paradigm design inc.
Architects • Civil Engineers

August 16, 2011

Mr. Kurt Hauk
City of Watertown Engineer
245 Washington St., Rm. 305
Watertown, NY 13601

Re: Renzi Foodservice Addition
Watertown, NY
Job #1107073

Dear Mr. Hauk:

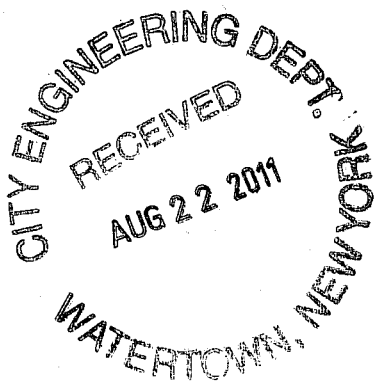
Enclosed you will find required application documents as well as site and building plans, for a proposed building addition to the existing Renzi food service facility located on Rail Drive. The following is a brief description of the project.

The existing facility was constructed in 2003, and subsequently expanded in 2006/2007 to the present day facility. Due to increasing demand, the Owner has recognized the need to expand the existing freezer warehouse area to the south side of the building. In addition, an existing freezer will be modified to a cooler warehouse, and the dock area will be expanded to accommodate the additional storage space within the building. The intent of the building addition is to match the existing building color and style.

The freezer expansion will extend south from the existing building toward existing railroad tracks. Due to the size and configuration of the building addition, a fire apparatus road will be constructed to allow emergency vehicles to access the new addition. Runoff from the addition will be diverted to the existing site infiltration basin through grass swales, which should help provide water quality treatment prior to infiltrating into the ground.

Construction is anticipated to begin in late September (after securing all necessary approvals from City of Watertown and NY DEC), with completion tentatively scheduled for January 2012.

We look forward to working with you on this project, and ask that you do not hesitate to contact me at (616) 785-5567 with any questions or additional information necessary to complete your review of this project.



Respectfully submitted,

PARADIGM DESIGN, INC.

John R. Walsh, P.E.
Civil Engineer, LEED® AP

Cc: Bob Ross – Food Tech, LLC
File

CITY OF WATERTOWN
SITE PLAN APPLICATION
AND
SHORT ENVIRONMENTAL
ASSESSMENT FORM, PART 1

** 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: Renzi Freezer & Dock Expansion

Tax Parcel Number: 9-43-101.008

Property Address: 901 Rail Drive, Watertown, NY 13601

Existing Zoning Classification: Light Industrial

OWNER OF PROPERTY

Name: MLR Realty LLC

Address: 901 Rail Drive,
Watertown, NY

Telephone Number:

Fax Number:

APPLICANT

Name: Food Tech LLC

Address: 300 Ledgewood Pl (Suite 100)
Rockland, MA 02370

Telephone Number: (781)261-9700

Fax Number: (781)261-9701

Email Address: bross@foodtech.com

ENGINEER/ARCHITECT/SURVEYOR

Name: Paradigm Design, Inc.

Address: 550 3 Mile Rd NW
Grand Rapids, MI 49544

Telephone Number: (616)785-5567

Fax Number: (616)785-5657

Email Address: jwalsh@paradigmae.com

PROJECT DESCRIPTION

Describe project and proposed use briefly:

The project will consist of an approximately 14,500 square foot freezer expansion along the south side of the existing building, along with an approximately 4,300 square foot dock expansion at the northeast corner of the existing building. No other site improvements are proposed as part of this project.

Is proposed Action:

☐ New ☒ Expansion ☐ Modification/Alteration

Amount of Land Affected:

Initially: 2.44 Acres Ultimately: 2.44 Acres

Will proposed action comply with existing zoning or other existing land use restrictions?

☒ Yes ☐ No If no, describe briefly

What is present land use in vicinity of project?

☒ Residential ☒ Industrial ☐ Commercial ☐ Agriculture

☐ Park/Forest/Open Space ☐ Other

Describe: A residential zone district is located on east side of RR tracks

Does project involve a permit approval, or funding, now or ultimately from any other Governmental Agency (Federal, State or Local)?

☒ Yes ☐ No If yes, list agency(s) and permit/approval(s)

Does any aspect of the project have a currently valid permit or approval?

☐ Yes ☒ No If yes, list agency(s) and permit/approval(s)

As a result of proposed project, will existing permit/approval require modification?

☒ Yes ☐ No

Proposed number of housing units (if applicable): N/A

Proposed building area: 1st Floor 58,669 Sq. Ft.
2nd Floor N/A Sq. Ft.
3rd Floor N/A Sq. Ft.
Total 58,669 Sq. Ft.

Area of building to be used for the boiler room, heat facilities, utility facilities and storage: < 500 Sq. Ft.

Number of parking spaces proposed: None (existing spaces to remain)

Construction Schedule: Tentative: Start September 20th & completion/ occupancy by January 20, 2012

Hours of Operation: No change - same as existing building

Volume of traffic to be generated: 75 (estimated) ADT

REQUIRED DRAWINGS:

** 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.

☒ **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".

N/A 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.

N/A ☐ Proposed parking & loading spaces including ADA accessible spaces are shown and labeled.

N/A ☐ 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.

N/A ☐ 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.

N/A 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 supercede all other plans and specifications provided."

☒ **LANDSCAPING PLAN**

☒ All proposed above ground features are shown and labeled.

N/A All proposed trees, shrubs, and other plantings are shown and labeled.

N/A All proposed landscaping & text are shown darker than existing features.

N/A All proposed landscaping is clearly depicted, labeled and keyed to a plant schedule that includes the scientific name, common name, size, quantity, etc.

N/A 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).**

N/A **PHOTOMETRIC PLAN** (If Applicable)

N/A All proposed above ground features are shown.

N/A 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.

N/A Maintenance & protection and traffic plans & notes for all required work within City streets including driveways, water laterals, sanitary laterals, storm connections, etc. are provided.

N/A 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 ARCHITECTUAL 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.

N/A 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.

N/A 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

N/A 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.

☒ 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.

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

_____

_____

_____

_____

_____

☒ Completed SEQR – Short Environmental Assessment Form – Part 1.
*A copy of the SEQR Form can be obtained from the City of Watertown website.

SIGNATURE

I certify that the information provided above is true to the best of my knowledge.

Applicant (please print) Robert W. Ross

Applicant Signature _____ Date: 5/11/11

PERMIT REQUIREMENTS

If someone other than the property owner is obtaining a permit (i.e. building, sidewalk, sewer, sign, curb cut, city street use, etc.), authorization from the property owner, such as the form below, is required.

SIGNATURE AUTHORIZATION

TO: DEPARTMENT OF ENGINEERING
245 Washington Street
Room 305, Watertown Municipal Building
Watertown, NY 13601

I hereby authorize Food Tech, LLC (Bob Ross) to sign my name to
(Name of Person)

an application for a permit for:

- [x] (BUILDING)
- [x] (SIGN)
- [x] (SIDEWALK)
- [x] (CURB CUT)
- [ ] (SEWER)
- [x] (CITY STREET USE)

for or in connection with property owned by me, located at:

901		Rail	Drive
(street#)	(Direction)	(Street name)	(street suffix: St, Ave, Bvd)

Also, I further agree to comply with all conditions called for in said application and to abide by all other applicable codes, ordinances and regulations.

John M Renzi
Printed Name of Property Owner

John M Renzi
Signature of Property Owner

8/11/2011
Date

FEES: Permit fees vary. Checks are an acceptable means of payment and should be made payable to "The City Of Watertown."

PROJECT I.D. Number

Appendix C

State Environmental Quality Review

SEQR

SHORT ENVIRONMENTAL ASSESSMENT FORM

For UNLISTED ACTIONS Only

PART 1 – PROJECT INFORMATION (To be completed by Applicant or Project Sponsor)

1. APPLICANT/SPONSOR
Paradigm Design, Inc (Attn: John Walsh)

2. PROJECT NAME
Renzi Foodservice addition

3. PROJECT LOCATION:
Municipality Watertown County Jefferson

4. PRECISE LOCATION (Street address and road intersections, prominent landmarks, etc., or provide map)
901 Rail Drive, Watertown, NY

5. IS PROPOSED ACTION:
☐ New ☑ Expansion ☐ Modification/alteration

6. DESCRIBE PROJECT BRIEFLY:
Construction of an approximately 15,000 square foot freezer warehouse along with 4,600 square foot dock area expansion. No parking lot expansion is proposed

7. AMOUNT OF LAND AFFECTED:
Initially 2.44 acres Ultimately 2.44 acres

8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER EXISTING LAND USE RESTRICTIONS?
☑ Yes ☐ No If no, describe briefly

9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT?
☐ Residential ☑ Industrial ☐ Commercial ☐ Agriculture ☐ Park/Forest/Open Space ☐ Other
Describe: Residential zone is south and east of existing railroad tracks

10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (FEDERAL, STATE OR LOCAL)?
☐ Yes ☑ No If yes, list agency(s) and permit/approvals

CITY ENGINEERING DEPT. RECEIVED AUG 22 2011 WATERTOWN, NEW YORK

11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL?
☐ Yes ☑ No If yes, list agency(s) and permit/approvals

12. AS A RESULT OF PROPOSED ACTION, WILL EXISTING PERMIT/APPROVAL REQUIRE MODIFICATION?
☐ Yes ☑ No

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: JOHN WALSH (PARADIGM DESIGN) Date: 8/16/11

Signature: R We

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment

OVER

A. DOES ACTION EXCEED ANY TYPE I THRESHOLD IN 6 NYCRR, PART 617.12? If yes, coordinate the review process and use the FULL EAF.
☐ Yes ☑ No

B. WILL ACTION RECEIVE COORDINATED REVIEW AS PROVIDED FOR UNLISTED ACTIONS IN 6 NYCRR, PART 617.6? If NO, a negative declaration may be superseded by another involved agency.
☑ Yes ☐ No

C. COULD ACTION RESULT IN **ANY** ADVERSE EFFECTS ASSOCIATED WITH THE FOLLOWING: (Answers may be handwritten, if legible)

C1. Existing air quality, surface or groundwater quality or quantity, noise levels, existing traffic patterns, solid waste production or disposal, potential for erosion, drainage or flooding problems? Explain briefly: NO

C2. Aesthetic agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly: NO

C3. Vegetation or fauna, fish shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly: NO

C4. A community's existing plans or goals as officially adopted, or a change in use or intensity of use of land or other natural resources? Explain briefly: NO

C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly. NO

C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly. NO

C7. Other impacts (including changes in use of either quantity or type of energy)? Explain briefly. NO

D. WILL THE PROJECT HAVE AN IMPACT ON THE ENVIRONMENTAL CHARACTERISTICS THAT CAUSED THE ESTABLISHMENT OF A CEA?
☐ Yes ☑ No

E. IS THERE, OR IS THERE LIKELY TO BE, CONTROVERSY RELATED TO POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS?
☐ Yes ☑ No If yes, explain briefly

PART III – DETERMINATION OF SIGNIFICANCE (To be completed by Agency)

INSTRUCTIONS: For each adverse effect identified above, determine whether it is substantial, large, important or otherwise significant. Each effect should be assessed in connection with its (a) setting (i.e. urban or rural); (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude. If necessary, add attachments or reference supporting materials. Ensure that explanations contain sufficient detail to show that all relevant adverse impacts have been identified and adequately addressed.

☐ Check this box if you have identified one or more potentially large or significant adverse impacts which **MAY** occur. Then proceed directly to the FULL EAF and/or prepare a positive declaration.

☐ Check this box if you have determined, based on the information and analysis above and any supporting documentation, that the proposed action **WILL NOT** result in any significant adverse environmental impacts AND provide on attachments as necessary, the reasons supporting this determination:

Name of Lead Agency

Print or Type Name of Responsible Officer in Lead Agency

Title of Responsible Officer

Signature of Responsible Officer in Lead Agency

Signature of Preparer (If different from responsible officer)

Date

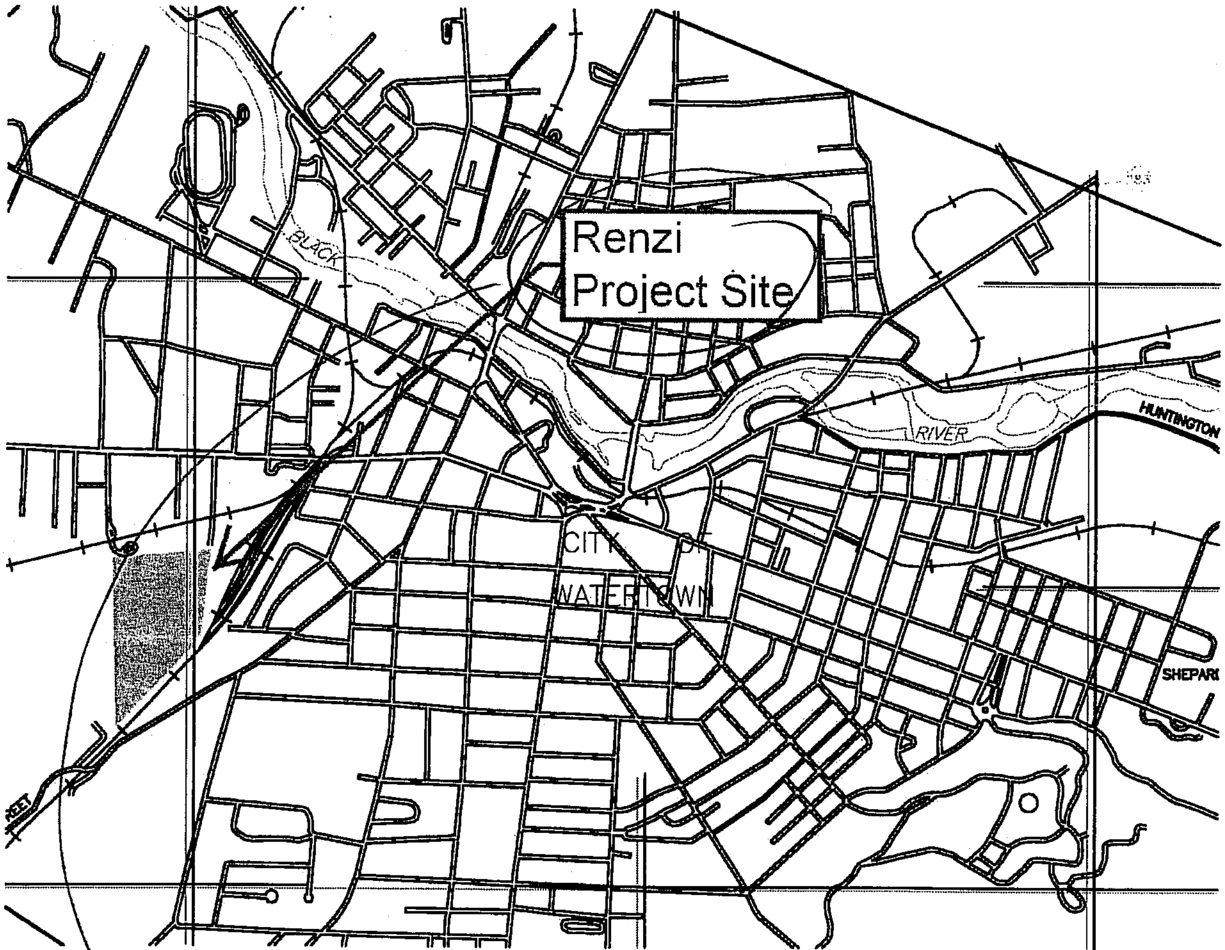
Engineering Summary & Report

Freezer & Dock Addition
for
Renzi Food Supply
Watertown,NY

Job No. 1107073
August 16, 2011

PARADIGM DESIGN, INC.
550 3 Mile N.W., Suite B
Grand Rapids, MI 49544
PH: (616) 785-5656
Fax: (616) 785-5657

LOCATION MAP



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PROJECT SUMMARY

The site consists of an existing 39,400 square food distribution warehouse, with associated loading areas and 83 site parking spaces. The site is located at 901 Rail Drive, in the City of Watertown. The original building was constructed in 2003/2004, with an addition in 2006/2007 taking the site to its current condition. The building is served by an 8" dead-end watermain for both fire protection and domestic water supply. Sanitary sewer is pumped from an existing lift station near the Northeast corner of the existing building, which discharges to public sewer near Rail Drive through a 2 inch diameter force main. Both sanitary and water services will remain unchanged as part of this proposed project.

Storm water runoff from the existing, improved site sheet flows to an existing infiltration basin located at the northwest corner of the parking lot. During larger rain events this basin will overflow through an earthen berm (broad-crested weir) to Beaver Meadows, which is a 1,000 + acre wetland located downstream of the project site. No information was found regarding design of this basin, and attached storm water analysis is not meant to re-design this basin but to show that it was originally designed in general accordance with state storm water manual.

To the extent possible, low-impact development (LID) techniques were used on site. These include grassed swales to carry roof runoff from the new building addition roof to the existing infiltration basin, as well as maintaining the existing infiltration basin on site and making fire apparatus road gravel rather than paved surface.

Construction is anticipated to begin in late September 2011 (pending necessary City and State approvals) and be completed in January 2012.

SITE DATA

- Traffic Data (estimated ADT)
  - Existing
    - Auto: 50 trips
    - Truck: 24 trips (12 trucks)
  - Proposed
    - Auto: 50 trips (same as existing)
    - Truck: 32 trips (16 trucks)

- Site Landscaping
  - All existing site buffers will remain as part of this project
  - Street Trees (15' greenspace w/ trees at 40' on center)
    - Existing tree cluster along Rail Drive to remain, and will be used to meet street tree requirement
  - Exterior Parking Lot Plantings
    - Existing driveway trees will be used to meet this requirement
    - North and west side of existing parking lot also have large wooded areas to help achieve intent of this requirement
  - Interior Parking lot plantings
    - Existing site does not have any interior islands, in order to allow better snow removal and truck maneuvering within the site
    - Site is surrounded by existing woods

- Site Lighting
  - Existing
    - 12 light poles within site driveway and parking lot
    - 23' – 28' fixture height (20' & 25' poles on 3' base)
  - Proposed
    - Same as existing (no new light poles)
      - Only building wall pack units to be added

UTILITY DATA

Water & Sewer Flow (domestic use)

- Existing Usage (from 2010 water bills)
  - Average = 41.5 hundred cubic feet per quarter
    - 1400 cubic feet per month
    - 10,400 gallons per month
    - 350 gallons per day (using 30 days per month)
- Proposed Usage
  - No increase is proposed
    - 350 gallons per month

Water Flow & Pressure (fire protection)

- Existing System (Rail Drive)
  - Static Pressure: 100 psi
  - Flow test (July 18th – City Water Dept.)
    - 3,996 gpm @ 20 psi residual pressure
- Existing System (Renzi building)
  - sprinkled
- Proposed System (Renzi building)
  - In process of being designed by fire protection contractor

STORM DRAINAGE

The existing developed site drains via overland flow to an infiltration basin located at the northwest corner of the existing site. The basin is adjacent to existing NY DEC wetlands, and is located within the 100' wetland buffer. Although the most recent site addition was designed and constructed in 2006/2007, no information is on record for the design of this basin. To show that the basin does indeed meet the current New York storm water unified sizing criteria, calculations were performed on this as-built basin for both the pre-developed site condition (2003 - prior to any construction on this site) and the proposed condition shown on the attached plans.

The site was surveyed in early August 2011, and this site survey data was used to delineate post-developed watershed areas. Existing contours shown on original 2003 construction plans were used to determine pre-development watershed areas. These areas are summarized as follows (reference attached drainage maps for location of watersheds):

Pre-Developed Conditions – Before 2004

The existing conditions were modeled to reflect the site as of the year 2003, before any development took place. The existing site contained no impervious area and was covered with woods & a mixture of brush, weed and grass with brush being the major factor. Overall, the entire site drained northwest as one drainage area to existing wetlands. The existing slopes ranged from 1% to 50%.

