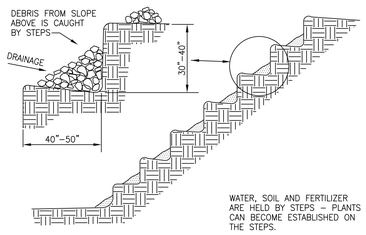
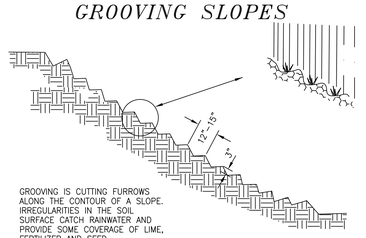
STAIR STEPPING CUT SLOPES



SOURCE: VA. DSWC PLATE 3.29–1

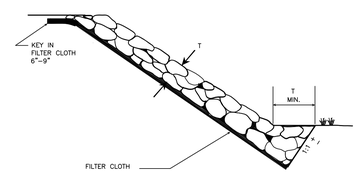
GROOVING SLOPES



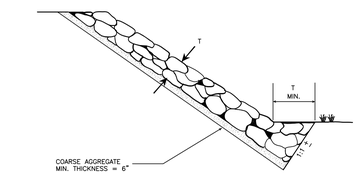
SOURCE: VA. DSWC PLATE 3.29–2

TOE REQUIREMENTS FOR BANK STABILIZATION

FILTER CLOTH UNDERLINER (PREFERRED)

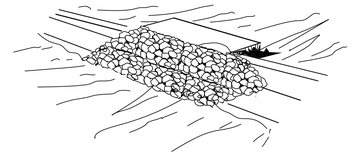


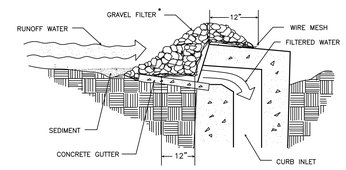
GRANULAR FILTER



SOURCE: Adapted from VDOT Drainage Manual PLATE. 3.19–1

GRAVEL CURB INLET SEDIMENT FILTER





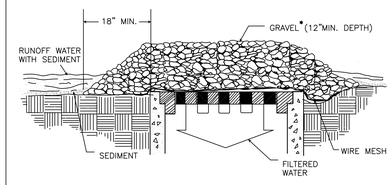
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

SOURCE: VA. DSWC PLATE 3.07–6

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER



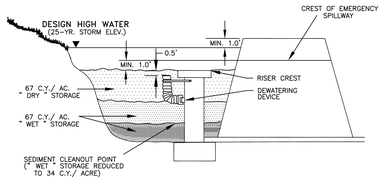
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

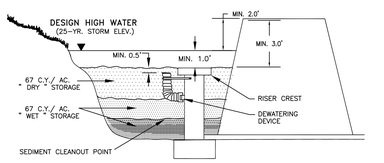
* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

SOURCE: VA. DSWC PLATE. 3.07–2

SEDIMENT BASIN SCHEMATIC ELEVATIONS



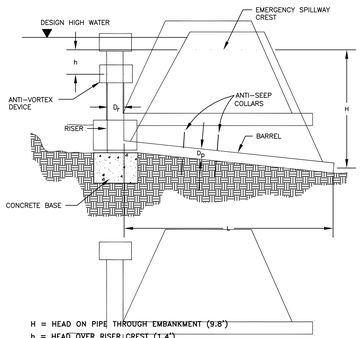
DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



DESIGN ELEVATIONS WITHOUT EMERGENCY SPILLWAY
(RISER PASSES 25–YR. EVENT)

SOURCE: VA. DSWC PLATE. 3.14–2

PRINCIPAL SPILLWAY DESIGN

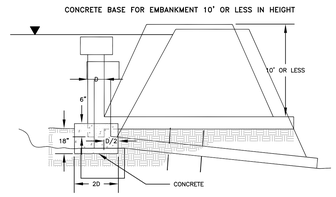


H = HEAD ON PIPE THROUGH EMBANKMENT (9.8')
h = HEAD OVER RISER CREST (1.4')
L = LENGTH OF PIPE THROUGH EMBANKMENT (77')
D_B = DIAMETER OF PIPE THROUGH EMBANKMENT (12")
D_r = DIAMETER OF RISER (36")

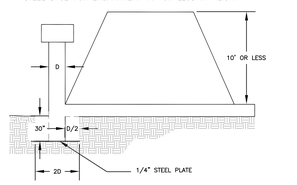
SOURCE: VA. DSWC PLATE. 3.14–7

RISER PIPE BASE CONDITIONS FOR EMBANKMENTS LESS THAN 10' HIGH

CONCRETE BASE FOR EMBANKMENT 10' OR LESS IN HEIGHT



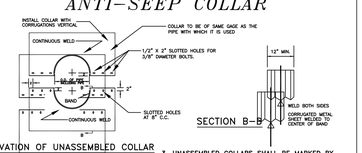
STEEL BASE FOR EMBANKMENT 10' OR LESS IN HEIGHT



SOURCE: VA. DSWC PLATE. 3.14–14

1992

DETAILS OF CORRUGATED METAL ANTI–SEEP COLLAR



ELEVATION OF UNASSEMBLED COLLAR

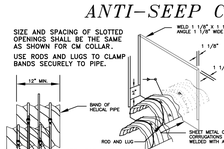
NOTES FOR COLLARS:

1. ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
2. WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
3. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
5. EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2" DIAMETER RODS WITH STANDARD TANK LUGS FOR CONNECTING COLLARS TO PIPE.

DETAIL OF HELICAL PIPE ANTI–SEEP COLLAR

SIZE AND SPACING OF SLOTTED OPENINGS SHALL BE THE SAME AS SHOWN FOR CM COLLAR.

USE RODS AND LUGS TO CLAMP BANDS SECURELY TO PIPE.



PARTIAL ELEVATION
REF: USDA FIELD MANUAL

NOTE FOR BANDS AND COLLARS: MODIFICATIONS OF THE DETAILS SHOWN MAY BE USED PROVIDING EQUAL WATERTIGHTNESS IS MAINTAINED AND DETAILED DRAWINGS ARE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO DELIVERY.

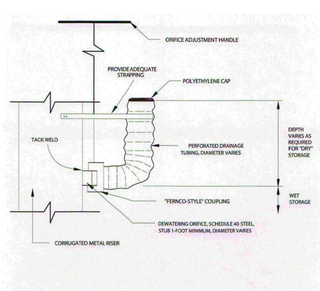
ISOMETRIC VIEW

NOTE: FOR DETAILS OF FABRICATION DIMENSIONS, MINIMUM GAGES, SLOTTED HOLES, AND NOTES, SEE DETAIL ABOVE.

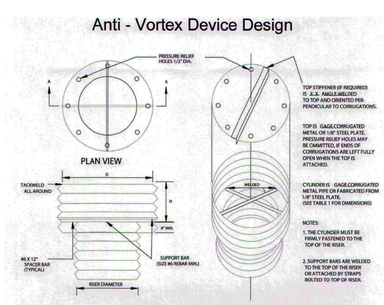
NOTE: TWO OTHER TYPES OF ANTI–SEEP COLLARS ARE:

1. CORRUGATED METAL, SIMILAR TO UPPER, EXCEPT SHOP WELDED TO A SHORT (4FT.) SECTION OF THE PIPE AND CONNECTED WITH CONNECTING BANDS TO THE PIPE.
2. CONCRETE, SIX INCHES THICK FORMED AROUND THE PIPE WITH #3 REBAR SPACED 15" HORIZONTALLY AND VERTICALLY.

