BECKER MORGAN GROUP

ARCHITECTURE
ENGINEERING

November 22, 2013

Re: **ADDENDUM SEVEN - DELAWARE STATE POLICE - TROOP 3- BID PACK 1**
Dover, Delaware
2011116.00

ADDENDUM SEVEN

The addendum forms a part of the contract documents and modifies the original bidding documents dated, October 9, 2013, modified by Addendum No. 1 dated 10-18-2013, Addendum No. 2 dated 10-25-2013, Addendum No. 3 dated 10-31-2013, Addendum No. 4 dated 11-08-2013, Addendum No. 5 dated 11-11-2013, and addendum No. 6 dated 11-16-2013, as noted below.

CONTRACT DRAWINGS

1. Sheet C-501 (Revised Sheet Reissued, see clouded revisions)
    a. Revised dimensions for rock outlet protection within bio-swale 3.
    b. Revised the outlet protection for SD-8B (infiltration pond discharge) to be a gabion mattress chute.
2. Sheet C-503 (Revised Sheet Reissued, see clouded revisions)
    a. Reduced the length of SD-8B.
    b. Revised the outlet protection for SD-8B (infiltration pond discharge) to be a gabion mattress chute.
    c. Added skimmer dewatering device and associated note.
3. Sheet C-505 (Revised Sheet Reissued, see clouded revisions)
    a. Added gabion mattress chute standard details.
4. Sheet E-20 (Revised Sheet Reissued, see clouded revisions)
    a. Deleted type “S” light fixture and associated concrete anchor base next to the gasoline dispensing pump.
    b. Change light fixture across from the gasoline dispensing pump from type “S3” to type “S”. The concrete anchor base remains the same.
    c. Identified the electrical classification areas around the gasoline dispensing pump, and the above ground gasoline storage tank.
    d. Added general notes #8 and #9.
5. Sheet E-21 (Revised Sheet Reissued, see clouded revisions)
    a. Identified the electrical classification areas around the gasoline dispensing pump, and the above ground gasoline storage tank.
    b. Added general notes #11 and #12.

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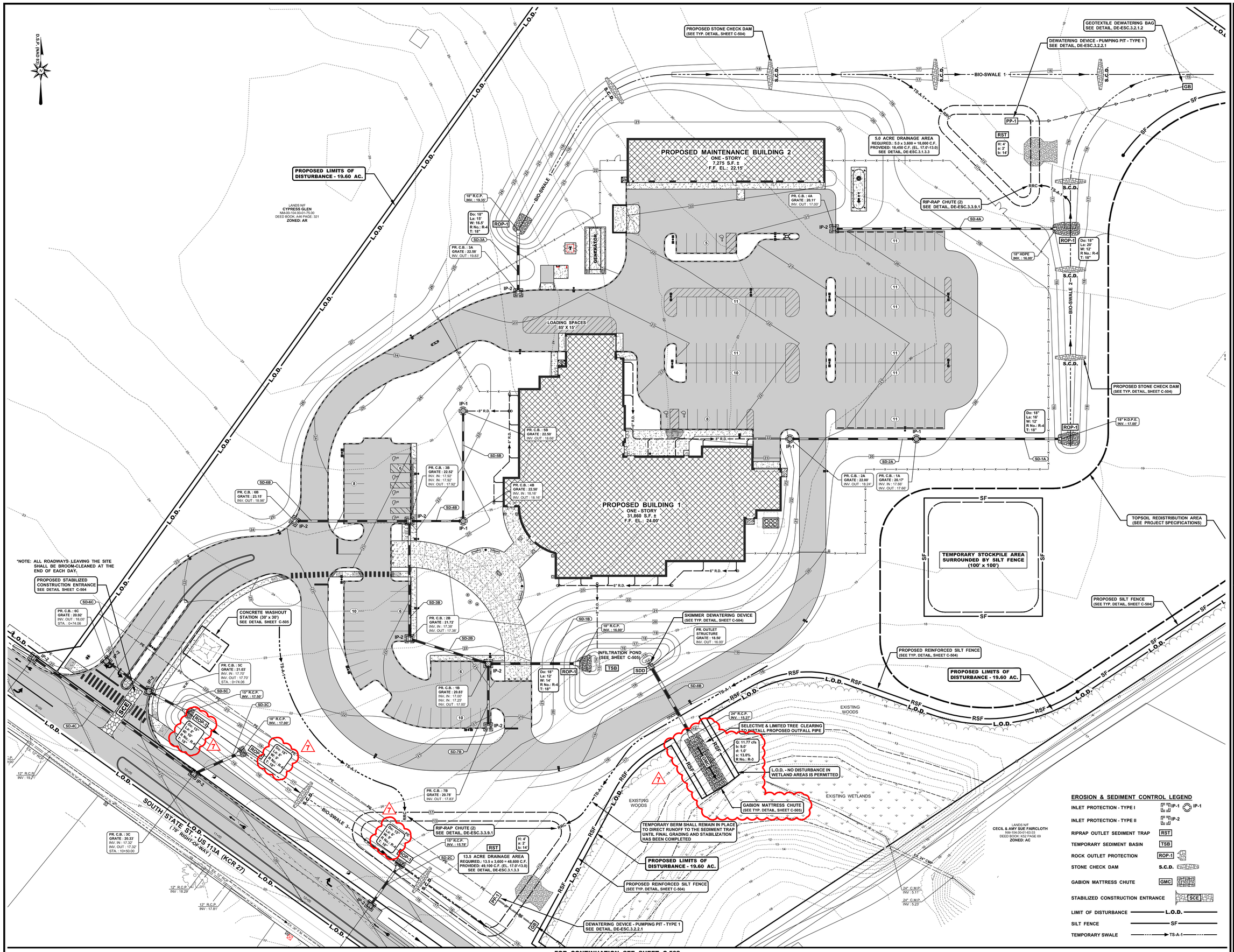
Attachments

Contract Drawing Sheets C-501, C-503, C-505, E-20, E-21,

END OF ADDENDUM SEVEN

201111600-DG-addendum7-Nov22.doc



FOR CONTINUATION SEE SHEET C-502

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DAYDREAM BELIEVER, INC.
LANDSCAPE CONSULTANT
31056 HARBOR COVE DRIVE
LONG NECK, DELAWARE 19966
302-945-2495 fax 302-945-3908

PROJECT TITLE
DELAWARE STATE POLICE TROOP 3
S. STATE STREET (U.S. 113A)
N. MURDERKILL HUNDRED
KENT COUNTY, DELAWARE
BID PACK 1

SHEET TITLE
EROSION & SEDIMENT CONTROL PLAN

0 15 30 60
SCALE : 1" = 30'

ISSUE BLOCK

MARK	DATE	DESCRIPTION
6	11-21-13	REVISED PER ADDENDUM #7
5	11-08-13	DELDOT - FINAL PLAN SUBMISSION
4	10-25-13	REVISED PER ADDENDUM #2
3	10-09-13	BID PACK 1 - ISSUED FOR BIDDING
2	9-25-13	REVISED PER AGENCY COMMENTS
1	8-28-13	REVISED PER DELDOT COMMENTS

PROJECT NO.: 2011116.00
DATE: 08-13-2013
SCALE: 1" = 30'
DRAWN BY: J.S.F. PROJ. MGR.: D.E.H.

