

**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: Sunoco/A-Plus
 Tax Parcel Number: 919102.2 & 919102
 Property Address: 1255 Arsenal Street
 Existing Zoning Classification: Commercial

OWNER OF PROPERTY

Name: Sunoco, Inc
 Address: 350 Eagleview Blvd, Suite 300
Exton, PA 19341
 Telephone Number: 412-784-3474
 Fax Number: 732-362-7571

APPLICANT

Name: Sunoco, Inc.
 Address: 1840 Lyell Avenue
Rochester, NY 14606
 Telephone Number: 585-264-8626 (Tom Boje)
 Fax Number: _____
 Email Address: tboje@sunocoinc.com

ENGINEER/ARCHITECT/SURVEYOR

Name: Bergmann Associates - Brian Burri
 Address: 28 East Main Street
Rochester, NY 14614
 Telephone Number: 585-232-5137 ext. 411
 Fax Number: _____
 Email Address: bburri@bergmannpc.com

PROJECT DESCRIPTION

Describe project and proposed use briefly:

Remove existing building and construct new 3044 sf
prototype building. Remove and replace fueling
dispensers. Install new stand alone diesel dispenser
and new 20,000 gallon UST

Is proposed Action:

New Expansion Modification/Alteration

Amount of Land Affected:

Initially: .6 +/- Acres Ultimately: .6 +/- 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: _____

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 3,044 Sq. Ft.
 2nd Floor _____ Sq. Ft.
 3rd Floor _____ Sq. Ft.
 Total _____ Sq. Ft.

Area of building to be used for the boiler room, heat facilities, utility facilities and storage: 379 +/- Sq. Ft.

Number of parking spaces proposed: 14

Construction Schedule: start April 2011, complete 90 +/-
days after start.

Hours of Operation: 24

Volume of traffic to be generated: not anticipating additional ADT
traffic to be generated
as this site is existing.

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".
 - All proposed easements & right-of-ways are shown and labeled.

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

GRADING PLAN

- All proposed below ground features including elevations & inverts are shown and labeled.
- All proposed above ground features are shown and labeled.
- The line work & text for all proposed features is shown darker than existing features.
- All proposed easements & right-of-ways are shown and labeled.
- 1' existing contours are shown dashed & labeled with appropriate spot elevations.
- 1' proposed contours are shown & labeled with appropriate spot elevations.
- All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).
- Sediment & Erosion control are shown & labeled on the grading plan unless separate drawings have been provided as part of a Stormwater Pollution Prevention Plan (SWPPP).

UTILITY PLAN

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

 LANDSCAPING PLAN

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

 PHOTOMETRIC PLAN (If Applicable)

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

CONSTRUCTION DETAILS & NOTES

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

 PRELIMINARY ARCHITECTURAL PLANS (If Applicable)

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

 ENGINEERING REPORT

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

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

GENERAL INFORMATION

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

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

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

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

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.

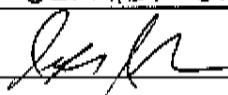
Completed SEQR – Short Environmental Assessment Form – Part I.

*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) JEFFREY J. BAUER / SUNOCO, INC.

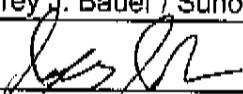
Applicant Signature  Date: 10/21/2010

State Environmental Quality Review

SHORT ENVIRONMENTAL ASSESSMENT FORM

For UNLISTED ACTIONS Only

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

| | | | |
|---|--|--|--|
| 1. APPLICANT/SPONSOR Sunoco, Inc. | | 2. PROJECT NAME Sunoco/A-Plus 1255 Arsenal Street | |
| 3. PROJECT LOCATION: Municipality <u>City of Watertown</u> County <u>Jefferson</u> | | | |
| 4. PRECISE LOCATION (Street address and road intersections, prominent landmarks, etc., or provide map) <u>1255 Arsenal Street</u> | | | |
| 5. IS PROPOSED ACTION: <input type="checkbox"/> New <input type="checkbox"/> Expansion <input checked="" type="checkbox"/> Modification/alteration | | | |
| 6. DESCRIBE PROJECT BRIEFLY: Remove existing 3,020 +/- sf building and dispensers. Construct new 3,044 sf building and install new dispensers. Construct stand alone diesel dispenser. | | | |
| 7. AMOUNT OF LAND AFFECTED: Initially <u>0.6 +/-</u> acres Ultimately <u>0.6 +/-</u> acres | | | |
| 8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER EXISTING LAND USE RESTRICTIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, describe briefly | | | |
| 9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT? <input type="checkbox"/> Residential <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Agriculture <input type="checkbox"/> Park/Forest/Open Space <input type="checkbox"/> Other Describe: <u>present use is a gas station/convenience store/carwash</u> | | | |
| 10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (FEDERAL, STATE OR LOCAL)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, list agency(s) and permit/approvals | | | |
| 11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, list agency(s) and permit/approvals | | | |
| 12. AS A RESULT OF PROPOSED ACTION, WILL EXISTING PERMIT/APPROVAL REQUIRE MODIFICATION? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE | | | |
| Applicant/sponsor name: <u>Jeffrey J. Bauer / Sunoco, Inc.</u> | | Date: <u>10/21/2010</u> | |
| Signature:  | | | |

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

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:

C2. Aesthetic agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly:

C3. Vegetation or fauna, fish shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly:

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:

C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly.

C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly.

C7. Other impacts (including changes in use of either quantity or type of energy)? Explain briefly.

