

May 19, 2015

City of Watertown  
Justin Wood, P.E., City Engineer  
Room 305, City Hall  
245 Washington Street  
Watertown, NY 13601

Re: **Site Plan Review Application**  
**NYAB – Engineering Lab Addition (A&C Project #2013-028.007)**  
**748 Starbuck Avenue, Watertown, NY**

Dear Mr. Wood:

Aubertine & Currier Architects, Engineers & Land Surveyors, PLLC on behalf of New York Air Brake is requesting to be included on the agenda for the June City of Watertown Planning Board meeting for a proposed engineering lab building addition to the existing NYAB Building, located at 748 Starbuck Avenue, on Tax Parcel No. 4-09-102.000. Included with this cover letter is a review fee check for \$50.00, seventeen (16) copies of the letter, Site Plan Application, Short SEQR Environmental Assessment Form, and three (3) copies of the Engineering Report. Also attached are three (3) full size and thirteen (13) 11"x17" copies of the Site Plan, Site Details and Preliminary Building Floor Plans and Elevations.

The project consists of a proposed 6,500 sf building addition with a 3,150 sf second floor mezzanine on the northeast side of the existing building. An existing 2,600 sf steel building that is currently used to store records will also be renovated. The addition will connect the main building and the existing 2,600 sf steel storage building. Site amenities include the construction of asphalt apron and concrete apron along the eastern side of the addition. The existing building is serviced by public sewer and water, and private electric, gas, and communication utilities.

The owner intends to begin construction as soon as approvals are granted. If there are any questions, please feel free to contact our office at your earliest convenience.

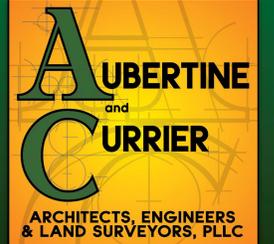
Sincerely,  
Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC



Timothy F. Titus  
Civil Designer

Attachments

Cc: Joe Dephtereos, New York Air Brake  
Brian Jones, R.A. – A&C



NYS WBE/DBE Certified  
SBA Woman Owned  
Small Business (WOSB)

[aubertinecurrier.com](http://aubertinecurrier.com)

522 Bradley Street  
Watertown, New York 13601

Phone: 315.782.2005

Fax: 315.782.1472

**Managing Partner**

Annette M. Mason, P.E.  
Structural Engineer

**Partners**

Michael L. Aubertine, R.A.  
Architect

Patrick J. Currier, R.A.  
Architect

Brian A. Jones, AIA.,  
LEED AP BD+C  
Architect

Matthew R. Morgia, P.E.  
Civil Engineer

Jayson J. Jones, P.L.S.  
Land Surveyor



1869

## CITY OF WATERTOWN SITE PLAN APPLICATION

\*\* Provide responses for all sections. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Failure to submit required information by the submittal deadline will result in **not** making the agenda for the upcoming Planning Board meeting.

### PROPERTY LOCATION

Proposed Project Name: New York Air Brake, Eng. Lab Addition  
Tax Parcel Number: 4-09-102.000  
Property Address: 748 Starbuck Avenue  
Existing Zoning Classification: Heavy Industrial

### OWNER OF PROPERTY

Name: JCIDA  
Address: 800 Starbuck Avenue  
Watertown, NY 13601  
Telephone Number: 315-782-5865  
Fax Number: 315-782-7915

### APPLICANT

Name: New York Air Brake  
Address: 748 Starbuck Avenue  
Watertown, NY 13601  
Telephone Number: 315-786-5526  
Fax Number: 315-786-5672  
Email Address: \_\_\_\_\_

### ENGINEER/ARCHITECT/SURVEYOR

Name: Aubertine and Currier, Architect, Engineers & Land Surveyors, PLLC  
Address: 522 Bradley Street  
Watertown, NY 13601  
Telephone Number: 315-782-2005  
Fax Number: 315-782-1472  
Email Address: mrm@aubertinecurrier.com

## OPTIONAL MATERIALS:

- PROVIDE AN ELECTRONIC (.DWG) COPY OF THE SITE PLAN WITH AS-BUILT REVISIONS. This will assist the City in keeping our GIS mapping up-to-date.**

## REQUIRED MATERIALS:

\*\* The following drawings with the listed information **ARE REQUIRED, NOT OPTIONAL**. If the required information is not included and/or addressed, the Site Plan Application will **not** be processed.

- COMPLETED ENVIRONMENTAL ASSESSMENT FORM** (Contact us if you need help choosing between the Short EAF and the Full EAF):  
<http://www.dec.ny.gov/permits/6191.html>

- ELECTRONIC COPY OF ENTIRE SUBMISSION** (PDF preferred)

- BOUNDARY & TOPOGRAPHIC SURVEY**  
(Depict existing features as of the date of the Site Plan Application. This Survey and Map must be performed and created by a Professional Land Surveyor licensed and currently registered to practice in the State of New York. This Survey and Map must be stamped and signed with an original seal and signature on at least one copy, the rest may be copies thereof.

- All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).

- 1' contours are shown & labeled with appropriate spot elevations.

- All existing features on and within 50 feet of the subject property are shown and labeled.

- All existing utilities on and within 50 feet of the subject property are shown and labeled.

- All existing easements and/or right-of-ways are shown and labeled.

- Existing property lines (bearings & distances), margins, acreage, zoning, existing land use, reputed owner, adjacent reputed owners & tax parcel numbers are shown and labeled.

- The north arrow & graphic scale are shown.

- DEMOLITION PLAN** (If Applicable)

- All existing features on and within 50 feet of the subject property are shown and labeled.

- All items to be removed are labeled in darker text.

## ■ SITE PLAN

- All proposed above ground features are depicted and clearly labeled.
- All proposed features are clearly labeled “proposed”.
- All proposed easements & right-of-ways are shown and labeled.
- Land use, zoning, & tax parcel number are shown.
- The Plan is adequately dimensioned including radii.
- The line work & text for all proposed features is shown darker than existing features.
- All vehicular & pedestrian traffic circulation is shown including a delivery or refuse vehicle entering and exiting the property.
- Proposed parking & loading spaces including ADA accessible spaces are shown and labeled.
- Refuse Enclosure Area (Dumpster), if applicable, is shown. Section 161-19.1 of the Zoning Ordinance states, “No refuse vehicle or refuse container shall be parked or placed within 15 feet of a party line without the written consent of the adjoining owner, if the owner occupies any part of the adjoining property”.
- The north arrow & graphic scale are shown.

## ■ GRADING PLAN

- All proposed below ground features including elevations & inverts are shown and labeled.
- All proposed above ground features are shown and labeled.
- The line work & text for all proposed features is shown darker than existing features.
- All proposed easements & right-of-ways are shown and labeled.
- 1’ existing contours are shown dashed & labeled with appropriate spot elevations.
- 1’ proposed contours are shown & labeled with appropriate spot elevations.
- All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).

- Sediment & Erosion control are shown & labeled on the grading plan unless separate drawings have been provided as part of a Stormwater Pollution Prevention Plan (SWPPP).

#### ■ UTILITY PLAN

- All proposed above & below ground features are shown and labeled.
- All existing above & below ground utilities including sanitary, storm water, water, electric, gas, telephone, cable, fiber optic, etc. are shown and labeled.
- All proposed easements & right-of-ways are shown and labeled.
- The Plan is adequately dimensioned including radii.
- The line work & text for all proposed features is shown darker than existing features.
- The following note has been added to the drawings stating, “All water main and service work must be coordinated with the City of Watertown Water Department. The Water Department requirements supersede all other plans and specifications provided.”

#### □ LANDSCAPING PLAN

- All proposed above ground features are shown and labeled.
- All proposed trees, shrubs, and other plantings are shown and labeled.
- All proposed landscaping & text are shown darker than existing features.
- All proposed landscaping is clearly depicted, labeled and keyed to a plant schedule that includes the scientific name, common name, size, quantity, etc.
- For additional landscaping requirements where nonresidential districts and land uses abut land in any residential district, please refer to Section 310-59, Landscaping of the City’s Zoning Ordinance.
- **Site Plan complies with and meets acceptable guidelines set forth in Appendix A - Landscaping and Buffer Zone Guidelines (August 7, 2007).**

#### ■ PHOTOMETRIC PLAN (If Applicable)

- All proposed above ground features are shown.
- Photometric spot elevations or labeled photometric contours of the property are clearly depicted. Light spillage across all property lines shall not exceed 0.5 foot-candles.

## ■ CONSTRUCTION DETAILS & NOTES

- All details and notes necessary to adequately complete the project including, but not limited to, landscaping, curbing, catch basins, manholes, water line, pavement, sidewalks, trench, lighting, trash enclosure, etc. are provided.
- Maintenance & protection and traffic plans & notes for all required work within City streets including driveways, water laterals, sanitary laterals, storm connections, etc. are provided.
- The following note must be added to the drawings stating:  
“All work to be performed within the City of Watertown margin will require sign-off from a Professional Engineer, licensed and currently registered to practice in the State of New York, that the work was built according to the approved site plan and applicable City of Watertown standards. Compaction testing will be required for all work to be performed within the City of Watertown margin and must be submitted to the City of Watertown Codes Department.”

## ■ PRELIMINARY ARCHITECTURAL PLANS (If Applicable)

- Floor plan drawings, including finished floor elevations, for all buildings to be constructed are provided.
- Exterior elevations including exterior materials and colors for all buildings to be constructed are provided.
- Roof outline depicting shape, slope and direction is provided.

## ■ ENGINEERING REPORT

**\*\* The engineering report at a minimum includes the following:**

- Project location
- Project description
- Existing & proposed sanitary sewer flows & summary
- Water flows & pressure
- Storm Water Pre & Post Construction calculations & summary
- Traffic impacts
- Lighting summary
- Landscaping summary

**■ GENERAL INFORMATION**

ALL ITEMS ARE STAMPED & SIGNED WITH AN ORIGINAL SIGNATURE BY A PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR SURVEYOR LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK.

If required, a copy of the Stormwater Pollution Prevention Plan (SWPPP) submitted to the NYSDEC will also be sent to the City of Watertown Engineering Department.

\*\* If required, a copy of all submittals sent to the New York State Department of Environmental Conservation (NYSDEC) for the sanitary sewer extension permit will also be sent to the City of Watertown Engineering Department.

\*\* If required, a copy of all submittals sent to the New York State Department of Health (NYSDOH) will also be sent to the City of Watertown Engineering Department.

\*\* When NYSDEC or NYSDOH permitting is required, the property owner/applicant shall retain a licensed Professional Engineer to perform inspections of the proposed utility work and to certify the completed works were constructed in substantial conformance with the approved plans and specifications.

Signage will not be approved as part of this submission. It requires a sign permit from the Codes Department. See Section 310-52.2 of the Zoning Ordinance.

Plans have been collated and properly folded.

If an applicant proposes a site plan with multiple buildings and any of those buildings front on a private drive, the City Council will name the private drive by resolution and the building(s) will be given an address number on that private drive by City staff. The applicant may propose a name for the private drive for the City Council's consideration.

Proposed Street Name: \_\_\_\_\_

Explanation for any item not checked in the Site Plan Checklist.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Short Environmental Assessment Form

## Part 1 - Project Information

### Instructions for Completing

**Part 1 - Project Information.** The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

<b>Part 1 - Project and Sponsor Information</b>			
Project: Engineering Lab Addition      Sponsor: New York Air Brake			
Name of Action or Project: NYAB Engineering Lab Addition			
Project Location (describe, and attach a location map): Northeast corner of Tax Parcel No.4-09-102.00			
Brief Description of Proposed Action: The project consists of 6,500 sf building addition with a 3,150 sf second floor mezzanine on the north east side of the existing building. An existing 2,600 sf steel building that is currently used to store records will also be renovated. The addition will connect the main building and the existing 2,600 sf steel building. A concrete slab and canopy will be located along the southeast and northeast side of the addition. Site utility construction will include the relocation of a water main and storm sewer. A gravity sewer main and lateral will be constructed along the north property line			
Name of Applicant or Sponsor: New York Air Brake, Attn: Joe Dephteroes		Telephone: 315-786-5526 E-Mail: joe.dephtheroes@nyab.com	
Address: 748 Starbuck Avenue			
City/PO: Watertown		State: NY	Zip Code: 13601
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.		NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:		NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/>
3.a. Total acreage of the site of the proposed action?		_____ 22.69 acres	
b. Total acreage to be physically disturbed?		_____ 0.64 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		_____ 22.69 acres	
4. Check all land uses that occur on, adjoining and near the proposed action. <input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban) <input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Parkland			



<p>18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)?          If Yes, explain purpose and size: _____          _____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p>19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?          If Yes, describe: _____          _____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p>20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?          If Yes, describe: _____          Land north of the project site was remediation site for NY Air Brake Company and SMI/Caelter Industries and part of the State Superfund Programs as per DEC Environmental Navigator</p>	<p>NO</p> <p><input type="checkbox"/></p>	<p>YES</p> <p><input checked="" type="checkbox"/></p>
<p><b>I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</b></p> <p>Applicant/sponsor name: <u>Joseph Deplhtereos</u> Date: <u>5-14-15</u></p> <p>Signature: <u></u></p>		



**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	No
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	Yes



# Jefferson County Map Viewer

## New York Air Brake Addition



Legend



Hamlets



Interstate



Federal



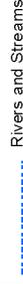
State



County



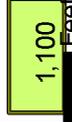
Local



Rivers and Streams



Lakes and Ponds



Fort Drum



County Boundaries



Parcels 2014

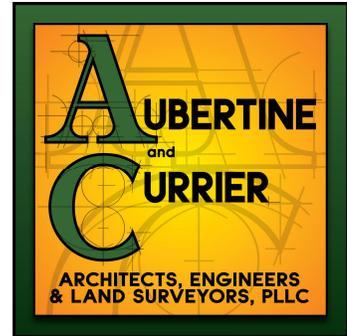


Municipalities

This map was created using the Jefferson County Map Viewer application. It should be used for reference purposes only. Reasonable efforts have been made to ensure the accuracy of this map and the quality of the GIS data. Jefferson County disclaims any responsibilities or liabilities from the use of this map for any other purpose other than its intended use.

# ENGINEERING REPORT

**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION  
748 STARBUCK AVENUE  
CITY OF WATERTOWN  
JEFFERSON COUNTY, NEW YORK**



**Owner: New York Air Brake LLC  
748 Starbuck Avenue  
Watertown, NY 13601**

**May 19, 2015**

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**Matthew R. Morgia, P.E.  
Civil Engineer**

The above Engineer states that to the best of his knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of New York State. It is a violation of New York State Law for any person, unless acting under the direction of a licensed professional engineer to alter this document in any way. If altered, such licensee shall affix his or her seal and the notation "altered by" followed by his or her signature, date, and a specific description of alteration.

**Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC**  
522 Bradley Street Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

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## **Appendices**

Appendix 1: Location Map  
City of Watertown Zoning Map  
City of Watertown GIS Floodplain & Wetlands Map  
Soils Map  
Soils Description

Appendix 2: Sanitary Sewer Design Calculations

Appendix 3: Parking Calculations

## **1.0 SITE AND PROJECT DESCRIPTIONS**

### **1.1 Location**

The project is located within the City of Watertown at 748 Starbuck Avenue. The site currently has an existing building that is approximately 240,000 sf main building and two (2) storage buildings on the property. The building is operated by New York Air Brake and employs 548 employees for the manufacturing and testing of train control systems. The project site is located in the northern corner of the NYAB property adjacent to the main building and in the area of an existing storage building. The property is located on Tax Map Parcel No. 4-09-102.000. This parcel is zoned HI – Heavy Industrial.

### **1.2 Project Description**

The project consists of 6,500 sf building addition with a 3,150 sf second floor mezzanine on the northeast side of the existing building. An existing 2,600 sf steel storage building that is currently used to store records will also be renovated. The addition will connect the main building and the existing 2,600 sf steel building. The building addition and existing building renovation will be used for additional engineering and testing laboratory space.

### **1.3 Site Topography**

The location of the proposed addition is relatively flat, pre-developed asphalt and concrete area on this portion of the property.

Site runoff is primarily sheet flow to existing on-site drainage structures. The closed storm drainage piping flows northwest thru the Watertown Industrial Center property. Stormwater flows to an offsite holding pond where treatment occurs prior to being discharged in accordance with their SPDES Permit.

This property is part of a remediation site for NY Air Brake Company and SMI/Caelter Industries and part of the State Superfund Programs as per DEC Environmental Navigator

The developed area of the project is not located within a 100 year flood plain.

### **1.4 Soil Classification**

The project site is located in the City of Watertown, which is an urban environment and consists primarily of previously developed area. According to the USDA Web Soil Survey for Jefferson County, New York, the project area is classified as a silt loam and is a Hydrologic Group C/D.

Soil Symbol  
Ur

Soil Name  
Urban Land

Hydrologic Group  
C/D

## **2.0 WATER FACILITIES**

### **2.1 Existing Water Facilities**

There is a 12" municipal water main along Pearl Street and a 10" municipal water main along Starbuck Avenue. An existing 10" privately owner combined domestic water/fire service is located on-site and loops between the municipal water mains located on Pearl Street and Starbuck Avenue. The existing building is served by four (4) service risers from the 10" privately owned on-site water main.

