

# DEPARTMENT OF VETERANS AFFAIRS

## MEDICAL CENTER

LYONS, N.J. 07939



**AERIAL SITE VIEW**  
N.T.S.



PROJECT TITLE:

# WEST CAMPUS STORM WATER IMPROVEMENTS

V.A. PROJECT NO.: 561A4-12-108

DWG #	DRAWING #	DRAWING TITLE
1	WC-GI 001	COVER & INDEX OF DRAWINGS

**SITE DEVELOPMENT:**

2	WC-GS 001	SITE PLAN:PROJECT OVERVIEW - WEST CAMPUS STORM WATER IMPROVEMENTS
3	WC-GS 002	SITE PLAN:EXISTING CONDITIONS I (EXISTING CONDITIONS - AUG 2012)
4	WC-GS 003	SITE PLAN:EXISTING CONDITIONS II (EXISTING CONDITIONS - POST PHASE II BLDG 135 ADDITIONS)
5	WC-GS 004	SITE PLAN:EXISTING CONDITIONS III (EXISTING CONDITIONS - POST PHASE III BLDG 135 ADDITIONS)
6	WC-GS 101	SITE PLAN:PARTIAL SITE PLAN
7	WC-GS 102	SITE PLAN:PARTIAL SITE PLAN
8	WC-GS 103	SITE PLAN:PARTIAL SITE PLAN
9	WC-GS 901	SITE PLAN:DETAILS
10	WC-GS 902	SITE PLAN:DETAILS

File Name: C:\Users\stap\appdata\local\temp\AcPublish\_5258\WC-GI-001.dwg (Layout: LAYOUT)  
Date: Fri, Mar 08, 2013, 1:12 PM (Name: sar)

REV	REVISION DESCRIPTION	DATE
2	SOMERSET SOIL CONS. DIST. APPROVAL	03/08/13
1	SOMERSET CNTY STORM WATER REVIEW	02/20/13

CONSULTANTS:	

MARK D. FELLENER, P.E.



NJ PROFESSIONAL ENGINEER  
No. 24GE04661500

**ENGINEERS:**

**FELLENER III**  
ENGINEERING LLP

FE PROJECT #: 11-348  
22 Mulberry St., Suite 2A, Middletown, NY 10940  
1 845-343-1481 fx 845-343-4986

181 Church St., Suite 100, Poughkeepsie, NY 12601  
1 845-454-9704 fx 855-320-8735

UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF STATE EDUCATION LAW.

Drawing Title	COVER & INDEX OF DRAWINGS
Approved: Project Director	

Project Title	WEST CAMPUS: STORM WATER IMPROVEMENTS
Location	V.A.M.C. LYONS, NJ
Date	08/01/12

Project Number	561A4-12-108
Building Number	WEST CAMPUS
Drawing Number	<b>WC-GI-001</b>
Dwg. 1 of 10	

Office of  
Construction  
and Facilities  
Management



Department of  
Veterans Affairs

100% CONSTRUCTION DOCUMENTS

## INTER-PROJECT CONSTRUCTION SEQUENCING

FOR THE PURPOSES OF PROVIDING PROPER STORM WATER MANAGEMENT, AND IN COMPLIANCE WITH THE STORM WATER REQUIREMENTS SET FORTH BY THE SOIL CONSERVATION DISTRICT OF SOMERSET COUNTY AND THE STATE OF NEW JERSEY, WHILE ALSO PROVIDING FOR PROPER SEQUENTIAL CO-ORDINATION BETWEEN THE FOLLOWING VA PROJECT NUMBERS:

- 561-235 (PHASE II CONSTRUCTION, IMPROVEMENTS TO VA BLDG# 135)
- 561-236-ABB (PHASE III CONSTRUCTION, IMPROVEMENTS TO VA BLDG# 135)
- 561A4-12-108 (WEST CAMPUS STORM WATER IMPROVEMENTS)

THE FOLLOWING PROJECT PHASING SEQUENCE SHALL BE FOLLOWED AND ADHERED TO BY ALL ENTITIES CONTRACTED TO PERFORM THE CONSTRUCTION OF THE ABOVE REFERENCED PROJECTS.

- 1) WRITTEN NOTIFICATION SHALL BE GIVEN TO SOMERSET-UNION SOIL CONSERVATION DISTRICT 72 HOURS PRIOR TO ANY LAND DISTURBANCE
- 2) PRIOR TO FOR ANY STEP LISTED WITHIN THIS CONSTRUCTION SEQUENCING, ALL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, MAINTAINED AND INSPECTED AS PER THE PLAN SET FOR THAT AREA(S) AND SHALL REMAIN UNTIL PERMANENT STABILIZATION OF THE DISTURBED AREA HAS BEEN ACHIEVED, WHERE PERMANENT STABILIZATION IS DEFINED AS THE POINT IN TIME WHEN 80% VEGETATIVE COVER HAS BEEN ACHIEVED.
- 3) SIMULTANEOUSLY WITH STEPS #4 THRU #13 LISTED BELOW, CONSTRUCTION OF THE PHASE II BUILDING ADDITION PROJECT WILL COMMENCE, BEGINNING WITH INSTALLATION OF ALL PIPING AND DRAINAGE STRUCTURE IMPROVEMENTS, AND SITE GRADING AS REQUIRED TO PROVIDE FINISHED SURFACE IN THE AREA SURROUNDING THE PHASE II BUILDING ADDITION, AS SHOWN ON THE PLANS SET FOR VA PROJECT# 561-235. ALL PROPOSED STORM WATER IMPROVEMENTS SHOWN ON THIS PLAN SET SHALL BE COMPLETED, WITH THE EXCEPTION OF IMPROVEMENTS TO THE EXISTING STORM WATER POND, IMPROVEMENTS TO WHICH SHALL BE PERFORMED IN THE STEPS OUTLINED BELOW FOR VA PROJECTS 561-CS-136 & 561-236-ABB.
- 4) CONSTRUCT 1689' STORM WATER PIPE LINE FROM EXISTING STORM DRAINAGE DITCH TO THE LOCATION OF POND #2 OUTLET STRUCTURE, INCLUDING INSTALLATION OF THE OUTLET STRUCTURE AS SHOWN IN THE PLAN SET FOR VA PROJECT# 561A4-12-108.
- 5) CONSTRUCT STORM WATER POND AS SHOWN ON PHASE III CONSTRUCTION PLANS (VA PROJECT# 561-236-ABB) AND IDENTIFIED AS "POND #1" ON THE STORM WATER IMPROVEMENT PLANS (VA PROJECT# 561A4-12-108).
 

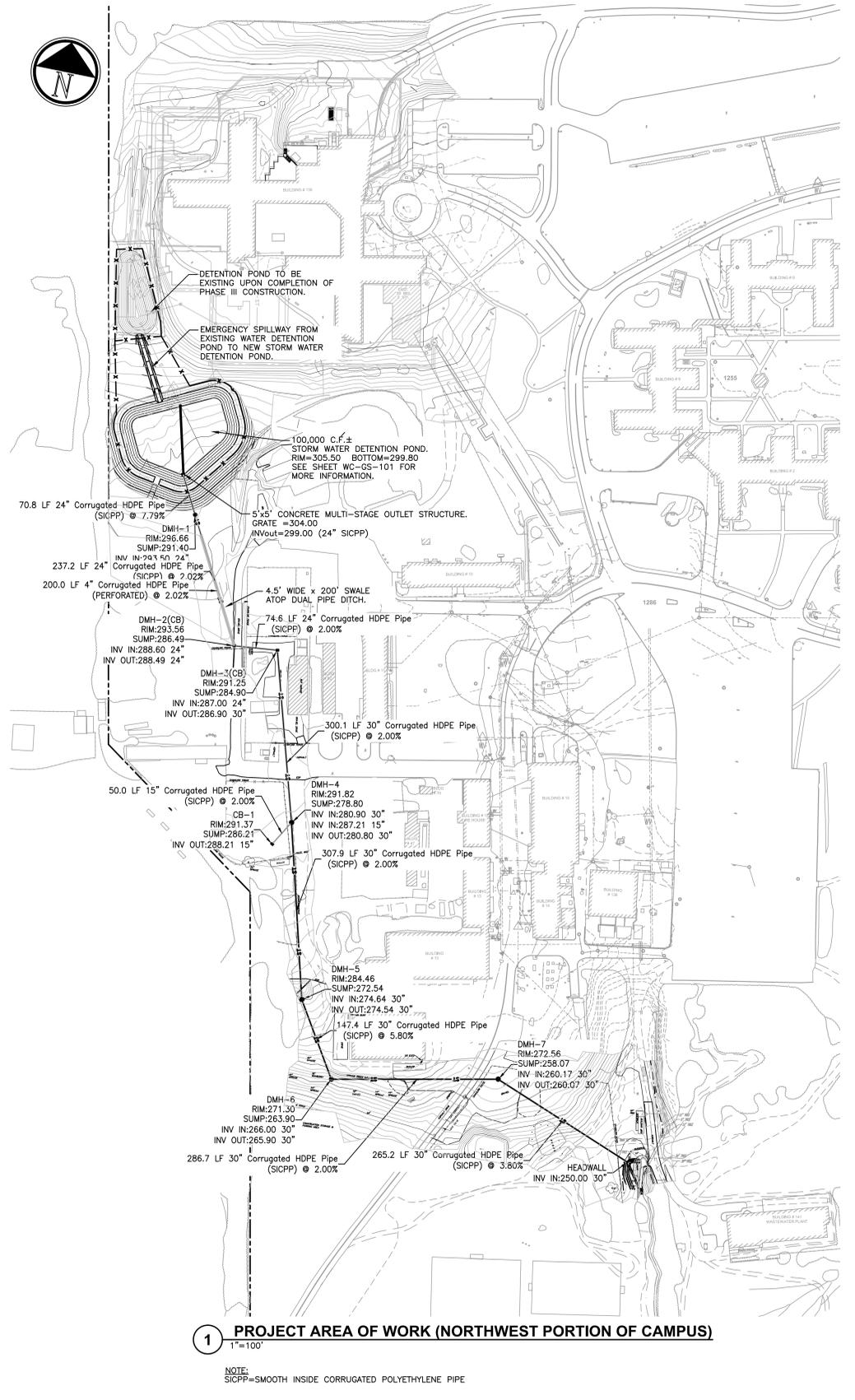
POND CONSTRUCTION SHALL CONSIST OF:

  - EXCAVATION OF EXISTING POND TO ELEVATIONS AS SHOWN ON THE PLAN SETS FOR VA PROJECT# 561-236-ABB & VA PROJECT# 561A4-12-108 WHERE GRADING CONFLICTS EXIST BETWEEN THE PLAN SETS, VA PROJECT# 561A4-12-108 SHALL RULE.
  - EXCAVATION CUT OF APPROX 863 CUBIC YARDS FROM POND #1 SHALL BE APPROPRIATELY PLACED FOR THE CONSTRUCTION OF POND #2 AS DEFINED IN PLAN SET FOR VA PROJECT# 561A4-12-108. PLACED FILL SHALL BE COMPACTED TO 95% PROCTOR DENSITY, IN LIFTS NOT TO EXCEED 6".
  - INSTALL POND #1 OUTLET STRUCTURE WITH OUTLET PIPE FROM STRUCTURE TO POINT WHERE IT WILL DRAIN INTO POND #2 AS SHOWN IN PLAN SET 561A4-12-108, AND PROVIDE TEMPORARY RCP PIPING FROM THAT POINT TO THE TEMPORARY INLET ON THE SIDE OF THE POND #2 OUTLET STRUCTURE. RCP PIPING SHALL BE KEPT SECURELY IN PLACE BY MEANS OF GRAVEL BERMS WITH A MAX SLOPE OF 2H:1V WITH A MINIMUM HEIGHT OF 1/2 PIPE DIAMETER ALONG BOTH SIDES OF PIPE FOR THE ENTIRE PIPE LENGTH.
  - PROVIDE SEDIMENT PROTECTION OF THE LOWEST ORIFICE IN THE POND #2 OUTLET STRUCTURE TO HELP DETER SEDIMENT FROM ENTERING STRUCTURE DURING POND CONSTRUCTION. Dewatering techniques shall be employed as required to allow construction to progress.
  - EXCAVATE AND REMOVE EXISTING 12" RCP OUTLET PIPE FROM POND AND DISPOSE OF PROPERLY.
  - CUT BACK EXISTING STORM PIPES DRAINING INTO POND #1 TO BE FLUSH WITH NEW POND WALL LOCATIONS, AND INSTALL FLARED END SECTIONS.
- 6) RE-GRADE THE "NORTH HILL" AREA, LOCATED NORTH WEST OF THE COMMUNITY LIVING CENTER (VA BLDG # 135) IN PREPARATION FOR PHASE III A & B CONSTRUCTION, AS SHOWN ON PHASE III PLAN SET FOR VA PROJECT# 561-236-ABB. GRADING WILL REQUIRE A CUT OF APPROXIMATELY 250 CUBIC YARDS, WHICH SHALL BE APPROPRIATELY PLACED FOR THE CONSTRUCTION OF POND #2 AS SHOWN ON THE PLAN SET FOR VA PROJECT# 561A4-12-108.
- 7) RE-GRADE AREA WEST OF VA BLDG#135 AND INSTALL 4" WIDE DRAINAGE SWALE AS SHOWN ON PLAN SET FOR VA PROJECT# 561-236-ABB.
- 8) CONTINUATION OF CONSTRUCTION OF POND #2. EXCAVATION CUT OF APPROXIMATELY 1140 CUBIC YARDS WILL PROVIDE THE REMAINING FILL REQUIRED FOR THE CONSTRUCTION OF POND #2.
- 9) UPON 95% COMPLETION OF POND #2, 95% COMPLETION BEING DEFINED AT THE POINT IN TIME WHEN ALL THE WHERE ALL THE FOLLOWING CONDITIONS HAVE BEEN MET:
  - GRADING OF THE INTERIOR AND EXTERIOR SLOPES, AND THE FLOOR OF THE POND HAVE BEEN COMPLETED. (WITH THE EXCEPTION OF THE AREA CONTAINING THE TEMPORARY 24" RCP STORM PIPE.)
  - ALL GRADED SURFACES MENTIONED ABOVE HAVE REACHED PERMANENT STABILIZATION, WITH PERMANENT STABILIZATION BEING DEFINED AS HAVING ATTAINED A MINIMUM OF 80% VEGETATIVE COVER.

THE TEMPORARY 24" RCP STORM PIPE SHALL THEN BE REMOVED, THE FLARED END SECTION & RIP-RAP OUTLET PROTECTION SHALL BE INSTALLED AT THE OUTLET FROM POND #1 INTO POND #2 (AS SHOWN IN THE PLAN SET FOR VA PROJECT# 561A4-12-108), AND THE REMAINING DISTURBED AREAS WITHIN POND #2 SHALL BE FINELY GRADED AND STABILIZED.
- 10) PHASE II BUILDING CONSTRUCTION, WING "B", AS SHOWN IN THE PLAN SET FOR VA PROJECT# 561-235.
- 11) PHASE III CONSTRUCTION OF STORM WATER IMPROVEMENTS ALONG THE NORTH HILL AREA AND ALONG SWALE TO THE WEST OF VA BLDG# 135, AS SHOWN ON THE PLAN SET FOR VA PROJECT# 561-236-ABB
- 12) PHASE III BUILDING CONSTRUCTION, WINGS C & D, STEAM TUNNELS, ELECTRICAL TRENCHING, ETC. AS SHOWN OF THE PLAN SET FOR VA PROJECT# 561-236-ABB.
- 13) FINAL SITE GRADING AND STABILIZATION OF ALL DISTURBED AREAS, AND REMOVAL OF ALL EROSION& SEDIMENT CONTROL MEASURES UPON PERMANENT STABILIZATION WITH A MINIMUM OF 80% VEGETATIVE COVER.

## DRAINAGE STRUCTURE SCHEDULE

DMH	STRUCTURE TYPE	IRON FRAME TYPE
DMH-1	5' (I.D.) CYLINDRICAL	24" LOCKABLE MANHOLE (SEE DETAIL 6/WC-GS-902)
DMH-2 (CB)	5' (I.D.) CYLINDRICAL	24"x24" FIELD INLET (SEE DETAIL 5/WC-GS-902)
DMH-3 (CB)	5' (I.D.) CYLINDRICAL	24"x24" FIELD INLET (SEE DETAIL 5/WC-GS-902)
DMH-4	5' (I.D.) CYLINDRICAL	24" LOCKABLE MANHOLE (SEE DETAIL 6/WC-GS-902)
CB-1	30"x48" (I.D.)	CAMPBELL #3408 FIELD INLET (SEE DETAIL 5/WC-GS-901)
DMH-5	5' (I.D.) CYLINDRICAL	24" LOCKABLE MANHOLE (SEE DETAIL 6/WC-GS-902)
DMH-6	5' (I.D.) CYLINDRICAL	24" LOCKABLE MANHOLE (SEE DETAIL 6/WC-GS-902)
DMH-7	5' (I.D.) CYLINDRICAL	24" LOCKABLE MANHOLE (SEE DETAIL 6/WC-GS-902)
HEADWALL	WINGED CONCRETE HEADWALL WITH SLAB BASE (SEE DETAIL 1/WC-GS-103)	REMOVABLE PROTECTIVE SCREEN, FABRICATED 6"x6" WELDED GRID OF 1/2" BARS, HOT DIP GALVANIZED, FASTENED & LOCKED TO WALL.



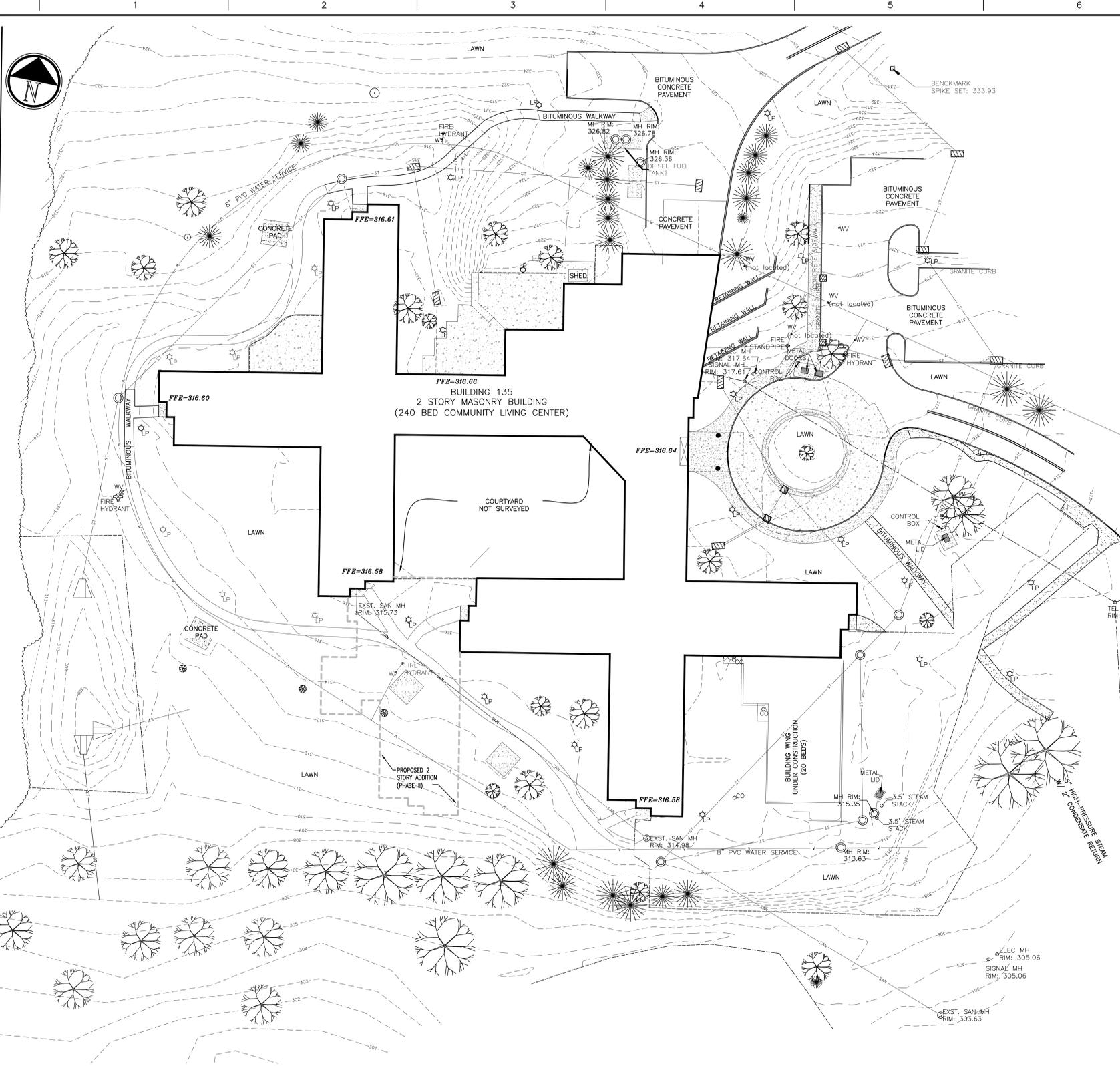
1 PROJECT AREA OF WORK (NORTHWEST PORTION OF CAMPUS)  
1"=100'

NOTE:  
SICPP=SMOOTH INSIDE CORRUGATED POLYETHYLENE PIPE

### CONSULTANTS:

### ENGINEERS:

2 SOMERSET SOIL CONS. DIST. APPROVAL 03/08/13 1 SOMERSET CNTY STORM WATER REVIEW 02/20/13 REV REVISION DESCRIPTION DATE		MARK D. FELLENER, P.E.  NJ PROFESSIONAL ENGINEER NO. 24CE04661500	FELLENER III ENGINEERING LLP FE PROJECT #: 11-348 22 Mulberry St., Suite 2A, Middletown, NY 10940 t 845-343-1481 fx 845-343-4986 181 Church St., Suite 100, Poughkeepsie, NY 12601 t 845-454-9704 fx 855-320-8735 UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF STATE EDUCATION LAW.	Drawing Title SITE PLAN: PROJECT OVERVIEW WEST CAMPUS STORM WATER IMPROVEMENTS Approved: Project Director	Project Title WEST CAMPUS: STORM WATER IMPROVEMENTS Location V.A.M.C. LYONS, NJ Date 08/01/12 Checked MDF Drawn SAR	Project Number 561A4-12-108 Building Number WEST CAMPUS Drawing Number WC-GS-001 Dwg 2 of 10	Office of Construction and Facilities Management Department of Veterans Affairs
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**LEGEND**