Drainage Area	Surface	Soil Group "C" (acres)	Total Area (acres)	RCN	Time of Concentration Tc (Hours)	Peak Discharge	
						10 Year	100 Year
EX-1	Woods/Brush	24.10	24.10	82	0.52	24.49	37.63

Developed Conditions Including Proposed Expansion

The post-developed conditions were modeled to include the existing Renzi Bros. facility, adjacent parking and drive plus two proposed building additions (approximately 19,259 square feet). The developed site mimics the existing site and drains northwest. The site is split into three separate drainage areas. Drainage area one (DA-1) and three (DA-3) have not been developed from the existing conditions, contain no impervious area and are covered with wood and brush and outlet to the existing wetland. Drainage area two (DA-2) contains the existing building, parking and drive along with the two proposed building additions. DA-2 drains to an existing infiltration basin.

Drainage Area	Surface	Soil Group "C" (acres)	Total Area (acres)	RCN	Time of Concentration (Tc) (Hours)	Peak Discharge	
						10 Year	100 Year
DA-1	Woods/Brush	4.94	4.94	82	-		
DA-2	Impervious	3.85	15.70	84	0.30		
	Gravel	0.55					
	Woods	5.72					
	Open Space	5.09					
	Infiltration Basin	0.49					
DA-3	Woods/Brush	3.36	3.36	82	-		

Of these watersheds, only area DA-2 contains impervious area and drain to the existing infiltration basin. This area of 15.70 acres was used as the "project area" for purposes of calculating required storm water volumes. Curve Number of 82 is to provide consistency with GYMO design of 2003 (since been demolished).

Water Quality

Required Water Quality Volume = P * Rv* A/12 = 646 c.f. ; where:
P = 0.90 inches (see Figure 4.1 of NY Storm Water Manual)
Rv = 0.05 + 0.009* I = 0.0126
I = 28 (% Impervious in DA-2; see above)
A = 15.7 acres (see above)

Provided Water Quality Volume: 29,800 cubic feet (up to elevation 399 in infiltration basin)

Channel Protection/Flood Control

The existing and proposed drainage areas are both used as 15.7 acres (DA-2), with the understanding that the remainder of site that is undeveloped will discharge at the same rate for both the post-developed and pre-developed conditions. The existing infiltration basin was modeled using Hydraflow Hydrographs software, using an assumed infiltration rate of 1.5 inches per hour. This rate is based on approximately 50% of NRCS soil survey rate of 24 micrometers per second (3.4 inches per hour). **No field exploration of this rate has been completed as part of this analysis.**

The channel protection volume is calculated using the 1 year, 24 hour design storm (approx. 2 inches for this site). Using Hydraflow Hydrographs software, the 1 year storm event will be contained within the existing infiltration basin (up to elevation 398.63) with no discharge (only infiltration).

During larger storm events, the runoff into the infiltration basin exceeds the infiltration rate of site soils. This triggers discharge through existing earthern berm on west side of

basin. However, even with flow over this weir the post-developed runoff to Beaver Meadows is still less than pre-developed runoff. A summary of these flows is as follows:

				Site Discharge (cfs)		
	Area (ac.)	CN	Tc	Q1	Q10	Q100
Pre-Developed	15.7	82	30.9	8.4	24.5	37.6
Post-Developed	15.7	84	17.8	0.7	11.6	33.4

Additional information and calculations are included following this report and with New York DEC Notice of Intent & SWPP (attached).

Stormwater Pollution Prevention Plan

for:

Renzi FoodService
901 Rail Drive
City of Watertown, Jefferson County, NY

Operator(s):

MLR Realty, LLC
Attn: John Renzi
901 Rail Drive
Watertown, NY 13601

SWP3 Contact(s):

Paradigm Design, Inc.
John Walsh, PE
550 3 Mile Road NW, Suite B
Grand Rapids, MI 49544
(616) 785-5567
jwalsh@paradigmae.com

SWPPP Preparation Date:

August 16, 2011

Estimated Project Dates:

Project Start Date: September 2011
Project Completion Date: January 2011

Contents

SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 Project/Site Information

Project/Site Name: Renzi Foodservice
Project Street/Location: 901 Rail Drive
City: Watertown State: NY ZIP Code: 13601
County or Similar Subdivision: Jefferson County

Latitude/Longitude
Latitude: Longitude:
43.969° N 75.932° W

Method for determining latitude/longitude:
☐ USGS topographic map (Quad map) X☐ DEC Web site ☐ GPS

☐ Other (please specify): _____

1.2 Contact Information/Responsible Parties

Operator(s):
MLR Realty, LLC
John Renzi
901 Rail Drive
Watertown, NY 13061

Project Manager(s) or Site Supervisor(s):
Insert Company or Organization Name: Food Tech, LLC
Insert Name: Bob Ross
Insert Address: 300 Ledgewood Place
Insert City, State, Zip Code: Rockland, MA 02370
Insert Telephone Number: 781-261-9700
Insert Fax/Email: bross@foodtech.com

This SWPPP was Prepared by:
Paradigm Design, Inc.
John Walsh

550 3 Mile Road NW, Suite B
Grand Rapids, MI 49544
(616) 785-5567
jwalsh@paradigmae.com

Contractor(s):

Insert Company or Organization Name: TBD – Site Contractor
Insert Name:
Insert Address:
Insert City, State, Zip Code:
Insert Telephone Number:
Insert Fax/Email:
Repeat as necessary

Emergency 24-Hour Contact:

Insert Name:
Insert Company or Organization Name:
Insert Telephone Number:

1.3 Nature and Sequence of Construction Activity

Describe the general scope of the work for the project, major phases of construction, etc:

Construction of an approximately 15,000+/- s.f. freezer addition, 4,500 square foot dock addition along with associated drainage improvements. Major phases of construction will include: temporary control measures, site grading, underground utilities, building/foundations, permanent controls (curb, paving, etc), finish grading and landscaping.

What is the function of the construction activity?

☐ Residential ☐ Commercial X☐ Industrial ☐ Road Construction ☐ Linear Utility

☐ Other (please specify):

Estimated Project Start Date: September 2011

Estimated Project Completion Date: January 2012

1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns

Soil type(s): Based on review of NRCS (USDA) soil survey, the site consists primarily of loam and silty loam, both Hydrologic Soil Group "C" soils. Excerpts of this report are attached to this plan.

Slopes (describe current slopes and note any changes due to grading or fill activities): Currently, existing slopes range from 1% to 5%, with proposed slopes similar in nature. The exception to these slopes is at southerly property line, where the site slopes up at 50% to existing railroad line.

Drainage Patterns (describe current drainage patterns and note any changes dues to grading or fill activities): The entire site (pre-developed and post-developed) drains to the west to Beaver Meadows. This is a 1,000+ acre wetland area extending westerly from the site.

Vegetation: The pre-existing site is primarily wooded.

1.5 Construction Site Estimates

The following are estimates of the construction site.

Total project area:	24.1 acres
Construction site area to be disturbed:	2.4 acres
Percentage impervious area before construction:	0%
Runoff coefficient before construction:	
Percentage impervious area after construction:	24 %
Runoff coefficient after construction	84

1.6 Receiving Waters

Description of receiving waters: Beaver Meadows (regulated wetland) from an existing infiltration basin (only during larger storm events when spillway is activated; smaller events have no discharge to wetlands as runoff infiltrates through basin).

Description of storm sewer systems: No storm sewer exists on site, with the exception of (2) culvert crossings at existing railroad siding. These culverts do NOT drain to the on-site infiltration basin.

1.7 Potential Sources of Pollution

Source	Stormwater Pollutants
Clearing, grading & excavating	Trash, debris, solids
Concrete washout and waste	pH, trash, debris, solids
Building Construction	Trash, debris, solids
Vehicle/Equipment Fueling	Oil & grease, trash, debris, solids
Vehicle/Equipment use & storage	Oil & grease, trash, debris, solids
Landscaping	Nutrients, trash, debris, solids

1.8 Historic Preservation

Are there any historic sites on or near the construction site?

☐ Yes ☒ No

1.9 Applicable Federal, Tribal, State or Local Programs

None

1.10 Maps/Plans

1. C.1 OVERALL SITE PLAN (including location map)
2. C1.1 SITE LEGENDS & NOTES
3. C2.0 SITE PLAN (INCLUDING SWPP INFORMATION)
4. C3.0 SITE DETAILS

SECTION 2: STORM WATER MANAGEMENT

2.1 Design Parameters

Storm Water Management:

- Analyze existing infiltration basin based on current New York Storm Water manual standards
  - Water Quality: Met through infiltration
  - Channel Protection Volume: Release 1 year storm event over 24 hours
  - Overbank Flood Control: Detain post-developed runoff from the 10 year storm to pre-developed 10 year release rate
  - Extreme Flood Control: Detain post-developed runoff from 100 year storm to pre-development 100 year discharge

Storm Sewer Design:

- N/A

2.2 Narrative

The existing developed site drains via overland flow to an infiltration basin located at the northwest corner of the existing site. The basin is adjacent to existing NY DEC wetlands, and is located within the 100' wetland buffer. Although the most recent site addition was designed and constructed in 2006/2007, no information is on record for the design of this basin. To show that the basin does indeed meet the current New York storm water unified sizing criteria, calculations were performed on this as-built basin for both the pre-developed site condition (2003 - prior to any construction on this site) and the proposed condition shown on the attached plans.

The site was surveyed in early August 2011, and this site survey data was used to delineate post-developed watershed areas. Existing contours shown on original 2003 construction plans were used to determine pre-development watershed areas. These areas are summarized as follows (reference attached drainage maps for location of watersheds):

Pre-Developed Conditions – Before 2004
The existing conditions were modeled to reflect the site as of the year 2003, before any development took place. The existing site contained no impervious area and was covered with woods & a mixture of brush, weed and grass with brush being the major factor. Overall, the entire site drained northwest as one drainage area to existing wetlands. The existing slopes ranged from 1% to 50%.

Drainage Area	Surface	Soil Group "C" (acres)	Total Area (acres)	RCN	Time of Concentration Tc (Hours)	Peak Discharge	
						10 Year	100 Year
EX-1	Woods/Brush	24.10	24.10	82	0.52	24.49	37.63

Developed Conditions Including Proposed Expansion
The post-developed conditions were modeled to include the existing Renzi Bros. facility, adjacent parking and drive plus two proposed building additions (approximately 19,259 square feet). The developed site mimics the existing site and drains northwest. The site is split into three separate drainage areas. Drainage area one (DA-1) and three (DA-3) have not been developed from the existing conditions, contain no impervious area and are covered with wood and brush and outlet to the existing wetland. Drainage area two (DA-2) contains the existing building, parking and drive along with the two proposed building additions. DA-2 drains to an existing infiltration basin.

Drainage Area	Surface	Soil Group "C" (acres)	Total Area (acres)	RCN	Time of Concentration (Tc) (Hours)	Peak Discharge	
						10 Year	100 Year
DA-1	Woods/Brush	4.94	4.94	82	-		
DA-2	Impervious	3.85	15.70	84	0.30		
	Gravel	0.55					
	Woods	5.72					
	Open Space	5.09					
	Infiltration Basin	0.49					
DA-3	Woods/Brush	3.36	3.36	82	-		

Of these watersheds, only area DA-2 contains impervious area and drain to the existing infiltration basin. This area of 15.70 acres was used as the "project area" for purposes of calculating required storm water volumes. Curve Number of 82 is to provide consistency with GYMO design of 2003 (since been demolished).

Water Quality

Required Water Quality Volume = P * Rv* A/12 = 646 c.f. ; where:
P = 0.90 inches (see Figure 4.1 of NY Storm Water Manual)
Rv = 0.05 + 0.009* I = 0.0126
I = 28 (% Impervious in DA-2; see above)
A = 15.7 acres (see above)

Provided Water Quality Volume: 29,800 cubic feet (up to elevation 399 in infiltration basin)

Channel Protection/Flood Control

The existing and proposed drainage areas are both used as 15.7 acres (DA-2), with the understanding that the remainder of site that is undeveloped will discharge at the same rate for both the post-developed and pre-developed conditions. The existing infiltration basin was modeled using Hydraflow Hydrographs software, using an assumed infiltration rate of 1.5 inches per hour. This rate is based on approximately 50% of NRCS soil survey rate of 24 micrometers per second (3.4 inches per hour). No field exploration of this rate has been completed as part of this analysis.

The channel protection volume is calculated using the 1 year, 24 hour design storm (approx. 2 inches for this site). Using Hydraflow Hydrographs software, the 1 year storm event will be contained within the existing infiltration basin (up to elevation 398.63) with no discharge (only infiltration).

During larger storm events, the runoff into the infiltration basin exceeds the infiltration rate of site soils. This triggers discharge through existing earthern berm on west side of basin. However, even with flow over this weir the post-developed runoff to Beaver Meadows is still less than pre-developed runoff. A summary of these flows is as follows:

	Site Discharge (cfs)						
	Area (ac.)		CN	Tc	Q1	Q10	Q100
Pre-Developed	15.7	82	30.9	8.4	24.5	37.6	
Post-Developed	15.7	84	17.8	0.7	11.6	33.4	

2.3 Calculations

Storm water calculations and associated maps and figures are located in the appendix.

SECTION 3: EROSION AND SEDIMENT CONTROL BMPS

3.1 Minimize Disturbed Area and Protect Natural Features and Soil

There are no natural areas on this site that will need to be protected. The existing wetlands on the west side of the site are over 400' from project disturbed area. Topsoil is required to be stockpiled to heights not exceeding 72 inches and shall be graded to drain. Disturbed areas will be minimized to the extent possibl.

3.2 Phase Construction Activity

Due to the nature and size of this site, phased construction is not anticipated. We do encourage the contractor to minimize the amount and duration of exposed soil at any time. Due to change in grade (from existing to proposed), this grading will likely expose most of the disturbed area at one time.

Construction is slated to begin in September of this year and permanent erosion control measures (i.e. curb, storm sewer, paving and seeding) will be installed as quickly as possible once the initial earthwork is completed.

3.3 Stabilize Soils

BMP Description: Hydroseed	
☒ *Permanent*	☐ *Temporary*
Installation Schedule:	As soon as fine grading is complete, hydroseed will be spread in all disturbed locations per the attached site plan.
Maintenance and Inspection:	As necessary to establish turf
Responsible Staff:	Contractor

3.4 Protect Slopes

BMP Description: Hydroseed w/ Erosion Control Blanket	
☒ *Permanent*	☐ *Temporary*
Installation Schedule:	As soon as fine grading is complete, hydroseed and erosion control blanket will be installed on slopes to protect them from erosion per the drawings and specifications
Maintenance and Inspection:	As necessary to establish a vigorous growth of grass.
Responsible Staff:	Contractor

3.5 Protect Storm Water Basins

BMP Description: Staked Hay bales	
☐ *Permanent*	☒ *Temporary*
Installation Schedule:	Prior to site disturbance, staked hay bales will be installed within swales leading to infiltration basin.
Maintenance and Inspection:	Weekly or after each rainfall event
Responsible Staff:	Contractor to engage certified storm water operator

3.6 Establish Perimeter Controls and Sediment Barriers

BMP Description: Staked Hay Bale	
☐ *Permanent*	☒ *Temporary*
Installation Schedule:	Prior to site disturbance, staked hay bales will be installed per site plan drawings (within proposed drainage swales)
Maintenance and Inspection:	Weekly or after each rainfall event
Responsible Staff:	Contractor to engage certified storm water operator

3.7 Establish Stabilized Construction Exits

BMP Description: Construction Entrance	
☐ *Permanent*	☒ *Temporary*
Installation Schedule:	Prior to site disturbance, a construction entrance will be constructed (See drawings).
Maintenance and Inspection:	Weekly or after each rainfall event
Responsible Staff:	Contractor to engage certified storm water operator

SECTION 4: GOOD HOUSEKEEPING BMPS

4.1 Material Handling and Waste Management

BMP Description: Trash Dumpster	
Installation Schedule:	Prior to start of building construction, a metal dumpster will be provided for disposal of construction debris and trash from the site.
Maintenance and Inspection:	The dumpster will be emptied a minimum of once per week or whenever deemed necessary by the site supervisor. Trash and construction debris will be disposed of in a local landfill.
Responsible Staff:	Contractor

4.2 Establish Proper Building Material Staging Areas

BMP Description: Hazardous Material Storage	
Installation Schedule:	Every effort will be made to only store the amount of materials necessary for the project and all materials will be stored in a neat and orderly manner in appropriate containers and, if possible, under roof or other enclosures. Products will be kept in their original containers with original manufacturer labels.
Maintenance and Inspection:	The site supervisor will inspect the storage area daily to ensure proper use and disposal.
Responsible Staff:	Contractor

4.3 Designate Washout Areas

BMP Description: Concrete wash-out area	
Installation Schedule:	Prior to concrete activities, site supervisor will designated an area for concrete washout. It shall be located as far as possible from any storm sewer. Once concrete construction is complete, the material in the washout are will be properly disposed of.
Maintenance and Inspection:	Daily during concrete construction activities
Responsible Staff:	Contractor

4.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

BMP Description: On-site Fueling and Maintenance Area	
Installation Schedule:	Site supervisor shall designate an area for on-site fueling and maintenance prior to equipment being used on site. The area shall be clean and dry, as far as possible from any storm drains and shall include a spill kit.
Maintenance and Inspection:	Daily
Responsible Staff:	Contractor

4.5 Spill Prevention and Control Plan

The following practices will be followed for spill prevention and clean-up on the project site:

1. Manufacturer's recommended methods for spill clean-up will be clearly posted and building site personnel will be made aware of the procedures and the location of the information and clean-up supplies.
2. Materials and equipment necessary for spill clean-up will be kept in the material storage area onsite.
3. All spills will be cleaned up immediately after discovery.
4. Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of size.

SECTION 5: SELECTING POST-CONSTRUCTION BMPs

BMP Description: Storm Sewer	
☒ *Permanent*	☐ *Temporary*
Installation Schedule:	Storm sewer relocation and new construction will occur following the completion of demolition and grading operations.
Maintenance and Inspection:	Contractor will hire an independent testing laboratory to monitor installation of storm sewers.
Responsible Staff:	Contractor and Independent Testing Laboratory

BMP Description: Outlet Protection	
☒ *Permanent*	☐ *Temporary*
Installation Schedule:	Storm sewer ends will have flared end sections with rip-rap at pipe outlet
Maintenance and Inspection:	Weekly or after each rainfall event
Responsible Staff:	Contractor

BMP Description: Paving	
☒ *Permanent*	☐ *Temporary*
Installation Schedule:	Paving installation will occur at a point when no heavy equipment is needed on-site.
Maintenance and Inspection:	Contractor will hire an independent testing laboratory to monitor installation of curbs.
Responsible Staff:	Contractor and Independent Testing Laboratory

BMP Description: Hydroseed	
☒ *Permanent*	☐ *Temporary*
Installation Schedule:	Hydroseeding will occur upon completion of fine grading, landscaping and irrigation installation.
Maintenance and Inspection:	Contractor will monitor installation
Responsible Staff:	Site Supervisor

SECTION 6: INSPECTIONS

6.1 Inspections

1. ***Inspection Personnel:*** Identify the person(s) who will be responsible for conducting inspections and describe their qualifications: Contractor is required to provide a certified storm water operator meeting the guidelines of the phase II rule to make inspections.

2. ***Inspection Schedule and Procedures:***

   Inspections will occur on a weekly basis and after each rain event by the storm water operator. Gordon Food Service Personnel will also perform inspections on a periodic basis when they visit the site.

   Contractor will be required to address any deficiencies identified within 24 hours of notification.

   Inspection Report shall contain, at a minimum, the information shown on the attached sample report.