### **2.2 Proposed Water Facilities**

No new additional water service is proposed for this project. Water service to the building addition will be plumbed with the existing building. A 195 LF portion of the existing 10" water main will be relocated along the northeast side of the addition. Relocation will include the installation of a fire hydrant. The section of existing pipe will be removed to accommodate foundation construction.

### **2.3 Water Demand**

The average total water usage by the manufacturing building is approximately 16,704 gpd, per New York Air Brake records. Domestic water usage accounts for approximately 40% of the total water usage for the manufacturing facility, with the remaining 60% of water usage consisting of process water. NYAB currently employs 548 persons. The addition will house 30 staff, with 10 being new employees, and 20 relocated from other locations within the building. The 10 additional employees are projected to increase the water usage by approximately 300 gpd.

A fire flow test will be completed during the design of the addition's sprinkler system.

## **3.0 SANITARY SEWER FACILITIES**

### **3.1 Existing Sanitary Sewer Facilities**

The existing 2,600 sf storage building has a gravity sewer lateral exiting the northwest side of the building. Further investigation of existing sewer lateral pipe route was completed. The sewer lateral was determined to be interconnected to the storm pipe passing north under the Watertown Industrial Center building. Existing sewer piping within the storage building was found to have been plugged with concrete.

The nearest gravity sanitary sewer main feasible for sanitary sewer connection is located on the adjacent property near the corner of Building "A" of the Watertown Industrial Center. The 10" gravity sanitary sewer main is connected to a municipal gravity sewer main located along Starbuck Avenue.

Process waste water within the facility is pumped to the south side of the facility for treatment and discharge in accordance with the facilities Industrial SPDES permit.

### **3.2 Proposed Sanitary Sewer Facilities**

Discussions have begun with the WIC regarding the construction of a sewer main along the northern property line shared by NYAB & WIC. A preliminary route has been determined and further survey is underway to enable final design.

Approximately 705' of 8" PVC sanitary sewer main, four (4) manholes and 88' of 6" PVC sanitary sewer lateral will be constructed to serve the proposed addition and renovated building. The proposed sewer main will connect to the existing 10" sewer main that is connected to the municipal gravity sewer main along Starbuck Avenue at the existing manhole located near the southern corner of Building "A" of the Watertown Industrial Center. A cleanout will be located at the service lateral approximately 5' outside the renovated building.

### **3.3 Sewer Flows**

The projected design flows generated by this testing laboratory addition with approximately 30 employees is 914 gpd. This equates to approximately 30 gpd per employee for both domestic and process water usage. Based on the NYAB water usage records, approximately 40% of the per employee usage is domestic and 60% process water. Therefore, domestic wastewater flows out the north lateral are projected to be approximately 366 gpd.

## **4.0 STORMWATER FACILITIES**

### **4.1 Existing Drainage**

This existing property includes a 240,000 sf main building, two (2) storage buildings, asphalt parking lot and asphalt driveway for deliveries and pick-ups. The project site for the building addition is located in the eastern portion of the property, where grades slope away from the building. Stormwater runoff from impervious surfaces are collected by on-site drainage structures located throughout the New York Air Brake property. This existing storm sewer flows offsite thru the W.I.C. property to a holding pond located north of the site along Plaza Drive.

### **4.2 Proposed Drainage**

Site improvements are very minimal in nature. Minimal grading is required around the proposed addition. Site runoff from the proposed addition and associated site improvements will continue to drain to catch basins collected by the closed storm sewer. This existing storm sewer flows offsite thru the WIC property to a holding pond located north of the site along Plaza Drive. No additional impervious area will be constructed as part of this proposed addition and renovation therefore, stormwater runoff flow rates will not experience any increase. All proposed impervious surfaces (building, asphalt, concrete sidewalk) will be redeveloped impervious areas including existing asphalt, concrete, and crushed stone.

## **5.0 ROADS / DRIVEWAYS**

### **5.1 Existing Roads / Driveways**

The project site is accessed from the Pearl Street entrance drive or the main entrance driveway from Starbuck Avenue. The main entrance driveway is mainly for visitors and employee parking. An internal asphalt driveway connects the northwest employee parking area and runs along the northeast side of the project site and connects to the Pearl Street entrance drive.

### **5.2 Proposed Roads / Driveways**

No new driveways to city streets or internal site drives are proposed for this project. Site access to the building addition is provided by the existing internal asphalt driveway and existing concrete area adjacent to the proposed addition.

### **5.3 Traffic and Parking**

Trip generation calculations were not performed for this project. New York Air Brake currently employs 548 employees that are working three shifts daily. Employee parking lots are located along the northwest side of the main building off of the main entrance drive off Starbuck Avenue and parking lot located along the southeast side of Pearl Street

An additional 10 employees will be added following the completion of this project. This will result in a minimal increase of traffic.

Per the City of Watertown Zoning Laws (Section 310-48), one (1) parking space is required for every 1,500 SF of floor area for Heavy Industry uses. The existing New York Air Brake facility has approximately 240,000 SF of floor space and the proposed addition and renovation has an additional 12,250 SF of floor space. Therefore, the total floor space area of the project site is 252,250 SF, equating to 168 required parking spaces. The existing site has 543 parking spaces located within the northwesterly employee parking area, visitors parking area, and southeasterly employee parking area which greatly exceeds the required 168 parking spaces.

## **6.0 PRIVATE UTILITIES**

### **6.1 Gas, Electric, Telephone and Cable**

There are existing electric, gas, cable, and telephone services to the existing building. Any new or extensions to these services will be completed within the building.

## **7.0 LIGHTING**

### **7.1 Existing Site Lighting**

The existing site lighting is provided by building mounted light fixtures along the northeast side of the existing main building.

### **7.2 Proposed Site Lighting**

Two existing building mounted wall pack fixtures located on the northeast side of the existing main building will be removed to accommodate the building addition. Additional building mounted LED wall pack cutoff light fixtures will be installed on the northeast side of the addition and the renovated building.

## **8.0 LANDSCAPING**

### **8.1 Existing Landscaping**

The project site is an industrial site that consists of concrete and asphalt hard surfaces and includes no landscaping.

### **8.2 Proposed Landscaping**

No new landscaping is proposed for this project site.

**Sincerely,**  
***Aubertine and Currier Architects, Engineers & Land Surveyors, P.L.L.C.***

**Matthew R. Morgia, P.E.**  
**Civil Engineer**

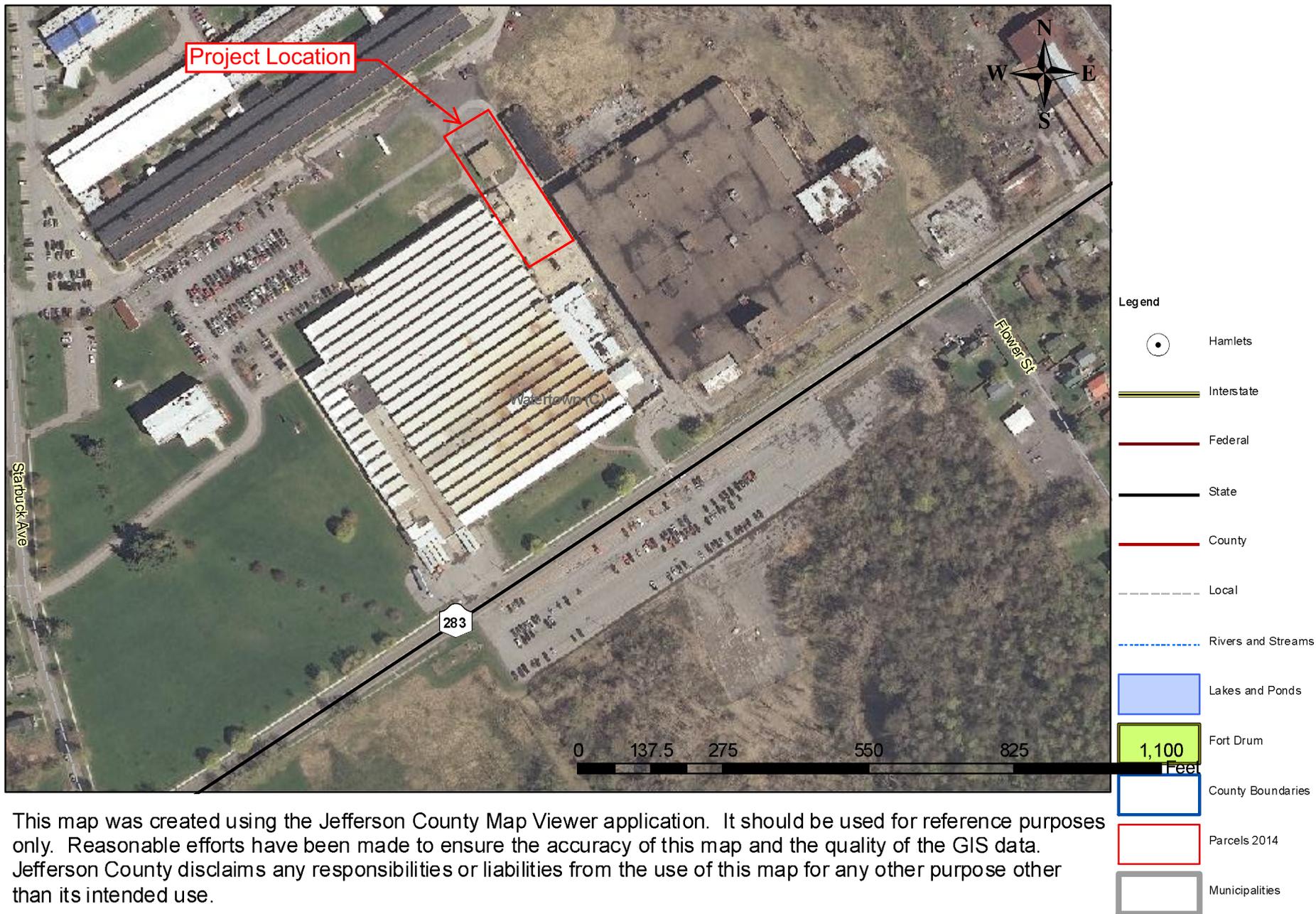
**APPENDIX #1**

**LOCATION MAP  
CITY OF WATERTOWN ZONING MAP  
CITY OF WATERTOWN GIS FLOODPLAIN & WETLANDS MAP  
SOILS MAP  
SOILS DESCRIPTION**

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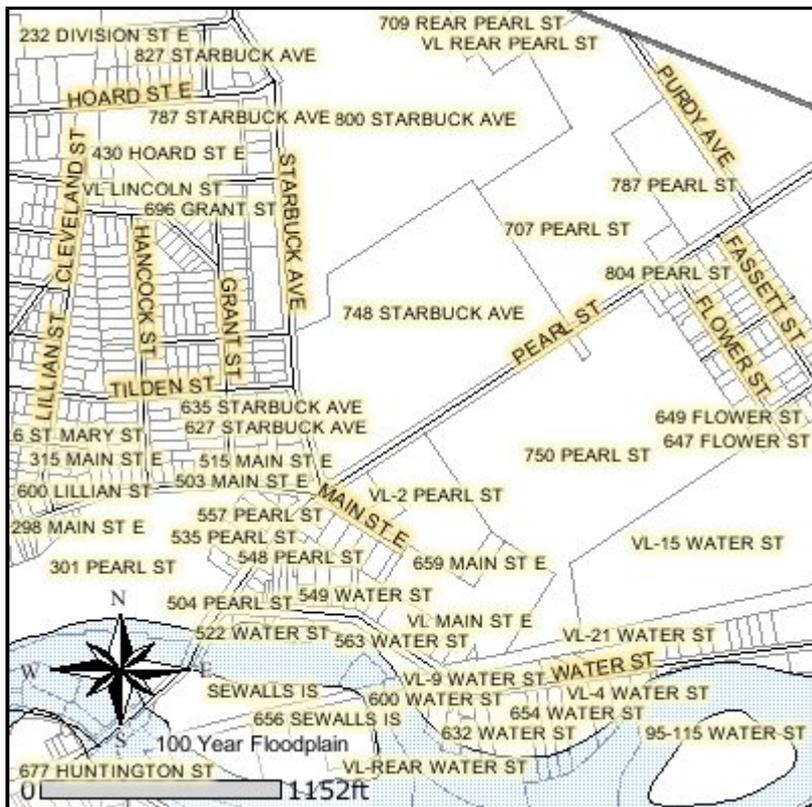


# New York Air Brake Addition



This map was created using the Jefferson County Map Viewer application. It should be used for reference purposes only. Reasonable efforts have been made to ensure the accuracy of this map and the quality of the GIS data. Jefferson County disclaims any responsibilities or liabilities from the use of this map for any other purpose other than its intended use.

# NYAB Addition



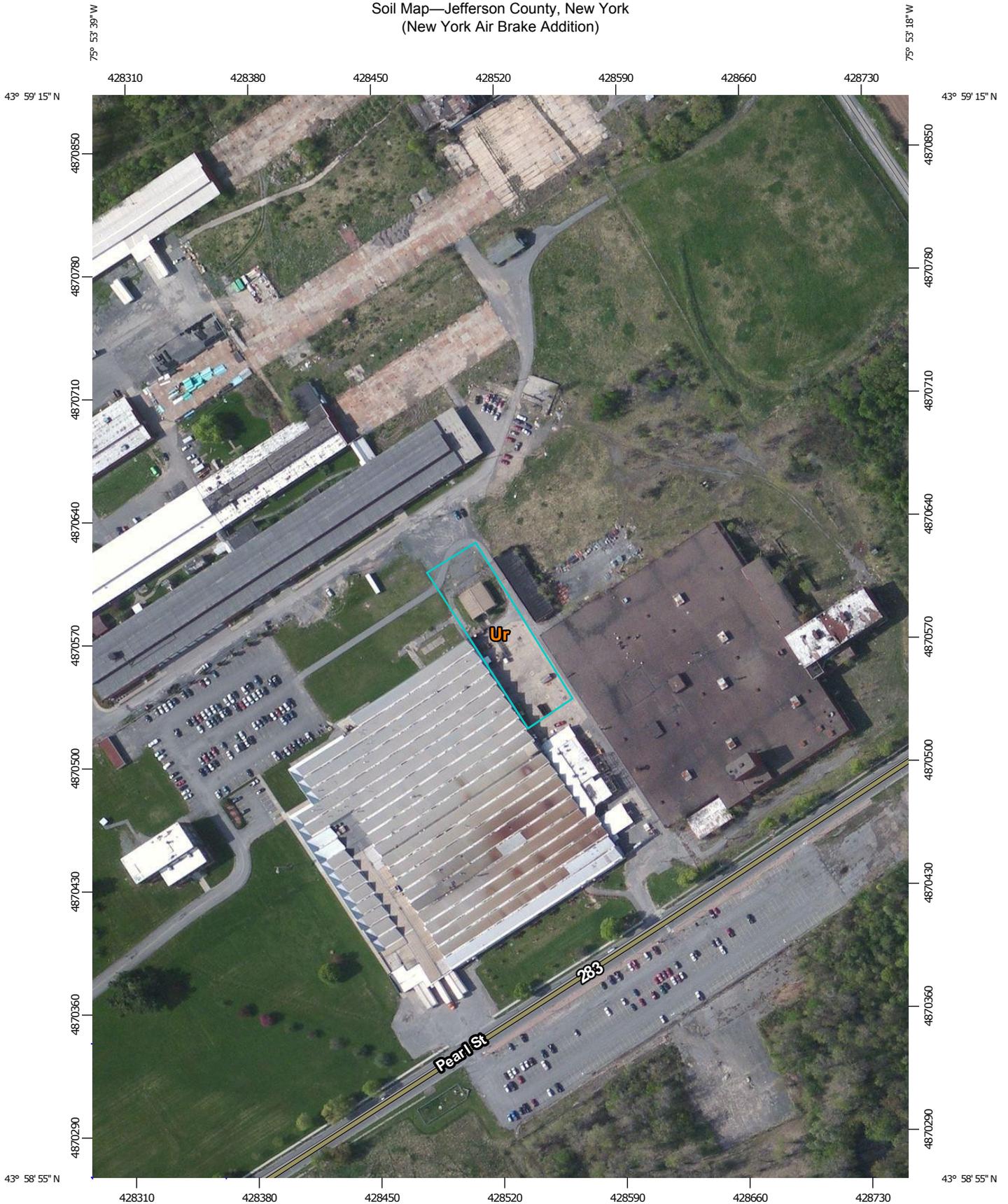
### Legend

-  Roads
-  Wetlands
- Floodplains**
  -  100 Year Floodplain
  -  500 Year Floodplain
-  Tax Parcels
-  City Boundary

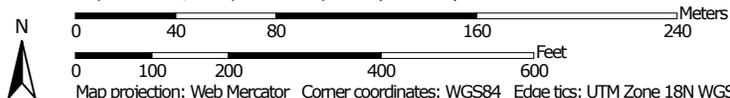
May 18, 2015

**Disclaimer:** This map was prepared by the City of Watertown Internet Mapping Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.

