

## ***Figures***

---

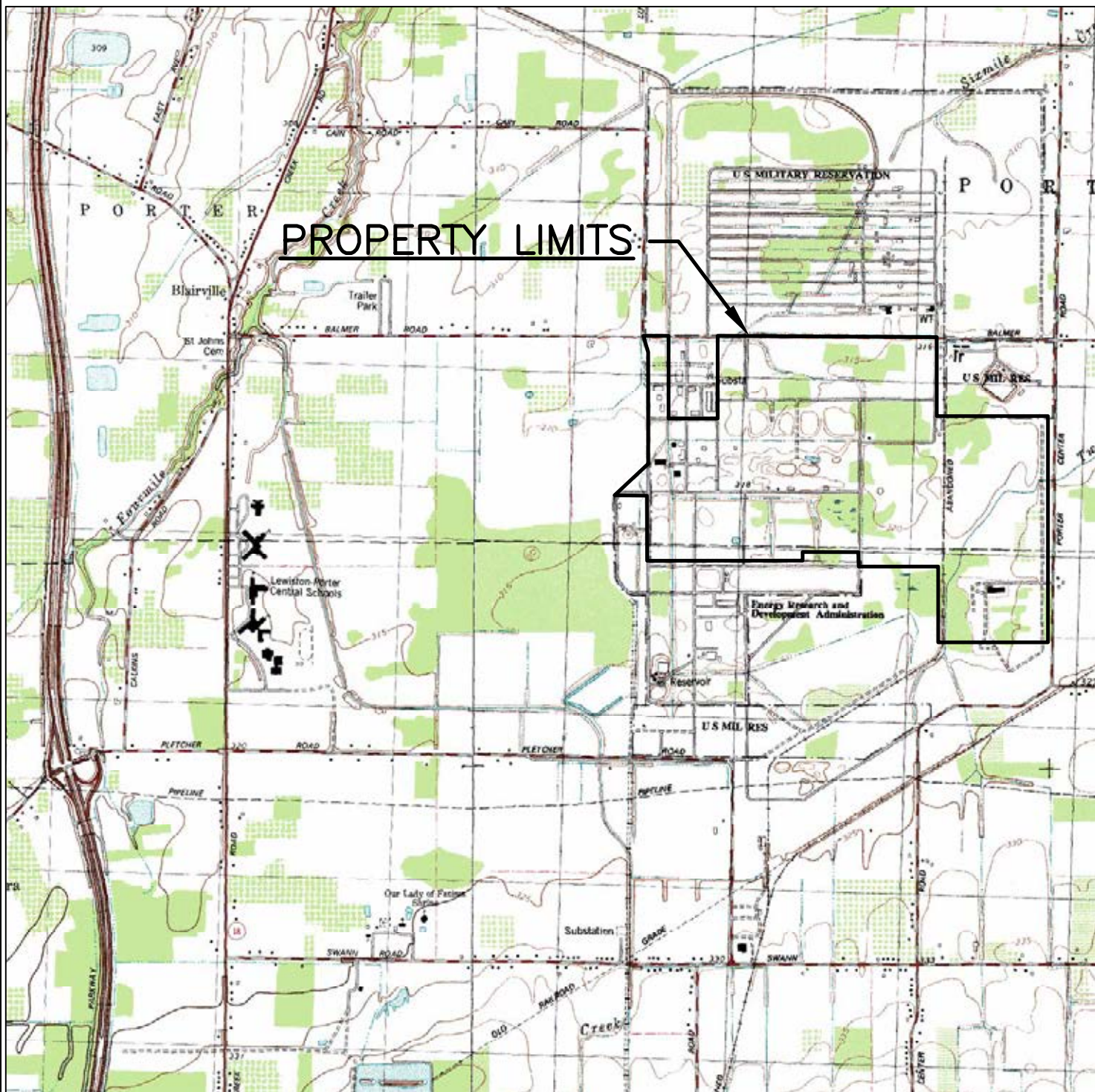
**EnSol, Inc.**



661 MAIN STREET  
NIAGARA FALLS, NY 14301  
PHONE (716) 285-3920  
FAX (716) 285-3928

CWM CHEMICAL SERVICES, LLC.  
MODEL CITY, NY

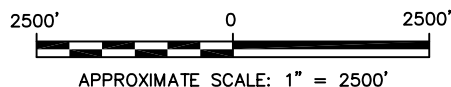
1



REFERENCE: BASE MAP USGS QUADS., 7.5 MINUTE SERIES RANSOMVILLE AND LEWISTON, NY 1980.

NOTES:

1. PROPERTY LINES ARE APPROXIMATE.
2. NO DRINKING WATER WELLS EXIST WITHIN  $\frac{1}{4}$  MILE OF THE FACILITY.
3. THE TREATED EFFLUENT DISCHARGE IS LOCATED AT THE NIAGARA RIVER (SHOWN ON USGS LEWISTON QUADRANGLE).
4. 710 TOTAL ACRES
5. 630 RCRA PERMITTED ACRES.



**EnSol, Inc.**

Environmental Solutions

661 MAIN STREET  
NIAGARA FALLS, NY 14301  
PHONE (716) 285-3920  
FAX (716) 285-3928

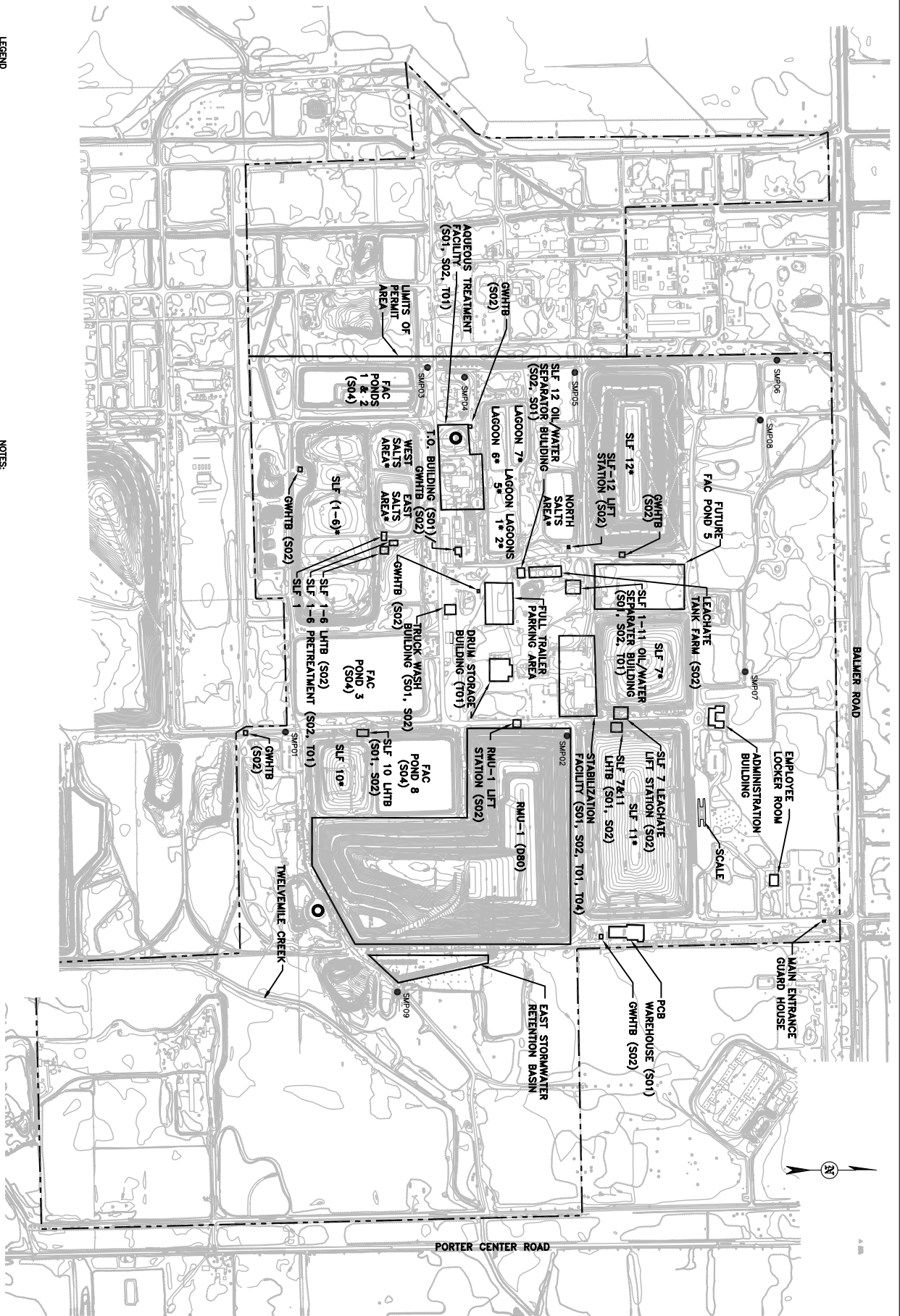
**FACILITY LOCATION MAP**

CWM CHEMICAL SERVICES, LLC.  
MODEL CITY, NY

**FIGURE**

**2**





LEGEND

- SUF = SECURE LANDFILL
- FAC = FACULTATIVE
- LAG = LAGOON
- \* = INACTIVE
- LHTB = LEACHATE HOLDING TANK BUILDING
- GWHTB = GROUNDWATER COLLECTION HOLDING TANK BUILDING
- S01 = CONTAINER STORAGE
- PROPERTY LINE
- LIMITS OF ACTIVE LANDFILL
- S02 = TANK STORAGE
- S04 = SURFACE INFILTRANTS
- T01 = TANK TREATMENT
- T04 = OTHER TREATMENT
- SURF09 = SURFACE MONITORING POINT (SMP)

NOTES

1. THIS MAP COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 5-31-01. (AIR SURVEY CORP. PROJECT NO.71010503)
2. VERTICAL DATUM BASED ON NGS MEAN SEA LEVEL.
3. GRID BASED ON LOCAL COORDINATE SYSTEM.
4. CONTOUR INTERVAL 2 FT.
5. DASHED CONTOURS INDICATE THAT GROUND IS PARTIALLY OBSERVED BY VEGETATION OR SHADOWS. THESE AREAS MAY NOT MEET STANDARD ACCURACY AND REQUIRE FIELD TESTING COMPLETION.
6. PROPERTY LINES ARE APPROXIMATE.
7. 630 PERMITTED ACRES.
8. 710 TOTAL ACRES.
9. LOCATION OF SMPs ARE APPROXIMATE.