EXISTING FEATURES	
⊙	SANITARY MANHOLE
⊠	STORM INLET
⊕	FIRE HYDRANT
⊗	WATER VALVE
⊙	UTILITY POLE
⊙	SIGN
⊙	LIGHT POLE
— SAN —	SANITARY SEWER
— ST —	STORM SEWER
— W —	UNDERGROUND WATER LINE
— G —	FENCE LINE
---	CONTOUR - MINOR
---	CONTOUR - MAJOR

- NOTES:**
- TOPOGRAPHIC DATA IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY RITTER AND PLANTE ASSOCIATES, LLC DURING AUGUST 2010.
  - BASE PLANS PREPARED FROM AN ELECTRONIC DRAWING FILE OF THE SITE FURNISHED BY NEW JERSEY HEALTHCARE SYSTEM.
  - VERTICAL DATUM IS BASED ON NGVD 1929.
  - STORM INLET, MANHOLE, AND INVERT ELEVATIONS AND PIPE CLASSIFICATIONS DENOTED WITH AN ASTERISK ARE REFERENCED ON "REHABILITATE STORMWATER LINES PLAN" PREPARED BY STAUNTON CHOW OF JERSEY CITY, NEW JERSEY FOR THE OFFICE OF FACILITIES OF THE DEPARTMENT OF VETERANS AFFAIRS ON MAY 12, 2009.
  - APPROXIMATE TELEPHONE, WATER, AND STEAM LOCATIONS TAKEN FROM DIGITAL PLANS PROVIDED BY VAMC ON APRIL 30, 2008.

1 EXISTING SITE CONDITIONS - (AUGUST 2012)  
1"=30'

File Name: F:\01111-348 VALYONS STORM WATER\WC-GS-002.dwg (Layout: 10-GS-002)  
 Date: Fri, Mar 08, 2013 1:13 PM (Name: sar)

three inches = one foot  
 one and one half inches = one foot  
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 three quarters inch = one foot  
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REV	REVISION DESCRIPTION	DATE
2	SOMERSET SOIL CONS. DIST. APPROVAL	03/08/13
1	SOMERSET CNTY STORM WATER REVIEW	02/20/13

**CONSULTANTS:**

MARK D. FELLENER, P.E.
<i>Mark D. Fellenzer</i>
NJ PROFESSIONAL ENGINEER No. 24GE04661500

**ENGINEERS:**

**FELLENER III**  
ENGINEERING LLP

FE PROJECT #: 11-348  
 22 Mulberry St., Suite 2A, Middletown, NY 10940  
 1 845-343-1481 fx 845-343-4986

181 Church St., Suite 100, Poughkeepsie, NY 12601  
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**Drawing Title:**  
SITE PLAN:  
EXISTING CONDITIONS I

**Approved Project Director:**

**Project Title:**  
WEST CAMPUS:  
STORM WATER IMPROVEMENTS

**Project Number:**  
561A4-12-108

**Building Number:**  
WEST CAMPUS

**Location:**  
V.A.M.C. LYONS, NJ

**Date:** 08/01/12

**Checked:** MDF

**Drawn:** SAR

**Drawing Number:**  
WC-GS-002

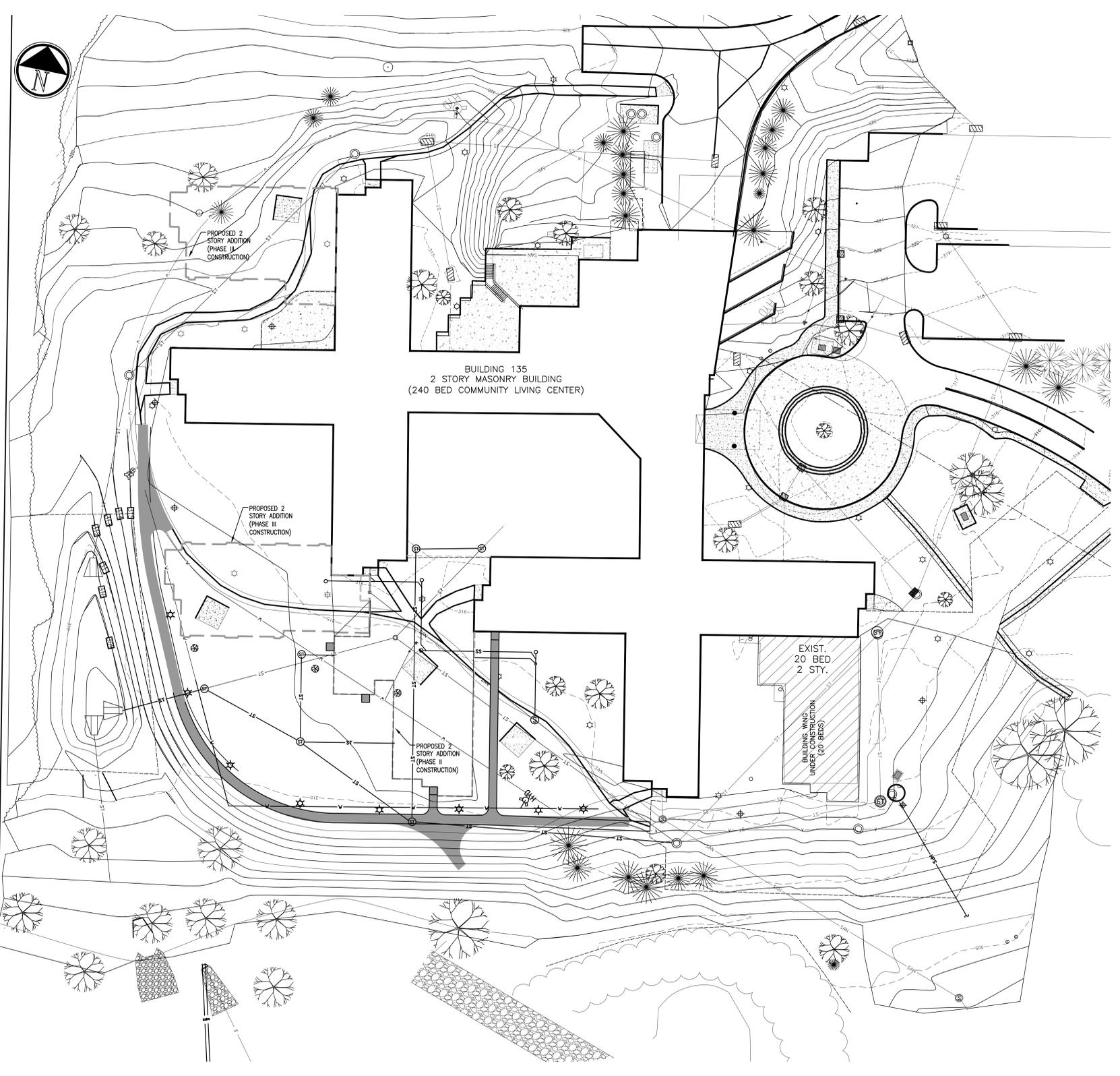
**Dwg 3 of 10**

**Office of Construction and Facilities Management**

Department of Veterans Affairs

100% CONSTRUCTION DOCUMENTS

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 Date: Fri, Mar 08, 2013 1:13 PM (Name: sar)



**LEGEND**

**EXISTING FEATURES**

- ⊙ SANITARY MANHOLE
- ⊕ STORM INLET
- ⊕ FIRE HYDRANT
- ⊕ WATER VALVE
- ⊕ UTILITY POLE
- ⊕ SIGN
- ⊕ LIGHT POLE
- SAN — SANITARY SEWER
- ST — STORM SEWER
- W — UNDERGROUND WATER LINE
- F — FENCE LINE
- - - 312 — CONTOUR — MINOR
- - - 315 — CONTOUR — MAJOR

**PROPOSED EXISTING FEATURES (PHASE II CONSTRUCTION)**

- ST — FINISHED STORM WATER PIPE
- ⊕ ST — STORM WATER MANHOLE
- SS — SANITARY SEWER

- GENERAL NOTES:**
- CONSULT SHEET WC-GS-002 FOR VERTICAL DATUM RELATING TO INVERTS AND RIM ELEVATIONS OF EXISTING CATCH BASINS, STORM PIPES, STORM MANHOLES, SEWER MANHOLES, WATER MANHOLES, AND OTHER SUCH STRUCTURES.
  - ALL VERTICAL DATUM BASED ON NGVD 1929.
  - EXISTING SITE SHOWN ON THIS SHEET IS BASED ON THE EXISTING SURVEY, AS SHOWN ON SHEET WC-GS-002, WITH ADDITIONAL INCORPORATION OF DATA FROM THE PHASE II PROJECT PLANS "CLC ADDITIONS AND ALTERATIONS—PHASE II" PLAN SET, PREPARED BY NADASKAY KOPELSON ARCHITECTS, "SITE, UTILITY & GRADING PLAN", DATED 6/15/2011.
  - CONTRACTOR TO VERIFY ALL ELEVATION AND LOCATION DATA OF ALL UTILITIES, STORM WATER, SANITARY SEWER AND OTHER SUCH SYSTEMS BEFORE THE BEGINNING OF ANY CONSTRUCTION ACTIVITIES.