Soil Map—Jefferson County, New York  
(New York Air Brake Addition)



Map Scale: 1:3,000 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

5/18/2015  
Page 1 of 3

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, New York  
Survey Area Data: Version 11, Sep 15, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2011—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Jefferson County, New York (NY045)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	0.8	100.0%
<b>Totals for Area of Interest</b>		<b>0.8</b>	<b>100.0%</b>

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**APPENDIX #2**

**SANITARY SEWER DESIGN CALCULATIONS**

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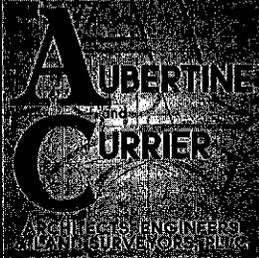


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**APPENDIX #3**

**PARKING CALCULATIONS**

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522 BRADLEY STREET  
WATERTOWN, NY 13601  
TEL: (315) 782-2005  
FAX: (315) 782-1472  
www.AubertineCurrier.com

CALCULATION SHEET

Project Number: 2013-028.007 Date: 5/18/2015  
Project Name: NUAB - LAB ADDITION Page: Of:  
Location: Calc'd By: TET

PARKING CALCULATIONS

PER CITY OF WATERTOWN ZONING, SEC. 310-48

200 SF (1SPACE) PER 1,500 SF OF FLOOR SPACE  
FOR HEAVY INDUSTRY

EXISTING	240,000 SF	BUILDING
	<u>12,250 SF</u>	ADDITION AND RENOVATION PROJECT
	252,250 SF	TOTAL

$252,250 \text{ SF} / 1,500 \text{ SF} = 168.2 \text{ PARKING SPACES REQ'D}$

PARKING SPACES PROVIDED

NORTH WESTERLY EMPLOYEE PARKING AREA	211
VISITOR'S PARKING AREA	28
SOUTHEASTERLY EMPLOYEE PARKING AREA	<u>304</u>
	543

$\therefore 543 > 168.2$

[Amended 3-25-1963; 1-23-1967; 1-6-1997]

**Use**

**Number of Parking Spaces**

Retail and wholesale business; office building; banks; medical and dental clinics; restaurants, bars and taverns

5 spaces for each 1,000 square feet of floor area

Bowling alleys

3 spaces for each alley

Skating rinks

2 spaces for each 1,000 square feet designed for skating or fraction thereof

Funeral homes

10 spaces for each 1,000 square feet of assembly room

Hospitals

1 space for each 2 beds, plus 5 spaces for each 1,000 square feet of floor space dedicated to other principal or accessory uses

Nursing homes

1 space for each 3 beds

Hotels, lodging houses, motels and places offering overnight accommodations

1 space for each room or suite unit for rent, plus an additional 10% of parking spaces or fraction thereof.

- B. Restaurants, bars and taverns, when operated as an integral part of a hotel, motel, lodging house and place offering overnight accommodations, shall be exempt from any additional parking requirements other than those required for the primary use for the hotel, motel, lodging house and place offering overnight accommodations.

[Amended 1-23-1967]

**§ 310-48 Parking for industrial uses.**

For every industrial use, vehicle storage or off-street parking facilities shall be provided on the same land therewith or land adjacent thereto which is in the same zoning classification on the basis of 200 square feet for each 1,500 square feet of floor space or fraction thereof employed in the use or activity for heavy industry and 200 square feet for each 1,000 square feet or fraction thereof employed for use of light industry.

**§ 310-49 Loading space requirements.**

[Amended 2-16-1959; 10-22-1962]

- A. In order to avoid undue interference with the public use of streets and alleys, adequate loading space shall be provided in connection with and on the same land as any manufacturing, storage warehouse, goods display, department store, market, hotel, hospital, laundry, dry cleaning, funeral home, dairy or other use involving the receipt or distribution of goods or merchandise by vehicles in accordance with the following schedule:

**Gross Floor Area of Such Use, Including Basements (square feet)**

**Loading Spaces Required**

Under 15,000

1

15,000 to 29,999

2

30,000 to 49,999

3

50,000 and up

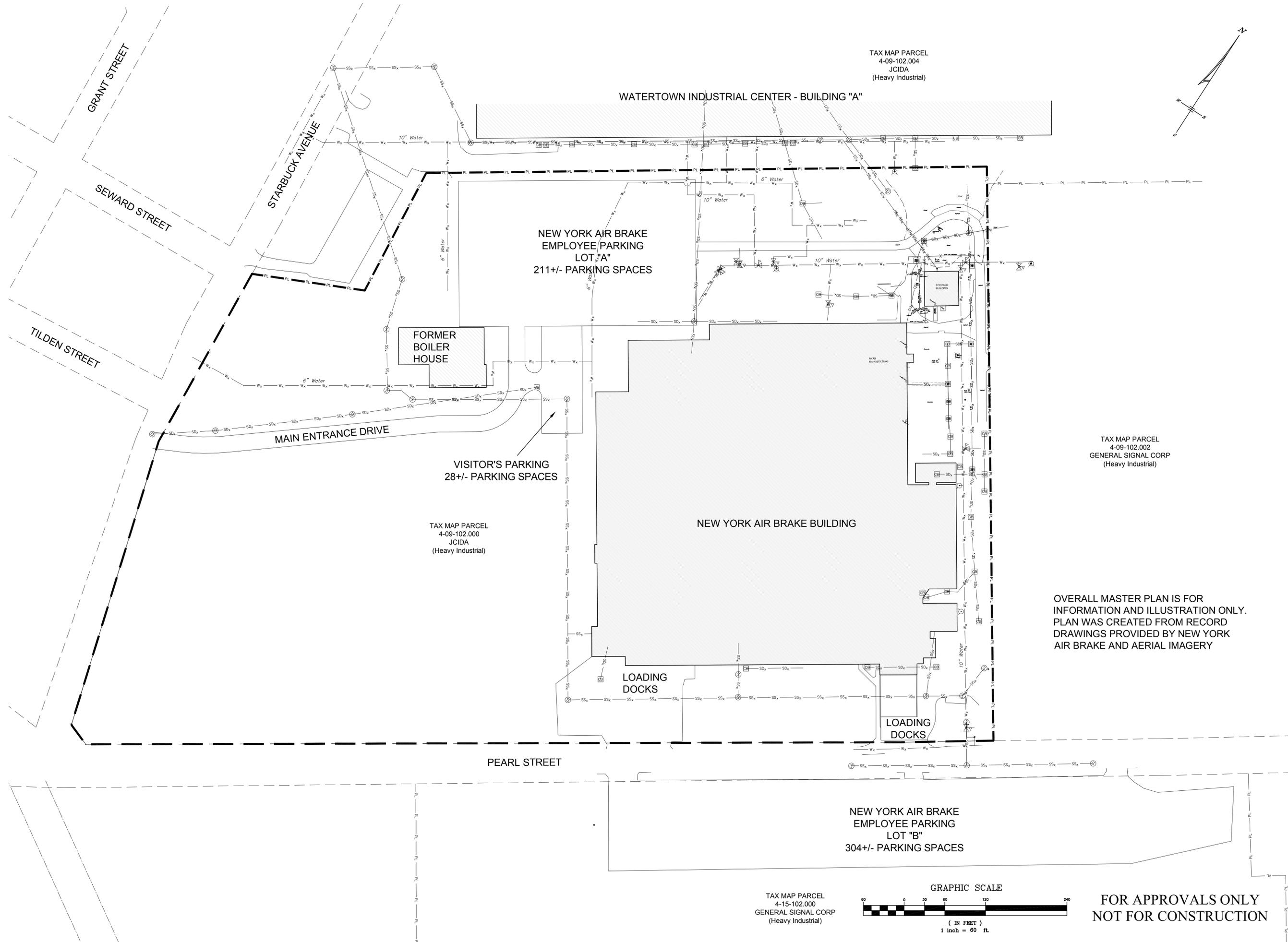
1 additional for each additional 25,000 square feet or fraction thereof

- B. Each space required under this section shall not be less than 10 feet by 30 feet with a vertical clearance of not less than 14 feet.
- C. Where adequate space is provided along a public street or alley and specifically designated for loading or unloading of vehicles, such space shall be deemed to fulfill the requirements of this section for any use with a gross floor area of less than 30,000 square feet. Where the gross floor area of any use exceeds 30,000 square feet, the schedule above shall apply.

**§ 310-50 Computation of floor area for parking and loading space requirements.**

[Amended 1-25-1965; 1-23-1967]





522 Bradley Street  
Watertown, New York 13601

[aubertinecurrier.com](http://aubertinecurrier.com)

Phone: (315)782-2005  
Fax: (315)782-1472

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**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION**  
748 STARBUCK AVENUE  
CITY OF WATERTOWN  
JEFFERSON COUNTY, STATE OF NEW YORK

PROJECT NO:	2015-028.007
SCALE:	AS NOTED
DRAWN BY:	TFT
CHECKED BY:	MRM
ISSUE DATES:	05/13/2015

OVERALL MASTER PLAN

**CS001**

TAX MAP PARCEL  
4-09-102.004  
JCIDA  
(Heavy Industrial)

WATERTOWN INDUSTRIAL CENTER - BUILDING "A"

NEW YORK AIR BRAKE  
EMPLOYEE PARKING  
LOT "A"  
211+/- PARKING SPACES

FORMER  
BOILER  
HOUSE

VISITOR'S PARKING  
28+/- PARKING SPACES

TAX MAP PARCEL  
4-09-102.000  
JCIDA  
(Heavy Industrial)

NEW YORK AIR BRAKE BUILDING

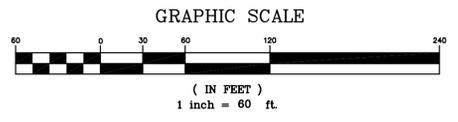
LOADING  
DOCKS

LOADING  
DOCKS

PEARL STREET

NEW YORK AIR BRAKE  
EMPLOYEE PARKING  
LOT "B"  
304+/- PARKING SPACES

TAX MAP PARCEL  
4-15-102.000  
GENERAL SIGNAL CORP  
(Heavy Industrial)



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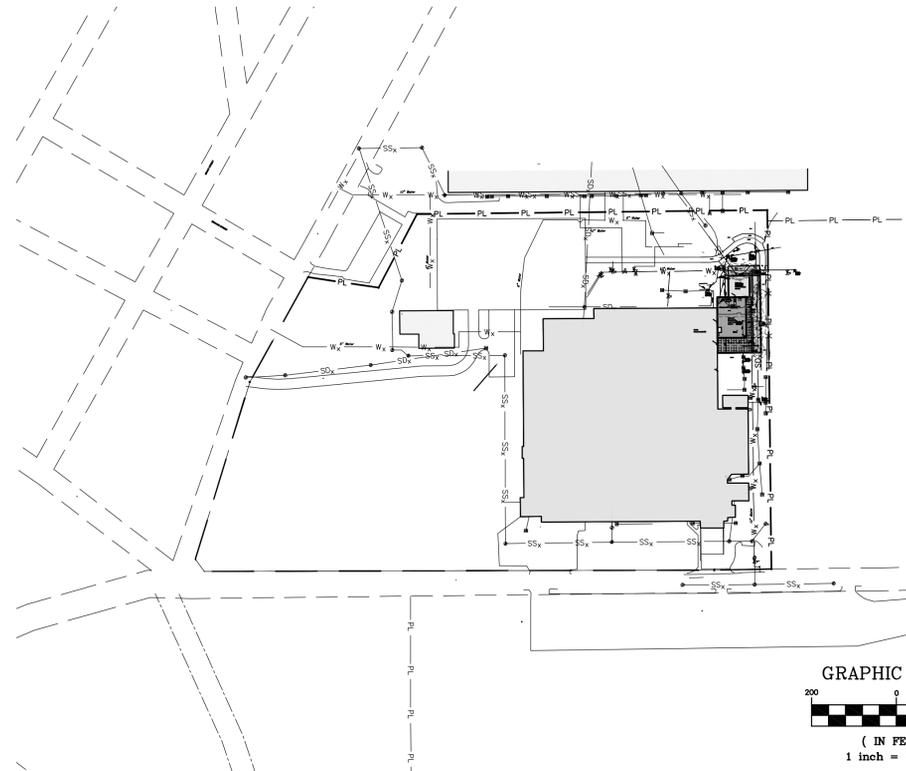
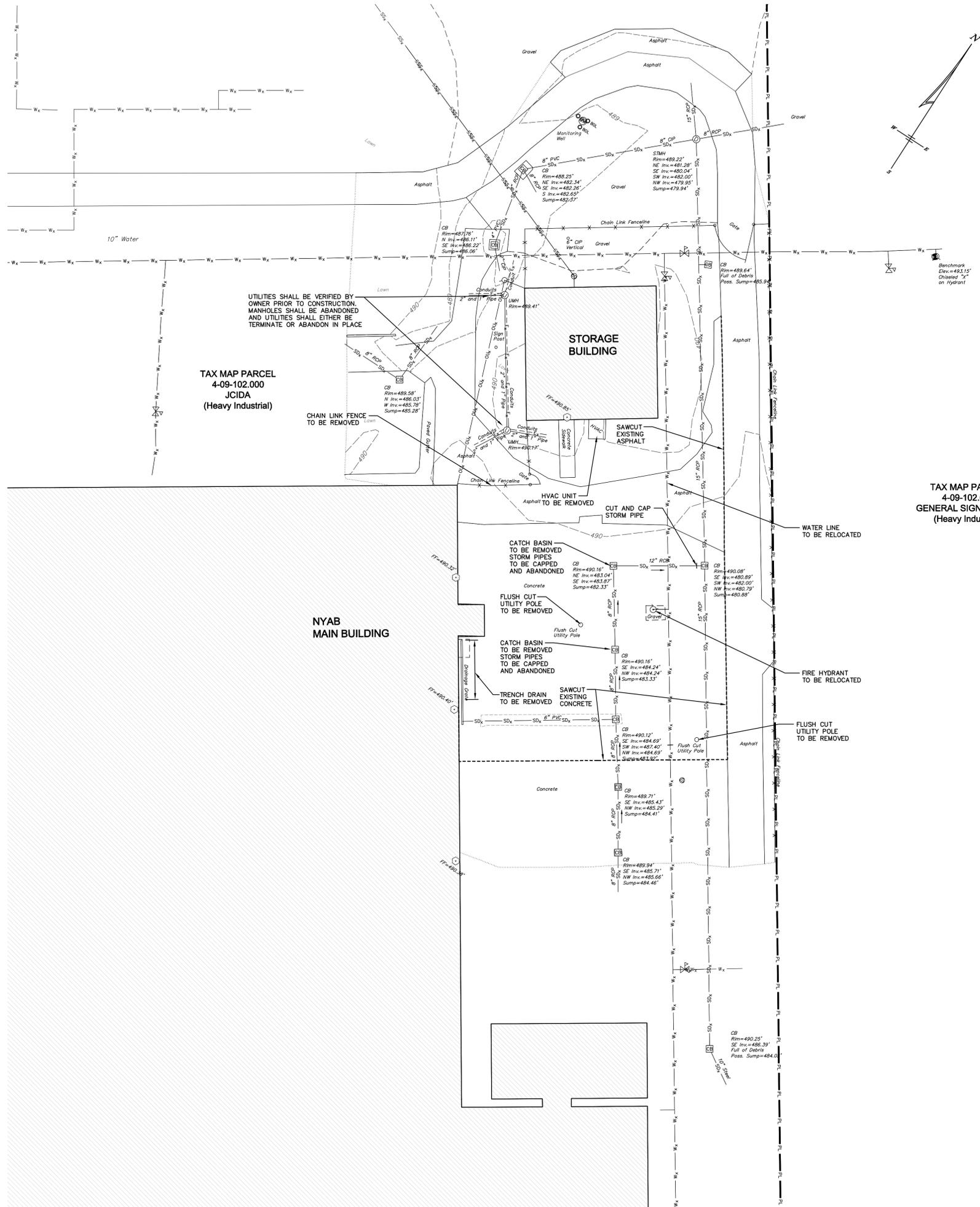


**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION**  
748 STARBUCK AVENUE  
CITY OF WATERTOWN  
JEFFERSON COUNTY, STATE OF NEW YORK

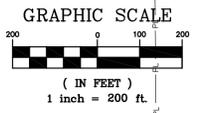
PROJECT NO: 2015-028.007  
SCALE: AS NOTED  
DRAWN BY: TFT  
CHECKED BY: MRM  
ISSUE DATES:  
05/19/2015

EXISTING CONDITION AND  
DEMOLITION PLAN

**CD100**

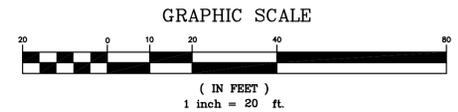


TAX MAP PARCEL  
4-09-102.002  
GENERAL SIGNAL CORP  
(Heavy Industrial)



LEGEND	EXISTING	PROPOSED
5' CONTOUR	---	---
1' CONTOUR	---	---
PROPERTY LINE	---	---
RIGHT OF WAY	---	---
SETBACK	---	---
BUILDING	---	---
ASPHALT PAVEMENT	---	---
EDGE OF GRAVEL	---	---
CURB	---	---
SIDEWALK	---	---
TREE LINE	---	---
FENCE	---	---
WATERLINE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
UNDERGROUND UTILITIES	---	---
UNDERGROUND ELECTRIC	---	---
GAS	---	---
COMMUNICATION	---	---
SANITARY MANHOLE	---	---
STORM MANHOLE	---	---
CATCH BASIN	---	---
COMMUNICATION MANHOLE	---	---
COMMUNICATION JUNCTION BOX	---	---
TRACER WIRE	---	---
FIRE HYDRANT	---	---
WATER VALVE	---	---
CURB STOP	---	---
UTILITY POLE	---	---
LIGHT POLE	---	---
BUILDING LIGHT	---	---