**Ensol, Inc.**  
Environmental Solutions  
601 MAIN STREET  
MADISON, PA 15401  
PHONE: (717) 285-2020  
FAX: (717) 285-2028

**FACILITY LAYOUT PLAN**

## ***Appendix A***

---

# **Proposed Fac Pond 5 Permit Drawings (Arcadis)**

**EnSol, Inc.**

---

PERMIT DRAWINGS

FAC POND 5 PERMIT DRAWINGS

CWM CHEMICAL SERVICES, LLC  
MODEL CITY, NIAGARA COUNTY  
NEW YORK

FEBRUARY 2013



INDEX TO DRAWINGS

|    |                                                      |
|----|------------------------------------------------------|
| 1  | TITLE AND INDEX                                      |
| 2  | SITE PLAN                                            |
| 3  | FAC POND GRADING PLAN                                |
| 4  | FAC POND SECTIONS AND DETAILS                        |
| 5  | FAC POND TRANSFER PIPELINE                           |
| 6  | FAC POND TRANSFER PIPELINE                           |
| 7  | FAC POND TRANSFER PIPELINE                           |
| 8  | FAC POND TRANSFER PIPELINE DETAILS                   |
| 9  | SITE ELECTRICAL FEED RELOCATION PLAN                 |
| 10 | SITE WATER SUPPLY RELOCATION PLAN                    |
| 11 | FAC POND RISER HOUSE MECHANICAL INSTALLATION DETAILS |
| 12 | FAC POND RISER HOUSE ELECTRICAL INSTALLATION DETAILS |
| 13 | VALVE HOUSE DETAILS                                  |
| 14 | FAC POND TRANSFER PIPELINE DETAILS                   |

CITY: SYRACUSE, NY DIV: GROUP: ENV: CAD DB: K. DAVIS LD: K. DAVIS PIC: W. PORHAM PM: W. RANKIN TM: B. STONE LVR: ON: OFF: REF: G:\ENV\CAD\SYRACUSE\ACT\M0023725\021300003\CONTRACT\ACT\FAC\SPOND\23725001.DWG LAYOUT: 1 SAVER: 1 1/1/2013 11:16 AM ACADVER: 18.15 (LUS TECH) PAGES: 10 PLOT: 1/1/2013 11:17 AM BY: DAVIS, KATH

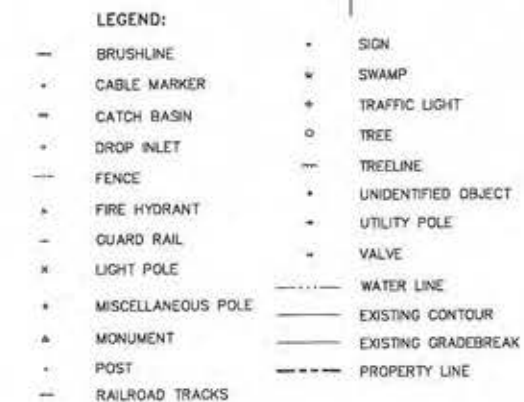
|                                                                                                                                                                                           |  |                                                                                               |  |             |  |                        |  |                                                 |  |                   |  |                                                                                 |  |                                                                                                                                                                                  |  |   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------|--|-------------|--|------------------------|--|-------------------------------------------------|--|-------------------|--|---------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|--|
| NOT TO SCALE                                                                                                                                                                              |  | Professional Engineer's Name<br><b>JOSEPH MOLINA</b><br>Professional Engineer's No.<br>072644 |  | State<br>NY |  | Date Signed<br>11/5/13 |  | Project No.<br>TJF                              |  | Checked by<br>BMS |  | CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK<br>FAC POND 5 PERMIT DRAWINGS |  | ARCADIS Project No.<br>80023725.2013.00003<br>Date<br>FEBRUARY 2013<br>ARCADIS of New York, Inc.<br>6723 Township Road<br>P.O. Box 86<br>Syracuse, New York<br>TEL: 315.446.9120 |  | 1 |  |
| THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING                                                                                                                                      |  | USE TO VERIFY FIGURE REPRODUCTION SCALE                                                       |  | No. 11/2013 |  | Date 11/2013           |  | Description REMOVED FAC POND 1/2 RECONSTRUCTION |  | GND BUS           |  | TITLE AND INDEX                                                                 |  | GENERAL                                                                                                                                                                          |  |   |  |
| THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME. |  |                                                                                               |  |             |  |                        |  |                                                 |  |                   |  |                                                                                 |  |                                                                                                                                                                                  |  |   |  |



ARCADIS

ARCADIS OF NEW YORK, INC.



200  CONTROL MONUMENT (SEE TABLE BELOW)


 1 — DETAIL REFERENCE NUMBER  
 3 — DRAWING REFERENCE NUMBER

13500  
N 7000 COORDINATE GRID (SEE NOTE 3)

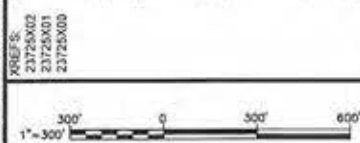
| RMU-1/RMU-2 CONTROL MONUMENTS |           |                |           |            |           |                                     |             |                   |
|-------------------------------|-----------|----------------|-----------|------------|-----------|-------------------------------------|-------------|-------------------|
| MONUMENTS                     | ELEVATION | CWM PLANT GRID |           | RMU-1 GRID |           | NY STATE PLANE COORDINATES (NAD-23) |             | NGVD-29 ELEVATION |
|                               |           | NORTHING       | EASTING   | NORTHING   | EASTING   | NORTHING                            | EASTING     |                   |
| 102N                          | 319.72    | 100+94.55      | 111+87.56 | 100+94.55  | 111+87.56 | 1,175,430.46                        | 396,380.12  | 319.66            |
| 200                           | 318.33    | 101+89.56      | 126+13.77 | 101+89.56  | 26+13.77  | 1,175,488.28                        | 397,808.18  | 318.27            |
| 101R                          | 318.01    | 109+94.28      | 111+23.09 |            |           | 1,176,331.436                       | 396,339.054 | 315.92            |
| 201                           | 316.82    | 110+17.82      | 126+3.49  |            |           |                                     |             |                   |

CONTROL MONUMENTS NOTE:

1. RMU-1 EASTING GRID COORDINATES ARE SIMPLIFIED PLANT GRID COORDINATES. SUBTRACTING 10,000 FROM THE CWM PLANT GRID EASTING COORDINATE WILL CONVERT THE CWM PLANT GRID TO THE RMU-1 GRID. NOTE THAT NO CONVERSION IS REQUIRED FOR NORTING COORDINATES.

NOTES:

1. TOPOGRAPHIC BASE MAP CONSISTS OF COMBINATION OF DATA COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 5/31/01 BY AIR SURVEY CORP. (PROJECT NO.71010503), AND AN AUGUST 2008 SURVEY BY ENSOL, INC.
2. VERTICAL DATUM BASED ON NGS MEAN SEA LEVEL.
3. GRID COORDINATES SHOWN ARE CWM PLANT GRID.
4. CONTOUR INTERVAL 2 FT.
5. DASHED CONTOURS INDICATE THAT GROUND IS PARTIALLY OBSCURED BY VEGETATION OR SHADOWS. THESE AREAS MAY NOT MEET STANDARD ACCURACY AND REQUIRE FIELD VERIFICATION.
6. PROPERTY LINE IS APPROXIMATE. EASEMENTS AND RIGHT-OF-WAYS NOT SHOWN.
7. REFER TO DRAWINGS IN ATTACHMENT D-1 OF THE OVERALL SITE/RMU-1 PERMIT FOR FURTHER DETAIL.
8. REFER TO DRAWINGS IN ATTACHMENT J FOR FURTHER DETAIL.



|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

GNT  
By \_\_\_\_\_

No      Date      Revisions

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAID ENTITY.

Professional Engineer's Name  
**JOSEPH MOLINA**  
Professional Engineer's No.

|             |             |  |
|-------------|-------------|--|
| 072644      |             |  |
| State       | Date Signed |  |
| NY          | 11/5/13     |  |
| Designed by | Drawn by    |  |
| BMS/PTO     | SJK         |  |

**ARCADIS**

MARCADIS OF NEW YORK, INC.