SWPPP APPENDICES

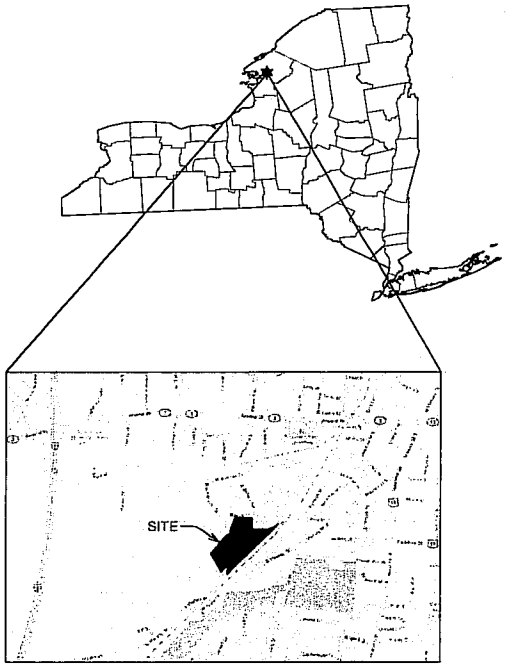
Appendix A – Site Plans

Appendix B – Notice of Intent & Notice of Termination

Appendix C – Drainage Calculations

Appendix D – Soil Survey (Excerpts)

ADDITION & RENOVATIONS:
RENZI FOODSERVICE
901 RAIL DRIVE
WATERTOWN, NEW YORK



LEGAL DESCRIPTION FOR SUBJECT PROPERTY (TAX PARCEL: 9-43-101.008)

ALL THAT TRACT OR PARCEL OF LAND SITUATE IN THE CITY OF WATERTOWN, JEFFERSON COUNTY, NEW YORK, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT AT THE SOUTHWESTERLY TERMINUS OF THE STREET MARKER OF BELLOW AVENUE SOUTH, SAID POINT ALSO BEING A NORTHWESTERLY CORNER OF THE PARCEL OF LAND CONVEYED BY THE OSWEGO RIVER RAILWAY, INC. TO CITY OF WATERTOWN BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE IN LIBER 1012 OF DEEDS AT PAGE 254 ON FEBRUARY 07, 1986, SAID POINT BEING SHOWN AS THE POINT OF BEGINNING ON A MAP TITLED "ALTA/ACSM LAND TITLE SURVEY OF THE LANDS OF 148 REALTY, LLC, 901 RAIL DRIVE, CITY OF WATERTOWN, JEFFERSON COUNTY, NEW YORK," DATED AUGUST 09, 2011, PREPARED BY AUBERTINE AND CURRIER ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC;

THENCE S. 03 DEGREES 53 MINUTES 14 SECONDS W., ALONG A WESTERLY BOUNDARY OF AFOREMENTIONED CITY OF WATERTOWN PREMISES, A DISTANCE OF 138.06 FEET TO A 5/8 INCH REBAR WITH CAP SET IN THE NORTHERLY BOUNDARY OF A RAIL SPUR CONVEYED BY CITY OF WATERTOWN, NEW YORK TO JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE AS DEED FILE NO. 2005-00005344 ON APRIL 13, 2005;

THENCE N. 87 DEGREES 04 MINUTES 03 SECONDS W., ALONG THE NORTHERLY BOUNDARY OF THE AFOREMENTIONED JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY RAIL ROAD SPUR PREMISES, A DISTANCE OF 448.64 FEET TO A MAG NAIL SET;

THENCE S. 18 DEGREES 22 MINUTES 20 SECONDS W., ALONG THE WESTERLY BOUNDARY OF THE AFOREMENTIONED JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY RAIL ROAD SPUR PREMISES, A DISTANCE OF 33.03 FEET TO A MAG NAIL SET;

THENCE S. 87 DEGREES 04 MINUTES 03 SECONDS E., ALONG THE SOUTHERLY BOUNDARY OF THE AFOREMENTIONED JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY RAIL ROAD SPUR PREMISES, A DISTANCE OF 438.18 FEET TO A 1/2 INCH IRON PIPE FOUND;

THENCE S. 87 DEGREES 44 MINUTES 05 SECONDS E., ALONG THE SOUTHERLY BOUNDARY OF THE AFOREMENTIONED JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY RAIL ROAD SPUR PREMISES, A DISTANCE OF 113.65 FEET TO A POINT;

THENCE GENERALLY EASTERLY, CONTINUING ALONG THE SOUTHERLY BOUNDARY OF THE AFOREMENTIONED JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY PREMISES ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 485.86 FEET A DISTANCE OF 321.00 FEET TO A POINT, SAID POINT BEING SITUATE A DIRECT TIE OF N. 78 DEGREES 13 MINUTES 02 SECONDS E. 226.74 FEET FROM THE PREVIOUSLY DESCRIBED POINT;

THENCE GENERALLY NORTHEASTERLY, CONTINUING ALONG THE SOUTHEASTERLY BOUNDARY OF THE AFOREMENTIONED JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY RAIL ROAD SPUR PREMISES ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 531.48 FEET; A DISTANCE OF 38.80 FEET TO A 5/8 INCH REBAR WITH CAP SET IN THE NORTHWESTERLY BOUNDARY OF THE PARCEL OF LAND CONVEYED BY CONSOLIDATED RAIL CORPORATION TO NEW YORK CENTRAL LINES LLC BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE IN LIBER 1703 OF DEEDS AT PAGE 80 ON NOVEMBER 03, 1999, SAID REBAR BEING SITUATE A DIRECT TIE OF N. 59 DEGREES 46 MINUTES 23 SECONDS E. 38.79 FEET FROM THE PREVIOUSLY DESCRIBED POINT;

THENCE GENERALLY SOUTHWESTERLY, ALONG THE NORTHWESTERLY BOUNDARY OF THE AFOREMENTIONED NEW YORK CENTRAL LINES LLC PREMISES, ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 4823.73 FEET, A DISTANCE OF 361.34 FEET TO A POINT, SAID POINT BEING SITUATE A DIRECT TIE OF S. 43 DEGREES 27 MINUTES 38 SECONDS W., 361.16 FEET FROM THE PREVIOUSLY DESCRIBED POINT;

THENCE S. 46 DEGREES 15 MINUTES 18 SECONDS W., ALONG THE NORTHWESTERLY BOUNDARY OF THE AFOREMENTIONED NEW YORK CENTRAL LINES LLC PREMISES, A DISTANCE OF 4.73 FEET TO A POINT;

THENCE S. 48 DEGREES 33 MINUTES 39 SECONDS W., ALONG THE NORTHWESTERLY BOUNDARY OF THE AFOREMENTIONED NEW YORK CENTRAL LINES LLC PREMISES, A DISTANCE OF 1085.87 FEET TO A 1/2 INCH IRON PIPE FOUND IN THE EASTERLY BOUNDARY OF THE PARCEL OF LAND CONVEYED BY ANN S. FREEZO TO CHELTAIN PROPERTIES, INC. BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE AS DEED FILE NO. 2004-00016787 ON OCTOBER 27, 2004;

THENCE N. 07 DEGREES 46 MINUTES 23 SECONDS E., ALONG THE EASTERLY BOUNDARY OF THE AFOREMENTIONED CHELTAIN PREMISES, A DISTANCE OF 134.22 FEET TO A 1/2 INCH IRON PIPE FOUND;

THENCE S. 82 DEGREES 03 MINUTES 07 SECONDS W., ALONG THE NORTHWESTERLY BOUNDARY OF THE AFOREMENTIONED CHELTAIN PREMISES, A DISTANCE OF 198.20 FEET TO A 1/2 INCH IRON PIPE FOUND IN THE NORTHEASTERLY BOUNDARY OF THE PARCEL OF LAND CONVEYED BY KATHY S. FALOE TO JOHN M. FALOE BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE AS DEED FILE NO. 2007-00000694 ON JANUARY 02, 2007;

THENCE N. 29 DEGREES 40 MINUTES 42 SECONDS W., ALONG THE NORTHEASTERLY BOUNDARY OF THE AFOREMENTIONED FALOE PREMISES, AND ALSO ALONG THE PARCEL OF LAND CONVEYED BY PATRICIA KEHLN F/K/A PATRICIA KEHLN HIGGINS TO CHELTAIN PROPERTIES, INC. BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE AS DEED FILE NO. 2004-00016925 ON OCTOBER 28, 2004, AND ALSO ALONG THE PARCEL OF LAND CONVEYED BY WERNER J. STEINACKER AND VIRGINIA P. STEINACKER TO RAYMOND C. GREEN AND SUSAN S. GREEN BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE AS DEED FILE NO. 2004-00016373 ON OCTOBER 20, 2004, A DISTANCE OF 486.26 FEET TO A 1/2 INCH IRON PIPE FOUND, SAID PIPE BEING THE SOUTHERLY CORNER OF THE PARCEL OF LAND CONVEYED BY JAMES MCCAULEY, CITY COMPTROLLER OF THE CITY OF WATERTOWN TO CITY OF WATERTOWN, NEW YORK BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE IN LIBER 1625 OF DEEDS AT PAGE 349 ON JULY 14, 1999;

THENCE N. 37 DEGREES 30 MINUTES 33 SECONDS E., ALONG THE SOUTHEASTERLY BOUNDARY OF THE AFOREMENTIONED CITY OF WATERTOWN, NEW YORK PREMISES, A DISTANCE OF 183.88 FEET TO A 1/2 INCH IRON PIPE FOUND;

THENCE N. 31 DEGREES 38 MINUTES 48 SECONDS E., ALONG THE SOUTHEASTERLY BOUNDARY OF THE AFOREMENTIONED CITY OF WATERTOWN NEW YORK, PREMISES, A DISTANCE OF 135.35 FEET TO A 1/2 INCH IRON PIPE FOUND;

THENCE N. 38 DEGREES 24 MINUTES 28 SECONDS E., ALONG THE SOUTHEASTERLY BOUNDARY OF THE AFOREMENTIONED CITY OF WATERTOWN, NEW YORK PREMISES, AND ALSO ALONG THE SOUTHEASTERLY BOUNDARY OF THE PARCEL OF LAND CONVEYED BY THE OWASCO RIVER RAILWAY, INC. TO CITY OF WATERTOWN BY DEED RECORDED IN THE JEFFERSON COUNTY CLERK'S OFFICE IN LIBER 1012 OF DEEDS AT PAGE 254 ON FEBRUARY 07, 1986, A DISTANCE OF 460.86 FEET TO A 5/8 INCH REBAR WITH CAP SET;

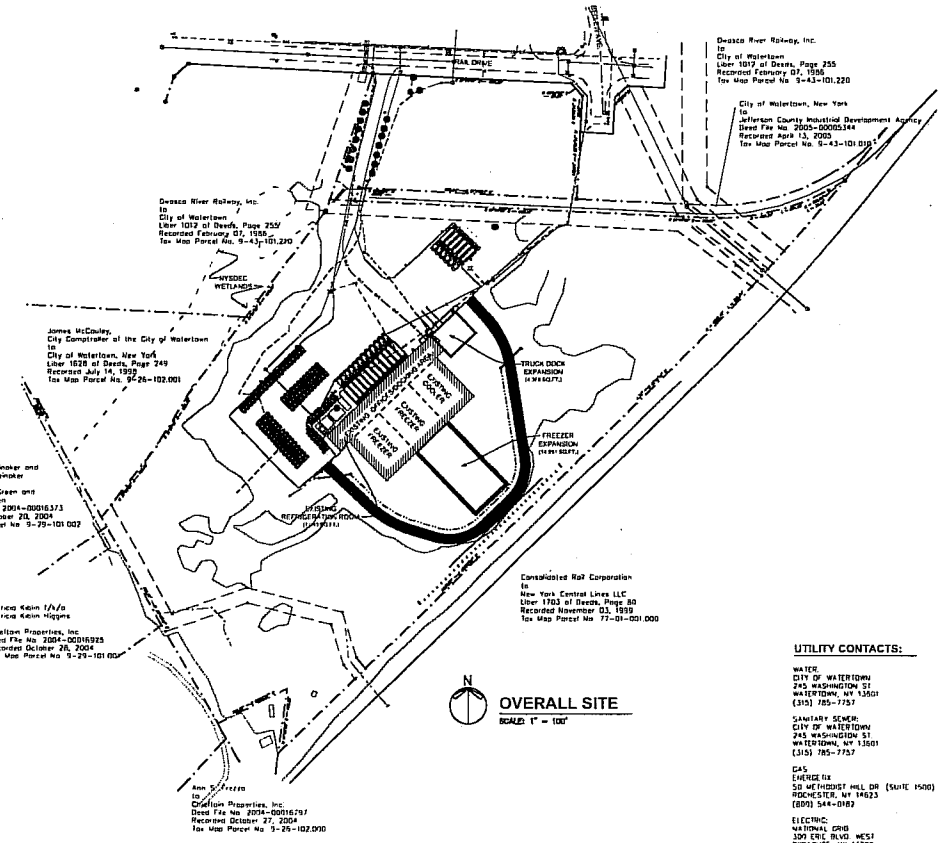
THENCE N. 19 DEGREES 32 MINUTES 30 SECONDS E., ALONG THE EASTERLY BOUNDARY OF THE AFOREMENTIONED CITY OF WATERTOWN, PREMISES, A DISTANCE OF 201.13 FEET A 5/8 INCH REBAR WITH CAP SET IN THE SOUTHERLY STREET MARGIN OF RAIL DRIVE;

THENCE S. 87 DEGREES 04 MINUTES 46 SECONDS E., ALONG THE SOUTHERLY STREET MARGIN OF RAIL DRIVE, A DISTANCE OF 408.65 FEET TO A POINT;

THENCE S. 43 DEGREES 04 MINUTES 46 SECONDS E., ALONG THE STREET MARGIN OUTBACK LINE BETWEEN RAIL DRIVE AND BELLOW AVENUE SOUTH, A DISTANCE OF 35.36 FEET TO A POINT IN THE WESTERLY STREET MARGIN OF BELLOW AVENUE SOUTH;

THENCE S. 01 DEGREES 52 MINUTES 14 SECONDS W., ALONG THE WESTERLY STREET MARGIN OF BELLOW AVENUE SOUTH, A DISTANCE OF 73.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 21.39 ACRES OF LAND, MORE OR LESS.



DEVELOPMENT REFERENCE

OWNER / DEVELOPER APPLICANT:	148 REALTY, LLC 901 RAIL DRIVE WATERTOWN, NY 13601
ARCHITECT:	FOOD TECH LLC 300 LEDGEWOOD PL, STE 100 ROCKLAND, MA 02370 PH: 781-261-9700
CIVIL ENGINEER:	PARADIGM DESIGN, INC. 250 3 MILE ROAD NW, SUITE B GRAND RAPIDS, MI 49544 PH: 616-785-9636
SURVEYOR:	AUBERTINE & CURRIER, PLLC 522 BRADLEY STREET WATERTOWN, NY 13601 PH: 315-788-2065

CIVIL SHEET INDEX

SHEET NO.	C1.0 OVERALL LAYOUT
	C1.1 NOTES & LEGENDS
	C2.0 SITE PLAN
	C3.0 DETAIL PLANS

SITE PLAN NOTES

1. EXISTING ZONING FOR SUBJECT PROPERTY IS: LIGHT INDUSTRY.
   REGULATIONS FOR DISTRICT:
   - MINIMUM LOT AREA = NONE.
   - MINIMUM LOT WIDTH = NONE.
   - FRONT YARD SETBACK: NONE.
   - SIDE YARD SETBACK: NONE.
   - REAR SETBACK: NONE.
   - MAXIMUM HEIGHT: NONE.
   - PARKING REQUIRED: 9,452 SF (200 SF PER 1,000 SF BLDG.)
   - PARKING PROVIDED: 17,200 SF
2. THE EXISTING FACILITY AND PROPOSED EXPANSION ARE SERVED BY PUBLIC SANITARY SEWER, DOMESTIC WATER SUPPLY AND A FIRE SUPPRESSION SYSTEM.
3. THE SUBJECT SITE IS LOCATED IN ZONE DESIGNATED AS X – NON-SPECIAL FLOOD HAZARD AREA; PANEL 1 OF 4, MAP NUMBER 36045C0 0001 E, MAP REVISED JANUARY 17, 1990.
4. AREA OF SUBJECT PROPERTY FOR 901 RAIL DRIVE = 21.39 ACRES.
5. THE CONTRACTOR SHALL NOT PROCEED WITH WORK IN ANY PUBLIC RIGHT-OF-WAY WITHOUT OBTAINING THE PROPER PERMITS FROM THE CITY OF WATERTOWN.

UTILITY CONTACTS:

WATER:
CITY OF WATERTOWN
245 WASHINGTON ST
WATERTOWN, NY 13601
(315) 785-7757

SANITARY SEWER:
CITY OF WATERTOWN
245 WASHINGTON ST
WATERTOWN, NY 13601
(315) 785-7757

GAS
ENERGE rix
50 METHODIST HILL DR (SUITE 1500)
ROCHESTER, NY 14623
(800) 544-0982

ELECTRIC:
NATIONAL GRID
300 ERIE BLVD WEST
SYRACUSE, NY 13202
(800) 642-4272

STORM:
CITY OF WATERTOWN
ENGINEERING DEPARTMENT
245 WASHINGTON ST
WATERTOWN, NY 13601
(315) 785-7740

Call 811 before you dig

NOTE:
ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS FROM FIELD DATA AND AVAILABLE INFORMATION. THEY SHOULD NOT BE ASSUMED TO BE EXACT LOCATIONS NOR SHOULD THEY BE ASSUMED TO BE THE ONLY UTILITIES IN THE AREA.

paradigm design

ACTION	DATE	DESCRIPTION
	4-15-11	FOR CITY REVIEW

Freezer & Dock Expansion for:
Renzi Foodservice
901 Rail Drive
Watertown, New York

OVERALL LAYOUT

PLANNERS • ENGINEERS • BUILDERS
FOOD TECH LLC
300 LEDGEWOOD PL, STE 100
ROCKLAND, MA 02370
Tel: (781) 261-9700
Fax: (781) 261-9701
foodtech.com

DATE:
DESIGNED BY: JRH
DRAWN BY: AJM
CHECKED BY: SMH

DRAWING NO
C1.0

1106

GENERAL SITE NOTES

REFER TO ARCHITECTURAL FOUNDATION PLAN FOR DETAILING OF BUILDING AND EXACT BUILDING DIMENSIONS.

REFER TO SECTION 2230 OF THE SPECIFICATIONS BOOK FOR SITE CLEARING WORK.

REFER TO SECTION 2280 OF THE SPECIFICATIONS BOOK FOR EXCAVATION SUPPORT AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.

OWNER HAS SUBMITTED FOR AND IS IN THE PROCESS OF OBTAINING THE FOLLOWING SITE RELATED PERMITS:

AGENCY	PERMIT
NYSDEC	NO

UPON AWARD OF CONTRACT, CONTRACTOR WILL BE RESPONSIBLE TO CHECK WITH ENGINEER AND JURISDICTION ON STATUS OF THE PERMIT(S) LISTED ABOVE.

CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL SITE RELATED PERMITS NOT BEING OBTAINED BY THE OWNER. CONTRACTOR IS REQUIRED TO COMPLETE THE APPLICATION, AND SUBMIT NECESSARY DRAWINGS, FEES, ETC. TO THE APPROPRIATE JURISDICTION. CONTRACTOR SHALL PAY ALL FEES RELATED TO PERMIT(S) AND SECURE PERMIT(S) IN HIS NAME.

CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL SITE UTILITY CONNECTIONS AND INSPECTIONS WITH THE PROPER JURISDICTION AND PAY ALL ASSOCIATED FEES.

THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING WATER, SANITARY SEWER, AND STORM SEWER CROSSINGS AND CONNECTION POINTS PRIOR TO CONSTRUCTION. CONTACT ENGINEER WITH ANY DISCREPANCIES.

ALL PAVEMENT MARKINGS SHALL BE 4" WIDE, WHITE.

ALL NYSDOT REFERENCES ARE TO THE 2008 EDITION.

GENERAL SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE OWNER WILL OBTAIN THE SOIL EROSION PERMIT FROM THE PROPER GOVERNING AUTHORITY.

2. A CONTRACTOR/INSPECTOR SHALL INSPECT THE SOIL EROSION/SEDIMENT CONTROL DEVICES ONCE EACH WEEK AND/OR WITHIN 24 HOURS OF A PRECIPITATION EVENT WHICH RESULTS IN A STORM DISCHARGE FROM THE SITE.