SHEET
C-501

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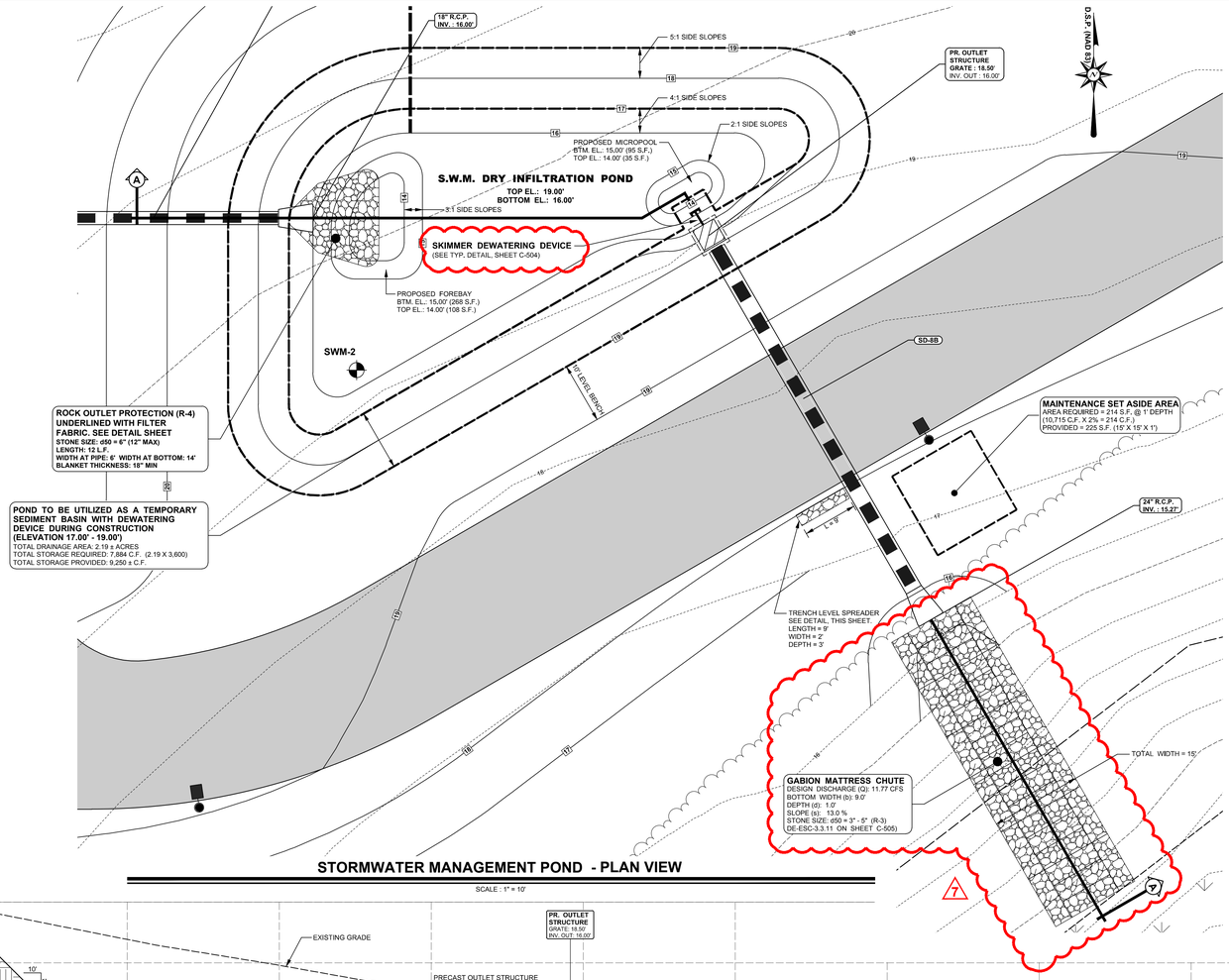
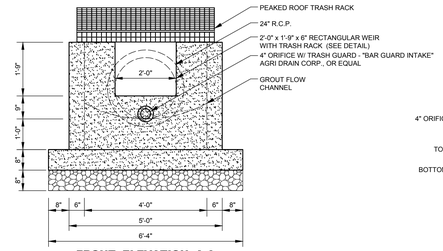


STORMWATER MANAGEMENT POND - PLAN VIEW

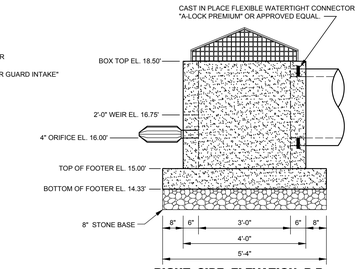
SCALE : 1" = 10'

S.W.M. POND DATA	
POND ELEVATION	AREA (S.F.)
FOREBAY / MICROPOOL EL. : 14.00'	143 S.F.
EL. : 15.00'	363 S.F.
BOTTOM EL. : 16.00'	1,886 S.F.
EL. : 17.00'	2,739 S.F.
EL. : 18.00'	3,915 S.F.
EL. : 19.00'	5,310 S.F.

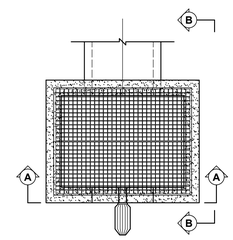
S.W.M. POND STORAGE DATA		
STORM	DESIGN ELEV.	STORAGE
QUALITY - 2.0"	16.20'	1,777 C.F.
2 YEAR - 3.3"	17.00'	3,692 C.F.
10 YEAR - 5.2"	17.53'	5,295 C.F.
100 YEAR - 8.9"	18.17'	7,684 C.F.



FRONT ELEVATION A-A



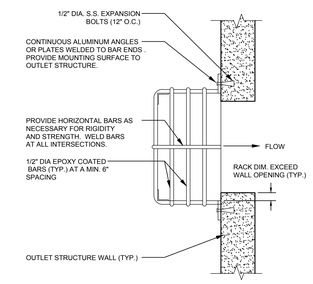
RIGHT SIDE ELEVATION B-B



TOP VIEW

NOTES :

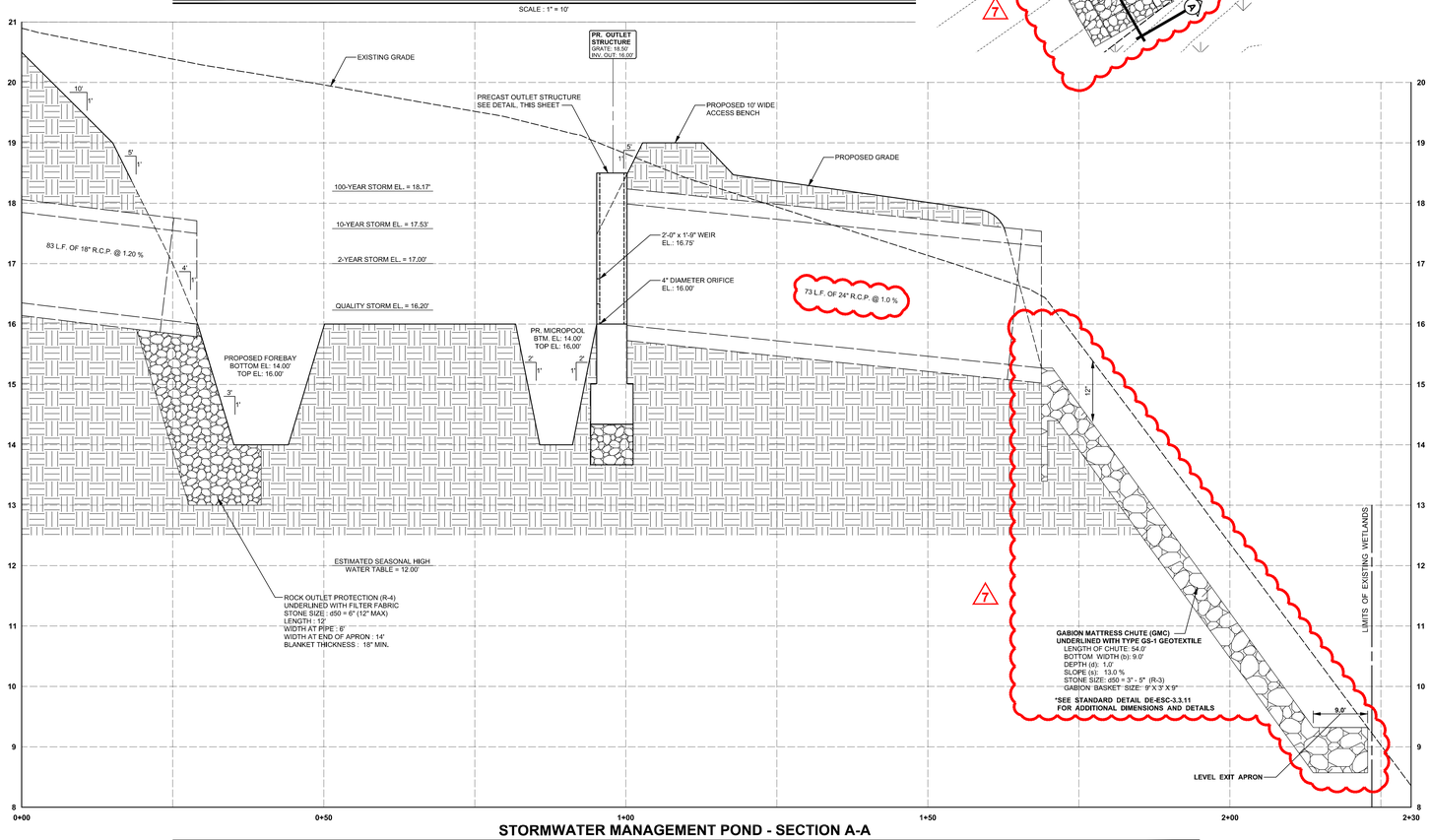
1. ALL CONCRETE SHALL BE 4,000 P.S.I. OR GREATER.
2. MATERIALS AND CONSTRUCTION SHALL COMPLY WITH ASTM DESIGNATION C-890-91.
3. STEPS ARE TO BE PLACED IN ALL INLET BOXES OVER 4' DEEP.
4. OPENINGS IN TRASH RACKS ARE TO BE AT LEAST 3 INCHES.
5. USE PEAKED ROOF TRASH RACK MANUFACTURED BY PLASTIC SOLUTIONS INC., OR EQUAL.
6. PLASTIC SOLUTIONS INC. P.O. BOX 4388 WINCHESTER, VA 22604 (540) 722 - 4694 www.plastic-solution.com



WEIR TRASH RACK DETAIL (TYPICAL)

PRECAST OUTLET STRUCTURE - POND 1

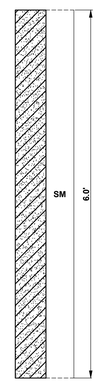
SCALE: 1" = 2'



STORMWATER MANAGEMENT POND - SECTION A-A

SCALE : 1" = 10' HORIZONTAL
: 1" = 1' VERTICAL

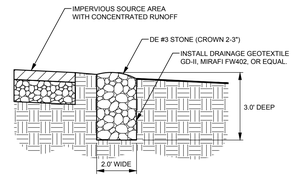
BORING: SWM-2
SURFACE EL.: 19.0' ±



1. GROUNDWATER WAS NOT ENCOUNTERED DURING AUGERING OPERATIONS
2. INFILTRATION TESTING: TIME WEIGHTED AVERAGE = 15.29 in./hr.