1 PLANNED EXISTING CONDITIONS (POST PHASE II CLC BLDG 135 CONSTRUCTION)  
 1"=20'

Scale bars for various drawing elements:  
 three inches = one foot  
 one and one half inches = one foot  
 one inch = one foot  
 three quarters inch = one foot  
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REV	REVISION DESCRIPTION	DATE
2	SOMERSET SOIL CONS. DIST. APPROVAL	03/08/13
1	SOMERSET CNTY STORM WATER REVIEW	02/20/13

**CONSULTANTS:**

MARK D. FELLENER, P.E.
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MARK D. FELLENER, P.E.  
*Mark D. Fellenzer*  
 NJ PROFESSIONAL ENGINEER  
 NO. 24GE04661500

**ENGINEERS:**  
**FELLENER III**  
 ENGINEERING LLP  
 www.felip.com  
 FE PROJECT #: 11-348  
 22 Mulberry St., Suite 2A, Middletown, NY 10940  
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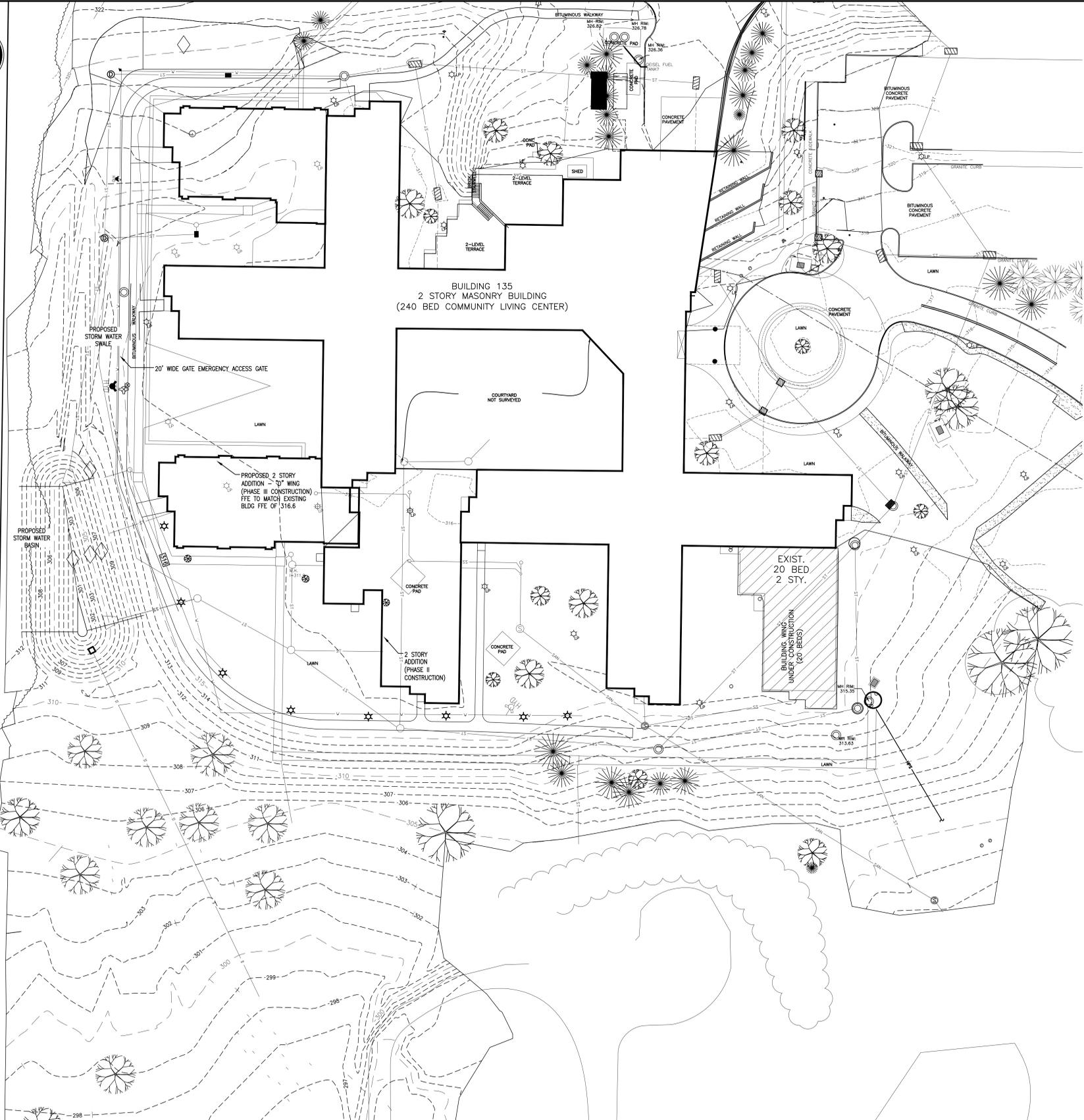
Drawing Title  
 SITE PLAN:  
 EXISTING CONDITIONS II  
 Approved Project Director

100% CONSTRUCTION DOCUMENTS		
Project Title WEST CAMPUS: STORM WATER IMPROVEMENTS	Project Number 561A4-12-108	Building Number WEST CAMPUS
Location V.A.M.C. LYONS, NJ	Drawing Number <b>WC-GS-003</b>	
Date 08/01/12	Checked MDF	Drawn SAR
Dwg. 4 of 10		

Office of  
 Construction  
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**LEGEND**

**EXISTING FEATURES**

- Sanitary Manhole
- Storm Inlet
- Fire Hydrant
- Water Valve
- Utility Pole
- Sign
- Light Pole
- Sanitary Sewer
- Storm Water Pipe
- Underground Water Line
- Fence Line
- Contour - Minor
- Contour - Major

**PROPOSED FEATURES (PHASE III CONSTRUCTION)**

- Contour - Finished
- Storm Water Pipe
- Drainage Manhole
- Fence Line
- Underground Water Line
- Proposed Spot Elevations

- GENERAL NOTES:**
- CONSULT SHEET WC-GS-002 FOR VERTICAL DATUM RELATING TO INVERTS AND RIM ELEVATIONS OF EXISTING CATCH BASINS, STORM PIPES, STORM MANHOLES, SEWER MANHOLES, WATER MANHOLES, AND OTHER SUCH STRUCTURES.
  - ALL VERTICAL DATUM BASED ON NGVD 1929.
  - EXISTING SITE SHOWN ON THIS SHEET IS BASED ON THE EXISTING SURVEY, AS SHOWN ON SHEET WC-GS-002, WITH ADDITIONAL INCORPORATION OF DATA FROM THE PHASE II PROJECT PLANS "CLC ADDITIONS AND ALTERATIONS-PHASE II" PLAN SET, PREPARED BY NADASKAY KOFELSON ARCHITECTS, "SITE, UTILITY & GRADING PLAN", DATED 6/15/2011.
  - CONTRACTOR TO VERIFY ALL ELEVATION AND LOCATION DATA OF ALL UTILITIES, STORM WATER, SANITARY SEWER AND OTHER SUCH SYSTEMS BEFORE THE BEGINNING OF ANY CONSTRUCTION ACTIVITIES.

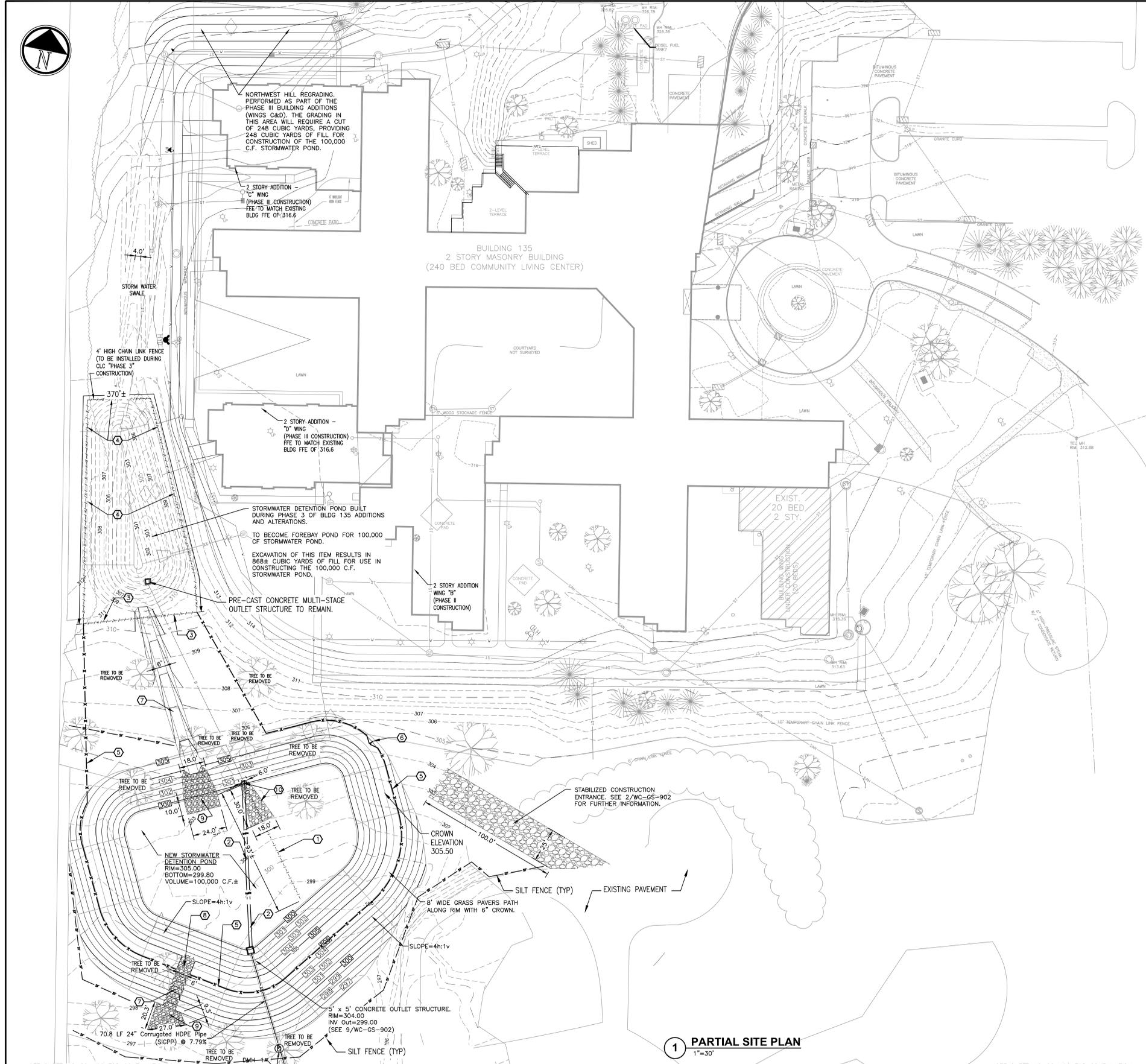
1 PLANNED EXISTING CONDITIONS (POST PHASE III CLC BLDG 135 CONSTRUCTION)  
 1"=30'

100% CONSTRUCTION DOCUMENTS

<b>CONSULTANTS:</b> SOMERSET SOIL CONS. DIST. APPROVAL 03/08/13 SOMERSET CNTY STORM WATER REVIEW 02/20/13 REV # REVISION DESCRIPTION DATE		MARK D. FELLENER, P.E.  NJ PROFESSIONAL ENGINEER NO. 24GE04661500	<b>ENGINEERS:</b> <b>FELLENER III</b> ENGINEERING LLP FE PROJECT #: 11-348 22 Mulberry St., Suite 2A, Middletown, NY 10940 1.845-343-1481 fx 845-343-4986 181 Church St., Suite 100, Poughkeepsie, NY 12601 1.845-454-9704 fx 855-320-8735 UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF STATE EDUCATION LAW.	Drawing Title SITE PLAN: EXISTING CONDITIONS III Approved Project Director	Project Title WEST CAMPUS: STORM WATER IMPROVEMENTS Location V.A.M.C. LYONS, NJ Date 08/01/12 Checked MDF Drawn SAR	Project Number 561A4-12-108 Building Number WEST CAMPUS Drawing Number <b>WC-GS-004</b> Dwg. 5 of 10	Office of Construction and Facilities Management 
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  - CONTRACTOR TO VERIFY ALL ELEVATION AND LOCATION DATA OF ALL UTILITIES, STORM WATER, SANITARY SEWER AND OTHER SUCH SYSTEMS BEFORE THE BEGINNING OF ANY CONSTRUCTION ACTIVITIES.