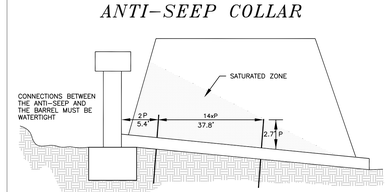
SOURCE: USDA–SCS PLATE. 3.14–13



NOTE: WITH CONCRETE RISER, USE PVC SCHEDULE 40 STUB FOR DEWATERING ORIFICE



ANTI–SEEP COLLAR



SOURCE: VA. DSWC PLATE. 3.14–4

GLTC
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1301 Kemper Street PO Box 797
Lynchburg, VA 24505-0797

PROJECT ADDRESS:
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Lynchburg, VA
24501-4901

Operations & Maintenance Facility

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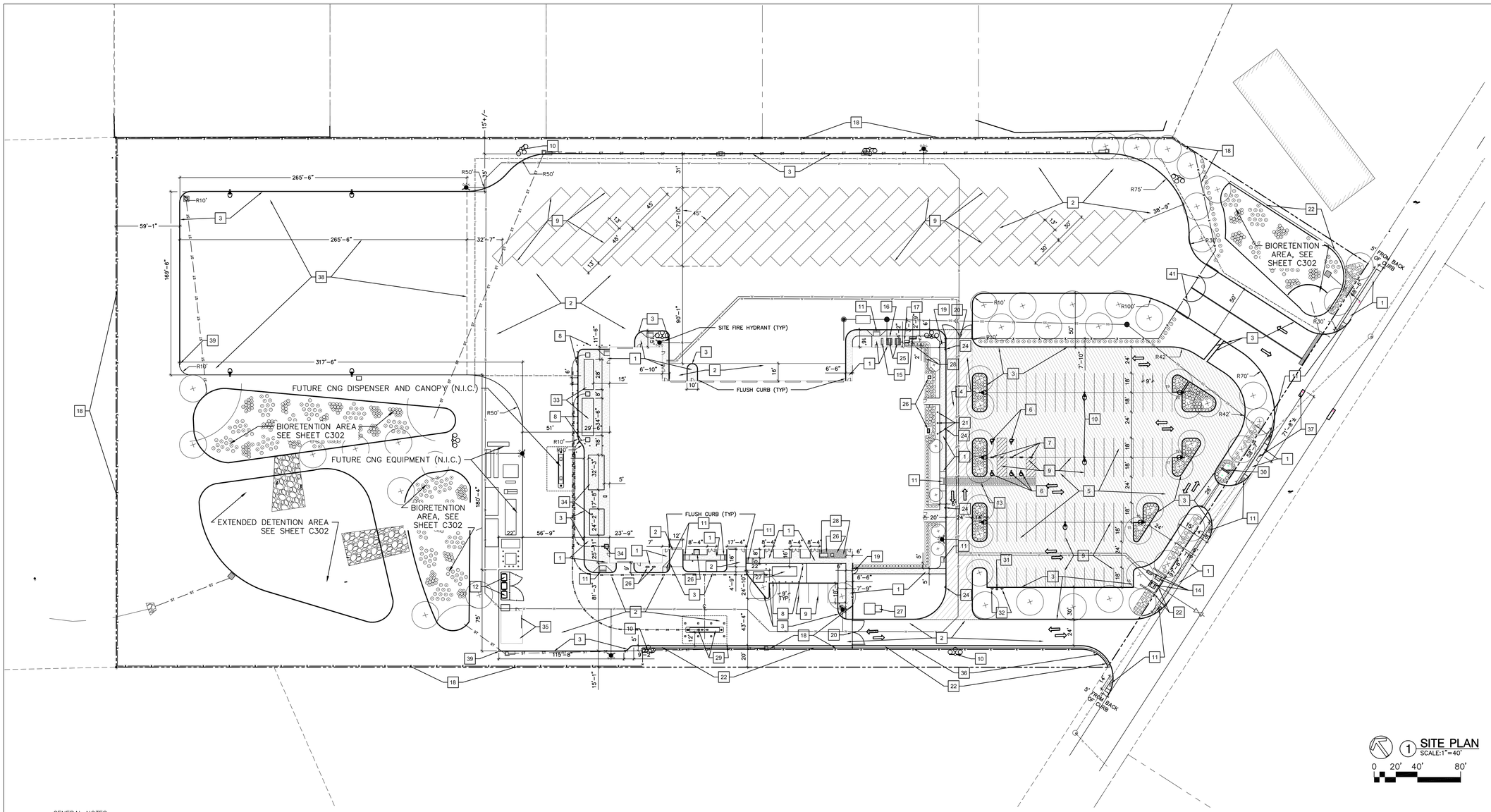
COMMONWEALTH OF VIRGINIA
LYNETTE L. WJENSCH
Lic. No. 38710
10/29/14
PROFESSIONAL ENGINEER

Revision Number	Issued by	Revision Description	Revision Date

DWG. TITLE

EROSION AND SEDIMENT CONTROL DETAILS

DATE	10/29/2014
SCALE	1:40
DWN.	LLW
CHK.	WLW
PROJ. No.	444505
DWG. No.	C106



1 SITE PLAN
SCALE:1"=40'
0 20' 40' 80'

GENERAL NOTES:

1. REFER TO SHEET C203 FOR SITE UTILITIES PLAN.
2. REFER TO SHEET C203 FOR SITE GRADING PLAN.
3. REFER TO SHEET C302 FOR STORM SEWER PLAN.