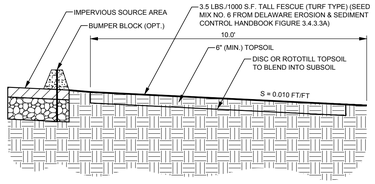
BORING (SWM-2)

SCALE : 1" = 1' VERTICAL



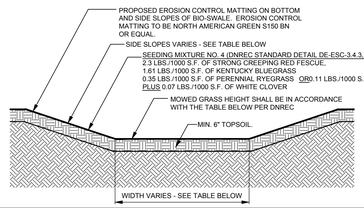
TRENCH LEVEL SPREADER DETAIL

NO SCALE



FILTERSTRIP - CROSS SECTION DETAIL

NO SCALE



BIO-SWALE PARAMETERS						
BIO-SWALE #	BTM. WIDTH	SIDE SLOPES	LENGTH	SLOPE	FLOW DEPTH	MOWED GRASS HEIGHT
1	4 FT.	6:1	700 L.F.	0.65 %	0.44 FT.	11"
2A	6 FT.	6:1	190 L.F.	0.50 %	0.47 FT.	12"
2B	10 FT.	10:1	230 L.F.	0.50 %	0.56 FT.	12"
3	4 FT.	6:1	400 L.F.	0.75 %	0.50 FT.	12"
4	2 FT.	6:1	138 L.F.	1.00 %	0.26 FT.	6"

BIOSWALE CROSS SECTION DETAIL

NO SCALE

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N. MURDERKILL HUNDRED
KENT COUNTY, DELAWARE

BID PACK 1

SHEET TITLE

S.W.M. POND AND BIO-SWALE DETAILS

0 15 30 60

SCALE : 1" = 30'

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LATEST DATE : CBD

PROJECT NO.: 2011116.00
DATE: 08-13-2013
SCALE: 1" = 30'
DRAWN BY: J.S.F. PROJ. MGR.: D.E.H.

SHEET
C-503

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STABILIZATION AND SEEDING NOTES :

1. PERMANENT SEEDING :
   - A. SHALL BE CONDUCTED YEAR AROUND.
   - B. SEED BED PREPARATION : SHALL BE IN ACCORDANCE WITH DE-ESC-3.4.3, SHEET 4 OF 4.
   - C. SOIL AMENDMENTS : FERTILIZER AND LIME APPLICATION SHALL BE IN ACCORDANCE WITH DE-ESC-3.4.3, SHEET 4 OF 4.
   - D. SEEDING : APPLY MIX NO. 7 IN ACCORDANCE WITH DE-ESC-3.4.3, SHEET 2 OF 4. APPLY SEED UNIFORMLY WITH A BROADCAST SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER. ALL SEED WILL BE APPLIED AT THE RECOMMENDED RATE AND PLANTING DEPTH. REFER TO LANDSCAPE PLANS FOR ADDITIONAL SEEDING REQUIREMENTS.
   - E. MULCH : IMMEDIATELY AFTER SEEDING, UNIFORMLY MULCH ENTIRE AREA WITH STRAW AT A RATE OF 2 TONS PER ACRE MINIMUM. ALL MULCHING SHALL BE DONE IN ACCORDANCE WITH DETAIL DE-ESC-3.4.5.
   - F. TOPSOIL : ALL AREAS TO BE PERMANENTLY SEEDED SHALL HAVE A MINIMUM OF 4" OF TOPSOIL.
2. TEMPORARY STABILIZATION :
   - A. PROVIDE SEED BED SAME AS 1-B ABOVE.
   - B. APPLY MIX NO. 5 (ANNUAL RYEGRASS) IN ACCORDANCE WITH DETAIL DE-ESC-3.4.3, SHEET 1 OF 4.
   - C. MULCH SAME AS 1-E ABOVE.
3. IF TEMPORARY STABILIZATION IS REQUIRED, PERMANENT SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.
4. ALL FILL SLOPE AREAS SHOWN ON PLAN ARE TO BE STABILIZED AS PER STATEMENT 1 OR 2 ABOVE IMMEDIATELY AFTER COMPLETION OF GRADING OPERATIONS FOR THESE SLOPES.
5. EROSION CONTROL MATTING IS REQUIRED ON ALL SLOPES OF 3:1 OR GREATER AND IN AREAS OF CONCENTRATED FLOW.

SWM MAINTENANCE AGREEMENT

THE MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES ON-SITE, INCLUDING THE STORM DRAIN SYSTEM, DITCHES, SWALES, PONDS, ETC. SHALL BE THE RESPONSIBILITY OF THE OWNER POST CONSTRUCTION.

AREA OF DISTURBANCE

TOTAL: 12.60 ACRES

ENGINEERS CERTIFICATION

I, DEAN E. HOLDEN, HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF, REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

DEAN E. HOLDEN, P.E. — P.E. NO. 14956 — DATE

OWNERS CERTIFICATION

WE, THE STATE OF DELAWARE, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN.

MARK DEVORE, P.E. - CHIEF OF ENGINEERING AND OPERATIONS — DATE

DIVISION OF FACILITIES MANAGEMENT - OFFICE OF MANAGEMENT AND BUDGET
540 SOUTH DUPONT HIGHWAY - SUITE 1
DOVER, DELAWARE 19901
PHONE : 302-242-8581

EROSION & SEDIMENT CONTROL NOTES :

1. DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIROMENTAL CONTROL (DNREC) MUST BE NOTIFIED IN WRITING FIVE DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. A PRE-CONSTRUCTION MEETING MUST TAKE PLACE BEFORE ANY EARTH DISTURBING ACTIVITY BEGINS. THE MEETING MUST BE ATTENDED BY AN OWNER'S REPRESENTATIVE, CONTRACTOR, CCR (IF REQUIRED FOR THE SITE), AND DNREC REPRESENTATIVE.
3. APPROVAL OF A SEDIMENT AND STORM WATER PLAN SHALL NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORM WATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
4. REVIEW AND OR APPROVAL OF THE SEDIMENT AND STORM WATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE SEDIMENT AND STORM WATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
5. IF THE APPROVED PLAN NEEDS TO MODIFIED, ADDITIONAL SEDIMENT AND STORM WATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE DNREC.
6. THE CONDITIONAL APPROVAL FOR THIS SITE IS VALID FOR THREE (3) YEARS FROM THE APPROVAL DATE STAMPED ON THE PLAN BY DNREC.
7. THE DNREC RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE INSPECTION.
8. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
9. PERIODIC MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES IS REQUIRED TO INSURE EFFECTIVE SEDIMENT CONTROL. INSPECTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE AT LEAST WEEKLY AND AFTER EACH RAINFALL EVENT. REPAIRS SHALL BE MADE WITHIN 24 HOURS OF THE RAIN EVENT OR WHEN OTHERWISE IDENTIFIED.
10. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION CONTROL HANDBOOK, DATED 2003 OR LATEST EDITION THEREOF.
11. THE SEQUENCE OF CONSTRUCTION ON THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN MUST BE STRICTLY ADHERED. ANY DIVERGENCE FROM THE APPROVED CONSTRUCTION SEQUENCE REQUIRES A WRITTEN REQUEST TO MODIFY AND THE WRITTEN APPROVAL OF DNREC.
12. A COPY OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN MUST BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.
13. ALL SITE DEWATERING SHALL BE DONE THROUGH AN APPROVED FILTRATION DEVICE. THE SEDIMENT FILTER MUST BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA. A DNREC INSPECTOR MUST APPROVE DEWATERING FILTER PLACEMENT AND USE PRIOR TO COMMENCEMENT OF DEWATERING ACTIVITIES. CONTRACTOR MUST OBTAIN A DEWATERING PERMIT PRIOR TO COMMENCEMENT OF DEWATERING ACTIVITIES. CONTACT PATTY MURRAY - DNREC, (302) 739-9945.
14. SOIL STOCKPILE AREAS MUST BE DELINEATED. LOCATE STOCKPILES ON AREAS WITH LITTLE OR NO SLOPE. STOCKPILES MUST BE SURROUNDED WITH SILT FENCE OR A STABILIZED EARTHEN BERM. STOCKPILE AREAS MUST BE SEEDED WITH TEMPORARY SEEDING MIXTURE AND MULCHED.
15. TO PREVENT OR REDUCE THE MOVEMENT OF DUST FROM DISTURBED SOIL SURFACES THE SITE SHALL BE SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST AND REPEATED AS NECESSARY. ALTERNATIVE METHODS OF DUST CONTROL REQUIRE APPROVAL OF DNREC.
16. DNREC RESERVES THE RIGHT TO WITHHOLD PERMITS AND LETTERS OF NO OBJECTION RELATED TO OBTAINING CERTIFICATES OF OCCUPANCY FROM THE LOCAL JURISDICTION FOR NON COMPLIANCE WITH THE PLANS AND SPECIFICATIONS FOR STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL.
17. ALL EROSION AND SEDIMENT CONTROL DEVICES AND STABILIZATION SHALL CONFORM TO DNREC STANDARDS AND SPECIFICATIONS.
18. DNREC RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE SEDIMENT CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.
19. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES AND STORMWATER MANAGEMENT PRACTICES DURING CONSTRUCTION.
20. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PROVIDE LONG TERM MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN.
21. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS BY A STABILIZED CONSTRUCTION ENTRANCE.
22. EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.
23. SEDIMENT CONTROL FOR UTILITY CONSTRUCTION IN AREAS OUTSIDE OF DESIGNED CONTROLS:
    - A. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH.
    - B. IMMEDIATELY FOLLOWING PIPE INSTALLATION THE TRENCH SHALL BE BACK FILLED, COMPACTED AND STABILIZED
    - C. TEMPORARY SILT FENCE OR STRAW BALE DIKES SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE WORKING DAY.
24. THE CONTRACTOR SHALL ENSURE WATERTIGHT SEALS AT ALL STORM DRAIN PIPE AND CATCH BASIN CONNECTIONS.
25. CONTRACTOR TO PROVIDE CERTIFIED CONSTRUCTION REVIEWER (C.C.R.) FOR SEDIMENT AND STORMWATER MANAGEMENT REVIEWS. REVIEWS MUST BE SUBMITTED TO DNREC SITE INSPECTOR WEEKLY AND FOLLOWING EACH RAINFALL.

Standard Detail & Specifications
Site Pollution Prevention

Notes:

The Construction Site Pollution Prevention Plan should include the following elements:

1. **Material Inventory**
   Document the storage and use of the following materials:
   - a. Concrete
   - b. Detergents
   - c. Paints (enamel and latex)
   - d. Cleaning solvents
   - e. Pesticides
   - f. Wood scraps
   - g. Fertilizers
   - h. Petroleum based products
2. **Good housekeeping practices**
   - a. Store only enough product required to do the job.
   - b. All materials shall be stored in a neat, orderly manner in their original labeled containers and covered.
   - c. Substances shall not be mixed.
   - d. When possible, all of a product shall be used up prior to disposal of the container.
   - e. Manufacturers' instructions for disposal shall be strictly adhered to.
   - f. The site foreman shall designate someone to inspect all BMPs daily.
3. **Waste management practices**
   - a. All waste materials shall be collected and stored in securely lidded dumpsters in a location that does not drain to a waterbody.
   - b. Waste materials shall be salvaged and/or recycled whenever possible.
   - c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed trash hauler is responsible for cleaning out dumpsters.

Source: Adapted from USEPA Pub. 840-B-92-002 | Symbol: | Detail No. **DE-ESC-3.6.1** Sheet 1 of 3 | Date: 6/05

Standard Detail & Specifications
Site Pollution Prevention

Notes (cont.)

- d. Trash shall be disposed of in accordance with all applicable Delaware laws.
- e. Trash cans shall be placed at all lunch spots and littering is strictly prohibited. Recycle bins shall be placed near the construction trailer.
- f. If fertilizer bags can not be stored in a weather-proof location, they shall be kept on a pallet and covered with plastic sheeting which is overlapped and anchored.

4. **Equipment maintenance practices**
   - a. If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.
   - b. If performed on-site, vehicles shall be washed with high-pressure water spray without detergents in an area contained by an impervious berm.
   - c. Drip pans shall be used for all equipment maintenance.
   - d. Equipment shall be inspected for leaks on a daily basis.
   - e. Washout from concrete trucks shall be disposed of in a temporary pit for hardening and proper disposal.
   - f. Fuel nozzles shall be equipped with automatic shut-off valves.
   - g. All used products such as oil, antifreeze, solvents and tires shall be disposed of in accordance with manufacturers' recommendations and local, state and federal laws and regulations.
5. **Spill prevention practices**
   - a. Potential spill areas shall be identified and contained in covered areas with no connection to the storm drain system.
   - b. Warning signs shall be posted in hazardous material storage areas.
   - c. Preventive maintenance shall be performed on all tanks, valves, pumps, pipes and other equipment as necessary.
   - d. Low or non-toxic substances shall be prioritized for use.

Source: Adapted from USEPA Pub. 840-B-92-002 | Symbol: | Detail No. **DE-ESC-3.6.1** Sheet 2 of 3 | Date: 6/05

Standard Detail & Specifications
Site Pollution Prevention

Notes (cont.)

- e. Contact information for reporting spills through the DNREC 24-Hour Toll Free Number shall be prominently posted.
6. **Education**
   - a. Best management practices for construction site pollution control shall be a part of regular progress meetings.
   - b. Information regarding waste management, equipment maintenance and spill prevention shall be prominently posted in the construction trailer.

CONTACT INFORMATION

DNREC 24-Hour Toll Free Number	**800-662-8802**
DNREC Solid & Hazardous Waste Branch	**302-739-9403**

Source: Adapted from USEPA Pub. 840-B-92-002 | Symbol: | Detail No. **DE-ESC-3.6.1** Sheet 3 of 3 | Date: 6/05

Standard Detail & Specifications
Vegetative Stabilization

TEMPORARY SEEDING BY RATES, DEPTHS AND DATES

Mix #	Species[1]	Seeding Rate	Optimum Seeding Dates[1] (O = Optimum Planting Period, A = Acceptable Planting Period)								Planting Depth[2]
			Coastal Plain			Piedmont			All		
	Certified Seed	lb/ac	8/1-8/31	9/1-9/15	9/16-10/15	8/1-8/31	9/1-9/15	9/16-10/15	10/16-3/31	10/31-3/1	
1	Barley	128	4	O	A	O	O	A	O		1-2 inches 2-3" sandy soils
2	Oats	128	4	O	A	O	O	A	A		1-2 inches 2-3" sandy soils
3	Rye	128	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
4	Perennial Ryegrass	125	4	O	A	O	O	A	O		0.5 inches 1-2" sandy soils
5	Annual Ryegrass	125	4	O	A	O	O	A	O	A	0.5 inches 1-2" sandy soils
6	Winter Wheat	128	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
7	Foxtail Millet	30 PLS	0.7		O			O			0.5 inches 1-2" sandy soils
8	Pearl Millet	22 PLS	0.5		O			O			0.5 inches 1-2" sandy soils

1. Winter seeding requires 3 tons per acre of straw mulch for proper stabilization.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Applicable on slopes 3:1 or less.
4. Fifty pounds per acre of Annual Lespedeza may be added to 1/2 the seeding rate of any of the above species.
5. Use varieties currently recommenced for Delaware. Contact a County Extension Office for information.
6. Warm season grasses such as Millet or Weeping Lovegrass may be used between 5/1 and 8/1 if desired. Seed at 3-5 lbs. per acre. Good on low fertility and acid areas. Seed after frost through summer at a depth of 0.5".