- DETENTION POND NOTES**
- FILL NEEDED TO CONSTRUCT POND SHALL BE SUPPLIED FROM THE CUT REQUIRED FOR POND #1, PLUS THE FILL OBTAINED FROM PHASE 3 CONSTRUCTION OF BUILDING 135 "CLC ALTERATIONS AND ADDITIONS" GARDING FOR THE NORTH HILL, WESTERN SWALE ALONG BLDG 135 AND THE RENOVATION TO THE EXISTING STORM WATER POND.
  - CONSTRUCTION OF STORMWATER DETENTION POND SHALL TAKE PLACE UPON COMPLETION OF THE PHASE 3 CONSTRUCTION FOR BLDG 135 CLC ADDITIONS AND ALTERATIONS, OR AT SUCH POINT WHERE THE VA HAS GIVEN PERMISSION FOR CONSTRUCTION TO BEGIN AFTER THE FILL FROM THE BUILDING 135 PHASE 3 CONSTRUCTION BECOMES AVAILABLE FOR USE.

**LEGEND**

EXISTING FEATURES	
	SANITARY MANHOLE
	STORM INLET
	FIRE HYDRANT
	WATER VALVE
	UTILITY POLE
	SIGN
	LIGHT POLE
	SANITARY SEWER
	STORM WATER PIPE
	UNDERGROUND WATER LINE
	FENCE LINE
	312 CONTOUR - MINOR
	315 CONTOUR - MAJOR
PROPOSED FEATURES (PHASE III CONSTRUCTION)	
	CONTOUR - MAJOR
	CONTOUR - MINOR
	STORM WATER PIPE
	DRAINAGE MANHOLE
	CATCH BASIN
	FENCE LINE
	UNDERGROUND WATER LINE
	SILT FENCE
	PROPOSED SPOT ELEVATIONS

- KEYED NOTES**
- PORTION OF EXISTING 24" RCP TO BE EXCAVATED AND REMOVED. UPON APPROVAL OF THE ENGINEER, CONTRACTOR MAY REUSE PIPING IF ABLE TO ELESWHERE ON THIS PROJECT, AND SHALL ISSUE A CREDIT FOR SAME TO THE VA.
  - INSTALL TEMPORARY 24" RCP PIPE CONDUIT FROM 24" OUTLET OF POND #1 LOCATED INSIDE POND #2 TO TEMPORARY 24" ORIFICE OF POND #2 OUTLET STRUCTURE. TEMPORARY RCP PIPING SHALL BE KEPT SECURELY IN PLACE BY MEANS OF GRAVEL BERMS WITH A MAX SLOPE OF 2H:1V WITH A MINIMUM HEIGHT OF 1/2 PIPE DIAMETER ALONG BOTH SIDES OF PIPE FOR THE ENTIRE PIPE LENGTH.
  - IF EXISTING AT TIME OF CONSTRUCTION, PORTION OF 4' HIGH CHAIN LINK FENCING TO BE REMOVED AND PROPERLY DISCARDED.
  - IF EXISTING AT TIME OF CONSTRUCTION, PORTION OF 4' HIGH CHAIN LINK FENCE TO BE REMOVED AND REPLACED WITH 10' CHAIN LINK FENCING. IF NO FENCING EXISTS IN THIS AREA, INSTALL 10' HIGH CHAIN LINK FENCING. SEE DETAIL 7/WC-GS-901 FOR FURTHER INFORMATION.
  - 10' HIGH CHAIN LINK FENCING. SEE DETAIL 7/WC-GS-901 FOR FURTHER INFORMATION.
  - 12' WIDE x 10' HIGH CHAIN LINK DOUBLE-LEAF GATE. SEE DETAIL 7/WC-GS-901 FOR FURTHER INFORMATION.
  - 6' WIDE RIP-RAP SWALE. SEE 14/WC-GS-902 FOR FURTHER INFORMATION.
  - 6' WIDE EMERGENCY SPILLWAY OPENING IN POND BERM. SEE DETAIL 13/WC-GS-902 FOR FURTHER INFORMATION.
  - 4" D60 RIP-RAP OUTLET PROTECTION. SEE 7/WC-GS-902 FOR FURTHER INFORMATION.
  - UPON COMPLETION & STABILIZATION OF POND #2, REMOVE TEMPORARY 24" RCP STORM PIPE INSTALLED IN KEY NOTE #2 AND INSTALL FLARED END SECTION WITH INVERT OF 300.00 TO END OF EXISTING RCP STORM PIPE TO REMAIN, AND INSTALL 6" D60 RIP RAP APRON 30' LONG, 18' WIDE AT APRON END, WITH BEGINNING WIDTH OF 3X PIPE DIAMETER. SEE 7/WC-GS-902 FOR MORE INFORMATION.

**1 PARTIAL SITE PLAN**  
1"=30'

SEE SHEET WC-GS-102 FOR CONTINUATION

REV	REVISION DESCRIPTION	DATE
2	SOMERSET SOIL CONS. DIST. APPROVAL	03/08/13
1	SOMERSET CNTY STORM WATER REVIEW	02/20/13

**CONSULTANTS:**

MARK D. FELLENER, P.E.
<i>Mark D. Fellenzer</i>
NJ PROFESSIONAL ENGINEER No. 24CE04661500

**ENGINEERS:**

**FELLENER III**  
ENGINEERING LLP

FE PROJECT #: 11-348  
 22 Mulberry St., Suite 2A, Middletown, NY 10940  
 1 845-343-1481 fx 845-343-4986

181 Church St., Suite 100, Poughkeepsie, NY 12601  
 1 845-454-9704 fx 845-320-8735

UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF STATE EDUCATION LAW.

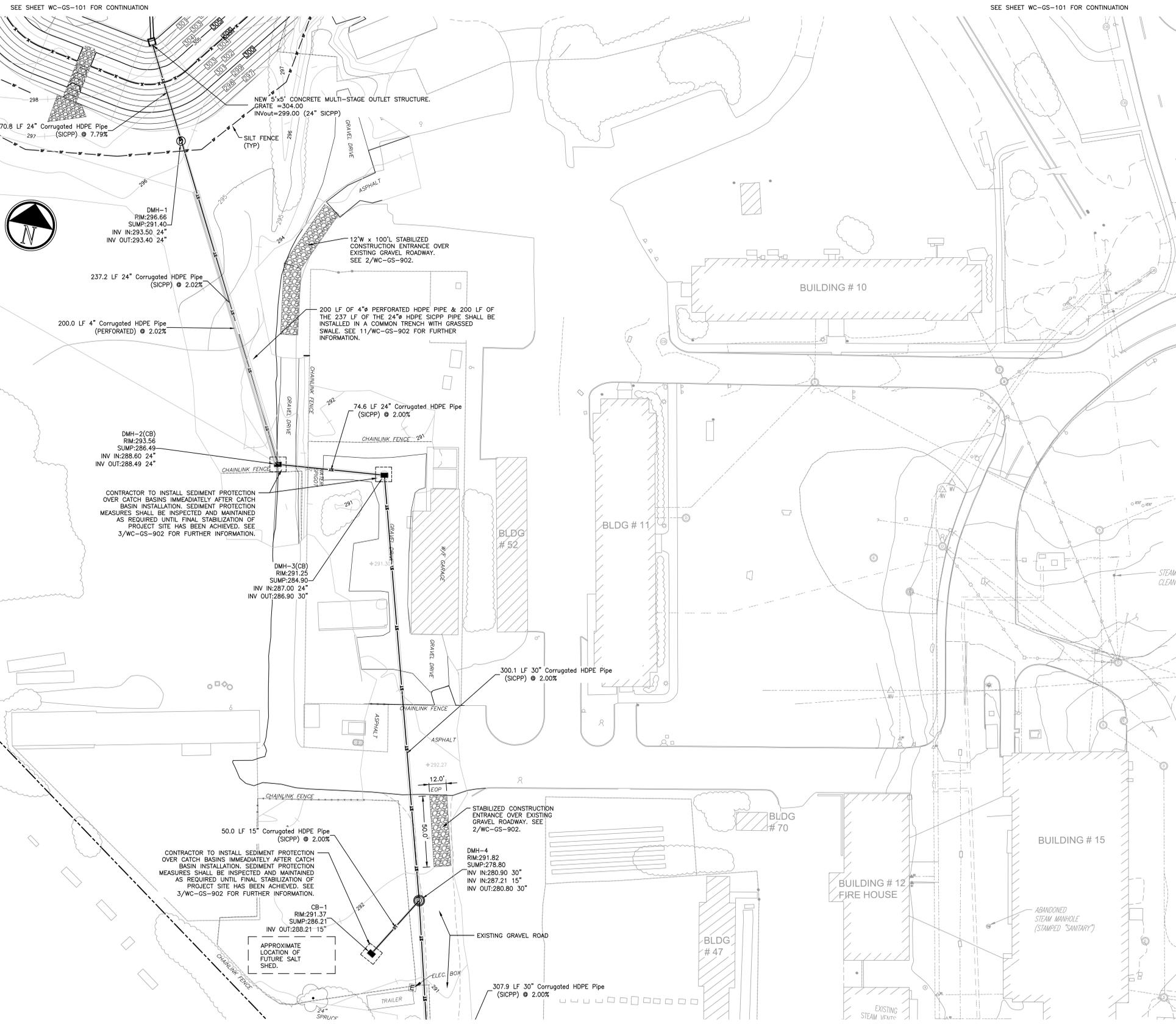
SEE SHEET WC-GS-102 FOR CONTINUATION

<b>Drawing Title</b>	SITE PLAN: PARTIAL SITE PLAN
<b>Approved Project Director</b>	

**100% CONSTRUCTION DOCUMENTS**

<b>Project Title</b>	WEST CAMPUS: STORM WATER IMPROVEMENTS
<b>Project Number</b>	561A4-12-108
<b>Building Number</b>	WEST CAMPUS
<b>Location</b>	V.A.M.C. LYONS, NJ
<b>Date</b>	08/01/12
<b>Checked</b>	MDF
<b>Drawn</b>	SAR
<b>Drawing Number</b>	WC-GS-101
<b>Dwg. 6 of 10</b>	





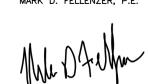
- NOTES:
- SICPP=SMOOTH INSIDE CORRUGATED POLYETHYLENE PIPE
  - DESIGN OF THE FUTURE SALT SHED SHALL INCLUDE WATER QUALITY AND WATER QUANTITY CONTROLS AS APPLICABLE.

three inches = one foot  
 one and one half inches = one foot  
 one inch = one foot  
 one inch = one foot  
 three quarters inch = one foot  
 one half inch = one foot  
 one half inch = one foot  
 three eighths inch = one foot  
 one quarter inch = one foot  
 one eighth inch = one foot  
 one eighth inch = one foot

1 PARTIAL SITE PLAN  
 1"=30'

REV	REVISION DESCRIPTION	DATE
2	SOMERSET SOIL CONS. DIST. APPROVAL	03/08/13
1	SOMERSET CNTY STORM WATER REVIEW	02/20/13

CONSULTANTS:	

MARK D. FELLENER, P.E.  
  
 NJ PROFESSIONAL ENGINEER  
 No. 24CE04661500

ENGINEERS:  
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 UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF STATE EDUCATION LAW.