SITE LIGHTING SCHEDULE			
SYMBOL	FIXTURE	MOUNTING HEIGHT	QUANTITY
MH-1	WP4LEDK8 BY STONCO LIGHTING	12' MOUNTING HEIGHT	3



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The above Architect, Engineer or Land Surveyor states that to the best of his or her knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of New York State. It is a violation of New York State Law for any person, unless acting under the direct supervision of a Registered Architect, Licensed Professional Engineer or Licensed Land Surveyor to alter this document in any way. If altered, such licensee shall affix his or her seal and the notation "altered by" followed by his or signature, date and a specific description of the alteration.  
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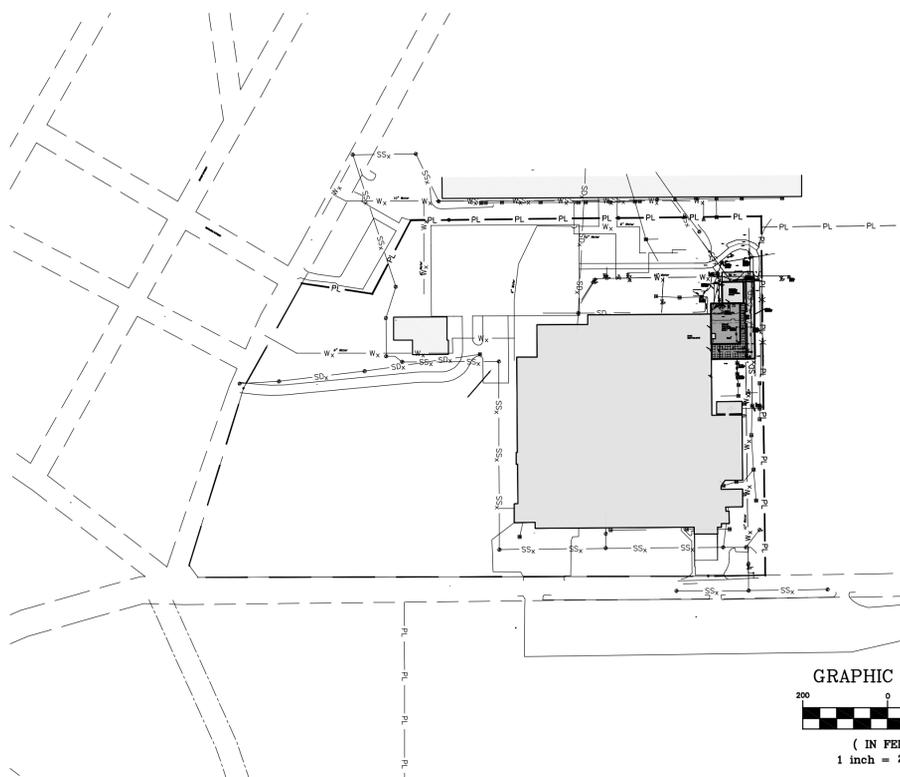


**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION**  
748 STARBUCK AVENUE  
CITY OF WATERTOWN  
JEFFERSON COUNTY, STATE OF NEW YORK

PROJECT NO.: 2015-028.007  
SCALE: AS NOTED  
DRAWN BY: TFT  
CHECKED BY: MRM  
ISSUE DATES:  
05/19/2015

SITE AND PHOTOMETRIC PLAN

**CS100**

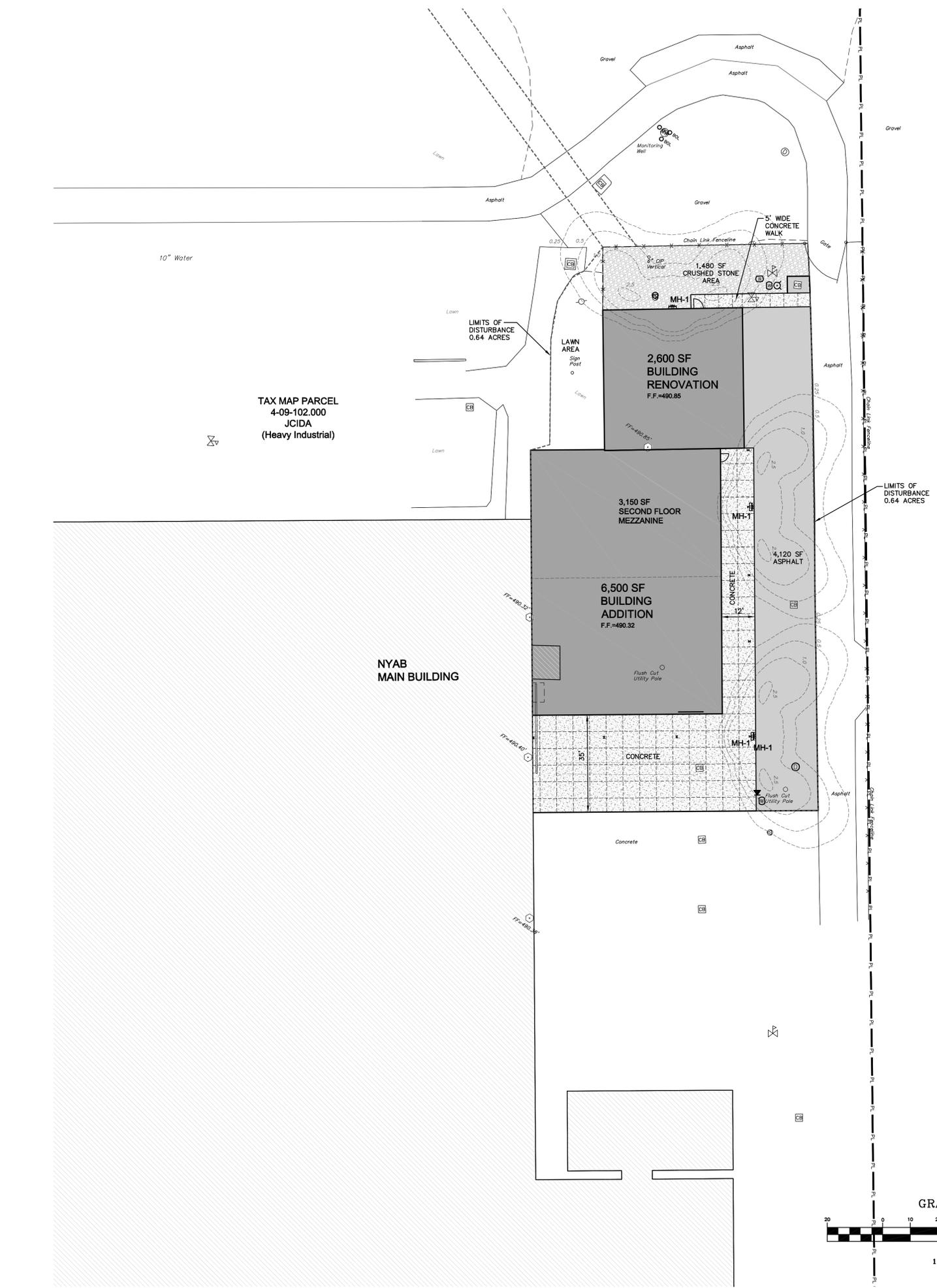
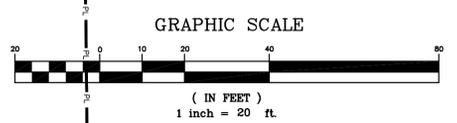


**GENERAL NOTES:**

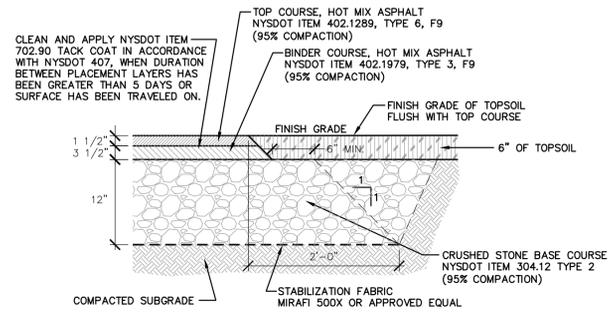
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES. (1-800-962-7963). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- THE ON-SITE TOPOGRAPHIC, UTILITY, AND PLANIMETRIC SURVEY FOR THE PROJECT AREA WAS CONDUCTED BY AUBERTINE AND CURRIER, PLLC ON 4/27 AND 5/1/2015. UTILITY LOCATIONS WERE PLOTTED RECORD DRAWINGS OF MULTIPLE PROJECTS THAT ARE ON FILE IN THE CITY ENGINEERING DEPARTMENT AND PROVIDED BY NEW YORK AIR BRAKE. PROPERTY BOUNDARY WAS PLOTTED FROM THE CURRENT PROPERTY DEED ON FILE IN THE JEFFERSON COUNTY CLERKS OFFICE, LIBER 1475 PAGE 48, RECORDED 09/25/1995. VERTICAL DATUM IS BASED ON NAVD88 AND THE HORIZONTAL DATUM IS BASED ON NAD83(96).
- ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED THAT HE MUST OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY HIMSELF.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND BONDS NECESSARY TO OBTAIN SAID PERMITS WHERE APPLICABLE.
- SITE CONTRACTOR TO PROVIDE EROSION AND DUST CONTROL AS REQUIRED.
- A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AT THE CONTRACTOR'S EXPENSE.
- PAVED AREAS WILL BE SAWCUT PRIOR TO EXCAVATION AND PAVING OPERATIONS. SAW CUT AREAS WILL BE TACK COATED PRIOR TO PAVING. TACK COAT SHALL MEET THE REQUIREMENTS OF ASPHALT OF ASPHALT EMISSIONS FOR TACK COAT, NYSDOT TABLE 102-2.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY INTO NATURAL STREAM CHANNELS.
- ALL TREES AND WETLANDS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PERFORM ALL ROADWAY CONNECTION WORK IN ACCORDANCE WITH NYSDOT SPECIFICATIONS. ALL ROADWAY WORK SHALL BE IN ACCORDANCE WITH NYSDOT MAINTENANCE AND PROTECTION OF TRAFFIC REGULATIONS, INCLUDING FLAGMEN, BARRICADES, WARNING SIGNS/LIGHTS, ETC., WHERE WARRANTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL AT A NYSDEC ACCEPTABLE LOCATION OF ALL MATERIALS NOT REUSED AS TRENCH BACKFILL.
- EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVEREXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
- COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN OR DRUM-TYPE OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 METHOD "C". CARE SHOULD BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF PIPE BEDDING.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION. SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS INCLUDING, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION.
  - RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
  - DISTANCE TIES TO ALL MANHOLES, CLEANOUTS, BENDS AND CORPORATION STOPS.
  - UTILITY REPAIRS, SIDEWALK, AND DRIVEWAY REPLACEMENTS CENTERLINE.
  - STATIONS OF BENDS, CLEANOUTS, VALVES AND CORPORATION STOPS.
  - DENOTE BENCH MARK REFERENCE USED.
  - PERIODIC OFFSETS.
  - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
  - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
  - PROVIDE TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.
- UPON COMPLETION OF STORM SEWER FACILITIES AND ESTABLISHMENT OF VEGETATION, THE NEW AND EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.

	EXISTING	PROPOSED
5' CONTOUR	---	---
1' CONTOUR	---	---
PROPERTY LINE	---	---
RIGHT OF WAY	---	---
SETBACK	---	---
BUILDING	---	---
ASPHALT PAVEMENT	---	---
EDGE OF GRAVEL	---	---
CURB	---	---
SIDEWALK	---	---
TREE LINE	---	---
FENCE	---	---
WATERLINE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
UNDERGROUND UTILITIES	---	---
UNDERGROUND ELECTRIC	---	---
GAS	---	---
COMMUNICATION	---	---
SANITARY MANHOLE	---	---
STORM MANHOLE	---	---
CATCH BASIN	---	---
COMMUNICATION MANHOLE	---	---
COMMUNICATION JUNCTION BOX	---	---
TRACER WIRE	---	---
FIRE HYDRANT	---	---
FIRE VALVE	---	---
CURB STOP	---	---
UTILITY POLE	---	---
LIGHT POLE	---	---
BUILDING LIGHT	---	---

SITE LIGHTING SCHEDULE			
SYMBOL	FIXTURE	MOUNTING HEIGHT	QUANTITY
MH-1	WP48LED48 BY STONCO LIGHTING	12' MOUNTING HEIGHT	3



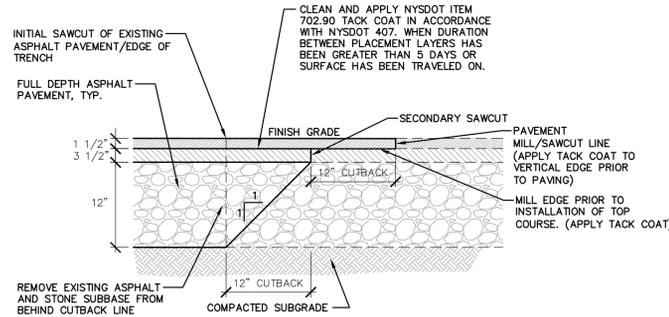
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- NOTES:
1. ALL HMA COMPACTION WILL BE TO 95% MADTD (MIXTURE'S AVERAGE DAILY MAXIMUM THEORETICAL DENSITY) PER NYS DOT SPECIFICATIONS FOR HMA COMPACTION 402-3.07. BASE COURSE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DENSITY.
  2. FIELD VERIFICATION OF COMPACTION SHALL BE BY NUCLEAR DENSITY TESTING METHODS.

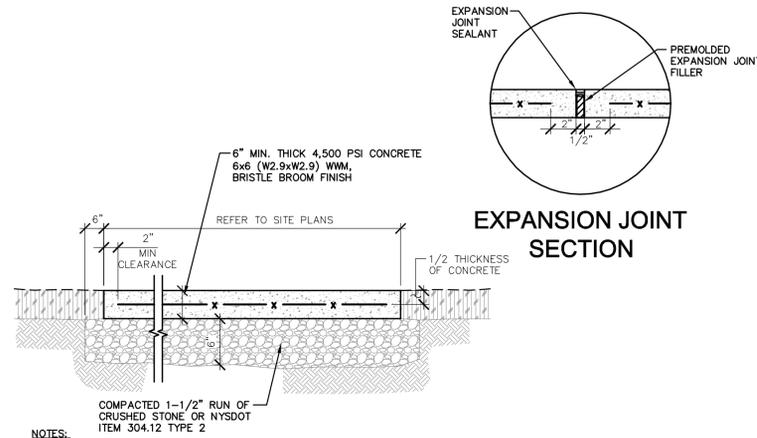
### 1 TYPICAL ASPHALT PAVEMENT DETAIL

NOT TO SCALE



### 2 TYPICAL ASPHALT PAVEMENT JOINT DETAIL

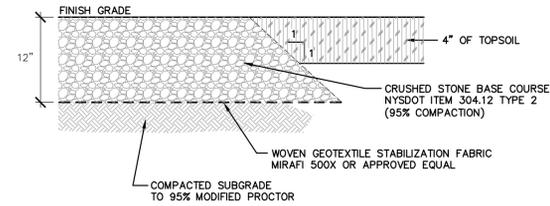
NOT TO SCALE



- NOTES:
1. CONCRETE WALK EXPANSION JOINTS TO COINCIDE AT 20' O.C. MAX., CONTRACTION JOINTS TO BE SPACED EVENLY AT 4' TO 6' O.C. MAX. BOTH DIRECTIONS. CONTRACTION JOINT SPACING SHALL BE SPACED SYMMETRICALLY BASED UPON THE SIDEWALK WIDTH BEING CONSTRUCTED. (I.E. 6' WIDE WALK - 6' CONTROL JOINTS, 5' WIDE WALK - 5' CONTROL JOINTS, 8' WIDE WALK - 4' CONTROL JOINTS)
  2. EXPANSION JOINTS TO BE 1/2" WIDE FILLED WITH PREMOULDED JOINT FILLER AND SEALANT CONFORMING TO ASTM D1752 TYPE II.
  3. CONTROL/CONTRACTION JOINTS SHALL BE TOOLED OR SAW CUT JOINT WITH A DEPTH OF 1/4 THE CONCRETE THICKNESS.

