consists of a Main Distribution Panel rated at 208Y/120V, 3Ø, 4W, with a 400A Main Circuit Breaker. This panel feeds various panels that serve building lighting and mechanical loads, building receptacles, and office equipment etc. The power panels in this building are manufactured by Frank Adams and are dated no longer manufactured.

**Lighting:** The lamping and ballast for the existing luminaires could not be readily assessed. However it appears that the existing lighting has been retrofitted with T-8 lamps and ballast. Many of the existing luminaire acrylic lenses were cracked or damaged. The foot-candle levels appear adequate for the tasks being performed.

**Emergency Lighting:** No emergency lighting was noted. While it is possible that this is provided within the normal lighting fixtures with emergency lighting ballast, the fixtures were not indicated and there is no way to determine the foot-candle level coverage.

**Exit Lights:** The exit lights are energy saving L.E.D. type and appear to be serviceable.

**Fire Alarm:** The fire alarm system consists of a point addressable Simplex 4100 Fire Alarm Control panel. The initiation devices consist of Manual Pull Stations, Smoke Detectors, and Heat Detectors. The notification devices consist of Horn/Strobe units and Strobe only units. The notification coverage appears adequate.

**Clock System:** There is no central system, individual clocks only.

**Telephone/Data:** The telephone system enters the building with copper. The Data is provided over fiber-optic cabling from the Campus Data Center. The Fiber is routed to a HP Procurve data switch and routed to clients via Cat 5 cabling. The data main distribution frame (DMDF) is located in the building Mechanical Room 103.

## **Recommendations**

The location of the structure at the edge of campus does not lend itself to the goals of departmental consolidation and campus efficiency. In addition, the size, configuration and construction of this structure do not evoke a modern and positive image for the campus. With this being said, it is recommended that this building be removed. However, if it were to be renovated, architectural recommendations are as follows:

- Have the building audited for ADA compliance to determine areas of renovation priority
- Replace all storefront and glazing with thermally broken double pane units for better insulation
- Replace all outdated or damaged finishes
- Re-grade area around building to promote positive drainage

Mechanical recommendations are as follows:

- Replace existing aged ventilation units and equip with automated ventilation dampers and provide summer air conditioning via new central air conditioning systems.

Electrical recommendations are as follows:

Power Distribution - It is recommended that the panels and associated distribution be replaced or at a minimum, breakers should be spot tested with a circuit breaker analyzer trip module. The usable life for panel boards, as reported by manufacturer's representatives are generally accepted as 20-25 years as circuit breaker tripping characteristics degrade over time.

Emergency Lighting - It is recommended that emergency lighting be verified, tested, and supplemented as required.

Telephone/Data - It is recommended that dedicated air-conditioned or ventilated Data closet with proper wire management be provided to house the data equipment.



West façade



Corridor looking south



Lounge looking south

## Brick Curbside and Concrete

### PAVEMENTS

The College has a variety of pavements. All roads, parking areas and some walkways are asphalt. Most walks within the campus core are concrete pavement, and some pedestrian areas are brick and or concrete unit pavers.

The condition of asphalt in parking areas is good with only a few lots experiencing alligator cracking. These lots should be monitored to have cracks filled and sealed. No major potholes were noted. Parking lot striping was also in good condition.

Some asphalt pedestrian walks have cracking and should be filled and sealed or considered for replacement. These include the walks from Campus Services to the south Student Services drive, from Campus Services to Decker Health Science Center and north of the Student Center connecting to the bus shelter. Also, cracking and weeds were noted in the walk from the Library to Front Street. Another area noted for potential replacement was the west pedestrian entry outside the Applied Technology Building as this appears as an old traffic turnaround. Water ponding was noted in the pavement at the connection of the Business and Mechanical Building.

Concrete pavement in walks is generally in good condition. Some areas within the campus core however should be monitored for replacement, such as some rough and heaved paving between Wales, Titchener and the Library, where tripping hazards have been created from settling and pavement spawling.