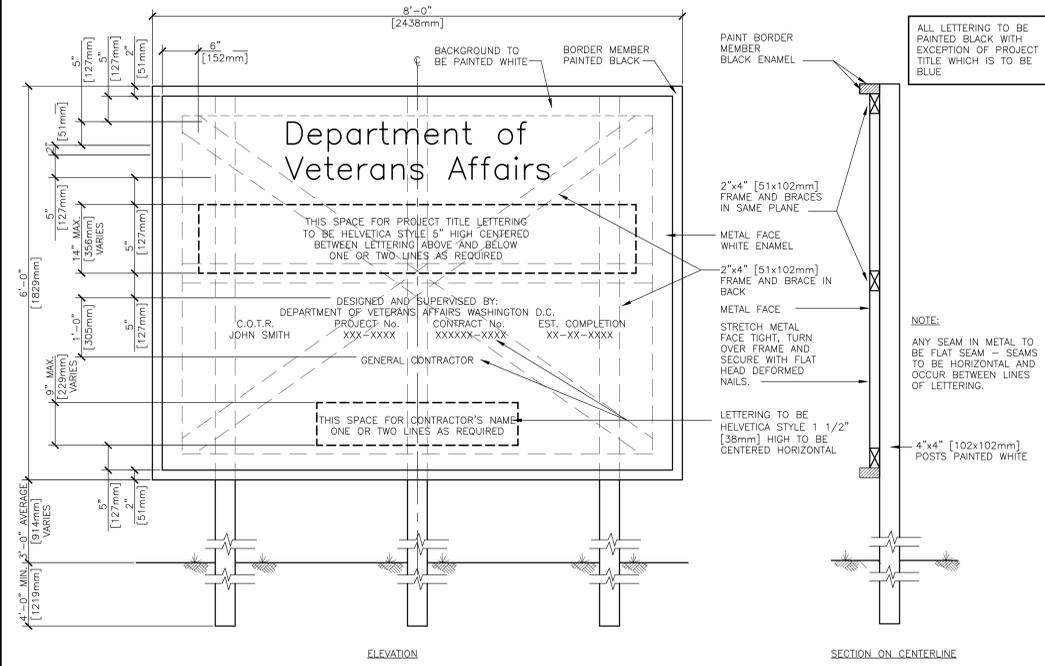
Drawing Title SITE PLAN: PARTIAL SITE PLAN	Project Title WEST CAMPUS: STORM WATER IMPROVEMENTS	Project Number 561A4-12-108
Approved Project Director	Location V.A.M.C. LYONS, NJ	Building Number WEST CAMPUS
	Date 08/01/12	Checked MDF
		Drawn SAR
		Drawing Number <b>WC-GS-102</b>
		Dwg. 7 of 10

100% CONSTRUCTION DOCUMENTS		

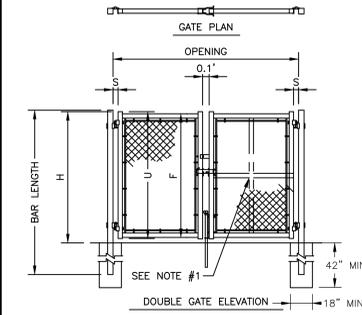
Office of Construction and Facilities Management  
 Department of Veterans Affairs

File Name: F:\01111-348 VALYONS STORM WATER\WC-GS-102.dwg (Layout: 10-GS-102)  
 Date: Fri, Mar 08, 2013 1:15 PM (Name: sar)





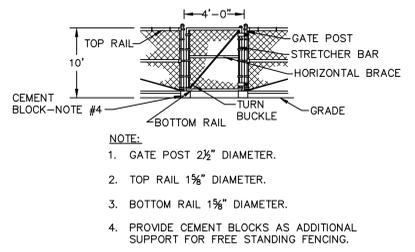
**1 CONSTRUCTION SIGN**  
N.T.S.



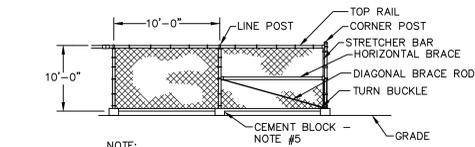
DOUBLE LEAF GATES		
OPENING	GATE POSTS	HINGE SPACE (S)
FACE TO FACE 14'-0" [4267MM]	SQ & RND SIZES 3" [76MM] SQ OR 24'-0" [7315MM]	POST TO UPRIGHT FOR SQUARE & ROUND GATE POSTS: 2 1/4" [57MM]
NOM HEIGHT (H)	UPRIGHT HT (U)	FRAME HT (F)
WITHOUT BARBED WIRE	ACTUAL DIM	ACTUAL DIM
10'-0" [3048MM]	9'-10" [2997MM]	9'-8 1/2" [2959MM]

- NOTES:**
- SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER-HALCO ONLY.
  - CENTER UPRIGHT REQUIRED ON GATE LEAVES 8'-0" [2438MM] & WIDER.
  - CENTER RAIL REQUIRED ON GATE LEAVES 10'-0" [3048MM] & HIGHER.
  - GATE POST LENGTH SHALL BE FENCE HEIGHT PLUS 3'-0".
  - GATE POST CONCRETE FOOTINGS OF THE TEMPORARY CONSTRUCTION FENCE 20' WIDE GATE TO BE REMOVED AT COMPLETION OF PROJECT.

**2 TEMPORARY CONSTRUCTION FENCE: CHAIN LINK 20' WIDE GATE DETAIL**  
N.T.S.



**3 TEMPORARY CONSTRUCTION FENCE: CHAIN LINK MAN GATE DETAIL**  
N.T.S.



- NOTES:**
- CORNER POSTS 2 1/2" DIAMETER.
  - LINE POSTS 2" DIAMETER.
  - TOP RAIL 1 1/2" DIAMETER.
  - BOTTOM RAIL NOT SHOWN ON THIS DETAIL.
  - PROVIDE CEMENT BLOCKS AS ADDITIONAL SUPPORT FOR FREE STANDING FENCING.

**4 TEMPORARY CONSTRUCTION FENCE: CHAIN LINK FENCING DETAIL**  
N.T.S.

**29CFR 1926 OSHA SUBPART P - APPENDIX B - SLOPING AND BENCHING**

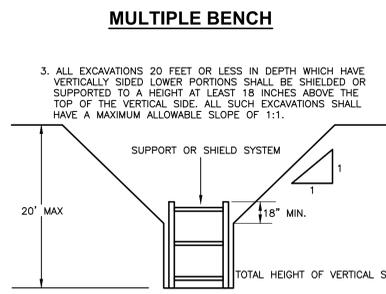
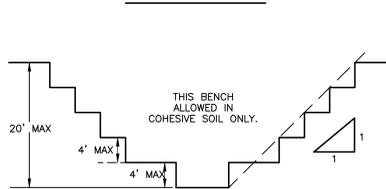
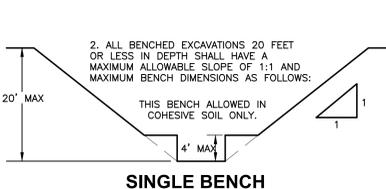
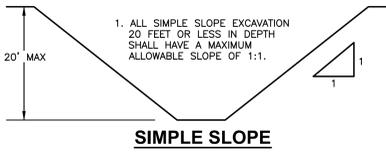
- (C) REQUIREMENTS:
- SOIL CLASSIFICATION. SOIL AND ROCK DEPOSITS SHALL BE CLASSIFIED IN ACCORDANCE WITH APPENDIX A TO SUBPART P OF PART 1926.
  - MAXIMUM ALLOWABLE SLOPE. THE MAXIMUM ALLOWABLE SLOPE FOR A SOIL OR ROCK DEPOSIT SHALL BE DETERMINED FROM TABLE B-1 OF THIS APPENDIX.
  - ACTUAL SLOPE.
  - THE ACTUAL SLOPE SHALL NOT BE STEEPER THAN THE MAXIMUM ALLOWABLE SLOPE.
    - THE ACTUAL SLOPE SHALL BE LESS STEEP THAN THE MAXIMUM ALLOWABLE SLOPE, WHEN THERE ARE SIGNS OF DISTRESS. IF THAT SITUATION OCCURS, THE SLOPE SHALL BE CUT BACK TO AN ACTUAL SLOPE WHICH IS AT LEAST 1/2 HORIZONTAL TO ONE VERTICAL (1/2H:1V) LESS STEEP THAN THE MAXIMUM ALLOWABLE SLOPE.
    - WHEN SURCHARGE LOADS FROM STORED MATERIAL OR EQUIPMENT, OPERATING EQUIPMENT, OR TRAFFIC ARE PRESENT, A COMPETENT PERSON SHALL DETERMINE THE DEGREE TO WHICH THE ACTUAL SLOPE MUST BE REDUCED BELOW THE MAXIMUM ALLOWABLE SLOPE, AND SHALL ASSURE THAT SUCH REDUCTION IS ACHIEVED. SURCHARGE LOADS FROM ADJACENT STRUCTURES SHALL BE EVALUATED IN ACCORDANCE WITH § 1926.651(i).
  - CONFIGURATIONS. CONFIGURATIONS OF SLOPING AND BENCHING SYSTEMS SHALL BE IN ACCORDANCE WITH FIGURE B-1.

**TABLE B-1- MAXIMUM ALLOWABLE SLOPES**

SOIL OR ROCK TYPE	MAXIMUM ALLOWABLE SLOPES (H:V) <sup>1</sup> FOR EXCAVATION LESS THAN 20 FEET DEEP <sup>3</sup>
STABLE ROCK	VERTICAL (90 DEG.)
TYPE A <sup>2</sup>	3/4:1 (53 DEG.)
TYPE B	1:1 (45 DEG.)
TYPE C	1 1/2 : 1 (34 DEG.)

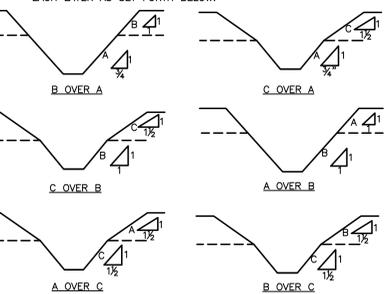
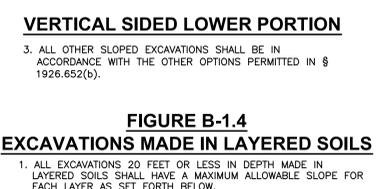
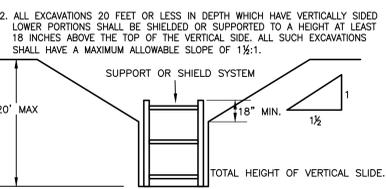
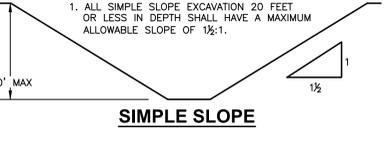
- NUMBERS SHOWN IN PARENTHESES NEXT TO MAXIMUM ALLOWABLE SLOPES ARE ANGLES EXPRESSED IN DEGREES FROM THE HORIZONTAL. ANGLES HAVE BEEN ROUNDED OFF.
- A SHORT-TERM MAXIMUM ALLOWABLE SLOPE OF 1/2H:1V (63°) IS ALLOWED IN EXCAVATIONS IN TYPE A SOIL THAT ARE 12 FEET (3.67 M) OR LESS IN DEPTH. SHORT-TERM MAXIMUM ALLOWABLE SLOPES FOR EXCAVATIONS GREATER THAN 12 FEET (3.67 M) IN DEPTH SHALL BE 3/4H:1V (53°).
- SLOPING OR BENCHING FOR EXCAVATIONS GREATER THAN 20 FEET DEEP SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.