SITE IMPROVEMENT NOTES

1. PEDESTRIAN CONCRETE PAVEMENT; RE: C505.
2. HEAVY DUTY CONCRETE PAVEMENT; RE C505.
3. CONCRETE CURB; RE: C502.
4. HEAVY DUTY ASPHALT PAVEMENT FOR PARKING LOT DRIVE; RE: C505.
5. PERVIOUS PAVEMENT; RE: C304.
6. HANDICAPPED PARKING PAVEMENT MARKING (BLUE).
7. HANDICAPPED PARKING SIGN AND NO PARKING SIGN; RE: 11, C506.
8. BOLLARDS; RE: 3, C506 (80 TOTAL) REFER TO ARCHITECTURAL PLANS FOR BOLLARDS AT BUILDING. REFER TO ELECTRICAL PLANS FOR BOLLARDS AT TRANSFORMER (PER UTILITY COMPANY, MIN 12 TOTAL).
9. 4" WIDE WHITE PAVEMENT MARKINGS. CROSS-HATCHING TO BE 30" O.C. AT 45° TO TRAFFIC.
10. LIGHT STANDARDS; REFER TO ELECTRICAL DRAWINGS FOR DETAILS.
11. HANDICAPPED CURB CUT; RE: C506
12. HAUNCHED CONCRETE PAD FOR GARBAGE/RECYCLE DUMPSTERS. REFER TO 1, C507 FOR ENCLOSURE WITH 2 – 10' WIDE DOUBLE SWING GATES. REFER TO ARCHITECTURAL PLANS FOR SALT STORAGE SHED.
13. PAINTED CROSSWALK; RE: 9, C506.
14. WATER BACKFLOW PREVENTER; RE: C203 FOR MORE INFORMATION. CONCRETE PAD SHALL BE 6" LARGER ON ALL SIDES THAN UNIT.
15. 6' LONG BENCH; RE: 15, C506
16. TRASH RECEPTACLE; RE: 16,C506.
17. BIKE RACK; RE: 14, C506
18. 6' TALL CHAIN LINK FENCE, SET 1' WITHIN PROPERTY LINE; RE: 4, C506
19. 6' TALL CHAIN LINK 5' WIDE MAN GATE
20. 6' TALL CHAIN LINK MANUAL 26' WIDE DOUBLE SWING GATE.
21. 25' TALL FLAGPOLE (3 TOTAL); RE: 5, C506
22. SEGMENTAL BLOCK RETAINING WALL; REFER TO CIVIL DRAWING FOR ELEVATIONS; RE: 5–7, C507.
23. HAUNCHED CONCRETE PAD FOR ELECTRIC GENERATOR. CONCRETE PAD SHALL BE 6" LARGER ON ALL SIDES THAN UNIT. REMAINING AREA SHALL BE 6" DEEP STONE; RE; 15, C506.
24. FIRE LANE SIGN (4 TOTAL); RE: 12, C506
25. PICNIC TABLES; RE: C507
26. CONCRETE PAD FOR MECHANICAL EQUIPMENT, REFER TO MECHANICAL PLANS FOR DIMENSIONS OF EACH UNIT. CONCRETE PAD SHALL BE 1' WIDER THAN UNIT.
27. CONCRETE PAD FOR ELECTRICAL EQUIPMENT. REFER TO ELECTRICAL PLANS FOR DIMENSIONS OF EACH UNIT AND REQUIRED PAD.
28. 12" DEEP CLEAN STONE; RE: 16, C506.
29. GASOLINE DISPENSER ISLAND AND CANOPY; RE: 8, C506 AND ARCHITECTURAL PLANS.
30. FACILITY SIGNAGE; REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS AND FOUNDATIONS.
31. ELECTRIC CAR CHARGING STATION; REFER TO ELECTRICAL DRAWINGS FOR DETAIL.
32. ELECTRIC CAR PARKING ONLY SIGN; RE: 11, C506.
33. ABOVE GROUND DIESEL TANKS; REFER TO MECHANICAL DRAWINGS FOR DETAILS AND CURBED HATCH.
34. AIR CONDITIONING UNITS; REFER TO MECHANICAL DRAWINGS FOR DETAILS.
35. STORAGE SHED AND SALT BARN; REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
36. 4' TALL ORNAMENTAL ALUMINUM FENCE; RE: 8, C507
37. RELOCATED DRAINAGE INLET. CONTRACTOR SHALL USE EXISTING 6' LONG THROAT TOP TO CONSTRUCT NEW DRAINAGE INLET (VDOT STD DI-3C). RIM AND INVERT TO BE DETERMINED IN FIELD. CONTRACTOR SHALL CONSTRUCT DOGHOUSE MANHOLE WITH CONE, FRAME AND SOLID COVER OVER EXISTING LOCATION. NEW MANHOLE AND COVER SHALL BE H20 RATED LOADING.
38. BUS DRIVER TRAINING AREA; BASE BID SHALL CONSIST OF FILLING AREA TO REQUIRED SUBBASE ELEVATION.
    ADD ALTERNATE #2 – HEAVY DUTY ASPHALT PAVEMENT; RE C505.
    ADD ALTERNATE #3 – HEAVY DUTY CONCRETE PAVEMENT; RE C505
39. CURB END TAPER; RE: 17, C506
40. CONCRETE SPLASHBLOCKS, AT ALL DOWNSPOUTS (19 TOTAL), SEE ARCHITECTURAL PLANS FOR LOCATIONS; RE: 3, C507.
41. 2 – 6' TALL ECHELON PLUS CLASSIC STYLE ORNAMENTAL ALUMINUM MANUAL (TOTAL 52' WIDE) DOUBLE SWING GATE, INCLUDING LOCKABLE HINGE KITS WITH FORK LATCH.

LEGEND

	PROPOSED
PERVIOUS PAVEMENT	
HEAVY DUTY ASPHALT PAVEMENT	
CONCRETE SIDEWALK	
STONE PAVEMENT	
LANDSCAPING	

PARKING REQUIREMENTS

PARKING REQUIRED BY CITY OF LYNCHBURG ORDINANCE:

2 FOR EVERY 3 EMPLOYEE:
135 TOTAL EMPLOYEES = 90 PARKING SPACES REQUIRED
119 PARKING SPACES SUPPLIED

GREATER LYNCHBURG TRANSIT COMPANY
1301 Kemper Street PO Box 797
Lynchburg, VA 24505-0797

PROJECT ADDRESS:
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24501-4901

Operations & Maintenance Facility

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COMMONWEALTH OF VIRGINIA
MARK V. MISH
Reg. No. 111536
LANDSCAPE ARCHITECT

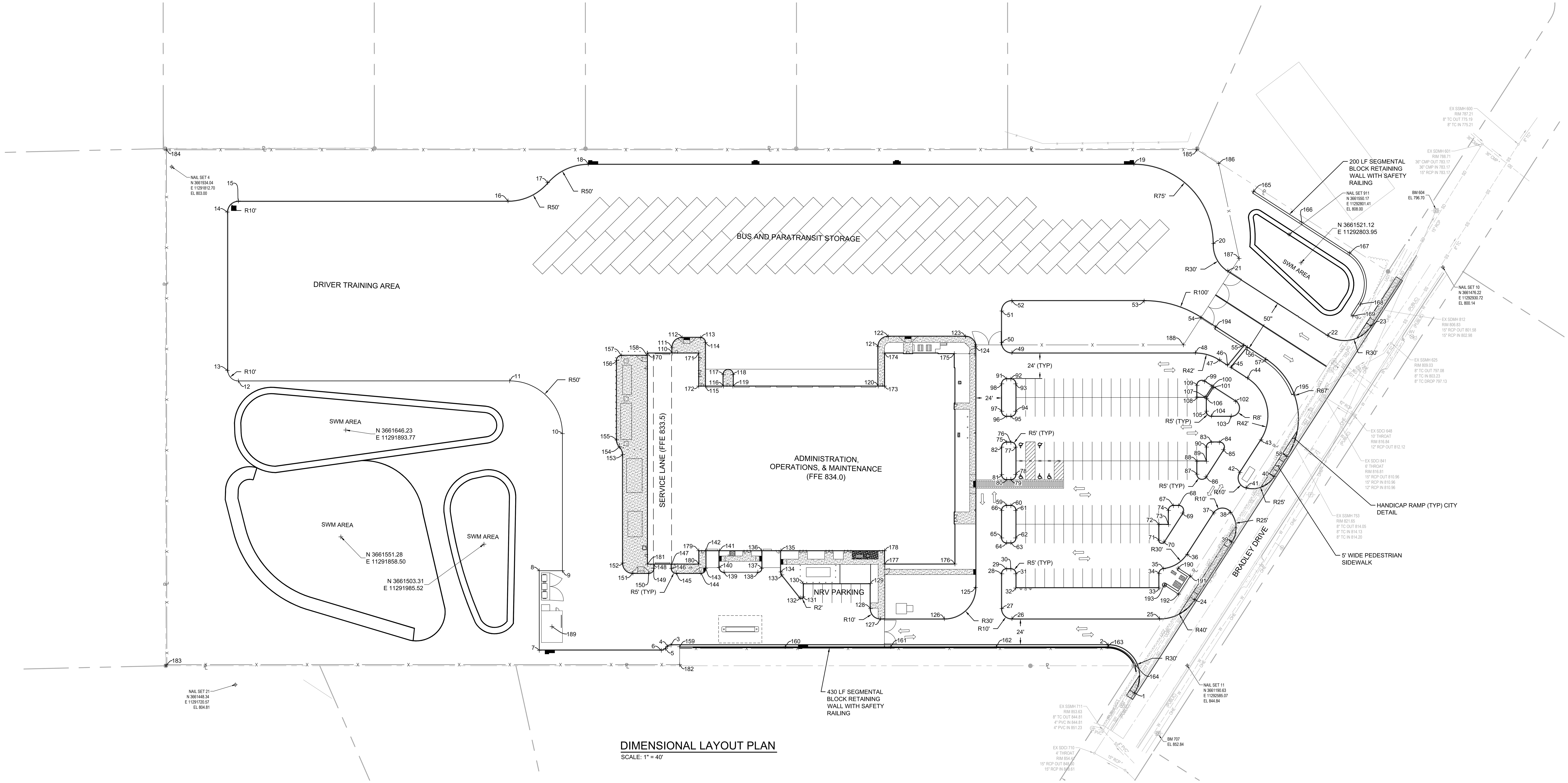
Revision Number	Issued by	Revision Description	Revision Date