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



SUNOCO

SUNOCO

Mattress
SUNOCO
297
307
317

TACK SHOP



SNACK SHOP









**Proposed Redevelopment
of
Sunoco/A-Plus
1255 Arsenal Street
City of Watertown, NY**

Prepared for:



Prepared by:



**200 First Federal Plaza
28 East Main Street
Rochester, NY 14614
585-232-5135**

DATE: November 1, 2010

General Narrative:

The proposed project is located at 1255 Arsenal Street in the City of Watertown along the south side of Arsenal Street and east of Interstate 81. The 0.952 acre parcel is currently developed with a 3,020 +/- square foot convenience store/carwash masonry building, associated pavement, canopy, and four dual sided fueling dispensers.

The proposed redevelopment will consist of removing the existing building/carwash and installing a new 3,044 square foot building which will be located in approximately in the same location as the current building. In addition, store front parking spaces will be constructed to meet Code, new building utility laterals will be installed, four new dual sided dispensers, and significant landscaped areas along the perimeter of the property. Lastly, a standalone hi-speed diesel dispenser will be installed at the west portion of the parcel. See attached Figure 3.

Stormwater:

Stormwater runoff from the improved area is directed to two separate dry wells. A portion of the impervious area also drains towards Arsenal Street (NYSDOT storm sewer system) and consists of approximately 0.41 acre. The balance of the site drains off-site to the south and consists of approximately 0.32 acre. See attached Figures 1 and 2.

The proposed redevelopment will utilize the same stormwater runoff patterns with the new paved areas sloping towards the new dry wells. The building roof laterals will connect to dry wells 1 and 3. The southernmost existing dry well will be replaced with a new, slightly larger dry well to accommodate the increase in runoff within this sub drainage area. The existing dry well on the eastern portion of the site will be replaced with dry well #3.

There will be a slight net increase in impervious surface associated with the redevelopment, approximately 0.11 acre. Additionally the post-development runoff to Arsenal Street will remain the same as the current conditions – no net increase to the NYSDOT system. Calculations for the proposed dry wells are in the attached appendix.

Sanitary:

The new building will utilize the existing sanitary lateral and will make connection to it within the site limits. Since this building is the same size as the current building, this lateral will be adequate for the proposed re-development.



Water:

The existing building is service by a 1" copper line that connects to a 2" copper line south of the sidewalk at the front of the site. The proposed building requires a 1½" service, therefore, the proposed redevelopment will remove the existing 1" copper line and connect the new 1½" service to the existing 2" service.

The proposed redevelopment of this property is not likely to increase traffic as the site use is not changing. In addition, the building size is remaining the same as well as the total number of fueling dispensers, therefore, we are not anticipating any increase in traffic nor the need for mitigation.

Lighting:

A detailed lighting design has been performed for the new locations of the lightpoles. The design is such that no more than 0.5 foot-candles spill over the property line.

Landscaping:

The proposed re-development will provide landscaping as outlined in the City of Watertown requirements. Landscaping is being proposed around the perimeter of the property and consists of trees and shrubs. See Drawing L-1 for the complete layout.

Schedule:

Construction is scheduled to begin in the Spring of 2010 with an anticipated completion date of 90 to 100 days after the start of construction. The sequencing for construction will be to install fencing around the perimeter of the property, remove the existing building, dispensers and pavement and construct the new building and pavement areas.



Below is a chart indicating the pre and post development characteristics of the site:

Total property area = 0.953 ac

Total existing impervious area = 0.53 ac

Total proposed impervious area = 0.64 ac

Total percent post construction impervious area = 67%

Total percent post construction greenspace area = 33%

Pre-development CN = 85

Post-development CN = 89

Pre-development runoff (10 year storm event) = 1.87 in

Post-development runoff (10 year storm event) = 2.15 in

Total disturbed area = 0.6 ± ac



APPENDIX



STORMWATER CALCULATIONS



Worksheet 2: Runoff curve number and runoff

Project Name: Sunoco - Arsenal Street By: BJB Date: 11/1/2010

Location City of Watertown, NY Chk By: _____ Date: _____

Condition (Current or Developed) Current Condition

Runoff Curve Number (CN)

| Soils Name and Hydrologic Group (Appendix A) | Cover Description (cover Type, Treatment and hydrologic condition; percent impervious; Unconnected/connected impervious area ratio) | Table 2 | Fig. 2-3 | Fig 2-4 | Area (Circle One) | Product of CN x Area |
|---|--|---------|----------|---------|-------------------------------|----------------------|
| | | | | | Acres Miles Sq. Percent | |
| | | | | | | |
| | Grass - Fair Condition | 69 | | | 0.41 | 28.29 |
| | Impervious surfaces | 98 | | | 0.53 | 51.94 |
| | | 0 | | | 0 | 0 |
| | | 0 | | | 0 | 0 |
| | | | | | | |
| Total | | | | | 0.94 | 80.23 |

$$Cn \text{ (weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{80.23}{0.94} = 85.35106 \approx \boxed{85}$$

2. Runoff

| | | Storm #1 | Storm #2 | Storm #2 | Storm #2 | Storm #3 |
|-----------------------|----|----------|----------|----------|----------|----------|
| Frequency | Yr | 1 | 2 | 10 | 50 | 100 |
| Rainfall, P (24 hour) | in | 2.1 | 2.3 | 3.3 | 4.1 | 4.4 |
| Runoff, Q | in | 0.89 | 1.04 | 1.87 | 2.58 | 2.85 |

(Use P and CN with table 2-1 fig. 2-1 or eqs. 2-3 and 2-4.)