Source: Delaware ESC Handbook | Symbol: | Detail No. **DE-ESC-3.4.3** Sheet 1 of 4 | Date: 12/05

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES

Seeding Mixtures		Seeding Rate[1]	Optimum Seeding Dates[1] (O = Optimum Planting Period, A = Acceptable Planting Period)								Remarks
Mix No.	Certified Seed[2]		Coastal Plain			Piedmont			All[3]		
	Wet Drained Soils	lb/ac	8/1-9/30	10/1-10/15	10/16-3/15	8/1-9/30	10/1-10/15	10/16-3/15	3/16-7/31	10/31-3/1	
1	Tall Fescue	120	4	O	A	O	O	A	O	A	Good erosion control mix. Tolerant of low fertility soils. Drought tolerant. Plant in Coastal Plain only if most weather
	Weeping Lovegrass	10	0.25								
2	Deertongue	30	0.88	A	O	A	A	O	A		Good erosion control mix. Tolerant of low fertility soils. Good wildlife cover and food
	Sheep Fescue	30	0.50								
	Common Lespedeza[4]	15	0.38								
3	Tall Fescue	30	0.6	O	A	O	O	A	A		Good erosion control mix. Tall Fescue for drought tolerance and wildlife. Fescue for heavy shade. Fescue is a potential toxicity vegetation.
	Chewings Fine Fescue	40	1.0								
	Strong Creeping Red Fescue	40	1.0								
	Perennial Ryegrass	10	0.25								
4	Tall Fescue (Tall Fescue for Strong Creeping Red Fescue in Perennial Ryegrass	40	1.0	O	A	O	O	A	A		Good erosion control mix. Tall Fescue for drought tolerance and wildlife. Fescue for heavy shade. Fescue is a potential toxicity vegetation.
		40	1.0								
		10	0.25								
5	Rye	120	4	O	A	O	O	A	A	A	Add 100 lbs. lime. Suitable for winter stabilization.
	Strong Creeping Red Fescue	70	1.75								
	Kentucky Bluegrass or Perennial Ryegrass or Redtop	10	1.61								
		5	0.25								
	Rye	56	1.12								
6	White Clover[4]	2	0.07								Native warm season mixture. Tolerant of low fertility soils. Drought tolerant. Poor shade tolerance. Establishment slow but lasting.
	Big Bluestem	10	0.25	O			O				
	Indian Grass	10	0.25								
	Switchgrass[4]	2	0.01								
	Coastal Panicgrass	10	0.25								
	Big Bluestem (Bend)	30	0.41								
	Perennial Ryegrass	20	0.46								
7	Big Bluestem[4]	10	0.25	O	A		O	A			All species are native. Indian Grass and Bluestem have to be planted in a mix to establish native swards. Creeping Red Fescue will provide erosion protection while the warm season grasses get established.
	Indian Grass[4]	10	0.25								
	Switchgrass[4]	2	0.01								
	Creeping Red Fescue	30	0.69								
	plus one of:										
	Partridge Pea	5	0.01								
	Bush Clover	3	0.07								
	Lespedeza	4	0.09								
	Showy Ticktrefoil	3	0.08								

1. Winter seeding requires 3 tons per acre of straw mulch for proper stabilization.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Applicable on slopes 3:1 or less.
4. Fifty pounds per acre of Annual Lespedeza may be added to 1/2 the seeding rate of any of the above species.
5. Use varieties currently recommenced for Delaware. Contact a County Extension Office for information.
6. Warm season grasses such as Millet or Weeping Lovegrass may be used between 5/1 and 8/1 if desired. Seed at 3-5 lbs. per acre. Good on low fertility and acid areas. Seed after frost through summer at a depth of 0.5".

Source: Delaware ESC Handbook | Symbol: | Detail No. **DE-ESC-3.4.3** Sheet 2 of 4 | Date: 12/05

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES (cont.)

Seeding Mixtures		Seeding Rate[1]	Optimum Seeding Dates[1] (O = Optimum Planting Period, A = Acceptable Planting Period)								Remarks
Mix No.	Certified Seed[2]		Coastal Plain			Piedmont			All[3]		
	Poorly Drained Soils	lb/ac	8/1-9/30	10/1-10/15	10/16-3/15	8/1-9/30	10/1-10/15	10/16-3/15	3/16-7/31	10/31-3/1	
8	Redtop	10	0.25	O	A	O	O	A	A		Add 100 lbs. lime. Suitable for winter stabilization.
	Creeping Bentgrass	5	0.12								
	Seashore Paspalum	10	0.25								
	Weeping Lovegrass	5	0.12								
	Rough Bluegrass	20	0.91								
10	Weeping Lovegrass[4]	10	0.23	A	O	A	A	O		O	Good erosion control, wildlife cover and wetland revegetation.
	Reed Canarygrass[4]	10	0.23								
	Residential Lawns										
11	Tall Fescue	100	2.3	O	A	O	O	A	A	O	High value, high maintenance, light traffic, irrigation necessary. Well drained soils, full sun.
	Perennial Ryegrass	20	0.46								
	Kentucky Bluegrass (Sand)	30	0.69								
12	Tall Fescue	100	2.3	O	A	O	O	A	A	O	Moderate value, low maintenance, traffic tolerant. Shade tolerant, drought and cold tolerant, moderate maintenance.
	Perennial Ryegrass	20	0.46								
	Sheep Fescue	20	0.69								
13	Creeping Red Fescue	50	1.15	O	A	O	O	A	A	O	Shade tolerant, moderate value, low maintenance.
	Kentucky Bluegrass	30	1.15								
	Rough Bluegrass	20	0.4								
	Kentucky Bluegrass	50	1.15								
14	Creeping Red Fescue	50	1.15	O	A	O	O	A	A	O	Shade tolerant, moderate maintenance.
	Kentucky Bluegrass	30	0.7								
	Chewings Fescue	20	0.46								
15	KY-31 Tall Fescue	100	2.3	O	A	O	O	A	A	O	Monoculture, not performing well alone in lawns. Discouraged.

1. When hydroseeding is the chosen method of application, the total rate of seed should be increased by 25%.
2. Winter seeding requires 3 tons per acre of straw mulch. Planting dates listed above are average for Delaware. These dates may require adjustment to reflect local conditions.
3. Seeding outside these the minimum purity and minimum germination percentages recommended by the Delaware Department of Agriculture. The maximum % of weed seeds shall be in accordance with Section 1, Chapter 24, Title 3 of the Delaware Code.
4. Cold season species may be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
5. Use varieties currently recommenced for Delaware.
6. Warm season grass mix and Reed Canary Grass cannot be mowed more that 4 times per year.
7. Warm season grasses require a soil temperature of at least 50 degrees in order to germinate, and will remain dormant until then.

Source: Delaware ESC Handbook | Symbol: | Detail No. **DE-ESC-3.4.3** Sheet 3 of 4 | Date: 12/05

Standard Detail & Specifications
Vegetative Stabilization

Construction Notes:

1. Site Preparation
   - a. Prior to seeding, install needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, grassed waterways, and sediment basins.
   - b. Final grading and shaping is not necessary for temporary seedings.
2. Seedbed Preparation

   It is important to prepare a good seedbed to insure the success of establishing vegetation. The seedbed should be well prepared, loose, uniform, and free of large clods, rocks, and other objectionable material. The soil surface should not be compacted or crusted.
3. Soil Amendments
   - a. Lime - Apply liming materials based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply dolomitic limestone at the rate of 1 to 2 tons per acre. Apply limestone uniformly and incorporate into the top 4 to 6 inches of soil.
   - b. Fertilizer - Apply fertilizer based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply a formulation of 10-10-10 at the rate of 600 pounds per acre. Apply fertilizer uniformly and incorporate into the top 4 to 6 inches of soils.
4. Seeding
   - a. For **temporary stabilization**, select a mixture from **Sheet 1 .** For a **permanent stabilization**, select a mixture from **Sheet 2** or **Sheet 3** depending on the conditions.
   - b. Apply seed uniformly with a broadcast seeder, drill, cultipacker seeder or hydroseeder. All seed will be applied at the recommended rate and planting depth.
   - c. Seed that has been broadcast should be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used the seed and fertilizer is mixed, they will be mixed on site and the seeding shall be done immediately and without interruption.
5. Mulching

   All mulching shall be done in accordance with detail **DE-ESC-3.4.5**.

Source: Delaware ESC Handbook | Symbol: | Detail No. **DE-ESC-3.4.3** Sheet 4 of 4 | Date: 12/05

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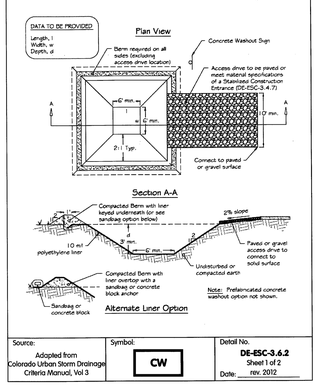
Standard Detail & Specifications
Concrete Washout



Source: Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3 | Symbol: CW | Detail No. **DE-ESC-3.6.2** Sheet 1 of 2 | Date: rev. 2012

DRAFT

Standard Detail & Specifications
Concrete Washout

Construction Notes:

1. Locate washout area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.
2. Locate washout area so that it is accessible to concrete equipment (service with a minimum 10 foot wide gravel accessway), but so it is not in a highly active construction area causing accidental damage.
3. Minimum dimensions for prefabricated units are 4 feet by 4 feet by 1 foot deep with a minimum 4-mil polyethylene plastic liner. Minimum dimensions for constructed concrete washout areas are 6 feet by 6 feet by 3 feet deep, with a minimum 10mil polyethylene liner, 2:1 side slopes, and a 1 foot high by 1 foot wide compacted fill berm.
4. The liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing. For excavated washouts, anchor the liner underneath the berm or overtop with sandbags or concrete blocks to hold in place.
5. Provide a sign designating the washout area, and for large construction sites, provide signs throughout directing traffic to its location.
6. Allow washed out concrete mixture to harden through evaporation of the wastewater. Once the facility has reached 75 percent of its capacity, remove the hardened concrete by reusing the broken aggregate onsite, recycling, or disposing of offsite. The hardened material can be buried on site with minimum of 1 foot of clean, compacted fill.
7. Apply a new liner before reusing the station for additional washouts after maintenance has occurred.