**FIGURE B-1.2 EXCAVATIONS MADE IN TYPE B SOIL**

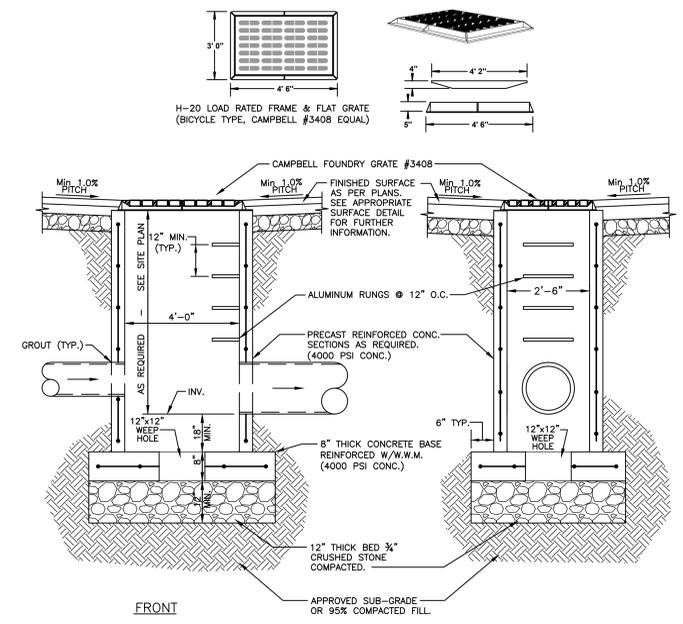


**5 SLOPE OF EXCAVATIONS DETAIL**  
N.T.S.

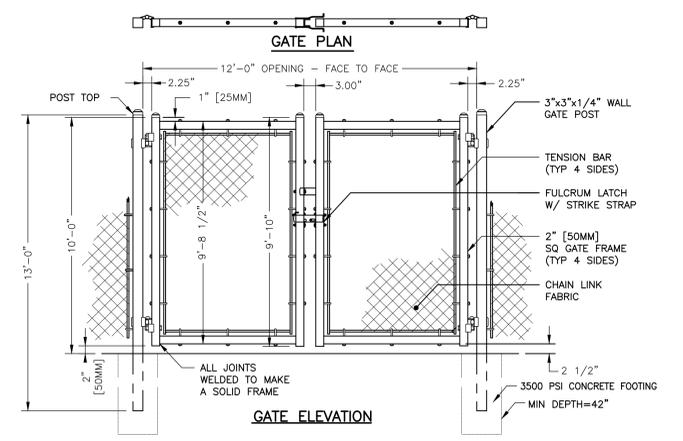
**FIGURE B-1.3 EXCAVATIONS MADE IN TYPE C SOIL**



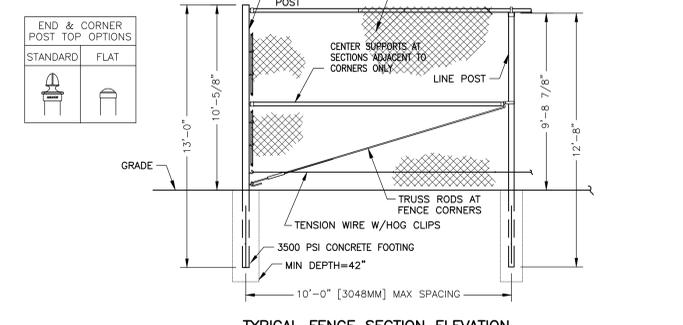
**6 SLOPE OF EXCAVATIONS DETAIL**  
N.T.S.



**7 TYPICAL YARD TYPE CATCH BASIN**  
N.T.S.



**8 GATE PLAN**



**9 TYPICAL FENCE SECTION ELEVATION**

- NOTES:**
- METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
  - FOOTING WIDTH TO BE (4)X POST WIDTH.
  - GATES MAY BE MANUALLY OR ELECTRICALLY OPERATED. HARDWARE WILL VARY FOR ELECTRICALLY OPERATED GATES.

**10 PERMANENT 10' HIGH CHAIN LINK FENCE AND GATE**  
N.T.S.

REV	REVISION DESCRIPTION	DATE
2	SOMERSET SOIL CONS. DIST. APPROVAL	03/08/13
1	SOMERSET CNTY STORM WATER REVIEW	02/20/13

**CONSULTANTS:**

2	SOMERSET SOIL CONS. DIST. APPROVAL	03/08/13
1	SOMERSET CNTY STORM WATER REVIEW	02/20/13

**ENGINEERS:**  
MARK D. FELLENER, P.E.  
*Mark D. Fellenzer*  
NJ PROFESSIONAL ENGINEER  
NO. 246E04661500

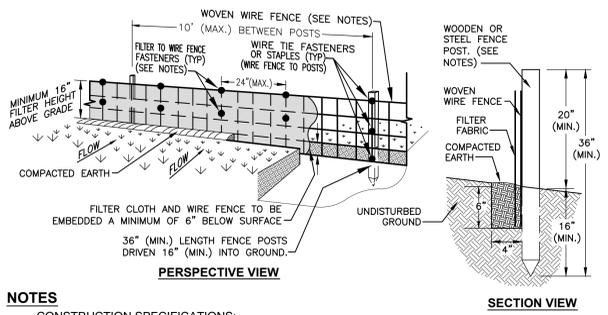
**ENGINEERS:**  
**FELLENER** ENGINEERING LLP  
FE PROJECT #: 11-348  
22 Mulberry St., Suite 2A, Middletown, NY 10940  
1 845-343-1481 fx 845-343-4986  
181 Church St., Suite 100, Poughkeepsie, NY 12601  
1 845-454-9704 fx 855-320-8735  
UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF STATE EDUCATION LAW.

Drawing Title: SITE: DETAILS  
Approved Project Director: \_\_\_\_\_

**100% CONSTRUCTION DOCUMENTS**

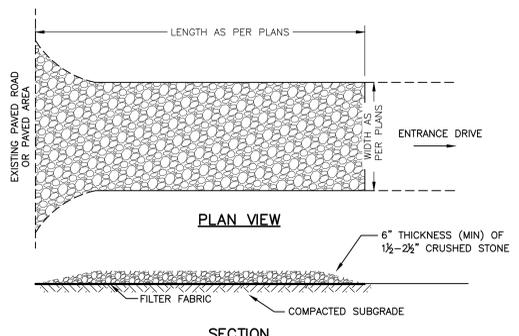
Project Title WEST CAMPUS: STORM WATER IMPROVEMENTS	Project Number 561A4-12-108
Location V.A.M.C. LYONS, NJ	Building Number WEST CAMPUS
Date 08/01/12	Checked MDF
Drawn SAR	Drawing Number WC-GS-901
	Dwg. 9 of 10

Office of Construction and Facilities Management  
Department of Veterans Affairs



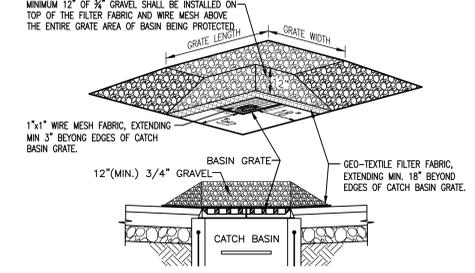
- NOTES**
- WOVEN WIRE FENCE SHALL BE 12 GAUGE WITH A MAXIMUM MESH OPENING OF 6", AND SHALL BE FASTENED SECURELY TO FENCE POSTS WITH STAPLES, WIRE TIES OR NYLON ZIP TIES.
  - FENCE POSTS SHALL BE EITHER STEEL (1" OR 1 1/2" TYPE) OR HARDWOOD (2"x2"), POSTS SHALL BE MINIMUM 36" IN LENGTH AND INSTALLED WITH A MINIMUM 16" OF EMBEDMENT, WITH A MAXIMUM OF 10" O.C. BETWEEN POSTS.
  - FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF 100X, STABILINA 1140N, OR AN APPROVED EQUAL, AND SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH WIRE TIES OR NYLON ZIP TIES SPACED EVERY 24" AT TOP AND MID SECTION OF FILTER FABRIC.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED, WITH THE OVER-LAP BEING SECURELY FASTENED TO THE WOVEN WIRE FENCE AS PER NOTE #3 ABOVE.
  - AT END POSTS OF SILT FENCE, THE FILTER FABRIC SHALL BE WRAPPED AROUND THE POST AND APPROPRIATELY FASTENED AS PER NOTE #3 ABOVE.
  - PRE-FABRICATED SILT FENCE UNITS SHALL BE GEOTAF, ENVIROFENCE, OR AN APPROVED EQUAL.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL (SEDIMENT) REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

**1 SILT FENCE W/ WIRE REINFORCEMENT DETAIL**  
N.T.S.

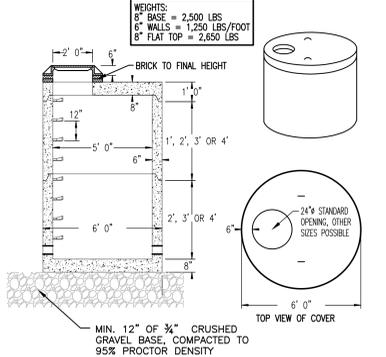


- SUBGRADE OF ENTRANCE AREA SHALL BE COMPACTED, AND COVERED WITH FILTER FABRIC (TREVIRA #1127 OR APPROVED EQUAL) AND COVERED WITH A MINIMUM THICKNESS OF 6" OF 2 1/2"-1 1/2" CRUSHED STONE GRAVEL.
- ALL DRIVEWAYS AND/OR ENTRANCES TO DISTURBED AREAS OF THE SITE MUST BE STABILIZED PRIOR TO ANY CONSTRUCTION AND OR CLEARING OF SITE.
- STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT THE TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, OR OTHER PAVED TRAVELED WAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO SUCH RIGHT-OF-WAYS OR TRAVELED PATHS SHALL BE REMOVED IMMEDIATELY.