Worksheet 2: Runoff curve number and runoff

Project Name: Sunoco - Arsenal Street By: BJB Date: 11/1/2010

Location City of Watertown, NY Chk By: _____ Date: _____

Condition (Current or Developed) _____ Proposed Condition

Runoff Curve Number (CN)

| Soils Name and Hydrologic Group (Appendix A) | Cover Description (cover Type, Treatment and hydrologic condition; percent impervious; Unconnected/connected impervious area ratio) | Table 2 | Fig. 2-3 | Fig 2-4 | Area (Circle One) | Product of CN x Area |
|---|--|---------|----------|---------|-------------------------------|----------------------|
| | | | | | Acres Miles Sq. Percent | |
| | | | | | | |
| | Grass - Fair Condition | 69 | | | 0.3 | 20.7 |
| | Impervious surfaces | 98 | | | 0.64 | 62.72 |
| | | 0 | | | 0 | 0 |
| | | 0 | | | 0 | 0 |
| | | | | | | |
| Total | | | | | 0.94 | 83.42 |

$$Cn \text{ (weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{83.42}{0.94} = 88.74468 \approx \boxed{89}$$

2. Runoff

| | | Storm #1 | Storm #2 | Storm #2 | Storm #2 | Storm #3 |
|-----------------------|----|----------|----------|----------|----------|----------|
| Frequency | Yr | 1 | 2 | 10 | 50 | 100 |
| Rainfall, P (24 hour) | in | 2.1 | 2.3 | 3.3 | 4.1 | 4.4 |
| Runoff, Q | in | 1.09 | 1.26 | 2.15 | 2.89 | 3.18 |

(Use P and CN with table 2-1 fig. 2-1 or eqs. 2-3 and 2-4.)

PROPOSED DRYWELL STORAGE SYSTEM (10 Year)

Proposed Drywell #1

| | | |
|---|-------------|------------|
| 10 year storm intensity = | 5.4 in/hr | Input |
| Amount of stone backfill around drywell structure = | 2 ft | Calculated |
| Amount of stone backfill below drywell structure = | 2 ft | |
| Air void ratio of stone backfill = | 40 % | |
| Water elevation = | 408 ft | |
| Water table assumed to be at or lower than 401.0' | | |
| Soil percolation rate | 5 inch/hour | |
| Soil percolation rate | 12 min/inch | |

DRYWELL STORAGE VOLUME

| Drywell Designation | Drywell Diameter (ft) | Chamber Height (ft) | Drywell Top of Grate Elevation (ft) | Drywell Bottom Elevation (ft) | Outlet Pipe Invert Elevation (ft) | Storage Volume (cf) |
|---------------------|-----------------------|---------------------|-------------------------------------|-------------------------------|-----------------------------------|---------------------|
| | | | | | No Outlet Pipe | |
| PR | 8 | 8 | 411.50 | 402.25 | 408.00 | 474.10 |

STORM VOLUME RUNOFF

| Drywell Designation | Weighted Curve Number | Local Area (acres) | Flow captured =ciA (cfs) | Time of Concentration (min) | Volume Runoff (cf) |
|---------------------|-----------------------|--------------------|--------------------------|-----------------------------|--------------------|
| 1 | 0.89 | 0.2 | 0.96 | 5.00 | 432.54 |

DRYWELL PERC. VOLUME

| Number Drywells | Drywell Diameter (ft) | Surface Area (sf) | Time of Concentration (min) | Soil Perc Rate (min/in) | Perc. Flow (cfs) | Perc. Volume (cf) |
|-----------------|-----------------------|-------------------|-----------------------------|-------------------------|------------------|-------------------|
| 1 | 8 | 405.27 | 5.00 | 12.0 | 0.1481 | 66.62 |

DRYWELL SUMMARY

| Number Drywells | Volume Runoff (cf) | Perc. Volume (cf) | Storage Volume (cf) | Volume Captured (%) | Volume Remaining cf |
|-----------------|--------------------|-------------------|---------------------|---------------------|---------------------|
| 1 | 432.54 | 66.62 | 474.10 | 125.0 | -108.2 |

PROPOSED DRYWELL STORAGE SYSTEM (10 Year)

Proposed Drywell #2

| | | |
|---|-------------|------------|
| 10 year storm intensity = | 5.4 in/hr | Input |
| Amount of stone backfill around drywell structure = | 2 ft | Calculated |
| Amount of stone backfill below drywell structure = | 2 ft | |
| Air void ratio of stone backfill = | 40 % | |
| Water elevation = | 410 ft | |
| Water table assumed to be at or lower than 401.0' | | |
| Soil percolation rate | 5 inch/hour | |
| Soil percolation rate | 12 min/inch | |

DRYWELL STORAGE VOLUME

| Drywell Designation | Drywell Diameter (ft) | Chamber Height (ft) | Drywell Top of Grate Elevation (ft) | Drywell Bottom Elevation (ft) | Outlet Pipe Invert Elevation (ft) | Storage Volume (cf) |
|---------------------|-----------------------|---------------------|-------------------------------------|-------------------------------|-----------------------------------|---------------------|
| | | | | | No Outlet Pipe | |
| PR | 4 | 8 | 411.65 | 402.40 | 408.00 | 159.63 |

STORM VOLUME RUNOFF

| Drywell Designation | Weighted Curve Number | Local Area (acres) | Flow captured =ciA (cfs) | Time of Concentration (min) | Volume Runoff (cf) |
|---------------------|-----------------------|--------------------|--------------------------|-----------------------------|--------------------|
| 1 | 0.85 | 0.08 | 0.37 | 5.00 | 165.24 |