Source: Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3 | Symbol: CW | Detail No. **DE-ESC-3.6.2** Sheet 2 of 2 | Date: rev. 2012

Standard Detail & Specifications
Mulching

1. **Materials and Amounts**
   - a. *Straw* - Straw shall be unrotted small grain straw applied at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds (two bales) per 1,000 square feet. Mulch materials shall be relatively free of weeds and shall be free of noxious weeds such as, thistles, Johnsongrass, and quackgrass. Spread mulch uniformly by hand or mechanically. For uniform distribution of hand spread mulch, divide area into approximately 1,000 square feet sections and place 70-90 pounds (two bales) of mulch in each section.
   - b. *Wood chips* - Apply at the rate of approximately 6 tons per acre or 275 pounds per 1,000 square feet when available and when feasible. These are particularly well suited for utility and road rights-of-way. If wood chips are used, increase the application rate of nitrogen fertilizer by 20 pounds of N per acre (200 pounds of 10-10-10 or 6-6 pounds of 30-0-0 per acre).
   - c. *Hydraulically applied mulch* - The following conditions apply to hydraulically applied mulch:
     - i. Definitions:
       - a. Wood fiber mulch shall consist of specially prepared wood that has been processed to a uniform state, is packaged for sale as a hydraulic mulch for use with hydraulic seeding equipment, and consists of a minimum of 70% virgin or recycled wood fiber combined with 30% paper fiber and additives.
       - b. Blended fiber mulch shall consist of any hydraulic mulch that contains greater than 30% paper fiber. The paper component must consist of specially prepared paper that has been processed to a uniform fibrous state and is packaged for sale as a hydraulic mulch for use with hydraulic seeding equipment.
       - c. A bonded fiber matrix (BFM) consists of long strand, specially prepared wood fibers that have been processed to a uniform state held together by a water resistant bonding agent. BFMs shall contain no paper (cellulose) mulch but may contain small percentages of synthetic fibers to enhance performance.
       - d. Refer to **Figure 3.4.5a** for conditions and limitations of use for each of the above categories of hydraulic mulch.
     - ii. All components of the hydraulically applied mulches shall be pre-packaged by the manufacturer to assure material performance. Field mixing of the mulch components is acceptable, but must be done per manufacturers recommendations to ensure the proper results.
     - iii. Hydraulic mulches shall be applied with a visible seed and at manufacturer's recommended rates. Increased rates may be necessary based on site conditions.
     - iv. Hydraulically applied mulches and additives shall be mixed according to manufacturers recommendations.
     - v. Materials within this category shall only be used when hydraulically applied mulch has been specified for use on the approved Sediment and Stormwater Plan, or supplemental approval from the plan approval agency has been obtained in writing for a specific area.

Source: Delaware ESC Handbook | Symbol: | Detail No. **DE-ESC-3.4.5** Sheet 1 of 3 | Date: 6/05

Standard Detail & Specifications
Mulching

- v. Application:
  - a. Apply product to geotechnically stable slopes that have been designed and constructed to divert runoff away from the face of the slope.
  - b. Do not apply to saturated soils, or if precipitation is anticipated within 24-48 hours.
  - c. During the spring (March 1 to May 31) and fall (September 1 to November 30) seasons, hydraulic mulches may be applied in a one-step process where all components are mixed together in single-tank loads. It is recommended that the product be applied from opposing directions to achieve optimum soil coverage.
  - d. During the summer (June 1 to August 31) and winter (December 1 to February 28) seasons, the following two-step process is required:
    - Step One- Mix and apply seed and soil amendments with a small amount of mulch for visual metering.
    - Step Two – Mix and apply mulch at manufacturers recommended rates over freshly seeded surfaces. Apply from opposing directions to achieve optimum soil coverage.
  - e. Minimum curing temperature is 40°F (4°C). The best results and more rapid curing are achieved at temperatures exceeding 60°F (15°C). Curing times may be accelerated in high temperature, low humidity conditions on dry soils.
- vi. Recommended application rates are for informational purposes only. Conformance with this standard and specification shall be performance-based and requires **100% soil coverage**. Any areas with bare soil showing shall be top dressed until full coverage is achieved.

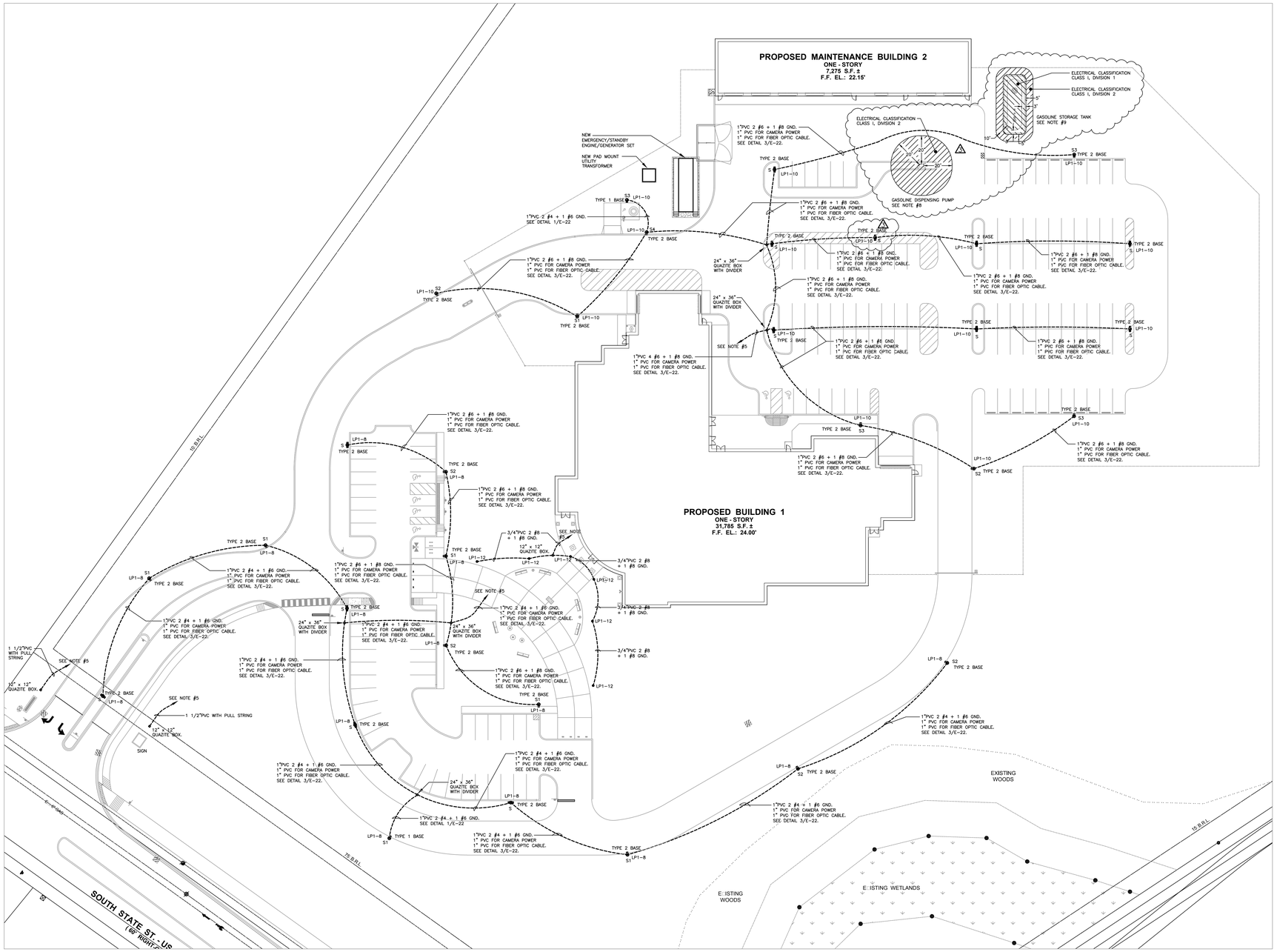
2. **Anchoring mulch** - Mulch must be anchored immediately to minimize loss by wind or water. This may be done by one of the following methods, depending upon size of area, erosion hazard, and cost.
   - a. *Crimping* - A crimper is a tractor drawn implement designed to punch and anchor mulch into the top two (2) inches of soil. This practice affords maximum erosion control but is limited to flatter slopes where equipment can operate safely. On sloping land, crimping should be done on the contour whenever possible.
   - b. *Tracking* - Tracking is the process of cutting mulch (usually straw) into the soil using a bulldozer or other equipment that runs on cleated tracks. Tracking is used primarily on slopes 3:1 or steeper and should be done up and down the slope with cleat marks running across the slope.
   - c. *Liquid mulch binders* - Applications of liquid mulch binders should be heavier at edges, in valleys, and at crests of banks and other areas where the mulch will be moved by wind or water. All other areas should have a uniform application of binder. The use of synthetic binders is the preferred method of mulch binding and should be applied at the rates recommended by the manufacturer.
   - d. *Paper fiber* - The fiber binder shall be applied at a net dry weight of 750 lbs/ac. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons.
   - e. *Nettings* - Synthetic or organic nettings may be used to secure straw mulch. Install and secure according to the manufacturers recommendations.