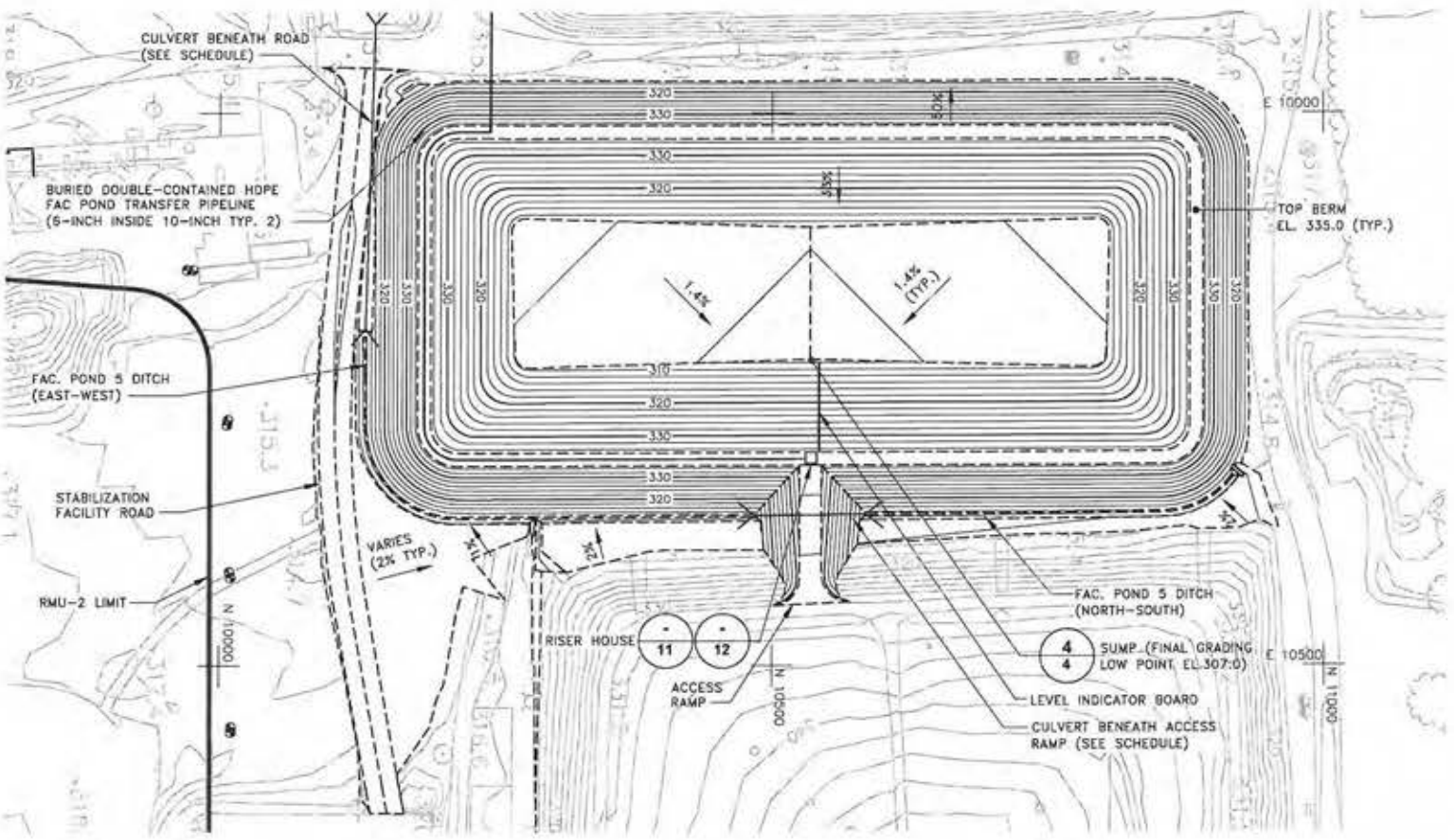
CVM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK  
FAC POND 5 PERMIT DRAWINGS

## SITE PLAN

## GENERAL

|                                                                                                          |
|----------------------------------------------------------------------------------------------------------|
| ARCADIS Project No.<br>80023725 2013.00003                                                               |
| Date<br>FEBRUARY 2013                                                                                    |
| ARCADIS of New York, Inc.<br>6723 Township Road<br>P.O. Box 66<br>Syracuse, New York<br>TEL 315 448 9120 |





FAC POND 5 PLAN 1

**LEGEND:**

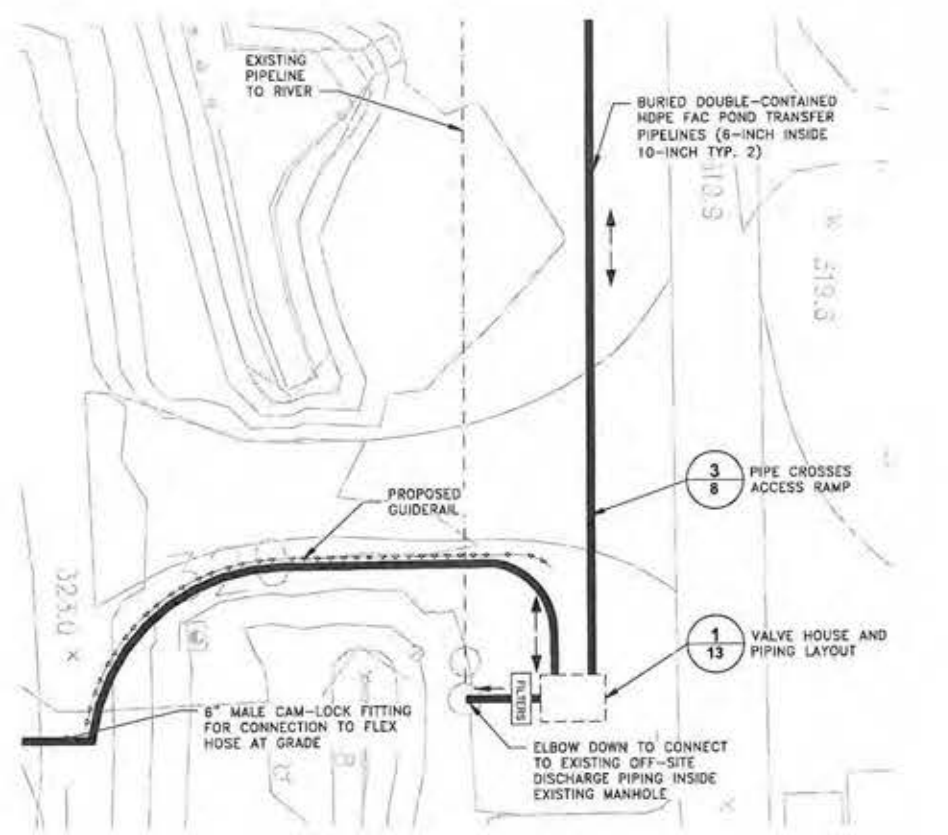
- WATER LINE
- EXISTING CONTOUR
- EXISTING GRADE BREAK
- PROPERTY LINE
- PROPOSED INDEX ELEVATION CONTOUR
- PROPOSED INTERMEDIATE ELEVATION CONTOUR
- PROPOSED GRADE BREAK

DETAIL REFERENCE NUMBER  
DRAWING REFERENCE NUMBER

COORDINATE GRID

- NOTES:**
- SEE DRAWING 2 FOR BASEMAP INFORMATION.
  - PROPOSED GRADES REPRESENT FINAL GRADING (TOP OF BALLAST LAYER ON FLOOR AND TOP OF PRIMARY LINER ON INTERIOR SIDESLOPES).

| CULVERT ID          | SIZE | SLOPE % |
|---------------------|------|---------|
| BENEATH ACCESS RAMP | 24"  | 0.3%    |
| BENEATH ROAD        | 36"  | 0.3%    |



FAC POND 1 TRANSFER PIPELINE CONNECTION TO FILTER AND OFF-SITE DISCHARGE PIPING 2

CITY: SYRACUSE DIVISION: ENVIRONMENTAL ENGINEERING PROJECT: FAC POND 5 PERMIT DRAWINGS PLOT: 11/14/2013 1:44 PM BY: DAVIS, NATHAN  
CITY: SYRACUSE DIVISION: ENVIRONMENTAL ENGINEERING PROJECT: FAC POND 5 PERMIT DRAWINGS PLOT: 11/14/2013 1:44 PM BY: DAVIS, NATHAN  
CITY: SYRACUSE DIVISION: ENVIRONMENTAL ENGINEERING PROJECT: FAC POND 5 PERMIT DRAWINGS PLOT: 11/14/2013 1:44 PM BY: DAVIS, NATHAN

23725002  
23725001  
23725012  
23725000

| SCALE(S) AS INDICATED                                 |                                     |
|-------------------------------------------------------|-------------------------------------|
| THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING. | USE TO VERIFY SCALE                 |
| 11/2013                                               | REMOVED FAC POND 1/2 RECONSTRUCTION |
| 11/2013                                               | REMOVED FAC POND 1/2 RECONSTRUCTION |
| 11/2013                                               | REMOVED FAC POND 1/2 RECONSTRUCTION |
| 11/2013                                               | REMOVED FAC POND 1/2 RECONSTRUCTION |

Professional Engineer's Name  
**JOSEPH MOLINA**  
Professional Engineer's No.  
072644

State  
NY

Date Signed  
11/5/13

Project Manager  
TJR

Designed by  
BMS/PTO

Drawn by  
SJK

Checked by  
BMS

ARCADIS OF NEW YORK, INC.



CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK  
FAC POND 5 PERMIT DRAWINGS  
**FAC POND GRADING PLAN**

GENERAL

ARCADIS Project No.  
80023725 2013.00003  
Date  
FEBRUARY 2013  
ARCADIS of New York, Inc.  
8723 Township Road  
P.O. Box 88  
Syracuse, New York  
TEL 315.445.5120



4





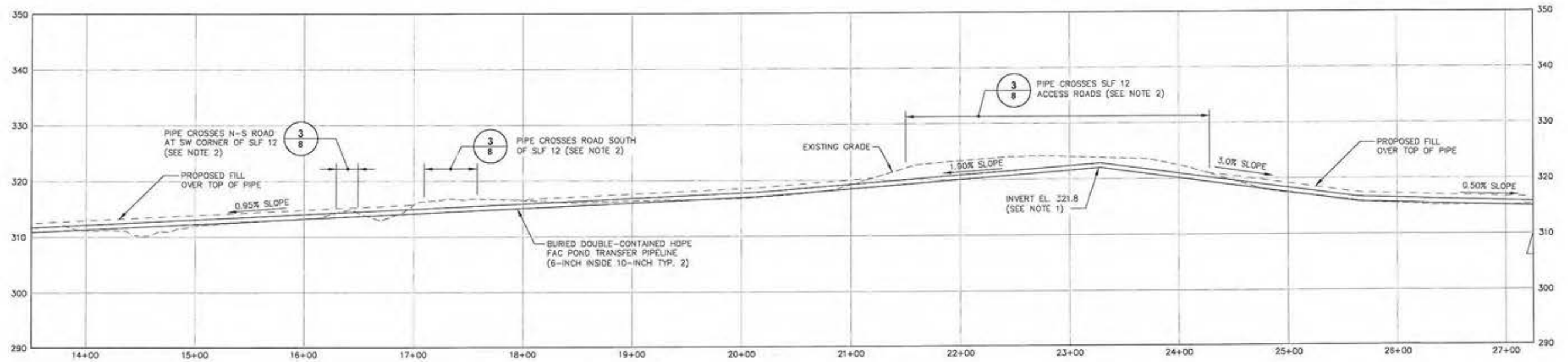
0 50'  
HORIZONTAL SCALE: 1"=50'

0 10'  
VERTICAL SCALE: 1"=10'

1. ADDITIONAL PIPING (NOT SHOWN) WILL BE INSTALLED WITHIN EXISTING MANHOLE TO CONNECT NEW TRANSFER PIPELINES TO EXISTING OFF-SITE DISCHARGE PIPING.
2. ELEVATIONS REFERENCED REPRESENT INVERT OF THE CONTAINMENT PIPE (OUTER), EXCEPT WHERE SINGLE-CONTAINED PIPE IS INDICATED.
3. DUCTILE IRON SLEEVE PIPE SHALL BE USED TO PROTECT HDPE PIPE AT ALL ROAD CROSSINGS.