### 3 TYPICAL CONCRETE WALK DETAIL

NOT TO SCALE



### 4 TYPICAL CRUSHED STONE AREA DETAIL

NOT TO SCALE

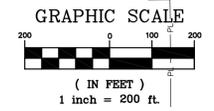
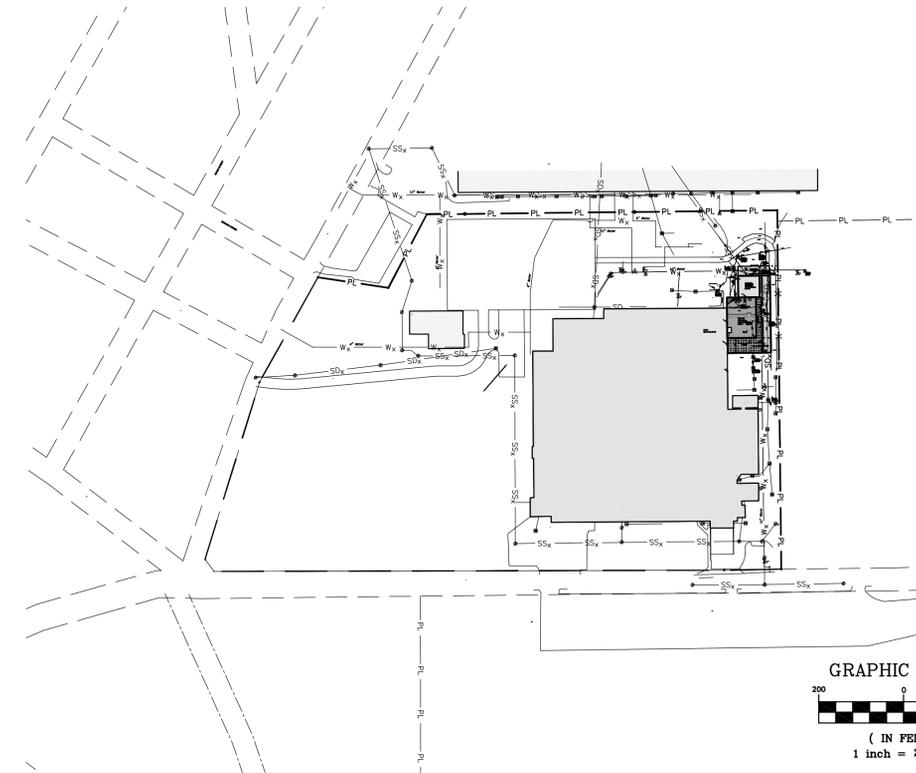


**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION**  
748 STARBUCK AVENUE  
CITY OF WATERTOWN  
JEFFERSON COUNTY, STATE OF NEW YORK

PROJECT NO.:	2015-028.007
SCALE:	AS NOTED
DRAWN BY:	TFT
CHECKED BY:	MRM
ISSUE DATES:	05/19/2015

GRADING PLAN

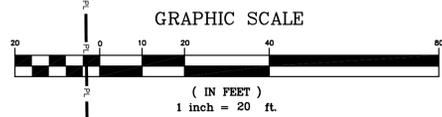
**CG100**



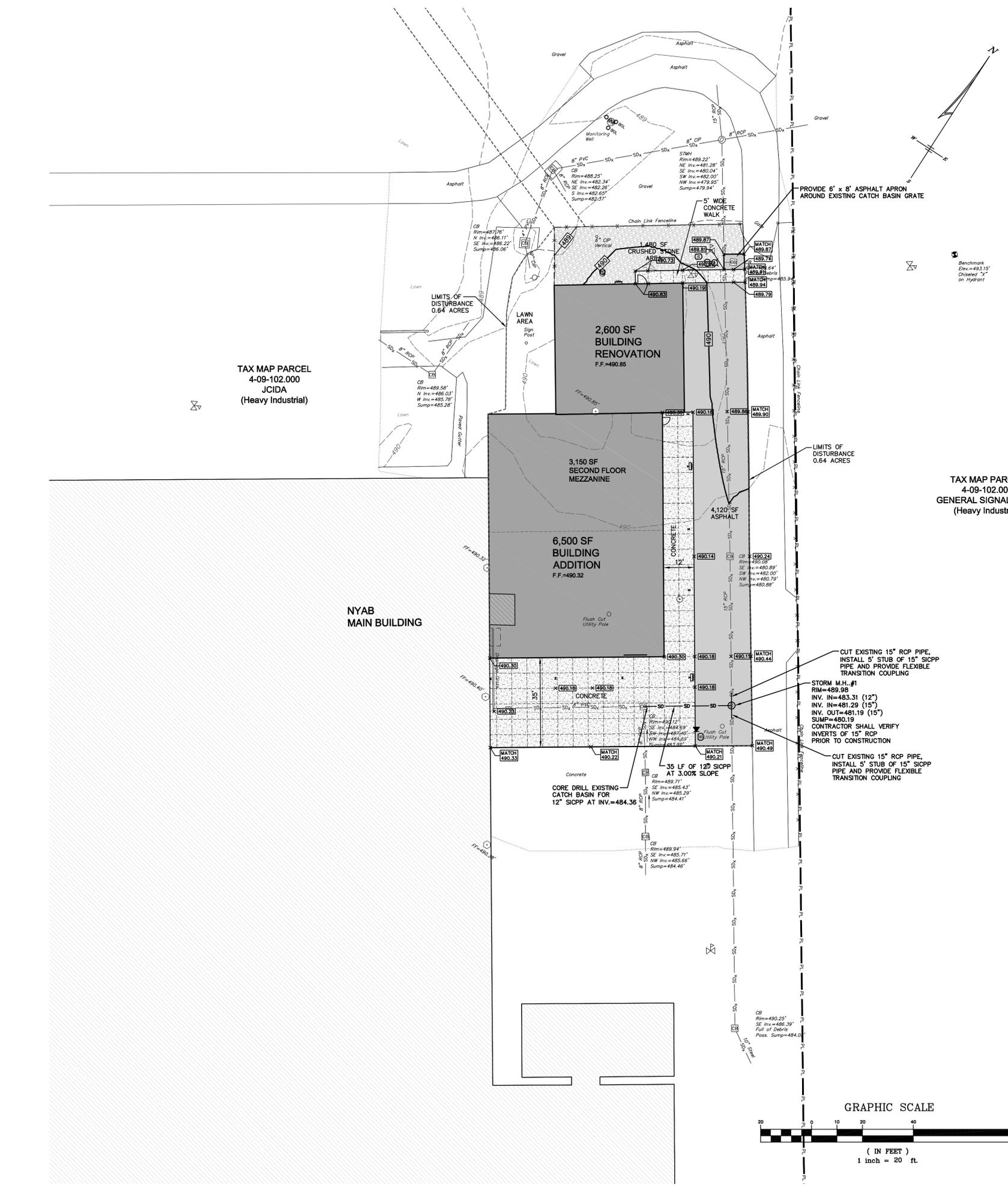
**GENERAL NOTES:**

- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES. (1-800-962-7963). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- THE ON-SITE TOPOGRAPHIC, UTILITY, AND PLANIMETRIC SURVEY FOR THE PROJECT AREA WAS CONDUCTED BY AUBERTINE AND CURRIER, PLLC ON 4/27 AND 5/1/2015. UTILITY LOCATIONS WERE PLOTTED RECORD DRAWINGS OF MULTIPLE PROJECTS THAT ARE ON FILE IN THE CITY ENGINEERING DEPARTMENT AND PROVIDED BY NEW YORK AIR BRAKE. PROPERTY BOUNDARY WAS PLOTTED FROM THE CURRENT PROPERTY DEED ON FILE IN THE JEFFERSON COUNTY CLERKS OFFICE, LIBER 1475 PAGE 48, RECORDED 09/25/1995. VERTICAL DATUM IS BASED ON NAVD88 AND THE HORIZONTAL DATUM IS BASED ON NAD83(96).
- ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED THAT HE MUST OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY HIMSELF.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND BONDS NECESSARY TO OBTAIN SAID PERMITS WHERE APPLICABLE.
- SITE CONTRACTOR TO PROVIDE EROSION AND DUST CONTROL AS REQUIRED.
- A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AT THE CONTRACTOR'S EXPENSE.
- PAVED AREAS WILL BE SAWCUT PRIOR TO EXCAVATION AND PAVING OPERATIONS. SAW CUT AREAS WILL BE TACK COATED PRIOR TO PAVING. TACK COAT SHALL MEET THE REQUIREMENTS OF ASPHALT OF ASPHALT EMULSION FOR TACK COAT, NYSDOT TABLE 702.3.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY INTO NATURAL STREAM CHANNELS.
- ALL TREES AND WETLANDS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PERFORM ALL ROADWAY CONNECTION WORK IN ACCORDANCE WITH NYSDOT SPECIFICATIONS. ALL ROADWAY WORK SHALL BE IN ACCORDANCE WITH NYSDOT MAINTENANCE AND PROTECTION OF TRAFFIC REGULATIONS, INCLUDING FLAGMEN, BARRICADES, WARNING SIGNS/LIGHTS, ETC., WHERE WARRANTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL AT A NYSDOT ACCEPTABLE LOCATION OF ALL MATERIALS NOT REUSED AS TRENCH BACKFILL.
- EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVEREXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
- COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN OR DRUM-TYPE OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 METHOD "C". CARE SHOULD BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF PIPE BEDDING.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION. SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS INCLUDING, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION.
  - RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
  - DISTANCE TIES TO ALL MANHOLES, CLEANOUTS, BENDS AND CORPORATION STOPS.
  - UTILITY REPAIRS, SIDEWALK, AND DRIVEWAY REPLACEMENTS CENTERLINE.
  - STATIONS OF BENDS, CLEANOUTS, VALVES AND CORPORATION STOPS.
  - DENOTE BENCH MARK REFERENCE USED.
  - PERIODIC OFFSETS.
  - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
  - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
  - PROVIDE TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.
- UPON COMPLETION OF STORM SEWER FACILITIES AND ESTABLISHMENT OF VEGETATION, THE NEW AND EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.

	EXISTING	PROPOSED
5' CONTOUR	---	---
1' CONTOUR	---	---
PROPERTY LINE	---	---
RIGHT OF WAY	---	---
SETBACK	---	---
BUILDING	---	---
ASPHALT PAVEMENT	---	---
EDGE OF GRAVEL	---	---
CURB	---	---
SIDEWALK	---	---
TREE LINE	---	---
FENCE	---	---
WATERLINE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
UNDERGROUND UTILITIES	---	---
UNDERGROUND ELECTRIC	---	---
GAS	---	---
COMMUNICATION	---	---
SANITARY MANHOLE	---	---
STORM MANHOLE	---	---
CATCH BASIN	---	---
COMMUNICATION MANHOLE	---	---
COMMUNICATION JUNCTION BOX	---	---
TRACER WIRE	---	---
FIRE HYDRANT	---	---
WATER VALVE	---	---
CURB STOP	---	---
UTILITY POLE	---	---
LIGHT POLE	---	---
BUILDING LIGHT	---	---



FOR APPROVALS ONLY  
NOT FOR CONSTRUCTION



TAX MAP PARCEL  
4-09-102.000  
JCIDA  
(Heavy Industrial)

TAX MAP PARCEL  
4-09-102.002  
GENERAL SIGNAL CORP  
(Heavy Industrial)

NYAB  
MAIN BUILDING

2,600 SF  
BUILDING  
RENOVATION  
F.F.=490.85

3,150 SF  
SECOND FLOOR  
MEZZANINE

6,500 SF  
BUILDING  
ADDITION  
F.F.=490.32

CORE DRILL EXISTING  
CATCH BASIN FOR  
12" SICPP AT INV.=484.36

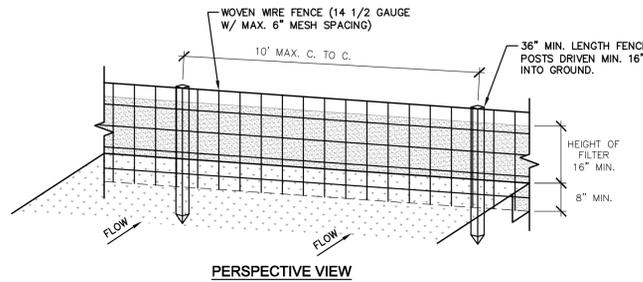
CUT EXISTING 15" RCP PIPE,  
INSTALL 5' STUB OF 15" SICPP  
PIPE AND PROVIDE FLEXIBLE  
TRANSITION COUPLING

STORM M.H., #1  
RIM=489.98  
INV. IN=483.31 (12")  
INV. IN=481.29 (15")  
INV. OUT=481.19 (15")  
SUMP=480.19  
CONTRACTOR SHALL VERIFY  
INVERTS OF 15" RCP  
PRIOR TO CONSTRUCTION

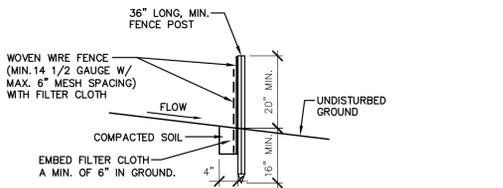
CUT EXISTING 15" RCP PIPE,  
INSTALL 5' STUB OF 15" SICPP  
PIPE AND PROVIDE FLEXIBLE  
TRANSITION COUPLING

**GRAPHIC SCALE**

( IN FEET )  
1 inch = 20 ft.



PERSPECTIVE VIEW

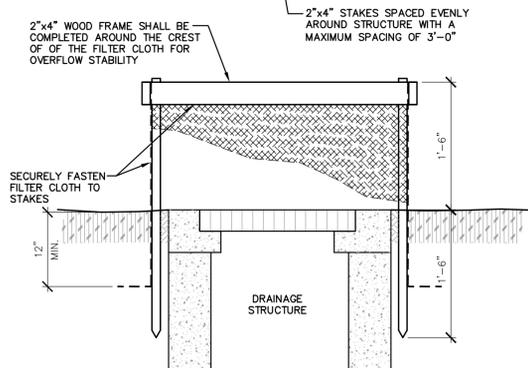
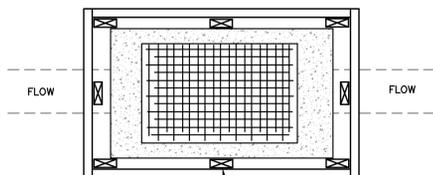


SECTION VIEW

**CONSTRUCTION SPECIFICATIONS**

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "I" OR "U" TYPE OR HARDWOOD.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED, FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
- PREFABRICATED UNITS SHALL BE GEOFAB, ENVROFENCE, OR APPROVED EQUIVALENT.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

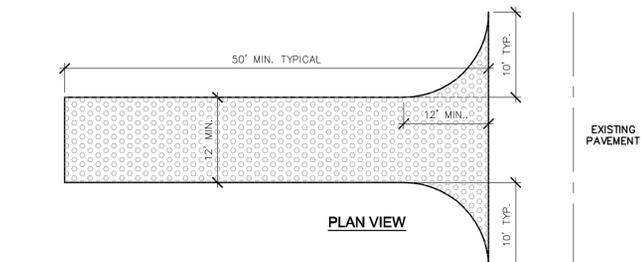
**1 TYPICAL SILT FENCE DETAIL**  
NOT TO SCALE



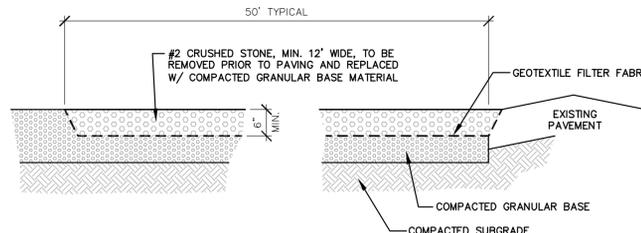
**INSTALLATION NOTES:**

- FILTER CLOTH TO BE CUT FROM A ROLL TO ELIMINATED JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- STAKE SHALL BE 2"x4" AND A MINIMUM OF 36" LONG.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AT REGULAR INTERVALS.
- FILTER CLOTH SHALL BE FILTER X, MIRAFI 100X, STABILINKA-T140N OR APPROVED EQUAL

**2 TYPICAL INLET PROTECTION DETAIL**  
NOT TO SCALE



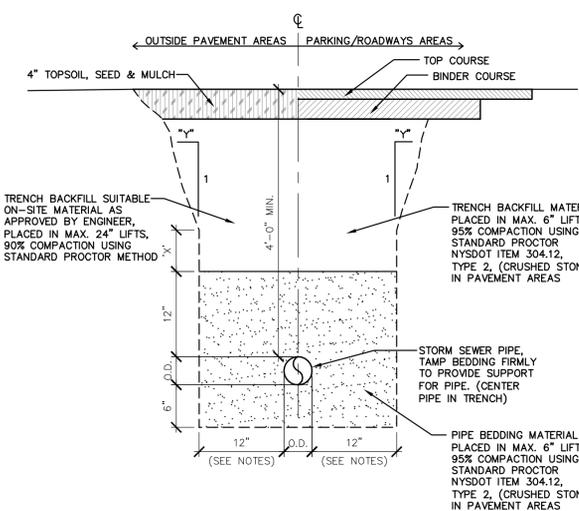
PLAN VIEW



**CONSTRUCTION SPECIFICATIONS**

- LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

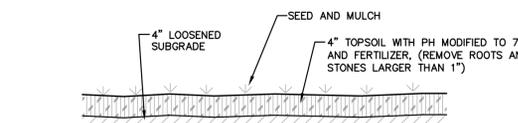
**3 TYPICAL OFFSITE SEDIMENT TRACKING DETAIL**  
NOT TO SCALE



**NOTES:**

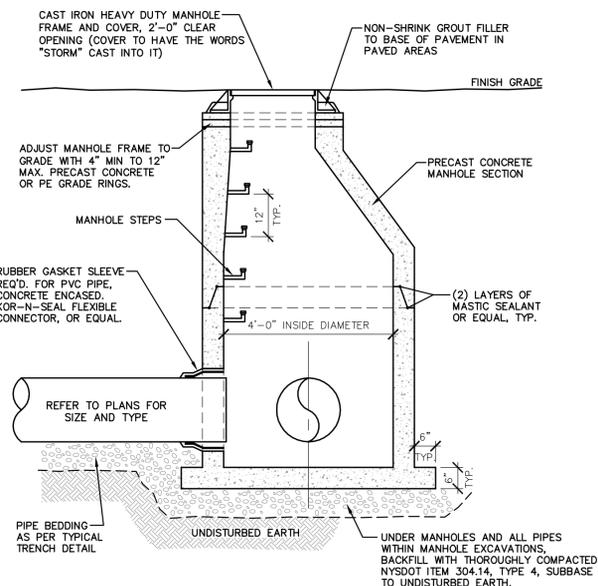
- DIMENSIONS 'X' AND 'Y' SHOWN ABOVE SHALL BE DETERMINED BY CONTRACTOR TO COMPLY WITH O.S.H.A., NEW YORK STATE DEPARTMENT OF LABOR, NEW YORK STATE INDUSTRIAL CODE AND ALL OTHER APPLICABLE SAFETY STANDARDS.
- SAFETY SHEETING OR TRENCH BOX MAY BE USED IN PLACE OF SLOPED TRENCH WALLS.
- SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5 FEET BELOW STREET AND A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID-DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID-DIAMETER SHALL BE LEFT IN PLACE.
- TRENCHES LOCATED WITHIN 5' OF ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT.