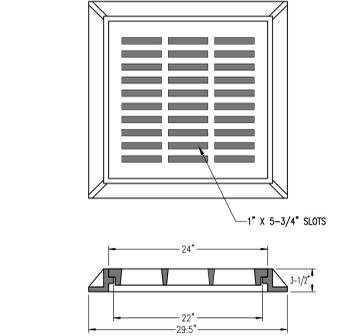
**2 STABILIZED CONSTRUCTION DRIVEWAY ENTRANCE DETAIL**  
N.T.S. FOR SINGLE RESIDENCE SITES



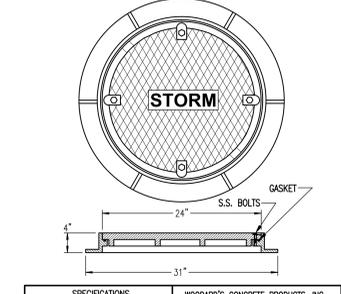
- ALL EXISTING STORM WATER INLETS OR STRUCTURES NEAR PROJECT SITE (SEE PLANS FOR LOCATIONS REQUIRED) SHALL BE PROTECTED, INSPECTED AND HAVE MAINTENANCE PERFORMED ON A REGULAR BASIS AND AFTER EACH STORM.
- ALL PROTECTED INLETS AND STRUCTURES SHALL BE INSPECTED FOR BUILDUP OF EXCESS SEDIMENT WHICH PREVENTS THE PROPER FLOW OF STORMWATER INTO THE INLET/STRUCTURE. WHEN SEDIMENT HAS CAUSED THE FLOW OF RUN-OFF TO BE REDUCED BY 50%, AND/OR TO A POINT WHERE RUN-OFF IS NOT BEING PROPERLY CAPTURED BY INLET/DEVICE, SEDIMENT CLOGGED GRAVEL SHALL BE REMOVED AND REPLACED WITH NEW CLEAN GRAVEL.
- ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE DISCHARGE POINTS BECOME OPERATIONAL.
- ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.



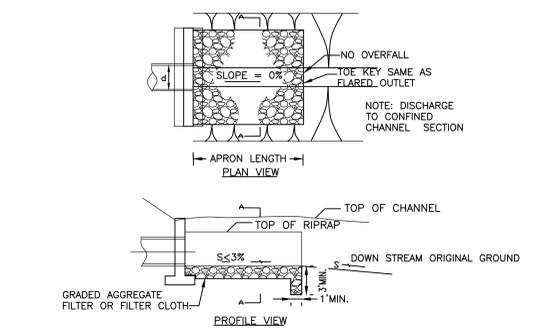
- SPECIFICATIONS**
- CONCRETE MIN. STRENGTH: 4,000 PSI AT 28 DAYS
  - REINFORCEMENT: 4X4 WIRE MESH / ASTM C478
  - PIPE CONNECTIONS: RUBBER BOOTS AVAILABLE
  - LOAD RATING: H20 / ASTM C557
- PRECAST MANHOLES**
- 5' ID BASE, RISER & TOP
  - WOODARD'S CONCRETE PRODUCTS, INC. 629 LYBOLT ROAD, BULLVILLE, NY 10915 (845) 361-3471 / FAX 361-1050 WWW.WOODARDSCONCRETE.COM



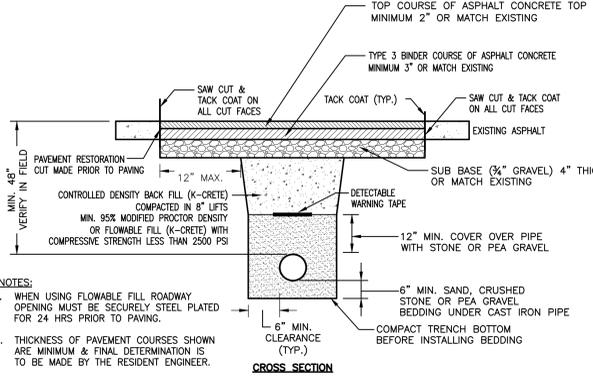
- SPECIFICATIONS**
- MATERIAL: ASTM A48 CLASS 30B
  - LOAD RATING: HEAVY DUTY, H20
  - DRAINAGE AREA = 175 SQUARE INCHES
  - WOODARD'S CONCRETE PRODUCTS, INC. 629 LYBOLT ROAD, BULLVILLE, NY 10915 (845) 361-3471 / FAX 361-1050 WWW.WOODARDSCONCRETE.COM



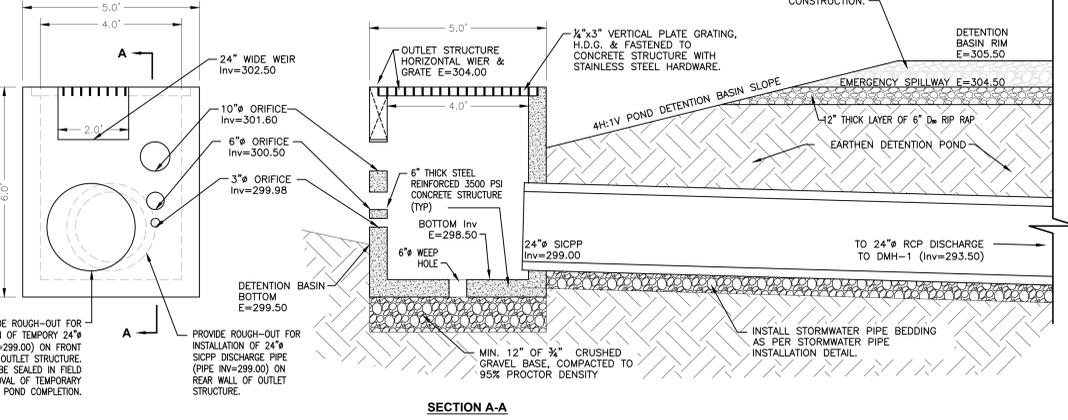
- SPECIFICATIONS**
- MATERIAL: ASTM A48 CLASS 30B
  - FRAME: NON-REVERSIBLE
  - LOAD RATING: HEAVY DUTY, H20
  - WEIGHT = 280 LBS
  - WOODARD'S CONCRETE PRODUCTS, INC. 629 LYBOLT ROAD, BULLVILLE, NY 10915 (845) 361-3471 / FAX 361-1050 WWW.WOODARDSCONCRETE.COM



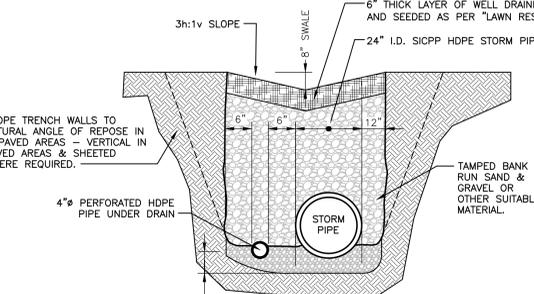
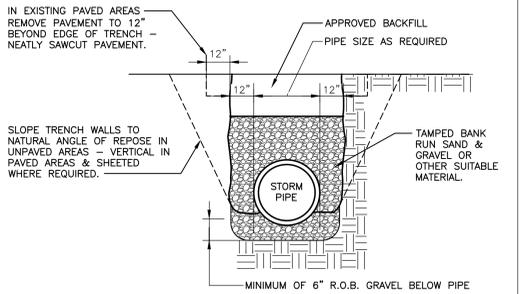
- NOTES**
- WHEN USING FLOWABLE FILL ROADWAY OPENING MUST BE SECURELY STEEL PLATED FOR 24 HRS PRIOR TO PAVING.
  - THICKNESS OF PAVEMENT COURSES SHOWN ARE MINIMUM & FINAL DETERMINATION IS TO BE MADE BY THE RESIDENT ENGINEER.



- NOTES**
- INSTALLATION OF WATER MAIN & THEIR APPURTENANCES SHALL COMPLY WITH AWWA C600.
  - COMPACTION TO MEET 90% STANDARD PROCTOR PER AASHTO T-99.



- NOTES**
- TOPSOIL SHALL BE SPREAD TO A COMPACTED UNIFORM THICKNESS OF 4".
  - TOPSOIL SURFACE SHALL BE FINELY GRADED AND LOOSENEED BY MECHANICAL RAKES TO ENSURE SEED ACCEPTANCE AND SEED TO SOIL CONTACT.
  - FERTILIZER SHALL BE APPLIED AT 6 LBS. OF 10-0-10 COMMERCIAL FERTILIZER/1000 SQ. FT.
  - SEEDING AREA SHALL BE COVERED WITH A MULCH OF STRAW OR HAY AT THE RATE OF 90 LBS. (APPROX. 2 BALES) PER 1,000 S.F. TO HELP MAINTAIN SOIL MOISTURE LEVEL. MULCH SHALL BE SECURED BY APPLICATION OF A TACKIFIER ("TERRA TACK" OR APPROVED EQUAL). TACKIFIER SHALL BE APPLIED AS PER ALL MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS AND AS REQUIRED BY THE SOMERSET COUNTY SOIL CONSERVATION DISTRICT.
  - LIGHTLY WATER SEED BED DAILY TO KEEP IT MOIST, WHILE TAKING CARE NOT TO SATURATE.
  - NEW GRASS SHALL NOT BE MOWED UNTIL IT HAS REACHED A MINIMUM HEIGHT OF 2"-2 1/2".
  - PRACTICE REGULAR MAINTENANCE & WATER REGULARLY AS CONDITIONS REQUIRE.

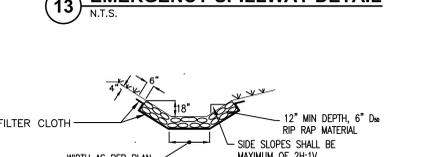
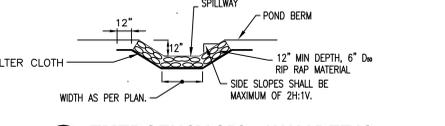


**SEED MIXTURES FOR TEMPORARY STABILIZATION**  
SLOPES AND BANKS (UNMOWED)

SPECIES	LBS / ACRE
SPRING OATS (SPRING), OR	64
ANNUAL RYEGRASS (SPRING OR FALL), OR	10
WINTER WHEAT (FALL), OR	90
WINTER RYE (FALL)	56
TALL FESCUE, OR	60
FINE FESCUE, OR	35
KENTUCKY BLUEGRASS, OR	25
PLUS REDTOP 4, OR	3
PERENNIAL RYEGRASS	15

**PERMANENT STABILIZATION SEED MIXTURE**

SPECIES	LBS / ACRE
TALL FESCUE, OR	44
KENTUCKY BLUEGRASS,	130
PERENNIAL RYEGRASS	44



<b>CONSULTANTS:</b>		<b>ENGINEERS:</b>		<b>Drawing Title</b>		<b>Project Title</b>		<b>Project Number</b>		<b>Office of Construction and Facilities Management</b>
		MARK D. FELLENER, P.E.		SITE: DETAILS		WEST CAMPUS: STORM WATER IMPROVEMENTS		561A4-12-108		
				Approved Project Director		Location: V.A.M.C. LYONS, NJ		Building Number: WEST CAMPUS		
2 SOMERSET SOIL CONS. DIST. APPROVAL 03/08/13		NJ PROFESSIONAL ENGINEER No. 24CE04661500				Date: 08/01/12		Drawing Number: WC-GS-902		
1 SOMERSET CNTY STORM WATER REVIEW 02/20/13						Checked: MDF		Drawn: SAR		Dwg. 10 of 10
<b>REV</b>   <b>REVISION DESCRIPTION</b>   <b>DATE</b>										

File Name: F:\2011\11-348 VALYONS STORM WATER\WC-GS-902.dwg (Layout: 10-GS-902)  
Date: Fri, Mar 08, 2013 1:17 PM (Name: sar)