DRYWELL PERC. VOLUME

| Number Drywells | Drywell Diameter (ft) | Surface Area (sf) | Time of Concentration (min) | Soil Perc Rate (min/in) | Perc. Flow (cfs) | Perc. Volume (cf) |
|-----------------|-----------------------|-------------------|-----------------------------|-------------------------|------------------|-------------------|
| 1 | 4 | 291.54 | 5.00 | 12.0 | 0.2058 | 92.61 |

DRYWELL SUMMARY

| Number Drywells | Volume Runoff (cf) | Perc. Volume (cf) | Storage Volume (cf) | Volume Captured (%) | Volume Remaining cf |
|-----------------|--------------------|-------------------|---------------------|---------------------|---------------------|
| 1 | 165.24 | 92.61 | 159.63 | 152.7 | -87.0 |

PROPOSED DRYWELL STORAGE SYSTEM (10 Year)

Proposed Drywell #3

| | | |
|---|-------------|------------|
| 10 year storm intensity = | 5.4 in/hr | Input |
| Amount of stone backfill around drywell structure = | 2 ft | Calculated |
| Amount of stone backfill below drywell structure = | 2 ft | |
| Air void ratio of stone backfill = | 40 % | |
| Water elevation = | 408 ft | |
| Water table assumed to be at or lower than 401.0' | | |
| Soil percolation rate | 5 inch/hour | |
| Soil percolation rate | 12 min/inch | |

DRYWELL STORAGE VOLUME

| Drywell Designation | Drywell Diameter (ft) | Chamber Height (ft) | Drywell Top of Grate Elevation (ft) | Drywell Bottom Elevation (ft) | Outlet Pipe Invert Elevation (ft) | Storage Volume (cf) |
|---------------------|-----------------------|---------------------|-------------------------------------|-------------------------------|-----------------------------------|---------------------|
| | | | | | No Outlet Pipe | |
| PR | 4 | 6 | 411.35 | 404.10 | 408.00 | 115.76 |

STORM VOLUME RUNOFF

| Drywell Designation | Weighted Curve Number | Local Area (acres) | Flow captured =ciA (cfs) | Time of Concentration (min) | Volume Runoff (cf) |
|---------------------|-----------------------|--------------------|--------------------------|-----------------------------|--------------------|
| 1 | 0.9 | 0.02 | 0.10 | 5.00 | 43.74 |

DRYWELL PERC. VOLUME

| Number Drywells | Drywell Diameter (ft) | Surface Area (sf) | Time of Concentration (min) | Soil Perc Rate (min/in) | Perc. Flow (cfs) | Perc. Volume (cf) |
|-----------------|-----------------------|-------------------|-----------------------------|-------------------------|------------------|-------------------|
| 1 | 4 | 198.55 | 5.00 | 12.0 | 0.3022 | 135.99 |

DRYWELL SUMMARY

| Number Drywells | Volume Runoff (cf) | Perc. Volume (cf) | Storage Volume (cf) | Volume Captured (%) | Volume Remaining cf |
|-----------------|--------------------|-------------------|---------------------|---------------------|---------------------|
| 1 | 43.74 | 135.99 | 115.76 | 575.6 | -208.0 |

FIGURES



NOTES

- HORIZONTAL DATUM IS REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE), NAD '83.
- VERTICAL DATUM USED IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).
- SUBJECT PARCEL LIES IN ZONE "X", AREAS OF 500-YEAR FLOOD; AREAS OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 100-YEAR FLOOD, AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 360354 0001 E, LAST REVISED JANUARY 17, 1990.
- UTILITIES SHOWN HEREON ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM PLANS AND PHYSICAL EVIDENCE LOCATED AT TIME OF SURVEY. THEY HAVE NOT BEEN CERTIFIED AS TO THE ACCURACY OF THEIR LOCATION.
- NO ABSTRACT OF TITLE OR TITLE REPORT WAS PROVIDED. PARCELS MAY BE SUBJECT TO EASEMENTS AND ENCUMBRANCES OF RECORD.

REFERENCES

- MAP MADE BY LAFAYE, WHITE & McGUIVERN, L.S., P.C., ENTITLED, "MAP OF LAND SURVEYED FOR ARSENAL STREET ASSOCIATES", LAST REVISED 10/6/96 (FILE 9-7).
- MAP MADE BY PECK, GOZALKOWSKI & MORGNER, PROFESSIONAL LAND SURVEYORS, ENTITLED, "TOPOGRAPHICAL & SURVEY MAP OF THE LANDS OF ATLANTIC REFINING CORP.", DATED 5/14/91 (FILE NO. 91104).
- MAP MADE BY LAFAYE, WHITE, & McGUIVERN, LAND SURVEYORS AND ENGINEERS, ENTITLED, "SURVEY OF LANDS OF NORTH COUNTRY ASSOCIATES", LAST REVISED 3/20/86 (FILE 9-7).