Source: Delaware ESC Handbook | Symbol: | Detail No. **DE-ESC-3.4.5** Sheet 2 of 3 | Date: 6/05

Standard Detail & Specifications
Mulching

MULCHING MATERIAL SELECTION GUIDE

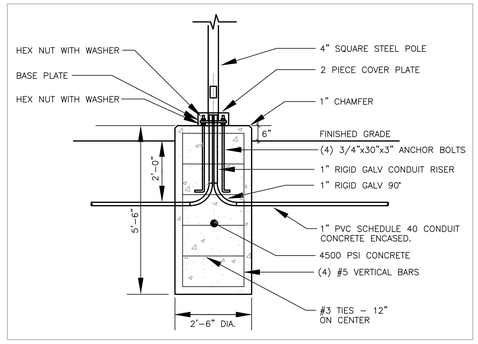
Mulching Material	Slope of Mulch Land Area	Seeding Mixtures Suitable for Mulching	Seeding Mixtures Not Suitable for Mulching	Seeding Mixtures Suitable for Mulching	Seeding Mixtures Not Suitable for Mulching	Seeding Mixtures Suitable for Mulching	Seeding Mixtures Not Suitable for Mulching	Seeding Mixtures Suitable for Mulching	Seeding Mixtures Not Suitable for Mulching
Straw or Hay Mulch	Level to 3:1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15		1, 2,



1 SITE PLAN – ELECTRICAL LIGHTING
E-20 SCALE: 1/32"=1'-0"

NOTES:

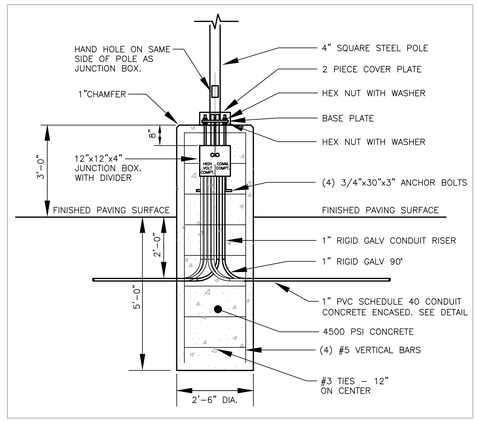
1. THIS DRAWING IS DIAGRAMMATIC ONLY: EXACT LOCATION, MOUNTING HEIGHTS OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED WITH THE EQUIPMENT REQUIREMENTS AND FIELD CONDITIONS.
2. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION AND ROUGHING IN DIMENSIONS OF ALL EQUIPMENT AND MAKE ALL FINAL CONNECTIONS AS REQUIRED. I.E. POWER, CONTROL, INTERLOCK, ETC.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE ELECTRICAL WORK COMPLETE, AND READY FOR OPERATION.
4. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY SUPPORTS AND HARDWARE FOR MOUNTING OF ELECTRICAL EQUIPMENT INCLUDED IN THIS PROJECT.
5. EXTEND ALL CONDUIT DUCT BANKS TO WITHIN 5'-0" OF THE BUILDING AND STOP. CAP ALL CONDUITS WITH PVC CAP. PROVIDE WOODEN STAKE TO MARK THE END OF THE DUCT BANK.
6. PROVIDE PULL STRING IN ALL CONDUITS.
7. THE BRANCH CIRCUIT WIRING, WIRING FOR THE CAMERA POWER, AND THE FIBER OPTIC CABLES ARE NOT PART OF BID PACK 1. THEY WILL BE FURNISHED AND INSTALLED AS PART OF BID PACK 2.
8. UNDERGROUND CONDUITS ARE NOT PERMITTED WITHIN THE ELECTRICALLY CLASSIFIED AREA. ONLY CONDUITS THAT ARE ASSOCIATED WITH THE GASOLINE DISPENSING PUMP ARE PERMITTED WITHIN THE AREA. (3)
9. UNDERGROUND CONDUITS ARE NOT PERMITTED WITHIN THE ELECTRICALLY CLASSIFIED AREA. ONLY CONDUITS THAT ARE ASSOCIATED WITH THE ABOVE GROUND GASOLINE STORAGE TANK ARE PERMITTED WITHIN THE AREA.



2 CONCRTE ANCHOR BASE – TYPE 1
E-20 SCALE: NONE

NOTES:

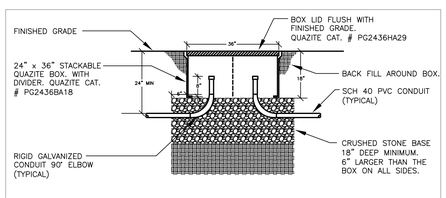
1. ANCHOR BOLTS TO BE FURNISHED BY THE POLE MANUFACTURER WITH THE POLE.
2. ANCHOR BOLT PATTERN TO BE PER THE MANUFACTURER'S FURNISHED TEMPLATE ONLY.
3. PROVIDE GROUT UNDER BASE PLATE AFTER POLE HAS BEEN SET AND PLUMBED.
4. ANCHOR BASE DETAIL MUST BE VERIFIED.



3 CONCRTE ANCHOR BASE – TYPE 2
E-20 SCALE: NONE

NOTES:

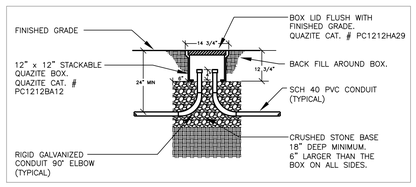
1. ANCHOR BOLTS TO BE FURNISHED BY THE POLE MANUFACTURER WITH THE POLE.
2. ANCHOR BOLT PATTERN TO BE PER THE MANUFACTURER'S FURNISHED TEMPLATE ONLY.
3. PROVIDE GROUT UNDER BASE PLATE AFTER POLE HAS BEEN SET AND PLUMBED.
4. ANCHOR BASE DETAIL MUST BE VERIFIED.
5. JUNCTION BOX SHALL BE CARLON NONMETALLIC CURVED LID J-BOX WITH DIVIDER. CARLON CAT. # E1212C24/E1212DIV



6 24 x 36 QUAZITE BOX DETAIL
E-20 SCALE: NONE

NOTES:

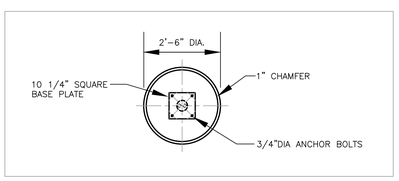
1. BOX SHALL BE 24" X 36" WITH OPEN BOTTOM. QUAZITE, PG STYLE, PART # PG2436BA18.
2. HEAVY DUTY COVER WITH 2 BOLTS TO HAVE THE WORD "LIGHTING" ENGRAVED ON THE TOP. QUAZITE PART # PG2436HA29.
3. THE TOP OF THE JUNCTION BOX TO INSTALLED FLUSH WITH FINISHED GRADE.
4. PROVIDE WIRE NUTS UL LISTED SUITABLE FOR USE BELOW GRADE, PREFILLED WITH 100% SILICONE SEALANT FOR WIRE SIZES #8 AWG AND SMALLER. IDEAL MODEL 66 BLUE/DARK BLUE.
5. PROVIDE POLARIS INSULATED IN-LINE SPLICES SUITABLE FOR DIRECT BURIAL IN THE PULL BOX, FOR WIRE SIZES #6 AWG AND LARGER.