3. ALL DISTURBED NON-PAVEMENT AREAS MUST BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND MULCH UNLESS SODDED. (REFERENCE LANDSCAPING PLAN)

4. ALL SLOPES STEEPER THAN 1:3 SHALL USE AN EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S150BN OR EQUAL). ALL SLOPES BETWEEN 1:4 AND 1:3 SHALL USE AN EROSION CONTROL BLANKET (NORTH AMERICAN GREEN DS75 OR EQUAL), UNLESS INDICATED OTHERWISE ON PLANS.

5. SEEDING SHOULD BE PREPARED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR/INSPECTOR SHALL INSPECT THE AREA AFTER SEEDING IS COMPLETED. AREAS THAT ARE BARE OR NOT MULCHED PROPERLY WILL NEED TO BE SPOT SEEDED AND/OR RE-MULCHED.

6. SILT FENCE SHOULD BE TRENCHED IN, BACKFILLED, AND STAPLED OR STAKED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. MAINTENANCE INCLUDES THE REMOVING OF BUILT-UP SEDIMENT WHEN THE SEDIMENT ACCUMULATES TO 1/3 TO 1/2 THE HEIGHT OF THE FENCE. CONTRACTOR WILL HAVE TO REMOVE, REPLACE, REMOVAL, OR REBACKFILL THE FENCE IF IT FAILS. IT WOULD ALSO BE NECESSARY TO REINSTALL IF ANY PORTION OF THE FENCING WAS DAMAGED BY CONSTRUCTION MACHINERY.

7. INLET FILTERS SHOULD BE INSPECTED FOR BUILDUP OF SILT AND OTHER DEBRIS. THIS IS EVIDENT IF STRUCTURE IS CAUSING FLOODING. MAINTENANCE WOULD CONSIST OF REMOVING OF SEDIMENTS WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IT MAY BE NECESSARY TO REPLACE THE INLET FILTER IF IT STOPS FUNCTIONING PROPERLY OR BECOMES TORN. IF SOIL EROSION/SEDIMENT CONTROL MEASURES ARE INADEQUATE FOR THE SITE, THE PROPER EROSION CONTROL AUTHORITY MUST BE NOTIFIED.

8. SOIL EROSION CONTROL METHODS SHOWN ARE A GUIDELINE AND DO NOT RELIEVE THE CONTRACTOR FROM ADDITIONAL METHODS THAT MAY BE REQUIRED BY THE SOIL EROSION CONTROL PERMIT.

9. THE OWNER WILL ENGAGE A CERTIFIED STORM WATER OPERATOR IN ACCORDANCE WITH EPA PHASE II RULES TO MEET REQUIREMENTS OF THE PERMIT. THIS OPERATOR WILL INSPECT THE JOB SITE AS REQUIRED BY RULE, NOTIFY JOB SITE SUPERINTENDENT OF ANY DEFICIENCIES AND ENTER FINDINGS IN THE JOB SITE INSPECTION JOB BOOK.

EXISTING LEGEND

- ● – 5/8" REBAR WITH CAP SET
- ▲ – PK or MAG NAIL SET
- + – LEGAL DESCRIPTION POINT
- * – IRON PIPE or PIN FOUND (AS NOTED)
- ◻ – CITY MONUMENT
- – PROPERTY LINE
- – CURB
- – FENCELINE
- 495 – CONTOUR
- – TREE LINE
- – UNDERGROUND UTILITY LINE
- – WELL
- – WATER VALVE
- – HYDRANT
- – WATER LINE
- – GAS MARKER
- – GAS LINE
- – STORM MANHOLE
- – CATCH BASIN
- – STORM LINE
- – SANITARY SEWER MANHOLE
- – SANITARY SEWER LINE
- – ELECTRIC BOX
- – TELEPHONE PEDESTAL
- – TELEPHONE LINE
- – DECIDUOUS TREE
- – CONIFEROUS TREE

PROPOSED LEGEND

- ASPHALT PAVEMENT REMOVAL AREA
- (R) – REMOVE THESE ITEMS
- 420X.00 – PROPOSED SPOT GRADE
- – SURFACE WATER FLOW DIRECTION
- FG – FINISHED GROUND GRADE
- BIT – PROPOSED BITUMINOUS GRADE
- RIM – PROPOSED CATCH BASIN FLOWLINE GRADE
- FL – FLOW LINE GRADE
- MX – MATCH EXISTING ELEVATION
- SP – PERMANENT SOIL EROSION & SEDIMENTATION CONTROL MEASURE
- ST – TEMPORARY SOIL EROSION & SEDIMENTATION CONTROL MEASURE
- TYP. – TYPICAL MEASURE
- – STORM SEWER
- 415 – PROPOSED CONTOUR
- 414 – EXISTING CONTOUR
- – GRADING LIMITS
- – EROSION CONTROL BLANKET
- – BITUMINOUS PAVEMENT SECTION (DETAIL #3/C3.0)
- – FIRE APPARATUS ROAD (DETAIL #4/C3.0)

UNIFIED KEYING SYSTEM SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

6	HYDROSEED UNDER EROSION CONTROL BLANKET
7	HYDRO SEEDING
13	RIP-RAP, RUBBLE, GABIONS
15	PAVING
35	STORM SEWER C.B. C.B.

CONSTRUCTION SEQUENCE	YEAR: 2011/2012 JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
STRIPPING & STOCKPILING TOPSOIL												
ROUGH GRADING SEDIMENT CONTROL												
TEMPORARY CONTROL MEASURES												
STORM UTILITIES												
TEMPORARY CONSTRUCTION ROADS												
PERMANENT CONTROL MEASURES												
FOUNDATION/ BUILDING CONSTRUCTION												
SITE CONSTRUCTION												
FINISH GRADING												
LANDSCAPING												

GENERAL CONTRACTOR SHALL COMPLETE CONSTRUCTION SEQUENCE SCHEDULE WHEN MAKING APPLICATION FOR SOIL EROSION CONTROL PERMIT

Call 811 before you dig

NOTE: ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS FROM FIELD DATA AND AVAILABLE INFORMATION. THEY SHOULD NOT BE INTERPRETED AS EXACT LOCATIONS, NOR SHOULD THEY BE ASSUMED TO BE THE ONLY UTILITIES IN THE AREA.

ACTION	DATE	DESCRIPTION
	6/15/11	FOR CITY REVIEW

Freezer & Dock Expansion for:
Renzi Foodservice
901 Rail Drive
Watertown, New York

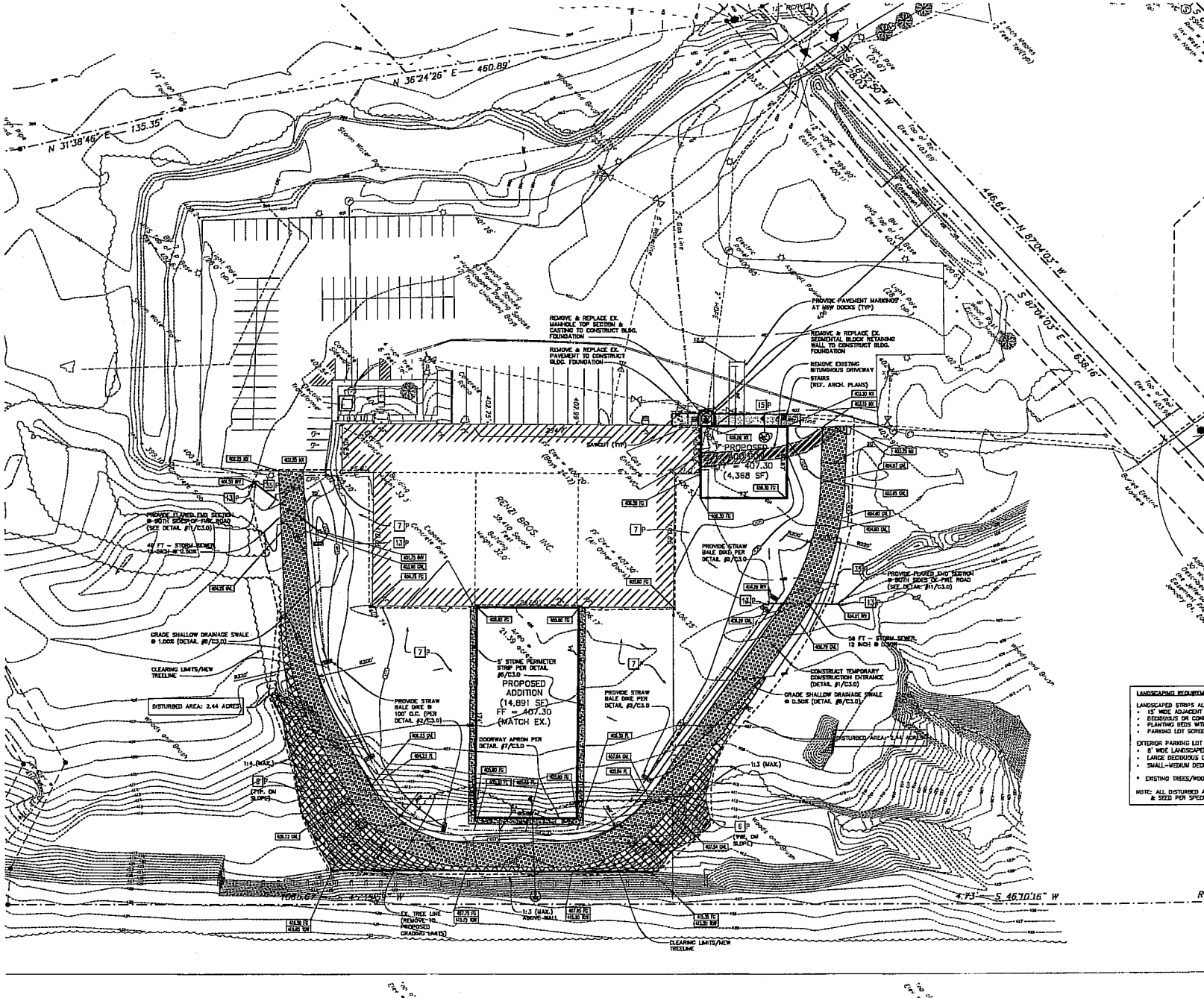
NOTES & LEGENDS

FOOD TECH LLC
PLANNERS · ENGINEERS · BUILDERS
300 EAST BOSTON POST RD, STE 100
MAMARONECK, NY 10543
Tel: (781) 261-9700
Fax: (781) 261-9701
foodtech.com

DATE:
DESIGNED BY: JMR
DRAWN BY: AMA
CHECKED BY: BMH

DRAWING NO.
C1.1

1106



ACTION	DATE	DESCRIPTION
	8-15-11	FOR CITY REVIEW

Freezer & Dock Expansion for:
Renzi Foodservice
901 Rall Drive
Watertown, New York

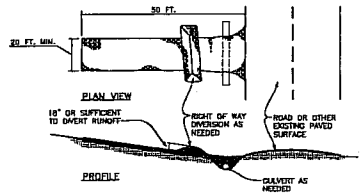
SITE PLAN

PLANNERS · ENGINEERS · BUILDERS
FOOD TECH LLC
6 FIELD GREEN DRIVE, STE 100
ROCKLAND, MA 02370
Tel: (781) 261-9700
Fax: (781) 261-9701
foodtech.com

DATE:
DESIGNED BY: JWH
DRAWN BY: AMK
CHECKED BY: BMH

DRAWING NO.
C2.0

1106



1. STONE SIZE – TWO INCH STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.

2. LENGTH – THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 50 FT.

3. THICKNESS – THE STONE LAYER SHALL BE AT LEAST 8 IN. THICK.

4. WIDTH – THE ENTRANCE SHALL BE AT LEAST 20 FT. WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

5. BEDDING – A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LB. AND A MULLEN BURST STRENGTH OF AT LEAST 180 LB.

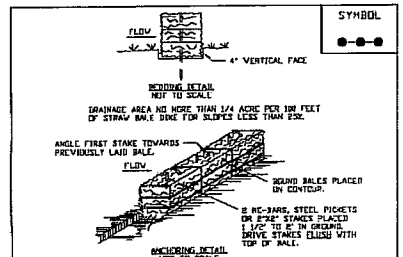
6. CULVERT – A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.

7. WATER BAR – A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.

8. MAINTENANCE – TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.

9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

1 / C3 SCALE: N.T.S. SPECIFICATIONS FOR CONSTRUCTION ENTRANCE



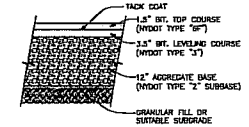
CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

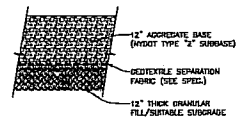
ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STRAW BALE DIKE

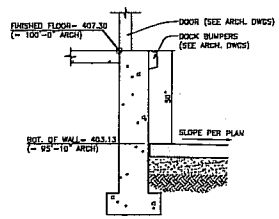
2 / C3 SCALE: N.T.S. STRAW BALE DIKE



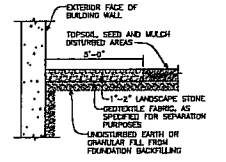
3 / C3 SCALE: N.T.S. BITUMINOUS PAVEMENT SECTION



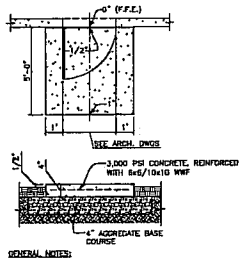
4 / C3 SCALE: N.T.S. FIRE APPARATUS RD.



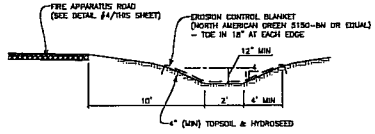
5 / C3 SCALE: N.T.S. TRUCK AREA DETAIL



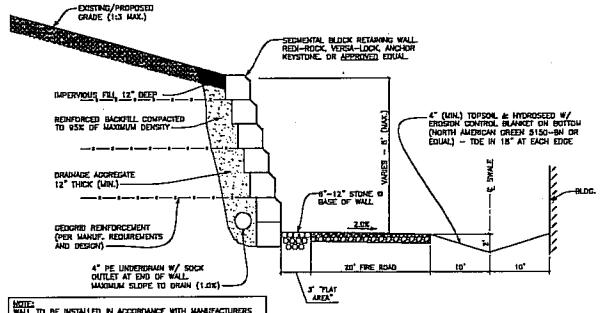
6 / C3 SCALE: N.T.S. BUILDING PERIMETER STRIP



7 / C3 SCALE: N.T.S. DOORWAY APRON

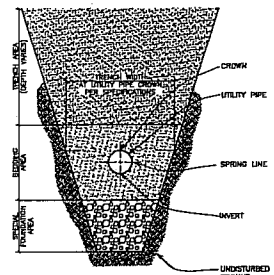


8 / C3 SCALE: N.T.S. DRAINAGE SWALE

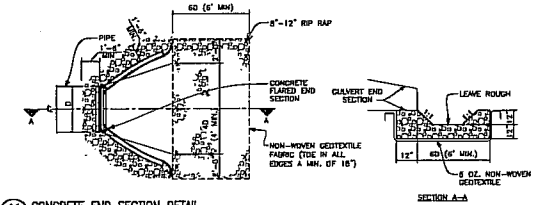


NOTE: WALL TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS. CONTRACTOR TO SUBMIT A SIGNED & SEALED (BY NEW YORK PROFESSIONAL ENGINEER) WALL DESIGN PRIOR TO START OF WORK.

9 / C3 SCALE: N.T.S. RETAINING WALL SECTION



10 / C3 SCALE: N.T.S. UTILITY TRENCH



11 / C3 SCALE: N.T.S. CONCRETE END SECTION DETAIL

Call 811 before you dig

NOTE: ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS ONLY. FIELD VISIT AND AVAILABLE INFORMATION. THEY SHOULD NOT BE INTERPRETED AS EXACT LOCATIONS NOR SHOULD THEY BE ASSUMED TO BE THE ONLY UTILITIES IN THE AREA.

ACTION	DATE	DESCRIPTION
	8-15-11	FOR CITY REVIEW

Freezer & Dock Expansion for:
Renzi Foodservice
901 Rall Drive
Watertown, New York

DETAILS

PLANNERS • ENGINEERS • BUILDERS
FOOD TECH LLC
300 LEDGEWOOD PL, STE 100
ROCKLAND, MA 02370
Tel: (781) 878-0700
Fax: (781) 261-1701
foodtech.com

DATE:
DESIGNED BY: JAW
DRAWN BY: RMK
CHECKED BY: GTH

DRAWING NO.
C3.0

1106

1358331598

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-10-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-

RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
MLR Realty, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Renzi

Owner/Operator Contact Person First Name
John

Owner/Operator Mailing Address
901 Rail Drive

City
Watertown

State
NY

Zip
13601-____

Phone (Owner/Operator) ___-___-____

Fax (Owner/Operator) ___-___-____

Email (Owner/Operator)

FED TAX ID
__-_____ (not required for individuals)

Project Site Information

Project/Site Name

Renzi Foodservice

Street Address (NOT P.O. BOX)

901 Rail Drive

Side of Street

○ North ● South ○ East ○ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

Watertown

State: NY

Zip: 13601-

County: Jefferson

DEC Region: 6

Name of Nearest Cross Street

Bellew

Distance to Nearest Cross Street (Feet)

150

Project In Relation to Cross Street

○ North ○ South ● East ○ West

Tax Map Numbers
Section-Block-Parcel

9-43-101.008

Tax Map Numbers

9-43-101.008

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you must go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting): 425189

Y Coordinates (Northing): 4868906

2. What is the nature of this construction project?

● **New Construction**

○ **Redevelopment with increase in imperviousness**

○ **Redevelopment with no increase in imperviousness**

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use

- (●) FOREST
- ( ) PASTURE/OPEN LAND
- ( ) CULTIVATED LAND
- ( ) SINGLE FAMILY HOME
- ( ) SINGLE FAMILY SUBDIVISION
- ( ) TOWN HOME RESIDENTIAL
- ( ) MULTIFAMILY RESIDENTIAL
- ( ) INSTITUTIONAL/SCHOOL
- ( ) INDUSTRIAL
- ( ) COMMERCIAL
- ( ) ROAD/HIGHWAY
- ( ) RECREATIONAL/SPORTS FIELD
- ( ) BIKE PATH/TRAIL
- ( ) LINEAR UTILITY
- ( ) PARKING LOT
- ( ) OTHER

Post-Development Future Land Use

- ( ) SINGLE FAMILY HOME
- ( ) SINGLE FAMILY SUBDIVISION — Number of Lots
- ( ) TOWN HOME RESIDENTIAL
- ( ) MULTIFAMILY RESIDENTIAL
- ( ) INSTITUTIONAL/SCHOOL
- (●) INDUSTRIAL
- ( ) COMMERCIAL
- ( ) MUNICIPAL
- ( ) ROAD/HIGHWAY
- ( ) RECREATIONAL/SPORTS FIELD
- ( ) BIKE PATH/TRAIL
- ( ) LINEAR UTILITY (water, sewer, gas, etc.)
- ( ) PARKING LOT
- ( ) CLEARING/GRADING ONLY
- ( ) DEMOLITION, NO REDEVELOPMENT
- ( ) WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ( ) OTHER

*note: for gas well drilling, non-high volume hydraulic fractured wells only

4. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law ? ( ) Yes (●) No

5. Is this a project which does not require coverage under the General Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)? ( ) Yes (●) No

6. Is this property owned by a state authority, state agency, federal government or local government? ( ) Yes (●) No

7. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area. Round to the nearest tenth of an acre.

Total Site Acreage	Acreage To Be Disturbed	Existing Impervious Area Within Disturbed	Future Impervious Area Within Disturbed
21.4	2.4	0.0	2.4

8. Do you plan to disturb more than 5 acres of soil at any one time? ( ) Yes (●) No

9. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
3 %	0 %	70 %	17 %

10. Is this a phased project? ○ Yes ● No

11. Enter the planned start and end dates of the disturbance

Start Date 09 / 19 / 2011 – End Date 01 / 20 / 2012

12. Identify the nearest, natural, surface waterbody(ies) to which construction site runoff will discharge.

Name: Beaver Meadows

12a. Type of waterbody identified in Question 12?