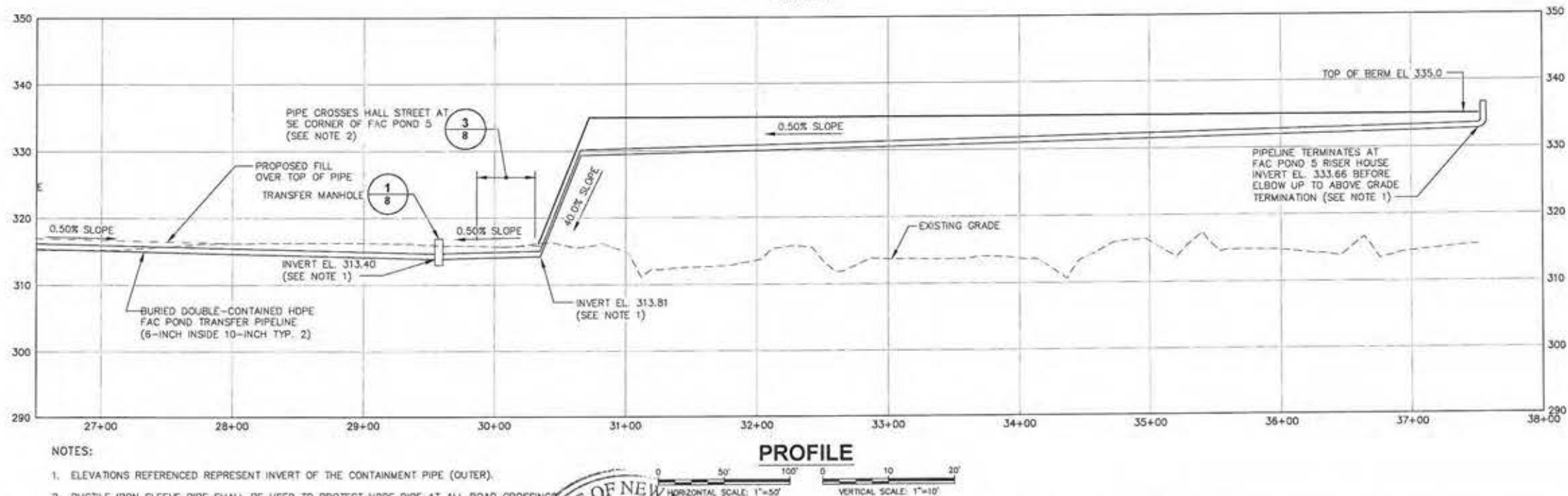
5





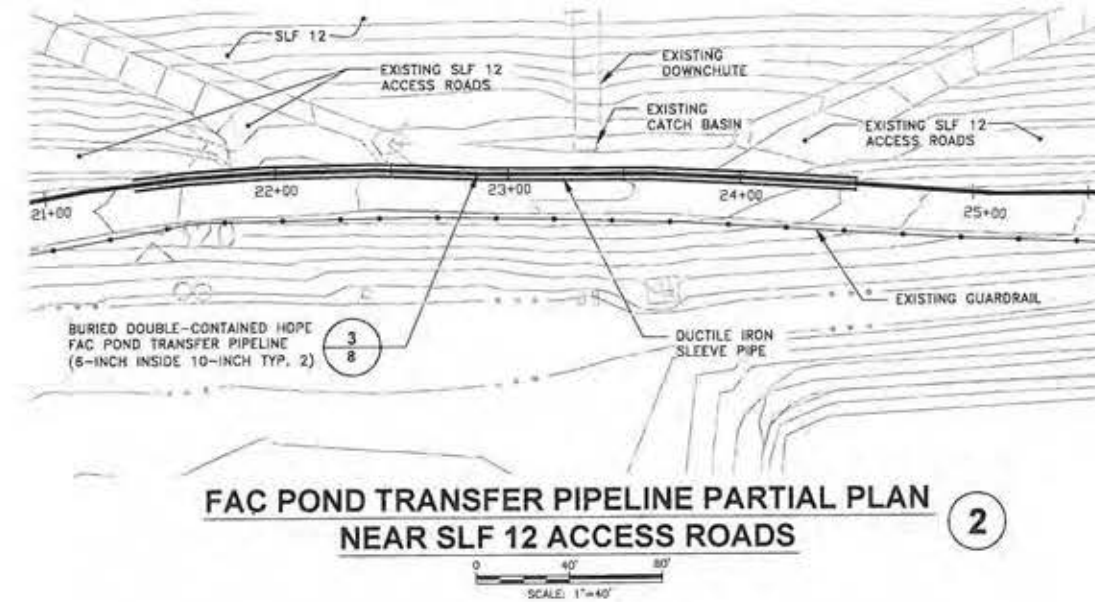
1. ELEVATIONS REFERENCED REPRESENT INVERT OF THE CONTAINMENT PIPE (OUTER).
2. DUCTILE IRON SLEEVE PIPE SHALL BE USED TO PROTECT HOPE PIPE AT ALL ROAD CROSSINGS.



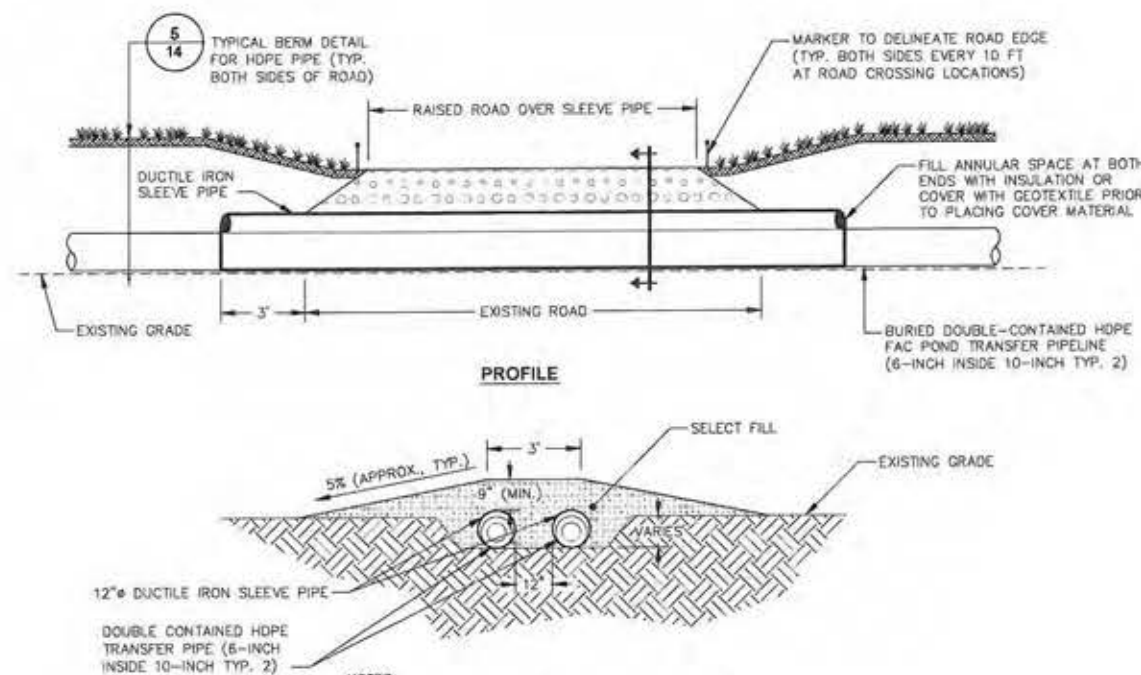


|                                                                                                                                                                                           |  |                                                      |  |                                       |  |                                                                                       |  |                                             |  |                                                                                 |  |                                                                                                          |  |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|--|---------------------------------------|--|---------------------------------------------------------------------------------------|--|---------------------------------------------|--|---------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------|--|---|
| SCALE(S) AS INDICATED                                                                                                                                                                     |  | Professional Engineer's Name<br><b>JOSEPH MOLINA</b> |  | Professional Engineer's No.<br>072644 |  |  |  | <b>ARCADIS</b><br>ARCADIS OF NEW YORK, INC. |  | CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK<br>FAC POND 5 PERMIT DRAWINGS |  | ARCADIS Project No.<br>90023725.2013.00003                                                               |  | 7 |
| THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.                                                                                                                                     |  | USE TO VERIFY FIGURE REPRODUCTION SCALE              |  | State<br>NY                           |  | Date Signed<br>1/15/13                                                                |  | Project No.<br>T.J.P.                       |  | Date<br>FEBRUARY 2013                                                           |  | ARCADIS of New York, Inc.<br>6723 Towpath Road<br>P.O. Box 66<br>Syracuse, New York<br>TEL: 315.445.9120 |  |   |
| THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME. |  | Revisions                                            |  | By                                    |  | Date                                                                                  |  | Drawn by<br>SJK                             |  | Checked by<br>BMS                                                               |  | GENERAL                                                                                                  |  |   |





(2)



SECTION

(1)

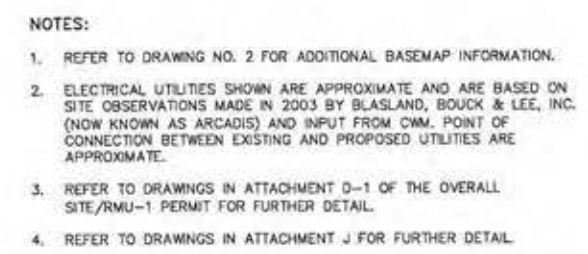
(3)