There are three primary paver locations within the campus core. One is between the Business Building and Mechanical Building that was in good condition. The second is at the east entry to Business Building that was in fair condition and lastly at the north entry to the Library that was in poor condition and should be renovated.



*View of North College Drive depicting the pavement in good condition*



*Asphalt walk from Campus Services to Decker*



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**CURBS**

The College standard for curb was noted as granite; however, there are areas that are concrete, for example at Decker Health Service Center. Concrete stops are being used as curb around the south end of Student Center. Although they provide some protection from adjacent lawn areas and pedestrians, aesthetically they are not appealing and are awkward to walk over or around. Lastly, there is no curb on the north side of parking along North College Drive as well as along some other portions of the loop road.



*View of North College Drive depicting granite curb and concrete walk on the North side of Titchener Hall*



*View of South College Drive depicting no curb or walk along the road*



## STAIRS AND RAMPS

Once one ascends the primary elevation change from the primary student parking lot up to Mechanical Building, the campus is relatively flat in an east to west direction. Most stairs and ramps serve secondary and service building entries. Titchener, Science and Student Center buildings have staircase, ramp and handrail issues that were noted and should be corrected to prevent future stair deterioration and to address handrail compliance with ADA regulations.



*View of north entry to Titchener Hall depicting stairs and ramp*

## WALLS

There were very few walls noted on campus. The concrete and brick planter walls between Applied Technology, Business and Mechanical Buildings were in good condition. The walls located on the east side of Business Building were fair with some precast wall coping needing repair. Lastly, there was a loading dock wall located west of Student Services Building that appears non-functional and should be removed or a code compliant temporary guardrail placed on top.



*View of northwest façade of Student Services depicting unused loading dock*

## AMENITIES

Amenities on the campus include benches, shelters, signage, lighting, fences, ashers, bike racks, and trash receptacles. Most of the existing vocabulary varies in shape, color and style. It was noted that there were six different light fixtures, different trash receptacles styles and seven different bench/seating types. There is an opportunity to create a cohesive campus vocabulary through unifying the many different styles and materials of the existing site amenities. It is recommended that standards be created so the campus is tied together as new projects are proposed and constructed. The existing campus signage is an example of the successful execution of this concept in that the arrival, vehicular and pedestrian directional signage is coordinated. Also it was noted that a few buildings have recent sign upgrades.



*Various styles and colors of site vocabulary and amenities found across the campus*



## ATHLETICS

The College is part of the National Junior College Athletic Association. Intercollegiate sports include men's basketball, baseball, cross-country, golf, ice hockey, lacrosse, soccer and tennis, while women's sports include basketball, cross-country, softball, soccer, tennis and volleyball. Also there are several intramural opportunities. The athletic area of the campus includes a baseball field located to the west, and a multi-purpose grass field located to the south of the ice rink and Student Center Building as well as 6 tennis courts. The fields and accessory facilities were in good condition.

## LANDSCAPE

The landscape of the campus is relatively open as the campus was built upon farmland nearly 50 years ago. There are no street trees along the loop road and no trees within the parking areas. Most of the tree and shrub plantings exist within the campus core, but species selection, placement and pruning/deferred maintenance, and general landscape maturity has resulted in poor space definition, limited views from one space to another, increased security concerns and reduction in the aesthetic character and first impression of the campus. Many trees could be limbed up to ease walking beneath and improve views from one space to another. The lawn around many of the walkways is bare and worn from a combination of plow damage and student traffic exceeding the capacity of the current paths. The College should evaluate the overall widths of primary paths on campus and consider enlarging in some areas and creating a larger standard as new projects are constructed to alleviate yearly maintenance. Over time the College has developed very nice open space areas but deferred maintenance and foundation plantings found in particular within the Science, Wales, Mechanical and Business Building quadrangles require renovation. An existing landscape plant inventory and plant list should be developed that suggests appropriate tree species so potential maintenance costs and the overall appearance and safety of the campus is improved.



*View looking east toward Wales depicting low branching trees and worn walkway edges*



*View of Business and Wales quad limiting views from one side to the other*