5 12 x 12 QUAZITE BOX DETAIL
E-20 SCALE: NONE

NOTES:

1. BOX SHALL BE 12" X 12" WITH OPEN BOTTOM. QUAZITE, PC STYLE, PART # PC1212BA12.
2. HEAVY DUTY COVER WITH 2 BOLTS TO HAVE THE WORD "LIGHTING" ENGRAVED ON THE TOP. QUAZITE PART # PC1212HA29.
3. THE TOP OF THE JUNCTION BOX TO INSTALLED FLUSH WITH FINISHED GRADE.
4. PROVIDE WIRE NUTS UL LISTED SUITABLE FOR USE BELOW GRADE, PREFILLED WITH 100% SILICONE SEALANT FOR WIRE SIZES #8 AWG AND SMALLER. IDEAL MODEL 66 BLUE/DARK BLUE.
5. PROVIDE POLARIS INSULATED IN-LINE SPLICES SUITABLE FOR DIRECT BURIAL IN THE PULL BOX, FOR WIRE SIZES #6 AWG AND LARGER.



4 ANCHOR BASE TOP – DETAIL
E-20 SCALE: 1/32"=1'-0"

NOTES:

1. ANCHOR BOLTS TO BE FURNISHED BY THE POLE MANUFACTURER WITH THE POLE.
2. ANCHOR BOLT PATTERN TO BE PER THE MANUFACTURER'S FURNISHED TEMPLATE ONLY.
3. PROVIDE GROUT UNDER BASE PLATE AFTER POLE HAS BEEN SET AND PLUMBED.
4. ANCHOR BASE DETAIL MUST BE VERIFIED.

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302.738.7172 fax: 302.738.7175

THE PROFESSIONAL SERVICES OF THE ARCHITECT ARE UNDERTAKEN FOR AND ARE PERFORMED IN THE INTEREST OF: 1) DELAWARE STATE POLICE

NO CONTRACTUAL OBLIGATION IS ASSUMED BY THE ARCHITECT FOR THE BENEFIT OF ANY OTHER PERSON INVOLVED IN THE PROJECT.

PROJECT TITLE

DELAWARE STATE POLICE TROOP 3

SOUTH STATE STREET
KENT COUNTY, DELAWARE

DE DFM Contract # MJ4506000001

SHEET TITLE

ELECTRICAL
SITE - LIGHTING

ISSUE BLOCK

Mar	Date	Descr / to
1	10/9/13	BID PAK 1
2	10/25/13	ADDENDUM #2
3	10/31/13	GENERAL REVISIONS

Rev s o Sc edule

PROJECT NO: 13P047
DATE: 4 10 13
SCALE: AS NOTED
DRAWN BY: DEDC PROJ MG DEDC

E-20

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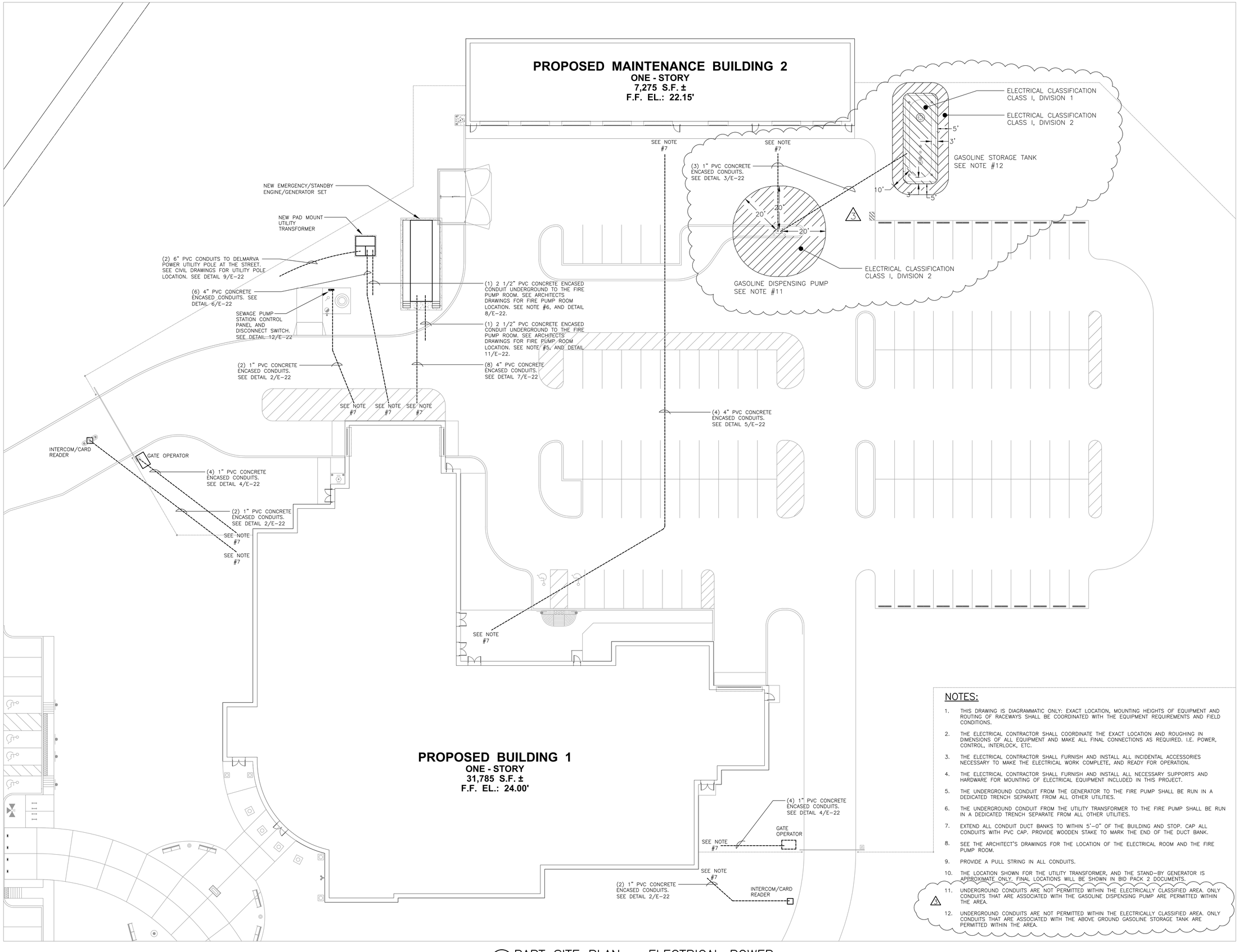

NOTES:

1. THIS DRAWING IS DIAGRAMMATIC ONLY: EXACT LOCATION, MOUNTING HEIGHTS OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED WITH THE EQUIPMENT REQUIREMENTS AND FIELD CONDITIONS.
2. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION AND ROUGHING IN DIMENSIONS OF ALL EQUIPMENT AND MAKE ALL FINAL CONNECTIONS AS REQUIRED. I.E. POWER, CONTROL, INTERLOCK, ETC.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE ELECTRICAL WORK COMPLETE, AND READY FOR OPERATION.
4. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY SUPPORTS AND HARDWARE FOR MOUNTING OF ELECTRICAL EQUIPMENT INCLUDED IN THIS PROJECT.
5. THE UNDERGROUND CONDUIT FROM THE GENERATOR TO THE FIRE PUMP SHALL BE RUN IN A DEDICATED TRENCH SEPARATE FROM ALL OTHER UTILITIES.
6. THE UNDERGROUND CONDUIT FROM THE UTILITY TRANSFORMER TO THE FIRE PUMP SHALL BE RUN IN A DEDICATED TRENCH SEPARATE FROM ALL OTHER UTILITIES.
7. EXTEND ALL CONDUIT DUCT BANKS TO WITHIN 5'-0" OF THE BUILDING AND STOP. CAP ALL CONDUITS WITH PVC CAP. PROVIDE WOODEN STAKE TO MARK THE END OF THE DUCT BANK.
8. SEE THE ARCHITECT'S DRAWINGS FOR THE LOCATION OF THE ELECTRICAL ROOM AND THE FIRE PUMP ROOM.
9. PROVIDE A PULL STRING IN ALL CONDUITS.
10. THE LOCATION SHOWN FOR THE UTILITY TRANSFORMER, AND THE STAND-BY GENERATOR IS APPROXIMATE ONLY. FINAL LOCATIONS WILL BE SHOWN IN BID PACK 2 DOCUMENTS.
11. UNDERGROUND CONDUITS ARE NOT PERMITTED WITHIN THE ELECTRICALLY CLASSIFIED AREA. ONLY CONDUITS THAT ARE ASSOCIATED WITH THE GASOLINE DISPENSING PUMP ARE PERMITTED WITHIN THE AREA.
12. UNDERGROUND CONDUITS ARE NOT PERMITTED WITHIN THE ELECTRICALLY CLASSIFIED AREA. ONLY CONDUITS THAT ARE ASSOCIATED WITH THE ABOVE GROUND GASOLINE STORAGE TANK ARE PERMITTED WITHIN THE AREA.

1 / E-XX PART SITE PLAN – ELECTRICAL POWER
SCALE: 1/16"=1'-0"

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