(4)

|                                                            |  |                                                                                                                                                                                                             |  |                                              |  |                                                                                                      |  |                                                                                                          |  |                                            |  |   |
|------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------|--|------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------|--|--------------------------------------------|--|---|
| SCALE(S) AS INDICATED                                      |  | Professional Engineer's Name<br><b>JOSEPH MOLINA</b>                                                                                                                                                        |  | Professional Engineer's No.<br>072644        |  |  <b>ARCADIS</b> |  | CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK<br>FAC POND 5 PERMIT DRAWINGS                          |  | ARCADIS Project No.<br>80023725.2013.90003 |  | 8 |
| THIS BAR REPRESENTS ONE<br>FOOT ON THE<br>ORIGINAL DRAWING |  | USE TO VERIFY<br>FIGURE<br>REPRODUCTION<br>SCALE                                                                                                                                                            |  | State<br>NY                                  |  | Date Signed<br>1/5/13                                                                                |  | Project<br>TJF                                                                                           |  | Date<br>FEBRUARY 2013                      |  |   |
| No.      Date      Revisions      By      Ckd              |  | THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK<br>AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE<br>WRITTEN PERMISSION OF ARCADIS OF NEW YORK, INC. |  | Designed by<br>Drawn by<br>Checked by<br>GMS |  | ARCADIS OF NEW YORK, INC.                                                                            |  | ARCADIS of New York, Inc.<br>6723 Towpath Road<br>P.O. Box 66<br>Syracuse, New York<br>TEL: 315.446.9120 |  | GENERAL                                    |  |   |

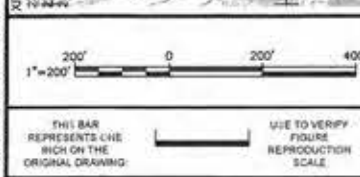








- NOTES:**
1. REFER TO DRAWING NO. 2 FOR ADDITIONAL BASEMAP INFORMATION.
  2. WATER SUPPLY LINES SHOWN ARE APPROXIMATE AND ARE BASED ON SITE OBSERVATIONS MADE IN 2003 BY BLASLAND, BOUCK & LEE, INC. (NOW KNOWN AS ARCADIS) AND INPUT FROM CWM. POINT OF CONNECTION BETWEEN EXISTING AND PROPOSED WATER SUPPLY LINES ARE APPROXIMATE.
  3. REFER TO DRAWINGS IN ATTACHMENT D-1 OF THE OVERALL SITE/RMU-1 PERMIT FOR FURTHER DETAIL.
  4. REFER TO DRAWINGS IN ATTACHMENT J FOR FURTHER DETAIL.

[illegible]

|                                                      |                               |  |  |                                                |                               |
|------------------------------------------------------|-------------------------------|--|--|------------------------------------------------|-------------------------------|
| Professional Engineer's Name<br><b>JOSEPH MOLINA</b> |                               |  |  | <b>ARCADIS</b><br>A DIVISION OF NEW YORK, INC. |                               |
| Professional Engineer's No.<br><b>072644</b>         |                               |  |  |                                                |                               |
| Date<br><b>NY</b>                                    | Date Signed<br><b>11/5/13</b> |  |  |                                                | Project Mgr.<br><b>T.J.F.</b> |
| Designed by<br><b>BMS/NNW</b>                        | Drawn by<br><b>LAF</b>        |  |  |                                                | Checked by<br><b>BMS</b>      |

CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK  
FAC POND 5 PERMIT DRAWINGS

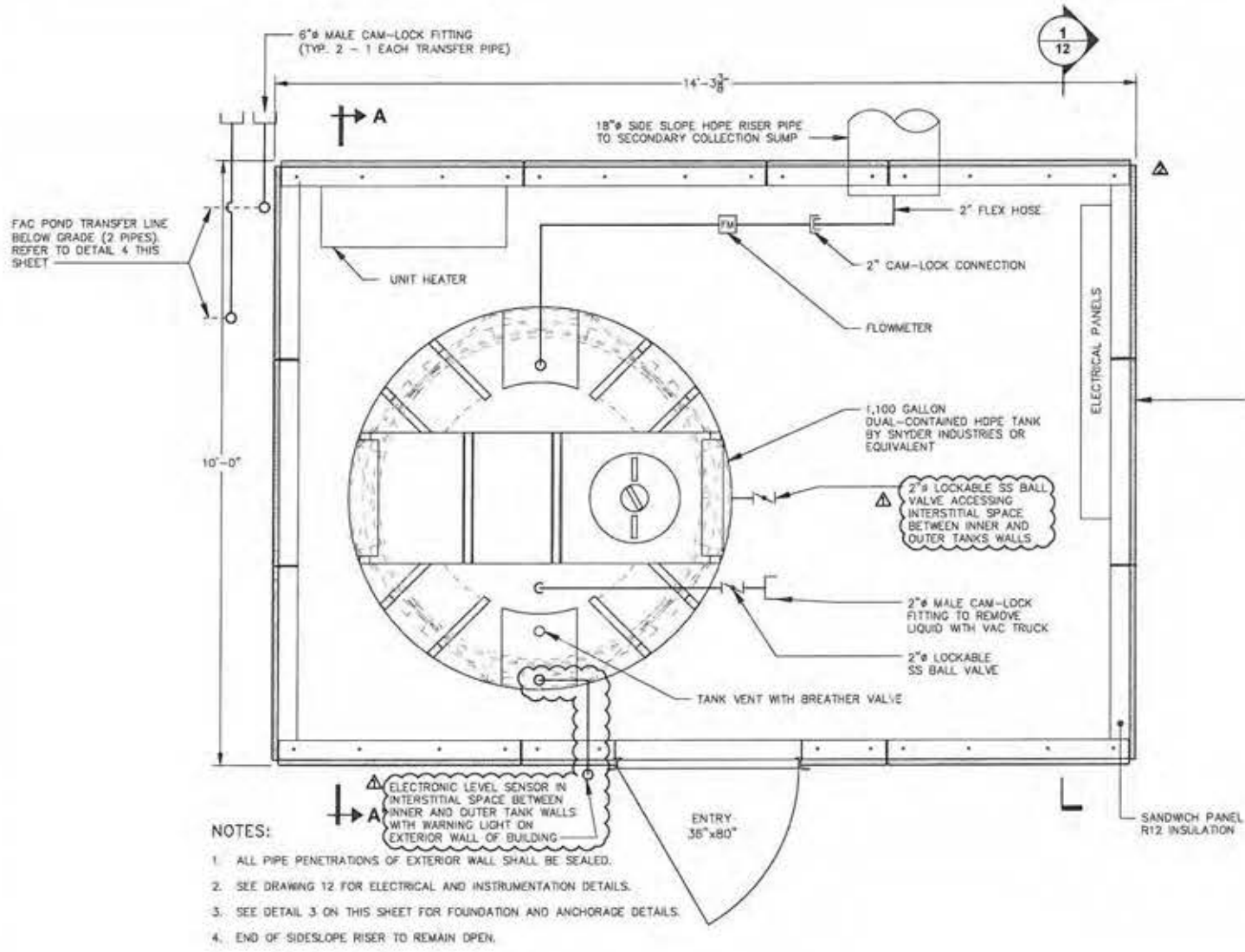
**SITE WATER SUPPLY RELOCATION PLAN**

CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK  
FAC POND 5 PERMIT DRAWINGS