Existing Atlantic Refining & Marketing Corp. Parcel (L. 1148, P. 242)

All that tract or parcel of land situate in the City of Watertown, County of Jefferson, State of New York, bounded and described as follows:

Beginning at the northeast boundary corner of lands now of formerly of Atlantic Refining & Marketing Corporation (Liber 1148 of Deeds, Page 242), said point being on the southerly right of way line of Arsenal Street (State Route 3 - Variable Width); thence;

- South 09°-58'-55" East, on the division line between said Atlantic Refining & Marketing Corporation on the west and lands now or formerly of AEA Arsenal Inc. (Liber 1535 of Deeds, Page 282) on the east, a distance of 156.16 feet to a pin and cap found on the northerly line of lands now or formerly of the Arsenal Street Associates (Liber 1544 Deeds, Page 254); thence,
- South 78°-46'-05" West, on the division line between said Atlantic Refining on the north and Arsenal Street Associates on the south, a distance of 200.00 feet, to an iron pipe found at the southeast corner of lands now or formerly of Sunoco Inc. (Liber 2007 of Deeds, Page 2818); thence,
- North 09°-59'-22" West, on the division line between said Atlantic Refining on the east and Sunoco Inc. on the west, a distance of 152.86 feet to a point on the southerly right of way line said Arsenal Street; thence,
- North 77°-49'-22" East, on said southerly right of way line of said Arsenal Street, a distance of 200.12 feet to the Point of Beginning.

Said parcel containing 0.709 acre, more or less.

Existing Sunoco Parcel (L. 2007, P. 2818)

All that tract or parcel of land situate in the City of Watertown, County of Jefferson, State of New York, bounded and described as follows:

Beginning at the northeast boundary corner of lands now of formerly of Sunoco Inc. (Liber 2007 of Deeds, Page 2818), said point being on the southerly right of way line of Arsenal Street (State Route 3 - Variable Width); thence;

- South 09°-59'-22" East, on the division line between said Sunoco Inc. on the west and lands now or formerly of Atlantic Refining & Marketing Corporation (Liber 1148 of Deeds, Page 242) on the east, a distance of 152.86 feet, to a pipe found on the northerly line of lands now or formerly of the Arsenal Street Associates (Liber 1544 Deeds, Page 254); thence,
- South 78°-46'-05" West, on the division line between said Sunoco Inc. on the north and Arsenal Street Associates on the south, a distance of 102.90 feet, to a point on the easterly line of lands now or formerly of the City of Watertown (Appropriation Map No. 223, Parcel No. 239); thence,
- North 15°-15'-35" East, on the division line between said Sunoco Inc. on the east and the City of Watertown on the west, a distance of 167.26 feet to a point on the southerly right of way line said Arsenal Street; thence,
- North 77°-49'-22" East, on said southerly right of way line of said Arsenal Street, a distance of 36.83 feet to the Point of Beginning.

Said parcel containing 0.244 acre, more or less.

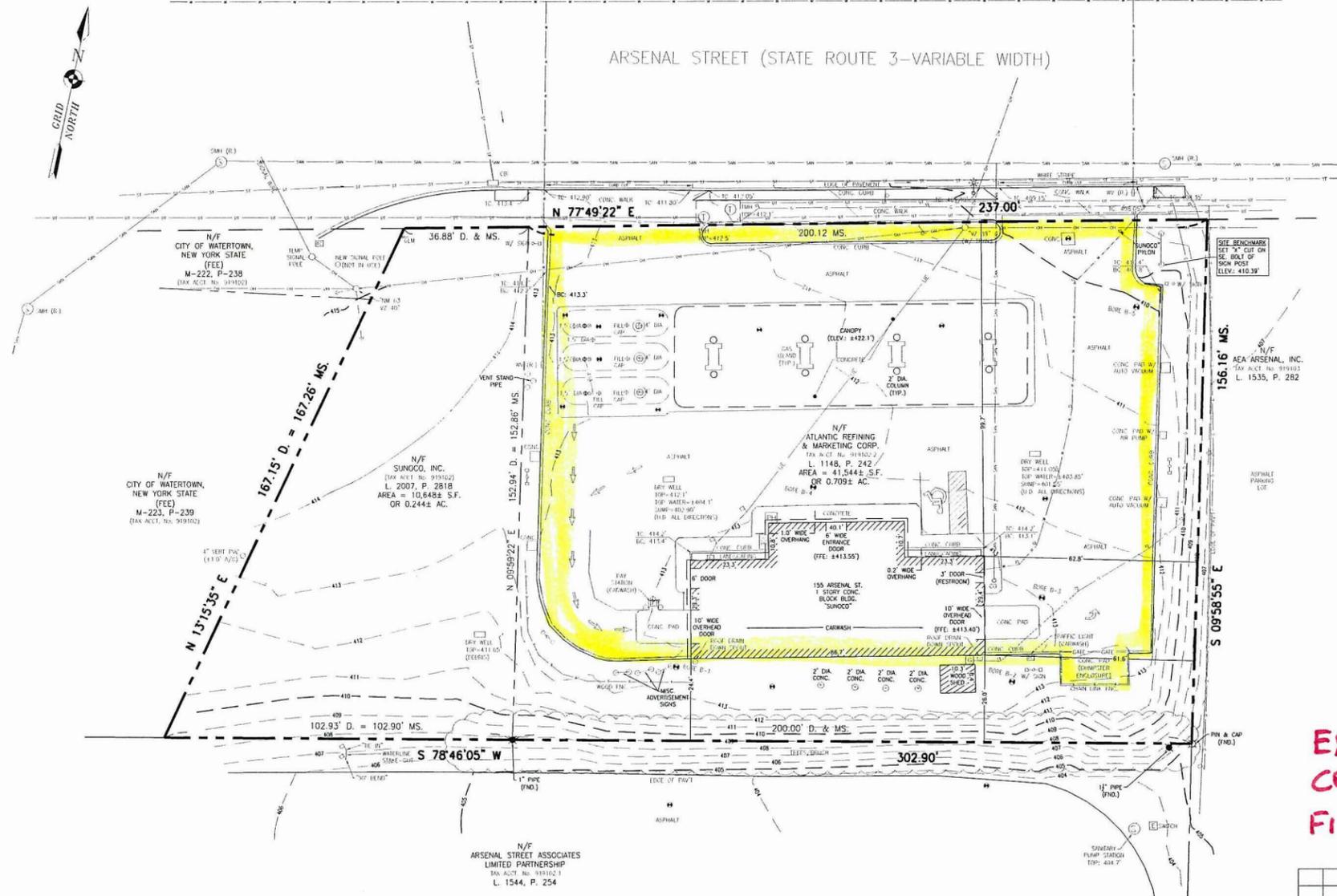
Combined Atlantic Refining & Marketing Corp. and Sunoco, Inc.