- ○ Wetland / State Jurisdiction On Site (Answer 12b)
- ● Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 12b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ○ Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

12b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ● Other (identify): previous design

13. Has the surface waterbody(ies) in question 12 been identified as a 303(d) segment in Appendix E of GP-0-10-001? ○ Yes ● No

14. Is this project located in one of the Watersheds identified in Appendix C of GP-0-10-001? ○ Yes ● No

15. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? **If no, skip question 16.** ○ Yes ● No

16. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? **If Yes, what is the acreage to be disturbed?** ○ Yes ● No

[ ][ ][ ][ ].[ ]

17. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ Yes ● No

18. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ○ Yes ● No ○ Unknown

19. What is the name of the municipality/entity that owns the separate storm sewer system?

N / A

20. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ Yes ● No ○ Unknown

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book) ? ● Yes ○ No

22. Does this construction activity require the development of a SWPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices) **(If No, skip questions 23 and 27-35)** ● Yes ○ No

23. Have the Water Quality and Quantity Control components of the SWPPP been developed in comformance with the current NYS Stormwater Management Design Manual ? ● Yes ○ No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer

Paradigm Design, Inc

Contact Name (Last, Space, First)

Bill Hadlock

Mailing Address

550 3 Mile Rd NW

City

Grand Rapids

State

MI

Zip

49544 -

Phone

616 - 785 - 5582

Fax

616 - 785 - 5657

Email

bhadlock@paradigmae.com

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-10-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

Bill

MI

M

Last Name

Hadlock

Signature

Date

/ /

25. Has a construction sequence schedule for the planned management practices been prepared? ○ Yes ● No

26. Select all of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ○ Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ○ Silt Fence
- ● Stabilized Construction Entrance
- ○ Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ● Grassed Waterway
- ○ Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ● Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ○ Topsoiling
- ● Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ● Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ● Retaining Wall
- ○ Riprap Slope Protection
- ● Rock Outlet Protection
- ○ Streambank Protection

Other

Water Quality and Quantity Control

Important: Completion of Questions 27-35 is not required if response to Question 22 is No.

Post-Construction Stormwater Management Practices

27. Indicate **all** Stormwater Management Practice(s) that will be installed/constructed on this site:

Ponds
- ○ Micropool Extended Detention (P-1)
- ○ Wet Pond (P-2)
- ○ Wet Extended Detention (P-3)
- ○ Multiple Pond System (P-4)
- ○ Pocket Pond (P-5)

Filtering
- ○ Surface Sand Filter (F-1)
- ○ Underground Sand Filter (F-2)
- ○ Perimeter Sand Filter (F-3)
- ○ Organic Filter (F-4)
- ○ Bioretention (F-5)
- ○ Other

Alternative Practice
- ○ Rain Garden
- ○ Cistern
- ○ Green Roof
- ○ Stormwater Planters
- ○ Permeable Paving (Modular Block)

Wetlands
- ○ Shallow Wetland (W-1)
- ○ Extended Detention Wetland (W-2)
- ○ Pond/Wetland System (W-3)
- ○ Pocket Wetland (W-4)

Infiltration
- ○ Infiltration Trench (I-1)
- ● Infiltration Basin (I-2)
- ○ Dry Well (I-3)
- ○ Underground Infiltration System

Open Channels
- ● Dry Swale (O-1)
- ○ Wet Swale (O-2)

Verified Proprietary Practice
- ○ Hydrodynamic
- ○ Wet Vault
- ○ Media Filter

28. Describe other stormwater management practices not listed above or explain any deviations from the technical standards.

Infiltration on site is an existing basin designed and constructed in 2006 (by others)

29. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● Yes ○ No

If Yes, Identify the entity responsible for the long term Operation and Maintenance

MLR Realty, LLC

30. Provide the total water quality volume required and the total provided for the site.

WQv Required 0.015 acre-feet

WQv Provided 0.684 acre-feet

31. Provide the following Unified Stormwater Sizing Criteria for the site.

Total Channel Protection Storage Volume (CPv) - Extended detention of post-developed 1 year, 24 hour storm event

CPv Required 0.684 acre-feet

CPv Provided 0.684 acre-feet

31a. The need to provide for channel protection has been waived because:

○ **Site discharges directly to fourth order stream or larger**

Total Overbank Flood Control Criteria (Qp) - Peak discharge rate for the 10 year storm

Pre-Development 24.49 CFS

Post-development 11.59 CFS

Total Extreme Flood Control Criteria (Qf) - Peak discharge rate for the 100 year storm

Pre-Development 37.63 CFS

Post-development 33.37 CFS

31b. The need to provide for flood control has been waived because:

○ **Site discharges directly to fourth order stream or larger**

○ **Downstream analysis reveals that flood control is not required**

IMPORTANT: For questions 31 and 32, impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s). (Total Drainage Area = Project Site + Offsite areas)

32. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins. 0 %

33. Post-Construction Impervious Area - As a percent of the Total Drainage Area, enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction. 28 %

34. Indicate the total number of post-construction stormwater management practices to be installed/constructed. 1

35. Provide the total number of stormwater discharge points from the site. (include discharges to either surface waters or to separate storm sewer systems) 1

30. Provide the total water quality volume required and the total provided for the site.

WQv Required 0.015 acre-feet

WQv Provided 0.684 acre-feet

31. Provide the following Unified Stormwater Sizing Criteria for the site.

Total Channel Protection Storage Volume (CPv) - Extended detention of post-developed 1 year, 24 hour storm event

CPv Required 0.684 acre-feet

CPv Provided 0.684 acre-feet

31a. The need to provide for channel protection has been waived because:

○ **Site discharges directly to fourth order stream or larger**

Total Overbank Flood Control Criteria (Qp) - Peak discharge rate for the 10 year storm

Pre-Development 24.49 CFS

Post-development 12.49 CFS

Total Extreme Flood Control Criteria (Qf) - Peak discharge rate for the 100 year storm

Pre-Development 37.63 CFS

Post-development 35.24 CFS

31b. The need to provide for flood control has been waived because:

○ **Site discharges directly to fourth order stream or larger**

○ **Downstream analysis reveals that flood control is not required**

IMPORTANT: **For questions 31 and 32, impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s). (Total Drainage Area = Project Site + Offsite areas)**

32. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins. 0 %

33. Post-Construction Impervious Area - As a percent of the Total Drainage Area, enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction. 28 %

34. Indicate the total number of post-construction stormwater management practices to be installed/constructed. 1

35. Provide the total number of stormwater discharge points from the site. (include discharges to either surface waters or to separate storm sewer systems) 1

36. Identify other DEC permits that are required for this project.

DEC Permits

○ Air Pollution Control	○ Navigable Waters Protection / Article 15
○ Coastal Erosion	○ Water Quality Certificate
○ Hazardous Waste	○ Dam Safety
○ Long Island Wells	○ Water Supply
○ Mined Land Reclamation	○ Freshwater Wetlands/Article 24
○ Other SPDES	○ Tidal Wetlands
○ Solid Waste	○ Wild, Scenic and Recreational Rivers
● None	○ Stream Bed or Bank Protection / Article 15
○ Other	

37. Does this project require a US Army Corps of Engineers Wetland Permit? ○ Yes ● No
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ].[ ]

38. Is this project subject to the requirements of a regulated, traditional land use control MS4? ○ Yes ● No
(If No, skip question 39)

39. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ○ Yes ● No

40. If this NOI is being submitted for the purpose of continuing coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name [J][o][h][n]

MI [M]

Print Last Name [R][e][n][z][i]

Owner/Operator Signature

Date [ ][ ] / [ ][ ] / [ ][ ][ ][ ]

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

5. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. ☐ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP.
***Date final stabilization completed** (month/year): _____

9b. ☐ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. ☐ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? ☐ yes ☐ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? ☐ yes ☐ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? ☐ yes ☐ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

☐ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

☐ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

☐ For post-construction stormwater management practices that are privately owned, the deed of record has been modified to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

☐ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? ☐ yes ☐ no
(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:
(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2010)

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	8.359	1	733	37,214	------	------	------	DA-2: Pre-existing Condition
2	SCS Runoff	13.79	1	725	41,913	------	------	------	DA-2: Post-developed
3	Reservoir	0.678	1	882	41,767	2	398.63	22,889	Ex Infiltration Basin

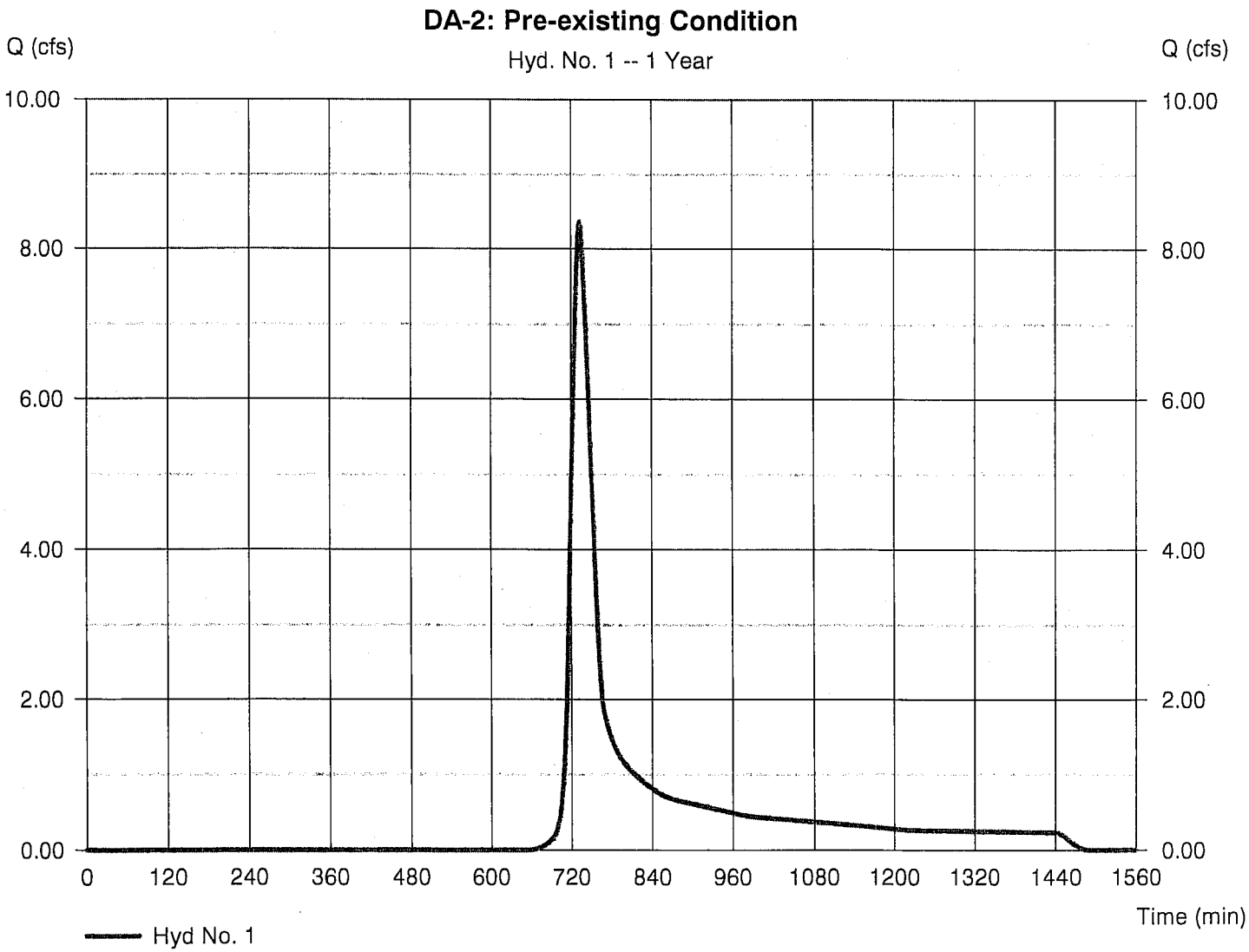
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 1

DA-2: Pre-existing Condition

Hydrograph type	= SCS Runoff	Peak discharge	= 8.359 cfs
Storm frequency	= 1 yrs	Time to peak	= 733 min
Time interval	= 1 min	Hyd. volume	= 37,214 cuft
Drainage area	= 15.700 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 30.90 min
Total precip.	= 2.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hyd. No. 1

DA-2: Pre-existing Condition

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.600	0.011	0.011	
Flow length (ft)	= 150.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.00	0.00	0.00	
Land slope (%)	= 12.00	0.00	0.00	
Travel Time (min)	**= 25.38 +**	**0.00 +**	**0.00 =**	**25.38**
Shallow Concentrated Flow				
Flow length (ft)	= 700.00	0.00	0.00	
Watercourse slope (%)	= 1.70	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 2.10	0.00	0.00	
Travel Time (min)	**= 5.55 +**	**0.00 +**	**0.00 =**	**5.55**
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	**= 0.00 +**	**0.00 +**	**0.00 =**	**0.00**

Total Travel Time, Tc ..... 30.90 min

Hydrograph Report

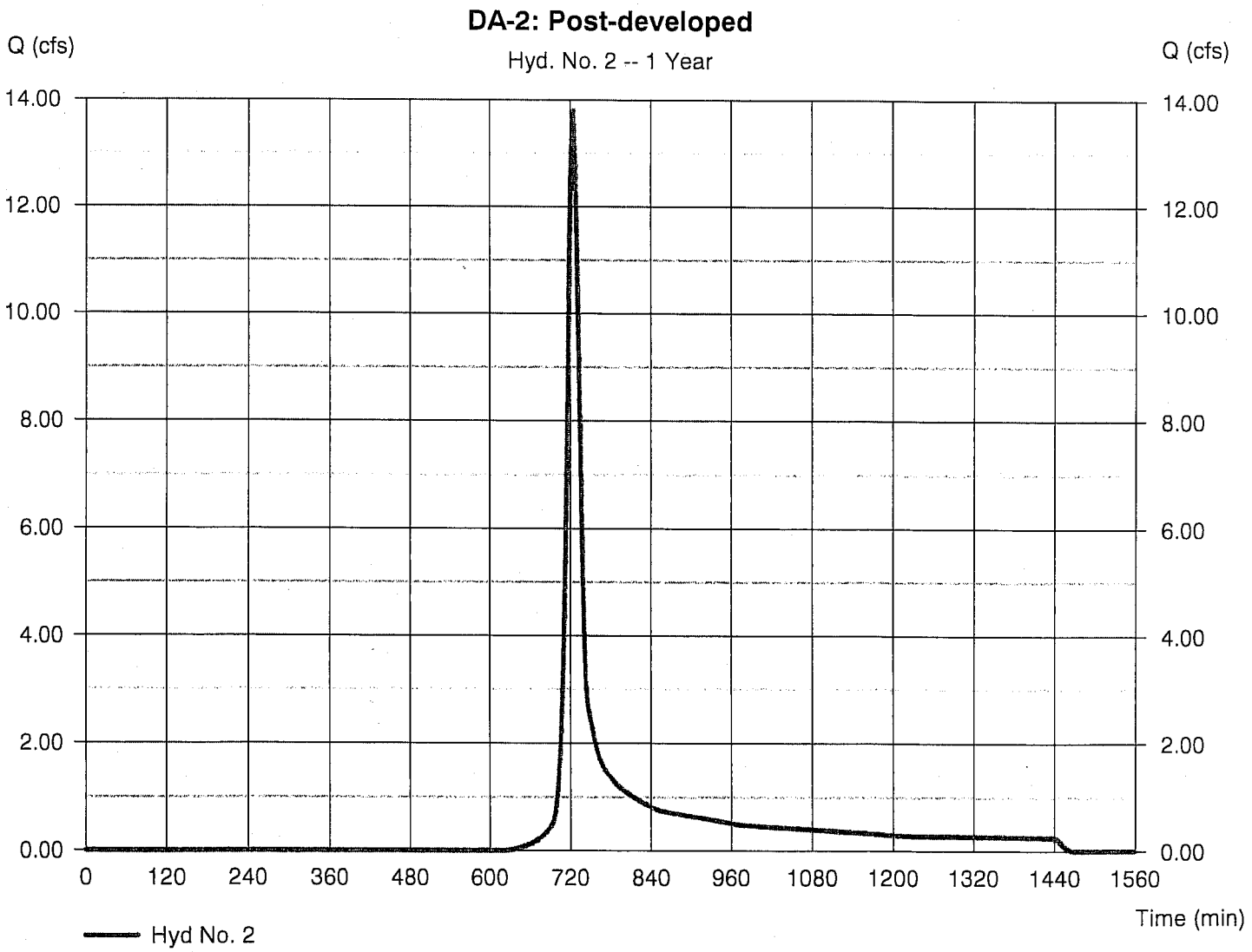
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 2

DA-2: Post-developed

Hydrograph type	= SCS Runoff	Peak discharge	= 13.79 cfs
Storm frequency	= 1 yrs	Time to peak	= 725 min
Time interval	= 1 min	Hyd. volume	= 41,913 cuft
Drainage area	= 15.700 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 17.80 min
Total precip.	= 2.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(3.850 x 98) + (0.550 x 90) + (5.720 x 82) + (5.090 x 72)] / 15.700



TR55 Tc Worksheet

Hyd. No. 2

DA-2: Post-developed

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.600	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 2.00	0.00	0.00	
Land slope (%)	= 22.00	0.00	0.00	
Travel Time (min)	**= 14.40** +	**0.00** +	**0.00** =	**14.40**
Shallow Concentrated Flow				
Flow length (ft)	= 20.00	0.00	0.00	
Watercourse slope (%)	= 2.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 2.28	0.00	0.00	
Travel Time (min)	**= 0.15** +	**0.00** +	**0.00** =	**0.15**
Channel Flow				
X sectional flow area (sqft)	= 6.00	9.00	0.00	
Wetted perimeter (ft)	= 6.47	9.47	0.00	
Channel slope (%)	= 0.60	0.50	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 7.32	6.79	0.00	
Flow length (ft)	= 332.0	1015.0	0.0	
Travel Time (min)	**= 0.76** +	**2.49** +	**0.00** =	**3.25**