DWG. TITLE

SITE LAYOUT PLAN

DATE	9/24/2014
SCALE	AS NOTED
DWN.	RJF
CHK.	MVM
PROJ. No.	444505
DWG. No.	C201

PRINT DATE: Oct 21, 2014 02:02 PM USER: RJF
FILE NAME: \\ERPRS01\EPR\ --\Active Projects\444505 LYN Operations Facility\Drawings\Site\C201.dwg



DIMENSIONAL LAYOUT PLAN

SCALE: 1" = 40'

SPOT SHOT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESC.
1	848.85	3661181.18	11292529.37	TBC
2	842.78	3661232.02	11292519.57	TBC
3	832.27	3661358.24	11292125.10	TBC
4	832.25	3661357.96	11292121.67	TBC
5	832.23	3661356.61	11292119.07	TBC
6	832.18	3661356.27	11292114.87	TBC
7	831.05	3661391.52	11292004.69	TBC
8	831.46	3661463.43	11292027.70	EOP
9	831.90	3661456.72	11292048.66	EOP
10	831.90	3661580.40	11292088.22	EOP
11	830.33	3661643.26	11292055.84	EOP
12	822.63	3661721.57	11291811.08	EOP
13	822.30	3661734.30	11291804.13	TBC
14	822.08	3661877.16	11291849.84	TBC
15	821.94	3661883.96	11291863.04	TBC
16	829.60	3661806.11	11292106.36	TBC
17	829.28	3661811.15	11292147.46	TBC
18	828.97	3661816.29	11292189.40	TBC
19	820.52	3661658.75	11292681.75	TBC
20	817.95	3661563.83	11292730.65	TBC
21	817.73	3661535.05	11292735.64	TBC
22	813.33	3661448.04	11292807.27	TBC
23	808.20	3661444.11	11292848.90	TBC
24	839.13	3661247.99	11292610.61	TBC
25	843.03	3661240.98	11292573.60	TBC
26	838.73	3661283.61	11292440.37	TBC
27	837.61	3661295.56	11292434.22	TBC
28	835.88	3661326.99	11292444.28	TBC
29	835.45	3661329.90	11292449.93	TBC
30	835.38	3661328.68	11292453.74	TBC

SPOT SHOT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESC.
31	835.40	3661323.02	11292456.66	TBC
32	835.65	3661310.17	11292452.54	TBC
33	833.00	3661268.72	11292582.07	TBC
34	832.71	3661281.74	11292586.24	TBC
35	832.69	3661284.77	11292591.47	TBC
36	831.91	3661291.03	11292617.25	TBC
37	830.51	3661320.61	11292653.21	TBC
38	830.39	3661316.55	11292668.16	TBC
39	832.58	3661289.20	11292660.73	TBC
40	825.28	3661336.12	11292717.82	TBC
41	828.50	3661334.15	11292689.53	TBC
42	828.50	3661349.60	11292688.44	TBC
43	826.89	3661372.98	11292716.85	TBC
44	826.56	3661432.81	11292722.66	TBC
45	826.80	3661447.21	11292710.81	TBC
46	826.85	3661450.32	11292708.25	TBC
47	826.96	3661457.18	11292702.59	TBC
48	827.16	3661470.65	11292682.73	TBC
49	832.96	3661523.62	11292517.17	TBC
50	833.46	3661535.57	11292511.02	TBC
51	831.36	3661564.14	11292520.16	TBC
52	830.26	3661570.29	11292532.10	TBC
53	823.51	3661532.11	11292651.42	TBC
54	819.93	3661500.59	11292697.92	TBC
55	816.55	3661463.41	11292728.55	TBC
56	816.42	3661460.30	11292731.10	TBC
57	815.82	3661444.15	11292744.41	TBC
58	822.93	3661350.53	11292735.32	TBC
59	833.03	3661387.05	11292468.22	TBC
60	832.95	3661385.83	11292472.03	TBC

SPOT SHOT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESC.
61	832.97	3661380.17	11292474.94	TBC
62	833.57	3661355.41	11292467.02	TBC
63	833.95	3661352.49	11292461.36	TBC
64	834.06	3661353.71	11292457.55	TBC
65	833.91	3661359.37	11292454.64	TBC
66	833.13	3661384.13	11292462.56	TBC
67	830.82	3661338.89	11292618.70	TBC
68	830.75	3661337.41	11292623.35	TBC
69	830.89	3661329.65	11292624.84	TBC
70	831.84	3661309.06	11292599.81	TBC
71	831.87	3661311.75	11292595.84	TBC
72	831.47	3661325.87	11292600.36	TBC
73	831.35	3661323.12	11292608.93	TBC
74	831.02	3661335.98	11292613.04	TBC
75	833.03	3661444.19	11292486.50	TBC
76	832.95	3661442.97	11292490.31	TBC
77	832.85	3661437.32	11292493.23	TBC
78	832.85	3661412.55	11292485.30	TBC
79	832.95	3661409.64	11292479.65	TBC
80	833.03	3661410.86	11292475.84	TBC
81	833.13	3661416.51	11292472.92	TBC
82	833.13	3661441.28	11292480.85	TBC
83	828.67	3661385.07	11292671.27	TBC
84	828.49	3661382.76	11292678.48	TBC
85	828.53	3661375.00	11292679.97	TBC
86	829.43	3661355.58	11292656.36	TBC
87	829.59	3661360.43	11292649.22	TBC
88	829.37	3661372.04	11292652.93	TBC
89	829.14	3661369.30	11292661.50	TBC
90	828.90	3661382.15	11292665.62	TBC

SPOT SHOT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESC.
91	833.08	3661501.34	11292504.79	TBC
92	833.00	3661500.12	11292508.60	TBC
93	832.85	3661494.46	11292511.51	TBC
94	832.85	3661469.70	11292503.59	TBC
95	832.95	3661466.78	11292497.93	TBC
96	833.03	3661468.00	11292494.12	TBC
97	833.13	3661473.66	11292491.21	TBC
98	833.13	3661498.42	11292499.13	TBC
99	827.93	3661442.10	11292682.63	TBC
100	827.82	3661435.53	11292688.04	TBC
101	827.81	3661433.98	11292689.31	TBC
102	827.50	3661415.06	11292704.89	TBC
103	827.84	3661403.15	11292696.82	TBC
104	828.30	3661408.88	11292678.89	TBC
105	828.35	3661414.54	11292675.98	TBC
106	828.16	3661426.04	11292679.66	TBC
107	828.16	3661427.84	11292678.70	TBC
108	828.37	3661430.14	11292671.52	TBC
109	828.20	3661440.61	11292674.87	TBC
110	834.00	3661621.44	11292210.54	TBC
111	833.85	3661626.20	11292212.07	TBC
112	832.91	3661632.35	11292224.01	TBC
113	833.38	3661627.02	11292240.69	TBC
114	833.52	3661621.36	11292243.61	TBC
115	834.00	3661581.99	11292231.01	TBC
116	834.00	3661576.81	11292247.20	TBC
117	833.68	3661587.29	11292250.56	TBC
118	833.68	3661584.54	11292259.13	TBC
119	834.00	3661574.07	11292255.78	TBC
120	834.00	3661532.11	11292386.89	TBC