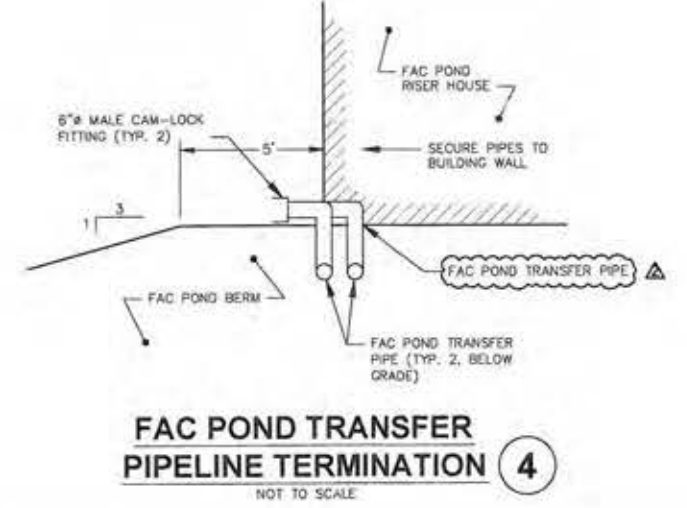
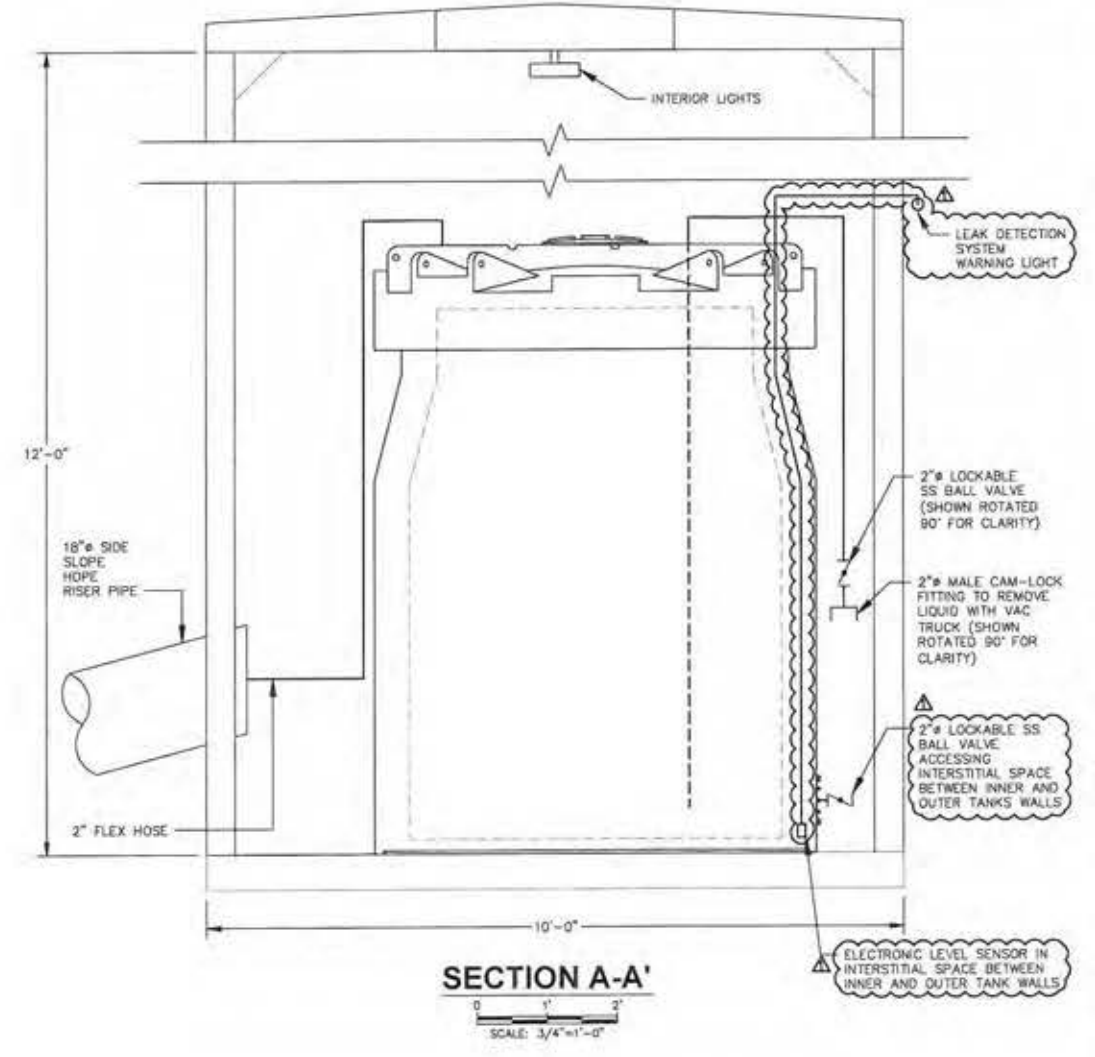
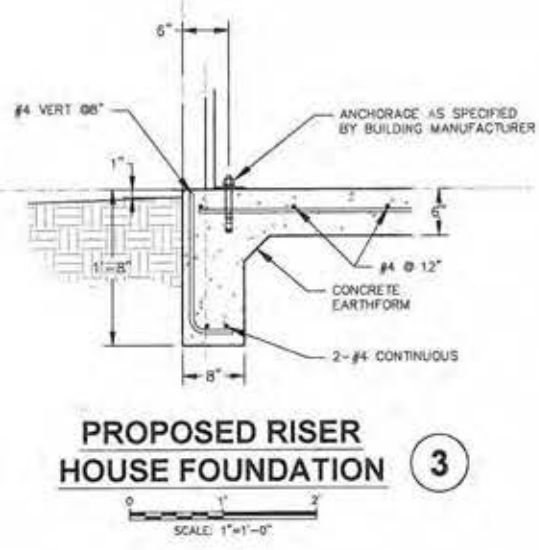
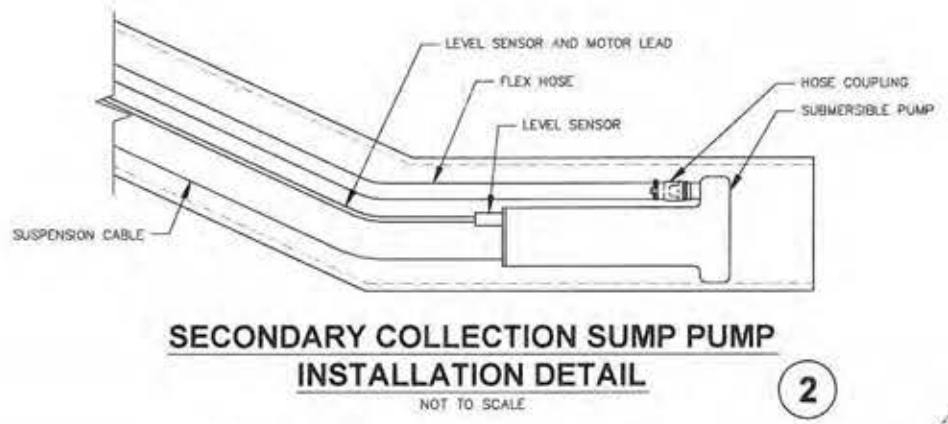
|                                                                                                         |
|---------------------------------------------------------------------------------------------------------|
| ARCADIS Project No.<br>B0023725.2013.00003                                                              |
| Date<br>FEBRUARY 2013                                                                                   |
| ARCADIS of New York, Inc.<br>6723 Towpath Road<br>P.O. Box 60<br>Syracuse, New York<br>TEL 315.448.9120 |



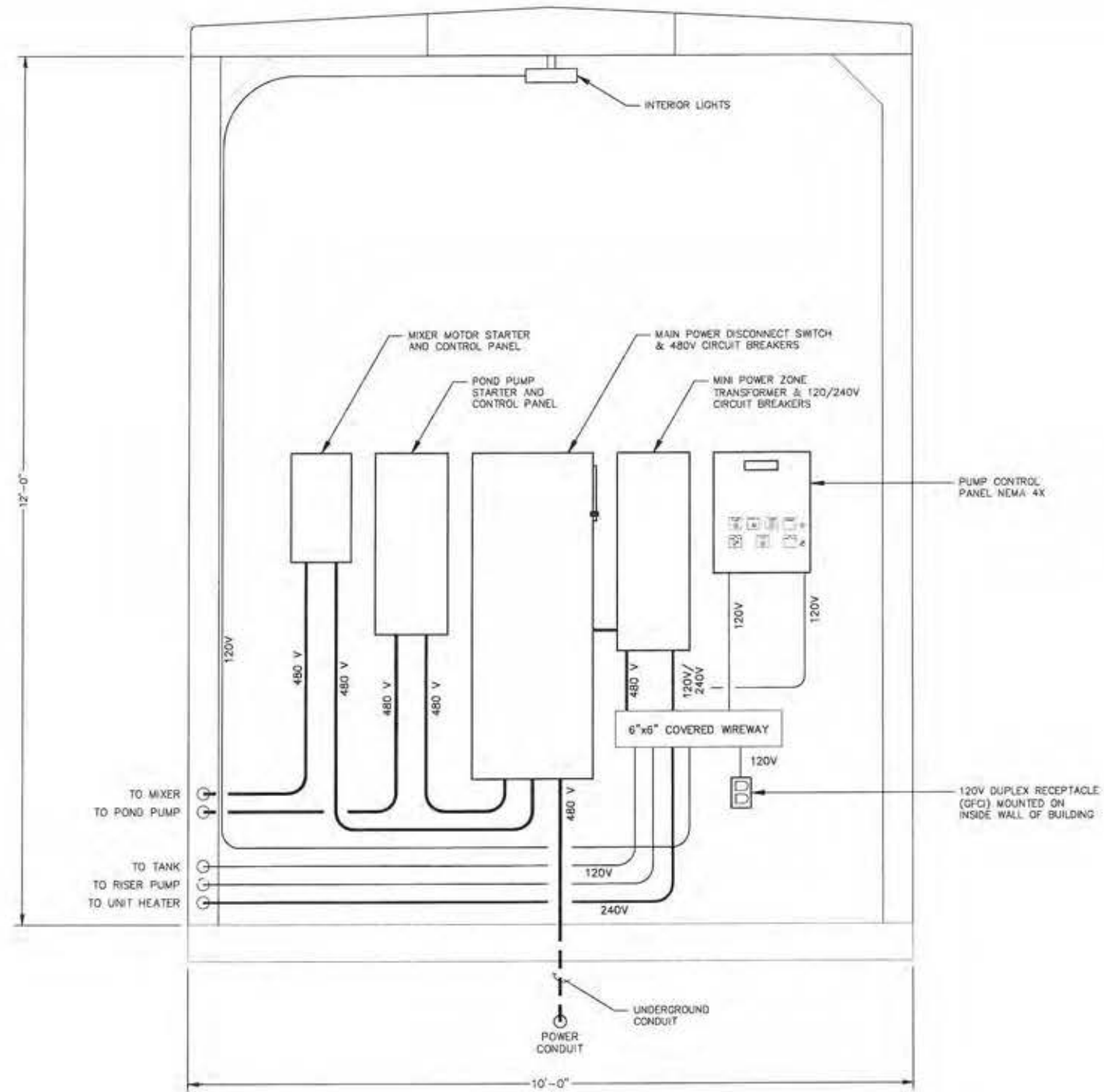
CITY: SYRACUSE DWGNO: ENV/141 DB: K.SARTORI L.FORAKER K.DAVIS LD: PIC W. POPHAM PW: W. RANKIN TM: B. STONE LVR: ON-OFF-REF-  
G:\SERVICES\SYRACUSE\ACT18023725\2013\00003\DWG\CONTRACT\FAC-POND\23725G11.dwg LAYOUT: 11 SAVED: 11/4/2013 8:56 AM ACDRAWER: 18.15 (LMS TECH) PAGES: 11 PLOT: 11/4/2013 8:54 AM BY: DAVIS, KATH  
XREFS: 23725A00  
IMAGES: PROJECTNAME: FAC-POND



PLAN 1  
SCALE: 3/4"=1'-0"







**ELECTRICAL SECTION 1**

0 1' 2'