**5 TYPICAL STORM SEWER TRENCH DETAIL**  
NOT TO SCALE



NOTE:  
PROVIDE SOIL TESTS WITH SEED, FERTILIZER AND MULCH RECOMMENDATIONS (ONE PER EACH 5 ACRES OF SEEDING AND MIN. ONE PER TOPSOIL STOCKPILE)

**4 TYPICAL TOPSOIL REPLACEMENT DETAIL**  
NOT TO SCALE



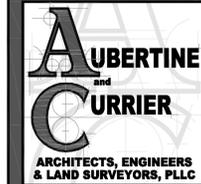
**TYPICAL PRECAST SANITARY SEWER MANHOLE NOTES:**

- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
- CONCRETE SHALL BE AIR ENTRAINED 5%-8%.
- WALLS, FLOOR, TOP SLAB AND ACCESS COVERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM C890 (HS-20 LOAD).
- REINFORCEMENT - ASTM A497/A615 GRADE 60.
- ALL JOINTS SHALL BE SEALED SUCH THAT THE TANK IS WATERTIGHT WITH BUTYL SEALANT CS-102 ASTM C-990.
- 2 COATS OF BITUMASTIC WATERPROOF COATING TO BE APPLIED TO OUTER SURFACE OF PRECAST CONCRETE STRUCTURES.
- ALL MANHOLE COVERS SHALL HAVE THE WORDS "STORM" IN 2" LETTERS, CAST IN COVERS.
- ALL MANHOLES SHALL BE 4'-0" I.D. UNLESS OTHERWISE NOTED.

**6 TYPICAL STORM SEWER MANHOLE DETAIL**  
NOT TO SCALE

**EROSION AND SEDIMENT CONTROL NOTES:**

- PRIOR TO COMMENCING ANY CLEARING GRUBBING, EARTHWORK ACTIVITIES, ETC. AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, TREE PROTECTION/BARRIER FENCES, STABILIZED CONSTRUCTION ENTRANCES, STORM DRAIN SEDIMENT FILTERS, DRAINAGE DITCH SEDIMENT FILTERS, ETC.) INDICATED ON THE PROJECT DRAWINGS (A.O.B.E.). TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS, ONCE CONSTRUCTED, ALL MEASURES SHALL BE PROPERLY MAINTAINED AND/OR REPLACED AS NECESSARY AND THEN REMOVED FROM THE SITE ONCE VEGETATION AND PAVEMENT ARE IN PLACE.
- INITIAL CLEARING AND EARTH DISTURBANCE SHALL BE LIMITED TO AREAS WHERE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED. ONCE ALL MEASURES ARE INSTALLED TO THE SATISFACTION OF THE ENGINEER, THE REMAINDER OF THE CLEARING AND GRADING ACTIVITIES SHALL COMMENCE.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN STRICT COMPLIANCE WITH THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" CURRENT EDITION.
- THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL ENVIRONMENTAL PERMITS ISSUED FOR THIS PROJECT. THESE PLANS REFLECT THE PROVISIONS AND REQUIREMENTS OF SAID PERMIT(S). PERMIT(S) WILL BE AVAILABLE FROM THE ENGINEER-IN-CHARGE PRIOR TO THE START OF CONSTRUCTION.
- CONSTRUCTION IS TO PROCEED IN ACCORDANCE WITH THE CONSTRUCTION PHASING SCHEDULED SUPPLIED BY THE CONTRACTOR OR SHOWN ON THE PLANS. ALL ELEMENTS OF THE SCHEDULE SHALL BE COMPLETED PRIOR TO BEGINNING THE NEXT CONSTRUCTION PHASE. THESE ELEMENTS INCLUDE ALL UTILITY CONSTRUCTION, THE BASE COURSE OF ASPHALT PAVING, AND ESTABLISHING GRASSES ON ALL DISTURBED AREAS. FOR TIME FRAMES OUTSIDE THE GROWING SEASON, OTHER METHODS OF SOIL STABILIZATION (SUCH AS THE USE OF JUTE MESH) SHALL BE USED UNTIL SUCH TIME AS GRASSES CAN BE ESTABLISHED.
- THE CONTRACTOR SHALL INSPECT AND MAINTAIN THE INTEGRITY AND FUNCTION OF ALL TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE DEVELOPMENT PROCESS. TO ASSURE PROPER FUNCTION, SILTATION BARRIERS SHALL BE MAINTAINED IN GOOD CONDITION AND REINFORCED, EXTENDED, REPAIRED OR REPLACED AS NECESSARY. WASHOUTS SHALL BE IMMEDIATELY REPAIRED, RE-SEEDED AND PROTECTED FROM FURTHER EROSION. ALL ACCUMULATED SEDIMENT SHALL BE REMOVED AND CONTAINED IN APPROPRIATE SPOIL AREAS. WATER SHALL BE APPLIED TO NEWLY SEEDDED AREAS AS NEEDED UNTIL GRASS COVER IS WELL ESTABLISHED TO EFFECTIVELY CONTROL WIND EROSION. WATER SHALL BE APPLIED TO ALL EXPOSED SOILS AS NECESSARY UNTIL GROUND COVER IS PERMANENTLY ESTABLISHED.
- FOR AREAS OF DISTURBANCE OF LESS THAN 5 ACRES, EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE EVERY 7 DAYS. FOR AREAS OF DISTURBANCE OF GREATER THAN 5 ACRES, EROSION CONTROL MEASURES SHALL BE INSPECTED TWICE EVERY 7 DAYS. IF CONSTRUCTION IS SUSPENDED FOR A DURATION OF MORE THAN 30 DAYS, EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE EVERY 30 DAYS.
- THE STABILIZED CONSTRUCTION ENTRANCE, UTILIZED DURING CONSTRUCTION, SHALL BE MAINTAINED IN A CONDITION THAT SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. PERIODIC INSPECTIONS AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.
- IMMEDIATELY FOLLOWING COMPLETION OF ANY AND ALL OF THE PROPOSED STORM DRAIN INLETS, STORM DRAIN INLET PROTECTION SHALL BE CONSTRUCTED. THE INLET PROTECTION SHALL FUNCTION TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINS. THEY SHALL BE MAINTAINED IN GOOD CONDITION UNTIL FINAL VEGETATIVE COVER IS WELL ESTABLISHED.
- AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS.
- IN SOME INSTANCES, ESTABLISHING VEGETATION WILL BE NECESSARILY DELAYED WHILE CONSTRUCTION IS IN PROGRESS. DURING THESE TIMES, SEDIMENT CONTROL MEASURES WILL BE EMPLOYED TO PREVENT SEDIMENT FROM LEAVING THE SITE. VEGETATION SHALL BE ESTABLISHED IN THESE AREAS AS SOON AS IT IS PRACTICAL.
- SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
- PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
- AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
- TOPSOIL AND FILL THAT IS TO REMAIN STOCKPILED ON-SITE FOR PERIODS GREATER THAN 30 DAYS SHALL BE STABILIZED BY SEEDING. PRIOR TO THE SEEDING OPERATION, THE STOCKPILED MATERIAL SHALL BE GRADED AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, FERTILIZATION, SEEDING, MULCH APPLICATIONS AND MULCH ANCHORING.
- SILT FENCES SHALL BE CONSTRUCTED AROUND ALL STOCKPILES OF FILL, TOPSOIL, AND EXCAVATED OVERBURDEN THAT ARE TO REMAIN EXPOSED FOR PERIODS LESS THAN 30 DAYS. SILT FENCES SHALL BE ANCHORED AND MAINTAINED IN GOOD CONDITION UNTIL SUCH TIME AS SAID STOCKPILES ARE REMOVED AND STOCKPILING AREAS ARE BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED.
- IN NO CASE SHALL ERODIBLE MATERIALS BE STOCKPILED WITHIN 25 FEET OF ANY DITCH STREAM OR OTHER SURFACE WATER BODY.
- TEMPORARY EROSION CONTROL PROTECTION BY MULCHING MUST BE CARRIED OUT AS THE CUT/FILL IS PROGRESSED TO AVOID ALL POSSIBLE CONTAMINATION OF PONDS, STREAMS, OR OTHER WATERCOURSES. PLACEMENT OF JUTE MESH OVER THE MULCH IS RECOMMENDED TO PROVIDE POSITIVE "TRACKING" OF THE MULCH AND INCREASED PROTECTION AGAINST EROSION.
- THE FILL SLOPE SHOULD BE TRIMMED AND THE PERMANENT SEEDING AND MULCHING CARRIED OUT AS SOON AS THE SLOPE IS UP TO FINAL GRADE. IF SEEDING DATES ARE SPECIFIED AND THE SLOPE IS TRIMMED "OUT OF SEEDING SEASON", MULCH THE SLOPE AS SPECIFIED AND SEED ON TOP OF THE MULCH DURING THE NEXT SEEDING SEASON. WHEN THE SLOPE CANNOT BE BROUGHT TO FINAL GRADE OR THE FINAL TRIM CANNOT BE OBTAINED IN A REASONABLE LENGTH OF TIME, TEMPORARY EROSION CONTROL MEASURE SHALL BE INSTALLED.
- DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
- CONSTRUCTION TRAFFIC SHALL NOT CROSS STREAMS OR DITCHES EXCEPT AT SUITABLE CROSSING FACILITIES, AND SHALL NOT OPERATE UNNECESSARILY WITHIN WATERWAYS OR DRAINAGE DITCHES.
- NO SYNTHETIC EROSION CONTROL MATERIAL, FENCING OR MATTING SHALL BE PART OF THE PERMANENT INSTALLATION.
- WHERE CONCENTRATED FLOWS ARE CREATED AS A RESULT OF CONSTRUCTION OPERATIONS, CHECK DAMS SHALL BE INSTALLED ABOVE.



522 Bradley Street  
Watertown, New York 13601

[aubertinecurrier.com](http://aubertinecurrier.com)

Phone: (315)782-2005  
Fax: (315)782-1472

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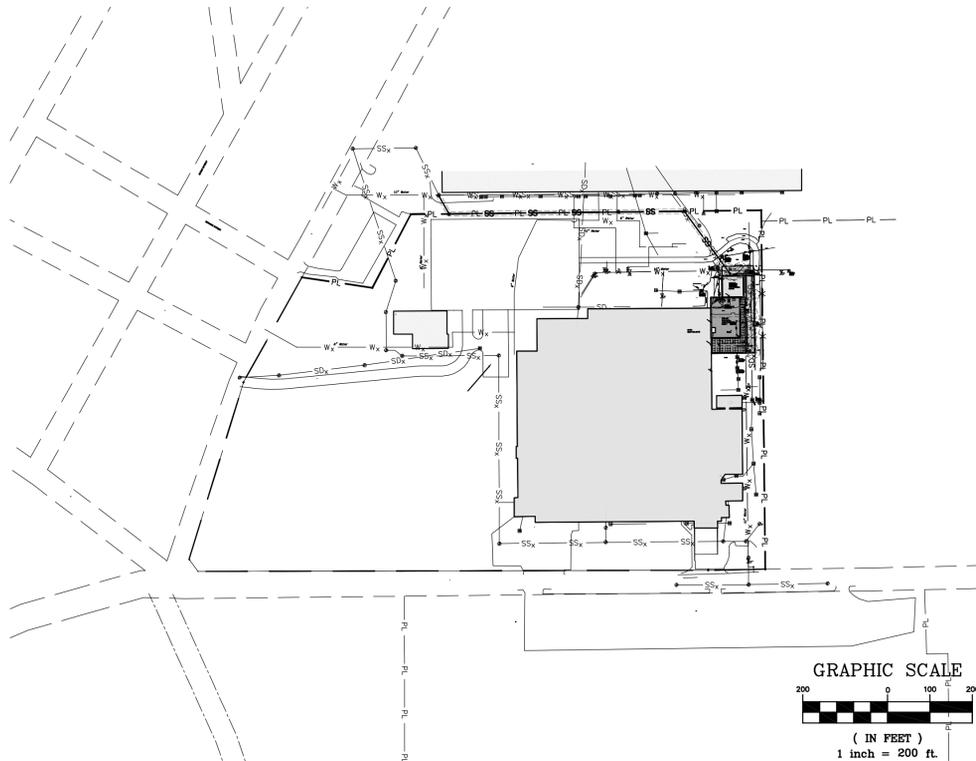
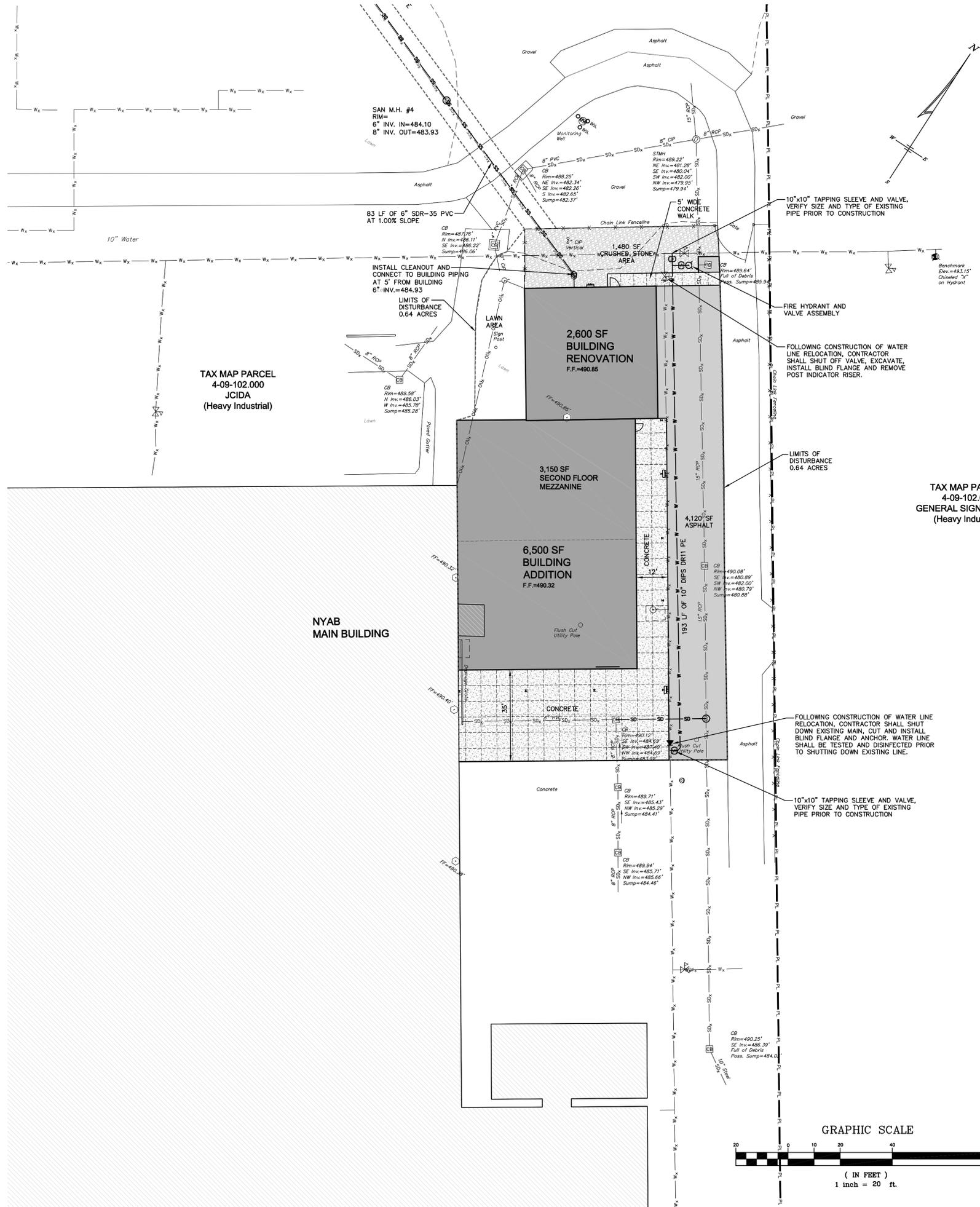


**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION  
748 STARBUCK AVENUE  
CITY OF WATERTOWN  
JEFFERSON COUNTY, STATE OF NEW YORK**