SPOT SHOT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESC.
121	833.60	3661567.71	11292398.28	TBC
122	833.40	3661573.87	11292410.22	TBC
123	833.40	3661551.56	11292479.91	TBC
124	833.48	3661539.62	11292486.06	TBC
125	836.63	3661322.22	11292416.50	TBC
126	836.49	3661303.12	11292379.42	TBC
127	834.42	3661321.54	11292321.83	TBC
128	834.19	3661333.49	11292315.68	TBC
129	833.85	3661356.30	11292322.98	TBC
130	833.85	3661375.81	11292262.02	TBC
131	833.72	3661363.65	11292258.13	TBC
132	833.71	3661363.58	11292255.30	TBC
133	833.93	3661389.57	11292245.48	TBC
134	833.96	3661392.53	11292245.40	TBC
135	834.00	3661411.66	11292251.53	TBC
136	834.00	3661417.24	11292234.08	TBC
137	833.99	3661401.30	11292228.98	TBC
138	833.95	3661399.04	11292224.57	TBC
139	833.95	3661408.79	11292194.09	TBC
140	834.00	3661414.45	11292191.18	TBC
141	834.00	3661429.43	11292195.97	TBC
142	834.00	3661433.39	11292183.59	TBC
143	833.49	3661417.52	11292178.51	TBC
144	833.77	3661414.61	11292172.85	TBC
145	833.94	3661421.71	11292150.66	TBC
146	833.99	3661427.37	11292147.75	TBC
147	834.00	3661431.18	11292148.96	TBC
148	834.00	3661436.36	11292132.77	TBC
149	834.00	3661432.55	11292131.55	TBC
150	833.88	3661429.63	11292125.90	TBC

SPOT SHOT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESC.
151	833.89	3661434.23	11292111.54	TBC
152	833.87	3661446.17	11292105.39	TBC
153	833.52	3661544.01	11292136.69	TBC
154	833.47	3661551.95	11292136.06	TBC
155	833.41	3661559.13	11292135.49	TBC
156	833.48	3661630.77	11292158.40	TBC
157	833.56	3661633.69	11292164.06	TBC
158	833.50	3661626.22	11292187.40	TBC
159	832.44	3661354.32	11292132.44	B/WALL
160	833.54	3661323.84	11292227.68	B/WALL
161	834.78	3661293.37	11292322.93	B/WALL
162	838.28	3661262.89	11292418.17	B/WALL
163	842.82	3661230.70	11292518.79	B/WALL
164	846.57	3661205.38	11292538.55	B/WALL
165	809.90	3661599.55	11292781.86	B/WALL
166	807.12	3661557.79	11292816.22	B/WALL
167	804.16	3661516.02	11292850.58	B/WALL
168	805.66	3661466.76	11292845.79	B/WALL
169	809.71	3661458.11	11292835.28	B/WALL
170	833.50	3661628.60	11292188.16	BLDG
171	834.00	3661613.77	11292234.51	BLDG
172	834.00	3661583.93	11292224.96	BLDG
173	834.00	3661530.29	11292392.60	BLDG
174	834.00	3661560.13	11292402.15	BLDG
175	834.00	3661539.44	11292464.92	BLDG
176	835.50	3661349.34	11292404.71	BLDG
177	834.17	3661369.66	11292341.21	BLDG
178	834.17	3661381.73	11292345.07	BLDG
179	834.00	3661435.37	11292177.42	BLDG
180	834.00	3661423.30	11292173.56	BLDG

SPOT SHOT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESC.
181	834.00	3661438.13	11292127.22	BLDG
182	EXIST	3661338.06	11292127.24	FENCE
183	EXIST	3661486.19	11291664.53	FENCE
184	EXIST	3661950.92	11291812.94	FENCE
185	EXIST	3661653.41	11292742.74	FENCE
186	EXIST	3661634.47	11292758.31	FENCE
187	811.89	3661542.98	11292749.41	FENCE
188	826.42	3661481.08	11292674.18	FENCE
189	831.50	3661409.30	11292022.98	FFE
190	833.31	3661281.24	11292604.94	B/WALL
191	835.64	3661270.61	11292613.68	B/WALL
192	837.01	3661257.59	11292597.85	B/WALL
193	833.74	3661269.97	11292587.66	B/WALL
194	817.95	3661487.87	11292708.38	B/WALL
195	816.69	3661404.84	11292759.51	B/WALL

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0 20' 40' 80'

SCALE: 1" = 40'

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COMMONWEALTH OF VIRGINIA
Kelly D Cole
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10/29/14
PROFESSIONAL ENGINEER

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Revision Number	Issued by	Revision Description	Revision Date

DWG. TITLE

DIMENSIONAL LAYOUT PLAN

DATE	10/29/2014
SCALE	AS NOTED
DWN.	MCT CHK. KDC
PROJ. No.	444505
DWG. No.	C202

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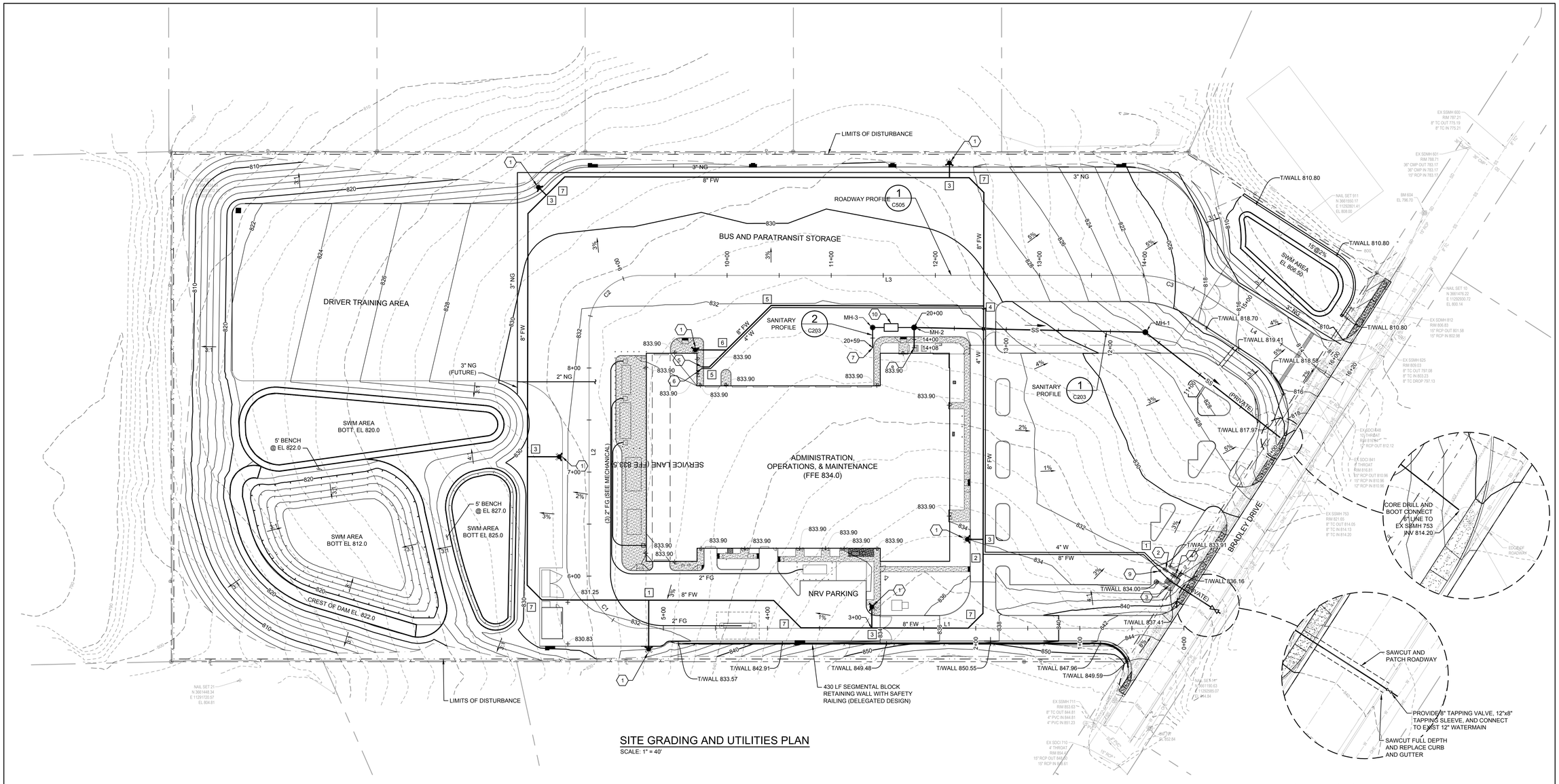
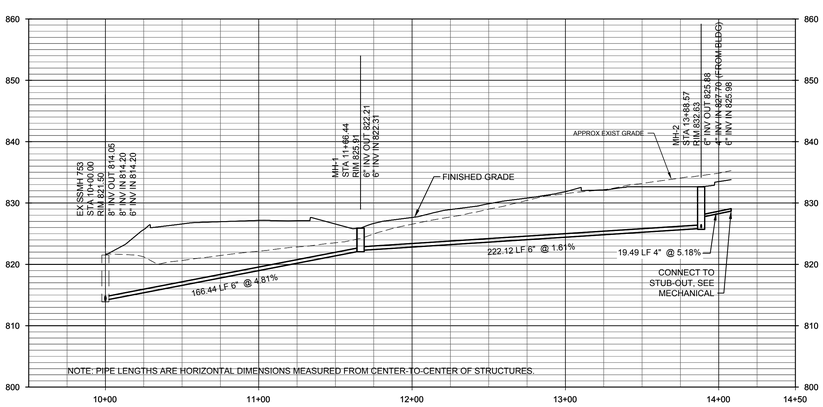