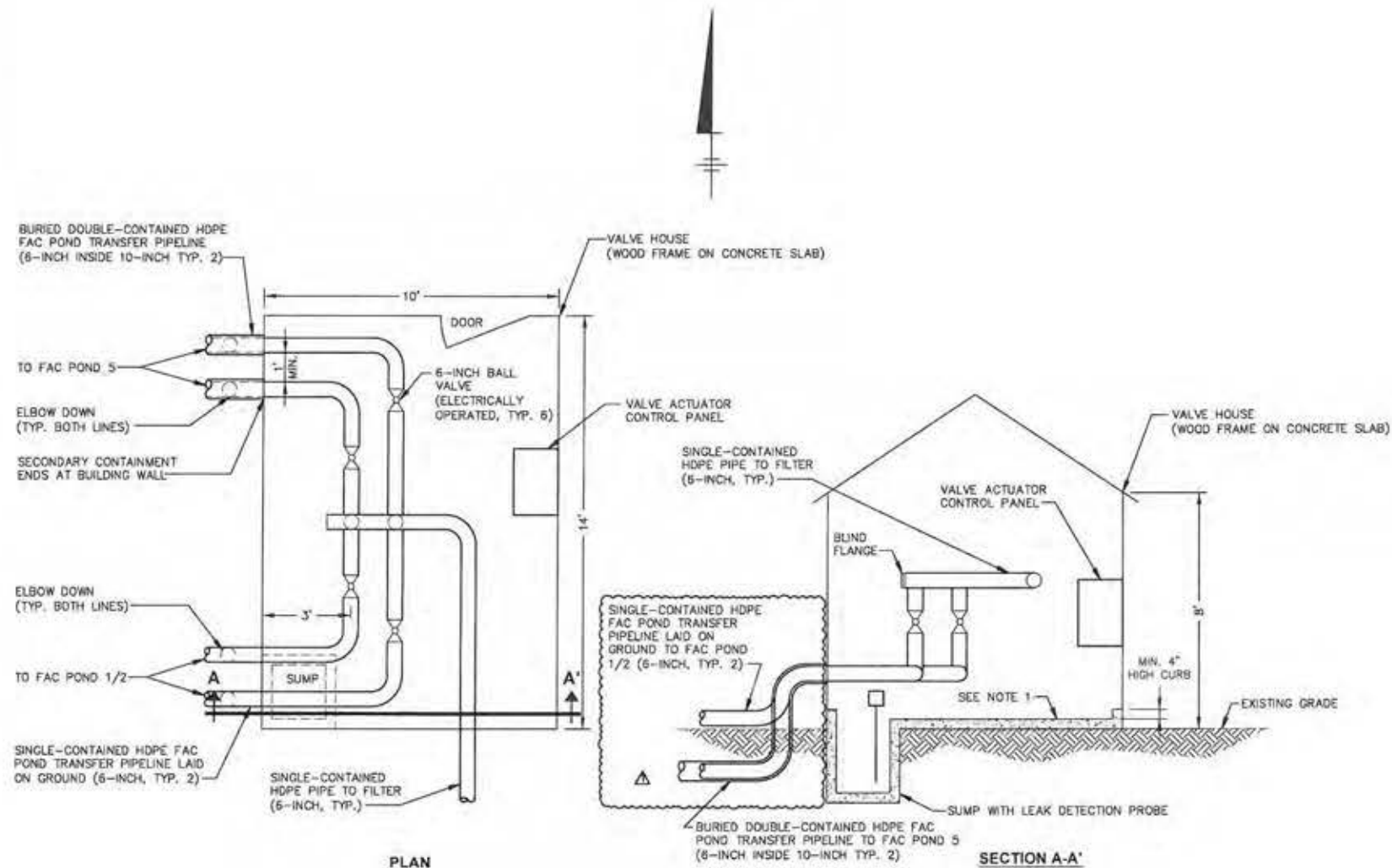
SCALE: 1"=1'-0"

CITY: SYRACUSE, NY DIV: GROUP: EN/CAD: DB: K.DAVIS LD: PIC: W. POPHAM PM: W. RANKIN TM: B. STONE LVR: ON\*OFF=REF\*  
G:\EN\CAD\SYRACUSE\ACT\B0023725\2013\000003\DWG\CONTRACT\FAC\SPOND\23725G12.dwg LAYOUT: 12 SAVED: 10/30/2013 10:19 AM ACADVER: 18.15 (LMS TECH) PAGES: 18 PLOT: 10/31/2013 2:25 PM BY: DAVIS, KATH  
PROJECT NAME: 23725X00 IMAGES: 23725X00

|                                                                                                                                                                                           |  |                                                            |                                                      |      |  |                                             |                                                                                 |                                                                 |         |                                            |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------|------------------------------------------------------|------|--|---------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------|---------|--------------------------------------------|-----------|
| <b>NOT TO SCALE</b>                                                                                                                                                                       |  | <b>USE TO VERIFY<br/>FIGURE<br/>REPRODUCTION<br/>SCALE</b> | Professional Engineer's Name<br><b>JOSEPH MOLINA</b> |      |  | <b>ARCADIS</b><br>ARCADIS OF NEW YORK, INC. | CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK<br>FAC POND 5 PERMIT DRAWINGS | <b>FAC POND RISER HOUSE<br/>ELECTRICAL INSTALLATION DETAILS</b> | GENERAL | ARCADIS Project No.<br>B0023725 2013.00003 | <b>12</b> |
|                                                                                                                                                                                           |  |                                                            | No.                                                  | Date |  |                                             |                                                                                 |                                                                 |         | Revisions                                  |           |
| THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED BY THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME. |  |                                                            |                                                      |      |  |                                             |                                                                                 |                                                                 |         |                                            |           |



CITY: SYRACUSE, NY DIVISION: ENVIRONMENTAL ENGINEERING PROJECT: FAC POND 5 PERMIT DRAWINGS  
DESIGNED BY: K. DAVIS, LD. DATE: 11/14/2013 1:53 PM  
CHECKED BY: W. RANON, TM. DATE: 11/14/2013 1:53 PM  
DRAWN BY: W. RANON, TM. DATE: 11/14/2013 1:53 PM  
PLOTTER: PLTCONT1.CTB  
PAGES: 13  
PAGESETUP: 11/14/2013 1:53 PM  
BY: DAVIS, KATH

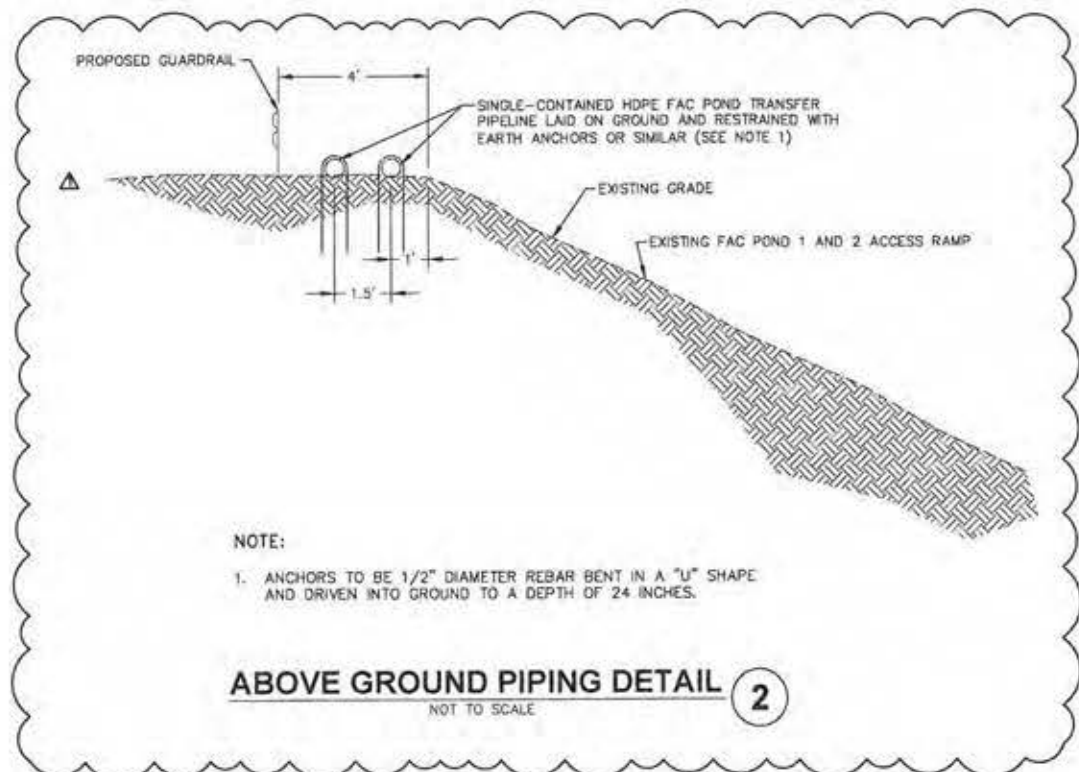
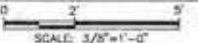


PLAN

SECTION A-A'

NOTE:  
1. CONCRETE FLOOR, SUMP, AND CURB TO BE A MONOLITHIC POUR TO ELIMINATE JOINTS.

VALVE HOUSE AND PIPING LAYOUT 1



NOTE:  
1. ANCHORS TO BE 1/2\"/>

ABOVE GROUND PIPING DETAIL 2  
NOT TO SCALE



ARCADIS

ARCADIS OF NEW YORK, INC.

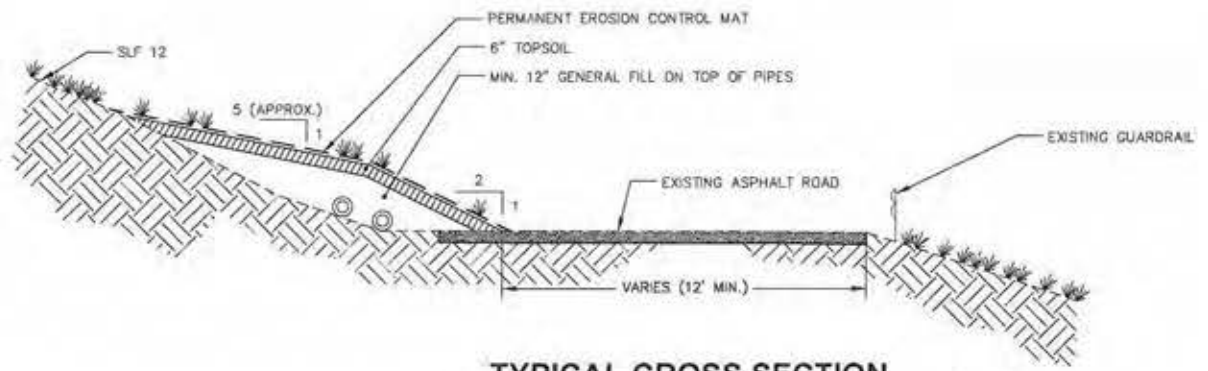
CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK  
FAC POND 5 PERMIT DRAWINGS