All that tract or parcel of land situate in the City of Watertown, County of Jefferson, State of New York, bounded and described as follows:

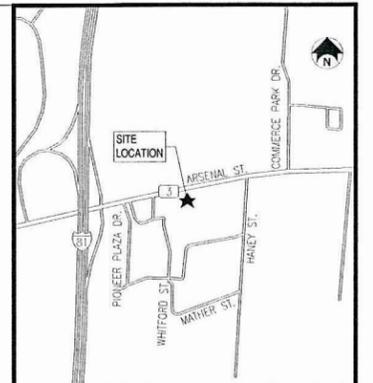
Beginning at the northeast boundary corner of lands now of formerly of Atlantic Refining & Marketing Corporation (Liber 1148 of Deeds, Page 242), said point being on the southerly right of way line of Arsenal Street (State Route 3 - Variable Width); thence;

- South 09°-58'-55" East, on the division line between said Atlantic Refining & Marketing Corporation on the east and lands now or formerly of AEA Arsenal Inc. (Liber 1535 of Deeds, Page 282) on the east, a distance of 156.16 feet, to a pin and cap found on the northerly line of lands now or formerly of the Arsenal Street Associates (Liber 1544 Deeds, Page 254); thence,
- South 78°-46'-05" West, on the division line between said Atlantic Refining on the north and Arsenal Street Associates on the south, a distance of 302.90 feet, to an iron pipe found at the southwest corner of lands now or formerly of Sunoco Inc. (Liber 2007 of Deeds, Page 2818); thence,
- North 15°-15'-35" East, on the division line between said Sunoco Inc. on the east and lands now or formerly of the City of Watertown (Appropriation Map No. 223, Parcel No. 239) on the west, a distance of 167.26 feet to a point on the southerly right of way line of said Arsenal Street; thence,
- North 77°-49'-22" East, on said southerly right of way line of said Arsenal Street, a distance of 237.00 feet to the Point of Beginning.

Said parcel containing 0.954 acre, more or less.



IMPERVIOUS AREA (0.53 AC)



LOCATION MAP

LEGEND

- BC = BOUNDARY OF CURB
- CONC = CONCRETE
- DA = DRAINAGE
- ELEV = ELEVATION
- FTE = FINISHED FLOOR ELEVATION
- FILC = FENCE
- HC = RECORD
- IC = TOP OF CURB
- TRP = TRUCK
- UL = UNDERPASS
- = BOLLARD/POST
- = CATCH BASIN
- ⊖ = ELECTRIC METER
- = GAS LINE MARKER
- = GAS METER
- = GAS WIRE
- = HARD WIRE
- = LIGHT PYLE (1 HEAD)
- = LIGHT PYLE (2 HEAD)
- = MANHOLE
- = MANHOLE MARKER
- = PHONE BOOTH
- = SANITARY MANHOLE
- = SPOT ELEVATION
- = TELEPHONE MANHOLE
- = UTILITY SINK-OFF
- = UTILITY POLE
- = WATER URSE
- = ADJACENT PARCEL BOUNDARY
- = MAJOR CONTOUR (5' INTERVAL)
- = MAJOR CONTOUR (1' INTERVAL)
- = DRAINAGE WHOLE
- = PARCEL BOUNDARY
- = RIGHT OF WAY
- = SANITARY SEWER
- = SEWER SINKER
- = UNDERGROUND GAS LINE
- = UNDERGROUND ELECTRIC
- = UNDERGROUND TELEPHONE
- = UNDERGROUND WATER LINE
- = AREA UNDER HEAVY CONSTRUCTION



EXISTING CONDITIONS
FIGURE 1

www.bergmannpc.com
28 East Main Street
200 First Federal Plaza
Rochester, New York 14614
585.232.5135 / 585.232.4652 fax
Engineers / Architects / Planners / Surveyors

| REV. NO. | DATE | REVISIONS | DRAWN BY | CHK'D. BY | APPR'D. |
|----------|------|-----------|----------|-----------|---------|
| | | | | | |

| | |
|---|-----------------------|
| SUNOCO, INC. Retail Engineering Exton, PA | |
| LOCATION: 1255 Arsenal Street Watertown, NY Jefferson County | PROJECT NO. E76021 |

| | | | |
|---------------------|--------------|-------------|----------|
| EXISTING CONDITIONS | | | |
| SCALE 1" = 20'-0" | | | |
| APPROVED | FACILITY NO. | DRAWING NO. | REV. NO. |
| CHECKED | 0363-9911 | SV-1 | 0 |
| DRAWN | | | |
| DATE | 1/23/08 | | |