Total Travel Time, Tc ..... 17.80 min

Hydrograph Report

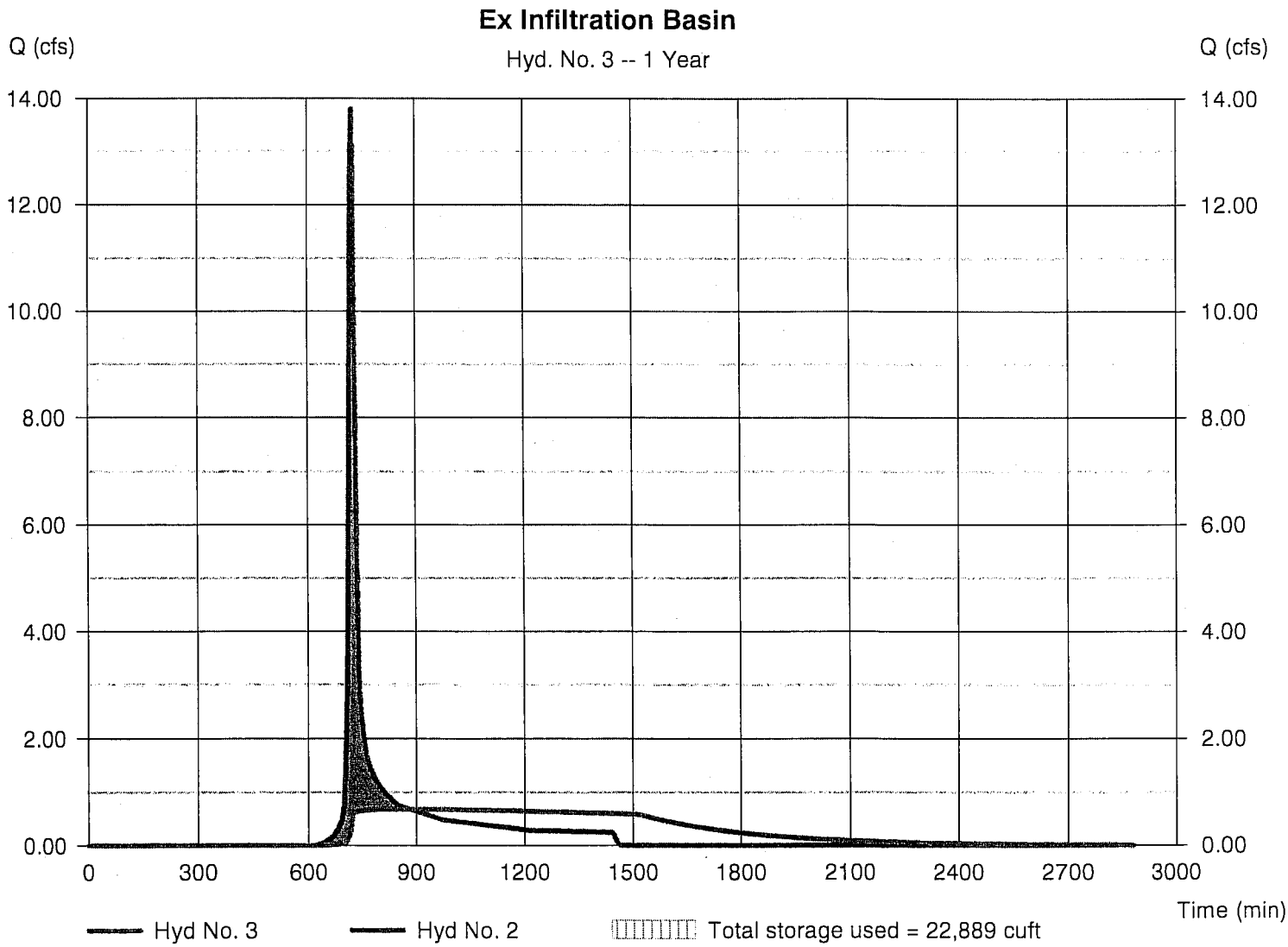
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 3

Ex Infiltration Basin

Hydrograph type	= Reservoir	Peak discharge	= 0.678 cfs
Storm frequency	= 1 yrs	Time to peak	= 882 min
Time interval	= 1 min	Hyd. volume	= 41,767 cuft
Inflow hyd. No.	= 2 - DA-2: Post-developed	Max. Elevation	= 398.63 ft
Reservoir name	= Existing Infiltration Pond	Max. Storage	= 22,889 cuft

Storage Indication method used. Outflow includes exfiltration.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Pond No. 1 - Existing Infiltration Pond

Pond Data

Contours - User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 397.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	397.00	6,110	0	0
1.00	398.00	16,634	10,941	10,941
2.00	399.00	21,205	18,871	29,812
3.00	400.00	31,799	26,321	56,133
3.50	400.50	38,300	17,498	73,631

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

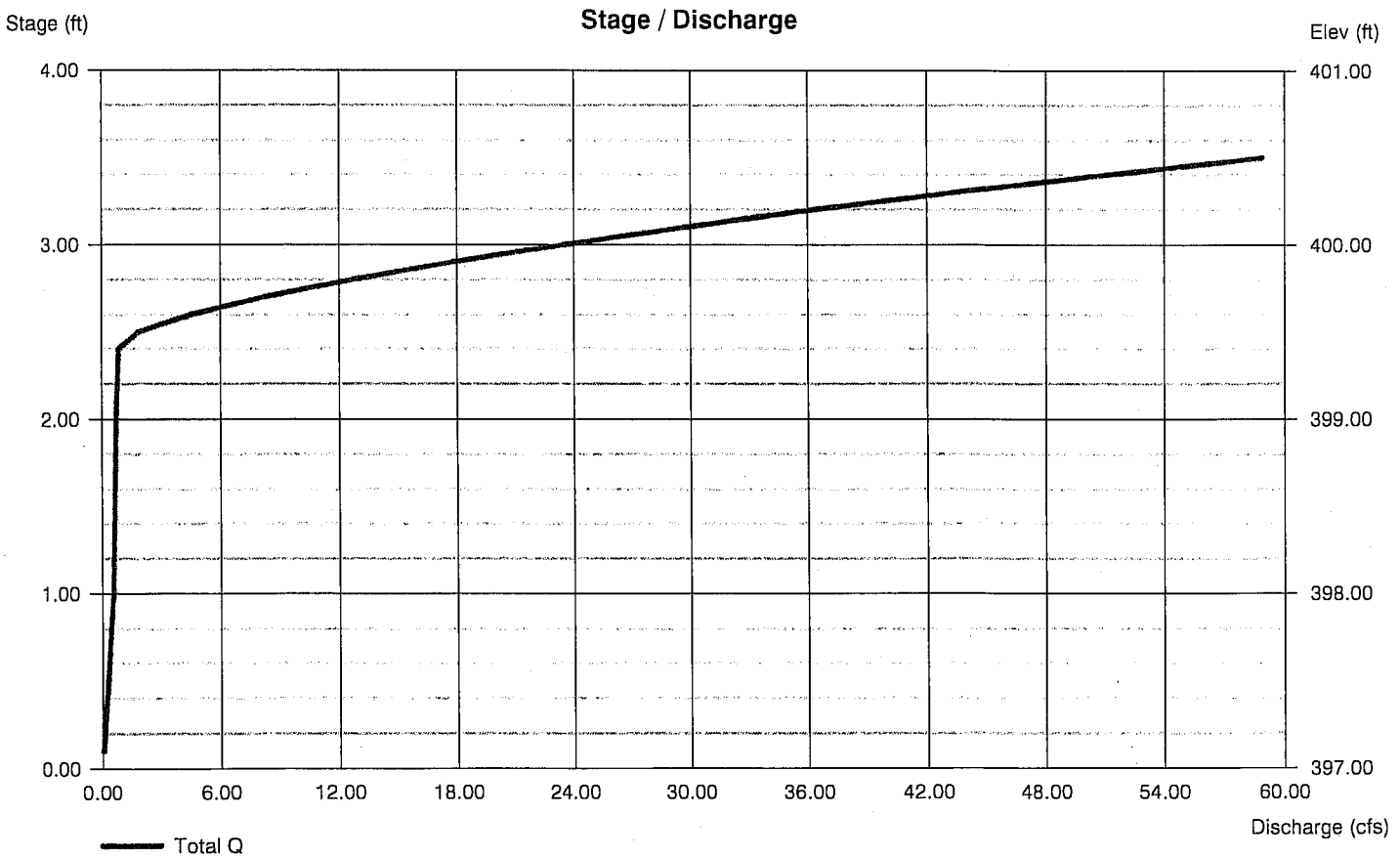
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 20.00	0.00	0.00	0.00
Crest El. (ft)	= 399.43	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 1.500 (by Contour)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	24.49	1	732	102,261	------	------	------	DA-2: Pre-existing Condition
2	SCS Runoff	36.84	1	724	109,107	------	------	------	DA-2: Post-developed
3	Reservoir	11.59	1	740	108,319	2	399.78	50,192	Ex Infiltration Basin

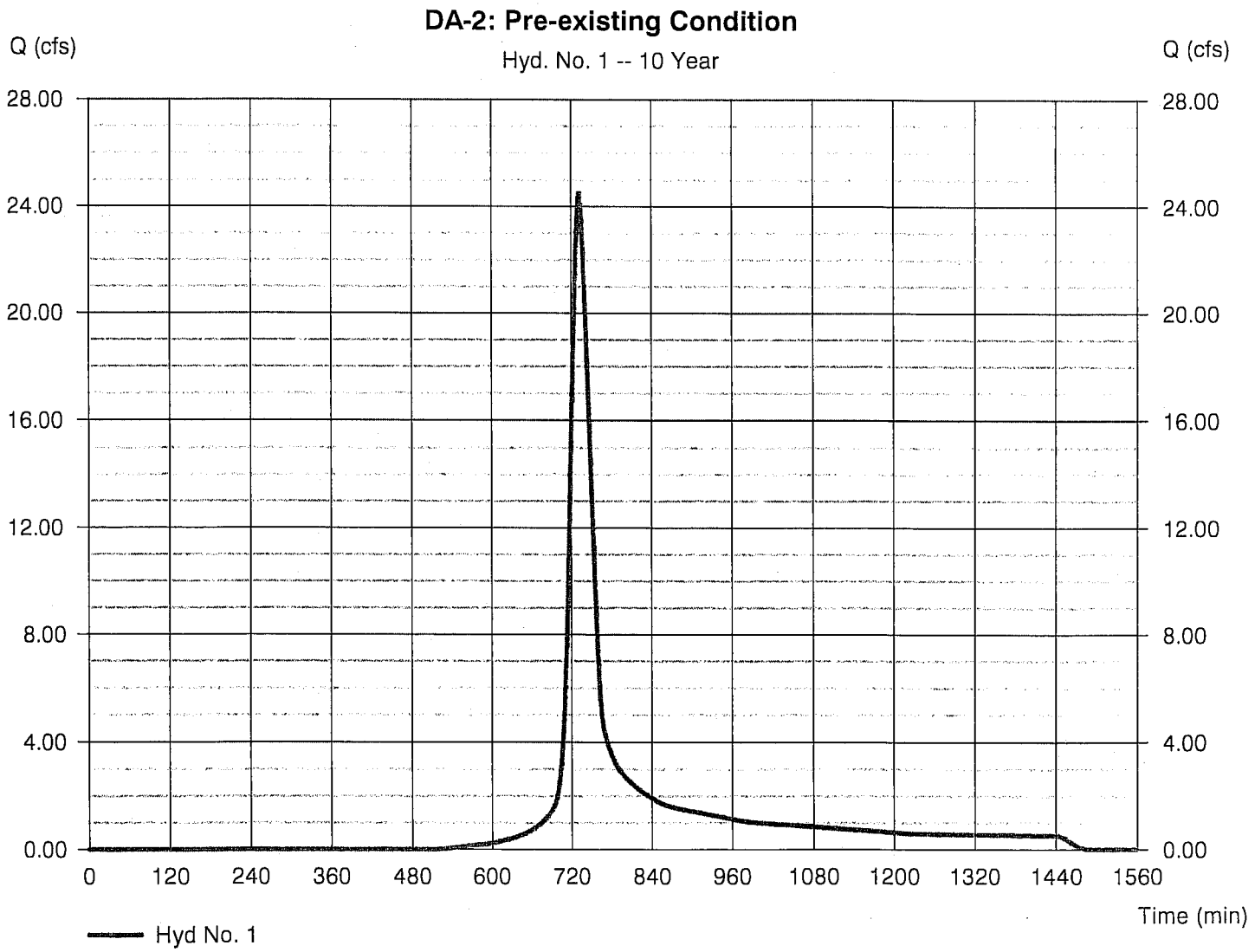
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 1

DA-2: Pre-existing Condition

Hydrograph type	= SCS Runoff	Peak discharge	= 24.49 cfs
Storm frequency	= 10 yrs	Time to peak	= 732 min
Time interval	= 1 min	Hyd. volume	= 102,261 cuft
Drainage area	= 15.700 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 30.90 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

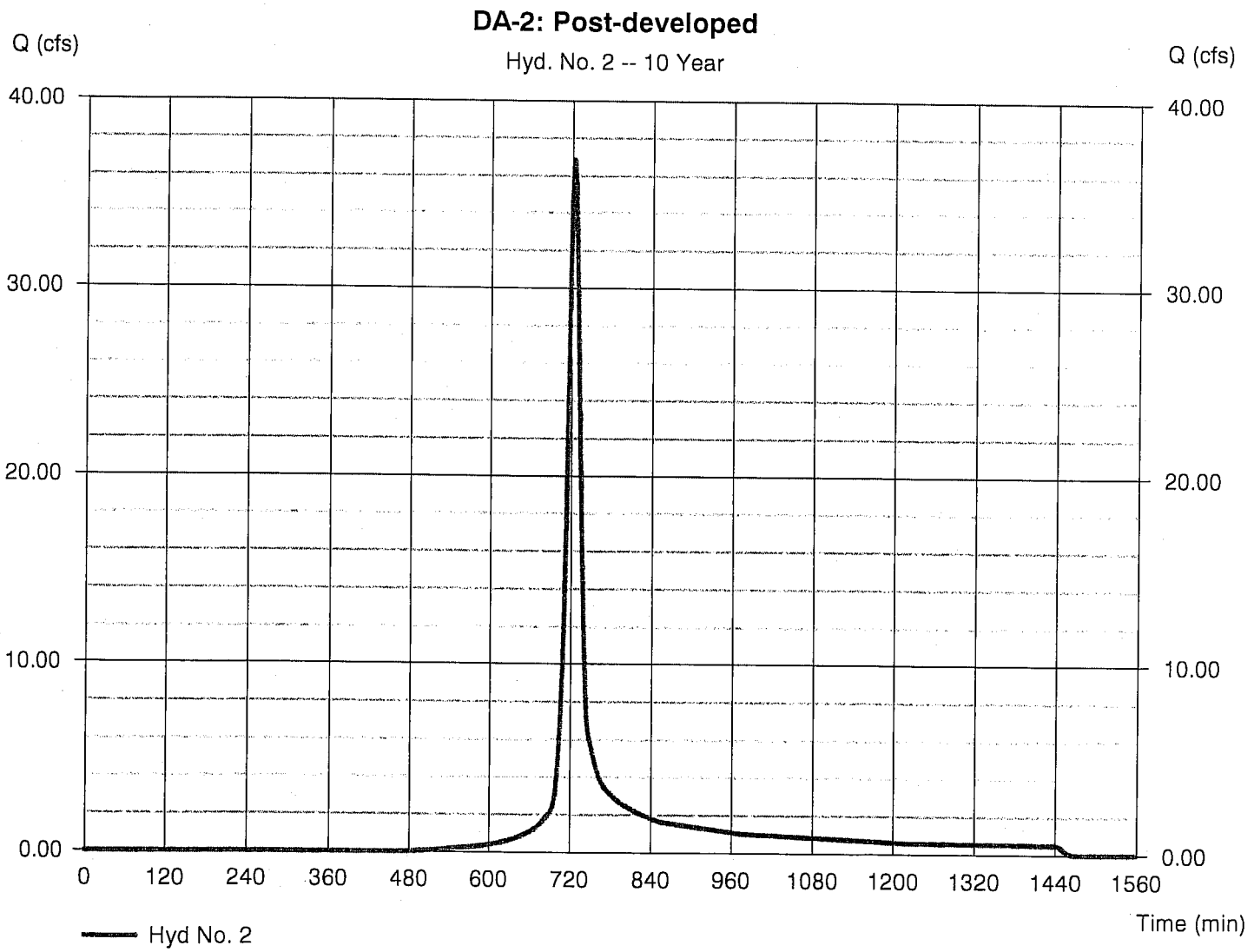
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 2

DA-2: Post-developed

Hydrograph type	= SCS Runoff	Peak discharge	= 36.84 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 1 min	Hyd. volume	= 109,107 cuft
Drainage area	= 15.700 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 17.80 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(3.850 x 98) + (0.550 x 90) + (5.720 x 82) + (5.090 x 72)] / 15.700



Hydrograph Report

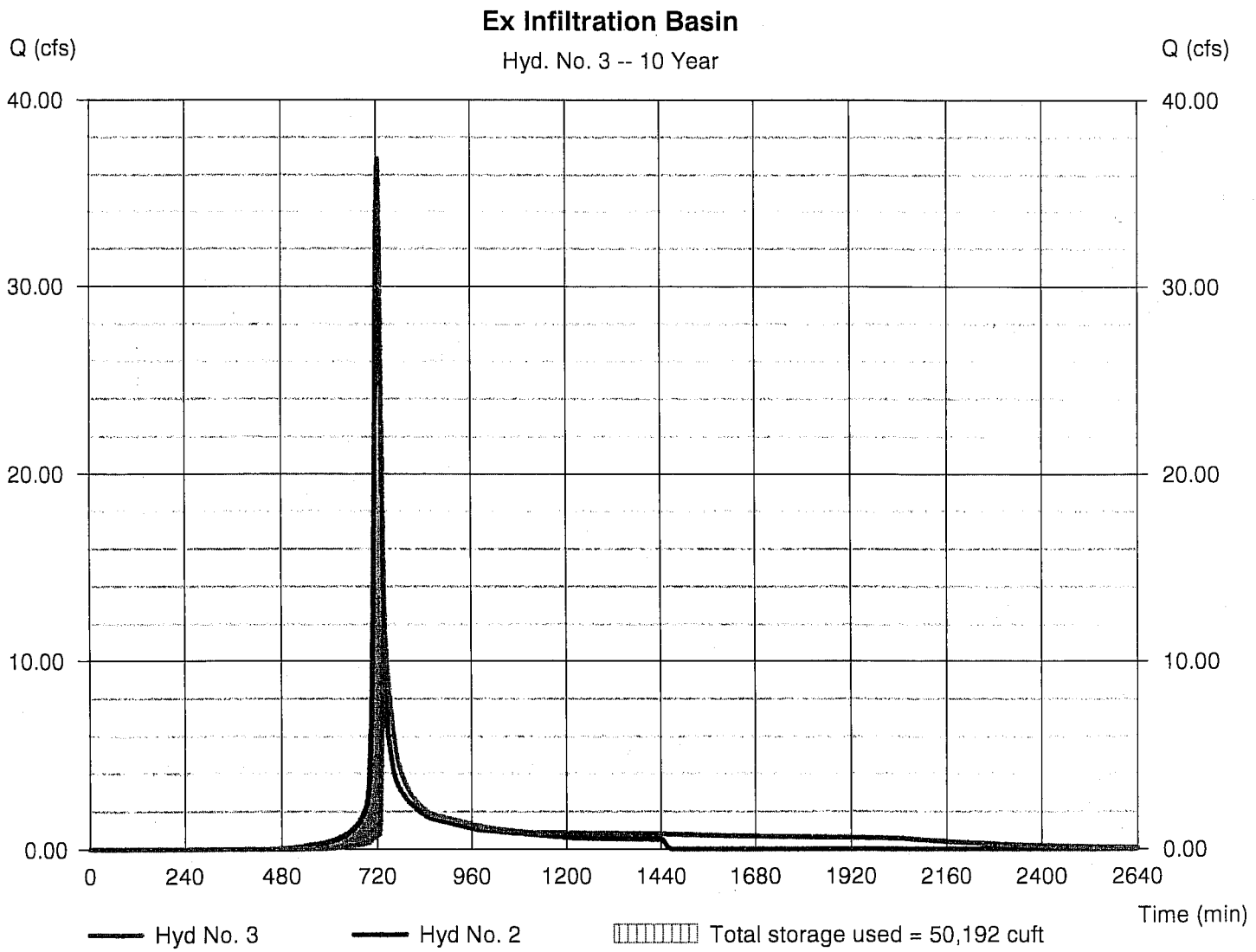
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 3

Ex Infiltration Basin

Hydrograph type	= Reservoir	Peak discharge	= 11.59 cfs
Storm frequency	= 10 yrs	Time to peak	= 740 min
Time interval	= 1 min	Hyd. volume	= 108,319 cuft
Inflow hyd. No.	= 2 - DA-2: Post-developed	Max. Elevation	= 399.78 ft
Reservoir name	= Existing Infiltration Pond	Max. Storage	= 50,192 cuft

Storage Indication method used. Outflow includes exfiltration.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	SCS Runoff	37.63	1	732	156,262	------	------	------	DA-2: Pre-existing Condition
2	SCS Runoff	54.98	1	724	163,776	------	------	------	DA-2: Post-developed
3	Reservoir	33.37	1	733	162,772	2	400.16	61,604	Ex Infiltration Basin