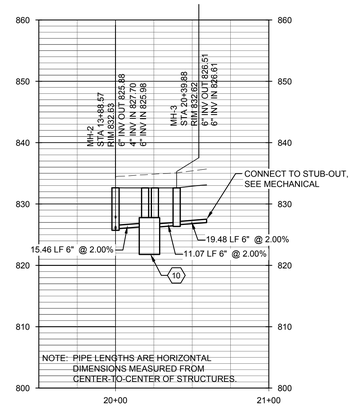
SITE GRADING AND UTILITIES PLAN

SCALE: 1" = 40'



1 C203 SANITARY PROFILE

SCALE: 1" = 40' HORIZ, 1" = 10' VERT



2 C203 DRAINAGE PROFILE

SCALE: 1" = 40' HORIZ, 1" = 10' VERT

ON-SITE WATERLINE SCHEDULE

1. 1 - 4" 45° BEND
   1 - 8" 45° BEND
   2 - CONC ANCHORS
2. 1 - 8" TEE
   1 - 4" 45° BEND
   2 - CONC ANCHORS
3. 1 - 8"x6" TEE
   1 - 6" GATE VALVE
   1 - CONC ANCHOR
4. 1 - 4" 90° BEND
   1 - 8" TEE
   2 - CONC ANCHORS
5. 1 - 8" 45° BEND
   1 - 4" 45° BEND
   2 - CONC ANCHORS
6. 1 - 8"x6" WYE
   1 - 6" GATE VALVE
   1 - CONC ANCHOR
7. 2 - 8" 45° BENDS
   2 - CONC ANCHORS

ROADWAY ALIGNMENT DATA TABLE

NUMBER	LENGTH	RADIUS	LINE/CHORD DIRECTION	START	END
L1	521.34		N72° 15' 24.79"W	N 3661219.59 E 11292599.43	N 3661378.47 E 11292102.89
C1	78.54	50.00	N27° 15' 31.81"W	N 3661378.47 E 11292102.89	N 3661441.33 E 11292070.50
L2	239.00		N17° 44' 21.17"E	N 3661441.33 E 11292070.50	N 3661668.97 E 11292143.32
C2	78.54	50.00	N62° 44' 28.67"E	N 3661668.97 E 11292143.32	N 3661701.35 E 11292206.18
L3	475.68		S72° 15' 23.82"E	N 3661701.35 E 11292206.18	N 3661556.39 E 11292659.24
C3	71.54	125.00	S55° 51' 37.03"E	N 3661556.39 E 11292659.24	N 3661516.78 E 11292717.65
L4	154.90		S39° 27' 50.24"E	N 3661516.78 E 11292717.65	N 3661397.19 E 11292816.10

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDING DOORWAYS.
2. ALL PUBLIC INFRASTRUCTURE IMPROVEMENT SHALL BE MADE IN ACCORDANCE WITH CITY OF LYNCHBURG MANUAL OF SPECIFICATIONS AND STANDARD DETAILS.
3. INSTALL ALL 4-INCH PERFORATED HDPE PIPE WITH A MINIMUM SLOPE OF 1/4-INCH PER FOOT.
4. NATURAL GAS LINE SHALL BE SCHEDULE 40 STEEL LINE.
5. SEE ELECTRICAL SHEETS FOR SITE LIGHTING AND CONDUIT LAYOUTS.
6. PROVIDE 3' MINIMUM COVER FOR ALL WATERLINES.
7. SEE STORMWATER SHEETS FOR DRAINAGE IMPROVEMENTS.
8. CONTRACTOR SHALL ANCHOR OIL/WATER SEPARATOR TO PREVENT FLOATATION.

UTILITY NOTES:

1. FIRE HYDRANT ASSEMBLY
2. 4" RPZ
3. 8" RPDA
4. 2" WATER METER.
5. 8" FIRE WATER CONNECTION, SEE MECHANICAL PLANS FOR CONTINUATION.
6. 4" DOMESTIC WATER CONNECTION, SEE MECHANICAL PLANS FOR CONTINUATION.
7. 6" DRAIN LINE CONNECTION, SEE MECHANICAL PLANS FOR CONTINUATION.
8. 4" SANITARY CONNECTION, SEE MECHANICAL PLANS FOR CONTINUATION.
9. POST INDICATOR VALVE
10. OIL/WATER SEPARATOR PER PLUMBING SPECIFICATIONS.

N

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0 20' 40' 80'

SCALE: 1" = 40'