PROJECT NO:	2015-028.007
SCALE:	AS NOTED
DRAWN BY:	TFT
CHECKED BY:	MRM
ISSUE DATES:	05/19/2015

GRADING DETAILS

**CG500**



- GENERAL NOTES:**
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES. (1-800-962-7963). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
  - THE ON-SITE TOPOGRAPHIC, UTILITY, AND PLANIMETRIC SURVEY FOR THE PROJECT AREA WAS CONDUCTED BY AUBERTINE AND CURRIER, PLLC ON 04/27 AND 5/1/2015. UTILITY LOCATIONS WERE PLOTTED RECORD DRAWINGS OF MULTIPLE PROJECTS THAT ARE ON FILE IN THE CITY ENGINEERING DEPARTMENT AND PROVIDED BY NEW YORK AIR BRAKE. PROPERTY BOUNDARY WAS PLOTTED FROM THE CURRENT PROPERTY DEED ON FILE IN THE JEFFERSON COUNTY CLERKS OFFICE, LIBER 1475 PAGE 48, RECORDED 09/25/1995. VERTICAL DATUM IS BASED ON NAVD88 AND THE HORIZONTAL DATUM IS BASED ON NAD83(96).
  - ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED THAT HE MUST OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY HIMSELF.
  - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND BONDS NECESSARY TO OBTAIN SAID PERMITS WHERE APPLICABLE.
  - SITE CONTRACTOR TO PROVIDE EROSION AND DUST CONTROL AS REQUIRED.
  - A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AT THE CONTRACTOR'S EXPENSE.
  - PAVED AREAS WILL BE SAWCUT PRIOR TO EXCAVATION AND PAVING OPERATIONS. SAW CUT AREAS WILL BE TACK COATED PRIOR TO PAVING. TACK COAT SHALL MEET THE REQUIREMENTS OF ASPHALT OF ASPHALT EMISSION FOR TACK COAT, NYSDOT TABLE 702.0.
  - CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY INTO NATURAL STREAM CHANNELS.
  - ALL TREES AND WETLANDS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.
  - CONTRACTOR SHALL PERFORM ALL ROADWAY CONNECTION WORK IN ACCORDANCE WITH NYSDOT SPECIFICATIONS. ALL ROADWAY WORK SHALL BE IN ACCORDANCE WITH NYSDOT MAINTENANCE AND PROTECTION OF TRAFFIC REGULATIONS, INCLUDING FLAGMEN, BARRICADES, WARNING SIGNS/LIGHTS, ETC., WHERE WARRANTED.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL AT A NYSDOT ACCEPTABLE LOCATION OF ALL MATERIALS NOT REUSED AS TRENCH BACKFILL.
  - EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVEREXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
  - COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN OR DRUM-TYPE OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 METHOD "C". CARE SHOULD BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF PIPE BEDDING.
  - THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION. SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.
  - THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS INCLUDING, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION:
    - RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
    - DISTANCE TIES TO ALL MANHOLES, CLEANOUTS, BENDS AND CORPORATION STOPS.
    - UTILITY REPAIRS, SIDEWALK, AND DRIVEWAY REPLACEMENTS CENTERLINE.
    - STATIONS OF BENDS, CLEANOUTS, VALVES AND CORPORATION STOPS.
    - DENOTE BENCH MARK REFERENCE USED.
    - PERIODIC OFFSETS.
    - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
    - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
    - PROVIDE TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.
  - UPON COMPLETION OF STORM SEWER FACILITIES AND ESTABLISHMENT OF VEGETATION, THE NEW AND EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.

**LEGEND**

	EXISTING	PROPOSED
5' CONTOUR	---	---
1' CONTOUR	---	---
PROPERTY LINE	---	---
RIGHT OF WAY	---	---
SETBACK	---	---
BUILDING	---	---
ASPHALT PAVEMENT	---	---
EDGE OF GRAVEL	---	---
CURB	---	---
SIDEWALK	---	---
TREE LINE	---	---
FENCE	---	---
WATERLINE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
UNDERGROUND UTILITIES	---	---
UNDERGROUND ELECTRIC	---	---
GAS	---	---
COMMUNICATION	---	---
SANITARY MANHOLE	---	---
STORM MANHOLE	---	---
CATCH BASIN	---	---
COMMUNICATION MANHOLE	---	---
COMMUNICATION JUNCTION BOX	---	---
TRACER WIRE	---	---
FIRE HYDRANT	---	---
WATER VALVE	---	---
CURB STOP	---	---
UTILITY POLE	---	---
LIGHT POLE	---	---
BUILDING LIGHT	---	---



522 Bradley Street  
Watertown, New York 13601

[aubertinecurrier.com](http://aubertinecurrier.com)

Phone: (315)782-2005  
Fax: (315)782-1472

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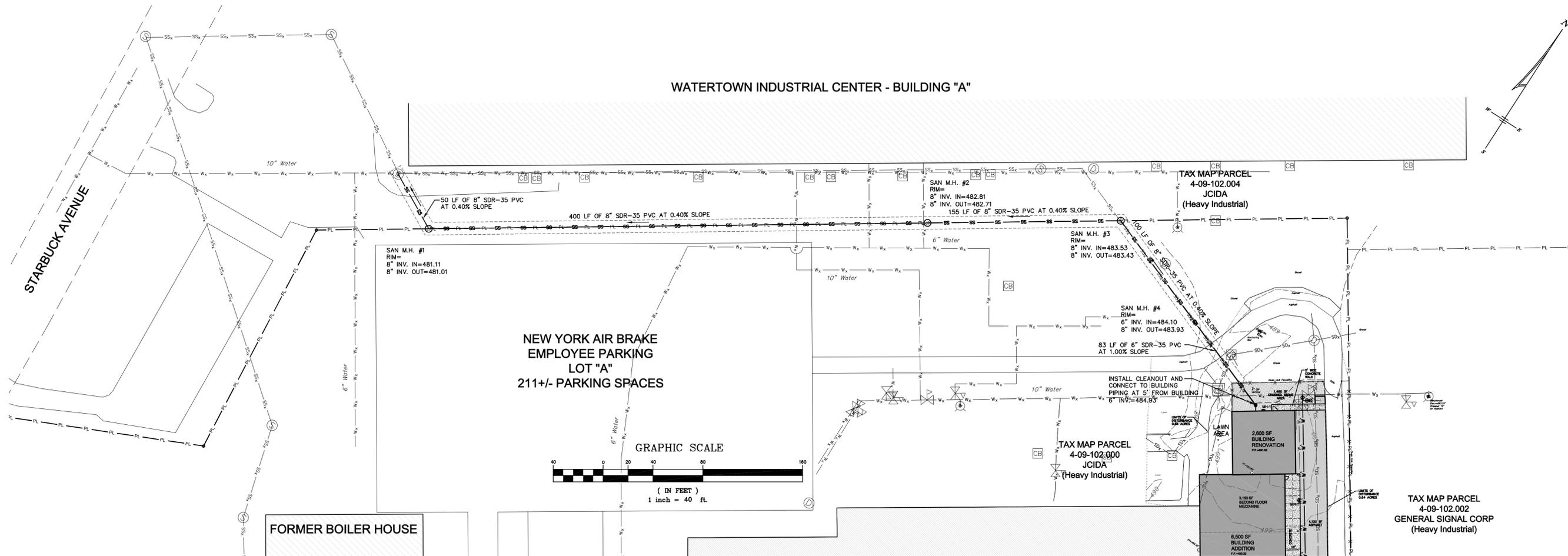
**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION  
748 STARBUCK AVENUE  
CITY OF WATERTOWN  
JEFFERSON COUNTY, STATE OF NEW YORK**

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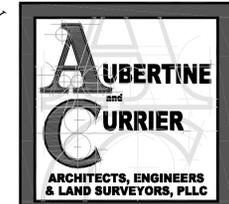
UTILITY PLAN

**CU100**

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\*\*\* SURVEY MAPPING IN PROGRESS FOR 700'+ SEWER CORRIDOR \*\*\*



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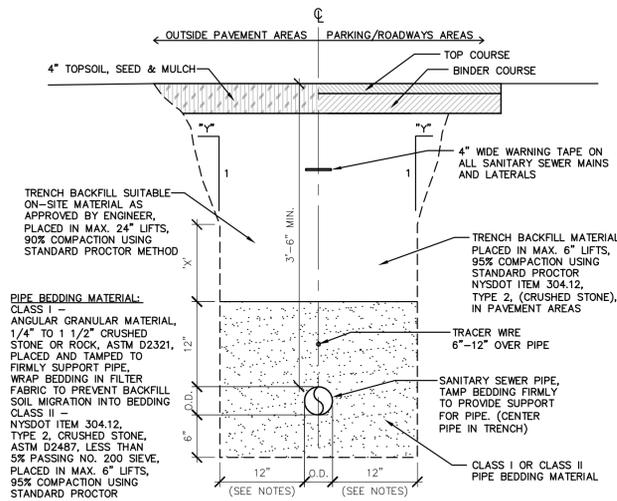
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SANITARY SEWER  
PLAN AND PROFILE

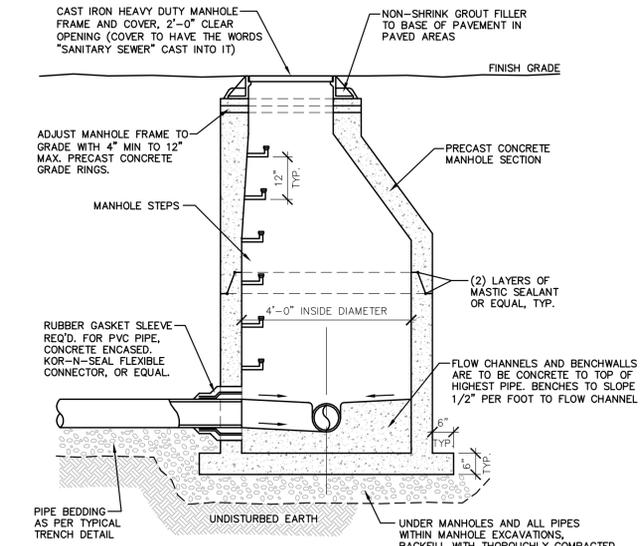
**CU101**

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- NOTES:**
- DIMENSIONS "X" AND "Y" SHOWN ABOVE SHALL BE DETERMINED BY CONTRACTOR TO COMPLY WITH O.S.H.A., NEW YORK STATE DEPARTMENT OF LABOR, NEW YORK STATE INDUSTRIAL CODE AND ALL OTHER APPLICABLE SAFETY STANDARDS.
  - SAFETY SHEETING OR TRENCH BOX MAY BE USED IN PLACE OF SLOPED TRENCH WALLS.
  - SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5 FEET BELOW STREET AND A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID-DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID-DIAMETER SHALL BE LEFT IN PLACE.
  - TRENCHES LOCATED WITHIN 5' OF ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT.
  - PIPE TO TRENCH WALL DISTANCE MAY BE REDUCED WHEN INSTALLED IN SAWCUT ROCK TRENCH.
  - PROVIDE WARNING TAPE AT ALL UNDERGROUND UTILITIES.
  - PROVIDE #12 SOLID COPPER TRACER WIRE WITH PE JACKET, COLOR CODED PER UTILITY (GREEN-SANITARY).

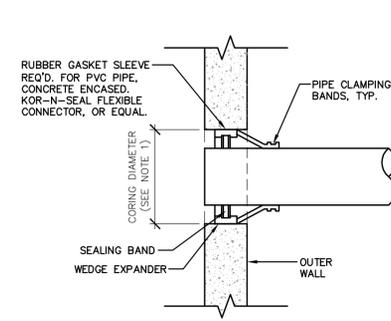
**1 TYPICAL SANITARY SEWER TRENCH DETAIL**  
NOT TO SCALE



**TYPICAL PRECAST SANITARY SEWER MANHOLE NOTES:**

- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
- CONCRETE SHALL BE AIR ENTRAINED 5%-8%.
- WALLS, FLOOR, TOP SLAB AND ACCESS COVERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM C890 (HS-20 LOAD).
- REINFORCEMENT - ASTM A497/A615 GRADE 60.
- ALL JOINTS SHALL BE SEALED SUCH THAT THE TANK IS WATERTIGHT WITH BUTYL SEALANT CS-102 ASTM C-990.
- 2 COATS OF BITUMASTIC WATERPROOF COATING TO BE APPLIED TO OUTER SURFACE OF PRECAST CONCRETE STRUCTURES.
- ALL MANHOLE COVERS SHALL HAVE THE WORDS "SANITARY SEWER" IN 3" LETTERS, CAST IN COVERS.
- ALL MANHOLES SHALL BE 4'-0" I.D. UNLESS OTHERWISE NOTED.

**2 TYPICAL SANITARY SEWER MANHOLE DETAIL**  
NOT TO SCALE



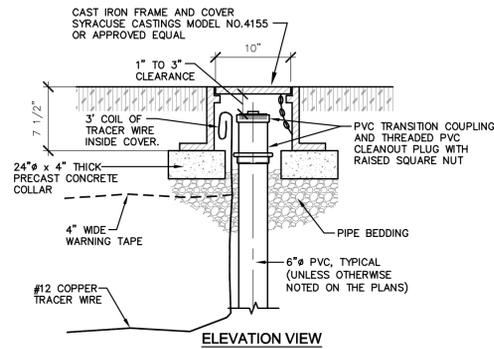
- NOTES:**
- SIZE OF CORING DIAMETER PER MANUFACTURER'S RECOMMENDATIONS FOR PROPOSED PIPE.
  - ALL CLAMPING BANDS, WEDGE EXPANDERS AND HARDWARE TO BE SERIES 300 STAINLESS STEEL.
  - INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

**3 EXISTING SANITARY SEWER MANHOLE CONNECTION DETAIL**  
NOT TO SCALE

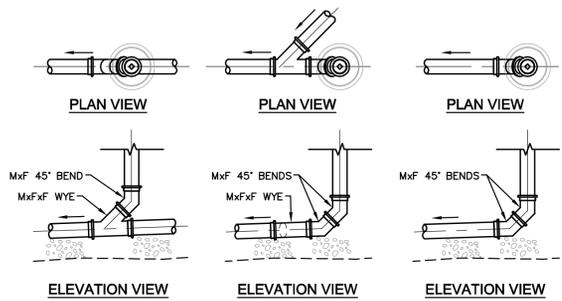
WATER MAIN / SANITARY SEWER DETAIL		
CONDITION	SCHEMATIC	REQUIREMENTS
I WATER LINE ABOVE SEWER LINE		A.) WATER LINE AND SEWER LINE PIPE LENGTHS TO BE CENTERED AT CROSSING, EACH PIPE LENGTH SHALL BE MIN. 20' MIN.
II WATER LINE ABOVE SEWER LINE		A.) WATER LINE AND SEWER LINE PIPE LENGTHS TO BE CENTERED AT CROSSING, EACH PIPE LENGTH SHALL BE MIN. 20' MIN. B.) SEWER LINE TO BE AWWA C900 WATER WORKS GRADE 150 PSI PRESSURE RATED PVC PIPE. PRESSURE TEST TO ENSURE WATER TIGHTNESS OR ENCASE SEWER LINE WITH CONCRETE FOR 10' MIN. EACH SIDE OF CROSSING, 6" MIN. AROUND BELL OF PIPE
III SEWER LINE ABOVE WATER LINE		A.) WATER LINE AND SEWER LINE PIPE LENGTHS TO BE CENTERED AT CROSSING, EACH PIPE LENGTH SHALL BE MIN. 20' MIN. B.) SEWER LINE TO BE AWWA C900 WATER WORKS GRADE 150 PSI PRESSURE RATED PVC PIPE. PRESSURE TEST TO ENSURE WATER TIGHTNESS OR ENCASE SEWER LINE WITH CONCRETE FOR 10' MIN. EACH SIDE OF CROSSING, 6" MIN. AROUND BELL OF PIPE

**NOTE:** IN NO CASE SHALL PIPES BE CLOSER THAN 12" APART. DISTANCES SHOULD BE MEASURED BETWEEN OUTSIDE OF PIPES

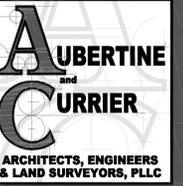
**4 TYPICAL WATER / SEWER CROSSING DETAIL**  
NOT TO SCALE



**5 TYPICAL CLEANOUT DETAIL**  
NOT TO SCALE



**6 TYPICAL CLEANOUT CONFIGURATION DETAIL**  
NOT TO SCALE



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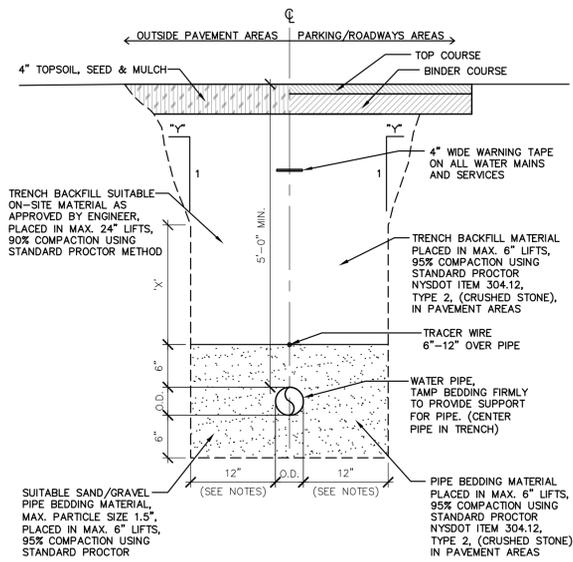


**NEW YORK AIR BRAKE ENGINEERING LAB ADDITION**  
748 STARBUCK AVENUE  
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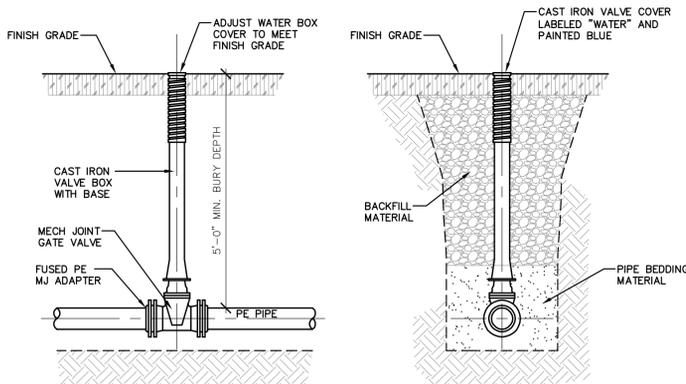
SANITARY SEWER DETAILS

**CU500**

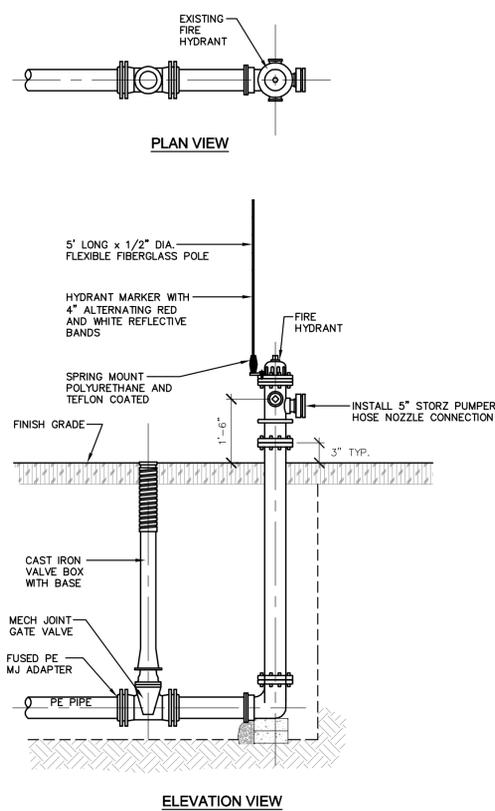


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  - PROVIDE WARNING TAPE AT ALL UNDERGROUND UTILITIES.
  - PROVIDE #12 SOLID COPPER TRACER WIRE WITH PE JACKET, COLOR CODED PER UTILITY (BLUE-WATER).