VALVE HOUSE DETAILS

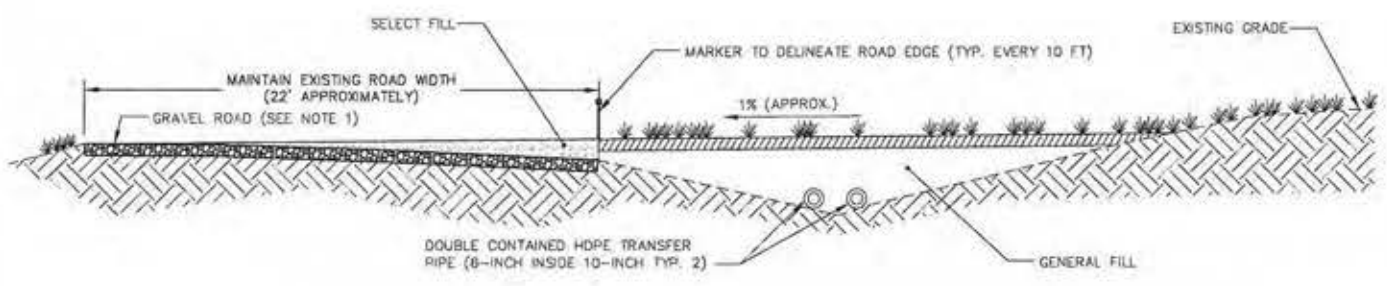
GENERAL

ARCADIS Project No.  
B0023725 2013 00003  
Date  
FEBRUARY 2013  
ARCADIS of New York, Inc.  
6723 Township Road  
P.O. Box 69  
Syracuse, New York  
TEL 315.446.9120

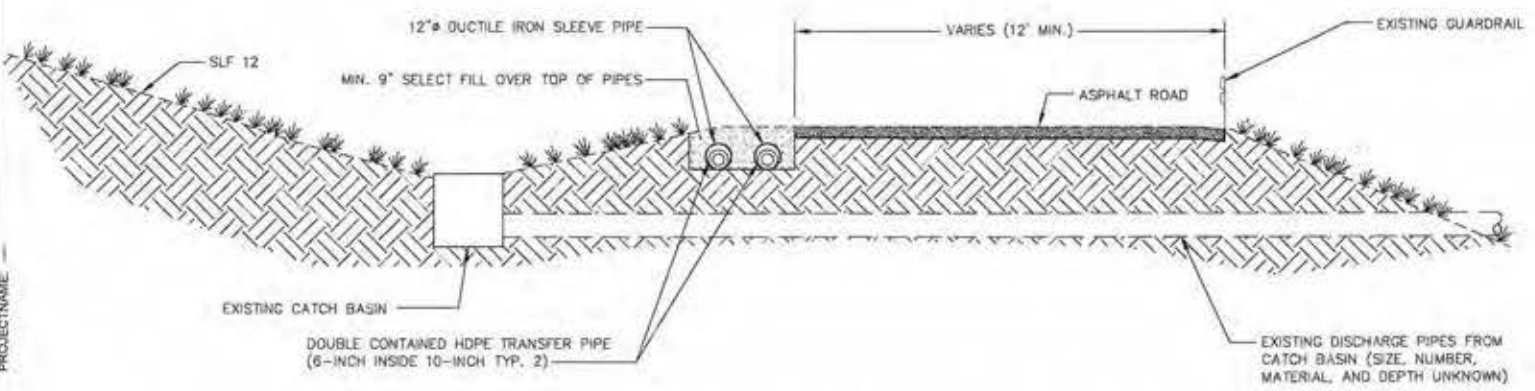




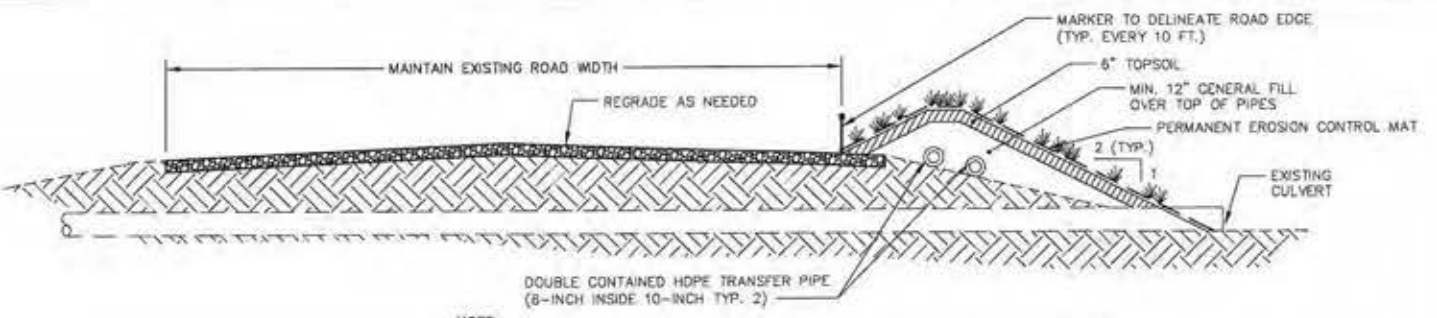
**TYPICAL CROSS SECTION  
ALONG ROAD SOUTH OF SLF 12** 1  
NOT TO SCALE



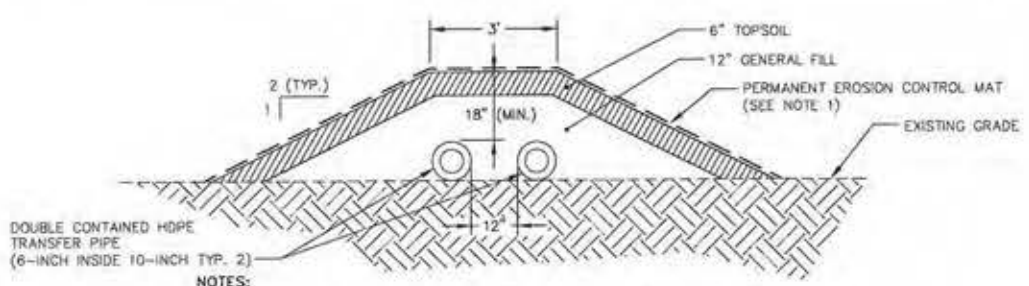
**TYPICAL CROSS SECTION ALONG NORTH-SOUTH ROAD** 2  
NOT TO SCALE



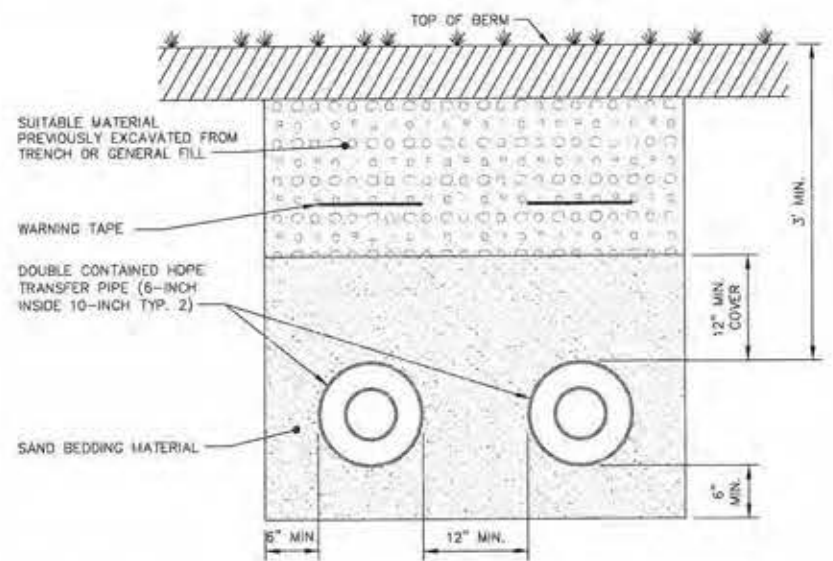
**CROSS SECTION AT  
SLF 12 DOWNCHUTE CATCH BASIN** 3  
NOT TO SCALE



**CROSS SECTION AT NORTH-SOUTH ROAD CULVERT CROSSING** 4  
NOT TO SCALE



**TYPICAL BERM DETAIL FOR HDPE PIPE** 5  
NOT TO SCALE



**TYPICAL TRENCH DETAIL FOR HDPE PIPE  
ALONG FAC POND 5 BERM** 6  
NOT TO SCALE

GENERAL NOTE:  
1. ALL HDPE PIPING SHALL BE DR-11.

CITY: SYRACUSE, NY DIVISION: ENVIRONMENTAL ENGINEERING PROJECT: FAC POND 5 PERMIT DRAWINGS  
DATE: 10/20/2013 10:48 AM  
DRAWN BY: J.M. STONE  
CHECKED BY: J.M. STONE  
PLOT DATE: 10/20/2013 2:30 PM  
PLOT BY: DAVIS, KATH

|                                                      |  |                                                                                                |  |              |  |                  |  |                        |  |                    |  |                        |  |                                                                                                                                                                                             |  |                                          |  |                                                                                 |  |                                                                                                                                                                                |  |    |  |
|------------------------------------------------------|--|------------------------------------------------------------------------------------------------|--|--------------|--|------------------|--|------------------------|--|--------------------|--|------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|--|---------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|
| SCALE(S) AS INDICATED                                |  | Professional Engineer's Name<br><b>JOSEPH MOLINA</b><br>Professional Engineer's No.:<br>072644 |  | State:<br>NY |  | Date:<br>11/5/13 |  | Project Mgr:<br>T.J.F. |  | Checked by:<br>BMS |  | Designed by:<br>S.J.K. |  | Professional Engineer's Seal<br><b>JOSEPH MOLINA</b><br>072644<br>LICENSED PROFESSIONAL ENGINEER                                                                                            |  | ARCADIS<br>CONSULTANTS OF NEW YORK, INC. |  | CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK<br>FAC POND 5 PERMIT DRAWINGS |  | ARCADIS Project No.<br>B0023725 2013.00003<br>Date<br>FEBRUARY 2013<br>ARCADIS of New York, Inc.<br>8723 Teupath Road<br>P.O. Box 66<br>Syracuse, New York<br>TEL 315 445 9120 |  | 14 |  |
| THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING |  | USE TO VERIFY FIGURE REPRODUCTION SCALE                                                        |  | No.          |  | Date             |  | Revisions              |  | By                 |  | Ckd                    |  | THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF ARCADIS |  |                                          |  |                                                                                 |  |                                                                                                                                                                                |  |    |  |