KEVIN M. SULLIVAN
L.S. No. 49963

DATE

A:\Sunoco\76250 Waterford\3.0 Data\3.2 Survey\EP\76250_BASE.dwg

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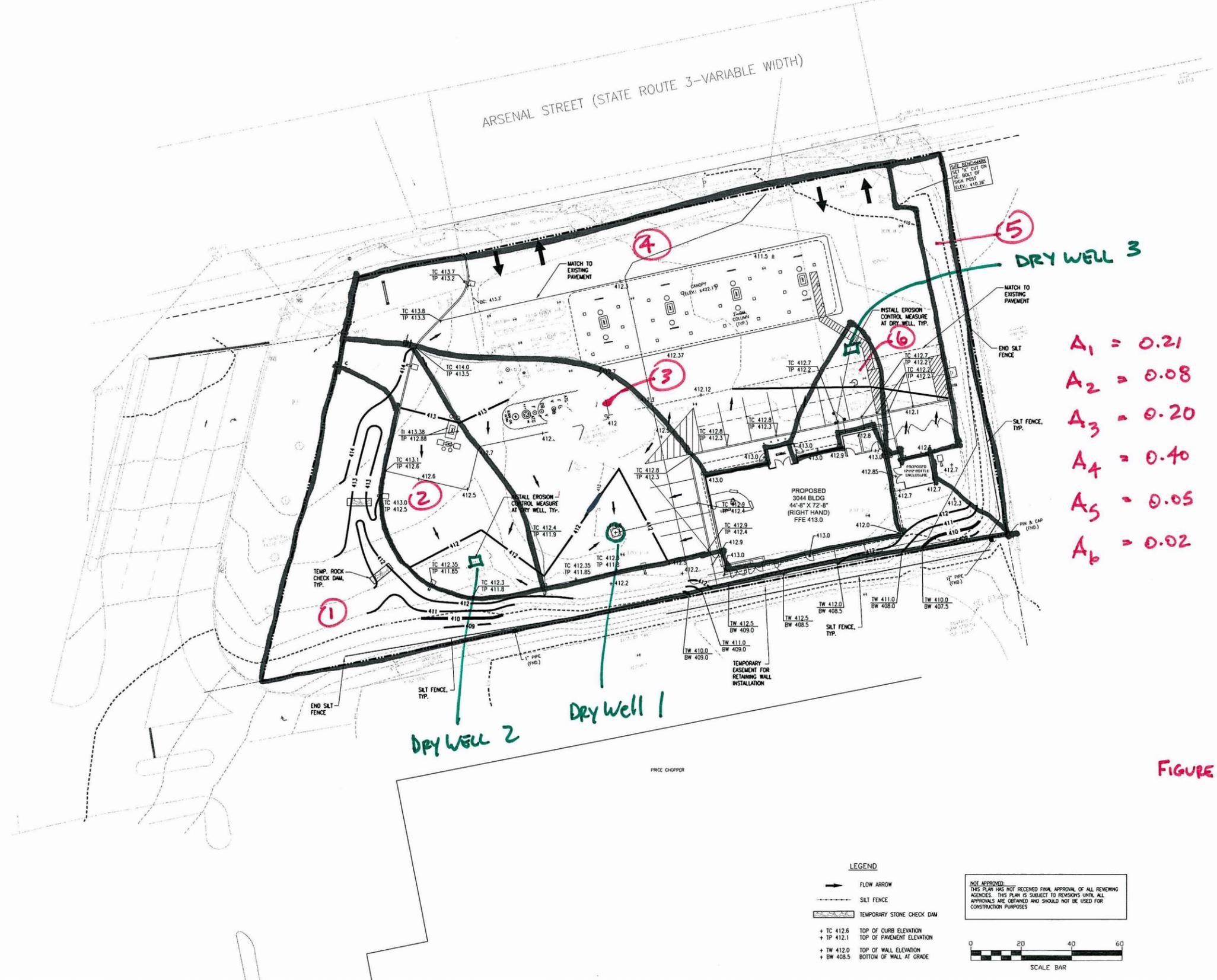
EXISTING IMPERVIOUS AREA = 0.53 AC
 PROPOSED IMPERVIOUS AREA = 0.64 AC
 PROPOSED DISTURBED AREA = 0.6 +/- AC

- GRADING NOTES:**
1. REMOVE AND STOCKPILE TOPSOIL AS DIRECTED BY THE CONSTRUCTION MANAGER. REPLACE TOPSOIL TO A MINIMUM 6" DEPTH. ALL DISTURBED AREAS TO BE HYDROSEED AS DIRECTED BY THE CONSTRUCTION MANAGER.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, CHECK DAMS, FILTER BAGS AND SILT FENCE. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE VEGETATION HAS OCCURRED COMPLETELY.
 3. ALL SILT FENCE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR IMPERMEABLE AND SHALL BE REPLACED AT A MINIMUM OF EVERY 3 MONTHS.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
 5. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION SEDIMENT CONTROL MANUAL, HEALTH DEPARTMENT, AND THE CITY OF WATERTOWN REQUIREMENTS.
 6. ALL INLETS TO THE STORM SEWER SHALL HAVE STONE DROP INLET PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE BEST MANAGEMENT PRACTICES (BMP'S) UNTIL GROUND COVER IS ESTABLISHED.
 7. SILT FENCE, JUTE MESH, AND/OR EROSION CONTROL BLANKETS WILL BE USED ON STEEP SLOPES AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER OR SPECIFIED ON PLANS.
 8. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
 9. ALL DISTURBED AREAS SHALL BE PROTECTED FROM EROSION EITHER BY MULCH OR TEMPORARY SEEDING WITHIN 2 WEEKS OF DISTURBANCE.