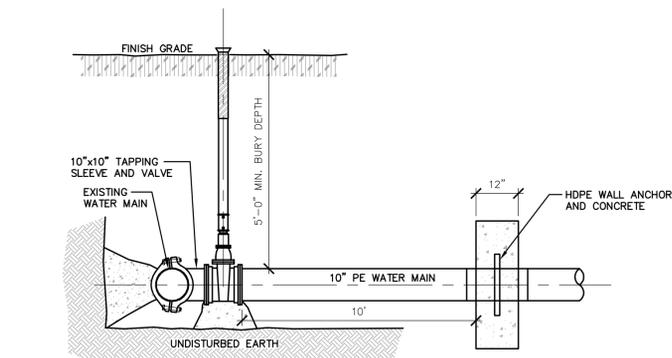
**1 TYPICAL WATER TRENCH DETAIL**  
NOT TO SCALE



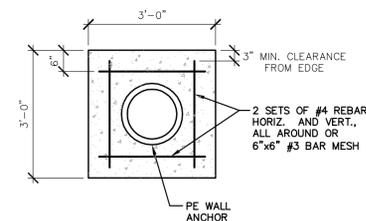
**4 TYPICAL WATER SERVICE GATE VALVE AND BOX DETAIL**  
NOT TO SCALE



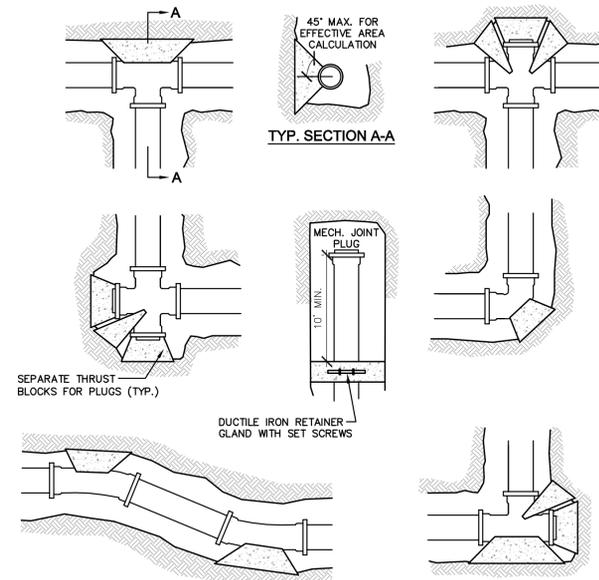
**3 FIRE HYDRANT DETAIL**  
NOT TO SCALE



**5 TYPICAL TAPPING SLEEVE AND VALVE DETAIL**  
NOT TO SCALE



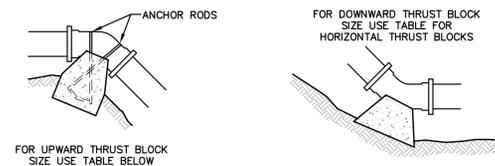
**6 TYPICAL PE WALL ANCHOR DETAIL**  
NOT TO SCALE



**ANCHOR SCHEDULE**

NOMINAL PIPE SIZE	150 P.S.I. HYDROSTATIC PRESSURE AGAINST UNDISTURBED SOIL, AT 2000 P.S.F. BRNG. CAPACITY					150 P.S.I. HYDROSTATIC PRESSURE AGAINST ROCK TRENCH, AT 10,000 P.S.F. BRNG. CAPACITY				
	11-1/4\"/>									
	4"	1.0	1.0	1.0	1.9	1.4	1.0	1.0	1.0	1.0
6"	1.0	1.1	2.1	4.0	2.8	1.0	1.0	1.0	1.0	1.0
8"	1.0	1.9	3.7	6.8	4.8	1.0	1.0	1.0	1.4	1.0
10"	1.4	2.8	5.6	10.3	7.3	1.0	1.0	1.1	2.1	1.5
12"	2.0	4.0	7.9	14.5	10.3	1.0	1.0	1.6	2.9	2.1
14"	2.7	5.4	10.6	19.5	13.8	1.0	1.1	2.1	3.9	2.8
16"	3.5	7.0	13.6	25.2	17.8	1.0	1.4	2.7	5.0	3.6
18"	4.4	8.7	17.1	31.7	22.4	1.0	1.7	3.4	6.3	4.5
20"	5.4	10.7	21.0	38.9	27.5	1.2	2.1	4.2	7.8	5.5
24"	7.7	15.3	30.0	55.5	39.2	1.5	3.1	6.0	11.1	7.8

**7 TYPICAL HORIZONTAL THRUST BLOCK DETAIL**  
NOT TO SCALE (DIP USE ONLY)



**ANCHOR SCHEDULE**

NOMINAL PIPE SIZE	150 P.S.I. HYDROSTATIC PRESSURE								
	11-1/4\"/>								
	4"	0.2	3/8"	0.4	3/8"	3/8"	1'-2"	0.4	3/8"
6"	0.4	3/8"	0.7	3/8"	3/8"	1'-2"	0.7	3/8"	1'-2"
8"	0.8	3/8"	1.2	3/8"	3/8"	1'-2"	1.2	3/8"	1'-2"
10"	0.9	3/8"	1.7	3/8"	3/8"	1'-2"	1.7	3/8"	1'-2"
12"	1.3	3/8"	2.5	1/2"	3/8"	1'-6"	2.5	1/2"	1'-6"
14"	1.7	3/8"	3.3	1/2"	3/8"	1'-6"	3.3	1/2"	1'-6"
16"	2.2	3/8"	4.3	1/2"	3/8"	1'-6"	4.3	1/2"	1'-6"
18"	2.7	1/2"	5.4	5/8"	1/2"	2'-0"	5.4	5/8"	2'-0"
20"	3.3	1/2"	6.6	5/8"	1/2"	2'-0"	6.6	5/8"	2'-0"
24"	4.7	5/8"	9.4	3/4"	5/8"	2'-3"	9.4	3/4"	2'-3"

**8 TYPICAL VERTICAL THRUST BLOCK DETAIL**  
NOT TO SCALE (DIP USE ONLY)

**GENERAL NOTES**

1. NEW BEAMS IN LAB TESTING AREA WILL BE SIZED TO ACCOMMODATE A (2) TON CRANE EQUIPMENT. OWNER TO FURNISH AND INSTALL CRANE.

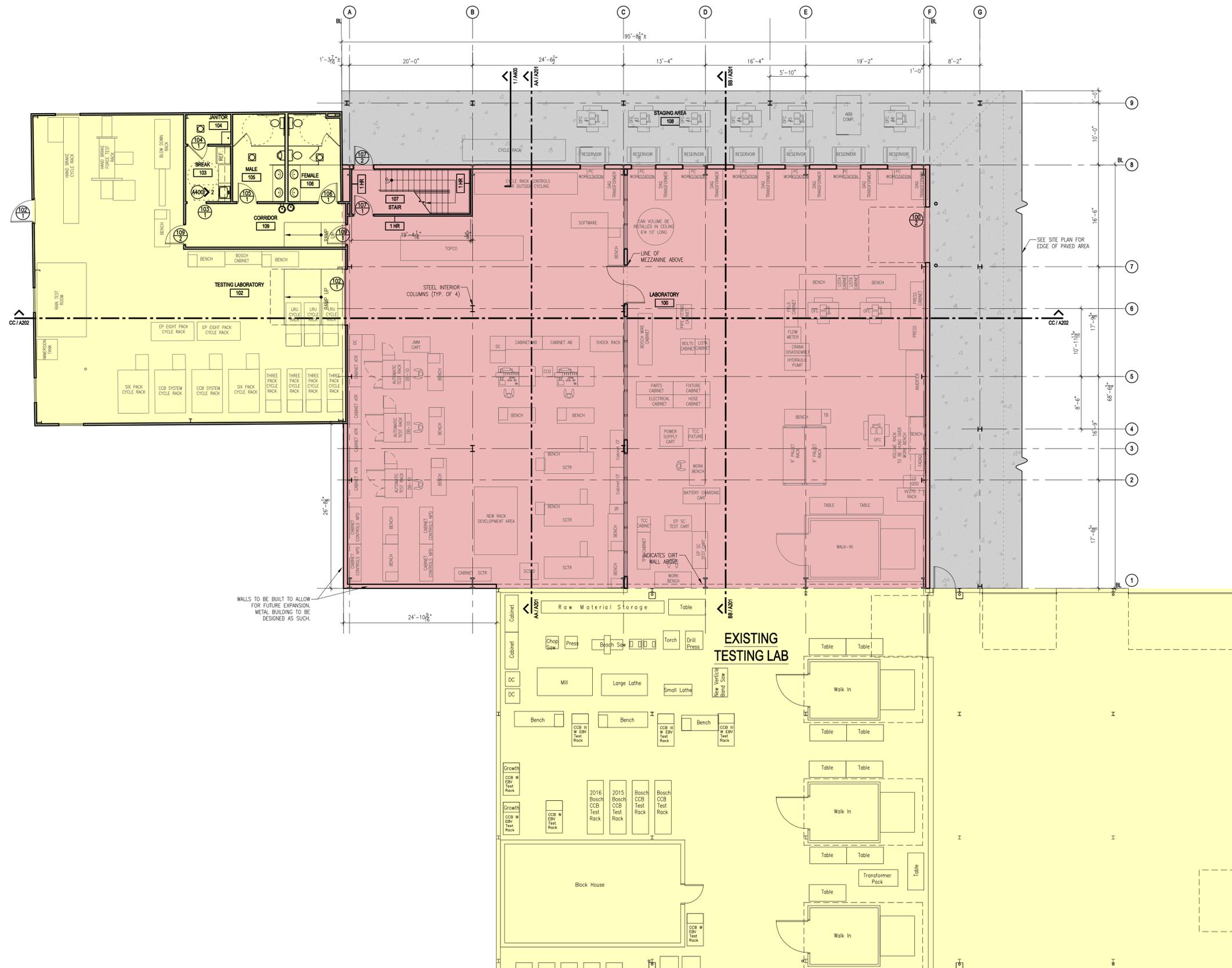


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748 STARBUCK AVENUE  
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JEFFERSON COUNTY

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FIRST FLOOR PLAN

**A PROPOSED FLOOR PLAN**  
1/8"=1'-0"

**SQUARE FOOTAGES**  
EXISTING BUILDING: 2,552 S.F.  
ADDITION: 6,537 S.F.  
FIRST FLOOR TOTAL: 9,089 S.F.  
SECOND FLOOR W/O STAIR: 2,900 S.F.  
TOTAL: 11,989 S.F.

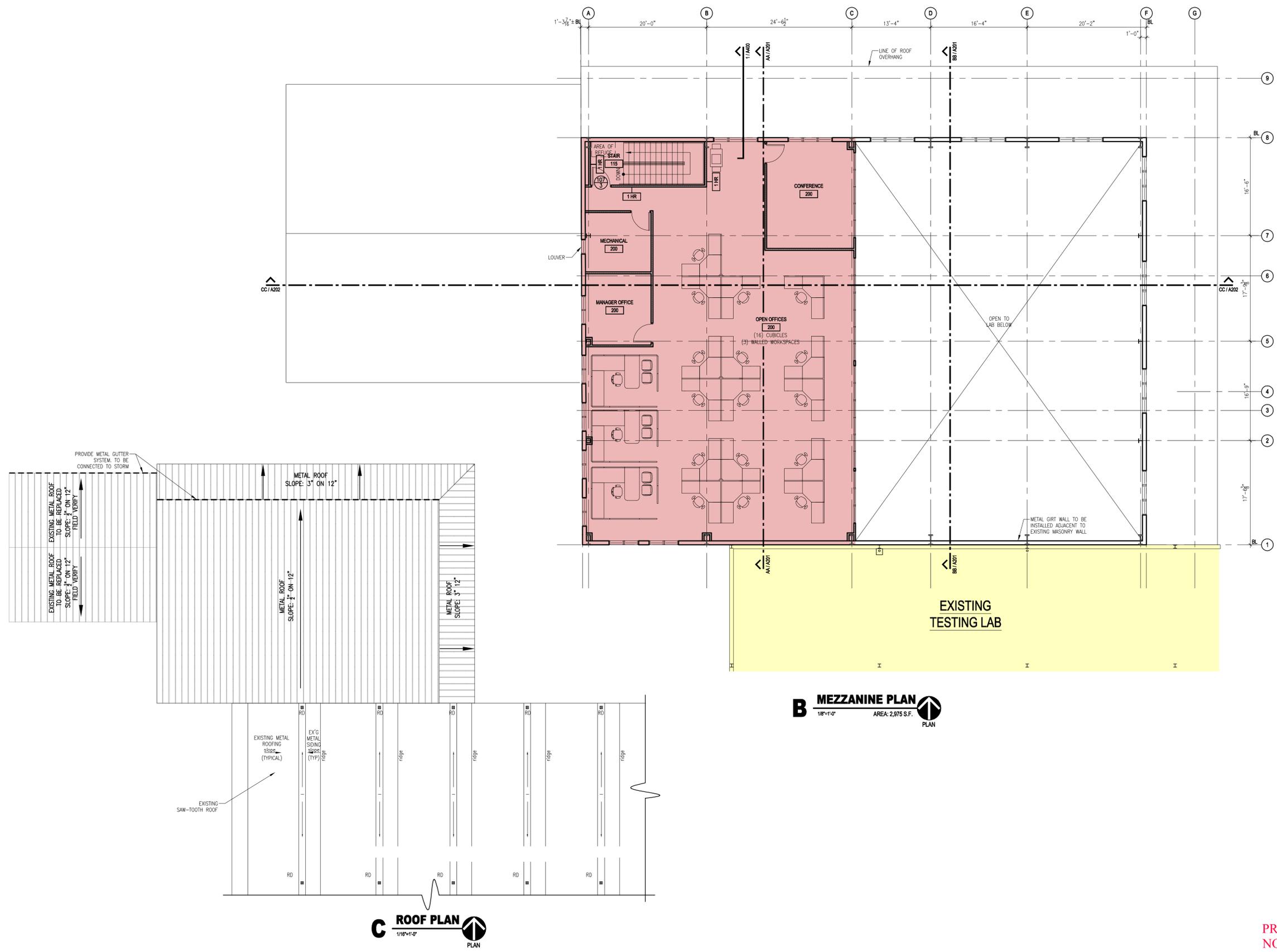
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**NEW YORK AIR BRAKE  
ENGINEERING LAB ADDITION**  
748 STARBUCK AVENUE  
WATERTOWN, NEW YORK  
JEFFERSON COUNTY

PROJECT NO:	2015-028.007
SCALE:	AS NOTED
DRAWN BY:	BMK
CHECKED BY:	BAJ
ISSUE DATE:	06-19-2015

MEZZANINE AND ROOF PLAN



PROGRESS PRINT  
NOT FOR CONSTRUCTION