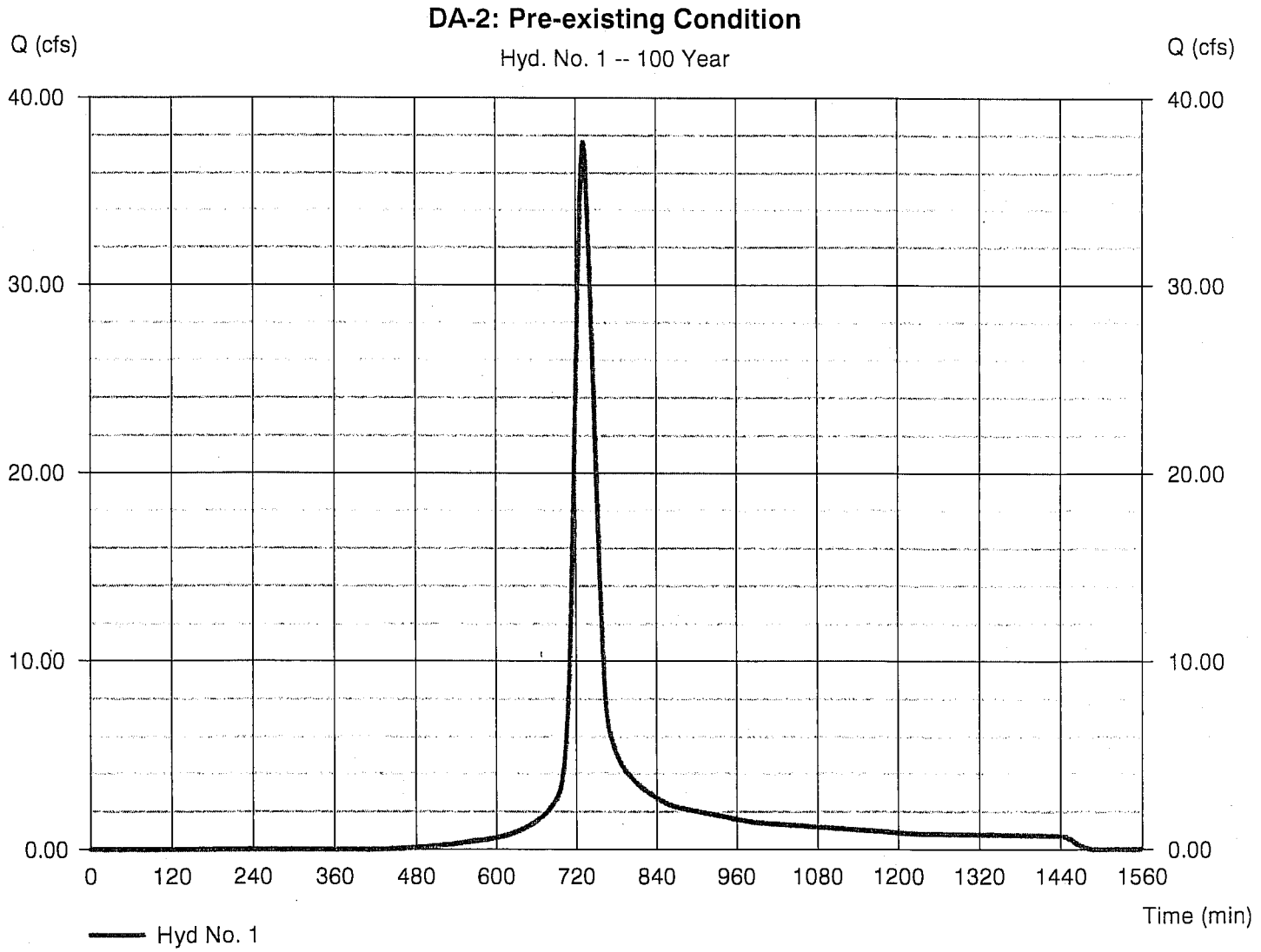
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 1

DA-2: Pre-existing Condition

Hydrograph type	= SCS Runoff	Peak discharge	= 37.63 cfs
Storm frequency	= 100 yrs	Time to peak	= 732 min
Time interval	= 1 min	Hyd. volume	= 156,262 cuft
Drainage area	= 15.700 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 30.90 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

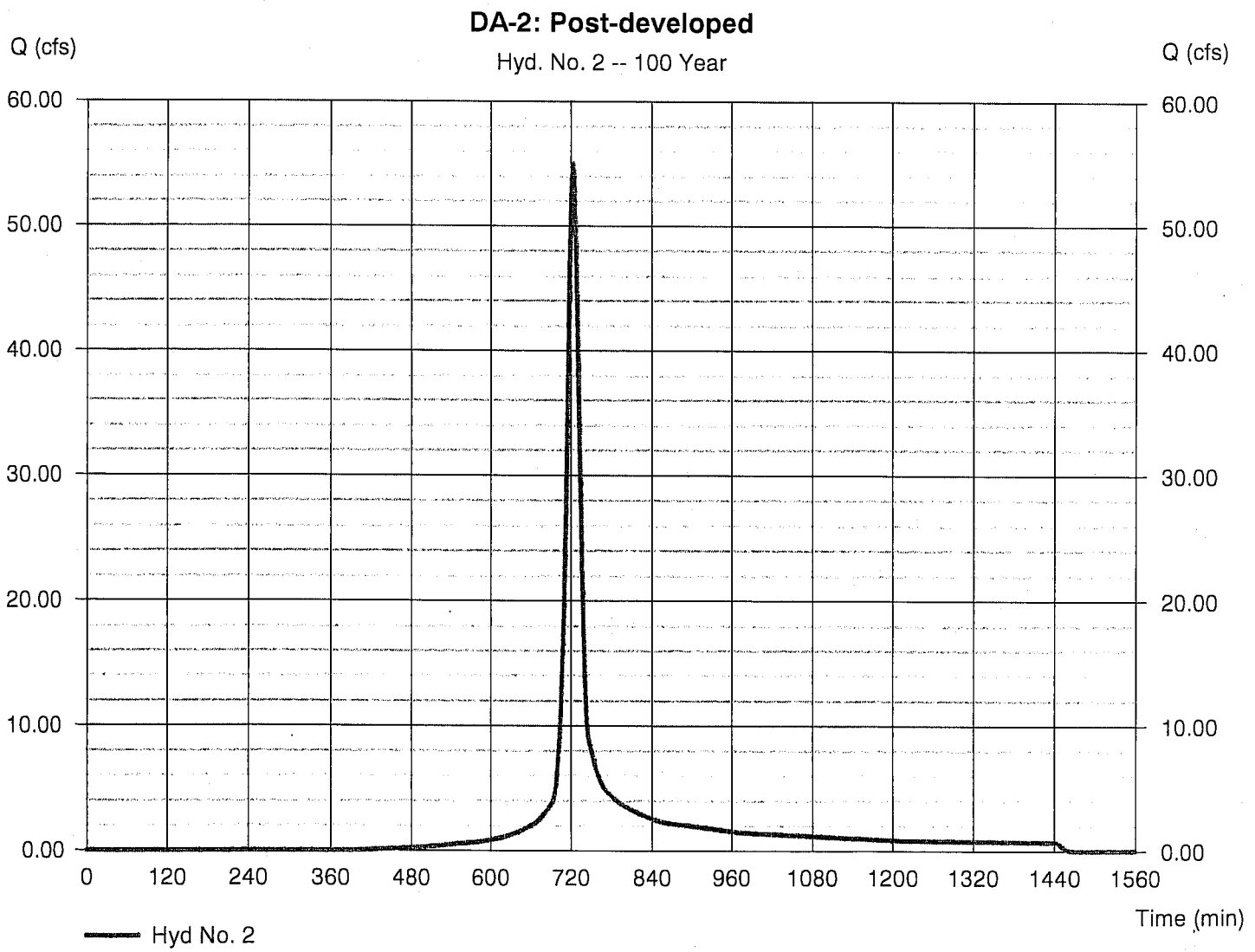
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 2

DA-2: Post-developed

Hydrograph type	= SCS Runoff	Peak discharge	= 54.98 cfs
Storm frequency	= 100 yrs	Time to peak	= 724 min
Time interval	= 1 min	Hyd. volume	= 163,776 cuft
Drainage area	= 15.700 ac	Curve number	= 84*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 17.80 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(3.850 x 98) + (0.550 x 90) + (5.720 x 82) + (5.090 x 72)] / 15.700



Hydrograph Report

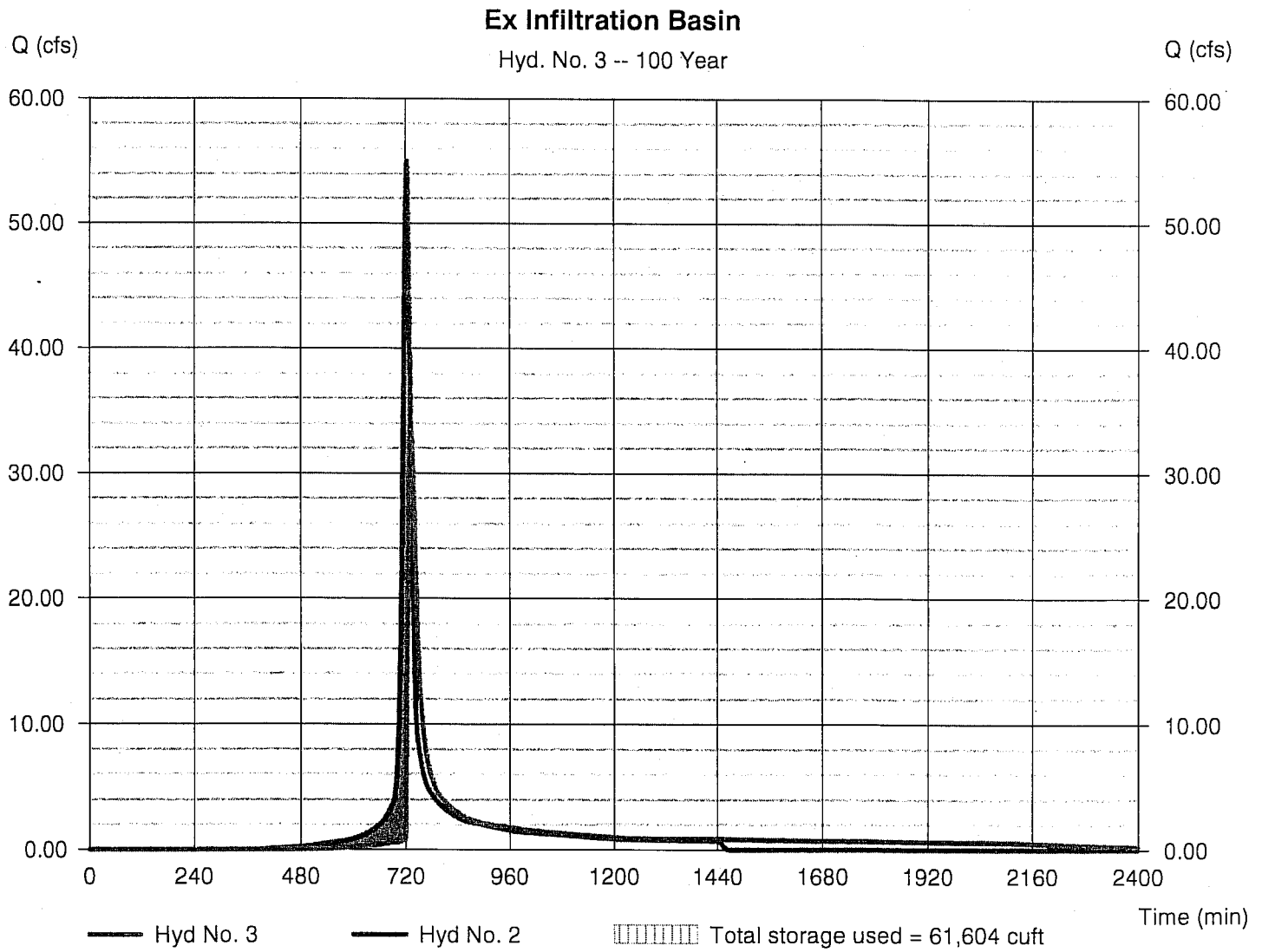
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Aug 16, 2011

Hyd. No. 3

Ex Infiltration Basin

Hydrograph type	= Reservoir	Peak discharge	= 33.37 cfs
Storm frequency	= 100 yrs	Time to peak	= 733 min
Time interval	= 1 min	Hyd. volume	= 162,772 cuft
Inflow hyd. No.	= 2 - DA-2: Post-developed	Max. Elevation	= 400.16 ft
Reservoir name	= Existing Infiltration Pond	Max. Storage	= 61,604 cuft

Storage Indication method used. Outflow includes exfiltration.



ORIGINAL DESIGN DATA (6/10-2003 SWPP

* Tables have been developed using information from TR55/TR20.

EXISTING DRAINAGE AREA & DISCHARGE SUMMARY TABLES

Drainage Area	Surface	Soil Group 'C'	Total Area	RCN	Time of Concentration (Tc) (Hours)	Peak Discharge	
						10 yr	100 yr
EX -1	Woods/Grass	1.1 ac	1.1 ac	82	0.1	3.03	4.76
EX - 2	Woods/Grass	1.37 ac	1.37 ac	82	0.551	2.02	3.21
EX -3	Woods/Grass	0.99 ac	0.99 ac	82	0.551	1.46	2.33
EX -4	Woods/Grass	1.03 ac	1.03 ac	82	0.324	2.05	3.23

RE-USE CN

PROPOSED DRAINAGE AREA & DISCHARGE SUMMARY TABLE

Drainage Area	Surface	Soil Group 'C'	Total Area	RCN	Time of Concentration	Peak Discharge	
						10 yr	100 yr
PR -1	Impervious	0.922 ac	1.1 ac	78	0.1	2.52	4.17
	Grass	0.182 ac					
PR - 2	Impervious	0.376 ac	1.37 ac	81	0.372	2.43	3.89
	Grass	0.922 ac					
PR -3	Impervious	0.309 ac	0.99 ac	81	0.372	1.76	2.82
	Grass	0.684 ac					
PR -4	Impervious	0.149 ac	1.03 ac	77	0.1	2.25	3.77
	Woods/Grass	0.881 ac					

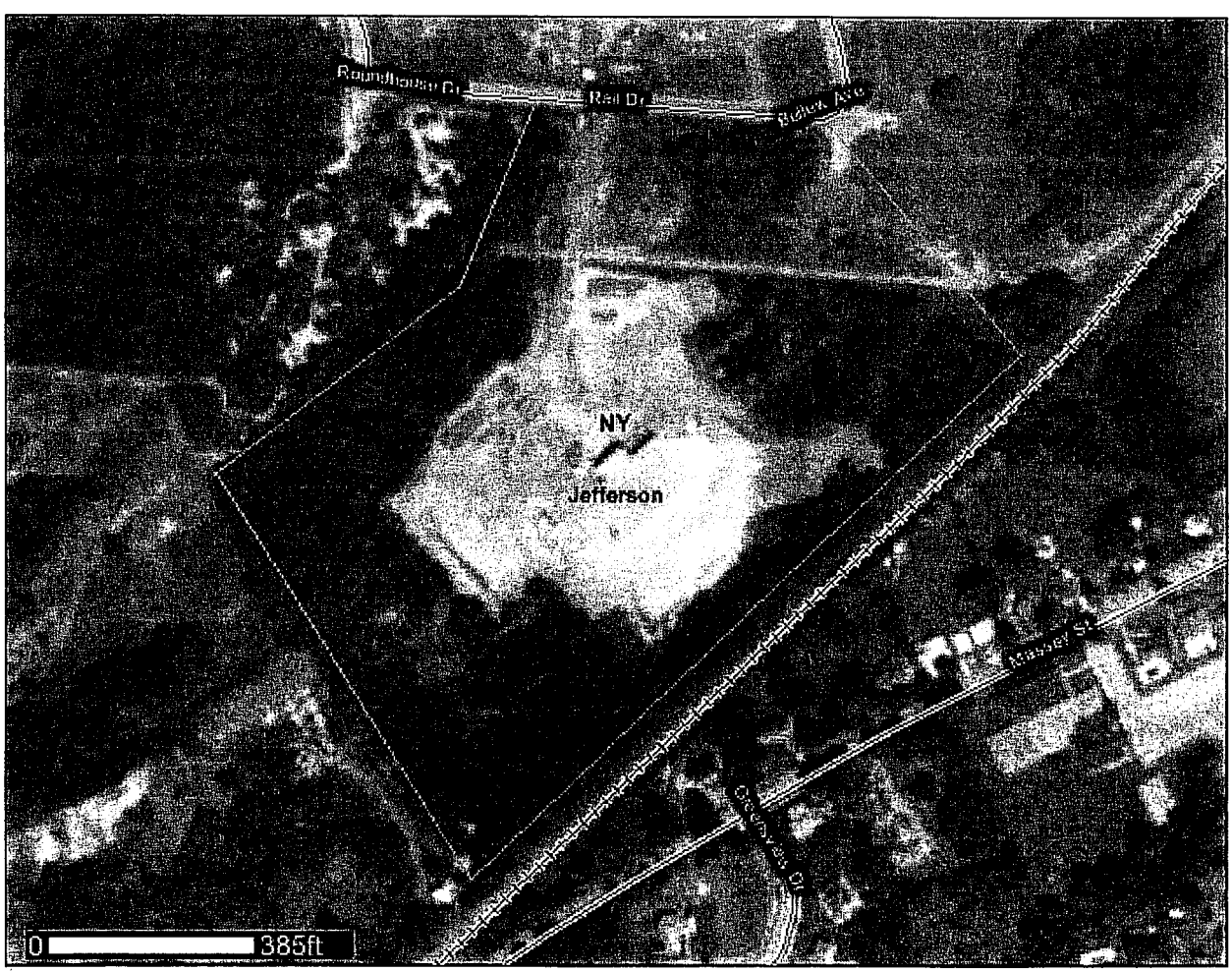
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Jefferson County, New York



August 12, 2011

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

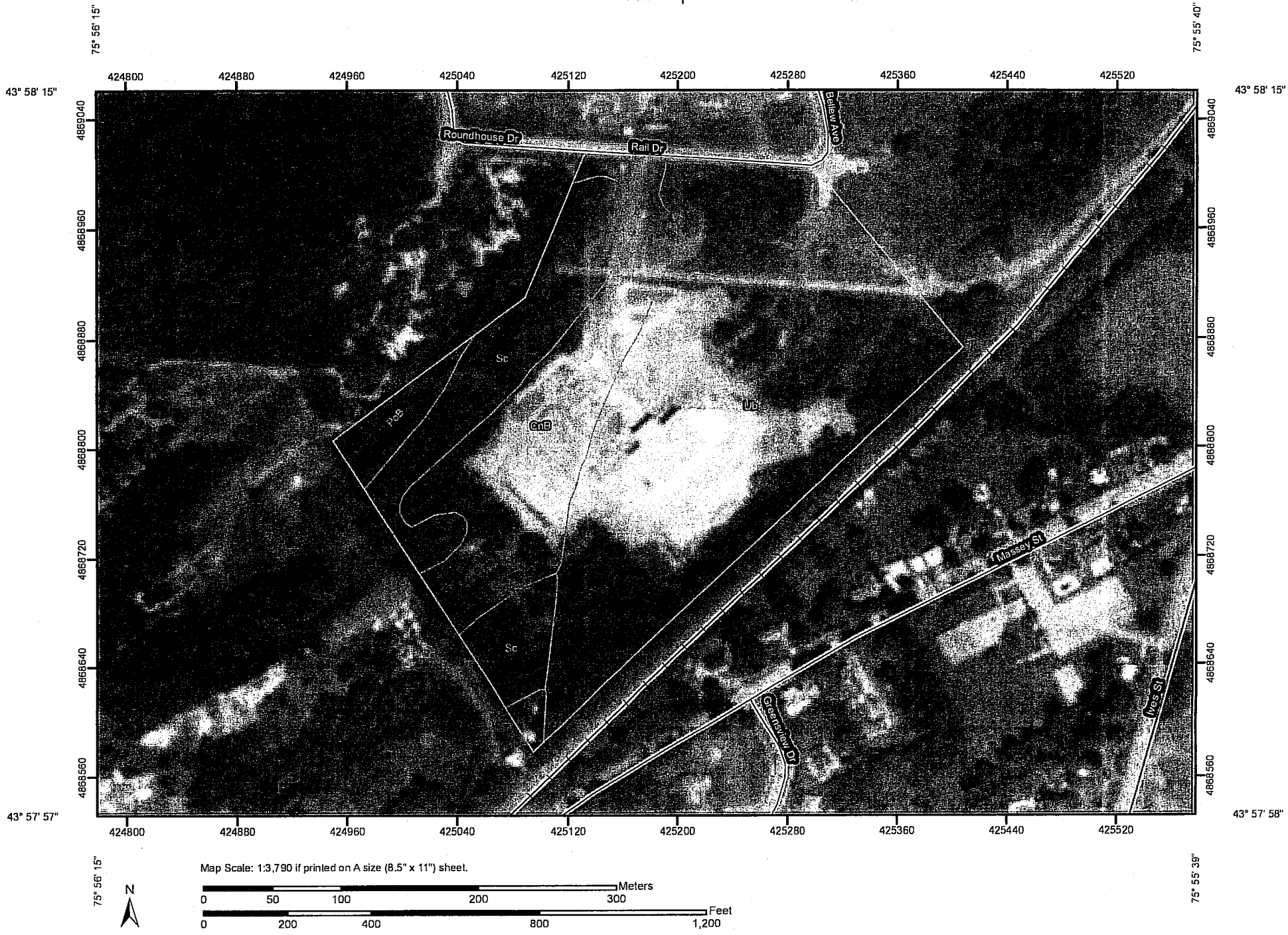
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