GREATER LYNCHBURG TRANSIT COMPANY
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COMMONWEALTH OF VIRGINIA
Kelly D Cole
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10/29/14
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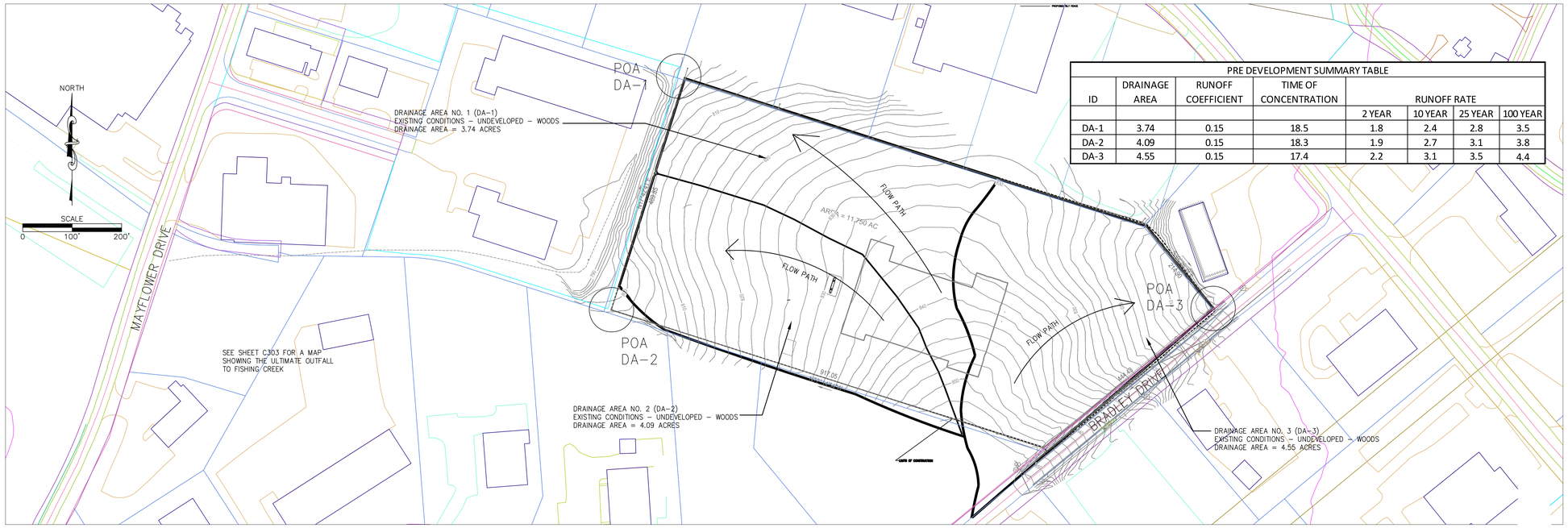
Revision Number	Issued by	Revision Description	Revision Date

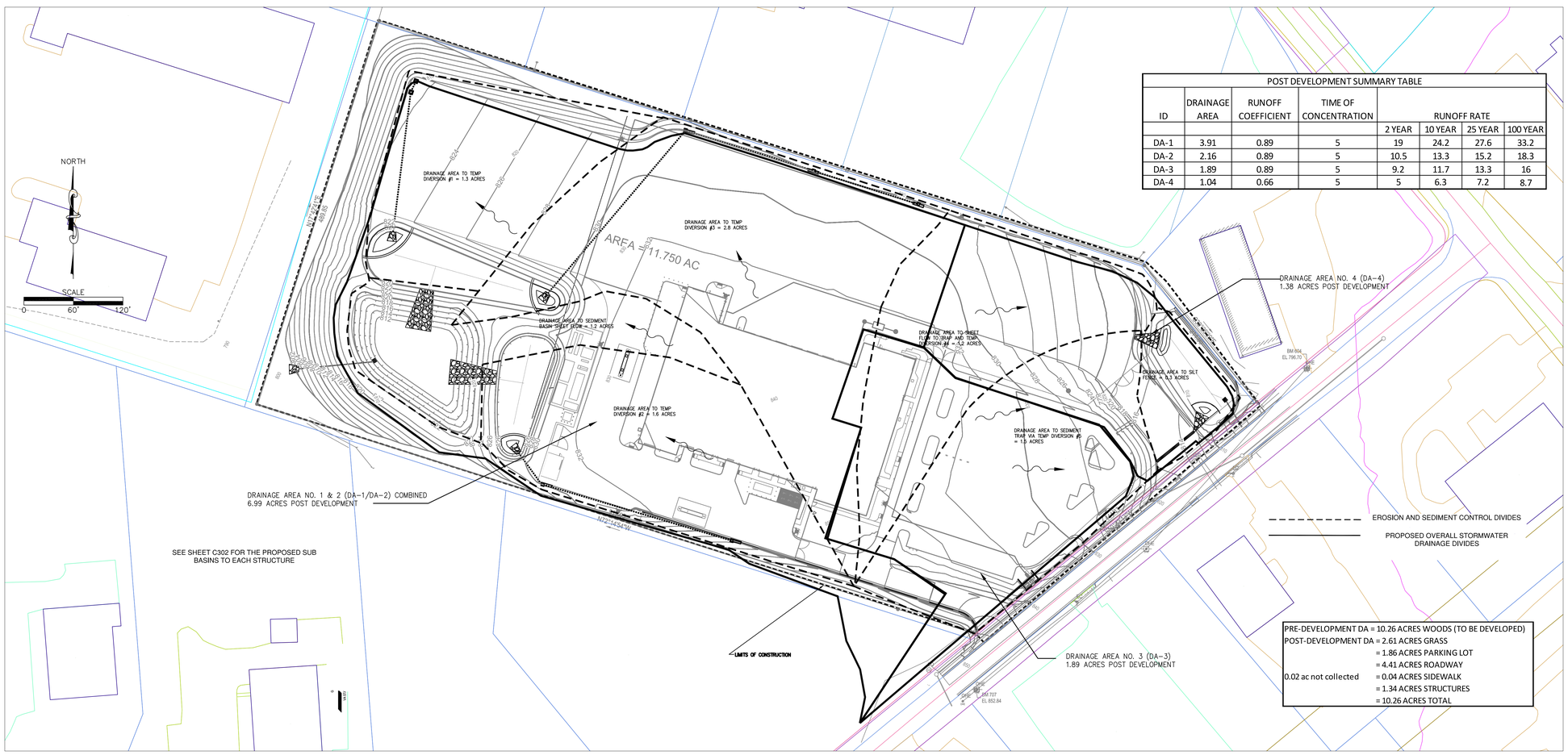
DWG. TITLE

SITE GRADING AND UTILITIES PLAN

DATE	10/29/2014
SCALE	AS NOTED
DWN.	MCT
CHK.	KDC
PROJ. No.	444505
DWG. No.	C203



PRE DEVELOPMENT SUMMARY TABLE							
ID	DRAINAGE AREA	RUNOFF COEFFICIENT	TIME OF CONCENTRATION	RUNOFF RATE			
				2 YEAR	10 YEAR	25 YEAR	100 YEAR
DA-1	3.74	0.15	18.5	1.8	2.4	2.8	3.5
DA-2	4.09	0.15	18.3	1.9	2.7	3.1	3.8
DA-3	4.55	0.15	17.4	2.2	3.1	3.5	4.4



POST DEVELOPMENT SUMMARY TABLE							
ID	DRAINAGE AREA	RUNOFF COEFFICIENT	TIME OF CONCENTRATION	RUNOFF RATE			
				2 YEAR	10 YEAR	25 YEAR	100 YEAR
DA-1	3.91	0.89	5	19	24.2	27.6	33.2
DA-2	2.16	0.89	5	10.5	13.3	15.2	18.3
DA-3	1.89	0.89	5	9.2	11.7	13.3	16
DA-4	1.04	0.66	5	5	6.3	7.2	8.7

PRE-DEVELOPMENT DA = 10.26 ACRES WOODS (TO BE DEVELOPED)
POST-DEVELOPMENT DA = 2.61 ACRES GRASS
= 1.86 ACRES PARKING LOT
= 4.41 ACRES ROADWAY
0.02 ac not collected = 0.04 ACRES SIDEWALK
= 1.34 ACRES STRUCTURES
= 10.26 ACRES TOTAL

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COMMONWEALTH OF VIRGINIA
LYNETTE L. WUENSCH
Lic. No. 38710
10/29/14
PROFESSIONAL ENGINEER