- EROSION CONTROL NOTES:**
1. ALL SITE WORK SHALL CONFORM TO THE CLEARING, STRIPPING AND EROSION CONTROL REQUIREMENTS OF THE NYSDEC AND THE CITY OF WATERTOWN.
 2. CONTRACTOR TO PROVIDE, INSTALL AND MAINTAIN ALL REQUIRED EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION. EROSION CONTROL DEVICES TO BE ESTABLISHED PRIOR TO COMMENCING EARTHWORK.
 3. DISTURBED AREAS SHALL BE AS SMALL AS PRACTICAL, AND SHALL BE RESTORED, IMPROVED OR TEMPORARILY STABILIZED AS SOON AS POSSIBLE.
 4. CONTRACTOR SHALL TAKE THE NECESSARY MEASURES, INCLUDING WATER SPRINKLING, TO PROVIDE DUST CONTROL DURING CONSTRUCTION.
 5. CONTRACTOR SHALL PREVENT SEDIMENTS FROM ENTERING UTILITIES. ALL MANHOLES, CURB INLETS, FIELD INLETS, END SECTIONS OR OTHER SIMILAR DRAINAGE INLET STRUCTURES SHALL BE PROTECTED FROM SILTATION BY INSTALLING FILTER FABRIC AND/OR CRUSHED STONE.
 6. SILT FENCE SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY GRADING WORK ALONG THE LIMITS OF DISTURBANCE AND SHALL BE MAINTAINED FOR THE DURATION OF THE WORK. NO SEDIMENT FROM THE SITE SHALL BE PERMITTED TO WASH OFF-SITE.

- SEQUENCE OF CONSTRUCTION:**
- A. PRE-CONSTRUCTION MEETING HELD BY PROJECT MANAGER AND THE OPERATOR'S ENGINEER PRIOR TO LAND DISTURBING ACTIVITIES.
 - B. CLEARLY IDENTIFY PROJECT WORK LIMITS IDENTIFYING ALL AREAS WHERE CONSTRUCTION DISTURBANCE SHALL NOT BE PERMITTED INCLUDING, BUT NOT LIMITED TO, BUFFER AREAS, WETLANDS, SELECT TREES AND ADJOINING PROPERTIES.
 - C. INSTALL TREE PROTECTION AND PERIMETER EROSION CONTROL MEASURES. CONSTRUCT TEMPORARY EARTHEN BERM, SEDIMENT TRAP, SEDIMENT CONTROL CHECK DAMS AND ASSOCIATED EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY TO DIVERT RUNOFF FROM ENTERING AREAS OF PLAN. ESTABLISH EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO COMMENCING EARTHWORK OPERATIONS.
 - D. REMOVE AND DISPOSE OF ALL REMOVED VEGETATION OFF-SITE OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
 - E. STRIP AND STOCKPILE TOPSOIL FROM STRUCTURAL FILL AND CUT AREAS (STOCKPILE LOCATIONS AS DIRECTED BY OWNER'S REPRESENTATIVE).
 - F. ESTABLISH MASS GRADE ELEVATIONS.
 - G. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS WELL AS STOCK PILES ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY FOLLOWING GRADING.
 - H. CONSTRUCT STORM WATER MANAGEMENT FEATURES.
 - I. CONSTRUCT UTILITIES AND INFRASTRUCTURE IMPROVEMENTS.
 - J. FINE GRADE AND SPREAD TOPSOIL. INSTALL LANDSCAPING, SITE AMENITIES AND PERMANENT SEEDING.
 - K. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL FEATURES UPON ESTABLISHMENT OF PERMANENT GROUND COVER.
 - L. NOTIFY OWNER'S REPRESENTATIVE OF COMPLETION OF FINAL SITE STABILIZATION.
- THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY PROJECT CONSTRUCTION PROGRESS AND THE CONTRACTOR WILL HAVE THE OPPORTUNITY TO VARY FROM THE SCHEDULE AS NECESSARY. ARRANGEMENT OF THESE ACTIVITIES ANOTHER WAY MAY BE REQUIRED TO MAINTAIN SATISFACTORY EROSION AND SEDIMENT CONTROL.

$A_1 = 0.21$
 $A_2 = 0.08$
 $A_3 = 0.20$
 $A_4 = 0.40$
 $A_5 = 0.05$
 $A_6 = 0.02$



PROPOSED DRAINAGE AREAS

FIGURE 3

Bergmann associates

www.bergmannpc.com
 28 East Main Street
 200 First Federal Plaza
 Rochester, New York 14614
 585.232.5135 / 585.232.4652 fax

Engineers / Architects / Planners / Surveyors

| REV. NO. | DATE | REVISIONS | DRAWN BY | CHK'D. BY | APP'D. |
|--|---------|--------------|-----------------------|-----------|----------|
| SUNOCO, INC. Retail Engineering Exton, PA | | | | | |
| LOCATION: 1255 Arsenal Street Watertown, NY Jefferson County | | | PROJECT NO. E76021 | | |
| GRADING/EROSION CONTROL PLAN SCALE 1" = 10'-0" | | | | | |
| APPROVED | | FACILITY NO. | DRAWING NO. | SCALE | REV. NO. |
| CHECKED | R. Blum | 0363-9911 | G-1 | | 0 |
| DRAWN | T. Bell | | | | |
| DATE | 11/1/10 | | | | |

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