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
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:3,790 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

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 accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 18N NAD83

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 7, Feb 5, 2010

Date(s) aerial images were photographed: 7/30/2006

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
CnB	Collamer silt loam, 3 to 8 percent slopes	5.7	22.1%
PoB	Plainfield sand, 0 to 8 percent slopes	0.8	3.0%
Sc	Scarboro mucky loamy fine sand	4.4	16.9%
Ub	Udorthents,smoothed	14.9	58.0%
Totals for Area of Interest		25.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If

intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series.* Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases.* Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas.* Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Jefferson County, New York

CnB—Collamer silt loam, 3 to 8 percent slopes

Map Unit Setting

Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days

Map Unit Composition

Collamer and similar soils: 80 percent

Description of Collamer

Setting

Landform: Lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Silty and clayey glaciolacustrine deposits

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: High (about 10.1 inches)

Interpretive groups

Land capability (nonirrigated): 2e

Typical profile

0 to 8 inches: Silt loam
8 to 18 inches: Silt loam
18 to 32 inches: Silty clay loam
32 to 60 inches: Stratified silt loam to very fine sand to clay

PoB—Plainfield sand, 0 to 8 percent slopes

Map Unit Setting

Elevation: 720 to 1,150 feet
Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days

Map Unit Composition
Plainfield and similar soils: 80 percent

Description of Plainfield

Setting
Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy glaciofluvial or deltaic deposits

Properties and qualities
Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.4 inches)

Interpretive groups
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 4s

Typical profile
0 to 8 inches: Sand
8 to 28 inches: Sand
28 to 65 inches: Sand

Sc—Scarboro mucky loamy fine sand

Map Unit Setting
Elevation: 0 to 2,100 feet
Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days

Map Unit Composition
Scarboro and similar soils: 85 percent

Description of Scarboro

Setting
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave

Parent material: Sandy glaciofluvial deposits

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 5.95 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Land capability (nonirrigated): 5w

Typical profile

0 to 2 inches: Peat
2 to 14 inches: Mucky loamy fine sand
14 to 26 inches: Loamy sand
26 to 60 inches: Sand

Ub—Udorthents,smoothed

Map Unit Setting

Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days

Map Unit Composition

Udorthents, smoothed, and similar soils: 70 percent

Description of Udorthents, Smoothed

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Low (about 5.4 inches)

Interpretive groups

Land capability (nonirrigated): 6s

Typical profile

0 to 4 inches: Channery loam
4 to 70 inches: Very gravelly sandy loam

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Physical Properties

Soil Physical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

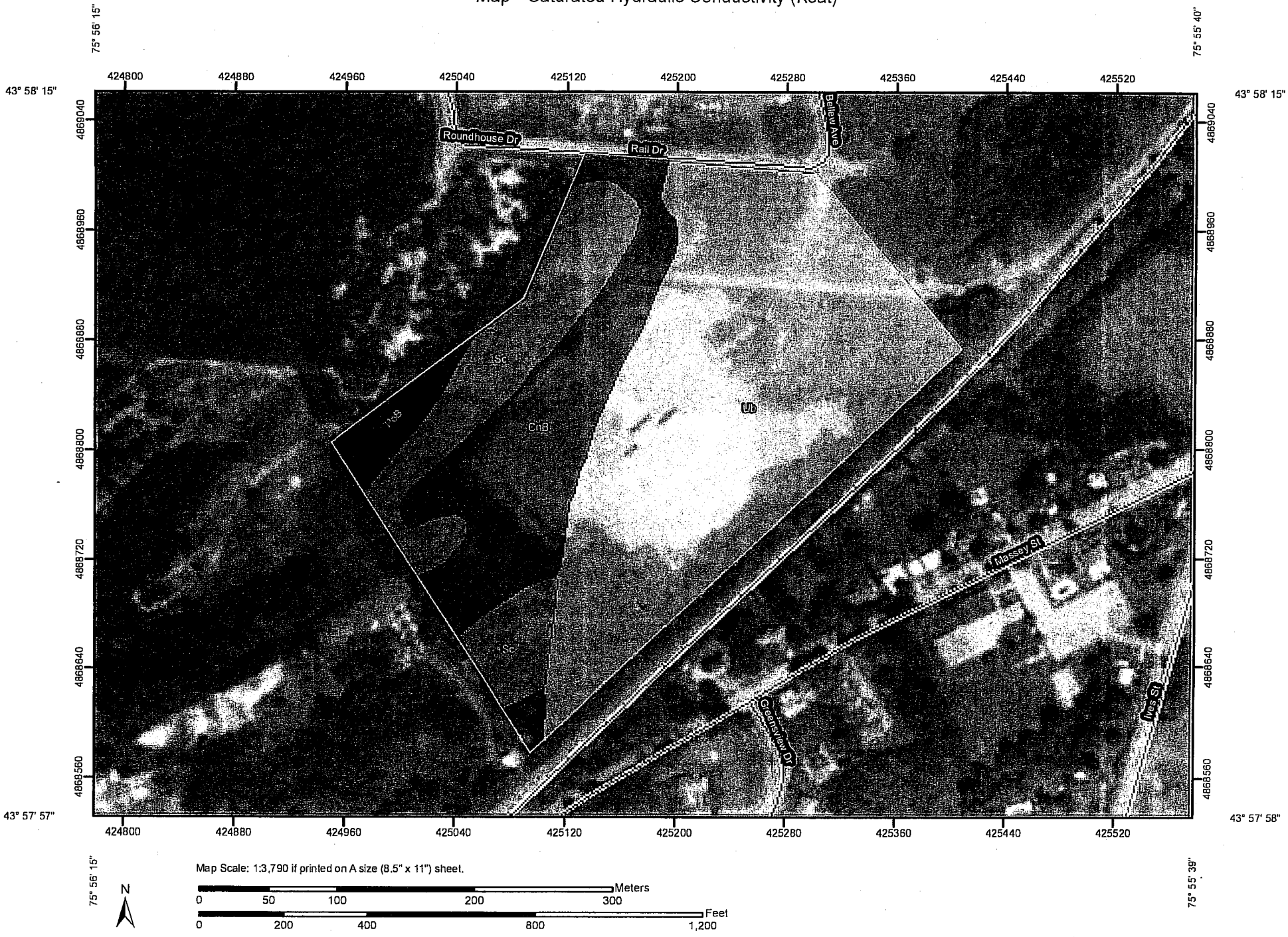
Saturated Hydraulic Conductivity (Ksat)

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

Custom Soil Resource Report
Map—Saturated Hydraulic Conductivity (Ksat)



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- <= 4.2649
- > 4.2649 AND <= 23.9909
- > 23.9909 AND <= 89.6875
- > 89.6875 AND <= 92
- Not rated or not available

Political Features

- Cities

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:3,790 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

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 accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 18N NAD83

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 7, Feb 5, 2010

Date(s) aerial images were photographed: 7/30/2006

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.

Table—Saturated Hydraulic Conductivity (Ksat)

Saturated Hydraulic Conductivity (Ksat)— Summary by Map Unit — Jefferson County, New York (NY045)				
Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
CnB	Collamer silt loam, 3 to 8 percent slopes	4.2649	5.7	22.1%
PoB	Plainfield sand, 0 to 8 percent slopes	92.0000	0.8	3.0%
Sc	Scarboro mucky loamy fine sand	89.6875	4.4	16.9%
Ub	Udorthents,smoothed	23.9909	14.9	58.0%
Totals for Area of Interest			25.8	100.0%

Rating Options—Saturated Hydraulic Conductivity (Ksat)

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options: All Layers

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

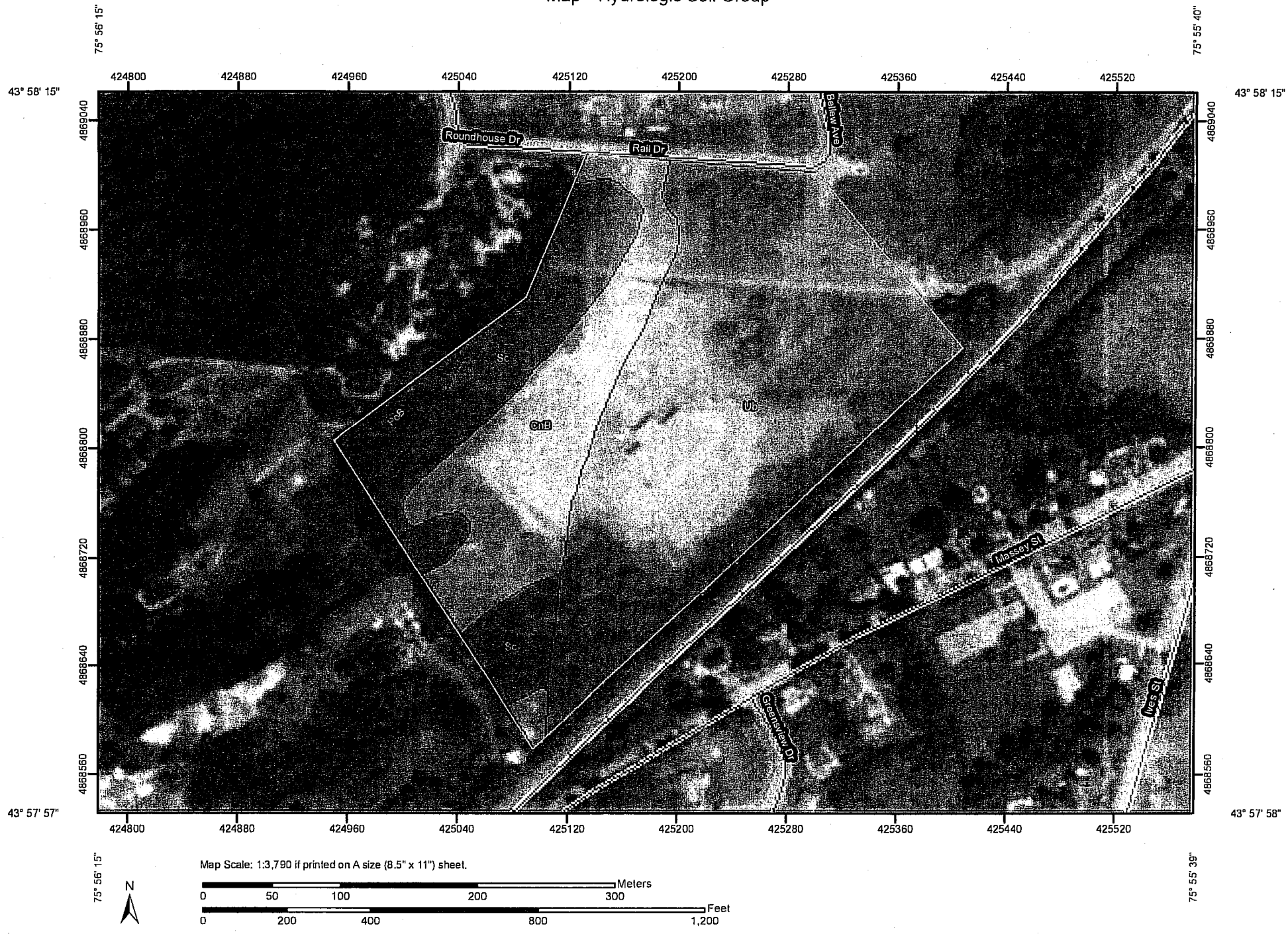
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Political Features

- Cities

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:3,790 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

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 accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 18N NAD83

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 7, Feb 5, 2010

Date(s) aerial images were photographed: 7/30/2006

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.

Table—Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Jefferson County, New York (NY045)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CnB	Collamer silt loam, 3 to 8 percent slopes	C	5.7	22.1%
PoB	Plainfield sand, 0 to 8 percent slopes	A	0.8	3.0%
Sc	Scarboro mucky loamy fine sand	D	4.4	16.9%
Ub	Udorthents,smoothed	A/D	14.9	58.0%
Totals for Area of Interest			25.8	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash.

Engineering Properties– Jefferson County, New York												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
CnB—Collamer silt loam, 3 to 8 percent slopes												
Collamer	0-8	*Silt loam	CL-ML, ML, SC-SM, CL	A-4	0	0	95-100	92-100	65-100	40-90	25-35	5-10
	8-18	*Silt loam, Very fine sandy loam, fine sandy loam	CL, CL-ML, ML, SC-SM	A-4	0	0	95-100	92-100	65-100	40-90	20-30	3-10
	18-32	*Silty clay loam, Silt loam, sandy clay loam	CL, CL-ML	A-6, A-4	0	0	95-100	92-100	70-100	40-95	20-35	5-15
	32-60	*Stratified silt loam to very fine sand to clay, Very fine sand, silty clay loam	SM, CL, CL-ML, ML	A-4, A-6	0	0	95-100	92-100	65-100	40-95	20-35	3-15
PoB—Plainfield sand, 0 to 8 percent slopes												
Plainfield	0-8	*Sand	SM, SP-SM	A-2, A-3, A-1	0	0	85-100	75-100	35-80	5-35	—	NP
	8-28	*Sand, Fine sand	SP, SP-SM, SM	A-2, A-3, A-1	0	0	85-100	75-100	35-70	3-15	—	NP
	28-65	*Sand, Fine sand, coarse sand	SP, SP-SM, SM	A-2, A-3, A-1	0	0	85-100	75-100	35-70	1-20	—	NP

Engineering Properties– Jefferson County, New York												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
Sc—Scarboro mucky loamy fine sand												
Scarboro	0-2	*Peat	PT	A-8	0	0	100	100	—	—	—	—
	2-14	*Mucky loamy fine sand, Fine sandy loam	SM	A-1, A-2, A-4	0	0	95-100	85-100	50-85	15-50	—	NP
	14-26	*Loamy sand, Fine sand, sand	SP-SM, SM	A-1, A-2, A-3	0	0	95-100	85-100	40-75	5-30	—	NP
	26-60	*Sand, Loamy sand, fine sand	SP-SM, SM, SP	A-2, A-3, A-1	0	0	95-100	85-100	40-75	2-30	—	NP
Ub—Udorthents,smoothed												
Udorthents, smoothed	0-4	*Channery loam	ML, SM, CL, GC	A-6, A-2, A-4	0	0-10	60-80	55-75	35-75	20-70	15-45	NP-15
	4-70	*Very gravelly sandy loam, Channery loam, silty clay loam	SC, CL, GM, ML	A-2, A-4, A-6, A-1	0	0-10	35-100	30-100	20-100	10-95	15-45	NP-15

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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EX. BASIN OVERFLOW

EX-1

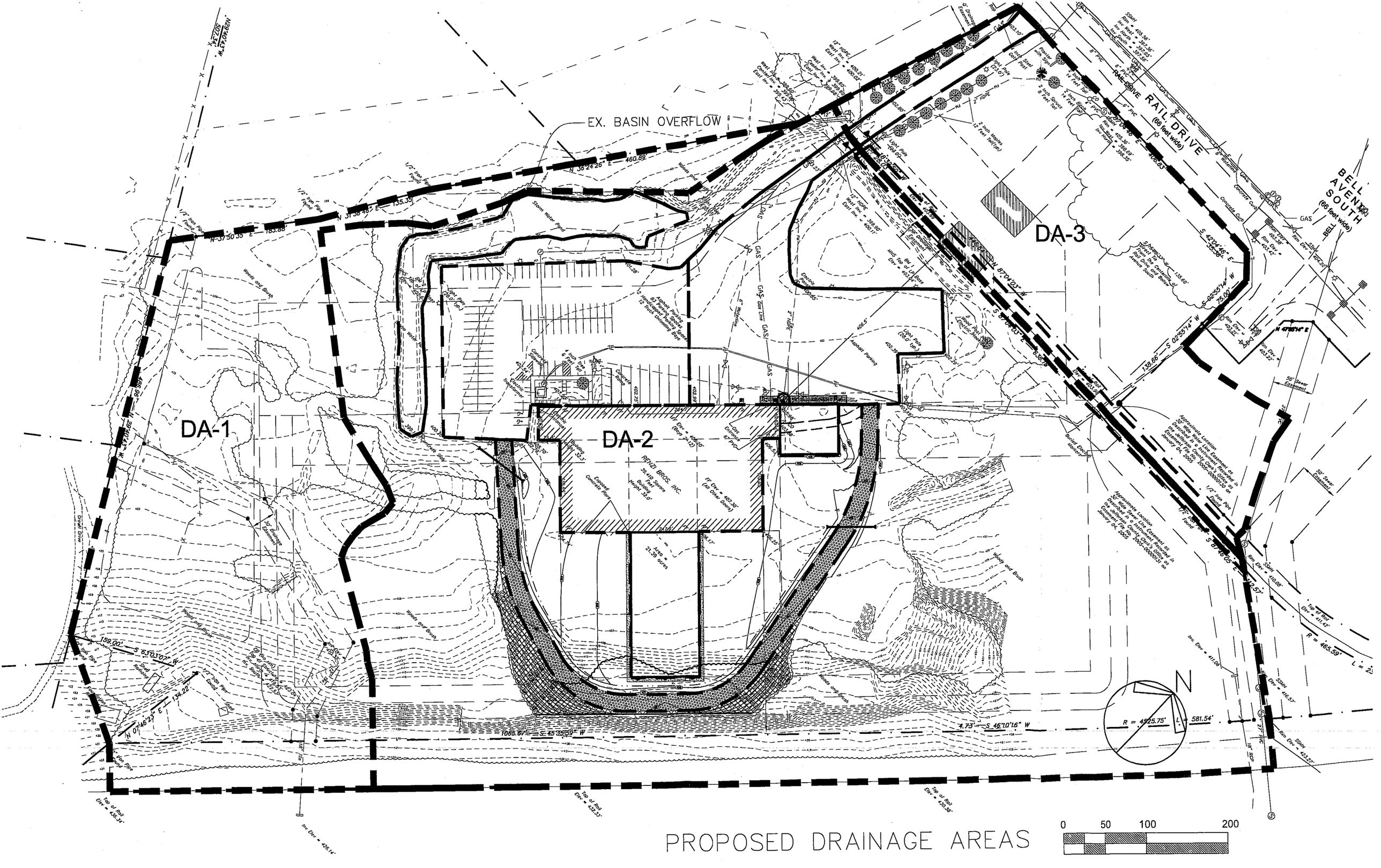
RENZI BROS. INC.
39,410 Square Feet Building
Weight 32#
FF Elev = 407.20'
(All Other Floors)
Area = 21.39 acres

RAIL DRIVE (66 feet wide)

BELL AVENUE SOUTH (66 feet wide)

EXISTING DRAINAGE AREAS

0 50 100 200



PROPOSED DRAINAGE AREAS