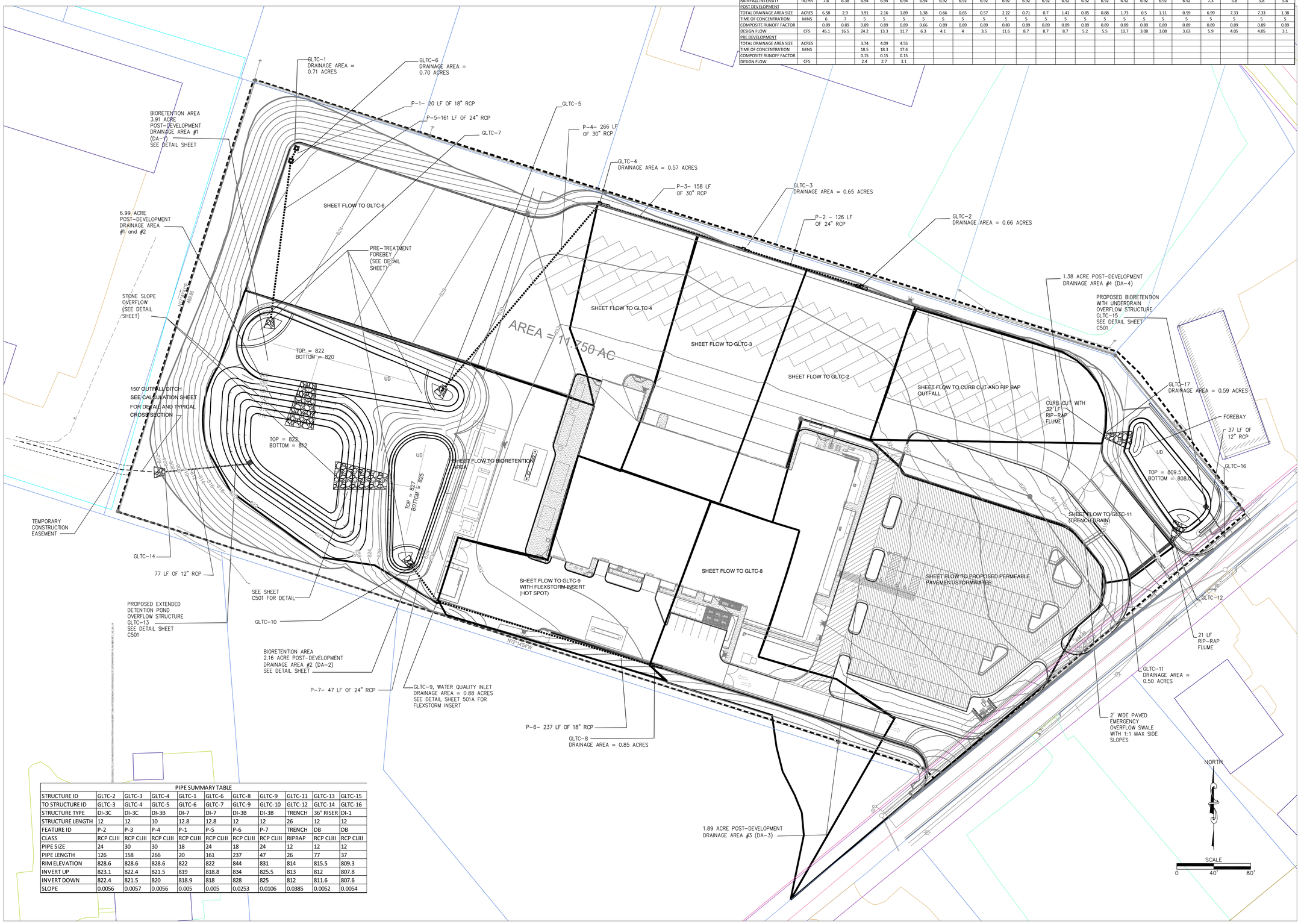
Revision Number	Issued by	Revision Description	Revision Date

DWG. TITLE

DRAINAGE MAP
EXISTING AND PROPOSED CONDTIONS

DATE 10/29/2014
SCALE 1:40
DWN. LLW CHK. WLW
PROJ. No. 444505
DWG. No.

C301



FLOW SUMMARY TABLE

ID's	UNITS			DA-1	DA-2	DA-3	DA-4	GLTC-2	GLTC-3	GLTC-4	GLTC-2 THRU GLTC-5	GLTC-1	GLTC-6	GLTC-6 THRU GLTC-7	GLTC-8	GLTC-9	GLTC-8 THRU GLTC-10	GLTC-11	GLTC-11 THRU GLTC-12	GLTC-17	DA-1 & DA-2	DA-1 & DA-2	DA-1 & DA-2	DA-4
FEATURED IDS	UNITS	SB	ST	DB	DB	PP	DB	P-2	P-3	P-4	OP-1	P-1	P-5	OP-2	P-6	P-7	OP-3	TRENCH	OP-4	GRAVEL LEVEL SPREADER	DB	OP-5	RR	OP-6
DESIGN EVENT FREQUENCY	YEARS	25	10	10	10	25	10	10	10	10	10	10	10	10	10	10	10	10	10	10	25	10	10	10
RAINFALL INTENSITY	IN/HR	7.6	6.38	6.94	6.94	6.94	6.94	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	7.3	5.8	5.8	5.8
POST DEVELOPMENT																								
TOTAL DRAINAGE AREA SIZE	ACRES	6.58	2.9	3.91	2.16	1.89	1.38	0.66	0.65	0.57	2.22	0.71	0.7	1.41	0.85	0.88	1.73	0.5	1.11	0.59	6.99	7.33	7.33	1.38
TIME OF CONCENTRATION	MINS	6	7	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
COMPOSITE RUNOFF FACTOR		0.89	0.89	0.89	0.89	0.89	0.66	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
DESIGN FLOW	CFS	45.1	16.5	24.2	13.3	11.7	6.3	4.1	4	3.5	11.6	8.7	8.7	8.7	5.2	5.5	10.7	3.08	3.08	3.63	5.9	4.05	4.05	3.1
PRE DEVELOPMENT																								
TOTAL DRAINAGE AREA SIZE	ACRES			3.74	4.09	4.55																		
TIME OF CONCENTRATION	MINS			18.5	18.3	17.4																		
COMPOSITE RUNOFF FACTOR				0.15	0.15	0.15																		
DESIGN FLOW	CFS			2.4	2.7	3.1																		

PIPE SUMMARY TABLE

STRUCTURE ID	GLTC-2	GLTC-3	GLTC-4	GLTC-1	GLTC-6	GLTC-8	GLTC-9	GLTC-11	GLTC-13	GLTC-15
TO STRUCTURE ID	GLTC-3	GLTC-4	GLTC-5	GLTC-6	GLTC-7	GLTC-9	GLTC-10	GLTC-12	GLTC-14	GLTC-16
STRUCTURE TYPE	DI-3C	DI-3C	DI-3B	DI-7	DI-7	DI-3B	DI-3B	TRENCH	36" RISER	DI-1
STRUCTURE LENGTH	12	12	10	12.8	12.8	12	12	26	12	12
FEATURE ID	P-2	P-3	P-4	P-1	P-5	P-6	P-7	TRENCH	DB	DB
CLASS	RCP CLIII	RCP CLIII	RCP CLIII	RCP CLIII	RCP CLIII	RCP CLIII	RCP CLIII	RIPRAP	RCP CLIII	RCP CLIII
PIPE SIZE	24	30	30	18	24	18	24	12	12	12
PIPE LENGTH	126	158	266	20	161	237	47	26	77	37
RIM ELEVATION	828.6	828.6	828.6	822	822	844	831	814	815.5	809.3
INVERT UP	823.1	822.4	821.5	819	818.8	834	825.5	813	812	807.8
INVERT DOWN	822.4	821.5	820	818.9	818	828	825	812	811.6	807.6
SLOPE	0.0056	0.0057	0.0056	0.005	0.005	0.0253	0.0106	0.0385	0.0052	0.0054

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NOTES:
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10/29/14
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Revision Number	Issued by	Revision Description	Revision Date

DWG. TITLE

STORMWATER/DRAINAGE LAYOUT AND DESIGN PLAN SHEET

DATE 10/29/2014
SCALE 1:40
DWN. LLW CHK. WLW
PROJ. No. 444505
DWG. No. C302